# The Widening Divide Revisited: Economic Inequality in Los Angeles

**Summary Research Report to the Haynes Foundation**

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Paul Ong
Silvia R. González
Chhandara Pech
C. Aujean Lee
Rosalie Ray

Contributors
Adam Dorr
Juan Garibay
Shayne Smith

**Center for Neighborhood Knowledge**
**UCLA Luskin School of Public Affairs**

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## Table of Contents



## Table of Figures

## Table of Tables

# Chapter 1 Introduction

## Introduction

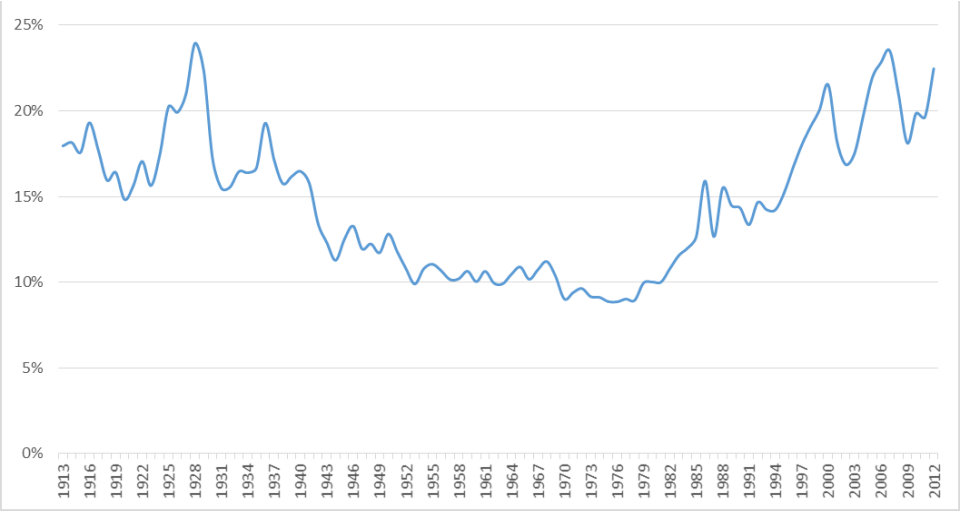
This report summarizes key findings from the UCLA project, "The Widening Divide Revisited: Income and Earnings Inequality in Los Angeles at the Turn of the 21st Century." This research builds upon and extends the previous work of Ong et al. (1989), "The Widening Divide: Income Inequality and Poverty in Los Angeles," which was the first major study focusing on economic inequality in Los Angeles County. The project is guided by the emerging literature on growing economic disparities in America; by the recognition of a paucity of studies on this topic for Los Angeles; and by the need to promote greater awareness of this issue to inform decision-making. To better understand these issues, we provide an overview of household income, earnings, and wealth inequality; uneven labor market outcomes; disparities among immigrant workers; the impacts of inequality on consumption; and spatial patterns of inequality.

Our report highlights the growing economic disparity in Los Angeles that has become worse than the national average for income and wealth. Economic inequality in Los Angeles is driven by an expanding population at the bottom of the income and wealth distributions together with a growing share held by those at the top. Much of the inequality we observe is due to disparities in earnings. However, this inequality is varied among workers, where it is substantially more pronounced for immigrants than for those who are native-born. Patterns of economic inequality are also reflected in the unequal geographic distribution of income and wealth, including the spatial segregation and concentration of the poor. A greater understanding of these trends can inform policy makers, the media, and the public alike about the magnitude, nature, pattern, consequences, and causes of economic inequality in Los Angeles. We hope that this knowledge can in turn aid efforts to develop policies that address this increasingly daunting socioeconomic challenge.

## National Trends

Much has changed since the publication of "The Widening Divide" in 1989. Unfortunately, the quarter century since then has not witnessed a closing of the gap between the "haves" and the "have-nots" at the national level. Instead, inequality has continued to grow even at times when overall economic growth has slowed (Piketty, 2014; Stone, Trisi, Sherman, Arloc, & Chen, 2014; Wolff, 2012). Figure 1.1 below shows that the share of national income captured by the top 1% of households has risen steadily since 1970, from a low of 9% to recently reached heights of nearly 25% – levels not seen since the "Roaring" 1920s (Saez, 2013).

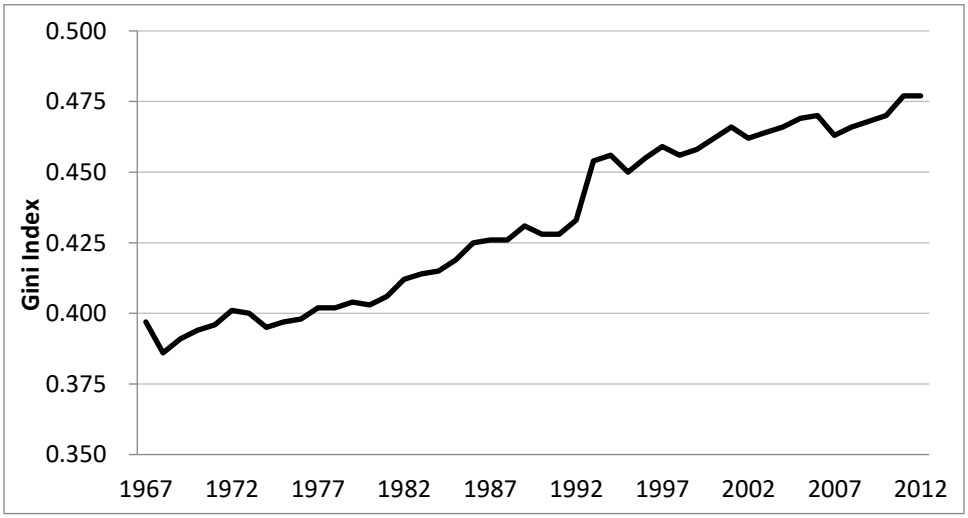
*Figure 1.1 Top 1% of Households Share of Income in the United States: 1913-2012*




Source: Emmanuel Saez, based on IRS tax data (Saez, 2013).

At the same time, "income growth for households in the middle and lower parts of the distribution slowed sharply" (Stone et al., 2014, p. 1). Starting in the 1970s, the income gap widened even as economic growth slowed. Income in real terms (inflation adjusted) at the top grew sharply while it slowed for the middle and lower class (Stone, 2012). The change can be seen in the Gini index, a widely used summary statistic ranging from 0 to 1, with higher values indicating greater inequality. A Gini index value of 0 indicates an absolutely equal distribution in which each household has an identical share of total income, whereas a value of 0 indicates a maximally unequal distribution in which a single household captures all income. Figure 1.2 below traces the trend in income distribution as measured by the Gini index, and shows a nearly continuous rise from 0.390 in 1967 to 0.470 in 2012.

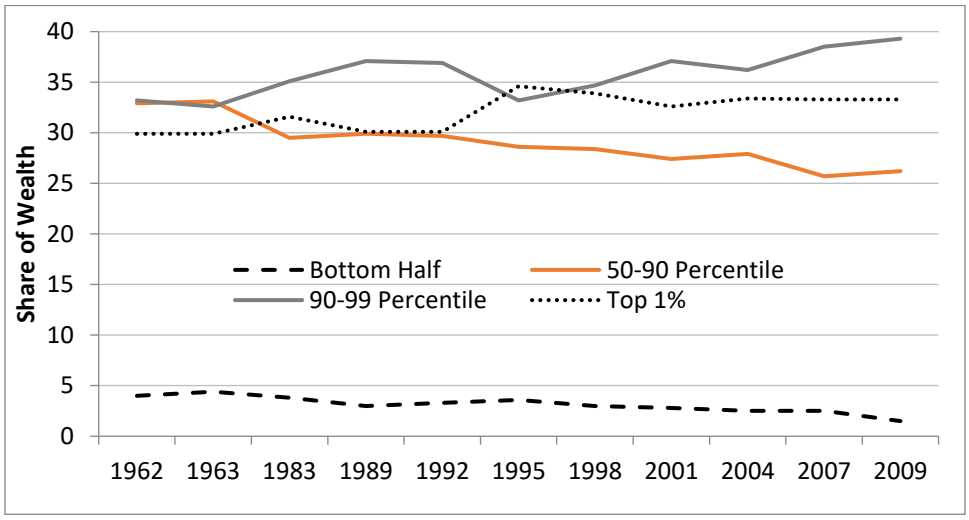
*Figure 1.2 Gini Index of Households in the United States: 1967-2012*




Source: U.S. Census Historical Table H04.

An equally important element of economic inequality is the disparity in wealth, which is substantially more maldistributed than income. Financial assets have always been highly concentrated, and have become more so in recent decades (Wolff, Zacharias, & Masterson, 2012; Wolff, 2012). For example, the net worth of the top 20% increased from 84% of the net worth in the nation in 1989 to 85% in 2007 (Kennickell, 2011). However, the share of wealth held by the top 10% increased from 63% in 1963 to 73% in 2009, while at the same time the share held by the bottom half of the population fell from a low of 4% to only 2%, respectively (Kennidell, 2011; see Figure 2.3). Recent data also show that the richest 5% of households control the majority of stocks (Wolff, 2012). Moreover, there is a pronounced racial dimension to the wealth gap, with minorities having markedly fewer assets than whites (Kochhar, Taylor, & Fry, 2011; Oliver & Shapiro, 2006; Shapiro, Meschede, & Osoro, 2013).

***Figure 1.3 Share of Wealth Owned by Wealth Percentile Groups in the United States: 1962-2009***




Source: Kennickell, 2011.

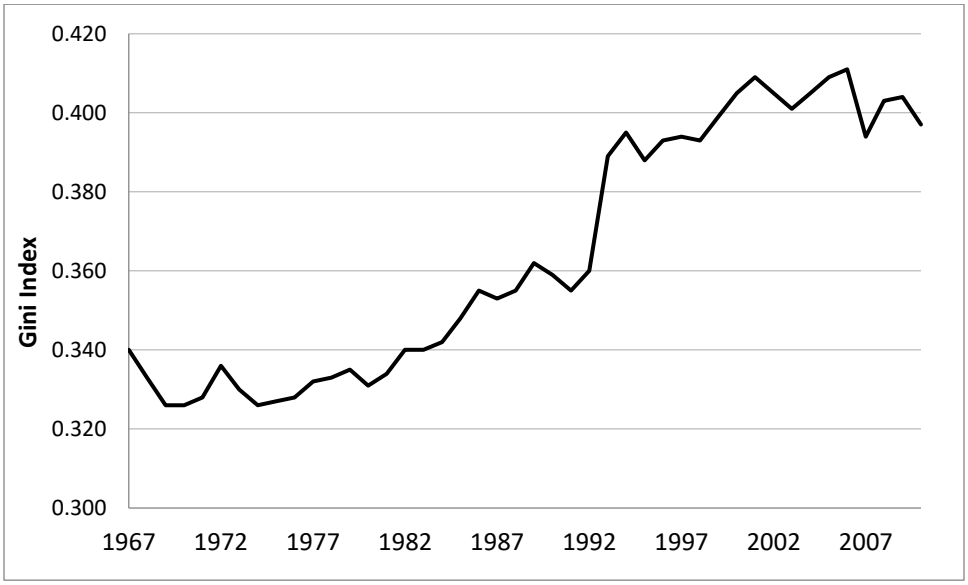
Much of the inequality we see is a result of disparities in earnings. Figure 1.4 below shows that among full-time full-year (FTFY) workers the Gini index for earnings increased from about 0.330 in the late 1960s to about 0.400 during the first decade of this century. An extreme but illustrative example of inequality can be seen in the CEO-to-worker pay ratio, which increased from 58 in 1989 to 352 in 2007 (Mishel & Sabadish, 2012). The increase in earnings inequality is driven both by differences in hours worked and wage levels, although the importance of each of these factors varies over time (Heathcote, Perri, & Violante, 2010).[1] The spatial structure of inequality is also a product of both race and class (Zubrinsky, 2009).

Another body of literature has examined the impact of immigrants on the wages of native-born workers. For example, Card (2009) found that immigration has only a modest impact on the increase in wage inequality, while Borjas, Grogger, and Gordon (2011) showed that impacts

[1] Wage inequality varies across metropolitan areas due to differences in structural factors such as industrial composition, unionization, inter-group relations, and average firm size (Ong & Mar, 2007; Gauchat, Kelly, & Wallace, 2012).

vary with skill sets. Several notable studies help illuminate how immigrants in particular have fared with growing inequality. Lubotsky (2011) found that the overall growth in wage inequality has a profound and noticeable impact on immigrants, mainly by depressing immigrant earnings. In addition, Hoovera and Mehmet (2010) find gender and geographic variation in the Gini index for immigrant workers, indicating that geographic factors can affect immigrant earnings. These studies, however, are cross sectional and thus do not reveal how the pattern of returns to economic assimilation has evolved over the last two decades.

***Figure 1.4 Gini Index of Full-Time Full-Year Workers in the United States: 1967-2010***




Source: U.S. Census Historical Table IE-2.

These economic disparities also have a spatial dimension, which is evident in the growth of income segregation over time. More specifically, there has been a decline in the number of households living in middle-income neighborhoods and a corresponding increase in the number of households in poorer and richer neighborhoods. Of particular concern are those who are most disadvantaged: the poor living below the federal poverty line. The poor are not only segregated, but research has shown that this spatial divide tends to persist over time (Sampson & Morenoff, 2006; Sampson & Sharkey, 2008). Between 2000 and 2005-2008, the number of poor in the United States grew by 12.3 million, driving a one-third increase in the population living in poor neighborhoods (Kneebone, Nadeau, & Berube, 2011). Consequently, the number of Americans living in extremely impoverished neighborhoods has substantially increased during the first part of the 21st Century (Aliprantis & Oliver, 2013; Bishaw, 2011; Dionissi & Aliprantis, 2011). The percentage of people residing in these areas went from 3% in 2000 to 4% in 2005-2009.[2] The emergence of such extremely impoverished neighborhoods has been tied to the development of an enduring underclass (Wilson, 1987). Another dimension of spatial inequality is the unequal distribution of wealth across neighborhoods. Although there is a paucity of wealth data, the available information shows that wealth is much more unequally

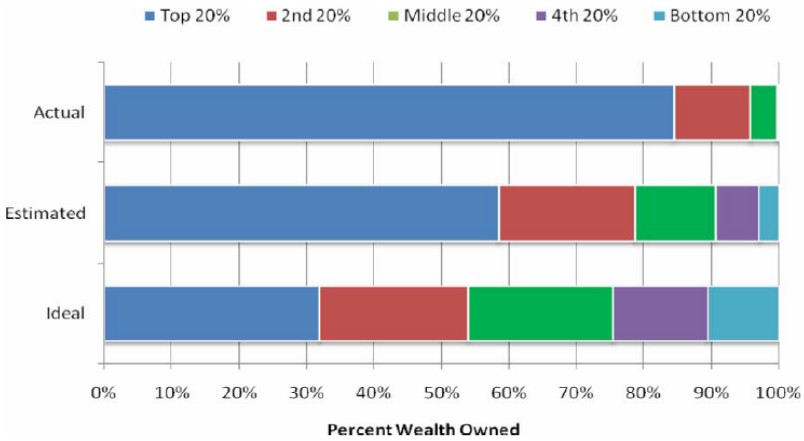
[2] Tabulated by authors using 2000 census data and 2005-2009 5-year ACS estimates.

distributed across space than income, and that indirect indicators of wealth demonstrate this maldistribution has grown over time.

Another commonly neglected element of income inequality is consumption – including the housing market – which is typically both the largest asset and cost for households (Aguiar & Bils, 2011). Renters in particular have felt the strain of unprecedented demand for rental housing together with a disproportionate growth in their housing burden, or the share of income spent to pay for housing (Harvard Joint Center for Housing Studies, 2013; Quigley & Raphael, 2004). The strains and burdens in turn impose greater hardship over both the short and long term because households have less disposable income to cover other living expenses and fewer opportunities to save – including saving for home purchases. The pressures will likely continue to mount and contribute to the growing income and wealth inequality, particularly along racial lines (Kochhar, Taylor, & Fry, 2011; Oliver & Shapiro, 2006; Shapiro, Meschede, & Osoro, 2013).

Public policy has not been effective in reversing the steady rise in inequality over the last several decades. For example, the top 1% today pays a lower tax rate than the next 9%, and this mitigates the effects of any progressive taxation because income for the most affluent seldom comes from direct compensation, but rather from interest, rents, and property royalties (Domhoff, 2013). The problem of wealth inequality has not been a major political issue in part because the American public severely underestimates the magnitude of wealth concentration in the United States (Norton & Ariely, 2011). Figure 1.5 below shows that Americans believe 60% of all national wealth is concentrated among the top 20% of all households. In reality, the figure is much higher: 85%. The lack of attention this issue receives is unfortunate because economic inequality acts as a foundation upon which many other forms of disparities are built. Figure 1.5 also shows that Americans would prefer wealth to be more equitably distributed than even their best estimate. The large disparity between these actual, estimated, and ideal wealth distributions suggests important public policy roles for both advancing public awareness about wealth inequality and narrowing the gap between rich and poor.

### *Figure 1.5 Actual Wealth Inequality versus Estimated and Ideal Wealth Inequality in the United States*




Source: Reproduced from Norton & Ariely, 2011.

## Research Questions

By some measures, the recent economic recession represents the greatest cyclical downturn since the Great Depression of the 1930s. The combination of housing and financial crises exposed critical flaws in the private and public sectors of the national economy. The deep job losses and protracted high unemployment that have accompanied the recession point to a new era of growing economic inequality. Domestic and global forces have driven growing economic disparities nationwide, and these have only partially been offset by anti-poverty policies. In the aftermath of the recession, the stark disparities between the rich and the poor resurged as a political and economic issue, providing the impetus for movements such as Occupy Wall Street and the notoriety for politicians to call bridging the gap as the "defining project of our generation" (Obama, 2014). Yet despite renewed interest surrounding inequality, particularly as families and communities continue to recover from the effects of the recession, there is a dearth of knowledge on this topic for Los Angeles.

Our research documents the magnitude, nature, and causes of growth in income, earnings, and wealth inequality in Los Angeles from over the last four decades. Over the course of our analysis we examine four complementary questions:

1. What are the temporal changes in income, earnings, and wealth distribution in Los Angeles County?
2. What are the impacts of changes in the composition of the labor force and changes in how the labor market compensates workers according to these characteristics?
3. How does the spatial structure of inequality in Los Angeles mirror wealth inequality in the region?[3]
4. How does housing consumption – the largest expense for families – underestimate economic inequality trends in Los Angeles?

## Methods and Data

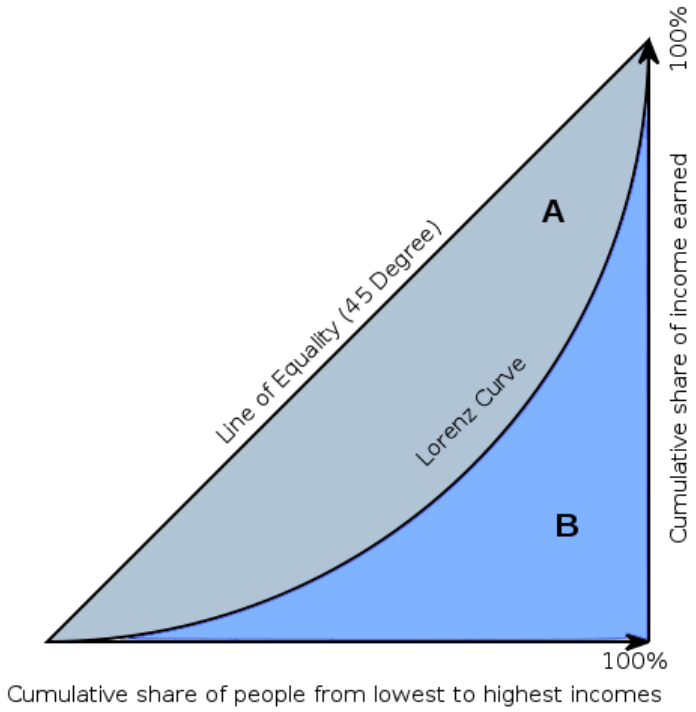
We employ a number of analytical techniques to answer the above research questions. At a descriptive level, we use the Gini index and the 80/20 ratio. These indicators can be employed to describe the distributions of income and wealth among individuals, workers, households and neighborhoods at the local, regional, and national level. We also use econometric models to examine the factors that contribute to economic outcomes, and report our findings based on these indicators in Chapter 2.

Figure 1.6 illustrates how the Gini index, described in brief above, is calculated. The Lorenz curve represents the cumulative distribution of income (or, alternatively, wealth) across economic units. The horizontal axis (x-axis) represents the cumulative population ranked from the poorest (nearest to the origin or 0% mark) to the richest (nearest the 100% mark). The

[3] We have decided not to conduct an intensive inter-regional analysis because a doctoral student is focusing on this topic for her dissertation (see Fan, 2014). Professor Paul Ong was on her dissertation committee, and we hope to incorporate some of her findings at the next stage of the project.

distance between the 0% and 10% marks would represent the poorest tenth of the population, while the distance between the 0% and 50% marks would represent the bottom half of the population in terms of income. The vertical distance (y-axis) represents the cumulative income for any given group of people arrayed by income. For example, at the 50% mark on the x-axis, the vertical distance to the Lorenz curve indicates the share of all income earned by the bottom half of the population. Therefore, the lower a point on the Lorenz curve is (i.e. the closer the point is to the horizontal axis), the smaller the cumulative share of total income that portion of the population accounts for, and so the greater the level of inequality. The 45-degree line, or Line of Equality, is the hypothetical situation in which income is distributed perfectly equally across the entire population. For example, the bottom tenth would have a tenth of all income. The area between the 45-degree and the Lorenz curve is a measure of how far society is from equality—the larger the area, the greater the inequality in that population.[4]

***Figure 1.6 The Gini Index with the Lorenz Curve and Line of Equality***




Source: WikiMedia Commons, 2014.

The 80/20 ratio is another widely accepted measure of inequality. It is calculated as the income at the top 80$^{th}$ percentile divided by the income at the 20$^{th}$ percentile, and is in indicator of the

[4] Since 45-degree Line of Equality creates a right-triangle whose sides are the x and y axes ranging up to a value of 1, the area of that right triangle is therefore 0.5. In a maximally unequal population, the Lorenz curve would lay flat against both axes and the area between the Lorenz Curve and the Line of Equality (A) would therefore be equal to all of the area below the 45-degree Line of Equality, or 0.5. So in order to produce an index, or a score from 0 to 1, the Gini index is taken as twice the area of A.

gap between the "haves" and the "have-nots."[5] Those above the 80th percentile may be considered economically advantaged while those in the 20th percentile represent those who may be considered economically disadvantaged.

While the Gini index and 80/20 are very useful measures to track changes in economic inequality, we also employ other analytical techniques in order to contextualize these measures and begin to scrutinize the specific factors that contribute to this disparity. Moreover, comparing the results for Los Angeles County to the national average provides insights into how well or poorly this region is performing – an approach that is both useful and pragmatic, given that much more research has been done for the United States as a whole. For example, many of the factors and dynamics that affect the national economy also affect the regional economy, but the aspects in which Los Angeles differs noticeably from national trends point to the additional local factors and dynamics that are at play.

This project therefore makes use of statistical techniques (multivariate econometric models) to examine how causal factors affect outcomes. An example of this is the use of enhanced human-capital empirical models to explain what factors influence earnings, and how those factors vary over time and geography. Our statistical modeling approach and findings are reported in detail in Chapter 3. After exploring spatial inequality in Chapter 4, we then move on to examine consumption through an analysis of rent burden in Chapter 5, employing an approach that also makes use of multivariate techniques.

We use several data sources to analyze economic inequality. This includes data from the U.S. Bureau of the Census, which are widely considered the most comprehensive and authoritative available both because the Bureau is able to conduct large-scale collection unmatched by efforts and because it has the legal power to encourage public participation in their enumerations and surveys. The census collects information on income and earnings, which are essential to examining economic inequality. We rely on published census data whenever possible, but the tabulations are often not adequate. We therefore complement the census data by using the public-use micro samples (PUMS) from the 1980, 1990, and 2000 decennial censuses, as well the American Community Survey (ACS).[6] These data provide additional information for representative samples of individuals and households, which in turn gives us greater flexibility to customize tabulations and to estimate multivariate models. Depending on the year, the size of the sample ranges from 1% to 5% of all households and individuals in Los Angeles County, which is amply sufficient to conduct the analyses. The data years we use for the ACS are different for each of our analyses in order to minimize the distorting effects of the recession and to account for sample size. All dollar figures were adjusted to 2012 using the

[5] The first step in calculating this value is to array the population by income from the poorest (those nearest the 0th percentile) to the most affluent (those nearest the 100th percentile). The familiar measure of the *median* represents the 50th percentile, or the point that separates the upper and lower halves of the population; half of the population is poorer than the median and half is richer. The "80" in the ratio is the 80th percentile, or the value at which 80% of the population have a lower income and 20% have a higher income.

[6] From 1980 to 2000, the Bureau of the Census conducted decennial census surveys and "long-form" surveys simultaneously, the latter of which collected detailed housing, demographic and socioeconomic data. The long-form survey was discontinued after 2000 and has since been replaced by the ACS, a continuous survey that collects similar housing, demographic and socioeconomic information.

average Consumer Price Research Series (CPI-U-RS) whose data reflect changes in prices of a representative basket of all goods and services purchased for consumption by urban households.[7] We should note that the data on households and renters exclude group quarters.

One of the weaknesses of the decennial census and ACS is the lack of information on wealth. Although the Census Bureau does conduct some specialized surveys on wealth, the sample size is not sufficient for regional analysis. Because of the lack of wealth data from the Census products, we use indirect measures of wealth by analyzing income derived from assets and capital gains from the Internal Revenue Service (IRS) Statement of Income as a proxy for assets in the form of stocks. In addition, we examine income from interest from savings, dividends from stocks, and rental properties, which together are reported in the ACS and the decennial census. The advantage of the latter proxy is that it gives us the ability to compare changes over time. While these wealth data are partial, they nevertheless do help us triangulate the relative concentration of wealth in Los Angeles, and thus serve to provide additional insights into economic inequality in the region.

[7] We used the income values as reported by the Census with no adjustment other than for inflation. Alternative adjustments will be made for top-coded values in future reports.

# Chapter 2 Los Angeles County Overview

## Introduction

Income and wealth inequality have increased in Los Angeles since the 1980s. While Los Angeles County had higher incomes than the nation as a whole in 1980, Angelenos have gradually earned less than the national average over the course of the years. In terms of income distribution, Los Angeles has also become disproportionately more unequal than the country.

These same patterns apply to wealth inequality as well: financial assets have always been highly concentrated, and are becoming more so (Wolff, Zacharias, & Masterson, 2012; Wolff, 2012). This greater disparity is driven in part by a widening gap in income and earnings, as well as differential access to credit and loans. In this chapter we begin by examining income patterns in Los Angeles and then follow with an analysis of wealth distribution in the county. Few repositories maintain wealth data at the county level, and so in this chapter we employ several proxy measures of wealth to describe trends in the county.

## Income

By examining several trends over time we are able to chart the trajectory of inequality in Los Angeles. Our analysis utilizes Public Use Microdata Samples (PUMS) from the decennial Census and ACS to explore shifts in household type (all households and husband-wife or couple households), median household income, 80/20 ratios, and the Gini Index.

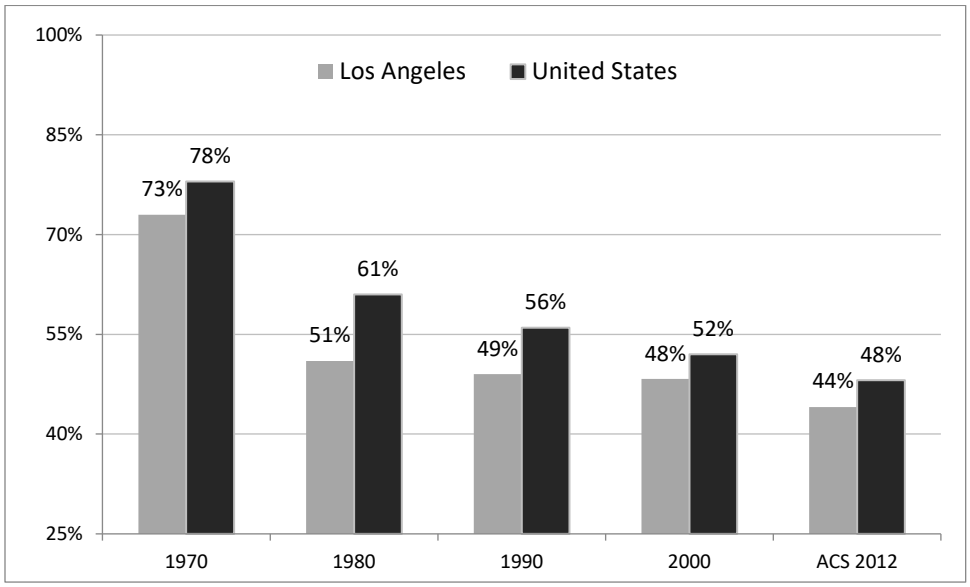
Households tend to be more financially stable when there is more than one member contributing income, and these households are consequently more affluent than those with fewer than two adult members. Households with more than one adult are less likely to be economically vulnerable; for instance, they tend to have lower poverty rates (Mykyta & Macartney, 2012). We examine husband-wife households in order to better understand how a shift in household type affects income distribution, and we use these as a proxy for households with more than one adult.

Figure 2.1 shows that over time the percentage of households with married couples has fallen for the U.S. and Los Angeles. At the national level, more than half of all households were comprised of couples until 2012, when the figure fell to 48% for the first time. Los Angeles passed this same threshold in 1990, and as with the country as a whole the county has seen a dramatic decline of couple households. In 1970, by contrast, 73% of all Los Angeles households were comprised of couples.

After adjusting to 2012 dollars,[8] national median household income has risen over time in real terms (see Table 2.1). Between 1970 and 2000, household income grew steadily from $46,510 to $57,739. There has been a drop since 2000, however, with median household income falling to $51,015 in 2012. In Los Angeles, while median household income grew modestly in real terms since 1970 when it was $50,663, it peaked in 1990 at $61,622 and has since declined to $53,036 as of 2012.

[8]Dollars were adjusted to 2012 using the average Consumer Price Research Series (CPI-U-RS) for a given year.

### *Figure 2.1 Share of Husband-Wife Couple Households: 1970-2012*




Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples.

### *Table 2.1 Median Household Income in the US and Los Angeles County: 1970-2012*

| **US Median Income** | **1970** | **1980** | **1990** | **2000** | **ACS 2012** |
|---|---|---|---|---|---|
| All Households | $46,510 | $49,548 | $52,613 | $57,739 | $51,015 |
| Couple Households | $55,646 | $63,697 | $69,991 | $79,236 | $76,069 |
| Non-Couple Households | $22,978 | $28,709 | $32,290 | $37,482 | $33,337 |
| | | | | | |
| **LA Median Income** | **1970** | **1980** | **1990** | **2000** | **ACS 2012** |
| All Households | $50,663 | $51,560 | $61,622 | $57,877 | $53,036 |
| Couple Households | $64,782 | $70,771 | $82,244 | $77,444 | $75,766 |
| Non-Couple Households | $28,515 | $34,516 | $44,948 | $42,994 | $40,408 |

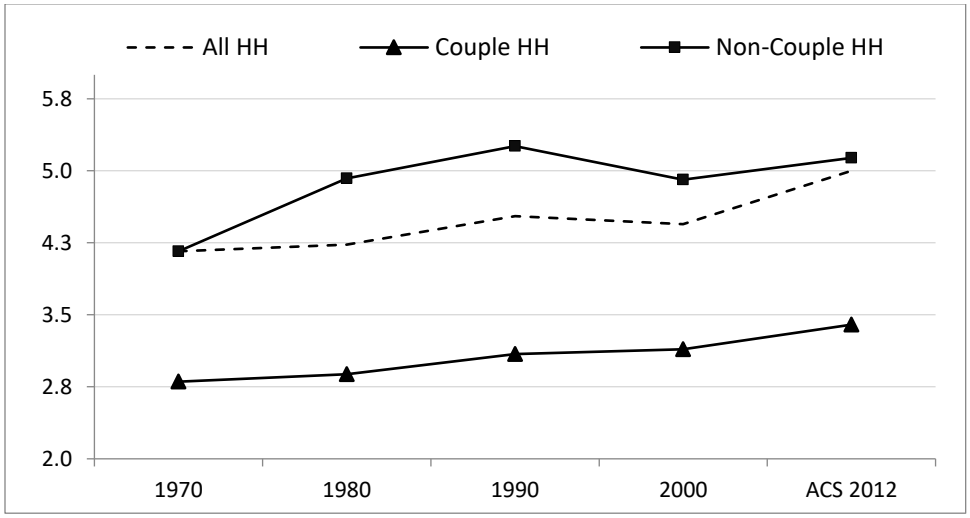
Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples.

The 80/20 ratio is a standard measure of inequality within a given group. Here we use the ratio to compare income of those at the threshold of the top quintile of the income distribution with that of those in the bottom quintile. Rising median household income at the national level has been accompanied by an overall increase in the 80/20 ratio, from 4.2 in 1970 to 5.0 in 2012 for all households (see Figure 2.2). This means that the top quintile of workers in the country are paid five times more than the bottom quintile of workers on average. Changes in the 80/20 ratio reflect shifting thresholds of the top and bottom quintiles, and so a growing ratio indicates a widening divide between those with high and low incomes.

As with the national average, the 80/20 ratio for all Los Angeles households rose between 1970 and 2012 (see Figure 2.3), despite median household income remaining largely stagnant over the same period. This means that the gap between high and low income earners has widened substantially since 1970. Although the 80/20 ratio for Los Angeles in 1970 was roughly the same

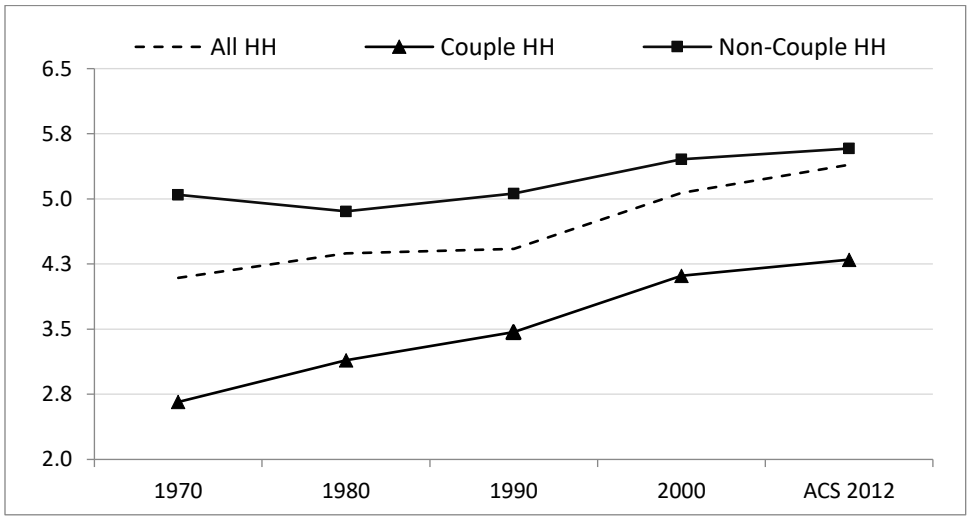
as the national average of 4.1, by 2012 the county's ratio of 5.4 had substantially exceeded the national average of 5.0.

*Figure 2.2 US 80/20 Ratio of Household Income in the US: 1970-2012*




Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples.

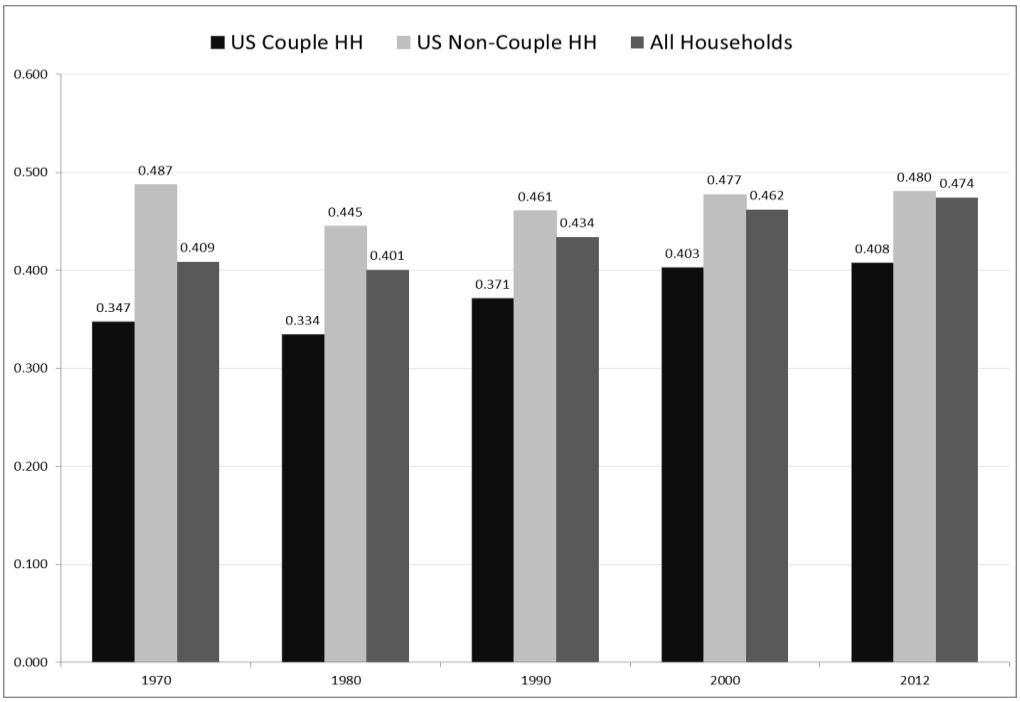
*Figure 2.3 80/20 Ratio of Household Income in Los Angeles County: 1970-2012*




Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples.

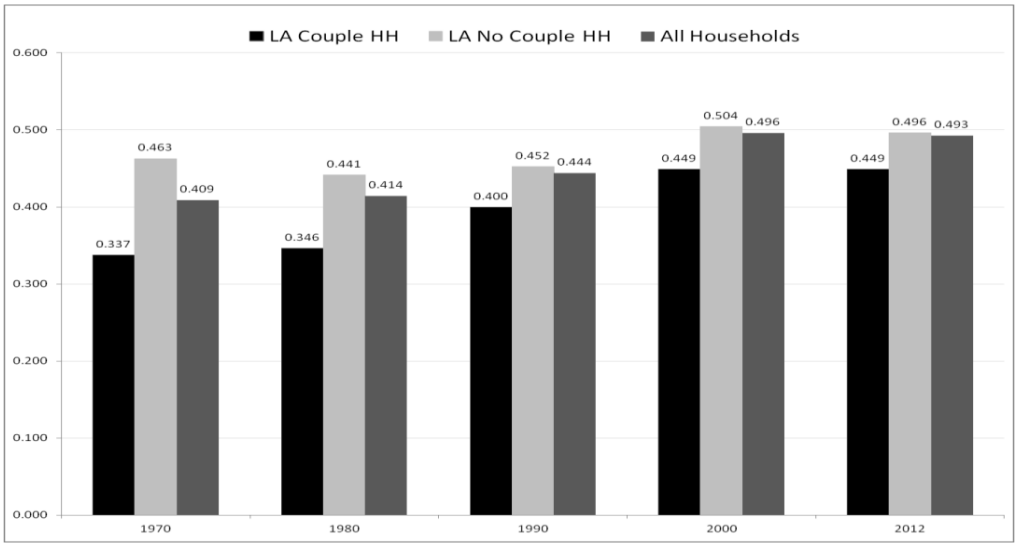
We also see the growth in inequality in the Gini index. For the United States as a whole, the Gini index has gradually grown over the last several decades, indicating that income inequality is on the rise (See Figure 2.4). For the nation as a whole, the Gini index for all households was 0.410 in 1970 and reached a minimum of 0.400 in 1980 before climbing steadily to 0.470 today. In Los Angeles, the Gini Index grew steadily from 0.409 in 1970 to 0.496 in 2000, and then declined slightly to 0.493 in 2012 (See Figure 2.5). While the Gini index for Los Angeles in 1970 was similar to national index, it has been higher than the country as a whole in subsequent years.

### *Figure 2.4 Gini Coefficient by Household Type, United States: 1970-2012*




Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples

### *Figure 2.5 Gini Coefficient by Household Type, Los Angeles County: 1970-2012*




Source: 1970-2000 Decennial Censuses and 2012 American Community Survey 1-Yr Public Use Microdata Samples.

Both in Los Angeles and nationwide, the Gini index of non-couple households declined (meaning inequality decreased) in the 1980s and 1990s before returning to 1970 levels by 2000. Similarly, in both Los Angeles and the country as a whole, the Gini index of couple households has risen quite steadily (meaning inequality has increased) since 1970. Consistent with our

findings based on the 80/20 ratio, in all cases the Gini indices show that income inequality is markedly lower for couple households than non-couple households. In 1970, the Gini index for couple households in Los Angeles was 0.337, which was lower than the national average of 0.409. However, the county's couple household Gini index grew more than any other over the four decades we analyzed, to 0.449 in 2012. It appears that the different household types are converging upon a common inequality profile, as measured by the Gini index.

## Wealth

There are many challenges associated with accessing and analyzing wealth data. First, only a few sources are commonly used: the Survey of Income and Program Participation (SIPP), the Public Use Microdata Sample (PUMS), Survey of Consumer Finances (SCF), and Panel Survey of Income Dynamics (PSID). Each of these sources have limitations (Ong & Patraporn, 2006; See Leigh [2006] for a more detailed listing of the strengths and weaknesses of wealth data sources). For example, PUMS does not contain information on wealth, but rather has indirect measures such as home value, average income, and income generated from interest, dividend, and rental income that can be used alone or in combination as proxies. SIPP lacks data at the metropolitan level due to small sample size, and skews the data for entry and exit from government programs in order to mask the identity of individuals in the highest wealth bracket (Cobb-Clark & Hildebrand, 2004; Czijka, Jacobson, & Cody, 2003-2004; Di, 2001). Additionally, while SCF has data on wealth, none are available for Los Angeles County.

We examine capital gains from the Internal Revenue Service (IRS) as a proxy for when individuals sell stocks, since the American Community Survey only accounts for stocks when they earn interest or are sold. Finally, we use income from assets from the American Community Survey as a third indicator of wealth. Our combined findings from this approach indicate that wealth is much more concentrated than income.

We used IRS Statistics of Income (SOI) data to understand disparities in capital gains from tax returns filed in 2012;[9] capital gains are reported when a capital asset is sold and the difference between the amount paid for the asset and the amount it is sold for is the capital gain or capital loss (IRS, 2014).[10] Data are reported by adjusted gross income category as defined by the IRS. However, capital gains are only reported when an individual sells his or her stock, and so this is an imperfect measure of that person's current stock holdings. We therefore also compare IRS data with the Census's measure of wealth – namely, interest, dividends, and rental income.[11] This is also an imperfect way to examine wealth on account of the fact that there are several

[9] The Statement of Income (SOI) data from the IRS at the county level are based on administrative records from the IRS's Individual Master File system and include variables on income, capital gains, deductions such as charitable contributions, tax payments, and credits reported on tax forms 1040, 1040A, 1040EZ, and associated schedules filed by individuals. The majority of tax returns have been filed during January 1, 2013 to December 31, 2013 (IRS, 2014). Data do not represent the total U.S. population because many individuals are not required to file an individual income tax form.

[10] Capital assets include a home, household furnishings and stocks and bonds held in a personal account.

[11] Income from assets is calculated by dividing interest, dividends, and rental income by household income.

scenarios wherein respondents may not report interest, dividends, or rental income.[12] We therefore use these different measures in combination to observe the shifting patterns of wealth in Los Angeles over time.

Using the number of returns to approximate the number of households in the county, the highest adjusted gross income (AGI) bracket reported comprises 4% of all returns (see Table 2.2). This top 4% hold 42% of all reported income, and so income is highly concentrated among those in the highest income group ($200,000 or more). However, when examining capital gains – an indirect measure of wealth– the concentration more than doubles to 93%. As a result, those with capital gains are extremely concentrated in the highest income bracket, which indicates that wealth is much more unevenly distributed than income.

These patterns also hold true for Census data, but here we also observe growing inequality over time. In 1980, the top 4% of households had an adjusted household income of $178,000 or more, in contrast to 2012, where the top 4% bracket was comprised of households with more than $250,000 in income. As a result, income is becoming more concentrated in top tier households. We also expect that those who file taxes tend to have higher incomes than those who do not, such as students, some seniors, unemployed or persons on disability. Nevertheless, these disparities represent the large wealthy accumulation of only a small share of the population in the county.

***Table 2.2 IRS Capital Gains compared to Census Income from Assets, Los Angeles County***

| Dataset | Income Group | % of Returns | % of Adjusted Gross Income | % of Net Capital Gains |
|---|---|---|---|---|
| IRS 2012 | $200,000 or more | 4% | 42% | 93% |
| **Dataset** | **Income Group** | **% of Households** | **% of Household Income** | **% of Income from Assets** |
| Decennial 1980 | $178,000 or more | 4% | 18% | 33% |
| | $200,000 or more | 3% | 15% | 29% |
| ACS 1-year 2012 | $200,000 or more | 6% | 27% | 61% |
| | $250,000 or more | 4% | 20% | 57% |

Source: Internal Revenue Service, Statistics of Income County Data, 2012; 1980 Decennial Census and 2012 American Community Survey 1-year Public Use Microdata Samples; 1980 dollars adjusted to 2012 using CPIU-RS.

The Census data show that in 1980, the top 4% of households earned about 18% of all household income and controlled 33% of income from assets. Similarly, the 1980 Census data show that those who earned $200,000 or more had 15% of the total household income and 29% of income from assets. The 2012 data show that this pattern of income and wealth disparity has grown quite dramatically. Three decades later, the top 4% hold about 20% of household income; however, wealth has become more concentrated. The majority of income from assets (57%) are reported by those in this top 4% bracket (see Table 2.2). To compare with

[12] Examples include: if an individual owns stocks and does not pay dividends; if a rental property owner does not make a profit; or if a bond owner accrues interest, but the bond does not pay until the end of the term.

IRS and 1980, the $200,000 or more group comprised 6% of all households. While the percentage of households grew from 1980 and 2012 by only 3%, the share of income and income from assets of these households grew from 15% to 27% and from 29% to 61%, respectively. It is therefore clear that the gaps in income and wealth have grown substantially over the last three decades. While these two data sets are not directly comparable, it is clear that both show top income earners also controlled an even greater proportion of the county's total wealth.

## Conclusion

This chapter highlights the growing inequality in Los Angeles. Not only has inequality in the county outpaced that of the nation as a whole, but it has worsened over time and this trend shows no signs of abating. Income is becoming steadily more concentrated among a shrinking percentage of the population of Los Angeles, and the situation is even starker for the distribution of wealth in the county.

# Chapter 3 Labor Market

## Introduction

Much of economic inequality in the nation is due to a combination of demographic and economic factors, including disparities in earnings from compositional shifts in the labor force towards historically disadvantaged groups such as immigrants and women (Ong & Zonta, 2001). To better understand the causes and magnitude of inequality among workers, we present statistics on job earnings for full-time, full-year (FTFY) workers for Los Angeles County and the United States. We also explore the hypothesis that growing economic inequality in the United States has dampened both the rate of labor-market upward mobility as well as its ceiling, and that various structural forces have a greater impact on immigrant than native-born workers. Using econometric models for Los Angeles County, we decompose the contributions of both human-capital factors (education, estimated years of work experience), social factors (race/ethnicity and gender), and nativity (U.S. born and immigrant workers). For immigrants, the model also controls for the acquisition of acculturation-related human capital such as years in the country and English proficiency.[13]

Our findings indicate that Angeleno workers make less today than they did in 1980. In fact, inequality has not only grown for workers in Los Angeles since the 1980s but the disparities in the region have outpaced the nation. Furthermore, we find evidence that earnings inequality is substantially more pronounced for immigrants (non-native) than for native-born workers as their share of the workforce has grown. There are several nuances based on human capital variables—education was the strongest predictor of income for these workers. We also found that gender and racial gaps in addition to English-speaking ability contribute to these growing inequalities. Our regression models provide some explanation of the diminishing mobility of earnings for all workers in Los Angeles, particularly for immigrant workers.

## Earnings Trends for Full-Time, Full-Year Workers: U.S. and Los Angeles County

It is important to examine trends over time to determine the trajectory of inequality. The following examines public-use micro-samples (PUMS) data from the 1980, 1990, and 2000 Decennial Censuses and from the 2008-2012 5-year American Community Survey (ACS). FTFY workers are defined as the civilian population 16 years of age and older who work 35 or more hours per week for at least 50 weeks out of the year, and who report earnings from both paid and self-employment.[14] Non-native workers (or immigrants) are those not born to American parents or in the U.S. or its territories while native-born workers are born in the U.S., its territories, or to American parents abroad.

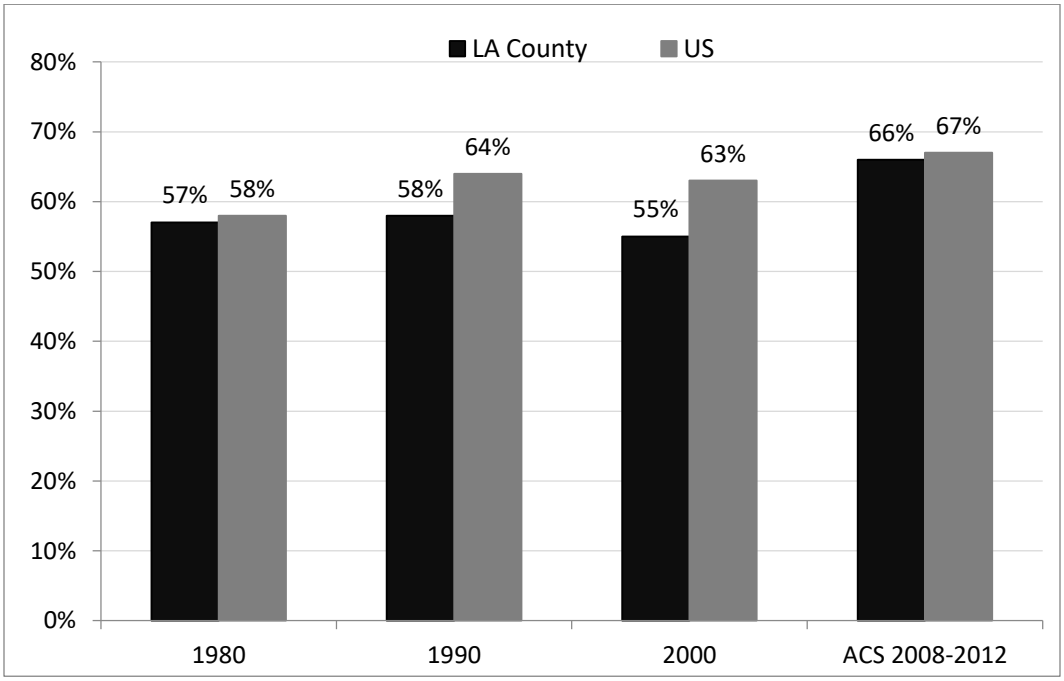
The share of FTFY workers in Los Angeles County has increased gradually over the past three decades, from 57% in 1980 to 66% in 2008-2012 (see Figure 3.1). The exception to this trend is

[13] The econometric models are part of forthcoming research supported by funding from this project. See Ong et al., 2014a, 2014b, and 2014c.

[14] Earnings are reported for the year prior to the date of the census or 12-months prior to the ACS survey and are adjusted to 2012 dollars using the Consumer Price Research Series (CPI-U-RS) for a given year. This data represents changes in prices of all goods and services purchased for consumption by urban households.

a decline in 2000 just prior to the end of the longest period of economic expansion on record in the country (Hall et al., 2001). The greatest increase in the share of FTFY workers occurred between 2000 and 2008-2012 (an 11-percentage point increase). Overall, the trends for Los Angeles County mirror national patterns in that the share of FTFY workers has increased; however, a smaller share of workers were employed full-time in the region between 1990 and 2000 relative to the nation. A smaller share of FTFY workers can increase inequality because workers with low annual earnings tend to be part-time and or/part-year workers (Ong & Zonta, 2001, p. 3).

***Figure 3.1 Share of FTFY Workers, U.S. and Los Angeles County: 1980–2012***

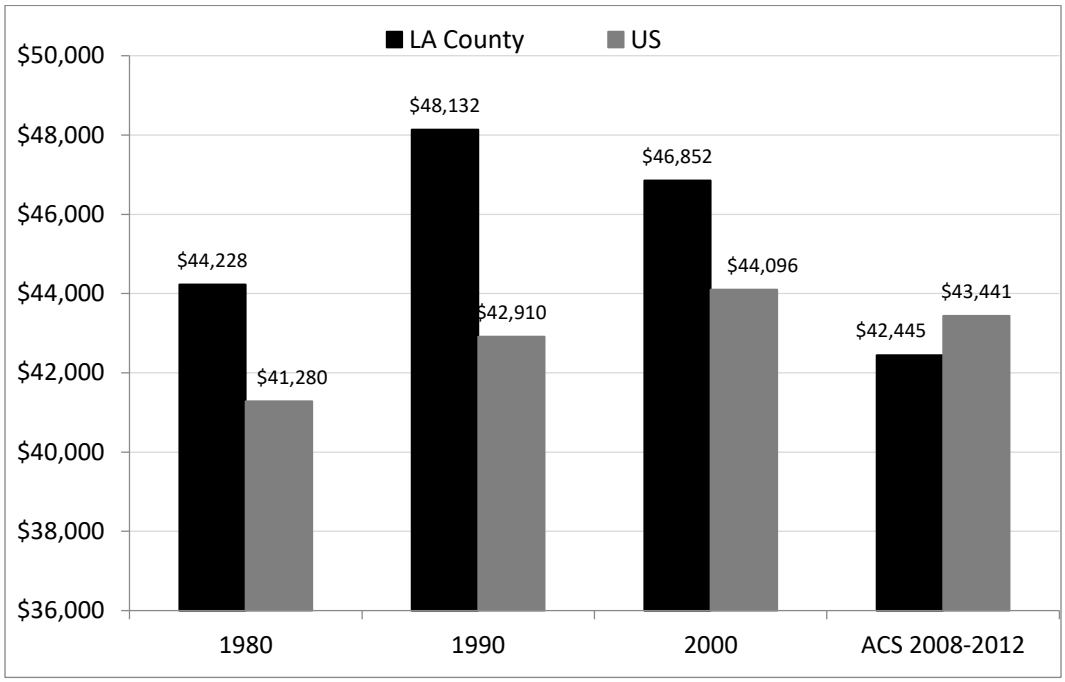



Source: 1980-2000 decennial census and ACS PUMS

While FTFY workers in Los Angeles earned more than their U.S. counterparts in 1980, their earnings have since fallen below the average American FTFY worker. Figure 3.2 shows that median earnings for the Angeleno worker have declined about 4% from about $44,228 in 1980 to $42,445 in 2008-2012. Median earnings were highest in 1990 at $48,132 but subsequently, workers in the County saw consistent declines. U.S. FTFY workers, in comparison, saw a growth in median earnings between 1980 and 2000 (a 5% increase), and only a slight drop from 2000 to 2008-2012.

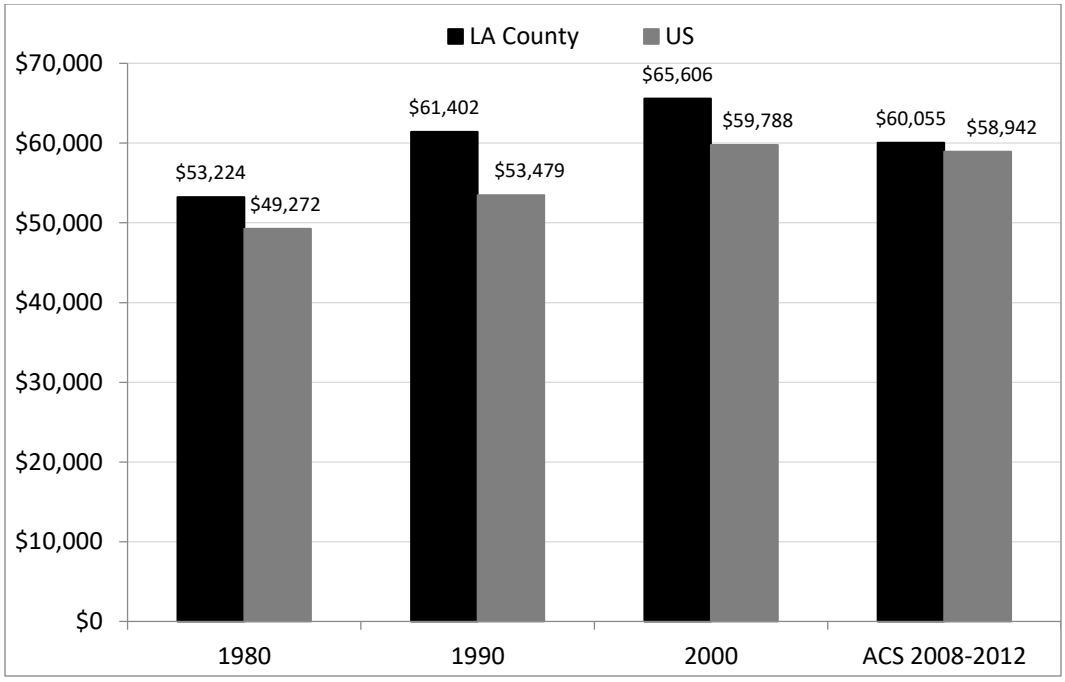
Similar patterns can be seen when comparing mean earnings with Los Angeles FTFY workers earning more than U.S. workers in 1980 (See Figure 3.3). However, by 2008-2012 the gap between the two areas decreased significantly as a result of a drop in earnings between 2000 and 2008-2012 for both Los Angeles and the nation—8.5% and 1.4%, respectively. As a result, the U.S. mean is much closer to the county mean in 2008-2012 than it was in 1980.

*Figure 3.2 Median Earnings for FTFY Workers, U.S. and Los Angeles County: 1980–2012.*




Source: 1980-2000 decennial census and ACS PUMS

*Figure 3.3 Mean Earnings for FTFY Workers, U.S. and Los Angeles County: 1980–2012.*

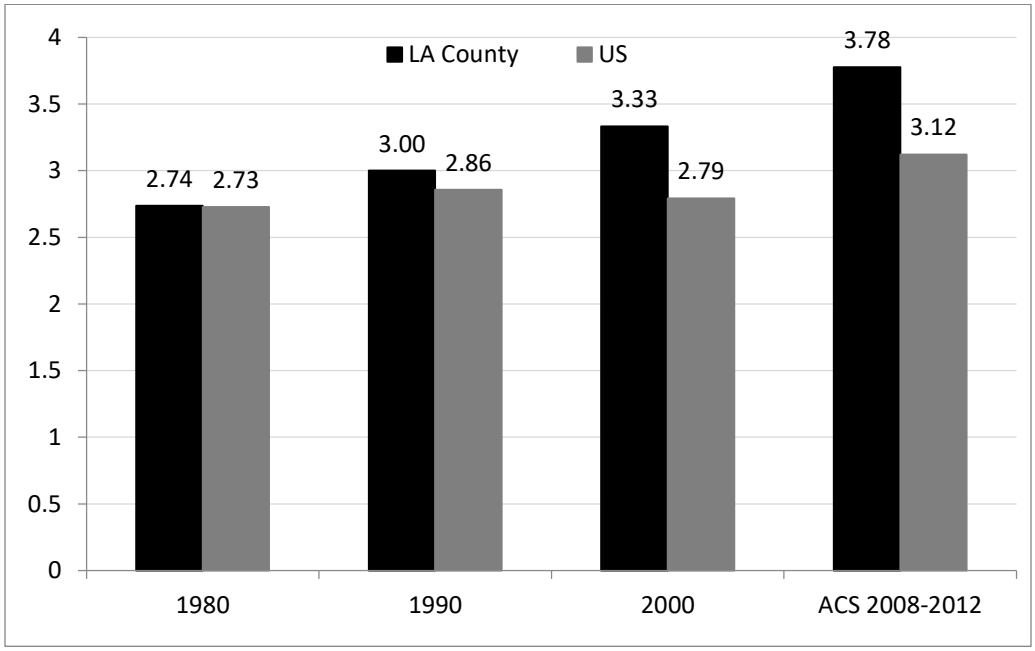



Source: 1980-2000 decennial census and ACS PUMS

One potential reason that median earnings have decreased over time while the mean has increased (except in 2008-2012) may be due to a widening divide in earnings between workers at the top and those at the bottom of the earnings distribution. Figure 3.4 traces trends in earnings inequality from 1980 to 2008-2012 using a ratio of earnings of FTFY workers at the 80$^{th}$ percentile to the earnings of FTFY workers at the 20$^{th}$ percentile. Overall, Los Angeles has seen a dramatic increase in inequality. In 1980, workers in the top 80$^{th}$ percentile were paid more than twice as much as the bottom 20$^{th}$ percentile; by 2008-2012 the disparities in earnings grew to more than 3.78 times. In the three decades, Los Angeles experienced continuous rise in inequality (or a difference of 1.04). Even during times of economic expansion (e.g., between 1990 and 2000), inequality increased.

The U.S. has also seen an increase in inequality, but at a slower pace compared to Los Angeles. Between 1980 and 2008-2012, there was a difference of 0.39 in the 80/20 ratio. Additionally, there was a decline in the ratio between 1990 and 2000. While Los Angeles and the U.S. have seen more earnings inequality, the 80/20 ratios were nearly identical in Los Angeles and the U.S. in 1980; however, by 2008-2012 there was a 0.66 difference between the two. As a result, Los Angeles not only has experienced more earnings inequality in the last three decades, but inequality has grown disproportionately faster in the region than in the country. Existing research suggests that the growth in inequality is due to a disproportionately large number of FTFY jobs being created at the bottom end, such as through the proliferation of low-wage work.[15]

***Figure 3.4 80/20 Ratio for FTFY Workers, U.S. and Los Angeles County: 1980–2012***

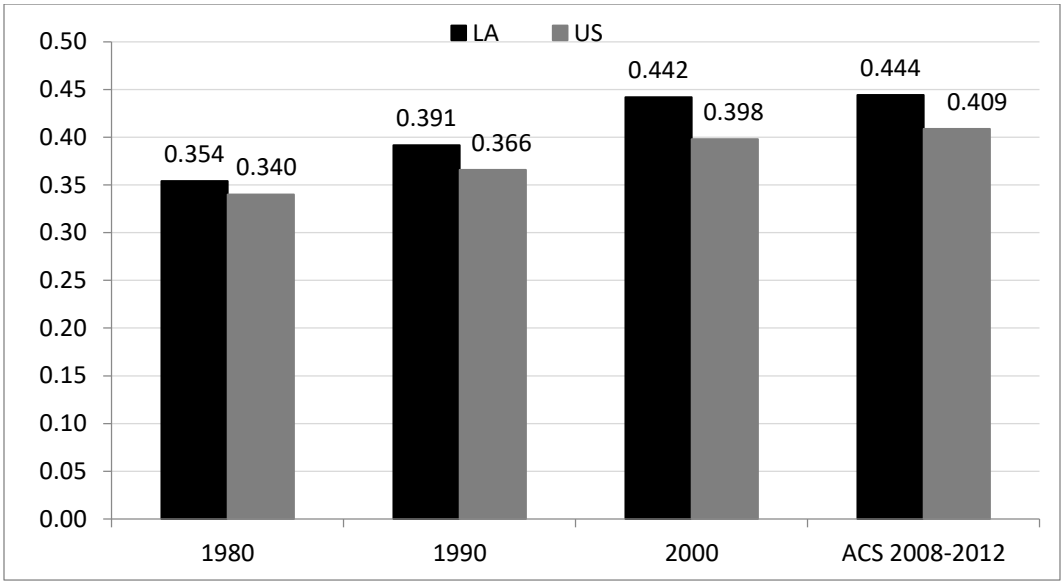



Source: 1980-2000 decennial census and ACS PUMS

[15] It is expected that during an economic expansion the number of low-wage, part-time workers would decline as these are able to move into full-time, year-round employment. As a consequence of this shift, the level of inequality for FTFY would also drop (Ong & Zonta, p. 4).

As with the 80/20 index, the Gini Index also shows greater inequality for FTFY workers in Los Angeles relative to the nation. From 1980, the Gini has consistently increased every decade in both areas. However, as with other measures, the indices are not only lower in the U.S., but the rate of increase is also lower for the nation than for Los Angeles. The Gini index also demonstrates that inequality increased for FTFY workers during times of economic expansion.

*Figure 3.5 Gini Index for All FTFY Workers, U.S. and Los Angeles County: 1980–2012*




Source: 1980-2000 decennial census and ACS PUMS

## Earning Trends for Native-Born and Immigrant Workers: U.S. and Los Angeles County

Immigration has and will continue to shape the Los Angeles regional economy as immigrant workers represent an increasingly large share of the FTFY workforce. In 1980, more than three-quarters of the FTFY workforce was native-born. The share is now closer to half, with 47% of Los Angeles workers in 2012 of foreign birth (Ong et al., 2014a).[16]

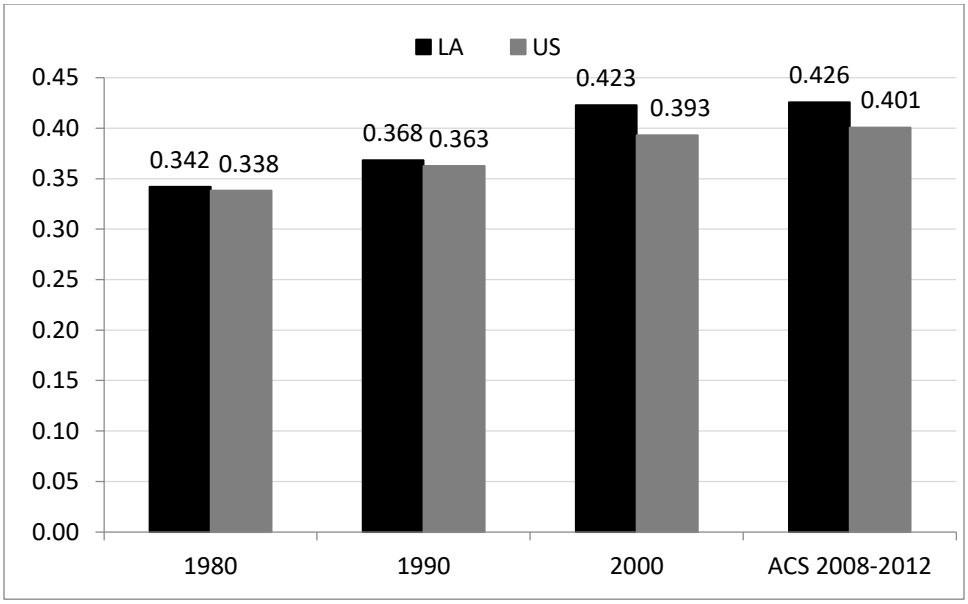
When examining FTFY workers by nativity, immigrant workers consistently experience greater earnings inequality than native-born workers. For instance, the 1980 Gini coefficient for native-born workers in Los Angeles was lower at 0.342 than their immigrant counterparts with an index of 0.370 (See Figures 3.6 and 3.7). Similarly, the Gini is higher for immigrant workers in the U.S. than it is for native-born workers. However, the gap between foreign-born and native-born has lessened as overall inequality for all FTFY workers has increased in Los Angeles.

While the Gini indices for both native-born and immigrant workers are lower in the U.S. than Los Angeles, the U.S. index for foreign-born workers surpassed that of Los Angeles in 2008-2012, or 0.442 compared to 0.436, respectively. The gap between immigrant and native-born

[16] Tabulated by Ong, et al., 2014a from 1980 decennial census and 2012 1-year ACS PUMS data. This research is forthcoming and was supported by funding from this project.

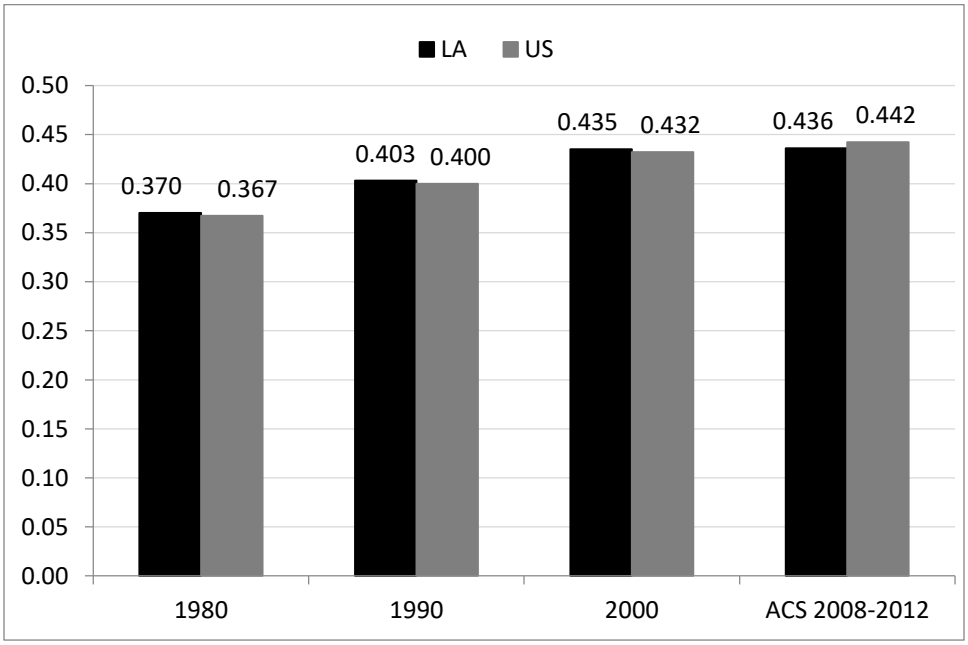
FTFY workers also grew significantly more in the U.S. than in Los Angeles. In 2008-2012, the nation saw the largest difference in Gini coefficients between the two groups (0.041). In other words, as the U.S. experiences a climb in earnings inequality for FTFY workers, the gap seems to be disproportionately impacting foreign-born workers.

***Figure 3.6 Gini Index for Native FTFY Workers, U.S. and Los Angeles County: 1980–2012***




Source: 1980-2000 decennial census and ACS PUMS

***Figure 3.7 Gini Index Immigrant FTFY Workers, U.S. and Los Angeles County: 1980–2012***




Source: 1980-2000 decennial census and ACS PUMS

## Earning Trends for Native-Born and Immigrant Workers: Los Angeles County

Without adjusting for changes in the composition of the labor force, earnings rose for both immigrant and native-born workers between 1980 and 2010-2012 (see Table 3.1).[17] However, earnings are down for both groups from a peak in 2000 (Ong et al., 2014a). The earnings gap between immigrants and native-born workers has grown over time as their share of the workforce has grown. Median earnings in 1980 for foreign-born workers was 69% that of native-born workers, which fell to 61% in 2010-2012. The same gap for mean earnings has similarly widened since 1980, falling from 74% to 66%. The result of this widening gap is that foreign-born workers now show a marked concentration at the lower end of the wage distribution: in 1980, immigrants comprised 41% of workers in the bottom quintile of earnings, whereas today they comprise 70%.

*Table 3.1 Earnings for Native and Immigrant FTFY Workers, Los Angeles County: 1980–2012*

| FTFY Median Income | 1980 | 1990 | 2000 | ACS 10-12 |
|---|---|---|---|---|
| Native-Born | $47,175 | $53,637 | $55,121 | $51,975 |
| Foreign-Born | $32,438 | $33,970 | $34,450 | $31,834 |
| Ratio | 0.69 | 0.63 | 0.62 | 0.61 |
| | | | | |
| **FTFY Mean Income** | **1980** | **1990** | **2000** | **ACS 10-12** |
| Native-Born | $56,590 | $69,212 | $77,324 | $70,984 |
| Foreign-Born | $42,051 | $45,949 | $49,684 | $46,744 |
| Ratio | 0.74 | 0.66 | 0.64 | 0.66 |

Source: Tabulated by Ong, et al., 2014a from 1980-2000 decennial census and ACS PUMS; see footnote 3.

We also used the 80/20 ratio to understand earning disparities between immigrant and native-born workers. Prior to 2010-2012, the data show that the 80/20 ratio was higher for immigrants than for all FTFY workers, meaning that immigrants faced more inequality than all FTFY workers as a whole (see Table 3.2). Particularly for immigrant workers, the bottom 20% quintile has decreased, which show that this group has earned fewer dollars over time, contributing to the growing inequality

Figure 3.8 below shows that the earnings at the upper quintile threshold for native-born workers, meaning the amount a person needed to earn to be among the top 20% of earners, grew from $74,308 in 1980 to $93,556 in 2010-2012 (adjusted to 2012 dollars) – a 26% increase over the three decades. The equivalent figure for immigrants grew just 8%, from $58,966 to $63,643. Meanwhile, earnings of the lowest quintile of both groups fell in real terms over the period, but the decline was proportionately greater for immigrants than for native-born workers. The lower quintile threshold for immigrants fell 10%, from $19,940 in 1980 to $17,982 in 2010-2012, compared to a 3% decline from $29,490 to $28,586 for native-born workers over the same period.

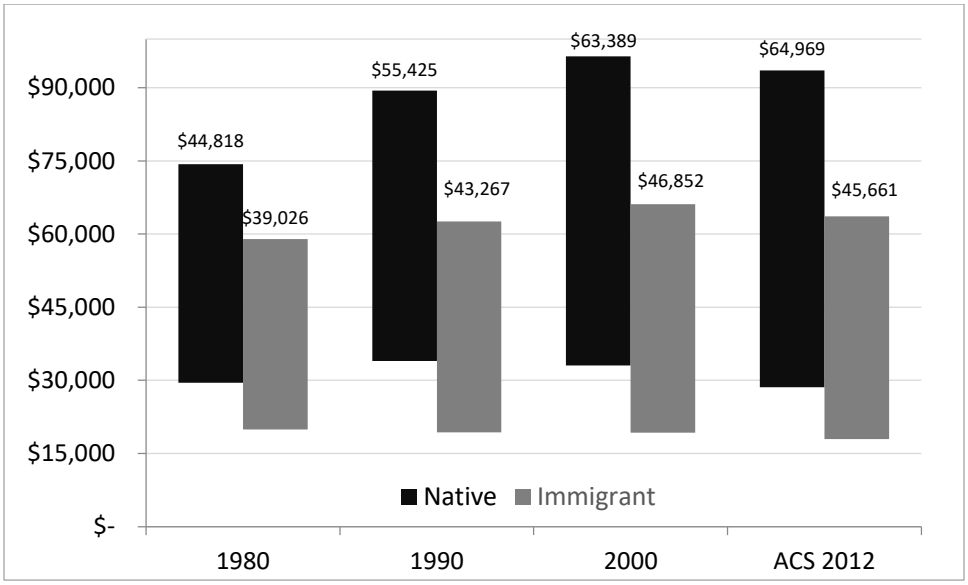
[17] We use 2010-2012 data to minimize the distorting effects of the recession.

### *Table 3.2 80/20 Ratios for Native and Immigrant FTFY Workers, Los Angeles County: 1980-2012*

| Native Workers | 1980 | 1990 | 2000 | ACS 10-12 |
|---|---|---|---|---|
| Top quintile | $74,323 | $89,396 | $96,461 | $93,556 |
| Bottom quintile | $29,490 | $33,970 | $33,072 | $28,586 |
| 80/20 Ratio | 2.52 | 2.63 | 2.92 | 3.27 |
| | | | | |
| **Immigrant Workers** | **1980** | **1990** | **2000** | **ACS 10-12** |
| Top quintile | $58,966 | $62,577 | $66,145 | $63,643 |
| Bottom quintile | $19,940 | $19,309 | $19,292 | $17,982 |
| 80/20 Ratio | 2.96 | 3.24 | 3.43 | 3.54 |

Source: Tabulated by authors, 1980-2000 decennial census and ACS PUMS

### *Figure 3.8 80/20 Threshold Gap, Native and Immigrant FTFY Workers, Los Angeles County: 1980-2012*




Source: Tabulated by Ong, et al., 2014a from 1980-2000 decennial census and ACS PUMS; see footnote 3.

While the 80/20 ratio shows within-group inequality and is therefore a relative measure, it is also important to recognize the absolute differences in earnings between native-born and immigrant workers. Figure 3.8 above shows the gap between the bottom quintile (20%) and the top quintile (80%) of earners in 2012 inflation-adjusted dollars for both groups of workers. Although the size of the gap itself appears greater in absolute terms for native-born workers, the 80/20 ratio is nevertheless higher (i.e. more unequal) for immigrants because the 20% threshold for immigrant workers remains low – or $17,981 in 2012.

## Human Capital Model: Los Angeles County, 1980-2012

Taken together, the data on earnings show that inequality has clearly grown in Los Angeles both for native-born and immigrant workers, but that the earnings gap has widened further and faster among immigrants. It is possible that the earnings gap is caused by differences in the composition of the labor force. From a human capital standpoint, the fact that immigrants, on average, have less schooling and lower English proficiency than their native-born counterparts may explain some of the gap. Other societal forces such as racism and sexism may also influence the labor market. These forces are likely to impact immigrant and native-born workers differently, as immigrant workers tend to be less white and more male than native-born workers.

To attempt to account for these additional structural factors, we conducted log-linear regression analyses from 1980 to 2012 for immigrant and native-born workers, and in the process we included human capital variables reflecting race, gender, and employment type as well as the standard human capital variables on experience and education as proxies for acculturation. Our immigrant model also included English proficiency and years since immigration. Human capital theory predicts that the additional factors in the augmented model should account for part of the earnings gap and contribute to the composition of the labor force. Depending on the distribution and returns of these factors in the market, each can either exacerbate or mitigate earnings inequality.

We found a number of significant findings. For immigrants, as with U.S.-born workers, experience and schooling were the strongest predictors of earnings. However, the balance between these has shifted over time—whereas experience was the strongest single predictor in 1980, by 2012, education is the strongest predictor.

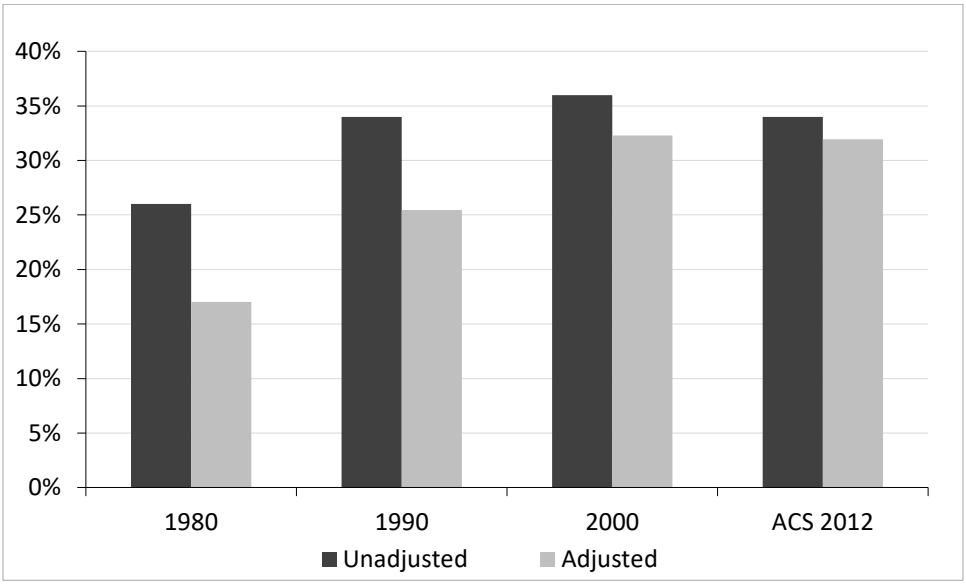
The gender earnings gap is also a continued reality. While women tend to earn less than their male counterparts and the gap between men and women has been shrinking over time, the most recent model (2010-2012) shows that a disparity persists. Being female was nearly as strong an indicator of earnings as schooling in 1980. However, by 2010-2012, it has weakened relative to other predictors such as being Hispanic or self-employed.

There is also evidence of a racial gap. Immigrants of color consistently earn less than non-Hispanic White immigrants. Being Hispanic was the fifth strongest predictor of earnings in 1980 and was the fourth strongest predictor of earnings in the 1990, 2000, and 2010-2012. Disparities were largest in 2000 for Hispanics and Asians, while they were the largest in 1980 for Blacks, relative to non-Hispanic Whites.

Years spent in the U.S. also play a role in explaining differences in Los Angeles foreign-born workers' earnings. In general, the greater number of years spent in the United States increases earnings. However, the earnings gap between recent immigrants (less than 5 years in the United States) and those who had spent more than 15 years in the U.S. has narrowed since 2000. Being a naturalized citizen has become a stronger predictor of earnings since 1980, with foreign-born residents of Los Angeles who were naturalized citizens tending to have higher earnings than their non-citizen counterparts. English-speaking ability is also a statistically significant predictor of immigrant earnings.

Our models include binary variables for the year, which allow us to track the residual impacts of the earnings gap over time. By comparing the coefficients of those variables to the 2010-2012 reference year, we can adjust the earnings gap for differences in the composition. Figure 3.9 below compares the unadjusted and adjusted earnings gap over time. The adjusted gap shows a similar trend to the unadjusted gap of rapid growth through 2000 and then a tapering off. The fact that the adjusted gap is smaller indicates that the additional factors in the augmented human capital model do indeed account for part of the observed gap in unadjusted earnings. However, the gap has remained even as immigration has slowed, which suggests that immigrants still experience a number of barriers in upward mobility in earnings.

*Figure 3.9 Native-Immigrant Income Gap Adjusted vs. Unadjusted: 1980-2012*




Source: Tabulated by authors, 1980-2000 decennial census and ACS PUMS

## Conclusion

In the 1980s, FTFY workers earned more in Los Angeles than the average American worker. This finding is expected, as the cost of living is higher in the region than in the nation. However, it is troubling that the median earnings have fallen behind the U.S. and mean earnings have become nearly identical with that of the nation. In addition to the decline in earnings for FTFY workers, immigrant workers are disproportionately impacted. This is concerning given that immigrants now comprise about half of FTFY workers in Los Angeles. Our findings show diminishing upward mobility in earnings for all workers in Los Angeles since 1980, meaning that inequality has steadily worsened over the last three decades. However, immigrant FTFY workers in Los Angeles face a wider earnings gap than their native-born counterparts. Even after accounting for standard factors of experience and education as well as additional variables of race, gender, language proficiency, and duration of residence, we find that immigrants make roughly a third less than their native-born counterparts, which then has a spillover effect on growing inequality for the region as a whole.

# Chapter 4: Spatial Inequality

## Introduction

In this chapter we examine the role of place in inequality, and here we define places as neighborhoods within the Los Angeles region.[18] Neighborhoods host both homes and businesses, and are therefore areas of both consumption and production. Residential neighborhoods not only shape lifestyle, social status, and economic opportunities, but they can also determine access to cultural institutions (Houston & Ong, 2013), quality of schools (Orfield & Lee, 2005), and the incidence of violent crimes (Morenoff et al., 2001. For example, neighborhoods create geographically-bound collective goods that impact housing values and crime via spillover effects – meaning that how well or poorly a property is maintained has an effect on the values of others nearby. Neighborhoods are also tied to social capital and networks, which in turn affect the economic fortunes of residents and their children. Finally, neighborhoods can be units of collective action, an example of which is parent-based groups that aim to enhance the quality of education in local schools.

In his seminal work, *A Pure Theory of Local Expenditures*, Tiebout (1965) described people moving to municipalities to maximize their personal utility based on public goods and tax rates. Research has subsequently shown that people self-sort into places (i.e. neighborhoods) through a combination of personal choices, market dynamics, social constraints, and public policy. These include:

- Personal-choice factors based on life-cycle, ethnic membership, and life style
- Demand-side market dynamics such as how much a person can afford to spend on housing
- Supply-side market dynamics such as the development of housing types to cater to a particular type of households, and which in turn determine housing prices
- Social constraints that may include explicit or informal discriminatory practices which limit the opportunity of a group to find, purchase or rent, and reside in some neighborhoods
- Public policies such as the concentration of public housing, land-use regulation to separate housing types and stop development of affordable housing, and minimum parcel sizes

Urban space mirrors, reinforces, and reproduces income and wealth inequality as a direct consequence of the above societal, political, and economic factors. Spatial variation and place-

[18] Operationally, these are either census tracts or zip codes. Tracts are used by the Census Bureau to define small, relatively permanent statistical county subdivisions and has between 1,200 and 8,000 people (U.S. Census Bureau, 2014b). Tracts are often bounded by major natural or built structures, such as water ways and major streets. Zip codes are defined by the U.S. Postal Service to facilitate mail delivery, and are socioeconomically and culturally unique (U.S. Census Bureau, 2014c). We will have to figure out when compiling all references). For example, mortgage lenders have recently imposed restrictions for zip codes that are deemed "risky" or "declining," a more recent form of redlining (Harney, 2008). Businesses also use recognized the importance of zip codes, using them to send geotargeted advertisements (White, 2013).

based differences are therefore at least partly a product of underlying economic disparities. As a part of social capital and networks, neighborhoods can influence employment and wealth-building opportunities for adults, and can continue to reproduce inequality generation after generation through lack of educational, social, and cultural opportunities available to their children.

## Income Segregation Patterns and Levels

Neighborhood income segregation has significantly increased nationally since 1970 (Fischer, Stockmayer, Stiles, & Hout, 2004; Lewis Mumford Center, 2001). Watson (2009) found that much of income segregation is a result of growing income inequality, and so analyzing this form of segregation helps us to understand the uneven distribution of economic opportunities and income by place, as well as the role that education, jobs, banking, and other factors play in building wealth (Raphael & Stoll, 2002; Squires & Kubrin, 2005).

Income segregation also often interacts with racial segregation. Logan (2011) found that Blacks and Latinos are more likely than Whites to live in poor neighborhoods, even when comparing affluent Blacks and Latinos with lower-income Whites. Additionally, Black and Latino families have experienced more income segregation than White families over the past four decades because of increased spatial concentration (Reardon & Bischoff, 2011). Moreover, if these groups live in or closer to poorer neighborhoods then home values are likely to be adversely impacted as well.

There has also been a shift in where the poor live in the United States, such that we can say poverty has now been suburbanized. As of 2005 the majority of metropolitan residents who are below the poverty line now live in suburbs instead of in central cities (Berube & Kneebone, 2006). A third of the poor in the United States lived in suburbs in 2008, and suburban poverty has continued to rise to the present day (Kneebone & Berube 2013; Kneebone & Garr, 2010).

Income segregation can be measured in several ways and we report on two of these measures, each of which yields slightly different interpretations.[19] The first measure examines the proportion of households in poor and affluent neighborhoods using a methodology adopted from Reardon and Bischoff (2011). Reardon and Bischoff computed the ratio of each neighborhood's median family income to the county median income.[20] These neighborhoods were then classified into six categories based on the computed ratio: poor, low income, low-middle income, high-middle income, high income, or affluent.[21] Our analysis is similar, but where Reardon and Bischoff use family income we use household income instead.

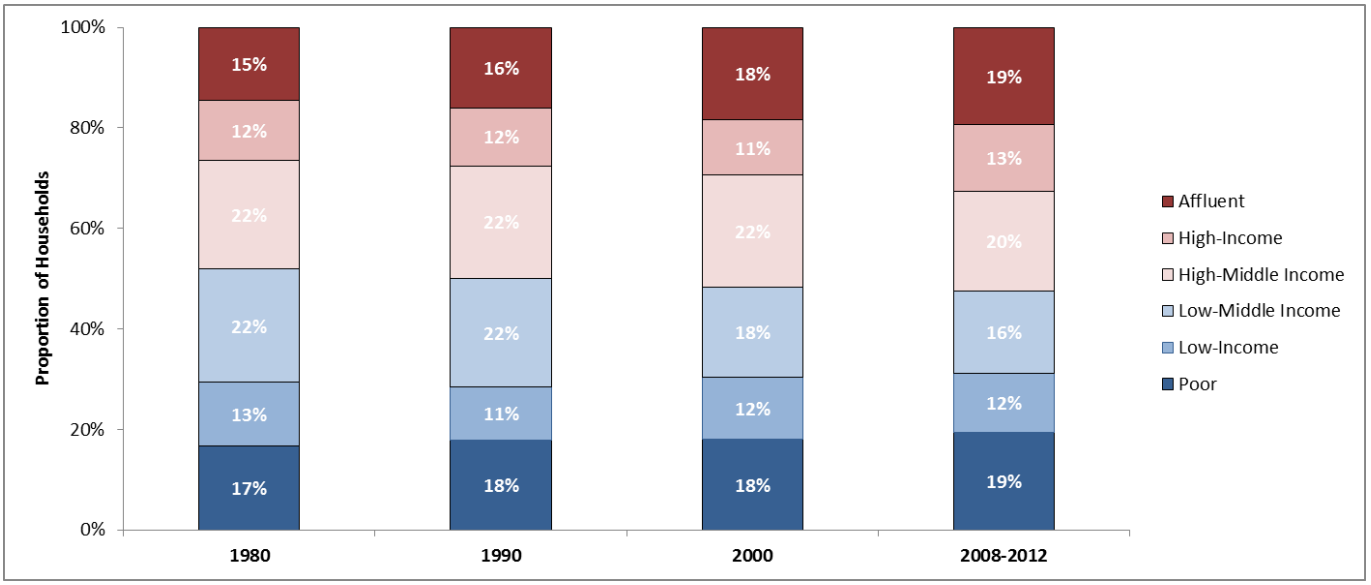
[19] Income segregation is operationalized as the extent to which high and low-income residents live in separate neighborhoods.

[20] Census tracts are used to represent neighborhoods and make up the base unit of analysis in this study. A census tract is a small, relatively permanent statistical subdivision of a county averaging about 4,000 inhabitants. They are designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions.

[21] See Reardon and Bischoff (2011) for additional information on methodology and limitations.

Figure 4.1 shows the proportion of households that reside in the six categories of neighborhoods from 1980 to 2012. We see a steady decline in the proportion of households living in middle-income neighborhoods (i.e. low-middle or high-middle income neighborhoods) from 1980 to 2012, and a corresponding increase in the number of households in neighborhoods at the extremes of the distribution. In 1980, 44% of households lived in middle-income neighborhoods, but by 2012 only 36% of households lived in such neighborhoods. The share of households living in poor neighborhoods increased from 17% in 1980 to 19% in 2012. Likewise, the proportion of households in affluent neighborhoods rose from 15% to 19% over the same period. This trend has been consistent over time, with household income segregation growing every decade from 1980 to 2012.

***Figure 4.1. Proportion of Households in High-, Middle-, and Low-Income Neighborhoods, Los Angeles County: 1980-2012***




Source: 1980, 1990, 2000 U.S. Decennial Census, 2008-2012 American Community Survey Estimates

Los Angeles has also overall seen an increase in poverty. Between 1980 and 2012, the poverty rate has grown from 13% to 17% (see Table 4.1). The portion of the county's population who are near poor (i.e. those whose earnings are equal to between 100% and 199% of the federal poverty line) has risen slightly, from 20% to 22% over the last three decades. We also should note that while the county has overall seen an increase in poverty, poor households are evenly distributed throughout the county's neighborhoods.

We also mapped poverty rates by census tract in 1980 and 2012 in order to analyze spatial patterns at the county level. As might be expected, many of the underclass neighborhoods are concentrated in the central city in 1980, and a substantial number of suburban areas exist in which fewer than 10% of residents live in poverty (see Figure 4.2).[22] Of all census tracts in 1980, the highest poverty rate was 68%, while the mean and median poverty rates were 14% and 10%

[22] Wilson (1987) described structural factors that lead to the underclass (i.e. the lowest and poorest class), and these included deindustrialization, outsourcing of labor, white flight, and spatial mismatch.

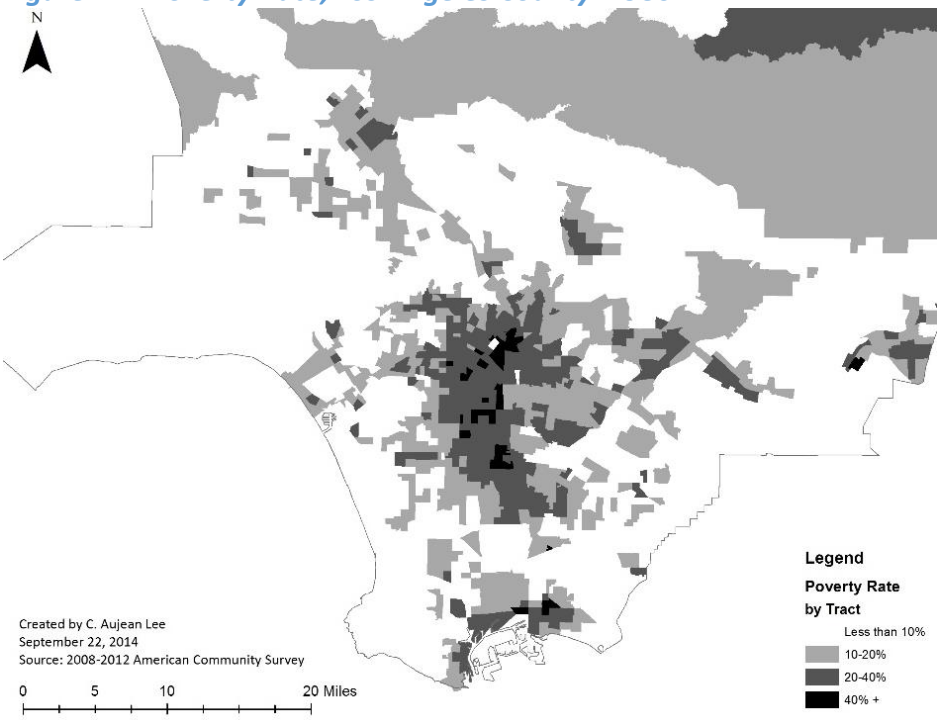
respectively. By 2012, not only had poverty increased in the central cities, but it had also become more suburbanized (see Figure 4.3). The highest poverty rate per tract increased to 94% while the mean and median poverty rates grew to 17% and 14%, respectively.

### *Table 4.1. Ratio of Income to Poverty, Los Angeles County: 1980-2012*

| | 1980 | 1990 | 2000 | 2008-2012 ACS |
|---|---|---|---|---|
| Below Federal Poverty Level | 13% | 15% | 18% | 17% |
| 100-199% | 20% | 20% | 22% | 22% |
| 200% + | 67% | 65% | 60% | 61% |

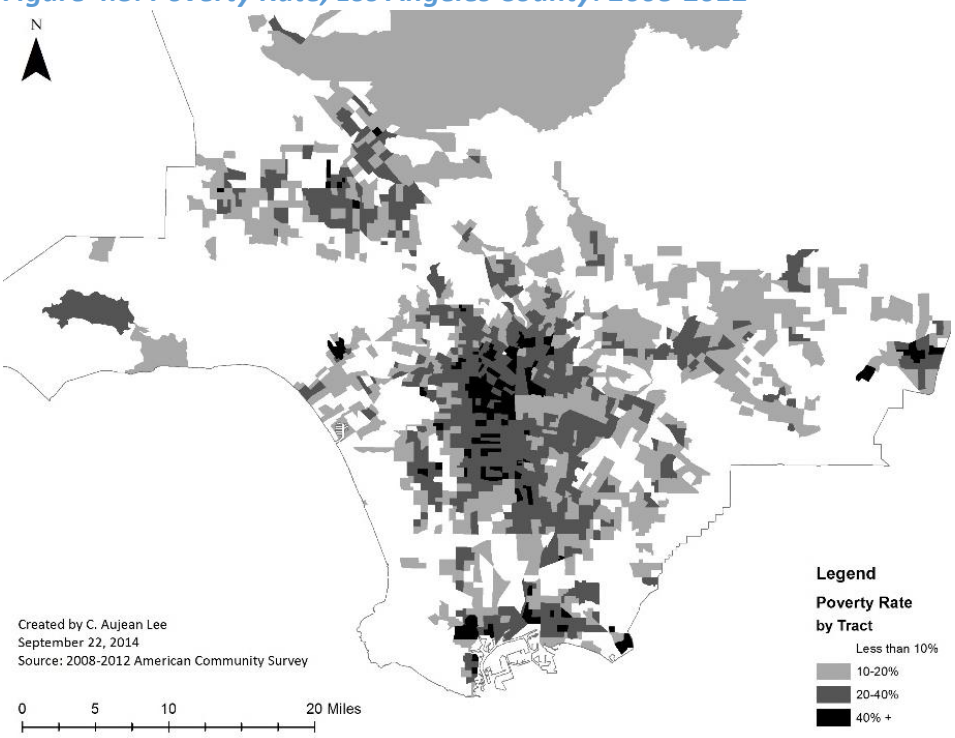
Source: 1980, 1990, 2000 U.S. Decennial Census, 2008-2012 American Community Survey Estimates

### *Figure 4.2. Poverty Rate, Los Angeles County: 1980*




This finding is consistent with the findings of Yang and Jargoswky (2006), who tested whether income segregation in 1990 and 2000 was affected by suburbanization and determined that suburbs have contributed to its expansion. Reardon and Bischoff (2011) extended this research to 2009 and found that the likelihood that families live in either the most affluent or most poor neighborhoods in metropolitan areas had continued to rise. These researchers also found that affluent families are more spatially isolated than poorer families.

*Figure 4.3. Poverty Rate, Los Angeles County: 2008-2012*




Earlier research, such as Wilson (1987), focused on Black underclass neighborhoods, but the issue of poverty in Los Angeles County's diverse and complex racial landscape is an encompassing one that affects many racial and ethnic groups. Of the 132 tracts with more than 40% poverty in 2012, three are a majority Asian, five are a majority Black, six are a majority non-Hispanic White, and 105 are a majority Latino.[23] When summing the population by race for all 132 tracts, 7% of the population is non-Hispanic White, 8% are Asian, 14% are Black, and a majority – 71% – are Latino.

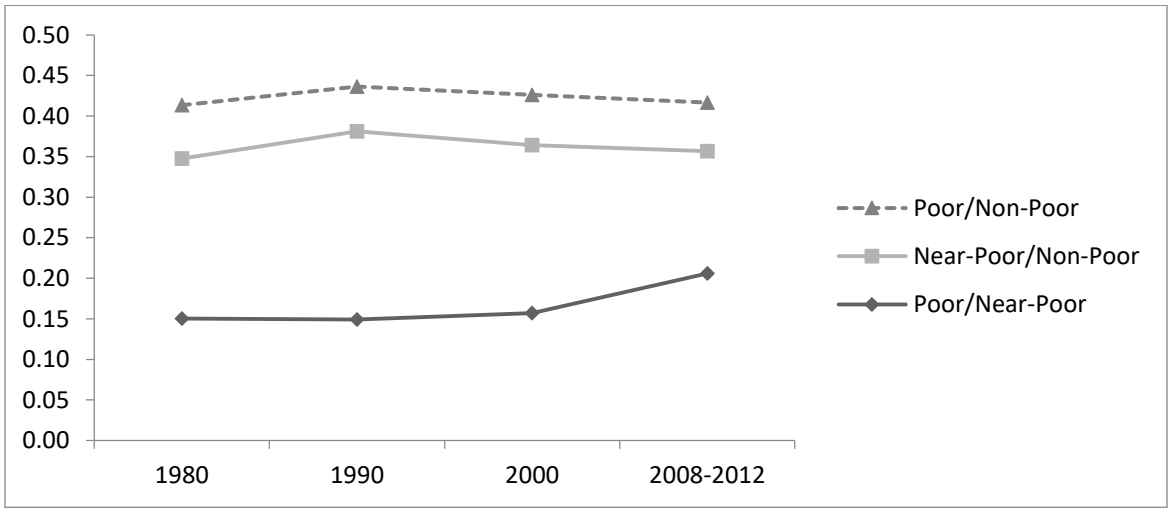
In order to better understand the spatial dynamics in Los Angeles, our analysis also assessed segregation of the poor. The most widely accepted and commonly used and method of measuring segregation is the *dissimilarity index*, or DI (Massey & Denton, 1988, p. 283; Iceland et al., 2002). The DI compares how evenly a population subgroup is distributed geographically relative to another.[24] DI scores range from zero to one, with zero signifying absolute integration and one signifying absolute segregation. A DI above 0.60 is considered high, while values under 0.30 are regarded as low. Values between 0.30 and 0.60 therefore suggest a moderate level of segregation (Massey & Denton, 1988).

[23] Figures are for race alone except for Latinos, who are multiracial.

[24] The DI has been used to examine race, ethnicity, and income segregation. An index of 0 (no segregation) would indicate that every neighborhood would have the same mix of the two subgroups as the regional area. An index of 1 would mean that every neighborhood would be homogenous. The DI can also be interpreted as the percentage of either subgroup that would need to move in order to achieve complete integration. For example, in the case of a county with a poor population of 10% and a DI of 0.25, 25% of residents living below the poverty line would have to move to a different census tract in order to achieve proportional integration.

To calculate DIs, we grouped individuals into three categories using poverty data from the 1980, 1990, and 2000 decennial censuses in addition to the 2008-2012 5-Year ACS. The three categories include those who are in poverty (below 100% of the federal poverty level),[25] near poor (100-199% of the federal poverty threshold), and middle or high income (the non-poor, whose income is greater than or equal to 200% of the federal poverty threshold). Figure 4.4 shows both how segregation levels, as measured by DI, have changed over time. Here we see that segregation between the poor and non-poor is higher than for either of the other two comparison groups, and that the DI has hovered near 0.40 – a moderate level – since 1980.[26]

***Figure 4.4. Segregation Level (Dissimilarity Indices) by Poverty Groups, Los Angeles County: 1980-2012***




Source: 1980, 1990, 2000 U.S. Decennial Census, 2008-2012 American Community Survey Estimates

## The Concentration of Poverty

Our analysis shows that spatial concentration and segregation by income in Los Angeles continue to be issues of serious concern. Previous research has indicated that surges in spatial concentration of poverty are often accompanied by growing income inequality (Kawachi, 2002).

[25] The U.S. Census Bureau considers an individual to be poor if the individual or the individual's family's income falls below the federal poverty level. Income is measured for the year prior to the survey—income reported for 1980, 1990, 2000, and 2008-2012 decennial censuses and ACS, incomes are then for year 1979, 1989, 1999, and 2011 respectively. In 1979, the average FPL threshold was set at $4,190 for an individual in 1979, $6,313, in 1989, $9,035 in 1999, and $11,484 in 2011. The federal poverty thresholds definition excludes institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. Although annually adjusted for inflation, the FPL does not account for geographic differences in the cost of living and therefore, in a relatively expensive area such as Los Angeles, the FPL most likely underestimates the problem posed by poverty. However, many federal, state and local agencies continue to rely on the FPL as the driving mechanism behind the allocation of its programs.

[26] As context, Blacks and White (non-Hispanic) in the county are highly segregated with a DI score of 0.67 in 2012; black and white segregation has historically been high.

We classify neighborhoods (census tracts) into four groups depending on their poverty rate.[27] Some scholars have termed neighborhoods with poverty rate of 40% or more as *underclass neighborhoods* in which there are typically few jobs, limited economic activities, higher crime rates, and weak social networks (Wilson, 1987). Additionally, we group individuals into three categories depending on their reported income level relative to the poverty Federal Poverty Line (FPL): "below 100 percent of the FPL", "near poor", and "non-poor."[28]

Table 4.2 below helps illustrate trends of income segregation since 1980 by showing the types of neighborhoods in which individuals live. We see from these data that poor individuals are more likely to reside in poor neighborhoods today than they were in 1980: nearly half of impoverished people reside in "high-poverty" neighborhoods in 2012, up by roughly six percentage points since 1980. Likewise, the share of the poor in "very-high-poverty" neighborhoods nearly tripled between 1980 and 2012, from 5% to 13%.

***Table 4.2 Distribution of the Population by Neighborhood Poverty Rates, Los Angeles County: 1980-2012***

| | | Below FPL (Poor) | 100-199% (Near Poor) | 200%+ (Non-Poor) |
|---|---|---|---|---|
| **1980** | Less than 10% | 21% | 28% | 60% |
| | 10-20% | 31% | 35% | 27% |
| | 20-40% | 43% | 34% | 12% |
| | 40%+ | 5% | 2% | 0% |
| **1990** | Less than 10% | 16% | 22% | 56% |
| | 10-20% | 28% | 32% | 27% |
| | 20-40% | 47% | 41% | 15% |
| | 40%+ | 9% | 5% | 1% |
| **2000** | Less than 10% | 11% | 16% | 46% |
| | 10-20% | 24% | 29% | 30% |
| | 20-40% | 50% | 47% | 21% |
| | 40%+ | 15% | 8% | 2% |
| **2008-2012** | Less than 10% | 12% | 21% | 46% |
| | 10-20% | 26% | 31% | 31% |
| | 20-40% | 49% | 41% | 20% |
| | 40%+ | 13% | 6% | 2% |

Source: 1980, 1990, 2000 U.S. Decennial Census, 2008-2012 American Community Survey Estimates.

## Neighborhood Effects on Economic Inequality

Places can not only mirror aspatial economic inequality, but *neighborhood effects* – meaning place-based contextual factors – play a role in reinforcing and producing these disparities.

[27] The poverty rate for a particular neighborhood is determined by dividing the number of poor persons who live there by the total of poor and non-poor persons. Based on the poverty rate, we created four categories: "non-poverty" tracts have poverty rates less than 10%; "low-poverty" tracts have rates of 10% to 20%; "high poverty" tracts have rates of 20% to 40%; and "very-high-poverty," or "concentrated poverty" tracts are have rates of 40% or more.

[28] "Below 100% poverty of the FPL" is the same as "in poverty"; 100–199% poverty includes all those described as "in poverty" and persons who have incomes above poverty but less than twice their poverty threshold; and 200% poverty and above includes those with incomes twice the poverty level or higher.

Tienda (1991) posited that poor neighborhoods might attract low-income individuals and otherwise create circumstances that put downward pressure on the socioeconomic status of their residents. Several studies have since shown that neighborhoods do impact socioeconomic outcomes (Leventhal & Brooks-Gunn, 2000; Sampson, Morenoff, & Gannon-Rowley, 2002), such as crime (Peterson, Krivo, & Harris, 2000) and school dropouts (Brooks-Gunn et al., 2003). A recent program called Moving to Opportunity (MTO) randomly allocates vouchers to public housing residents to move in low-poverty neighborhoods, although studies have so far shown mixed results: residents felt safer and less drug activity, but no significant effects on economic sufficiency were detected (Kling, Ludwig, and Katz 2005; Kling et al. 2004).

Neighborhood effects also have an impact social capital, or the benefits that individuals gain from social structures and networks, including information and referrals (Coleman, 1988). Social capital has been found to play a role in labor markets when individuals give or receive information about jobs and with bankers who define clients they know personally as more "creditworthy" (See Granovetter 2005 and Ioannides and Loury 2004 for a more detailed account of the economic impacts of social capital).

Social capital operates differently based on group and space. Beaman (2012) found that social networks were more effective with established immigrants than with more recent refugees. Among ethnic groups, social capital is localized. Patachhini and Zenou (2012), for example, found that ethnic groups who live closer to others in the same group are more likely to find a job through these contacts. Within ethnic enclaves, however, economic return is mixed; immigrant workers who live in an enclave have lower incomes than their counterparts in non-enclave areas, while self-employed immigrants in enclaves and nonenclaves have similar incomes (Sanders & Nee, 1987). These patterns are further complicated by findings of ethnic stratification in residence-based job information networks (Damm, 2014).

We examined the role of labor market neighborhood effects through an analysis of the earnings of full-time full-year (FTFY) workers in Chapter 3. In this chapter, we explore neighborhood effects by modifying the models in two ways. First, we include variables for geographic units known as Public Use Microdata Areas (PUMAs).[29] We use the 2007-11 ACS PUMS data, which contains 67 PUMAs to use consistent boundaries for all survey years.[30] Because PUMAs are fairly large units that incorporate several neighborhoods it would be preferable use tracts or zip codes, but unfortunately no such data are unavailable. PUMAs can nevertheless provide a limited test of neighborhood effects.

Our second modification is to employ a two-level regression model. The first level of the model uses individual level data with the personal-characteristics variables mentioned earlier to augment set of dummy variables denoting the PUMA place of residence. The resulting estimated coefficient for the PUMA variables captures place-effects, or the impact on earnings

[29] The U.S. Bureau of the Census (2014a) defines these as "non-overlapping areas that partition each state into areas containing about 100,000 residents..[which are] the most detailed geographic area available in the Public Use Microdata Samples (PUMS)... [defined in collaboration with]State Data Centers and their partner organizations…[and therefore] should be meaningful to many data users.

[30] The 2008-2012 ACS PUMS uses two different sets of boundaries (2000 and 2010).

after controlling for human-capital and other demographic characteristics. The second level of the model uses the coefficients for the PUMA-variables as the dependent variable, and a number of place-based characteristics related to social capital and the independent variables. Multilevel models are estimated separately for native-born workers and immigrant workers.

Our key statistical findings are that, other things being equal, native-born FTFY workers see their earnings increase with the educational level of neighbors and as the relative number of their non-Hispanic White neighbors rises; meanwhile, they see their a decrease in their earnings associated with a relatively higher number of non-US-citizen neighbors. For immigrant FTFY workers, other things being equal, earnings increase with the educational level of neighbors and as the relative number of Hispanic neighbors rises, but decrease as the relative number of non-citizen neighbors and the number of Asian neighbors increases. These findings are consistent with *a priori* predictions based on the existing literature which assert that economically-effective social capital and networks are correlated with higher education and social status (with non-Hispanic White being the most privileged group), and those who are least assimilated therefore have less social capital and networks relevant to the American labor market. Our empirical results appear to validate these claims at the PUMA level.

We must emphasize caution when interpreting these quantitative results. For example, our findings do not necessarily imply that disadvantaged neighborhoods lack social capital and networks, but rather that these are relatively less effective in influencing earnings than the social capital and networks in more advantaged neighborhoods. The estimated effects of ethnic concentration (i.e. percentage Hispanic and percentage Asian) are intriguing because they work in opposite directions: positive for Hispanic areas, and negative for Asian areas. This may be a result of the complex ways enclaves operate, as indicated by the existing literature. Moreover, there may be complex interactions between worker ethnicity and neighborhood ethnic characteristics – a topic that may be a fruitful avenue for future research.

Despite the limitations of the data and multilevel models, our findings remain consistent with the proposition that place does not simply mirror economic inequality. Rather, place plays a significant role in the production of inequality by contributing to disparities in income through labor-market earnings, and by aiding the reproduction inequality within neighborhoods over generations via mechanisms such as the quality of education in elementary schools (a subject of later analysis).

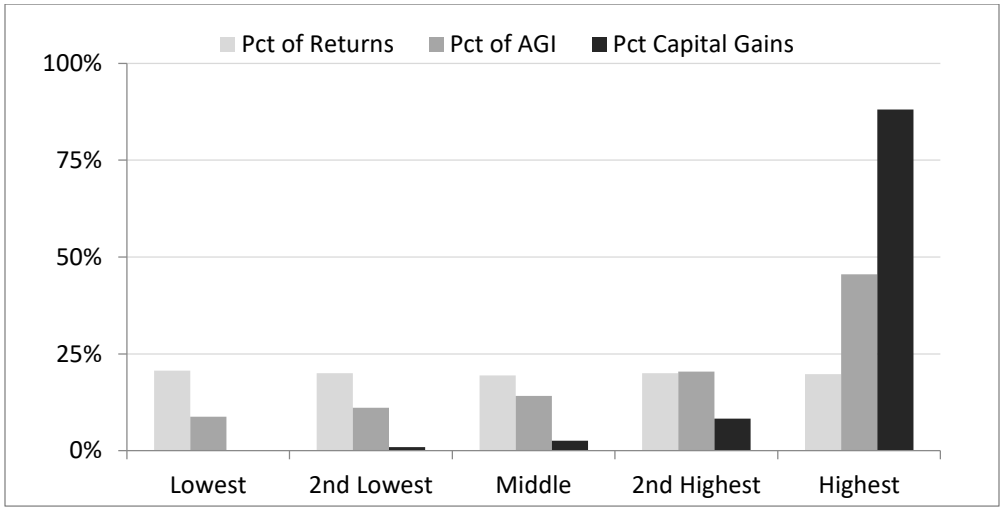
## Wealth Distribution

Much of this chapter has focused on income inequality across space and groups. As previously described in Chapter 2, we include analyses of wealth because it is substantially more unevenly distributed in the Los Angeles region than income. Despite evidence that there may be links between space, income, and wealth, few empirical studies have focused on factors that affect wealth accumulation and forms of assets. One exception is Ioannides and Seslen (2002), who found that wealth is indeed more unevenly distribution in neighborhoods than income, including housing wealth. Nevertheless, more is needed in order to understand the impacts of these spatial dynamics in the Los Angeles region. Because of the limitations in data available on wealth, we once again use IRS data to examine spatial inequality of wealth.

Capital gains are an indicator of wealth, and we examined their spatial distribution by drawing from IRS data for 2012. We created quintiles based on average adjusted gross income (AGI) weighed by number of households per zip code to approximate neighborhoods (zip codes with higher AGI are more affluent). As we reported earlier in Chapter 2, the number of returns can be used as an approximate measure of households even though a number of households are not required to submit tax returns.[31]

The data show there is much more wealth inequality among neighborhoods than income inequality (Figure 4.6). The highest quintile has nearly half (46%) of the share of AGI, while the lowest quintile has 9% of AGI. So while there is a great deal of spatial segregation of income among neighborhoods in Los Angeles, the wealth gap is much wider still: the top quintile zip codes hold 88% of capital gains, even though they comprise just 20% of all returns.

***Figure 4.5 Spatial Distribution of Returns by Neighborhoods Income, and Capital Gains: 2012***




Source: IRS Internal Revenue Service, Statistics of Income County Data, 2012.

## Conclusion

Our findings here are consistent with those reported in the previous chapters – that income and wealth are unevenly distributed among Angelenos. Here, however, we show that this inequality is exacerbated by space: more affluent neighborhoods have a disproportionately larger share than poorer neighborhoods not only of income, but even more so of wealth.

Neighborhood effects also play a role in these disparities. Areas where relatively large numbers of neighbors are of higher socioeconomic status or are non-Hispanic White are more likely to have higher incomes. These findings have important implications with respect to the interactions between race and space, especially since racial segregation is still a prevalent patterns in Los Angeles. Social capital and neighborhood effects also interact to produce different labor market outcomes. The results of our analysis highlights the importance of using place as a lens to better understand the full breadth of socioeconomic disparities in the Los Angeles region, particularly in those areas where income and racial segregation are more concentrated.

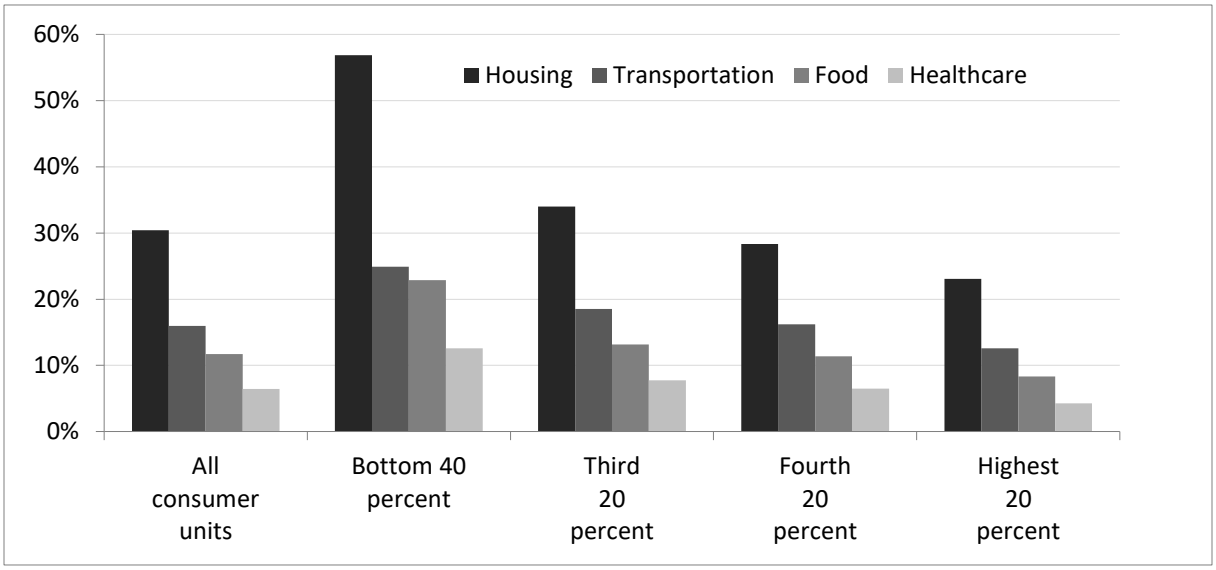
[31] Because of missing values, we analyzed data for 287 zip codes out of a total of 592 zip codes in the data set.

# Chapter 5 Consumption Inequality[32]

## Introduction

The widening divide in income has driven a parallel growth in consumption inequality (Aguiar & Bils, 2011). According to the Consumer Expenditure Survey, the single largest category of consumer spending across the income distribution is housing (See Figure 5.1), with transportation, a related expenditure given tradeoffs between space and location, falling second. What is important to note is that housing is proportionally much more burdensome for those with lower income, consuming about half of their income. This, along with other necessities, means that the poor have considerably less disposable income.

*Figure 5.1 Consumer Expenditures, United States: 2013*



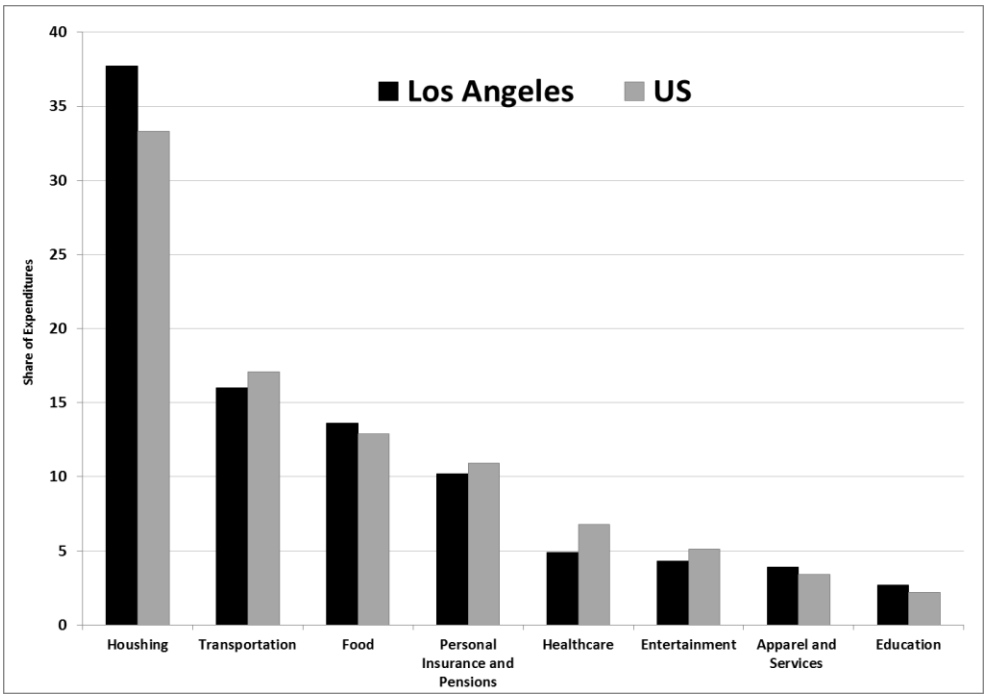

Source: Tabulated by authors from U.S. BLS data, 2014

The disproportionate influence of housing in consumption spending is even stronger in Los Angeles. While the national share of spending going towards housing is 33%, housing comprises 37% of the average Angeleno's spending (see Figure 5.2). A greater share of housing spending is simply for shelter, rather than utilities, signaling high costs in the housing market. Within the Los Angeles housing market, the renters face the biggest costs as they are lower income and comprise the majority of Los Angeles households, at 52%.

This research provides insights on housing inequality, as the largest influence in greater consumption inequality, by highlighting the experience of renters and their housing cost burden from 1970 to 2011. We focus in particular on the long-term developments in the region and make an initial attempt to identify, or at least rule out, potential mechanisms by which the rent burden is growing.

[32] Findings are from working paper published by the UCLA Ziman Center for Real Estate (See Ray, et al 2014)

*Figure 5.2 Annual Average Expenditures, United States and Los Angeles MSA: 2011-2012*




Source: BLS, 2014.

This analysis employs public-use micro samples (PUMS) from the 1970, 1980, 1990 and 2000 decennial censuses, and from the 2009-2011 3-year American Community Survey (ACS). The data contain household-level characteristics such as tenure (renters and owners), income, costs, and unit size.[33] Rent burden is defined as the percentage of income devoted to the payment of gross rent. For this research, renter households that contribute more than 30% of their income towards rent are considered rent-burdened.

## The Widening Divide between Owners and Renters

In both the U.S. and Los Angeles, the median income of owners is more than twice that of renters. In the U.S., the large gap is a new phenomenon, born of a fairly steady widening since 1970. In Los Angeles, on the other hand, owners have made twice as much as renters off-and-on since 1980.

In part, the temporal differences in the widening divide are the result of different tenure patterns in Los Angeles versus the U.S. Los Angeles has been a majority renter county since 1970, and is now the metro area with the highest share of renters in the country, at 52% (Joint Center for Housing Studies, 2013). The U.S. rentership has remained fairly stable at 35%. In the U.S. renters have increasingly come from the bottom end of the income distribution. In Los Angeles, the rise in rentership has occurred since 1980 across all income quintiles

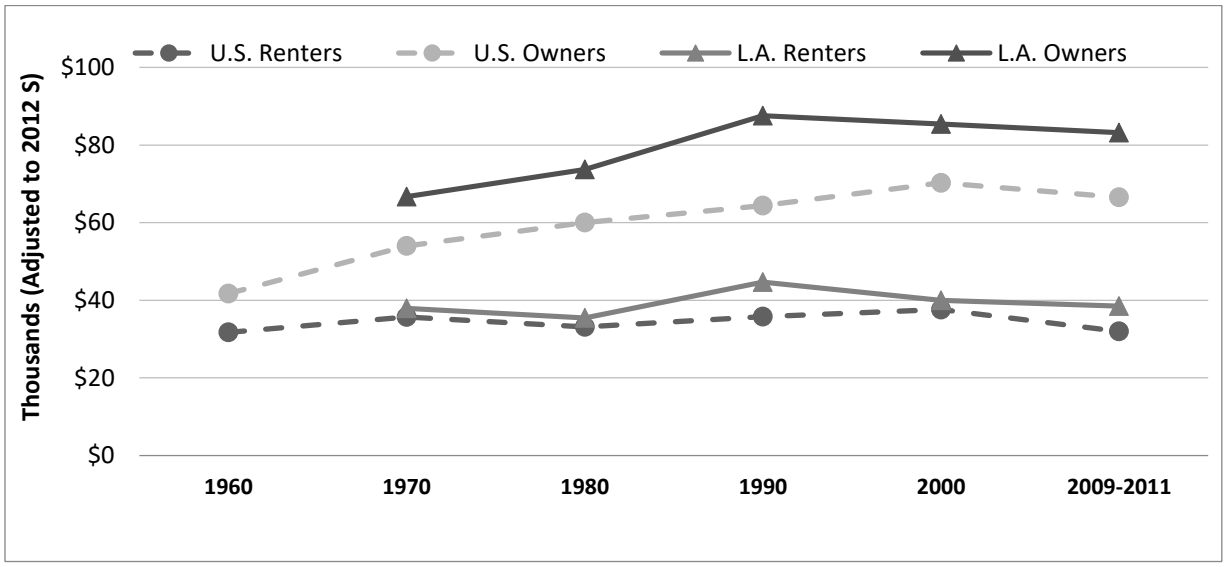
Overall, owner incomes rose 25% since 1970 in Los Angeles, and 23% in the U.S. With the increasing tendency of bottom quintile households to be renters in the U.S., median renter

[33] All dollar values were adjusted to 2012 using CPIU-RS.

incomes fell 10% between 1970 and 2011, from $36,000 to $32,000, while Los Angeles renter incomes gained 2%. More recently, however, median incomes for both owners and renters in the county declined between 1990 and 2011, stabilizing the income gap somewhat (See Figure 5.3).

Income stagnation is not the way one would ideally like to close a gap. It becomes even more problematic when one looks at the diverging trends between rent and renter incomes, the subject of the next part.

*Figure 5.3 Median Income by Tenure, U.S. and Los Angeles: 1960-2011*



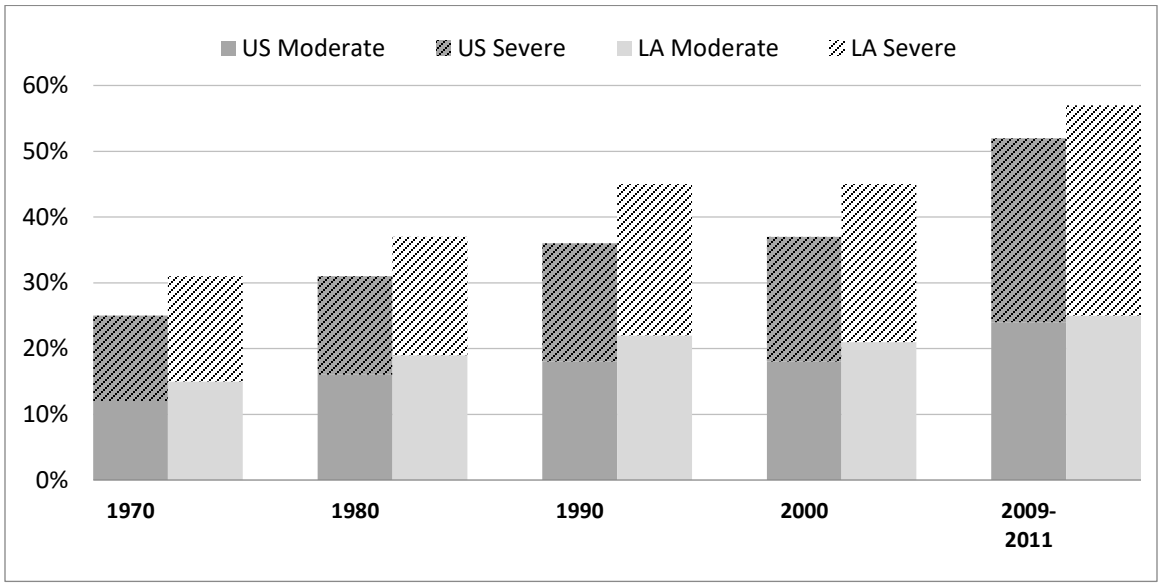

Source: Tabulated by Ray, R. Ong, P. M. & Jimenez, S. (2014).

## Trends in Rental Burden

Rent burden is the ratio of income to rent and is generally expressed as the percentage of income devoted to rent. The burden increases when rents rise relative to incomes. In the face of declining median incomes in Los Angeles, rents too would have had to stagnate or fall for the rent burden to remain steady. Instead, rents have risen faster in Los Angeles than in the nation as a whole.

As expected, then, the share of renters experiencing moderate (30 to 50% of income) and severe (50% or more of income) rent burden in Los Angeles has consistently exceeded the rate of the nation as a whole. As of 2013, Los Angeles also had the highest median rent burden in the nation, at 47% (Dewan, 2014). Not only were a greater share of renters burdened, but the size of their burden was also greater as shown in Figure 5.4.

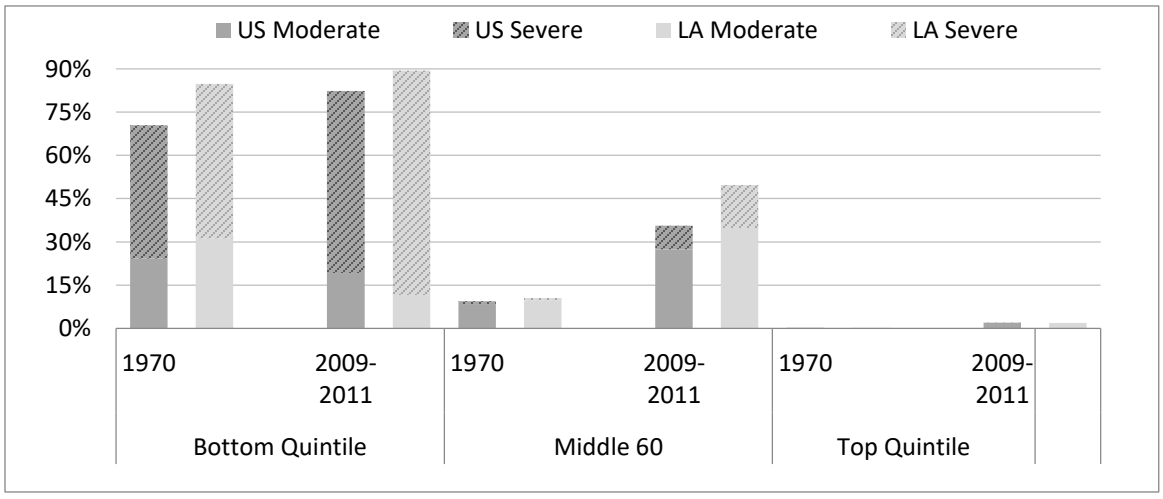
*Figure 5.4 Rent Burden, U.S. and Los Angeles: 1970-2011*




Source: Tabulated by Ray, R. Ong, P. M. & Jimenez, S. (2014).

Rent burden has been high among low-income renters for a long time. In 1970, 54% of these Los Angeles renters shouldered a severe rent burden (i.e. were devoting half or more of their income to housing), and 85% of them bore a moderate rent burden (i.e. were paying 30 to 50% of their income). During the period of analysis from 1970 to 2011 the rent burden situation deteriorated for bottom quintile renters, particularly in Los Angeles, and the county also witnessed substantial rent increases across all quintiles. Both the U.S. and Los Angeles had a U-shaped pattern of rent increases, with larger increases at the top and bottom of the distribution than in the middle. Renter income growth for the nation followed the same pattern as rental price increases. However, Los Angeles did not follow that trend. Los Angeles income growth was lowest at the bottom of the income distribution and highest at the top.

*Figure 5.5 Rent Burden by Quintiles, U.S. and Los Angeles: 1970-2011*




Source: Tabulated by Ray, R. Ong, P. M. & Jimenez, S. (2014).

In both the U.S. and Los Angeles the gap between rents paid by the top and bottom quintiles has stayed roughly constant, but the gap in income between top and bottom quintile for renters has increased. Los Angeles's income gap peaked in 2000 well above the U.S., while the U.S. income gap continues to rise. In 2000, the incomes of Los Angeles renters in the top quintile were 12.6 times that of bottom quintile renters. Top quintile incomes fell to 12 times that of the bottom quintile in 2009-2011, only slightly larger than the comparable U.S. gap.

Rent burden in Los Angeles has increased to stunning proportions. By 2009-2011, more than three-quarters of the lowest-income Los Angeles renters were severely burdened (See Figure 5.5). Further, more than nine in ten were burdened, though not "severely." Middle income renters are being squeezed by similar trends. Throughout the U.S., steep rent increases and small income increases burdened more than a third of middle-income renters by 2009-2011. In Los Angeles, roughly half of middle income renters experienced rent burden. The pattern diverges for high-income renters. Despite the doubling of rent for top income earners in Los Angeles, a slightly smaller share of top income renters are burdened in Los Angeles compared to the U.S.

## Exploration of Potential Causes in Los Angeles

The increase in burden over time has largely been the result of increasing rents rather than decreasing incomes, a finding confirmed by Quigley and Raphael (2004). Incomes increased across all quintiles from 1970 to 2009-2011 in Los Angeles, but rents increased far faster. As a result, severe rent burdens have become a problem that affects not only the bottom quintile, which has been severely burdened for over 40 years, but increasingly the middle class as well.

The usual suspects of tight markets and improved housing quality do not explain the rising rents. The housing market was only slightly looser in Los Angeles in 1970 than in 2009-2011, according to the vacancy rates. The market had a 5.2% vacancy rate in 1970 and a 5.1% rate in 2009-2011. Using regression analysis we analyzed the impact of improvements in housing quality. Quigley and Raphael (2004) find some evidence for this hypothesis in national data, though we find that it does not explain all of the U.S. increase. Controlling for such quality improvements accounts for just under half of the percentage increase in rent over time in the U.S. In Los Angeles, on the other hand, the coefficient on the year variable, the expected percentage increase between 1970 and 2009-2011, actually increases if quality factors are added in, signaling that renters are getting less for more money over time.

The culprit appears to be two-fold. Los Angeles has a lower median household income than comparable cities such as New York or San Francisco but only a small difference in median rents. At the same time, affordable housing production and preservation also slowed with the decline in state and federal funding. According to the Los Angeles Department of City Planning Housing Needs Assessment, the city needs to produce roughly 5,300 units per year that are affordable to moderate-income households or below (Los Angeles Department of City Planning, 2013). Los Angeles has instead averaged roughly 1,100 units per year since 2006. Since 2000, 143,000 rental units that had been affordable to those making less than $44,000 a year became unaffordable.

## Conclusion

Los Angeles residents face a harsher version of the national rent burden crisis. The severity of the burden, particularly among the poorest, is a persistent problem, not a new one. Rent burdens have been severe for the poorest 20% since the 1970s, while growing more serious for the middle class.

The data show that there has not been enough done to address the housing burdens of the poorest. A solution must address both components of the housing burden, low incomes and high rents, by increasing renter earnings and the supply of affordable housing units. A recent Economic Roundtable report calculates that a $15 minimum wage would lead to $1.8 billion extra dollars spent on housing annually, largely by allowing households to buy rather than rent (Flaming & Burns, 2013). Simultaneously, affordable housing production and preservation needs to accelerate. Los Angeles's affordable housing trust fund is chronically underfunded, particular since the dissolution of the California Redevelopment Agency and with the reduction in federal funding (Reyes, 2014). Without sustained effort on both fronts to reshape the income distribution and provide housing for all, Los Angeles cannot solve its rent burden crisis.

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