

Impacts of the Widening Divide

WHY IS LA'S HOMEOWNERSHIP RATE SO LOW?

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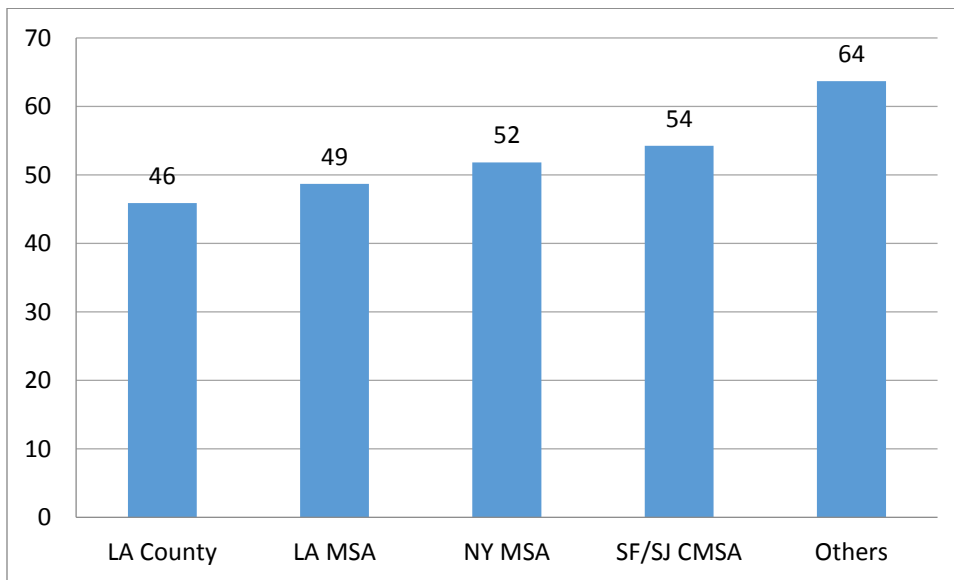
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Purpose

The Los Angeles metro area (coterminous with Los Angeles County) has the lowest homeownership rate among major metropolitan areas in the U.S.¹ (See Figure 1). The metro area is situated within the larger Los Angeles-Long Beach- Anaheim metropolitan statistical area (MSA), which also has the lowest homeownership rate among the largest MSAs in the U.S.² (Joint Center for Housing Studies, 2015). Relative to the nation, the rate of homeownership in the metro area is also lower (46% compared to 65% in 2013). Moreover, the Los Angeles MSA has the highest average housing burden and new owner costs (Urban Institute, 2012). Surprisingly, the region's ownership rate is even lower than the 54 % rate in the Bay Area (San Francisco and San Jose), where housing prices are much higher. For instance, in 2013, the median value of a home in San Jose was \$639,100, while the value in Los Angeles County was only \$410,500.

Home prices, however, are just one factor that influences the ability to purchase a home. This paper provides insight into the dynamics at play by estimating a multivariate model to explain variation in homeownership rates across metro areas. We further analyze how those factors play out within the Los Angeles MSA and Los Angeles County in particular. The results show that there is an affordability crisis in Los Angeles accentuated by income inequality.

Figure 1. Home Ownership Rates for 2011-2013 in Los Angeles, New York, and San Francisco/San Jose



Calculated by P.M. Ong from 2011-2013 ACS data.

¹ Until 1990, Los Angeles County was its own metropolitan area. Since then, it has been combined with Orange County to form the Los Angeles-Long Beach- Anaheim metropolitan statistical area (MSA). If Los Angeles County were still its own MSA, it would remain the second largest MSA in the country.

² Among all MSAs with over a million people in 2011-2013.

Model and Data

Economic theory suggests that a number of factors affect homeownership rates among regions. Among them are the relative affordability of homeownership, the degree of mobility within the population, the relative availability of the housing stock, a diseconomies of scale that lead to a higher cost of living (population size)³, and the level of uneven income distribution within the metro area. We expect that as unaffordability increases, home ownership decreases. Metro areas with large populations of households that arrived within the last few years should have lower homeownership rates, as recent migrants are more likely to rent. Areas with many vacant homes should have higher homeownership rates than those in tighter housing markets due to the easy availability of homes to own. On top of these factors, larger metropolitan areas should see relatively less homeownership because greater population size leads to higher transportation costs and less money available to spend on housing.

The model developed for this paper is a linear regression model where the dependent variable is the homeownership rate within the MSA. The model takes the following form:

$$f(\text{Ownership rate}) = (\text{affordability, income inequality, mobility, vacancy, and population})$$

Ownership is defined as the number of households who own a home divided by the total number of households. *Affordability* is the ratio of median home value within the MSA to median income within the MSA. The ratio increases as housing becomes less affordable. *Income Inequality* is measured by the Gini coefficient calculated by the Census for each metro area. It is the ratio of the area under the curve defined by the income distribution within the metro area to the area under a 45-degree line. The coefficient ranges from 0 to 1, where 0 is perfect equality and 1 is perfect inequality. *Mobility* is the share of households that moved into their current unit within the last four years. *Vacancy* is the number of units available to own that are currently vacant over the total number of units owned or available to own; and *population* is the square of the metro population.

The model uses data from the American Community Survey average annual figures for pooled three year sample. The data are from 2011-2013, though earlier years (2010-2012 and 2007-2009) were used to establish trends. The American Community Survey (ACS) is conducted every year. Unlike the Census enumeration, which aims to capture every person in the United States, the ACS is a sample of the American populace, comprising roughly 2.5% of the population each year. To decrease sampling error, multiple years are combined, and the observations are weighted based on year and the population as a whole. For this paper, we use metropolitan level statistics on median home values, median household income, ownership costs, household size, the number of rooms, and when the occupants moved into the house, as well as the Gini coefficient, vacancy rates, and population size. All dollar values are in 2013 dollars. The data are harmonized across the years covered by the model.

³ Urban economists have extended the basic economic concept of diseconomies of scale to larger urban areas. We assume that at some point, metropolitan areas create additional costs (mainly in terms of commute and resulting higher land prices) with additional population. This is offset by agglomeration economies of scale. The "equilibrium" level is when the marginal cost of the diseconomies of scale equals the marginal gain from agglomeration.

Results

Table 1 presents the results from three model runs.⁴ All runs exclude Charlotte, NC and Grand Rapids, MI because the boundaries of the metro areas changed during the study period. The first run includes 50 metro areas in the U.S. with populations over 1 million. The second run is the same as the first but also excludes Las Vegas, which is an outlier based on an analysis of the residuals.⁵ The third run tests the robustness of the findings by running the model on 98 metro areas with populations over 500,000. Las Vegas also is excluded from this third run. While the magnitude of some impacts fell when a larger sample of MSAs are considered, the results are robust with respect to the overall pattern.

Table 1. Factors Associated with Ownership Rate

	Metros with population over 1 million	Metros > 1 million pop, excluding Las Vegas	Metros > 500,000 pop, excluding Las Vegas
Affordability	-1.80***	-1.86***	-1.60***
Income Inequality	-62.50***	-65.56***	-39.90***
Mobility	-0.73***	-0.62***	-0.63***
Vacancy	1.41**	1.60**	1.62***
Population	-0.02***	-0.02***	-0.03***
Intercept	116.64***	115.13***	102.32***
Sample	50	49	98
Adj. R-squared	0.8375	0.8503	0.6881

Calculated by P.M. Ong from 2011-2013 ACS data; all runs exclude Charlotte, NC and Grand Rapids, MI.

As seen in Table 1, the model explains between 69% and 85% of the variation in homeownership among MSAs. The variables follow the expected *a priori* predictions given theory. Model three has a lower rate due to greater variation among the smaller metropolitan areas. Not surprisingly, the affordability measure is inversely related to homeownership; as the ratio of home value to incomes rises (homes become more expensive and/or incomes shrink), homeownership falls. As income inequality rises, homeownership also falls.

Regions with highest mobility rates have lower ownership rates probably due to higher transportation costs when moving between owned units relative to between rental units.⁶ MSAs with greater numbers of households that recently arrived have lower homeownership rates, even when accounting for general population. Areas with high vacancy rates (a greater relative supply of units) have higher ownership rates, *ceteris paribus*. Metro areas with a larger population size have lower homeownership rates, all things considered. The negative coefficient for population size is consistent with the hypothesis of the diseconomies of scale for higher cost of living.

⁴ We also ran many of other models using different specifications to test the robustness of the models presented in this paper. Although the estimated parameter can differ, the overall qualitative findings do not change.

⁵ The effects of the 2007 foreclosure crisis were greater in Las Vegas than in any other metropolitan area; therefore, we presume Las Vegas to be an outlier due to the experience of the area during the crisis (Economist, 2011).

⁶ We also examined if this result holds after controlling for net population growth. The results indicate that the model is capturing internal residential mobility.

Identifying Key Factors in Los Angeles

How does Los Angeles fare on each of the factors in the model? Table 2 shows the position of Los Angeles County and of the Los Angeles-Long Beach- Anaheim MSA along these metrics relative to all metro areas in the nation.

Two factors that do not contribute to Los Angeles’s low ownership rate are residential mobility and vacancy. Los Angeles is at the middle of the pack when it comes to mobility—28.6% of households in the county moved into their current home in the last four years, which is similar to the average of 28.2% for all metro areas. Moreover, the county has a less tight market (higher vacancy rate) than the MSA overall. In 2013, Los Angeles County had a 1.5% vacancy rate for owner-occupied dwellings, while the metro area had a 1.3% vacancy rate and the average for all areas was 1.98%. In fact, Los Angeles County’s lower vacancy has kept the ownership rate from worsening, *ceteris paribus*.

Table 2. MSA Rankings of Key Factors, 2011-2013

	LA-Long Beach- Anaheim MSA	LA County (if it were its own MSA)
Ownership Rate	52 nd (Lowest)	53 rd (Lowest)
Affordability (Value/Income)	1 st (Highest)	1 st (Highest)
Income Inequality (GINI)	4 th	3 rd
Mobility (Recently Moved)	26 th	26 th
Owner Vacancy Rate	46 th	43 rd
Population Size	2 nd	2 nd

Calculated by P.M. Ong from 2011-2013 ACS data; exclude Charlotte, NC and Grand Rapids, MI.

The population size of Los Angeles is a major factor contributing to low ownership rates. The region ranks second in population counts among all metropolitan areas. The diseconomies of scale are evident in the region’s traffic congestion. In 2011, Los Angeles was ranked number one in the Texas Transportation Institute’s Travel Time Index, meaning that Los Angeles had the worst peak-time traffic in the country (Lomax, Schrank, and Eisele, 2012).

The most important factor that makes Los Angeles the region with the lowest ownership rate is its housing unaffordability. Los Angeles is the least affordable region of all metro areas. The value-to-income ratio for the area is 7.57, and 7.52 for the Los Angeles-Long Beach-Anaheim metro area, compared with an average of 3.66 for all large metropolitan areas. Even the high cost regions of New York, San Francisco, and San Jose have lower ratios of 6.07, 7.46, and 7.07, respectively.

While the ACS reports home values regardless of time of purchase, other sources report a high affordability hurdle for those wishing to buy in Los Angeles. The Wells Fargo/National Association of Home Builders Housing Opportunity Index, for example, track the share of homes sold each quarter that would be affordable to those making the local area median income. Los Angeles consistently ranks at the bottom; moreover, the share has fallen from a high of 49.5% in the first quarter of 2012 to 16.2% in the last quarter of 2014.

The Role of Income

Income inequality is also a contributing factor. Los Angeles County would rank third in level of inequality if it were its own MSA. The county's 2011-2013 Gini coefficient is 0.502, compared with an average of 0.465 for all large metro areas. The high level of income inequality is not a recent phenomenon. Income disparity in the Los Angeles metropolitan area has surpassed that of the nation, driven by an expanding population at the bottom of the income distribution as well as by a small number of high-income in-migrants. The magnitude and nature of this phenomenon before the turn of the century is well documented for Los Angeles (Ong, et al., 1989; Bobo, et al., 2000), and more recent data from the U.S. Bureau of the Census show a continuation.⁷

Income also comes into play through the affordability index. Breaking the ratio into its component parts reveals that the problem is an enormous gap between incomes and home values. While Los Angeles's median home value of \$410,500 is fourth, the median income of the MSA (\$58,569) falls 17th, while the median income of the county (at \$54,244) is 27th. The comparable ratios for San Francisco and New York are \$572,900/\$76,767 and \$396,000/\$65,253, respectively.

The Impacts of an Unaffordable and Unequal Housing Market

Table 3 shows the impacts of Los Angeles's unaffordable and unequal housing market. Los Angeles homeowners are not paying for space, but location. The county has the second largest average household size, but the second fewest number of rooms per housing unit. Ownership costs are high, though less high than might be expected given the high home values. Los Angeles is the second most burdened city⁸, after Miami. Miami is also the second most unequal city, while New York is the most unequal, and third most burdened. The finding that high prices are not coming from quality (measured in this case by size) is also found in the Los Angeles rental market (Ray, Ong, Jimenez, 2014).

Table 3. Impacts of an Unaffordable and Unequal Housing Market

	LA CMSA	LA County (if it were its own MSA)
Owner HH Size	3 rd	2 nd
# Rooms	50 th	52 nd
Selected Monthly Ownership Costs	4 th	6 th
Burdened (Over 35%)	2 nd	2 nd

Calculated by P.M. Ong from 2011-2013 ACS data

⁷ From 1989 to 2007, the percent of Los Angeles families with an annual income of less than \$25,000 increased from 16.2% to 18.7% (inflation adjusted). The latter percentage for Los Angeles in 2007 (18.7%) is considerably higher than the 16.5% of American families that fell into this low-income category. During that same year, 12.6% families in Los Angeles had an annual income of \$150,000, compared to 10.2% for the nation.

⁸ Housing-cost burden is the amount of income a resident spends to pay for housing costs. Federal standards define a household as burdened if they more than 30 percent of their income goes towards housing costs. www.hud.gov/offices/cpd/affordablehousing/

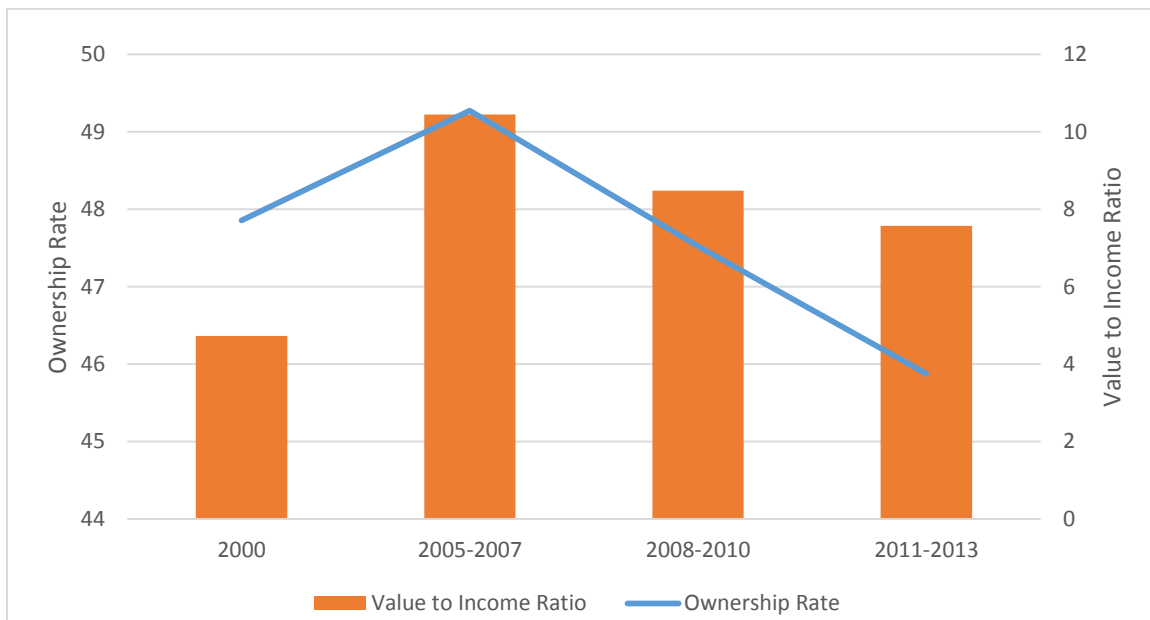
Secular vs. Cyclical Effects

One factor that may affect the above analysis is the lingering impact of the Great Recession and home foreclosure crisis. Between 2007 and 2013, approximately 143,000 households lost their homes. These families were disproportionately minority homeowners who had bought their homes within the preceding decade. The combination of the crisis and recession, which hit Los Angeles harder than most regions, also increased unemployment and reduced household incomes nearly 10 percent (Ong, Pech, and Pfeiffer, 2013).

To determine if Los Angeles's home ownership problem is a long-term secular problem, we examine data since 2000. Throughout this period, Los Angeles has the lowest homeownership rate among major metropolitan areas. Previous work shows that the low ownership rates in Los Angeles are a persistent problem stemming from before 2000 (Ray, Ong, and Jimenez, 2014).

In 2000, the Los Angeles County homeownership rate was 47.9%, while the average for all metro areas was 65.3% and New York City, the closest metro area, had an ownership rate of 53.0%. Los Angeles had the lowest homeownership rate and the highest median value relative to income in 2005-07 before the crisis, in 2008-10 at the beginning of the recovery, and in 2011-2013, the most recent data available. In 2000, Los Angeles had the lowest homeownership rate, while the San Francisco-Oakland-San Jose CMSA had a slightly higher ratio of home values to incomes. Figure 2, below, clearly shows the degree to which the 2008 housing crisis affected Los Angeles County. The homeownership rate and home values spiked in 2007 as loans were made to subprime borrowers. Since then, homeownership has fallen to below 2000 levels while housing prices have declined more slowly. Between 2005-2007 and 2011-2013, Los Angeles County lost nearly 82,000 homeowners.

Figure 2. Homeownership Rates and Affordability in Los Angeles County, 2000-2013



Calculated by P.M. Ong from 2011-2013 ACS data

Discussion

The problem of costly home ownership identified for Los Angeles is mirrored in its rental market (Ray, Ong, and Jimenez, 2014). Los Angeles has one of the highest rent levels relative to income (Urban Institute, 2012). This, however, is not a recent phenomenon. Since 1970, renters in Los Angeles, particularly those in the bottom income quintile, have been severely burdened, paying more than 30%, and increasingly 50% of their income in rent. The cause, as with homeownership, is a combination of stagnating income and rising housing costs. Incomes have been stagnant in Los Angeles since the California recession of the early 1990s, even more so for renters than for homeowners. Renting in Los Angeles has been burdensome since the 1970s. Further work will explore trends in the inequality in homeownership in Los Angeles from 1970 to the present.

Low home ownership and high rents are linked to the region's historical development. Los Angeles exemplifies "suburban urbanism," the land of single-family homes, a place to move if you want the suburban ideal of a ranch house with a lawn and garage. In fact, it has been a majority renter city since 1970. Despite the reality of a majority-renter city, the cultural norm of low-density single family homes on individual parcels persists, creating a political climate that has hindered those who would increase density and provide more multi-family options.

Regulatory hurdles also appear to perpetuate suburban urbanism. According to the Wharton Residential Land Use Regulatory Index, the average time for permit approval for a single-family house in Los Angeles is over 6 months, while the average time for permit approval for multi-family is 10 months (Gyourko, Saiz, and Summers, 2008). In San Jose, for comparison, the weighting is reversed, with single family homes taking 7 months and multifamily taking 3. New York weights them nearly equally, with single family homes taking 7 months and multi-family taking 8. In sum, Los Angeles takes by far the longest to approve permits for multi-family units, despite being slightly faster than other large cities at permitting single-family homes (Gyourko, Saiz, and Summers, 2008).

In a recent Los Angeles Times editorial, economist Christopher Thornberg linked Los Angeles's homeowners' not-in-my-backyard (NIMBY) tendencies to its current housing crisis (Thornberg, 2013). Those who have already achieved their dream of homeownership in Los Angeles have been politically active in ensuring the maintenance of their property values, to the detriment of the general welfare. Los Angeles saw the development of homeowners associations who rise to political power culminated in the passage of Proposition 13 in 1978. Homeowners have also pressured elected officials to "slow growth," opposing general and specific plans that contain density increases. As a result, many parcels are not built even to the approved density, while low densities are embedded in land-use regulations.

Constraints on the overall supply of housing have in turn put upward pressure on home prices and rents. Greater income inequality compounds the problem, both by decreasing the income of households at the bottom half and by developments chasing the more affluent. The market is distorted by the large buying power of a wealthy minority, and not enough supply made available at prices that are affordable to those with stagnant incomes. These are consistent with the housing dynamics in Los Angeles where median income has not kept pace with median home values, and lagging incomes overall are exacerbated by the high inequality within the region. These findings echo those for the rental market, but are in many ways more important because homeownership has traditionally been the largest asset and main source of wealth for households. Not only is inequality leading to reduced homeownership rates, but those discrepancies further exacerbate inequality.

References

Bobo, Lawrence, Melvin Oliver, James Johnson, and Abel Valenzuela, editors. (2000) *Prismatic Metropolis: Inequality in Los Angeles*. Russell Sage Foundation Publications.

Economist (2011) "On a losing streak: the effects of America's worst property crash go very wide" *Economist* March 24th

Gyourko, Joseph, Albert Saiz, and Anita Summers (2008) "A New Measure of the Local Regulatory Environment for Housing Markets: The Wharton Residential Land Use Regulatory Index" *Urban Studies* 45 pp.693-729

Joint Center for Housing Studies of Harvard University (2015) *The State of the Nation's Housing 2015* Cambridge, MA: Joint Center for Housing Studies of Harvard University

Lomax, Tim, David Schrank, and Bill Eisele (2012) *Annual Urban Mobility Report* Texas Transportation Institute <http://mobility.tamu.edu/ums/>

Ong, Paul, Eulalio Castellanos, Luz Echavarria, Ann Forsyth, Yvette Galindo, Mary Richardson, Sara Rigdon Bensinger, Paul Schimek and Holly Van Houten (1989) *The Widening Divide: Income Inequality and Poverty in Los Angeles*, The Research Group on the Los Angeles Economy, 255 pages, 1989.

Ong, Paul, Chhandara Pech, and Deidre Pfeiffer (2014) "The Foreclosure Crisis in Los Angeles" *California Policy Options* UCLA Luskin School of Public Affairs

Ray, Rosalie, Paul Ong, and Silvia Jimenez (2014) "Impacts of the Widening Divide: Los Angeles at the Forefront of the Rent Burden Crisis" UCLA Ziman Center for Real Estate Working Paper

Thornberg, Christopher (2013) "How NIMBYs hurt California" *Los Angeles Times* July 12

Urban Institute (2012) "Grading the Top 100 Metros: Housing Cost Burden" http://datatools.metrotrends.org/charts/metrodata/rankMap_files/BurdenMap_files/BurdenMap.cfm