REPORT | OCTOBER 2016

Los Angeles Housing and Vacancy Report

0. Executive Summary

The City of Los Angeles has faced housing affordability issues for many years. Airbnb's Los Angeles Housing and Vacancy report examines several issues behind the long-standing crisis, including, most importantly, the lack of housing development to keep pace with the city's population growth. The report also examines the long-standing vacation rental market in LA, which makes up a tiny percentage of the city's housing stock; and the even smaller percentage of the city's housing stock that participates in home sharing via Airbnb.

Key findings include:

1. The scale of Airbnb activity is too small to be a significant driver of housing prices.

- Airbnb's booked entire home listings represent a tiny fraction (0.82%) of LA's housing units. *Frequently* booked entire home listings (so-called full-time listings) represent 0.18% of LA's housing stock (2,562 units in 2015 out of 1.45 million housing units in Los Angeles).

2. LA's longstanding and growing vacation rental (VR) market, itself a tiny portion of the LA housing market, is 10 times larger than the scale of so-called full-time Airbnb listings.

- Since 2005 — the earliest available Census data — both the number and proportion of VR units have increased annually, well before Airbnb ever entered the Los Angeles market. In 2015, vacation rentals represented 0.79% of the overall housing market, and full-time Airbnb listings represented less than a tenth of the VR market.

3. Just as the Legislative Analyst's Office has reported, growing the Los Angeles housing stock by tens of thousands of housing units is the only real way to curb rising housing prices and stabilize vacancy rates.

- Both the California Legislative Analyst's Office (LAO) and the Mayor of Los Angeles call for tens of thousands of new housing units to close the growing gap between demand and supply, exacerbated by years of underbuilding.
- Since 2011, population growth has increasingly outpaced housing growth in LA. Correspondingly, vacancy rates have decreased and housing prices increased.

1. Introduction

In a report on the causes of the affordable housing crisis in the Golden State, the California Legislative Analyst's Office (LAO) made a simple, but profound conclusion:

> *"Building Less Housing Than People Demand Drives High Housing Costs."*[1]

And yet, for decades, Los Angeles has been doing exactly that. Between 1980 and 2010, Los Angeles County would have needed to add more than 50,000 housing units *per year* to keep pace with demand — but only built about 20,000 annually, resulting in a shortfall of 900,000 housing units over 30 years. That growing gap between supply and demand has been the primary driver of the surge in housing costs.

To his credit, the mayor of Los Angeles has recognized this fundamental mismatch, announcing a seven-year plan to build 100,000 new units.[2] As part of this effort, the City government is undertaking a comprehensive rezoning plan — dubbed "re:code LA" — to modernize its 70-year-old zoning code, increasing density along mass transit corridors and in other neighborhoods that can support growth.[3]

In addition to showing how increases in population without corresponding increases in the supply of housing corresponds to declining vacancy rates and increasing housing prices, this report demonstrates that any potential impact from Airbnb on the housing market is orders of magnitude smaller than the scale of the problem outlined by the LAO and the mayor.

The LAO report and the mayor's pledge call for tens of thousands of units to help close the demand gap. By comparison, the full-time Airbnb units number is, conservatively, 2,562 (2015).[4] Simply put: Airbnb does not have the scale to materially affect housing prices. Rather, basic macroeconomic dynamics of supply and demand continue to be the primary drivers of housing costs in Los Angeles.

2. Airbnb, Population, and Housing in Los Angeles

The three sections of the report are laid out as follows:

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[1] *"California's High Housing Costs: Causes and Consequences." Prepared by the Legislative Analyst's Office (LAO). March 17, 2015. Accessed October 10, 2016 at http://www.lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf.*

[2] *Mayor's seven-year plan: build 100,000 new housing units. Accessed October 10, 2016 at http://www.lamayor.org/mayor_s_seven_year_plan_build_100_000_new_housing_units.*

[3] *Plan re:code Public Forum 2016 presentation. Accessed October 10, 2016 at http://recode.la/sites/default/files/project_files/2016-03-04_recodeLA_Public_Forum_Presentation.pdf; Over half of Los Angeles is zoned for single-family development, which can stymie housing growth by preventing higher density development.*

[4] *"Full-time" listings are defined as entire home listings that hosted at least 180 nights during the year period; if the entire home listing has not been available on Airbnb.com for a year, it is considered "full-time" if it short-term hosted 50% of the days since the listing was activated. Both short-term stays (fewer than 30 consecutive nights) and long-term stays (longer than 30 consecutive nights) are included in this calculation.*

1. The first section examines the scale of Airbnb activity in Los Angeles relative to the housing market. We start by comparing all entire home listings that have hosted *at all* in the past year on Airbnb to the Los Angeles housing stock. Then, we compare a subset of Airbnb entire home listings, those that host full-time, to the housing stock. Because they are unlikely to act as primary residences for Angelenos, these full-time rentals are the most likely listings to affect the housing market.

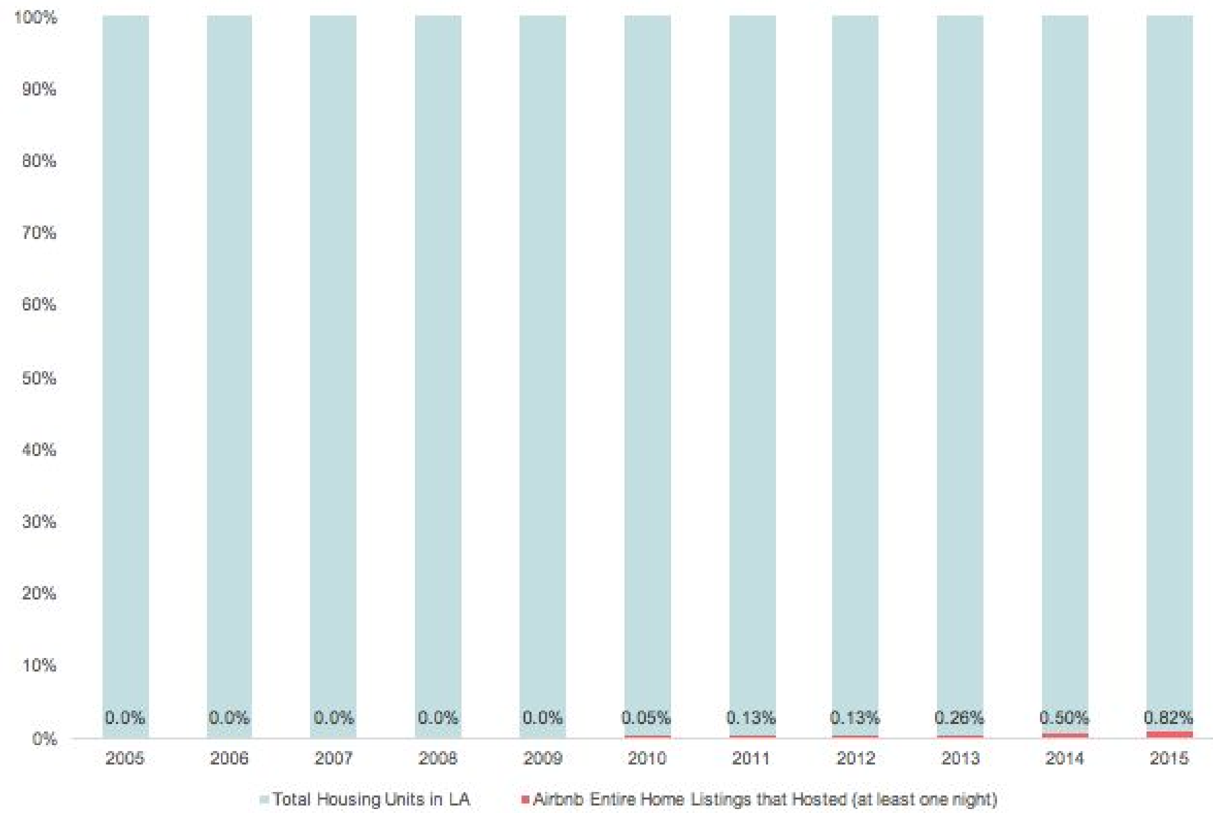
2. The second section uses U.S. Census data to compare the growth in full-time Airbnb listings to the growth of vacation rental units in Los Angeles.

3. The third section compares population growth with housing growth over the past decade in Los Angeles in an effort to discern patterns in vacancy rates and rent prices. Trends in vacancy rates and rent prices are studied during periods when population growth outpaces housing growth, and during periods when housing growth outpaces population growth.

2.a — Entire home listings that host each year represent a tiny fraction of the overall housing stock in Los Angeles.

Figure 1 compares the City of Los Angeles housing market of more than 1.45 million units to Airbnb entire home listings. An Airbnb entire home listing is a listing where the guest can rent the entire home from the host. The entire home listing type is the best Airbnb proxy for a housing unit, even though not all entire home listings are necessarily housing units. Airbnb hosts self-report listing type as entire home, and some of these listings are bedroom-bathroom suites, unpermitted accessory dwellings, renovated basements, or other configurations that would not qualify as a legally permitted housing unit. These types of spaces often lack a kitchen or other facilities and could not accommodate a long-term tenant.

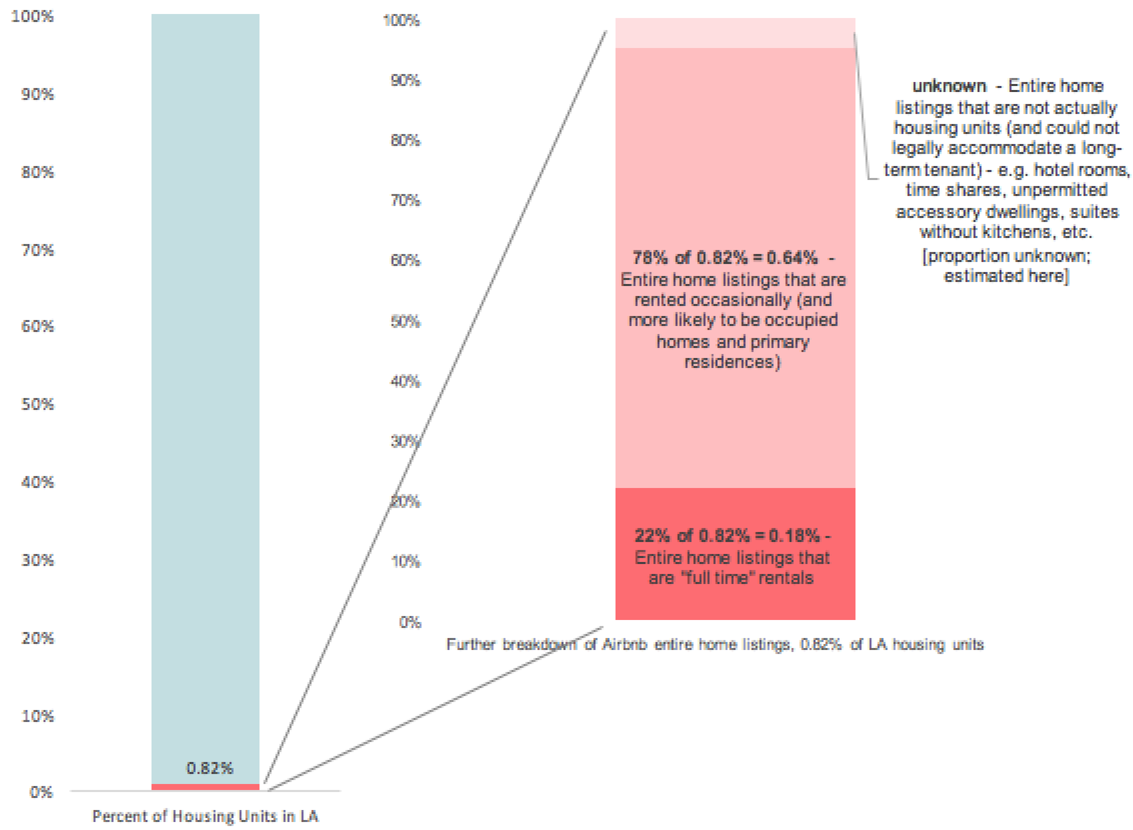
FIGURE 1 — Scale of Airbnb Entire Home Listings in Los Angeles Compared to Total Housing Stock



As shown in Figure 1, Airbnb entire home listings that have hosted at least one trip represent about 0.82% of the 1,451,722 housing units in Los Angeles (2015). In fact, the relevant percentage is likely even smaller, since that 0.82% includes some hotels, registered bed and breakfasts, and entire home listings that are not actual housing units.

Moreover, as illustrated in Figure 2, most of these listings are homes of ordinary Angelenos who rent occasionally throughout the year to supplement their income, offset their own travel costs, and/or defray their rent or mortgage.

FIGURE 2 — Further Breakdown of 0.82% of Housing that Participates in Airbnb



Notes: Full-time listings are defined as entire home listings that hosted at least 180 nights during the year period; if the entire home listing has not been available on Airbnb.com for a year, it is considered "full-time" if it hosted 50% of the days since the listing was activated. Both short-term stays (fewer than 30 consecutive nights) and long-term stays (longer than 30 consecutive nights) are included in this calculation.

Of the 0.82% of the housing stock in Los Angeles that participates in home sharing with Airbnb, 78% of entire home listings host guests part-time. This bulk of listings that host part-time are more likely to be occupied homes or primary residences — the type of home sharing that does not add or remove a housing unit from the housing stock.

The remaining 22% of listings host guests more than 50% of the year — either more than 180 nights per year, or 50% of the days since the listing was activated. Dubbed "full-time" listings, these listings are less likely to be occupied by primary residents. Importantly, some of these units may be pre-existing vacation rentals that now list on Airbnb; some may be a portion of a home, like a renovated basement, that would not otherwise be available to a long-term tenant; some may be second homes; and some may be units deliberately held off the long-term rental market for other owner-specific reasons (like flexibility, imminent sale, renovation planning, etc.).

All told, these 22% of listings — 2,562 in total in 2015 — represent just 0.18% of the LA housing stock (22% of 0.82%, or 2,562 listings of LA's 1,451,722 housing units). The bulk of these listings — 60% — are clustered in the Venice, Silver Lake, Downtown, and Hollywood-area neighborhoods.[5] (If these listings were available to long-term renters, many would likely be rented at price points above traditional affordability thresholds, given that the Venice, Silver Lake, and Hollywood districts, in particular, are two of the most expensive areas of Los Angeles.)

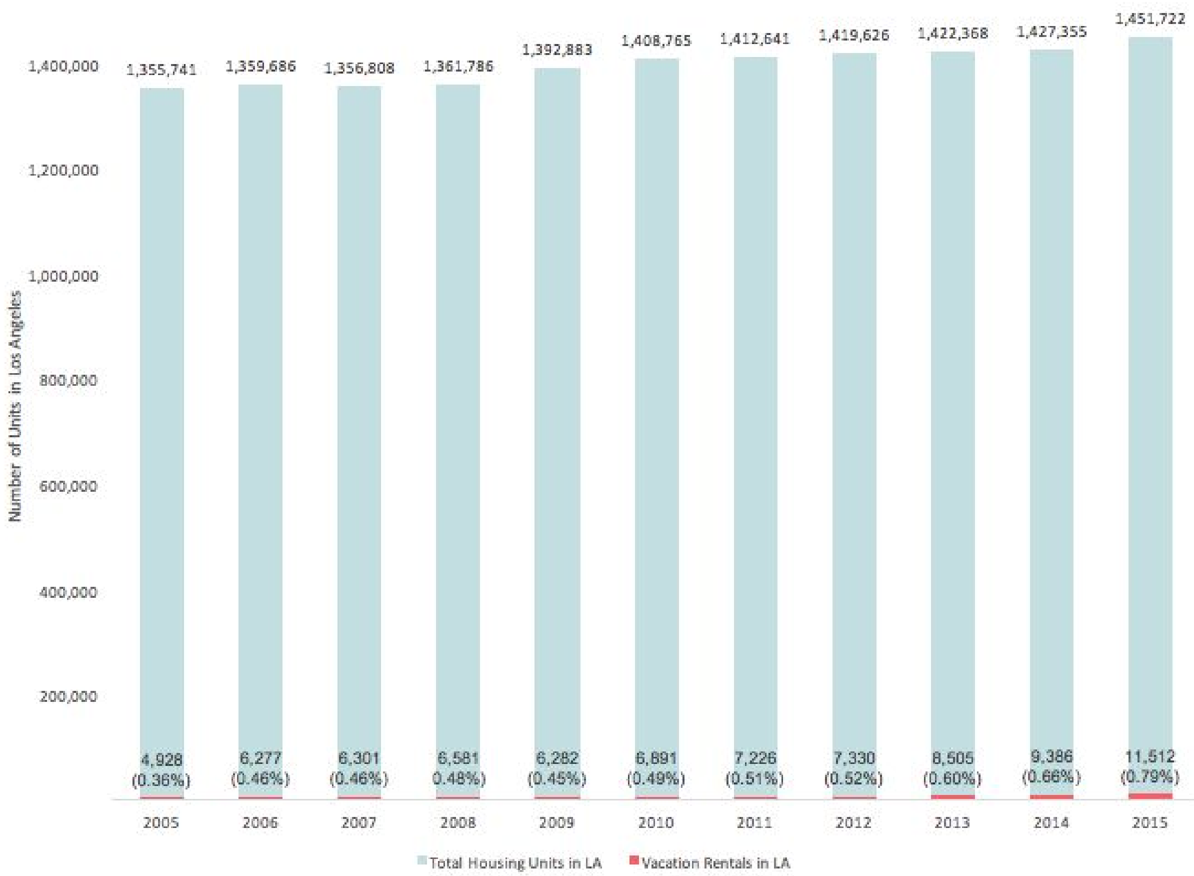
Given the size of Airbnb's community relative to the Los Angeles housing market — a 0.82% occasional participation rate, and a 0.18% "full-time" participation rate — Airbnb is not a meaningful driver of the major price effects and vacancy decreases in Los Angeles, let alone its primary cause.

2.b — Vacation rentals take up a much larger share of LA housing units than full-time Airbnb listings.

For the past decade, full-time dedicated vacation rentals have comprised a small portion of the LA housing stock: about 0.5% to 1% (Figure 3 and Table 1).

[5] *Venice is defined as the Venice Neighborhood Council (NC) area. Silver Lake is defined as SIlver Lake NC and the Greater Echo Park Elysian NC. Downtown is defined as the Downtown Los Angeles NC. The Hollywood area is defined as the Hollywood Hills West NC, the Central Hollywood NC, the Hollywood United NC, the Hollywood Studio District, and the Mid City West Community Council.*

FIGURE 3 — Vacation Rentals in the Los Angeles Housing Market: 2005 through 2015



Notes: All data are taken from American Community Survey (ACS) Tables B25004: Vacancy Status and DP04: Selected Housing Characteristics.

While vacation rentals remain a tiny segment — less than 1% — of the housing stock, they have grown in both the number and proportion over the past decade. Indeed, as shown below in Table 1, the growth of vacation rentals has outpaced the growth of full-time Airbnb listings. In fact, full-time Airbnb listings represent less than a quarter of vacation rental units.

TABLE 1 — Growth in Vacation Rental Units in Los Angeles versus Full-Time Airbnb Listings: 2005–2015

Year	Housing Units	Vacation Rental (VR) Units	Full-time Entire Home Airbnb Listings
	Total Annual Counts		
2015	1,451,722	11,512	2,562 (23% of VR)
2014	1,427,355	9,386	1,354 (14% of VR)
2013	1,422,368	8,505	641 (8% of VR)
2012	1,419,626	7,330	284 (4% of VR)
2011	1,412,641	7,226	78 (1% of VR)

2010	1,408,765	6,891	7 (0.1% of VR)
2009	1,392,883	6,282	-
2008	1,361,786	6,581	-
2007	1,356,808	6,301	-
2006	1,359,686	6,277	-
2005	1,355,741	4,928	-

While Census data does not include location information, full-time Airbnb listings are clustered in LA's more expensive areas like Hollywood and Venice. At least a third of the listings have two or more bedrooms. These full-time Airbnb listing, if rented to tenants, would likely be rented at price points above traditional affordability thresholds.

2.c — Since 2011, population growth has increasingly outpaced housing growth. When population growth outpaces housing growth, vacancy rates decrease and housing prices increase.

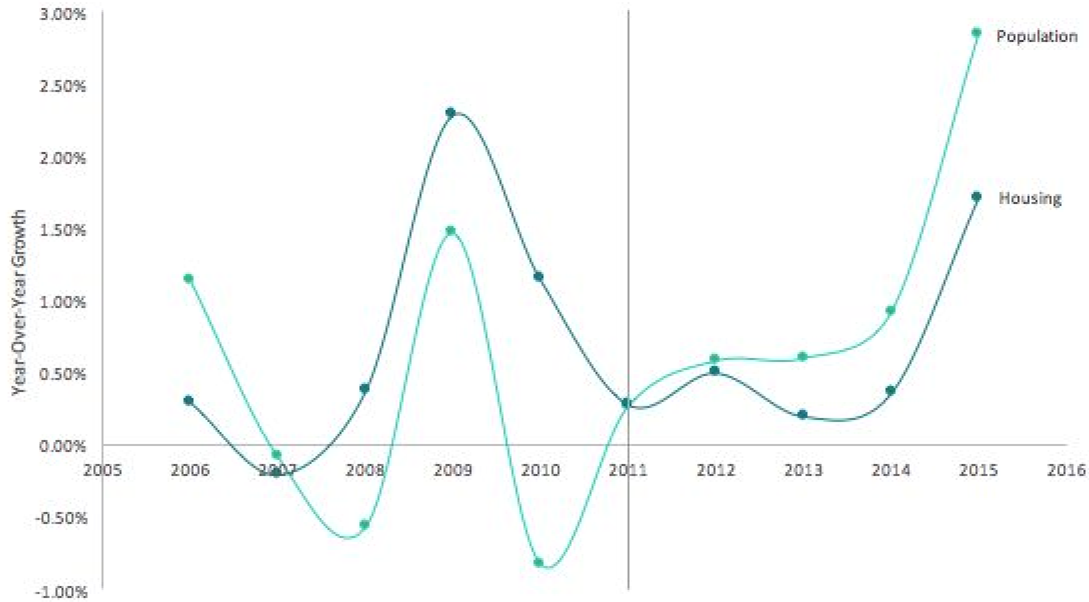
In 2008 and 2009, the housing market grew about 1% faster than population growth. In 2010, that trend accelerated, with housing growing 2% faster than population.

Since that time, however, the growth rates have flipped, with population growth now exceeding the growth of the housing market, placing additional pressure on rent prices across the city.

As Figure 5 shows, the growth rates of population and housing supply converged in 2011, rising 0.3% from 2010.[6] In more recent years, population growth has outpaced housing growth. Between 2011 and 2015, population has grown by an average of 1.2% annually, while housing has only grown by an average of 0.7%.

[6] *In 2011, LA's population grew by more than 10,000 people from 3.77 million in 2010 to 3.78 million. The city's housing stock added almost 3,900 housing units to increase supply from 1,408,765 units in 2010 to 1,412,641.*

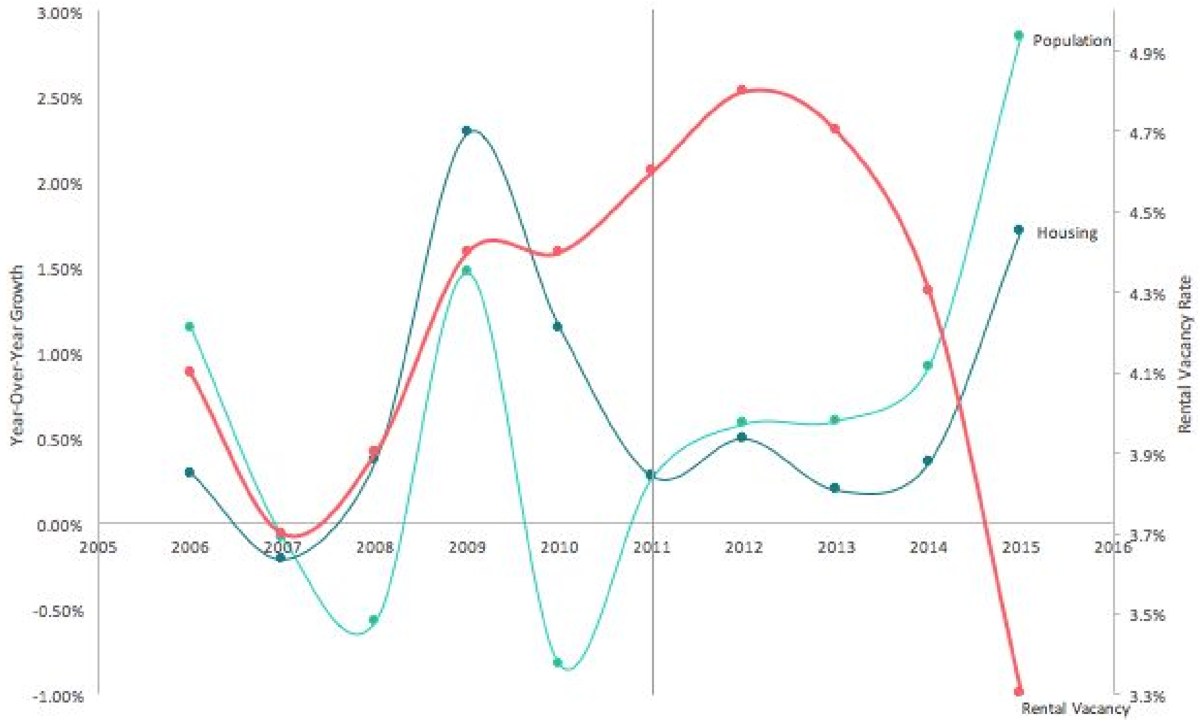
FIGURE 5 — Year-over-year (YOY) Growth Rates for Population and Housing: 2006 through 2015



Controlling for other factors, when housing is growing faster than population, we would expect that vacancy rates would increase, and rents would decrease, because housing is becoming more available. Conversely, when population is growing faster than housing, we would expect housing would become more scarce and expensive.

Therefore, we would expect that vacancy rates in LA would rise and prices fall between 2008 and 2011, and that vacancy rates would fall and housing prices would rise between 2012 and 2015. The following figures (Figure 6, Figure 7, and Figure 8) support this hypothesis.

FIGURE 6 — Correlation of Vacancy Rates with the Population Vis-A-Vis Housing Growth



As shown in Figure 6, from 2011 onward, the rental vacancy rate fell sharply as population growth exceeded housing growth.

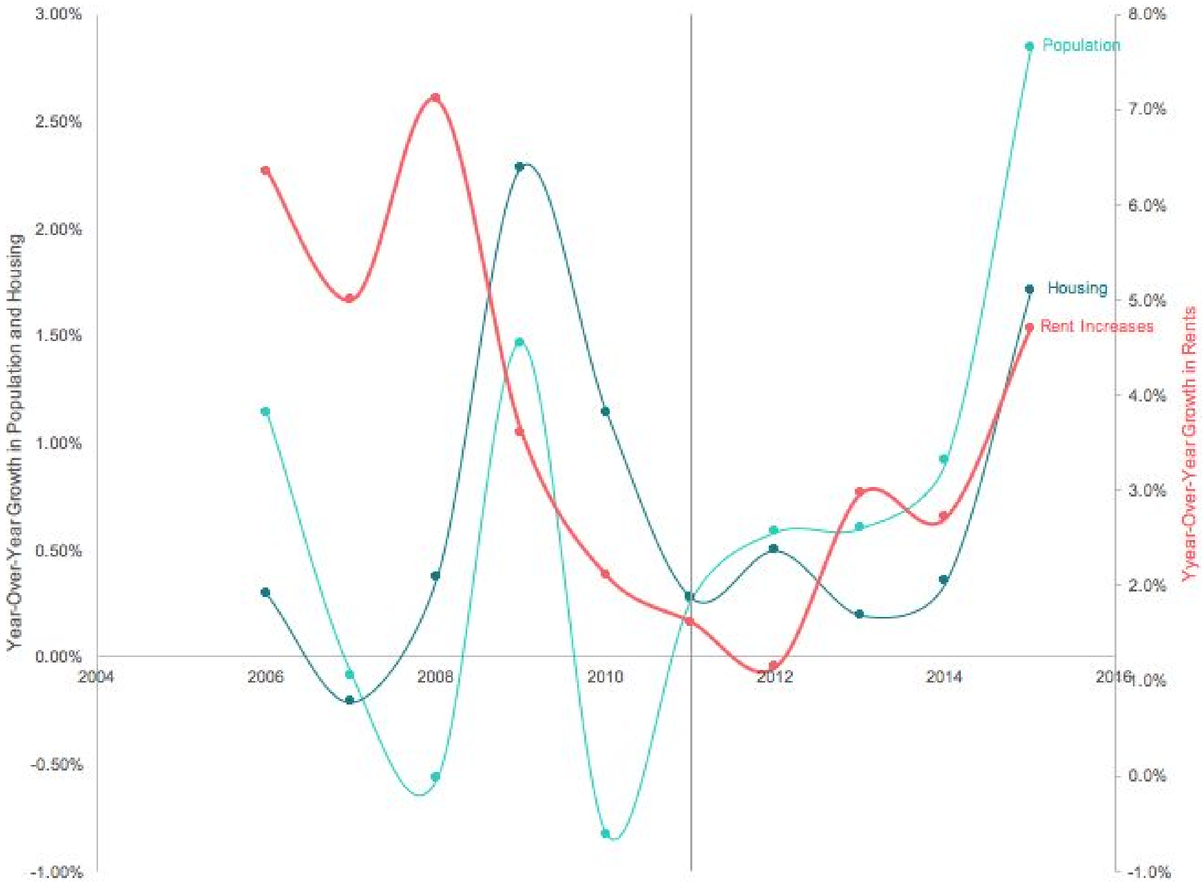
Figure 7 demonstrates this point even more clearly: between 2006 and 2015, vacancy rates fell when the population grew faster than the housing supply; while vacancy rates increased when the housing supply grew faster than the population. Note that there is a slight time lag, which likely represents the time it takes for the market to adjust to changing supply and demand dynamics.

FIGURE 7 — Vacancy Rates Relative to the Population-to-Housing Growth Ratio[7]

Like vacancy rates, rents respond in a lead-lag relationship to population and housing growth shifts. As shown in Figure 8, rents began increasing in 2012 and 2013, just a year after population started growing faster than housing in 2011 and 2012. The same pattern occurred during the 2007 through 2011 period, with rents decreasing in 2008 and 2009, a year after housing began to grow faster than population.

[7] *The above analysis relies on rental vacancy rates for demonstration. Homeowner vacancy rates show a similar pattern, although less dramatically for two reasons: (1) Homeowner vacancy rates are less sensitive on a short-term timescale than rental vacancy rates. Renters are much more price sensitive and much more mobile. Renters can move more easily than a homeowner. (2) Homeowner vacancy rates in Los Angeles vary on the order of a few tenths of a percentage point over the past decade, whereas rental vacancy rates vary up to a full percentage point.*

FIGURE 8 — Correlation of Rental Rate Increases with the Population Vis-A-Vis Housing Growth



It's worth noting that the scale of housing and population growth is approximately half that of rent increases. That is, housing and population growth rates are in the ranges of -1% to 3%; rent increases are in the range of 1% to 7%. Demand for housing — which affects rents — is likely even higher than the population growth suggests, because population growth only captures those who have been able to find and afford housing, and misses those who would have liked to live in Los Angeles but could not find or afford housing.

3. Conclusion

The analysis above draws two clear conclusions.

First, the scale of Airbnb activity is too small to be a significant driver of housing prices, with only 0.18% of the housing stock (2,562 units in 2015) being rented full-time, and up to 0.82% of the housing stock home sharing occasionally. Less than 0.18% of the Los Angeles housing market cannot be responsible for the vacancy rate decreases and price increases since 2011 (and before). Even the total vacation rental market, per Census reporting, is only 0.79% of the overall housing market and likely not a material driver of housing prices and vacancy rates. Asserting that the decades-long challenge of affordable housing is the result of a small percentage of full-time Airbnb rentals in the past five years — or even the few thousand vacation rental units — does a disservice to the broader problem.

In the end, home sharing isn't hurting the housing market in the City of Angels — it's helping thousands of middle-class Angelenos afford to stay in their homes and communities as the cost of living continues to rise.

Second, vacancy rates and housing prices are closely tied to the relationship between housing growth and population growth. As the Mayor of Los Angeles and the LAO report state, Los Angeles needs to build tens of thousands of new housing units in order to curb rising housing prices and stabilize vacancy rates. The LAO report calls for 50,000 new units annually across the County, while the mayor has pledged to build 100,000 new units over seven years in the City of Los Angeles.

As a result, Airbnb is supporting ballot measures in Los Angeles[8] and Portland, Oregon,[9] that promise to add a meaningful supply of affordable housing and will continue to collect and remit taxes in Los Angeles, Chicago, and elsewhere to support homelessness prevention and services.

4. Appendix: Notes on Methodology

This analysis focuses on housing units as the unit of potential discussion. Public data, like census counts, are provided at the housing unit level, and measures of housing provision, like vacancy rates, are calculated based on housing units rather than bedrooms. More generally, city governments and public debate tend to center on the housing units in their cities, rather than the bedrooms, and our analysis reflects this unit of discussion.

The Airbnb data presented include only entire home listings, which are the best Airbnb proxy for housing units, even though not all entire home listings are necessarily housing units that could (legally) accommodate a long-term tenant. Entire home listings represent 63% of listings (based on active listings as of October 1, 2016), with the other 37% consisting of private and shared rooms.

Airbnb bookings data used in the analysis includes both short-term stays (rentals for fewer than 30 consecutive nights) and long-term stays (rentals for 30 consecutive nights or longer).

[8] http://www.latimes.com/local/lanow/la-me-ln-airbnb-homeless-housing-20161018-snap-story.html.
[9] http://www.wweek.com/news/2016/09/10/airbnb-donates-5000-to-portlands-affordable-housing-bond-campaign/.

All data related to population, housing counts and vacancy rates are taken from American Community Survey (ACS) data, specifically Table B25004: Vacancy Status; Table S0101: Age and Sex; and Table DP04: Selected Housing Characteristics.