

Renting In America's Largest Cities

NYU Furman Center/Capital One National Affordable Rental Housing Landscape

May 28, 2015



Renting In America's Largest Cities

NYU Furman Center/Capital One National Affordable Rental Housing Landscape

Authors

Sean Capperis Ingrid Gould Ellen Brian Karfunkel

Research Assistants

Alice Anigacz Ali Levine

Special Thanks To

Shannon Moriarty

Table of Contents

Executive Summary ————————————————————————————————————	4
Part I: National Summary	5
Part 2: City Summaries	22
Methodological Notes	44



Executive Summary

This study includes the central cities of the 11 largest metropolitan areas in the U.S. (by population) from 2006 to 2013: Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, Miami, New York City, Philadelphia, San Francisco, and Washington, DC.

The number and share of renters rose in all 11 cities.

The rental housing stock grew in all 11 cities from 2006 to 2013, while owner-occupied stock shrank in all but two cities.

In all 11 cities except Atlanta, the growth in supply of rental housing was not enough to keep up with rising renter population.

Mismatches in supply and demand led to decreasing rental vacancy rates in all but two of the 11 cities in the study's sample.

The median rent grew faster than inflation in almost all of the 11 cities in this study. In five cities, the median rent also grew substantially faster than the median renter income. In three cities, rents and incomes grew at about the same pace. In the remaining three cities, incomes grew substantially faster than rents.

In 2013, more than three out of every five low-income renters were severely rent burdened in all 11 cities. In most of the 11 cities, over a quarter of moderate-income renters were severely rent burdened in 2013 as well.

From 2006 to 2013, the percentage of low-income renters facing severe rent burdens increased in all 11 cities in this study's sample, while the percentage of moderate-income renters facing severe rent burdens increased in six of those cities.

Even in the cities that had higher vacancy rates, low-income renters could afford only a tiny fraction of units available for rent within the last five years.

The typical renter could afford less than a third of recently available rental units in many of the central cities of the 11 largest U.S. metro areas.

Many lower- and middle-income renters living in this study's sample of 11 cities could be stuck in their current units; in 2013, units occupied by long-term tenants were typically more affordable than units that had been on the rental market in the previous five years.

In six of the cities in this study, the median rent for recently available units in 2013 was over 20 percent higher than the median rent for other units in that year, indicating that many renters would likely face significant rent hikes if they had to move.

Part I: National Summary

Since 2006, the number of renters in America's largest cities has swelled. Renters make up a growing share of the population in these cities, as well. Are cities keeping up with the growing demand for rental housing? Are these new renters able to find affordable, available units?

This study examined the central cities of the 11 largest U.S. metropolitan areas by population between 2006 and 2013. While renters constituted a majority of the population of just five of these cities in 2006, by 2013 that number had increased to nine cities. The population of renters increased by double digit percentages in all but two of the 11 cities, and in five cities, renter population increased by more than 20 percent. In every city except Atlanta, however, the increase in rental housing units did not match the increasing number of rental households. Rental vacancy rates fell in all but two of the 11 cities, in some cases dropping by more than half. More people were renting, but it got harder to find units for rent.

In nearly all 11 cities, rents rose faster than inflation. In three cities, the median rent rose by more than 10 percent between 2006 and 2013. The median renter's income also rose in most places, but, with a few exceptions, incomes did not keep up with rising housing costs.

Low-income renters, in all 11 cities, were overwhelmingly rent burdened and became only more so during this period. The trends for moderate-income renters, however, varied more across cities; in five cities, moderate-income renters became substantially more likely to be severely

While renters constituted a majority of the population of just five of these cities in 2006, by 2013 that number had increased to nine cities.

rent burdened, while in three cities such renters became less likely to be severely rent burdened. In the remaining three cities, moderate-income renters did not experience sizable changes in severe rent burden.

The landscape of affordable rental housing looks bleaker when considering units that were recently available for rent. Such units were often less likely to be affordable to low- and moderate-income renters and often came with rents that were notably higher than in units with long-term tenants.

Tightening rental markets, with lower vacancy rates and higher rents, meant it became harder between 2006 and 2013 for Americans in the 11 largest cities to find rental housing they could afford.

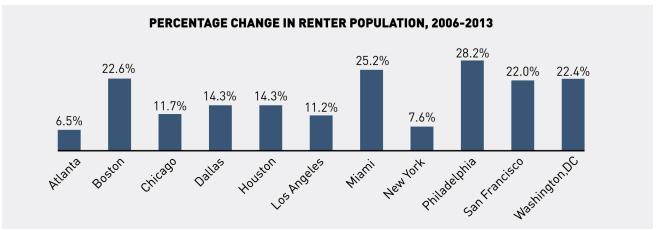
Cities Had More Renters, but Supply of Rental Housing Did Not Always Keep Up

In all 11 cities in this study, more and more people are renting: Between 2006 and 2013, the population living in rental units went up, ranging from a 6.5 percent increase in Atlanta to a 28.2 percent increase in Philadelphia, as indicated in Figure 1. Additionally, as Figure 2 illustrates, in all 11 cities, the share of residents who lived in rental households increased during this period. While, in 2006, renters



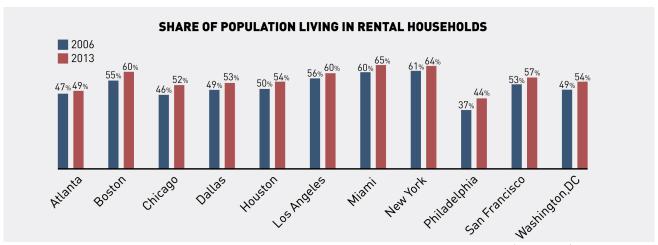
constituted a majority of the population in only five of the cities in this study, by 2013 the number of majority-renter cities had increased to nine; Atlanta and Philadelphia were the two exceptions, with a majority of residents living in owner-occupied housing units. In 2013, Miami had the highest share of renters, at 65 percent, but Boston, Los Angeles, and New York City all had proportions of 60 percent or more in that year.

Figure 1. Percentage Change in Renter Population



Sources: American Community Survey (Summary File), NYU Furman Center

Figure 2. Share of Population Living in Rental Households



Sources: American Community Survey (Summary File), NYU Furman Center

In addition to a growing renter population, all 11 cities experienced an expansion of the rental housing stock (including occupied and vacant units) between 2006 and 2013. Figure 3 shows the change in the housing stock by tenure type. Miami saw the greatest rate of increase in the number of rental units, with 22 percent growth over this period. Washington, DC was close behind with an increase of 19 percent. New York City, with just over five percent growth during those years, experienced the lowest rate of increase (although, in absolute terms, New York City added more than 100,000 rental units during our study period, far more than any other city we examined).

¹ Rental units are units that are renter-occupied, vacant but rented, or vacant and for rent. Owner units are owner-occupied, vacant but sold, or vacant and for sale. The total unit counts include rental units, owner units, seasonally vacant units, and other vacant units not classified as for rent or sale.

PERCENTAGE CHANGE IN HOUSING STOCK BY TENURE TYPE, 2006-2013 Rental Units Owner Units All Units 22% 16% 15% 12% 10% 8% 0% 0% -4% -5% -6% -5% -5% -8% -9% -13% Chicago Houston Dallas

Figure 3. Percentage Change in Housing Stock by Tenure Type

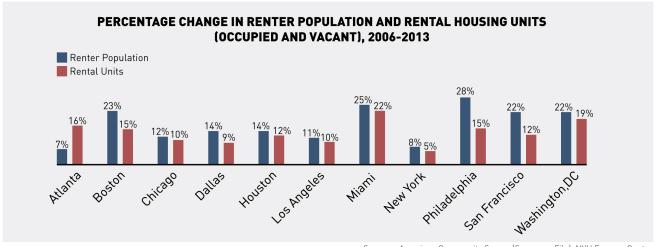
Sources: American Community Survey (Summary File), NYU Furman Center

Every city in this study saw the rental stock grow faster during the period of study than the housing stock overall. In all but two cities, the growth in rental stock was accompanied by a shrinking ownership stock, suggesting that at least some units that had been owner-occupied in 2006 had been converted to rental units by 2013. Some of these conversions might have been foreclosed homes that were purchased by investors in order to rent. Others may have been properties that owners decided to rent when they could not find buyers willing to pay them an acceptable price, in part due to the credit crunch brought about by the Great Recession. Indeed, the burgeoning rental stock was almost completely offset by reductions in ownership stock in Chicago and Philadelphia. Meanwhile, the owner-occupied stock did not decline in Houston or San Francisco, yet both cities experienced double-digit rates of growth in the rental stock, indicating that the lion's share of the rental units added in those cities since 2006 came from new construction or conversion from non-housing uses.

Yet, even as the rental housing stock expanded in every city, the increase in rental units did not match the increase in the population of renters, with the exception of Atlanta. Figure 4 contrasts the rate of growth in the renter population with the rate of growth in rental units. For the most part, though the renter population grew more quickly than the rental stock, the gap was relatively small. In Boston, Philadelphia, and San Francisco, however, the gap was quite large indeed; in Philadelphia, the population of renters grew nearly twice as much (28%) as the number of rental units (15%).



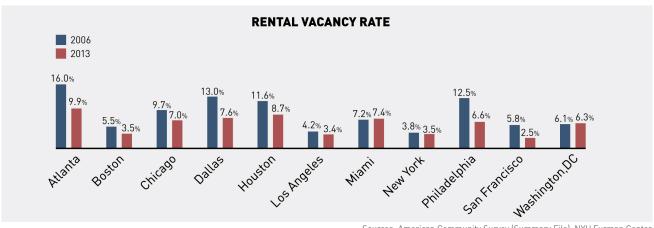
Figure 4. Percentage Change in Renter Population and Rental Housing Units



Sources: American Community Survey (Summary File), NYU Furman Center

In general, when there are more new renters than there are new rental units, some combination of two dynamics must occur: either some portion of the new renters move into previously existing units that had been vacant, reducing the rental vacancy rate (the percentage of conventional rental units that are vacant and for rent) and making it more difficult to find an available apartment, or renters form larger households, with the costs of housing being split across more residents. (Two prototypical examples would be an adult deciding to move back in with her parents because it is too difficult or expensive to find a place of her own, or individuals moving in with roommates instead of looking for a studio or one-bedroom unit.) Figure 5 shows that, in all but two of the cities studied, vacant units for rent absorbed some of the booming demand for rental housing, as rental vacancy rates went down. Cities that, in 2006, had relatively high vacancy rates—like Atlanta, Dallas, Philadelphia, and Houston—tended to see larger reductions in the vacancy rate by 2013. New York City, which had the lowest vacancy rate in 2006, saw only a modest decrease by 2013. Yet Boston and San Francisco, which already had low rates in 2006, still experienced rather large reductions, such that in 2013 Boston's rate matched New York City's and San Francisco had taken the title of tightest rental market among America's biggest cities.

Figure 5. Rental Vacancy Rate



Sources: American Community Survey (Summary File), NYU Furman Center

In just over half the cities examined in this study, the average size of renter households, shown in Figure 6, increased between 2006 and 2013, which would tend to mitigate reductions in vacancy rate. Had

Yet in many cities, the increasing rental supply was insufficient to meet increasing demand, pushing vacancy rates down.

San Franciscan renters, for example, not formed households that were 5.5 percent bigger in 2013 than in 2006 (a larger increase than in any other city we studied), the dramatic reduction in vacancy rate could have been even larger, at least up to a point: eventually some renters, desperate to find a unit, bid up rents, pushing other renters, who cannot afford to bid high enough, to move outside city limits. In Atlanta, however, a very different dynamic took hold; the only one of the 11 cities to experience greater growth in rental supply than in rental population, Atlanta nonetheless had a much lower vacancy rate in 2013 than in 2006, in large part due to a striking reduction in renter household size. As many more units entered the Atlanta rental market, renters split off into smaller households, some of which occupied formerly vacant units.

PERCENTAGE CHANGE IN AVERAGE HOUSEHOLD SIZE,
BY TENURE TYPE, 2006-2013

Owner Households
Renter Households

1.5%

0.4.4.4%

1.6%

1.6%

1.6%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.8%

1.

Figure 6. Percentage Change in Average Household Size, by Tenure Type

Sources: American Community Survey (Summary File), NYU Furman Center

This analysis shows that more and more people are renting in America's largest cities. As the number of renters increased, developers built new rental units and owners started leasing out units that were previously meant to be owner-occupied (often because they could not find buyers with access to credit), or converted space not used for housing into new rental units. Yet in many cities, the increasing rental supply was insufficient to meet increasing demand, pushing vacancy rates down. As vacant rental units become scarcer, renters have a harder time finding an affordable, available unit. But, besides making apartment searches more unpleasant and stressful, having more people trying to rent fewer available units often has another result: higher rents.



Rents Generally Rose, But Incomes Did Not Always Follow Suit

The inflation-adjusted median gross rent (which includes rent and utility costs) rose in all but two of the cities in this study between 2006 and 2013.² Figure 7 shows that five of the 11 cities had median rents over \$1,000. The five most expensive rental markets were all in the Northeast or California, with median rents ranging from \$1,182 in Los Angeles to \$1,491 in San Francisco. The least expensive markets tended to be in the South, with rents ranging from about \$840 in Dallas and Houston to \$947 in Miami. Chicago, the only Midwestern city in our sample, was also relatively inexpensive, while Philadelphia was an outlier in the Northeast, with a median gross rent of \$913 in 2013. There is a notable divide between the five expensive cities (with median rents above \$1,180) and the remaining, less-expensive cities (with median rents below \$970): though Los Angeles and Miami have median gross rents that are ranked fifth highest and sixth highest, respectively, among the 11 cities, there is a gap of more than \$200 between them. The high-cost cities in 2006 also tended to experience greater increases in median rents, which may suggest that, as the high-cost cities become more and more expensive, the gap between these two groups may widen.

Figure 7. Real Median Gross Rent

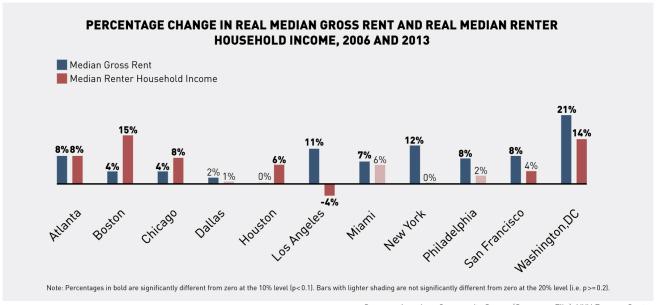


Sources: American Community Survey (Summary File), NYU Furman Center

While the median rent rose in almost all the cities in this study, the size of the increase varied widely across cities. Figure 8 shows the percentage change in inflation-adjusted median gross rent from 2006 to 2013. The median rent in Washington, DC jumped a striking 21 percent over that period, a substantially greater increase than New York City, which had the second-highest rate of increase at 12 percent. Boston, which had the second-highest median rent in 2006 at \$1,216, experienced a comparatively modest increase of only four percent by 2013, similar to Chicago (which was notably cheaper than Boston in 2006). Rents did not increase significantly in the Texas cities in this study, Dallas and Houston.

² Although estimates suggest that both Houston and Dallas saw small increases in real median gross rent between 2006 and 2013, those increases were not significantly greater than zero (p-value for Dallas was 0.12, and for Houston it was 0.37).

Figure 8. Percentage Change in Real Median Gross Rent and Real Median Renter Houeshold Income



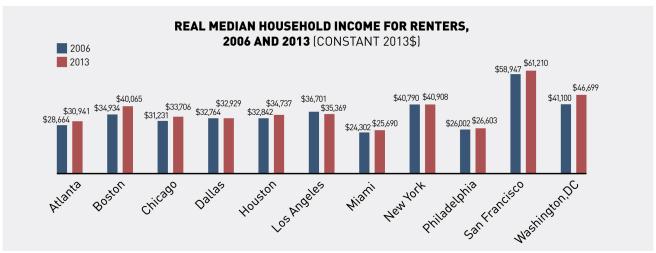
Sources: American Community Survey (Summary File), NYU Furman Center

There was greater variance across cities in the median income of renters, shown in Figure 9, than in the median rent. With the typical renter earning over \$60,000 in 2013—more than 27 percent more than in Washington, DC, the next-highest-earning city—San Francisco is a clear outlier. In addition to San Francisco and Washington, DC, Boston and New York City also had median renter incomes above \$40,000 in 2013. Atlanta, Miami, and Philadelphia had median renter incomes below \$32,800, the median income for renters in the U.S. as a whole for that year. The median renter in Miami had an income of just \$25,690 in 2013, the lowest median renter income among the 11 cities and less than half the value for San Francisco.





Figure 9. Real Median Household for Renters



Sources: American Community Survey (Summary File), NYU Furman Center

While the median rent rose between 2006 and 2013 in almost all of the cities in this study, the changes in median renter income were less consistent. Figure 8 shows that the median income of renters increased significantly in four cities: Boston (15%, the greatest increase among the cities we studied), Washington, DC (14%), Chicago (8%), and Houston (6%). To put that in perspective, Boston's 15 percent increase over seven years translates to an average annual raise of over \$700 (in constant 2013 dollars) for the median renter household. In Los Angeles, the median renter income actually decreased significantly, by nearly four percent, or about half a percent a year. That means that, on average and in inflation-adjusted terms, the median renter household in Los Angeles received a pay cut of nearly \$200 every year between 2006 and 2013. Atlanta, Miami, and San Francisco appear to have experienced modest increases in median renter income, but the data is not conclusive. In the remaining cities, Dallas, New York City, and Philadelphia, the change in median renter income between 2006 and 2013 was minimal and not significantly different from zero.

³ Using the margins of error supplied by the Census Bureau, we tested the hypothesis that the change in median renter income was greater than zero for each city. The p-value was 0.14 for Atlanta, 0.18 for San Francisco, and 0.28 for Miami.

When comparing the changing rents and incomes in the 11 cities, three groups of cities emerge. In the first group, consisting of five of the 11 cities, rents increased while incomes lagged behind. Los Angeles, with growing rents but declining median renter income, and New York City, where rents surged but median renter income remained stagnant, are the prime examples, but median rents increased more than median renter incomes in Philadelphia and San Francisco as well. And though Washington, DC had the second-highest increase in median renter income among the cities in this study, the median rent rose even more, placing it also in the category of cities where incomes are not keeping up with rents. In the second group of cities, the median renter income and median rent changed at similar rates. Atlanta, Dallas, and Miami all experienced median income gains that approached increases in median rents. In the last group, which includes Boston, Chicago, and Houston, the median renter experienced a greater growth in income than in rent. In Boston, for example, the median renter income grew nearly four times as much as rents.

Most Low-Income Renters Are Severely Rent Burdened; In Some Cities, Many Moderate-Income Renters Struggle As Well

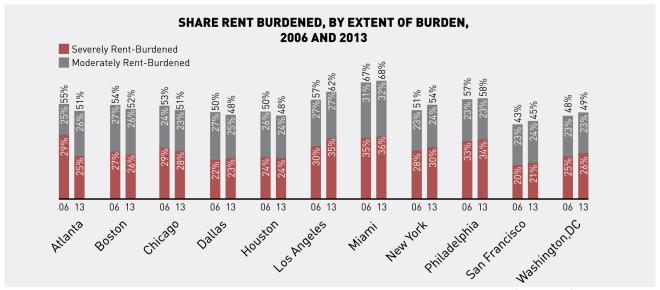
In all of the cities in this study, a large share of renters were rent burdened, facing rent and utility costs equal to at least 30 percent of their income—the widely used standard for the maximum amount of income that should go toward rent and utility costs for an affordable unit. Figure 10 shows the share of renters who were rent burdened, and breaks that share into those who were severely rent burdened, with rents and utility costs equal to half of their income or more, and the remainder, who were moderately rent burdened. In seven of the 11 cities, the majority of renters lived in

unaffordable units. Renters in Miami were most likely to be rent burdened, as more than two-thirds of Miami renters did not earn enough to reasonably afford their units. But even in San Francisco, the least rent-burdened city among those in this study (due in part to the very high average income), over 40 percent of renters were rent burdened. In all 11 cities, living with unaffordable rents is not an anomaly, and in many it is even the norm.

In seven of the 11 cities, the majority of renters lived in unaffordable units.



Figure 10. Share Rent Burdened, by Extent of Burden



Sources: American Community Survey (Summary File), NYU Furman Center

Indeed, even severe rent burden is not terribly unusual in any of the cities in this study; in 2013, more than a fifth of renters faced rent and utility costs equal to at least half of their income in all 11 cities. Miami, which had the highest share of rent burden, also had the highest share of severe rent burden (over 36% in 2013), while San Francisco, the least rent-burdened city, had the lowest (just under 21% in 2013). In eight cities, for more than a quarter of renters, the costs of housing constituted half or more of their income in 2013.

While rents increased in almost all the cities in this study, the differing trends in renter income across those cities meant that trends in the rates of rent burden also differed. Between 2006 and 2013, the share of residents who were

In 2013, more than a fifth of renters had rent and utility costs equal to at least half of their income in all 11 citites.

rent burdened decreased in five of the cities in this study (Atlanta, Boston, Chicago, Dallas, and Houston) and increased in the remaining cities (Los Angeles, Miami, New York City, Philadelphia, San Francisco, and Washington, DC). Renters in Atlanta saw the steepest decline, with the share burdened dropping from 55 percent to 51 percent, while renters in Los Angeles experienced the greatest increase in rates of rent burden, going from almost 57 percent in 2006 to over 61 percent in 2013. As would be expected, cities where the median renter household income grew faster than median rent tended to see decreasing rates of rent burden, while cities where rents outpaced incomes tended to see increasing rates of rent burden. Changes in the proportion facing severe rent burden generally tracked changes in rent burden overall.

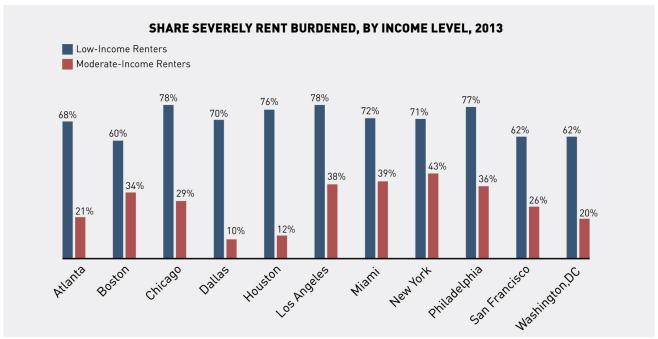
Rent burdens were particularly acute for low-income households, who earned no more than the 25th percentile household income of renters in their metropolitan area. Every city in this study saw its share of low-income renters who were severely rent burdened increase between 2006 and 2013, as shown in Figure 11. This increase occurred even as rates of severe rent burden were already very high among this population. Figure 12 shows the share of low- and moderate-income renters who were severely burdened in 2013. The share of low-income renters who were severely burdened was lowest in Boston, at 60 percent, and highest in Chicago and Los Angeles, where 78 percent were severely burdened. A sizable majority of low-income renters were severely rent burdened in every city in this study, and at least three-quarters of low-income renters were severely rent burdened in four of our 11 cities.

Figure 11. Change in Share Severely Rent burdened, by Income Level

Sources: American Community Survey (Summary File), NYU Furman Center



Figure 12. Share Severely Rent Burdened, by Income Level



Sources: American Community Survey (Public Use Microdata Sample), NYU Furman Center

However, the story for moderate-income renters, who earned more than the 25th percentile household income of metropolitan area renters but no more than the median, is far less consistent across cities. In 2013, Dallas had the lowest share of moderate-income renters who were severely rent burdened: just 10 percent. On the other end of the spectrum, 43 percent of moderate-income renters were severely burdened in New York City. In four other cities—Boston, Los Angeles, Miami, and Philadelphia—over a third of moderate-income renters were severely rent burdened in that year. Moderate-income renters in Dallas and Houston were less than one-sixth as likely to live in extremely unaffordable units as their low-income neighbors. In New York City, Miami, Boston, and Los Angeles, however, moderate-income renters were only about half as likely as their low-income peers to be severely rent burdened. Thus, while having a low income is strongly associated with severe rent burden in all 11 cities, the experiences of moderate-income renters vary widely.

In many cities, high rates of severe rent burden are relatively new for moderate-income renters. Figure 11 illustrates that rates increased by at least 10 percentage points in Los Angeles, Miami, and New York City, and by eight and nine percentage points in Philadelphia and Washington, DC, respectively. Such large increases indicate that many middle class renters in those cities are newly struggling to afford the costs of housing. For some, this may be at least in part a result of the Great Recession, as unemployment and reduced wages can quickly render a formerly affordable home unaffordable. But the cities where moderate-income rent burdens rose the fastest also tended to be those where growth in the median rent outpaced growth in the median renter's income, indicating that structural changes in the local economies are chipping away at affordability, independent of the vagaries of the business cycle. Furthermore, while some low-income renters may have housing choice vouchers or other subsidies such that they may not actually pay the full contract rent listed on their lease, moderate-income renters do not have any such assistance, as their incomes are too high to qualify for these safety net programs.

While moderate-income renters became more rent burdened in some cities between 2006 and 2013, such renters became less rent burdened in other cities, notably Boston, Dallas, and Houston, during that same period. In 2006, 40 percent of moderate-income Boston renters were severely rent burdened, the highest share among the cities we studied and significantly higher than in New York City, which had the second-highest share (33%). Yet, by 2013, that share in Boston had dropped about seven percentage points, to just under 34 percent—the fifth-highest proportion in 2013. Houston, whose share went from 17 percent down to 12 percent, also represents a case where the specter of highly unaffordable rents became less of a concern for moderate-income renters. That the median renter's income in Boston and Houston rose more than the median rent during that period is unlikely to be a coincidence; but Chicago, where the median renter's income similarly rose more than the median gross rent, did not see any reduction in rates of severe rent burden, illustrating that rent burden is not just about relative changes in incomes and rents. The second part of the equation is matching: even if rents are rising overall, if moderate-income renters are more likely to live in moderate-rent units (and, thus, if higher-income renters are less likely to live in moderate-rent units), then the rates of rent burden can go down.

Many Low- and Moderate-Income Renters Could Not Afford Rental Units Available on the Market

Often the only way a renter can become less rent burdened, and thus better able to afford other necessities like food and healthcare, is to move to a more affordable unit. Yet those renters who are most likely to be rent burdened also have the hardest time finding available units they can afford. Figure 13 shows that, in 2013, low-income renters could afford a tiny fraction of recently available rental units, where the current tenants have lived for less than five years. In Boston and Washington, DC, the cities most affordable to such renters, even the most well-off low-income renter could afford only 11 percent of rental units that had been on the market within the last five years.

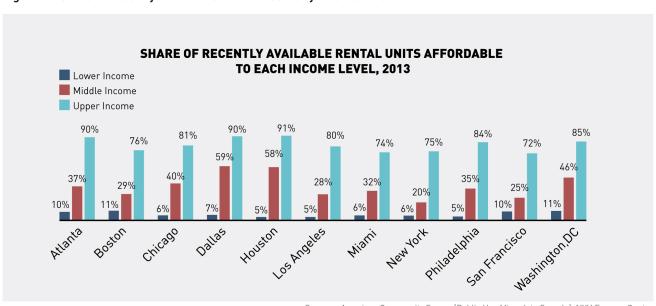


Figure 13. Share of Recently Available Units Affordable by Income Level



While recently available units were overwhelmingly unaffordable to low-income renters in all 11 cities, there is more variation across cities in the affordability of units with long-term tenants. Figure 14 shows that, in 2013, units where the current tenant had lived for five years or more were often much more likely to be affordable to a lower-income renter. (This study defines a lower-income renter as

a household that earns the 25th percentile household income of renters in a metropolitan area.] In Philadelphia, for example, a lower-income renter could afford 17 percent of units that had not recently been available but only five percent of units that had.

Lower-income tenants who are currently in an affordable unit and need to move may face a significantly harder struggle to find a new unit they can afford.

Compared to recently available units, units with long-term tenants were thus three times as likely to be affordable to lower-income renters in Philadelphia—the greatest disparity among the 11 cities. In most of the other cities in this study, units that had not been available within the past five years were at least twice as likely to be affordable to lower-income renters than units that had recently been for rent. Dallas had the lowest disparity in affordability based on recent availability: units with long-term tenants were only one and a half times as likely to be affordable to lower-income renters than recently available units were. The sources of this disparity include differences in housing stock (units built within the past five years could not have long-term tenants and may skew towards the luxury market) as well as differences in the size of the subsidized and regulated stock. The implications, however, are clear: a large disparity in the affordability of units based on whether they were recently available means that lower-income tenants who are currently in an affordable unit and need to move may face a significantly harder struggle to find a new unit they can afford. Many such tenants are thus effectively trapped in their current units.

Figure 14. Share of Rental Units Affordable to Low-Income Renter

As with rent burden, the story of affordability for moderate-income renters, compared with that for low-income renters, varies more across the cities in this study. As illustrated in Figure 13, in 2013 a typical renter, earning the median income for renters in the metro area, could afford almost 60 percent of the recently available units in Dallas and Houston, the two most affordable cities for that income level—although both cities were highly unaffordable for lower-income renters. A typical renter in New York City, on the other hand, could only afford 20 percent of units that had been on the market within the past five years, making it the least affordable city in this study for such renters. In five of the 11 cities, a typical renter, earning more than exactly half the renters in the metro area, could afford less than a third of recently available units in the central city. As with low-income renters, Figure 15 shows that, in some cities, recently available units were substantially less affordable to the typical renter than units that had not been on the market in the previous five years. In Washington, DC, Boston, Atlanta, San Francisco, Chicago, and Philadelphia, a majority of units with long-term tenants were affordable to the typical renter, but only a minority of recently available units were. In San Francisco, Boston, and New York City, units with long-term tenants were more than twice as likely to be affordable to the typical renter than units that had been recently available. When so few units that are available for rent are affordable to typical renters, the prospect of trying to find an affordable unit can make it extremely difficult to move into a central city or to move to a neighborhood that might have better schools or more amenities. As families grow, they struggle to find affordable units large enough to house them.

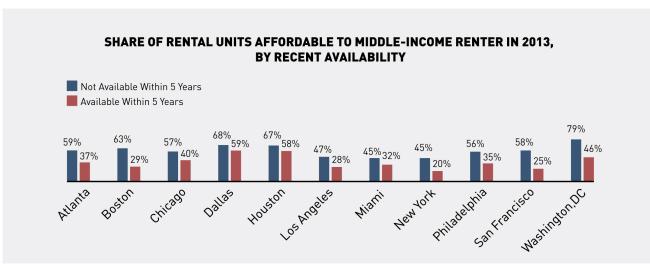


Figure 15. Share of Rental Units Affordable to Median Renter



Indeed, in many cities recent movers pay a premium in rent. Figure 16 compares the median rent for households that have lived in their current unit for five years or more to the median rent for recent movers in 2013. In Boston, San Francisco, and Washington, DC, the average renter who moved into their unit within the previous five years paid more than 50 percent more rent than their long-term tenant neighbors. Houston had the lowest rent premium for recent movers, who paid just 10 percent mover than long-term tenants in 2013, and Chicago, Dallas, Miami, and Philadelphia also had recent mover premiums below 20 percent. Households who move frequently are overrepresented among recent movers, and such households may, for other reasons, be more likely to select higher-cost units. But in any case, the size of the recent mover premium can contribute to households feeling trapped in their current unit; when recently available units in San Francisco, on average, cost over \$700 more in rent than the average unit for a long-term tenant, it is easy to understand how a family could look at the prospect of having to move with significant trepidation.

MEDIAN RENT FOR RECENT MOVERS AND INCUMBENT **HOUSEHOLDS, 2013** Incumbent Renters \$1.840 Recent Movers \$1,500 \$1,400 \$1,450 \$1,300 \$770^{\$850}\$1,030 \$1,120 \$1,005 \$1,070 \$996 \$1,000 \$770 \$860 \$990 \$950 \$860 \$820 \$840 \$840 \$800 Los Angeles Dallas Houston Boston Chicago Hen York Philadelphia San Francisco Hyashington DC Miarri

Figure 16. Median Rent for Recent Movers and Incumbent Households

Since the peak of the pre-Great Recession boom, more and more people are renting in America's big cities. In many of the 11 cities, new rental units are not being added as quickly as new rental households, however, pushing vacancy rates down and rents up and making it harder to find a place to live.

Rents rose in nearly all 11 cities, in some cities by double digits, and incomes did not keep up everywhere. In most cities, the majority of renters were rent burdened, with the cost of housing equaling 30 percent of their income or more.

For low-income renters in particular, the situation was dire. In 2013, more than three-fifths of such renters were severely rent burdened in all 11 cities; such rent burdens leave low-income renters with little income left for other necessary expenses like food, education, and transportation. And in all 11 cities, these renters became only more likely to be severely rent burdened between 2006 and 2013. Furthermore, the extreme scarcity of units affordable to low-income renters means that they have little recourse to get out from under such crushing rent burdens. Many such renters are trapped in housing units with rents that eat up sizable portions of their incomes. While renters toward the bottom of the income spectrum face great difficulty with housing costs in all 11 cities, moderate-income renters are also struggling in many cities. Moderate-income renters became substantially more likely to be severely rent burdened in five cities, while they experienced substantial improvement in only three cities. By 2013, more than a third of moderate-income renters faced extremely unaffordable rents in five cities. Many middle-income renters seeking a place to rent struggled to find affordable units as well: in five cities, less than a third of recently available units were affordable to the typical renter in 2013.





Part 2: City Summaries

Atlanta

Even as the number of renters increased substantially in Atlanta, the proportion of households facing a heavy cost burden decreased.

	2006	2013
Renter Households	85,330	105,656
Renter Population	207,288	220,769
Share of Population in Renter Households	46.8%	49.3%
Housing Units (renter-occupied and vacant rental units)	103,078	119,750
Housing Units (owner-occupied and vacant owned units)	93,247	84,784
Average Renter Household Size	2.43	2.09
Rental Vacancy Rate	16.0%	9.9%
25th Percentile Monthly Rent	\$658	\$720
Median Monthly Rent	\$888	\$963
Median Monthly Rent (recent movers)	\$957	\$996
Median Monthly Rent (incumbent renters)	\$714	\$820
25th Percentile Household Income (central city renter households)	\$12,275	\$13,200
Median Household Income (central city renter households)	\$28,664	\$30,941
75th Percentile Household Income (central city renter households)	\$54,681	\$60,000
25th Percentile Household Income (metro area renter households)	\$18,971	\$18,600
Median Household Income (metro area renter households)	\$35,710	\$35,000
75th Percentile Household Income (metro area renter households)	\$59,144	\$60,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	12.2%	9.7%
Rental Units Affordable at Median Metro Income (% of recently available units)	43.4%	37.2%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	86.6%	89.9%
Severely Rent Burdened Households (%)	29.3%	25.3%
Severely Rent Burdened Households, Low Income (%)	67.1%	67.6%
Severely Rent Burdened Households, Moderate Income (%)	22.4%	20.9%
Severely Rent Burdened Households, Middle Income (%)	2.3%	2.1%
Severely Rent Burdened Households, Older Adult Present (%)	39.1%	21.2%
Severely Rent Burdened Households, No Older Adult Present (%)	28.5%	25.7%

The number of renters and rental units are rising. Like the other cities in this study, the number of people renting their homes grew in Atlanta between 2006 and 2013, but only by 6.5 percent, the smallest increase of the 11 cities. Over the same period, the number of rental units in the city increased by 16.2 percent. Atlanta was the only city where rate of growth in rental units exceeded growth in the renter population.

Atlanta's rental vacancy rate fell as renter household sizes shrank.

Like many cities in this study with relatively high rental vacancy rates in 2006, Atlanta's rental vacancy rate fell from 16.0 percent to 9.9 percent in 2013, and yet it still had the highest rental vacancy rate of the 11 cities in both years. Perhaps surprisingly, this decrease in the vacancy rate occurred even

though Atlanta's number of rental units grew faster than the number of renters. The reduction in vacancy was driven in large part by a fairly dramatic reduction in household size. In Atlanta between 2006 and 2013, the average number of people in rental households fell from 2.43 to 2.09, the largest drop of any city in our study. It appears that some of these smaller households took up residence in Atlanta's vacant units, leading the percentage of vacant units to fall.



Both the median monthly rent and median renter household income

FOSE. As in most cities in this study, the amount the median renter paid in rent and utilities grew between 2006 and 2013—here, by about eight percent. By 2013, the median gross rent was \$963. The median central city renter household income also grew by about eight percent, reaching \$30,941 in 2013, the third lowest level among the cities we studied.

The percentage of renters facing a severe rent burden fell. The share of households in Atlanta who were severely rent burdened—paying half or more of their income to rent and utilities—went down by four percentage points between 2006 and 2013, from 29.3 to 25.3 percent. That decrease was the largest among the cities we examined.



Boston

Due in great part to rising incomes, some Bostonians became more able to afford homes available to rent, but many renters continued to struggle with the costs of housing amid a tightening rental market.

	2006	2013
Renter Households	142,242	167,060
Renter Population	317,339	389,086
Share of Population in Renter Households	55.2%	60.4%
Housing Units (renter-occupied and vacant rental units)	154,884	177,428
Housing Units (owner-occupied and vacant owned units)	93,147	88,533
Average Renter Household Size	2.23	2.33
Rental Vacancy Rate	5.5%	3.5%
25th Percentile Monthly Rent	\$675	\$700
Median Monthly Rent	\$1,216	\$1,263
Median Monthly Rent (recent movers)	\$1,430	\$1,420
Median Monthly Rent (incumbent renters)	\$799	\$840
25th Percentile Household Income (central city renter households)	\$13,846	\$14,000
Median Household Income (central city renter households)	\$34,934	\$40,065
75th Percentile Household Income (central city renter households)	\$67,541	\$77,500
25th Percentile Household Income (metro area renter households)	\$17,335	\$18,000
Median Household Income (metro area renter households)	\$39,399	\$42,000
75th Percentile Household Income (metro area renter households)	\$70,918	\$78,280
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	10.7%	11.4%
Rental Units Affordable at Median Metro Income (% of recently available units)	22.5%	28.9%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	71.8%	76.0%
Severely Rent Burdened Households (%)	27.3%	25.8%
Severely Rent Burdened Households, Low Income (%)	54.1%	59.7%
Severely Rent Burdened Households, Moderate Income (%)	40.2%	33.6%
Severely Rent Burdened Households, Middle Income (%)	4.8%	6.6%
Severely Rent Burdened Households, Older Adult Present (%)	27.5%	21.5%
Severely Rent Burdened Households, No Older Adult Present (%)	27.0%	27.4%

Boston's renter population grew faster than the number of rental

Units. Between 2006 and 2013, the number of Boston residents who were renters grew by nearly 23 percent, while the number of rental units in the city grew by only about 15 percent. The higher growth in the renter population contributed to rising demand for rental housing in Boston.

Like many cities, Boston's rental vacancy rate fell. Although the rental vacancy rate in Boston was already relatively low in 2006 at 5.5 percent, by 2013 it had decreased to about 3.5 percent, the third lowest rate among the 11 cities.

The typical Boston renter's income grew faster than its monthly rent. While rents rose considerably in many northeastern cities (about 12 percent in New York, eight percent in Philadelphia, and 21 percent in Washington, DC), the real median gross rent in Boston



increased by nearly four percent between 2006 and 2013; only three of the 11 cities in this study had smaller increases in median gross rent. At the same time, the median renter household's income jumped by about 15 percent—more than any other city in this study—from \$34,934 in 2006 to \$40,065 in 2013. The larger increase in median income helped to improve the affordability of housing for some of Boston's renters.

The percentage of moderate-income renters facing severe rent burdens fell, while low-income households fared worse. Among the city's moderate-income renters, the share that was severely rent burdened (or paying half or more of income to rent and utilities) went down over six percentage points between 2006 and 2013. However, the percentage of low-income renter households facing severe rent burdens increased by nearly six percentage points between 2006 and 2013. By 2013 nearly 60 percent of such renters were severely rent burdened. While both the 25th percentile and median rent increased by similar rates, incomes appear to have risen more for moderate-income renters than for low-income renters.

The affordability of recently available units rose at most income levels, but few continued to be affordable for low-income renter households.

The share of units recently on the rental market that was affordable to a household earning the 25th percentile metropolitan household income rose about one percentage point, while the share affordable to the household earning the median metropolitan renter income rose by just more than six percentage points.

Boston had the largest difference between rents paid by tenants who recently moved into their unit and incumbent renters. In 2013, rental units that were available within the last five years had a median rent that was nearly 70 percent higher than the median rent for units whose occupants have lived in the same unit for five or more years. This disparity suggests that renters who have lived in place for a while will likely struggle to find a similarly affordable unit if they have to move, and thus they effectively may be locked into their current unit.



Chicago

While Chicago's percentage of moderate-income renters facing a severe rent burden did not decline, a greater proportion of the city's recently available rental units became affordable to the typical renter.

	2006	2013
Renter Households	515,047	588,199
Renter Population	1,272,852	1,421,428
Share of Population in Renter Households	46.3%	52.3%
Housing Units (renter-occupied and vacant rental units)	577,401	636,766
Housing Units (owner-occupied and vacant owned units)	527,152	458,338
Average Renter Household Size	2.47	2.42
Rental Vacancy Rate	9.7%	7.0%
25th Percentile Monthly Rent	\$713	\$720
Median Monthly Rent	\$909	\$943
Median Monthly Rent (recent movers)	\$962	\$1,000
Median Monthly Rent (incumbent renters)	\$827	\$840
25th Percentile Household Income (central city renter households)	\$14,154	\$14,800
Median Household Income (central city renter households)	\$31,231	\$33,706
75th Percentile Household Income (central city renter households)	\$56,617	\$65,300
25th Percentile Household Income (metro area renter households)	\$16,985	\$16,500
Median Household Income (metro area renter households)	\$33,970	\$36,000
75th Percentile Household Income (metro area renter households)	\$59,788	\$65,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	6.7%	5.7%
Rental Units Affordable at Median Metro Income (% of recently available units)	34.8%	40.2%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	86.2%	81.1%
Severely Rent Burdened Households (%)	29.5%	27.7%
Severely Rent Burdened Households, Low Income (%)	76.2%	78.2%
Severely Rent Burdened Households, Moderate Income (%)	28.7%	29.2%
Severely Rent Burdened Households, Middle Income (%)	2.7%	2.7%
Severely Rent Burdened Households, Older Adult Present (%)	37.3%	30.8%
Severely Rent Burdened Households, No Older Adult Present (%)	28.3%	27.2%

The number of renter households grew more in Chicago's suburbs than in the central city. Between 2006 and 2013, the number of rental households in Chicago increased by nearly 14 percent, the third lowest rate of increase among the cities we studied, while the number of rental households increased about 24 percent in the metro area during that period (not shown).

Chicago's rental stock increased, but less than the number of rental households. Between 2006 and 2013, the number of rental units in Chicago grew by just more than 10 percent, a bit slower than growth in rental households. This contributed to Chicago's falling rental vacancy rate, which landed at 7.0 percent in 2013. Much of the growth in the rental stock appears to have been driven by conversions of previously owner-occupied stock to rentals.

The income of the typical renter grew more than the typical rent. Having grown four percent since 2006, the median gross rent in Chicago was \$943 in 2013, the fourth lowest among the cities in this study. In 2013, the median renter in Chicago had an income of \$33,706, the fifth lowest among the 11 cities, although it was up by nearly eight percent since 2006. The relatively faster rise in incomes allowed for a slight easing of severe rent burdens among Chicago renters overall.

While renters generally have become less likely to face an extreme rent burden, low-income households have not fared as well. While the share of all Chicago renter households who were severely rent burdened decreased by nearly two percentage points between 2006 and 2013, the share of low-income renters who were severely rent burdened increased by two percentage points. Indeed, while the median household income of Chicago's renters rose substantially during this period (an increase of about eight percent), the 25th percentile household income increased much less (over four percent). Furthermore, almost 80 percent of low-income renters in Chicago were severely rent burdened in 2013—the highest proportion of the 11 cities in this study.

Chicago's moderate-income renters may have an easier time finding

affordable rental housing. Between 2006 and 2013, the percentage of rental units recently on the market that was affordable to a household earning the median household income of metropolitan renters increased by about five percentage points to 40.2 percent. Only Boston and Houston also saw increases in the percentage of units affordable to a household earning the metro area's median income for renters.



In contrast, the percentage of Chicago's recently available rental units that were affordable to low-income renters did not increase over the same period.



Dallas

While the typical household may have been able to afford many of the units recently available for rent in Dallas, the city's low-income households found few affordable to them.

	2006	2013
Renter Households	235,444	275,565
Renter Population	586,459	670,245
Share of Population in Renter Households	49.2%	53.3%
Housing Units (renter-occupied and vacant rental units)	276,309	302,118
Housing Units (owner-occupied and vacant owned units)	217,357	205,325
Average Renter Household Size	2.49	2.43
Rental Vacancy Rate	13.0%	7.6%
25th Percentile Monthly Rent	\$659	\$650
Median Monthly Rent	\$823	\$839
Median Monthly Rent (recent movers)	\$846	\$860
Median Monthly Rent (incumbent renters)	\$784	\$770
25th Percentile Household Income (central city renter households)	\$19,316	\$18,000
Median Household Income (central city renter households)	\$32,764	\$32,929
75th Percentile Household Income (central city renter households)	\$55,675	\$58,100
25th Percentile Household Income (metro area renter households)	\$20,452	\$20,000
Median Household Income (metro area renter households)	\$36,393	\$37,600
75th Percentile Household Income (metro area renter households)	\$59,311	\$64,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	7.5%	6.9%
Rental Units Affordable at Median Metro Income (% of recently available units)	59.6%	58.7%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	90.9%	90.2%
Severely Rent Burdened Households (%)	22.5%	23.5%
Severely Rent Burdened Households, Low Income (%)	67.3%	69.8%
Severely Rent Burdened Households, Moderate Income (%)	13.3%	9.8%
Severely Rent Burdened Households, Middle Income (%)	1.5%	3.2%
Severely Rent Burdened Households, Older Adult Present (%)	32.9%	33.4%
Severely Rent Burdened Households, No Older Adult Present (%)	21.2%	21.4%

While the number of renter households grew in Dallas, it grew more in its metro area overall. Between 2006 and 2013, the number of rental households in Dallas increased by 17.0 percent, the fifth highest rate of increase among the cities in this study, while that number increased 28.0 percent in the metro area during that period (not shown).

Dallas' rental vacancy rate declined sharply. Although Dallas had a high rental vacancy rate in both 2006 and 2013 (ranking second-highest in 2006 and third-highest in 2013), between those two years the rate dropped from 13.0 percent to 7.6 percent. Of the cities in this study, only San Francisco and Philadelphia had steeper declines in their rental vacancy rate.



The typical gross rent and household income did not change significantly for Dallas renters between 2006 and 2013. In 2013, the median renter in Dallas had an income of \$32,929, the fourth lowest among the 11 cities, and a gross rent of \$839, tied with Houston for lowest among the cities in this study.

Renters earning a middle income fared relatively well finding affordable rental housing in Dallas. In 2013, only 9.8 percent of moderate-income households were severely rent burdened, the lowest share among the 11 cities. The household earning the median household income of metropolitan area renters, furthermore, could afford nearly 59 percent of recently available units in Dallas in 2013—a larger share than in any of the other cities in this study.

Low-income renters, as in all cities in this study, fared poorly in finding affordable housing. In 2013, 69.8 percent of low-income households were severely rent burdened (placing Dallas near the middle among the cities in this study), and a renter earning the 25th percentile metropolitan renter household income could afford less than seven percent of recently available units.

Dallas households with older adults were severely rent burdened more often than those without older adults.⁴ In 2013, just less than 34 percent of rental households with older adults faced rents greater than half their income, while only about 21 percent of those without older adults were severely rent burdened. Among the 11 cities in this study, Dallas had the greatest disparity in rent burden between households with and without older adults.

^{4 &}quot;Older adults" refers to people aged 65 or older.



Houston

Like Dallas, the other Texas city we studied, Houston has remained relatively affordable for moderate-income renters, but less so for low-income renters and households.

	2006	2013
Renter Households	400,458	464,655
Renter Population	1,028,759	1,175,943
Share of Population in Renter Households	49.6%	53.5%
Housing Units (renter-occupied and vacant rental units)	462,690	518,205
Housing Units (owner-occupied and vacant owned units)	360,765	360,456
Average Renter Household Size	2.57	2.53
Rental Vacancy Rate	11.6%	8.7%
25th Percentile Monthly Rent	\$667	\$670
Median Monthly Rent	\$838	\$841
Median Monthly Rent (recent movers)	\$860	\$850
Median Monthly Rent (incumbent renters)	\$784	\$770
25th Percentile Household Income (central city renter households)	\$17,700	\$18,000
Median Household Income (central city renter households)	\$32,842	\$34,737
75th Percentile Household Income (central city renter households)	\$55,514	\$60,400
25th Percentile Household Income (metro area renter households)	\$18,390	\$19,500
Median Household Income (metro area renter households)	\$34,481	\$36,600
75th Percentile Household Income (metro area renter households)	\$58,617	\$62,500
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	3.2%	4.8%
Rental Units Affordable at Median Metro Income (% of recently available units)	50.1%	57.5%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	92.2%	90.5%
Severely Rent Burdened Households (%)	24.1%	23.6%
Severely Rent Burdened Households, Low Income (%)	75.7%	76.3%
Severely Rent Burdened Households, Moderate Income (%)	17.4%	11.5%
Severely Rent Burdened Households, Middle Income (%)	1.9%	2.1%
Severely Rent Burdened Households, Older Adult Present (%)	40.5%	32.4%
Severely Rent Burdened Households, No Older Adult Present (%)	23.1%	22.3%

Many Houston metro area renters live in the central city. Renters in the City of Houston comprised about 51 percent of the rental households in the Houston metro area in 2013 (not shown), the second highest proportion among the cities in this study.



Unlike nearly all the 11 cities in this study, Houston did not experience a significant decline in the number of

significant decline in the number of housing units intended for

OWNER-OCCUPANCY. Whereas most of the cities in this study appear to have converted previously owner-occupied units into units for rent, Houston increased its rental housing stock substantially (12.0 percent between 2006 and 2013) without a significant number of conversions.

The income of the typical Houston renter grew, while the typical monthly rent remained steady. In 2013, the median renter in Houston had an income of \$34,737, putting the city right in the middle of the 11 cities. Since 2006, the median renter's household income grew by about six percent, the fifth-largest increase among the 11 cities. Houston's median gross rent of \$841 in 2013 was second lowest among the cities in this study.

As in Dallas, Houston was a relatively affordable city for moderate-income renters during the period studied. In 2013, the median metropolitan area renter household could afford 57.5 percent of recently available units in the City of Houston; only the typical renter in the Dallas metropolitan area could afford a larger percentage of recently available units in the central city. This percentage grew by just over seven percentage points from 2006, the largest increase at this income level among the 11 cities in this study (in fact, most cities had falling percentages of affordable units). Only 11.5 percent of moderate-income renters were severely rent burdened in Houston in 2013, a proportion again second only to Dallas and down nearly six percentage points from 2006. Of the cities in this study, only Boston saw a greater decrease in the percentage of moderate-income renters who were severely rent burdened during this period.

Houston's low-income renters found little affordable housing. In 2013, about 76 percent of such renters were severely rent burdened, the fourth-highest rate among the cities in this study. Low-income renters could afford less than five percent of recently available units in the City of Houston—only Los Angeles, among the 11 cities, was less affordable to such renters.

Houston households with older adults present were substantially more likely to be severely rent burdened than those without older adults. In 2013, approximately 32 percent of rental households with older adults present faced rents greater than half their income, while only about 22 percent of those without older adults were severely rent burdened (similar to Dallas in 2013). Houston and Dallas, therefore, had the highest disparities in rent burden between households with and without older adults among the cities in this study. However, the share of renters with older adults who were severely rent burdened dropped by eight percentage points between 2006 and 2013, indicating that the disparity has been closing over time in Houston.



Los Angeles

Falling incomes and a tight rental market have made finding affordable rental housing difficult for low- and moderate-income Angelenos.

	2006	2013
Renter Households	764,657	846,552
Renter Population	2,107,670	2,344,769
Share of Population in Renter Households	55.8%	60.4%
Housing Units (renter-occupied and vacant rental units)	804,180	881,934
Housing Units (owner-occupied and vacant owned units)	520,931	480,821
Average Renter Household Size	2.76	2.77
Rental Vacancy Rate	4.2%	3.4%
25th Percentile Monthly Rent	\$819	\$890
Median Monthly Rent	\$1,068	\$1,182
Median Monthly Rent (recent movers)	\$1,182	\$1,300
Median Monthly Rent (incumbent renters)	\$932	\$1,030
25th Percentile Household Income (central city renter households)	\$18,873	\$17,000
Median Household Income (central city renter households)	\$36,701	\$35,369
75th Percentile Household Income (central city renter households)	\$63,667	\$67,000
25th Percentile Household Income (metro area renter households)	\$21,260	\$20,000
Median Household Income (metro area renter households)	\$41,384	\$40,000
75th Percentile Household Income (metro area renter households)	\$72,763	\$75,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	4.4%	4.7%
Rental Units Affordable at Median Metro Income (% of recently available units)	34.6%	27.9%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	83.0%	79.9%
Severely Rent Burdened Households (%)	30.2%	34.5%
Severely Rent Burdened Households, Low Income (%)	77.3%	78.4%
Severely Rent Burdened Households, Moderate Income (%)	27.3%	37.6%
Severely Rent Burdened Households, Middle Income (%)	4.5%	7.6%
Severely Rent Burdened Households, Older Adult Present (%)	38.1%	36.5%
Severely Rent Burdened Households, No Older Adult Present (%)	29.5%	33.7%

The rental market in Los Angeles tightened further from 2006 to 2013.

The number of rental housing units (including both occupied and vacant units) increased less than 10 percent during this period, the third-lowest increase among the 11 cities in this study. At the same time, the number of rental households increased by just more than 11 percent. The rental vacancy rate fell from an already low 4.2 percent in 2006 to 3.4 percent in 2013, the second lowest of all the cities in this study. Only San Francisco's vacancy rate, which dropped to 2.5 percent in 2013, was lower.

The income of the typical Los Angeles renter household fell while rent increased substantially. The median income for Los Angeles renter households dropped about four percent from 2006 to 2013; no other city in this study saw a decline in the median renter household income. The income for the 25th percentile renter household declined even more: about 10 percent over the same period. Despite falling incomes, rents increased considerably in Los Angeles between 2006 and 2013. The median rent rose by nearly 11 percent, and the 25th percentile rent increased similarly by about 9.0 percent.

These factors—falling incomes, rising rents, and a very tight rental market—substantially aggravated rent burdens in Los Angeles. In 2013, 34.5 percent of all Los Angeles renters were severely rent burdened, the second-highest share among the cities in this study. The increase of 4.3 percentage points from 2006 was the largest among the 11 cities and amounted to more than twice the second-highest jump.

Many low-income and even moderate-income renters faced severe rent burdens. Nearly 80 percent of low-income renters were severely rent burdened (paying

half or more of their income to rent and utilities) in 2013—the third highest rate among the cities in this study. But moderate-income renters also struggled

in Los Angeles. In 2013, about 38 percent of such households were severely rent burdened, again the third highest rate among the 11 cities; that share was more than 10 percentage points higher than the share in 2006, leading to the second-highest increase in severe rent burden for moderate-income renter households among the cities in our sample.



Renters entering the market faced an increasingly difficult search for affordable housing. In 2006, a middle-income household could afford 34.6 percent of recently available units in the city—the fourth lowest among the cities in this study. By 2013, that share dropped to just 27.9 percent, third lowest among the 11 cities. For low-income households, less than five percent of recently available units in the City of Los Angeles were affordable in 2013—the lowest share among the cities in this study.



Miami

Despite Miami's relatively modest rents, the low incomes of the city's renters contributed to a high percentage of renters facing severe rent burdens.

	2006	2013
Renter Households	86,298	106,251
Renter Population	215,739	270,205
Share of Population in Renter Households	60.2%	64.7%
Housing Units (renter-occupied and vacant rental units)	95,264	116,576
Housing Units (owner-occupied and vacant owned units)	53,597	50,882
Average Renter Household Size	2.5	2.54
Rental Vacancy Rate	7.2%	7.4%
25th Percentile Monthly Rent	\$666	\$690
Median Monthly Rent	\$887	\$947
Median Monthly Rent (recent movers)	\$970	\$1,005
Median Monthly Rent (incumbent renters)	\$806	\$860
25th Percentile Household Income (central city renter households)	\$11,915	\$11,800
Median Household Income (central city renter households)	\$24,302	\$25,690
75th Percentile Household Income (central city renter households)	\$44,388	\$48,000
25th Percentile Household Income (metro area renter households)	\$17,522	\$16,000
Median Household Income (metro area renter households)	\$35,044	\$32,700
75th Percentile Household Income (metro area renter households)	\$60,742	\$58,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	9.7%	6.3%
Rental Units Affordable at Median Metro Income (% of recently available units)	40.3%	32.5%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	84.3%	74.0%
Severely Rent Burdened Households (%)	35.1%	36.1%
Severely Rent Burdened Households, Low Income (%)	71.7%	72.1%
Severely Rent Burdened Households, Moderate Income (%)	26.0%	39.5%
Severely Rent Burdened Households, Middle Income (%)	5.3%	10.6%
Severely Rent Burdened Households, Older Adult Present (%)	40.0%	33.8%
Severely Rent Burdened Households, No Older Adult Present (%)	33.7%	36.5%

Miami saw a big increase in renter households. Between 2006 and 2013, the number of renters in Miami increased by 23.1 percent, the third highest rate of increase among the cities in this study.

Incomes in the City of Miami and its metro area followed different paths. The median income for rental households within Miami city limits, while among the lowest in the 11 cities, went up about six percent between 2006 and 2013, but the median income in the Miami metro area declined by peoply 10 percent. Penter beyonholds on the lower and of the

in the Miami metro area declined by nearly 10 percent. Renter households on the lower end of the income spectrum, however, did not fare well in either the city or the metro area during this period. There was no significant change in the 25th percentile income for rental households in the City of Miami, while the 25th percentile income for renter households in the surrounding metro area decreased by about nine percent. Meanwhile, between 2006 and 2013, the median rent in the City of Miami went up nearly seven percent, although rents in the surrounding metro area went down slightly.

Miami renters remained the most severely cost burdened of any city in this study. In 2006, both the City of Miami and its metro area overall had the biggest share of households who were severely rent burdened (about 35% and 33%, respectively) among the 11 cities in this study. Between 2006 and 2013, those shares only grew, by one percentage point in the city and four percentage points in the metro area, and again in 2013, Miami had the highest proportions of severe rent burden among the 11 cities.

Moderate-income renters became much more likely to spend half or more of their income on rent. Moderate-income renters bore the lion's share of the increases in severe rent burden, although all but the highest-earning households experienced increasing rates of severe rent burden. Between 2006 and 2013, the share of moderate-income renter households who were severely rent burdened increased by over 13 percentage points in Miami proper and about nine percentage points in the surrounding metro area. This increase was the largest among all 11 cities in this study.



Units available for rent became less affordable to households earning a wide range of incomes. Lower-income renters could afford nearly 10 percent of recently available units in 2006 but only about six percent in 2013. A middle-income household could afford 40.3 percent of recently available units in 2006 but only 32.5 percent in 2013. Even

a relatively high-earning household earning the 75th percentile household income among renters in the Miami metro area could only afford 74.0 percent of recently available units in 2013, down a full 10 percentage points from 2006.



New York

Rising rents and stagnant incomes contributed to rising rent burdens and an increasing scarcity of affordable rental units in New York.



	2006	2013
Renter Households	1,980,247	2,096,767
Renter Population	5,002,736	5,383,727
Share of Population in Renter Households	60.9%	64.0%
Housing Units (renter-occupied and vacant rental units)	2,083,965	2,197,905
Housing Units (owner-occupied and vacant owned units)	1,082,248	1,024,525
Average Renter Household Size	2.53	2.57
Rental Vacancy Rate	3.8%	3.5%
25th Percentile Monthly Rent	\$773	\$880
Median Monthly Rent	\$1,100	\$1,228
Median Monthly Rent (recent movers)	\$1,338	\$1,450
Median Monthly Rent (incumbent renters)	\$943	\$1,070
25th Percentile Household Income (central city renter households)	\$16,641	\$17,000
Median Household Income (central city renter households)	\$40,790	\$40,908
75th Percentile Household Income (central city renter households)	\$75,642	\$80,000
25th Percentile Household Income (metro area renter households)	\$18,270	\$18,000
Median Household Income (metro area renter households)	\$41,894	\$40,100
75th Percentile Household Income (metro area renter households)	\$76,806	\$79,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	6.1%	5.9%
Rental Units Affordable at Median Metro Income (% of recently available units)	27.1%	20.5%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	78.6%	74.7%
Severely Rent Burdened Households (%)	27.9%	29.6%
Severely Rent Burdened Households, Low Income (%)	70.2%	70.8%
Severely Rent Burdened Households, Moderate Income (%)	33.0%	43.2%
Severely Rent Burdened Households, Middle Income (%)	4.0%	5.9%
Severely Rent Burdened Households, Older Adult Present (%)	32.6%	35.3%
Severely Rent Burdened Households, No Older Adult Present (%)	26.2%	28.1%

New York's rental stock grew more slowly than in other cities. The number of rental housing units increased only 5.5 percent in New York City between 2006 and 2013, the smallest among the 11 cities in this study. During the same period, the number of units intended for owner occupancy decreased by nearly as much, 5.3 percent, suggesting that conversions from owner-occupancy, not new construction, might account for much of the increase in the number of rental units. The slow growth in the rental stock did not improve the city's consistently low rental vacancy rate.

The number of rental households also grew slowly in New York. With an increase of less than six percent between 2006 and 2013, New York City had the smallest increase in number of rental households of all the cities in this study—by a factor of nearly two. It was the only city that did not experience double-digit percentage growth in rental households. Although growth in the New York metro area was somewhat higher (8% between 2006 and 2013: not shown), it also had the lowest rate of growth among all the metro areas in this study.

For the typical New York renter, rental costs grew while income remained stagnant. Despite the lack of income growth in New York City, the median gross rent rose nearly 12 percent between 2006 and 2013, the second highest rate of increase among the cities we looked at. The 25th percentile rent rose even more (13.8%) for over the same period in New York City. The median renter's household income in New York City changed little between 2006 and 2013. Among the 11 cities, the only city seeing less growth in median renter household income was Los Angeles, where median renter income actually fell. By 2013, the median renter in New York City had an income of \$40,908, the third highest among the cities in this study, and gross rent of \$1,228, the fourth highest among the 11 cities.

Rent and income trends contributed to rising rent burdens in New York. As rents rose and incomes remained essentially flat, the share of households who were severely rent burdened increased by 1.7 percentage points between 2006 and 2013, reaching 29.6 percent in 2013. Of the 11 cities in this study, only Miami, Los Angeles, and Philadelphia had a higher proportion of renters who were severely rent burdened.

A growing share of moderate-income renters faces severe rent burdens. Moderate-income households bore the brunt of the increases in severe rent burden, as the share of such renter households who were severely burdened increased from about 33 percent in 2006 to over 43 percent in 2013—the highest percentage of all cities in our study. The share of low-income households who were severely rent burdened was significantly higher (70.8% in 2013), but the increase from 2006 was only 0.6 percentage points.

Few units recently in New York's rental market were affordable to low- or moderate-income renters. In 2013, a household earning the median metropolitan area income could afford only a fifth of recently available rental units in New York City, the lowest rate among the cities in this study. Since 2006, this proportion fell by about seven percentage points. In 2013, a small fraction of units—just less than six percent—was affordable to a lower-income household, thus representing the highest earning low-income renter. Several cities—Chicago, Dallas, Houston, Los Angeles, Miami, and Philadelphia—had similarly small percentages (5-7%) of units affordable to a lower-income household.



Philadelphia

A rising median rent and a relatively low, stagnant median household income led to an increase in the already high percentage of Philadelphia's households facing severe rent burdens.

	2006	2013
Renter Households	231,323	285,430
Renter Population	531,311	681,312
Share of Population in Renter Households	36.7%	43.9%
Housing Units (renter-occupied and vacant rental units)	267,899	308,347
Housing Units (owner-occupied and vacant owned units)	340,171	308,243
Average Renter Household Size	2.3	2.39
Rental Vacancy Rate	12.5%	6.6%
25th Percentile Monthly Rent	\$633	\$690
Median Monthly Rent	\$847	\$913
Median Monthly Rent (recent movers)	\$909	\$950
Median Monthly Rent (incumbent renters)	\$750	\$800
25th Percentile Household Income (central city renter households)	\$10,222	\$11,400
Median Household Income (central city renter households)	\$26,002	\$26,603
75th Percentile Household Income (central city renter households)	\$47,021	\$50,000
25th Percentile Household Income (metro area renter households)	\$15,333	\$15,600
Median Household Income (metro area renter households)	\$34,755	\$33,700
75th Percentile Household Income (metro area renter households)	\$61,332	\$60,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	7.1%	5.3%
Rental Units Affordable at Median Metro Income (% of recently available units)	45.3%	35.0%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	92.8%	84.2%
Severely Rent Burdened Households (%)	33.4%	34.2%
Severely Rent Burdened Households, Low Income (%)	75.0%	77.4%
Severely Rent Burdened Households, Moderate Income (%)	28.1%	36.4%
Severely Rent Burdened Households, Middle Income (%)	1.8%	5.7%
Severely Rent Burdened Households, Older Adult Present (%)	33.9%	32.0%
Severely Rent Burdened Households, No Older Adult Present (%)	32.6%	34.0%

As the number of renters rose, Philadelphia's vacancy rate plunged.

Between 2006 and 2013, the number of rental households in the City of Philadelphia increased by nearly 24 percent, the highest rate of increase among the cities in this study. Meanwhile, the city's rental vacancy rate nearly halved, falling from 12.5 percent to 6.6 percent. Of the 11 cities in this study, only Atlanta, which had a higher rental vacancy rate in both 2006 and 2013, experienced a greater decrease.

Philadelphia's median rent grew faster than its median renter income.

Since 2006, the median gross rent in Philadelphia increased about eight percent to \$913 in 2013. The median income for renters in Philadelphia increased modestly, just over two percent, between 2006 and 2013, the fourth lowest rate of increase among the cities in this study. The median renter earned just \$26,603, the second lowest among the 11 cities.

Many Philadelphia renters remained severely cost burdened. Among the 11

cities, Philadelphia had the third-highest percentage of households facing severe rent burden in 2013, with over a third of renters facing gross rents greater than or equal to half of their income. Although the share severely rent



burdened increased by nearly a percentage point between 2006 and 2013 to 34.2 percent, several cities experienced larger increases in the percentage of households with a severe rent burden.

An increasing number of moderate-income households faced severe rent burdens. In 2013, 36.4 percent of moderate-income Philadelphia renter households were

severely rent burdened, the fourth highest share among the cities in this study and an increase of more than eight percentage points since 2006. Low-income households did not fare well in Philadelphia either, however: In 2013, more than 77 percent of low-income households were severely rent burdened, essentially tied with Chicago for the highest share of the 11 cities in this study, although that was up only 2.4 percentage points from 2006.

Middle-income renters found fewer affordable units on the market in

recent years. In 2006, a renter earning the median household income of metropolitan area renters could afford about 45 percent of recently available units in the City of Philadelphia. By 2013, that share had dropped to 35.0 percent, a roughly 10 percentage point decline that was the second-largest among the cities in this study. Renters earning the 25th percentile metropolitan area income could afford just over five percent of recently available units in 2013, a share that was lower than all but two of the 11 cities.



San Francisco

Renters in San Francisco found a tight rental market and costly housing, but higher incomes mean that a relatively smaller proportion of renter households was severely rent burdened.



	2006	2013
Renter Households	195,835	227,440
Renter Population	390,623	476,548
Share of Population in Renter Households	52.5%	56.9%
Housing Units (renter-occupied and vacant rental units)	210,097	236,053
Housing Units (owner-occupied and vacant owned units)	130,662	130,012
Average Renter Household Size	1.99	2.10
Rental Vacancy Rate	5.8%	2.5%
25th Percentile Monthly Rent	\$925	\$903
Median Monthly Rent	\$1,375	\$1,491
Median Monthly Rent (recent movers)	\$1,663	\$1,840
Median Monthly Rent (incumbent renters)	\$1,089	\$1,120
25th Percentile Household Income (central city renter households)	\$23,893	\$24,000
Median Household Income (central city renter households)	\$58,947	\$61,210
75th Percentile Household Income (central city renter households)	\$105,646	\$122,600
25th Percentile Household Income (metro area renter households)	\$24,362	\$24,000
Median Household Income (metro area renter households)	\$52,706	\$52,000
75th Percentile Household Income (metro area renter households)	\$93,699	\$98,000
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	7.5%	10.0%
Rental Units Affordable at Median Metro Income (% of recently available units)	32.8%	25.4%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	79.8%	72.4%
Severely Rent Burdened Households (%)	19.6%	20.9%
Severely Rent Burdened Households, Low Income (%)	58.4%	62.0%
Severely Rent Burdened Households, Moderate Income (%)	24.5%	26.3%
Severely Rent Burdened Households, Middle Income (%)	2.6%	2.5%
Severely Rent Burdened Households, Older Adult Present (%)	25.6%	24.9%
Severely Rent Burdened Households, No Older Adult Present (%)	18.6%	19.4%

Few rental units were vacant in San Francisco by 2013. Between 2006 and 2013, the number of rental households in San Francisco increased by 16.1 percent, the fifth lowest rate of increase among the cities in this study. As renters grew in number, previously vacant units filled. In 2006, San Francisco had the fourth lowest rental vacancy rate of the 11 cities in this study, yet, despite increasing rents, the rate had gone down by more than half by 2013, to 2.5 percent—the lowest of all the 11 cities. In the larger San Francisco metro area, the rental vacancy rate dropped from seven percent in 2006 to three percent in 2013—also the lowest rate among the metro areas we studied (not shown).

San Francisco renters both earned the most and spent the most money on rent and utilities. In 2013, the median renter in San Francisco had an income of \$61,210—the highest of the 11 cities by far, and over 30 percent higher than the city with the next-highest incomes in this study, Washington, DC. The typical renter also paid a gross rent of \$1,491, the highest of the 11 cities. Between 2006 and 2013, the median income for renters in the city of San Francisco rose nearly four percent, but the median income among renters in the surrounding metro area declined by about 1.3 percent. During that same period, however, the inflation-adjusted median gross rent in San Francisco rose 8.4 percent, more than double the increase in median renter income, and the median gross rent in the metro area rose nearly four percent even as median renter income declined.

Compared to other cities, fewer San Francisco renters were severely rent burdened. Despite rising rents and a very tight rental market, the high incomes in San Francisco meant that, in both 2006 and 2013, the city had the lowest share of renters who were severely rent burdened among the 11 cities. Still, since 2006, the share increased by more than a percentage point, and so by 2013, almost 21 percent of San Francisco renters were severely rent burdened. Furthermore, unlike some of the cities we studied, the increase in rent burden was not borne primarily by moderate-income renters; between 2006 and 2013, the share of low-income renters who were severely rent burdened grew more than the share of moderate-income renters.

Units available for rent in San Francisco tend to be quite expensive. In 2013, San Francisco had the second biggest difference in rents (in percentage terms) paid by long-term tenants and tenants who lived in their units for less than five years. Tenants who moved into their unit within less than five years ago paid a rent that was 64.3 percent higher than tenants who lived in their home for five years or more, a sharp increase from the 2006 difference of about 52.7 percent. As a result, renters who have lived in their homes for many years may be unlikely to be able to find a similarly affordable unit if they need to move, and could be locked into their current units.

The typical San Francisco renter encountered one of the smallest proportions of affordable units. A middle-income renter could afford only about a quarter of recently available rental units in the City of San Francisco in 2013. Of the cities in this study, only in New York was the proportion smaller. San Francisco was one of the more affordable cities for a lower-income renter (earning the 25th percentile household income of metropolitan area renters), with about 10 percent of recently available units in the city affordable at that income level—the third-highest proportion among the cities in this study, but still a low share.



Washington, DC

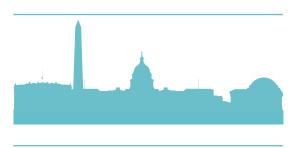
As incomes grew in Washington, DC, rents grew even more, leading to a large decline in affordable rental units.

	2006	2013
Renter Households	135,870	161,138
Renter Population	286,354	350,637
Share of Population in Renter Households	49.2%	54.2%
Housing Units (renter-occupied and vacant rental units)	145,450	173,536
Housing Units (owner-occupied and vacant owned units)	119,904	115,283
Average Renter Household Size	2.11	2.18
Rental Vacancy Rate	6.1%	6.3%
25th Percentile Monthly Rent	\$722	\$890
Median Monthly Rent	\$1,082	\$1,307
Median Monthly Rent (recent movers)	\$1,208	\$1,500
Median Monthly Rent (incumbent renters)	\$841	\$990
25th Percentile Household Income (central city renter households)	\$15,510	\$17,100
Median Household Income (central city renter households)	\$41,100	\$46,699
75th Percentile Household Income (central city renter households)	\$72,224	\$92,000
25th Percentile Household Income (metro area renter households)	\$29,600	\$30,000
Median Household Income (metro area renter households)	\$54,938	\$58,000
75th Percentile Household Income (metro area renter households)	\$88,800	\$98,100
Rental Units Affordable at 25th Pctl. Metro Income (% of recently available units)	15.9%	11.1%
Rental Units Affordable at Median Metro Income (% of recently available units)	61.1%	46.5%
Rental Units Affordable at 75th Pctl. Metro Income (% of recently available units)	86.2%	85.0%
Severely Rent Burdened Households (%)	24.5%	26.4%
Severely Rent Burdened Households, Low Income (%)	56.6%	62.4%
Severely Rent Burdened Households, Moderate Income (%)	10.8%	19.9%
Severely Rent Burdened Households, Middle Income (%)	1.5%	1.6%
Severely Rent Burdened Households, Older Adult Present (%)	24.8%	24.7%
Severely Rent Burdened Households, No Older Adult Present (%)	24.7%	26.8%

While the number of renters grew, Washington, DC's vacancy rate remained stable. Between 2006 and 2013, the number of rental households in Washington,

DC increased by approximately 19 percent, the fourth highest rate of increase among the cities in this study, while the metro area saw an about 28 percent increase in the number of renter households during that period (not shown). Yet, despite the growth in renter households, median income, and median rent, the rental vacancy rate in the District hardly changed between 2006 and 2013. It remained steady at about six percent even as rental vacancy rates dropped, often substantially, in nine of the 11 cities. In 2013, Washington, DC had the fifth-lowest vacancy rate among the cities in this study.

DC renters' incomes increased substantially. The real median income for renters in Washington, DC rose 13.6 percent between 2006 and 2013, the second-highest increase among



the cities in this study. The median income in the metro area grew at about half that pace, indicating that the central city may be catching up to its historically much wealthier suburbs. In 2013, the median renter in the District had an income of \$46,699, the second highest among the central cities in this study, while its metro area's renters had a median income of \$58,000, the highest among the 11 metro areas and over 11 percent higher than the next-highest, San Francisco.

Rents in Washington, DC rose even faster than income. Between 2006 and 2013, the median gross rent increased nearly 21 percent in DC, a rate of growth higher than in any of the other 10 cities in this study and almost double the next-highest increase during that period (11.7 percent in New York City). The 25th percentile rent, however, rose about 23 percent during those years, even more than the median rent.

More of Washington, DC's renters faced heavy rent burdens. Among the 11 cities in this study, Washington had the eighth-highest share of severe rent burden in 2006, but increased to become seventh-highest by 2013. Over this period the share of renter households who were severely rent burdened increased from 24.5 percent to 26.4 percent, the second-highest percentage point increase in share severely rent burdened. Low- and moderate-income renters bore the brunt of increasing rent burden. Although only 62.4 percent of low-income renters were severely rent burdened in 2013 (the third-lowest share among the cities we looked at), that figure had increased by nearly six percentage points since 2006. The share of moderate-income renters who were severely rent burdened went up nine percentage points to nearly 20 percent in 2013, although that was still lower than in all cities in this study except Dallas and Houston.

Recently available units have become much less affordable for DC's low- and moderate-income renters. Among all the cities in this study, Washington, DC experienced the greatest decline in affordability for a middle-income renter. The share of recently available units in the city that were affordable to a renter earning the median household income of metropolitan area renters dropped from just over 61.1 percent in 2006 to 46.5 percent in 2013, a decrease of nearly 15 percentage points. The share of recently available units affordable to a lower-income renter went down by almost five percentage points.



Methodological Notes

We studied the central cities of the 11 largest metropolitan areas by population. Metropolitan areas are Core-Based Statistical Areas as described by the U.S. Office of Management and Budget's 2013 definitions, which were based on data from the 2010 decennial Census. We use singe-year estimate data from the 2006 and 2013 American Community Survey (ACS), an annual survey conducted by U.S. Census Bureau. When possible, data comes from the ACS's Summary File, containing tabulations by various levels of geography. For certain indicators, we use data from the household file of the ACS Public Use Microdata Sample (PUMS). The geographic unit of the PUMS data is the Public Use Microdata Area (PUMA), and occasionally the borders of PUMAs do not align perfectly with city or metropolitan area boundaries. Furthermore, the U.S. Census revised the boundaries of PUMAs between 2006 and 2013, to account for new geographic boundaries defined in the 2010 decennial Census. In order to ensure consistency across years and cities, we used alignment files from the Missouri Census Data Center to weight PUMAs by the fraction of households that fell within a city or metropolitan area. For example, if 60 percent of a PUMA's households live in the City of Chicago, and 40 percent live in Cook County but outside of Chicago city limits, we assign each household in that PUMA a weight of 60 percent when describing the City of Chicago.

All dollar figures are presented in constant 2013 dollars, adjusted using the Consumer Price Index for All Urban Consumers (Current Series) without seasonal adjustments from the Bureau of Labor Statistics over all major expenditure classes for the relevant metropolitan area. All figures for changes in incomes and rents constitute inflation-adjusted changes.

We used PUMS data to define income levels for each metropolitan area, as the housing and labor markets in a city are governed in large part by the dynamics in the metropolitan area, rather than just by the conditions within city limits. First, we calculate the 25th, 50th, and 75th percentile income for renter households in each metropolitan area in each year. Households earning the 25th percentile income or less are referred to as "low-income renters." Those earning more than the 25th percentile income but less than or equal to the 50th percentile are referred to as "moderate-income renters." Although moderate-income renters will constitute one quarter of renters in the broader metropolitan area, the number of renters in that income category in the central city itself will differ for each city; for example, low- and moderate-income renters together constitute less than 45 percent of renters in the City of San Francisco, while they make up exactly half of renters in the San Francisco metropolitan area. Although renter households are categorized as low- or moderate-income based on the distribution

of incomes in the metropolitan area, the "median renter income" for a city is the median income of renters living in the central city in a particular year. Indicators measuring the affordability of recently available rental units are calculated using precise income levels rather than a range; for example, a "lower-income renter" is one earning exactly the 25th percentile income for renters in that metropolitan area in a particular year. A "middle-income renter" (also called a "typical renter") is one earning exactly the median income for renters in a particular metropolitan area in a given year. Note, however, that such a renter is in the middle of the income distribution for renters in the metropolitan area, but not necessarily in the middle of the distribution for the city itself. For example, the median renter household in the Washington, DC metropolitan area earned about \$58,000 in 2013, while the median renter income in the District itself was just under \$46,699; a "typical renter," earning \$58,000, made more than about 58 percent of renter households in the District.

When calculating the percentage of rental units affordable at various incomes, we use the PUMS data to look at the gross rent for households where the current tenant moved into the unit less than five years prior to the date of the survey; such units are referred to as "recently available." Since the ACS does not collect rent data for vacant units, the rent calculations for recently available units only include data from units that were occupied at the time of the survey. Affordability measures are generated by calculating the share of such recently available units (or, where specified, the share of all units that were not recently available) with gross rents that were less than 30 percent of a particular income level (as described above).

We label a household "rent burdened" if the gross rent (rent specified on a lease plus any additional utility costs) is greater than or equal to 30 percent of the household's income. For rent-burdened households, if the gross rent is equal to 50 percent of income or more, we call that household "severely rent burdened," while "moderately rent burdened" refers to households with gross rent between 30 and 50 percent of income. Note that the renter themselves may not necessarily pay the entire rent specified on a lease, notably when they receive a housing choice voucher through the U.S. Department of Housing and Urban Development.





About the NYU Furman Center/Capital One National Affordable Rental Housing Landscape Research Study

The study commissioned by Capital One and conducted by the NYU Furman Center, analyzes rental housing affordability trends in the central cities of the 11 largest metropolitan areas in the U.S. This study delves more deeply into recent trends in rent levels, rent burdens, affordable units, and the gap between the number of low-income households in need of affordable housing and the number of existing affordable units. Data analysis is based on data from the U.S. Census Bureau, including data from the American Community Survey from 2006 through 2014, and uses geographic information from the Missouri Census Data Center.

About Capital One

Capital One Financial Corporation, headquartered in McLean, Virginia, is a Fortune 500 company with more than 900 branch locations primarily in New York, New Jersey, Texas, Louisiana, Maryland, Virginia, and the District of Columbia. Its subsidiaries, which include Capital One, N.A., and Capital One Bank (USA), N. A., offer a broad spectrum of financial products and services to consumers, small businesses and commercial clients. We apply the same principles of innovation, collaboration and empowerment in our commitment to our communities across the country that we do in our business. We recognize that helping to build strong and healthy communities – good places to work, good places to do business and good places to raise families – benefits us all and we are proud to support this and other community initiatives. Capital One recognizes that housing plays a crucial part in neighborhood revitalization and economic recovery and, in 2014 alone, provided \$1.47 billion in affordable housing loans. To learn more, visit http://www.capitaloneinvestingforgood.com/.

About the NYU Furman Center

The NYU Furman Center advances research and debate on housing, neighborhoods, and urban policy. Established in 1995, it is a joint center of the New York University School of Law and the Robert F. Wagner Graduate School of Public Service. More information can be found at furmancenter.org and @FurmanCenterNYU.

The study and infographic is available online at www.FurmanCenter.org/NationalRentalLandscape