Economic & Housing Research **Note**

Higher Mortgage Costs Relative to Rents Results in Fewer People Moving Up Than in the Past

If you have ever worked with people looking for a new home, or seen a television show such as House Hunters, you may have noticed how common it is for prospective homebuyers to say they want more space. As we will show, fewer households have been able to achieve that objective lately.

Our relative affordability measure indicates 1) buying is relatively expensive compared to renting, but it has been higher, 2) Southern metros are experiencing the most affordability stress vs. their past, 3) new homeowners are substituting to purchasing smaller, more affordable homes.

Before looking at what percentage of people living in single-family rentals attempt to buy larger homes, we pose the following questions:

- How do potential buyers' mortgage payments for their intended purchase home compare to their rent?
- How would a new mortgage payment on their rental home compare to the rent (on the same home)?

We address these questions by comparing three types of data on loan applications:

1. Reported rents on single-family homes from loan apps.
2. Mortgage payments for the intended purchase homes.
3. Our estimated monthly mortgage payments on the borrowers' rental homes.

Both our mortgage vs. rent comparisons and our way of measuring move-ups are innovative and offer insights not published elsewhere.[i] We found that mortgage payments compared to rents on the same homes is elevated compared to pre-pandemic, but similar to the early 2000s and within the range of historical norms.

While some risk indicators, such as the ratio of home prices to incomes, have raised concerns that home prices may have become disconnected from fundamentals, we are less concerned after accounting for high rents. We believe a significant housing shortage combined with an increased demand for space to accommodate home offices is impacting affordability for both the single-family rental and purchase markets. If this assessment is correct, home prices and rents are likely to remain elevated, underscoring the importance of increasing new construction and bringing down mortgage rates, as most economists are projecting.

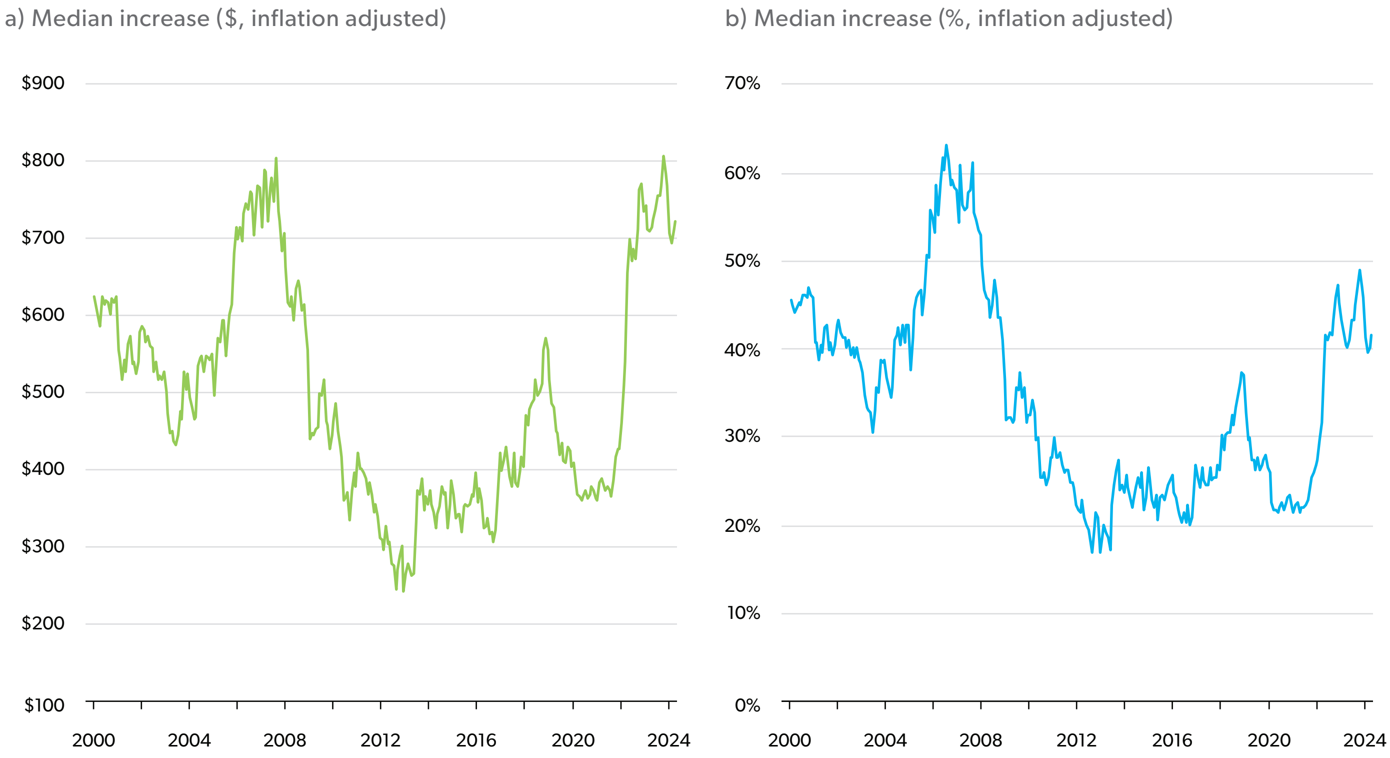
This article focuses on people living in single-family rentals since that option is more comparable to homeownership than apartment living. While only a subset of mortgage applications, this group is important to understand since many will become first-time homebuyers. Nationally, 31% of renter households—4 million out of a total of 45 million — live in what we will refer to as single-family homes, which is shorthand for one-unit, single-family detached or attached homes, i.e., single-family homes, co-ops and condominiums, (but not 2-4 unit houses since different units vary in rent and size, making comparisons difficult).[ii] We use the terms home and house interchangeably and refer to the house they are applying to buy on their application as their *intended or desired* home instead of as a purchase home since not all applications result in completed mortgages. Throughout this article, mortgage payments include property taxes and insurance.

Rent vs. the mortgage cost on the home an applicant intends to purchase

We first look at how typical monthly housing costs change for someone who lives in a single-family rental and is looking to buy. **Exhibit 1** shows how much larger the median mortgage payment is for an applicant's intended purchase home over the rent they pay for their rental house. The first chart is inflation-adjusted to today's dollars while the second chart is as a percent of their current rent.

EXHIBIT 1

Typical increase in monthly costs on the home people want to buy compared to their current rent on a single-family home



Source: Freddie Mac Economic and Housing Research.

Notes: Based on single-family rental homes occupied by Freddie Mac loan applications. To be more comparable to current market rents, we limited our rental data to those who have rented for 12 months or less.

The median loan applicant living in a single-family rental currently would pay around $700 more a month than they pay in rent if they were to complete the purchase of their desired/intended house — 42% higher than their rent. That is far lower than the peak of 63% in July of 2006 when speculative demand for housing was high, and lending guidelines were far looser. The 5% decline since the recent peak in late 2023 is because mortgage rates fell from around 8%. The main takeaway is that the typical increase in housing costs from moving from a single-family rental house to owning (if the loan is approved) has grown recently but is similar to the early 2000s and is not at record highs in terms of the percentage increase.

Rent vs. an estimated mortgage cost on the same rental home

This section compares actual single-family rents to estimates of the monthly mortgage payments for a new loan on those same rental homes. This approach allows a true apples-to-apples comparison of owning vs. renting. That contrasts favorably with the traditional approach of comparing home price indexes to rent indexes (usually on apartments), which compare different units in different locations.

For the primary applicant living in a single-family rental, we estimate the mortgage payment needed to buy their current rental home. We use the same loan terms (mortgage rate, term, and product type) and taxes and insurance (as a percent of the home value) as for the home they intend to purchase, along with a modeled estimate of the current market price of their rental (see the Appendix for additional details).

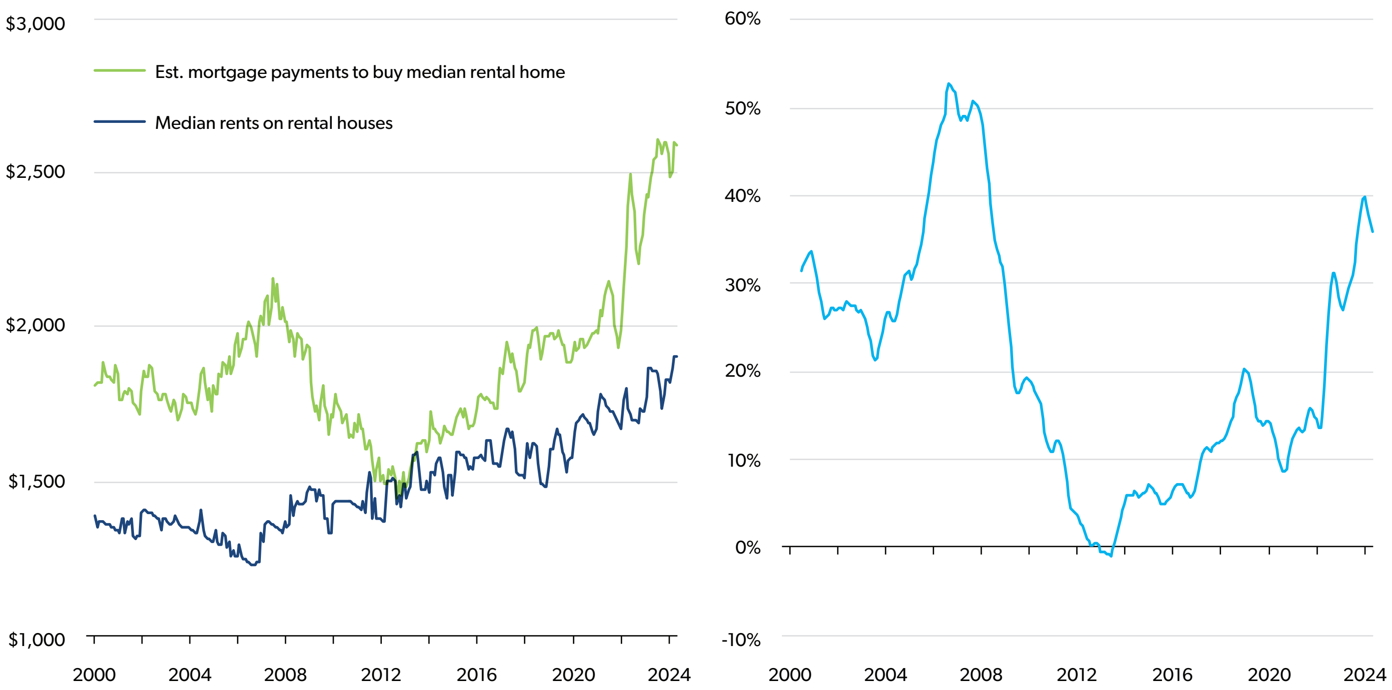
Exhibit 2a shows the median rents on single-family rentals from loan applications, along with the median of our estimated mortgage payments on those rentals. **Exhibit 2b** is how much higher the typical mortgage payment would be over the typical rent on a single-family home each month.

EXHIBIT 2

Comparing rental and mortgage costs needed to purchase the same rental home

a) Median rents and estimated mortgage payment ($)

b) Median difference between rents and mortgage payment (%)



Source: Freddie Mac Economic and Housing Research.

Notes: Based on single-family rental homes occupied by Freddie Mac loan applications, rented 12 months or less. We use CPI of all urban prices by the BLS to adjust for inflation.

You can see in the first panel in Exhibit 2 that both actual rents and estimated mortgage payments on those homes have trended up steeply over the past decade, even after accounting for inflation. This upward trend is consistent with our earlier research indicating that the U.S. has a large housing shortage. Exhibit 2a makes clear the unfortunate situation of those who don't currently own a home—the cost of both renting and buying has jumped far faster than inflation over the past ten years.

The gap between the two has also widened recently, and is shown on the right. A value of 0% indicates that the rent is the same as a mortgage would be and higher values indicate owning is relatively less affordable compared to renting. In April 2024, our estimated monthly mortgage payment is 36% higher than the rent on that same house.[iii]

Typically, rents change infrequently. Thus, the rents used here lag the current market rents by several months, likely resulting in a slight overstating of the relative difference shown in Exhibit 2b.[iv] Our data also suggests that rent increases for existing tenants tends to be below the increase in the market rents. Thus, to dampen any bias, we limited our analysis to only properties where the renter has been at that address a year or less.

The main takeaway is that while the current percentage difference is high, it is down from when mortgage rates peaked last October and well below the peak of November 2006. It is also not much higher now than during the early 2000s. We find that even though now is a relatively expensive time to buy compared to renting, it has been far worse.[v]

Our analysis only compares monthly costs at one point in time, so it doesn't indicate if it is financially better to rent or own over the long term. That complex decision involves accounting for future events, such as the length of time in a home, expected maintenance costs, future rent and home price growth, opportunity costs, etc.[vi]

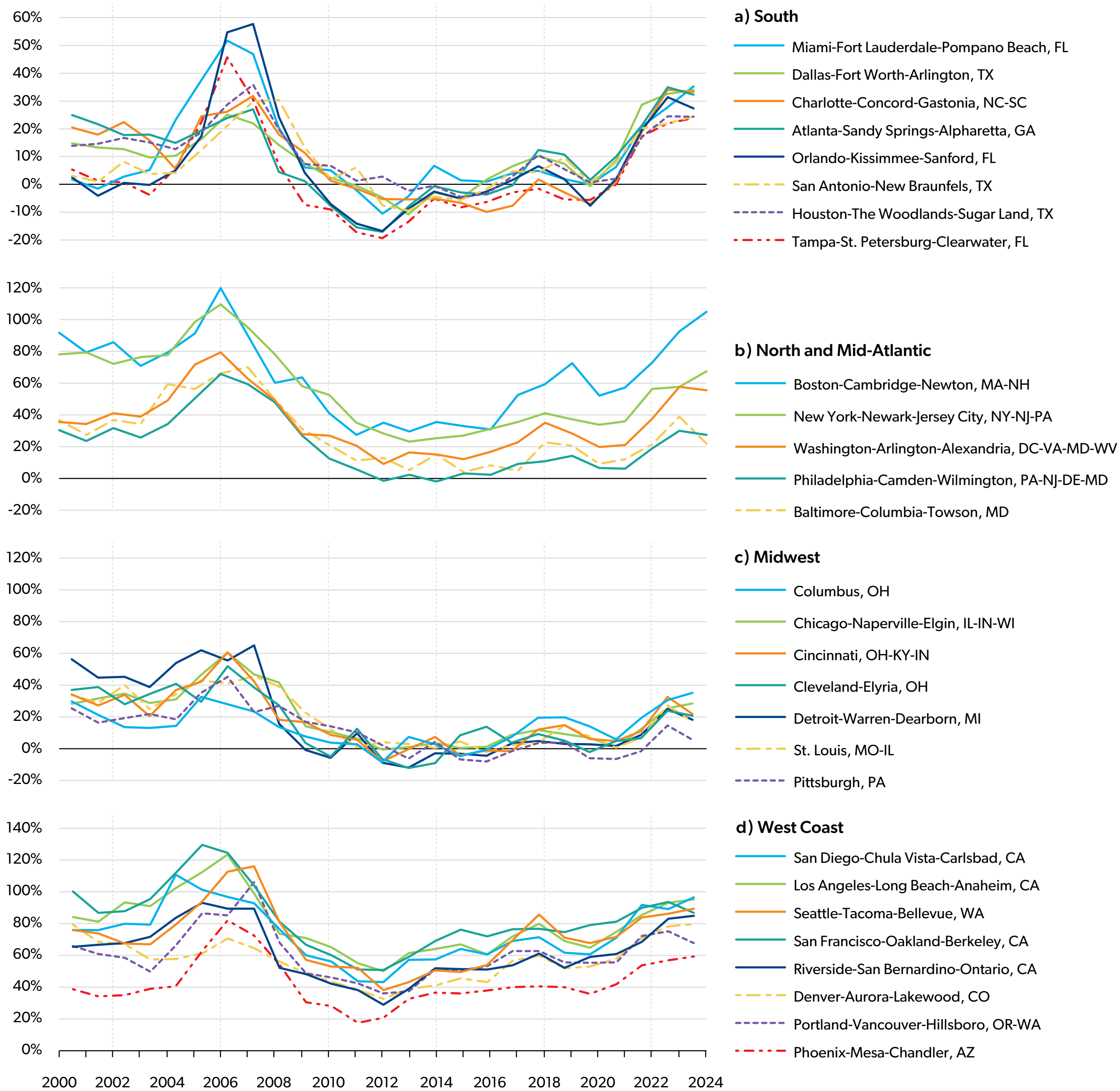
The spread between mortgage and rent on the same home evolves over time due to a multitude of factors that impact the supply and demand for rentals and homebuyers, such as changes in taxes, lending constraints, or consumer preferences. It is also possible that the perceived advantage of homeownership may be higher than in the past due to rapid rent increases in recent years.[vii] After all, a fixed-rate mortgage is an excellent inflation hedge since its principal and interest payments don't increase over the life of the loan while rents surely will increase along with future inflation.[viii] In other words, your mortgage payment can remain constant in the future (or decline if you refinance at a lower rate) as your income (hopefully) increases and inflation pushes up rents.

Exhibit 3, on the following page, shows the same analysis as Exhibit 2b for the a selection of the most populous metros. Metros tend to move together since mortgage rates are national. Variations across metros are due to differences in home prices and rents, and just from noisier data due to the smaller number of observations.

EXHIBIT 3

Comparing rental and mortgage costs needed to purchase the same rental home in large metros

Median percentage difference: a) South, b) North and Mid-Atlantic, c) Midwest, d) West Coast



Source: Freddie Mac loan applications from single-family rental homes, rented 12 months or less. Calculation details are in the Appendix.

The main takeaways are that in most markets today:

While monthly costs of buying are currently elevated as compared to renting, it is not unprecedented—the early 2000s saw a similar dynamic.

1. The monthly costs of buying are currently elevated compared to renting , which is not surprising given how sensitive they are to mortgage rates.
2. It has been far worse at times in the past and isn't that different from the early 2000s.
3. Southern metros are experiencing the most relative affordability stress compared to their past. Even though the percentage increase in monthly costs of owning vs. renting remains generally lower than in many large metros in the West and Northeast, the relativity larger increase in the South in recent years may suggest a possible disconnect between home prices and fundamentals worth monitoring. This elevated cost of ownership over renting might decline in the future if rents grow faster than home prices, if mortgage rates come down, or if builders can catch up to the strong demand.
4. Even with rents rising faster than overall inflation in most markets, the monthly mortgage payment costs needed to purchase those rentals have grown even faster in the past two years as mortgage rates more than doubled. The 2023 average for the largest 25 metros was 47%, indicating that a new mortgage to buy a home would cost 47% more a month than the rent.

The highest values recently have been in Boston, followed by Los Angeles and San Diego. The lowest recent values were in Detroit, St. Louis, and Baltimore. Only two top metros are at series highs: Denver and Dallas/Ft. Worth.

- Looking first at Dallas/Ft. Worth, strong in-migration resulted in home prices rising 57% over the past five years (far exceeding overall inflation of 23%, but only 3% over the change in national home prices).[ix] At the same time, median rents on single-family homes reported by loan applicants increased 38%, which was below the national average growth of 43%. While this metro has seen more rapid growth in the cost of owning than rent recently, we believe that the main reason for the 23-year peak is because Texas didn't reach as large a height as many other locations in the mid-2000s due to a far more muted home price boom and bust. Mortgage payments relative to rents there are still below the national average.
- Denver's record high now is also explained by a lower peak in mid-2000s. Home prices increased 44% over the past five years, while median rents on single-family homes reported by our loan applicants increased roughly 39%.

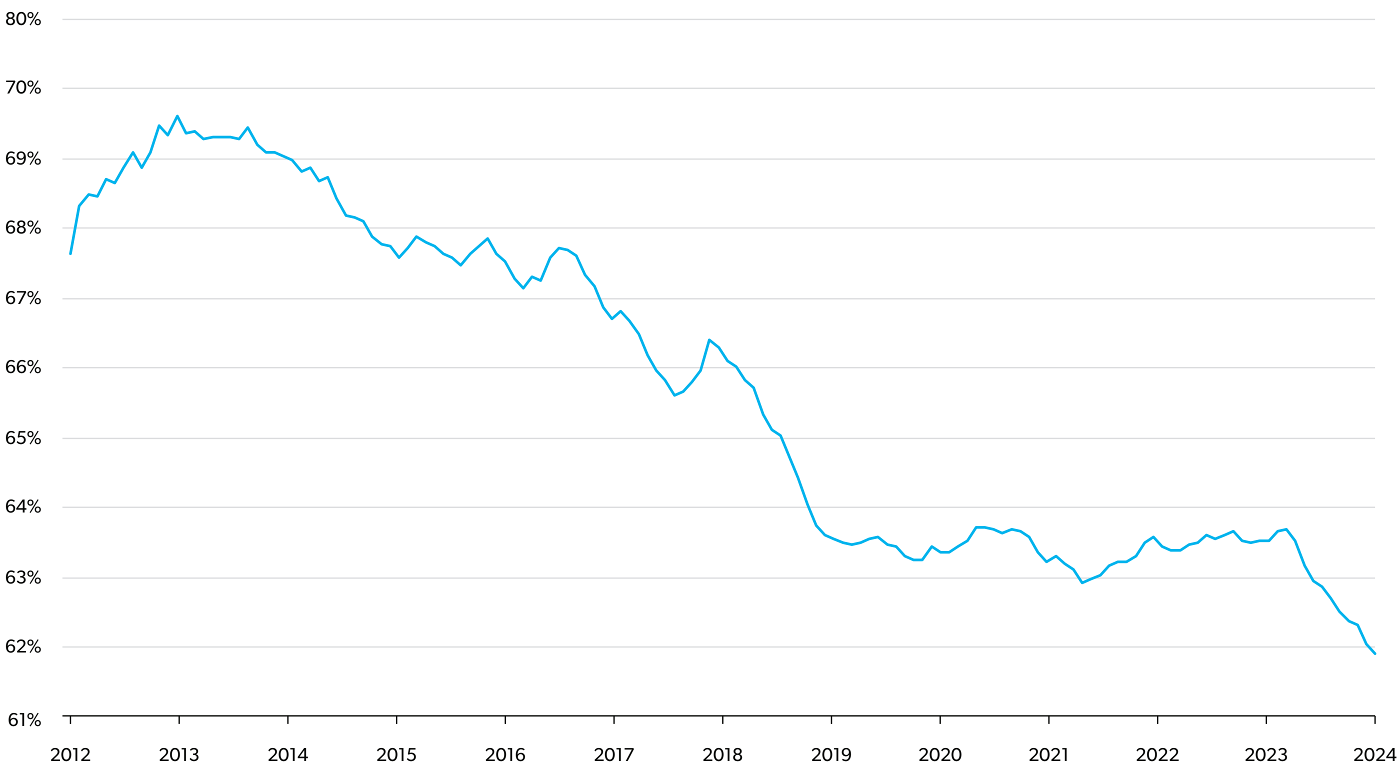
In this section, we compared renting to owning the same house as a way of looking at relative affordability, in the next section we compare two *different* homes: the one the borrower is renting and the one they are hoping to purchase. This enables us to see how borrowers have adapted to worsening affordability by opting for smaller homes.

Fewer people are applying to buy larger houses than the one they are renting

In this section, we investigate the percentage of applicants who intend to buy a larger home. We do that by comparing the size of the rental to the size of the intended purchase in square feet. **Exhibit 4** presents the percentage of applicants living in single-family rentals that applied to buy larger home.

EXHIBIT 4

Percentage of applications to buy larger homes than their rental



Source: Freddie Mac loan applications from those in single-family houses rented in the prior 12 months and where we have data on the square footage of both houses (from various sources, including appraisals and public records). The chart is a 12-month moving average to address seasonality (there is a smaller move-up percentage during the winter).

The percentage of loan applications to purchase homes with more square footage than their rental house trended down from a high of 69% in 2013, when home prices had overcorrected to the downside during the housing crash, to a series low of 61% in April of 2024. The chart shows a slight temporary break in the trend after 2019 as working from home became more common, before falling steeply over the past year as mortgage rates increased.

We suspect the downward trend was driven by worsening affordability, which has forced more prospective homebuyers to settle for smaller homes as compared to in the past.

> Potential homebuyers have been partially offsetting higher mortgage costs by applying for mortgages to buy relatively smaller homes compared to their rental homes than in the past.

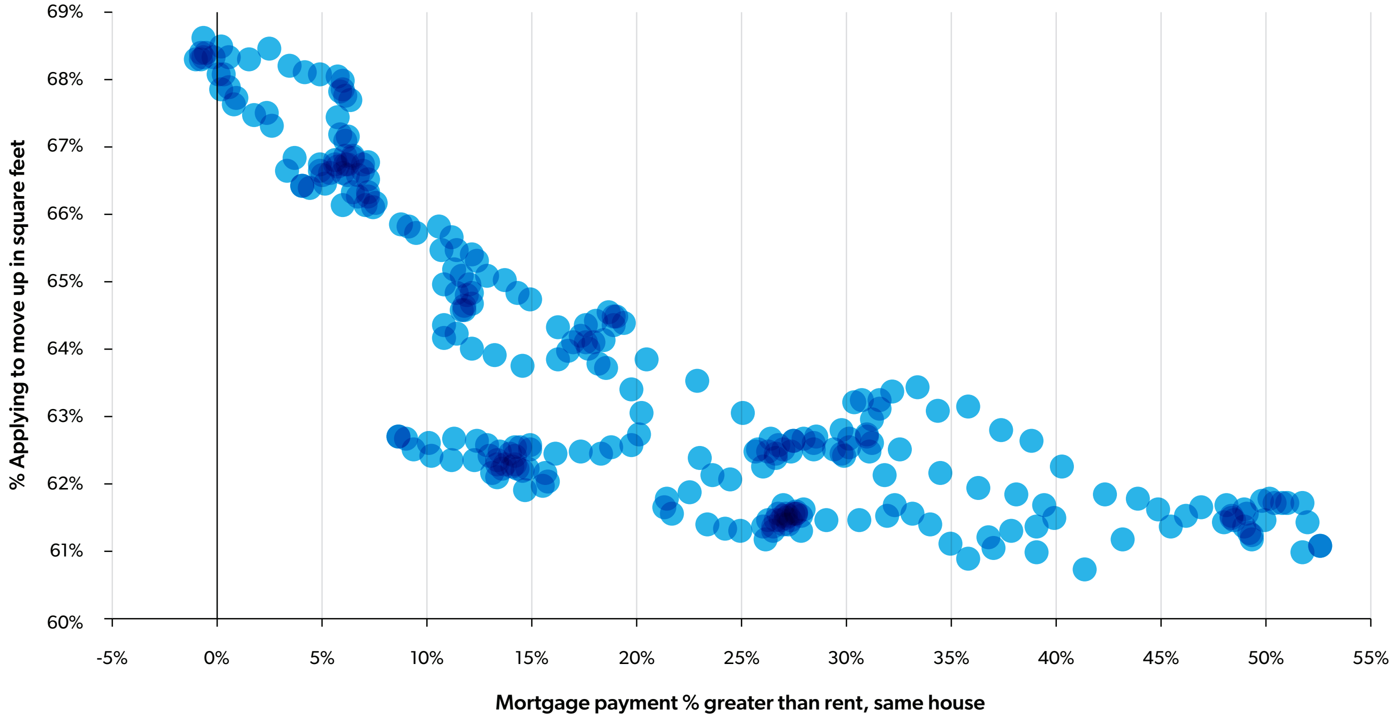
This substitution effect is what economists would expect since people should trade off their consumption choices across various options to get similar enjoyment for the marginal (i.e., last) dollar spent on various options. For example, if the price of beef doubles while the price of chicken stays the same, we expect consumers to eat more chicken and less beef. Relating this back to our analysis, when monthly housing costs increase faster than other costs, we expect prospective homebuyers to try to trim their consumption of housing where possible (e.g., by buying a smaller home or in a less expensive neighborhood) because they are more likely to enjoy spending the marginal difference in housing costs on the consumption of non-housing goods and services.

The above analysis focuses on people planning to move from a single-family rental to their own home.We also noticed a similar decline in the share of applicants from *existing homeowners* applying for larger homes in recent years from 69% near the start of the pandemic to 65% now.

We conclude by tying together the two main types of analysis in this article. The x-axis in **Exhibit 5** shows how much higher a new mortgage payment would be over the rent on the same house (the same data as in Exhibit 2b). The y-axis is the percent of applications for a home with more square feet than their rental home (the same data as in Exhibit 4). Each dot shows the median values for a month starting in June 2000.

EXHIBIT 5

The higher mortgage costs are relative to rents, the fewer people apply for larger homes than their rentals



Source:Freddie Mac loan applications from those in single-family houses rented in the prior 12 months and where we have data on the square footage of both houses.

Higher values along the x-axis represent poorer affordability relative to renting, while higher values on the y-axis indicate a higher share of people intending to move to a larger house. Exhibit 5 makes it clear that the higher the cost of owning is relative to renting, the fewer people apply for mortgages for larger homes than their rental.

Conclusion

We cast new light on two key aspects of purchase applications by those living in single-family rental homes. First, we looked at the relative monthly costs of owning vs. renting. We did that by comparing rents on single-family houses to an estimated monthly payment for a new mortgage to buy *that same house*. We found that poor affordability (from high home prices and mortgage rates) has driven a wide wedge between typical mortgage payments and rents on those homes. Some silver linings are that at least the size of mortgage payments over rents is similar now to the early 2000s, is not as bad as during 2005-2007, and has improved since October 2023, when mortgage rates were near 8%. We also looked at the largest metros and found wide variability, with home prices generally exceeding rents by a more significant margin in the highest-priced markets, such as along the West Coast.

The second contribution of this analysis is identifying a shift in loan applicant's behavior to cope with worsening affordability. We showed that fewer people are applying to buy large homes to leave their rental homes. This shift to fewer people moving up is a logical economic response to worsening affordability. The increase in substitution towards smaller, more affordable homes shows that many potential homebuyers dealt with higher mortgage costs by settling for less space. This downsizing effect helps explain why housing demand has held up as well as it has in the face of worsening affordability, in addition to other positive factors such as favorable age demographics and a strong labor market.[x]

We also discovered a strong relationship between these two types of analysis. We found that the higher mortgage payments are relative to rents, the lower the share of purchase applications for a home that has more living space than the rental house they were in.

Higher mortgage rates in the past few years are a major driver behind the relatively high cost of owning compared to renting and the decline in move-ups. We believe the share of people moving up should improve once mortgage rates come down, which many economists forecast will happen over the next year and a half.

Freddie Mac works hard to provide a variety of programs to make housing more affordable. Promoting housing affordability is more than about fulfilling our charter mission to provide liquidity, stability, and affordability to the U.S. housing market. It extends to a wide range of other commitments we have made to fulfill our broad mission, including our efforts to stabilize communities, prevent foreclosures, responsibly expand credit, and educate renters and families seeking to become homeowners.

Appendix: Data and methodology

The data for this analysis comes from millions of Freddie Mac loan applications from January 2000 through April 2024. Applicants provide their current address and the amount they pay in rent if they are renting. We then take their rental address and restrict our population to those living in a single-family house.

For the primary applicant living in a single-family rental, we estimate the mortgage payment needed to buy their current rental home. We use the same first-lien loan terms (mortgage rate, loan-to-value ratio, term, and product type) and taxes and insurance (as a percent of the home value) as for the home they intend to purchase, along with a modeled estimate of the current market price of their rental. We don't account for any income tax deduction for interest payments since most people don't itemize their deductions.

Exhibit A is an illustration of the loan-level analysis in this article. It shows how we compute what a monthly mortgage payment would be for a new loan on the applicant's rental home.

EXHIBIT A

Illustration of the data used in several exhibits

Values are for two different loan applications in the same metro

Relative affordability: Comparing mortgage payments to rents on the same houses	**Example:** Two Single-Family Rental Homes in Dallas/Ft. Worth, TX	
	End of Q1 2019	End of Q1 2024
Estimated value of rental home (model-based)	$261,741	$414,318
Monthly rent (reported on loan application)	$1,700	$2,350
Estimated monthly mortgage payment, including taxes and insurance	$1,818	$3,139
Monthly mortgage payment relative to rent	**($1,818-$1,700) / $1300 = 7%**	**34%**

Source: Illustrative examples based on median values.

The key point is how we calculate the final row, as it is used in several exhibits.

Since we only use loan applications in our origination system from applicants living in single-family rentals, our results don't address existing homeowners and should not be generalized to the market as a whole. Of the applicants residing in single-family rentals, close to 80% in recent months are identified as first-time homebuyers, while the rest are applicants planning to return to homeownership after renting.

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Footnotes

i Some articles looking at rents leverage loan-level data, but they typically differ in focus and approach from ours. An excellent example is *House Prices and Rents in the 21st Century* by Lara Loewenstein and Paul Willen, who focused on identifying housing bubbles and changes in preferences. They used public records and MLS data to look at sales and rents, and they built a dataset on rental homes that were sold. While their approach provides an actual market price compared to our model-based home price estimate, it comes at the cost of significantly reducing the sample size. We also suspect that rental listing in MLS are skewed to the upper end of the market and that this bias varies over time, as well as having spotty geographic coverage. Our own comparison to MLS found that MLS rents average over 30% higher than in our applications by people in a single-family rental properties one year or less since 2019 and over 50% higher during the mid-2000s. Another article using sales transactions by homes that were both sold and rented within a short period is *House Prices and Rents: Microevidence from a Matched Data Set in Central London*, by Philippe Bracke in Real Estate Economics, 2015, which focuses on understanding systemic differences in rent to price ratios. There is also a limited literature looking at move-ups, such as *The Housing Ladder, the Housing Life-cycle and the Housing Life-course: Upward and Downward Movement among Repeat Home-buyers in a US Metropolitan Housing Market* by Hazel A. Morrow-Jones and Mary V. Wenning, 2005, which is based a survey in one county and *Demographics, human capital, and the demand for housing* by Piet Eichholtz and Thies Lindenthal, 2014 looking at survey data in England which found demand for housing increases with human capital, and generally increases with age.

ii The Census Bureau ACS survey publishes data on renters and owners by structure type.

iii Our results differ from a recent paper *The Higher Cost of Rental Housing* by Kim-Eng Ky and Ryan Nunn using Census survey data that suggested renting is more expensive than a mortgage on physically similar owner-occupied units. That analysis assumes 100 LTV IO loans to align with pure investment choices, whereas we include the principal payments, taxes and insurance because we care most about how the typically borrower focuses on monthly cash flows.

iv The median mortgage application rental data is a bit choppy, often changing in $50 increments. This could be because of month-to-month shifts in the distribution of homebuyers, and because of mortgage applicants rounding their rent reported on their loan application. We limited our rental data to those who have rented a property for 12 months or less to be more comparable to current market rents. Even so, our current rent numbers may be somewhat below current market rents because rents for all existing tenants lag current market rents when rents are rising.

v The relationship we found between mortgage payments and rents follows a similar pattern to traditional affordability measures, such as the *National Association of Realtors* (NAR) Housing Affordability Index (which is based on the estimated monthly principal and interest mortgage payments for a median-priced home as a share of median income). This similarity isn't surprising since both approaches move with mortgage rates and home prices. By comparing owning to the natural alternative of renting, our approach complements income-based measures by offering an additional way of viewing conditions today compared to the past. Comparing the results of two approaches, we found that NAR's index indicates that affordability now is far worse than during the housing boom in 2005-2007, and you have to go back to the double-digit mortgage rates of the 1980s to find a period this unaffordable. Our approach also indicates that conditions are now quite difficult compared to most of the past 23 years. However, we also found that the median mortgage payment over the rent is not as bad as during 2005-2007 because rents are so much higher now than 15 years ago. In addition to bringing in rents, our approach has the advantages of being based on actual mortgage application data, allowing a detailed loan-by-loan analysis.

vi An example of a high-quality rent-vs.-own calculator showing the multitude of complex assumptions needed is available from the *New York Times*.

vii Homeownership has many benefits. For example, owning gives you control over the property's appearance and how long you can live there. Owning also provides an opportunity to build equity.

viii While principal and interest don't change on a fixed-rate loan, taxes and insurance do increase over time.

ix Home price growth is based on Freddie Mac's seasonally adjusted HPI for data through March 2024. Overall inflation is from BLS's Consumer Price Index, All Urban Consumers.

x The months' supply of existing homes listed for sale remains below pre-pandemic levels. While sales are down, that primarily reflects fewer existing homeowners switching homes due to having below market rate mortgages.