

The Decline in Relative Housing Affordability and the Impact on Homebuyer Search Behavior

While many metrics are useful in tracking the affordability hurdle to homeownership, they suffer from using highly aggregated data that doesn't allow for the insights possible using individual transactional data. In this analysis, we use actual, detailed transaction data on rents, home prices, and mortgage payments for individual homes and borrowers to produce a new relative affordability measure. This methodology allows us to control for changes in the heterogeneity of homes and borrowers. It provides a much more granular and apples-to-apples view that also allows us to track the shift in potential homebuyer's search behavior as the relative affordability of renting vs. owning shifted over time.

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 are very elevated compared to pre-pandemic levels, 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.

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—14 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.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.

Our new relative affordability research has three conclusions:

1. While affordability relative to renting is very poor compared to pre-pandemic levels, it is similar to the early 2000s and within the upper range of historical norms.
2. Southern metros are experiencing the largest affordability declines.
3. Homebuyers are adapting to the deterioration in affordability by targeting smaller homes than in the past.



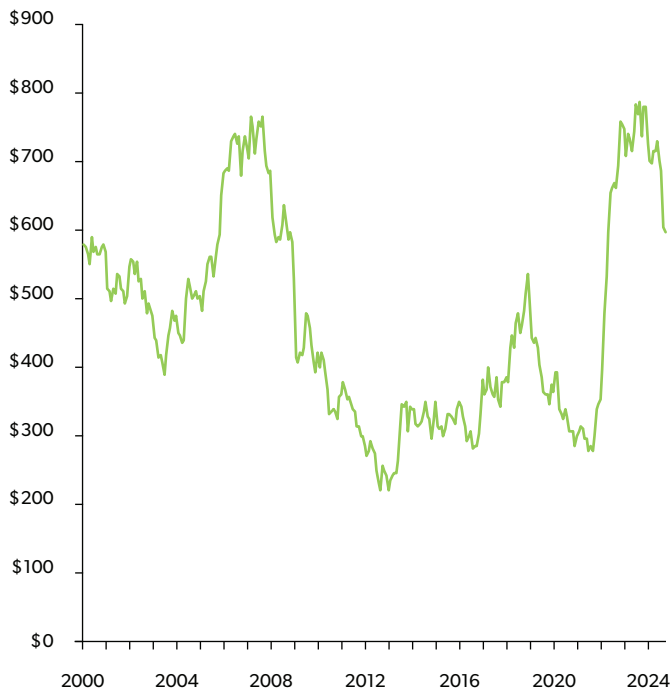
Relative affordability: current rent vs. mortgage on desired purchase home

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 current rental house. The first chart is inflation-adjusted to today's dollars while the second chart is as a percent of their current rent.

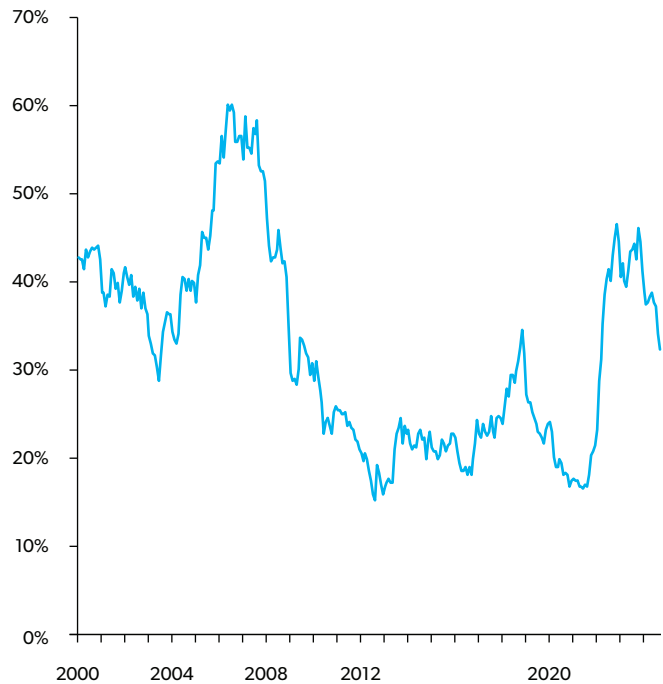
EXHIBIT 1

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

a) Median increase (\$, inflation adjusted)



b) Median increase (% , inflation adjusted)



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 typical applicant living in a single-family rental currently would pay around \$600 more per month than they pay in rent if they were to complete the purchase of their desired/intended house—32% higher than their rent. That is far lower than the peak of 60% higher in mid-2006 when speculative demand for housing was high, and lending guidelines were far looser. The 14% 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.



Relative rent vs. mortgage affordability for the same 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 and contrasts favorably with the traditional approach of comparing home price indexes to rent indexes (usually on apartments), which compare different units in different locations.

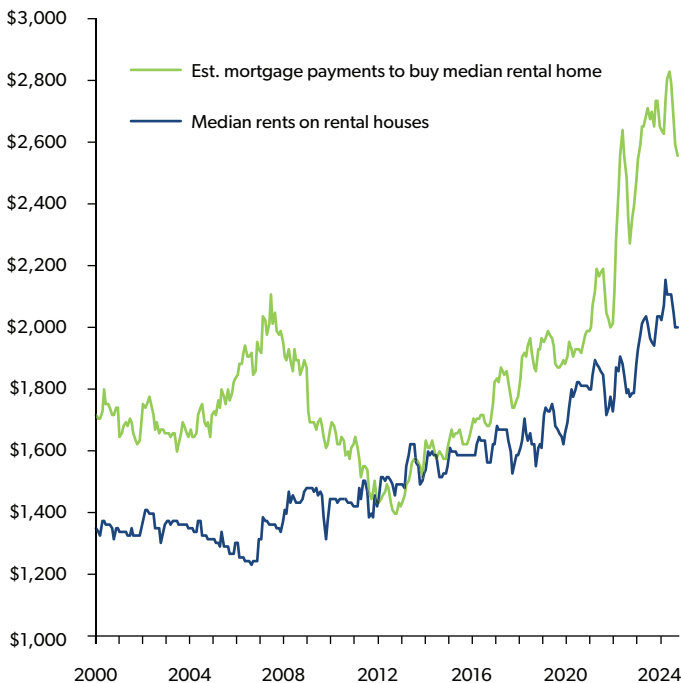
For the primary applicant living in a single-family rental, we estimate the mortgage payment needed to buy their current rental home. We use the same loan terms (mortgage rate, term, and product type) and taxes and insurance (as a percent of the home value) as for the home they intend to purchase, along 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** demonstrates how much higher the typical mortgage payment would be over the typical rent on a single-family home each month.

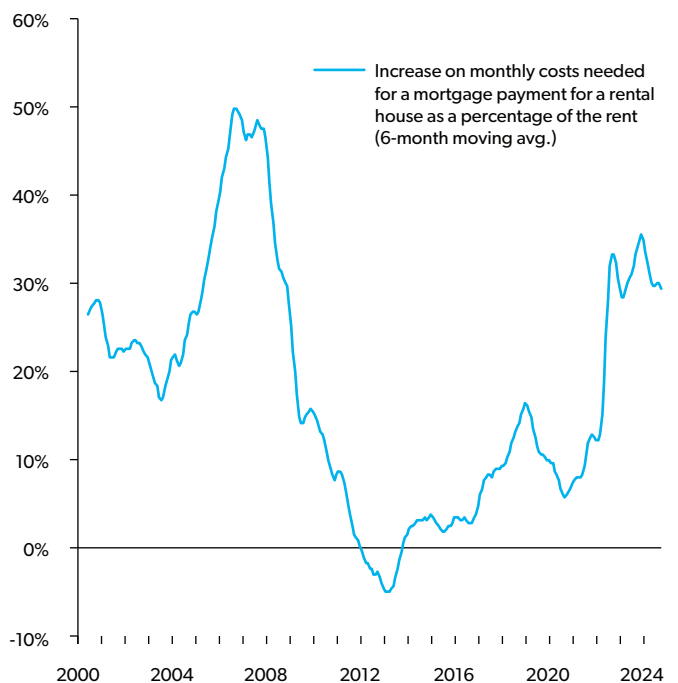
EXHIBIT 2

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

a) Median rents and estimated mortgage payment (\$, inflation adjusted)



b) Median difference between rents and mortgage payment (% , inflation adjusted)



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.



It is clear 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.

We are not surprised that our estimated monthly costs of ownership at the time of intended purchase are generally higher than rents. Owning has many advantages, such as 1) the building up of equity over time 2) capturing the likely upside from future home price growth 3) control over the property's appearance and how long you can live there, and 4) the option to lower your costs in the future by refinancing if mortgage rates fall.

The gap between the two has also widened recently, as is shown in Exhibit 2b. A value of 0% indicates that the rent is the same as a mortgage would be, with higher values indicate owning is relatively less affordable compared to renting. In September 2024, our estimated monthly mortgage payment is 29% higher than the rent on that same house.ⁱⁱⁱ

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 in 2006 of 50%. 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.^{iv}

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.^v After all, a fixed-rate mortgage is a great inflation hedge in that only the taxes and insurance costs increase over time while the principal and interest components of the mortgage payment don't increase over the life of the loan. In other words, some components of 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. Of course, there are homeownership costs other than the mortgage, such as maintenance, that will grow over time.

Exhibit 3 shows the same analysis as Exhibit 2b for 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 than at the national level.

There are several takeaways from the regional analysis. Southern metros are experiencing the most relative affordability stress compared to the past. One possible cause for this is the acceleration of the long-standing migration southward triggered by increased work-from-home opportunities and the rising population of retirees. 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 relatively larger increase in the South in recent years may suggest a possible disconnect between home prices and fundamentals worth monitoring. The relatively significant increase in mortgage costs relative to rents may explain in part why home price growth in the South has lagged behind the more affordable Midwest (and even parts of the Northeast) over the past year.

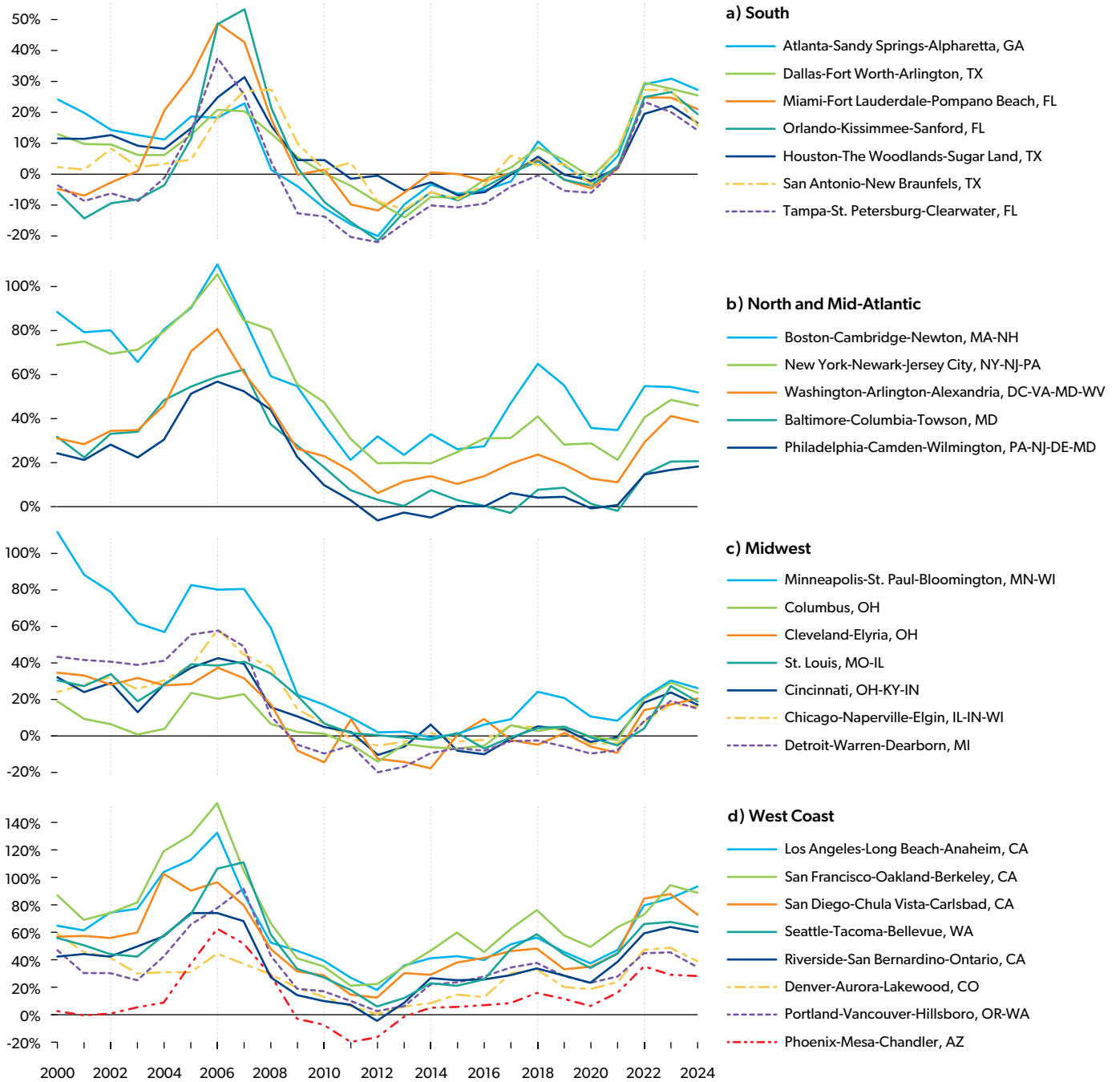
We also observe that the lack of affordability relative to rents that has been historically relegated to large coastal markets has increasingly crept into interior markets in the Southeast, Southwest and Rocky Mountains.



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 highest mortgage payment-to-rent values recently have been in Los Angeles, followed by San Francisco and San Diego. The lowest recent values were in Tampa, Detroit and San Antonio. No MSA is currently at an all-time high.



The shift in buyer search behavior when affordability worsens

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

Given the size of the home is an important variable in a homebuyers decision as it relates to affordability, 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 71% in 2013, when home prices had overcorrected to the downside during the housing crash, to 64% in September 2024. The chart shows a slight temporary reversal in the downward trend in 2020 as working from home became more common, before falling again 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.



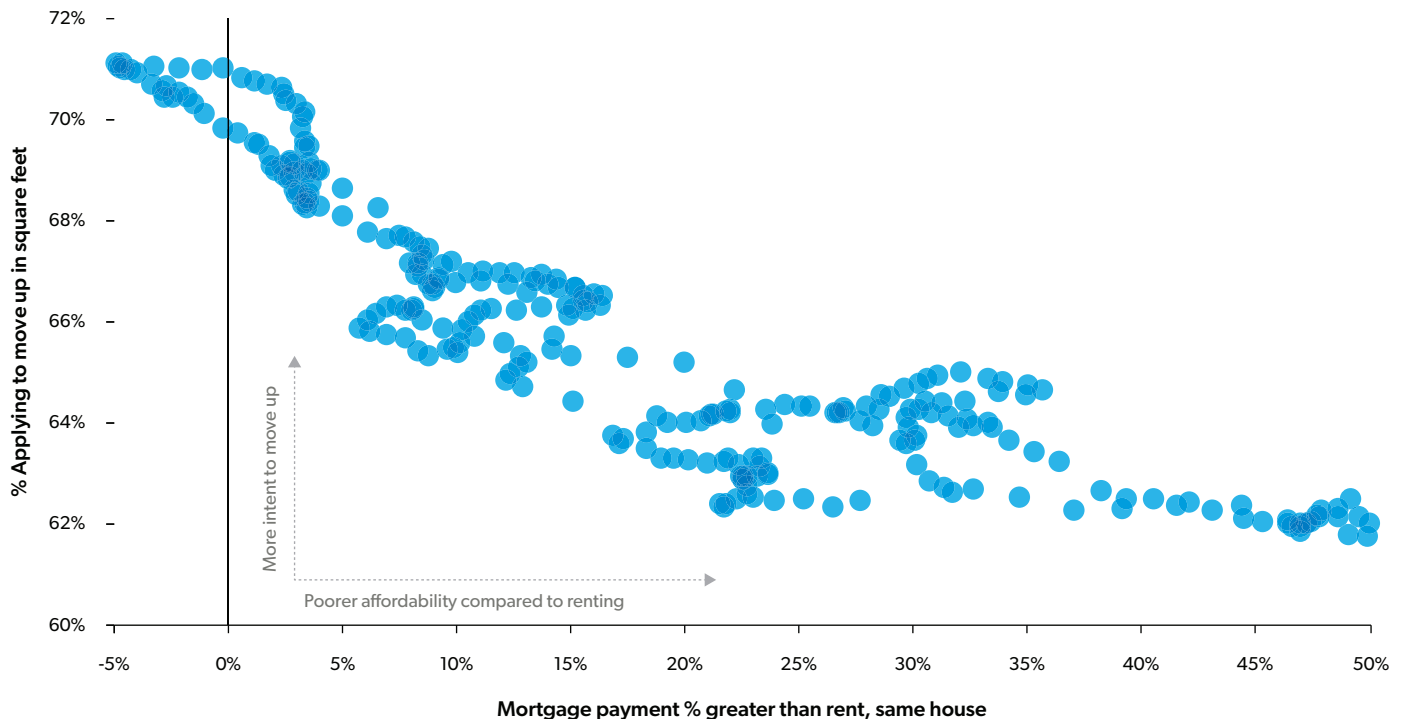
This substitution effect is what economists would expect since people should trade off their consumption choices across various options to get similar enjoyment for the marginal (i.e., last) dollar spent on various options. For example, if the price of beef doubles while the price of chicken stays the 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. There is also 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. The overall takeaway from this section is that as housing becomes less affordable, there is clear substitution into smaller homes.

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, as well as to the house the renters wanted to purchase.

By comparing owning to the natural alternative of renting, our approach complements more traditional income-based affordability measures by offering an additional way of viewing conditions today compared to the past.

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%.

When we looked at the largest metros we 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. Moreover, the largest deterioration in affordability has occurred in the South and other selected markets in the Southwest and Rocky Mountains.

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 larger 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.^{vi}

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 and higher prices 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 1.4 million Freddie Mac loan applications from January 2000 through September 2024. Applicants provide their current address and the amount they pay in rent if they are renting.^{vii} 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 at different times

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)	\$261,727	\$420,216
Monthly rent (reported on loan application)	\$1,750	\$2,500
Estimated monthly mortgage payment, including taxes and insurance for a new mortgage the rental home using typical loan terms	\$1,820	\$3,269
Estimated monthly mortgage payment relative to rent on a rental home (rent/mortgage -1)	4% higher	31% higher

Source: Illustrative examples only.

The point of the example is to aid in understanding how we calculate the final row, since it is used in several exhibits. Values shown in this paper are the medians of the loan-level estimates of monthly mortgage payments relative to rents—which can differ somewhat from a different approach of first taking medians of the rents and the median of the estimated principal, interest, tax, and insurance, and then taking the ratio of those two summary statistics.

One way to think about our analysis is that it compares the current rent to mortgage payments if the renter were to buy their rental home. If we instead think about someone looking for a new rental home that doesn't currently have an existing lease, the relative difference shown in the illustration above and in the some exhibits may be slightly overstated since market rents may be above the rent reported on a loan application. As we expected, our data suggests that rent increases for existing tenants tend 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 for a year or less.

Since we only use loan applications in our origination system from applicants living in single-family rentals, our results don't address existing homeowners or applicants desiring a jumbo mortgage 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 a period of renting.



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. 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. We do not include 2-4 unit houses in our analysis since the different units vary in rent and size, making comparisons difficult.
- 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 Our focus here is on the relative affordability of buying vs. renting since that is very salient to first-time homebuyers, not on the (also highly relevant) more commonly studied topic of absolute affordability. A popular absolute affordability index from the *National Association of Realtors* (NAR), which is the ratio of the principal and interest for an 80 LTV mortgage on a median-priced home relative to 25% of the median income. In addition to bringing in rents, our approach has the advantage of being based on actual mortgage application data, which enables answering questions about regional trends and changes in prospective homebuyers' behavior. Both approaches move with mortgage rates and home prices, so it not surprising our approach broadly tracks NAR's index. That said, there is an important difference in how far back you have to go to find conditions as unfavorable as they are today. Comparing the results of the 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.
- v While principal and interest don't change on a fixed-rate loan, taxes and insurance do increase over time.
- vi 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.
- vii A review of the input data indicated some suspiciously low rents, perhaps from non-arms-length relationships to the landlord, renting only part of home, homes that we didn't know were subdivided (we removed all homes reported as 2+ unit homes), etc. This data filtering accounts for geographic and temporal variation and removes the unreasonably low rent. Specifically records with rents of \$1 were removed, then we jointly removed the top and bottom 1% of rents by CBSA and year and the upper 5% of the ratio of estimated mortgage over rent by CBSA and year. Filtered values were many multiples of the median values and in our view did not represent what someone looking to rent a single-family home would be able to find on the open market. The broad patterns and conclusions of the paper were robust to various filtering approaches we tested and the filtering resulted in median rents more in line with those available from external data.

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