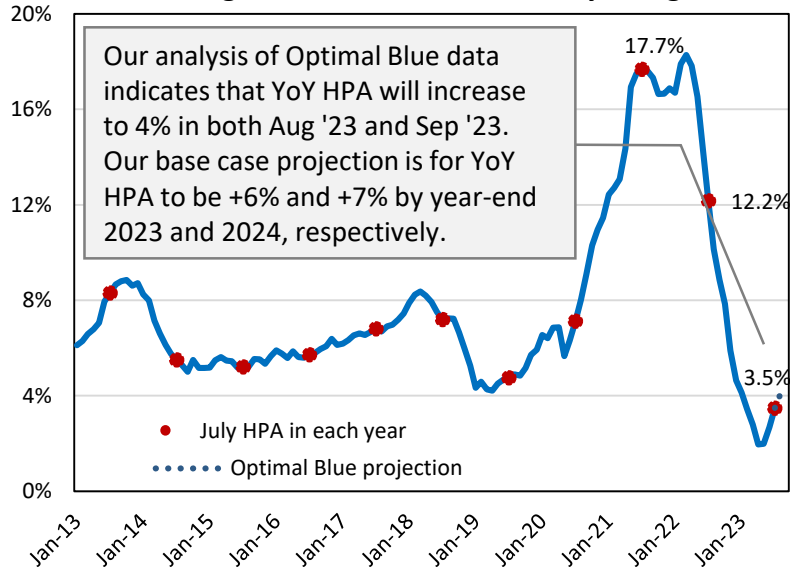


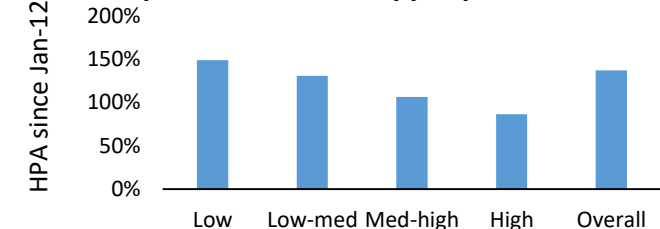
Home Price Appreciation (HPA) Index – July 2023

Year-over-Year (YoY) HPA was 3.5% in July 2023, up from 2.7% a month ago and down from 12.2% a year ago. YoY HPA bottomed out in April and is expected to continue rising through September 2023 and beyond. This is largely because buyers are well-qualified and highly motivated by a historically tight supply. Cooling, yet still strong job numbers, low levels of foreclosures in most areas, work from home, and continued home price arbitrage opportunities provide further support for robust HPA.

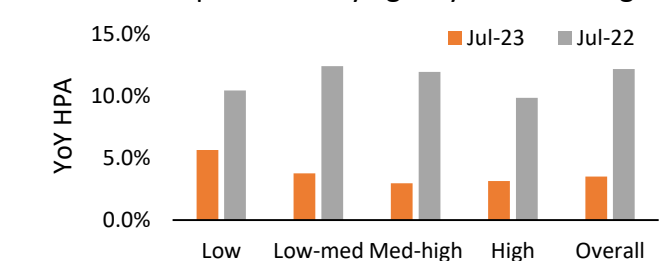
1 National YoY HPA for July 2023 was 3.5%, up from 2.7% a month ago and down from 12.2% a year ago.



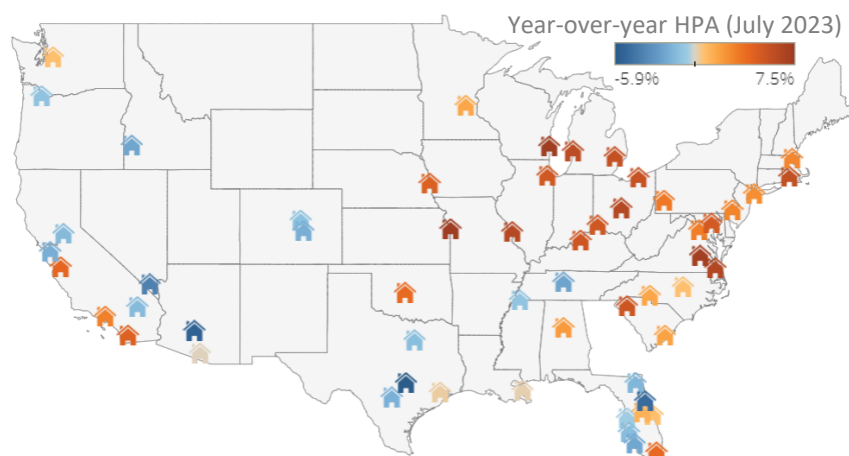
2 Historically, HPA in the low price tier has outpaced HPA in the upper price tiers.



3 Compared to a year ago, YoY HPA has slowed across all price tiers. But the higher price tiers have experienced a larger slowdown than lower tiers. The low tier is up 5.7% (YoY), due to low months' supply (2.4 months) and increasing demand promoted by agency credit easing.



4 YoY HPA varied significantly among the 60 largest metros. It ranged from -5.9% in Austin (-9.1% inflation-adjusted) to +7.5% (+4.3% inflation-adjusted) in Kansas City.



Highest YoY HPA Metros		Lowest YoY HPA Metros	
Kansas City, MO	7.5%	Austin, TX	-5.9%
Milwaukee, WI	7.3%	Phoenix, AZ	-5.5%
Richmond, VA	7.1%	Deltona, FL	-5.1%

5 AEI experts commentary

“YoY HPA came out to 3.5%. While it was down from March 2022’s record pace of 18.3%, it has bottomed out in April 2023. 7 of the 10 fastest HPA metros were in the Midwest, and 7 of the 10 slowest HPA metros were in the West (4) and Southwest (3), with Deltona, Nashville, and Cape Coral as exceptions.” – Ed Pinto

“Metros in the Midwest continued to lead on home price gains as their supply-demand imbalances persist. Kansas City, still relatively affordable, appreciated at the fastest rate compared to a year ago, while Austin, one of the fastest growing metros during the pandemic period, depreciated at the fastest rate.” – Tobias Peter

Note: Our data show that homes in some Florida metros were sold at a discounted rate in the last few months due to Hurricanes Ian and Nicole. To help ensure constant home quality, we exclude homes that were sold for less than 55% of the property’s AVm when we estimate the constant-quality home price appreciation for these Florida metros.

Source: AEI Housing Center, www.aei.org/housing.

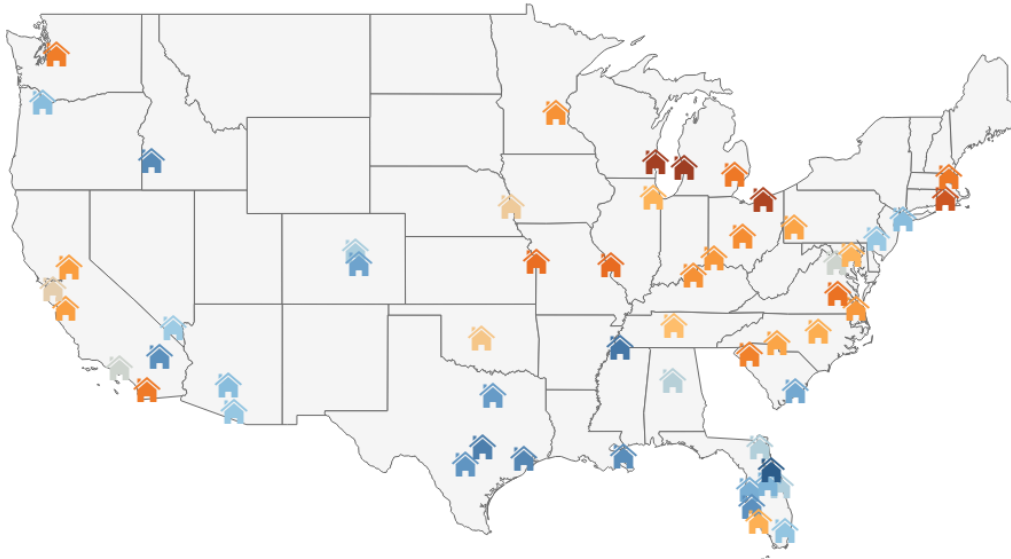


Home Price Appreciation (HPA) Index – July 2023

National Month-over-Month (MoM) HPA in July was 0.1%, continuing the upward trend that began in January 2023. MoM HPA had declined from July 2022 to December 2022. Using Optimal Blue data, MoM HPA is projected to be at -0.4% for both August and September 2023.

6 Since their respective recent troughs in either December 2022 or January 2023, constant-quality home prices have increased in every one of the 60 largest metros.

Metros in the Midwest, which continue to be relatively affordable, lead the recovery.



Cumulative HPA Change from Recent Trough (July 2023)
1.1% 13.2%

Highest HPA Growth Metros since Trough

Grand Rapids, MI	13.2%
Milwaukee, WI	13.0%
Cleveland, OH	12.6%

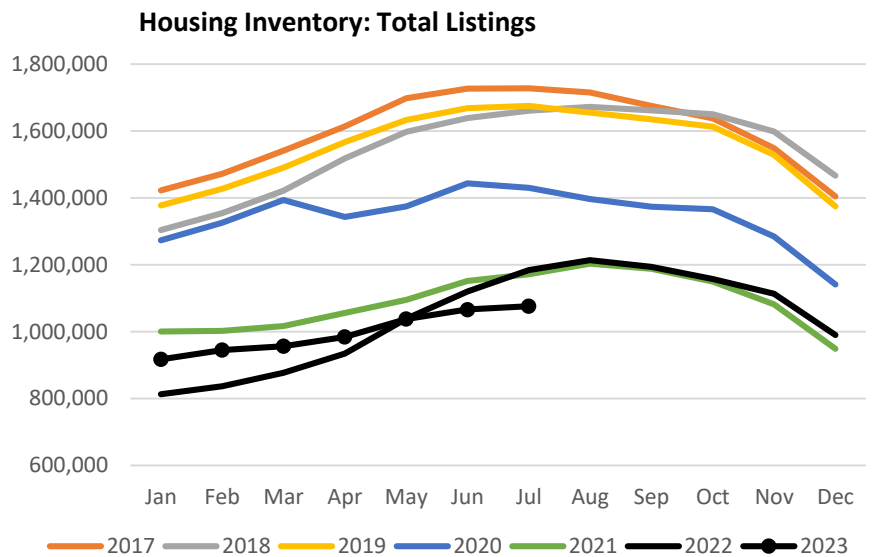
Lowest HPA Growth Metros since Trough

Deltona, FL	1.1%
Memphis, TN	2.5%
Austin, TX	3.0%

7 Housing inventory is approaching the traditional seasonal peak; yet it is still at a series low with minimal spring uptrend and momentum heading into the last part of summer.

Compared to their pre-pandemic level, existing home sales (not seasonally-adjusted) in July 2023 were down 40%, and housing inventory was down 36% as compared to July 2019, and still hovering around two-thirds of the 2017-2019 levels.

Low spring and summer inventory combined with strong demand for this diminished inventory is fueling a supply-demand imbalance. This is expected to continue through the rest of the summer and fall, thus continuing to buoy home prices.



Note: Our data show that homes in some Florida metros were sold at a discounted rate in the last few months due to Hurricanes Ian and Nicole. To help ensure constant home quality, we exclude homes that were sold for less than 55% of the property's AVM when we estimate the constant-quality home price appreciation for these Florida metros.

Source: Zillow, Freddie Mac, and AEI Housing Center, www.aei.org/housing.

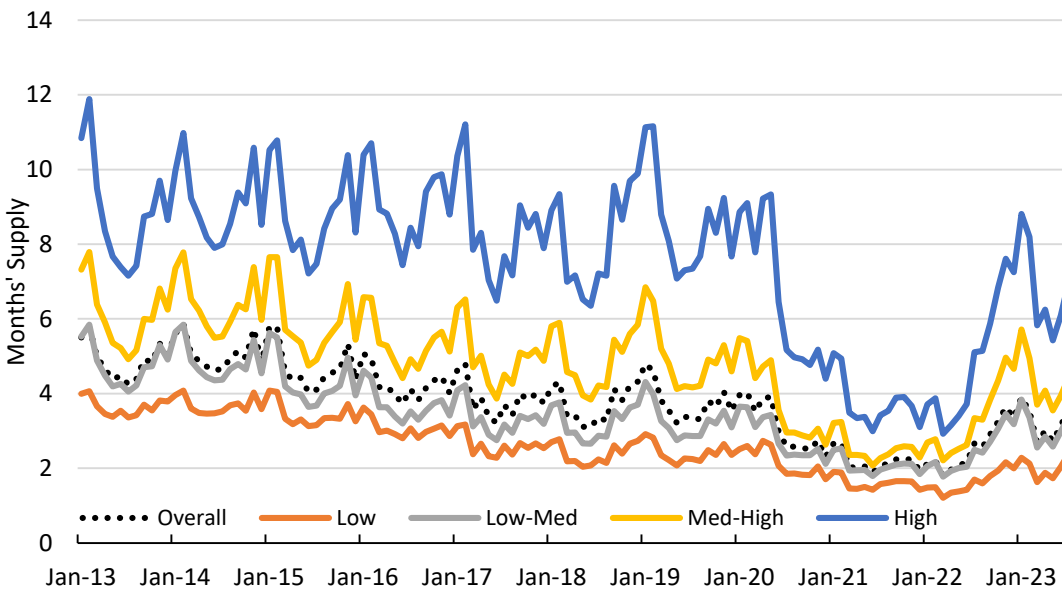




Months' Remaining Supply – July 2023

Months' remaining supply was 3.6 months (not seasonally-adjusted) in July 2023, up from 3.1 months in June 2023 and 3.3 months in July 2019 (pre-pandemic). Given historical data, a 7 months' supply represents a national market that is at nominal price equilibrium and would need to increase to 8-9 months to trigger a national YoY decline in home price appreciation.

8 Months' remaining supply (not seasonally-adjusted) was up from the recent trough in May 2023 across all price tiers. However, given historical data, we are still in a strong seller's market. (The nominal price equilibrium point is at 7, 7, 8, and 15 months' supply for the low, low-medium, medium-high, and high price tiers respectively).



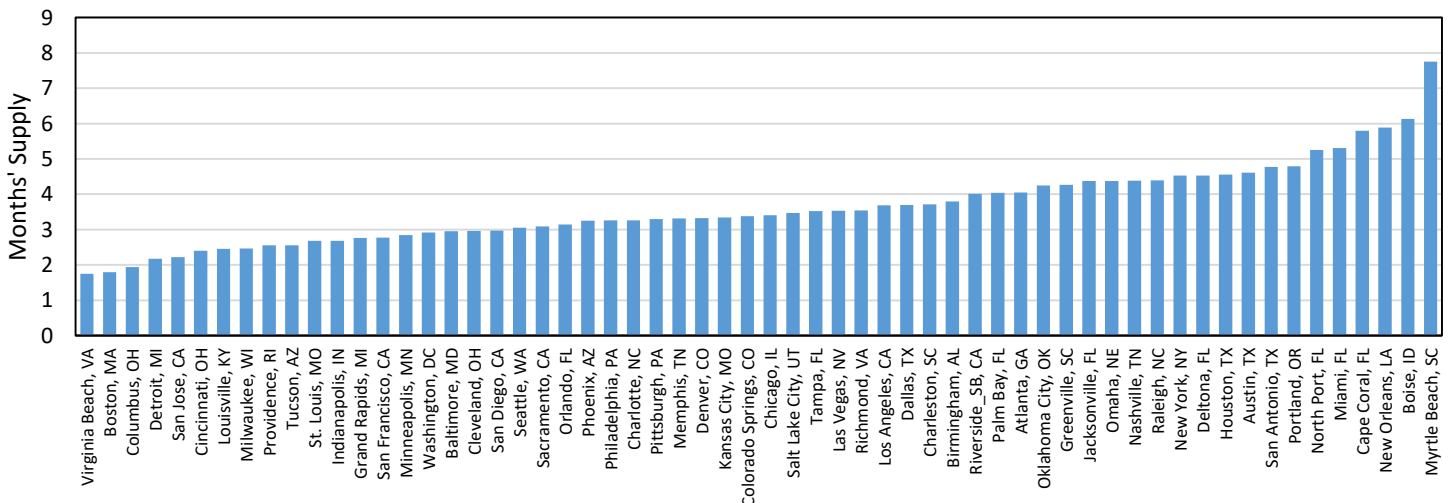
Months' Supply by Price Tier in July

	2019	2023
Overall	3.3	3.6
Low	2.2	2.4
Low-med	2.9	3.4
Med-high	4.2	4.4
High	7.3	7.0

Across the nation, 7 months' supply is generally considered the demarcation point between a buyer's and seller's market. The lower the supply, the faster the HPA and vice versa.

9 Months' remaining supply varied significantly among the 60 largest metros in the US. Out of the largest 60 metros, 59 experienced a tight to modest seller's market (months' supply < 7 mo.) in July 2023. The only exception is Myrtle Beach, a vacation town, which may have naturally higher supply relative to demand.

Months' Supply for the Largest 60 Metros



Note: The demarcation point between a buyer's and seller's market has been revised based on our latest research. It represents the average months' supply, based on historical data, where the national market is at nominal price equilibrium

Source: Realtor.com, Zillow, and AEI Housing Center, www.aei.org/housing.

