The Virginia Tech–USDA Forest Service Housing Commentary: Section I July 2024





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Opening Remarks

Housing data, month-over-month and year-over-year, were mostly negative. On a month-over-month basis multi-family starts, single-family permits, single-family completions, and new and existing house sales were positive. Year-over-year, total and single-family completions, total and single-family construction spending, and new house sales were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and the "lock-in" effect have obfuscated sales. New and existing house sales continued their respective declines.

The September 17th Atlanta Fed GDPNowTM total residential investment spending forecast is -7.0% for Q3 2024. Quarterly log change for new private permanent site expenditures were projected at -16.3%; the improvement spending forecast was 1.9%; and the manufactured/mobile home expenditures projection was 5.7% (all: quarterly log change and at a seasonally adjusted annual rate).¹

"The ISM Manufacturing index missed consensus expectations once again in August and the details of the report are worrisome. Activity in the manufacturing sector has now contracted for twenty-one out of the last twenty-two months. Overall, twelve of the eighteen major manufacturing industries reported contraction in August while five reported growth and one reported no change. Despite an increase in the overall index, the two most important parts of the report – demand and output – both worsened in August. ... The weakness in the ISM Manufacturing index underpins a growing list of economic data pointing to a slowdown in growth. We expect to see continued manufacturing weakness in the second half of 2024 as the bill for reckless and artificial spending by our government from the COVID years comes due and the lagged impacts from the drop in the M2 measure of the money supply from early 2022 through late 2023 take effect. ..." – Brian S. Wesbury, Chief Economist and Robert Stein, Deputy Chief Economist; First Trust Advisors L.P.

This month's commentary contains 2024 housing forecasts, applicable housing data, remodeling commentary, and United States housing market observations. Section I contains relevant data, remodeling, and housing finance commentary. Section II includes regional Federal Reserve analysis, private firm indicators, and demographic/economic information.

July 2024 Housing Scorecard

		M/M	7	Y/Y
Housing Starts	V	6.8%	•	16.0%
Single-Family (SF) Starts	V	14.1%	•	14.8%
Multi-Family (MF) Starts*	A	14.5%	•	18.4%
Housing Permits	V	3.3%	•	6.3%
SF Permits		0.2%	•	1.3%
MF Permits*	V	9.7%	•	15.1%
Housing Under Construction	V	1.6%	•	9.6%
SF Under Construction	V	2.1%	•	4.1%
Housing Completions	V	9.8%		13.8%
SF Completions	A	0.5%		3.6%
New SF House Sales	A	10.6%		5.6%
Private Residential Construction Spen	ding 🔻	0.4%		7.7%
SF Construction Spending	V	1.9%		4.0%
Existing House Sales ¹	A	1.3%	V	2.5%
	I/M = month-ov IC = No change	er-month; Y/Y	= year-	over-year;

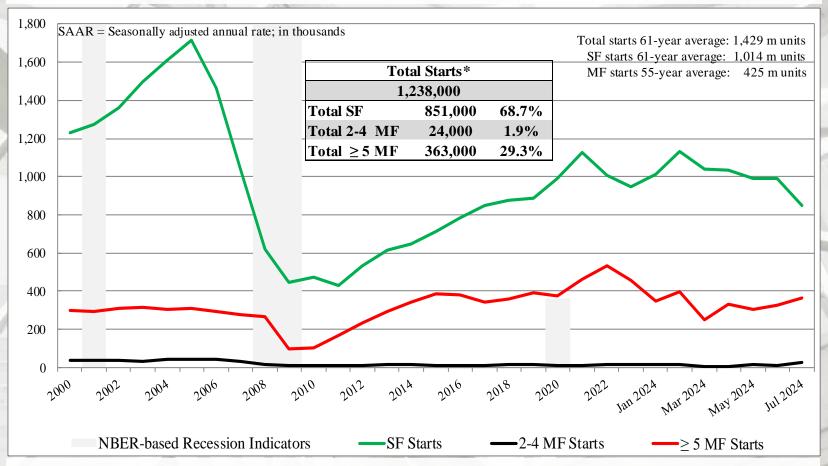
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
July	1,238,000	851,000	24,000	363,000
June	1,329,000	991,000	13,000	325,000
2023	1,473,000	999,000	10,000	464,000
M/M change	-6.8%	-14.1%	84.6%	11.7%
Y/Y change	-16.0%	-14.8%	140.0%	-21.8%

^{*} All start data are presented at a seasonally adjusted annual rate (SAAR).

^{**} US DOC does not report 2 to 4 multi-family starts directly; this is an estimation ((Total starts – (SF + 5-unit MF)).

Total Housing Starts

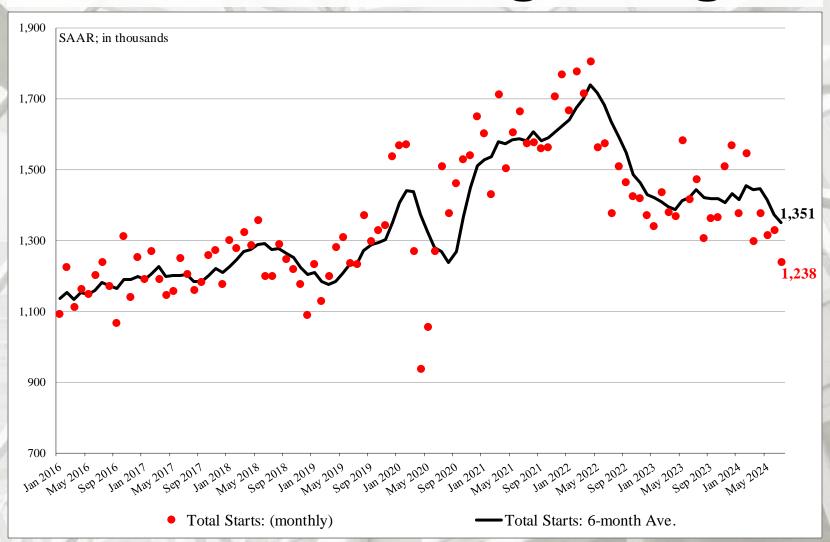


The US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts - (SF + 5-unit MF).

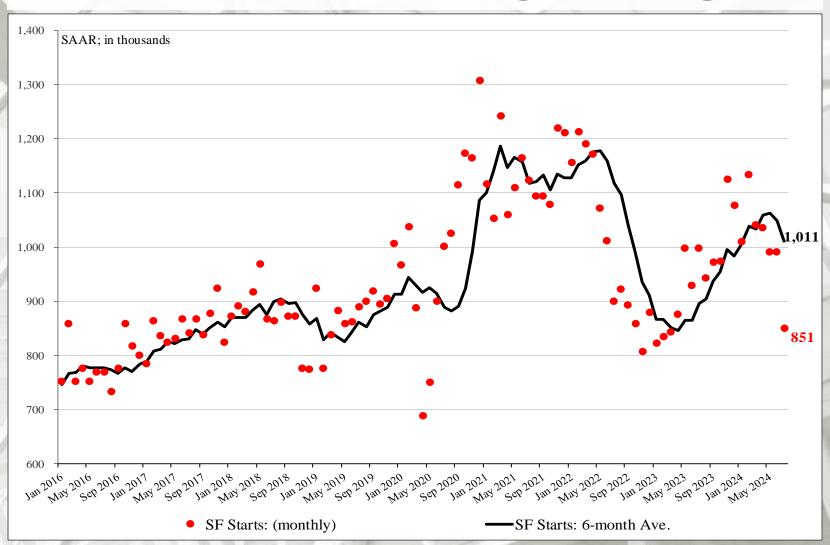
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total starts.

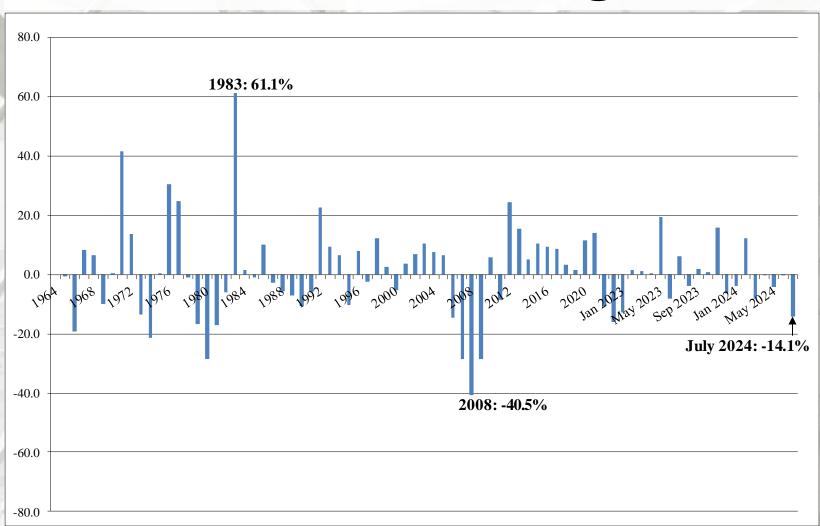
Total Housing Starts: Six-Month Moving Average



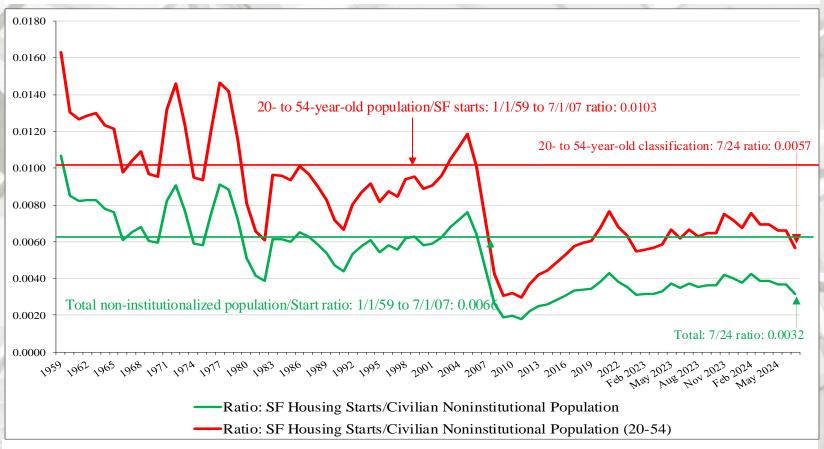
SF Housing Starts: Six-Month Moving Average



SF Housing Starts: Year-over-Year Change (%)



New SF Starts

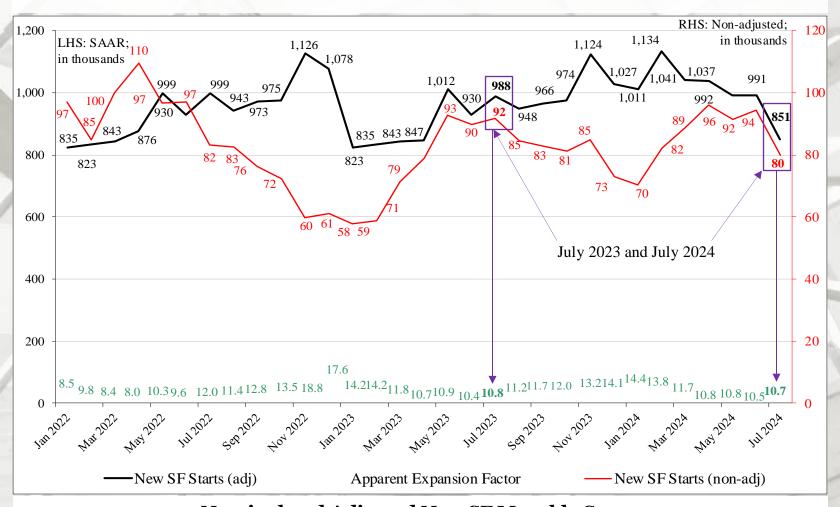


New SF starts adjusted for the US population

From July 1959 to July 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In July 2024 it was 0.0032 – a decline from June (0.0037). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in July 2024 it was 0.0057 – also a decline from June (0.0066). New SF construction in both age categories is less than what is necessary for changes in the population (i.e., under-building).

Note some studies report normalized long-term demand at 900,000 to 1,000,000 new SF house starts per year – beginning in 2025 through 2050.

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

Presented above is nominal (non-adjusted) new SF start data contrasted against SAAR data.

The apparent expansion factor "... is the ratio of the unadjusted number of houses started in the US to the seasonally adjusted number of houses started in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

New Housing Starts by Region

	NE Total	NE SF	NE MF**
July	164,000	51,000	113,000
June	115,000	70,000	45,000
2023	113,000	63,000	50,000
M/M change	42.6%	-27.1%	151.1%
Y/Y change	45.1%	-19.0%	126.0%
	MW Total	MW SF	MW MF
July	MW Total 171,000	MW SF 132,000	MW MF 39,000
July June			
J	171,000	132,000	39,000
June	171,000 174,000	132,000 113,000	39,000 61,000

All data are SAAR; NE = Northeast and MW = Midwest.

^{**} US DOC does not report multi-family starts directly; this is an estimation (Total starts – SF starts).

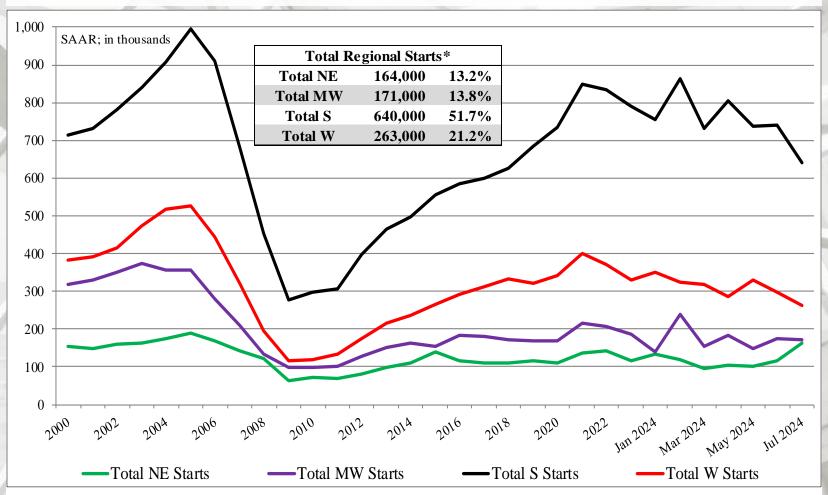
New Housing Starts by Region

	S Total	S SF	S MF**
July	640,000	460,000	180,000
June	741,000	597,000	144,000
2023	800,000	564,000	236,000
M/M change	-13.6%	-22.9%	25.0%
Y/Y change	-20.0%	-18.4%	-23.7%
	W Total	W SF	W MF
July	W Total 263,000	W SF 208,000	W MF 55,000
July June			
J	263,000	208,000	55,000
June	263,000 299,000	208,000 211,000	55,000 88,000

All data are SAAR; S = South and W = West.

^{**} US DOC does not report multi-family starts directly; this is an estimation (Total starts – SF starts).

New Housing Starts by Region

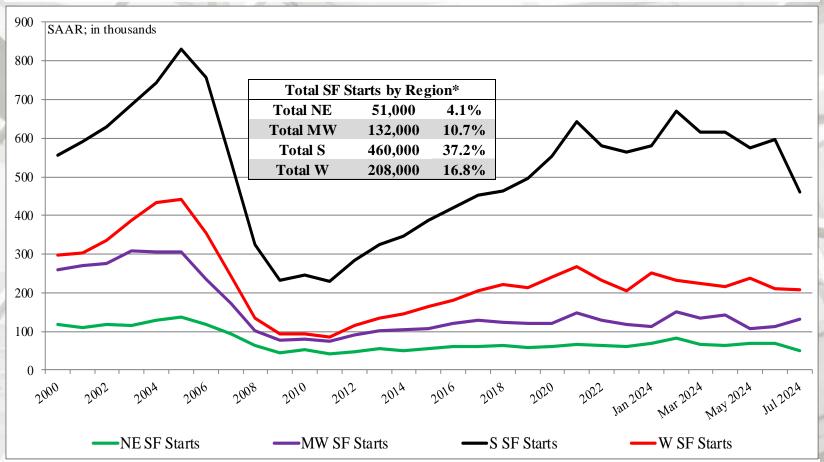


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family starts directly; this is an estimation (Total starts – (SF \pm 5 MF starts).

^{*} Percentage of total starts.

Total SF Housing Starts by Region

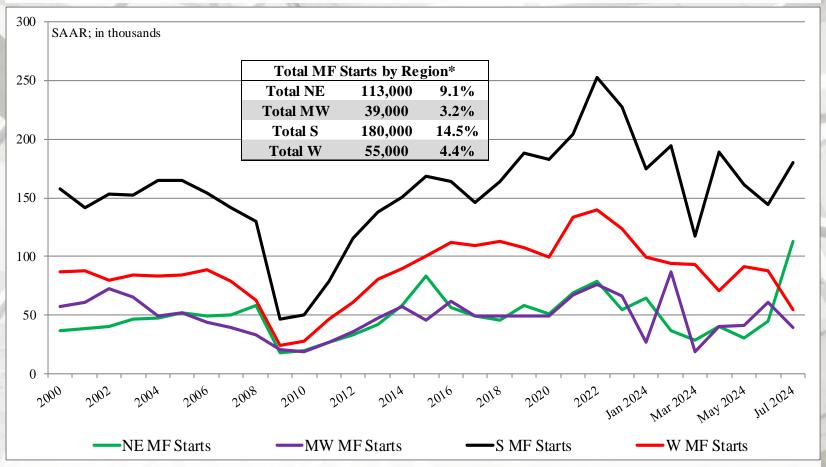


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family starts directly; this is an estimation (Total starts – (SF $\pm \geq 5$ MF starts).

^{*} Percentage of total starts.

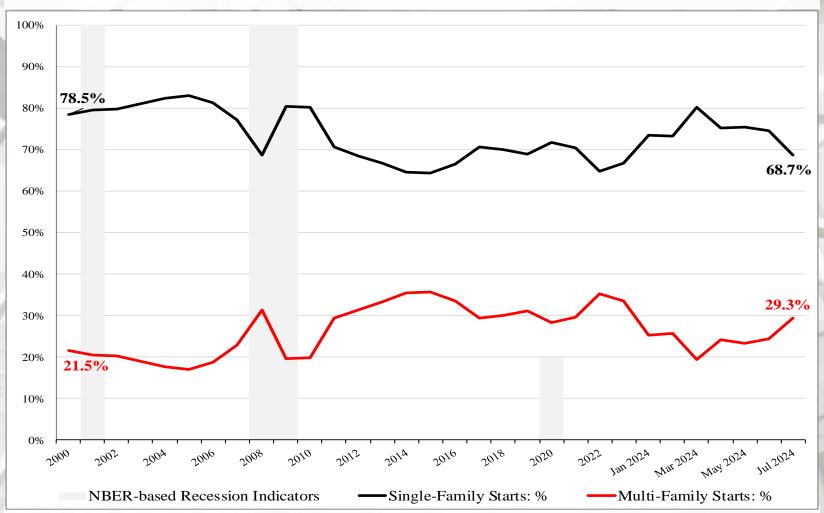
MF Housing Starts by Region



NE = Northeast, MW = Midwest, S = South, W = West US DOC does not report 2 to 4 multi-family starts directly; this is an estimation (Total starts – (SF $+ \ge 5$ MF starts).

^{*} Percentage of total starts.

SF vs. MF Housing Starts (%)



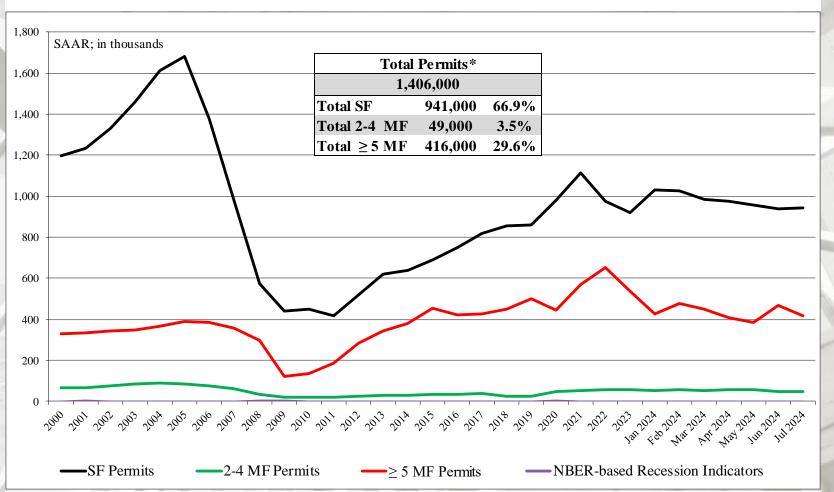
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total	SF	MF 2-4 unit	MF ≥ 5 unit
	Permits*	Permits	Permits	Permits
July	1,406,000	941,000	49,000	416,000
June	1,454,000	939,000	49,000	466,000
2023	1,501,000	953,000	49,000	499,000
M/M change	-3.3%	0.2%	0.0%	-10.7%
Y/Y change	-6.3%	-1.3%	0.0%	-16.6%

^{*} All permit data are presented at a seasonally adjusted annual rate (SAAR).

Total New Housing Permits



^{*} Percentage of total permits.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
July	141,000	59,000	82,000
June	117,000	61,000	56,000
2023	122,000	53,000	69,000
M/M change	20.5%	-3.3%	46.4%
Y/Y change	15.6%	11.3%	18.8%

	MW Total*	MW SF	MW MF**
July	184,000	117,000	67,000
June	207,000	121,000	86,000
2023	194,000	119,000	75,000
M/M change	-11.1%	-3.3%	-22.1%
Y/Y change	-5.2%	-1.7%	-10.7%

NE = Northeast; MW = Midwest

^{*} All data are SAAR

^{**} US DOC does not report multi-family permits directly; this is an estimation (Total permits – SF permits).

New Housing Permits by Region

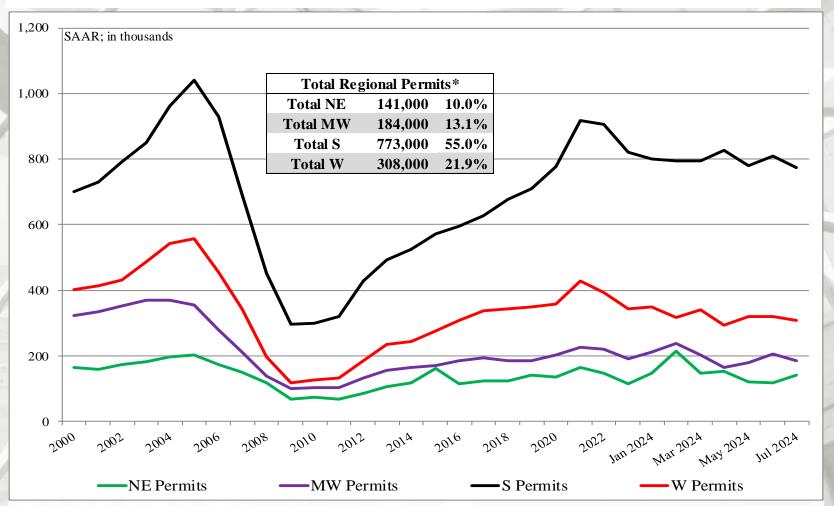
	S Total*	S SF	S MF**
July	773,000	565,000	208,000
June	810,000	555,000	255,000
2023	843,000	580,000	263,000
M/M change	-4.6%	1.8%	-18.4%
Y/Y change	-8.3%	-2.6%	-20.9%
	W Total*	WSF	W MF**
July	W Total* 308,000	W SF 200,000	W MF** 108,000
July June			
J	308,000	200,000	108,000
June	308,000 320,000	200,000 202,000	108,000 118,000

S = South; W = West

^{*} All data are SAAR

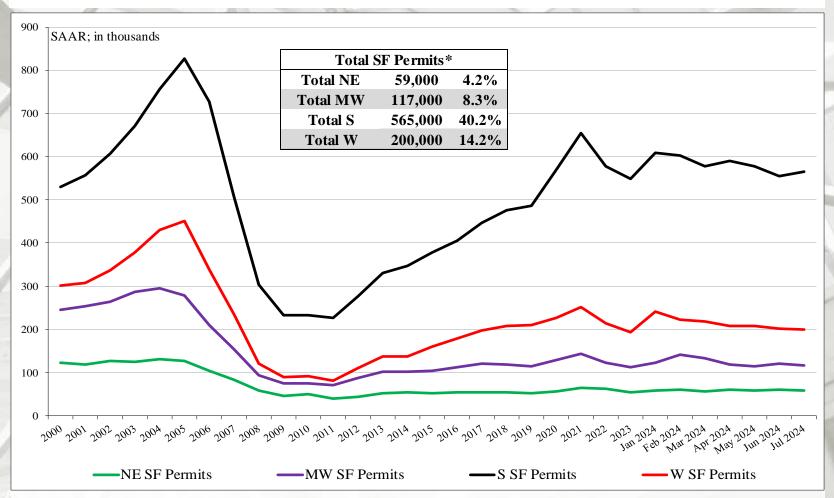
^{**} US DOC does not report multi-family permits directly; this is an estimation (Total permits – SF permits).

Total Housing Permits by Region



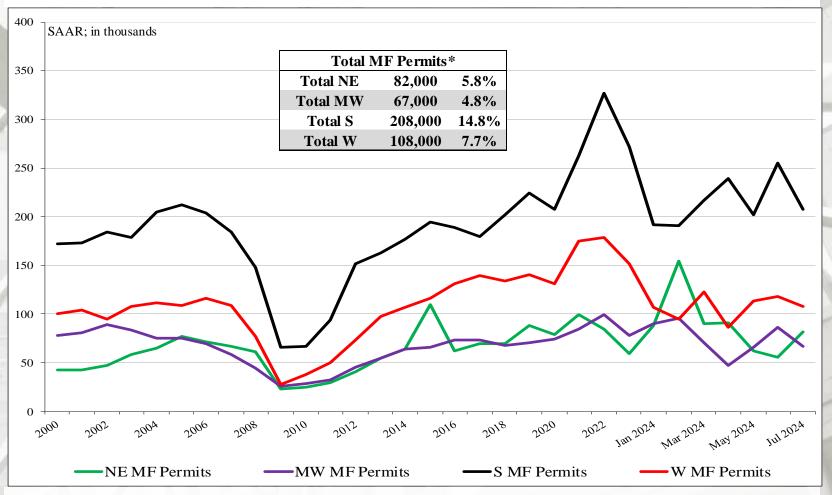
^{*} Percentage of total permits.

SF Housing Permits by Region



^{*} Percentage of total permits.

MF Housing Permits by Region



^{*} Percentage of total permits.

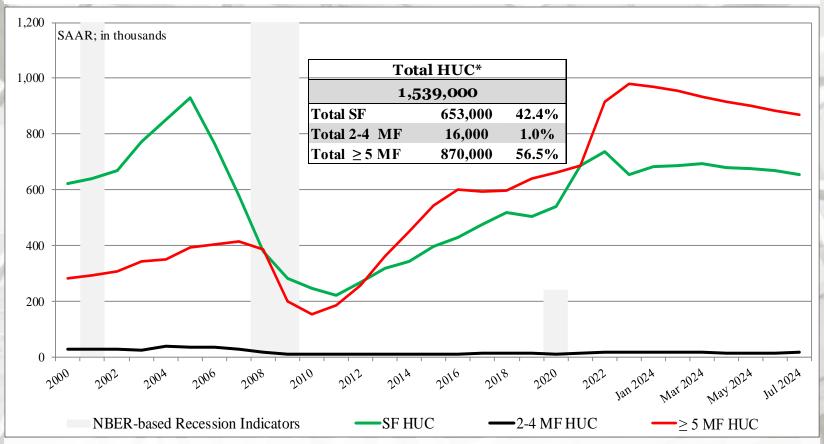
New Housing Under Construction (HUC)

	Total HUC	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
July	1,539,000	653,000	16,000	870,000
June	1,564,000	667,000	14,000	883,000
2023	1,702,000	681,000	17,000	1,004,000
M/M change	-1.6%	-2.1%	14.3%	-1.5%
Y/Y change	-9.6%	-4.1%	-5.9%	-13.3%

All housing under construction (HUC) data are presented at a seasonally adjusted annual rate (SAAR).

^{**} US DOC does not report 2-4 multi-family units under construction directly; this is an estimation: ((Total under construction – (SF + 5-unit MF)).

Total Housing Under Construction



US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + 5-unit MF HUC)).

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total housing under construction units.

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
July	212,000	66,000	146,000
June	209,000	66,000	143,000
2023	217,000	65,000	152,000
M/M change	1.4%	0.0%	2.1%
Y/Y change	-2.3%	1.5%	-3.9%
			_
	MW Total	MW SF	MW MF
July	MW Total 179,000	MW SF 85,000	MW MF 94,000
July June			
,	179,000	85,000	94,000
June	179,000 177,000	85,000 84,000	94,000 93,000

All data are SAAR; NE = Northeast and MW = Midwest.

^{**} US DOC does not report multi-family units under construction directly; this is an estimation (Total under construction – SF under construction).

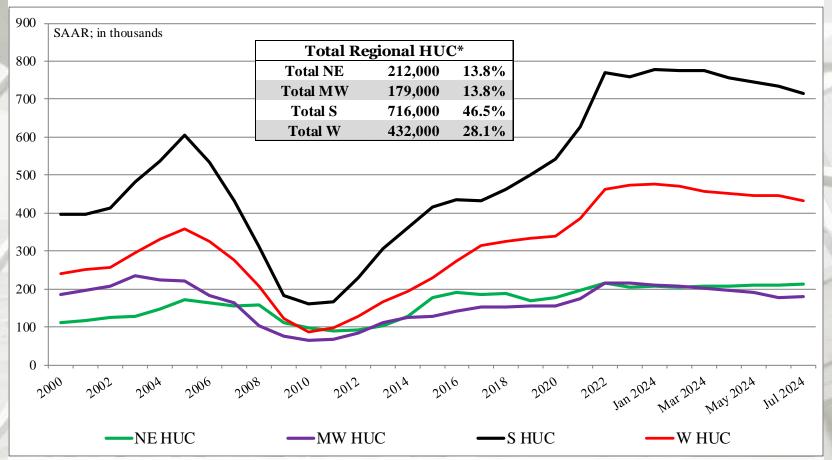
New Housing Under Construction by Region

	S Total	S SF	S MF**
July	716,000	331,000	385,000
June	733,000	343,000	390,000
2023	802,000	358,000	444,000
M/M change	-2.3%	-3.5%	-1.3%
Y/Y change	-10.7%	-7.5%	-13.3%
	W Total	W SF	W MF
July	W Total 432,000	W SF 171,000	W MF 261,000
July June			
,	432,000	171,000	261,000
June	432,000 445,000	171,000 174,000	261,000 271,000

All data are SAAR; S = South and W = West.

^{**} US DOC does not report multi-family units under construction directly; this is an estimation (Total under construction – SF under construction).

Total Housing Under Construction by Region

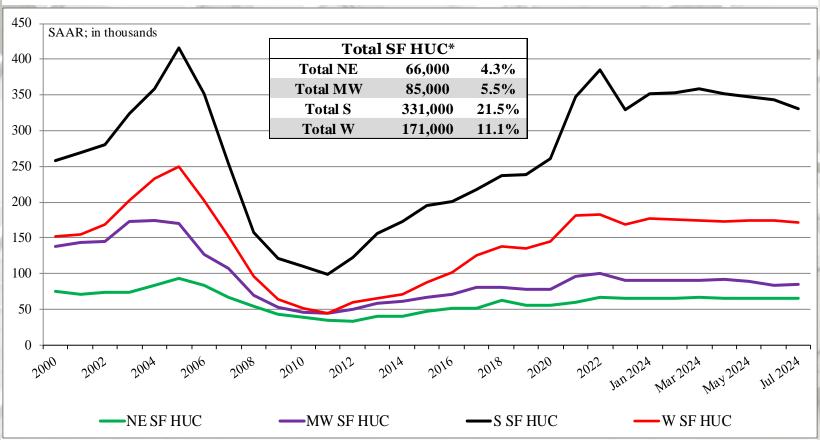


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly; this is an estimation (Total under construction – (SF + 5-unit MF under construction).

^{*} Percentage of total housing under construction units.

SF Housing Under Construction by Region

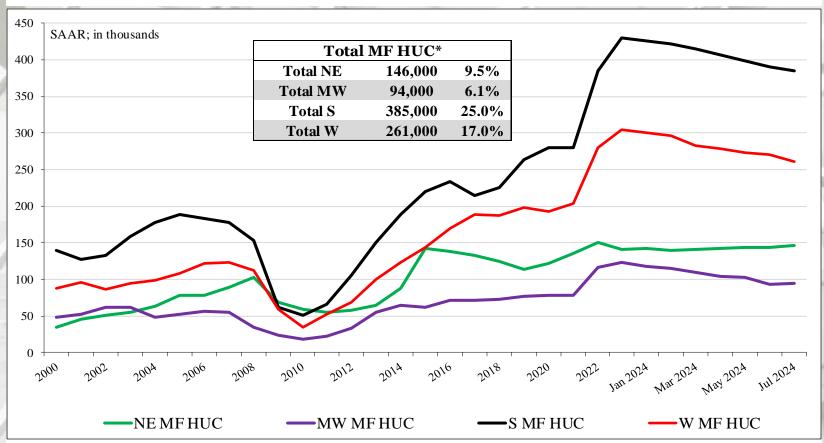


NE = Northeast, MW = Midwest, S = South, W = West.

US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under construction – (SF + 5-unit MF under construction).

^{*} Percentage of total housing under construction units.

MF Housing Under Construction by Region



NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly; this is an estimation (Total under construction – (SF + 5-unit MF under construction).

^{*} Percentage of total housing under construction units.

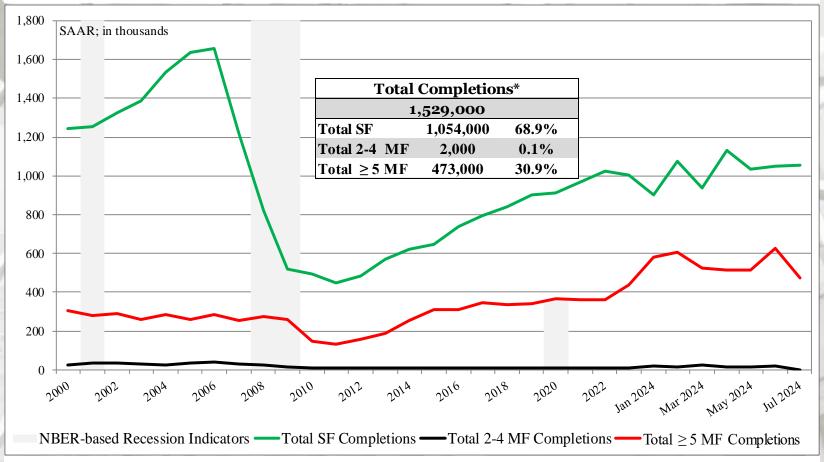
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
July	1,529,000	1,054,000	2,000	473,000
June	1,696,000	1,049,000	21,000	626,000
2023	1,343,000	1,017,000	9,000	317,000
M/M change	-9.8%	0.5%	-90.5%	-24.4%
Y/Y change	13.8%	3.6%	-77.8%	49.2%

^{*} All completion data are presented at a seasonally adjusted annual rate (SAAR).

^{**} US DOC does not report multi-family completions directly; this is an estimation ((Total completions – (SF $\pm \geq 5$ -unit MF)).

Total Housing Completions



US DOC does not report multifamily completions directly, this is an estimation ((Total completions - (SF + + 5-unit MF)).

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total housing completions

New Housing Completions by Region

	NE Total	NE SF	NE MF**
July	77,000	44,000	33,000
June	128,000	59,000	69,000
2023	100,000	62,000	38,000
M/M change	-39.8%	-25.4%	-52.2%
Y/Y change	-23.0%	-29.0%	-13.2%
	MW Total	MW SF	MW MF**
July	MW Total 196,000	MW SF 132,000	MW MF** 64,000
July June			
· ·	196,000	132,000	64,000
June	196,000 332,000	132,000 158,000	64,000 174,000

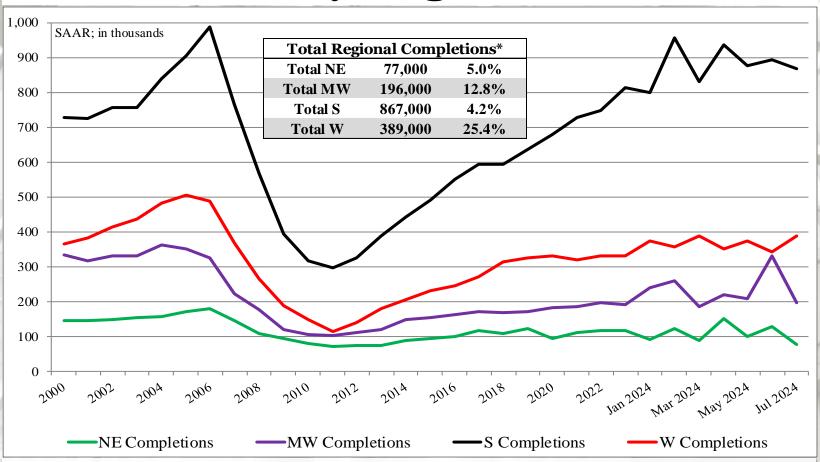
^{**}US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

New Housing Completions by Region

	S Total	S SF	S MF**
July	867,000	640,000	227,000
June	893,000	627,000	266,000
2023	748,000	594,000	154,000
M/M change	-2.9%	2.1%	-14.7%
Y/Y change	15.9%	7.7%	47.4%
	W Total	W SF	WMF**
July	W Total 389,000	W SF 238,000	W MF** 151,000
July June			
J	389,000	238,000	151,000
June	389,000 343,000	238,000 205,000	151,000 138,000

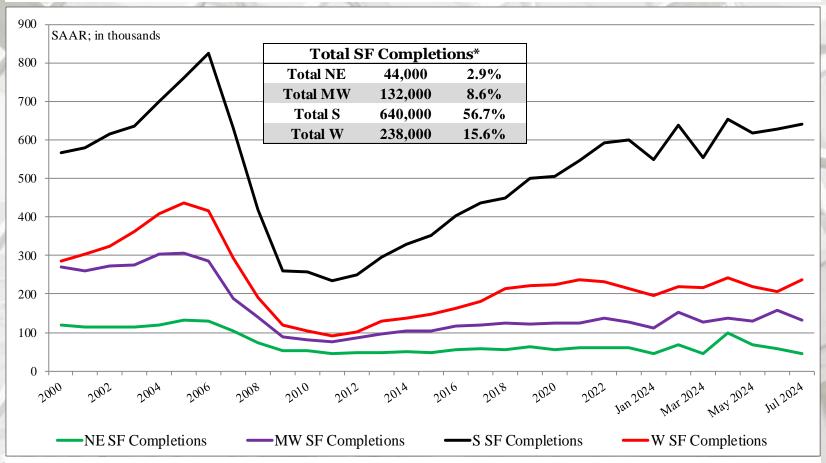
^{**}US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

Total Housing Completions by Region



All data are SAAR; NE = Northeast and MW = Midwest; S = South, W = West * Percentage of total housing completions.

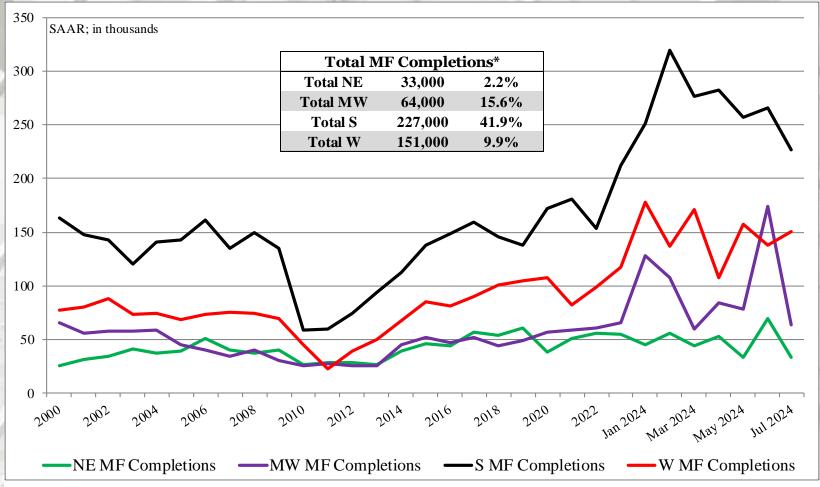
SF Housing Completions by Region



NE = Northeast, MW = Midwest, S = South, W = West

^{*} Percentage of total housing completions

MF Housing Completions by Region



NE = Northeast, MW = Midwest, S = South, W = West

^{*} Percentage of total housing completions

Comparison of SF Units Authorized & Not Started to SF Housing Units Completed



Authorized, Not Started vs. Housing Completions

Total authorized units "not" started was 279,000 in July, an increase from June (272,000), and SF authorized units "not" started were 143,000 units in July, an increase from June (136,000). Total completions and SF unit completions decreased M/M.

The primary reason currently is reduced demand, and in combination with lingering manufacturing supply chain disruptions —ranging from appliances to windows; labor, logistics, and local building regulations.

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
July	739,000	\$429,800	\$514,800	7.5
June	668,000	\$416,700	\$501,700	8.4
2023	700,000	\$435,800	\$507,600	7.3
M/M change	10.6%	3.1%	2.6%	-10.7%
Y/Y change	5.6%	-1.4%	1.4%	2.7%

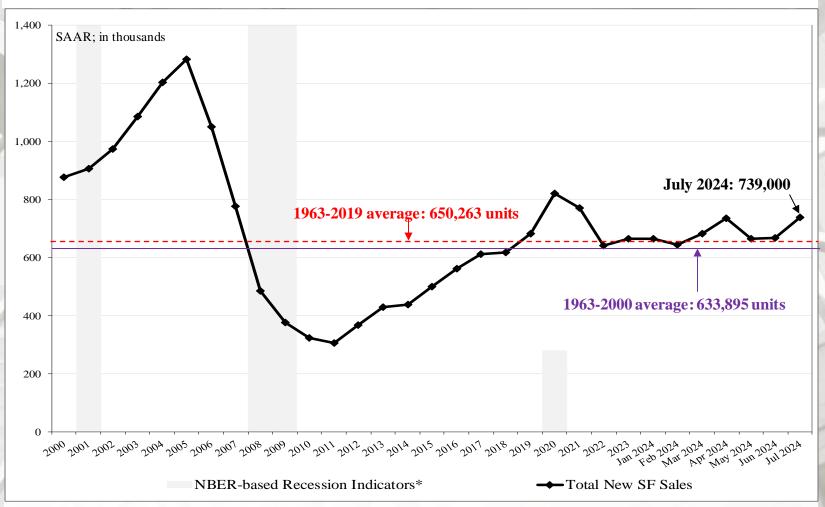
^{*} All new sales data are presented at a seasonally adjusted annual rate (SAAR)¹ and housing prices are adjusted at irregular intervals².

New SF sales were much greater than the consensus forecast³ of 628 m; range 605 m to 648 m. The past three month's new SF sales data also were revised:

April initial: 634 m, revised to 736 m. May initial: 619 m, revised to 668 m. June initial: 617 m, revised to 683 m.

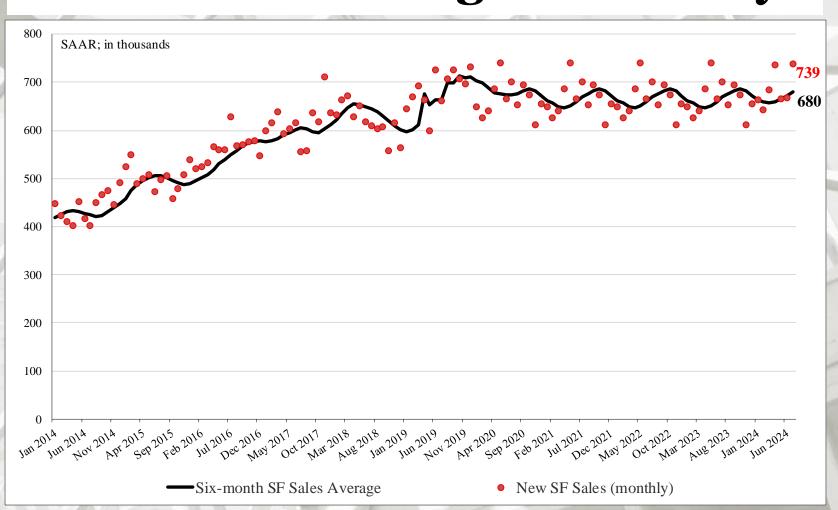
Sources: ¹ https://www.census.gov/construction/nrs/index.html; 6/24/21; ² https://www.census.gov/construction/nrs/pdf/newressales.pdf; 8/23/24 ³ http://us.econoday.com; 8/23/24

New SF House Sales



^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE		MW		S		W
July	31,000		89,000	4	25,000	194	4,000
June	29,000		81,000	4	13,000	145	5,000
2023	30,000		76,000	4	16,000	178	3,000
M/M change	6.9%		9.9%		2.9%	33	3.8%
Y/Y change	3.3%		17.1%		2.2%	9.	.0%
	<\$300m	\$300m- \$399m	\$400m- \$499m	\$500m- \$599m	\$600m- \$799m	\$800m- \$999m	≥ \$1mm
July ^{1,2,3,4}	11,000	17,000	12,000	12,000	7,000	3,000	3,000
June ^{1,2,3,4}	10,000	17,000	12,000	6,000	6,000	3,000	3,000
2023	8,000	16,000	7,000	16,000	16,000	14,000	6,000
M/M change	10.0%	0.0%	0.0%	100.0%	16.7%	0.0%	0.0%
Y/Y change	37.5%	6.3%	71.4%	-25.0%	-56.3%	-78.6%	-50.0%
% of New SF sales	13.8%	29.3%	22.4%	12.1%	12.1%	5.2%	6.9%

NE = Northeast; MW = Midwest; S = South; W = West

¹ All data are SAAR

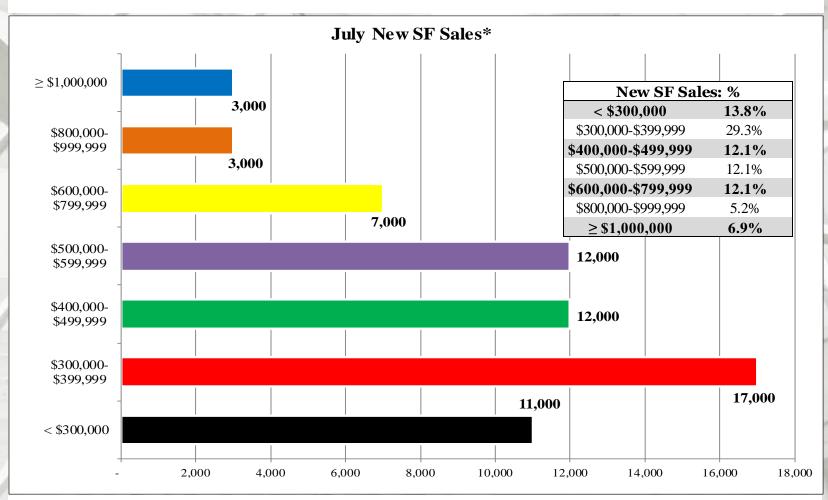
² Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

³ Detail July not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

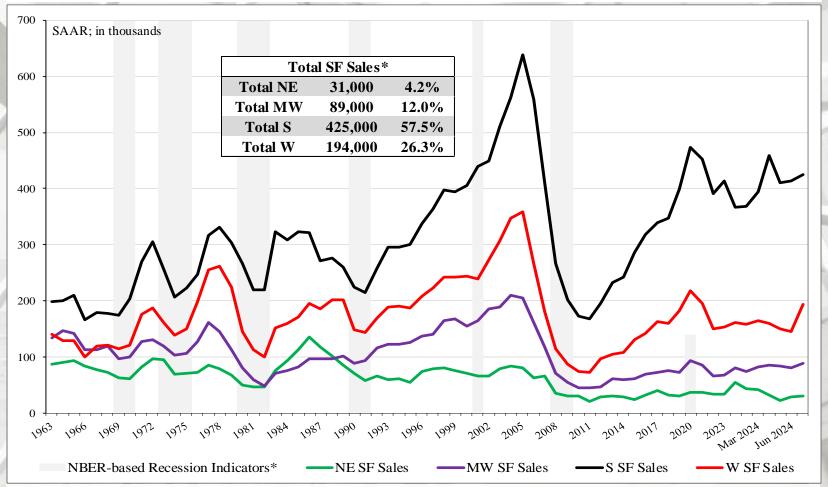
 $^{^{5}}$ Z = Less than 500 units or less than 0.5 percent

New SF House Sales



^{*} Total new sales by price category and percent.

New SF House Sales by Region

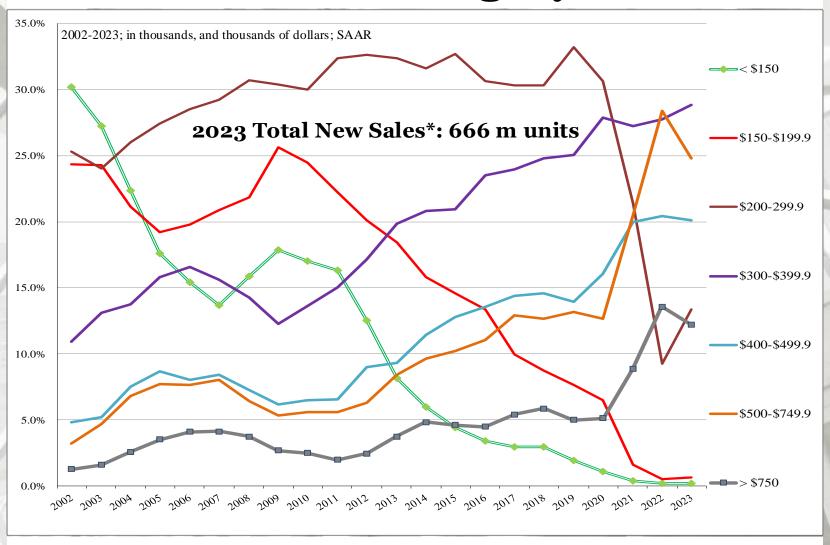


NE = Northeast; MW = Midwest; S = South; W = West

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

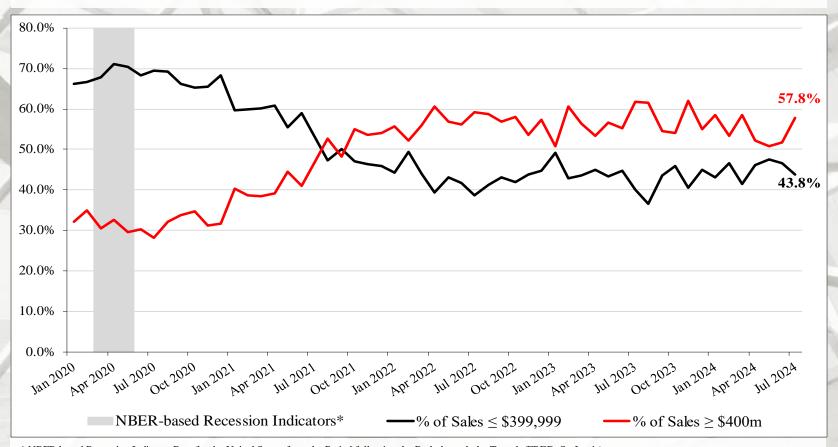
^{*} Percentage of total new sales.

New SF House Sales by Price Category



^{*} Sales tallied by price category, nominal dollars.

New SF House Sales

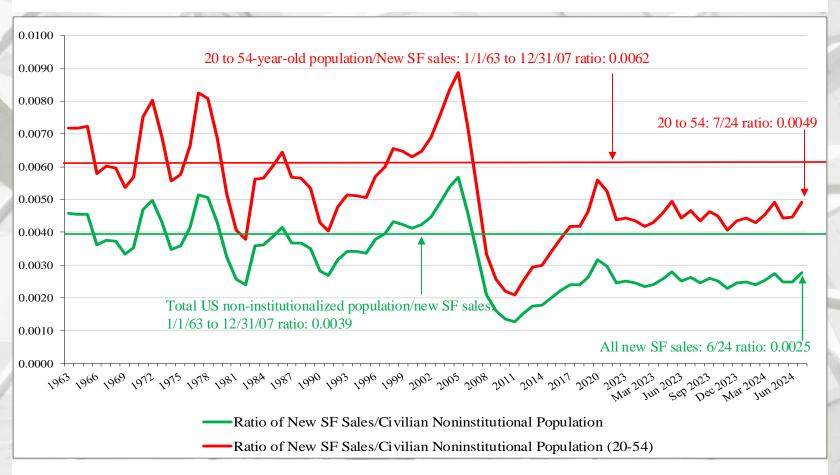


^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: < \$399.9 m and > \$400 m: 2020 – July 2024

The sales share of \$400 thousand plus SF houses is presented above^{1, 2}. Since the beginning of 2012, the upper priced houses have and are garnering a greater percentage of sales. A decreasing spread indicates that more high-end luxury homes are being sold. Several reasons are offered by industry analysts; 1) builders can realize a profit on higher priced houses; 2) historically low interest rates have indirectly resulted in increasing house prices; and 3) purchasers of upper end houses fared better financially coming out of the Great Recession.

New SF House Sales

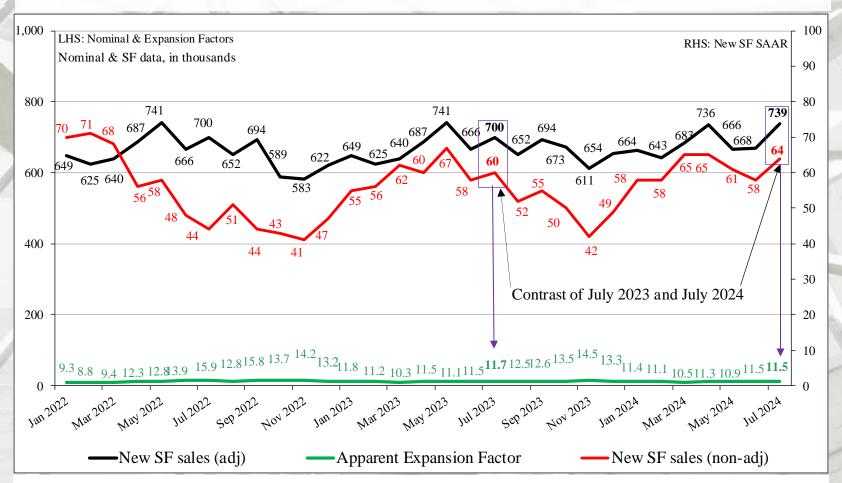


New SF sales adjusted for the US population

From July 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in July 2024 it was 0.0028 – increasing from June (0.0025). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in July 2024 it was 0.0049 – also an increase from June (0.0045). All are non-adjusted data. From a non-institutionalized population world view, new sales remain less than the long-term average.

On a long-term basis, some studies peg normalized long-term demand at 900,000 to 1,000,000 new SF house sales per year beginning in 2025 through 2050.

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

Presented above is nominal (non-adjusted) new SF sales data contrasted against SAAR data. The apparent expansion factor "...is the ratio of the unadjusted number of houses sold in the US to the seasonally adjusted number of houses sold in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

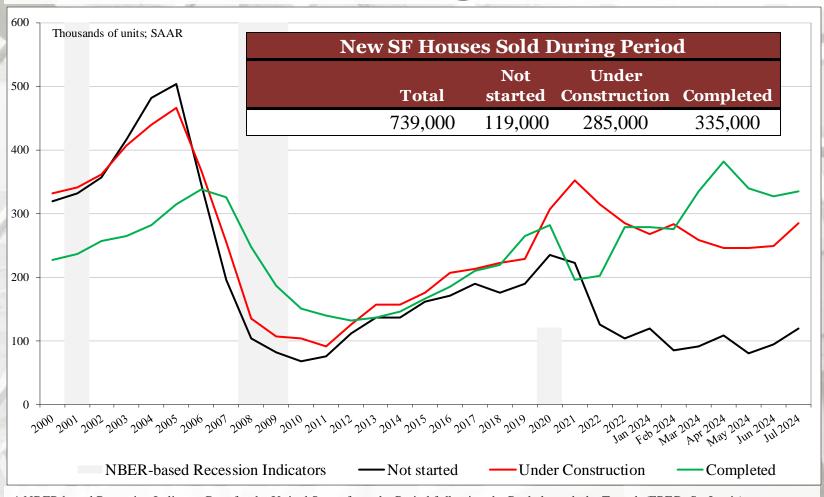
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
July	739,000	119,000	285,000	335,000
June	668,000	94,000	248,000	326,000
2023	427,000	95,000	261,000	71,000
M/M change	10.6%	26.6%	14.9%	2.8%
Y/Y change	73.1%	25.3%	9.2%	371.8%
Total percentage		16.1%	38.6%	45.3%

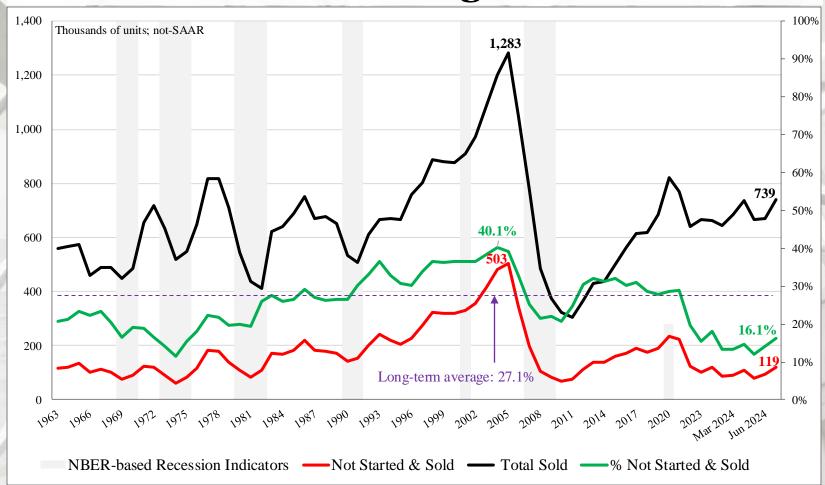
All data is SAAR

New SF House Sales: Sold During Period



^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales: Percentage Not Started & Sold During Period



Of the new houses sold in July (739 m), 16.1% (119 m) had not been started and sold. The long-term average is 27.1%.

^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

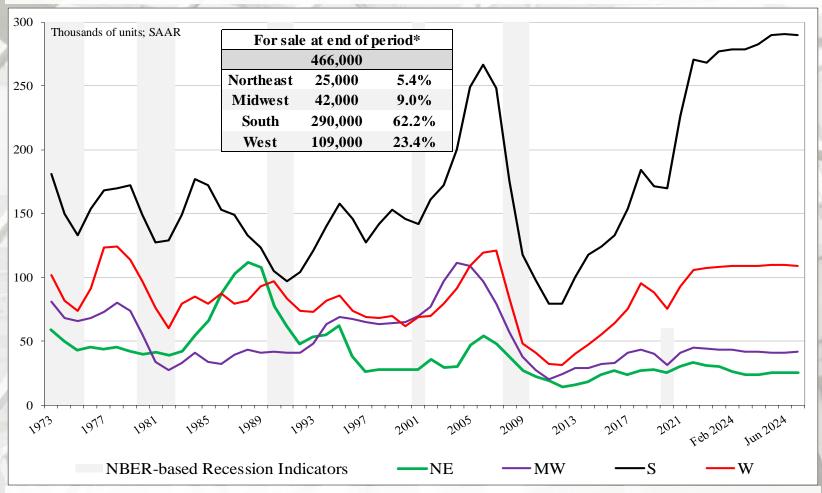
New SF Houses for Sale

New SF Houses for Sale at the end of the Period by Region*

	Total	NE	MW	S	\mathbf{W}
July	466,000	25,000	42,000	290,000	109,000
June	467,000	25,000	41,000	291,000	110,000
2023	429,000	36,000	42,000	249,000	102,000
M/M change	-0.2%	0.0%	2.4%	-0.3%	-0.9%
Y/Y change	8.6%	-30.6%	0.0%	16.5%	6.9%

^{*} Not SAAR

New SF House Sales: For sale at end of period by Region



NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

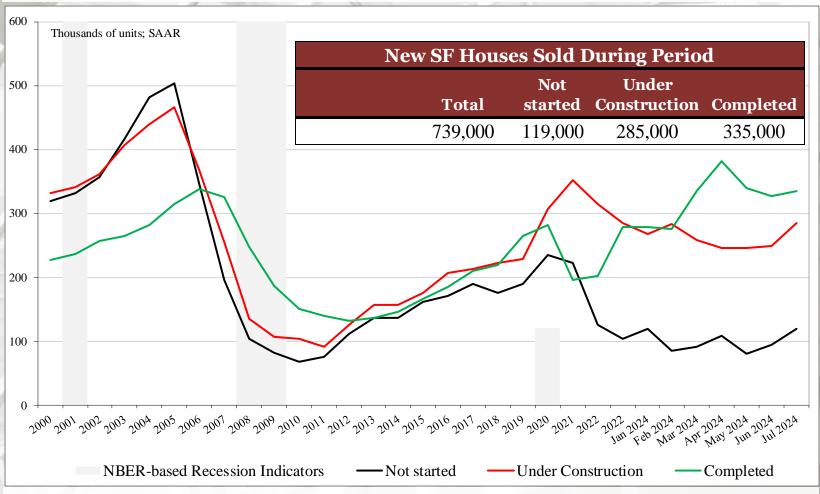
* Percentage of total for sale at end of period.

New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
July	739,000	119,000	285,000	335,000
June	668,000	94,000	248,000	326,000
2023	427,000	95,000	261,000	71,000
M/M change	10.6%	26.6%	14.9%	2.8%
Y/Y change	73.1%	25.3%	9.2%	371.8%
Total percentage		16.1%	38.6%	45.3%

New SF House Sales: For Sale at End of Period



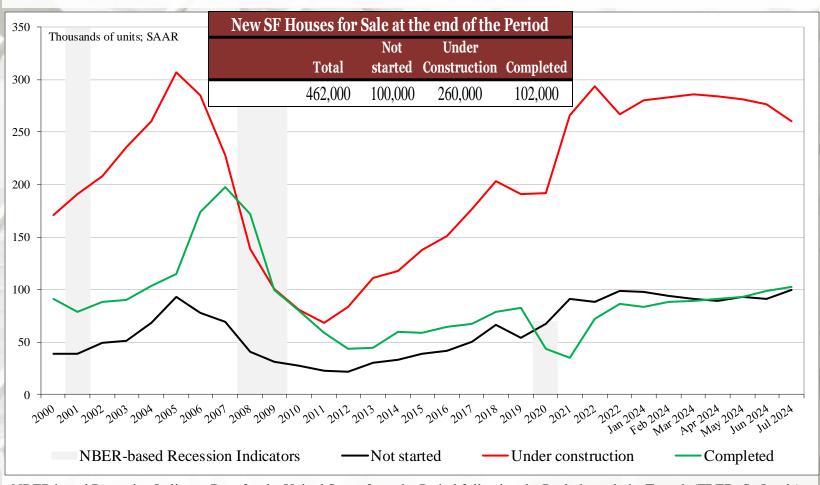
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales

New SF Houses for Sale at the end of the Period

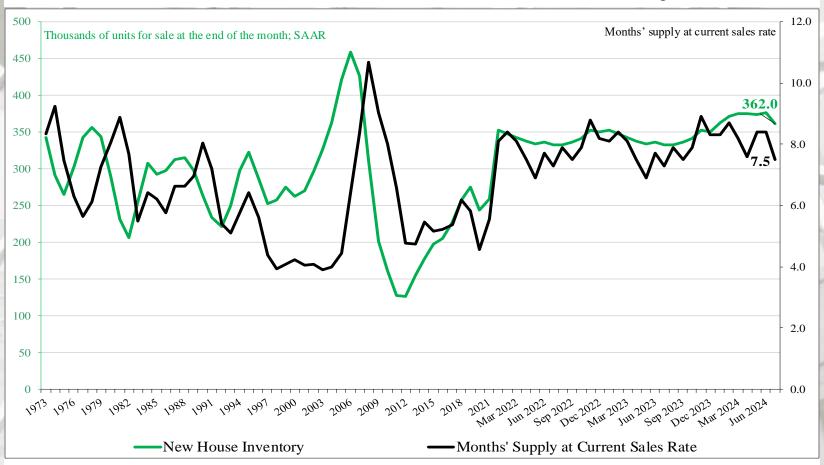
	Total	Not started	Under Construction	Completed
July	462,000	100,000	260,000	102,000
June	467,000	91,000	277,000	99,000
2023	427,000	95,000	261,000	71,000
M/M change	-1.1%	9.9%	-6.1%	3.0%
Y/Y change	8.2%	5.3%	-0.4%	43.7%
Total percentage		21.6%	56.3%	22.1%

New SF House Sales: For Sale at End of Period



NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Months' Supply and New House Inventory^a



^a New HUC + New House Completions (sales data only)

The months' supply of new houses at current sales rate at the end of July was 7.5, greater than the historically preferred number of five- to six-months (SAAR).

July 2024 Construction Spending

	Total Private Residential*	SF*	MF*	Improvement**
July	\$941,559	\$421,350	\$129,115	\$391,094
June	\$945,269	\$429,489	\$129,171	\$386,609
2023	\$874,187	\$405,156	\$138,436	\$330,595
M/M change	-0.4%	-1.9%	0.0%	1.2%
Y/Y change	7.7%	4.0%	-6.7%	18.3%

^{*} Millions of dollars.

Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

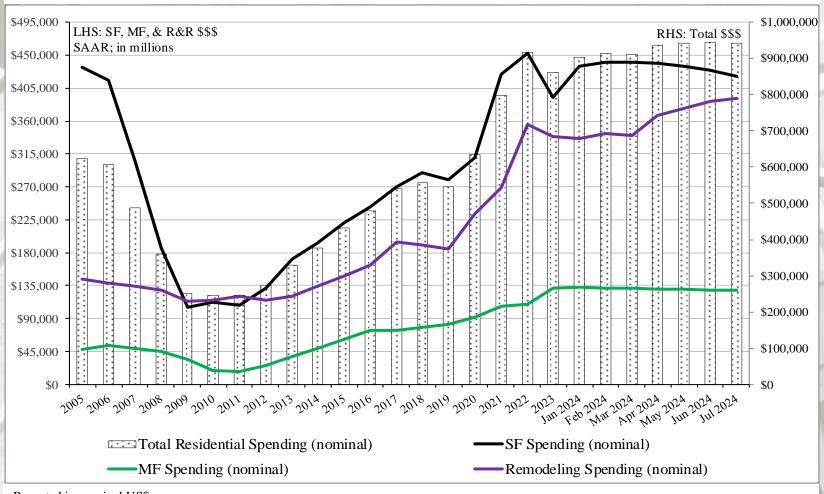
New single-family: new houses and town houses built to be sold or rented and units built by the owner or for the owner on contract. The classification excludes residential units in buildings that are primarily nonresidential. It also excludes manufactured housing and houseboats.

New multi-family includes new apartments and condominiums. The classification excludes residential units in buildings that are primarily nonresidential.

Improvements: Includes remodeling, additions, and major replacements to owner occupied properties subsequent to completion of original building. It includes construction of additional housing units in existing residential structures, finishing of basements and attics, modernization of kitchens, bathrooms, etc. Also included are improvements outside of residential structures, such as the addition of swimming pools and garages, and replacement of major equipment items such as water heaters, furnaces and central air-conditioners. Maintenance and repair work is not included.

^{**} The US DOC does not report improvement spending directly, this is a monthly estimation: ((Total Private Spending – (SF spending + MF spending)). All data are SAARs and reported in nominal US\$.

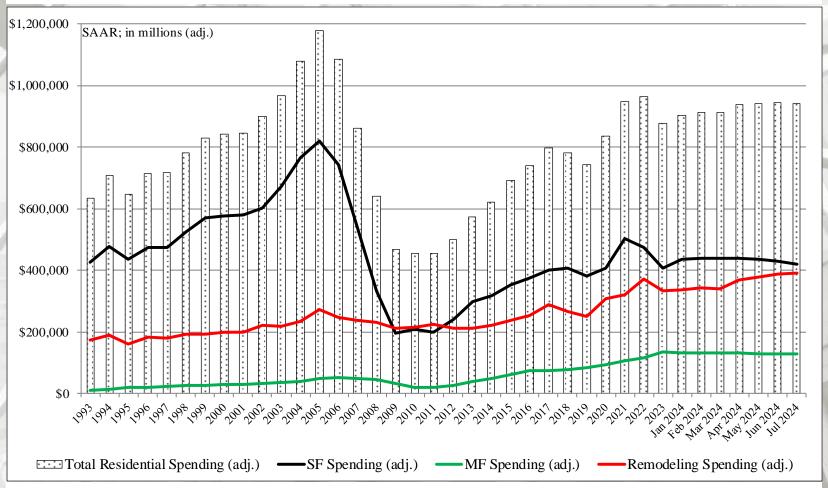
Total Construction Spending (nominal): 2000 – July 2024



Reported in nominal US\$.

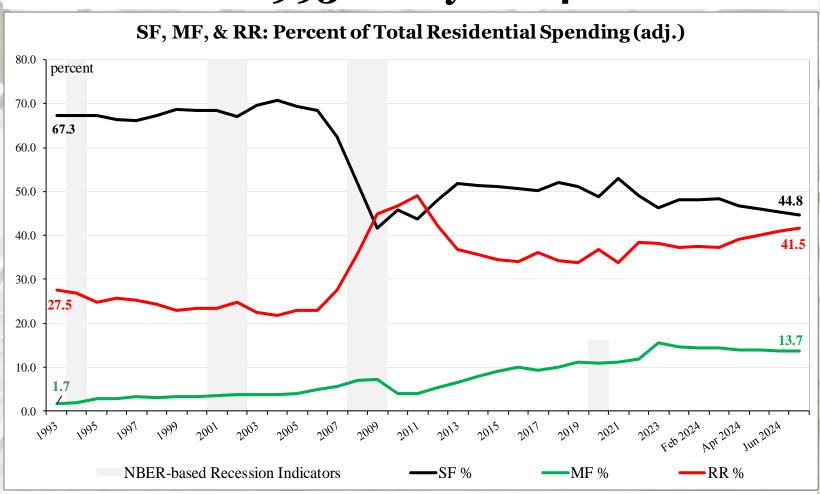
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – July 2024



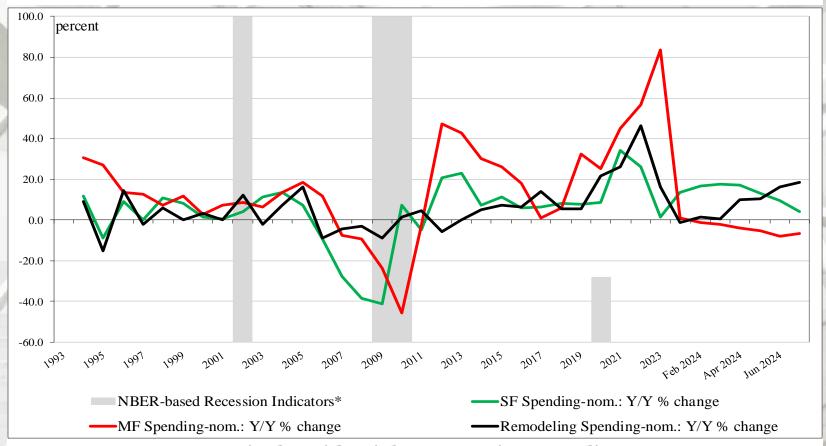
Reported in adjusted \$US: 1993 – 2023 (adjusted for inflation, BEA Table 1.1.9); July 2024 reported in nominal US\$.

Construction Spending Shares: 1993 – July 2024



^{*} NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Construction Spending: Y/Y Percentage Change

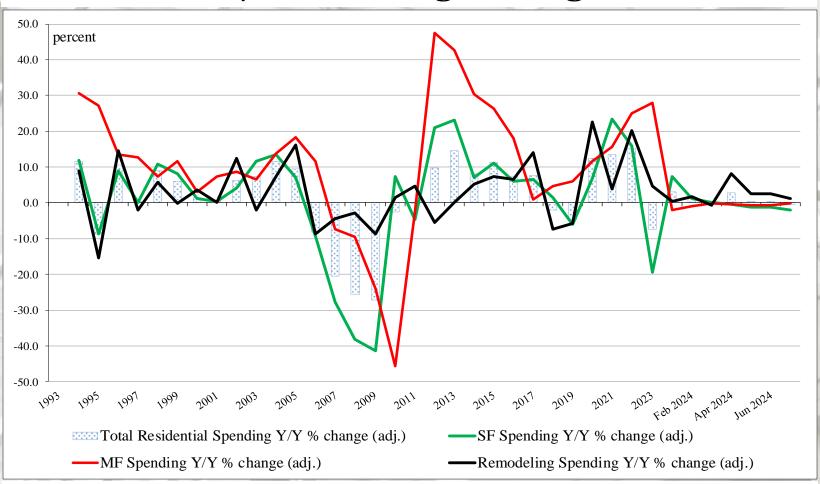


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to July 2024

Presented above is the percentage change of Y/Y construction spending. SF and RR expenditures were positive on a percentage basis, year-over-year (July 2024 data reported in nominal dollars).

* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

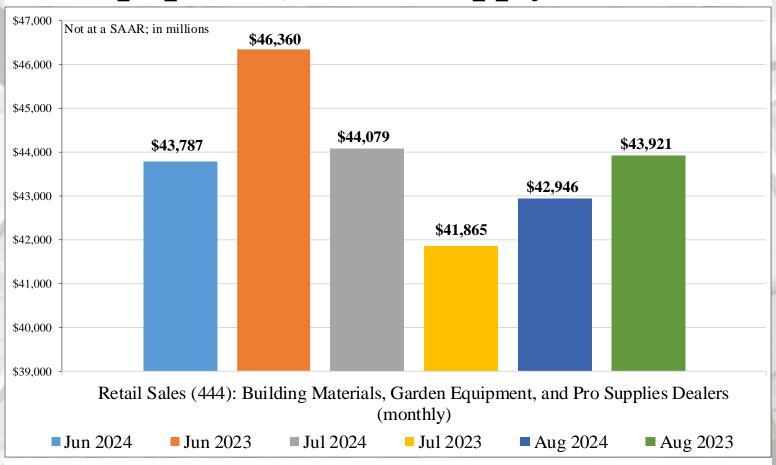
Adjusted Construction Spending: Y/Y Percentage Change



Adjusted Residential Construction Spending: Y/Y percentage change, 1993 to July 2024

Remodeling

Retail Sales: Building materials, Garden Equipment, & PRO Supply Dealers

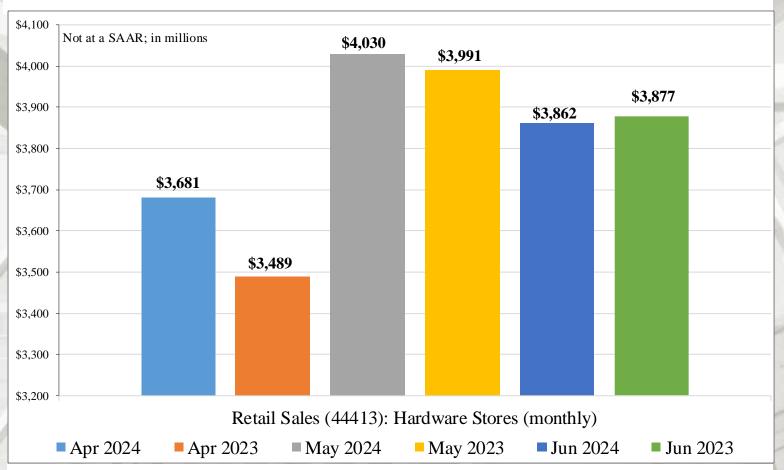


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 2.6% in August 2024 from August 2023 and declined 2.2% Y/Y (nominal basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 5.1% in July 2024 from July 2023 and improved 4.4% Y/Y (nominal basis).

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
July	3,950,000	\$422,600	4.0
June	3,900,000	\$426,900	4.1
2023	4,050,000	\$405,700	3.3
M/M change	1.3%	-1.0%	-2.4%
Y/Y change	-2.5%	4.2%	21.2%

All sales data: SAAR

Existing House Sales

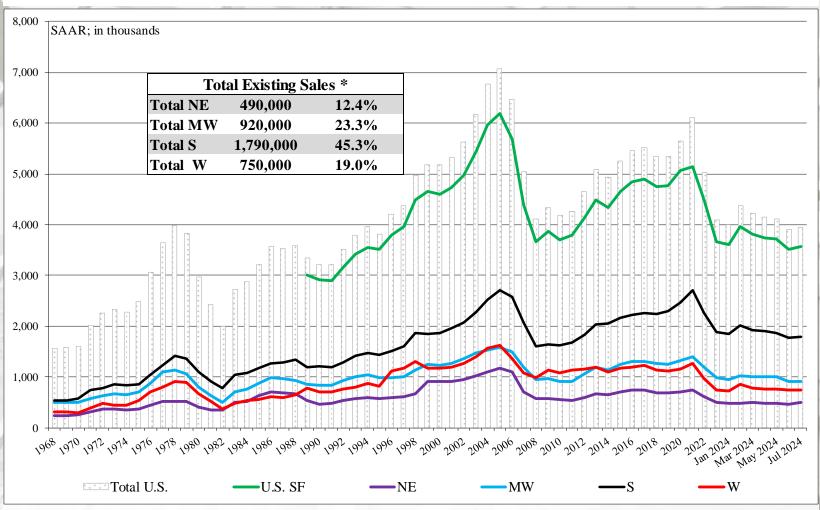
	NE	MW	S	W
July	490,000	920,000	1,790,000	750,000
June	470,000	920,000	1,770,000	740,000
2023	480,000	970,000	1,860,000	740,000
M/M change	4.3%	0.0%	1.1%	1.4%
Y/Y change	2.1%	-5.2%	-3.8%	1.4%

	Existing	SF Median
	SF Sales	Price
July	3,570,000	\$428,500
June	3,520,000	\$432,900
2023	3,620,000	\$411,200
M/M change	1.4%	-1.0%
Y/Y change	-1.4%	4.2%

All sales data: SAAR.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 8/22/24

Existing House Sales



NE = Northeast; MW = Midwest; S = South; W = West

^{*} Percentage of total existing sales.

U.S. Housing Prices

Federal Housing Finance Agency U.S. House Price Index

U.S. House Prices Rise 5.7 Percent over the Last Year; Up 0.9 Percent from the First Quarter of 2024

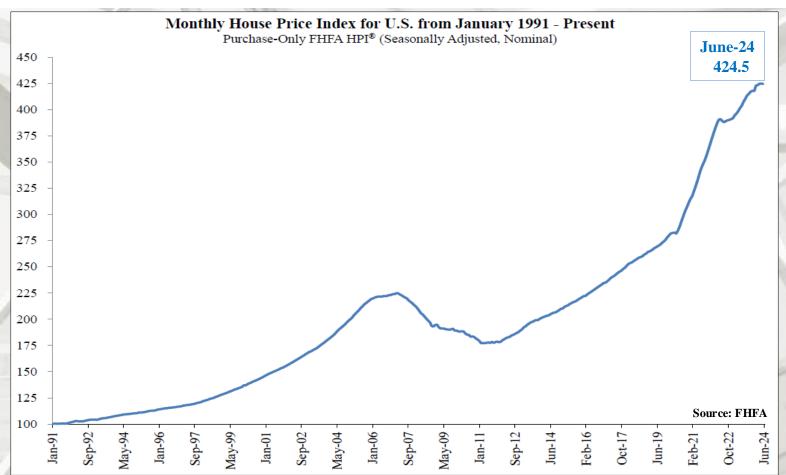
Significant Findings

"U.S. house prices rose **5.7 percent** between the second quarter of 2023 and the second quarter of 2024, according to the Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI[®]). House prices were up **0.9 percent** compared to the first quarter of 2024. FHFA's seasonally adjusted monthly index for June was down **0.1 percent** from May." – Adam Russell, FHFA

Significant Findings

- Nationally, the U.S. housing market has experienced positive annual appreciation each quarter since the start of 2012.
- House prices rose in 50 states and the District of Columbia between the second quarter of 2023 and the second quarter of 2024. The five states with the highest annual appreciation were 1) Vermont, 13.4 percent; 2) West Virginia, 12.3 percent; 3) Rhode Island, 10.1 percent; 4) Delaware, 10.0 percent; and 5) New Jersey, 9.9 percent.
- House prices rose in 96 of the top 100 largest metropolitan areas over the last four quarters. The annual price increase was the greatest in Syracuse, NY at 14.2 percent. The metropolitan area that experienced the most significant price decline was Austin-Round Rock-Georgetown, TX at -3.2 percent.
- All nine census divisions had positive house price changes year-over-year. The Middle Atlantic division recorded the strongest appreciation, posting an 8.5 percent increase from the second quarter of 2023 to the second quarter of 2024. The West South Central division recorded the smallest four-quarter appreciation, at 2.8 percent.

U.S. Housing Prices



Federal Housing Finance Agency U.S. House Price Index

"U.S. house prices saw the third consecutive slowdown in quarterly growth. The slower pace of appreciation as of June end was likely due to higher inventory of homes for sale and elevated mortgage rates." – Dr. Anju Vajja, Deputy Director Division of Research and Statistics, FHFA

U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Hits New All-Time High in June 2024

"S&P Dow Jones Indices (S&P DJI) released the June 2024 results for the S&P CoreLogic Case-Shiller Indices. The leading measure of U.S. home prices reached a new all-time high with a decelerating trend for June 2024. More than 27 years of history are available for the data series and can be accessed in full by going to www.spglobal.com/spdji/en/index-family/indicators/sp-corelogic-case-shiller.

Year-Over-Year

The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.4% annual gain for June, down from a 5.9% annual gain in the previous month. The 10-City Composite saw an annual increase of 7.4%, down from a 7.8% annual increase in the previous month. The 20-City Composite posted a year-over-year increase of 6.5%, dropping from a 6.9% increase in the previous month. New York reported the highest annual gain among the 20 cities with a 9.0% increase in June, followed by San Diego and Las Vegas with annual increases of 8.7% and 8.5%, respectively. Portland once again held the lowest rank for the smallest year-over-year growth, notching a 0.8% annual increase in June.

Month-Over-Month

The U.S. National Index the 20-City Composite, and the 10-City Composite upward trends continued to decelerate from last month, with pre-seasonality adjustment increases of 0.5%, 0.6%, and 0.6%, respectively.

After seasonal adjustment, the U.S. National Index posted a month-over-month change of 0.2%, while the 20-City and 10-City Composite reported a monthly change of 0.4% and 0.5%, respectively." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

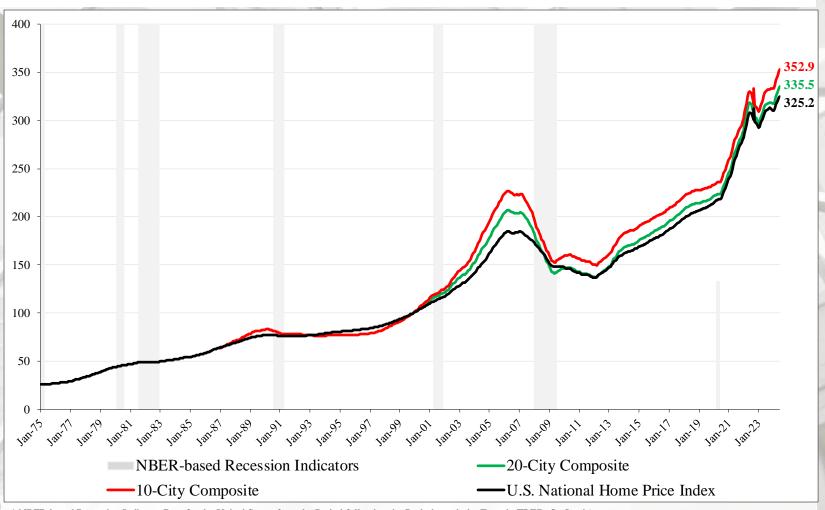
U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Analysis

"The S&P CoreLogic Case-Shiller Indices continue to show above-trend real price performance when accounting for inflation. Home prices and inflation continue to factor into the political agenda coming into the election season. While both housing and inflation have slowed, the gap between the two is larger than historical norms, with our National Index averaging 2.8% more than the Consumer Price Index. That is a full percentage point above the 50-year average. Before accounting for inflation, home prices have risen over 1,100 percent since 1974, but have slightly more than doubled (111%) after accounting for inflation.

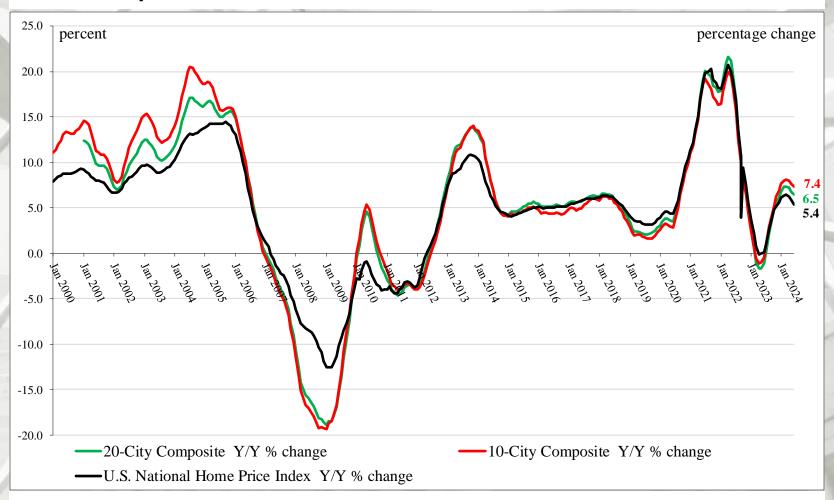
Another popular theme is making housing more affordable to first-time homebuyers. We compared each of the 16 markets that the S&P CoreLogic Case-Shiller Home Price Indices calculate on a tiered basis to evaluate historical performance of more affordable homes. Our tiered indices divide each market into three price tiers, which range based on the market. Looking at the last five years, 75% of the markets covered show low-price tiers rising faster than the overall market. For example, the lower tier of the Atlanta market has risen 18% faster than the middle- and higher-tiered homes. New York's low tier has the largest five-year outperformance, rising nearly 20% above the overall New York region. New York also has the largest divergence between low- and high-tier prices. New York's high-tier homes have lagged the region's market by 5.1%. Conversely, San Diego has seen the largest appreciation in higher-tier homes over the past five years. While the overall San Diego market has risen by 72% in the past five years, the high tiers have done even better, rising 79% versus 63% for the lower tier." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

S&P/Case-Shiller Home Price Indices



^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

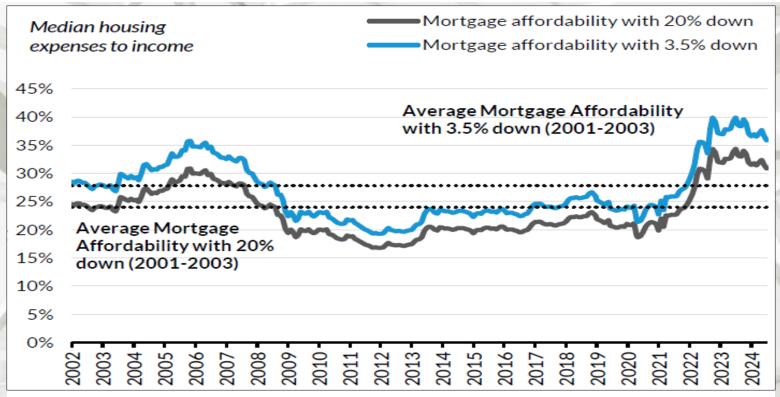
S&P/Case-Shiller Home Price Indices



Y/Y Price Change

From June 2023 to June 2024, the National Index indicated a 5.4% increase; the Ten-City increased by 7.4%, and the Twenty-City escalated by 6.5%.

U.S. Housing Affordability



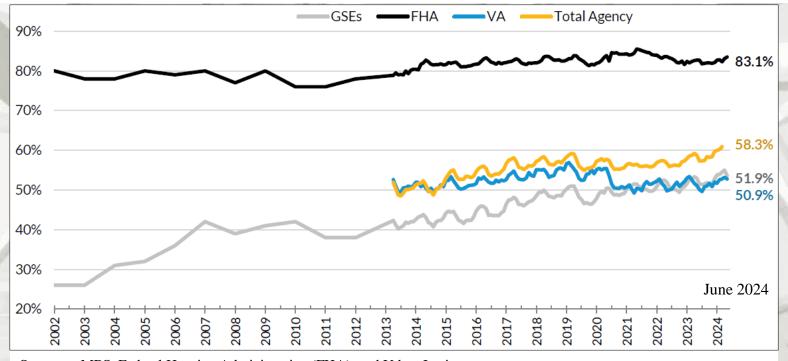
Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute National Mortgage Affordability Over Time

"Mortgage rates remain elevated and in response, mortgage affordability remains close to the worst level since the inception of this series in 2002. However, affordability has begun to improve in recent months. As of July 2024, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 30.9 percent, equal to the 30.9 percent at the peak of the housing bubble in November 2005; and with 3.5 percent down the housing cost burden is 35.9 percent, slightly above the 35.8 percent prior peak in November 2005. " – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. First-Time House Buyers



Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute First-time House Buyer Share

"In June 2024, the first-time homebuyer (FTHB) share for FHA, which has always been more focused on first time home buyers, was 83.1 percent. The FTHB share of GSE lending in February was 51.9 percent; the VA share was 50.9 percent. ..." – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Market

Housing Notes

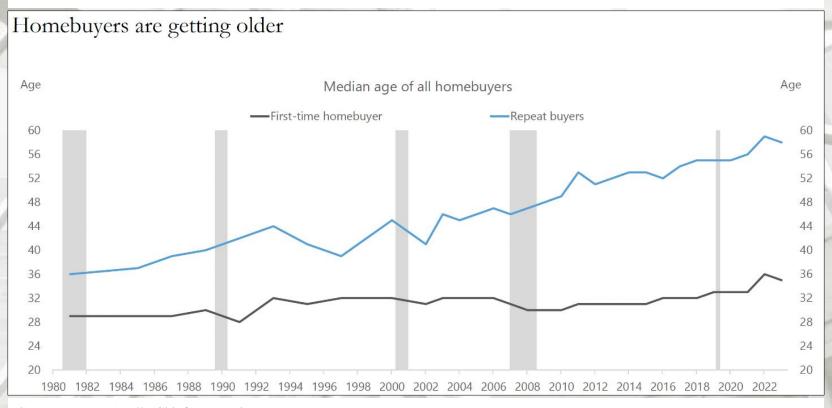
7/11 Age Inflation: Homebuying Is Becoming An Older Person's Game

- The Median Age Of All Homebuyers Is 49, Up From 31 In 1981
- First-time Homebuyer Age Is Only Up About 6 Years Over The Past 43 Years
- Repeat Buyers Are Aging Because They Have More Housing Options.

"When we launched our appraisal firm in the mid-1980s, most of my friends who lived outside of Manhattan already owned homes, so I chalked it up to the expensive market we lived in. After all, we had put everything we had into developing the business, and eleven years later, in 1996, at the age of 36, we bought our first home (in a three-way bidding war). We moved to the suburbs of Connecticut to do it and stayed for 8.5 years before buying our next one. Yet my parents and inlaws and most of their peers bought homes in their early twenties. Sure, there was the GI Bill and much lower housing prices, negotiated in \$50 increments, but it was still hard for me to rationalize how buying so young was possible.

As it turns out, we were pretty "median," if not "average," based on national data, buying a home at age 36 in 1996. As it turns out, my peers were well ahead of national conditions, and I wasn't as woefully behind as I had always assumed. The chart shows how the median age of homebuyers has increased by 58.1% or 1.35% per year over these 43 years. Homebuyers are getting older. But it's not what you think." – Jonathan Miller, President and CEO, Miller Samuel Inc.

U.S. Housing Market



U.S. Housing Market

Housing Notes

7/11 Age Inflation: Homebuying Is Becoming An Older Person's Game

"If I look at the above chart from a first-time homebuyer perspective, I was about five years behind the national median age in 1996. Arguably, I was behind, but not far behind my peers (hey, I'm competitive).

But the separation of first-time homebuyers from repeat homebuyers tells us something else. The age of first-time home-buyers has expanded by about six years, from 29 in 1981 to 35 in 2023, which is likely attributable to the rising cost of homeownership, beyond inflation. Much of the increase in homebuyer age has occurred in repeat buyers, rising from 36 to 49 over the same period.

Repeat buyers have added other options to their plates besides the rising cost of homeownership. Back in the era when my parents and in-laws bought their first homes in the early 1960s, many stayed long enough to pay off their 30-year mortgages. Today, as consumers age and their income expands, there are more housing options, such as purchasing second homes, timeshares, investment properties, or becoming Airbnb landlords. Those trends drive the median age higher for repeat buyers in addition to the higher costs. ... "—Jonathan Miller, President and CEO, Miller Samuel Inc.

U.S. Housing Finance

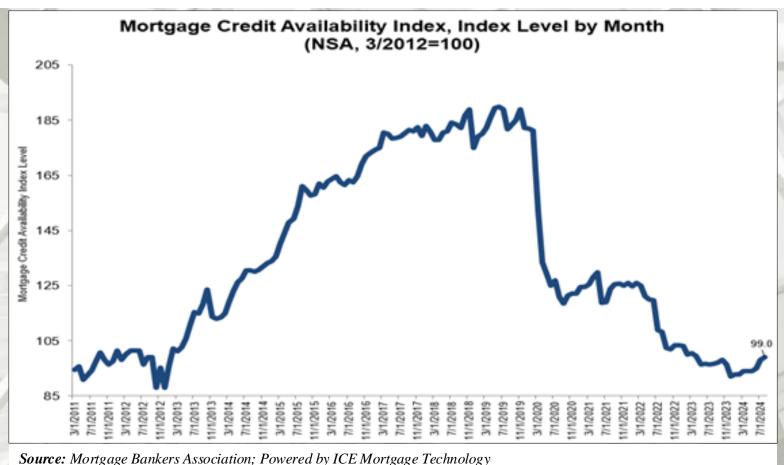
Mortgage Bankers Association Mortgage Credit Availability Increased in August

"Mortgage credit availability increased in August according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

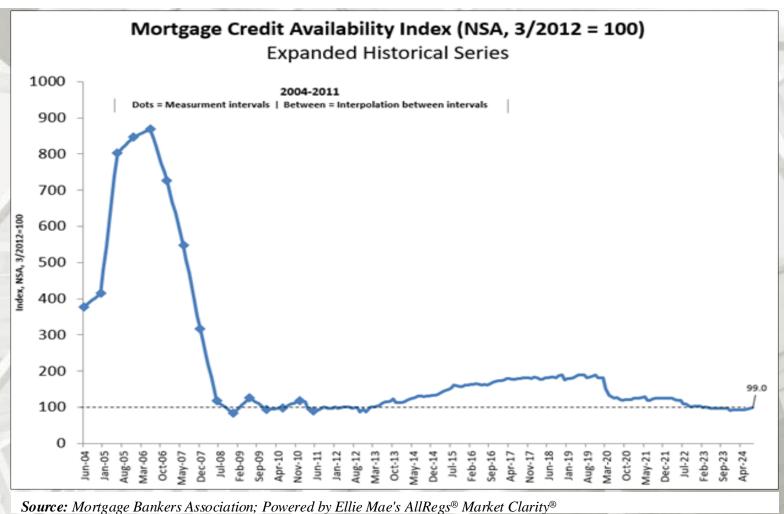
The MCAI rose by 0.9 percent to 99.0 in August. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 1.8 percent, while the Government MCAI was unchanged. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.5 percent, and the Conforming MCAI rose by 2.6 percent.

Credit availability increased in August, with the conventional credit index reaching its highest level since July 2022. This was driven by increased cash-out refinance and non-QM programs. Additionally, the jumbo index increased for the eighth consecutive month to its highest level since 2022. Mortgage rates have been on the decline since May 2024, prompting a pickup in refinance activity, which remains limited to a smaller segment of homeowners with higher rates. As a result, the increase in credit availability was the result of lenders broadening their refinance offerings to meet the greater demand." – Joel Kan, Associate Vice President of Economic and Industry Forecasting; MBA

U.S. Housing Finance Mortgage Credit Availability (MBA)



U.S. Housing Finance Mortgage Credit Availability (MBA)



MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

August 15, 2024

	2023				2024					202	25					
	Q1	Q2	Q3	Q4	Ql	Q2	Q3	Q4	Ql	Q2	Q3	Q4	2023	2024	2025	2026
Housing Measures																
Housing Starts (SAAR, Thous)	1,369	1,455	1,380	1,481	1,407	1,348	1,339	1,348	1,364	1,395	1,420	1,436	1,421	1,360	1,404	1,431
Single-Family	828	935	972	1,060	1,062	1,006	994	1,016	1,043	1,084	1,114	1,136	949	1,020	1,094	1,125
Two or More	541	520	409	421	345	342	345	332	321	311	306	300	473	341	310	306
Home Sales (SAAR, Thous)																
Total Existing Homes	4,327	4,250	4,020	3,880	4,200	4,047	4,173	4,219	4,270	4,358	4,438	4,539	4,119	4,160	4,401	4,733
New Homes	636	698	682	646	663	656	722	743	776	789	798	811	666	696	794	810
FHFA US House Price Index (YOY % Change)	4.6	3.3	5.6	6.4	6.6	6.0	5.0	4.1	3.4	3.2	3.0	2.9	6.4	4.1	2.9	3.0
Median Price of Total Existing Homes (Thous \$)	366.7	397.5	400.9	387.3	385.3	416.9	418.8	413.0	402.2	406.1	409.0	400.4	388.1	408.5	404.4	395.4
Median Price of New Homes (Thous \$)	434.8	418.7	434.3	421.8	429.2	412.7	418.0	422.0	419.9	424.1	427.7	429.0	427.4	420.5	425.2	428.7
Interest Rates																
30-Year Fixed Rate Mortgage (先)	6.4	6.5	7.0	7.3	6.7	7.0	6.7	6.5	6.4	6.3	6.1	5.9	7.3	6.5	5.9	5.9
10-Year Treasury Yield (%)	3.6	3.6	4.2	4.4	4.2	4.4	4.1	4.0	3.9	3.9	3.9	3.9	4.4	4.0	3.9	3.9
Mortgage Originations																
Total 1- to 4-Family (Bil \$)	296	411	396	355	377	429	479	470	464	540	538	523	1,458	1,755	2,065	2,298
Purchase	250	347	339	303	291	336	357	340	326	394	385	369	1,239	1,324	1,474	1,649
Refinance	46	64	56	52	86	93	122	130	138	146	153	154	219	431	591	649
Refinance Share (%)	16	16	14	15	23	22	25	28	30	27	28	29	15	25	29	28
FHA Originations (Bil \$)													182	203	208	207
Total 1- to 4-Family (000s loans)	871	1,201	1,136	1,005	967	1,081	1,203	1,174	1,155	1,326	1,315	1,272	4,213	4,426	5,068	5,473
Purchase	700	964	931	818	708	806	846	797	758	909	882	839	3,412	3,156	3,388	3,681
Refinance	171	236	205	187	259	276	358	377	397	417	434	433	800	1,270	1,681	1,792
Refinance Share (%)	20	20	18	19	27	26	30	32	34	31	33	34	19	29	33	33
Mortgage Debt Outstanding																
1- to 4-Family (Bil \$)	13,680	13,778	13,901	13,994	14,071	14,144	14,236	14,332	14,427	14,533	14,640	14,735	13,994	14,332	14,735	15,118
																

Notes

As of the August 2024 forecast, 2023 origination volume was revised based on the 2023 Home Mortgage Disclosure Act data.

Total 1-to-4-family originations and refinance share are MBA estimates. These exclude second mortgages and home equity loans.
Mortgage rate forecast is based on Freedie Mao's 30-Yr fixed rate which is based on predominantly home purchase transactions.
The 10-Year Treasury Yield and 30-Yr mortgage rate are the average for the quadrer, but annual columns show Q4 values.
The FHFA US House Price Index is the forecasted year over year percent change of the FHFA Purchase-Only House Price Index.
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MBA Economic Forecast

MBA Economic Forecast

August 15, 2024

	2023					2024				2025						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025	2026
Percent Change, SAAR																
Real Gross Domestic Product	2.2	2.1	4.9	3.4	1.4	2.8	1.6	1.5	1.1	1.3	1.2	1.5	3.1	1.8	1.3	1.5
Personal Consumption Expenditures	3.8	0.8	3.1	3.3	1.5	2.3	2.5	1.8	1.1	1.2	8.0	1.0	2.7	2.0	1.1	1.4
Business Fixed Investment	5.7	7.4	1.4	3.7	4.4	5.2	1.2	2.3	1.6	1.4	1.1	0.9	4.6	3.3	1.2	0.6
Residential Investment	-5.3	-2.2	6.7	2.8	16.0	-1.4	-10.4	-3.9	1.4	4.1	6.1	7.7	0.4	-0.4	4.8	1.8
Govt. Consumption & Investment	4.8	3.3	5.8	4.6	1.8	3.1	0.8	1.1	0.6	0.5	0.5	0.4	4.6	1.7	0.5	0.3
Net Exports (Bil. Chain 2012\$)	-1048.8	-1039.0	-1043.1	-1032.7	-1074.3	-1121.0	-1114.0	-1113.8	-1119.2	-1127.3	-1119.2	-1105.6	-1040.9	-1105.8	-1117.8	-1071.1
Inventory Investment (Bil. Chain 2012\$)	24.1	13.2	68.9	48.6	25.4	63.1	57.7	52.4	50.5	56.0	57.3	57.6	38.7	49.6	55.4	60.4
Consumer Prices (YOY)	5.7	4.0	3.6	3.2	3.2	3.2	2.8	2.7	2.4	2.4	2.3	2.1	3.2	2.7	2.1	2.0
Percent																
Unemployment Rate	3.5	3.6	3.7	3.8	3.8	4.0	4.3	4.5	4.6	4.7	4.7	4.8	3.6	4.1	4.7	4.7
Federal Funds Rate	4.875	5.125	5.375	5.375	5.375	5.375	5.125	4.625	4.375	4.125	3.875	3.625	5.375	4.625	3.625	3.375
10-Year Treasury Yield	3.6	3.6	4.2	4.4	4.2	4.4	4.1	4.0	3.9	3.9	3.9	3.9	4.4	4.0	3.9	3.9
,																

Notes:

The Fed Funds Rate forecast is shown as the mid point of the Fed Funds range at the end of the period. All data except interest rates are seasonally adjusted

The 10-Year Treasury Yield is the average for the quarter, while the annual value is the Q4 value

Forecast produced with the assistance of the Macroeconomic Advisers' model

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MORTGAGE BANKERS ASSOCIATION

Summary

In conclusion:

Housing data, month-over-month and year-over-year, were mostly negative. On a month-over-month basis multi-family starts, single-family permits, single-family completions, and new and existing house sales were positive. Year-over-year, total and single-family completions, total and single-family construction spending, and new house sales were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and the "lock-in" effect have obfuscated sales. New and existing house sales continued their respective declines.

Pros:

1) The desire to own a house remains positive.

Cons:

- 1) Mortgage interest rates and affordability;
- 2) US bank failures;
- 3) Inflation;
- 4) The war in Ukraine and the Israel-Palestinian conflict, and other international concerns;
- 5) Construction material, appliance constraints, and logistics/supply chains remain;
- 6) Lot availability and building regulations (according to several sources);
- 7) Labor shortages in many sectors;
- 8) Household formations still lag historical averages;
- 9) Job creation is improving and consistent, but some economists question the quantity and types of jobs being created;
- 10) Debt: Corporate, personal, government United States and globally;
- 11) Other global uncertainties.

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