

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



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This report is a free monthly service of Virginia Tech. Past issues are available at:
<http://woodproducts.sbio.vt.edu/housing-report>.

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Opening Remarks

Housing data, month-over-month and year-over-year, were negative. On a month-over-month basis total and multi-family monthly starts, total and single-family, and total and single-family expenditures were positive. Year-over-year, single-family starts, total and single-family completions, and total and single-family construction spending were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and the “lock-in” effect have obfuscated construction and sales.

The June 18th Atlanta Fed GDPNow™ total residential investment spending forecast is 0.5% for Q2 2024. Quarterly log change for new private permanent site expenditures were projected at 0.1%; the improvement spending forecast was 3.7%; and the manufactured/mobile home expenditures projection was 17.2% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“Single-family home building: Resilient but rangebound. Two years ago, we argued that extreme tightness in the housing market would dampen the hit to housing activity from higher interest rates. Our analysis suggested that when the home owner vacancy rate is low – as it was then and still is today – the sensitivity of housing starts to mortgage rates is sharply reduced. Because financing costs are a small share of construction costs, home builders normally slow construction when interest rates increase in anticipation of weaker demand, not as a result of higher costs. But when housing supply is tight, like it is today, housing demand is likely to remain strong despite higher interest rates, and home builders can keep building because they should have little fear that homes will sit unsold after completion. ... However, the same constraints on home building that led to the housing shortage and reduced its sensitivity to rates also limit the upside to single-family starts. Home builders continue to face a shortage of available plots to build on – in part due to stringent land-use regulations – and a shortage of construction workers. ...” – Goldman Sachs via ResiClub

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.

Sources: ¹ www.frbatlanta.org/cqer/research/gdpnow.aspx; 6/18/24

² <https://www.resiclubanalytics.com/p/singlefamily-homebuilding-resilient-rangebound-says-goldman-sachs>; 6/12/24

April 2024 Housing Scorecard

| | M/M | Y/Y |
|---|---------|---------|
| Housing Starts | ▲ 5.7% | ▼ 0.6% |
| Single-Family (SF) Starts | ▼ 0.4% | ▲ 17.7% |
| Multi-Family (MF) Starts* | ▲ 30.6% | ▼ 33.1% |
| Housing Permits | ▼ 3.0% | ▼ 8.7% |
| SF Permits | ▼ 0.7% | ▲ 0.5% |
| MF Permits* | ▼ 7.6% | ▼ 3.6% |
| Housing Under Construction | ▼ 1.4% | ▼ 3.9% |
| SF Under Construction | ▼ 1.0% | ▼ -2.0% |
| Housing Completions | ▲ 8.6% | ▲ 14.6% |
| SF Completions | ▲ 15.4% | ▲ 13.6% |
| New SF House Sales | ▼ 4.7% | ▼ 7.7% |
| Private Residential Construction Spending | ▲ 0.1% | ▲ 8.0% |
| SF Construction Spending | ▲ 0.1% | ▲ 20.4% |
| Existing House Sales ¹ | ▼ 1.9% | ▼ 1.9% |

* All multi-family (2 to 4 + ≥ 5-units)

M/M = month-over-month; Y/Y = year-over-year;
NC = No change

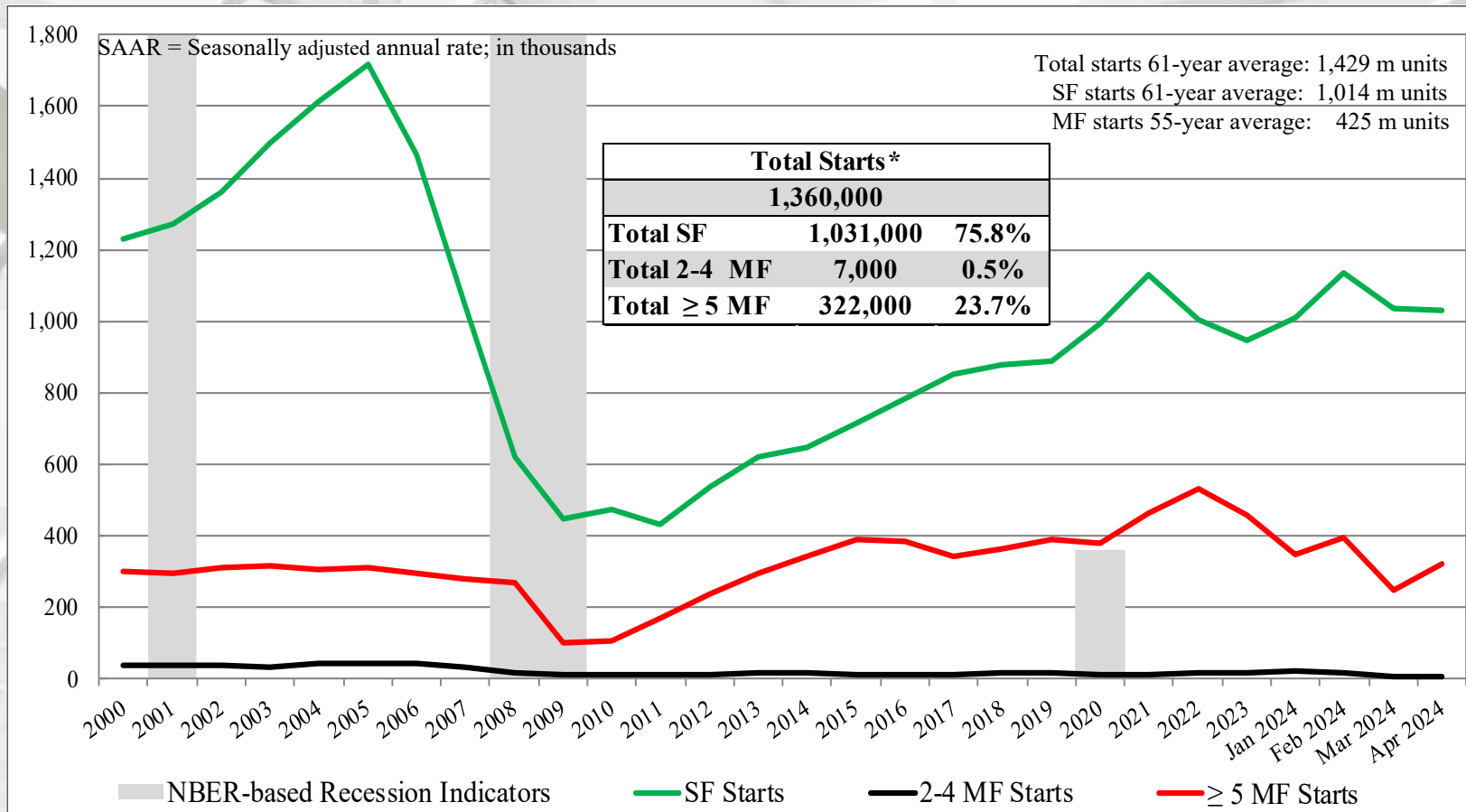
New Housing Starts

| | Total Starts* | SF Starts | MF 2-4 Starts** | MF ≥5 Starts |
|------------|---------------|-----------|-----------------|--------------|
| April | 1,360,000 | 1,031,000 | 7,000 | 322,000 |
| March | 1,287,000 | 1,035,000 | 7,000 | 245,000 |
| 2023 | 1,368,000 | 876,000 | 12,000 | 480,000 |
| M/M change | 5.7% | -0.4% | 0.0% | 31.4% |
| Y/Y change | -0.6% | 17.7% | -41.7% | -32.9% |

* 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

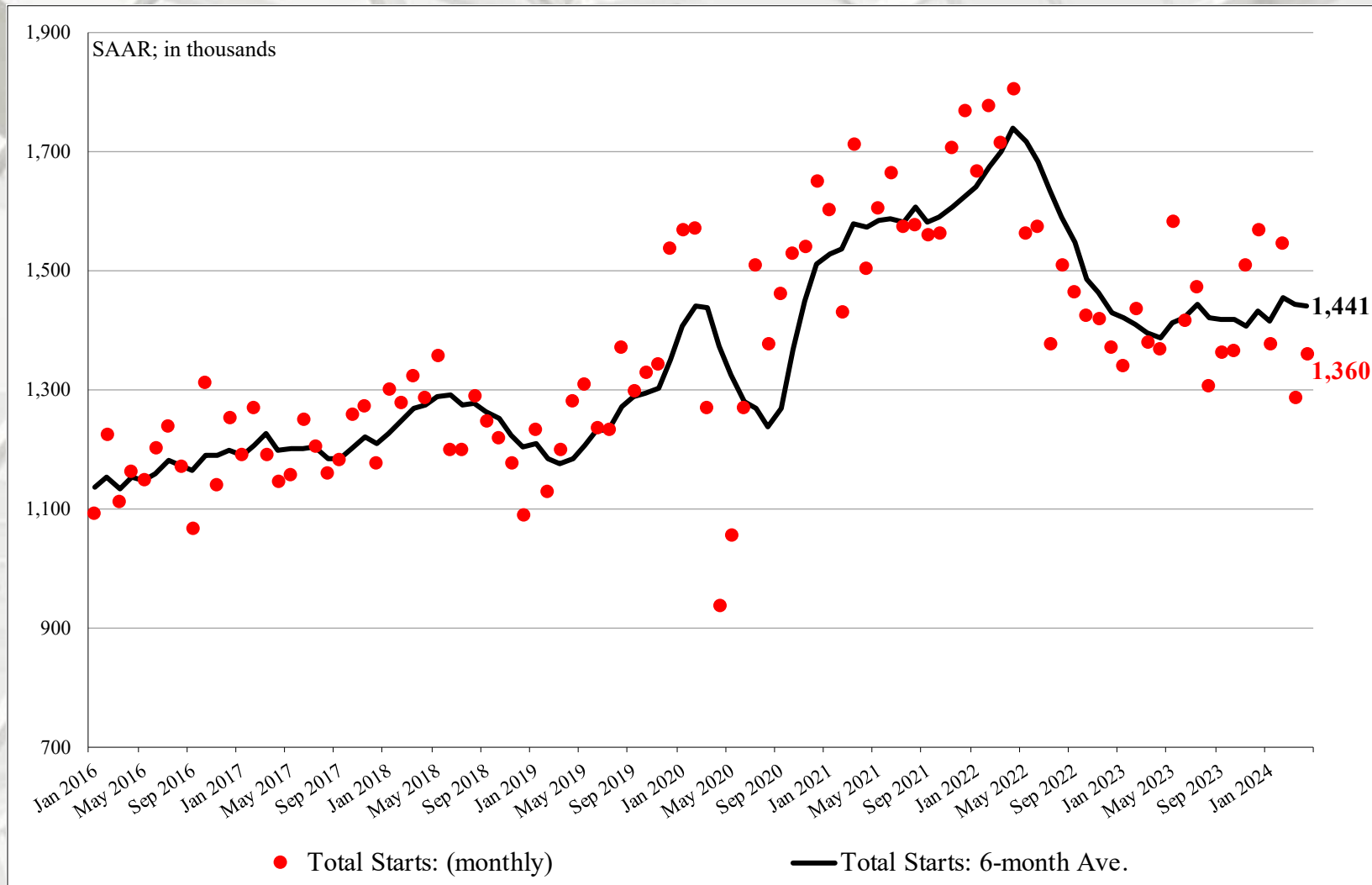


The US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF)).

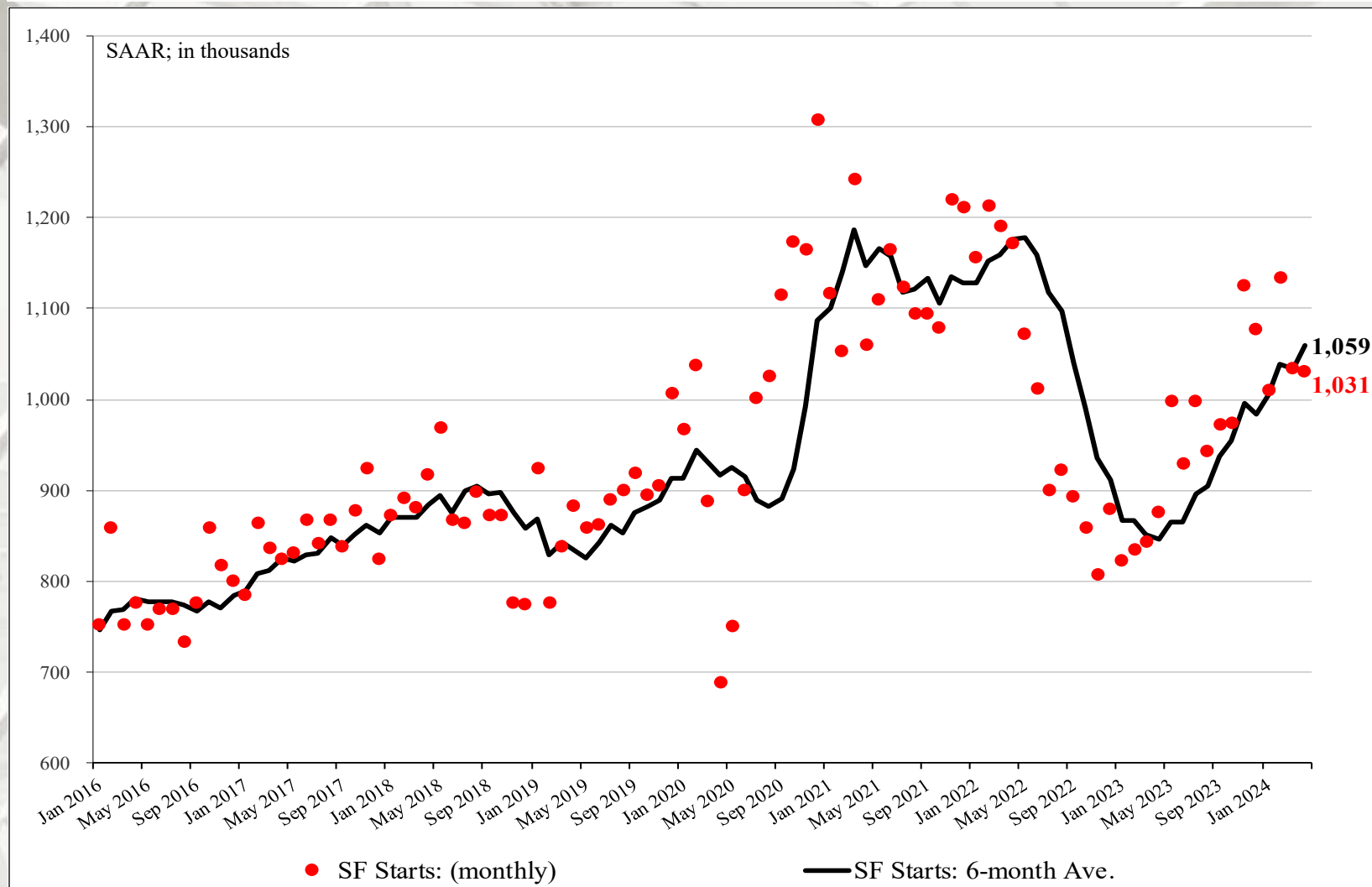
* Percentage of total starts.

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

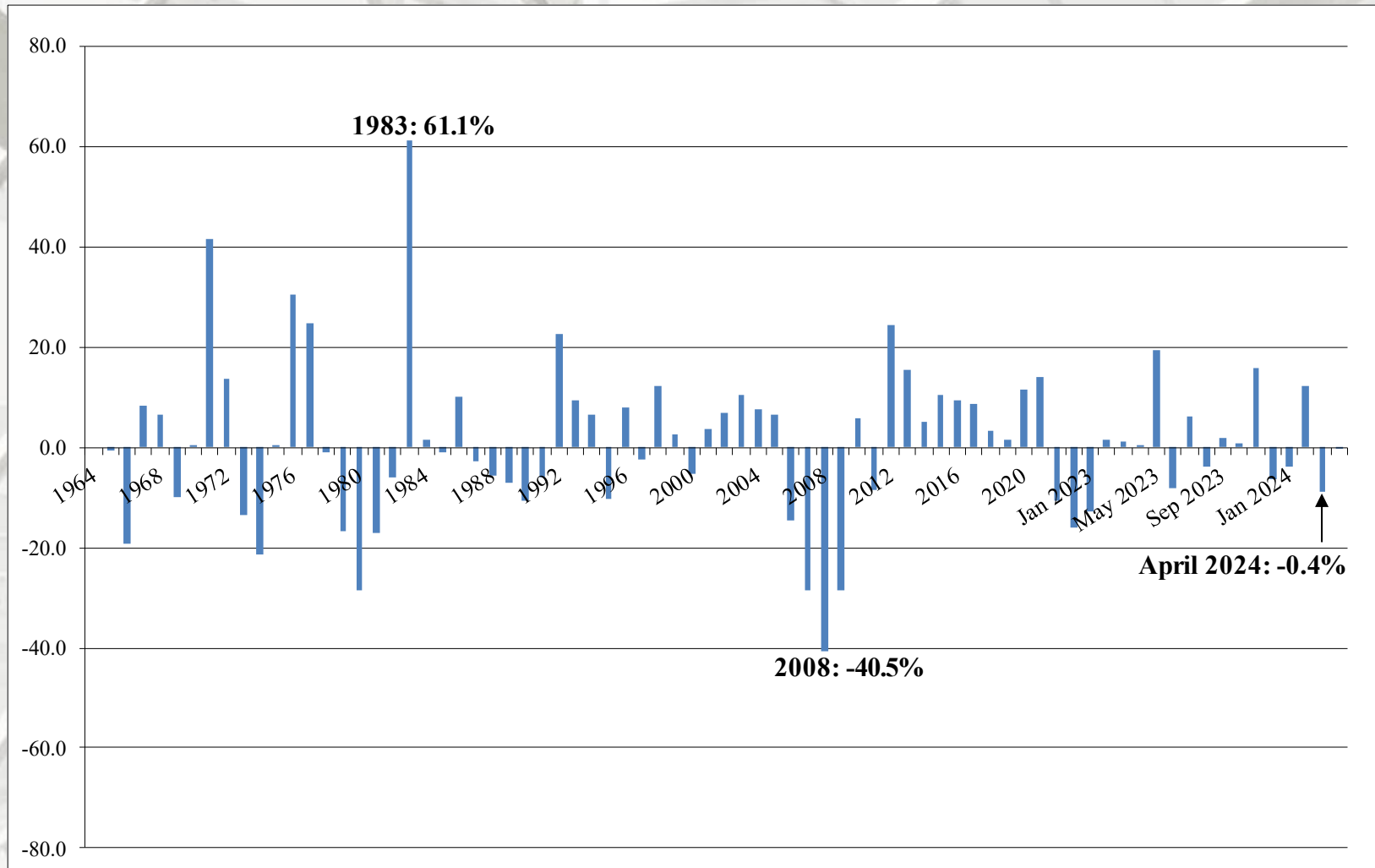
Total Housing Starts: Six-Month Moving Average



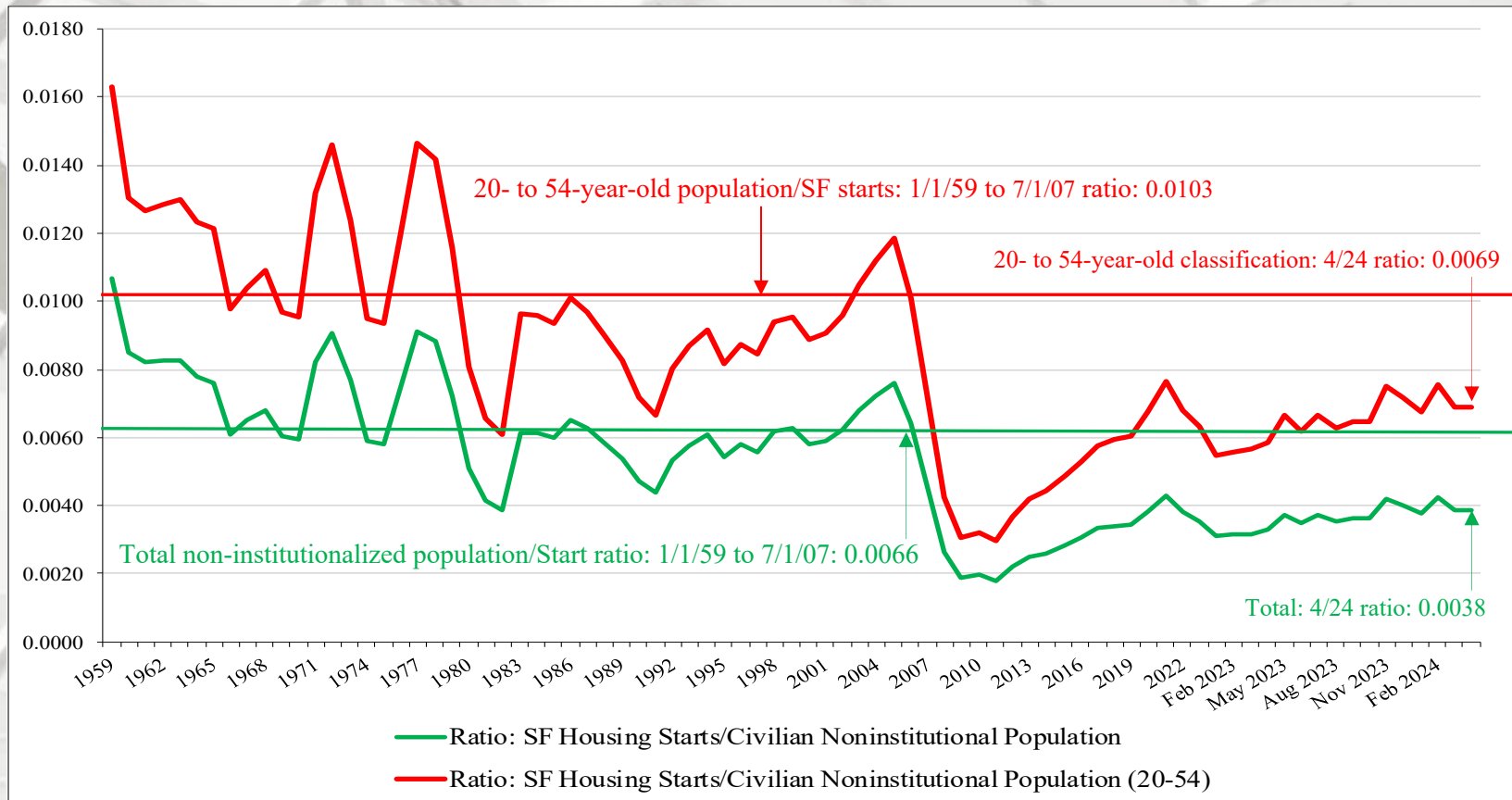
SF Housing Starts: Six-Month Moving Average



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



New SF Starts

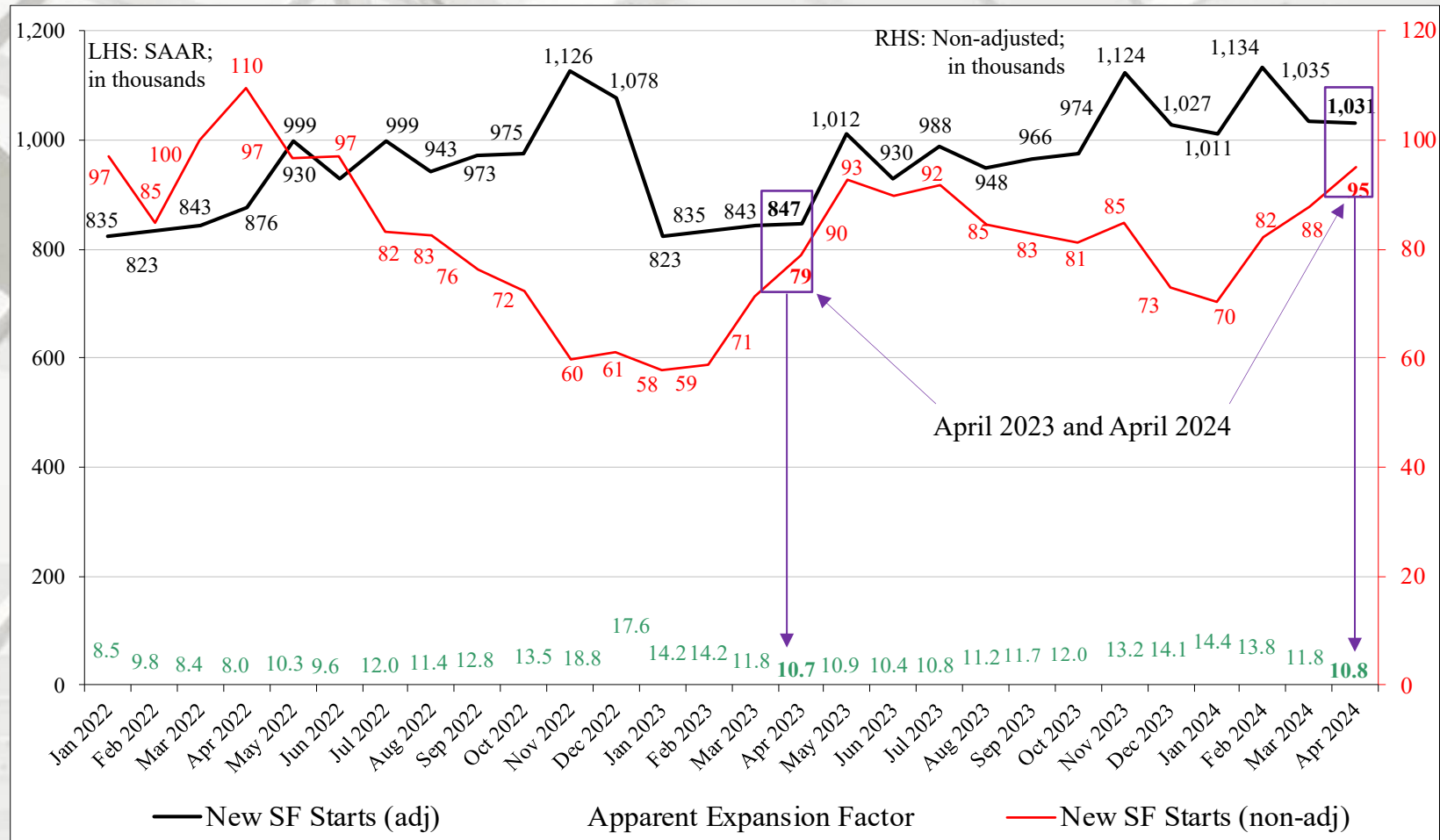


New SF starts adjusted for the US population

From April 1959 to April 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In April 2024 it was 0.0038 – no change from March. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in April 2024 it was 0.0069 –also no change from March. 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** |
|------------|-----------------|--------------|----------------|
| April | 72,000 | 57,000 | 15,000 |
| March | 93,000 | 66,000 | 27,000 |
| 2023 | 128,000 | 63,000 | 65,000 |
| M/M change | -22.6% | -13.6% | -44.4% |
| Y/Y change | -43.8% | -9.5% | -76.9% |
| | MW Total | MW SF | MW MF |
| April | 181,000 | 131,000 | 50,000 |
| March | 152,000 | 132,000 | 20,000 |
| 2023 | 175,000 | 93,000 | 82,000 |
| M/M change | 19.1% | -0.8% | 150.0% |
| Y/Y change | 3.4% | 40.9% | -39.0% |

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).

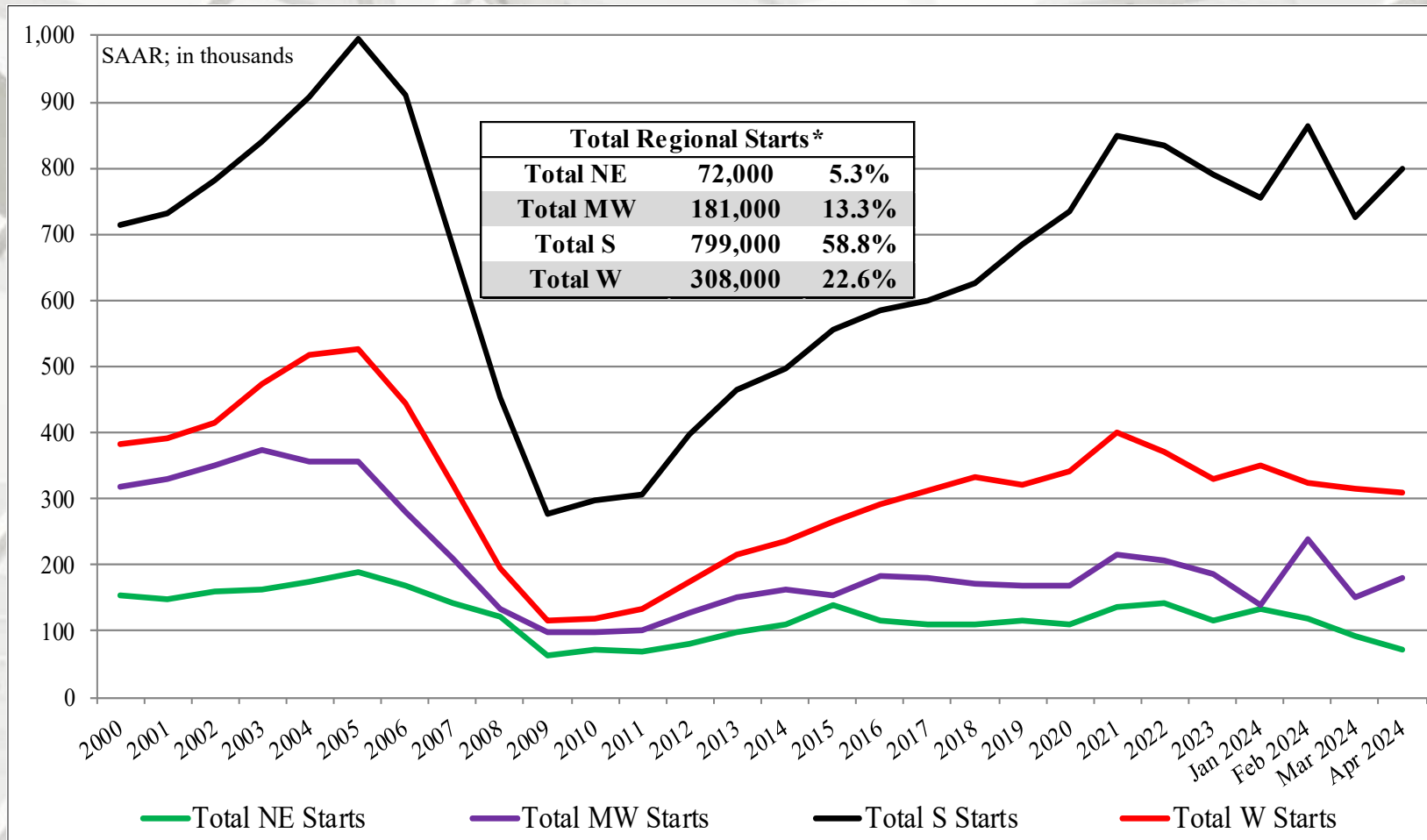
New Housing Starts by Region

| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| April | 799,000 | 611,000 | 188,000 |
| March | 726,000 | 612,000 | 114,000 |
| 2023 | 762,000 | 524,000 | 238,000 |
| M/M change | 10.1% | -0.2% | 64.9% |
| Y/Y change | 4.9% | 16.6% | -21.0% |
| | W Total | W SF | W MF |
| April | 308,000 | 232,000 | 76,000 |
| March | 316,000 | 225,000 | 91,000 |
| 2023 | 303,000 | 196,000 | 107,000 |
| M/M change | -2.5% | 3.1% | -16.5% |
| Y/Y change | 1.7% | 18.4% | -29.0% |

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

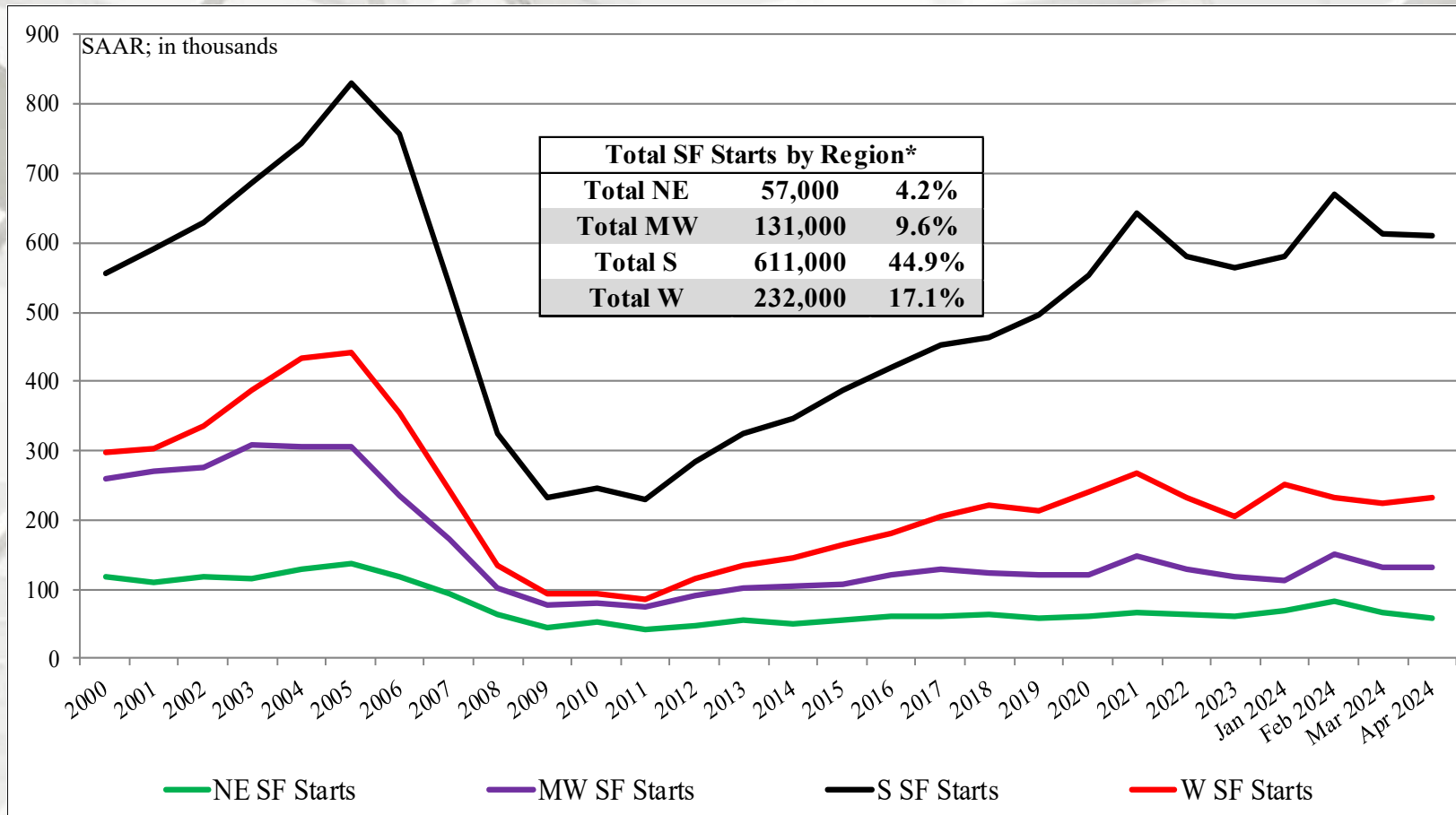


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

Total SF Housing Starts by Region

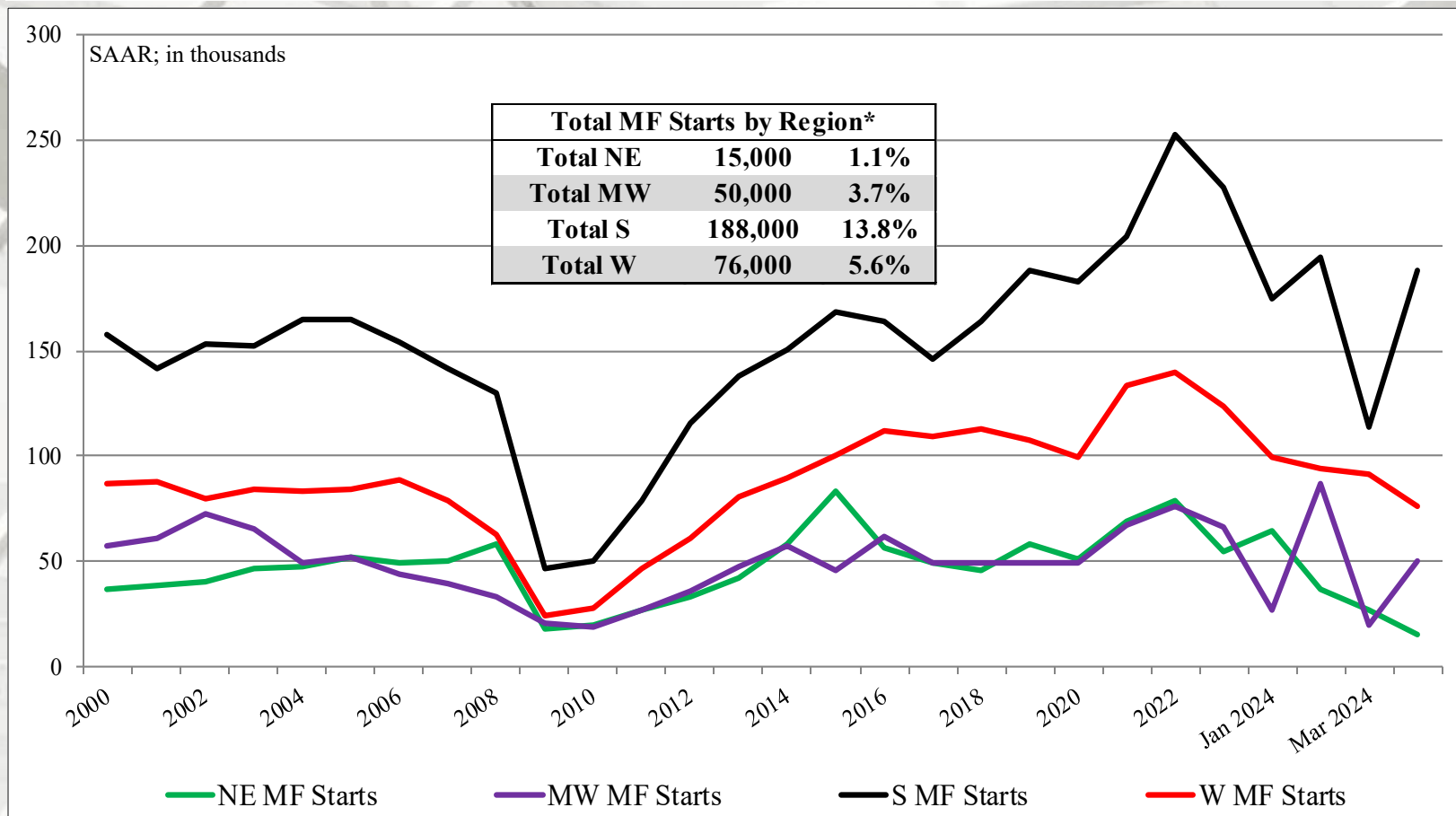


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

MF Housing Starts by Region

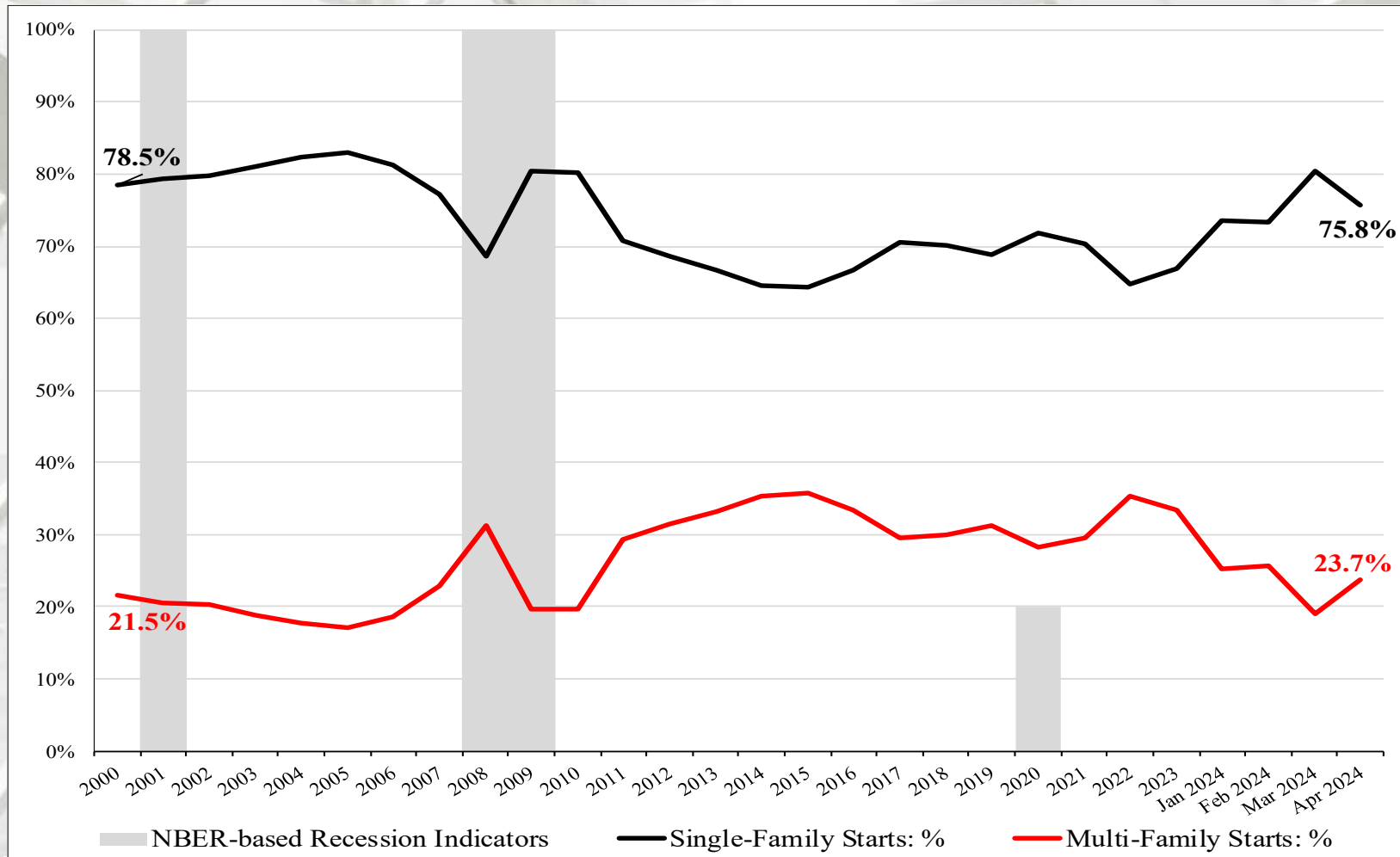


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

SF vs. MF Housing Starts (%)



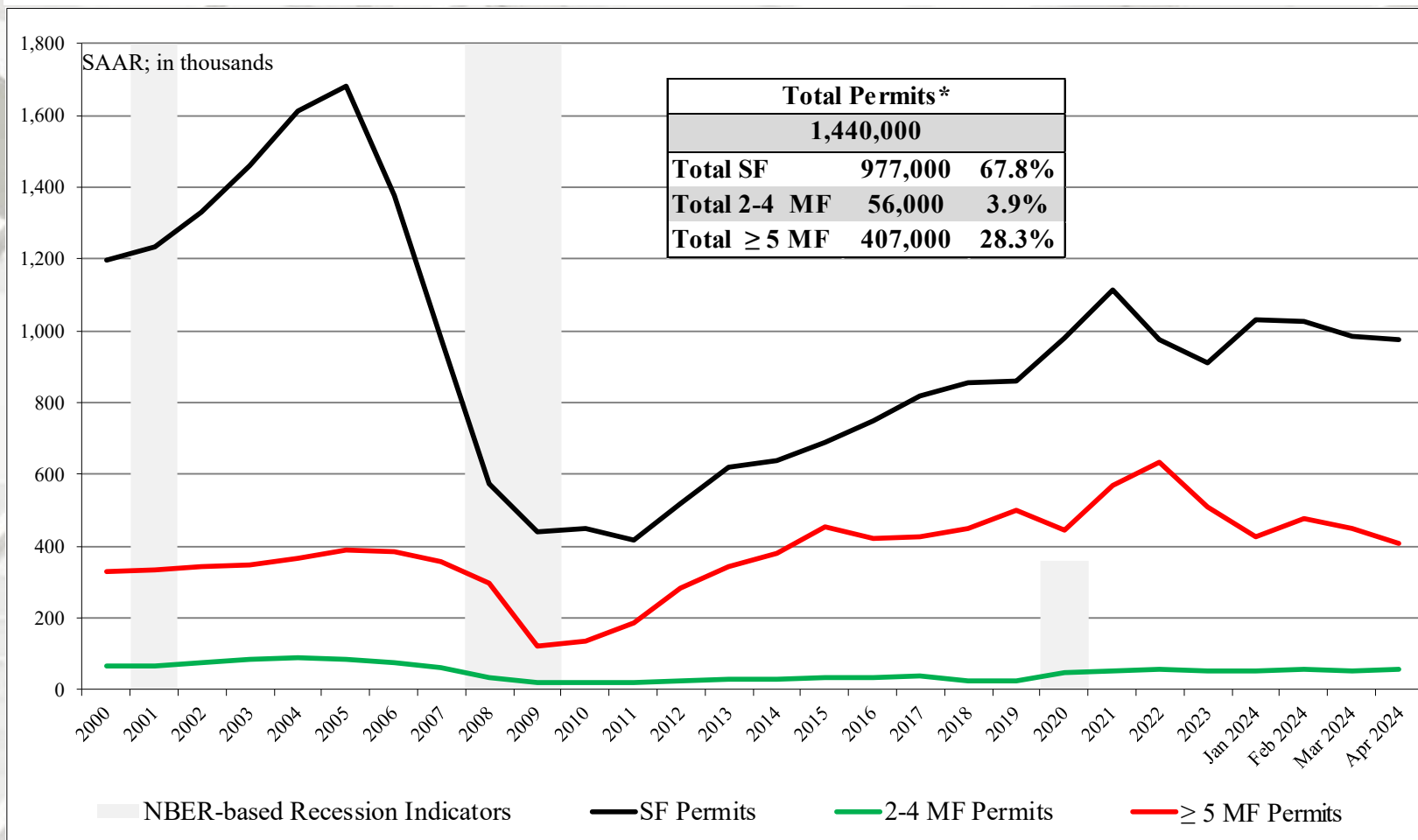
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

| | Total Permits* | SF Permits | MF 2-4 unit Permits | MF ≥ 5 unit Permits |
|------------|----------------|------------|---------------------|---------------------|
| April | 1,440,000 | 977,000 | 56,000 | 407,000 |
| March | 1,485,000 | 984,000 | 52,000 | 449,000 |
| 2023 | 1,470,000 | 876,000 | 64,000 | 530,000 |
| M/M change | -3.0% | -0.7% | 7.7% | -9.4% |
| Y/Y change | -2.0% | 11.5% | -12.5% | -23.2% |

* 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** |
|------------|------------------|--------------|----------------|
| April | 152,000 | 61,000 | 91,000 |
| March | 146,000 | 56,000 | 90,000 |
| 2023 | 129,000 | 56,000 | 73,000 |
| M/M change | 4.1% | 8.9% | 1.1% |
| Y/Y change | 17.8% | 8.9% | 24.7% |
| | MW Total* | MW SF | MW MF** |
| April | 166,000 | 119,000 | 47,000 |
| March | 204,000 | 133,000 | 71,000 |
| 2023 | 182,000 | 111,000 | 71,000 |
| M/M change | -18.6% | -10.5% | -33.8% |
| Y/Y change | -8.8% | 7.2% | -33.8% |

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

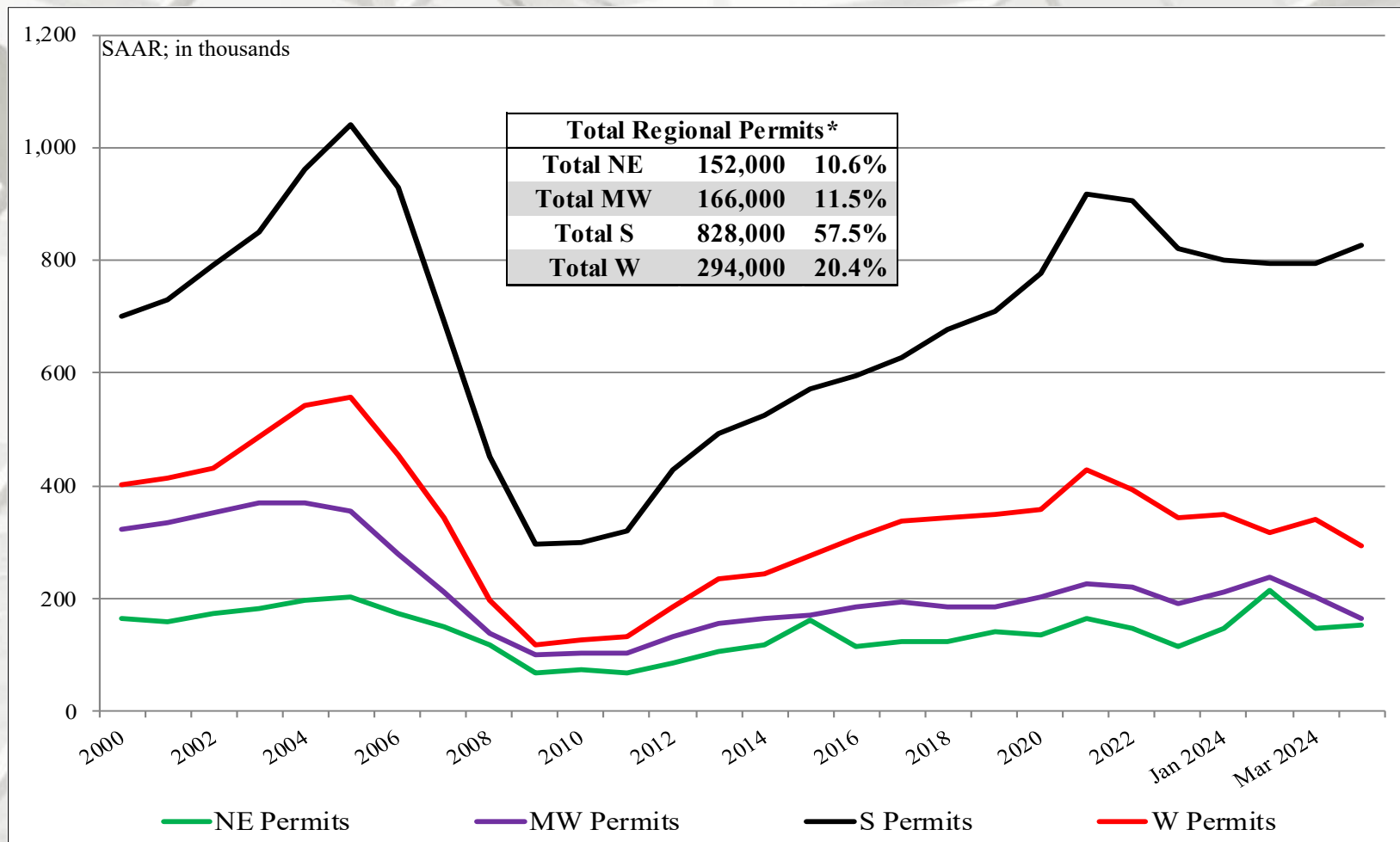
| | S Total* | S SF | S MF** |
|------------|-----------------|-------------|---------------|
| April | 828,000 | 589,000 | 239,000 |
| March | 794,000 | 577,000 | 217,000 |
| 2023 | 820,000 | 532,000 | 288,000 |
| M/M change | 4.3% | 2.1% | 10.1% |
| Y/Y change | 1.0% | 10.7% | -17.0% |
| | W Total* | W SF | W MF** |
| April | 294,000 | 208,000 | 86,000 |
| March | 341,000 | 218,000 | 123,000 |
| 2023 | 339,000 | 177,000 | 162,000 |
| M/M change | -13.8% | -4.6% | -30.1% |
| Y/Y change | -13.3% | 17.5% | -46.9% |

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).

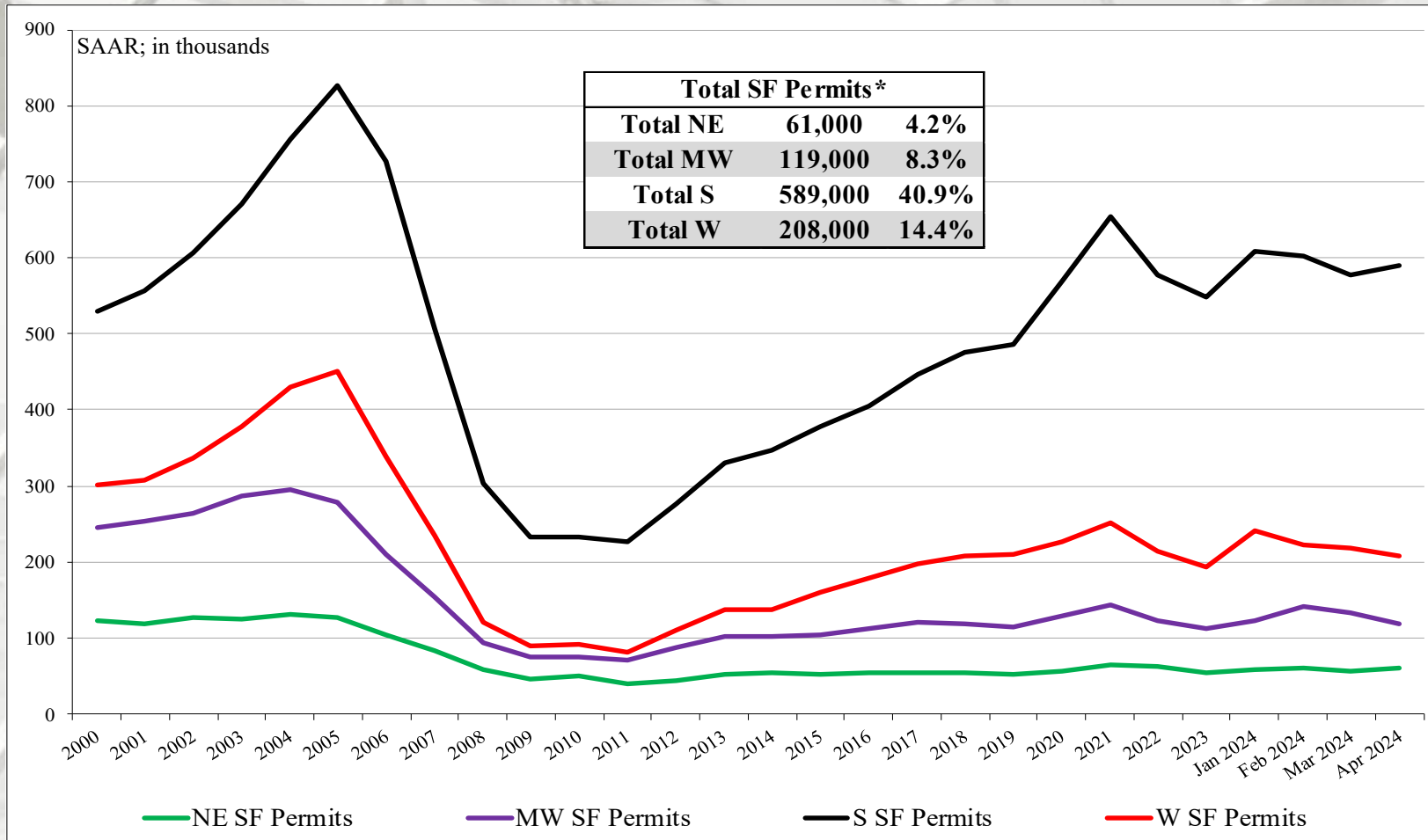
Total Housing Permits by Region



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

* Percentage of total permits.

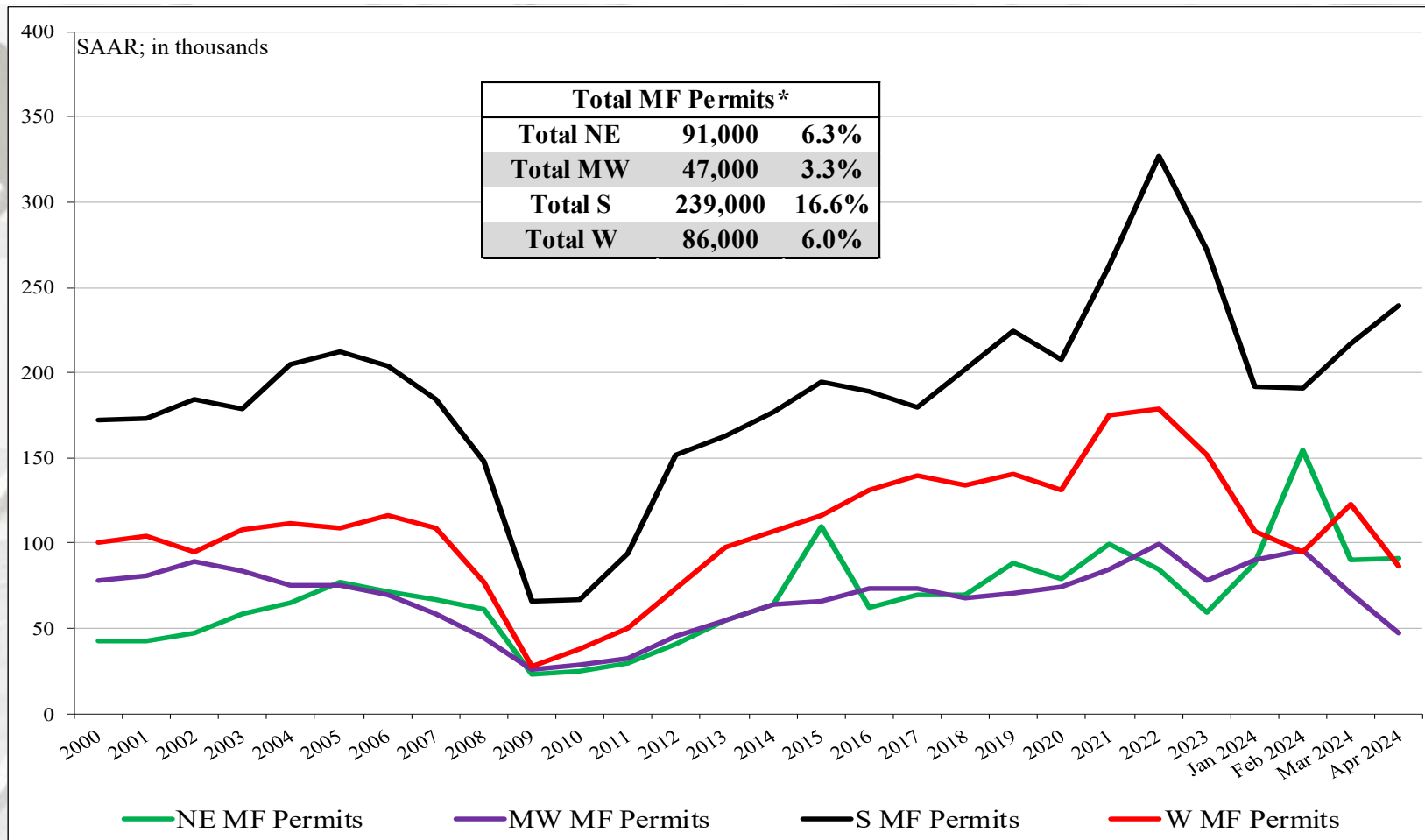
SF Housing Permits by Region



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

* Percentage of total permits.

MF Housing Permits by Region



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

* Percentage of total permits.

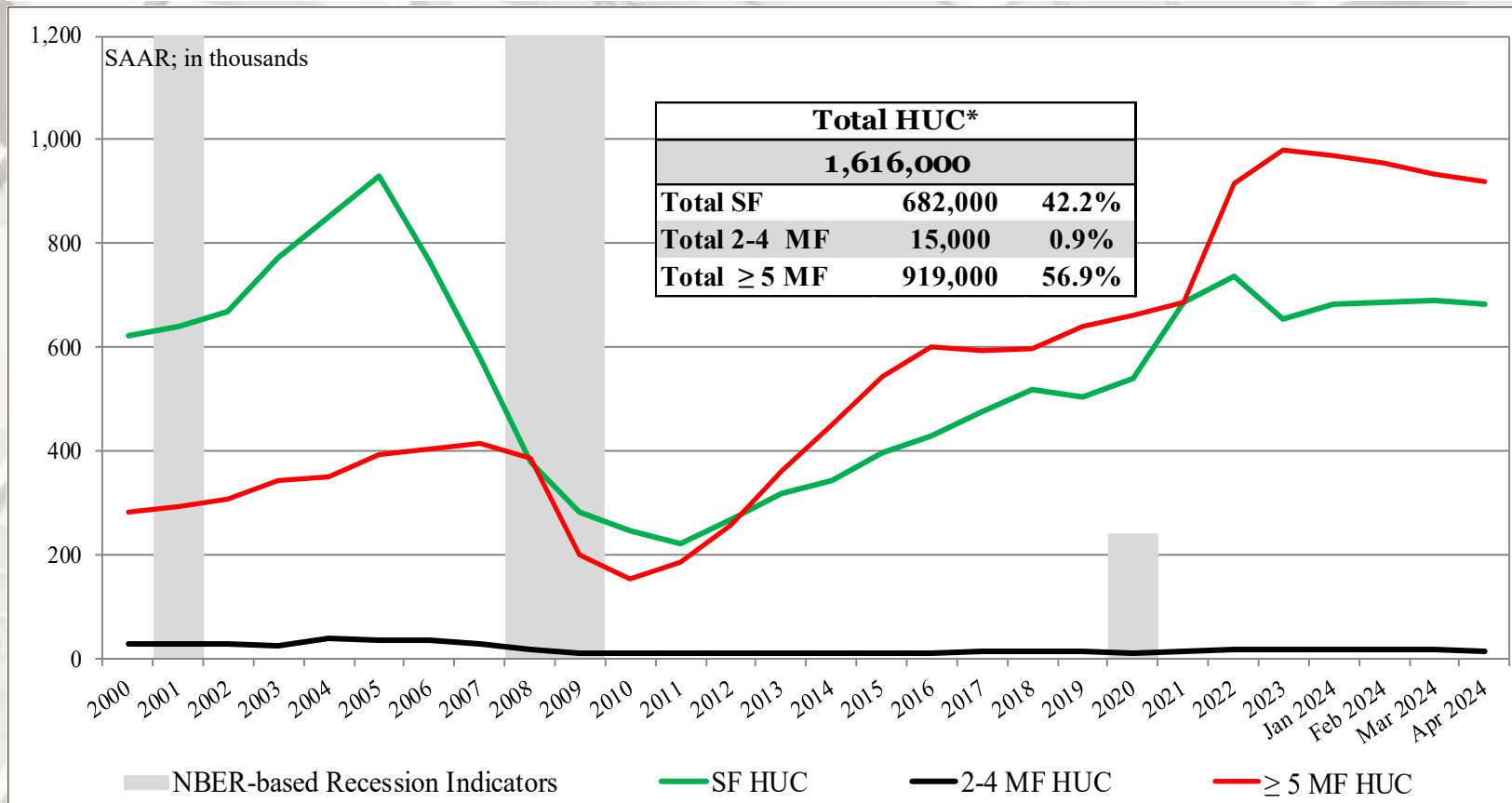
New Housing Under Construction (HUC)

| | Total HUC | SF HUC | MF 2-4 unit** HUC | MF ≥ 5 unit HUC |
|------------|-----------|---------|-------------------|-----------------|
| April | 1,616,000 | 682,000 | 15,000 | 919,000 |
| March | 1,639,000 | 689,000 | 16,000 | 934,000 |
| 2023 | 1,682,000 | 696,000 | 17,000 | 969,000 |
| M/M change | -1.4% | -1.0% | -6.3% | -1.6% |
| Y/Y change | -3.9% | -2.0% | -11.8% | -5.2% |

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)).

* Percentage of total housing under construction units.

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

New Housing Under Construction by Region

| | NE Total | NE SF | NE MF** |
|------------|-----------------|--------------|----------------|
| April | 205,000 | 66,000 | 139,000 |
| March | 209,000 | 67,000 | 142,000 |
| 2023 | 214,000 | 66,000 | 148,000 |
| M/M change | -1.9% | -1.5% | -2.1% |
| Y/Y change | -4.2% | 0.0% | -6.1% |
| | MW Total | MW SF | MW MF |
| April | 199,000 | 92,000 | 107,000 |
| March | 202,000 | 91,000 | 111,000 |
| 2023 | 210,000 | 93,000 | 117,000 |
| M/M change | -1.5% | 1.1% | -3.6% |
| Y/Y change | -5.2% | -1.1% | -8.5% |

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).

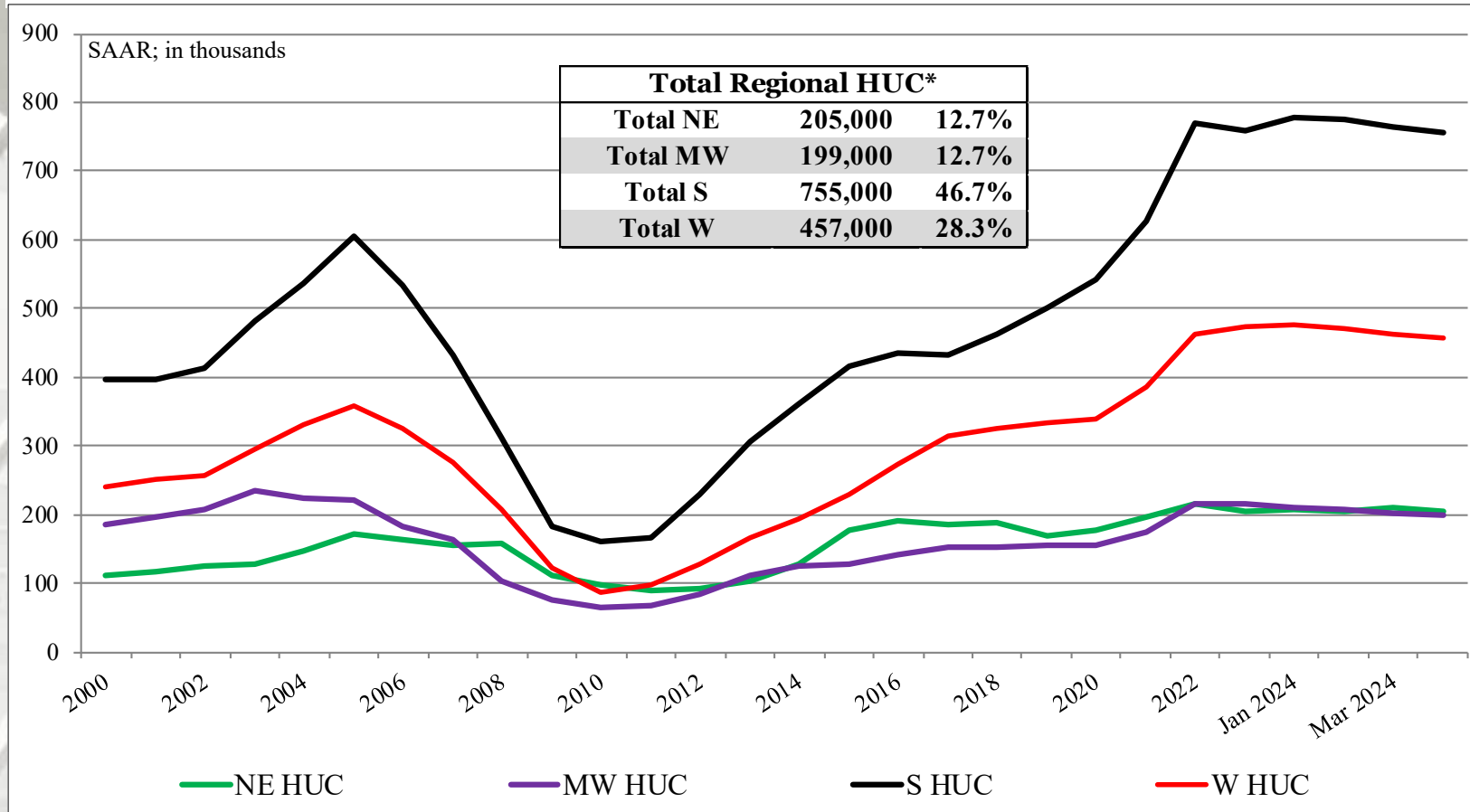
New Housing Under Construction by Region

| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| April | 755,000 | 350,000 | 405,000 |
| March | 765,000 | 355,000 | 410,000 |
| 2023 | 797,000 | 369,000 | 428,000 |
| M/M change | -1.3% | -1.4% | -1.2% |
| Y/Y change | -5.3% | -5.1% | -5.4% |
| | W Total | W SF | W MF |
| April | 457,000 | 174,000 | 283,000 |
| March | 463,000 | 176,000 | 287,000 |
| 2023 | 461,000 | 168,000 | 293,000 |
| M/M change | -1.3% | -1.1% | -1.4% |
| Y/Y change | -0.9% | 3.6% | -3.4% |

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

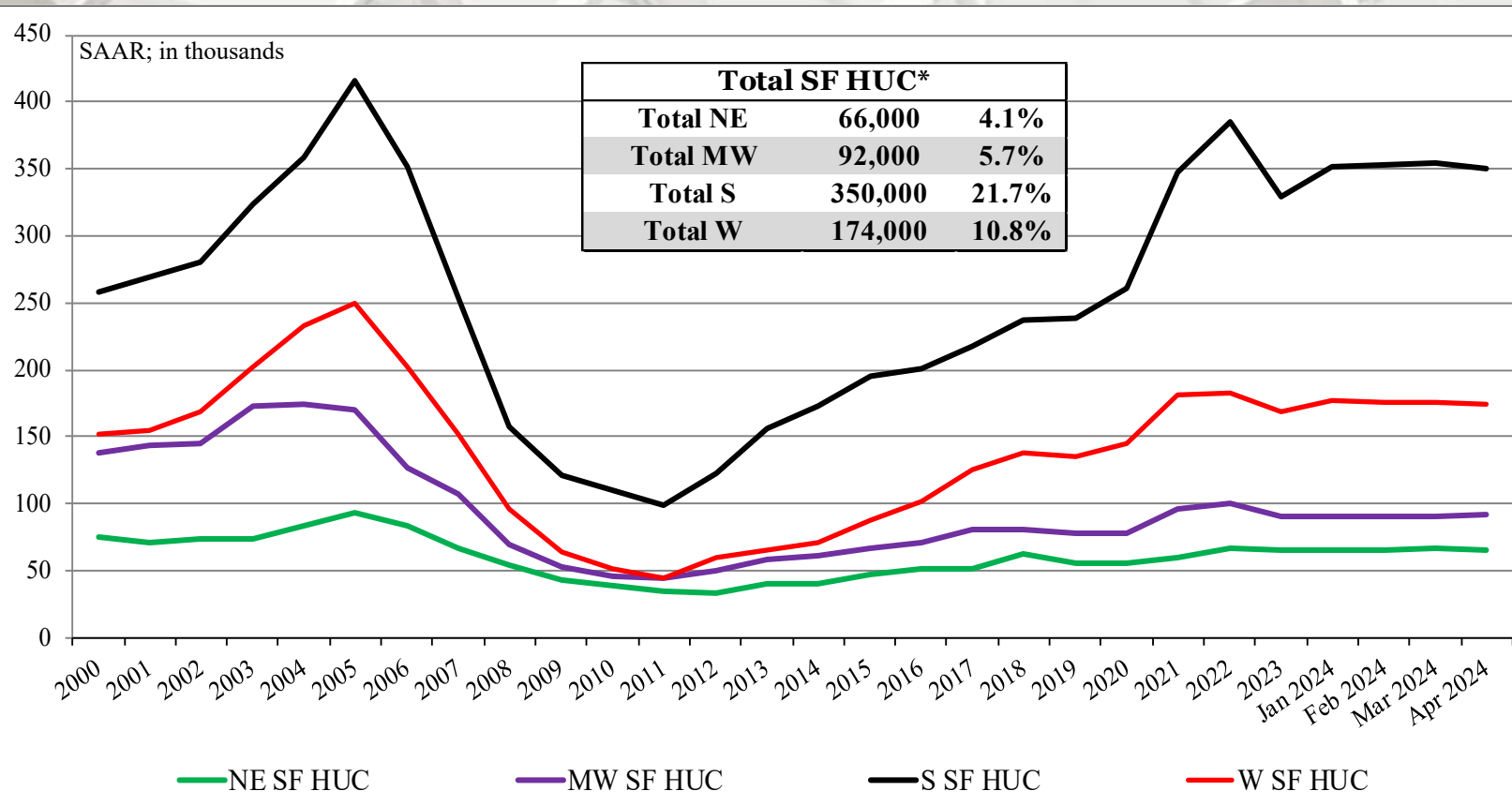


NE = Northeast, MW = Midwest, S = South, W = West

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

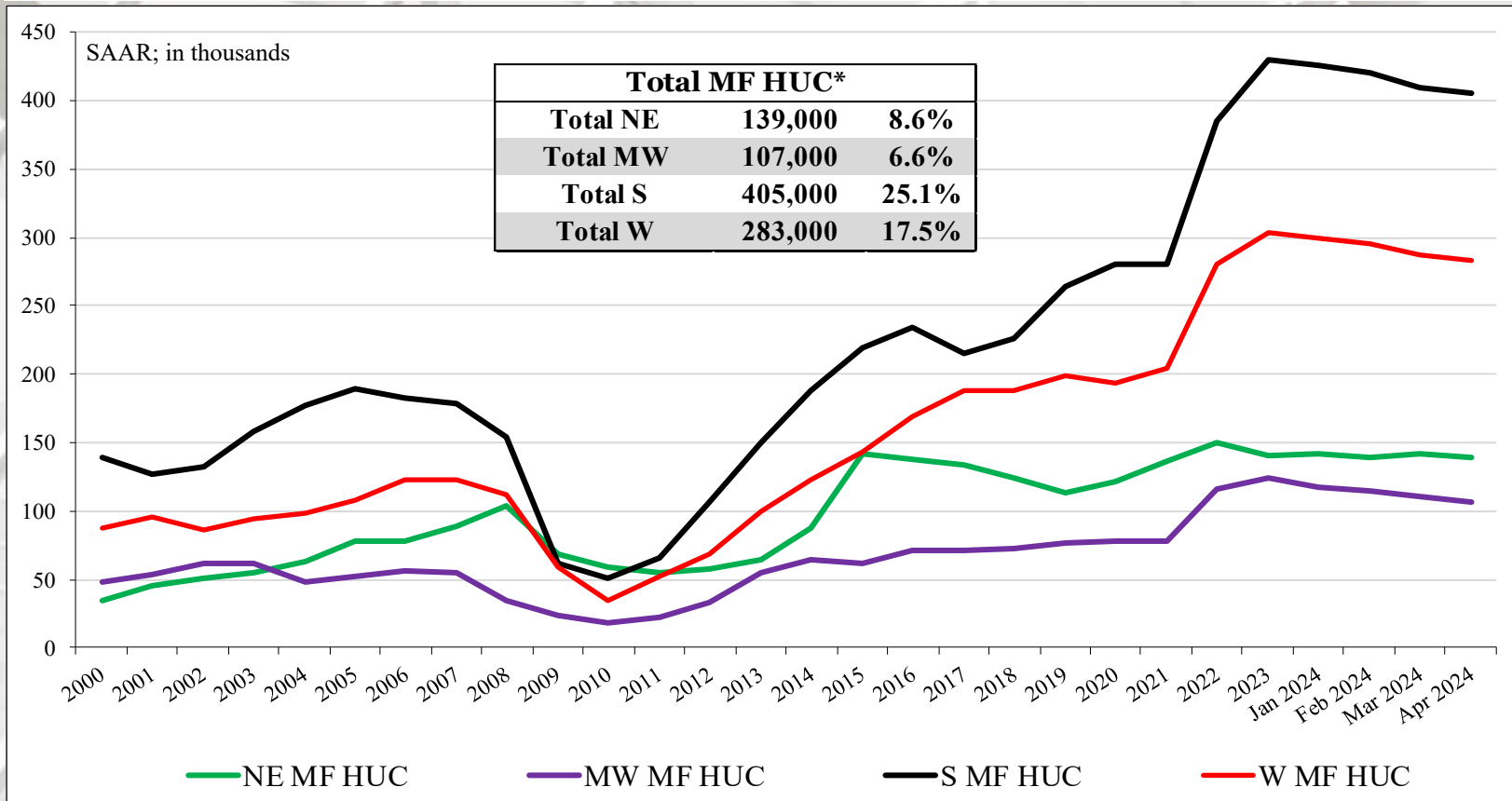


NE = Northeast, MW = Midwest, S = South, W = West.

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.

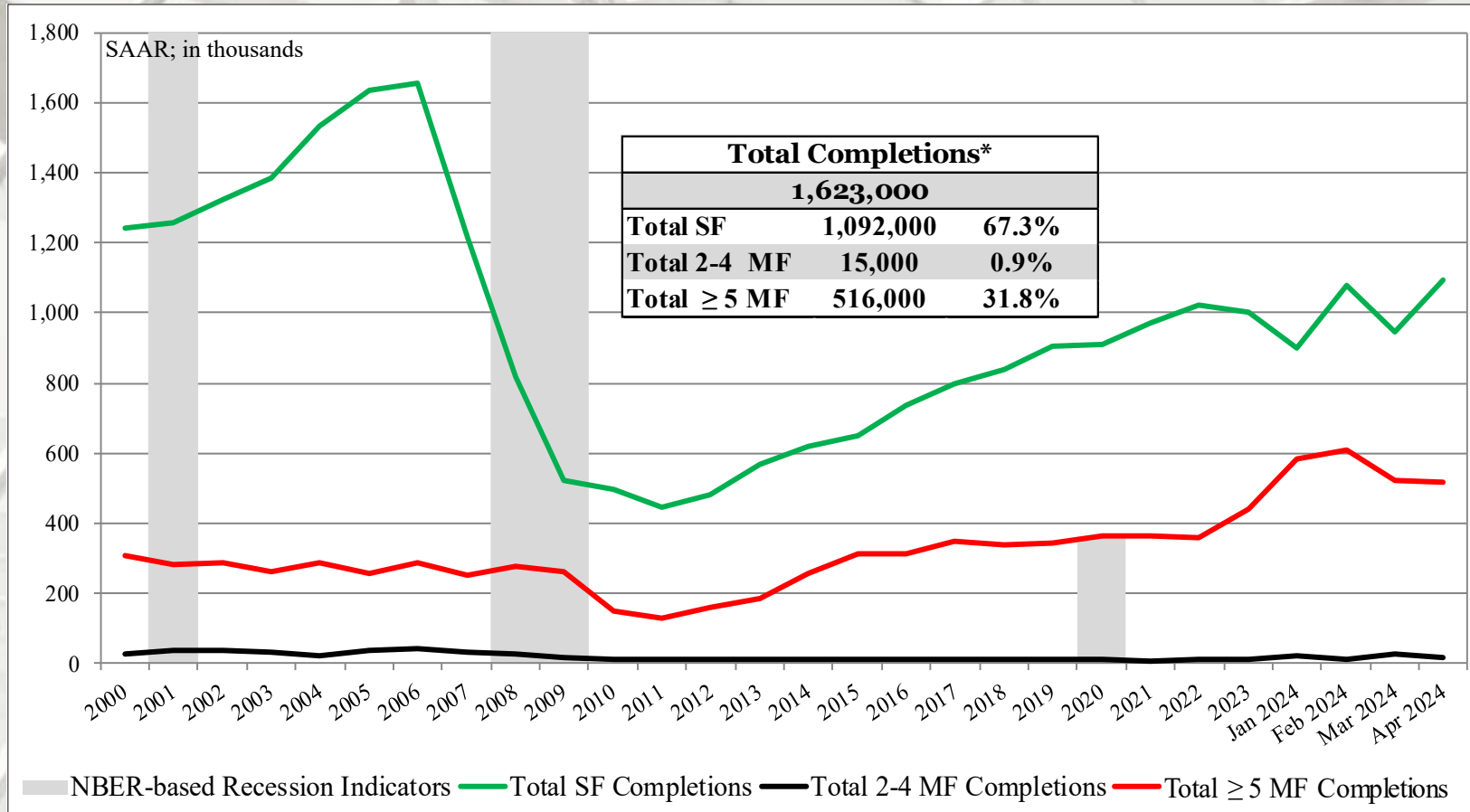
New Housing Completions

| | Total Completions* | SF Completions | MF 2-4 unit** | MF ≥ 5 unit Completions |
|------------|--------------------|----------------|---------------|-------------------------|
| April | 1,623,000 | 1,092,000 | 15,000 | 516,000 |
| March | 1,495,000 | 946,000 | 27,000 | 522,000 |
| 2023 | 1,416,000 | 961,000 | 18,000 | 437,000 |
| M/M change | 8.6% | 15.4% | -44.4% | -1.1% |
| Y/Y change | 14.6% | 13.6% | -16.7% | 18.1% |

* 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 + ≥ 5-unit MF)).

Total Housing Completions



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

* Percentage of total housing completions

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

New Housing Completions by Region

| | NE Total | NE SF | NE MF** |
|------------|-----------------|--------------|----------------|
| April | 109,000 | 69,000 | 40,000 |
| March | 91,000 | 49,000 | 42,000 |
| 2023 | 136,000 | 71,000 | 65,000 |
| M/M change | 19.8% | 40.8% | -4.8% |
| Y/Y change | -19.9% | -2.8% | -38.5% |
| | MW Total | MW SF | MW MF** |
| April | 204,000 | 115,000 | 89,000 |
| March | 178,000 | 122,000 | 56,000 |
| 2023 | 215,000 | 128,000 | 87,000 |
| M/M change | 14.6% | -5.7% | 58.9% |
| Y/Y change | -5.1% | -10.2% | 2.3% |

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

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

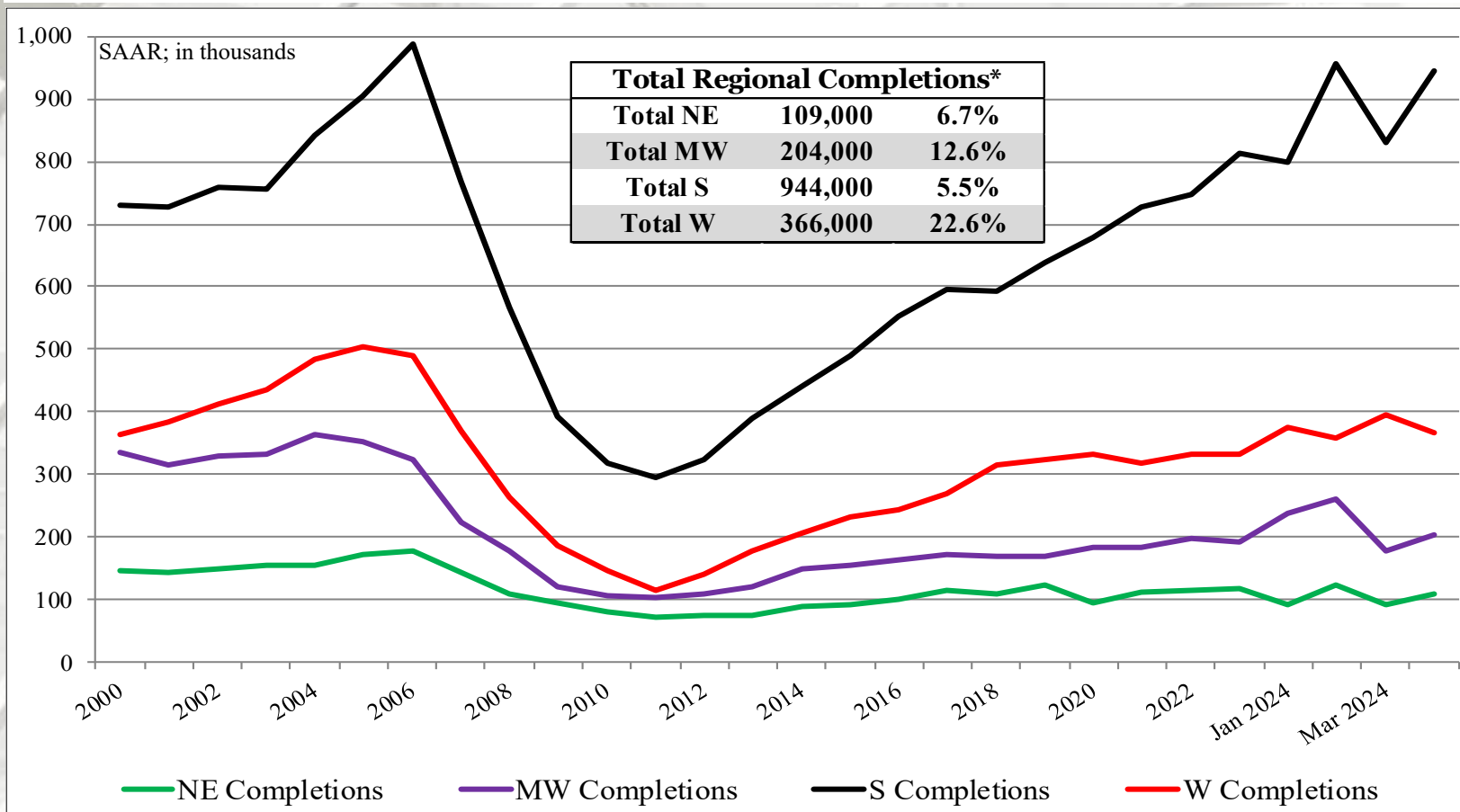
New Housing Completions by Region

| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| April | 944,000 | 657,000 | 287,000 |
| March | 830,000 | 556,000 | 274,000 |
| 2023 | 732,000 | 556,000 | 176,000 |
| M/M change | 13.7% | 18.2% | 4.7% |
| Y/Y change | 29.0% | 18.2% | 63.1% |
| | W Total | W SF | W MF** |
| April | 366,000 | 251,000 | 115,000 |
| March | 396,000 | 219,000 | 177,000 |
| 2023 | 333,000 | 206,000 | 127,000 |
| M/M change | -7.6% | 14.6% | -35.0% |
| Y/Y change | 9.9% | 21.8% | -9.4% |

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

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

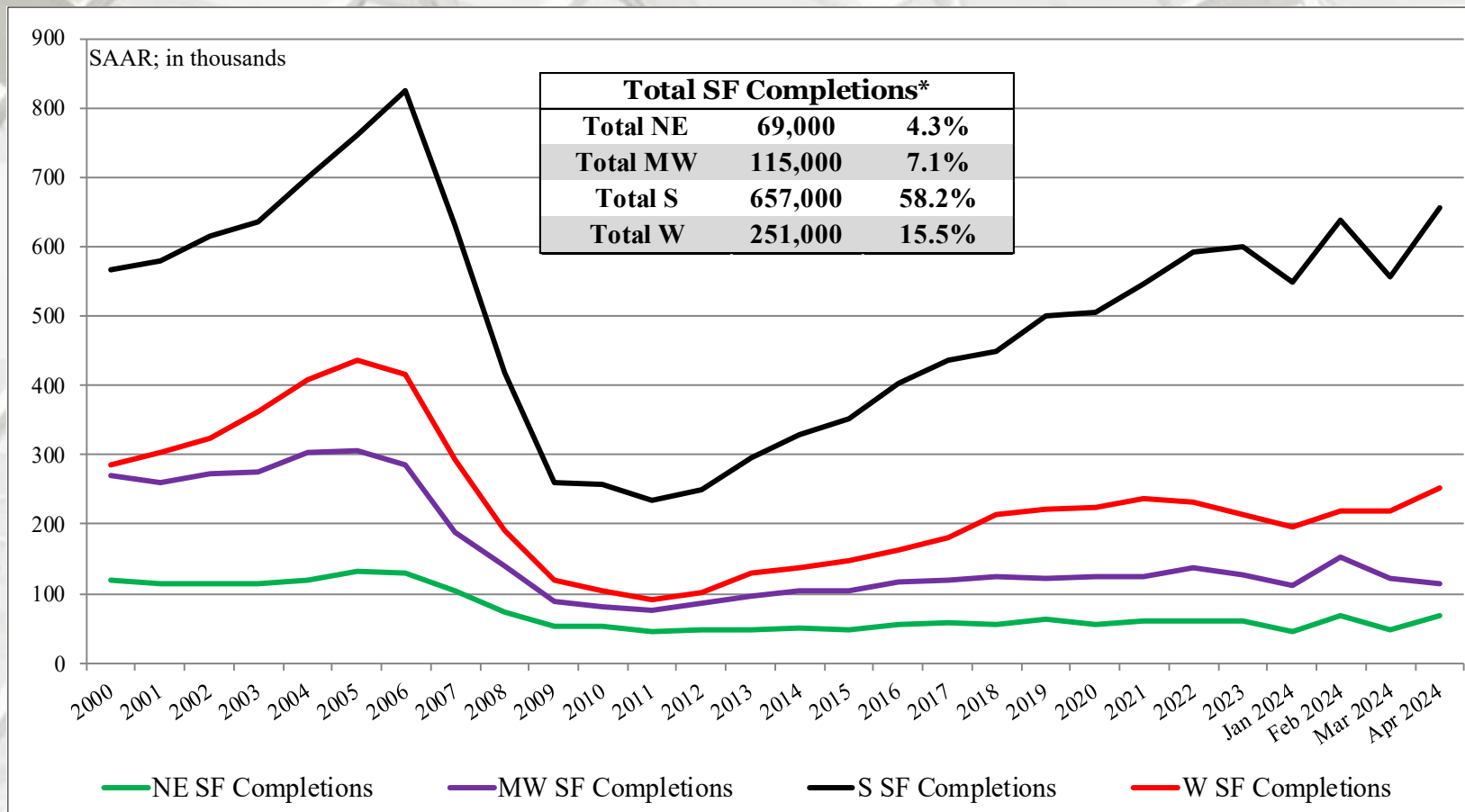
Total Housing Completions by Region



All data are SAAR; NE = Northeast and MW = Midwest; S = South, W = West

** US DOC does not report multi-family unit completions directly; this is an estimation (Total completions – SF completions).

SF Housing Completions by Region

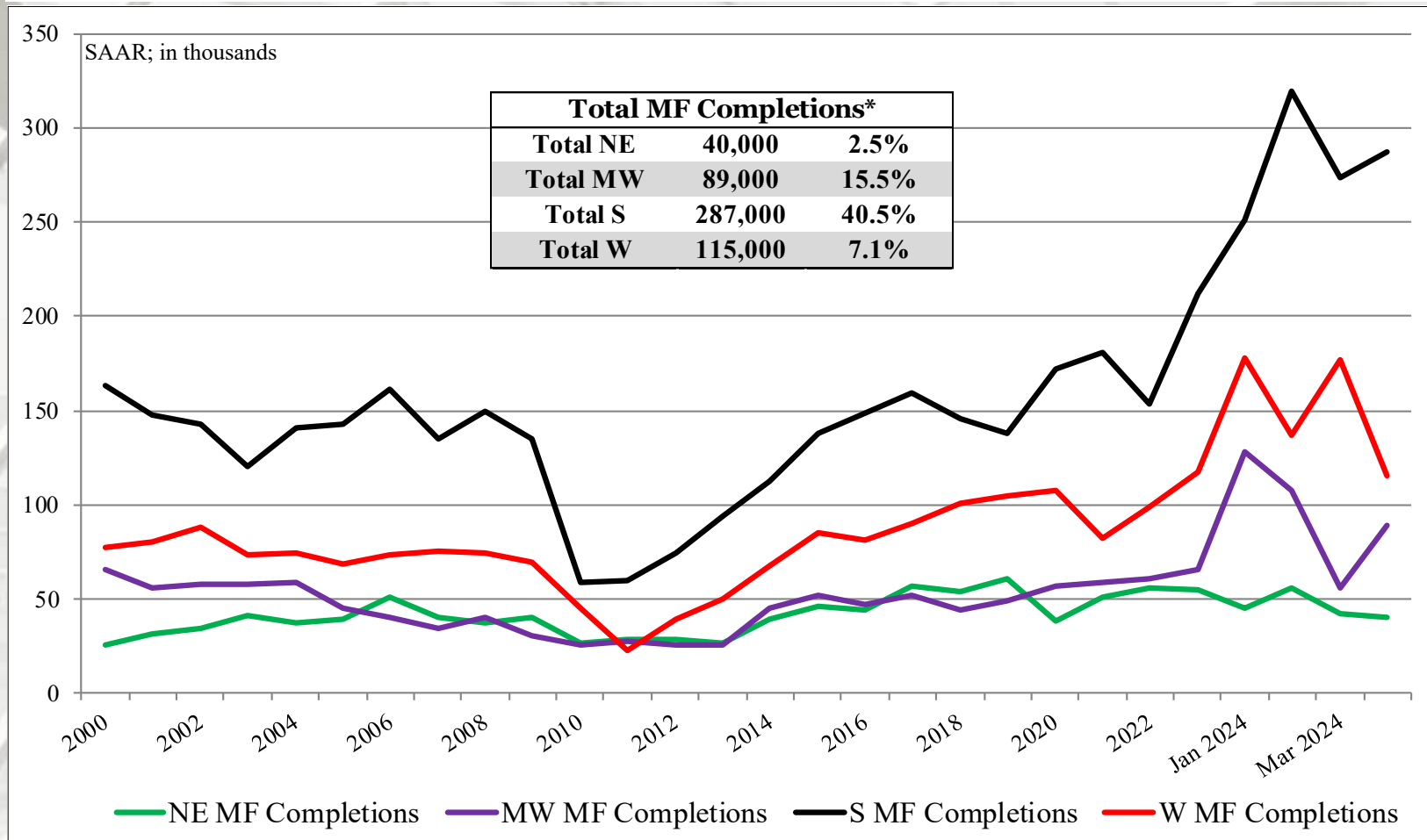


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

MF Housing Completions by Region



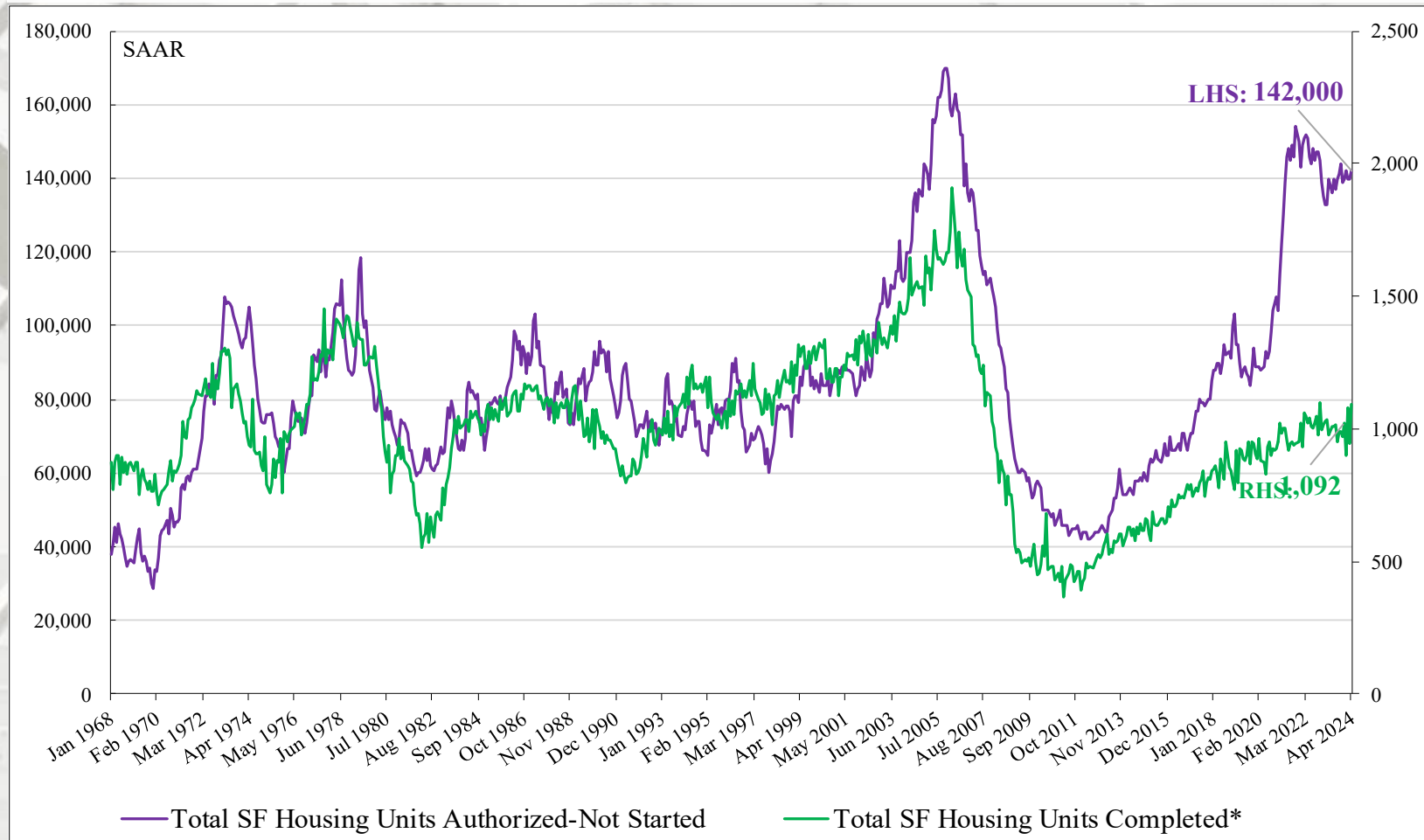
NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

Source: <http://www.census.gov/construction/nrc/pdf/newresconst.pdf>; 5/16/24

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



Authorized, Not Started vs. Housing Completions

Total authorized units “not” started was 273,000 in April, a decrease from March (276,000), and SF authorized units “not” started were 142,000 units in April, an increase from March (140,000). 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 |
|------------|---------------|--------------|------------|----------------|
| April | 634,000 | \$433,500 | \$505,700 | 9.1 |
| March | 665,000 | \$439,500 | \$527,400 | 8.5 |
| 2023 | 687,000 | \$417,200 | \$500,900 | 7.5 |
| M/M change | -4.7% | -1.4% | -4.1% | 7.1% |
| Y/Y change | -7.7% | 3.9% | 1.0% | 21.3% |

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

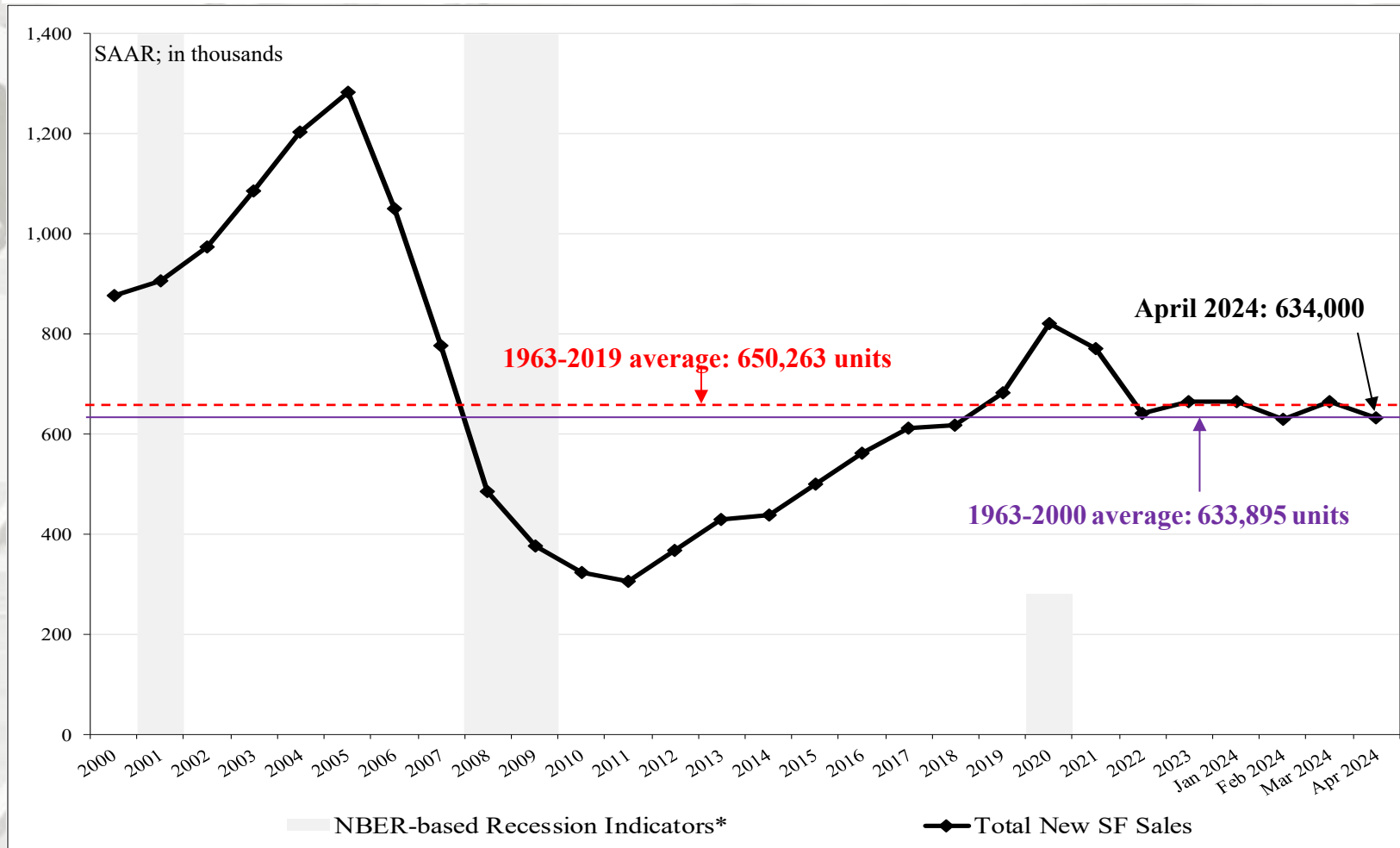
New SF sales were unequivocally less than the consensus forecast³ of 675 m; range 650 m to 693 m. The past three month's new SF sales data also were revised:

January initial: 661 m, revised to 664 m.

February initial: 662 m, revised to 631 m.

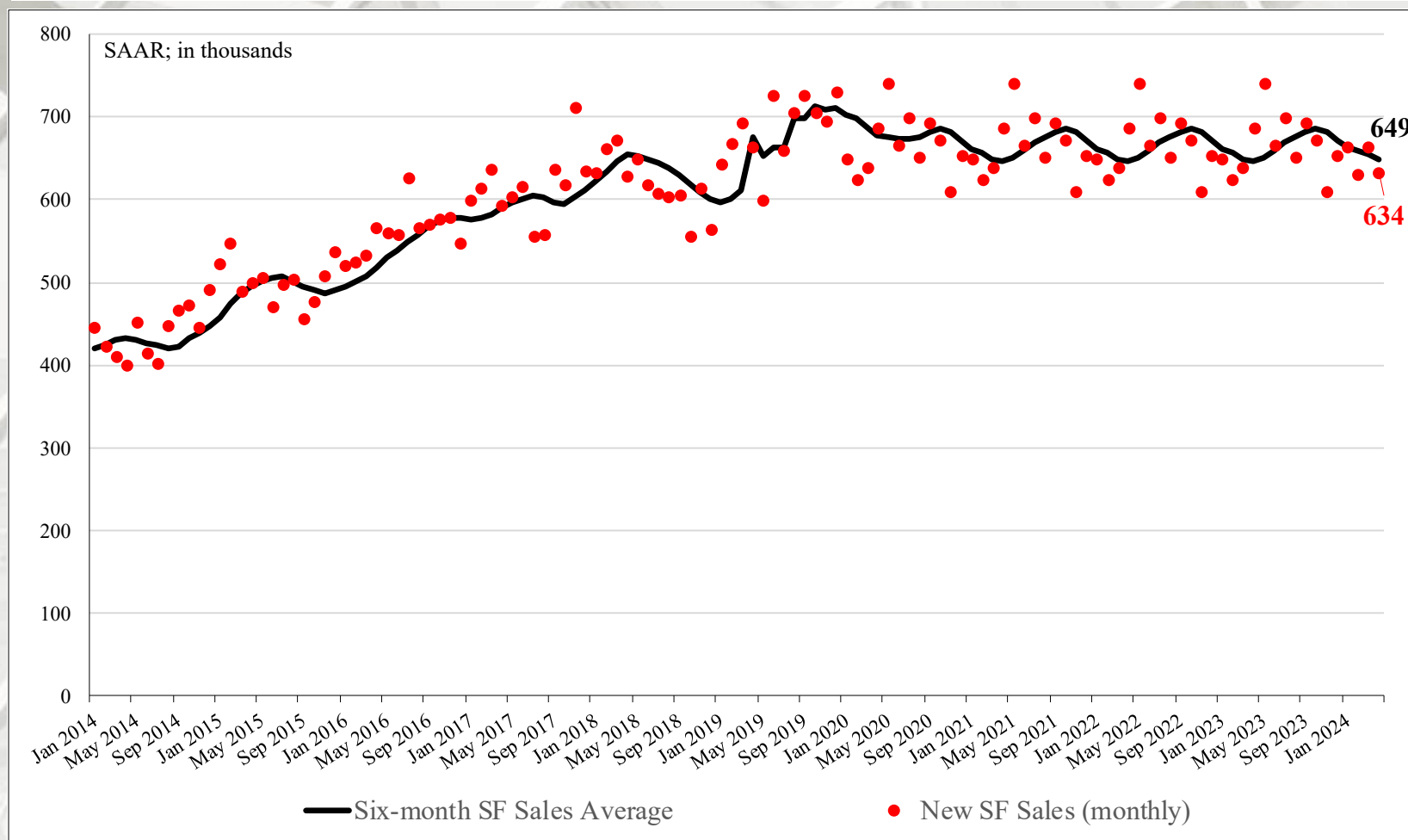
March initial: 693 m, revised to 665 m.

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 | | | |
|--------------------------|----------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|
| April | 34,000 | 88,000 | 359,000 | 153,000 | | | |
| March | 43,000 | 80,000 | 377,000 | 165,000 | | | |
| 2023 | 34,000 | 69,000 | 423,000 | 161,000 | | | |
| M/M change | -20.9% | 10.0% | -4.8% | -7.3% | | | |
| Y/Y change | 0.0% | 27.5% | -15.1% | -5.0% | | | |
| | < \$300m | \$300m- \$399m | \$400m- \$499m | \$500m- \$599m | \$600m- \$799m | \$800m- \$999m | ≥ \$1mm |
| April ^{1,2,3,4} | 9,000 | 15,000 | 12,000 | 7,000 | 7,000 | 3,000 | 2,000 |
| March | 9,000 | 18,000 | 11,000 | 10,000 | 8,000 | 3,000 | 4,000 |
| 2023 | 8,000 | 19,000 | 8,000 | 19,000 | 12,000 | 13,000 | 8,000 |
| M/M change | 0.0% | -16.7% | 9.1% | -30.0% | -12.5% | 0.0% | -50.0% |
| Y/Y change | 12.5% | -21.1% | 50.0% | -63.2% | -41.7% | -76.9% | -75.0% |
| % 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 April not add to total because of rounding.

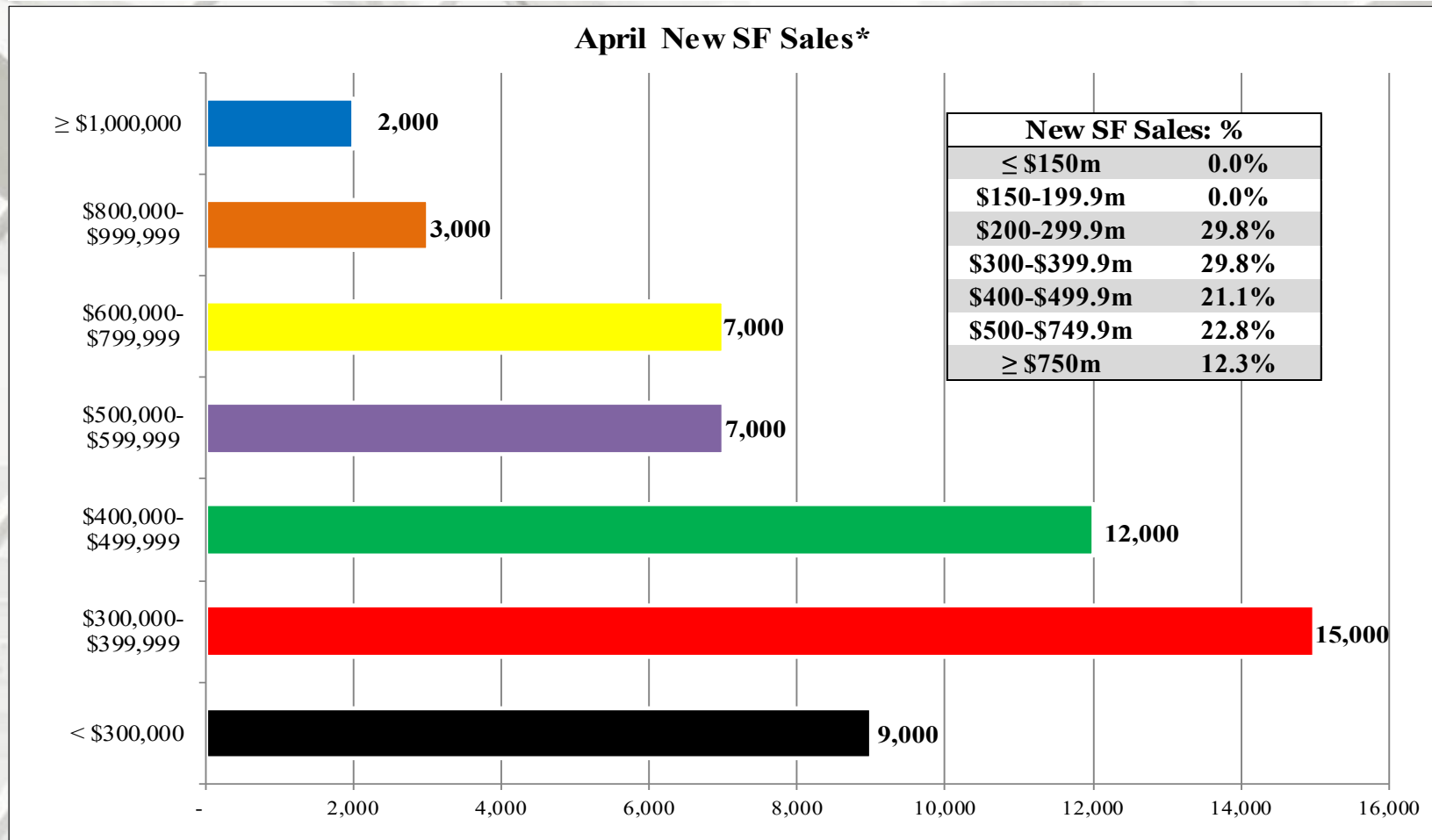
⁴ Housing prices are adjusted at irregular intervals.

⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 5/23/24;

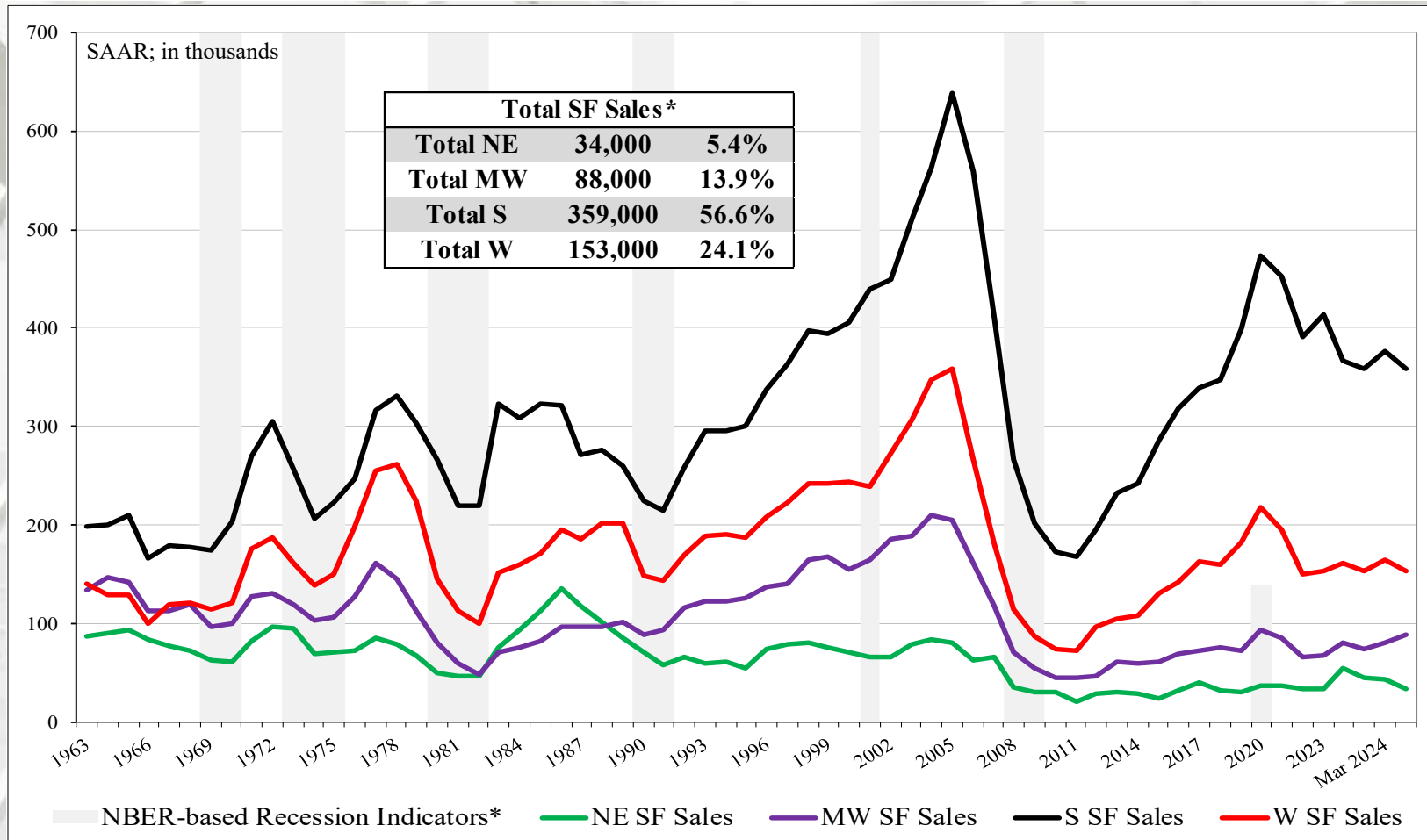
⁴ https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

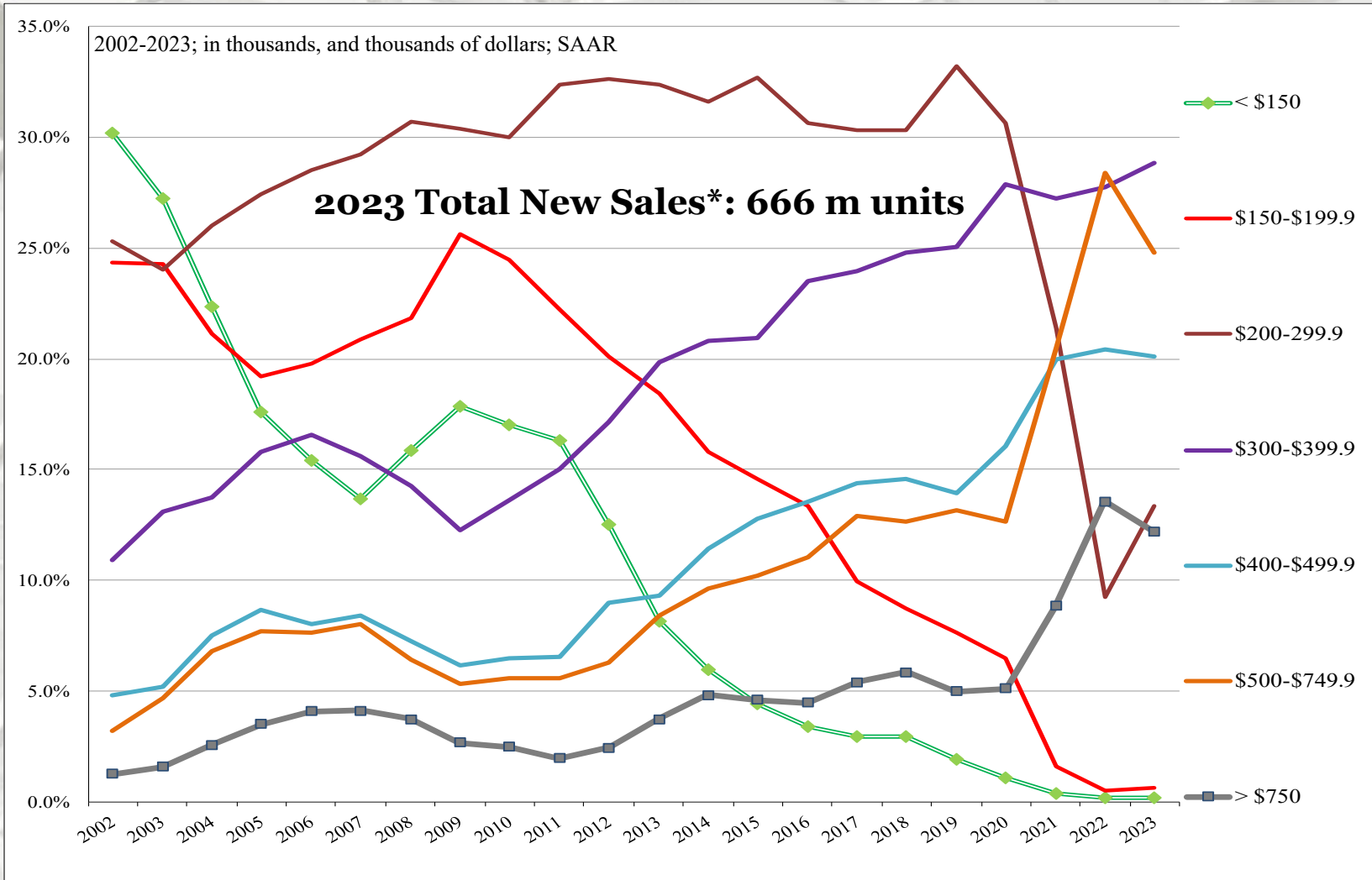


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of total new sales.

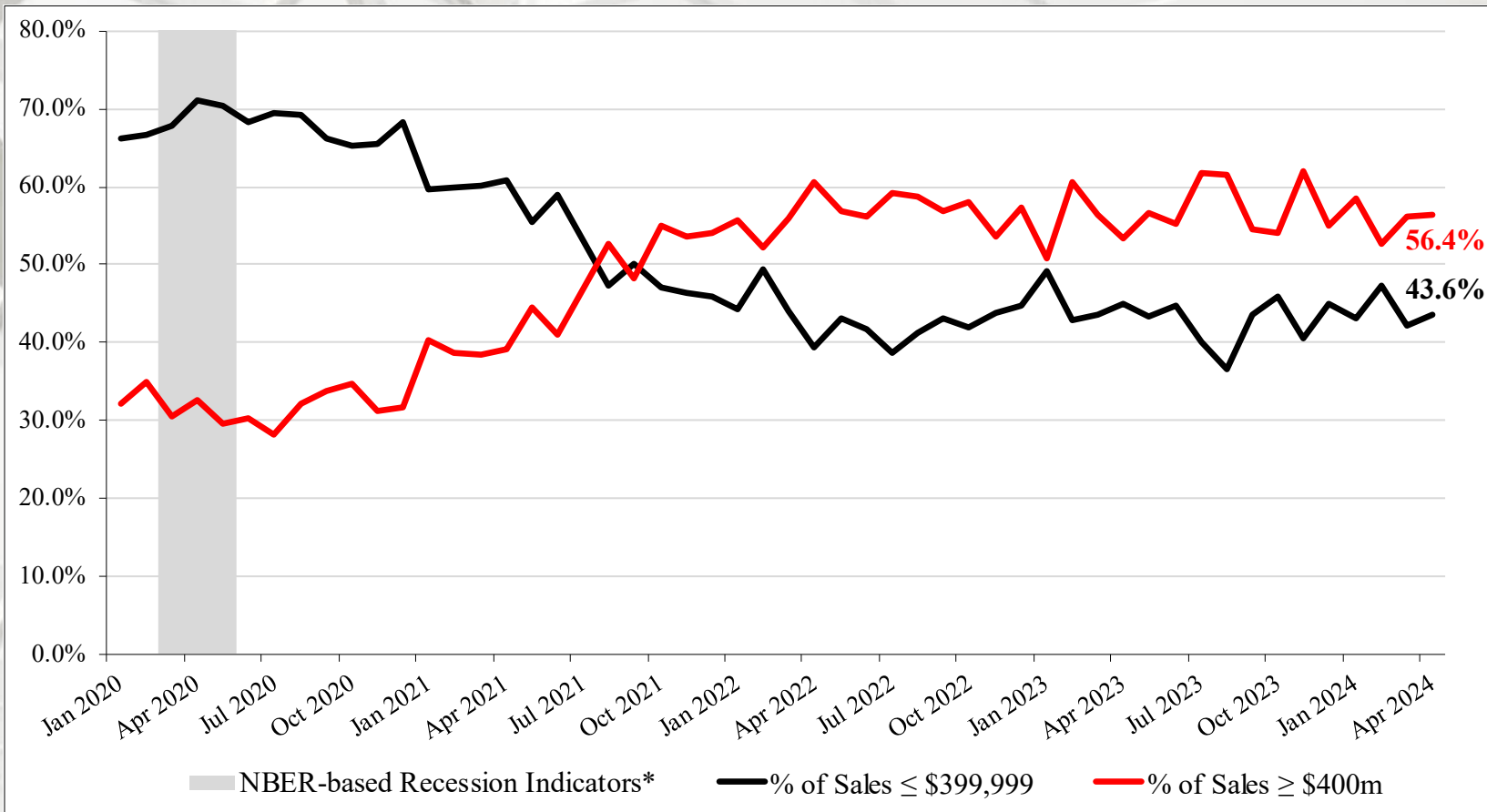
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



* Sales tallied by price category, nominal dollars.

New SF House Sales

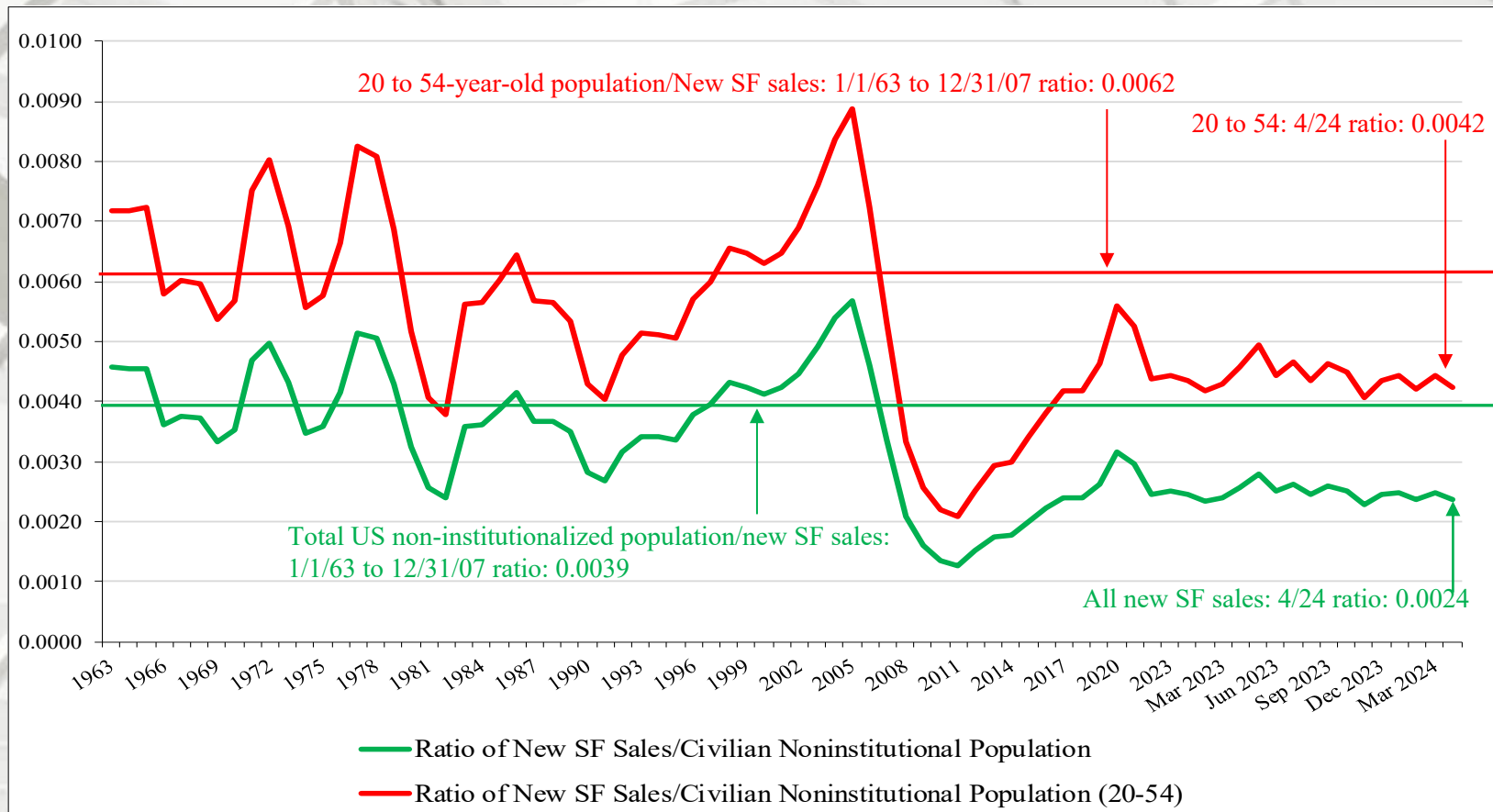


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

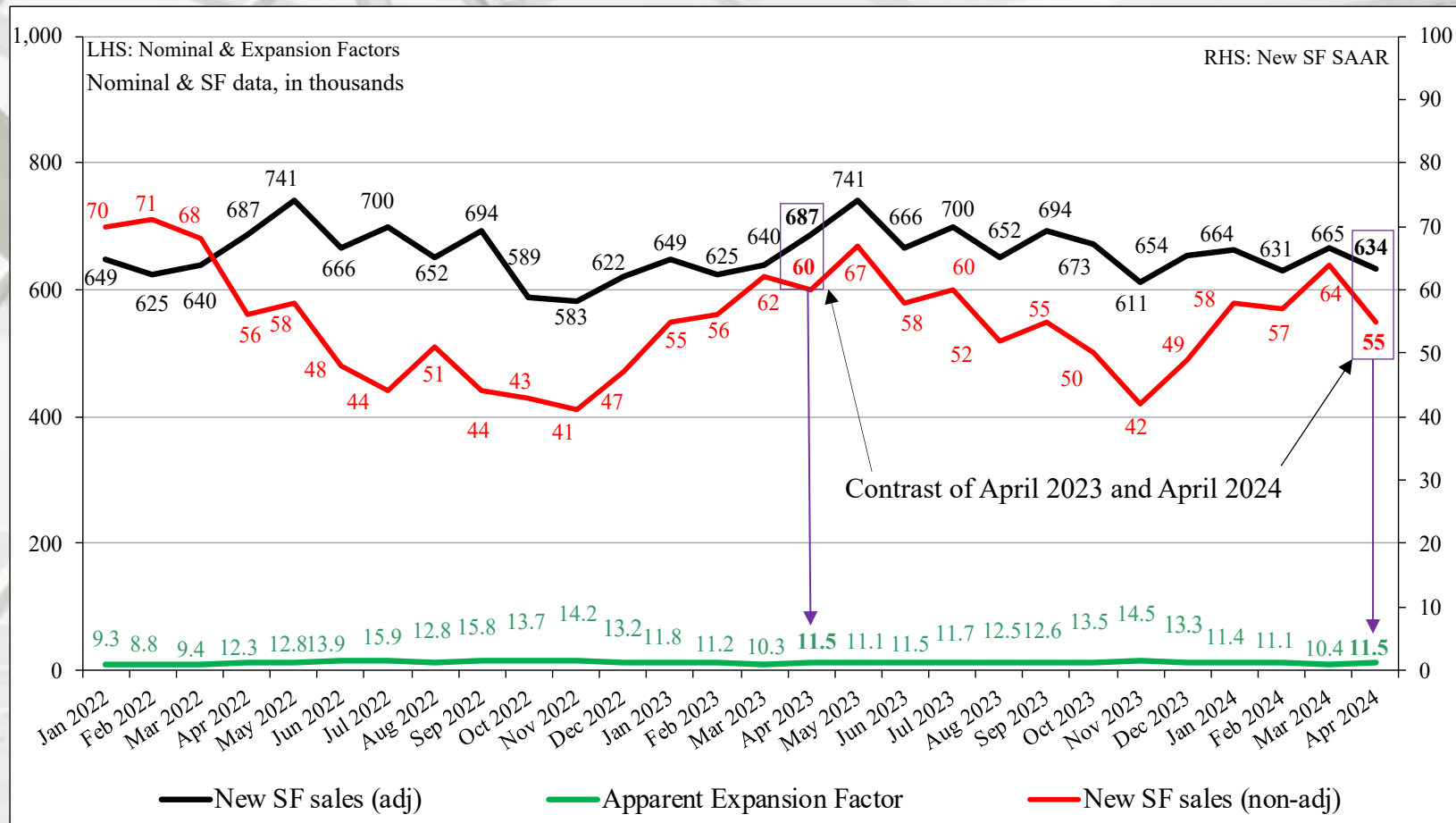


New SF sales adjusted for the US population

From April 1963 to April 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in April 2024 it was 0.0024 – a decline from March (0.0025). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in April 2024 it was 0.0042 – also a decrease from March (0.0044). 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

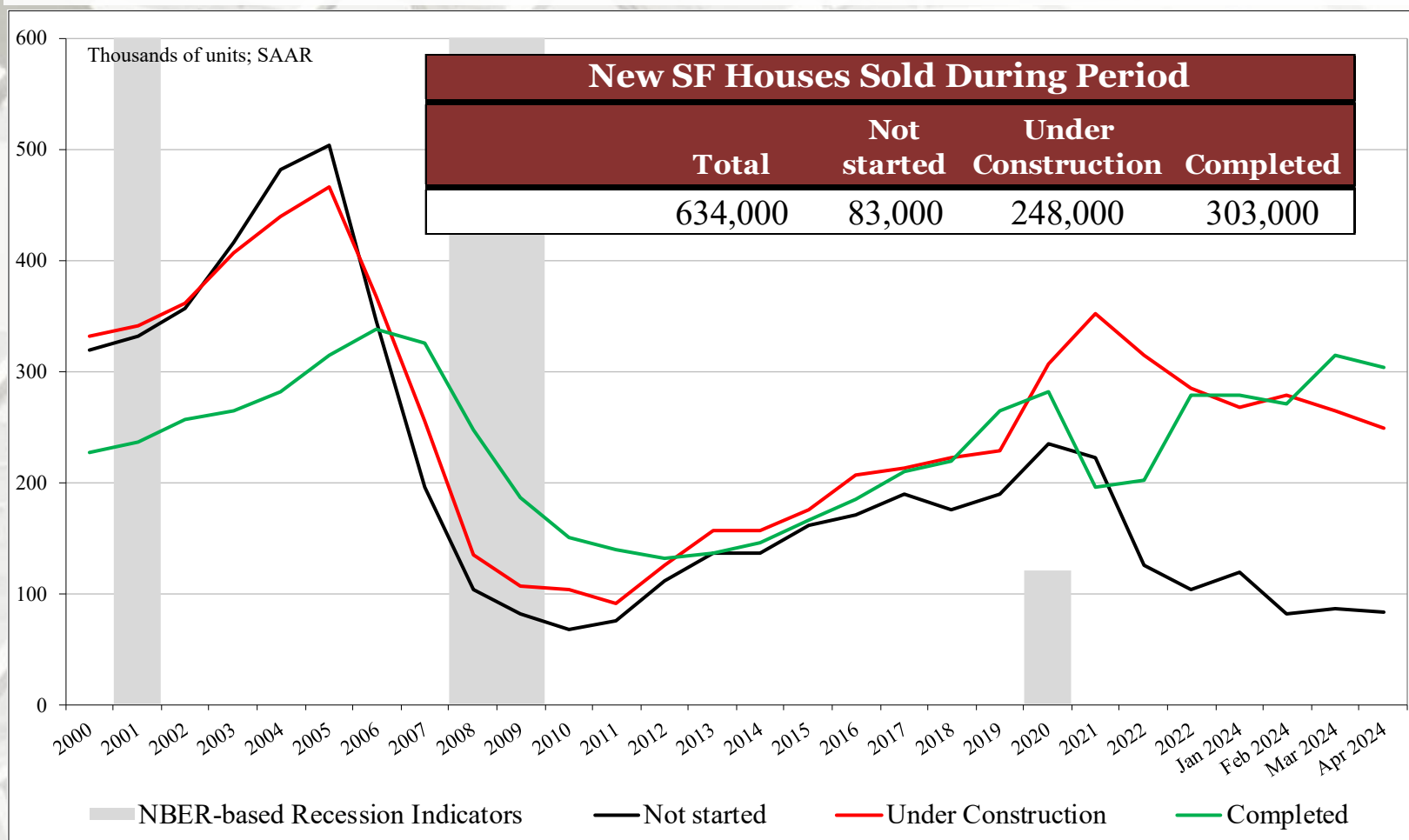
New SF House Sales

New SF Houses Sold During Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|-------------|--------------------|-----------|
| April | 634,000 | 83,000 | 248,000 | 303,000 |
| March | 665,000 | 86,000 | 265,000 | 314,000 |
| 2023 | 428,000 | 91,000 | 268,000 | 69,000 |
| M/M change | -4.7% | -3.5% | -6.4% | -3.5% |
| Y/Y change | 48.1% | -8.8% | -7.5% | 339.1% |
| Total percentage | | 13.1% | 39.1% | 47.8% |

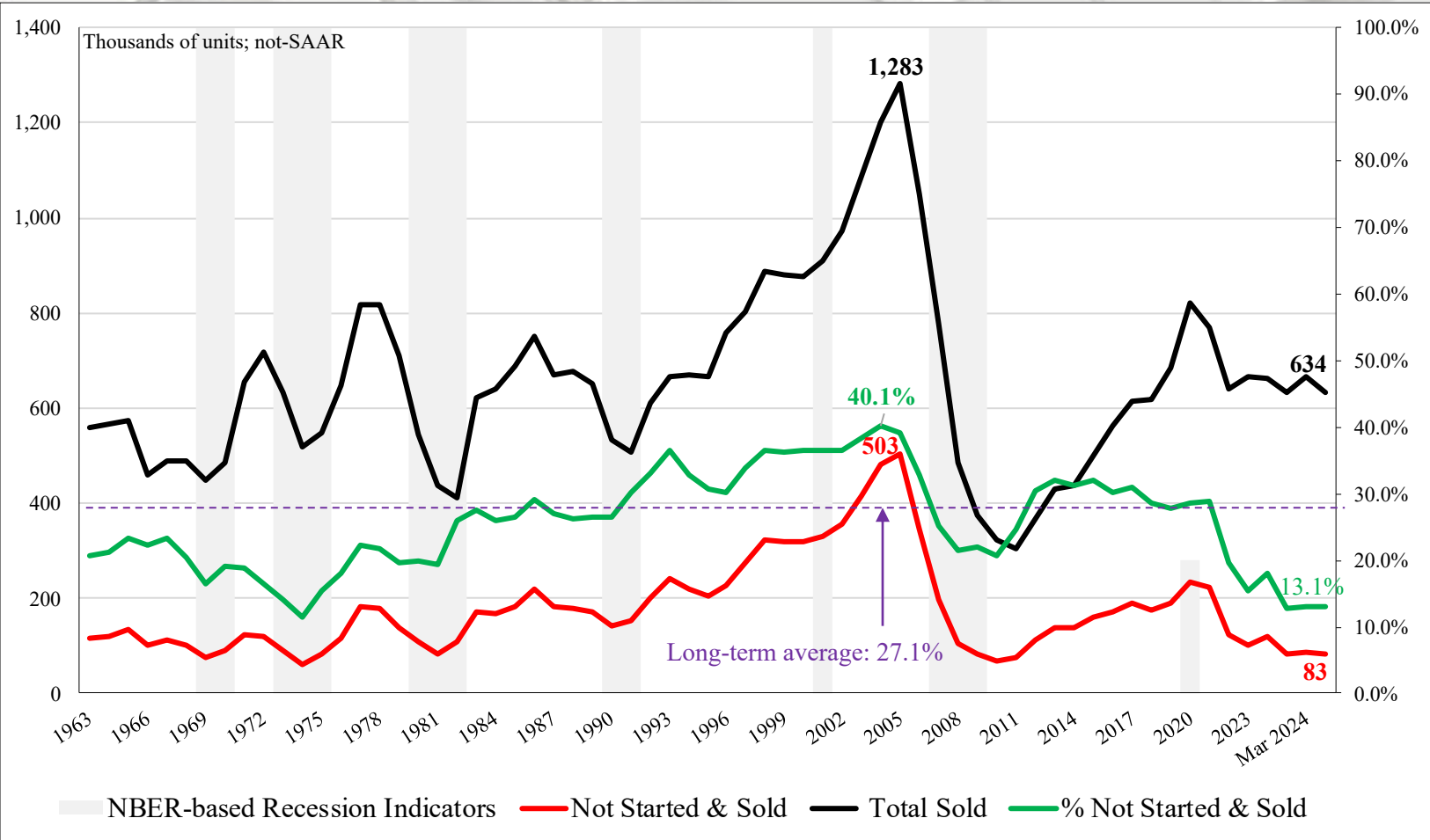
All data is SAAR

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 April (634 m), 13.1% (83 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).

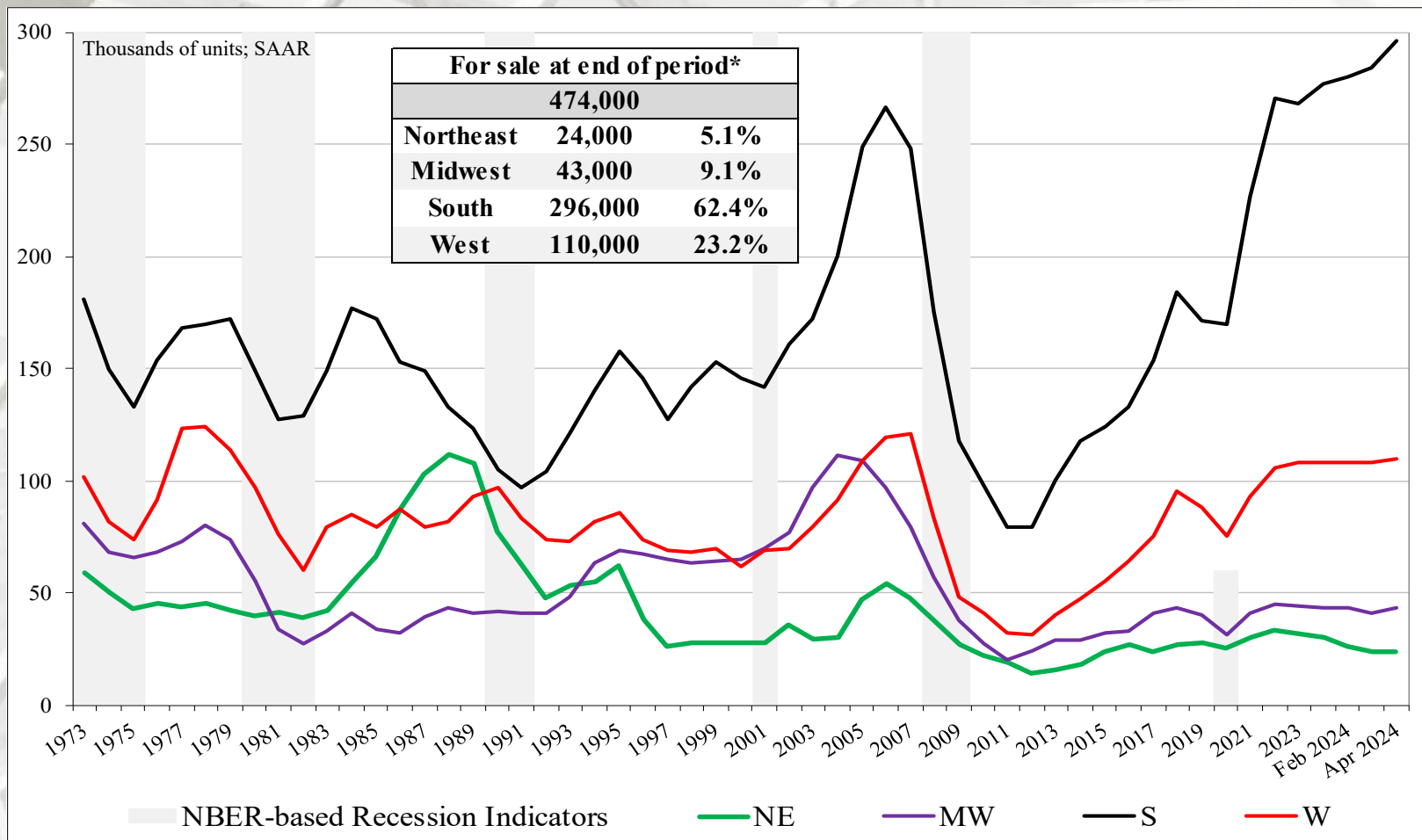
New SF Houses for Sale

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

| | Total | NE | MW | S | W |
|------------|---------|--------|--------|---------|---------|
| February | 474,000 | 24,000 | 43,000 | 296,000 | 110,000 |
| March | 458,000 | 24,000 | 41,000 | 284,000 | 108,000 |
| 2023 | 419,000 | 31,000 | 41,000 | 246,000 | 101,000 |
| M/M change | 3.5% | 0.0% | 4.9% | 4.2% | 1.9% |
| Y/Y change | 13.1% | -22.6% | 4.9% | 20.3% | 8.9% |

* 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).

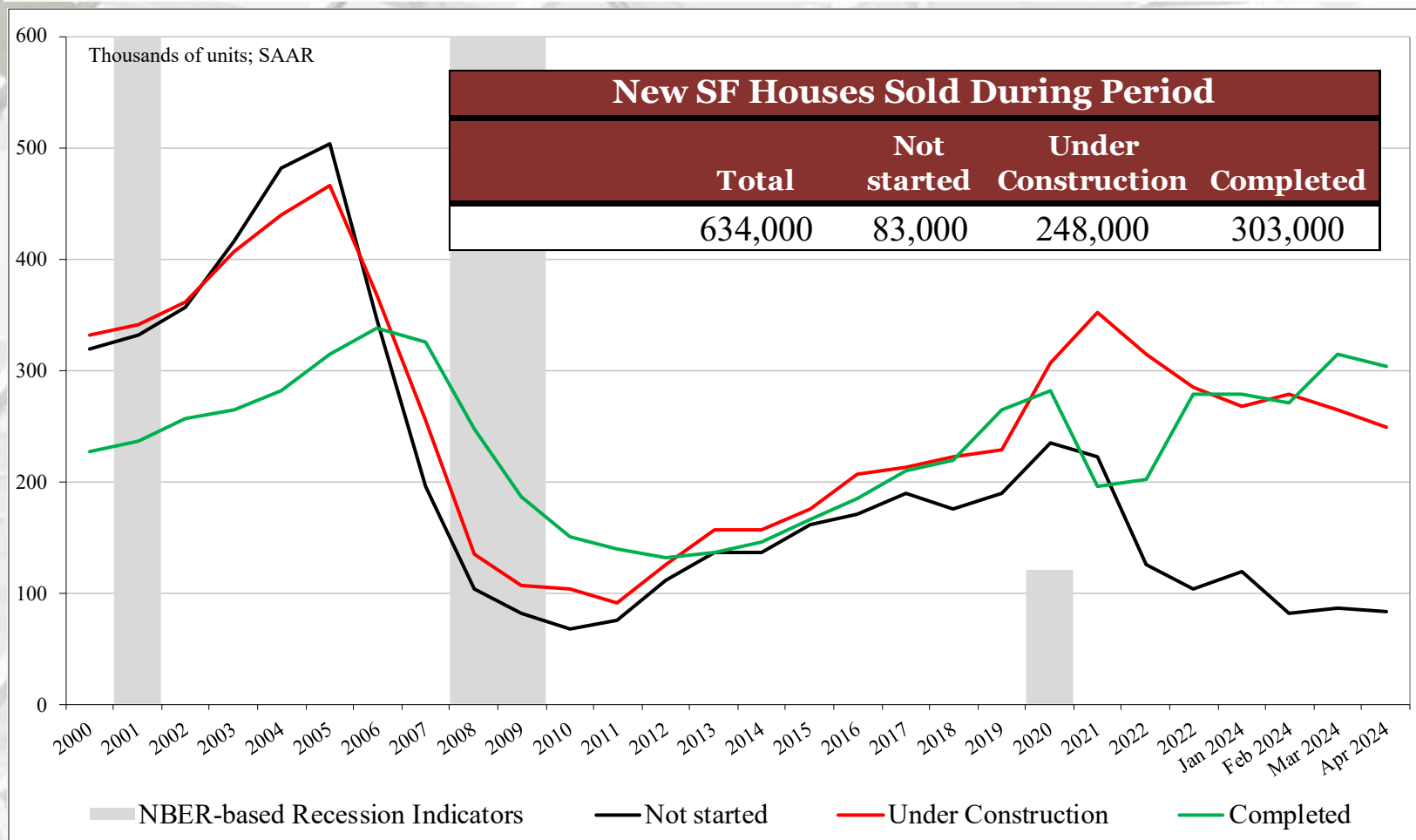
* Percentage of total for sale at end of period.

New SF House Sales

New SF Houses Sold During Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|-------------|--------------------|-----------|
| April | 634,000 | 83,000 | 248,000 | 303,000 |
| March | 665,000 | 86,000 | 265,000 | 314,000 |
| 2023 | 428,000 | 91,000 | 268,000 | 69,000 |
| M/M change | -4.7% | -3.5% | -6.4% | -3.5% |
| Y/Y change | 48.1% | -8.8% | -7.5% | 339.1% |
| Total percentage | | 13.1% | 39.1% | 47.8% |

New SF House Sales: For Sale at End of Period



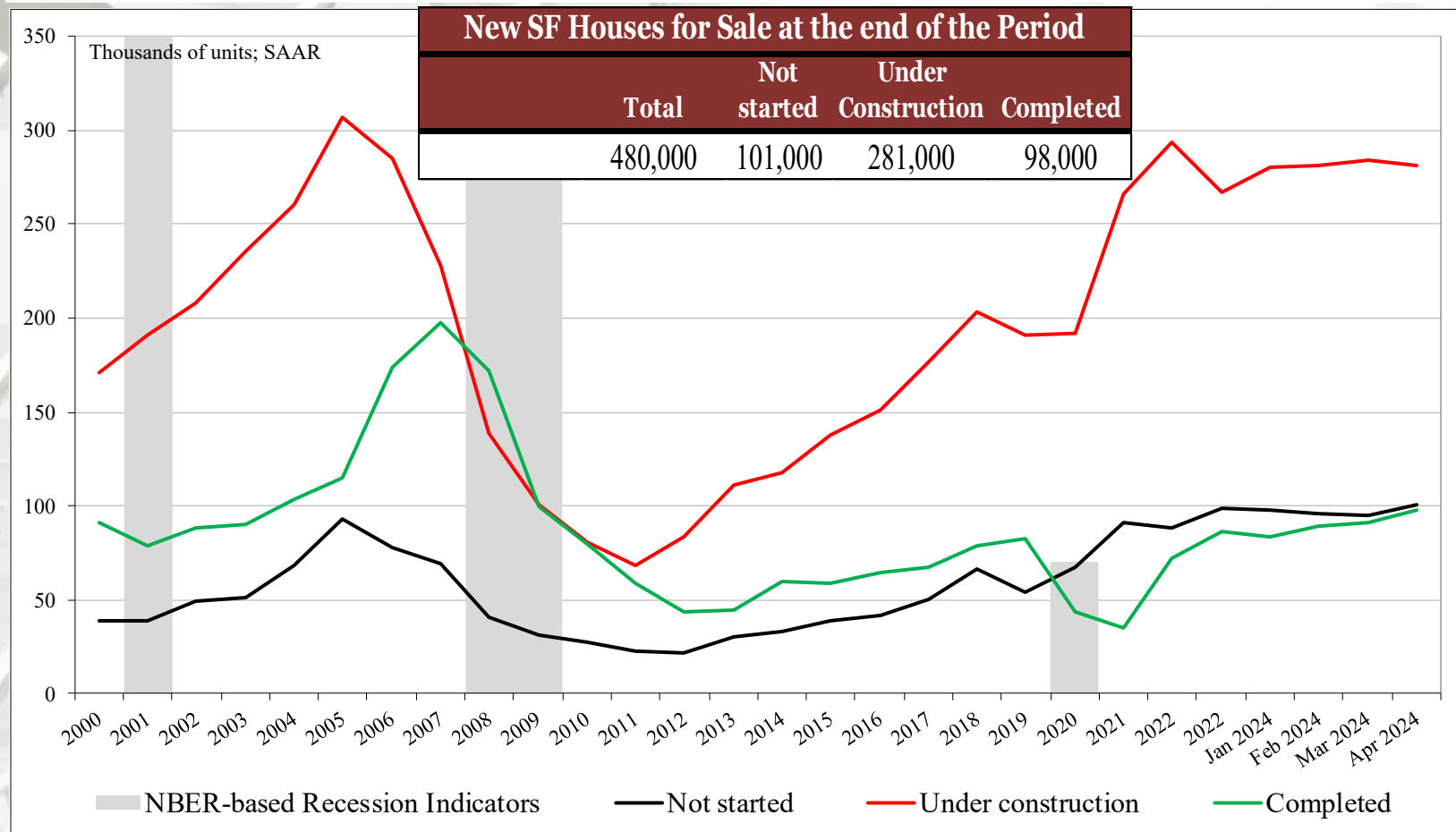
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales

New SF Houses for Sale at the end of the Period

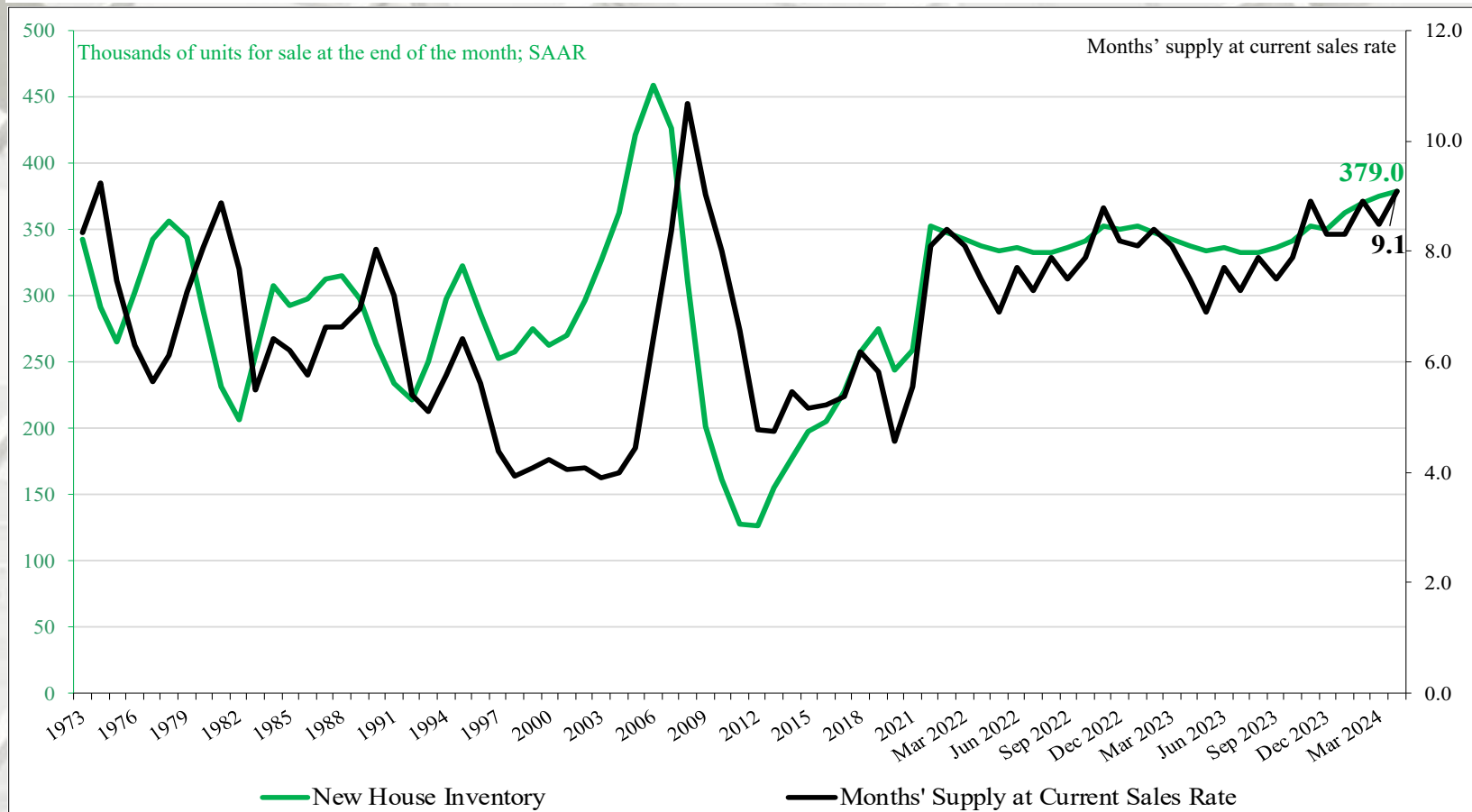
| | Total | Not started | Under Construction | Completed |
|------------------|---------|-------------|--------------------|-----------|
| April | 480,000 | 101,000 | 281,000 | 98,000 |
| March | 470,000 | 95,000 | 284,000 | 91,000 |
| 2023 | 428,000 | 91,000 | 268,000 | 69,000 |
| M/M change | 2.1% | 6.3% | -1.1% | 7.7% |
| Y/Y change | 12.1% | 11.0% | 4.9% | 42.0% |
| Total percentage | | 21.0% | 58.5% | 20.4% |

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).

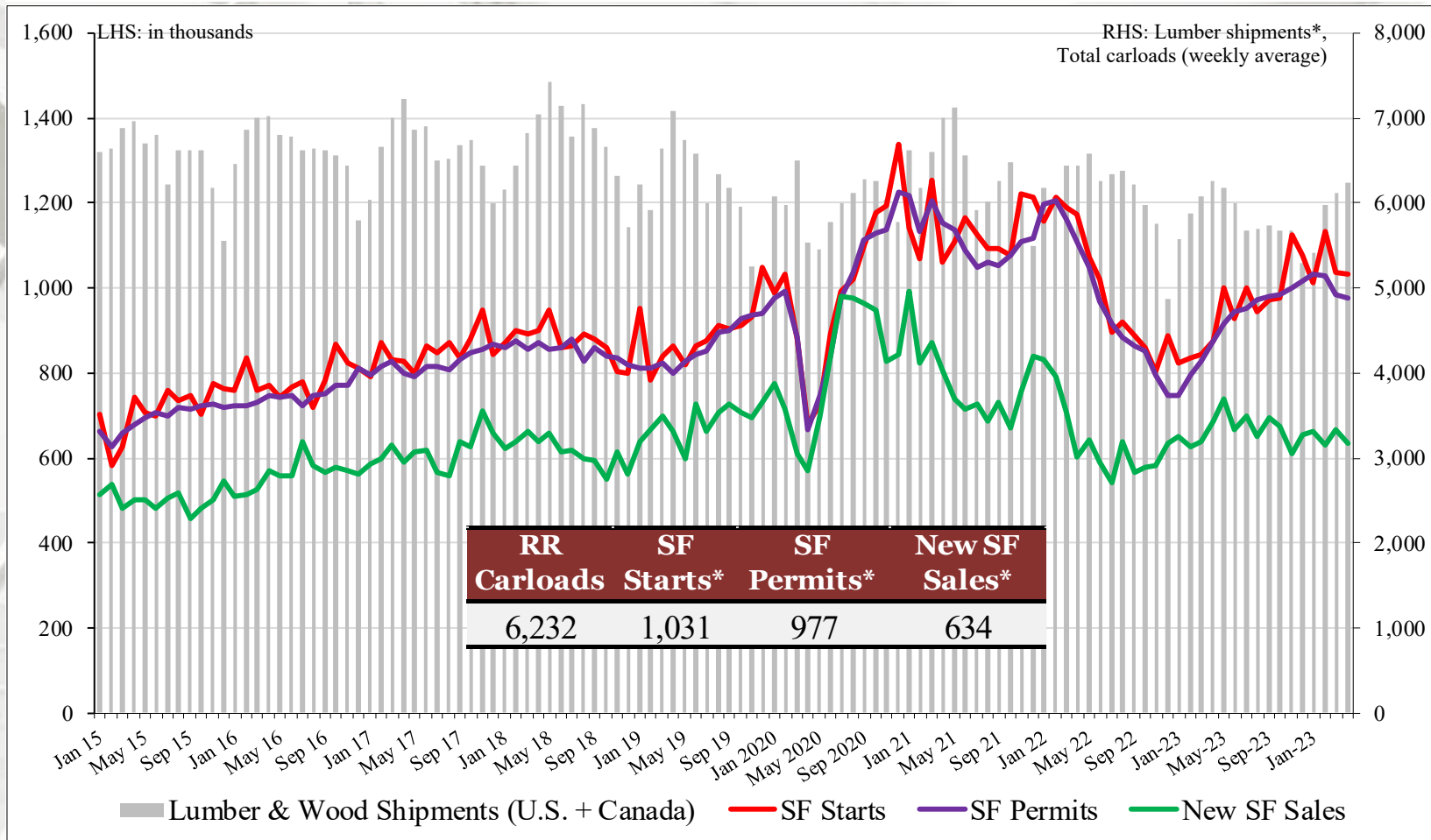
Months' Supply and New House Inventory^a



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

The months' supply of new houses at current sales rate at the end of April was 9.1, greater than the historically preferred number of five- to six-months (SAAR).

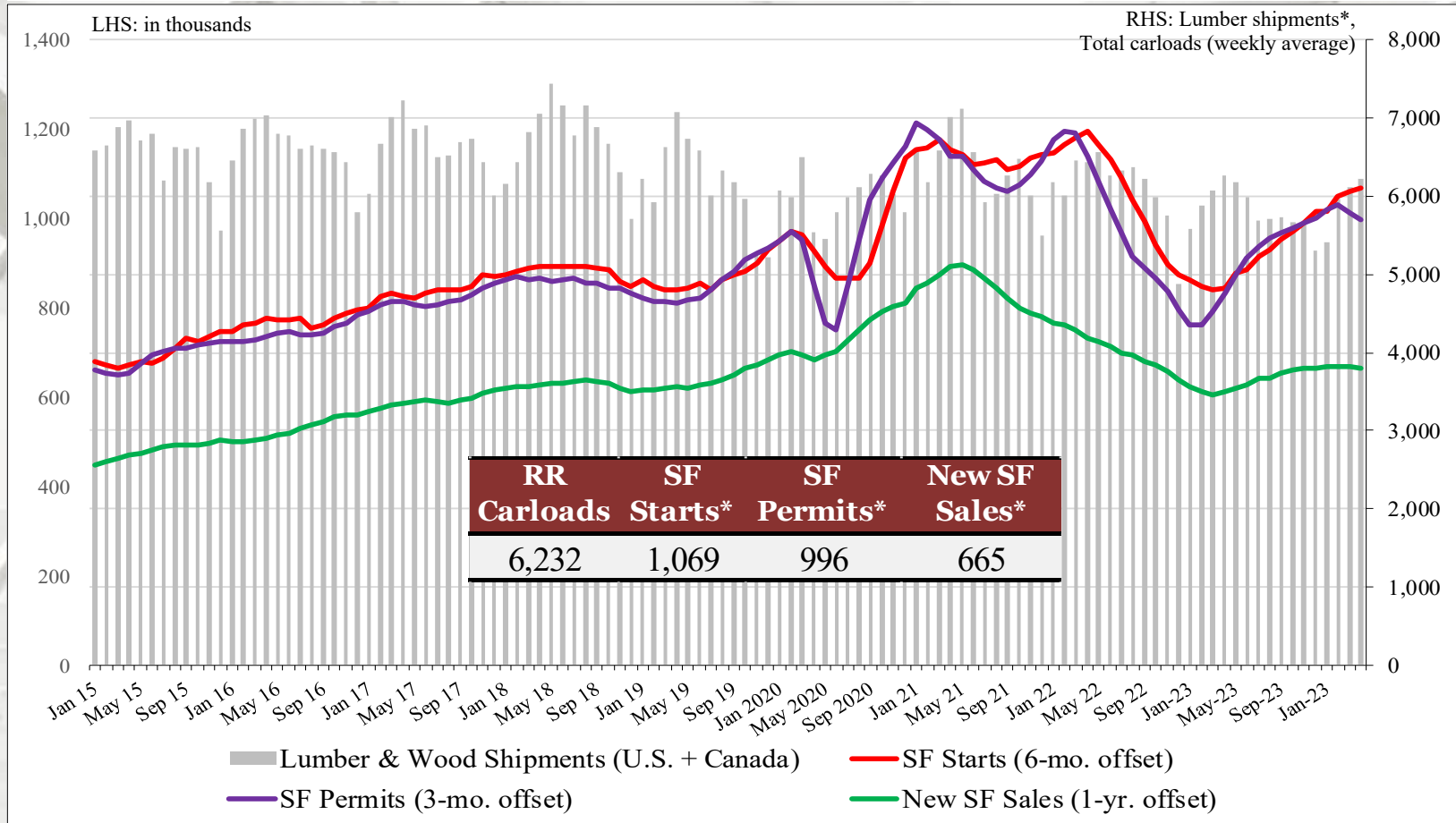
U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



Carloads of Canadian + U.S. lumber and wood shipments to the U.S. are contrasted above to U.S. housing metrics. Annual SF starts, SF Permits, and New sales are compared to total carload lumber and wood shipments. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and new SF sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

* In thousands

U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



Carloads of Canadian + US lumber and wood shipments to the US are contrasted above to U.S. housing metrics. SF starts are off-set 6-months (a typical time-frame from permit issuance to actual start); Permits are off-set 3-months; and New sales are off-set 1-year. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and New sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

* In thousands.

April 2024 Construction Spending

| | Total Private Residential* | SF* | MF* | Improvement** |
|------------|----------------------------|-----------|-----------|---------------|
| April | \$890,438 | \$439,185 | \$132,053 | \$319,200 |
| March | \$889,546 | \$438,885 | \$132,445 | \$318,216 |
| 2023 | \$824,707 | \$364,887 | \$129,034 | \$330,786 |
| M/M change | 0.1% | 0.1% | -0.3% | 0.3% |
| Y/Y change | 8.0% | 20.4% | 2.3% | -3.5% |

* millions.

** 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\$.

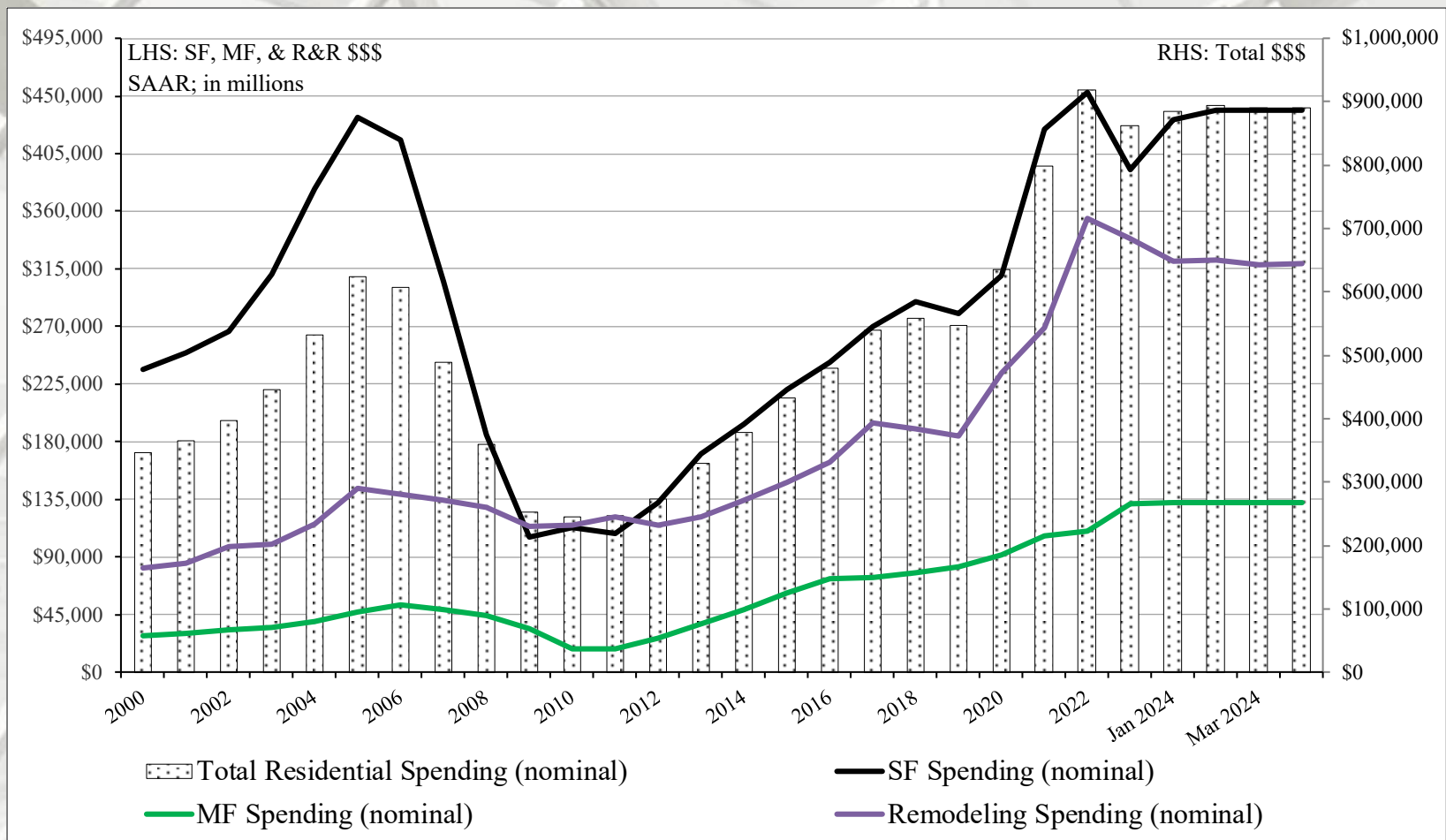
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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.

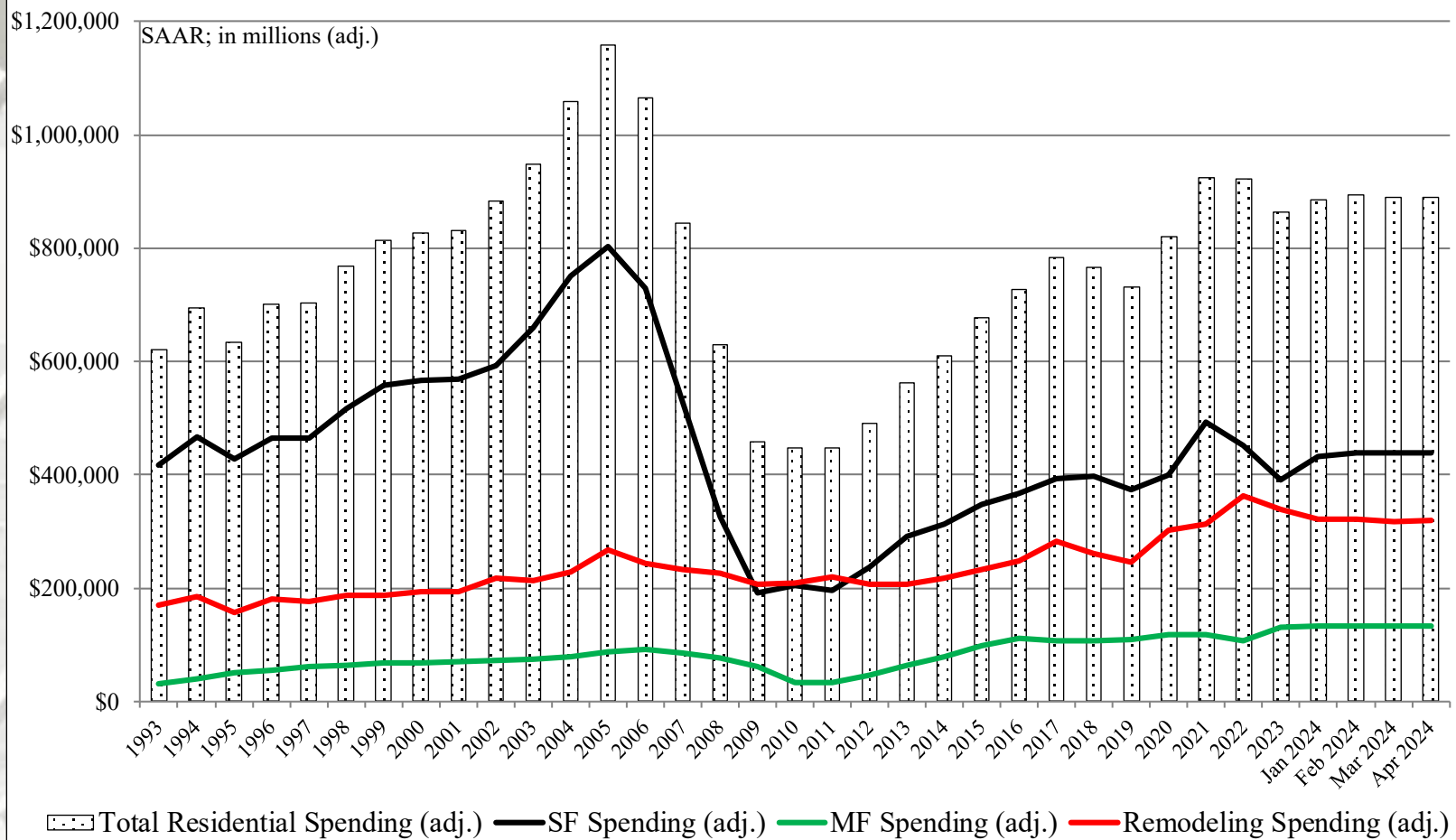
Total Construction Spending (nominal): 2000 – April 2024



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 – April 2024

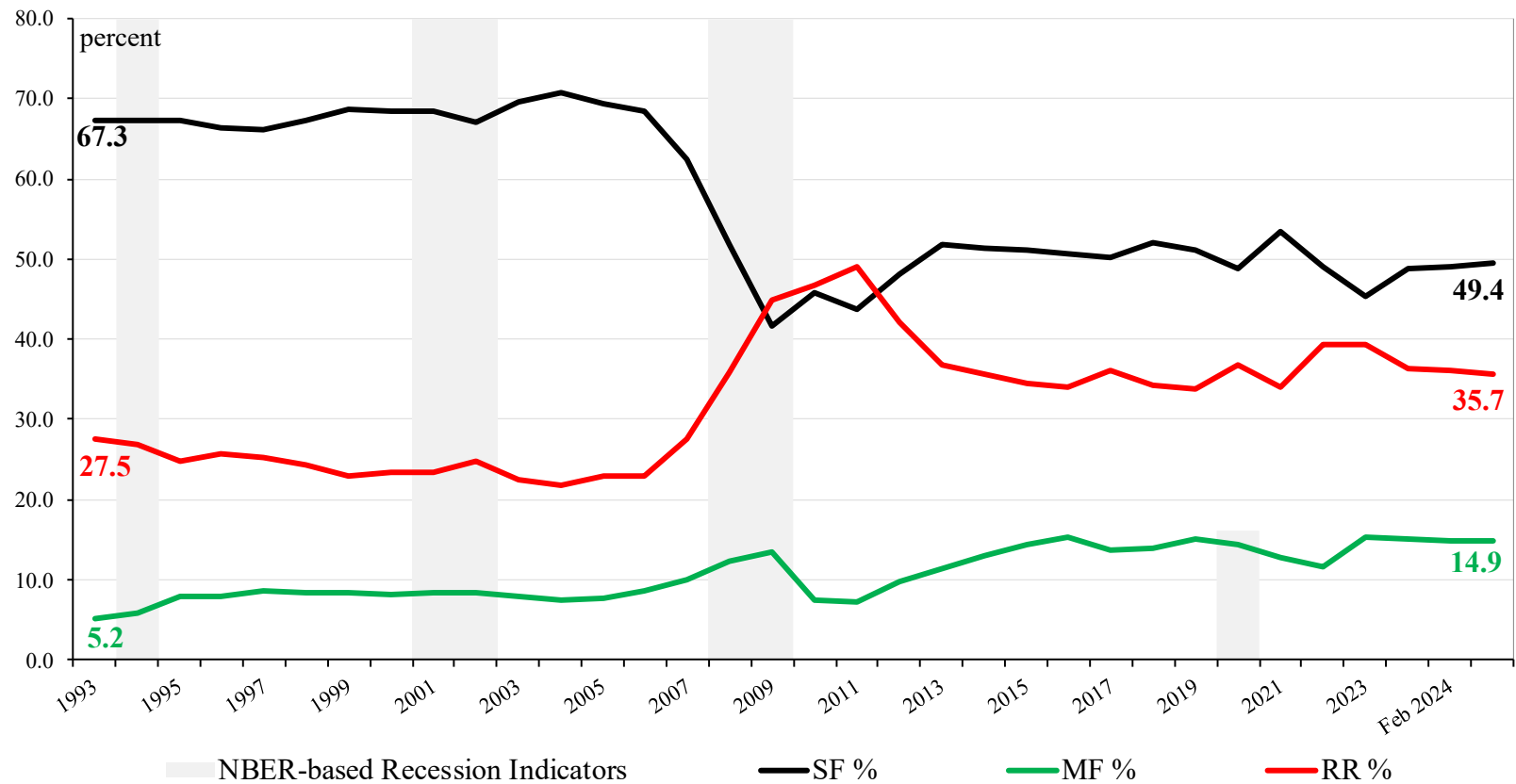


Reported in adjusted \$US: 1993 – 2021 (adjusted for inflation, BEA Table 1.1.9); April 2024 reported in nominal US\$.

Sources: * <http://www.bea.gov/iTable/iTable.cfm; 6/29/23>; <http://www.census.gov/construction/c30/pdf/privsa.pdf; 6/3/2024>

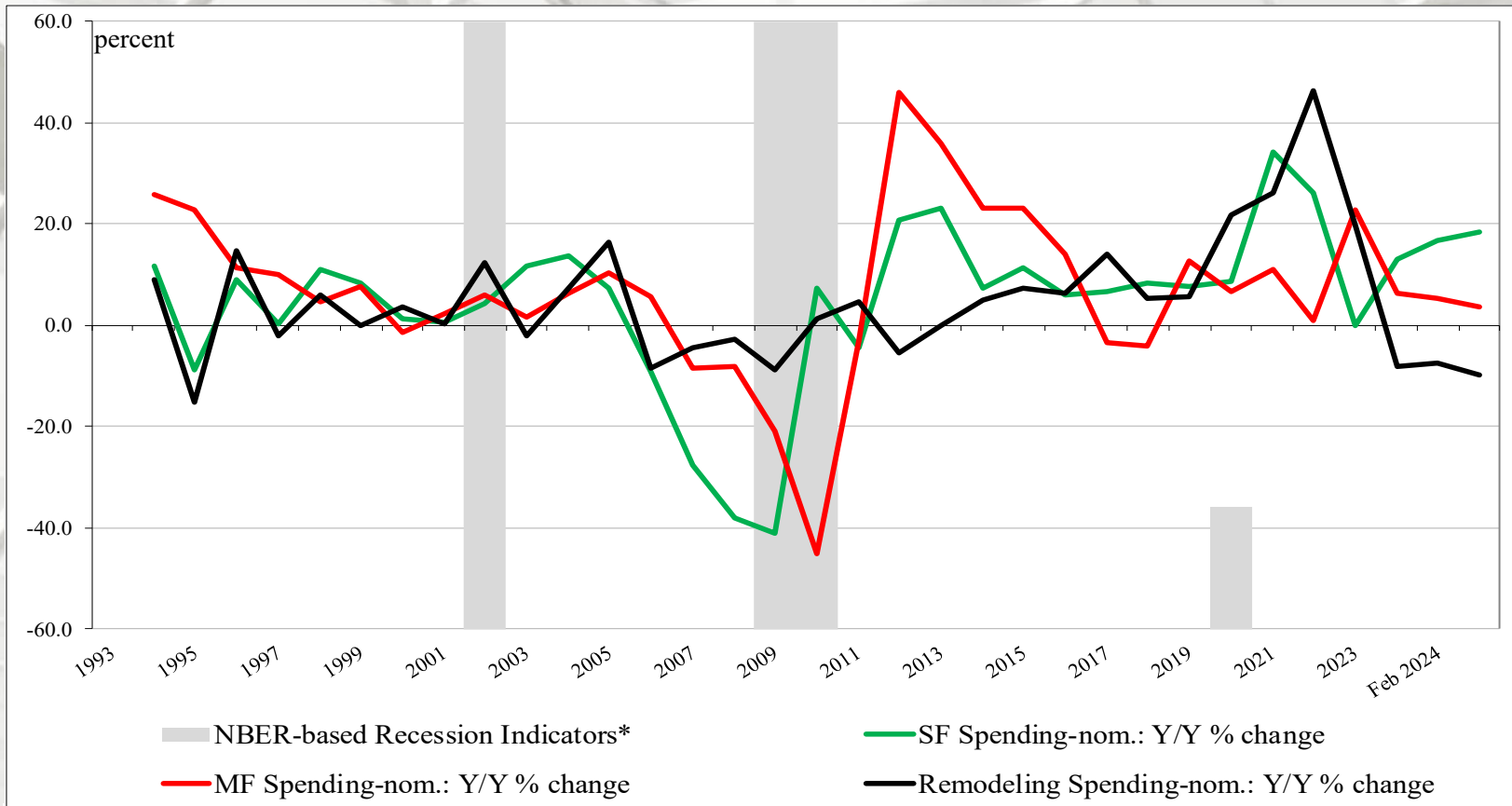
Construction Spending Shares: 1993 – April 2024

SF, MF, & RR: Percent of Total Residential Spending (adj.)



* 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



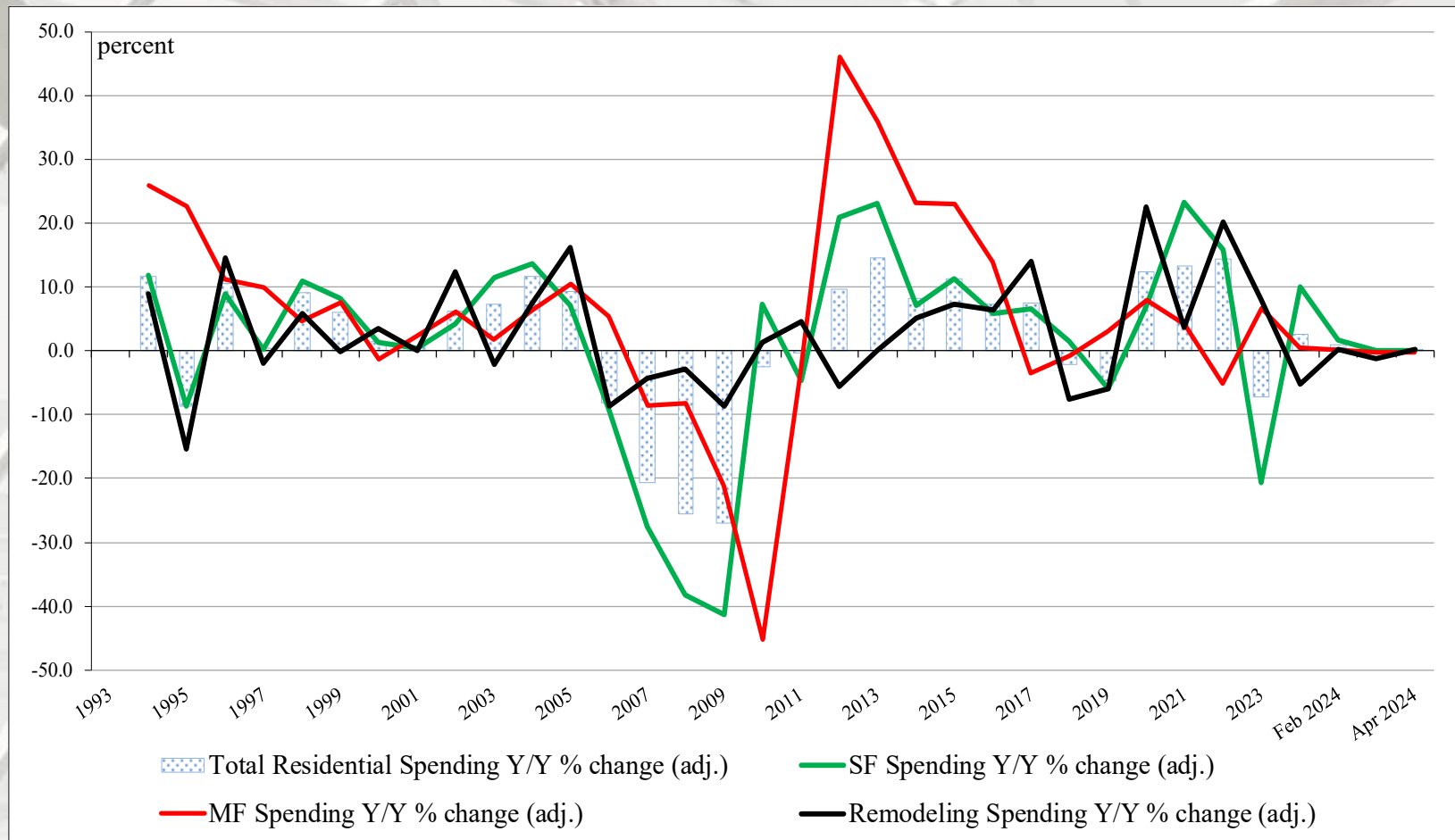
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to April 2024

Presented above is the percentage change of Y/Y construction spending. MF expenditures were positive on a percentage basis, year-over-year (April 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).

Sources: *<https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 6/3/24 and <http://www.bea.gov/iTable/iTable.cfm>; 6/29/23

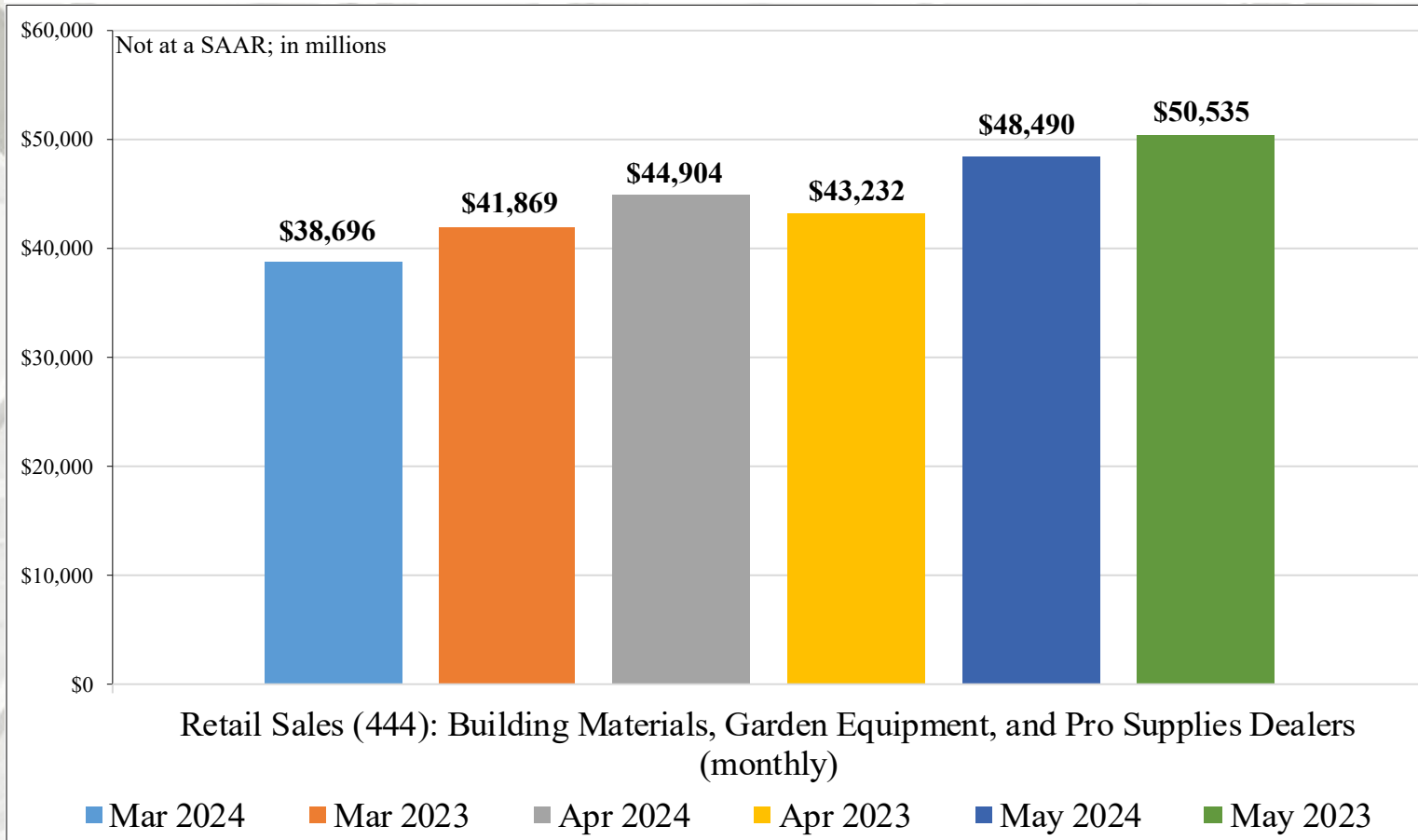
Adjusted Construction Spending: Y/Y Percentage Change



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

Remodeling

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

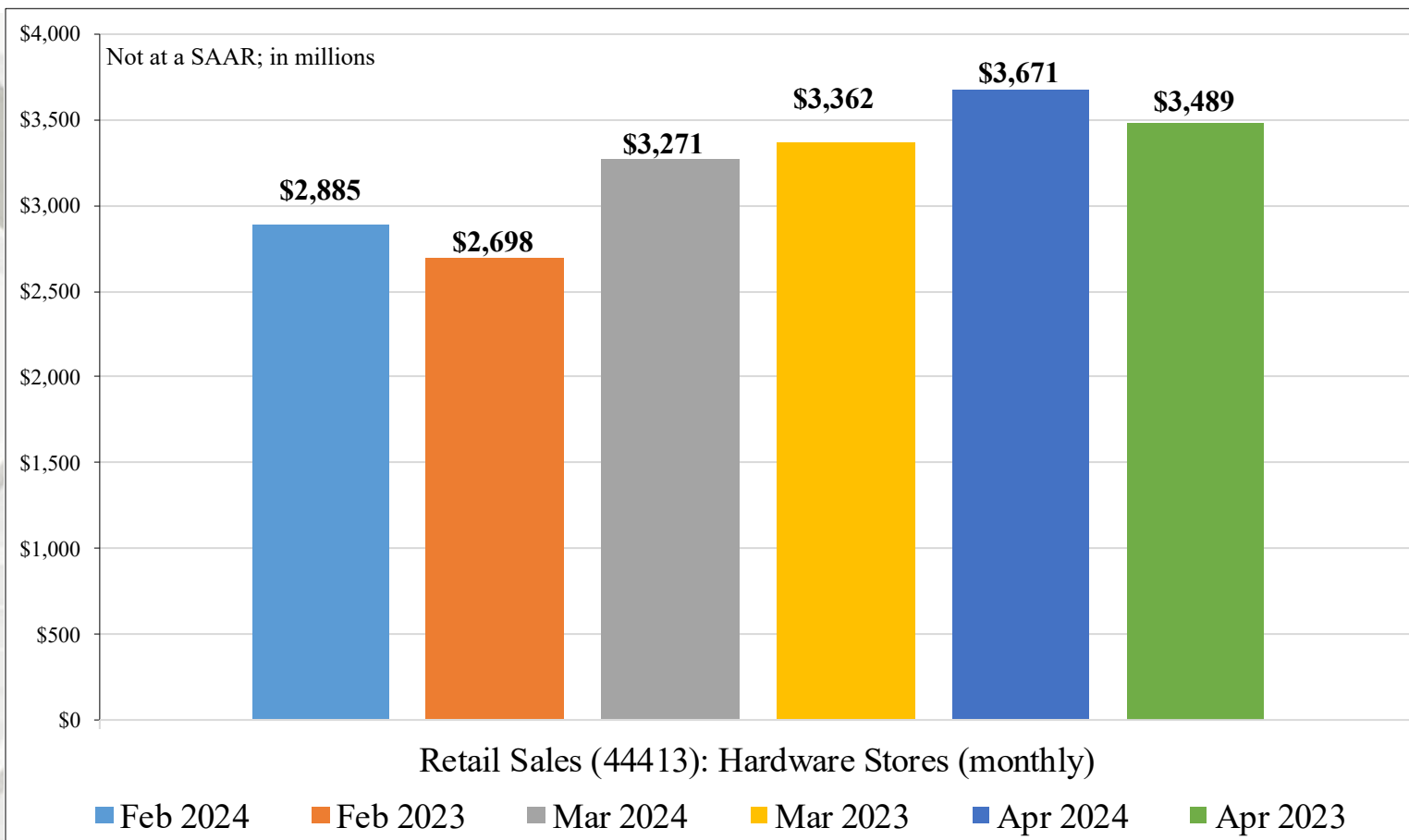


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales increased 8.0% in May 2024 from April 2024 and decreased 4.0% Y/Y (nominal basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 12.2% in April 2024 from March 2024 and improved 5.2% Y/Y (nominal basis).

Existing House Sales

National Association of Realtors®

| | Existing Sales | Median Price | Month's Supply |
|------------|----------------|--------------|----------------|
| April | 4,140,000 | \$407,600 | 3.5 |
| March | 4,220,000 | \$392,900 | 3.2 |
| 2023 | 4,220,000 | \$385,800 | 3.0 |
| M/M change | -1.9% | 3.7% | 9.4% |
| Y/Y change | -1.9% | 5.7% | 16.7% |

All sales data: SAAR

Existing House Sales

| | NE | MW | S | W |
|------------|---------|-----------|-----------|---------|
| April | 480,000 | 1,000,000 | 1,900,000 | 760,000 |
| March | 500,000 | 1,010,000 | 1,930,000 | 780,000 |
| 2023 | 500,000 | 1,010,000 | 1,960,000 | 750,000 |
| M/M change | -4.0% | -1.0% | -1.6% | -2.6% |
| Y/Y change | -4.0% | -1.0% | -3.1% | 1.3% |

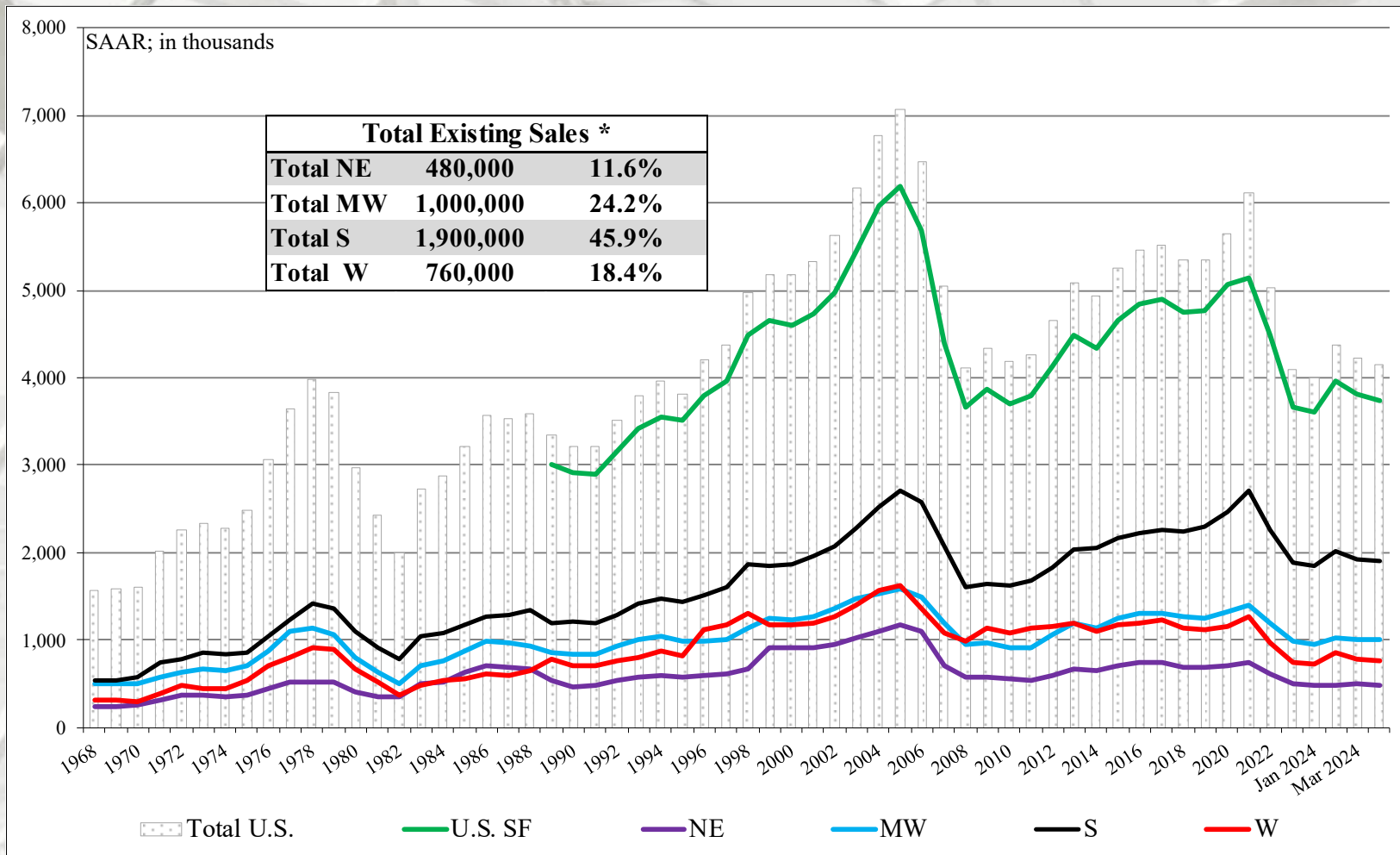
| | Existing SF Sales | SF Median Price |
|------------|-------------------|-----------------|
| April | 3,740,000 | \$412,100 |
| March | 3,820,000 | \$396,600 |
| 2023 | 3,790,000 | \$390,200 |
| M/M change | -2.1% | 3.7% |
| Y/Y change | -1.3% | 5.6% |

All sales data: SAAR.

Source: <https://fred.stlouisfed.org/series/EXHOSLUSM495S>; 5/22/24

[Return TOC](#)

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

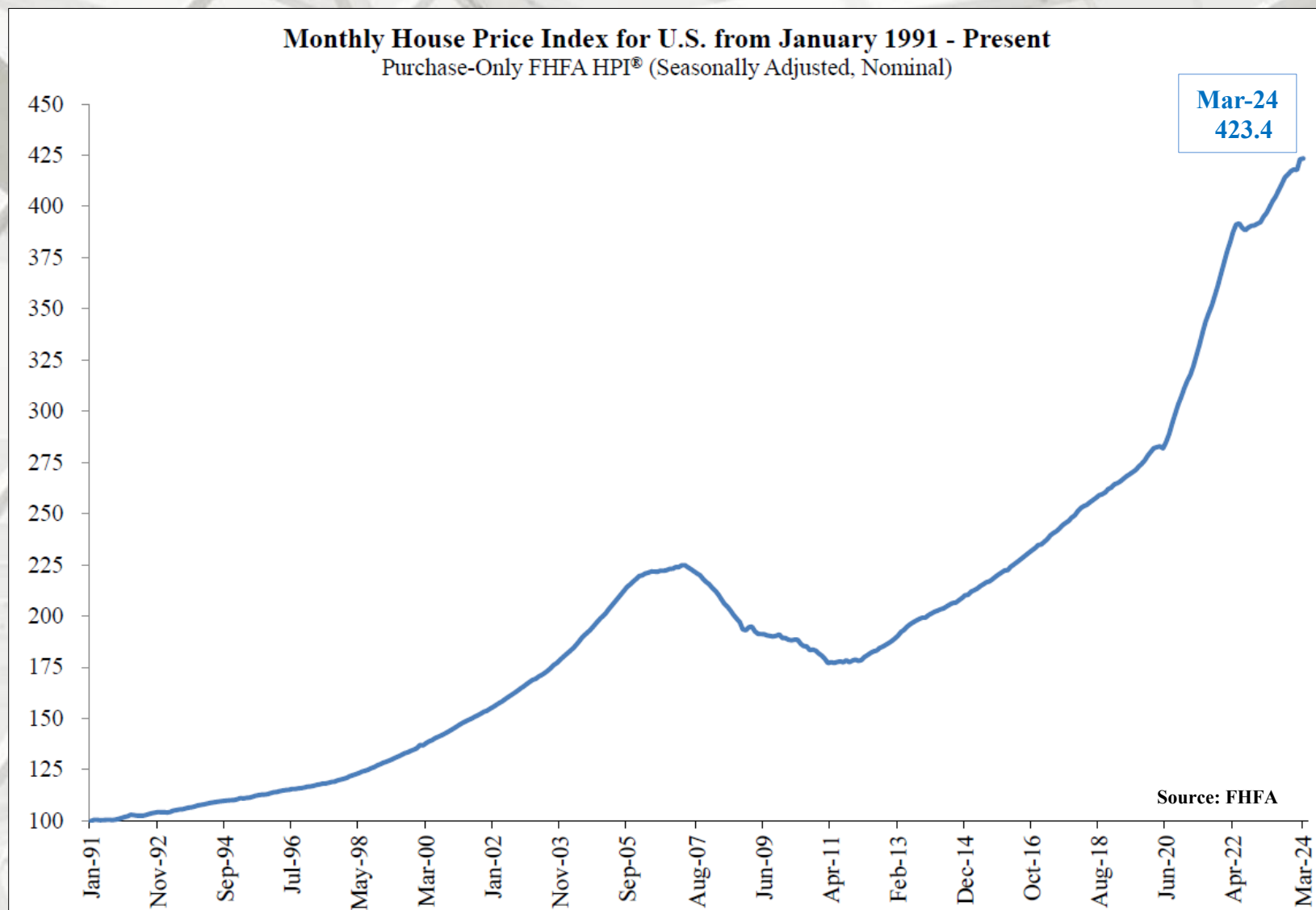
U.S. House Prices Rise 6.6 Percent over the Last Year; Up 1.1 Percent from the Fourth Quarter of 2023

Significant Findings

“U.S. house prices rose **6.6 percent** between the first quarter of 2023 and the first quarter of 2024, according to the Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI®). House prices were up **1.1 percent** compared to the fourth quarter of 2023. FHFA’s seasonally adjusted monthly index for March was up **0.1 percent** from February. Nationally, the U.S. housing market has experienced positive annual appreciation each quarter since the start of 2012.” – Adam Russell, FHFA

“U.S. house prices continued to grow at a steady pace in the first quarter. Over the last six consecutive quarters, the low inventory of homes for sale continued to contribute to house price appreciation despite mortgage rates that hovered around 7 percent.” – Dr. Nataliya Polkovnichenko, Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices



U.S. Housing Prices

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

“S&P Dow Jones Indices (S&P DJI) released the March 2024 results for the S&P CoreLogic Case-Shiller Indices. The leading measure of U.S. home prices shows that all of the major metro markets reported month-over-month price increases. 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 6.5% annual gain for March, the same increase as the previous month. The 10-City Composite saw an increase of 8.2%, up from a 8.1% increase in the previous month. The 20-City Composite posted a slight year-over-year increase to 7.4%, up from a 7.3% increase in the previous month. San Diego continued to report the highest year-over-year gain among the 20 cities this month with an 11.1% increase in March, followed by New York and Cleveland, with increases of 9.2% and 8.8%, respectively. Denver, which still holds the lowest rank after reporting three consecutive months of the smallest year-over-year growth, posted the same 2.1% annual increase in March as the previous month..

Month-Over-Month

The U.S. National Index the 20-City Composite, and the 10-City Composite all continued their upward trend from last month, showing pre-seasonality adjustment increases of 1.3%, 1.6% and 1.6%, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 0.3%, while the 20-City and the 10-City Composite both reported month-over-month increases of 0.3% and 0.5%, respectively.” – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

U.S. Housing Prices

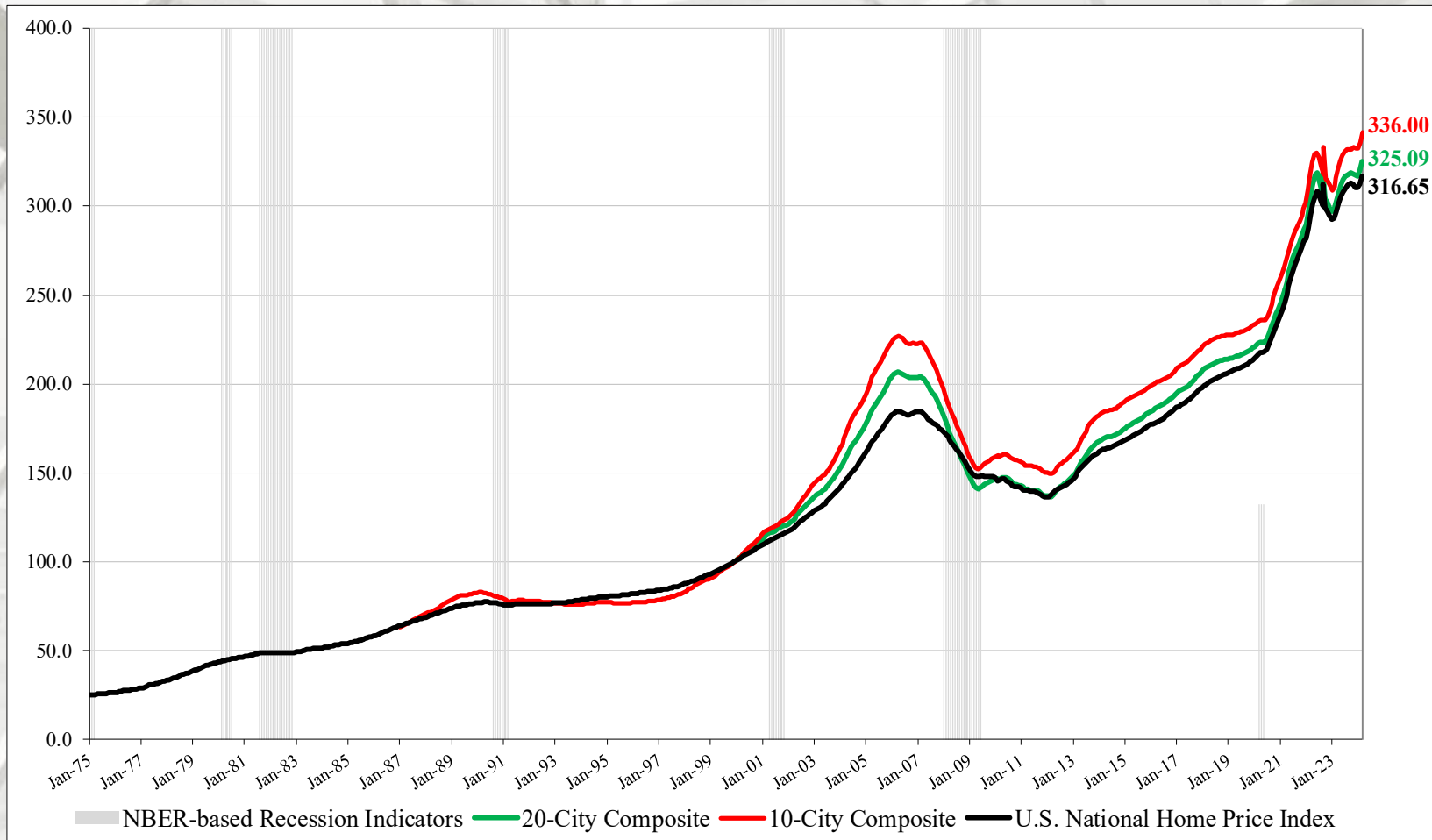
S&P CoreLogic Case-Shiller Index Analysis

““This month’s report boasts another all-time high. We’ve witnessed records repeatedly break in both stock and housing markets over the past year. Our National Index has reached new highs in six of the last 12 months. During that time, we’ve seen record stock market performance, with the S&P 500 hitting fresh all-time highs for 35 trading days in the past year.

San Diego stands out with an impressive 11.1% annual gain, followed closely by New York, Cleveland, and Los Angeles, indicating a strong demand for urban markets. The two largest population centers make up about 30% of the 20-City Composite and have shown significant recovery, keeping pace with our national composite annualized return of 9.9% since 2020. San Francisco and Seattle are still trailing previous highs, currently 9.7% and 8.2% lower than in May 2022, respectively. While Southern California ranked among the best annually, Seattle and San Francisco recorded the strongest monthly gains.

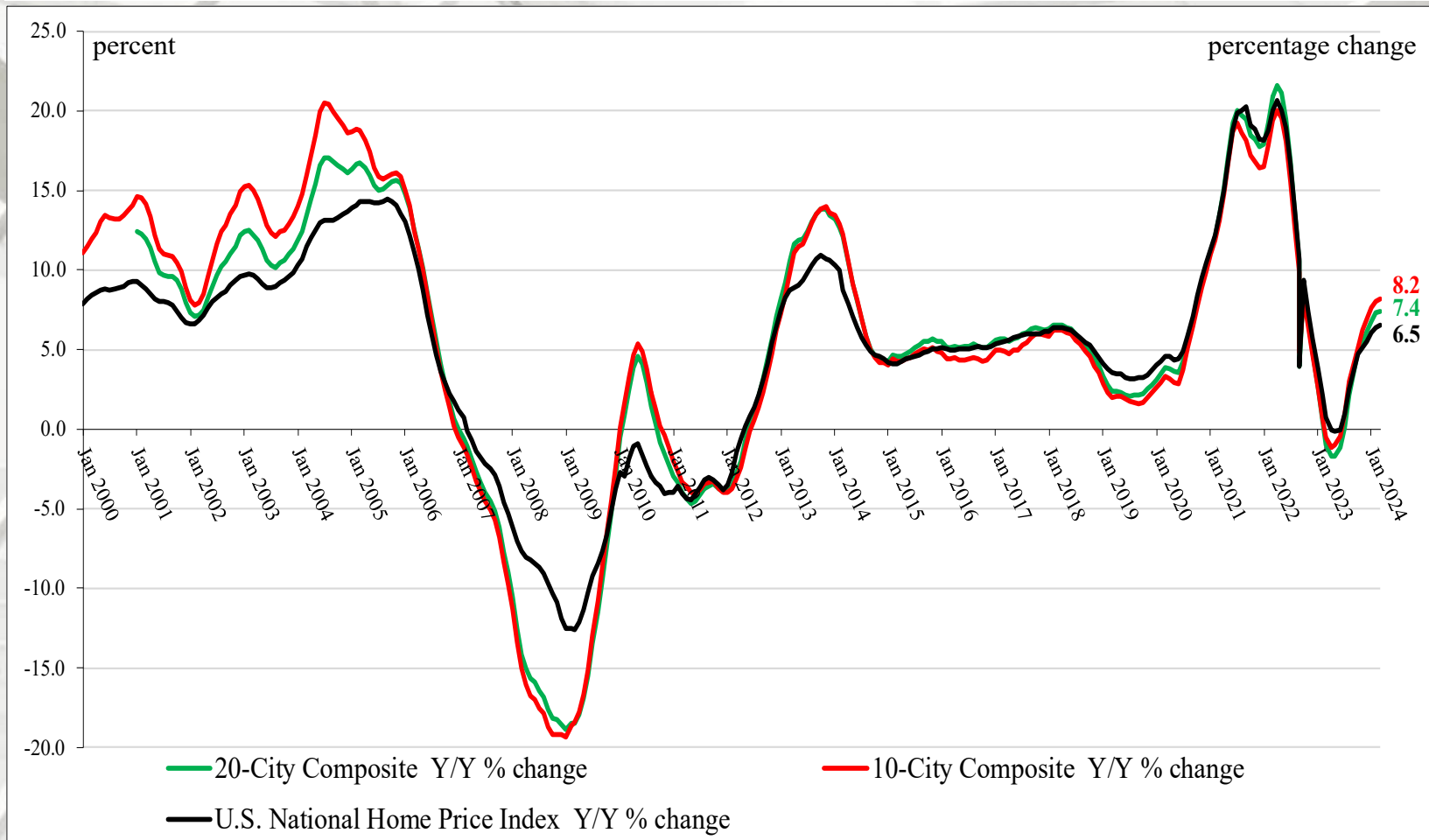
Regionally, the Northeast remains the top performer with an 8.3% annual gain, showcasing robust growth compared to other metro markets. Conversely, cities like Tampa, Phoenix, and Dallas, which saw top-tier performance in 2020 and 2021, are now growing at a slower pace. COVID was a boom for Sunbelt markets, but the bigger gains the last couple of years have been the northern metro cities. On a seasonal adjusted basis, national home prices have reached their ninth all-time high within the past year, with all 20 metropolitan markets posting positive annual gains for the fourth consecutive month, indicating widespread and sustained growth in the housing sector.” – 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 March 2023 to March 2024, the National Index indicated a 6.5% increase; the Ten-City improved by 8.2%, and the Twenty-City increased by 7.4%.

U.S. Housing Affordability

John Burns Research and Consulting

Can people still afford homes with high rates and increased inflation, or are they more likely to rent?

“Are people still able to afford homes? It’s a big question with a nuanced answer. Home affordability is near its all-time worst, making this one of the most challenging times historically to purchase a home. A typical home buyer today must spend more income on housing than ever before.

Our [Burns Affordability Index™ \(BAI\)](#) shows that, on average, home buyers purchasing at today’s rates spend 44% of their income on housing. This is higher than the “new normal” of 33%, which reflects fundamental shifts in the housing market. ...

We believe housing is permanently more expensive.

Affordability varies by market.

Purchasing a home is more challenging in markets like San Diego or Orange County, CA, where home prices are high and inventories are limited. With spiking mortgage rates, monthly payments rose by more than 60% between 2022 and 2023. With an influx of buyers seeking more attainable prices, markets like Dallas, Austin, Tampa, and Orlando quickly became Expensive or Very Expensive, according to the BAI. It’s no wonder our consulting team has been doing more work in the Midwest and more affordable southeast states in Oklahoma, Arkansas, or Alabama as buyers look for attainable opportunities.

Not everyone wants to own a home.

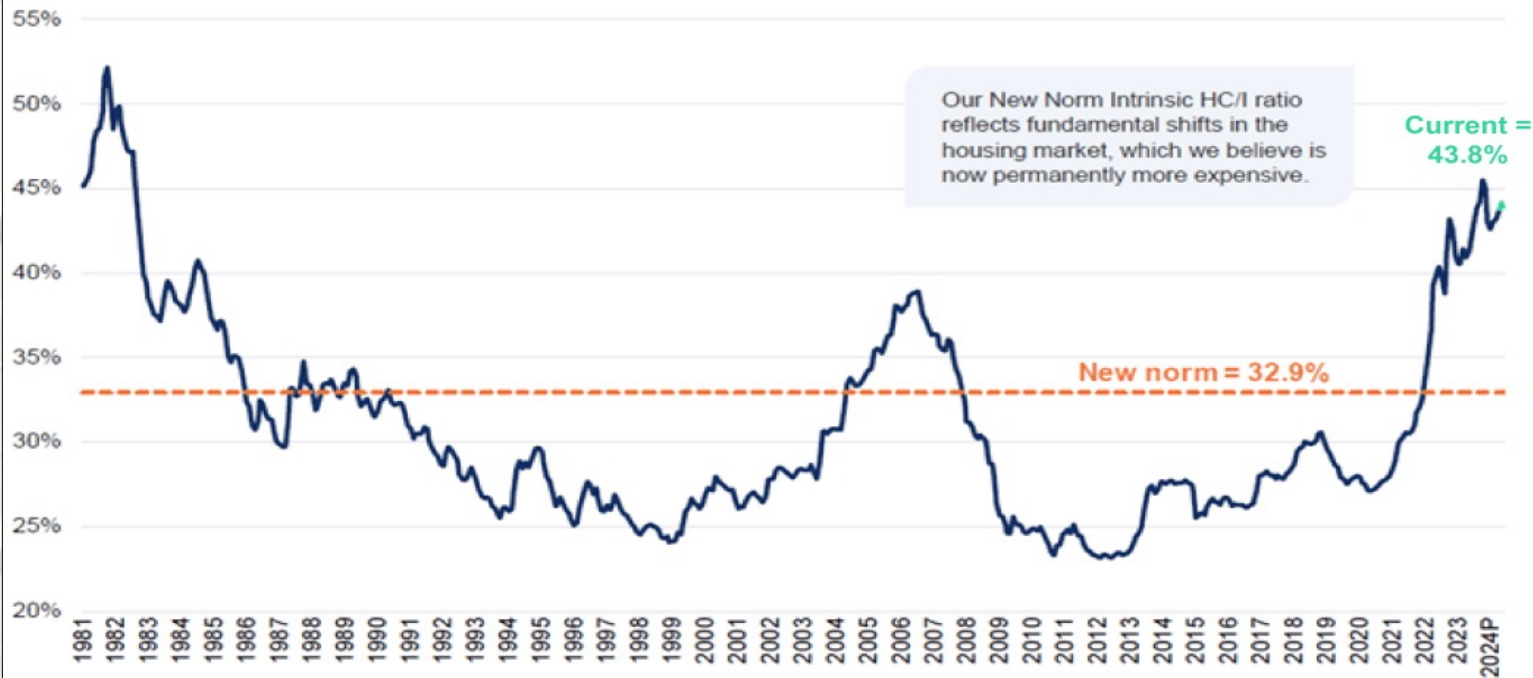
Rentership rates are the highest among younger households, with about 56% of households between the ages of 25 and 34 renting their homes. While many of these renters are future homeowners saving for a down payment, some consumers simply prefer to rent. A survey conducted by our New Home Trends Institute determined that more than one-third of renters cited life circumstances as a reason they rent. Other renters cited a lack of supply (they cannot find what they want), a need for flexibility, and a desire to not maintain a home as reasons why they rent. Our research into the build-to-rent (BTR) sector concluded that 47% of BTR tenants earn more than six figures annually and choose to rent for similar reasons.” – James Penner, Senior Manager and Ken Perlman, Managing Principal; John Burns Research and Consulting

U.S. Housing Affordability

John Burns Research and Consulting



Burns Affordability Index™
Housing-cost-to-income ratio



We calculate the housing cost to income ratio (HC/I ratio) by dividing the market's median monthly housing costs by 125% of the median income. Housing cost assumes the purchase of a home equal to the market's median-priced existing home with a 10% down payment and a 30-year, fixed-rate mortgage. Payment includes PITI (principal, interest, taxes and insurance) plus mortgage insurance. To determine the intrinsic HC/I ratio, we look at the long-term trend of the market's HC/I ratio, with an emphasis on recent history and our forecasts. This intrinsic adjuster (the spread between the intrinsic HC/I ratio and the historical median HC/I ratio) is representative of fundamental shifts in several markets we feel are now permanently more/less expensive due to increased/decreased demand or limited supply.

Source: John Burns Research and Consulting, LLC (Data: Apr-24; Pub: May-24)

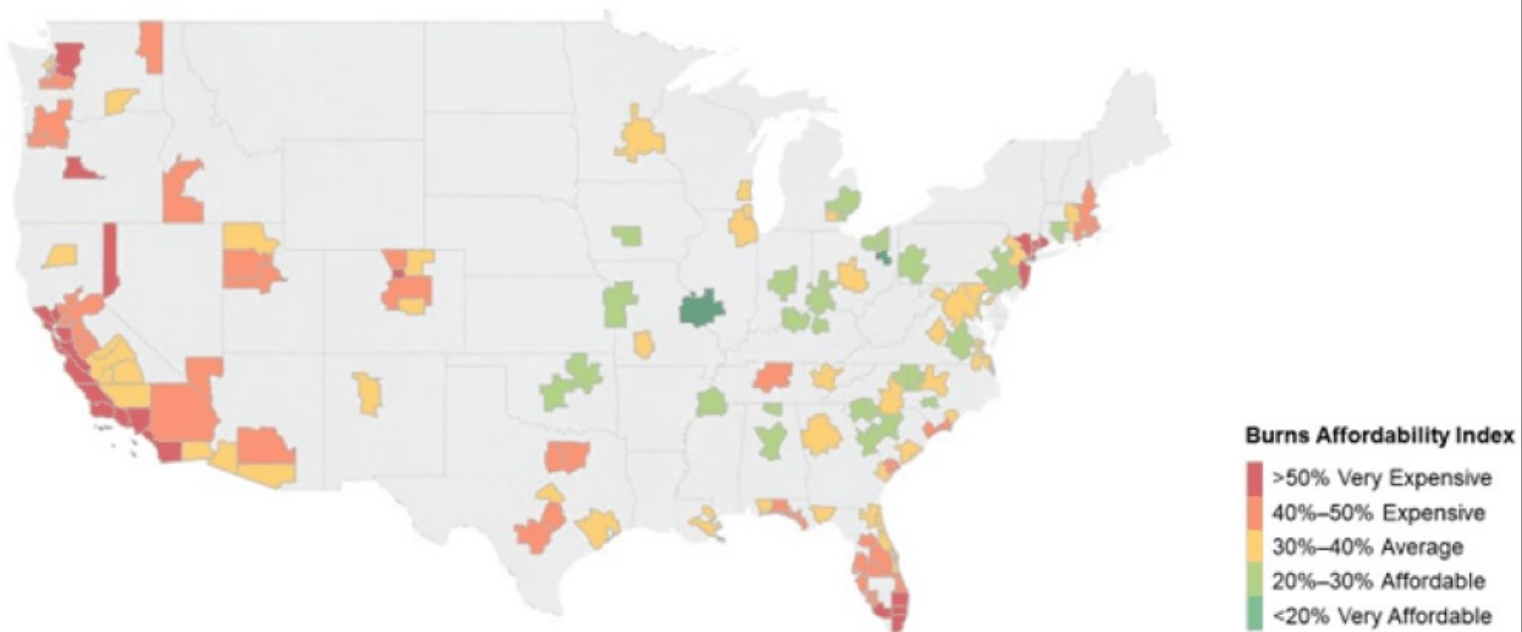
U.S. Housing Affordability

John Burns Research and Consulting



Burns Affordability Index™ : Housing-Cost-to-Income Ratio

Top US markets, at a 7.17% mortgage rate (rate for Apr-24)



Source: John Burns Research and Consulting, LLC (Data: Apr-24, Pub: May-24)

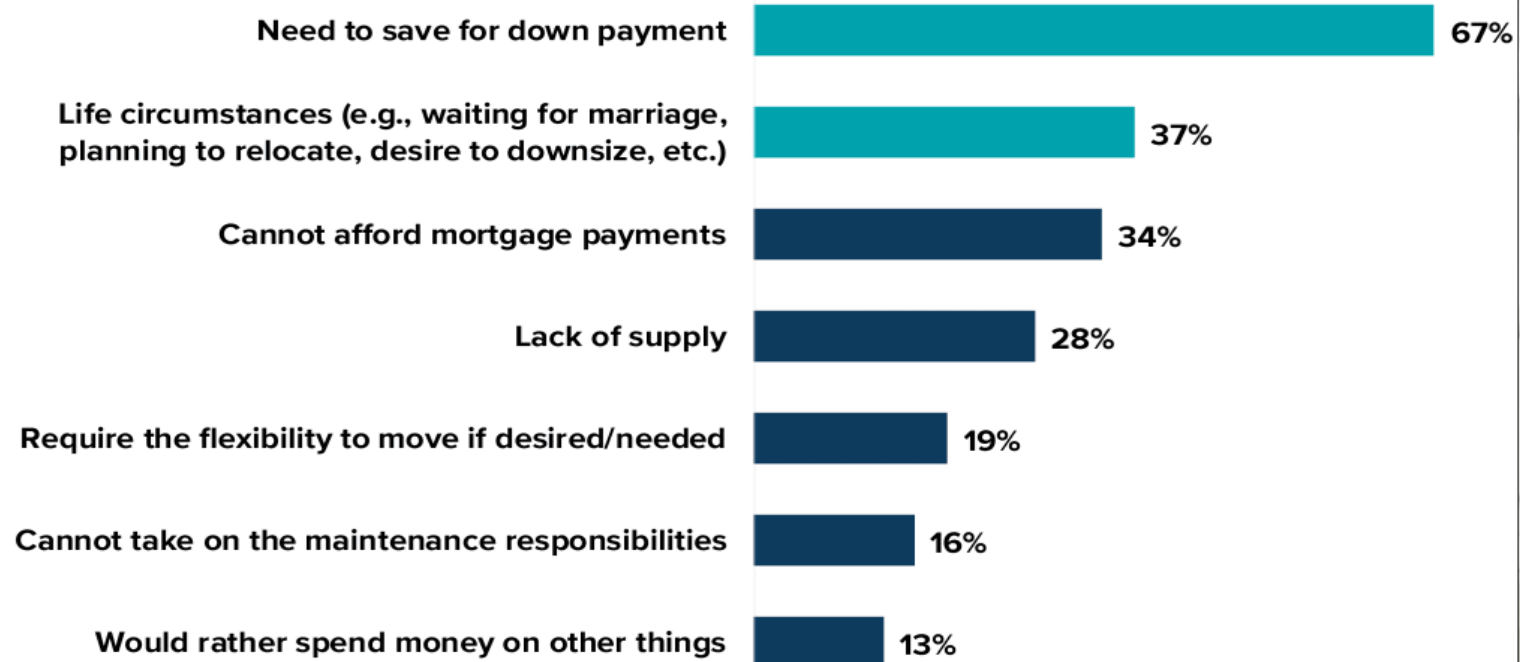
U.S. Housing Affordability

John Burns Research and Consulting



Reason(s) that renters who find homeownership to be important current rent instead of own*

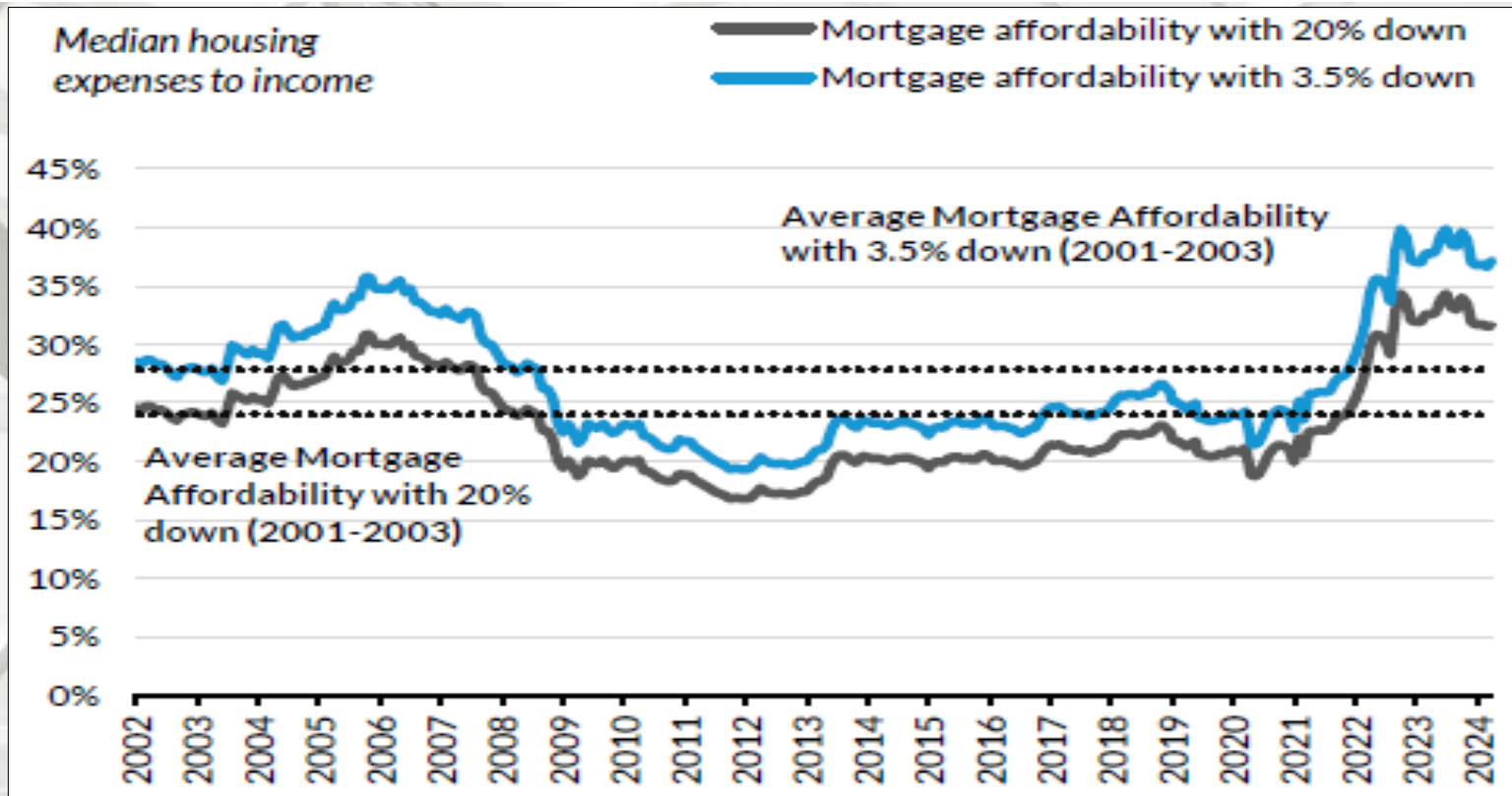
Households with income of \$50,000+



*Note: Percentages will not total to 100%, as respondents were instructed to select all that applied to them.

Source: New Home Trends Institute by John Burns Real Estate Consulting, LLC survey of 1,347 US homeowners and renters age 18+ with household income of \$50,000+. Survey fielded July 12–17, 2022.

U.S. Housing Affordability



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

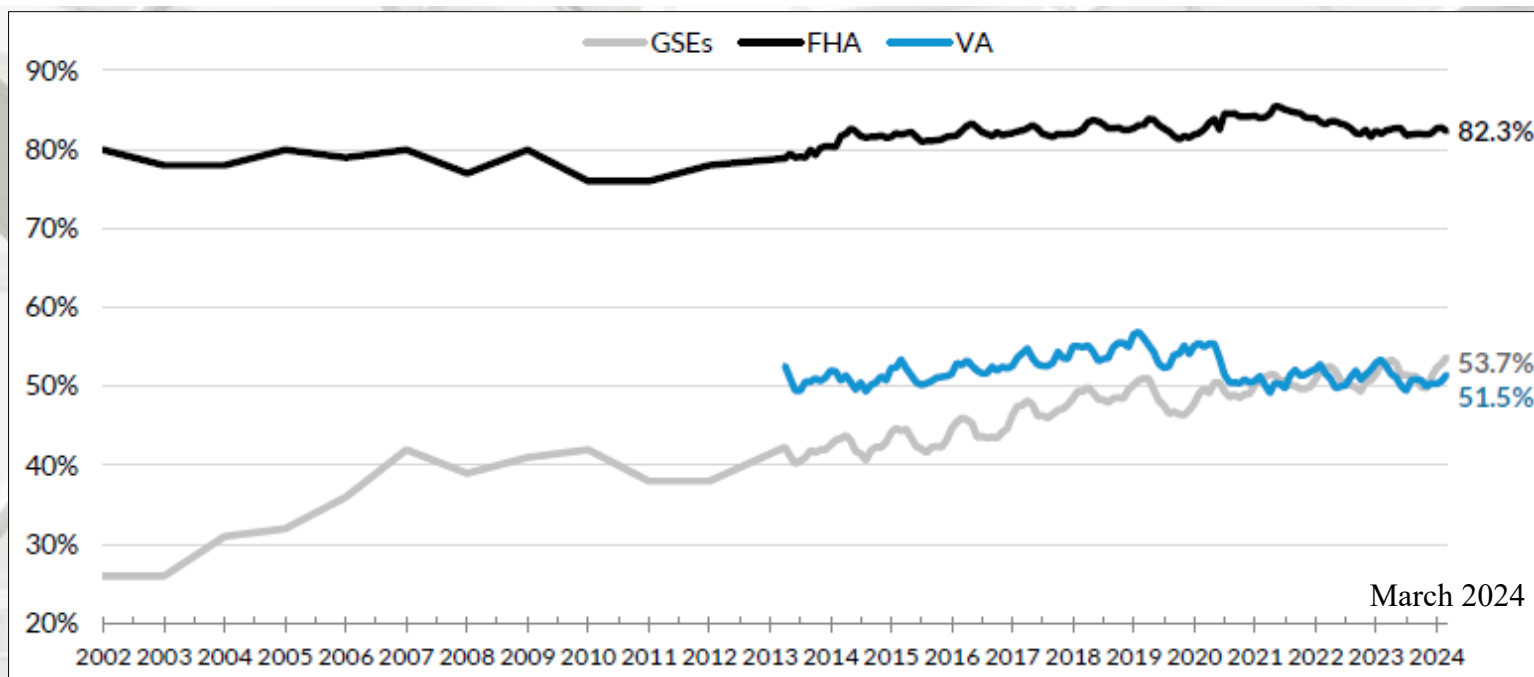
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute

National Mortgage Affordability Over Time

“While mortgage rates remain elevated, they have declined modestly from their peak. In response, mortgage affordability has improved but remains close to the worst level since the inception of this series in 2002. As of April 2024, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.6 percent, higher than 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 37.2 percent, also 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.

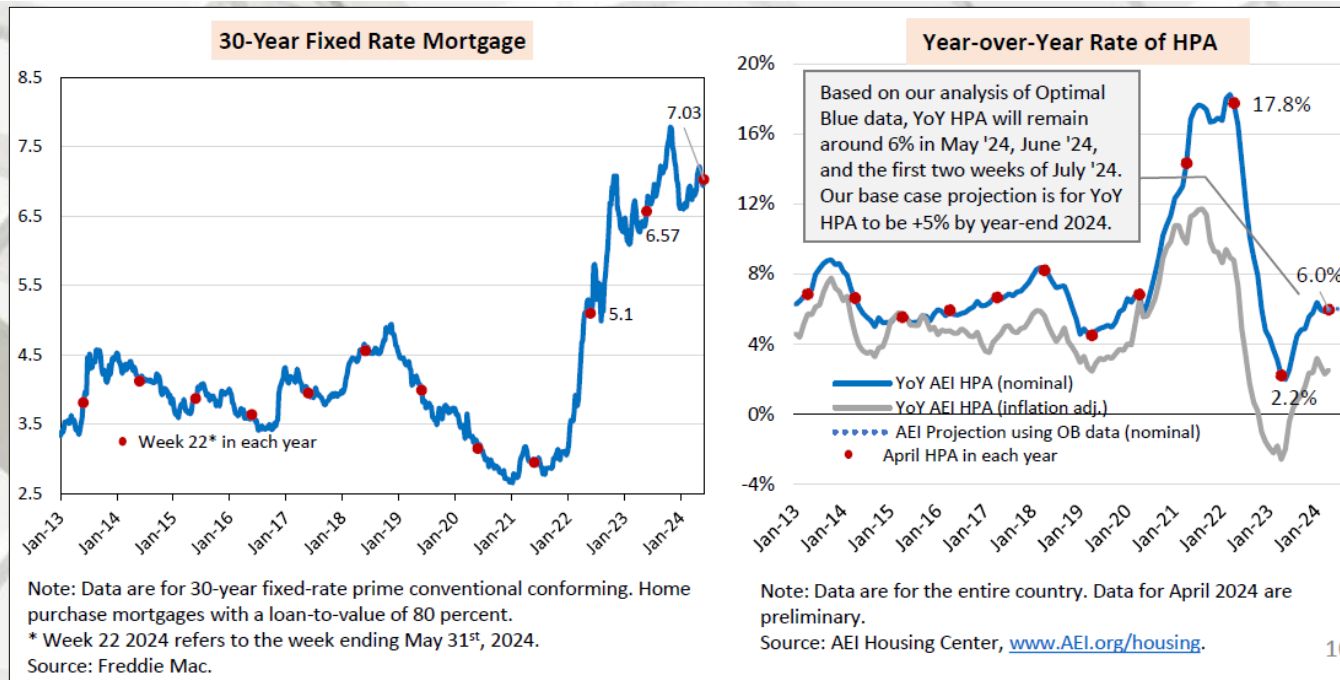
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute

First-time House Buyer Share

“In March 2024, the first-time homebuyer (FTHB) share for FHA, which has always been more focused on first time homebuyers, was 82.3 percent. The FTHB share of GSE lending in February was 53.7 percent; the VA share was 51.5 percent. The bottom table shows that based on mortgages originated in March 2024, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV.” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability

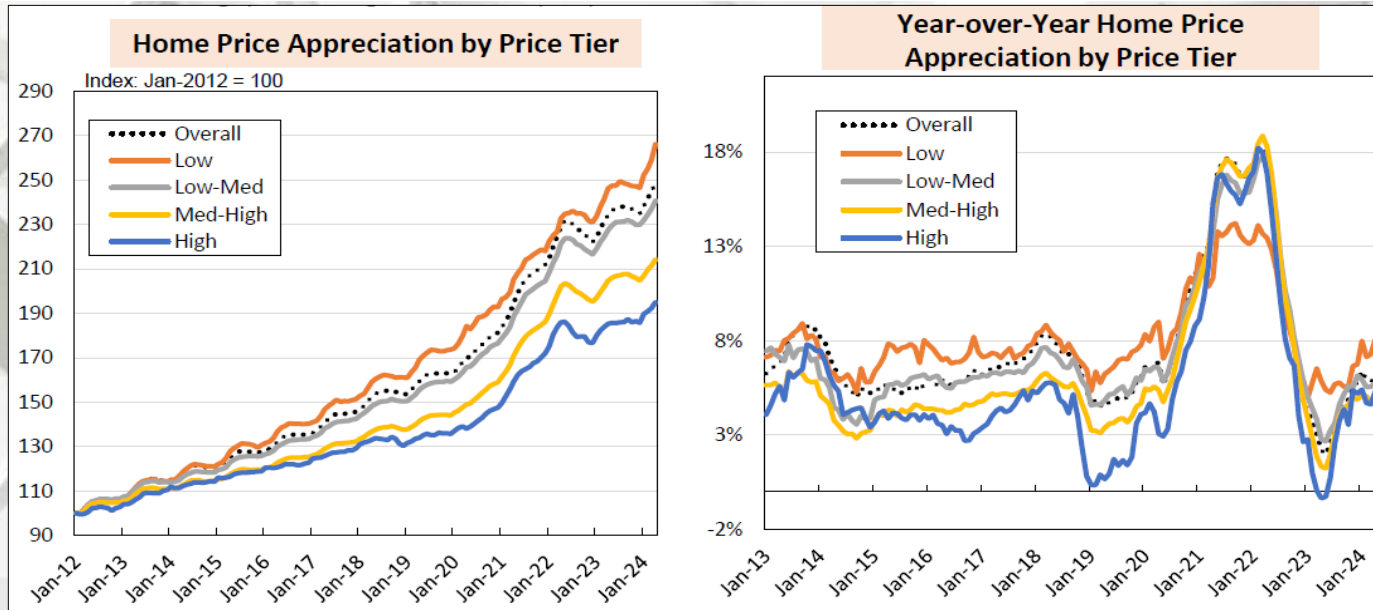


AEI Housing Center

**April 2024's preliminary YoY HPA was 6.0%,
up from 5.9% a month and 2.2% a year ago.**

- “April 2024’s MoM HPA was 1.2%. As our projection on the following slide indicates, HPA is expected to be around 5% by Dec. 2024.
- Despite subdued purchase activity and relatively high rates, YoY HPA remains strong, largely due to buyers being well qualified and continued competition due to a strong sellers’ market.
- Continued low unemployment rates, low levels of foreclosures in most areas, higher housing debt ratios, work from home, and ongoing home price arbitrage opportunities further support HPA gains that outpace inflation.
- Constant quality HPA controls for mix shifts in home quality, which otherwise may skew MoM or YoY changes.” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Home Price Appreciation by Price Tier



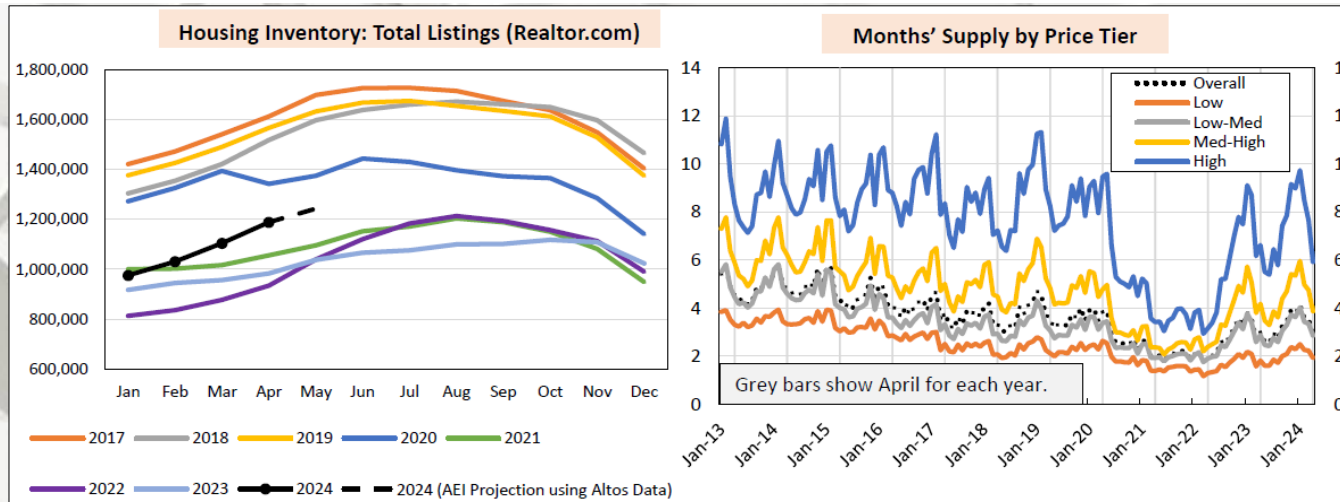
Note: Data are for the entire country. Data for April 2024 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing

AEI Housing Center

“Since 2012, a large and widening gap in HPA has developed between the lower and upper end of the market (left panel).

- Preliminary numbers for April 2024 indicate that the low price tier leads the YoY change in tier home prices at 8.0 % due to low months’ supply (1.9 months), low unemployment and increasing demand promoted by agency credit easing (right panel).
- Being more dependent on the Fed’s monetary punchbowl, the med high and high price tiers have had the largest slowdowns in YoY HPA. However, this deceleration has ended as of May 2023.
- As of April 2024, all price tiers have shown relatively robust YoY HPA from the slowest at 4.6% (med high) to the highest of 8.0% (low).” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Housing Inventory and Months' Supply



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

AEI Housing Center

“Months’ remaining supply was 2.9 months (not seasonally-adjusted) in April 2024. Housing inventory continued to run below pre-pandemic levels, which helps explain the robust YoY HPA.

- April 2024 housing inventory was up 8% and 21% from March 2024 and April 2023, respectively. Inventory today is at about 70% of 2017 2019 levels, indicating an unhealthy market (left panel).
- However, the month over month growth in April 2024 shows positive signs.
 - Altos weekly listings data suggest that housing inventory is expected to continue rising in May.
- Months’ supply stood at 2.9 months in April 2024, down from 3.5 months in March 2024, 3.0 months in April 2023, and 3.5 months in April 2019, the last comparable pre pandemic month (right panel). This indicates a continuing strong seller’s market.
- Notwithstanding rates around 7%, the supply demand imbalance evidenced by continued tight months’ supply will fuel continued upward price pressures (left panel).
- Given historical data, months’ supply would need to increase to > 7 months to enter a buyer’s market and to 8 9 months to trigger a national YoY decline in home price appreciation.” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing

U.S. Housing Market

Builder

Aggressive, Competitive, and Pricey: The Realities of the Land Market In 2024

While lot supply remains undersupplied, builders with stronger lot portfolios are remaining opportunistic and active in the land market.

“The land market has never been easy for home builders. Instead, Erik Heuser, chief corporate operations officer at Taylor Morrison, says it is “different kinds of hard.”

“The [land market in 2024] has been aggressive, but somewhat manageable,” Heuser says. “There are places like Southern California where we’ve seen some uber aggressiveness. You might have to look at a few more deals to get the right one to pencil. There are spots in the country where we do see a bit more competition and maybe a little bit of desperation from some builders that need the land.”

Data from Zonda suggests that lot supply tightened in the first quarter of 2024 and the overall market remains significantly undersupplied, as it has been since 2017. Lot supply tightened in 19 of the 30 major metros analyzed by Zonda in its recently released New Home Lot Supply Index (LSI).

“Limited availability of desirable land near major job centers is pushing new housing developments farther into the suburbs,” Ali Wolf said in the first quarter New Home LSI release. “However, these outlying areas often lack the necessary infrastructure, creating a bottleneck for builders eager to expand their communities. This imbalance between available lots and the desire to start new construction persists, posing a challenge for the housing market.” – Vincent Salandro, Associate Editor, Builder

U.S. Housing Market

Builder

Aggressive, Competitive, and Pricey: The Realities of the Land Market In 2024

Things will get tighter

“As a result of tight lot supply, lot availability ranked as the second biggest concern for home builders entering 2024, according to survey data from the NAHB.

“If you think about how the lot development pipeline works, in a relatively efficient market it can be a two- to three-year process. In a highly regulated market, it can be five years or more,” says NAHB chief economist Rob Dietz. “I think later this year [and] the start of 2025 are when the actual lots on hand are going to get relatively tighter in terms of supply relative to the current need for construction.”

Many public builders, including Taylor Morrison and Tri Pointe Homes, though, have years of supply of land and a strong pipeline that provide flexibility to remain opportunistic without the need to be overly aggressive in the land market. ...

Full steam ahead

Zonda’s April survey of division presidents indicates that 60% of respondents are moving “full steam ahead” with land acquisition, while around one-third of respondents are cautiously moving forward. Additionally, nearly two-thirds of respondents said land prices are higher than they were several months ago.

Andy Seitz, vice president of corporate land at Drees Homes, says while the company is employing a similar approach to land as it did in 2023, opportunities for new land deals – particularly land with utility access – “are in short supply.” The limited supply is resulting in elevated prices and “more difficult terms from developers,” he says.”” – Vincent Salandro, Associate Editor, Builder

U.S. Housing Market

Builder

Aggressive, Competitive, and Pricey: The Realities of the Land Market In 2024

Full steam ahead

“We’ve observed a general increase in land prices, which aligns with the growing demand for constrained supply, particularly in the core ‘A’ locations where we primarily operate,” says Mitchell. “We seek to work collaboratively and transparently with land sellers to carefully estimate potential revenues and costs, thereby determining the feasible land residual value we can achieve.” ...

Strategic partnerships

Moving forward, several builders, including Lennar and David Weekley Homes, note the desire to establish new strategic partnerships while cultivating existing developer relationships to facilitate growth goals.

“As we’ve migrated to a land-light strategy, we’ve wanted to be patient about recognizing that we are developing new sources of land relationships,” Lennar executive chairman and co-CEO Stuart Miller said during the home builder’s most recent earnings call. “We want to make sure that as the market ebbs and flows that what we depended on didn’t evaporate. We’re looking to build more of those structures in order to have durability baked in.”

At David Weekley Homes, co-chief operating officer Joe Rentfro says the company is focused on establishing new strategic partners, working closely with third-party developers.

“To help facilitate our growth goals, we’ve increased our engagement on acquisition and development projects in select markets,” Rentfro says. “This has been a portion of our business that has grown over the years, and we expect these efforts will need to continue in order to meet demands in our markets.”” – Vincent Salandro, Associate Editor, Builder

U.S. Housing Market

Builder

Aggressive, Competitive, and Pricey: The Realities of the Land Market In 2024

Brookfield looks to outside builders

“Adrian Foley, president and CEO at Brookfield Residential, says the company is engaging in a growing number of lot servicing and land banking deal structures with outside builders, “where in our business would buy and develop residential land and sell finished lots to builders at a predetermined price and schedule.”

“These mechanisms will allow for home builders to access an incremental source of capital, provide balance sheet flexibility, increase returns, and partially transfer development risk,” Foley says. “We continue to utilize and look for efficient capital structures as it pertains to land acquisition and development, ultimately holding a shorter duration of housing inventory on our books.”

Mitchell says Tri Pointe’s land strategy is “intricately linked” with the company’s long-term goals, as community count growth targets are informed by the land pipeline that drives closings targets.

“Our land strategy integrates a comprehensive analysis of macroeconomic trends and local market conditions, including mortgage interest rates, employment rates, household income levels, building costs, trade availability, and the specific characteristics of each deal,” Mitchell says. “Our focus on market and demographics, coupled with the current undersupplied housing market, positions Tri Pointe Homes to continue its growth trajectory effectively.”” – Vincent Salandro, Associate Editor, Builder

U.S. Housing Market

John Burns Research and Consulting

“Home builders love the work-from-home trend shown below. Lower land costs further out and more availability. One of my favorite charts from this quarter’s [@JBREC US Demographics Insights & Strategies](#) published yesterday. Great stuff as always from [@EricFinnigan](#) & [@DemographChris](#).” – Rick Palacios, Jr, Director of Research; John Burns Research and Consulting

US Hybrid and Remote Workers

Number working from home at least 1 day per week



Sources: BLS; John Burns Research & Consulting, LLC (Data: Mar-24; Pub: Jun-24)
As seen in quarterly **Burns US Demographics Insights and Strategies** (Pub: 06/11/24)

U.S. Housing Market

John Burns Research and Consulting

The Goldilocks New Home Market

“Key takeaways:

- The new home market is in a “Goldilocks” period, where demand remains strong relative to available inventory and the economy is stable – not too hot and not too cold.
- Big home builders are growing larger, gaining market share, and benefiting from their size and scale to maximize efficiency and growth.

The Goldilocks New Home Market: Not Too Hot nor Too Cold

Even with elevated mortgage rates, home builders are thriving, reporting strong sales and healthy gross margins. Factors such as incentives, reduced cost pressures, mortgage rate buydowns, and limited competition from resale homes contribute to this resilience, described as a “Goldilocks” market by several home builder executives at our conference.

- Fresh insights from our proprietary [Burns Homebuilder Survey](#) show the new home market has cooled off a bit in May and June amid high rates and seasonality.

Gross profit margins aren’t returning to 18%–19% anytime soon.

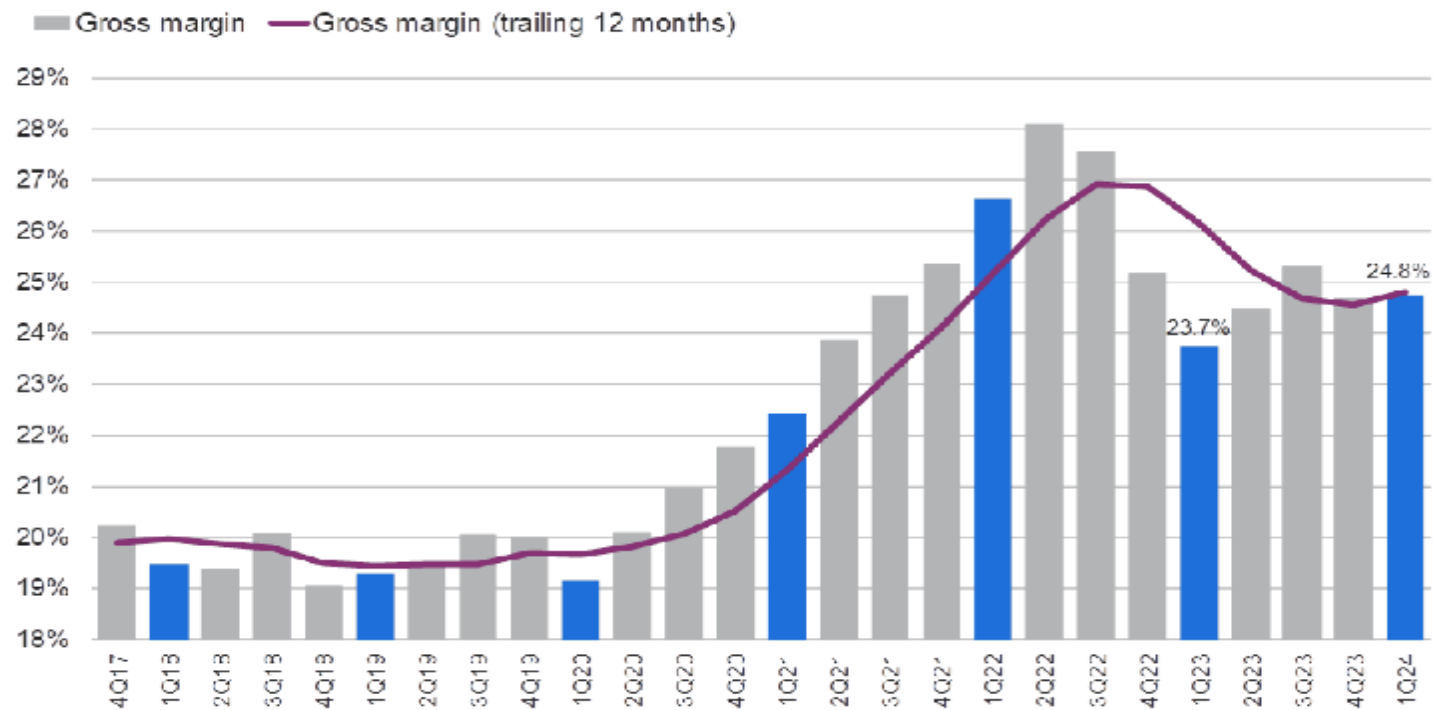
- **13 of the 19** public home builders have 20%+ gross margins.
- **12 of the 19** public builders saw gross margins rise compared to one year ago.
- Gross margins rose to 24.8% in 1Q24 for the largest public home builders. Though below the all-time high of ~28% in 2022, gross margins are significantly higher than more normalized years for housing (see chart below).
- Strong gross margins allow builders to offer incentives like rate buydowns while staying profitable.”
– Danielle Nguyen, Vice President of Research, John Burns Real Estate Consulting LLC

U.S. Housing Market

JOHN BURNS
RESEARCH & CONSULTING

Large Public Homebuilders' Average Gross Margins

DHI, KBH, LEN, MTH, NVR, PHM, TMHC, TOL



Builders tracked: DHI, KBH, LEN, MTH, NVR, PHM, TMHC, TOL

Sources: Bloomberg; public homebuilder public filings; John Burns Research and Consulting, LLC (Pub: Jun-24)

U.S. Housing Market

John Burns Research and Consulting

The Goldilocks New Home Market

“Big builders will keep getting bigger.

The market share of large builders has steadily increased. Public builders, private builders with public debt, and private builders that are part of publicly traded subsidiaries delivered 55% of all new homes in the US (see chart).

There is a growing trend of mergers and acquisitions and consolidation, with a flurry of transactions occurring in 2024.

Addressing affordability

Builders are addressing affordability to compete with the resale market through:

- **Simplification/standardization:** Simplified designs and standardized options can help lower costs.
- **Rate buydowns:** Builders offer rate buydowns to make mortgage payments more affordable.
- **Building smaller homes:** Builders are offering smaller homes at lower prices in more distant locations to drive down the new home price premium.

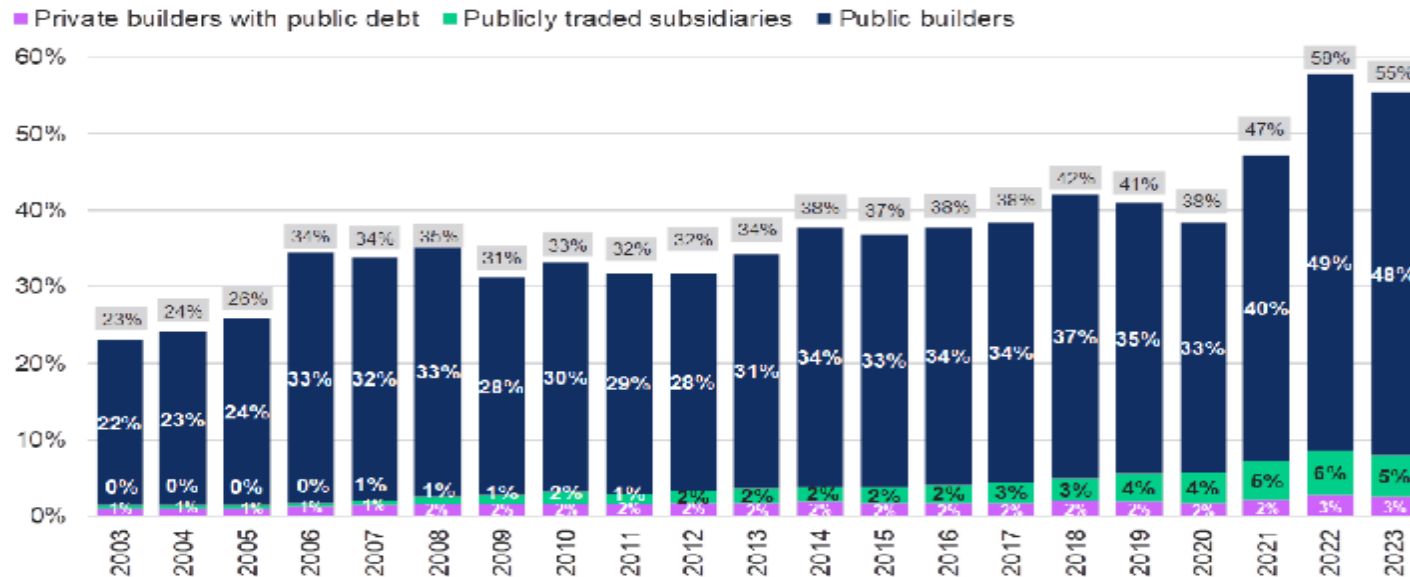
The new home premium vs. resale fell to 7% nationally, below the 16% historical average (see chart below).” – Danielle Nguyen, Vice President of Research, John Burns Real Estate Consulting

U.S. Housing Market



Big Builder Market Share as of 2023

*Public and private builders (subsidiaries of large public companies and large private builders with publicly traded bonds)
Home closings as a % of annual new homes purchased*



Notes: 1. Annual new homes purchased is the number of new homes that went under contract for sale for the first time during the period noted, per U.S. Census Bureau. 2. Builder data excludes closings from unconsolidated joint ventures. 3. Actual values may vary due to rounding.

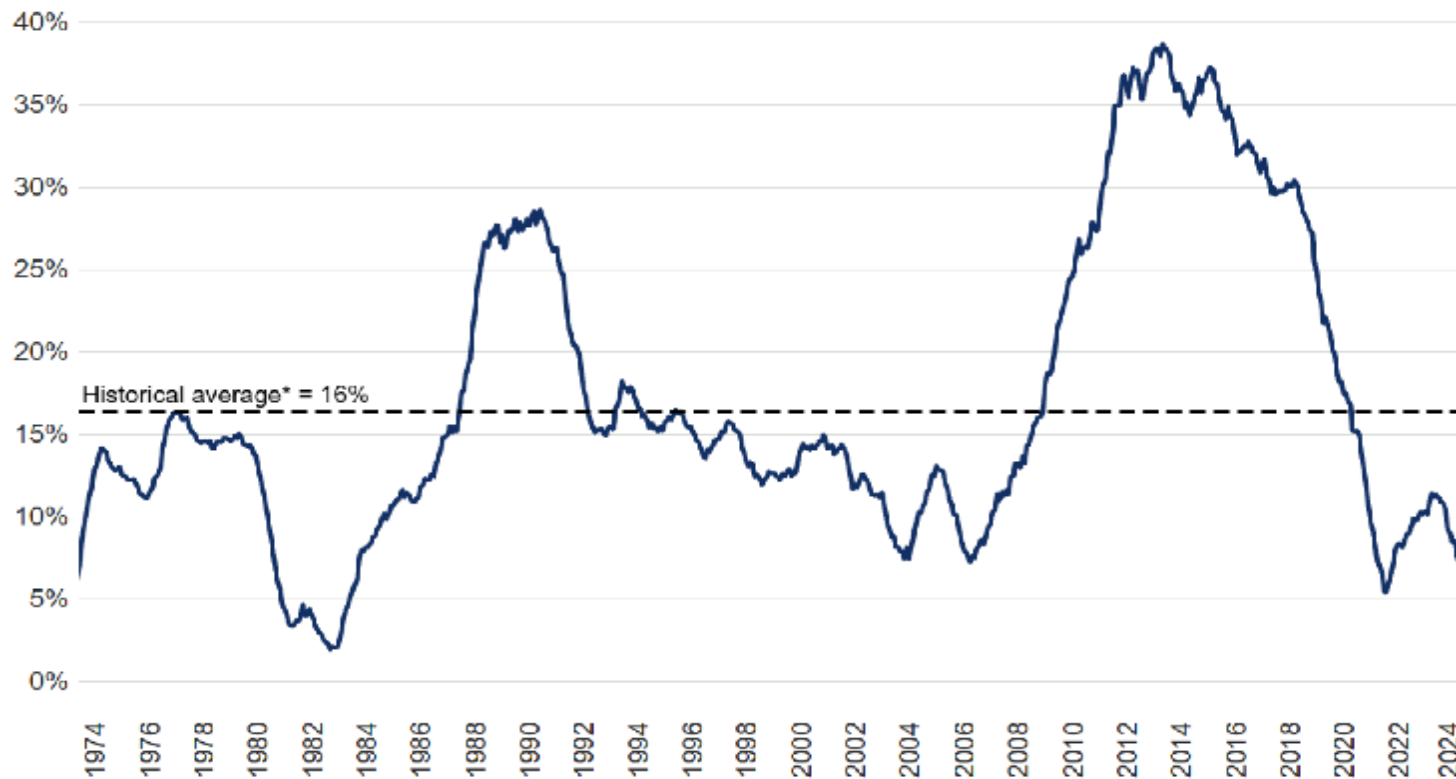
Annual market share is determined by dividing total new home closings for public builders, private builders with public debt, and builders that are subsidiaries of large public companies by U.S. Census new homes purchased.

Sources: John Burns Research and Consulting, LLC; U.S. Census Bureau; Bloomberg; public homebuilder public filings and external news sources (Data: 2023, Pub: Jun-24)

U.S. Housing Market

JOHN BURNS
RESEARCH & CONSULTING

New Home Price Premium vs. Resale *12-month average*



Historical average: Dec-87 through current

Sources: NAR, U.S. Census Bureau; John Burns Research and Consulting, LLC (Data: Apr-24, Pub: Jun-24)

U.S. Housing Market

John Burns Research and Consulting

The Goldilocks New Home Market

“Concerns to monitor

Panelists and roundtable discussions highlighted some concerns:

- Unsold speculative inventory nearing completion is rising – though it remains at healthy levels in most markets.
- Rising resale inventory, especially in the Texas and Florida markets, may impact new home demand in several top markets and the ability to keep pushing prices.
- Will we run short of buyers who can afford 7% mortgage rates?” – Danielle Nguyen, Vice President of Research, John Burns Real Estate Consulting

U.S. Housing Finance

Mortgage Bankers Association

Mortgage Credit Availability Increased in May

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

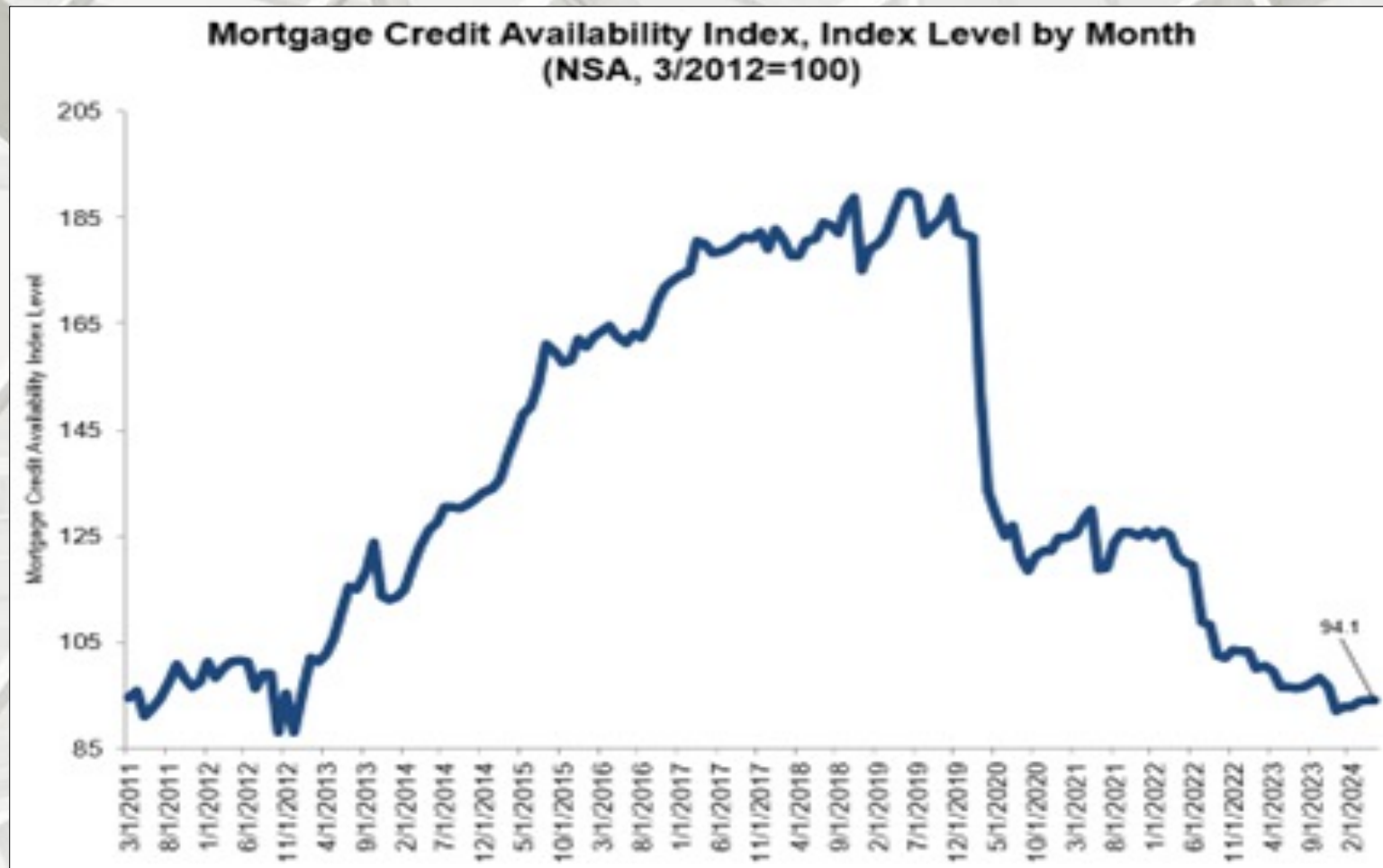
The MCAI rose by 0.1 percent to 94.1 in May. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 0.3 percent, while the Government MCAI decreased by 0.1 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 0.1 percent, and the Conforming MCAI rose by 0.5 percent.

Mortgage credit availability rose gradually in May and has increased for five consecutive months. The overall supply of mortgage credit is still close to 2012 lows, but is slowly increasing. The industry has reduced capacity over the past two years in response to extremely low unit volumes. Conventional, conforming, and jumbo credit availability have expanded slightly in recent months as lenders broaden loan offerings to reach more potential homebuyers in a tight purchase market.”

– Joel Kan, Associate Vice President of Economic and Industry Forecasting; MBA

U.S. Housing Finance

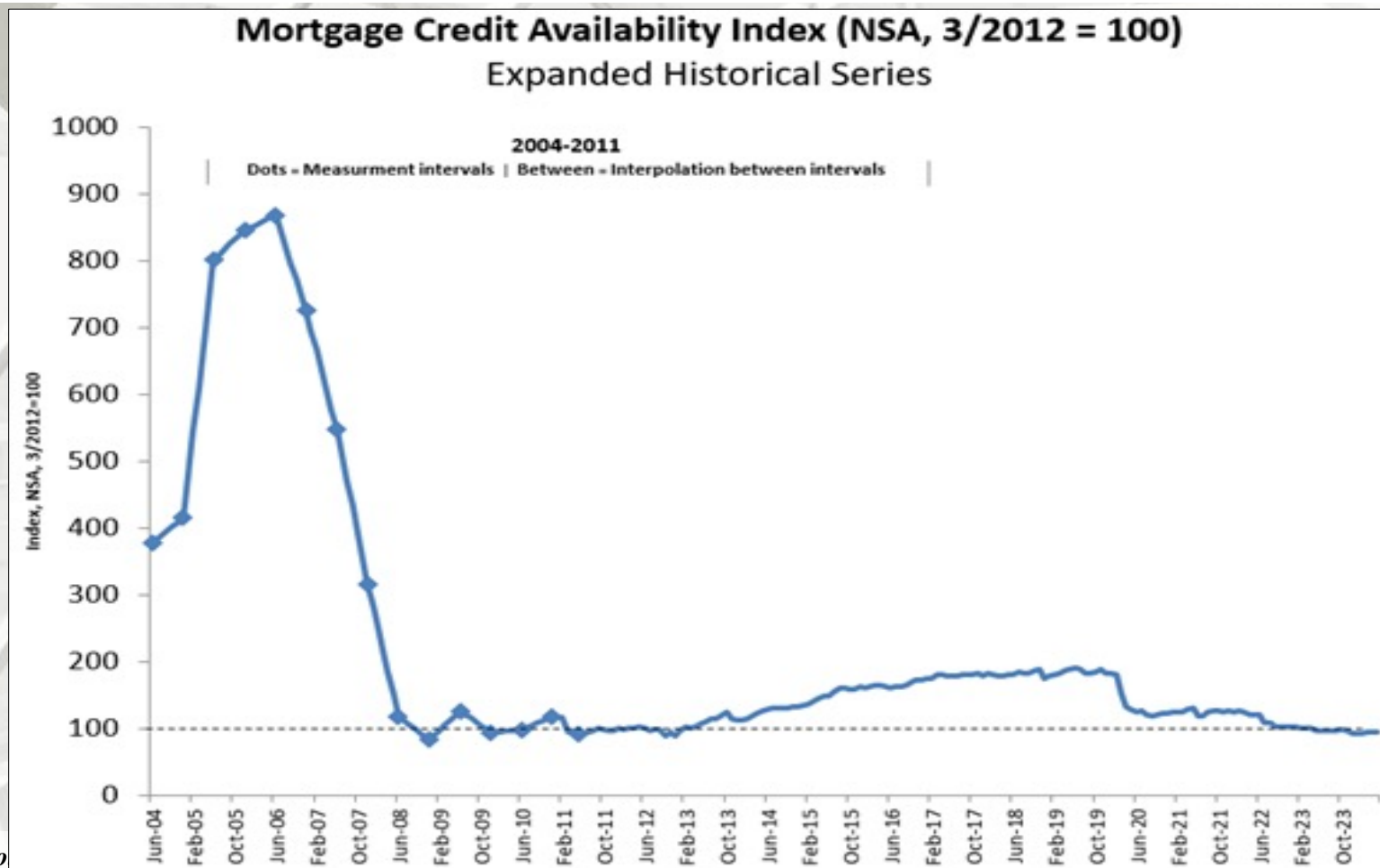
Mortgage Credit Availability (MBA)



Source: Mortgage Bankers Association; Powered by ICE Mortgage Technology

U.S. Housing Finance

Mortgage Credit Availability (MBA)



So

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

May 16, 2024

| | 2023 | | | | 2024 | | | | 2025 | | | | 2023 | 2024 | 2025 | 2026 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| Housing Measures | | | | | | | | | | | | | | | | |
| Housing Starts (SAAR, Thous) | 1,385 | 1,450 | 1,371 | 1,485 | 1,415 | 1,380 | 1,414 | 1,428 | 1,431 | 1,441 | 1,457 | 1,446 | 1,423 | 1,409 | 1,444 | 1,451 |
| Single-Family | 834 | 930 | 967 | 1,055 | 1,069 | 1,048 | 1,072 | 1,087 | 1,105 | 1,127 | 1,153 | 1,143 | 946 | 1,069 | 1,132 | 1,153 |
| Two or More | 552 | 520 | 403 | 430 | 346 | 332 | 342 | 341 | 326 | 314 | 304 | 303 | 476 | 340 | 312 | 299 |
| Home Sales (SAAR, Thous) | | | | | | | | | | | | | | | | |
| Total Existing Homes | 4,327 | 4,250 | 4,020 | 3,797 | 4,190 | 4,236 | 4,356 | 4,447 | 4,492 | 4,542 | 4,565 | 4,569 | 4,099 | 4,307 | 4,542 | 4,828 |
| New Homes | 638 | 691 | 693 | 644 | 667 | 723 | 764 | 783 | 801 | 816 | 817 | 817 | 667 | 735 | 813 | 817 |
| FHFA US House Price Index (YOY % Change) | 4.6 | 3.3 | 5.6 | 6.4 | 6.6 | 5.7 | 4.9 | 4.3 | 3.6 | 3.4 | 3.2 | 3.3 | 6.4 | 4.3 | 3.3 | 3.9 |
| Median Price of Total Existing Homes (Thous \$) | 366.7 | 397.5 | 400.9 | 387.3 | 385.3 | 396.1 | 391.7 | 383.6 | 381.3 | 392.6 | 392.8 | 390.5 | 388.1 | 389.2 | 389.3 | 389.4 |
| Median Price of New Homes (Thous \$) | 434.8 | 418.7 | 434.3 | 421.8 | 419.5 | 419.4 | 425.4 | 426.2 | 422.3 | 435.2 | 434.3 | 430.5 | 427.4 | 422.6 | 430.6 | 429.8 |
| Interest Rates | | | | | | | | | | | | | | | | |
| 30-Year Fixed Rate Mortgage (%) | 6.4 | 6.5 | 7.0 | 7.3 | 6.7 | 6.9 | 6.7 | 6.5 | 6.4 | 6.2 | 6.2 | 5.9 | 7.3 | 6.5 | 5.9 | 5.7 |
| 10-Year Treasury Yield (%) | 3.6 | 3.6 | 4.2 | 4.4 | 4.2 | 4.4 | 4.3 | 4.1 | 4.1 | 4.0 | 3.8 | 3.7 | 4.4 | 4.1 | 3.7 | 3.6 |
| Mortgage Originations | | | | | | | | | | | | | | | | |
| Total 1- to 4-Family (Bil \$) | 333 | 463 | 444 | 399 | 377 | 429 | 508 | 491 | 452 | 541 | 556 | 535 | 1,639 | 1,805 | 2,084 | 2,275 |
| Purchase | 267 | 371 | 363 | 324 | 291 | 336 | 392 | 364 | 314 | 397 | 405 | 383 | 1,325 | 1,383 | 1,499 | 1,629 |
| Refinance | 66 | 92 | 81 | 75 | 86 | 93 | 116 | 127 | 138 | 144 | 151 | 152 | 314 | 422 | 585 | 646 |
| Refinance Share (%) | 20 | 20 | 18 | 19 | 23 | 22 | 23 | 26 | 31 | 27 | 27 | 28 | 19 | 23 | 28 | 28 |
| FHA Originations (Bil \$) | | | | | | | | | | | | | 198 | 203 | 206 | 199 |
| Total 1- to 4-Family (000s loans) | 895 | 1,239 | 1,165 | 1,034 | 967 | 1,082 | 1,270 | 1,223 | 1,128 | 1,326 | 1,353 | 1,297 | 4,333 | 4,541 | 5,104 | 5,391 |
| Purchase | 686 | 948 | 913 | 804 | 708 | 806 | 929 | 854 | 731 | 915 | 926 | 870 | 3,350 | 3,297 | 3,442 | 3,617 |
| Refinance | 210 | 291 | 252 | 230 | 259 | 276 | 340 | 369 | 397 | 411 | 427 | 427 | 983 | 1,244 | 1,662 | 1,774 |
| Refinance Share (%) | 23 | 23 | 22 | 22 | 27 | 26 | 27 | 30 | 35 | 31 | 32 | 33 | 23 | 27 | 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 2023 forecast, 2022 origination volume was revised based on the 2022 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 Freddie Mac'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 quarter, 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. Copyright 2024 Mortgage Bankers Association. All rights reserved. THE HISTORICAL DATA AND PROJECTIONS ARE PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND.

MBA

MORTGAGE BANKERS ASSOCIATION

MBA Economic Forecast

MBA Economic Forecast

May 16, 2024

| | 2023 | | | | 2024 | | | | 2025 | | | | 2023 | 2024 | 2025 | 2026 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| Percent Change, SAAR | | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | 2.2 | 2.1 | 4.9 | 3.4 | 1.6 | 1.4 | 1.2 | 1.2 | 1.4 | 1.3 | 1.5 | 1.6 | 3.1 | 1.3 | 1.4 | 1.6 |
| Personal Consumption Expenditures | 3.8 | 0.8 | 3.1 | 3.3 | 2.5 | 2.3 | 1.6 | 1.3 | 1.7 | 1.3 | 1.3 | 1.5 | 2.7 | 1.9 | 1.5 | 1.8 |
| Business Fixed Investment | 5.7 | 7.4 | 1.4 | 3.7 | 2.9 | 0.7 | 0.9 | 2.0 | 2.2 | 1.7 | 1.4 | 1.2 | 4.6 | 1.6 | 1.6 | 1.3 |
| Residential Investment | -5.3 | -2.2 | 6.7 | 2.8 | 13.9 | -1.9 | -2.1 | -1.0 | 3.6 | 3.4 | 4.3 | 3.0 | 0.4 | 2.0 | 3.6 | 2.7 |
| Govt. Consumption & Investment | 4.8 | 3.3 | 5.8 | 4.6 | 1.2 | 0.3 | 1.4 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 4.6 | 0.9 | 0.4 | 0.3 |
| Net Exports (Bil. Chain 2012\$) | -1048.8 | -1039.0 | -1043.1 | -1032.7 | -1086.8 | -1112.1 | -1135.2 | -1138.9 | -1165.1 | -1172.9 | -1172.4 | -1169.0 | -1040.9 | -1118.3 | -1169.8 | -1168.2 |
| Inventory Investment (Bil. Chain 2012\$) | 24.1 | 13.2 | 68.9 | 48.6 | 31.4 | 38.6 | 45.9 | 46.1 | 49.6 | 52.8 | 56.7 | 59.1 | 38.7 | 40.5 | 54.6 | 62.5 |
| Consumer Prices (YOY) | 5.7 | 4.0 | 3.6 | 3.2 | 3.2 | 3.4 | 3.1 | 2.9 | 2.5 | 2.4 | 2.3 | 2.3 | 3.2 | 2.9 | 2.3 | 2.1 |
| Percent | | | | | | | | | | | | | | | | |
| Unemployment Rate | 3.5 | 3.6 | 3.7 | 3.8 | 3.8 | 3.9 | 4.0 | 4.2 | 4.3 | 4.4 | 4.6 | 4.7 | 3.6 | 4.0 | 4.5 | 4.6 |
| Federal Funds Rate | 4.875 | 5.125 | 5.375 | 5.375 | 5.375 | 5.375 | 5.125 | 4.875 | 4.625 | 4.375 | 4.125 | 3.875 | 5.375 | 4.875 | 3.875 | 3.375 |
| 10-Year Treasury Yield | 3.6 | 3.6 | 4.2 | 4.4 | 4.2 | 4.4 | 4.3 | 4.1 | 4.1 | 4.0 | 3.8 | 3.7 | 4.4 | 4.1 | 3.7 | 3.6 |

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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Summary

In conclusion:

Housing data, month-over-month and year-over-year, were negative. On a month-over-month basis total and multi-family monthly starts, total and single-family, and total and single-family expenditures were positive. Year-over-year, single-family starts, total and single-family completions, and total and single-family construction spending were positive. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability and the “lock-in” effect have obfuscated construction and sales.

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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