

The Virginia Tech–USDA Forest Service Housing Commentary: Section I February 2022



Delton Alderman

Acting Program Manager
Forest Products Business Unit
Forest Products Laboratory
USDA Forest Service



Madison, WI
608.259.6076



delton.r.alderman@usda.gov

Urs Buehlmann

Department of Sustainable
Biomaterials
College of Natural Resources &
Environment
Virginia Tech
Blacksburg, VA
540.231.9759
buehlmann@gmail.com

2022

Virginia Polytechnic Institute and State University

VCE-ANR

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Jewel E. Hairston, Administrator, 1890 Extension Program, Virginia State, Petersburg.

Table of Contents

| | |
|--|--|
| Slide 3: <u>Opening Remarks</u> | Slide 45: <u>Region SF House Sales & Price</u> |
| Slide 4: <u>Housing Scorecard</u> | Slide 49: <u>New SF House Sales x Category</u> |
| Slide 5: <u>USDA Housing Story Map</u> | Slide 57: <u>New SF Sales-Population Ratio</u> |
| Slide 6: <u>New Housing Starts</u> | Slide 67: <u>Construction Spending</u> |
| Slide 13: <u>Regional Housing Starts</u> | Slide 64: <u>Construction Spending Shares</u> |
| Slide 19: <u>New Housing Permits</u> | Slide 69: <u>Remodeling</u> |
| Slide 21: <u>Regional New Housing Permits</u> | Slide 85: <u>Existing House Sales</u> |
| Slide 26: <u>Housing Under Construction</u> | Slide 88: <u>U.S. Housing Prices & Finance</u> |
| Slide 29: <u>Regional Under Construction</u> | Slide 105: <u>Mortgage Finance & Outlook</u> |
| Slide 34: <u>Housing Completions</u> | Slide 107: <u>Summary</u> |
| Slide 36: <u>Regional Housing Completions</u> | Slide 108: <u>Virginia Tech Disclaimer</u> |
| Slide 38: <u>New Housing Sales</u> | Slide 109: <u>USDA Disclaimer</u> |
| Slide 43: <u>New Single-Family House Sales</u> | |

This report is a free monthly service of Virginia Tech. Past issues are available at:

<http://woodproducts.sbio.vt.edu/housing-report>.

To request the commentary, please email: buehlmann@gmail.com or delton.r.alderman@usda.gov

Opening Remarks

In aggregate, February 2022 housing data were mostly positive (see slide four). Housing starts were buoyed by an extraordinary surge in 2 to 4 unit starts (53,000 units), the most since August 2004 (67,000 units). Permits were subdued and this may be a result of the difficulties in completing houses. Total housing units under construction were the most since early 1973. Housing completions are problematic as they are restrained due to building materials and product shortages, combined with other factors. New and existing house sales also were subdued, primarily due to a lack of available inventory for sale. Increasing mortgage rates, in combination with record house prices, may reduce affordability for potential house buyers.

The April 14th Atlanta Fed GDPNow™ model forecast was an aggregate increase of 8.0% for total residential investment spending in Q1 2022. New private permanent site expenditures were projected at 12.0%; the improvement spending forecast was 5.9%; and the manufactured/mobile expenditures projection was an increase of 31.1% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“Even as the Fed has reduced its purchases of mortgage-backed securities, demand for houses remains high, and home builder confidence remains above pre-COVID-19 levels. The spread of the Delta and Omicron variants could potentially strengthen the case for remote work, therefore boosting housing demand. More vacant developed lots of land could be available for home building, driving an uptick in short-term housing supply to meet the strong demand.

Deloitte expects demand to cool due to reduced affordability in the medium term. Nominal home price increases and rising mortgage rates will both slow the interest of potential home buyers. Despite the slowdown, demand is likely to exceed supply in the medium term as builders continue to grapple with supply chain issues and land-use restrictions. The Deloitte baseline forecast expects house prices to rise faster than inflation through the forecast horizon.”² – Daniel Bachman, Senior Manager, Deloitte Services LP

This month’s commentary contains 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; 4/14/22;

² <https://www2.deloitte.com/us/en/insights/economy/us-economic-forecast/united-states-outlook-analysis.html?id=us:2em:3pa:economic-outlook:eng:di:032222; 3/21/22>

February 2022

Housing Scorecard

| | M/M | Y/Y |
|---|---------|---------|
| Housing Starts | ▲ 6.8% | ▲ 22.3% |
| Single-Family (SF) Starts | ▲ 5.7% | ▲ 13.7% |
| Multi-Family (MF) Starts* | ▲ 9.3% | ▲ 46.6% |
| Housing Permits | ▼ 1.6% | ▲ 8.1% |
| SF Permits | ▼ 0.7% | ▲ 5.2% |
| MF Permits* | ▼ 3.2% | ▲ 13.6% |
| Housing Under Construction | ▲ 1.9% | ▲ 22.8% |
| SF Under Construction | ▲ 1.3% | ▲ 28.3% |
| Housing Completions | ▲ 5.9% | ▼ 2.8% |
| SF Completions | ▲ 12.1% | ▲ 1.7% |
| New SF House Sales | ▼ 2.0% | ▼ 6.2% |
| Private Residential Construction Spending | ▲ 1.1% | ▲ 16.6% |
| SF Construction Spending | ▲ 2.5% | ▲ 20.0% |
| Existing House Sales ¹ | ▼ 7.2% | ▼ 2.4% |

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

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

USDA Forest Service Housing Story Map

USDA FOREST SERVICE HOUSING MARKET REVIEW

Forest Products Laboratory, Economics, Statistics and Life Cycle Analysis Research

USDA

US

WELCOME

MONTHLY HOUSING BRIEFS AND COMMENTARIES

CONSTRUCTION DATA

HOUSING METRICS AND THE WOOD RESOURCE

RESOURCES AND REFERENCES

USDA Forest Service Housing Market Review

Housing's Importance

The total value of all homes in the U.S. in 2017 was estimated at \$31.8 trillion.¹


The value of wood building materials consumed in new residential and remodeling construction was estimated at \$37.4 billion in 2018.²

Historic as well as current housing trends show that new, single-family construction is the greatest value-added wood products consuming sector and is a leading coincident economic indicator of the U.S. economy. The forest products sector helps sustain the social, economic, and ecological benefits of forest based industry in the United States. Product revenues sustain economic benefits that include jobs and income. Ecological and social benefits can be supported by timber revenue to landowners that help keep land in forests, and by forest treatments that can help maintain ecological functions. The degree to which the forest products sector helps sustain benefits is influenced by levels of demand and consumption of forest products and how technology, markets, and demand for timber translates into harvest of different species and sizes of trees in different regions.

[Melody Jones](#)
Natural Resources Specialist
USDA Forest Service, Northern Research Station (NRS),
Sustaining Forests in a Changing Environment

[Dr. Delton Alderman](#)
Research Forest Products Technologist,
USDA Forest Service, Forest Products Laboratory (FPL),
Economics, Statistics and Life Cycle Analysis Research

[Dr. Brian Brashaw](#)
Program Manager
USDA Forest Service, Forest Products Laboratory (FPL)
Forest Products Marketing Unit



USDA Forest Service Housing Market Review

Each story map's tab contains a compilation of housing information. The 'Construction Data' tab is interactive and allows one the capability to gather and view US Census-Construction data at the national or metropolitan statistical area (MSA) level.

The story map is available at the following link:

<https://www.arcgis.com/apps/MapSeries/index.html?appid=9553db0ea36140d28076399e898dc693>

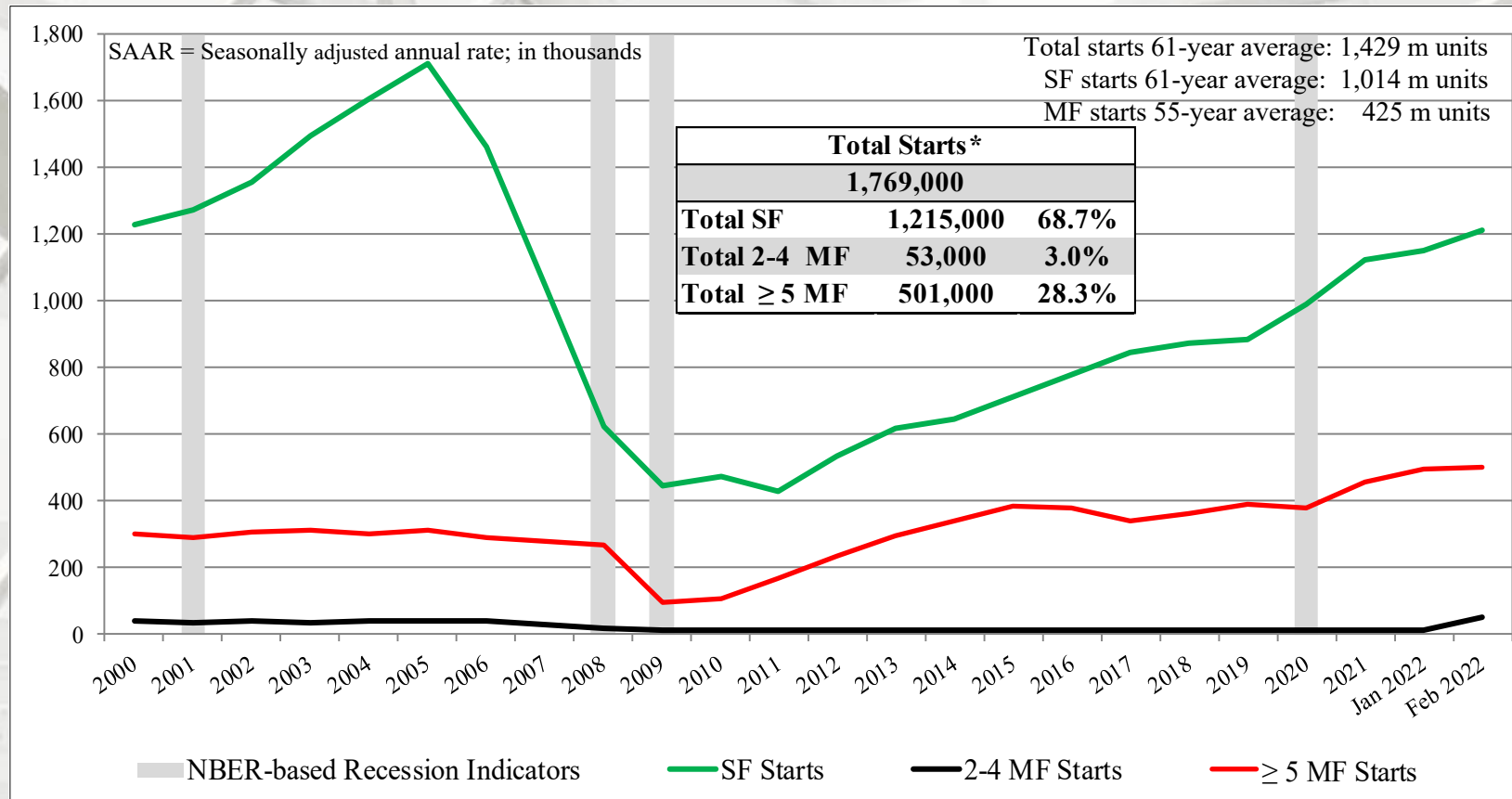
New Housing Starts

| | Total Starts* | SF Starts | MF 2-4 Starts** | MF ≥5 Starts |
|------------|---------------|-----------|-----------------|--------------|
| February | 1,769,000 | 1,215,000 | 53,000 | 501,000 |
| January | 1,657,000 | 1,150,000 | 10,000 | 497,000 |
| 2021 | 1,447,000 | 1,069,000 | 13,000 | 365,000 |
| M/M change | 6.8% | 5.7% | 430.0% | 0.8% |
| Y/Y change | 22.3% | 13.7% | 307.7% | 37.3% |

* 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

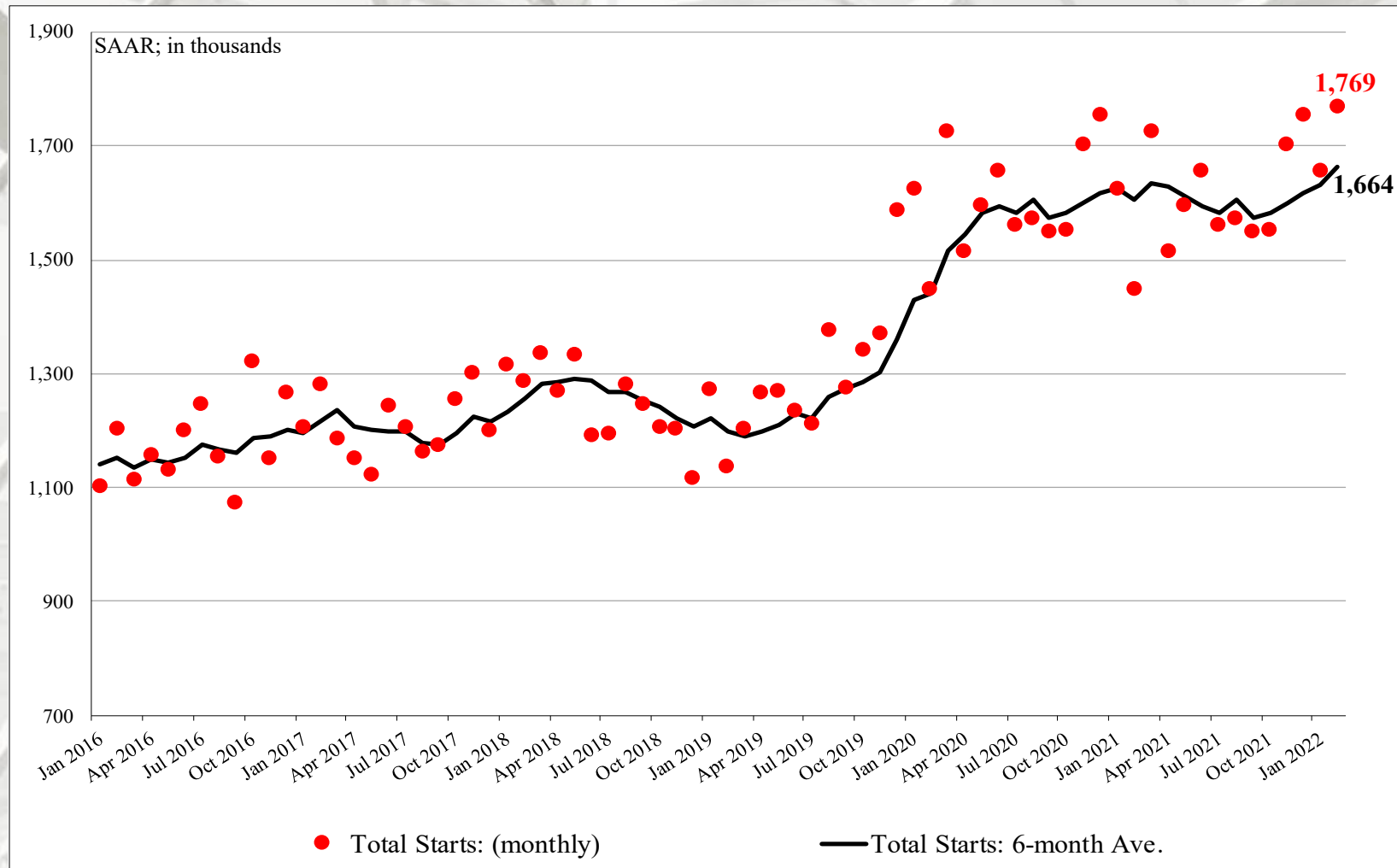


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: $((\text{Total starts} - (\text{SF} + \geq \text{MF})))$.

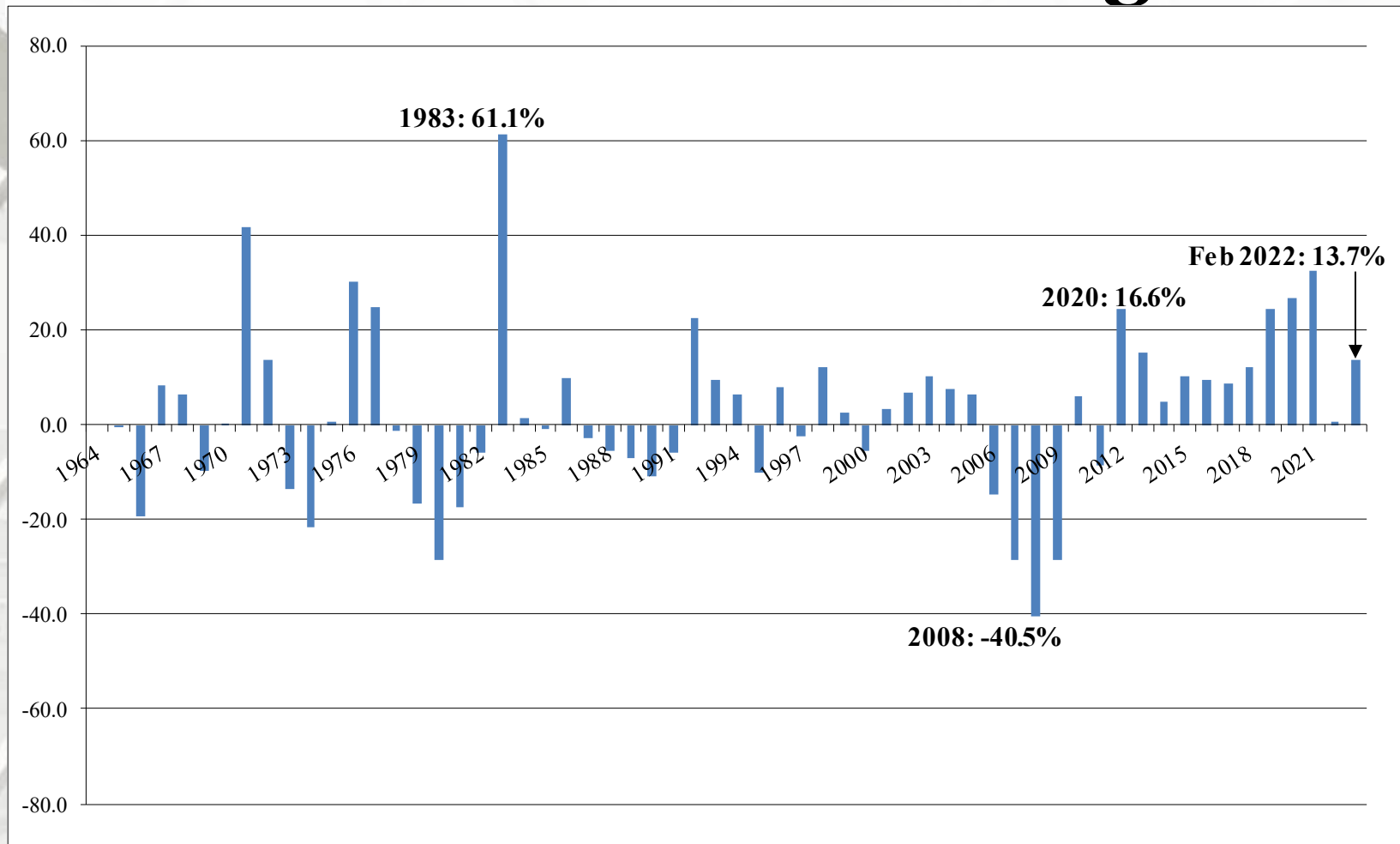
* Percentage of total starts.

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

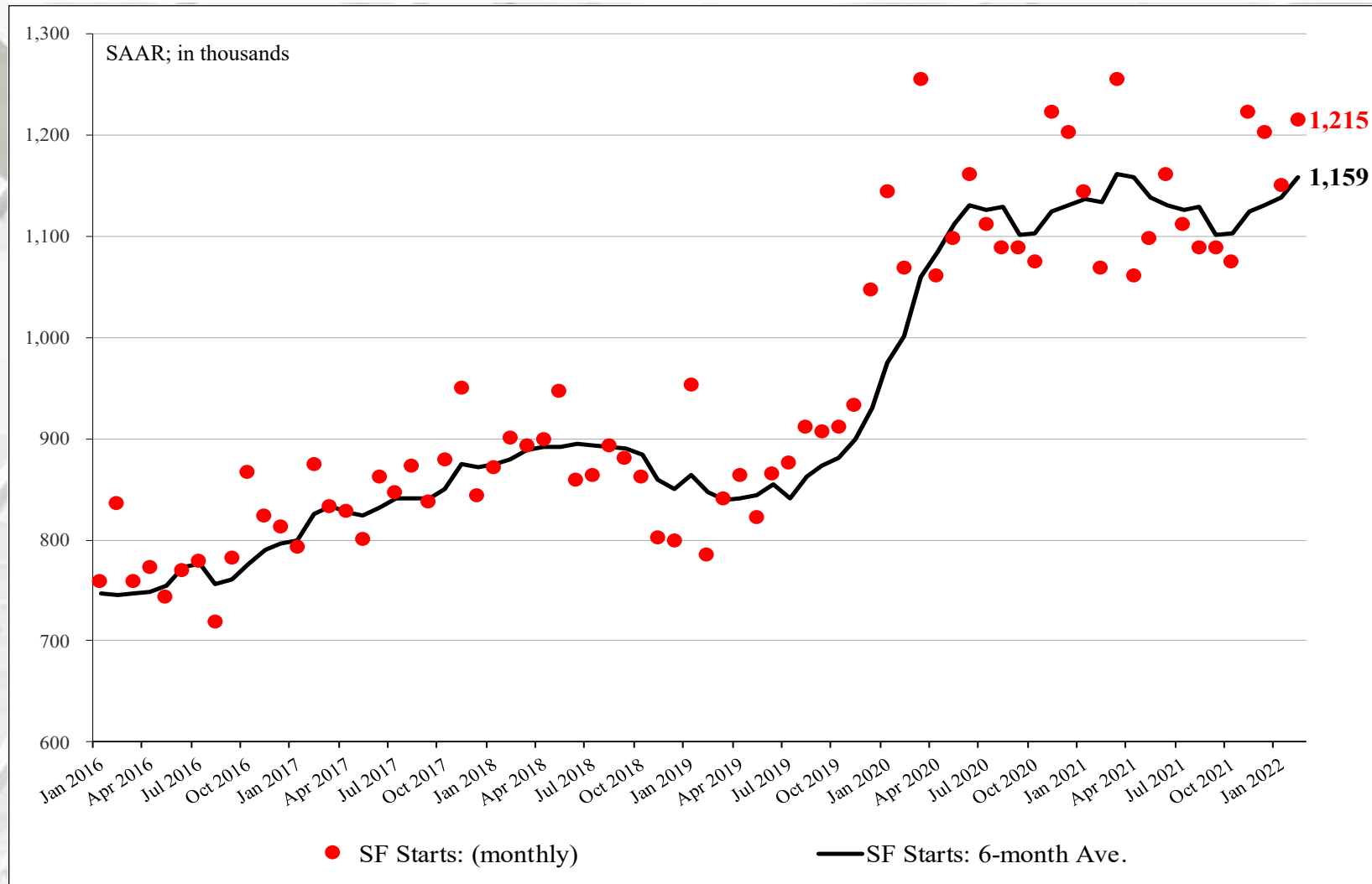
Total Housing Starts: Six-Month Average



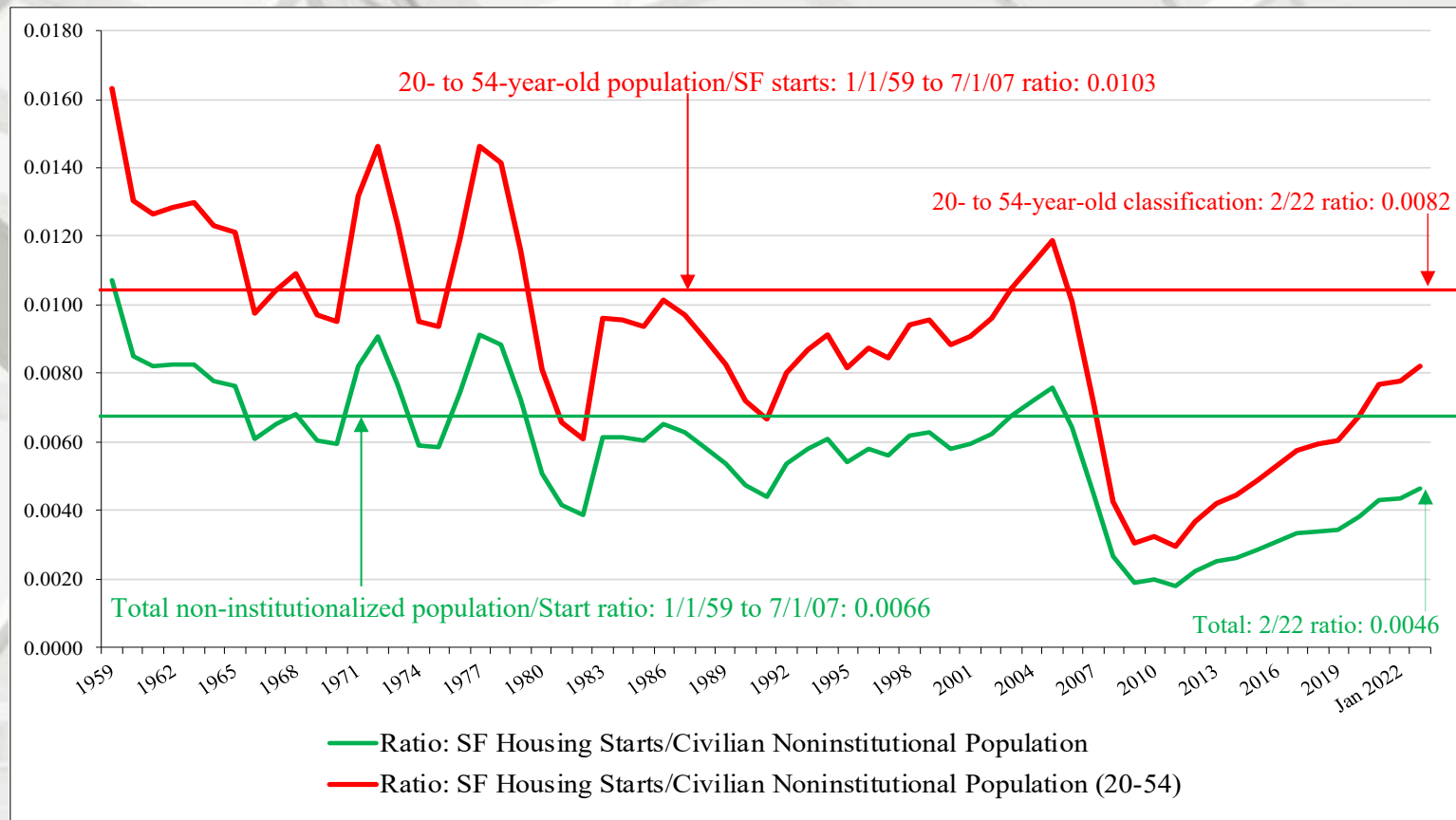
SF Housing Starts: Year-over-Year Change



SF Housing Starts: Six-Month Average



New SF Starts

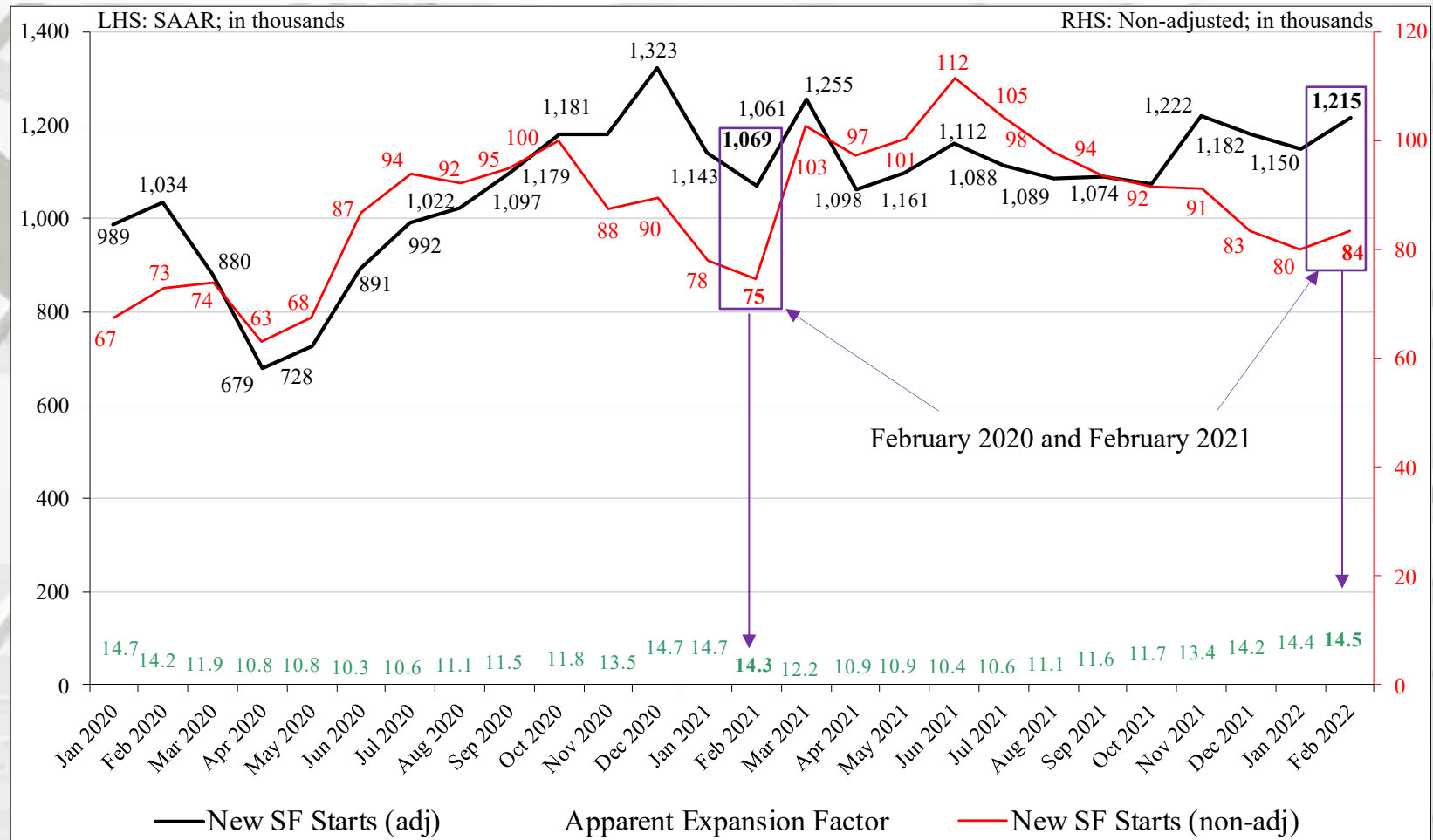


New SF starts adjusted for the US population

From February 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066. In February 2022 it was 0.0046 – an increase from January (0.0044). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in February 2021 it was 0.0082 – also an increase from January (0.0078). New SF construction in the 20 to 54 age category is less than what is necessary for changes in the population (i.e., under-building).

However, on a long-term basis, some studies report normalized long-term demand at 900,000 to 1,000,000 new SF house sales 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** |
|------------|----------|---------|---------|
| February | 130,000 | 81,000 | 49,000 |
| January | 101,000 | 49,000 | 52,000 |
| 2021 | 109,000 | 69,000 | 40,000 |
| M/M change | 28.7% | 65.3% | -5.8% |
| Y/Y change | 19.3% | 17.4% | 22.5% |
| | MW Total | MW SF | MW MF |
| February | 226,000 | 151,000 | 75,000 |
| January | 196,000 | 143,000 | 53,000 |
| 2021 | 136,000 | 108,000 | 28,000 |
| M/M change | 15.3% | 5.6% | 41.5% |
| Y/Y change | 66.2% | 39.8% | 167.9% |

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).

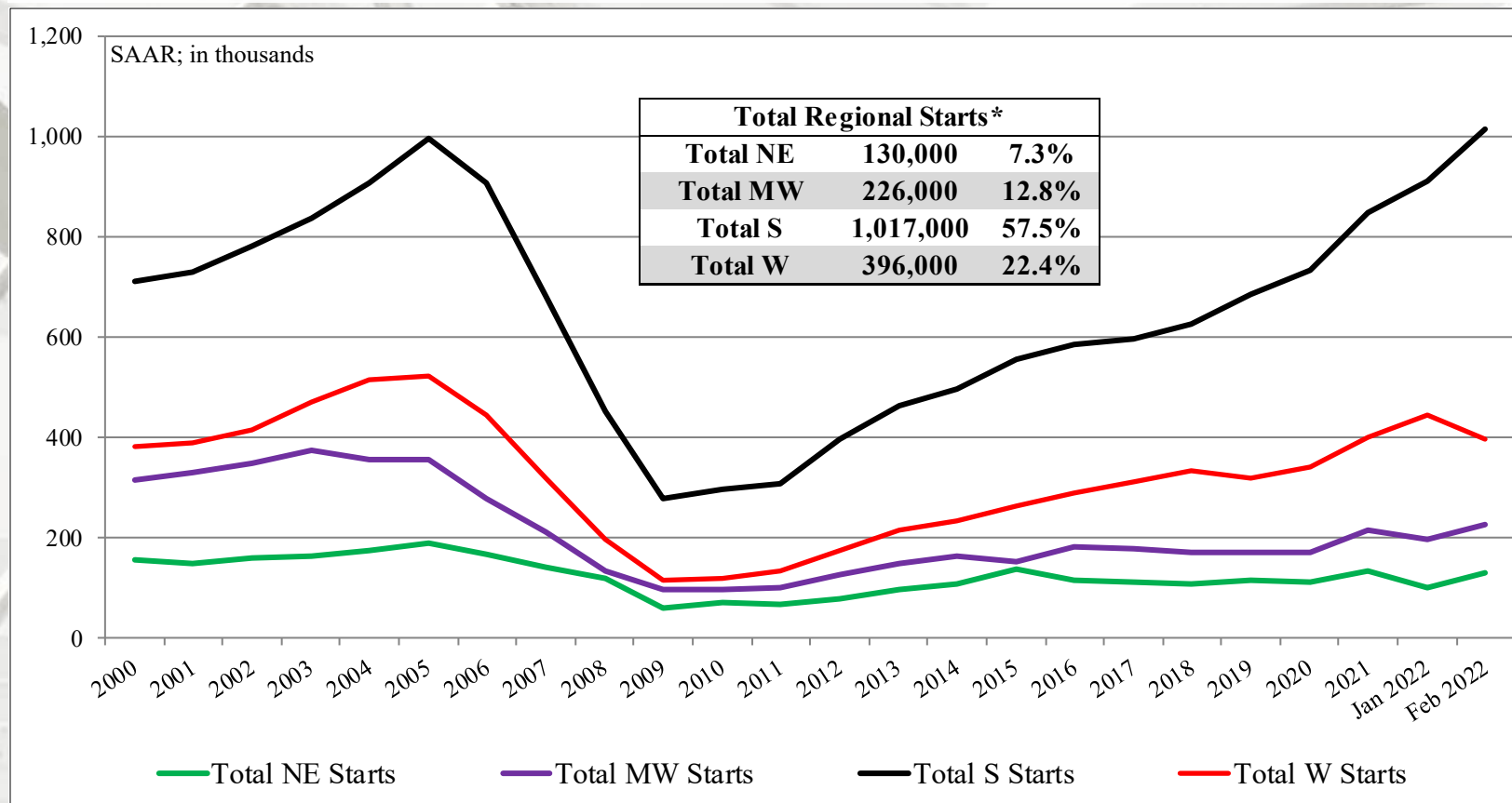
New Housing Starts by Region

| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| February | 1,017,000 | 688,000 | 329,000 |
| January | 913,000 | 654,000 | 259,000 |
| 2021 | 771,000 | 581,000 | 190,000 |
| M/M change | 11.4% | 5.2% | 27.0% |
| Y/Y change | 31.9% | 18.4% | 73.2% |
| | W Total | W SF | W MF |
| February | 396,000 | 295,000 | 101,000 |
| January | 447,000 | 304,000 | 143,000 |
| 2021 | 431,000 | 311,000 | 120,000 |
| M/M change | -11.4% | -3.0% | -29.4% |
| Y/Y change | -8.1% | -5.1% | -15.8% |

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

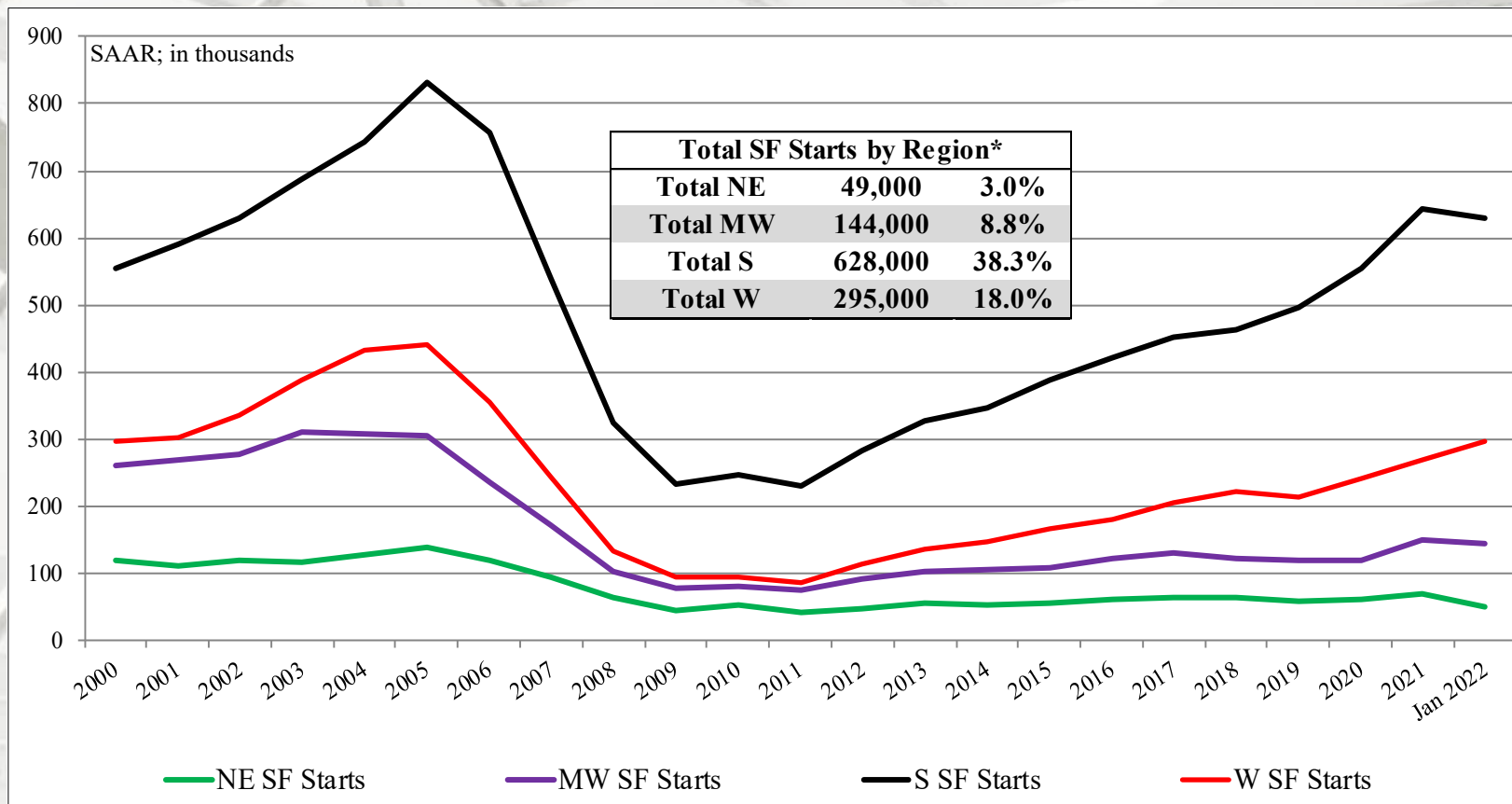


NE = Northeast, MW = Midwest, S = South, W = West

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

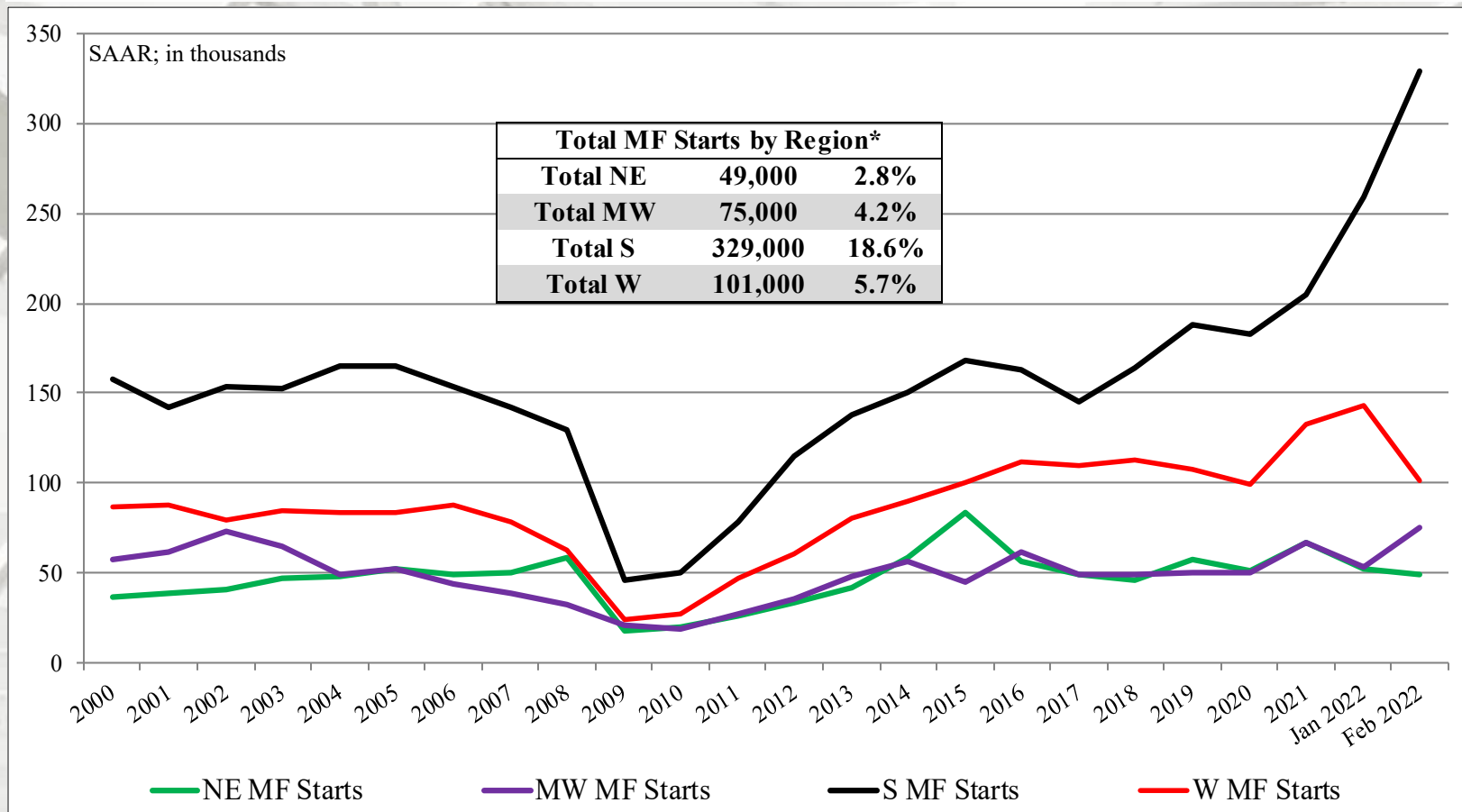


NE = Northeast, MW = Midwest, S = South, W = West

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

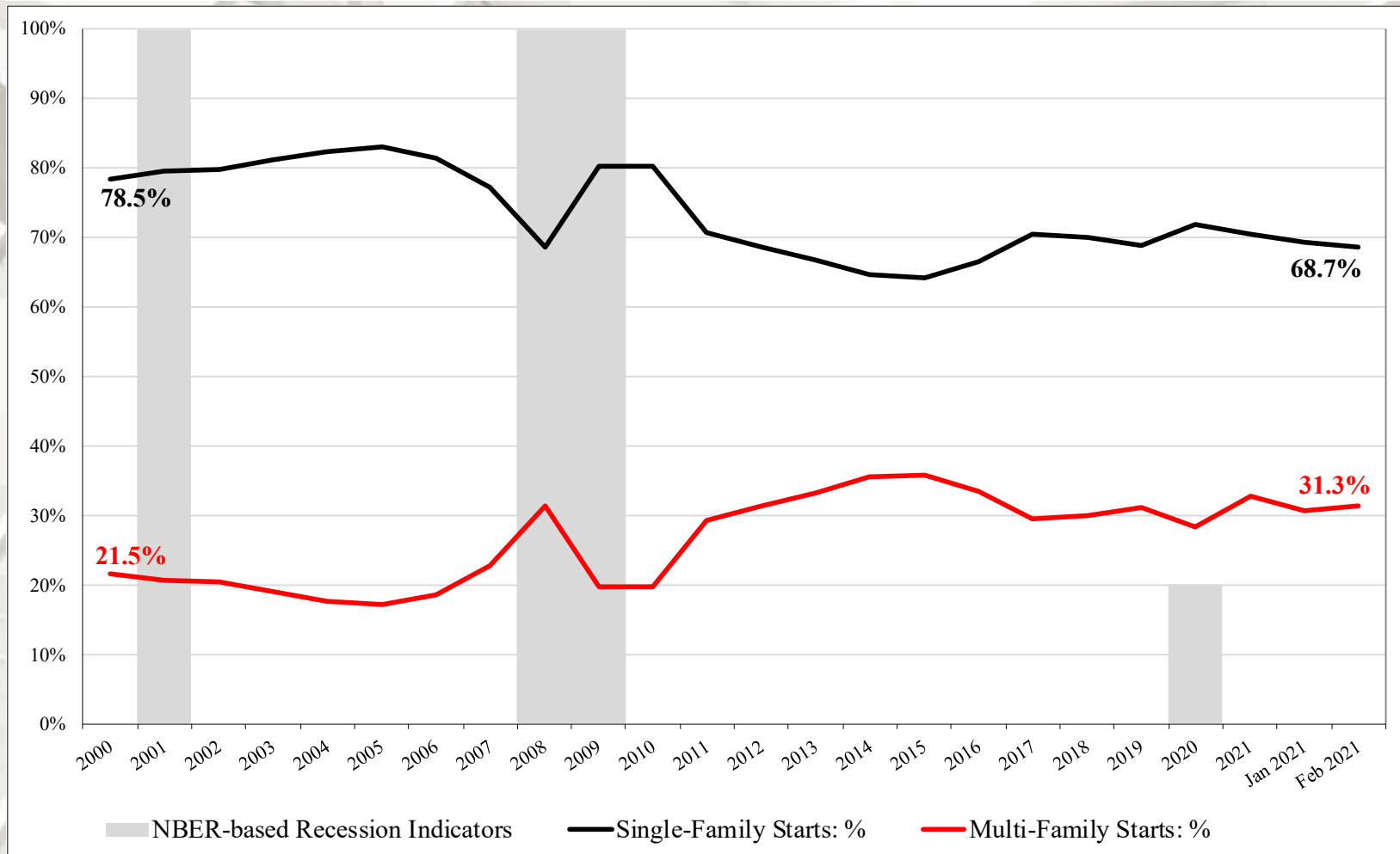


NE = Northeast, MW = Midwest, S = South, W = West

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 (%)



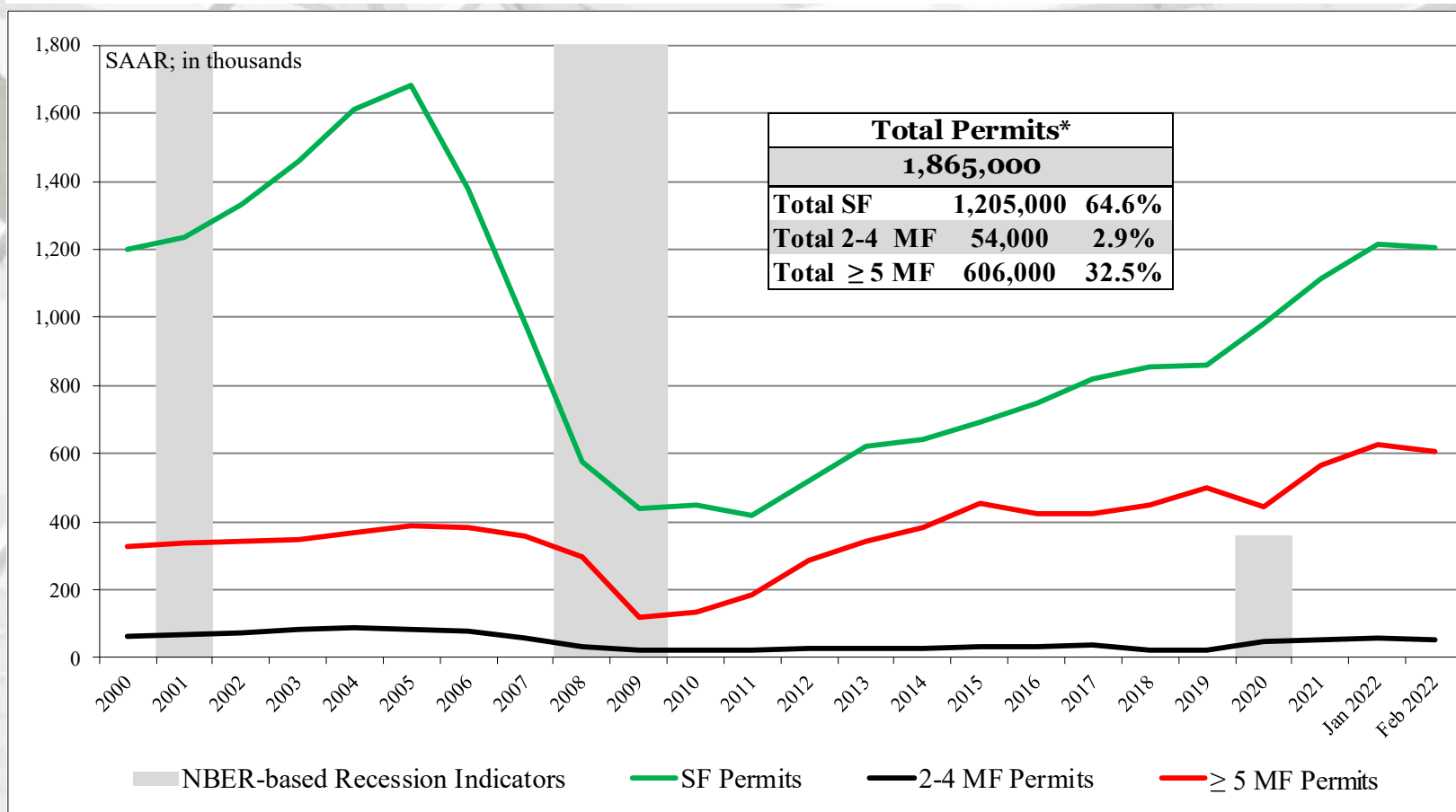
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

| | Total Permits* | SF Permits | MF 2-4 unit Permits | MF ≥ 5 unit Permits |
|------------|----------------|------------|---------------------|---------------------|
| February | 1,865,000 | 1,205,000 | 54,000 | 606,000 |
| January | 1,895,000 | 1,213,000 | 57,000 | 625,000 |
| 2021 | 1,726,000 | 1,145,000 | 48,000 | 533,000 |
| M/M change | -1.6% | -0.7% | -5.3% | -3.0% |
| Y/Y change | 8.1% | 5.2% | 12.5% | 13.7% |

* 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** |
|------------|-----------|---------|---------|
| February | 171,000 | 73,000 | 98,000 |
| March | 141,000 | 71,000 | 70,000 |
| 2021 | 170,000 | 78,000 | 92,000 |
| M/M change | 21.3% | 2.8% | 40.0% |
| Y/Y change | 0.6% | -6.4% | 6.5% |
| | MW Total* | MW SF | MW MF** |
| February | 251,000 | 151,000 | 100,000 |
| March | 275,000 | 160,000 | 115,000 |
| 2021 | 250,000 | 172,000 | 78,000 |
| M/M change | -8.7% | -5.6% | -13.0% |
| Y/Y change | 0.4% | -12.2% | 28.2% |

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

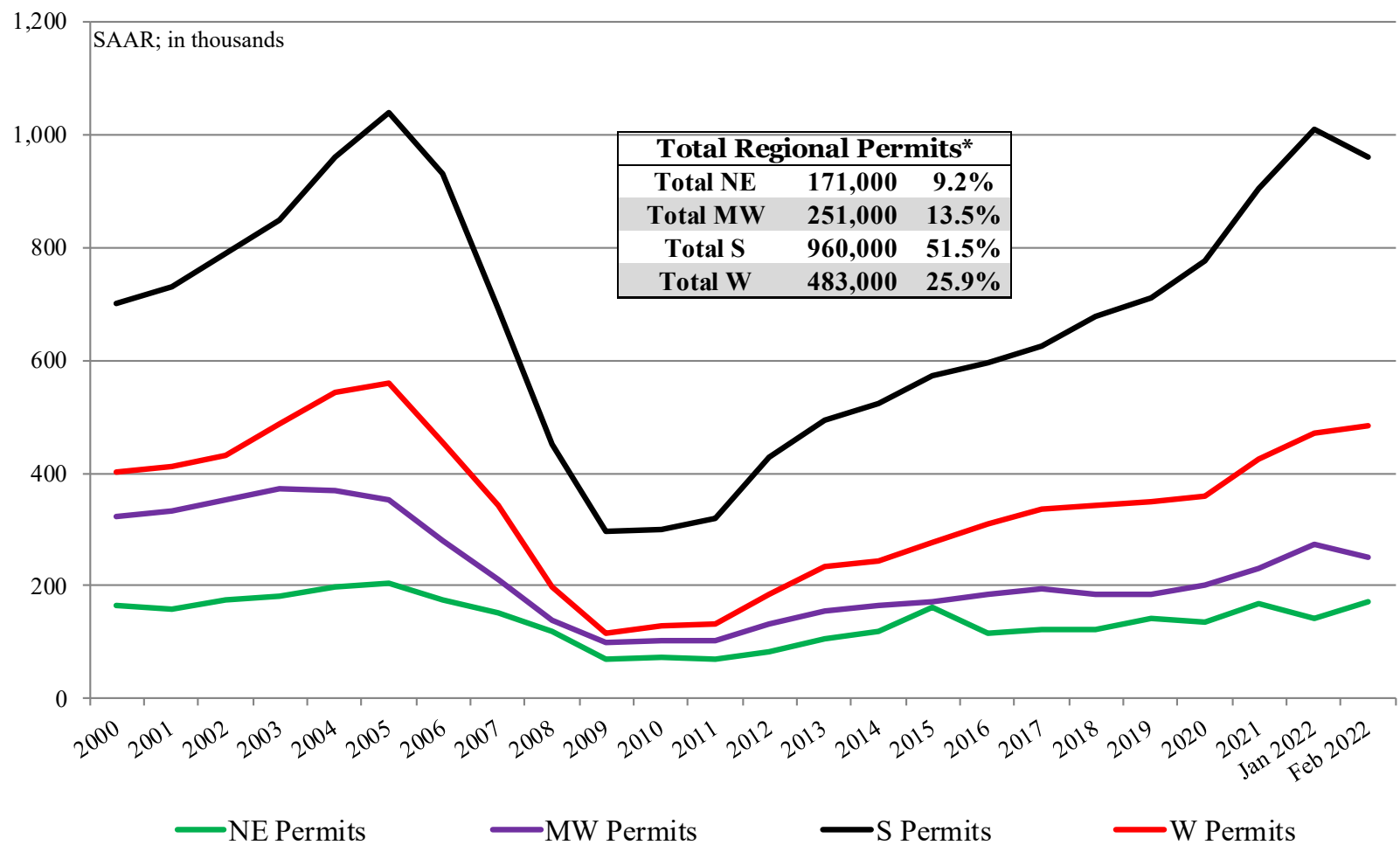
| | S Total* | S SF | S MF** |
|------------|-----------------|-------------|---------------|
| February | 960,000 | 693,000 | 267,000 |
| March | 1,009,000 | 685,000 | 324,000 |
| 2021 | 863,000 | 609,000 | 254,000 |
| M/M change | -4.9% | 1.2% | -17.6% |
| Y/Y change | 11.2% | 13.8% | 5.1% |
| | W Total* | W SF | W MF** |
| February | 483,000 | 288,000 | 195,000 |
| March | 470,000 | 297,000 | 173,000 |
| 2021 | 443,000 | 286,000 | 157,000 |
| M/M change | 2.8% | -3.0% | 12.7% |
| Y/Y change | 9.0% | 0.7% | 24.2% |

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).

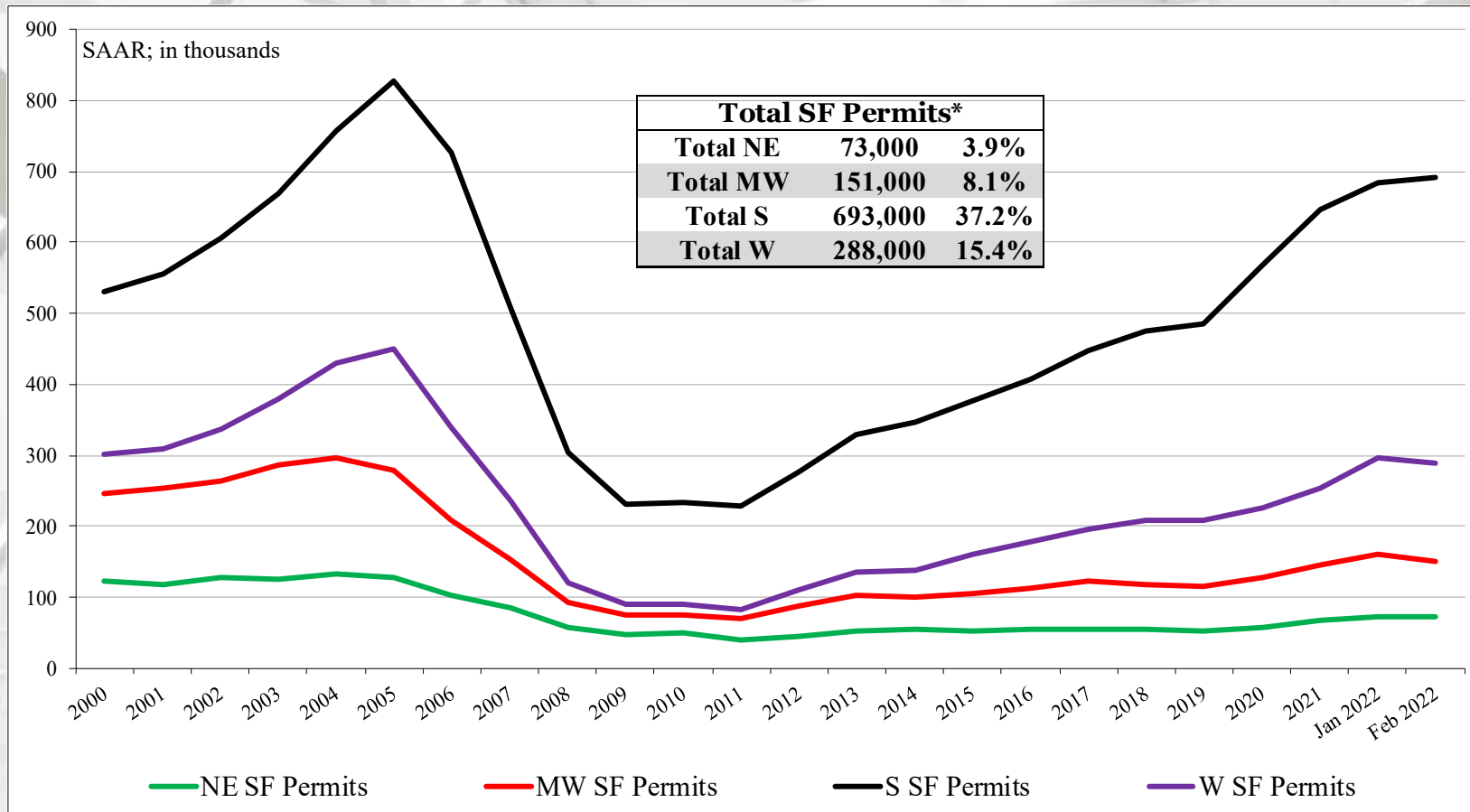
Total Housing Permits by Region



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

* Percentage of total permits.

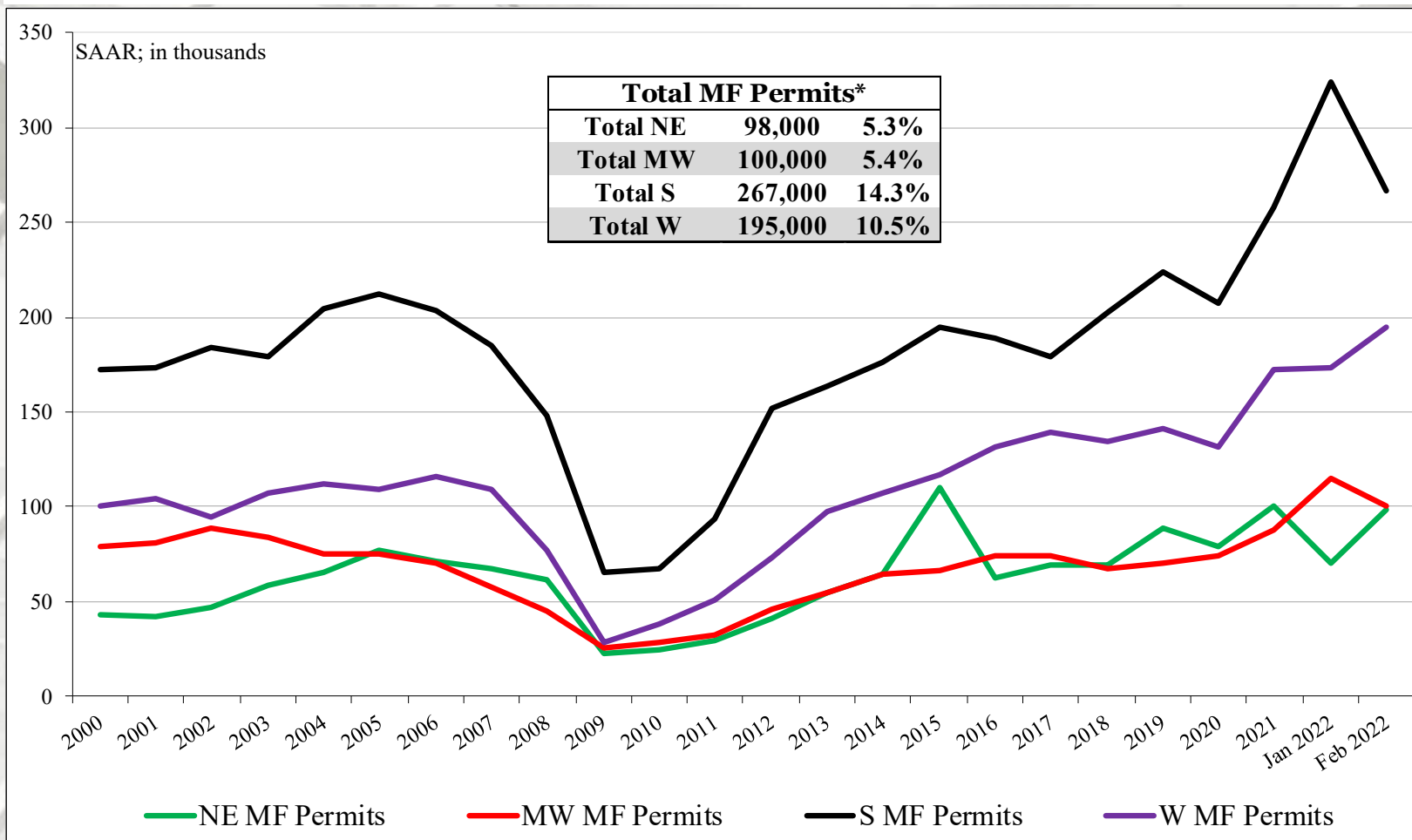
SF Housing Permits by Region



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.

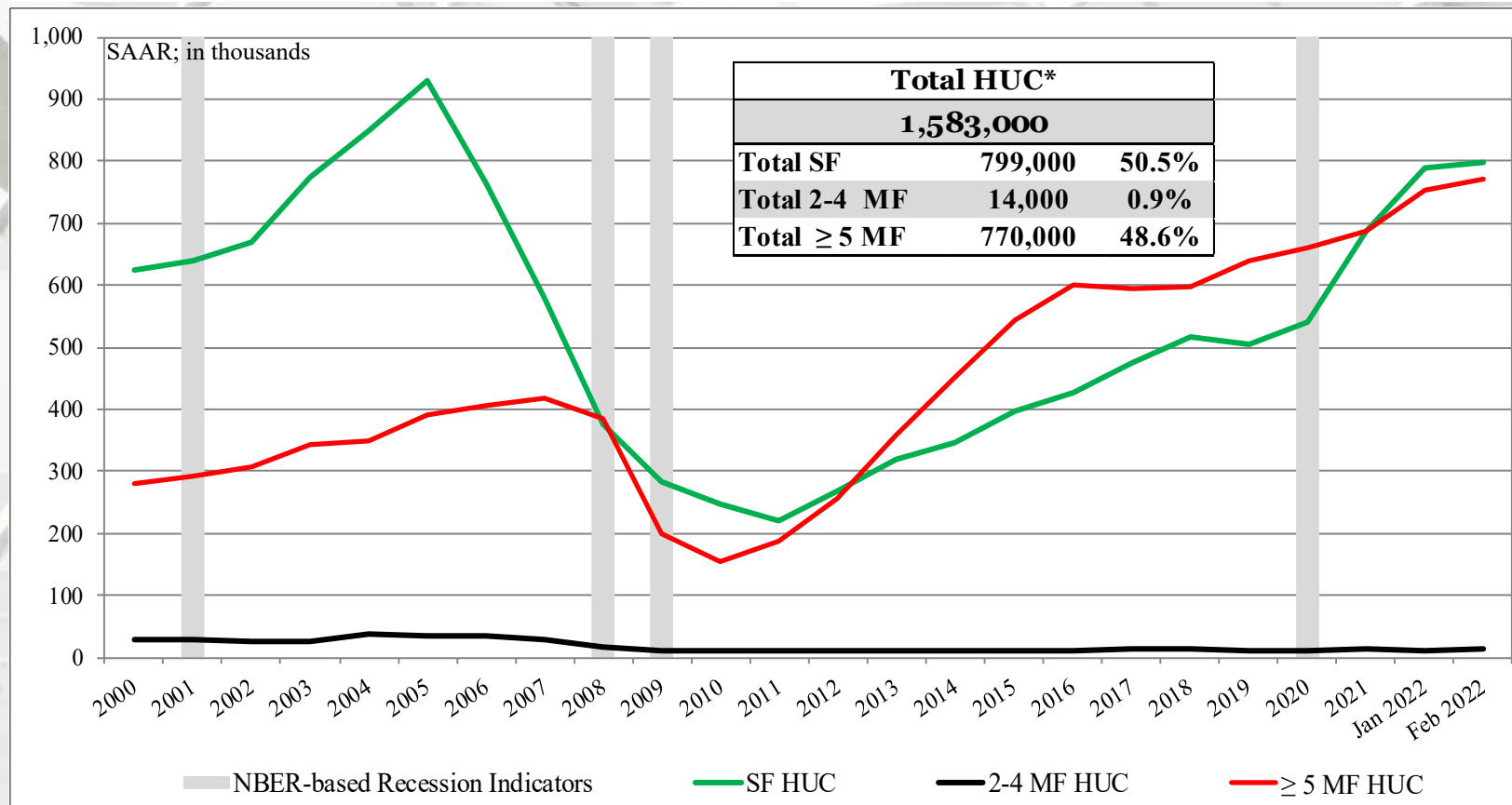
New Housing Under Construction (HUC)

| | Total HUC* | SF HUC | MF 2-4 unit** HUC | MF ≥ 5 unit HUC |
|------------|------------|---------|----------------------|-----------------|
| February | 1,583,000 | 799,000 | 14,000 | 770,000 |
| January | 1,553,000 | 789,000 | 12,000 | 752,000 |
| 2021 | 1,289,000 | 623,000 | 11,000 | 655,000 |
| M/M change | 1.9% | 1.3% | 16.7% | 2.4% |
| Y/Y change | 22.8% | 28.3% | 27.3% | 17.6% |

All housing under construction 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

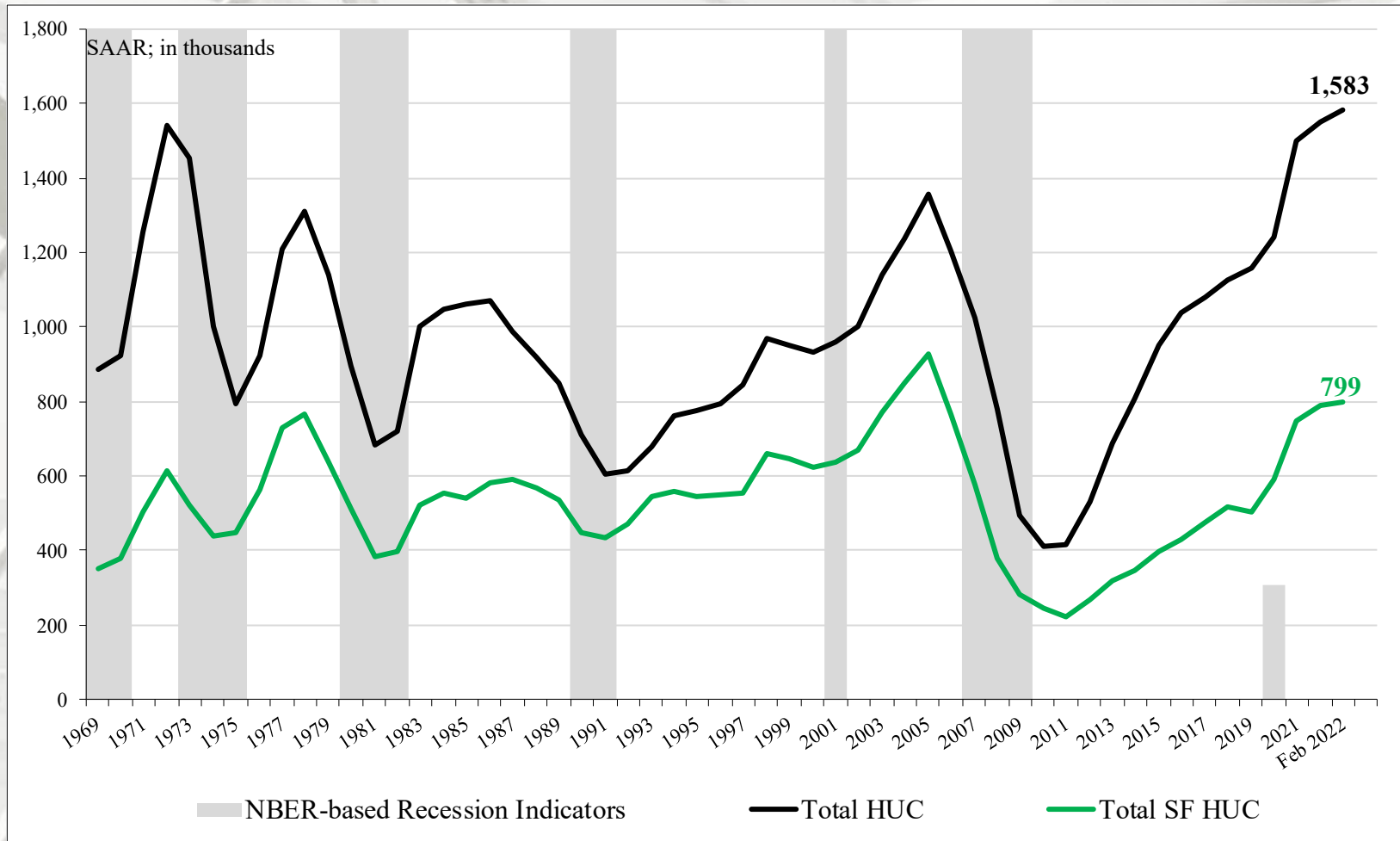


US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF HUC)).

* 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).

Total Housing Under Construction



In February total housing units under construction (HUC) were 1,583,000 units, the most since February 1973: 1,628,000 units. February's SF HUC reading was substantially less than reported for February 2006 (990,000 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** |
|------------|----------|---------|---------|
| February | 203,000 | 63,000 | 140,000 |
| January | 200,000 | 62,000 | 138,000 |
| 2021 | 181,000 | 58,000 | 123,000 |
| M/M change | 1.5% | 1.6% | 1.4% |
| Y/Y change | 12.2% | 8.6% | 13.8% |
| | MW Total | MW SF | MW MF |
| February | 210,000 | 113,000 | 97,000 |
| January | 205,000 | 111,000 | 94,000 |
| 2021 | 163,000 | 85,000 | 78,000 |
| M/M change | 2.4% | 1.8% | 3.2% |
| Y/Y change | 28.8% | 32.9% | 24.4% |

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).

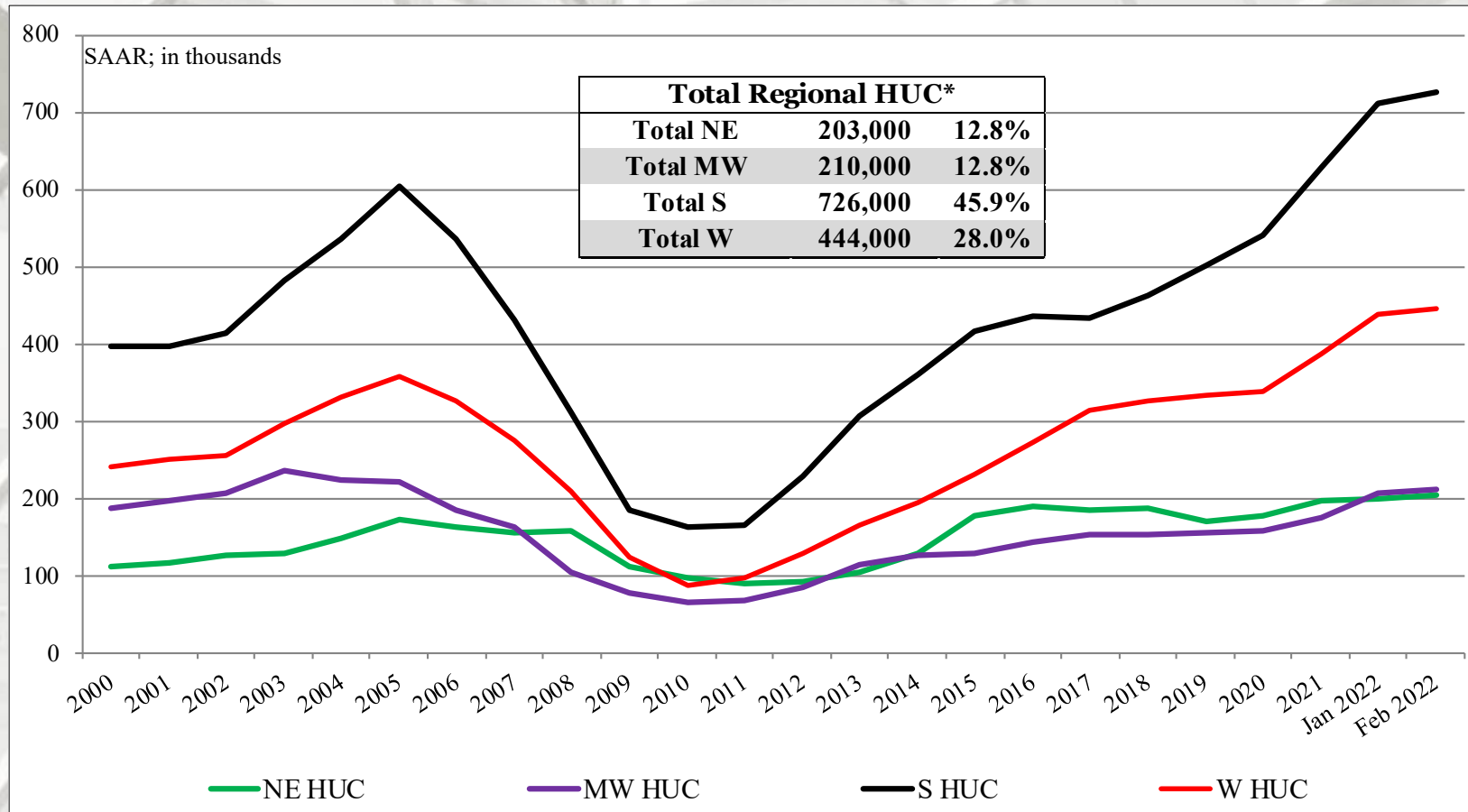
New Housing Under Construction by Region

| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| February | 726,000 | 418,000 | 308,000 |
| January | 711,000 | 414,000 | 297,000 |
| 2021 | 581,000 | 309,000 | 272,000 |
| M/M change | 2.1% | 1.0% | 3.7% |
| Y/Y change | 25.0% | 35.3% | 13.2% |
| | W Total | W SF | W MF |
| February | 444,000 | 205,000 | 239,000 |
| January | 437,000 | 202,000 | 235,000 |
| 2021 | 364,000 | 171,000 | 193,000 |
| M/M change | 1.6% | 1.5% | 1.7% |
| Y/Y change | 22.0% | 19.9% | 23.8% |

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

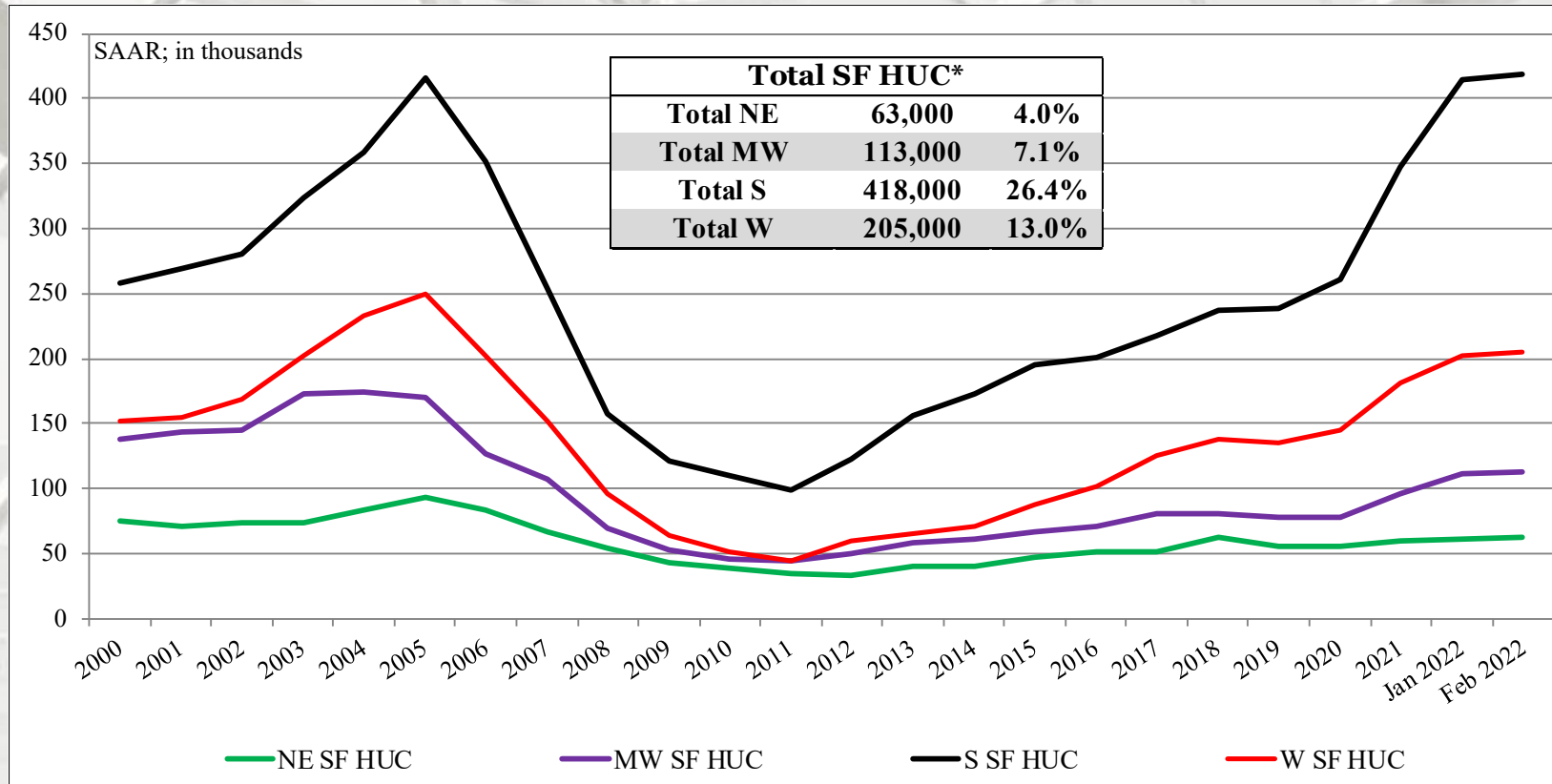


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing under construction units.

SF Housing Under Construction by Region

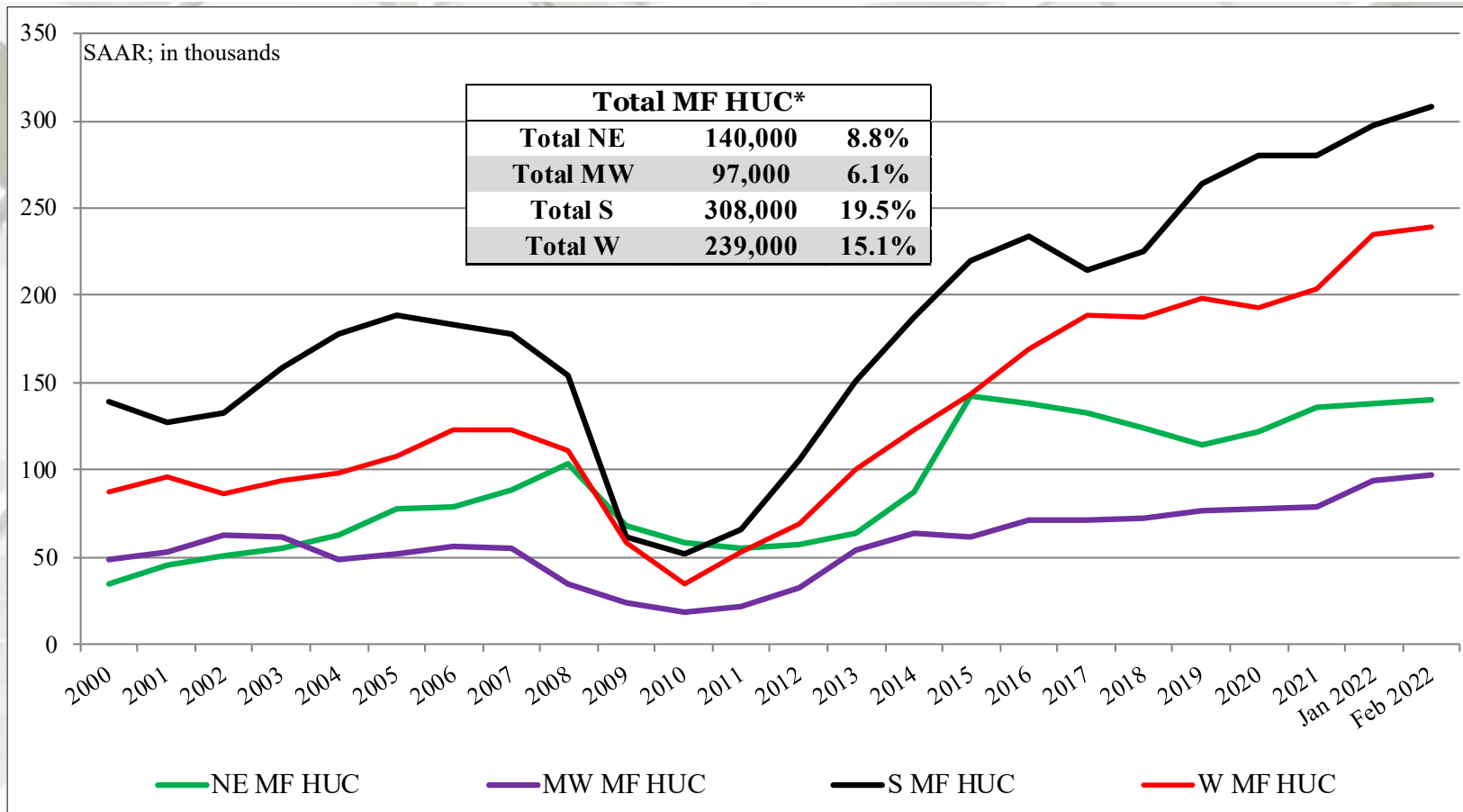


NE = Northeast, MW = Midwest, S = South, W = West.

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

* Percentage of total housing under construction units.

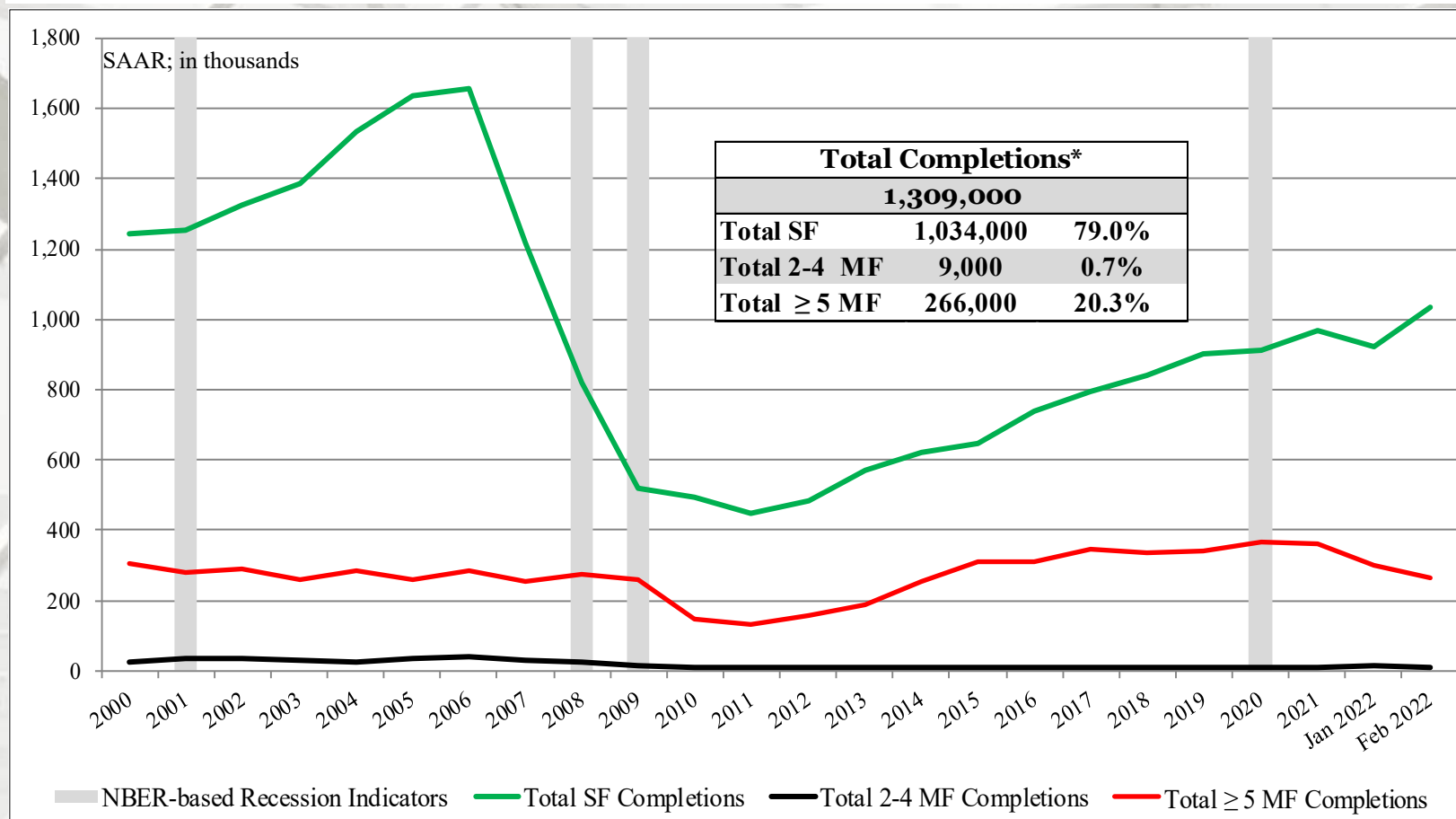
New Housing Completions

| | Total Completions* | SF Completions | MF 2-4 unit** Completions | MF ≥ 5 unit Completions |
|------------|--------------------|----------------|---------------------------|-------------------------|
| February | 1,309,000 | 1,034,000 | 9,000 | 266,000 |
| January | 1,236,000 | 922,000 | 14,000 | 300,000 |
| 2021 | 1,347,000 | 1,017,000 | 10,000 | 320,000 |
| M/M change | 5.9% | 12.1% | -35.7% | -11.3% |
| Y/Y change | -2.8% | 1.7% | -10.0% | -16.9% |

* 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** |
|------------|----------|---------|---------|
| February | 89,000 | 60,000 | 29,000 |
| January | 80,000 | 49,000 | 31,000 |
| 2021 | 121,000 | 63,000 | 58,000 |
| M/M change | 11.3% | 22.4% | -6.5% |
| Y/Y change | -26.4% | -4.8% | -50.0% |
| | MW Total | MW SF | MW MF |
| February | 192,000 | 129,000 | 63,000 |
| January | 139,000 | 126,000 | 13,000 |
| 2021 | 188,000 | 152,000 | 36,000 |
| M/M change | 38.1% | 2.4% | 384.6% |
| Y/Y change | 2.1% | -15.1% | 75.0% |

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

New Housing Completions by Region

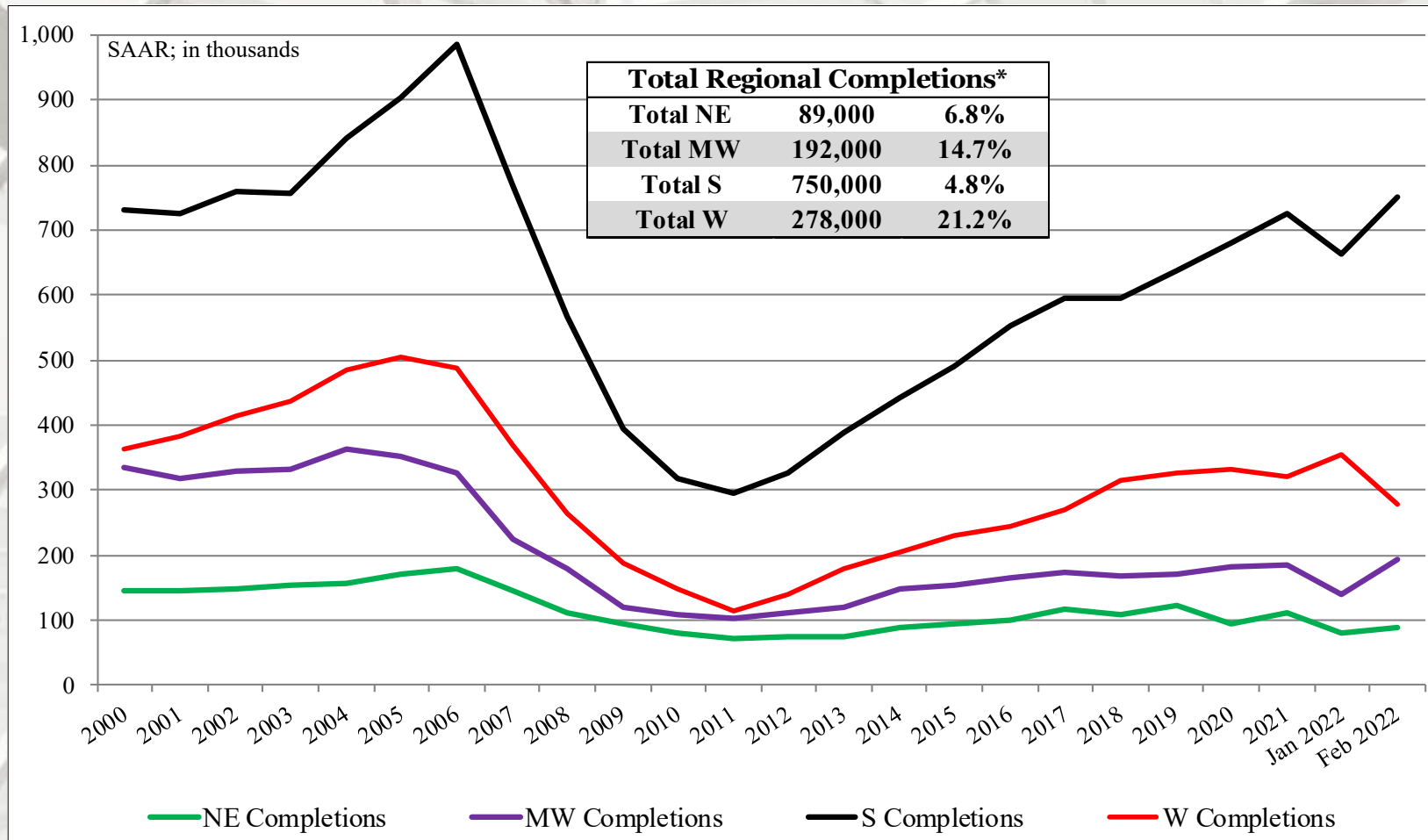
| | S Total | S SF | S MF** |
|------------|----------------|-------------|---------------|
| February | 750,000 | 625,000 | 125,000 |
| January | 662,000 | 508,000 | 154,000 |
| 2021 | 723,000 | 563,000 | 160,000 |
| M/M change | 13.3% | 23.0% | -18.8% |
| Y/Y change | 3.7% | 11.0% | -21.9% |
| | W Total | W SF | W MF |
| February | 278,000 | 220,000 | 58,000 |
| January | 355,000 | 239,000 | 116,000 |
| 2021 | 315,000 | 239,000 | 76,000 |
| M/M change | -21.7% | -7.9% | -50.0% |
| Y/Y change | -11.7% | -7.9% | -23.7% |

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

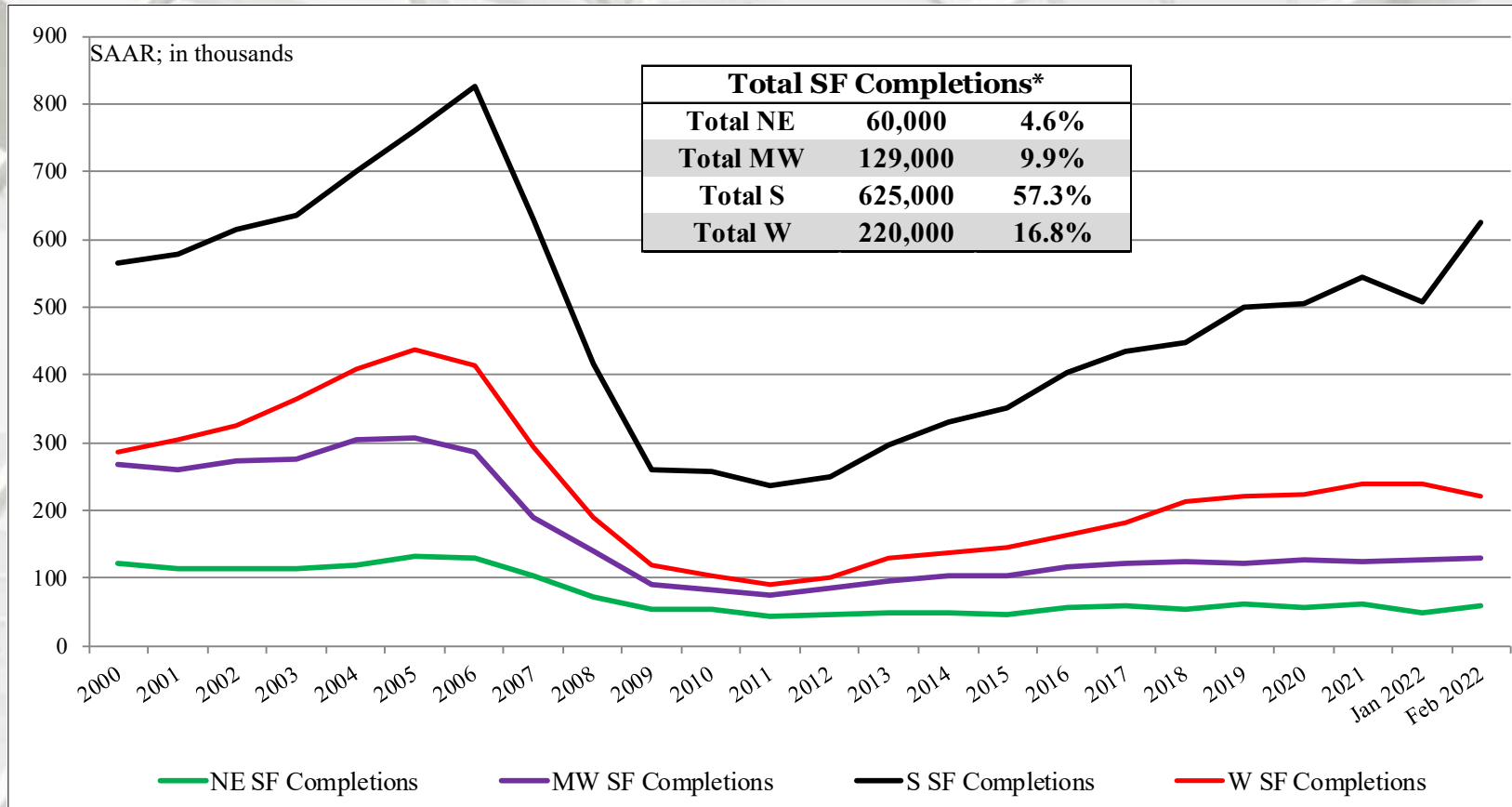
Total Housing Completions by Region



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

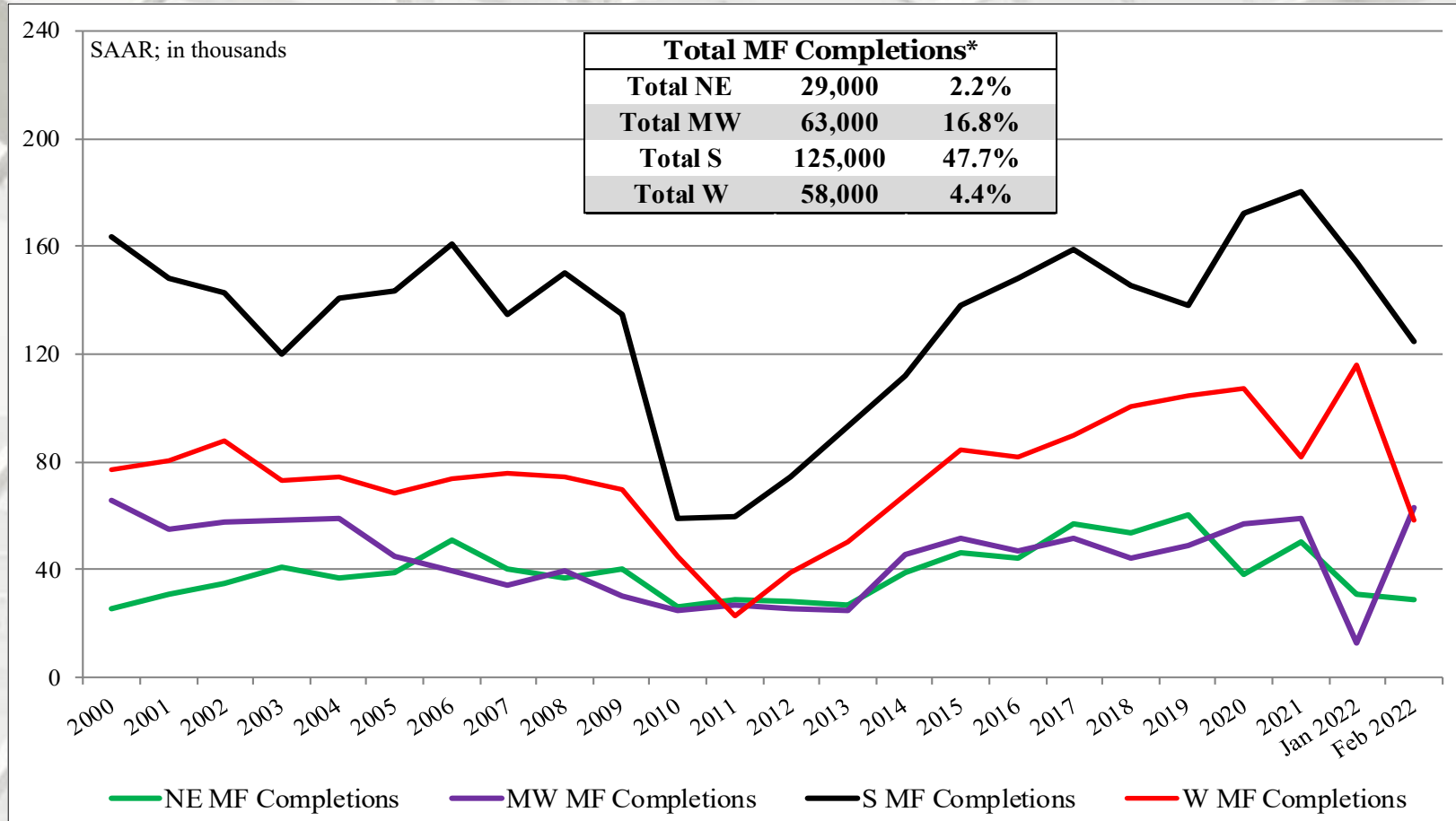


NE = Northeast, MW = Midwest, S = South, W = West

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

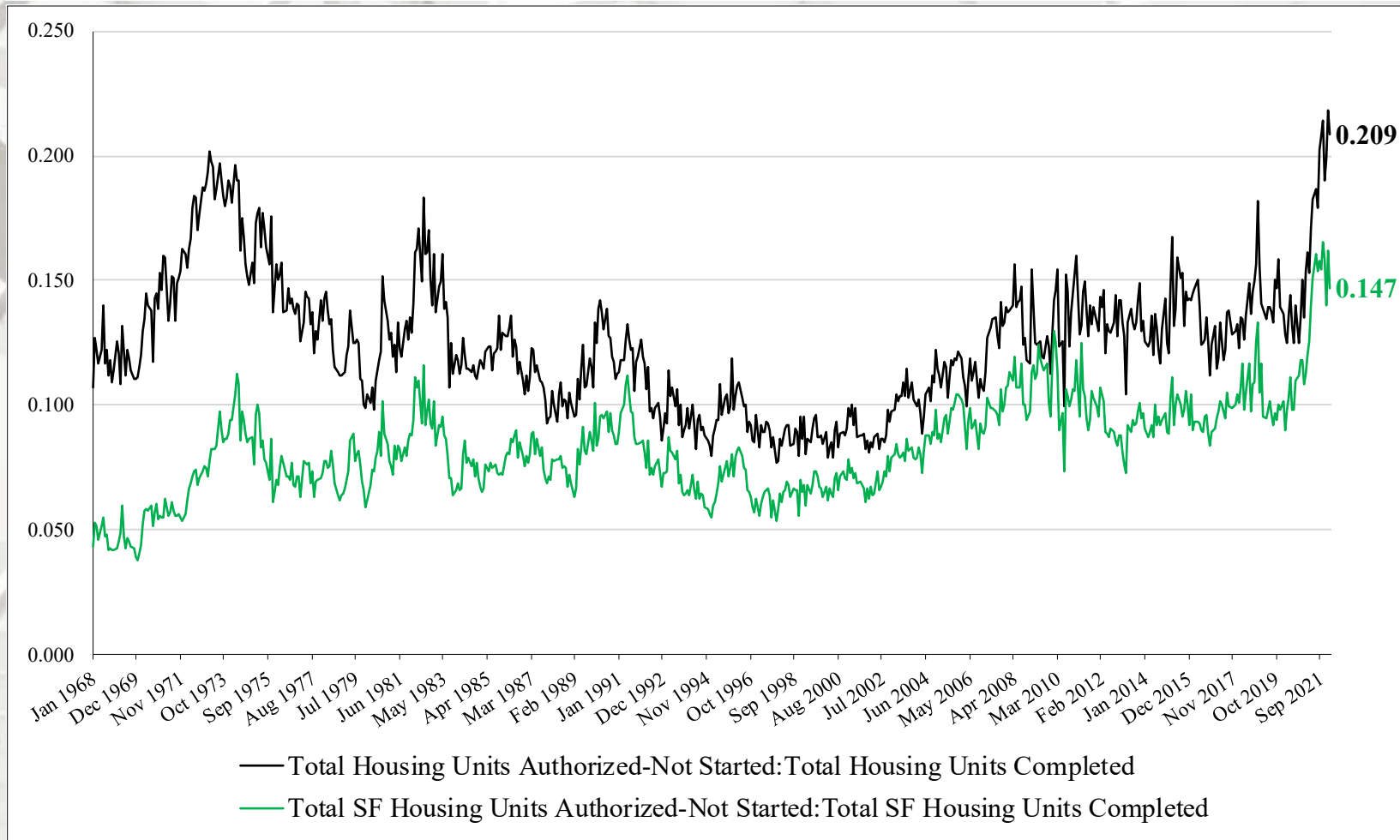


NE = Northeast, MW = Midwest, S = South, W = West

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

Ratio of Housing Units Authorized & Not Started to Housing Units Completed: M/M



Authorized, Not Started to Housing Completions

The ratio of SF houses authorized-not started to SF completed is the greatest in the history of this data series. The total housing unit ratio is the greatest since February 1973 (0.202). Authorized units not started increased to 273,000 in February.

The primary reason is 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 |
|------------|---------------|--------------|------------|----------------|
| February | 772,000 | \$400,600 | \$511,000 | 6.3 |
| January | 788,000 | \$427,400 | \$494,000 | 6.1 |
| 2021 | 823,000 | \$362,000 | \$407,500 | 4.5 |
| M/M change | -2.0% | -6.3% | 3.4% | 3.3% |
| Y/Y change | -6.2% | 10.7% | 25.4% | 40.0% |

* 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 less than the consensus forecast³ of 810 m (range: 775 m to 827 m). The past three month's new SF sales data also were revised:

November initial: 744 m, revised to 753 m.

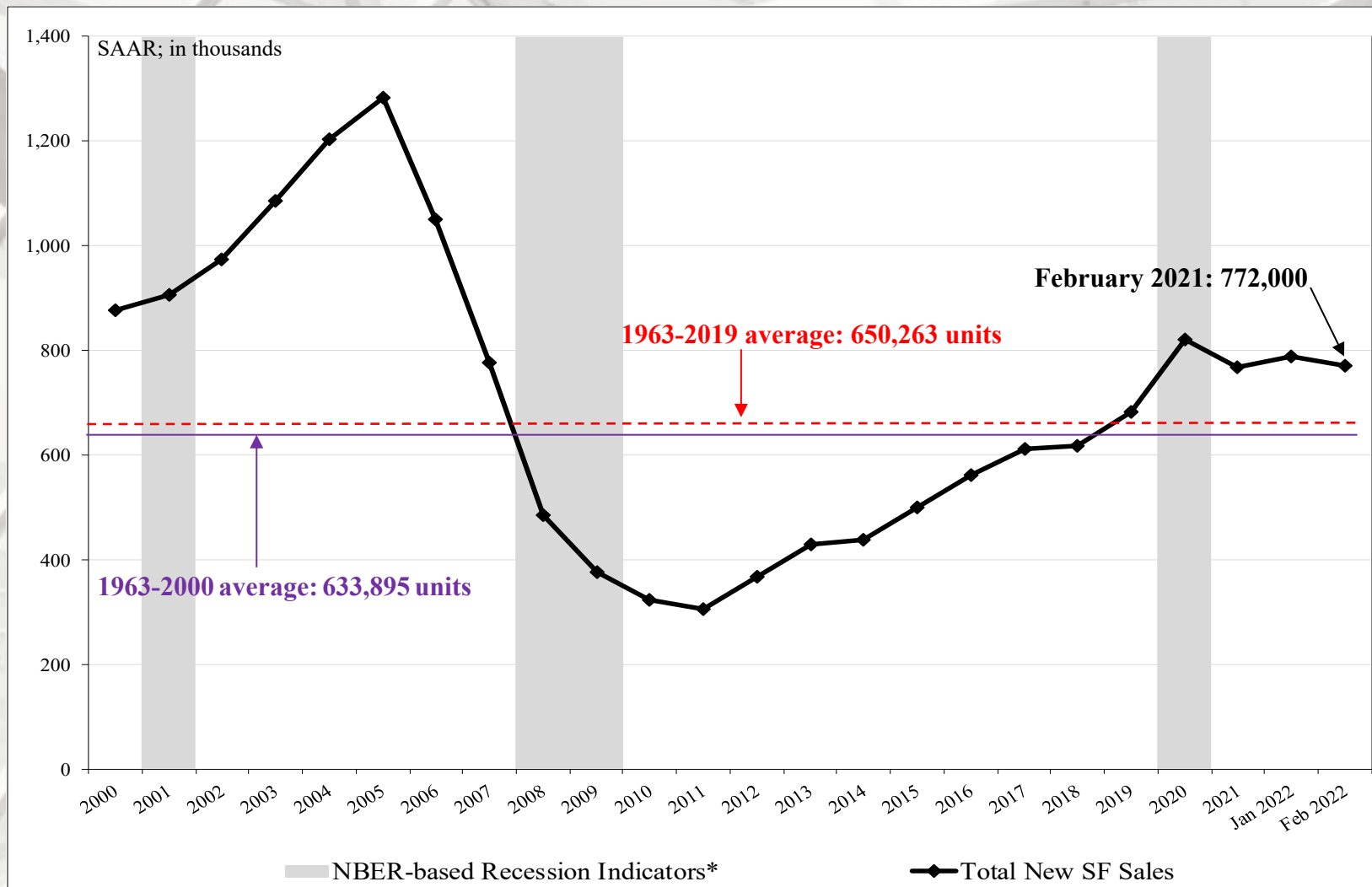
December initial: 811 m, revised to 860 m.

January initial: 801 m, revised to 788m.

Sources: ¹ <https://www.census.gov/construction/nrs/index.html>; 3/24/21; ² <https://www.census.gov/construction/nrs/pdf/newressales.pdf>

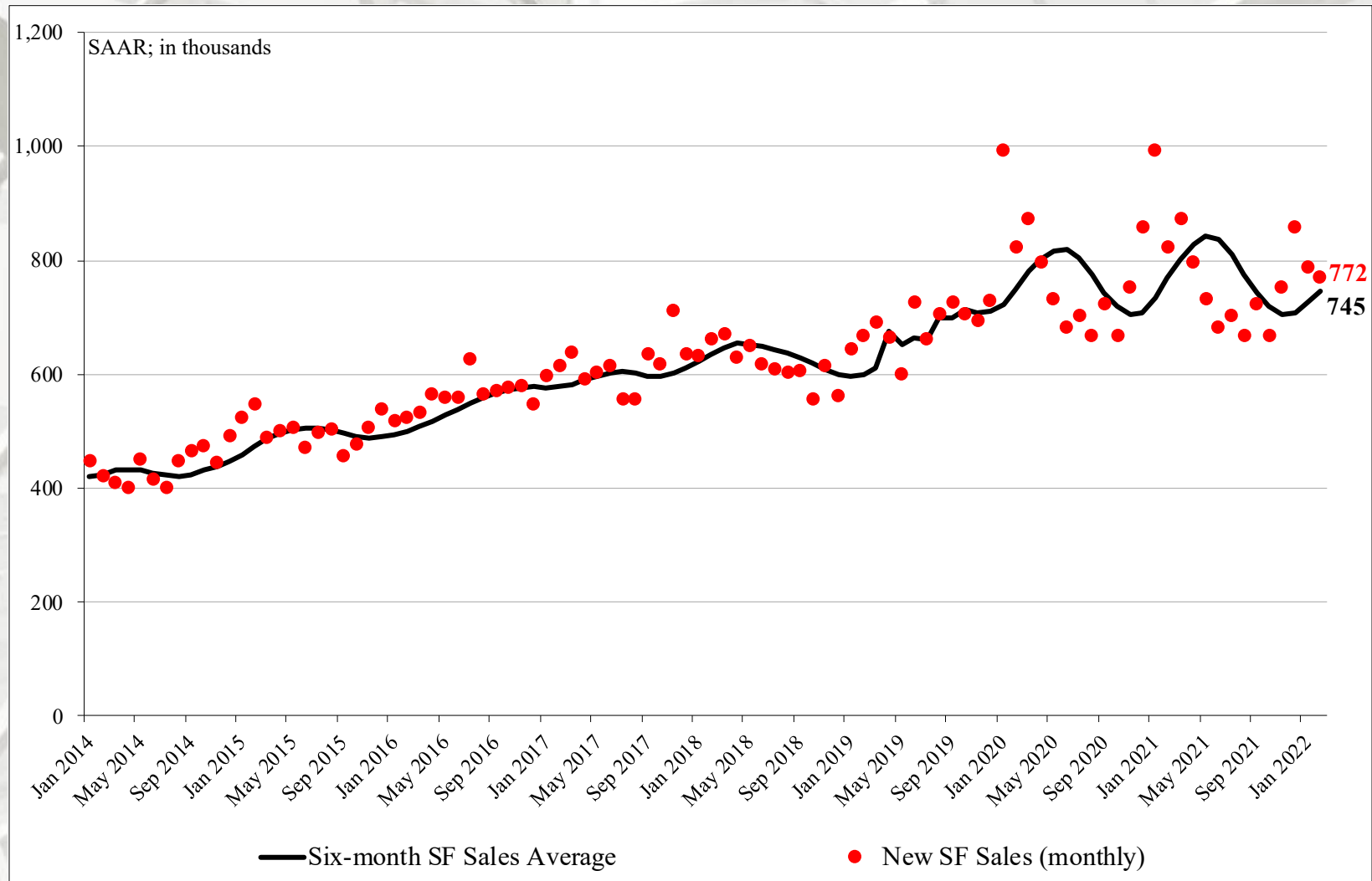
³ <http://us.econoday.com>; 3/24/21

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 | | | |
|-----------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------|
| February | 43,000 | 84,000 | 451,000 | 194,000 | | | |
| January | 27,000 | 79,000 | 459,000 | 223,000 | | | |
| 2021 | 40,000 | 104,000 | 465,000 | 214,000 | | | |
| M/M change | 59.3% | 6.3% | -1.7% | -13.0% | | | |
| Y/Y change | 7.5% | -19.2% | -3.0% | -9.3% | | | |
| | <div>\$150 - ≤ \$150m</div> | <div>\$200 - \$199.9m</div> | <div>\$300 - \$299.9m</div> | <div>\$300 - \$399.9m</div> | <div>\$400 - \$499.9m</div> | <div>\$500 - \$749.9m</div> | <div>≥ \$750m</div> |
| February ^{1,2,3,4} | 1,000 | 1,000 | 12,000 | 21,000 | 10,000 | 15,000 | 6,000 |
| January | 1,000 | 1,000 | 7,000 | 20,000 | 13,000 | 17,000 | 6,000 |
| 2021 | 1,000 | 3,000 | 18,000 | 20,000 | 13,000 | 10,000 | 5,000 |
| M/M change | 0.0% | 0.0% | 71.4% | 5.0% | -23.1% | -11.8% | 0.0% |
| Y/Y change | 0.0% | -66.7% | -33.3% | 5.0% | -23.1% | 50.0% | 20.0% |
| New SF sales: % | 1.5% | 1.5% | 18.5% | 32.3% | 15.4% | 23.1% | 9.2% |

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 February not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

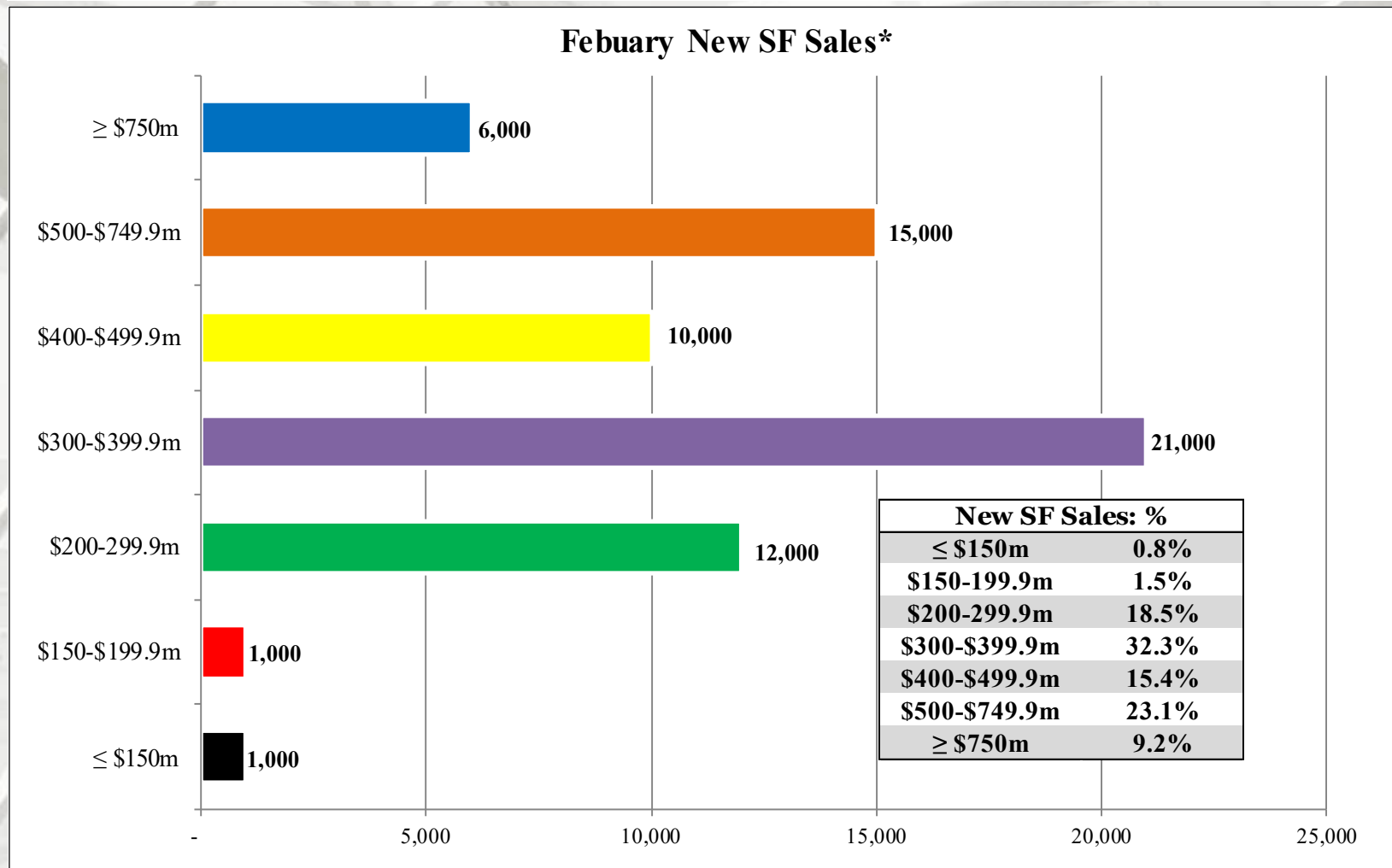
⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 3/24/22;

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

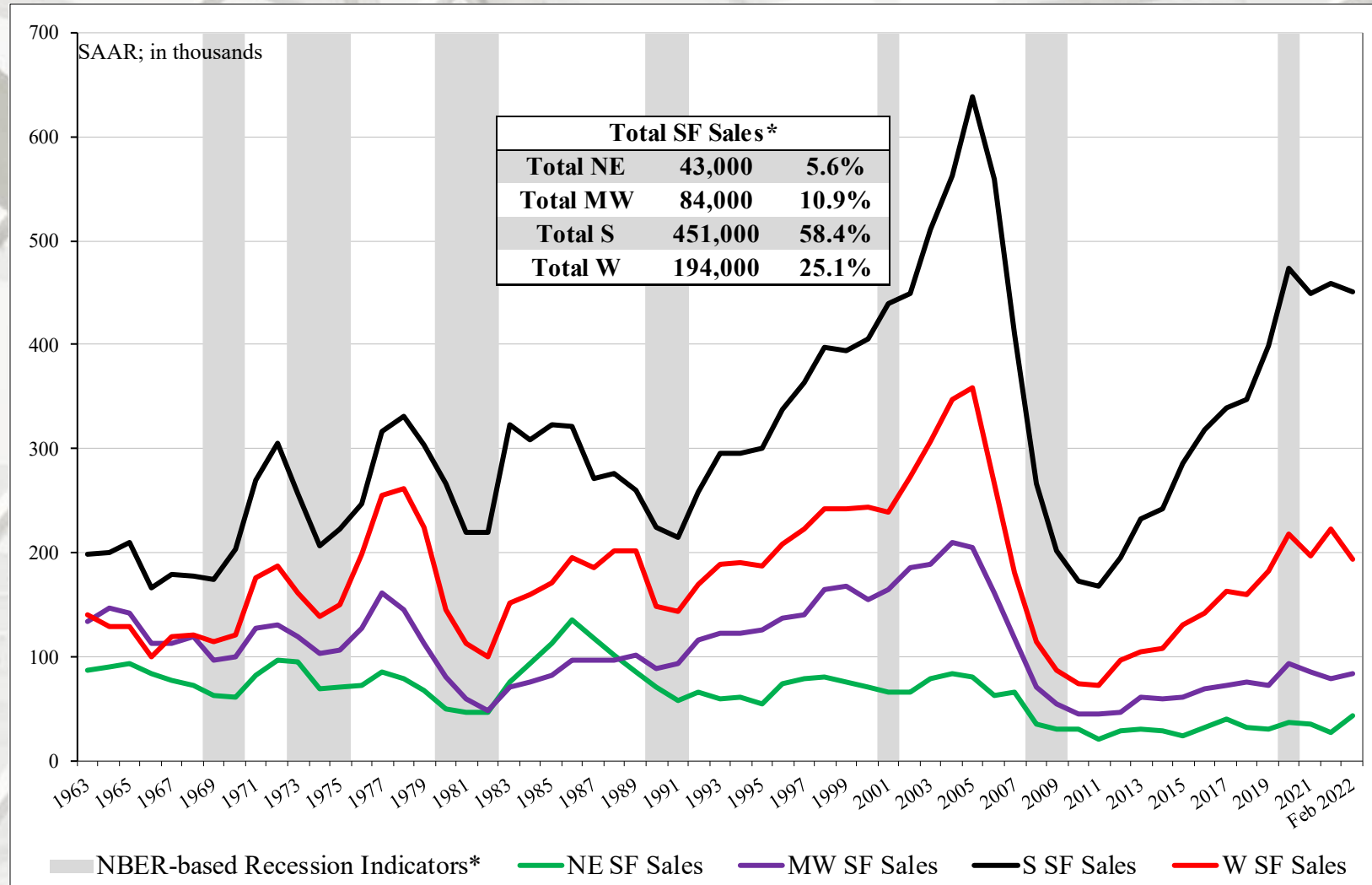
[Return TOC](#)

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

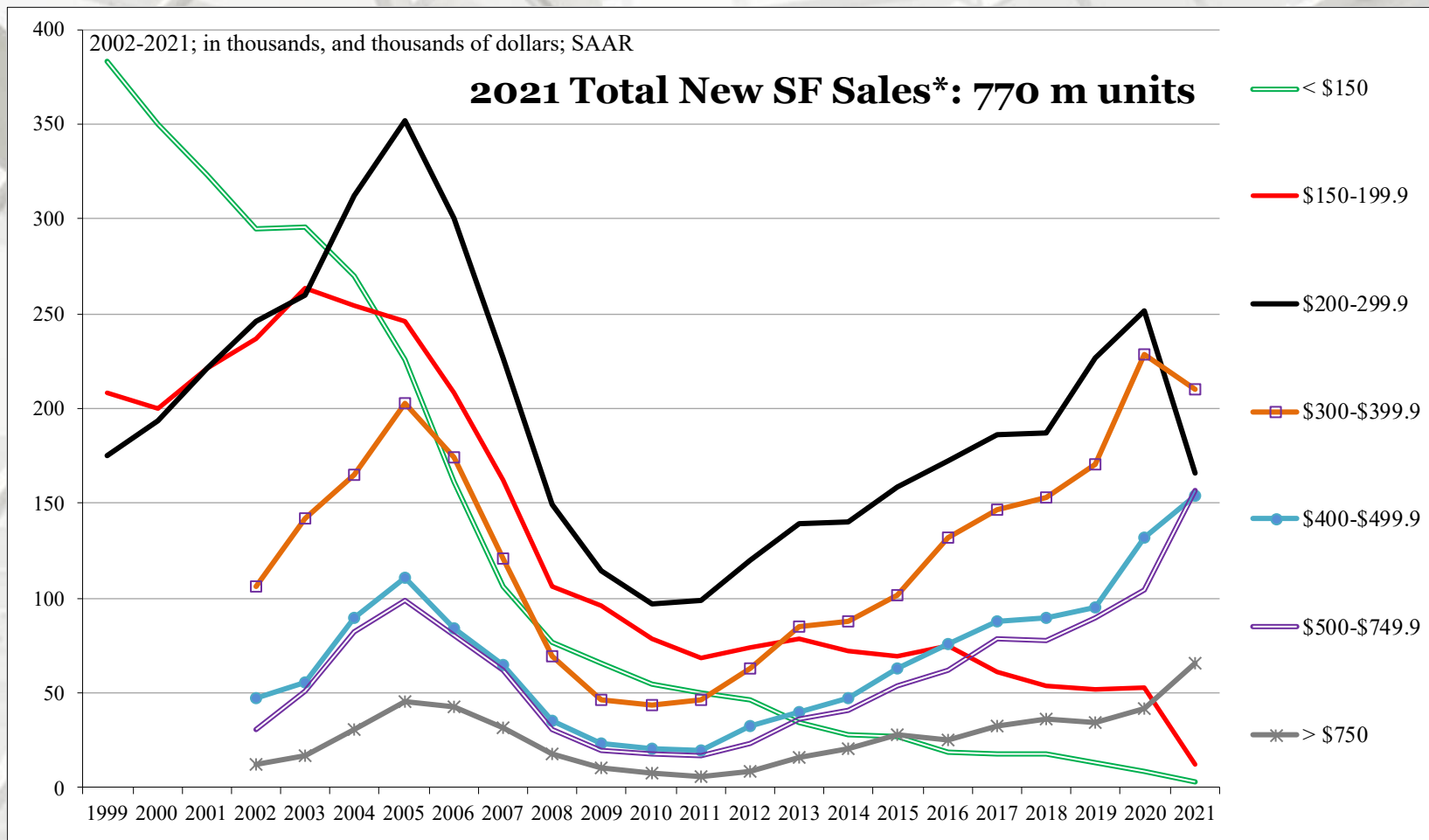


NE = Northeast; MW = Midwest; S = South; W = West

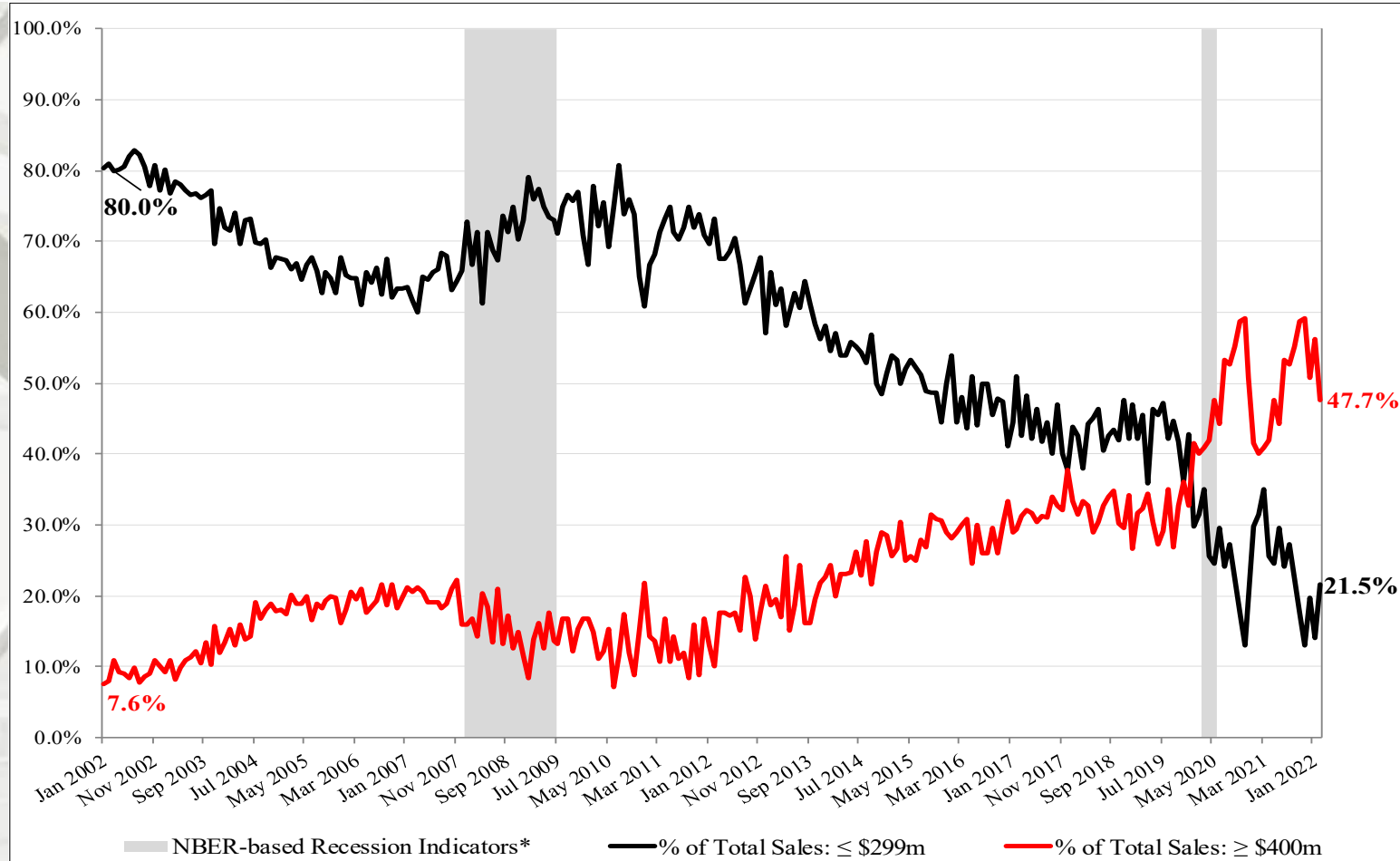
* Percentage of total new sales.

* 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



New SF House Sales

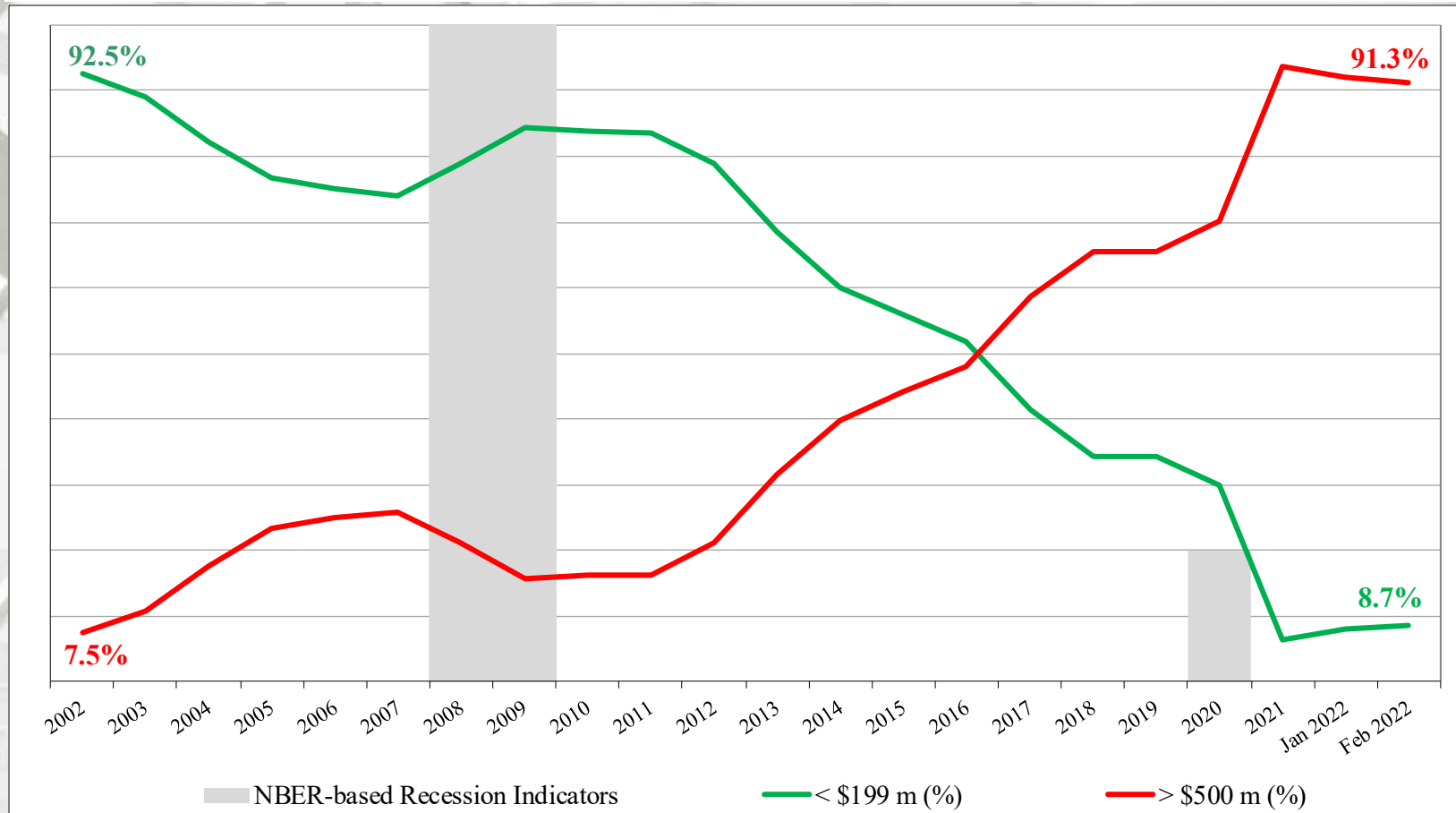


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: ≤ \$299m and ≥ \$400m: 2002 – February 2021

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



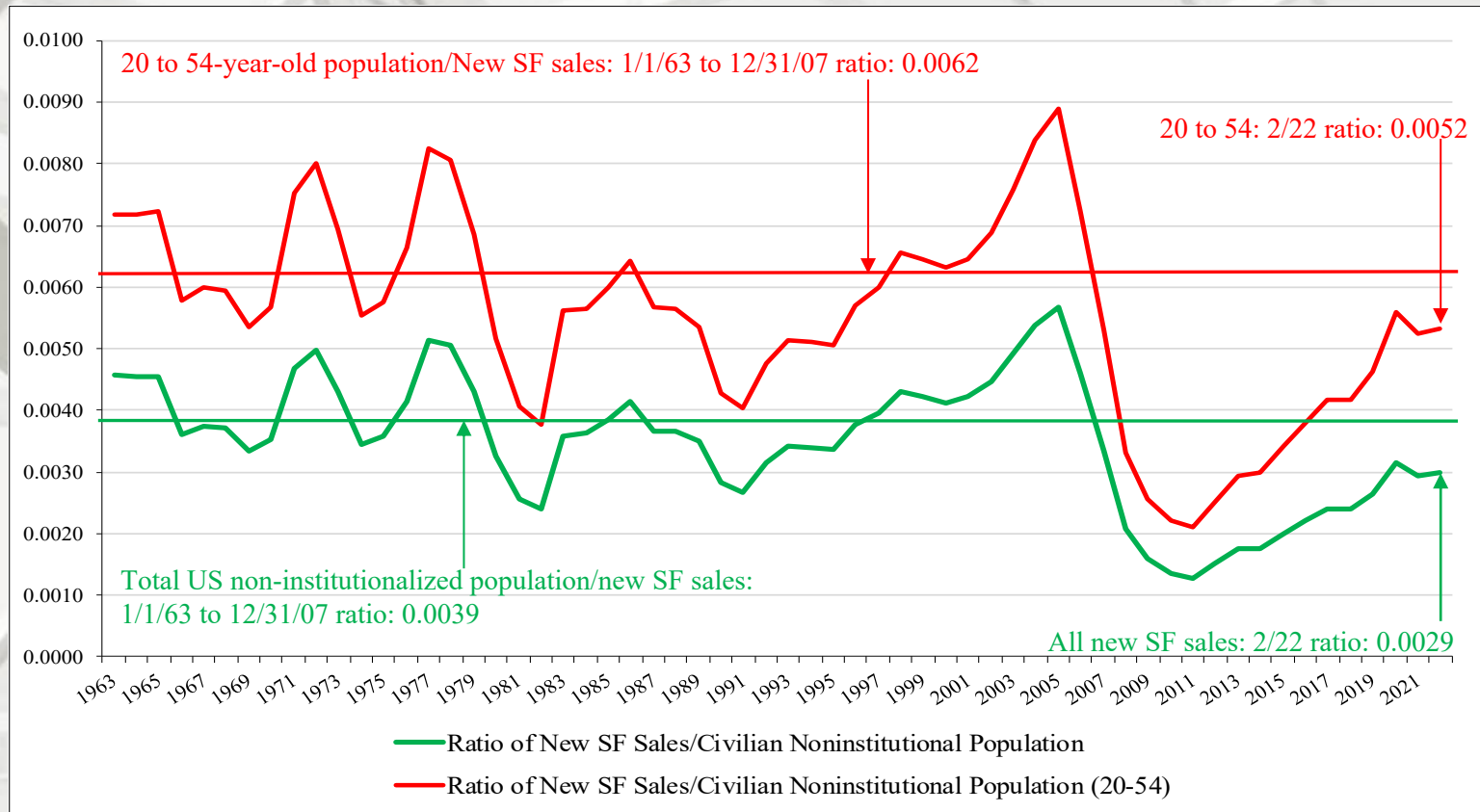
New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to February 2021

The number of ≤ \$200 thousand SF houses has declined dramatically since 2002^{1, 2}. Subsequently, from 2012 onward, the ≥ \$500 thousand class has soared (on a percentage basis) in contrast to the ≤ \$200m class. One of the most oft mentioned reasons for this occurrence is builder net margins.

Note: Sales values are not adjusted for inflation.

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

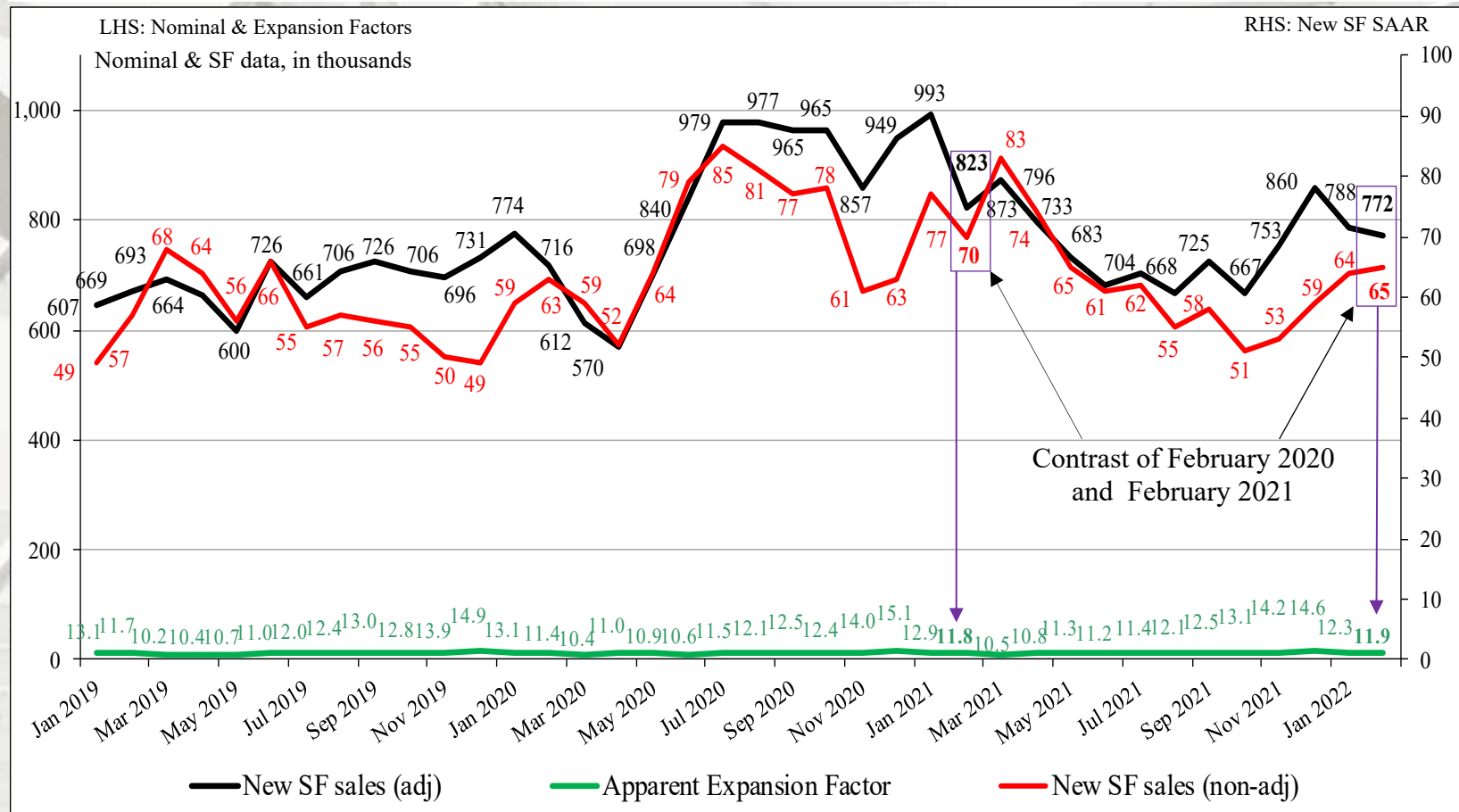


New SF sales adjusted for the US population

From February 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in February 2022 it was 0.0029 – a decrease from January (0.0030). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0048; in February 2022 it was 0.0052 – also a decrease from January (0.0053). All are non-adjusted data. From a total population world view, new sales remain less than the long-term average.

However, 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

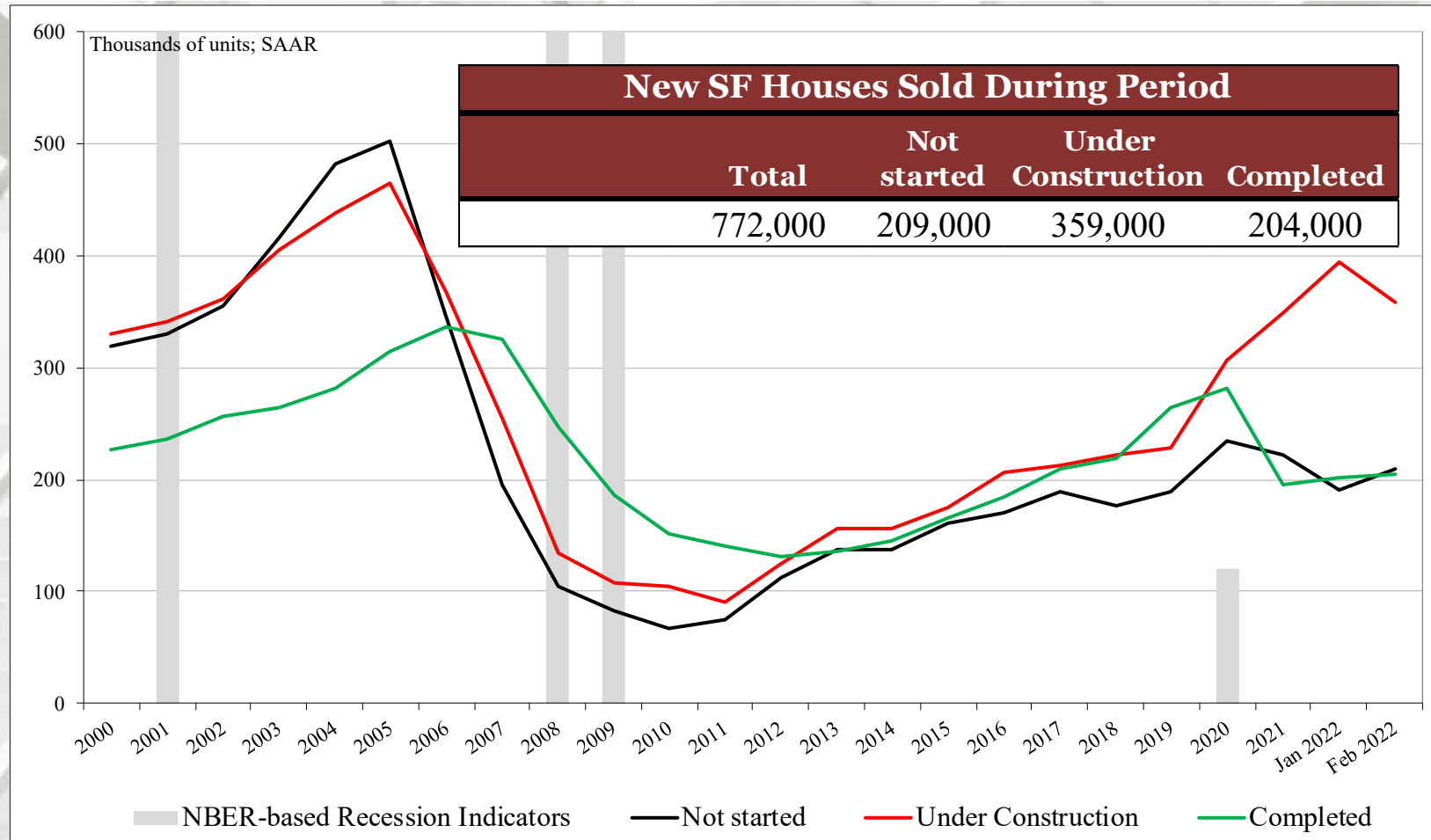
New SF House Sales

New SF Houses Sold During Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|-------------|--------------------|-----------|
| February | 772,000 | 209,000 | 359,000 | 204,000 |
| January | 788,000 | 191,000 | 395,000 | 202,000 |
| 2021 | 823,000 | 275,000 | 344,000 | 204,000 |
| M/M change | -2.0% | 9.4% | -9.1% | 1.0% |
| Y/Y change | -6.2% | -24.0% | 4.4% | 0.0% |
| Total percentage | | 27.1% | 46.5% | 26.4% |

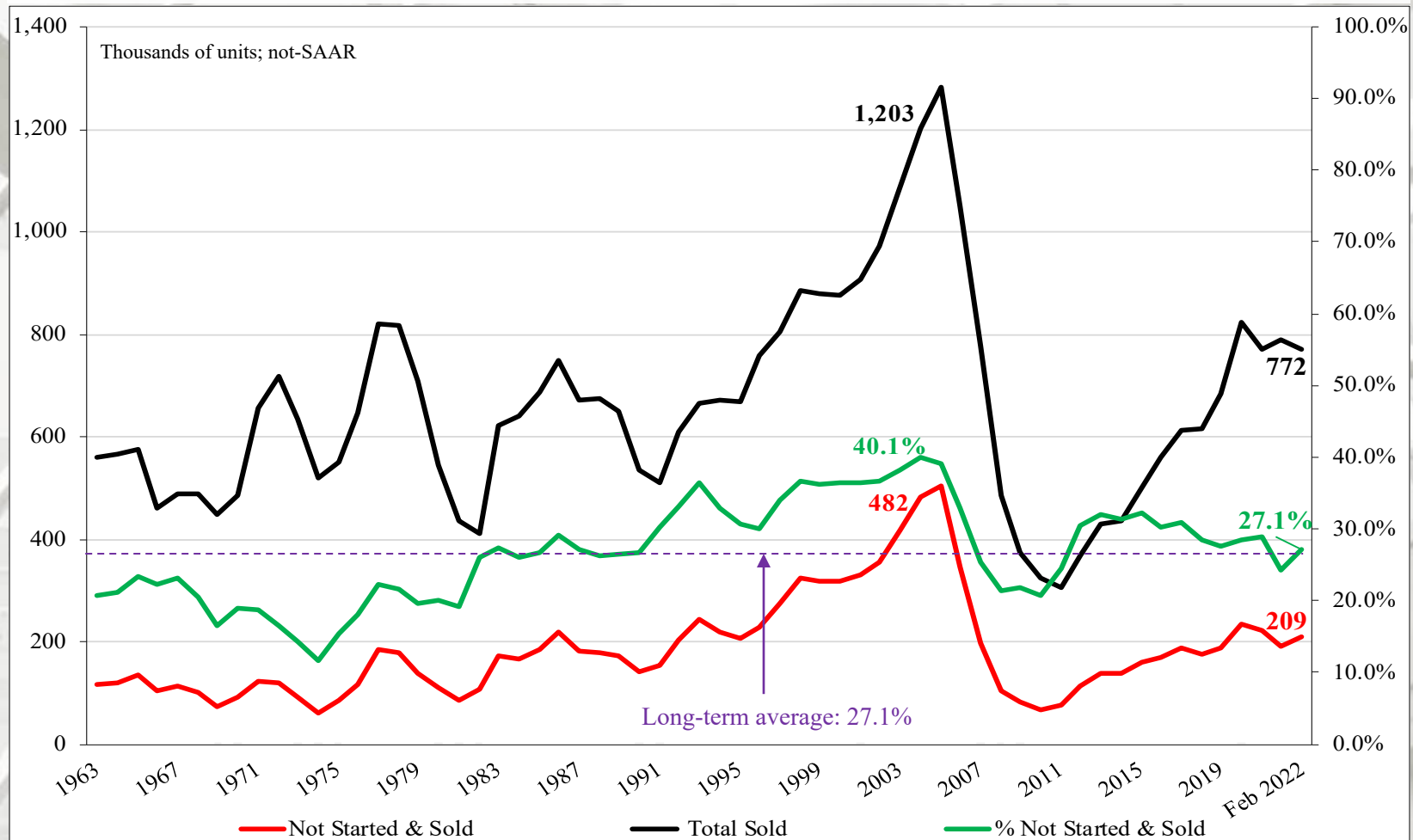
SAAR

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 February (772 m), 27.1% (209 m) had not been started. 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 at End of Period

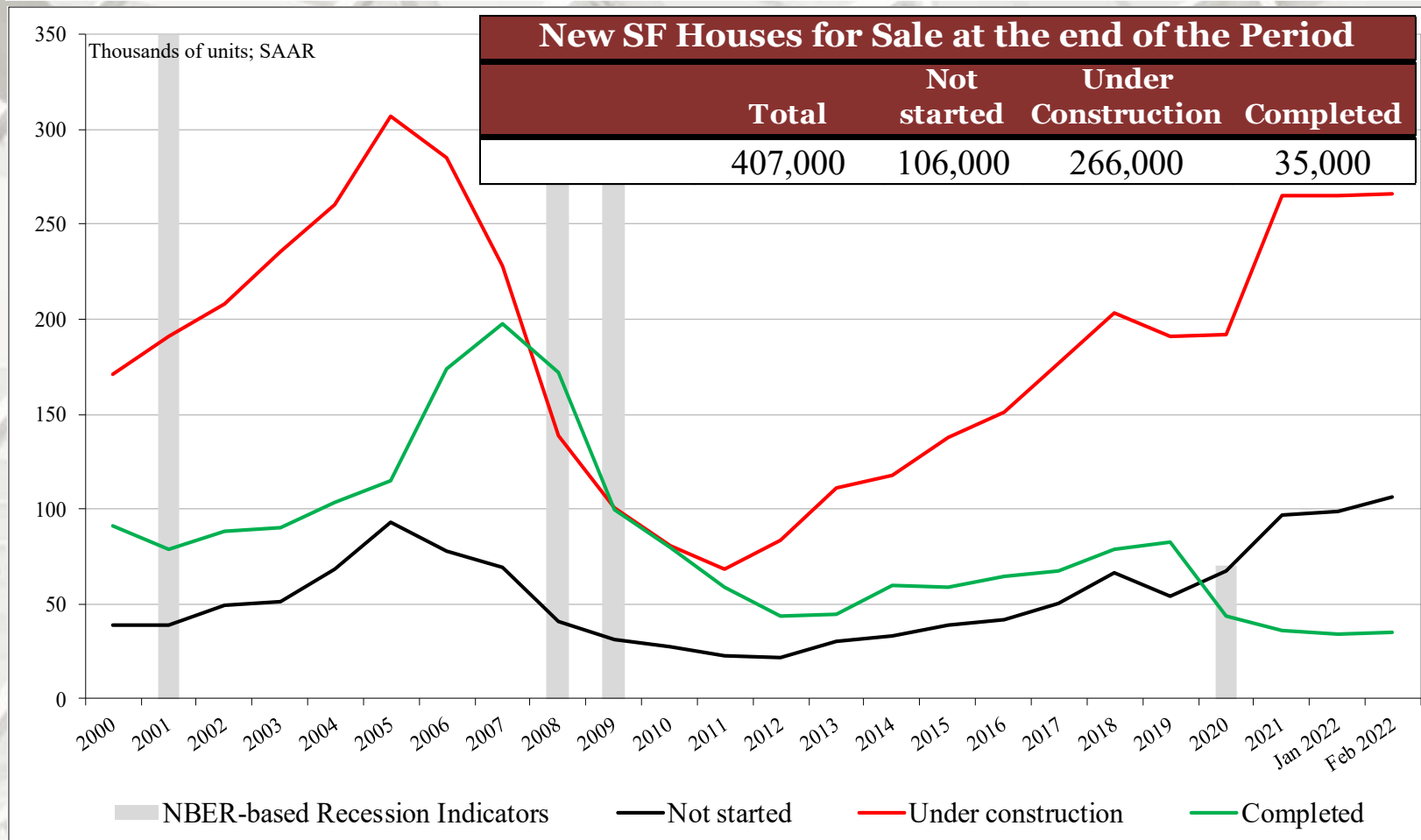
New SF Houses for Sale at the end of the Period

| | Total | Not started | Under Construction | Completed |
|------------------|---------|----------------|-----------------------|-----------|
| February | 407,000 | 106,000 | 266,000 | 35,000 |
| January | 398,000 | 99,000 | 265,000 | 34,000 |
| 2021 | 306,000 | 79,000 | 188,000 | 39,000 |
| M/M change | 2.3% | 7.1% | 0.4% | 2.9% |
| Y/Y change | 33.0% | 34.2% | 41.5% | -10.3% |
| Total percentage | | 26.0% | 65.4% | 8.6% |

Not SAAR

Of houses listed for sale (407m) in February, 8.6% (35m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 106m (26.0%) were sold; the greatest number since April of 2006 (100m).

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).

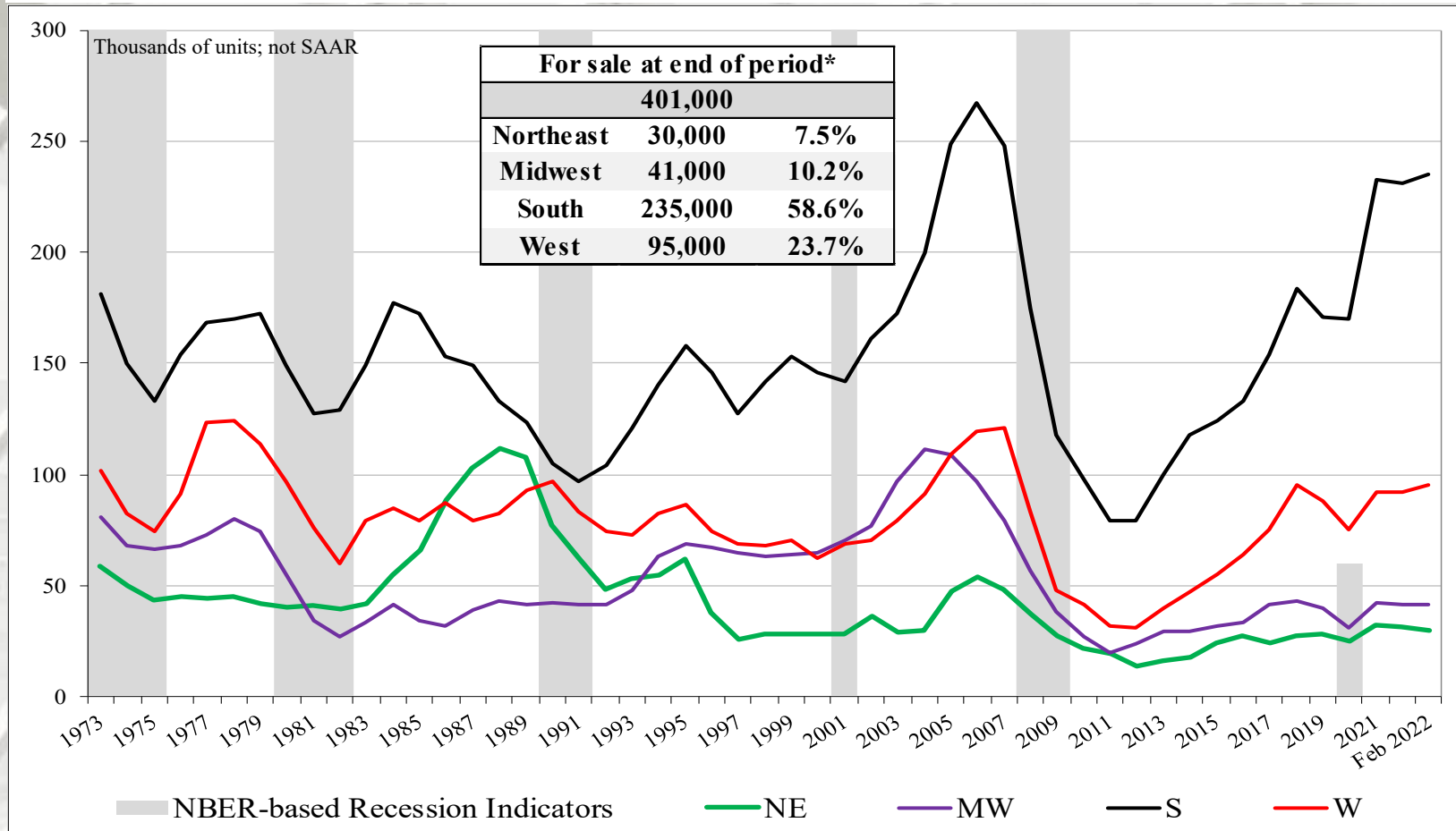
New SF House Sales

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

| | Total | NE | MW | S | W |
|------------|---------|--------|--------|---------|--------|
| February | 401,000 | 30,000 | 41,000 | 235,000 | 95,000 |
| January | 394,000 | 31,000 | 41,000 | 231,000 | 92,000 |
| 2021 | 303,000 | 26,000 | 30,000 | 172,000 | 75,000 |
| M/M change | 1.8% | -3.2% | 0.0% | 1.7% | 3.3% |
| Y/Y change | 32.3% | 15.4% | 36.7% | 36.6% | 26.7% |

* Not SAAR

New SF Houses for Sale at End of Period by Region

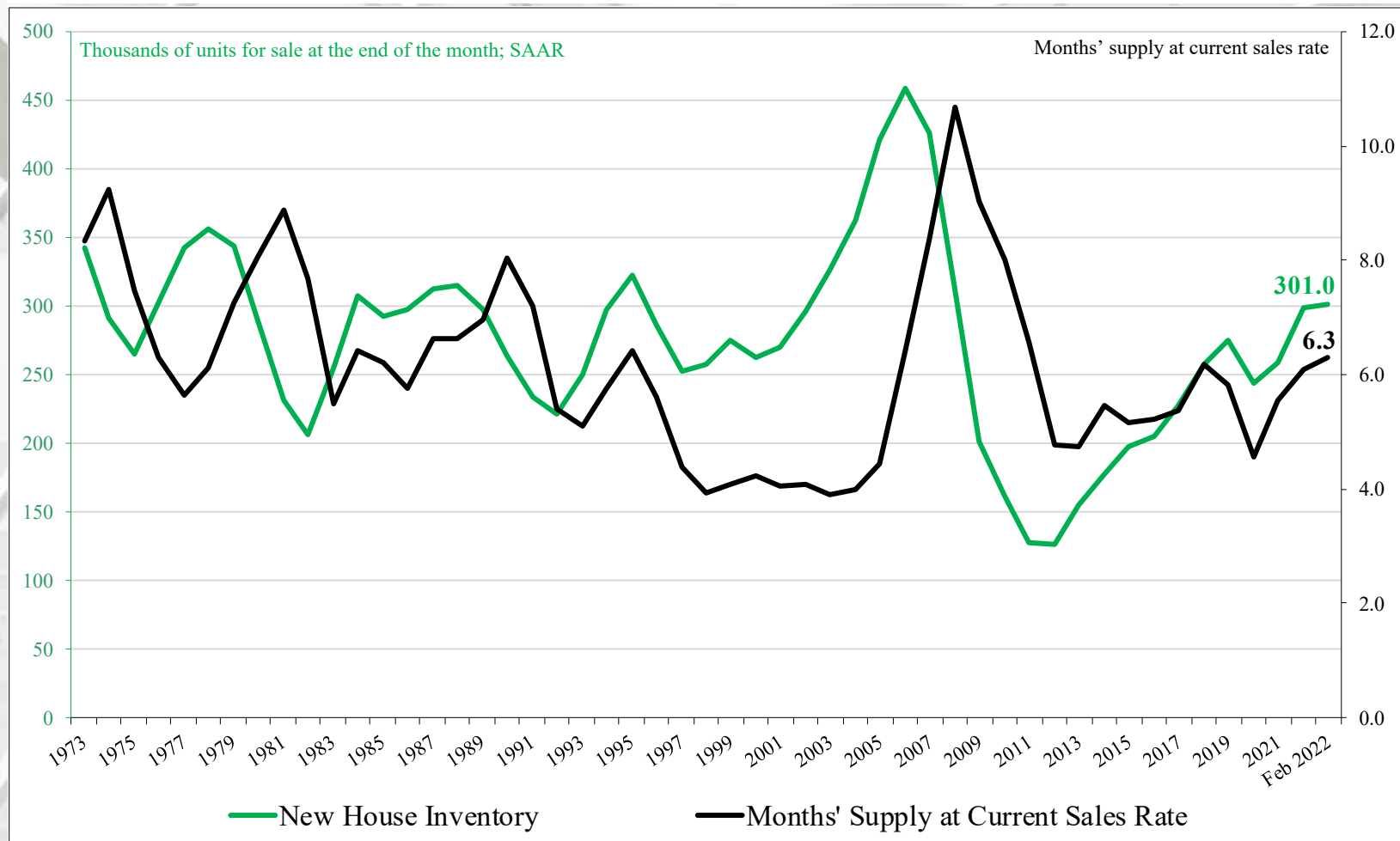


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of new SF sales.

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 for sale was 6.3 at the end of February 2022 (SAAR).

February 2022

Construction Spending

| | Total Private Residential* | SF | MF | Improvement** |
|------------|----------------------------|-----------|-----------|---------------|
| February | \$850,625 | \$465,354 | \$101,541 | \$283,730 |
| January | \$841,185 | \$453,909 | \$101,473 | \$285,803 |
| 2021 | \$729,266 | \$387,785 | \$94,230 | \$247,251 |
| M/M change | 1.1% | 2.5% | 0.1% | -0.7% |
| Y/Y change | 16.6% | 20.0% | 7.8% | 14.8% |

* 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\$.

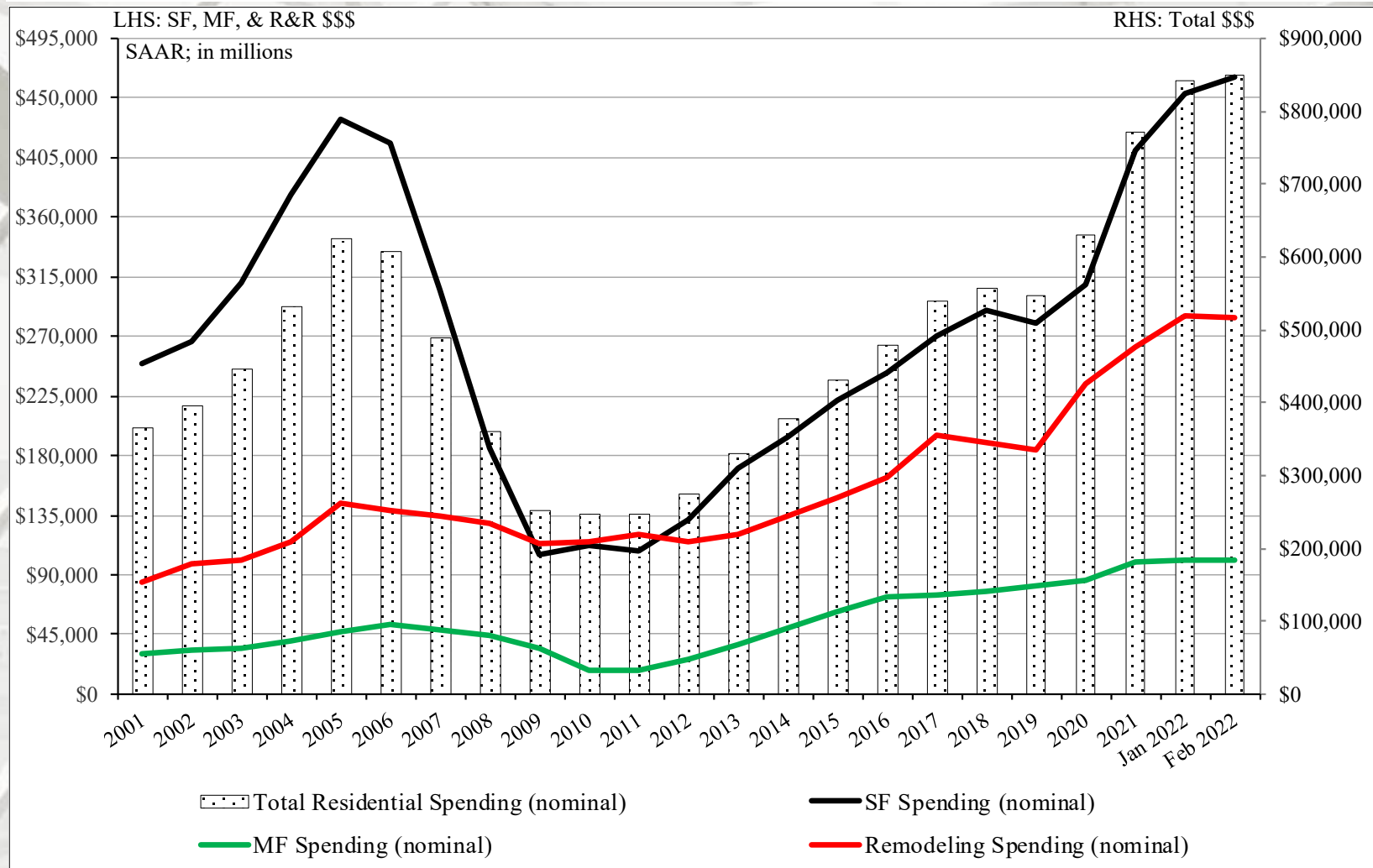
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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.

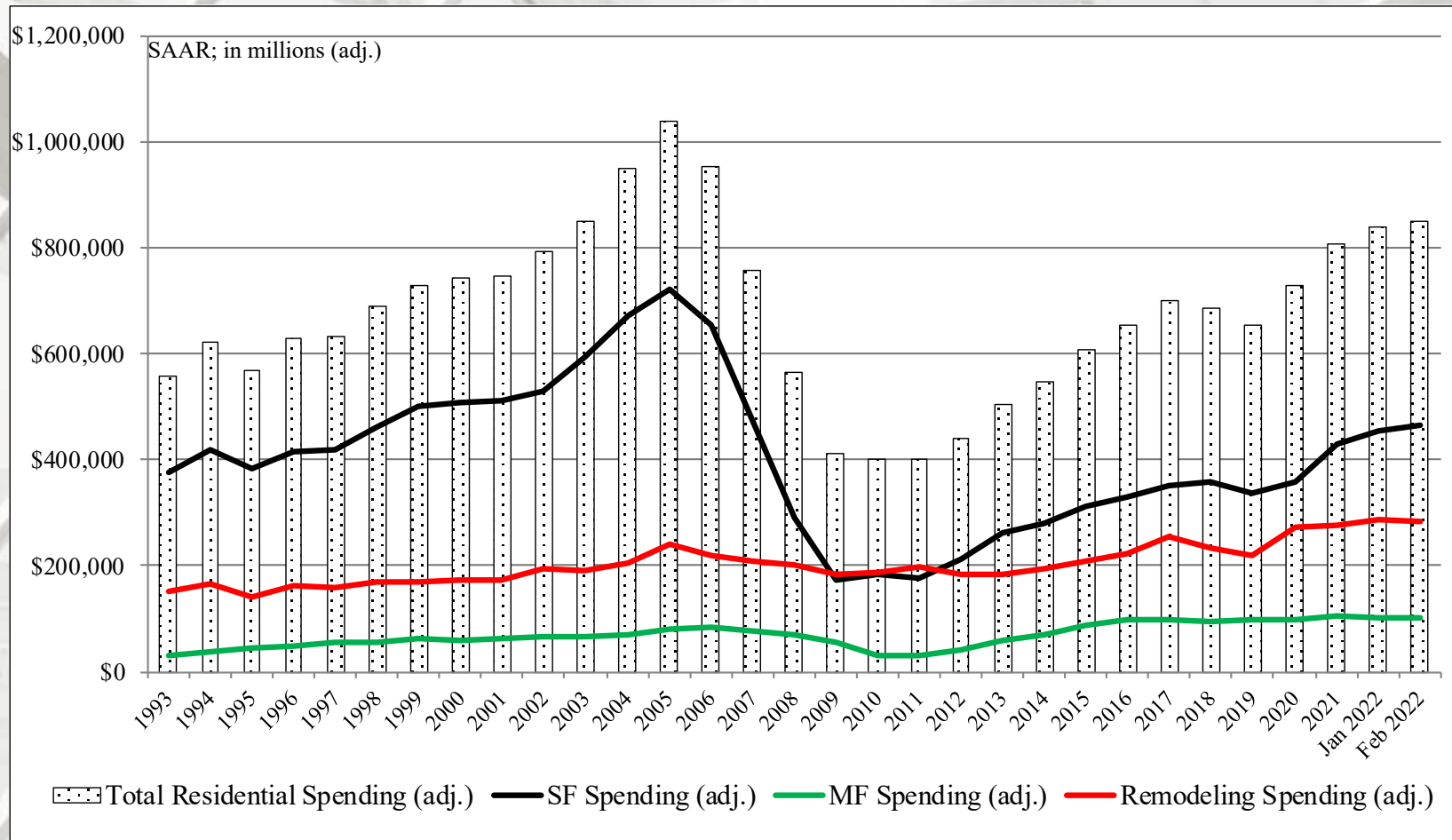
Total Construction Spending (nominal): 2000 – February 2022



Reported in nominal US\$.

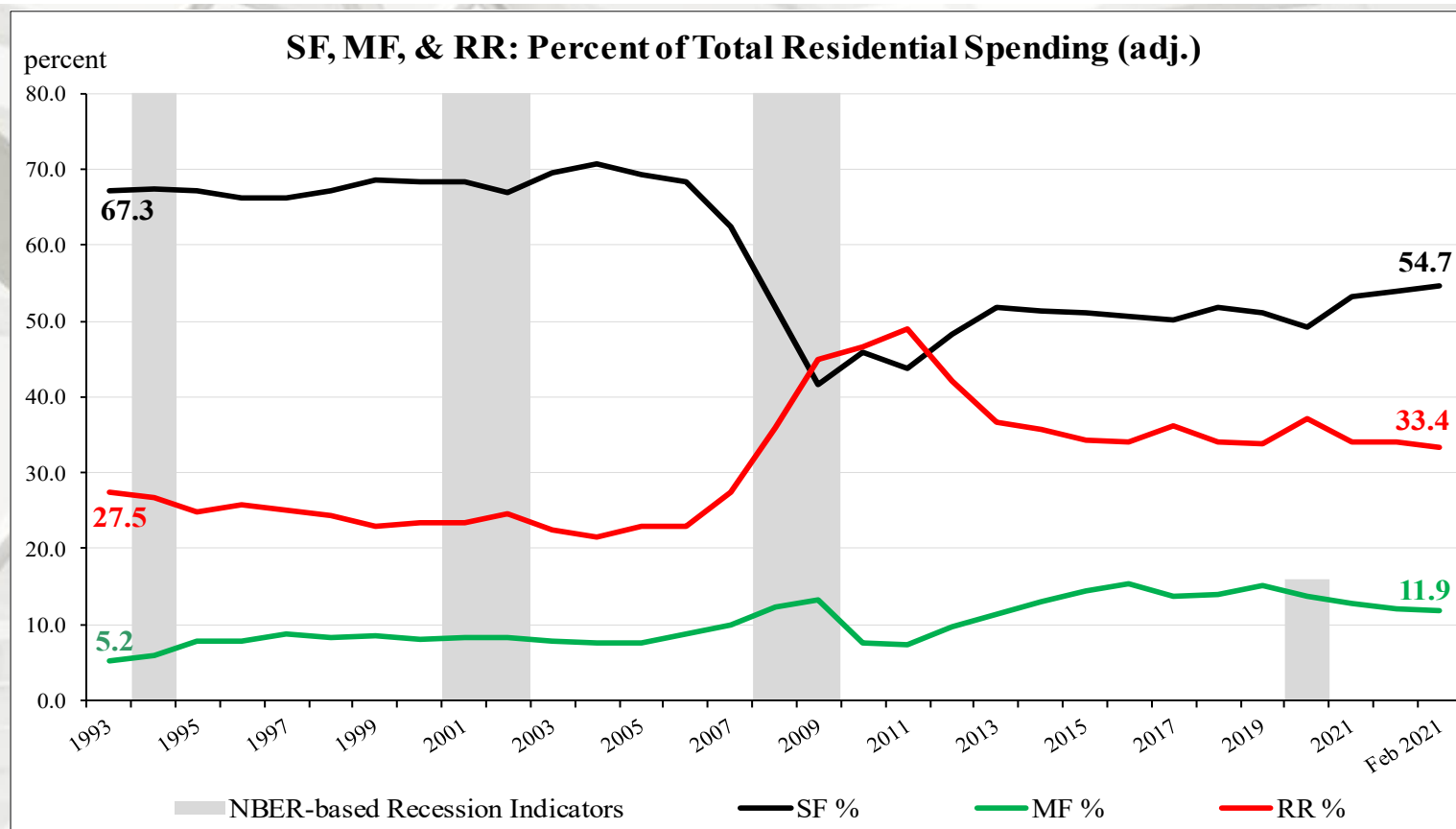
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – February 2022



Reported in adjusted \$US: 1993 – 2021 (adjusted for inflation, BEA Table 1.1.9); February 2022 reported in nominal US\$.

Construction Spending Shares: 1993 – February 2022



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

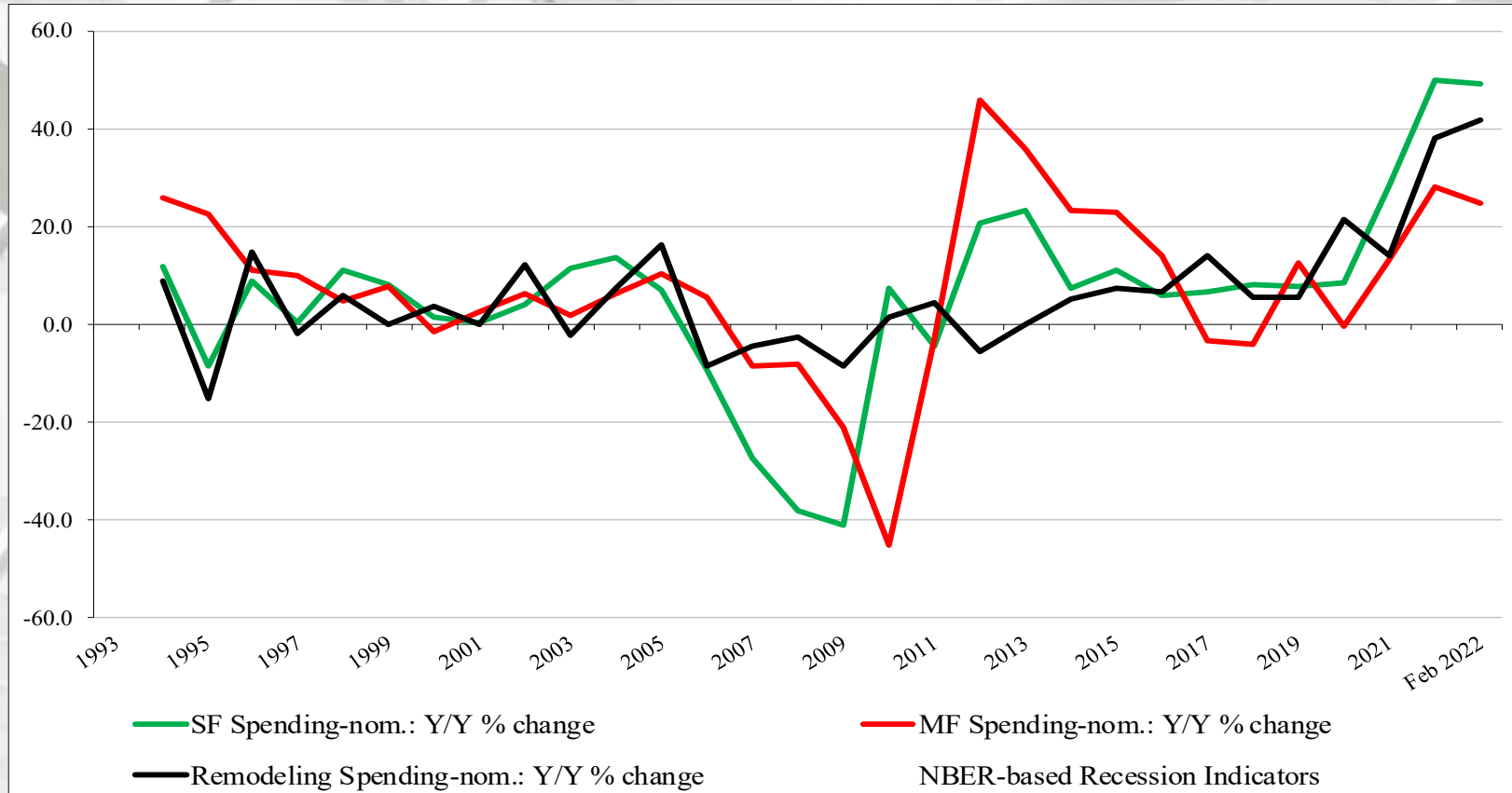
Residential remodeling (RR) spending average: 23.3 % (SAAR).

Note: 1993 to 2021 (adjusted for inflation, BEA Table 1.1.9); February 2022 reported in nominal US\$.

* NBER based Recession Indicator Bar s 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>; 4/1/22 and <http://www.bea.gov/iTable/iTable.cfm>; 3/30/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – February 2022



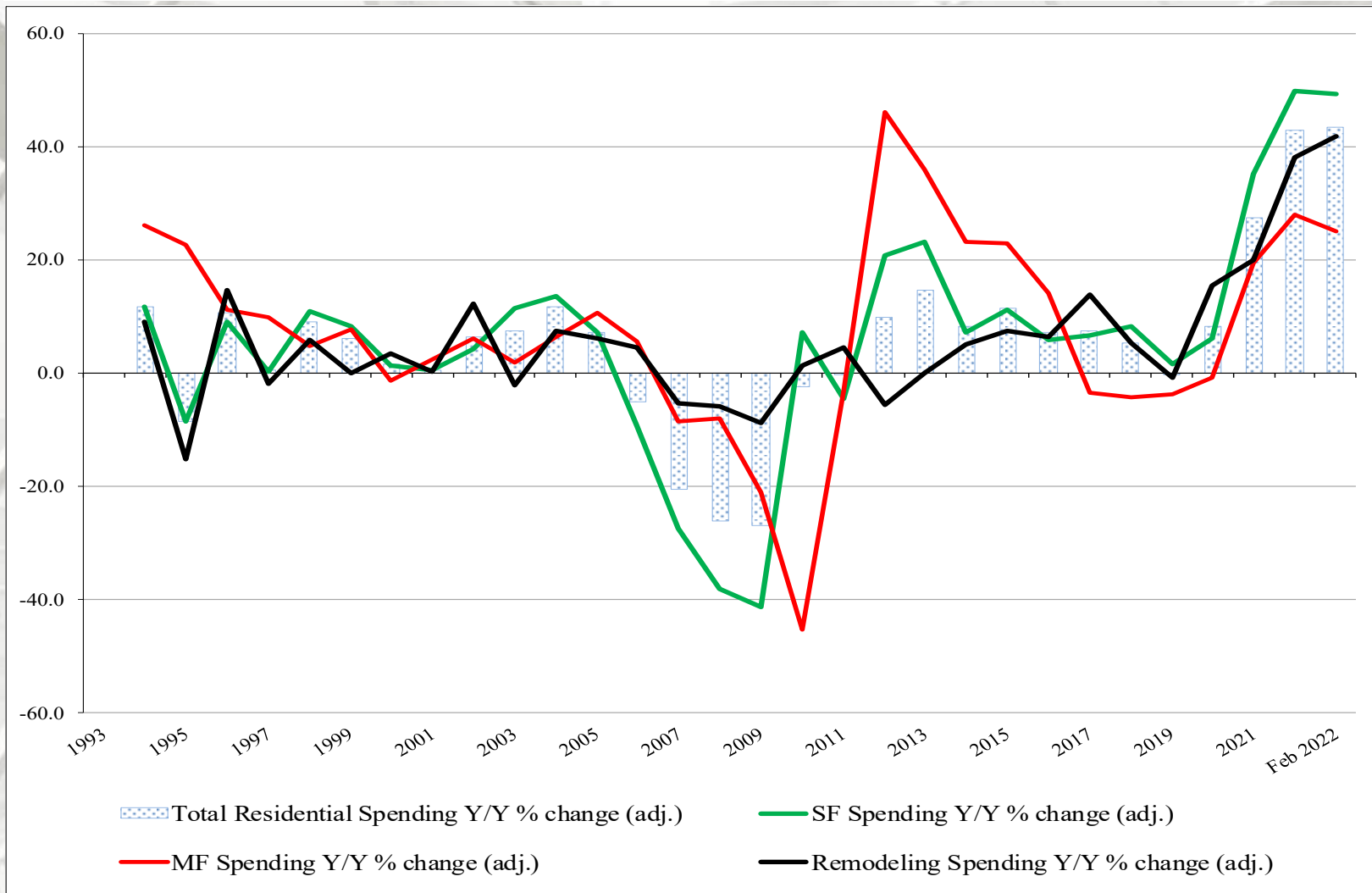
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to February 2021

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF, MF, and RR expenditures were positive on a percentage basis, year-over-year and month-over-month (February 2022 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).

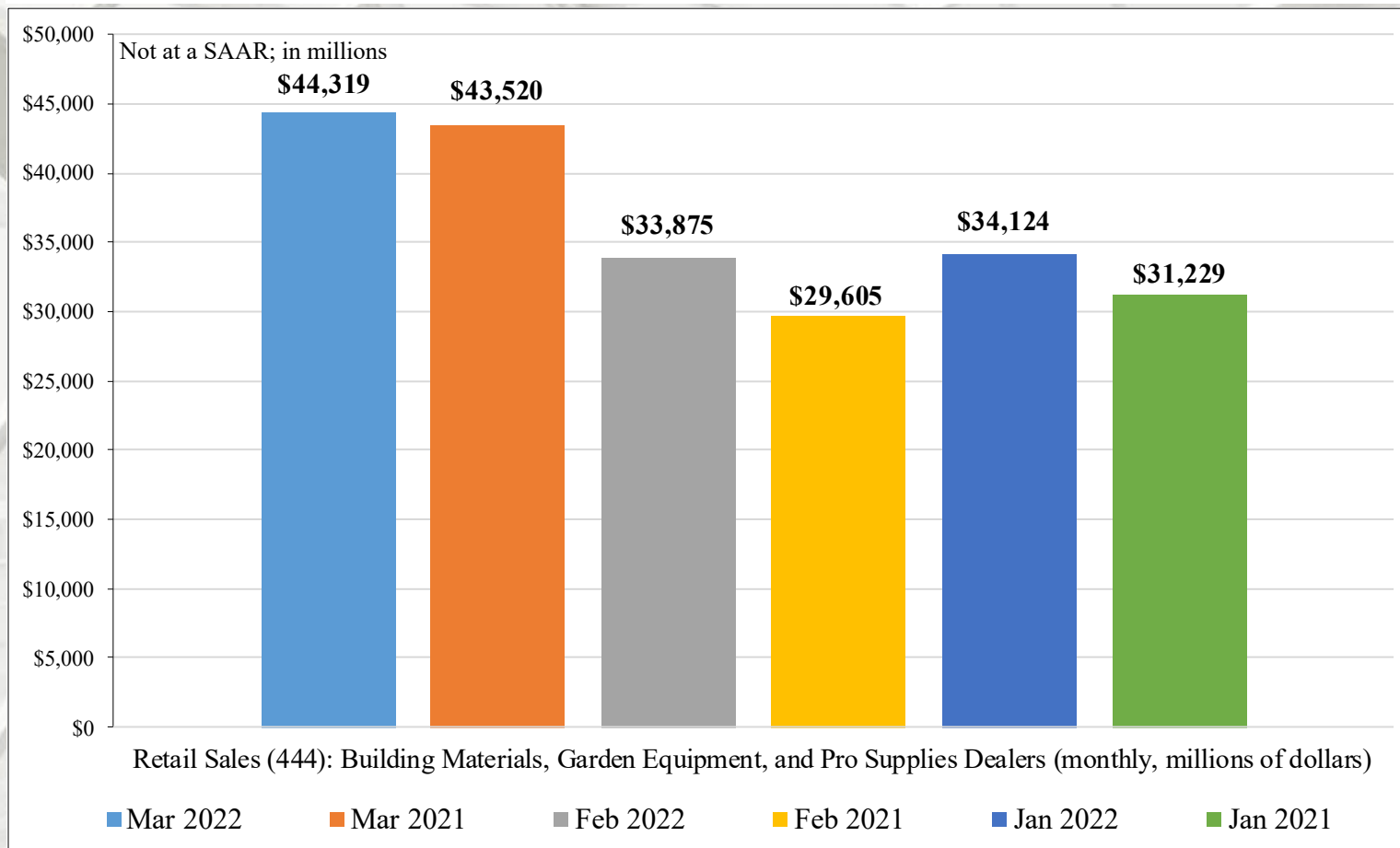
Sources: * <https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 4/1/22 and <http://www.bea.gov/iTable/iTable.cfm>; 3/30/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – February 2022



Remodeling

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

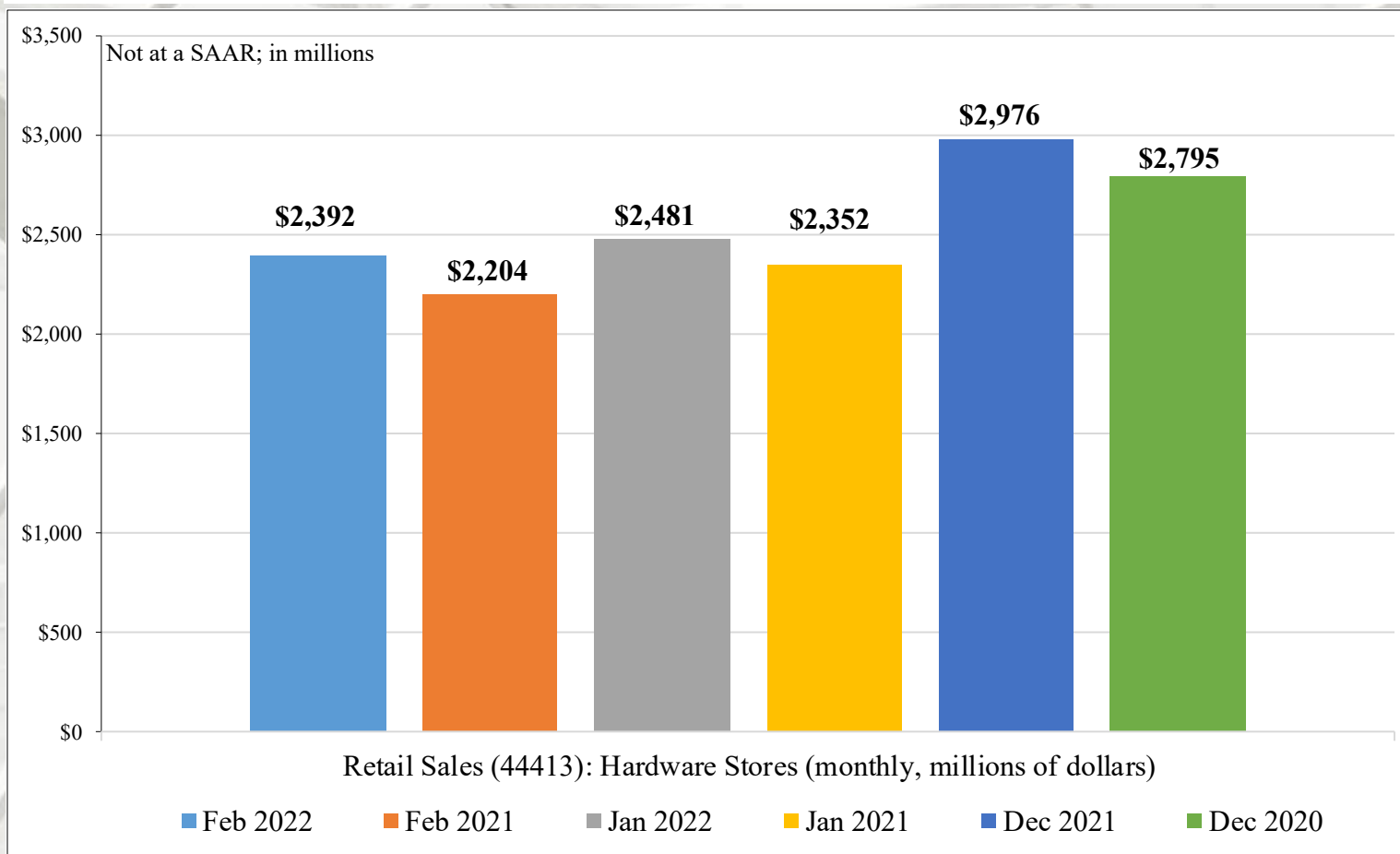


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 30.8% in March 2022 from February 2022 and improved 1.8% Y/Y (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 3.6% in February 2022 from January 2022 and increased 8.5% in February 2022 from February 2021 (on a non-adjusted basis).

Remodeling

John Burns US Remodeler Index (USRI)

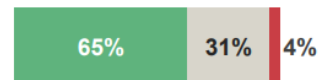
Q4 2021 Qualified Remodeler USRI Index

Four big takeaways

Demand for whole-home remodels grows.

Average Project Size

- Increasing
- About the same
- Decreasing



Remodelers report robust demand for high-value whole-home and multiroom remodels, with project sizes continuing to expand overall in Q4, despite rapidly rising prices. Most remodelers (65%) say project sizes are still growing. Large, pro-heavy projects are less sensitive to inflation and benefit from structural demand drivers, while smaller projects are more sensitive to inflation and slowing income growth.

Remodelers are flexing their price power.



Although remodelers report double-digit inflation across nearly every product category, the vast majority are raising prices to protect their profit margins. The average remodeler successfully raised their prices by 16% in 2021, with nearly one-third raising their prices by more than 25%, offsetting rising costs of product, materials, and labor. Steep increases in product costs have led some consumers to hit pause on their projects.

Supply constraints weigh on overall remodeling activity, pushing demand out to the future.



Remodelers say product lead times and labor shortages are getting worse, pushing completion dates out even further. 61% of remodelers report that projects are taking longer to complete in Q4 than Q3. Product availability remains a top concern, with both consumers and remodelers prioritizing availability over brand preference.

Remodelers are optimistic about 2022 revenue growth despite increasing project delays and deferments.



Although some consumers have deferred their projects amid rapidly rising prices and pandemic uncertainty, remodelers are confident that continued demand for whole-home upgrades and large-scale, multiroom projects will drive revenue growth in 2022. Design-build firms are expecting 11% growth on average, with full-service remodelers and home improvement pros each expecting 7%.

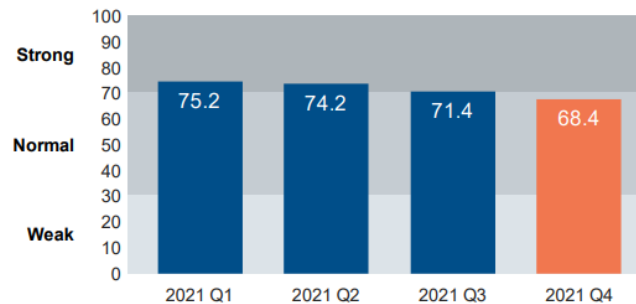
Remodeling

John Burns US Remodeler Index (USRI)

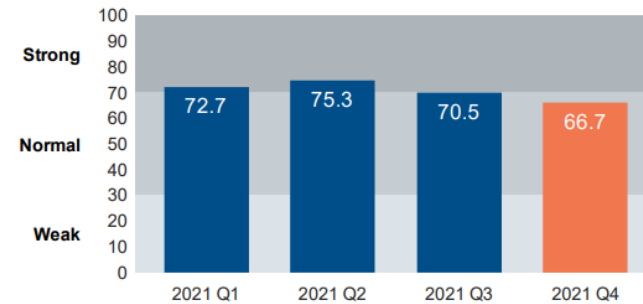
Q4 2021 Qualified Remodeler USRI Index



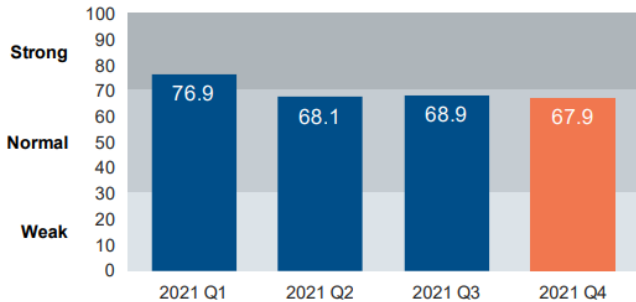
US Remodeler Index



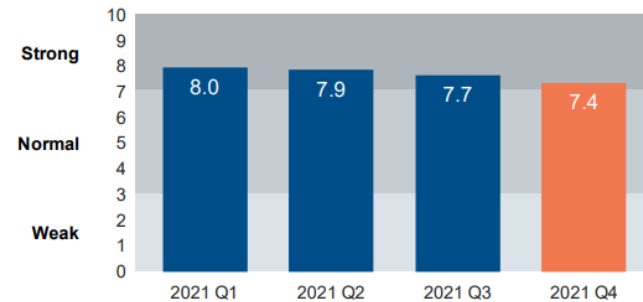
Project Activity Gauge



Near-Term Activity Gauge



Remodeling Demand Meter



Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Key takeaways by segment



Full-Service Remodelers

- **+6% project volume growth in Q4.** Remodelers report healthy demand for whole-home and multiroom projects, as customers adapt to more home-centric lifestyles.
- Full-service remodelers say they are adjusting to supply-chain issues and rising costs by padding project schedules, ordering product earlier, and focusing on larger, higher-value, higher-margin remodels. Full-service remodelers are optimistic for 2022 with an average of 7% full-year revenue growth.



Design-Build Firms

- **+5% project volume growth in Q4.** Design-build firms continue to see strength in whole-home remodel projects, even as they expect the total number of projects may moderate in the future.
- Design-build firms are focusing on bigger, high-value projects and raising prices to protect margins, even as they schedule work further out and order product sooner. Design-build firms are confident in their 2022 outlook, with average revenue growth coming in at 11%.



Home Improvement Pros

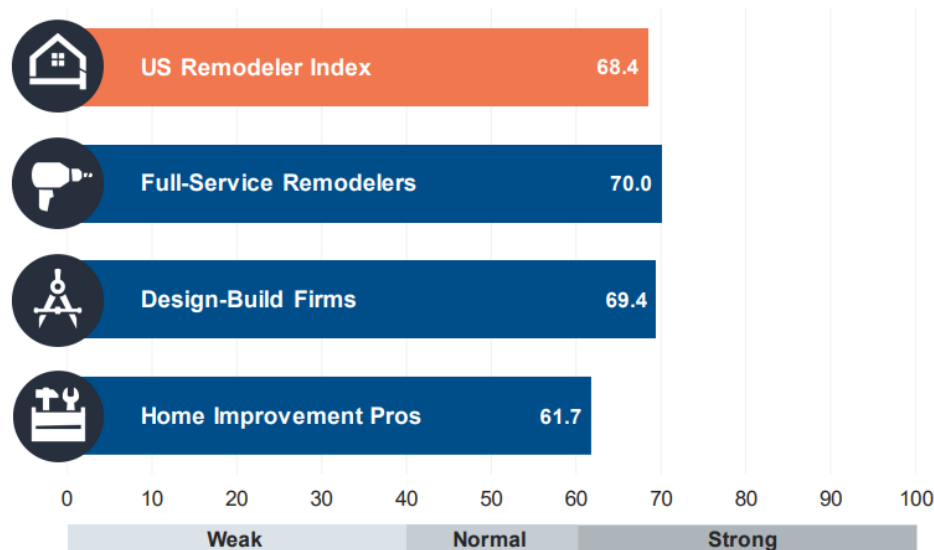
- **+2% project volume growth in Q4.** Project volume moderated from 7% growth in Q3, as rapidly rising prices and a sudden rise in COVID cases around the holidays led more customers to postpone projects later in the year.
- 39% of home improvement pros report their project pipelines have plateaued, up from 26% last quarter. Nevertheless, with the spring season approaching, their near-term outlook is optimistic, with the average home improvement pro expecting 7% revenue growth for 2022.

Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

US Remodeler Index



The US Remodeler Index (USRI) rated 68.4 in Q4, indicating the industry expanded.

Although project delays, rising costs, and the pandemic have disrupted growth, remodelers note strong demand for whole-home remodels, kitchen and bath upgrades, and outdoor living projects. Full-service remodelers and design-build firms over-index the industry at 70.0 and 69.4, respectively, while home improvement pros under-index the industry at 61.7.

A rating above 50 indicates industry growth; a rating below 50 indicates slowing activity.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

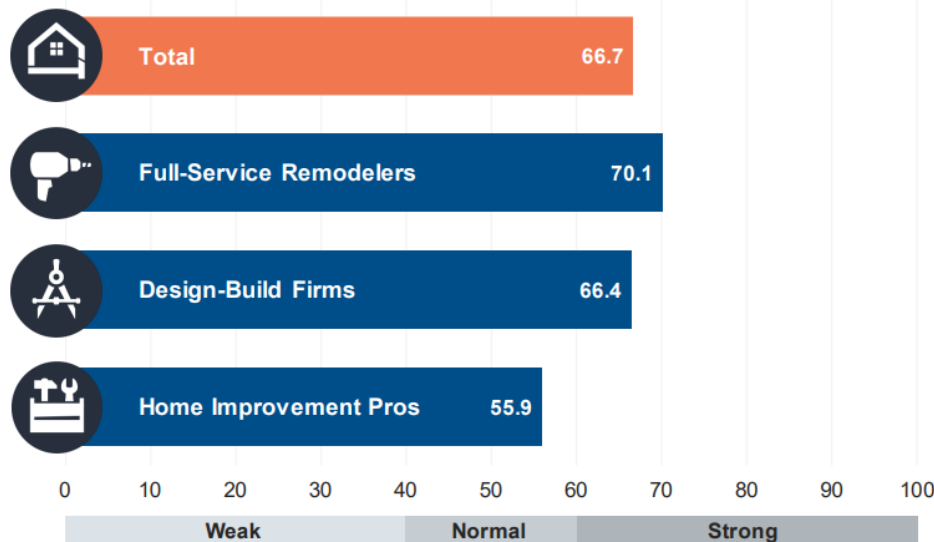
See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Project Activity Gauge



The current Project Activity Gauge rates a 66.7 out of 100, indicating year-over-year growth moderated in Q4 2021 from the prior quarter.

The current project activity rating fell in Q4, led by home improvement pros, which are most exposed to supply chain issues and labor shortages. Despite the recent softening, project activity is still rated as Strong among full-service remodelers and design-build firms.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING
Qualified
Remodeler

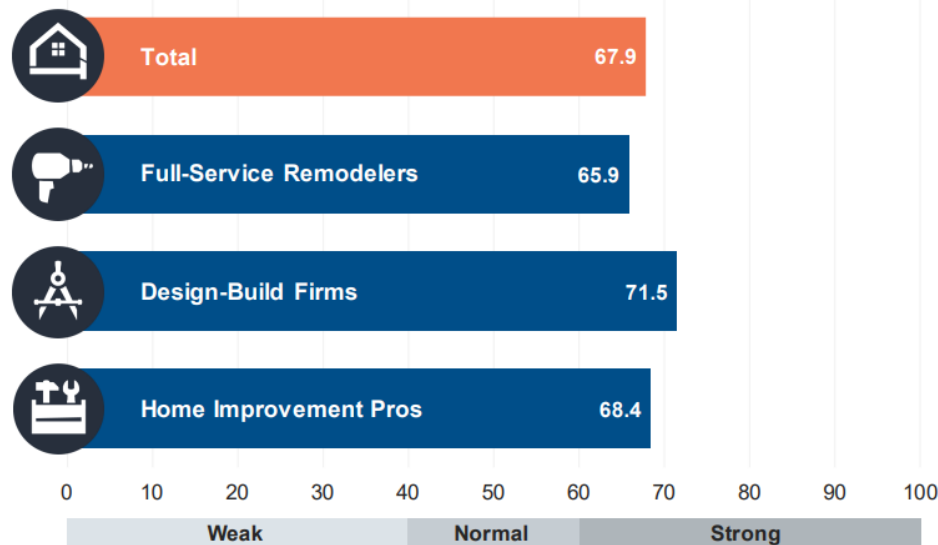
See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Near-Term Activity Gauge



The remodeling industry expects growth to accelerate in Q1 2022 vs. Q1 2021, rating near-term activity a 67.9 out of 100.

While home improvement pros led the softening of current activity, the segment rates near-term demand as "Strong", an indication that current activity has been impacted by temporary supply chain disruptions and that demand from consumers remains strong. Nearly all remodelers report strong pricing power against a backdrop of robust demand for large, multiroom and interior/exterior projects.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

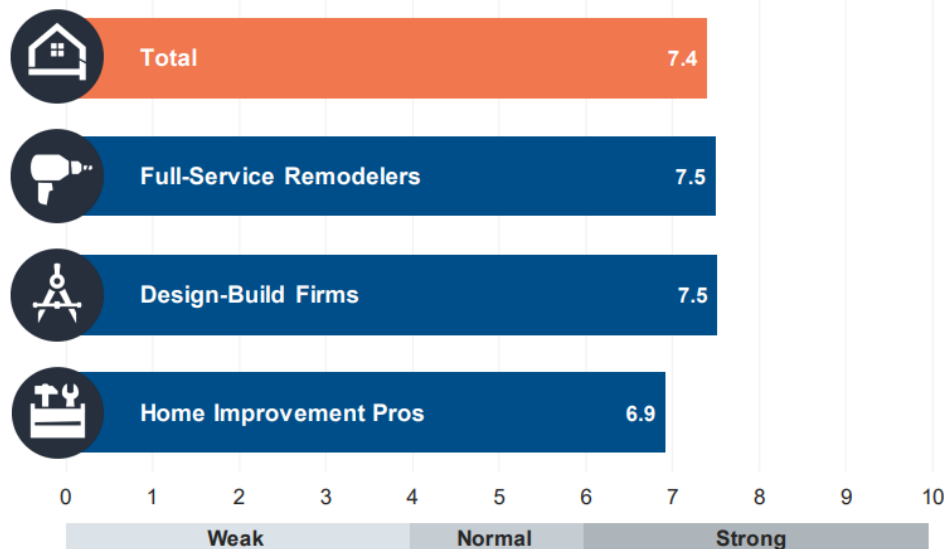
See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Remodeling Demand Meter



The Remodeling Demand Meter rates a 7.4 out of 10, signaling demand for remodeling services is stronger than it's been in the past three years.

Remodelers see a wave of demand for whole-home remodeling projects continuing as clients adapt to home-centric lifestyles and prepare for longer-term stays in the current homes.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

John Burns US Remodeler Index (USRI)

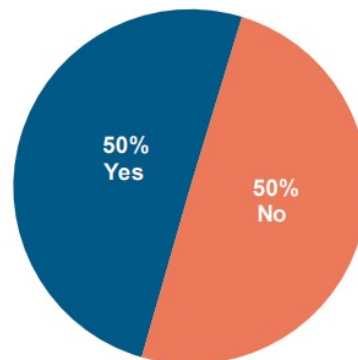
Q4 2021 Qualified Remodeler USRI Index

Consumers are demanding higher-end (and higher-priced) products, while some remodelers say product availability is their number one concern.

With more customers planning to age in place or trade up in place amid historically low for-sale inventory, remodelers are seeing higher demand for premium and luxury products. Half of remodelers report a shift in price points demanded in Q4 2021, with more than three-quarters (77%) saying clients are opting for higher-end, higher-quality (and higher-priced) products.

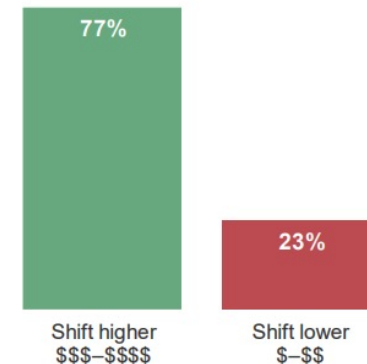
Shift in Price Points Demanded

Percentage of remodelers reporting yes vs. no



Direction of Price-Point Shift

As a percentage of companies reporting a price-point shift



Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

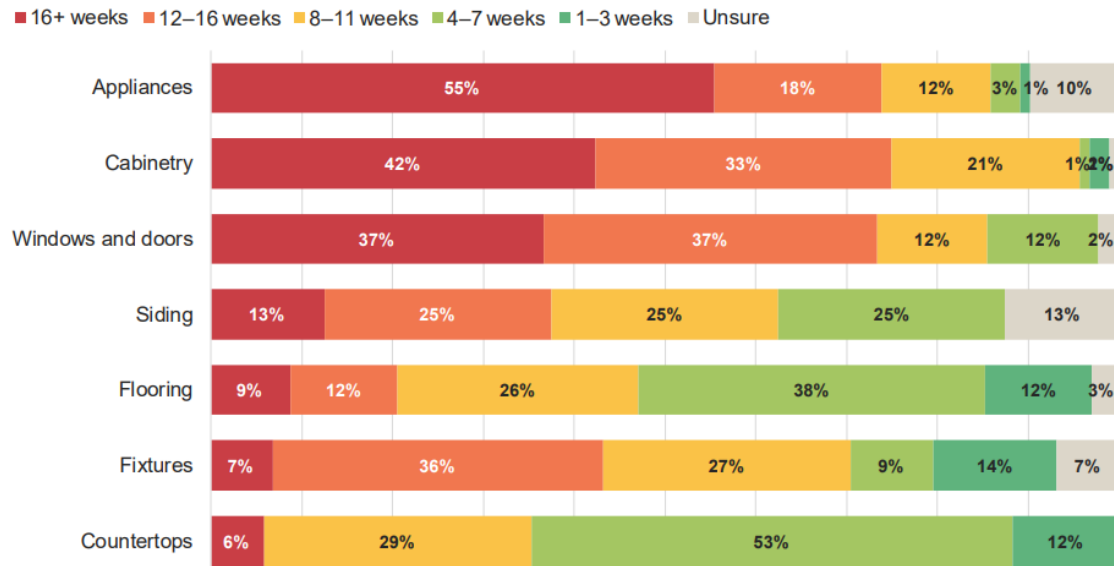
John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Product delays are most severe for appliances, cabinets, and windows and doors, with average lead times beyond four months.

Severe product delays are widespread across nearly every product category, with the worst delays in appliances, cabinets, and windows and doors, with monthslong lead times.

Remodelers are padding their project timelines and ordering product earlier in project lifecycles to account for the ongoing delays.



Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

Remodeling

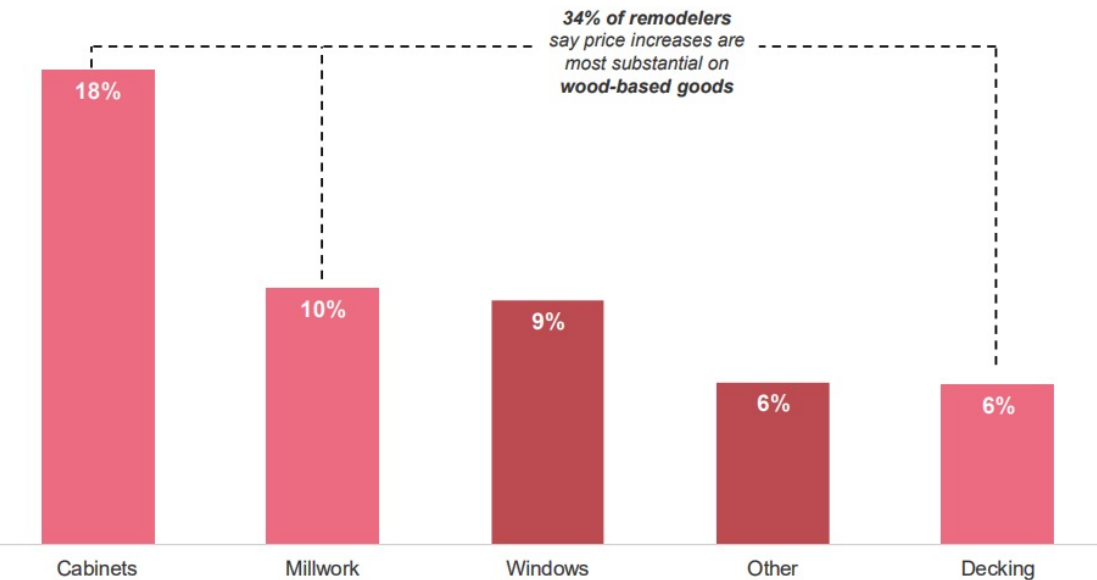
John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Remodelers report inflation pressures are highest in wood-based product categories.

Thinking about *inflation*, which products or materials have *increased the most in price*?

Note: Chart reflects top 5 % of participants indicating categories with the most inflation; % does not reflect price growth.



Rising input costs are felt most acutely in wood-based product categories (cabinets, millwork, and decking), reflecting recent price swings in raw lumber.

Some remodelers are focusing on higher-quality customers and bigger projects to preserve profit margins, while higher costs are leading some consumers to defer projects to later in 2022.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

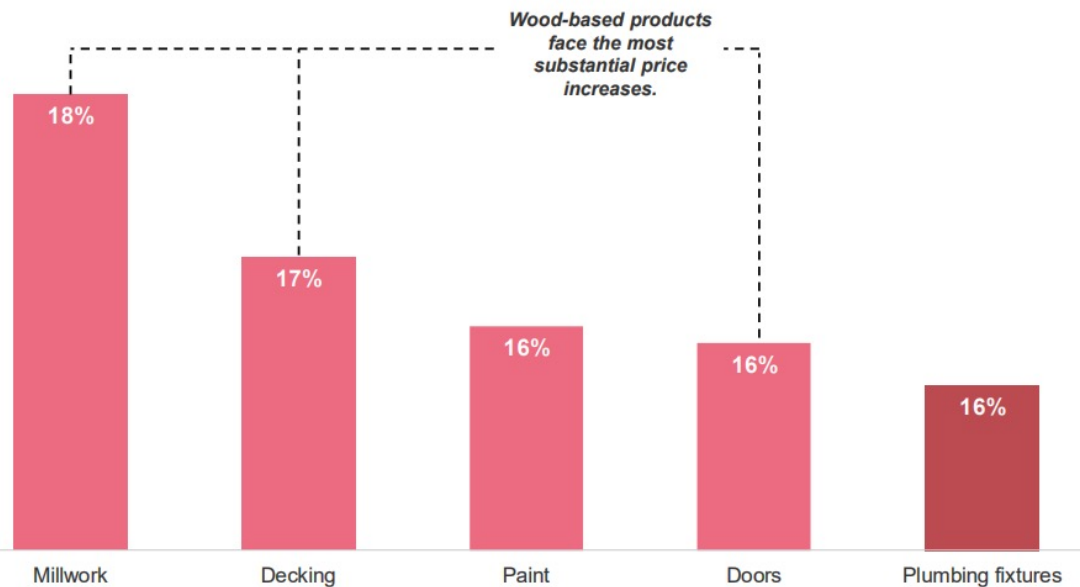
Remodeling

John Burns US Remodeler Index (USRI)

Q4 2021 Qualified Remodeler USRI Index

Remodelers face double-digit inflation for nearly every product category.

By what percentage did pricing of each of these products or materials increase?



Remodelers report that prices are rising by double-digit percentages for nearly every product and material category.

Remodelers are responding through a mix of raising prices, focusing on higher-end projects, shifting more costs to clients, and explaining price pressures upfront.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 4Q21, Pub: Mar-22)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

See Terms and Conditions of Use and Disclaimers. Distribution to non-clients is prohibited. © 2022

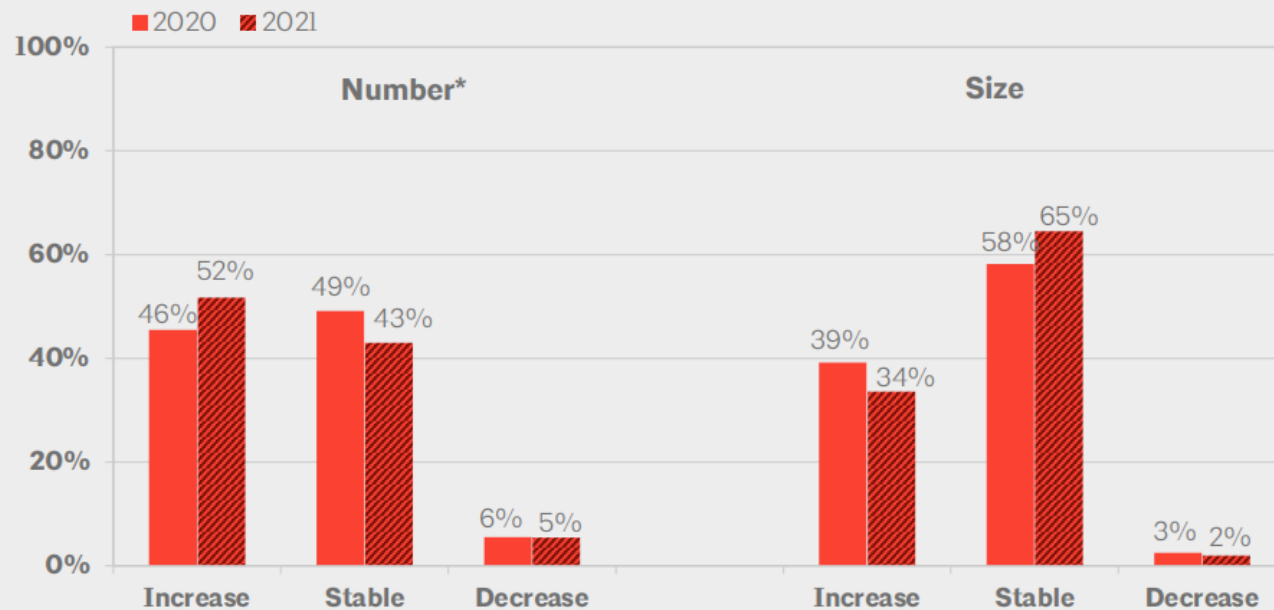
Remodeling

The American Institute of Architects

AIA Home Design Trends Survey

FIGURE 1 The number of kitchen areas in homes continue to grow, while size has started to stabilize

Change in the number and size of kitchens, % of respondents; data from Q4 2021 compared to data from Q4 2020



*Number of separate kitchen facilities, secondary food storage/food prep. areas, or messy kitchen
Source: The American Institute of Architects Home Design Trends Survey

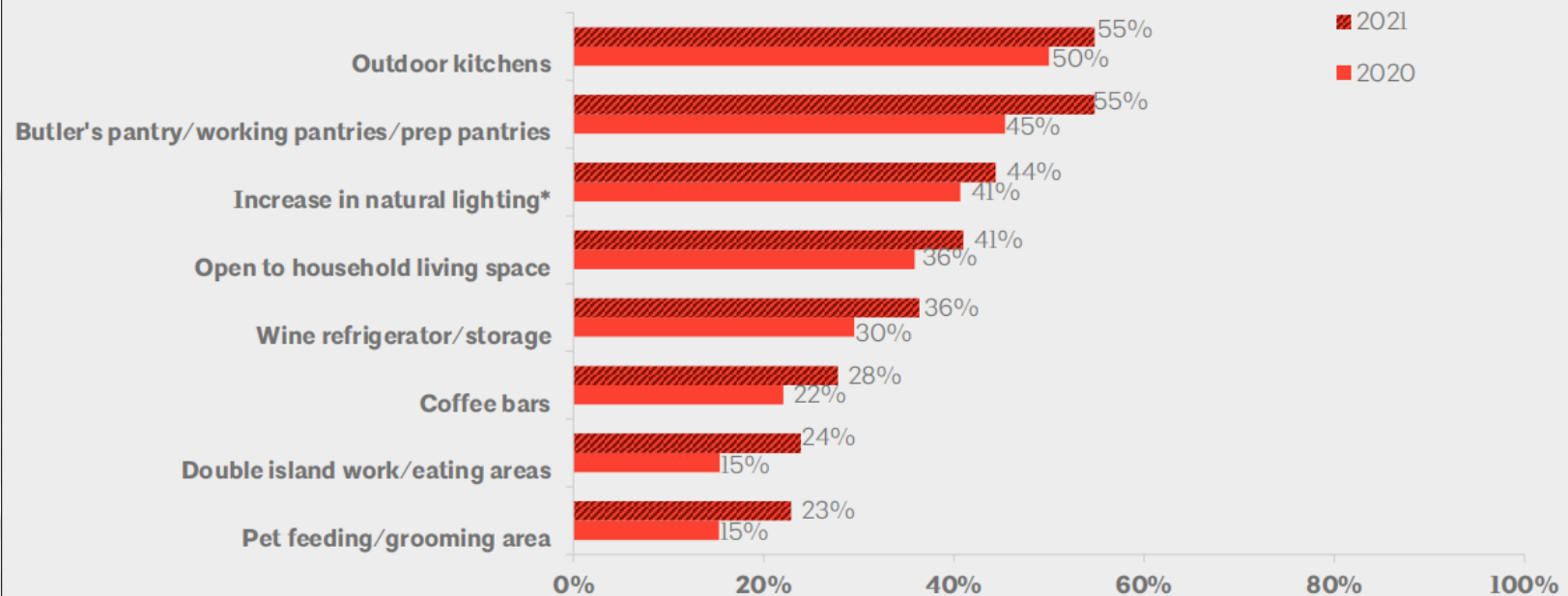
Remodeling

The American Institute of Architects

AIA Home Design Trends Survey

FIGURE 2 Outdoor kitchens continue to be very desirable features, growing in popularity along with working pantries

% of respondents reporting popularity “increasing” minus % reporting “decreasing”; data from Q4 2021 compared to data from Q4 2020



*(more, larger windows)

Source: The American Institute of Architects Home Design Trends Survey

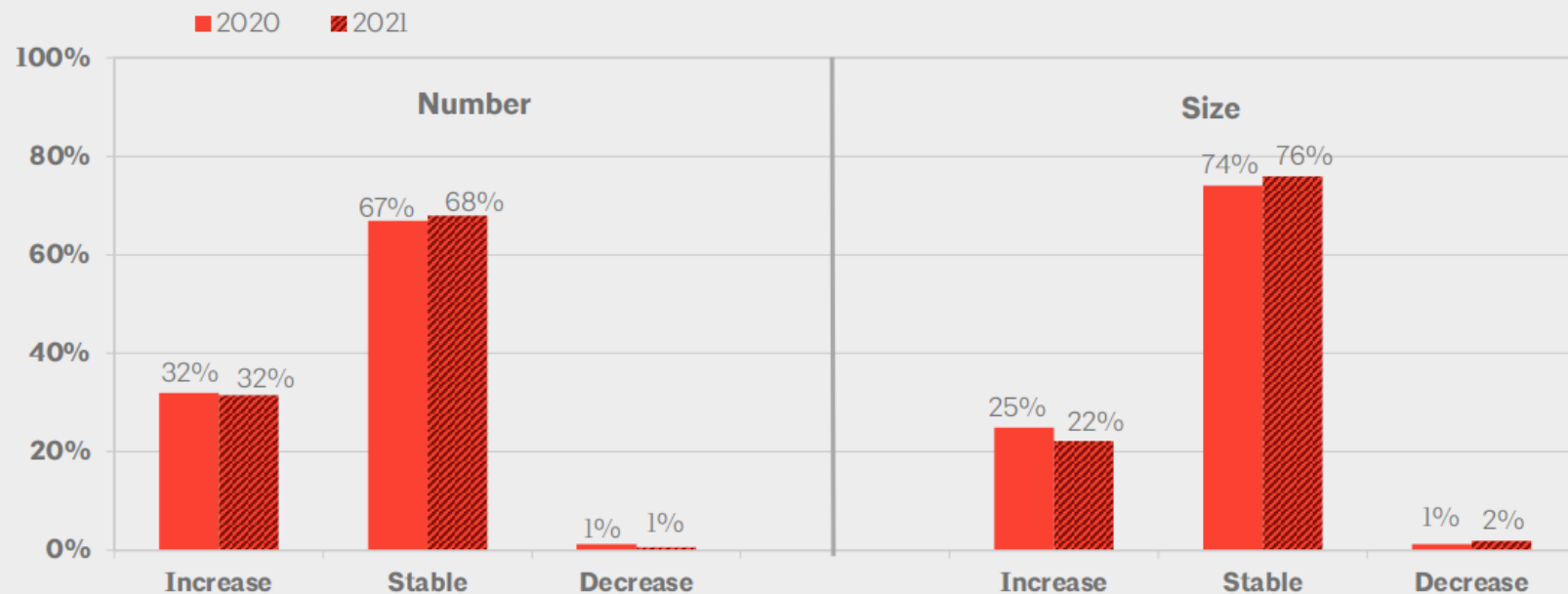
Remodeling

The American Institute of Architects

AIA Home Design Trends Survey

FIGURE 4 Bathrooms remain a popular focus in homes as the number and size stabilize

Change in the number and size of bathrooms, % of respondents; data from Q4 2021 compared to data from Q4 2020



Source: The American Institute of Architects Home Design Trends Survey

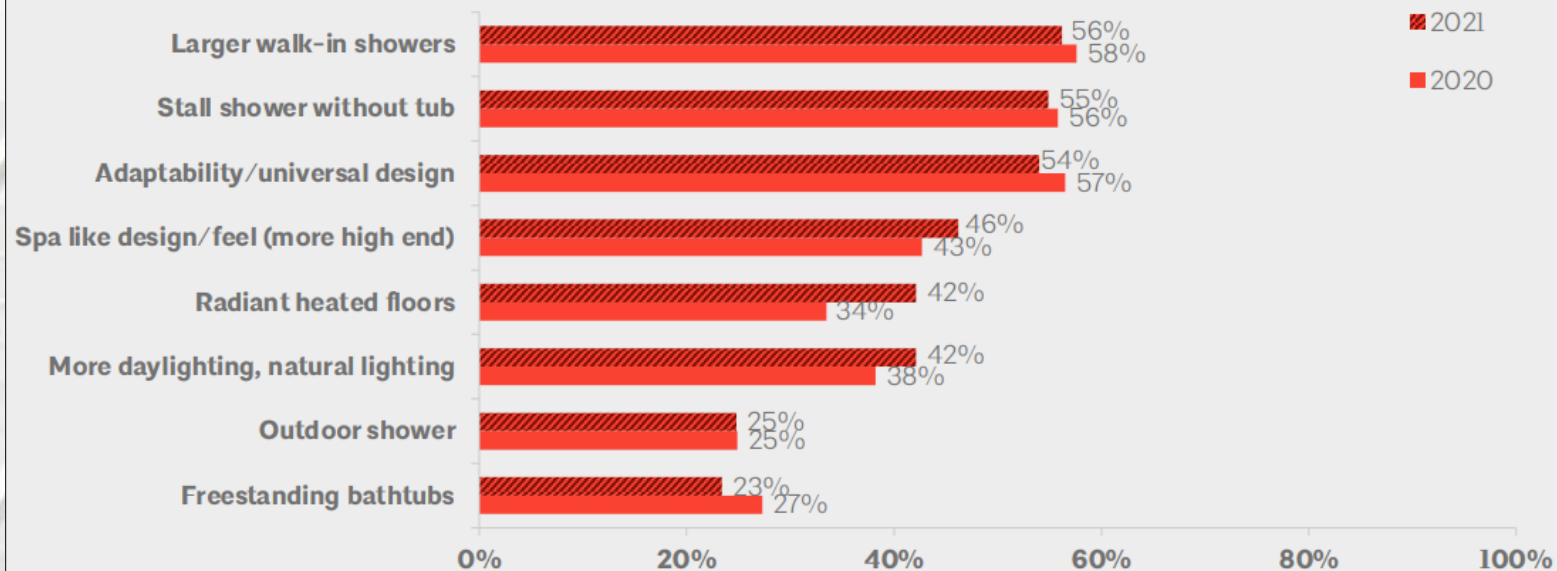
Remodeling

The American Institute of Architects

AIA Home Design Trends Survey

FIGURE 5 Larger walk-in showers continue to be a leading feature for bathrooms, while radiant heated floors increase in popularity

% of respondents reporting popularity “increasing” minus % reporting “decreasing”; data from Q4 2021 compared to data from Q4 2020



Source: The American Institute of Architects Home Design Trends Survey

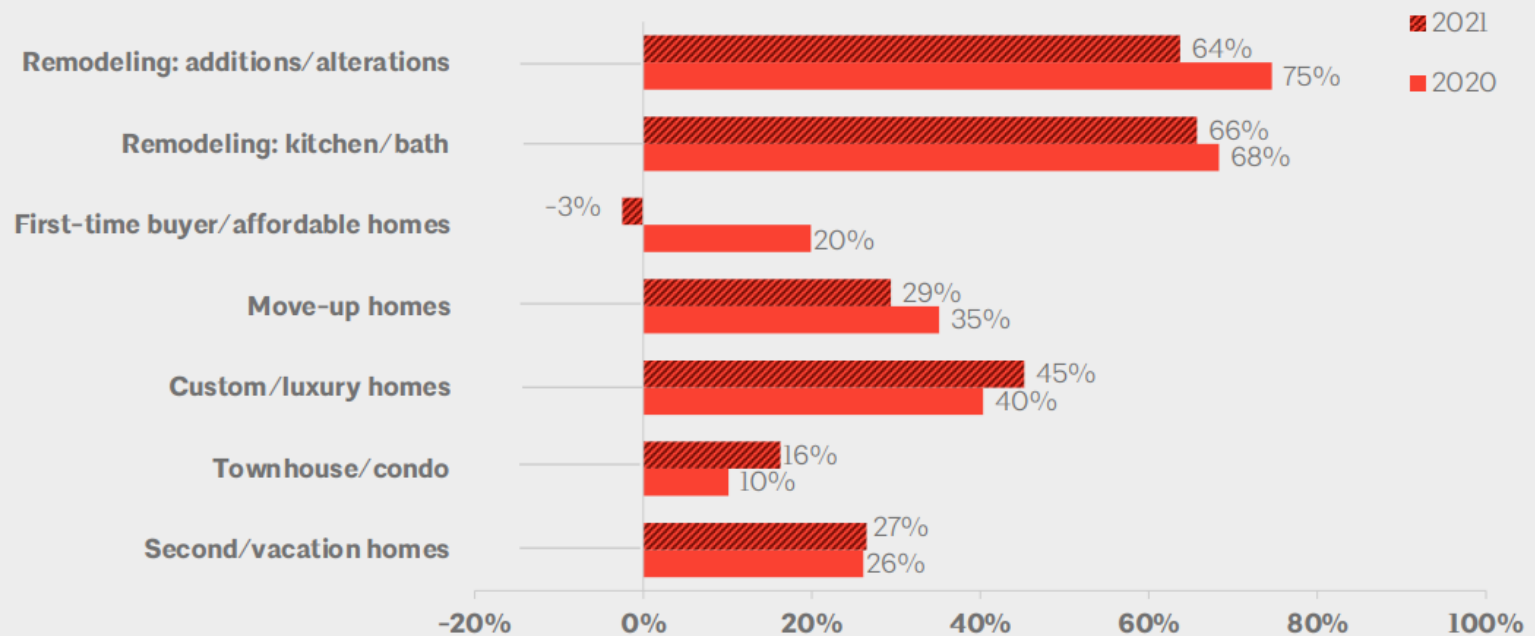
Remodeling

The American Institute of Architects

AIA Home Design Trends Survey

FIGURE 10 Home improvement sectors continue to outpace new construction, while affordable homes weaken

% of respondents reporting sector “improving” minus % reporting “weakening”; data from Q4 2021 compared to data from Q4 2020



Source: The American Institute of Architects Home Design Trends Survey

Existing House Sales

National Association of Realtors®

| | Existing Sales | Median Price | Mean Price | Month's Supply |
|------------|----------------|--------------|------------|----------------|
| February | 6,020,000 | \$357,300 | \$370,700 | 1.7 |
| January | 6,490,000 | \$350,000 | \$368,500 | 1.6 |
| 2021 | 6,170,000 | \$310,600 | \$342,100 | 2.0 |
| M/M change | -7.2% | 2.1% | 0.6% | 6.3% |
| Y/Y change | -2.4% | 15.0% | 8.4% | -15.0% |

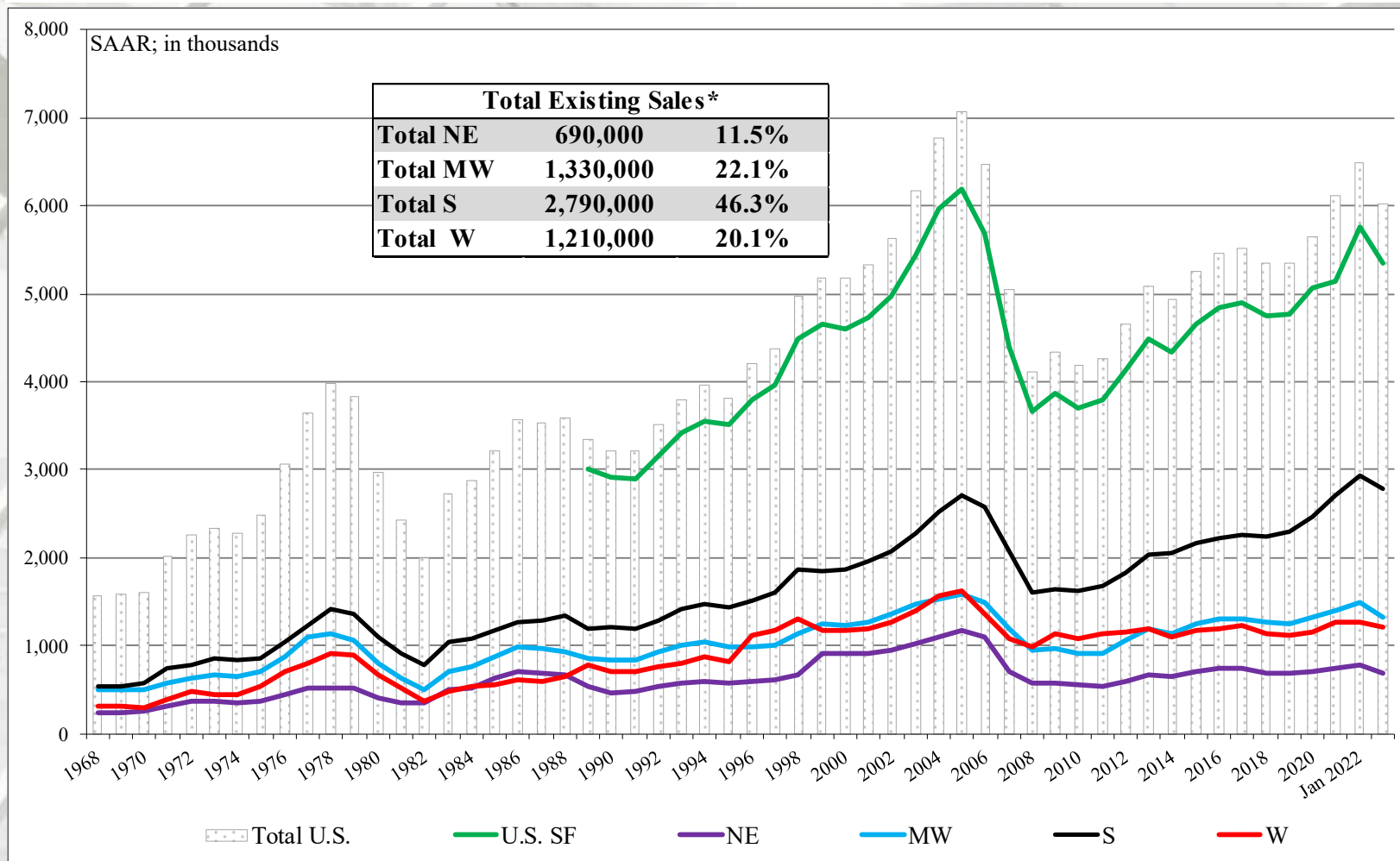
All sales data: SAAR

Existing House Sales

| | Existing SF Sales | SF Median Price | SF Mean Price | |
|------------|----------------------|--------------------|------------------|-----------|
| February | 5,350,000 | \$363,800 | \$374,400 | |
| January | 5,750,000 | \$356,700 | \$372,400 | |
| 2021 | 5,470,000 | \$315,100 | \$345,300 | |
| M/M change | -7.0% | 2.1% | 0.5% | |
| Y/Y change | -2.2% | 15.5% | 8.4% | |
| | NE | MW | S | W |
| February | 690,000 | 1,330,000 | 2,790,000 | 1,210,000 |
| January | 780,000 | 1,500,000 | 2,940,000 | 1,270,000 |
| 2021 | 790,000 | 1,350,000 | 2,710,000 | 1,320,000 |
| M/M change | -11.5% | -11.3% | -5.1% | -4.7% |
| Y/Y change | -12.7% | -1.5% | 3.0% | -8.3% |

All sales data: SAAR.

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 – February 2022

U.S. House Price Index Up 1.6 Percent in January; Up 18.2 Percent from Last Year

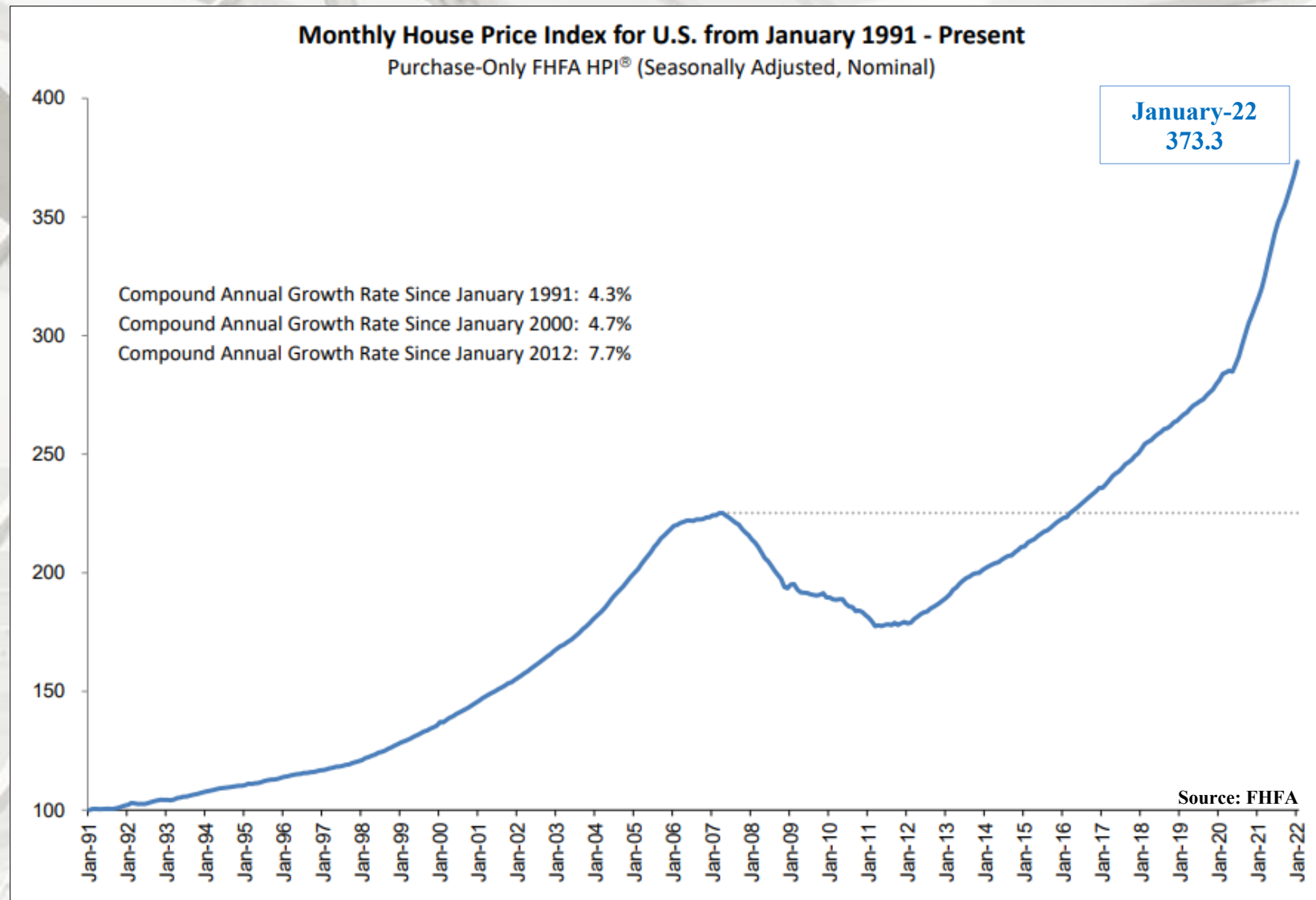
Significant Findings

“House prices rose nationwide in January, up 1.6 percent from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **18.2 percent** from January 2021 to January 2022. The previously reported 1.2 percent price change for December 2021 was revised upward to a 1.3 percent price change.

For the nine census divisions, seasonally adjusted monthly house price changes from December 2021 to January 2022 ranged from **+0.1 percent** in the New England division to **+2.2 percent** in the South Atlantic division. The 12-month changes ranged from **+13.3 percent** in the Middle Atlantic division to **+23.1 percent** in the Mountain division.” – Raffi Williams and Adam Russell, FHFA

“House price trends notched up slightly in January. Rising mortgage rates in January certainly reflect a major change from the past several years, but lending costs remain relatively low. The mortgage rate shift has not dampened upward price pressure from intense borrower demand and limited supply.” – William Doerner, Ph.D., Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices



U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Reports 18.8% Annual Home Price Gain In December

“... Data for January 2022 show that home prices continue to increase across the U.S. More than 27 years of history are available for these data series, and can be accessed in full by going to www.spdji.com.

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 19.2% annual gain in January, up from 18.9% in the previous month. The 10-City Composite annual increase came in at 17.5%, up from 17.1% in the previous month. The 20-City Composite posted a 19.1% year-over-year gain, up from 18.6% in the previous month.

Phoenix, Tampa, and Miami reported the highest year-over-year gains among the 20 cities in January. Phoenix led the way with a 32.6% year-over-year price increase, followed by Tampa with a 30.8% increase and Miami with a 28.1% increase. Sixteen of the 20 cities reported higher price increases in the year ending January 2022 versus the year ending December 2021.

Month-Over-Month

Before seasonal adjustment, the U.S. National Index posted an 1.1% month-over-month increase in January, while the 10-City and 20-City Composites both posted increases of 1.4%. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.6%, and the 10-City and 20-City Composites both posted increases of 1.8%. In January, all 20 cities reported increases before and after seasonal adjustments.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Analysis

“Home price changes in January 2022 continued the strength we had observed for much of the prior year. The National Composite Index recorded a gain of 19.2% for the 12 months ended in January 2022; the 10- and 20-City Composites rose 17.5% and 19.1%, respectively. All three composites reflect a small acceleration of price growth for January 2022.

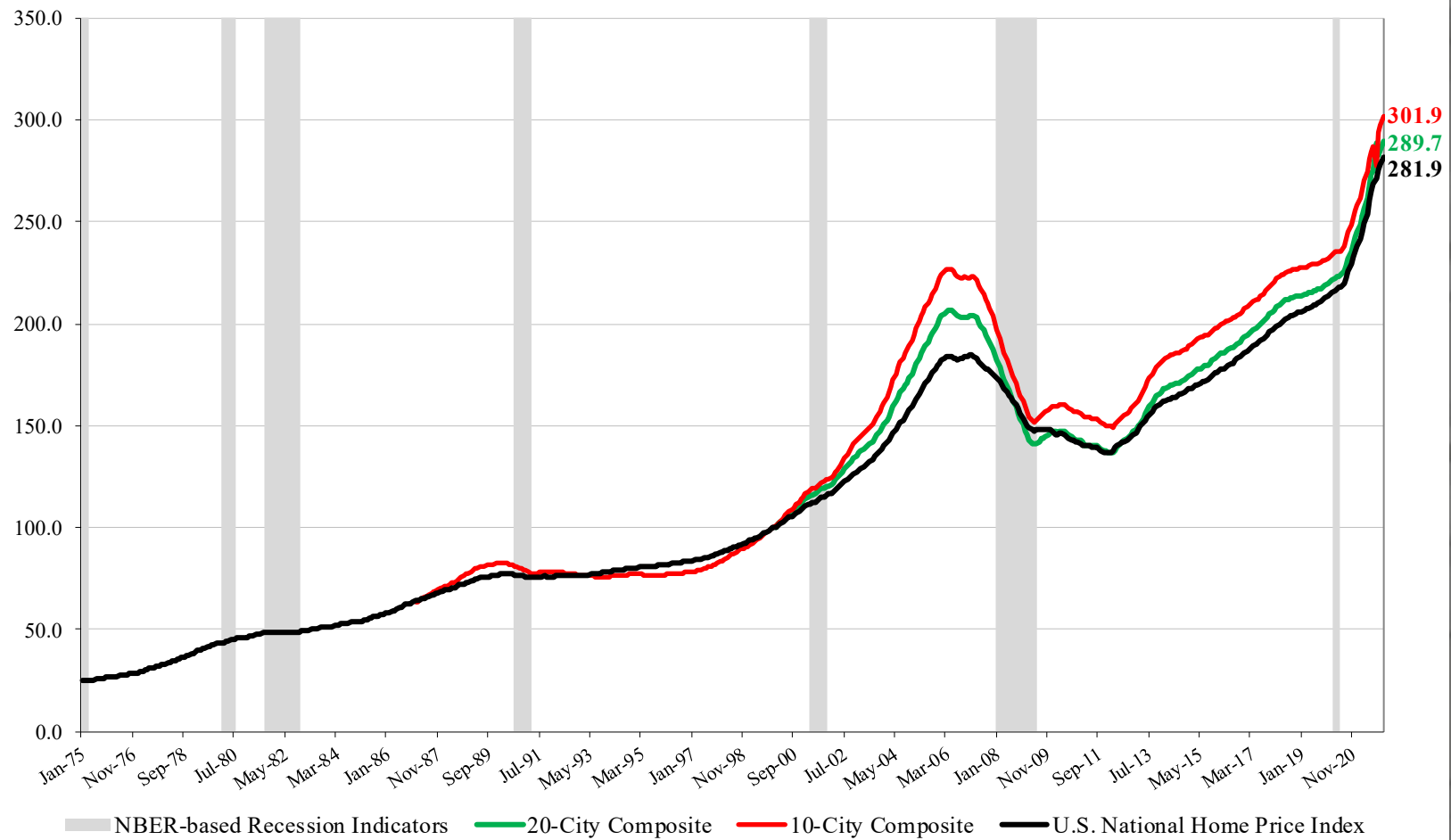
Last fall we observed that home prices, although continuing to rise quite sharply, had begun to decelerate. Even that modest deceleration was on pause in January. The 19.2% year-over-year change for January was the fourth-largest reading in 35 years of history.

The strength in home prices continues to be very broadly based. All 20 cities saw price increases in January 2022, with prices in 16 cities accelerating relative to December’s report. January’s price increase ranked in the top quintile of historical experience for 19 cities, and in the top decile for 17 of them.

Phoenix’s 32.6% price increase led all cities for the 32nd consecutive month. Tampa (+30.8%) and Miami (+28.1%) continued in silver and bronze positions in January. Prices were strongest in the South (+26.6%) and Southeast (+26.5%), but every region continued to log impressive gains.

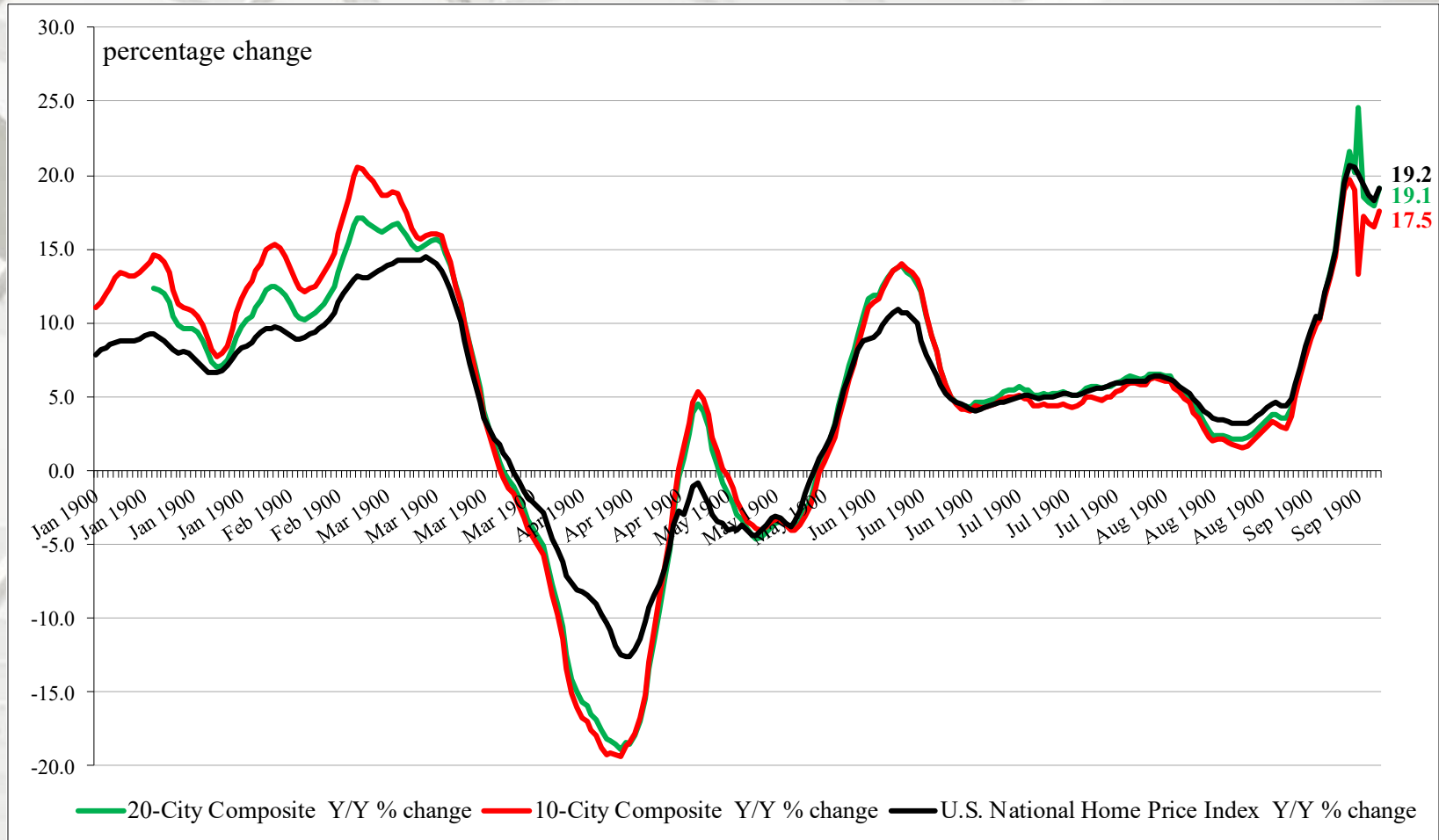
The macroeconomic environment is evolving rapidly. Declining COVID cases and a resumption of general economic activity has stoked inflation, and the Federal Reserve has begun to increase interest rates in response. We may soon begin to see the impact of increasing mortgage rates on home prices.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

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

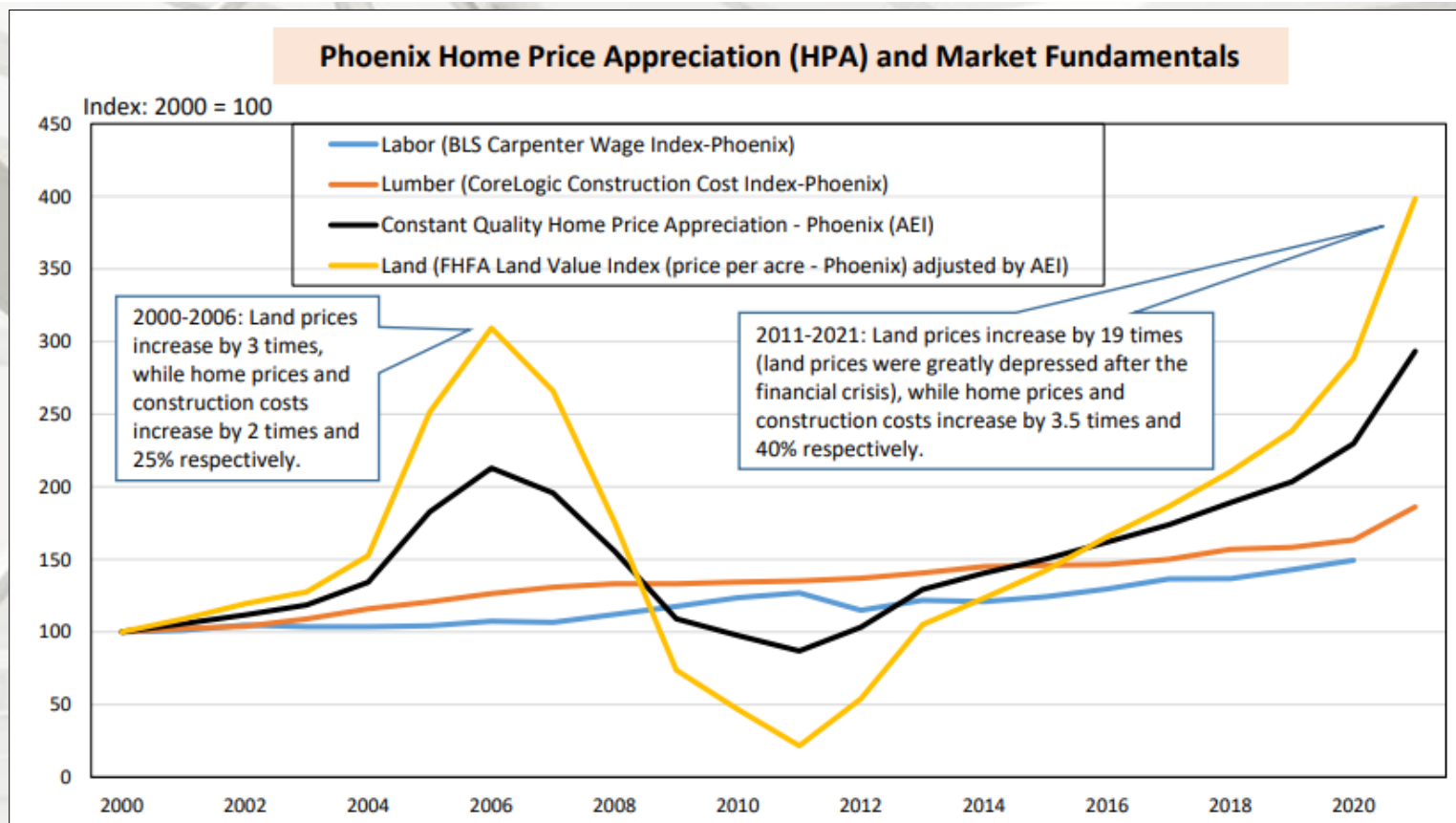


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Y/Y Price Change

From December 2020 to December 2021, the National Index increased 19.2%; the Ten-City by 17.5%, and the Twenty-City by 19.1%.

U.S. Housing Affordability & Prices



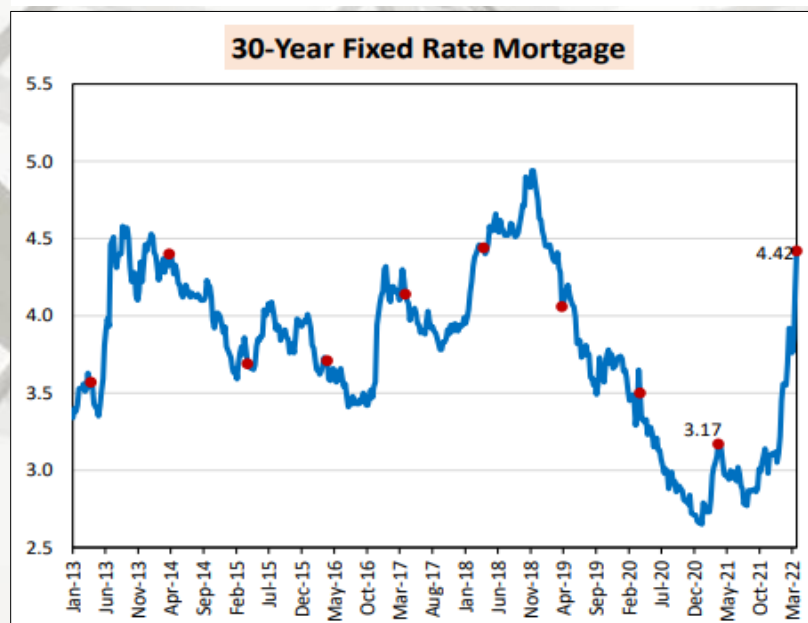
Sources: Bureau of Labor Statistics (BLS), CoreLogic, FHFA, and AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

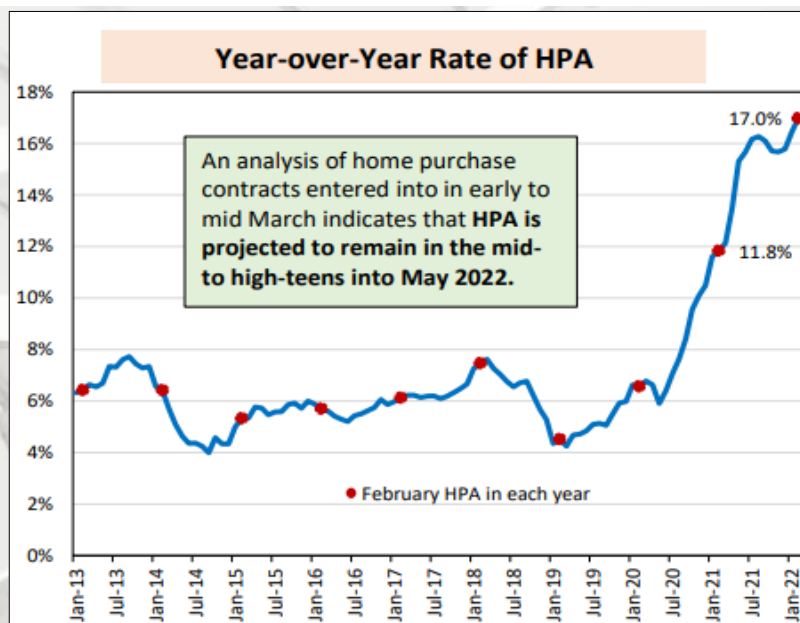
Long Term House Price Appreciation and Market Fundamentals

“It is the rising cost of land, not labor and lumber (construction costs), that is driving home price appreciation. Therefore, one must conclude that land use laws are the most likely explanation for what is holding supply back.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

U.S. Housing Affordability & Prices



Note: Data are for 30-year fixed-rate prime conventional conforming home purchase mortgages with a loan-to-value of 80 percent
Source: Freddie Mac.



Note: Data are for the entire country. Data for February 2022 are preliminary.

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

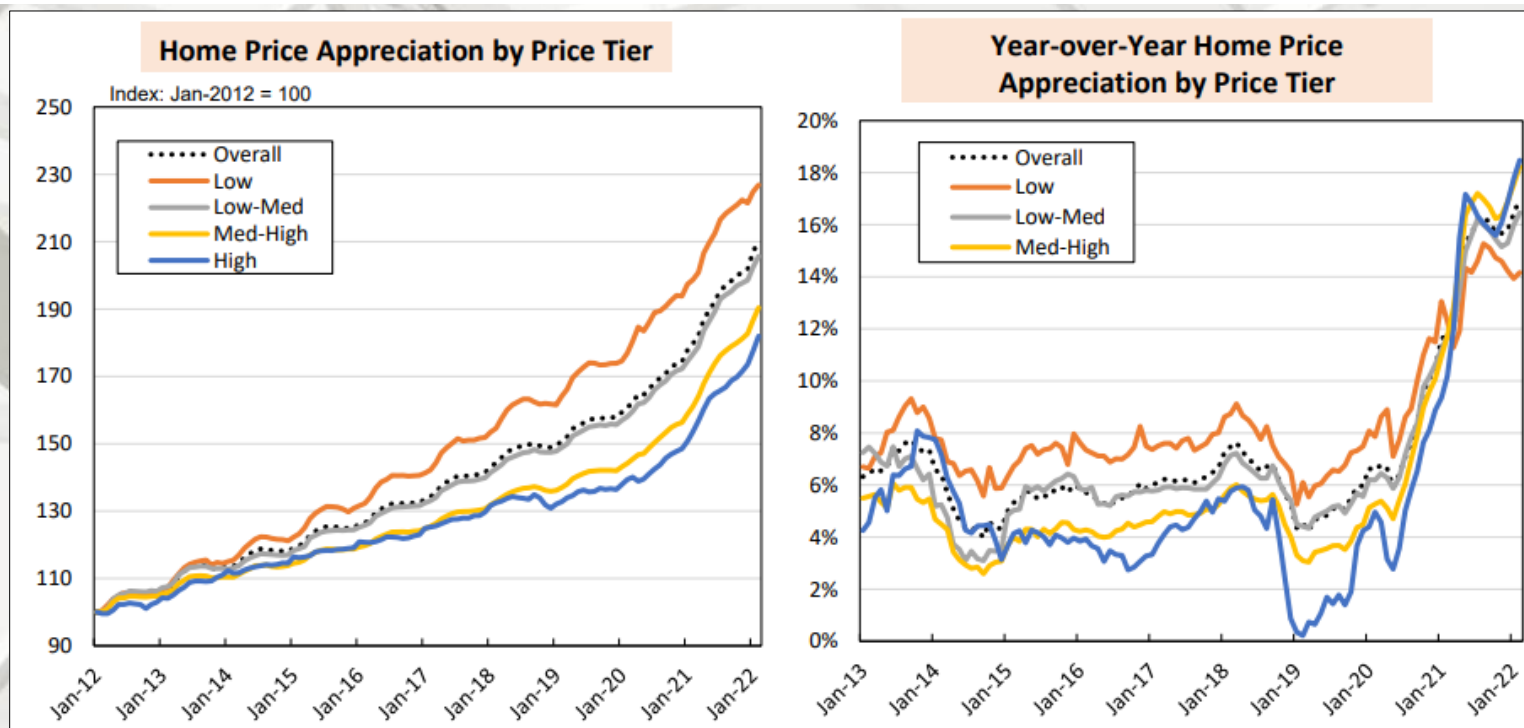
AEI Housing Center

Home Price Appreciation Accelerates Despite the Rate Hikes

“Despite the recent increase in mortgage rates, rampant home price appreciation continues to rise. In February 2022, the preliminary national year-over-year HPA rate was 17.0%, up from 16.4% a month ago and 11.8% a year ago. Over the last 24 months, home prices have risen 31%. This rapid pace of HPA is driven by the supply constraints (see next slides), relatively low mortgage rates, and an arbitrage opportunity enhanced by the work from home economy. Having entered the spring buying season, HPA is projected to remain in the mid-teens into May 2022 according to Optimal Blue data. Without more inventory or a mortgage rate higher than 5%, HPA is expected to remain in the mid-teens for the rest of 2022. December 2022 year-over-year HPA is expected to be 17%, up from the prior projection of 14%, with 2023 continuing at a robust 10-12%.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: <https://www.aei.org/housing/housing-market-indicators/>; 3/28/22

U.S. Housing Affordability & Prices



Note: Data are for the entire country. Data for February 2021 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

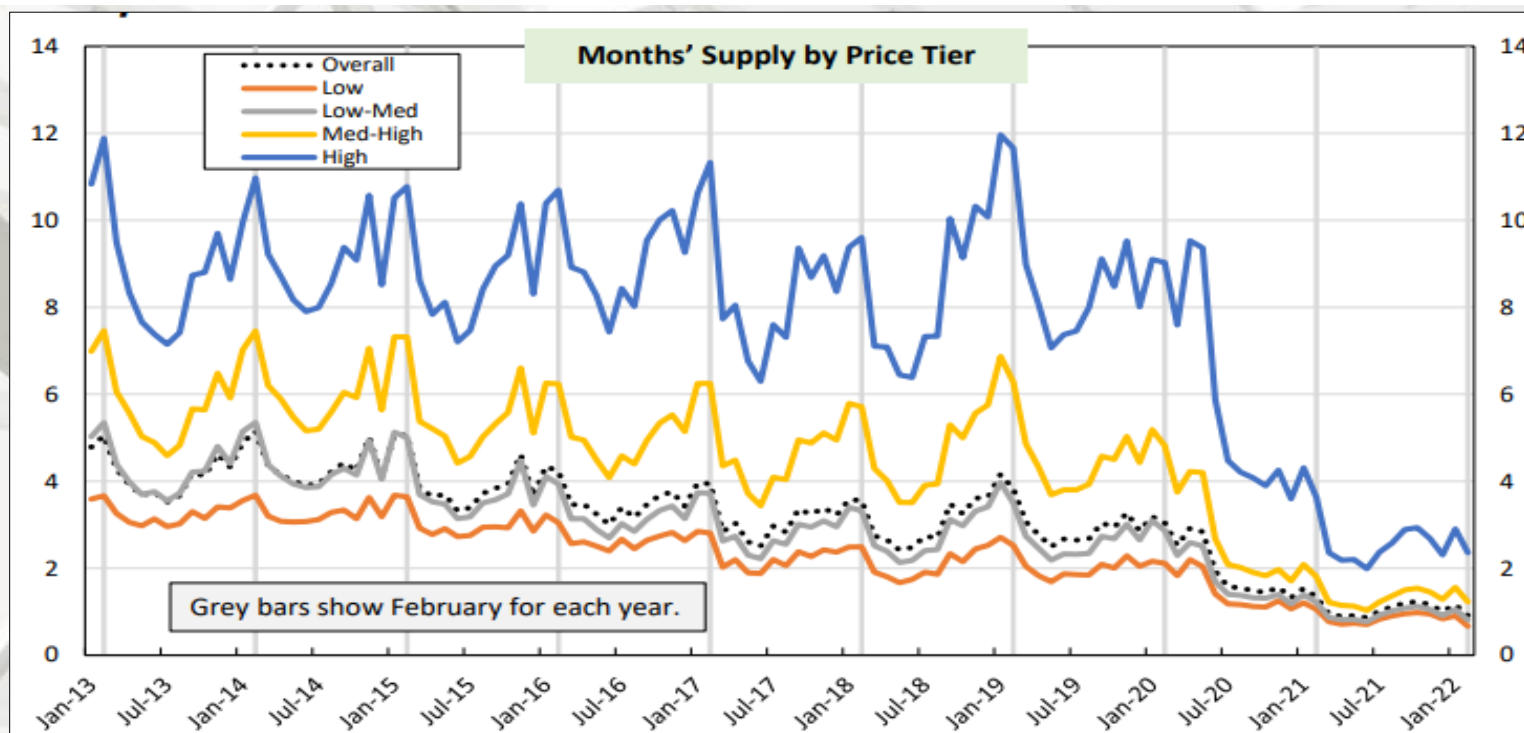
Home Price Appreciation by Price Tier

“Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for February 2022 indicate that the low-price tier continued to have strong HPA, but the med-high and high-price tiers, which are more dependent on the Fed’s monetary punch bowl for increased buying power from low rates, are showing the strongest HPA (right panel). This is a trend reversal. Since HPA has not yet peaked, it will take a sustained mortgage rate of 5% or higher to slow HPA in the med-high and high price tiers. A 5% rate will still lead to an overall 2023 HPA of 10-12%.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: <https://www.aei.org/housing/housing-market-indicators/>; 3/28/22

[Return TOC](#)

Housing Supply



Note: Months' supply measures how long it would take for the existing level of inventory to be sold off at the current sale's pace. While the listings data come from the MLS, the sales numbers come from the public records

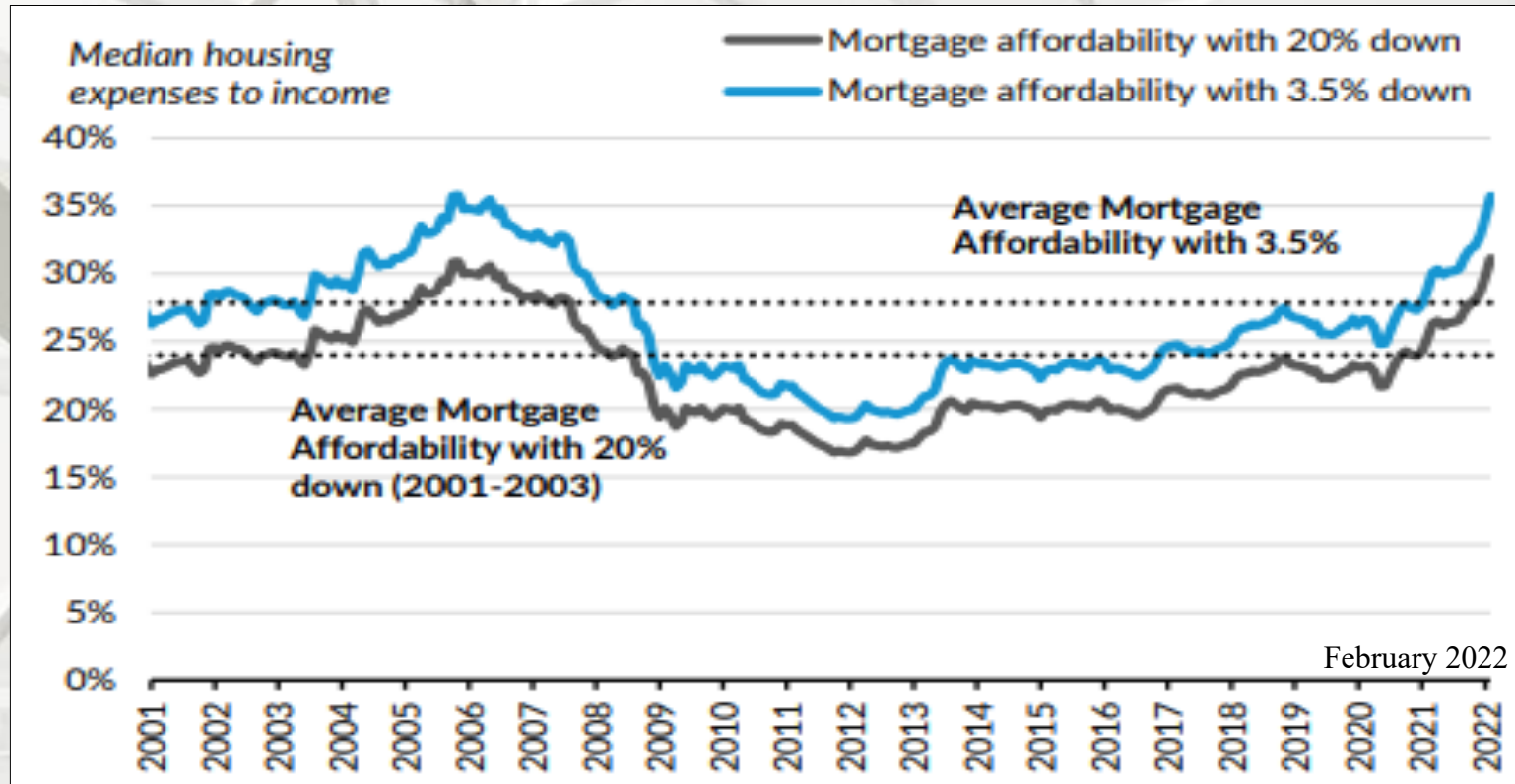
Sources: Realtor.com, Zillow, and AEI Housing Center, www.AEI.org/housing.

AEI Housing Center Months' Supply by Price Tiers

“Starting in June 2020, months' supply started to drop precipitously across all price tiers and remains at or near the series' lows. In February 2022, overall months' supply stood at 0.9 months. While supply remains lowest in the low (0.7 months) and low-med tiers (0.8 months), the drop in the med-high and high price tiers is especially noteworthy. The high tier has fallen from 9.4 months in May 2020 to 2.4 months in February 2022, while the med-high tier has fallen from 4.2 to 1.2. The recent slight upward trend is more muted than the usual seasonal effect.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: <https://www.aei.org/housing/housing-market-indicators/>; 3/28/22

Housing Affordability

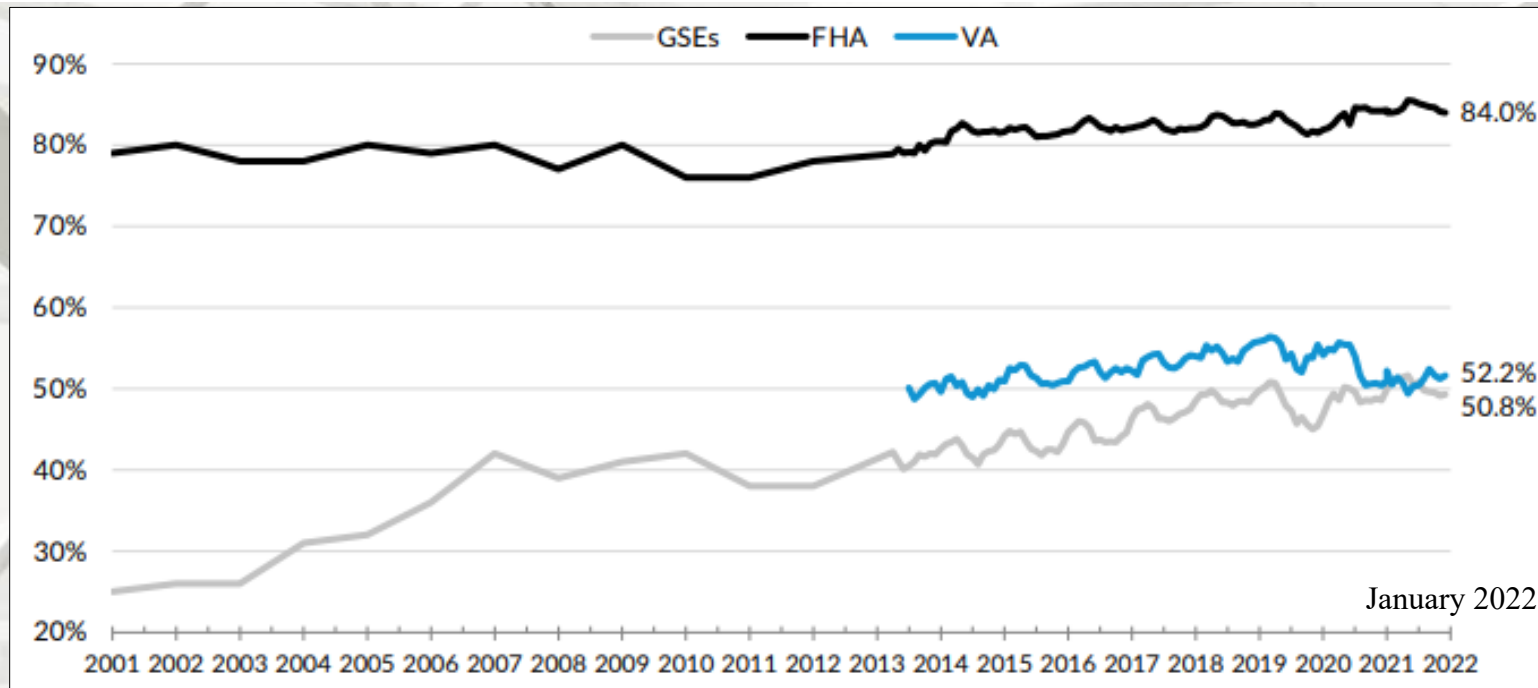


Urban Institute

National Mortgage Affordability Over Time

“Despite historic low interest rates, increases in home prices have pushed affordability to the worst levels on record. As of February 2022, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.1 percent, compared to 30.9 percent at the peak of the housing bubble in November 2005; with 3.5 percent down it is 35.7 percent, compared to a 35.8 prior peak in November 2005. These numbers represent a sharp worsening in affordability over the past year. ...” — Laurie Goodman, Vice President, Urban Institute

Housing Affordability



Urban Institute First-time Home Buyers

“In January 2022, the FTHB share for FHA, which has always been more focused on first time home buyers, was 84.0 percent. The FTHB share of VA lending in January was 52.2 percent. The GSE FTHB share slightly increased in January relative to December, to 50.8 percent. The bottom table shows that based on mortgages originated in January 2022, 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, thus paying a higher interest rate.” – Laurie Goodman, Vice President, Urban Institute

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Decreased in March

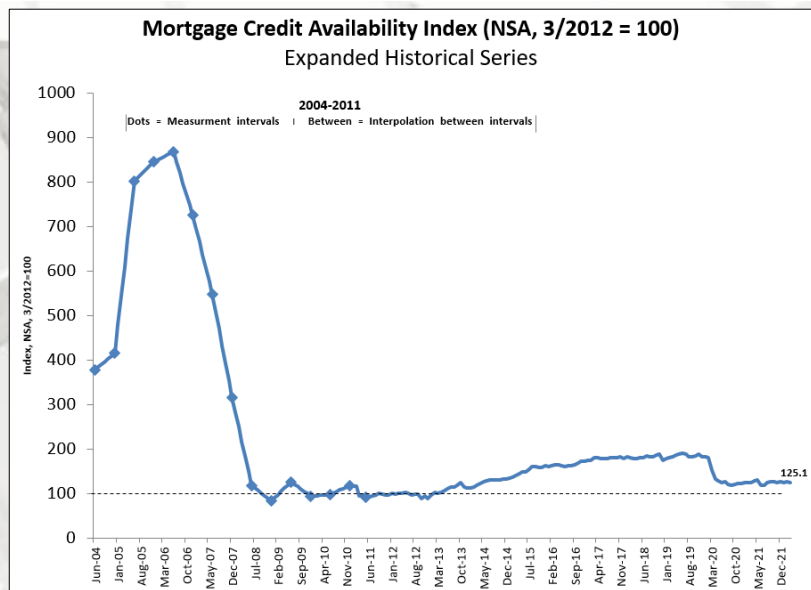
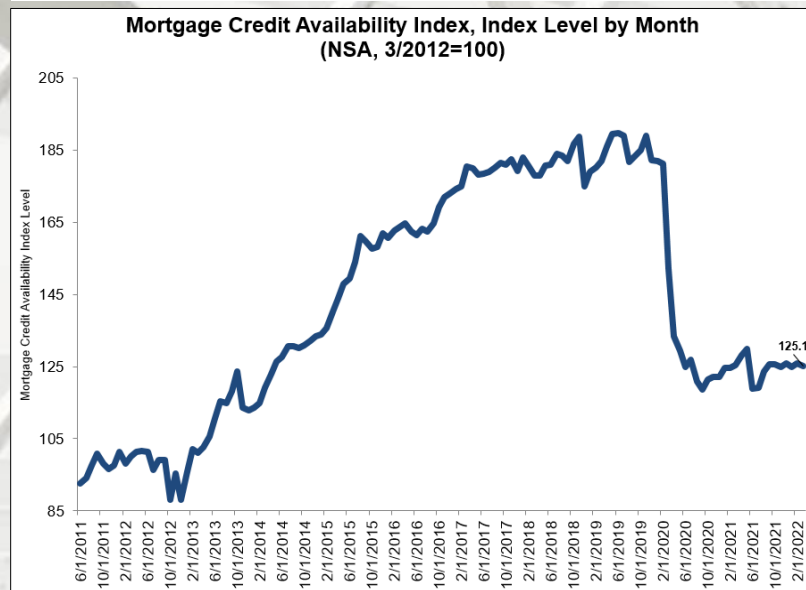
“Mortgage credit availability decreased in March according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

The MCAI fell by 0.7 percent to 125.1 in March. 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 1.6 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.5 percent, and the Conforming MCAI fell by 1.9 percent..

Overall credit availability was down slightly in March, driven by a reduction in higher LTV, lower credit score programs. Credit availability has gradually trended higher since mid-2021 but remains around 30 percent tighter than it was in early 2020. There were also mixed trends for the various loan categories, as conventional loan credit availability increased for the second month in a row, while government credit supply decreased to its tightest level since February 2014. Additionally, jumbo credit expanded for the tenth time in the past 12 months but remained almost 40 percent lower than the pre-pandemic level.” – 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 Ellie Mae's AllRegs® Market Clarity®

Mortgage Bankers Association (MBA)

Purchase Applications Payment Index

MBA's new monthly affordability index reports applications data by loan type, geography, and race; comparison to asking rents

“Homebuyer affordability decreased in February, with the national median payment applied for by applicants jumping 8.3 percent to \$1,653 from \$1,526 in January. This is according to the Mortgage Bankers Association's (MBA) Purchase Applications Payment Index (PAPI), which measures how new monthly mortgage payments vary across time – relative to income – using data from MBA's Weekly Applications Survey (WAS).

Low unemployment has spurred strong income growth in early 2022, but home buyer affordability has decreased due to the quick rise in mortgage rates amidst steep home-price growth. The 30-year fixed-rate mortgage spiked 73 basis points from December 2021 through February 2022. Together with increased loan application amounts, a mortgage applicant's median principal and interest payment in February jumped \$127 from January and \$337 from one year ago.

An increase in MBA's PAPI – indicative of declining borrower affordability conditions – means that the mortgage payment to income ratio (PIR) is higher due to increasing application loan amounts, rising mortgage rates, or a decrease in earnings. A decrease in the PAPI – indicative of improving borrower affordability conditions – occurs when loan application amounts decrease, mortgage rates decrease, or earnings increase.” – Edward Seiler, Associate Vice President, Housing Economics, and Executive Director, Research Institute for Housing America, MBA

Mortgage Bankers Association (MBA)

Purchase Applications Payment Index

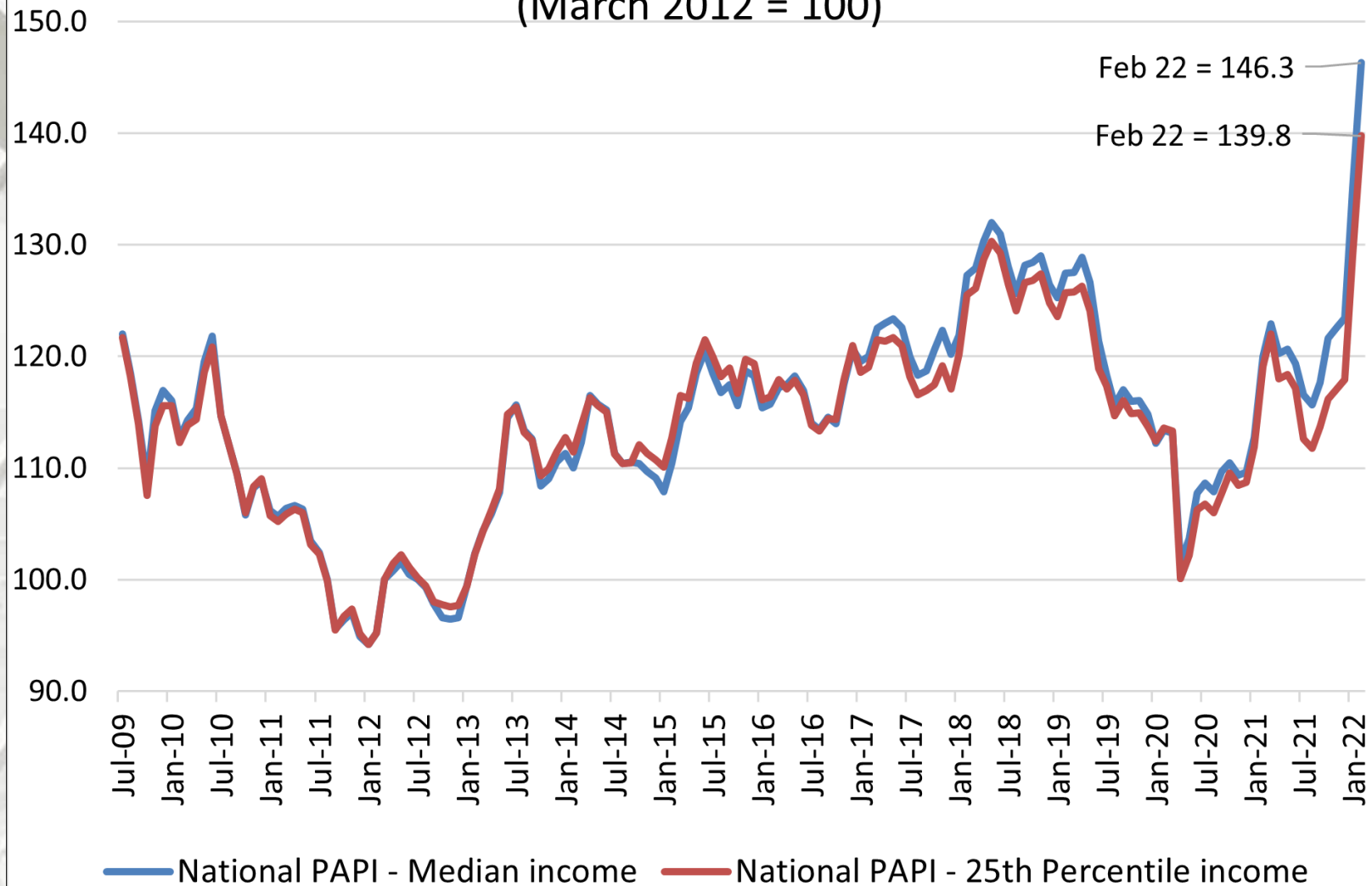
“The national PAPI (Figure 1) increased 8.3 percent to 146.3 in February 2022 from 135.1 in January 2022, meaning payments on new mortgages take up a larger share of a typical person’s income. Compared to February 2021 (120.0), the index jumped 21.9 percent. For borrowers applying for lower-payment mortgages (the 25th percentile), the national mortgage payment increased 9.8 percent to \$1,094 from \$996 in January 2022.

MBA’s national mortgage payment to rent ratio (MPRR) – this month comparing median purchase mortgage application payments to median asking rents in December 2021 from November 2021 – increased to 1.15 from 1.14 and was up from 1.01 in December 2020, meaning mortgage payments for home purchases have increased relative to rents. The national median asking rent in fourth-quarter 2021 was \$1,207. The 25th percentile mortgage application payment to median asking rent ratio increased from 0.73 in November 2021 to 0.74 in December 2021.

Asking rents from first-quarter 2020 to fourth-quarter 2021 increased 16 percent, even outpacing the steep growth in mortgage application payments over that period. MBA’s mortgage payment to rent ratio is now at roughly the same level it was at the start of the COVID-19 pandemic in March 2020. ...” – Edward Seiler, Associate Vice President, Housing Economics, and Executive Director, Research Institute for Housing America, MBA

Mortgage Bankers Association (MBA)

Figure 1: Purchase Applications Payment Index for All U.S.
(March 2012 = 100)



MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

April 13, 2022

| | 2021 | | | | 2022 | | | | 2023 | | | | 2021 | 2022 | 2023 | 2024 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| Housing Measures | | | | | | | | | | | | | | | | |
| Housing Starts (SAAR, Thous) | 1,599 | 1,588 | 1,562 | 1,670 | 1,711 | 1,723 | 1,713 | 1,703 | 1,729 | 1,768 | 1,791 | 1,799 | 1,605 | 1,713 | 1,772 | 1,665 |
| Single-Family | 1,156 | 1,107 | 1,096 | 1,166 | 1,190 | 1,204 | 1,223 | 1,243 | 1,279 | 1,318 | 1,345 | 1,365 | 1,131 | 1,215 | 1,327 | 1,258 |
| Two or More | 443 | 482 | 465 | 503 | 521 | 519 | 490 | 460 | 450 | 450 | 446 | 434 | 473 | 498 | 445 | 408 |
| Home Sales (SAAR, Thous) | | | | | | | | | | | | | | | | |
| Total Existing Homes | 6,287 | 5,950 | 6,067 | 6,203 | 6,212 | 6,107 | 6,031 | 6,063 | 6,111 | 6,157 | 6,245 | 6,341 | 6,127 | 6,103 | 6,213 | 6,435 |
| New Homes | 896 | 737 | 699 | 752 | 785 | 812 | 833 | 857 | 888 | 910 | 919 | 920 | 771 | 822 | 909 | 918 |
| FHFA US House Price Index (YOY % Change) | 12.7 | 17.4 | 17.6 | 17.5 | 15.2 | 12.2 | 9.1 | 6.2 | 3.9 | 2.3 | 2.8 | 2.5 | 17.5 | 6.2 | 2.5 | 4.9 |
| Median Price of Total Existing Homes (Thous \$) | 313.5 | 351.7 | 356.1 | 353.8 | 354.2 | 365.3 | 369.8 | 371.1 | 379.5 | 384.3 | 386.3 | 388.3 | 343.8 | 365.1 | 384.6 | 401.3 |
| Median Price of New Homes (Thous \$) | 364.9 | 380.6 | 407.8 | 416.0 | 420.6 | 413.6 | 415.1 | 417.4 | 424.2 | 425.6 | 426.8 | 427.6 | 392.3 | 416.7 | 426.1 | 433.4 |
| Interest Rates | | | | | | | | | | | | | | | | |
| 30-Year Fixed Rate Mortgage (%) | 2.9 | 3.0 | 2.9 | 3.1 | 3.8 | 4.7 | 4.8 | 4.8 | 4.8 | 4.8 | 4.7 | 4.6 | 3.1 | 4.8 | 4.6 | 4.3 |
| 10-Year Treasury Yield (%) | 1.3 | 1.6 | 1.3 | 1.5 | 1.9 | 2.6 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 1.5 | 2.8 | 2.8 | 2.5 |
| Mortgage Originations | | | | | | | | | | | | | | | | |
| Total 1- to 4-Family (Bil \$) | 1,094 | 1,050 | 954 | 893 | 689 | 697 | 594 | 582 | 535 | 666 | 629 | 619 | 3,991 | 2,562 | 2,449 | 2,591 |
| Purchase | 320 | 460 | 442 | 424 | 381 | 492 | 430 | 418 | 360 | 499 | 463 | 451 | 1,646 | 1,721 | 1,773 | 1,845 |
| Refinance | 774 | 590 | 512 | 469 | 308 | 205 | 164 | 164 | 175 | 167 | 166 | 168 | 2,345 | 841 | 676 | 746 |
| Refinance Share (%) | 71 | 56 | 54 | 53 | 45 | 29 | 28 | 28 | 33 | 25 | 26 | 27 | 59 | 33 | 28 | 29 |
| FHA Originations (Bil \$) | | | | | | | | | | | | | 293 | 180 | 159 | 145 |
| Total 1- to 4-Family (000s loans) | 3,146 | 2,926 | 2,714 | 2,497 | 1,830 | 1,866 | 1,615 | 1,487 | 1,359 | 1,719 | 1,611 | 1,533 | 11,283 | 6,798 | 6,221 | 6,377 |
| Purchase | 974 | 1,341 | 1,302 | 1,259 | 1,025 | 1,302 | 1,130 | 1,075 | 931 | 1,278 | 1,176 | 1,113 | 4,876 | 4,532 | 4,497 | 4,539 |
| Refinance | 2,172 | 1,585 | 1,412 | 1,238 | 805 | 564 | 485 | 412 | 428 | 441 | 435 | 420 | 6,407 | 2,266 | 1,724 | 1,838 |
| Refinance Share (%) | 69 | 54 | 52 | 50 | 44 | 30 | 30 | 28 | 31 | 26 | 27 | 27 | 57 | 33 | 28 | 29 |
| Mortgage Debt Outstanding | | | | | | | | | | | | | | | | |
| 1- to 4-Family (Bil \$) | 11,783 | 12,022 | 12,271 | 12,532 | 12,711 | 12,924 | 13,136 | 13,340 | 13,519 | 13,700 | 13,873 | 14,036 | 12,532 | 13,340 | 14,036 | 14,645 |

Notes:

As of the Sep. 2021 forecast, the 2020 originations numbers have been revised based on the 2020 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 2022 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

April 13, 2022

| | 2021 | | | | 2022 | | | | 2023 | | | | 2021 | 2022 | 2023 | 2024 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| Percent Change, SAAR | | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | 6.3 | 6.7 | 2.3 | 6.9 | 0.4 | 3.3 | 3.2 | 3.1 | 2.5 | 2.2 | 2.1 | 2.1 | 5.5 | 2.5 | 2.2 | 1.8 |
| Personal Consumption Expenditures | 11.4 | 12.0 | 2.0 | 2.5 | 4.2 | 3.7 | 2.4 | 1.9 | 1.8 | 2.2 | 2.3 | 2.5 | 6.9 | 3.0 | 2.2 | 2.7 |
| Business Fixed Investment | 12.9 | 9.2 | 1.7 | 2.9 | 9.1 | 9.5 | 5.6 | 4.5 | 3.5 | 2.7 | 2.4 | 2.1 | 6.6 | 7.2 | 2.7 | 1.3 |
| Residential Investment | 13.3 | -11.7 | -7.7 | 2.2 | 5.2 | 1.1 | -2.5 | 2.2 | 2.9 | 5.8 | 5.6 | 5.4 | -1.5 | 1.4 | 4.9 | -2.0 |
| Govt. Consumption & Investment | 4.2 | -2.0 | 0.9 | -2.6 | -0.4 | 0.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.2 | 1.2 | 0.1 | 0.9 | 1.4 | 0.8 |
| Net Exports (Bil. Chain 2012\$) | -1033.0 | -1048.4 | -1112.3 | -1139.5 | -1252.3 | -1274.6 | -1248.5 | -1229.0 | -1217.1 | -1226.9 | -1234.0 | -1247.9 | -1083.3 | -1251.1 | -1231.5 | -1275.2 |
| Inventory Investment (Bil. Chain 2012\$) | -75.1 | -143.3 | -56.8 | 164.3 | 97.0 | 83.4 | 87.7 | 103.2 | 108.4 | 103.0 | 95.0 | 88.1 | -27.7 | 92.8 | 98.6 | 75.6 |
| Consumer Prices (YOY) | 1.9 | 4.8 | 5.3 | 6.7 | 8.0 | 7.4 | 6.6 | 5.2 | 3.5 | 2.6 | 2.4 | 2.5 | 6.7 | 5.2 | 2.5 | 2.0 |
| Percent | | | | | | | | | | | | | | | | |
| Unemployment Rate | 6.2 | 5.9 | 5.1 | 4.2 | 3.8 | 3.5 | 3.3 | 3.3 | 3.4 | 3.5 | 3.6 | 3.8 | 5.4 | 3.5 | 3.6 | 4.2 |
| Federal Funds Rate | 0.125 | 0.125 | 0.125 | 0.125 | 0.375 | 1.375 | 1.625 | 2.375 | 2.625 | 3.125 | 3.125 | 3.125 | 0.125 | 2.375 | 3.125 | 2.375 |
| 10-Year Treasury Yield | 1.3 | 1.6 | 1.3 | 1.5 | 1.9 | 2.6 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 1.5 | 2.8 | 2.8 | 2.5 |

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

Copyright 2022 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

Summary

In conclusion:

In aggregate, February 2022 housing data were mostly positive (see slide four). Housing starts were buoyed by an extraordinary surge in 2 to 4 unit starts (53,000 units), the most since August 2004 (67,000 units). Permits were subdued and this may be a result of the difficulties in completing houses. Total housing units under construction were the most since early 1973. Housing completions are problematic as they are restrained due to building materials and product shortages, combined with other factors. New and existing house sales also were subdued, primarily due to a lack of available inventory for sale. Increasing mortgage rates, in combination with record house prices, may reduce affordability for potential house buyers. .

Pros:

- 1) Historically low-interest rates remain in place;
- 2) Select builders are beginning to focus on entry-level houses;

Cons:

- 1) The war in Ukraine;
- 2) COVID-19;
- 3) Construction material and appliance constraints;
- 4) Logistics/Supply chains;
- 5) Lot availability and building regulations (according to several sources);
- 6) Laborer shortages in many sectors;
- 7) Household formations still lag historical averages;
- 8) Job creation is improving and consistent, but some economists question the quantity and types of jobs being created;
- 9) Debt: Corporate, personal, government – United States and globally;
- 10) Other global uncertainties.

Virginia Tech Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you February find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.

U.S. Department of Agriculture Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents available from this server, neither the United States Government nor any of its employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by the U.S. Department of Agriculture of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, the Department does not exercise any editorial control over the information you February find at these locations. All links are provided with the intent of meeting the mission of the Department and the Forest Service web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.720.2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call 800.795.3272 (voice) or 202.720.6382 (TDD). The USDA is an equal opportunity provider and employer.