

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

March 2022



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

[http://woodproducts.sbio.vt.edu/housing-report.](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, March 2022 housing data were mostly positive (see slide four). Housing starts were buoyed by multi-family starts. Total starts are at the greatest level since 2006, with single-family starts declining. Total permits remain subdued; single-family permits decreased, and this may be a result of the difficulties in completing houses. Total housing units under construction were the most since March 1973. Housing completions also remain problematic as completions are restrained due to building materials and product shortages, combined with other factors. The disparity between the number of houses started versus houses completed are at the greatest level since 1984. This spread is evident for both single- and multi-family starts as builders await building materials and products necessary to complete started houses. New and existing house sales were negative, due to a lack of available inventory for sale and increasing mortgage interest rates. Increasing mortgage rates, in combination with record house prices, may reduce affordability for potential house buyers.

The May 9th Atlanta Fed GDPNow™ model forecast was an aggregate increase of 1.2% for total residential investment spending in Q2 2022. New private permanent site expenditures were projected at -1.0%; the improvement spending forecast was 2.9%; and the manufactured/mobile expenditures projection was an increase of 3.5% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“April home builder survey results are here. Top themes: 1) Demand is slowing, namely entry-level due to payment shock. 2) Investors are pulling back. 3) Ripple effect of rising rates starting to hit the move-up market.”² – Rick Palacios, Director of Research, John Burns Real Estate Consulting LLC

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.

March 2022

Housing Scorecard

		M/M	Y/Y
Housing Starts	▲	0.3%	▲ 3.9%
Single-Family (SF) Starts	▼	1.7%	▼ 4.4%
Multi-Family (MF) Starts*	▲	4.6%	▲ 26.2%
Housing Permits	▲	0.3%	▲ 6.6%
SF Permits	▼	4.6%	▼ 3.7%
MF Permits*	▲	9.1%	▲ 28.3%
Housing Under Construction	▲	2.3%	▲ 24.1%
SF Under Construction	▲	1.2%	▲ 27.3%
Housing Completions	▼	4.5%	▼ 13.0%
SF Completions	▼	6.4%	▼ 3.3%
New SF House Sales	▼	8.6%	▼ 12.6%
Private Residential Construction Spending	▲	1.0%	▲ 18.4%
SF Construction Spending	▲	1.3%	▲ 19.4%
Existing House Sales ¹	▼	2.7%	▼ 4.5%

* 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.

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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>

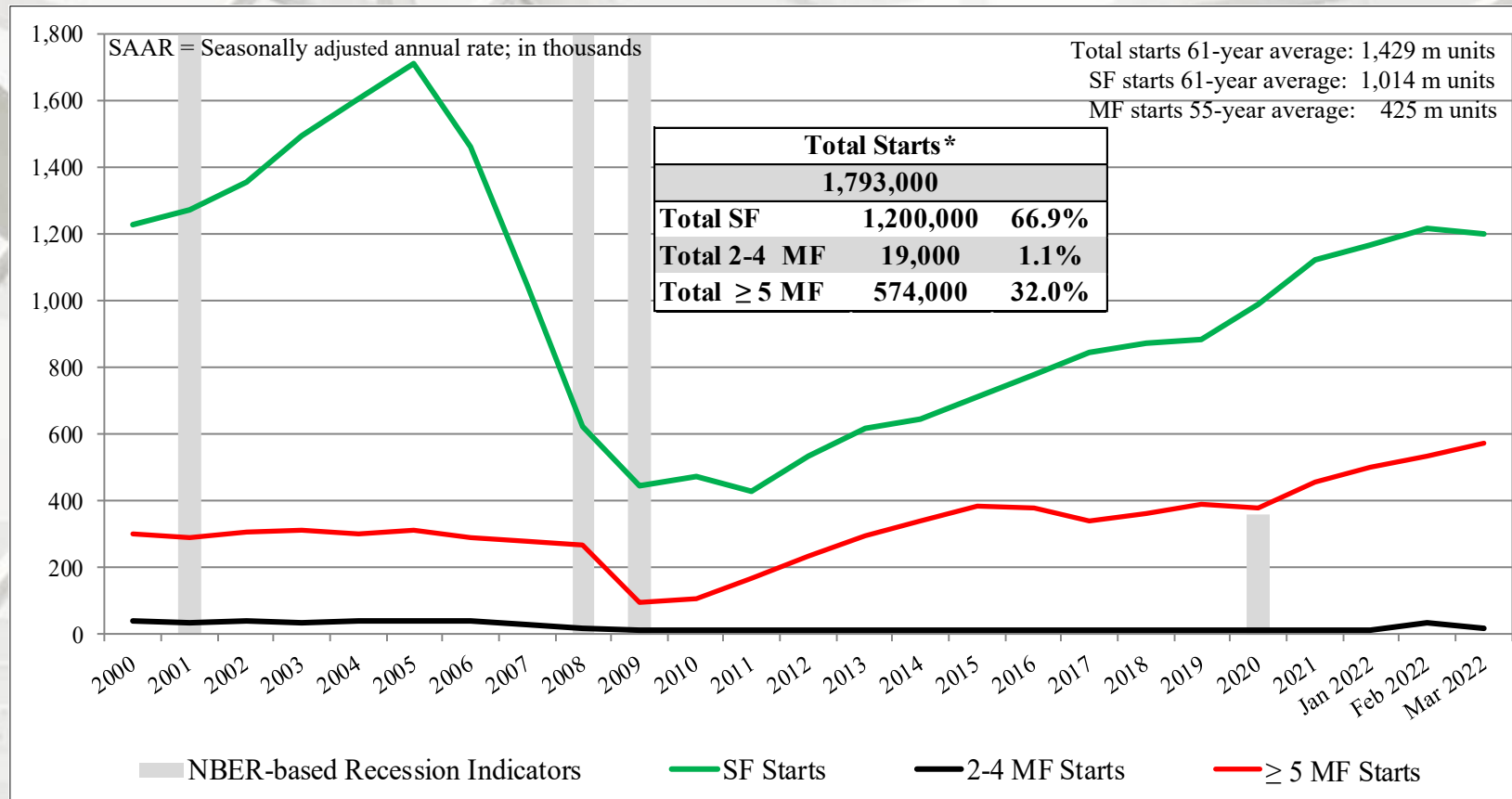
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
March	1,793,000	1,200,000	19,000	574,000
February	1,788,000	1,221,000	33,000	534,000
2021	1,725,000	1,255,000	22,000	448,000
M/M change	0.3%	-1.7%	-42.4%	7.5%
Y/Y change	3.9%	-4.4%	-13.6%	28.1%

* 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

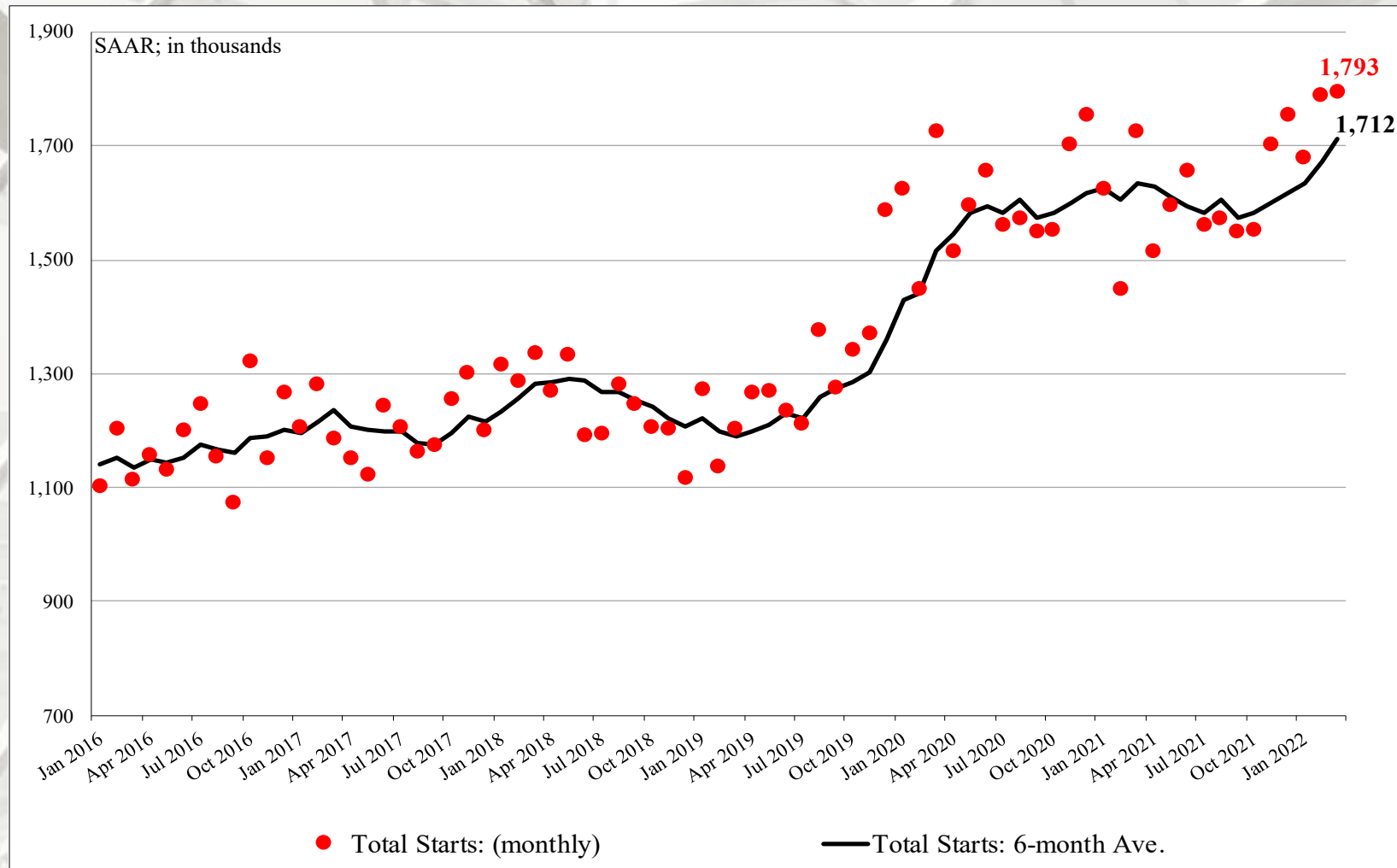


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: $((\text{Total starts} - (\text{SF} + \geq \text{MF})))$.

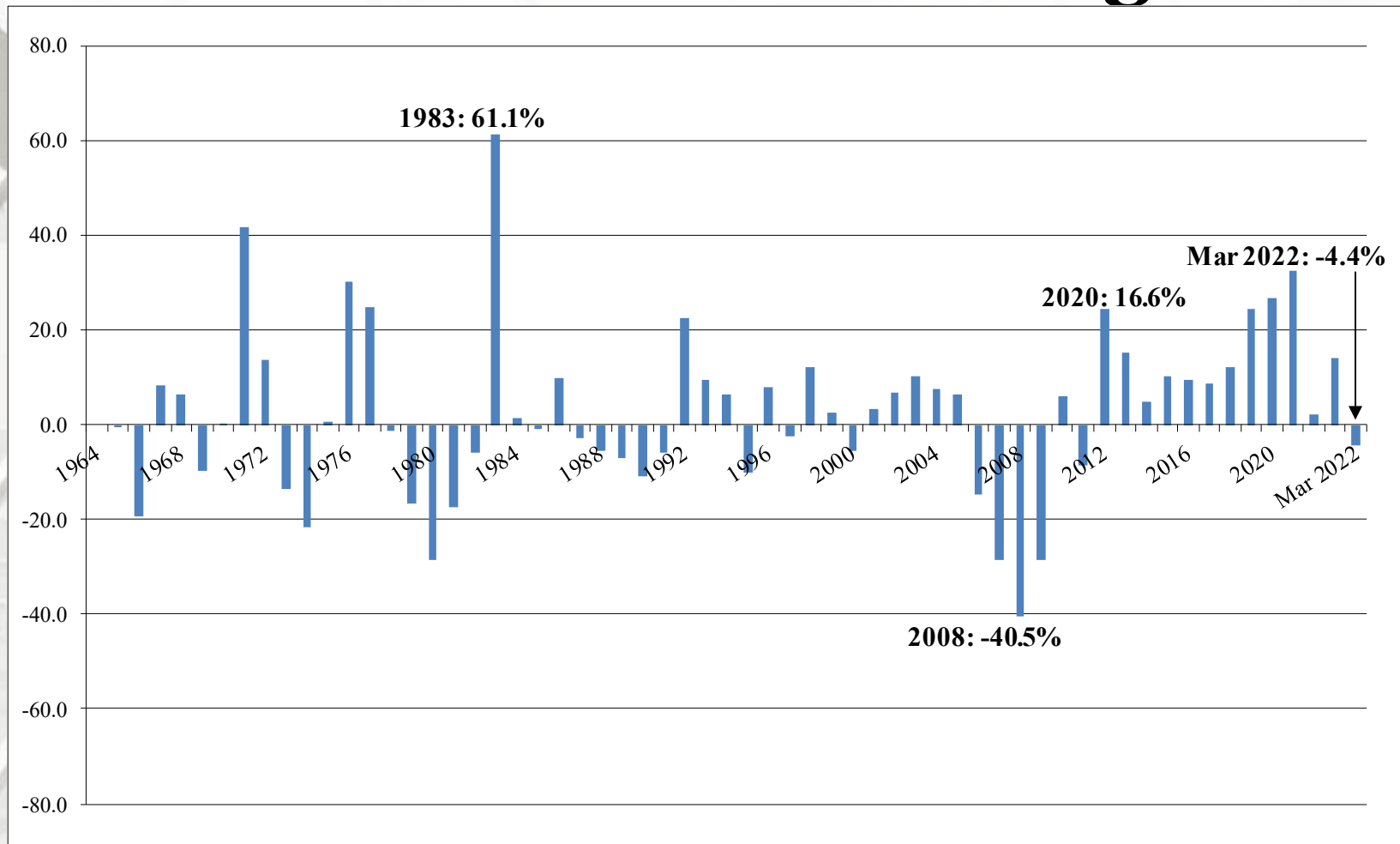
* Percentage of total starts.

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

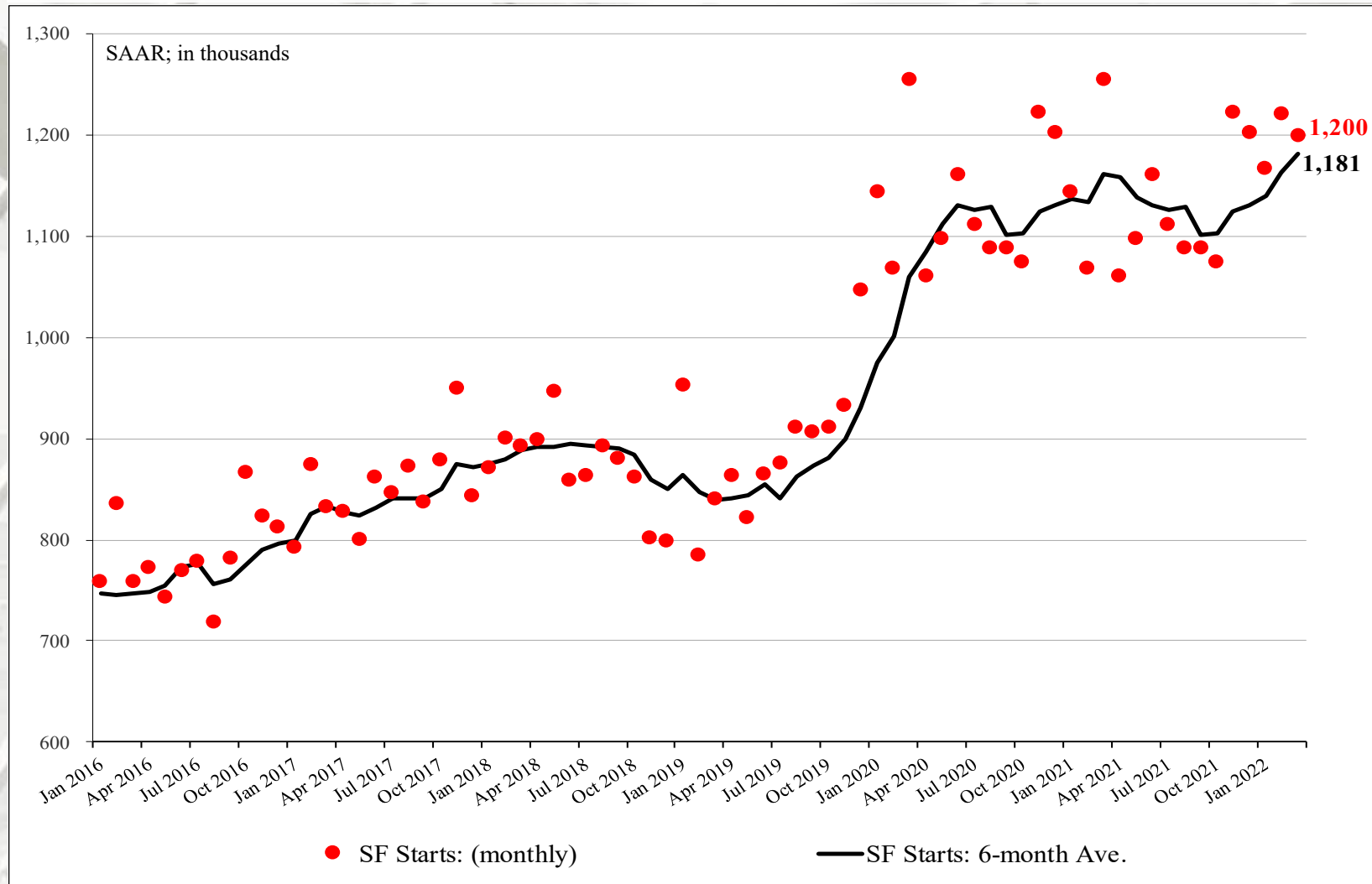
Total Housing Starts: Six-Month Average



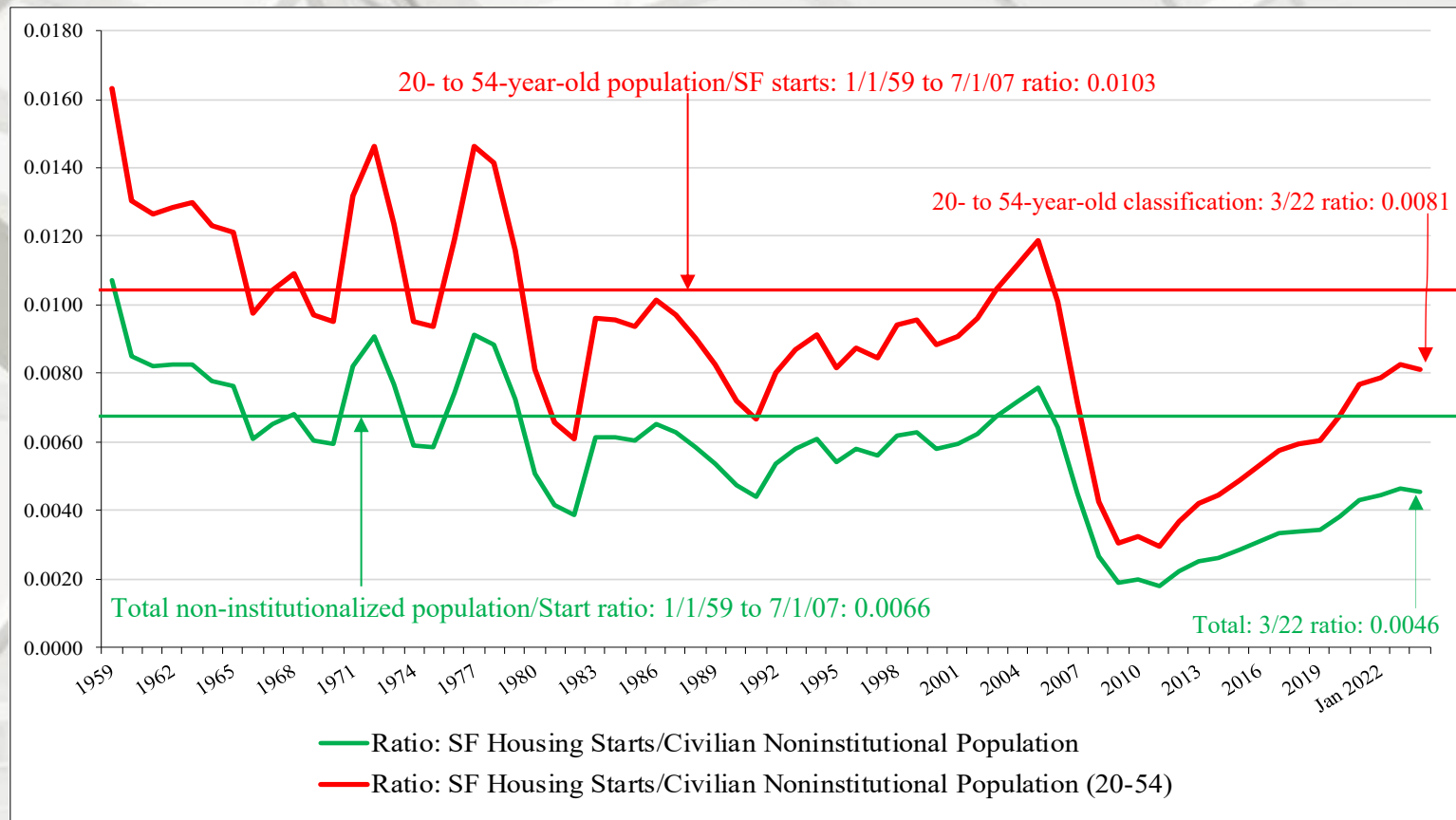
SF Housing Starts: Year-over-Year Change



SF Housing Starts: Six-Month Average



New SF Starts

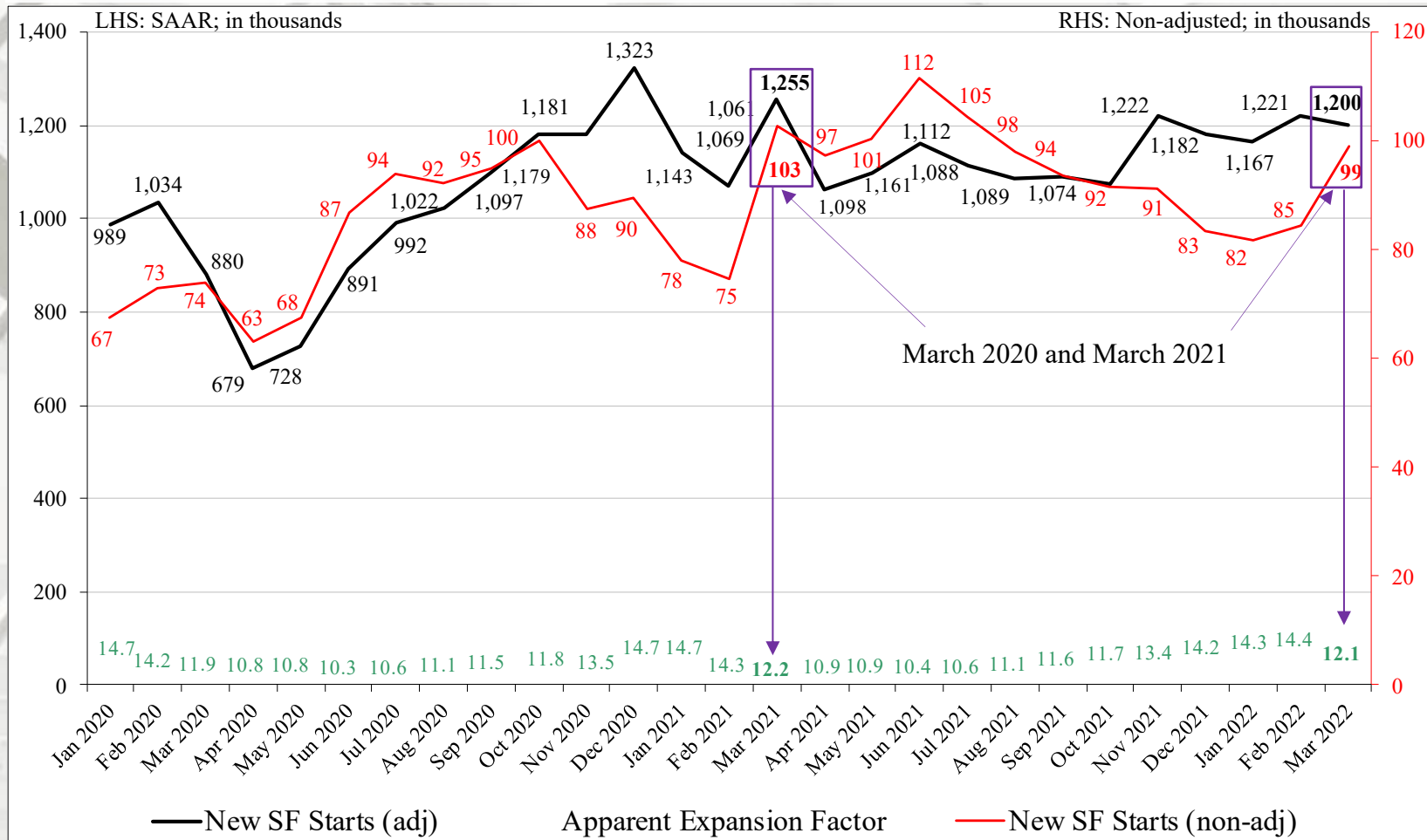


New SF starts adjusted for the US population

From March 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066. In March 2022 it was 0.0046 – no change from February. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in March 2021 it was 0.0081 – a decrease from February (0.0081). New SF construction in both age categories 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**
March	293,000	64,000	229,000
February	139,000	73,000	66,000
2021	165,000	95,000	70,000
M/M change	110.8%	-12.3%	247.0%
Y/Y change	77.6%	-32.6%	227.1%
	MW Total	MW SF	MW MF
March	232,000	168,000	64,000
February	239,000	157,000	82,000
2021	288,000	217,000	71,000
M/M change	-2.9%	7.0%	-22.0%
Y/Y change	-19.4%	-22.6%	-9.9%

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).

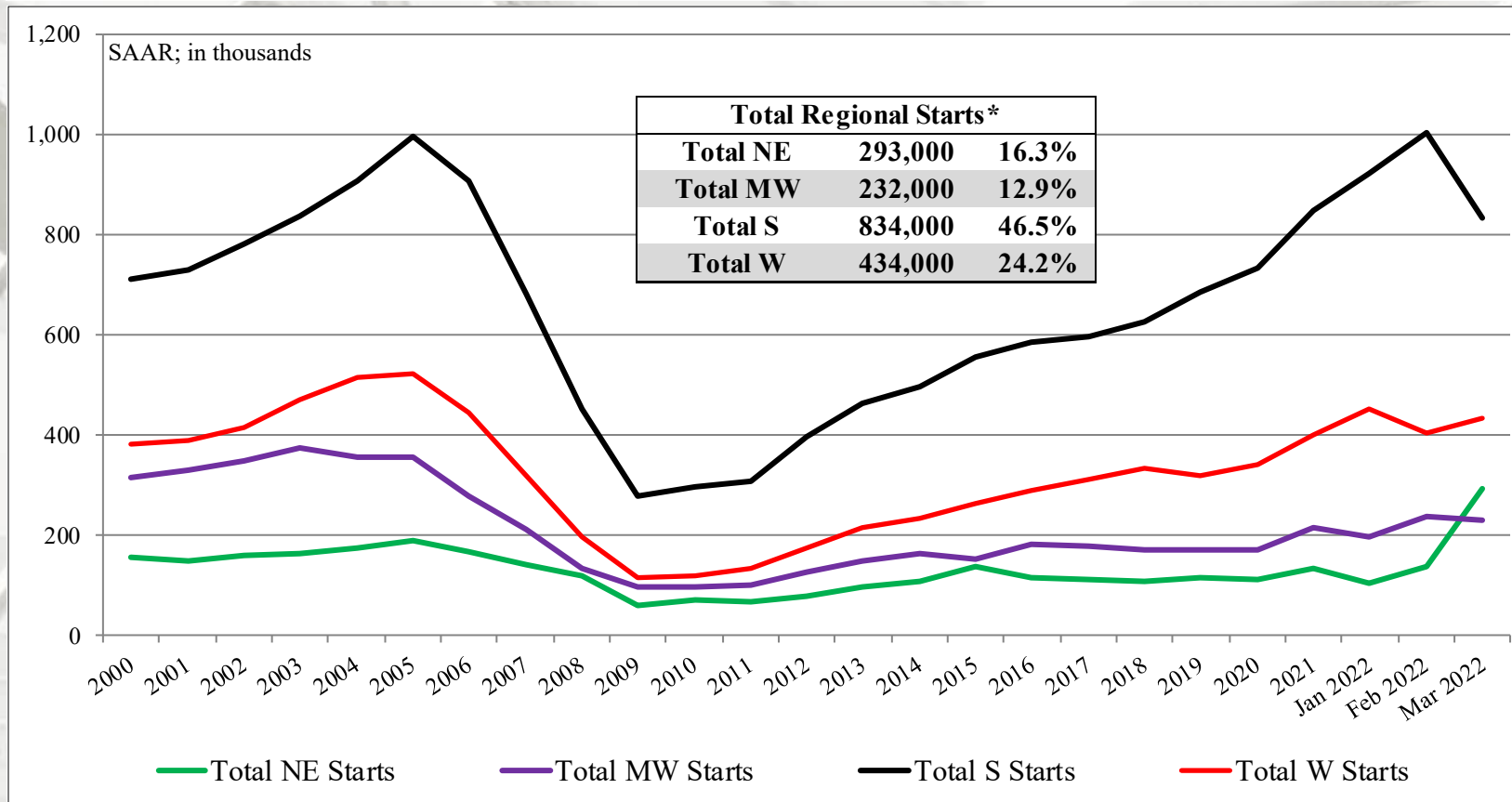
New Housing Starts by Region

	S Total	S SF	S MF**
March	834,000	672,000	162,000
February	1,007,000	690,000	317,000
2021	891,000	676,000	215,000
M/M change	-17.2%	-2.6%	-48.9%
Y/Y change	-6.4%	-0.6%	-24.7%
	W Total	W SF	W MF
March	434,000	296,000	138,000
February	403,000	301,000	102,000
2021	381,000	267,000	114,000
M/M change	7.7%	-1.7%	35.3%
Y/Y change	13.9%	10.9%	21.1%

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

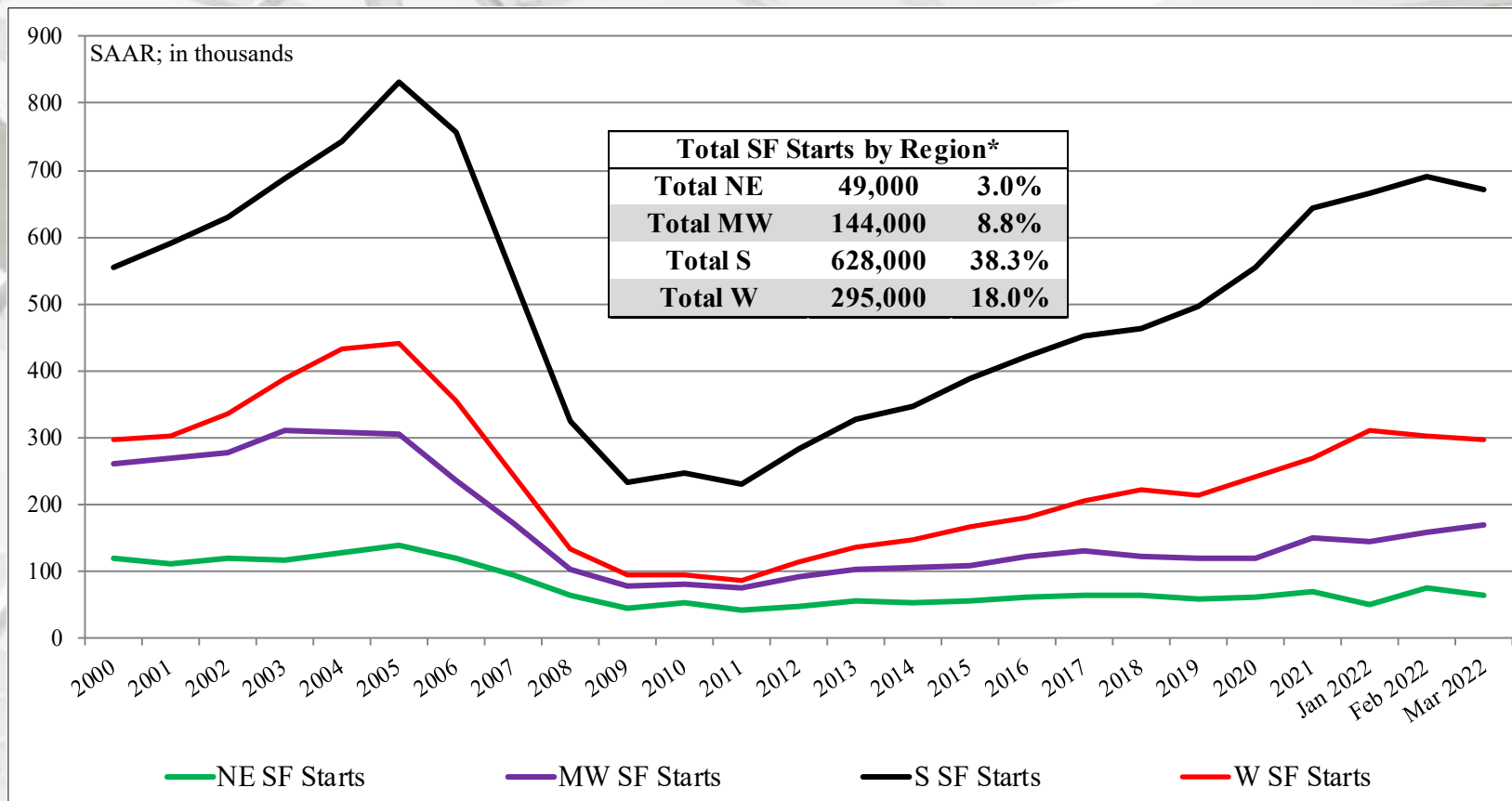


NE = Northeast, MW = Midwest, S = South, W = West

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

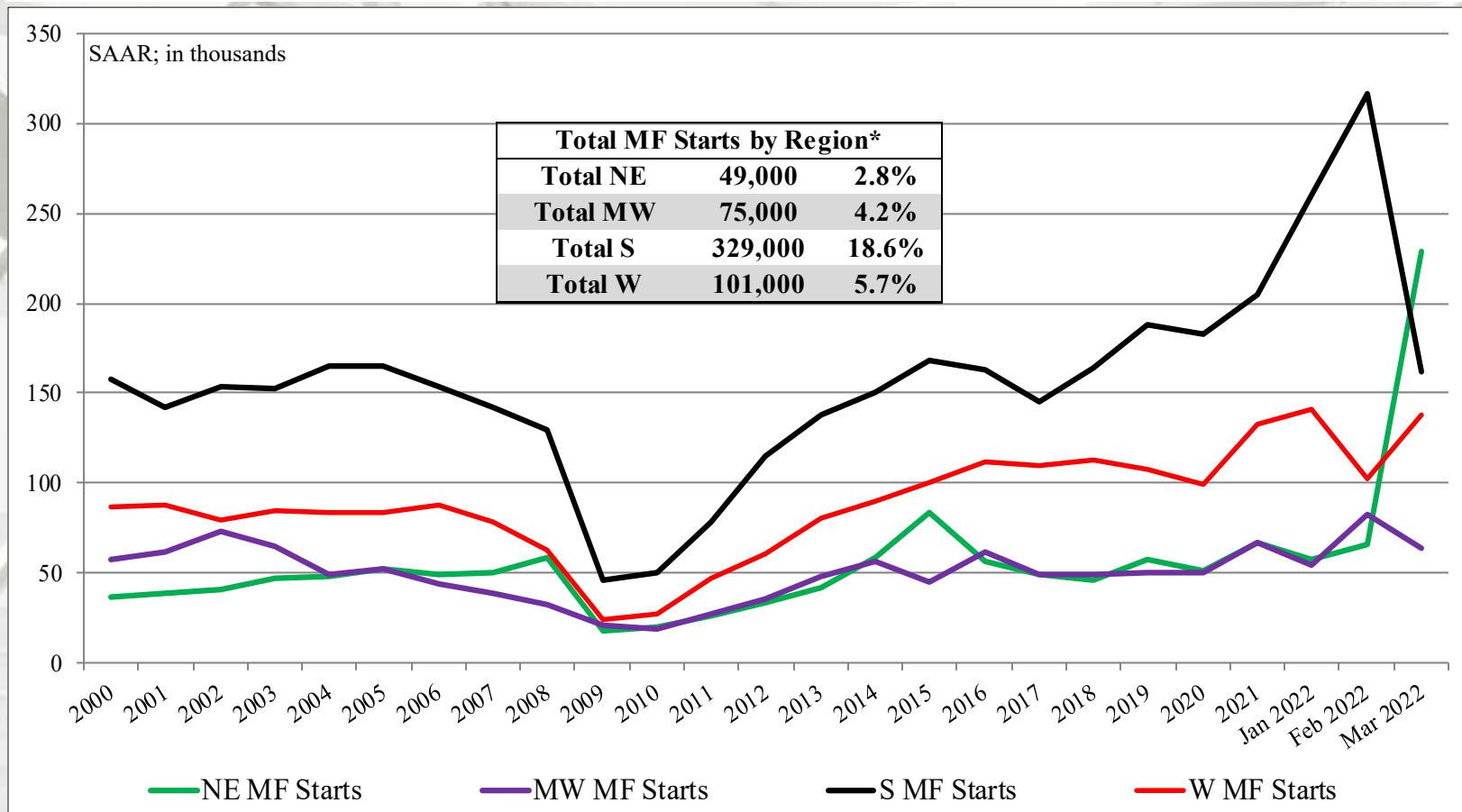


NE = Northeast, MW = Midwest, S = South, W = West

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

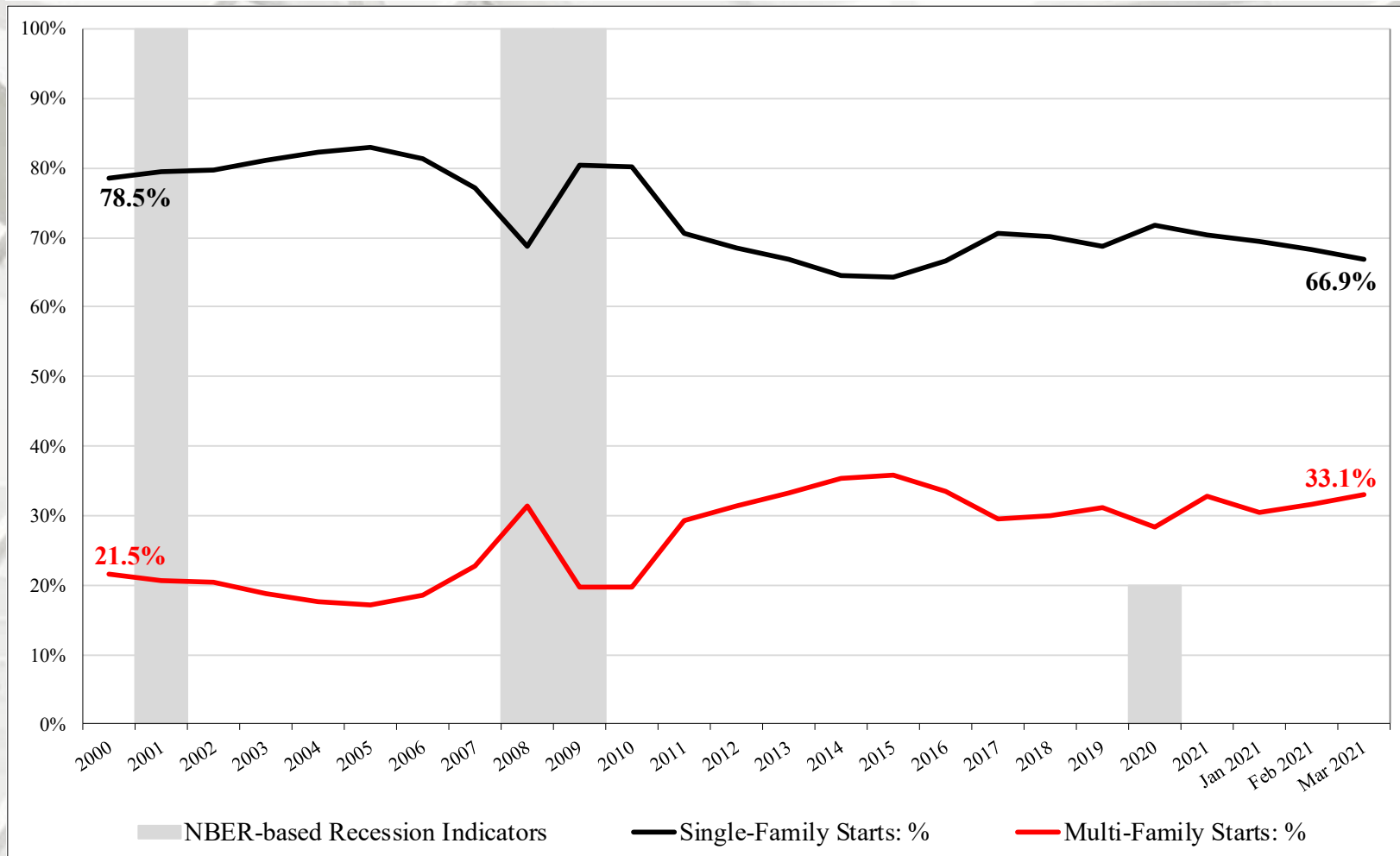


NE = Northeast, MW = Midwest, S = South, W = West

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 (%)



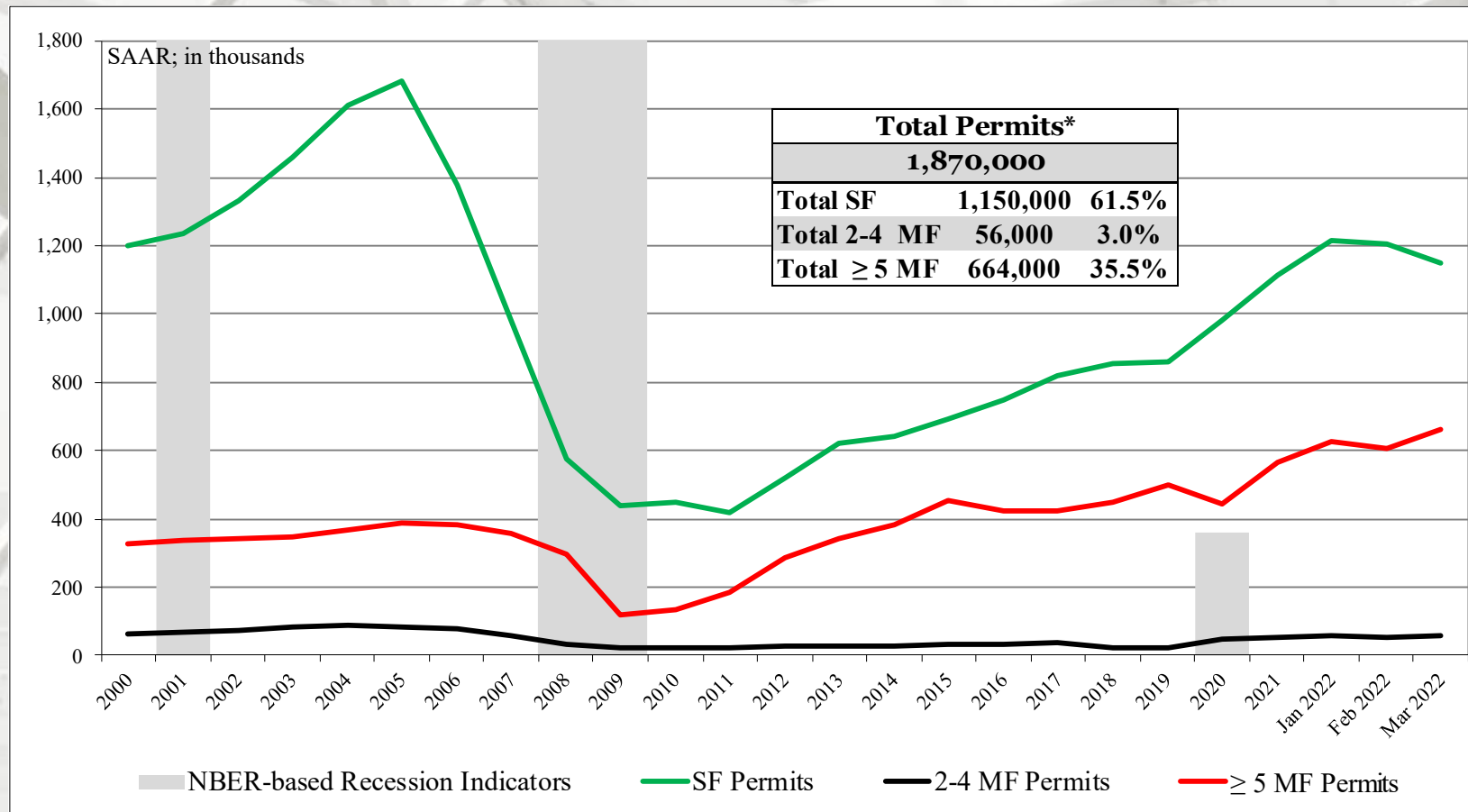
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
March	1,870,000	1,150,000	56,000	664,000
February	1,865,000	1,205,000	54,000	606,000
2021	1,755,000	1,194,000	58,000	503,000
M/M change	0.3%	-4.6%	3.7%	9.6%
Y/Y change	6.6%	-3.7%	-3.4%	32.0%

* 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**
March	181,000	63,000	118,000
February	171,000	73,000	98,000
2021	155,000	78,000	77,000
M/M change	5.8%	-13.7%	20.4%
Y/Y change	16.8%	-19.2%	53.2%
	MW Total*	MW SF	MW MF**
March	259,000	143,000	116,000
February	251,000	151,000	100,000
2021	253,000	174,000	79,000
M/M change	3.2%	-5.3%	16.0%
Y/Y change	2.4%	-17.8%	46.8%

NE = Northeast; MW = Midwest

* All data are SAAR

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

New Housing Permits by Region

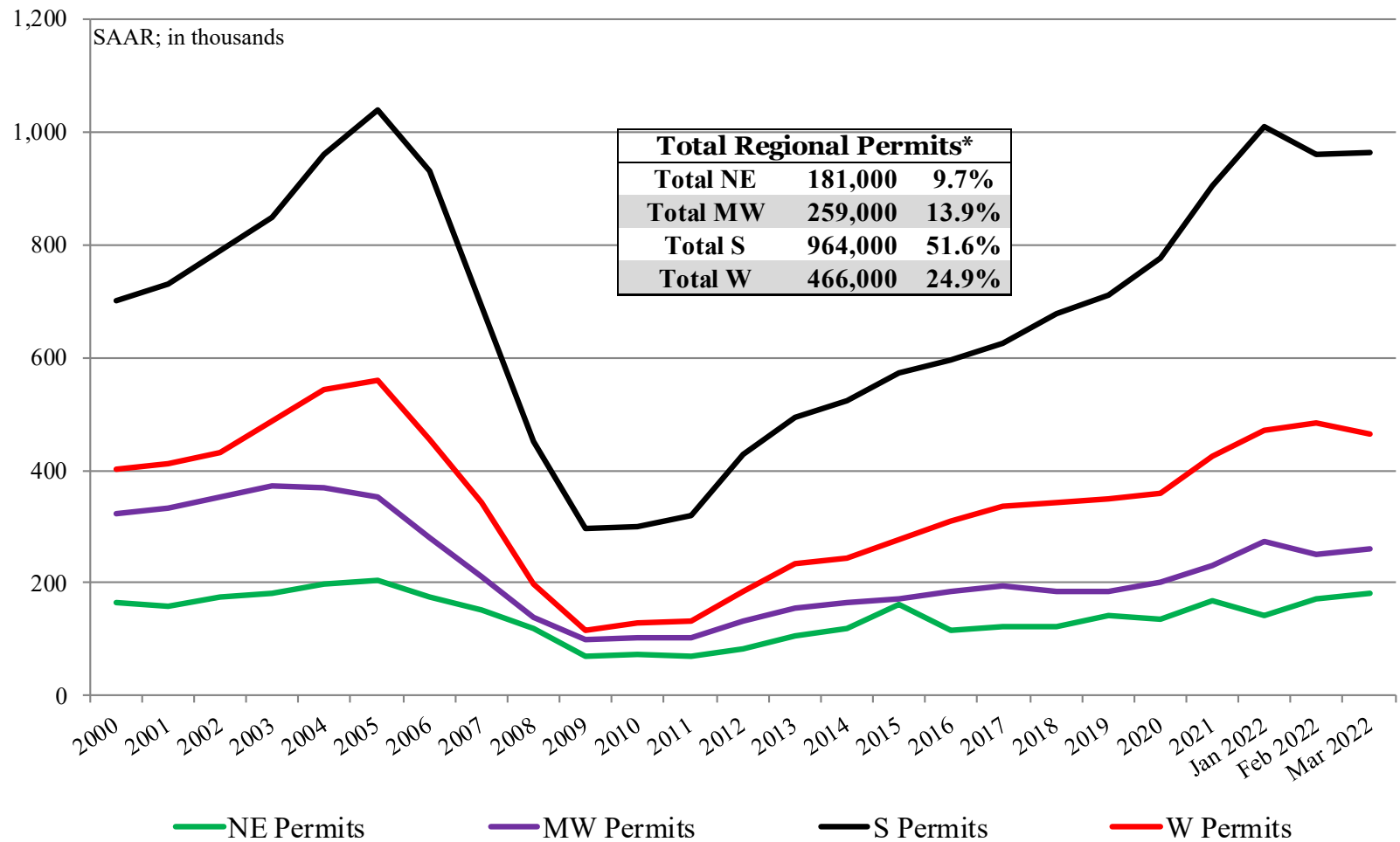
	S Total*	S SF	S MF**
March	964,000	670,000	294,000
February	960,000	693,000	267,000
2021	908,000	661,000	247,000
M/M change	0.4%	-3.3%	10.1%
Y/Y change	6.2%	1.4%	19.0%
	W Total*	W SF	W MF**
March	466,000	274,000	192,000
February	483,000	288,000	195,000
2021	439,000	281,000	158,000
M/M change	-3.5%	-4.9%	-1.5%
Y/Y change	6.2%	-2.5%	21.5%

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).

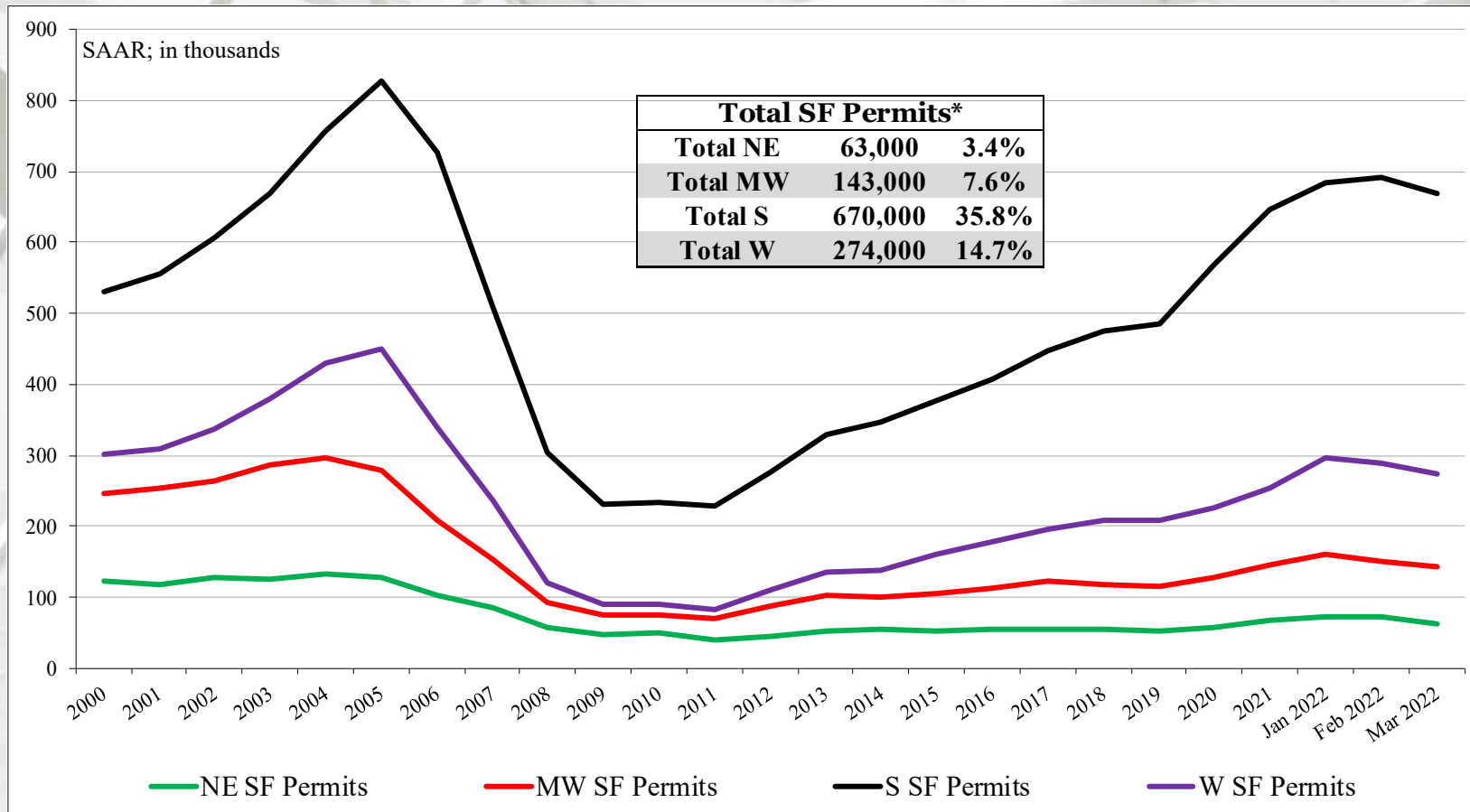
Total Housing Permits by Region



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

* Percentage of total permits.

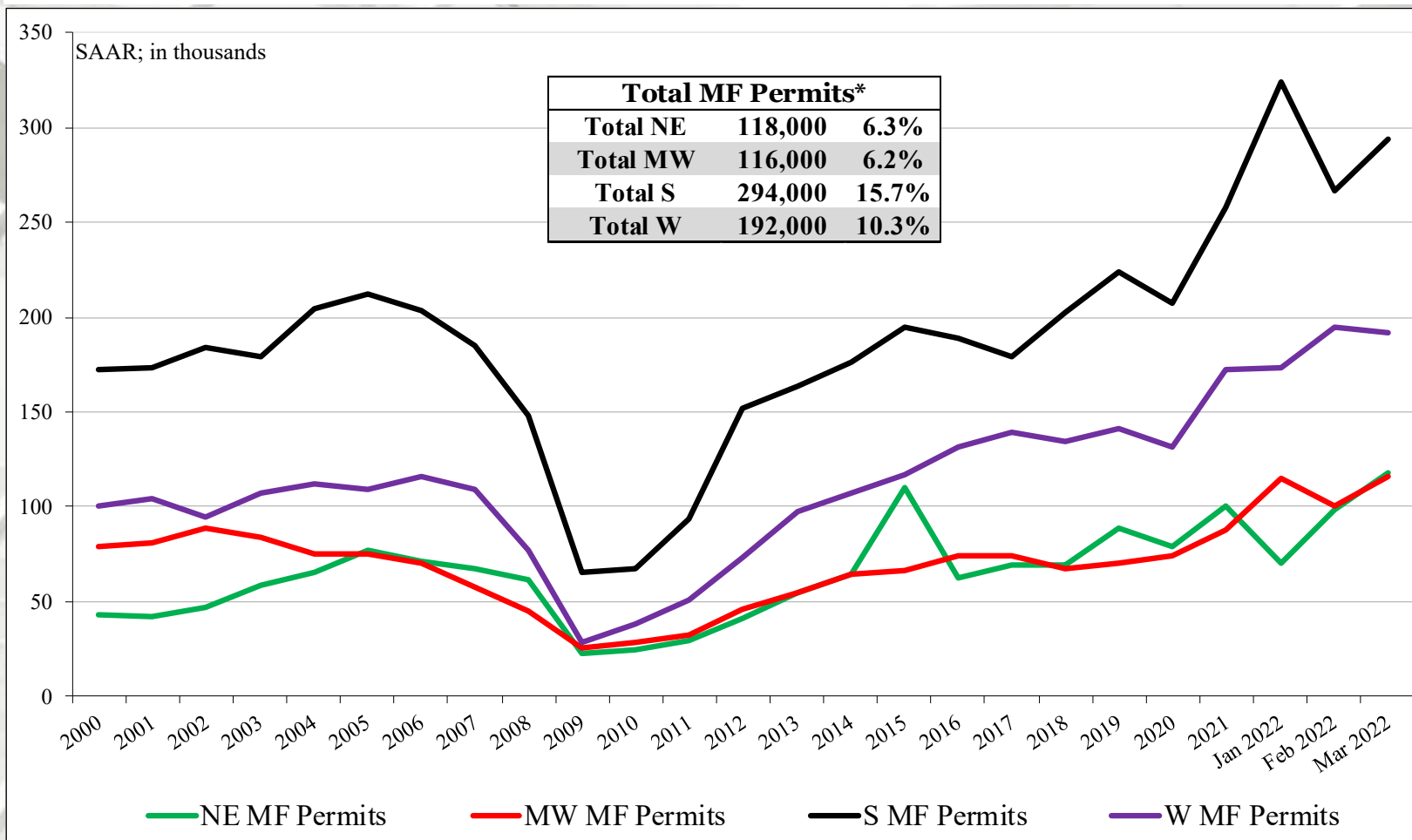
SF Housing Permits by Region



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.

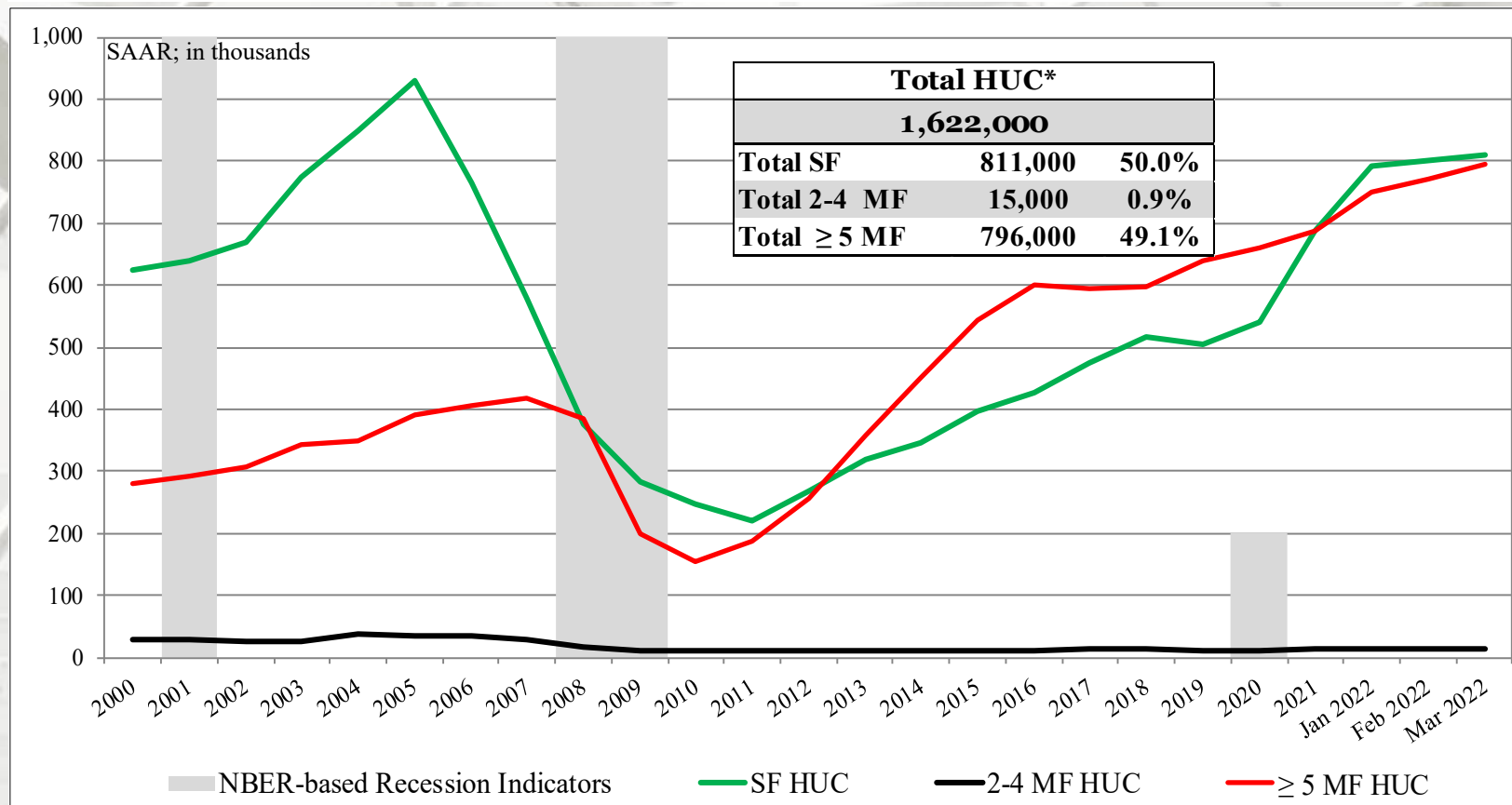
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
March	1,622,000	811,000	15,000	796,000
February	1,585,000	801,000	14,000	770,000
2021	1,307,000	637,000	12,000	658,000
M/M change	2.3%	1.2%	7.1%	3.4%
Y/Y change	24.1%	27.3%	25.0%	21.0%

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

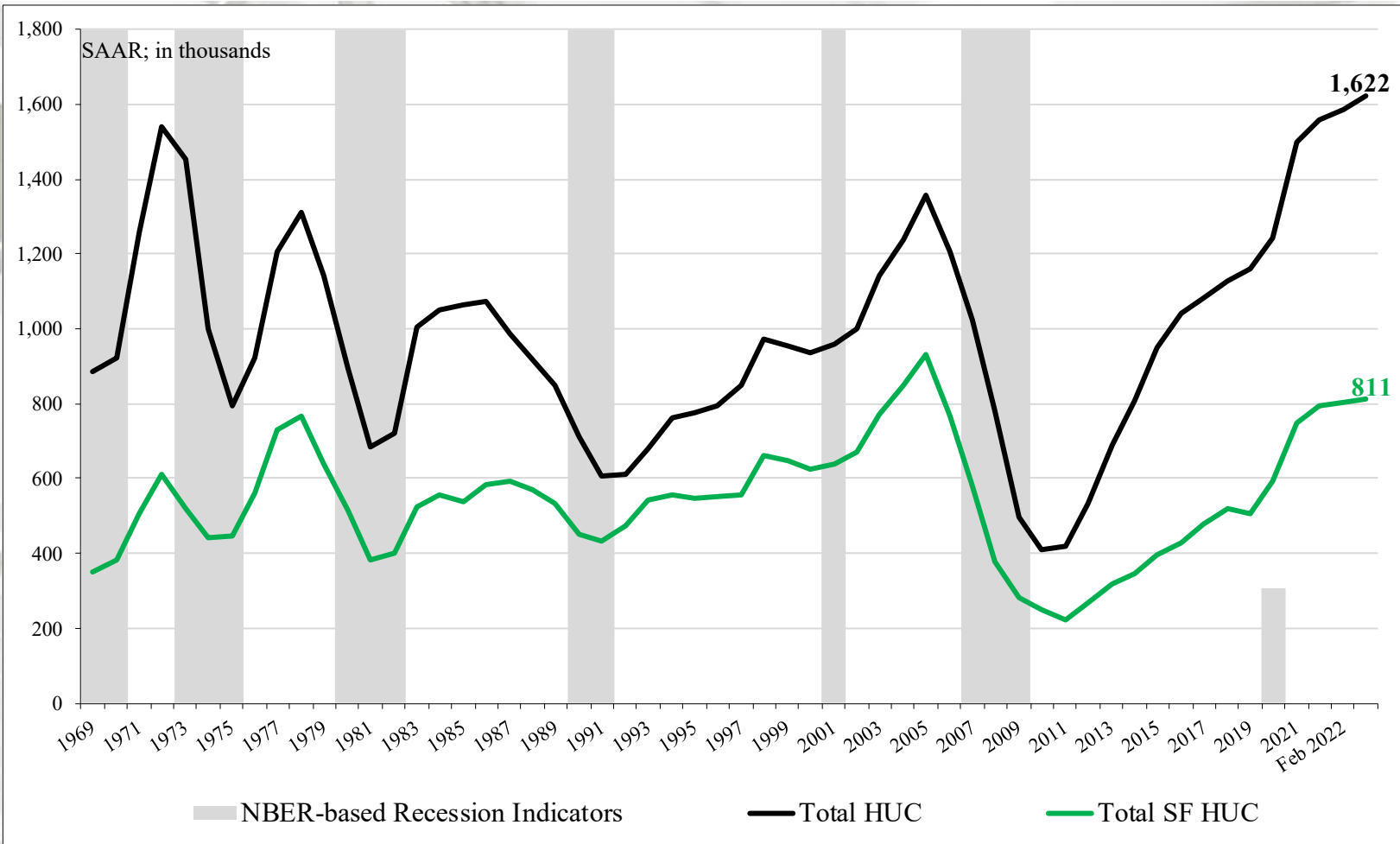


US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF HUC)).

* 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 March total housing units under construction (HUC) were 1,622,000 units, the most since March 1973: 1,628,000 units. March's SF HUC reading was substantially less than reported for March 2006 (811,000 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**
March	210,000	61,000	149,000
February	202,000	61,000	141,000
2021	186,000	58,000	125,000
M/M change	4.0%	0.0%	5.7%
Y/Y change	12.9%	5.2%	19.2%
	MW Total	MW SF	MW MF
March	214,000	114,000	100,000
February	209,000	113,000	96,000
2021	165,000	91,000	74,000
M/M change	2.4%	0.9%	4.2%
Y/Y change	29.7%	25.3%	35.1%

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).

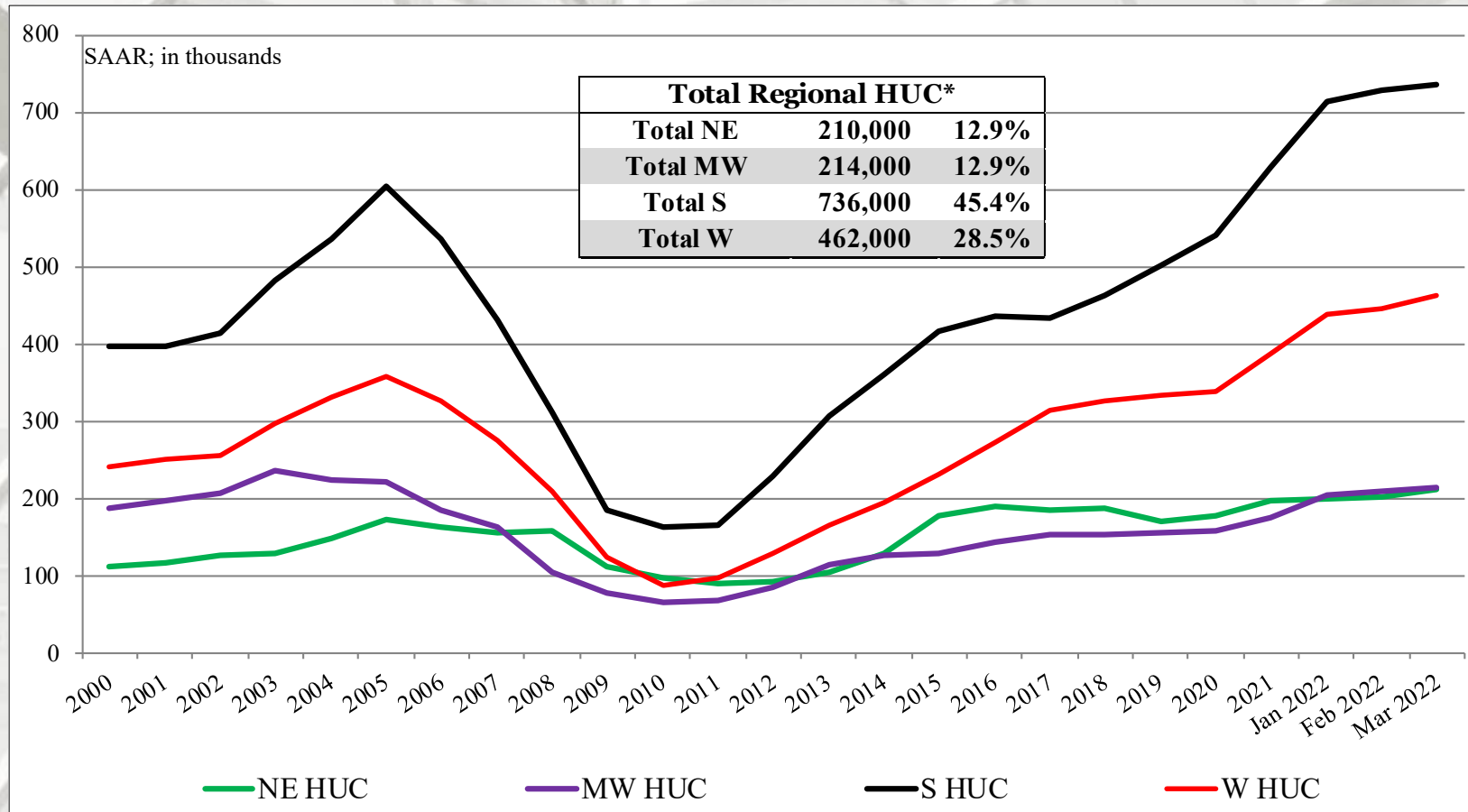
New Housing Under Construction by Region

	S Total	S SF	S MF**
March	736,000	423,000	313,000
February	728,000	419,000	309,000
2021	589,000	313,000	276,000
M/M change	1.1%	1.0%	1.3%
Y/Y change	25.0%	35.1%	13.4%
	W Total	W SF	W MF
March	462,000	213,000	249,000
February	446,000	208,000	238,000
2021	367,000	175,000	192,000
M/M change	3.6%	2.4%	4.6%
Y/Y change	25.9%	21.7%	29.7%

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

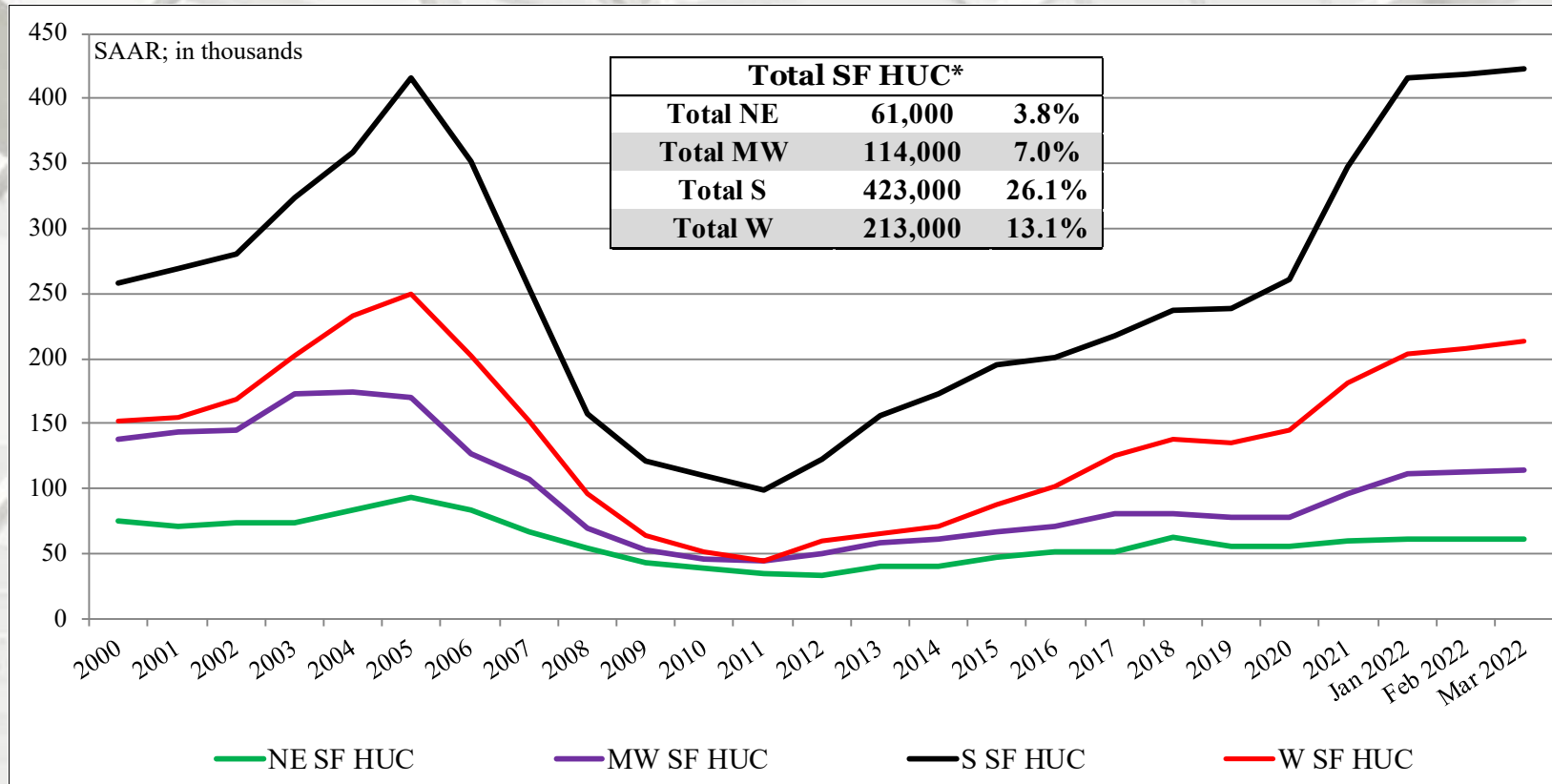


NE = Northeast, MW = Midwest, S = South, W = West

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

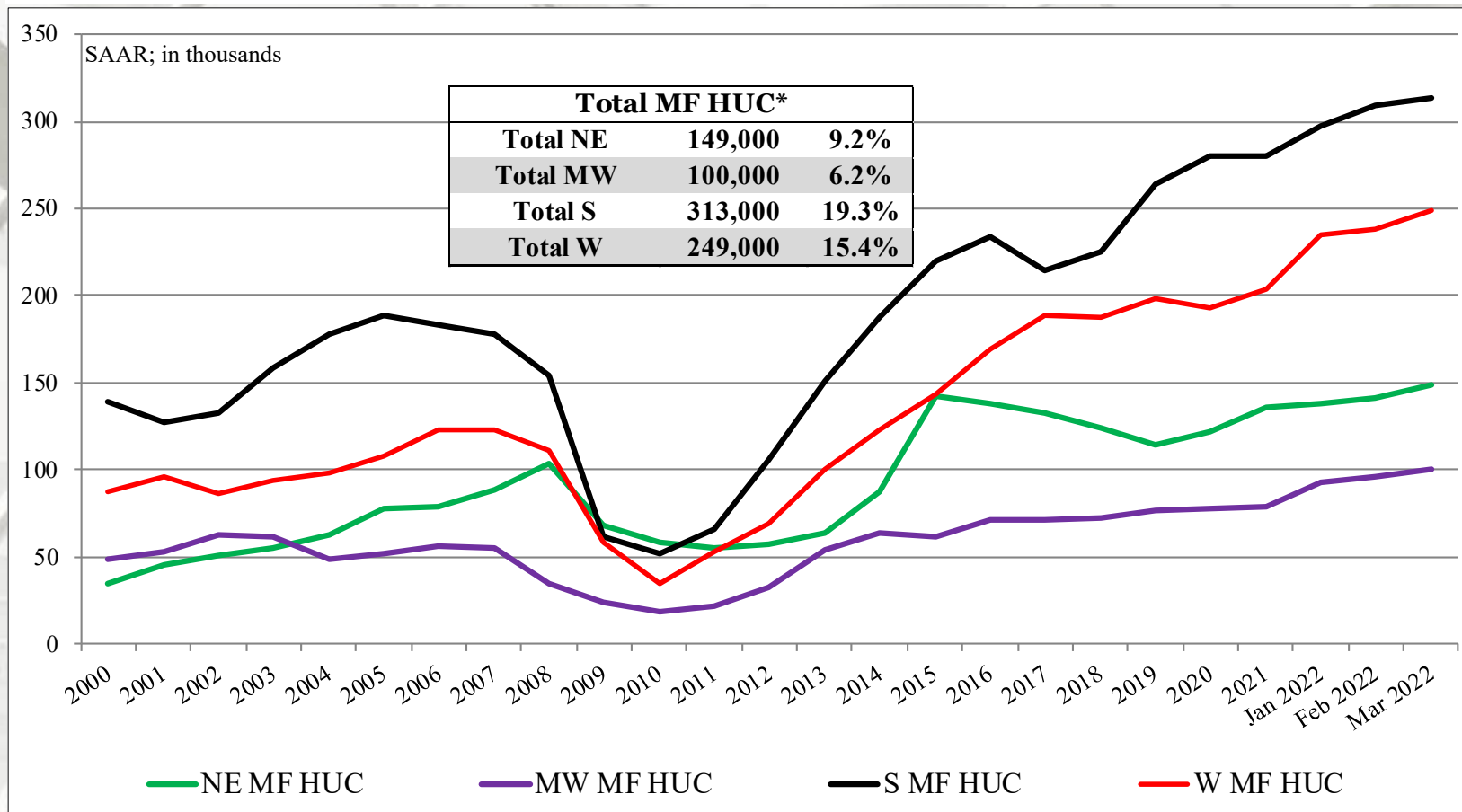


NE = Northeast, MW = Midwest, S = South, W = West.

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.

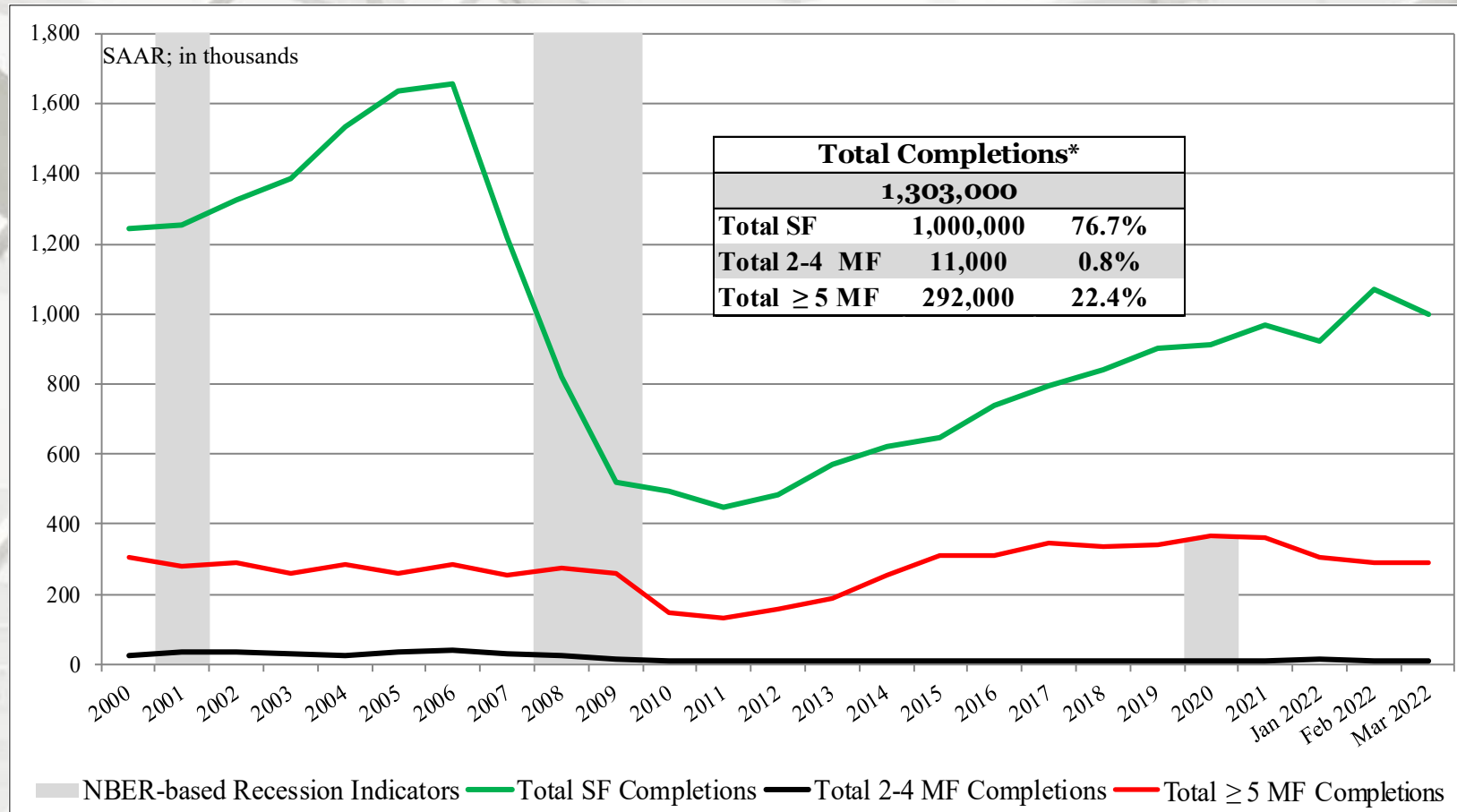
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
March	1,303,000	1,000,000	11,000	292,000
February	1,365,000	1,068,000	8,000	289,000
2021	1,497,000	1,034,000	6,000	457,000
M/M change	-4.5%	-6.4%	37.5%	1.0%
Y/Y change	-13.0%	-3.3%	83.3%	-36.1%

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

** US DOC does not report multi-family completions directly; this is an estimation ((Total completions – (SF + ≥ 5-unit MF)).

Total Housing Completions



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

* Percentage of total housing completions

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

New Housing Completions by Region

	NE Total	NE SF	NE MF**
March	95,000	61,000	34,000
February	131,000	83,000	48,000
2021	134,000	85,000	49,000
M/M change	-27.5%	-26.5%	-29.2%
Y/Y change	-29.1%	-28.2%	-30.6%
	MW Total	MW SF	MW MF
March	185,000	135,000	50,000
February	191,000	134,000	57,000
2021	214,000	125,000	89,000
M/M change	-3.1%	0.7%	-12.3%
Y/Y change	-13.6%	8.0%	-43.8%

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

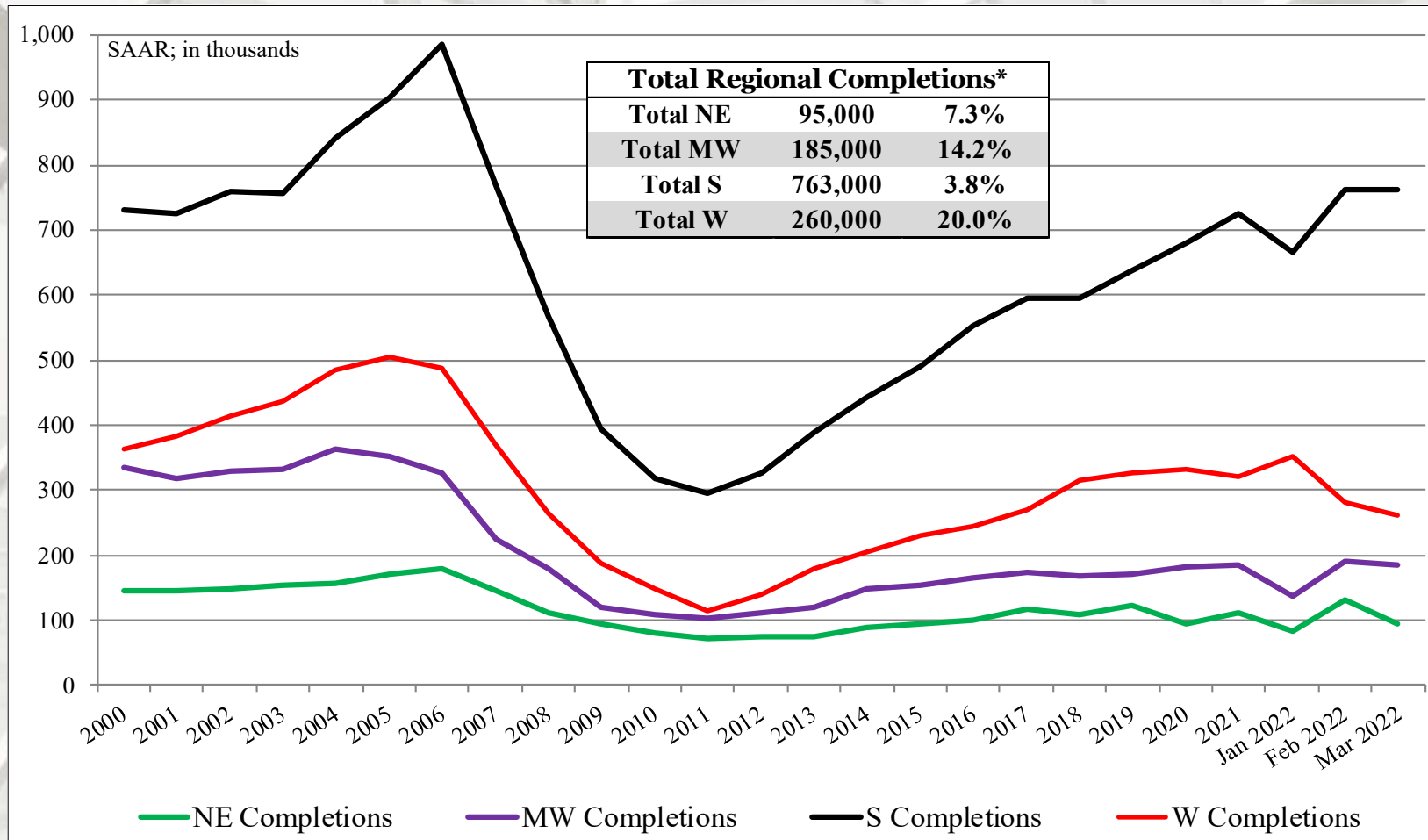
	S Total	S SF	S MF**
March	763,000	591,000	172,000
February	761,000	629,000	132,000
2021	814,000	596,000	218,000
M/M change	0.3%	-6.0%	30.3%
Y/Y change	-6.3%	-0.8%	-21.1%
	W Total	W SF	W MF
March	260,000	213,000	47,000
February	282,000	222,000	60,000
2021	335,000	228,000	107,000
M/M change	-7.8%	-4.1%	-21.7%
Y/Y change	-22.4%	-6.6%	-56.1%

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

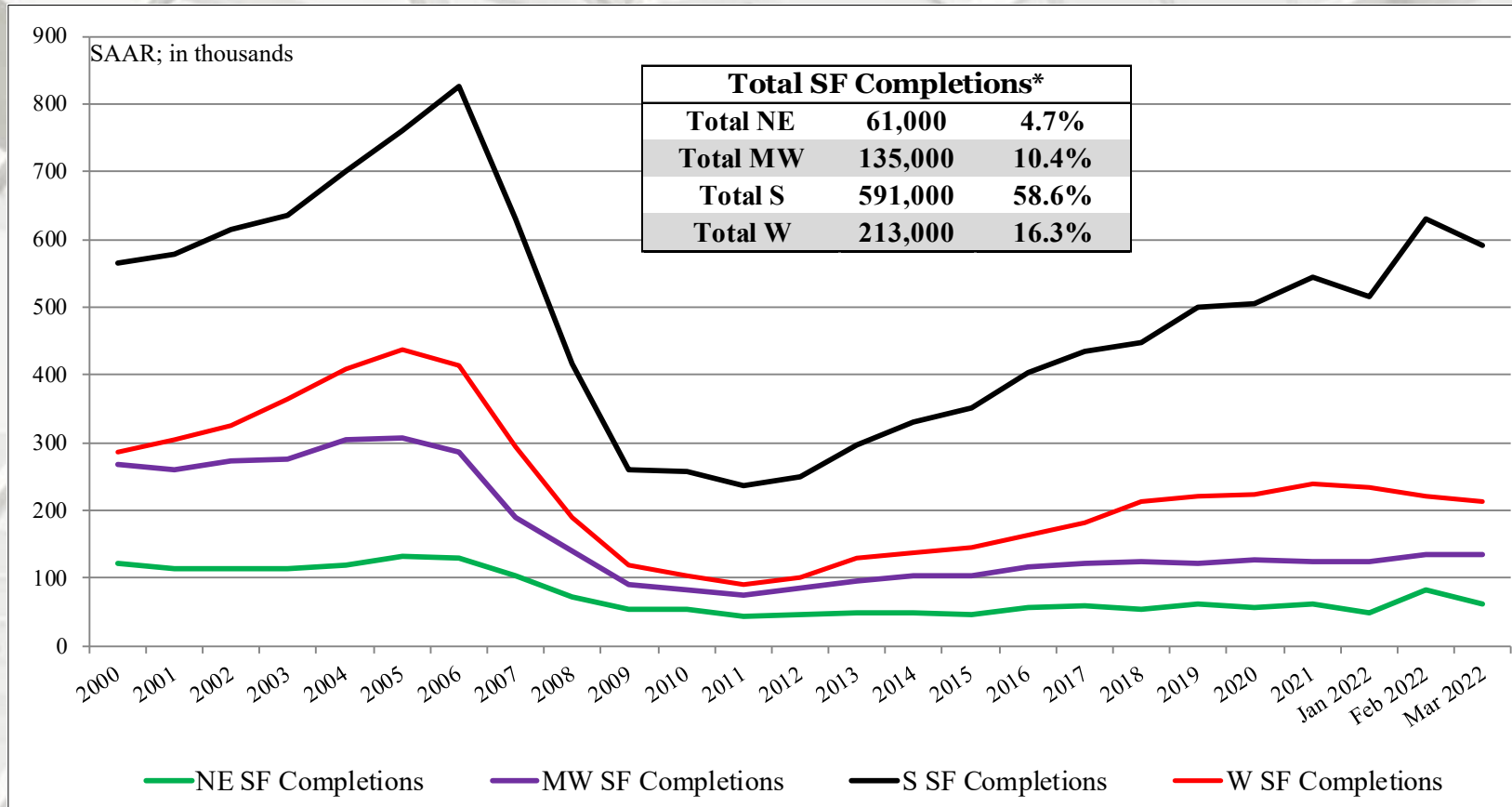
Total Housing Completions by Region



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

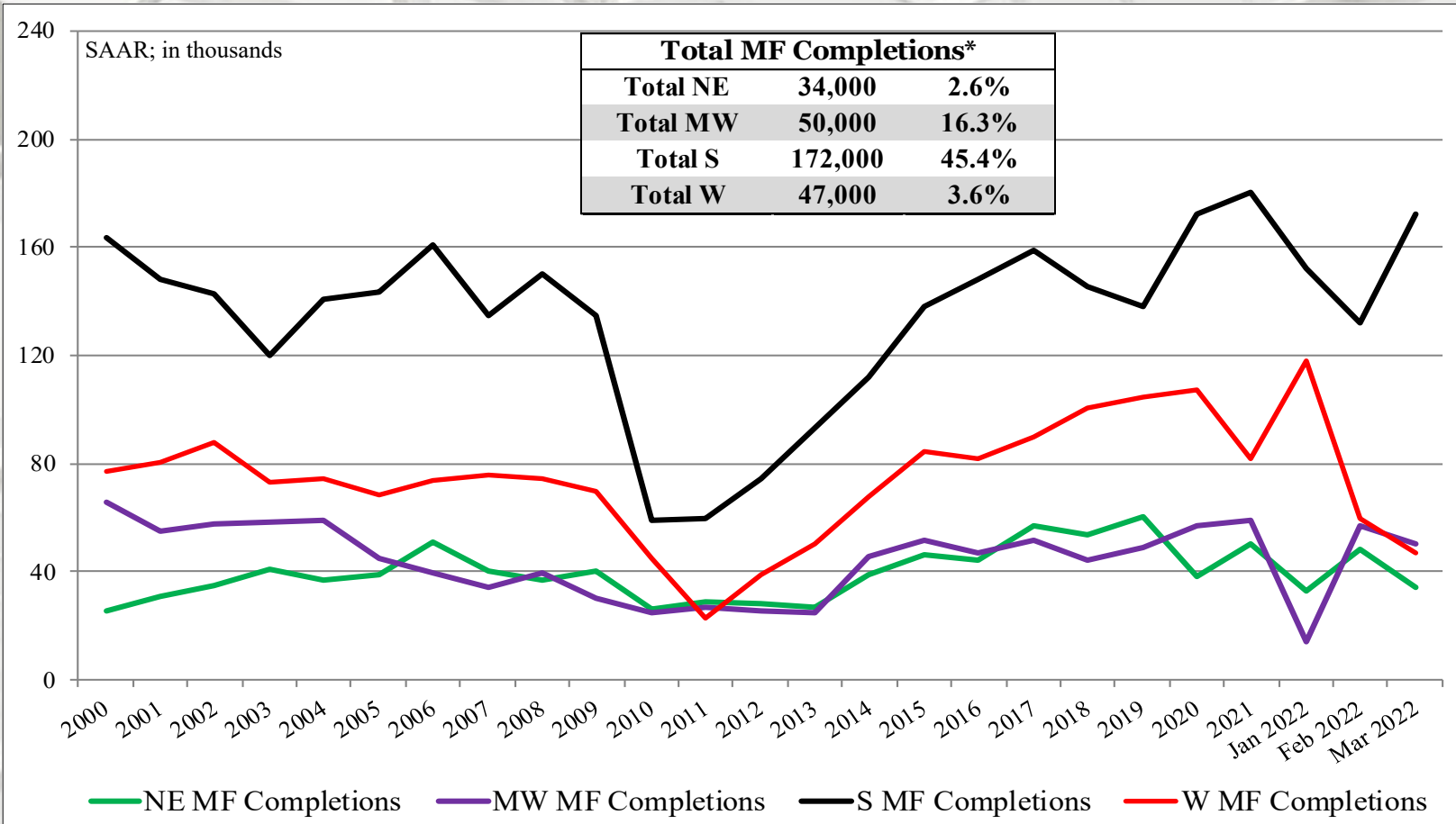


NE = Northeast, MW = Midwest, S = South, W = West

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

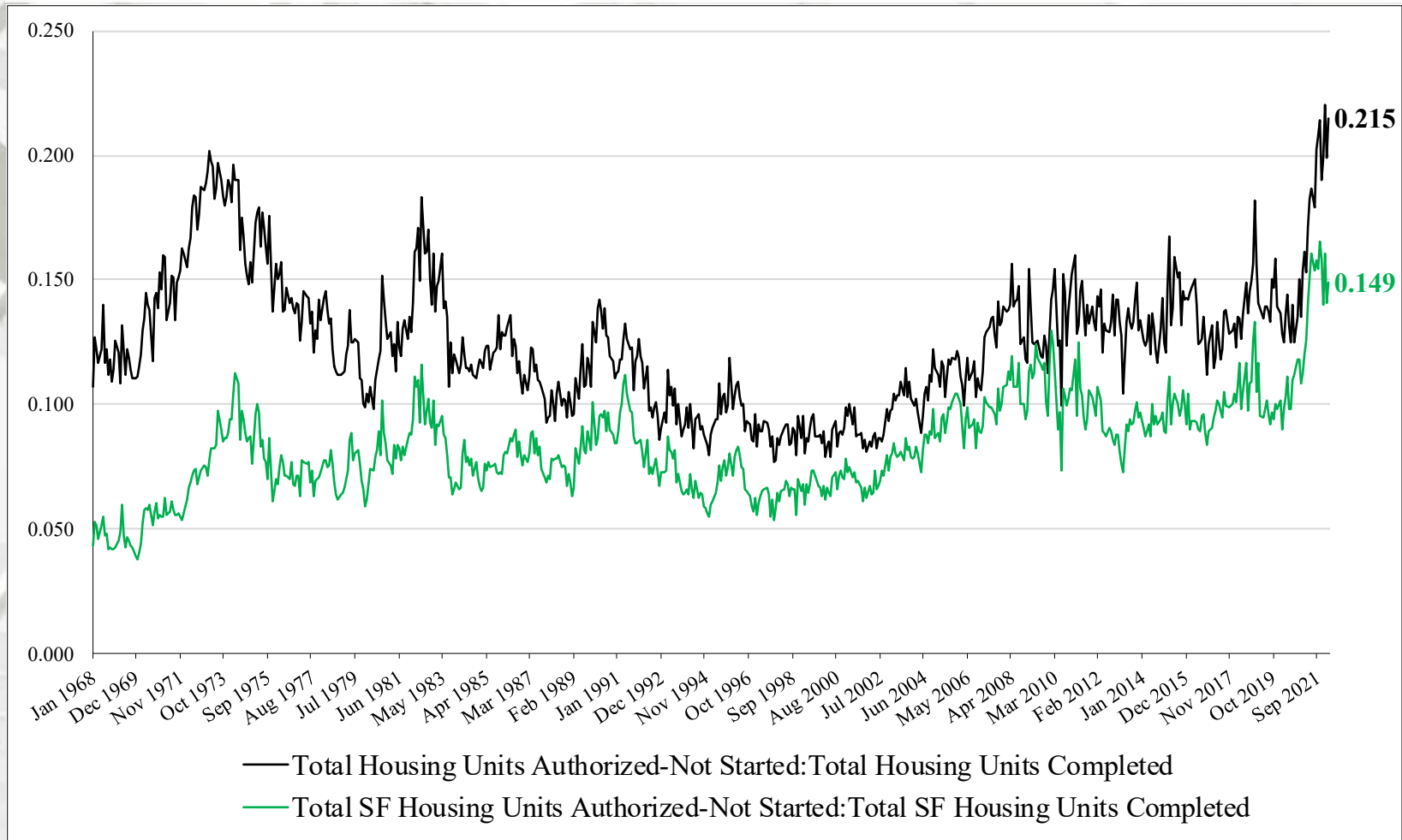


NE = Northeast, MW = Midwest, S = South, W = West

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 vs. 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 March 1973 (0.202). Authorized units not started increased to 280,000 in March.

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
March	763,000	\$436,700	\$523,900	6.4
February	835,000	\$421,600	\$508,100	5.6
2021	873,000	\$359,600	\$414,700	4.2
M/M change	-8.6%	3.6%	3.1%	14.3%
Y/Y change	-12.6%	21.4%	26.3%	52.4%

* 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 772 m (range: 757 m to 800 m). The past three month's new SF sales data also were revised:

December initial: 811 m, revised to 871 m.

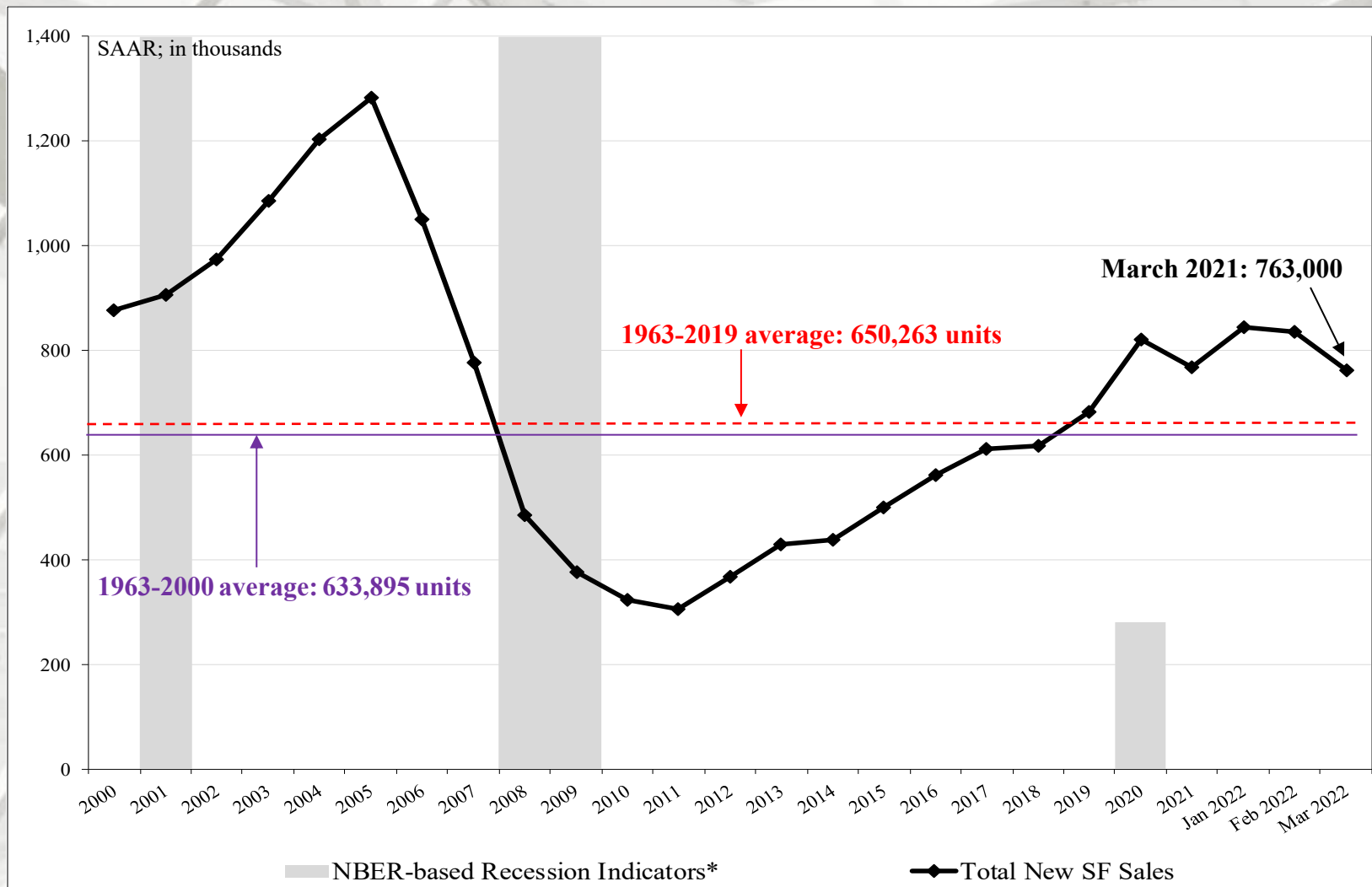
January initial: 801 m, revised to 845 m.

February initial: 772 m, revised to 835 m.

Sources: ¹ <https://www.census.gov/construction/nrs/index.html>; 4/26/21; ² <https://www.census.gov/construction/nrs/pdf/newressales.pdf>

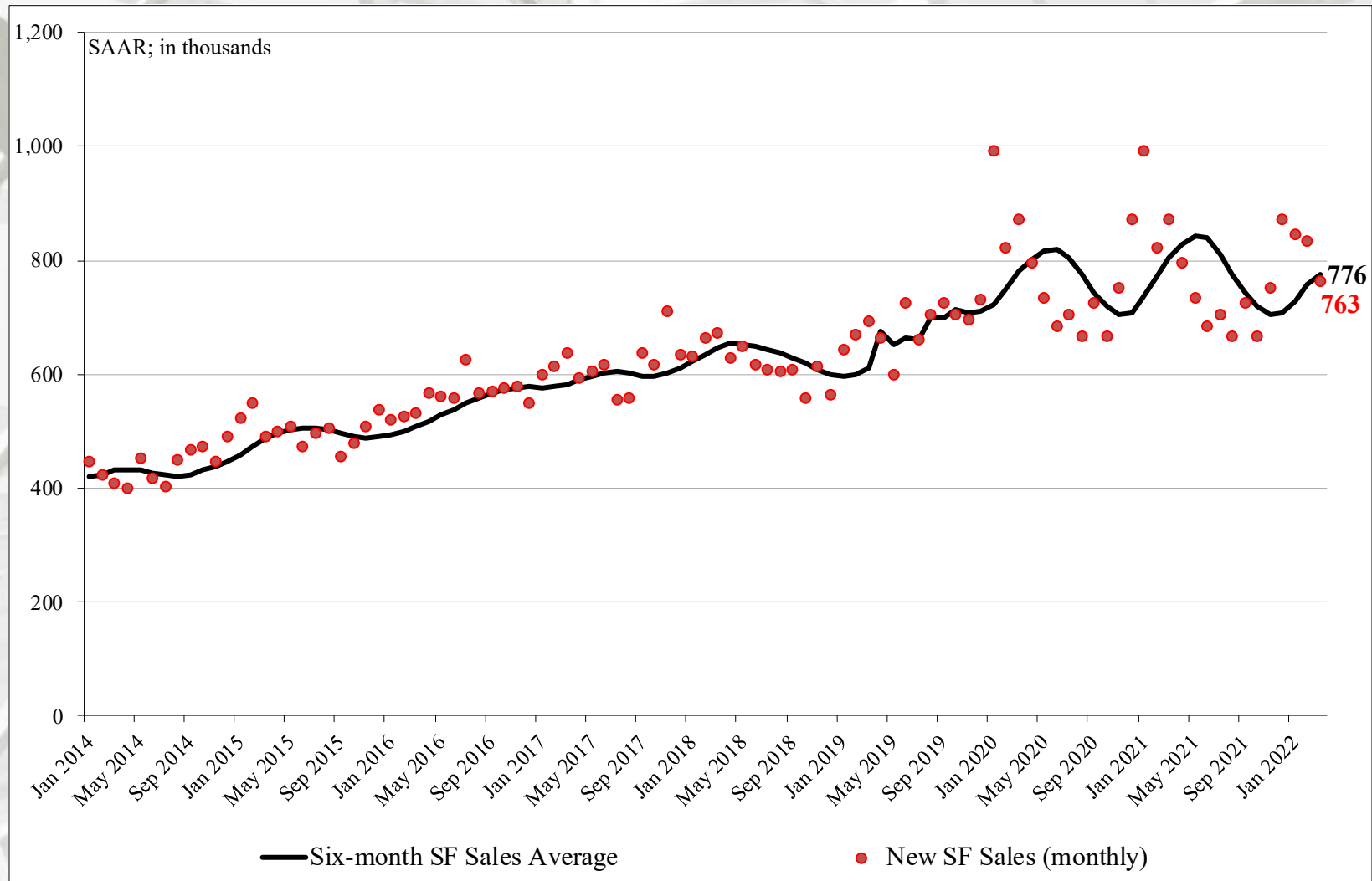
³ <http://us.econoday.com>; 4/26/21

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			
March	53,000	94,000	414,000	202,000			
February	56,000	103,000	461,000	215,000			
2021	47,000	109,000	550,000	167,000			
M/M change	-5.4%	-8.7%	-10.2%	-6.0%			
Y/Y change	12.8%	-13.8%	-24.7%	21.0%			
	\$150 - ≤ \$150m	\$200 - \$199.9m 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m	
March ^{1,2,3,4}	500	500	12,000	21,000	15,000	17,000	8,000
February	500	500	7,000	21,000	15,000	19,000	7,000
2021	1,000	3,000	18,000	20,000	13,000	10,000	5,000
M/M change	0.0%	0.0%	71.4%	0.0%	0.0%	-10.5%	14.3%
Y/Y change	-50.0%	-83.3%	-33.3%	5.0%	15.4%	70.0%	60.0%
New SF sales: %	0.7%	0.7%	16.4%	28.8%	20.5%	23.3%	11.0%

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 March not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

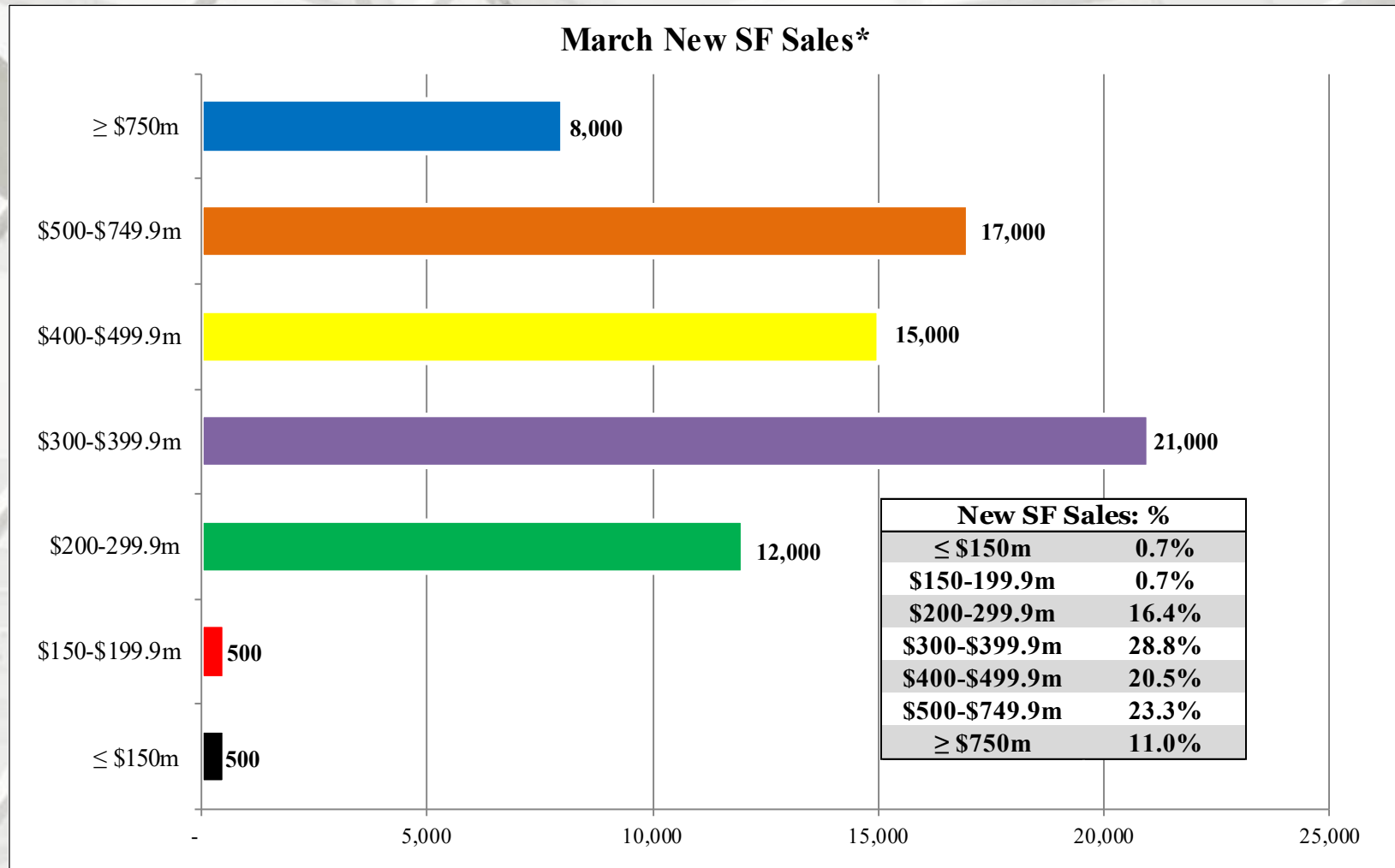
⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 4/26/22;

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

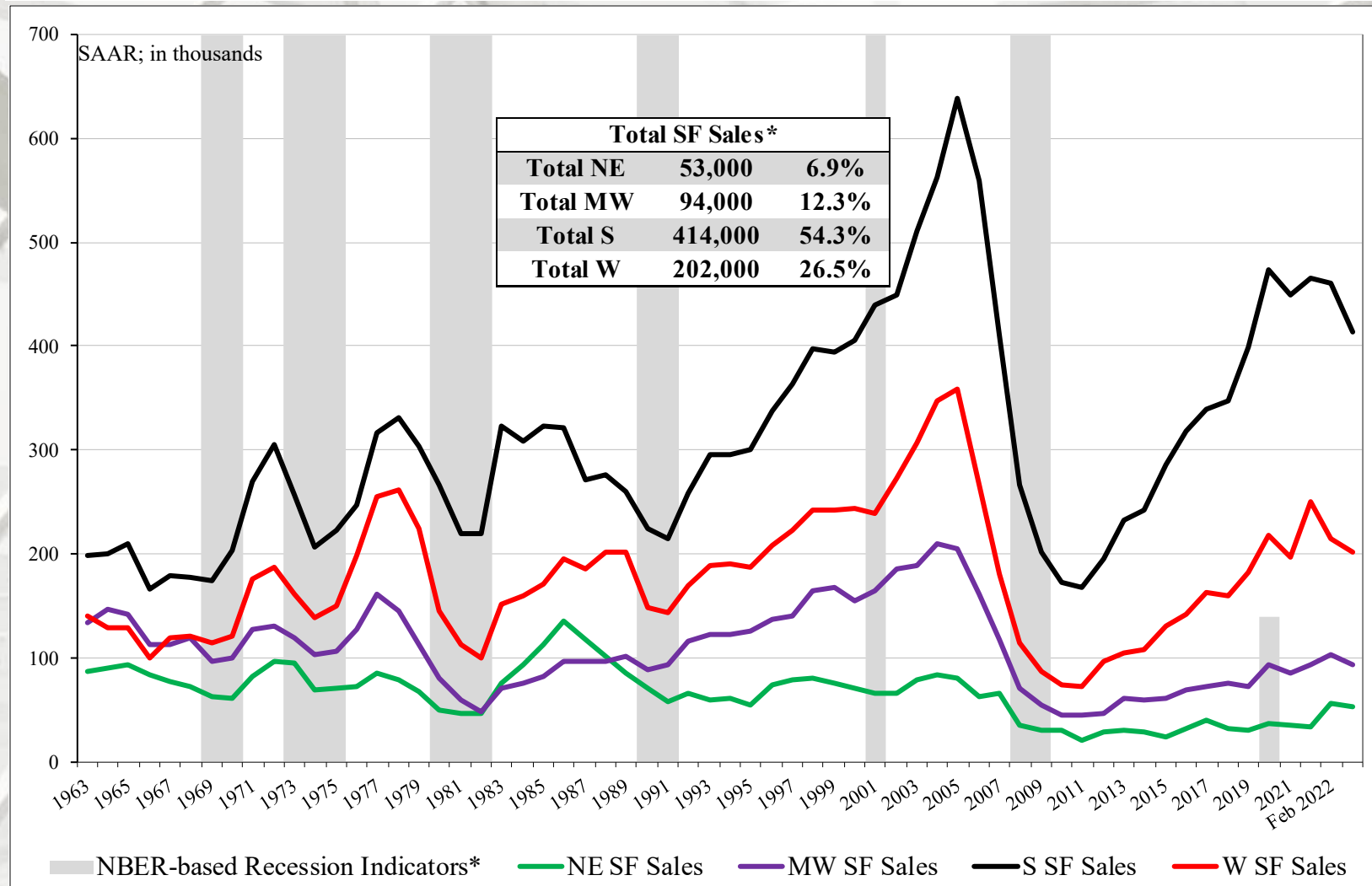
[Return TOC](#)

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

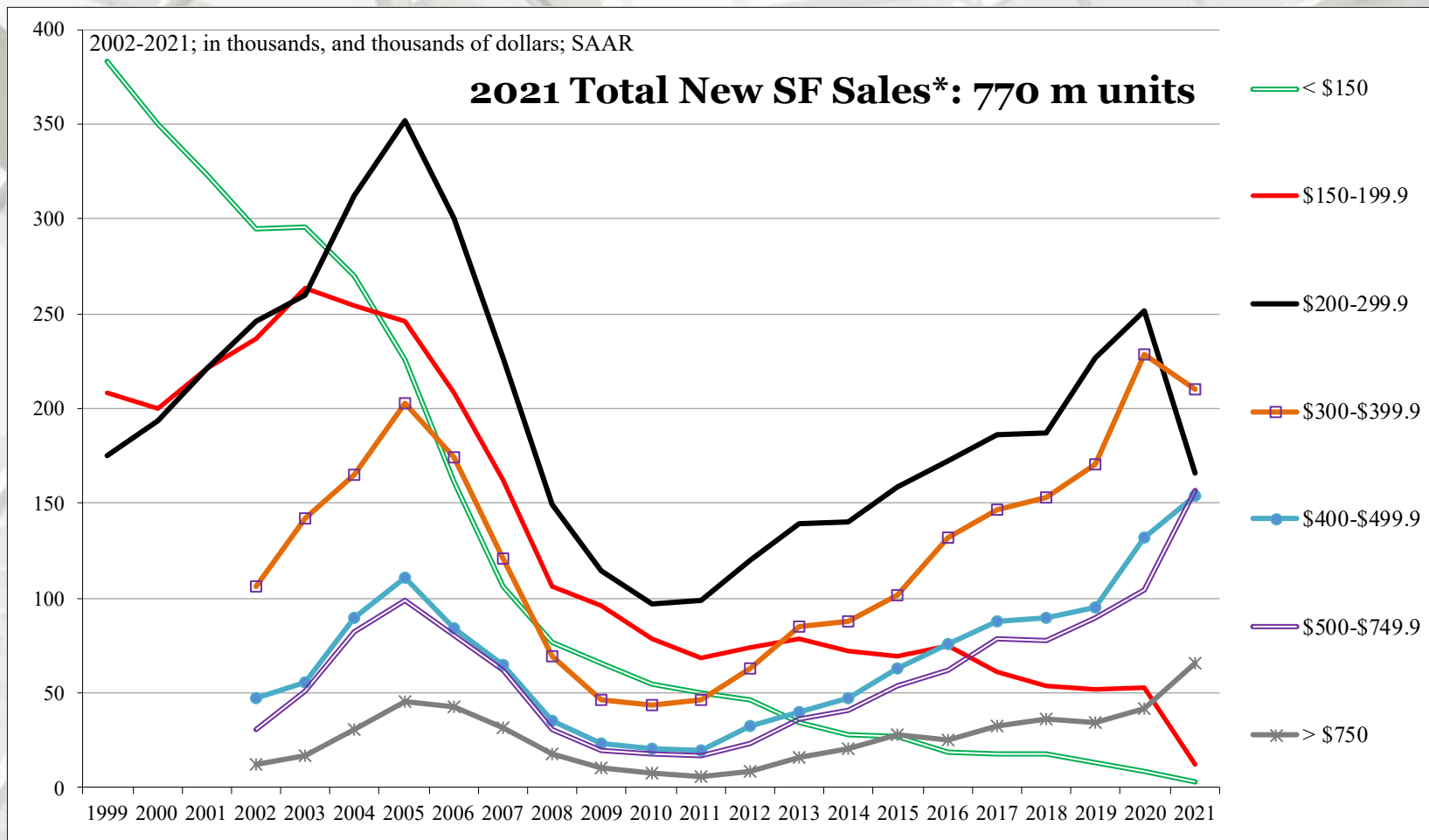


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of total new sales.

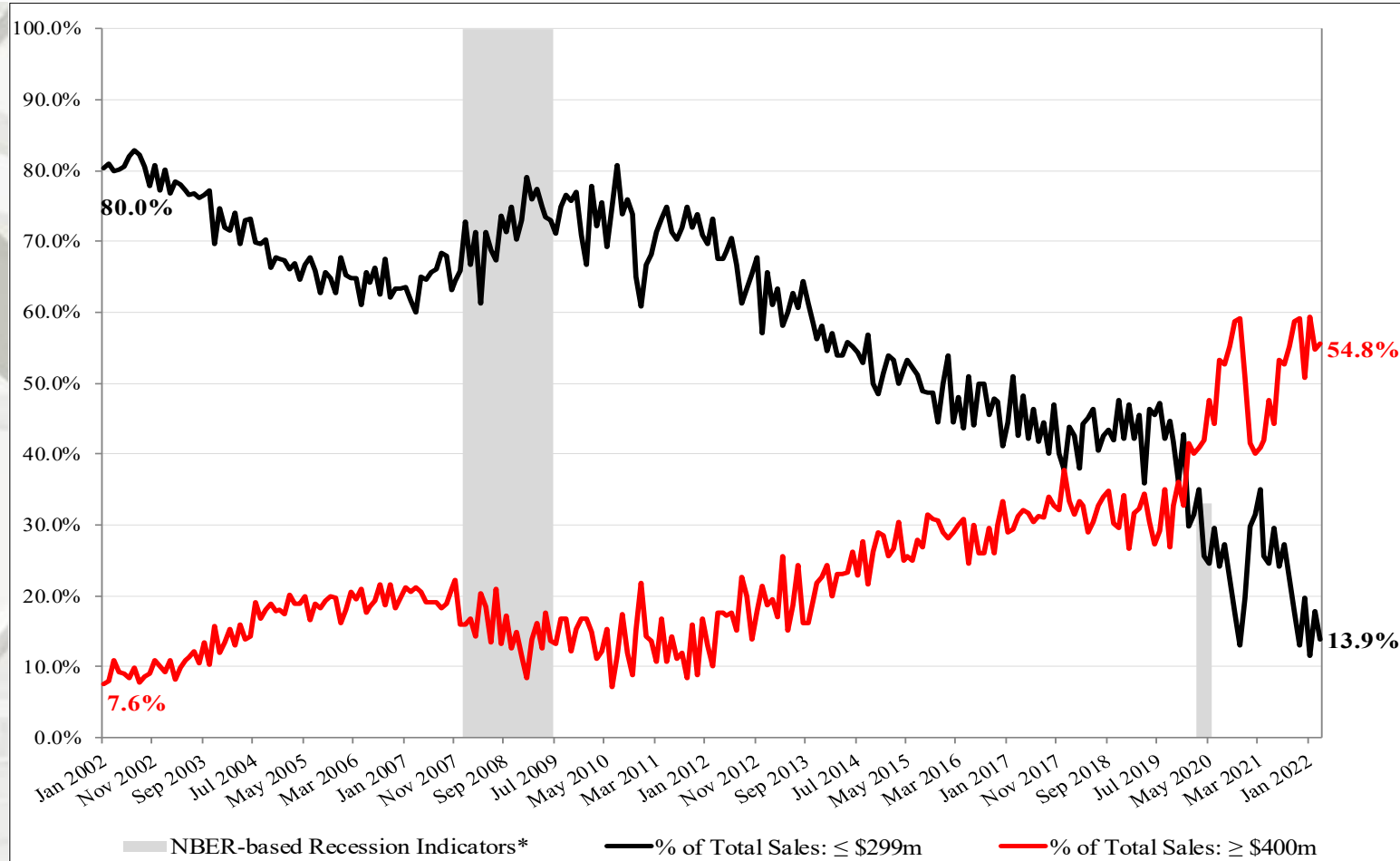
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



* Sales tallied by price category, nominal dollars.

New SF House Sales

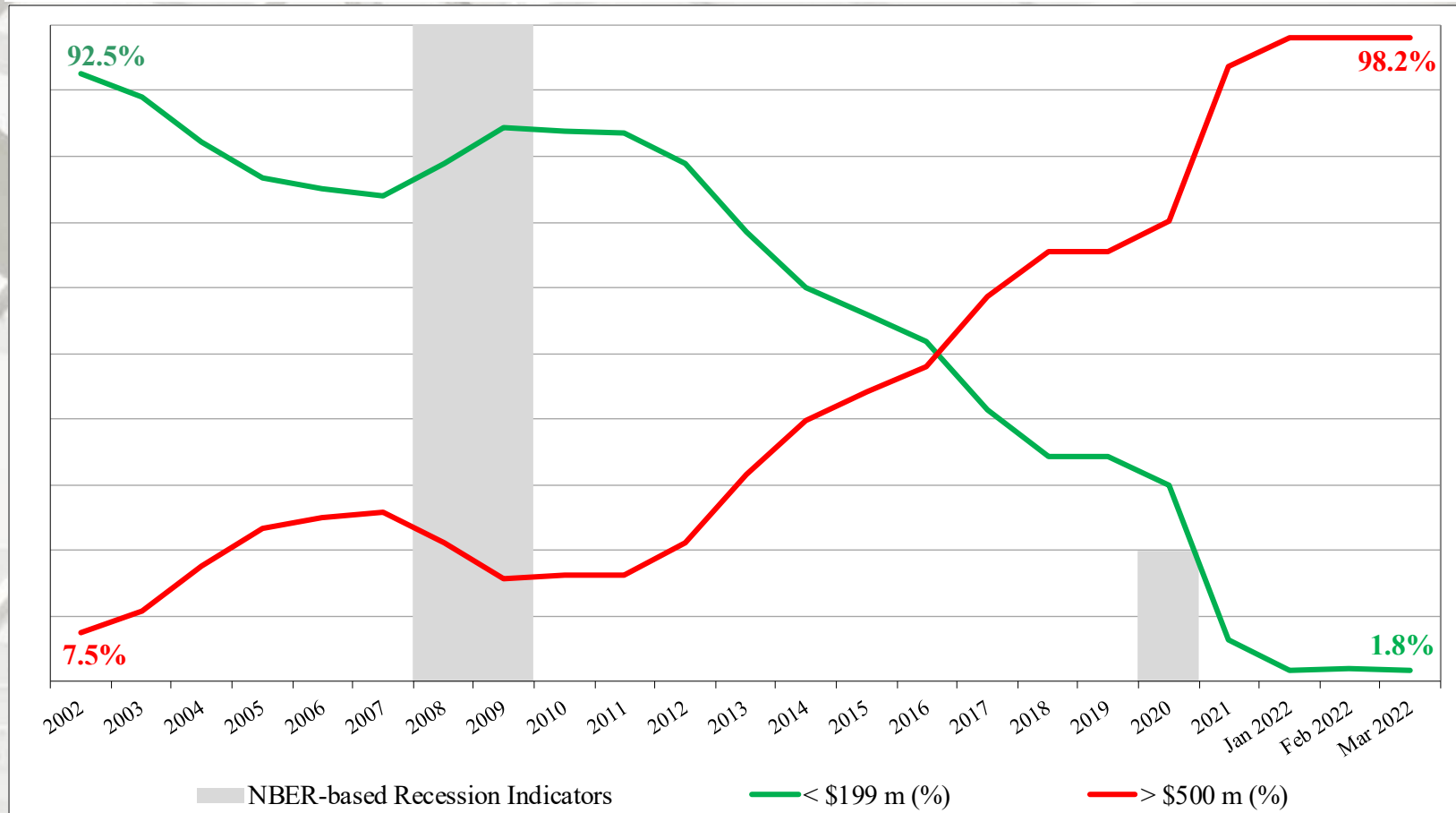


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

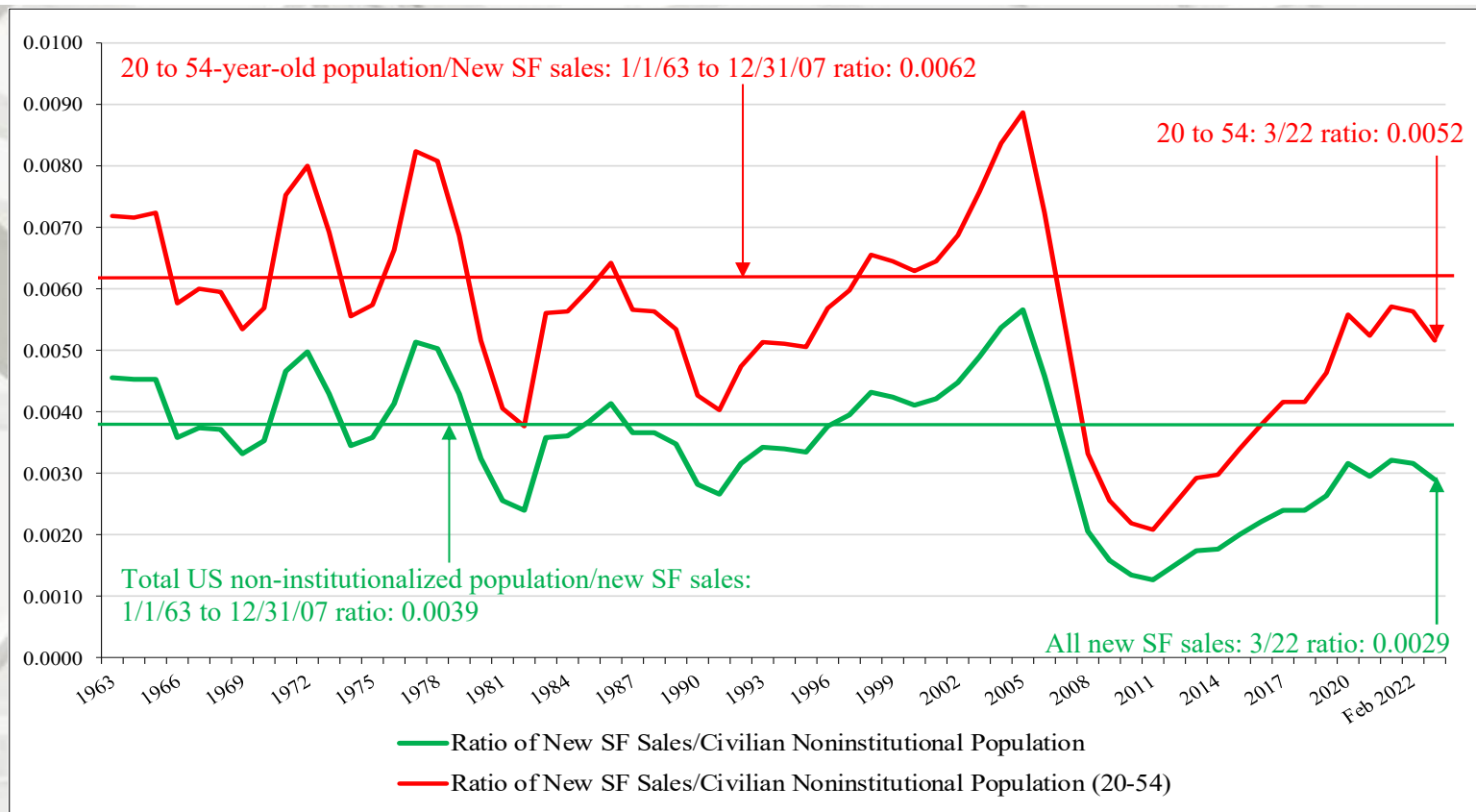


New SF Sales: $\leq \$200m$ and $\geq \$500m$: 2002 to March 2021

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

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

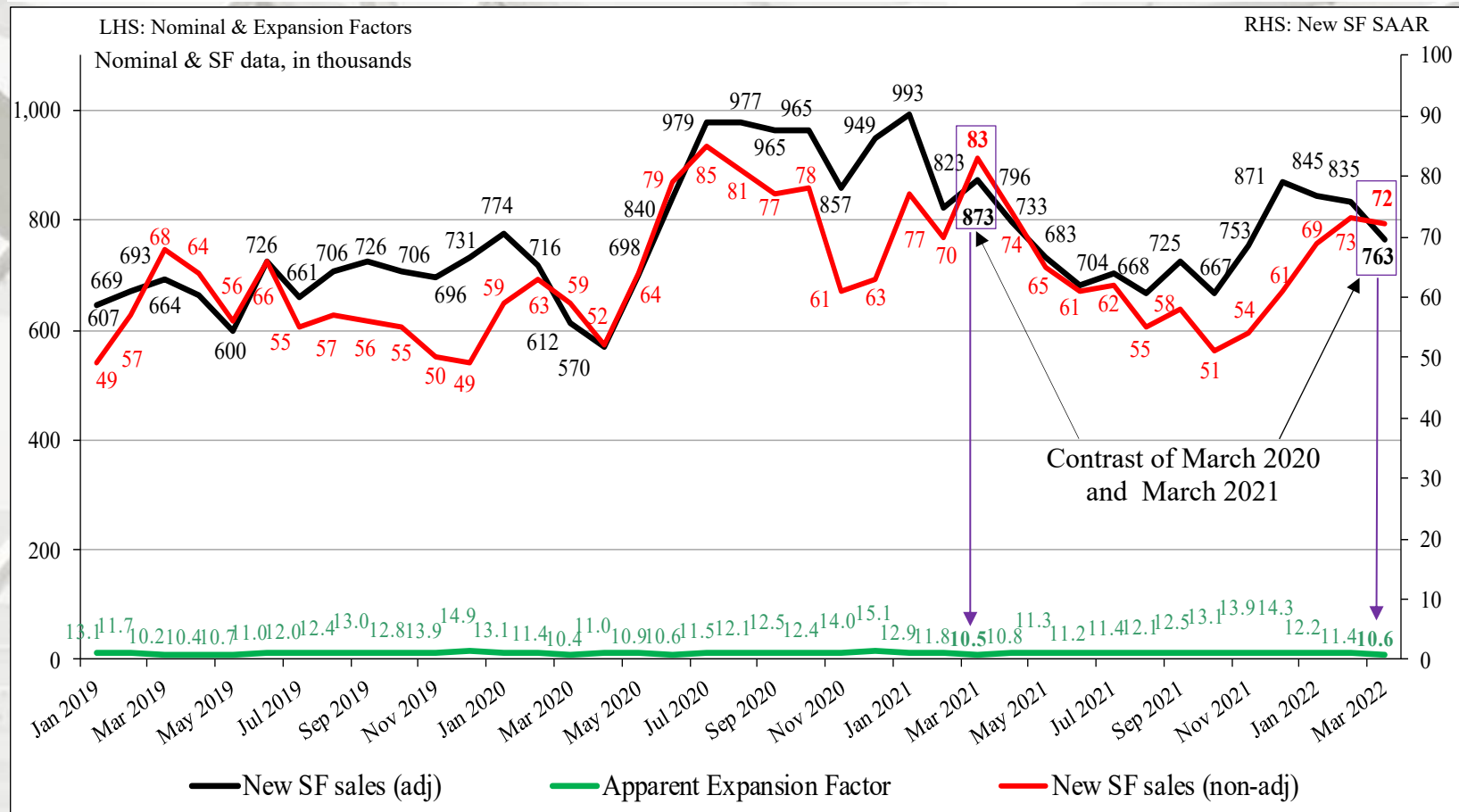


New SF sales adjusted for the US population

From March 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in March 2022 it was 0.0029 – a decrease from February (0.0032). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0048; in March 2022 it was 0.0052 – also a decrease from February (0.0056). 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

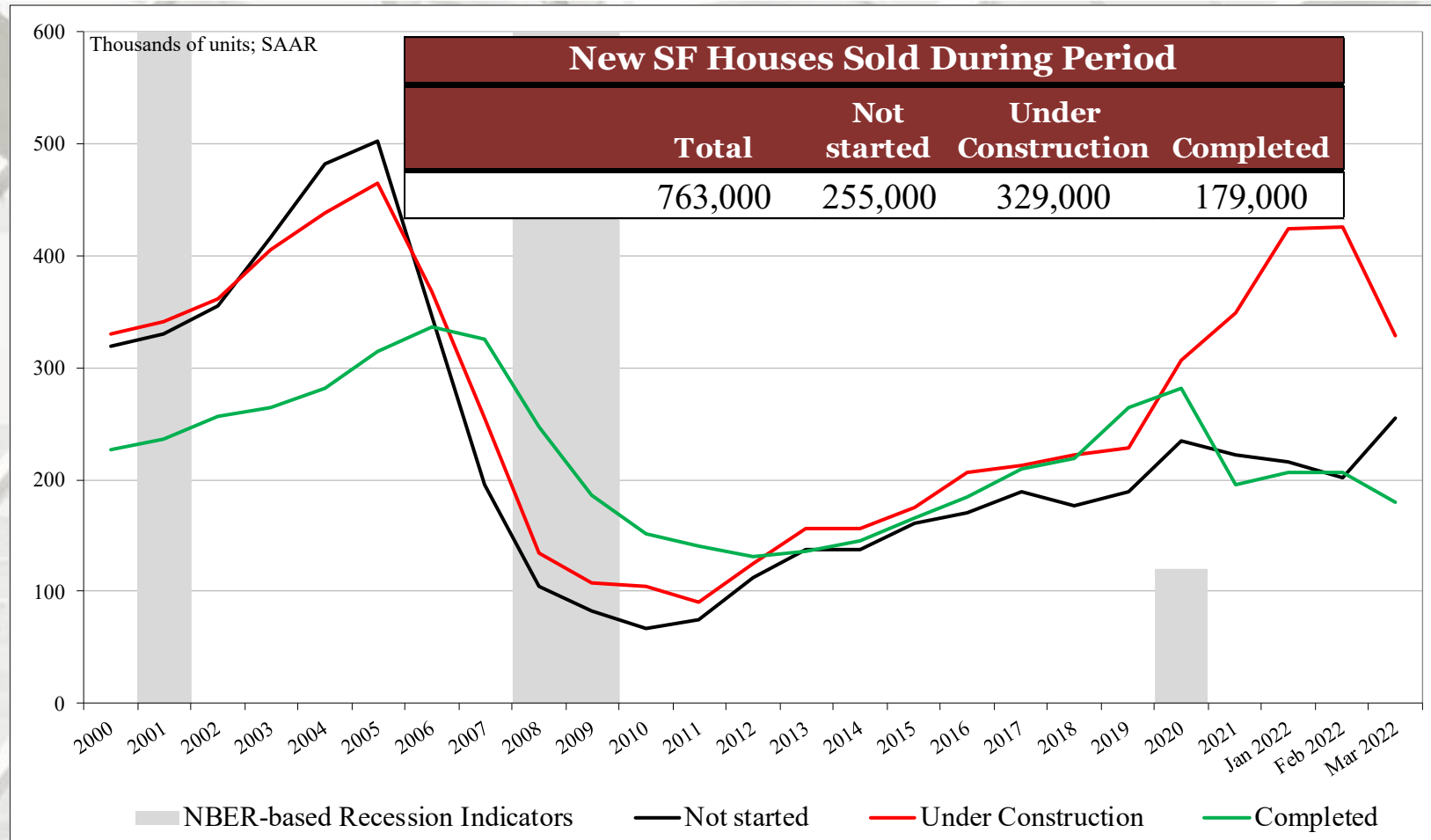
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
March	763,000	255,000	329,000	179,000
February	835,000	202,000	426,000	207,000
2021	873,000	264,000	385,000	224,000
M/M change	-8.6%	26.2%	-22.8%	-13.5%
Y/Y change	-12.6%	-3.4%	-14.5%	-20.1%
Total percentage		33.4%	43.1%	23.5%

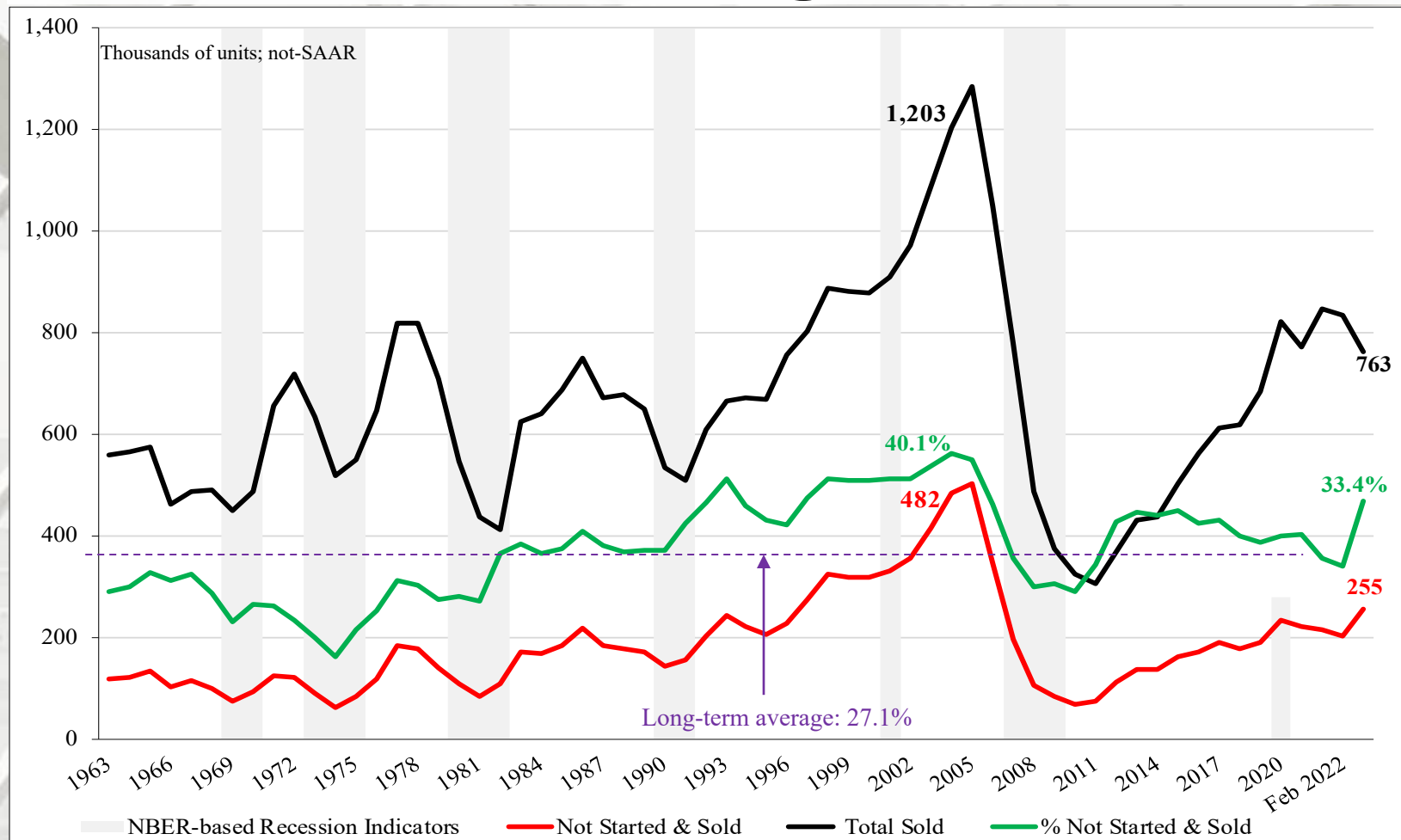
SAAR

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 March (763 m), 33.4% (255 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).

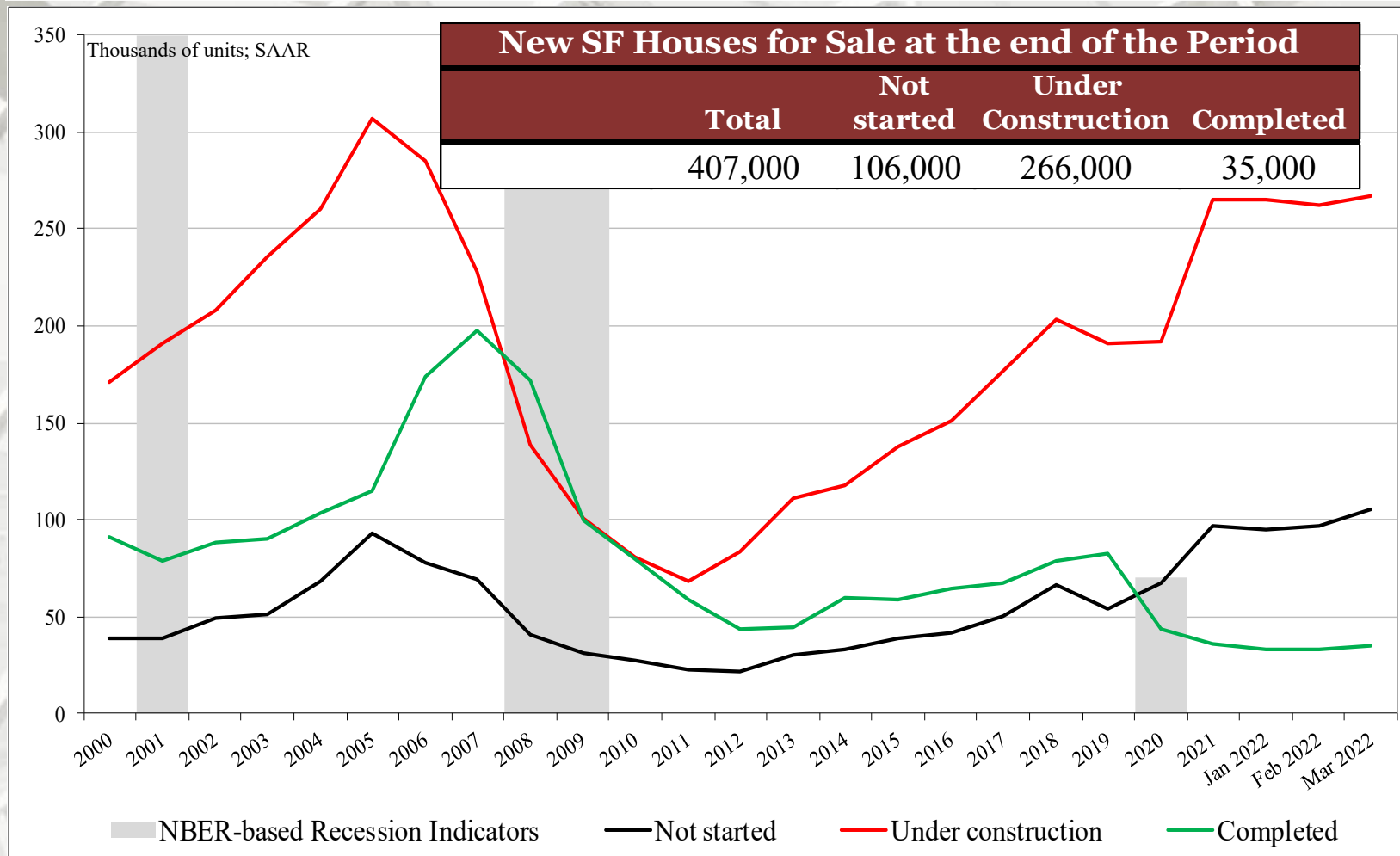
New SF Houses for Sale at End of Period

New SF Houses for Sale at the end of the Period				
	Total	Not started	Under Construction	Completed
March	407,000	105,000	267,000	35,000
February	392,000	97,000	262,000	33,000
2021	305,000	77,000	195,000	33,000
M/M change	3.8%	8.2%	1.9%	6.1%
Y/Y change	33.4%	36.4%	36.9%	6.1%
Total percentage		25.8%	65.6%	8.6%

Not SAAR

Of houses listed for sale (407m) in March, 8.6% (35m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 106m (25.8%) were sold.

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).

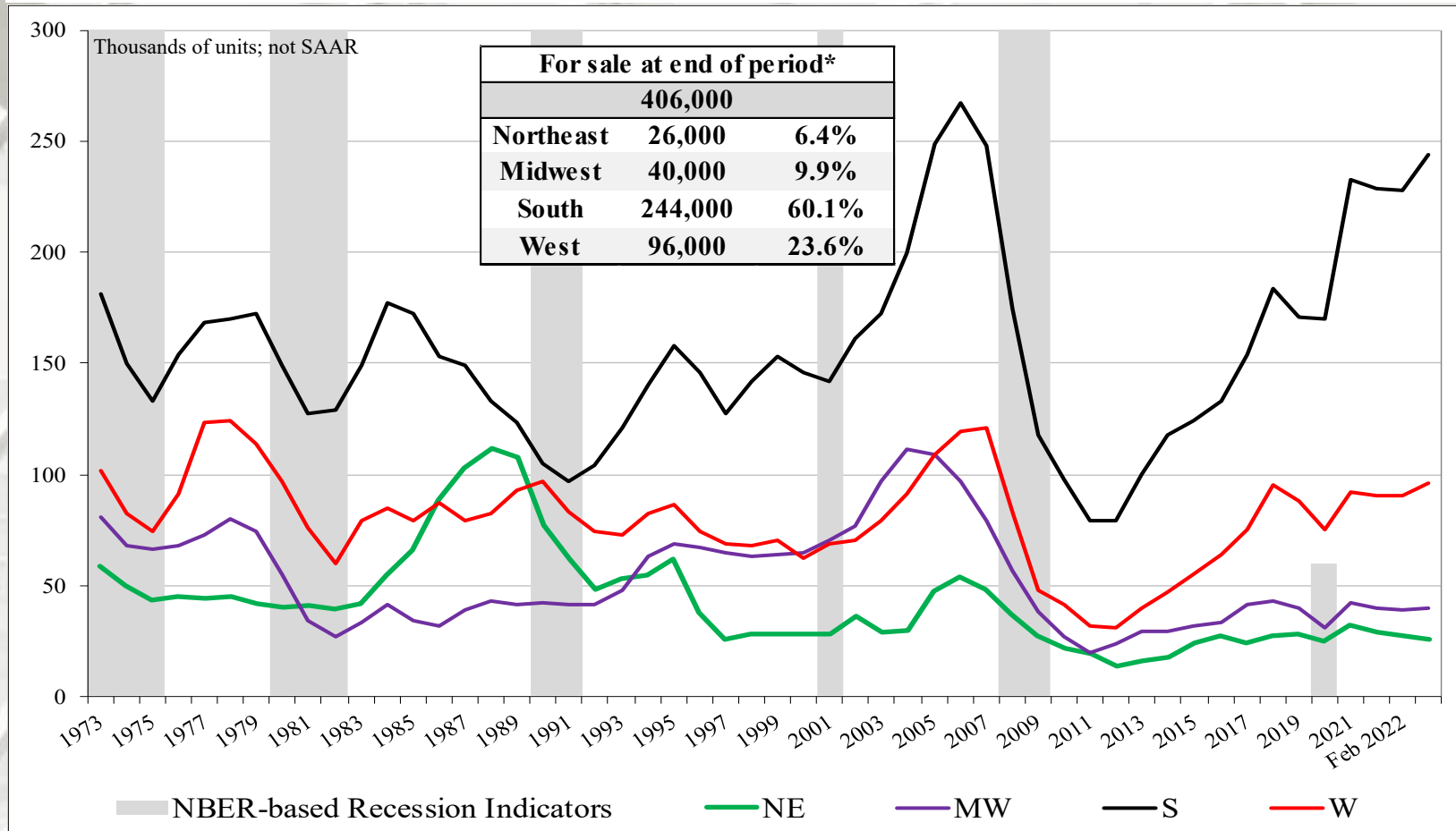
New SF House Sales

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

	Total	NE	MW	S	W
March	406,000	26,000	40,000	244,000	96,000
February	385,000	27,000	39,000	228,000	90,000
2021	305,000	26,000	31,000	169,000	79,000
M/M change	5.5%	-3.7%	2.6%	7.0%	6.7%
Y/Y change	33.1%	0.0%	29.0%	44.4%	21.5%

* Not SAAR

New SF Houses for Sale at End of Period by Region

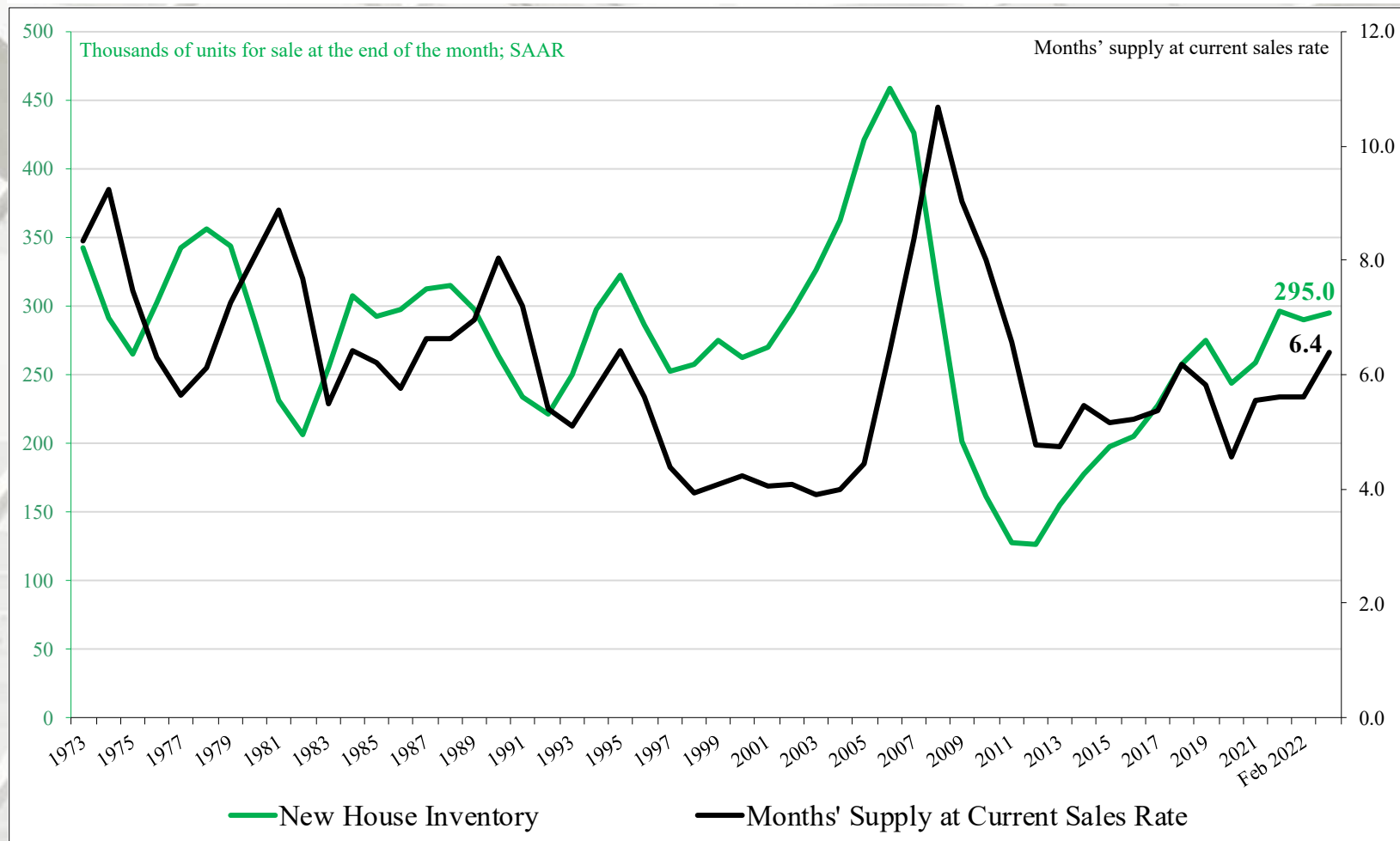


NE = Northeast; MW = Midwest; S = South; W = West

* 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 6.4 at the end of March 2022 (SAAR).

March 2022

Construction Spending

	Total Private Residential*	SF	MF	Improvement**
March	\$882,045	\$472,755	\$101,116	\$308,174
February	\$873,222	\$466,730	\$101,632	\$304,860
2021	\$745,016	\$395,989	\$97,361	\$251,666
M/M change	1.0%	1.3%	-0.5%	1.1%
Y/Y change	18.4%	19.4%	3.9%	22.5%

* millions.

** The US DOC does not report improvement spending directly, this is a monthly estimation: ((Total Private Spending – (SF spending + MF spending)).

All data are SAARs and reported in nominal US\$.

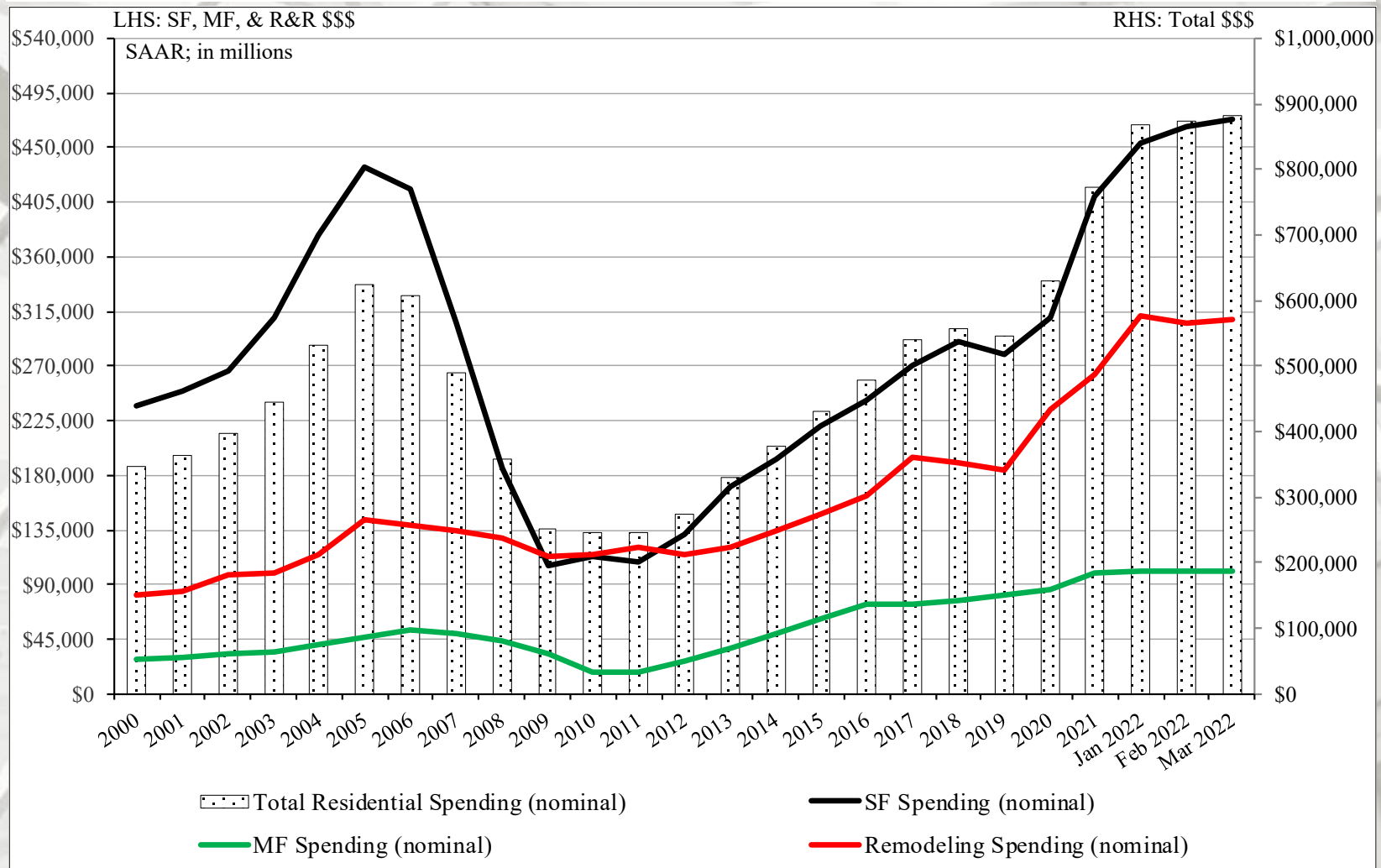
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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

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

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

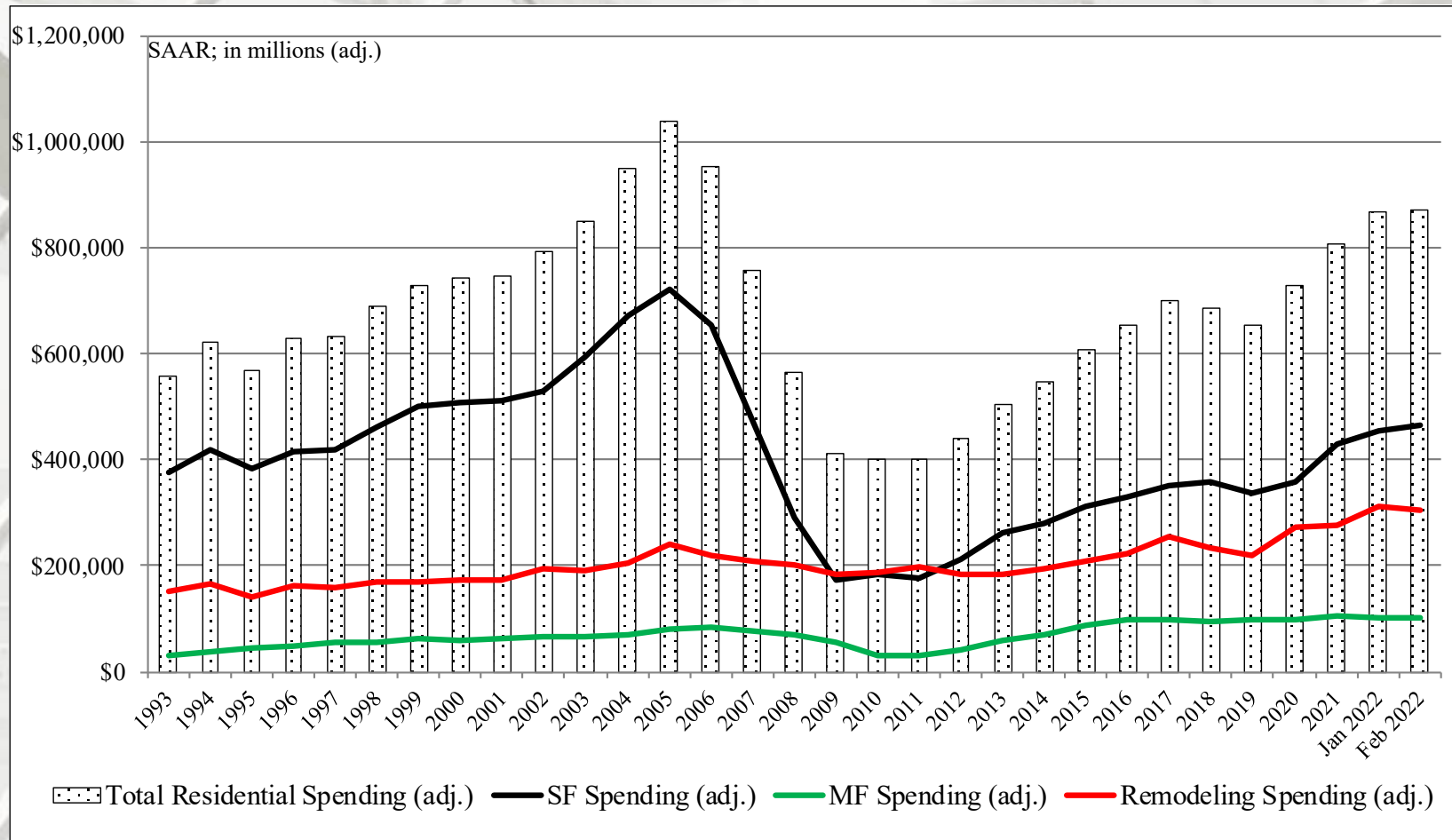
Total Construction Spending (nominal): 2000 – March 2022



Reported in nominal US\$.

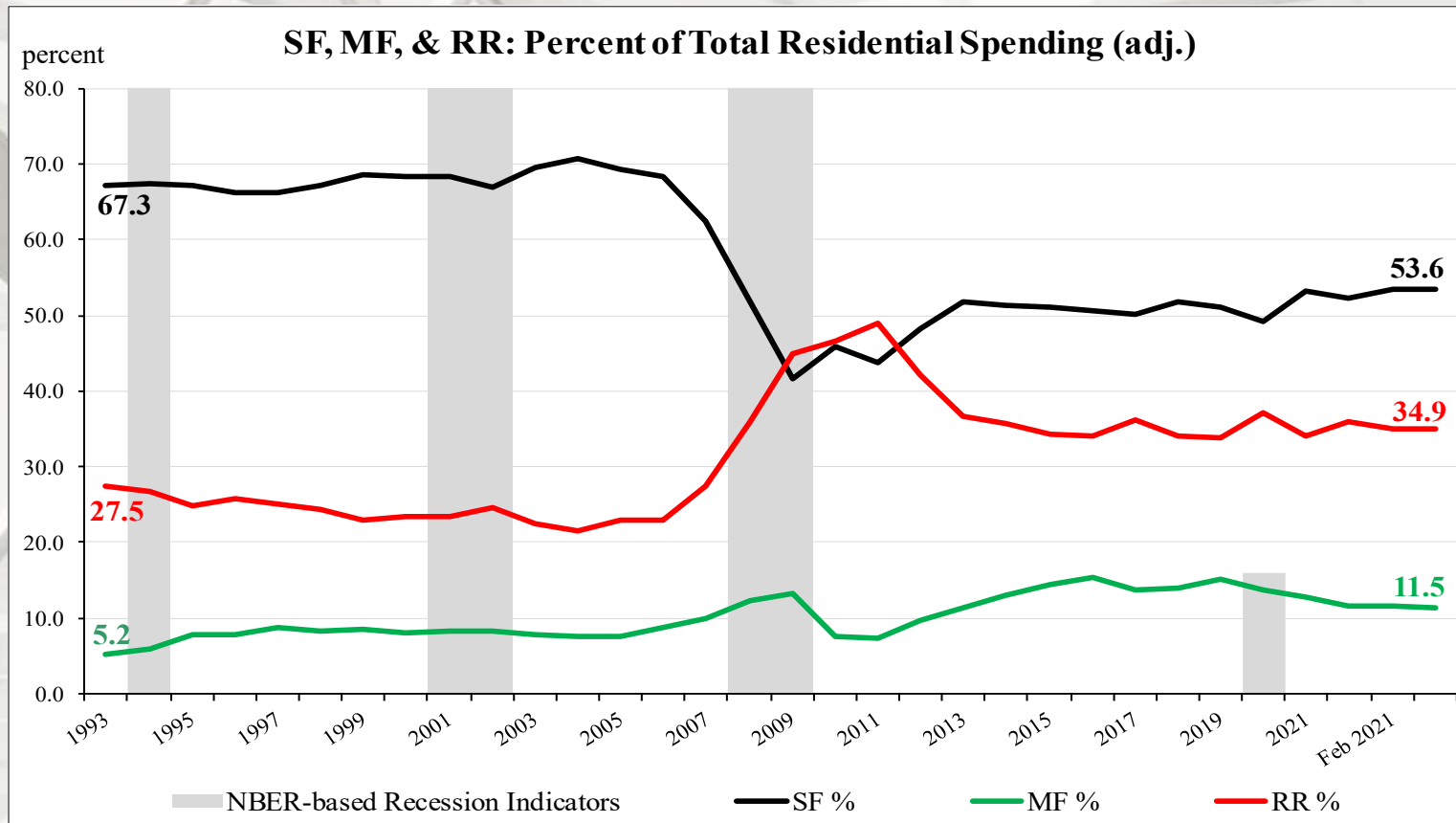
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – March 2022



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

Construction Spending Shares: 1993 – March 2022



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

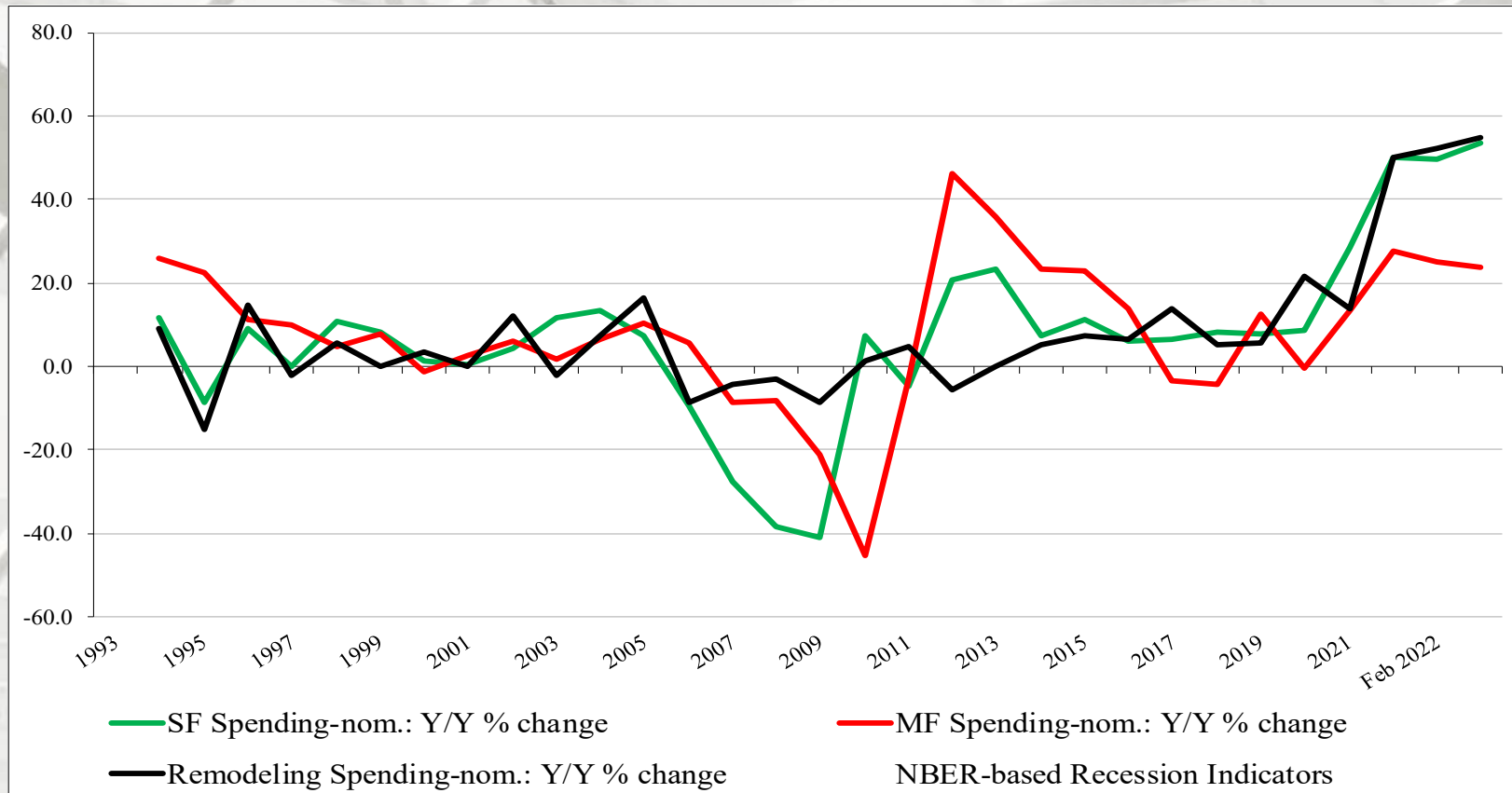
Residential remodeling (RR) spending average: 23.3% (SAAR).

Note: 1993 to 2021 (adjusted for inflation, BEA Table 1.1.9); March 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>; 5/2/22 and <http://www.bea.gov/iTable/iTable.cfm>; 3/30/22

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



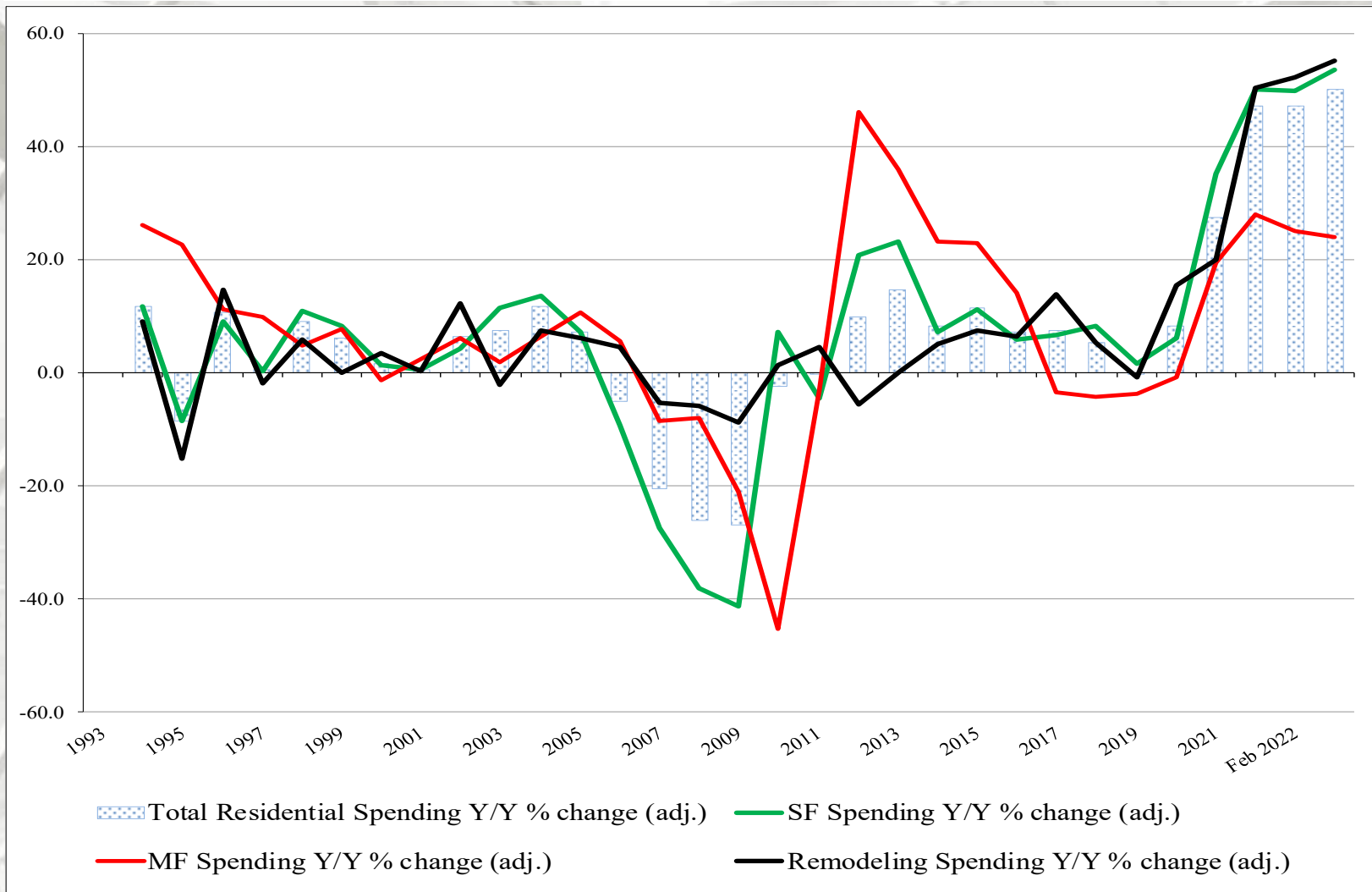
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to March 2021

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 (March 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).

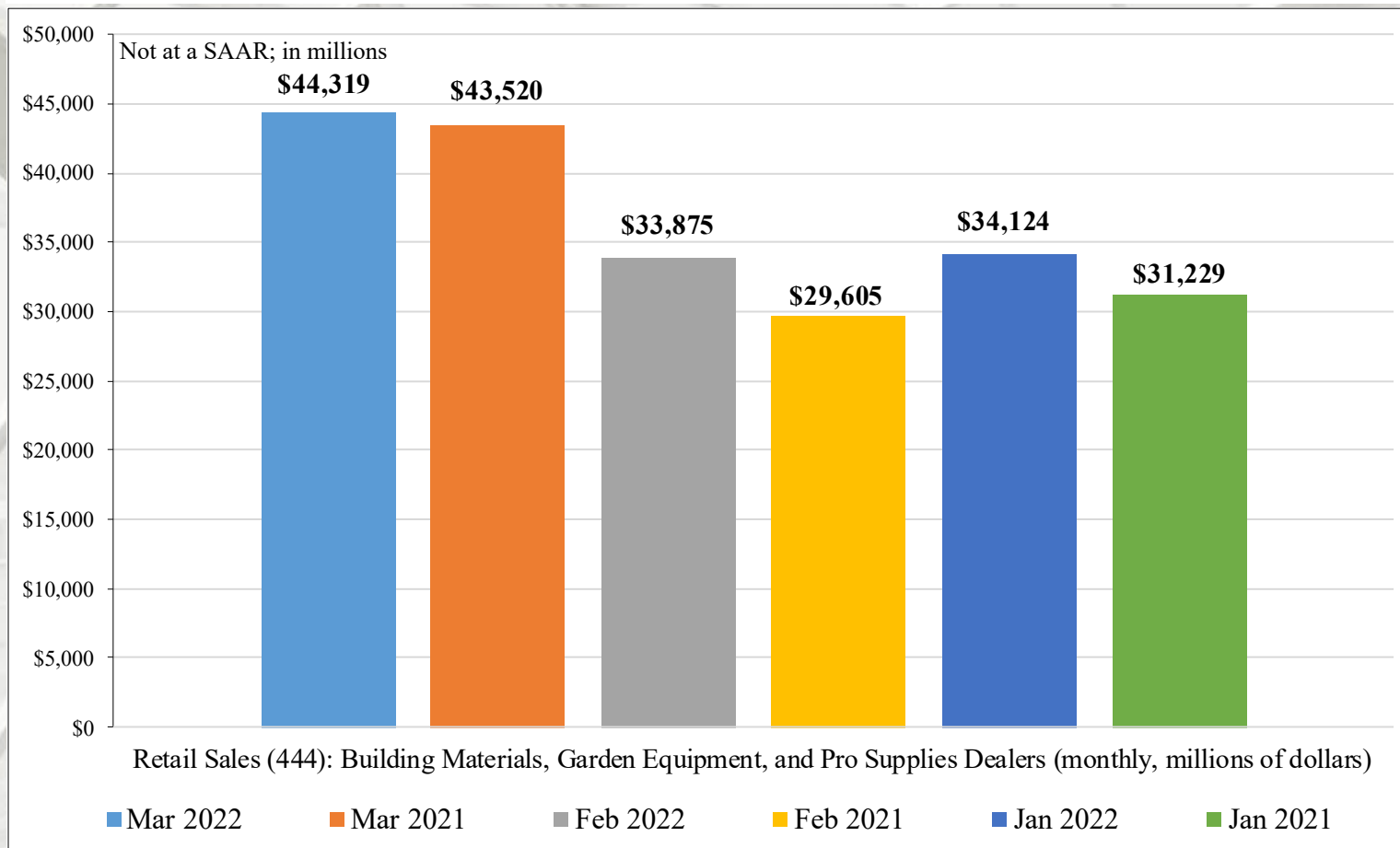
Sources: * <https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>, 5/1/22 and <http://www.bea.gov/iTable/iTable.cfm>, 3/30/22

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



Remodeling

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

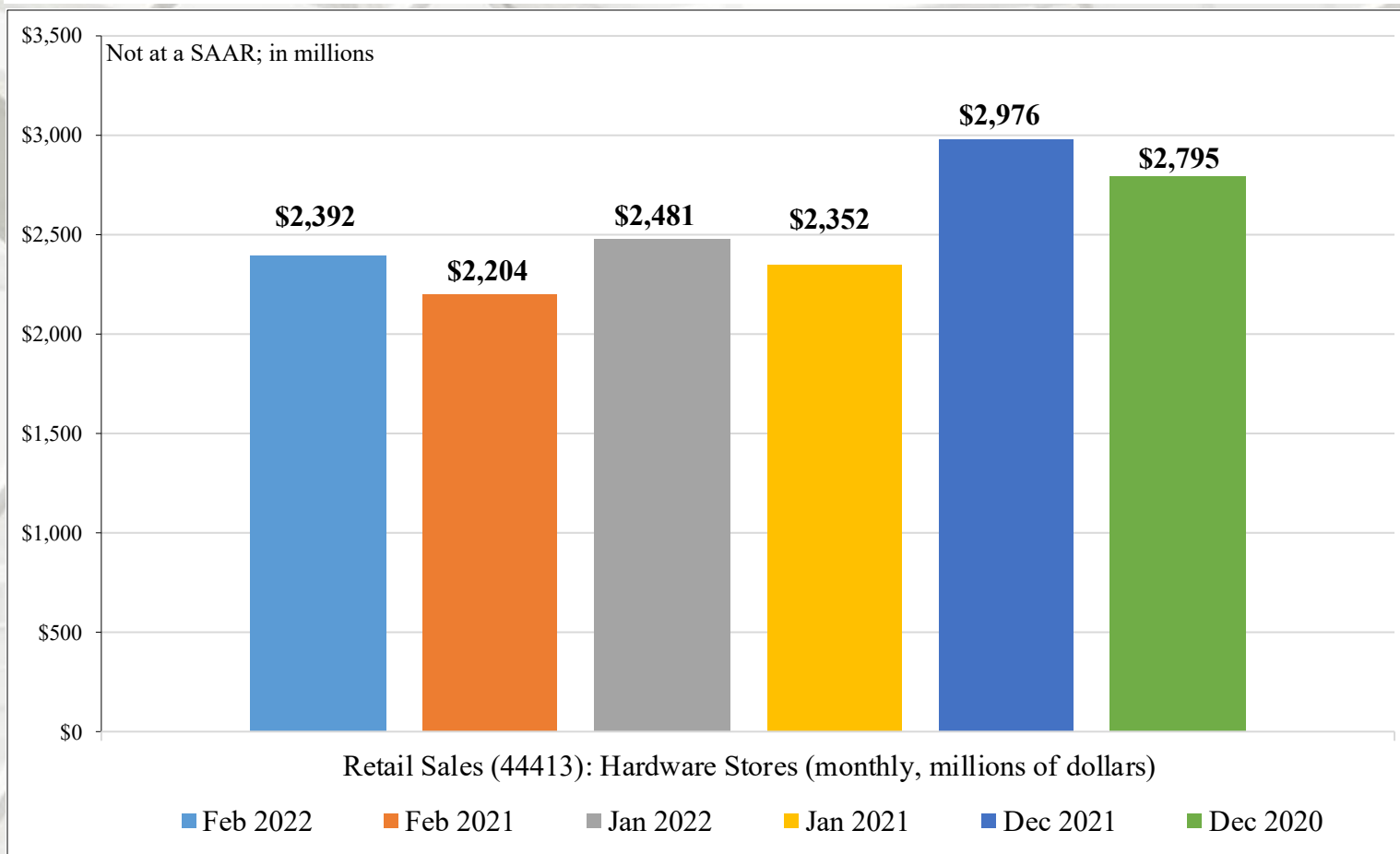


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 30.8% in March 2022 from March 2021 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 March 2022 from January 2022 and increased 8.5% in March 2022 from March 2021 (on a non-adjusted basis).

Remodeling

Harvard Joint Center for Housing Studies

Red Hot Remodeling Growth Expected To Ease Into 2023

“Expenditures for improvements and repairs to the owner-occupied housing stock are expected to grow throughout 2022 and into early next year, but at a decelerating pace, according to our latest [Leading Indicator of Remodeling Activity \(LIRA\)](#). The LIRA projects year-over-year increases in residential renovation and maintenance spending will peak at 19.7 percent in the third quarter of this year before sliding downward to 15.1 percent in the first quarter of 2023.

Massive increases in house price appreciation and the resulting levels of tappable home equity will continue to support remodeling activity this year and into next. Many other market indicators including existing home sales, renovation permitting, and retail sales of building materials also continue to grow at high, albeit slowing, rates.

The level of annual expenditures for home improvements and repairs is set to expand to nearly \$450 billion by the first quarter of 2023. Yet, the rising costs of project financing, construction materials, and labor, as well as growing concerns about a broader economic slowdown or recession may further slow remodeling growth.” – Abbe Will, Senior Research Associate and Associate Project Director, Remodeling Futures Program, Harvard Joint Center for Housing Studies

Remodeling

Harvard Joint Center for Housing Studies

Red Hot Remodeling Growth Expected To Ease Into 2023

Leading Indicator of Remodeling Activity – First Quarter 2022

Homeowner Improvements & Repairs
Four-Quarter Moving Totals
Billions

Four-Quarter Moving
Rate of Change



Notes: Improvements include remodels, replacements, additions, and structural alterations that increase the value of homes. Routine maintenance and repairs preserve the current quality of homes. Historical estimates since 2019 are produced using the LIRA model until American Housing Survey benchmark data become available.

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Joint Center for Housing Studies of Harvard University JCHS

Remodeling

John Burns Real Estate Consulting, LLC

The Rich, Frustrated, and “Locked In” Turn to Remodeling

“Building material prices have risen 23% over the last year according to production builders, in part due to a surge in remodeling driven by 3 primary conditions:

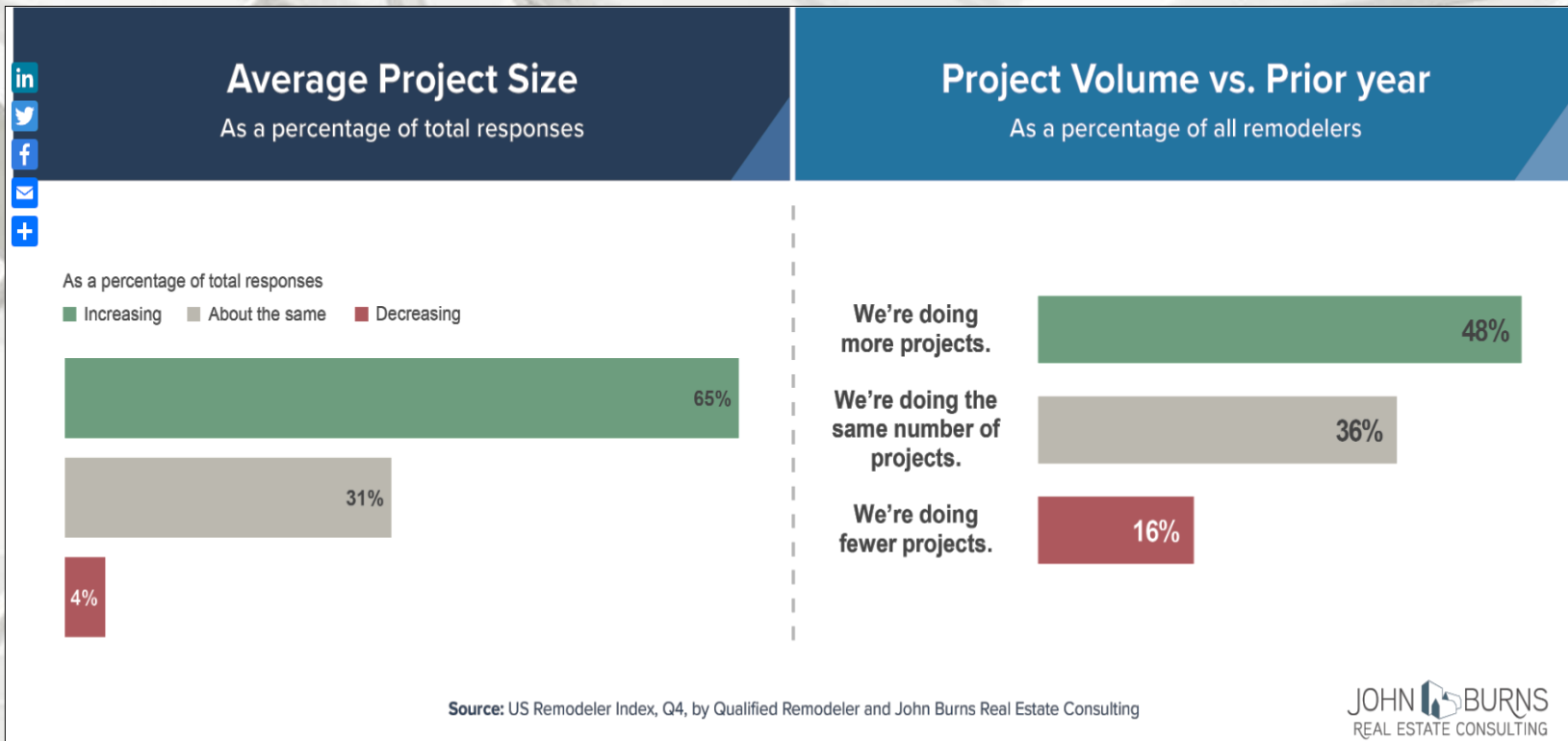
Rich homeowners. Home equity per owner hit a record high of \$315K, an inflation-adjusted increase of \$95,000 over 2019! Inflation-adjusted checking account cash balances per capita have increased by 4X as well.

Few “trade-up” homes available. Faced with the reality of living in their current homes for longer due to lack of homes for sale, frustrated homeowners are choosing to customize, update, and upgrade.

Rising mortgage rates. The increase in mortgage rates has effectively “locked in” current homeowners by offering a huge financial incentive to stay in their existing home that has a low mortgage rate, versus moving to a new home with a much higher mortgage rate. 72% of outstanding mortgage borrowers are “locked in” with rates below 4%, creating a powerful incentive to stay in place and remodel..

At 1.6 months of supply, the current inventory of existing homes for sale is at the lowest level in history, severely limiting choices for would-be home buyers. To accommodate demand for additional space and functionality, particularly with today’s surge in work-from-home trends, big remodeling projects have been surging.” – Matt Saunders, Senior Vice President, Building Products Research and Eric Finnigan, Director, Building Products; John Burns Real Estate Consulting, LLC

Remodeling



John Burns Real Estate Consulting, LLC

The Rich, Frustrated, and “Locked In” Turn to Remodeling

“Remodelers have never been busier. 48% report doing more projects than one year ago, and 65% report that the projects are larger than one year ago.” – Matt Saunders, Senior Vice President, Building Products Research and Eric Finnigan, Director, Building Products; John Burns Real Estate Consulting, LLC

Remodeling

John Burns Real Estate Consulting, LLC

Debunking Existing Home Sales as a Predictor of Remodeling Spending

“Most Wall Street analysts will tell you existing home sales is the best predictor of remodeling spending. The rationale is that sellers will invest in upgrades like floors and paint before listing to increase their home’s market value, and buyers will upgrade after purchasing. However, our analysis shows this overstates the importance of this indicator, given the approximately six million existing home sales each year compared to the \$400 billion remodeling market.

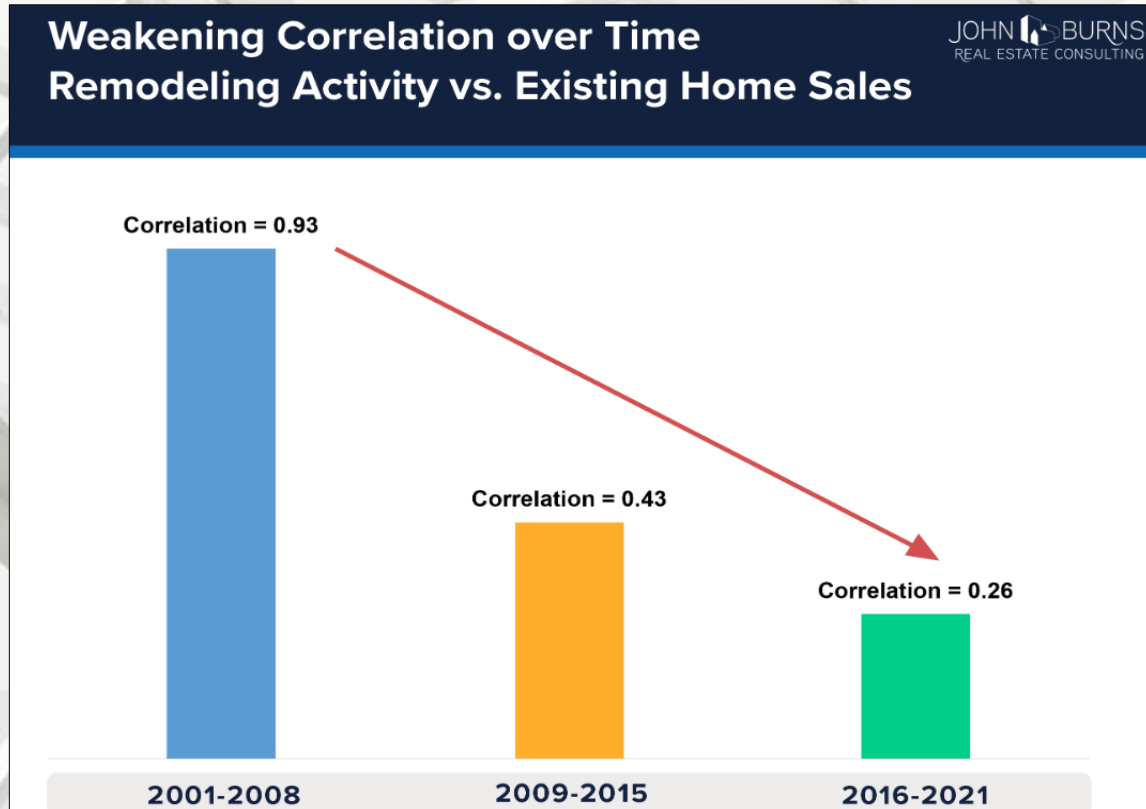
In a low inventory situation, such as today, the relationship has broken down completely. Below we show a statistical measure of the declining importance of existing home sales.

18% of recent new home buyers purchased their home with plans to accommodate an adult child, elderly parent, or other family member / friend.

Shining a light on the 400-billion-dollar question everyone is asking: What will slowing home sales mean for remodeling spending?

We expect existing home sales to decline in 2022, given continued extremely tight inventory and a payment shock from rising mortgage rates. However, even with a decline in existing home sales, we forecast continued growth in remodeling spending, especially on large, professional contractor-intensive projects.” – Matt Saunders, Senior Vice President, Building Products Research and Eric Finnigan, Director, Building Products; John Burns Real Estate Consulting, LLC

Remodeling



John Burns Real Estate Consulting, LLC

“Going forward, longer-term structural factors will drive remodeling demand, assisted by shorter-term cyclical drivers, including:

- wealth from home equity
- age of the existing housing stock
- home price appreciation
- reduced mobility for the majority of owners who will stay in their home
- continued spending from remodels currently in progress.” – Matt Saunders, Senior Vice President, Building Products Research and Eric Finnigan, Director, Building Products; John Burns Real Estate Consulting, LLC

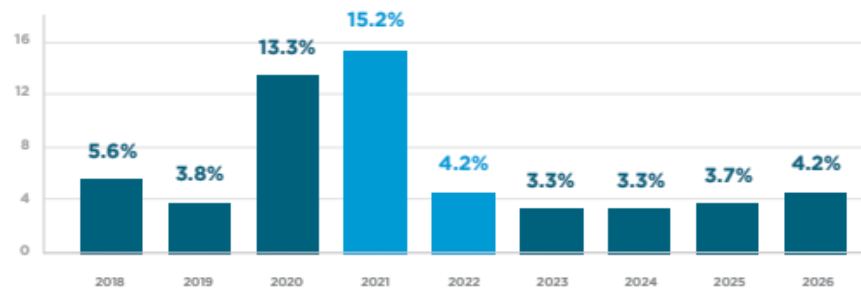
Remodeling

Home Improvement Research Institute Home Improvement Products Market Forecast

2021 and 2022 Growth Trends

2021 saw tremendous growth. Sales of home improvement products were higher than estimated in our outlook back in August. The total home improvement market increased by **15.2%**, up to **\$526 billion**, which was **2.2** percentage points higher compared to our previous estimate.

HOME IMPROVEMENT PRODUCTS MARKET: ANNUAL GROWTH (%)



The total home improvement market (in nominal dollars) is projected to grow by **4.2%** in 2022 following strong growth trends in the last couple of years. The slower but steady projected growth in 2022 offers opportunities for manufacturers and dealers to continue selling products and gain profits.

The slower pace could also be used as an advantage. Whether time is needed to restock items, evaluate what products are selling and which aren't or even just take time to discover new brands or products, this steady pace could help companies regroup and think critically about the goals they want to meet in 2022.

Remodeling

Home Improvement Research Institute Home Improvement Products Market Forecast

Consumer & Pro Market Uptrend

HOME IMPROVEMENT PRODUCTS MARKET GROWTH RATES: 2022

+2.6%
Consumer Market

+7.9%
Professional Market

Strong professional market uptrend continues in 2022. When looking at the consumer market, sales in nominal dollars are expected to increase by **2.6%** this year. In addition, professional market sales are expected to increase by **7.9%**.

With both markets expecting to increase, it's important for manufacturers, dealers and distributors to properly prepare for this uptrend. As more people are looking for home improvement products, companies need to ensure they can meet those needs through sufficient product offerings, reliable availability and proper marketing strategies to ensure the company is a top competitor.

Top Product Categories in 2022-2026

The top five consumer product categories are:

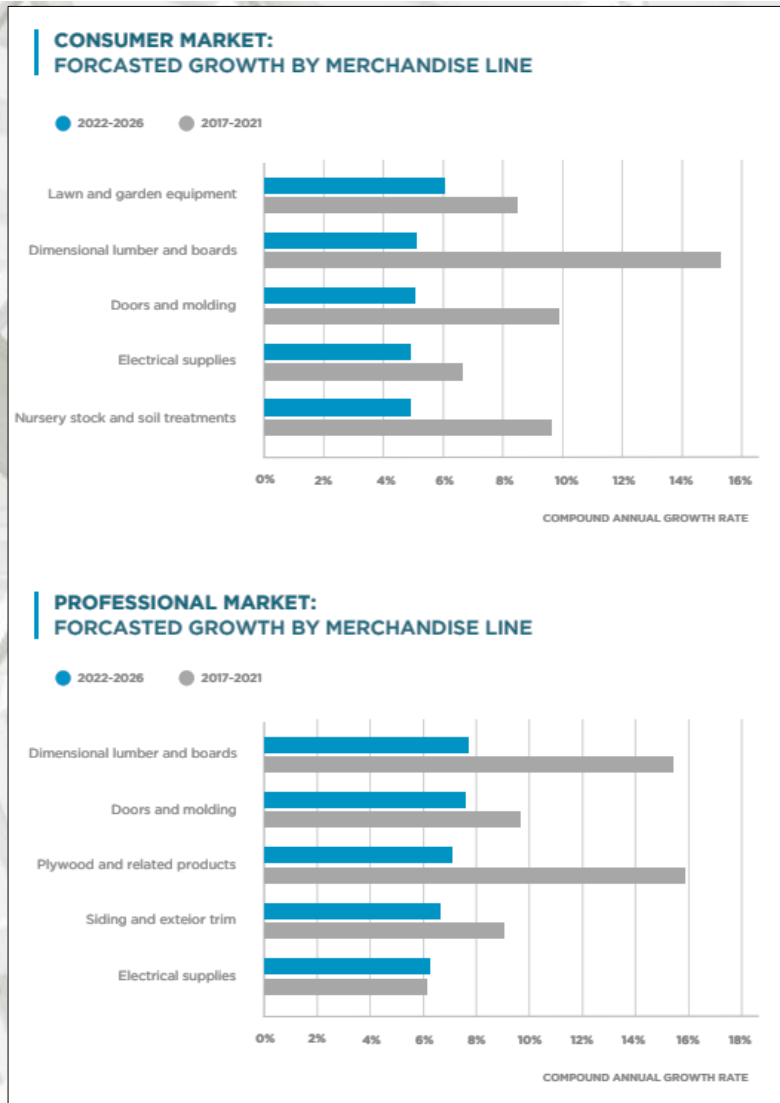
1. Lawn and garden equipment
2. Dimensional lumber and boards
3. Doors and molding
4. Electrical supplies
5. Nursery stock and soil treatments

The top five professional product categories are:

1. Dimensional lumber and boards
2. Doors and molding
3. Plywood and related products
4. Siding and exterior trim
5. Electrical supplies

Remodeling

Home Improvement Research Institute Home Improvement Products Market Forecast



Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Mean Price	Month's Supply
March	5,770,000	\$375,300	\$387,100	2.0
February	5,930,000	\$359,300	\$374,200	1.7
2021	6,040,000	\$326,300	\$353,100	2.1
M/M change	-2.7%	4.5%	3.4%	17.6%
Y/Y change	-4.5%	15.0%	9.6%	-4.8%

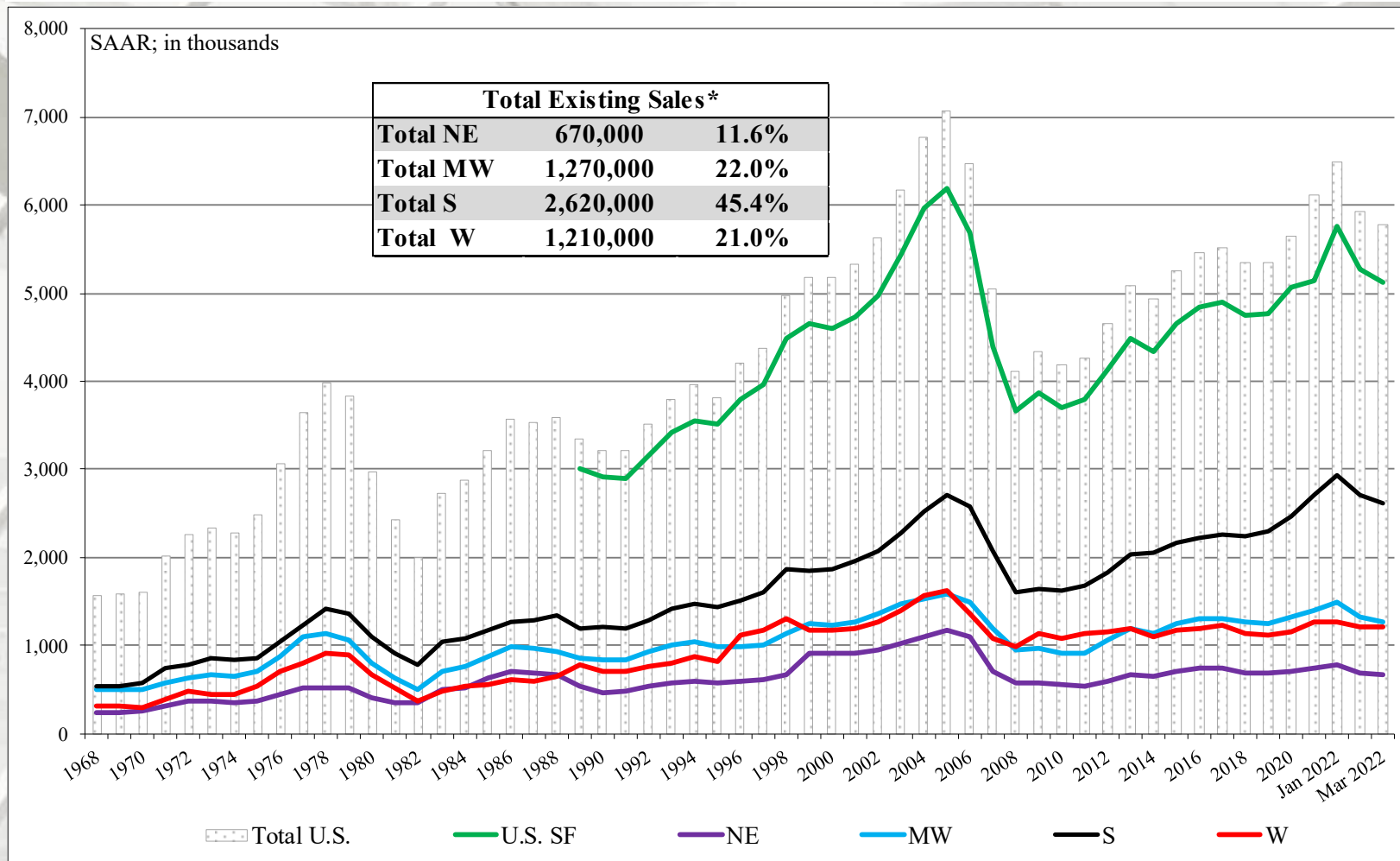
All sales data: SAAR

Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price	
March	5,130,000	\$366,000	\$378,300	
February	5,270,000	\$356,700	\$372,400	
2021	5,330,000	\$315,100	\$345,300	
M/M change	-2.7%	4.5%	3.4%	
Y/Y change	-3.8%	15.2%	9.7%	
	NE	MW	S	W
March	670,000	1,270,000	2,620,000	1,210,000
February	690,000	1,330,000	2,700,000	1,210,000
2021	760,000	1,310,000	2,700,000	1,270,000
M/M change	-2.9%	-4.5%	-3.0%	0.0%
Y/Y change	-11.8%	-3.1%	-3.0%	-4.7%

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 – March 2022

U.S. House Price Index Up 2.1 Percent in February; Up 19.4 Percent from Last Year

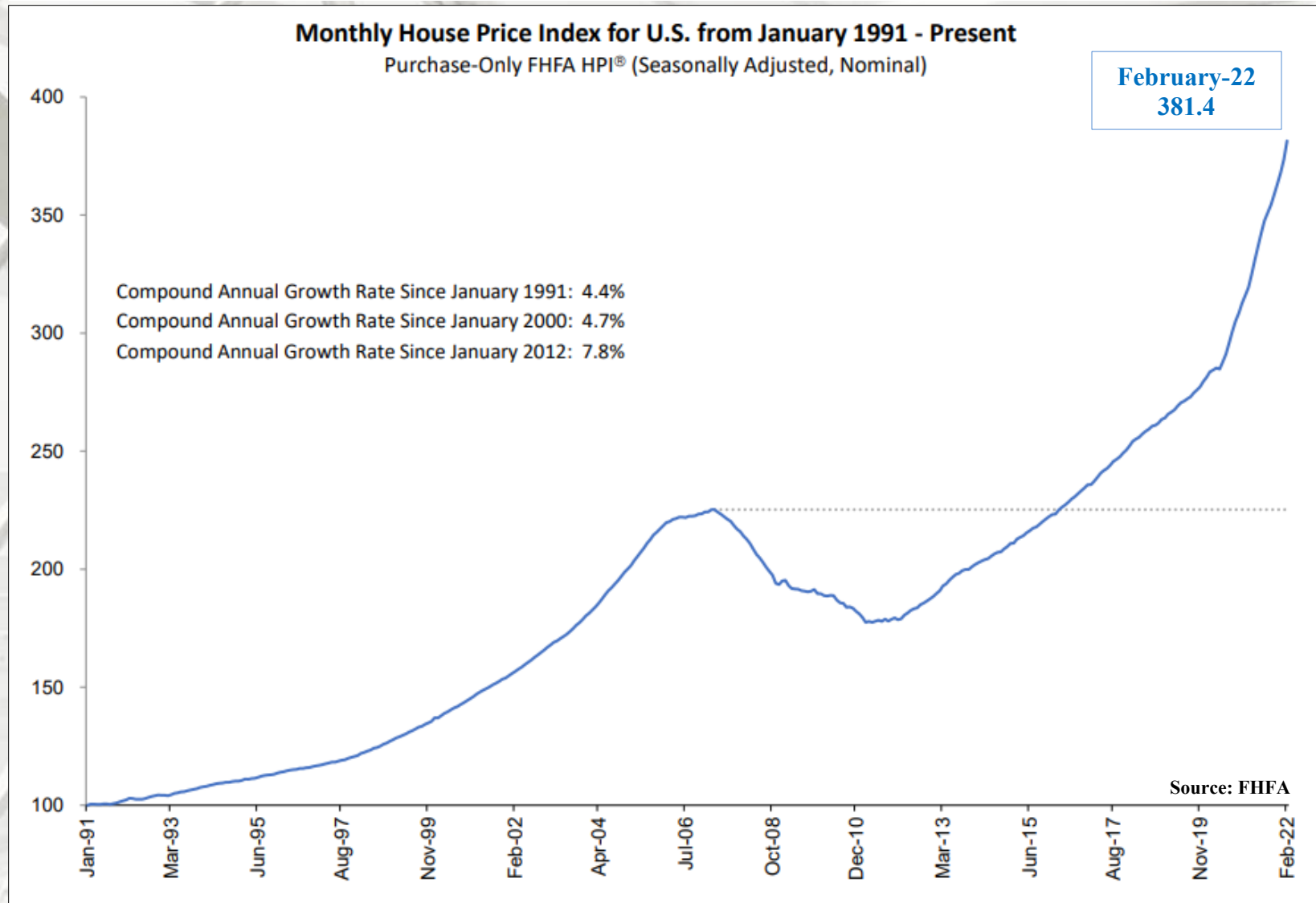
Significant Findings

“House prices rose nationwide in February, up 2.1 percent from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **19.4 percent** from February 2021 to February 2022. The previously reported 1.6 percent price change for January 2022 remained unchanged.

For the nine census divisions, seasonally adjusted monthly house price changes from January 2022 to February 2022 ranged from **+1.3 percent** in the East North Central division to **+2.9 percent** in the South Atlantic division. The 12-month changes ranged from **+15.3 percent** in the East North Central division to **+24.3 percent** in the Mountain division. ” – Raffi Williams and Adam Russell, FHFA

“House prices rose to set a new historical record in February. Acceleration approached twice the monthly rate as seen a year ago. Housing prices continue to rise owing in part to supply constraints.” – 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 Shows Annual Home Price Gains Increased To 19.8% In February

“... Data for February 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 19.8% annual gain in February, up from 19.1% in the previous month. The 10-City Composite annual increase came in at 18.6%, up from 17.3% in the previous month. The 20-City Composite posted a 20.2% year-over-year gain, up from 18.9% in the previous month. Phoenix, Tampa, and Miami reported the highest year-over-year gains among the 20 cities in February. Phoenix led the way with a 32.9% year-over-year price increase, followed by Tampa with a 32.6% increase and Miami with a 29.7% increase. All 20 cities reported higher price increases in the year ending February 2022 versus the year ending January 2022.

Month-Over-Month

Before seasonal adjustment, the U.S. National Index posted a 1.7% month-over-month increase in February, while the 10-City and 20-City Composites both posted increases of 2.4%. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.9%, and the 10-City and 20-City Composites both posted increases of 2.3% and 2.4%, respectively.

In February, 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

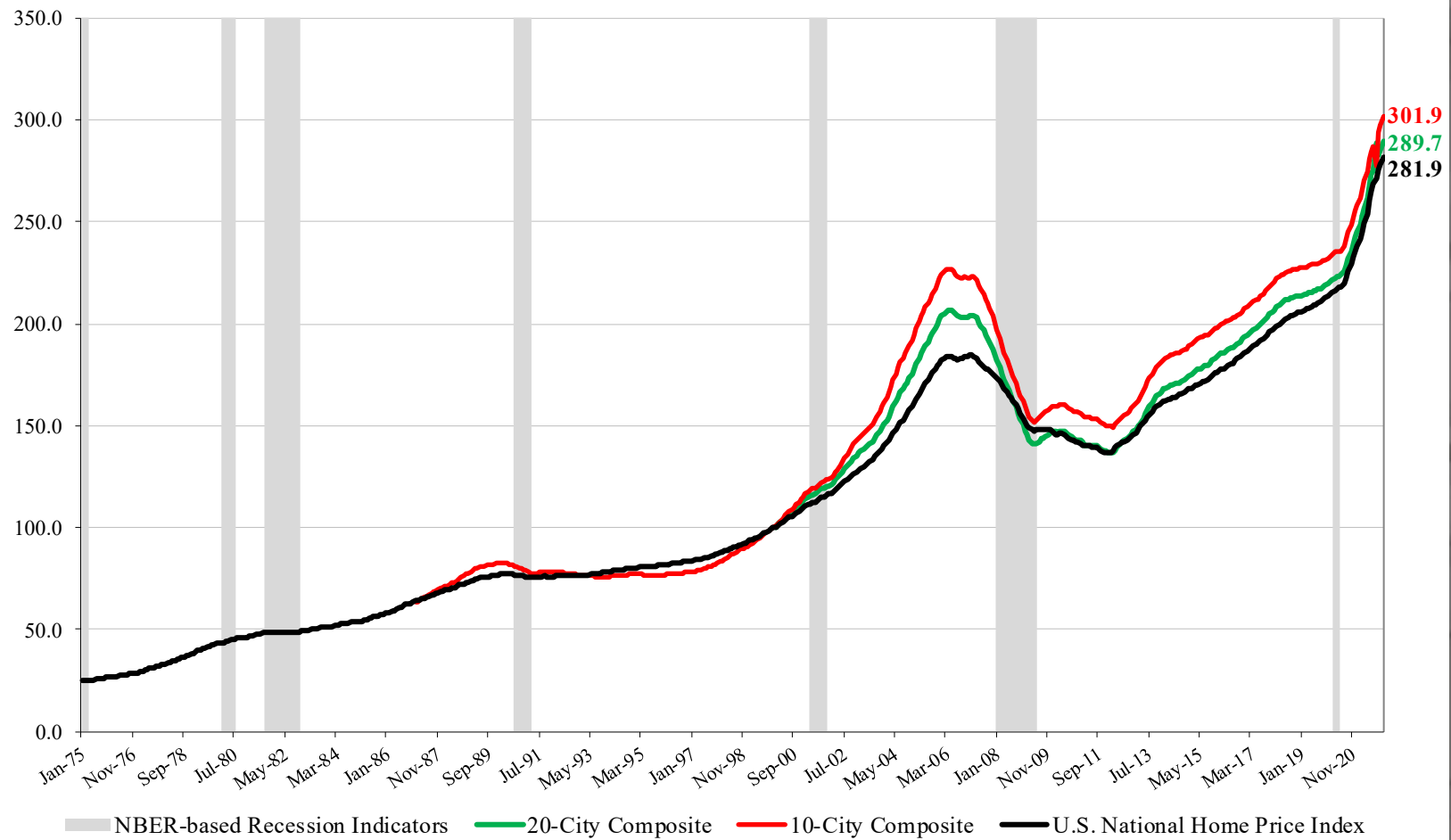
“U.S. home prices continued to advance at a very rapid pace in February. The National Composite Index recorded a gain of 19.8% for the 12 months ended February 2022; the 10- and 20-City Composites rose 18.6% and 20.2%, respectively. All three composites reflect an acceleration of price growth relative to January’s level.

The National Composite’s 19.8% year-over-year change for February was the third-highest reading in 35 years of history. That level of price growth suggests broad strength in the housing market, which is exactly what we continue to observe. All 20 cities saw double-digit price increases for the 12 months ended in February, and price growth in all 20 cities accelerated relative to January’s report. February’s price increase ranked in the top quartile of historical experience for every city, and in the top decile for 18 of them.

Phoenix’s 32.9% price increase led all cities for the 33rd consecutive month, with Tampa (+32.6%) and Miami (+29.7%) close behind. Prices were strongest in the South (+28.1%) and Southeast (+27.9%), but every region continued to show impressive gains.

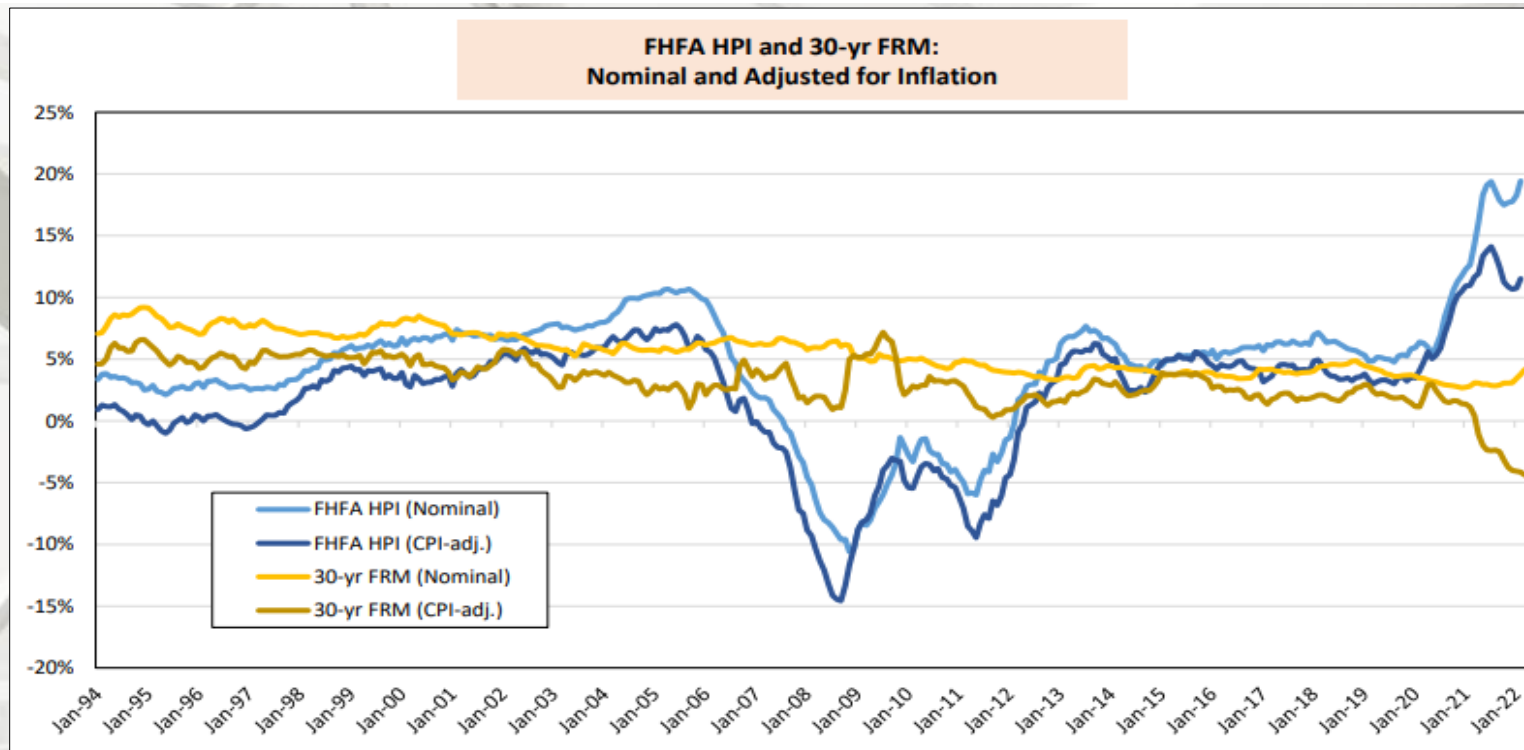
The macroeconomic environment is evolving rapidly and may not support extraordinary home price growth for much longer. The post-COVID resumption of general economic activity has stoked inflation, and the Federal Reserve has begun to increase interest rates in response. We may soon begin to see the impact 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).

U.S. Housing Affordability & Prices



Note: FHFA HPI is updated through February 2022, and 30-yr FRM is updated through March 2022

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

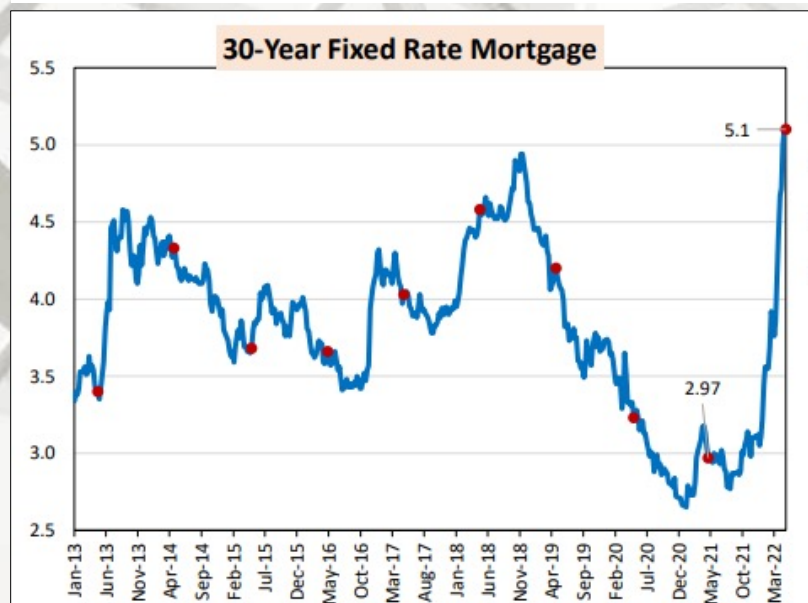
AEI Housing Center

Inflation-adjusted Home Prices and 30-yr FRM

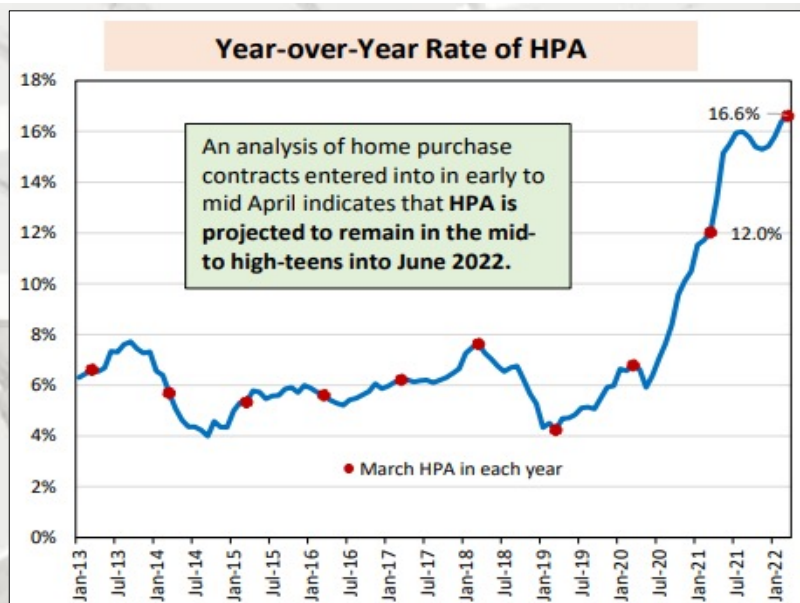
“Home prices today may seem exuberant, but the inflation in the consumer prices account for almost half of the growth. According to the FHFA House Price Index (HPI), in February 2022, home prices have increased 19.4% compared to a year ago, but the real HPI after adjusting for inflation is substantially lower at 11.5%. On the other hand, borrowing costs remain very low as the inflation-adjusted 30-year FRM is still -4% as of February 2022. As a result, the current housing boom is less prone to a slow down or significant home price correction due to rising rates.” – 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/>; 5/3/22

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 March 2022 are preliminary.

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

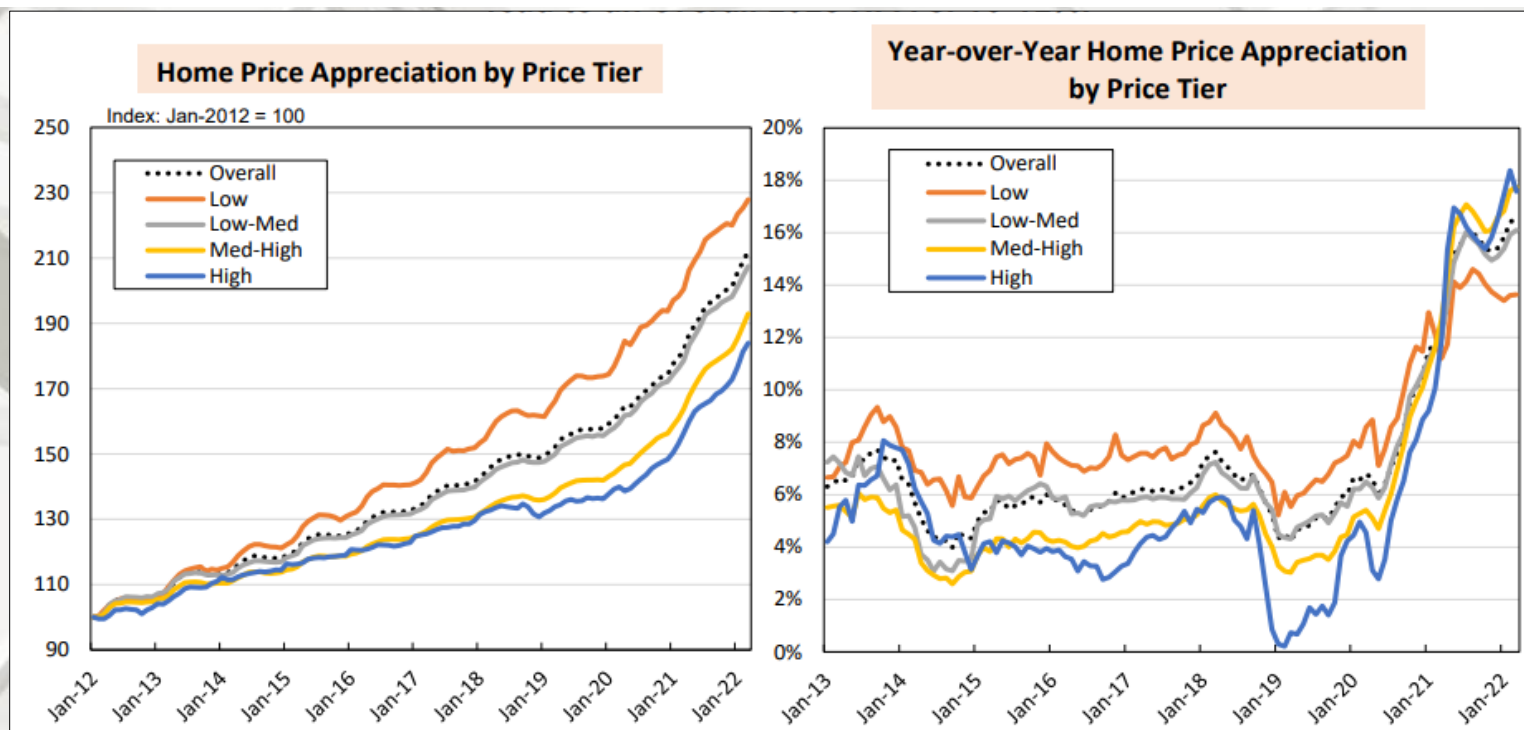
AEI Housing Center

Home Price Appreciation Accelerates Despite the Rate Hikes

“Despite the recent increase in mortgage rates, rampant home price appreciation continues. In March 2022, the preliminary national year-over-year HPA rate was 16.6%, up from 16.4% in Feb. 2022 and 12.0% a year ago. Since the beginning of 2020, home prices have risen 33%. This rapid pace of HPA is driven by supply constraints, 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 June 2022 based on Optimal Blue data. Without more inventory or a mortgage rate higher than 6%, y-o-y 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% 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/>; 5/3/22

U.S. Housing Affordability & Prices



Note: Data are for the entire country. Data for March 2021 are preliminary.

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

AEI Housing Center

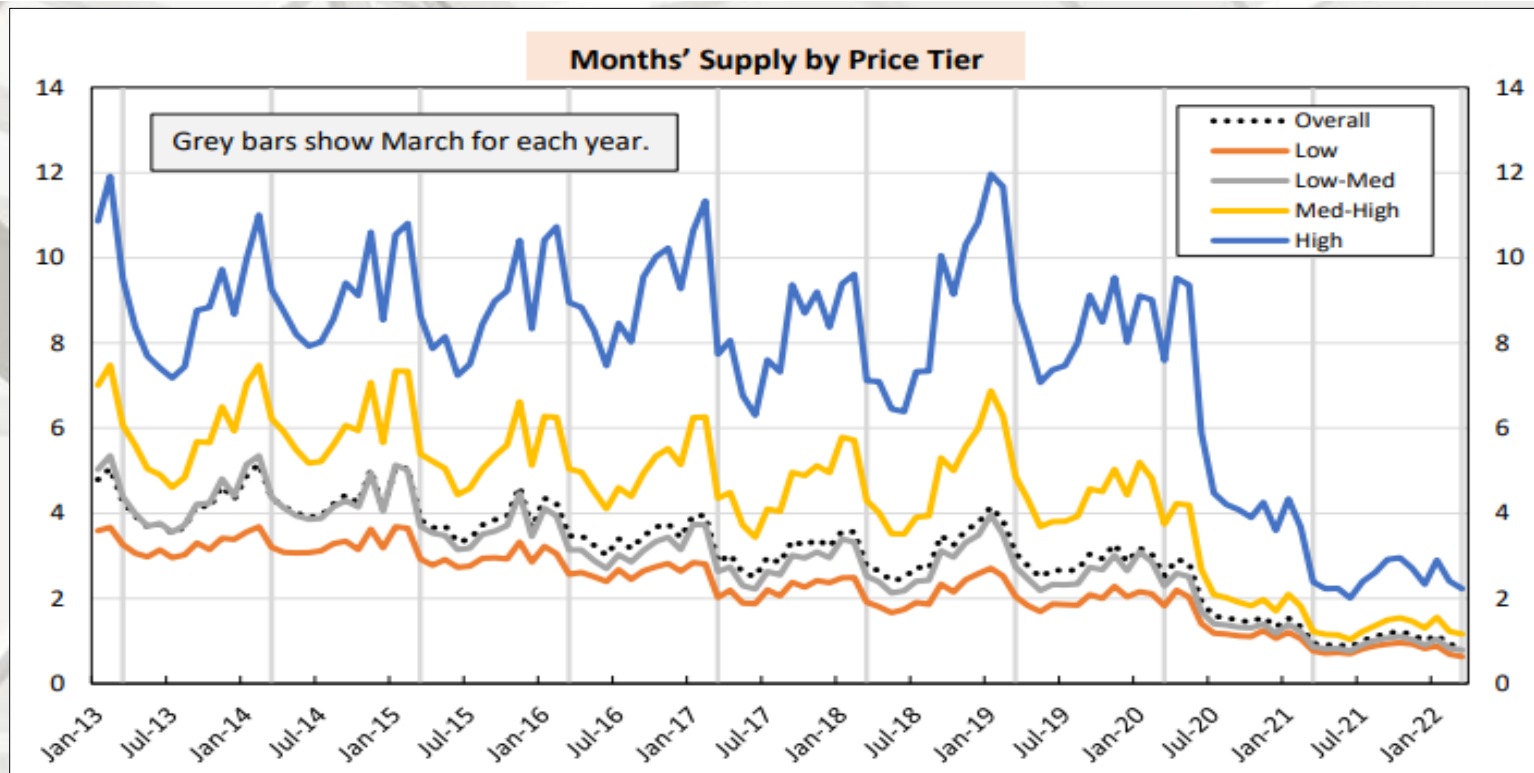
Home Price Appreciation by Price Tier

“Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for March 2022 indicate that the low-price tier continues 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 6% or more to slow HPA in the med-high and high price tiers. A 6% 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/>; 5/3/22

[Return TOC](#)

U.S. 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 March 2022, overall months' supply stood at 0.9 months. While supply remains lowest in the low (0.6 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 2.2 months in March 2022, while the med-high tier has fallen from 4.2 to 1.2.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

U.S. Housing Affordability

First American

How Do Rapidly Rising Mortgage Rates Impact Affordability?

“The last two years were the exception, not the rule, and the housing market is adjusting to a not-so-new normal.”

“In February 2022, the Real House Price Index (RHPI) jumped up by nearly 31 percent. That’s the fastest growth in the more than 30-year history of the series. This rapid annual decline in affordability was driven by two factors: a 21.7 percent annual increase in nominal house prices and a nearly full percentage point increase in the 30-year, fixed mortgage rate compared with one year ago. Rising mortgage rates impact both housing supply and demand, limiting supply by reducing the propensity of home owners to sell and flattening demand by reducing consumer house-buying power.

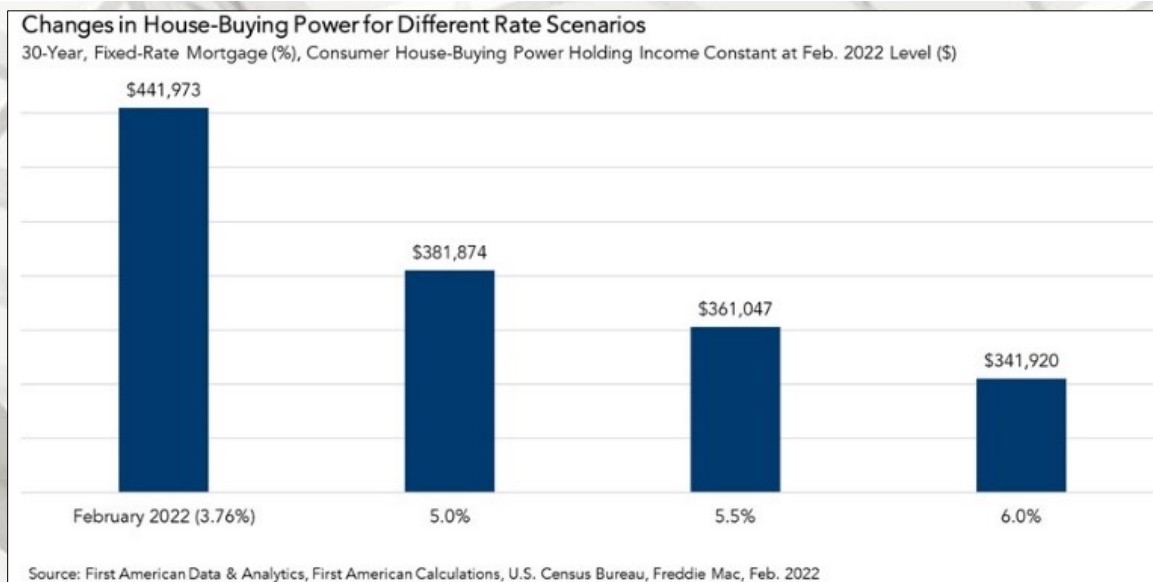
For home buyers, the only way to mitigate the loss of affordability caused by a higher mortgage rate is with an equivalent, if not greater, increase in household income. Even though household income has increased 5.1 percent since February 2021 and boosted consumer house-buying power, it was not enough to offset the affordability loss from higher rates and rapidly rising nominal prices.

Rising mortgage rates and surging nominal house prices are expected to continue outpacing household income, so affordability will likely wane further nationally in the near term. One forecast, based on an estimate of when the 10-year Treasury yield will peak, suggests that the 30-year, fixed mortgage rate will likely peak between 5.0 and 5.7 percent, but may move as high as the low 6 percent range. So, let’s examine how these mortgage rate scenarios would impact house-buying power.

Rates Above 5.5 Percent Likely in 2022

“We can use the RHPI to model shifts in income and interest rates and see how they either increase or decrease consumer house-buying power and affordability. When incomes rise and/or mortgage rates fall, consumer house-buying power increases.” – Mark Fleming, Chief Economist, First American

U.S. Housing Affordability



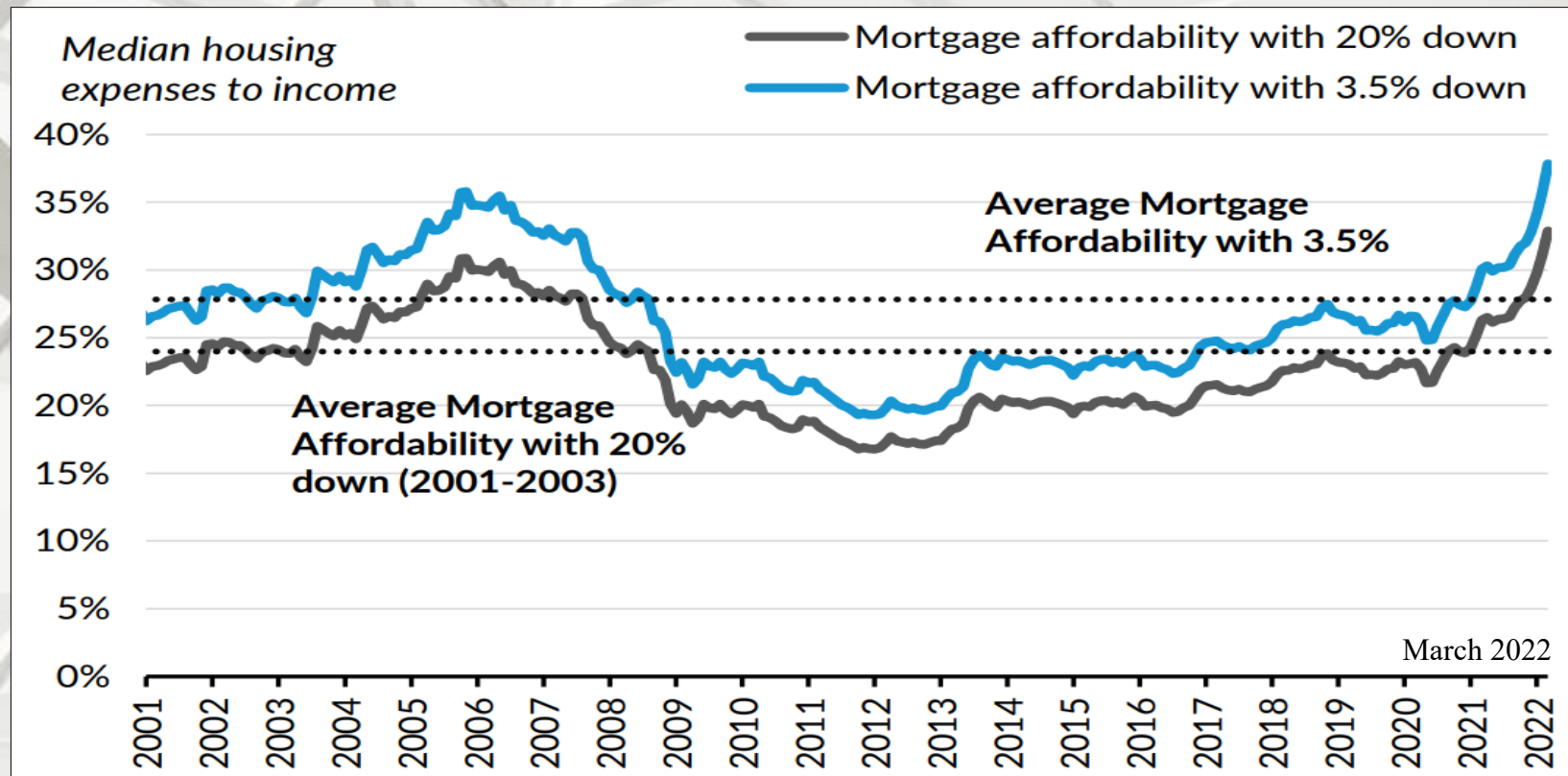
First American

In the latest RHPI report reflecting February 2022 data, the 30-year, fixed mortgage rate stood at 3.8 percent. Since then, rates have increased sharply, breaking the 5-percent barrier in mid-April. The increase in rates since February reduced house-buying power by \$60,000. If the average mortgage rate reached 5.5 percent, assuming a 5 percent down payment and average household income of approximately \$70,800, house-buying power falls by an additional \$21,000. If rates increased even higher to 6.0 percent, house-buying power would fall by \$40,000 compared with 5.0 percent.

Context is Key

Rising mortgage rates impact affordability, but historical context is important. An average 30-year, fixed mortgage rate of 5.5 percent is still well below the historical average of nearly 8 percent. Even with mortgage rates at 5.5 percent, house-buying power is over \$360,000, which is still strong and at the same level as 2018. Recency bias may have many thinking that rates below 3 percent and house-buying power above \$450,000 is normal, but it is anything but normal from a historical perspective. The last two years were the exception, not the rule, and the housing market is adjusting to a not-so-new normal.” – Mark Fleming, Chief Economist, First American

U.S. Housing Affordability

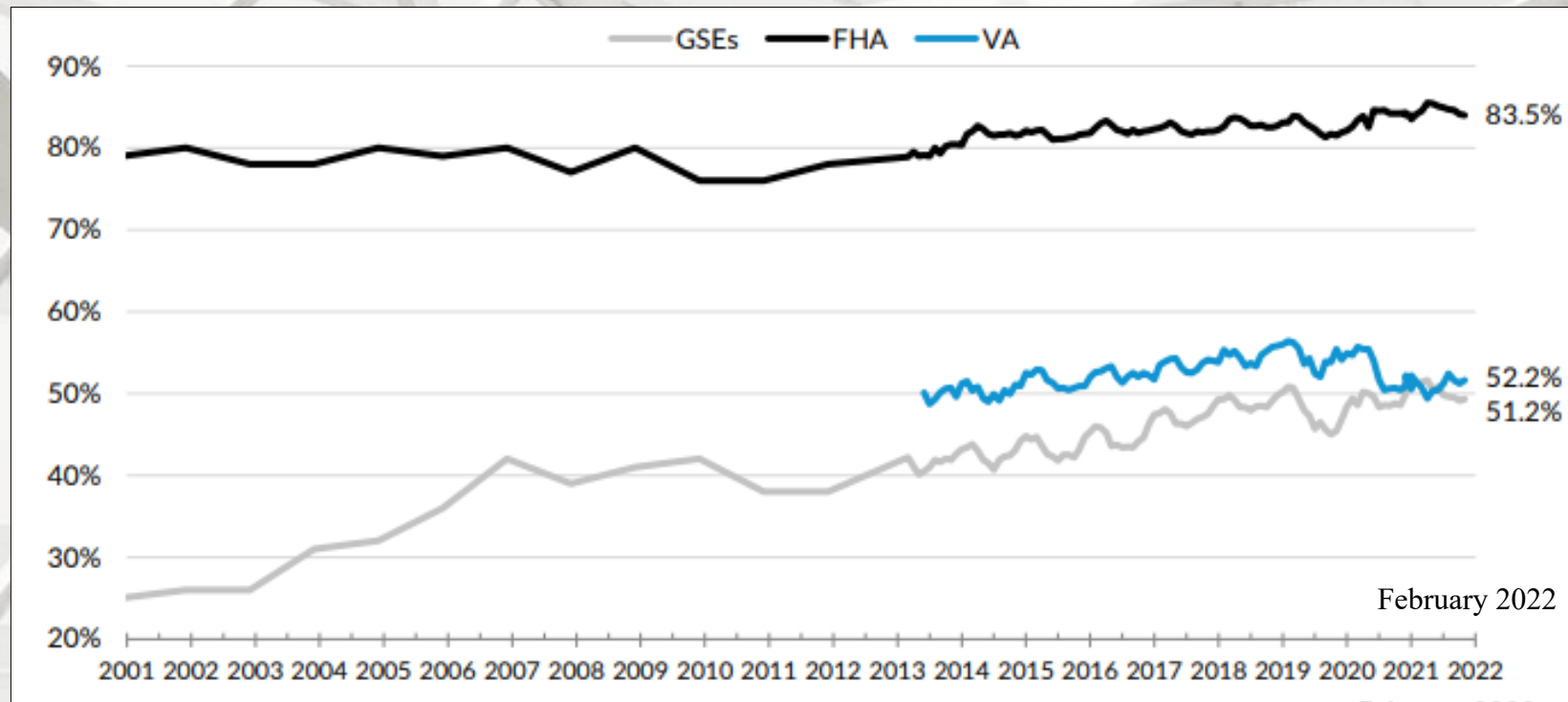


Urban Institute

National Mortgage Affordability Over Time

“With the rise in interest rates, and continued increases in home prices, affordability is now comparable to what it was in 2005. As of March 2022, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 32.0 percent, compared to 30.9 percent at the peak of the housing bubble in November 2005; with 3.5 percent down it is 37.9 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

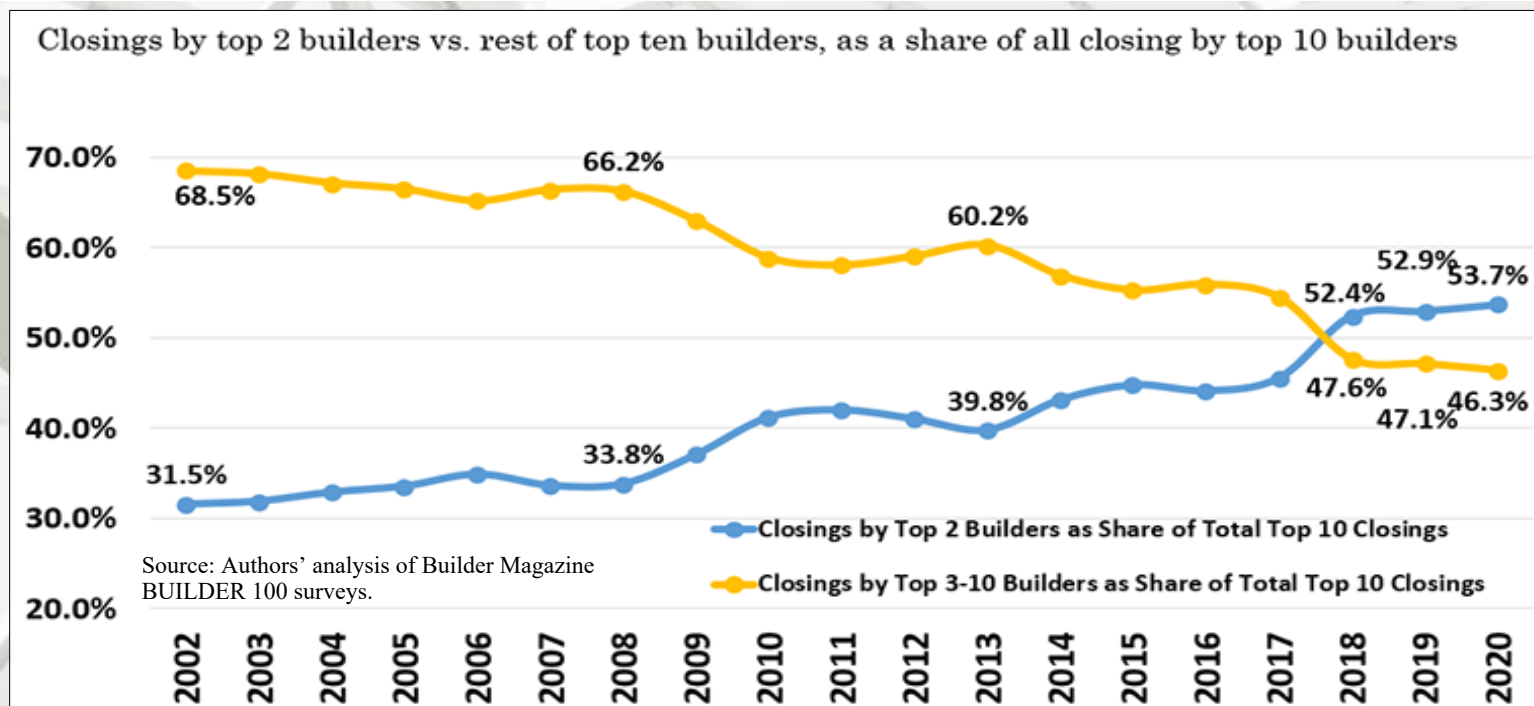
U.S. Housing Affordability



Urban Institute First-time Home Buyers

“In February 2022, the FTHB share for FHA, which has always been more focused on first time homebuyers, was 83.5 percent. The FTHB share of VA lending in February was 52.2 percent. The GSE FTHB share slightly increased in February relative to January, to 51.2 percent. ... based on mortgages originated in February 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 Market



Harvard Joint Center for Housing Studies

Concentration In Homebuilding Driven By A Few Large Builders

“The 100 largest home builders in the US now account for about half of all new single-family home sales, up from just over a third two decades ago. However, according to [“Concentration in the Homebuilding Industry: Trends, Strategies, and Prospects,”](#) our new Center working paper, most of these gains reflect the growing market share of just two homebuilding companies – D.R. Horton and Lennar. Indeed, these two companies were responsible for almost two-thirds of the gain in market share among the top 100 builders from 2002 to 2020. As a result of this growth, these two firms now build more homes than the combined total of the nation’s third to tenth largest home builders (see Figure 1).” – Gopal Ahluwalia, Owner, GBA Research and Consulting; Kermit Baker, Chief Economist, American Institute of Architects; and Kent Colton, President, Colton Housing Group, LLC

U.S. Housing Market

Harvard Joint Center for Housing Studies

Concentration In Homebuilding Driven By A Few Large Builders

Figure 1: The Number of Homebuilder Establishments Declined After the Great Recession, but Single-Family Housing Production Fell Even More

Number of Home Builder Establishments Nationally	2002	2007	2012	2017	% change - 2002-2017
New single-family general contractors	58,472	59,679	30,487	48,673	-16.8%
% of total	69.2%	62.8%	65.2%	74.0%	
New housing for-sale (operative) builders	26,043	35,378	16,271	17,123	-34.3%
% of total	30.8%	37.2%	34.8%	26.0%	
Total homebuilders	84,151	95,057	46,758	65,796	-21.8%
Total single-family completions	1,325,100	1,218,400	483,000	795,300	-40.0%

Source: US Census Bureau, Economic Census for Construction (various years). Calculations from National Association of Home Builders.

Source: https://www.jchs.harvard.edu/sites/default/files/research/files/harvard_jchs_homebuilding_industry_concentration_ahluwalia_2022.pdf

U.S. Housing Market

Harvard Joint Center for Housing Studies

Concentration In Homebuilding Driven By A Few Large Builders

“These changes are notable because the homebuilding industry has traditionally been one of the most fragmented industries in the US economy, with most companies building only a small number of homes per year. Among the reasons for this fragmentation is the local nature of residential construction.

Home builders must respond to local demand and supply conditions, and also navigate a complex web of local zoning ordinances, land-use regulations, and building codes. At the same time, though, they must have the sophistication to address the complexities of land entitlement, coordinate an extensive set of construction workers and subcontractors, and have an adequate financial position to cover their capital-intensive operations. In addition to these requirements for success, builders must cope with the inherent cyclicity of the industry.

Homebuilding is highly sensitive to changes in interest rates, household incomes, and the outlook for the broader economy. All these factors make it especially challenging for builders to scale their operations.

The top two home builders have used two strategies to grow their market share. The first has been to concentrate their efforts in major metro areas across the country. In fact, over the 2019-2020 period fully 80 percent of all closings by D.R. Horton and Lennar were in the top 50 largest markets. By comparison, the share of single-family closings for all home builders in these markets nationwide was around 60 percent. In doing so, these builders typically dominate the markets they serve. For example, D.R. Horton ranked in the top ten in terms of volume in 41 of the largest 50 metropolitan markets in 2020. The company also ranked either #1 or #2 in more than half (23) of the markets where it was among the top ten builders. Lennar ranked in the top ten in 35 of the 50 largest markets but held a more dominant position in these markets. The company was ranked #1 or #2 in 77 percent (27 of 35) of the markets where it was ranked in the top 10.” – Gopal Ahluwalia, Owner, GBA Research and Consulting; Kermit Baker, Chief Economist, American Institute of Architects; and Kent Colton, President, Colton Housing Group, LLC

U.S. Housing Market

Harvard Joint Center for Housing Studies

“In addition to growing their operations internally, both home builders have relied on strategic acquisitions to reach new markets and expand their overall production levels in the markets they serve. For example, the Lennar acquisition of CalAtlantic in early 2018 facilitated an increase in market share in most of the key markets Lennar served. In 2017, it held the top position in terms of number of homes closed in just two of the top 50 metro areas in the country. It was among the top two builders in a total of four metro markets that year and was in the top five in 14 markets. After the acquisition, it held the top position in 18 markets, was among the top two in 28, and in the top five in 35 of these major metro areas. It’s homebuilding revenue also increased almost 12 percent in 2018, from a combined \$17.7 billion for CalAtlantic and Lennar in 2017 to \$19.1 billion in 2018.

However, even with the commanding presence of these top two builders in most of the markets they serve, regional builders have shown that they can compete effectively with national builders, particularly in mid-sized metros. Many of the scale benefits of homebuilding – buying power with local suppliers, coordination of subcontractors, and even some elements of the land assembly and entitlement process – play out principally at the local level. In many instances, individual market performance is critical since potential national-scale benefits often have not been realized beyond local operations. This is because of different local regulatory requirements and difficulties in coordination across largely independent local divisions of many national builders.

Homebuilding companies that focus their operations in several (or even a few) major metros and successfully scale their operations in these areas will likely generate a disproportionate share of growth in the coming years. However, given the local market focus of the industry, homebuilding is unlikely to become as concentrated as many other major manufacturing industries like aircraft, computers, or automotive, which can supply their products for national or even international markets out of a few locations.” – Gopal Ahluwalia, Owner, GBA Research and Consulting; Kermit Baker, Chief Economist, American Institute of Architects; and Kent Colton, President, Colton Housing Group, LLC

U.S. Housing Market

Forbes

Something big is happening in the housing market

“As data trickles in for April, it’s becoming clear that the historically hot housing market has flipped trajectories. It’s now in cooling mode. The number of [homes listed for sale is rising again](#). Fewer shoppers are scheduling tours. And [Redfin reports 15% of home sellers in April cut their asking price](#) – up from 9% a year ago.

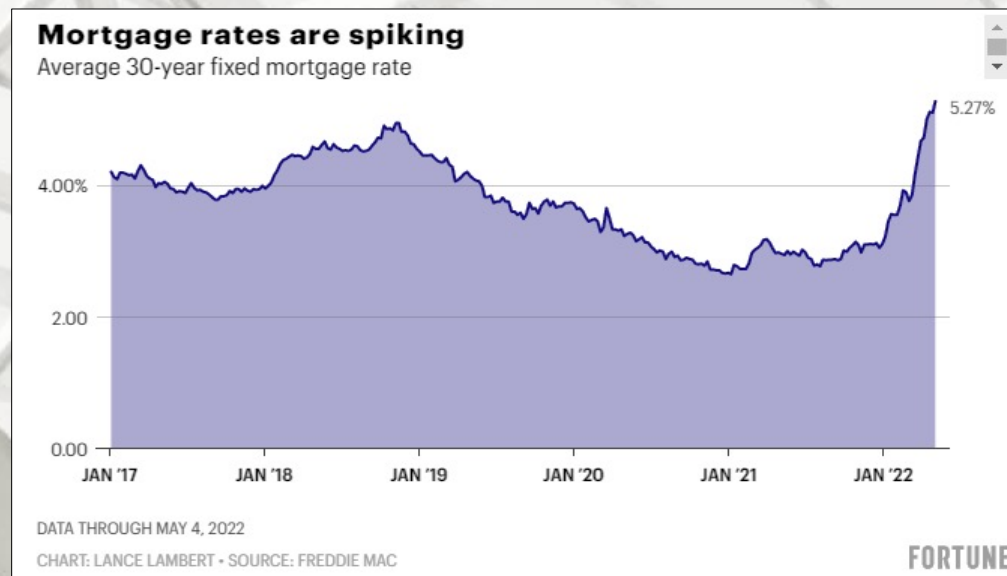
“The red-hot housing market's days are numbered. While I don’t anticipate a collapse á la the Great Recession, rising mortgage rates and inventory are sure to cool what has been an unprecedented time for the U.S. housing market,” says Ralph McLaughlin, Chief Economist at Kukun, a real estate data and analytics company.

This softening is by design. The Federal Reserve is done watching inflation run away, and has [made it a priority to cool down one of its biggest drivers](#): the housing market. To do so, over the past few months, [the Fed has put upward pressure on mortgage rates](#). In December, [the average 30-year fixed mortgage rate](#) sat at 3.11%. As of last week, that rate is up to 5.27% – its highest level since 2009.

As mortgage rates rise, of course, it [puts downward pressure on the housing market](#). If someone took out a \$500,000 mortgage at a 3.11% fixed rate, that borrower would owe a monthly principal and interest payment of \$2,138 on a 30-year loan. However, at a 5.27% rate, that payment would jump to \$2,767. Not only are those higher rates pricing out some would-be home buyers, but it also means some borrowers – who must meet lenders’ strict debt-to-income ratios – have lost their mortgage eligibility.

“Home buyers continue to be squeezed in nearly every way possible, which is causing some to take a step back from the market,” wrote Daryl Fairweather, Chief Economist of Redfin, in [a report published last week](#).” – Lance Lambert, Editorial Director, Forbes

U.S. Housing Market



Forbes

Something big is happening in the housing market

“The softening we've seen so far is fairly mild. However, industry insiders tell Fortune the cooling over the past few weeks is just the start. The lack of inventory over the past two-years has created a pileup of would-be buyers. Even as rates price out some of those buyers, there are others waiting to take their place. Housing economists say it will take time to work through that pent-up demand. But once we do, the housing market could cool even further.

“We know the system is log jammed, but we don't know how far back the log jam goes...In my opinion, it will take a couple months for all this to shake out,” Devyn Bachman, vice president of research at John Burns Real Estate Consulting, tells Fortune.

As the housing market works through that log jam, home prices in the short-term might continue pushing upward. According to Redfin's Fairweather, that's exactly what we're still seeing. “Even though price drops are becoming more common, most homes are still selling above asking price and in record time,” she writes.” – Lance Lambert, Editorial Director, Forbes

U.S. Housing Market



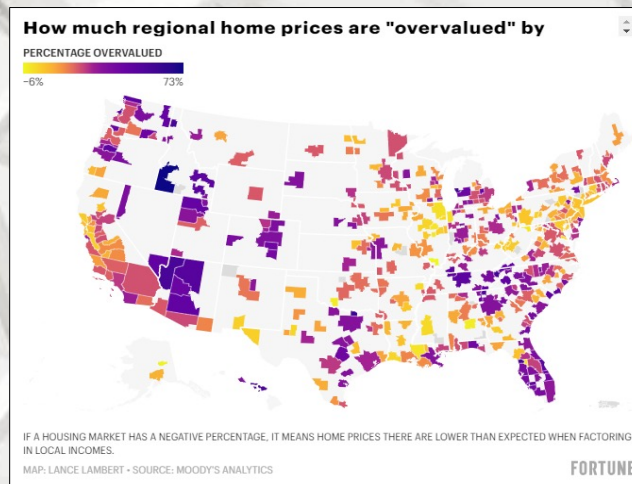
Forbes

“The [economic shock caused by spiking mortgage rates](#) also increases the odds the housing market could overheat or even move into a price correction.

During much of [the pandemic's housing boom](#), historically low mortgages shielded home buyers, to a degree, even as [home prices shot up 34.4% over the past two years](#). Now, with mortgage rates back up, buyers have no choice but to feel the full brunt of home price growth. In December, the typical American household would have to spend 24% of its monthly income to make a mortgage payment on the average-priced U.S. home, according to [Black Knight](#), a mortgage technology and data provider. As of last week, Black Knight's mortgage-payment-to-income ratio is now up to 34%. That reading, which is the highest since 2006, is [giving some economists housing bubble déjà vu](#).

Mark Zandi, Chief Economist of Moody's Analytics, tells *Fortune* that spiking mortgage rates should cause year-over-year home price growth – which is up 19.8% over the past 12 months – to slow to zero by this time next year. If it comes to fruition, it would mark the slowest home price growth rate since April 2011 to April 2012. That said, Zandi expects some of the nation's most overpriced regional housing markets to overheat and see price drops between 5% to 10% over the coming year.” – Lance Lambert, Editorial Director, Forbes

U.S. Housing Market



Forbes

“When asked which markets could see a home price correction over the coming year, Zandi listed Charlotte and Phoenix. But those aren't the only markets that have seen home prices become detached from economic fundamentals. [An analysis provided by Moody's Analytics to Fortune](#) finds 96% of regional housing markets are overvalued, and 27% of markets are overvalued by more than 30%. Meanwhile, [a separate analysis by the Real Estate Initiative at Florida Atlantic University](#) finds every single one of America's 100 largest housing markets are overvalued, including 44% of markets that are overvalued by more than 30%.

Not everyone agrees with Zandi that home price growth is about to flatline. Over the coming 12-months, CoreLogic predicts U.S. home prices are set to rise another 5.9%. Meanwhile, the Mortgage Bankers Association forecasts that U.S. home prices will rise 5.2% over the coming 12-months. While those outlooks aren't as bearish as Zandi's prediction, they do all agree that price growth is set to decelerate significantly. Simply put: Forecasters think the ongoing housing boom is winding down.

“We are at an inflection point for the housing market,” says Ali Wolf, Chief Economist at Zonda, a housing market research firm. “There are early signs of some of the fundamentals weakening, such as an increase in homes with price cuts, a rise in cancellations at new-home communities, and more loan officers reporting buyers are starting to stretch.”” – Lance Lambert, Editorial Director, Forbes

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Decreased in April

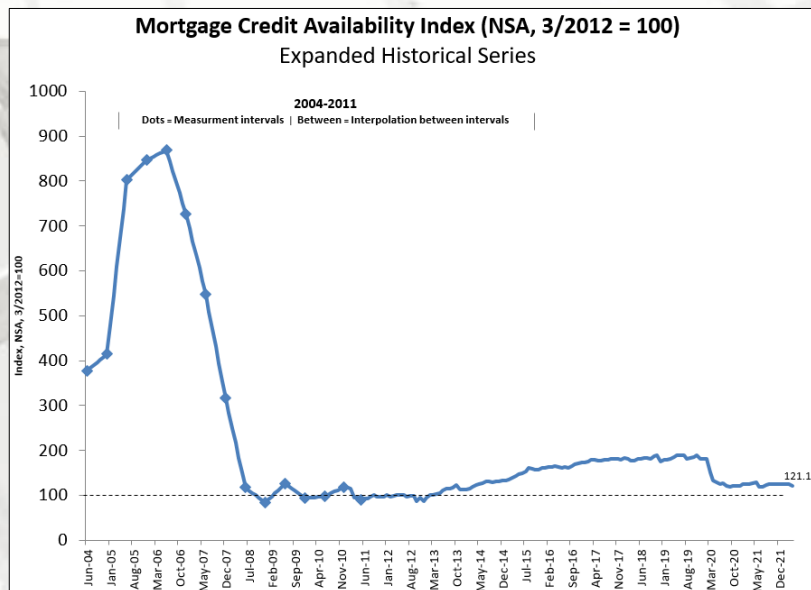
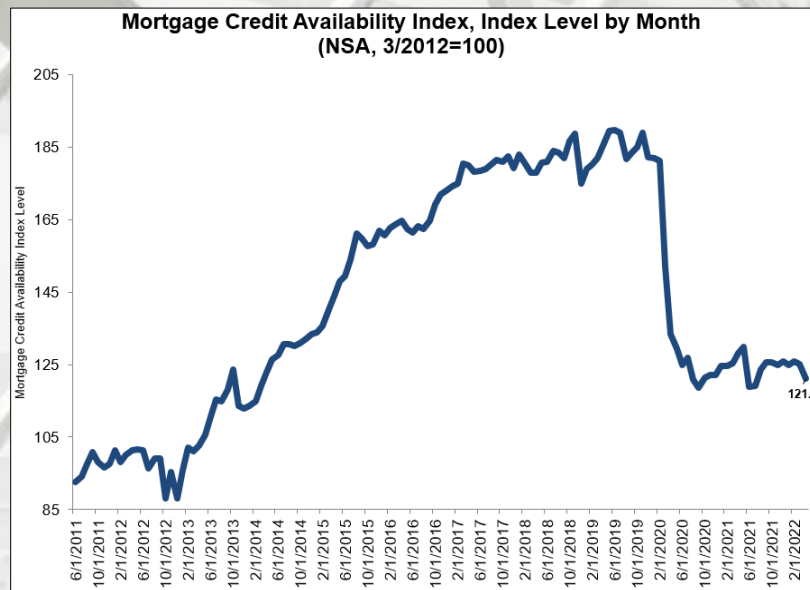
“Mortgage credit availability decreased in April according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

The MCAI fell by 3.2 percent to 121.1 in April. 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 0.7 percent, while the Government MCAI decreased by 6.5 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 0.3 percent, and the Conforming MCAI rose by 1.2 percent.

Mortgage credit availability fell for the second month in a row, as lenders reacted to the jump in mortgage rates over the past two months. With the rate/terms refinance business drying up, lenders have reduced the availability of government streamline refinancing programs, which are no longer as relevant of an option for many borrowers. The conventional index slightly increased, as lenders added more ARM programs to help borrowers overcome higher rates and home prices. The ARM share in MBA’s Weekly Applications Survey has also increased this year, but it is still low when compared to the mid-2000s. Furthermore, credit availability is much tighter than it was then, both in terms of credit requirements and the types of loans offered. Jumbo lenders are somewhat loosening credit criteria, and jumbo rates have increased less than conforming rates this year, offering more opportunities for jumbo borrowers looking to purchase a home.” – 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 March, 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 March 2022. Together with increased loan application amounts, a mortgage applicant's median principal and interest payment in March 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

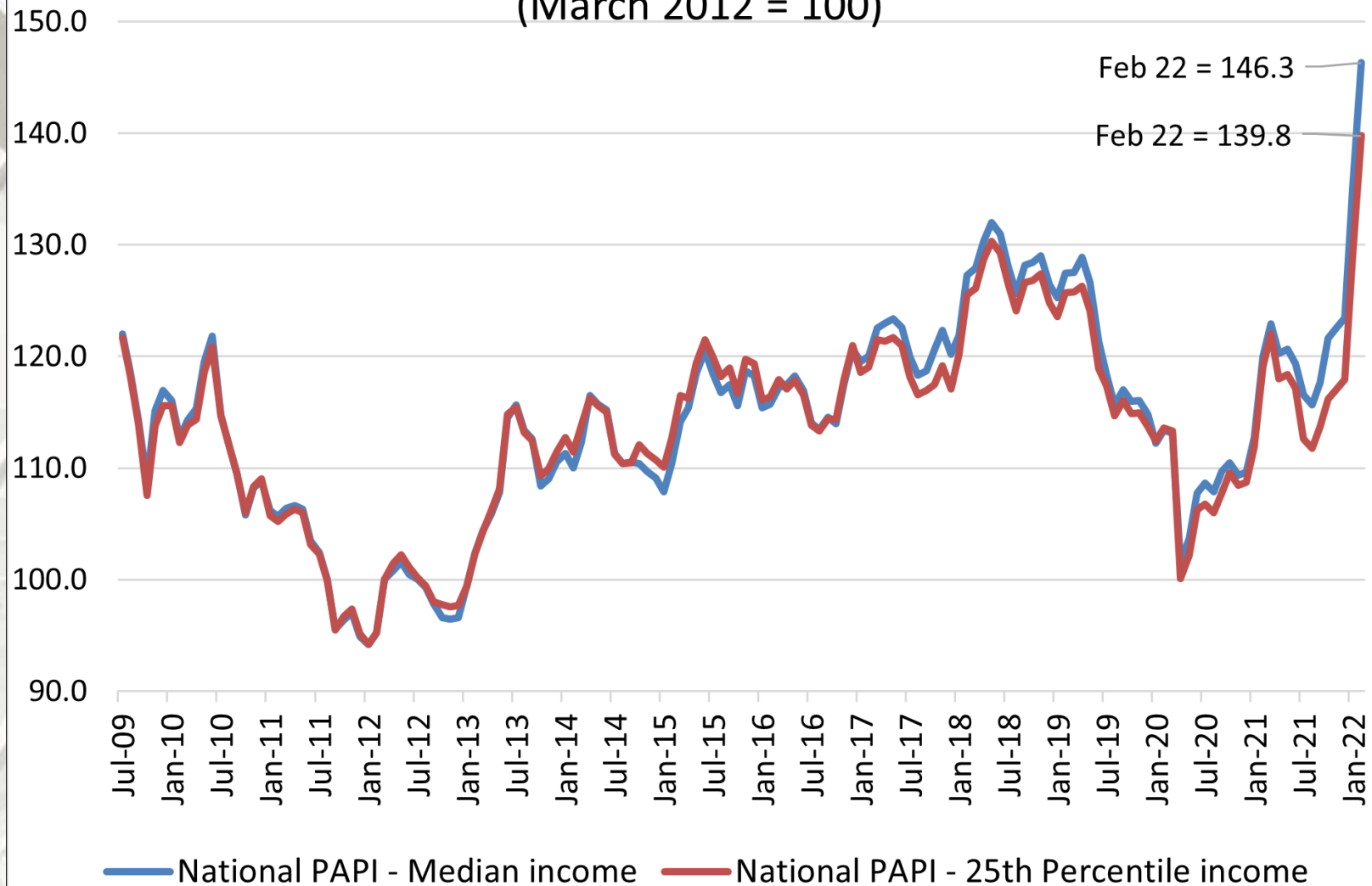
“The national PAPI (Figure 1) increased 8.3 percent to 146.3 in March 2022 from 135.1 in January 2022, meaning payments on new mortgages take up a larger share of a typical person’s income. Compared to March 2021 (120.0), the index jumped 21.9 percent. For borrowers applying for lower-payment mortgages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

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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

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Summary

In conclusion:

In aggregate, March 2022 housing data were mostly positive (see slide four). Housing starts were buoyed by multi-family starts. Total starts are at the greatest level since 2006, with single-family starts declining. Total permits remain subdued; single-family permits decreased, and this may be a result of the difficulties in completing houses. Total housing units under construction were the most since March 1973. Housing completions also remain problematic as completions are restrained due to building materials and product shortages, combined with other factors. The disparity between the number of houses started versus houses completed are at the greatest level since 1984. This spread is evident for both single- and multi-family starts as builders await building materials and products necessary to complete started houses. New and existing house sales were negative, due to a lack of available inventory for sale and increasing mortgage interest rates. Increasing mortgage rates, in combination with record house prices, may reduce affordability for potential house buyers.

Pros:

- 1) Select builders are beginning to focus on entry-level houses;
- 2) Demand remains strong.

Cons:

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

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