

# **The Virginia Tech–USDA Forest Service Housing Commentary: Section I February 2021**



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# Opening Remarks

February housing data indicated moderation in the United States housing market. Month-over-month data were mostly mixed and year-over-year data were predominantly positive; with the exceptions being total housing starts, multi-family starts, and multi-family housing under construction. New single-family and existing house sales were negative month-over-month and positive year-over-year. Single-family construction spending was positive month-over-month and year-over-year.

The March 9th Atlanta Fed GDPNow™ model forecast was an aggregate 8.2% increase for total residential investment spending for March 2021. New private permanent site expenditures were projected at 22.9%; the improvement spending forecast was 7.4%; and the manufactured/mobile expenditures projection was 15.5% (all: quarterly log change and at a seasonally adjusted annual rate).<sup>1</sup>

“The county has pent up spending that will push the economy forward much faster over the next few months. Pre-pandemic levels will be back around the mid-point of this year. At the end of 2021 we expect to be down just 4% in constant dollars from where we were in 2019 but again that's due to the strength of the residential market. The infrastructure sector won't return to normal 2019 levels until 2023.”<sup>2</sup> – Richard Branch, Chief Economist; Dodge Data & Analytics.

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, and private firm indicators.

Sources: <sup>1</sup> [www.frbatlanta.org/cqer/research/gdpnow.aspx](http://www.frbatlanta.org/cqer/research/gdpnow.aspx); 4/9/21;

<sup>2</sup> <https://www.forbes.com/sites/miltonezrati/2021/02/01/the-housing-boom-rolls-on/>; 2/1/21

# February 2021

## Housing Scorecard

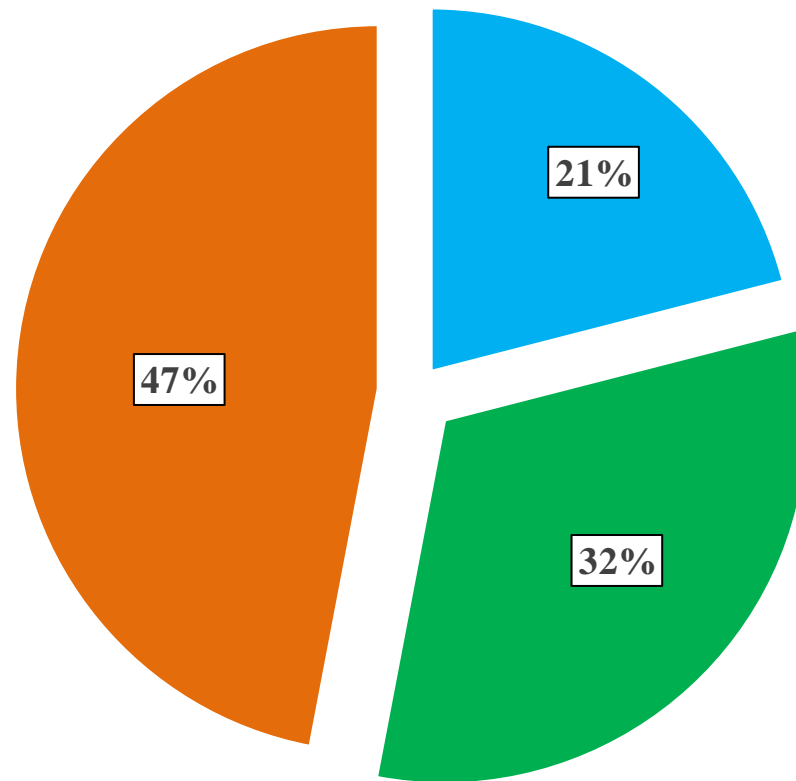
	M/M	Y/Y
Housing Starts	▼ 10.3%	▼ 9.3%
Single-Family (SF) Starts	▼ 8.5%	▲ 0.6%
Multi-Family (MF) Starts*	▼ 15.0%	▼ 28.5%
Housing Permits	▼ 8.8%	▲ 19.6%
SF Permits	▼ 9.8%	▲ 15.3%
MF Permits*	▼ 6.8%	▼ 29.3%
Housing Under Construction	▲ 0.3%	▲ 5.1%
SF Under Construction	NC	▲ 15.6%
Housing Completions	▲ 2.9%	▲ 5.0%
SF Completions	▲ 2.8%	▲ 3.2%
New SF House Sales	▼ 18.2%	▲ 8.2%
Private Residential Construction Spending	▼ 0.2%	▲ 21.1%
SF Construction Spending	▲ 0.1%	▲ 20.9%
Existing House Sales <sup>1</sup>	▼ 6.6%	▲ 9.1%

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

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



# New Construction's Percentage of Wood Products Consumption

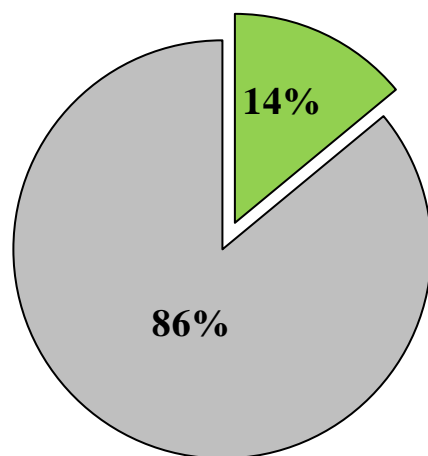


■ Non-structural panels

■ Total Sawnwood

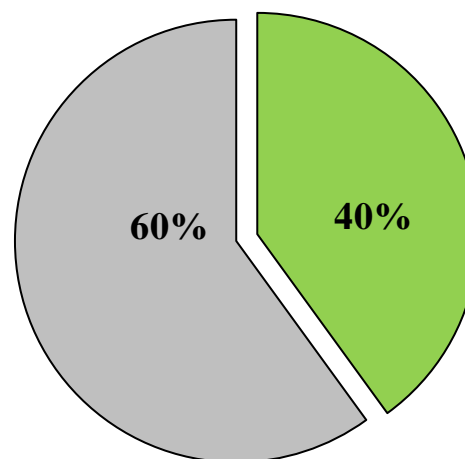
■ Structural panels

# New SF Construction Percentage of Wood Products Consumption



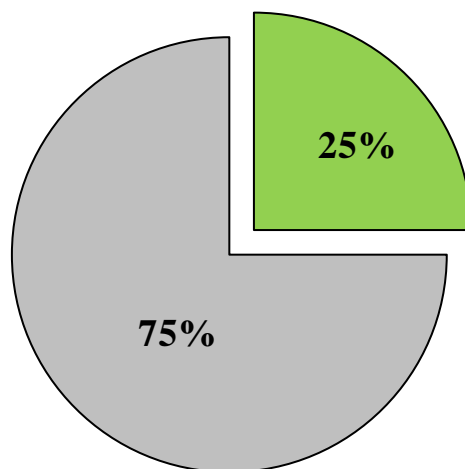
■ Non-structural panels:  
New Housing

■ Other markets



■ Structural panels:  
New housing

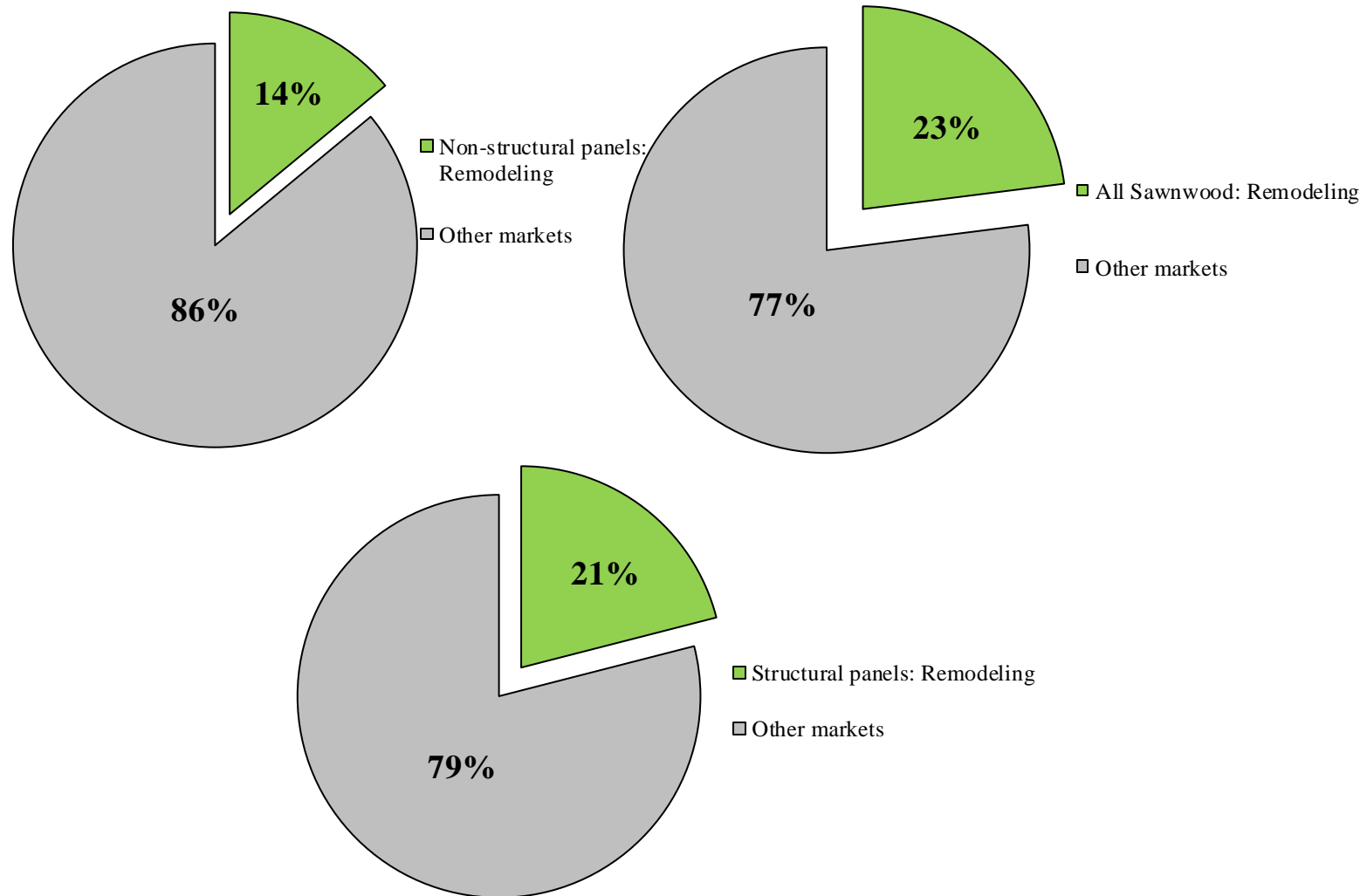
■ Other markets



■ All Sawnwood: New housing

■ Other markets

# Repair and Remodeling's Percentage of Wood Products Consumption



# New Housing Starts

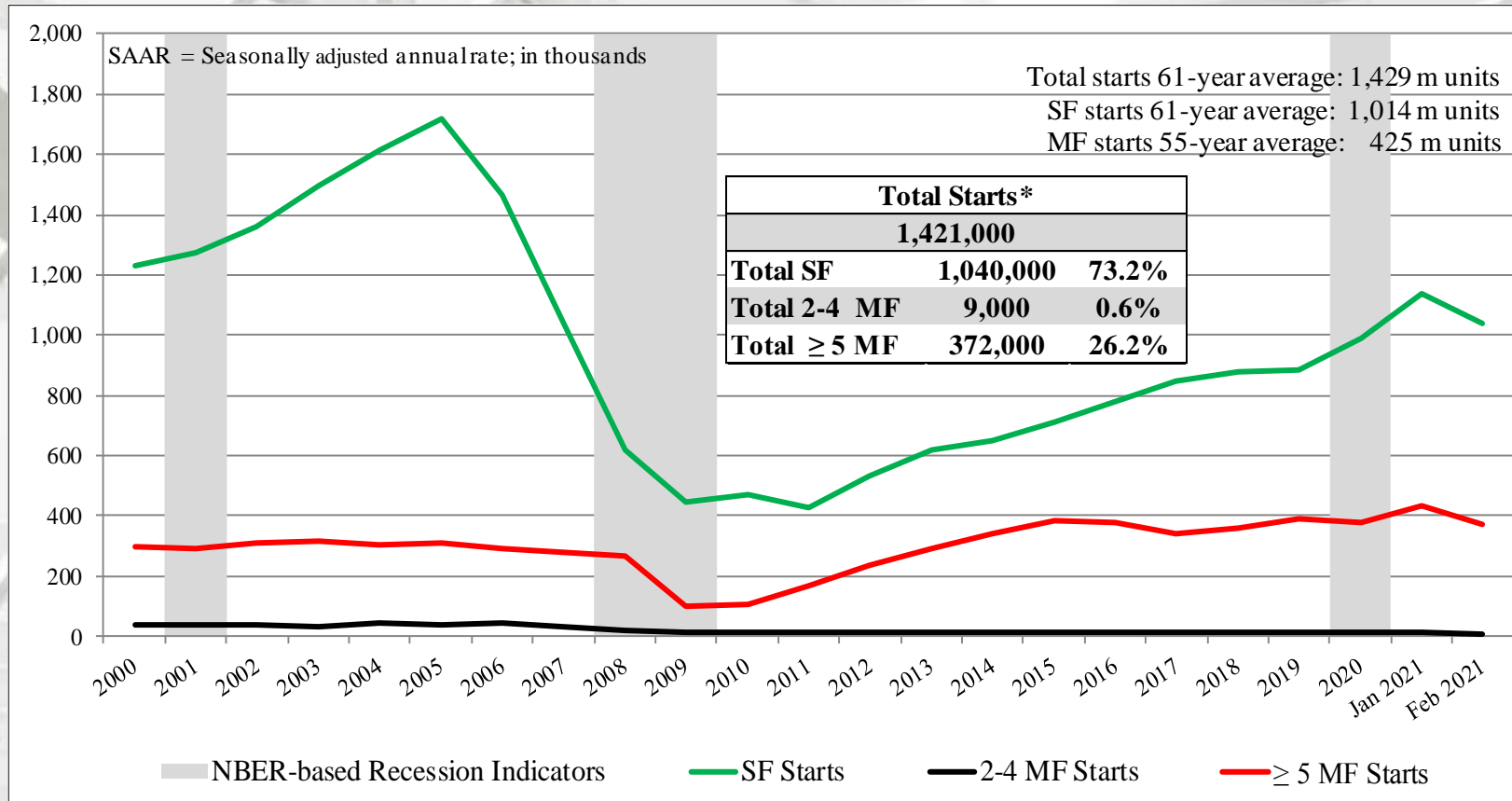
	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
February	1,421,000	1,040,000	9,000	372,000
January	1,584,000	1,136,000	13,000	435,000
2020	1,567,000	1,034,000	19,000	514,000
M/M change	-10.3%	-8.5%	-30.8%	-14.5%
Y/Y change	-9.3%	0.6%	-52.6%	-27.6%

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

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



# Total Housing Starts

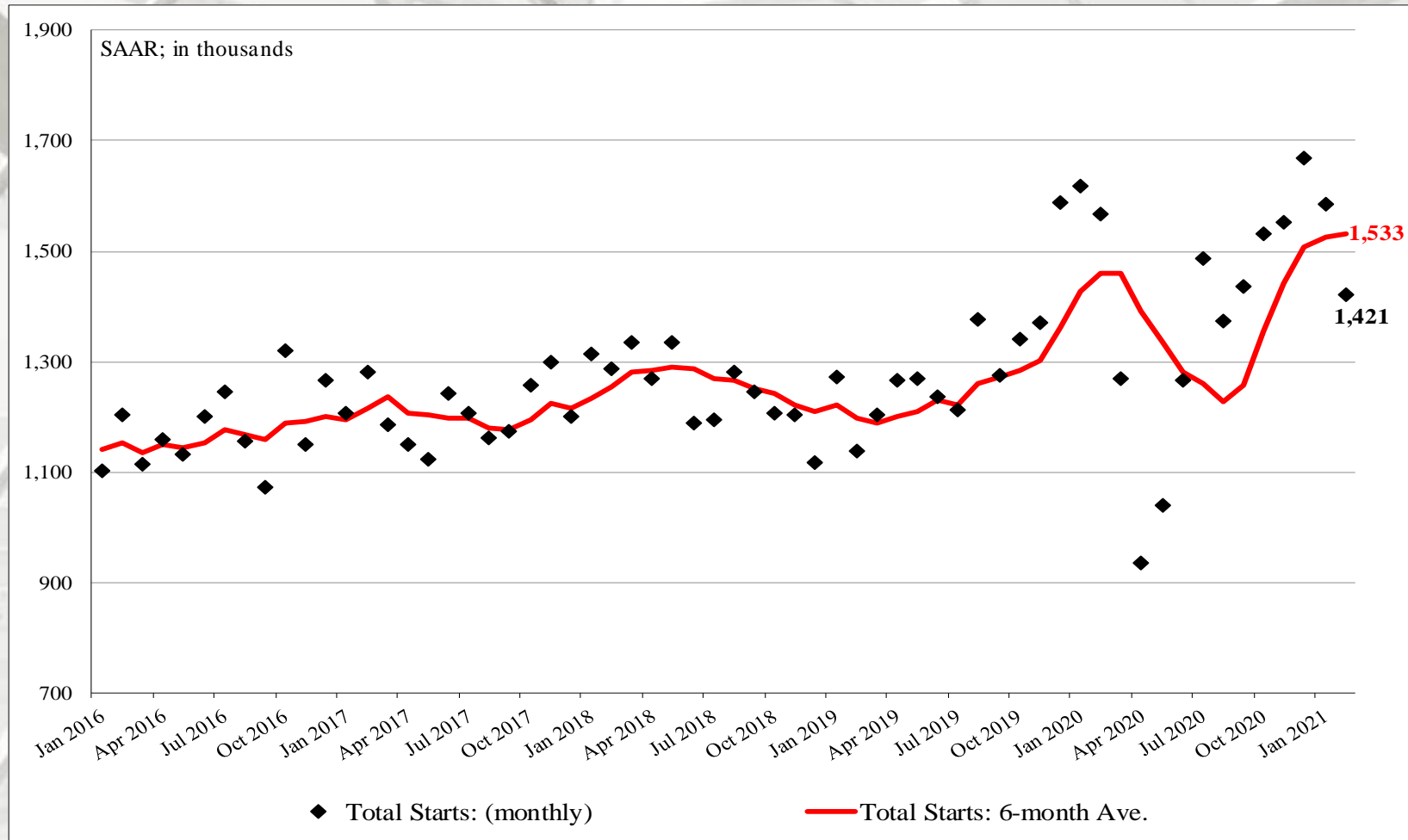


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation:  $((\text{Total starts} - (\text{SF} + \geq \text{MF})))$ .

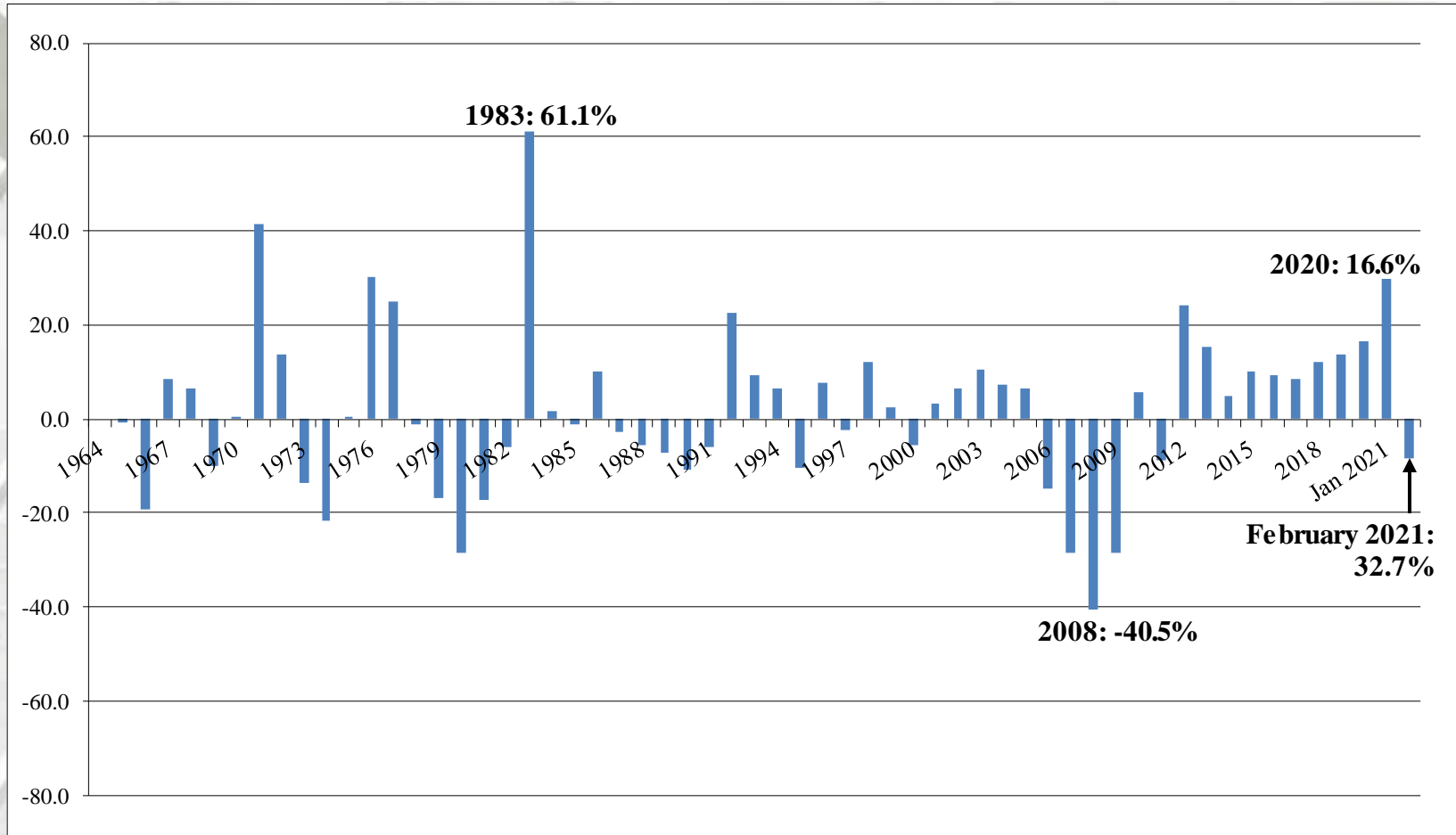
\* Percentage of total starts.

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

# Total Housing Starts: Six-Month Average



# SF Housing Starts: Year-over-Year Change

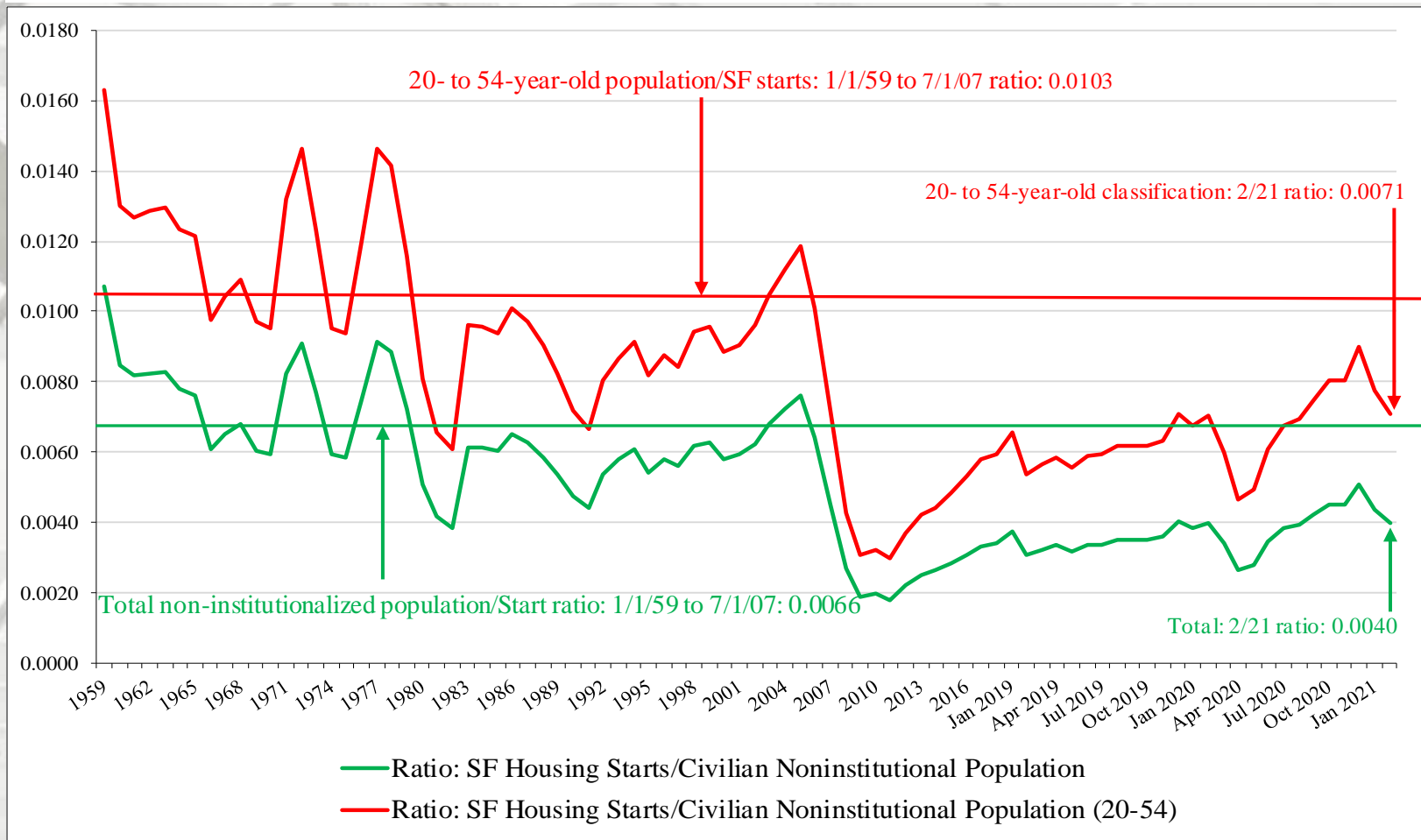


# SF Housing Starts: Six-Month Average





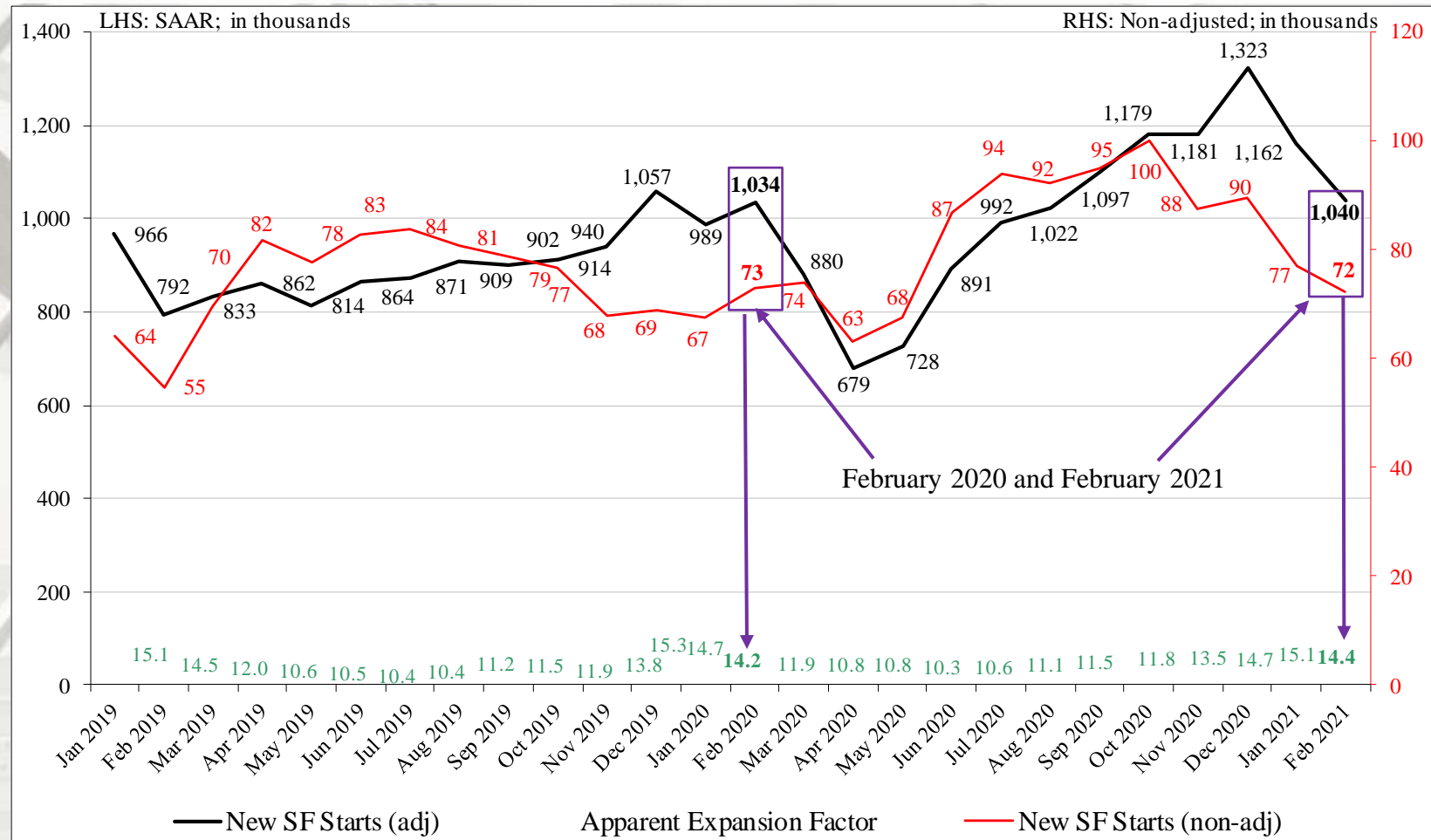
# New SF Starts



## New SF starts adjusted for the US population

From February 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066; in February 2021 it was 0.0040 – a decrease from January (0.0044). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in February 2021 was 0.0071 – also a decrease from January (0.0077). From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

# Nominal & SAAR SF Starts



## Nominal and Adjusted New SF Monthly Starts

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

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

# New Housing Starts by Region

	NE Total	NE SF	NE MF**
February	118,000	74,000	44,000
January	195,000	77,000	118,000
2020	121,000	62,000	59,000
M/M change	-39.5%	-3.9%	-62.7%
Y/Y change	-2.5%	19.4%	-25.4%
	MW Total	MW SF	MW MF
February	138,000	114,000	24,000
January	212,000	164,000	48,000
2020	197,000	142,000	55,000
M/M change	-34.9%	-30.5%	-50.0%
Y/Y change	-29.9%	-19.7%	-56.4%

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

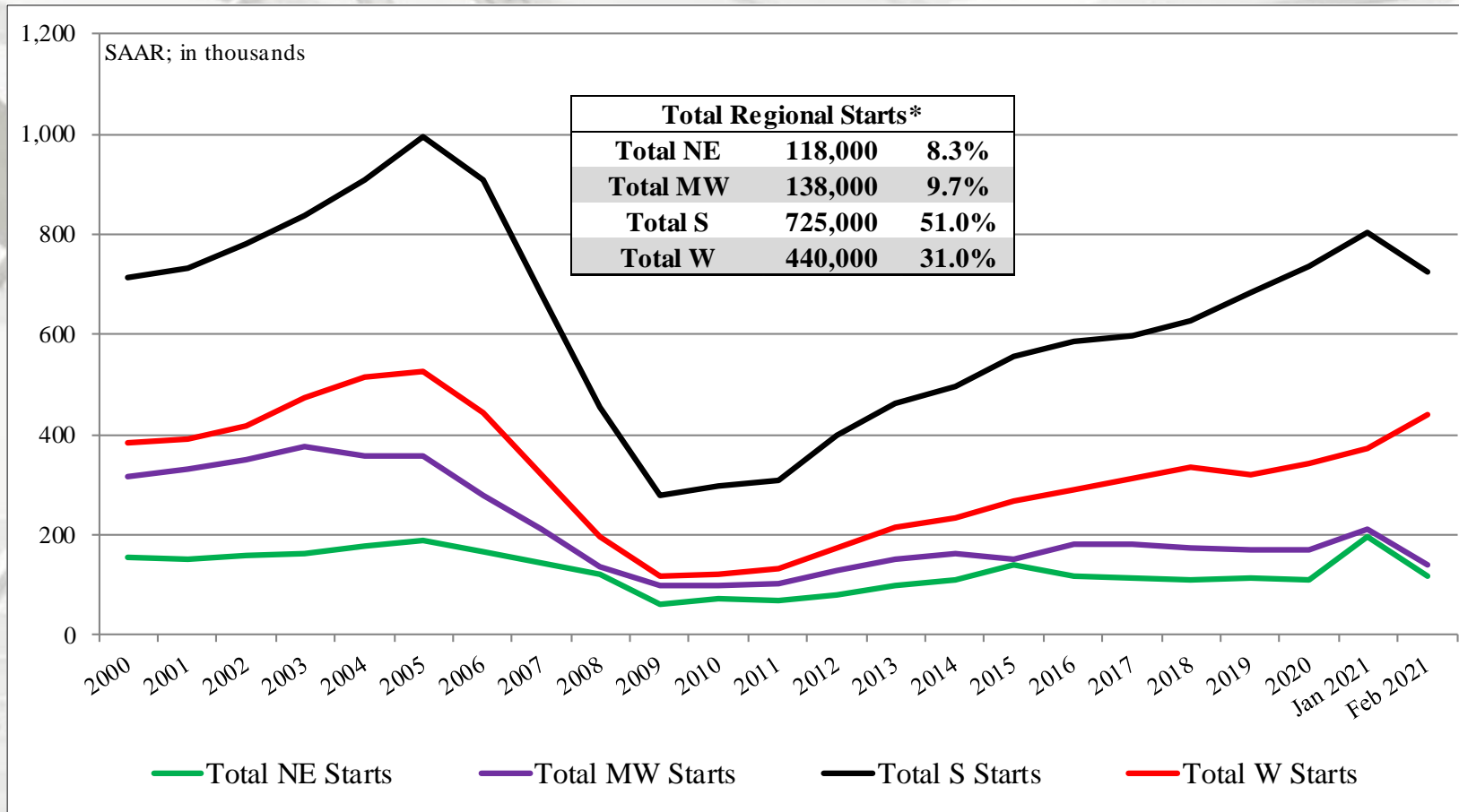
	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
February	725,000	535,000	190,000
January	803,000	637,000	166,000
2020	869,000	601,000	268,000
M/M change	-9.7%	-16.0%	14.5%
Y/Y change	-16.6%	-11.0%	-29.1%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
February	440,000	317,000	123,000
January	374,000	258,000	116,000
2020	380,000	229,000	151,000
M/M change	17.6%	22.9%	6.0%
Y/Y change	15.8%	38.4%	-18.5%

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

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



# New Housing Starts by Region

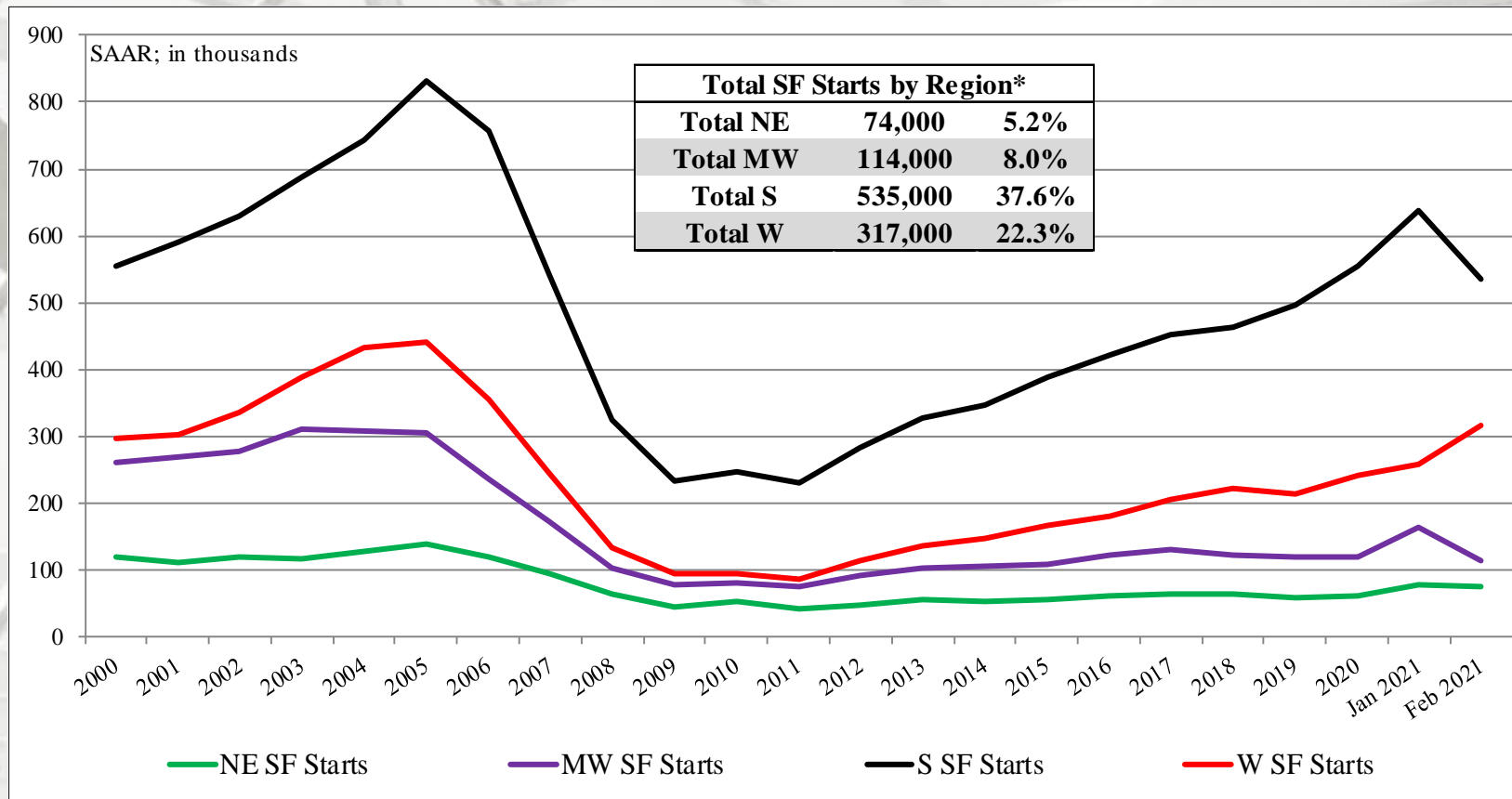


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total starts.

# Total SF Housing Starts by Region

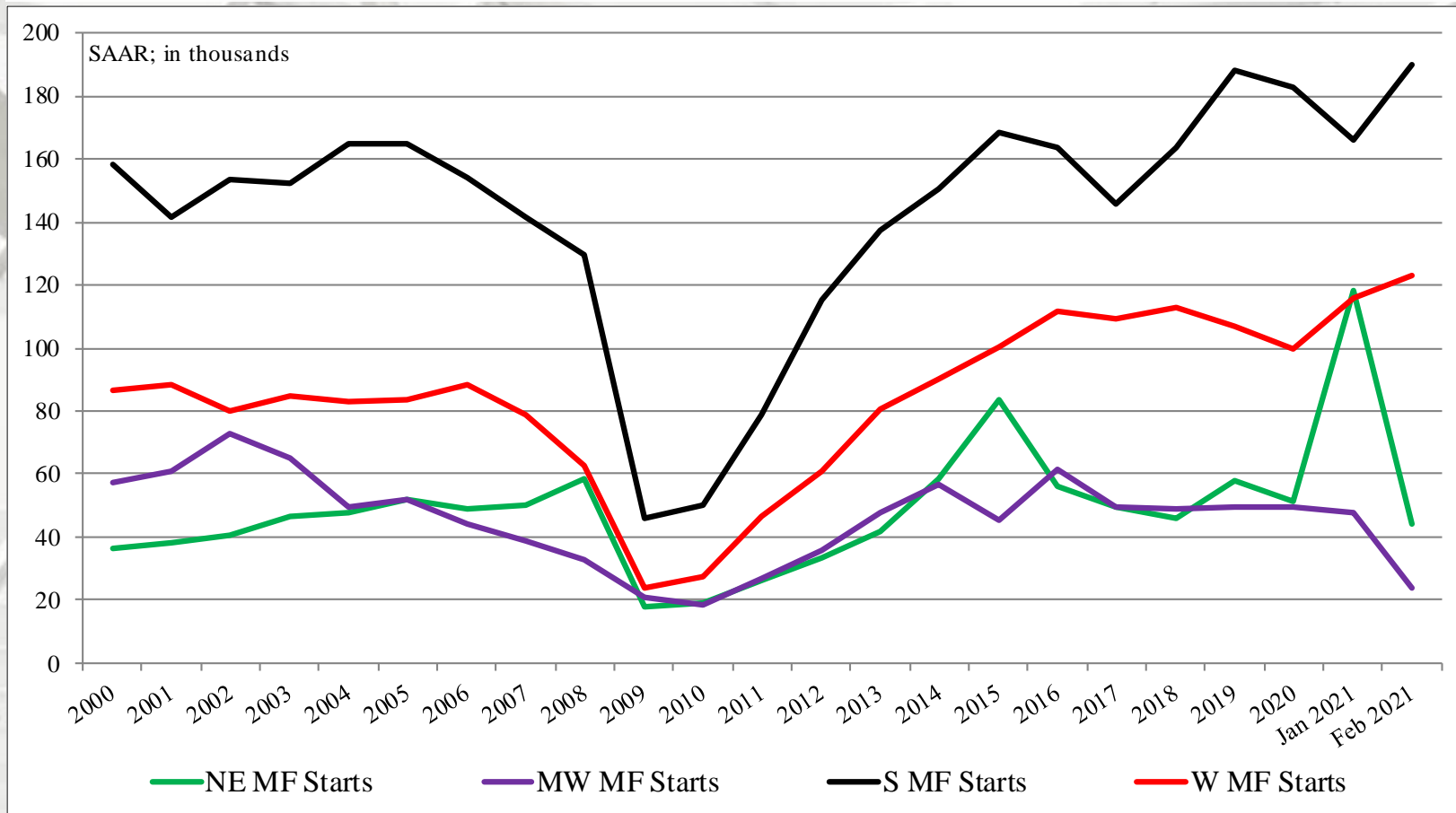


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total starts.

# MF Housing Starts by Region

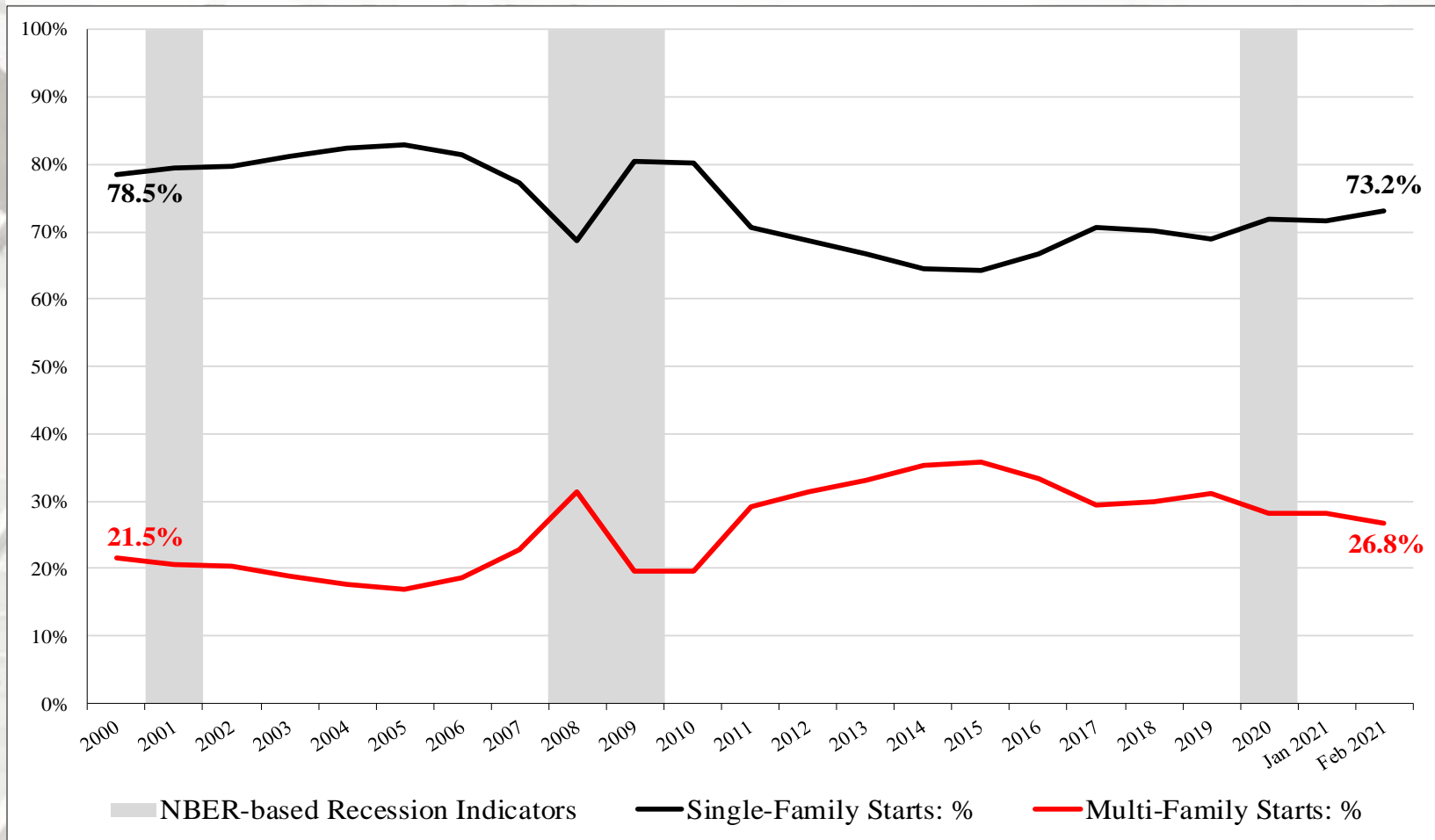


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total starts.

# SF vs. MF Housing Starts (%)



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

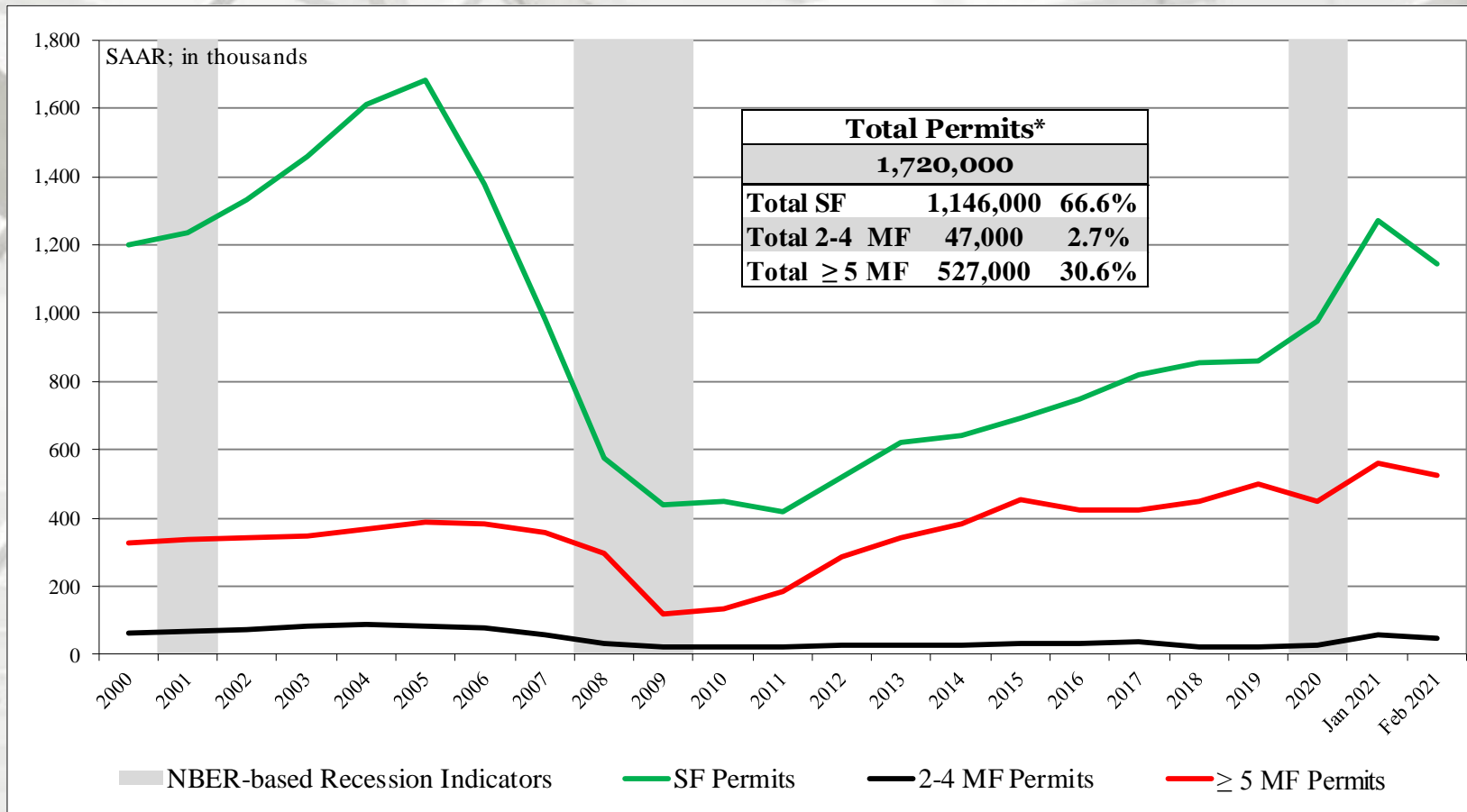


# New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
February	1,720,000	1,146,000	47,000	527,000
January	1,886,000	1,270,000	56,000	560,000
2020	1,438,000	994,000	45,000	399,000
M/M change	-8.8%	-9.8%	-16.1%	-5.9%
Y/Y change	19.6%	15.3%	4.4%	32.1%

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

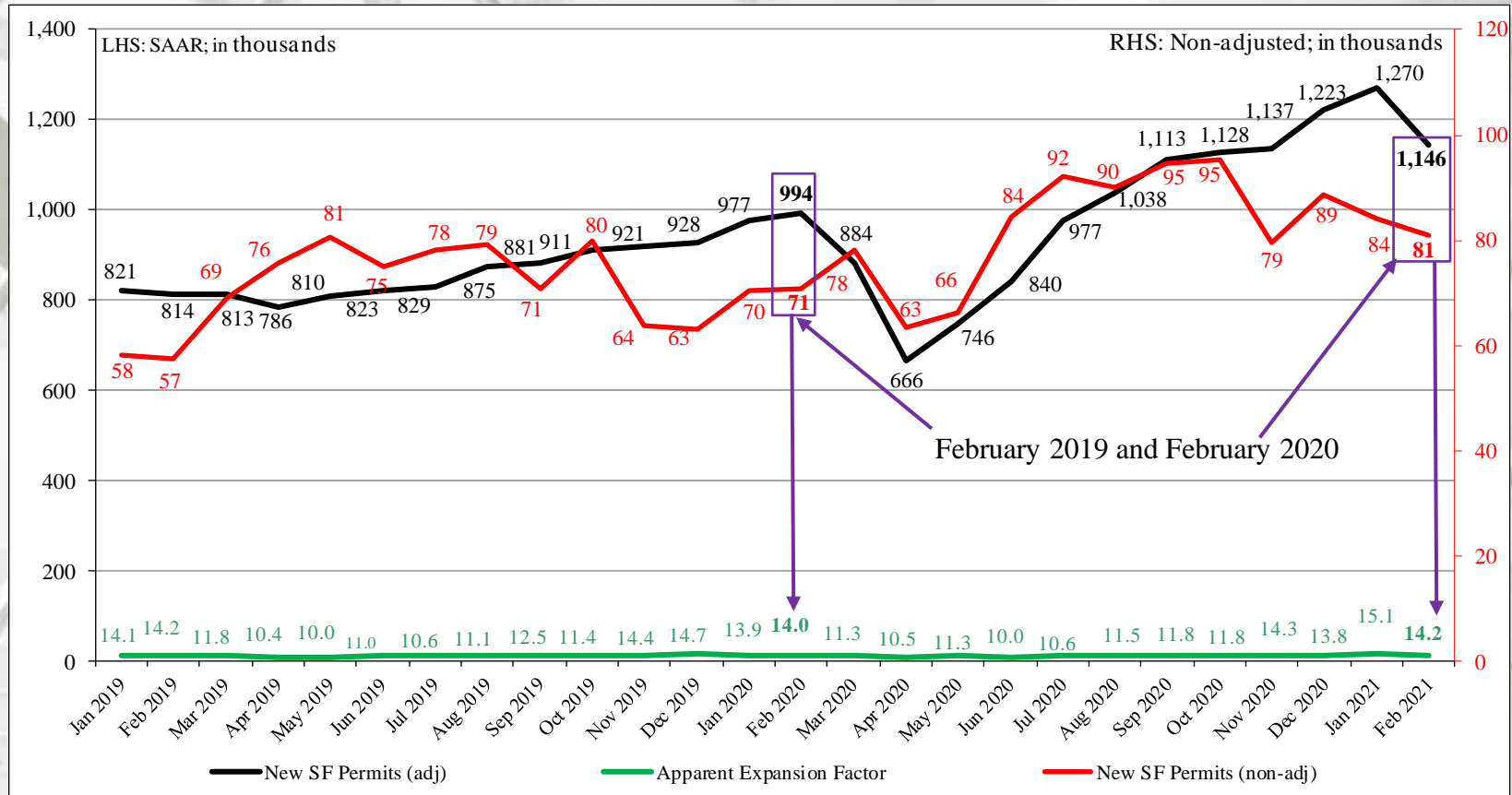
# Total New Housing Permits



\* 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).

# Nominal & SAAR SF Permits



## Nominal and Adjusted New SF Monthly Permits

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 Permits by Region

	NE Total*	NE SF	NE MF**
February	174,000	78,000	96,000
January	193,000	80,000	113,000
2020	131,000	66,000	65,000
M/M change	-9.8%	-2.5%	-15.0%
Y/Y change	32.8%	18.2%	47.7%
	MW Total*	MW SF	MW MF**
February	249,000	173,000	76,000
January	246,000	178,000	68,000
2020	197,000	134,000	63,000
M/M change	1.2%	-2.8%	11.8%
Y/Y change	26.4%	29.1%	20.6%

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

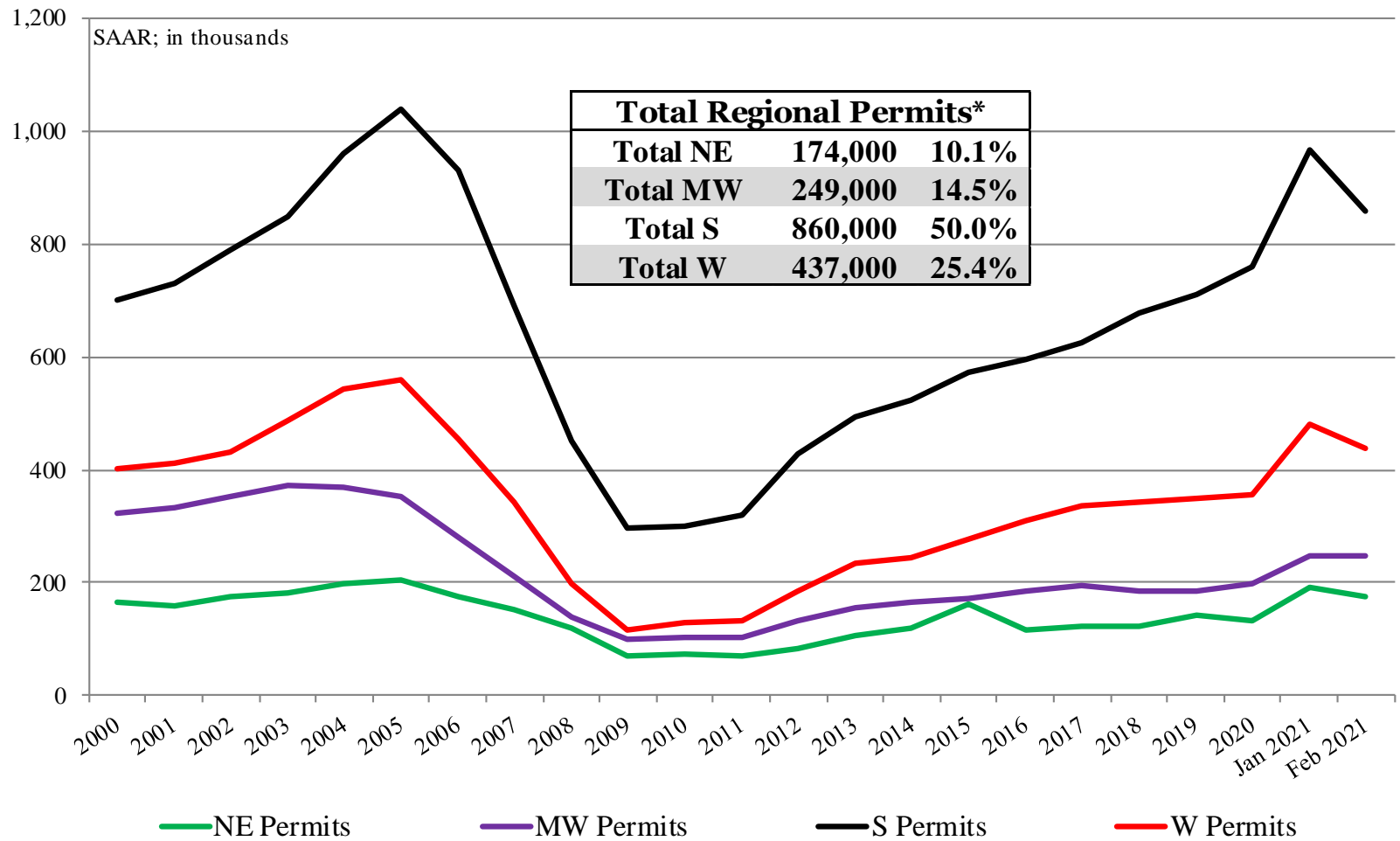
	<b>S Total*</b>	<b>S SF</b>	<b>S MF**</b>
February	860,000	613,000	247,000
January	967,000	717,000	250,000
2020	732,000	541,000	191,000
M/M change	-11.1%	-14.5%	-1.2%
Y/Y change	17.5%	13.3%	29.3%
	<b>W Total*</b>	<b>W SF</b>	<b>W MF**</b>
February	437,000	282,000	155,000
January	480,000	295,000	185,000
2020	378,000	253,000	125,000
M/M change	-9.0%	-4.4%	-16.2%
Y/Y change	15.6%	11.5%	24.0%

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).

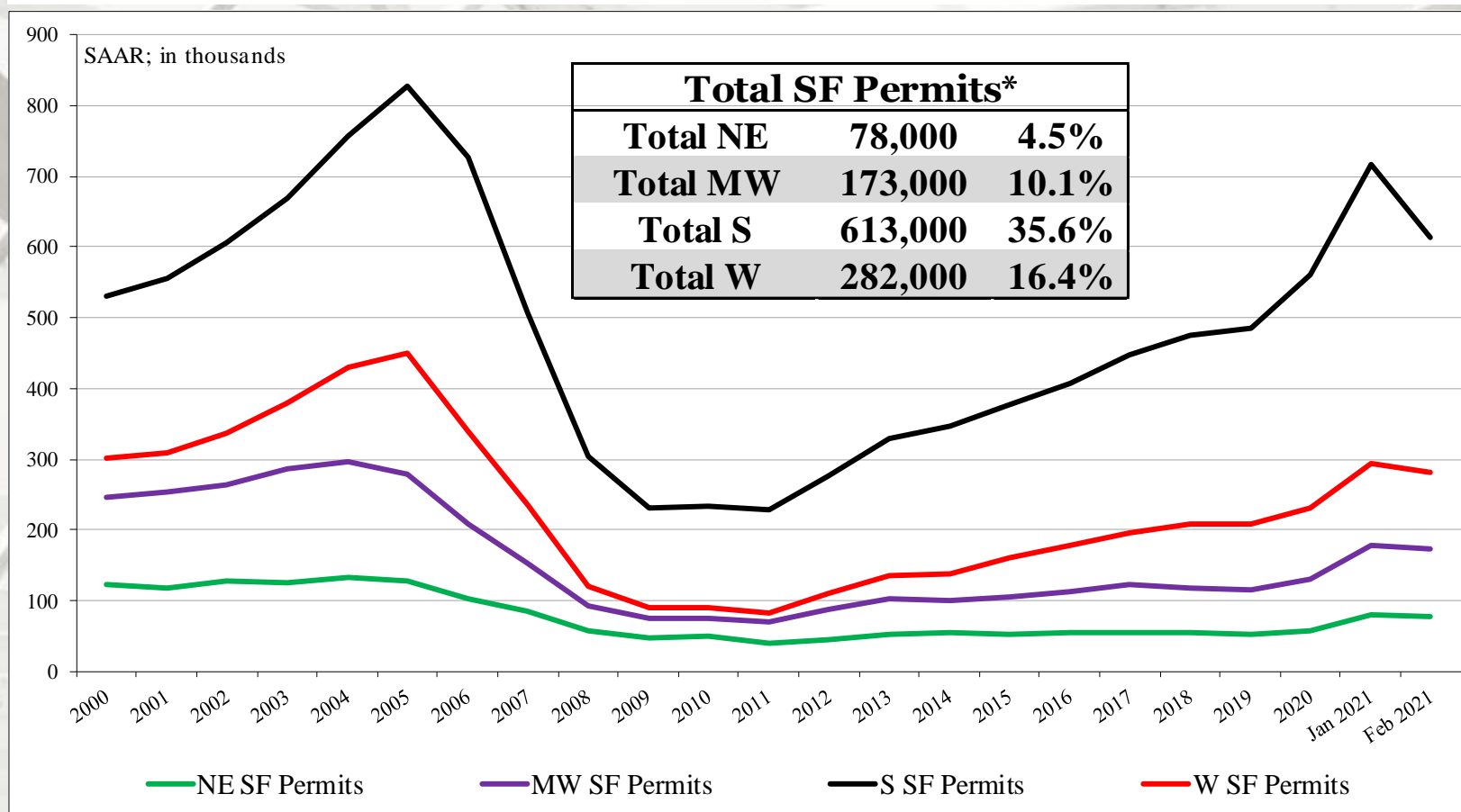
# Total Housing Permits by Region



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

\* Percentage of total permits.

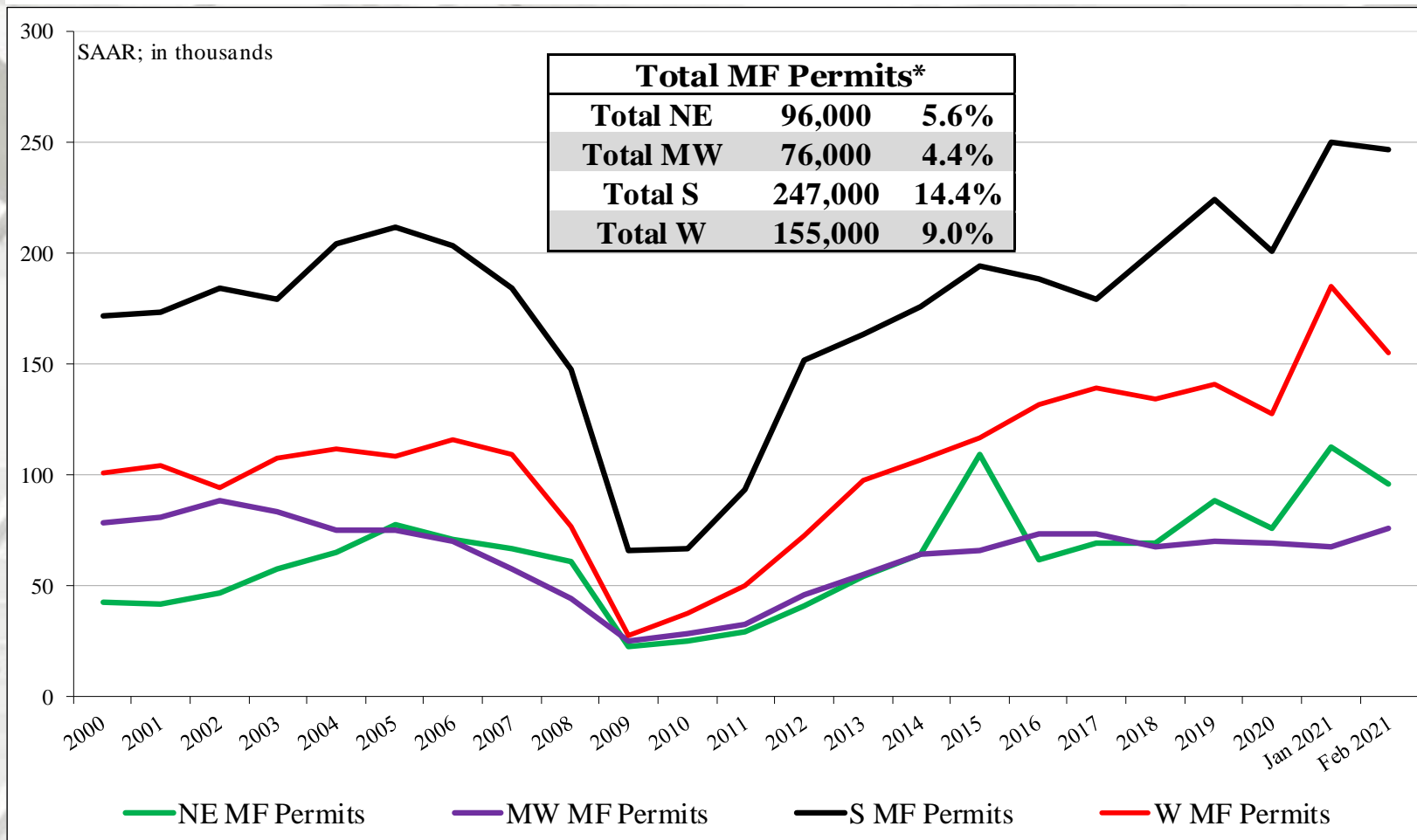
# SF Housing Permits by Region



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)

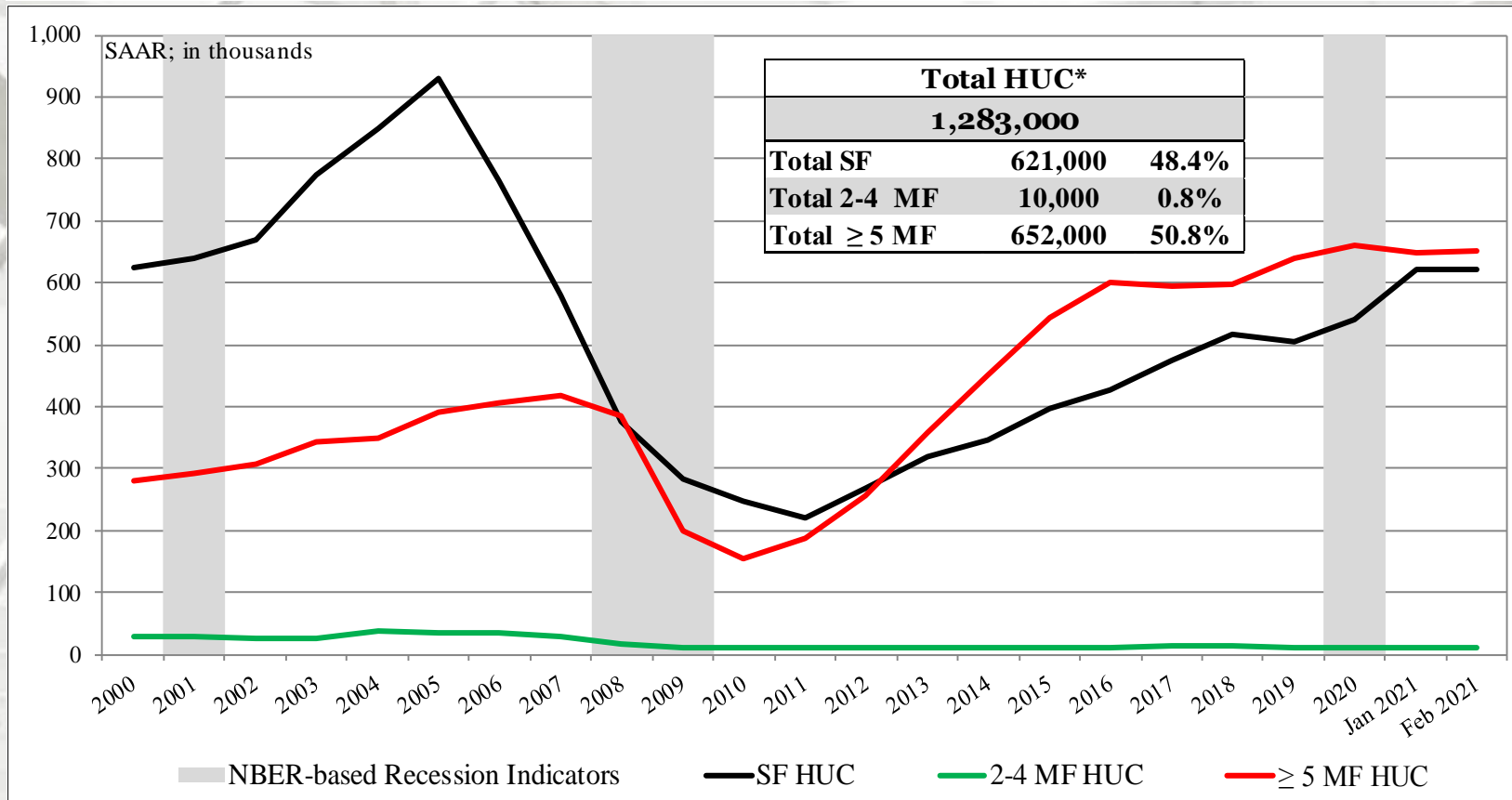
	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
February	1,283,000	621,000	10,000	652,000
January	1,279,000	621,000	10,000	648,000
2020	1,221,000	537,000	12,000	672,000
M/M change	0.3%	0.0%	0.0%	0.6%
Y/Y change	5.1%	15.6%	-16.7%	-3.0%

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 +  $\geq 5$  MF under construction)).

\* Percentage of total housing under construction units.

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

# New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
February	183,000	58,000	125,000
January	183,000	58,000	125,000
2020	178,000	55,000	123,000
M/M change	0.0%	0.0%	0.0%
Y/Y change	2.8%	5.5%	1.6%
	MW Total	MW SF	MW MF
February	162,000	85,000	77,000
January	164,000	87,000	77,000
2020	156,000	79,000	77,000
M/M change	-1.2%	-2.3%	0.0%
Y/Y change	3.8%	7.6%	0.0%

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).

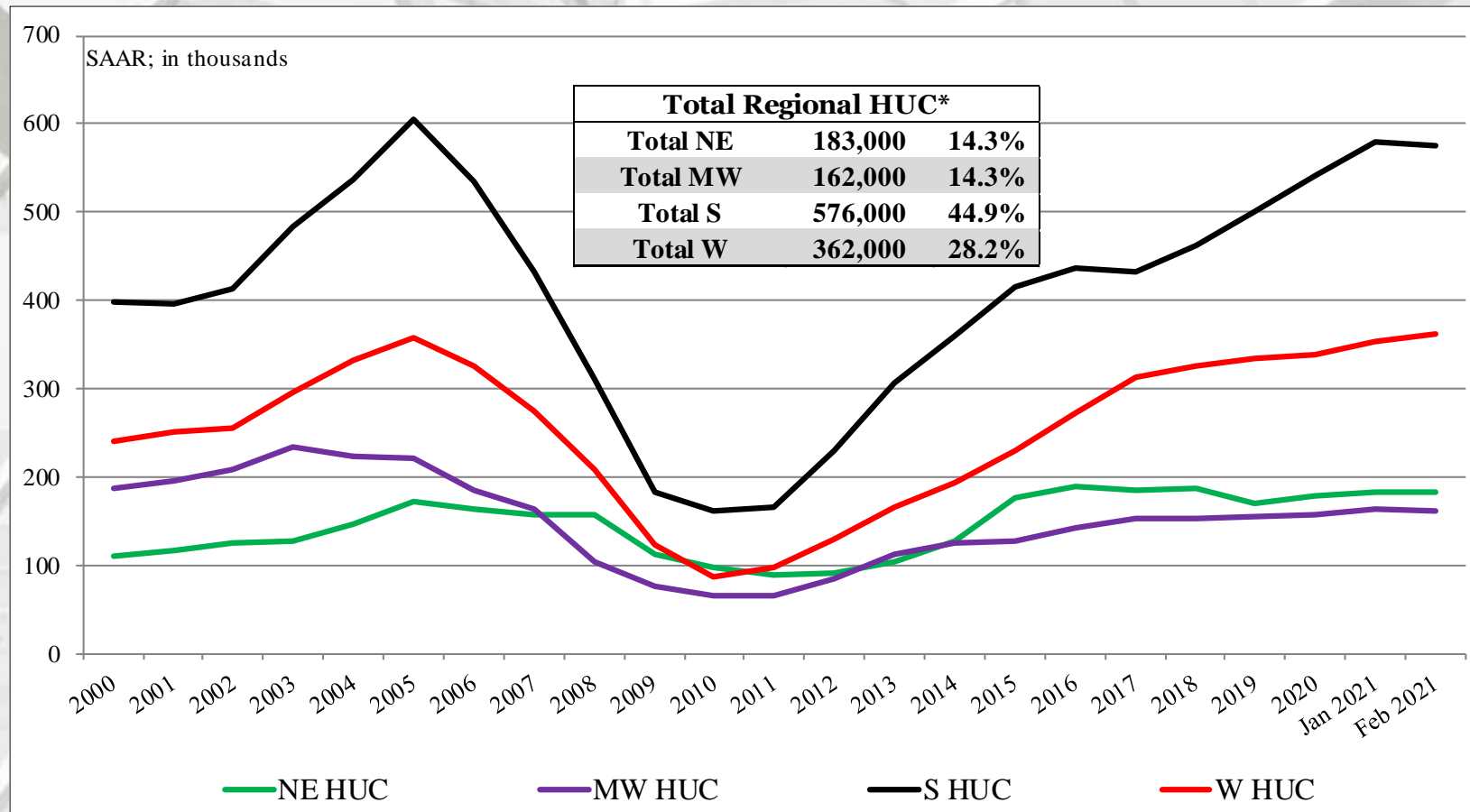
# New Housing Under Construction by Region

	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
February	576,000	304,000	272,000
January	579,000	307,000	272,000
2020	542,000	261,000	281,000
M/M change	-0.5%	-1.0%	0.0%
Y/Y change	6.3%	16.5%	-3.2%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
February	362,000	174,000	188,000
January	353,000	169,000	184,000
2020	345,000	142,000	203,000
M/M change	2.5%	3.0%	2.2%
Y/Y change	4.9%	22.5%	-7.4%

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

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

# Total Housing Under Construction by Region

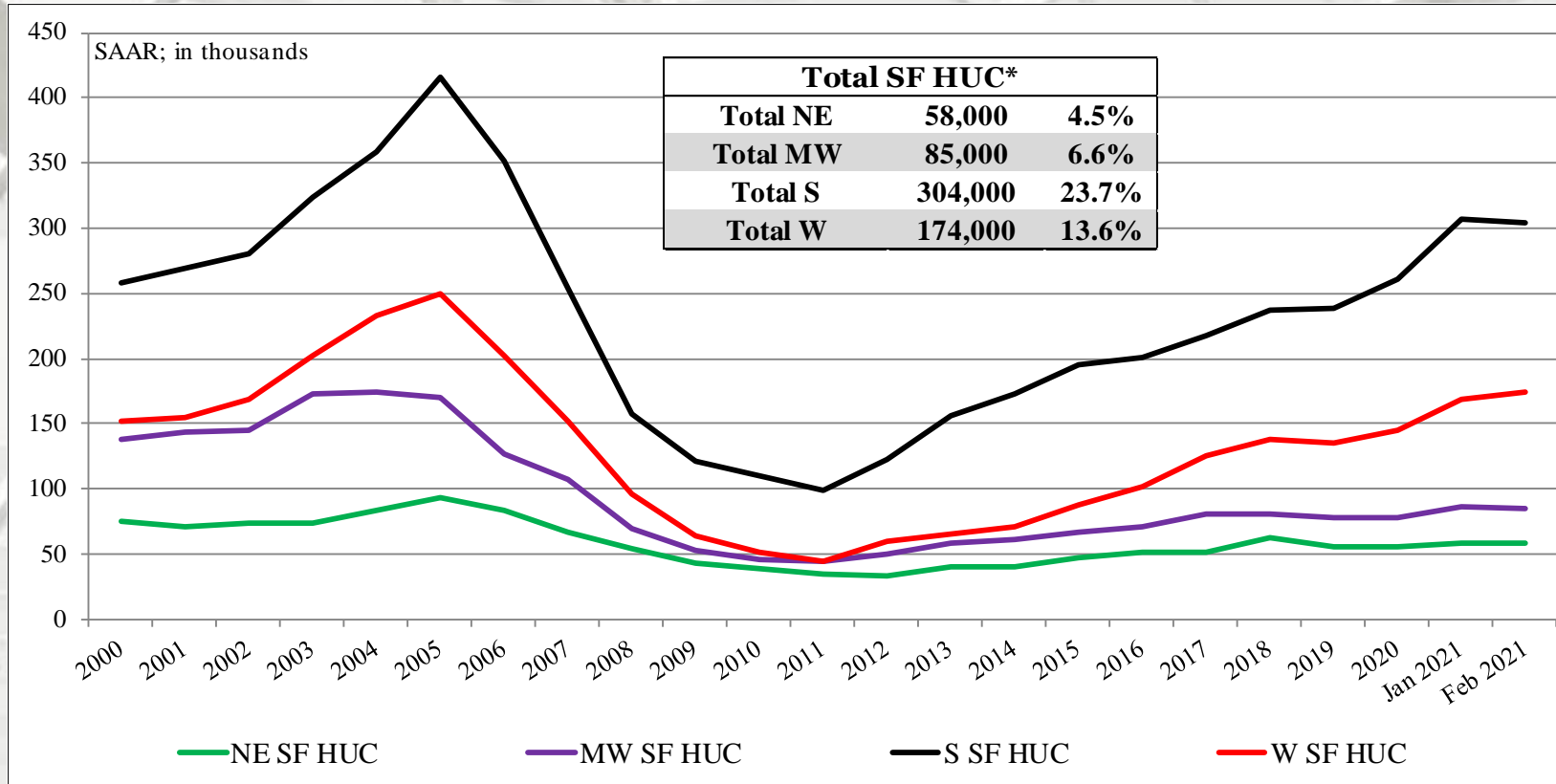


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total housing under construction units.

# SF Housing Under Construction by Region



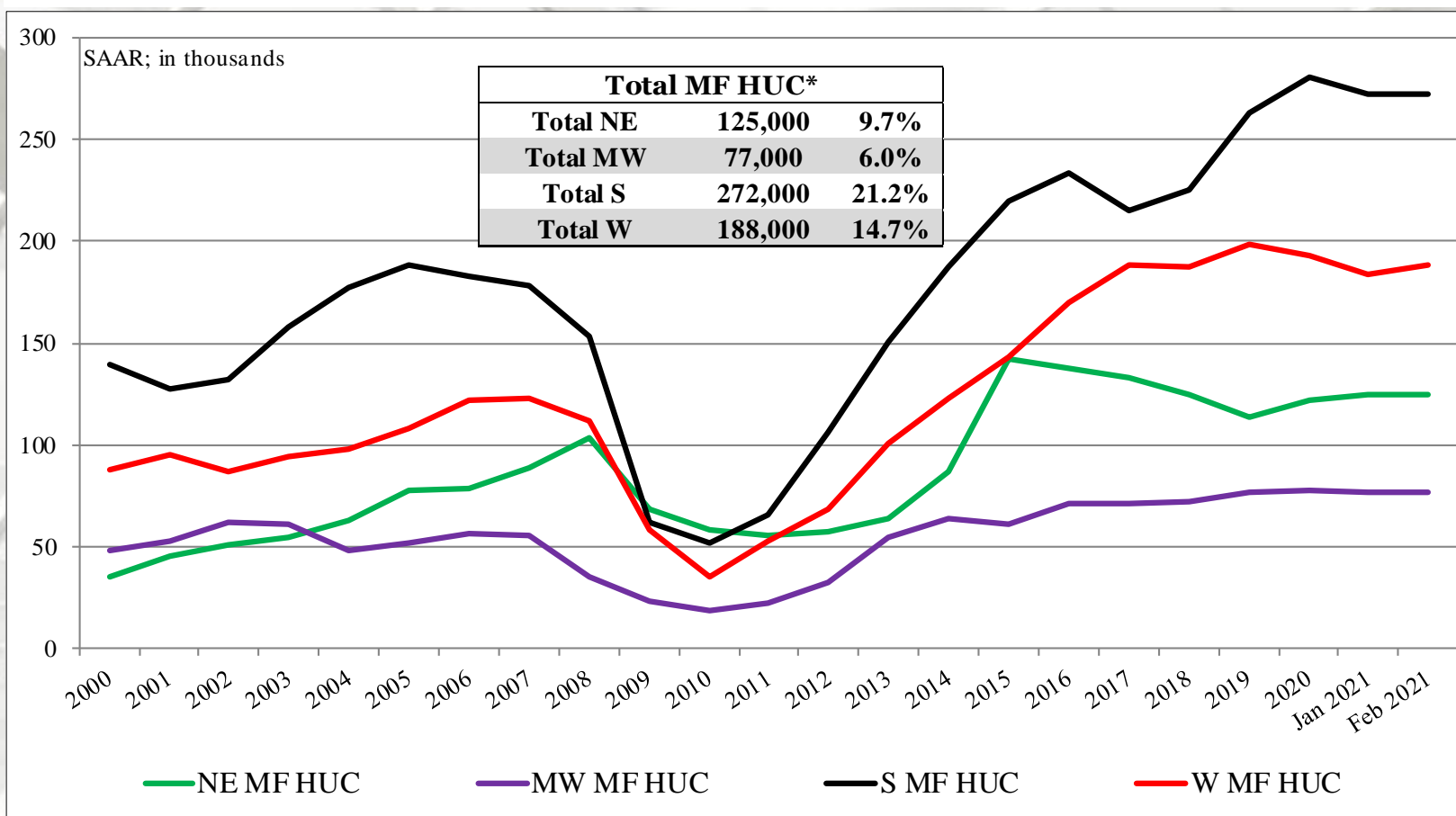
NE = Northeast, MW = Midwest, S = South, W = West.

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

\* Percentage of total housing under construction units.

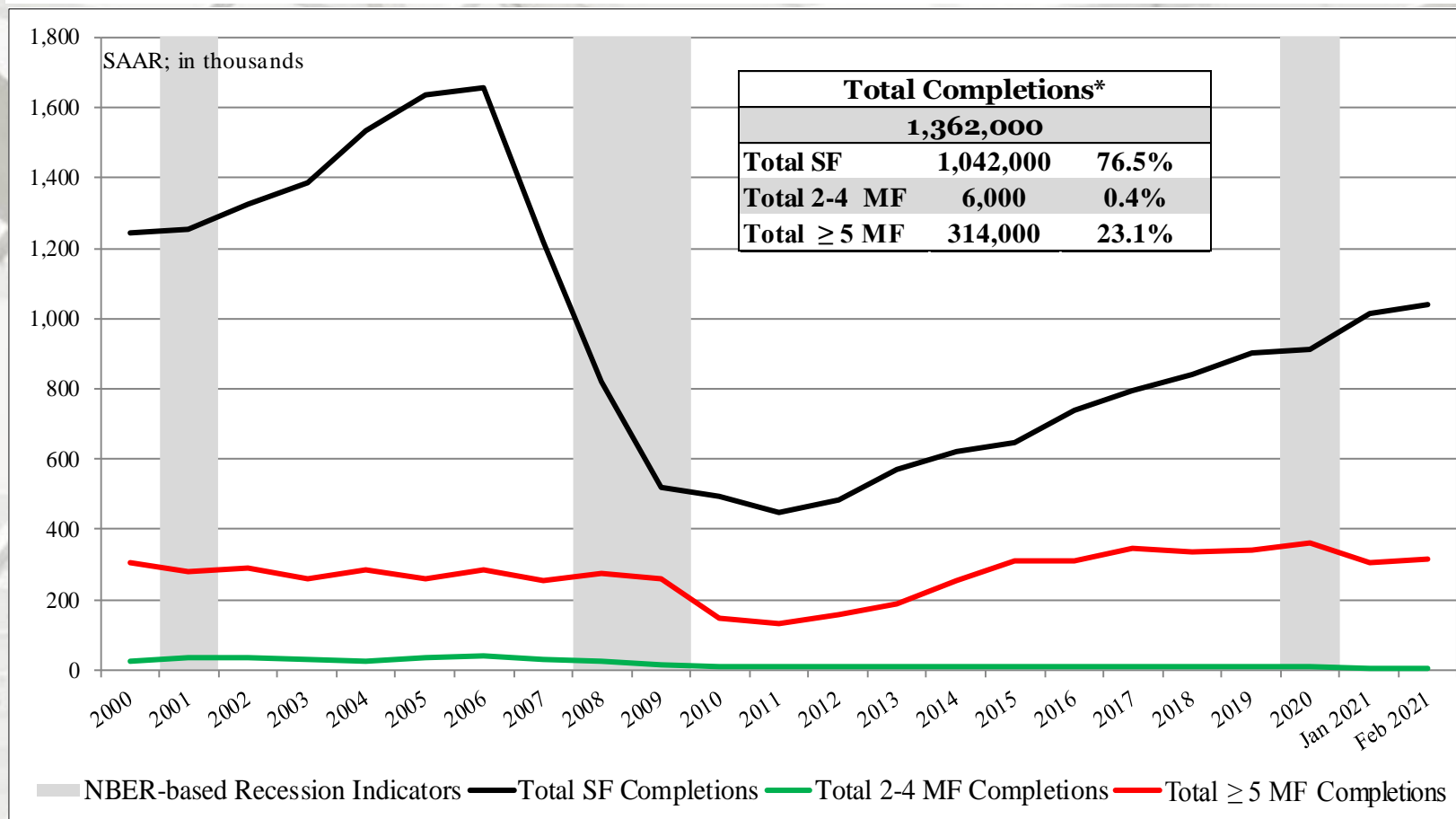
# New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
February	1,362,000	1,042,000	6,000	314,000
January	1,324,000	1,014,000	5,000	305,000
2020	1,297,000	1,010,000	9,000	278,000
M/M change	2.9%	2.8%	20.0%	3.0%
Y/Y change	5.0%	3.2%	-33.3%	12.9%

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

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

# Total Housing Completions



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

\* Percentage of total housing completions

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

# New Housing Completions by Region

	NE Total	NE SF	NE MF**
February	101,000	60,000	41,000
January	103,000	68,000	35,000
2020	104,000	69,000	35,000
M/M change	-1.9%	-11.8%	17.1%
Y/Y change	-2.9%	-13.0%	17.1%
	MW Total	MW SF	MW MF
February	194,000	157,000	37,000
January	175,000	148,000	27,000
2020	193,000	155,000	38,000
M/M change	10.9%	6.1%	37.0%
Y/Y change	0.5%	1.3%	-2.6%

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

	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
February	755,000	585,000	170,000
January	749,000	578,000	171,000
2020	650,000	537,000	113,000
M/M change	0.8%	1.2%	-0.6%
Y/Y change	16.2%	8.9%	50.4%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
February	312,000	240,000	72,000
January	297,000	220,000	77,000
2020	350,000	249,000	101,000
M/M change	5.1%	9.1%	-6.5%
Y/Y change	-10.9%	-3.6%	-28.7%

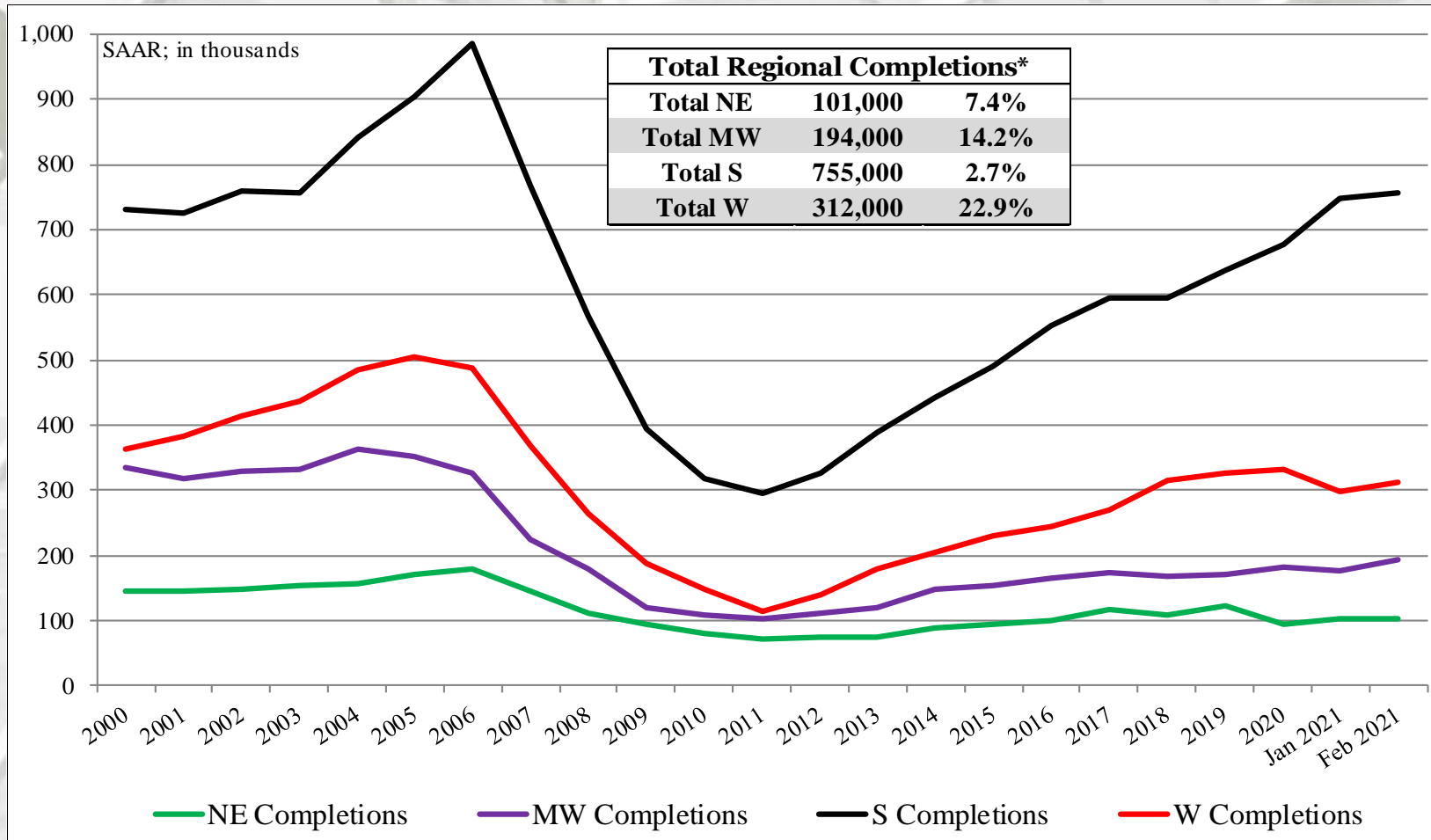
NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total housing completions



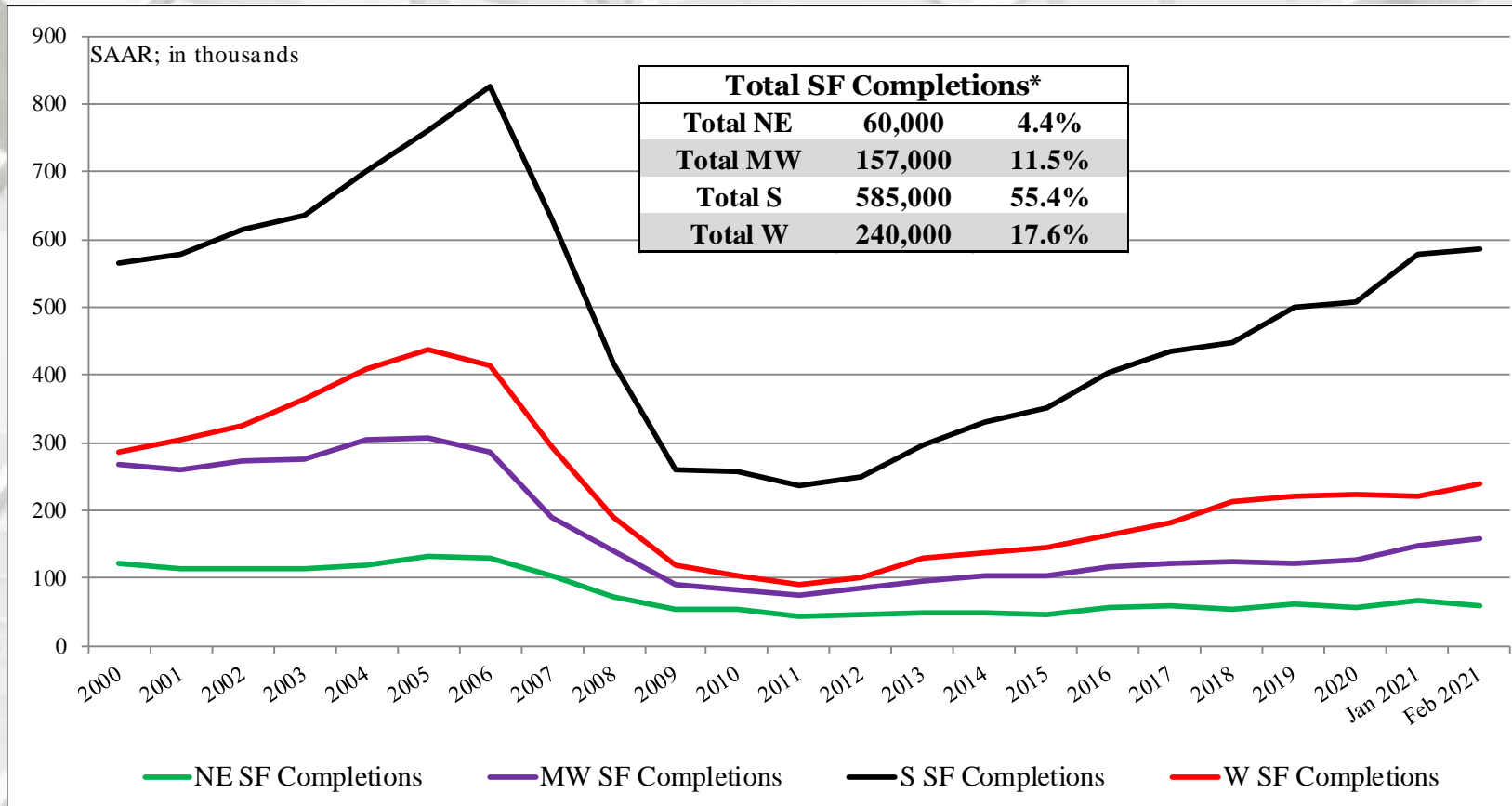
# Total Housing Completions by Region



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

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

# SF Housing Completions by Region

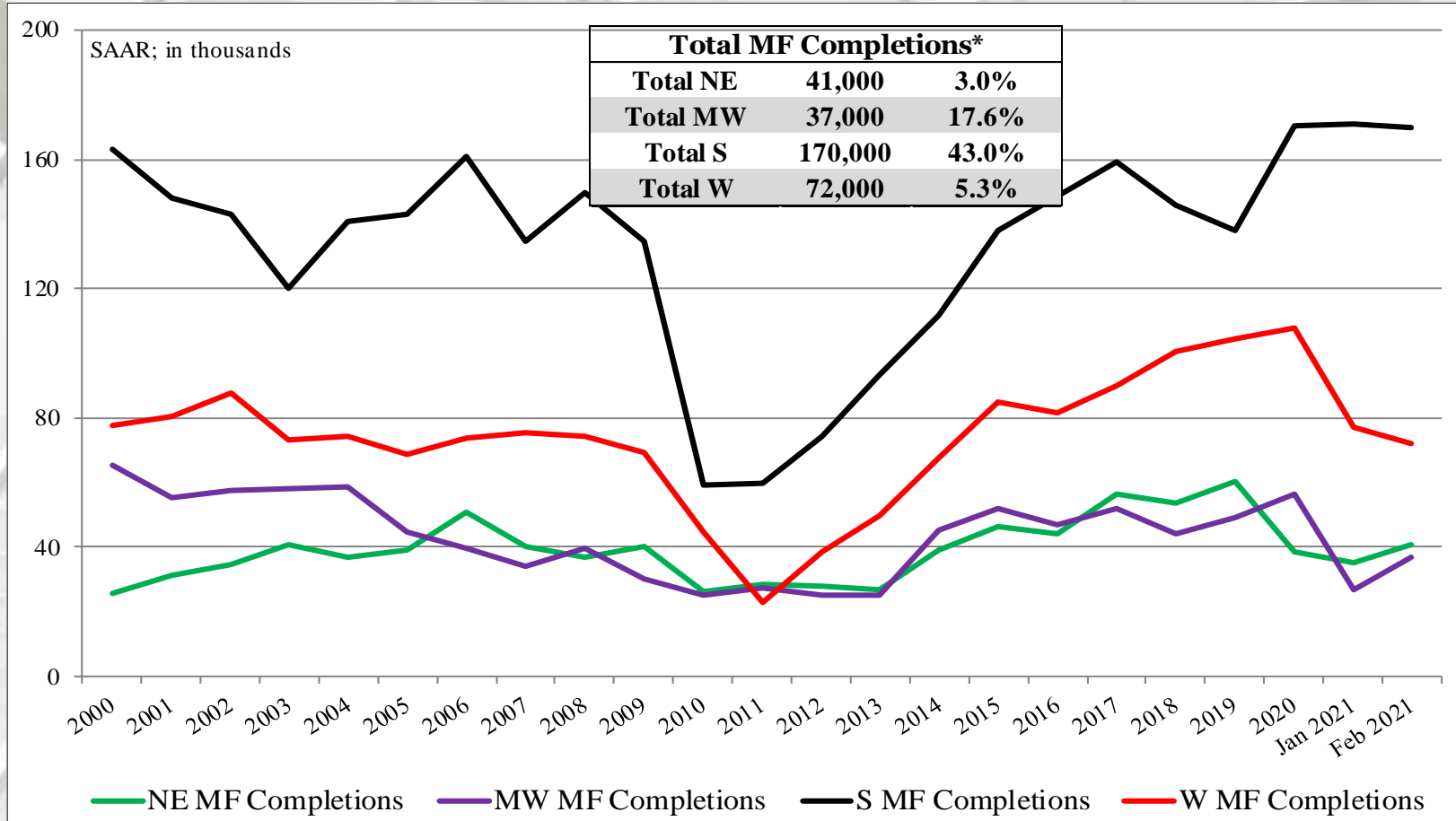


NE = Northeast, MW = Midwest, S = South, W = West

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

# New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
February	775,000	\$349,400	\$416,000	4.8
January	948,000	\$353,200	\$410,400	3.8
2020	716,000	\$331,800	\$386,200	5.5
M/M change	-18.2%	-1.1%	1.4%	26.3%
Y/Y change	8.2%	5.3%	7.7%	-12.7%

\* All new sales data are presented at a seasonally adjusted annual rate (SAAR)<sup>1</sup> and housing prices are adjusted at irregular intervals<sup>2</sup>.

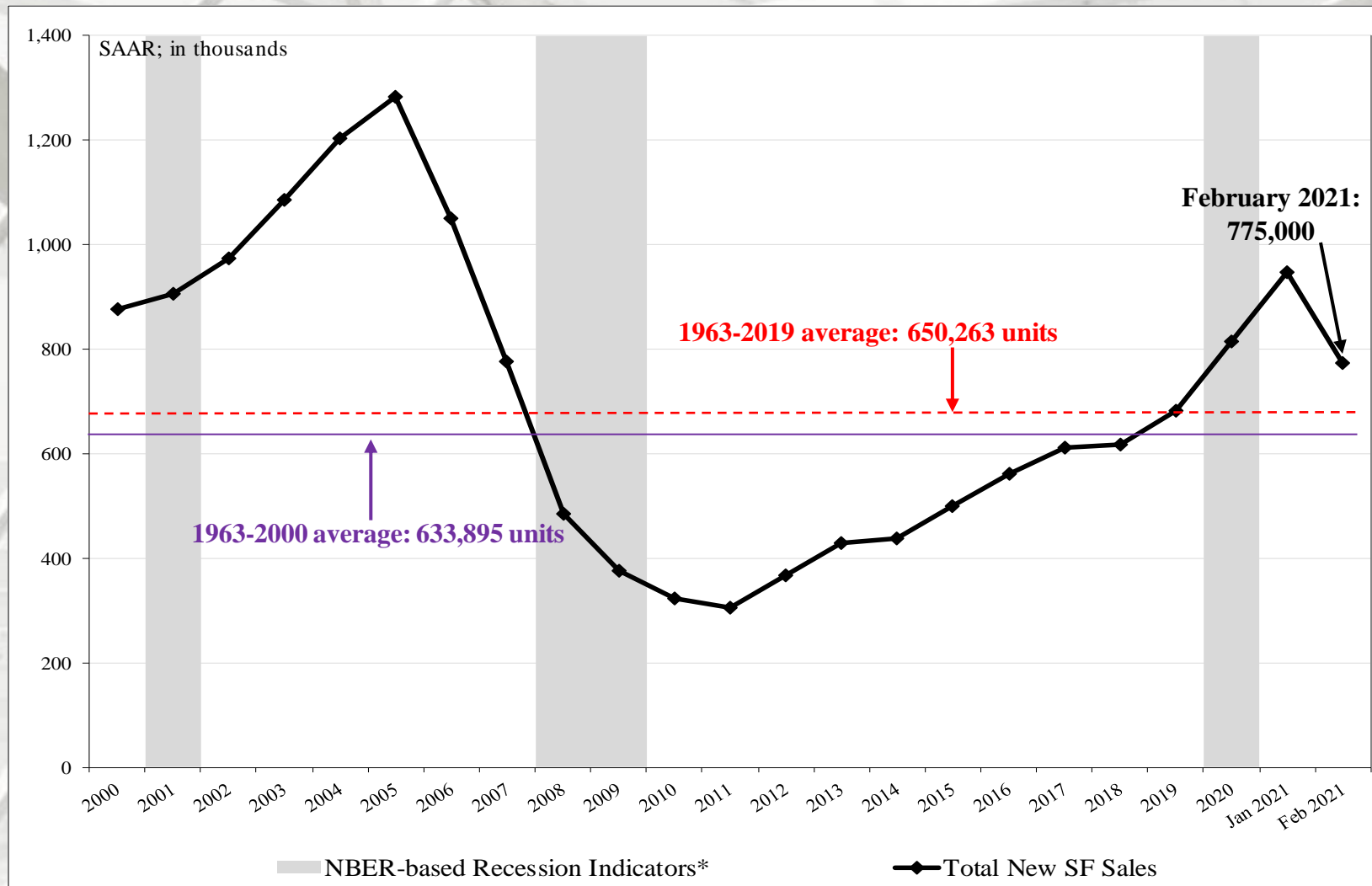
New SF sales were substantially less than the consensus forecast<sup>3</sup> of 875 m (range: 825 m to 970 m). The past three month's new SF sales data also were revised:

November initial:	841 m, revised to 857 m;
December initial:	842 m, revised to 919 m.
January initial:	923 m, revised to 948 m.

Sources: <sup>1</sup> <https://www.census.gov/construction/nrs/index.html>; 3/23/21; <sup>2</sup> <https://www.census.gov/construction/nrs/pdf/newressales.pdf>

<sup>3</sup> <http://us.econoday.com/>; 3/23/21

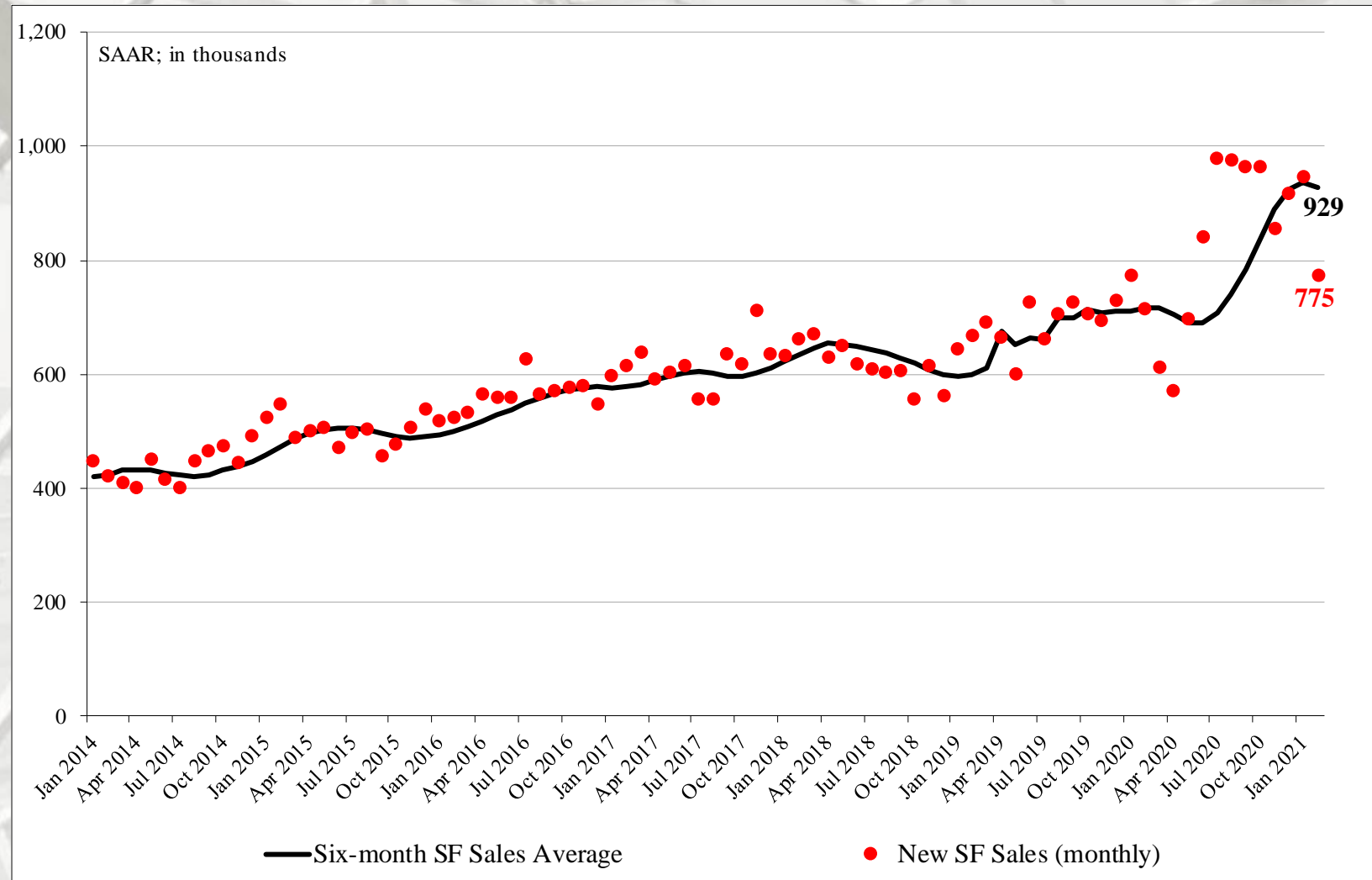
# New SF House Sales



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



# New SF Housing Sales: Six-month average & monthly



# New SF House Sales by Region and Price Category

	NE	MW	S	W
February	38,000	85,000	458,000	194,000
January	43,000	136,000	537,000	232,000
2020	43,000	81,000	381,000	211,000
M/M change	-11.6%	-37.5%	-14.7%	-16.4%
Y/Y change	-11.6%	4.9%	20.2%	-8.1%
			</	

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

<sup>1</sup> All data are SAAR

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

<sup>3</sup> Detail February not add to total because of rounding.

<sup>4</sup> Housing prices are adjusted at irregular intervals.

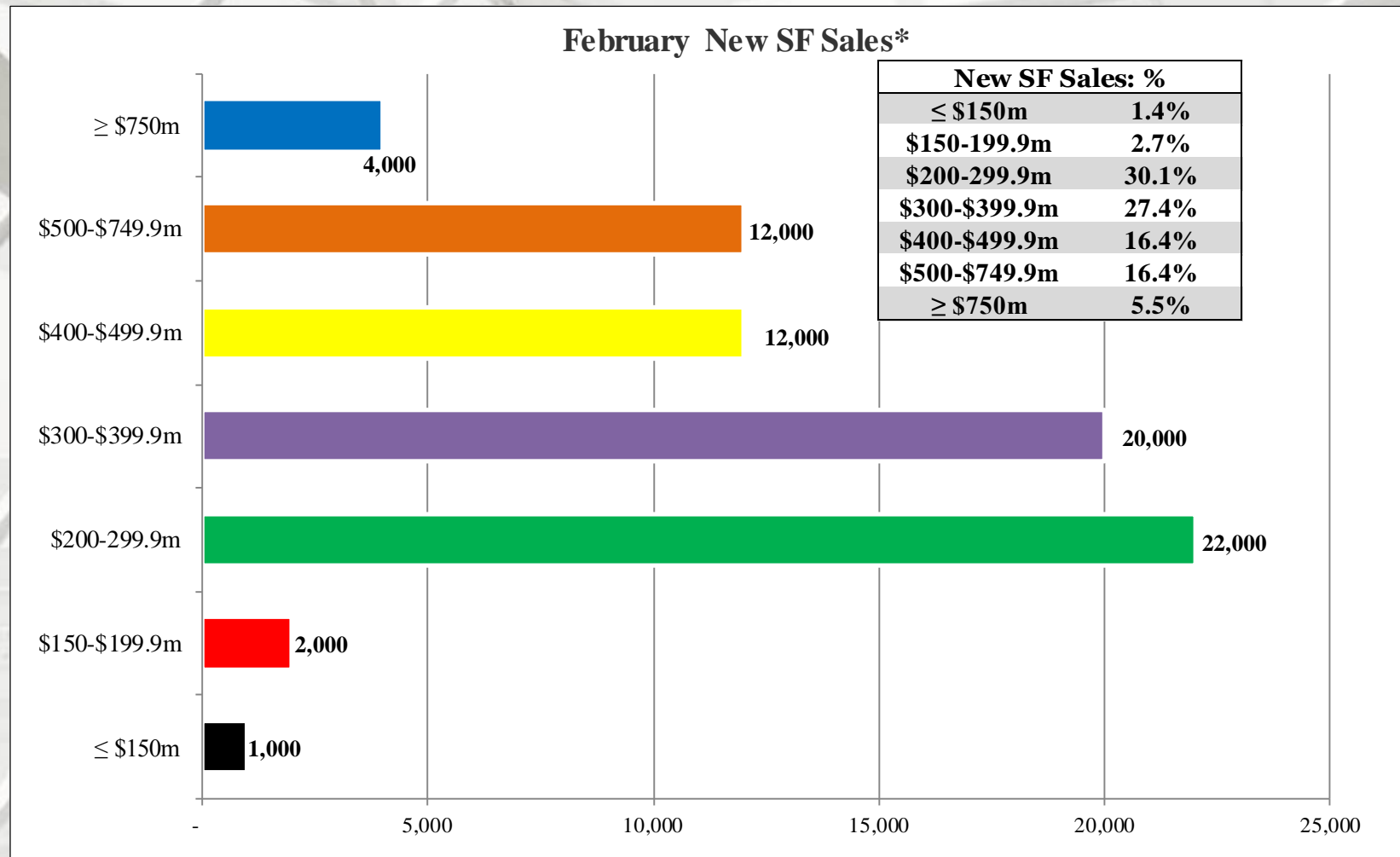
<sup>5</sup> Z = Less than 500 units or less than 0.5 percent

Sources: <sup>1,2,3</sup> <https://www.census.gov/construction/nrs/index.html>; 3/23/21;

<sup>4</sup> [https://www.census.gov/construction/cpi/pdf/descpi\\_sold.pdf](https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf)

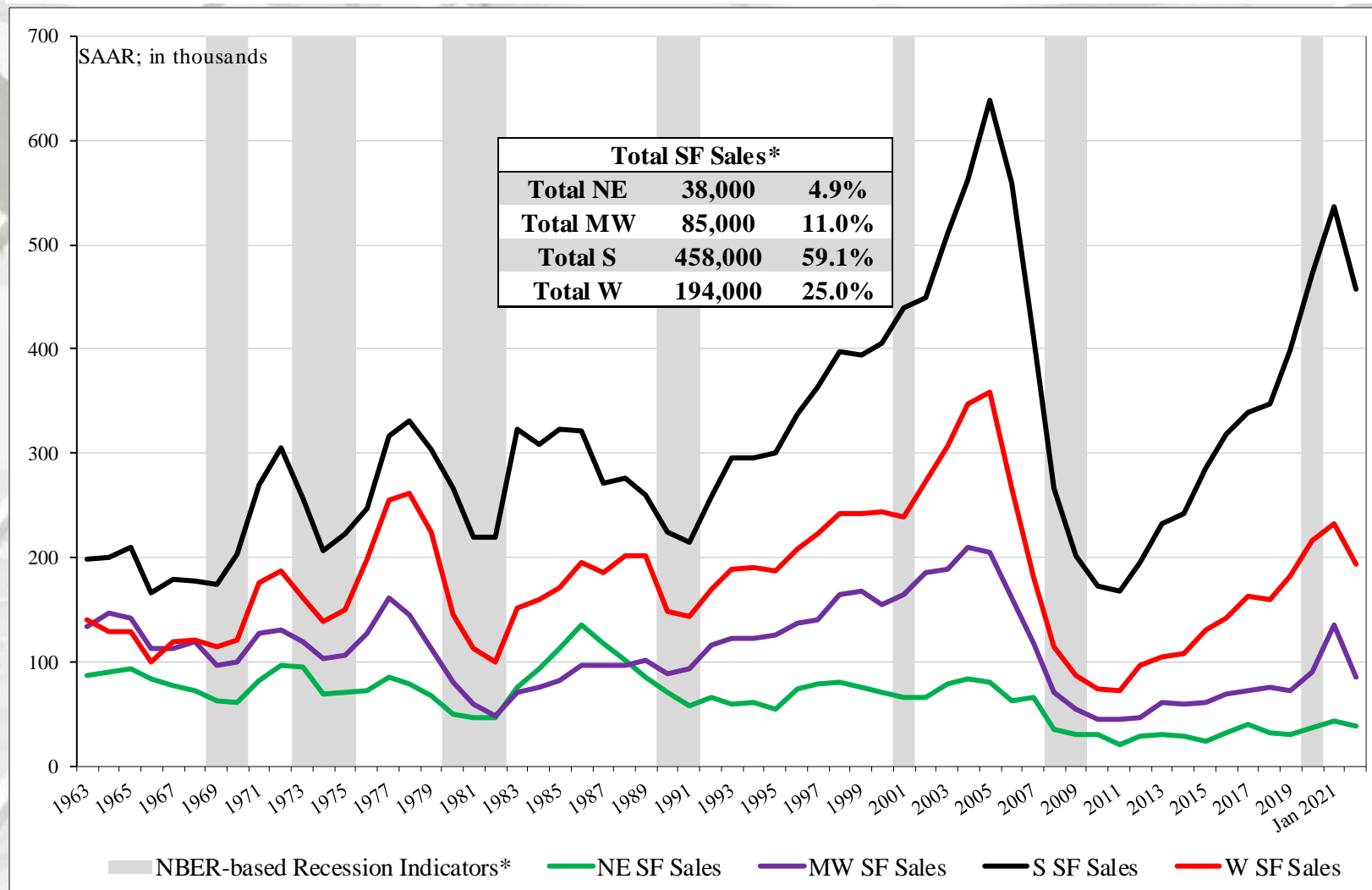
Return TOC

# New SF House Sales



\* Total new sales by price category and percent.

# New SF House Sales by Region

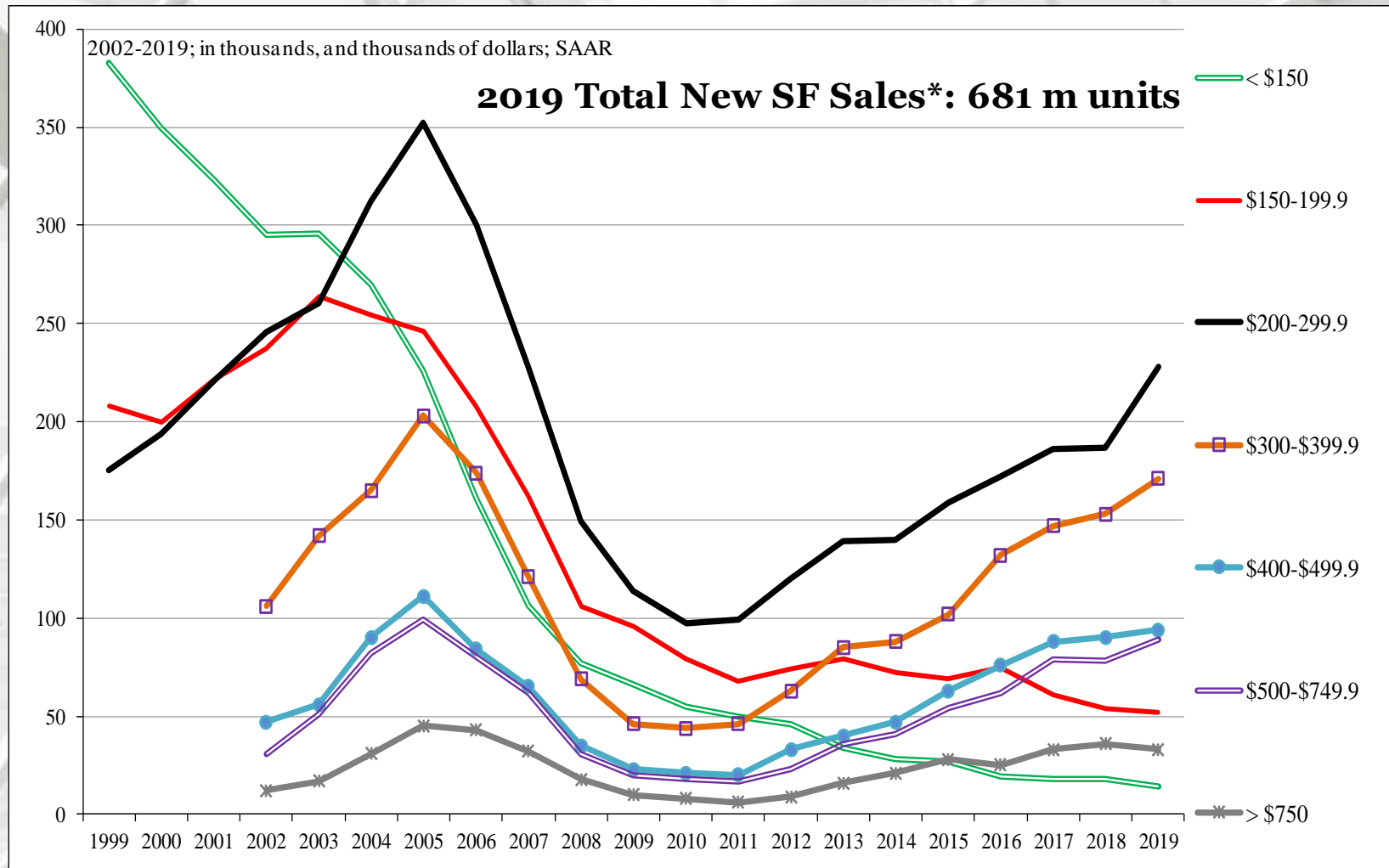


NE = Northeast; MW = Midwest; S = South; W = West

\* Percentage of total new sales.

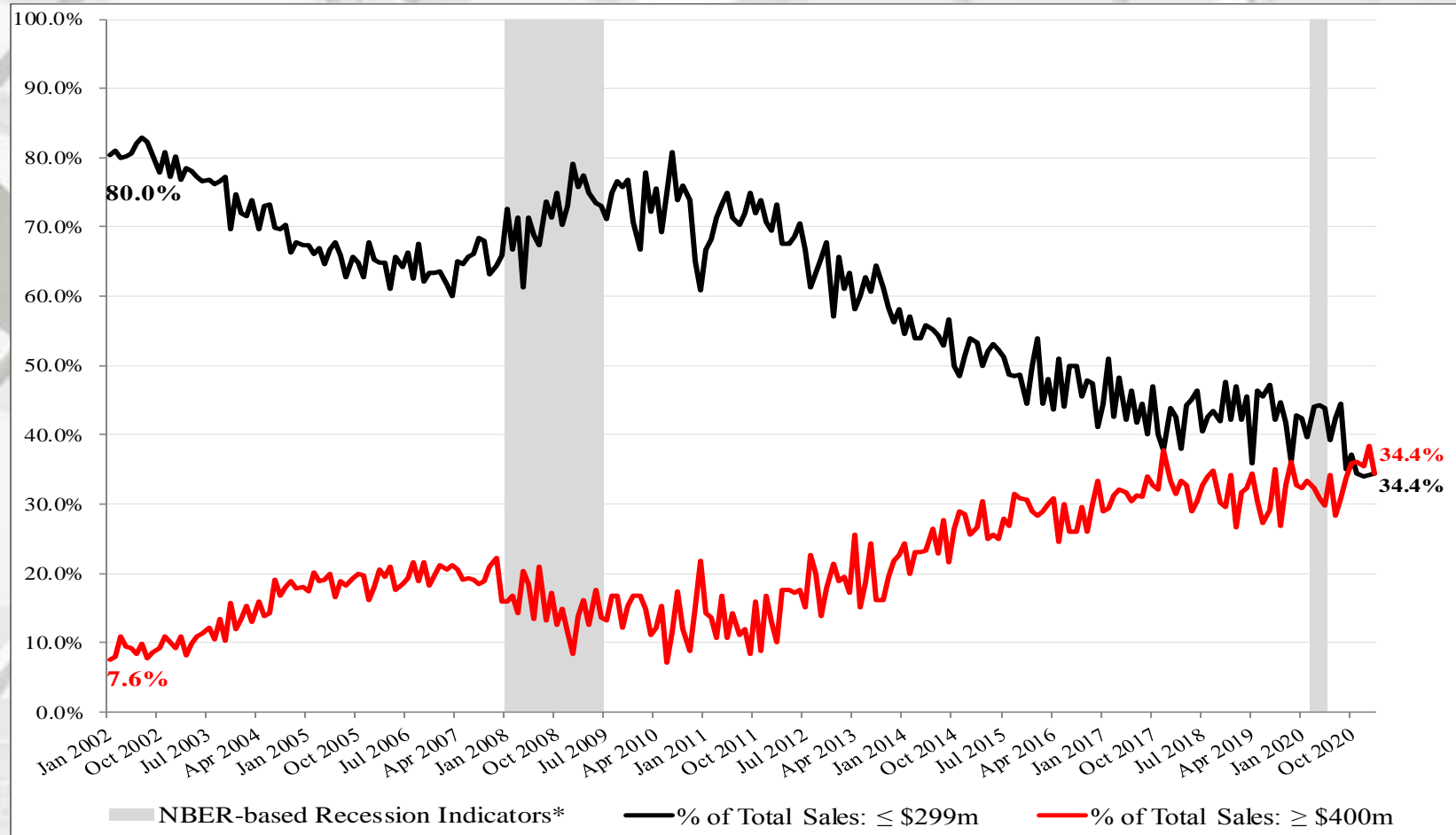
\* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# New SF House Sales by Price Category





# New SF House Sales

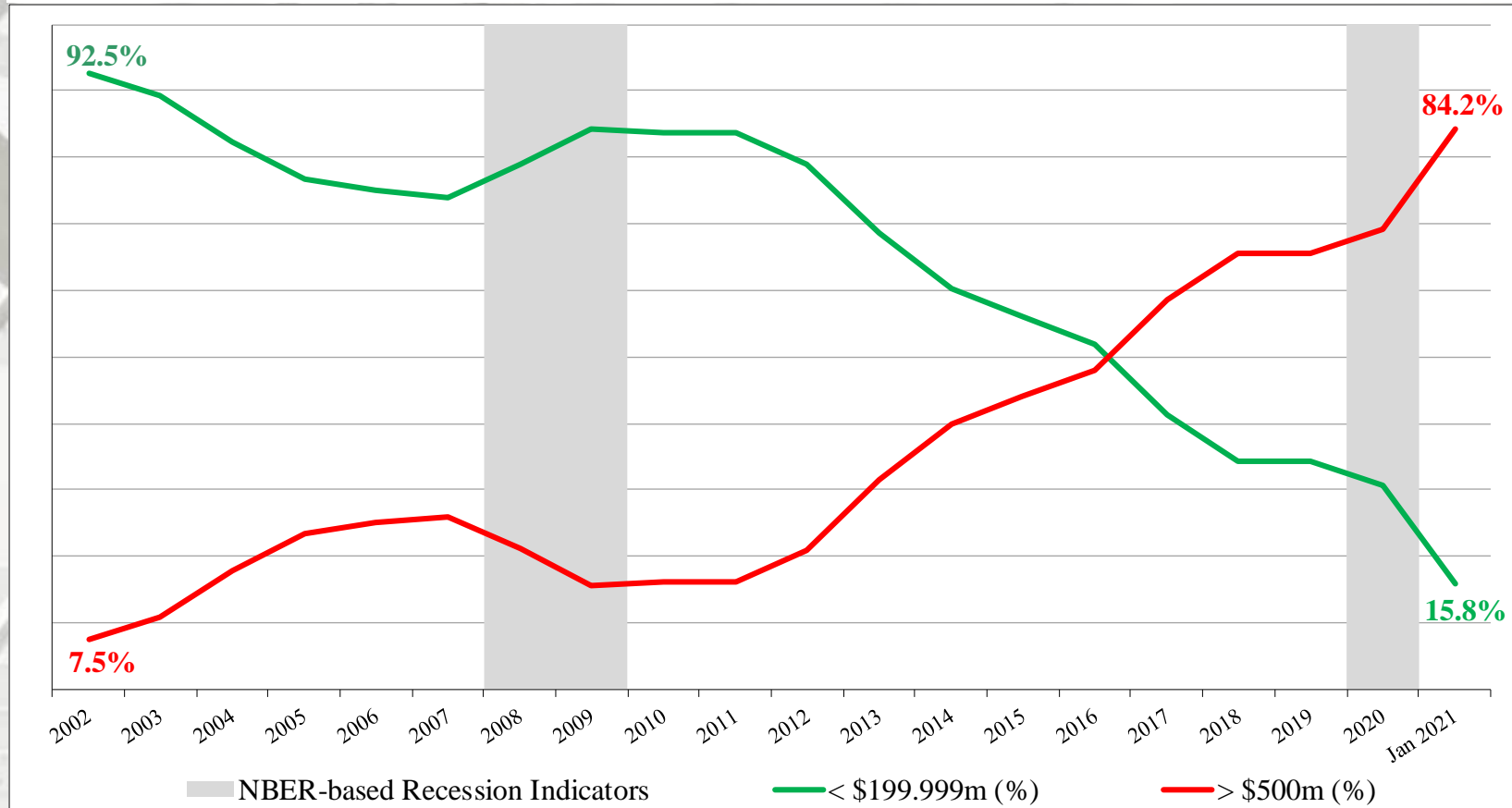


\* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

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

# New SF House Sales



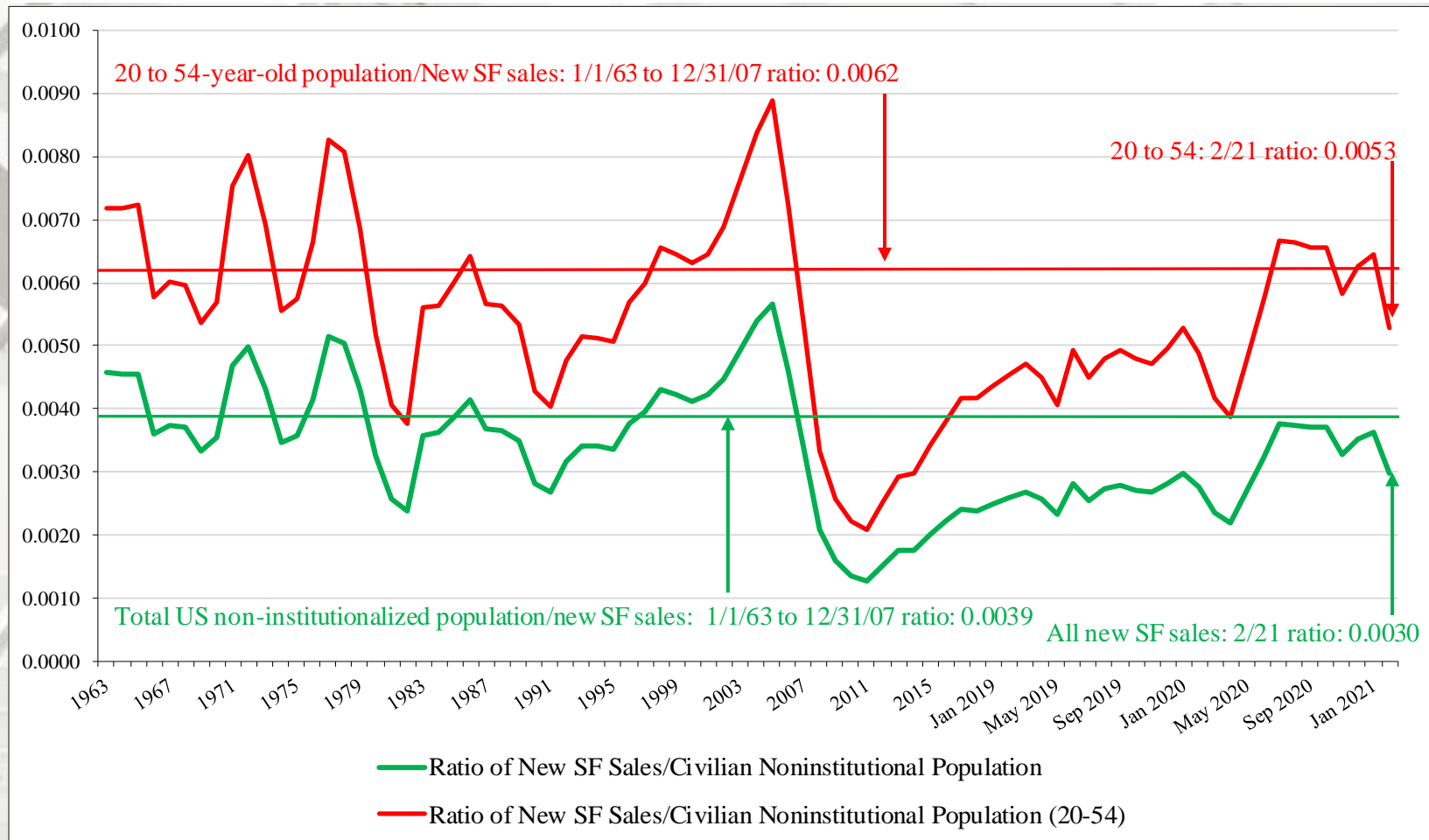
## New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to February 2021

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

Note: Sales values are not adjusted for inflation.

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

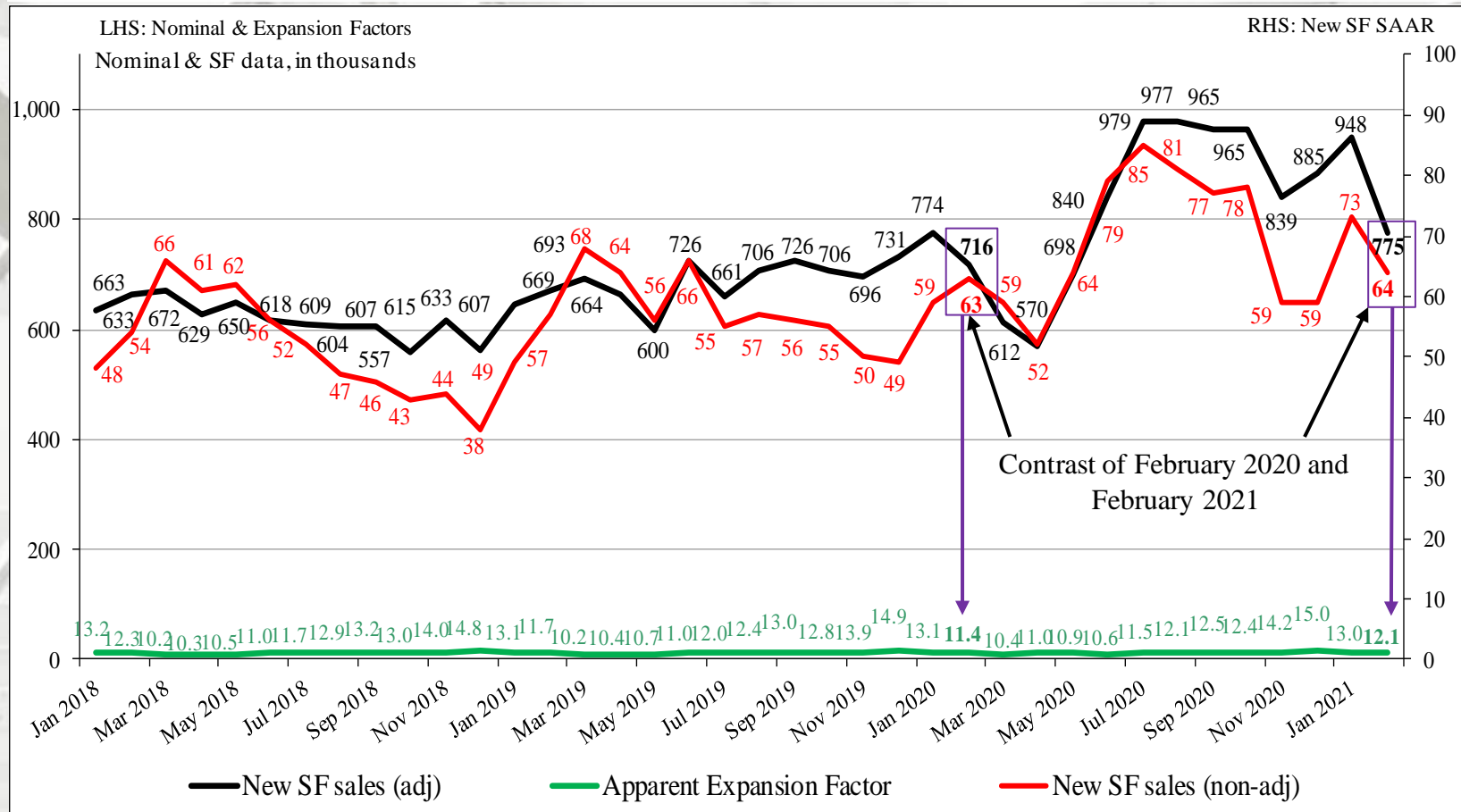
# New SF House Sales



## New SF sales adjusted for the US population

From February 1963 to February 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in February 2021 it was 0.0030 – a decrease from December (0.0036). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in February 2021 it was 0.0053 – also a decrease from December (0.0065). All are non-adjusted data. New house sales for the 20 to 54 class exceeded population growth for the second time in more than a decade. From a total population world view, new sales remain less than the long-term average.

# Nominal vs. SAAR New SF House Sales



## Nominal and Adjusted New SF Monthly Sales

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

# New SF House Sales

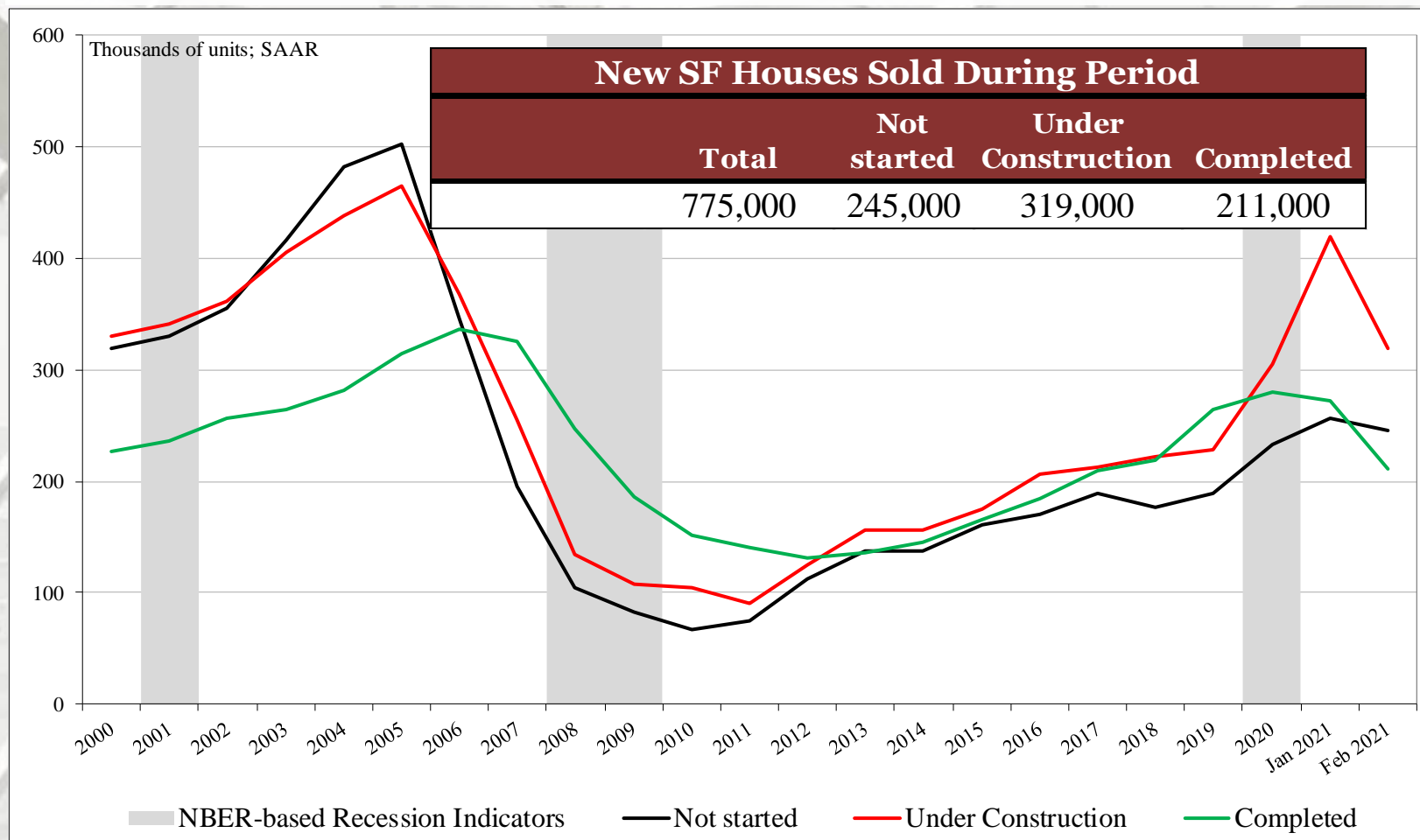
## New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
February	775,000	245,000	319,000	211,000
January	948,000	257,000	419,000	272,000
2020	716,000	204,000	241,000	271,000
M/M change	-18.2%	-4.7%	-23.9%	-22.4%
Y/Y change	8.2%	20.1%	32.4%	-22.1%
Total percentage		31.6%	41.2%	27.2%

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).

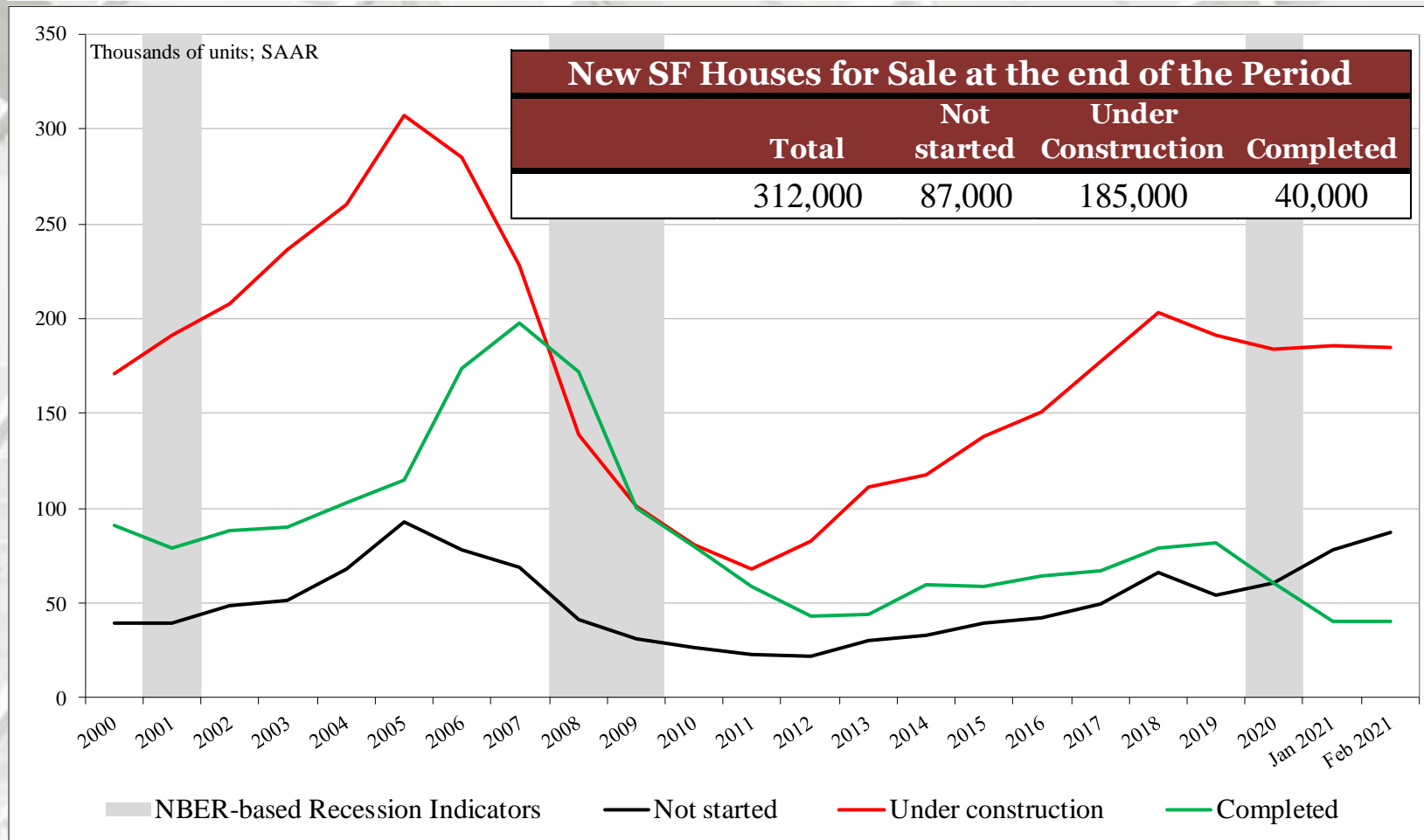
# New SF Houses for Sale at End of Period

## New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
February	312,000	87,000	185,000	40,000
January	304,000	78,000	186,000	41,000
2020	327,000	53,000	197,000	41,000
M/M change	2.6%	11.5%	-0.5%	-2.4%
Y/Y change	-4.6%	64.2%	-6.1%	-2.4%
Total percentage		27.9%	59.3%	12.8%

Of houses listed for sale (312m) in February, 12.8% (40m) have been built. Lastly, 87m (27.9%) were offerings in which the ground has not been broken for construction.

# New SF House Sales: For Sale at End of Period



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

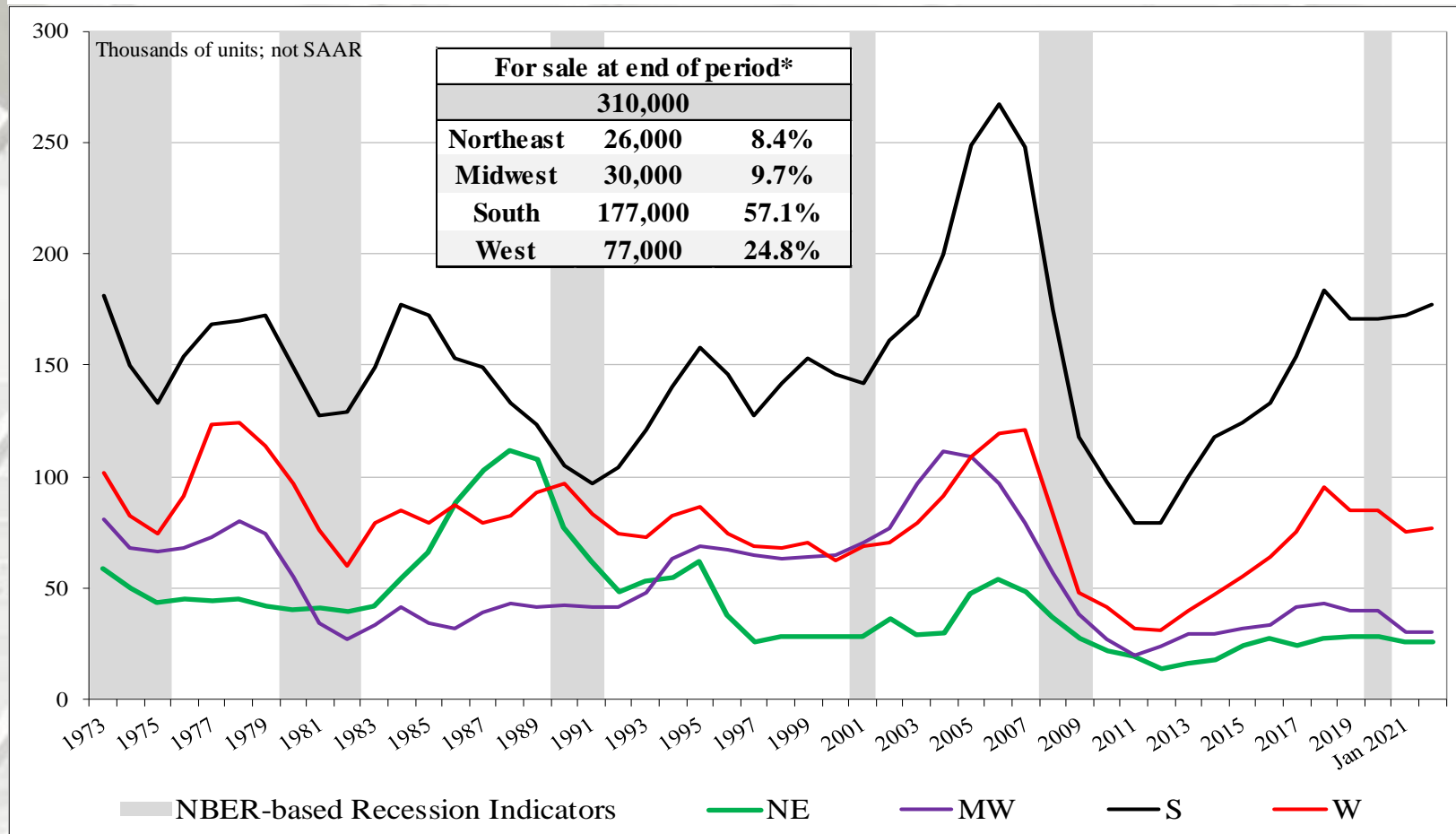
# New SF House Sales

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

	Total	NE	MW	S	W
February	310,000	26,000	30,000	177,000	77,000
January	302,000	26,000	30,000	172,000	75,000
2020	326,000	26,000	37,000	178,000	84,000
M/M change	2.6%	0.0%	0.0%	2.9%	2.7%
Y/Y change	-4.9%	0.0%	-18.9%	-0.6%	-8.3%

\* Not SAAR

# New SF Houses for Sale at End of Period by Region



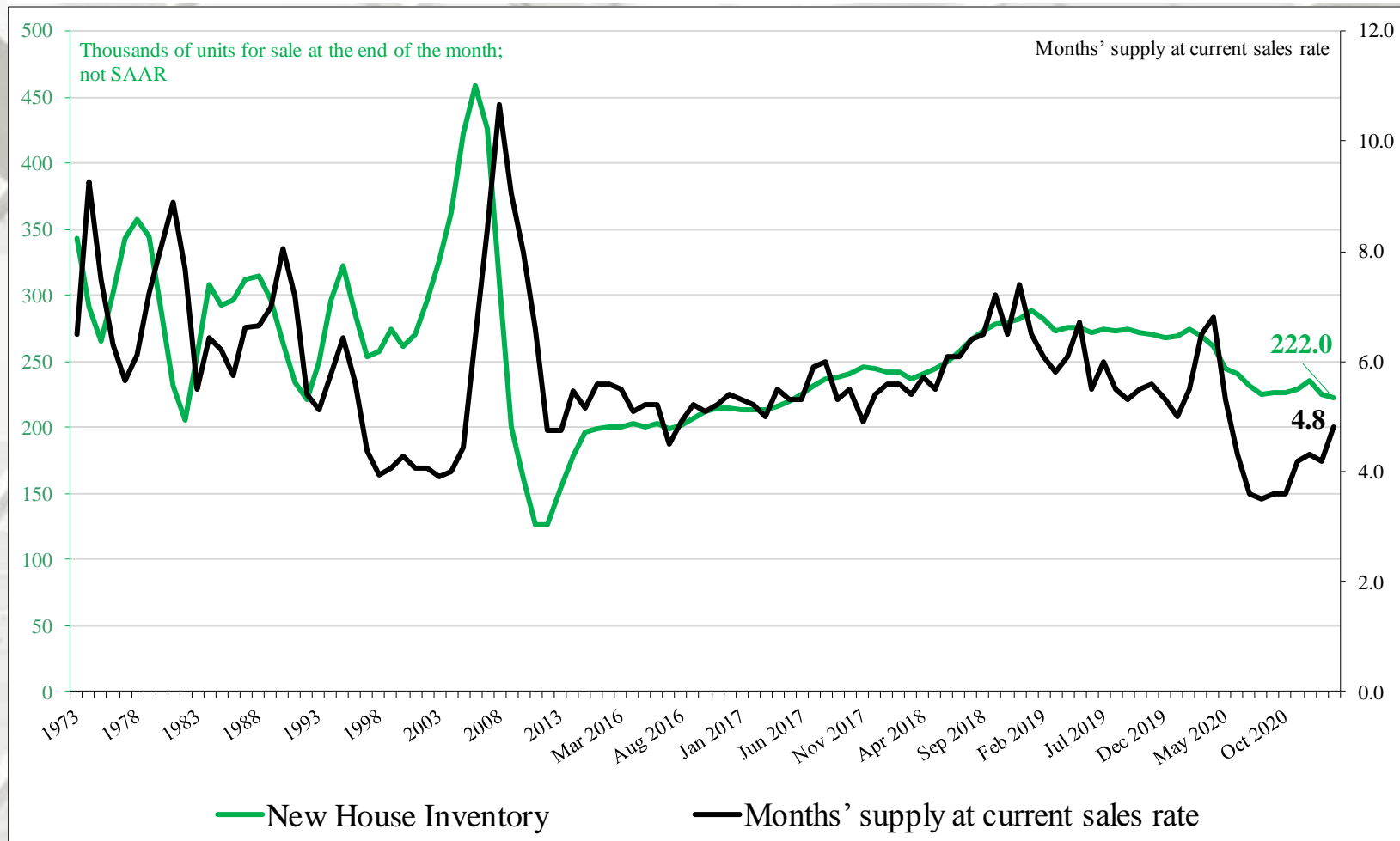
NE = Northeast; MW = Midwest; S = South; W = West

\* 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).



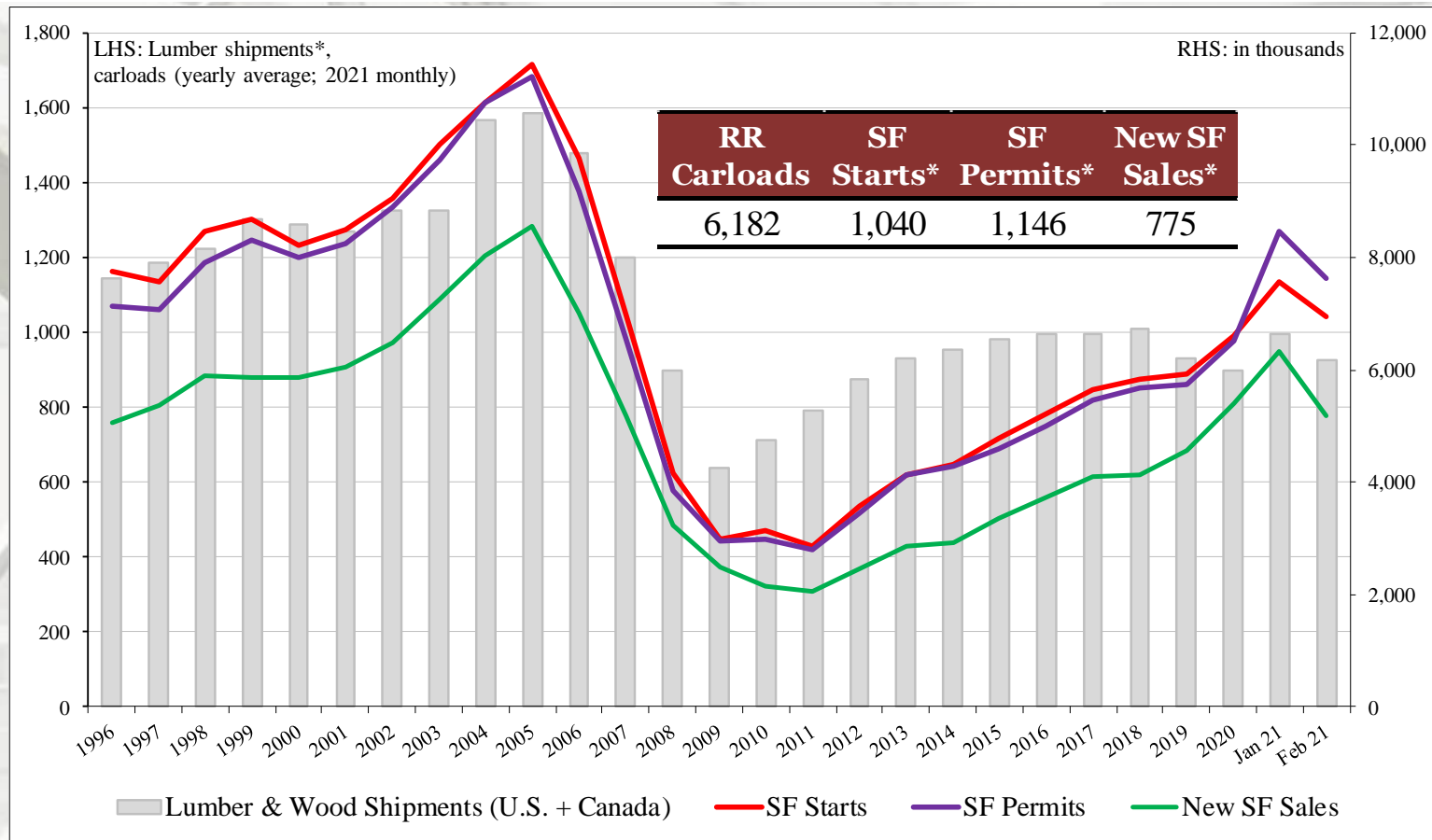
# Months' Supply and New House Inventory<sup>a</sup>



<sup>a</sup> New HUC + New House Completions (sales data only)

The months supply of new houses for sale was 4.8 months in February.

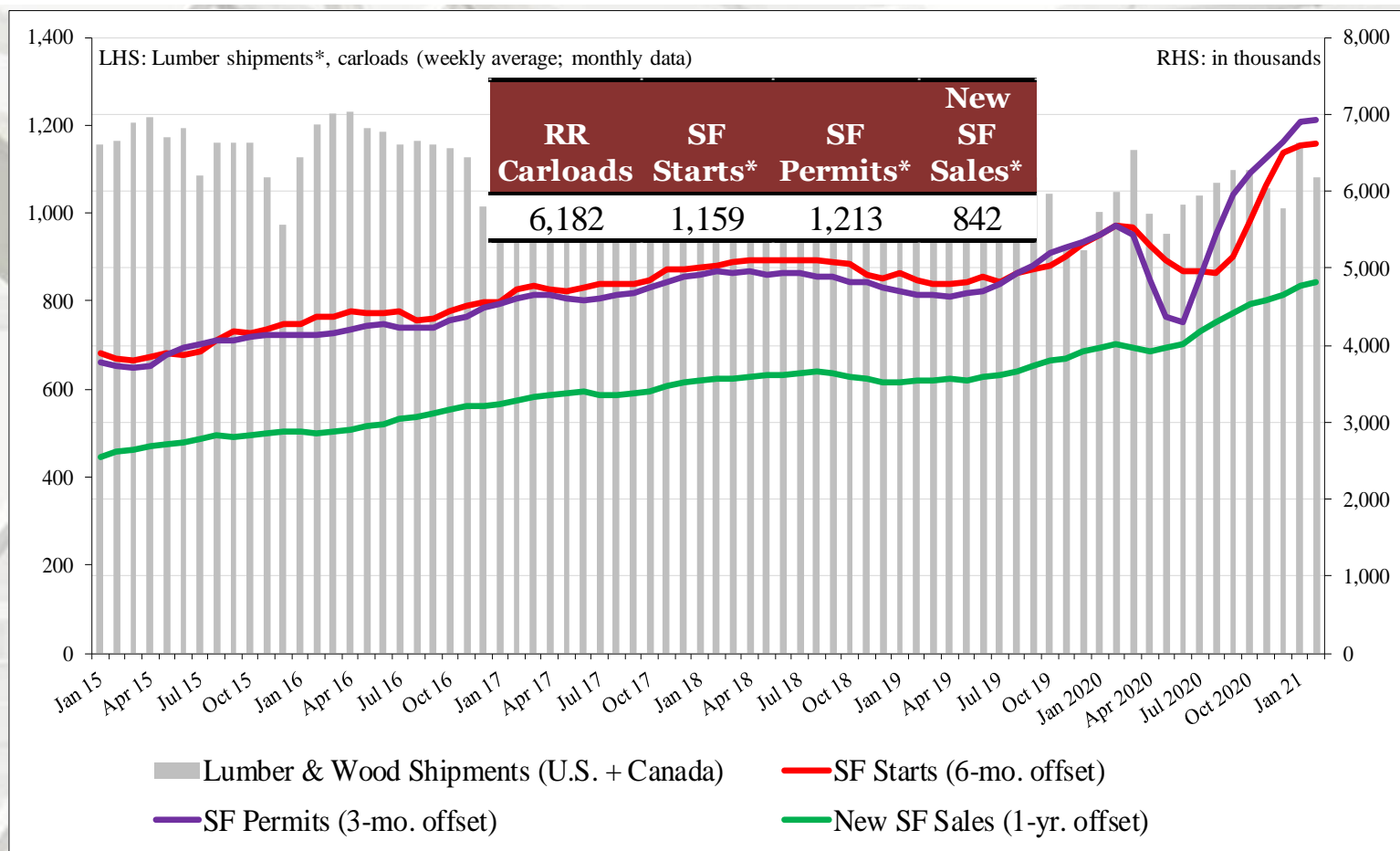
# U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



Carloads of Canadian + U.S. lumber and wood shipments to the U.S. are contrasted above to U.S. housing metrics. Annual SF starts, SF Permits, and New sales are compared to carload lumber and wood shipments. The intent is to learn if lumber shipments relate to future SF starts, SF permits, and new SF sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available. Note that 2021 data is on a monthly basis.

\* In thousands

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



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

\* In thousands

# February 2021

## Construction Spending

	Total Private Residential*	SF	MF	Improvement**
February	\$717,912	\$376,794	\$93,156	\$247,962
January	\$719,300	\$376,450	\$94,473	\$248,377
2020	\$592,960	\$311,537	\$81,292	\$200,131
M/M change	-0.2%	0.1%	-1.4%	-0.2%
Y/Y change	21.1%	20.9%	14.6%	23.9%

\* billions.

\*\* 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.

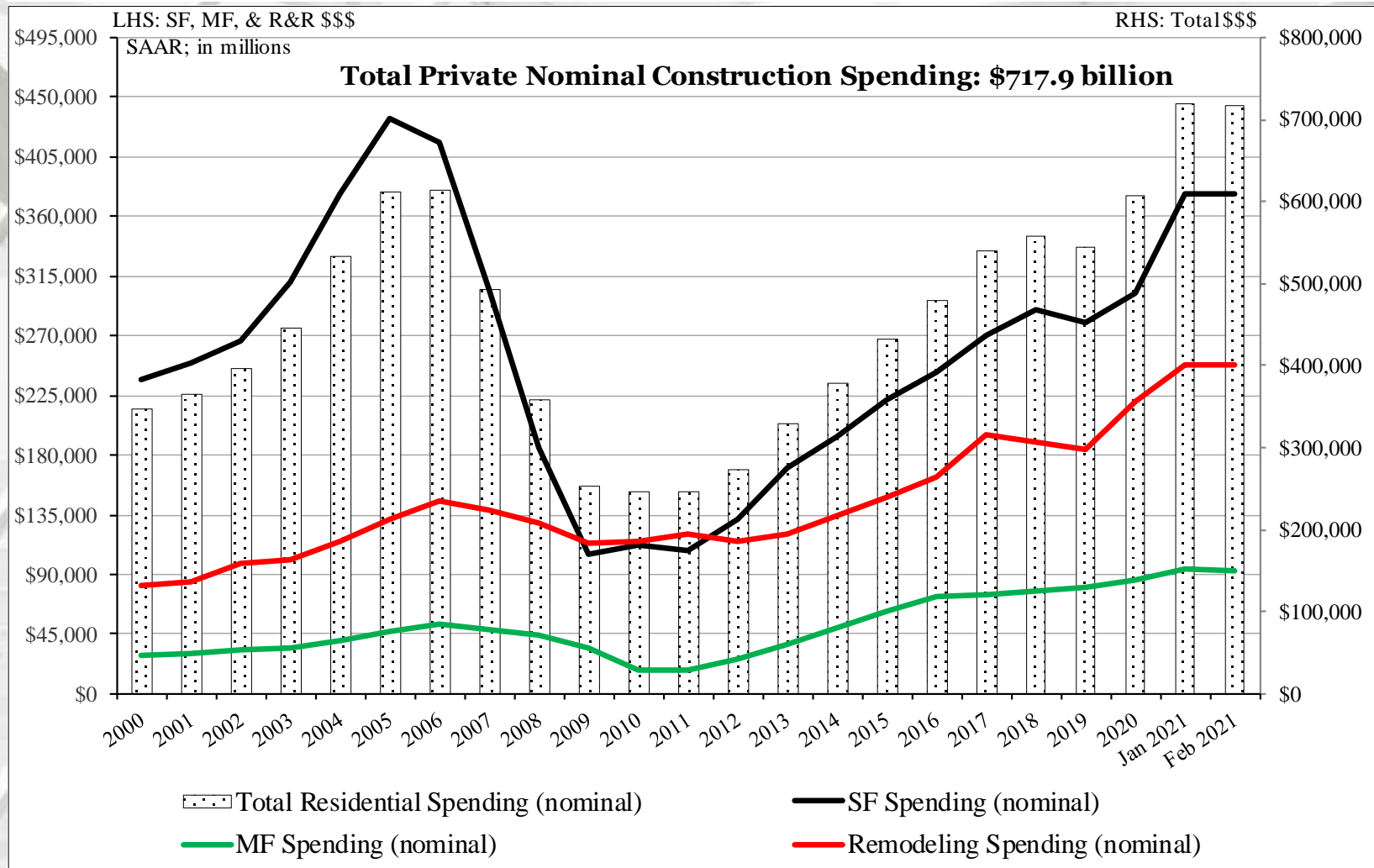
New single-family: new houses and town houses built to be sold or rented and units built by the owner or for the owner on contract. The classification excludes residential units in buildings that are primarily nonresidential. It also excludes manufactured housing and houseboats.

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.

Source: <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 4/1/21

# Total Construction Spending (nominal): 2000 – February 2021

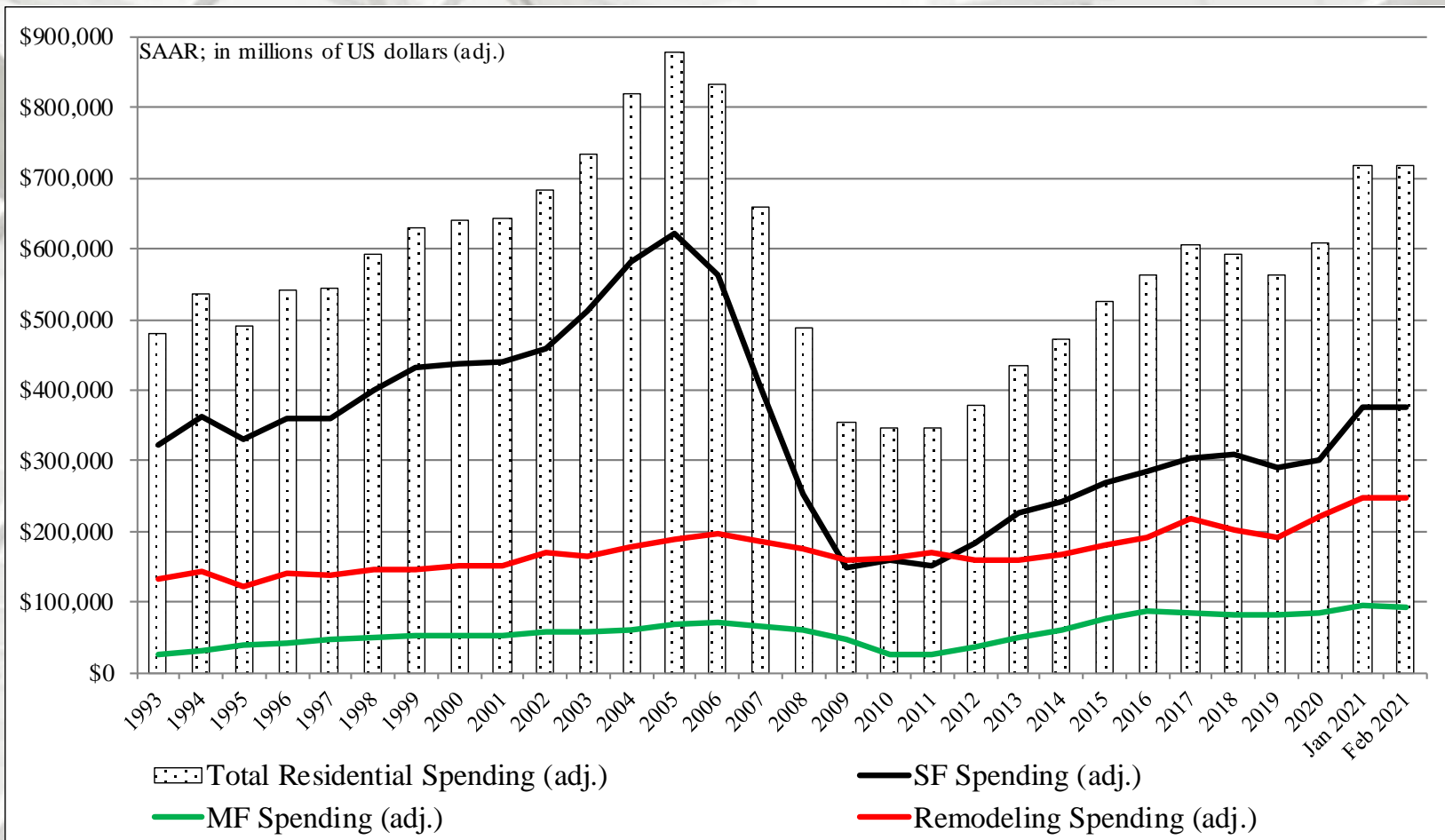


Reported in nominal US\$.

The US DOC does not report improvement spending directly, this is a monthly estimation for 2020.

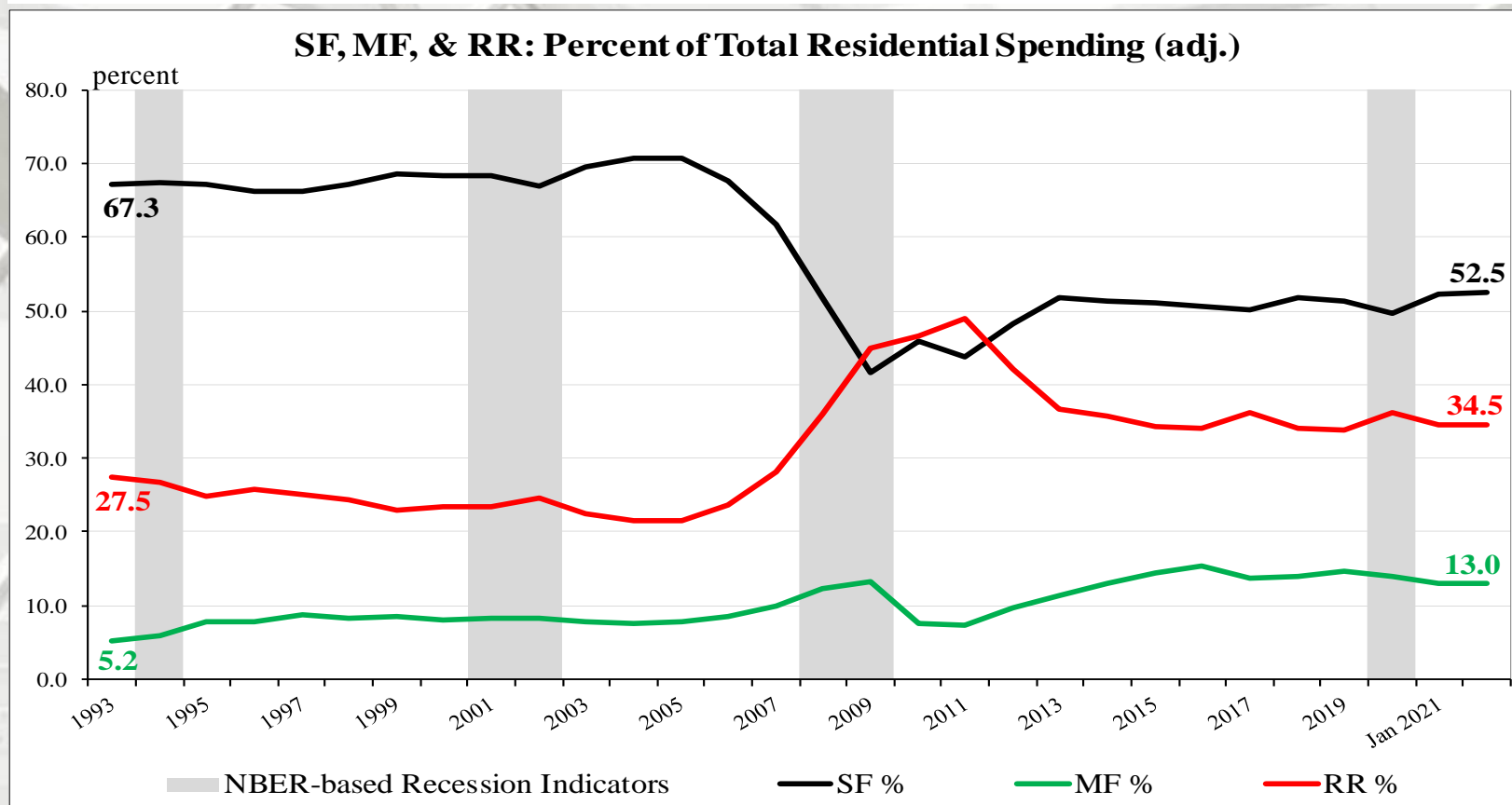


# Total Construction Spending (adjusted): 1993-February 2021



Reported in adjusted US\$: 1993 – 2020 (adjusted for inflation, BEA Table 1.1.9); February 2021 reported in nominal US\$.

# Construction Spending Shares: 1993 to February 2021



## Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

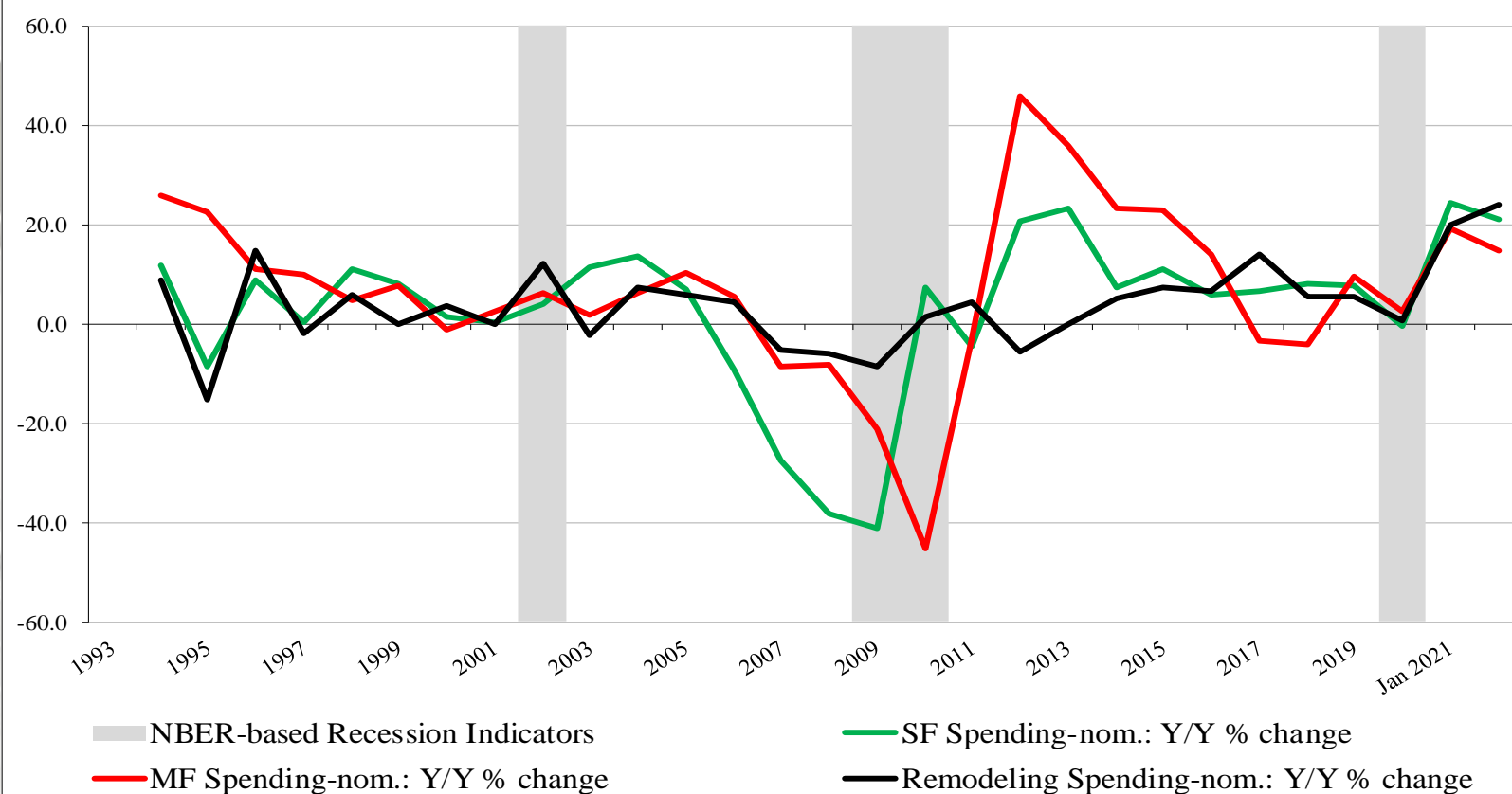
MF spending average: 7.5 %

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

Note: 1993 to 2020 (adjusted for inflation, BEA Table 1.1.9); February 2021 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).

# Adjusted Construction Spending: Y/Y Percentage Change, 1993 to February 2021



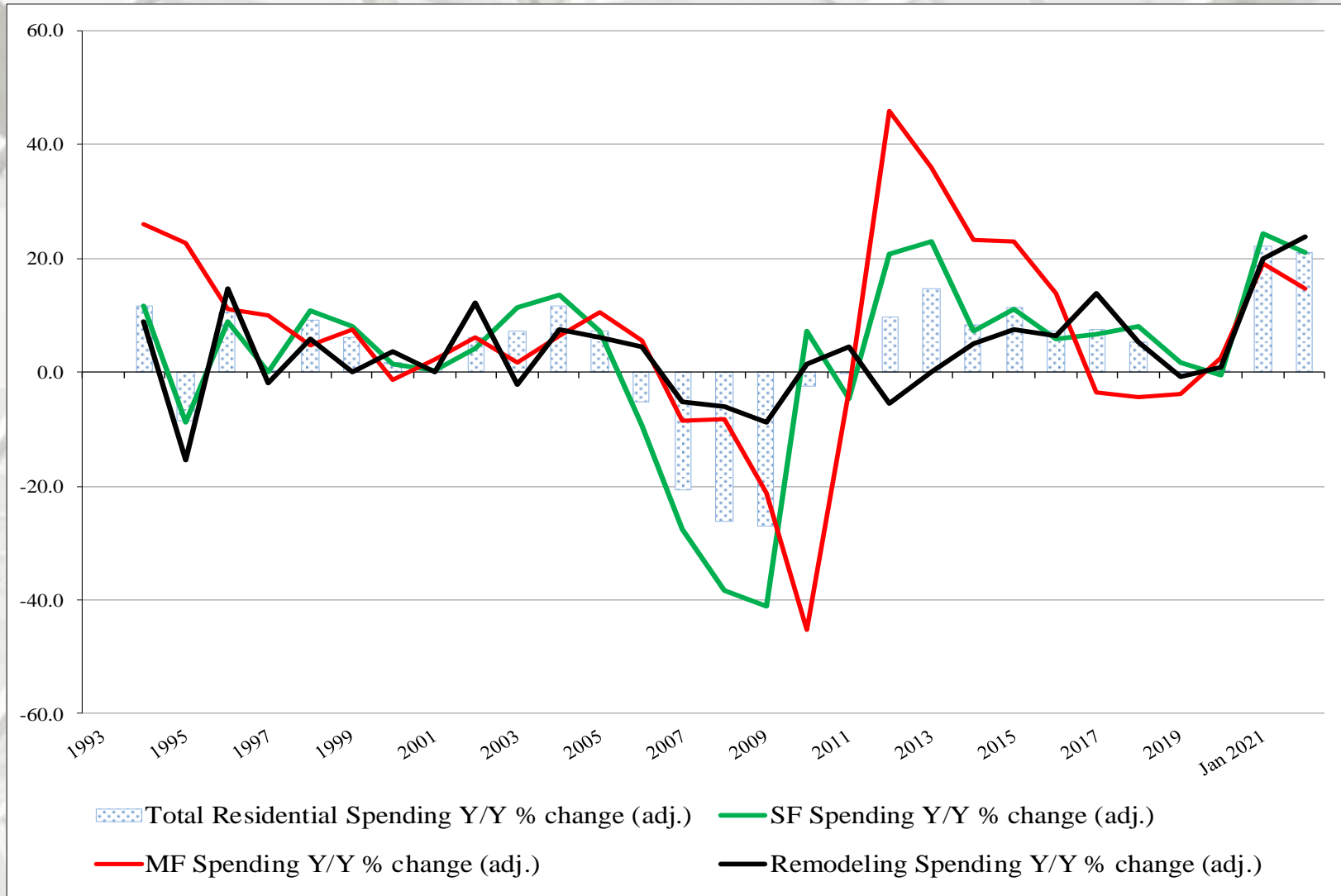
## Nominal Residential Construction Spending: Y/Y percentage change, 1993 to February 2021

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF, MF, and RR expenditures were positive on a percentage basis, year-over-year and month-over-month (February 2021 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).

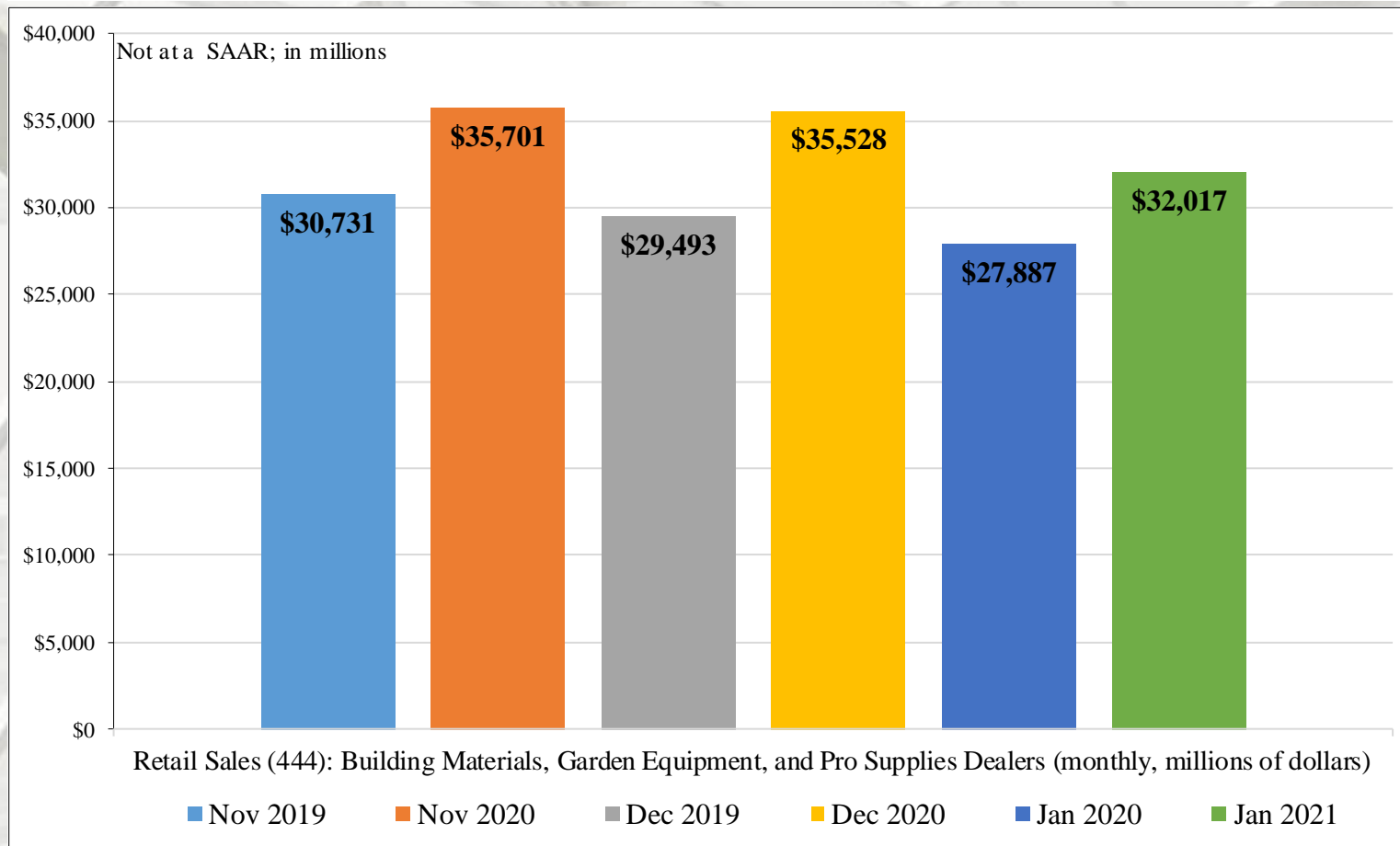
Sources: \* <https://fred.stlouisfed.org/series/USREC>, 3/1/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 4/1/21 and <http://www.bea.gov/iTable/iTable.cfm>; 3/1/21

# Adjusted Construction Spending: Y/Y Percentage Change, 1993 to February 2021



# Remodeling

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



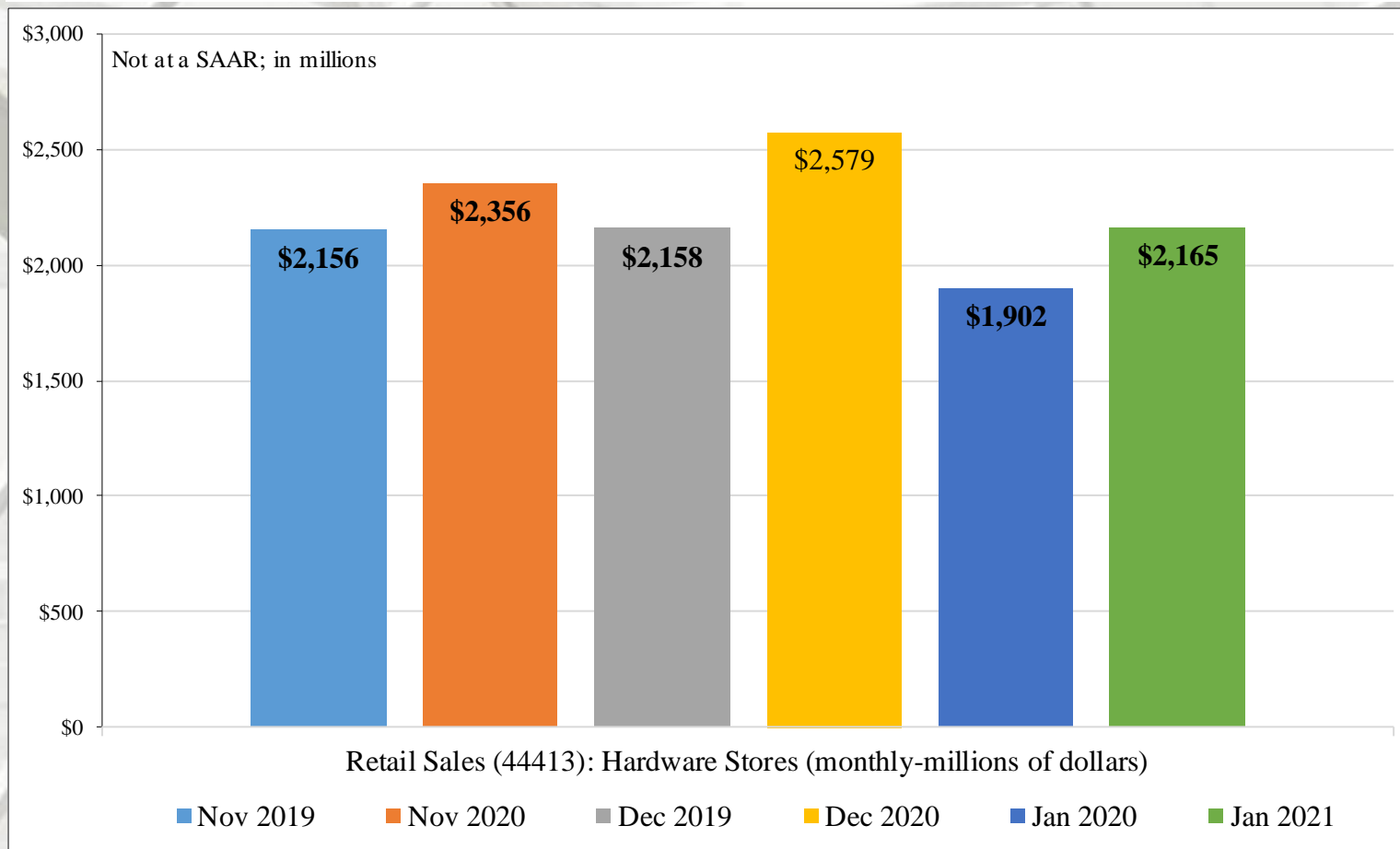
### Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 9.9% from December 2020 to January 2021 and improved 14.8% from December 2020 to January 2021 (on a non-adjusted basis).



# Remodeling

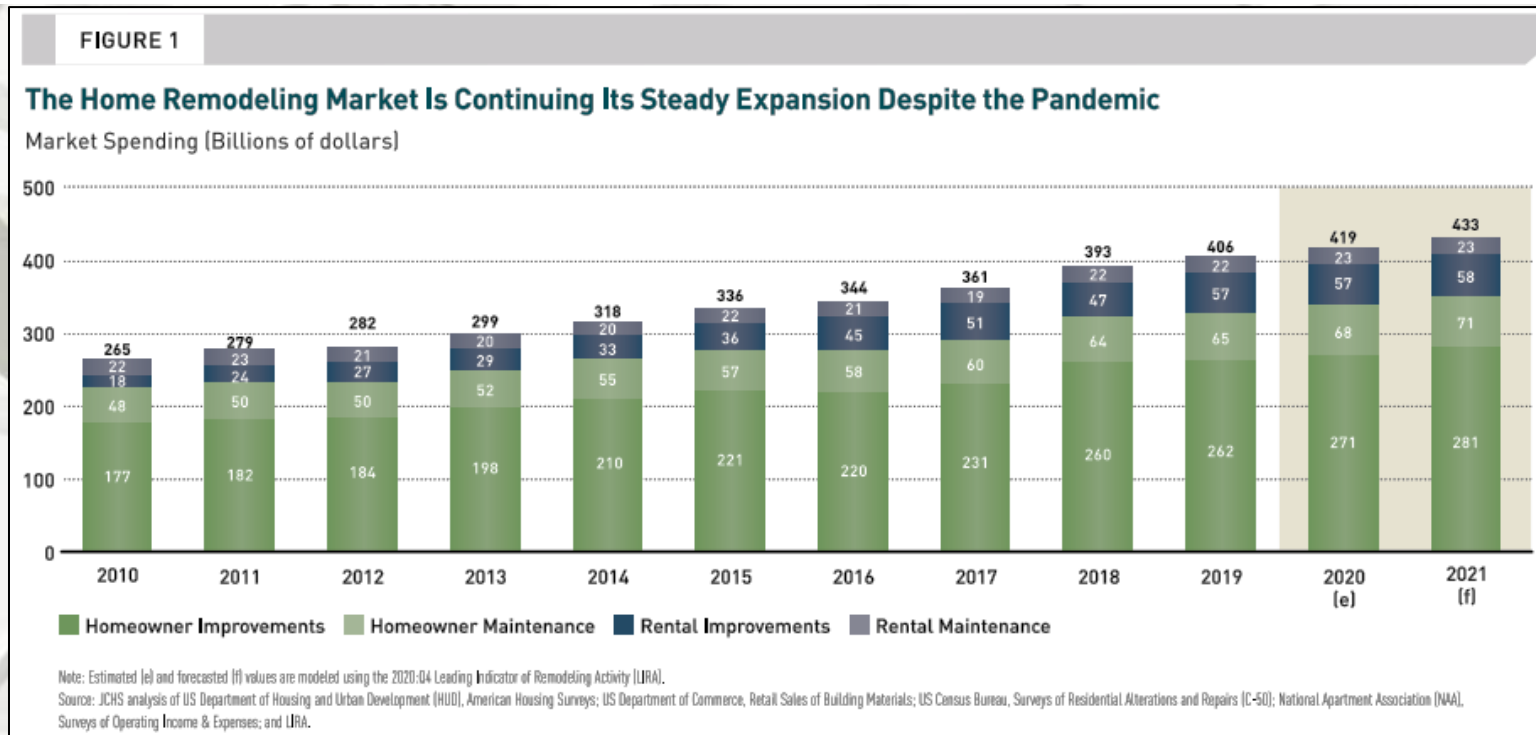
## Retail Sales: Hardware Stores



### Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 16.1% from December 2020 to January 2021 and improved 13.8% from December 2020 to January 2021 (on a non-adjusted basis).

# Remodeling

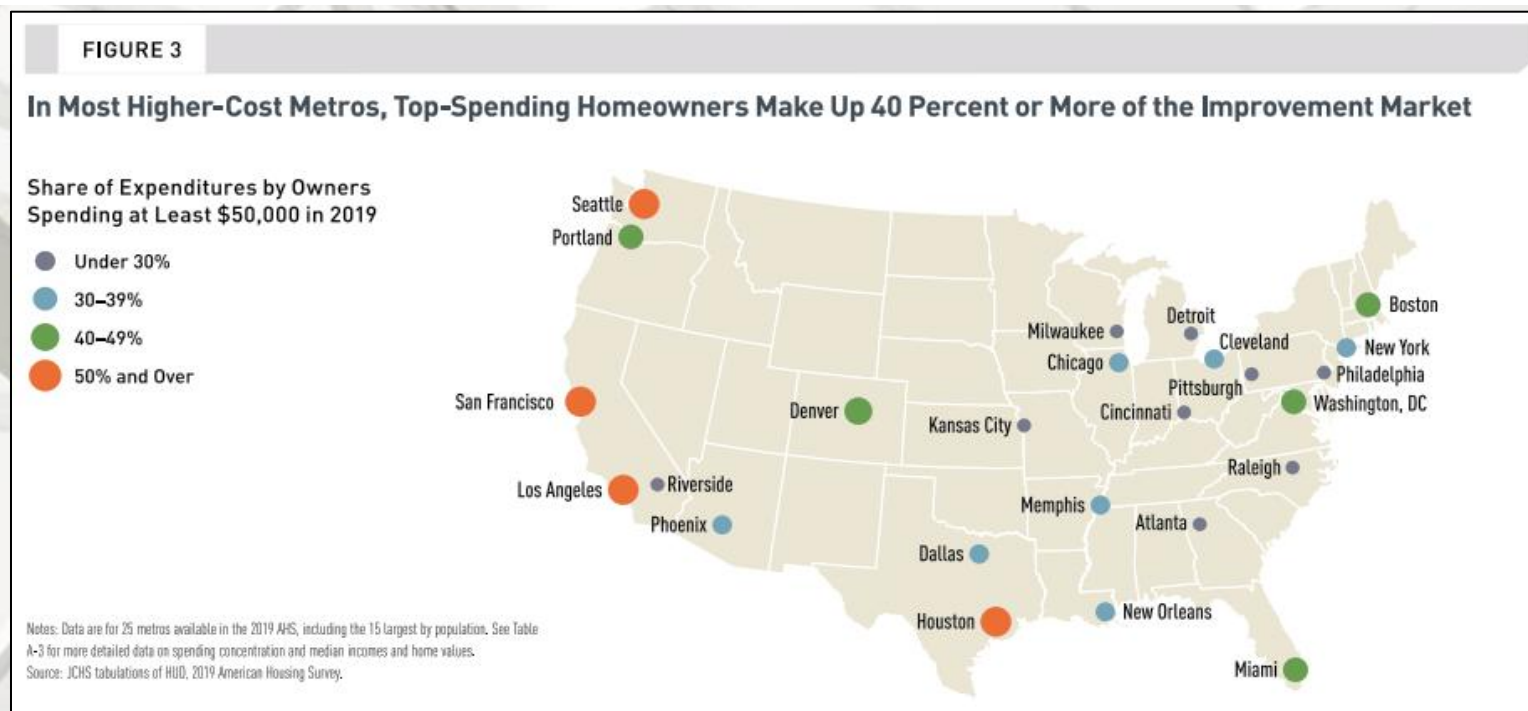


## Joint Center for Housing Studies of Harvard University Improving America's Housing 2021

“As 2020 began, the market for home improvements and repairs appeared poised for a year of modest gains. When the COVID-19 pandemic hit in March, however, the shutdown of nonessential activities brought progress on many professionally installed projects to a halt. But unlike the broader economy, the remodeling market bounced back quickly. Spending on improvements and repairs to owner-occupied and rental properties grew an estimated 3 percent in 2020, somewhat slower than the average annual pace in the previous decade but substantially faster than anticipated when the pandemic began.

The unexpected strength of the home remodeling market made 2020 the tenth consecutive year of expansion for the improvement industry (Figure 1). However, some of the sources and locations of spending growth departed from trends in the preceding decade.” – Joint Center For Housing Studies

# Remodeling



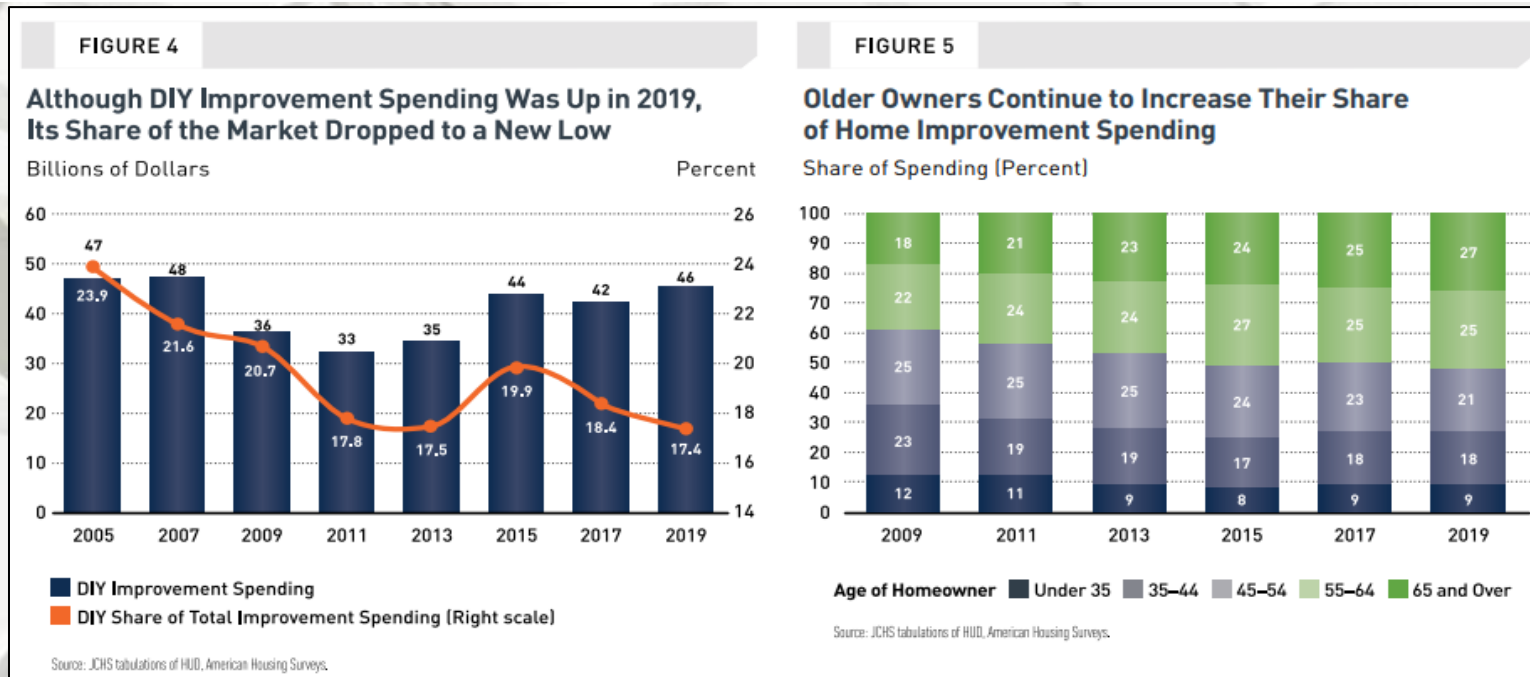
## Joint Center for Housing Studies of Harvard University

### Increase In High-Spending Households

“About 30 percent of homeowners (some 22 million households) reported at least one improvement project in 2019. While this overall proportion has held steady over time, the share of high-spending homeowners increased greatly over the 2010s. Indeed, homeowners spending \$50,000 or more on improvements accounted for about 39 percent of the market in 2019, up from less than 30 percent in 2011 after adjusting for inflation. Even so, top spenders made up an even larger share of the remodeling market from 2005 to 2007 during the height of the housing boom, when they contributed more than 45 percent of national expenditures. . . .

In 2019, homeowners spending \$50,000 or more contributed an especially large share of total expenditures in several markets with higher incomes and home values (Figure 3).” – Joint Center For Housing Studies

# Remodeling



## Joint Center for Housing Studies of Harvard University Persistent Decline In DIY Activity

“Nearly 4 in 10 home improvements in 2019 were do-it-yourself projects. Spending on DIY activity (which includes only the owner’s costs for materials) reached \$46 billion – fully 40 percent higher than in 2011. Nevertheless, expenditures on DIY projects continued to shrink as a share of total home improvement spending, falling from about 24 percent in 2005 to 21 percent in 2009 to a new low of 17 percent in 2019 (Figure 4).

The large share of replacements in the project mix explains part of this decline, given that most homeowners lack the skills to upgrade HVAC systems, replace roofing, or perform other specialized types of installations. Accordingly, DIY activity in 2019 accounted for only 12 percent of spending on exterior replacement projects and 16 percent of spending on home system upgrades – far lower than the 24 percent share for minor kitchen and bath remodels or 29 percent for landscaping improvements, for example.” – Joint Center For Housing Studies



# Remodeling

## **Joint Center for Housing Studies of Harvard University**

### **Persistent Decline In DIY Activity**

“The large and rapidly growing share of older homeowners is another factor. Some 55 percent of homeowners were at least age 55 in 2019, up from 44 percent in 2009 and 41 percent in 1999. Older owners consistently spend only about 15 percent of their home improvement dollars on DIY projects. However, the DIY share has also trended down across younger age groups, including owners under 35 – the group most likely to undertake improvement projects themselves. The share of spending by younger owners on DIY projects fell from about 33 percent on average between 1997 and 2007 to 24 percent in 2019. Similarly, middle-aged owners devoted 19 percent of their home improvement dollars to DIY projects in 2019, a drop from about 26 percent historically.

Among the 25 metros tracked by the 2019 American Housing Survey, the share of DIY activity was largest in a mix of both high- and low-cost markets such as Pittsburgh (22 percent), Seattle (22 percent), New Orleans (21 percent), Portland (21 percent), and Riverside (21 percent). In contrast, the metros with the lowest shares of spending on DIY projects (less than 13 percent) were mostly expensive housing markets, including Boston, Chicago, New York, San Francisco, and Washington, DC.

### **Growing Contribution Of Older Owners**

Homeowners age 55 and over spent nearly \$140 billion on remodeling projects in 2019, lifting their share of overall improvement spending from 40 percent in 2009 to 52 percent (Figure 5). Owners aged 55–64 accounted for 25 percent of national expenditures, while owners age 65 and over made up a slightly larger share of 27 percent. This concentration of spending reflects the large increase in the number of older owners with the aging of the massive baby-boom generation into their mid-50s to mid-70s, as well as a jump in real outlays per older owner from \$2,500 in 2009 to \$3,100 in 2019.” – Joint Center For Housing Studies



# Remodeling

## Joint Center for Housing Studies of Harvard University

### Growing Contribution Of Older Owners

“Major metro areas where homeowners age 55 and over make up especially large shares of the remodeling market include Memphis (59 percent) and Los Angeles (56 percent). In contrast, older owners account for less than 43 percent of home improvement expenditures in Atlanta and Chicago.

Homeowners age 55 and over – who are much more likely to live in older units and to have longer occupancies – thus devote a somewhat larger share of their improvement dollars (48 percent) to replacing home components and upgrading systems than homeowners under age 55 (44 percent). Conversely, they spend a smaller share of their budgets (27 percent) on discretionary projects than younger homeowners (32 percent). In addition, older homeowners focus somewhat less on making outside property improvements (14 percent) than younger owners (16 percent).

Between 2015 and 2019, nearly 6 million owners age 55 and over reported at least one improvement project intended to make their homes more accessible for people with limited mobility, such as those using a wheelchair or a walker. In 2019 alone, another 2.4 million older owners reported that they had plans in the next two years to remodel their homes to improve accessibility.

As it is, most of the US housing stock lacks basic accessibility features such as a bedroom and full bathroom on the entry level or extra-wide hallways and doors. At last measure in 2011, just 3.5 percent of owner-occupied homes included all of these features. Even in 2019, fully a quarter of older owner households with at least one person using a mobility device rated their home’s layout and features as between “not at all supportive” (1 on a 5-point scale) and “somewhat supportive” (3 on a 5-point scale) of their accessibility needs. ...” – Joint Center For Housing Studies

# Existing House Sales

**National Association of Realtors**

**February 2021 sales: 6.220 thousand**

	<b>Existing Sales</b>	<b>Median Price</b>	<b>Mean Price</b>	<b>Month's Supply</b>
February	6,220,000	\$313,000	\$344,200	2.0
January	6,660,000	\$303,600	\$337,800	1.9
2020	5,700,000	\$270,400	\$305,800	3.1
M/M change	-6.6%	3.1%	1.9%	5.3%
Y/Y change	9.1%	15.8%	12.6%	-35.5%

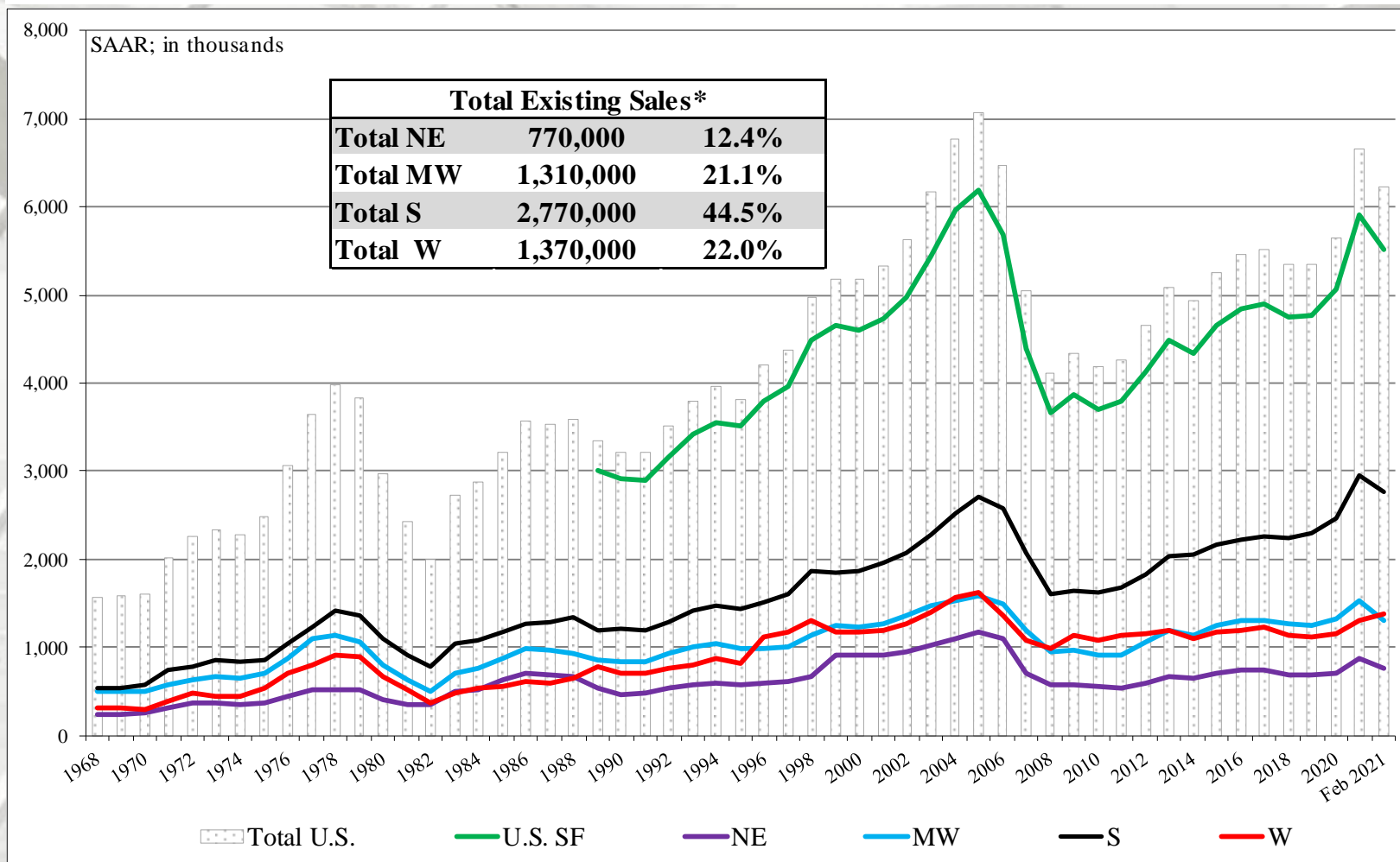
All sales data: SAAR

# Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price	
February	5,520,000	\$317,100	\$347,100	
January	5,910,000	\$308,000	\$341,300	
2020	5,110,000	\$272,800	\$307,000	
M/M change	-6.6%	3.1%	1.7%	
Y/Y change	8.0%	16.2%	13.1%	
	NE	MW	S	W
February	770,000	1,310,000	2,770,000	1,370,000
January	870,000	1,530,000	2,950,000	1,310,000
2020	680,000	1,280,000	2,520,000	1,220,000
M/M change	-11.5%	-14.4%	-6.1%	4.6%
Y/Y change	13.2%	2.3%	9.9%	12.3%

All sales data: SAAR.

# Existing House Sales



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

\* Percentage of total existing sales.



# U.S. Housing Prices

## Federal Housing Finance Agency

### FHFA House Price Index Up 1.0 Percent in January; Up 12.0 Percent from Last Year

#### Significant Findings

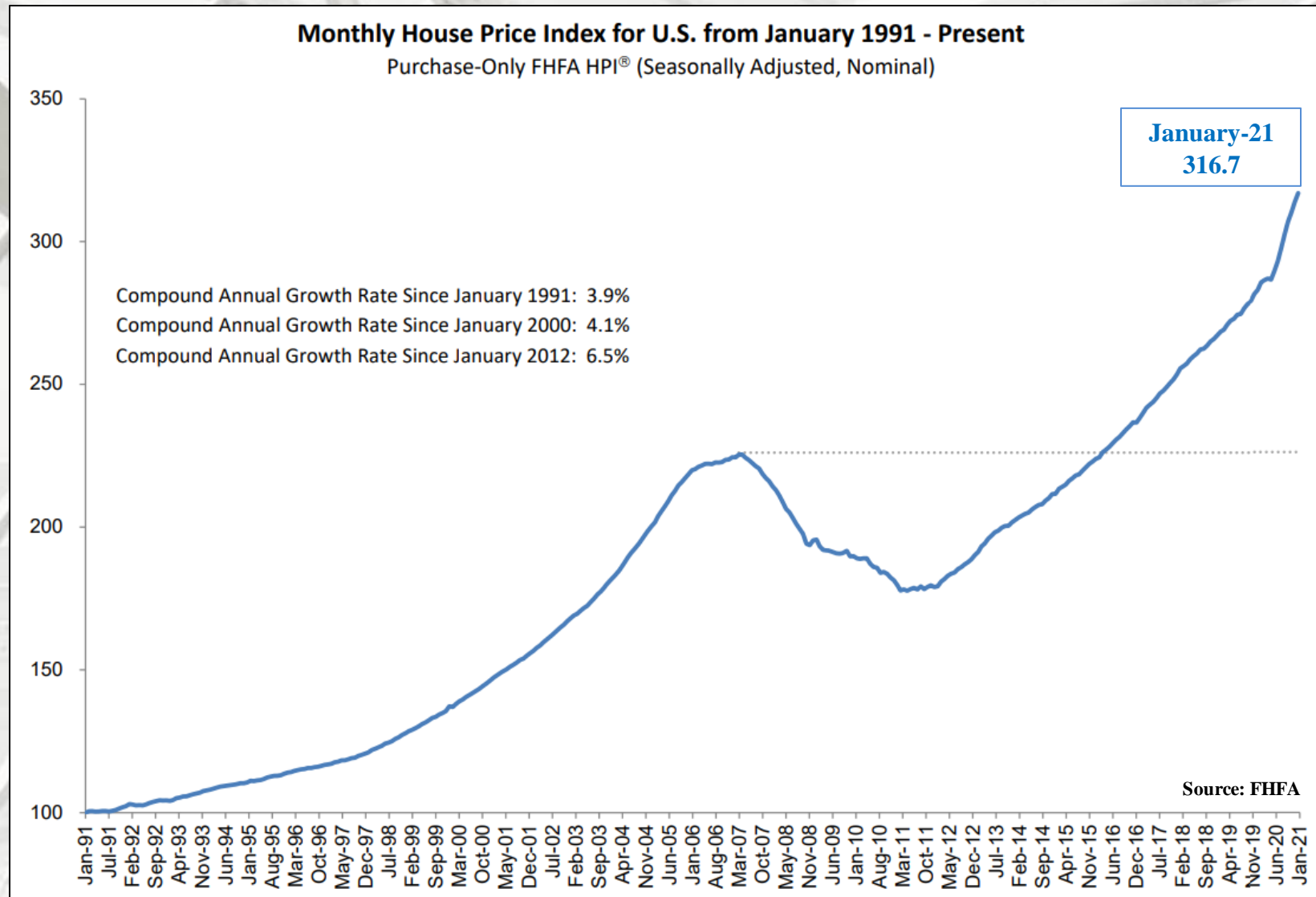
“House prices rose nationwide in January, up **1.0 percent** from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **12.0 percent** from January 2020 to January 2021. The previously reported 1.1 percent price change for December 2020 was revised upward to 1.2 percent.

For the nine census divisions, seasonally adjusted monthly house price changes from December 2020 to January 2021 ranged from **-0.2 percent** in the East South Central division to **+1.5 percent** in the Mountain division. The 12-month changes ranged from **+10.2 percent** in the West South Central division to **+14.8 percent** in the Mountain division.” – Raffi Williams and Adam Russell, FHFA

“While house prices experienced historic growth rates in 2020 and into the new year, the monthly gains appear to be moderating. House prices increased by 1.0 percent in January, which is relatively still high, but represents the smallest month-over-month gain since June 2020.” – Dr. Lynn Fisher, Deputy Director of the Division of Research and Statistics, FHFA



# U.S. Housing Prices



# U.S. Housing Prices

## **S&P CoreLogic Case-Shiller Index Reports 11.2% Annual Home Price Gain To Start 2021**

“Data for January 2021 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](http://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 an 11.2% annual gain in January, up from 10.4% in the previous month. The 10-City Composite annual increase came in at 10.9%, up from 9.9% in the previous month. The 20-City Composite posted an 11.1% year-over-year gain, up from 10.2% in the previous month. Phoenix, Seattle, and San Diego continued to report the highest year-over-year gains among the 20 cities in January.

Phoenix led the way with a 15.8% year-over-year price increase, followed by Seattle with a 14.3% increase and San Diego with a 14.2% increase. All 20 cities reported higher price increases in the year ending January 2021 versus the year ending December 2020.” – 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 Month-Over-Month

“Before seasonal adjustment, the U.S. National Index posted a 0.8% month-over-month increase, while the 10-City and 20-City Composites both posted increases of 0.8% and 0.9% respectively in January. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.2%, and the 10-City and 20-City Composites both posted increases of 1.2% as well. In January, 19 of 20 cities reported increases before seasonal adjustment, and all 20 cities reported increases after seasonal adjustment.

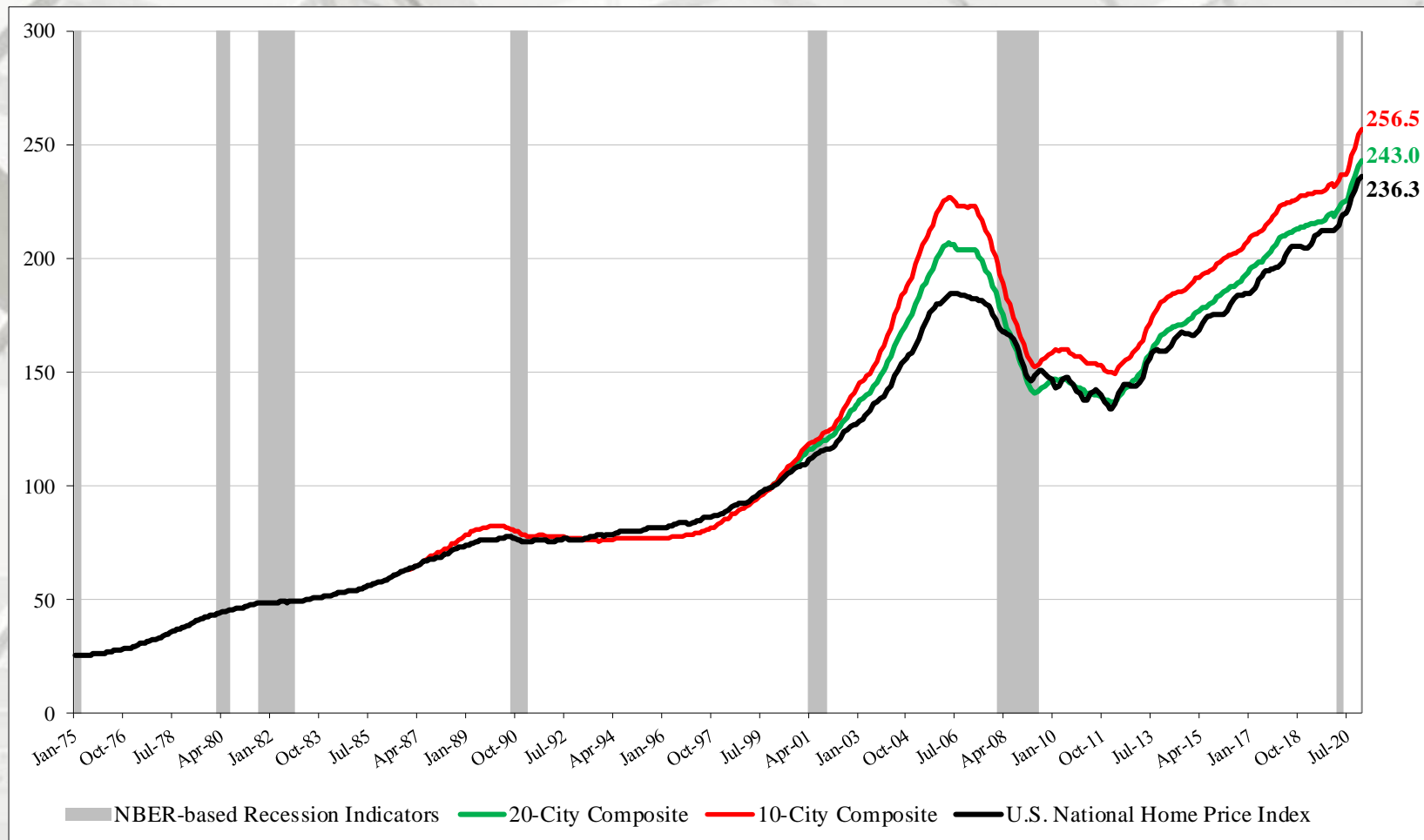
### Analysis

“The strong price gains that we observed in the last half of 2020 continued into the first month of the new year. In January 2021, the National Composite Index rose by 11.2% compared to its year-ago levels. The trend of accelerating prices that began in June 2020 has now reached its eighth month and is also reflected in the 10- and 20-City Composites (up 10.9% and 11.1%, respectively). The market’s strength is broadly-based: all 20 cities rose, and all 20 cities gained more in the 12 months ended in January 2021 than they had gained in the 12 months ended in December 2020.

January’s performance is particularly impressive in historical context. The National Composite’s 11.2% gain is the highest recorded since February 2006, just one month shy of 15 years ago. In more than 30 years of S&P CoreLogic Case-Shiller data, January’s year-over-year change is comfortably in the top decile. That strength is reflected across all 20 cities. January’s price gains in every city are above that city’s median level, and rank in the top quartile of all reports in 18 cities.

Phoenix’s 15.8% increase led all cities for the 20th consecutive month, with Seattle (+14.3%) and San Diego (+14.2%) close behind. Although prices were strongest in the West (+11.7%), gains were impressive in every region.” – Craig Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

# S&P/Case-Shiller Home Price Indices

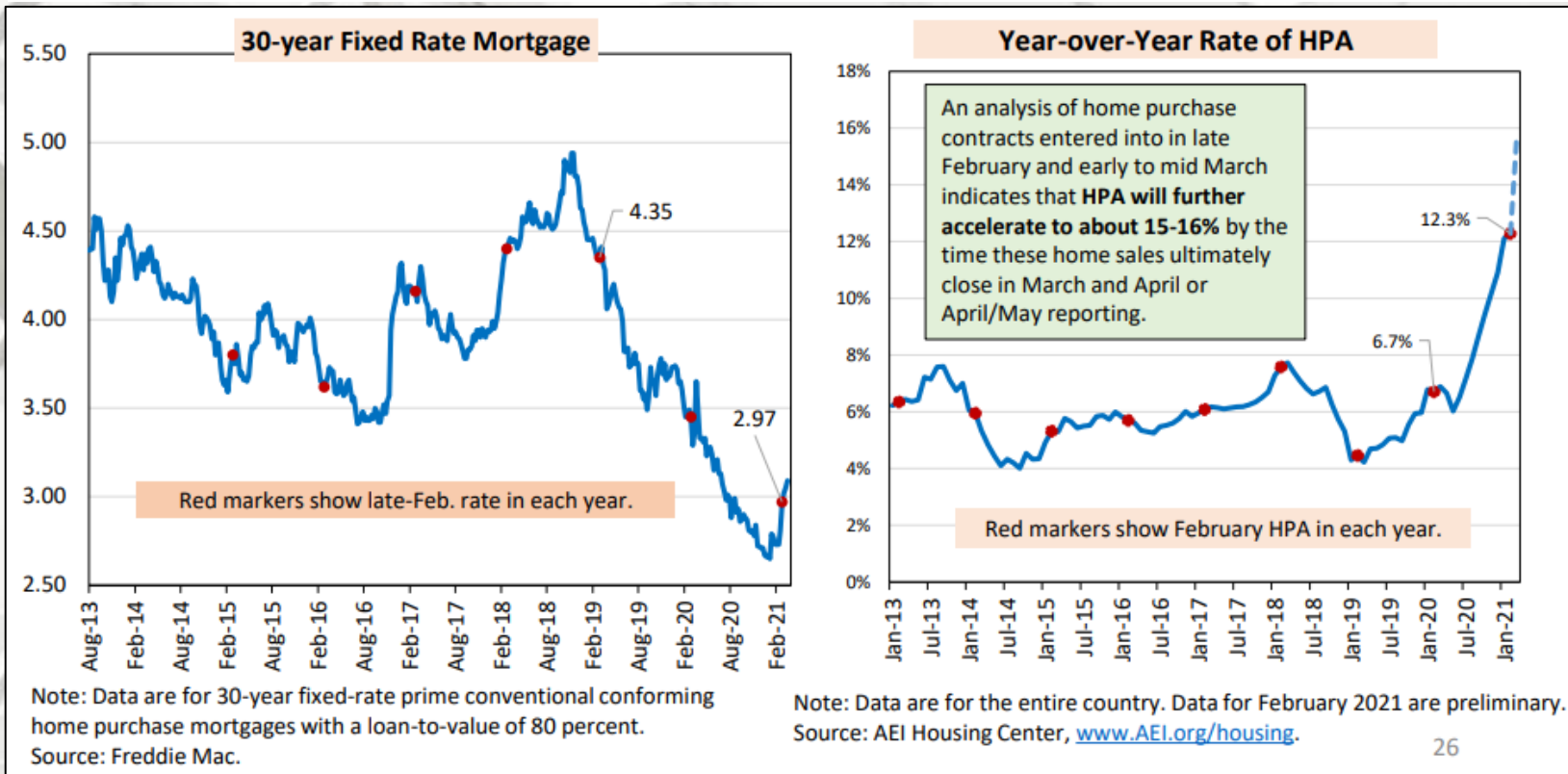


\* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

“January’s data remain consistent with the view that COVID has encouraged potential buyers to move from urban apartments to suburban homes. This demand may represent buyers who accelerated purchases that would have happened anyway over the next several years. Alternatively, there may have been a secular change in preferences, leading to a shift in the demand curve for housing. Future data will be required to analyze this question.” – Craig Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices



# U.S. Housing Prices



## AEI Housing Center

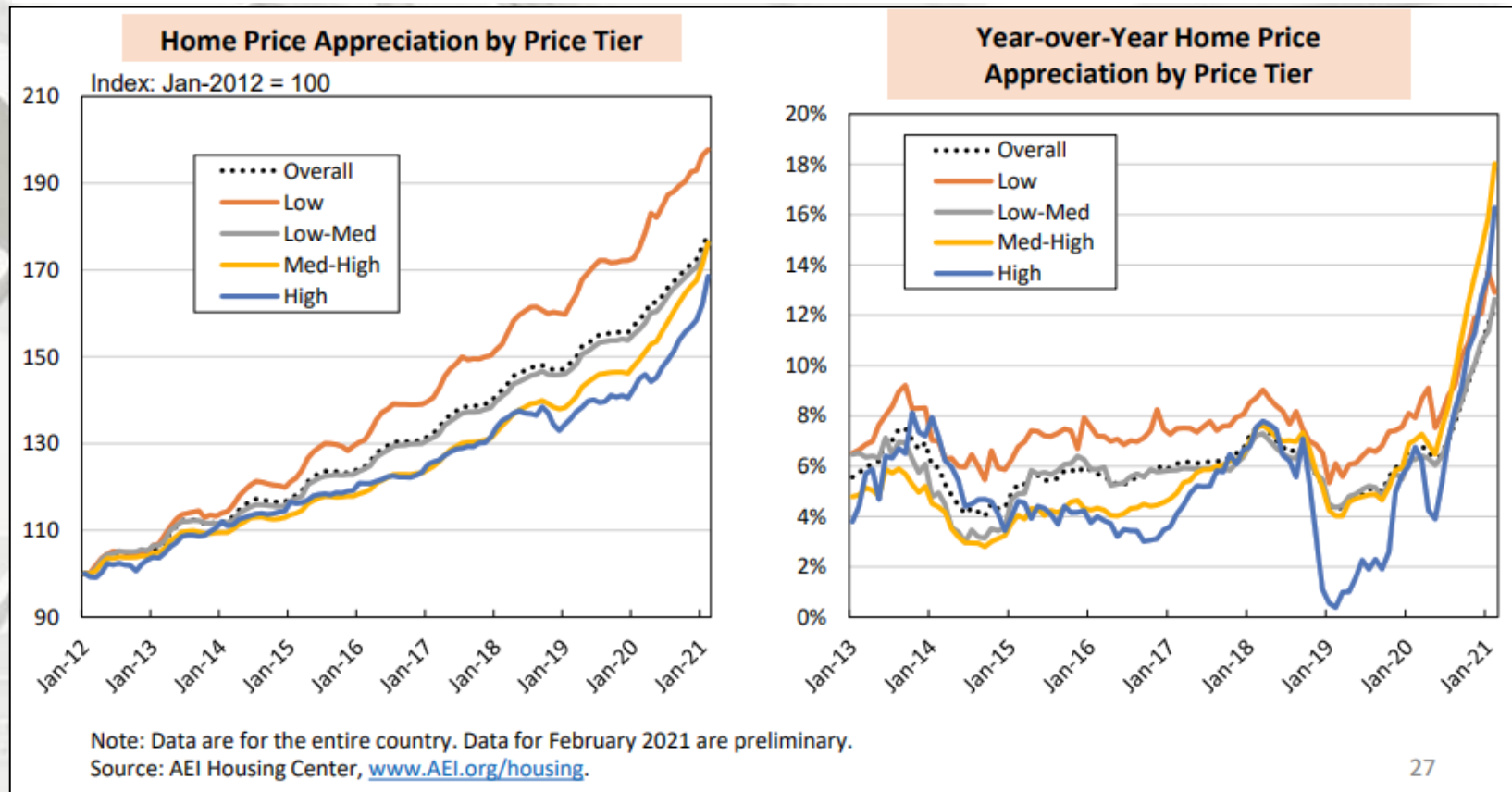
### The Fed's Monetary Punchbowl Is Fueling Rampant Home Price Appreciation

“Attendees at our July 29, 2020 briefing were the first to learn that HPA was quickly accelerating and heading to the low double digits late in 2020. Preliminary national rate of HPA for February 2021 was 12.3%, up from 6.7% a year ago and the fourth month near or at the low double digits, nationally, HPA has ticked up again due to lower mortgage rates. After having increased by 116 basis points from September 2017 to early November 2018, rates have since declined by 213 basis points. Optimal Blue data indicate that the rate of HPA will further accelerate to 15-16% by May/June reporting time.” –

Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center



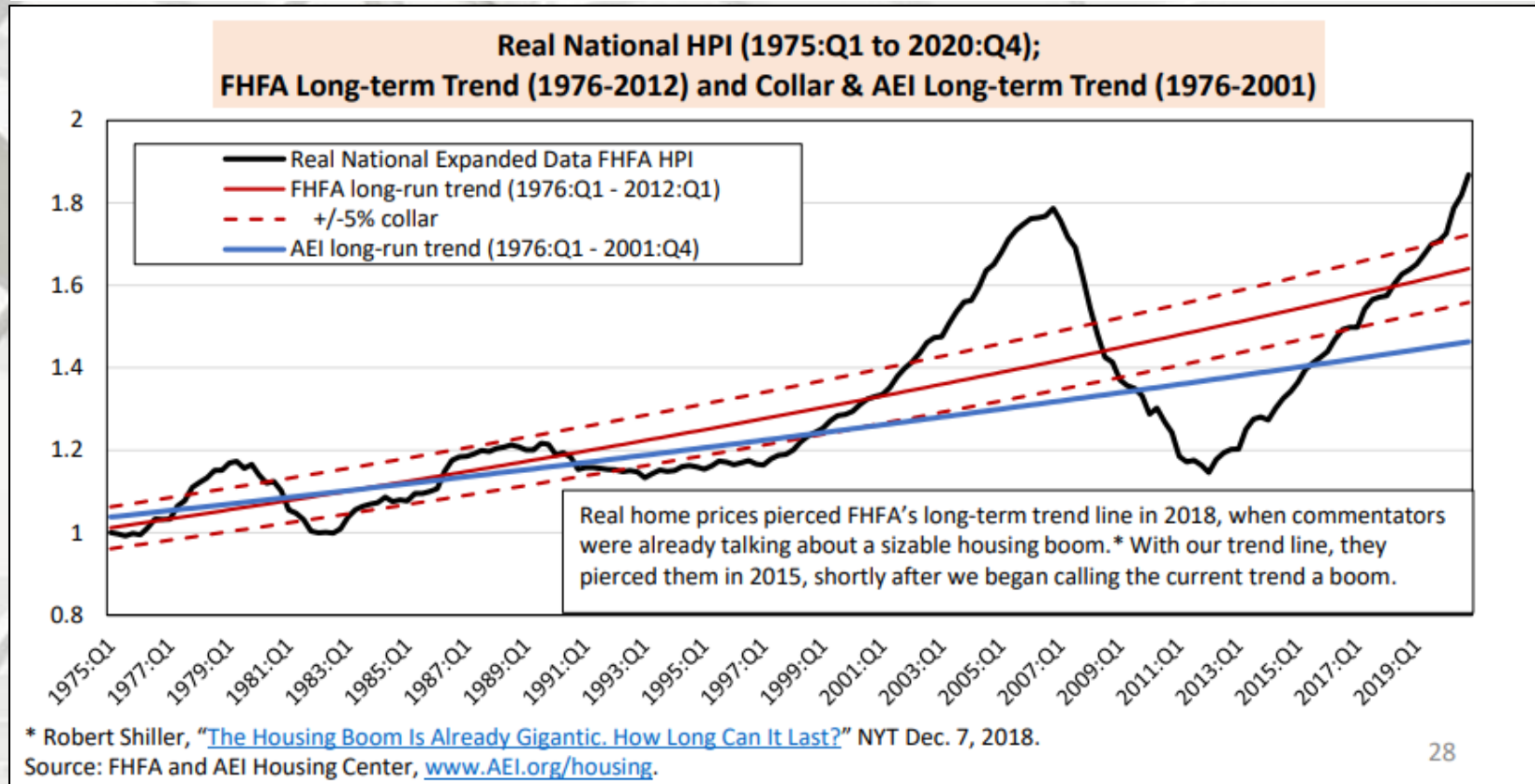
# U.S. Housing Prices



## AEI Housing Center Home Price Appreciation by Price Tier

“Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for February 2021 indicate that the low-price tier continued to have strong HPA, although the med-high and high price tiers, which are more dependent on the monetary punch bowl, are showing the strongest rates of appreciation. This is a trend reversal, since historically the low-price tier has shown the fastest y-o-y HPA.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

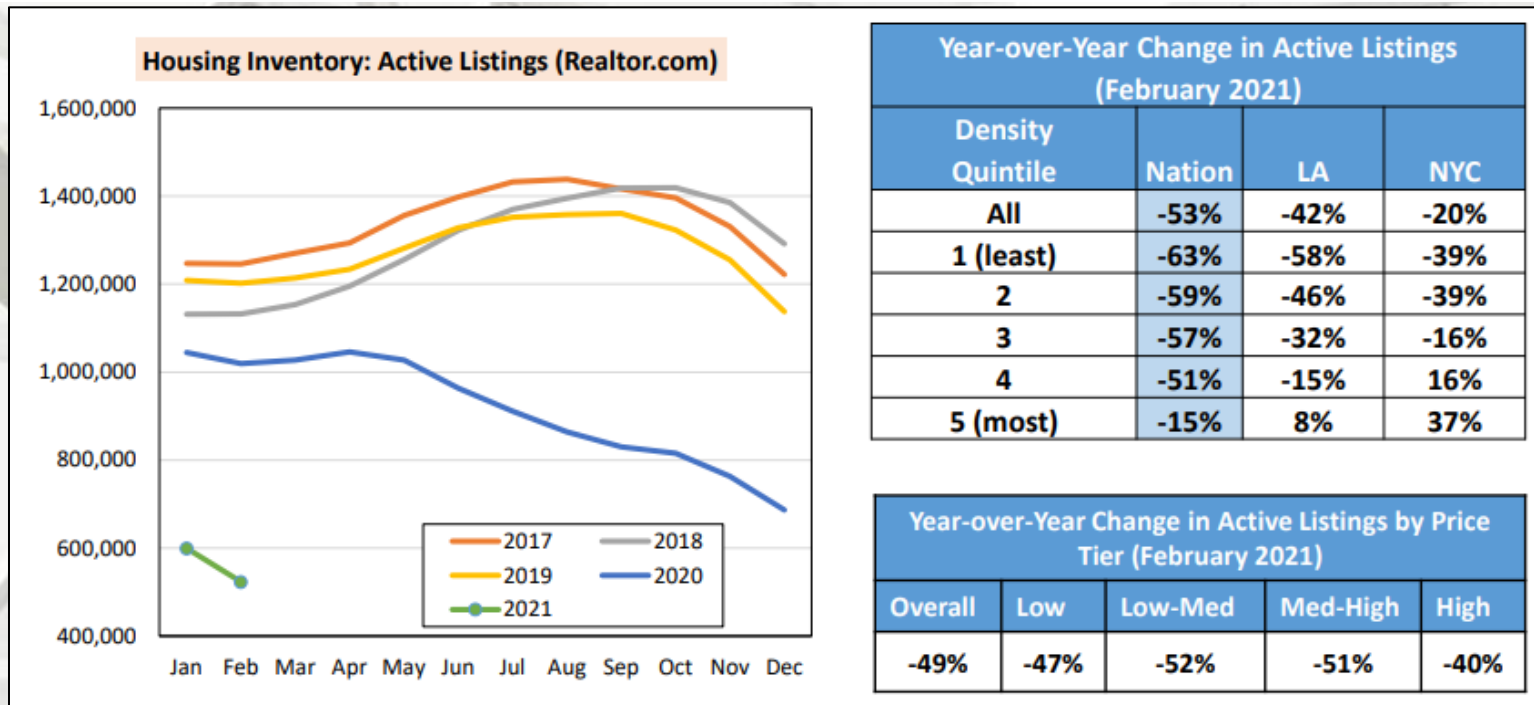
# U.S. Housing Prices



## AEI Housing Center Long-Term Home Price Trends

"FHFA's Capital Rule from November 2020 created a countercyclical adjustment to risk based capital requirements based on a **long-term trend** of home prices and a symmetric 5% collar above and below it. At the time of the rule's release, FHFA noted that home prices were 10% above their long-term trend. As of year end 2020, they were 14% above and are expected to increase significantly in 2021. Using our **preferred trend line**, which ends in 2001 and therefore excludes the 2002-2006 boom, home prices were already 28 percent above their long-term trend at year end 2020." – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

# U.S. Housing Supply

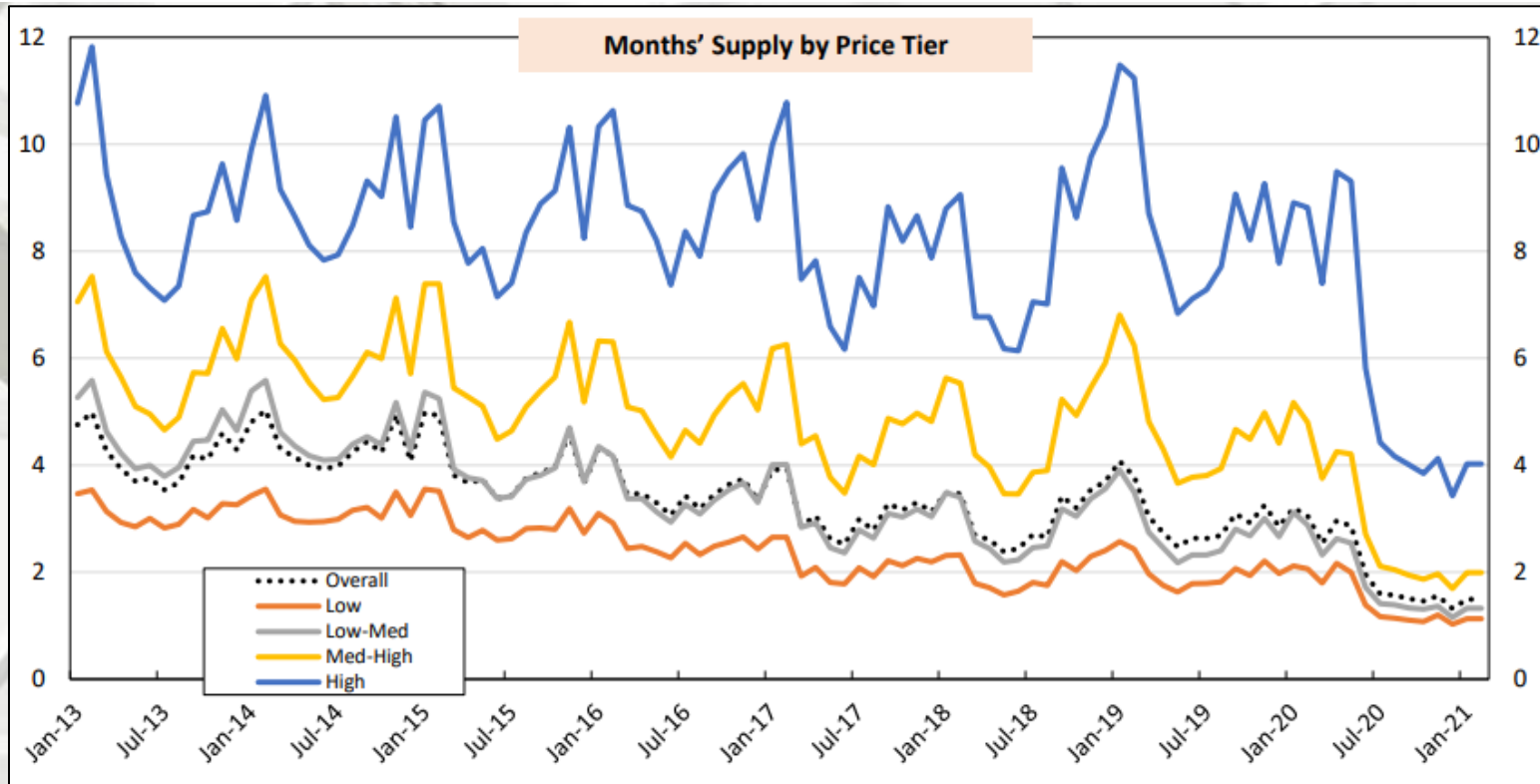


Sources: Realtor.com, Census Bureau, and AEI Housing Center, [www.AEI.org/housing](http://www.AEI.org/housing).

## AEI Housing Center Supply Is Being Depleted

“Supply has fallen dramatically in 2020 and is most depleted in less dense areas. For the foreseeable future, it will be difficult to replenish or add to supply: (i) baby boomers are tending to stay put more, (ii) it takes time to acquire land, entitle, and build new construction even in places like North Carolina and Texas, (iii) adding supply will face the usual difficulties in the Northeast and much of the West, & (iv) new construction supply has fallen from 5.0 months in February 2020 to 4.8 months (SA) in February 2021.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

# 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](http://www.AEI.org/housing).

## AEI Housing Center Months' Supply by Price Tiers

“Starting with June 2020, months' supply started to drop precipitously across all price tiers. In February 2021, overall months' supply stood at 1.5 months. While supply remains lowest in the low (1.1 months) and low-med tiers (1.3 months), the drop in the med-high and high price tiers are especially noteworthy. The high tier has fallen from 8.8 months in February 2020 to 4.0 months in February 2021 and med-high tier has fallen from 4.8 to 2.0.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center



# U.S. Housing Market

## If You Sell a House These Days, the Buyer Might Be a Pension Fund

Yield-chasing investors are snapping up single-family homes, competing with ordinary Americans and driving up prices

“A bidding war broke out this winter at a new subdivision north of Houston. But the prize this time was the entire subdivision, not just a single suburban house, illustrating the rise of big investors as a potent new force in the U.S. housing market.

D.R. Horton Inc. built 124 houses in Conroe, Texas, rented them out and then put the whole community, Amber Pines at Fosters Ridge, on the block. A Who’s Who of investors and home-rental firms flocked to the December sale. The winning \$32 million bid came from an online property-investing platform, Fundrise LLC, which manages more than \$1 billion on behalf of about 150,000 individuals.

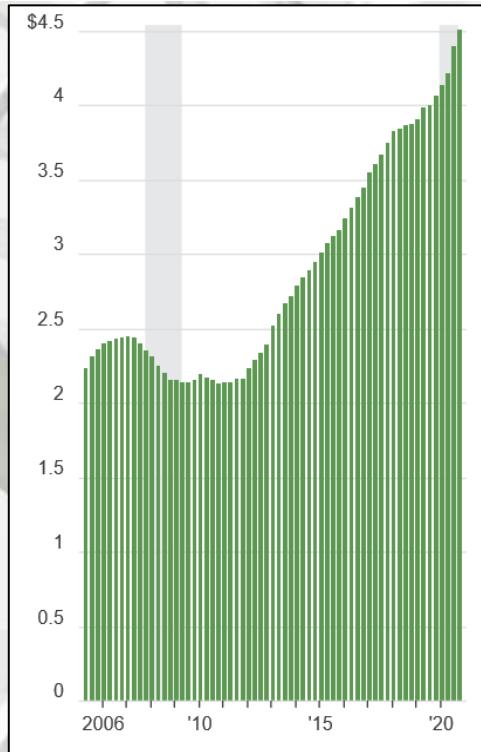
The country’s most prolific home builder booked roughly twice what it typically makes selling houses to the middle class – an encouraging debut in the business of selling entire neighborhoods to investors.

“We certainly wouldn’t expect every single-family community we sell to sell at a 50% gross margin,” the builder’s finance chief, Bill Wheat, said at a recent investor conference.

From individuals with smartphones and a few thousand dollars to pensions and [private-equity firms with billions](#), yield-chasing investors are snapping up single-family houses to rent out or flip. They are [competing for houses with ordinary Americans](#), who are armed with the cheapest mortgage financing ever, and [driving up home prices](#).” – Ryan Dezember, Reporter, *Wall Street Journal*



# U.S. Housing Market



Total value of U.S. rental homes

Source: John Burns Real Estate Consulting

## If You Sell a House These Days, the Buyer Might Be a Pension Fund

““You now have permanent capital competing with a young couple trying to buy a house,” said John Burns, whose eponymous real estate consulting firm estimates that in many of the nation’s top markets, roughly one in every five houses sold is bought by someone who never moves in. “That’s going to make U.S. housing permanently more expensive,” he said.

The consulting firm found Houston to be a favorite haunt of investors who have lately accounted for 24% of home purchases there. Investors’ slice of the housing market grows – as it does in other boomtowns, such as Miami, Phoenix and Las Vegas – among properties priced below \$300,000 and in decent school districts.” – Ryan Dezember, Reporter, *Wall Street Journal*

# U.S. Housing Market

## If You Sell a House These Days, the Buyer Might Be a Pension Fund

““Limited housing supply, low rates, a global reach for yield, and what we’re calling the institutionalization of real-estate investors has set the stage for another speculative investor-driven home price bubble,” the firm concluded.

The bubble has room to grow before it bursts, according to John Burns Real Estate Consulting. But it is inflating fast. The firm expects home prices to climb 12% this year – on top of last year’s 11% rise – [That boom was different](#), fueled by loose lending that enabled individuals to speculate on home prices by racking up mortgages they could repay only if home prices kept climbing. The money party ended a few years later when home prices stopped rising. The ensuing crash wiped out \$11 trillion in U.S. household wealth and brought the global financial system to the brink of collapse.

[That boom was different](#), fueled by loose lending that enabled individuals to speculate on home prices by racking up mortgages they could repay only if home prices kept climbing. The money party ended a few years later when home prices stopped rising. The ensuing crash wiped out \$11 trillion in U.S. household wealth and brought the global financial system to the brink of collapse.

Financiers stepped in starting in 2011 and [gobbled up foreclosed homes](#) at steep discounts. They dispatched buyers to courthouse auctions with duffel bags of cash. Smartphones and tablet computers – new then – enabled them to orchestrate the land grab and manage tens of thousands of far-flung properties thereafter.

They dominated the market for a few years, accounting for about a third of sales in some markets and setting a floor for falling prices. There wasn’t much competition. Stung by losses, banks made it harder for regular home buyers to get a mortgage. [Millions of Americans were underwater](#), owing more on their mortgages than their homes were worth, and unable to move.” – Ryan Dezember, Reporter, *Wall Street Journal*

# U.S. Housing Market



U.S. home prices, year-over-year growth

Source: John Burns Real Estate Consulting

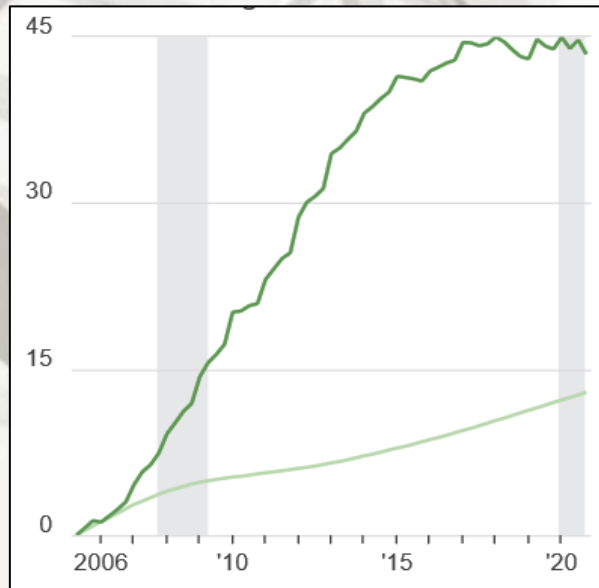
Note: Burns Home Value Index

## If You Sell a House These Days, the Buyer Might Be a Pension Fund

“Home-rental firms, including [Invitation Homes](#) Inc. and [American Homes 4 Rent](#), thrived. Renting suburban homes proved so profitable that landlords hit the open market and added properties at full price once foreclosures dried up. Many [now build houses explicitly to rent](#). The coronavirus pandemic sparked a race for home-office space and yards. Occupancy rates reached records and [rents are rising](#) with home prices. The ecosystem of companies that service, finance and mimic the mega landlords is booming.

Burns counted more than 200 companies and investment firms in the house hunt: computer-assisted flipper Opendoor Technologies Inc., money managers including J.P. Morgan Asset Management and BlackRock Inc., platforms such as Fundrise and Roofstock that buy and arrange for the management of rentals on behalf of individuals and builder LGI Homes Inc., which now reports wholesale home sales to bulk buyers in its quarterly results.” – Ryan Dezember, Reporter, *Wall Street Journal*

# U.S. Housing Market



Growth rate since summer 2005

- Single-family rental homes
- All U.S. housing units

Source: John Burns Real Estate Consulting

## If You Sell a House These Days, the Buyer Might Be a Pension Fund

“PCCP LLC, which typically invests in apartment buildings and office towers, said it bought rental-home communities in the Southeast, the start of a \$1 billion pact with Calstrs, California’s \$286.9 billion teachers’ retirement system.

Home builder Lennar Corp. announced a rental venture with investment firms including Centerbridge Partners LP and SE to which it and potentially other builders will supply more than \$4 billion of houses.

Madison Realty Capital moved into rentals with clients that used to focus on developing apartment buildings and owner-occupied subdivisions. On Thursday, it closed a \$110 million loan on a project in Los Angeles, where 220 of the nearly 700 home sites are being sold to investors. The original plans, derailed by the housing crash, didn’t envision any rentals.” – Ryan Dezember, Reporter, *Wall Street Journal*



# U.S. Housing Market

## **If You Sell a House These Days, the Buyer Might Be a Pension Fund**

““A lot of things that would have been for-sale housing are going to be for-rent housing,” said Josh Zegen, Madison’s managing principal.

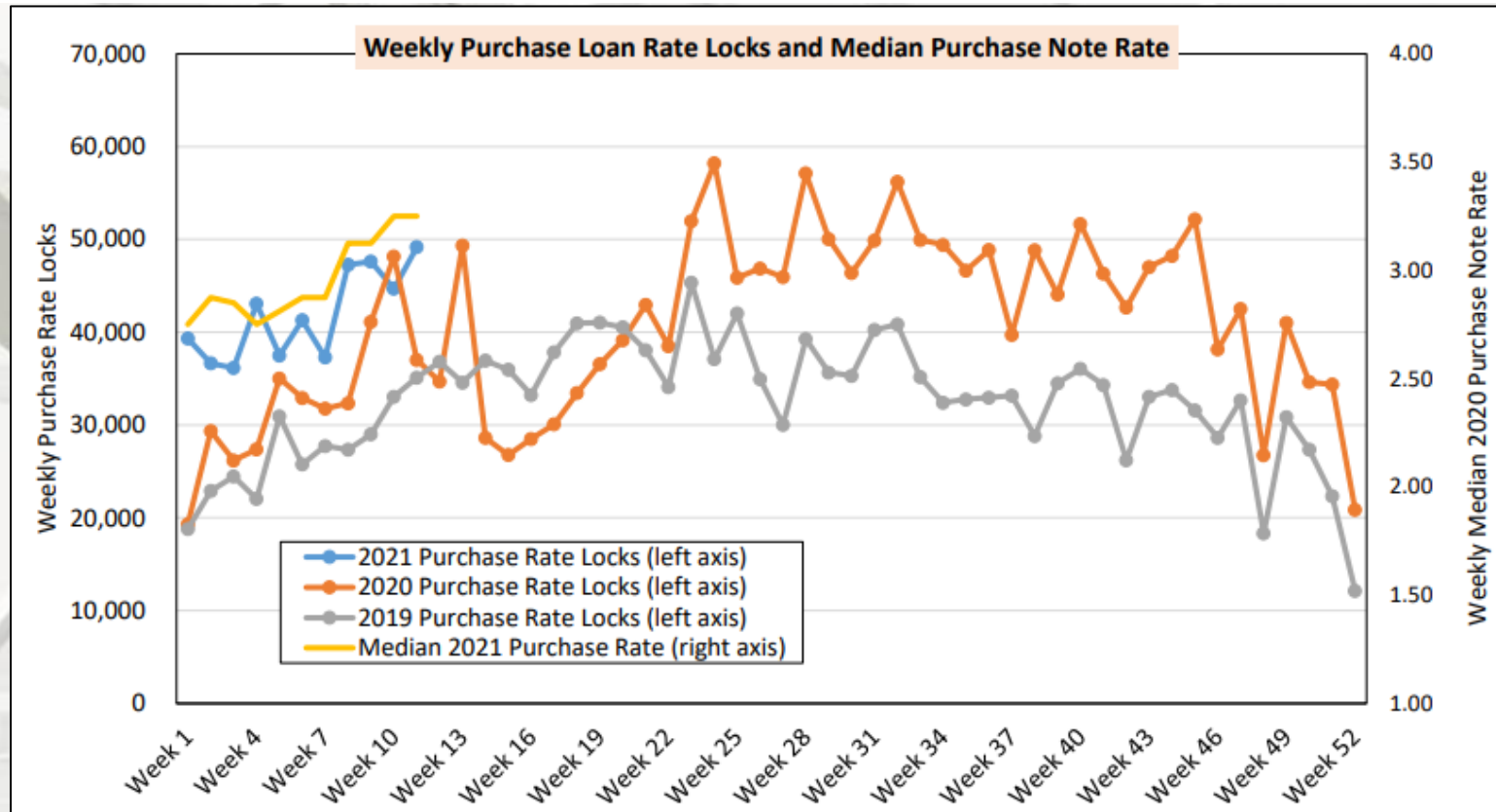
Bruce McNeilage began building houses to rent out around Nashville, Tenn., in 2005. After the housing crash, his Kinloch Partners expanded into other Southeastern markets, flipping occupied rentals to bigger investors.

Kinloch was financed mostly by community banks in the cities where it rehabbed foreclosures and built rentals. These days Kinloch can borrow far more from Walker & Dunlop Inc., a commercial real estate lender forging into suburban rentals. Mr. McNeilage’s problem is that others are bidding up houses and lots.

“I am boxed out,” he said. “There’s too many people chasing things and they’re willing to overpay. It’s silly money right now.”” – Ryan Dezember, Reporter, *Wall Street Journal*



# U.S. Housing Finance



Note: Rate locks are limited to lenders who joined Optimal Blue Dec. 2018 or earlier.

Source: Optimal Blue and AEI Housing Center, [www.AEI.org/housing](http://www.AEI.org/housing).

## AEI Housing Center

### Purchase Activity Outlook with Rising Rates

“Despite rising mortgage rates, purchase activity continued strongly in the beginning of 2021. Counts are up 28% for the first 11 weeks of 2021 over 2020 and 55% over 2019. Note that week 11 refers to March 13-19.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

# U.S. Housing Finance

## Mortgage Bankers Association (MBA)

### Mortgage Credit Availability increased in March

“Mortgage credit availability increased in March according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from Ellie Mae's AllRegs® Market Clarity® business information tool.

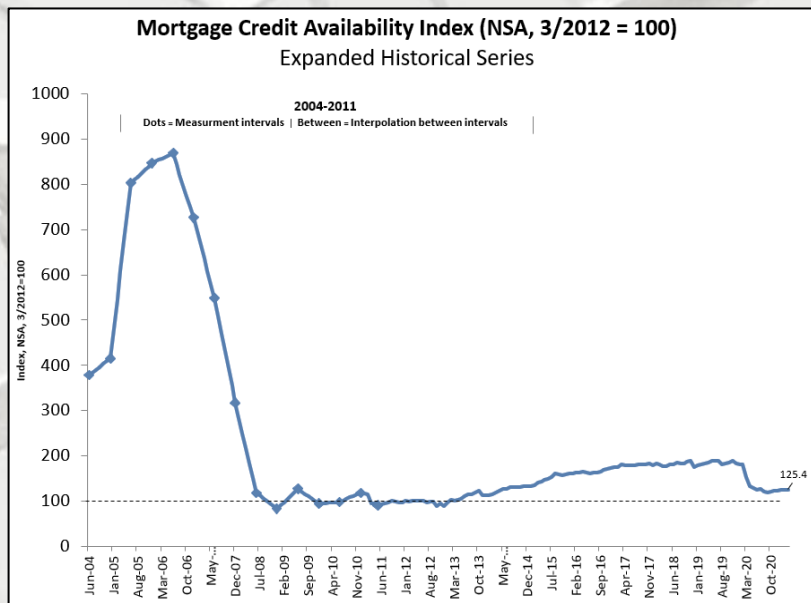
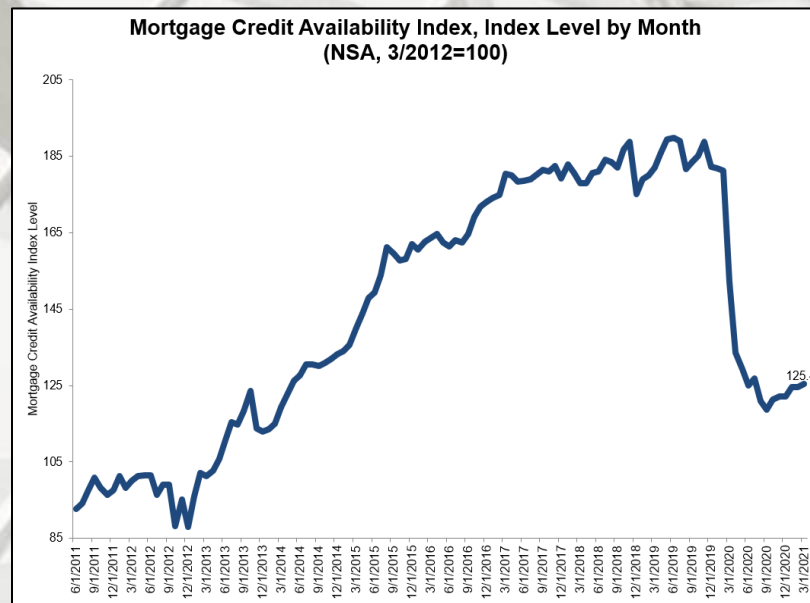
The MCAI rose by 0.6 percent to 125.4 in March. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 0.8 percent, while the Government MCAI increased by 0.4 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.5 percent, and the Conforming MCAI rose by 0.2 percent.

Credit availability inched higher in March, driven by the ongoing economic and job market recovery. All the market segments covered by our sub-indexes increased over the month, notably government and jumbo indexes. The government index, which includes FHA, VA, and RHS mortgages, increased for the sixth time in seven months to its highest level in a year. As we look ahead to the expected growth in the purchase market, which will be driven by millennials and first-time home buyers, credit availability to qualified borrowers will play an important role in supporting this demand. This has increased the amount of low credit score and high LTV products.

Jumbo credit supply increased for the sixth consecutive month, a strong rebound after many lenders pulled back in the first half of 2020 at the onset of the pandemic. Jumbo availability is increasing again as the economy regains its footing and coincides with the strong demand for homebuying and accelerated home price growth in many markets.” – 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®*



# MBA Mortgage Finance Forecast

## MBA Mortgage Finance Forecast

March 19, 2021

	2020				2021				2022				2020	2021	2022	2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
<b>Housing Measures</b>																
Housing Starts (SAAR, Thous)	1,484	1,079	1,432	1,588	1,512	1,602	1,622	1,614	1,629	1,646	1,663	1,642	1,396	1,588	1,645	1,625
Single-Family	968	766	1,037	1,228	1,172	1,252	1,267	1,272	1,294	1,316	1,338	1,322	1,000	1,241	1,318	1,320
Two or More	517	313	395	360	340	350	355	342	335	330	325	320	396	347	328	305
Home Sales (SAAR, Thous)																
Total Existing Homes	5,483	4,313	6,137	6,777	6,475	6,372	6,382	6,385	6,406	6,415	6,440	6,453	5,678	6,404	6,429	6,504
New Homes	701	703	973	873	914	929	964	977	1,003	1,018	1,036	1,027	813	946	1,021	1,048
FHFA US House Price Index (YOY % Change)	6.2	5.7	8.0	10.9	9.8	10.2	10.4	10.3	10.0	9.5	9.0	8.4	10.9	10.3	8.4	6.0
Median Price of Total Existing Homes (Thous \$)	272.4	288.3	309.2	311.7	311.2	311.3	305.1	304.0	303.6	304.0	304.2	305.1	295.4	305.1	310.9	309.8
Median Price of New Homes (Thous \$)	329.6	322.8	331.9	335.6	339.7	337.3	340.7	344.2	346.7	348.3	350.2	351.5	330.0	332.5	336.1	338.3
<b>Interest Rates</b>																
30-Year Fixed Rate Mortgage (%)	3.5	3.2	3.0	2.8	2.9	3.2	3.4	3.6	3.7	4.1	4.3	4.5	2.8	3.6	4.5	5.0
10-Year Treasury Yield (%)	1.4	0.7	0.6	0.9	1.3	1.7	1.8	1.9	2.1	2.3	2.5	2.7	0.9	1.9	2.7	3.2
<b>Mortgage Originations</b>																
Total 1- to 4-Family (Bil \$)	563	928	1,076	1,261	1,094	874	638	578	512	610	605	586	3,828	3,184	2,313	2,295
Purchase	257	348	418	410	320	472	443	433	362	469	463	446	1,433	1,668	1,740	1,775
Refinance	306	580	658	851	774	402	195	145	150	141	142	140	2,395	1,516	573	520
Refinance Share (%)	54	63	61	67	71	46	31	25	29	23	23	24	63	48	25	23
FHA Originations (Bil \$)													350	285	209	199
Total 1- to 4-Family (000s loans)	1,869	3,052	3,497	3,578	3,231	2,616	1,871	1,634	1,422	1,698	1,638	1,530	11,996	9,351	6,288	5,850
Purchase	891	1,203	1,427	1,343	1,000	1,465	1,331	1,248	1,029	1,329	1,277	1,187	4,864	5,045	4,822	4,606
Refinance	978	1,848	2,070	2,235	2,230	1,150	540	385	393	368	361	343	7,132	4,306	1,466	1,244
Refinance Share (%)	52	61	59	62	69	44	29	24	28	22	22	22	59	46	23	21
<b>Mortgage Debt Outstanding</b>																
1- to 4-Family (Bil \$)	10,775	10,875	10,984	11,135	11,297	11,442	11,596	11,755	11,916	12,081	12,254	12,424	11,135	11,755	12,424	13,100

### Notes:

Housing starts and home sales are seasonally adjusted at annual rate.

Total existing home sales include condos and co-ops.

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.

Total 1-to-4-family originations and refinance share are MBA estimates. These exclude second mortgages and home equity loans.

The FHFA US House Price Index is the forecasted year over year percent change of the FHFA Purchase-Only House Price Index.

The mortgage debt outstanding forecast is for 1-4 unit mortgage debt and excludes home equity loans. Annual MDO numbers reflect EOP values.

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# MBA

MORTGAGE BANKERS ASSOCIATION

# MBA Economic Forecast

## MBA Economic Forecast

March 19, 2021

	2020				2021				2022				2020	2021	2022	2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
<b>Percent Change, SAAR</b>																
Real Gross Domestic Product	-5.0	-31.4	33.4	4.1	4.7	6.0	6.5	5.7	4.1	2.8	2.2	1.8	-2.4	5.7	2.7	1.7
Personal Consumption Expenditures	-6.9	-33.2	41.0	2.4	4.6	6.1	6.3	6.0	4.3	3.5	2.5	2.3	-2.6	5.7	3.1	1.5
Business Fixed Investment	-6.7	-27.2	22.9	14.0	7.3	3.9	8.0	7.4	6.4	4.9	3.8	3.2	-1.2	6.6	4.6	3.1
Residential Investment	19.0	-35.6	63.0	35.8	15.2	4.1	3.3	1.3	0.4	1.6	1.8	0.9	14.1	5.8	1.2	1.0
Govt. Consumption & Investment	1.3	2.5	-4.8	-1.1	8.6	6.9	0.2	-0.6	0.7	-2.2	-0.1	-0.6	-0.6	3.7	-0.6	0.2
Net Exports (Bil. Chain 2012\$)	-650.7	-649.0	-859.6	-949.2	-999.6	-1051.0	-1071.9	-1073.8	-1080.9	-1068.5	-1048.8	-1031.7	-777.1	-1049.1	-1057.5	-978.9
Inventory Investment (Bil. Chain 2012\$)	-68.8	-244.0	-3.2	40.9	9.7	45.8	106.9	138.1	153.5	149.7	128.1	106.4	-68.8	75.1	134.4	83.1
Consumer Prices (YOY)	2.1	0.4	1.3	1.2	1.7	3.0	2.3	2.2	2.1	2.2	2.4	2.5	1.2	2.2	2.5	2.2
<b>Percent</b>																
Unemployment Rate	3.8	13.0	8.8	6.7	6.2	5.8	5.3	4.8	4.5	4.3	4.2	4.2	8.1	5.5	4.3	4.2
Federal Funds Rate	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.625
10-Year Treasury Yield	1.4	0.7	0.6	0.9	1.3	1.7	1.8	1.9	2.1	2.3	2.5	2.7	0.9	1.9	2.7	3.2

### 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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# MBA

MORTGAGE BANKERS ASSOCIATION



# Summary

## **In conclusion:**

February housing data indicated moderation in the United States housing market. Month-over-month data were mostly mixed and year-over-year data were predominantly positive; with the exceptions being total housing starts, multi-family starts, and multi-family housing under construction. New single-family and existing house sales were negative month-over-month and positive year-over-year. Single-family construction spending was positive month-over-month and year-over-year.

The new SF housing construction sector is where the majority of value-added forest products are utilized, and this housing sector has ample room for improvement.

## **Pros:**

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

## **Cons:**

- 1) COVID19;
- 2) Construction material constraints;
- 3) Lot availability and building regulations (according to several sources);
- 4) Laborer shortages;
- 5) Household formations still lag historical averages;
- 6) Job creation is improving and consistent, but some economists question the quantity and types of jobs being created;
- 7) Debt: Corporate, personal, government – United States and globally;
- 8) Other global uncertainties.

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