

The Virginia Tech–USDA Forest Service Housing Commentary: Section I July 2020



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To request the commentary, please email: buehlmann@gmail.com or Delton.R.Alderman@usda.gov

Opening Remarks

In July, the resiliency of the U.S. housing market was a bright spot for the aggregate U.S. economy. All month-over-month sectors were positive, with the exception of single-family completions. The majority of year-over-year categories were mostly positive as well. Year-over-year, total multi-family permits, single-family housing under construction, total and single-family completions, and single-family construction spending indicated declines.

The September 10th Atlanta Fed GDPNow™ model for September 2020 forecasts an aggregate 38.3% increase for residential investment spending in Quarter Three 2020. New private permanent site expenditures were projected at a 8.0% rise; the improvement spending forecast was a 18.5% increase; and the manufactured/mobile expenditures projection was a 75.3% rise (all: quarterly log change and at a seasonally adjusted annual rate).¹

“The sharp rebound in housing market activity comes as Americans are spending more time than ever in their homes, and it has become more clear that housing is perhaps the *ultimate essential service*. The U.S. housing industry’s resilient strength has been powered by the long-term tailwinds of favorable millennial-led demographic trends, historically low housing supply, and the early signs of a post-pandemic suburban revival that should remain tailwinds well into the 2020s.”² – Alex Pettee, CFA, President & Director of Research, Hoya Capital Real Estate

This month’s commentary contains applicable housing data. Section I contains updated housing forecasts, data, and commentary. Section II includes regional Federal Reserve analysis, private firm indicators, and demographic information.

July 2020

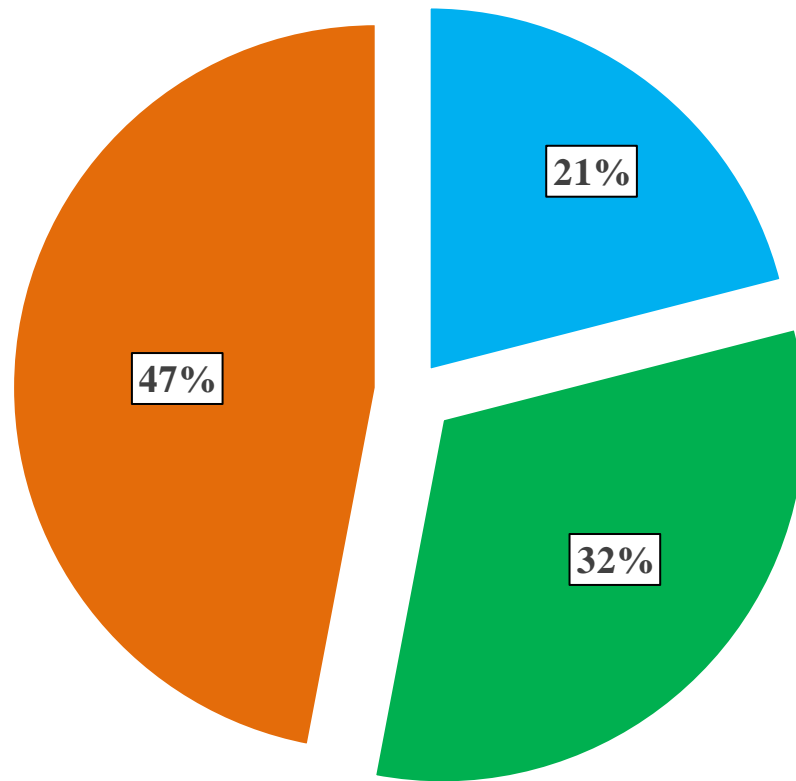
Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 22.6%	▲ 23.4%
Single-Family (SF) Starts	▲ 8.2%	▲ 7.4%
Multi-Family (MF) Starts*	▲ 58.4%	▲ 65.0%
Housing Permits	▲ 18.8%	▲ 9.4%
SF Permits	▲ 17.0%	▲ 15.5%
MF Permits*	▲ 22.5%	▼ 0.6%
Housing Under Construction	▲ 1.3%	▲ 3.7%
SF Under Construction	▲ 0.2%	▼ 3.3%
Housing Completions	▲ 3.6%	▲ 1.7%
SF Completions	▼ 1.8%	▼ 0.4%
New SF House Sales	▲ 13.9%	▲ 36.3%
Private Residential Construction Spending	▲ 2.1%	▲ 0.5%
SF Construction Spending	▲ 3.1%	▼ 3.2%
Existing House Sales ¹	▲ 24.7%	▲ 8.7%

* 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

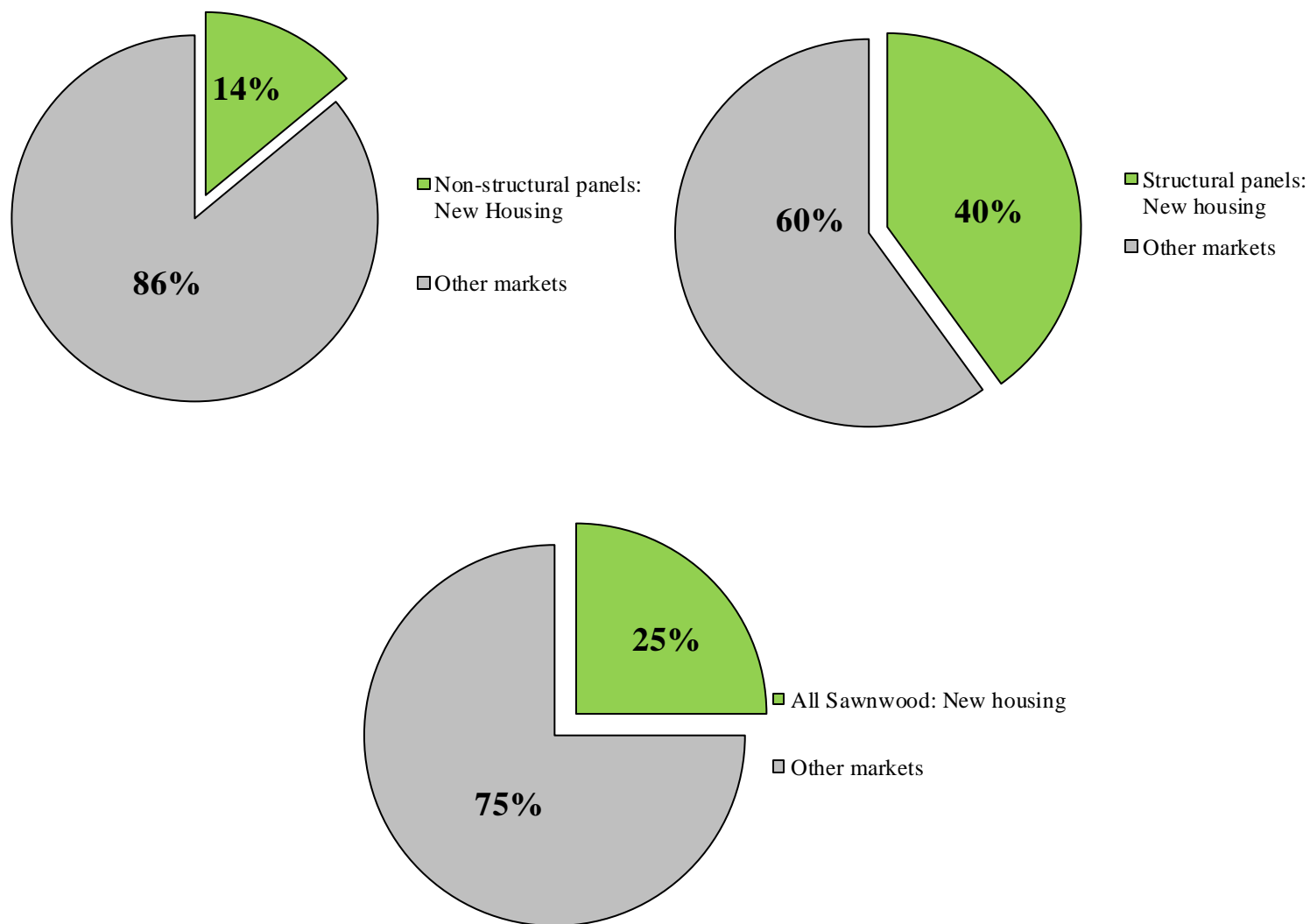


■ Non-structural panels

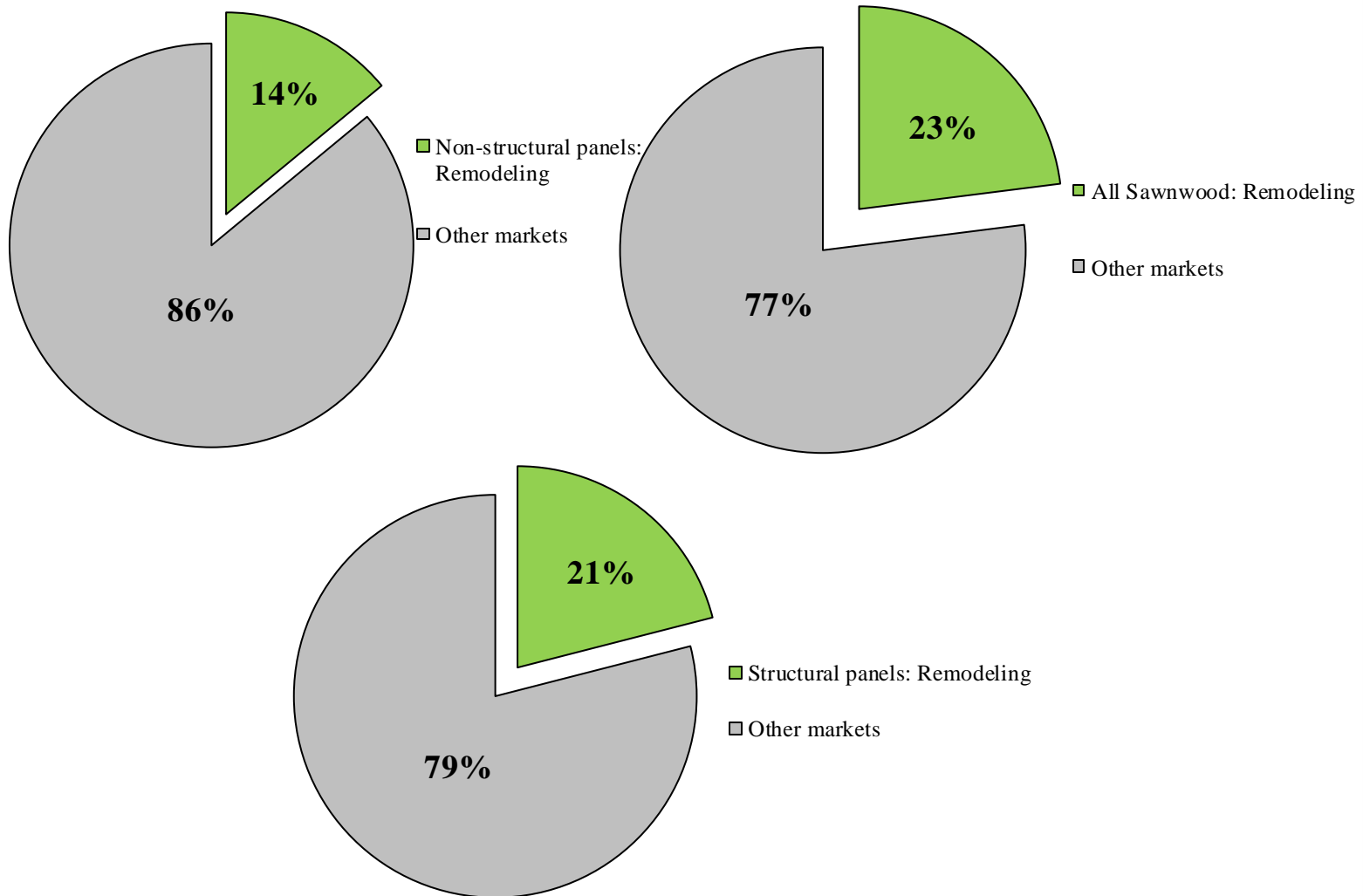
■ Total Sawnwood

■ Structural panels

New SF Construction Percentage of Wood Products Consumption



Repair and Remodeling's Percentage of Wood Products Consumption



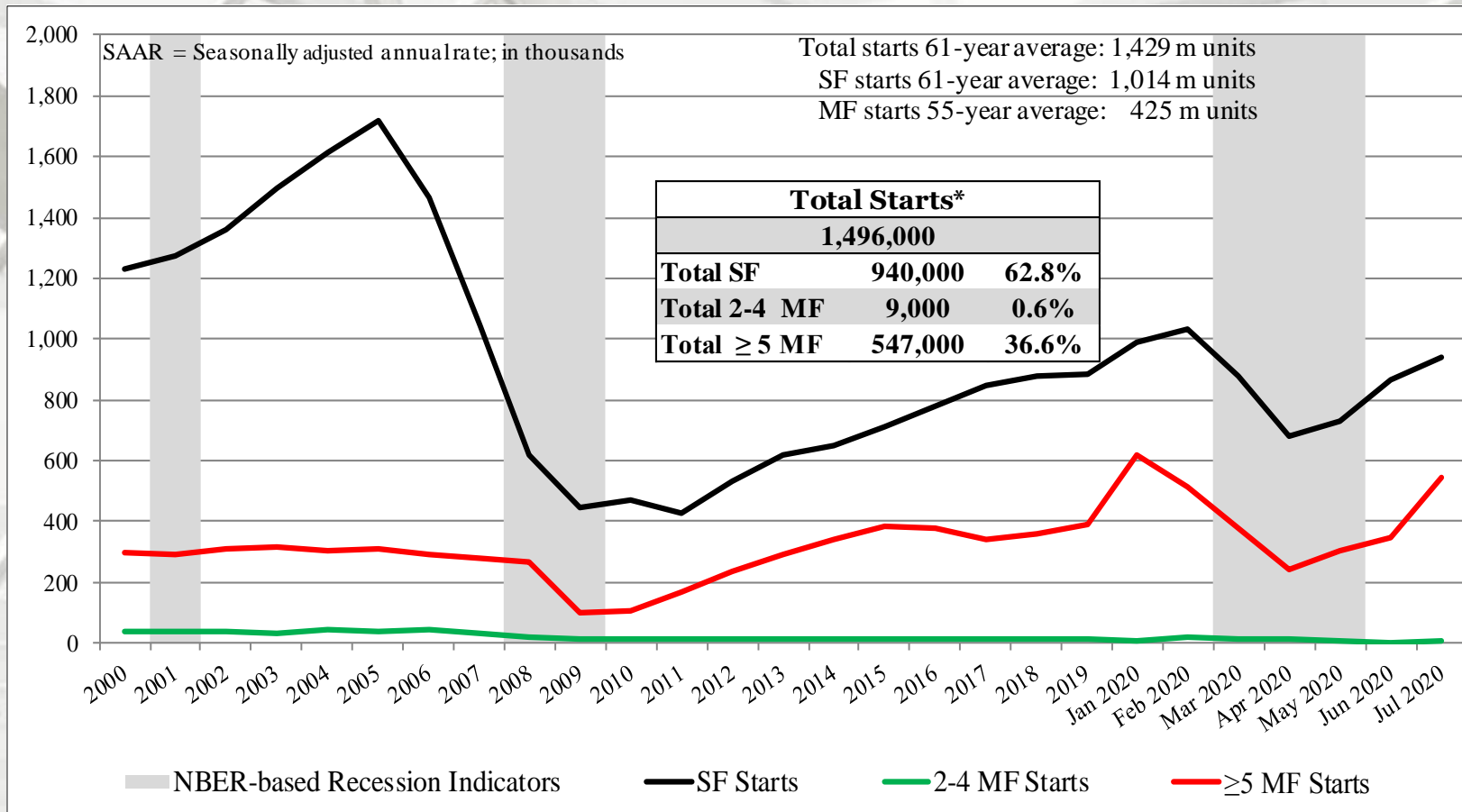
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
July	1,496,000	940,000	9,000	547,000
June	1,220,000	869,000	2,000	349,000
2019	1,212,000	875,000	11,000	326,000
M/M change	22.6%	8.2%	350.0%	56.7%
Y/Y change	23.4%	7.4%	-18.2%	67.8%

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

** US DOC does not report 2 to 4 multifamily starts directly, this is an estimation
((Total starts – (SF + 5 unit MF)).

Total Housing Starts

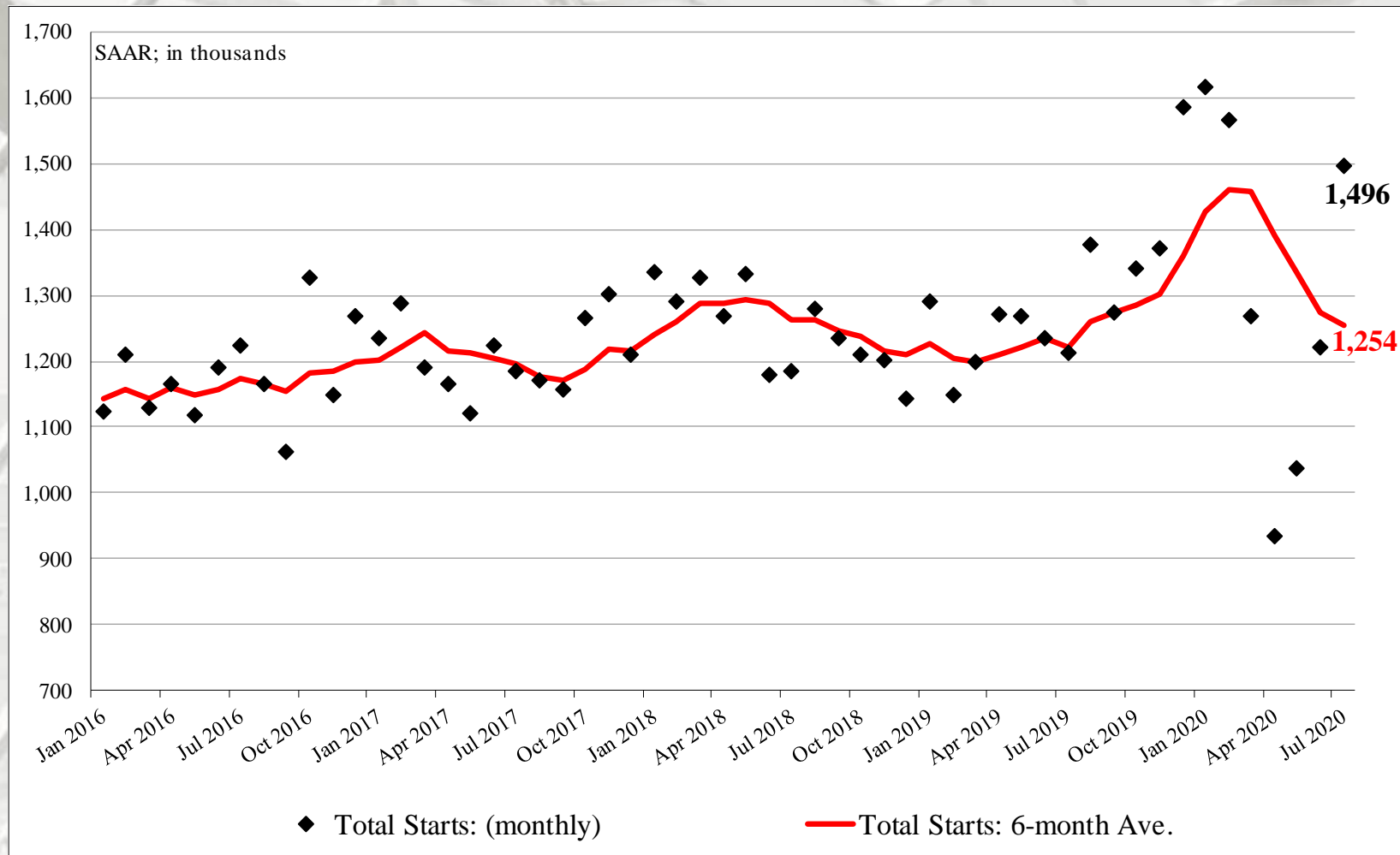


US DOC does not report 2 to 4 multifamily starts directly, this is an estimation: ((Total starts – (SF + ≥ MF)).

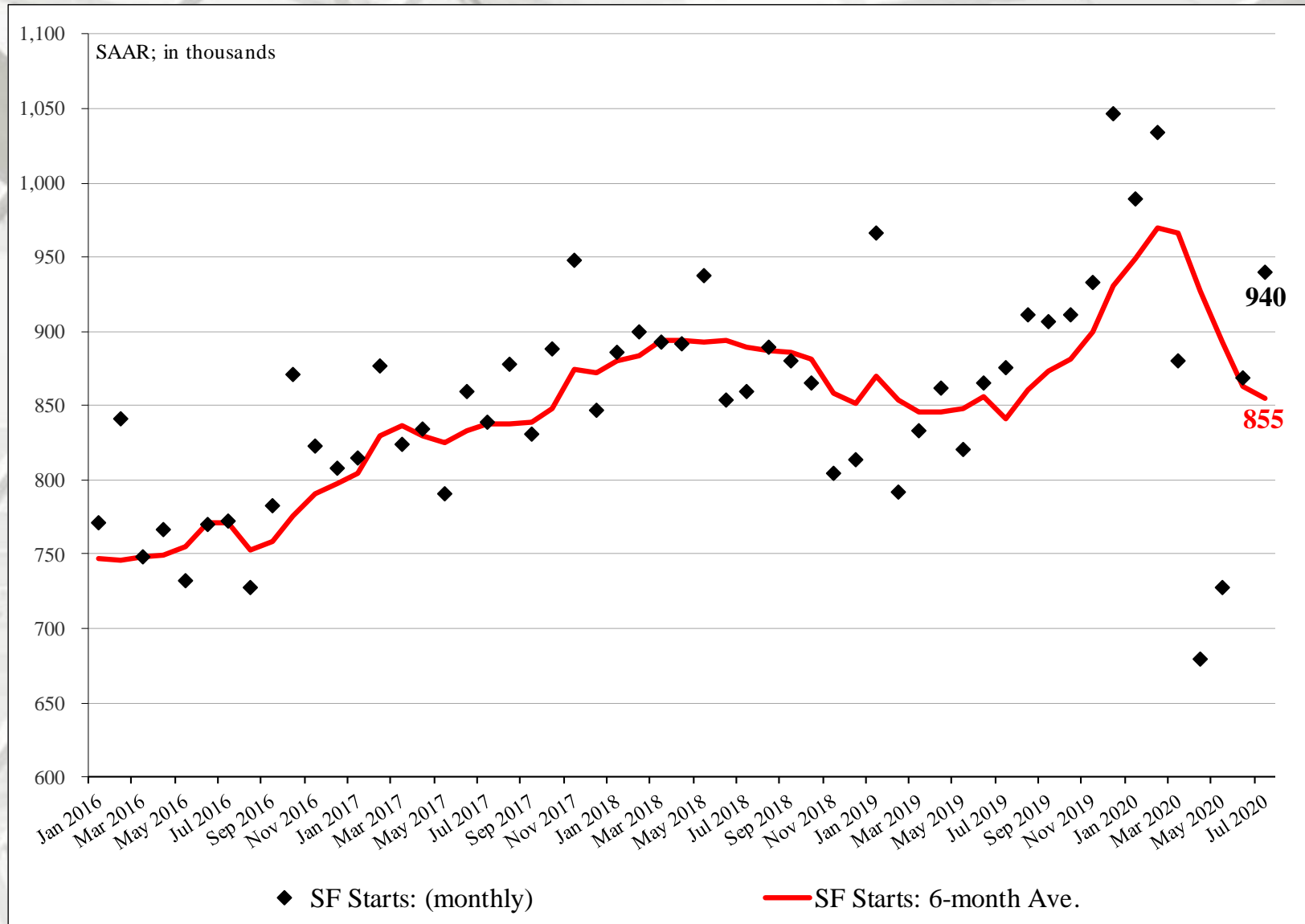
* Percentage of total starts.

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

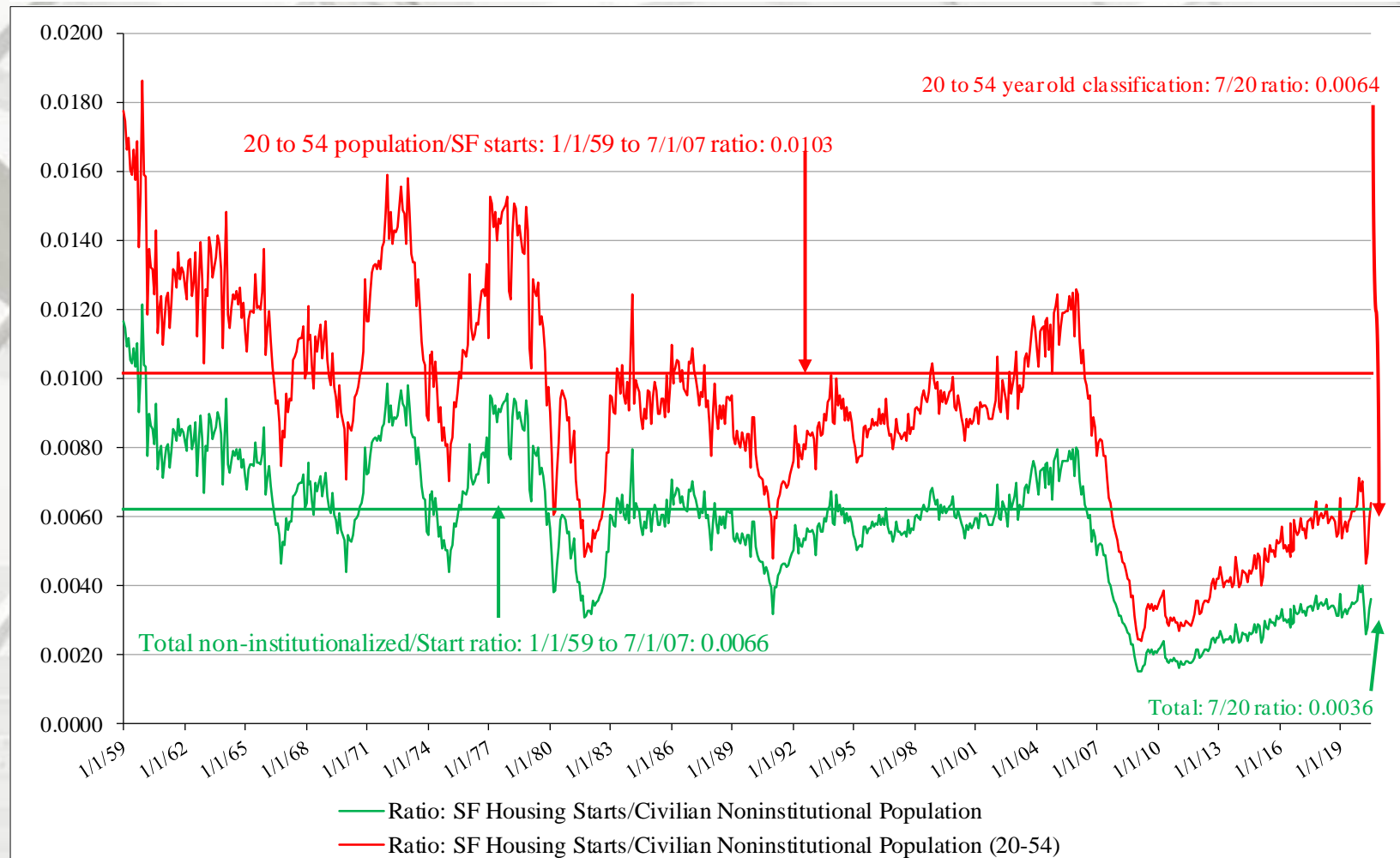
Total Housing Starts: Six-Month Average



SF Housing Starts: Six-Month Average



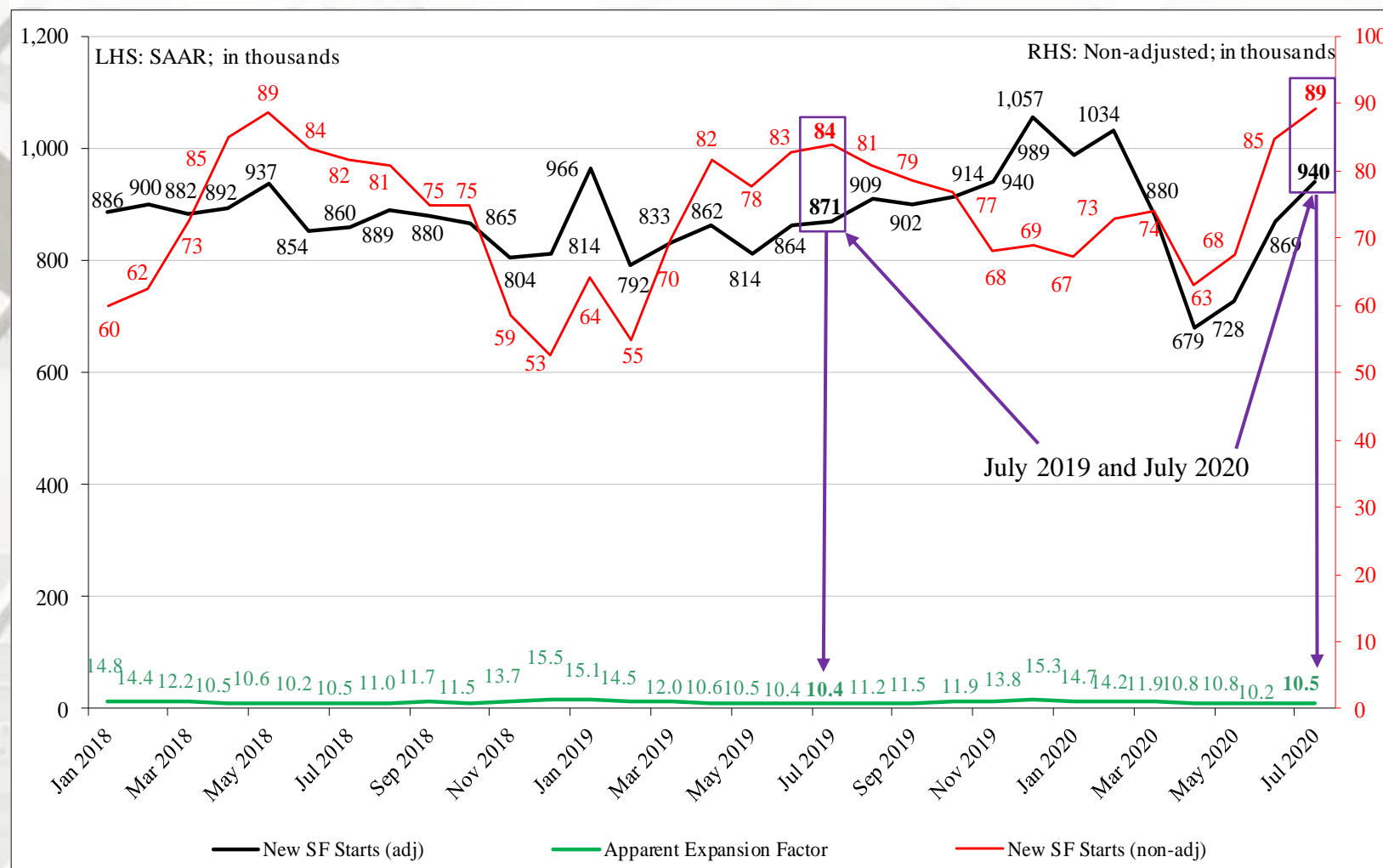
New SF Starts



New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in July 2020 it was 0.0036 – an increase from June. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in July 2020 was 0.0064 – also an increase from June. 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**
July	157,000	74,000	83,000
June	116,000	76,000	40,000
2019	96,000	60,000	36,000
M/M change	35.3%	-2.6%	107.5%
Y/Y change	63.5%	23.3%	130.6%
	MW Total	MW SF	MW MF
July	201,000	132,000	69,000
June	190,000	133,000	57,000
2019	174,000	124,000	50,000
M/M change	5.8%	-0.8%	21.1%
Y/Y change	15.5%	6.5%	38.0%

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

** US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

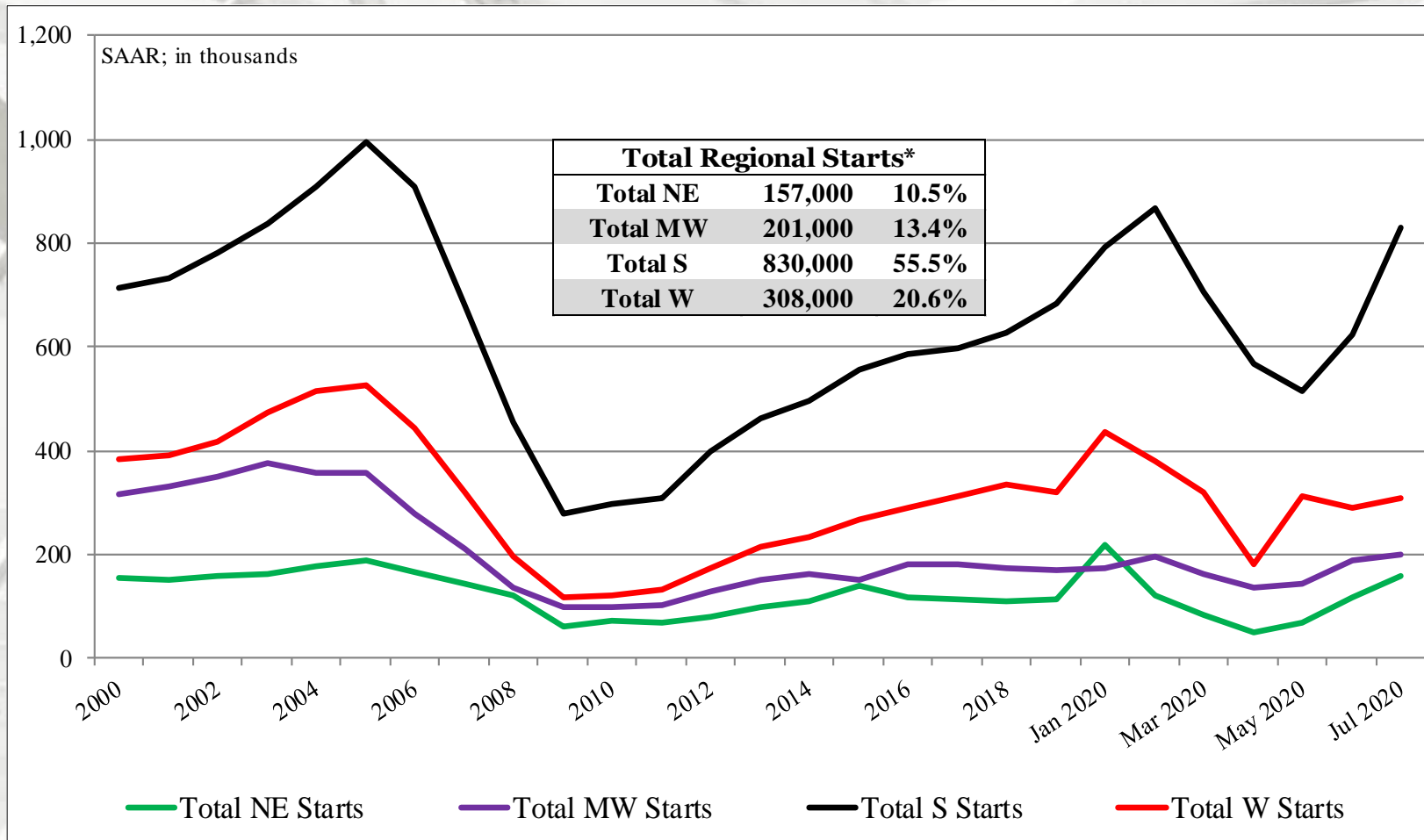
New Housing Starts by Region

	S Total	S SF	S MF**
July	830,000	528,000	302,000
June	623,000	466,000	157,000
2019	624,000	470,000	154,000
M/M change	33.2%	13.3%	92.4%
Y/Y change	33.0%	12.3%	96.1%
	W Total	W SF	W MF
July	308,000	206,000	102,000
June	291,000	194,000	97,000
2019	318,000	221,000	97,000
M/M change	5.8%	6.2%	5.2%
Y/Y change	-3.1%	-6.8%	5.2%

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

** US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

New Housing Starts by Region

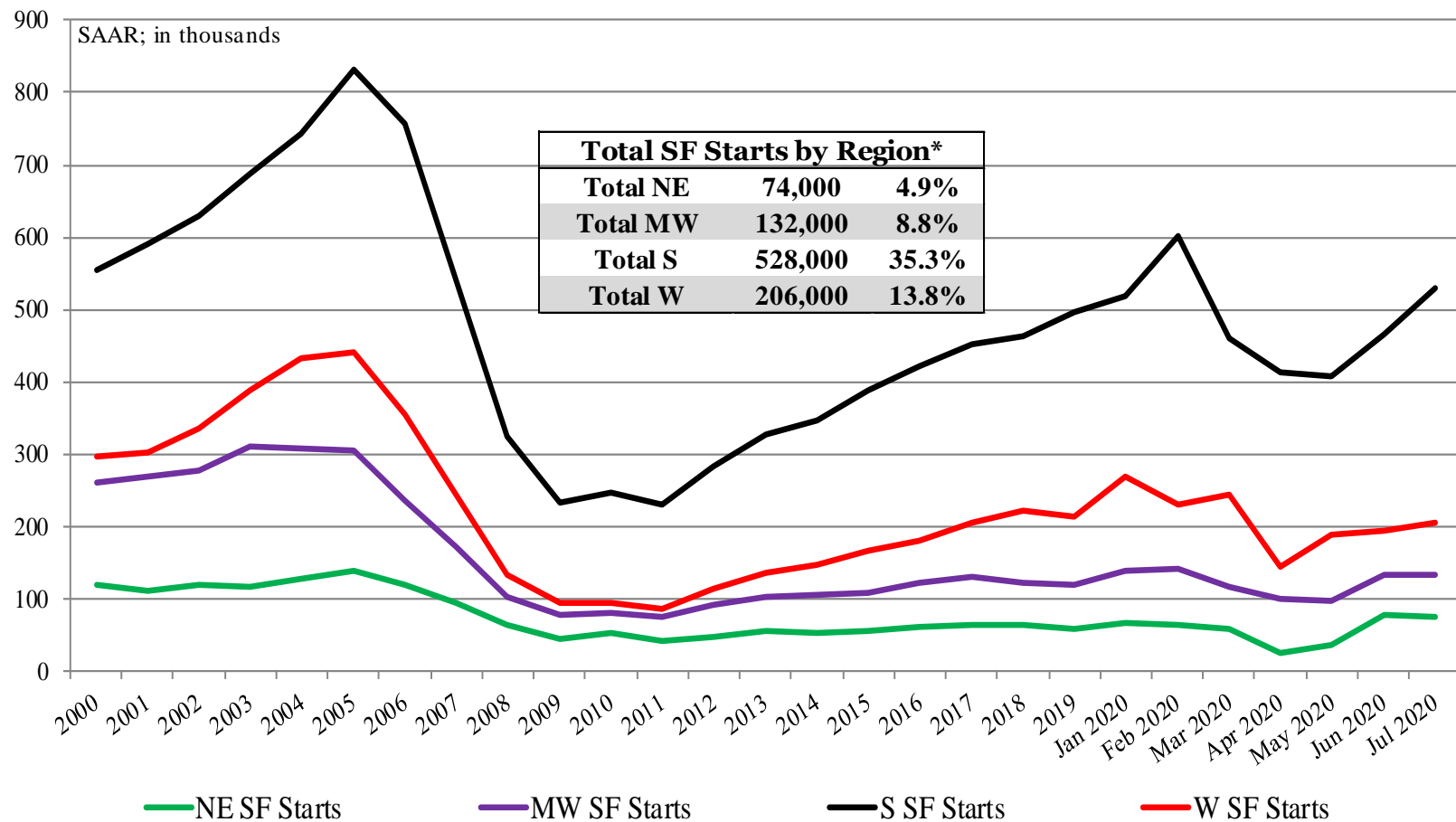


NE = Northeast, MW = Midwest, S = South, W = West

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

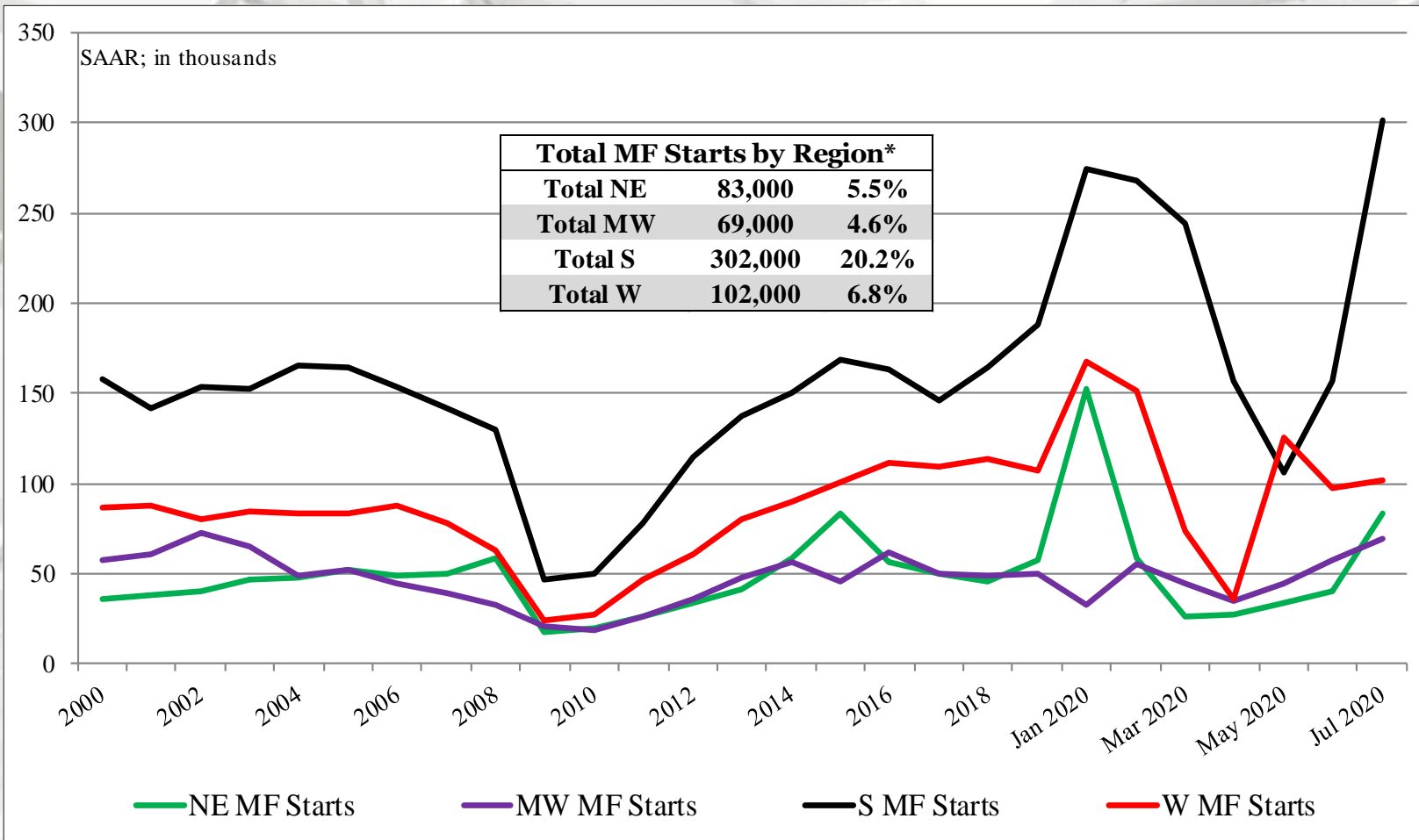


NE = Northeast, MW = Midwest, S = South, W = West

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

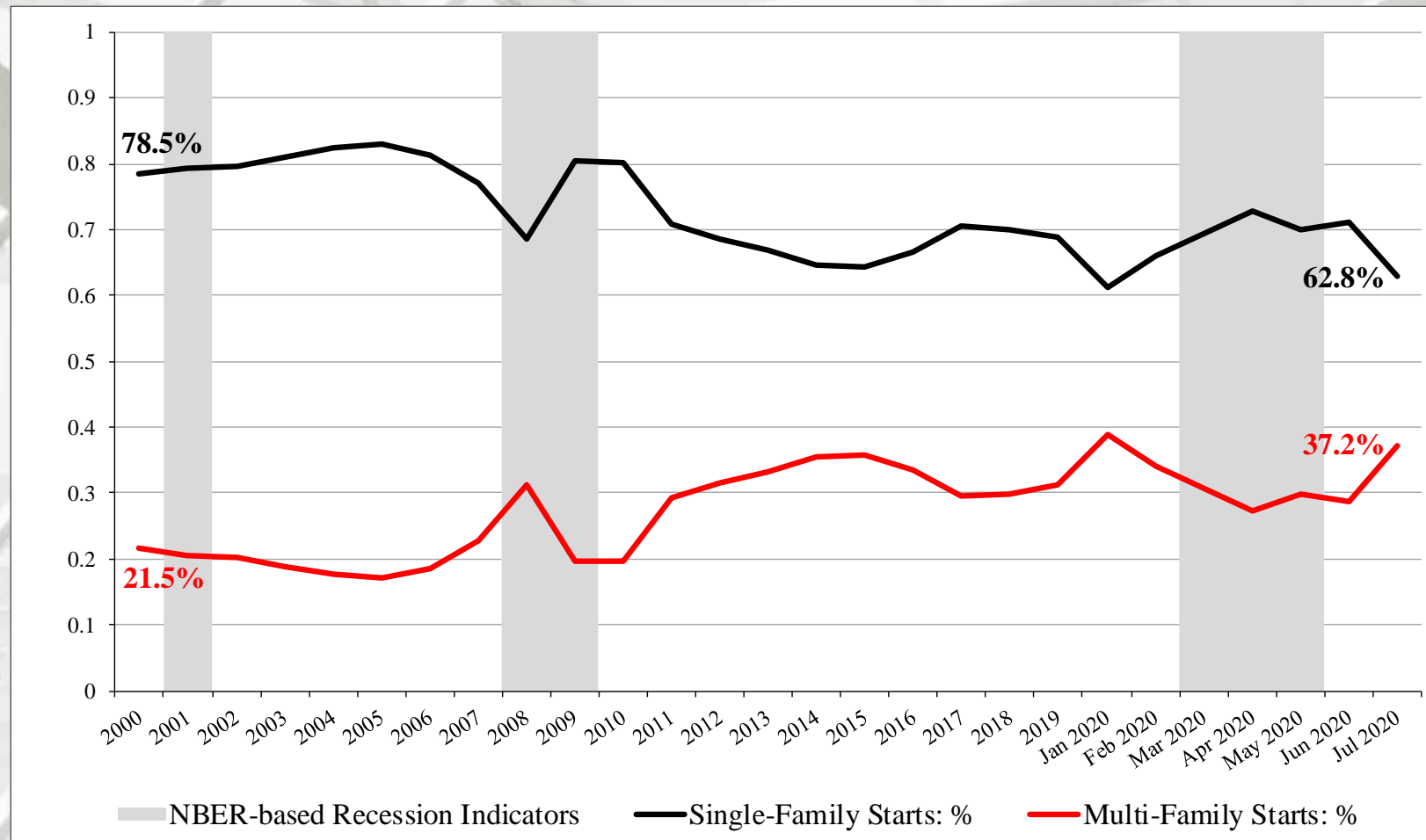


NE = Northeast, MW = Midwest, S = South, W = West

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 (%)



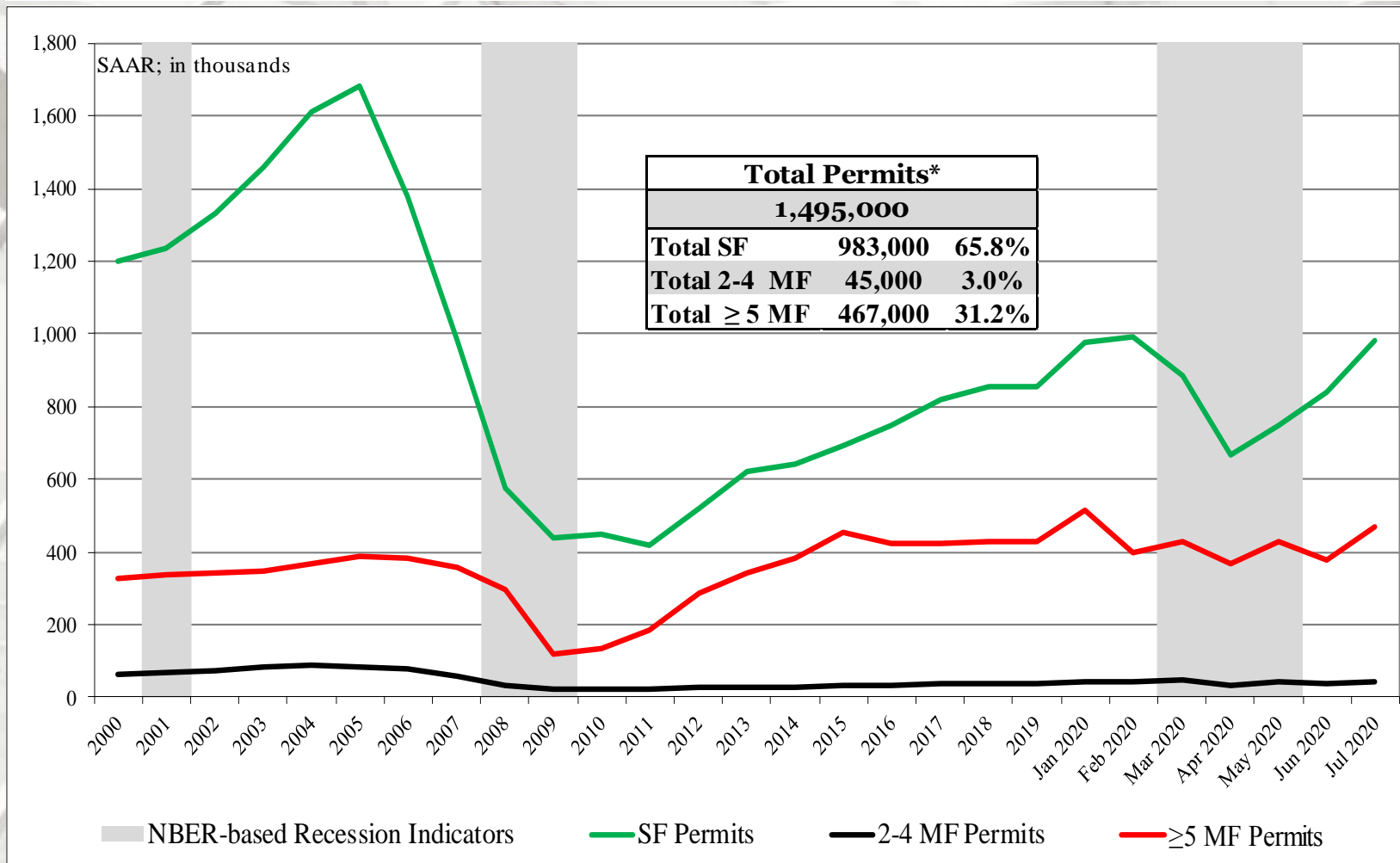
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
July	1,495,000	983,000	45,000	467,000
June	1,258,000	840,000	40,000	378,000
2019	1,366,000	851,000	46,000	469,000
M/M change	18.8%	17.0%	12.5%	23.5%
Y/Y change	9.4%	15.5%	-2.2%	-0.4%

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

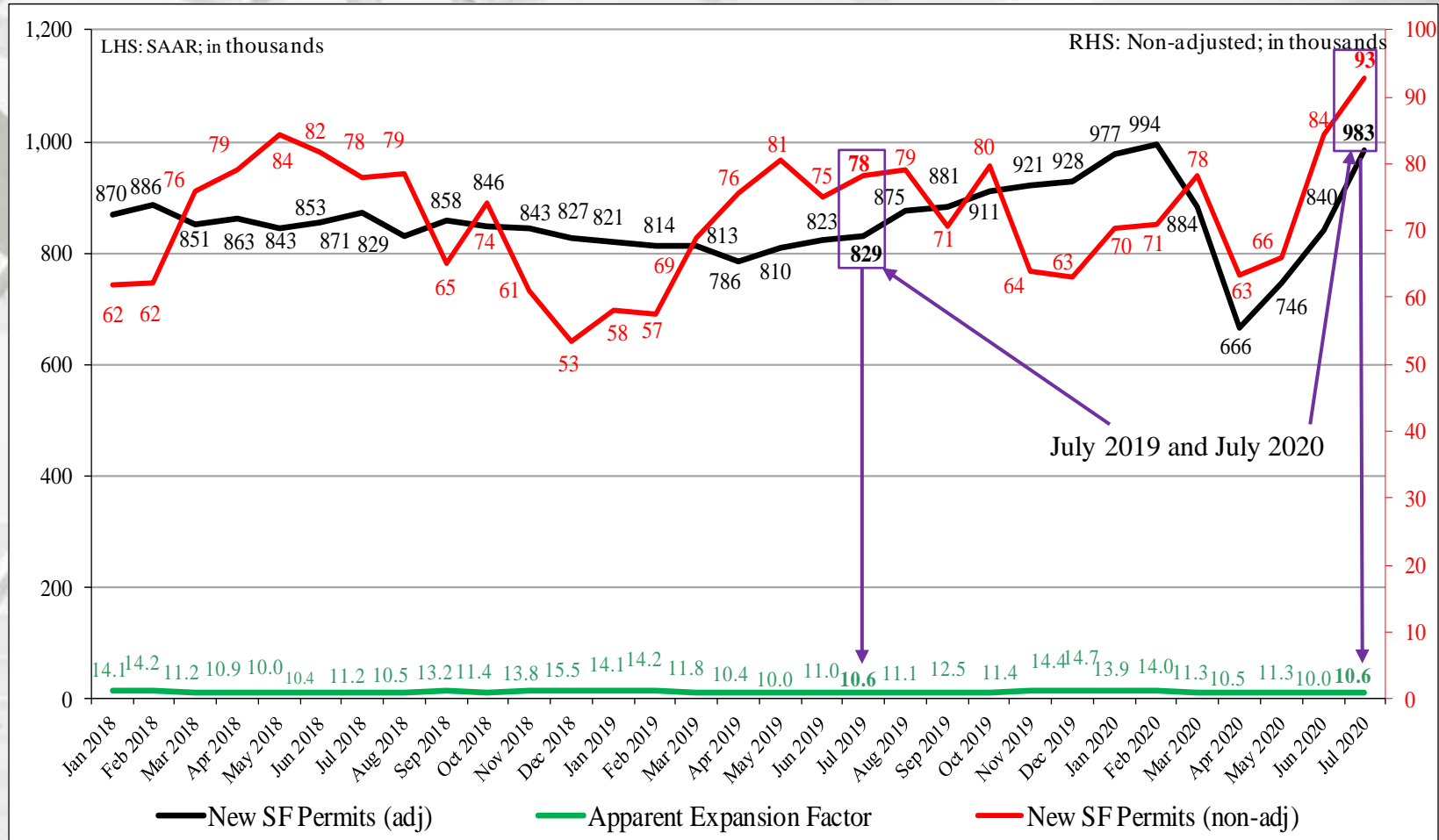
Total New Housing Permits



* 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**
July	140,000	59,000	81,000
June	122,000	55,000	67,000
2019	131,000	55,000	76,000
M/M change	14.8%	7.3%	20.9%
Y/Y change	6.9%	7.3%	6.6%
	MW Total*	MW SF	MW MF**
July	224,000	133,000	91,000
June	181,000	119,000	62,000
2019	169,000	109,000	60,000
M/M change	23.8%	11.8%	46.8%
Y/Y change	32.5%	22.0%	51.7%

NE = Northeast; ME = Midwest

* All data are SAAR

** US DOC does not report multifamily permits directly, this is an estimation (Total permits – SF permits).

New Housing Permits by Region

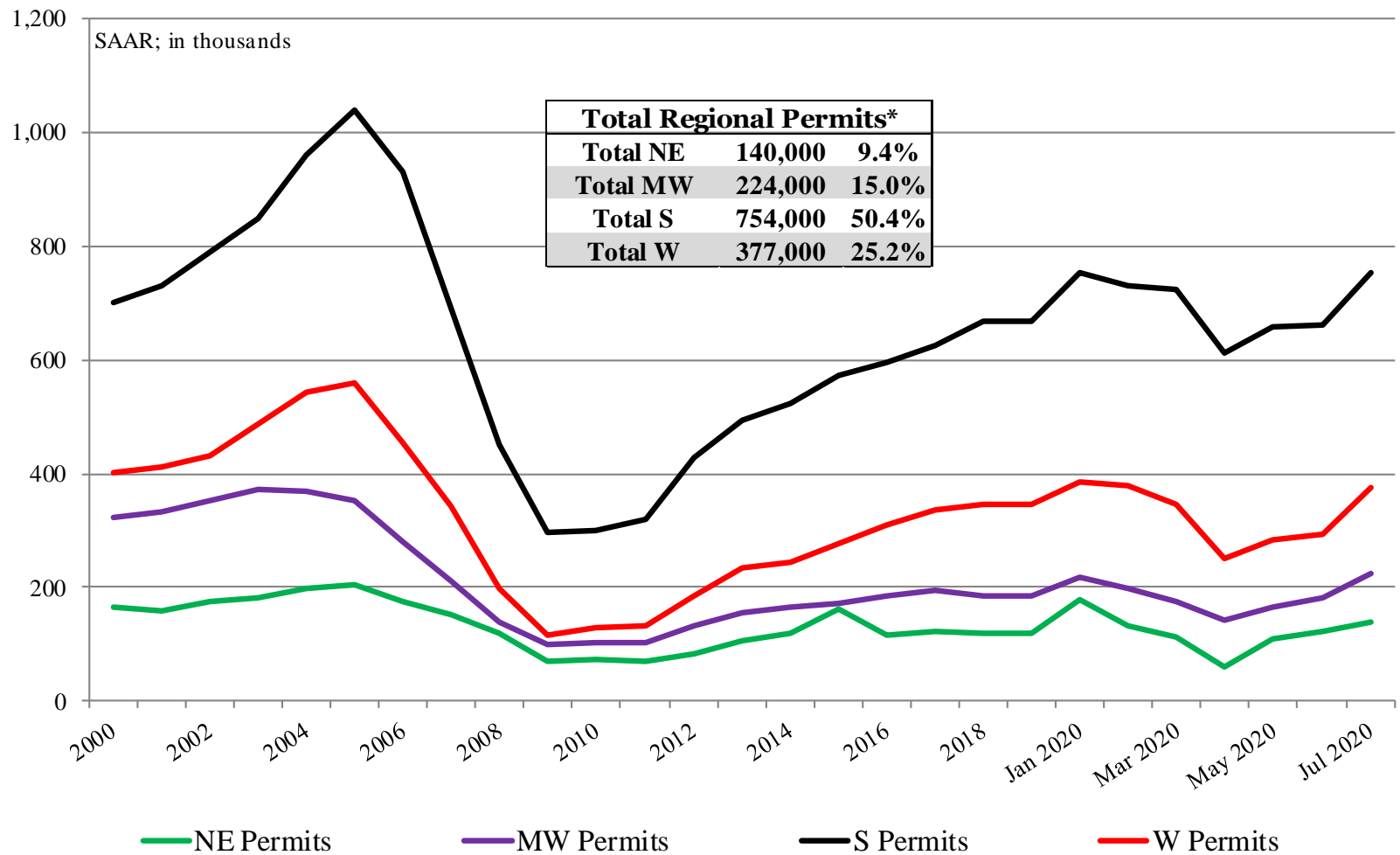
	S Total*	S SF	S MF**
July	754,000	560,000	194,000
June	663,000	471,000	192,000
2019	696,000	474,000	222,000
M/M change	13.7%	18.9%	1.0%
Y/Y change	8.3%	18.1%	-12.6%
	W Total*	W SF	W MF**
July	377,000	231,000	146,000
June	292,000	195,000	97,000
2019	370,000	213,000	157,000
M/M change	29.1%	18.5%	50.5%
Y/Y change	1.9%	8.5%	-7.0%

S = South; W = West

* All data are SAAR

** US DOC does not report multifamily permits directly, this is an estimation (Total permits – SF permits).

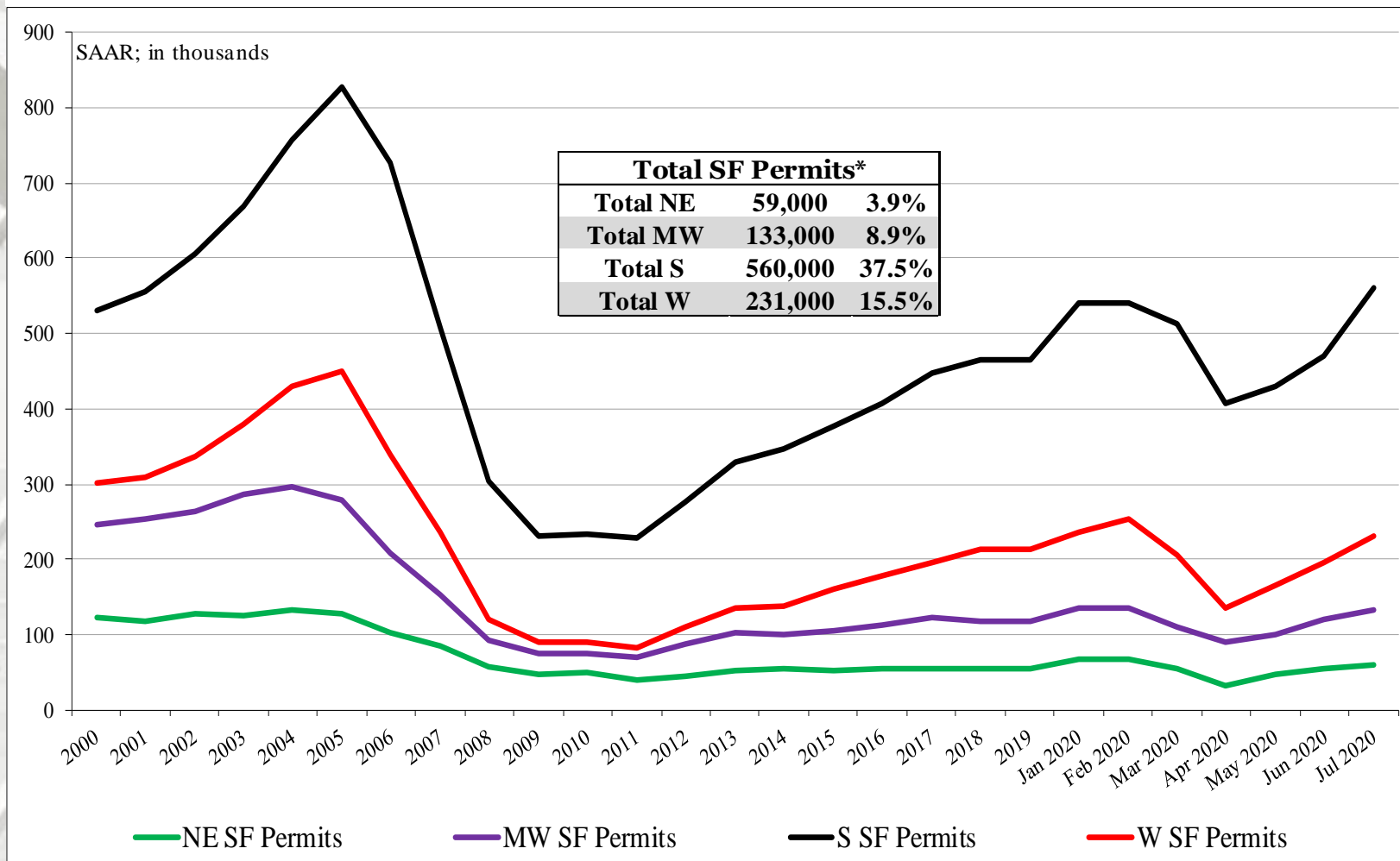
Total Housing Permits by Region



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

* Percentage of total permits.

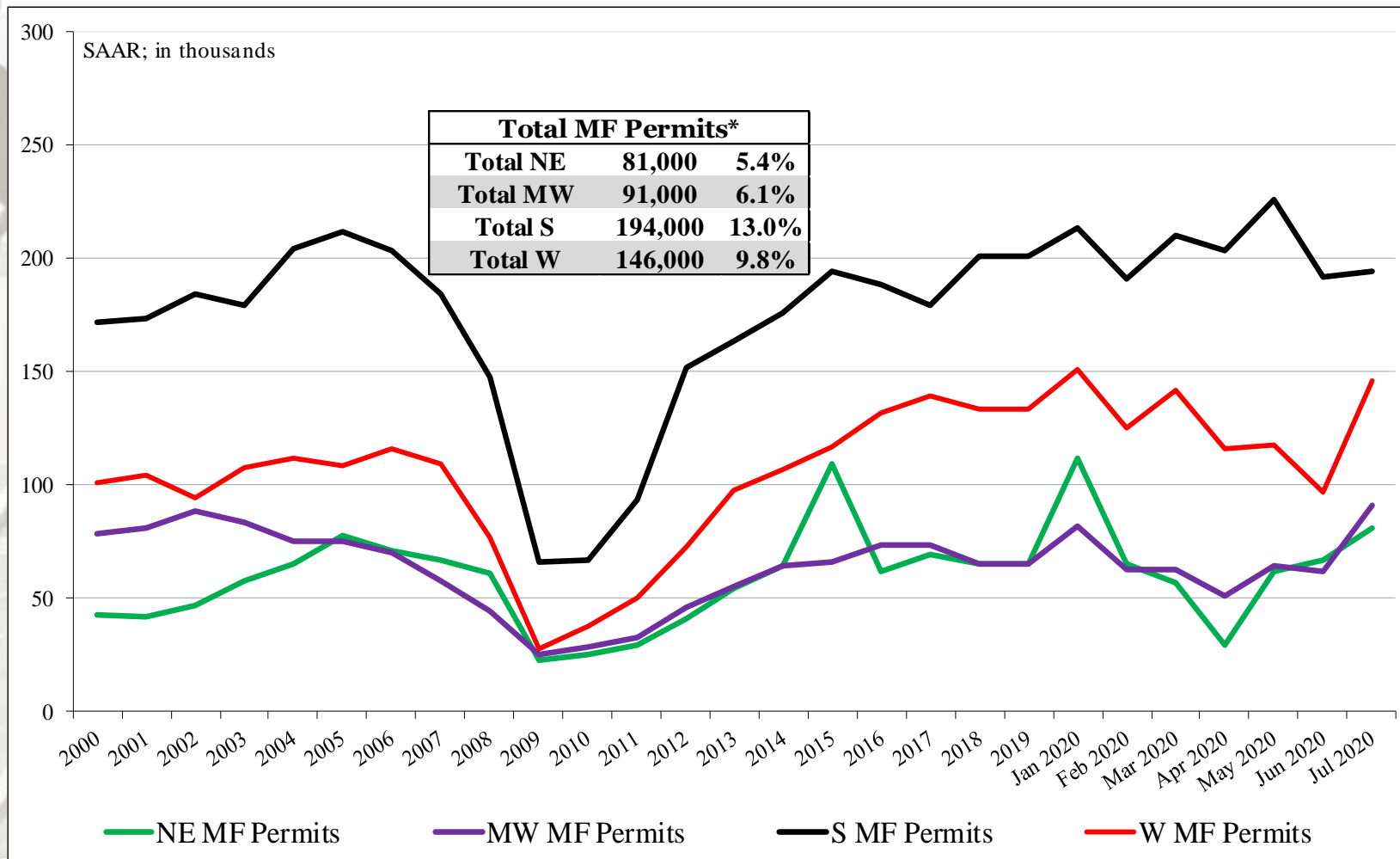
SF Housing Permits by Region



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.

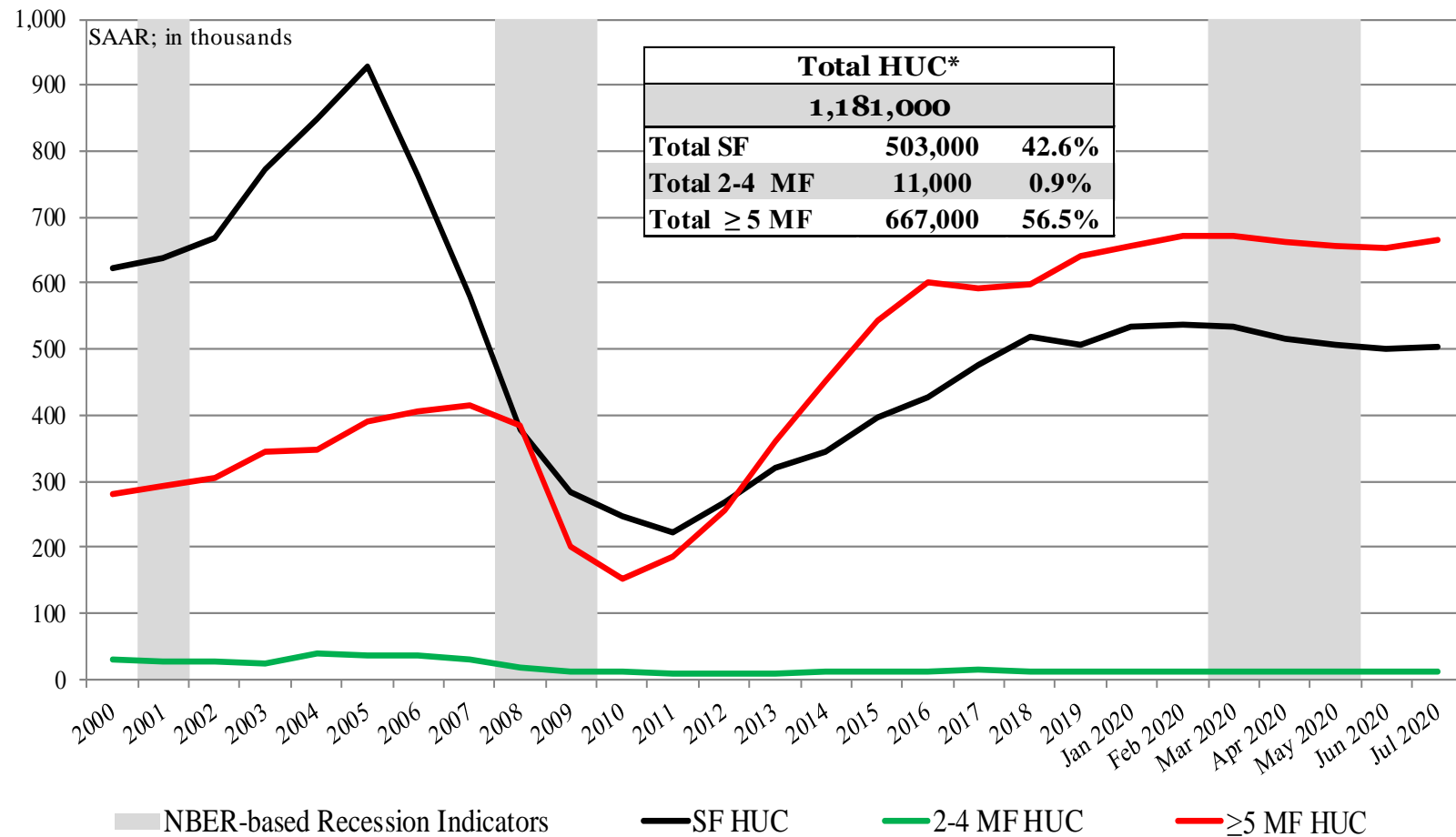
New Housing Under Construction (HUC)

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
July	1,181,000	503,000	11,000	667,000
June	1,166,000	502,000	11,000	653,000
2019	1,139,000	520,000	11,000	608,000
M/M change	1.3%	0.2%	0.0%	2.1%
Y/Y change	3.7%	-3.3%	0.0%	9.7%

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

** US DOC does not report 2-4 multifamily 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 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**
July	171,000	54,000	117,000
June	170,000	55,000	115,000
2019	177,000	60,000	117,000
M/M change	0.6%	-1.8%	1.7%
Y/Y change	-3.4%	-10.0%	0.0%
	MW Total	MW SF	MW MF
July	149,000	74,000	75,000
June	144,000	72,000	72,000
2019	145,000	75,000	70,000
M/M change	3.5%	2.8%	4.2%
Y/Y change	2.8%	-1.3%	7.1%

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

** US DOC does not report multifamily units under construction directly, this is an estimation
(Total under construction – SF under construction).

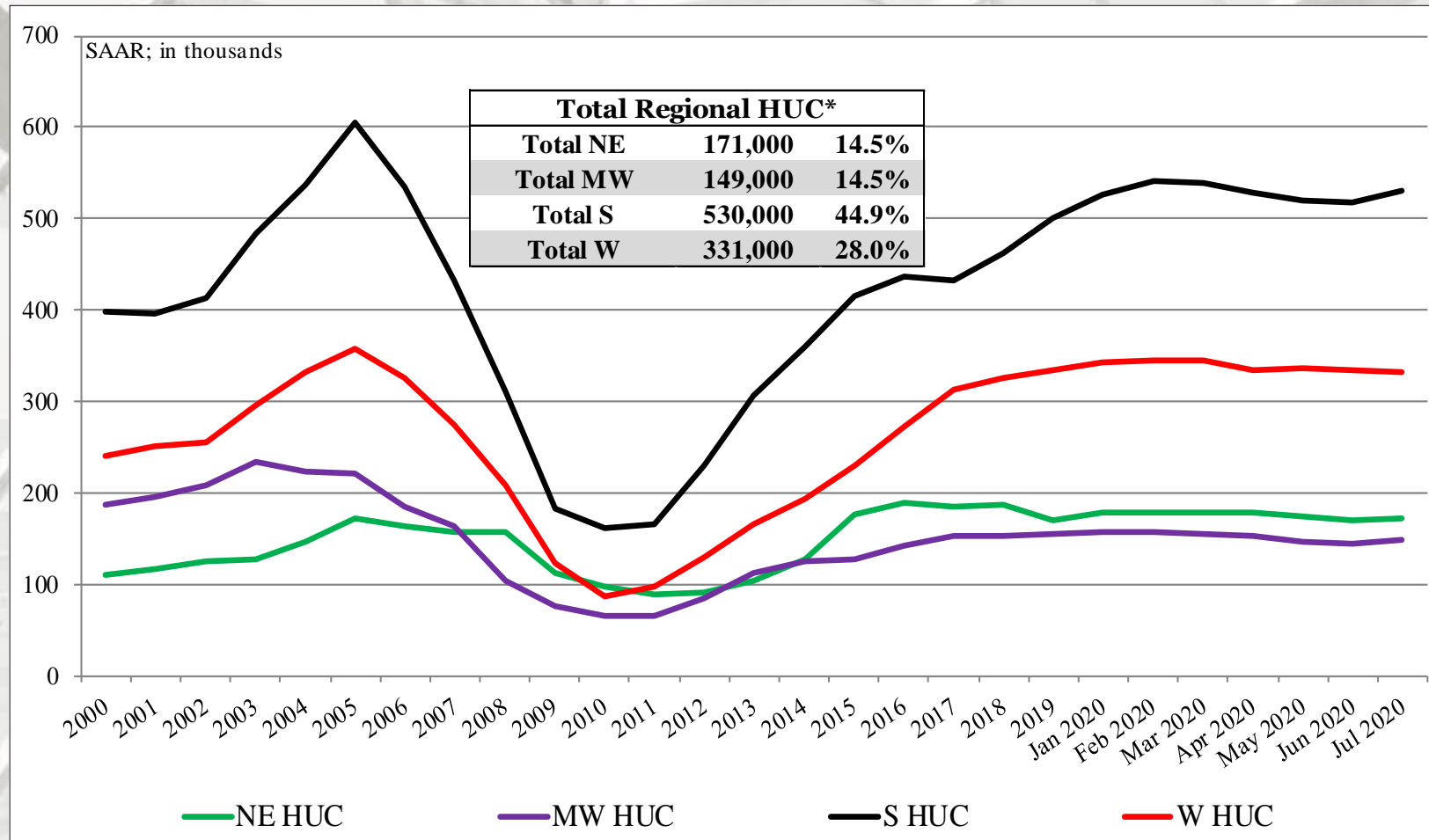
New Housing Under Construction by Region

	S Total	S SF	S MF**
July	530,000	239,000	291,000
June	517,000	237,000	280,000
2019	487,000	248,000	239,000
M/M change	2.5%	0.8%	3.9%
Y/Y change	8.8%	-3.6%	21.8%
	W Total	W SF	W MF
July	331,000	136,000	195,000
June	335,000	138,000	197,000
2019	330,000	137,000	193,000
M/M change	-1.2%	-1.4%	-1.0%
Y/Y change	0.3%	-0.7%	1.0%

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

** US DOC does not report multifamily units under construction directly, this is an estimation
(Total under construction – SF under construction).

Total Housing Under Construction by Region

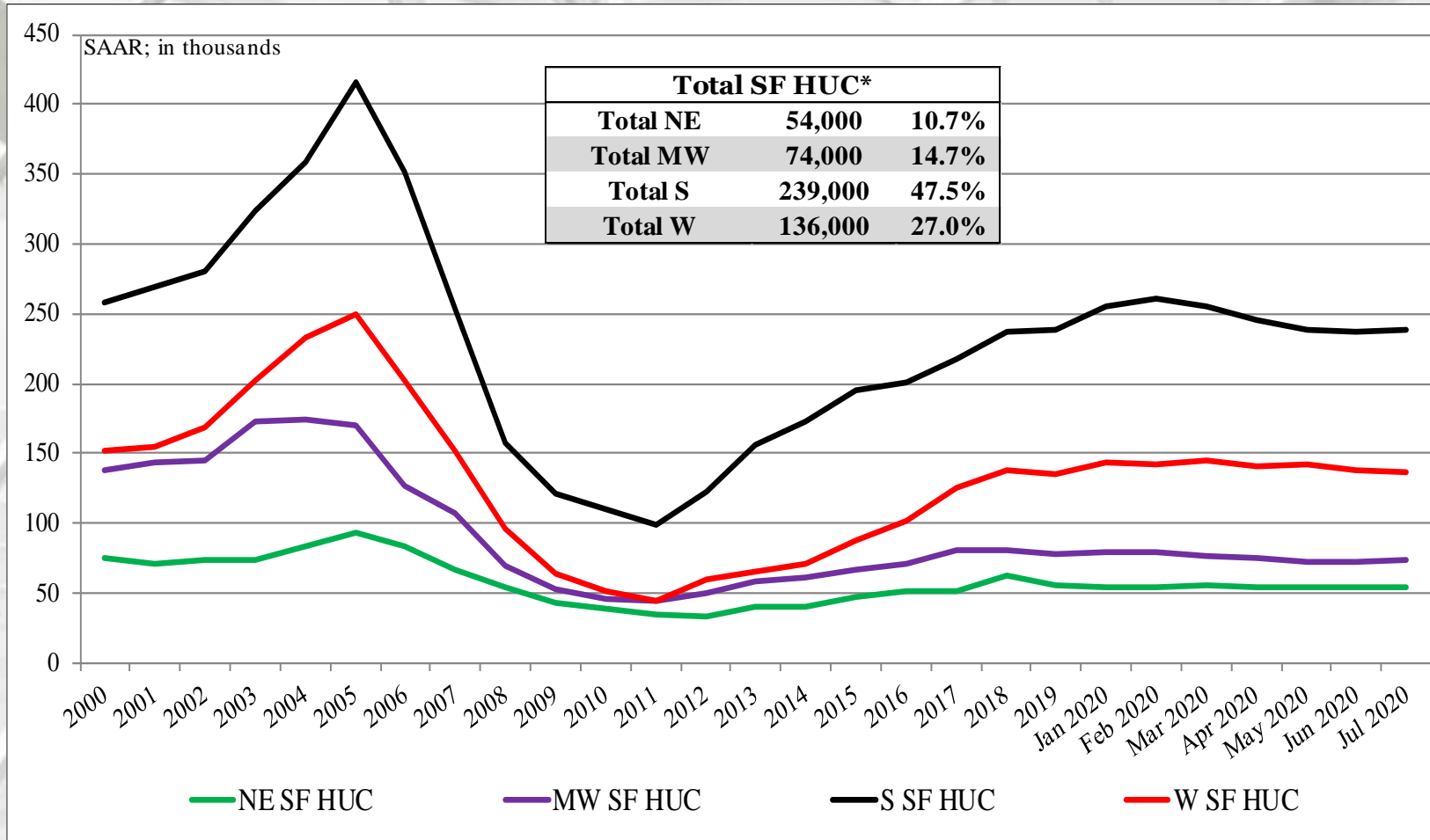


NE = Northeast, MW = Midwest, S = South, W = West

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

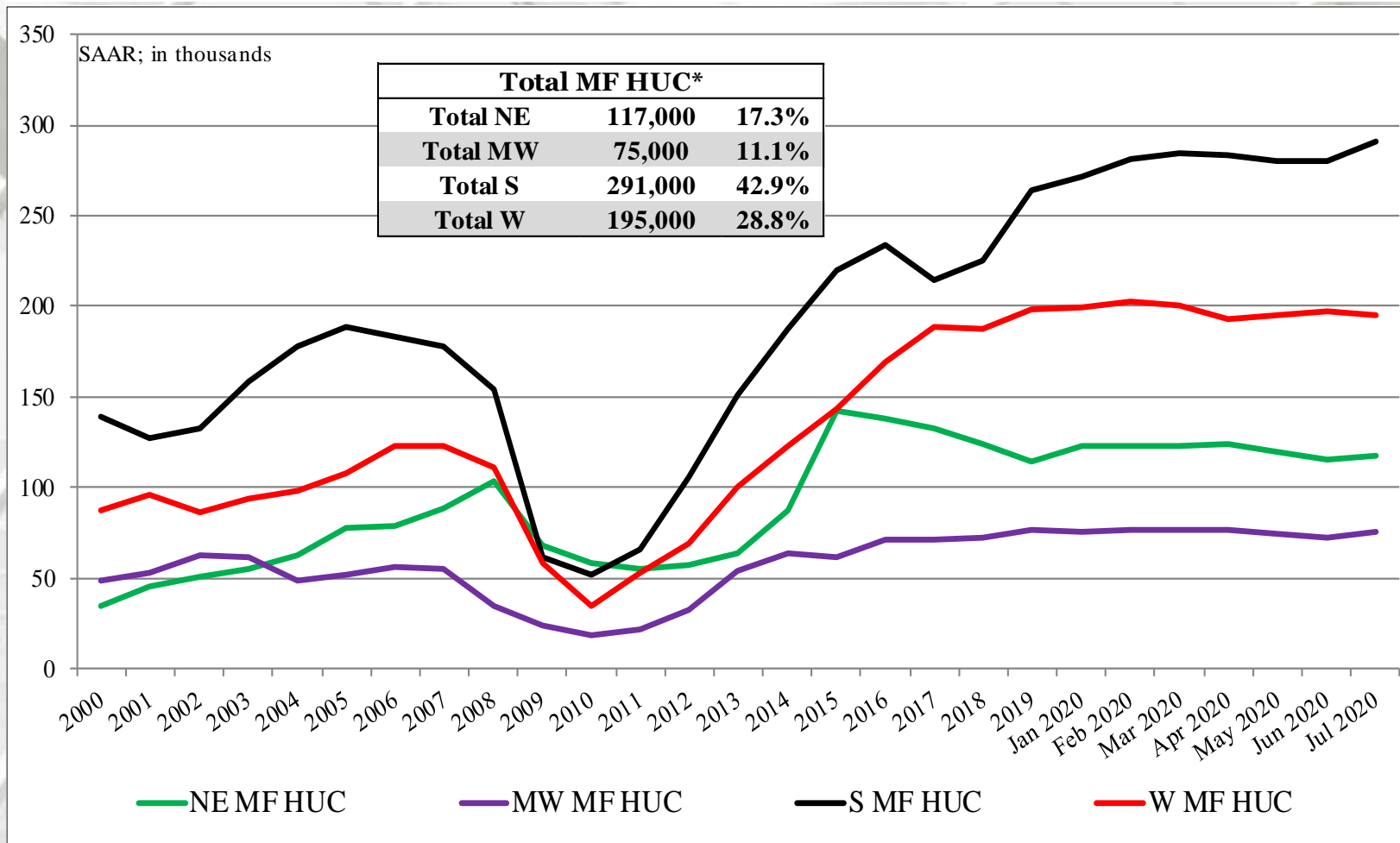


NE = Northeast, MW = Midwest, S = South, W = West.

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 + ≥ 5 MF under construction)).

* Percentage of total housing under construction units.

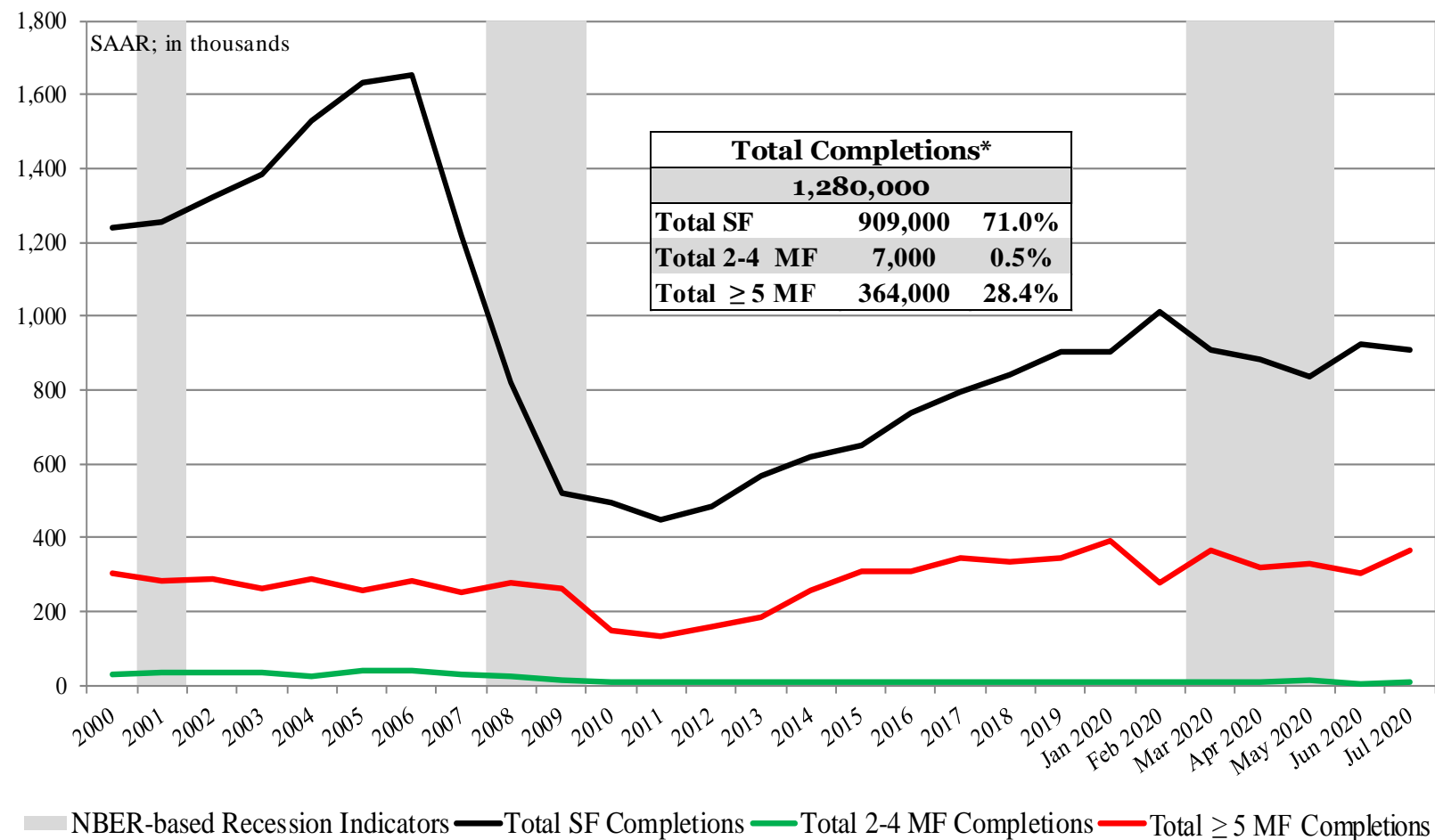
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
July	1,280,000	909,000	7,000	364,000
June	1,236,000	926,000	5,000	305,000
2019	1,258,000	913,000	11,000	334,000
M/M change	3.6%	-1.8%	40.0%	19.3%
Y/Y change	1.7%	-0.4%	-36.4%	9.0%

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

** US DOC does not report multifamily 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**
July	112,000	77,000	35,000
June	71,000	57,000	14,000
2019	105,000	69,000	36,000
M/M change	57.7%	35.1%	150.0%
Y/Y change	6.7%	11.6%	-2.8%
	MW Total	MW SF	MW MF
July	138,000	105,000	33,000
June	188,000	131,000	57,000
2019	196,000	125,000	71,000
M/M change	-26.6%	-19.8%	-42.1%
Y/Y change	-29.6%	-16.0%	-53.5%

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

** US DOC does not report multifamily units completions directly, this is an estimation
(Total completions – SF completions).

New Housing Completions by Region

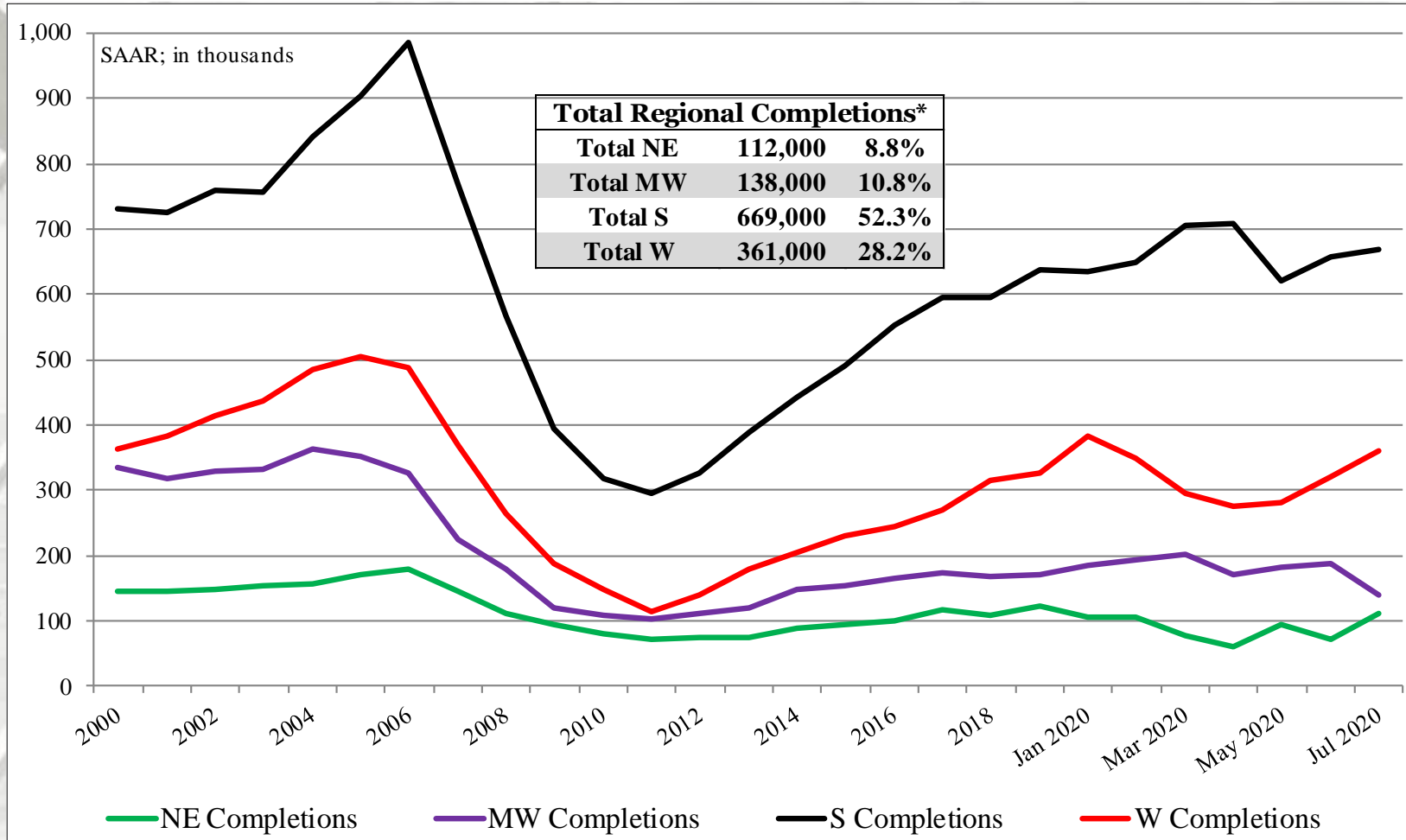
	S Total	S SF	S MF**
July	669,000	495,000	174,000
June	658,000	501,000	157,000
2019	667,000	523,000	144,000
M/M change	1.7%	-1.2%	10.8%
Y/Y change	0.3%	-5.4%	20.8%
	W Total	W SF	W MF
July	361,000	232,000	129,000
June	319,000	237,000	82,000
2019	290,000	196,000	94,000
M/M change	13.2%	-2.1%	57.3%
Y/Y change	24.5%	18.4%	37.2%

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

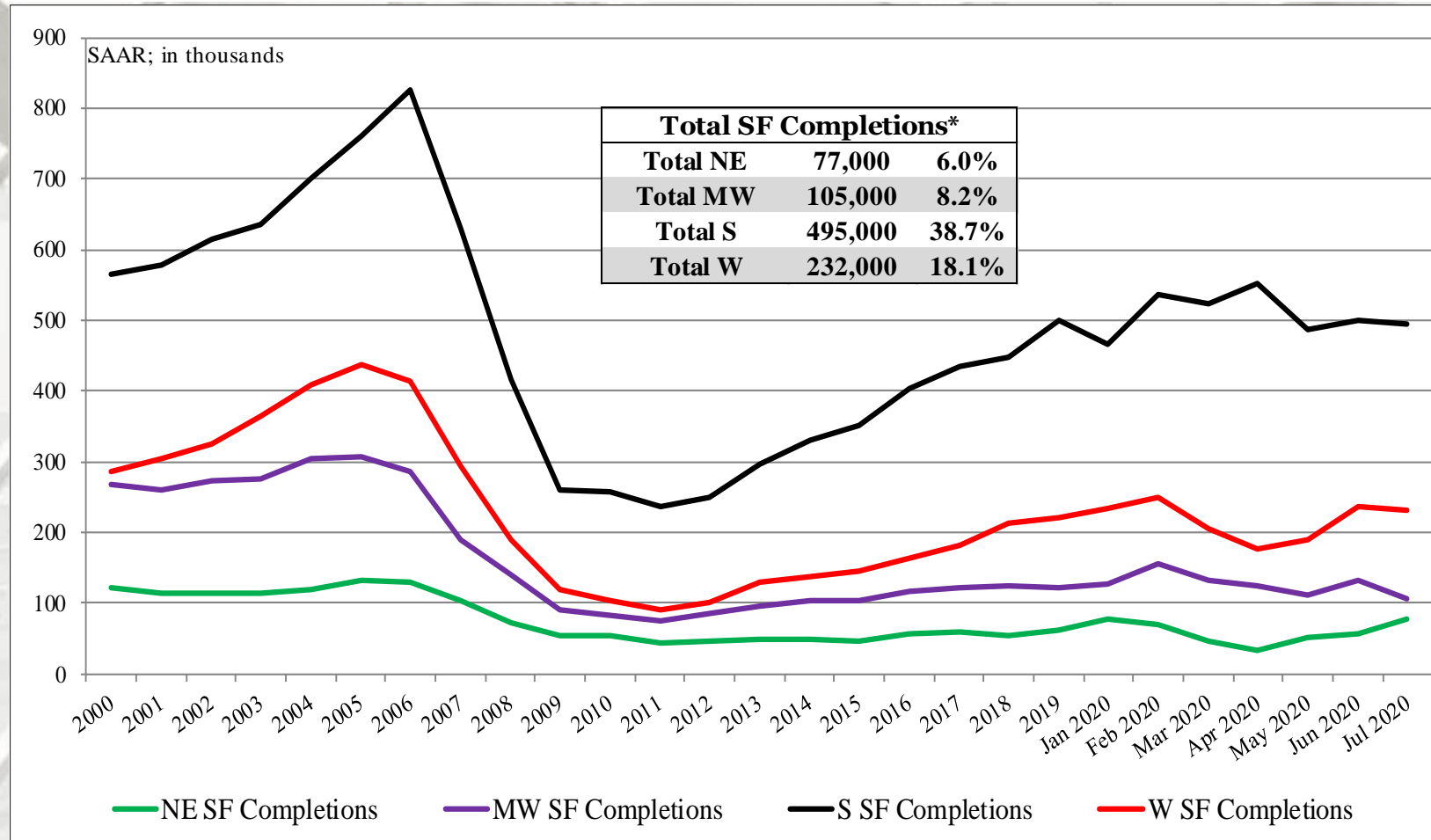
Total Housing Completions by Region



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

** US DOC does not report multifamily units completions directly, this is an estimation
(Total completions – SF completions).

SF Housing Completions by Region

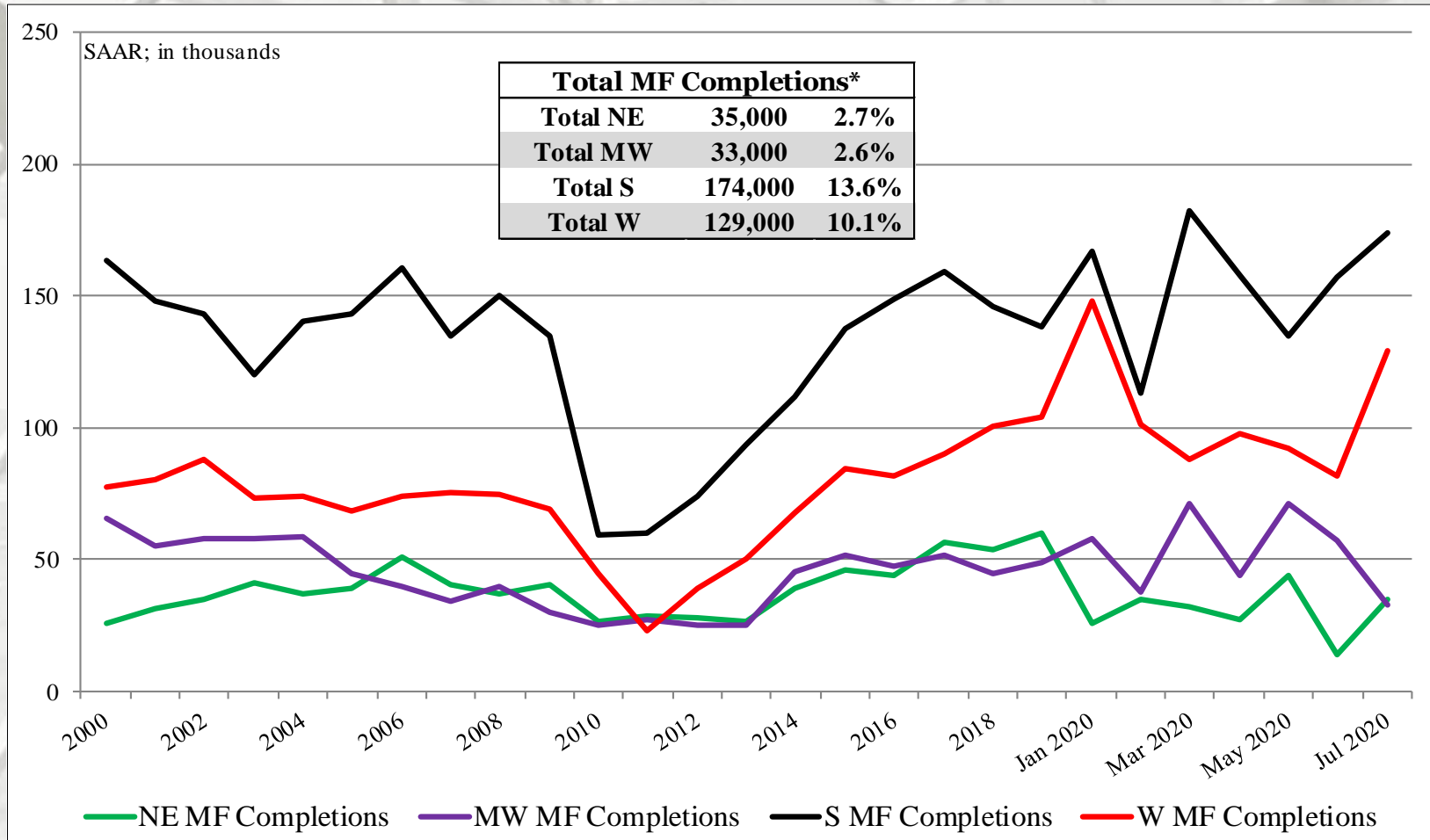


NE = Northeast, MW = Midwest, S = South, W = West

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
July	901,000	\$330,600	\$391,300	4.0
June	791,000	\$337,000	\$381,900	4.6
2019	661,000	\$308,300	\$373,500	6.0
M/M change	13.9%	-1.9%	2.5%	-13.0%
Y/Y change	36.3%	7.2%	4.8%	-33.3%

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

New SF sales were much greater than the consensus forecast³ of 901 m (range: 735 m to 800 m). The past three month's new SF sales data also were revised:

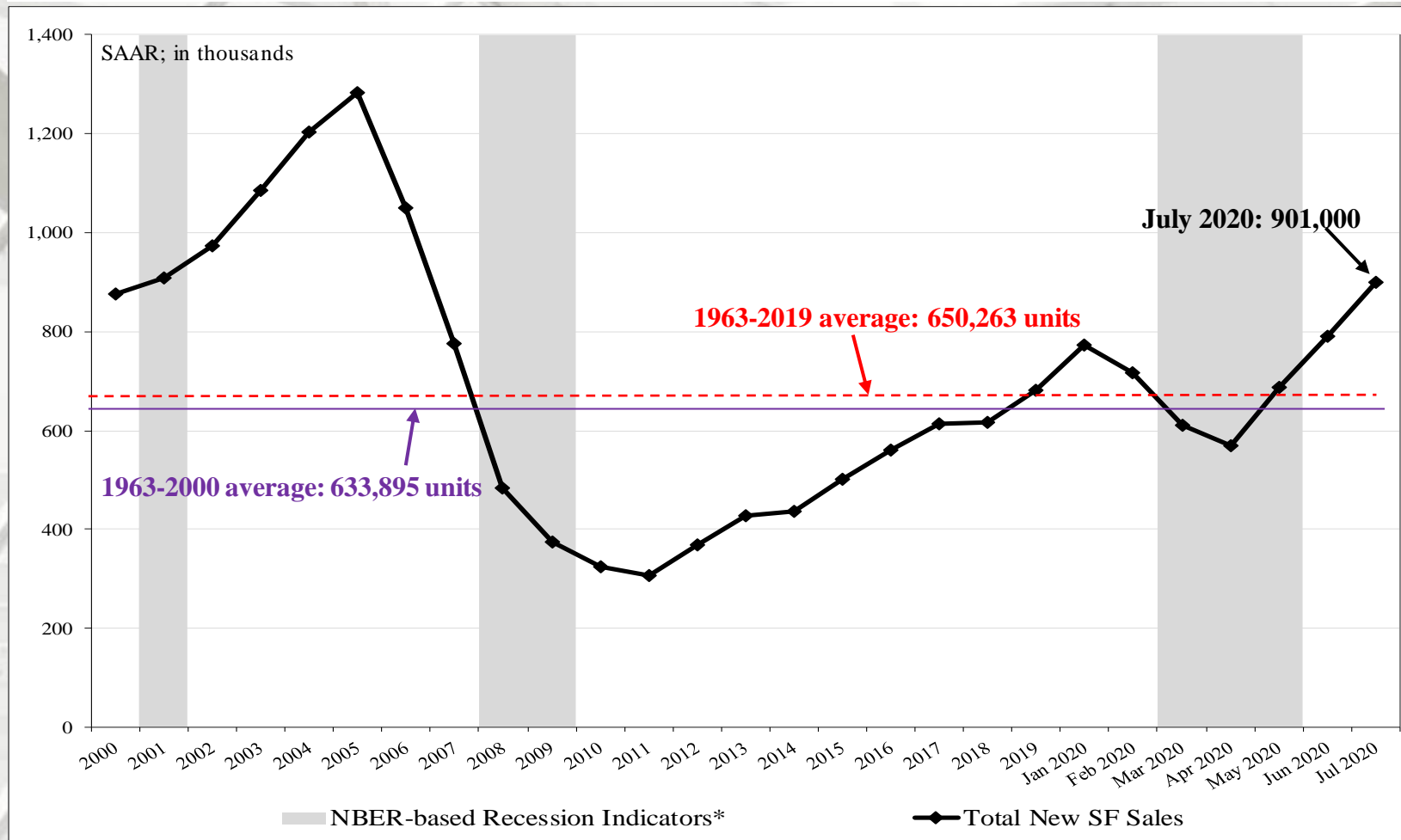
April initial:	623 m revised to 570 m;
May initial:	676 m revised to 687 m;
June initial:	776 m revised to 791 m;

Sources: ¹ <https://www.census.gov/construction/nrs/index.html>; 8/25/20; ² <https://www.census.gov/construction/nrs/pdf/newressales.pdf>

³ <http://us.econoday.com/>; 8/25/20

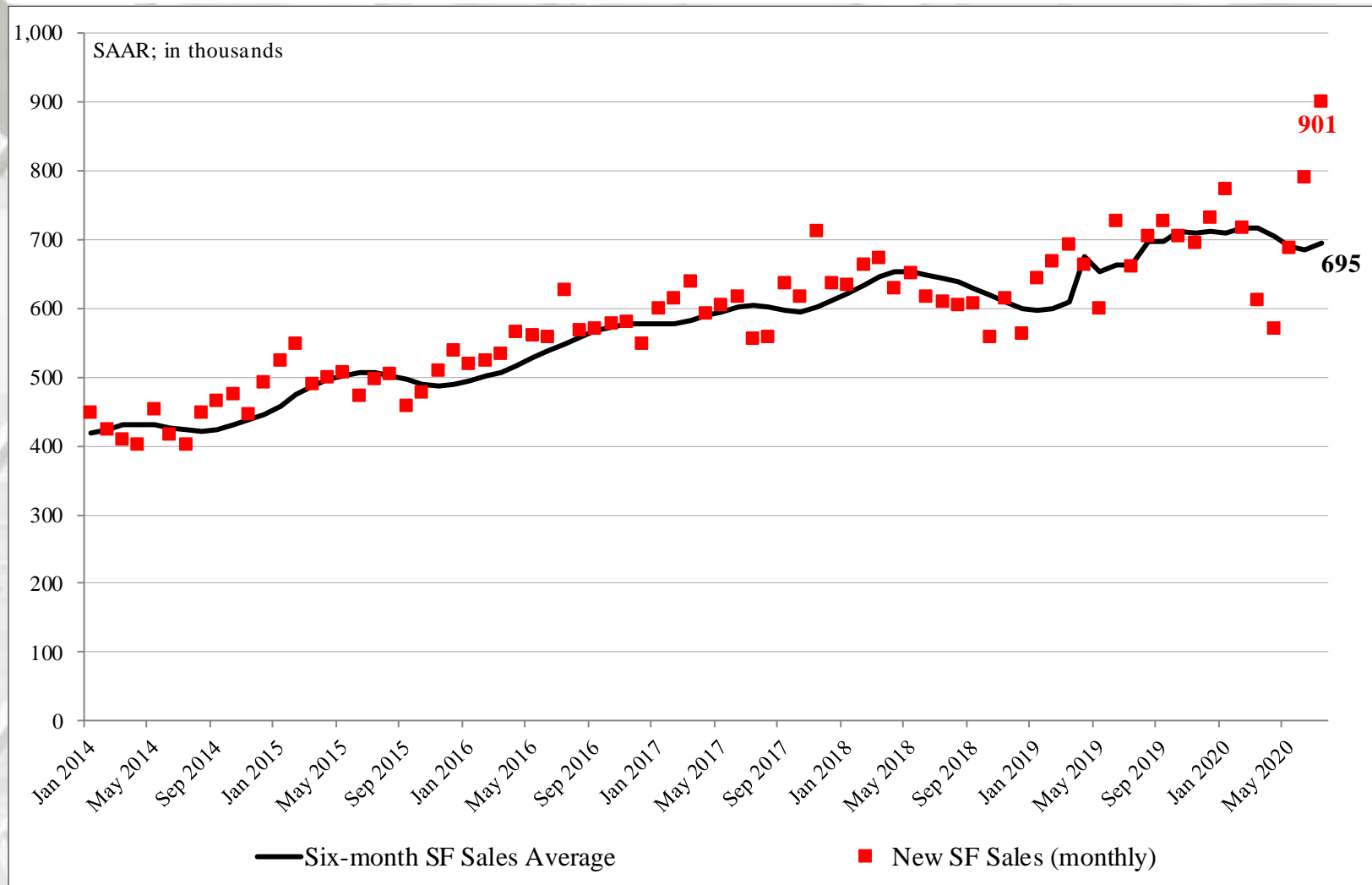
Return TOC

New SF House Sales



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

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE	MW	S	W
July	52,000	80,000	454,000	205,000
June	30,000	75,000	406,000	176,000
2019	26,000	63,000	442,000	195,000
M/M change	73.3%	6.7%	11.8%	16.5%
Y/Y change	100.0%	27.0%	2.7%	5.1%
			</	

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

¹ All data are SAAR

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

³ Detail July not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

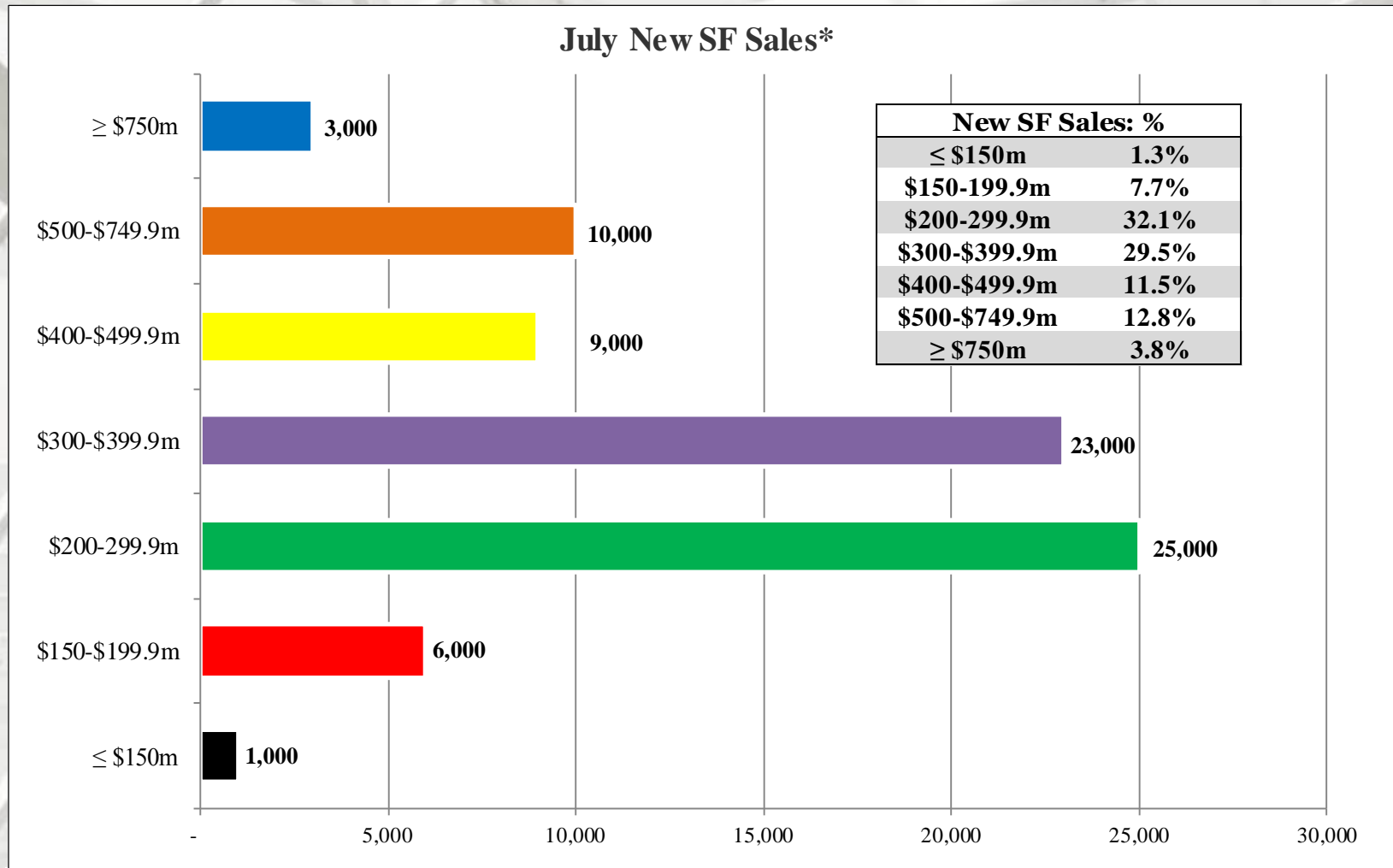
⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 8/25/20;

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

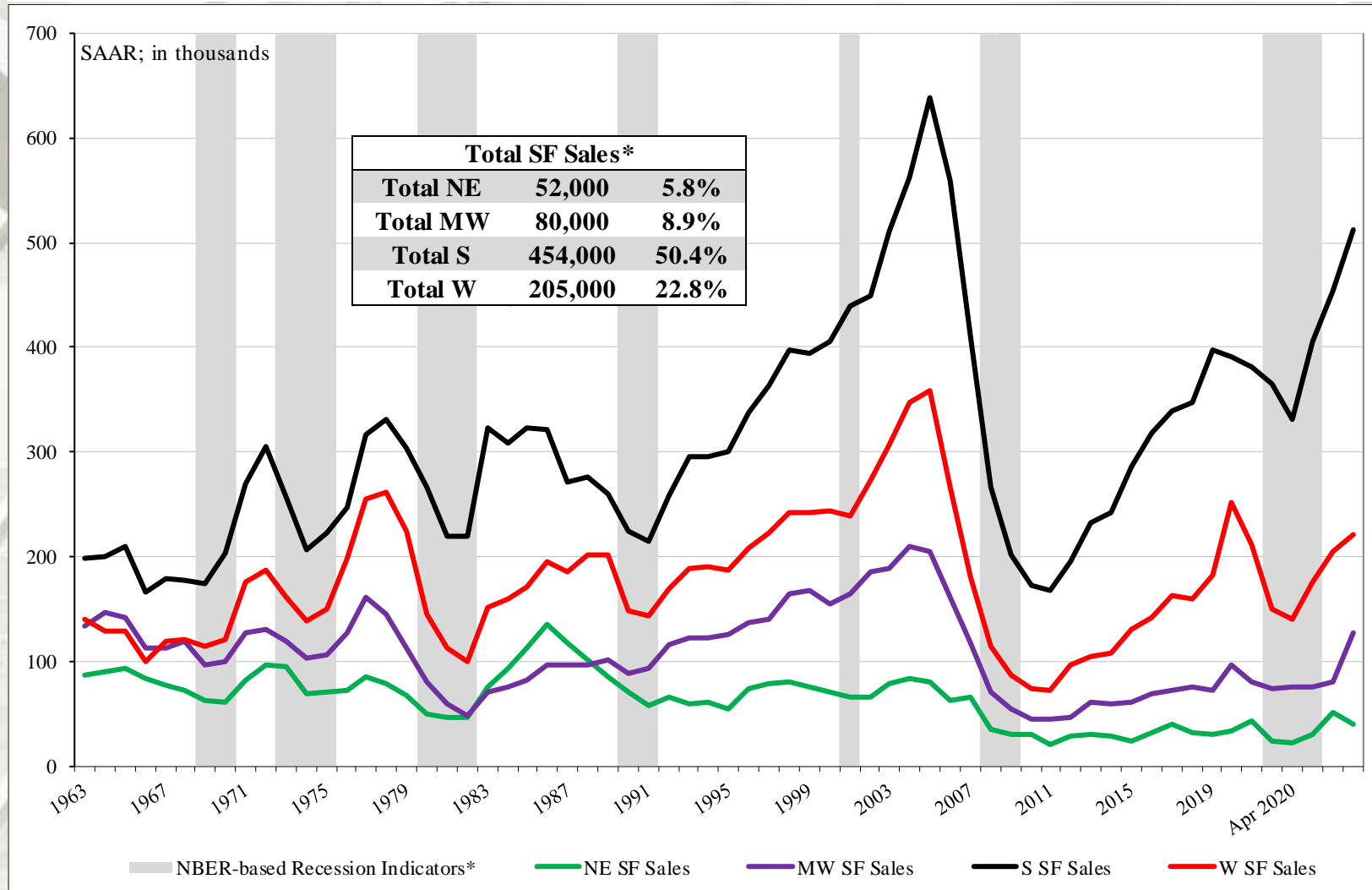
Return TOC

New SF House Sales



- Total new sales by price category and percent.

New SF House Sales by Region

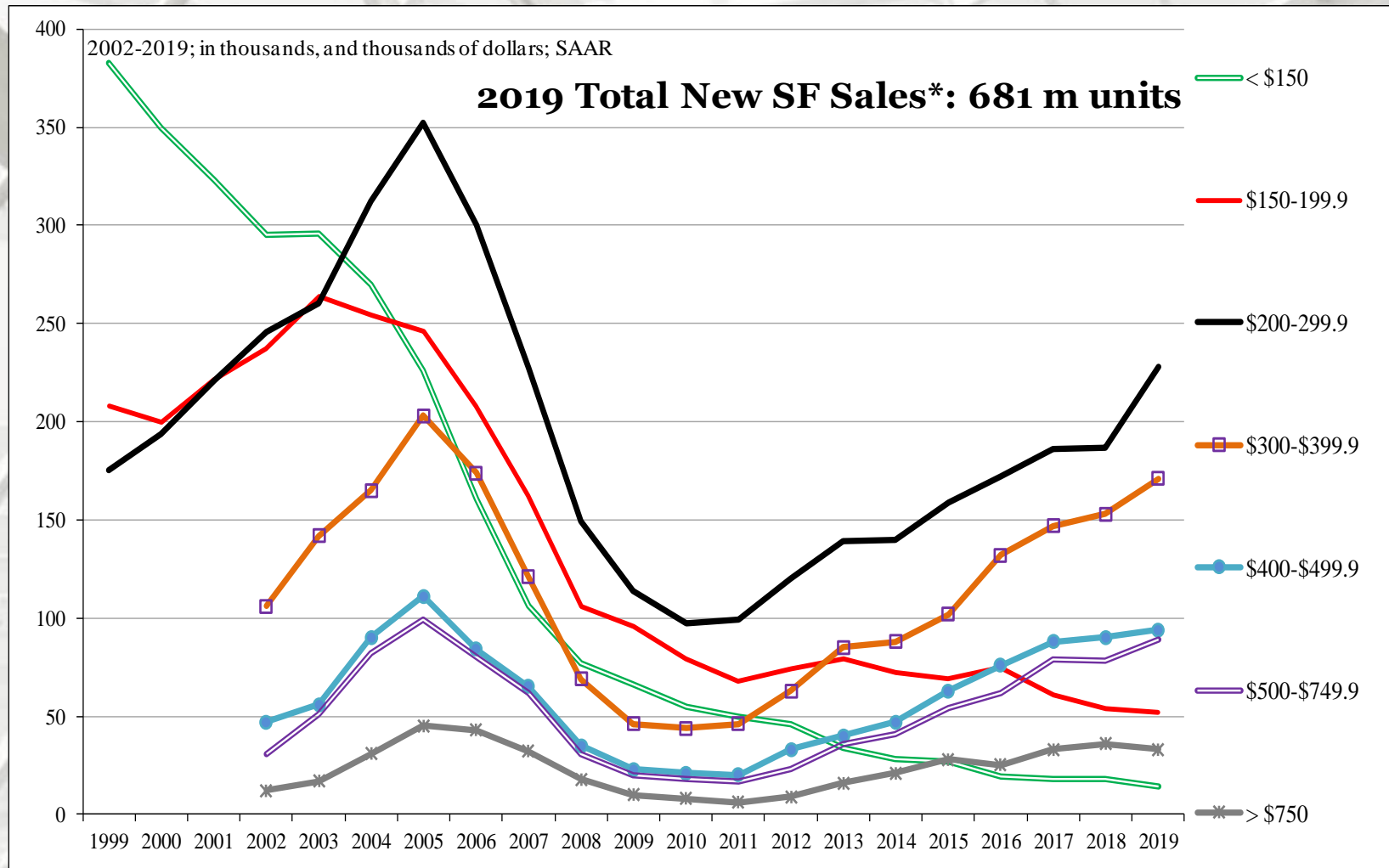


NE = Northeast; MW = Midwest; S = South; W = West

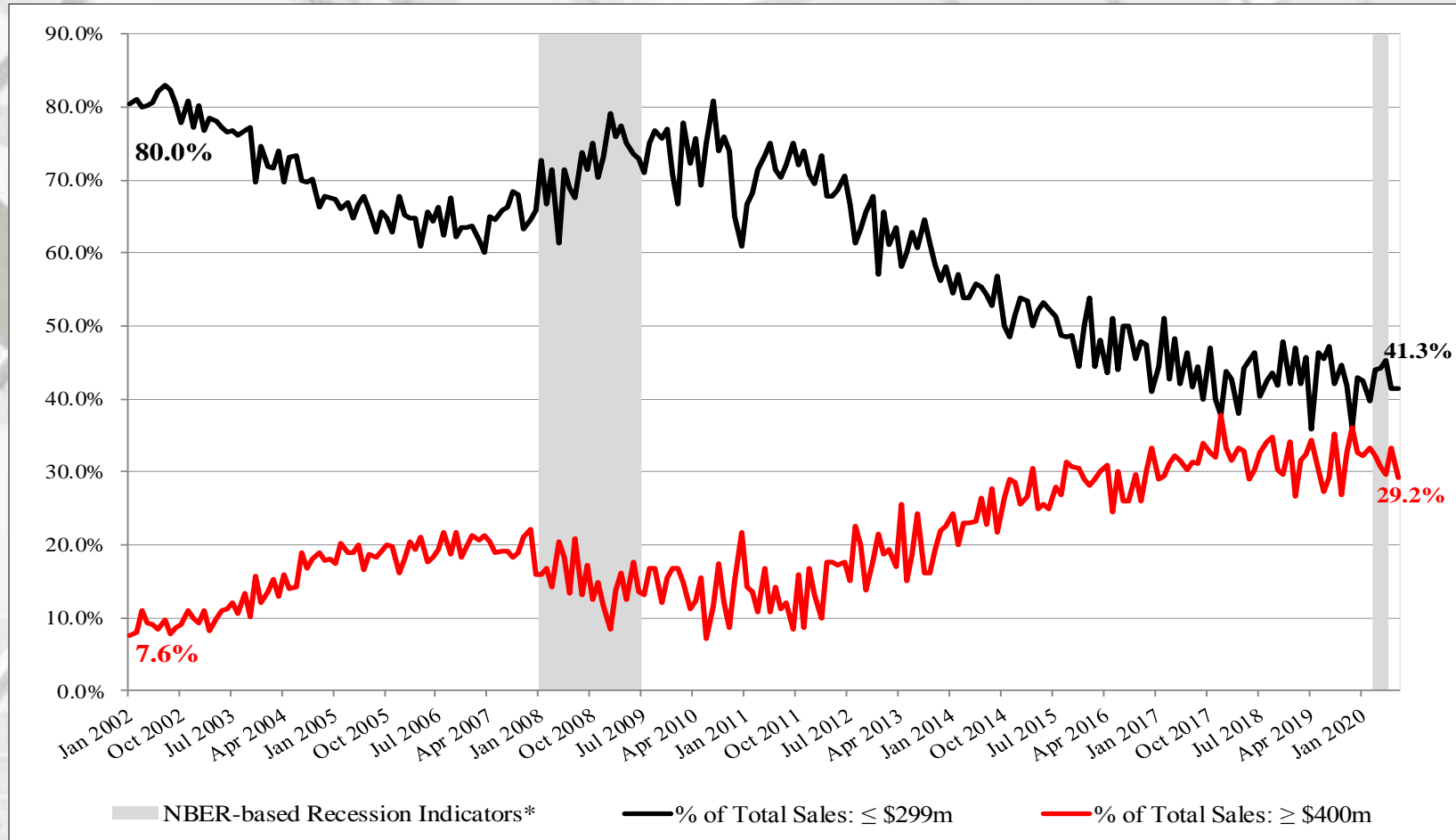
* Percentage of total new sales.

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

New SF House Sales by Price Category



New SF House Sales

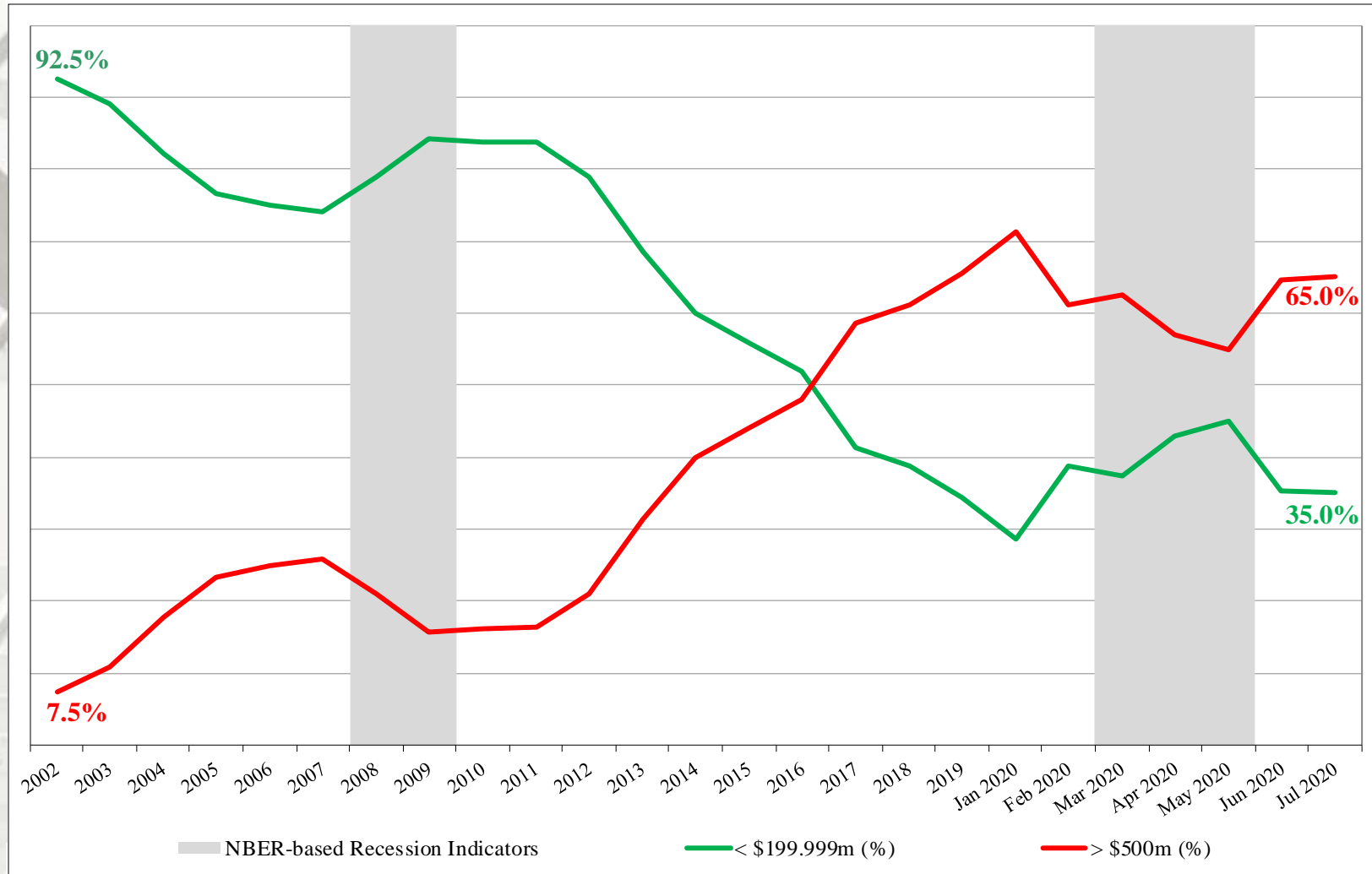


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: ≤ \$200m and ≥ \$400m: 2002 – July 2020

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

New SF House Sales



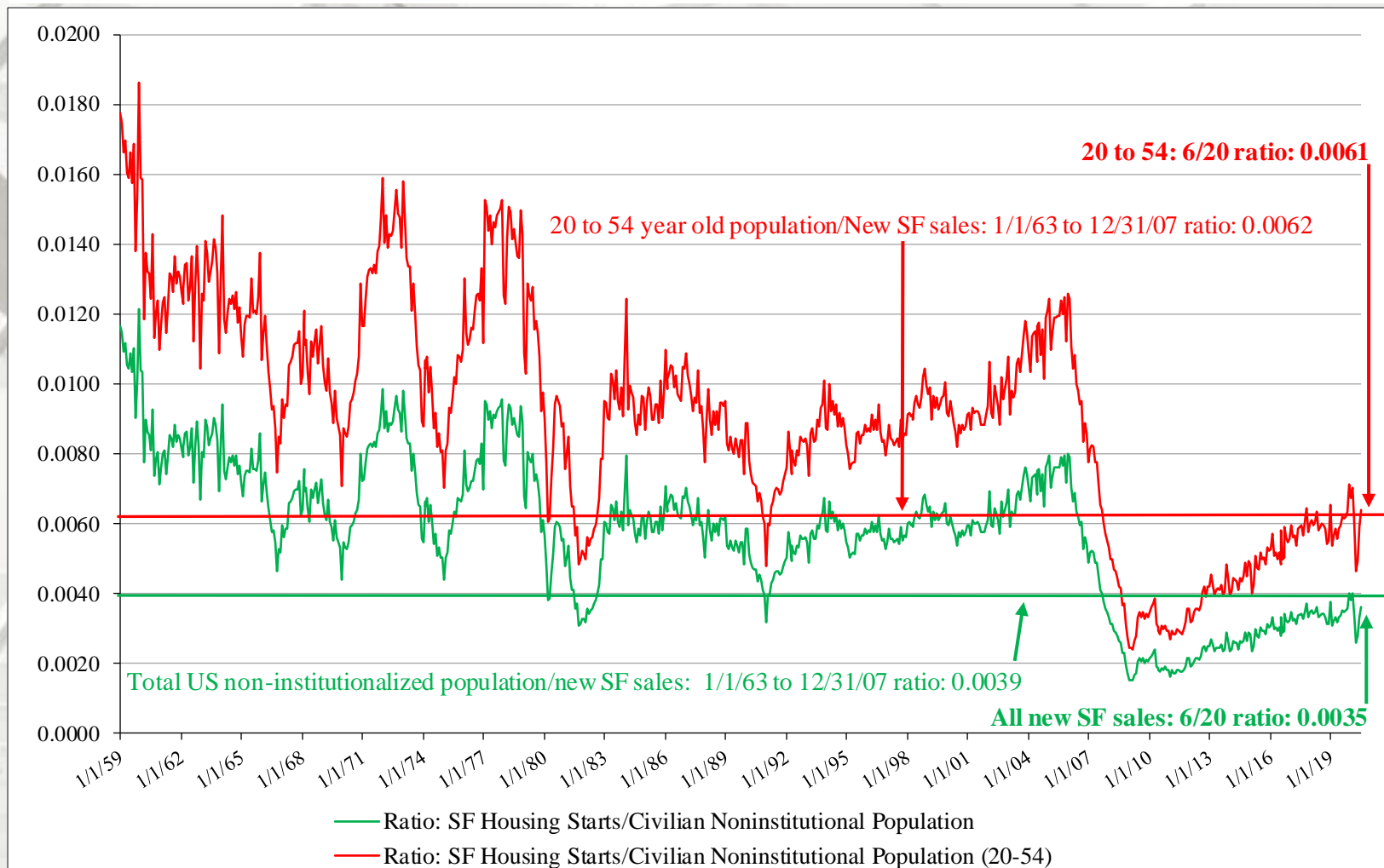
New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to July 2020

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

Note: Sales values are not adjusted for inflation.

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

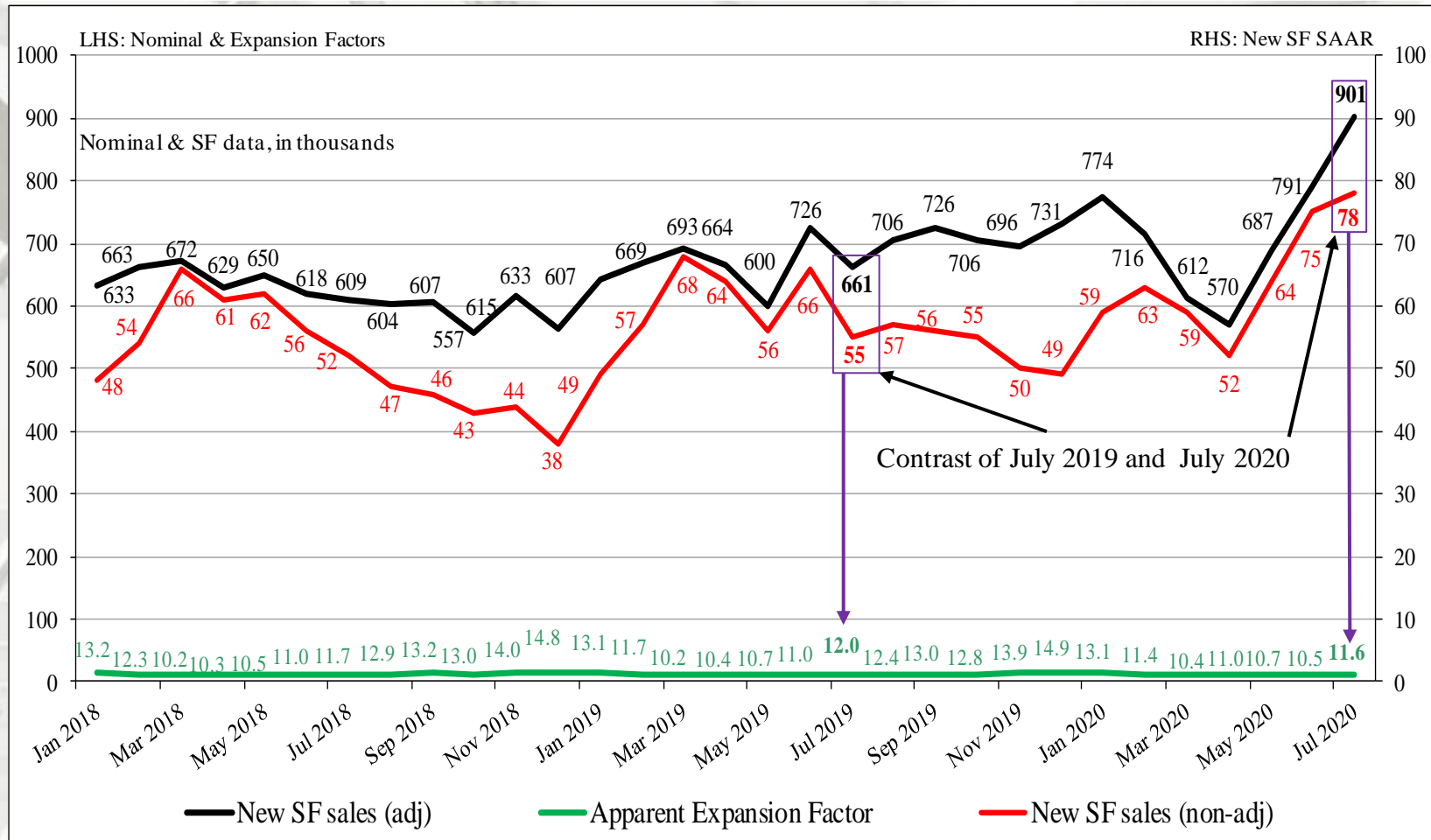
New SF House Sales



New SF sales adjusted for the US population

From January 1963 to January 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in July 2020 it was 0.0035 – an increase from June (0.0030). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in July 2020 it was 0.0061 – also an increase from June (0.0054). All are non-adjusted data. From a population viewpoint, construction is less than what is necessary for changes in the population (i.e., under-building).

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

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

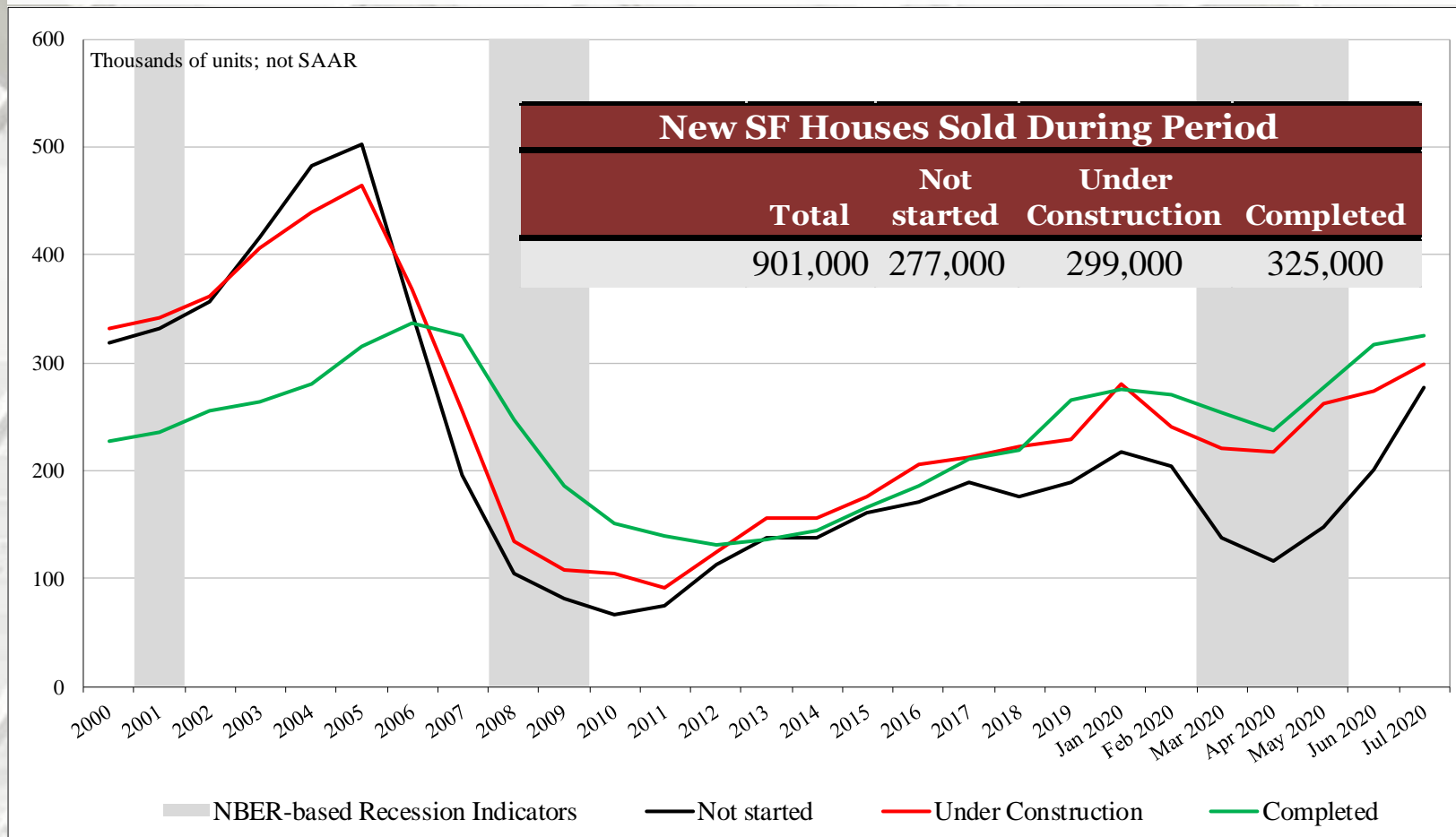
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
July	901,000	277,000	299,000	325,000
June	791,000	201,000	274,000	316,000
2019	661,000	178,000	234,000	249,000
M/M change	13.9%	37.8%	9.1%	2.8%
Y/Y change	36.3%	55.6%	27.8%	30.5%
Total percentage		30.7%	33.2%	36.1%

Not SAAR

New SF House Sales: Sold During Period



Not SAAR

* 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

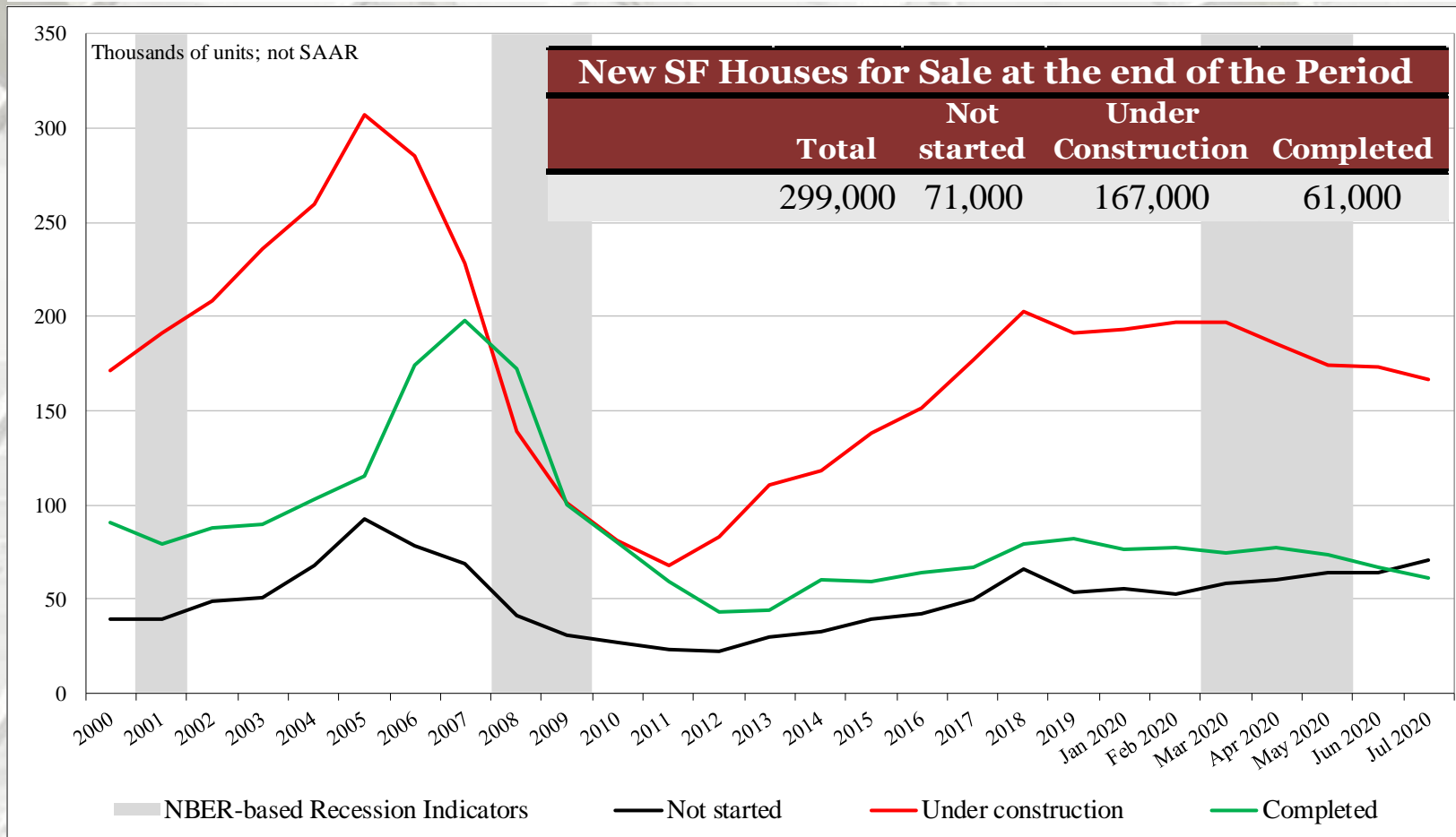
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
July	299,000	71,000	167,000	61,000
June	304,000	64,000	173,000	67,000
2019	328,000	53,000	195,000	80,000
M/M change	-1.6%	10.9%	-3.5%	-9.0%
Y/Y change	-8.8%	34.0%	-14.4%	-23.8%
Total percentage		23.7%	55.9%	20.4%

Not SAAR

Sales of homes “Not started” registered a decline in July.

New SF House Sales: For Sale at End of Period



Not SAAR

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

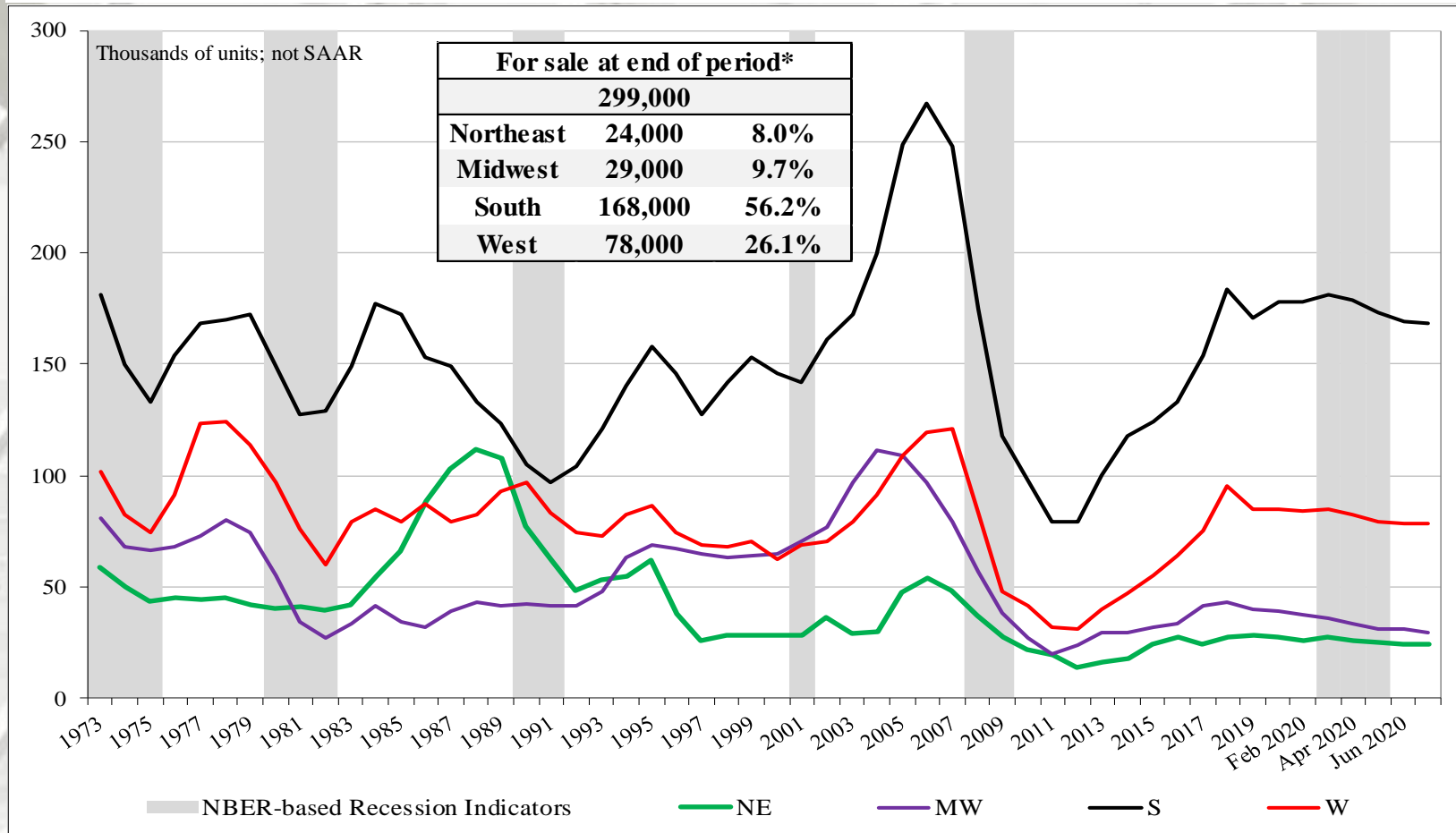
New SF House Sales

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

	Total	NE	MW	S	W
July	299,000	24,000	29,000	168,000	78,000
June	303,000	24,000	31,000	169,000	78,000
2019	327,000	29,000	37,000	174,000	87,000
M/M change	-1.3%	0.0%	-6.5%	-0.6%	0.0%
Y/Y change	-8.6%	-17.2%	-21.6%	-3.4%	-10.3%

* 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).

July 2019

Construction Spending

	Total Private Residential*	SF	MF	Improvement**
July	\$546,600	\$268,018	\$85,758	\$192,824
June	\$535,586	\$259,933	\$81,786	\$193,867
2019	\$543,830	\$276,868	\$80,937	\$186,025
M/M change	2.1%	3.1%	4.9%	-0.5%
Y/Y change	0.5%	-3.2%	6.0%	3.7%

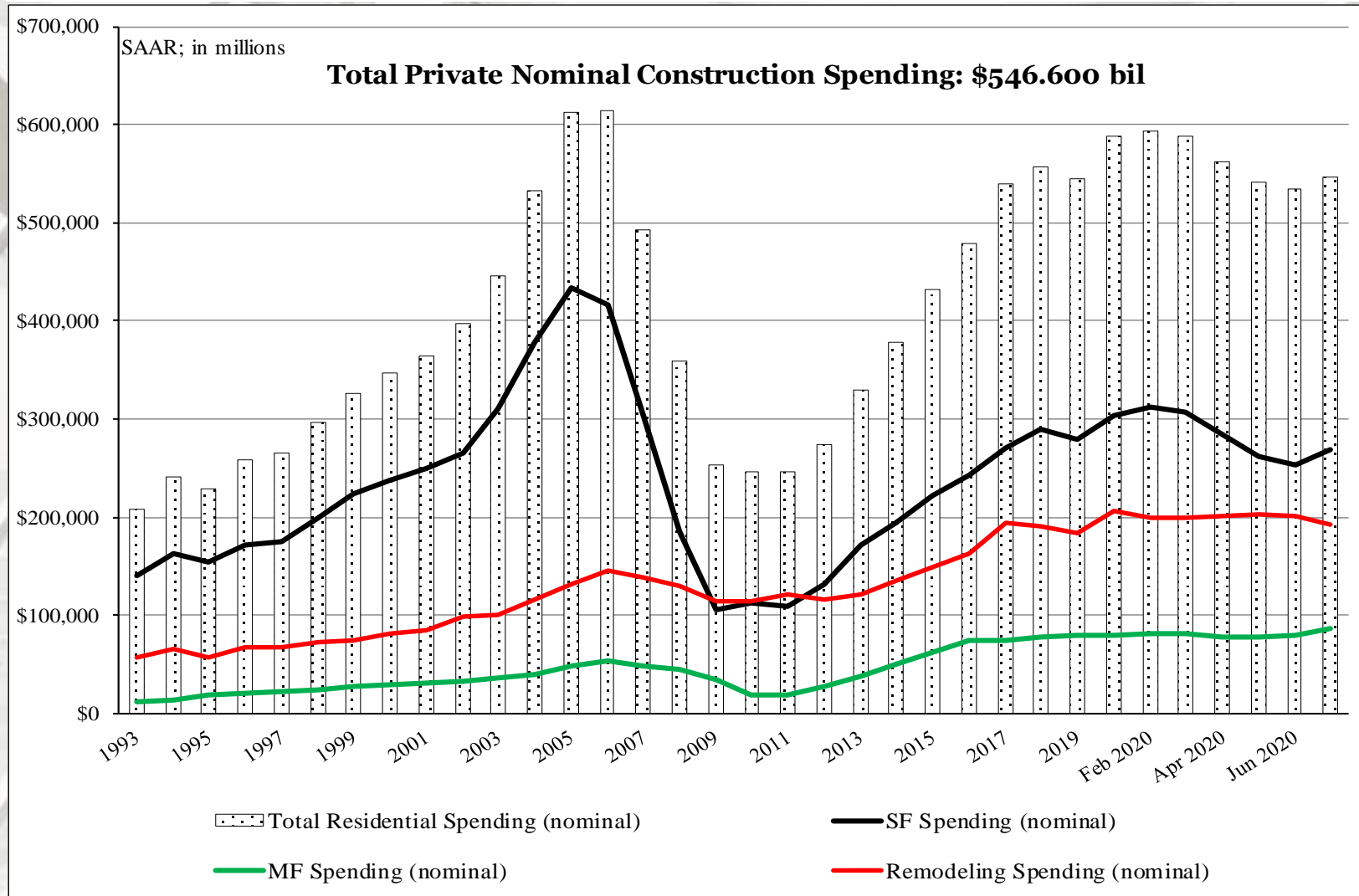
* billion.

** The US DOC does not report improvement spending directly, this is a monthly estimation:

((Total Private Spending – (SF spending + MF spending)).

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

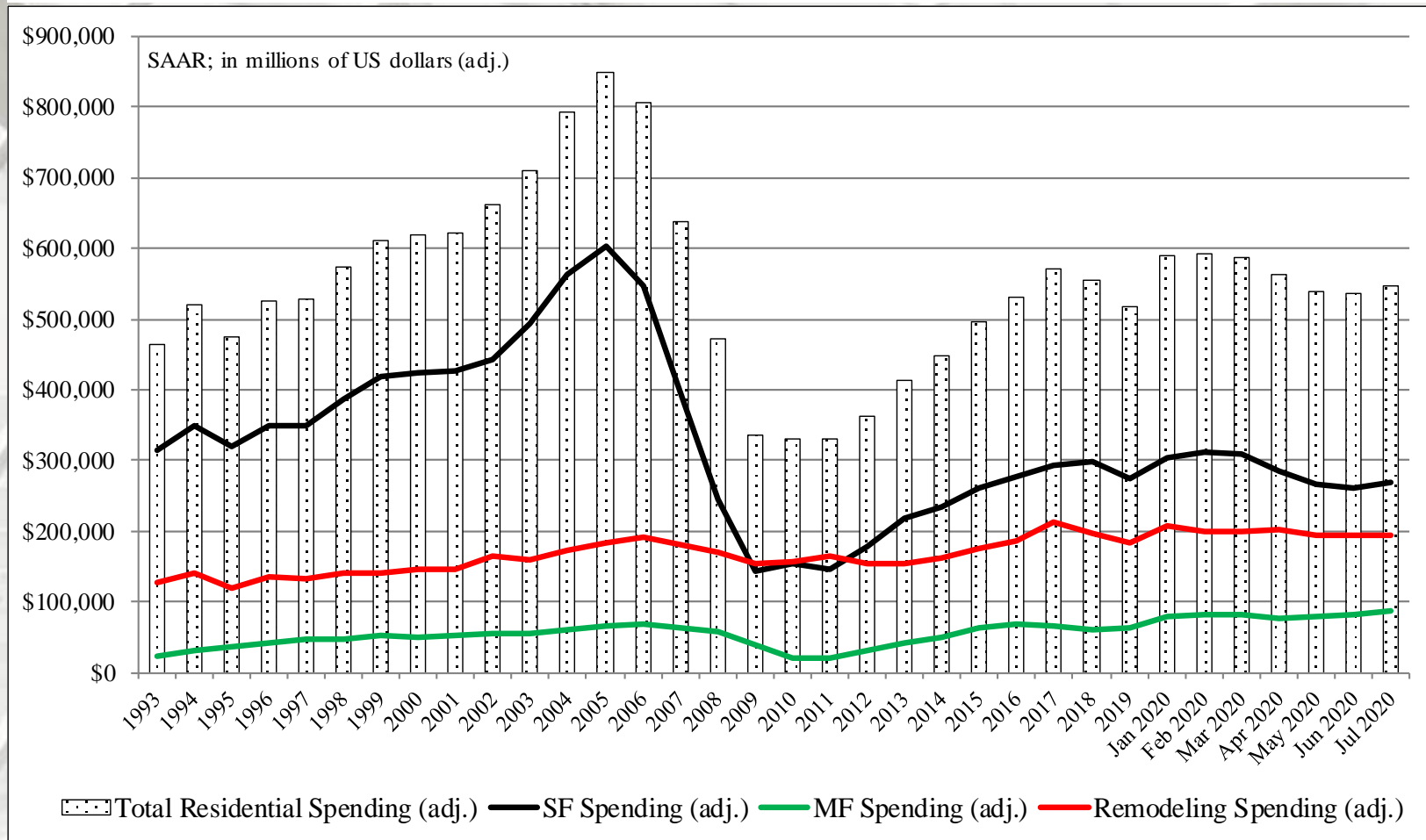
Total Construction Spending (nominal): 1993 – July 2020



Reported in nominal US\$.

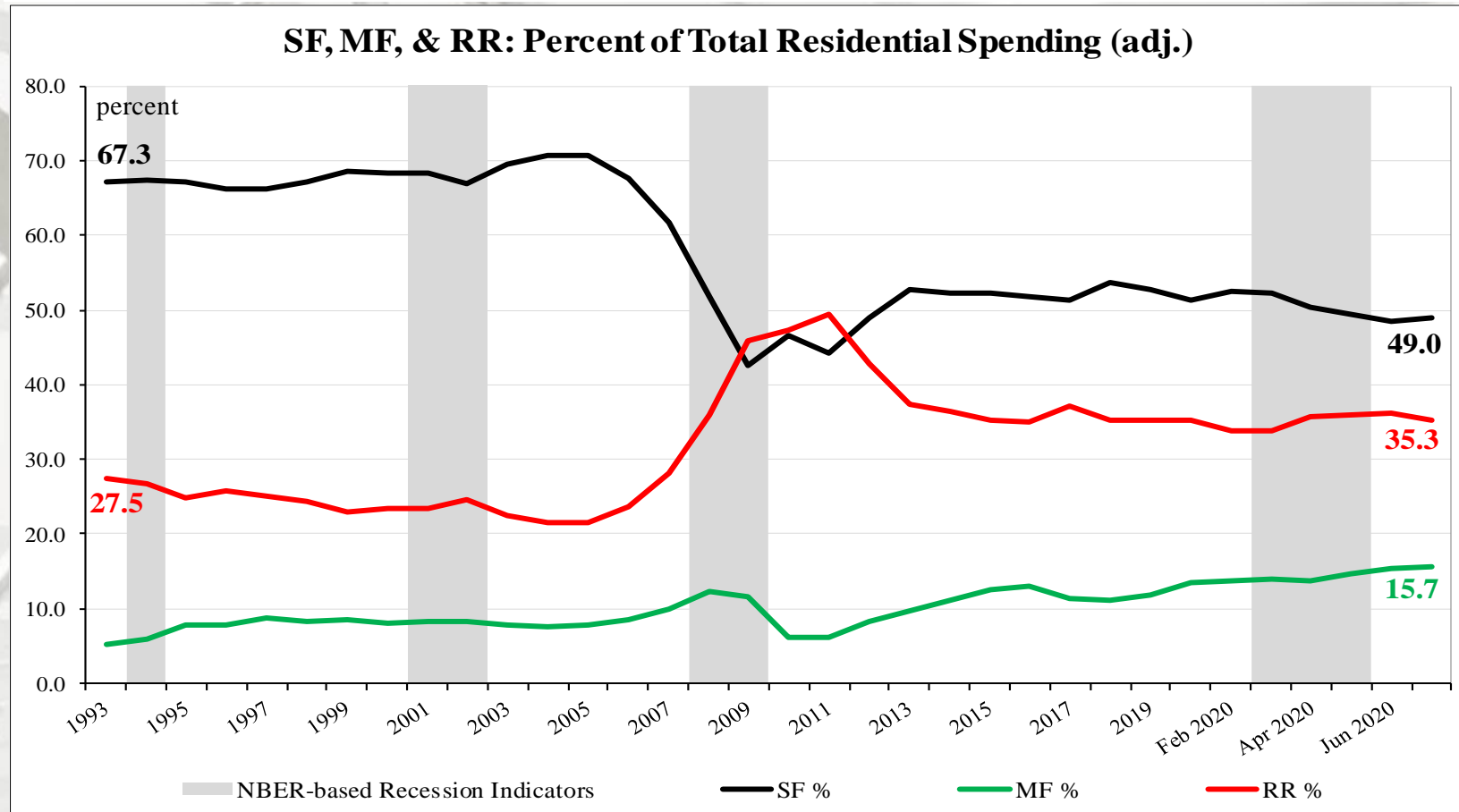
The US DOC does not report improvement spending directly, this is a monthly estimation for 2020.

Total Construction Spending (adjusted): 1993-July 2020



Reported in adjusted US\$: 1993 – 2018 (adjusted for inflation, BEA Table 1.1.9); January to July 2020 reported in nominal US\$.

Construction Spending Shares: 1993 to July 2020



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5 %

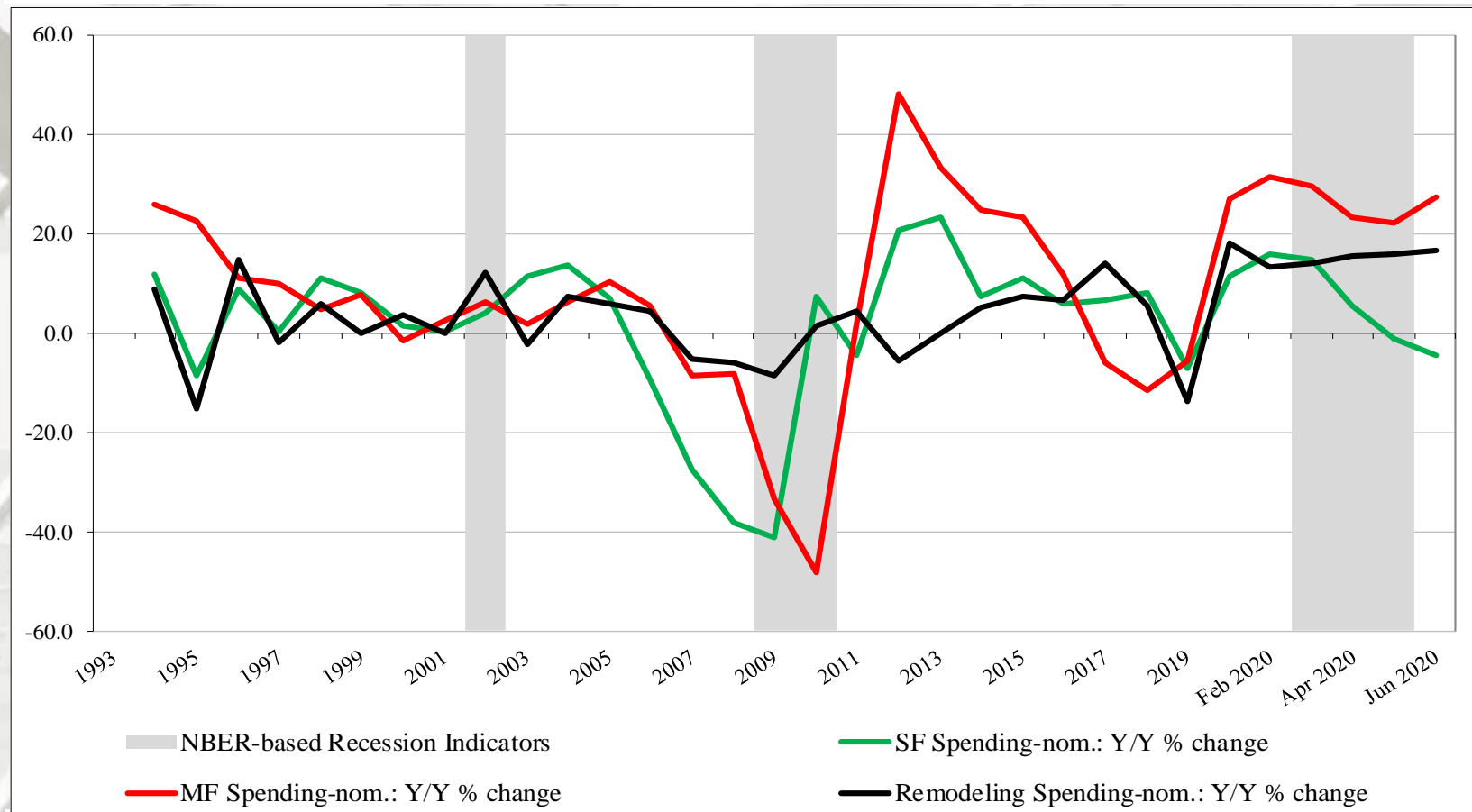
Residential remodeling (RR) spending average: 23.3 % (SAAR).

Note: 1993 to 2019 (adjusted for inflation, BEA Table 1.1.9); January-July 2020 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>, 6/8/20; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 9/1/20 and <http://www.bea.gov/iTable/iTable.cfm>; 3/2/20

Adjusted Construction Spending: Y/Y Percentage Change, 1993 to July 2020

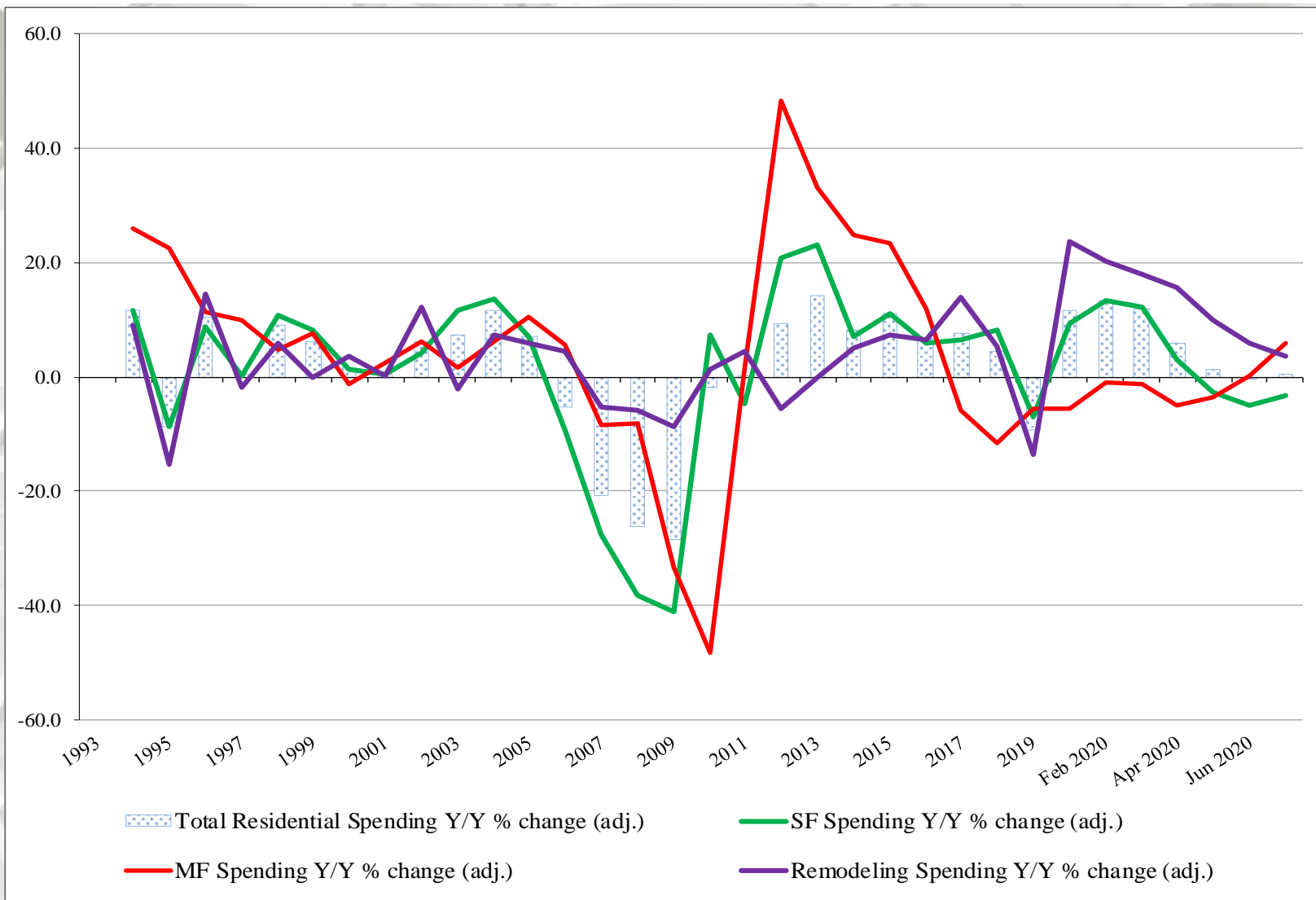


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to July 2020

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF and RR expenditures were positive on a percentage basis, year-over-year (2020 data reported in nominal dollars).

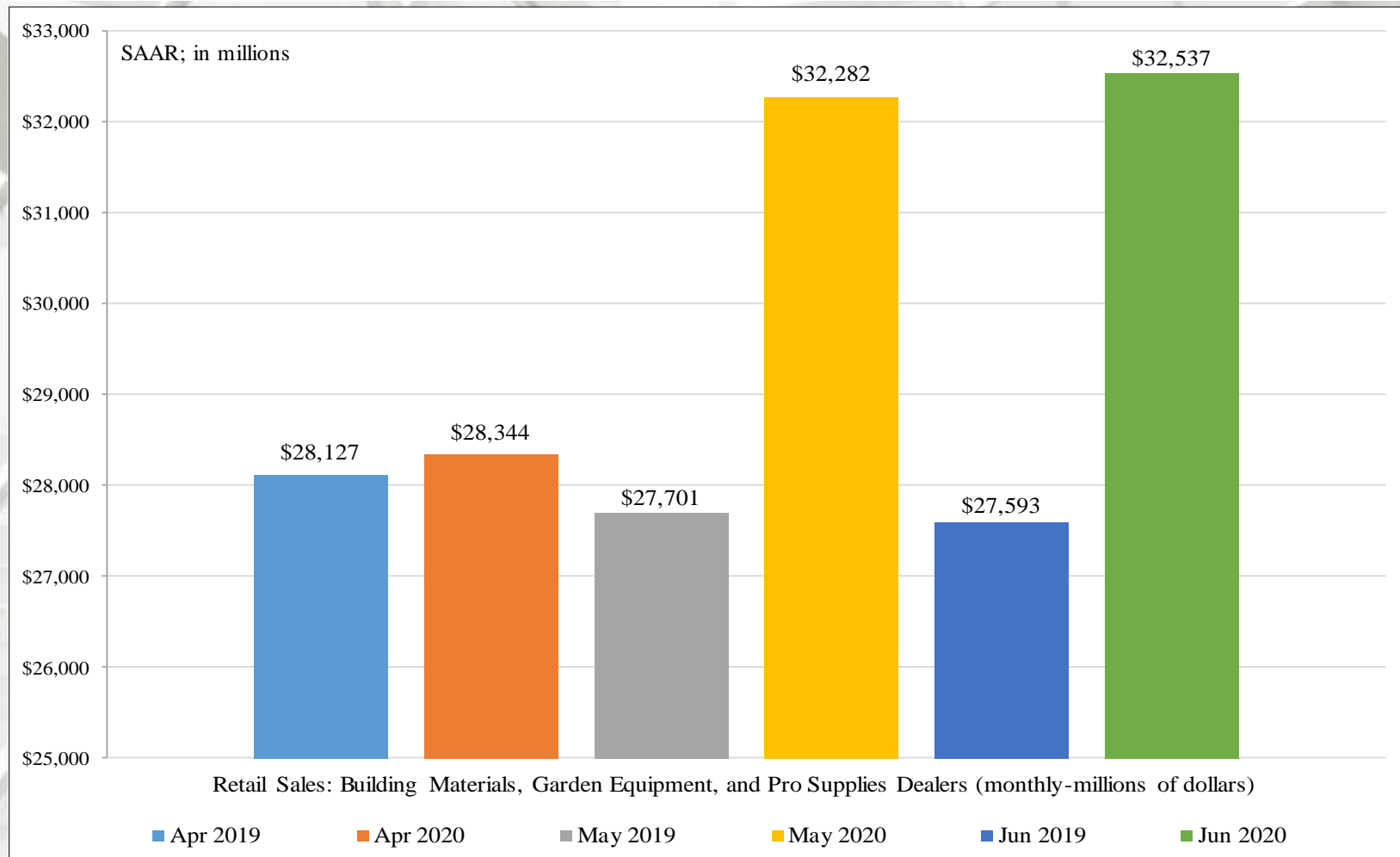
* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Adjusted Construction Spending: Y/Y Percentage Change, 1993 to July 2020



Remodeling

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

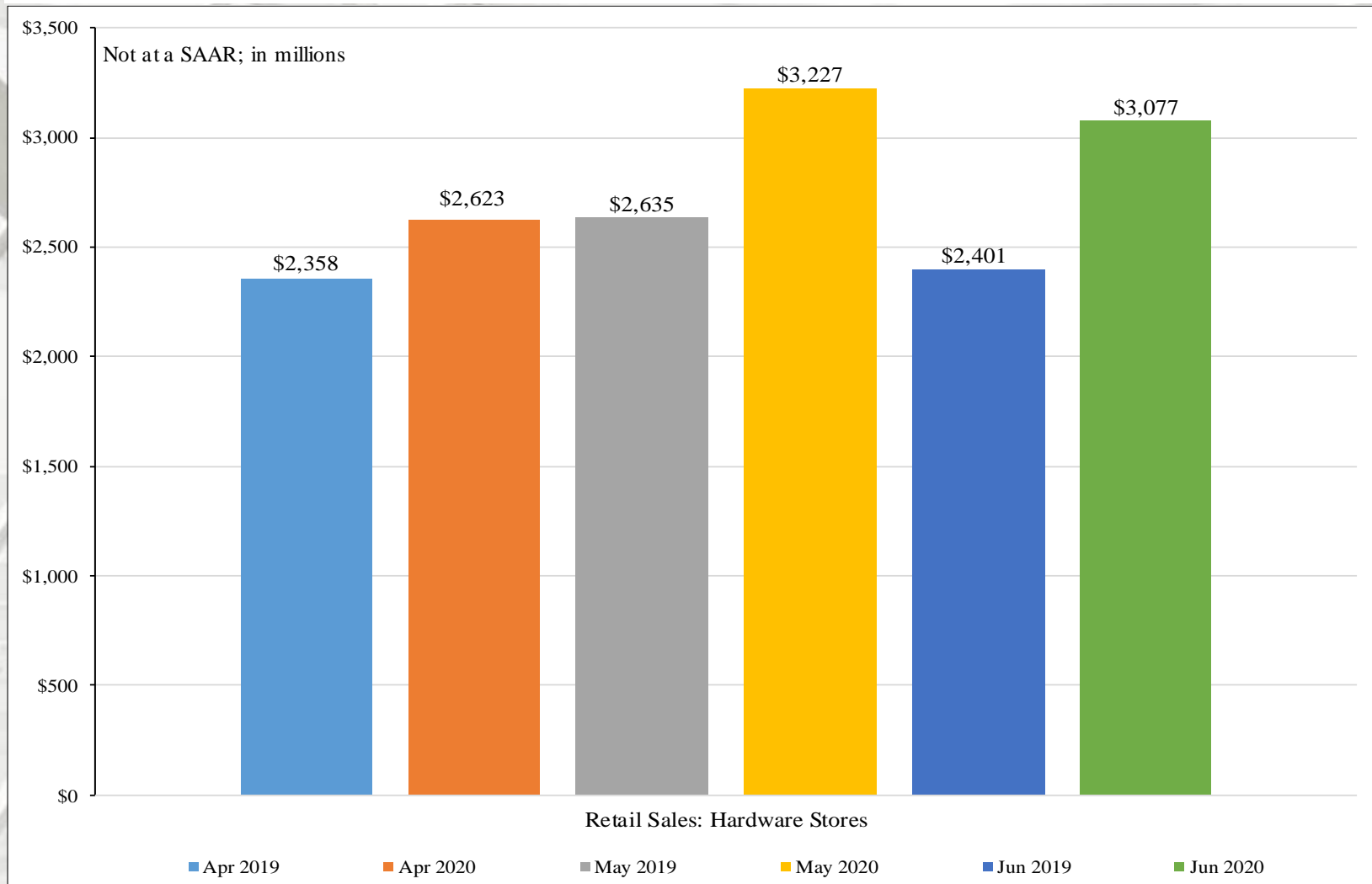


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 4441

NAICS 4441 sales increased 0.8% from May and improved 17.9% from June 2019 (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales declined 4.6% from May and increased 28.2% from June 2019 (on a non-adjusted basis).

Remodeling

National Kitchen & Bath Association (NKBA)

Impact of Coronavirus on Kitchen and Bath Industry Eases in Q2

The second quarter Kitchen & Bath Market Index shows declining demand and industry revenues but significantly improving optimism regarding future business conditions and overall industry health.

“After a first quarter where optimism and market outlook were significantly impacted by the early stages of the coronavirus (COVID-19) pandemic, the [Q2 2020 Kitchen & Bath Market Index \(KBMI\)](#) shows more positive market outlooks for industry professionals amid declining revenues and sales. The [National Kitchen & Bath Association \(NKBA\)](#) KBMI revealed kitchen and bath professionals rated the current health of the industry as 5.9 out of 10, up significantly from the 4.1 rating for the first quarter.

According to the KBMI, demand and revenues declined for industry professionals during the second quarter. The kitchen and bath industry contracted in the second quarter, with the KBMI reporting a 44.2 out of 100, with 50 representing flat sales growth. The second quarter KBMI is more than 30% lower than last year's rating of 65.4 but is 10% higher than the first quarter rating of 41.0. The industry rates economic uncertainty, a U.S. economic recession, fear of a second wave of COVID-19, lack of consumer confidence, and stock market volatility as major underlying market challenges.

“Our members are feeling more optimistic about their business and the state of the kitchen and bath industry than they were last quarter,” Bill Darcy, CEO of the NKBA, said in a news release. “While there is an expected revenue decline for 2020, the industry is still valued at \$130.8 billion, and as homeowners feel more comfortable returning to showrooms and resuming work in their homes, we’re well-positioned for a steady recovery and eventual rebound in the long run.”” – Vincent Salandro, Assistant Editor, Remodeling

Remodeling

National Kitchen & Bath Association (NKBA)

Impact of Coronavirus on Kitchen and Bath Industry Eases in Q2

“While the impact of COVID-19 and the corresponding economic fallout on the industry remain obvious, NKBA members cite a pent-up demand for home improvement work. The industry now expects full-year's sales to decline by just 4.4% in 2020, after projections in the first quarter that sales would drop by 13.7%. According to the KBMI, the industry is considerably more positive on future market conditions (61.9 index reading out of 100) than current market conditions (31.3 index reading out of 100).

All segments of the industry reported COVID-19 had less of an impact on their business in the second quarter of 2020 compared with the first quarter. Businesses rated COVID-19's impact as 6.4 out of 10 in the second quarter, down significantly from 8.1 in the first quarter. Designers reported being most impacted by the virus, while retailers were least impacted, likely due to the surge in DIY projects benefiting big-box retailers.

More than a quarter of designers said demand was significantly lower than before the pandemic, although nearly one-third of design firms said clients are requesting more proposals for future projects as a result of sheltering-in-place. Manufacturers in the kitchen and bath industry reported the impact of furloughs was less severe in the second quarter than the first quarter and, on average, manufacturers reported running at 72% capacity. More than half of building and construction firms reported more than 80% of their active projects are on schedule, more than a 300% improvement from the first quarter. While project delays remain a concern, 80% of postponed projects for building and construction firms are expected to resume by the end of the calendar year.” – Vincent Salandro, Assistant Editor, Remodeling

Remodeling

National Kitchen & Bath Association (NKBA)

Impact of Coronavirus on Kitchen and Bath Industry Eases in Q2

“Nearly half of the responding companies reported a major change in the type of products and services requested by clients. Nearly all reported an increased in DIY project assistance as homeowners look to complete projects themselves to save money, turning to small-scale projects. Nearly 60% of NKBA members reported experiencing supply chain disruptions, including longer lead times, slowing production, and shipping delays. Businesses in the flooring, appliance, and cabinet sectors were most impacted by these disruptions.

More than three-quarters of respondents noted customer demand for lower prices as consumers face their own economic uncertainty as a result of the pandemic. The average homeowner is also looking for more budget-friendly options and lowering the price point of projects of all sizes, according to the KBMI. The report said this shift may be partially attributed to older customers delaying projects due to COVID-19 concerns and more millennials with smaller budgets completing renovation projects.

NKBA members reported a shift in demands from clients in the second quarter towards wellness products in response to COVID-19. No-touch appliances, anti-microbial materials, and outdoor kitchens are gaining popularity as homeowners are thinking long-term about using their kitchens and bathrooms with health and sanitation top of mind.” – Vincent Salandro, Assistant Editor, Remodeling

Remodeling

Metrostudy/Zonda

Remodeling Outlook Remains Positive, But RRI Projects Future Strains Due to COVID-19

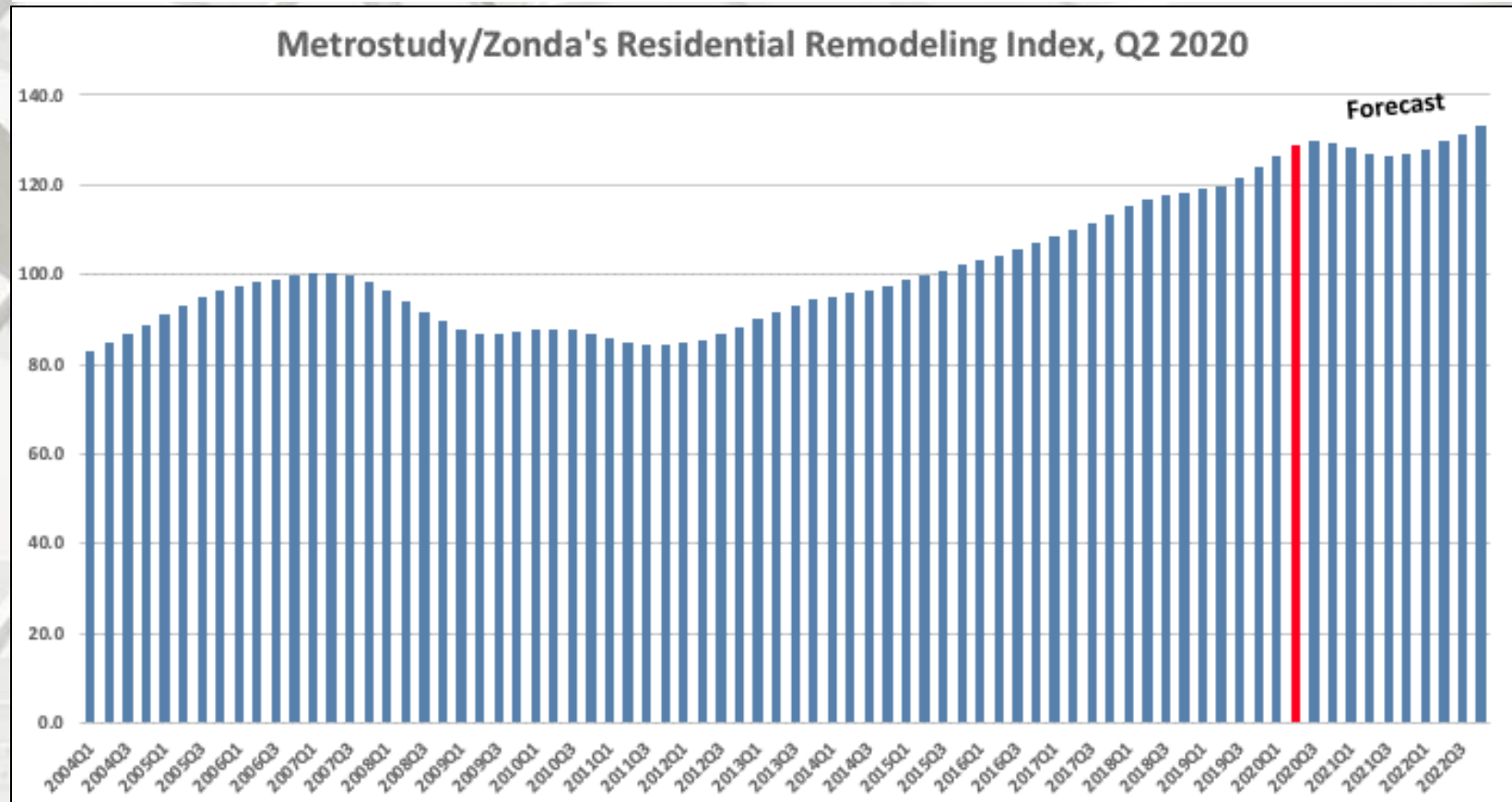
Despite strong activity in the remodeling sector during the second quarter, Metrostudy/Zonda projects remodeling activity will see quarterly declines beginning in the fourth quarter

“Big-ticket remodeling spending increased 7.5% year-over-year (YOY) in the second quarter of 2020 and 1.7% from the first quarter, according to the latest Residential Remodeling Index (RRI) released by Metrostudy/Zonda. In the second quarter, the RRI increased to a new high of 128.8, indicating economic conditions known to impact remodeling are 28.8% higher than the old peak in 2007.

The positive growth of the RRI marks the 33rd consecutive quarter of annual and quarterly gains for the index since national remodeling activity bottomed in 2011. Metrostudy/Zonda predicts the streak of annual and quarterly growth will come to an end in 2020 due to the impact of the coronavirus (COVID-19) pandemic. Based on the latest forecast from Moody’s Analytics for the economic and housing variables that are input into the RRI model, Metrostudy/Zonda projects remodeling activity will see quarterly decreases beginning in the fourth quarter of 2020, with YOY decreases beginning in the second quarter of 2021.

Metrostudy/Zonda projects the RRI will see an annual increase of 6.3% for the full year in 2020, but will see an annual decline of 1.2% in 2021. GDP, existing home sales and an unfavorable outlook for employment are expected to contribute to the decrease in remodeling activity in 2021, according to Metrostudy/Zonda.” – Vincent Salandro, Assistant Editor, Remodeling

Remodeling



Remodeling

Metrostudy/Zonda

Remodeling Outlook Remains Positive, But RRI Projects Future Strains Due to COVID-19

“Remodeling activity remained steady during the spring months despite concerns over COVID-19. Leisure and hospitality sector workers have borne the brunt of pandemic-related job losses, but workers and homeowners in other sectors who remained employed have continued to undergo remodeling projects while sheltering-in-place. In particular, homeowners working from home have become more attuned to imperfections in their home and engaged in retrofitting home offices.

Within the housing sector specifically, existing home sales increased on a month-to-month basis between May and June after three months of sharp declines early in the pandemic. Despite the recovery in June, existing home sales were still down 11.3% when compared to June 2019. Existing home sales could be more robust were it not facing an acute lack of supply, especially in lower price ranges. Shrinking supply portends lower home sales in the future, according to Metrostudy/Zonda. Lower home sales will also impact future remodeling activity, as new homeowners spend about 30% more on upgrades for their home purchases than longtime homeowners.

Metrostudy/Zonda projects the number of big-ticket, pro-worthy remodeling projects — worth \$1,000 or more — completed in 2020 will total 13.9 million, a 6.3% increase from 2019. Big-ticket exterior, basement, and flooring projects are expected to experience the largest increases in 2020 compared to the previous year while big-ticket addition, siding, and window projects will have the smallest YOY increases. Metrostudy/Zonda forecasts the number of big-ticket projects completed will decrease to 13.7 million in 2021.

According to Metrostudy/Zonda, 381 metropolitan statistical areas are expected to see growth in annual project volume in 2020 and, among those markets, the average growth rate is expected to be 5.7%.” – Vincent Salandro, Assistant Editor, Remodeling

Existing House Sales

National Association of Realtors

July 2020 sales: 4.720 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
July	5,860,000	\$304,100	\$337,500	4.1
June	4,700,000	\$294,500	\$328,900	3.9
2019	5,390,000	\$280,400	\$316,800	4.2
M/M change	24.7%	3.3%	2.6%	5.1%
Y/Y change	8.7%	8.5%	6.5%	-2.4%

All sales data: SAAR

Existing House Sales

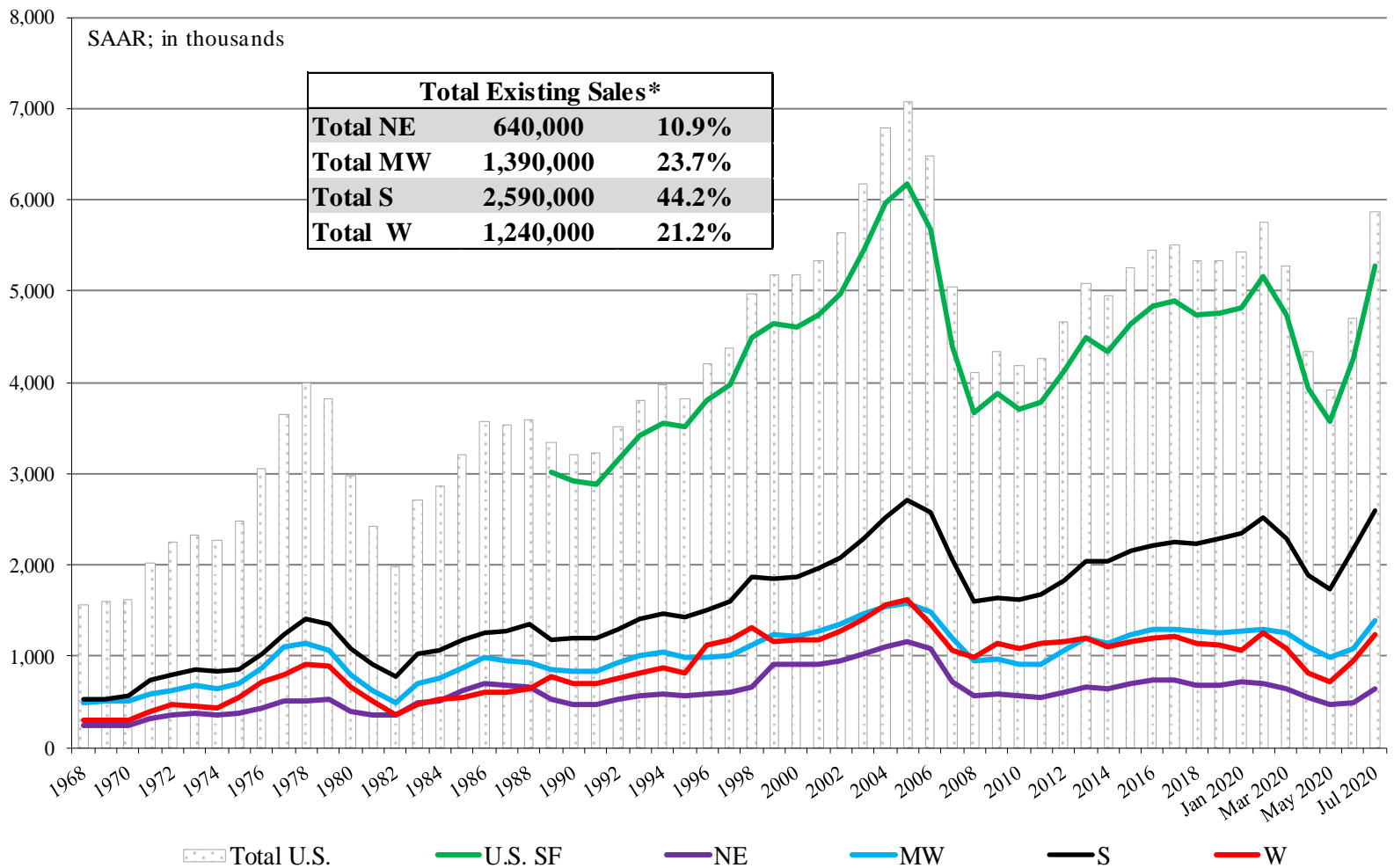
	Existing SF Sales	SF Median Price	SF Mean Price	
July	5,280,000	307,800	340,200	
June	4,260,000	297,900	331,400	
2019	4,810,000	283,600	318,800	
M/M change	23.9%	3.3%	2.7%	
Y/Y change	9.8%	8.5%	6.7%	
	NE	MW	S	W
July	640,000	1,390,000	2,590,000	1,240,000
June	490,000	1,090,000	2,170,000	950,000
2019	680,000	1,260,000	2,300,000	1,150,000
M/M change	30.6%	27.5%	19.4%	30.5%
Y/Y change	-5.9%	10.3%	12.6%	7.8%

All sales data: SAAR.

Source: <https://fred.stlouisfed.org/series/EXHOSLUSM495S>; 8/21/20

[Return TOC](#)

Existing House Sales



* Percentage of existing sales.

U.S. Housing Prices

Federal Housing Finance Agency

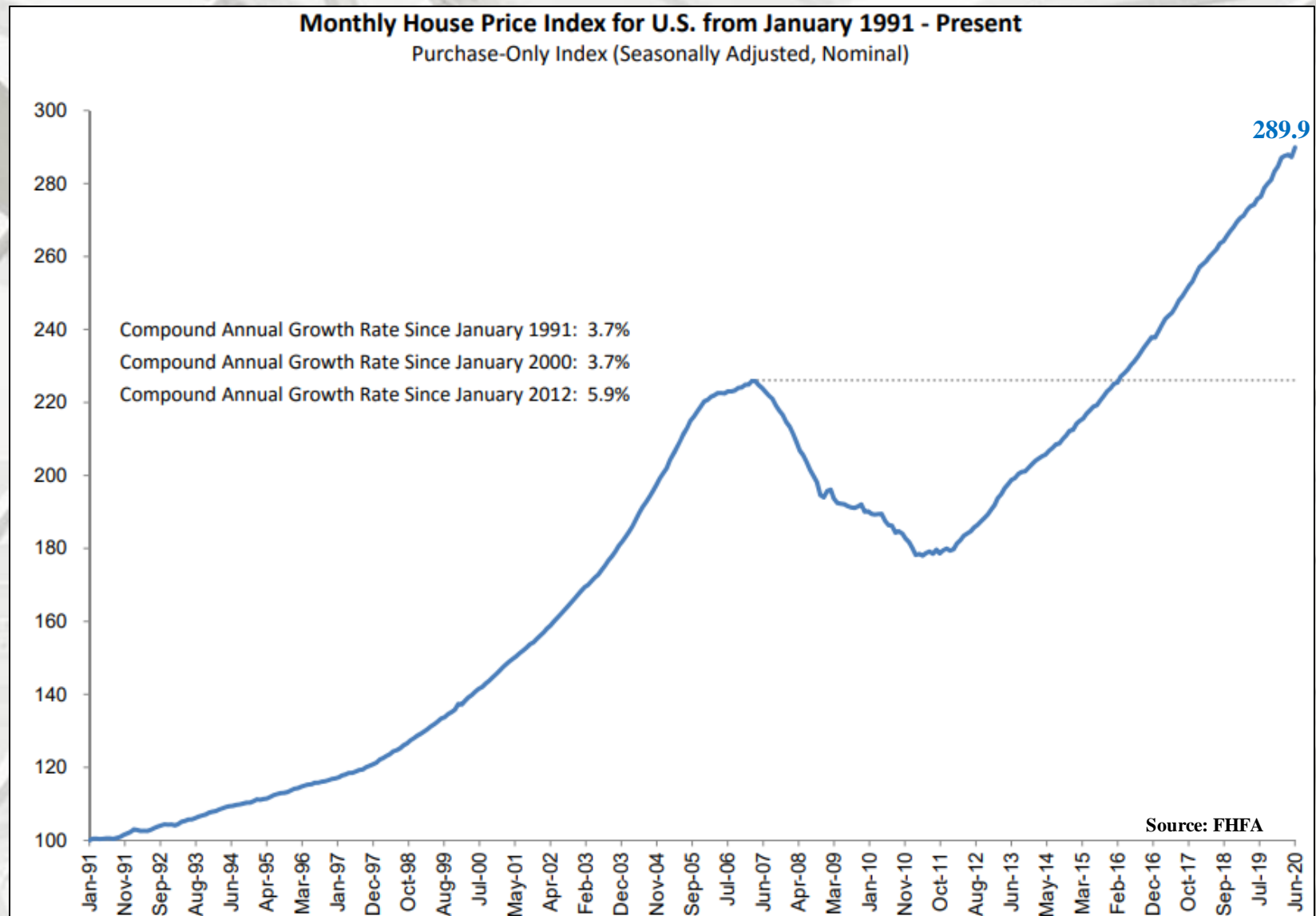
U.S. House Prices Up 5.4 Percent from Last Year; Prices Rise 0.8 Percent in Second Quarter Despite COVID

Significant Findings

- “U.S. house prices rose **5.4 percent** from the second quarter of 2019 to the second quarter of 2020 according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices were up **0.8 percent** in the second quarter of 2020. FHFA’s seasonally adjusted monthly index for June was up **0.9 percent** from May.
- House prices have risen for 36 consecutive quarters, or since September 2011. ...
- Of the nine census divisions, the **Mountain** division experienced the strongest four quarter appreciation, posting a 7.0 percent gain between the second quarters of 2019 and 2020 and a 0.9 percent increase in the second quarter of 2020. The Mountain division has been the leading region for 11 consecutive quarters. Annual house price appreciation was weakest in the **Middle Atlantic** division, where prices rose by 4.5 percent between the second quarters of 2019 and 2020.

“Home prices grew by 5.4 percent in the second quarter of 2020 compared to a year ago, despite the impacts of COVID-19. Although house prices fell slightly in May relative to April, in June prices rebounded by 0.9 percent over the month as local economies re-opened and transactions picked up again. Four Census Divisions showed strong early summer gains with month over month growth of one percent or more in June.” – 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 4.3% Annual Home Price Gain In June

“Data for June 2020 show that home prices continue to increase at a modest rate 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 4.3% annual gain in June, no change from the previous month. The 10-City Composite annual increase came in at 2.8%, down from 3.0% in the previous month. The 20-City Composite posted a 3.5% year-over-year gain, down from 3.6% in the previous month.

Phoenix, Seattle and Tampa continued to report the highest year-over-year gains among the 19 cities (excluding Detroit) in June. Phoenix led the way with a 9.0% year-over-year price increase, followed by Seattle with a 6.5% increase and Tampa with a 5.9% increase. Five of the 19 cities reported higher price increases in the year ending June 2020 versus the year ending May 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

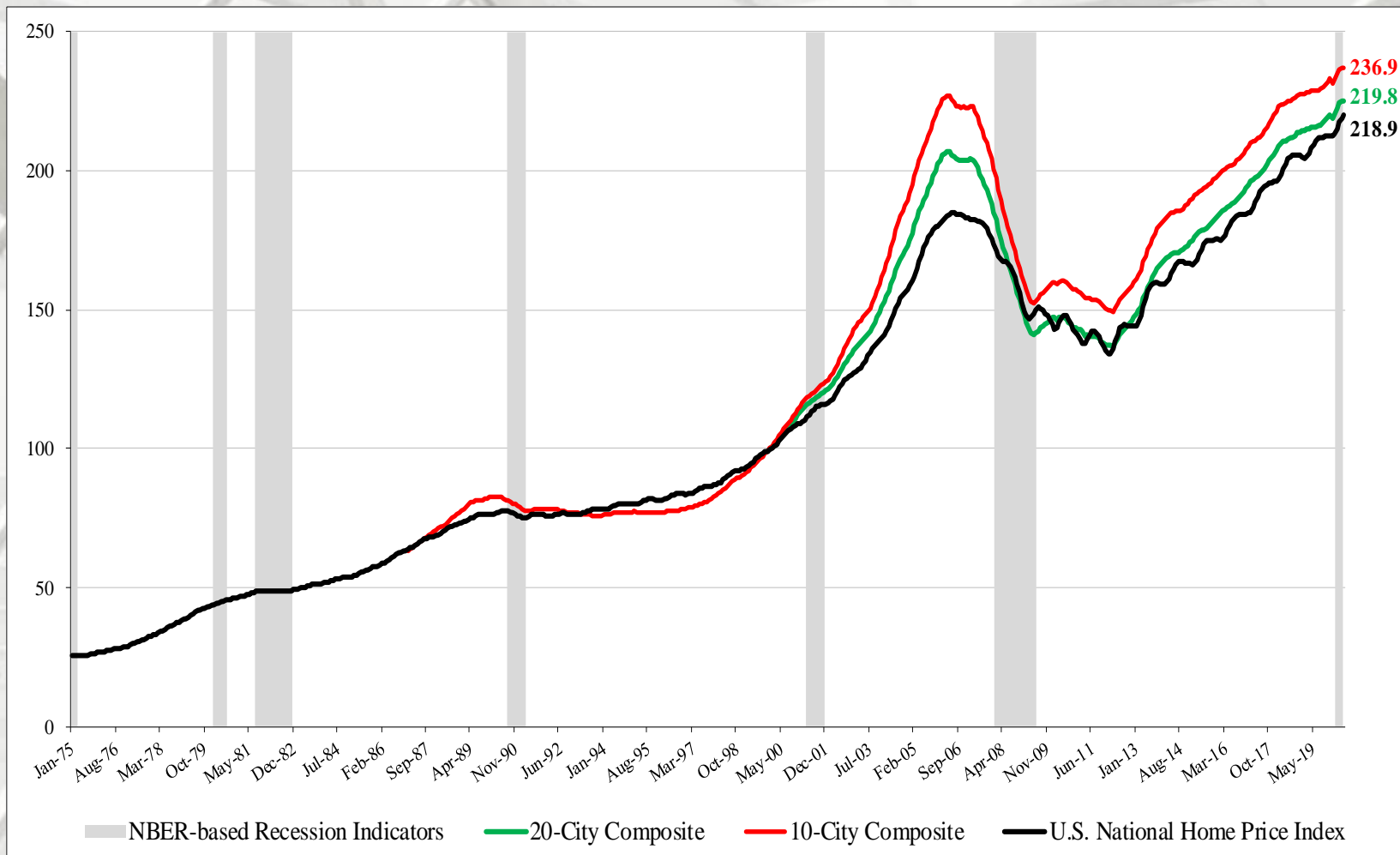
“The National Index posted a 0.6% month-over-month increase, while the 10-City and 20-City Composites posted increases of 0.1% and 0.2% respectively before seasonal adjustment in June. After seasonal adjustment, the National Index posted a month-over-month increase of 0.2%, while the 10-City Composite posted a decrease of 0.1% and the 20-City Composite did not post any gains. In June, 16 of 19 cities (excluding Detroit) reported increases before seasonal adjustment, while 12 of the 19 cities reported increases after seasonal adjustment.

Analysis

Housing prices were stable in June. The National Composite Index rose by 4.3% in June 2020, as it had also done in May (June’s growth was slightly lower in the 10- and 20-City Composites, which were up 2.8% and 3.5%, respectively). More data will be required to understand whether the market resumes its previous path of accelerating prices, continues to decelerate, or remains stable. That said, it’s important to bear in mind that deceleration is quite different from an environment in which prices actually fall.

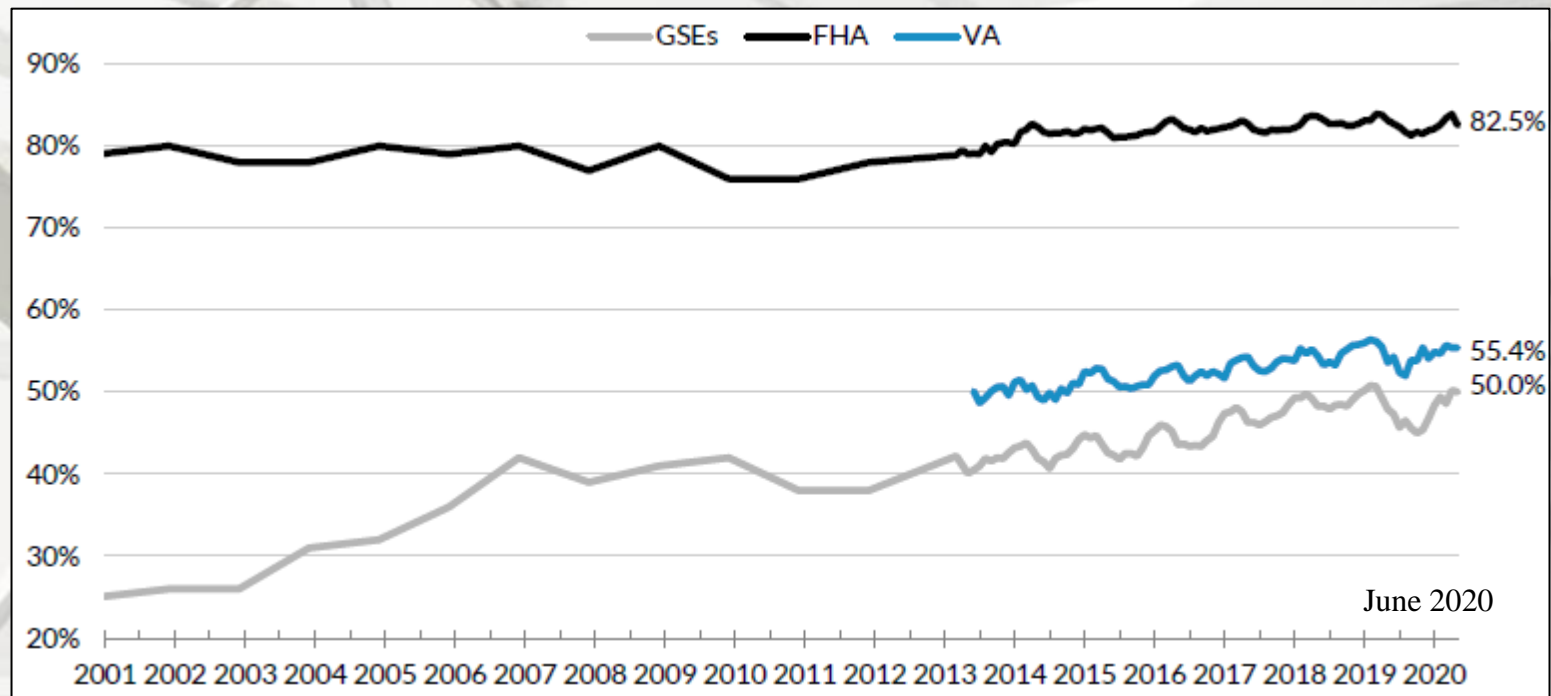
June’s gains were quite broad-based. Prices increased in all 19 cities for which we have data, accelerating in five of them. Phoenix retains the top spot for the 13th consecutive month, with a gain of 9.0% for June. Home prices in Seattle rose by 6.5%, followed by Tampa at 5.9% and Charlotte at 5.7%. As has been the case for the last several months, prices were particularly strong in the Southeast and West, and comparatively weak in the Midwest and (especially) Northeast.” – 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).

First-Time House Buyers



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

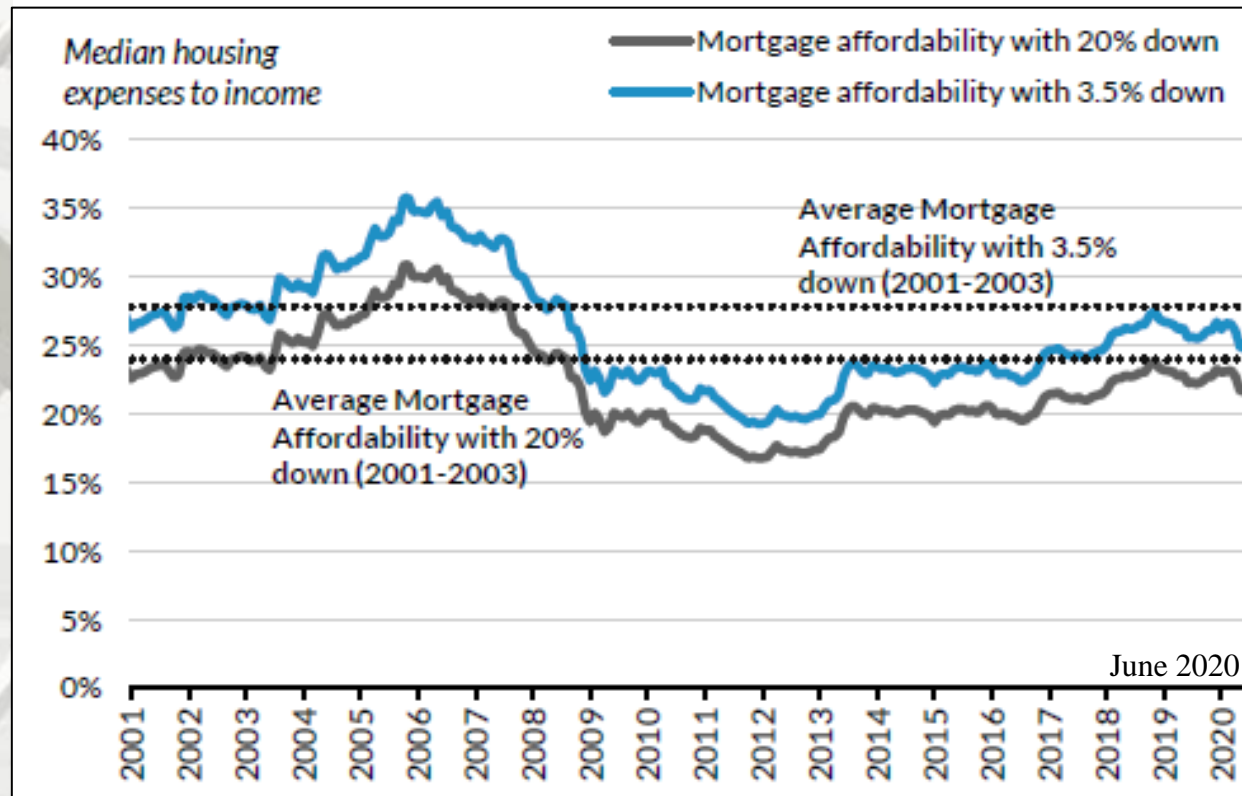
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

Urban Institute

“In June 2020, the FTHB share for FHA, which has always been more focused on first time homebuyers, declined slightly to 82.5 percent. The FTHB share of VA lending remained flat in June at 55.4 percent. The GSE FTHB share in June was down from May to 50.0 percent. The bottom table shows that based on mortgages originated in June 2020, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and higher LTV, thus paying a higher interest rate.” – Bing Lai, Research Associate, Housing Finance Policy Center

Housing Affordability

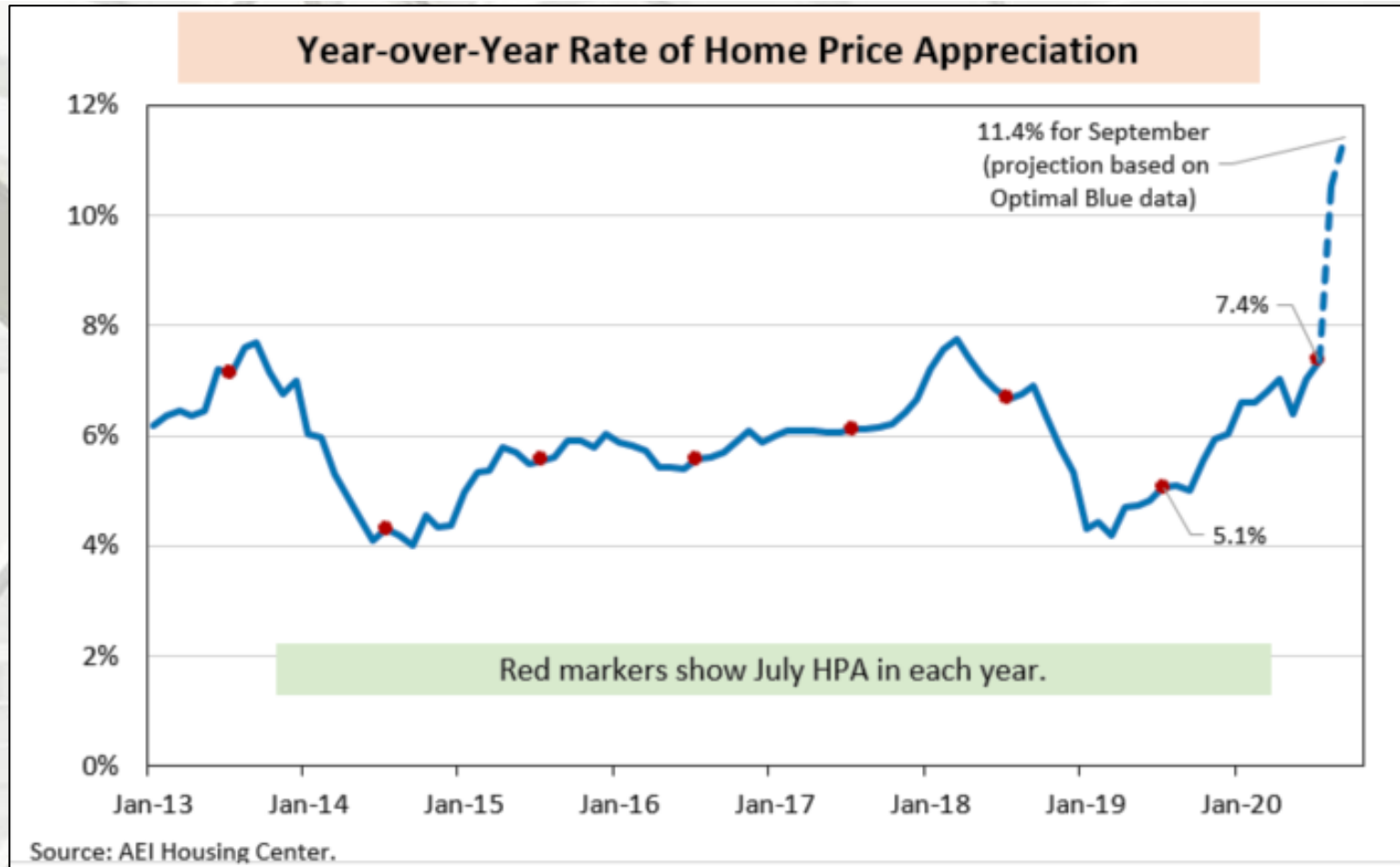
National Housing Affordability Over Time



Urban Institute

“Home prices remain affordable by historic standards, despite price increases over the last 8 years, as interest rates are now near generational lows. As of June 2020, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 21.7 percent; with 3.5 down, it is 24.8 percent. Since February 2019, the median housing expenses to income ratio has been slightly lower than the 2001-2003 average. ...” – Laurie Goodman, VP, Housing Finance Policy Center

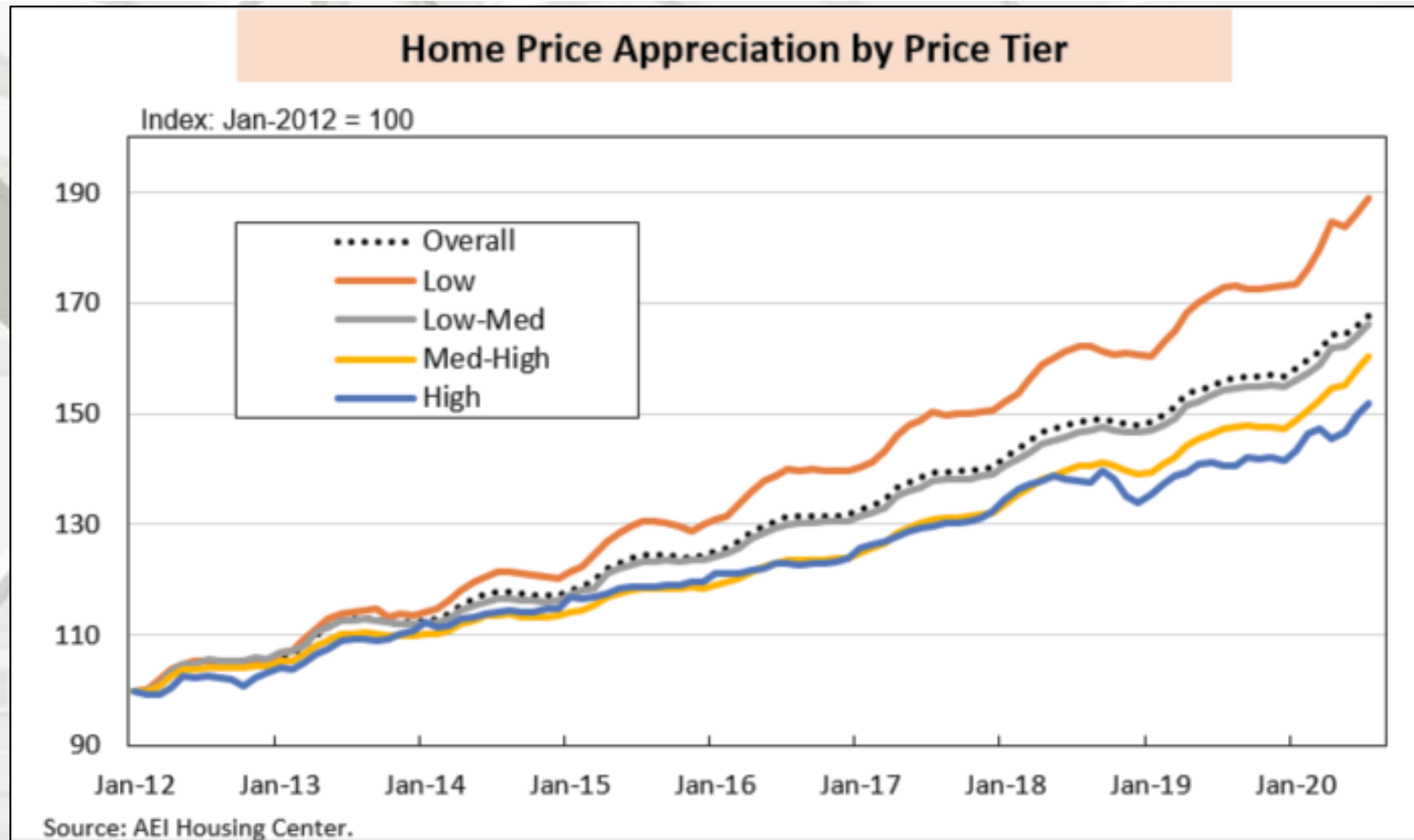
Housing Affordability



AEI Housing Center House Price Appreciation (HPA) by Price Tier

“The stunning fall in mortgage rates continues, which is adding yet more fuel to a housing boom now entering its 9th year. This affects entry-level demand as lower rates reduce the monthly payment needed to buy a home, relative to the cost to rent.” – Tobias Peter, Director of Research, AEI Housing Center

Housing Affordability



AEI Housing Center National House Price Appreciation (HPA) by Price Tier

“The U.S. housing market continues to heat up for all tiers, but this is particularly troublesome for entry-level buyers at the low and low-medium price points. Home prices are responding to sharply lower interest rates, continued easy credit availability and exceptionally strong demand, and especially tight supply propelled in part by the pandemic.” – Edward Pinto, Director, AEI Housing Center

Mortgage Credit Availability

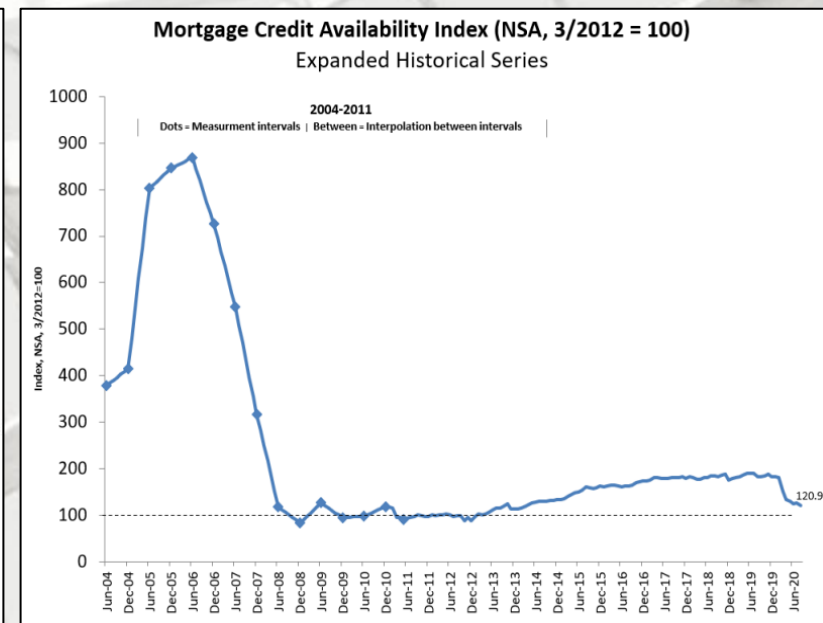
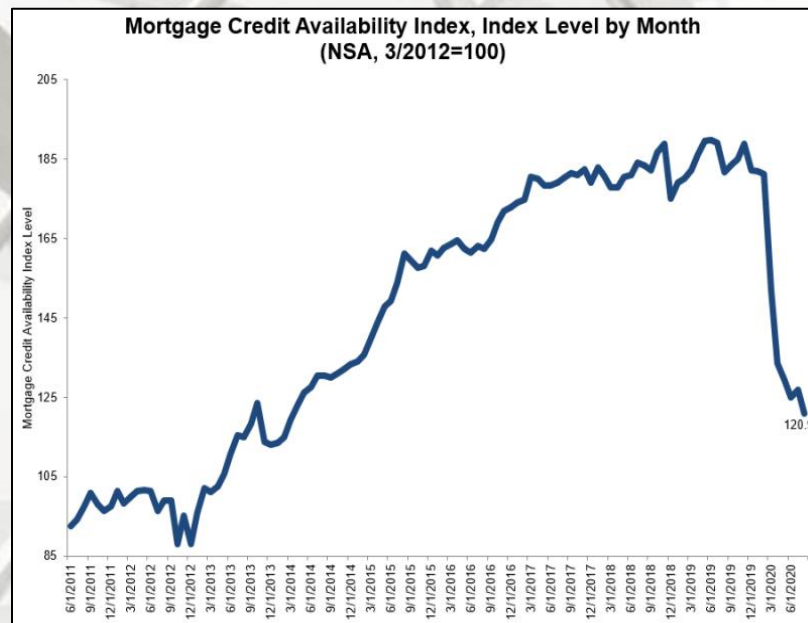
Mortgage Credit Availability Increased in August

“Mortgage credit availability decreased in August 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 fell by 4.7 percent to 120.9 in August. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI decreased 8.7 percent, while the Government MCAI decreased by 1.4 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 8.9 percent, and the Conforming MCAI fell by 8.6 percent.

Mortgage credit supply fell to its lowest level since March 2014, driven by a reduction in supply from both conventional and government segments of the market. Additionally, both conforming and jumbo sub-indexes fell by almost 9 percent each, with the conforming index declining to the lowest reading since MBA's series began in 2011. Credit continues to tighten because of uncertainty still looming around the health of the job market, even as other data on loan applications and home sales show a sharp rebound. A further reduction in loan programs with low credit scores, high LTVs, and reduced documentation requirements also continued to drive the overall decline in credit availability.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

Mortgage Credit Availability



Source: Mortgage Bankers Association; Powered by Ellie Mae's AllRegs® Market Clarity®

Summary

In conclusion:

In July, the resiliency of the U.S. housing market was a bright spot for the aggregate U.S. economy. All month-over-month sectors were positive, with the exception of single-family completions. The majority of year-over-year categories were mostly positive as well. Year-over-year, total multi-family permits, single-family housing under construction, total and single-family completions, and single-family construction spending indicated declines.

Housing, in the majority of categories, remains substantially less than their respective historical averages. 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 are still in place;
- 2) Select builders are beginning to focus on entry-level houses;
- 3) Housing affordability indicates improvement;

Cons:

- 1) Coronavirus19 (Covid19);
- 2) Lot availability and building regulations (according to several sources);
- 3) Laborer shortages;
- 4) Household formations still lag historical averages;
- 5) Changing attitudes towards SF ownership;
- 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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