

The Virginia Tech–USDA Forest Service Housing Commentary: Section I December 2021



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[http://woodproducts.sbio.vt.edu/housing-report.](http://woodproducts.sbio.vt.edu/housing-report)

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Opening Remarks

December 2021 month-over-month and year-over-year housing data were mostly positive. Single-family housing starts, total housing and multi-family completions, and existing sales were negative month-over-month. Single-family starts and permits, total housing and multi-family completions, existing and new sales were negative year-over-year. Completions continue to be restrained due to the unavailability of building materials and products, combined with other factors. Thus, certain builders may be reluctant to start new projects while waiting to complete units under construction. Rental unit demand is increasing and combined with historically low-vacancy rates for multi-family apartments, supports increasing demand for builders.

The February 9th Atlanta Fed GDPNow™ model forecast was an aggregate 1.7% for total residential investment spending for Q1 2022. New private permanent site expenditures were projected at 4.3%; the improvement spending forecast was 4.9%; and the manufactured/mobile expenditures projection was 11.0% for December 2021 (all: quarterly log change and at a seasonally adjusted annual rate).¹

“As mortgage rates rise, we do expect some moderation in housing demand, causing house price growth to temper. However, the combination of a large number of entry-level home buyers facing a shortage of entry-level inventory of homes for sale should keep the housing market competitive. We forecast home sales to hit 6.9 million in 2022 and increase to 7.0 million in 2023. Given the expected increase in mortgage rates, we expect some moderation in housing demand, and we forecast house price growth to decrease from 15.9% in 2021 to 6.2% in 2022 and to cool further to 2.5% in 2023.”² – Sam Khater, Chief Economist, Freddie Mac

This month’s commentary contains applicable housing forecasts and data, remodeling commentary, and United States housing market observations. Section I contains relevant data, remodeling, and housing finance commentary. Section II includes regional Federal Reserve analysis, private firm indicators, and demographic/economic information.

Sources: ¹ www.frbatlanta.org/cqer/research/gdpnow.aspx; 2/9/22;

² <https://freddiemac.gcs-web.com/news-releases/news-release-details/freddie-mac-housing-remain-stable-rates-rise-and-prices-cool>; 1/21/22

December 2021

Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 1.4%	▲ 2.5%
Single-Family (SF) Starts	▼ 2.3%	▼ 10.9%
Multi-Family (MF) Starts*	▲ 10.6%	▲ 53.2%
Housing Permits	▲ 9.8%	▲ 7.2%
SF Permits	▲ 2.0%	▼ 8.5%
MF Permits*	▲ 23.9%	▲ 44.2%
Housing Under Construction	▲ 2.3%	▲ 20.2%
SF Under Construction	▲ 2.3%	▲ 26.3%
Housing Completions	▼ 8.7%	▼ 6.6%
SF Completions	▲ 3.9%	▲ 3.3%
New SF House Sales	▲ 11.9%	▼ 14.0%
Private Residential Construction Spending	▲ 1.1%	▲ 15.0%
SF Construction Spending	▲ 2.1%	▲ 16.3%
Existing House Sales ¹	▼ 4.6%	▼ 7.1%

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

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

USDA Forest Service Housing Story Map

USDA FOREST SERVICE HOUSING MARKET REVIEW

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

USDA

US

WELCOME

MONTHLY HOUSING BRIEFS AND COMMENTARIES

CONSTRUCTION DATA

HOUSING METRICS AND THE WOOD RESOURCE

RESOURCES AND REFERENCES

USDA Forest Service Housing Market Review

Housing's Importance

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


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

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

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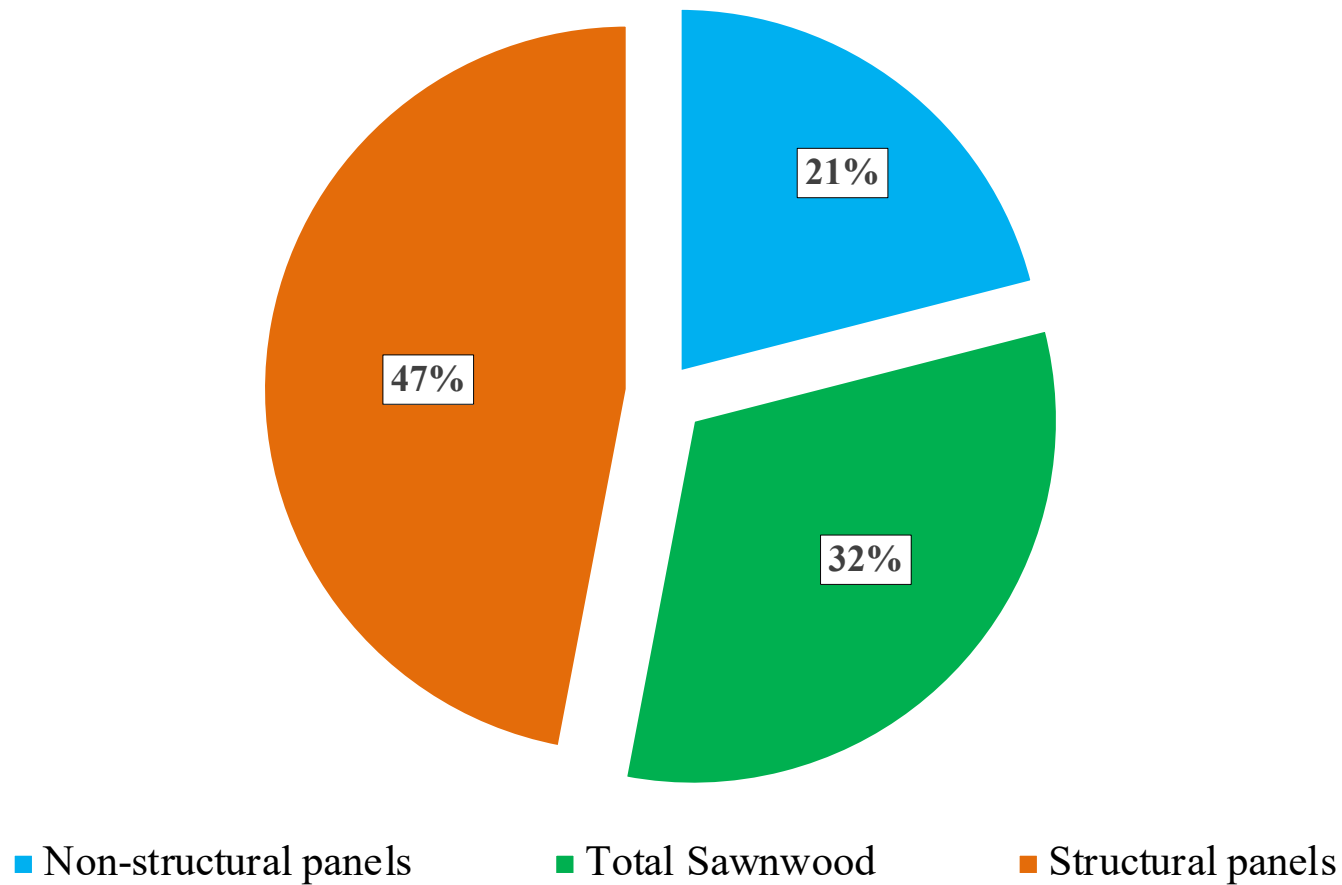
USDA Forest Service Housing Market Review

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

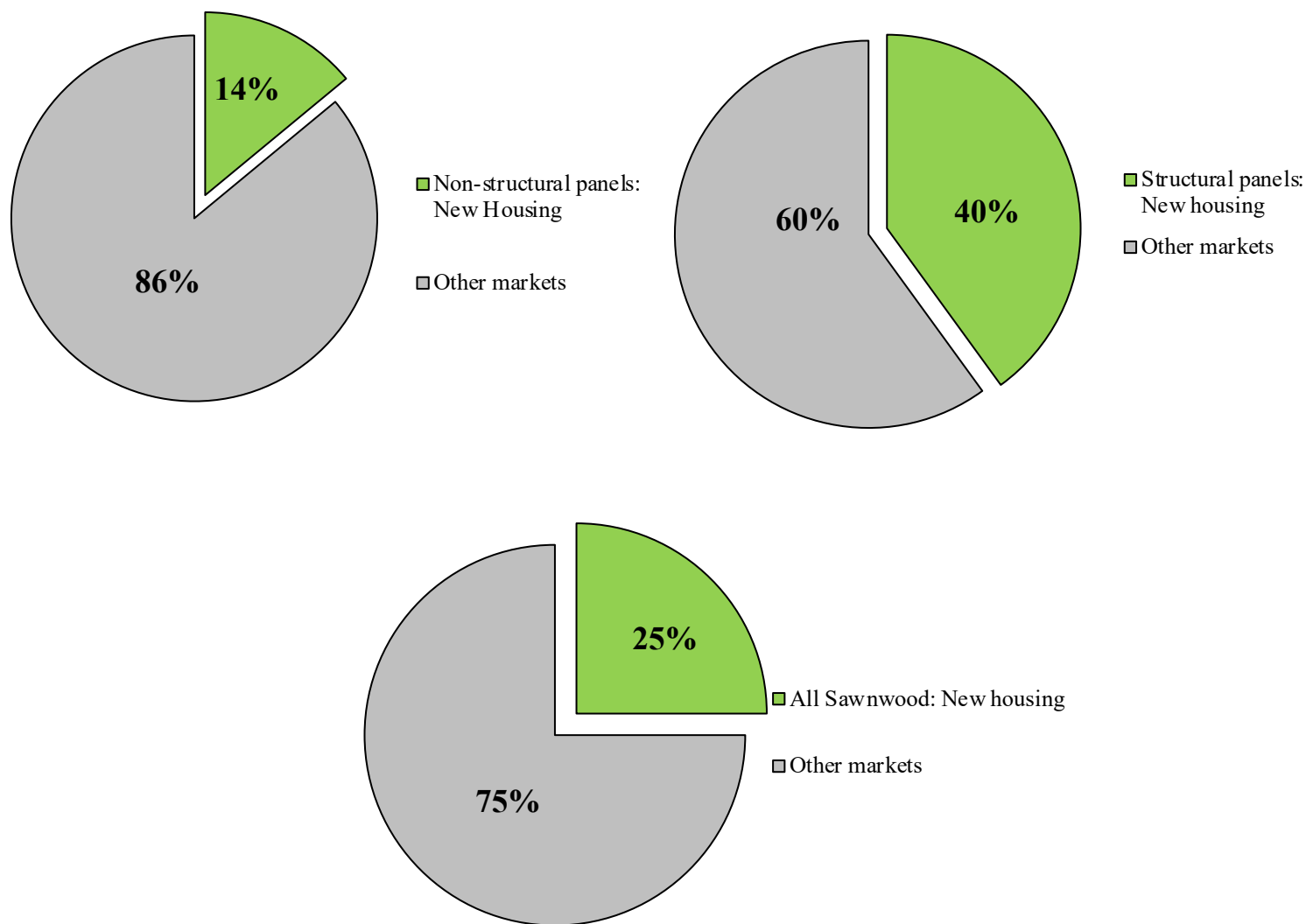
The story map is available at the following link:

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

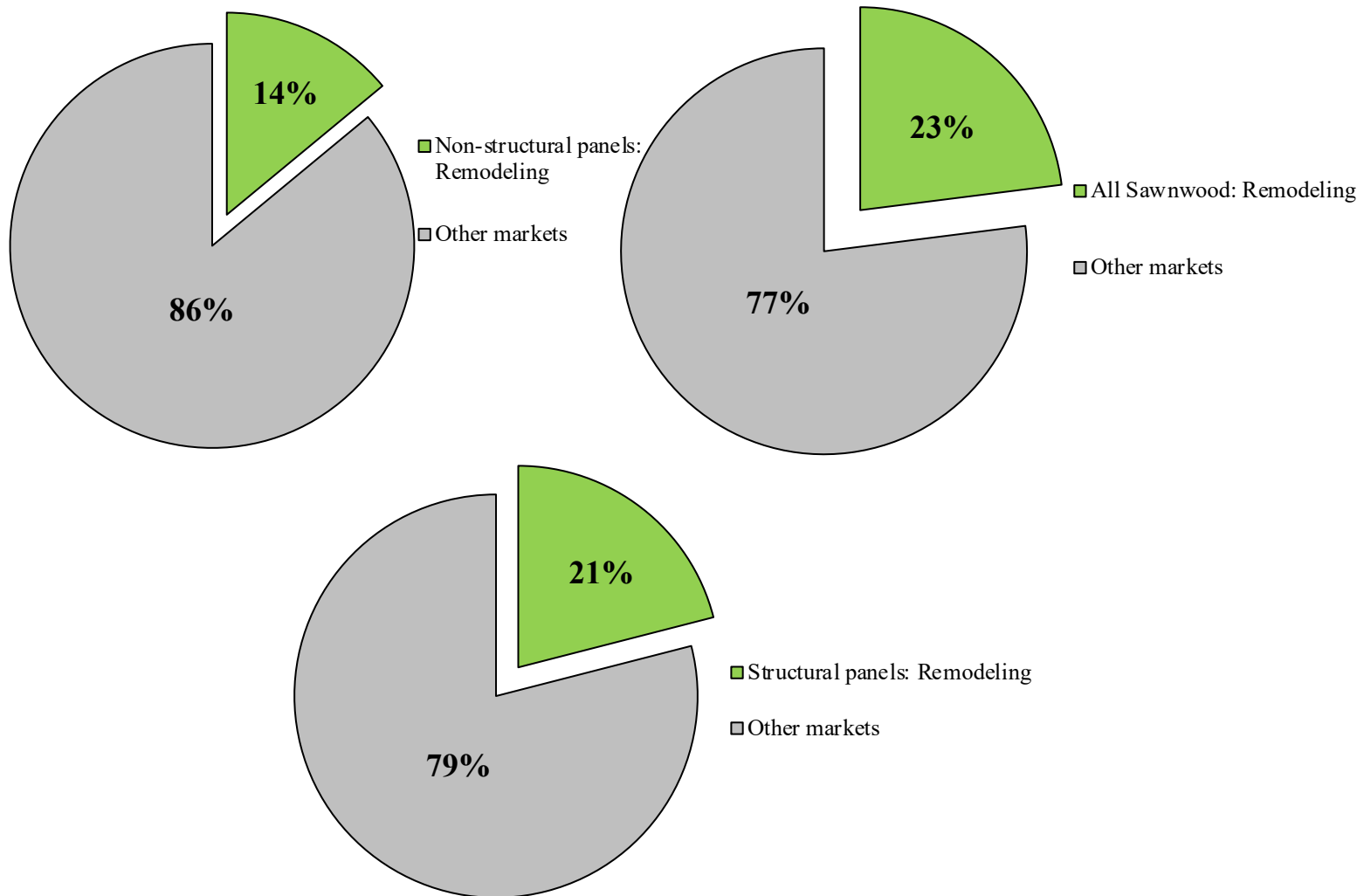
New Construction's Percentage of Wood Products Consumption



New SF Construction Percentage of Wood Products Consumption



Repair and Remodeling's Percentage of Wood Products Consumption



2022 Housing Forecasts*

	Range	Median
Total starts:	1,413 to 1,785	1,618
Single-Family (SF) starts:	1,120 to 1,250	1,190
New SF house sales:	710 to 924	905

Organization	Total Starts	SF Starts	New SF House Sales
APA - <i>The Engineered Wood Association</i> ^a	1,590	1,120	
Bank of Montreal (BOM) ^b	1,630		
Deloitte Development LLP ^c	1,590		
Dodge Data & Analytics ^d	1,785	1,126	
Fannie Mae ^e	1,616	1,191	890
Fastmarkets RISI ^f	1,626	1,157	
Forest2Market ^g	1,579		
Grant Thornton LLP ^h	1,470		
Merrill Lynch ⁱ	1,600		

* All in thousands of units

2022 Housing Forecasts*

	Range	Median
Total starts:	1,413 to 1,785	1,618
Single-Family (SF) starts:	1,120 to 1,250	1,190
New SF house sales:	710 to 924	905

Organization	Total Starts	SF Starts	New SF House Sales
Mortgage Bankers Association (MBA) ^j	1,662	1,225	924
National Association of Homebuilders (NAHB) ^k	1,625	1,129	830
National Association of Realtors (NAR) ^l	1,670	1,250	920
PNC Financial Services Group ^m	1,620		710
Raymond James LTD ⁿ	1,750	1,225	830
Royal Bank of Canada (RBC) ^o	1,413		
Scotiabank ^p	1,560		
Toronto Dominion (TD) Bank Economics ^q	1,510		
Wells Fargo Securities LLC ^r	1,660	1,190	920

References

- a-APA, Housing Starts December 2020 (12/16/20). *APA – The Engineered Wood Association*. Tacoma, WA. 53 pps. (Subscription)
- b-https://economics.bmo.com/media/filer_public/d4/d8/d4d89c4d-3cfa-4a87-8a9e-74e8c2cce6e7/outlookus.pdf
- c-<https://www2.deloitte.com/us/en/insights/economy/us-economic-forecast/united-states-outlook-analysis.html>
- d-Construction Industry Outlook 2022, Adapt and Thrive In An Evolving Market. Dodge Construction Network. Hamilton Township, NJ. 9 pps.
- e-<https://www.fanniemae.com/media/42381/display>
- f-*Random Lengths* (1/7/22). Vol 78, Issue 01. Eugene, OR. (Subscription)
- g-<https://www.forest2market.com/blog/predictions-for-the-global-forest-industry-in-2022>
- h-<https://www.grantthornton.com/library/articles/advisory/2022/Economic-Analysis/Economic-Outlook/economic-update-january-2022.aspx>
- i-<https://calculatedrisk.substack.com/p/2022-housing-forecasts-second-look>
- j-<https://mba-erm.informz.net/mba-erm/data/images/Mortgage%20Finance%20Forecast%20dec%202020.pdf>
- k-<https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/builders-forecasts/free-forecast/housing-forecast-free.xls>
- l-<https://cdn.nar.realtor/sites/default/files/documents/forecast-Q4-2021-us-economic-outlook-10-28-2021.pdf>
- m-https://www.pnc.com/content/dam/pnc-com/pdf/aboutpnc/EconomicReports/NEO%20Reports/2021/NEO_Dec2021.pdf
- n-Raymond James LTD. 2022 Housing Outlook: The Housing Supercycle Rolls On. January 10, 2022. (Subscription)
- o-http://www.rbc.com/economics/economic-data/pdf/economy_us.pdf
- p-<https://www.scotiabank.com/ca/en/about/economics/economics-publications/post.other-publications.global-outlook-and-forecast-tables.scotiabank's-forecast-tables.2021.october-20--2021.html>
- q-<https://economics.td.com/us-long-term-forecast>
- r-<https://wellsfargo.bluematrix.com/links2/html/f35f2ff5-1e2c-46c8-aec4-6be66644e2b8>

2021 Housing Forecasts*

	Range	Median
Total starts:	1,233 to 1,605	1,440
Single-Family (SF) starts:	928 to 1,308	1,055
New SF house sales:	736 to 1,259	912

2020 Housing Forecasts*

	Range	Median
Total starts:	1,200 to 1,423	1,305
Single-Family (SF) starts:	810 to 990	920
New SF house sales:	695 to 750	726

2019 Housing Forecasts*

	Range	Median
Total starts, range:	1,134 to 1,400	Median: 1,280
Single-family starts, range:	815 to 920	Median: 900
New SF house sales, range:	618 to 688	Median: 638

* All in thousands of units

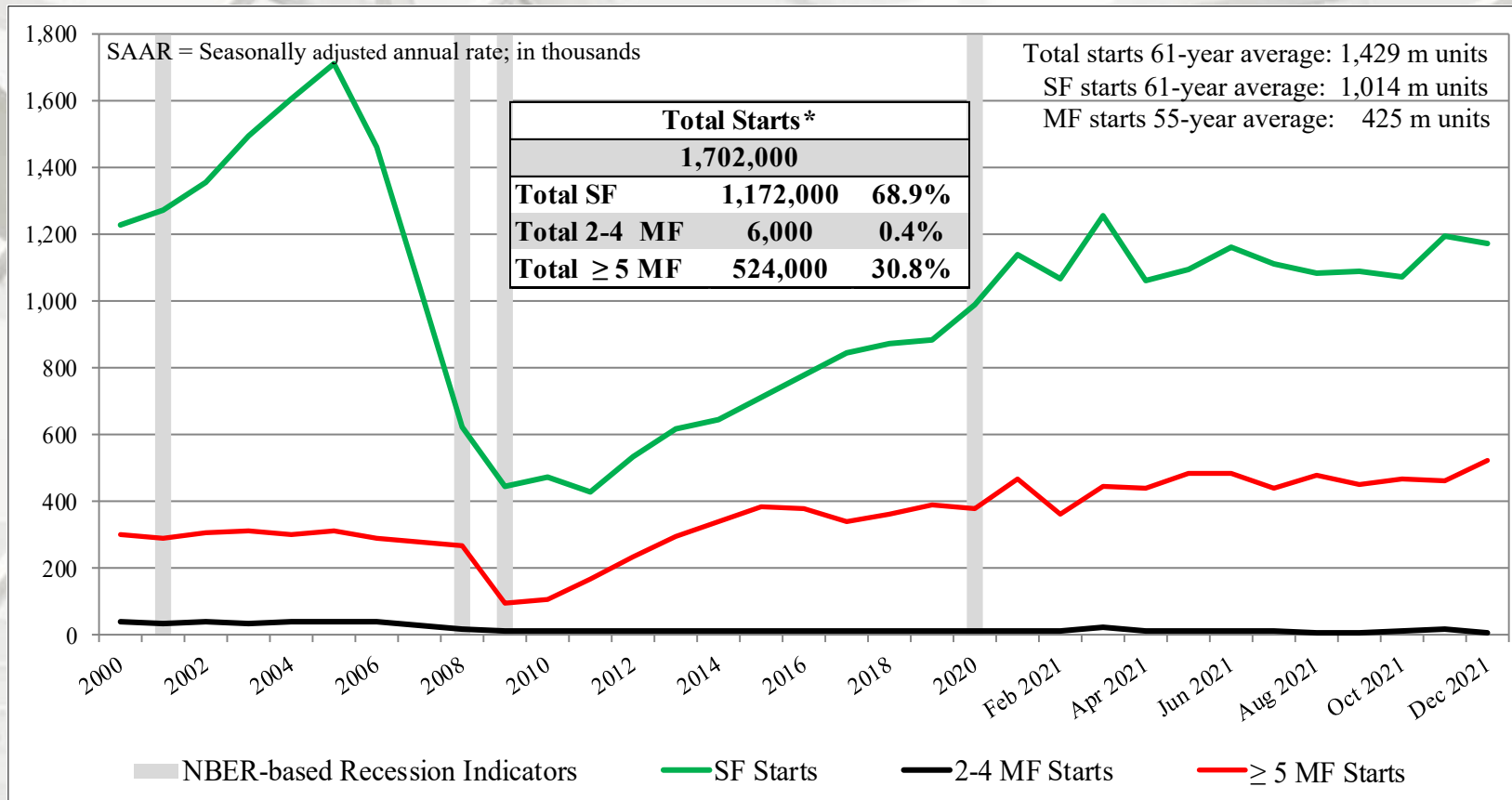
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
December	1,702,000	1,172,000	6,000	524,000
November	1,678,000	1,199,000	18,000	461,000
2020	1,661,000	1,315,000	10,000	336,000
M/M change	1.4%	-2.3%	-66.7%	13.7%
Y/Y change	2.5%	-10.9%	-40.0%	56.0%

* 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

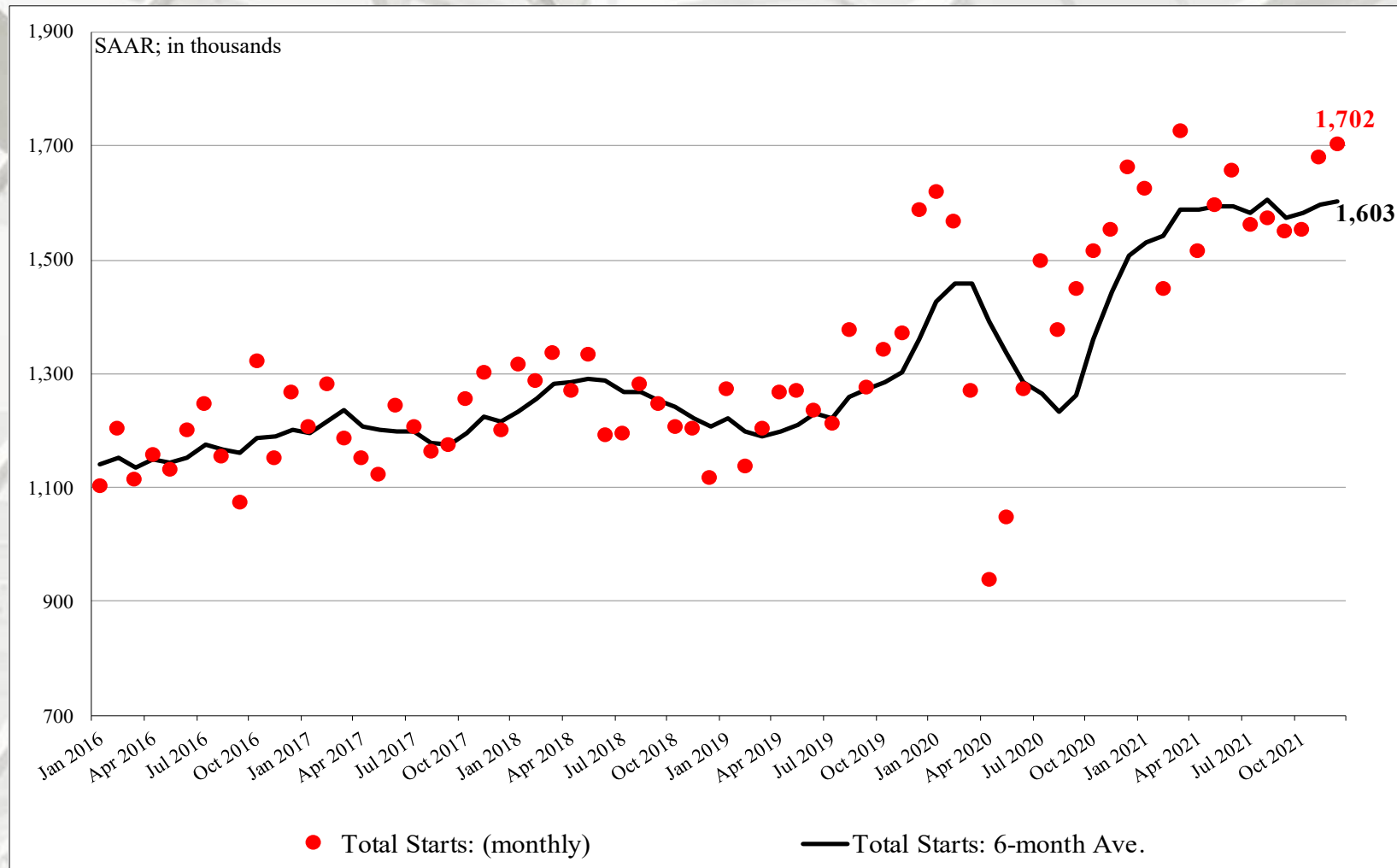


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: $((\text{Total starts} - (\text{SF} + \geq \text{MF})))$.

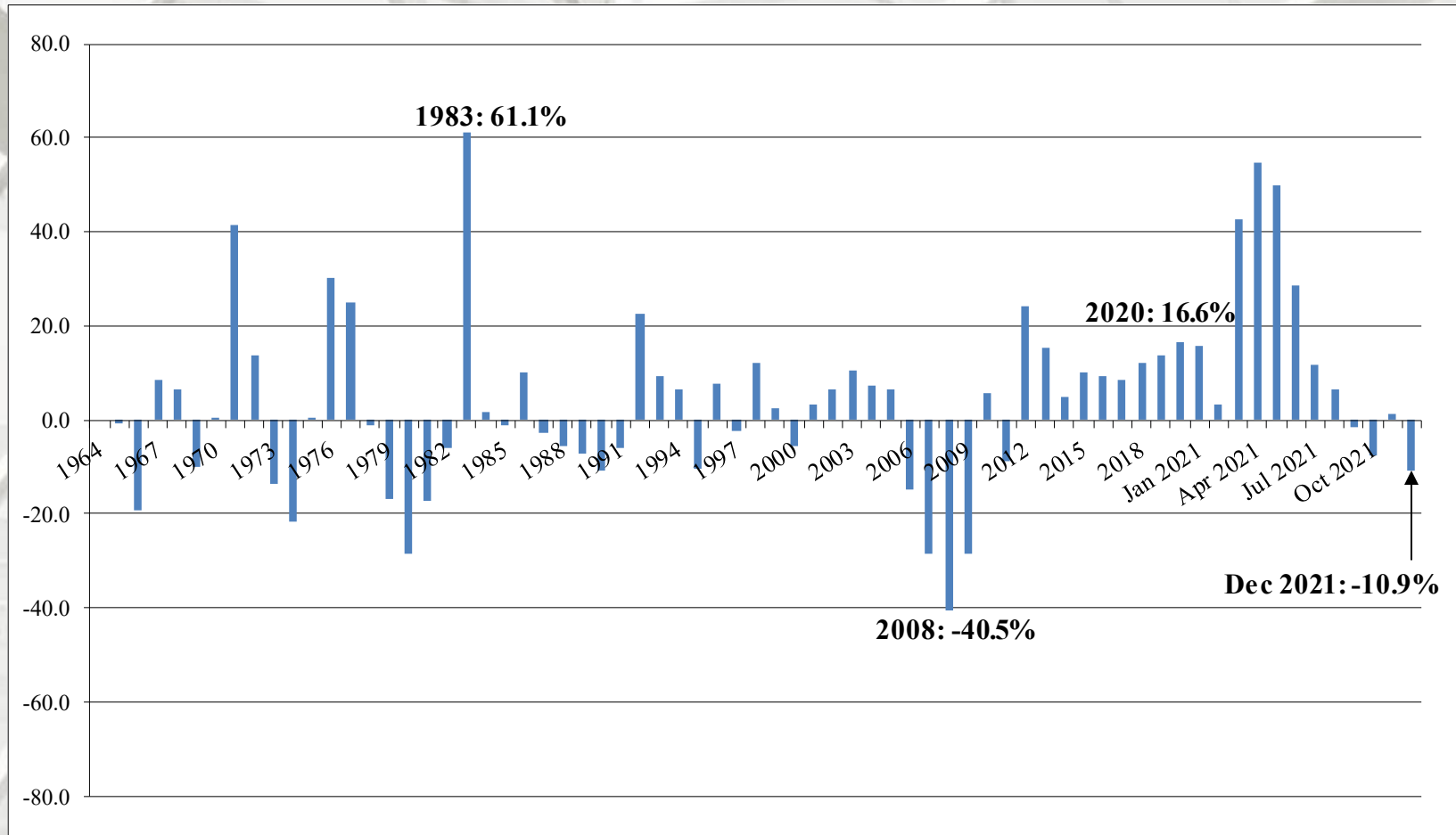
* Percentage of total starts.

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

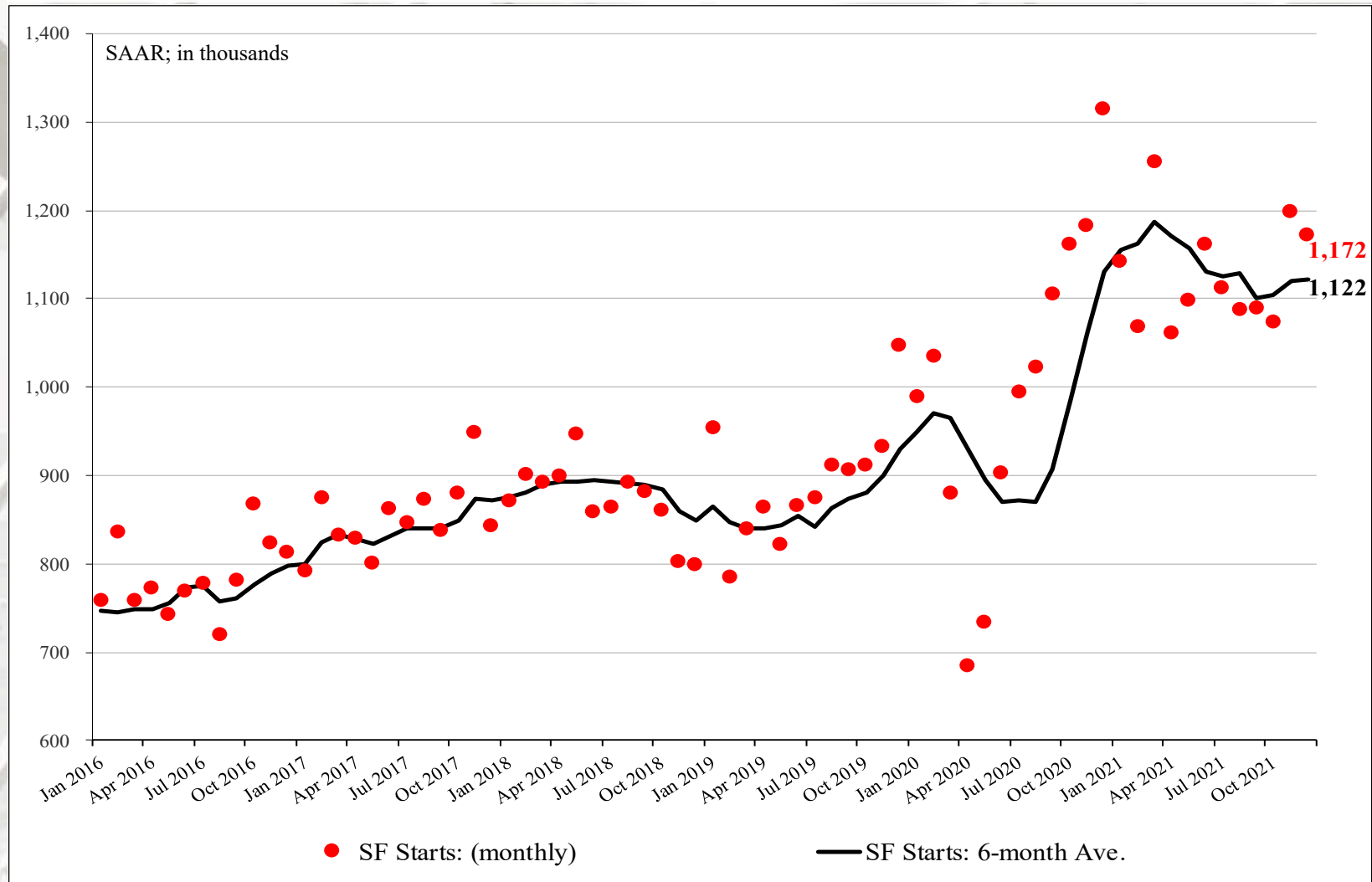
Total Housing Starts: Six-Month Average



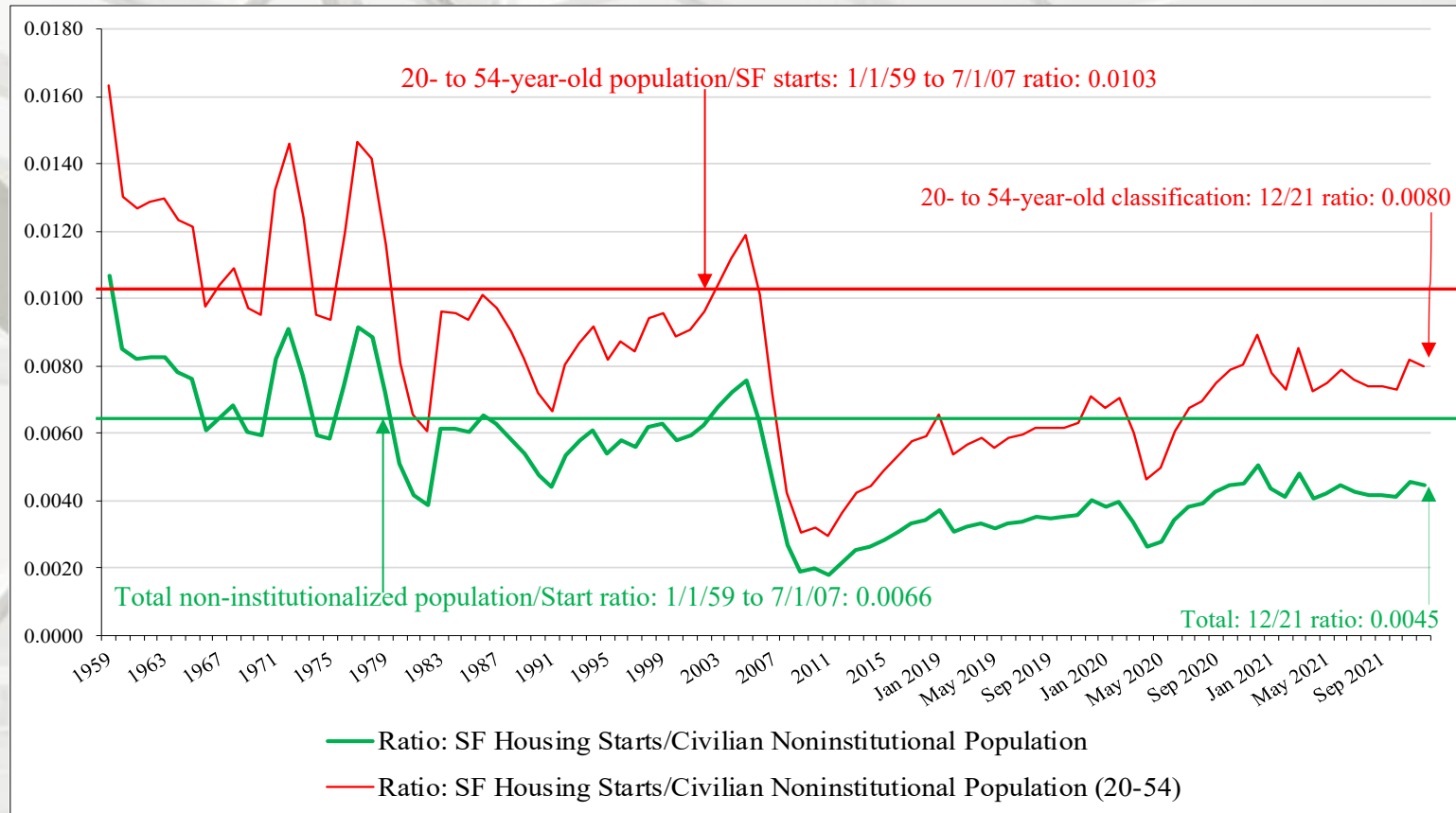
SF Housing Starts: Year-over-Year Change



SF Housing Starts: Six-Month Average



New SF Starts

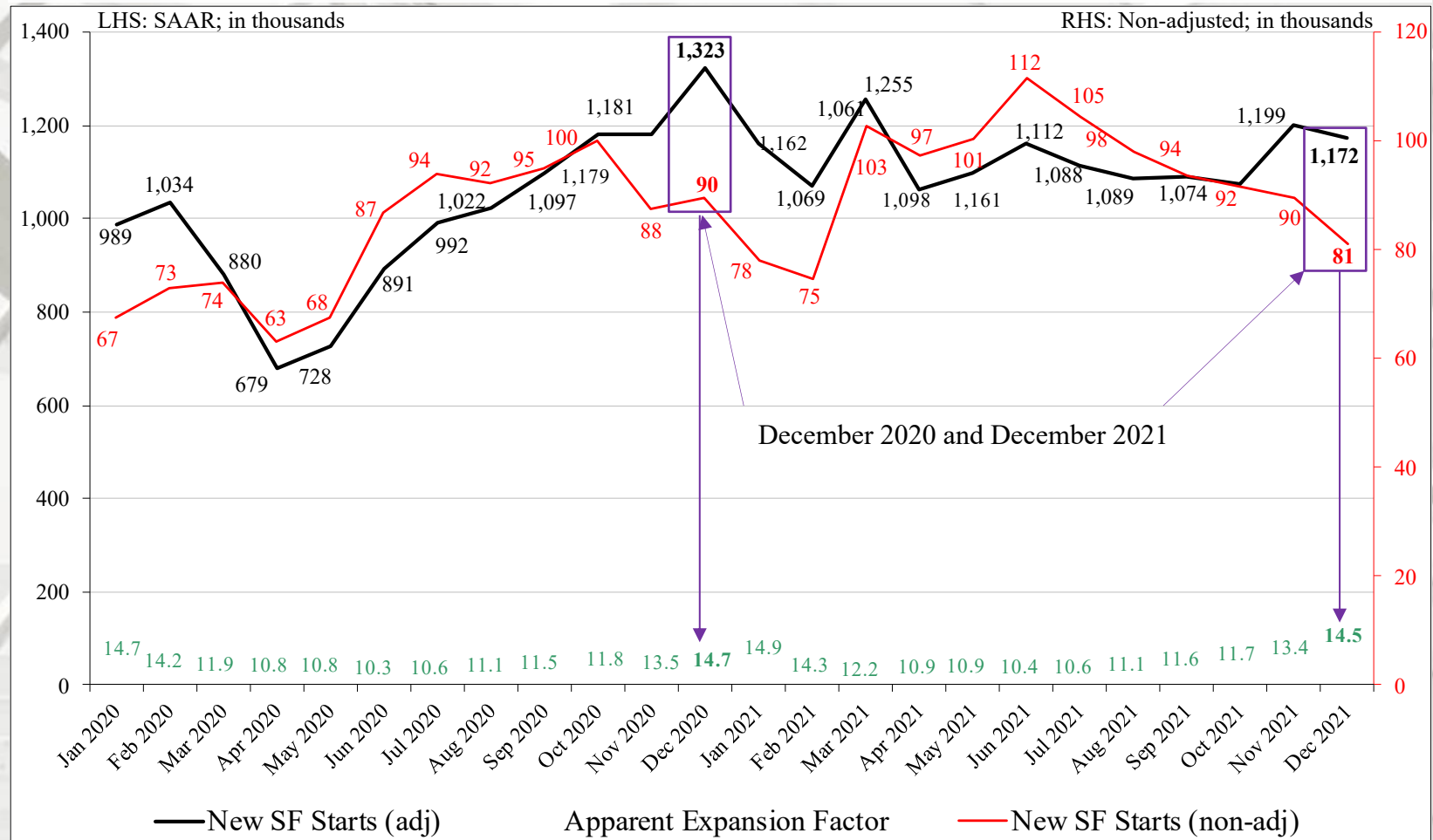


New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066; in December 2021 it was 0.0045 – a decrease from November (0.0046). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in December 2021 was 0.0080 – also a decrease from November (0.0082). From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

However, on a long-term basis, some studies report normalized long-term demand at 900,000 to 1,000,000 new SF house sales per year beginning in 2025 through 2050.

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

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

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

New Housing Starts by Region

	NE Total	NE SF	NE MF**
December	137,000	70,000	67,000
November	114,000	63,000	51,000
2020	136,000	84,000	52,000
M/M change	20.2%	11.1%	31.4%
Y/Y change	0.7%	-16.7%	28.8%
	MW Total	MW SF	MW MF
December	288,000	199,000	89,000
November	211,000	132,000	79,000
2020	246,000	219,000	27,000
M/M change	36.5%	50.8%	12.7%
Y/Y change	17.1%	-9.1%	229.6%

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

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

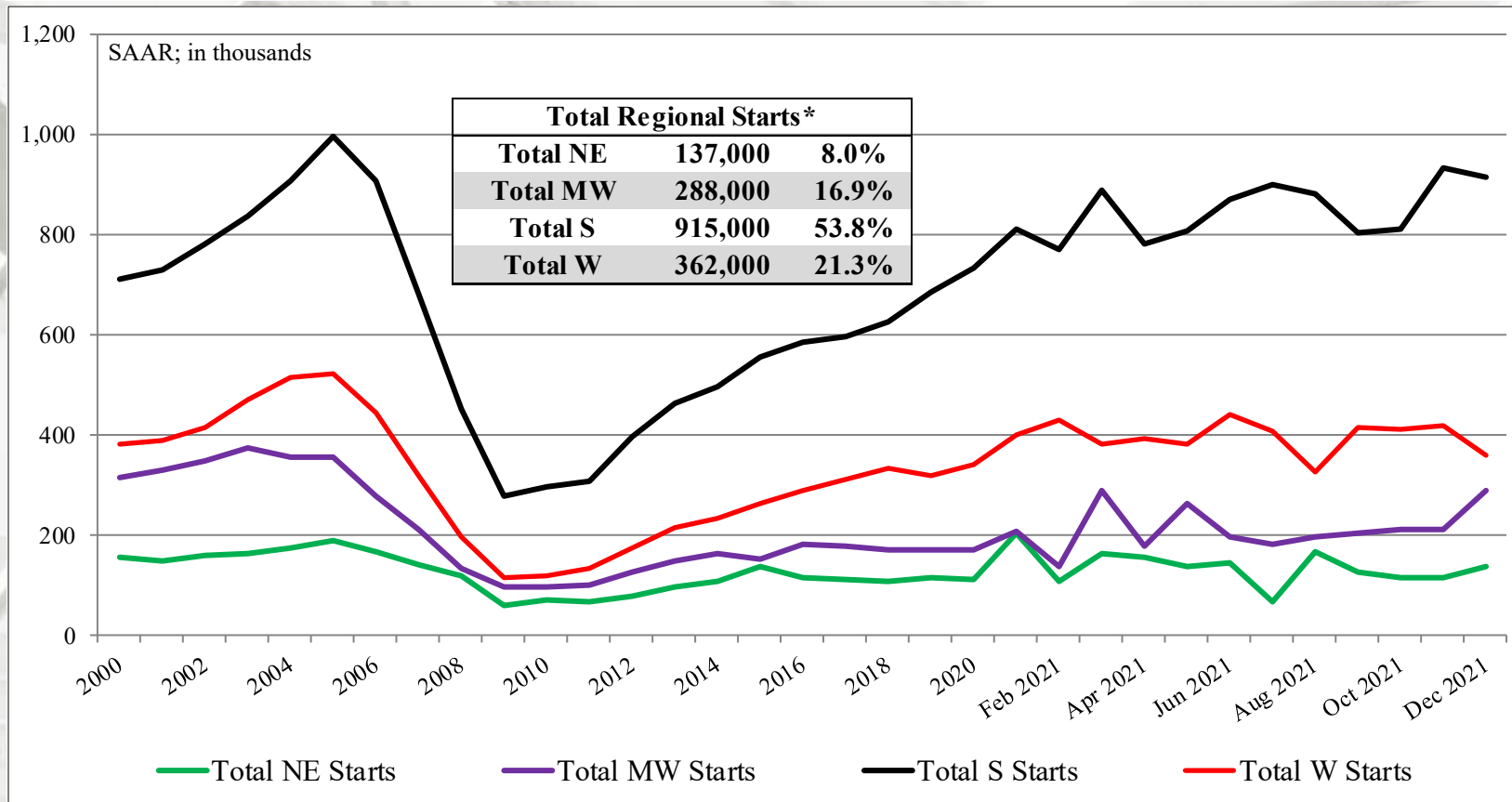
New Housing Starts by Region

	S Total	S SF	S MF**
December	915,000	658,000	257,000
November	933,000	717,000	216,000
2020	837,000	692,000	145,000
M/M change	-1.9%	-8.2%	19.0%
Y/Y change	9.3%	-4.9%	77.2%
	W Total	W SF	W MF
December	362,000	245,000	117,000
November	420,000	287,000	133,000
2020	442,000	320,000	122,000
M/M change	-13.8%	-14.6%	-12.0%
Y/Y change	-18.1%	-23.4%	-4.1%

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

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

New Housing Starts by Region

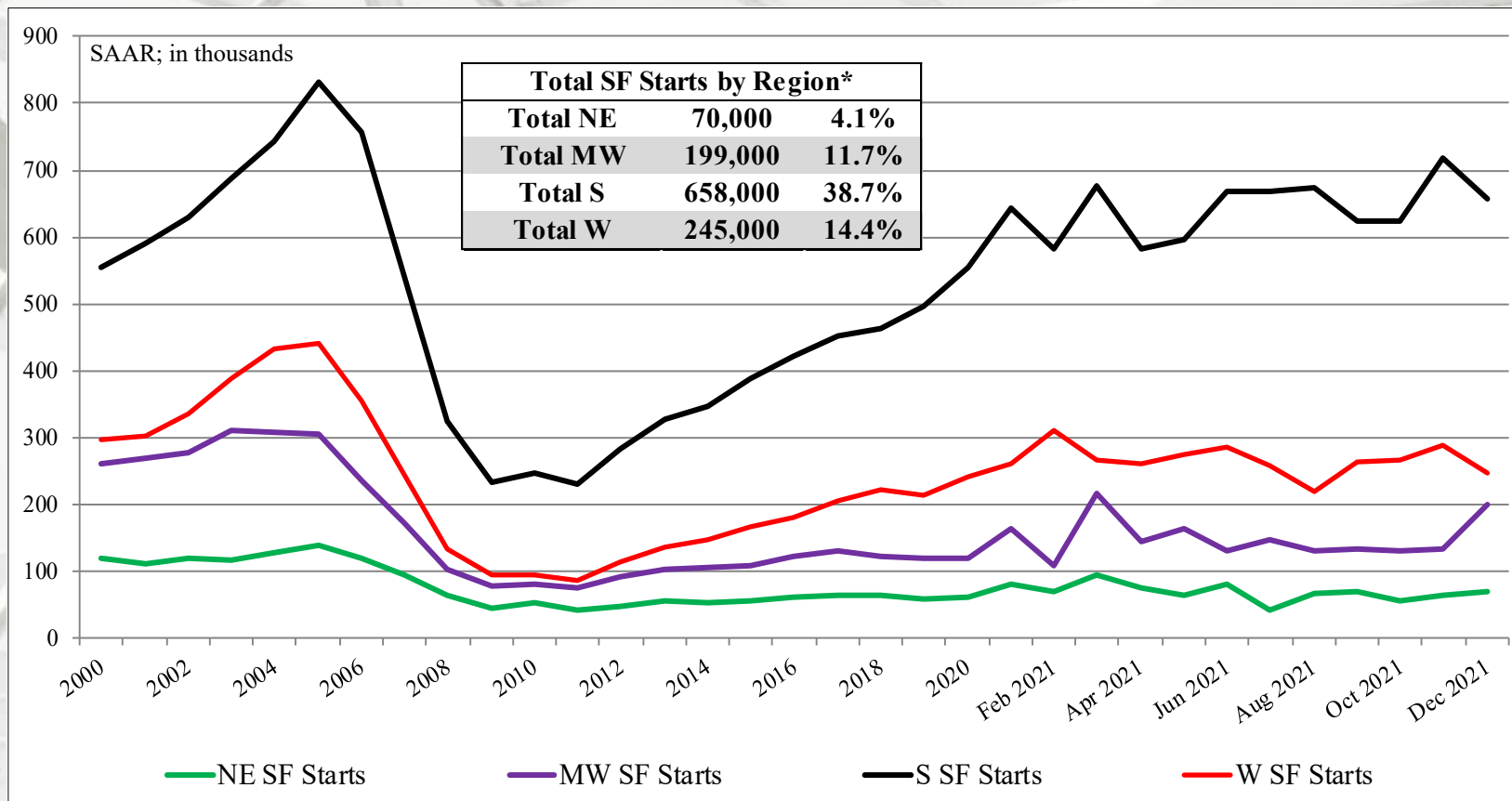


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

Total SF Housing Starts by Region

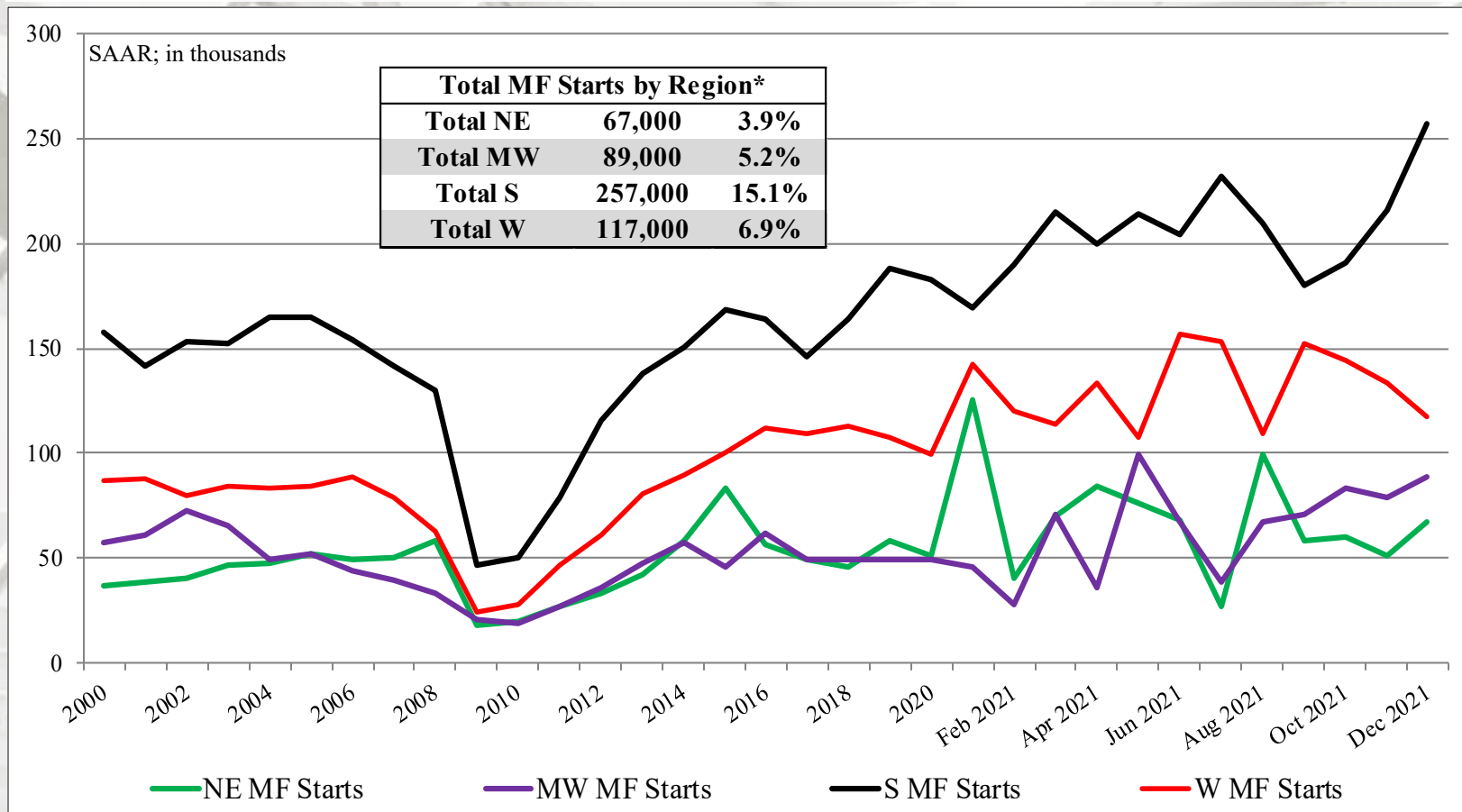


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

MF Housing Starts by Region

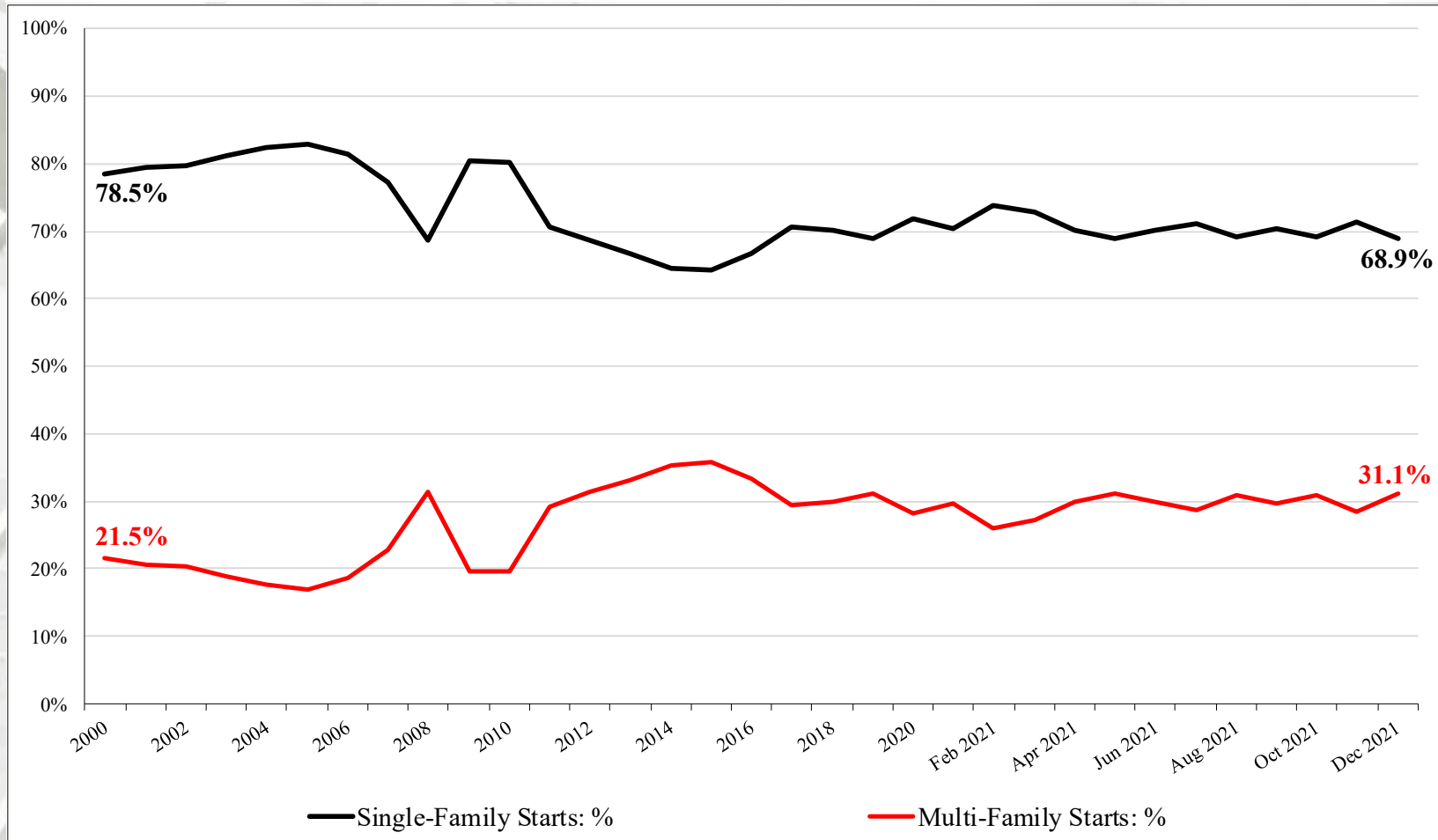


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

SF vs. MF Housing Starts (%)



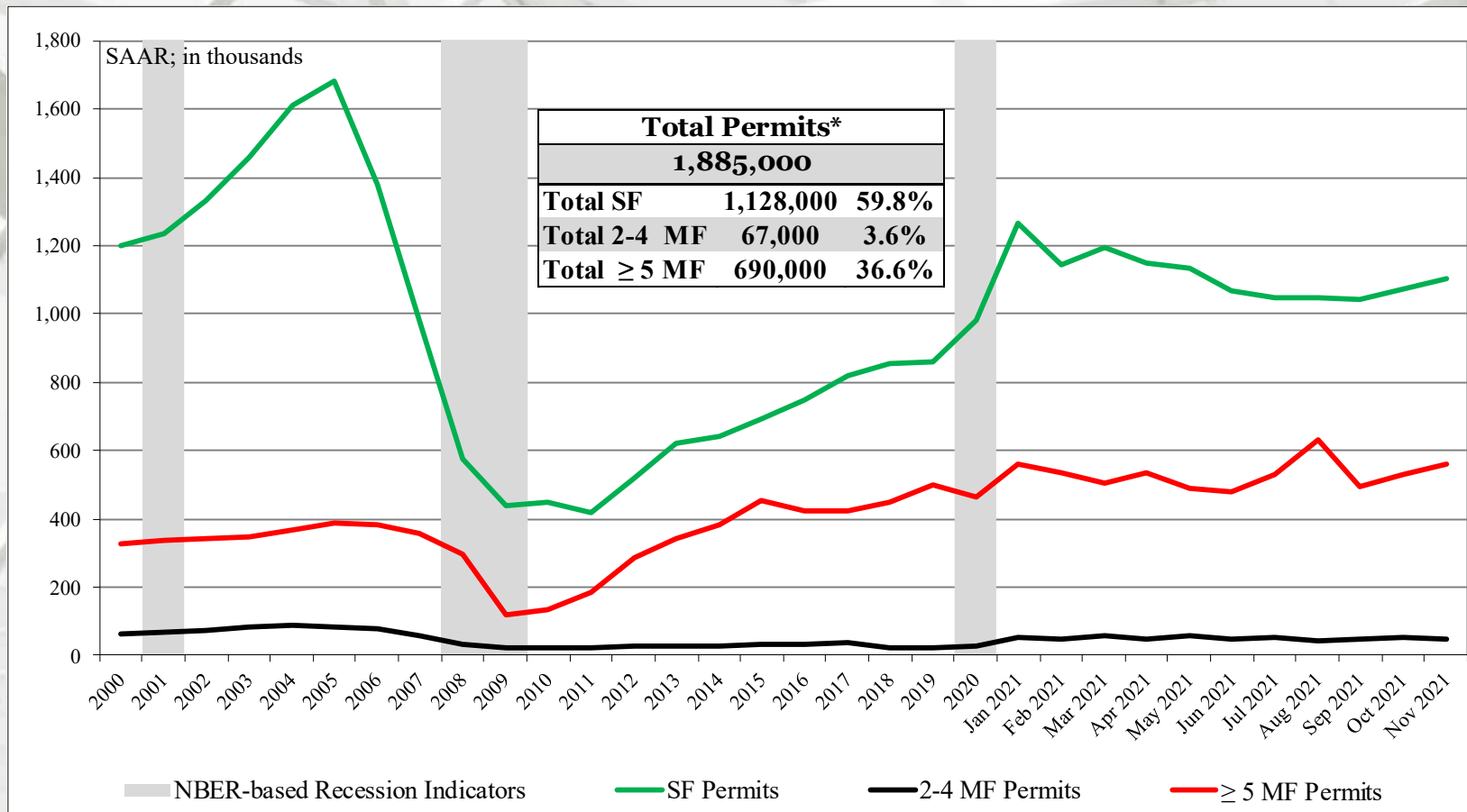
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
December	1,885,000	1,128,000	67,000	690,000
November	1,717,000	1,106,000	48,000	563,000
2020	1,758,000	1,233,000	49,000	476,000
M/M change	9.8%	2.0%	39.6%	22.6%
Y/Y change	7.2%	-8.5%	36.7%	45.0%

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

Total New Housing Permits



* Percentage of total permits.

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

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
December	300,000	83,000	217,000
November	143,000	62,000	81,000
2020	155,000	71,000	84,000
M/M change	109.8%	33.9%	167.9%
Y/Y change	93.5%	16.9%	158.3%
	MW Total*	MW SF	MW MF**
December	267,000	155,000	112,000
November	219,000	141,000	78,000
2020	259,000	168,000	91,000
M/M change	21.9%	9.9%	43.6%
Y/Y change	3.1%	-7.7%	23.1%

NE = Northeast; MW = Midwest

* All data are SAAR

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

New Housing Permits by Region

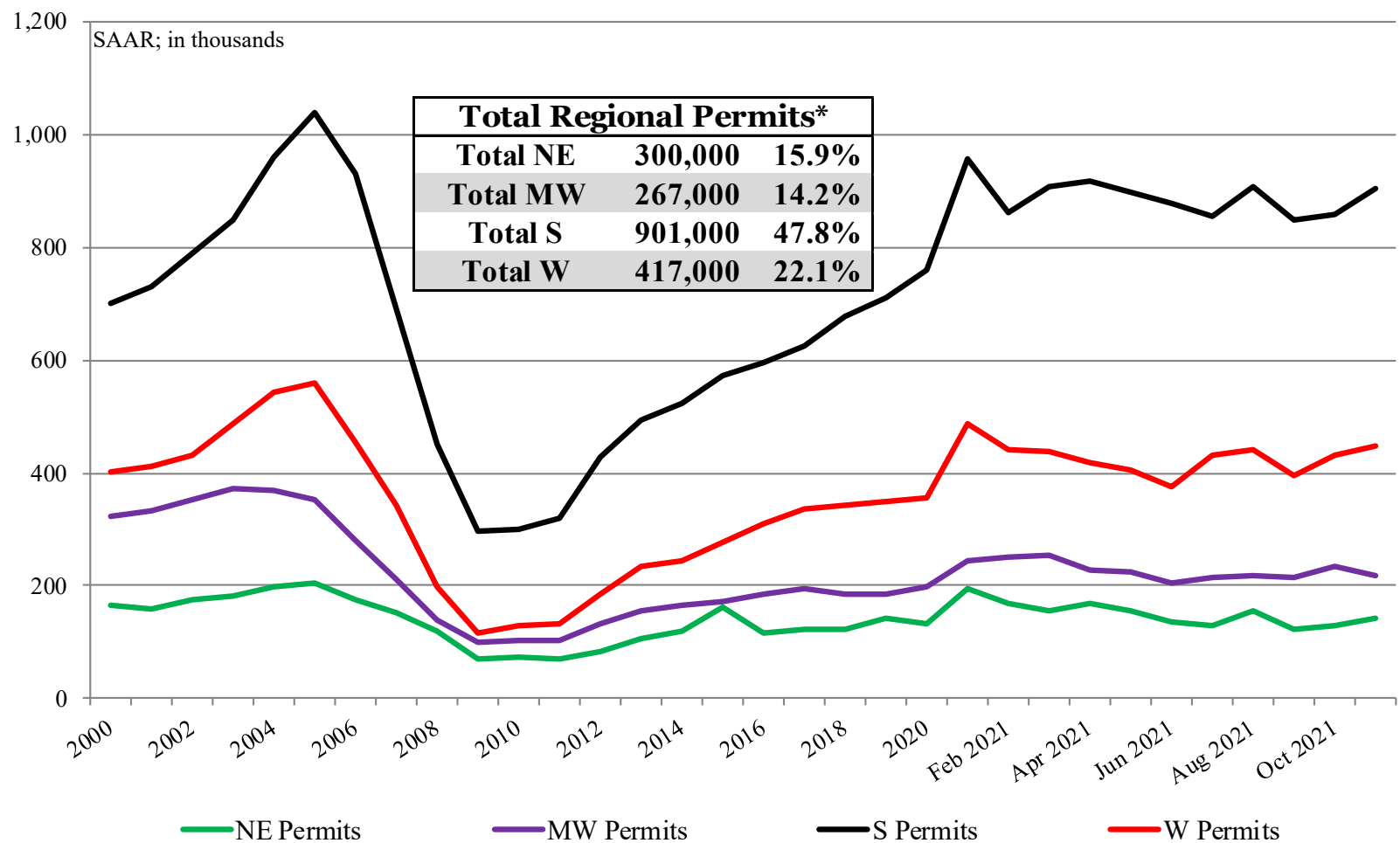
	S Total*	S SF	S MF**
December	901,000	650,000	251,000
November	906,000	647,000	259,000
2020	898,000	710,000	188,000
M/M change	-0.6%	0.5%	-3.1%
Y/Y change	0.3%	-8.5%	33.5%
	W Total*	W SF	W MF**
December	417,000	240,000	177,000
November	449,000	256,000	193,000
2020	446,000	284,000	162,000
M/M change	-7.1%	-6.3%	-8.3%
Y/Y change	-6.5%	-15.5%	9.3%

S = South; W = West

* All data are SAAR

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

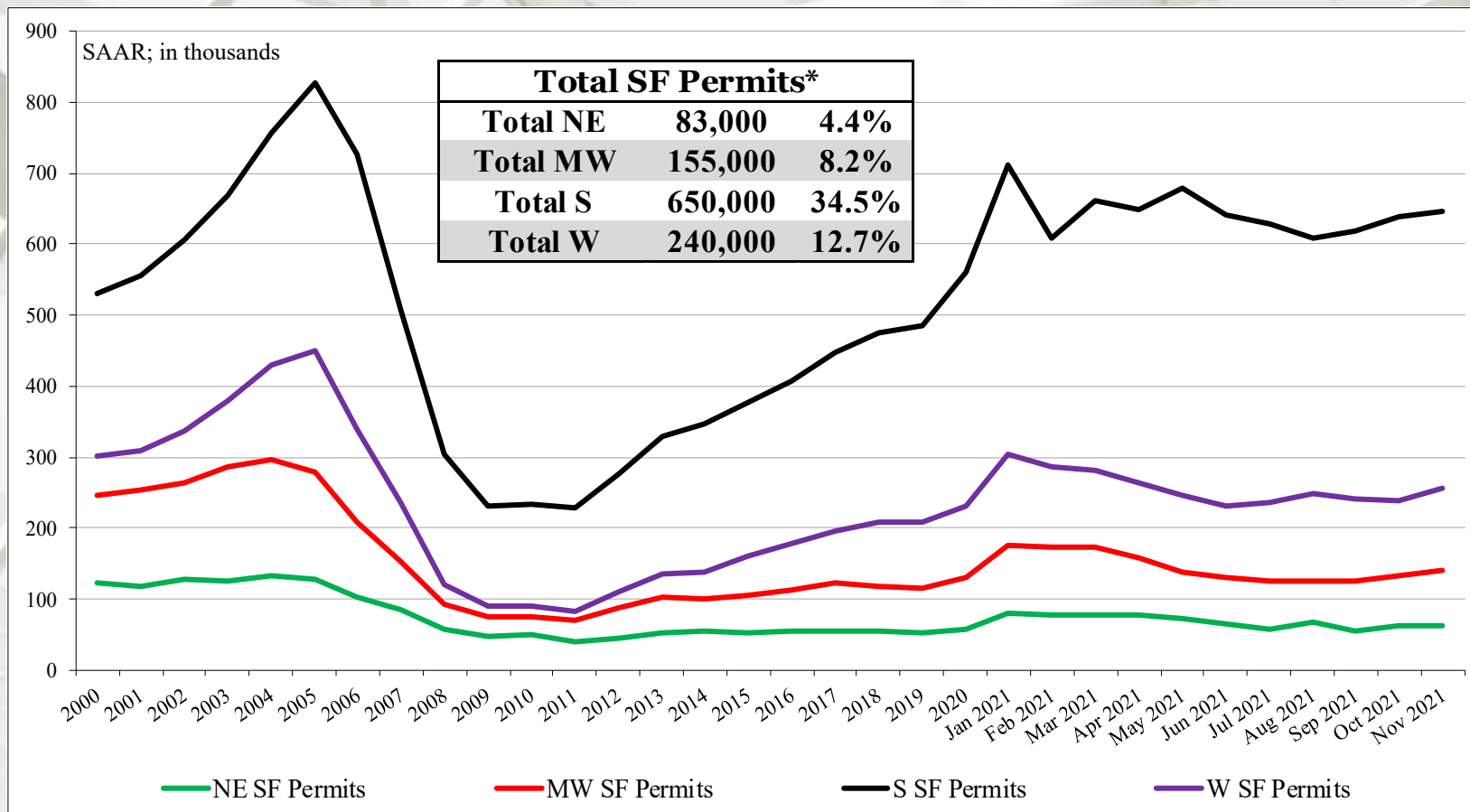
Total Housing Permits by Region



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

* Percentage of total permits.

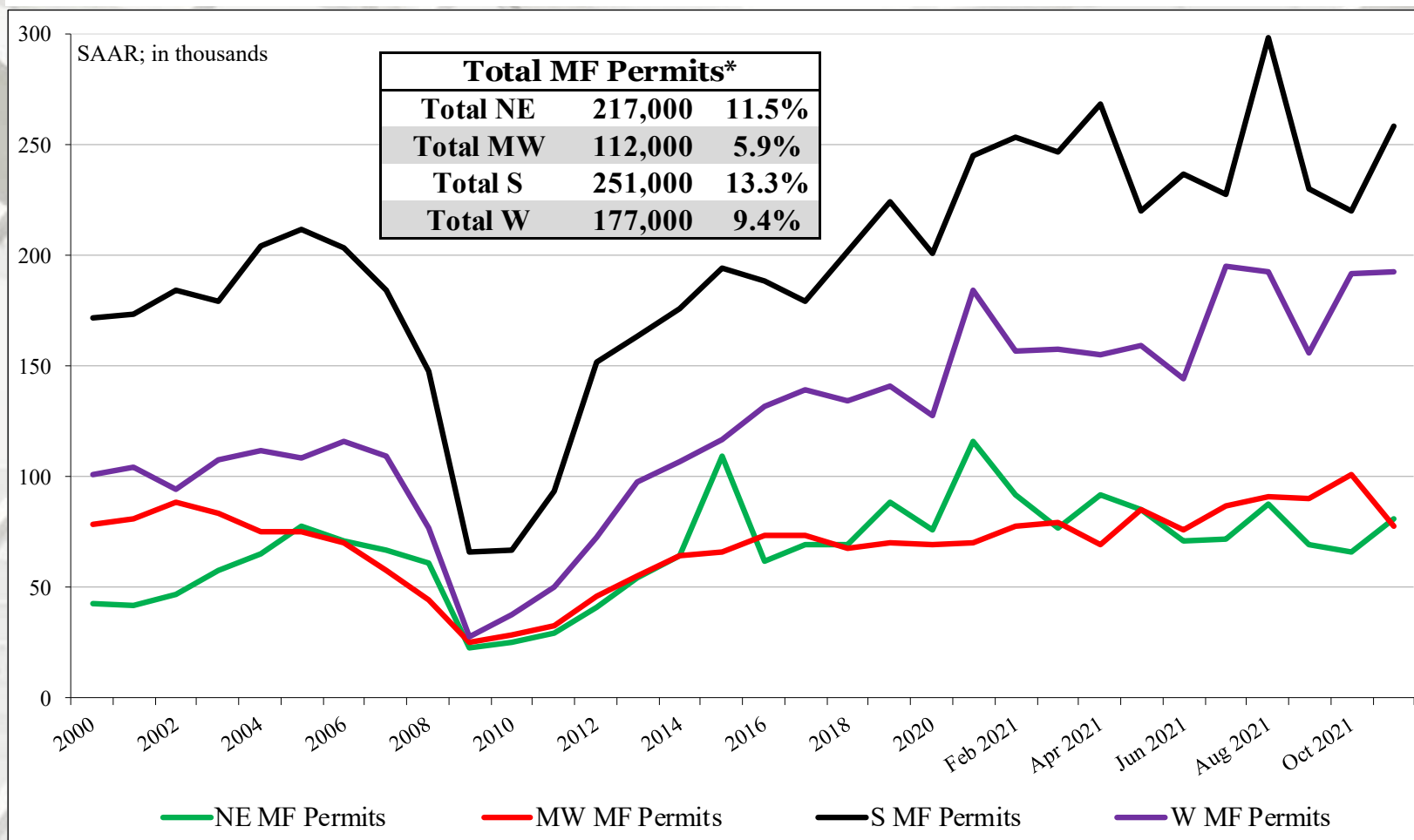
SF Housing Permits by Region



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

* Percentage of total permits.

MF Housing Permits by Region



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

* Percentage of total permits.

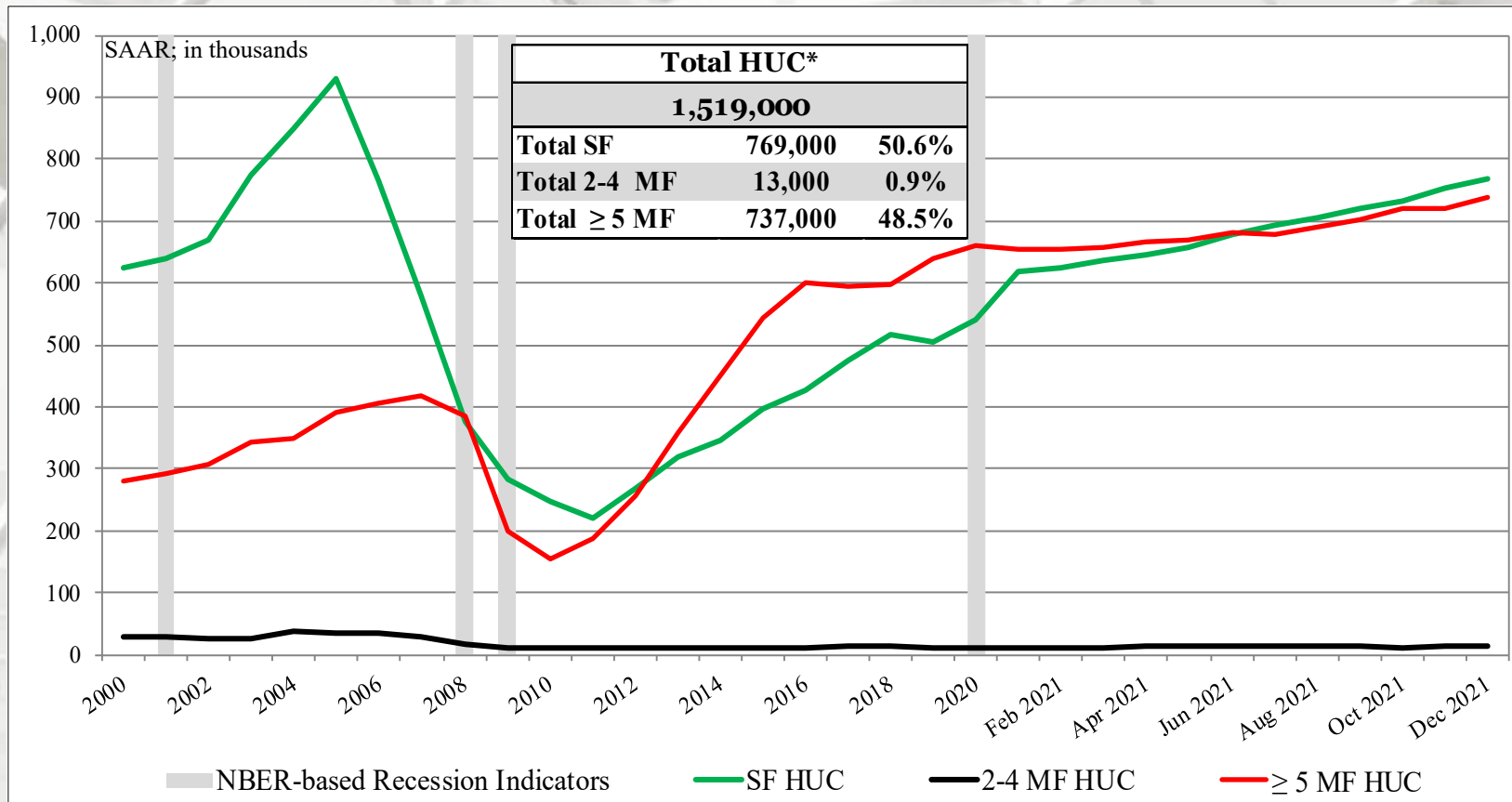
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
December	1,519,000	769,000	13,000	737,000
November	1,485,000	752,000	13,000	720,000
2020	1,264,000	609,000	10,000	645,000
M/M change	2.3%	2.3%	0.0%	2.4%
Y/Y change	20.2%	26.3%	30.0%	14.3%

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

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

Total Housing Under Construction



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

* Percentage of total housing under construction units.

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

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
December	201,000	62,000	139,000
November	202,000	63,000	139,000
2020	178,000	57,000	122,000
M/M change	-0.5%	-1.6%	0.0%
Y/Y change	12.9%	8.8%	13.9%
	MW Total	MW SF	MW MF
December	194,000	107,000	87,000
November	183,000	101,000	82,000
2020	163,000	86,000	77,000
M/M change	6.0%	5.9%	6.1%
Y/Y change	19.0%	24.4%	13.0%

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).

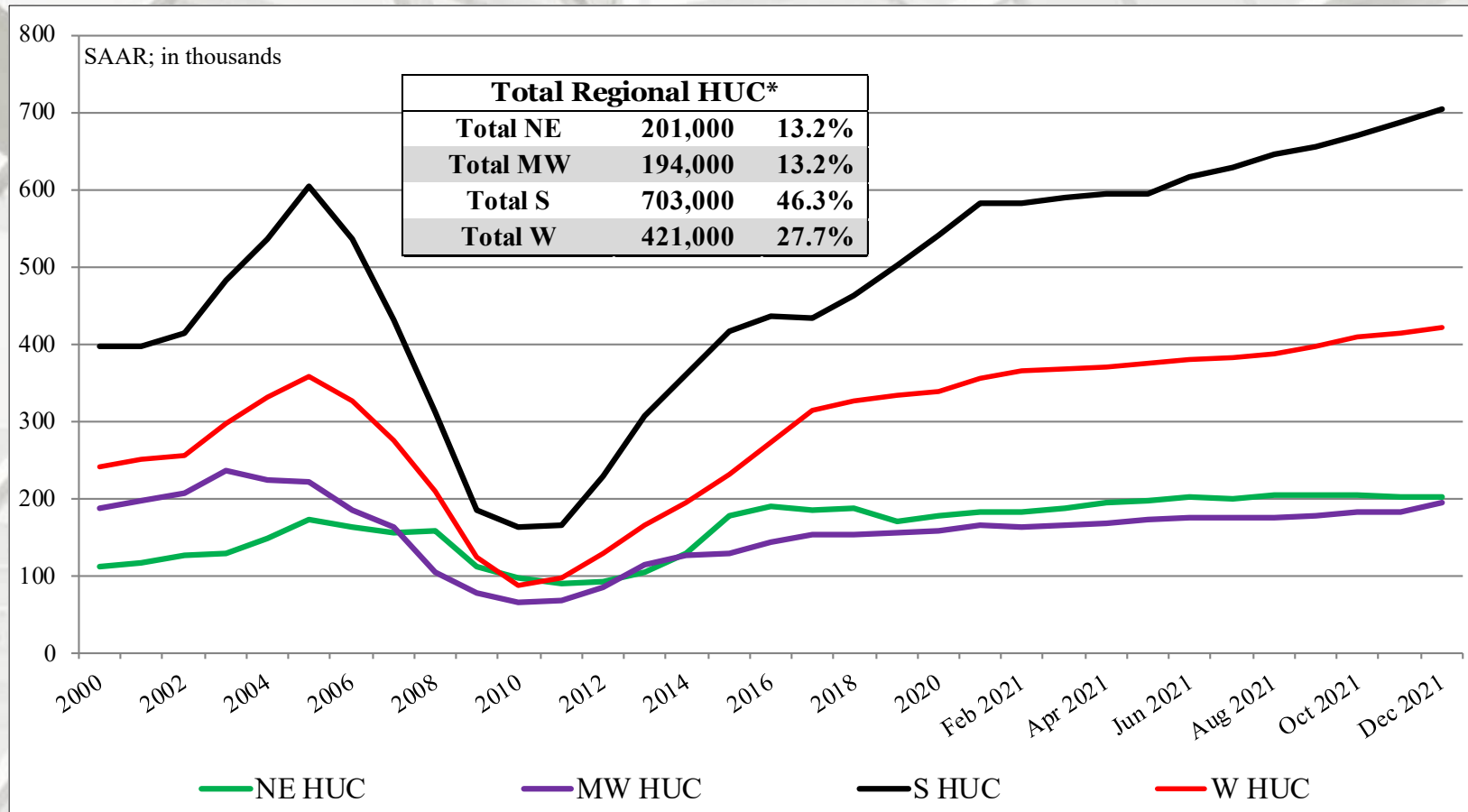
New Housing Under Construction by Region

	S Total	S SF	S MF**
December	703,000	406,000	297,000
November	687,000	396,000	291,000
2020	576,000	303,000	273,000
M/M change	2.3%	2.5%	2.1%
Y/Y change	22.0%	34.0%	8.8%
	W Total	W SF	W MF
December	421,000	194,000	227,000
November	413,000	192,000	221,000
2020	347,000	163,000	184,000
M/M change	1.9%	1.0%	2.7%
Y/Y change	21.3%	19.0%	23.4%

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

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

Total Housing Under Construction by Region

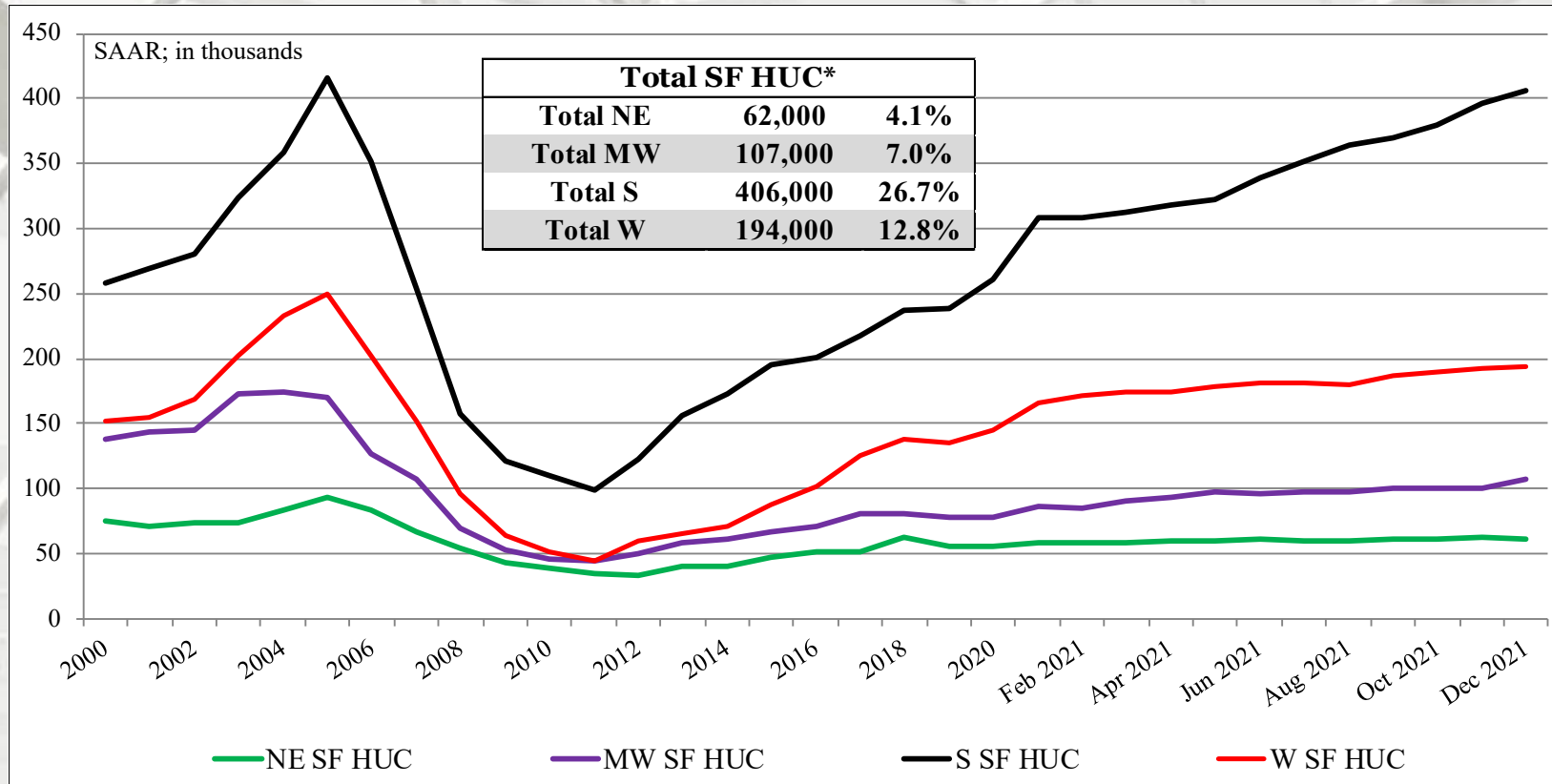


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing under construction units.

SF Housing Under Construction by Region

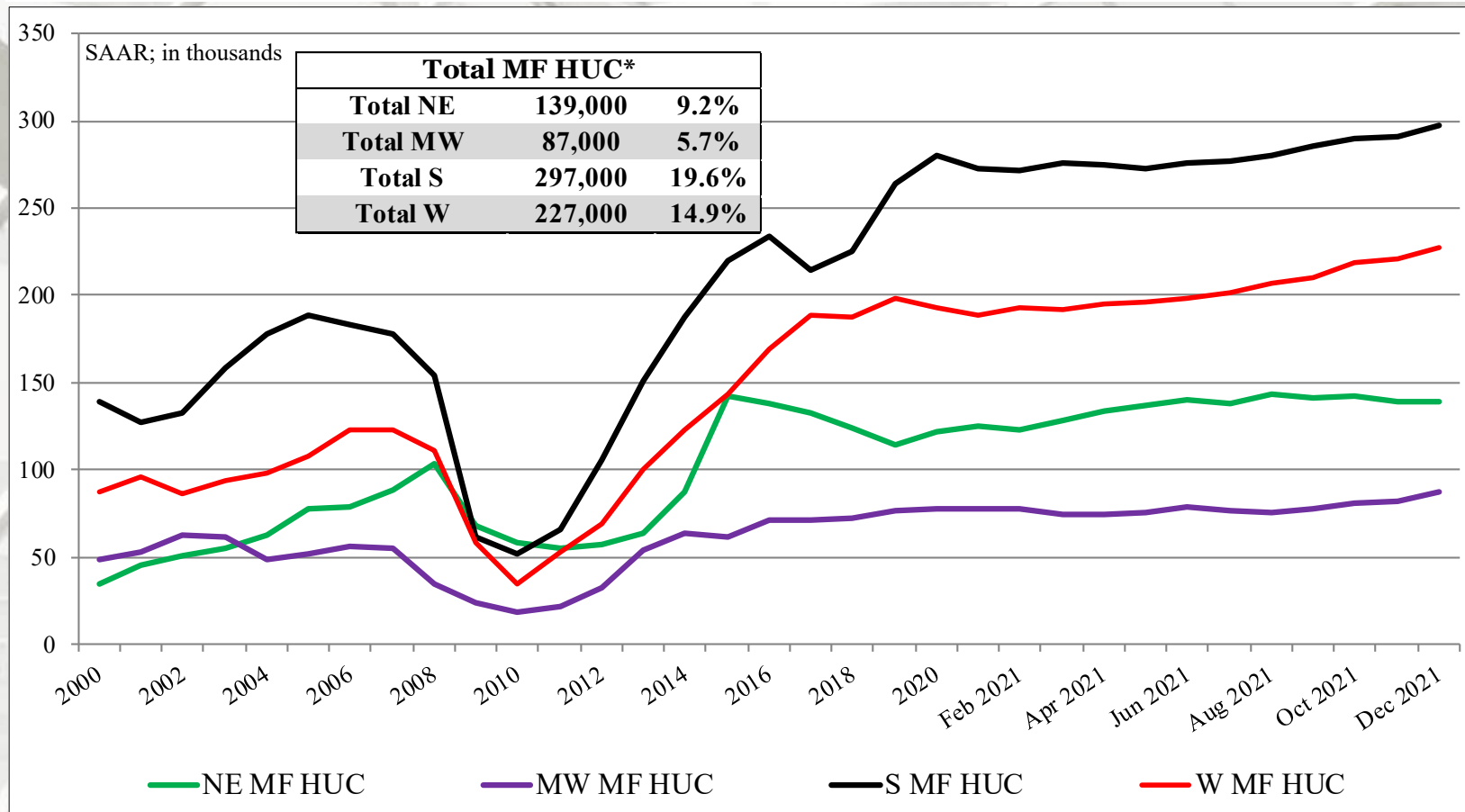


NE = Northeast, MW = Midwest, S = South, W = West.

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

* Percentage of total housing under construction units.

MF Housing Under Construction by Region



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

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

* Percentage of total housing under construction units.

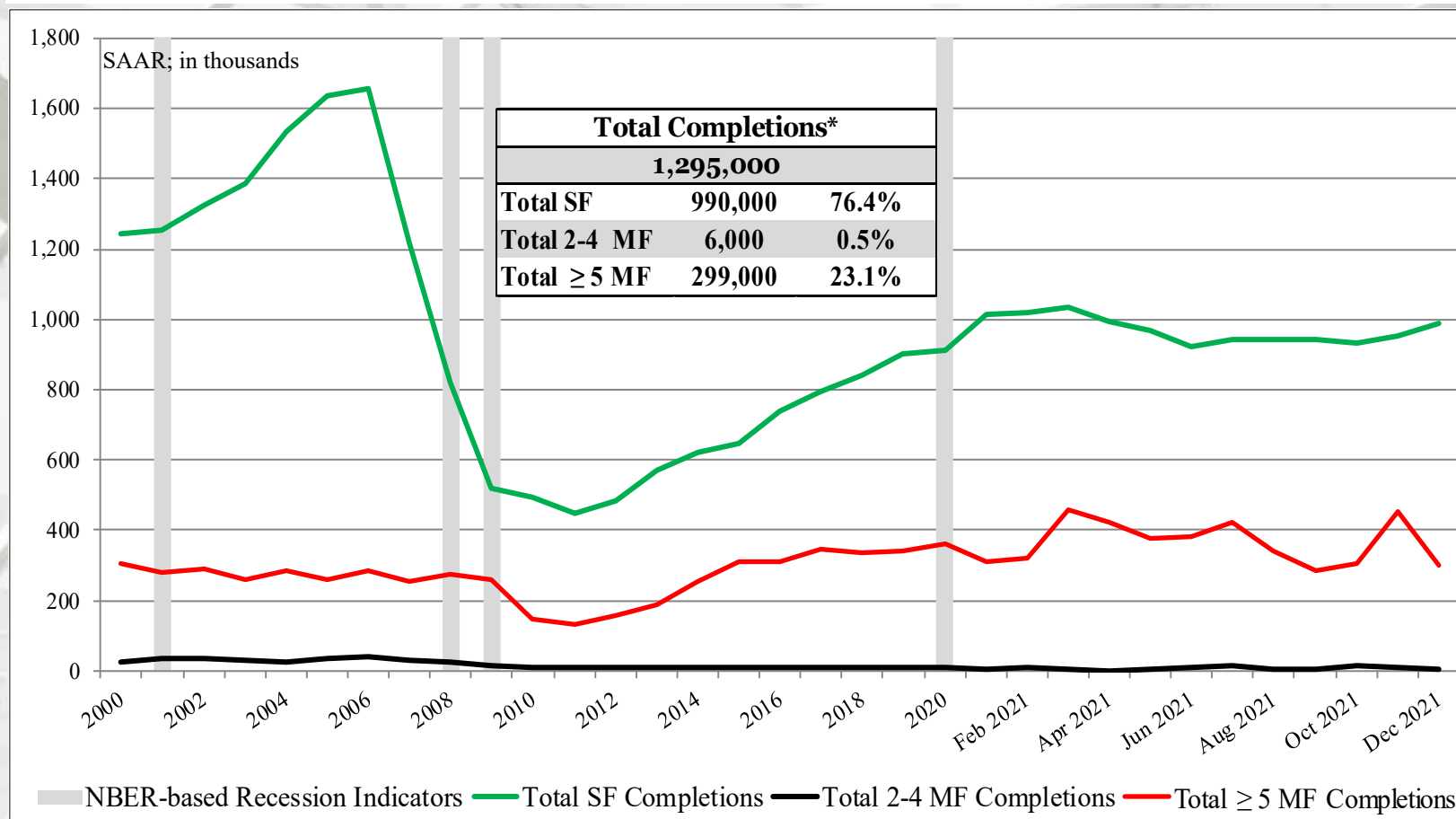
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
December	1,295,000	990,000	6,000	299,000
November	1,418,000	953,000	10,000	455,000
2020	1,386,000	958,000	13,000	415,000
M/M change	-8.7%	3.9%	-40.0%	-34.3%
Y/Y change	-6.6%	3.3%	-53.8%	-28.0%

* 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**
December	118,000	70,000	48,000
November	113,000	51,000	62,000
2020	124,000	65,000	59,000
M/M change	4.4%	37.3%	-22.6%
Y/Y change	-4.8%	7.7%	-18.6%
	MW Total	MW SF	MW MF
December	167,000	103,000	64,000
November	218,000	135,000	83,000
2020	190,000	139,000	51,000
M/M change	-23.4%	-23.7%	-22.9%
Y/Y change	-12.1%	-25.9%	25.5%

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

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

* Percentage of total housing completions

New Housing Completions by Region

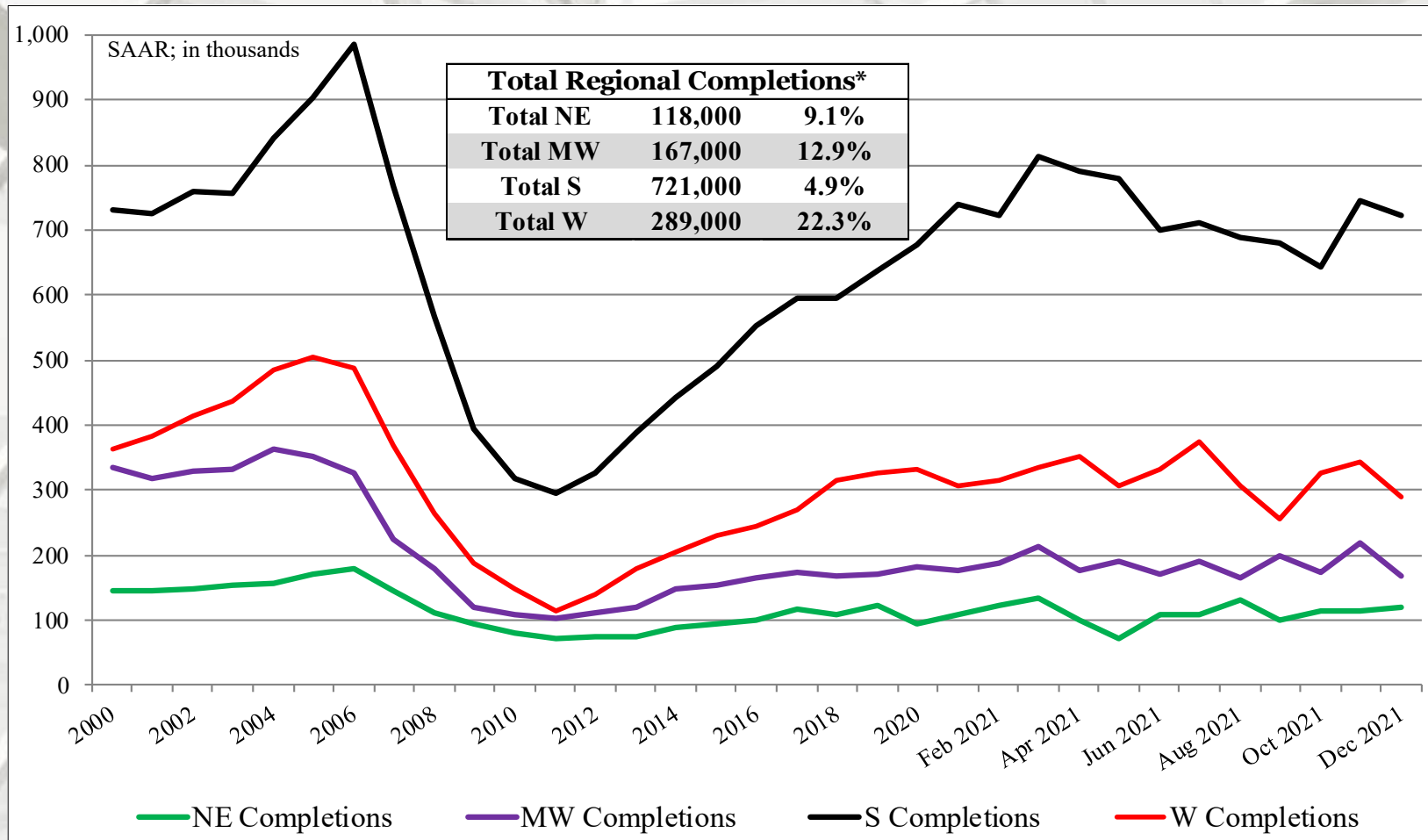
	S Total	S SF	S MF**
December	721,000	573,000	148,000
November	744,000	525,000	219,000
2020	732,000	540,000	192,000
M/M change	-3.1%	9.1%	-32.4%
Y/Y change	-1.5%	6.1%	-22.9%
	W Total	W SF	W MF
December	289,000	244,000	45,000
November	343,000	242,000	101,000
2020	340,000	214,000	126,000
M/M change	-15.7%	0.8%	-55.4%
Y/Y change	-15.0%	14.0%	-64.3%

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

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

* Percentage of total housing completions

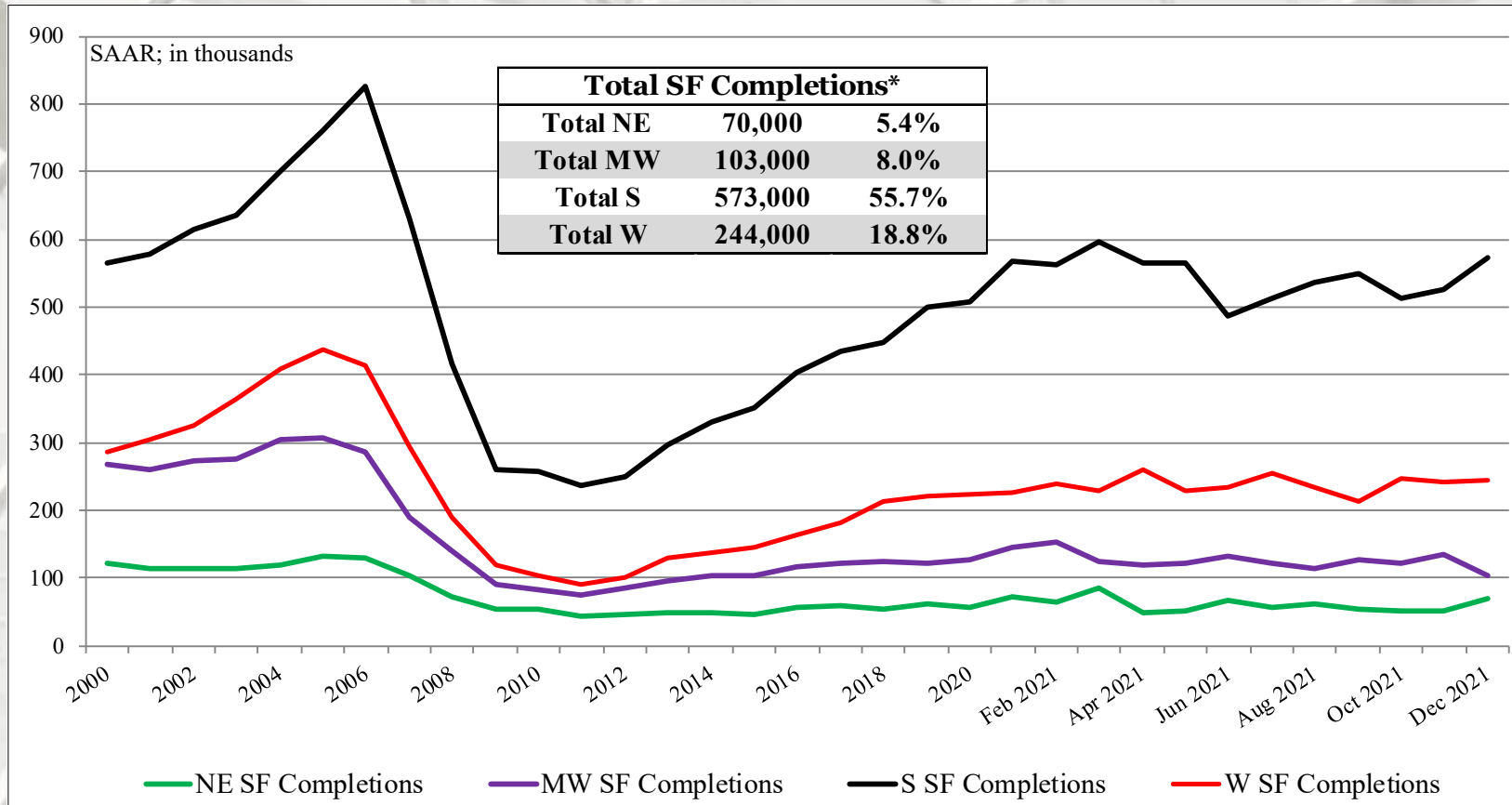
Total Housing Completions by Region



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

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

SF Housing Completions by Region

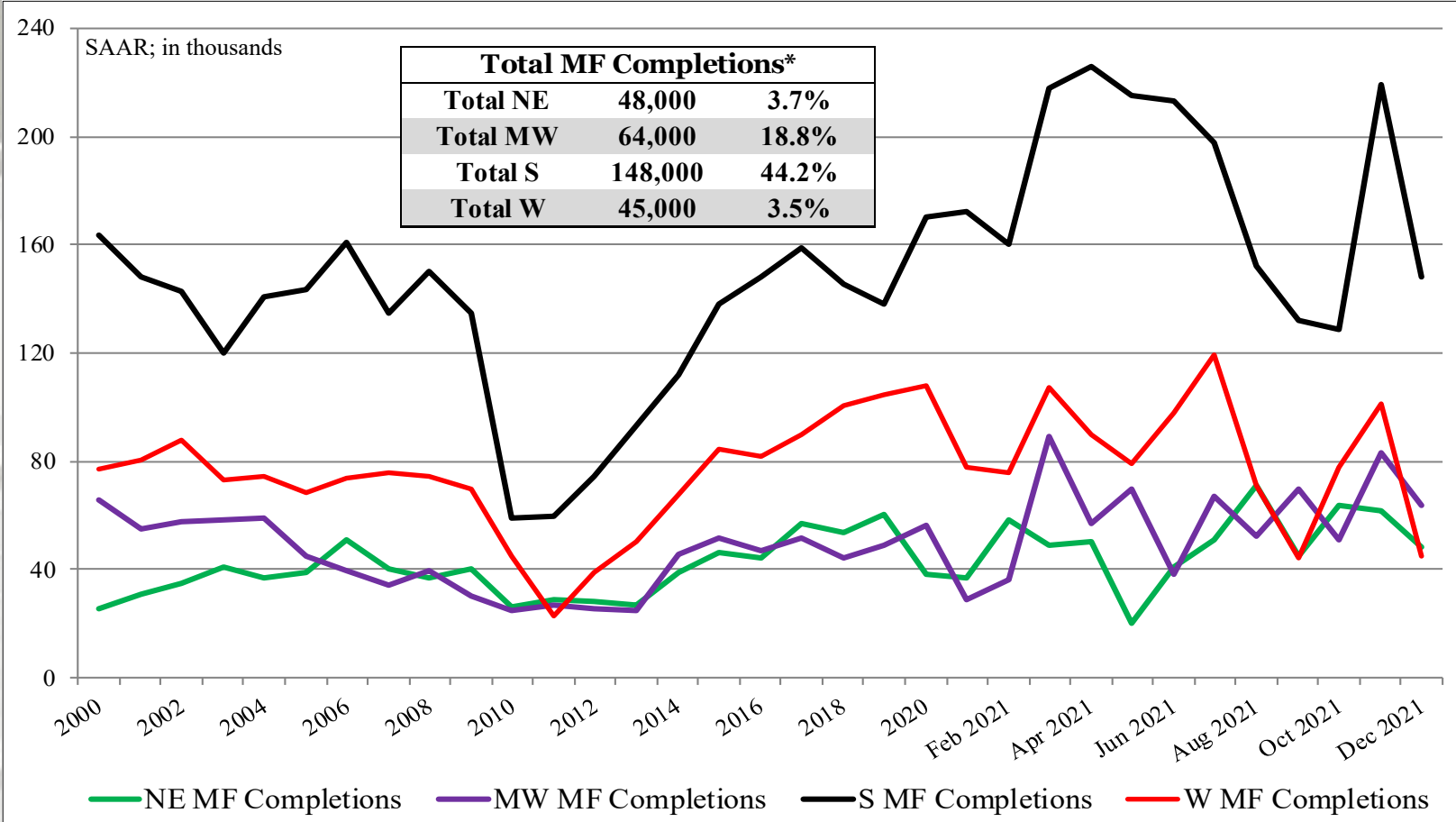


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

MF Housing Completions by Region

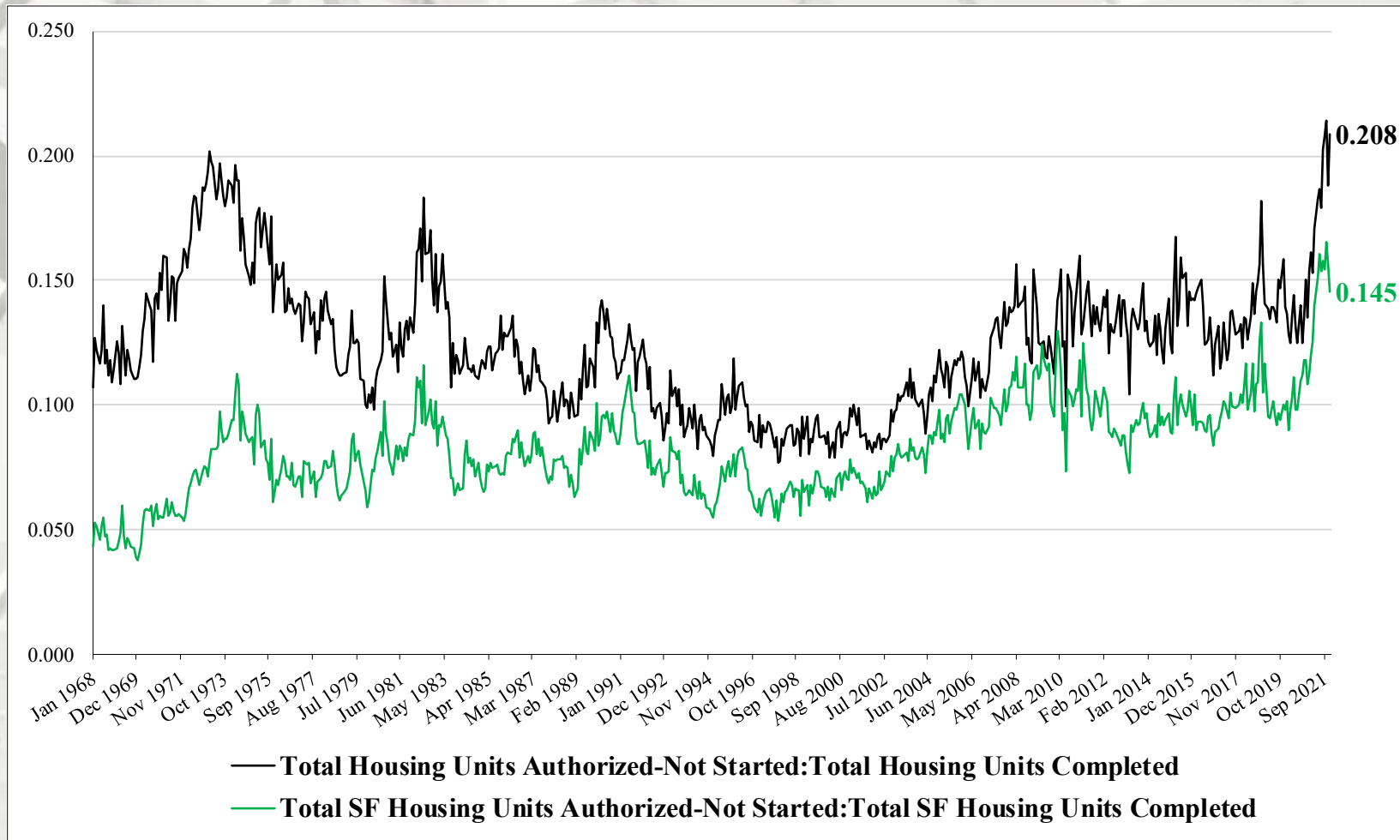


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

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



Authorized, Not Started to Housing Completions

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

The primary reason is manufacturing supply chain disruptions – ranging from appliances to windows; labor, logistics, and local building regulations.

New Single-Family House Sales

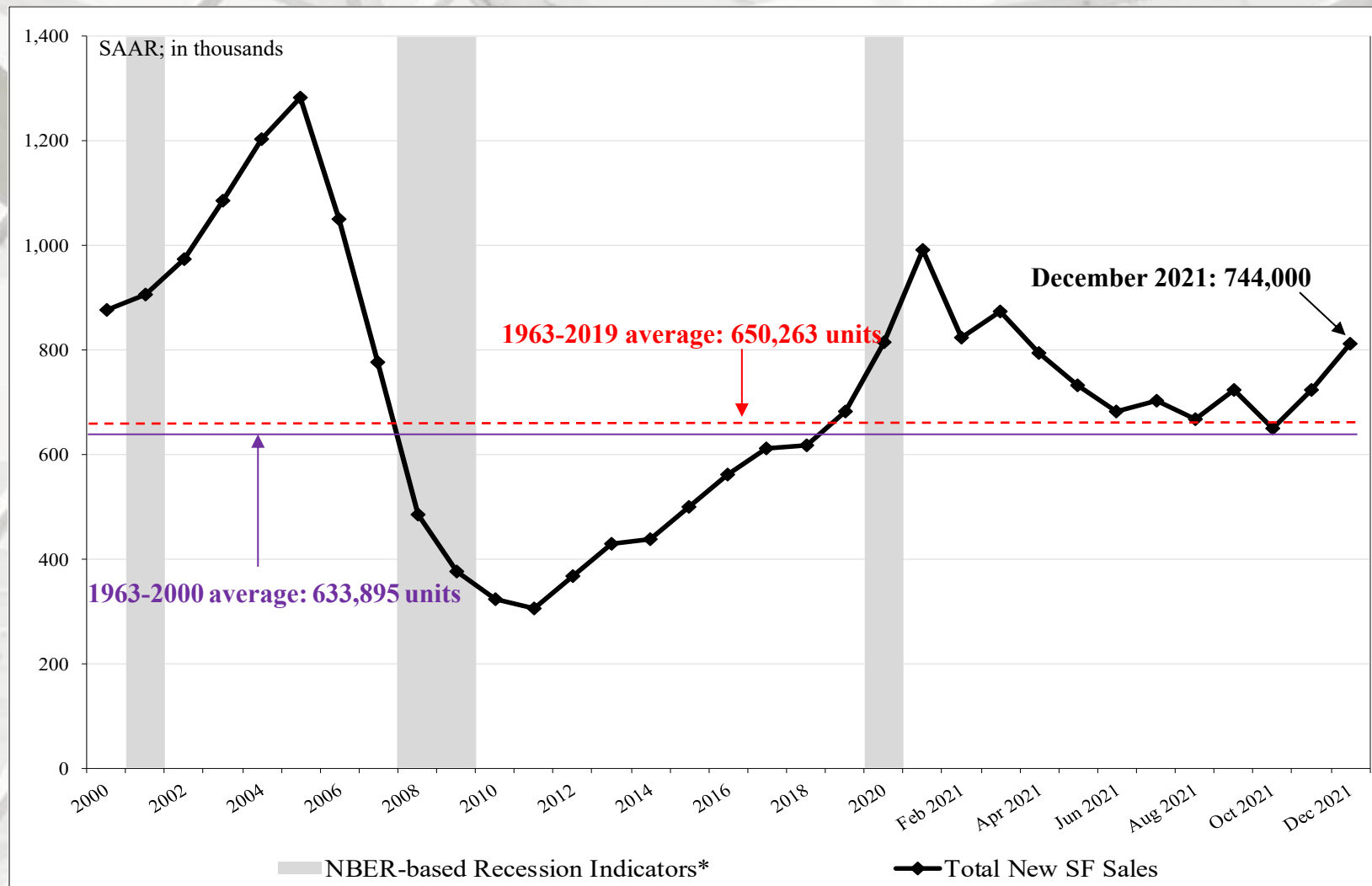
	New SF Sales*	Median Price	Mean Price	Month's Supply
December	811,000	\$377,700	\$457,300	6.0
November	725,000	\$416,100	\$479,300	6.6
2020	943,000	\$365,300	\$401,700	3.8
M/M change	11.9%	-9.2%	-4.6%	-9.1%
Y/Y change	-14.0%	3.4%	13.8%	57.9%

* 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 the same as the consensus forecast³ of 760 m (range: 710 m to 822 m). The past three month's new SF sales data also were revised:

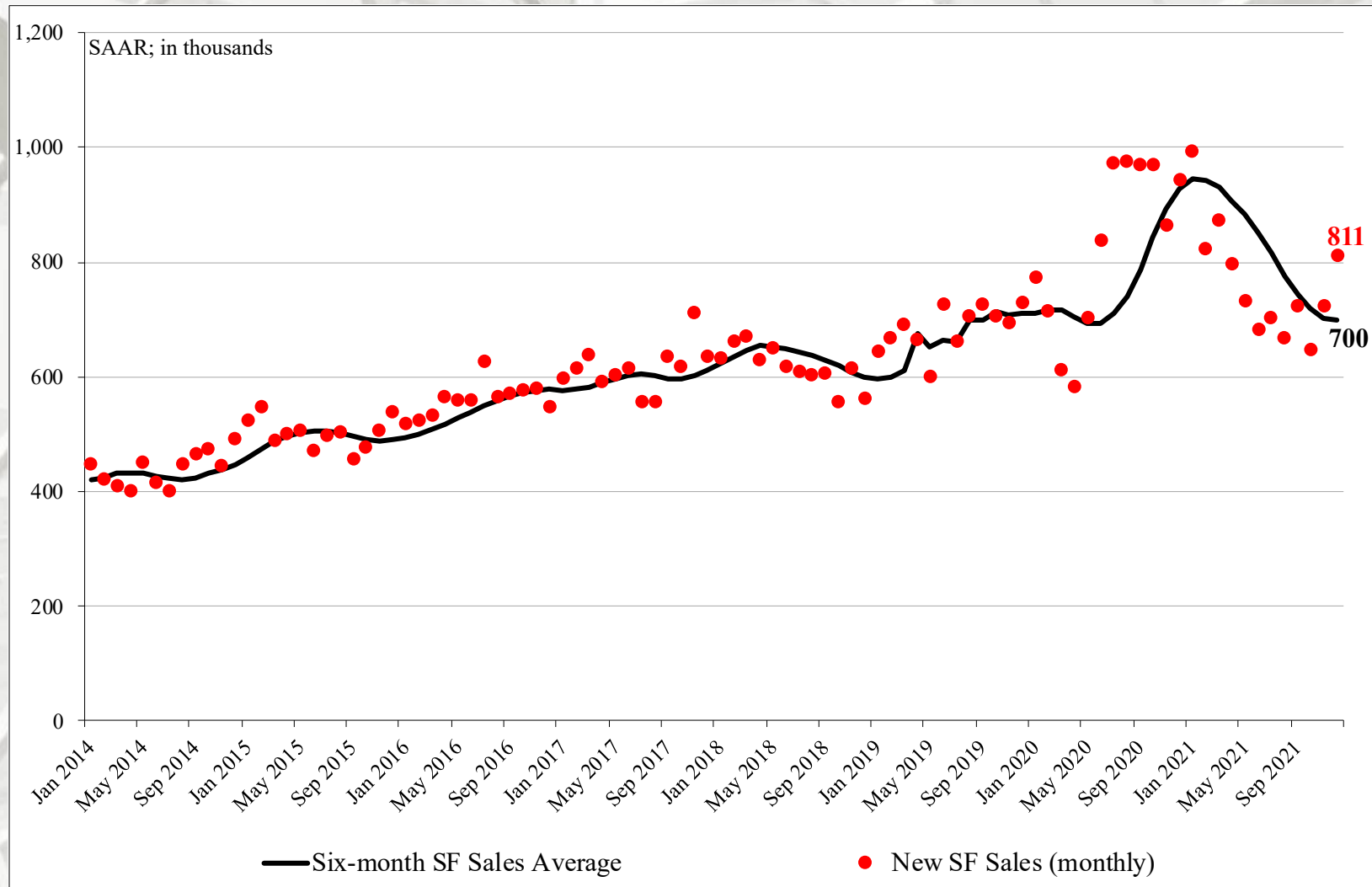
September initial:	800 m, revised to 725 m.
October initial:	745 m, revised to 649 m.
November initial:	744 m, revised to 725 m.

New SF House Sales



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

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE	MW	S	W			
December	27,000	86,000	456,000	242,000			
November	32,000	55,000	397,000	241,000			
2020	41,000	112,000	553,000	237,000			
M/M change	-15.6%	56.4%	14.9%	0.4%			
Y/Y change	-34.1%	-23.2%	-17.5%	2.1%			
	\$150 - ≤ \$150m	\$200 - \$199.9m	\$300 - 299.9m	\$400 - \$399.9m	\$500 - \$499.9m	\$750 - \$749.9m	≥ \$750m
December ^{1,2,3,4}	1,000	1,000	12,000	18,000	11,000	11,000	4,000
November	1,000	1,000	7,000	17,000	12,000	11,000	5,000
2020	1,000	2,000	16,000	21,000	12,000	8,000	2,000
M/M change	0.0%	0.0%	-15.4%	25.0%	8.3%	8.3%	20.0%
Y/Y change	0.0%	-75.0%	-50.0%	-37.5%	18.2%	30.0%	20.0%
New SF sales: %	1.8%	1.8%	21.1%	31.6%	19.3%	19.3%	7.0%

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

¹ All data are SAAR

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

³ Detail December not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

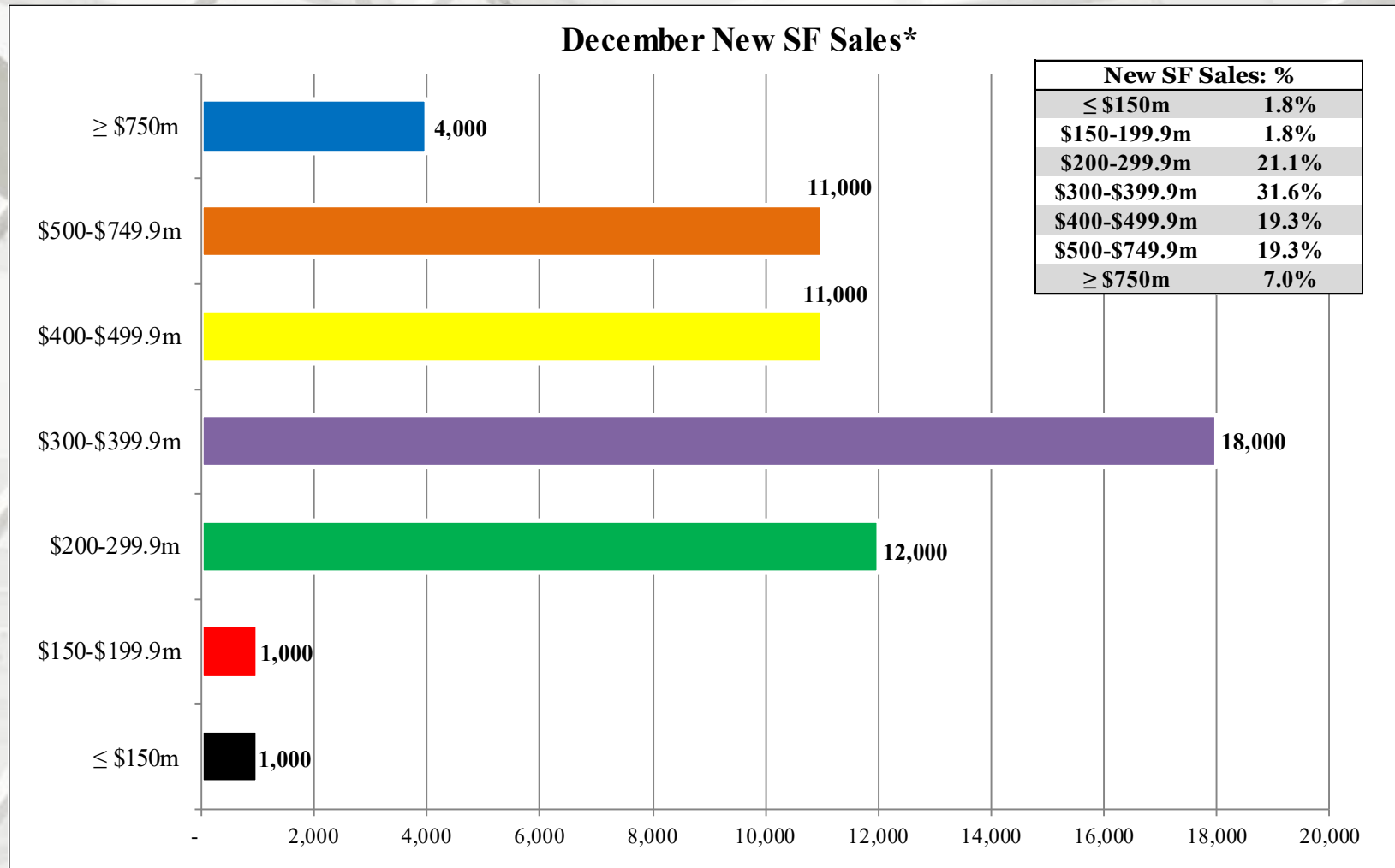
⁵ Z = Less than 500 units or less than 0.5 percent

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

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

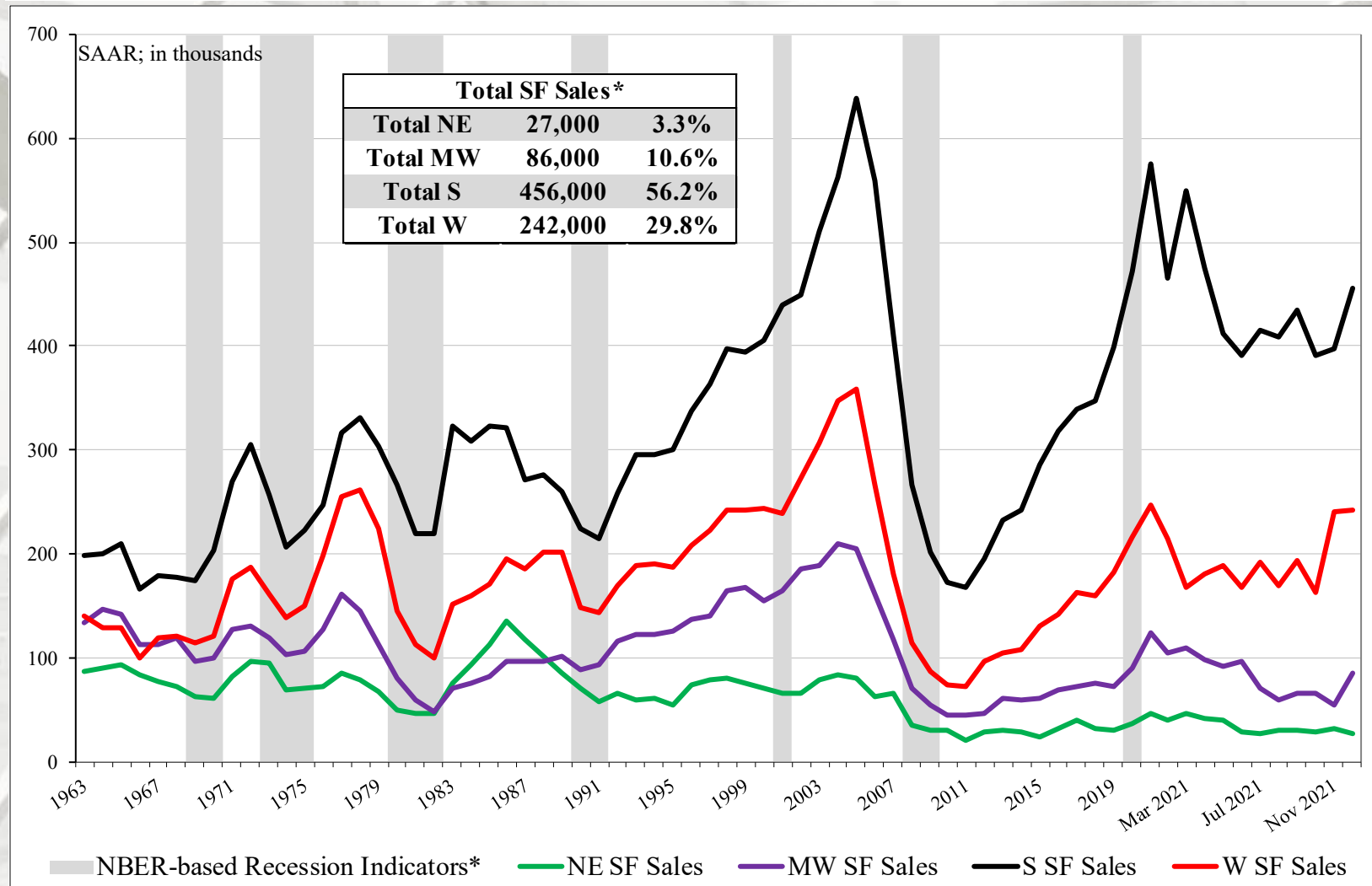
[Return TOC](#)

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

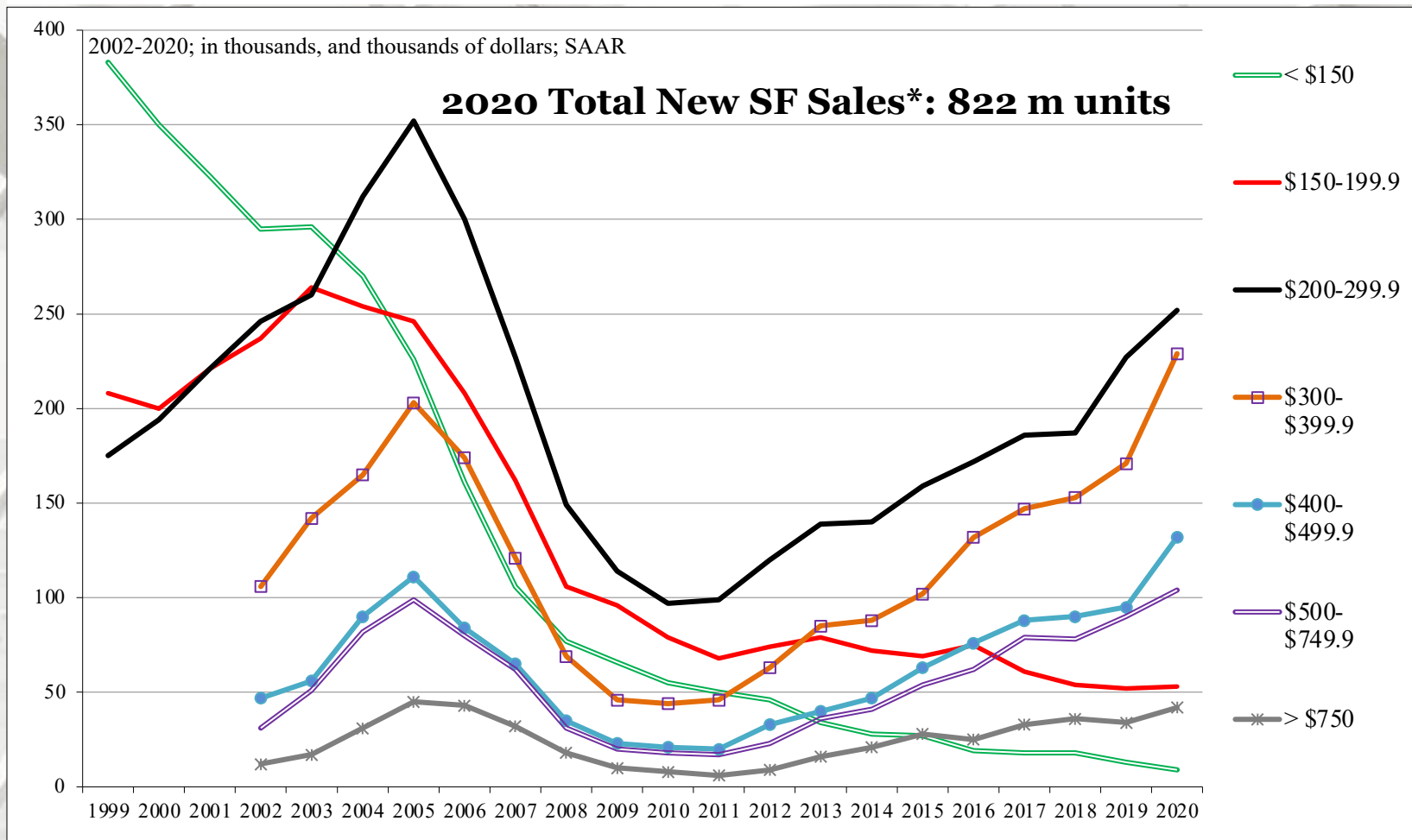


NE = Northeast; MW = Midwest; S = South; W = West

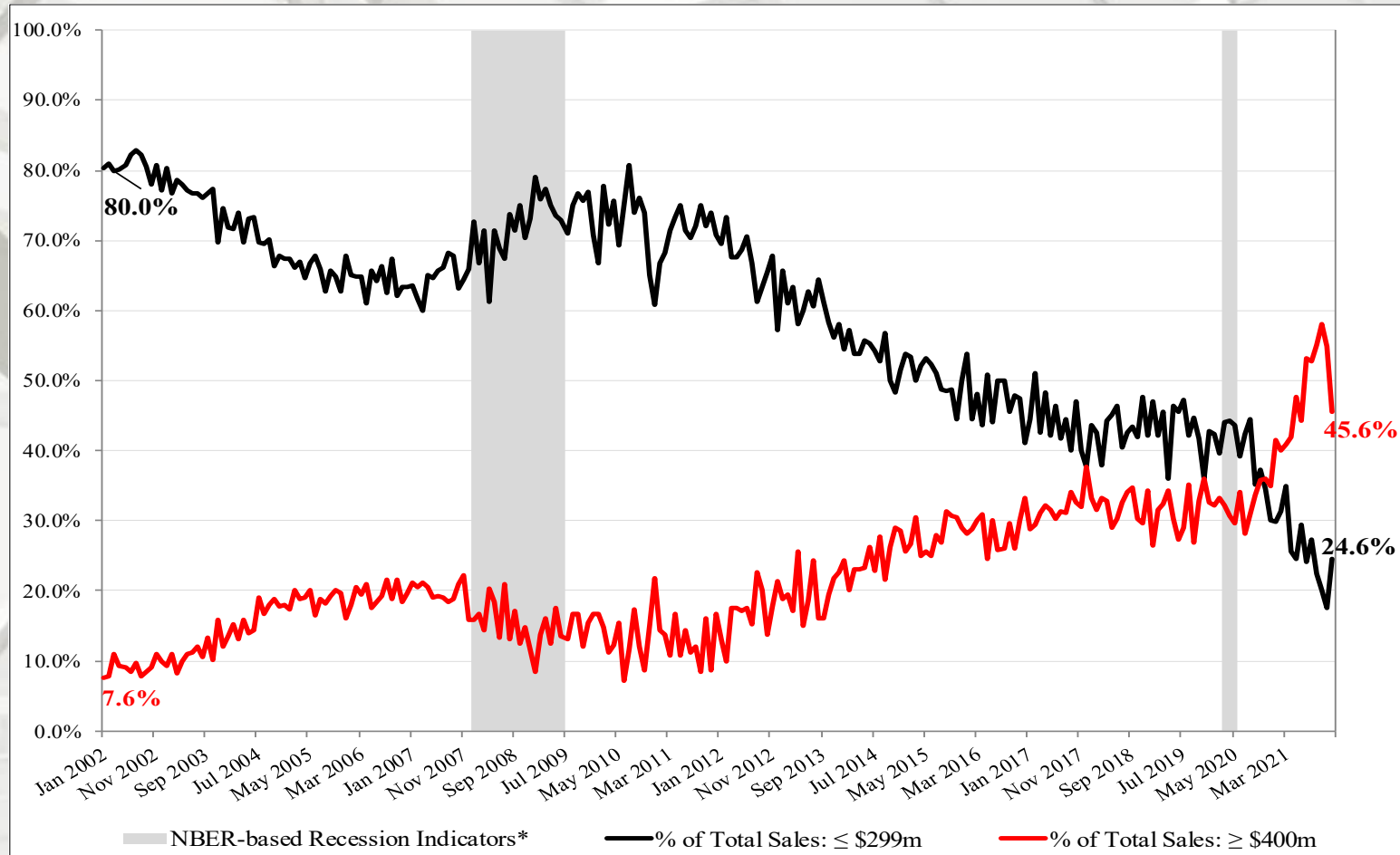
* Percentage of total new sales.

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

New SF House Sales by Price Category



New SF House Sales

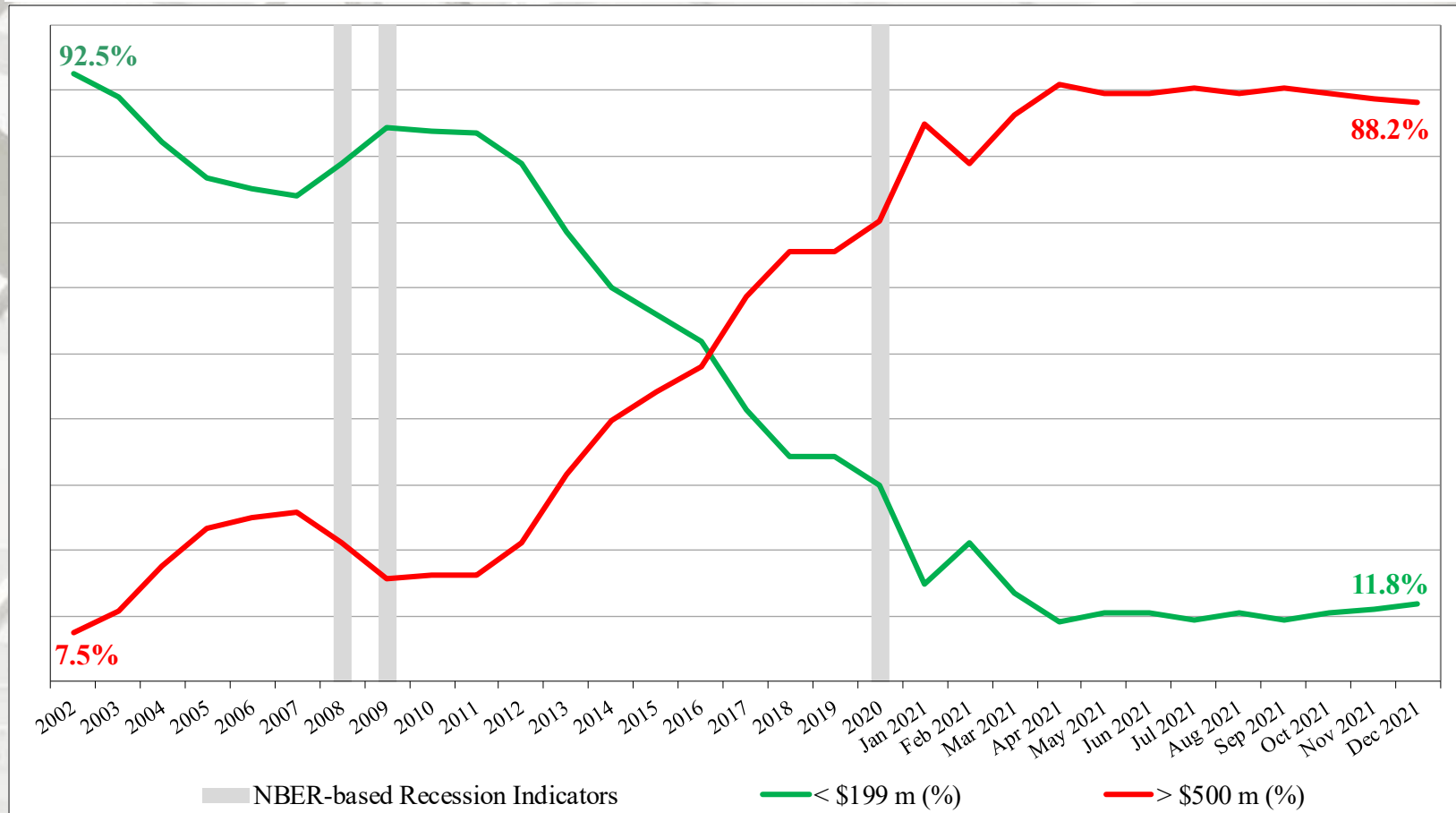


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

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

New SF House Sales



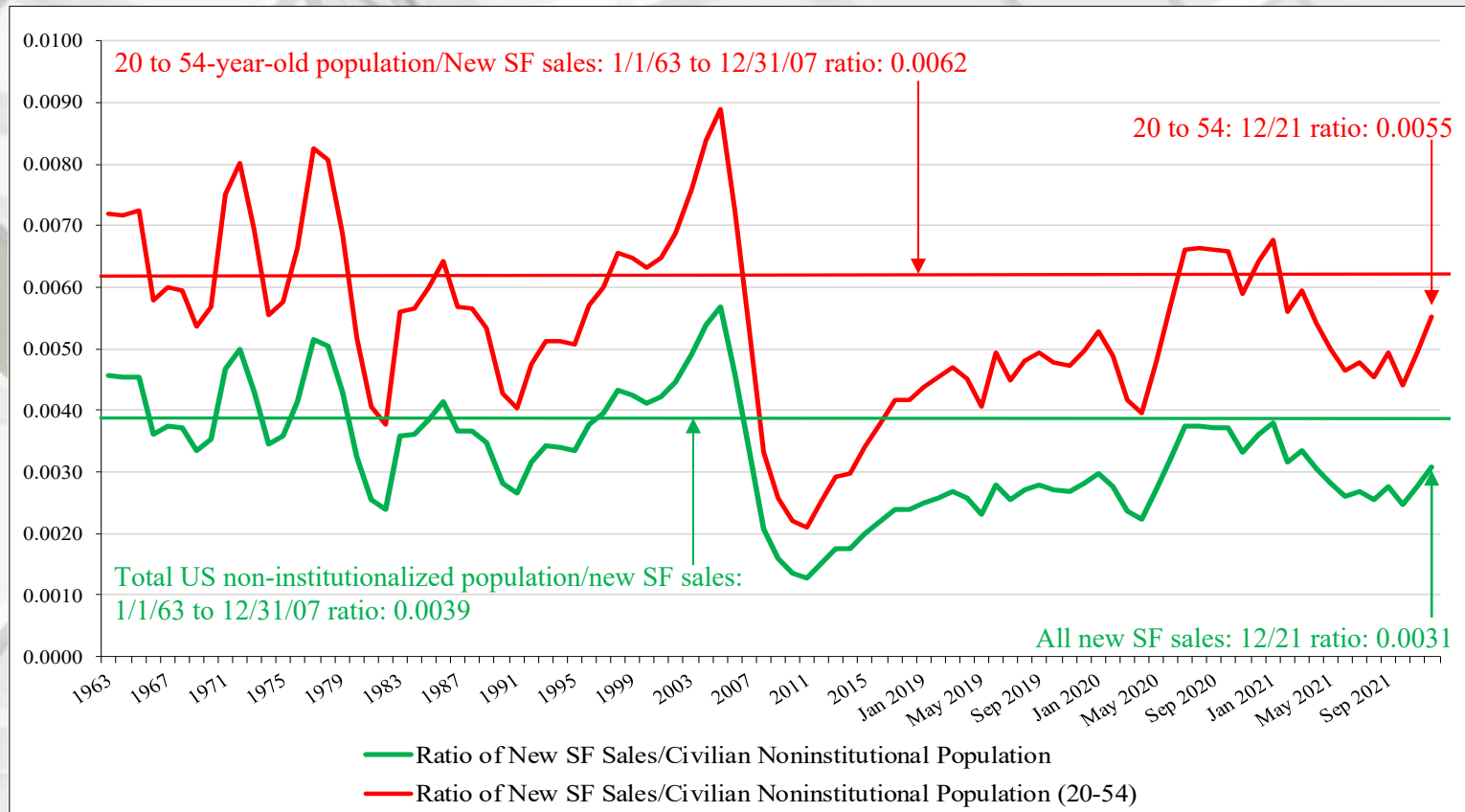
New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to December 2021

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

Note: Sales values are not adjusted for inflation.

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

New SF House Sales

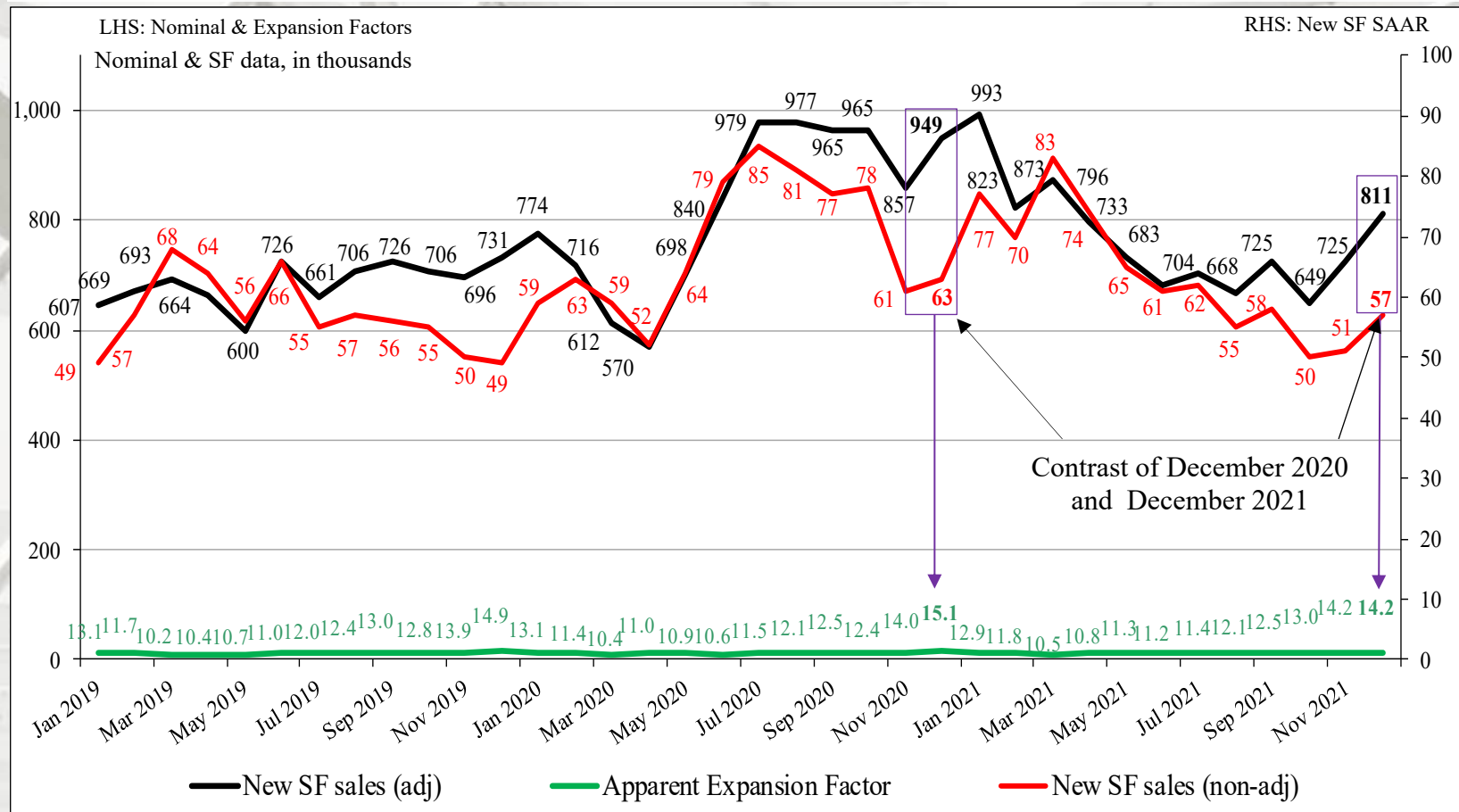


New SF sales adjusted for the US population

From January 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in December 2021 it was 0.0031 – an increase from November (0.0028). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0048; in December 2021 it was 0.0055 – also an increase from October (0.0049). 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.

However, on a long-term basis, some studies peg normalized long-term demand at 900,000 to 1,000,000 new SF house sales per year beginning in 2025 through 2050.

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

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

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

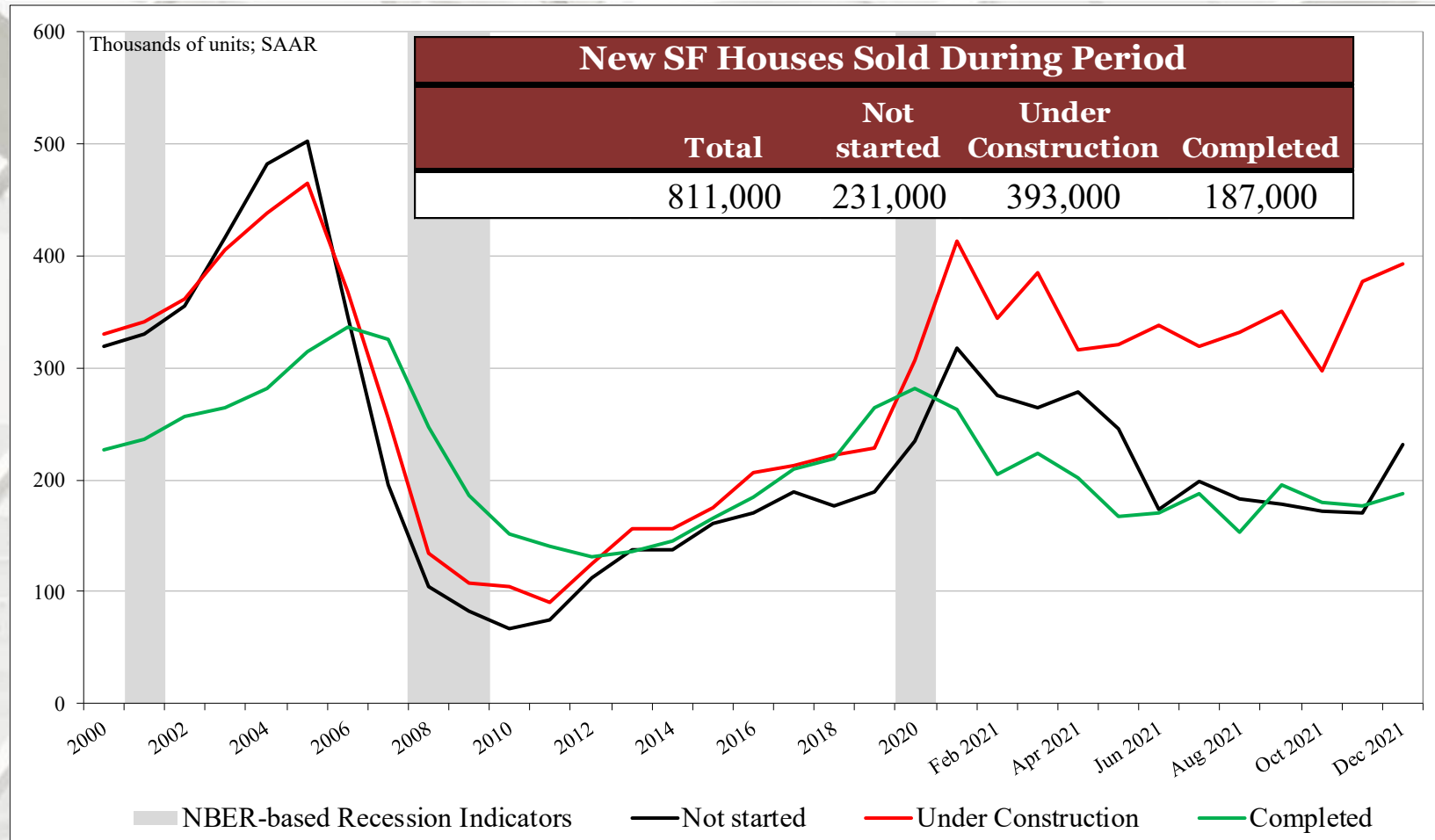
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
December	811,000	231,000	393,000	187,000
November	725,000	171,000	378,000	176,000
2020	943,000	276,000	397,000	270,000
M/M change	11.9%	35.1%	4.0%	6.3%
Y/Y change	-14.0%	-16.3%	-1.0%	-30.7%
Total percentage		28.5%	48.5%	23.1%

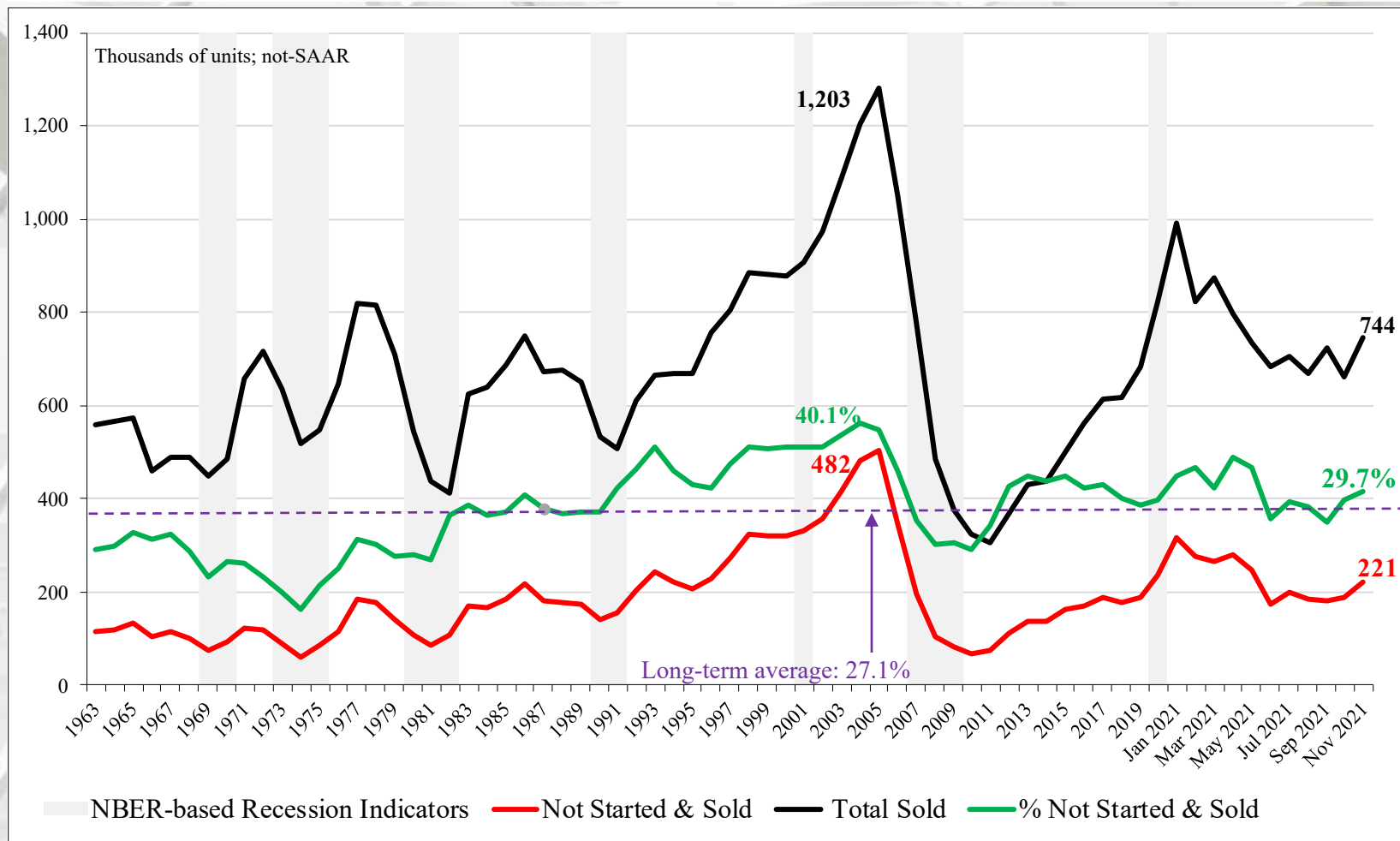
SAAR

New SF House Sales: Sold During Period



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

New SF House Sales: Percentage Not Started & Sold During Period



Of the new houses sold in December (744 m), 29.7% (221 m) had not been started. The long-term average is 27.1%.

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

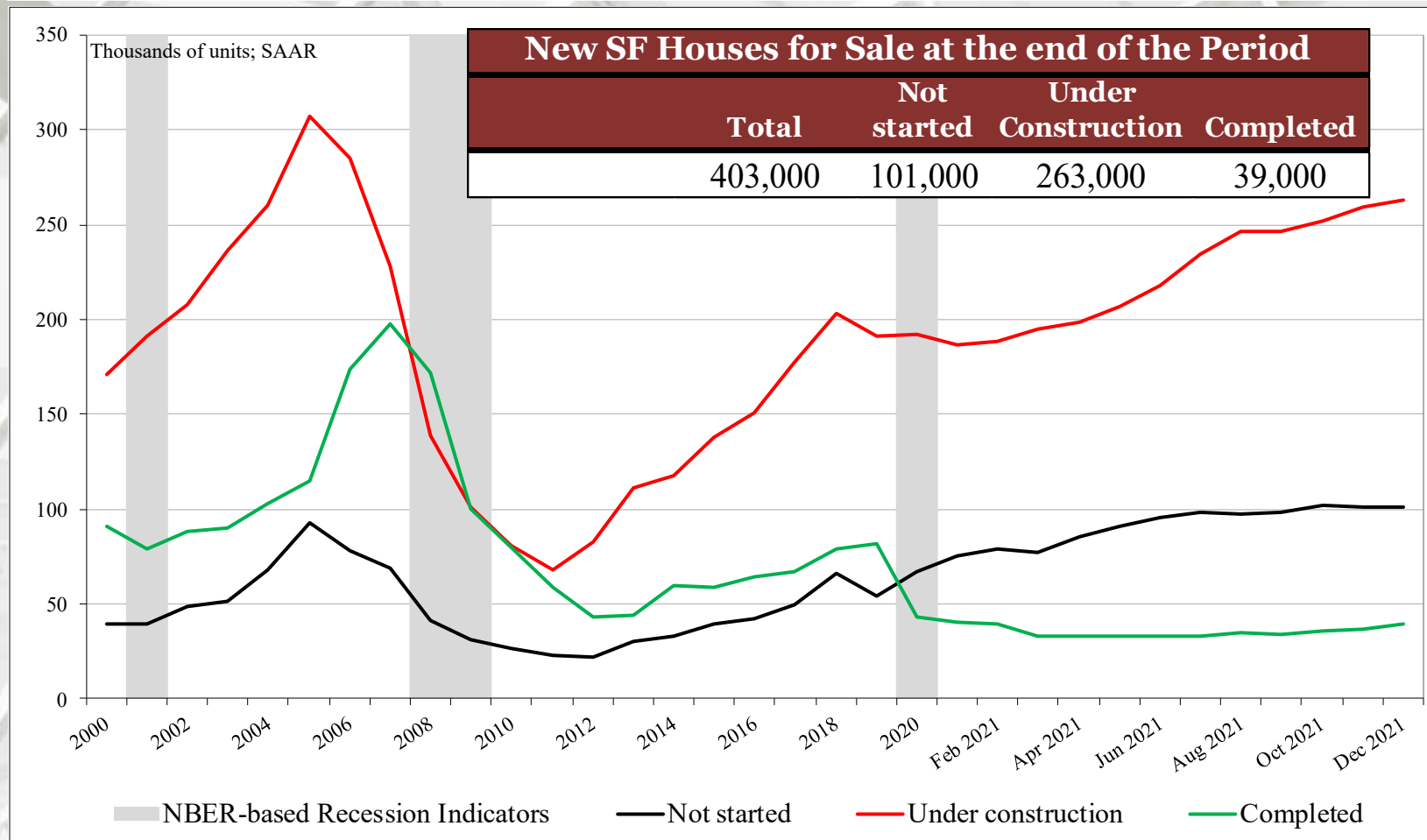
New SF Houses for Sale at End of Period

New SF Houses for Sale at the end of the Period				
	Total	Not started	Under Construction	Completed
December	403,000	101,000	263,000	39,000
November	397,000	101,000	259,000	37,000
2020	299,000	67,000	191,000	41,000
M/M change	1.5%	0.0%	1.5%	5.4%
Y/Y change	34.8%	50.7%	37.7%	-4.9%
Total percentage		25.1%	65.3%	9.7%

Not SAAR

Of houses listed for sale (403m) in December, 9.7% (39m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 101m (25.1%) were sold; *the greatest number since April of 2006 (100m).*

New SF House Sales: For Sale at End of Period



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

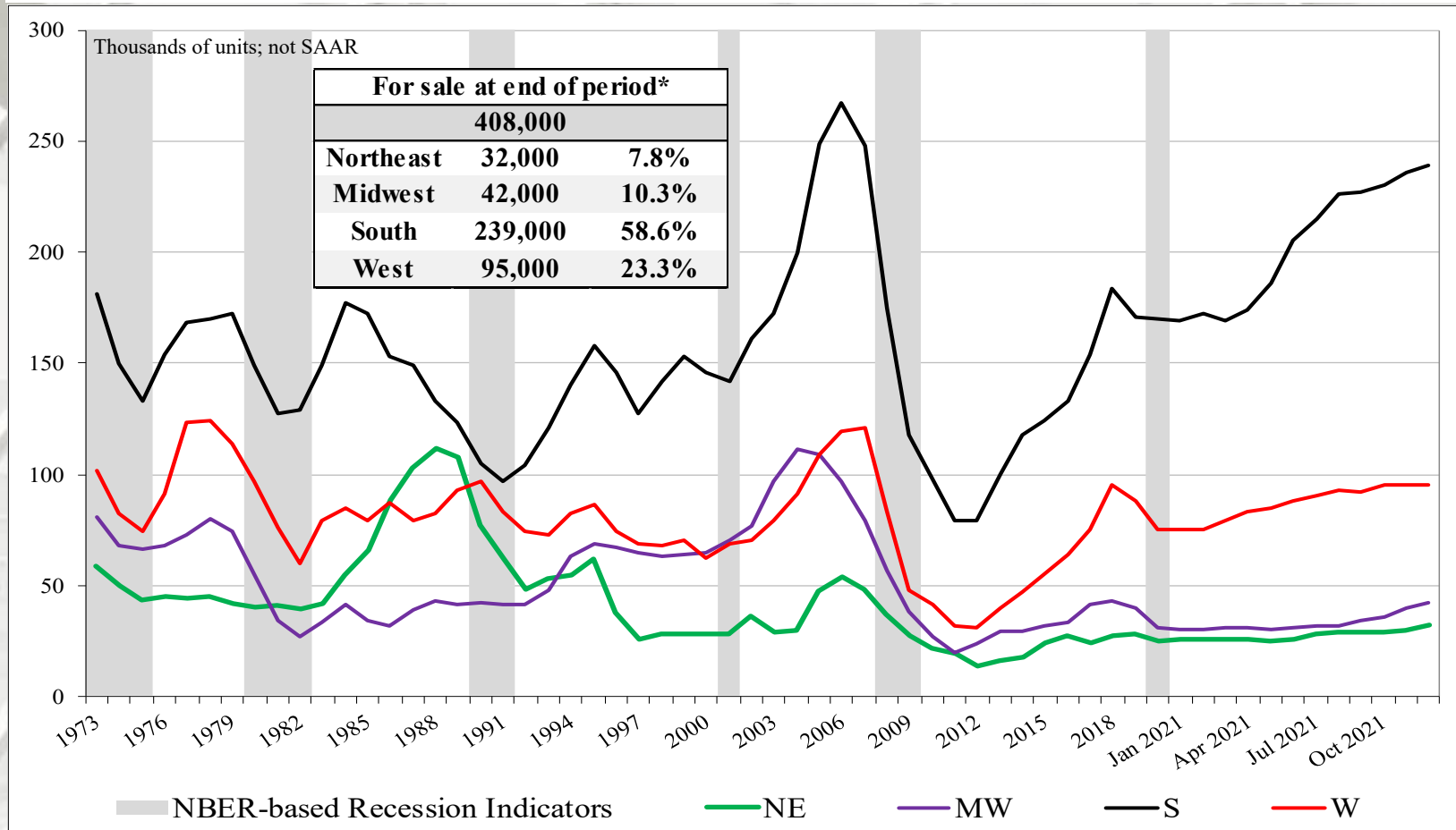
New SF House Sales

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

	Total	NE	MW	S	W
December	408,000	32,000	42,000	239,000	95,000
November	402,000	30,000	40,000	236,000	95,000
2020	302,000	25,000	31,000	170,000	75,000
M/M change	1.5%	6.7%	5.0%	1.3%	0.0%
Y/Y change	35.1%	28.0%	35.5%	40.6%	26.7%

* Not SAAR

New SF Houses for Sale at End of Period by Region

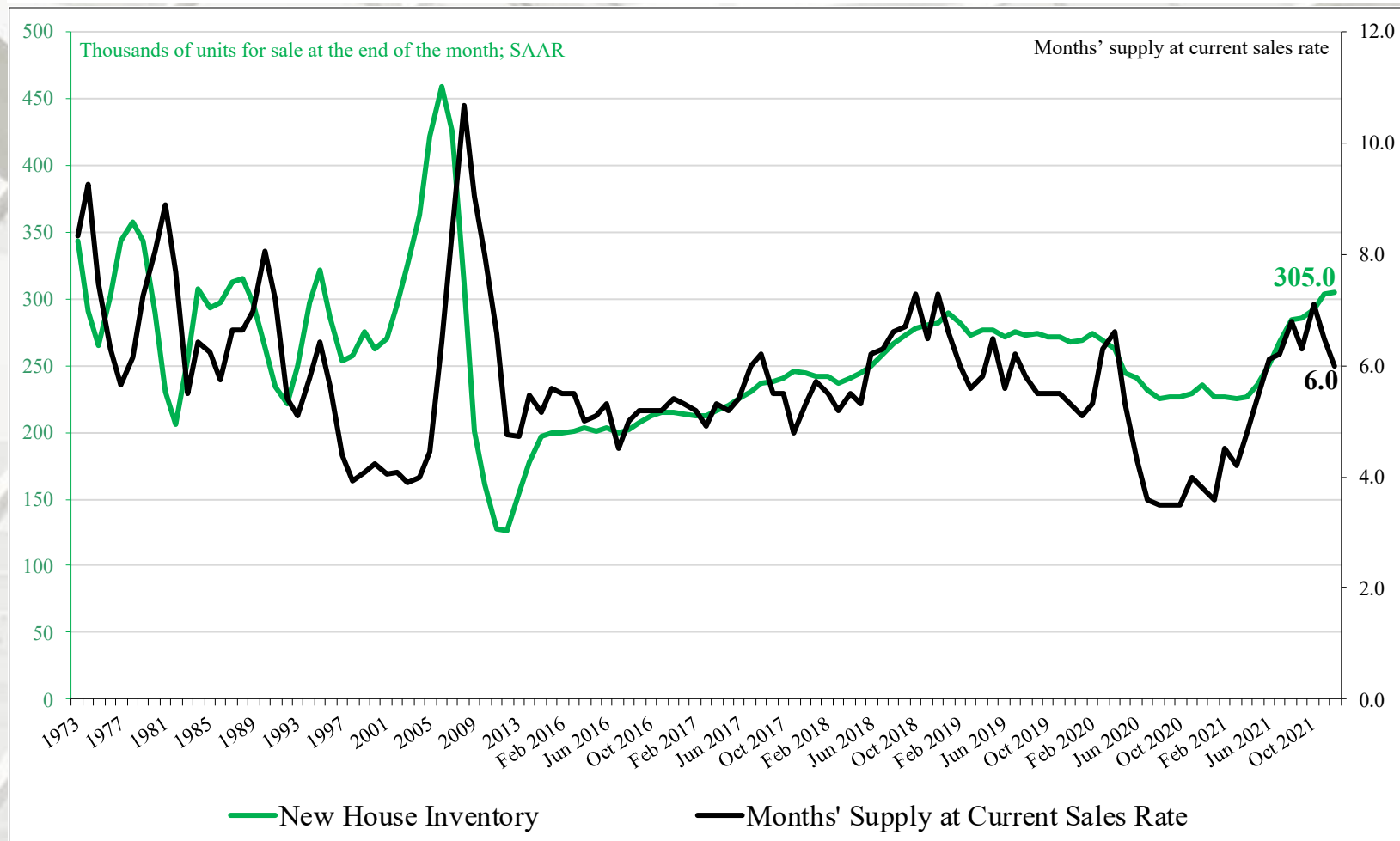


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of new SF sales.

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

Months' Supply and New House Inventory^a



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

The months supply of new houses for sale was 6.50 at the end of December 2021 (SAAR).

December 2021

Construction Spending

	Total Private Residential*	SF	MF	Improvement**
December	\$810,288	\$435,006	\$101,213	\$274,069
November	\$801,149	\$426,033	\$100,837	\$274,279
2020	\$704,835	\$374,139	\$92,780	\$237,916
M/M change	1.1%	2.1%	0.4%	-0.1%
Y/Y change	15.0%	16.3%	9.1%	15.2%

* millions.

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

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

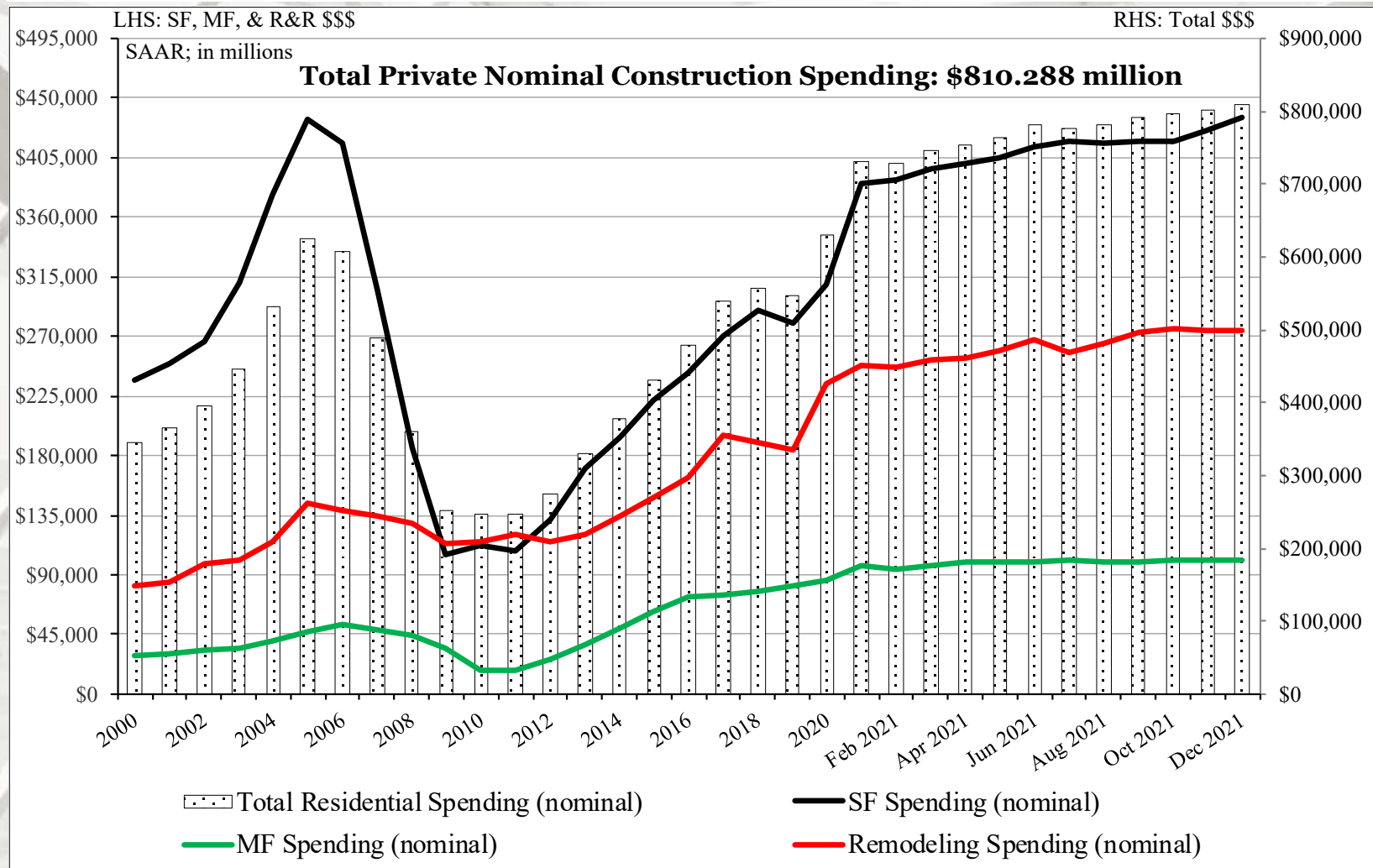
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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

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

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

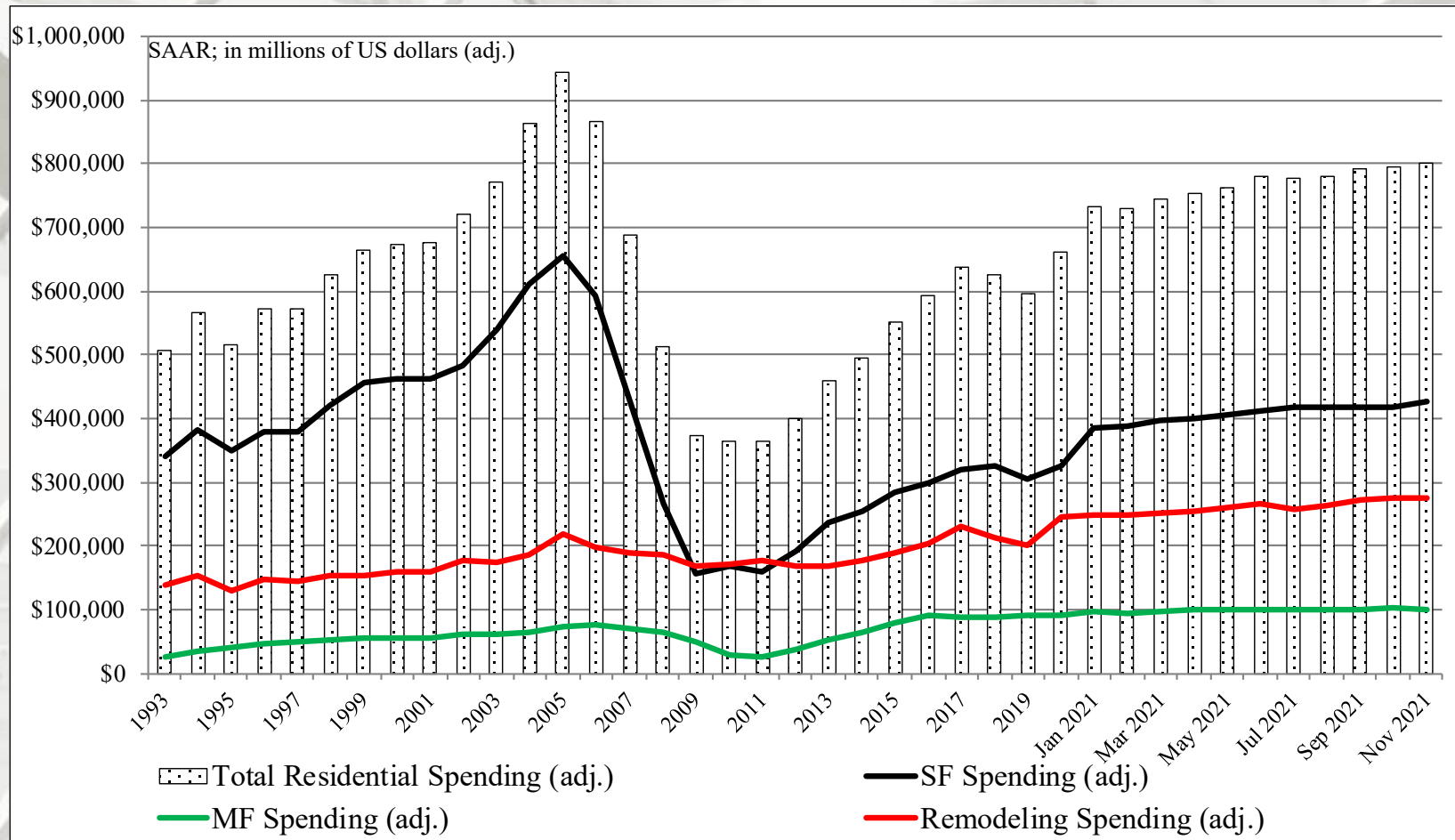
Total Construction Spending (nominal): 2000 – December 2021



Reported in nominal US\$.

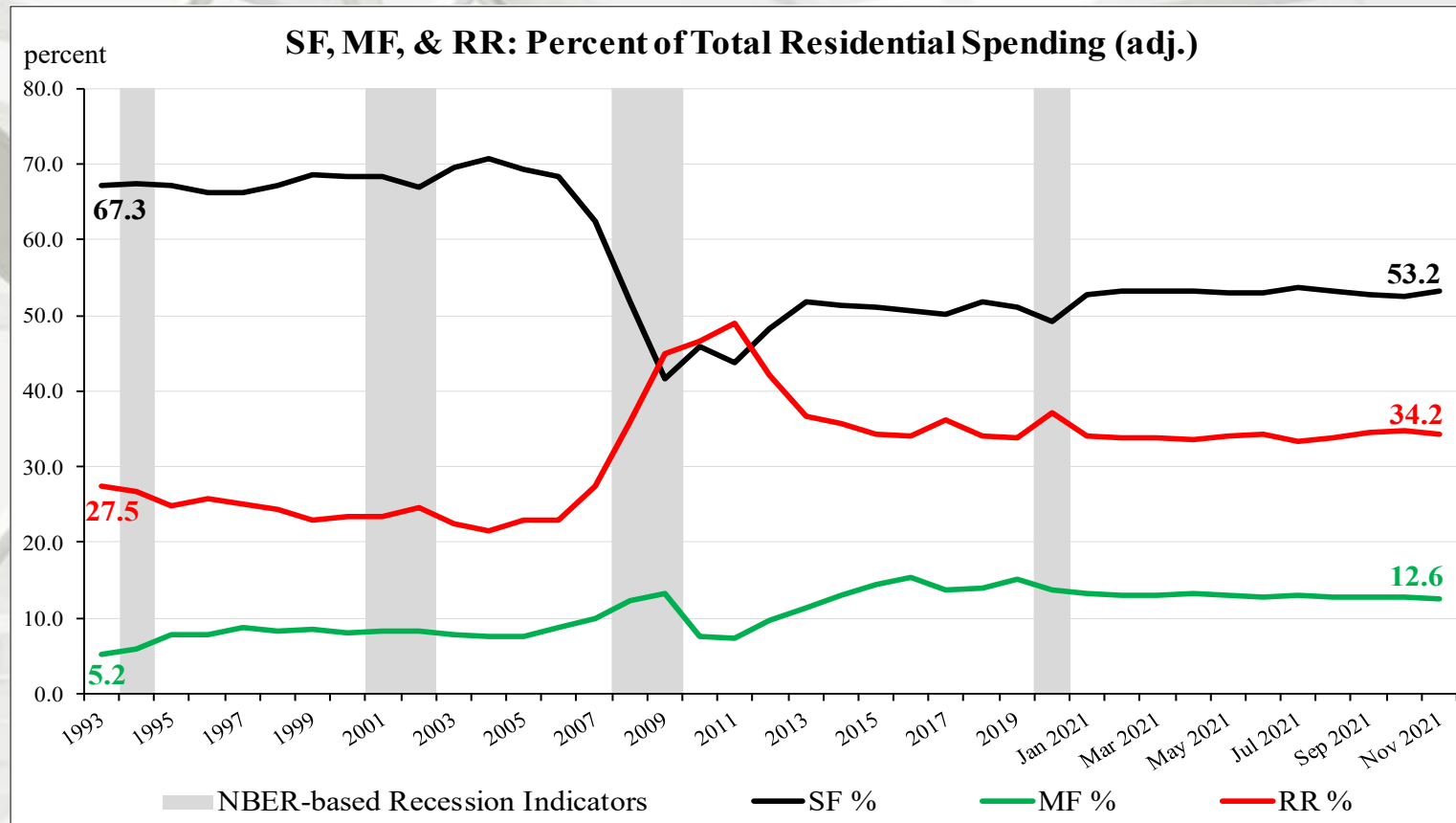
The US DOC does not report improvement spending directly, this is a monthly estimation for 2021.

Total Construction Spending (adjusted): 1993 – December 2021



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

Construction Spending Shares: 1993 – December 2021



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

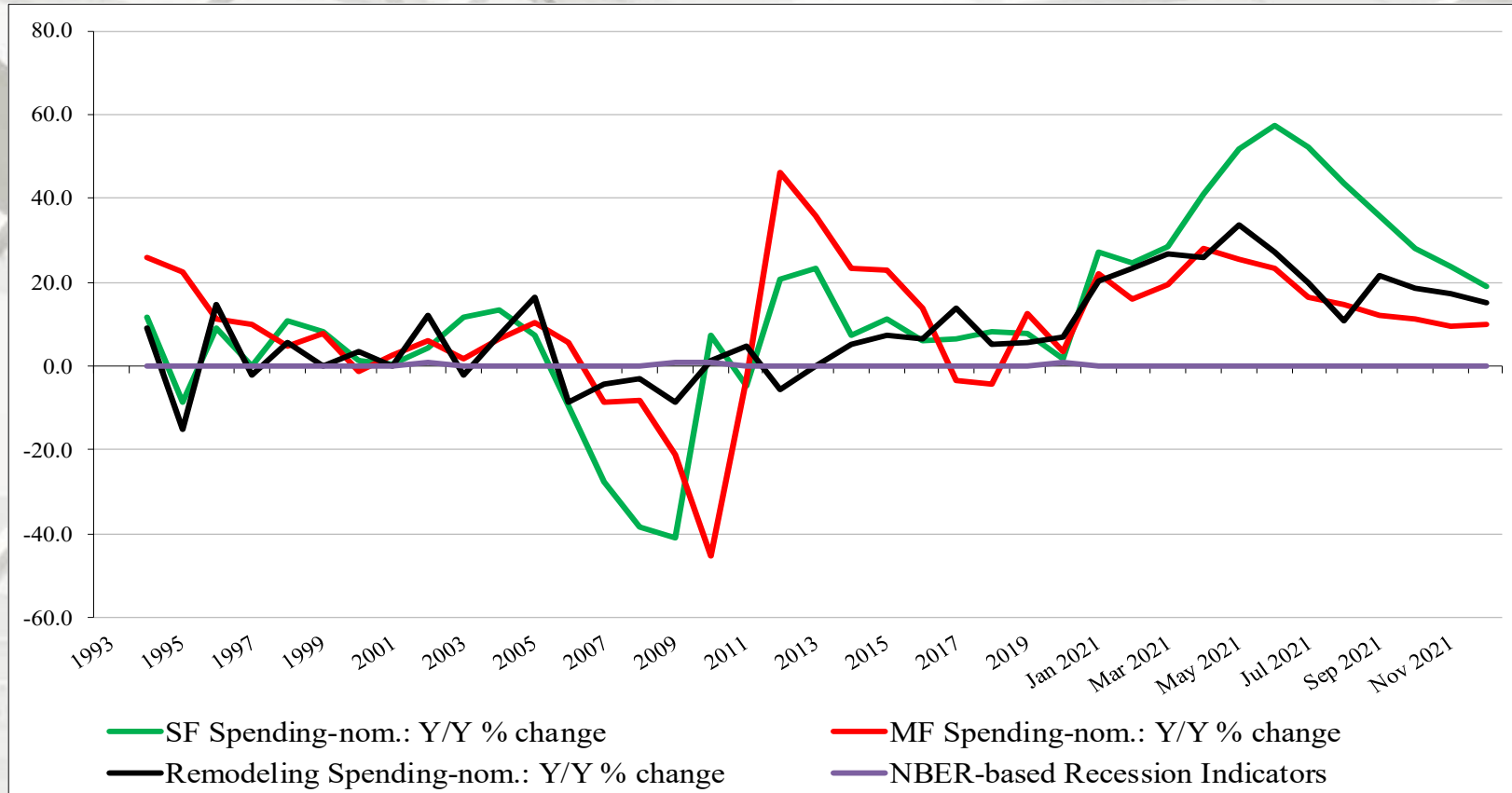
MF spending average: 7.5%

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

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

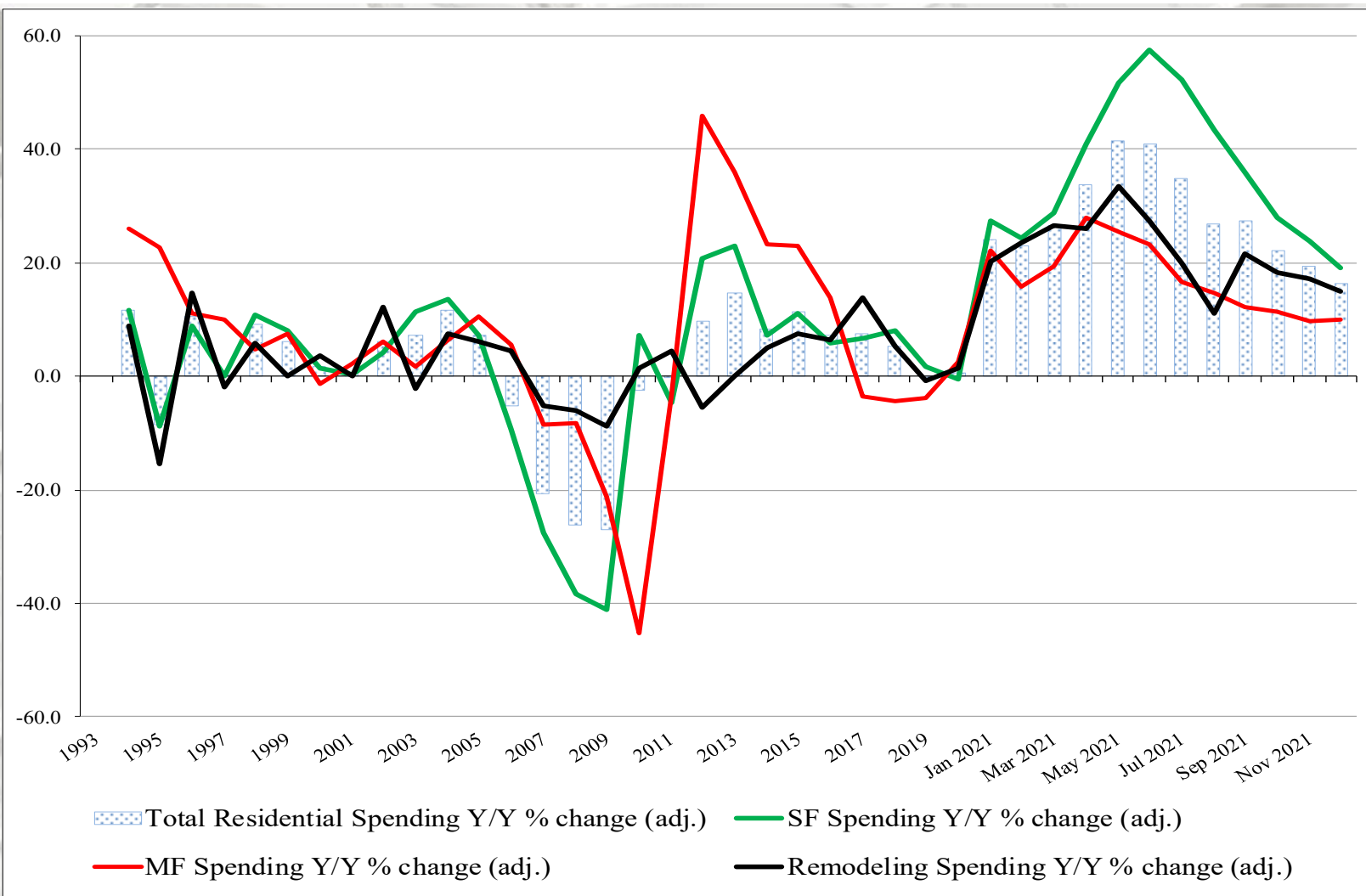


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to December 2021

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 (December 2021 data reported in nominal dollars) – yet all are trending negatively.

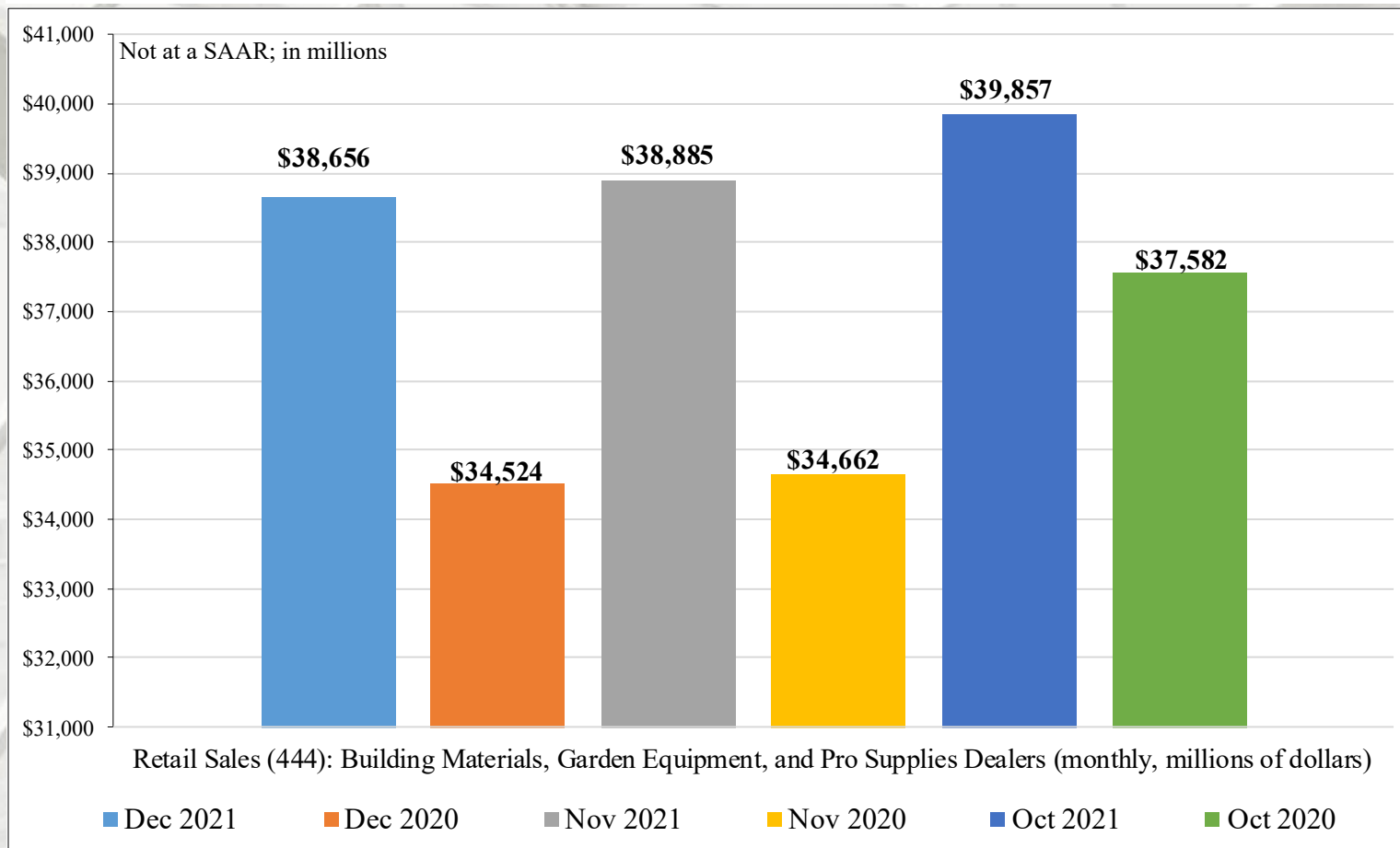
* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – December 2021



Remodeling

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

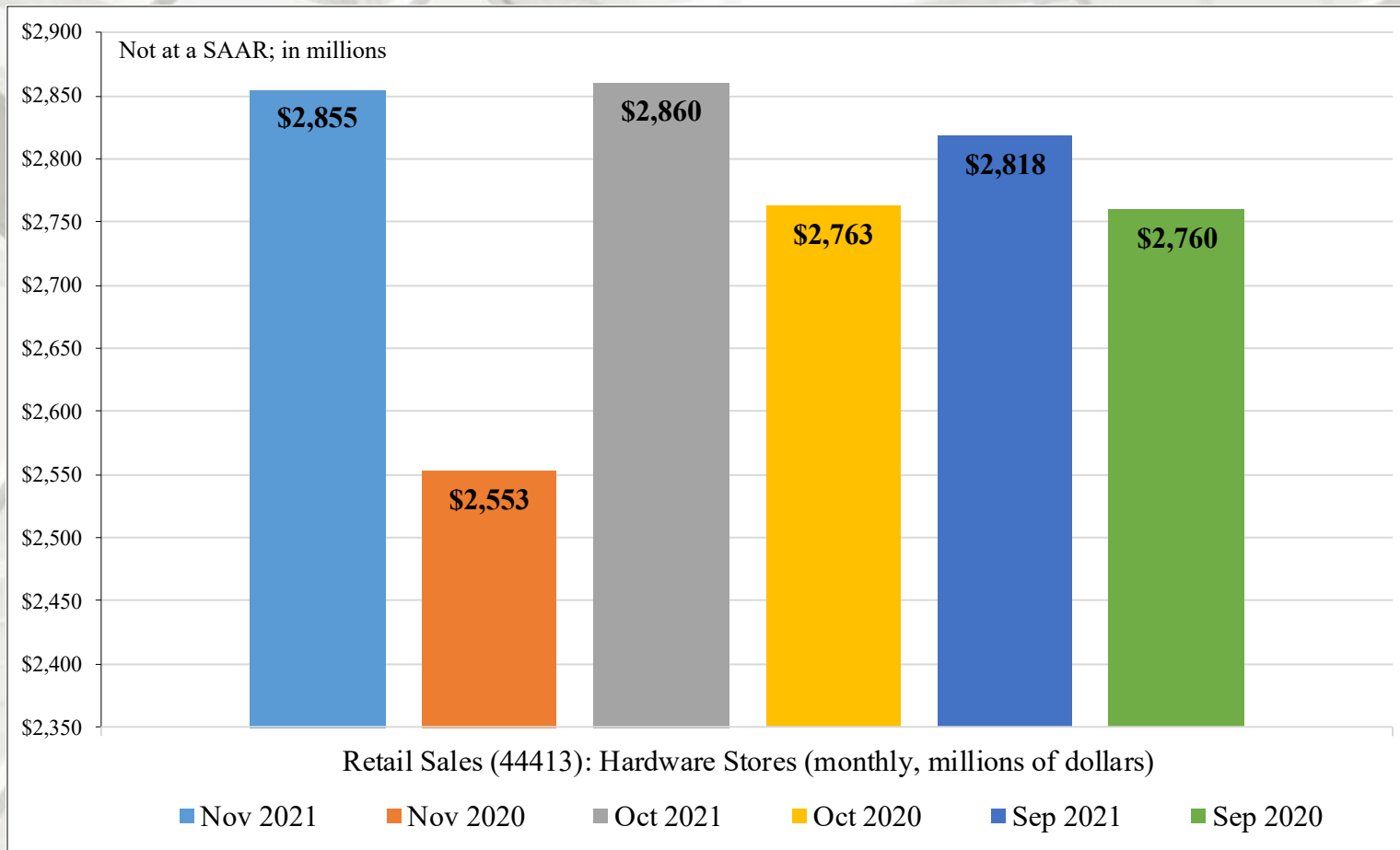


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales decreased 2.4% in December 2021 from October 2021 and improved 12.2% in December 2021 from December 2020 (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 0.2% in December 2021 from October 2021 and increased 11.8% in December 2021 from December 2020 (on a non-adjusted basis).

Remodeling

Harvard Joint Center for Housing Studies

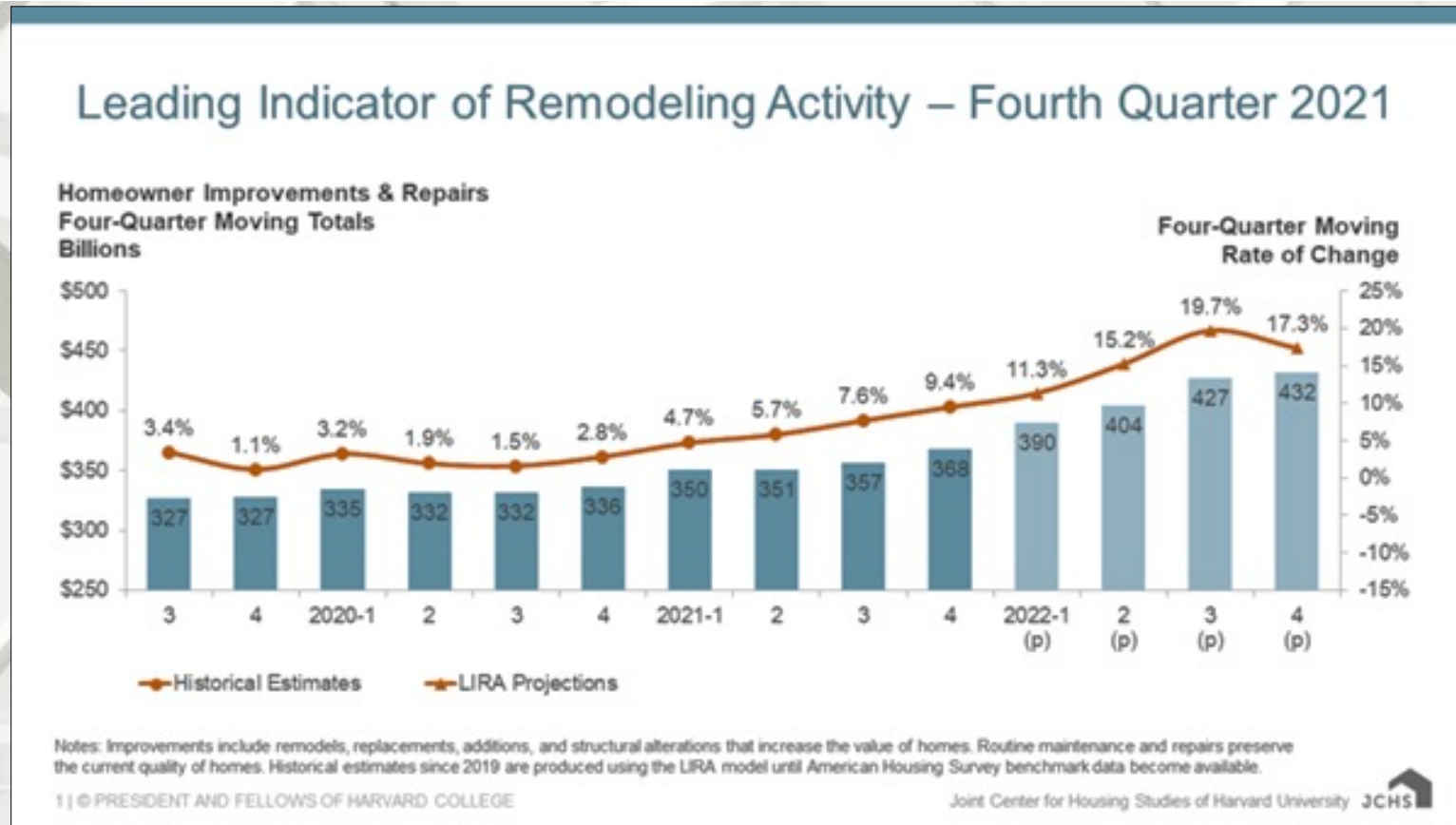
Boom In Home Remodeling May Peak In 2022

“Spending for home improvements and repairs is expected to expand at a stronger pace in 2022, but signs point to some easing of growth by year end, according to our latest [Leading Indicator of Remodeling Activity \(LIRA\)](#). The LIRA projects double-digit gains in annual homeowner renovation and maintenance expenditure will top out in the third quarter of 2022 before beginning a deceleration toward more sustainable rates of growth.

Strong increases in home sales activity, household incomes, and home equity levels are supporting a faster expansion of the home remodeling market over the coming year. As owners continue to navigate the ups and downs of the pandemic’s trajectory, the focus on home improvements for changing wants and needs remains in sharp relief.

While annual owner improvement and repair spending could reach \$430 billion by the second half of 2022, several headwinds may still temper growth expectations this year. The rising costs of labor and construction materials, difficulty retaining contractors, and climbing interest rates could discourage owners from undertaking new or larger remodeling projects.” – Abbe Will, Senior Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling



Harvard Joint Center for Housing Studies

“The prior two LIRA releases reported spending projections using a smoothing technique to adjust for the immense growth rate volatility in several leading model inputs, which was largely an artifact of year-over-year comparisons to pandemic-induced lows. As these shocks recede further in the past and inputs begin to stabilize, the Remodeling Futures Program is reverting to its standard methods for projecting homeowner improvement and repair spending with this release. The result of this change is somewhat higher growth rate projections than previously reported.” – Abbe Will, Senior Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Existing House Sales

National Association of Realtors

December 2021 sales: 6.180 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
December	6,180,000	\$358,000	\$374,800	1.8
November	6,480,000	\$354,400	\$373,100	2.1
2020	6,650,000	\$309,200	\$342,000	1.9
M/M change	-4.6%	1.0%	0.5%	-14.3%
Y/Y change	-7.1%	15.8%	9.6%	-5.3%

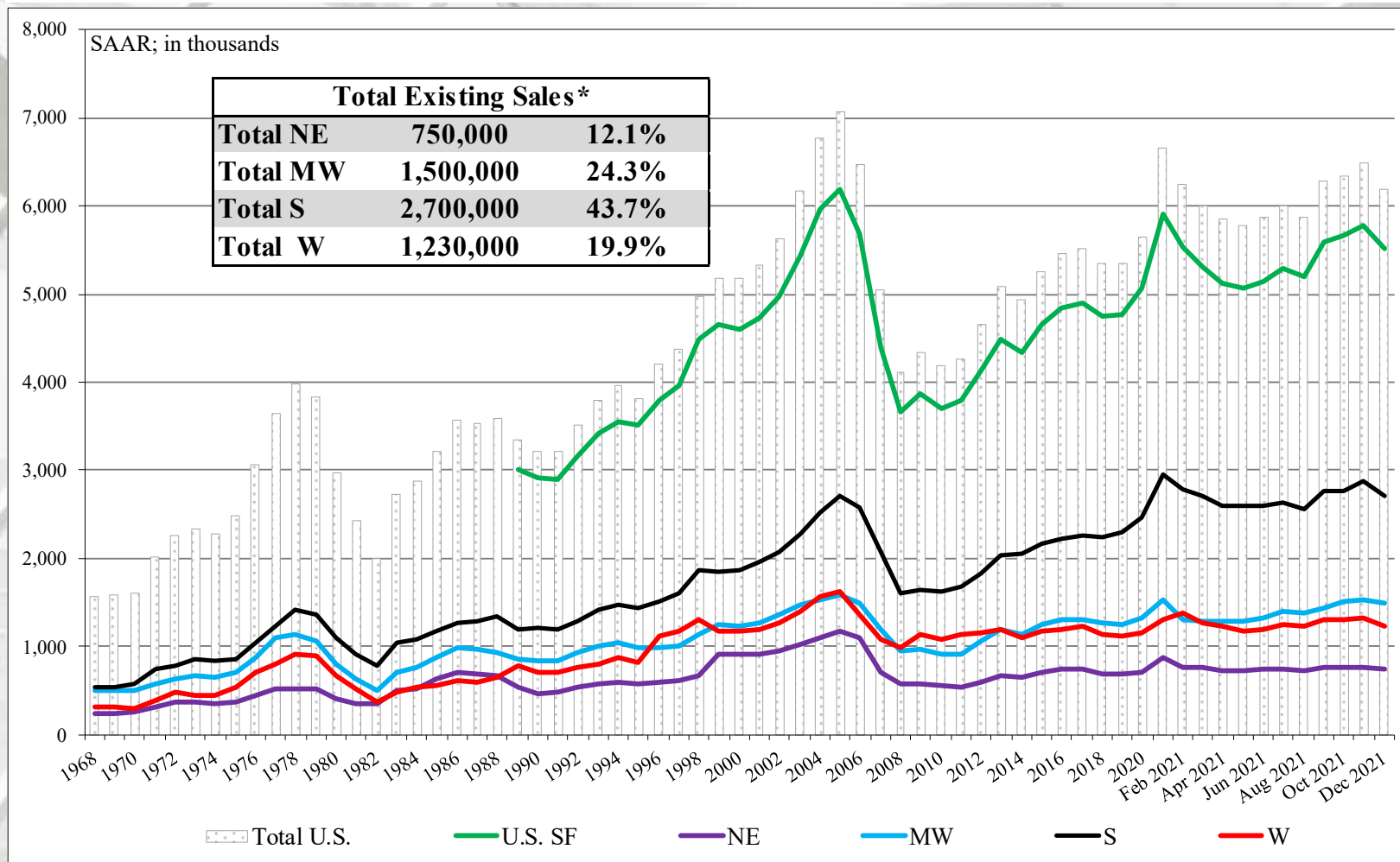
All sales data: SAAR

Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price	
December	5,520,000	\$364,300	\$378,800	
November	5,770,000	\$361,300	\$377,600	
2020	5,920,000	\$313,700	\$345,400	
M/M change	-4.3%	1.0%	0.3%	
Y/Y change	-6.8%	16.1%	9.7%	
	NE	MW	S	W
December	750,000	1,500,000	2,700,000	1,230,000
November	760,000	1,520,000	2,880,000	1,320,000
2020	890,000	1,540,000	2,850,000	1,370,000
M/M change	-1.3%	-1.3%	-6.3%	-6.8%
Y/Y change	-15.7%	-2.6%	-5.3%	-10.2%

All sales data: SAAR.

Existing House Sales



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

* Percentage of total existing sales.

U.S. Housing Prices

Federal Housing Finance Agency

U.S. House Price Index – January 2022

FHFA House Price Index Up 1.1 Percent in November; Up 17.5 Percent from Last Year

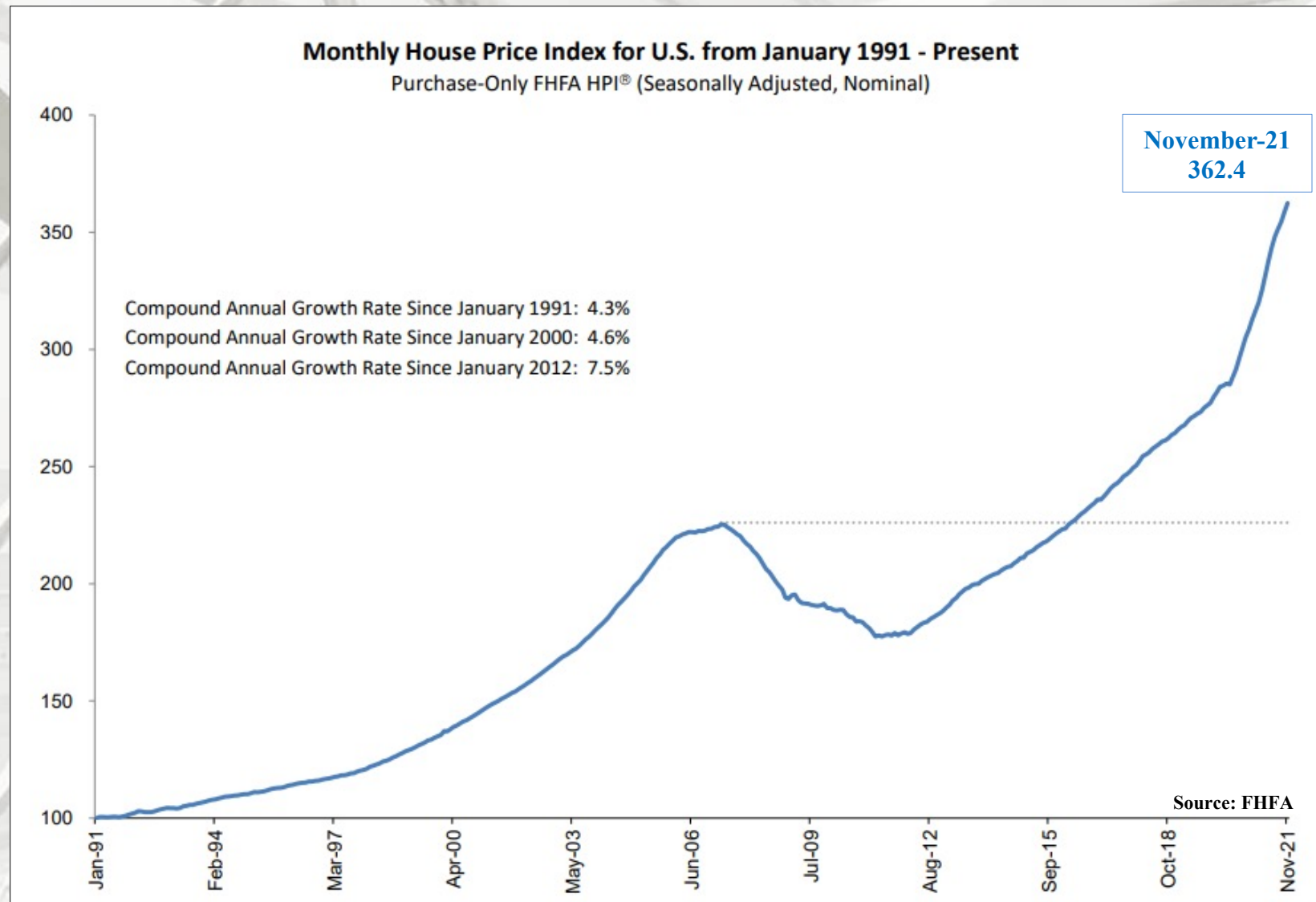
Significant Findings

“House prices rose nationwide in November, up **1.1 percent** from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **17.5 percent** from November 2020 to November 2021. The previously reported 1.1 percent price change for October 2021 remained unchanged.

For the nine census divisions, seasonally adjusted monthly house price changes from October 2021 to November 2021 ranged from **+0.5 percent** in the West North Central division to **+1.9 percent** in the South Atlantic division. The 12-month changes ranged from **+13.3 percent** in the West North Central division to **+22.8 percent** in the Mountain division.” – Raffi Williams and Adam Russell, FHFA

“House price levels remained elevated in November, but the data indicate a pivot. The last four months reflect average gains of 1.0 percentage point, down from the larger prior changes during the spring and summer months. This new trend is a welcome shift but still twice the monthly average we have seen in the last 20 years, which echoes concerns about access and affordability in housing markets.” – William Doerner, Ph.D., Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices



U.S. Housing Prices

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

“... Data for November 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.

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 18.8% annual gain in November, down from 19.0% in the previous month. The 10-City Composite annual increase came in at 16.8%, down from 17.2% in the previous month. The 20-City Composite posted an 18.3% year-over-year gain, down from 18.5% in the previous month.

Phoenix, Tampa, and Miami reported the highest year-over-year gains among the 20 cities in November. Phoenix led the way with a 32.2% year-over-year price increase, followed by Tampa with a 29.0% increase and Miami with a 26.6% increase. Eleven of the 20 cities reported higher price increases in the year ending November 2021 versus the year ending October 2021.

Month-Over-Month

“Before seasonal adjustment, the U.S. National Index posted a 0.9% month-over-month increase in November, while the 10-City and 20-City Composites posted increases of 0.9% and 1.0%, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.1%, and the 10-City and 20-City Composites posted increases of 1.1% and 1.2%, respectively. In November, 19 of the 20 cities reported increases before seasonal adjustments while all 20 cities reported increases after seasonal adjustments.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Analysis

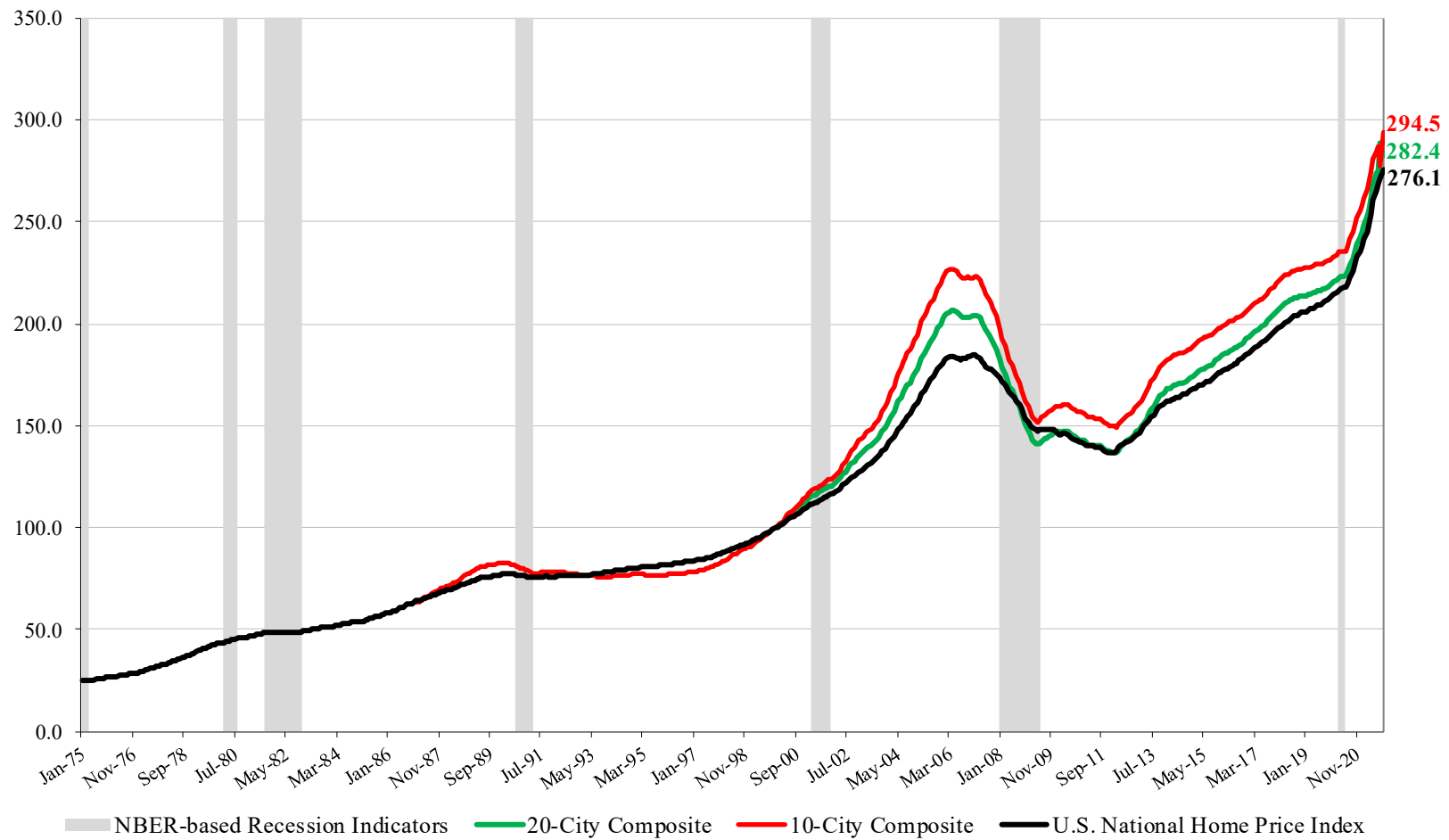
“For the past several months, home prices have been rising at a very high, but decelerating, rate. That trend continued in November 2021. The National Composite Index rose 18.8% from year-ago levels, and the 10- and 20-City Composites gained 16.8% and 18.3%, respectively. In all three cases, November’s gains were less than October’s. Despite this deceleration, it’s important to remember that November’s 18.8% gain was the sixth-highest reading in the 34 years covered by our data (the top five were the months immediately preceding November).

We continue to see very strong growth at the city level. All 20 cities saw price increases in the year ended November 2021, and prices in 19 cities are at their all-time highs. November’s price increase ranked in the top quintile of historical experience for 19 cities, and in the top decile for 16 of them.

Phoenix’s 32.2% increase led all cities for the 30th consecutive month. Tampa (+29.0%) and Miami (+26.6%) continued in second and third place in November, narrowly edging out Las Vegas, Dallas, and San Diego. Prices were strongest in the South and Southeast (both +25.0%), but every region continued to log impressive gains.

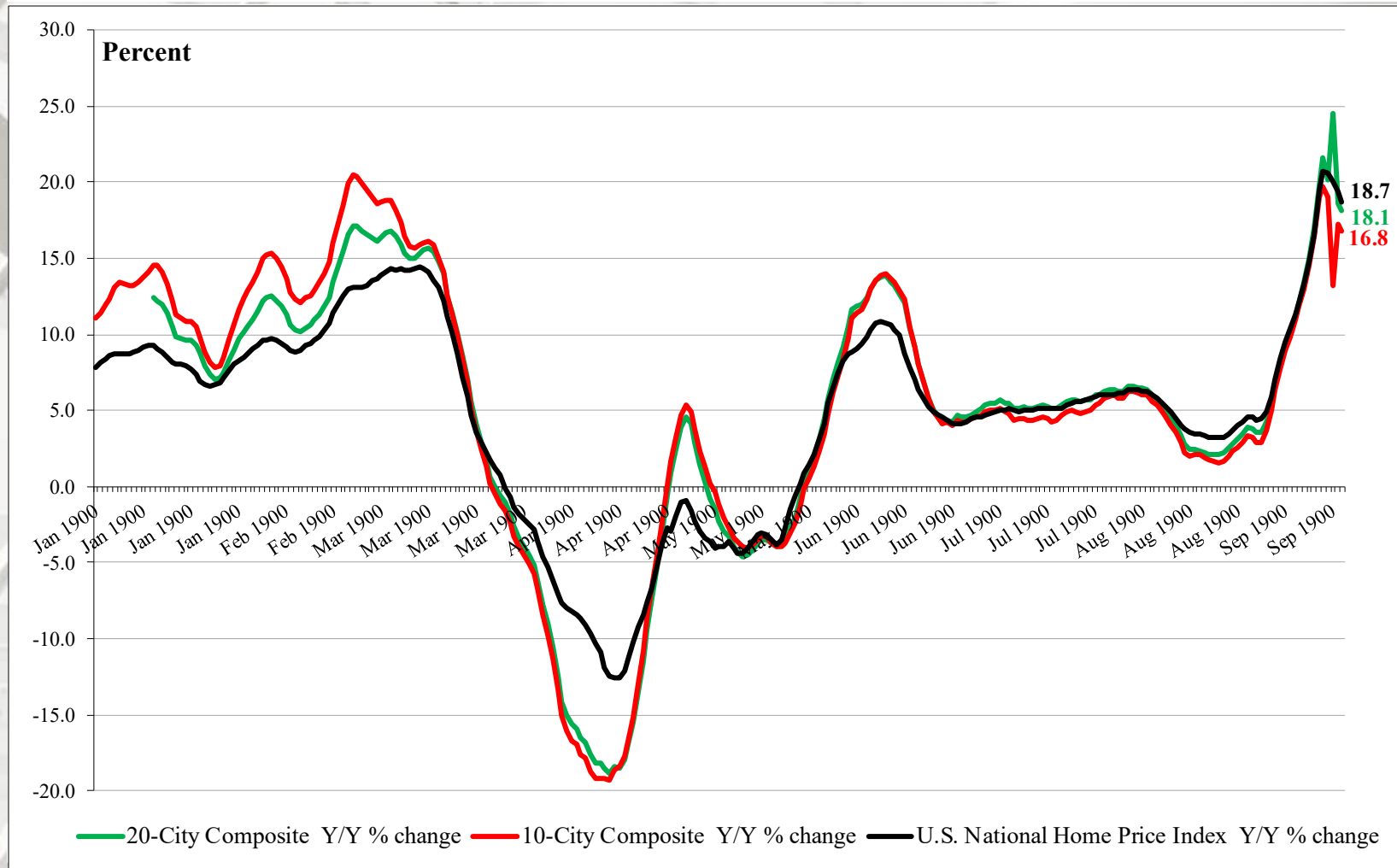
We have previously suggested that the strength in the U.S. housing market is being driven in part by a change in locational preferences as households react to the COVID pandemic. More data will be required to understand whether this demand surge represents an acceleration of purchases that would have occurred over the next several years or reflects a more permanent secular change. In the short term, meanwhile, we should soon begin to see the impact of increasing mortgage rates on home prices.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

S&P/Case-Shiller Home Price Indices



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

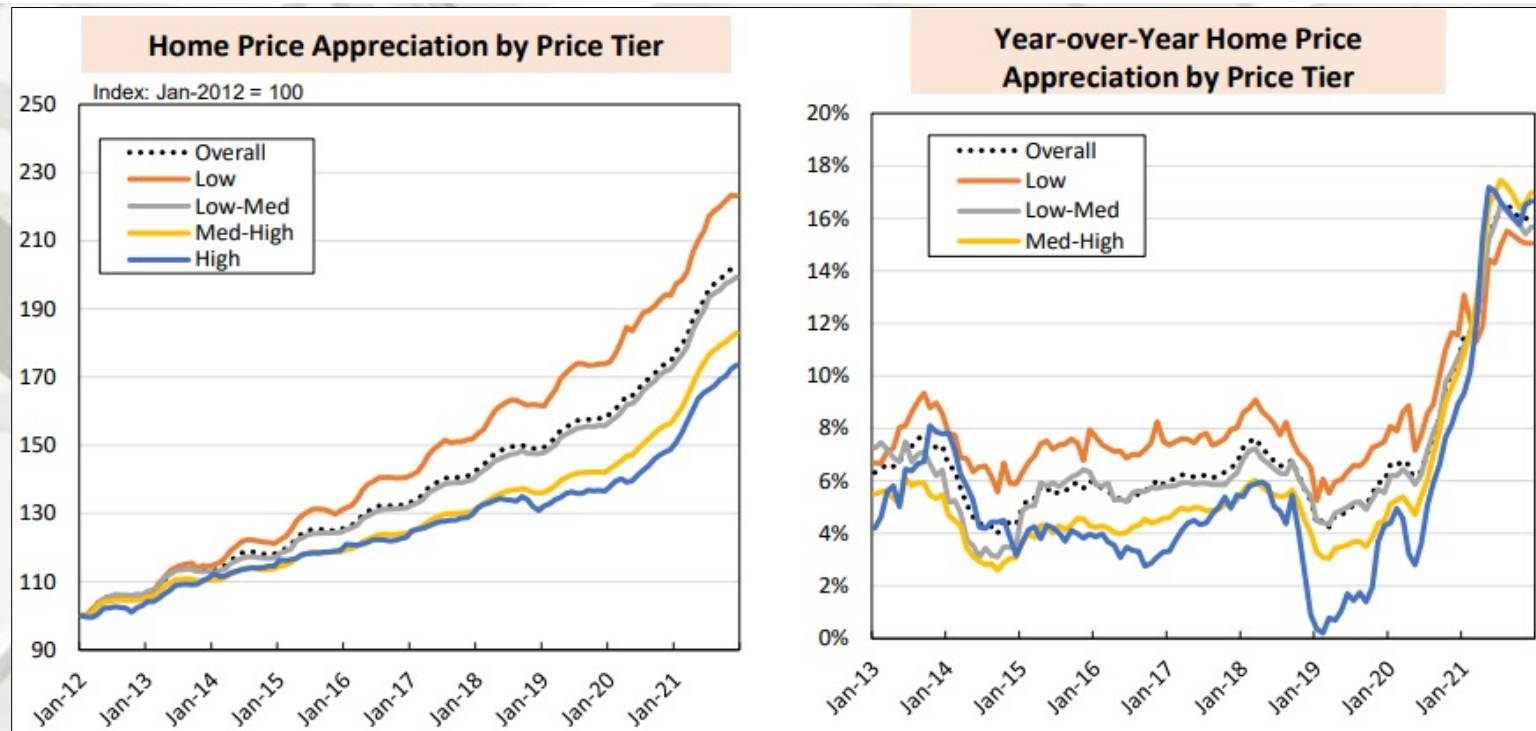
S&P/Case-Shiller Home Price Indices



Y/Y Price Change

From November 2020 to November 2021, the National Index increased 18.7%; the Ten-City by 16.8%, and the Twenty-City by 18.1%.

U.S. Housing Affordability & Prices



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

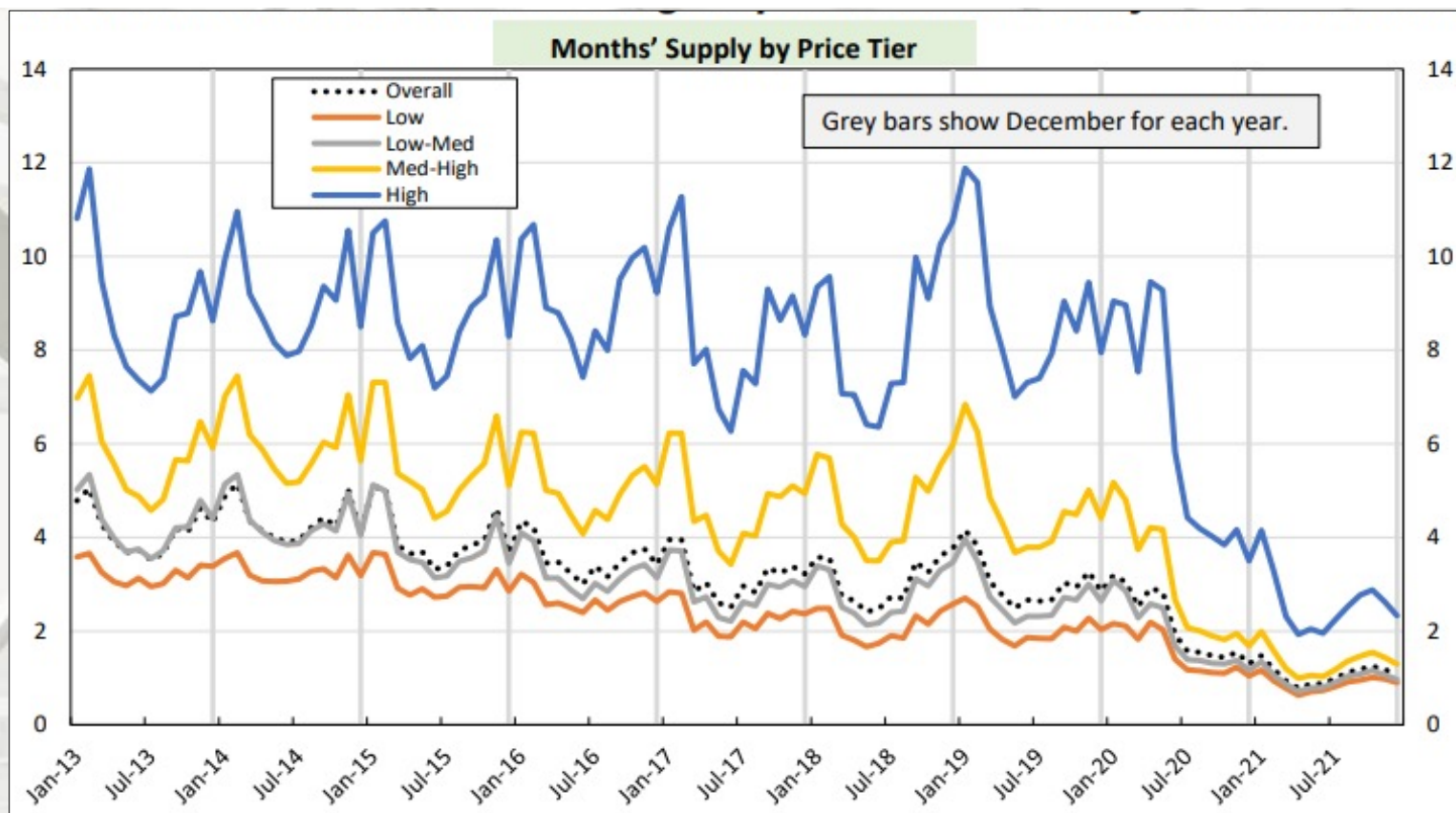
AEI Housing Center

Home Price Appreciation by Price Tier

“The preliminary national HPA rate for December 2021 was 16.1%, up from 10.5% a year ago. Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for December 2021 indicate that the low price tier continued to have strong HPA, but the med-high and high price tiers, which are more dependent on the Fed’s monetary punch bowl (historically low interest rates) are showing the strongest rates of appreciation (right panel). This is a trend reversal since, historically, the low price tier has shown the fastest y-o-y HPA. HPA appears to have peaked but is expected to recede slowly.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: <https://www.aei.org/housing/housing-market-indicators/>; 1/31/22

Housing Supply

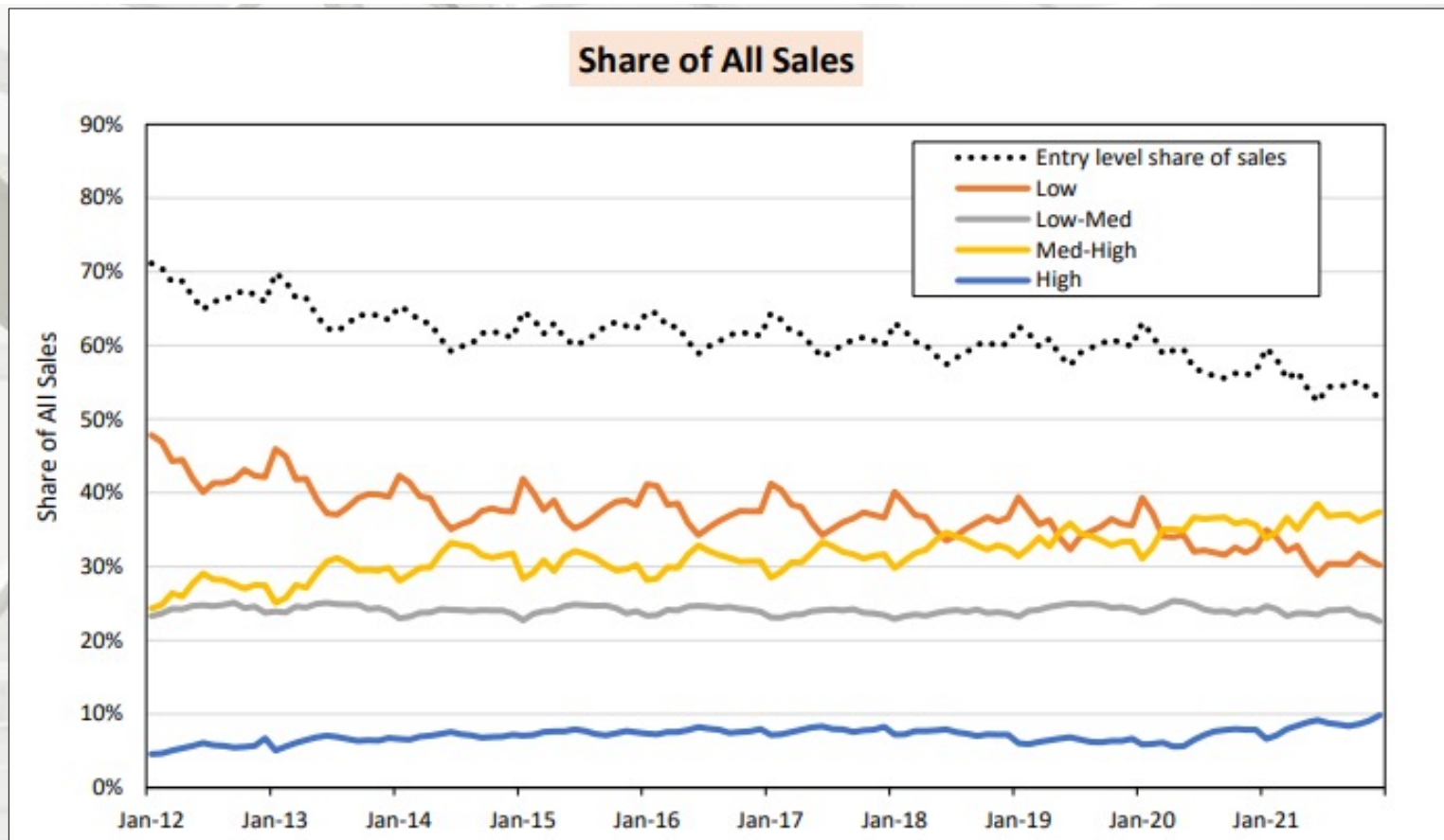


AEI Housing Center

Months' Supply by Price Tiers

“Starting with June 2020, months’ supply started to drop precipitously across all price tiers. In December 2021, overall months’ supply stood at 1.1 months. While supply remains lowest in the low (0.9 months) and low-med tiers (1.0 months), the drop in the med-high and high price tiers is especially noteworthy. The high tier has fallen from 9.4 months in May 2020 to 2.3 months in December 2021, while the med-high tier has fallen from 4.2 to 1.3. The recent slight upward trend is likely a seasonal effect.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

U.S. Housing Finance



AEI Housing Center

First-Time Home Buyer Share

Entry Level Home Buyers Are Crowded Out Due to Rapid HPA

“Since January 2020, constant-quality home prices have increased 27% cumulatively. The share of entry level home sales in December 2021 fell to a series’ low of 52.7%. This is down from 59.9% in December 2019 (pre-pandemic) and 71.1% when we started tracking in 2012.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

U.S. Housing Finance

	New construction share of sales					New Construction Sales	All Sales
	All	Low	Low-med	Med-high	High		
2012	9.4%	5.4%	9.2%	15.4%	12.9%	394,587	4,176,091
2013	10.3%	5.9%	9.1%	16.4%	14.1%	473,841	4,621,243
2014	10.5%	5.9%	8.1%	16.8%	15.6%	486,351	4,627,457
2015	10.5%	5.7%	8.2%	16.8%	16.1%	520,737	4,981,128
2016	10.8%	5.5%	8.5%	17.4%	17.5%	584,487	5,402,581
2017	11.2%	5.7%	9.0%	18.0%	16.4%	634,938	5,667,632
2018	11.5%	5.3%	9.5%	18.7%	16.3%	659,565	5,717,327
2019	11.7%	4.8%	10.6%	19.0%	14.9%	663,912	5,698,048
2020	12.2%	5.1%	12.4%	18.8%	12.3%	736,647	6,029,922
2021	10.8%	4.2%	11.2%	16.6%	9.8%	709,430	6,539,808

Note: Data for 2021 are preliminary.

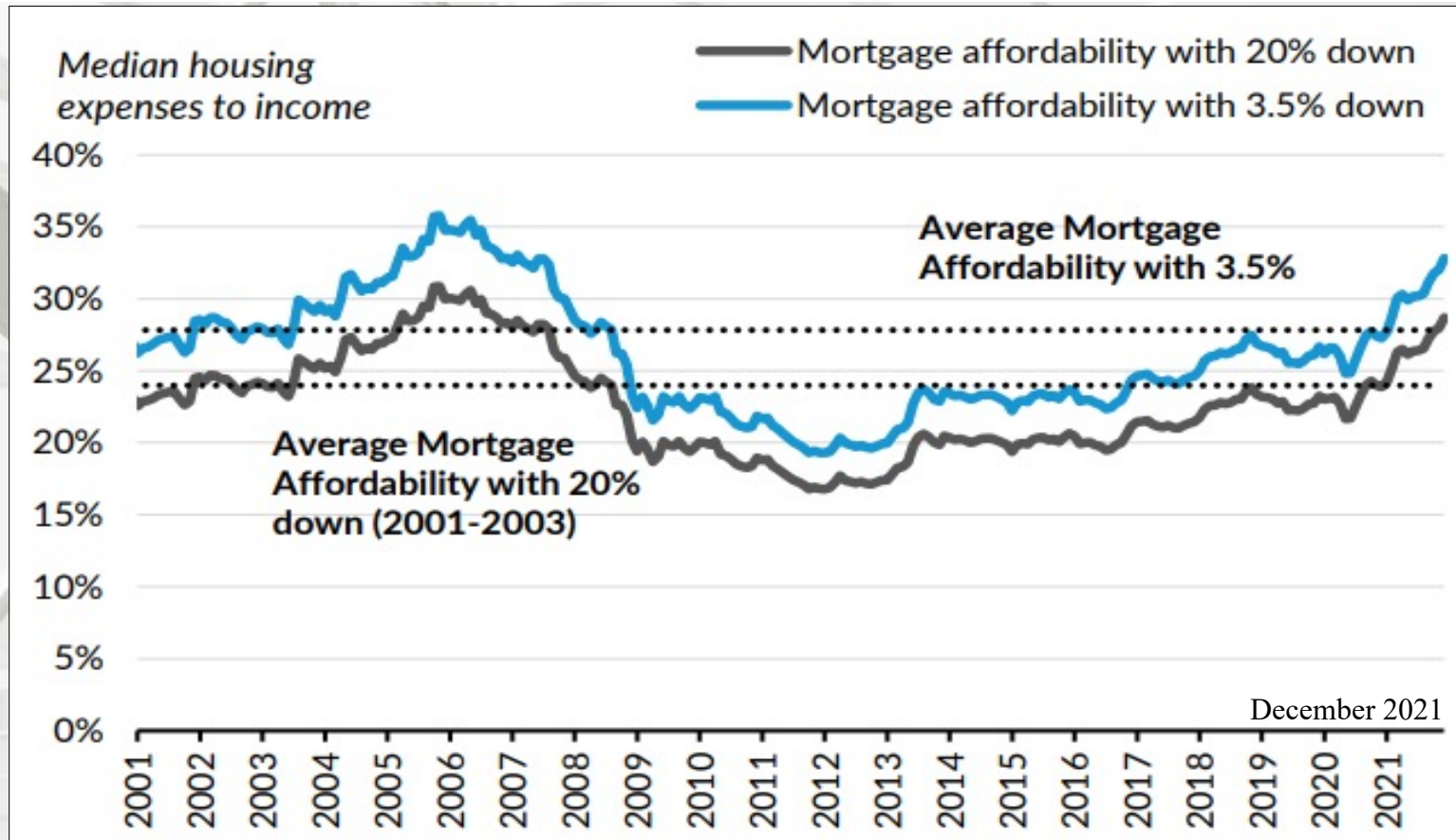
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

New Construction Share of Sales

“In 2021, there was a total of around 710,000 new construction sales, which is down from 740,000 in 2020, but up substantially over prior years. In 2021, the overall new construction share of sales stood at 10.8%, the lowest since 2016, which is mainly due to the increase in existing home sales. The new construction share dropped for all four price tiers.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Housing Affordability

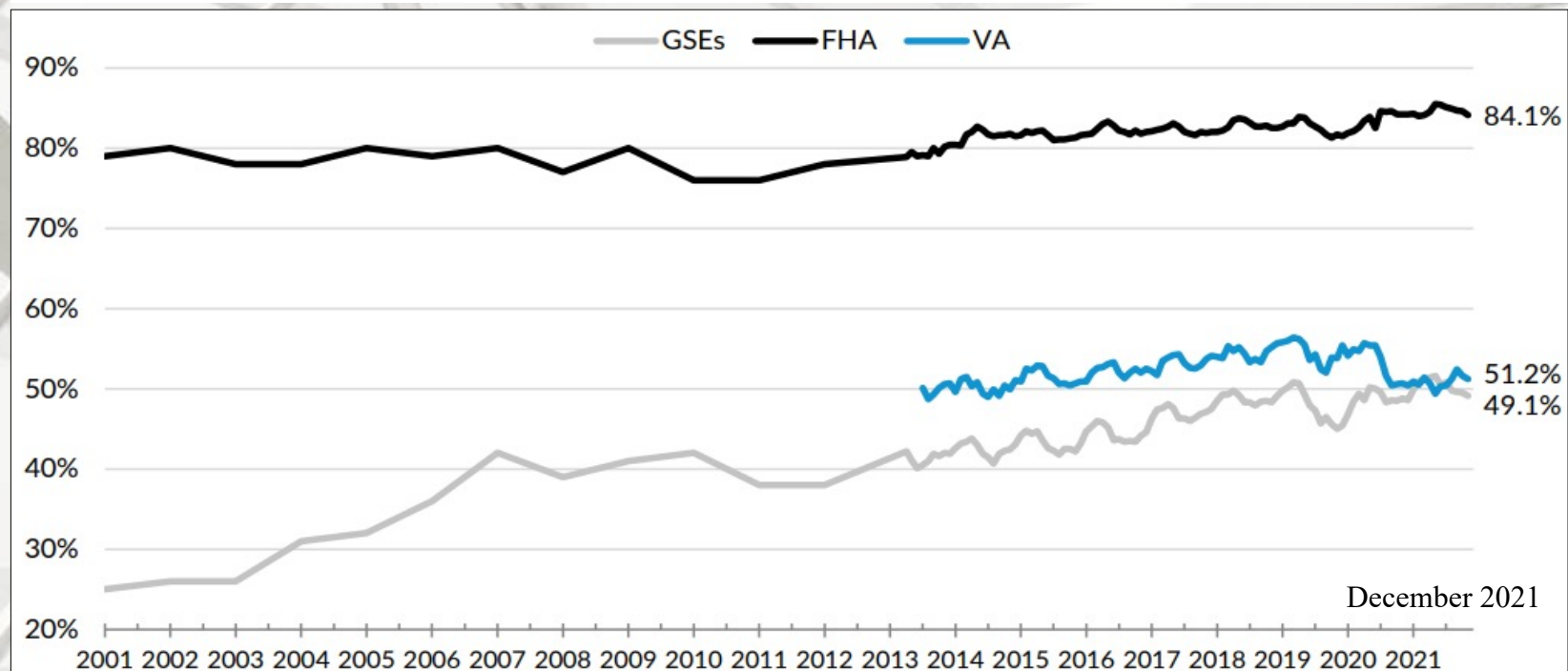


Urban Institute

National Mortgage Affordability Over Time

“Despite historic low interest rates, increases in home prices have pushed affordability to the worst levels since 2008. As of December 2021, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 28.7 percent; with 3.5 percent down, it is 32.8 percent. These numbers are well above the 2001-2003 median, and represent a sharp worsening in affordability over the past year. ...” – Laurie Goodman, Vice President, Urban Institute

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 First-Time Home Buyer Share

“In December 2021, the FTHB share for FHA, which has always been more focused on first time homebuyers, was 84.1 percent. The FTHB share of VA lending in December was 51.2 percent. The GSE FTHB share slightly decreased in December relative to November, to 49.1 percent. ...based on mortgages originated in November 2021, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV, thus paying a higher interest rate.” – Bing Lai, Research Associate, Housing Finance Policy Center

U.S. Housing Market

Globe Street

Housing Demand This Year

Dealers in John Burns' survey appear to be planning and buying inventory based on an inaccurate expectation of growth.

“Single family construction material revenue is predicted to rise by 25% next year, according to new research from John Burns Real Estate Consulting. The firm predicts a 10% increase in single-family starts next year, and 11% more materials thanks primarily to delays from 2021 starts. It also forecasts a 1% decrease in materials due to slightly smaller homes being built, and a 5% uptick in prices.

“Some very unique circumstances will likely cause building product companies to significantly underestimate demand this year, leading to even more shortages,” writes John Burns' Todd Tomalak in a new analysis. “The building products companies that prepare for this will take significant market share in 2022.”

Tomalak says most building products companies “rely heavily” on construction starts forecasts to ramp up production to meet next year's demand.

“We are forecasting single-family starts to grow 10%, which matches our recent survey of almost 300 home builders, and isn't too far from the consensus forecast,” he says. “However, we think material demand could grow by 20%+, even with starts growing 10%. Price hikes will add another 5%, increasing total single-family construction material demand 25%. This will be greater than the 10% increases in total residential spending dealers reported to us this year.”” – Lynn Pollack, Globe Street

U.S. Housing Market

Globe Street Housing Demand This Year

“So what does this mean for the industry? Tomalak predicts “more wild price swings ahead,” which will be complicated by a backdrop of ever-worsening product shortages. (“We are seeing this already starting to happen in lumber,” he notes.). He also says there will be a “tremendous number” of building product companies who will “erroneously think they are gaining market share, because their sales are growing faster than starts.”

Because of that, Tomalak says, “builders and manufacturers with the best access to available products will be poised to outperform.”

[Builder sentiment in the market for newly built single-family homes moved one point higher to 84](#) in December, a 2021 peak, according to the NAHB/Wells Fargo Housing Market Index (HMI).

“The most pressing issue for the housing sector remains lack of inventory,” NAHB Chief Economist Robert Dietz said in prepared remarks at the time. “Building has increased but the industry faces constraints, namely cost/availability of materials, labor and lots. And while 2021 single-family starts are expected to end the year 24% higher than the pre-Covid 2019 level, we expect higher interest rates in 2022 will put a damper on housing affordability.”” – Lynn Pollack, Globe Street

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Applications Since 2020

“This week’s [MBA Chart of the Week](#) features [Weekly Applications Survey](#) data, re-indexed to January 2020, to highlight the most recent refinance and home purchase trends.

With mortgage rates increasing steadily lately, refinance applications have fallen. The 30-year fixed rate averaged 3.30 percent in 2020 and 3.14 percent in 2021, including dipping below 3 percent at various points during this time. Many homeowners were able to refinance at these record-low rates. Those left in the market now are seeing a diminishing window of opportunity, as rates have increased around 70 basis points in the last six months, with last week’s rate reaching its highest level in almost two years at 3.72 percent. As a result, the pace of refinance applications decreased around 37 percent over the same period.

We are forecasting that the combination of a stronger economy, persistent inflation, and the removal of monetary policy accommodation will continue to drive mortgage rates higher, with the 30-year mortgage rate hitting 4 percent by the end of 2022. Additionally, this week’s FOMC communication outlined principles regarding how the Federal Reserve will think about shrinking an almost \$9 trillion balance sheet to a smaller portfolio over time. Their plan to return to holdings of primarily U.S. Treasuries hints at additional pressure on MBS yields over the medium term. Rising rates will continue to put downward pressure on refinance activity.

In terms of the purchase market, we expect growth in 2022 driven by younger buyers entering the market and housing supply continuing to grow, despite the ongoing challenges impacting the building sector. Increased for-sale inventory is sorely needed as demand far exceeds supply, especially for entry-level priced homes, and that is driving rapid home-price appreciation in many markets. Homebuyers are already struggling with elevated sales prices and as rates move higher, there could be a more significant damper on demand unless price growth moderates. In recent weeks, purchase counts remained below where they were a year ago, but average loan sizes continue to increase to record highs.” – Mike Fratantoni, Chief Economist, Senior Vice President, Research and Industry Technology and Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance

Chart of the Week - Jan 28, 2022
Mortgage Applications Since 2020 and Rates



MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

January 21, 2022

	2021				2022				2023								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2022	2023	2024
Housing Measures																	
Housing Starts (SAAR, Thous)	1,599	1,588	1,562	1,644	1,671	1,706	1,712	1,734	1,759	1,766	1,808	1,802	1,397	1,598	1,704	1,784	1,683
Single-Family	1,156	1,107	1,096	1,148	1,186	1,216	1,252	1,294	1,324	1,336	1,378	1,382	1,004	1,127	1,237	1,355	1,275
Two or More	443	482	465	496	485	490	460	440	435	430	430	420	393	472	469	429	408
Home Sales (SAAR, Thous)																	
Total Existing Homes	6,303	5,833	6,057	6,310	6,338	6,381	6,435	6,510	6,547	6,583	6,650	6,651	5,678	6,126	6,416	6,608	6,333
New Homes	896	737	738	721	818	887	957	979	976	982	1,007	1,012	828	773	910	994	995
FHFA US House Price Index (YOY % Change)	12.7	17.4	17.6	16.1	13.2	10.1	7.3	5.1	4.0	3.4	3.5	4.1	10.9	16.1	5.1	4.1	5.4
Median Price of Total Existing Homes (Thous \$)	313.5	351.3	356.6	359.9	360.8	363.0	366.6	368.0	375.9	379.7	381.0	382.5	295.4	345.3	364.6	379.8	394.3
Median Price of New Homes (Thous \$)	364.9	380.9	403.3	413.0	411.0	408.9	409.7	410.9	417.5	419.4	420.8	422.1	335.0	390.5	410.1	420.0	429.3
Interest Rates																	
30-Year Fixed Rate Mortgage (%)	2.9	3.0	2.9	3.1	3.3	3.5	3.7	4.0	4.1	4.2	4.3	4.3	2.8	3.1	4.0	4.3	4.3
10-Year Treasury Yield (%)	1.3	1.6	1.3	1.5	1.9	2.0	2.1	2.3	2.4	2.4	2.5	2.5	0.9	1.5	2.3	2.5	2.5
Mortgage Originations																	
Total 1- to 4-Family (Bil \$)	1,094	1,050	954	893	668	697	625	610	553	693	648	632	4,108	3,991	2,600	2,526	2,530
Purchase	320	460	442	424	360	492	449	438	378	526	482	464	1,482	1,646	1,739	1,850	1,784
Refinance	774	590	512	469	308	205	176	172	175	167	166	168	2,625	2,345	861	676	746
Refinance Share (%)	71	56	54	53	46	29	28	28	32	24	26	27	64	59	33	27	29
FHA Originations (Bil \$)													302	289	163	159	147
Total 1- to 4-Family (000s loans)	3,146	2,926	2,714	2,497	1,802	1,880	1,755	1,714	1,500	1,867	1,705	1,707	13,696	11,284	7,151	6,779	6,566
Purchase	974	1,341	1,302	1,259	997	1,302	1,254	1,264	1,043	1,402	1,243	1,267	4,917	4,876	4,817	4,955	4,600
Refinance	2,172	1,585	1,412	1,238	805	578	501	450	457	465	462	440	8,780	6,407	2,334	1,824	1,966
Refinance Share (%)	69	54	52	50	45	31	29	26	30	25	27	26	64	57	33	27	30
Mortgage Debt Outstanding																	
1- to 4-Family (Bil \$)	11,042	11,200	11,386	11,554	11,715	11,916	12,131	12,338	12,525	12,718	12,908	13,085	10,925	11,554	12,338	13,085	13,749

Notes:

As of the Sep, 2021 forecast, the 2020 originations numbers have been revised based on the 2020 Home Mortgage Disclosure Act data.

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

Mortgage rate forecast is based on Freddie Mac's 30-Yr fixed rate which is based on predominantly home purchase transactions.

The 10-Year Treasury Yield and 30-Yr mortgage rate are the average for the quarter, but annual columns show Q4 values.

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

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MBA

MORTGAGE BANKERS ASSOCIATION

MBA Economic Forecast

MBA Economic Forecast

January 21, 2022

	2021				2022				2023								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2022	2023	2024
Percent Change, SAAR																	
Real Gross Domestic Product	6.3	6.7	2.3	7.0	3.8	3.9	4.4	3.9	2.8	2.7	2.4	2.4	-2.3	5.6	4.0	2.6	2.1
Personal Consumption Expenditures	11.4	12.0	2.0	5.1	3.0	2.8	2.8	2.5	2.2	2.6	2.5	2.6	-2.4	7.5	2.8	2.5	3.1
Business Fixed Investment	12.9	9.2	1.7	3.5	10.2	6.4	6.8	6.1	5.4	5.0	4.3	4.3	-3.8	6.7	7.4	4.8	3.4
Residential Investment	13.3	-11.7	-7.7	1.9	5.8	3.0	4.7	3.6	3.0	3.4	3.7	3.7	15.7	-1.5	4.3	3.4	-3.1
Govt. Consumption & Investment	4.2	-2.0	0.9	-2.1	2.9	1.8	2.7	1.9	1.2	1.1	0.9	1.1	1.2	0.2	2.4	1.1	0.8
Net Exports (Bil. Chain 2012\$)	-1033.0	-1048.4	-1112.3	-1126.1	-1124.4	-1124.1	-1119.3	-1091.0	-1089.7	-1092.0	-1097.9	-1107.5	-785.1	-1079.9	-1114.7	-1096.8	-1168.5
Inventory Investment (Bil. Chain 2012\$)	-75.1	-143.3	-56.8	87.3	71.4	98.3	126.4	137.4	142.3	136.6	126.7	117.9	-35.9	-46.9	108.4	130.9	99.4
Consumer Prices (YOY)	1.9	4.8	5.3	6.9	6.5	5.1	4.6	3.5	3.2	2.8	2.6	2.3	1.2	6.9	3.5	2.3	2.0
Percent																	
Unemployment Rate	6.2	5.9	5.1	4.3	3.8	3.7	3.5	3.5	3.5	3.5	3.5	3.6	8.1	5.4	3.6	3.5	3.7
Federal Funds Rate	0.125	0.125	0.125	0.125	0.125	0.375	0.625	0.875	0.875	1.125	1.375	1.625	0.125	0.125	0.875	1.625	2.125
10-Year Treasury Yield	1.3	1.6	1.3	1.5	1.9	2.0	2.1	2.3	2.4	2.4	2.5	2.5	0.9	1.5	2.3	2.5	2.5

Notes:

The Fed Funds Rate forecast is shown as the mid point of the Fed Funds range at the end of the period.

All data except interest rates are seasonally adjusted

The 10-Year Treasury Yield is the average for the quarter, while the annual value is the Q4 value

Forecast produced with the assistance of the Macroeconomic Advisers' model

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MBA

MORTGAGE BANKERS ASSOCIATION

Summary

In conclusion:

December 2021 month-over-month and year-over-year housing data were mostly positive. Single-family housing starts, total housing and multi-family completions, and existing sales were negative month-over-month. Single-family starts and permits, total housing and multi-family completions, existing and new sales were negative year-over-year. Completions continue to be restrained due to the unavailability of building materials and products, combined with other factors. Thus, certain builders may be reluctant to start new projects while waiting to complete units under construction. Rental unit demand is increasing and combined with historically low-vacancy rates for multi-family apartments, supports increasing demand for builders.

Pros:

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

Cons:

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

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