

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



Delton Alderman

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



Madison, WI

304.431.2734

delton.r.alderman@usda.gov



Urs Buehlmann

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

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Virginia Polytechnic Institute and State University

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

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

Opening Remarks

November month-over-month and year-over-year housing data were primarily positive. Only single-family housing completions were negative month-over-month. Single-family starts, permits, completions and new sales were negative year-over-year. Existing house sales also 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.

The January 14th Atlanta Fed GDPNow™ model forecast was an aggregate 2.8% for total residential investment spending. New private permanent site expenditures were projected at -11.8%; the improvement spending forecast was 5.8%; and the manufactured/mobile expenditures projection was 17.9% for December 2021 (all: quarterly log change and at a seasonally adjusted annual rate).¹

“While housing’s strength since the pandemic began has been fairly broad-based, it is informative to delineate sales trends by price point. Although overall existing home sales have started to inflect lower on a year-over-year basis in recent months, the high-end segment of the market has continued to post growth, remaining an outsized contributor to transaction activity into 4Q21 and putting it in the spotlight amidst the 2022 loan limit increases announced last week by FHFA and HUD. Leveraging our [Real Estate Broker Survey](#), high-end outperformance began last summer and has accelerated through 2021. In fact, the spread between our *overall* homebuyer demand rating and our *high-end* demand rating narrowed to its lowest level in our most recent survey, a signal of comparative strength continuing in the upper price points. Framed differently, *our overall demand rating has been lower on a year-over-year basis for the past four months versus difficult comparisons, whereas the high-end demand rating has continued to expand slightly.*”² – Kevin Kaczmarek and Ryan McKeveny, Zelman & Associates

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; 1/14/22;

² [https://www.zelmanassociates.com/resources/blog/2021-12-\(1\)/high-end-housing-in-focus-as-loan-limits-rise](https://www.zelmanassociates.com/resources/blog/2021-12-(1)/high-end-housing-in-focus-as-loan-limits-rise); 12/6/21

November 2021

Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 11.8%	▲ 8.3%
Single-Family (SF) Starts	▲ 11.3%	▼ 0.8%
Multi-Family (MF) Starts*	▲ 12.9%	▲ 37.1%
Housing Permits	▲ 3.9%	▲ 1.2%
SF Permits	▲ 3.0%	▼ 4.2%
MF Permits*	▲ 5.5%	▲ 12.9%
Housing Under Construction	▲ 2.0%	▲ 19.2%
SF Under Construction	▲ 2.9%	▲ 28.3%
Housing Completions	▲ 4.1%	▲ 3.1%
SF Completions	▼ 0.1%	▼ 0.3%
New SF House Sales	▲ 12.4%	▼ 14.0%
Private Residential Construction Spending	▲ 0.9%	▲ 16.3%
SF Construction Spending	▲ 1.2%	▲ 19.4%
Existing House Sales ¹	▲ 1.9%	▼ 2.0%

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

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

USDA Forest Service Housing Story Map

USDA FOREST SERVICE HOUSING MARKET REVIEW

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

USDA

US

WELCOME

MONTHLY HOUSING BRIEFS AND COMMENTARIES

CONSTRUCTION DATA

HOUSING METRICS AND THE WOOD RESOURCE

RESOURCES AND REFERENCES

USDA Forest Service Housing Market Review

Housing's Importance

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


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

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

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

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

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



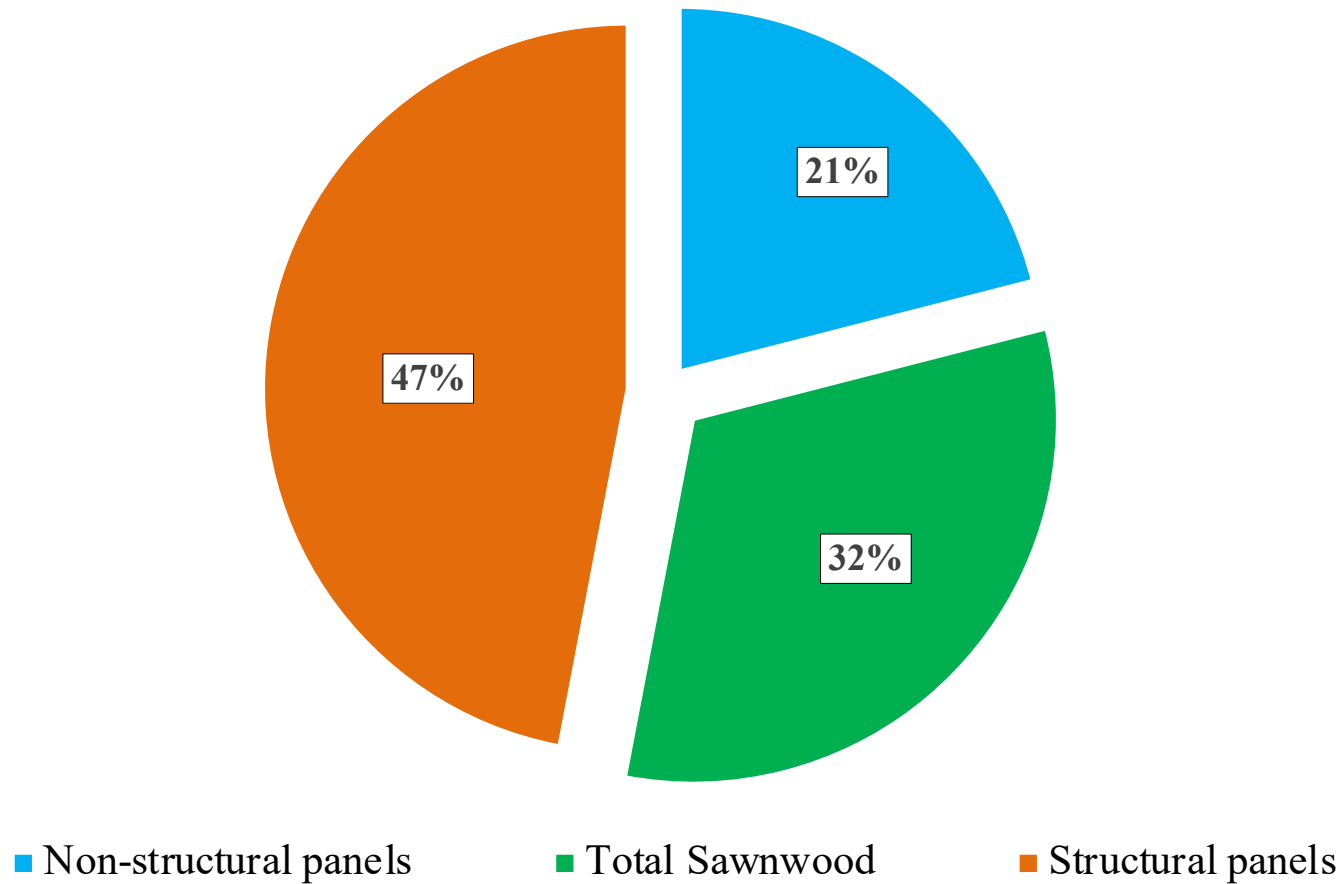
USDA Forest Service Housing Market Review

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

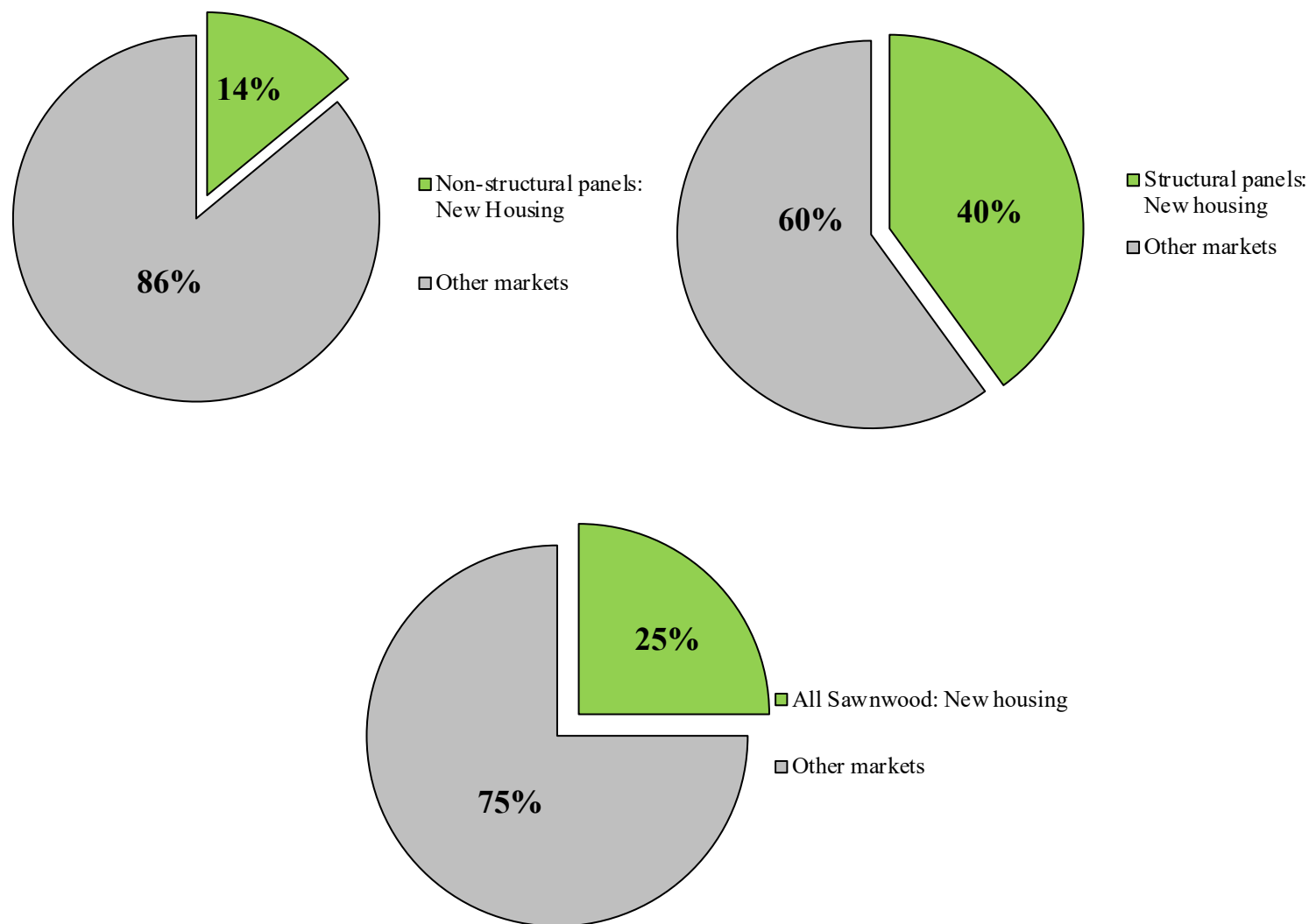
The story map is available at the following link:

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

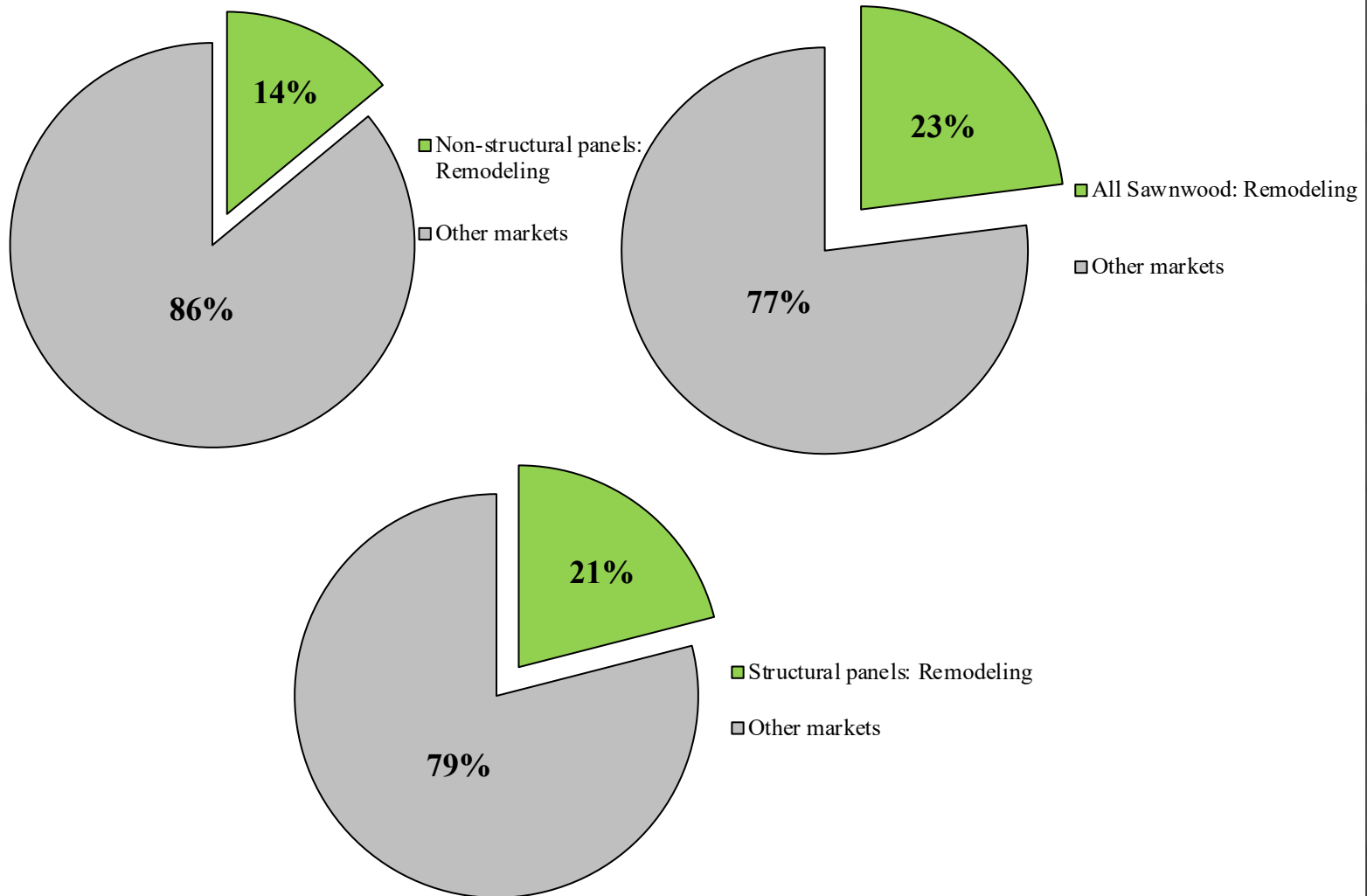
New Construction's Percentage of Wood Products Consumption



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 November 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

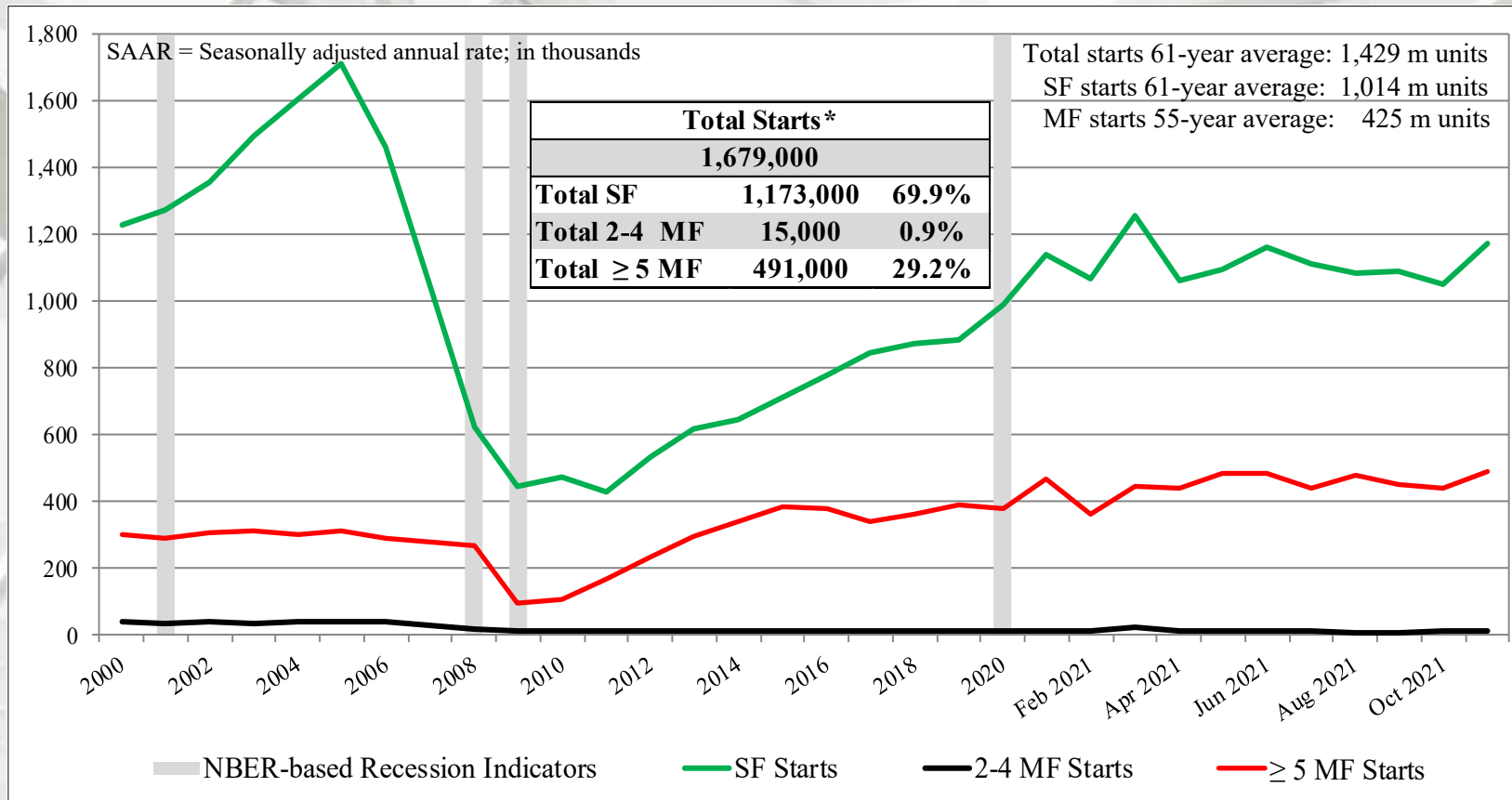
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
November	1,679,000	1,173,000	15,000	491,000
October	1,502,000	1,054,000	10,000	438,000
2020	1,551,000	1,182,000	16,000	353,000
M/M change	11.8%	11.3%	50.0%	12.1%
Y/Y change	8.3%	-0.8%	-6.3%	39.1%

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

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

Total Housing Starts

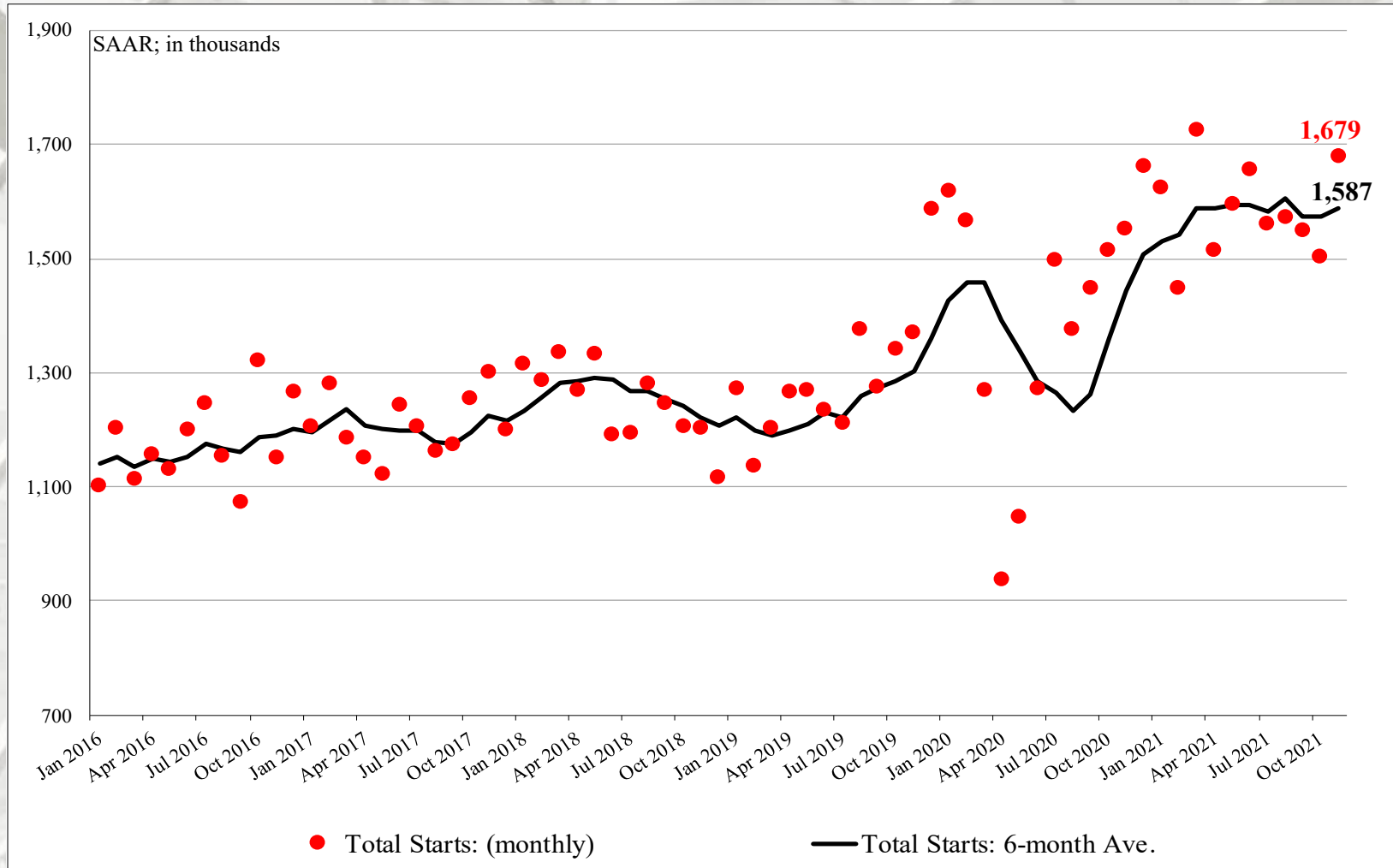


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: $((\text{Total starts} - (\text{SF} + \geq \text{MF})))$.

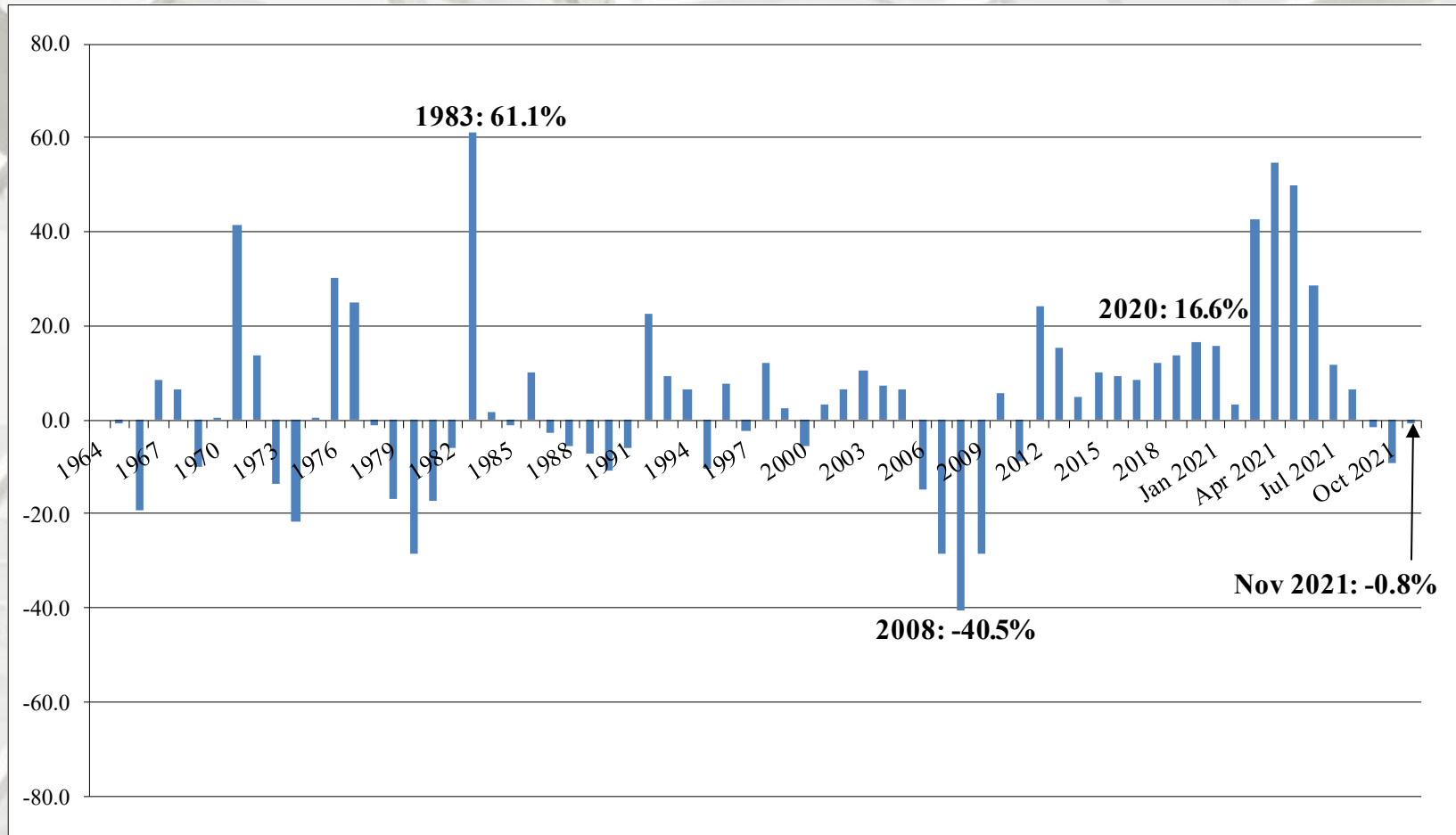
* Percentage of total starts.

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

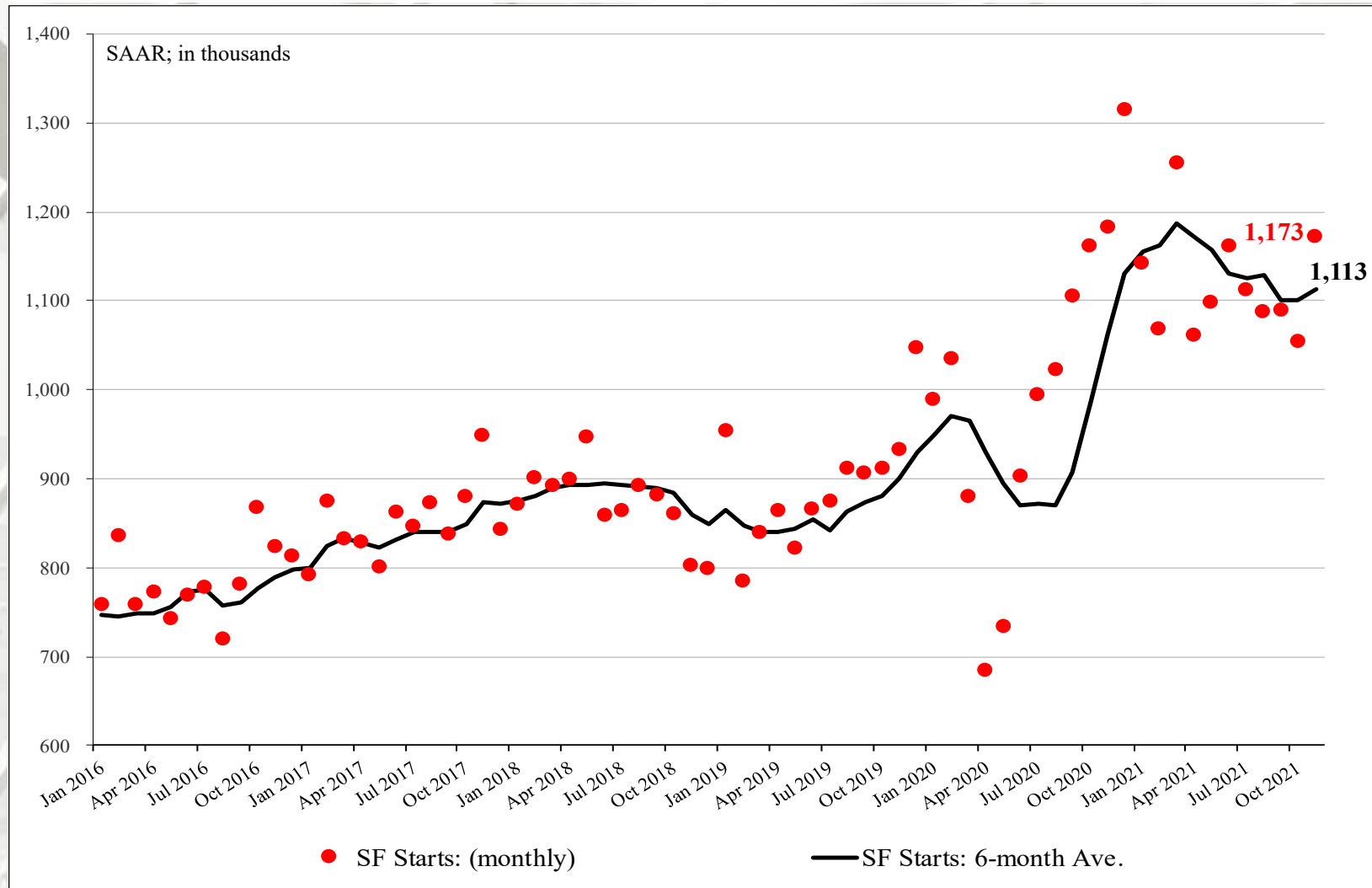
Total Housing Starts: Six-Month Average



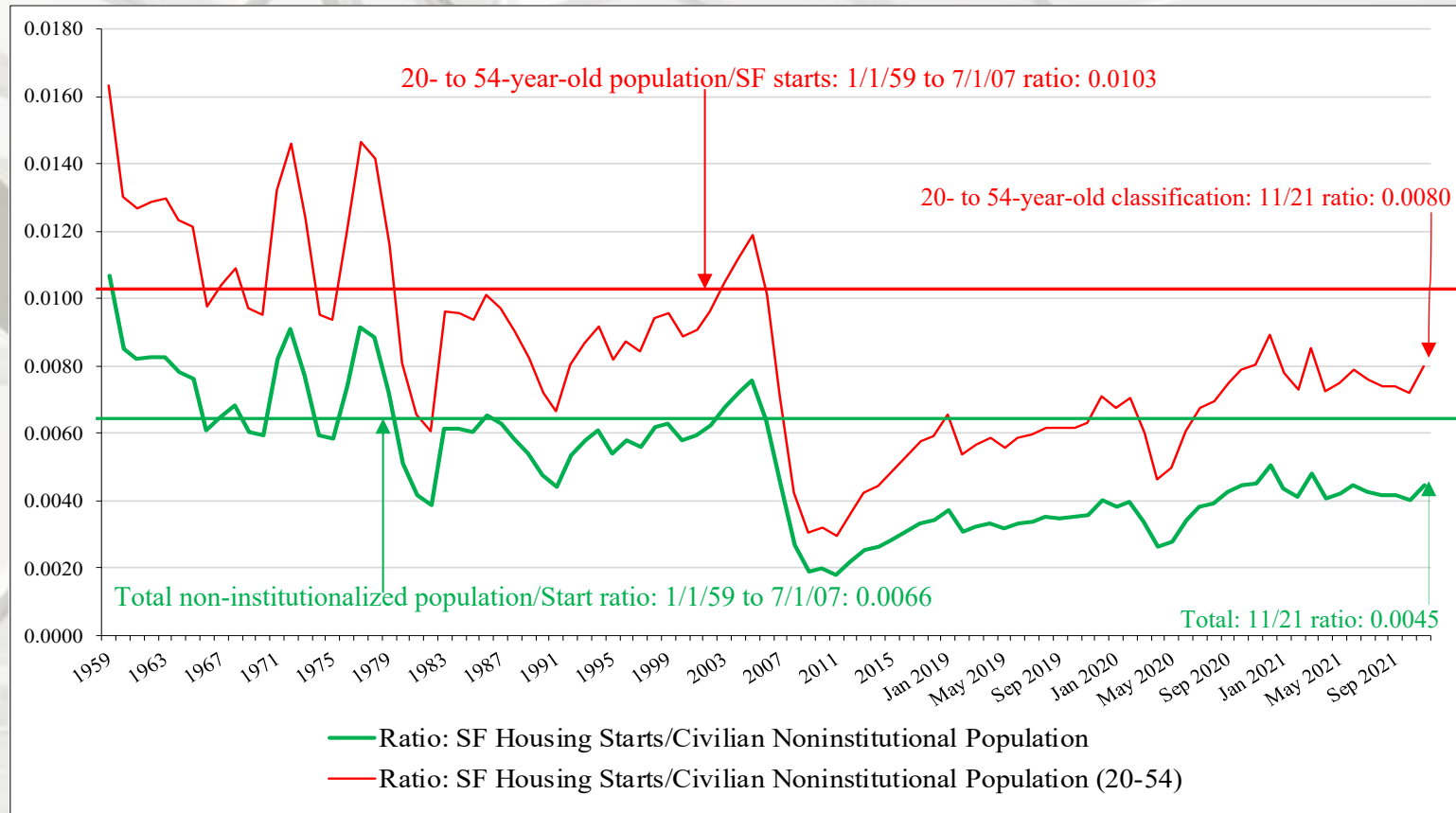
SF Housing Starts: Year-over-Year Change



SF Housing Starts: Six-Month Average



New SF Starts

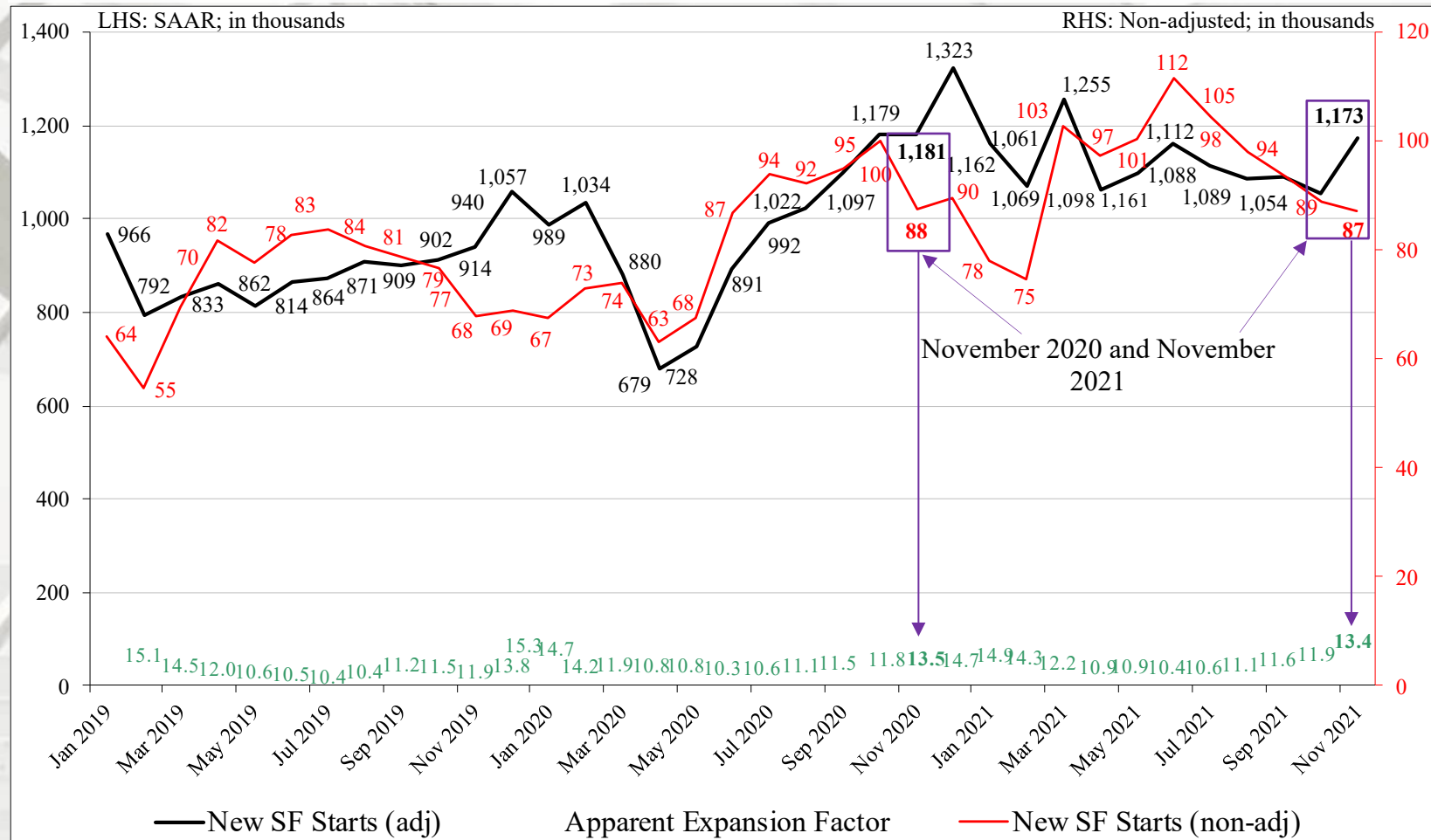


New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of the total US non-institutionalized population to new SF starts is 0.0066; in November 2021 it was 0.0045 – an increase from September (0.0040). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in November 2021 was 0.0080 – an increase from September (0.0072). 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 peg 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**
November	130,000	66,000	64,000
October	102,000	52,000	50,000
2020	143,000	71,000	72,000
M/M change	27.5%	26.9%	28.0%
Y/Y change	-9.1%	-7.0%	-11.1%
	MW Total	MW SF	MW MF
November	204,000	129,000	75,000
October	220,000	127,000	93,000
2020	189,000	134,000	55,000
M/M change	-7.3%	1.6%	-19.4%
Y/Y change	7.9%	-3.7%	36.4%

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

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

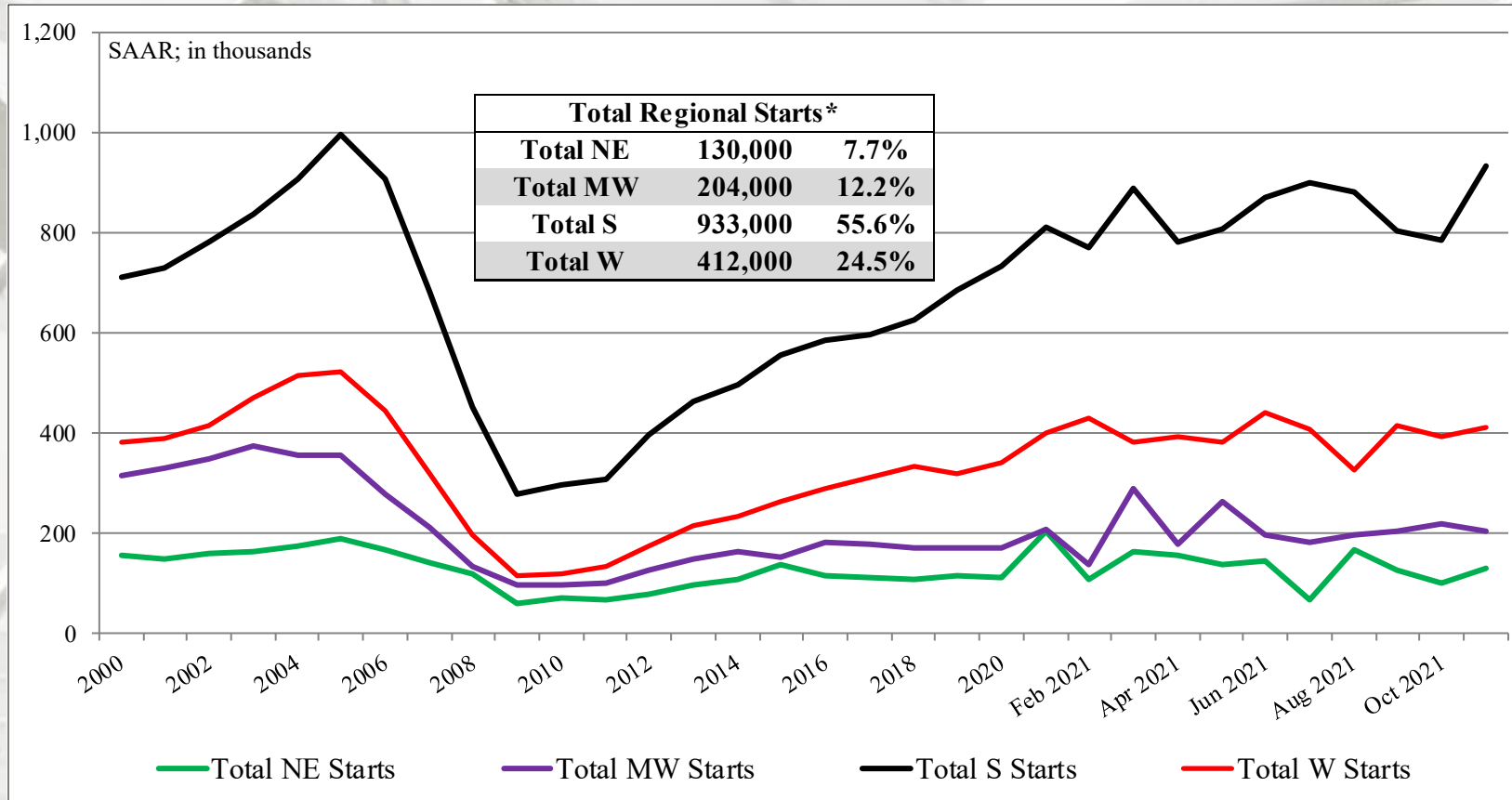
New Housing Starts by Region

	S Total	S SF	S MF**
November	933,000	701,000	232,000
October	788,000	613,000	175,000
2020	806,000	659,000	147,000
M/M change	18.4%	14.4%	32.6%
Y/Y change	15.8%	6.4%	57.8%
	W Total	W SF	W MF
November	412,000	277,000	135,000
October	392,000	262,000	130,000
2020	413,000	318,000	95,000
M/M change	5.1%	5.7%	3.8%
Y/Y change	-0.2%	-12.9%	42.1%

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

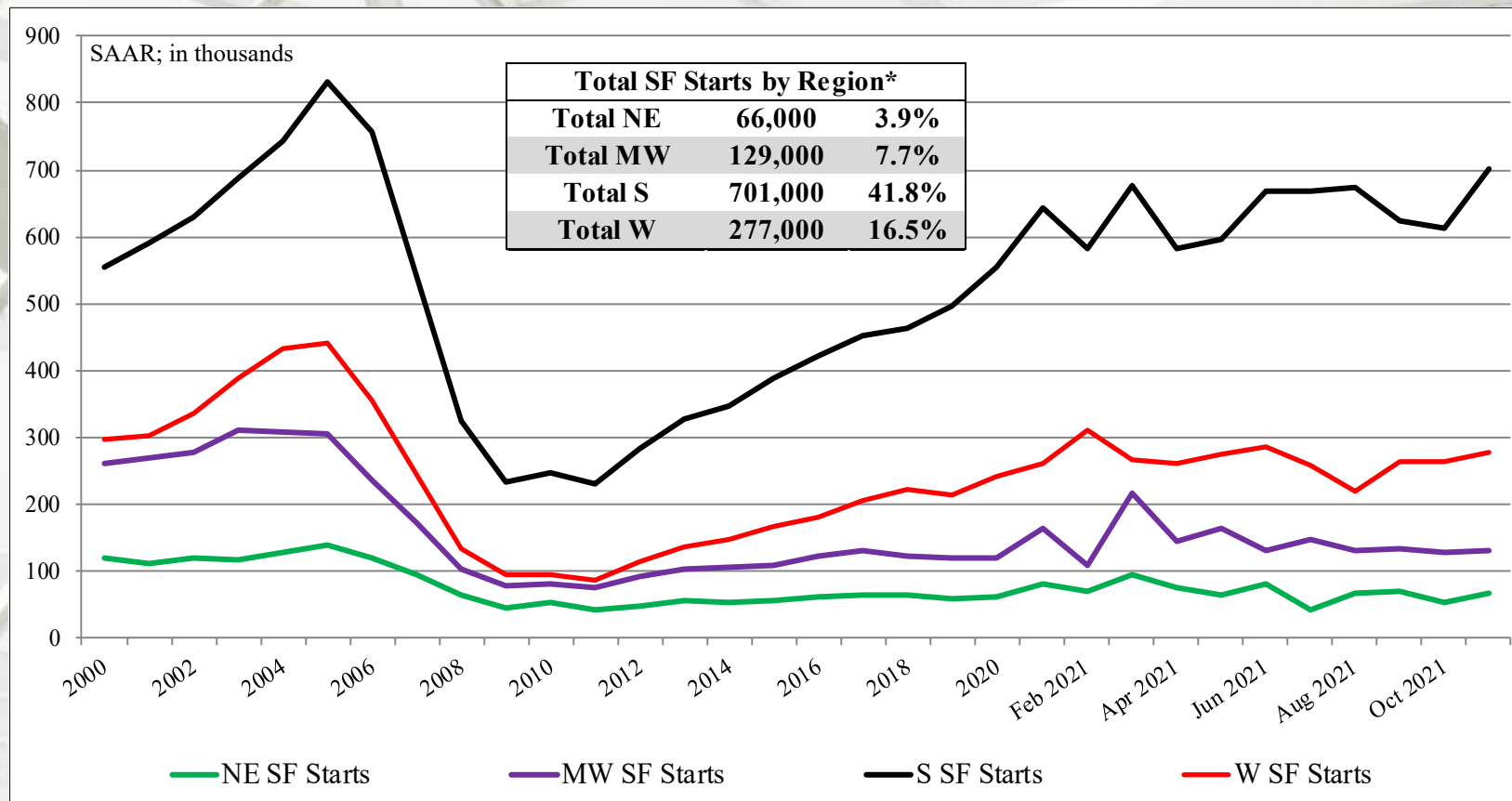


NE = Northeast, MW = Midwest, S = South, W = West

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

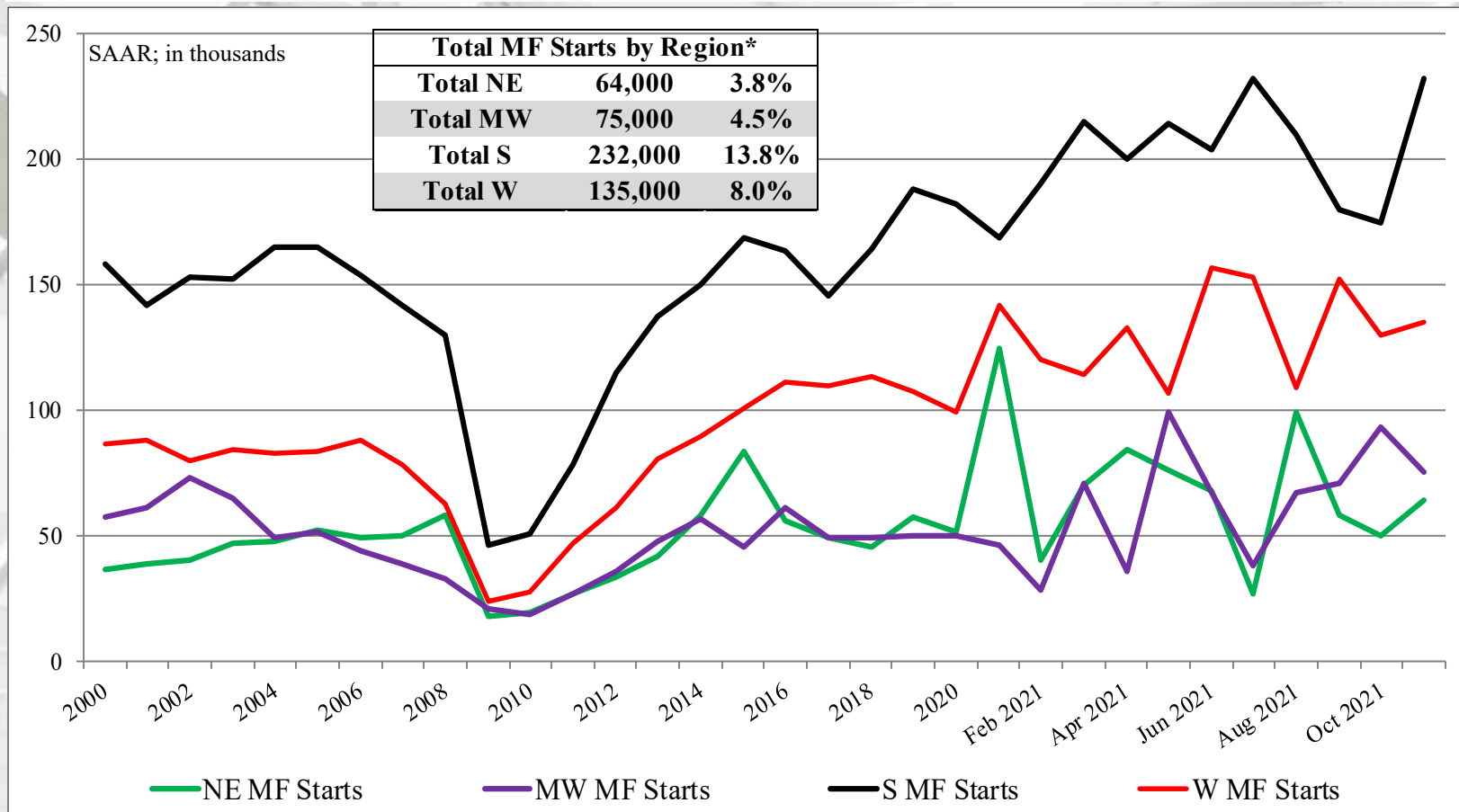


NE = Northeast, MW = Midwest, S = South, W = West

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

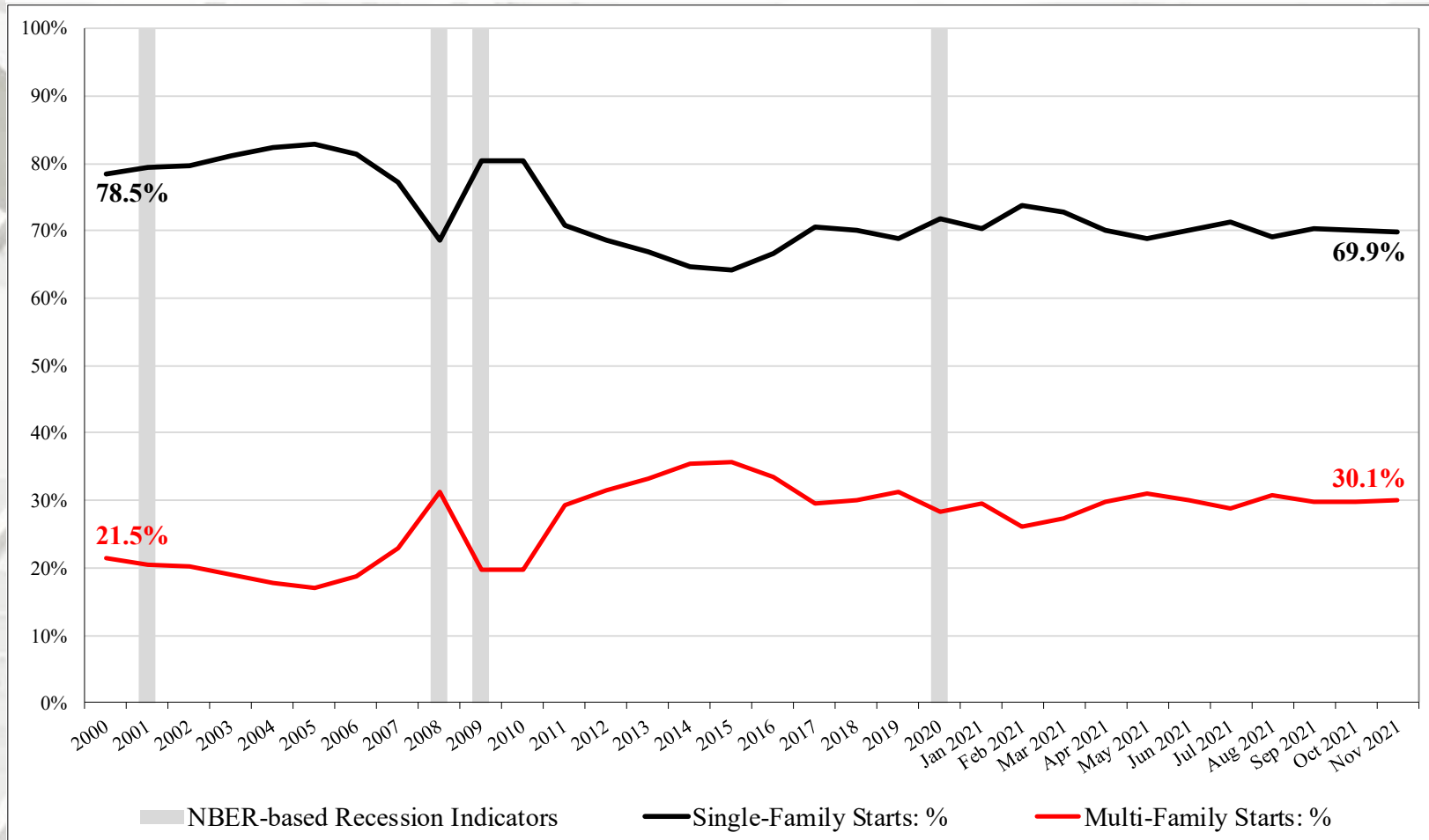


NE = Northeast, MW = Midwest, S = South, W = West

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 (%)



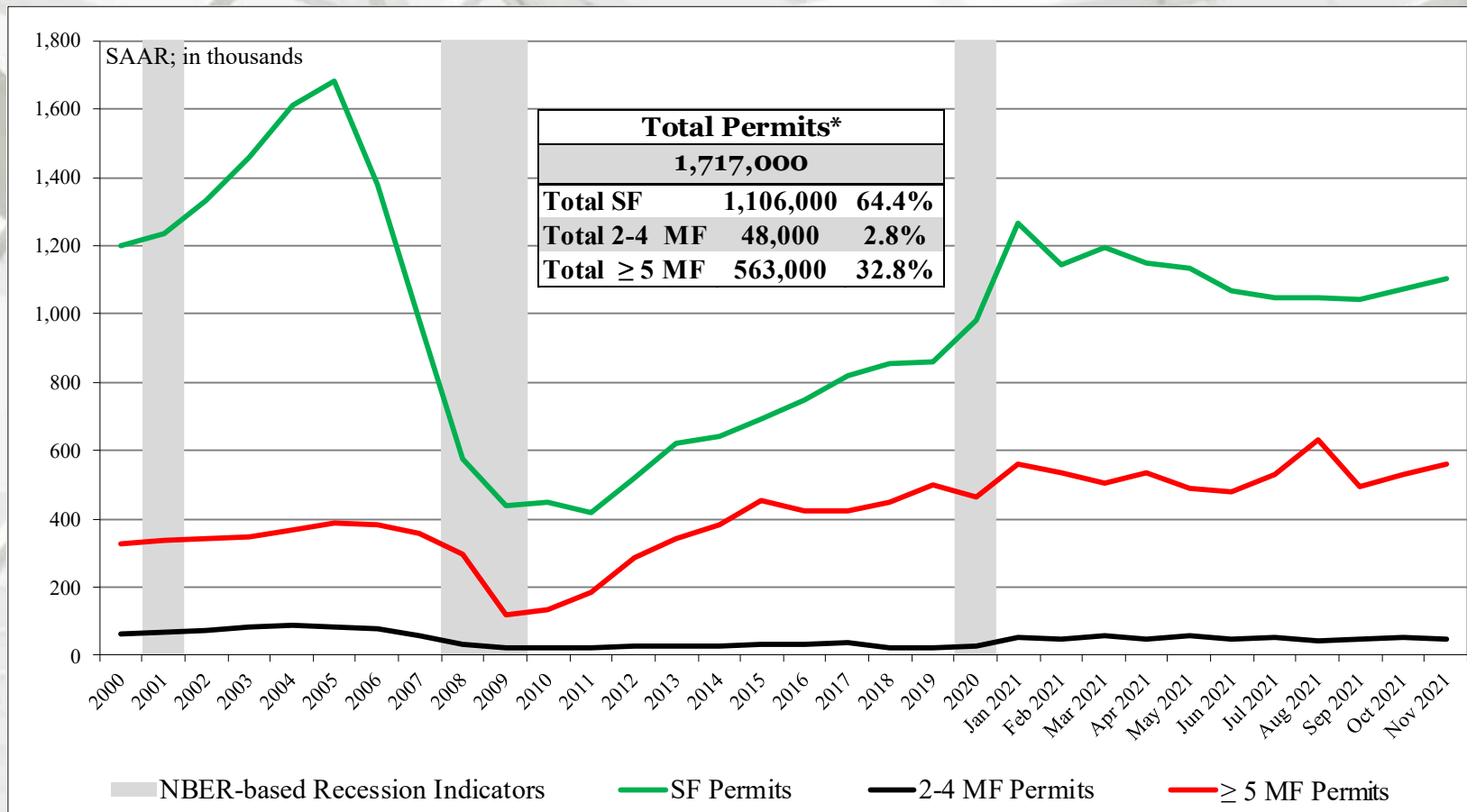
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
November	1,717,000	1,106,000	48,000	563,000
October	1,653,000	1,074,000	51,000	528,000
2020	1,696,000	1,155,000	54,000	487,000
M/M change	3.9%	3.0%	-5.9%	6.6%
Y/Y change	1.2%	-4.2%	-11.1%	15.6%

* 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**
November	143,000	62,000	81,000
October	129,000	63,000	66,000
2020	165,000	64,000	101,000
M/M change	10.9%	-1.6%	22.7%
Y/Y change	-13.3%	-3.1%	-19.8%
	MW Total*	MW SF	MW MF**
November	219,000	141,000	78,000
October	234,000	133,000	101,000
2020	233,000	145,000	88,000
M/M change	-6.4%	6.0%	-22.8%
Y/Y change	-6.0%	-2.8%	-11.4%

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

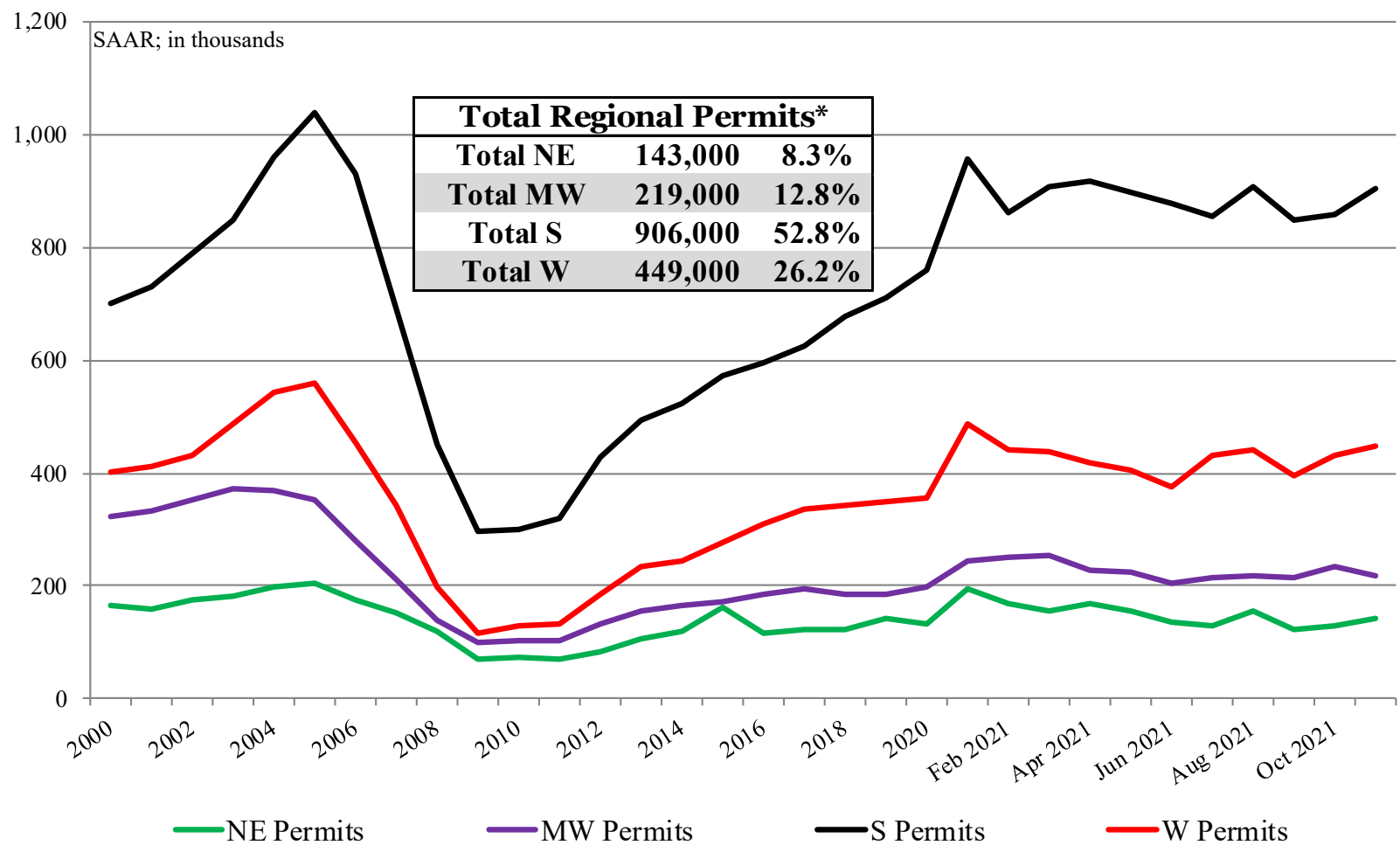
	S Total*	S SF	S MF**
November	906,000	647,000	259,000
October	859,000	639,000	220,000
2020	890,000	672,000	218,000
M/M change	5.5%	1.3%	17.7%
Y/Y change	1.8%	-3.7%	18.8%
	W Total*	W SF	W MF**
November	449,000	256,000	193,000
October	431,000	239,000	192,000
2020	408,000	274,000	134,000
M/M change	4.2%	7.1%	0.5%
Y/Y change	10.0%	-6.6%	44.0%

S = South; W = West

* All data are SAAR

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

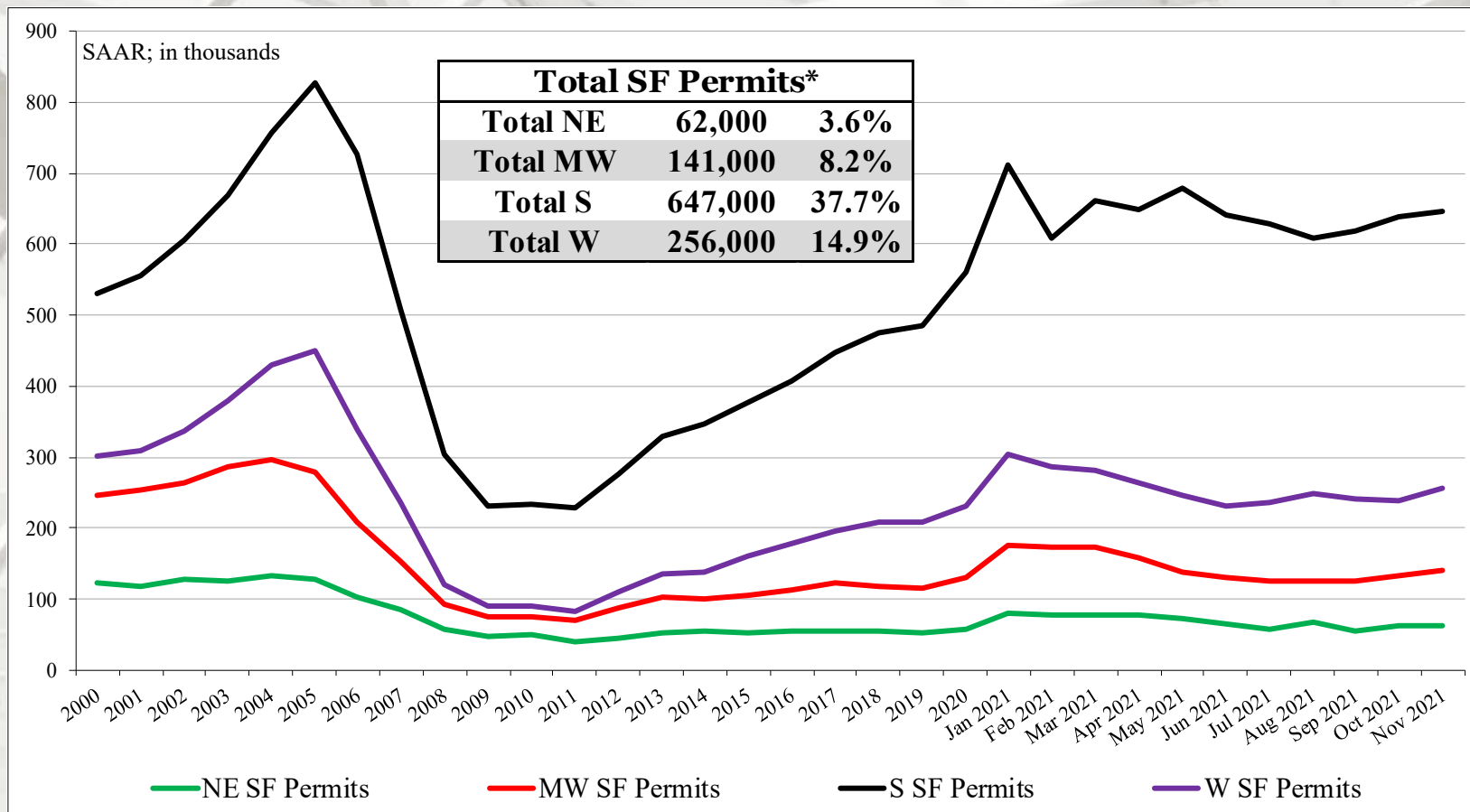
Total Housing Permits by Region



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

* Percentage of total permits.

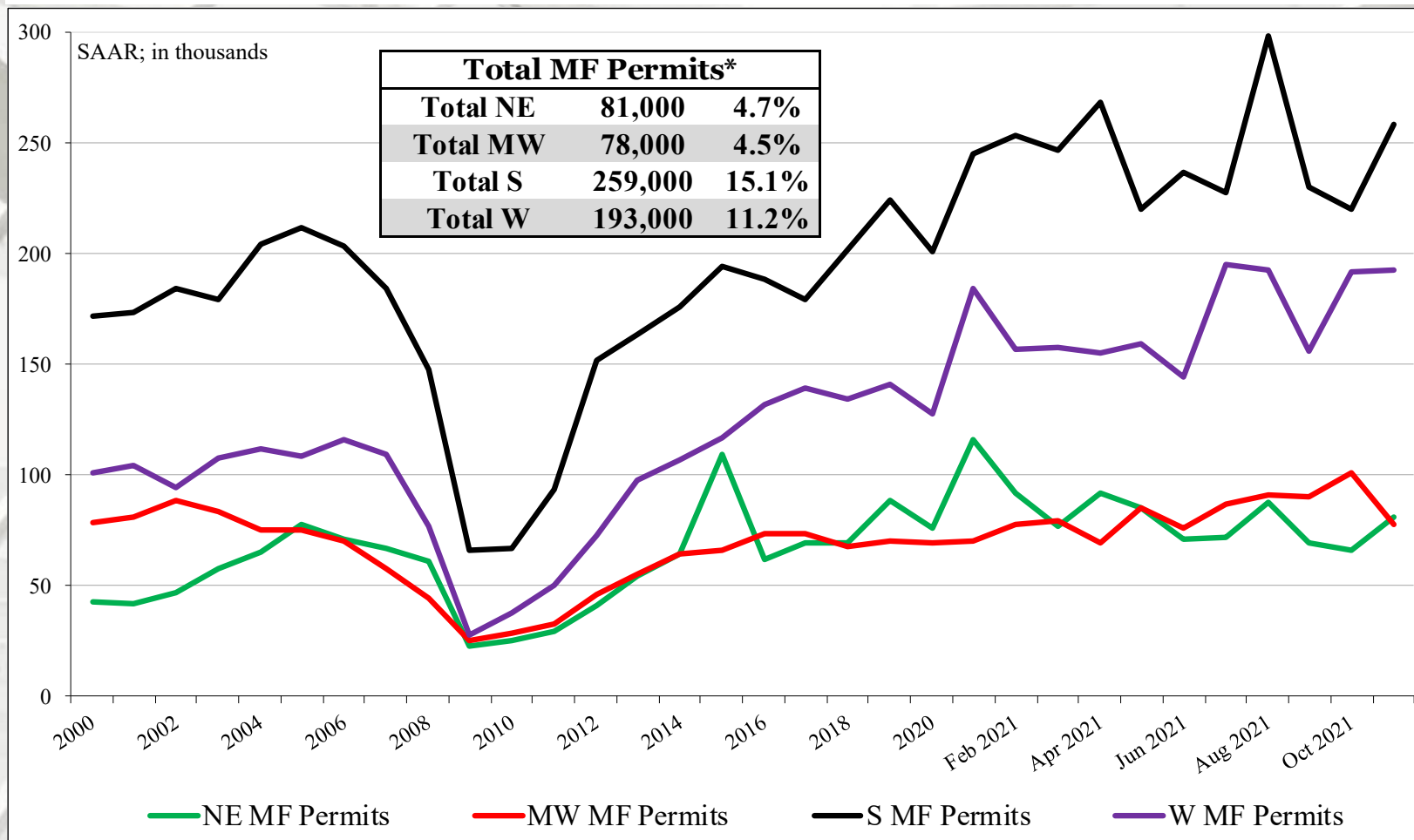
SF Housing Permits by Region



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

* Percentage of total permits.

MF Housing Permits by Region



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

* Percentage of total permits.

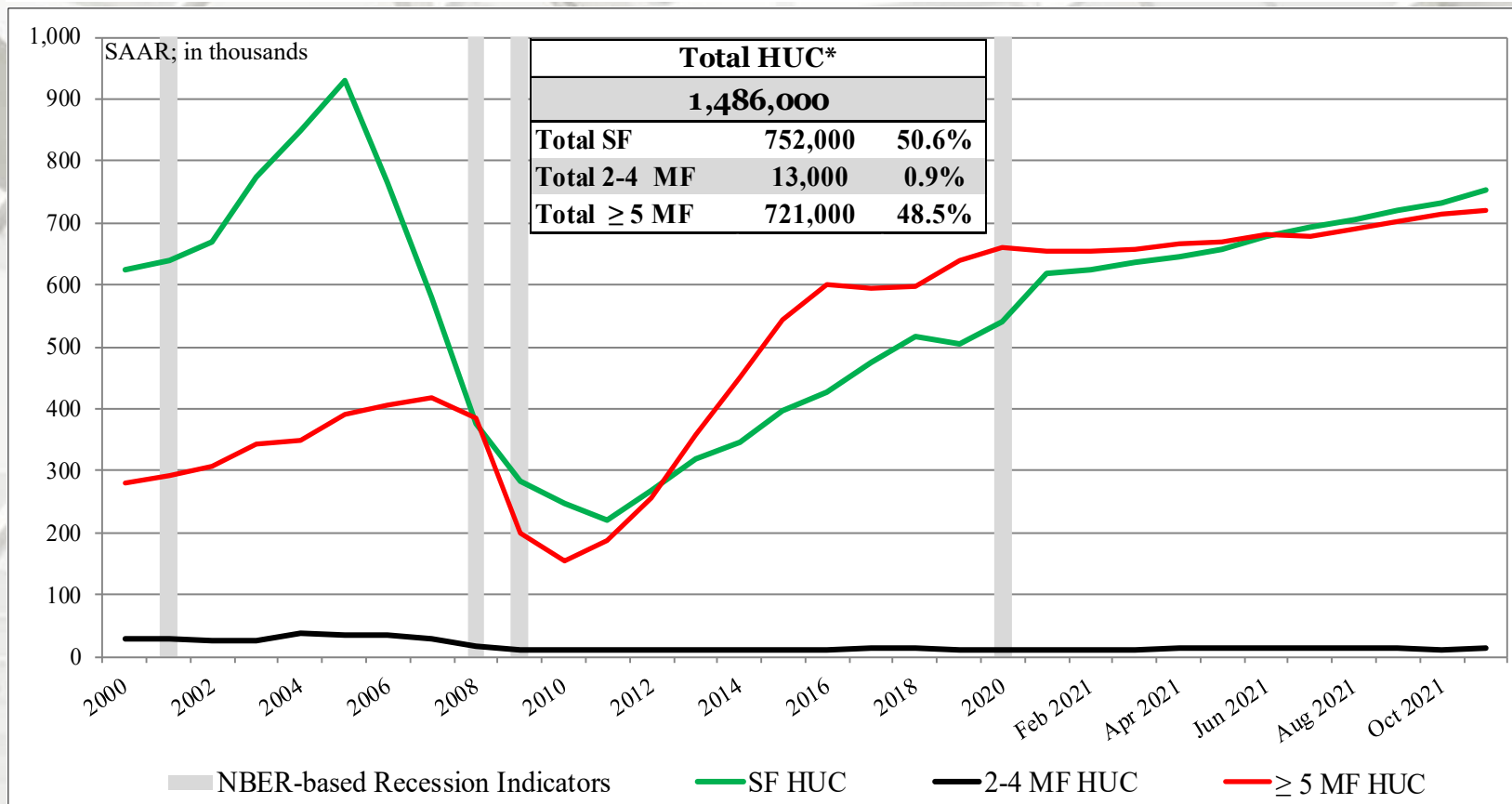
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
November	1,486,000	752,000	13,000	721,000
October	1,457,000	731,000	12,000	714,000
2020	1,247,000	586,000	11,000	650,000
M/M change	2.0%	2.9%	8.3%	1.0%
Y/Y change	19.2%	28.3%	18.2%	10.9%

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**
November	202,000	64,000	138,000
October	201,000	62,000	139,000
2020	180,000	56,000	122,000
M/M change	0.5%	3.2%	-0.7%
Y/Y change	12.2%	14.3%	13.1%
	MW Total	MW SF	MW MF
November	184,000	100,000	84,000
October	183,000	100,000	83,000
2020	163,000	83,000	80,000
M/M change	0.5%	0.0%	1.2%
Y/Y change	12.9%	20.5%	5.0%

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).

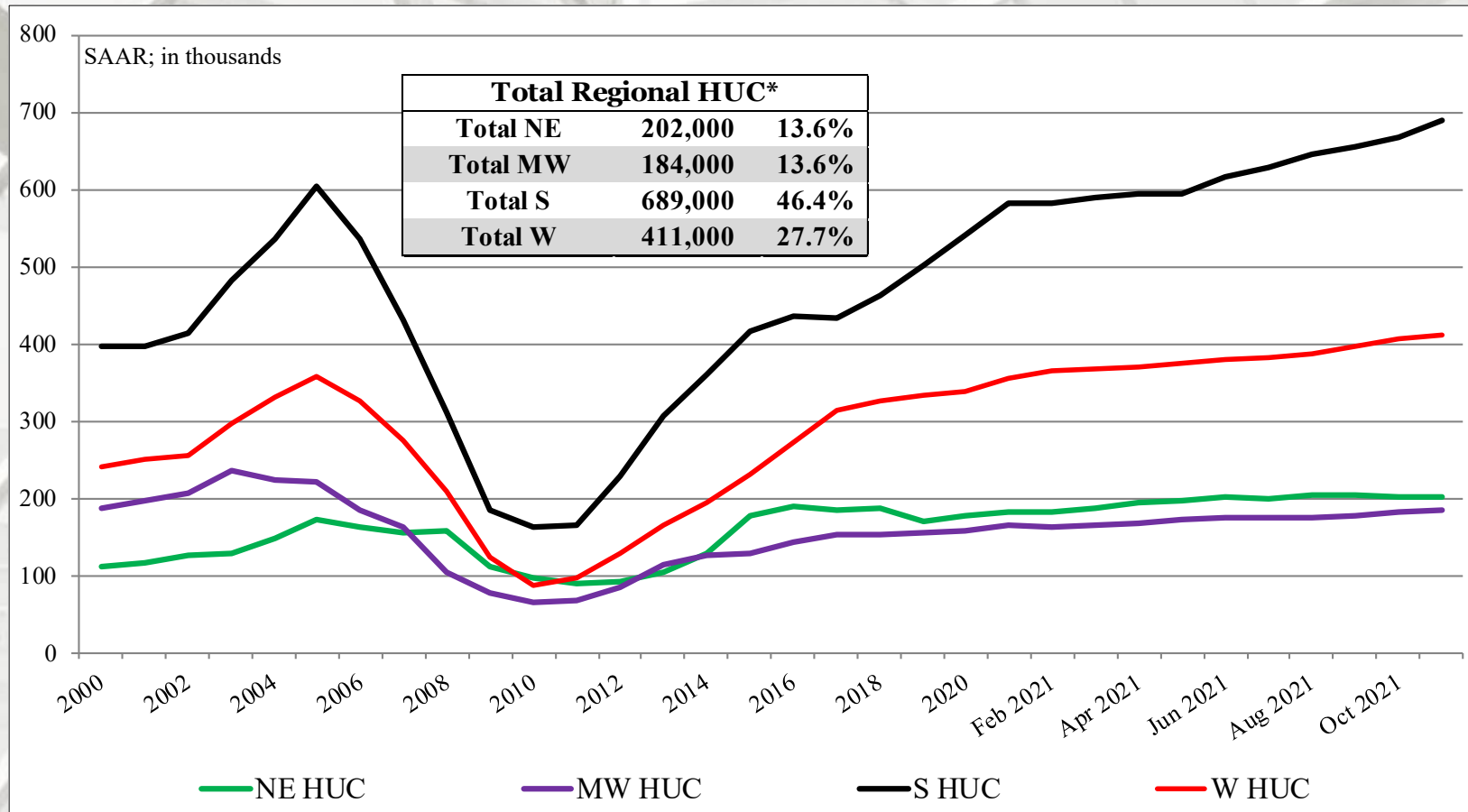
New Housing Under Construction by Region

	S Total	S SF	S MF**
November	689,000	396,000	293,000
October	666,000	379,000	287,000
2020	564,000	291,000	273,000
M/M change	3.5%	4.5%	2.1%
Y/Y change	22.2%	36.1%	7.3%
	W Total	W SF	W MF
November	411,000	192,000	219,000
October	407,000	190,000	217,000
2020	340,000	156,000	184,000
M/M change	1.0%	1.1%	0.9%
Y/Y change	20.9%	23.1%	19.0%

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

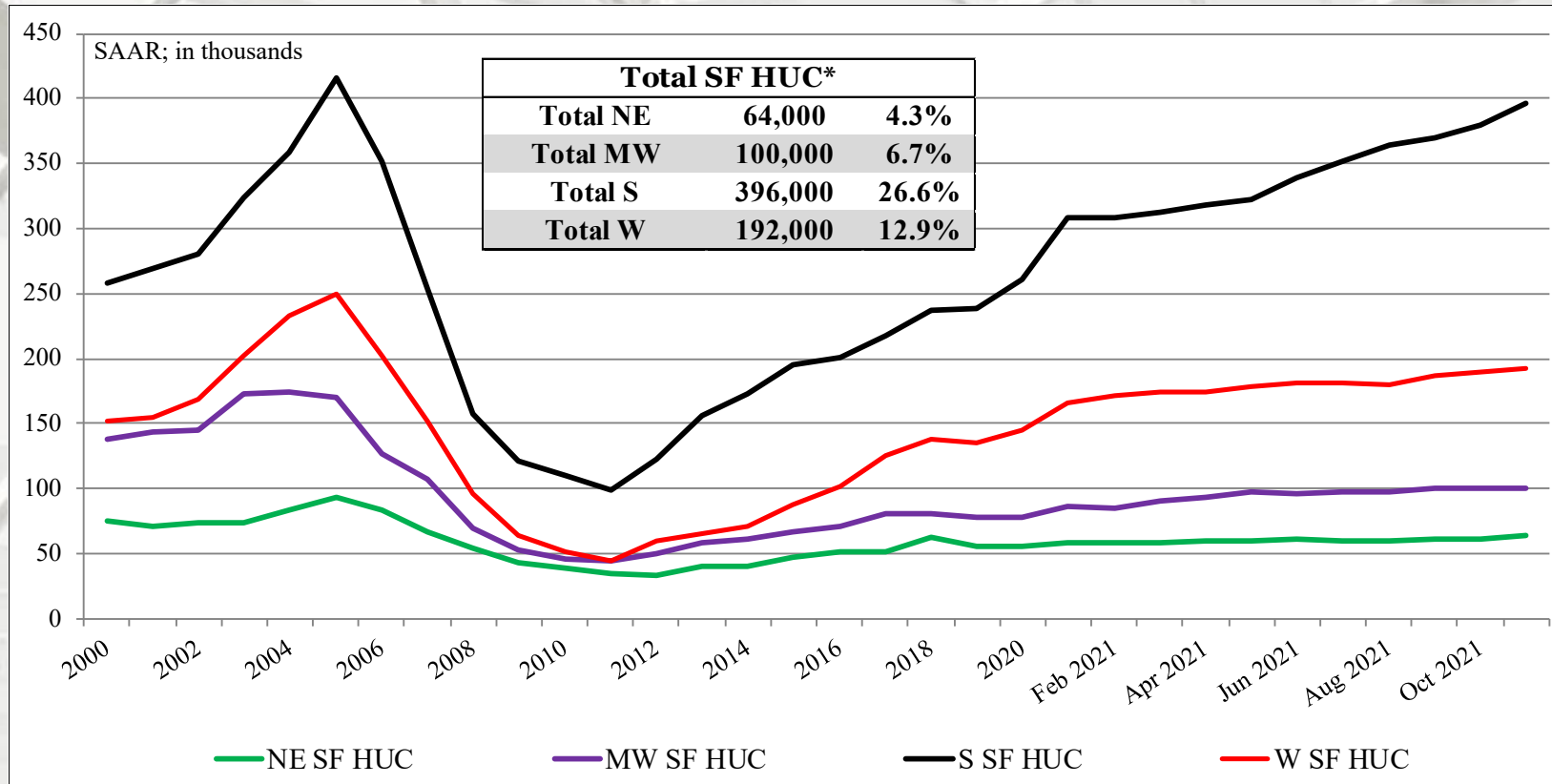


NE = Northeast, MW = Midwest, S = South, W = West

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

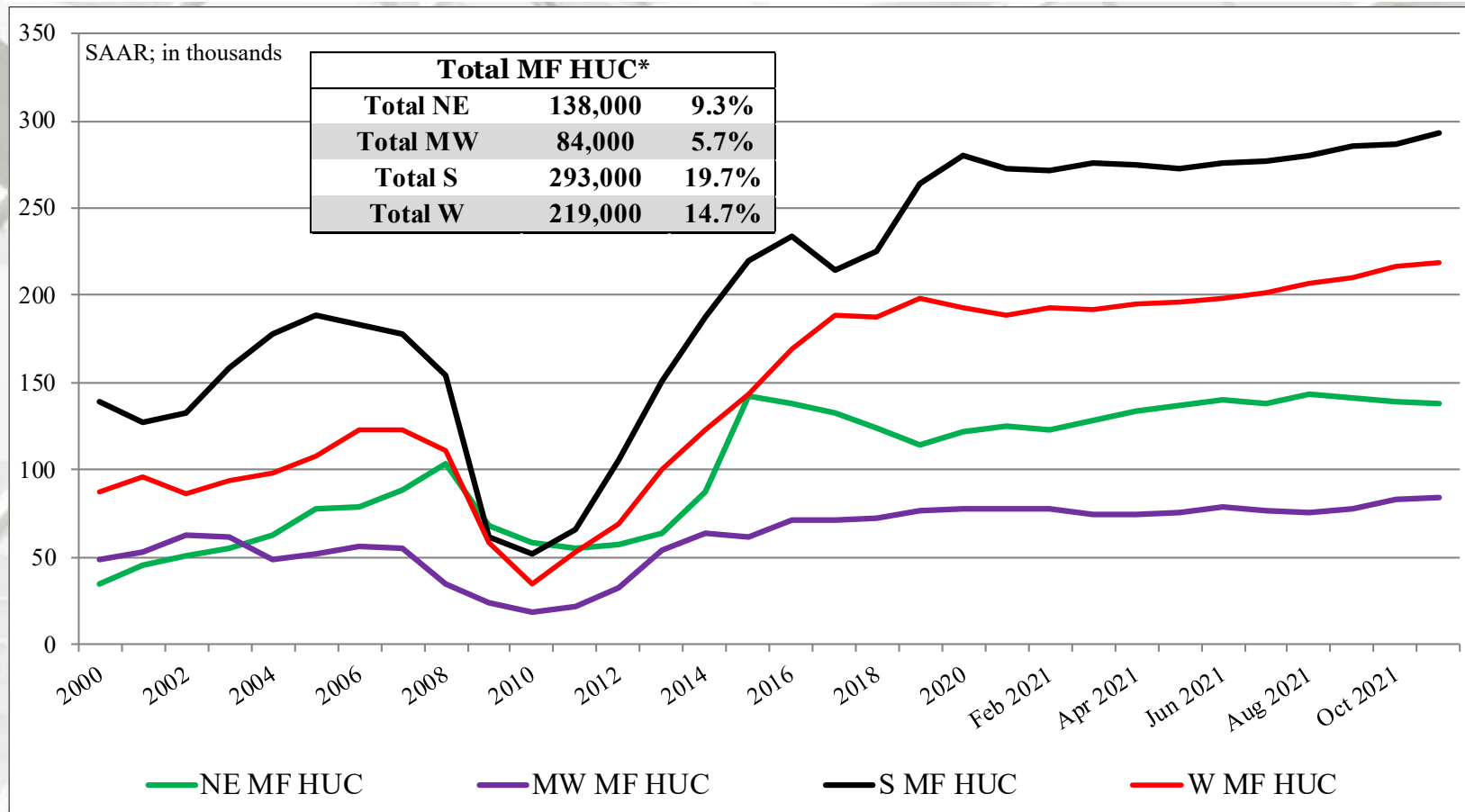


NE = Northeast, MW = Midwest, S = South, W = West.

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.

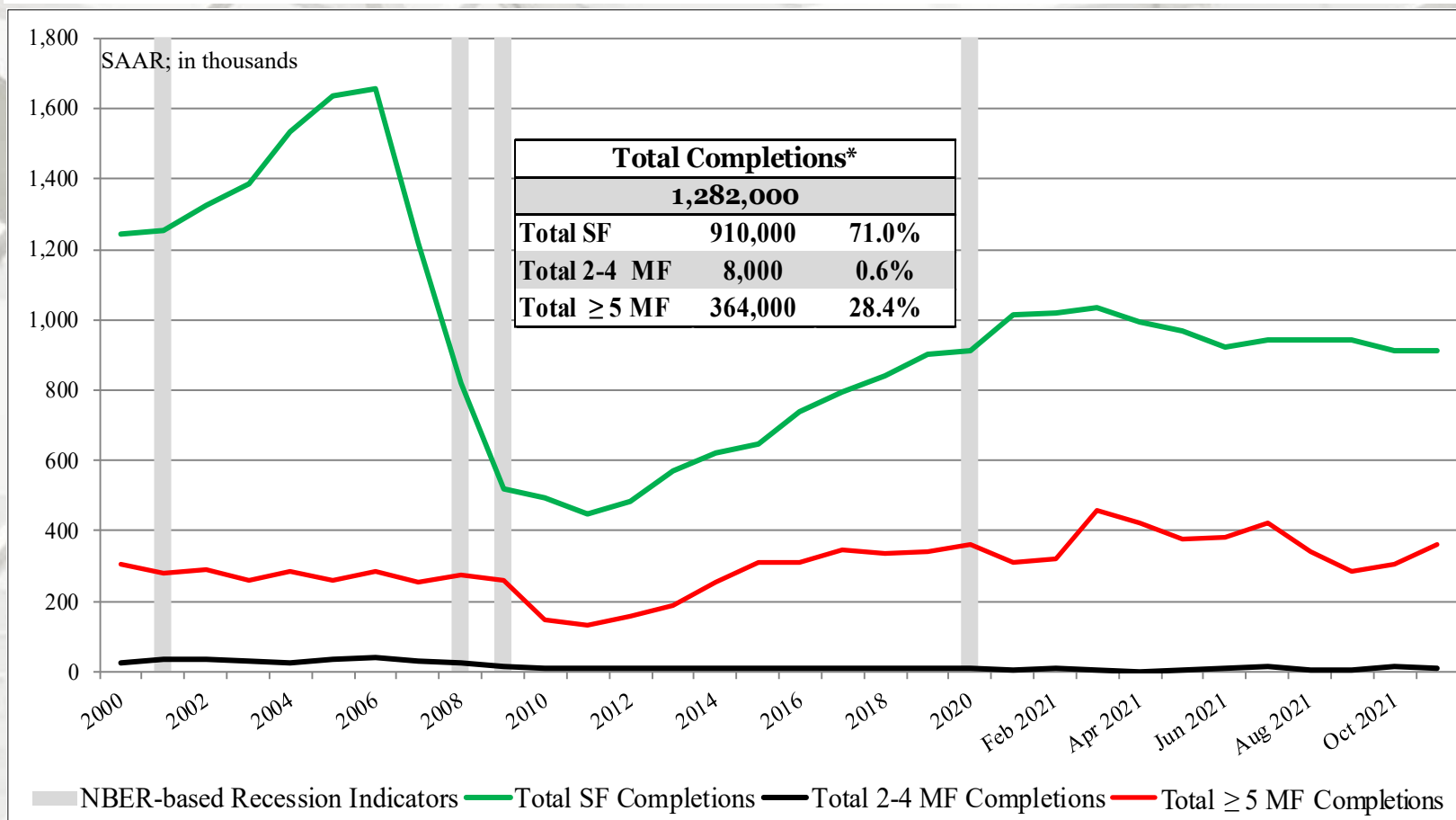
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
November	1,282,000	910,000	8,000	364,000
October	1,231,000	911,000	16,000	304,000
2020	1,244,000	913,000	11,000	320,000
M/M change	4.1%	-0.1%	-50.0%	19.7%
Y/Y change	3.1%	-0.3%	-27.3%	13.8%

* 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**
November	120,000	53,000	67,000
October	117,000	51,000	66,000
2020	110,000	54,000	56,000
M/M change	2.6%	3.9%	1.5%
Y/Y change	9.1%	-1.9%	19.6%
	MW Total	MW SF	MW MF
November	190,000	138,000	52,000
October	173,000	122,000	51,000
2020	168,000	142,000	26,000
M/M change	9.8%	13.1%	2.0%
Y/Y change	13.1%	-2.8%	100.0%

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

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

* Percentage of total housing completions

New Housing Completions by Region

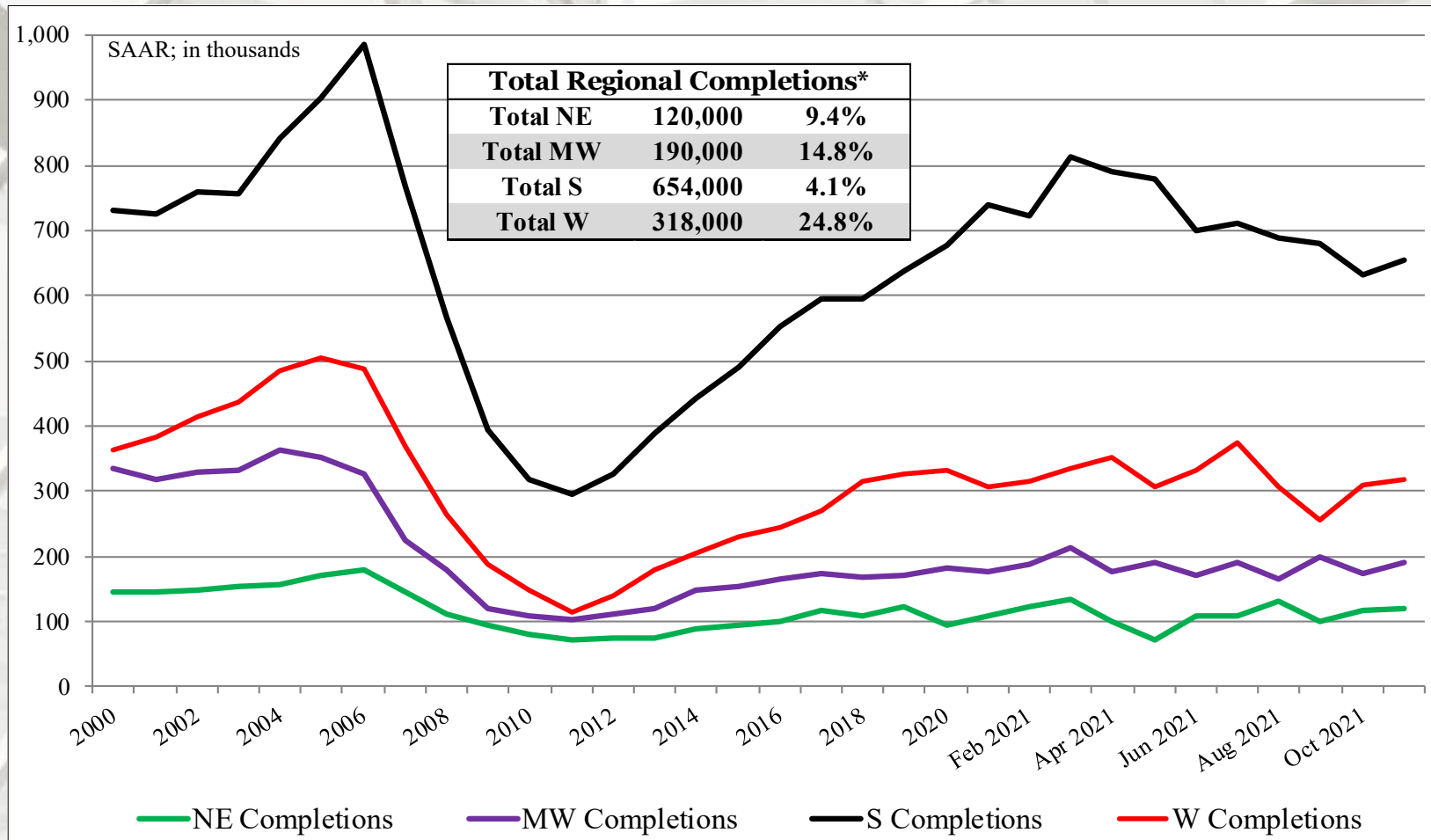
	S Total	S SF	S MF**
November	654,000	492,000	162,000
October	631,000	506,000	125,000
2020	641,000	495,000	146,000
M/M change	3.6%	-2.8%	29.6%
Y/Y change	2.0%	-0.6%	11.0%
	W Total	W SF	W MF
November	318,000	227,000	91,000
October	310,000	232,000	78,000
2020	325,000	222,000	103,000
M/M change	2.6%	-2.2%	16.7%
Y/Y change	-2.2%	2.3%	-11.7%

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

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

* Percentage of total housing completions

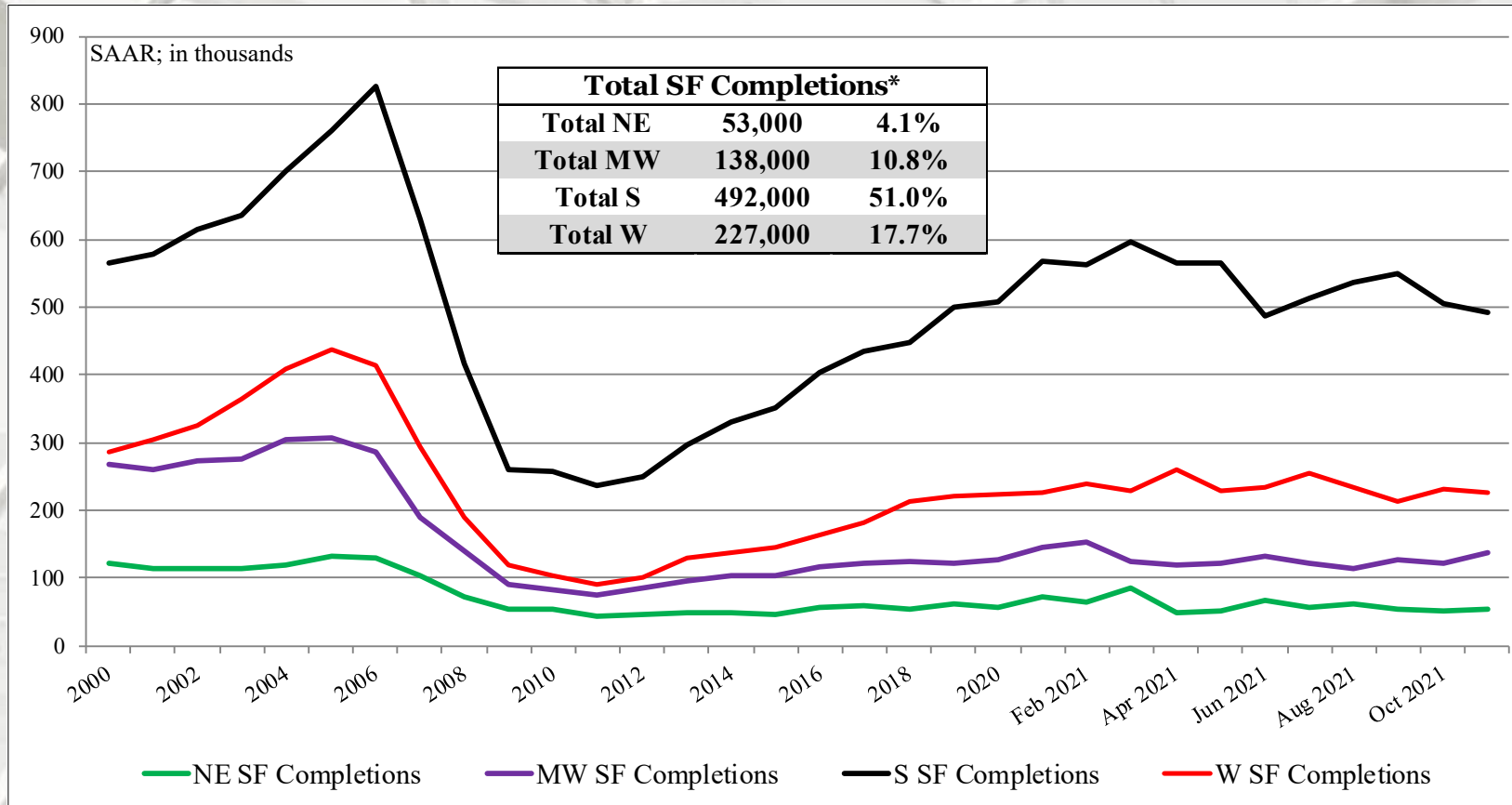
Total Housing Completions by Region



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

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

SF Housing Completions by Region

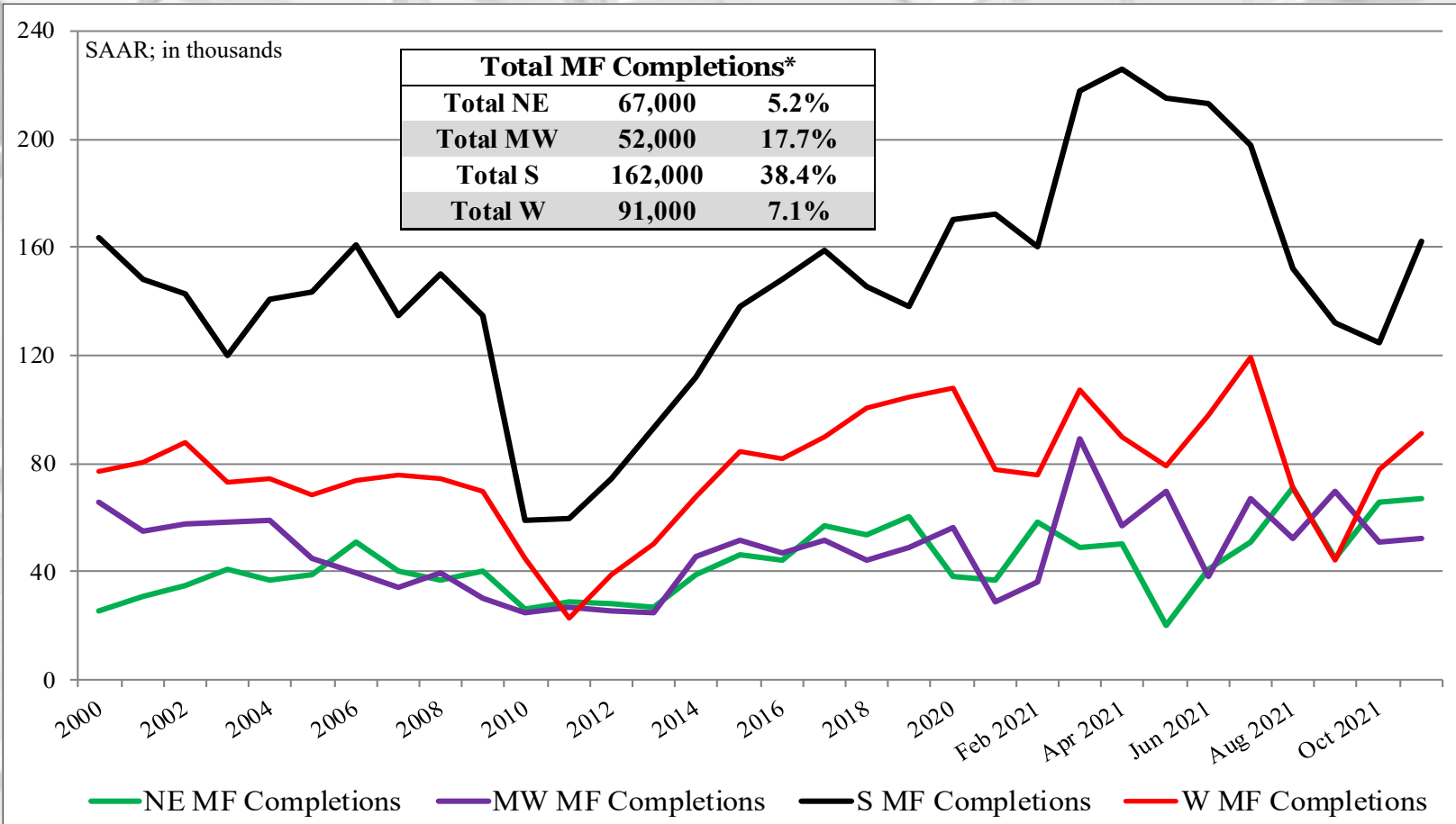


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

MF Housing Completions by Region

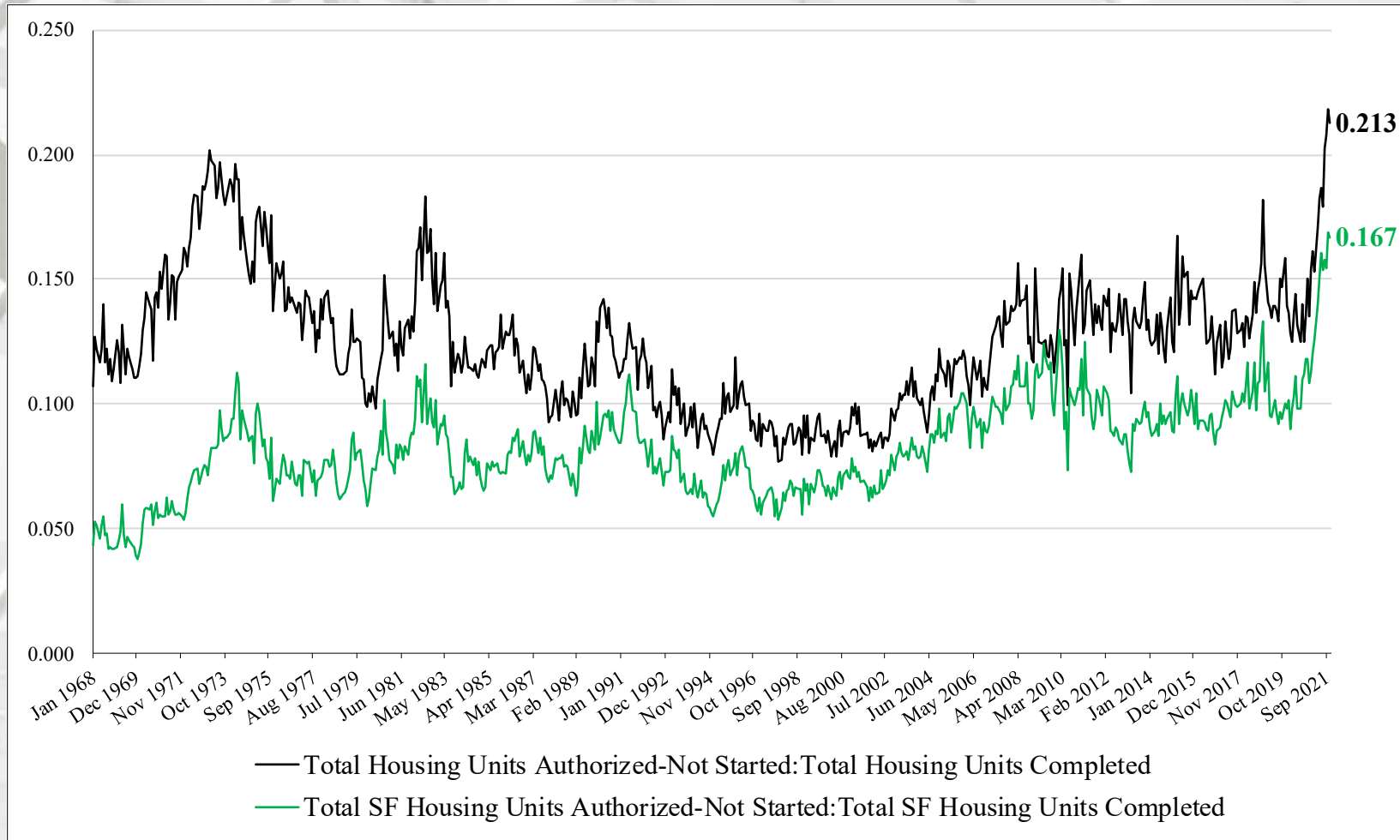


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total housing completions

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



Authorized, Not Started to Housing Completions

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

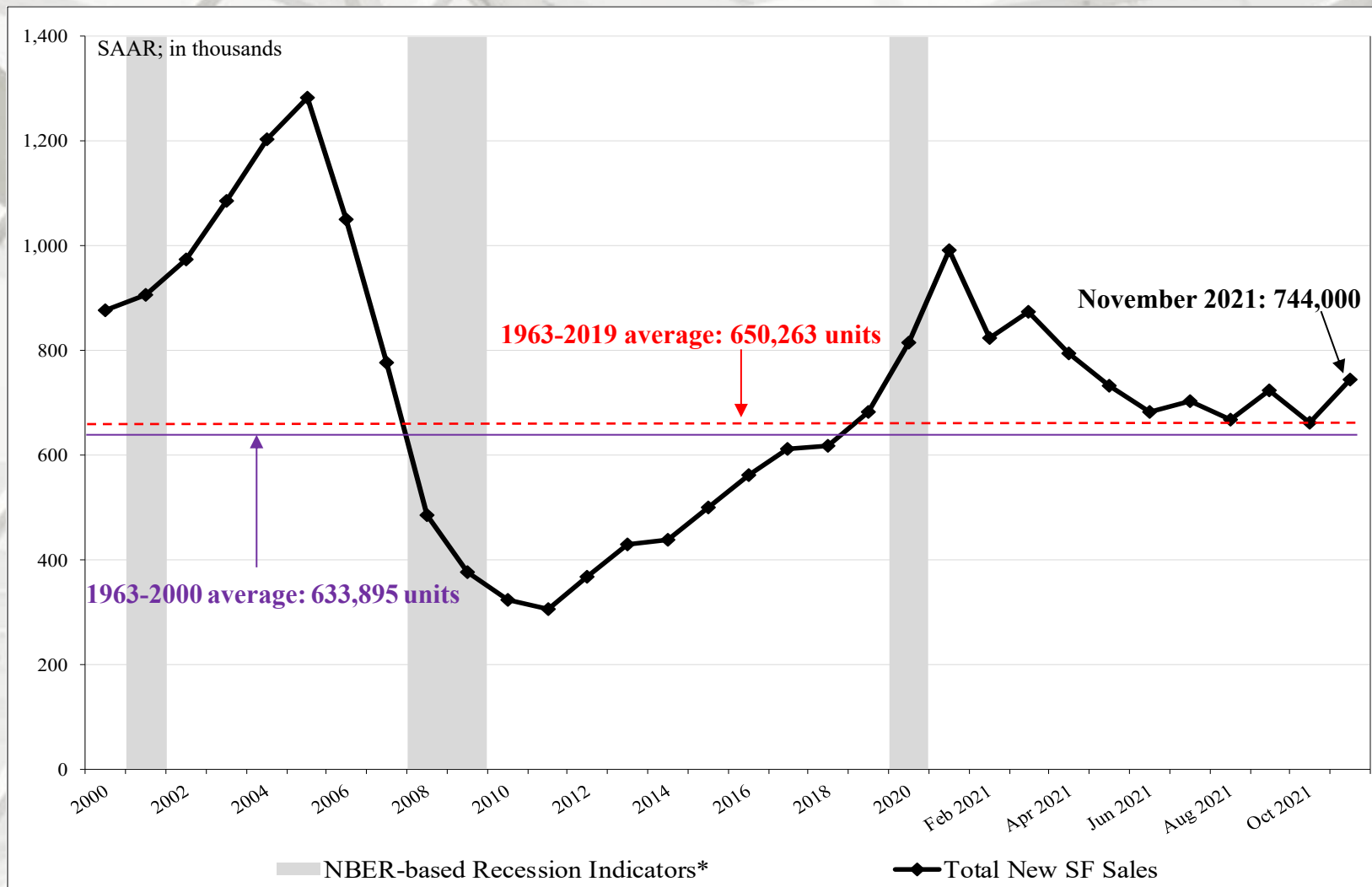
	New SF Sales*	Median Price	Mean Price	Month's Supply
November	744,000	\$416,900	\$481,700	6.5
October	662,000	\$408,700	\$478,200	7.1
2020	865,000	\$350,800	\$396,100	4.0
M/M change	12.4%	2.0%	0.7%	-8.5%
Y/Y change	-14.0%	18.8%	21.6%	62.5%

* 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 770 m (range: 740 m to 785 m). The past three month's new SF sales data also were revised:

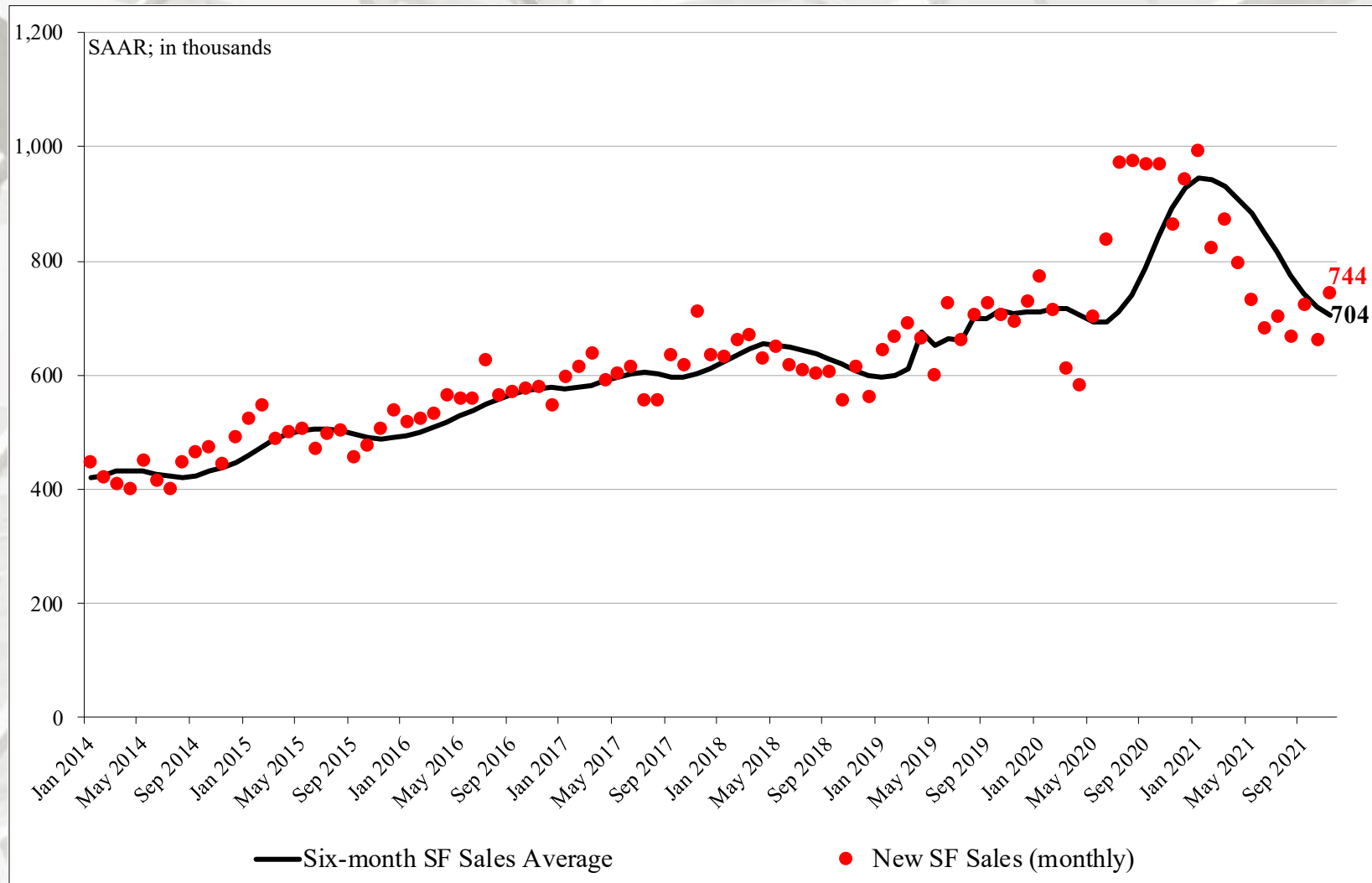
August initial:	740 m, revised to 668 m.
September initial:	800 m, revised to 723 m.
October initial:	745 m, revised to 662 m.

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			
November	37,000	53,000	412,000	242,000			
October	32,000	71,000	401,000	158,000			
2020	34,000	96,000	523,000	212,000			
M/M change	15.6%	-25.4%	2.7%	53.2%			
Y/Y change	8.8%	-44.8%	-21.2%	14.2%			
	\$150 - ≤ \$150m	\$200 - \$199.9m	\$300 - \$299.9m	\$400 - \$399.9m	\$500 - \$499.9m	\$750 - \$749.9m	≥ \$750m
November ^{1,2,3,4}	1,000	1,000	7,000	17,000	12,000	12,000	6,000
October	1,000	1,000	9,000	13,000	12,000	11,000	5,000
2020	1,000	3,000	17,000	20,000	10,000	9,000	3,000
M/M change	0.0%	0.0%	-7.7%	25.0%	8.3%	8.3%	20.0%
Y/Y change	0.0%	-75.0%	-45.5%	-37.5%	18.2%	30.0%	20.0%
New SF sales: %	1.9%	1.9%	13.2%	32.1%	22.6%	22.6%	11.3%

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 November not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

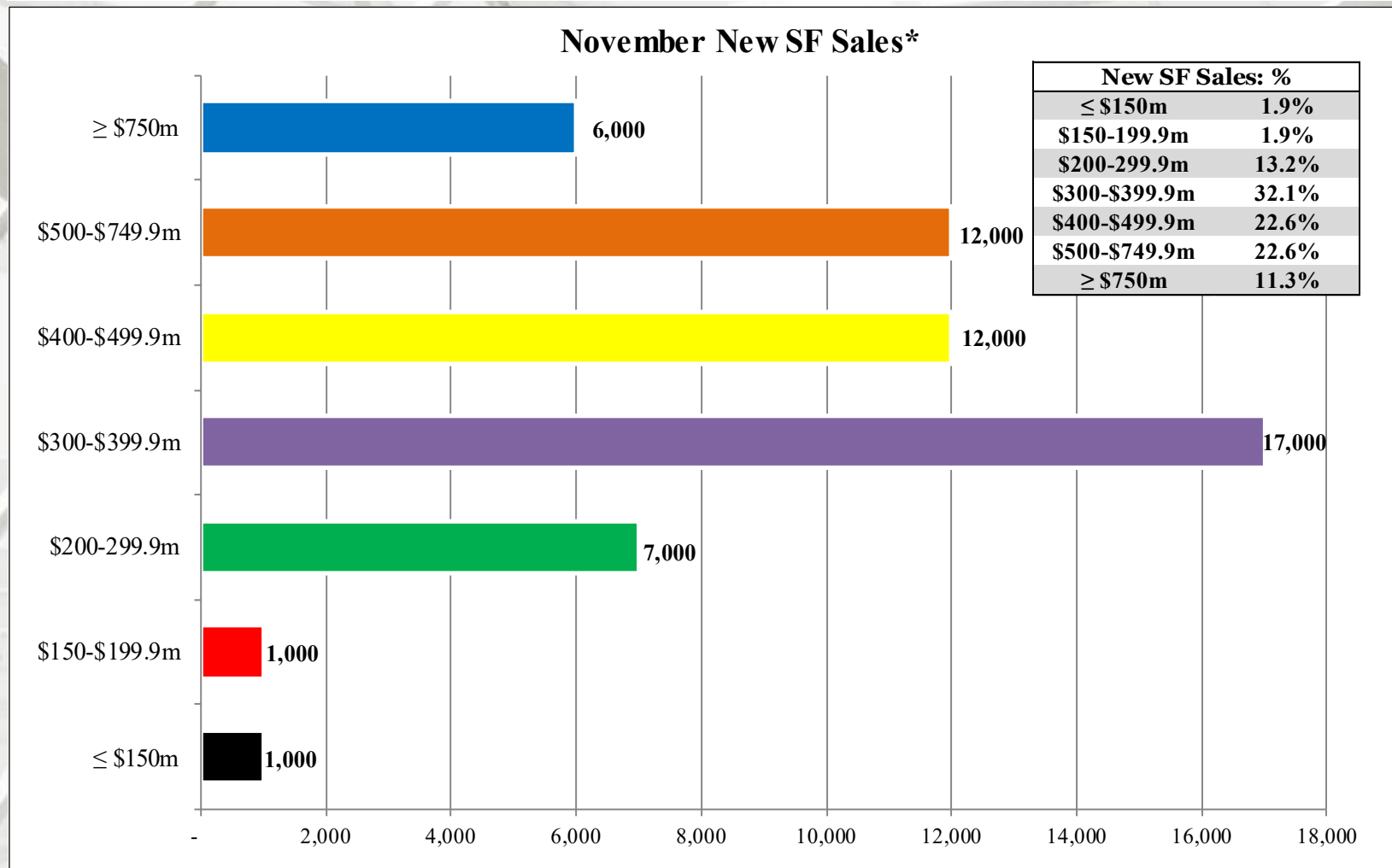
⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 12/23/21;

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

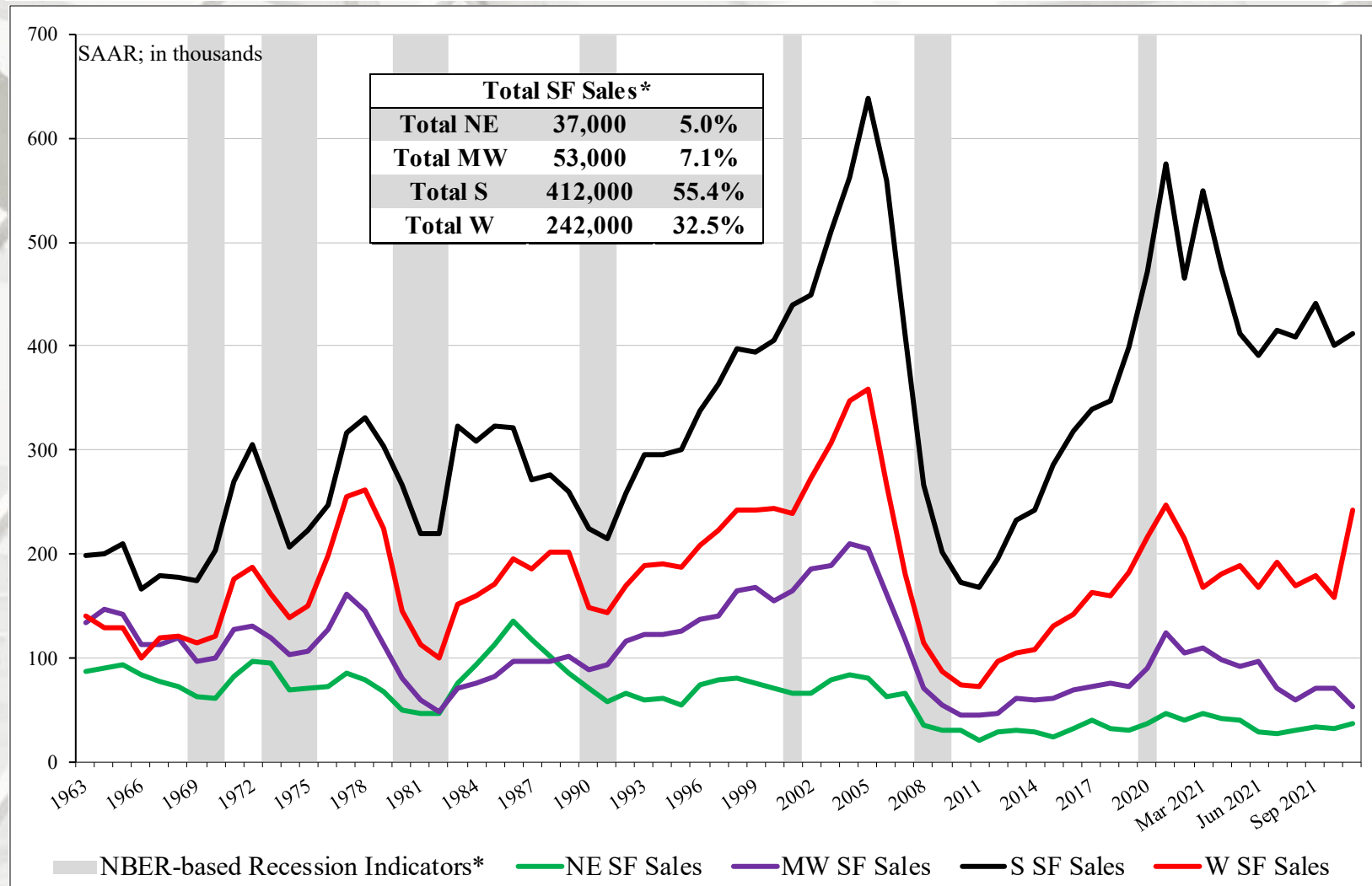
[Return TOC](#)

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

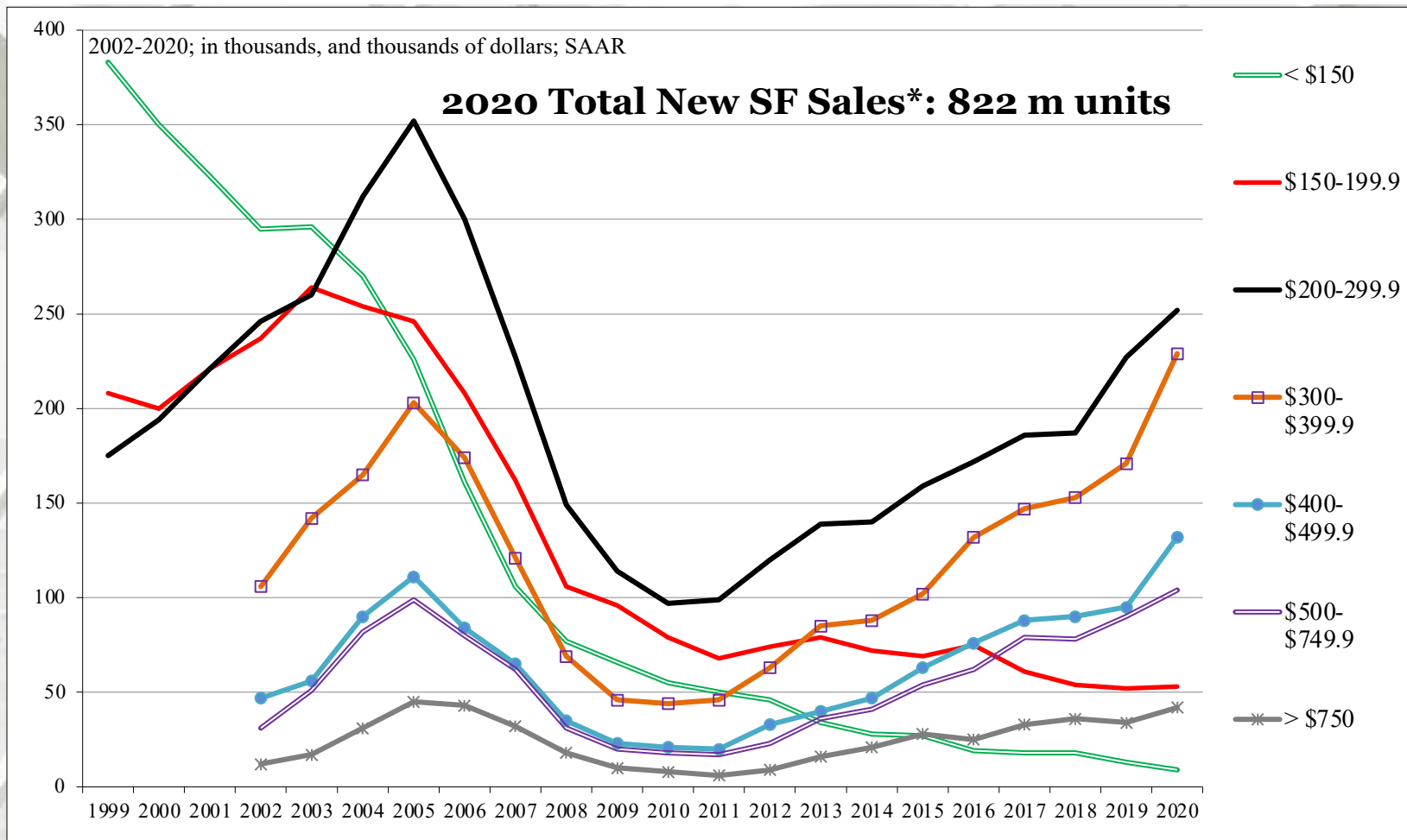


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of total new sales.

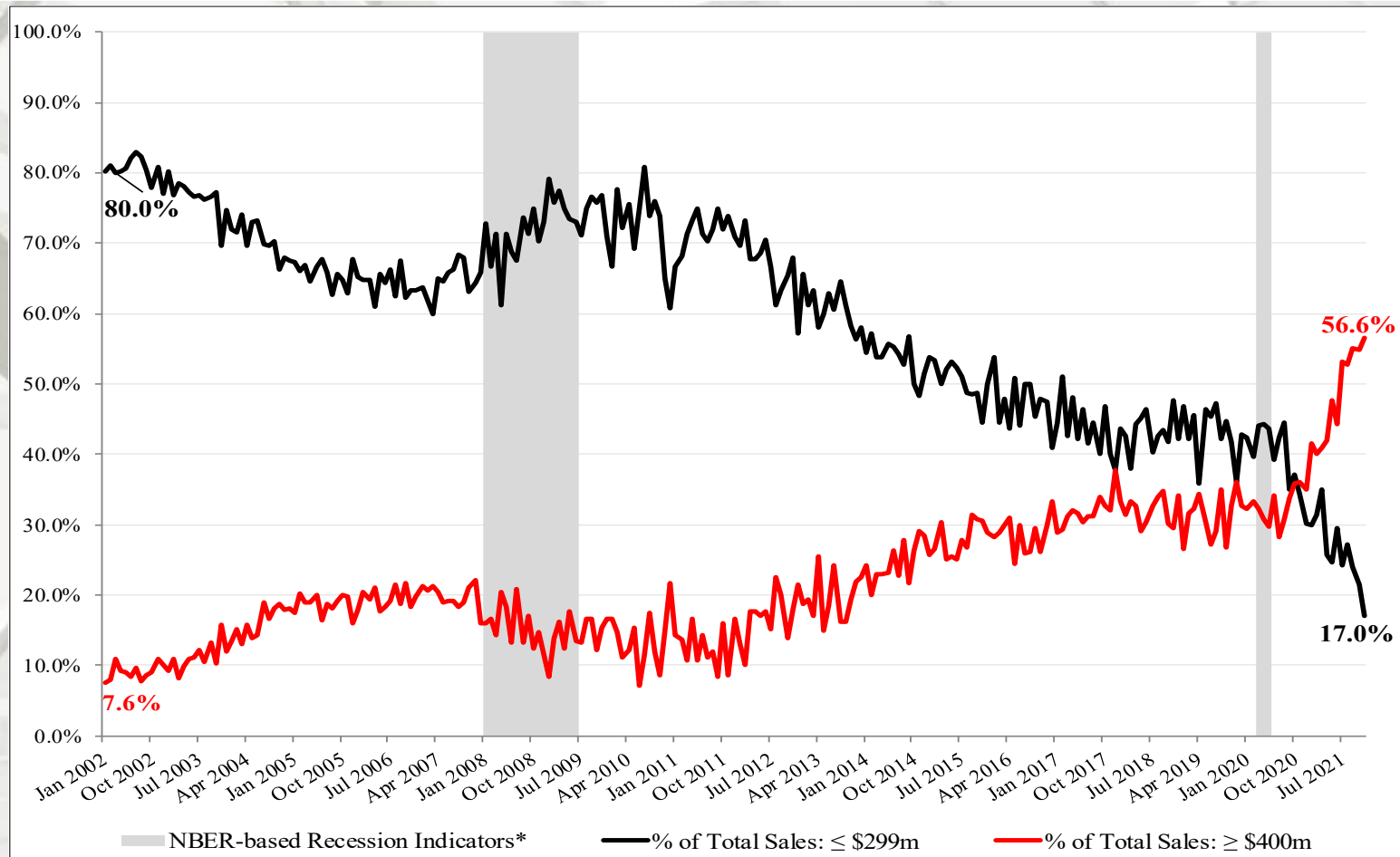
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



* Sales tallied by price category, nominal dollars.

New SF House Sales

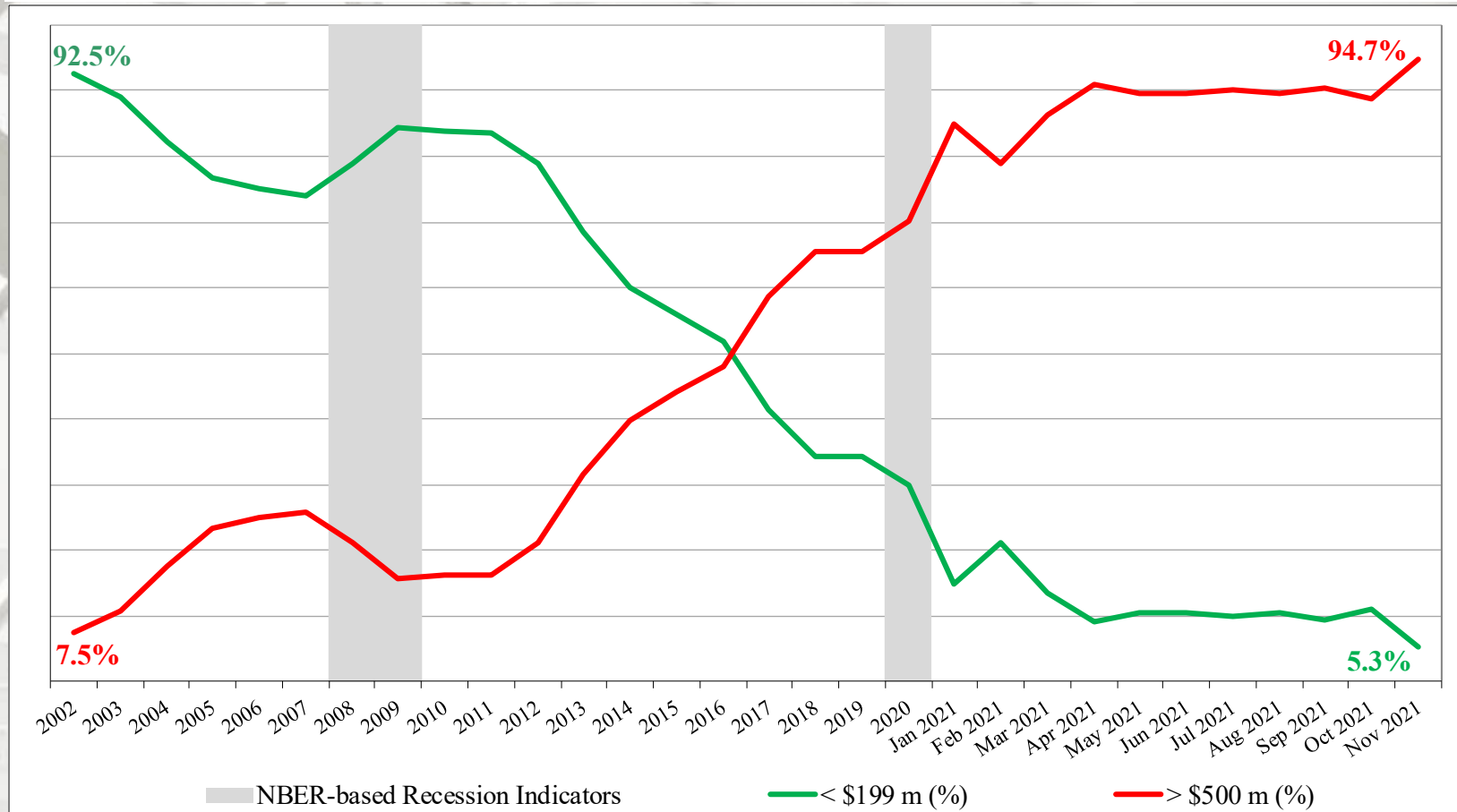


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

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

New SF House Sales



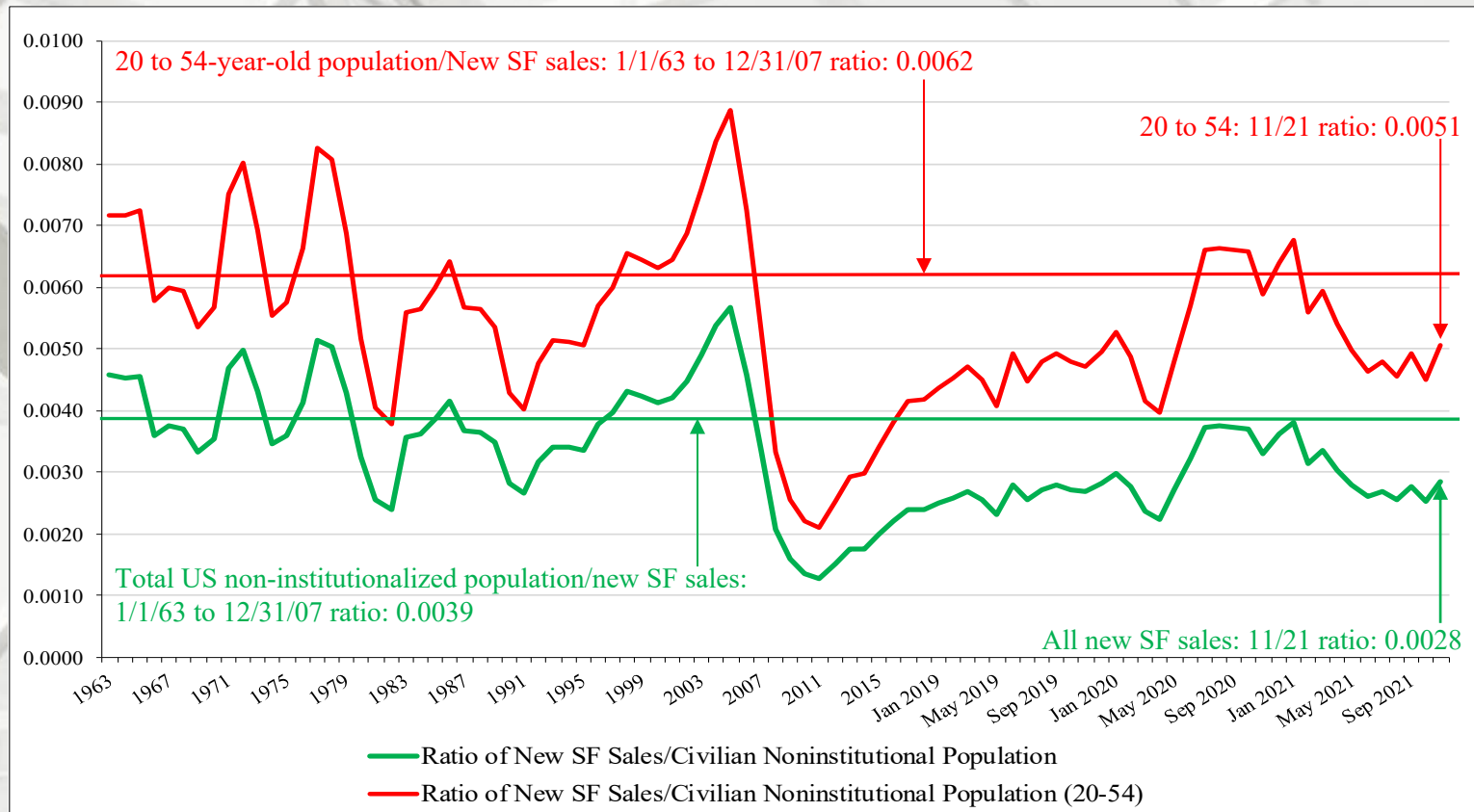
New SF Sales: $\leq \$200m$ and $\geq \$500m$: 2002 to November 2021

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

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

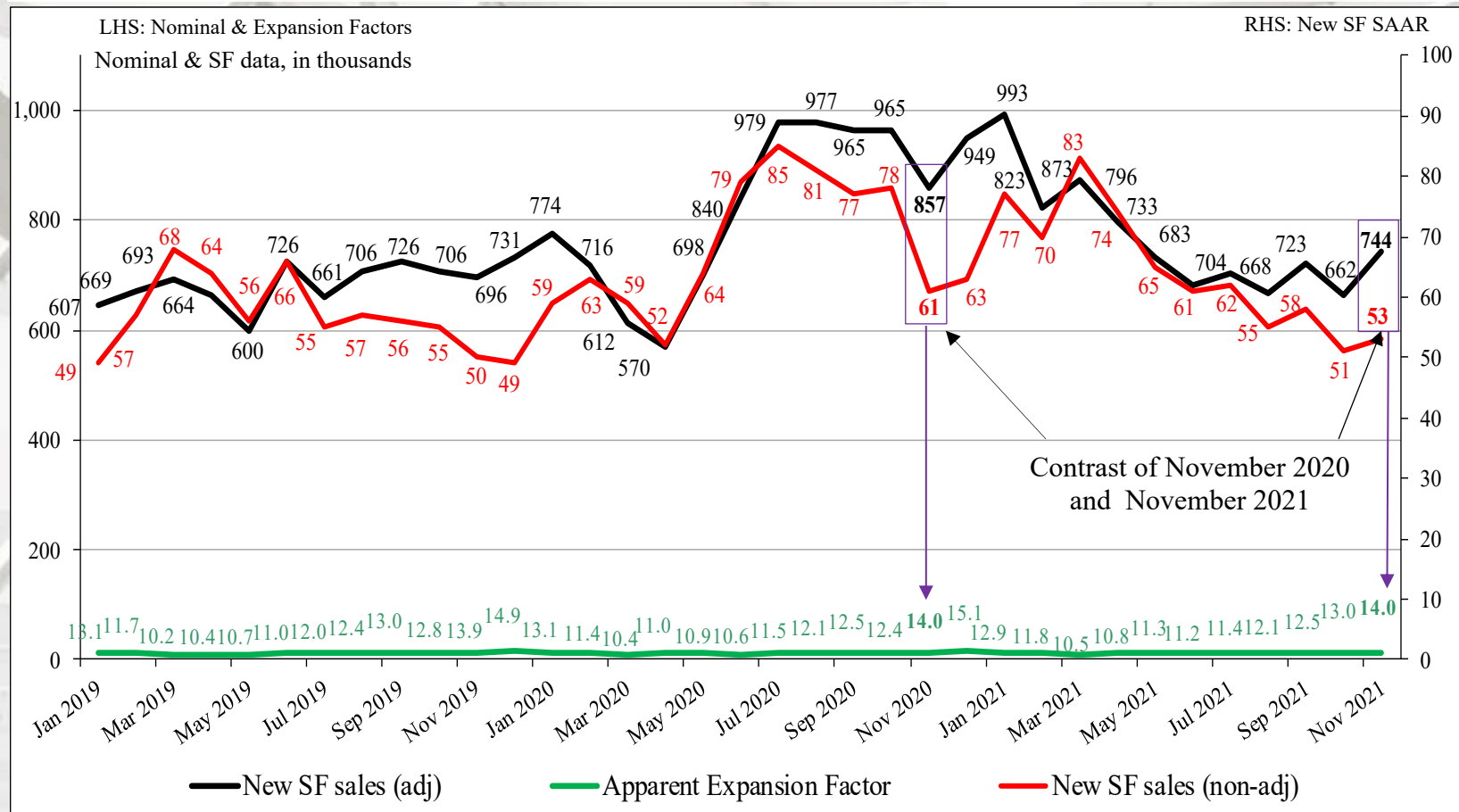


New SF sales adjusted for the US population

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 November 2021 it was 0.0028 – an increase from October (0.0025). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0048; in November 2021 it was 0.0051 – also an increase from October (0.0045). 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

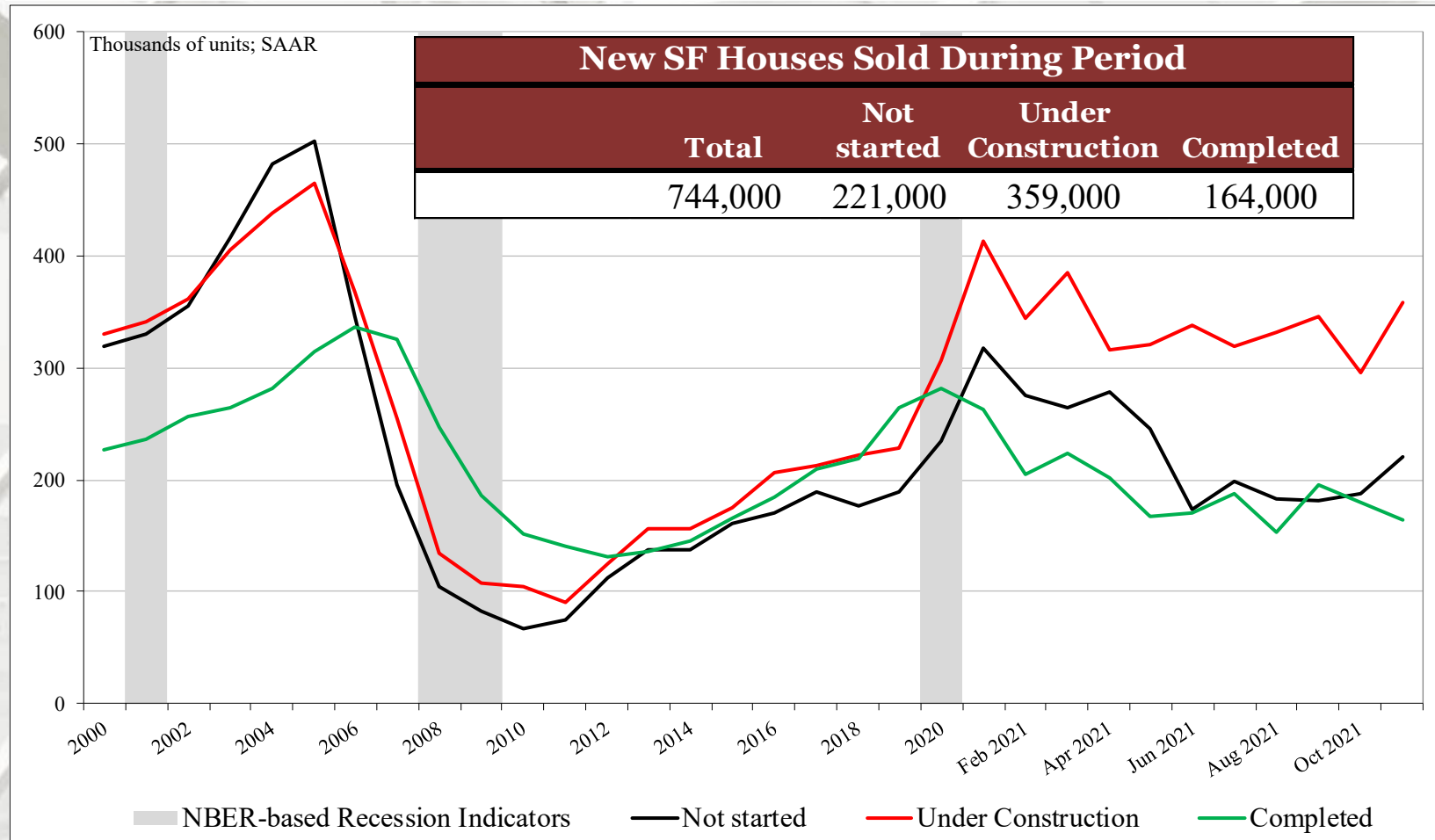
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
November	744,000	221,000	359,000	164,000
October	662,000	187,000	295,000	180,000
2020	865,000	292,000	353,000	220,000
M/M change	12.4%	18.2%	21.7%	-8.9%
Y/Y change	-14.0%	-24.3%	1.7%	-25.5%
Total percentage		29.7%	48.3%	22.0%

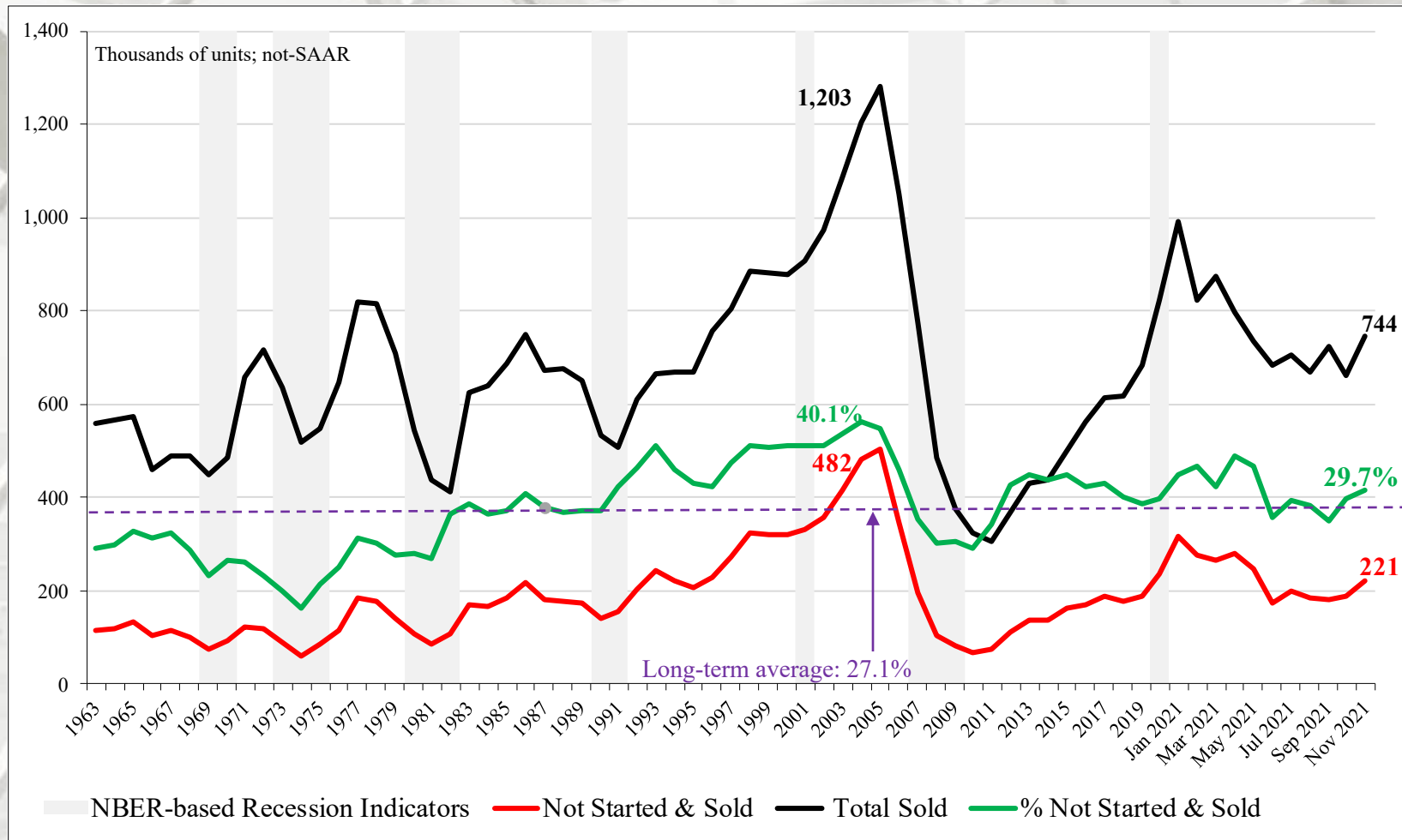
SAAR

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 November (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).

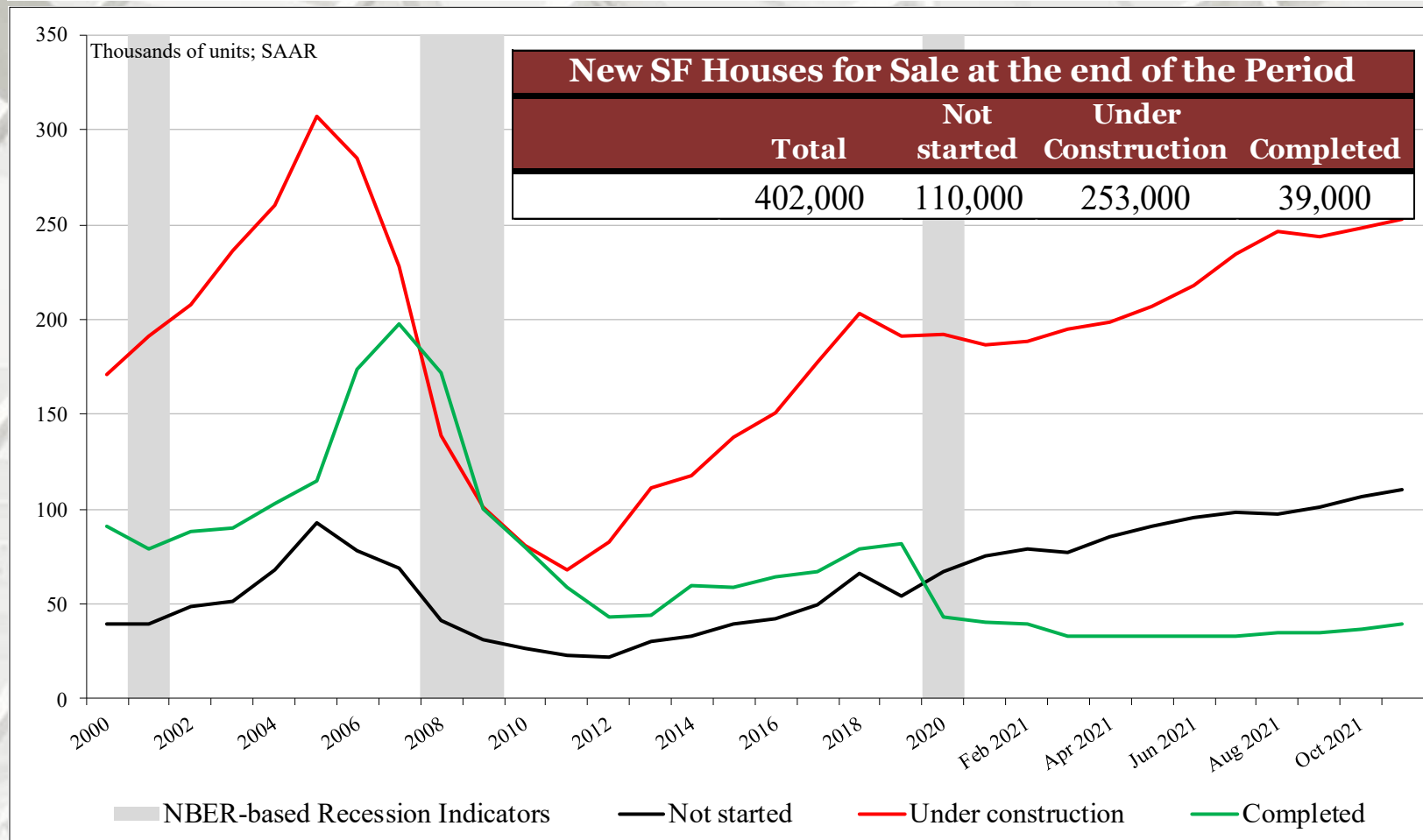
New SF Houses for Sale at End of Period

New SF Houses for Sale at the end of the Period				
	Total	Not started	Under Construction	Completed
November	402,000	110,000	253,000	39,000
October	392,000	107,000	248,000	37,000
2020	290,000	65,000	183,000	42,000
M/M change	2.6%	2.8%	2.0%	5.4%
Y/Y change	38.6%	69.2%	38.3%	-7.1%
Total percentage		27.4%	62.9%	9.7%

Not SAAR

Of houses listed for sale (402m) in November, 9.7% (39m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 110m (27.4%) 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).

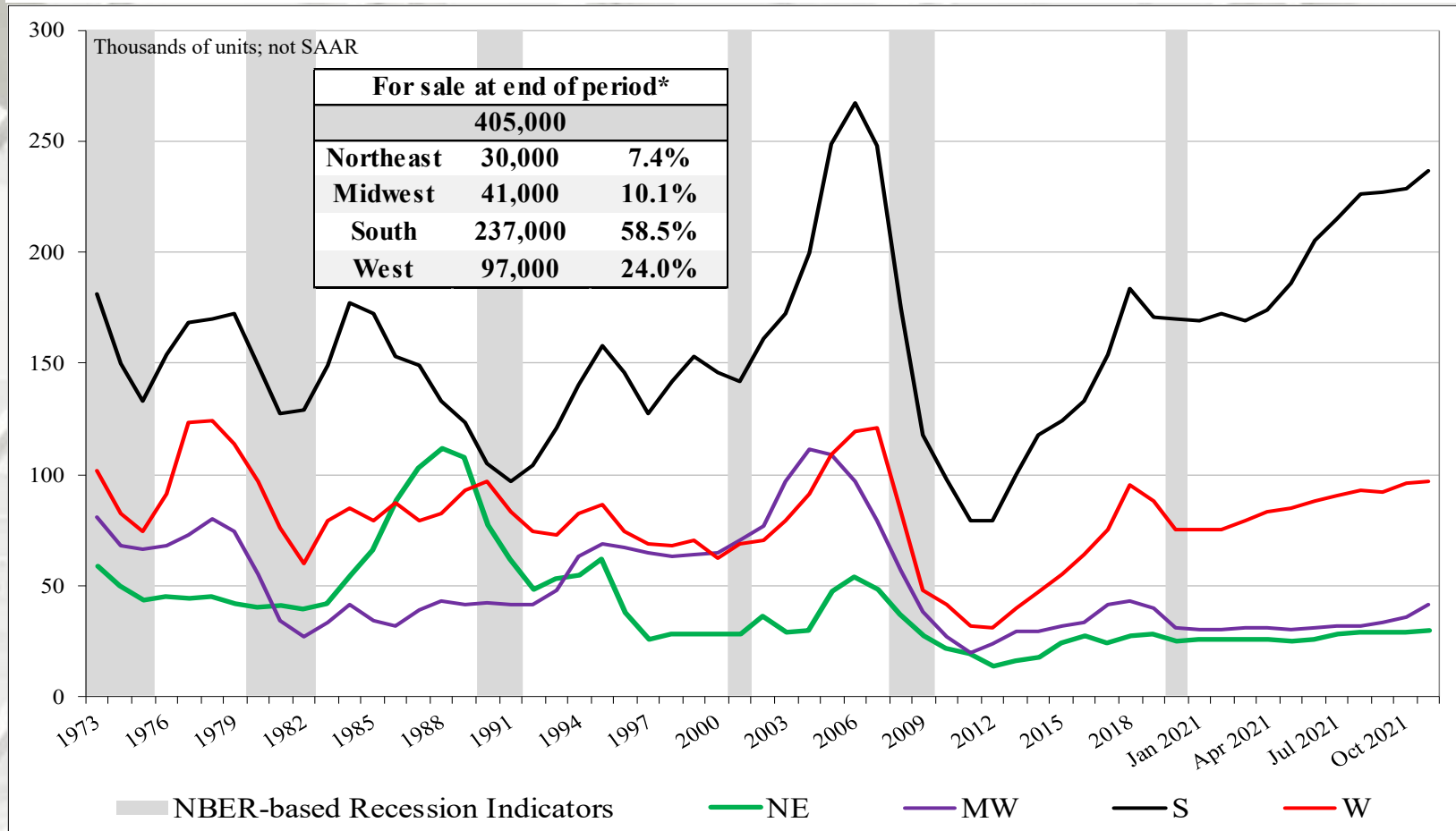
New SF House Sales

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

	Total	NE	MW	S	W
November	405,000	30,000	41,000	237,000	97,000
October	391,000	29,000	36,000	229,000	96,000
2020	290,000	23,000	32,000	163,000	72,000
M/M change	3.6%	3.4%	13.9%	3.5%	1.0%
Y/Y change	39.7%	30.4%	28.1%	45.4%	34.7%

* Not SAAR

New SF Houses for Sale at End of Period by Region

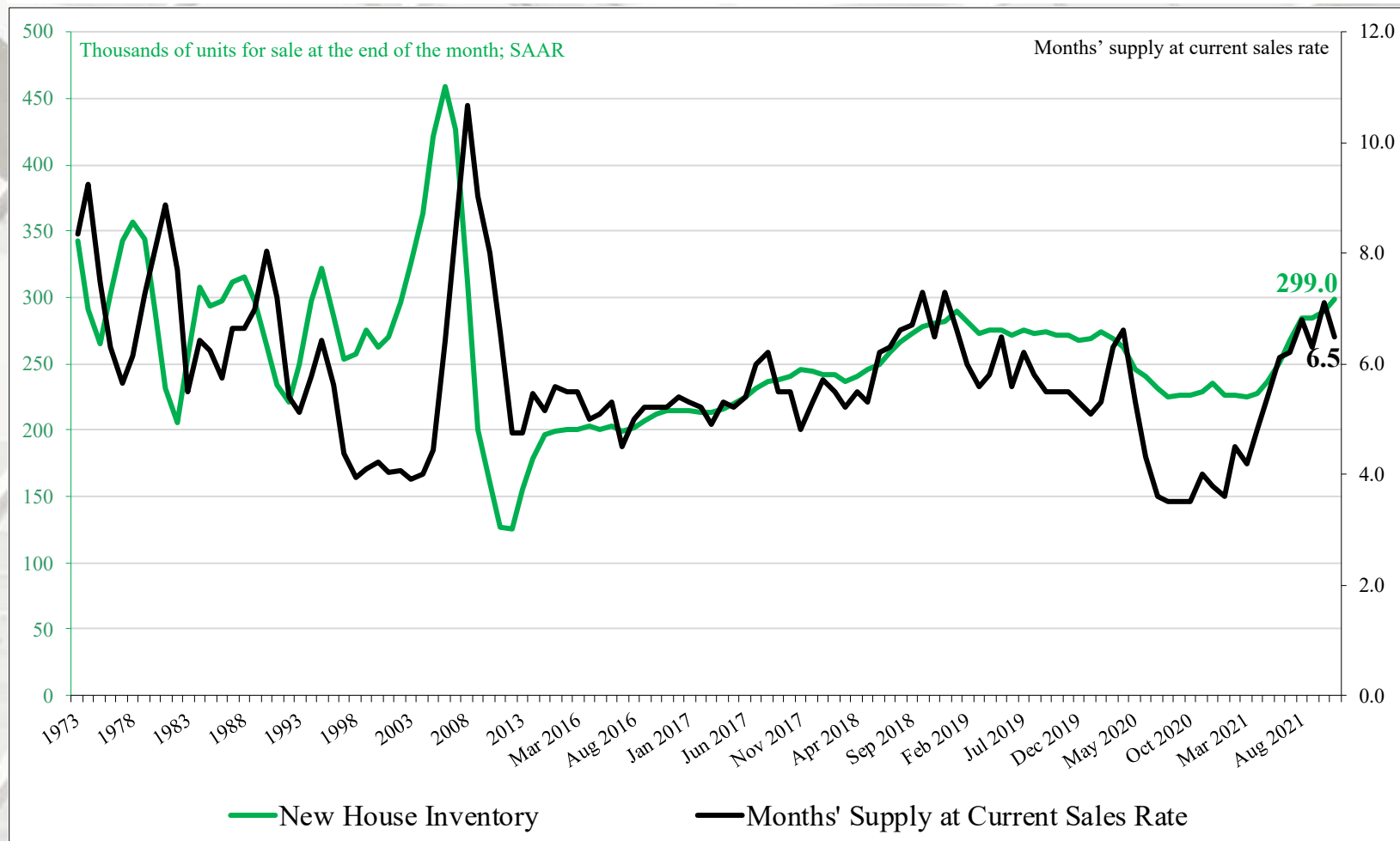


NE = Northeast; MW = Midwest; S = South; W = West

* 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 6.5 at the end of November (SAAR).

November 2021

Construction Spending

	Total Private Residential*	SF	MF	Improvement**
November	\$796,308	\$421,048	\$99,999	\$275,261
October	\$789,144	\$416,001	\$100,340	\$272,803
2020	\$684,497	\$352,676	\$91,228	\$240,593
M/M change	0.9%	1.2%	-0.3%	0.9%
Y/Y change	16.3%	19.4%	9.6%	14.4%

* 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\$.

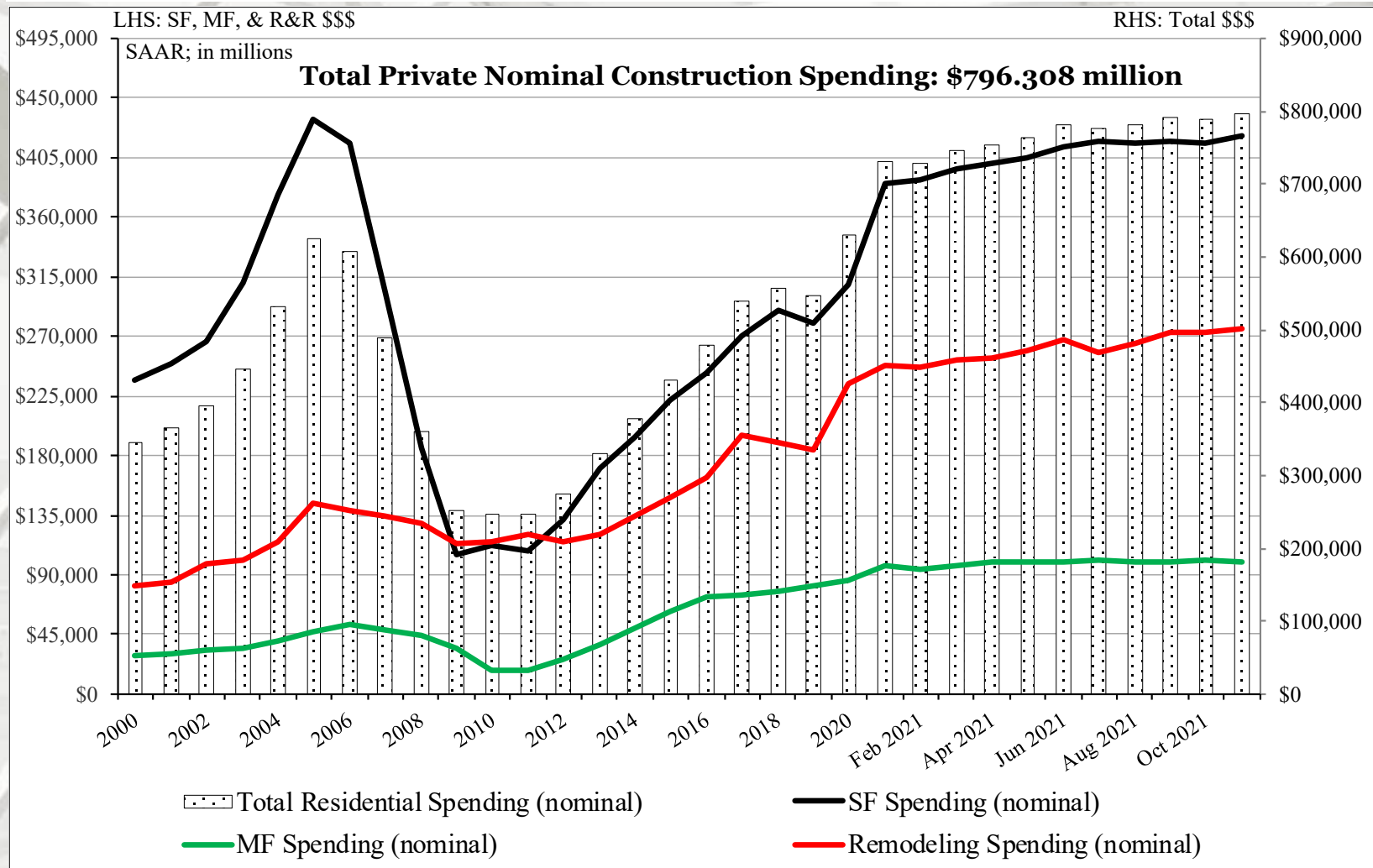
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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.

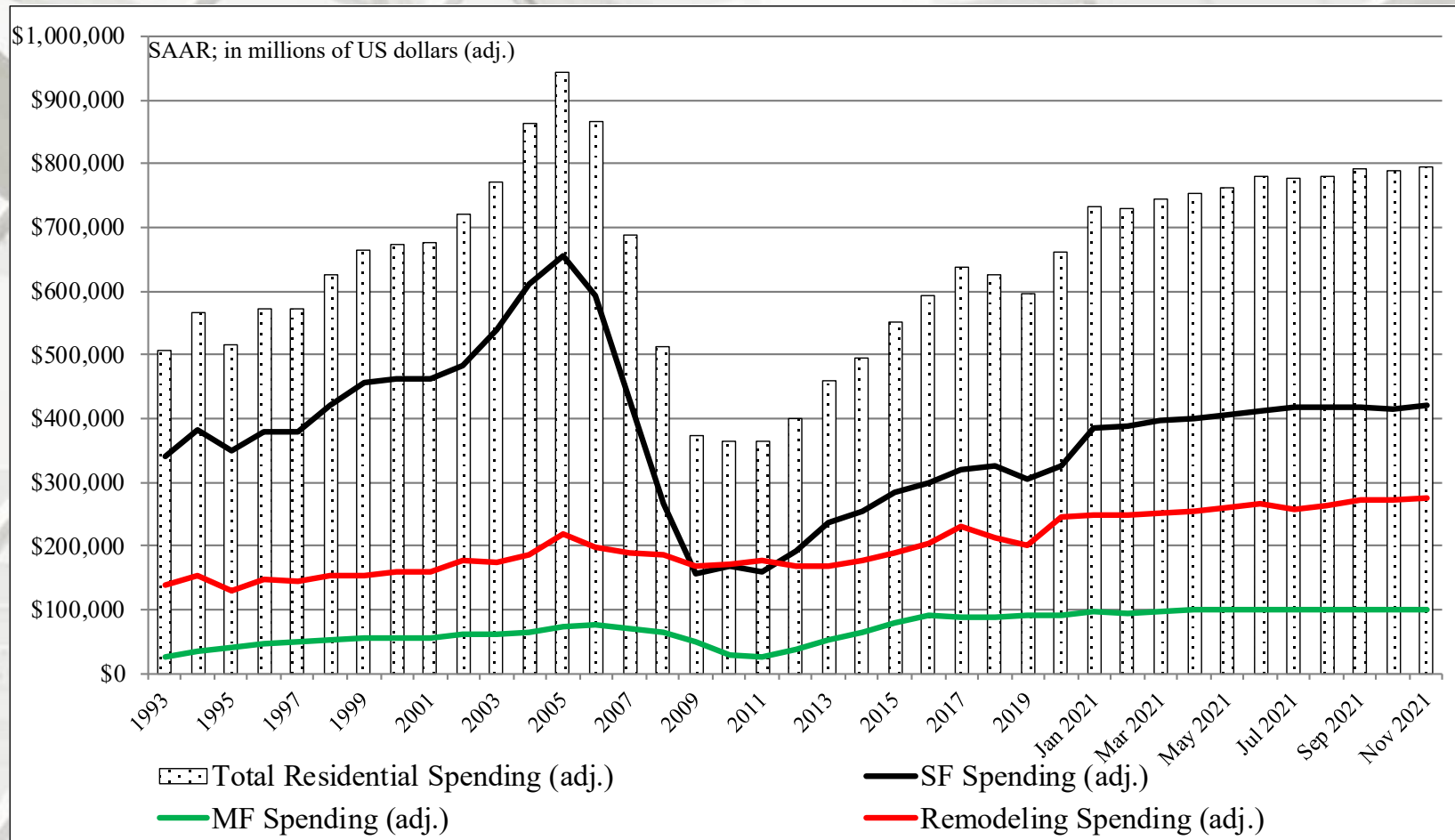
Total Construction Spending (nominal): 2000 – November 2021



Reported in nominal US\$.

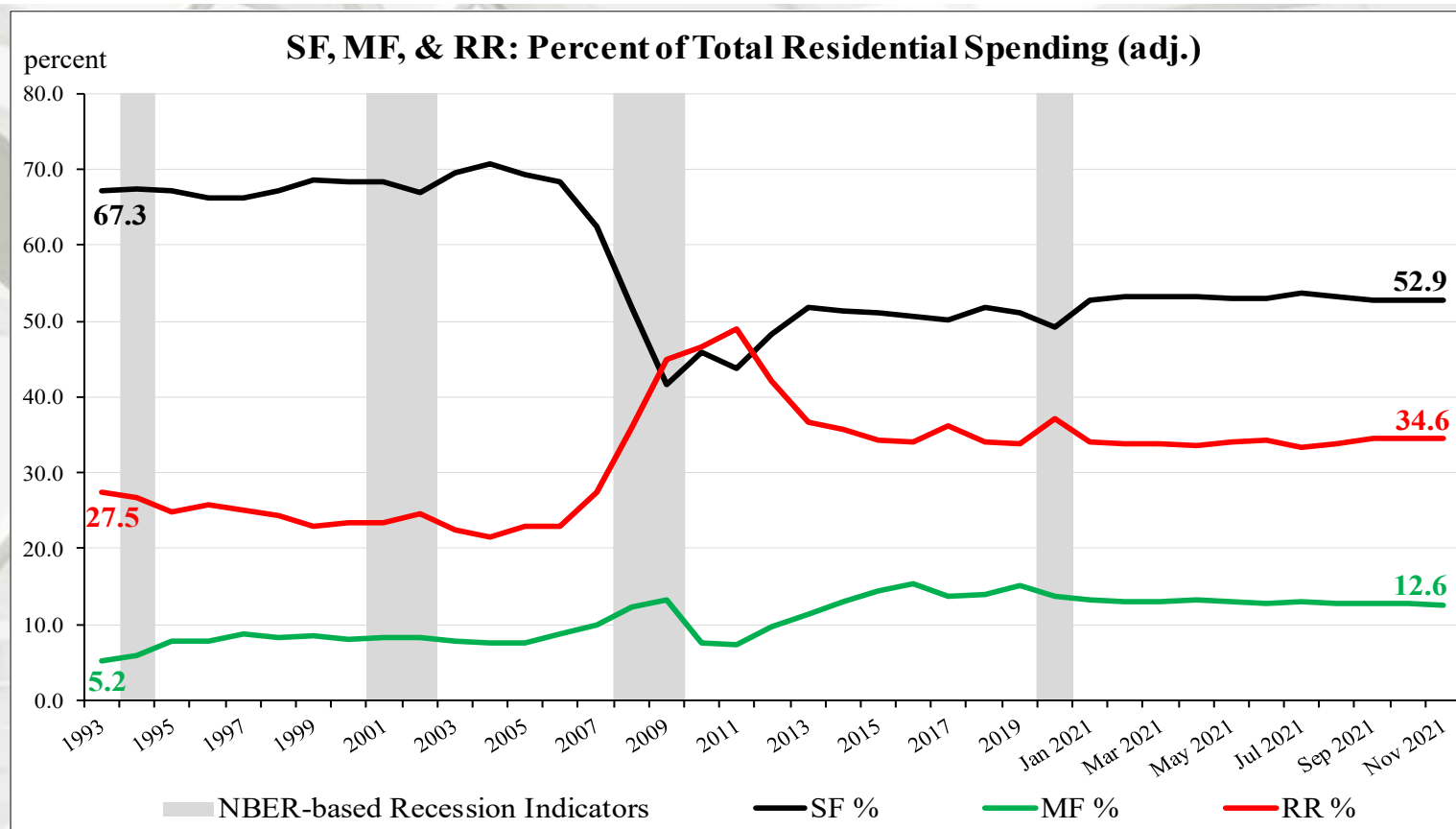
The US DOC does not report improvement spending directly, this is a monthly estimation for 2021.

Total Construction Spending (adjusted): 1993 – November 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 – November 2021



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

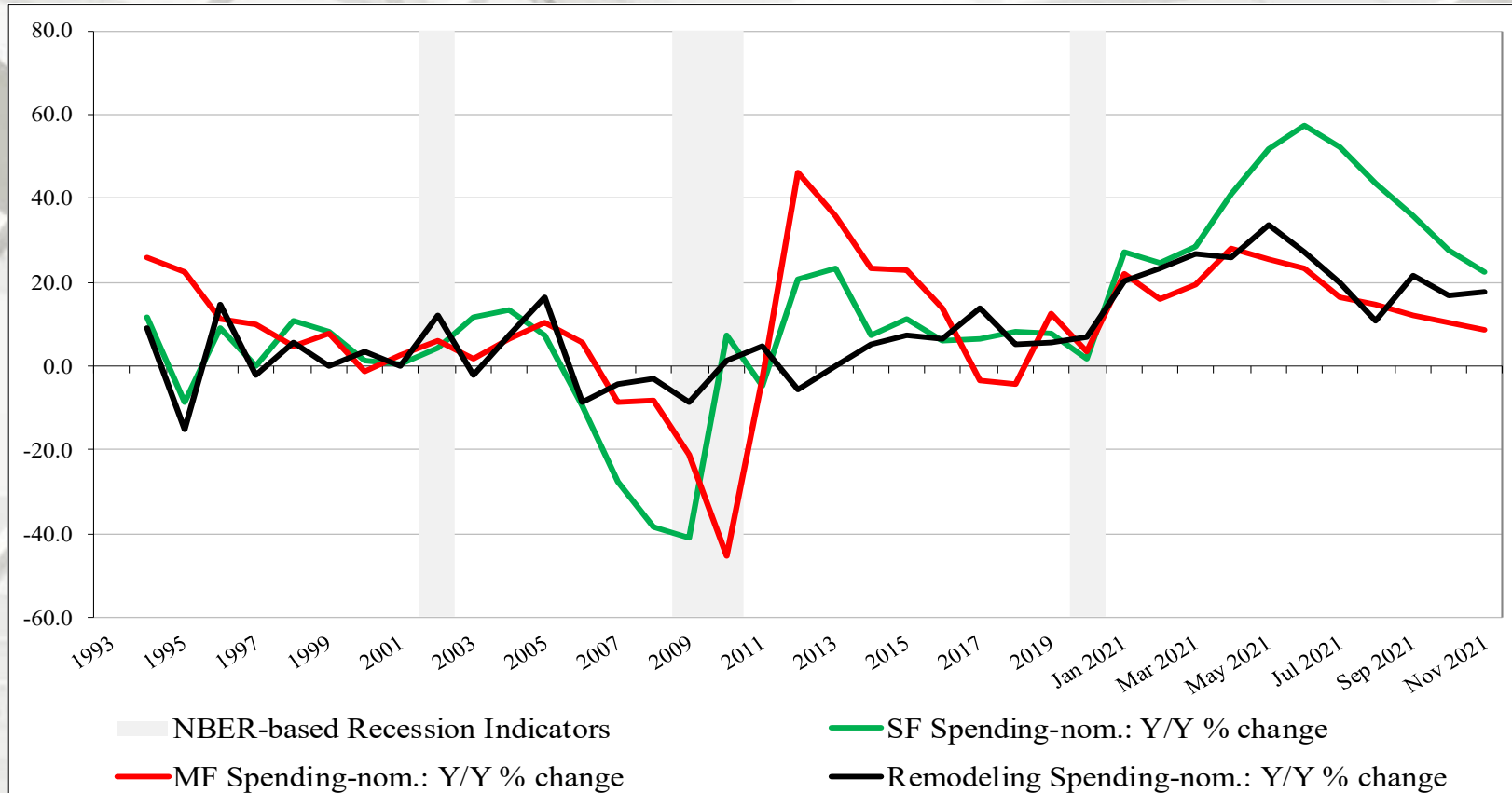
MF spending average: 7.5%

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

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

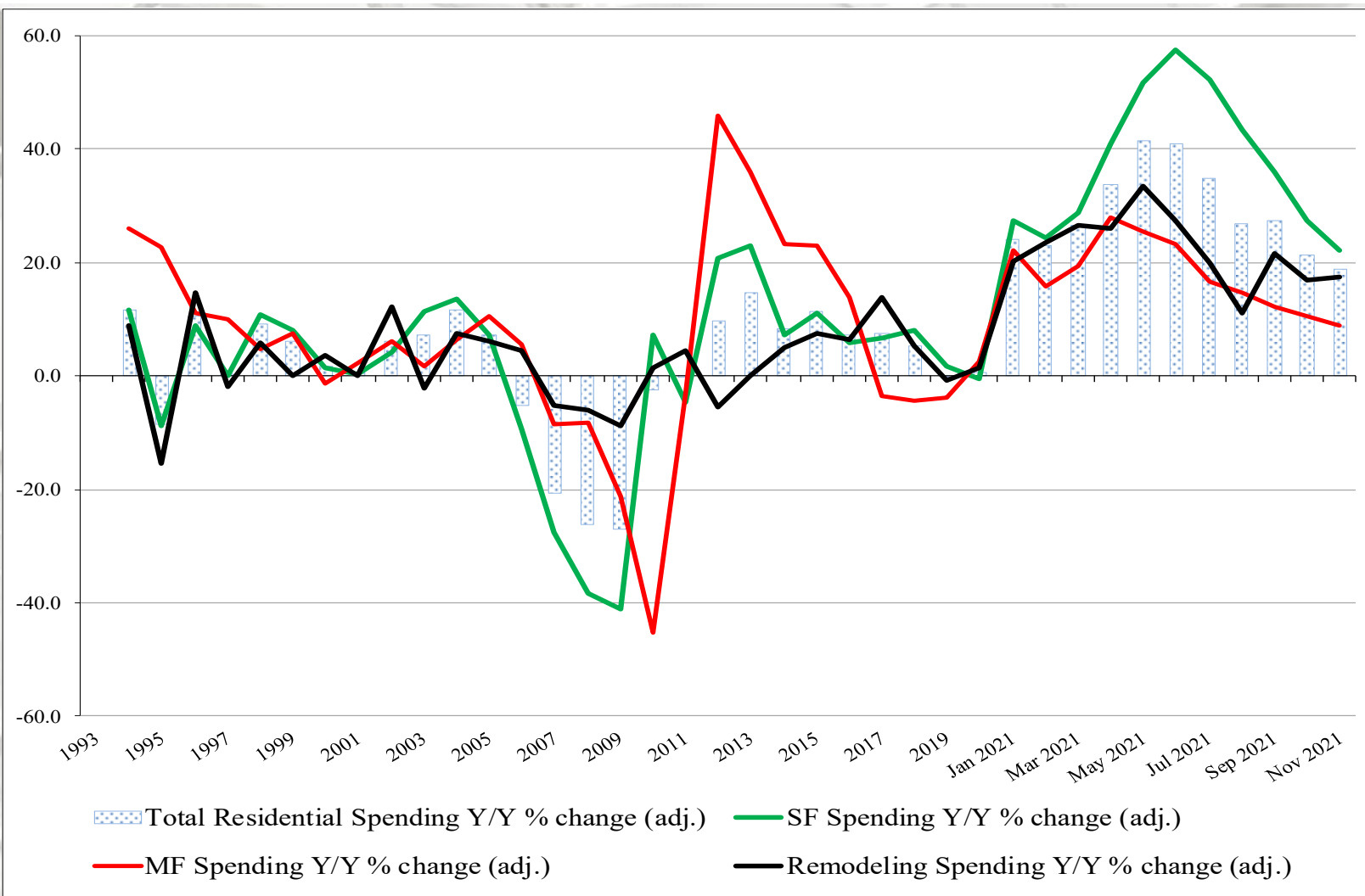


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to December 2021

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

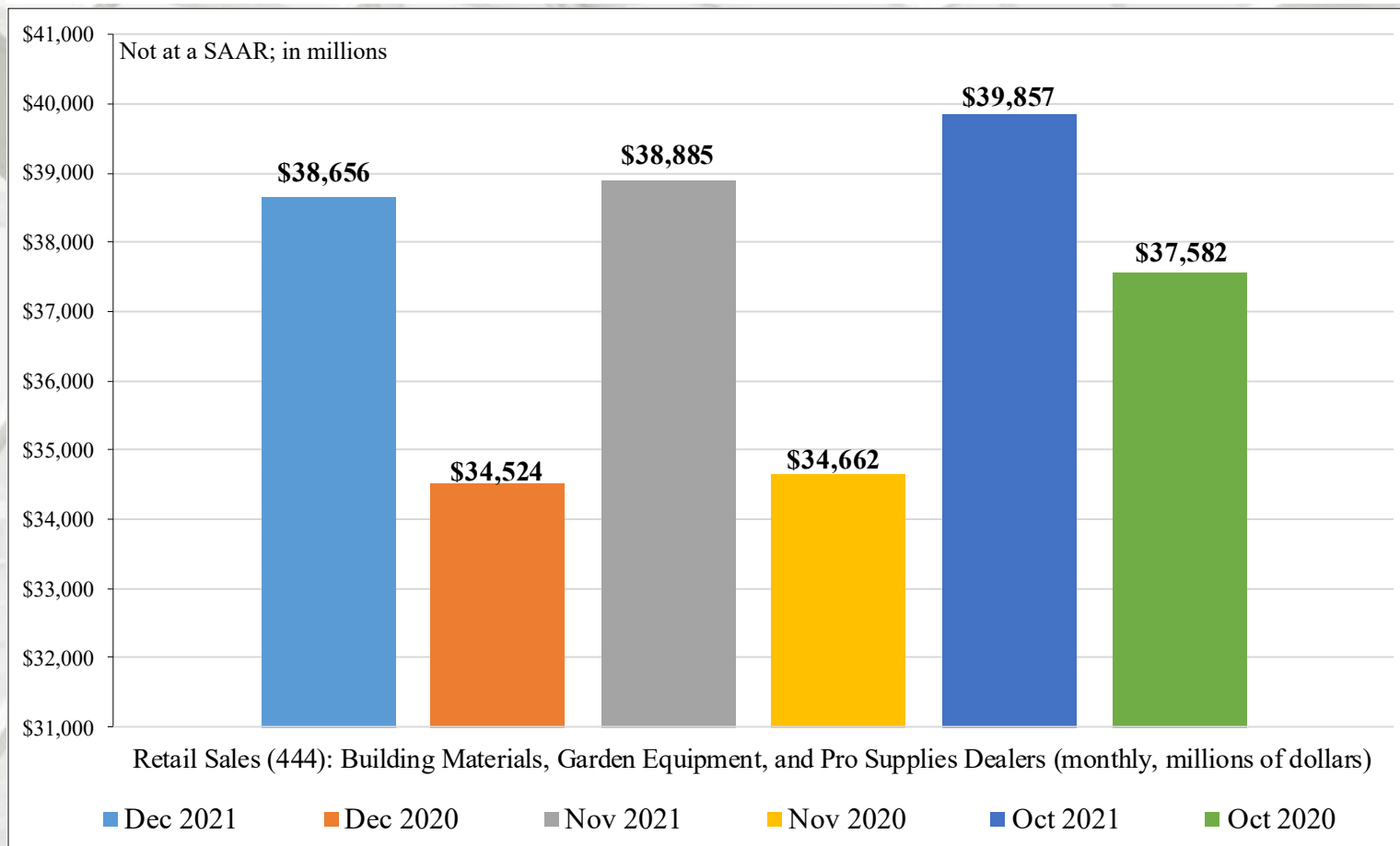
* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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



Remodeling

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

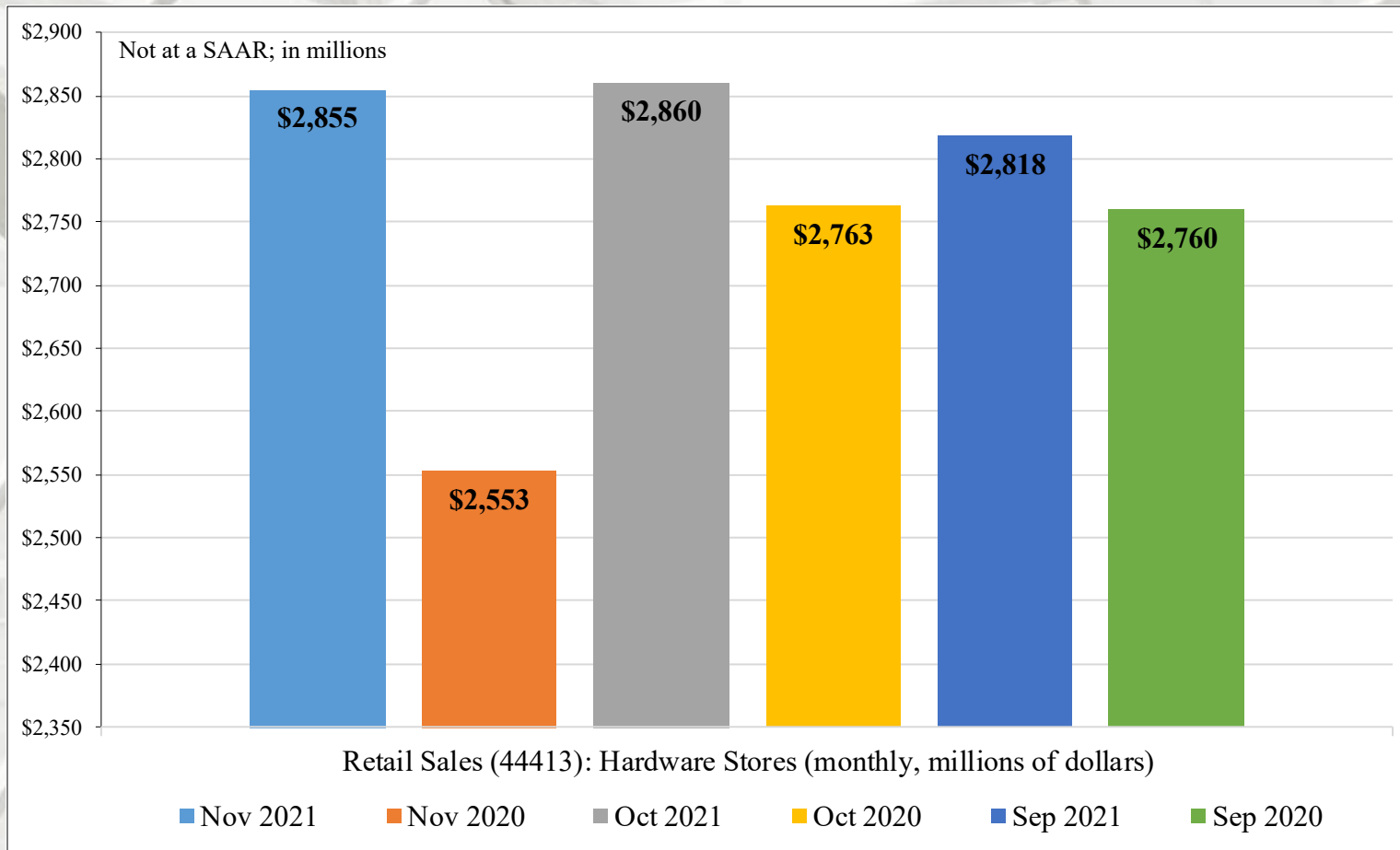


Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

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

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

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

Remodeling

Qualified Remodeler

U.S. Remodeler Index Expands for the Fourth Consecutive Quarter

Remodelers said they will grow 10 percent in 2021, on average.

“Remodeler sentiment in the U.S. continued to expand in the third quarter of this year, according to the U.S. Remodeler Index. The index, which surveys residential remodelers in all segments nationwide, suggests that the market will have grown 10 percent for all of 2021.

The U.S. Remodeler Index is a diffusion index created by John Burns Real Estate Consulting and Qualified Remodeler magazine. In the third quarter of 2021 the overall reading was 71.4 on a scale where any reading over 50 is seen as a positive indicator for market health.

“I remember when forecasters were wondering if remodel spending was just ‘COVID pull forward’,” said Todd Tomalak, a principal with John Burns Real Estate Consulting in Irvine, California. “Based on this Q3 USRI read, the message is clear, professional remodeling, especially ‘big’ remodels, are gearing up for a strong 2022. Projects scopes are getting larger, and we are simultaneously seeing acceleration in project volume. In our view, the industry is likely underestimating the strength of remodel spending to occur over the next few years, but these strong numbers are showing we should expect double digit growth in 2022. This supports our thinking that ‘big-project’ remodel spending will grow by over 40 percent cumulatively from start 2021 to 2024.” – QR Staff

Remodeling

Qualified Remodeler

U.S. Remodeler Index Expands for the Fourth Consecutive Quarter

Four Takeaways from John Burns

1. **“Despite costs, project scopes continue to expand.** Remodelers say inflationary pressure is highest on popular wood-based goods, such as cabinetry and decking. Despite the uptick in costs, consumers are still opting for large-scale home renovations. Over 60 percent of remodelers say average project size is larger in Q3 vs. Q2, noting most consumers are remodeling multiple areas of their house in the same project.
2. **Remodelers report timelines are slipping. Severe product delays are expected to persist into 2023.** Over 70 percent of remodelers across all industry segments say projects are taking longer to complete vs. the same prior-year period, and 47 percent of remodelers indicate almost half of their current projects are behind schedule. Continuing product and labor shortages compound timeline issues and a growing number of remodelers expect these delays to persist into 2023.” – QR Staff

Remodeling

Qualified Remodeler

U.S. Remodeler Index Expands for the Fourth Consecutive Quarter

Four Takeaways from John Burns

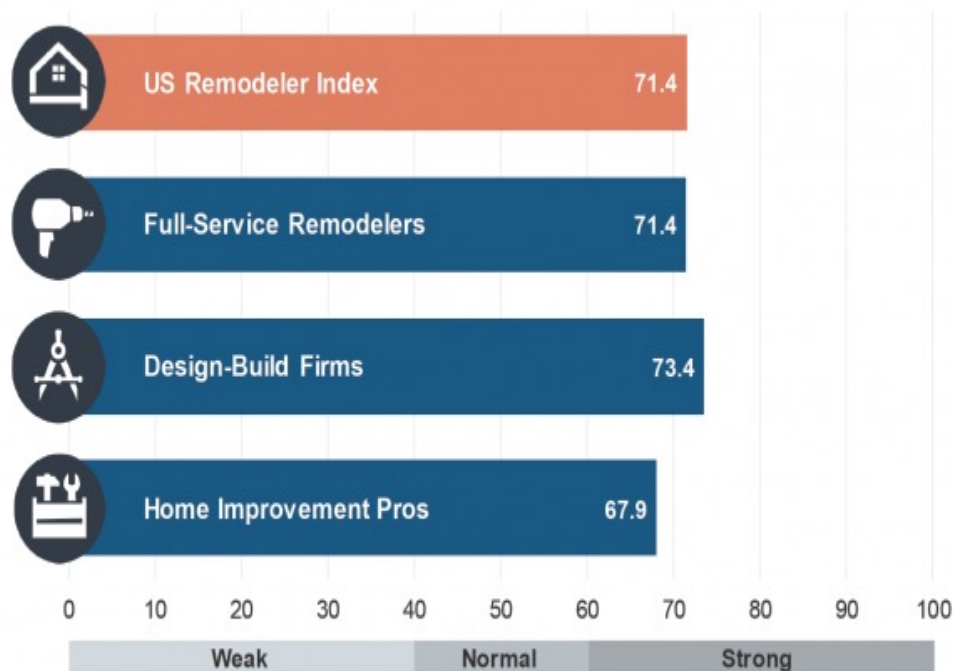
3. **“Product availability is a top concern. Brand is taking a backseat.** Seventy-seven percent (77 percent) of remodelers say their top five sources of project delays stem from extended product lead times and lack of available labor. Remodelers and consumers are becoming more brand agnostic on products like appliances and cabinetry, as sheer availability begins to win out over brand preference.
4. **Remodelers are confident in double-digit average revenue growth of 10 percent for FY 2021.** Although some consumers are electing to defer their projects into 2022, healthy project backlogs fuel remodeler confidence in full-year 2021 revenue growth of 10 percent, on average. Remodelers note that a decrease in product quality and escalating material costs are interfering with margins, but remaining supplier/vendor neutral and shifting focus to high-value projects has been favorable to their bottom line.” – QR Staff

Remodeling

Qualified Remodeler

U.S. Remodeler Index Expands for the Fourth Consecutive Quarter

US Remodeler Index



The US Remodeler Index (USRI) expanded in Q3 2021, rating a 71.4 on a 100-point scale.

Although inflation has out-priced some clients, demand remains bullish, as remodelers say kitchen, bath, and outdoor remodels are at an all-time high. Design-build firms over-index the industry average at 73.4, while full-service remodelers are in-line with the industry average at 71.4. Home improvement pros under-index the industry at 67.9.

Ratings above 50 indicate industry growth and ratings below 50 indicate slowing activity.

Sources: Qualified Remodeler, John Burns Real Estate Consulting, LLC (Data: 3Q21, Pub: Dec-21)

JOHN BURNS
REAL ESTATE CONSULTING

Qualified
Remodeler

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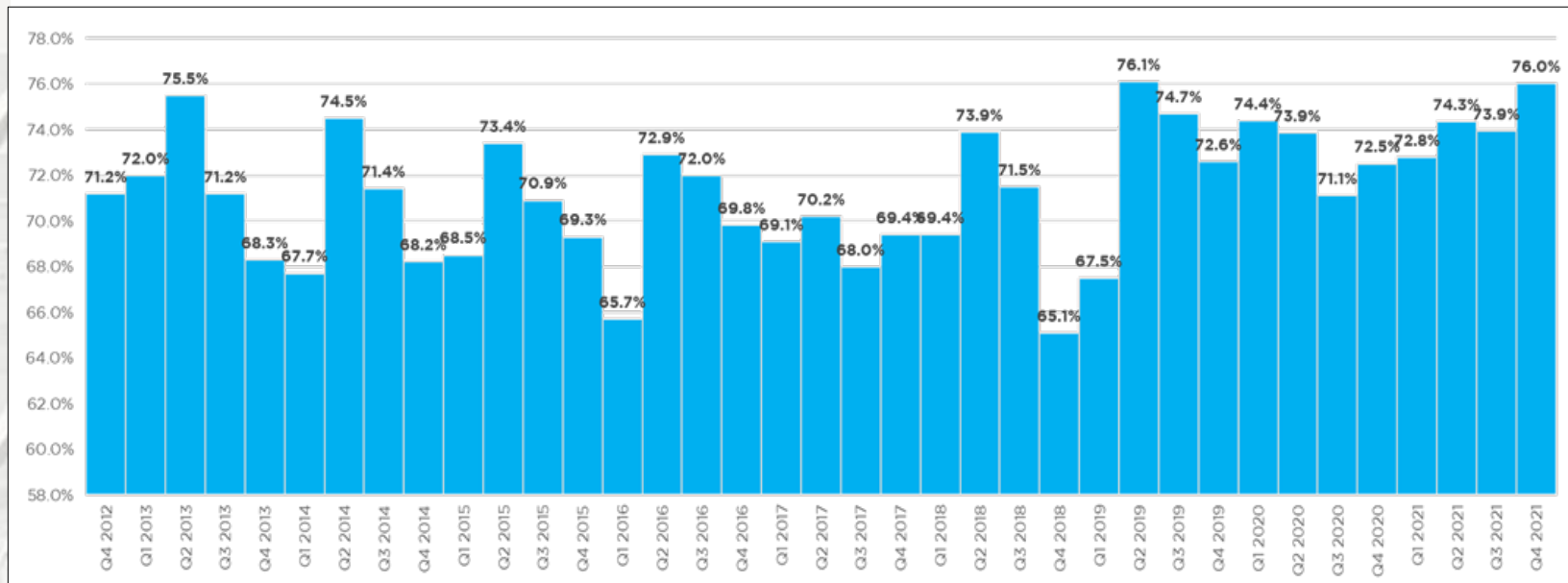
Remodeling

Home Improvement Research Institute (HIRI)

Home Improvement Consumer Project Planning: 4 Things to Know in Q4 2021

1. Homeowners are still planning home improvement projects at high rates.

“Typically, the fourth quarter of the year sees less project activity compared to the summer months. However, 2021 ended strong with 76% of homeowners planning on undertaking at least one project in Q4. This is a statistical tie with the highest planning rates recorded in the history of the Project Intent Tracking Survey.” – HIRI



Remodeling

Home Improvement Research Institute (HIRI)

Home Improvement Consumer Project Planning: 4 Things to Know in Q4 2021

2. Outside factors could be influencing activity.

“Many industry onlookers expected project growth to slow significantly or even reverse slightly as much of the U.S. recovered from the pandemic in 2021. However, that has not been the case. Some factors that could be contributing to the continued boom in project planning include:

- Carry-over demand from 2020 – Homeowners are now planning projects they never got around to or were previously delayed by contractor timelines.
- A booming housing market – Some potential homebuyers are getting priced out of the market, inspiring them to remodel their current home instead.

Unfinished homes on the market – Houses bought in today’s market are often not “move-in-ready,” so new buyers must renovate to transform them into desired homes.

3. Maintenance and repair are top motivators for projects.

Most project planners tend to prioritize immediate improvement needs. The fourth quarter presented a slight uptick in the number of “light” project planners (those planning 1 – 2 projects in the quarter), some of whom can be attributed to performing slightly more repairs.” – HIRI

Remodeling

Home Improvement Research Institute (HIRI)

**Home Improvement Consumer Project Planning:
4 Things to Know in Q4 2021**

4. A discrepancy exists between planned and completed DIY projects.

“While most claim to have some affinity for DIY work (85%), only slightly more than 54% of projects are actually planned as DIY. Additionally, DIY work for completed projects has historically hovered around two-thirds. This indicates that projects planned to be done professionally often either end up being done DIY or do not get done at all. This shift to DIY is likely related to cost and timing: Either the cost for a professional exceeded what the homeowner was capable of or willing to spend, or they needed it done sooner than what contractor timelines allow.” – HIRI

Existing House Sales

National Association of Realtors

November 2021 sales: 6.460 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
November	6,460,000	\$353,900	\$372,400	2.1
October	6,340,000	\$352,700	\$372,200	2.3
2020	6,590,000	\$310,800	\$342,800	2.3
M/M change	1.9%	0.3%	0.1%	-8.7%
Y/Y change	-2.0%	13.9%	8.6%	-8.7%

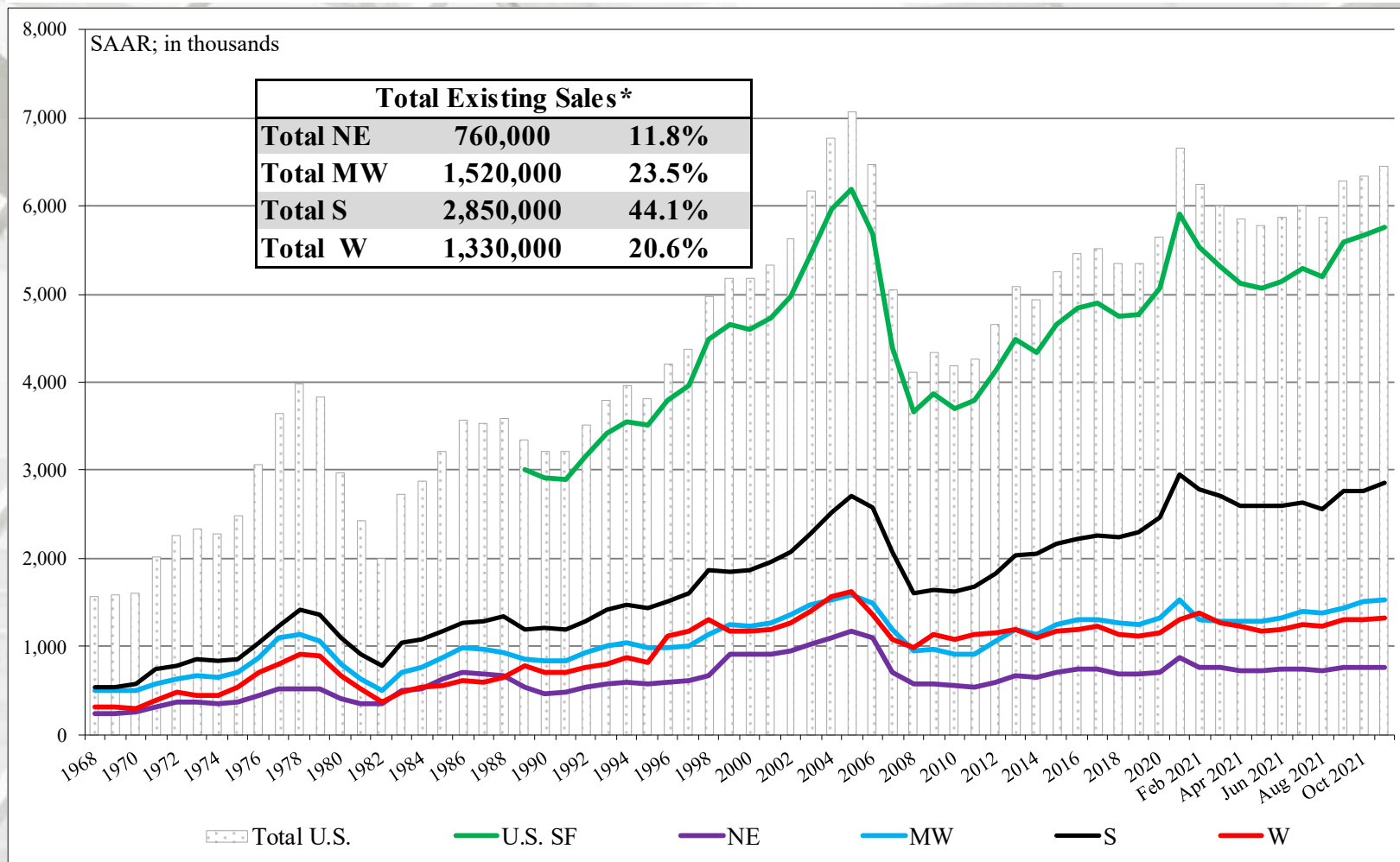
All sales data: SAAR

Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price	
November	5,750,000	\$362,600	\$378,700	
October	5,660,000	\$359,500	\$376,700	
2020	5,880,000	\$315,600	\$346,400	
M/M change	1.6%	0.3%	0.5%	
Y/Y change	-2.2%	14.9%	9.3%	
	NE	MW	S	W
November	760,000	1,520,000	2,850,000	1,330,000
October	760,000	1,510,000	2,770,000	1,300,000
2020	860,000	1,530,000	2,820,000	1,380,000
M/M change	0.0%	0.7%	2.9%	2.3%
Y/Y change	-11.6%	-0.7%	1.1%	-3.6%

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 — December 2021

**FHFA House Price Index Up 1.1 Percent in October;
Up 17.4 Percent from Last Year**

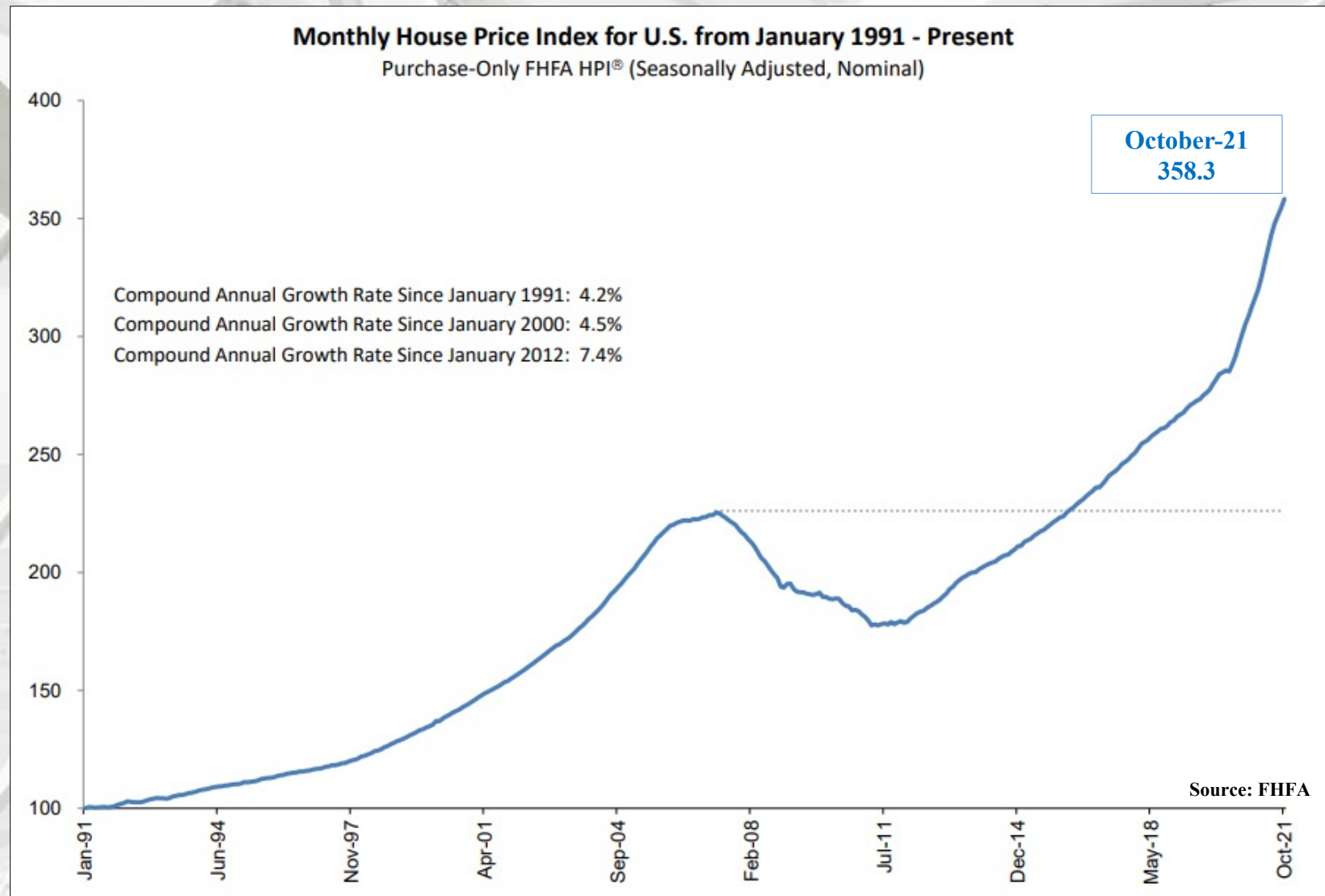
Significant Findings

“House prices rose nationwide in October, up **1.1 percent** from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **17.4 percent** from October 2020 to October 2021. The previously reported **0.9 percent** price change for September 2021 remained unchanged.

For the nine census divisions, seasonally adjusted monthly house price changes from September 2021 to October 2021 ranged from **-0.3 percent** in the New England division to **+1.7 percent** in the East South Central division. The 12-month changes ranged from **+13.2 percent** in the West North Central division to **+23.2 percent** in the Mountain division.” – Raffi Williams and Adam Russell, FHFA

“House price levels continue to rise but the rapid pace is curtailing through October. Compared to a year ago, annual gains have increased in every state and metro area. The large market appreciations seen this spring peaked in July and have been cooling this fall with annual trends slowing over the last four consecutive months.” – 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 19.1% Annual Home Price Gain In October

“... Data for October 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 a 19.1% annual gain in October, down from 19.7% in the previous month. The 10-City Composite annual increase came in at 17.1%, down from 17.9% in the previous month. The 20-City Composite posted an 18.4% year-over-year gain, down from 19.1% in the previous month.

Phoenix, Tampa, and Miami reported the highest year-over-year gains among the 20 cities in October. Phoenix led the way with a 32.3% year-over-year price increase, followed by Tampa with a 28.1% increase and Miami with a 25.7% increase. Six of the 20 cities reported higher price increases in the year ending October 2021 versus the year ending September 2021.

Month-Over-Month

“Before seasonal adjustment, the U.S. National Index posted a 0.8% month-over-month increase in October, while the 10-City and 20-City Composites both posted increases of 0.8%. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.0%, and the 10-City and 20-City Composites posted increases of 0.8% and 0.9%, respectively. In October, 18 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

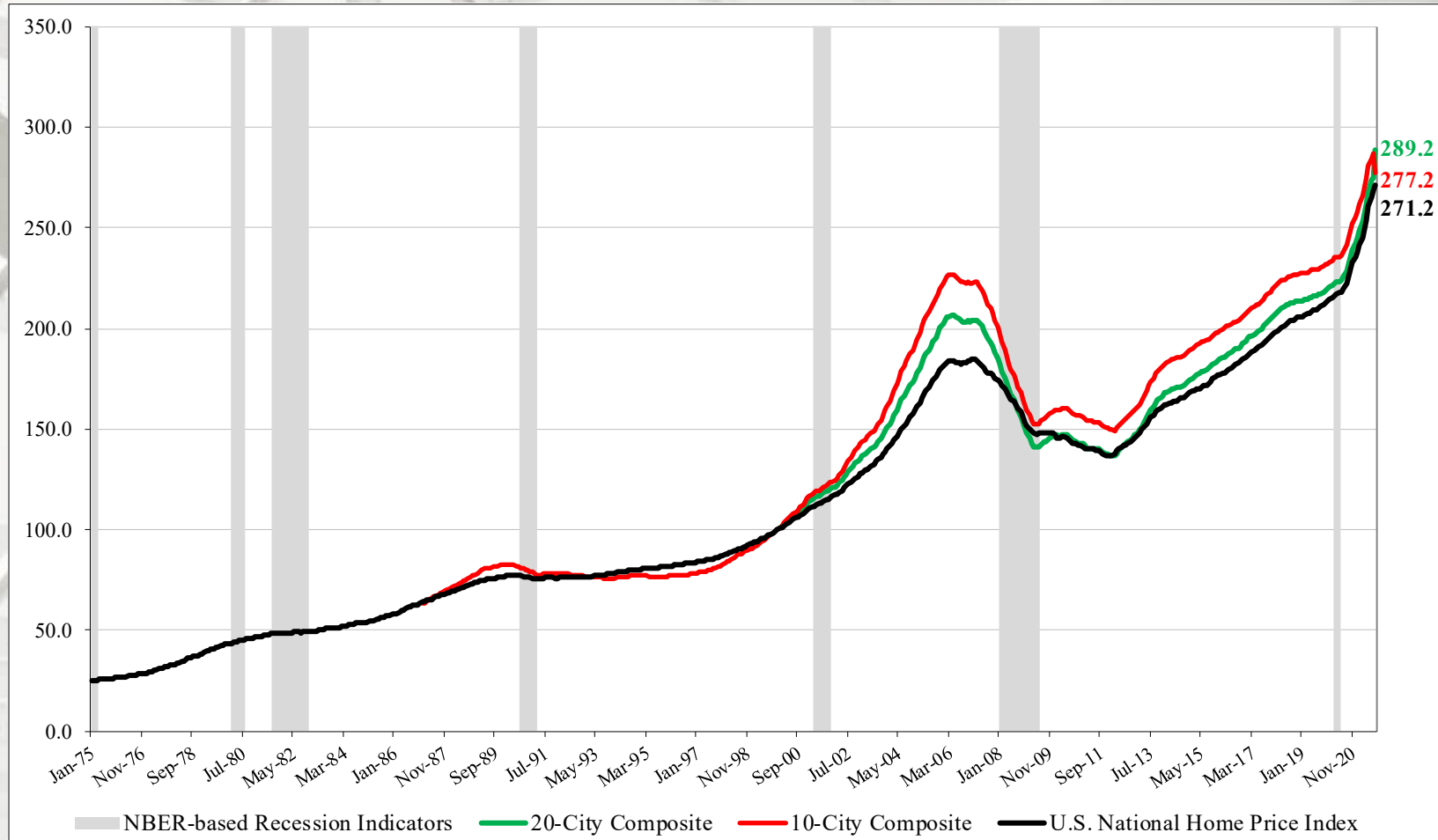
“In October 2021, U.S. home prices moved substantially higher, but at a decelerating rate. The National Composite Index rose 19.1% from year-ago levels, and the 10- and 20-City Composites gained 17.1% and 18.4%, respectively. In all three cases, October’s gains were below September’s, and September’s gains were below August’s. That said, October’s 19.1% gain in the National Composite is the fourth-highest reading in the 34 years covered by our data. (The top three were the three months immediately preceding October.)

We continue to see very strong growth at the city level. All 20 cities saw price increases in the year ended October 2021. October’s increase ranked in the top quintile of historical experience for 19 cities, and in the top decile for 17 of them. As was the case last month, however, in 14 of 20 cities, prices decelerated – i.e., increased by less in October than they had done in September.

Phoenix’s 32.3% increase led all cities for the 29th consecutive month. Tampa (+28.1%) and Miami (+25.7%) continued in second and third place in October, narrowly edging out Las Vegas, Dallas, and San Diego. Prices were strongest in the South and Southeast (both +24.4%), but every region continued to log double-digit gains.

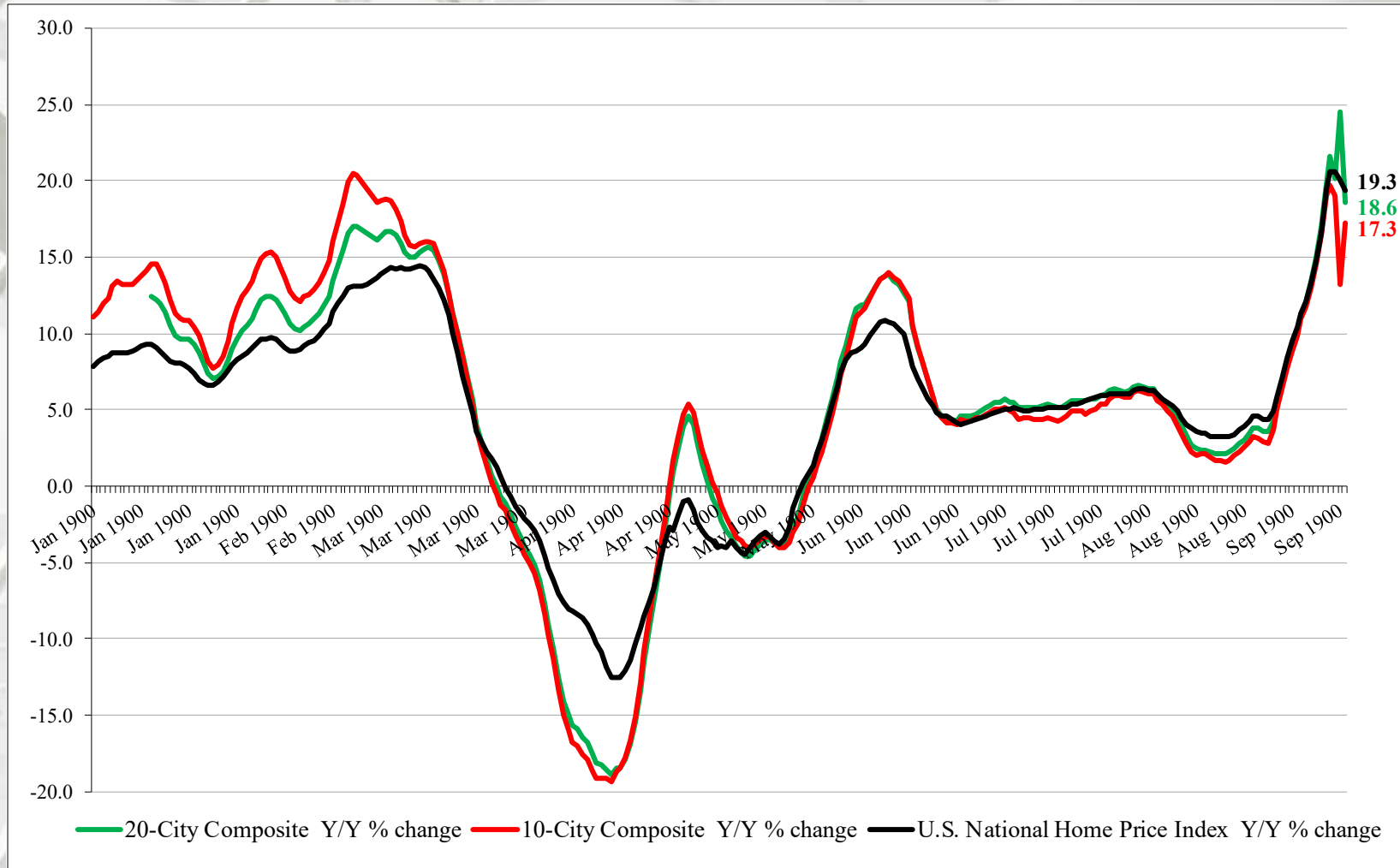
We have previously suggested that the strength in the U.S. housing market is being driven in part by a change in locational preferences as households react to the COVID pandemic. More data will be required to understand whether this demand surge represents an acceleration of purchases that would have occurred over the next several years, or reflects a more permanent secular change.” – 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 October 2020 to October 2021, the National Index increased 193%; the Ten-City by 17.3%, and the Twenty-City by 18.6%.

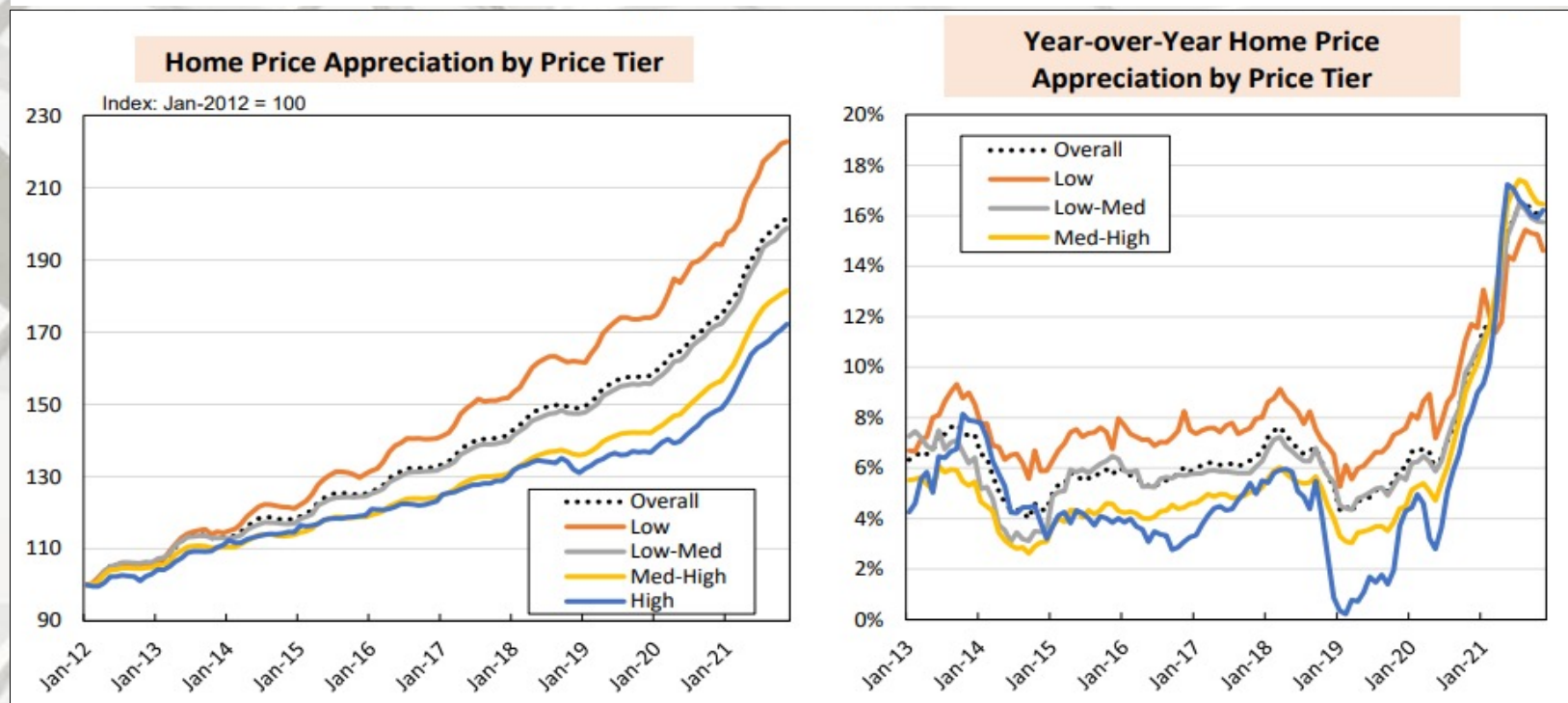
U.S. Housing Market



John Burns Real Estate Consulting Housing Cycle

“9 years ago, we devised strategies to navigate the 5 stages of a housing cycle. The client survey we did last month told me that our clients are evenly split between believing we are in stage 2 and stage 3.” – John Burns, CEO; John Burns Real Estate Consulting LLC

U.S. Housing Affordability & Prices



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

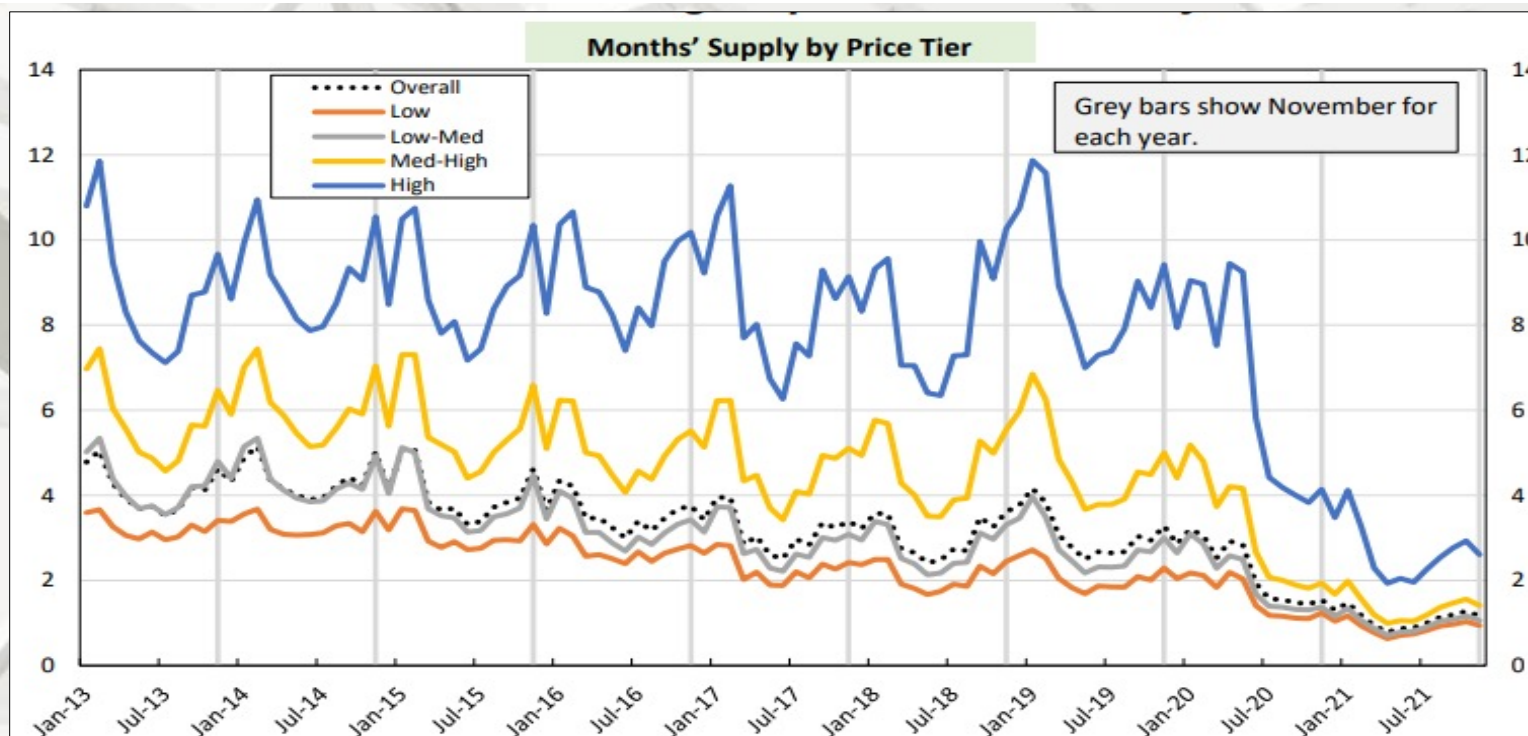
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

Home Price Appreciation by Price Tier

“Since 2012 a large gap in HPA has developed between the lower and upper end of the market (left panel). Preliminary numbers for November 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

Housing Supply



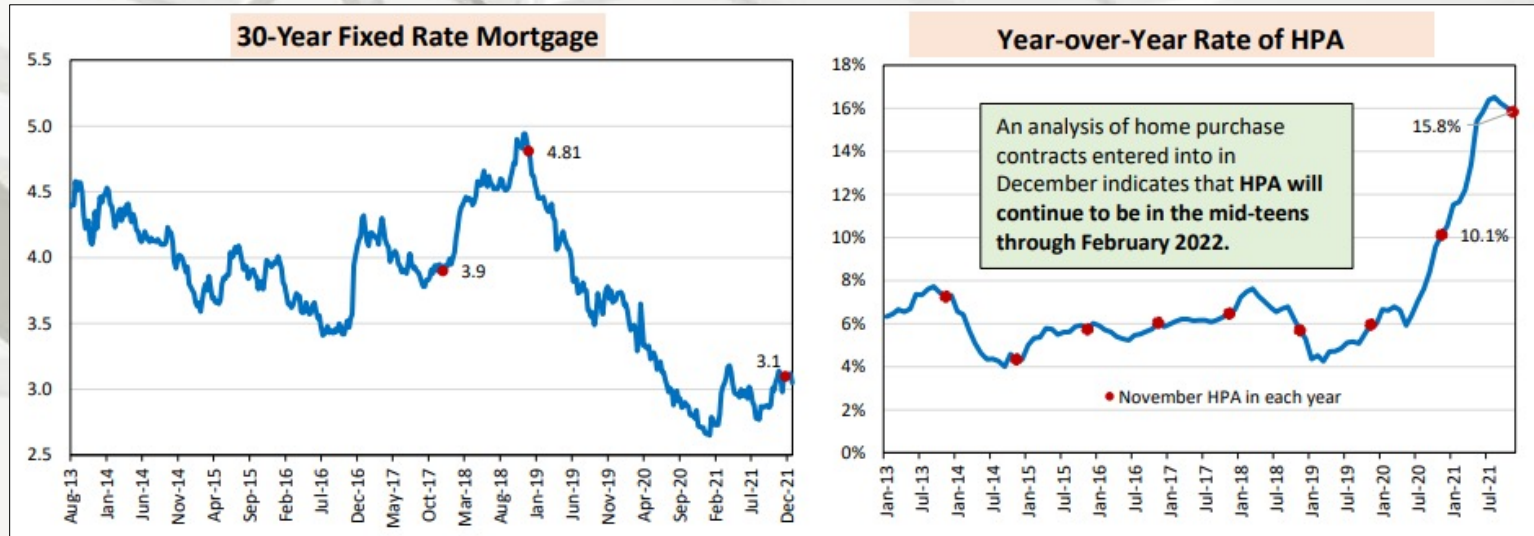
Note: Months' supply measures how long it would take for the existing level of inventory to be sold off at the current sale's pace. While the listings data come from the MLS, the sales numbers come from the public records

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

AEI Housing Center Months' Supply by Price Tiers

“Starting with June 2020, months' supply started to drop precipitously across all price tiers. In November 2021, overall months' supply stood at 1.2 months. While supply remains lowest in the low (0.9 months) and low-med tiers (1.1 months), the drop in the med-high and high price tiers are especially noteworthy. The high tier has fallen from 9.4 months in May 2020 to 2.6 months in November 2021 and med-high tier has fallen from 4.2 to 1.4.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

U.S. Housing Finance



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

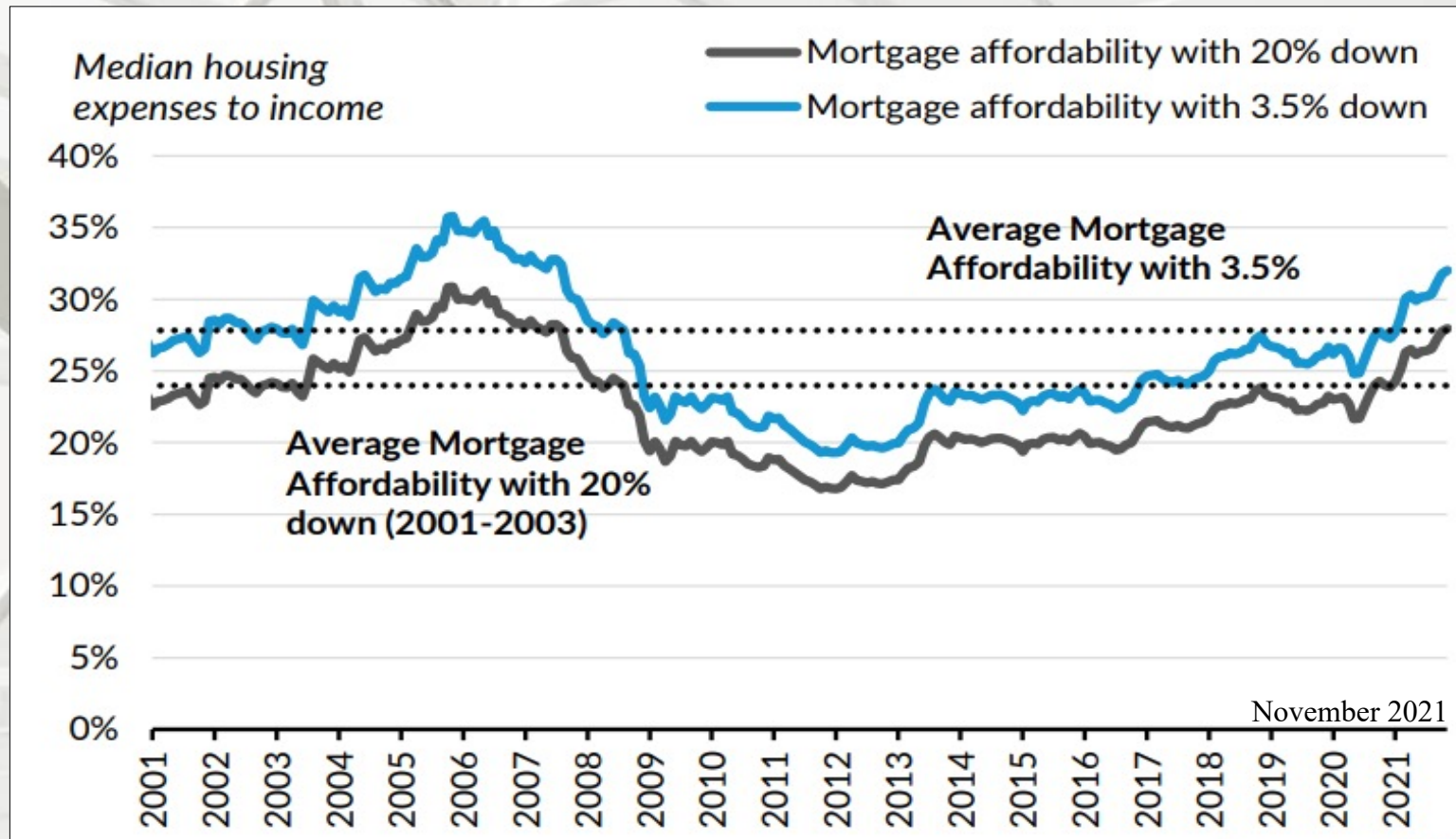
Note: Data are for the entire country. Data for November 2021 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

Fed's Monetary Punchbowl Is Fueling Rampant Home Price Appreciation

“Since 2012 rates have dropped from 4.5% to under 3%, which along with credit loosening by federal agencies, a lack of supply, and Work From Home (WFH), has fueled a second home price boom. The preliminary national HPA rate for November 2021 was 15.8%, up from 10.1% a year ago. With prices increasing much faster than incomes, the Fed’s policy is having a disparate impact. Higher income households will be able to take advantage of WFH to improve their housing situation, while low income ones will be increasingly crowded out of home buying. This disparate impact will not be transitory as today’s high HPA will become the base for future price levels. This will slow gains in racial integration and further increase socio-economic stratification.” – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Housing Affordability

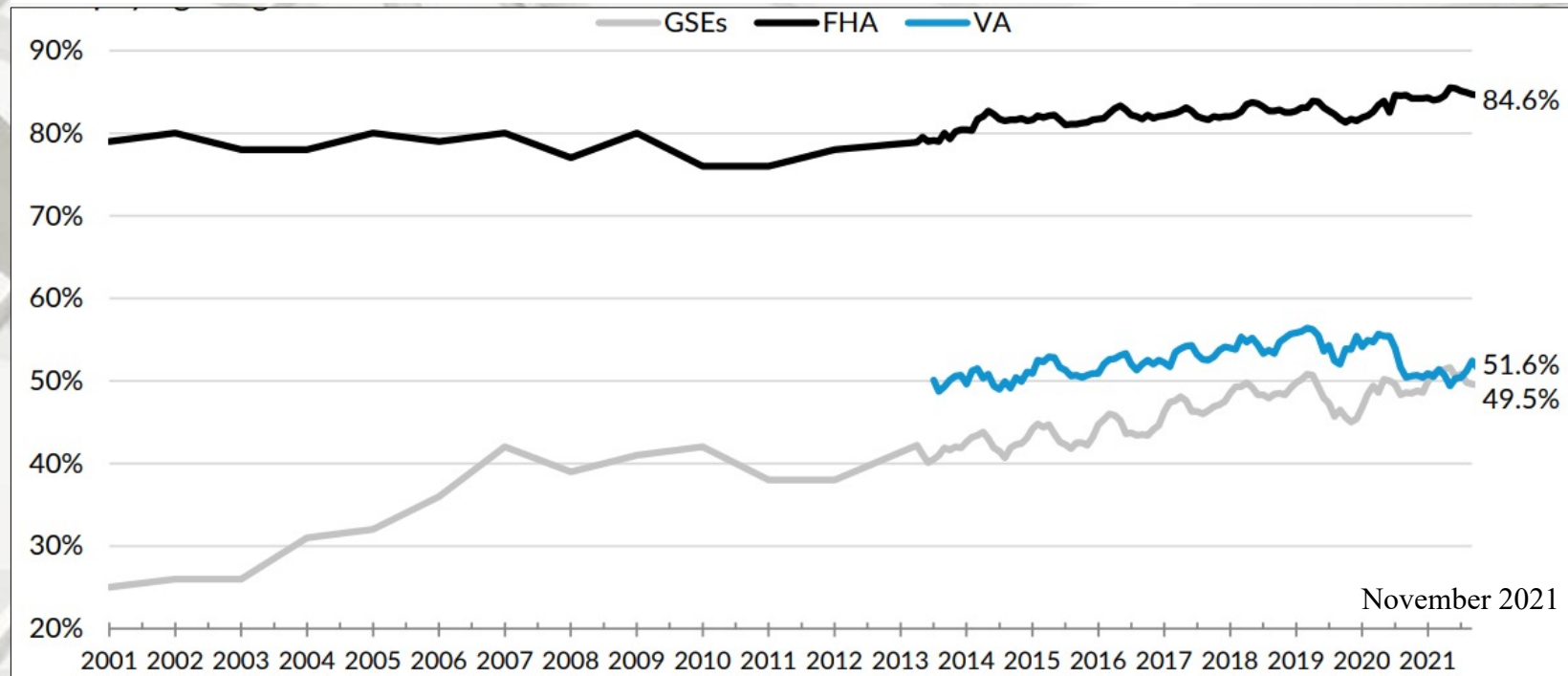


Urban Institute

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 November 2021, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 28.0 percent; with 3.5 percent down it is 32.0 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 November 2021, the FTHB share for FHA, which has always been more focused on first time homebuyers, 84.6 percent. The FTHB share of VA lending in November was 51.6 percent. The GSE FTHB share decreased in November relative to October, to 49.5 percent. The bottom table shows that based on mortgages originated in October 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 Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Increased in December

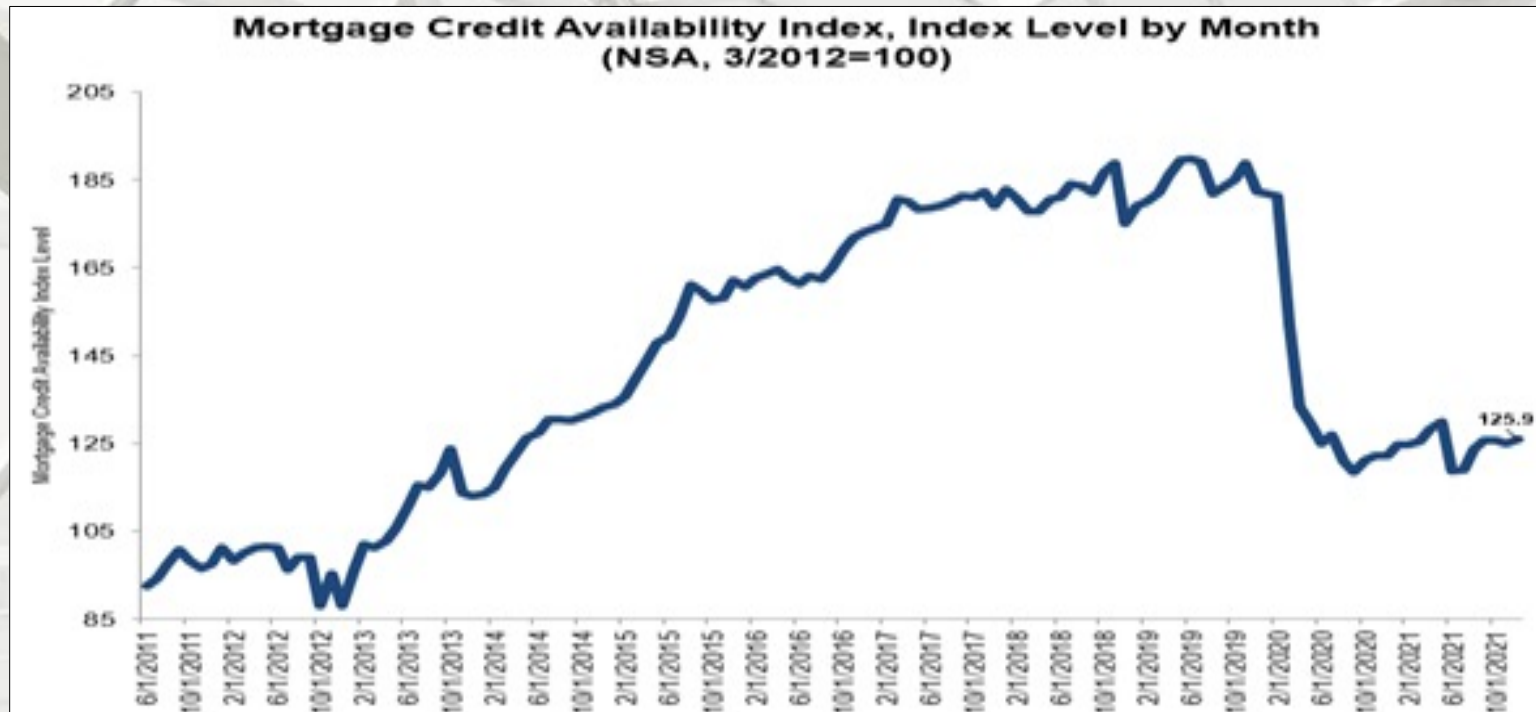
“Mortgage credit availability increased in November according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from Ellie Mae’s AllRegs® Market Clarity® business information tool.

The MCAI rose by 0.8 percent to 125.9 in December. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 0.8 percent, while the Government MCAI increased by 0.7 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 0.6 percent, and the Conforming MCAI rose by 1.1 percent.

Credit supply increased in December, with growth across both conventional and government segments of the market. The overall credit index increased to its highest level since May 2021, but remained 30 percent below its pre-pandemic level. December's growth was driven by more ARM and lower credit score loan programs, which was likely due to a combination of the rising rate environment and affordability challenges. Lenders expanded offerings to qualified borrowers who were the most impacted by these market conditions. Additionally, there was an increase in government streamline refinance programs to aid borrowers still looking to refinance before rates rise further. The overall supply of mortgage credit only grew around 3 percent compared the same month a year ago, with a 34 percent increase in jumbo credit availability contributing to most of that growth. Government credit supply, as well as conforming credit, saw tightening last year.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance

Mortgage Credit Availability (MBA)



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

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

December 21, 2021

	2021				2022				2023				2020	2021	2022	2023	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Housing Measures																	
Housing Starts (SAAR, Thous)	1,599	1,588	1,555	1,610	1,637	1,644	1,670	1,697	1,692	1,700	1,706	1,700	1,397	1,588	1,662	1,700	1,622
Single-Family	1,156	1,107	1,094	1,120	1,174	1,202	1,239	1,285	1,312	1,335	1,354	1,368	1,004	1,119	1,225	1,342	1,317
Two or More	443	482	461	490	463	442	431	412	380	365	352	332	393	469	437	357	305
Home Sales (SAAR, Thous)																	
Total Existing Homes	6,303	5,833	6,057	6,310	6,361	6,464	6,448	6,511	6,542	6,618	6,624	6,603	5,678	6,126	6,446	6,597	6,417
New Homes	896	737	738	780	832	919	960	984	994	1,032	1,043	1,054	828	788	924	1,031	1,025
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	359.3	363.6	361.2	362.6	359.6	364.4	365.6	362.8	360.3	295.4	345.2	361.7	363.3	362.2
Median Price of New Homes (Thous \$)	364.9	380.9	403.3	412.9	412.4	405.9	403.5	400.3	407.1	408.5	405.3	401.9	335.0	390.5	405.5	405.7	402.9
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	1.8	1.9	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	834	677	697	625	610	553	693	648	632	4,108	3,932	2,609	2,526	2,530
Purchase	320	460	442	390	360	492	449	438	378	526	482	464	1,482	1,612	1,739	1,850	1,784
Refinance	774	590	512	444	317	205	176	172	175	167	166	168	2,625	2,320	870	676	746
Refinance Share (%)	71	56	54	53	47	29	28	28	32	24	26	27	64	59	33	27	29
FHA Originations (Bil \$)													302	285	164	159	147
Total 1- to 4-Family (000s loans)	3,146	2,926	2,714	2,325	1,806	1,880	1,755	1,714	1,500	1,867	1,705	1,707	13,696	11,112	7,155	6,779	6,566
Purchase	974	1,341	1,302	1,124	997	1,302	1,254	1,264	1,043	1,402	1,243	1,267	4,917	4,741	4,817	4,955	4,600
Refinance	2,172	1,585	1,412	1,201	809	578	501	450	457	465	462	440	8,780	6,370	2,338	1,824	1,966
Refinance Share (%)	69	54	52	52	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

December 21, 2021

	2021				2022				2023				2020	2021	2022	2023	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Percent Change, SAAR																	
Real Gross Domestic Product	6.3	6.7	2.1	7.1	4.9	4.2	3.9	3.0	2.3	2.2	2.1	2.1	-2.3	5.5	4.0	2.2	1.9
Personal Consumption Expenditures	11.4	12.0	1.7	6.1	4.8	2.4	1.8	1.5	1.4	1.8	2.4	2.4	-2.4	7.7	2.6	2.0	2.9
Business Fixed Investment	12.9	9.2	1.5	4.0	11.0	7.1	6.4	5.3	4.6	4.1	4.0	3.7	-3.8	6.8	7.4	4.1	3.1
Residential Investment	13.3	-11.7	-8.3	0.7	1.5	3.5	4.3	4.2	3.0	3.2	2.5	2.1	15.7	-2.0	3.4	2.7	-1.0
Govt. Consumption & Investment	4.2	-2.0	0.9	-2.1	3.1	1.9	2.7	1.9	1.2	1.1	0.9	1.0	1.2	0.2	2.4	1.1	0.8
Net Exports (Bil. Chain 2012\$)	-1033.0	-1048.4	-1108.2	-1077.0	-1121.9	-1130.2	-1118.7	-1096.7	-1081.2	-1069.7	-1080.2	-1095.9	-785.1	-1066.7	-1116.9	-1081.8	-1160.3
Inventory Investment (Bil. Chain 2012\$)	-75.1	-143.3	-62.2	23.8	41.9	93.2	131.4	141.6	141.5	134.1	124.9	116.8	-35.9	-64.2	102.0	129.3	98.6
Consumer Prices (YOY)	1.9	4.8	5.3	6.4	5.6	4.2	3.8	3.0	2.9	2.6	2.2	2.0	1.2	6.4	3.0	2.0	1.9
Percent																	
Unemployment Rate	6.2	5.9	5.1	4.3	4.0	3.7	3.5	3.5	3.5	3.5	3.5	3.5	8.1	5.4	3.7	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	1.8	1.9	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:

November month-over-month and year-over-year housing data were primarily positive. Only single-family housing completions were negative month-over-month. Single-family starts, permits, completions and new sales were negative year-over-year. Existing house sales also 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.

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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