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

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This report is a free monthly service of Virginia Tech. Past issues are available at: http://woodproducts.sbio.vt.edu/housing-report.

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

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Opening Remarks

December housing data denoted the second consecutive month of total starts greater than 1.5-million units. For the fourth consecutive month, total starts have exceeded their 61-year historical average. Further, single-family starts were the greatest since September 2006 (1,384,000 units). Aggregate (month-over-month and year-over-year) United States housing market data also was positive. The single-family sub-sector is the primary source of the current uptrend and is progressively gaining momentum. Month-over-month data yielded decreases in three categories: aggregate multi-family starts and permits, and new sales. Year-over-year data indicated declines for multi-family-starts and permits. Existing house sales were the greatest quantity since 2006. Residential construction spending was positive month-over-month and year-over-year; and expenditures from October through December are the greatest since 2005-2006 (nominal basis). Consensus total housing and single-family starts, and new single-family sales are projected at 1,440; 1055, and 912 thousand units (all median values).

The February 12th Atlanta Fed GDPNow™ model forecast was an aggregate 14.3% increase for total residential investment spending in Quarter Four 2020. New private permanent site expenditures were projected at 38.5%; the improvement spending forecast was 3.5%; and the manufactured/mobile expenditures projection was 11.1% (all: quarterly log change and at a seasonally adjusted annual rate).[1]

The single-family rental market or build to rent (BTR) is relatively new in the U.S. and has ramifications for the wood products industry. For instance, "The design of the houses themselves isn't noticeably different from for-sale homes, but the better BTR homes are built with long-term maintenance in mind. Our homes have no carpet, we use luxury vinyl tile flooring instead. In the kitchens, we use laminate-wrapped cabinets instead of the typical painted or stained wood cabinets that are in most for-sale homes. It is more expensive to install, but it will cost us less in the long run. We put composite decks on the back of our homes. We always ask ourselves, 'Is it desirable, is it durable, and is it efficient? …"[2] – Brent Landry, Senior Vice President of Development, American Homes 4 Rent.

This month's commentary contains applicable housing data. Section I contains 2021 housing forecasts, data, remodeling, and housing finance commentary. Section II includes regional Federal Reserve analysis, private firm indicators, housing demographic, and economic information.

Sources: [1] www.frbatlanta.org/cqer/research/gdpnow.aspx; 2/12/21;
[2] https://www.builderonline.com/land/development/the-single-family-build-to-rent-markets-rise-to-fame_o; 1/7/21

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December 2020
Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 5.8%	▲ 5.2%
Single-Family (SF) Starts	▲ 12.0%	▲ 27.8%
Multi-Family (MF) Starts*	▼ -13.6%	▼ -38.7%
Housing Permits	▲ 4.2%	▲ 17.0%
SF Permits	▲ 7.6%	▲ 30.1%
MF Permits*	▼ -3.4%	▼ -7.0%
Housing Under Construction	▲ 1.6%	▲ 7.4%
SF Under Construction	▲ 3.9%	▲ 16.1%
Housing Completions	▲ 15.9%	▲ 8.0%
SF Completions	▲ 10.2%	▲ 9.0%
New SF House Sales	▼ 1.6%	▲ 15.2%
Private Residential Construction Spending	▲ 3.1%	▲ 20.7%
SF Construction Spending	▲ 5.8%	▲ 23.5%
Existing House Sales[1]	▲ 0.7%	▲ 22.2%

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

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

Sources: U.S. Department of Commerce-Construction; [1] FRED: Federal Reserve Bank of St. Louis

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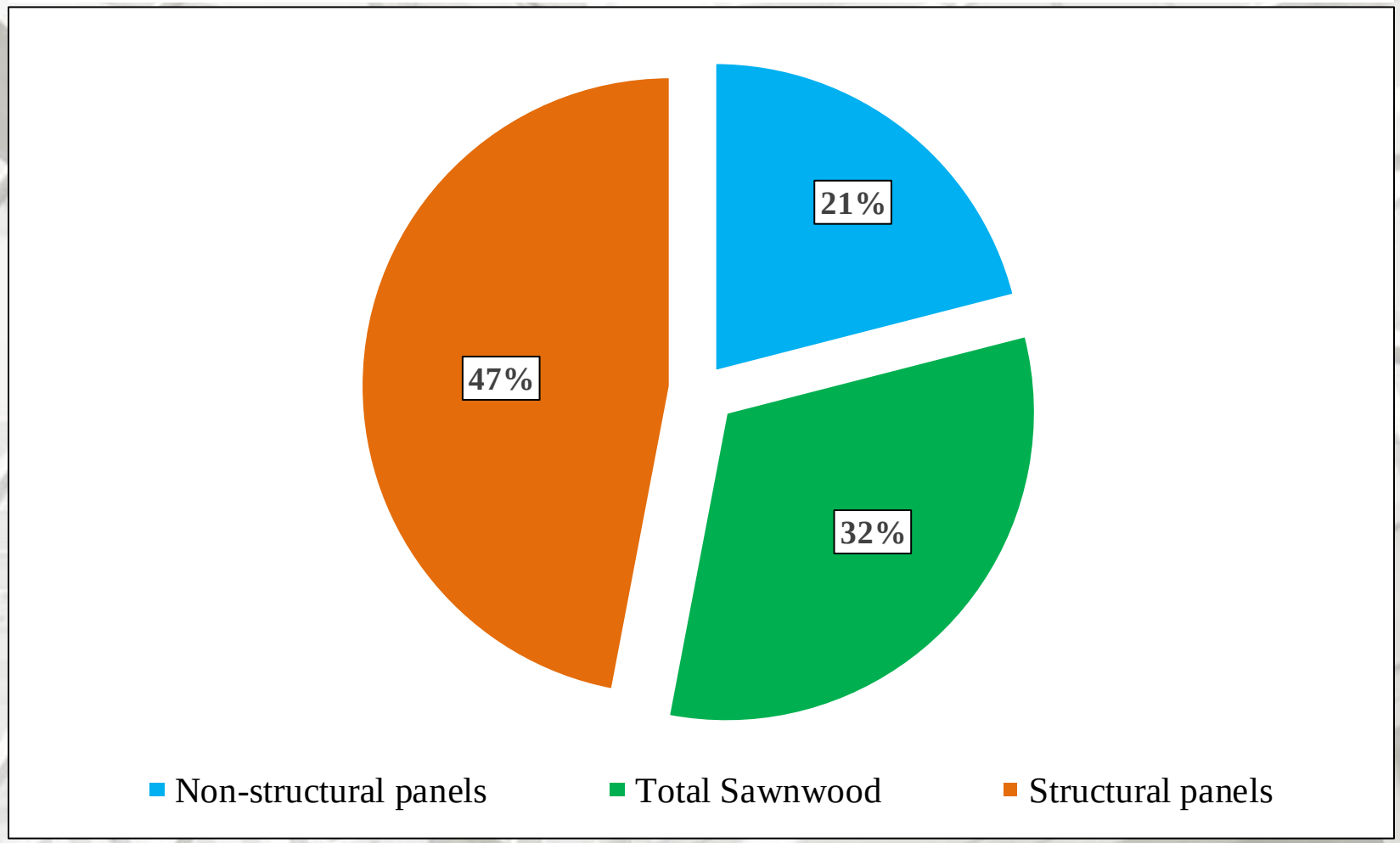
New Construction's Percentage of Wood Products Consumption



Source: USDA Forest Service. Howard, J., S. Liang, and D. McKeever. 2017. U.S. Forest Products Annual Market Review and Prospects, 2013-2017

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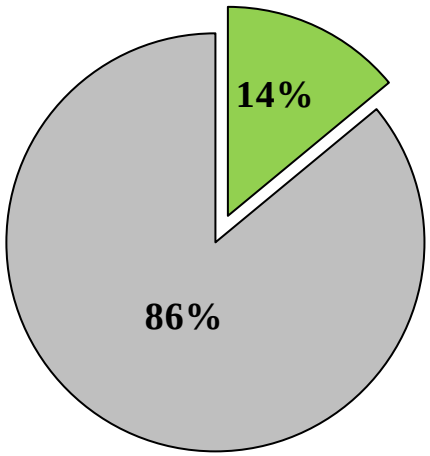
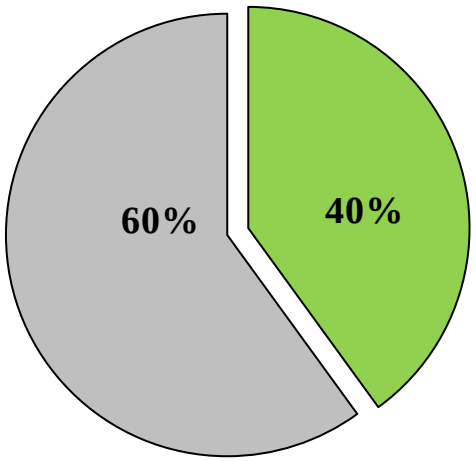
New SF Construction Percentage of Wood Products Consumption



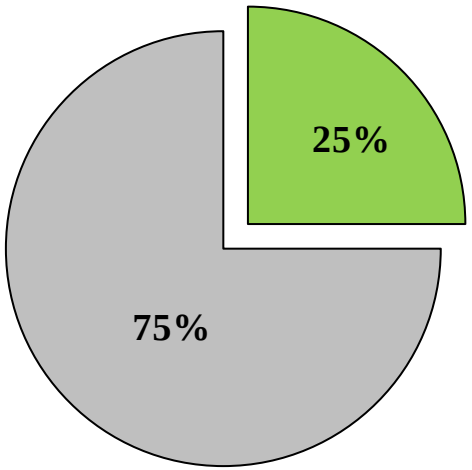
Non-structural panels: New Housing

Other markets



Structural panels: New housing

Other markets



All Sawnwood: New housing

Other markets

Source: USDA Forest Service. Howard, J., S. Liang, and D. McKeever. 2017. U.S. Forest Products Annual Market Review and Prospects, 2013-2017

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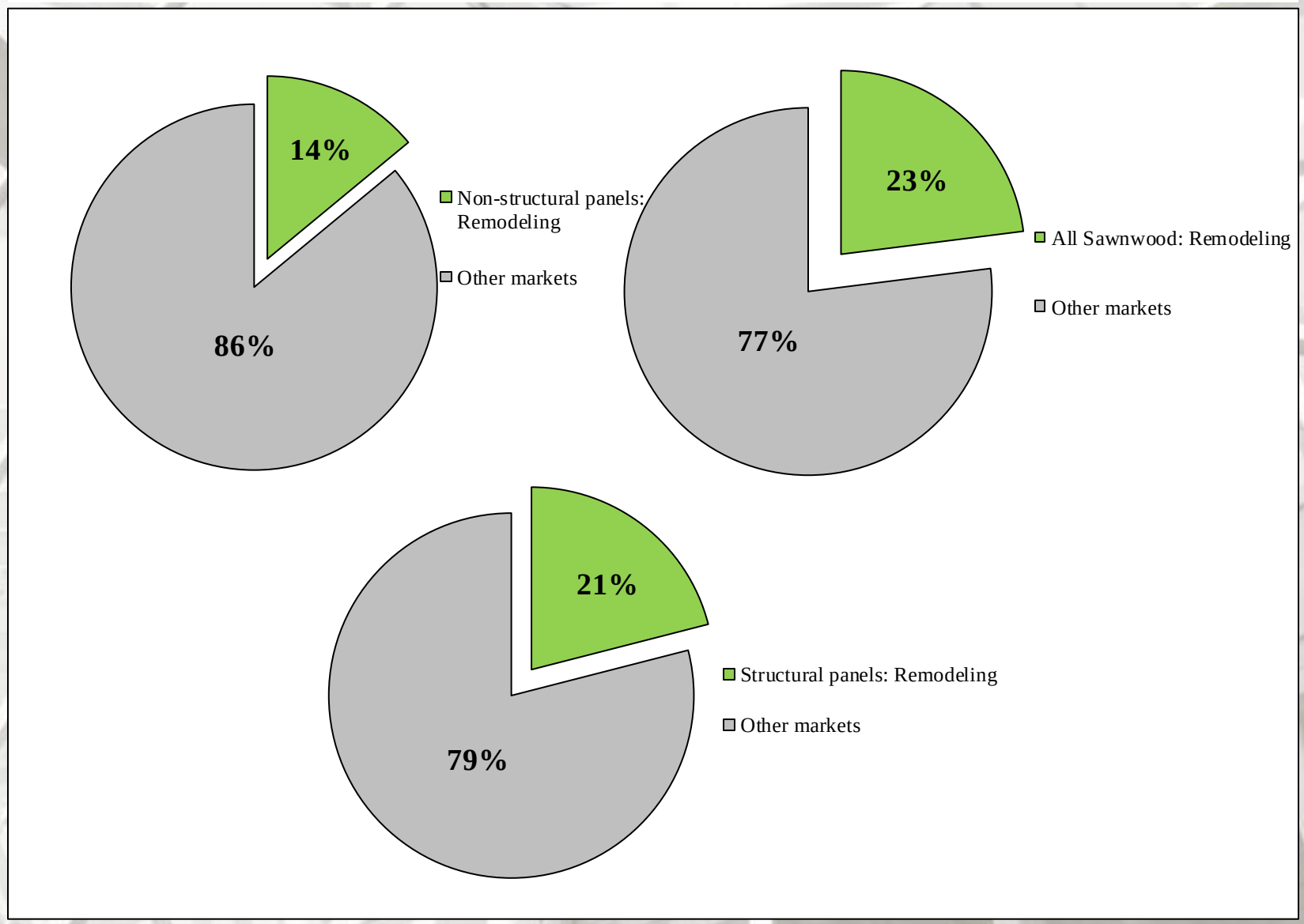
Repair and Remodeling's Percentage of Wood Products Consumption



Source: USDA Forest Service. Howard, J., S. Liang, and D. McKeever. 2017. U.S. Forest Products Annual Market Review and Prospects, 2013-2017

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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**

Organization	Total Starts	SF Starts	New SF House Sales
APA - The Engineered Wood Association[a]	1,420	1,050	
Bank of Montreal (BOM)[b]	1,450		
Blue Chip Economic Indicators[c]	1,380		
Deloitte[d]	1,330		
Dodge Data & Analytics[e]	1,412	928	
Fannie Mae[f]	1,444	1,107	872
Forest2Market[g]	1,233		
Goldman Sachs[h]	1,440		736
Merrill Lynch[i]	1,500		950
Mortgage Bankers Association (MBA)[j]	1,482	1,134	989

* All in thousands of units

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2021 Housing Forecasts*

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New SF house sales:	**736 to 1,259**	**912**

Organization	Total Starts	Single-Family Starts	New House Sales
National Association of Homebuilders[k]	1,383	1,034	884
National Association of Realtors[l]	1,500		
PNC Financial Services Group[m]	1,605		1,259
Fastmarkets RISI[n]	1,411	1,308	
Raymond James LTD[o]	1,440		
Royal Bank of Canada (RBC)[p]	1,308		
Scotiabank[q]	1,530		
TD Economics[r]	1,360		
UCLA Ziman Center for Real Estate[s]	1,290		
Urban Institute[t]	1,467		

* All in thousands of units

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References

a-APA, Housing Starts December 2020 (1/21/21). *APA – The Engineered Wood Association*. Tacoma, WA. 48 pps. (Subscription)

b-https://economics.bmo.com/media/filer_public/cf/4b/cf4bc28a-a7c2-4624-abc0-b9a68daa0da0/outlookus.pdf

c-https://lrus.wolterskluwer.com/media/4022/bluechipeconomicindicators1020.pdf

d-https://www2.deloitte.com/us/en/insights/economy/us-economic-forecast/united-states-outlook-analysis.html?id=us:2em:3pa:economic-outlook:eng:di:122220

e-http://rockproducts.com/2020/11/11/dodge-data-analytics-expects-construction-starts-to-recover-in-2021/

f-https://www.fanniemae.com/media/37541/display

g-https://www.workingforest.com/18-predictions-for-the-global-forest-pulp-paper-and-chemicals-industries-in-2021/

h-http://www.goldmansachs.com/insights/pages/outlook-2019/us-outlook/report.pdf

i-https://www.calculatedriskblog.com/2020/12/update-2021-housing-forecasts.html

j-https://mba-erm.informz.net/mba-erm/data/images/Mortgage%20Finance%20Forecast%20dec%202020.pdf

k-https://www.nahb.org/news-and-economics/housing-economics/Forecasts (Subscription)

l-https://www.nar.realtor/research-and-statistics/research-reports/2020-consensus-forecast

m-https://www.pnc.com/content/dam/pnc-com/pdf/aboutpnc/EconomicReports/NEO%20Reports/2020/NEO_Dec2020.pdf

n-*Random Lengths* (1/8/21). Vol 77, Issue 01. Eugene, OR (Subscription)

o-Raymond James LTD. Forest Products Industry Comment. January 13, 2021. (Subscription)

p-http://www.rbc.com/economics/economic-data/pdf/economy_us.pdf

q-http://www.gbm.scotiabank.com/scpt/gbm/scotiaeconomics63/forecast.pdf

r-https://economics.td.com/us-long-term-forecast

s-https://www.anderson.ucla.edu/documents/areas/ctr/forecast/reports/uclaforecast_Sept2020_USForecast.pdf

t-https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-December-2020/view/full_report

u-https://image.mail1.wf.com/lib/fe8d13727664027a7c/m/5/bca49e58-a10c-496d-823c-a1c5f87a4d31.pdf

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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

2018 Housing Forecasts*

	Range	Median
Total starts, range:	1,248 to 1,320	Median: 1,280
Single-family starts, range:	850 to 981	Median: 912
New SF house sales, range:	653 to 700	Median: 672

* All in thousands of units

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New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
December	1,669,000	1,338,000	19,000	312,000
November	1,578,000	1,195,000	15,000	368,000
2019	1,587,000	1,047,000	20,000	520,000
M/M change	5.8%	12.0%	26.7%	-15.2%
Y/Y change	5.2%	27.8%	-5.0%	-40.0%

* 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)).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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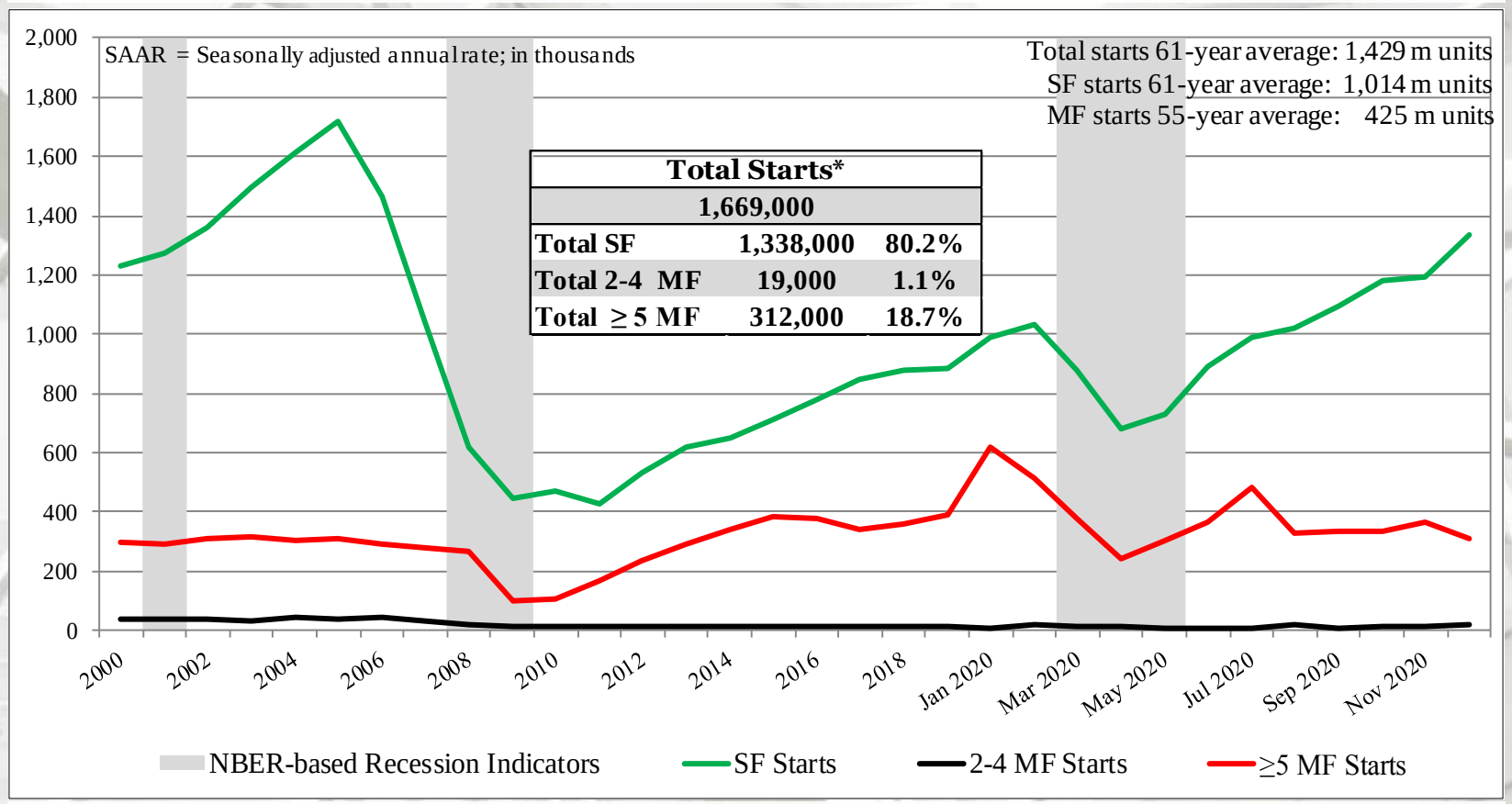
Total Housing Starts



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

* Percentage of total starts.

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

Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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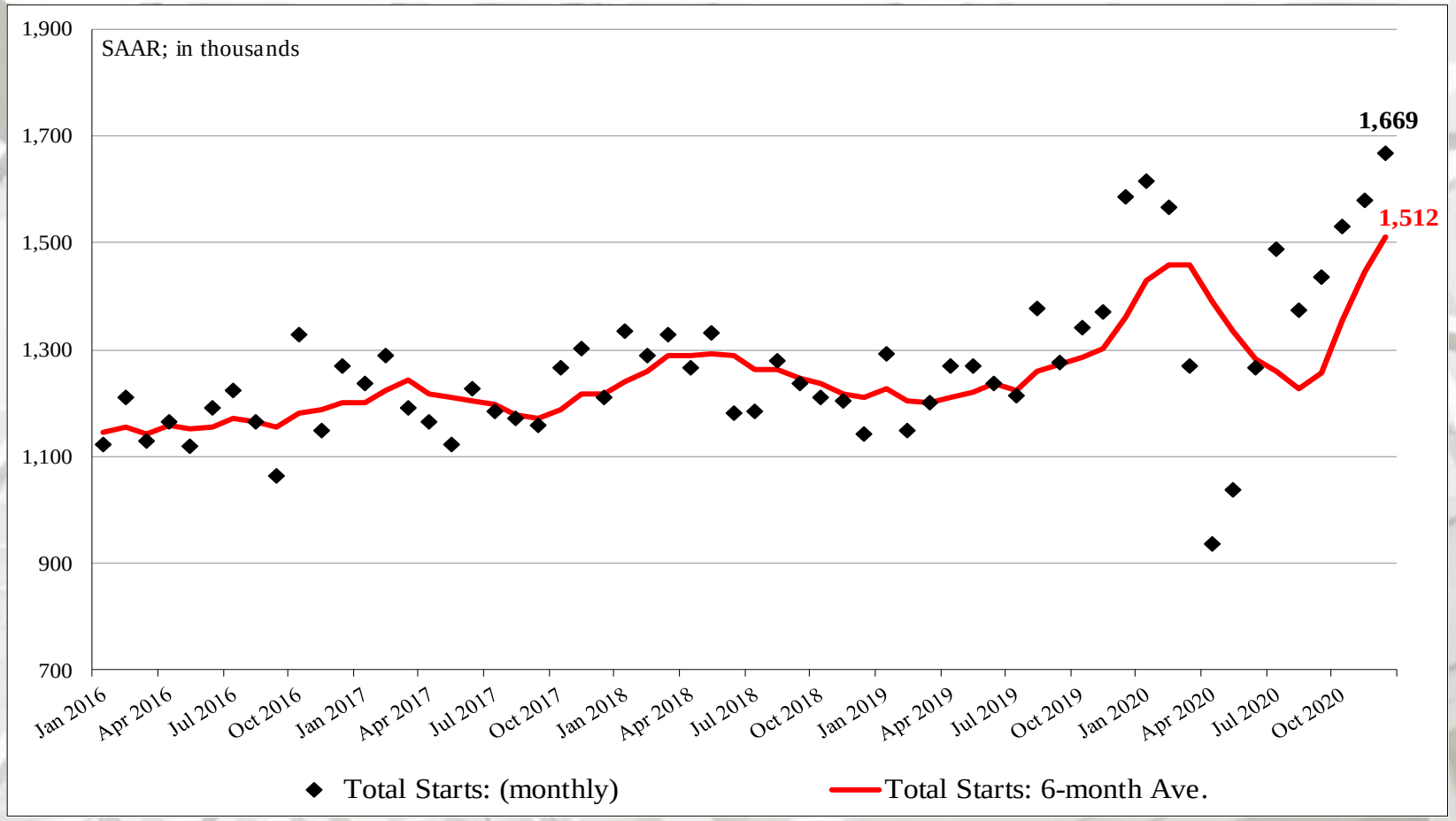
Total Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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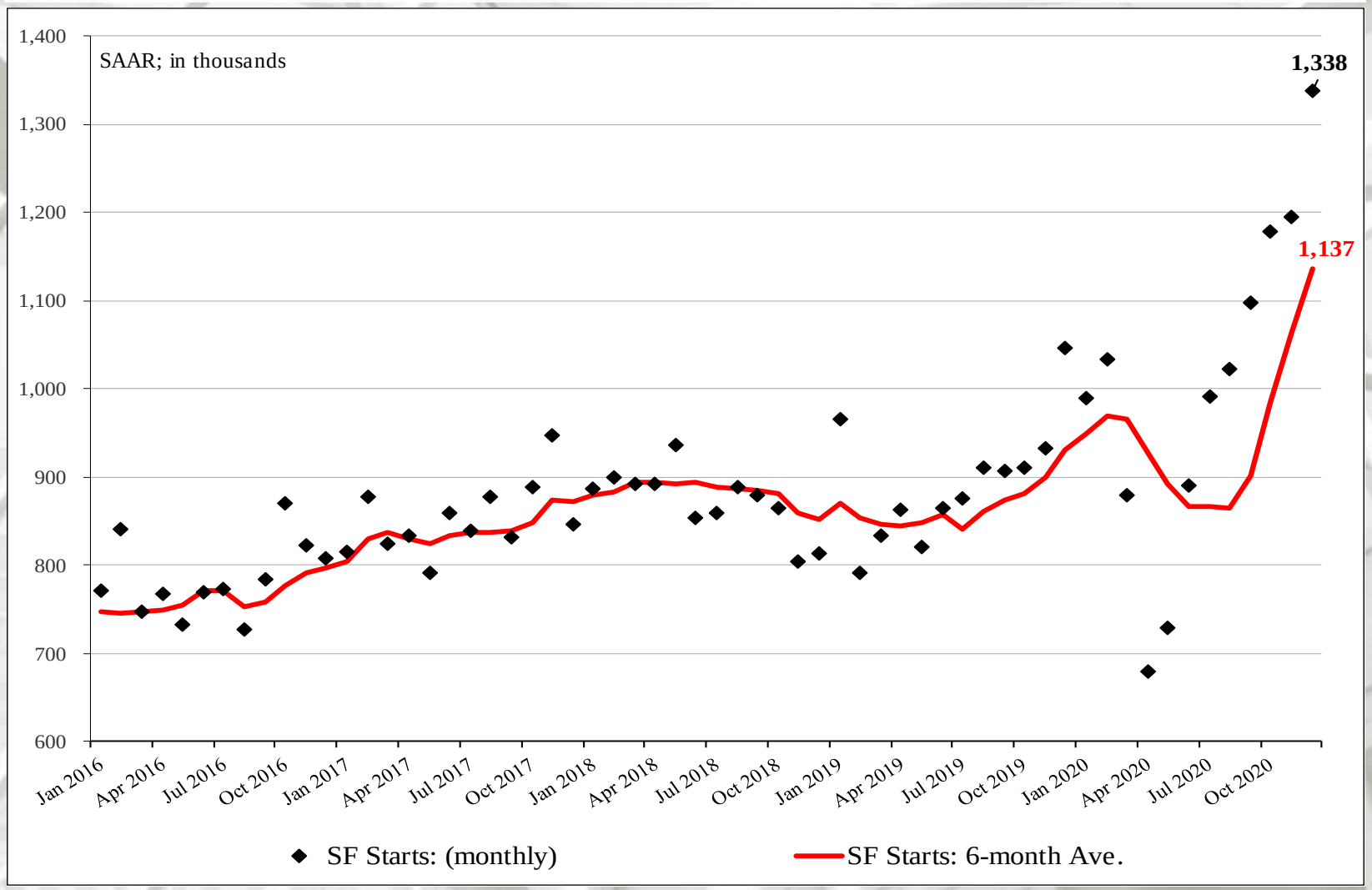
SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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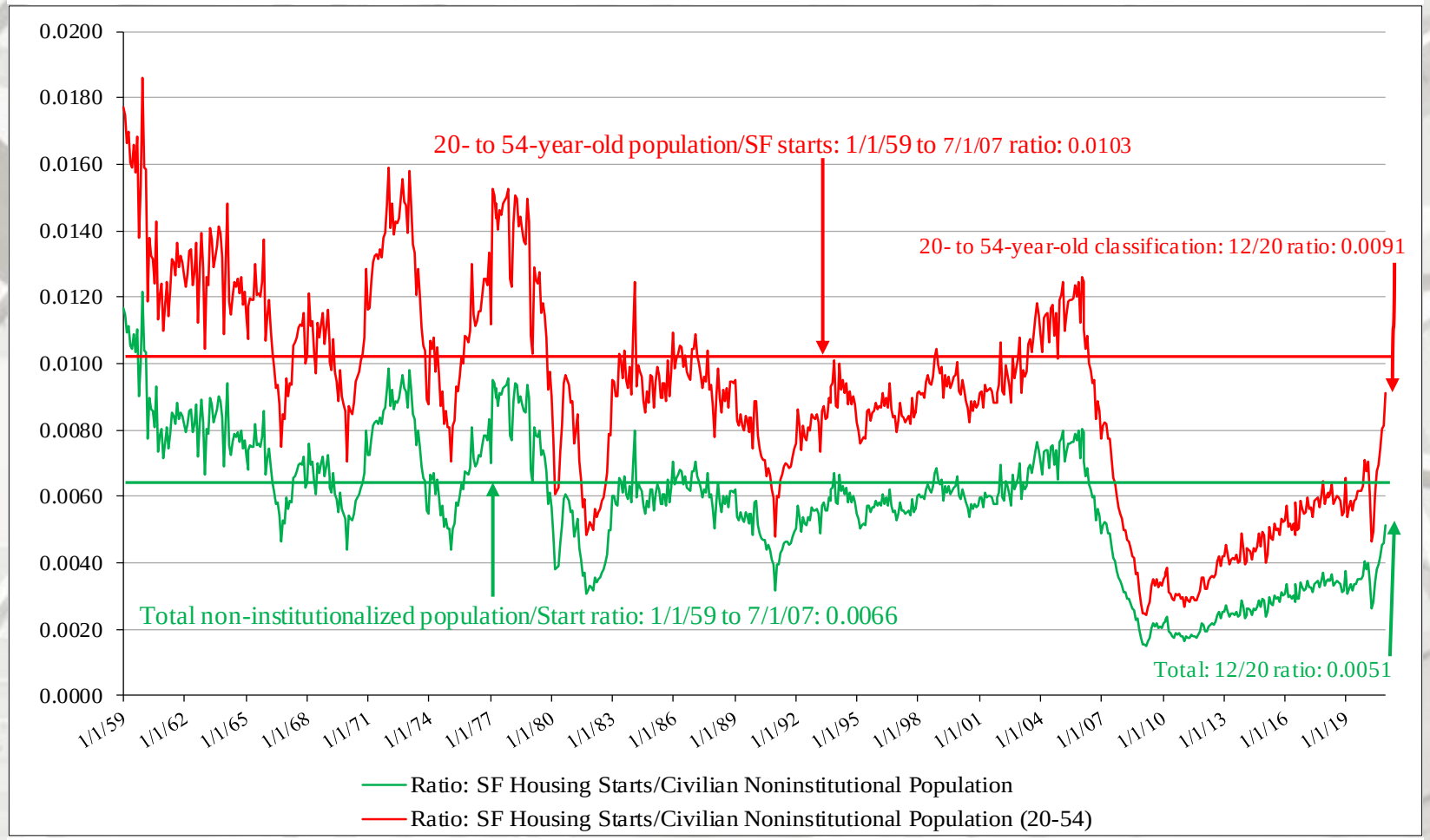
New SF Starts



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 2020 it was 0.0051 – an increase from November. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in December 2020 was 0.0081 – also an increase from November. From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

Sources: http://www.census.gov/construction/nrc/pdf/newresconst.pdff and The Federal Reserve Bank of St. Louis; 1/21/21

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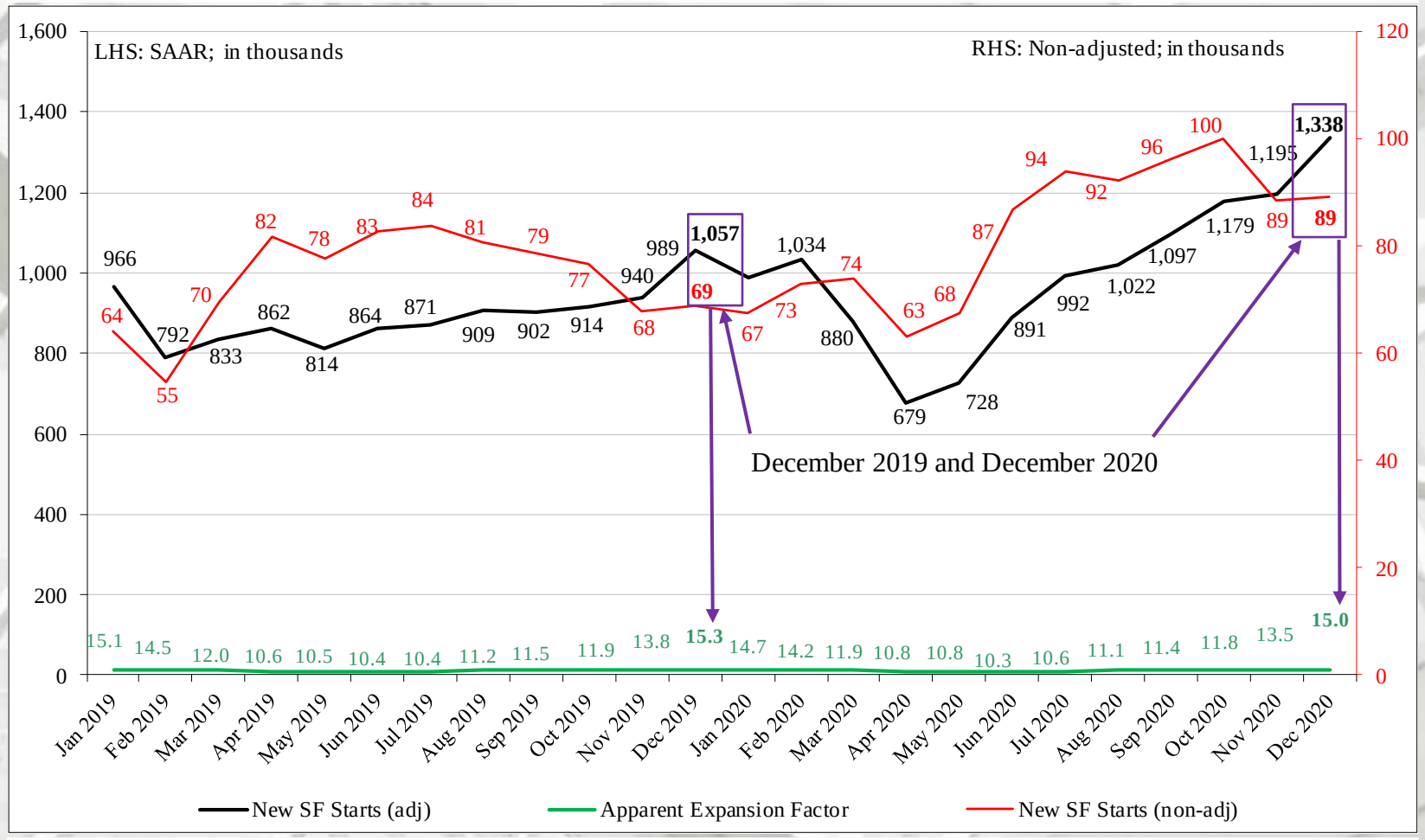
Nominal & SAAR SF Starts



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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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New Housing Starts by Region

	NE Total	NE SF	NE MF**
December	107,000	79,000	28,000
November	164,000	83,000	81,000
2019	141,000	66,000	75,000
M/M change	-34.8%	-4.8%	-65.4%
Y/Y change	-24.1%	19.7%	-62.7%
	MW Total	**MW SF**	**MW MF**
December	251,000	227,000	24,000
November	190,000	136,000	54,000
2019	238,000	164,000	74,000
M/M change	32.1%	66.9%	-55.6%
Y/Y change	5.5%	38.4%	-67.6%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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New Housing Starts by Region

	S Total	S SF	S MF**
December	858,000	713,000	145,000
November	813,000	659,000	154,000
2019	796,000	580,000	216,000
M/M change	5.5%	8.2%	-5.8%
Y/Y change	7.8%	22.9%	-32.9%

	W Total	W SF	W MF
December	453,000	319,000	134,000
November	411,000	317,000	94,000
2019	412,000	237,000	175,000
M/M change	10.2%	0.6%	42.6%
Y/Y change	10.0%	34.6%	-23.4%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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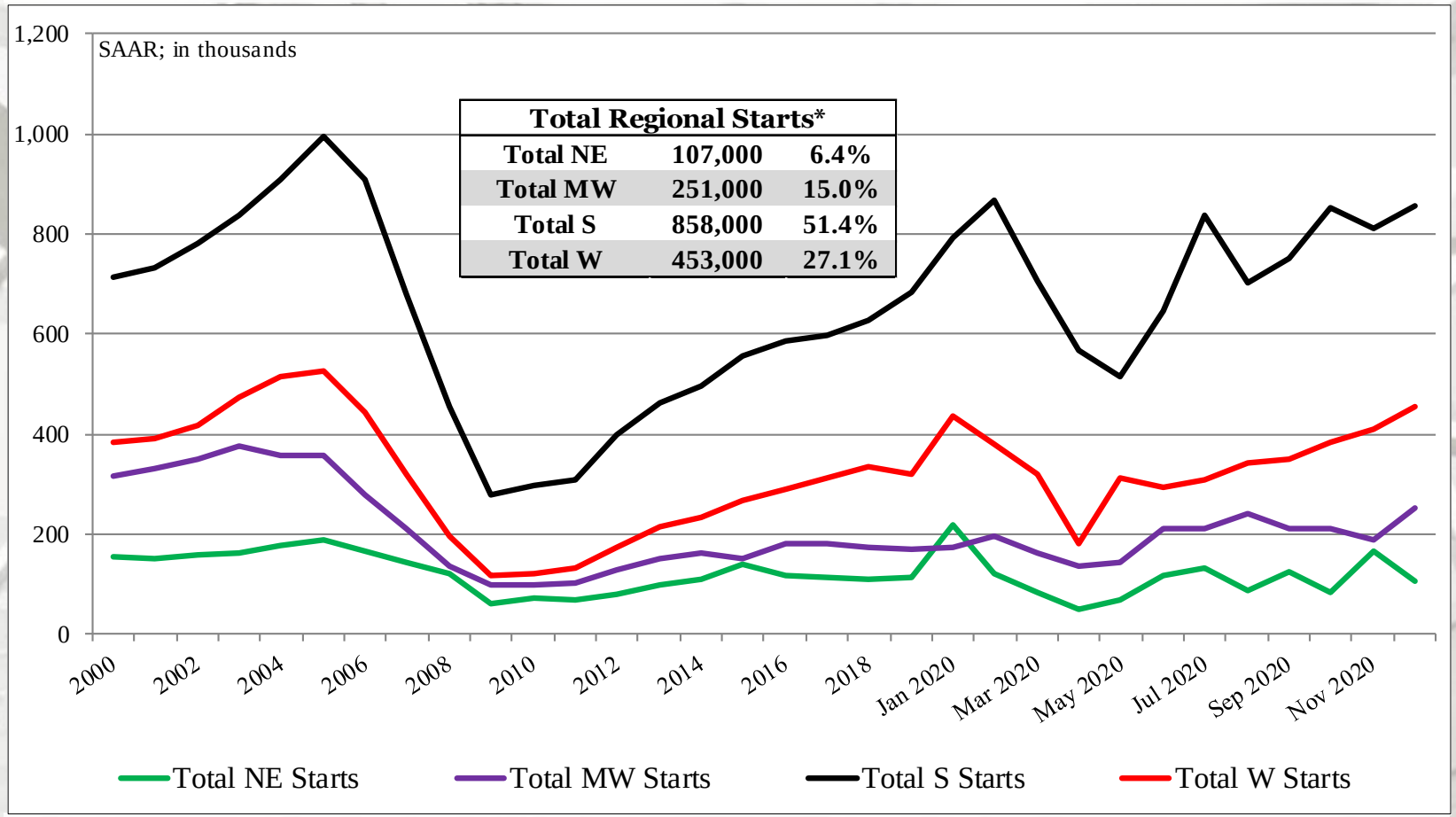
New Housing Starts by Region



Total Regional Starts*		
Total NE	107,000	6.4%
Total MW	251,000	15.0%
Total S	858,000	51.4%
Total W	453,000	27.1%

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.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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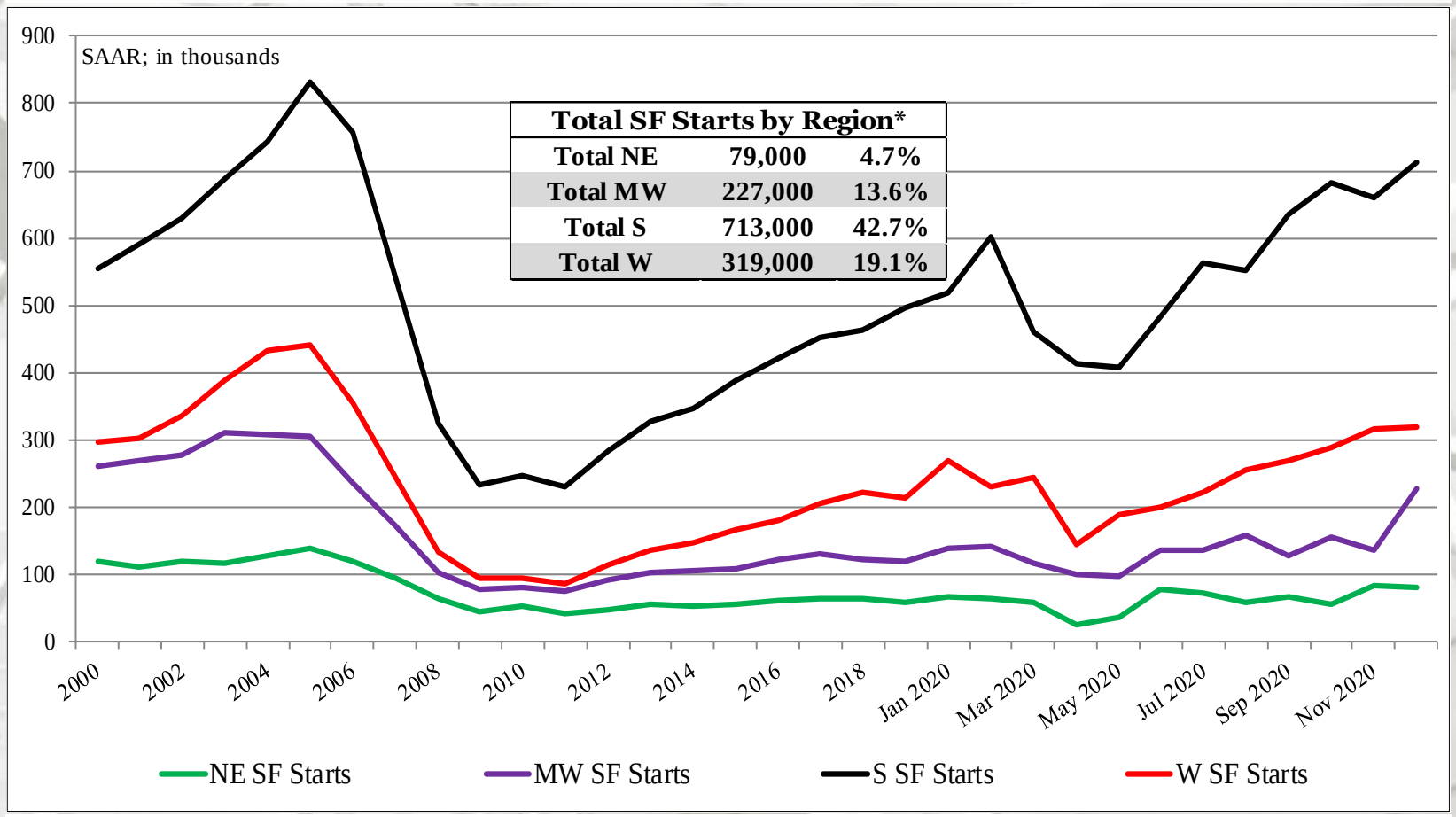
Total SF Housing Starts by Region



Total SF Starts by Region*		
Total NE	79,000	4.7%
Total MW	227,000	13.6%
Total S	713,000	42.7%
Total W	319,000	19.1%

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.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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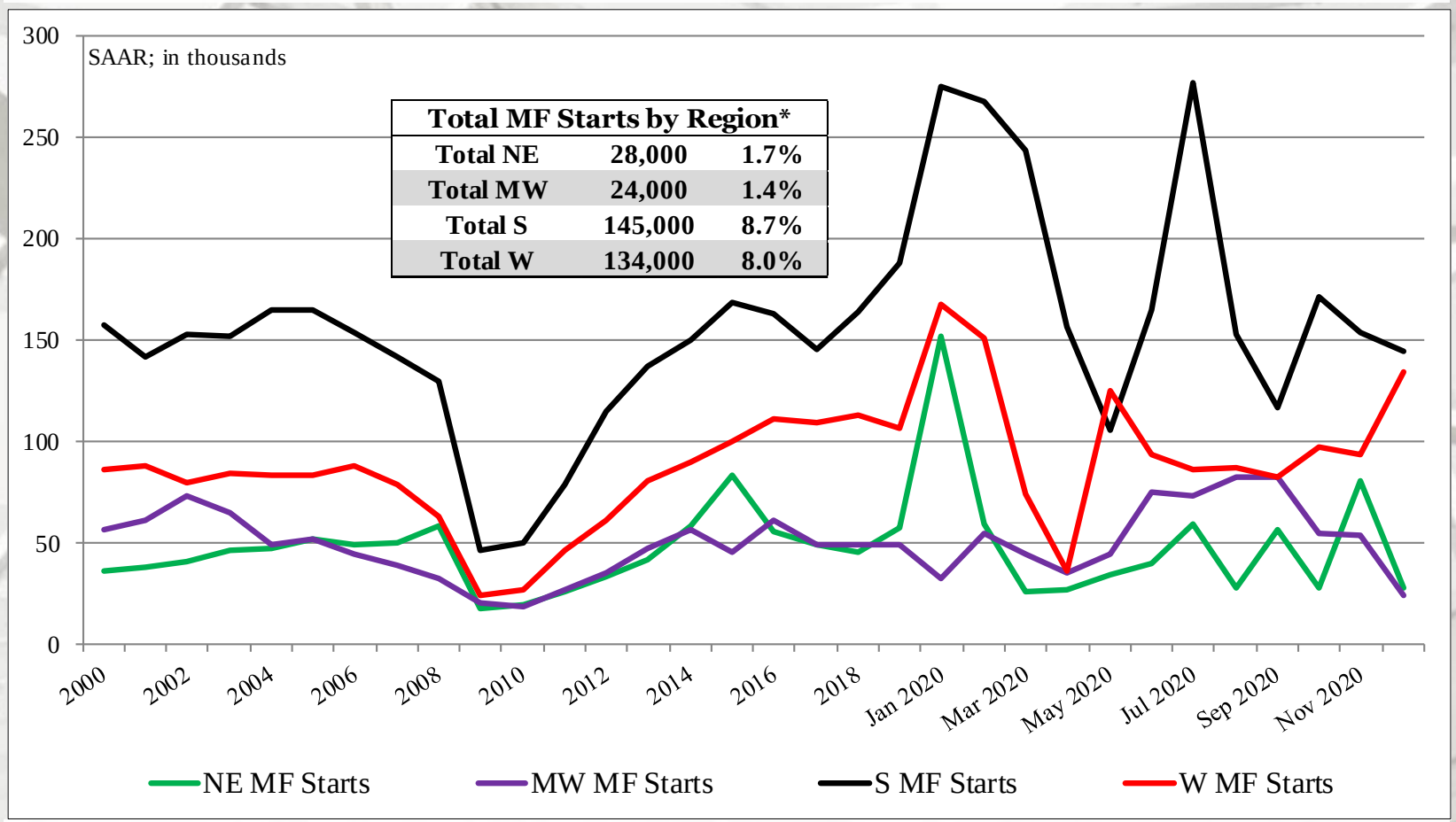
MF Housing Starts by Region



Total MF Starts by Region*		
Total NE	28,000	1.7%
Total MW	24,000	1.4%
Total S	145,000	8.7%
Total W	134,000	8.0%

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.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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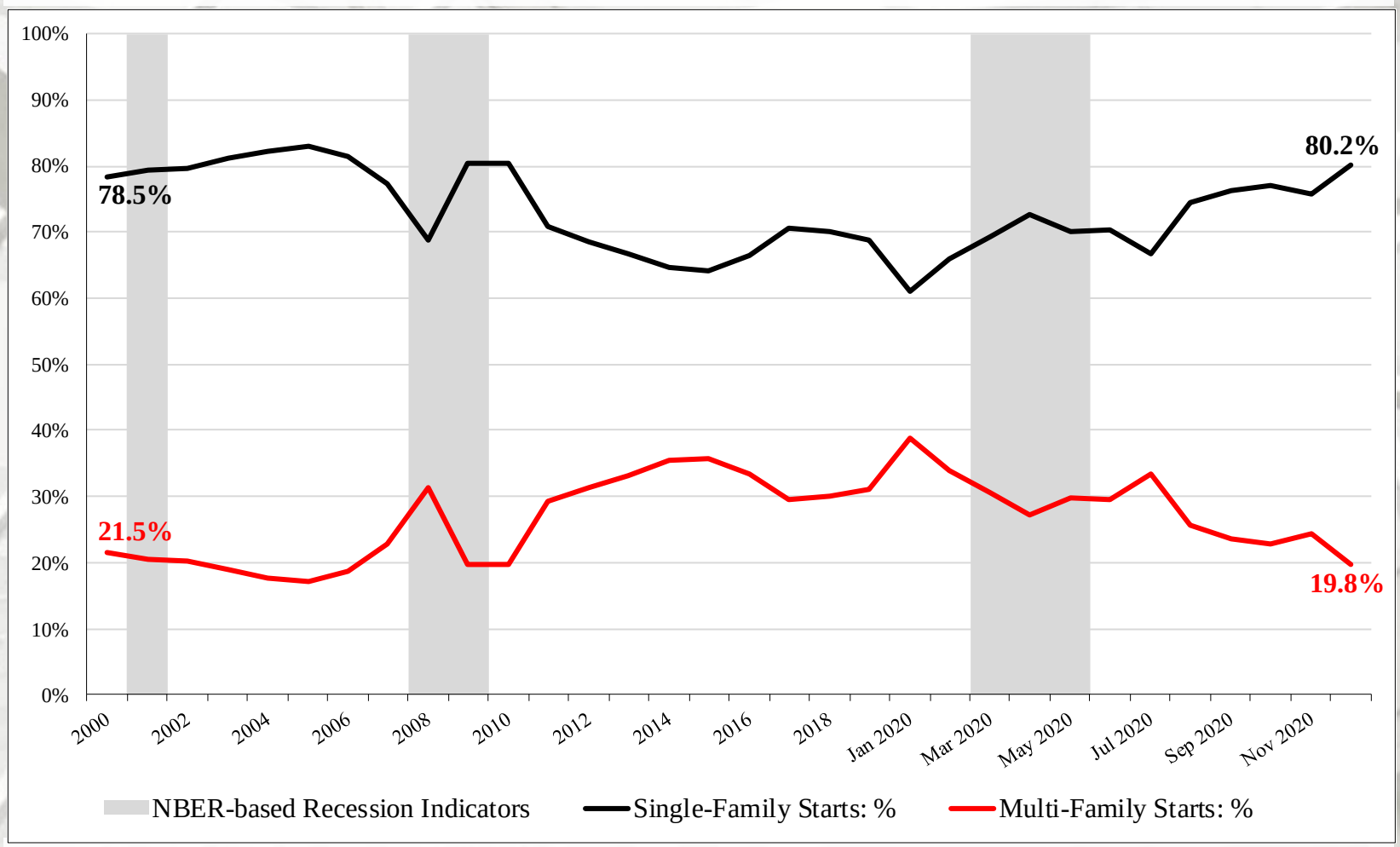
SF vs. MF Housing Starts (%)



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

Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
December	1,704,000	1,223,000	46,000	435,000
November	1,635,000	1,137,000	52,000	446,000
2019	1,457,000	940,000	43,000	474,000
M/M change	4.2%	7.6%	-11.5%	-2.5%
Y/Y change	17.0%	30.1%	7.0%	-8.2%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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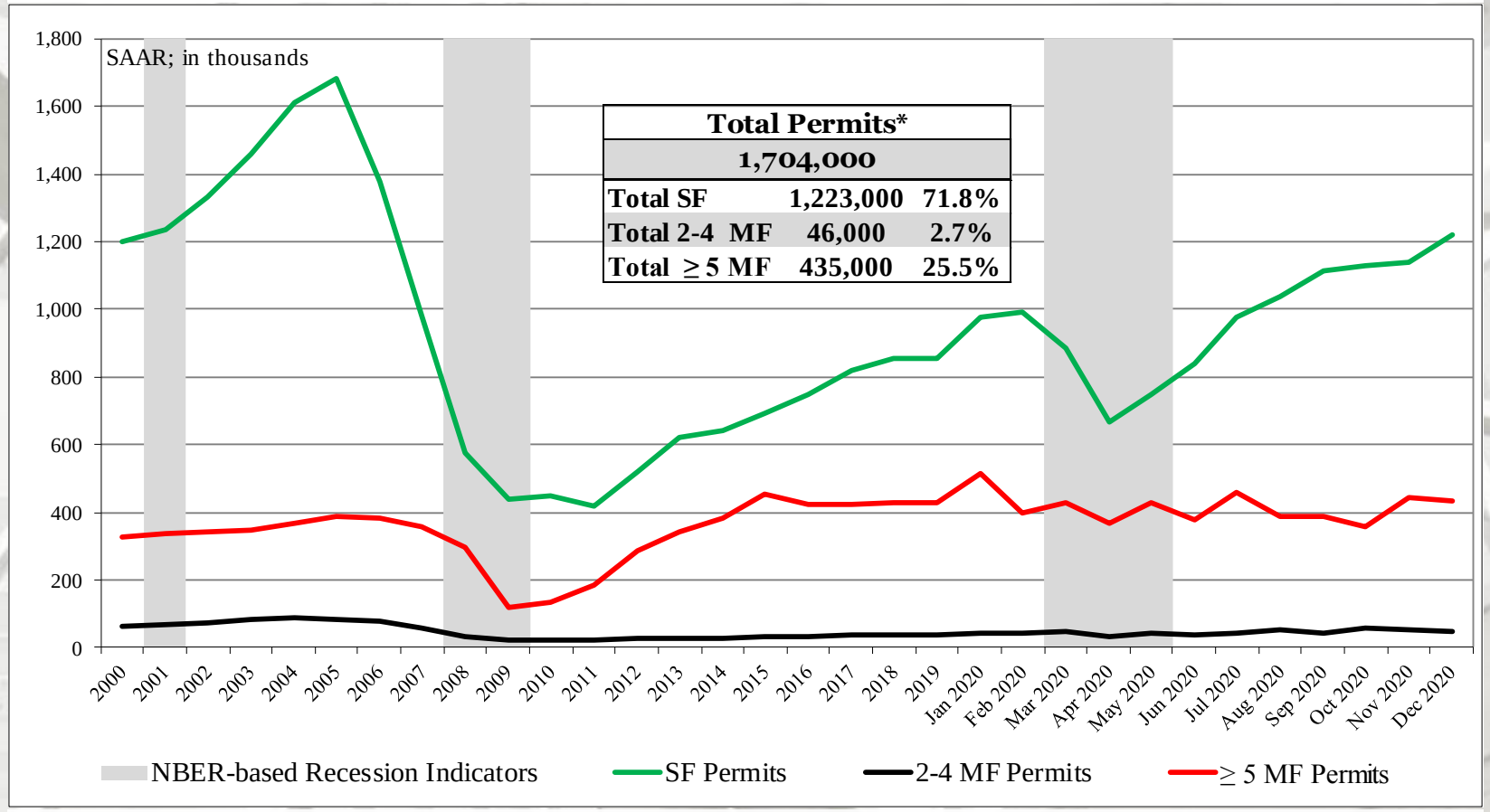
Total New Housing Permits



* Percentage of total permits.

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Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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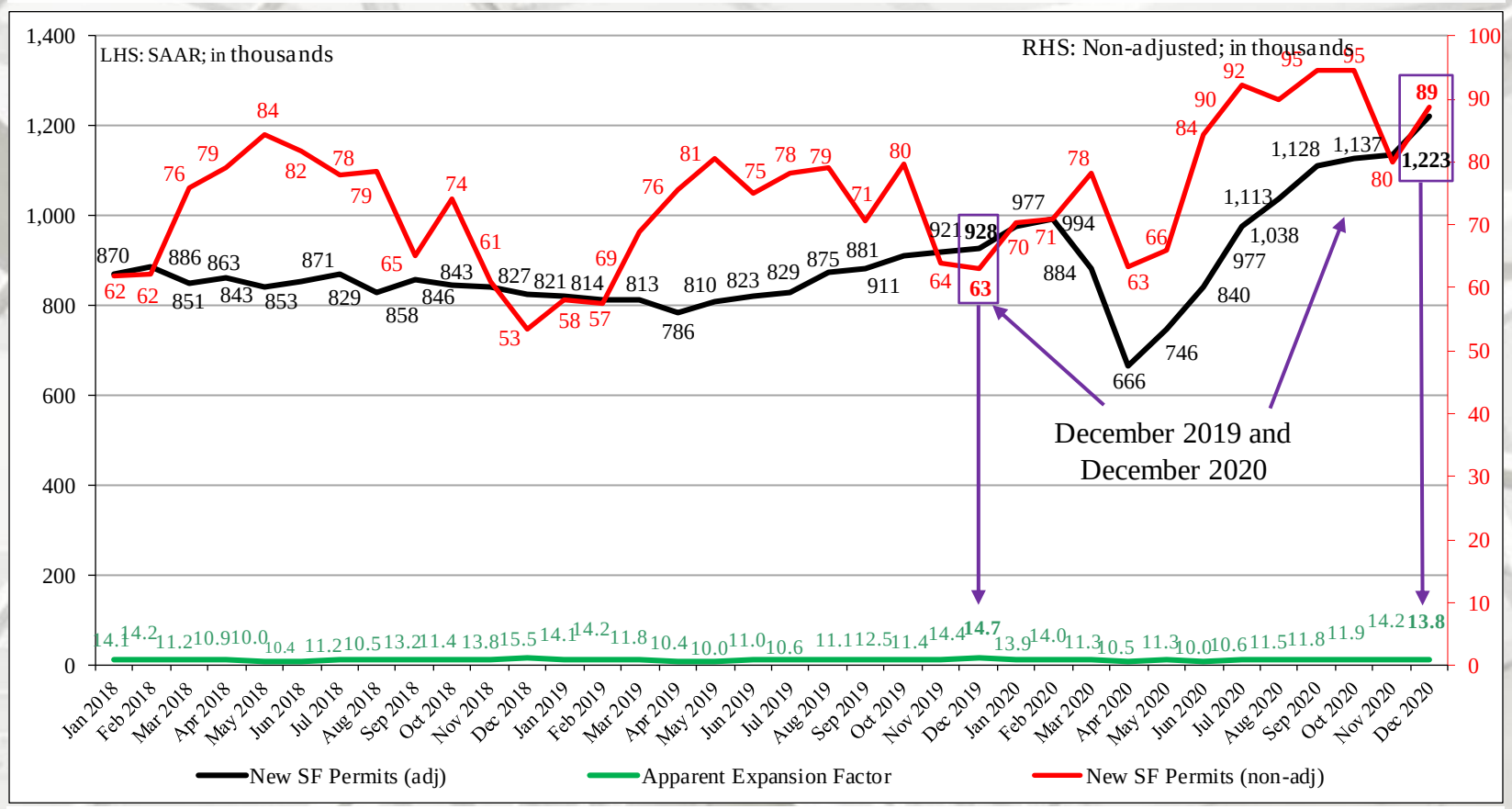
Nominal & SAAR SF Permits



Nominal and Adjusted New SF Monthly Permits

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

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

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New Housing Permits by Region

	NE Total*	NE SF	NE MF**
December	140,000	72,000	68,000
November	152,000	66,000	86,000
2019	147,000	49,000	98,000
M/M change	-7.9%	9.1%	-20.9%
Y/Y change	-4.8%	46.9%	-30.6%

	MW Total*	MW SF	MW MF**
December	248,000	171,000	77,000
November	221,000	145,000	76,000
2019	208,000	129,000	79,000
M/M change	12.2%	17.9%	1.3%
Y/Y change	19.2%	32.6%	-2.5%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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New Housing Permits by Region

	S Total*	S SF	S MF**
December	881,000	701,000	180,000
November	868,000	658,000	210,000
2019	720,000	528,000	192,000
M/M change	1.5%	6.5%	-14.3%
Y/Y change	22.4%	32.8%	-6.3%

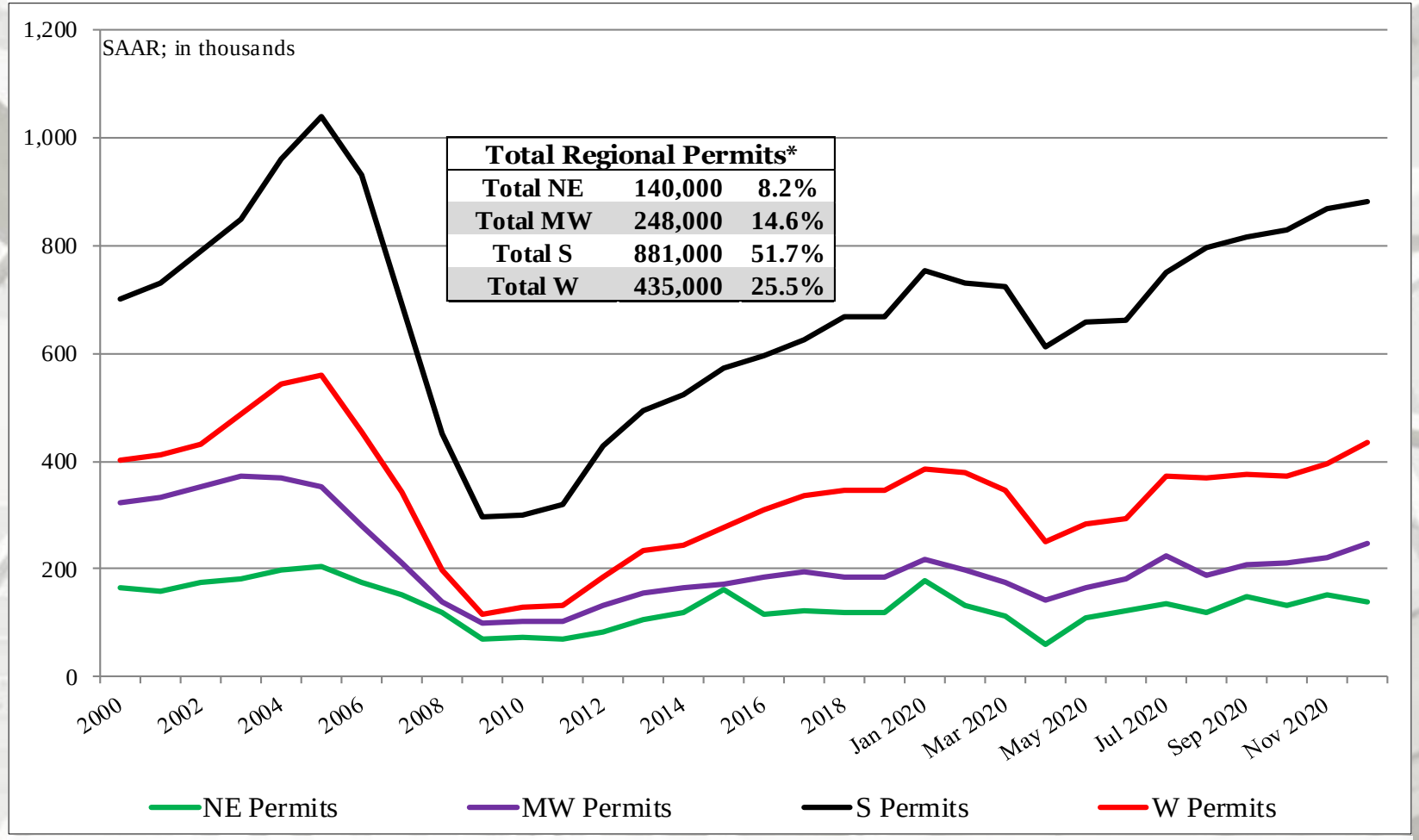
	W Total*	W SF	W MF**
December	435,000	279,000	156,000
November	394,000	268,000	126,000
2019	382,000	234,000	148,000
M/M change	10.4%	4.1%	23.8%
Y/Y change	13.9%	19.2%	5.4%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

Total Housing Permits by Region



Total Regional Permits*		
Total NE	140,000	8.2%
Total MW	248,000	14.6%
Total S	881,000	51.7%
Total W	435,000	25.5%

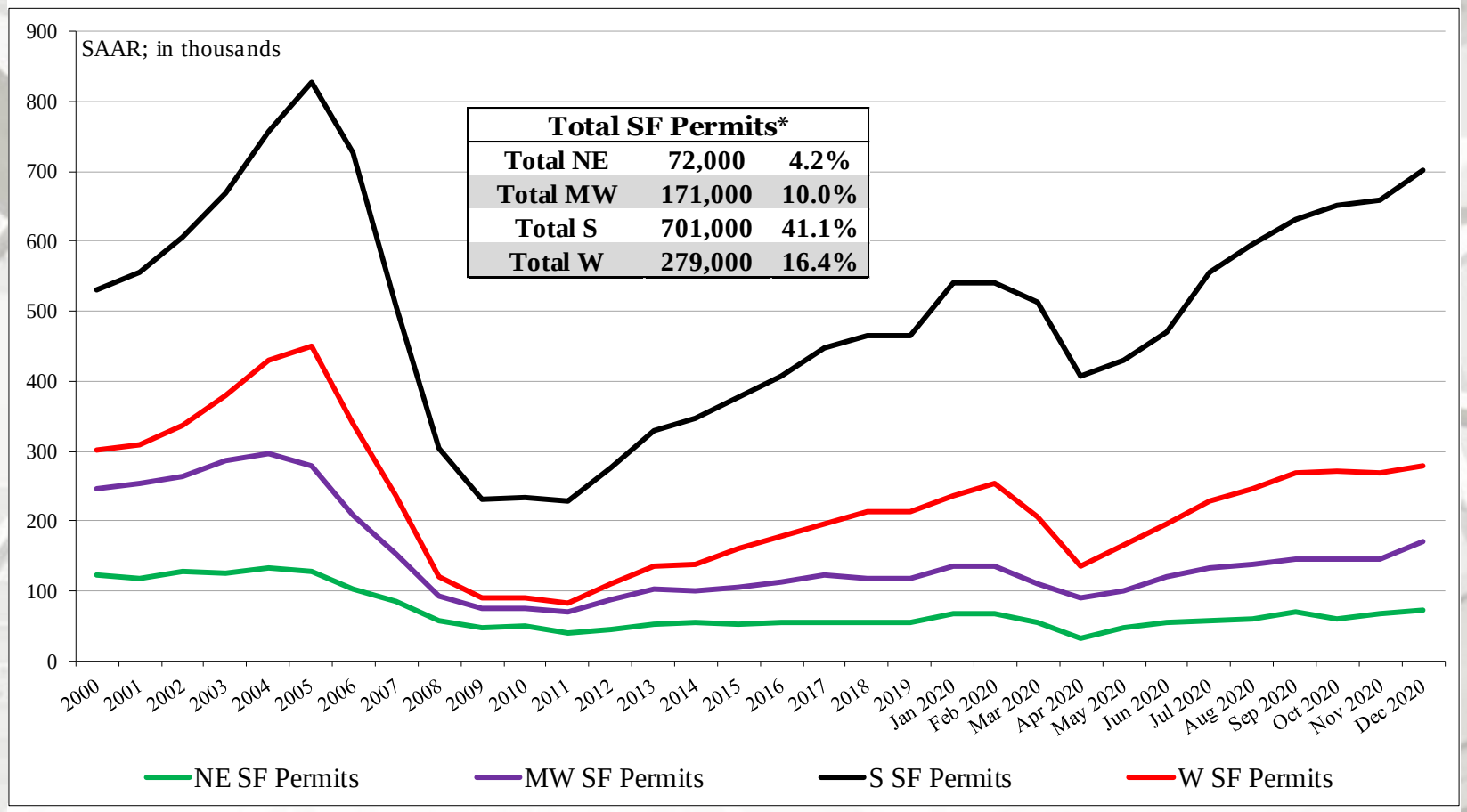
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

SF Housing Permits by Region



Total SF Permits*		
Total NE	72,000	4.2%
Total MW	171,000	10.0%
Total S	701,000	41.1%
Total W	279,000	16.4%

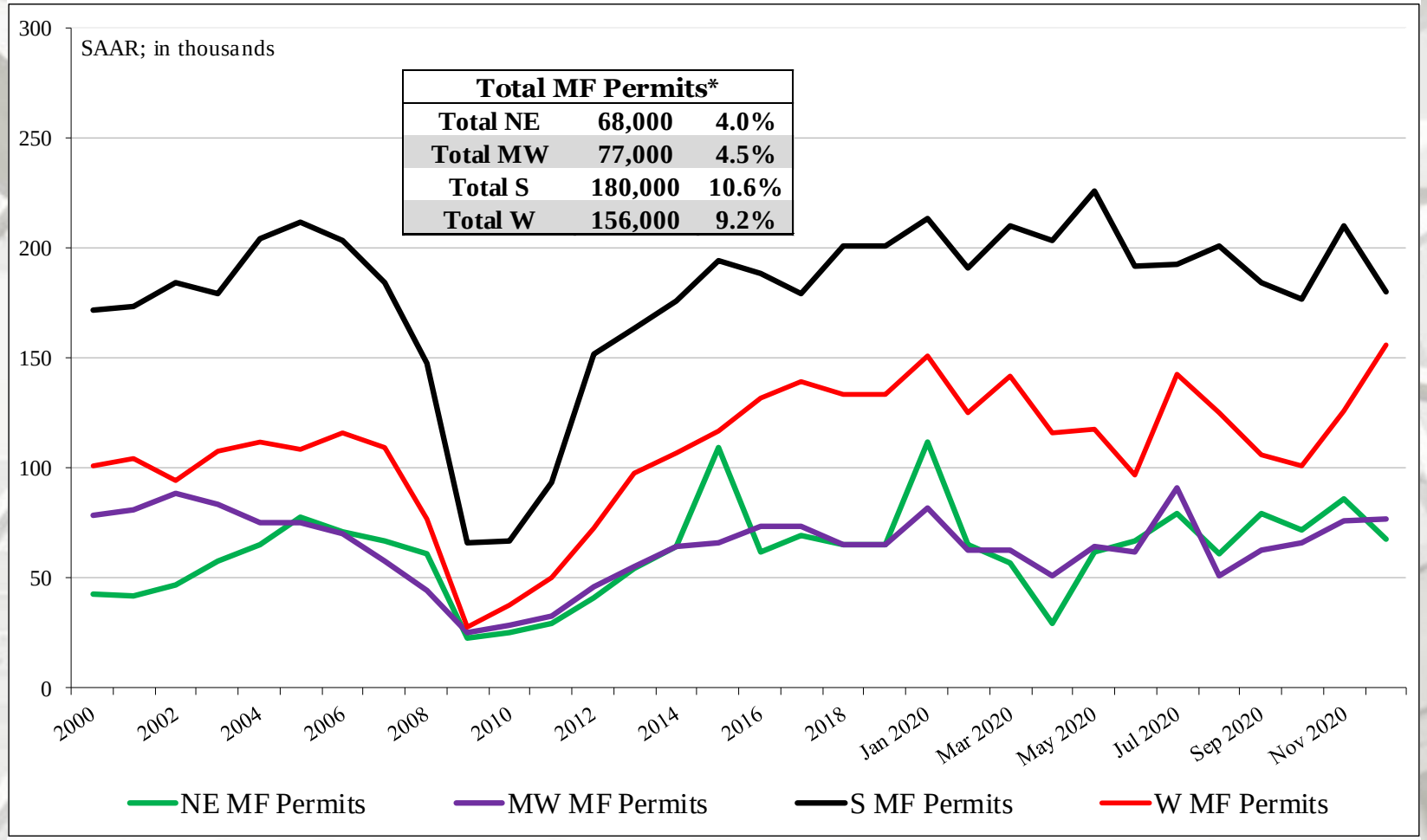
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

MF Housing Permits by Region



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

* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New Housing Under Construction (HUC)

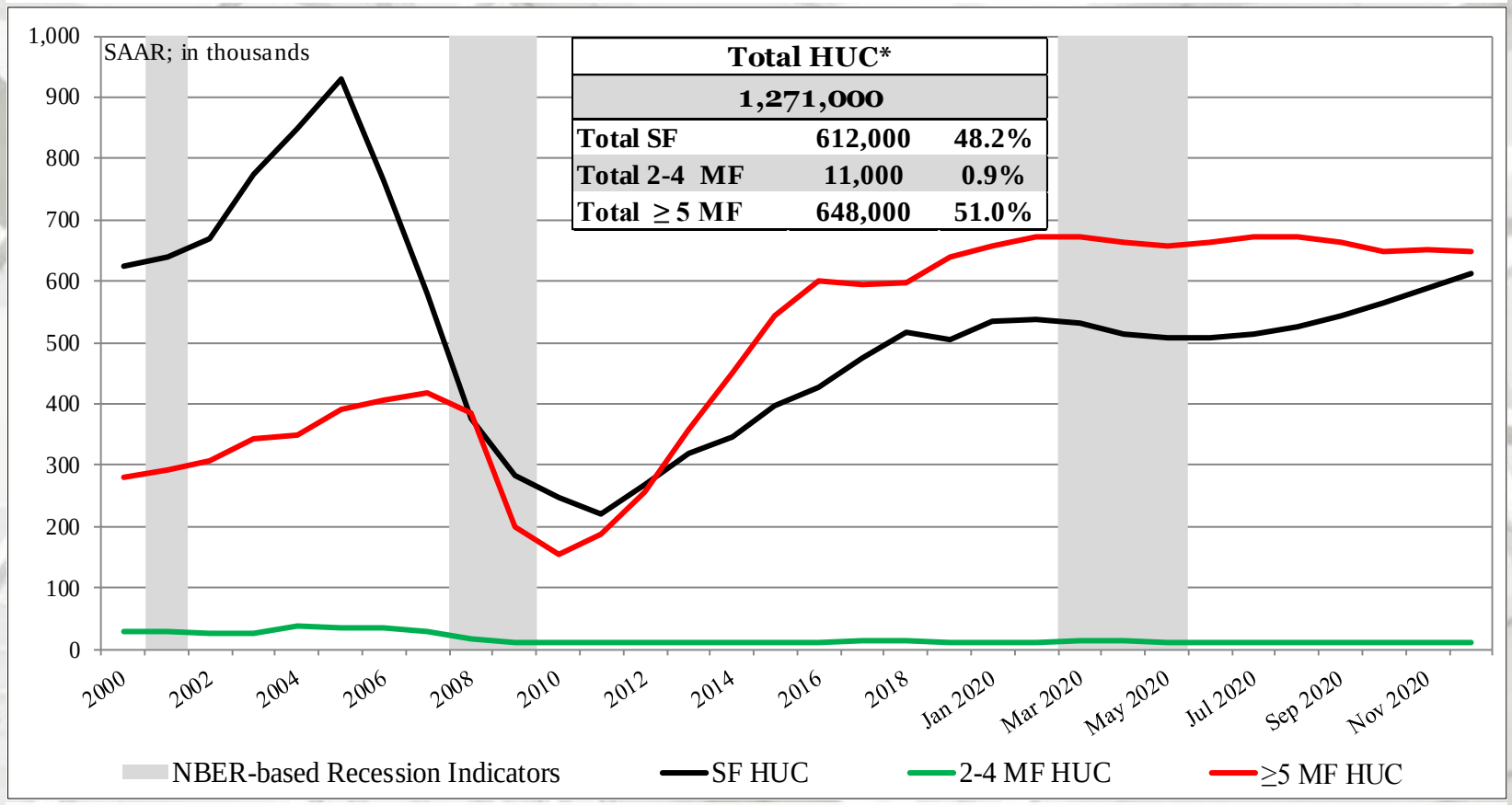
	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
December	1,271,000	612,000	11,000	648,000
November	1,251,000	589,000	11,000	651,000
2019	1,183,000	527,000	12,000	644,000
M/M change	1.6%	3.9%	0.0%	-0.5%
Y/Y change	7.4%	16.1%	-8.3%	0.6%

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)).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

Total Housing Under Construction



Total HUC*		
1,271,000		
Total SF	612,000	48.2%
Total 2-4 MF	11,000	0.9%
Total ≥ 5 MF	648,000	51.0%

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

* Percentage of total housing under construction units.

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

Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
December	180,000	59,000	121,000
November	183,000	58,000	125,000
2019	171,000	56,000	122,000
M/M change	-1.6%	1.7%	-3.2%
Y/Y change	5.3%	5.4%	-0.8%
	MW Total	**MW SF**	**MW MF**
December	163,000	86,000	77,000
November	162,000	83,000	79,000
2019	155,000	78,000	77,000
M/M change	0.6%	3.6%	-2.5%
Y/Y change	5.2%	10.3%	0.0%

All data are SAAR; NE = Northeast and MW = Midwest.
** US DOC does not report multi-family units under construction directly; this is an estimation (Total under construction – SF under construction).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Housing Under Construction by Region

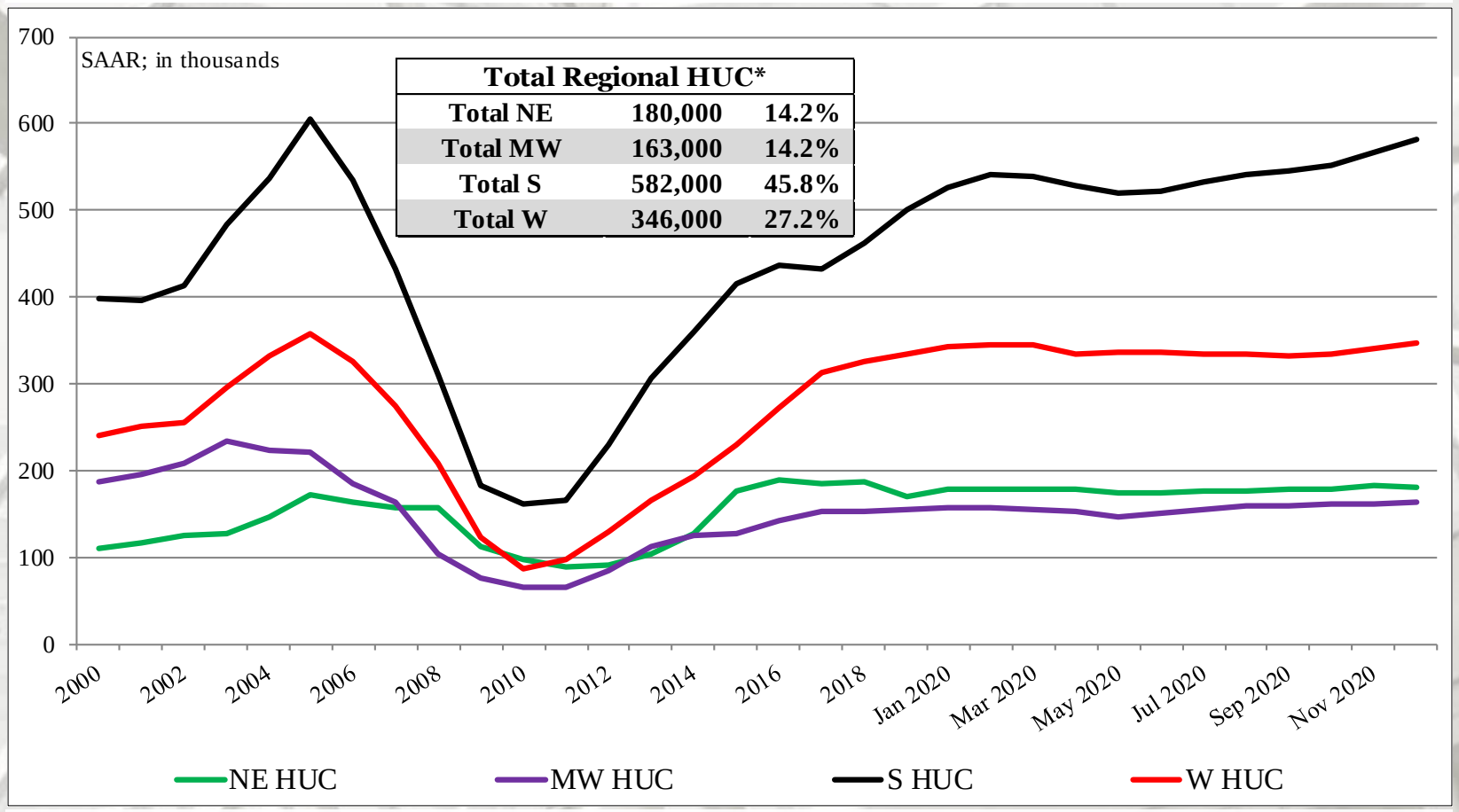
	S Total	S SF	S MF**
December	582,000	304,000	278,000
November	566,000	292,000	274,000
2019	517,000	252,000	265,000
M/M change	2.8%	4.1%	1.5%
Y/Y change	12.6%	20.6%	4.9%
	W Total	**W SF**	**W MF**
December	346,000	163,000	183,000
November	340,000	156,000	184,000
2019	340,000	141,000	199,000
M/M change	1.8%	4.5%	-0.5%
Y/Y change	1.8%	15.6%	-8.0%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

Total Housing Under Construction by Region



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

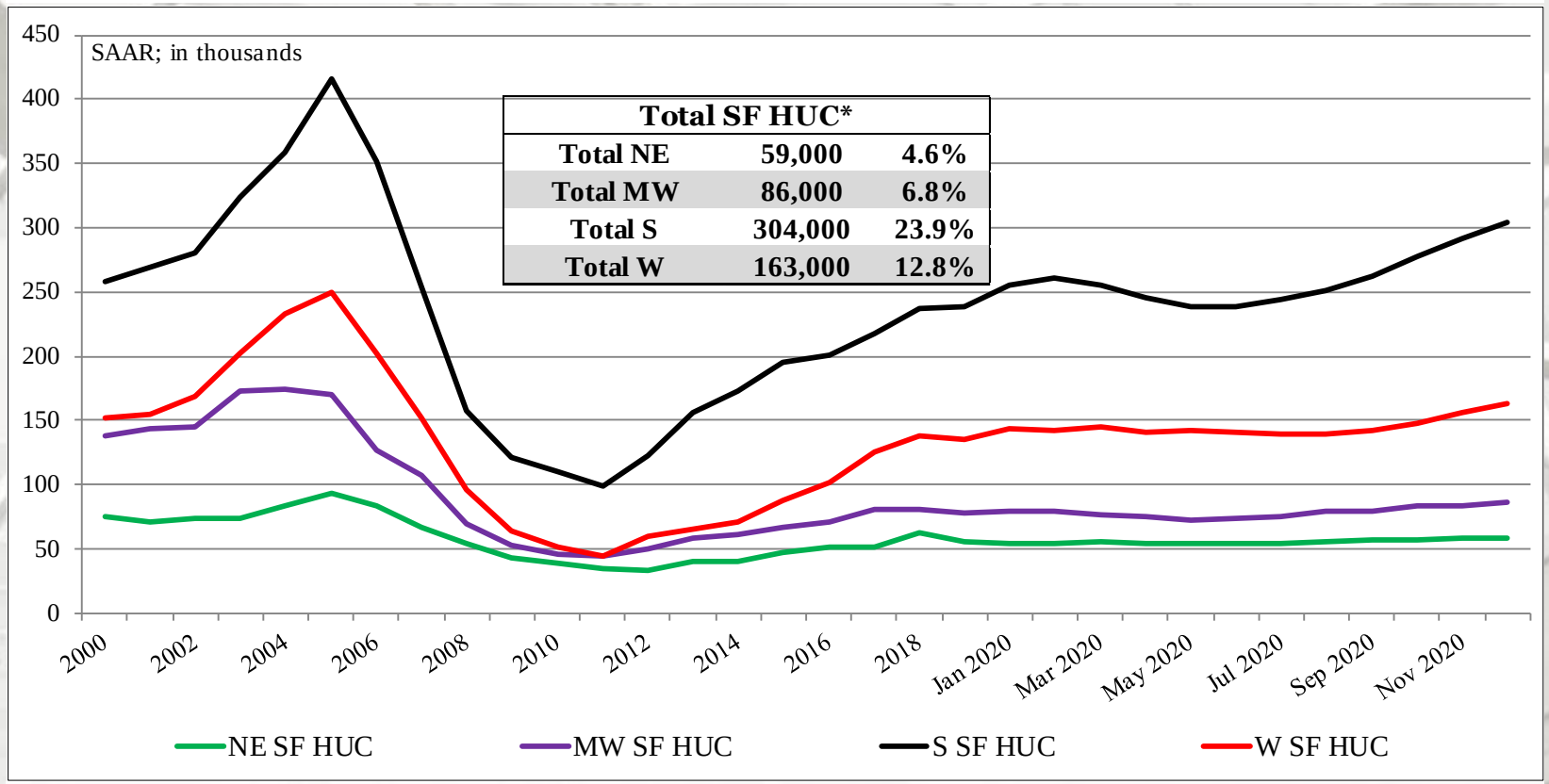
US DOC does not report 2 to 4 multi-family under construction directly; this is an estimation (Total under constructions – (SF + ≥ 5 MF under construction).

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

SF Housing Under Construction by Region



Total SF HUC*		
Total NE	59,000	4.6%
Total MW	86,000	6.8%
Total S	304,000	23.9%
Total W	163,000	12.8%

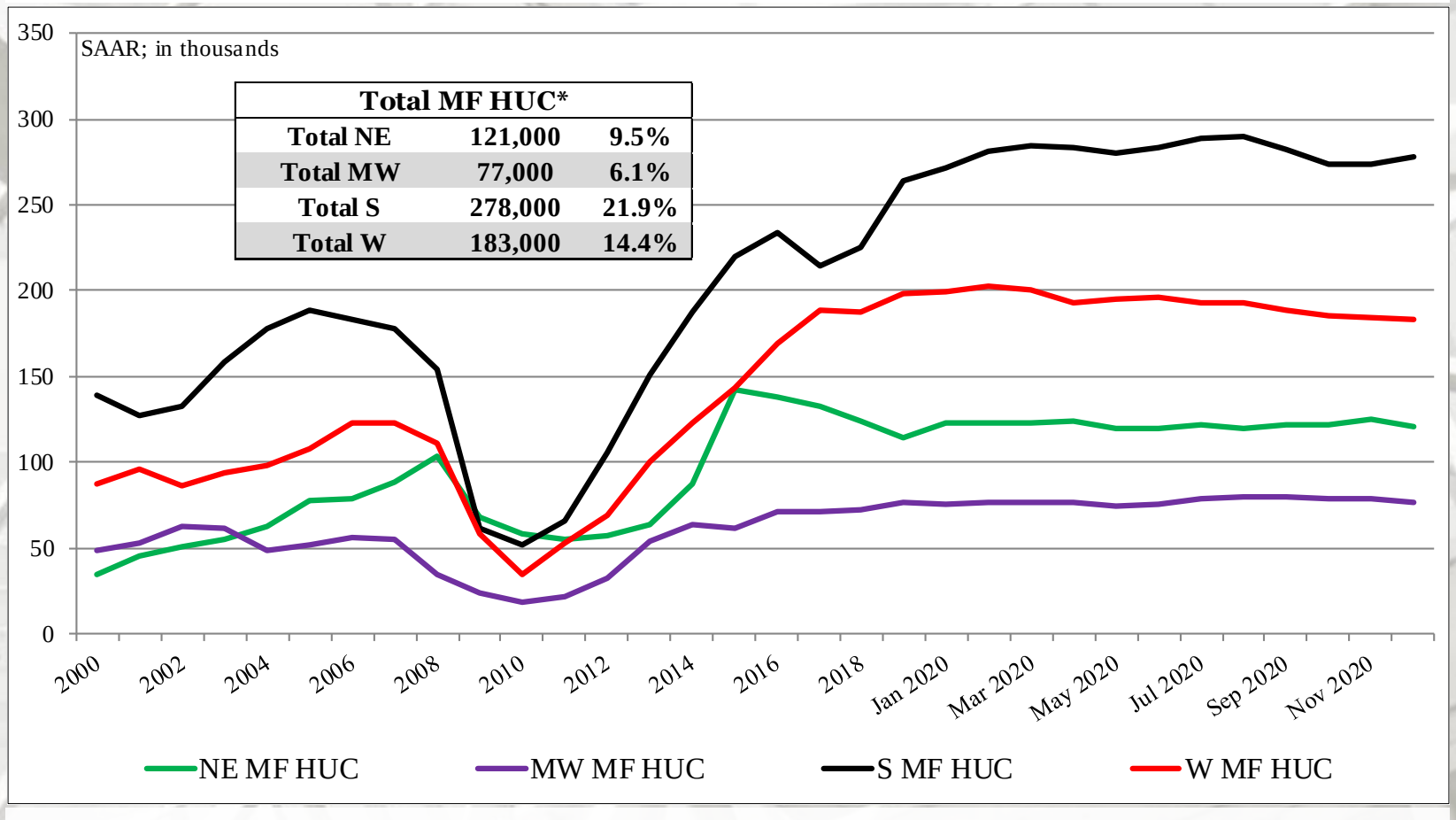
NE = Northeast, MW = Midwest, S = South, W = West.
US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF under construction).

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

MF Housing Under Construction by Region



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

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

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
December	1,417,000	984,000	11,000	422,000
November	1,223,000	893,000	11,000	319,000
2019	1,312,000	903,000	7,000	402,000
M/M change	15.9%	10.2%	0.0%	32.3%
Y/Y change	8.0%	9.0%	57.1%	5.0%

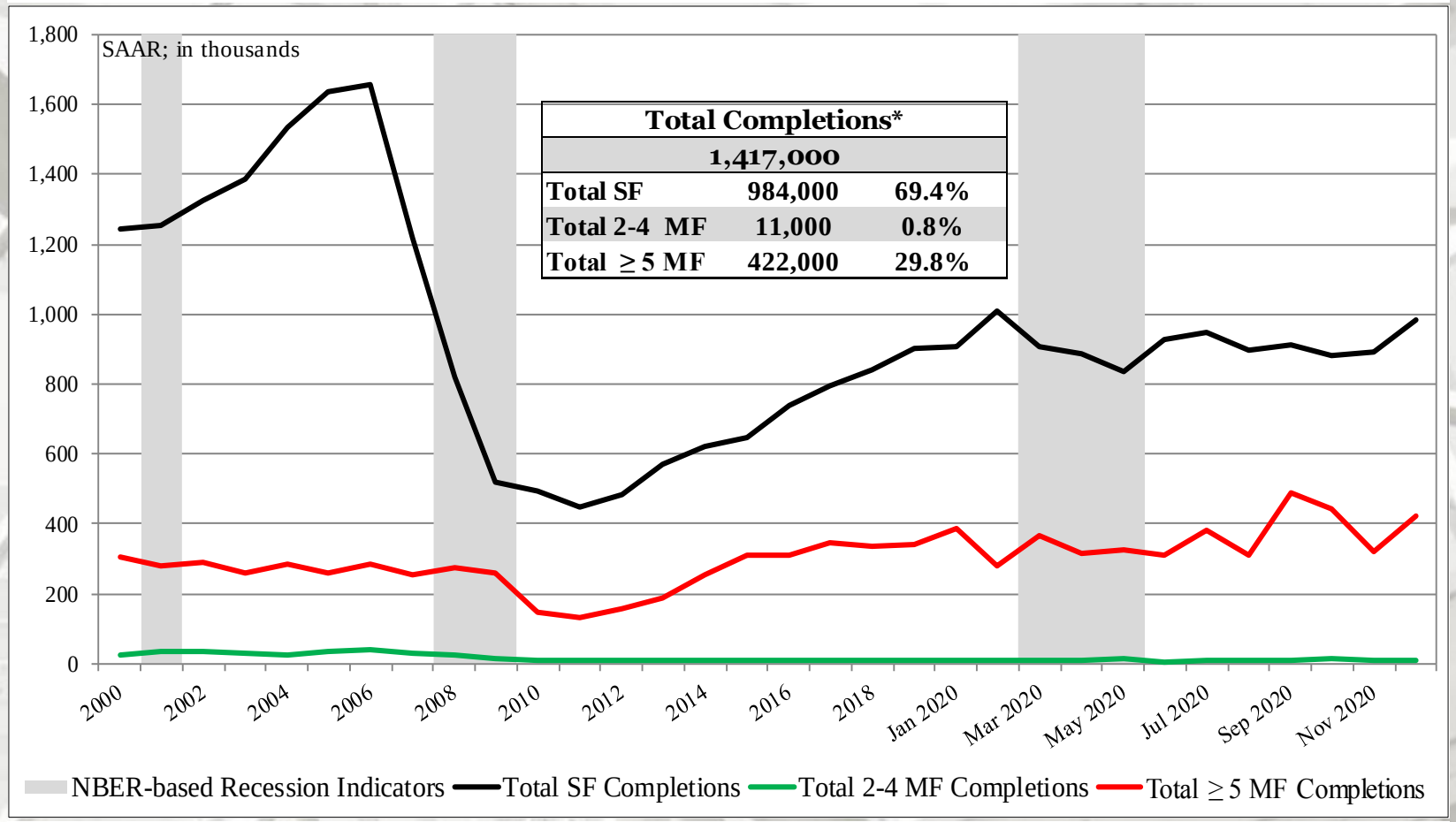
* All completion data are presented at a seasonally adjusted annual rate (SAAR).

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

Total Housing Completions



Total Completions*		
1,417,000		
Total SF	984,000	69.4%
Total 2-4 MF	11,000	0.8%
Total ≥ 5 MF	422,000	29.8%

** 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).

Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Housing Completions by Region

	NE Total	NE SF	NE MF**
December	113,000	56,000	57,000
November	112,000	54,000	58,000
2019	205,000	58,000	147,000
M/M change	0.9%	3.7%	-1.7%
Y/Y change	-44.9%	-3.4%	-61.2%
	MW Total	**MW SF**	**MW MF**
December	192,000	141,000	51,000
November	166,000	139,000	27,000
2019	139,000	108,000	31,000
M/M change	15.7%	1.4%	88.9%
Y/Y change	38.1%	30.6%	64.5%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Housing Completions by Region

	S Total	S SF	S MF**
December	747,000	557,000	190,000
November	625,000	482,000	143,000
2019	644,000	512,000	132,000
M/M change	19.5%	15.6%	32.9%
Y/Y change	16.0%	8.8%	43.9%
	W Total	**W SF**	**W MF**
December	365,000	230,000	135,000
November	320,000	218,000	102,000
2019	324,000	225,000	99,000
M/M change	14.1%	5.5%	32.4%
Y/Y change	12.7%	2.2%	36.4%

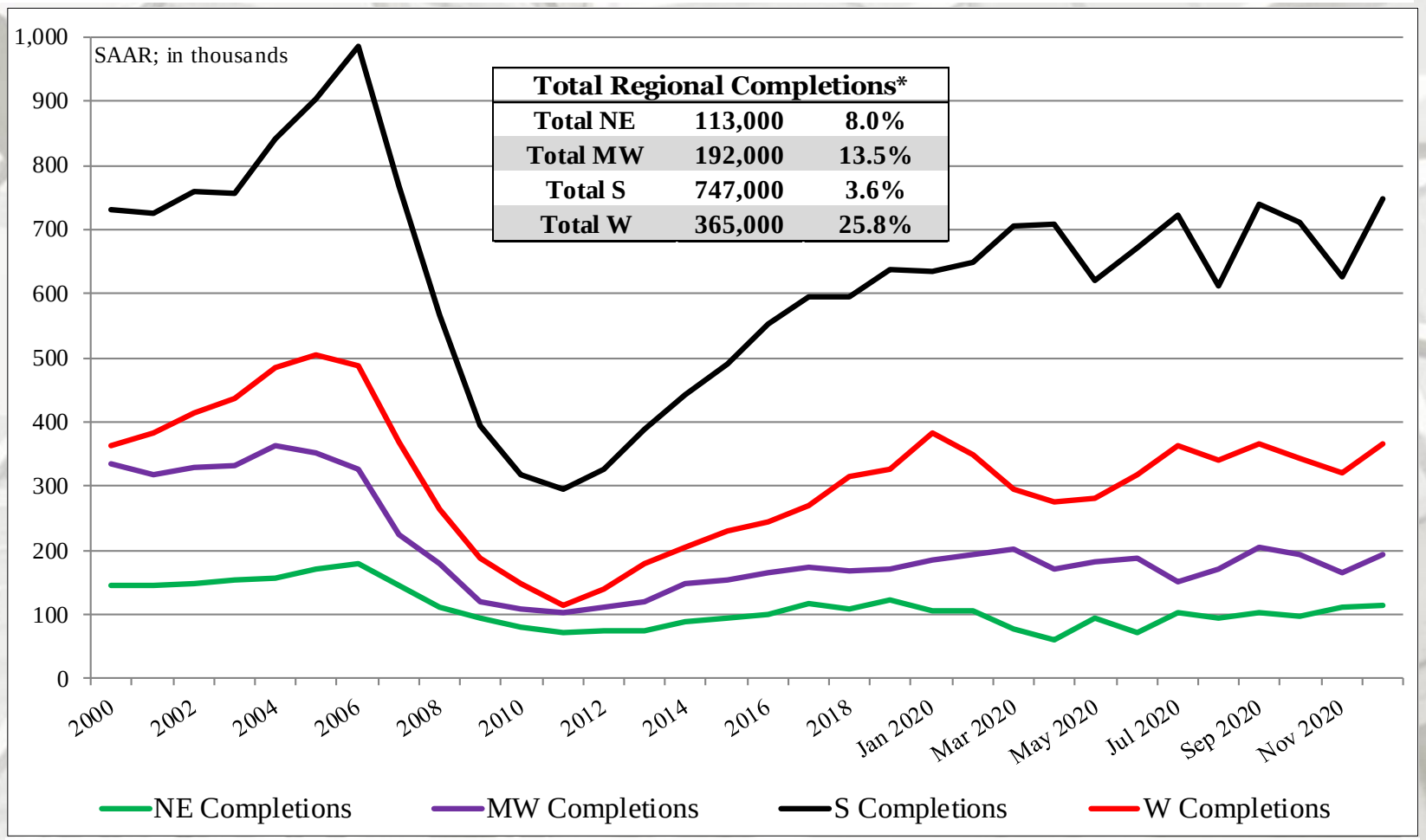
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

Total Housing Completions by Region



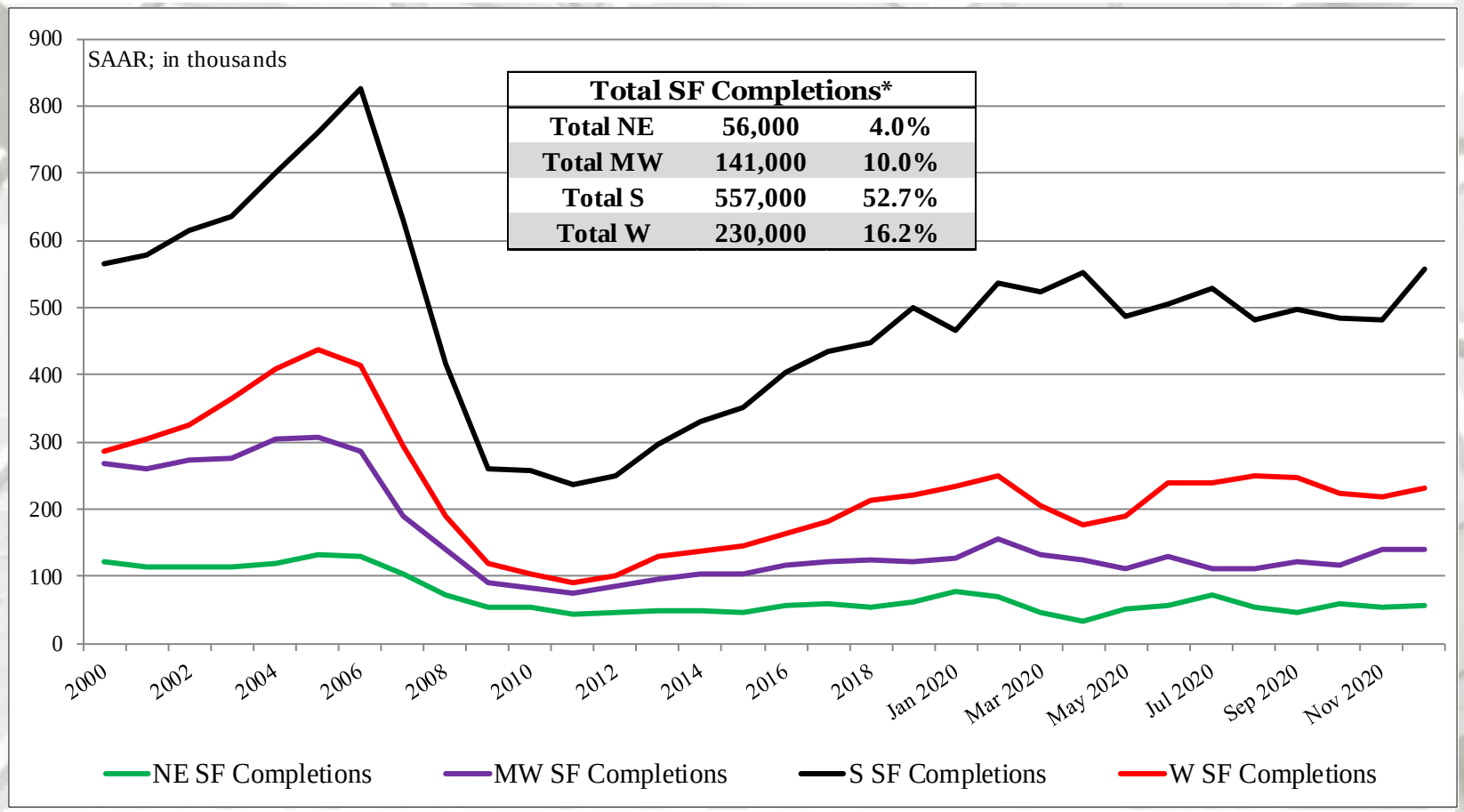
Total Regional Completions*		
Total NE	113,000	8.0%
Total MW	192,000	13.5%
Total S	747,000	3.6%
Total W	365,000	25.8%

All data are SAAR; NE = Northeast and MW = Midwest.
** US DOC does not report multi-family units completions directly; this is an estimation (Total completions – SF completions).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

SF Housing Completions by Region



Total SF Completions*		
Total NE	56,000	4.0%
Total MW	141,000	10.0%
Total S	557,000	52.7%
Total W	230,000	16.2%

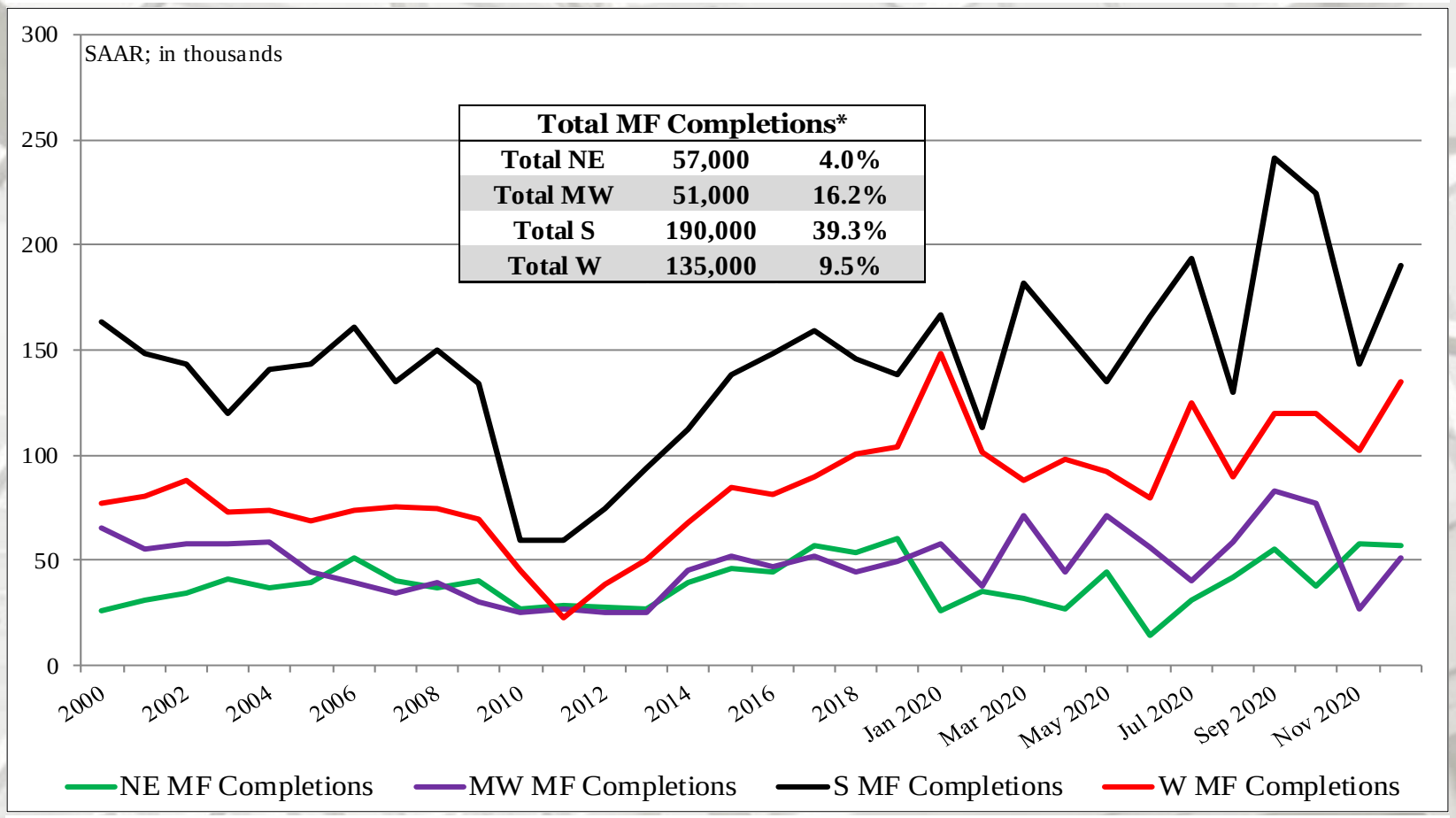
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/21/21

Return TOC

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
December	842,000	$355,900	$394,900	4.3
November	829,000	$343,900	$393,200	4.2
2019	731,000	$329,500	$377,700	5.3
M/M change	1.6%	3.5%	0.4%	2.4%
Y/Y change	15.2%	8.0%	4.6%	-18.9%

* All new sales data are presented at a seasonally adjusted annual rate (SAAR)[1] and housing prices are adjusted at irregular intervals[2].

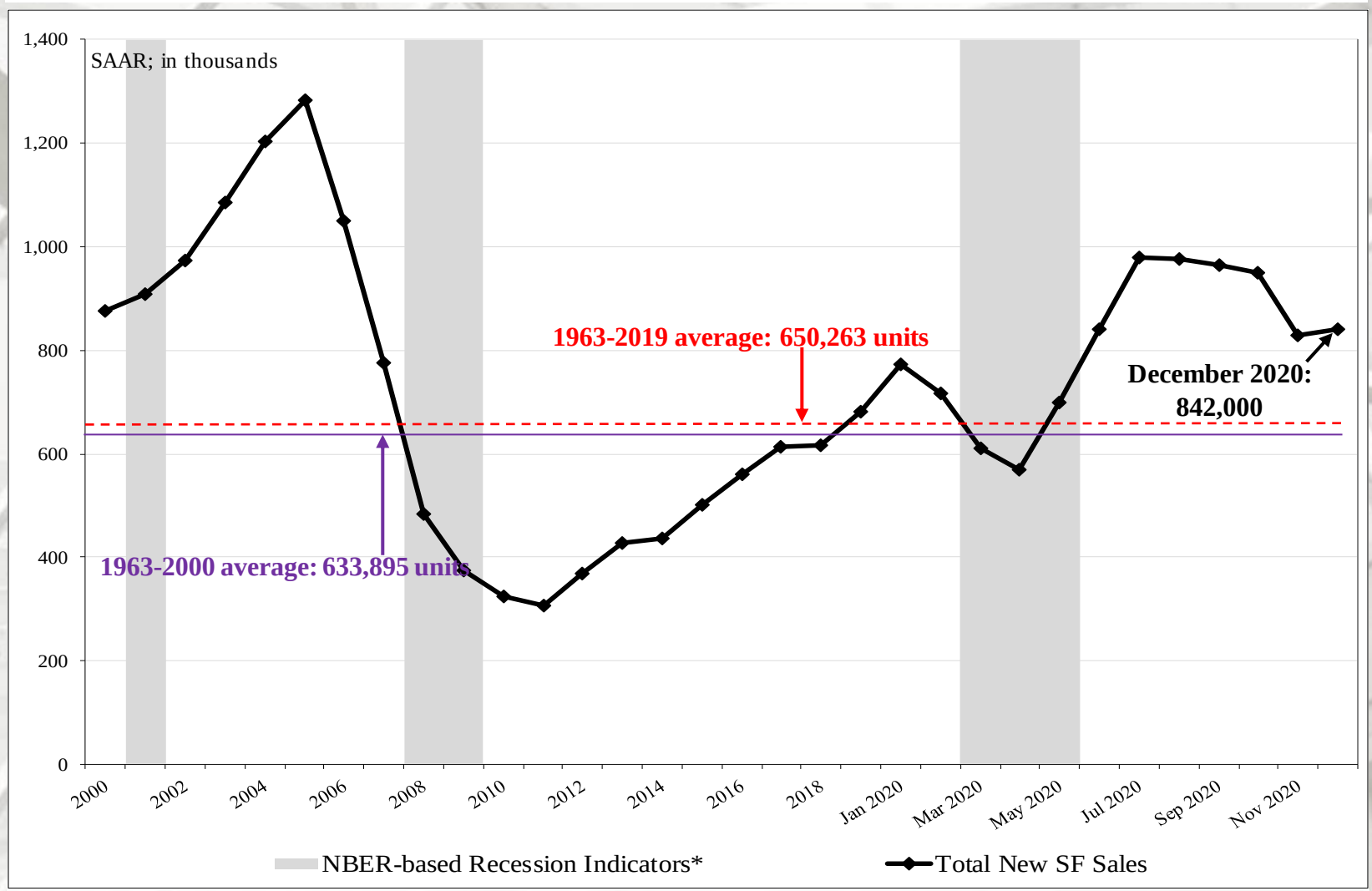
New SF sales were less than the consensus forecast[3] of 871 m (range: 822 m to 934 m). The past three month's new SF sales data also were revised:

September initial:	959 m, revised to 965 m;
October initial:	999 m, revised to 949 m;
November initial:	841 m, revised to 842 m.

Sources: [1] https://www.census.gov/construction/nrs/index.html; 1/28/21; [2] https://www.census.gov/construction/nrs/pdf/newressales.pdf
[3] http://us.econoday.com/; 1/28/21

Return TOC

New SF House Sales

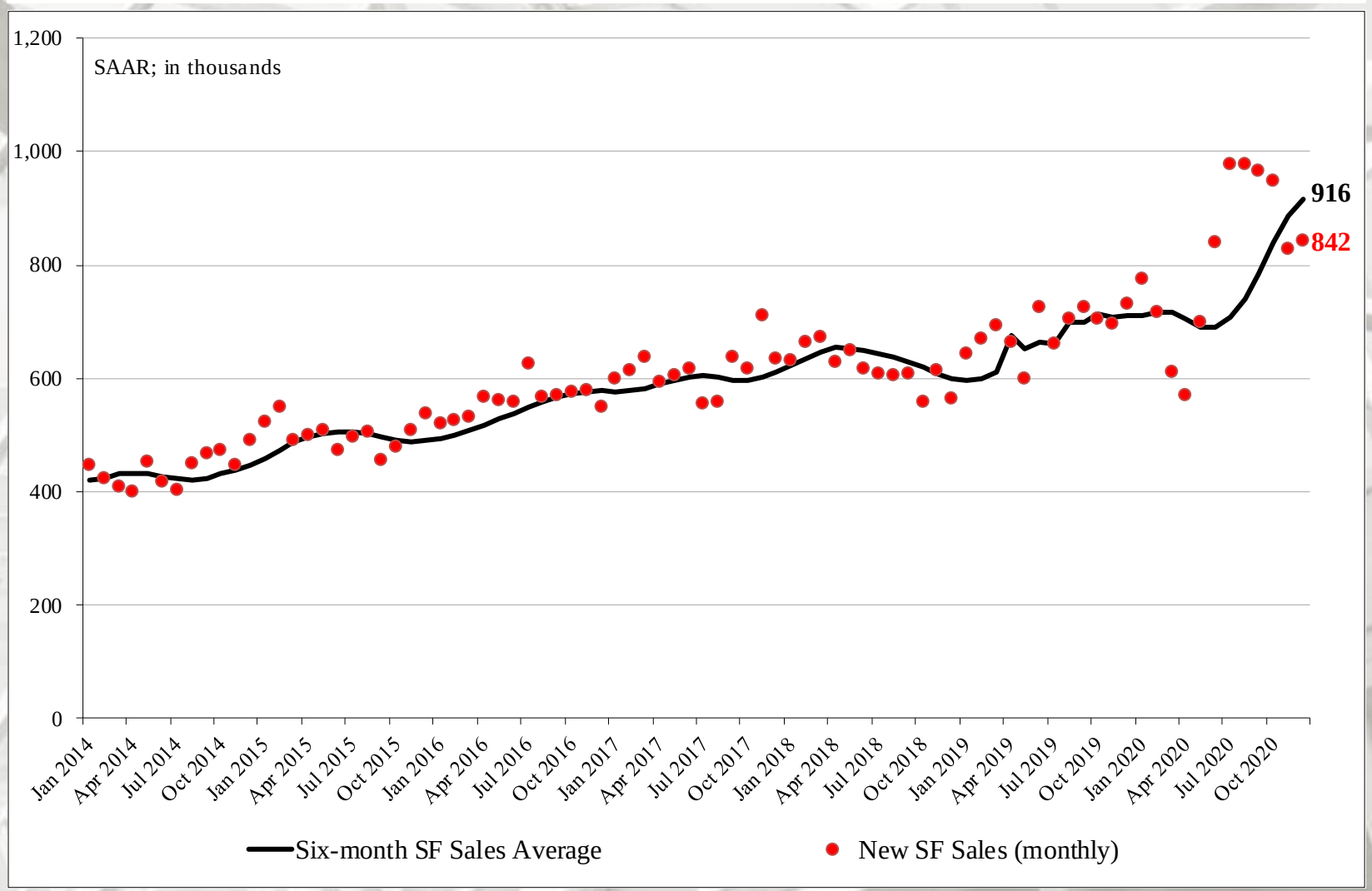


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Sources: https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New SF Housing Sales: Six-month average & monthly



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New SF House Sales by Region and Price Category

	NE	MW	S	W
December	31,000	94,000	483,000	234,000
November	33,000	72,000	509,000	215,000
2019	39,000	83,000	397,000	212,000
M/M change	-6.1%	30.6%	-5.1%	8.8%
Y/Y change	-20.5%	13.3%	21.7%	10.4%

	≤ $150m	$150 - $199.9m	$200 - 299.9m	$300 - $399.9m	$400 - $499.9m	$500 - $749.9m	≥ $750m
December[1,2,3,4]	500	3,000	16,000	18,000	11,000	6,000	2,000
November	500	3,000	16,000	20,000	9,000	8,000	2,000
2019	1,000	4,000	16,000	13,000	7,000	7,000	2,000
M/M change	0.0%	0.0%	0.0%	-10.0%	22.2%	-25.0%	0.0%
Y/Y change	-50.0%	-25.0%	0.0%	38.5%	57.1%	-14.3%	0.0%
New SF sales: %	0.9%	5.5%	29.1%	32.7%	20.0%	10.9%	3.6%

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.

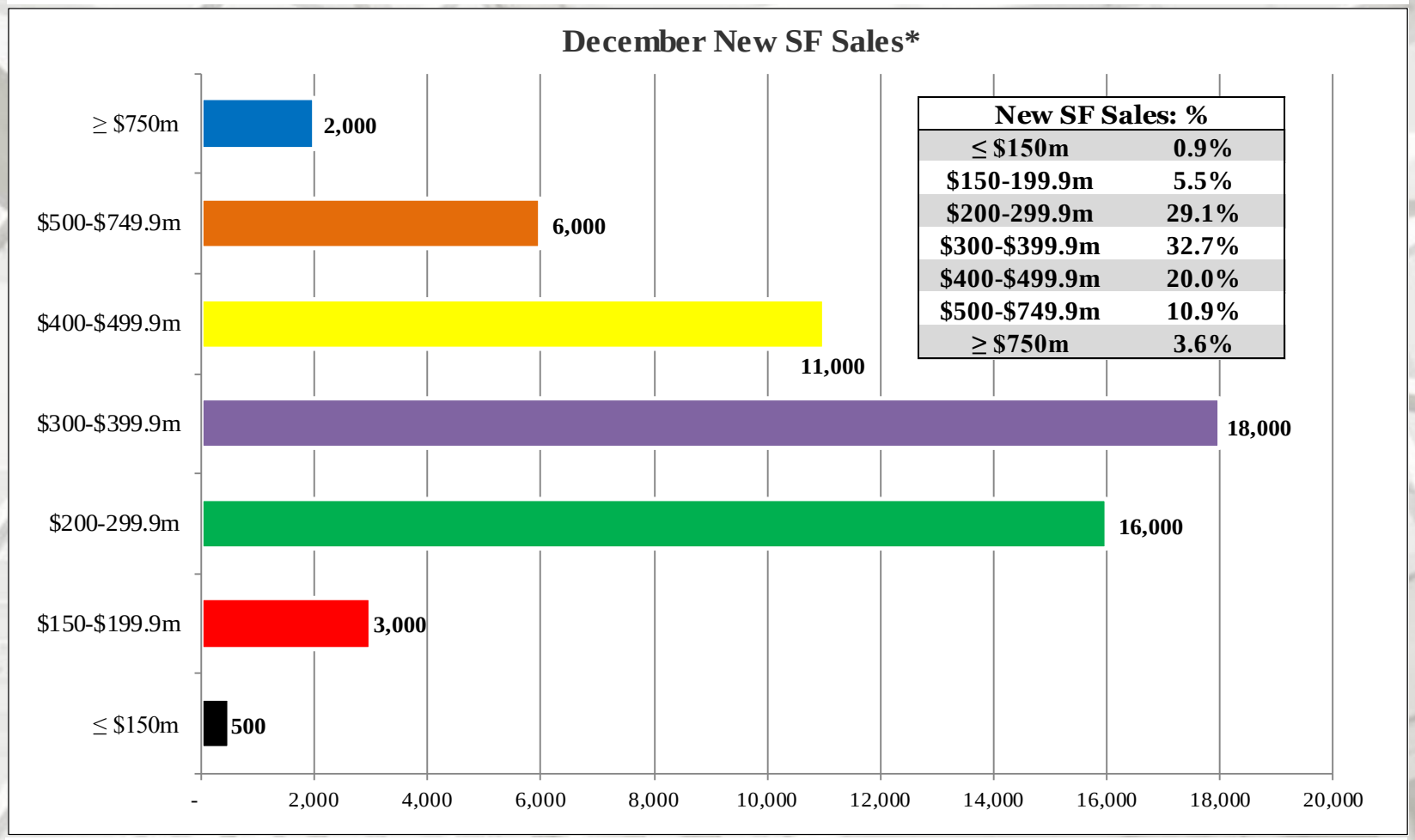
[4] Housing prices are adjusted at irregular intervals.

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

Sources: [1,2,3] https://www.census.gov/construction/nrs/index.html; 1/28/21;
[4]https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

Return TOC

New SF House Sales



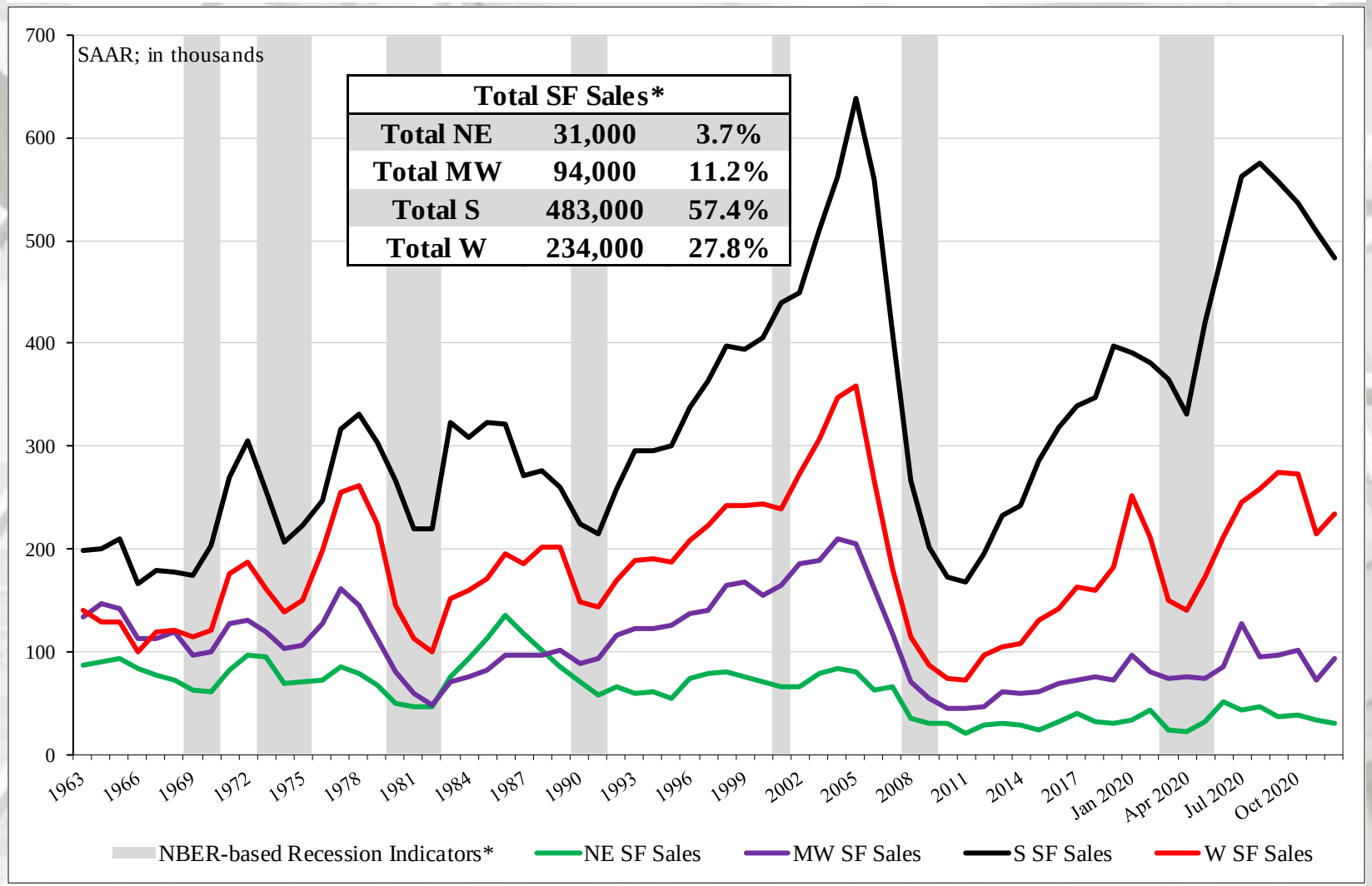
New SF Sales: %	
≤ $150m	0.9%
$150-199.9m	5.5%
$200-299.9m	29.1%
$300-$399.9m	32.7%
$400-$499.9m	20.0%
$500-$749.9m	10.9%
≥ $750m	3.6%

- Total new sales by price category and percent.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New SF House Sales by Region



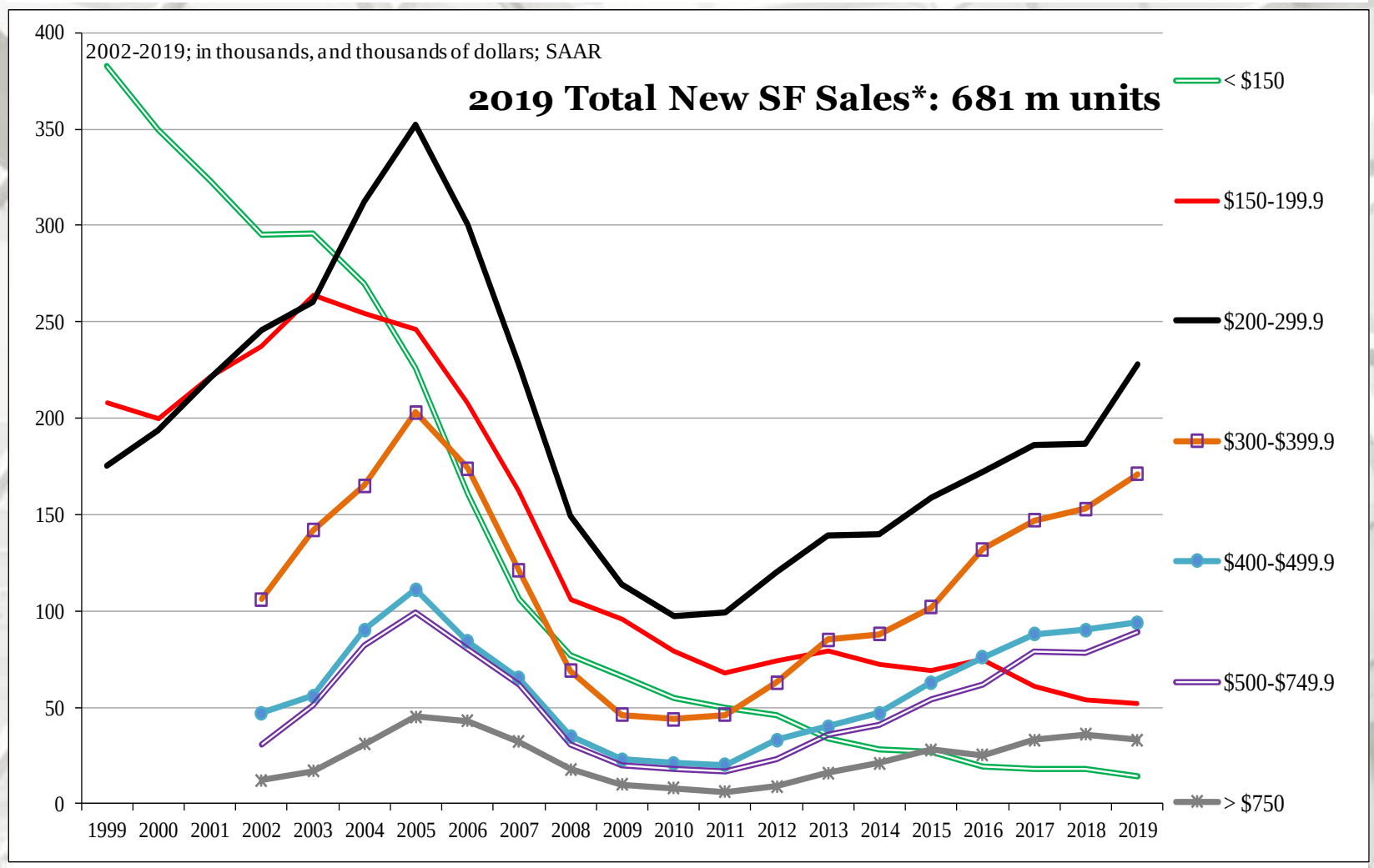
NE = Northeast; MW = Midwest; S = South; W = West
* Percentage of total new sales.

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New SF House Sales by Price Category

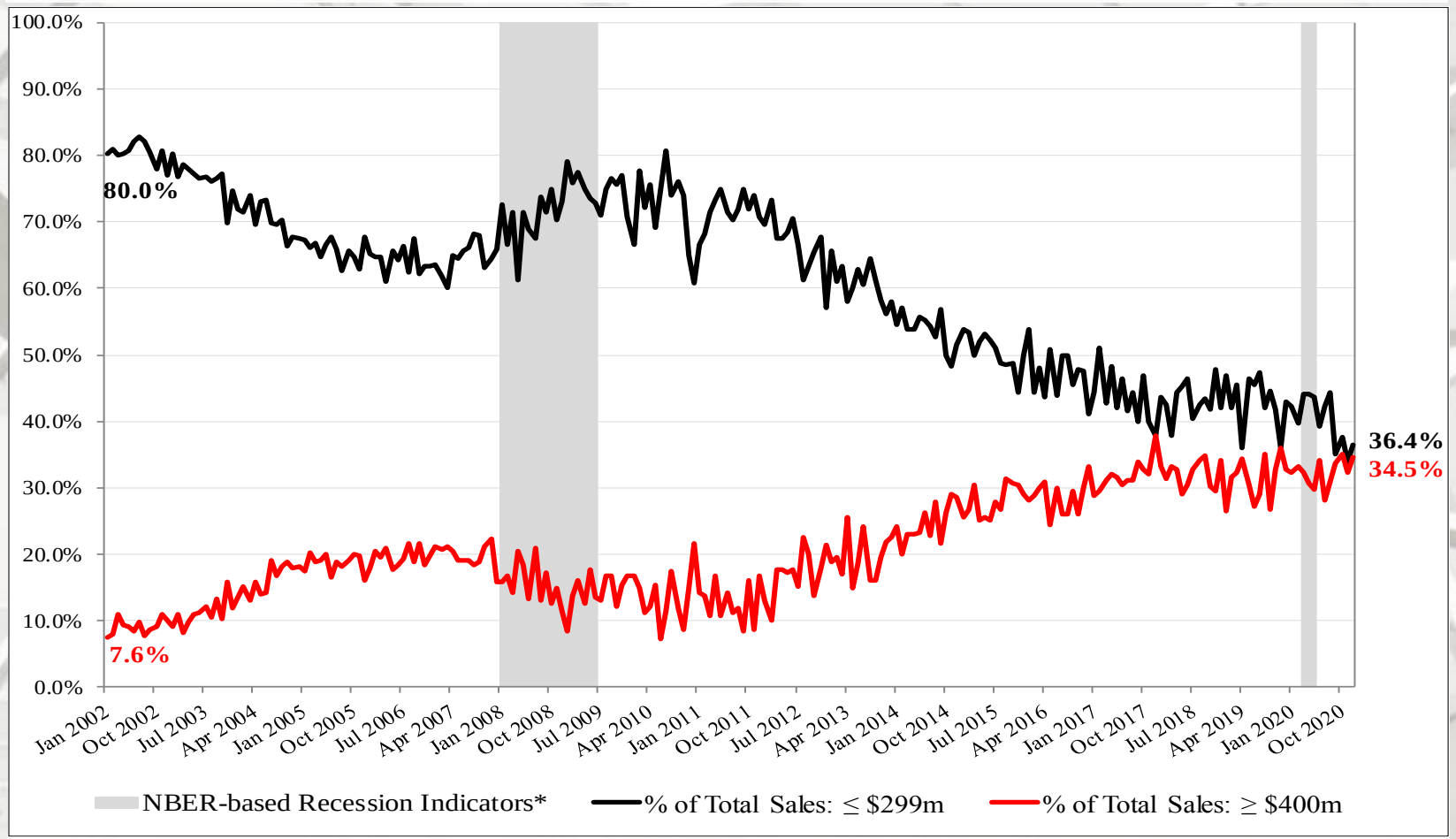


* Sales tallied by price category.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 6/23/20

Return TOC

New SF House Sales



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

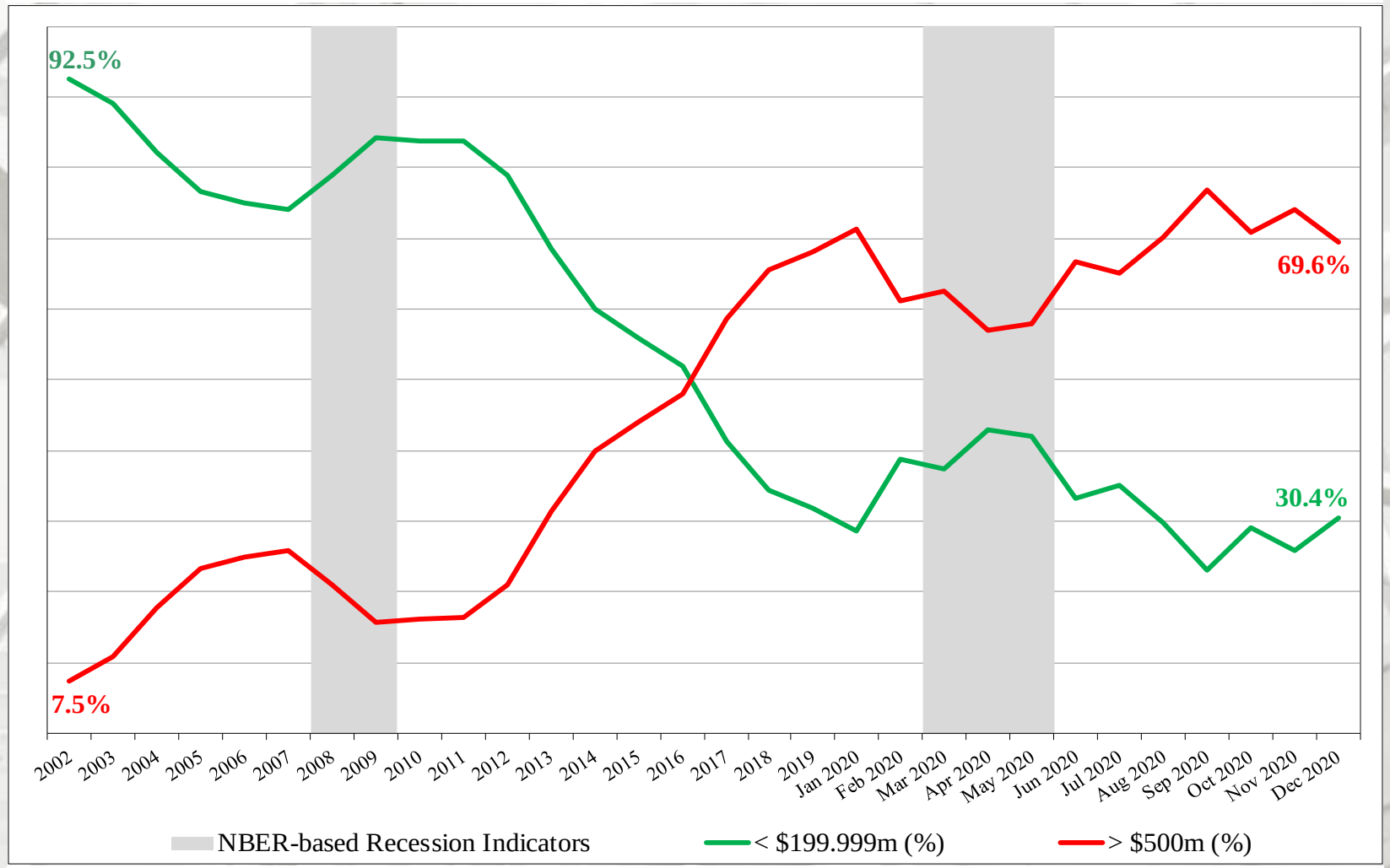
New SF Sales: ≤ $299m and ≥ $400m: 2002 – December 2020

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

Source: [1] https://www.census.gov/construction/nrs/index.html; [2] https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf 1/28/21

Return TOC

New SF House Sales



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

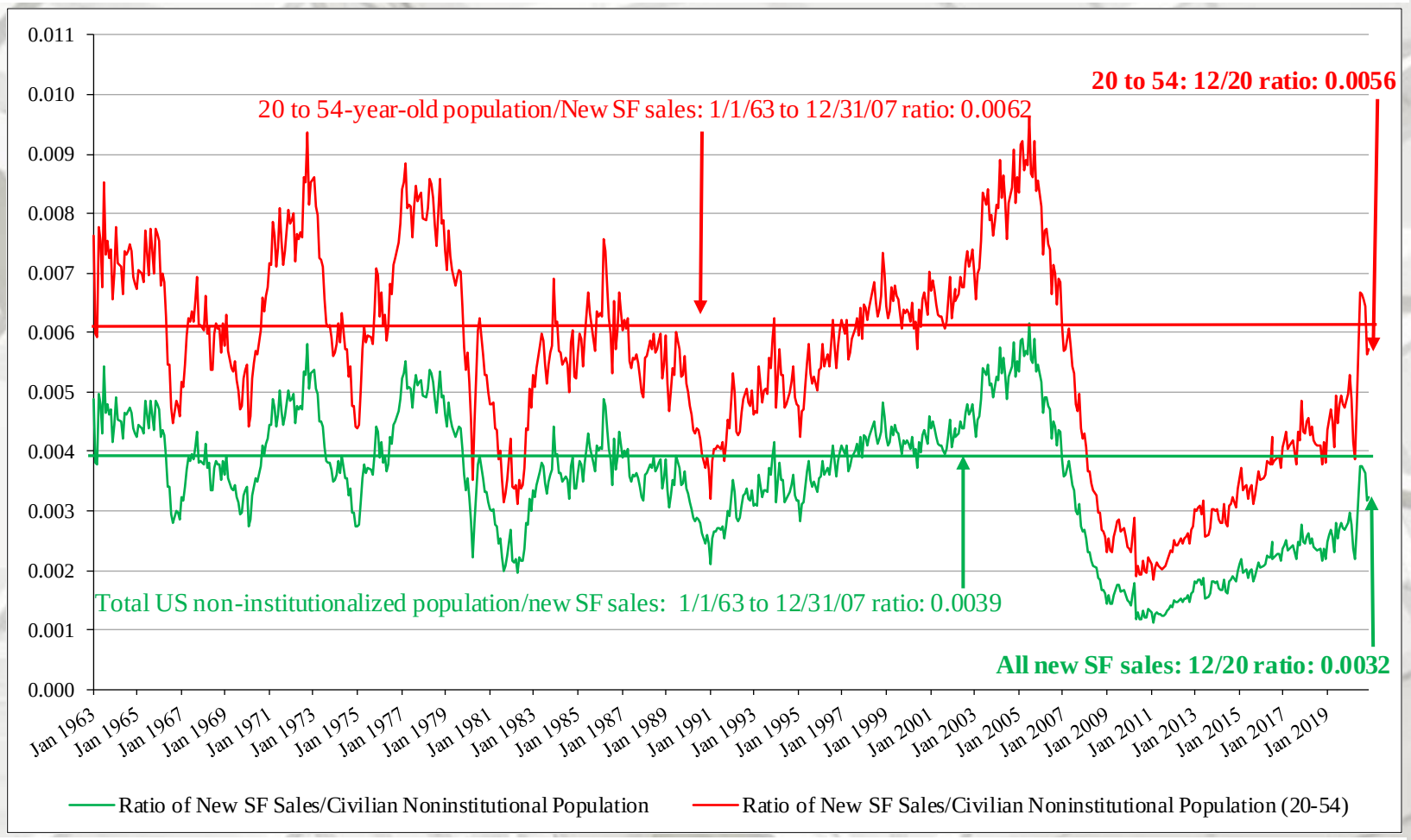
The number of ≤ $200 thousand SF houses has declined dramatically since 2002 [1, 2]. Subsequently, from 2012 onward, the ≥ $500 thousand class has soared (on a percentage basis) in contrast to the ≤ $200m class. One of the most oft mentioned reasons for this occurrence is builder net margins.

Note: Sales values are not adjusted for inflation.
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Source: [1] https://www.census.gov/construction/nrs/index.html; [2] https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf 1/28/21

Return TOC

New SF House Sales



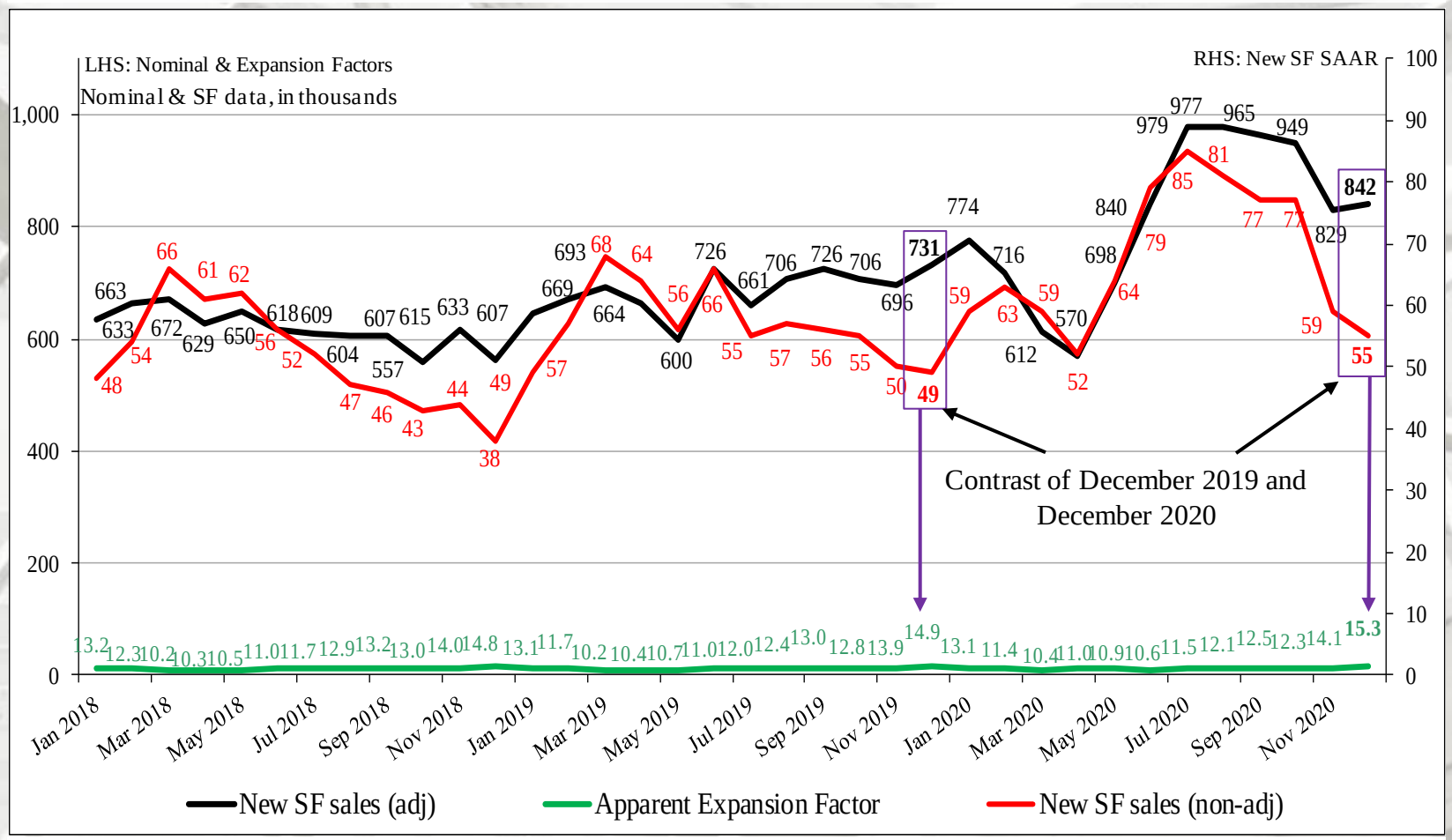
New SF sales adjusted for the US population

From January 1963 to January 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in December 2020 it was 0.0032 – no change from November. The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in December 2020 it was 0.0057 – a slight decrease from November (0.0056). 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.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

New SF House Sales

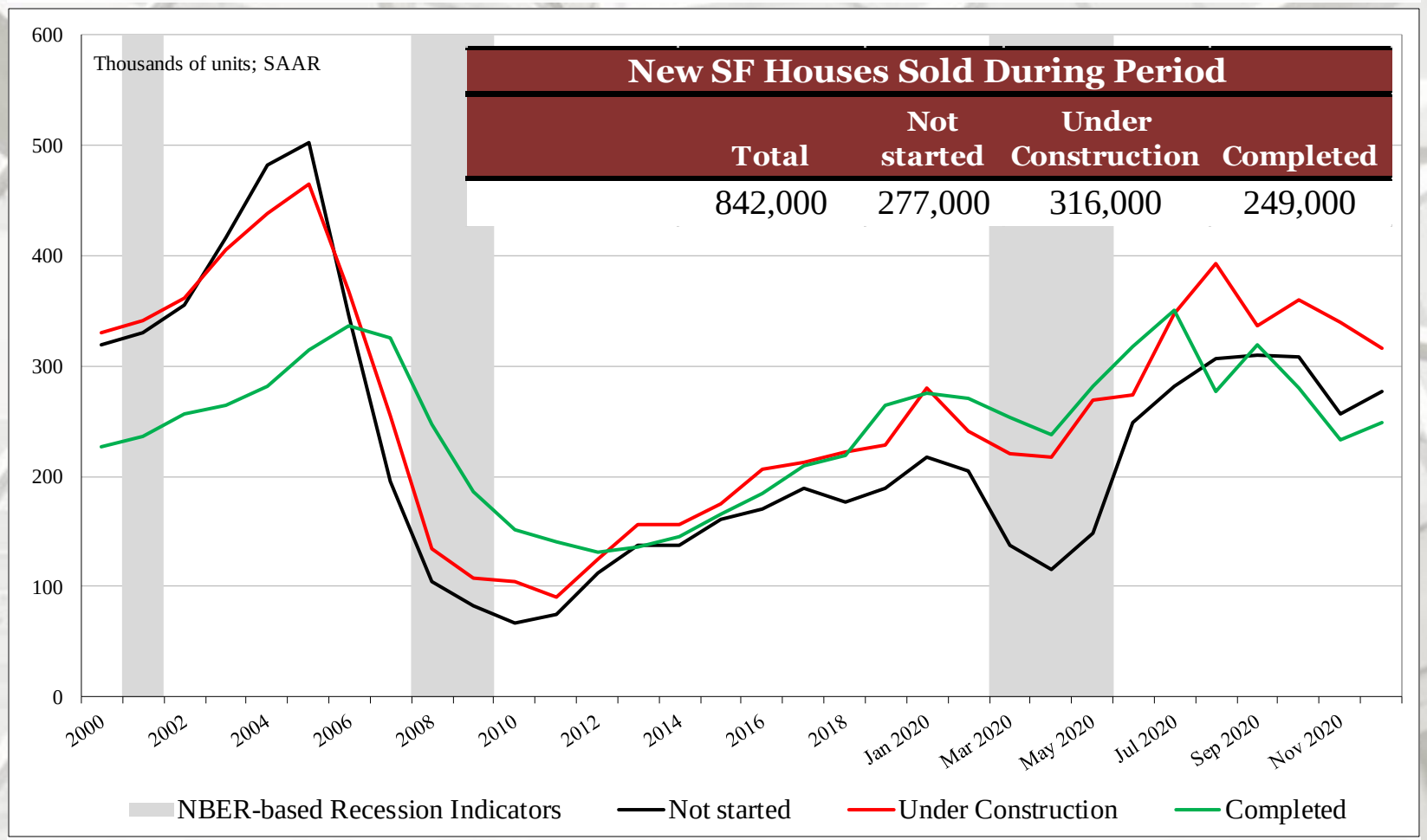
New SF Houses Sold During Period				
	Total	Not started	Under Construction	Completed
December	842,000	277,000	316,000	249,000
November	829,000	256,000	340,000	233,000
2019	731,000	212,000	248,000	271,000
M/M change	1.6%	8.2%	-7.1%	6.9%
Y/Y change	15.2%	30.7%	27.4%	-8.1%
Total percentage		32.9%	37.5%	29.6%

SAAR

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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New SF Houses for Sale at End of Period

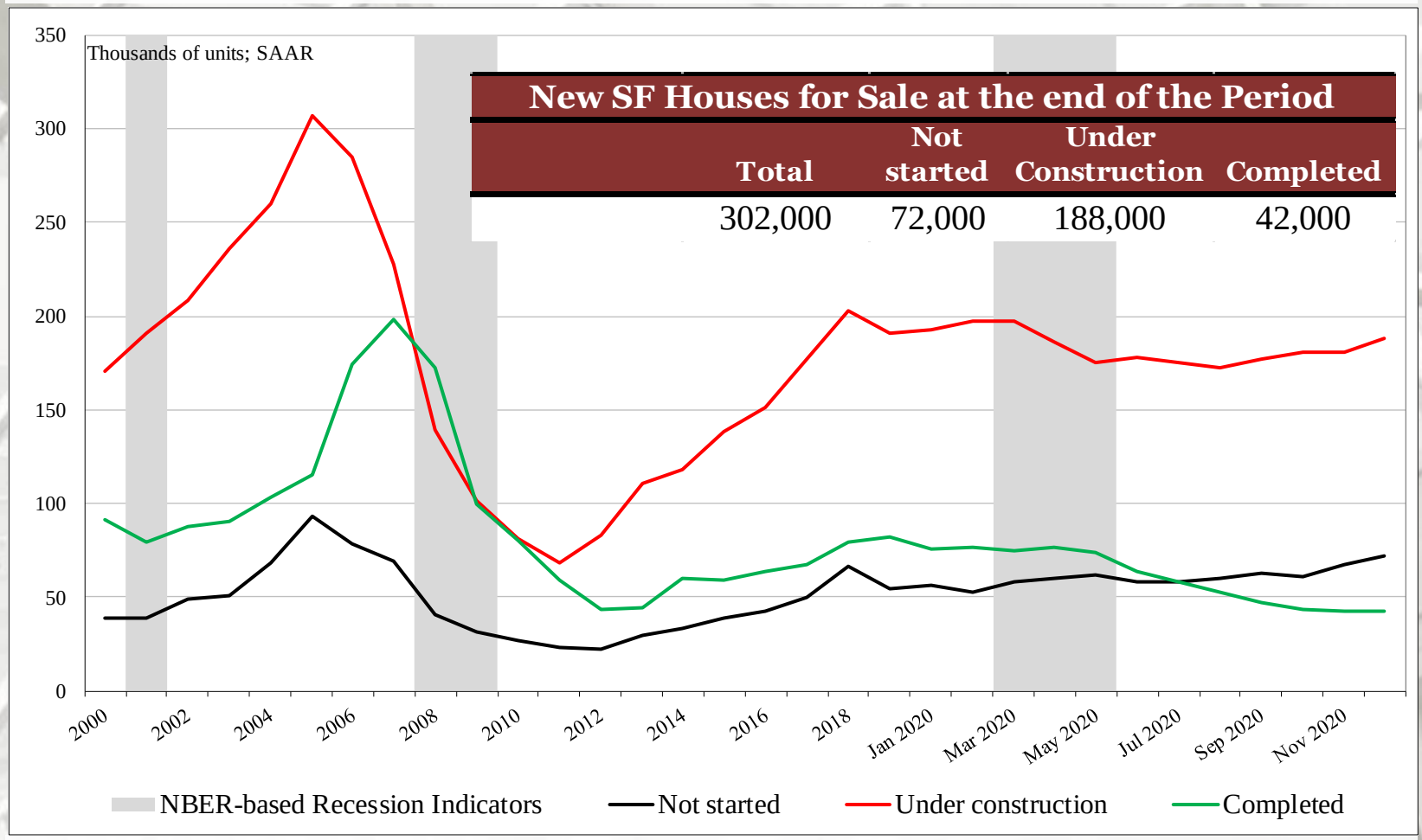
New SF Houses for Sale at the end of the Period				
	Total	Not started	Under Construction	Completed
December	302,000	72,000	188,000	42,000
November	290,000	67,000	181,000	42,000
2019	322,000	54,000	191,000	77,000
M/M change	4.1%	7.5%	3.9%	0.0%
Y/Y change	-6.2%	33.3%	-1.6%	-45.5%
Total percentage		23.8%	62.3%	13.9%

Sales of homes "Not started" registered an increase in December.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

Return TOC

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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New SF House Sales

New SF Houses for Sale at the end of the Period by Region*					
	Total	NE	MW	S	W
December	308,000	27,000	33,000	173,000	75,000
November	289,000	24,000	32,000	161,000	72,000
2019	327,000	28,000	40,000	171,000	88,000
M/M change	6.6%	12.5%	3.1%	7.5%	4.2%
Y/Y change	-5.8%	-3.6%	-17.5%	1.2%	-14.8%

* Not SAAR

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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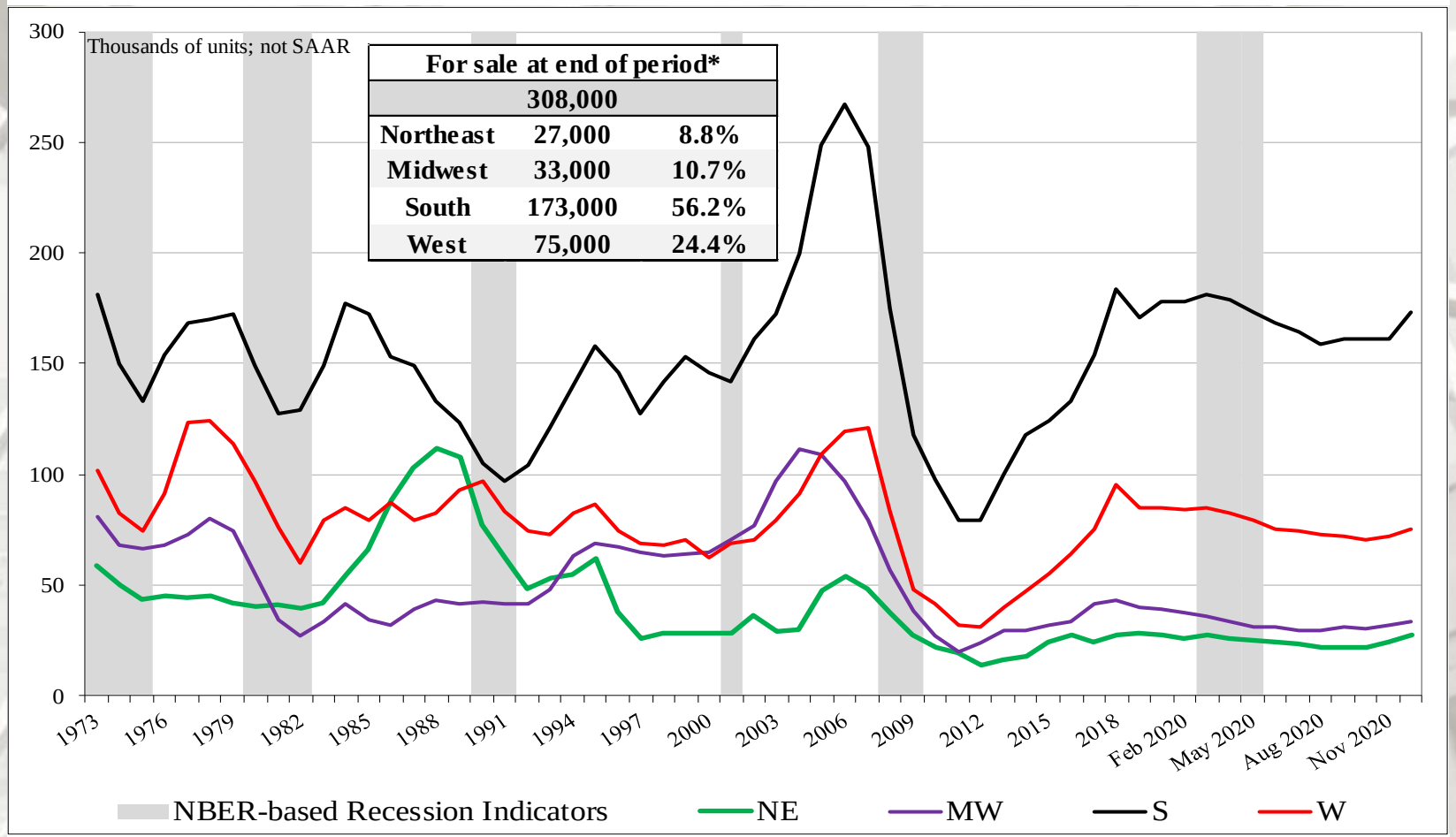
New SF Houses for Sale at End of Period by Region



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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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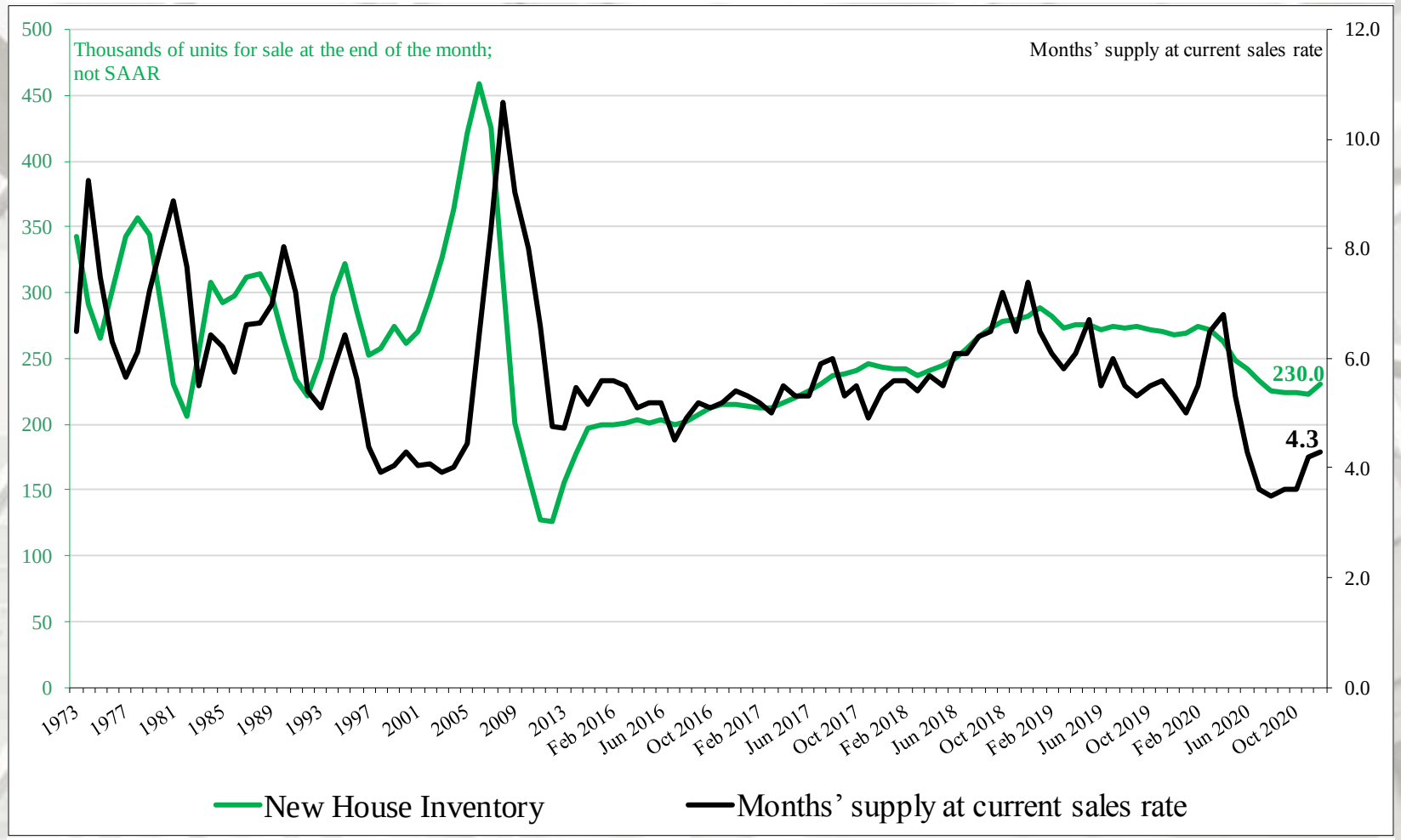
Months' Supply and New House Inventory[a]



[a] New HUC + New House Completions (sales data only)

The months supply of new houses for sale was 4.3 months in December.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/28/21

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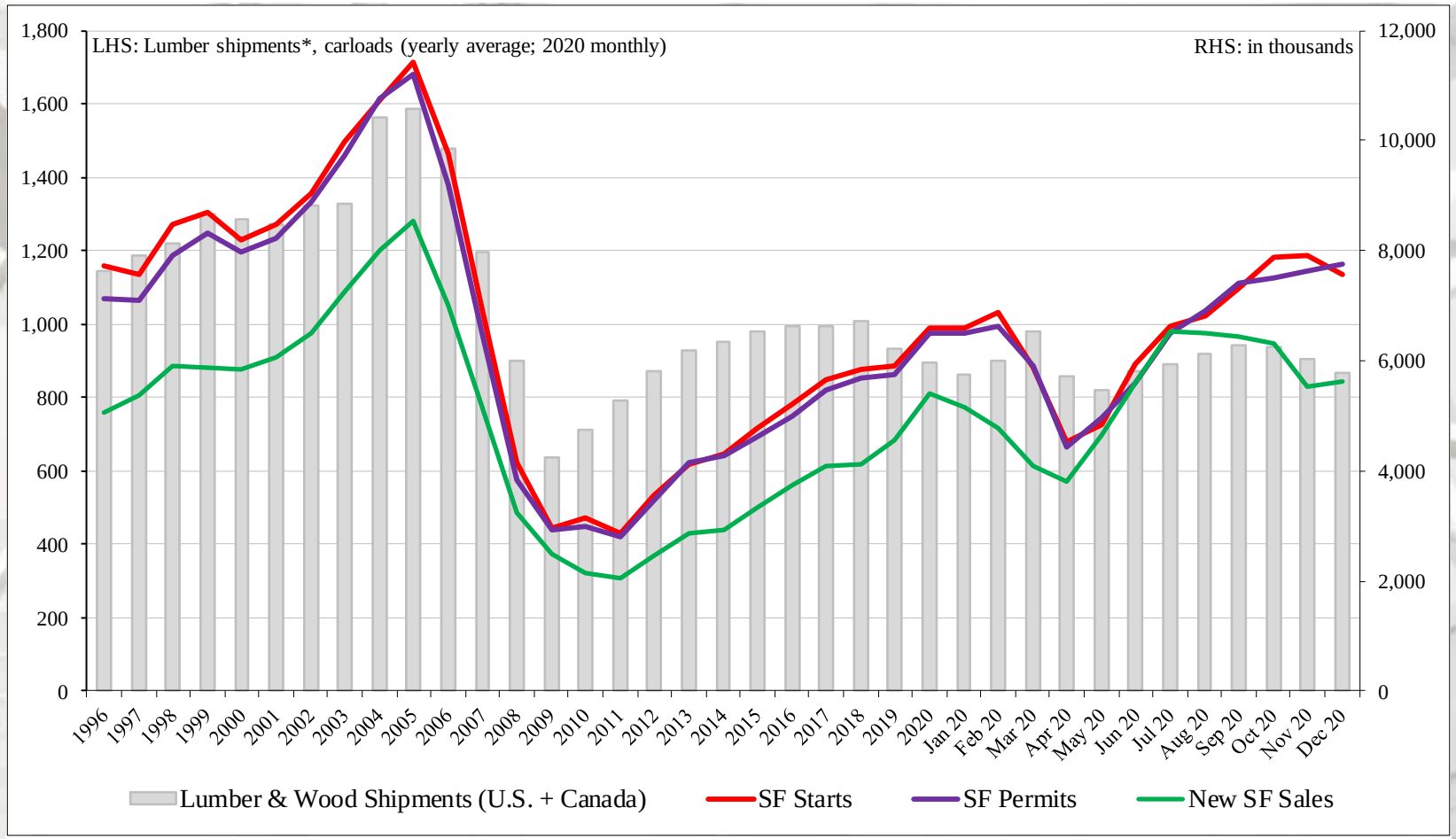
U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



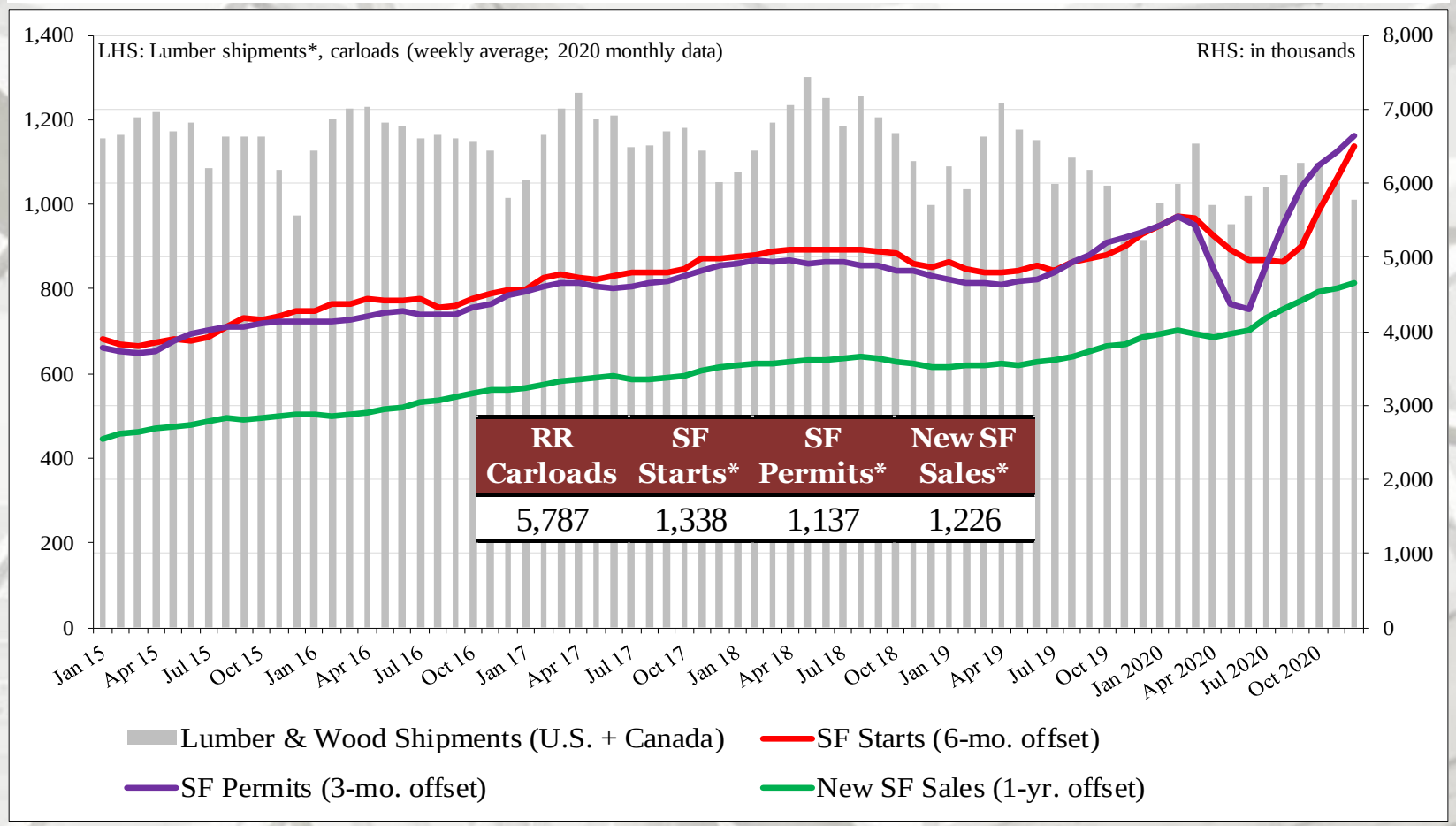
Carloads of Canadian + US lumber and wood shipments to the US are contrasted above to U.S. housing metrics. Annual SF starts, SF Permits, and New sales are compared to carload lumber and wood shipments. The intent is to learn if lumber shipments relate to future SF starts, SF permits, and New sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available. Note that 2020 data is on a monthly basis.

* In thousands

Sources: *Association of American Railroads, *Rail Time Indicators* report-January 2021; http://www.census.gov/construction/; 2/8/21 & 1/21&28/21

Return TOC

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



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

* In thousands

Sources: *Association of American Railroads, *Rail Time Indicators* report-January 2021; http://www.census.gov/construction/; 2/8/21 & 1/21&28/21

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December 2019 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
December	$691,000	$365,032	$91,369	$234,599
November	$670,051	$345,114	$91,297	$233,640
2019	$572,387	$295,520	$77,542	$199,325
M/M change	3.1%	5.8%	0.1%	0.4%
Y/Y change	20.7%	23.5%	17.8%	17.7%

* billion.
** The US DOC does not report improvement spending directly, this is a monthly estimation: ((Total Private Spending – (SF spending + MF spending)).
All data are SAARs and reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21

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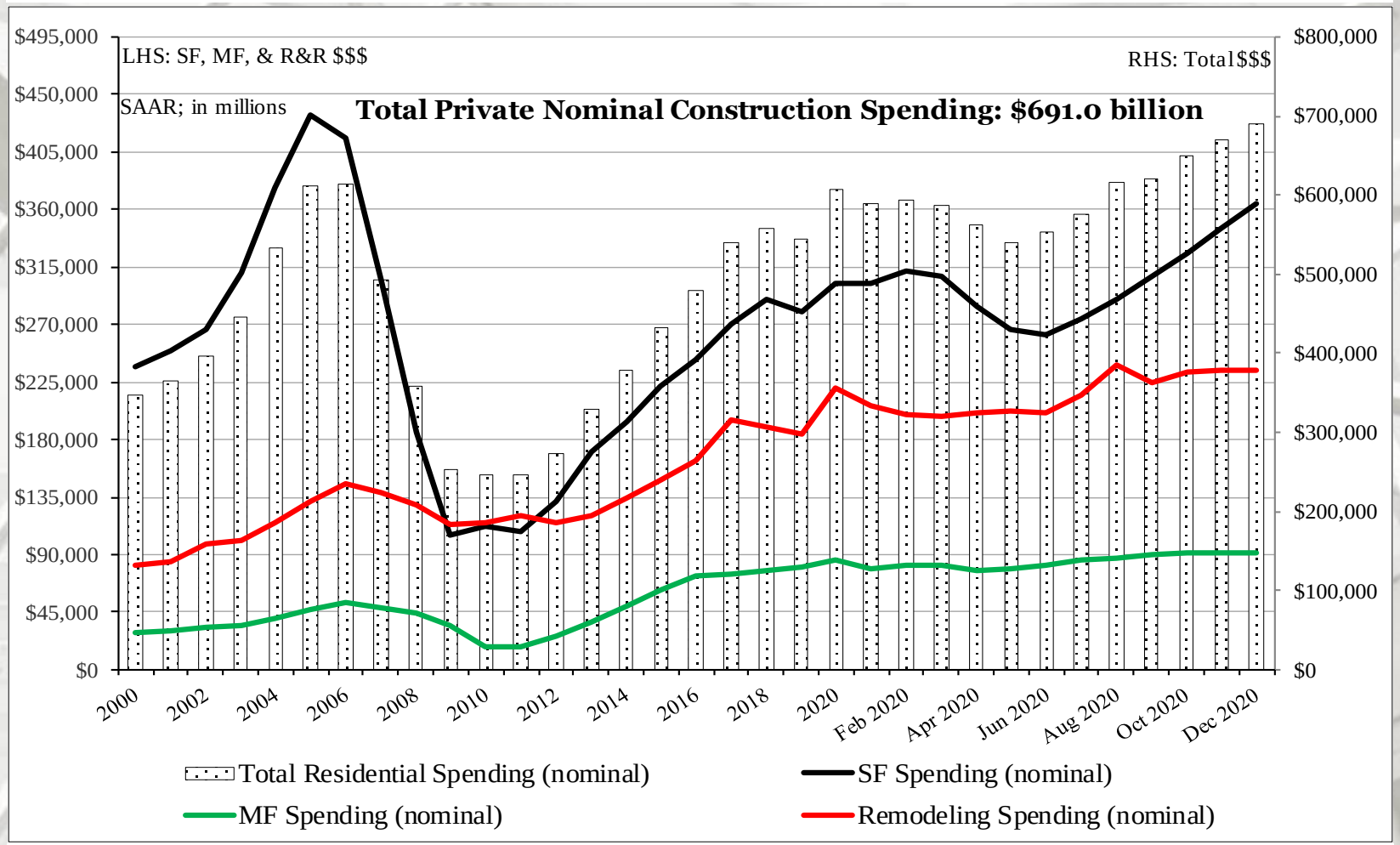
Total Construction Spending (nominal): 2000 – December 2020



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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21

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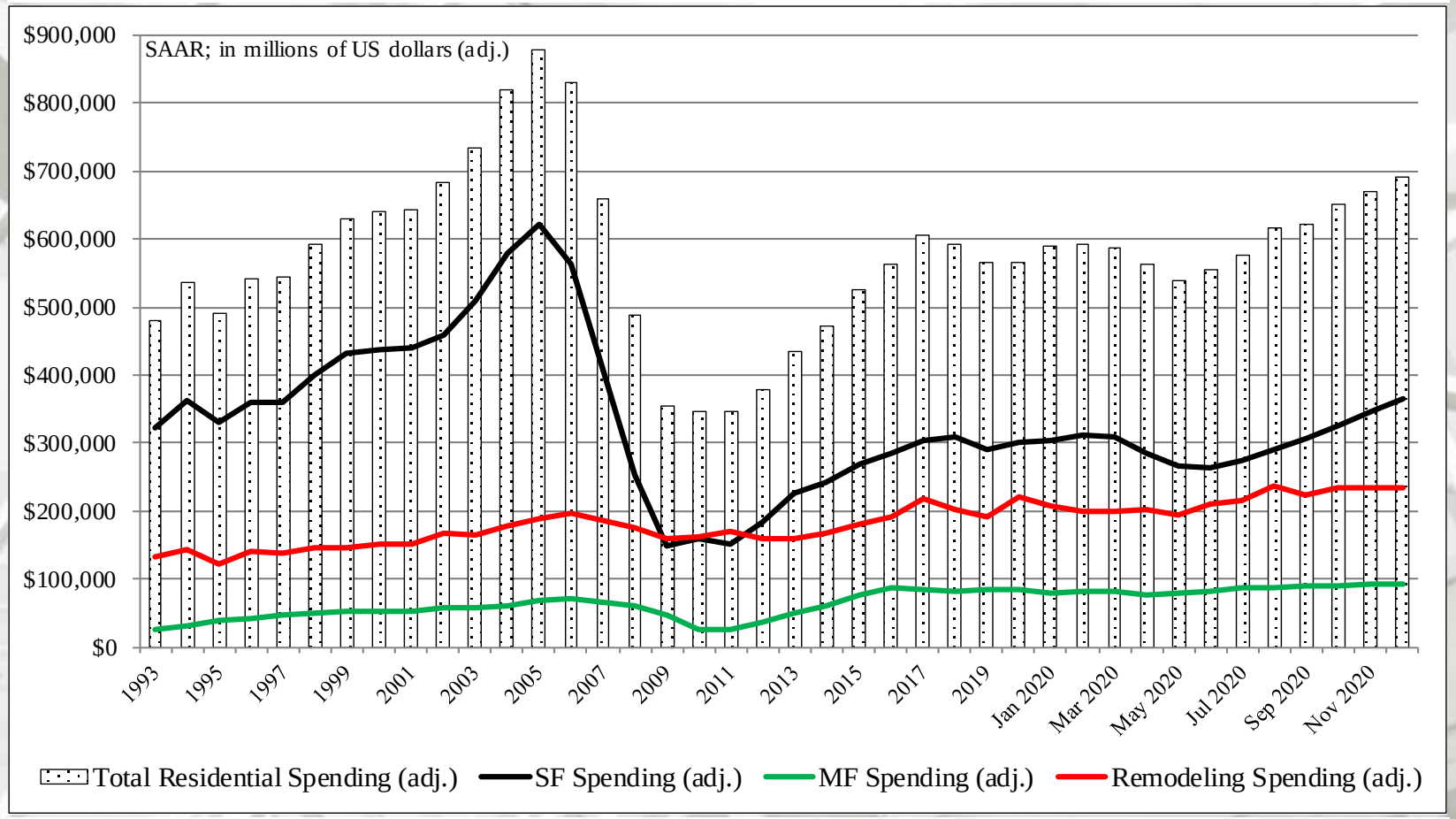
Total Construction Spending (adjusted): 1993-December 2020



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

Sources: * https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21

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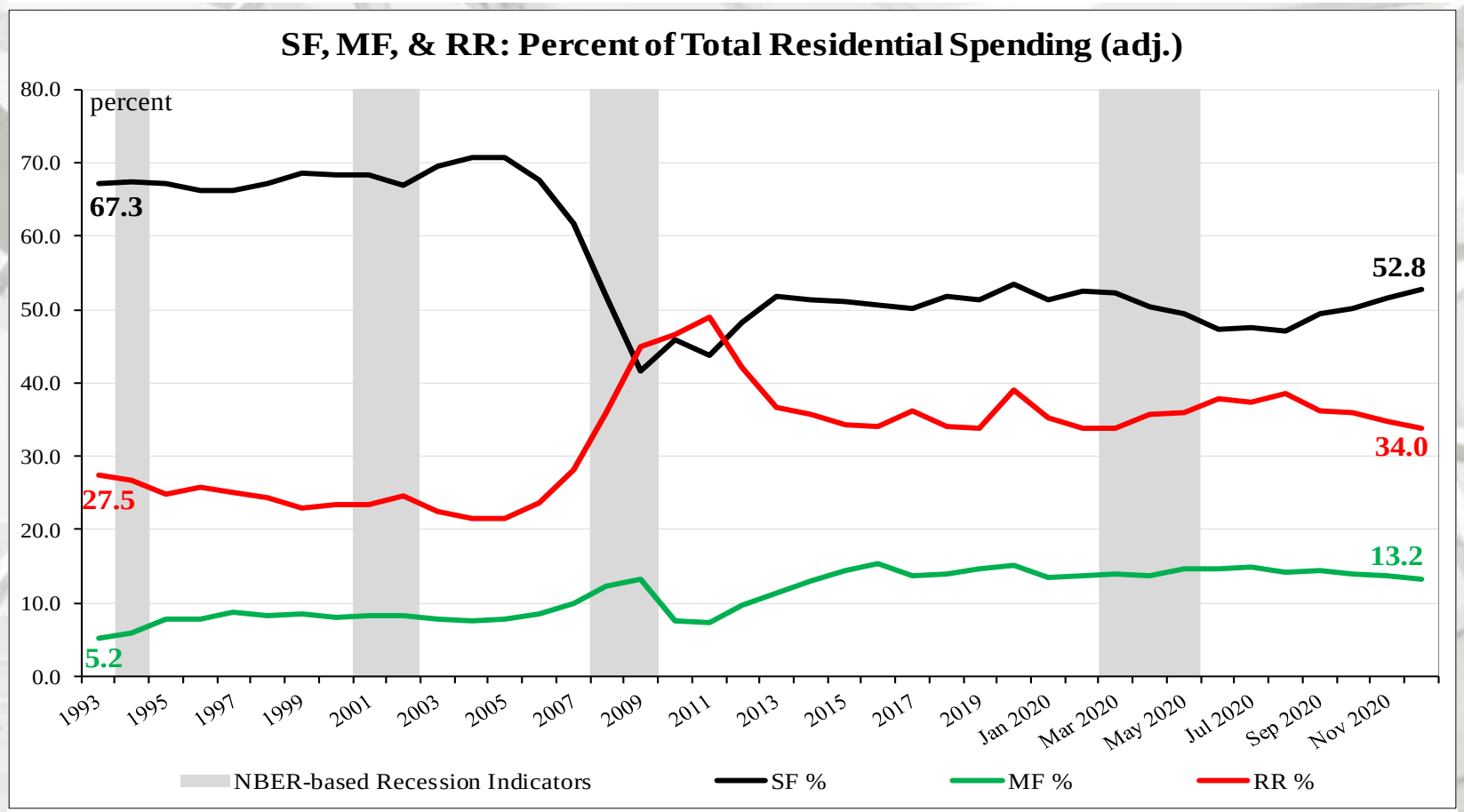
Construction Spending Shares: 1993 to December 2020



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

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

Note: 1993 to 2020 (adjusted for inflation, BEA Table 1.1.9); January-December 2020 reported in nominal US$.

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

Sources: * https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21 and http://www.bea.gov/iTable/iTable.cfm; 2/4/21

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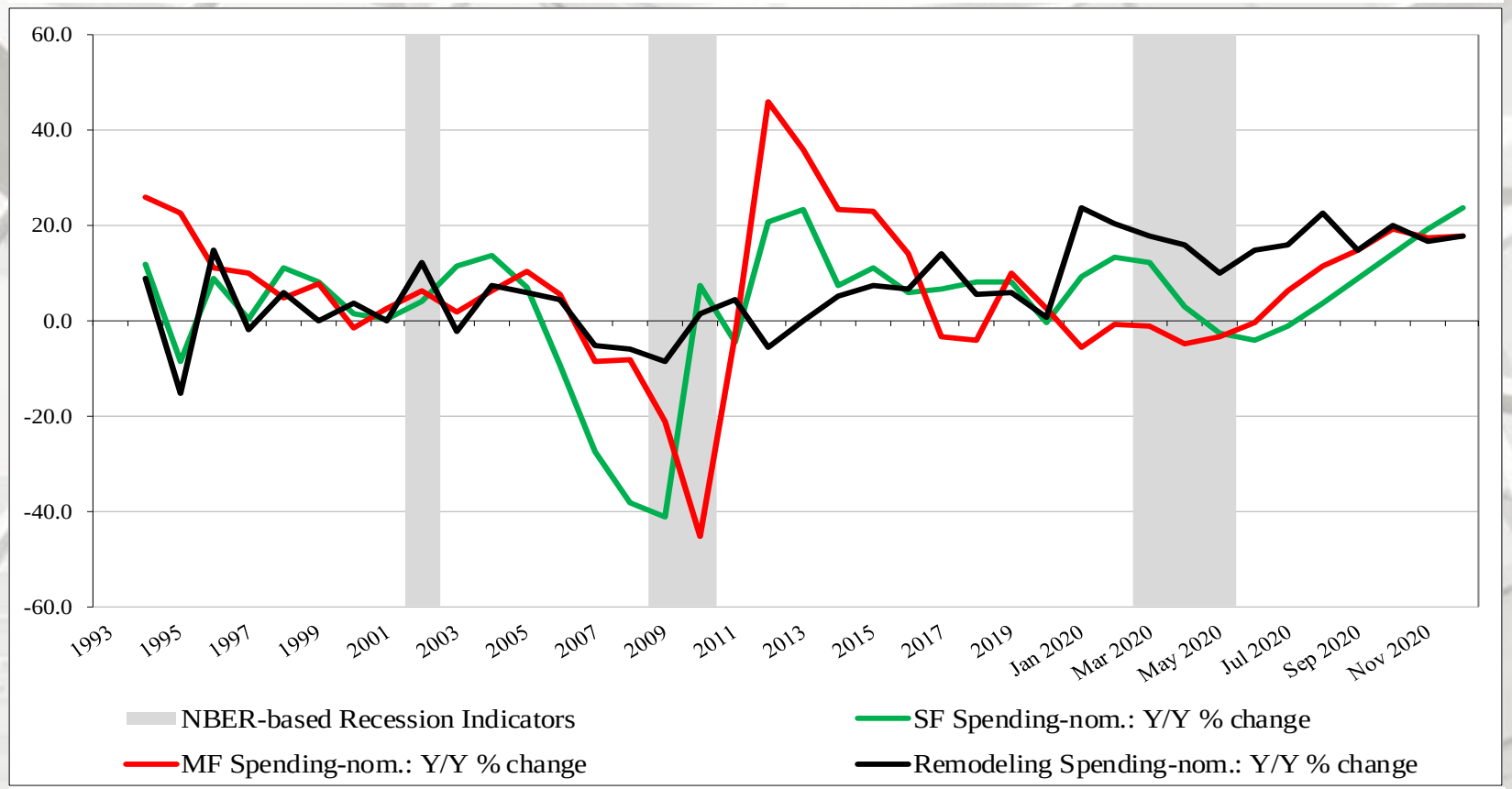
Adjusted Construction Spending: Y/Y Percentage Change, 1993 to December 2020



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

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 (2020 data reported in nominal dollars).

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

Sources: * https://fred.stlouisfed.org/series/USREC, 6/8/20; http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21

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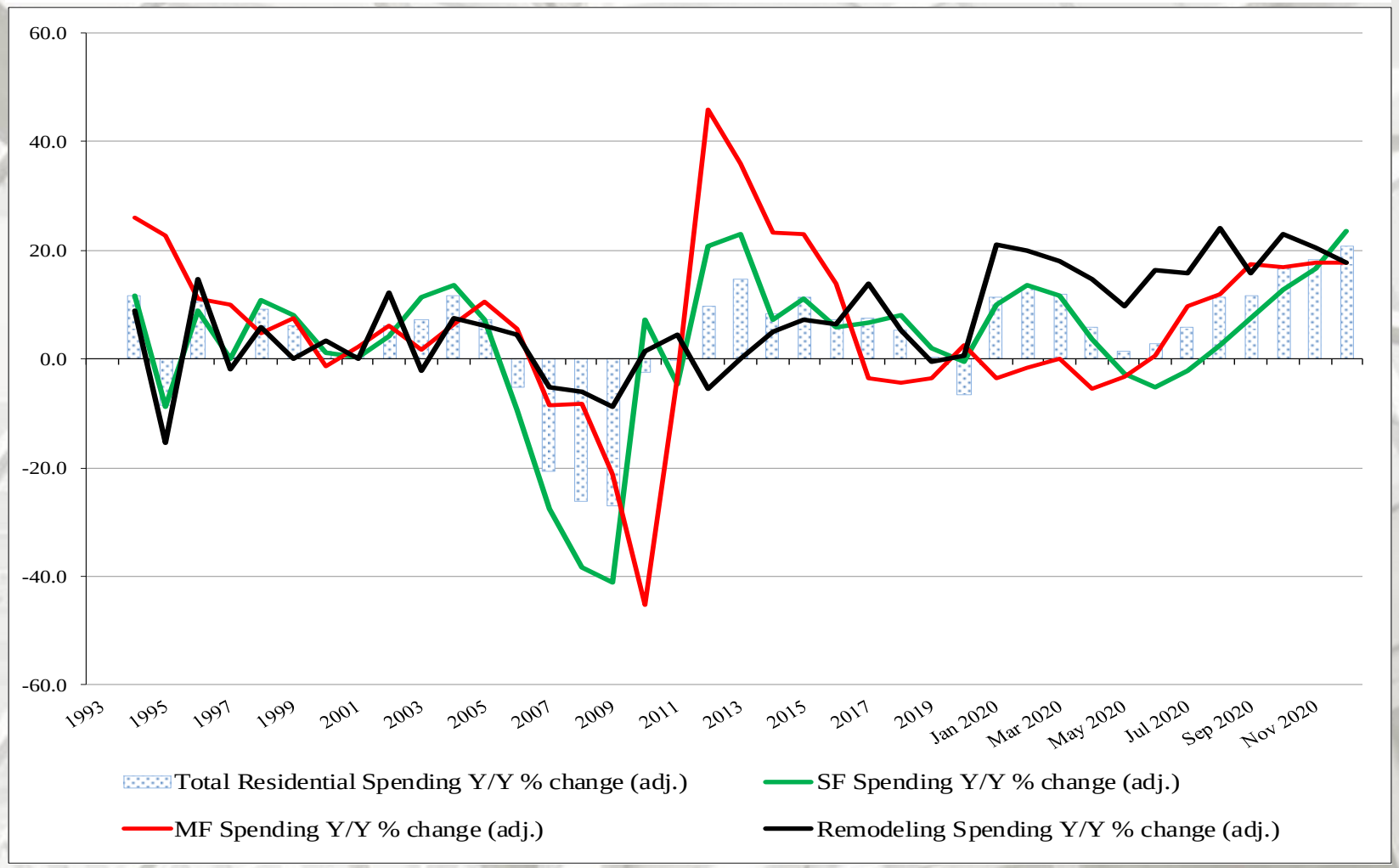
Adjusted Construction Spending: Y/Y Percentage Change, 1993 to December 2020



Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 2/1/21

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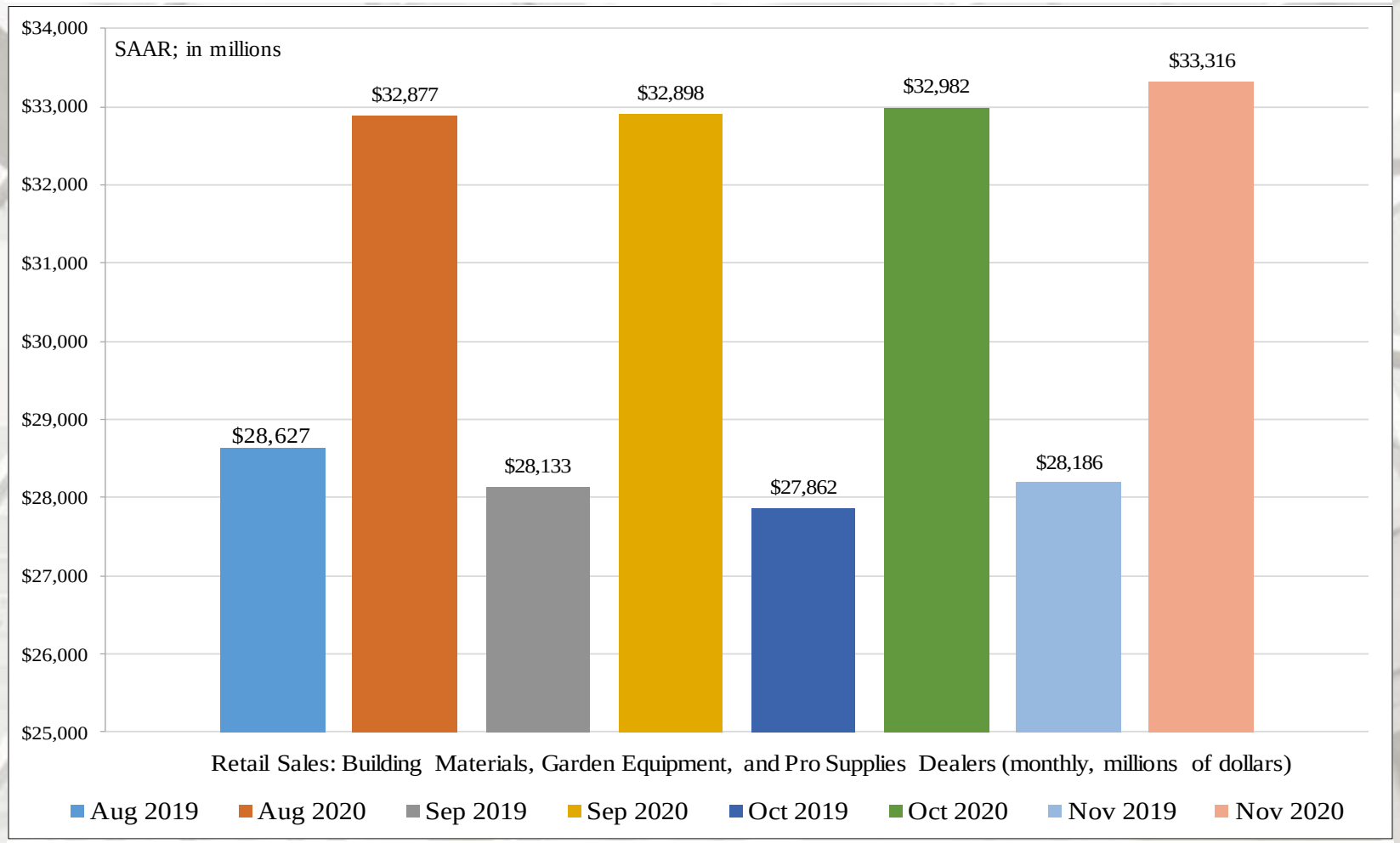
Remodeling

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



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

NAICS 4441 sales increased 0.3% from November to October and improved 18.2% from November 2019 (on a non-adjusted basis).

Sources: https://www.census.gov/retail/index.html; 2/4/21

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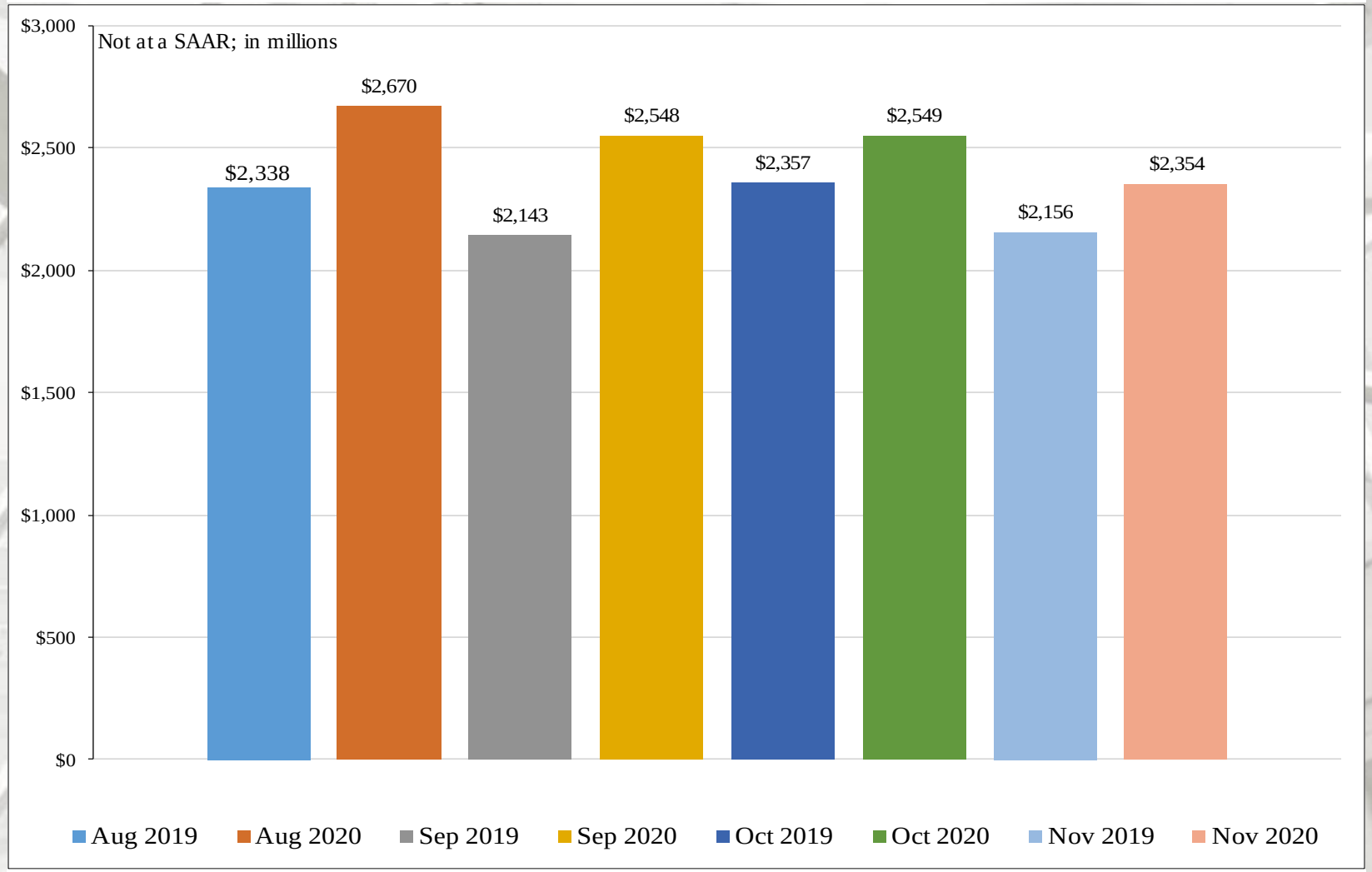
Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales decreased 7.7% from November to October and improved 9.2% from November 2019 (on a non-adjusted basis).

Sources: https://www.census.gov/retail/index.html; 2/4/21

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Remodeling

Harvard Joint Center for Housing Studies

Home Remodeling Set For Stronger Growth in 2021

"Annual gains in spending for improvements and repairs to owner-occupied homes are expected to be modestly higher in 2021 compared to last year, according to our latest Leading Indicator of Remodeling Activity (LIRA). The LIRA projects an uptick in year-over-year growth of home renovation and repair expenditure from 3.5 percent at the close of 2020 to 3.8 percent by year-end 2021.

The remodeling market continues to benefit from a strong housing market – including accelerating growth in homebuilding, sales, and home equity. In addition to routine replacement and repair projects, homeowners are likely to pursue more and larger discretionary home improvements this year as the broader economy recovers.

With the release of new benchmark data from the American Housing Survey, we've raised our projection for market size in 2021 by about $4 billion, or 1 percent, to $352 billion. Spending in 2018 and 2019 was slightly more robust than previously estimated, growing 12.8 percent over these two years compared to 11.5 percent as estimated." – Abbe Will, Research Associate and Associate Project Director, Remodeling Futures Program, Harvard Joint Center for Housing Studies

Source: https://www.jchs.harvard.edu/blog/home-remodeling-set-stronger-growth-2021; 1/21/21

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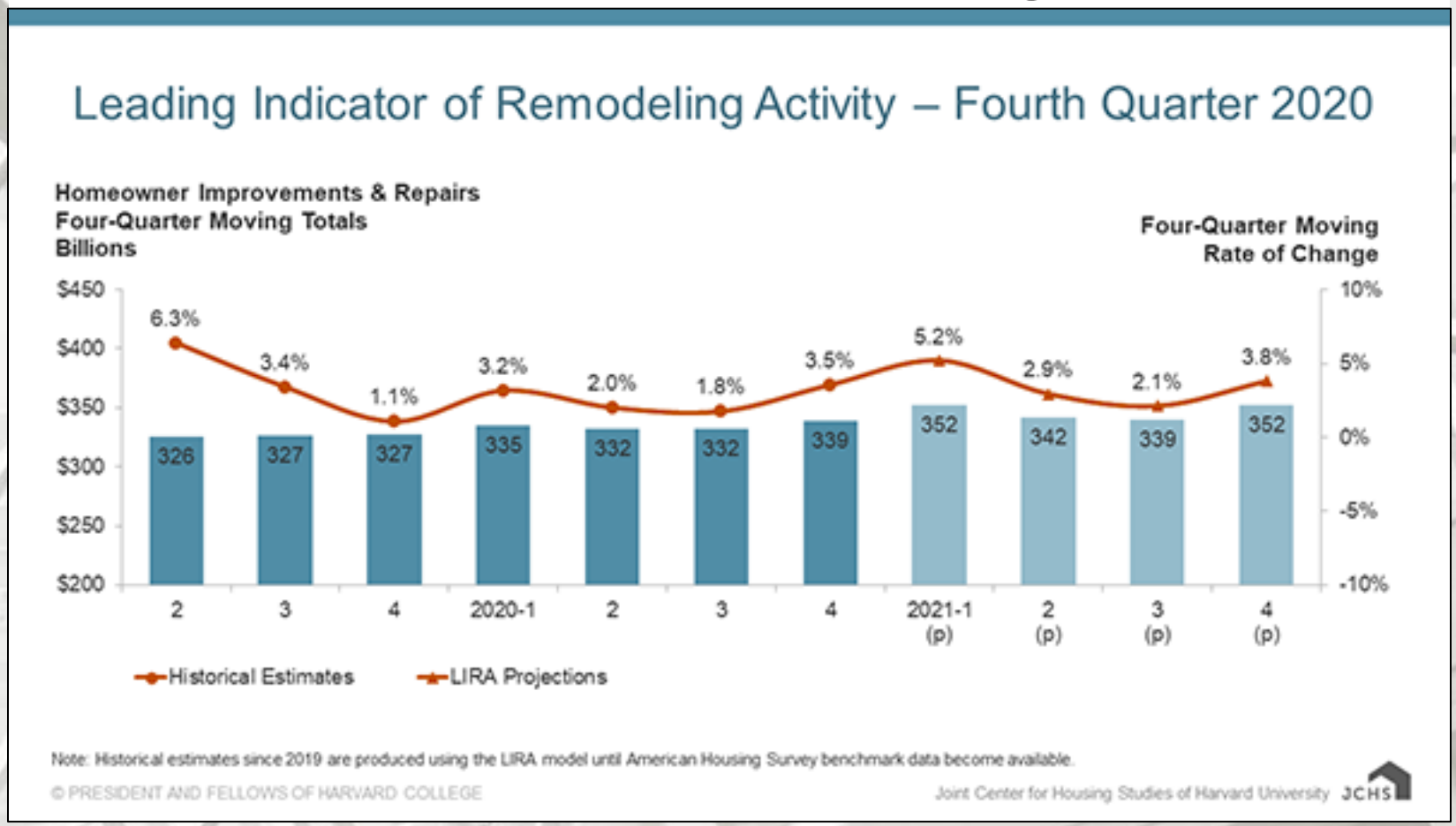
Remodeling

Harvard Joint Center for Housing Studies



Source: https://www.jchs.harvard.edu/blog/home-remodeling-set-stronger-growth-2021; 1/21/21

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Remodeling

Harvard Joint Center for Housing Studies

Sunbelt Metros To See Strongest Home Remodeling Growth In 2021

"Expenditures for improvements to the owner-occupied housing stock are expected to increase in nearly all of the nation's largest metropolitan areas this year, according to projections released by our Remodeling Futures Program. Following a pandemic-induced slowdown, projections for 2021 show annual home improvement spending growing from 1–13 percent in 42 major metropolitan areas, while declining modestly at 1.5 percent or less in four of the 46 metros tracked. Collectively, large metro areas are expected to see stronger remodeling gains in 2021 with an average growth of almost 5 percent compared to an estimated gain of 2 percent in 2020. Fully 14 metros are projected to see robust growth above 6 percent this year, while an additional 17 metros are set for moderate gains between 3 and 6 percent.

Broad strength in house price appreciation, existing home sales, and residential construction suggest that many metros will see greater renovation activity this year. The largest remodeling spending gains are projected to occur in relatively more affordable metros in the Sunbelt, with over 9 percent growth expected in Oklahoma City, Tucson, Charlotte, Phoenix, and San Antonio.

Although home remodeling is a bright spot in the economy overall, owner improvement spending is projected to contract slightly in a few high-cost metropolitan areas including New York, Denver, Boston, and San Jose. While other higher-cost metros – Washington, DC, Miami, San Francisco, Los Angeles, and Seattle – are expected to have only modest levels of spending growth between 1 and 3 percent this year." – Sophia Wedeen, Research Assistant, Harvard Joint Center for Housing Studies

Source: https://www.jchs.harvard.edu/blog/sunbelt-metros-see-strongest-home-remodeling-growth-2021; 2/11/21

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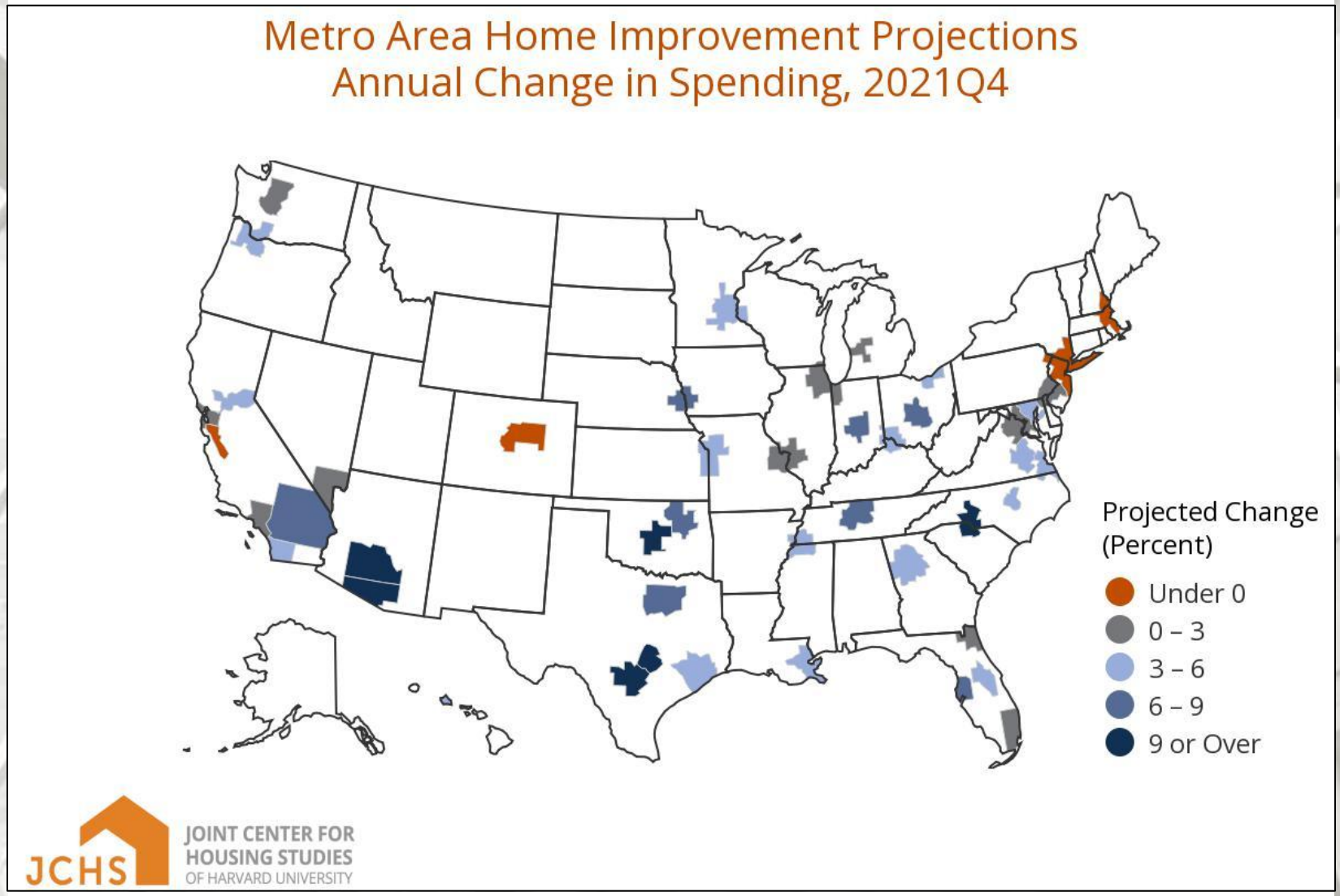
Remodeling

Harvard Joint Center for Housing Studies



Notes: The projections methodology is described in the JCHS research note, Projecting Home Improvement Spending at the Metropolitan Area Level. Historical data are modeled estimates.
Sources: Harvard Joint Center for Housing Studies analysis of Moody's Analytics, US Census Bureau, National Association of Realtors, and BuildFax data.

Source: https://www.jchs.harvard.edu/blog/sunbelt-metros-see-strongest-home-remodeling-growth-2021; 2/11/21

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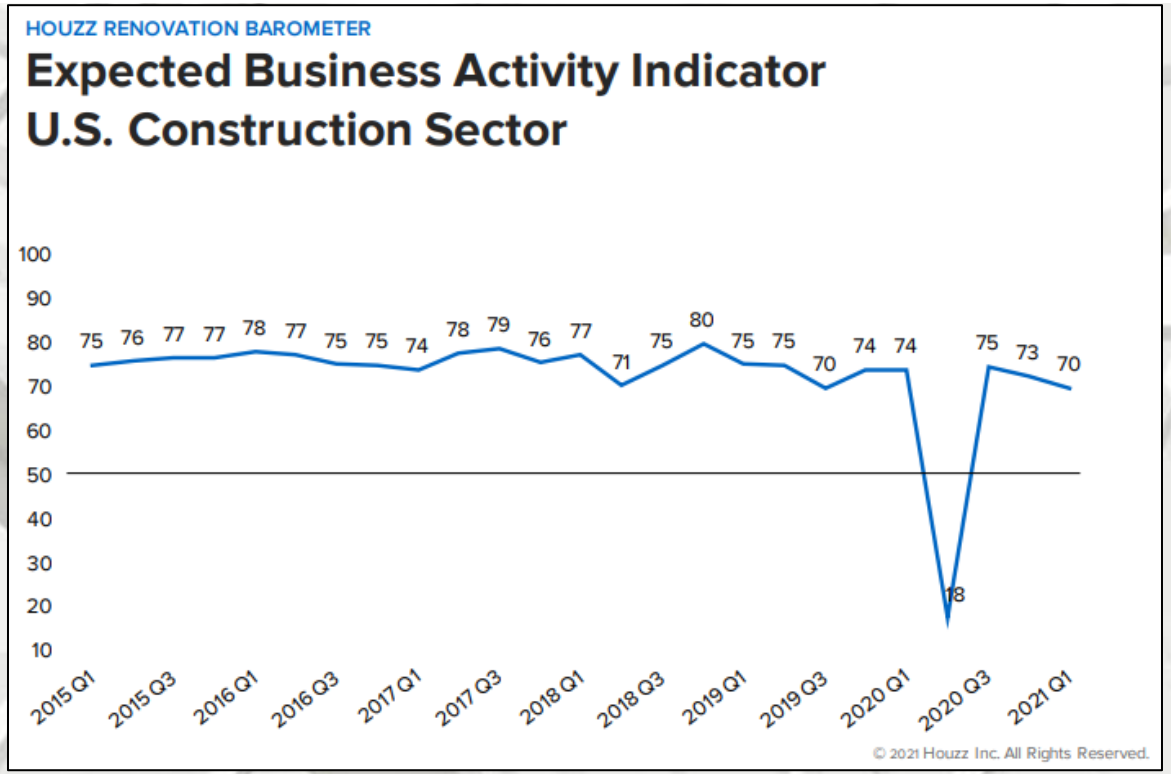
Remodeling



Houzz Research

Houzz Renovation Barometer Q1 2021

"**The Expected Business Activity Indicator related to project inquiries and new committed projects decreased to 70 in Q1 (compared to 73 in Q4 2020):** The expectations for project inquiries slightly decreased from 71 to 70 in Q1, while expectations for new committed projects decreased significantly from 75 to 69 in Q1 (down six points). Among the two reporting business groups, expectations were tempered for build-only remodelers at 67 compared to 75, their expectations in the last quarter. Design and build remodelers' expectations for project inquiries and new projects increased to 73 in Q1. Expectations among firms in the construction sector are still below the levels in the same quarter a year ago. **See additional subsector and regional data (PDF).**" – Houzz Research

Source: https://www.houzz.com/magazine/2021q1-houzz-renovation-barometer-construction-sector-stsetivw-vs~146013981/; 2/3/21

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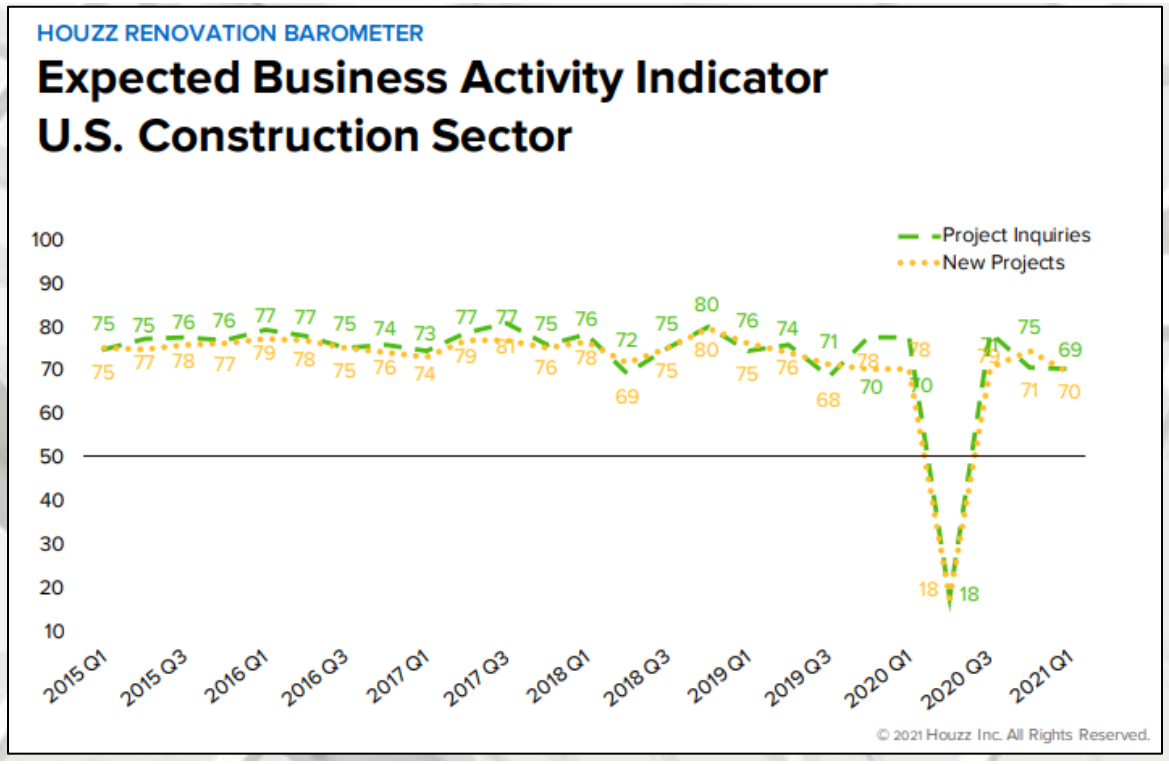
Remodeling



Houzz Research

Houzz Renovation Barometer Q1 2021

"**The Project Backlog Indicator increased to 7.4 weeks nationally at the start of Q1:** The overall backlog for the construction sector is two weeks longer than the same period last year. Among the two reporting business groups, backlogs declined among build-only remodelers to 6.8 weeks (down 0.5 weeks relative to Q4 2020) and increased among design and build remodelers to 8 weeks (up 0.9 weeks relative to Q4). Backlogs vary significantly from 5.2 weeks (East South Central division) to 9.2 weeks (East North Central division) across the nine Census divisions. Backlogs in the construction sector are longer than a year ago across all nine Census divisions. **See additional subsector and regional data (PDF).**" – Houzz Research

Source: https://www.houzz.com/magazine/2021q1-houzz-renovation-barometer-construction-sector-stsetivw-vs~146013981/; 2/3/21

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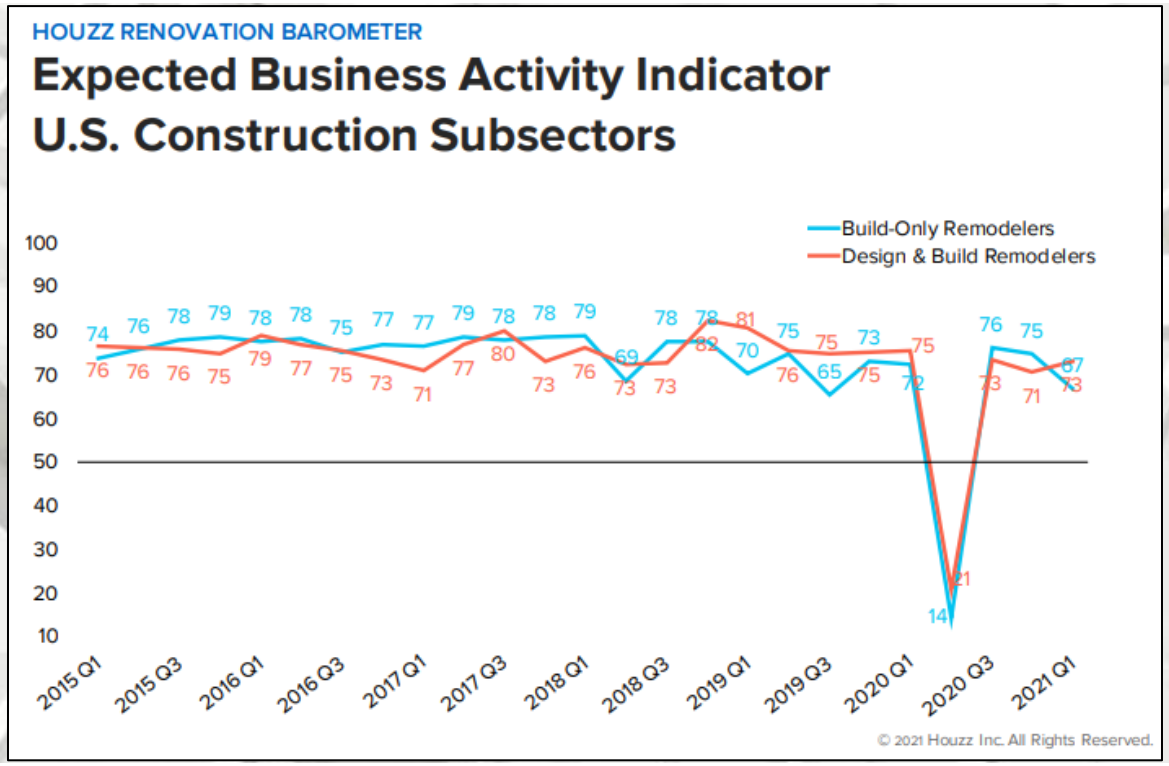
Remodeling



Houzz Research

Houzz Renovation Barometer Q1 2021

"**The Recent Business Activity Indicator related to project inquiries and new committed projects decreased significantly to 62 in Q4 (compared to 75 in Q3):** This follows decreases in project inquiry activity to 60 in Q3 (compared to 75 in Q3) and new committed projects to 63 (down 12 points relative to Q3). The overall recent activity indicator for the construction services sector was driven by decreases reported by the two business groups. Build-only remodelers reported a significant decrease in the recent business activity to 53 (compared to 71 in Q3), which is lower than the activity reported a year ago. Design and build remodelers also reported a decrease in recent activity to 70 in Q4 (down eight points relative to Q3). **See additional subsector and regional data (PDF).**" – Houzz Research

Source: https://www.houzz.com/magazine/2021q1-houzz-renovation-barometer-construction-sector-stsetivw-vs~146013981/; 2/3/21

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Remodeling

National Association of Home Builders' (NAHB)

Confidence in Remodeling is Strong Despite COVID-19

"The National Association of Home Builders' (NAHB) Remodeling Market Index (RMI) posted a reading of 79 in the fourth quarter of 2020. The reading indicates remodelers' confidence in their markets, for projects of all sizes, despite the ongoing negative impacts of the coronavirus pandemic (Table 1).

…The Current Conditions Index is an average of three of these subcomponents: the current market for large remodeling projects, moderately-sized projects and small projects. The Future Indicators Index is an average of the other two subcomponents: the current rate at which leads and inquiries are coming in and the current backlog of remodeling projects. The overall RMI is calculated by averaging the Current Conditions Index and the Future Indicator Index. Any number over 50 indicates that more remodelers view remodeling market conditions as good than poor.

In the fourth quarter, all components and subcomponents of the RMI were 71 or above. The Current Conditions Index averaged 85, with large remodeling projects ($50,000 or more) yielding a reading of 78, moderately-sized remodeling projects (at least $20,000 but less than $50,000) at 88 and small remodeling projects (under $20,000) at 89. These readings indicate remodeling activity is strong across projects of all sizes.

Meanwhile, the Future Indicators Index averaged to 72, with the rate at which leads and inquiries are coming in at 71 and the backlog of remodeling jobs at 73.

The fourth quarter RMI reading signals robust growth for remodelers going into 2021. The NAHB forecast predicts an acceleration in economic growth in the second half of 2021 as vaccination rates rise, further supporting remodeling activity." – Carmel Ford, Economist, NAHB

Source: http://eyeonhousing.org/2021/01/confidence-in-remodeling-is-strong-despite-covid-19/; 1/21/21

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Remodeling

National Association of Home Builders' (NAHB)

Table 1: Remodeling Market Index	2020			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
RMI	48	73	82	79
Current Conditions Index	58	77	86	85
The current market for large remodeling projects ($50,000 or more) in the area you operate.	53	70	80	78
The current market for moderately-sized remodeling projects (at least $20,000 but less than $50,000) in the area where you operate.	59	78	86	88
The current market for small remodeling projects (under $20,000) in the area where you operate.	62	83	90	89
Future Indicators Index	39	70	77	72
The current rate at which your leads and inquiries are coming in.	30	72	78	71
Your current backlog of remodeling projects.	47	67	77	73

Source: http://eyeonhousing.org/2021/01/confidence-in-remodeling-is-strong-despite-covid-19/; 1/21/21

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Existing House Sales

National Association of Realtors

December 2020 sales: 6.760 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
December	6,760,000	$309,800	$342,400	1.9
November	6,710,000	$310,900	$342,800	2.3
2019	5,530,000	$274,500	$311,000	3.0
M/M change	0.7%	-0.4%	-0.1%	-17.4%
Y/Y change	22.2%	12.9%	10.1%	-36.7%

All sales data: SAAR

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 1/22/21

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Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price
December	6,030,000	$314,300	$345,800
November	5,990,000	$315,600	$346,400
2019	4,910,000	$277,000	$312,300
M/M change	0.7%	-0.4%	-0.2%
Y/Y change	22.8%	13.5%	10.7%

	NE	MW	S	W
December	930,000	1,590,000	2,860,000	1,380,000
November	890,000	1,590,000	2,830,000	1,400,000
2019	730,000	1,260,000	2,370,000	1,170,000
M/M change	4.5%	0.0%	1.1%	-1.4%
Y/Y change	27.4%	26.2%	20.7%	17.9%

All sales data: SAAR.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 1/22/21

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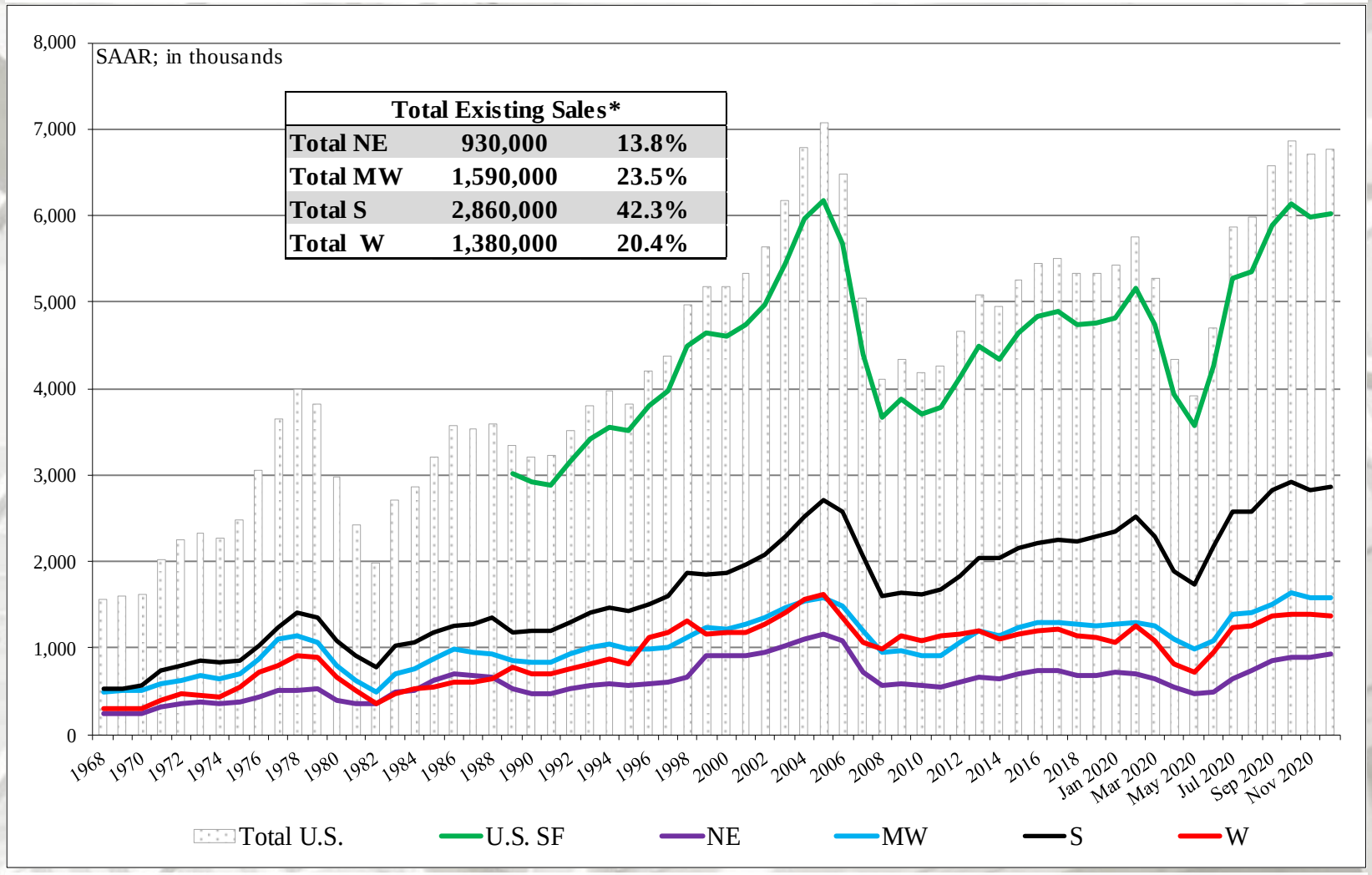
Existing House Sales



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

* Percentage of total existing sales.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 1/22/21

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U.S. Housing Prices

Federal Housing Finance Agency

FHFA House Price Index Up 1.0 Percent in November; Up 11.0 Percent from Last Year

Significant Findings

"House prices rose nationwide in November, up **1.0 percent** from the previous month, according to the latest Federal Housing Finance Agency House Price Index (FHFA HPI®). House prices rose **11.0 percent** from November 2019 to November 2020. The previously reported 1.5 percent price change for October 2020 remained unchanged.

For the nine census divisions, seasonally adjusted monthly house price changes from October 2020 to November 2020 ranged from **+0.3 percent** in the West South Central division to **+1.6 percent** in the Pacific division. The 12-month changes ranged from **+8.7 percent** in the West South Central division to **+14.0 percent** in the Mountain division." – Raffi Williams and Adam Russell, FHFA

"House prices have risen by at least one percent for six consecutive months. The acceleration has been slowing but annual gains now outpace the prior housing boom. Current conditions can be explained by fundamentals, including low rates and tight housing supply, which have been intensified by the pandemic." **–** Dr. Lynn Fisher, Deputy Director of the Division of Research and Statistics, FHFA

Source: https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/hpi-monthly_01262021.pdf; 1/26/21

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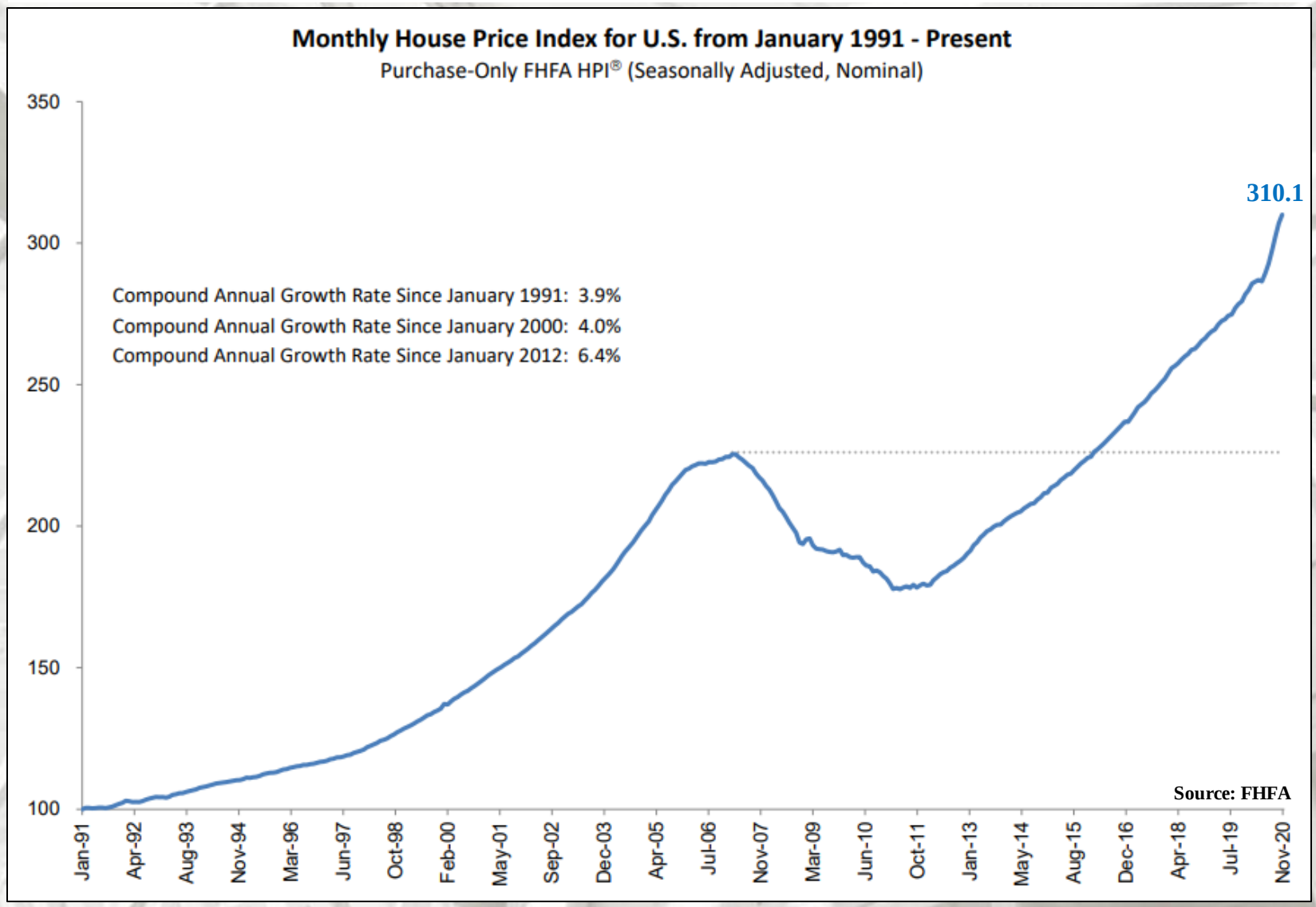
U.S. Housing Prices



Source: https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/hpi-monthly_01262021.pdf; 1/26/21

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U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Shows Annual Home Price Gains Remained Strong in October

"Data for November 2020 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 9.5% annual gain in November, up from 8.4% in the previous month. The 10-City Composite annual increase came in at 8.8%, up from 7.6% in the previous month. The 20-City Composite posted a 9.1% year-over-year gain, up from 8.0% in the previous month.

Phoenix, Seattle and San Diego continued to report the highest year-over-year gains among the 19 cities (excluding Detroit) in November. Phoenix led the way with a 13.8% year-over-year price increase, followed by Seattle with a 12.7% increase and San Diego with a 12.3% increase. All 19 cities reported higher price increases in the year ending November 2020 versus the year ending October 2020." – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

Source: https://www.spglobal.com/spdji/en/index-family/indicators/sp-corelogic-case-shiller/sp-corelogic-case-shiller-composite/#overview/; 12/29/20

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U.S. Housing Prices

S&P CoreLogic Case-Shiller Index

Month-Over-Month

"The U.S. National Index posted a 1.1% month-over-month increase, while the 10-City and 20-City Composites both posted increases of 1.2% and 1.1% respectively, before seasonal adjustment in November. After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 1.4%, while the 10-City and 20-City Composites both posted increases of 1.4%. In November, all 19 cities (excluding Detroit) reported increases before and after seasonal adjustment.

Analysis

"The trend of accelerating home prices that began in June 2020 has now reached its sixth month with November's emphatic report. The National Composite Index gained 9.5% relative to its level a year ago, accelerating from October's 8.4% increase. The 10- and 20-City Composites (up 8.8% and 9.1%, respectively) also rose more rapidly in November than they had done in October. The housing market's strength was once again broadly-based: all 19 cities for which we have November data rose, and all 19 gained more in the 12 months ended in November than they had gained in the 12 months ended in October.

As COVID-related restrictions began to grip the economy last spring, their effect on housing prices was unclear. Price growth decelerated in May and June before beginning a steady climb upward. November's report continues that acceleration in a particularly impressive manner. The National Composite last matched this month's 9.5% growth rate in February 2014, more than six and a half years ago. From the perspective of more than 30 years of S&P CoreLogic Case-Shiller data, November's 9.5% year-over-year change ranks near the top decile of all monthly reports.

Phoenix's 13.8% increase led all cities for the 18th consecutive month. Seattle (+12.7%) and San Diego (+12.3%) took the silver and bronze medals once again. Prices were strongest in the West (+10.1%) and Southwest (+9.7%) regions, with the historically lagging Northeast (+9.3%) also turning in an impressive month." – Craig Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

Source: https://www.spglobal.com/spdji/en/index-announcements/article/sp-corelogic-case-shiller-index-shows-annual-home-price-gains-climbed-to-95-in-november/; 1/26/21

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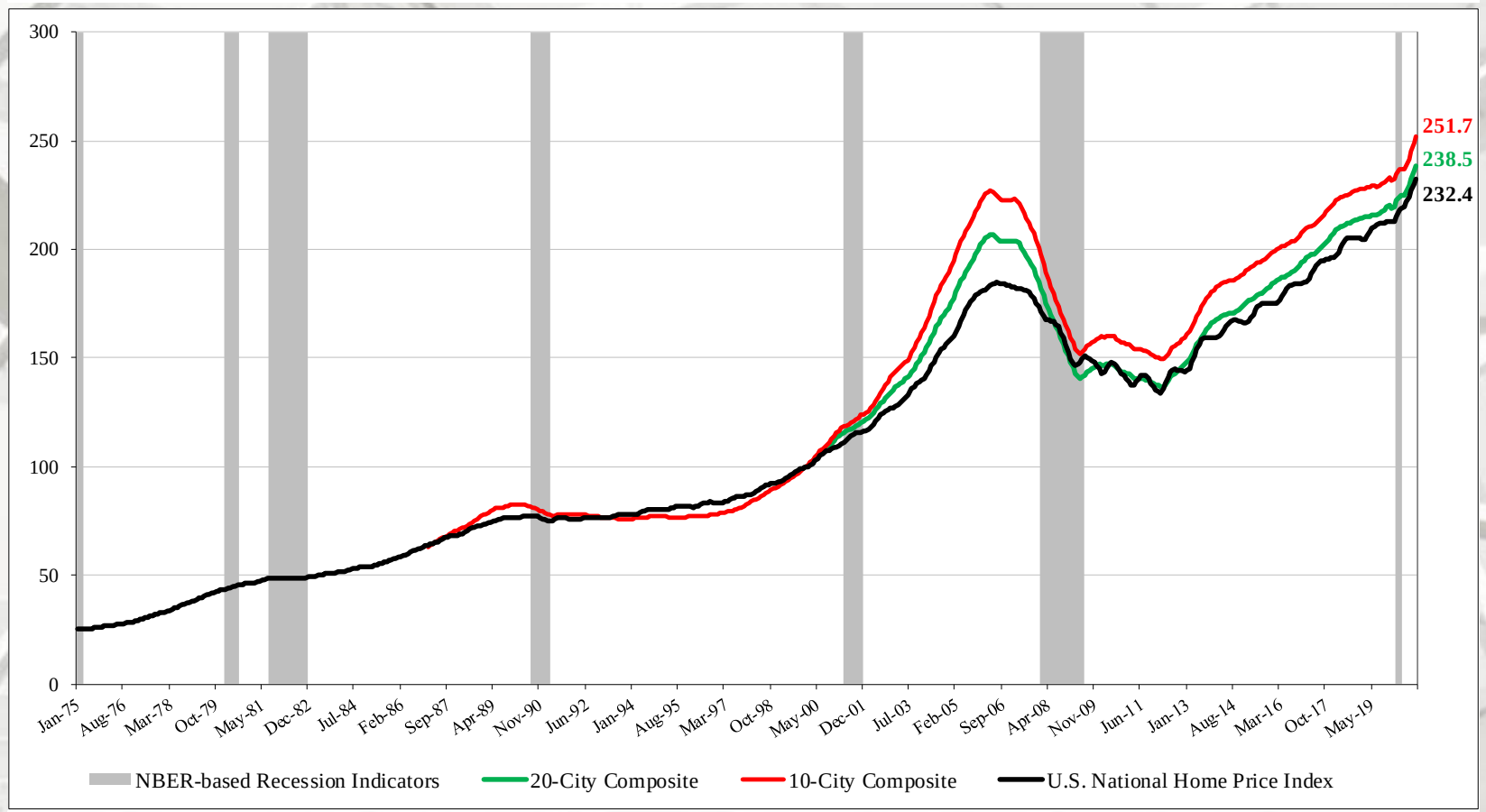
S&P/Case-Shiller Home Price Indices



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

"Recent data are consistent with the view that COVID has encouraged potential buyers to move from urban apartments to suburban homes. This may represent a true secular shift in housing demand, or may simply represent an acceleration of moves that would have taken place over the next several years anyway. Future data will be required to address that question." – Craig Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

Source: https://www.spglobal.com/spdji/en/index-announcements/article/sp-corelogic-case-shiller-index-shows-annual-home-price-gains-climbed-to-95-in-november/; 1/26/21

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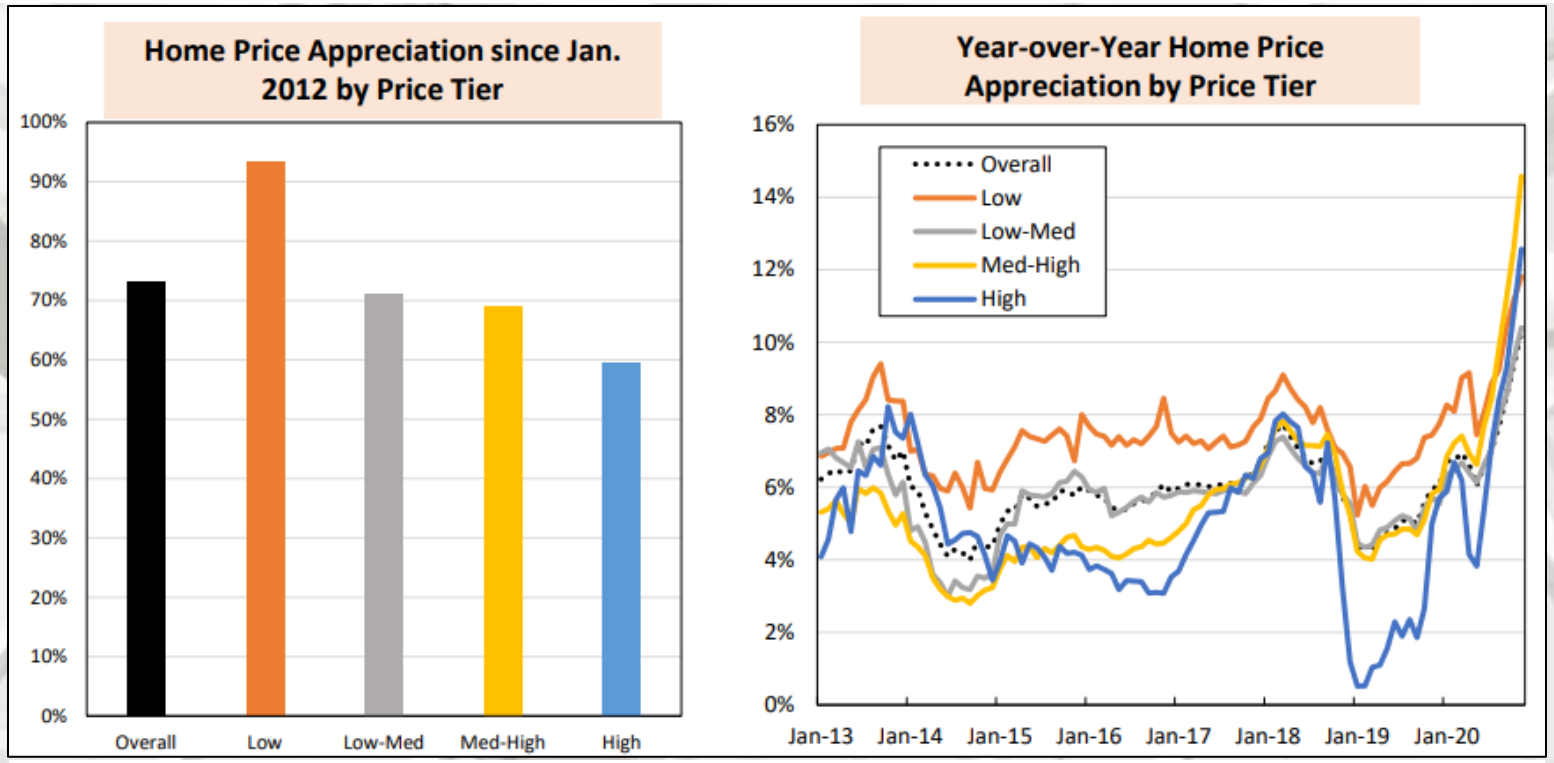
U.S. Housing Prices



Note: Data for December 2020 are preliminary. Price tiers are set at the metro level and are defined as follows: Low: all sales at or below the 40th percentile of FHA sales prices; Low-Medium: all sales at or below the 80th percentile of FHA sales prices; Medium-High: all sales at or below the 125% of the GSE loan limit; and High: all other sales. HPAs are smoothed around the times of FHFA loan limit changes.
Source: AEI Housing Center, www.AEI.org/housing.

AEI Housing Center

National House Price Appreciation (HPA) 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 December 2020 indicate that the low price tier continued to have strong HPA, although the med-high and high price tiers, which are more dependent on the monetary punch bowl, are showing the strongest rates of appreciation. This is a trend reversal, since historically the low price tier has shown the fastest y-o-y HPA." – Edward Pinto, Resident Fellow; Director and Tobias Peter, Research Fellow and Director of Research, AEI Housing Center

Source: https://www.aei.org/housing/housing-market-indicators/; 1/21/20

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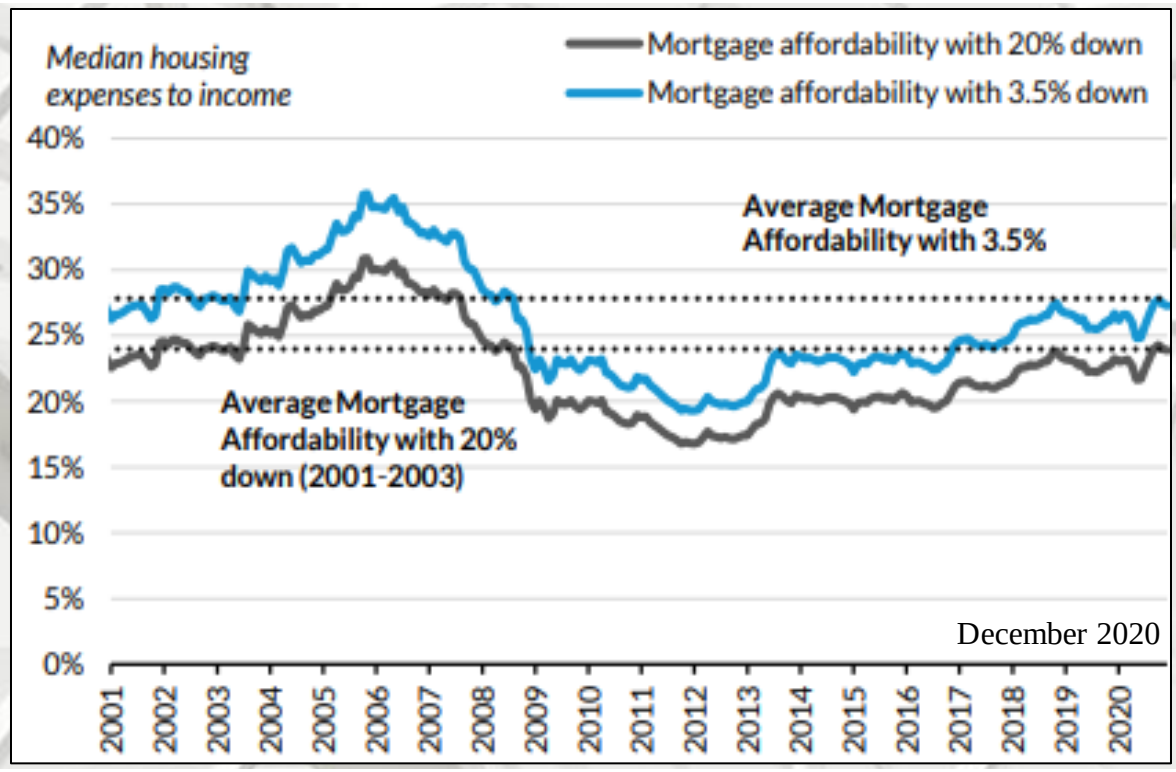
Housing Affordability



Urban Institute

National Mortgage Affordability Over Time

"Despite price increases over the last 8 years, home prices remain affordable by historic standards, as interest rates are now near generational lows. As of December 2020, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 23.9 percent; with 3.5 down, it is 27.3 percent. These numbers are very close to the 2001-2003 median, and represent a sharp decrease in affordability in recent months. The last time we were at this affordability level was in February of 2019, and before that, in 2008. As shown in the bottom picture, mortgage affordability varies widely by MSA" – Laurie Goodman, Center Vice President, Urban Institute

Source: https://www.urban.org/sites/default/files/publication/103539/housing-finance-at-a-glance-a-monthly-chartbook-january-2021_1.pdf; 1/26/21

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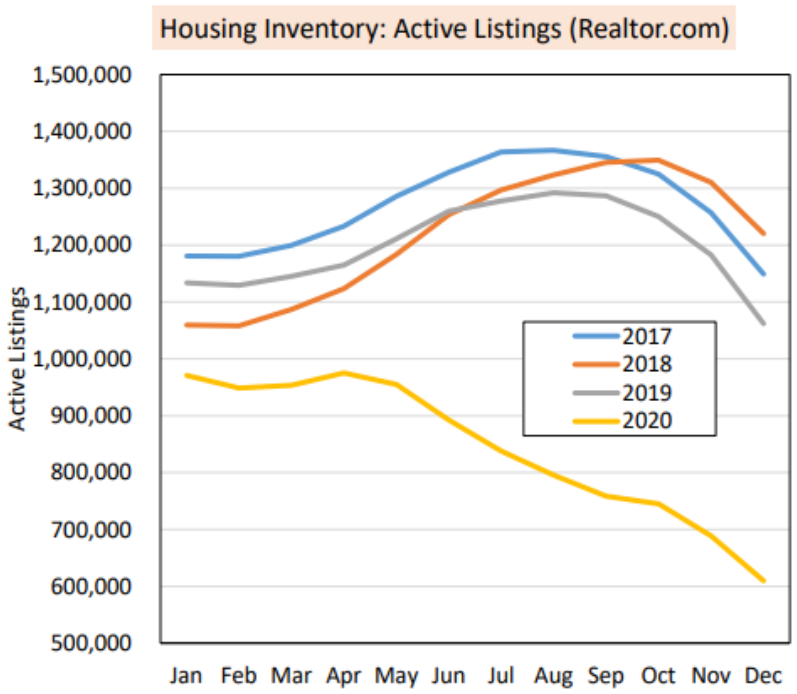
U.S. Housing Supply



Year-over-Year Change in Active Listings (December 2020)			
Density Quintile	Nation	LA	NYC
All	-43%	-35%	-9%
1 (least)	-54%	-52%	-27%
2	-49%	-39%	-25%
3	-46%	-26%	-8%
4	-40%	-5%	20%
5 (most)	-6%	14%	53%

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

AEI Housing Center
Supply Is Being Depleted

"Supply has fallen dramatically in 2020 and is most depleted in less dense areas. For the foreseeable future, it will be difficult to replenish or add to supply: (i) baby boomers are tending to stay put more, (ii) it takes time to acquire land, entitle, and build new construction even in places like North Carolina and Texas, (iii) adding supply will face the usual difficulties in the Northeast and West, & (iv) new construction supply has fallen from 3.7 months in December 2019 to 2.3 months in December 2020." – 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/; 1/21/20

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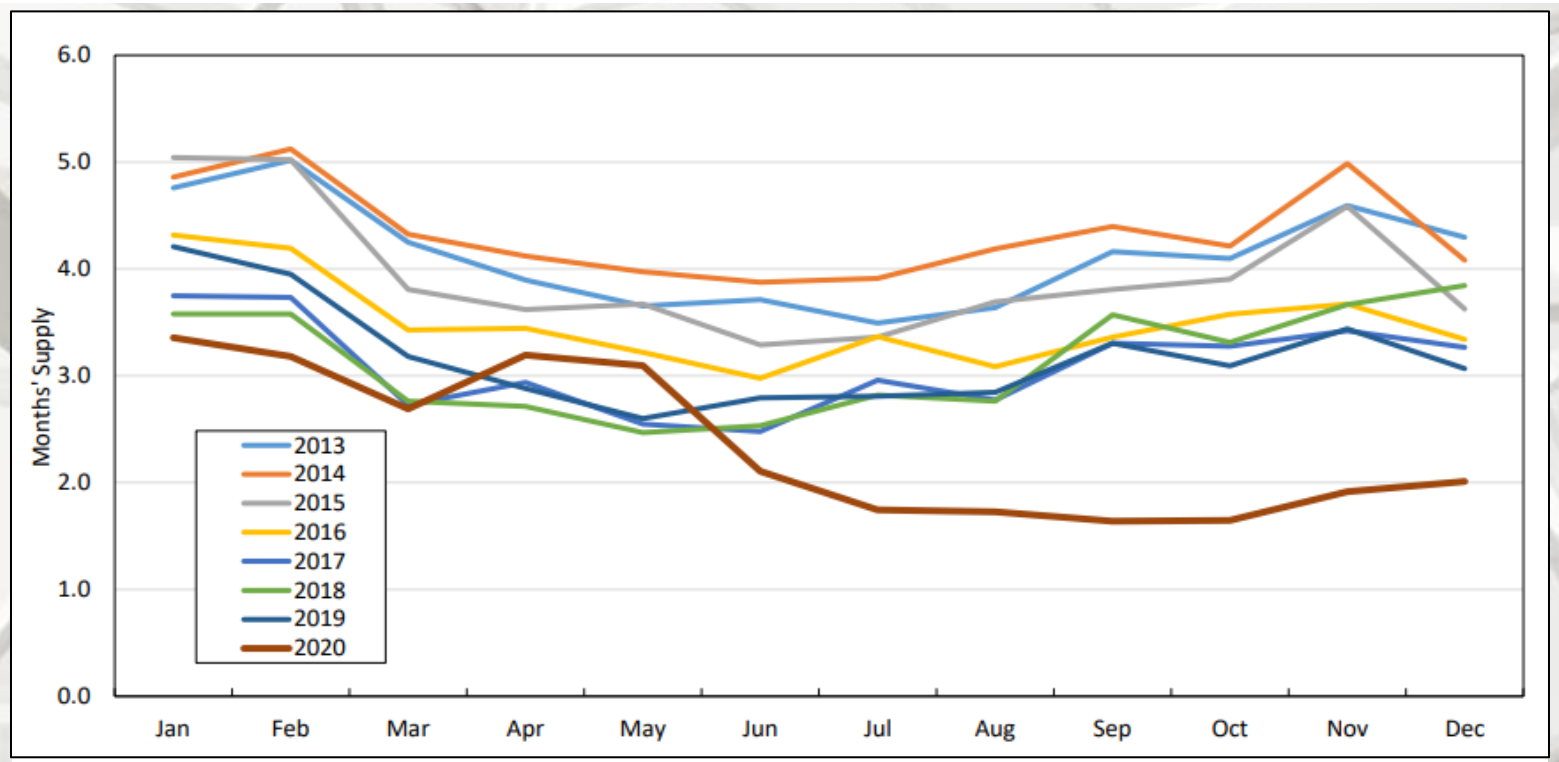
Housing Supply



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, Census Bureau, and AEI Housing Center, www.AEI.org/housing.

AEI Housing Center
Months' Supply

"With the start of the lockdown, inventory levels first increased due to reduced demand. However, levels have noticeably tightened during the housing market recovery, which stated in mid-May. Low mortgage rates combined with record low inventory of 2 months virtually guarantee that HPA will remain strong over the coming months." – 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/; 1/21/20

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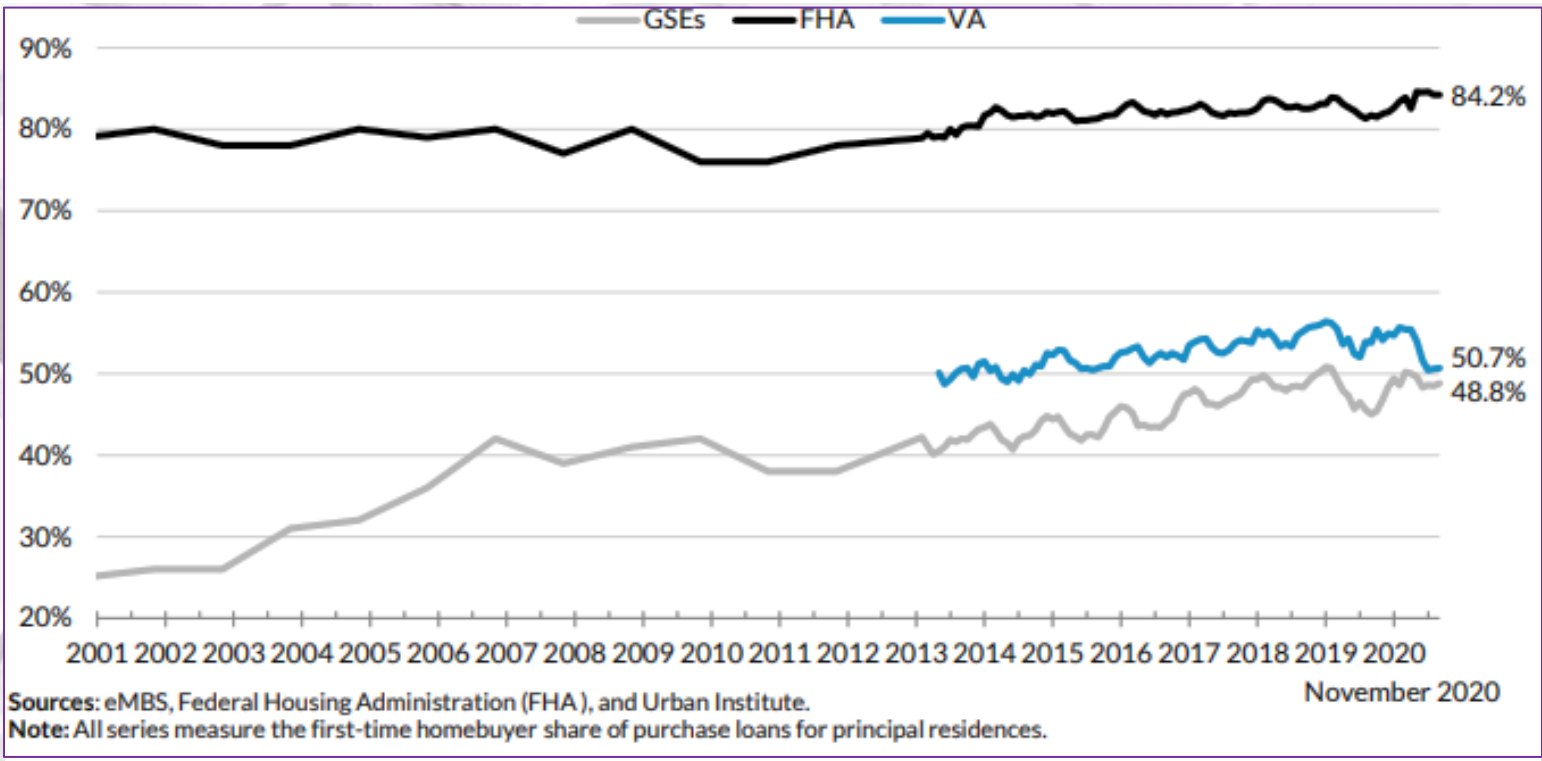
First-Time House Buyers



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 Homebuyer Share

"In November 2020, the FTHB share for FHA, which has always been more focused on first time homebuyers, was 84.2 percent. The FTHB share of VA lending in November was 50.7 percent. The GSE FTHB share in November was up slightly relative to October, at 48.8 percent. …based on mortgages originated in November 2020, 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

Source: https://www.urban.org/sites/default/files/publication/103539/housing-finance-at-a-glance-a-monthly-chartbook-january-2021_1.pdf; 1/26/21

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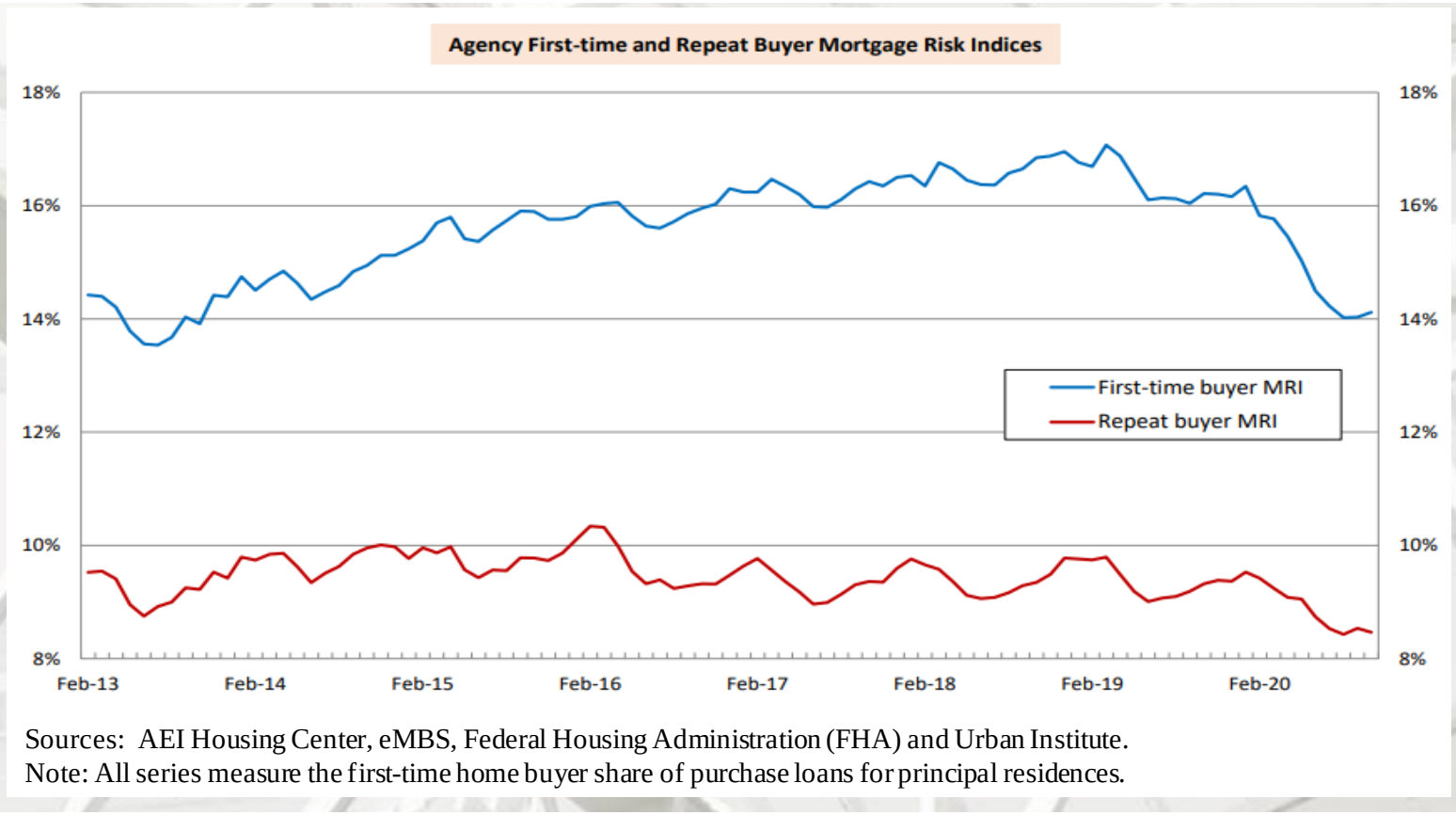
First-Time House Buyers



Sources: AEI Housing Center, eMBS, Federal Housing Administration (FHA) and Urban Institute.
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

AEI Housing Center

First-Time Homebuyer Share

"The first-time buyer (FTB) MRI is back to its 2013 level. The FTB leverage punch bowl is less spiked due to a lower FHA share, less competition between GSEs and FHA, higher credit scores, and lower DTIs. However, the unprecedented spiking of the monetary punchbowl is driving home price appreciation." – 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/; 1/21/21

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U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Increased in January

"Mortgage credit availability increased in January 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 2.0 percent to 124.6 in January. 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 4.8 percent, while the Government MCAI decreased by 0.1 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 2.2 percent, and the Conforming MCAI rose by 7.7 percent.

The growth in credit availability in January coincides with a housing market that is poised for a strong start to the year. Improvements were driven by the conventional segment of the mortgage market, as lenders added ARM loans with lower credit score and higher LTV requirements. Despite ARM loans accounting for a very small share of loan applications in recent months, lenders are likely looking ahead to a strong home buying season by expanding their product offerings. Ongoing strength in home-purchase applications and home sales continue to signal robust housing demand, even as low housing inventory remains a constraint. However, even with overall credit availability picking up in three of the past four months, credit supply is still at its tightest level since 2014." – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

Source: www.mba.org/news-research-and-resources/research-and-economics/single-family-research/mortgage-credit-availability-index; 2/9/21

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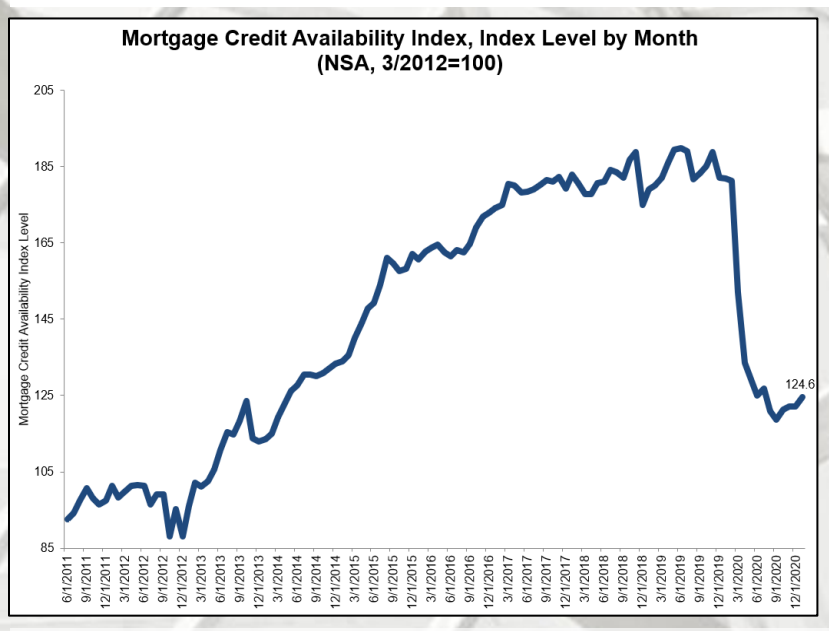
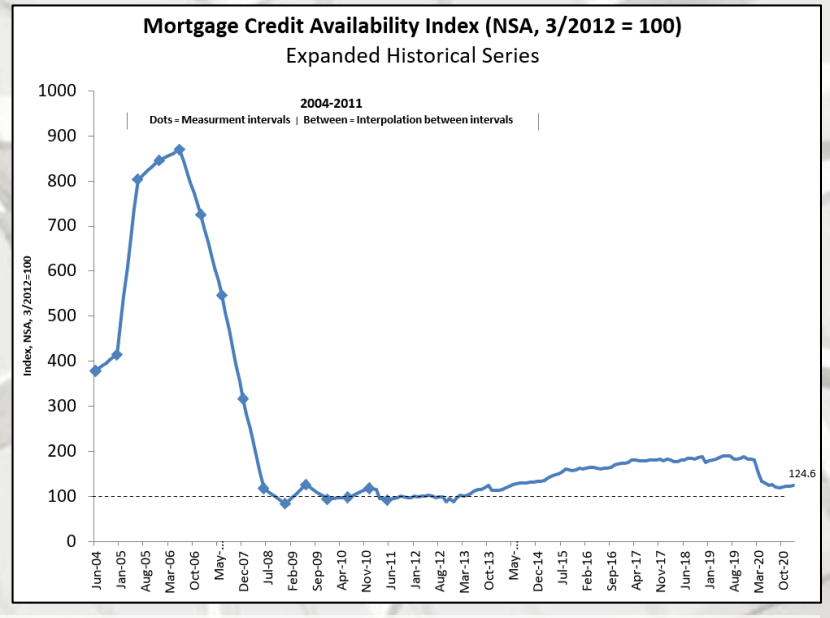
U.S. Housing Finance
Mortgage Credit Availability (MBA)





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

Source: www.mba.org/news-research-and-resources/research-and-economics/single-family-research/mortgage-credit-availability-index; 2/12/21

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U.S. Housing Finance

Board of Governors *of the* Federal Reserve System

The October 2020 Senior Loan Officer Opinion Survey on Bank Lending Practices

"Over the third quarter, major net shares of domestic banks tightened standards for construction and land development loans and loans secured by nonfarm nonresidential properties, while a significant net share of banks tightened standards for loans secured by multifamily residential properties.

Over the third quarter, moderate net shares of banks tightened lending standards for most mortgage loan categories, including for government-sponsored enterprise (GSE)-eligible mortgages, which make up the majority of bank mortgage originations. In addition, significant net shares of banks tightened standards for qualified mortgage (QM) jumbo mortgages and revolving home equity lines of credit (HELOCs). A greater share of other banks reported tightening standards on GSE-eligible and QM jumbo mortgages compared with large banks, while most other mortgage loan categories showed little difference between respondent size groups.

Regarding demand for RRE loans, a major net share of banks reported stronger demand for GSE-eligible residential mortgages, and significant net shares of banks reported stronger demand for most of the remaining RRE categories. Large banks reported somewhat lower increases in demand compared with other banks, particularly for GSE-eligible mortgages and QM non-jumbo mortgages. Demand was reported weaker, on net, only for subprime mortgages and HELOCs." – Elijah Broadbent, David Glancy, and Brandon Nedwek, Division of Monetary Affairs, Board of Governors of the Federal Reserve System

Source: https://www.federalreserve.gov/data/sloos/sloos-202010.htm; 2/1/21

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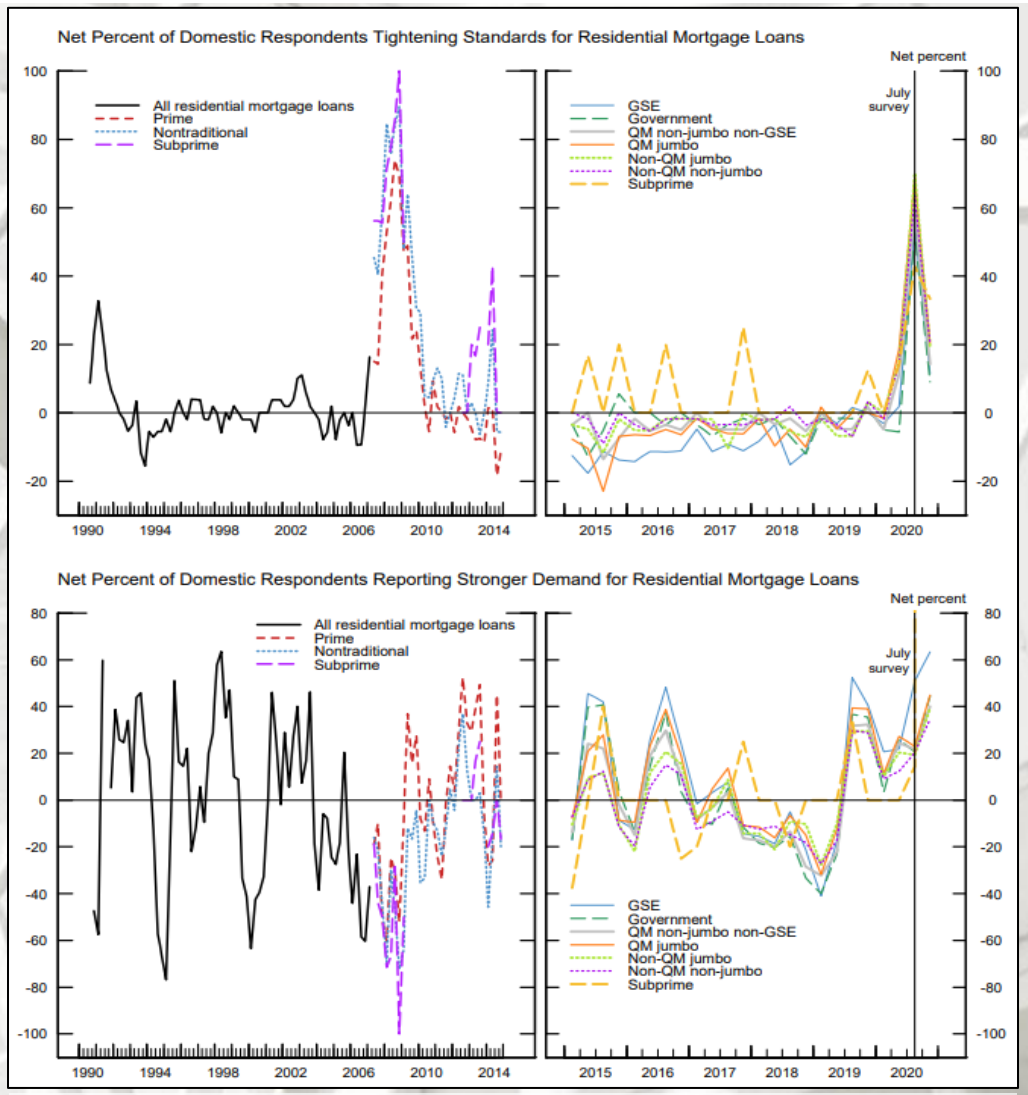
U.S. Housing Finance

Board of Governors *of the* Federal Reserve System



Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Source: https://www.federalreserve.gov/data/sloos/sloos-202010.htm; 2/1/21

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MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

January 20, 2021

	2020				2021				2022								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021	2022	2023
Housing Measures																	
Housing Starts (SAAR, Thous)	1,484	1,079	1,432	1,531	1,490	1,471	1,480	1,482	1,480	1,495	1,505	1,504	1,295	1,382	1,481	1,496	1,510
Single-Family	968	766	1,037	1,181	1,150	1,120	1,125	1,140	1,150	1,170	1,180	1,185	893	988	1,134	1,171	1,210
Two or More	517	313	395	350	340	351	355	342	330	325	325	319	403	394	347	325	300
Home Sales (SAAR, Thous)																	
Total Existing Homes	5,483	4,313	6,127	6,673	6,203	6,226	6,224	6,241	6,261	6,303	6,315	6,301	5,331	5,649	6,223	6,295	6,341
New Homes	701	703	973	895	927	957	984	995	1,001	1,011	1,019	1,022	685	818	966	1,013	1,036
FHFA US House Price Index (YOY % Change)	5.0	4.0	4.7	5.3	5.5	5.5	5.3	5.1	4.9	4.7	4.4	4.2	5.1	5.3	5.1	4.2	3.6
Median Price of Total Existing Homes (Thous $)	272.4	309.2	311.7	316.0	311.3	304.3	302.9	302.7	303.5	304.2	304.8	305.2	269.7	302.3	312.0	310.8	308.6
Median Price of New Homes (Thous $)	329.6	322.8	335.6	337.8	334.8	338.9	342.4	344.6	345.6	346.7	348.1	349.8	319.3	331.4	332.7	336.8	338.5
Interest Rates																	
30-Year Fixed Rate Mortgage (%)	3.5	3.2	3.0	2.8	2.9	3.1	3.3	3.4	3.5	3.7	3.8	3.9	3.7	2.8	3.4	3.9	4.4
10-Year Treasury Yield (%)	1.4	0.7	0.6	0.9	1.2	1.4	1.5	1.6	1.7	1.9	2.0	2.1	1.8	0.9	1.6	2.1	2.6
Mortgage Originations																	
Total 1- to 4-Family (Bil $)	563	928	1,076	1,006	820	683	638	578	512	536	601	552	2,253	3,573	2,719	2,201	2,173
Purchase	257	348	418	401	320	378	443	433	362	395	459	412	1,225	1,424	1,574	1,628	1,653
Refinance	306	580	658	605	500	305	195	145	150	141	142	140	1,028	2,149	1,145	573	520
Refinance Share (%)	54	63	61	60	61	45	31	25	29	26	24	25	46	60	42	26	24
FHA Originations (Bil $)													255	335	251	202	192
Total 1- to 4-Family (000s loans)	1,869	3,052	3,497	3,229	2,567	2,161	2,018	1,816	1,568	1,645	1,831	1,663	7,779	11,646	8,562	6,706	6,388
Purchase	891	1,203	1,427	1,350	1,052	1,239	1,436	1,387	1,135	1,237	1,424	1,266	4,392	4,871	5,114	5,063	4,952
Refinance	978	1,848	2,070	1,878	1,515	922	583	428	433	407	406	397	3,387	6,775	3,448	1,644	1,436
Refinance Share (%)	52	61	59	58	59	43	29	24	28	25	22	24	44	58	40	25	22
Mortgage Debt Outstanding																	
1- to 4-Family (Bil $)	10,775	10,875	10,984	11,135	11,297	11,442	11,596	11,755	11,916	12,081	12,254	12,424	10,677	11,135	11,755	12,424	13,100

Notes:

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

Total existing home sales include condos and co-ops.

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

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

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

The FHFA US House Price Index is the forecasted year over year percent change of the FHFA All Transactions House Price Index.

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

MBa
MORTGAGE BANKERS ASSOCIATION

Source: http://mba-erm.informz.net/mba-erm/data/images/Mortgage%20Finance%20Forecast%20Jan%202021.pdf; 1/20/20

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MBA Economic Forecast

MBA Economic Forecast

January 20, 2021

	2020				2021				2022								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021	2022	2023
Percent Change, SAAR																	
Real Gross Domestic Product	-5.0	-31.4	33.4	3.0	2.3	2.9	5.2	4.4	3.8	2.8	2.2	2.0	2.3	-2.7	3.7	2.7	1.7
Personal Consumption Expenditures	-6.9	-33.2	41.0	2.0	0.5	4.4	6.9	4.0	2.7	1.7	1.1	1.4	2.5	-2.7	3.9	1.7	1.3
Business Fixed Investment	-6.7	-27.2	22.9	7.5	9.7	2.2	5.3	5.8	5.0	3.8	3.5	3.5	1.4	-2.7	5.7	3.9	3.1
Residential Investment	19.0	-35.6	63.0	30.3	1.9	0.9	-0.1	1.3	1.4	1.9	2.2	1.8	1.6	13.0	1.0	1.8	1.9
Govt. Consumption & Investment	1.3	2.5	-4.8	-3.7	4.0	2.5	0.7	0.9	-0.3	0.7	0.5	-0.5	3.0	-1.2	2.0	0.1	-0.6
Net Exports (Bil. Chain 2012$)	-650.7	-649.0	-859.6	-924.8	-976.4	-1006.4	-1010.1	-1006.1	-967.4	-911.7	-853.4	-812.0	-763.9	-771.1	-999.8	-886.1	-734.1
Inventory Investment (Bil. Chain 2012$)	-68.8	-244.0	-3.2	54.3	87.9	72.7	61.0	85.8	107.3	101.5	87.2	75.7	41.3	-65.4	76.9	93.0	66.4
Consumer Prices (YOY)	2.1	0.4	1.3	1.2	1.3	2.7	2.2	2.3	2.6	2.6	2.3	2.1	1.9	1.2	2.3	2.1	2.2
Percent																	
Unemployment Rate	3.8	13.0	8.8	6.8	6.4	6.1	5.3	4.7	4.5	4.5	4.5	4.4	3.7	8.1	5.7	4.4	4.2
Federal Funds Rate	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	1.625	0.125	0.125	0.125	0.625
10-Year Treasury Yield	1.4	0.7	0.6	0.9	1.2	1.4	1.5	1.6	1.7	1.9	2.0	2.1	1.4	0.9	1.6	2.1	2.6

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

MBa
MORTGAGE BANKERS ASSOCIATION

Source: http://mba-erm.informz.net/mba-erm/data/images/Economic%20Forecast%20Jan%202021.pdf; 1/20/20

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U.S. Housing Market

Woodworking Network

First 3D printed house in U.S. listed for sale on Long Island

"SQ4D Inc. has listed for sale what is reported to be the first 3D printed house in the United States. This residential property, printed on site using SQ4D's Autonomous Robotic Construction System, is the first 3D printed home to receive a certificate of occupancy and is listed on MLS for sale as new construction for $299,999.

The 3D printed house will feature more than 1,400 square feet of living space, plus a 750 square foot two-and-a-half car garage on a quarter acre. This house includes three bedrooms, two full bathrooms, and features an open floor plan." – Karl Forth, Online Editor, CCI Media

Source: https://www.woodworkingnetwork.com/news/woodworking-industry-news/first-3d-printed-house-us-listed-sale-long-island; 1/27/21

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U.S. Housing Market

Woodworking Network

First 3D printed house in U.S. listed for sale on Long Island

"SQ4D developed its patent pending ARCS technology to robotically build the footings, foundations, interior and exterior walls on site of their homes. SQ4D will be including a 50-year limited warranty on their 3D printed structures. SQ4D's 3D printing technology can reportedly reduce the cost of new home construction.

Stephen King of Realty Connect, the Zillow Premier agent who has the listing, said, "At $299,999, this home is priced 50 percent below the cost of comparable newly-constructed homes in Riverhead, New York, and represents a major step towards addressing the affordable housing crisis plaguing Long Island." SQ4D currently has building plans being reviewed from New York to California." – Karl Forth, Online Editor, CCI Media

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Summary

In conclusion:

December housing data denoted the second consecutive month of total starts greater than 1.5-million units. For the fourth consecutive month, total starts have exceeded their 61-year historical average. Further, single-family starts were the greatest since September 2006 (1,384,000 units). Aggregate (month-over-month and year-over-year) United States housing market data also was positive. The single-family sub-sector is the primary source of the current uptrend and is progressively gaining momentum. Month-over-month data yielded decreases in three categories: aggregate multi-family starts and permits, and new sales. Year-over-year data indicated declines for multi-family-starts and permits. Existing house sales were the greatest quantity since 2006. Residential construction spending was positive month-over-month and year-over-year; and expenditures from October through December are the greatest since 2005-2006 (nominal basis). Consensus total housing and single-family starts, and new single-family sales are projected at 1,440; 1055, and 912 thousand units (all median values).

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

Pros:

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

Cons:

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

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