The Virginia Tech – U.S. Forest Service **June 2020 Housing Commentary: Section I**





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2020

Virginia Polytechnic Institute and State University

VCE-CNRE 119NP

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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

Opening Remarks

In June, housing starts and new house sales were reassuring, as housing is a bright spot for the United States economy – albeit subdued. Total, single- and multi-family starts; total single- and multi-family permits; total, single-family completions; and new and existing house sales were positive on a month-over-month basis. Housing under construction and completions were the only sub-sectors registering positive data year-over-year sector. The majority of housing subsector data were mostly negative. The effect of Covid19 is still evident in June's data.

The August 14th Atlanta Fed GDPNowTM model for June 2020 forecasts an aggregate 47.4% increase for residential investment spending. New private permanent site expenditures were projected at a 31.6% rise; the improvement spending forecast was a 13.1% increase; and the manufactured/mobile expenditures projection was a 171.3% rise (all: quarterly log change and at a seasonally adjusted annual rate).¹

"... A shift in housing demand, singles versus multiples, was underway prior to the pandemic. Young millennial families, in surveys, were stating an intention to move from city cores to the suburbs, to reclaim the lifestyles experienced by their parents and grandparents. Also, pricing for housing downtown has become prohibitive in many cities.

Congestion downtown, and in high-rise buildings (offices and condo towers) is currently providing another incentive to move to the 'burbs or to a rural community. One of the chief drawbacks to doing so, a long commute back and forth to work, has been taken off the table. Working from home has proven to be a viable alternative.

Grounding one's work from home is certainly the thing to do for the moment. Whether it will continue to be as prevalent post-pandemic and longer-term is a key question that will only be answered in time. But it has some interesting things to say about mobility. ..." – Alex Carrick, Chief Economist, ConstructConnect

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

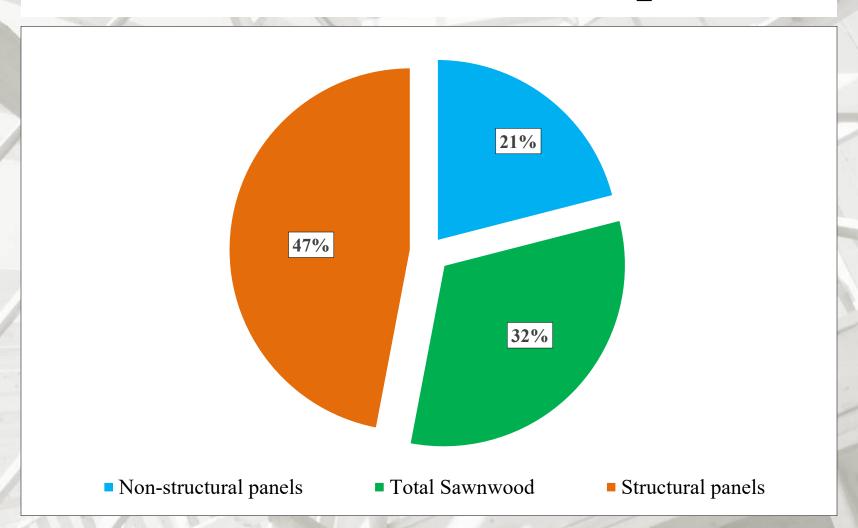
June 2020 Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 17.3%	4.0%
Single-Family (SF) Starts	▲ 17.2%	7 3.9%
Multi-Family (MF) Starts*	▲ 17.5%	4.1%
Housing Permits	▲ 2.1%	2.5%
SF Permits	▲ 11.8%	7 1.1%
MF Permits*	v 13.4%	5.3%
Housing Under Construction	▼ 0.6%	2.0%
SF Under Construction	▼ 1.4% ▼	4.8%
Housing Completions	▲ 4.3% ▲	5.1%
SF Completions	▲ 9.6% ▲	4.0%
New SF House Sales	▲ 13.8% ▲	6.9%
Private Residential Construction	on Spending 🔻 1.5% 🐧	▼ 0.8%
SF Construction Spending	▼ 3.6%	7.6%
Existing House Sales ¹	▲ 20.7%	7 11.3%

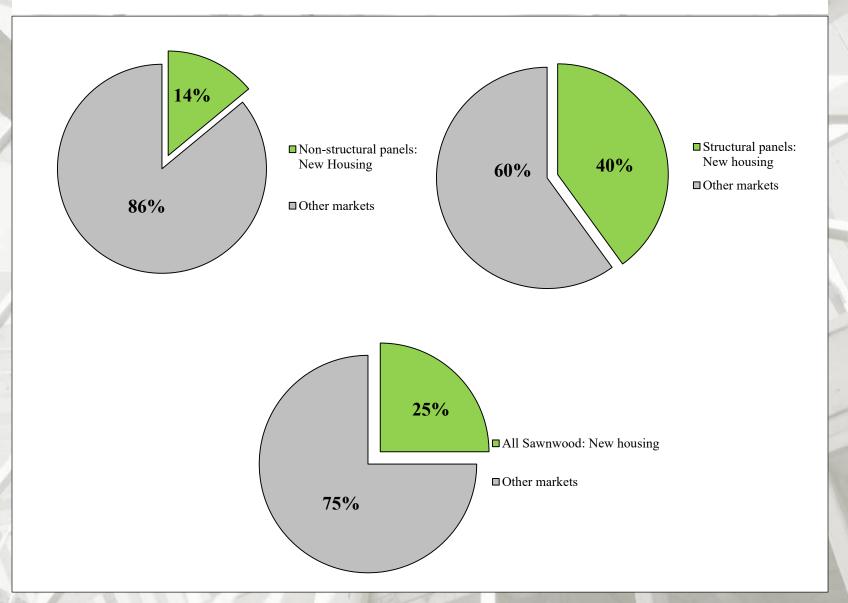
^{*} All multi-family (2 to $4 + \ge 5$ -units)

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

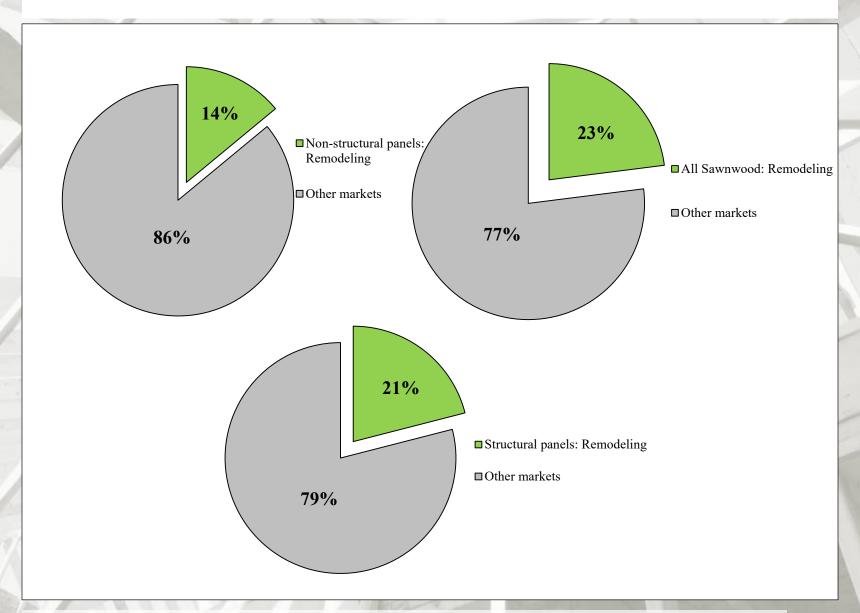
New Construction's Percentage of Wood Products Consumption



New SF Construction Percentage of Wood Products Consumption



Repair and Remodeling's Percentage of Wood Products Consumption



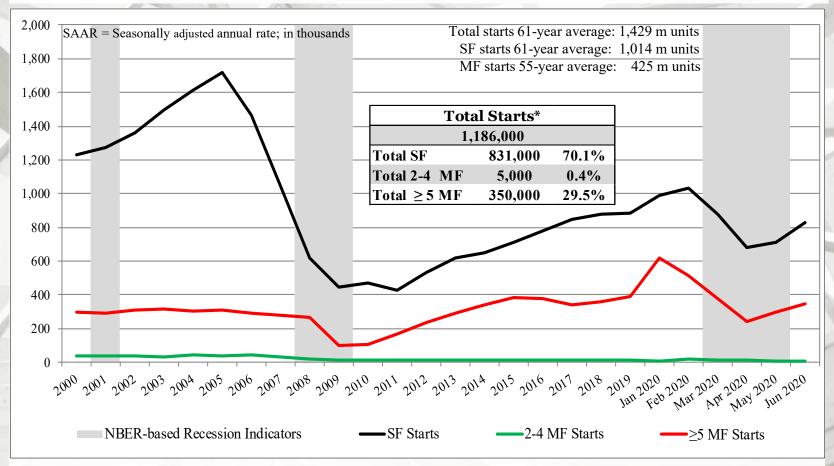
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
June	1,186,000	831,000	5,000	350,000
May	1,011,000	709,000	7,000	295,000
2019	1,235,000	865,000	11,000	359,000
M/M change	17.3%	17.2%	-28.6%	18.6%
Y/Y change	-4.0%	-3.9%	-54.5%	-2.5%

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

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

Total Housing Starts

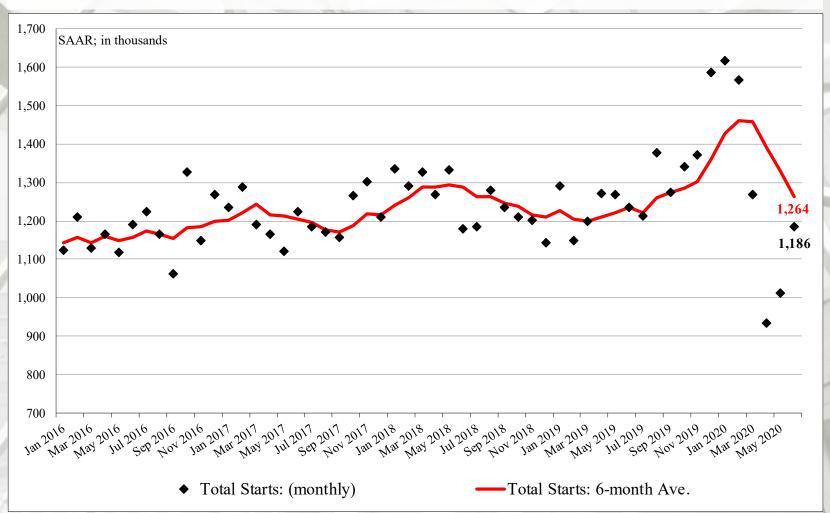


US DOC does not report 2 to 4 multifamily starts directly, this is an estimation: ((Total starts – (SF $+ \ge MF$)).

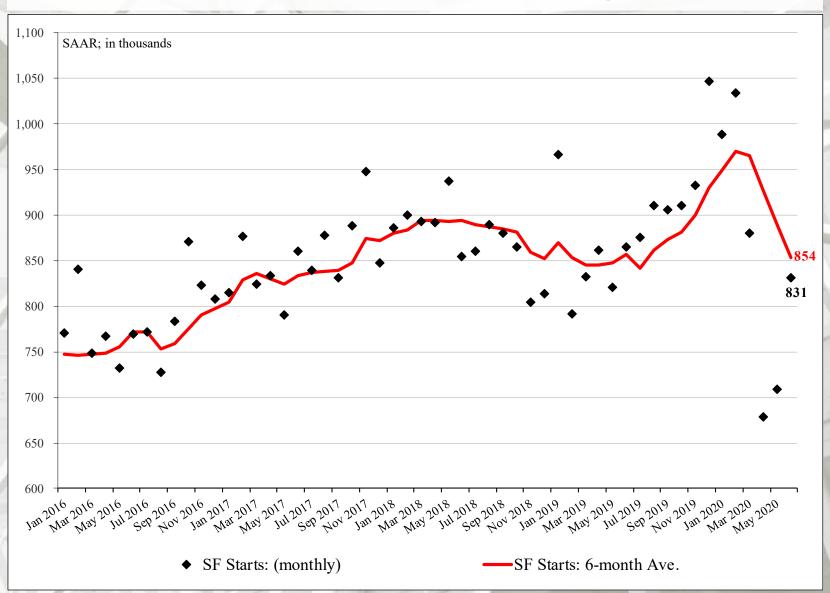
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

^{*} Percentage of total starts.

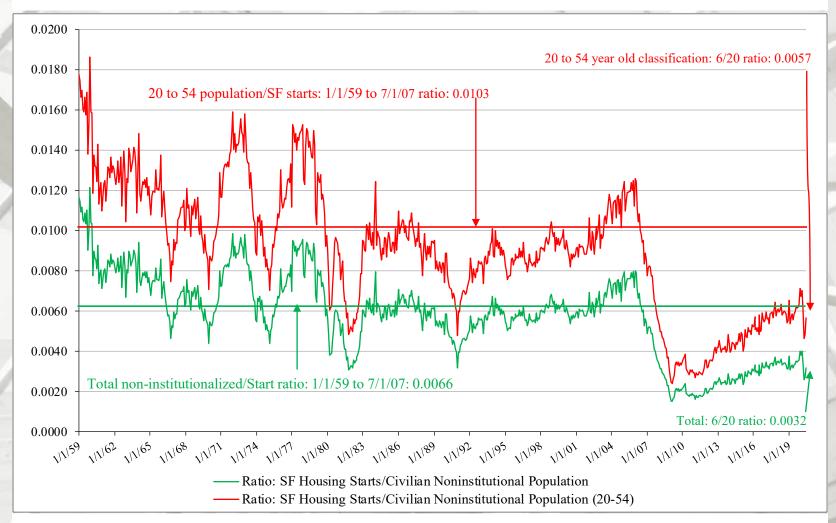
Total Housing Starts: Six-Month Average



SF Housing Starts: Six-Month Average



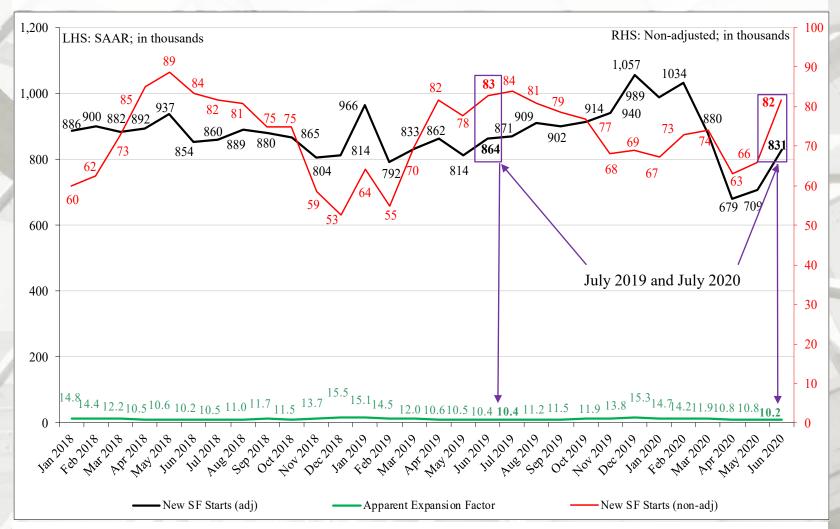
New SF Starts



New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in July 2020 it was 0.0032 – an increase from May. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in July 2020 was 0.0057 – also an increase from May. From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

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

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

New Housing Starts by Region 1/3

	NE Total	NE SF	NE MF**
June	105,000	72,000	33,000
May	49,000	34,000	15,000
2019	111,000	47,000	64,000
M/M change	114.3%	111.8%	120.0%
Y/Y change	-5.4%	53.2%	-48.4%
	MW Total	MW SF	MW MF
June	MW Total 181,000	MW SF 122,000	MW MF 59,000
June May			
	181,000	122,000	59,000
May	181,000 140,000	122,000 95,000	59,000 45,000

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

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

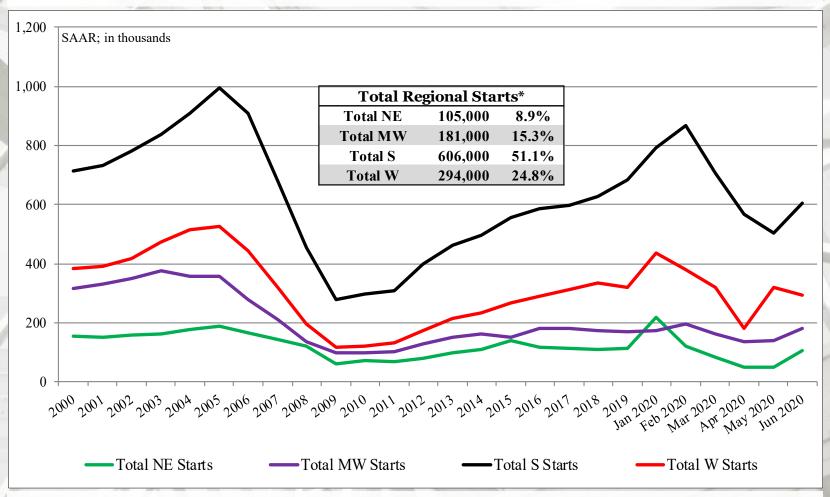
New Housing Starts by Region 2/3

	S Total	S SF	S MF**
June	606,000	445,000	161,000
May	504,000	397,000	107,000
2019	635,000	483,000	152,000
M/M change	20.2%	12.1%	50.5%
Y/Y change	-4.6%	-7.9%	5.9%
	W Total	W SF	W MF
June	W Total 294,000	W SF 192,000	W MF 102,000
June May			
	294,000	192,000	102,000
May	294,000 318,000	192,000 183,000	102,000 135,000

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

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

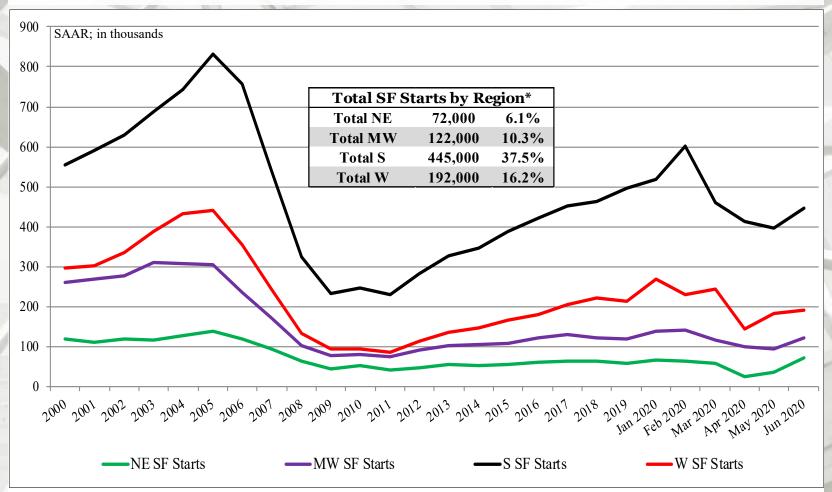
New Housing Starts by Region 3/3



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 $+ \ge 5$ MF starts).

^{*} Percentage of total starts.

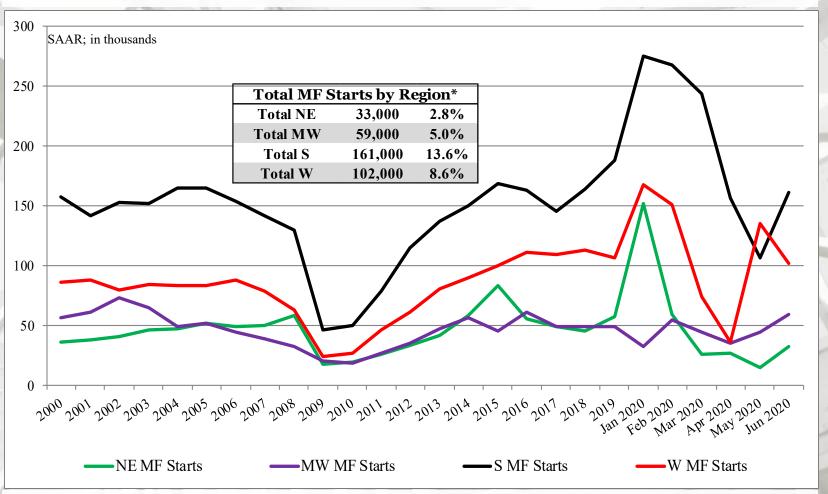
Total SF Housing Starts by Region



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

^{*} Percentage of total starts.

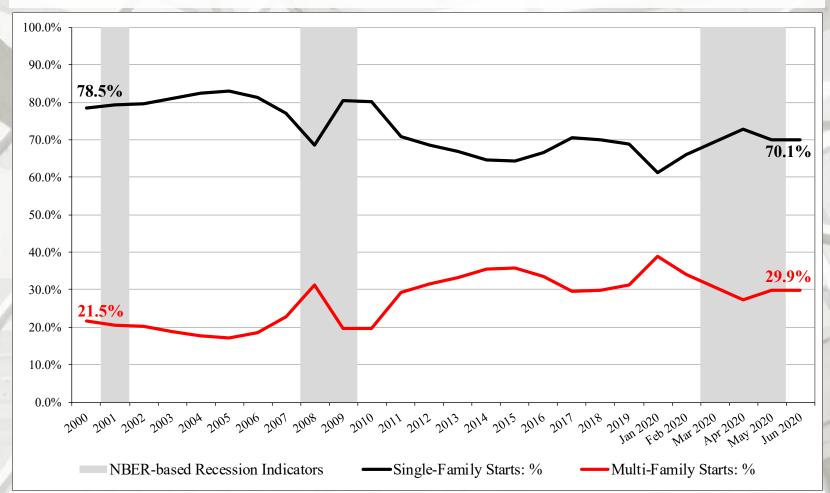
MF Housing Starts by Region



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

^{*} Percentage of total starts.

SF vs. MF Housing Starts (%)



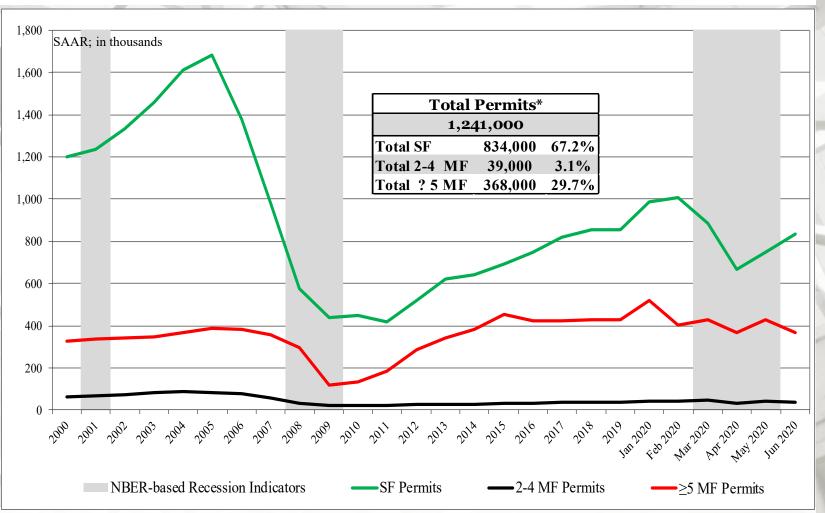
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
June	1,241,000	834,000	39,000	368,000
May	1,216,000	746,000	42,000	428,000
2019	1,273,000	843,000	46,000	384,000
M/M change	2.1%	11.8%	-7.1%	-14.0%
Y/Y change	-2.5%	-1.1%	-15.2%	-4.2%

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

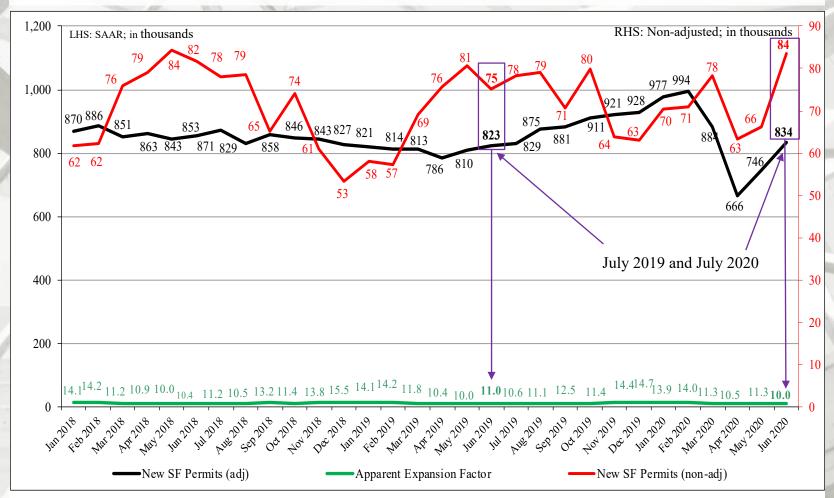
Total New Housing Permits



^{*} Percentage of total permits.

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

Nominal & SAAR SF Permits



Nominal and Adjusted New SF Monthly Permits

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

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

New Housing Permits by Region 1/2

۱		NE Total*	NE SF	NE MF**
	June	121,000	55,000	66,000
	May	110,000	48,000	62,000
	2019	134,000	53,000	81,000
	M/M change	10.0%	14.6%	6.5%
	Y/Y change	-9.7%	3.8%	-18.5%

	MW Total*	MW SF	MW MF**
June	183,000	120,000	63,000
May	165,000	101,000	64,000
2019	172,000	117,000	55,000
M/M change	10.9%	18.8%	-1.6%
Y/Y change	6.4%	2.6%	14.5%

NE = Northeast; ME = Midwest

^{*} All data are SAAR

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

New Housing Permits by Region 2/2

	S Total*	SSF	S MF**
June	655,000	468,000	187,000
May	657,000	431,000	226,000
2019	636,000	467,000	169,000
M/M change	-0.3%	8.6%	-17.3%
Y/Y change	3.0%	0.2%	10.7%

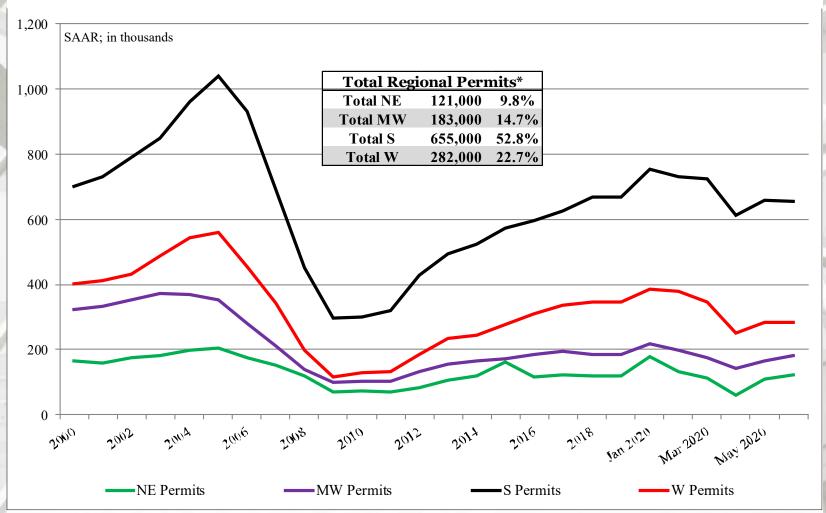
	W Total*	WSF	W MF**
June	282,000	191,000	91,000
May	284,000	166,000	118,000
2019	331,000	206,000	125,000
M/M change	-0.7%	15.1%	-22.9%
Y/Y change	-14.8%	-7.3%	-27.2%

S = South; W = West

^{*} All data are SAAR

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

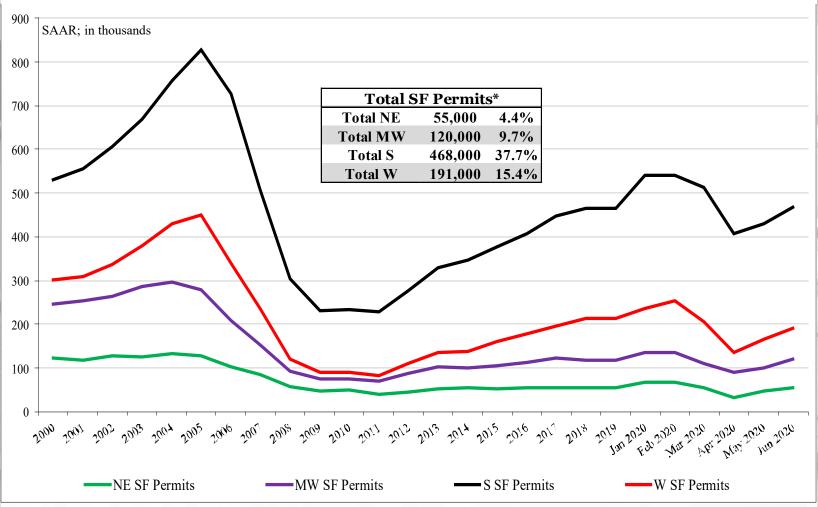
Total Housing Permits by Region



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

^{*} Percentage of total permits.

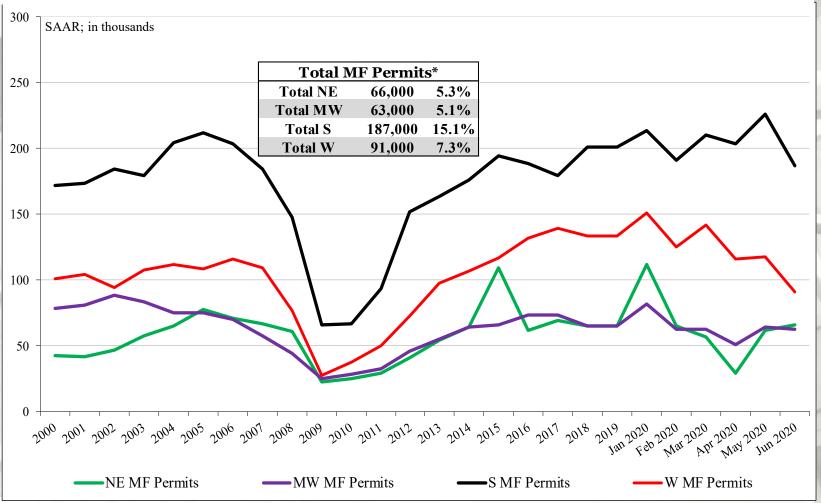
SF Housing Permits by Region



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

^{*} Percentage of total permits.

MF Housing Permits by Region



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

^{*} Percentage of total permits.

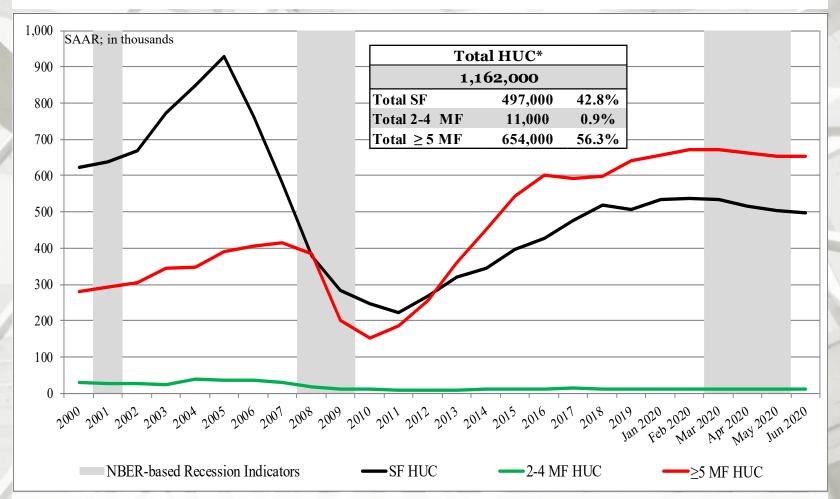
New Housing Under Construction (HUC)

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
June	1,162,000	497,000	11,000	654,000
May	1,169,000	504,000	12,000	653,000
2019	1,139,000	522,000	11,000	606,000
M/M change	-0.6	-1.4	-8.3	0.2
Y/Y change	2.0	-4.8	0.0	7.9

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

^{**} US DOC does not report 2-4 multifamily units under construction directly, this is an estimation ((Total under construction – (SF + 5 unit MF)).

Total Housing Under Construction



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

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

^{*} Percentage of total housing under construction units.

New Housing Under Construction by Region 1/2

	NE Total	NE SF	NE MF**
Jume	167,000	54,000	113,000
May	169,000	53,000	116,000
2019	178,000	61,000	117,000
M/M change	-1.2	1.9	-2.6
Y/Y change	-6.2	-11.5	-3.4

	MW Total	MW SF	MW MF
Jume	142,000	70,000	72,000
May	144,000	72,000	72,000
2019	147,000	75,000	72,000
M/M change	-1.4	-2.8	0.0
Y/Y change	-3.4	-6.7	0.0

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

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

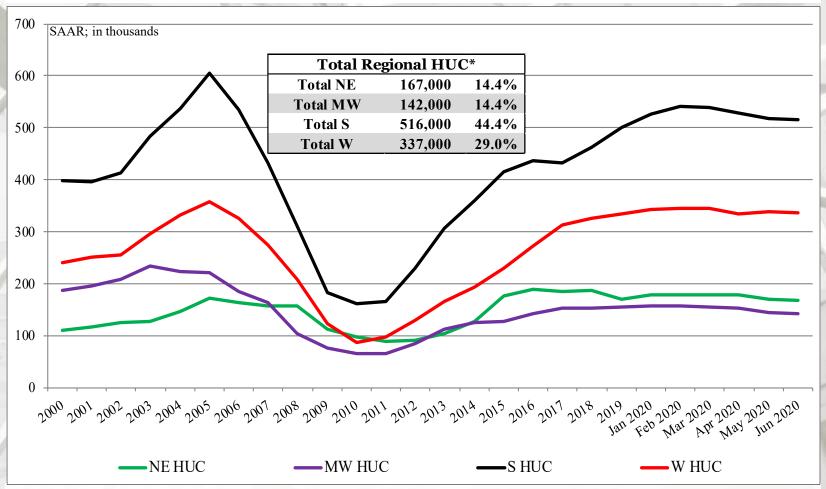
New Housing Under Construction by Region 2/2

	S Total	S SF	S MF **
Jume	516,000	235,000	281,000
May	518,000	238,000	280,000
2019	488,000	251,000	237,000
M/M change	-0.4	-1.3	0.4
Y/Y change	5.7	-6.4	18.6
	W Total	W SF	W MF
Jume	W Total 337,000	W SF 138,000	W MF 199,000
Jume May			
	337,000	138,000	199,000
May	337,000 338,000	138,000 141,000	199,000 197,000

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

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

Total Housing Under Construction by Region

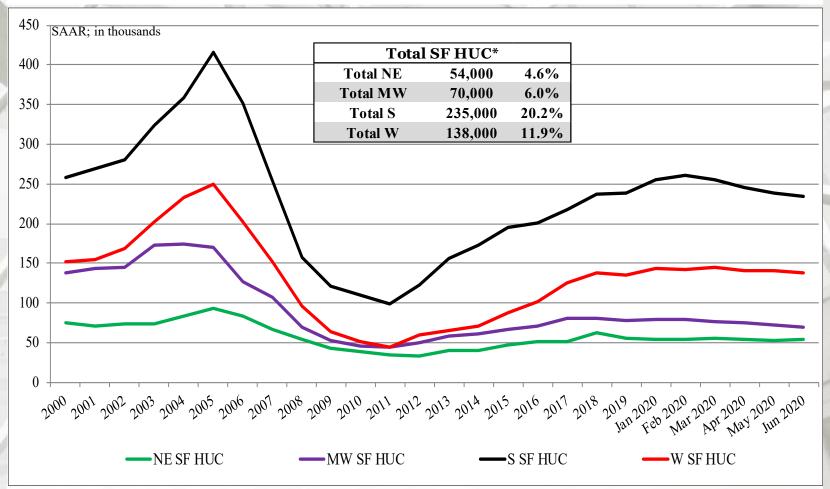


NE = Northeast, MW = Midwest, S = South, W = West

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

^{*} Percentage of total housing under construction units.

SF Housing Under Construction by Region

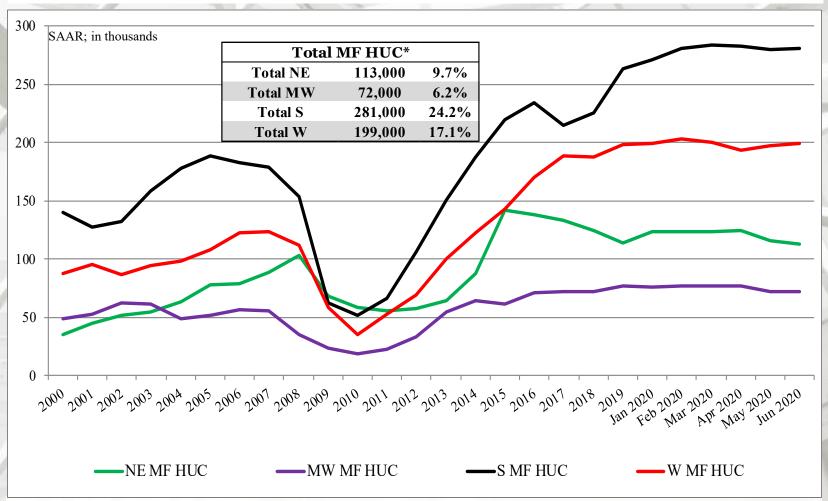


NE = Northeast, MW = Midwest, S = South, W = West.

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

^{*} Percentage of total housing under construction units.

MF Housing Under Construction by Region



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

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

^{*} Percentage of total housing under construction units.

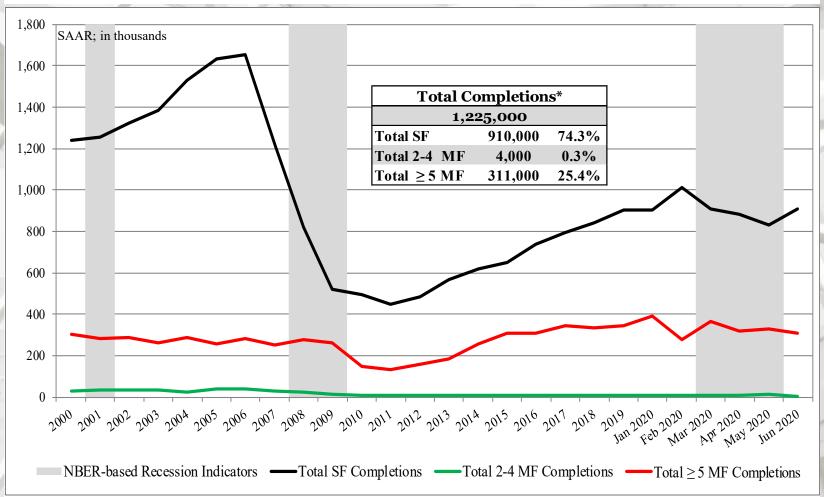
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
June	1,225,000	910,000	4,000	311,000
May	1,174,000	830,000	15,000	329,000
2019	1,166,000	875,000	11,000	280,000
M/M change	4.3%	9.6%	-73.3%	-5.5%
Y/Y change	5.1%	4.0%	-63.6%	11.1%

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

^{**} US DOC does not report multifamily completions directly, this is an estimation ((Total completions – (SF $+ \ge 5$ unit MF)).

Total Housing Completions



^{**} US DOC does not report multifamily completions directly, this is an estimation ((Total completions – (SF $+ \ge 5$ unit MF)).

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

^{*} Percentage of total housing completions

New Housing Completions by Region 1/2

	NE Total	NE SF	NE MF**
June	74,000	58,000	16,000
May	96,000	51,000	45,000
2019	114,000	70,000	44,000
M/M change	-22.9%	13.7%	-64.4%
Y/Y change	-35.1%	-17.1%	-63.6%
	MW Total	MW SF	MW MF
June	MW Total 197,000	MW SF 137,000	MW MF 60,000
June May			
	197,000	137,000	60,000
May	197,000 187,000	137,000 115,000	60,000 72,000

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

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

New Housing Completions by Region 1/2

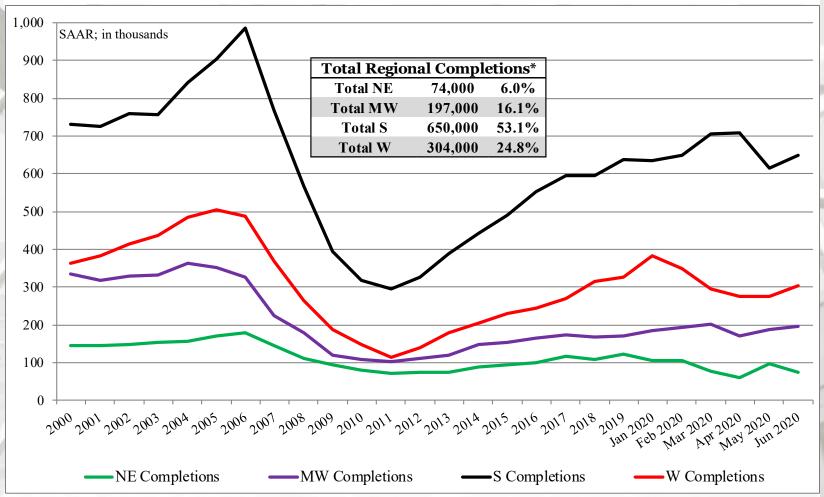
	S Total	S SF	S MF**
June	650,000	489,000	161,000
May	616,000	478,000	138,000
2019	606,000	474,000	132,000
M/M change	5.5%	2.3%	16.7%
Y/Y change	7.3%	3.2%	22.0%
	W Total	W SF	W MF
June	W Total 304,000	W SF 226,000	W MF 78,000
June May			
	304,000	226,000	78,000
May	304,000 275,000	226,000 186,000	78,000 89,000

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

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

^{*} Percentage of total housing completions

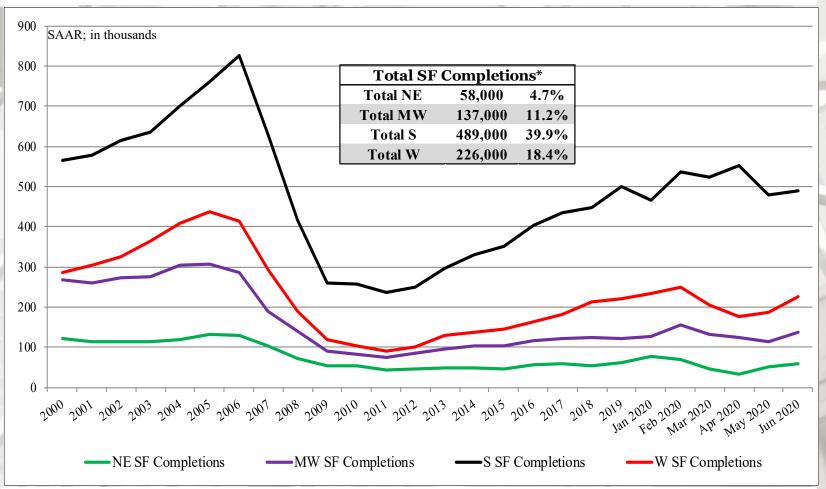
Total Housing Completions by Region



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

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

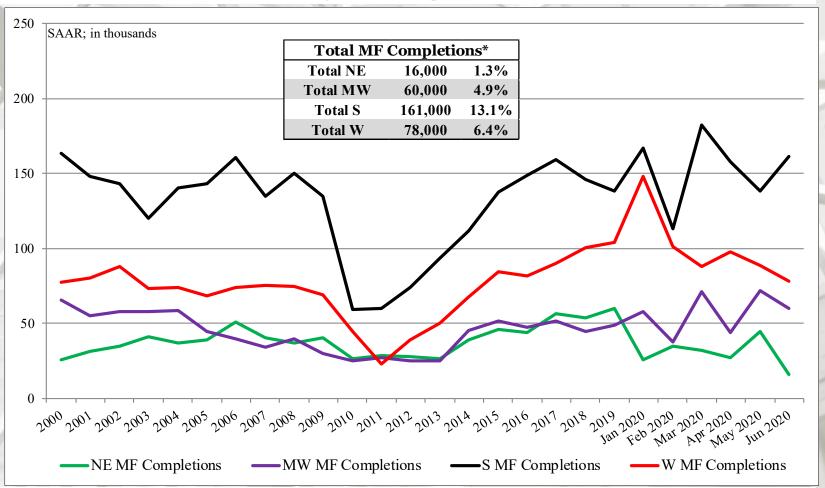
SF Housing Completions by Region



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

^{*} Percentage of total housing completions

MF Housing Completions by Region



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

^{*} Percentage of total housing completions

New Single-Family House Sales

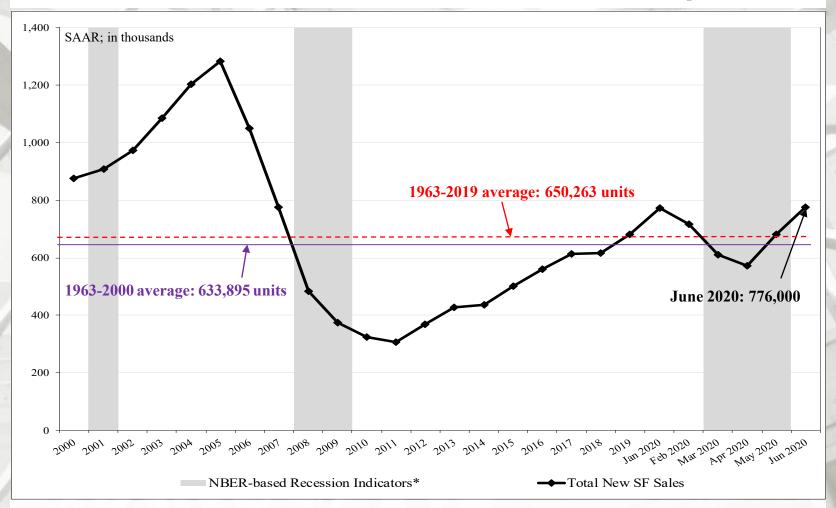
	New SF Sales*	Median Price	Mean Price	Month's Supply
June	776,000	\$329,200	\$384,700	4.7
May	682,000	\$310,200	\$362,300	5.5
2019	726,000	\$311,800	\$361,900	5.5
M/M change	13.8%	6.1%	6.2%	-14.5%
Y/Y change	6.9%	5.6%	6.3%	-14.5%

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

New SF sales were much greater than the consensus forecast³ of 776 m (range: 645 m to 720 m). The past three month's new SF sales data also were revised:

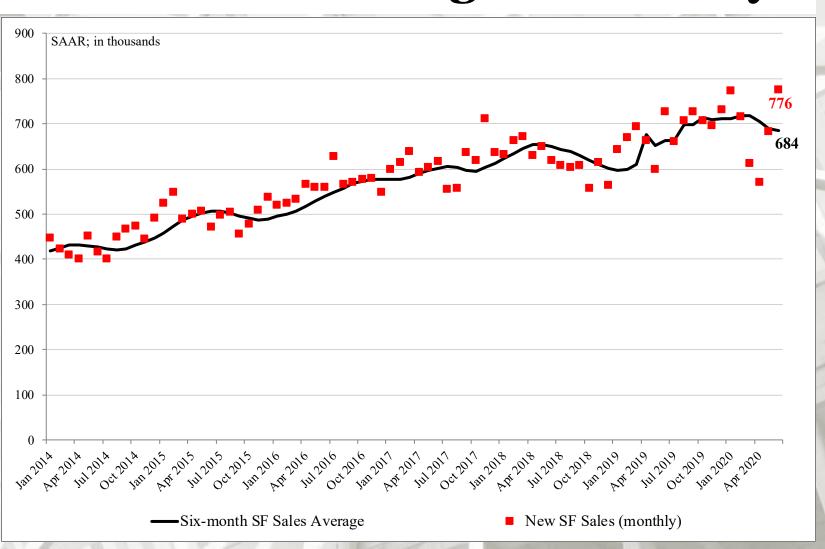
March initial:	627 m revised to 612 m;
April initial:	623 m revised to 571 m;
May initial:	676 m revised to 682 m.

New SF House Sales 1/7



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

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE		MW	T	S		W
June	55,00	0	84,00	00	434,00	0 20	3,000
May	29,00	0	76,00	00	405,00	0 172	2,000
2019	26,00	0	63,00	00	442,00	0 19.	5,000
M/M change	89.7%	0	10.5	%	7.2%	18	3.0%
Y/Y change	111.59	%	33.3	0/0	-1.8%	4	.1%
	≤ \$150m	\$150 - \$199.9m	\$200 - 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$75 0 m
June ^{1,2,3,4}	1,000	5,000	26,000	19,000	11,000	8,000	4,000
May	2,000	7,000	21,000	17,000	7,000	7,000	3,000
2019	1,000	6,000	23,000	17,000	9,000	6,000	3,000
M/M change	100.0%	40.0%	16.7%	30.8%	-12.5%	40.0%	50.0%
Y/Y change	0.0%	25.0%	0.0%	-27.8%	-20.0%	-44.4%	-33.3%
New SF sales: %	1.4%	6.8%	35.1%	25.7%	14.9%	10.8%	5.4%

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

¹ All data are SAAR

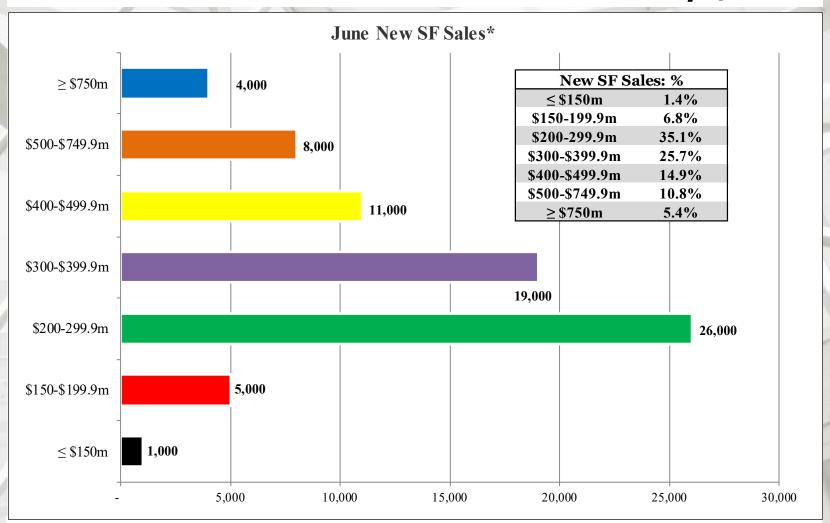
² Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

³ Detail July not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

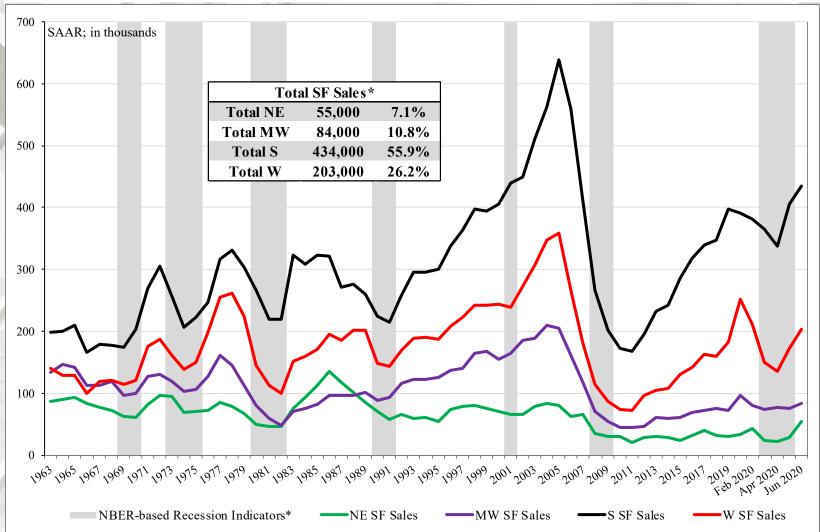
 $^{^{5}}$ Z = Less than 500 units or less than 0.5 percent

New SF House Sales 2/7



• Total new sales by price category and percent.

New SF House Sales by Region

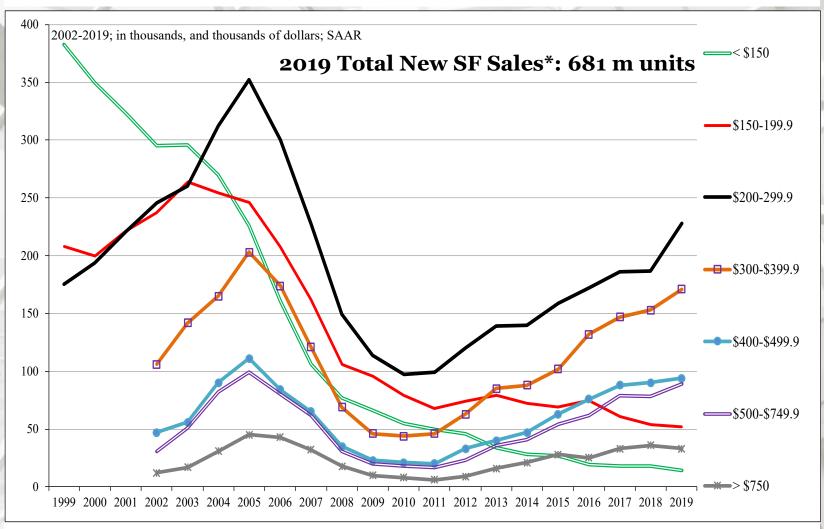


NE = Northeast; MW = Midwest; S = South; W = West

^{*} Percentage of total new sales.

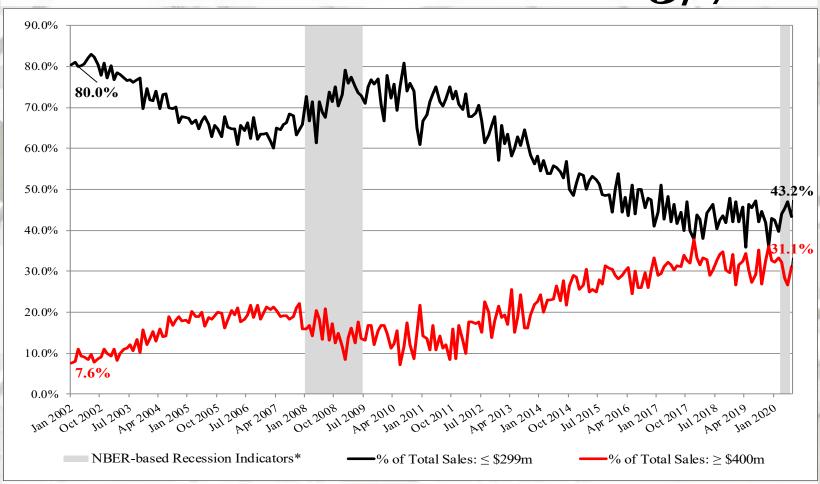
^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



^{*} Sales tallied by price category.

New SF House Sales 3/7

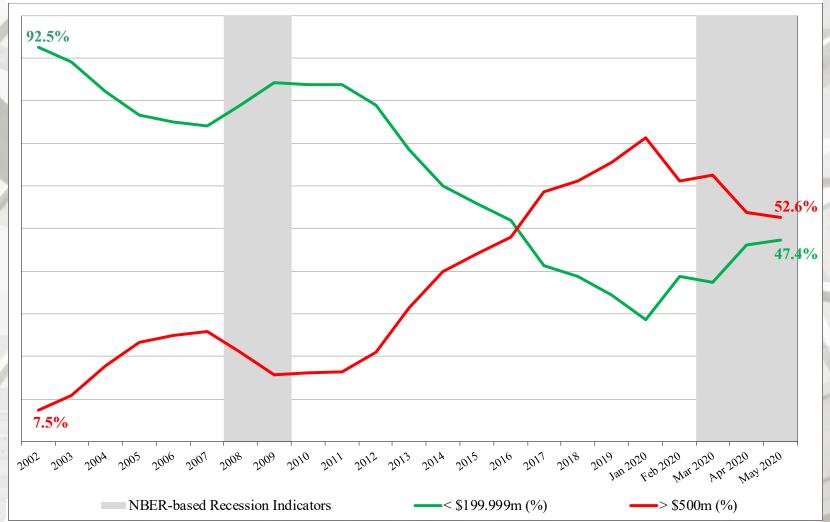


^{*} NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

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

New SF House Sales 4/7



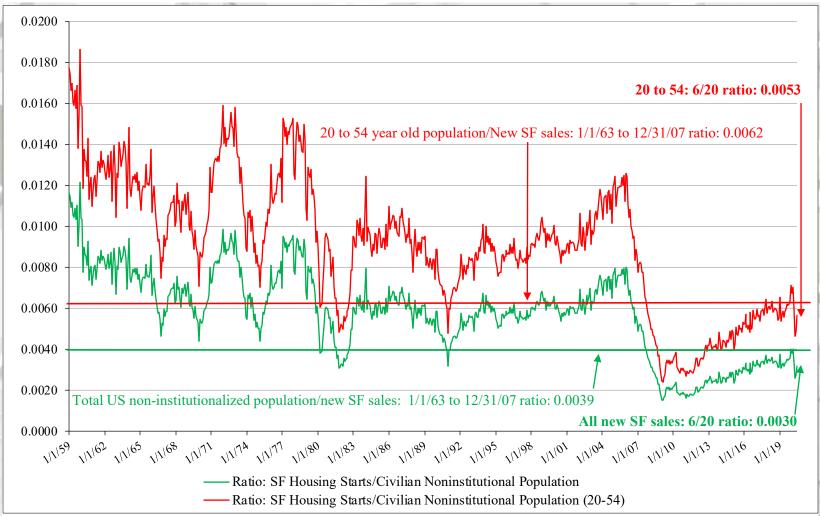
New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to June 2020

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

Note: Sales values are not adjusted for inflation.

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

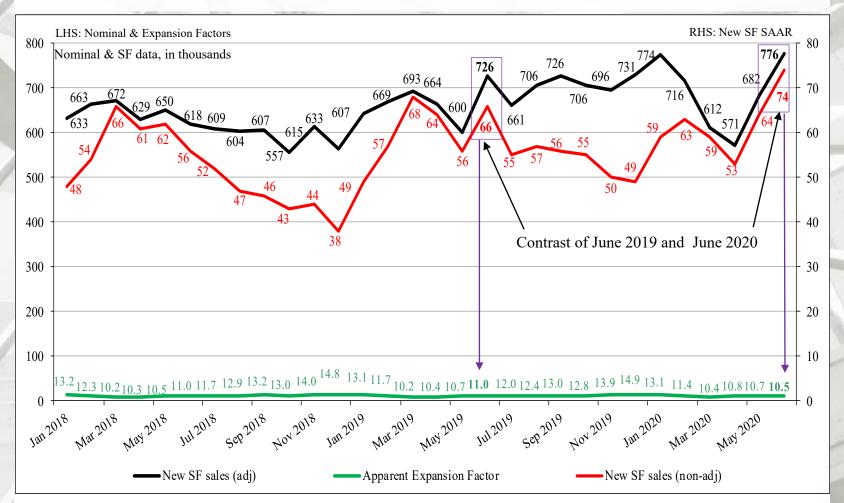
New SF House Sales 5/7



New SF sales adjusted for the US population

From July 1963 to July 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in June 2020 it was 0.0030 – an increase from May (0.0026). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in June 2020 it was 0.00532 – also an increase from May (0.0046). All are non-adjusted data. From a population viewpoint, construction is less than what is necessary for changes in the population (i.e., under-building).

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

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

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

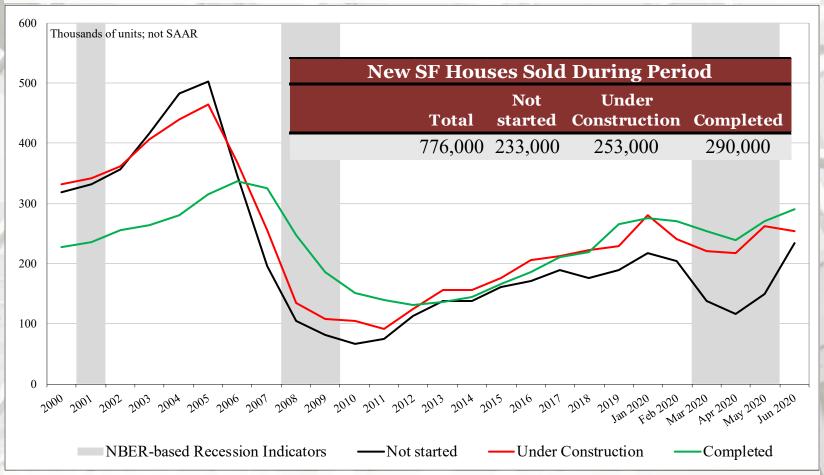
New SF House Sales 6/7

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
June	776,000	233,000	253,000	290,000
May	682,000	149,000	262,000	271,000
2019	726,000	225,000	223,000	278,000
M/M change	13.8%	56.4%	-3.4%	7.0%
Y/Y change	6.9%	3.6%	13.5%	4.3%
Total percentage	<u> </u>	30.0%	32.6%	37.4%

Not SAAR

New SF House Sales: Sold During Period



Not SAAR

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

New SF Houses for Sale at End of Period

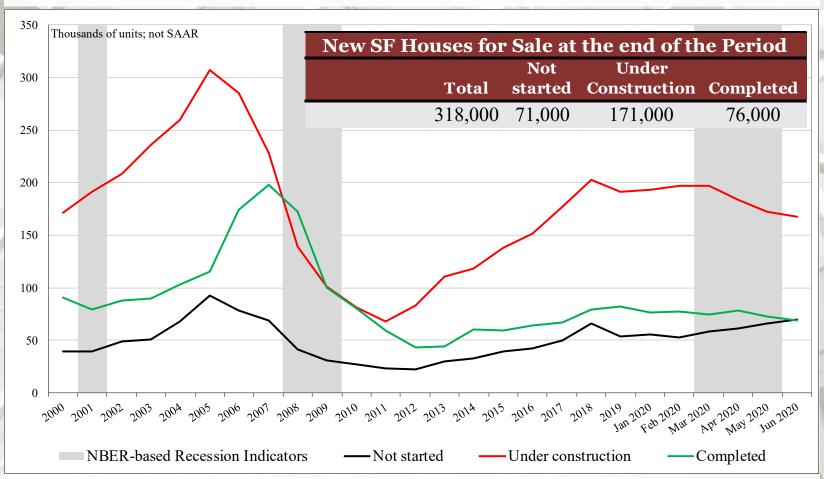
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
June	307,000	70,000	168,000	69,000
May	311,000	66,000	172,000	73,000
2019	330,000	53,000	198,000	79,000
M/M change	-1.3%	6.1%	-2.3%	-5.5%
Y/Y change	-7.0%	32.1%	-15.2%	-12.7%
Total percentage	2	22.8%	54.7%	22.5%

Not SAAR

Sales of homes "Not started" registered a decline in June.

New SF House Sales: For Sale at End of Period



Not SAAR
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

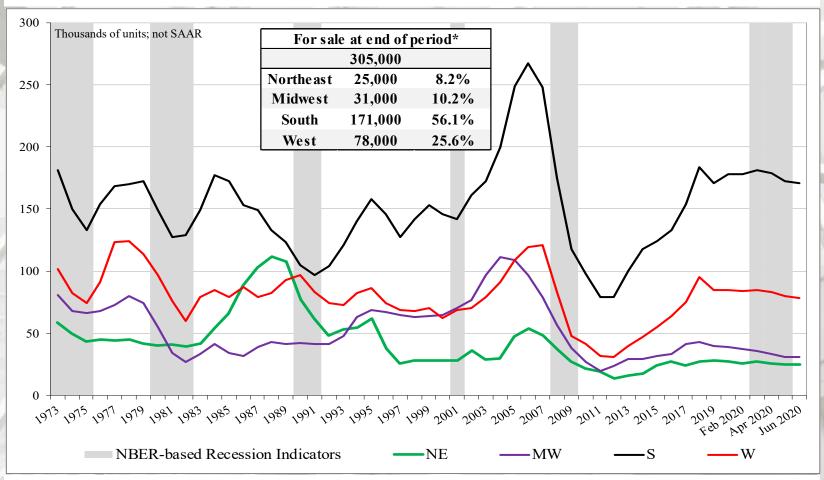
New SF House Sales 7/7

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

	Total	NE	MW	S	W
June	305,000	25,000	31,000	171,000	78,000
May	308,000	25,000	31,000	172,000	80,000
2019	326,000	28,000	37,000	175,000	85,000
M/M change	-1.0%	0.0%	0.0%	-0.6%	-2.5%
Y/Y change	-6.4%	-10.7%	-16.2%	-2.3%	-8.2%

^{*} Not SAAR

New SF Houses for Sale at End of Period by Region



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

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

^{*} Percentage of new SF sales.

June 2019 Construction Spending

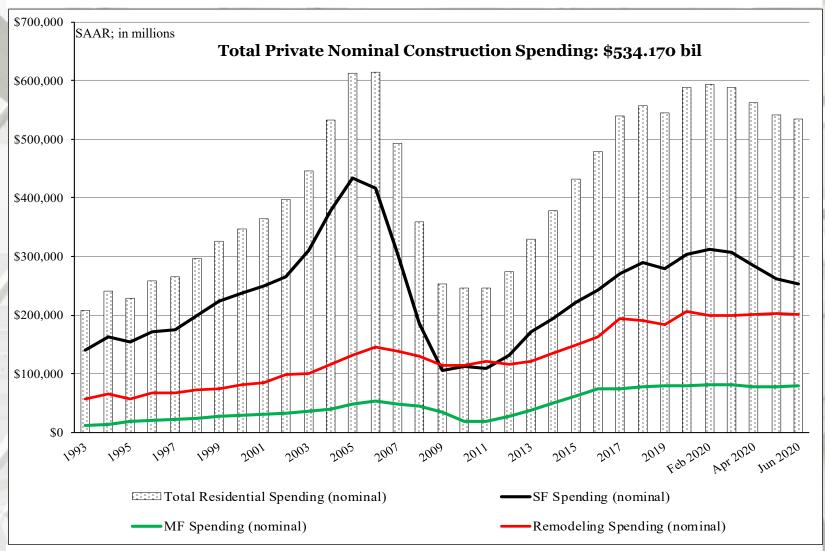
	Total Private			
	Residential*	SF	MF	Improvement**
June	\$534,170	\$252,624	\$80,022	\$201,524
May	\$542,051	\$261,986	\$77,716	\$202,349
2019	\$538,372	\$273,528	\$81,722	\$183,122
M/M change	-1.5%	-3.6%	3.0%	-0.4%
Y/Y change	-0.8%	-7.6%	-2.1%	10.0%

^{*} billion.

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

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

Total Construction Spending (nominal): 1993 – June 2020

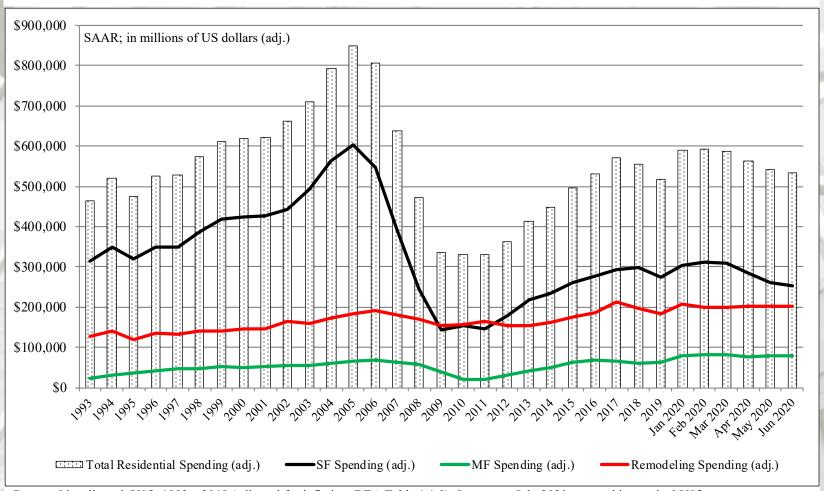


Reported in nominal US\$.

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

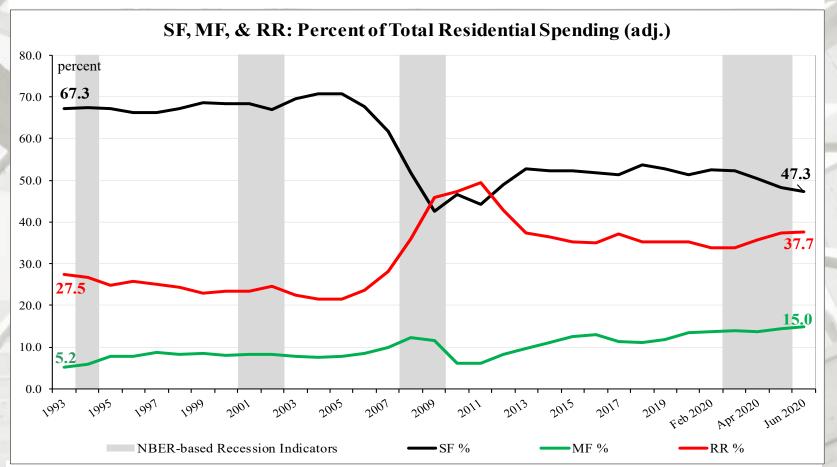
Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 8/3/20

Total Construction Spending (adjusted): 1993-June 2020



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

Construction Spending Shares: 1993 to June 2020



Total Residential Spending: 1993 through 2006

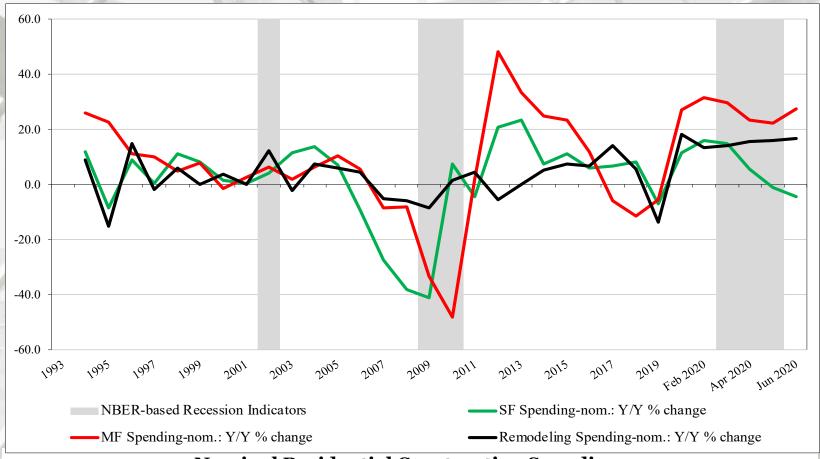
SF spending average: 69.2% MF spending average: 7.5%

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

Note: 1993 to 2019 (adjusted for inflation, BEA Table 1.1.9); January-July 2020 reported in nominal US\$.

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

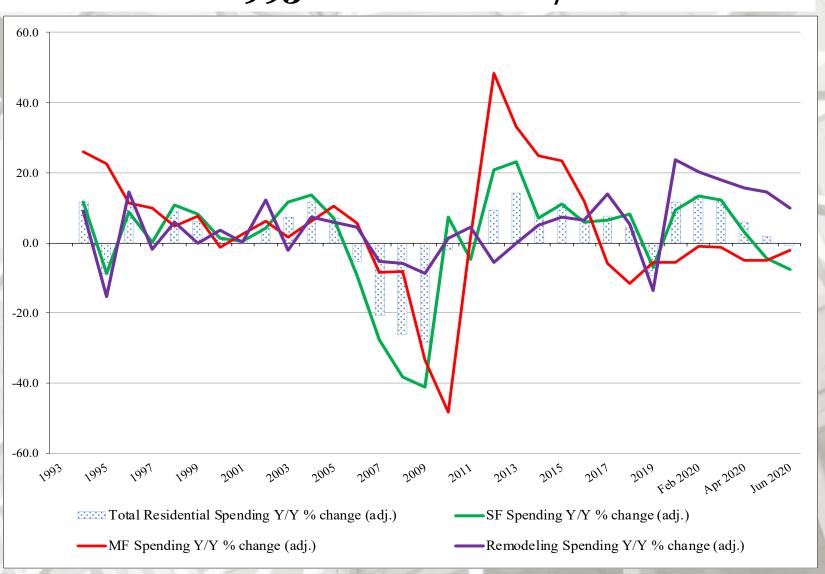
Adjusted Construction Spending: Y/Y Percentage Change, 1993 to June 2020 1/2



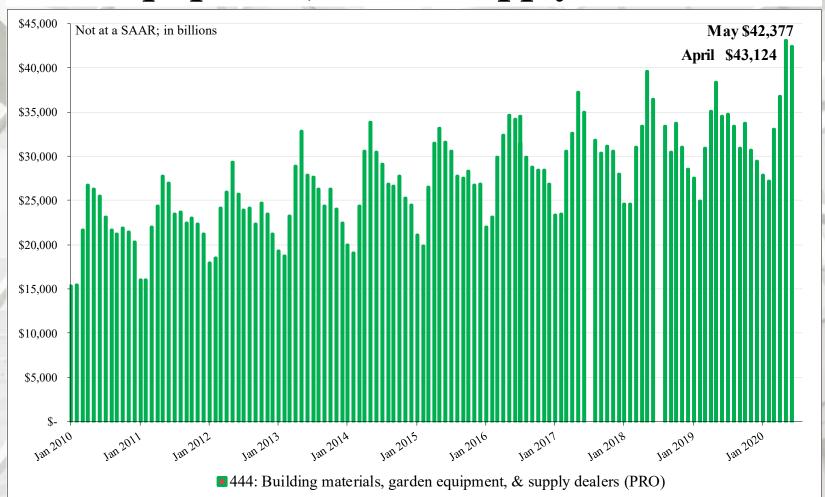
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to July 2020

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF and RR expenditures were positive on a percentage basis, year-over-year (2020 data reported in nominal dollars). * NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Adjusted Construction Spending: Y/Y Percentage Change, 1993 to June 2020 2/2



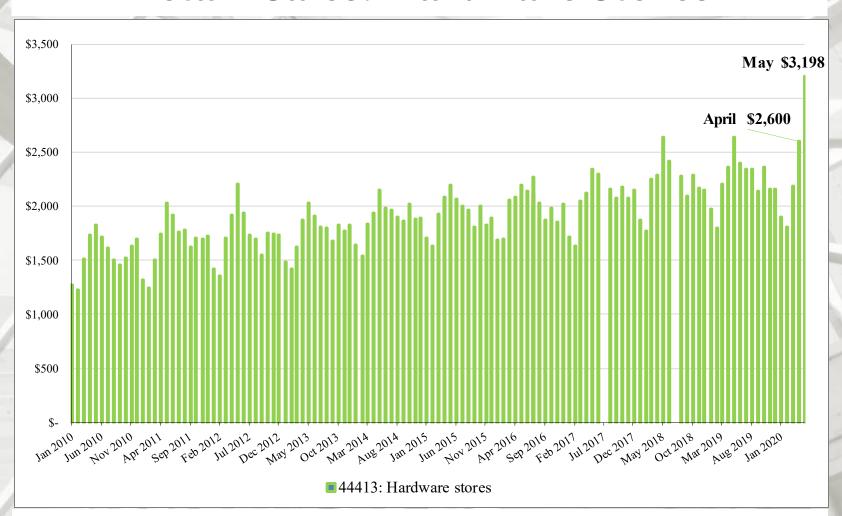
Remodeling 1/17 Retail Sales: Building materials, Garden Equipment, & PRO Supply Dealers



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

NAICS 444 retail sales declined 1.7% from May and improved 23.0% from June 2019 (on a non-adjusted basis).

Remodeling 2/17 Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales improved 12.4% from April and 21.4% from May 2019 (on a non-adjusted basis).

Remodeling 3/17

Houzz

Baby Boomers Drive Home Renovations Home renovation and design activity remains stable year over year

"Baby Boomers accounted for over half of renovating homeowners in 2019 (55 percent), according to the ninth annual Houzz & Home survey of more than 87,000 U.S. respondents, up from 52 percent in 2018. Gen Xers (ages 40-54) comprise nearly one-third of home renovators (30 percent) and Millennials (ages 25-39) represent a smaller share of renovating homeowners compared with one year ago (14 percent in 2018 compared with 12 percent in 2019). Overall home renovation activity remained stable year over year, with 54 percent of homeowners reporting a renovation project in 2019, and tackling nearly three interior rooms on average. When the study was fielded in early 2020, planned activity for the year remained consistent with past years, however the impact of the coronavirus pandemic on planned renovation activity remains to be seen.

Median spend declined to \$13,000 in 2019 from \$15,000 in 2018, due to a reduction in average project scope. Baby Boomers offset some of this decline with the highest median renovation spend in 2019 at \$15,000, followed by Gen Xers and Millennials (\$12,000 and \$10,000, respectively). Following the 2018 spike in overall median kitchen remodel spend to \$14,000, levels have returned to that of previous years at \$12,000, mirroring a drop in the share of major kitchen renovations (from 37 percent in 2018 to 33 percent in 2019). While kitchen renovation spend declined across all age groups, Baby Boomers continued to spend at a median of \$14,000 on major kitchen projects.

Following significant growth in home renovation activity over the past few years, we're seeing the market settle somewhat in terms of scope and spend. That said, Baby Boomers, particularly those who have been in their homes for more than six years, are continuing to drive renovation activity and spend, bringing consistency to the market as they pursue projects that will allow them to age in place for the next decade or more." – Marine Sargsyan, Senior Economist, Houzz

Remodeling 4/17

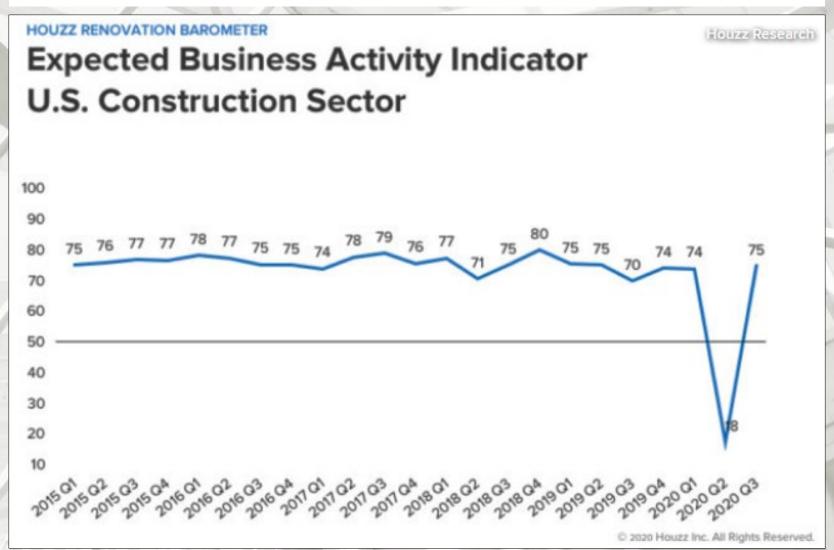
Houzz

Houzz Renovation Barometer shows return of remodeling market confidence

"Findings from the Q3 2020 Houzz Renovation Barometer, which tracks residential renovation market expectations, project backlogs and recent activity among businesses in the architectural and design services sector.

The Expected Business Activity Indicator related to project inquiries and new committed projects rebounded to its pre-pandemic levels at 75 in Q3 (compared to 18 in Q2): This is a result of both expectations for project inquiries and expectations for new committed projects recovering to 79 and 71, respectively (compared to 18, each, in Q2). Among the two reporting business groups, expectations improved significantly for both build-only and design and build remodelers compared to expectations in the last quarter. Expectations of build-only remodelers increased to 76, which is a 4-point increase from expectations in the beginning of the year, for Q1. Design and build remodelers have slightly tempered expectations compared to build-only remodelers, though it is a significant recovery from 21 in Q2 to 73 in Q3, it is still lower than the expectations by this group of businesses for Q1. Expectations among design and build remodelers in eight out of nine Census divisions are still below the levels in the beginning of 2020 for Q1. See additional subsector and regional data (PDF)." — Marine Sargsyan, Senior Economist, Houzz

Remodeling 5/17



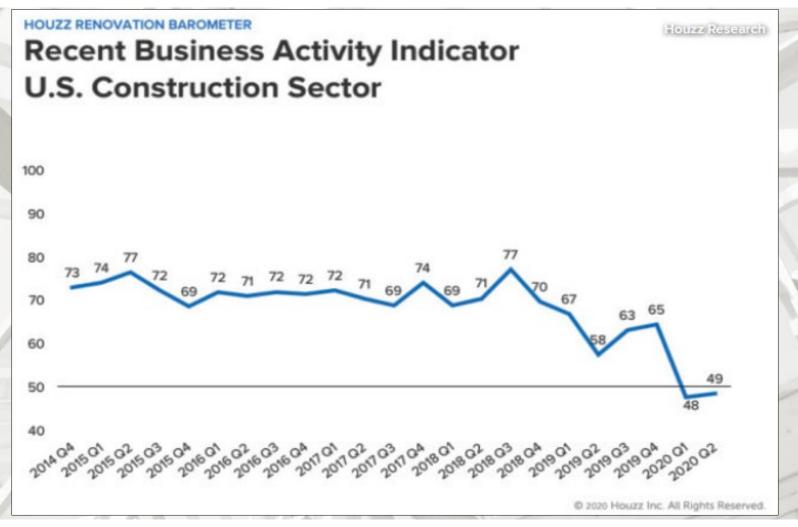
Remodeling 6/17



Houzz

"The Project Backlog Indicator increased to 6.2 weeks nationally at the start of Q3: The overall backlog for the construction sector is 1.3 weeks longer than the same period last year. Among the two reporting business groups, backlogs increased among build-only remodelers to 5.4 weeks (up 0.4 weeks relative to Q2) and increased more substantially among design and build remodelers to 7.0 weeks (up 1.2 weeks relative to Q2). Backlogs vary significantly from 4.6 weeks (West South Central division) to 7.2 weeks (East North Central division) across the nine Census divisions. See additional subsector and regional data (PDF)." – Marine Sargsyan, Senior Economist, Houzz

Remodeling 7/17



Houzz

"The Q3 2020 Barometer was fielded from June 27 through July 10 and garnered responses from 351 build-only remodelers and 706 design and build remodelers (n=1,057 in the construction sector)." – Marine Sargsyan, Senior Economist, Houzz

Remodeling 8/17

Harvard Joint Center for Housing Studies

Pandemic To Weigh On Home Remodeling Spending Through Mid-Year 2021

"Expenditures for improvements and repairs to owner-occupied homes are expected to slow by the middle of next year as the COVID-19 pandemic continues to unfold, according to our latest **Leading Indicator of Remodeling Activity (LIRA)**. Assuming continued weakness in the broader economy due to the public health crisis, the LIRA projects annual declines in renovation and repair spending of 0.4 percent by the second quarter of 2021. With the unprecedented changes to the US economy since mid-March, the Remodeling Futures Program is again providing this downside range for the home remodeling outlook, which incorporates forecasts for several core model inputs: retail sales of building materials, home prices, and GDP. In contrast, the LIRA's standard methodology, which does not include forecasted trends, would have called for increasing remodeling activity through the start of next year.

The remodeling market was buoyed through the early months of the pandemic as owners spent a considerable amount of time at home and realized the need to update or reconfigure indoor and outdoor spaces for work, school, play, exercise, and more. However, sharp declines in home sales and project permitting activity this spring, as well as record unemployment, suggest many homeowners will likely scale back plans for major renovations this year and next.

As the pace of do-it-yourself activity, maintenance work, and exterior-focused projects begins to taper, annual expenditures by owners for home improvements and repairs are expected to shrink slightly to \$326 billion by the middle of 2021. Given the ongoing uncertainty surrounding the broader impact of the pandemic, the timing on when we'll reach a bottom in the remodeling market also remains unclear." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling 9/17

Leading Indicator of Remodeling Activity – Second Quarter 2020



Notes: The downside projections incorporate forecasted data for coincident model inputs: retail sales at building materials and supplies dealers, CoreLogic's Home Price Index, and GDP. Forecasted data provided by Moody's Analytics Forecasted, Baseline Scenario, July 2020. Historical estimates since 2017 are produced using the LIRA. model until American Housing Survey benchmark data become available.

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Joint Center for Housing Studies of Harvard University JCHS

Remodeling 10/17

Harvard Joint Center for Housing Studies

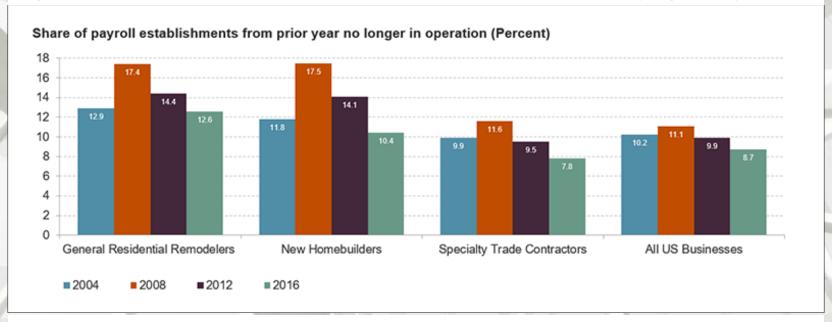
Specialty Replacement Remodelers Likely To See More Consistent Business Performance During Market Downturn

"As the residential remodeling industry is <u>once again mired in a slump</u>, we expect many home improvement contracting businesses will experience declining workloads and revenue that may lead to staff layoffs and even business closure. However, not all firms will be impacted by the market downturn comparably; business performance trends over past remodeling cycles – periods of boom, bust, and recovery – provide valuable insights for how industry structure might change in the coming months and years. Even during periods of strong market spending, <u>remodeling</u> <u>business failure rates are relatively high</u> but some types of remodelers tend to fare better than others, including larger-scale contractors and those focused on specialty replacement projects like roofing, windows and doors, plumbing and HVAC, electrical, etc.

Residential remodeling is a highly fragmented industry with many small, single-location businesses and self-employed contractors. Our Remodeling Futures Program estimates that fully two-thirds of the approximately 800,000 contracting businesses primarily serving the residential remodeling market have no employees, while more than half of remodeling businesses with payrolls have less than \$250,000 in annual revenues. Indeed, remodeling contracting businesses face many obstacles to scaling, such as low barriers to entry, volatile business cycles, highly customized work, idiosyncratic local building codes, and difficulty attracting capital. For these reasons, business failure rates for remodelers are higher and more cyclical than other industries within the construction sector, or compared to US businesses overall (Figure 1)." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling 11/17

Figure 1: Annual Business failure rates for residential remodelers are relatively high and cyclical



Notes: General residential remodelers include design-build and full-service contractor establishments classified in NAICS 236118. New homebuilders include single-family (236115) and multifamily (236116) contractors, as well as production or for-sale builders (236117). Specialty trade contractors include establishments in the following industries: roofing (238160), electrical (238210), plumbing and HVAC (238220), painting and wall covering (238320), and finish carpentry (238350). Work performed by specialty trade establishments may include residential and non-residential building construction, as well as new construction and remodeling and repair.

 $Source: JCHS\ tabulations\ of\ US\ Census\ Bureau,\ Business\ Information\ Tracking\ Series.$

Remodeling 12/17

Harvard Joint Center for Housing Studies

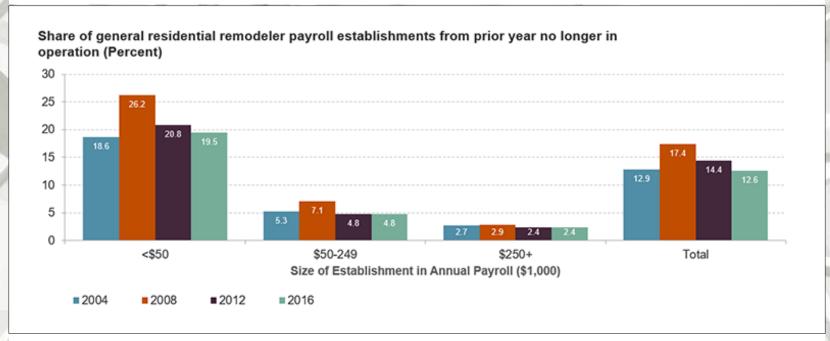
Specialty Replacement Remodelers Likely To See More Consistent Business Performance During Market Downturn

"Whether the national economy is expanding, contracting, or somewhere in between, the share of general residential remodelers shuttering their operations from one year to another is considerably higher than annual failure rates of all businesses with payrolls. In 2004, the housing and home improvement industries were booming, but one in eight remodeling businesses failed that year, compared to one in ten payroll firms overall in the US. In 2008, with the onset of the Great Recession, annual failure rates of general remodelers rose sharply to 17 percent, whereas the failure rate of all payroll businesses increased by less than a percentage point to 11 percent. Even at last measure in 2016, a year of healthy market spending, almost 13 percent of remodelers closed compared to less than 9 percent of businesses overall in the US.

Within the construction sector, annual failure rates among new homebuilders are as high and cyclical as general remodelers, but specialty trade contractors experience lower and more stable failure rates across the business cycle. In 2004, fewer than 10 percent of specialty trade businesses ceased operations, rising to not quite 12 percent during the Great Recession, and dipping even below the rate for all US businesses in 2016. Part of the explanation for relatively lower and more stable failure rates among specialty trade contractors is the diversity of their work in residential and non-residential construction – both new construction and renovation of existing structures – as well as their relative ease in serving more than one construction subsector." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling 13/17

Figure 2: Larger remodeling contractors experience much lower annual rates of business failure



Notes: General residential remodelers include design-build and full-service contractor establishments classified in NAICS 236118. JCHS estimated equivalent payroll: receipt categories in thousands of dollars are <50:<250, 50-249:250-999, and 250+:1,000+. Source: JCHS tabulations of US Census Bureau, Business Information Tracking Series.

Harvard Joint Center for Housing Studies

"While general remodelers suffer relatively high failure rates overall, there is a large difference in business closure by size of company: the smallest remodelers routinely experience failure rates several times higher than the largest remodelers (**Figure 2**). Again, regardless of time period and market strength, smaller general remodeling contractors with less than \$50,000 in payrolls see annual business failure rates about 8 times higher than the largest remodelers with payrolls of \$250,000 or more. These largest-scale remodelers have annual failure rates of about 2.5 percent compared to upwards of 20 percent for the smallest remodelers. Furthermore, failure rates of larger-scale remodelers also vary considerably less over the business cycle than smaller-scale contractors." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling 14/17

Harvard Joint Center for Housing Studies

"While comparable failure rates are not available for residential remodelers focused on specialty replacement projects, business performance data collected from Qualified Remodeler® publication's Top 500 Remodelers list suggest that specialty trade remodelers may have the same low and stable failure rates as specialty contractors overall. According to our analysis of revenue growth and firm type among larger-scale remodelers, specialty replacement remodelers perform more consistently across volatile business cycles compared to general remodelers (Figure 3). From 2001-06, as the home improvement market was booming, the typical large-scale specialty replacement remodeler posted 5.3 percent average annual revenue growth, comparable to the 6.9 percent average annual growth of the typical large-scale design/build or full-service remodeling firm. However, during the prior market bust from 2007-12, specialty remodelers experienced smaller revenue declines at 1.1 percent per year on average, compared to 2.3 percent for the typical general remodeler. And during the recovery period from 2013-18, the typical larger-scale specialty replacement remodeler posted much stronger growth at 9.2 percent on average each year compared to 6.8 percent for the typical design/build or full-service remodeler." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

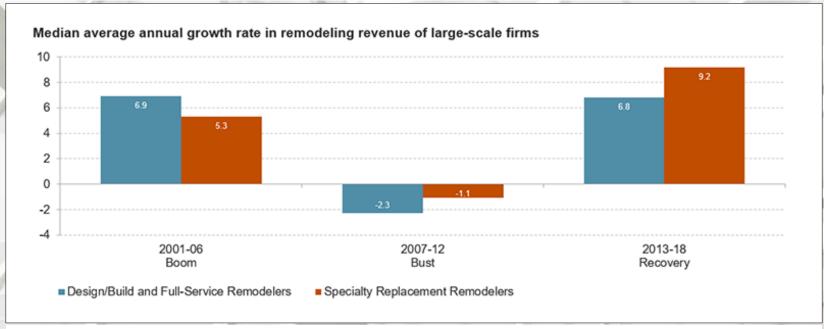
Remodeling 15/17

Harvard Joint Center for Housing Studies

"The more stable changes in revenue – and presumably lower and more stable business failure rates – among specialty replacement remodelers are supported by **homeowners**? more consistent spending for replacement and repair projects regardless of market upturns and downturn, as explained by my colleague Kermit Baker. During challenging economic times, homeowners often defer spending for discretionary home improvements (especially upper-end projects, like major kitchen and bath remodels and room additions), and instead prioritize necessary replacements that preserve the value of their home – the single largest source of wealth for the typical homeowner. Indeed, our analysis of survey data capturing the early impacts of the pandemic on remodeling contracting businesses found that both larger remodelers and those focused on exterior projects like roofing, windows, landscaping, decking, etc. were less likely to report reduced project requests, smaller project sizes, and stopped or delayed work this spring. While the current spending slump will certainly result in larger shares of remodeling firm closures, specialty replacement remodelers – with more consistent business demand and revenues – are expected to fare better." – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures, Harvard Joint Center for Housing Studies

Remodeling 16/17

Figure 3: Specialty Replacement Remodelers Have Performed More Evenly Across Cycles Than Design/Build And Full-service Firms

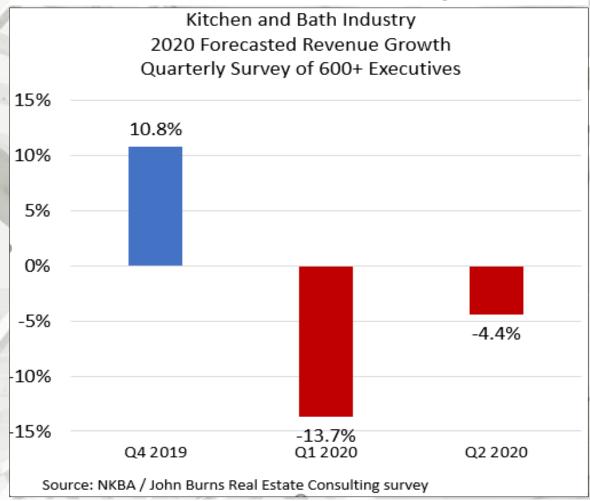


Notes: Average annual growth rate in contractor remodeling revenue is the median value of firms included in the analysis, which are remodelers ranking in the top 400 in at least the first or last year of each time period considered. Specialty replacement remodelers include those focused on roofing, siding, windows, doors, gutters, sunrooms, decks, patios, basements, and solar. Firms qualifying for the Top 500 Remodelers list typically generate a minimum of \$1.5 million in annual revenue.

 $Source: \textit{JCHS tabulations of Qualified Remodeler} \\ \textit{@ publication's Top 500 Remodelers}.$

Remodeling 17/17

John Burns Real Estate Consulting LLC



"From expected boom to expected bust to expected full recovery, more than 600 Kitchen and Bath execs have flipflopped from forecasting 11% industry growth to a -14% industry decline, and back to only a 4% decline." – John Burns, CEO, John Burns Real Estate Consulting LLC

Existing House Sales 1/3

National Association of Realtors June 2020 sales: 4.720 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
June	4,720,000	\$295,300	\$329,900	4.0
May	3,910,000	\$283,600	\$317,900	4.8
2019	5,320,000	\$285,400	\$321,400	4.3
M/M change	20.7%	4.1%	3.8%	-16.7%
Y/Y change	-11.3%	3.5%	2.6%	-7.0%

All sales data: SAAR

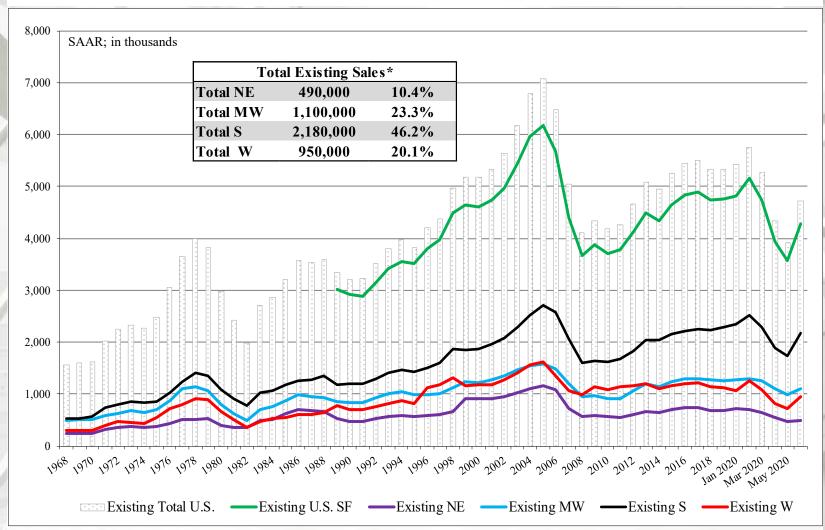
Existing House Sales 2/3

	Existing	SF Median	SF Mean
	SF Sales	Price	Price
June	4,280,000	298,600	332,400
May	3,570,000	286,600	320,000
2019	4,750,000	288,500	323,500
M/M change	19.9%	4.1%	3.9%
Y/Y change	-9.9%	3.5%	2.8%

	NE	MW	S	W
June	490,000	1,100,000	2,180,000	950,000
May	470,000	990,000	1,730,000	720,000
2019	680,000	1,270,000	2,270,000	1,100,000
M/M change	4.3%	11.1%	26.0%	31.9%
Y/Y change	-27.9%	-13.4%	-4.0%	-13.6%

All sales data: SAAR.

Existing House Sales 3/3



^{*} Percentage of existing sales.

U.S. Housing Prices 1/4

Federal Housing Finance Agency

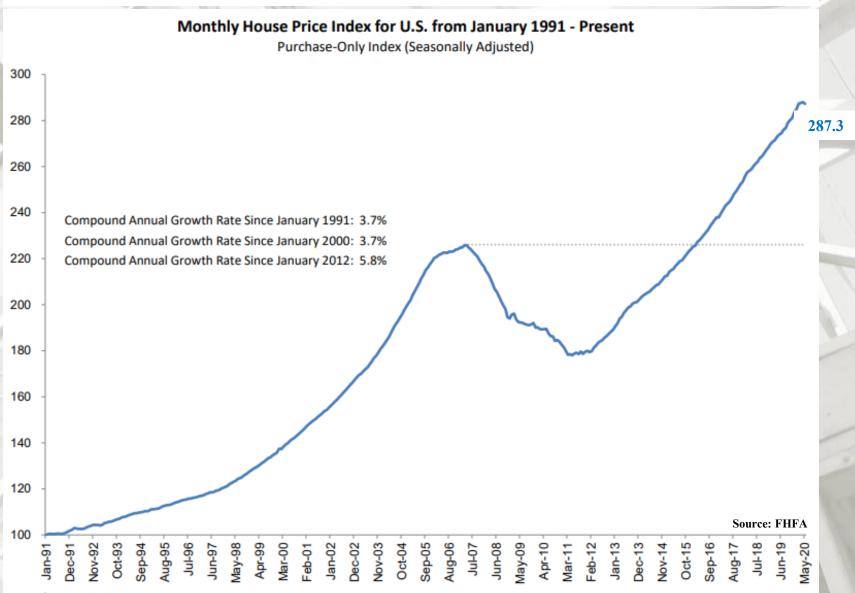
FHFA House Price Index Down 0.3 Percent in May; Up 4.9 Percent from Last Year

Significant Findings

- "U.S. house prices fell in May, down **0.3 percent** from the previous month, according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose **4.9 percent** from May 2019 to May 2020. The previously reported **0.2 percent** increase for April 2020 was revised downward to **0.1 percent**.
- For the nine census divisions, seasonally adjusted monthly house price changes from April 2020 to May 2020 ranged from **-1.0 percent** in the New England division to **+0.1 percent** in the South Atlantic division. The 12-month changes were all positive, ranging from **+3.7 percent** in the New England division to **+6.3 percent** in the Mountain division." Cynthia Adcock and Raffi Williams, FHFA

"U.S. house prices posted a small decrease in May compared to April but remained 4.9 percent higher than a year ago. The May HPI results are based on contracts for sale signed in late March and throughout April, which was a period when many states announced stay-at-home orders. The number of transactions powering the FHFA HPI in May was down by just over 30 percent compared to a year ago, reflecting the early effects of COVID-19 shutdowns. Based on the rebound in mortgage applications for home purchases and pending home sales in May, we expect the number of transactions increased somewhat in June." – Dr. Lynn Fisher, Deputy Director of the Division of Research and Statistics, FHFA

U.S. Housing Prices 2/4



U.S. Housing Prices 3/4

S&P CoreLogic Case-Shiller Index Reports 4.5% Annual Home Price Gain In May

"Data for April 2020 show that home prices continue to increase at a modest rate across the U.S. More than 27 years of history are available for these data series, and can be accessed in full by going to www.spdji.com.

Year-Over-Year

The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 4.5% annual gain in May, down from 4.6% in the previous month. The 10-City Composite annual increase came in at 3.1%, down from 3.3% in the previous month. The 20-City Composite posted a 3.7% year-over-year gain, down from 3.9% in the previous month.

Phoenix, Seattle and Tampa reported the highest year-over-year gains among the 19 cities (excluding Detroit) in May. Phoenix led the way with a 9.0% year-over-year price increase, followed by Seattle with a 6.8% increase and Tampa with a 6.0% increase. Three of the 19 cities reported higher price increases in the year ending May 2020 versus the year ending April 2020. "—Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

U.S. Housing Prices 4/4

S&P CoreLogic Case-Shiller Index

Month-Over-Month

"The National Index posted a 0.7% month-over-month increase, while the 10-City and 20-City Composites posted increases of 0.3% and 0.4% respectively before seasonal adjustment in May. After seasonal adjustment, the National Index posted a month-over-month increase of 0.1%, while the 10-City and 20-City Composites did not post any gains. In May, 17 of 19 cities (excluding Detroit) reported increases before seasonal adjustment, while 11 of the 19 cities reported increases after seasonal adjustment.

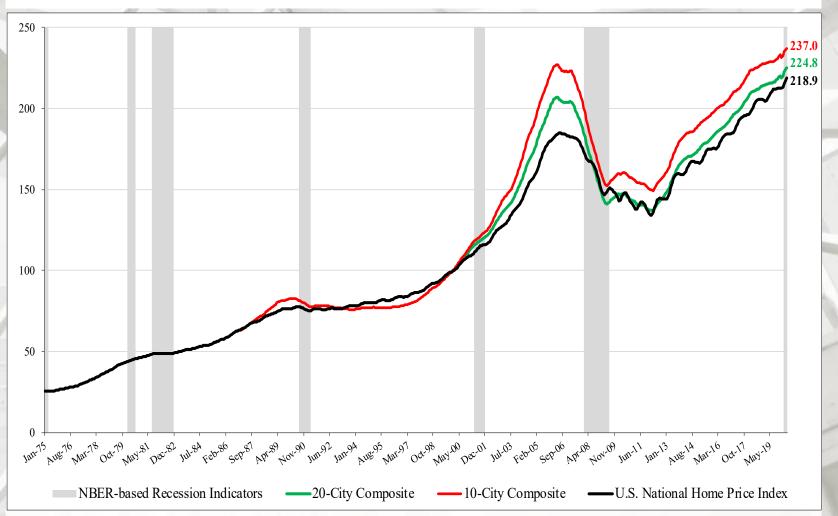
Analysis

May's housing price data were stable. The National Composite Index rose by 4.5% in May 2020, with comparable growth in the 10- and 20-City Composites (up 3.1% and 3.7%, respectively). In contrast with the past eight months, May's gains were less than April's. Although prices increased in May, in other words, they did so at a decelerating rate. We observed an analogous development at the city level: prices increased in all 19 cities for which we have data, but accelerated in only 3 of them (in contrast with 12 cities last month and 18 the month before that).

More data will obviously be required in order to know whether May's report represents a reversal of the previous path of accelerating prices or merely a slight deviation from an otherwise intact trend. Even if prices continue to decelerate, that is quite different from an environment in which prices actually decline.

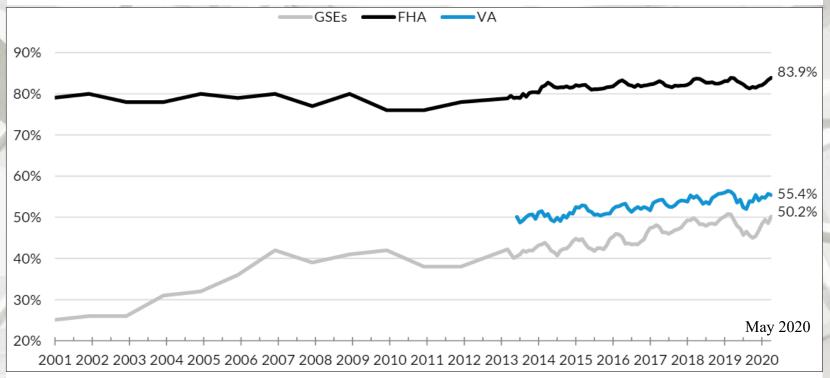
Among the cities, Phoenix retains the top spot for the 12th consecutive month, with a gain of 9.0% for May. Home prices in Seattle rose by 6.8%, followed by Tampa at 6.0%. As has been the case for the last several months, prices were particularly strong in the West and Southeast, and comparatively weak in the Northeast." – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

S&P/Case-Shiller Home Price Indices



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

First-Time House Buyers



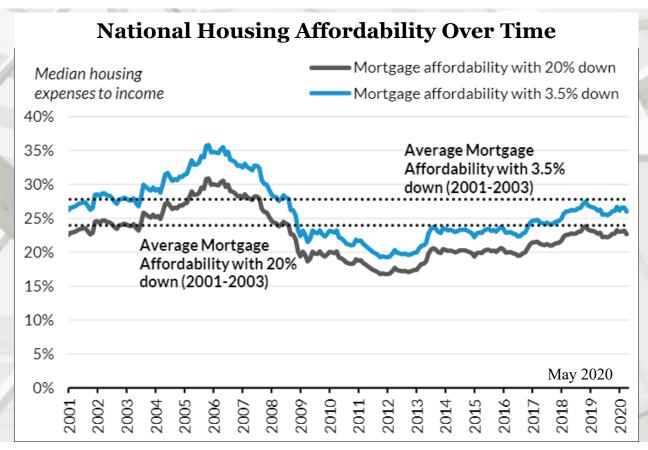
Sources: eMBS, Federal Housing Administration (FHA) and Urban Institute.

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

Urban Institute

"In May 2020, the FTHB share for FHA, which has always been more focused on first time homebuyers, grew slightly to 83.9 percent. The FTHB share of VA lending decreased slightly in May, to 55.4 percent. The GSE FTHB share in May was up from April to 50.2 percent. ..." – Bing Lai, Research Associate, Housing Finance Policy Center

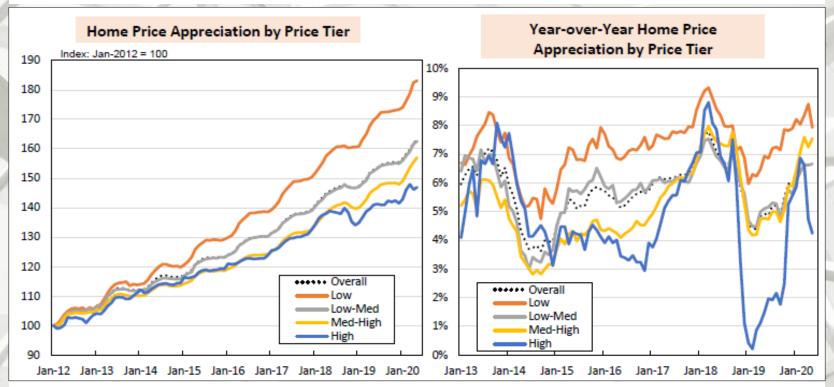
Housing Affordability 1/2



Urban Institute

"Home prices remain affordable by historic standards, despite price increases over the last 8 years, as interest rates are now near generational lows. As of May 2020, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 21.7 percent; with 3.5 down, it is 29.4 percent. Since February 2019, the median housing expenses to income ratio has been slightly lower than the 2001-2003 average. ..." – Laurie Goodman, VP, Housing Finance Policy Center

Housing Affordability 2/2



Note: Data for July 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.

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

"Preliminary numbers for July 2020 indicate that overheating of the low price tier continued (right panel). HPA in the low price tier was 7.9% year-over-year. HPA in the high tier (about 7% share) increased significantly to 4.2% compared to 1.5% a year ago. These results are preliminary due to COVID-19 related reporting delays and July be revised when all county records have been updated." – Edward Pinto and Tobias Peter, AEI Housing Center

AEI Housing Center 1/2 AEI Flash Housing Market Indicators Week of July 18 to July 31, 2020

Key takeaways:

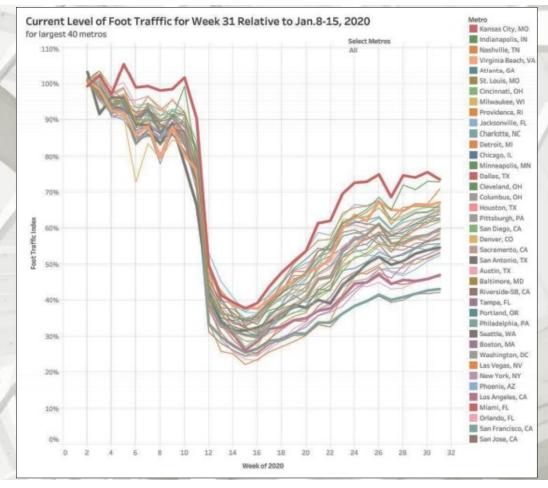
- "Driven by ultra-low mortgage rates and a limited supply, national home price appreciation (HPA) accelerated to around 9-10%.
 - This rate exceeds the rate before the pandemic, which may indicate the home price boom will likely continue due to low rates and heavy demand.
- In a continuation of the last several weeks' strong upward trend, purchase rate lock volume for the weeks 30 & 31 rose 40% and 32% from a year ago, respectively.
 - o This provides further evidence that the worst of the near term effects of the COVID-19 pandemic lockdown may be behind us on a national level.
 - As a result of the last weeks' strong purchase lock volume, combined with strong volume in weeks 1-13, year-to-date volume is now running 21.6% ahead of last year." Edward Pinto and Tobias Peter, AEI Housing Center

AEI Housing Center 2/2

The AEI Housing Center's Nowcast: *AEI Reopening of 40 Metro Area Economies*

COVID-19 data through the week of Aug 3-9 (Week 32), 2020 & foot traffic data through week 31

"Chart 1: displays changes in foot traffic activity for the 40 largest metros through week 31, indexed to activity in early January. The level of activity for each metro is set at 100% based on the level for January 8-15, 2020." – Edward Pinto and Tobias Peter, AEI Housing Center



Note: Bold lines correspond to Kansas City, Virginia Beach, Pittsburgh, Seattle, Los Angeles, San Francisco, in that order. They rank in the order that they finish in week 31 high to low.

Source: AEI Housing Center and Safegraph.com.

Mortgage Credit Availability 1/2

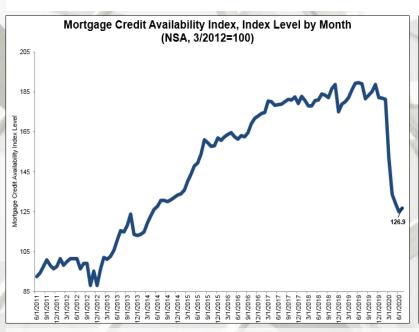
Mortgage Credit Availability Increased in July

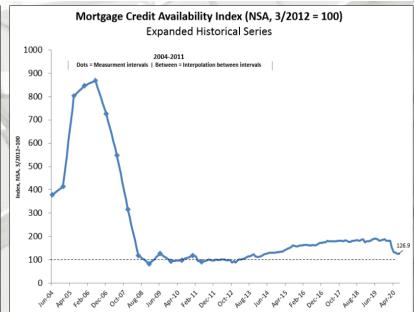
"Mortgage credit availability decreased in June according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from Ellie Mae's AllRegs® Market Clarity® business information tool.

The MCAI rose by 1.5 percent to 126.9 in July. 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 2.9 percent, while the Government MCAI increased by 0.4 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 5.0 percent, and the Conforming MCAI rose by 1.2 percent.

Credit availability rose slightly in July – the first increase in eight months – as the supply of certain types of adjustable rate mortgages (ARMs) and jumbo loans increased. The improvement was more of a leveling off from the precipitous drop earlier this spring. Credit availability is still over 30 percent lower than a year ago and near its lowest level since 2014. The July data signals that lenders saw conditions improve this summer, as forbearance requests flattened, and record-low mortgage rates spurred strong levels of purchase and refinance activity. There's evidence the resurgence of COVID-19 cases has cooled the job market recovery, which may temper borrower demand and the overall improvement in the economy." – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

Mortgage Credit Availability 2/2





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

Summary

In conclusion:

In June, housing starts and new house sales were reassuring, as housing is a bright spot for the United States economy – albeit subdued. Total, single- and multi-family starts; total single- and multi-family permits; total, single-family completions; and new and existing house sales were positive on a month-over-month basis. Housing under construction and completions were the only sub-sectors registering positive data year-over-year sector. The majority of housing subsector data were mostly negative. The effect of Covid19 is still evident in June's data.

Housing, in the majority of categories, remains substantially less than their respective historical averages. The new SF housing construction sector is where the majority of value-added forest products are utilized and this housing sector has ample room for improvement.

Pros:

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

Cons:

- 1) Coronavirus19 (Covid19);
- 2) Lot availability and building regulations (according to several sources);
- 3) Laborer shortages;
- 4) Household formations still lag historical averages;
- 5) Changing attitudes towards SF ownership;
- 6) Job creation is improving and consistent but some economists question the quantity and types of jobs being created;
- 7) Debt: Corporate, personal, government United States and globally;
- 8) Other global uncertainties.

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