

# The Virginia Tech – U.S. Forest Service September 2019 Housing Commentary: Section I



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<http://woodproducts.sbio.vt.edu/housing-report>.

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# Opening Remarks

In September, United States single-family construction data indicated month-over-month improvement in several critical categories, with the exception being completions. Total housing starts, permits, and completions also were positive month-over-month. Only total and single-family under construction were positive on a monthly and yearly basis. Of note, total and single-family construction spending continued year-over-year declines. Declining interest rates have led to improving housing affordability, which is one factor for this month's improvement. The November 15th Atlanta Fed GDPNow™ model estimate for December 2019 projects an aggregate 2.3% decrease for residential investment spending. New private permanent site expenditures were projected at a 1.0% decrease; the improvement spending forecast was a 0.2% increase; and the manufactured/mobile housing projection was a 3.2% decrease (all: quarterly log change and seasonally adjusted annual rate).<sup>1</sup>

“For families in the past, home ownership was a huge part of what they considered a successful life. In the 1920s, America encouraged this ideal by creating Fannie Mae to insure mortgages, and in turn, increase the rate of home ownership. With the economic boom of the 1950s, the rate of home ownership skyrocketed and the image of the nuclear family with a white picket fence became the norm. The American ideal meant having an economically stable household — the pinnacle of which was to own a home. It was seen as a measure of success.

But when we asked people if they viewed home ownership as a measure of success today, America was divided: 48% responded yes while 52% said no. This divide signifies a shift from previous American ideals, implying that home ownership may not be as crucial to the notion of success as it once was. Additionally, there are generational differences in how Americans view home ownership. Only 38% of people aged 18–24 view owning a home as a metric of personal success, as opposed to 56% of people aged 55–64. After this, the correlation plateaus. It appears that the older you are, the more likely you are to equate home ownership with the idea of success.”<sup>2</sup> – esurance

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

Sources: <sup>1</sup> [www.frbatlanta.org/cqer/research/gdpnow.aspx](http://www.frbatlanta.org/cqer/research/gdpnow.aspx); 11/15/19;

<sup>2</sup> <https://www.esurance.com/insights/homeownership-survey>; 10/1/19



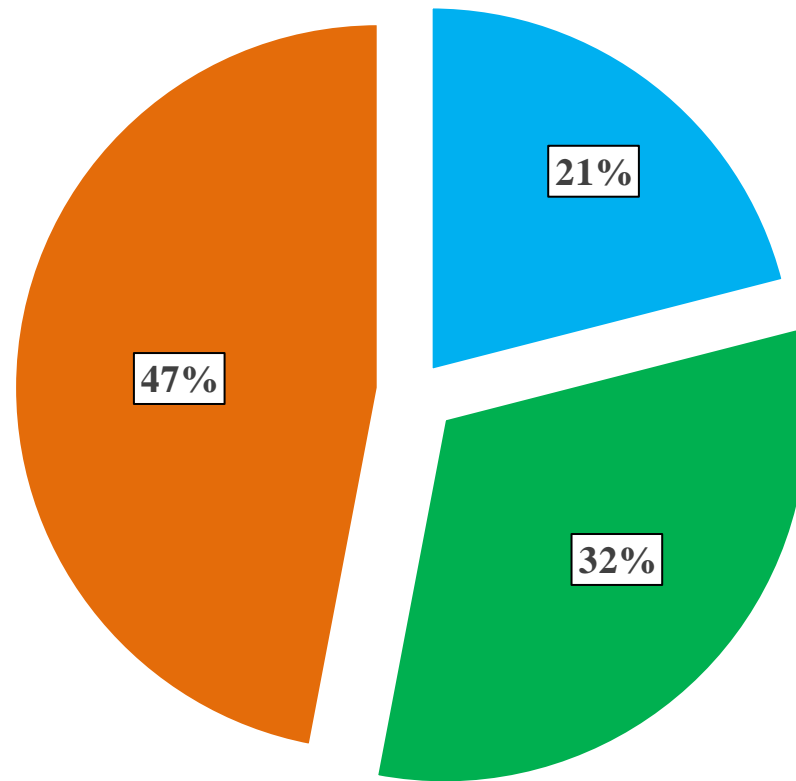
# September 2019 Housing Scorecard

	M/M	Y/Y
Housing Starts	▼ 9.4%	▲ 1.6%
Single-Family (SF) Starts	▲ 0.3%	▲ 4.3%
Multi-Family (MF) Starts*	▼ 28.2%	▼ 3.7%
Housing Permits	▼ 2.7%	▲ 7.7%
SF Permits	▲ 0.8%	▲ 2.8%
MF Permits*	▼ 8.2%	▲ 17.4%
Housing Under Construction	▲ 0.7%	▲ 2.2%
SF Under Construction	▲ 1.4%	NC
Housing Completions	▼ 9.7%	▼ 1.0%
SF Completions	▼ 8.6%	▲ 1.8%
New SF House Sales	▼ 0.7%	▲ 15.5%
Private Residential Construction Spending	▲ 0.6%	▼ 3.6%
SF Construction Spending	▲ 1.3%	▼ 4.9%
Existing House Sales <sup>1</sup>	▼ 2.2%	▲ 3.9%

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

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

# New Construction's Percentage of Wood Products Consumption

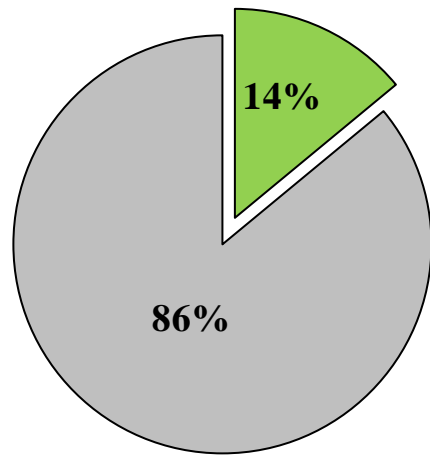


■ Non-structural panels

■ Total Sawnwood

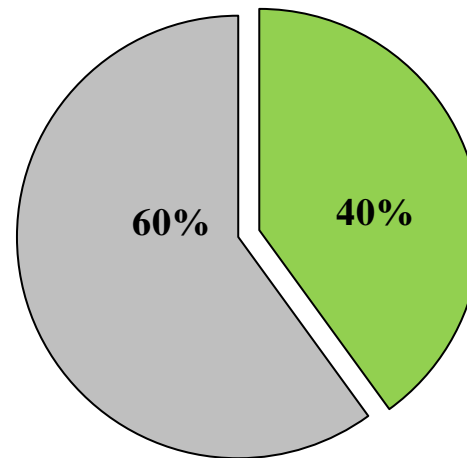
■ Structural panels

# New SF Construction Percentage of Wood Products Consumption



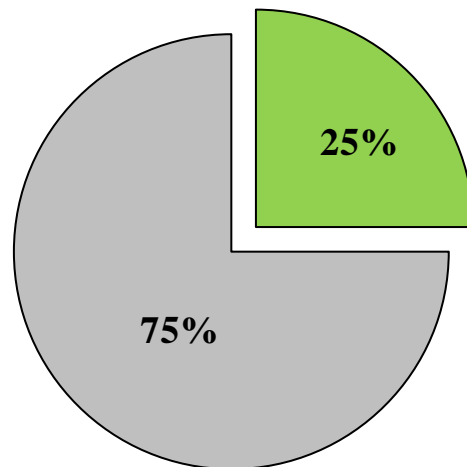
■ Non-structural panels:  
New Housing

■ Other markets



■ Structural panels:  
New housing

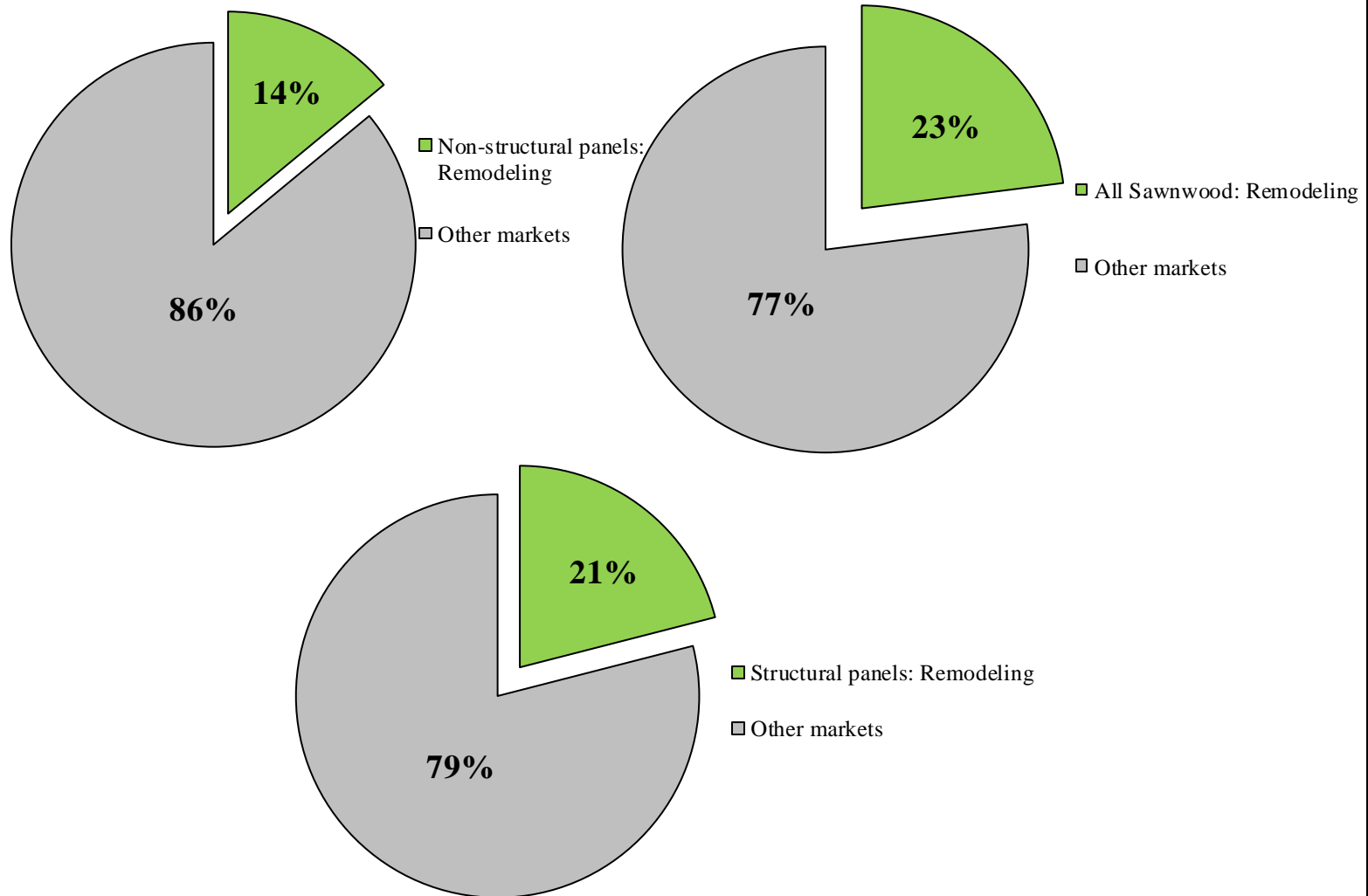
■ Other markets



■ All Sawnwood: New housing

■ Other markets

# Repair and Remodeling's Percentage of Wood Products Consumption



# New Housing Starts

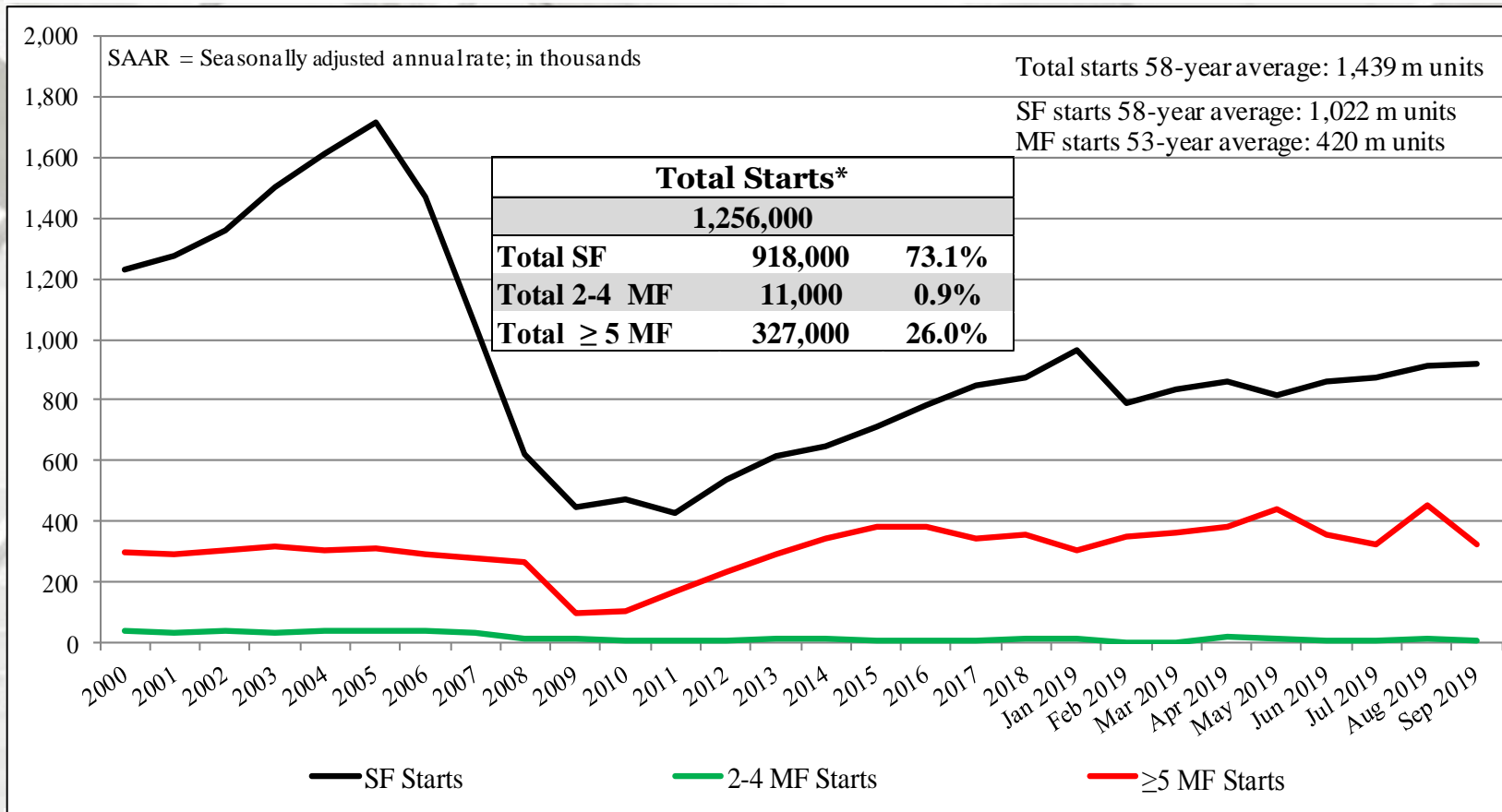
	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
September	1,256,000	918,000	11,000	327,000
August	1,386,000	915,000	15,000	456,000
2018	1,236,000	880,000	9,000	347,000
M/M change	-9.4%	0.3%	-26.7%	-28.3%
Y/Y change	1.6%	4.3%	22.2%	-5.8%

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

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



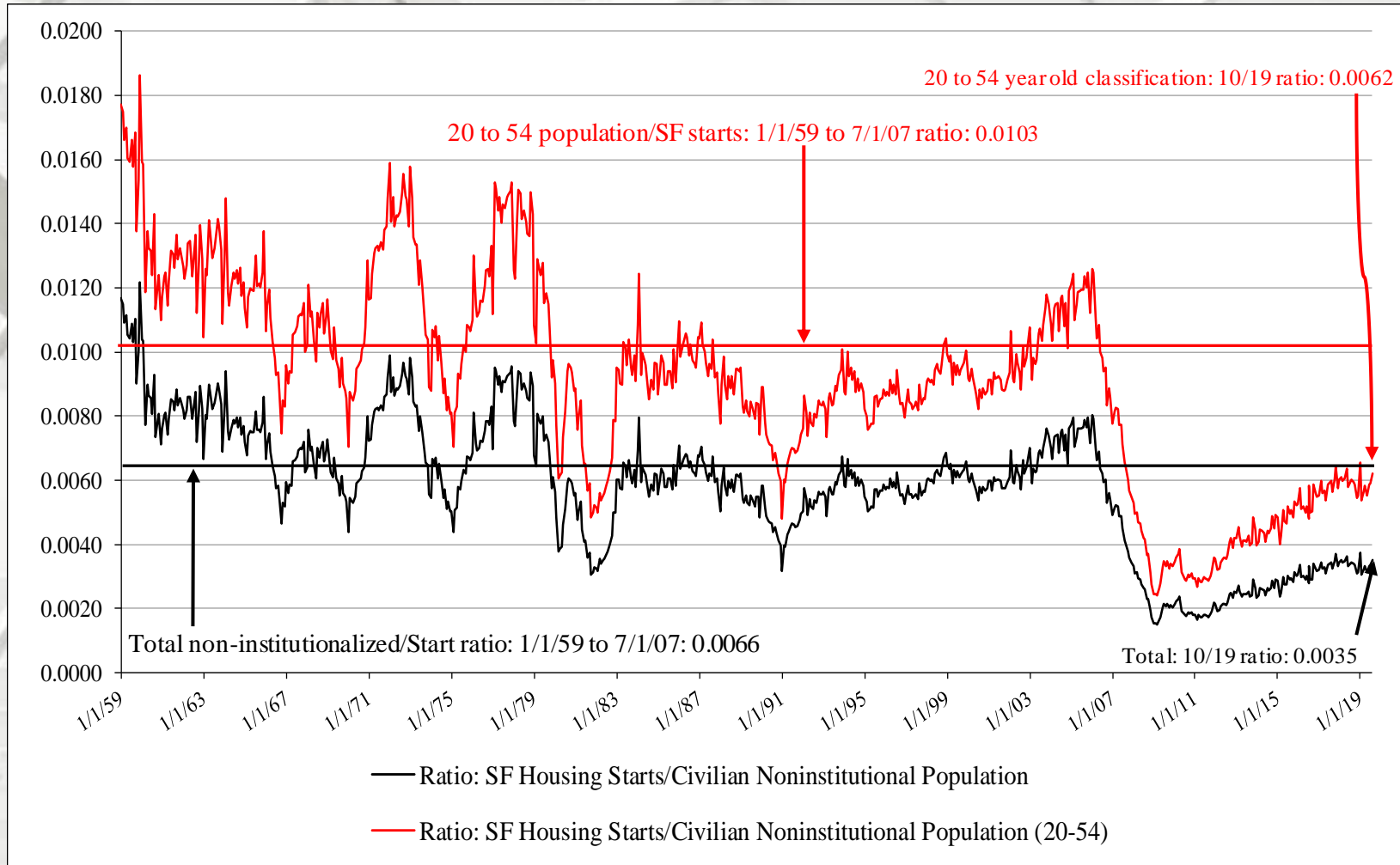
# Total Housing Starts



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

\* Percentage of total starts.

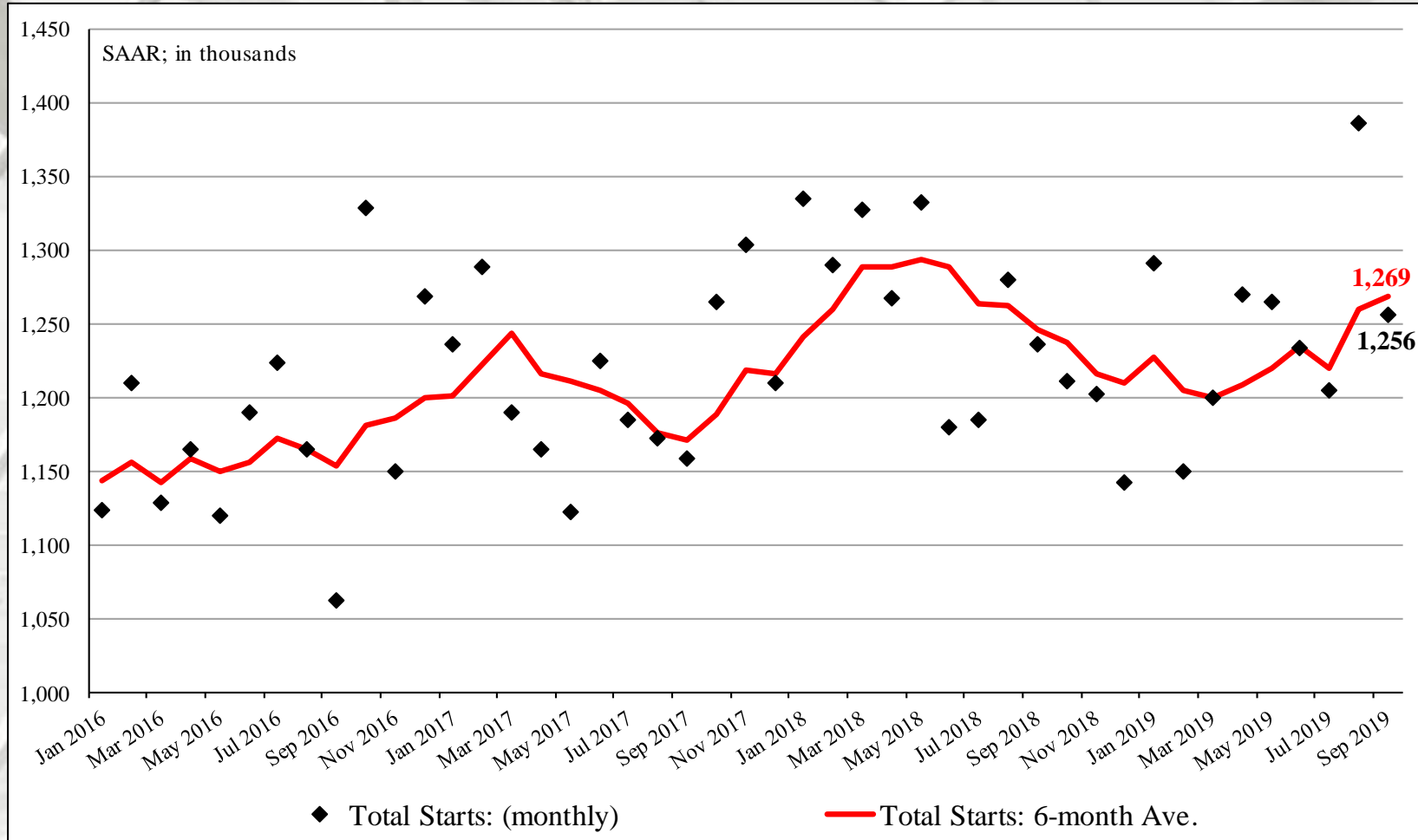
# New SF Starts



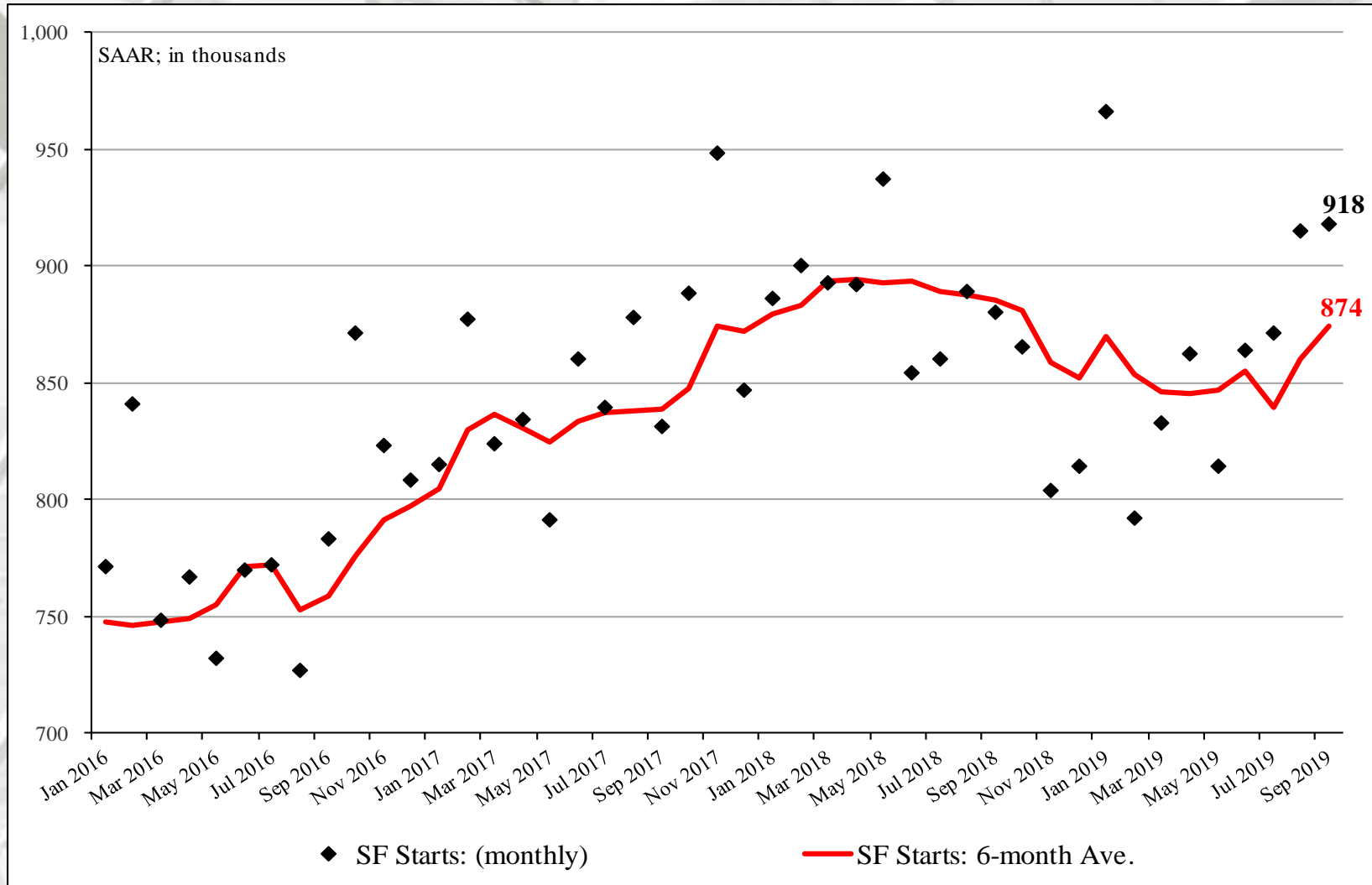
## New SF starts adjusted for the US population

From September 1959 to September 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in September 2019 it was 0.0035 – no change from August. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in September 2019 was 0.0062 – no change from August. From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

# Total Housing Starts: Six-Month Average

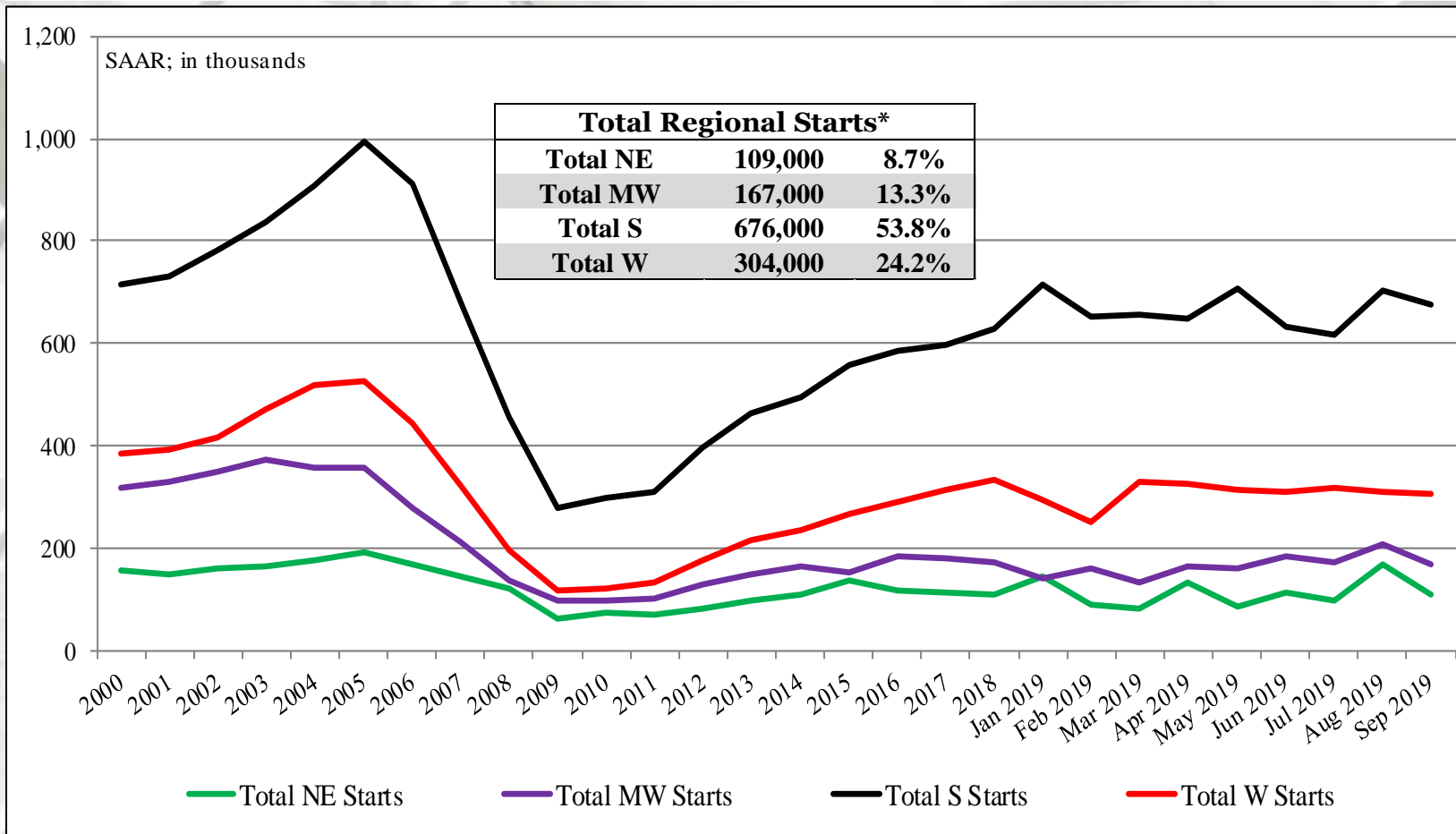


# SF Housing Starts: Six-Month Average





# New Housing Starts by Region



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

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

\* Percentage of total starts.

# New Housing Starts by Region

	<b>NE Total</b>	<b>NE SF</b>	<b>NE MF**</b>
September	109,000	61,000	48,000
August	166,000	62,000	104,000
2018	140,000	59,000	81,000
M/M change	-34.3%	-1.6%	-53.8%
Y/Y change	-22.1%	3.4%	-40.7%
	<b>MW Total</b>	<b>MW SF</b>	<b>MW MF</b>
September	167,000	122,000	45,000
August	206,000	133,000	73,000
2018	171,000	129,000	42,000
M/M change	-18.9%	-8.3%	-38.4%
Y/Y change	-2.3%	-5.4%	7.1%

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).

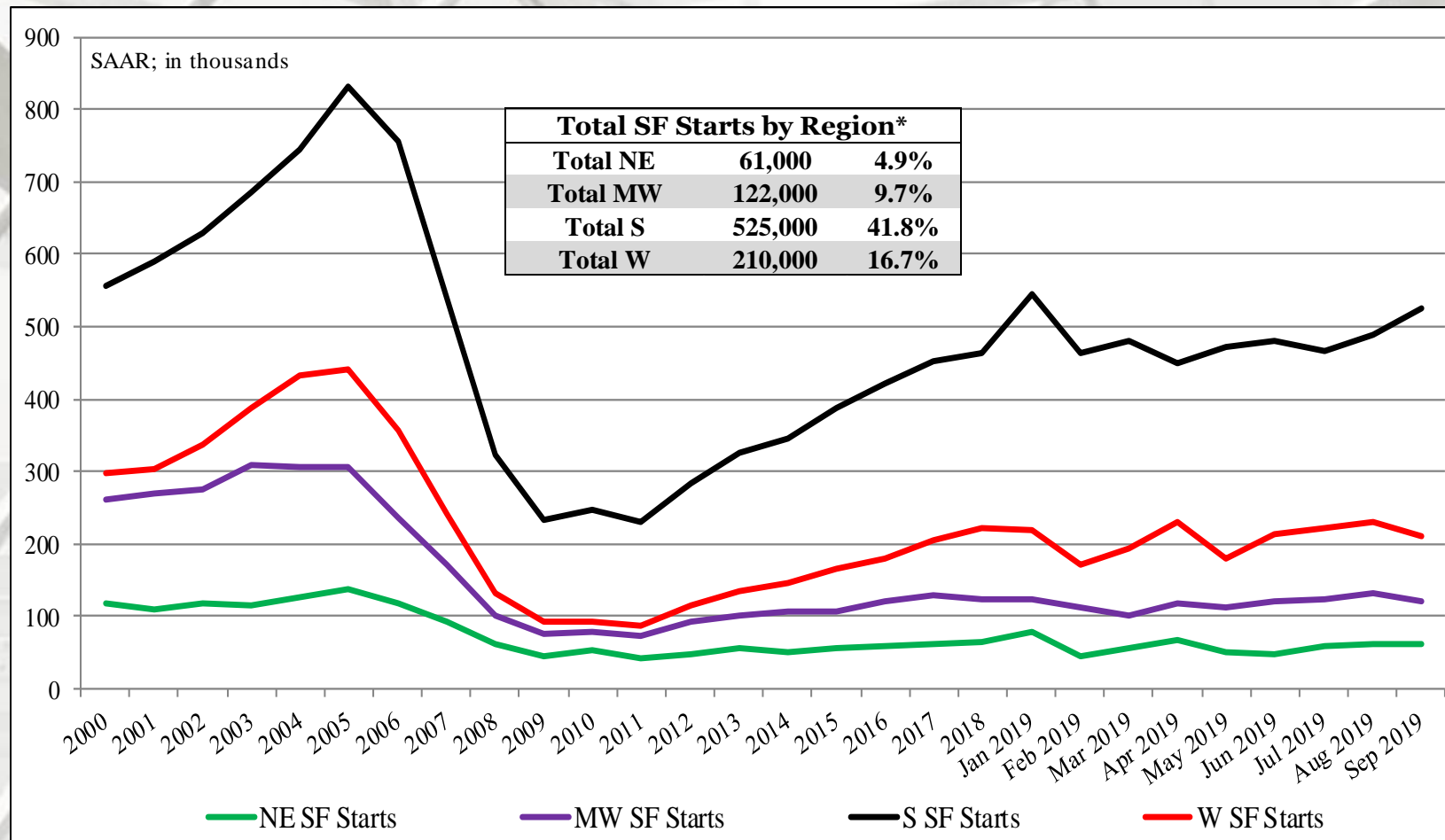
# New Housing Starts by Region

	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
September	676,000	525,000	151,000
August	704,000	490,000	214,000
2017	570,000	447,000	123,000
M/M change	-4.0%	7.1%	-29.4%
Y/Y change	18.6%	17.4%	22.8%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
September	304,000	210,000	94,000
August	310,000	230,000	80,000
2018	355,000	245,000	110,000
M/M change	-1.9%	-8.7%	17.5%
Y/Y change	-14.4%	-14.3%	-14.5%

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).

# Total SF Housing Starts by Region



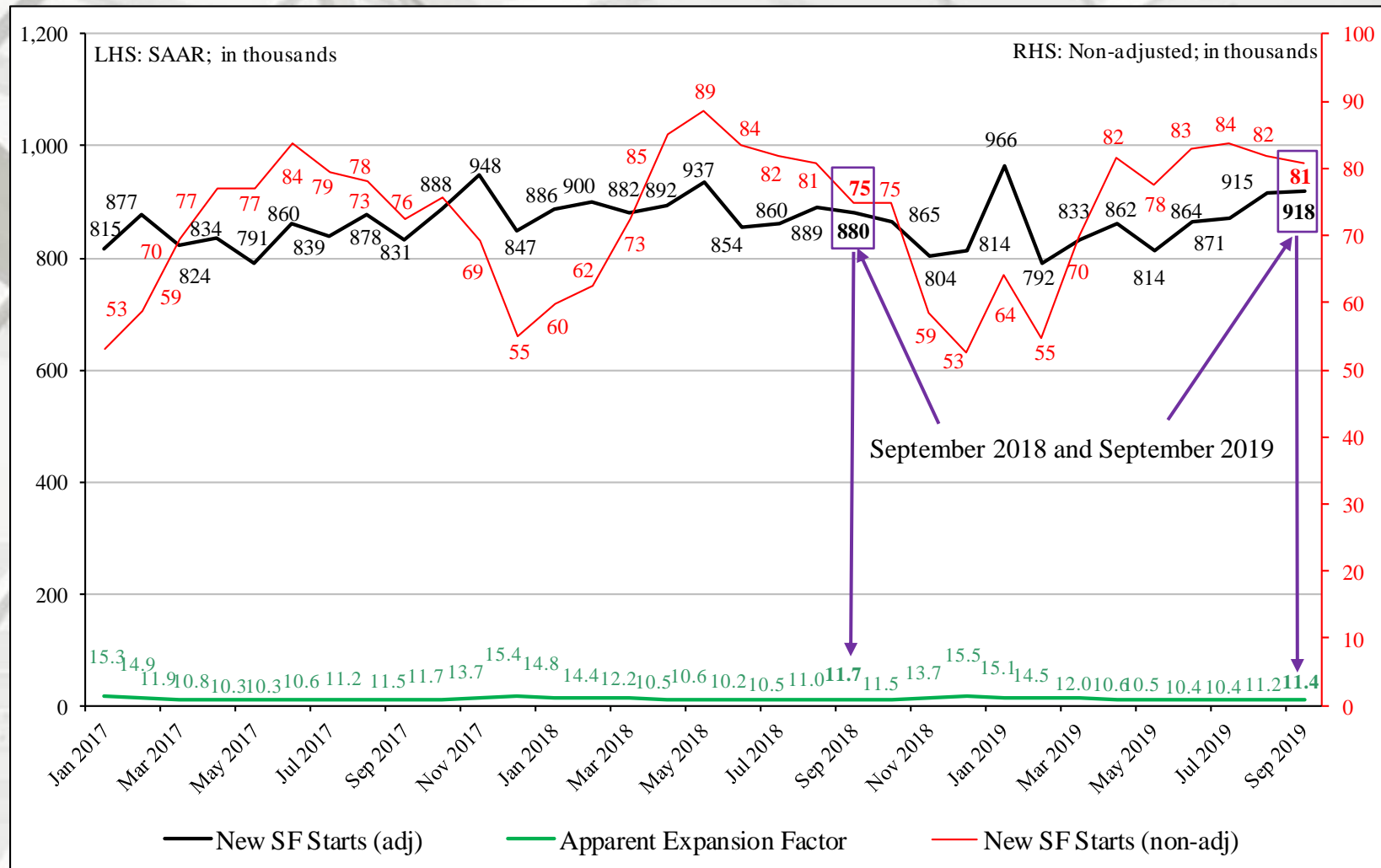
NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total starts.



# Nominal & SAAR SF Starts

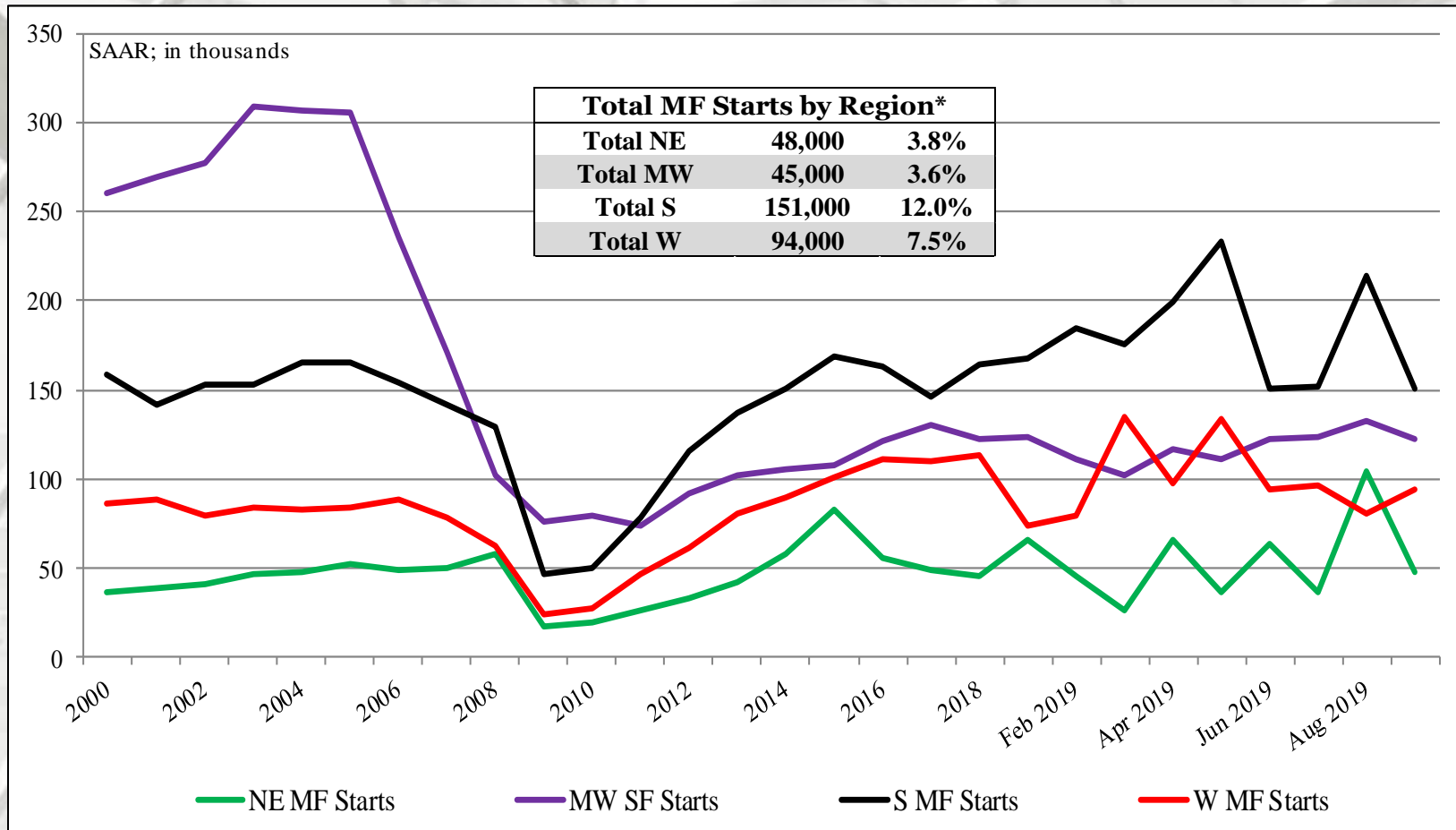


## Nominal and Adjusted New SF Monthly Starts

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

# MF Housing Starts by Region

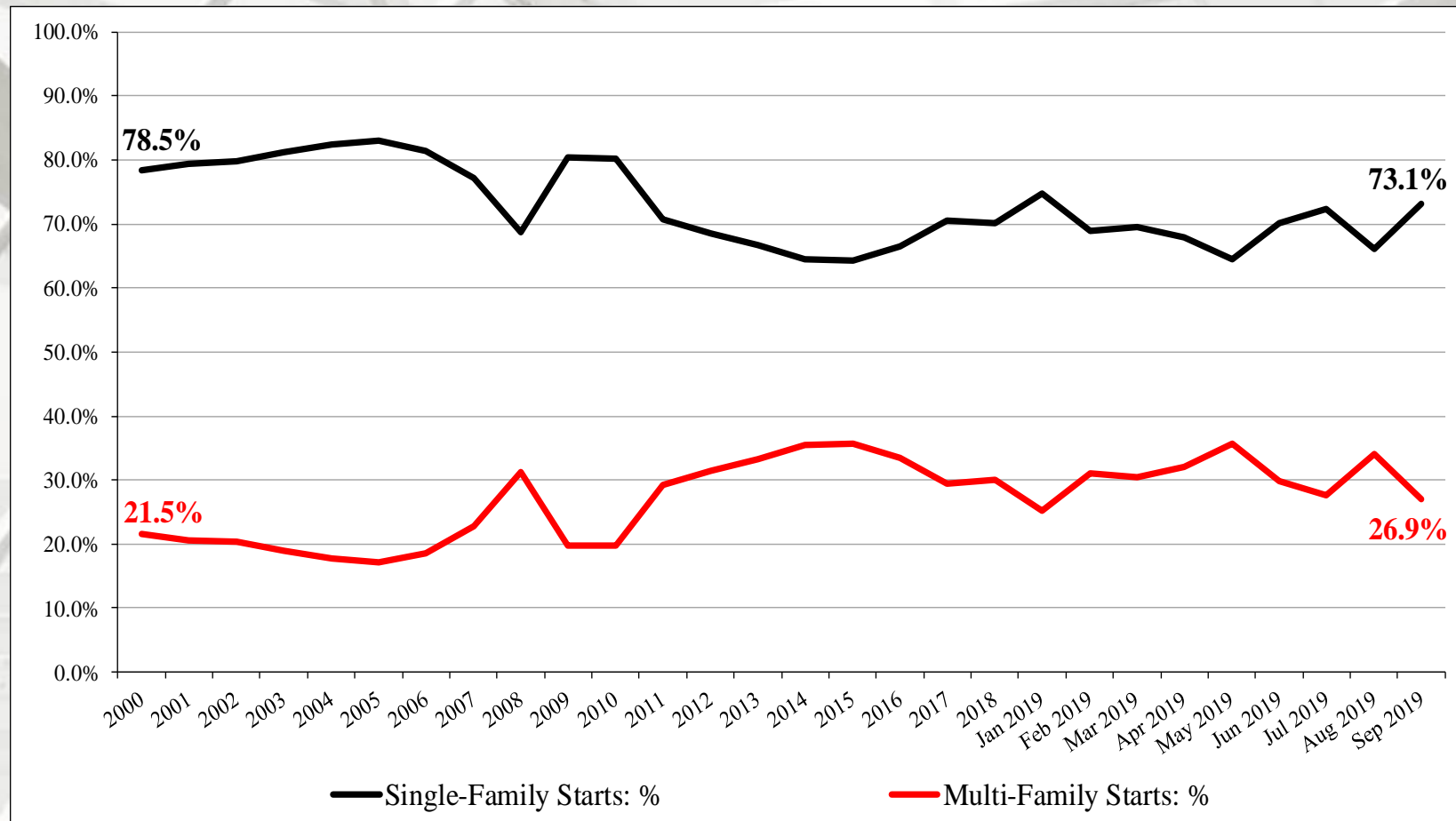


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total starts.

# SF vs. MF Housing Starts (%)



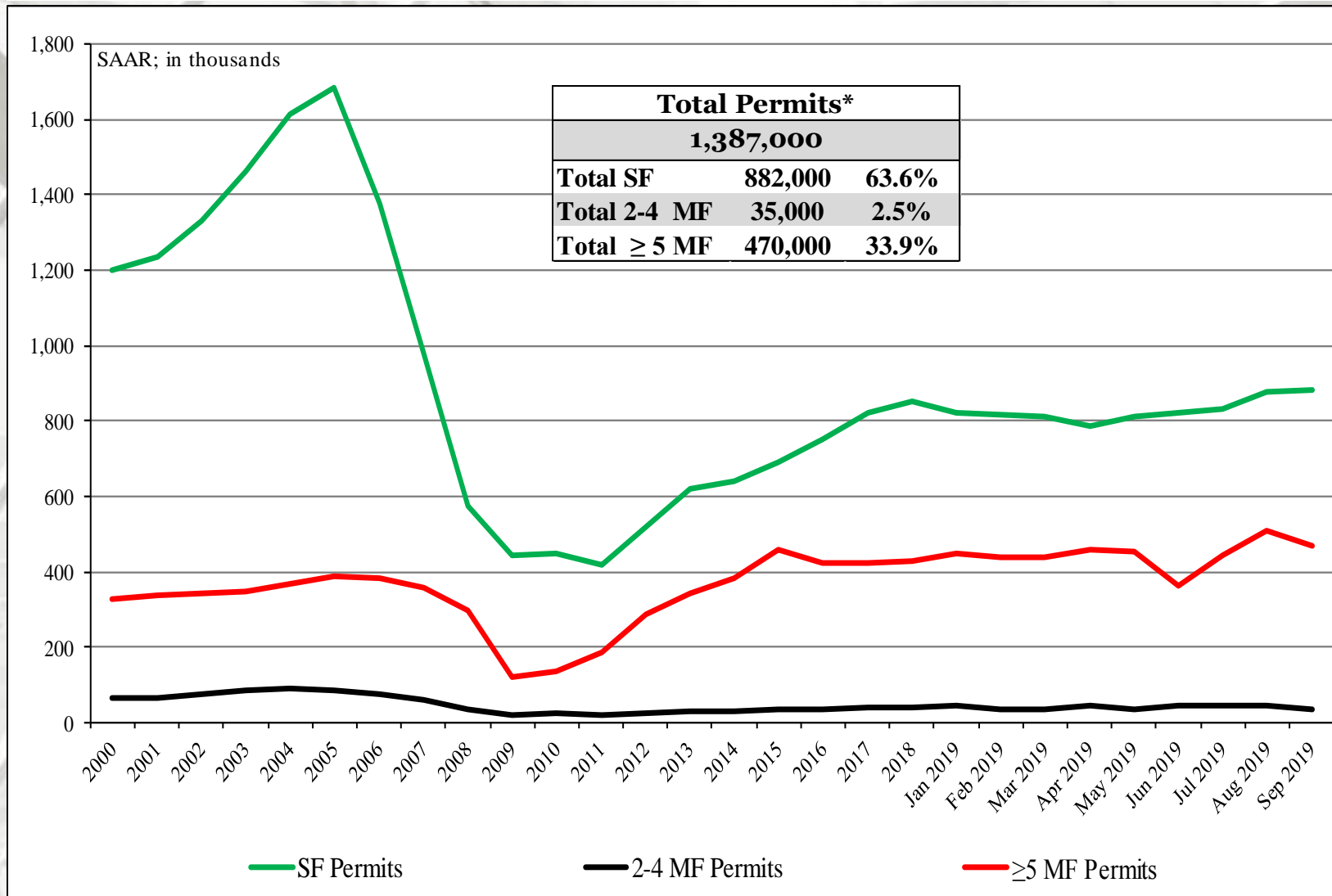
# New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
September	1,387,000	882,000	35,000	470,000
August	1,425,000	875,000	42,000	508,000
2018	1,288,000	858,000	41,000	389,000
M/M change	-2.7%	0.8%	-16.7%	-7.5%
Y/Y change	7.7%	2.8%	-14.6%	20.8%

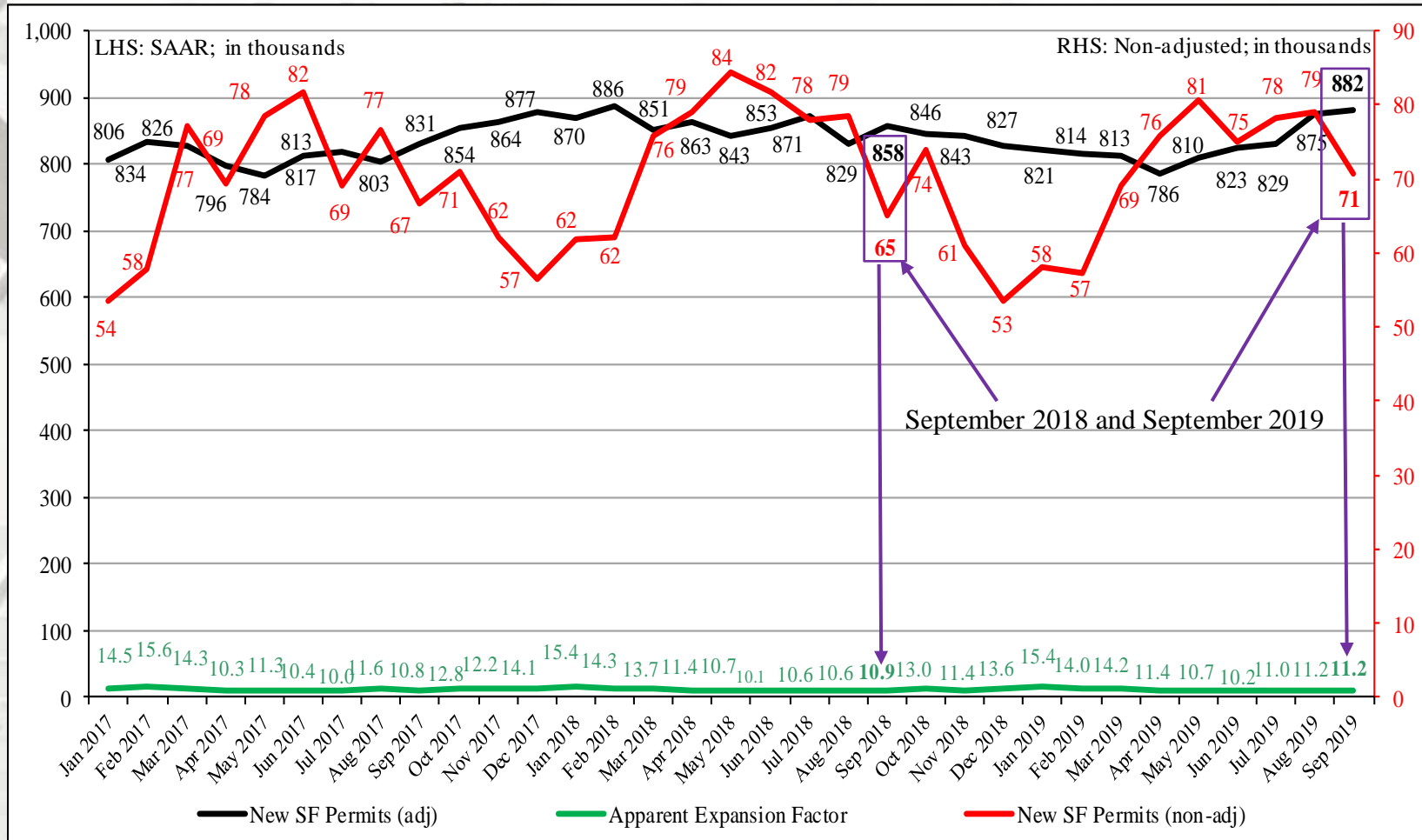
\* All permit data are presented at a seasonally adjusted annual rate (SAAR).



# Total New Housing Permits



# 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

	<b>NE Total*</b>	<b>NE SF</b>	<b>NE MF**</b>
September	113,000	47,000	66,000
August	152,000	55,000	97,000
2018	101,000	56,000	45,000
M/M change	-25.7%	-14.5%	-32.0%
Y/Y change	11.9%	-16.1%	46.7%
	<b>MW Total*</b>	<b>MW SF</b>	<b>MW MF**</b>
September	176,000	125,000	51,000
August	187,000	110,000	77,000
2018	172,000	118,000	54,000
M/M change	-5.9%	13.6%	-33.8%
Y/Y change	2.3%	5.9%	-5.6%

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

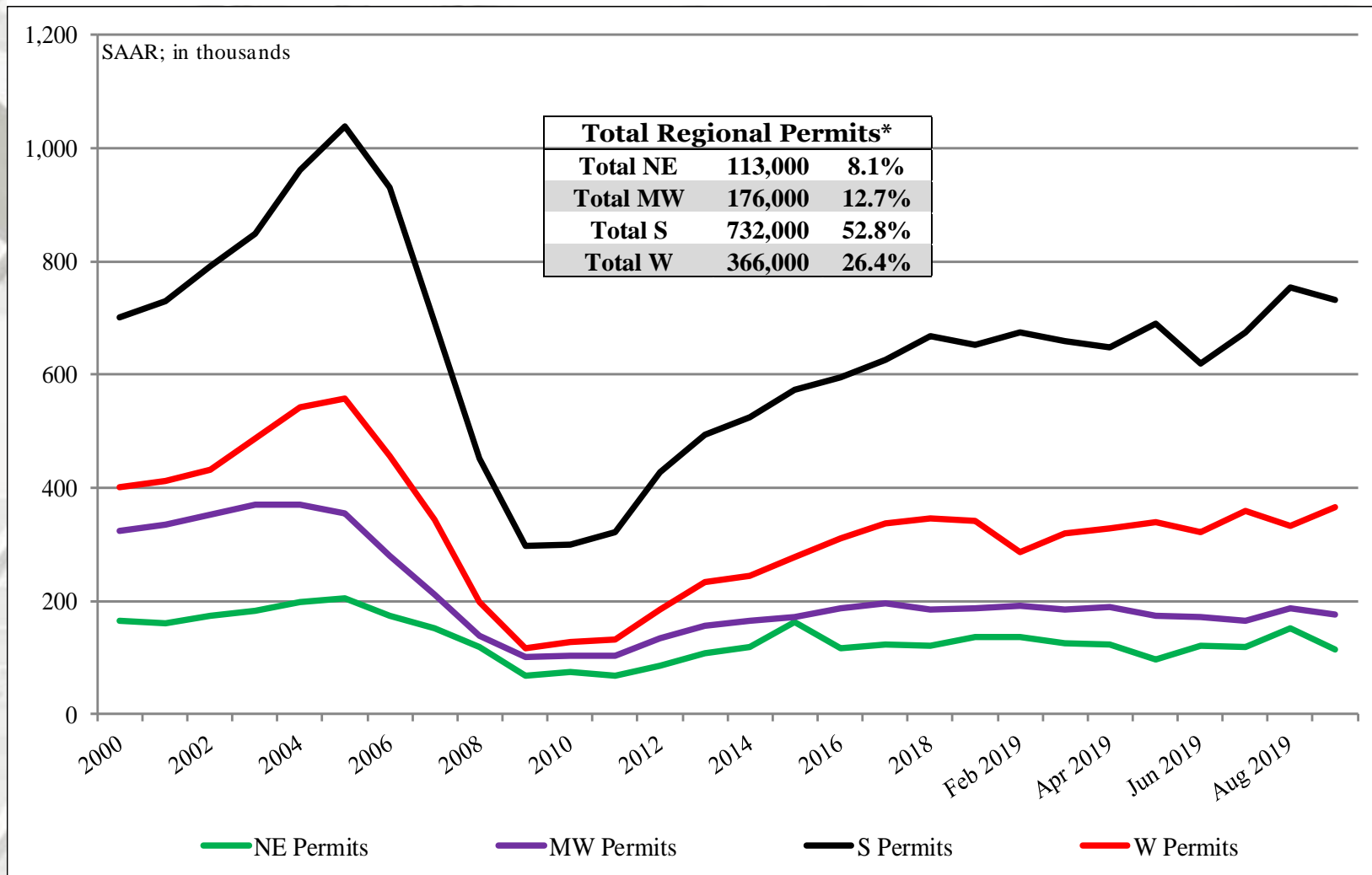
	<b>S Total*</b>	<b>S SF</b>	<b>S MF**</b>
September	732,000	507,000	225,000
August	754,000	500,000	254,000
2018	678,000	471,000	207,000
M/M change	-2.9%	1.4%	-11.4%
Y/Y change	8.0%	7.6%	8.7%
	<b>W Total*</b>	<b>W SF</b>	<b>W MF**</b>
September	366,000	203,000	163,000
August	332,000	210,000	122,000
2018	337,000	213,000	124,000
M/M change	10.2%	-3.3%	33.6%
Y/Y change	8.6%	-4.7%	31.5%

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

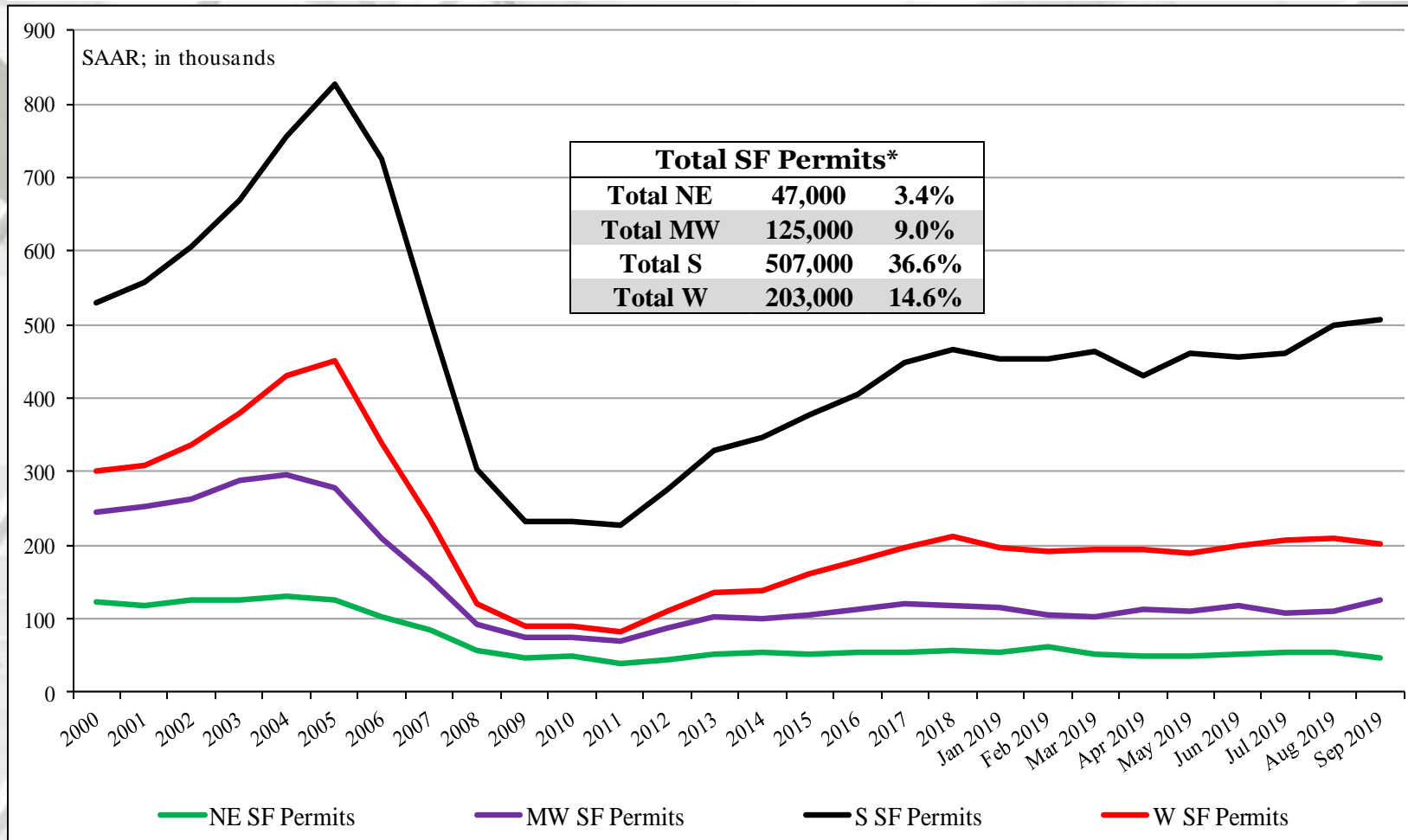


NE = Northeast, MW = Midwest, S = South, W = West

\* Percentage of total permits.



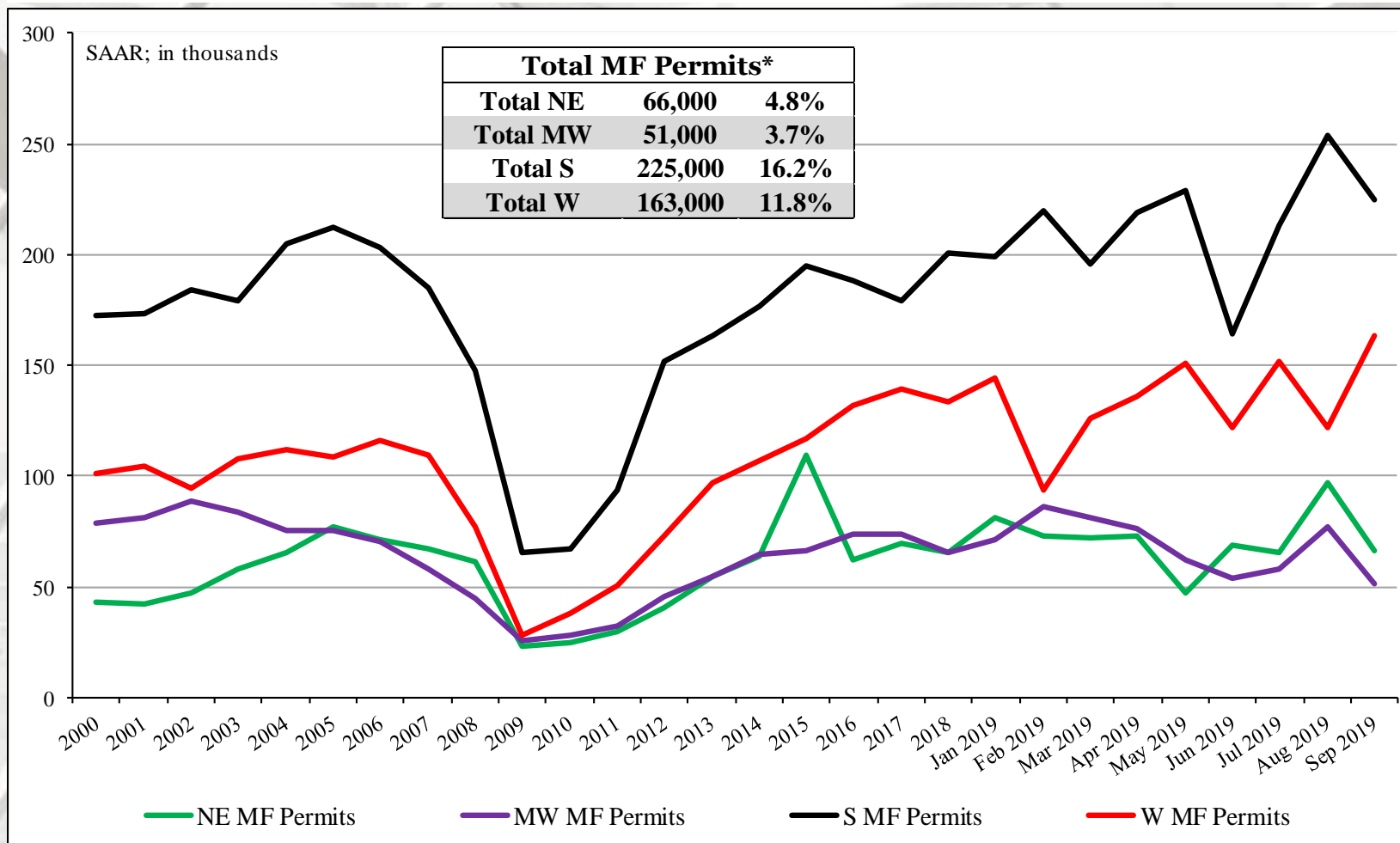
# SF Housing Permits by Region



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.

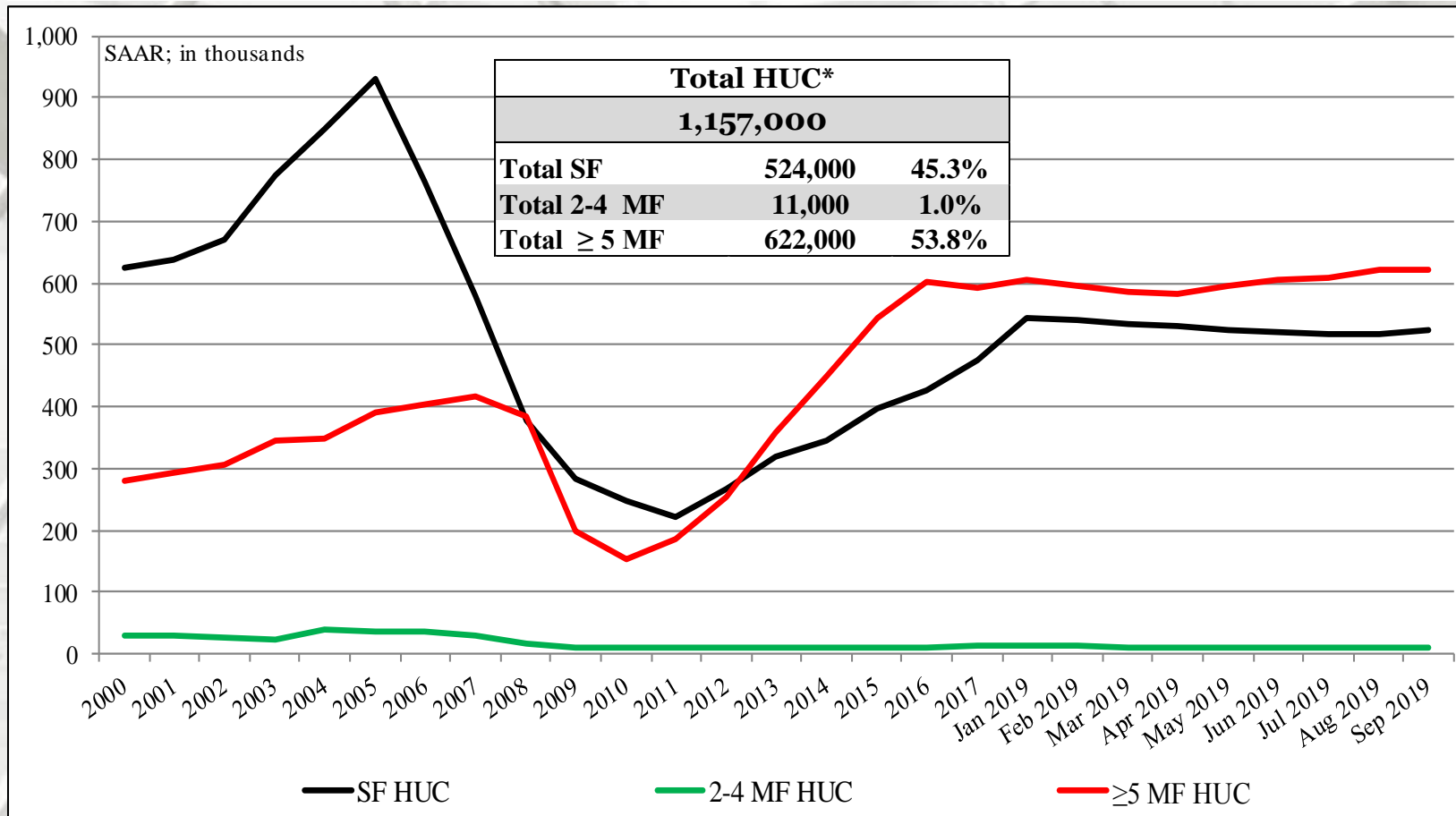
# New Housing Under Construction (HUC)

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
September	1,157,000	524,000	11,000	622,000
August	1,149,000	517,000	10,000	622,000
2018	1,132,000	524,000	12,000	596,000
M/M change	0.7%	1.4%	10.0%	0.0%
Y/Y change	2.2%	0.0%	-8.3%	4.4%

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

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

# Total Housing Under Construction



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

\* Percentage of total housing under construction units.

# New Housing Under Construction by Region

	<b>NE Total</b>	<b>NE SF</b>	<b>NE MF**</b>
September	181,000	60,000	121,000
August	180,000	60,000	120,000
2018	190,000	60,000	130,000
M/M change	0.6%	0.0%	0.8%
Y/Y change	-4.7%	0.0%	-6.9%
	<b>MW Total</b>	<b>MW SF</b>	<b>MW MF</b>
September	147,000	77,000	70,000
August	148,000	76,000	72,000
2018	153,000	81,000	72,000
M/M change	-0.7%	1.3%	-2.8%
Y/Y change	-3.9%	-4.9%	-2.8%

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).



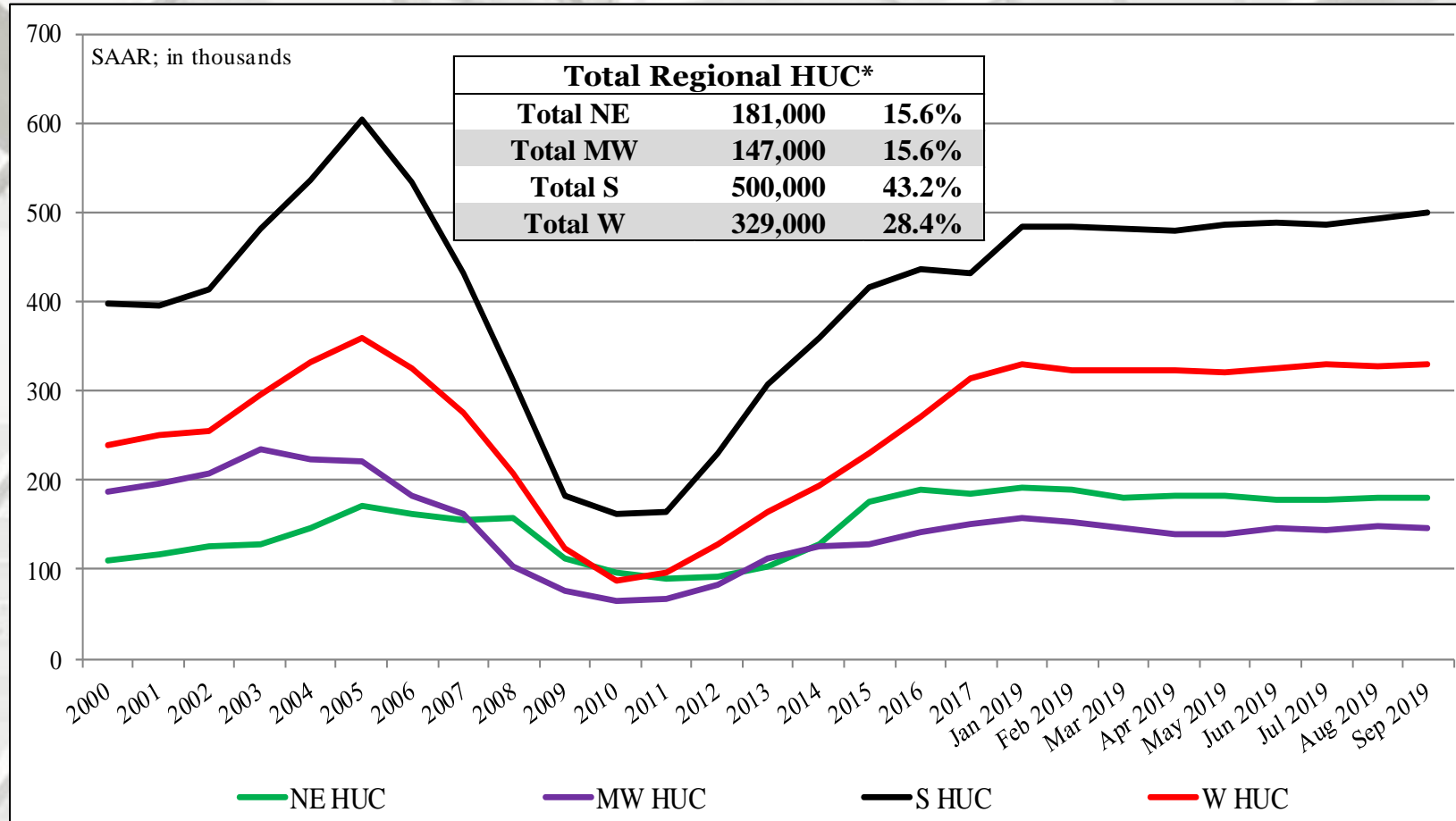
# New Housing Under Construction by Region

	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
September	500,000	249,000	251,000
August	494,000	244,000	250,000
2018	452,000	240,000	212,000
M/M change	1.2%	2.0%	0.4%
Y/Y change	10.6%	3.8%	18.4%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
September	329,000	138,000	191,000
August	327,000	137,000	190,000
2018	337,000	143,000	194,000
M/M change	0.6%	0.7%	0.5%
Y/Y change	-2.4%	-3.5%	-1.5%

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

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

# Total Housing Under Construction by Region

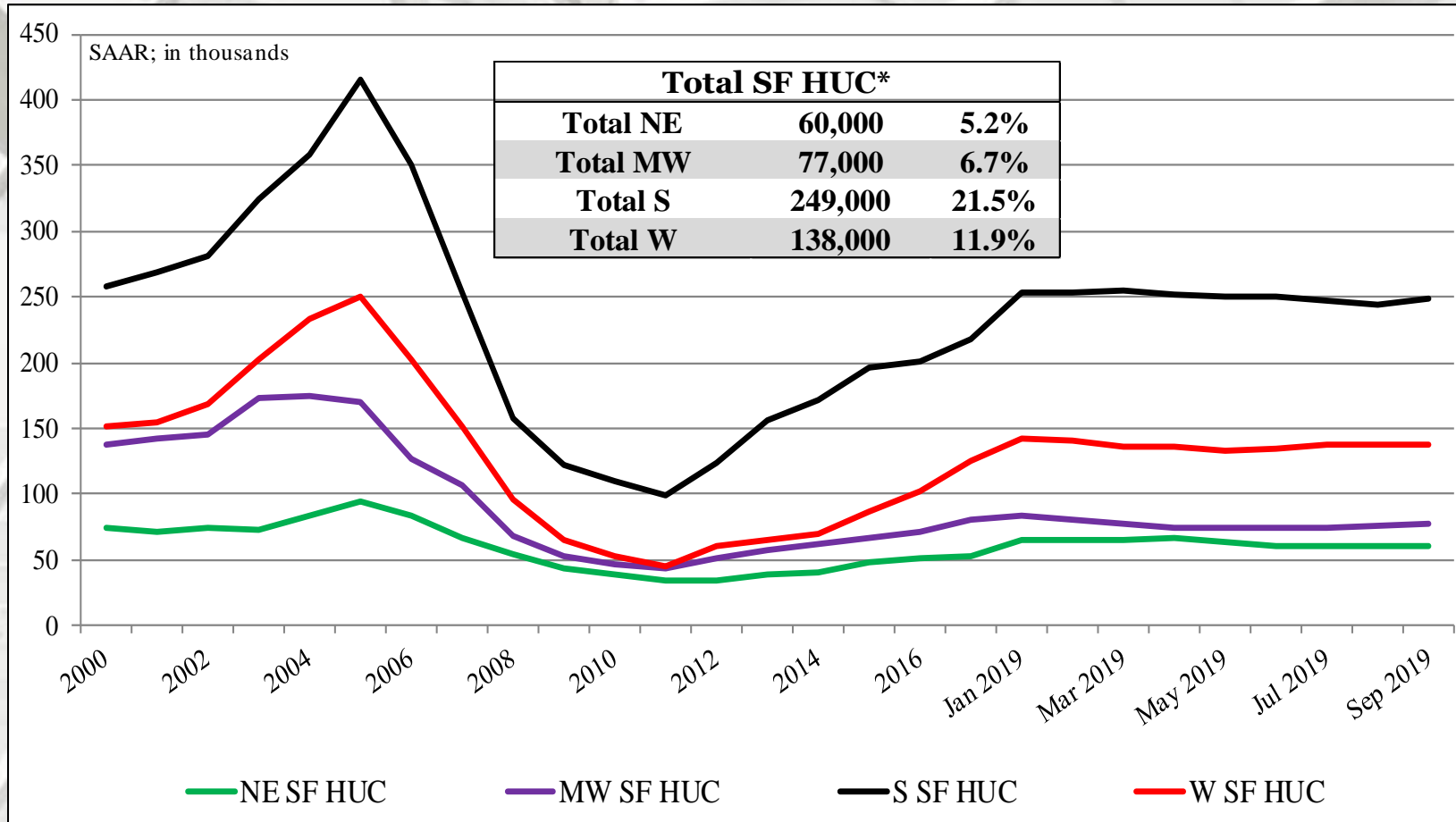


NE = Northeast, MW = Midwest, S = South, W = West

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

\* Percentage of total housing under construction units.

# SF Housing Under Construction by Region

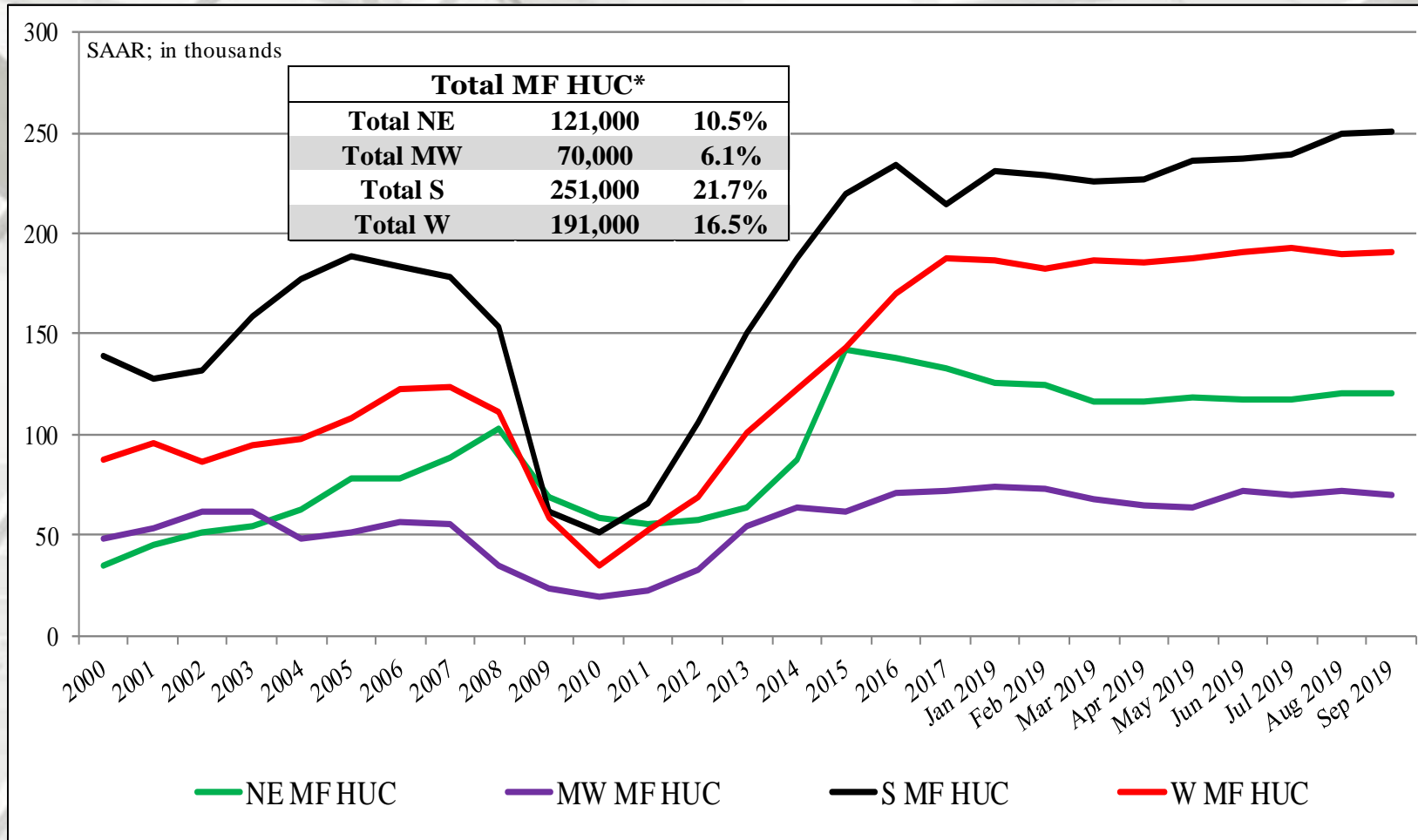


NE = Northeast, MW = Midwest, S = South, W = West.

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

\* Percentage of total housing under construction units.

# MF Housing Under Construction by Region



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

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

\* Percentage of total housing under construction units.

# New Housing Completions

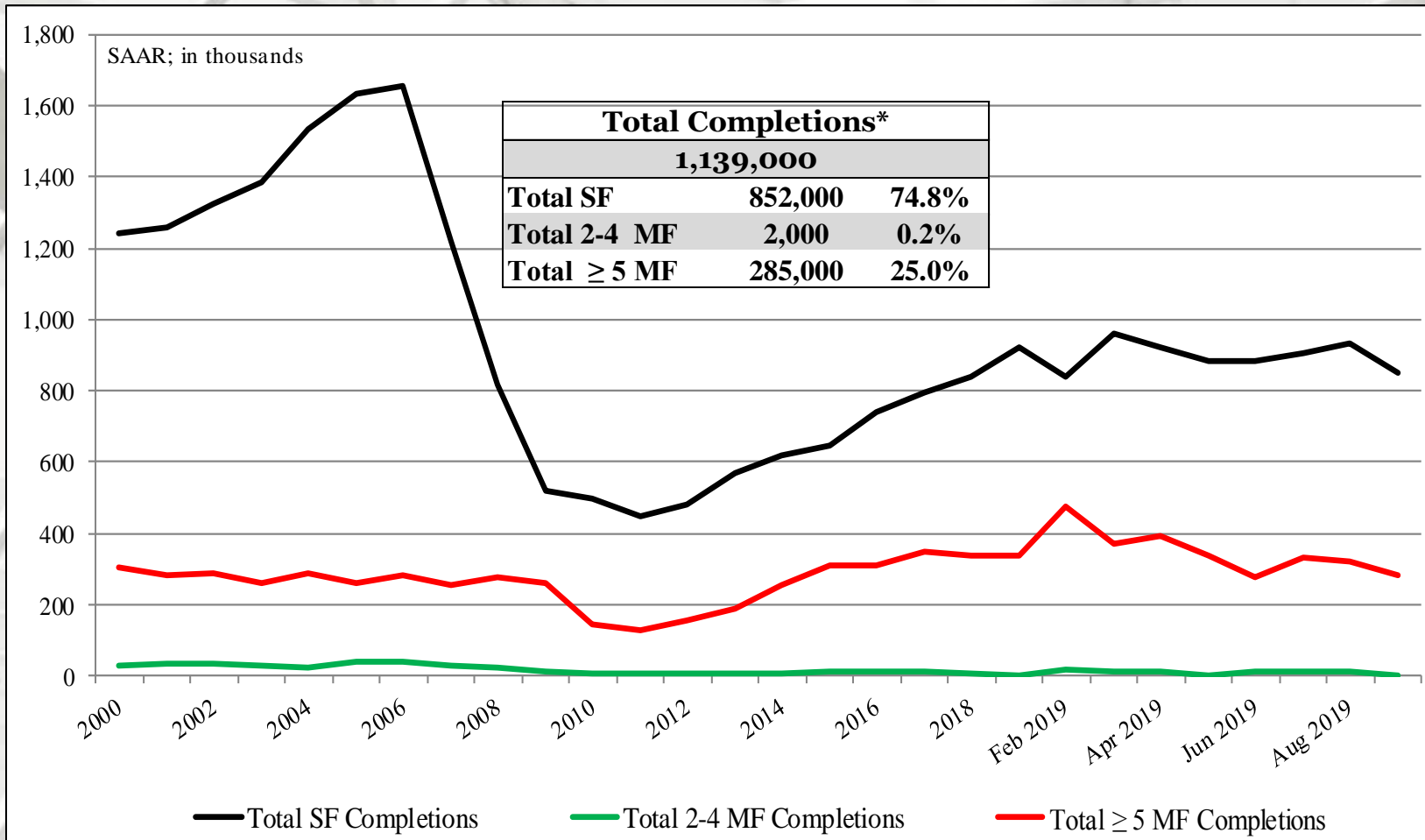
	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
September	1,139,000	852,000	2,000	285,000
August	1,262,000	932,000	10,000	320,000
2018	1,150,000	837,000	9,000	304,000
M/M change	-9.7%	-8.6%	-80.0%	-10.9%
Y/Y change	-1.0%	1.8%	-77.8%	-6.3%

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

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



# Total Housing Completions



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

\* Percentage of total housing completions

# New Housing Completions by Region

	<b>NE Total</b>	<b>NE SF</b>	<b>NE MF**</b>
September	97,000	61,000	36,000
August	139,000	70,000	69,000
2018	118,000	60,000	58,000
M/M change	-30.2%	-12.9%	-47.8%
Y/Y change	-17.8%	1.7%	-37.9%
	<b>MW Total</b>	<b>MW SF</b>	<b>MW MF</b>
September	150,000	109,000	41,000
August	189,000	126,000	63,000
2018	176,000	128,000	48,000
M/M change	-20.6%	-13.5%	-34.9%
Y/Y change	-14.8%	-14.8%	-14.6%

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).

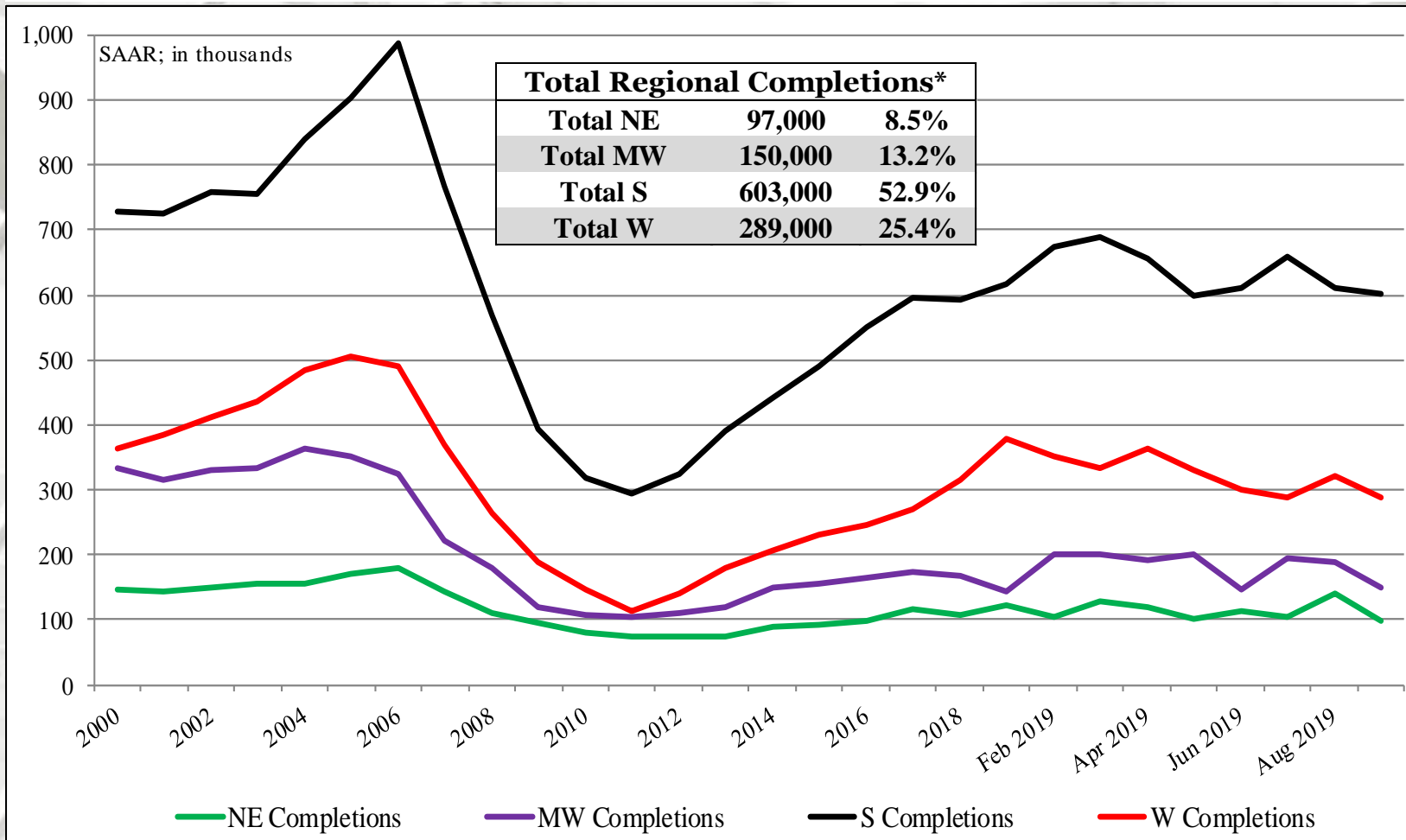
# New Housing Completions by Region

	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
September	603,000	488,000	115,000
August	612,000	510,000	102,000
2018	561,000	437,000	124,000
M/M change	-1.5%	-4.3%	12.7%
Y/Y change	7.5%	11.7%	-7.3%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
September	289,000	194,000	95,000
August	322,000	226,000	96,000
2018	295,000	212,000	83,000
M/M change	-10.2%	-14.2%	-1.0%
Y/Y change	-2.0%	-8.5%	14.5%

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

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

# Total Housing Completions by Region

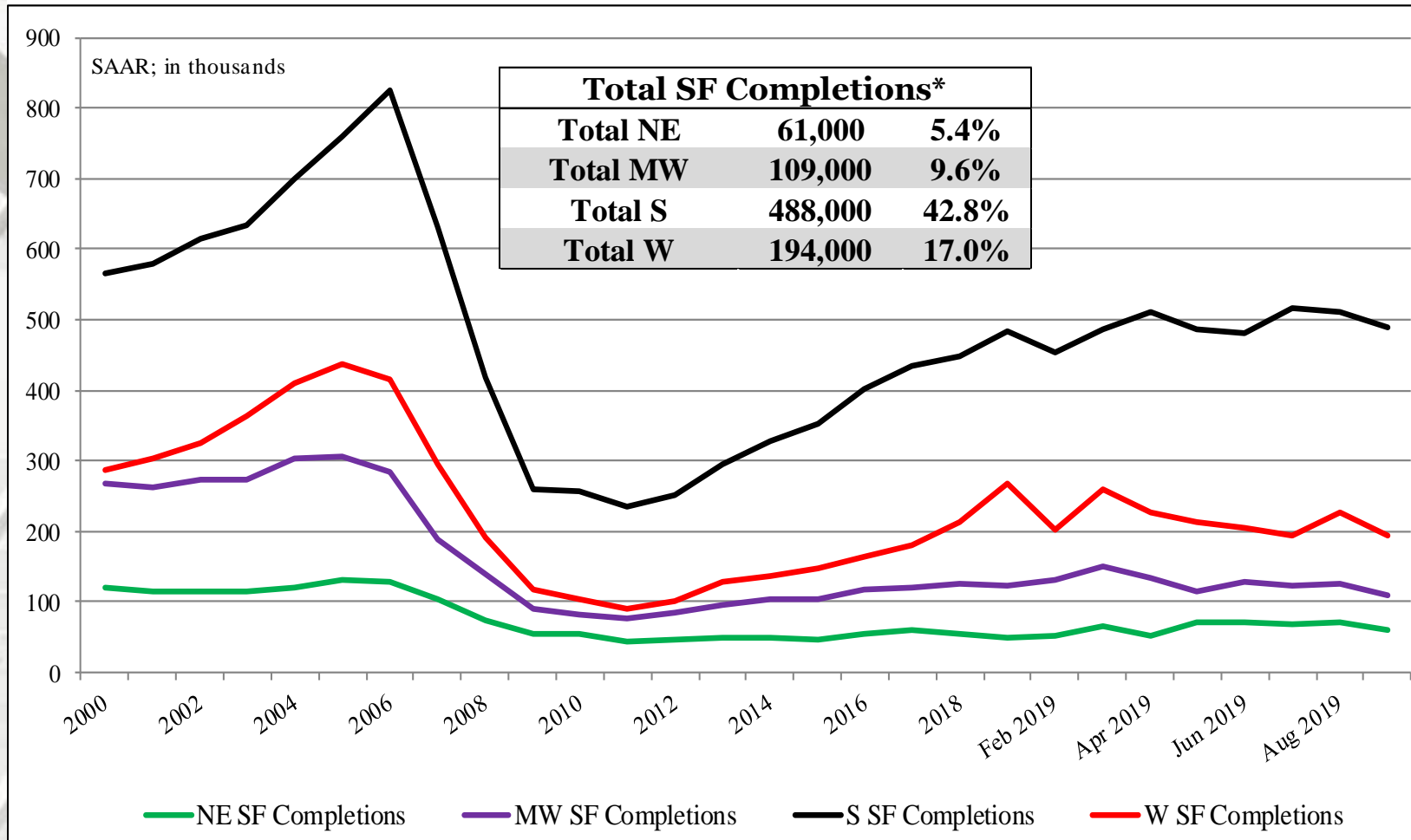


NE = Northeast, MW = Midwest, S = South, W = West

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

# SF Housing Completions by Region



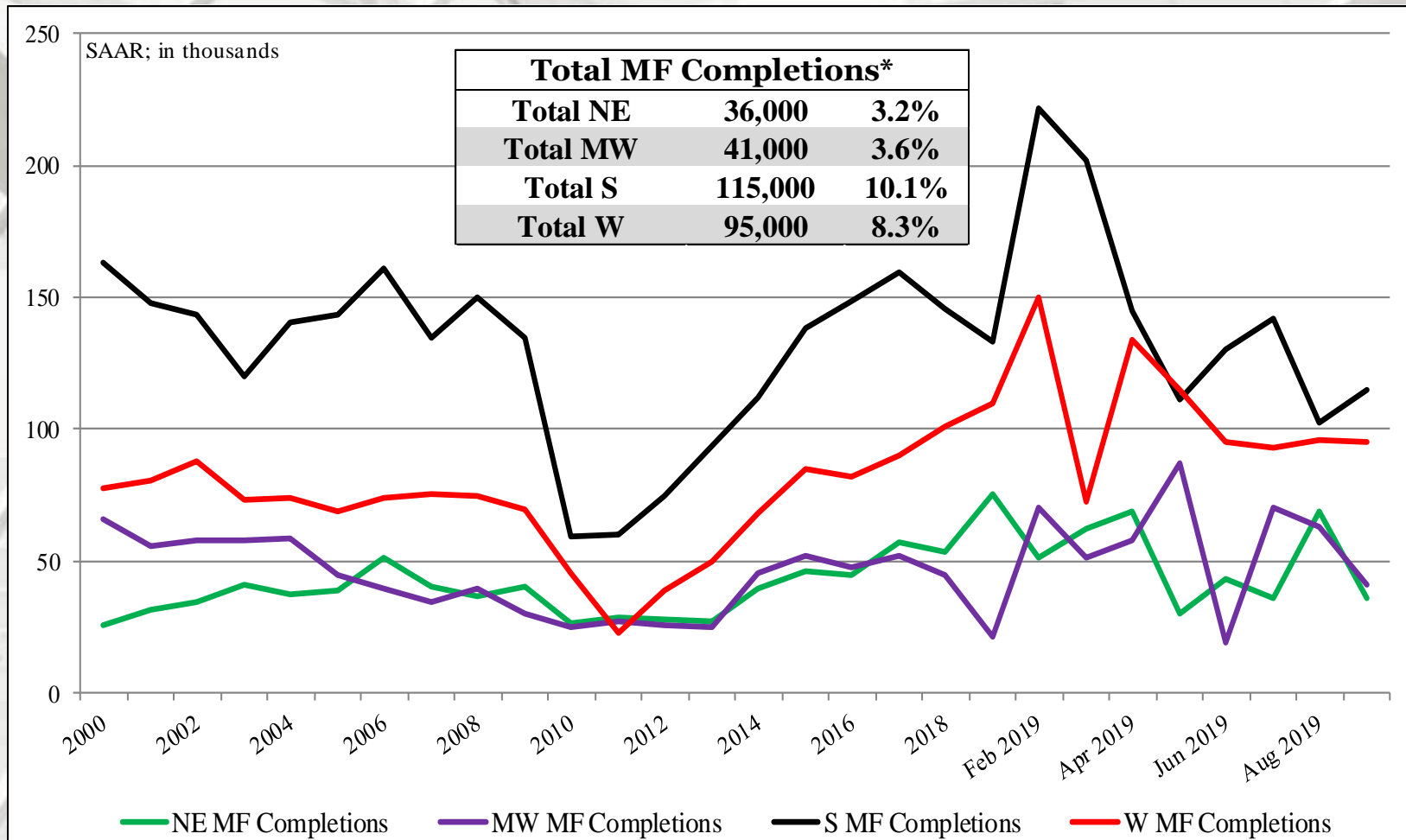
NE = Northeast, MW = Midwest, S = South, W = West

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

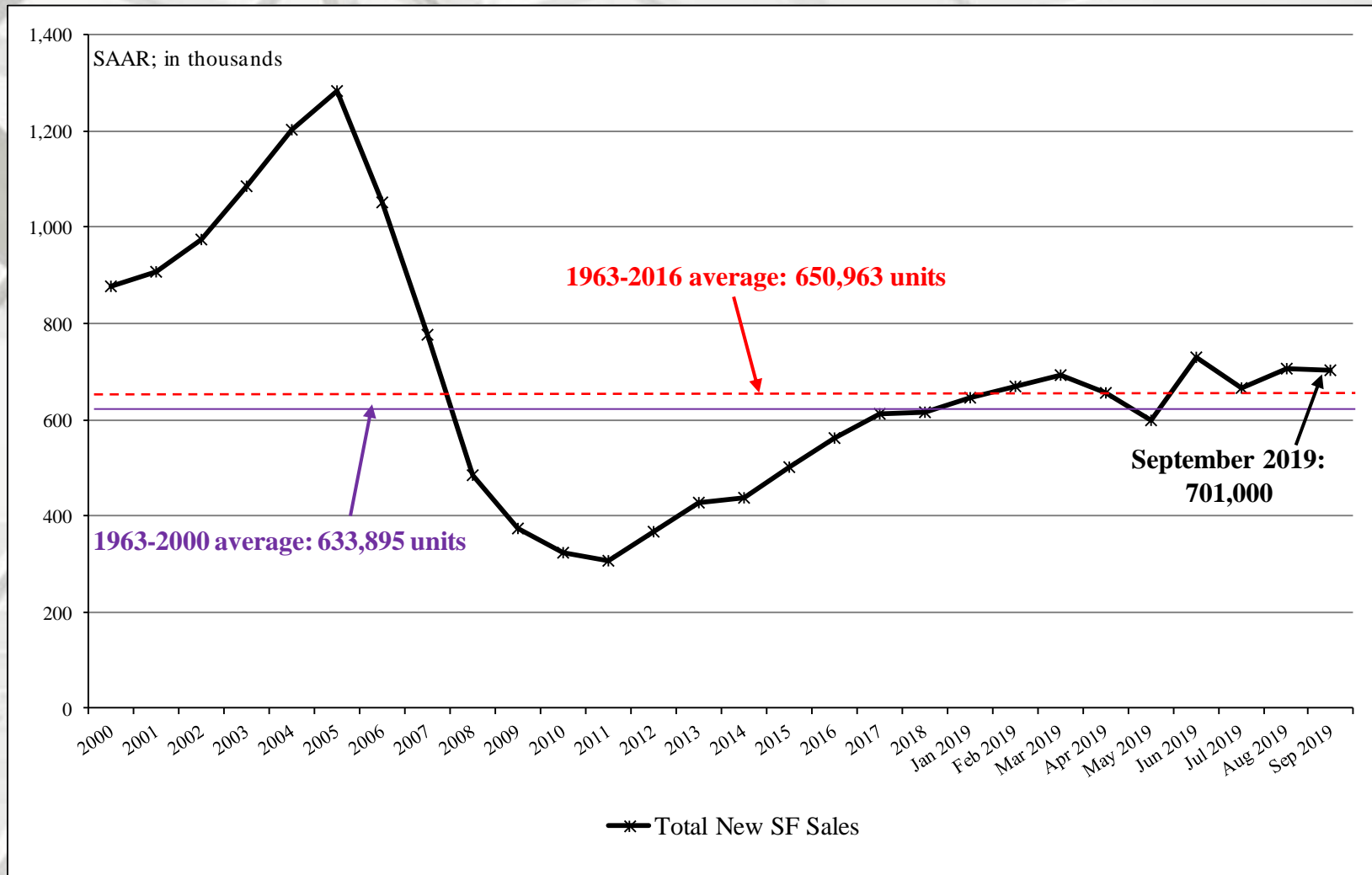
	New SF Sales*	Median Price	Mean Price	Month's Supply
September	701,000	\$299,400	\$362,700	5.5
August	706,000	\$325,200	\$394,800	5.5
2018	607,000	\$328,300	\$386,400	6.4
M/M change	-0.7%	-7.9%	-8.1%	0.0%
Y/Y change	15.5%	-8.8%	-6.1%	-14.1%

\* All new sales data are presented at a seasonally adjusted annual rate (SAAR)<sup>1</sup> and housing prices are adjusted at irregular intervals<sup>2</sup>.

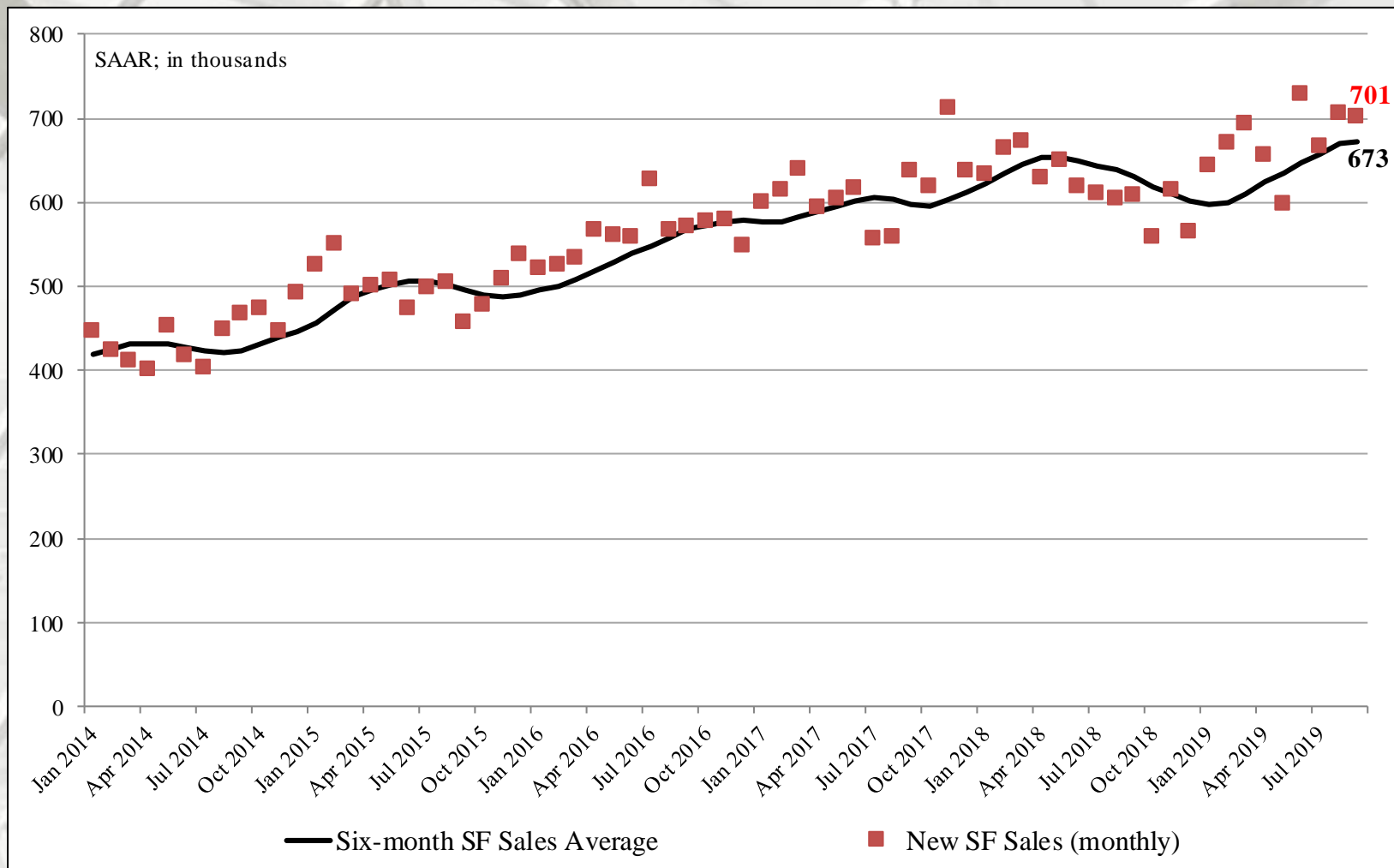
New SF sales were more than the consensus forecast<sup>3</sup> of 698 m (range: 675 m to 730 m). The past three month's new SF sales data also were revised:

June initial: 646 m revised to 729 m;  
 July initial: 635 m revised to 665 m;  
 August initial: 713 m revised to 706 m.

# New SF House Sales



# New SF Housing Sales: Six-month average & monthly



## New SF House Sales by Region and Price Category

	NE	MW	S	W			
September	35,000	67,000	424,000	175,000			
August	36,000	63,000	425,000	182,000			
2018	27,000	81,000	342,000	157,000			
M/M change	-2.8%	6.3%	-0.2%	-3.8%			
Y/Y change	29.6%	-17.3%	24.0%	11.5%			
	\$150 - ≤ \$150m	\$200 - \$199.9m 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m	
September <sup>1,2,3,4</sup>	2,000	6,000	19,000	13,000	5,000	7,000	2,000
August	1,000	5,000	19,000	12,000	8,000	8,000	4,000
2018	1,000	3,000	16,000	10,000	8,000	5,000	3,000
M/M change	100.0%	20.0%	0.0%	8.3%	-37.5%	-12.5%	-50.0%
Y/Y change	100.0%	100.0%	18.8%	30.0%	-37.5%	40.0%	-33.3%
New SF sales: %	3.7%	11.1%	35.2%	24.1%	9.3%	13.0%	3.7%

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

<sup>1</sup> All data are SAAR

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

<sup>3</sup> Detail September not add to total because of rounding.

<sup>4</sup> Housing prices are adjusted at irregular intervals.

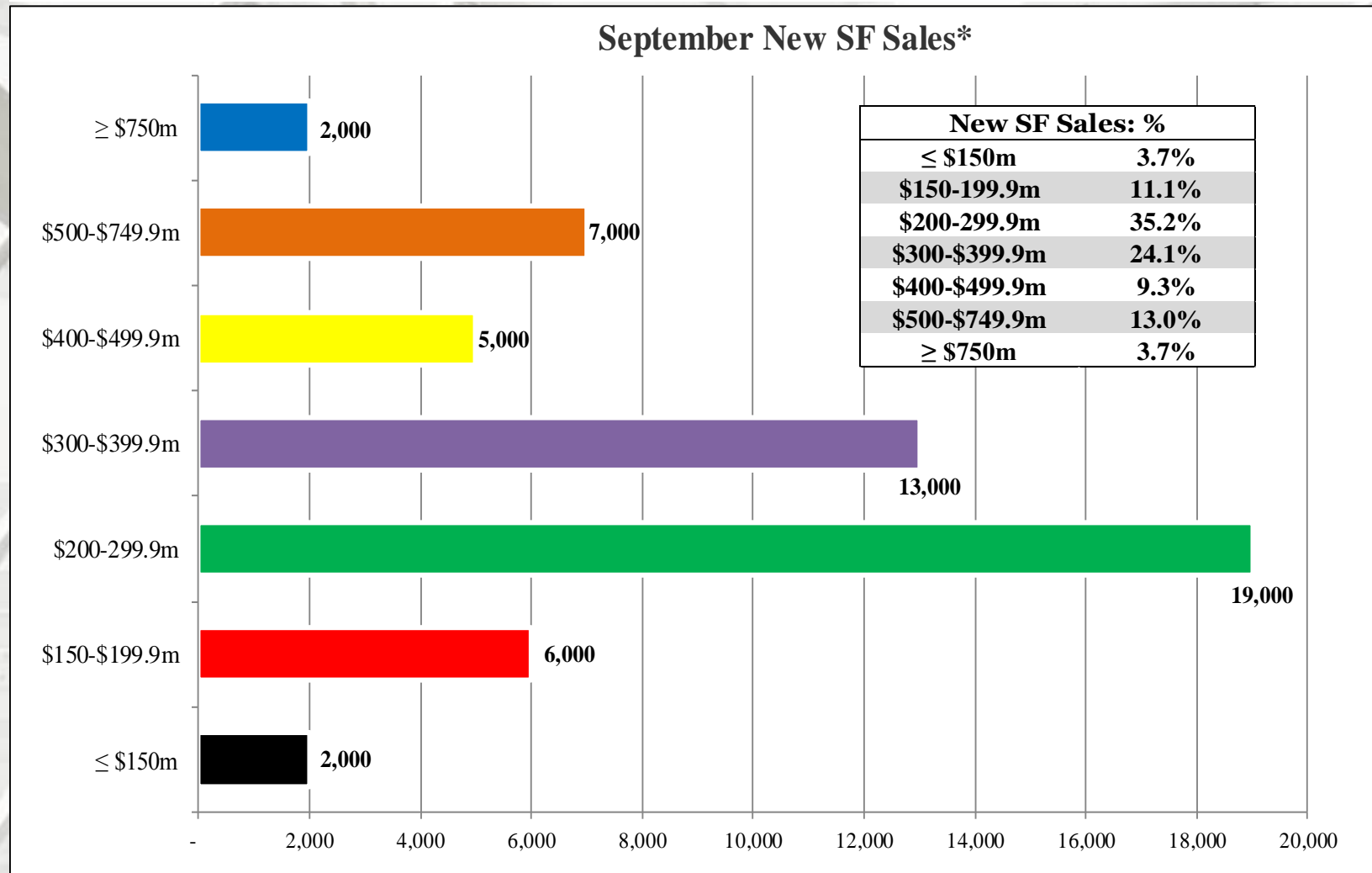
<sup>5</sup> Z = Less than 500 units or less than 0.5 percent

Sources: <sup>1,2,3</sup> <https://www.census.gov/construction/nrs/index.html>; 10/24/19;

<sup>4</sup> [https://www.census.gov/construction/cpi/pdf/descpi\\_sold.pdf](https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf)



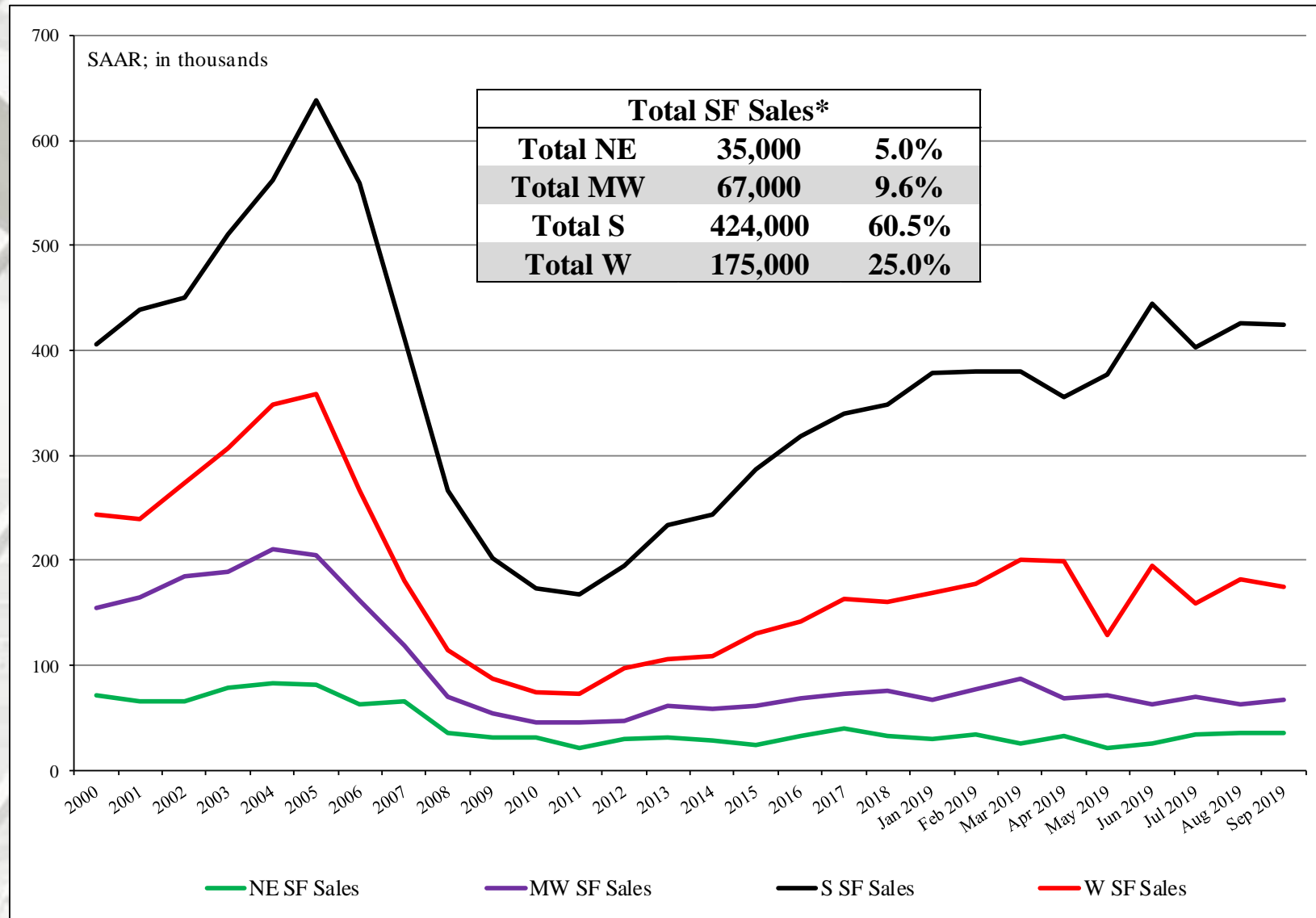
# New SF House Sales



- Total new sales by price category and percent.

Note September sales do not total to 100 percent due to insufficient data in the less than \$150,000 category.

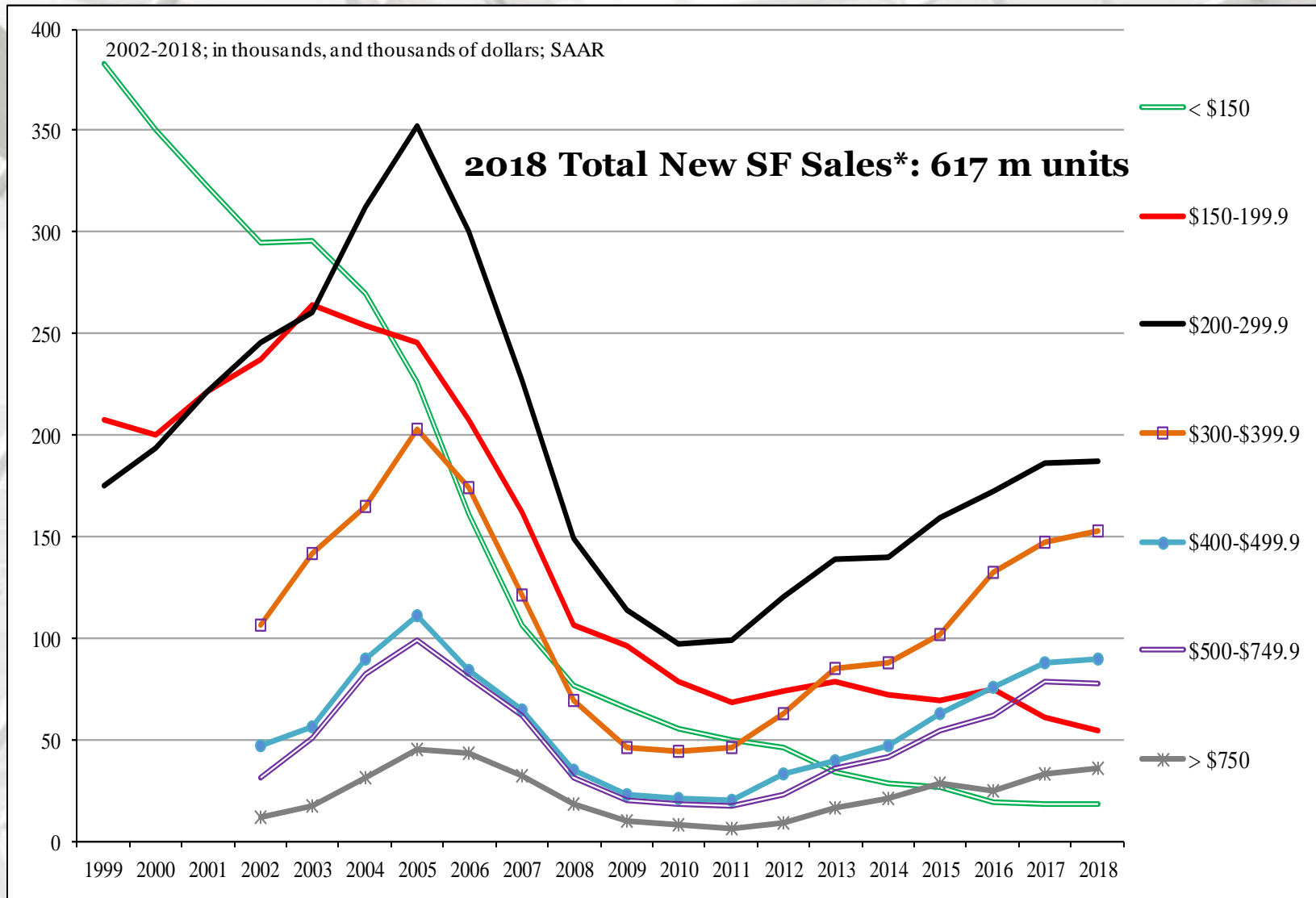
# New SF House Sales by Region



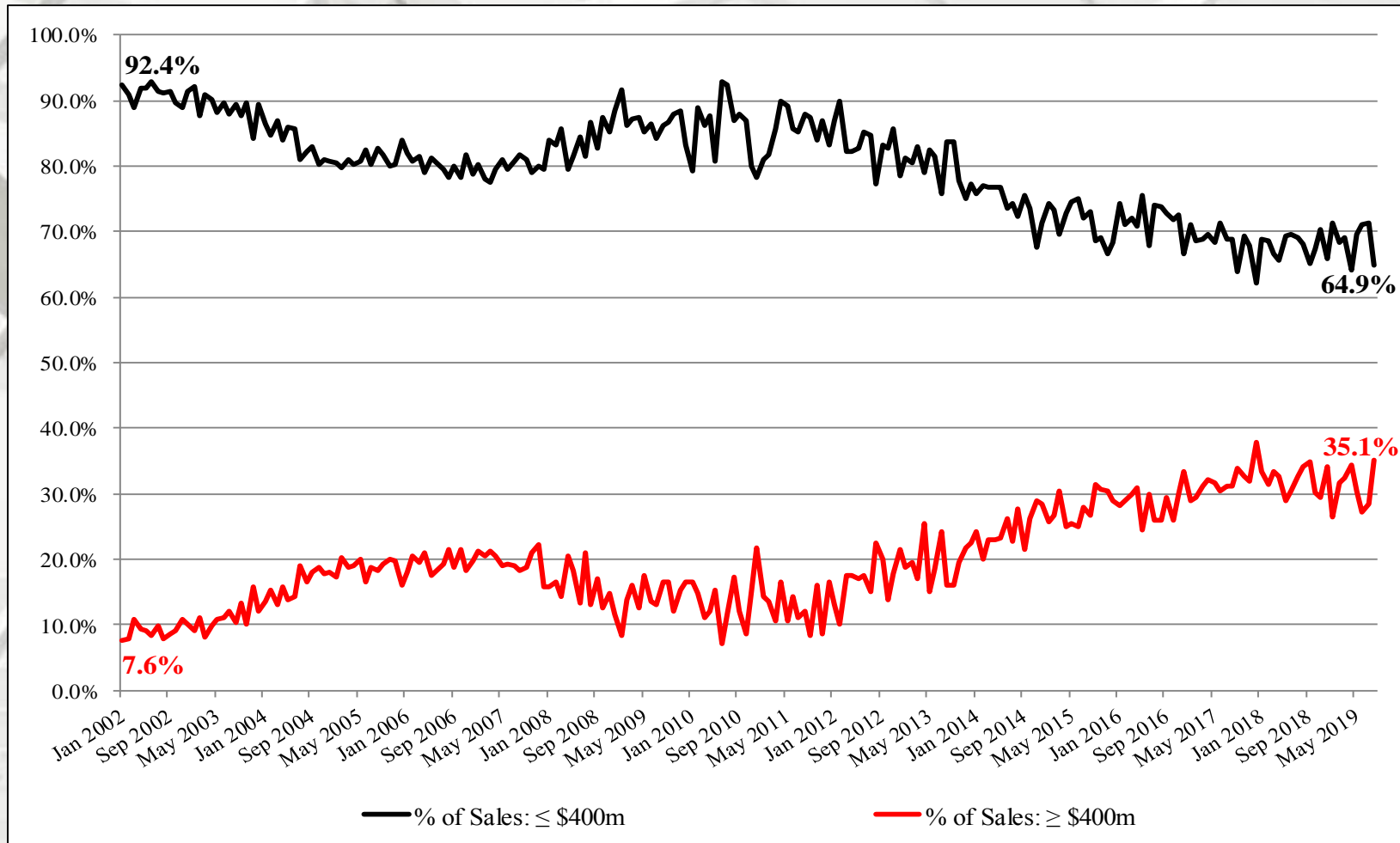
NE = Northeast; MW = Midwest; S = South; W = West

\* Percentage of total new sales.

# New SF House Sales by Price Category



# New SF House Sales



## New SF Sales \$400m houses: 2002 – September 2019

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

# New SF House Sales



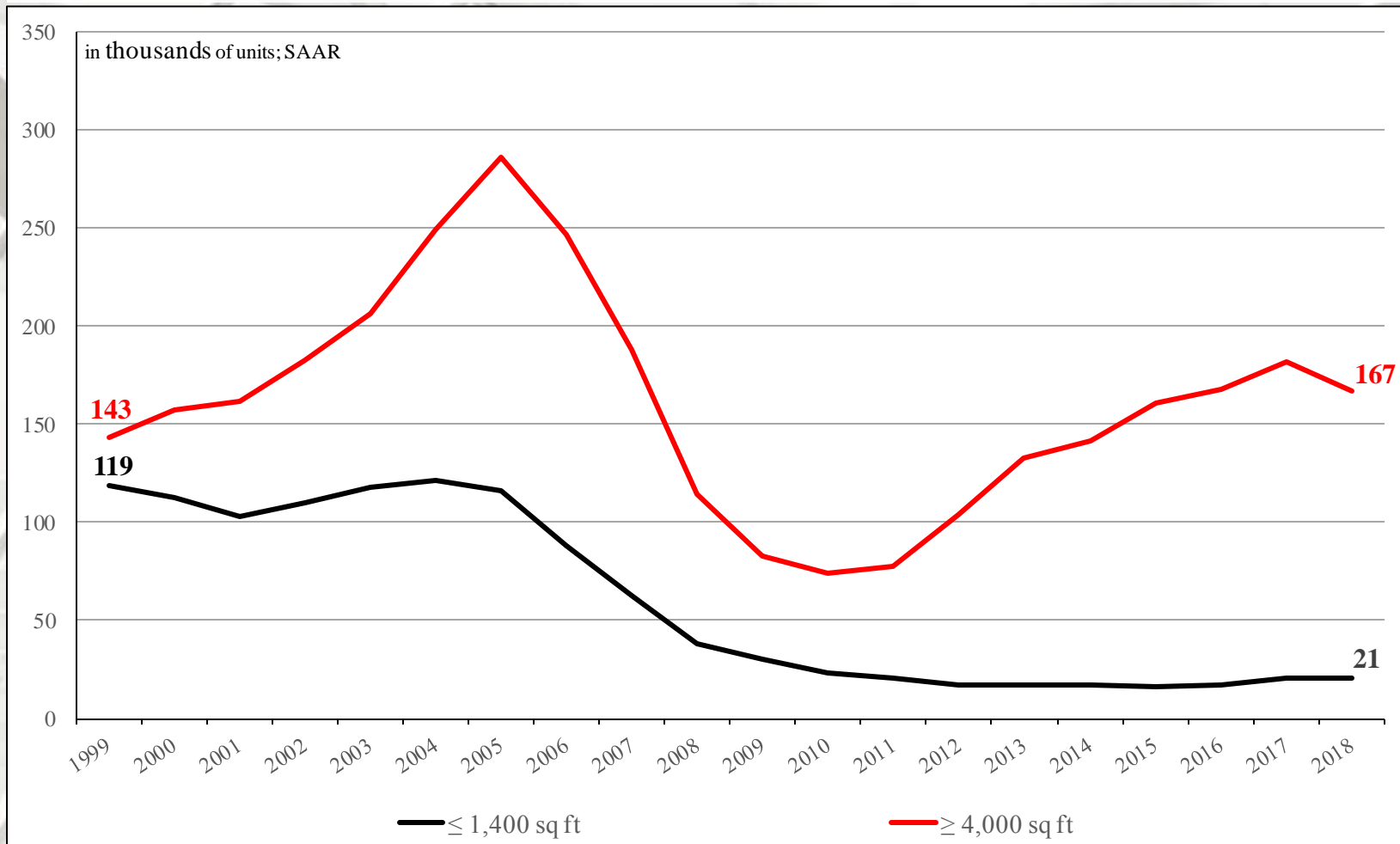
## New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to September 2019

The number of ≤ \$200 thousand plus SF houses has declined dramatically since 2002<sup>1,2</sup>. 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.



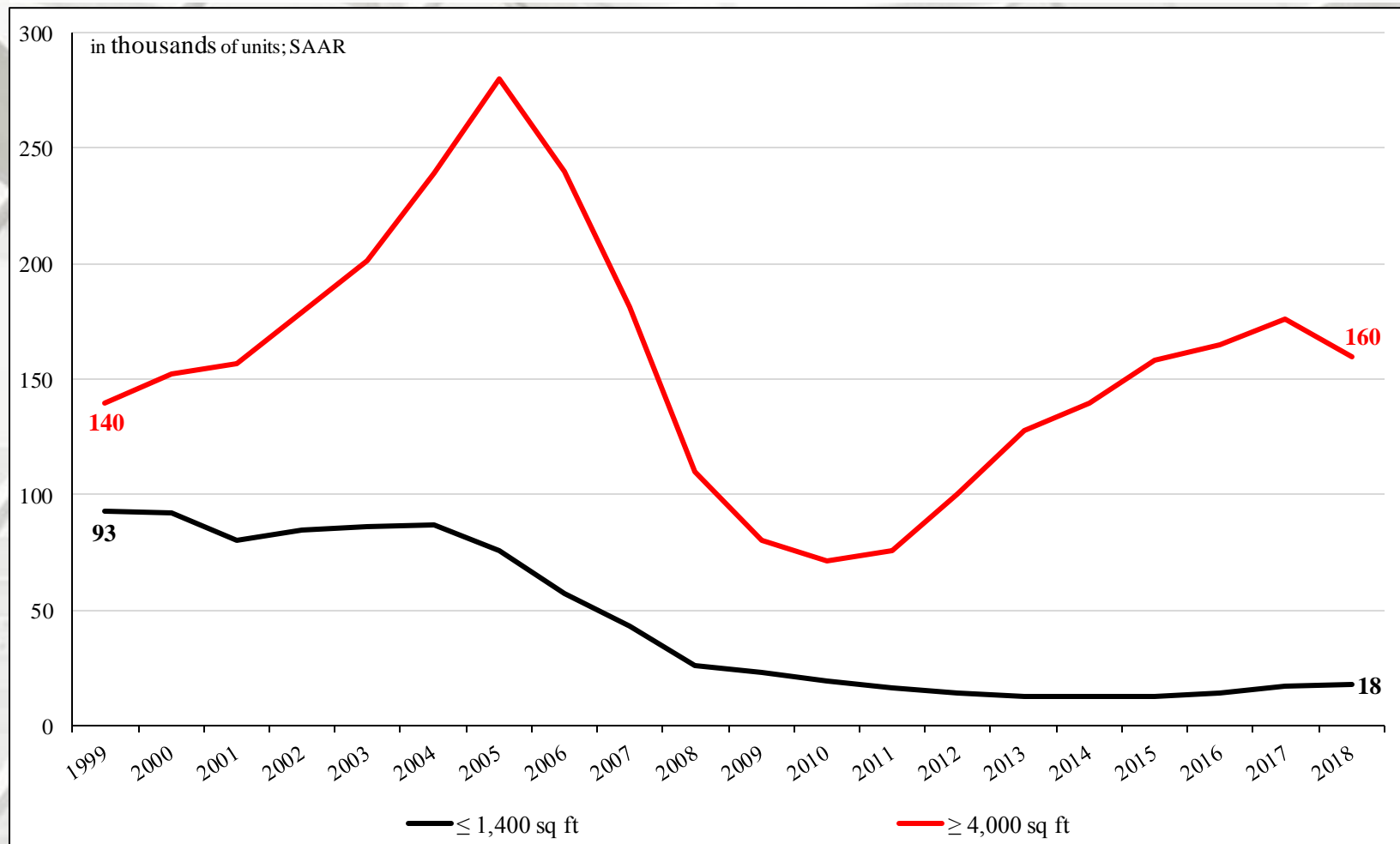
# Total New SF House Sales by Square Feet of Floor Area



## Total new SF Sales: ≤ 1,400 square feet and ≥ 4,000 square feet: 1999 to 2018

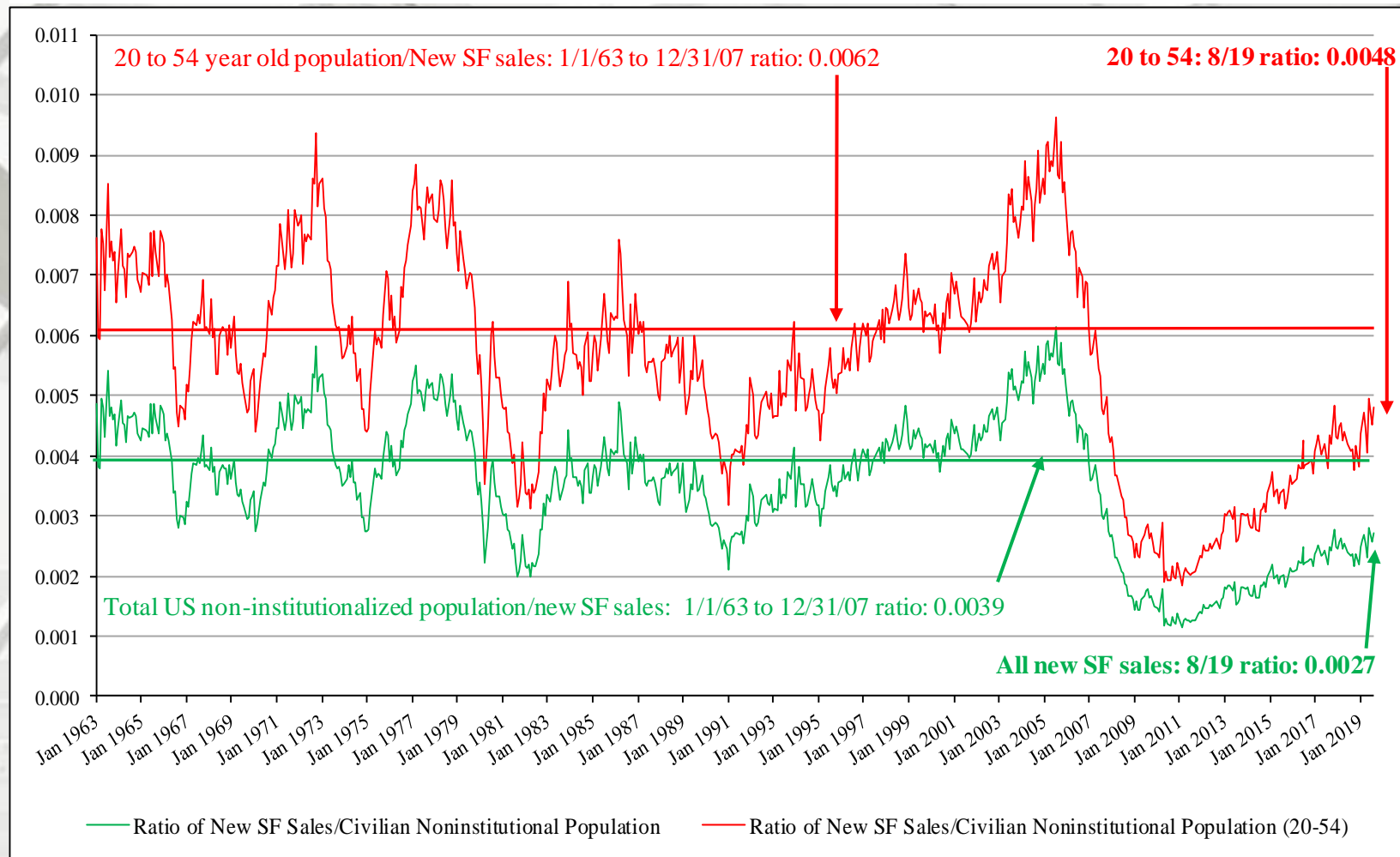
The number of SF houses sold ( $\geq 4,000$  sq ft) has risen dramatically since 2010 in comparison to the  $\leq 1,400$  sq ft houses. Some of the most oft mentioned reasons for this is builder net margins and regulation.

# New Detached SF House Sales by Square Feet of Floor Area



**New Detached SF Sales: ≤ 1,400 square feet and ≥ 4,000 square feet: 1999 to 2018**

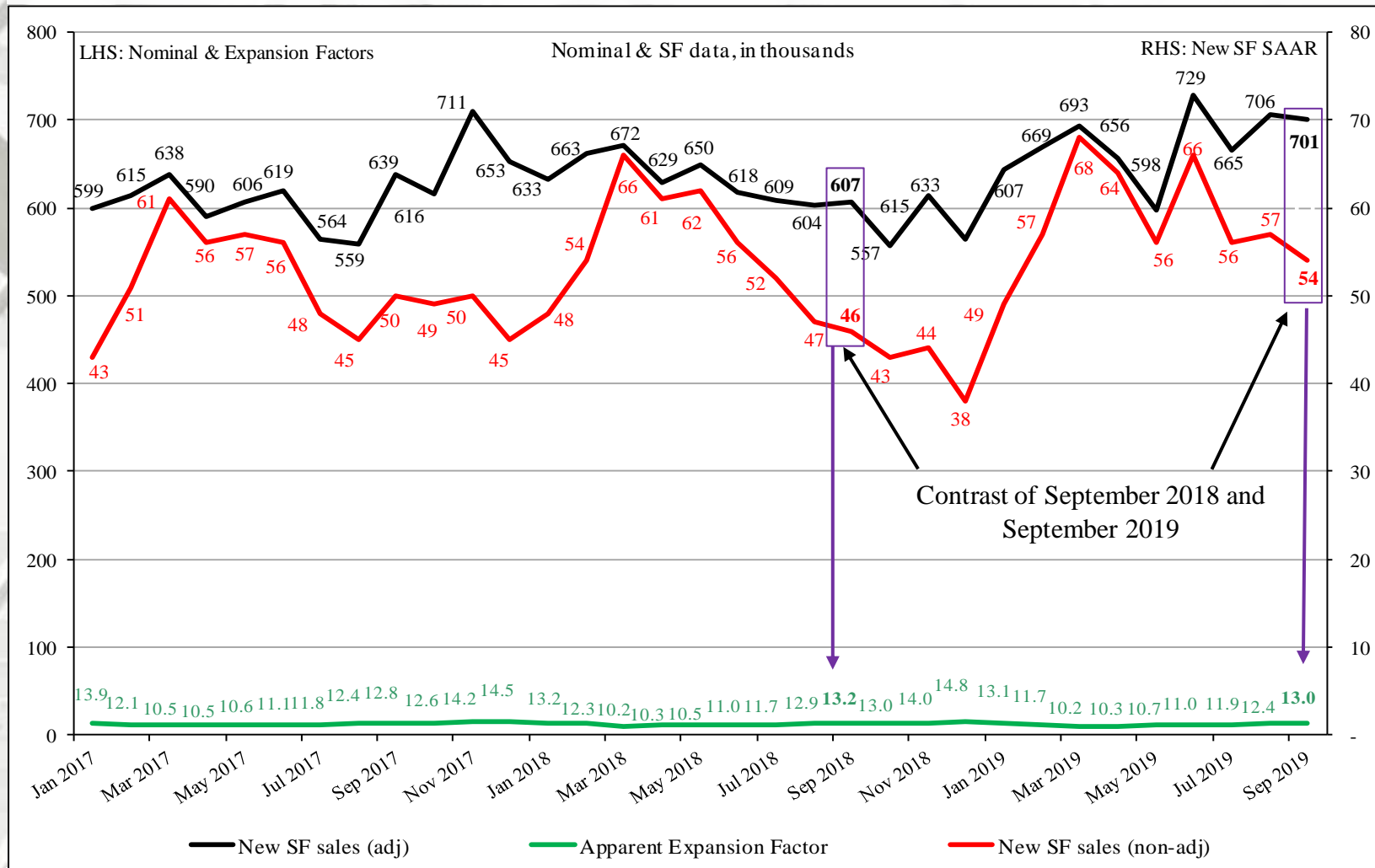
# New SF House Sales



## New SF sales adjusted for the US population

From September 1963 to September 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in September 2019 it was 0.0024 – an increase from July (0.0028). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in September 2019 it was 0.0043 – an increase from July (0.0049). All are non-adjusted data. From a population viewpoint, construction is less than what is necessary for changes in the population (i.e., under-building).

# Nominal vs. SAAR New SF House Sales



## Nominal and Adjusted New SF Monthly Sales

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

# New SF House Sales

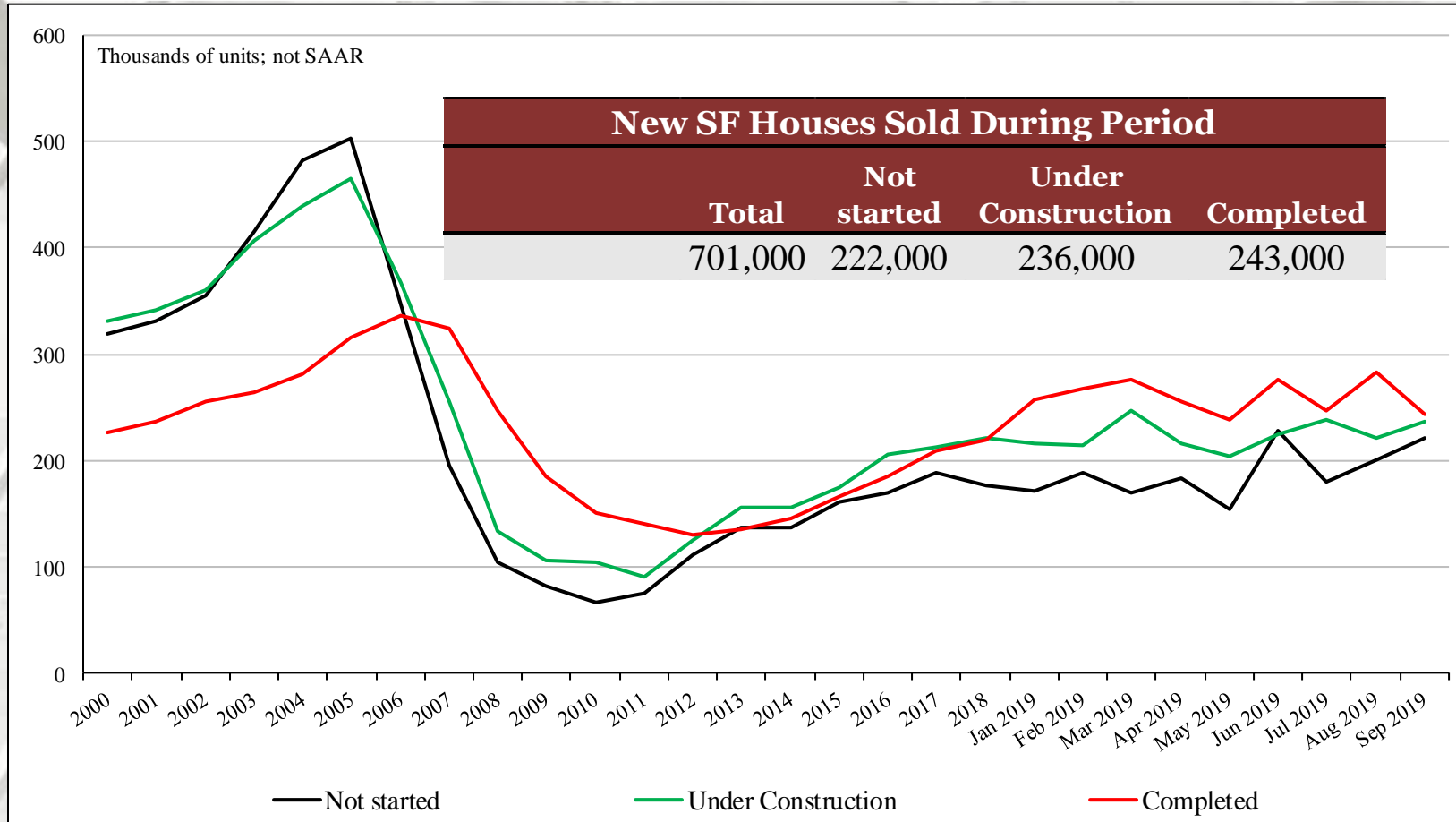
## New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
September	701,000	222,000	236,000	243,000
August	706,000	200,000	222,000	284,000
2018	607,000	183,000	210,000	214,000
M/M change	-0.7%	11.0%	6.3%	-14.4%
Y/Y change	15.5%	21.3%	12.4%	13.6%
Total percentage		31.7%	33.7%	34.7%

Not SAAR



# New SF House Sales: Sold During Period



Not SAAR

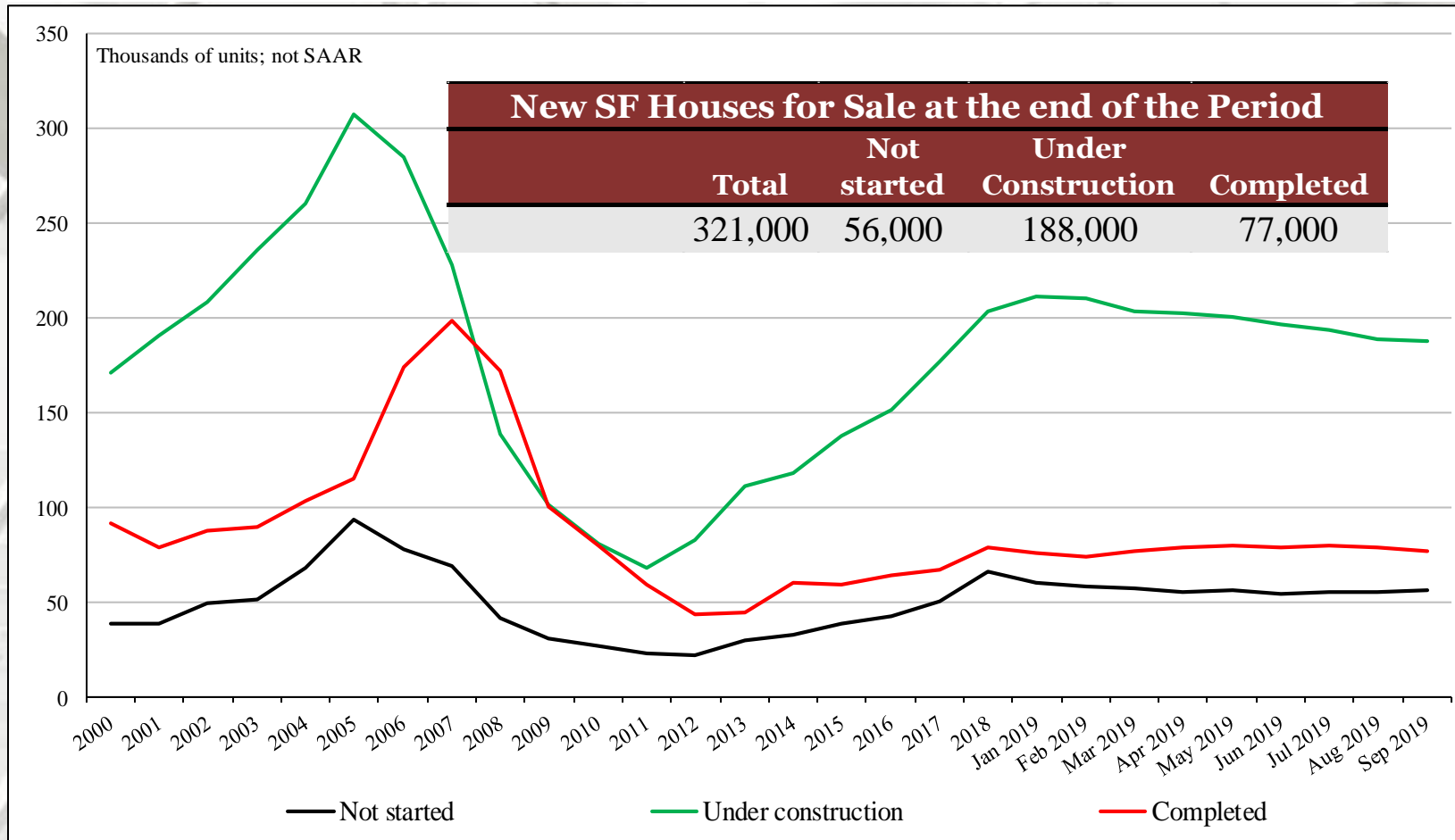
# New SF House Sales: For Sale at End of Period

## New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
September	321,000	56,000	188,000	77,000
August	323,000	55,000	189,000	79,000
2018	324,000	56,000	198,000	70,000
M/M change	-0.6%	1.8%	-0.5%	-2.5%
Y/Y change	-0.9%	0.0%	-5.1%	10.0%
Total percentage		17.4%	58.6%	24.0%

Not SAAR

# New SF Houses for Sale at End of Period



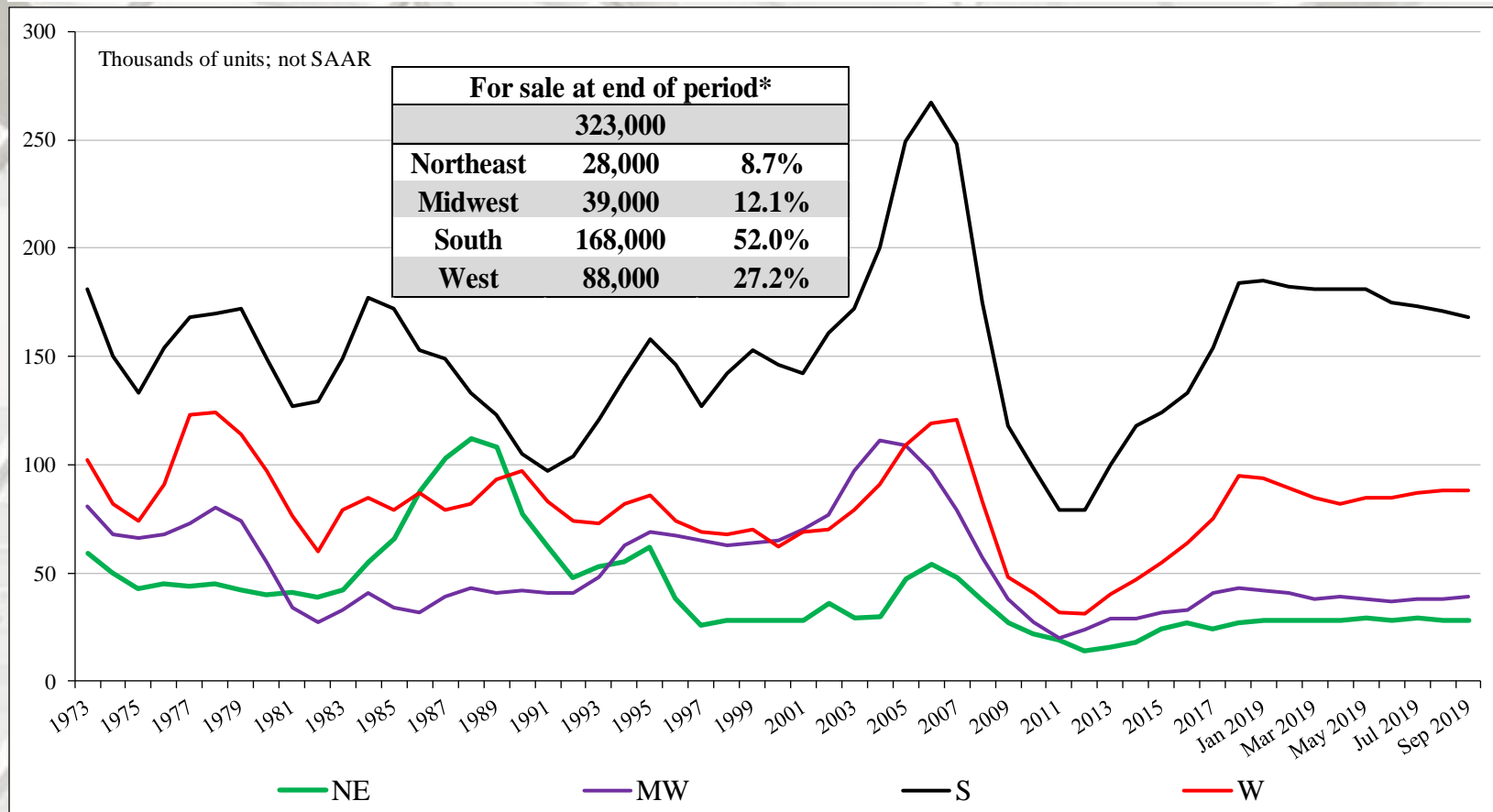
# New SF House Sales

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

	Total	NE	MW	S	W
September	323,000	28,000	39,000	168,000	88,000
August	326,000	29,000	38,000	173,000	87,000
2018	326,000	26,000	41,000	173,000	87,000
M/M change	-0.9%	-3.4%	2.6%	-2.9%	1.1%
Y/Y change	-0.9%	7.7%	-4.9%	-2.9%	1.1%

Not SAAR

# New SF Houses Sale at End of Period by Region



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

\* Percentage of new SF sales.



# New SF Housing

## MBA Research

### Chart of the Week

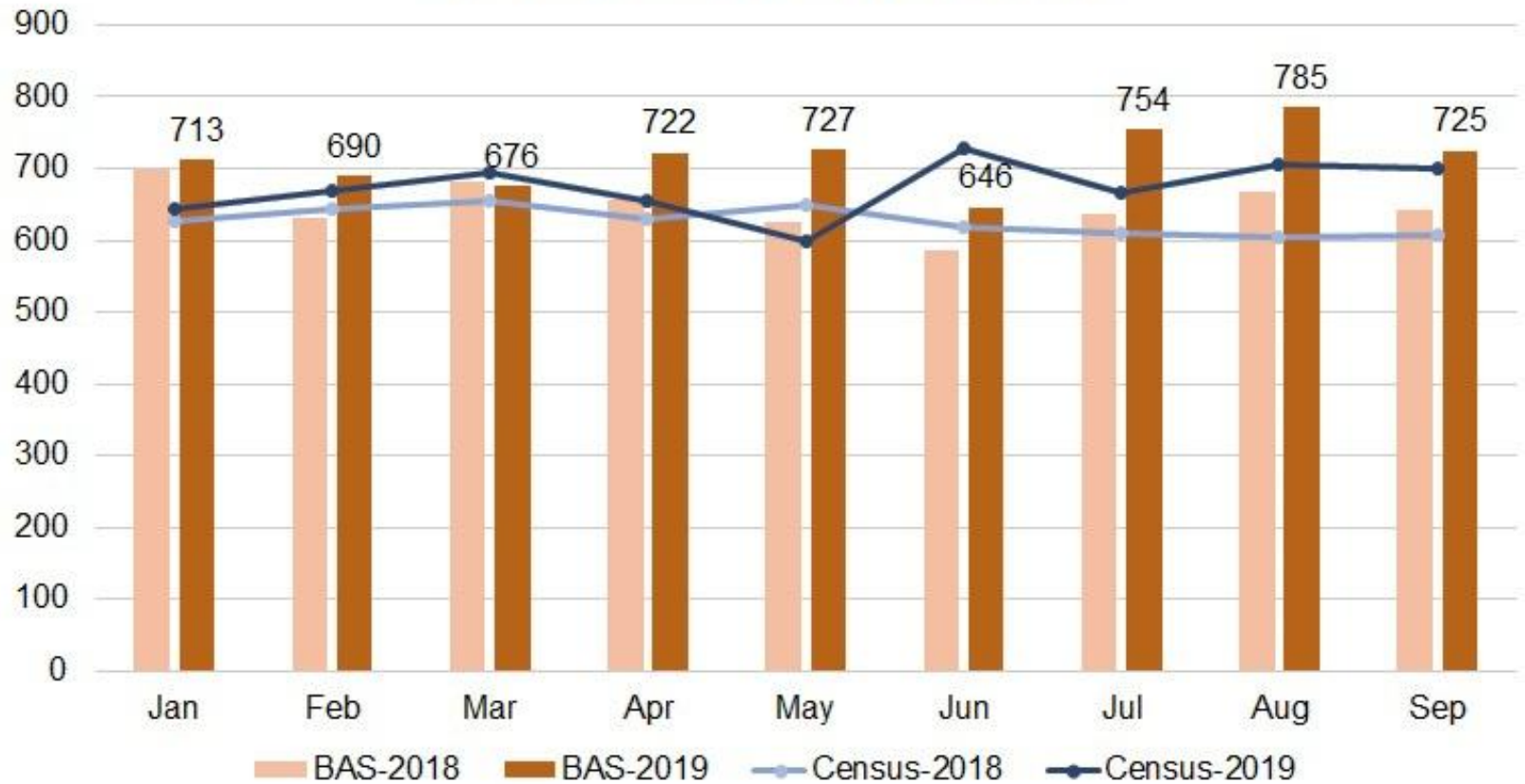
“According to data from our Builder Applications Survey (BAS), new home purchase activity fell in September but remained higher than a year ago, continuing a trend where purchase demand for new homes for sale this year have consistently outpaced year ago levels. The U.S. Census Bureau series for new home sales has also shown a similar trend of year-over-year growth, and tracks closely to our BAS estimates shown in this week’s chart.

In a separate report from Census earlier this month single-family starts remained robust, increasing slightly to a pace of 918,000 units – the highest since May 2019. However, the increase in single-family starts was solely concentrated in the South. Most of the country still needs more new construction to meet job growth and demand. It is promising that single-family permits continued to rise, increasing for the fifth consecutive month.

This strength in new construction and new home sales should continue in the final months of the year, as a combination of a strong job market and low mortgage rates continue to create housing demand. The pick-up in new construction is a welcome sign that builders are moving to meet this demand. Buyer interest has been particularly robust among first-time home buyers, whose share of home sales continues to increase. Millennials’ interest in home ownership is strong, and should continue to support home sales growth heading into next year.” – Anh Doan, Associate Director and Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

# New SF Housing

**Chart of the Week- October 25, 2019**  
Builder Application Survey versus Census New Home Sales  
Seasonally Adjusted Annual Rate, Thousands



Source: MBA Builder Applications Survey

# September 2019 Construction Spending

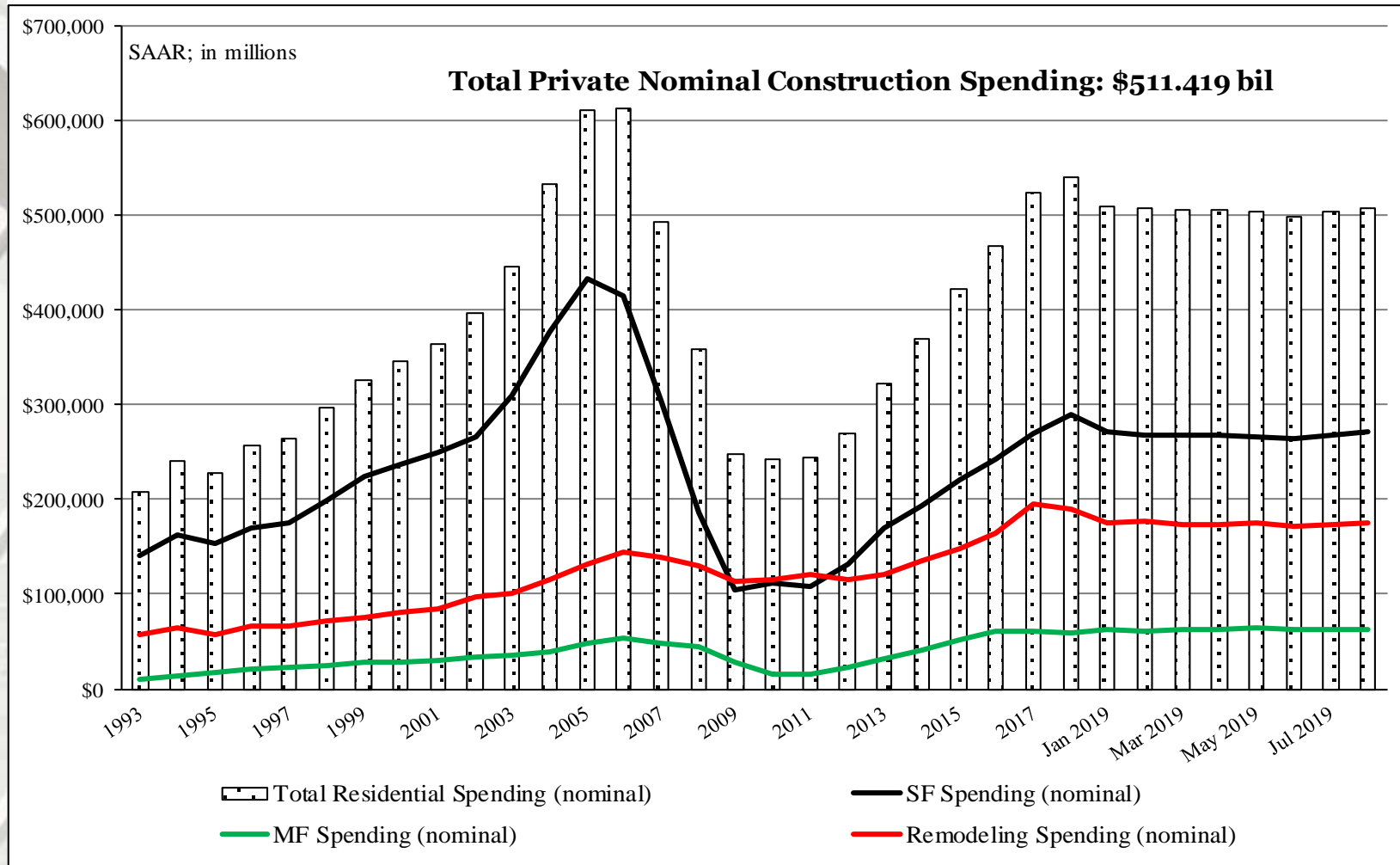
	Total Private Residential*	SF	MF	Improvement**
September	\$511,419	\$274,612	\$61,533	\$175,274
August	\$508,449	\$271,120	\$61,993	\$175,336
2018	\$530,462	\$288,848	\$60,959	\$180,655
M/M change	0.6%	1.3%	-0.7%	0.0%
Y/Y change	-3.6%	-4.9%	0.9%	-3.0%

\* 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 – September 2019

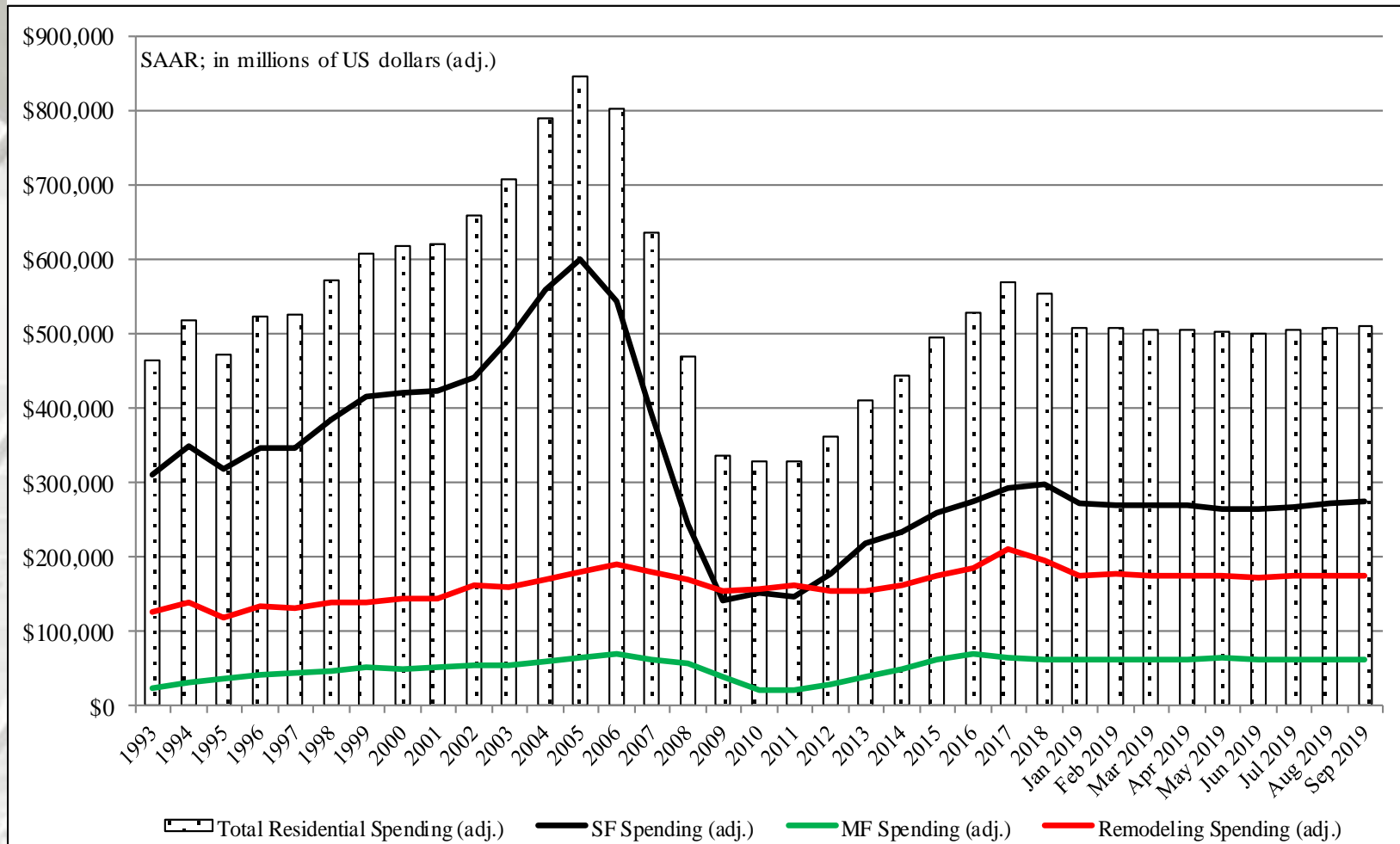


Reported in nominal US\$.

The US DOC does not report improvement spending directly, this is a monthly estimation for 2019.



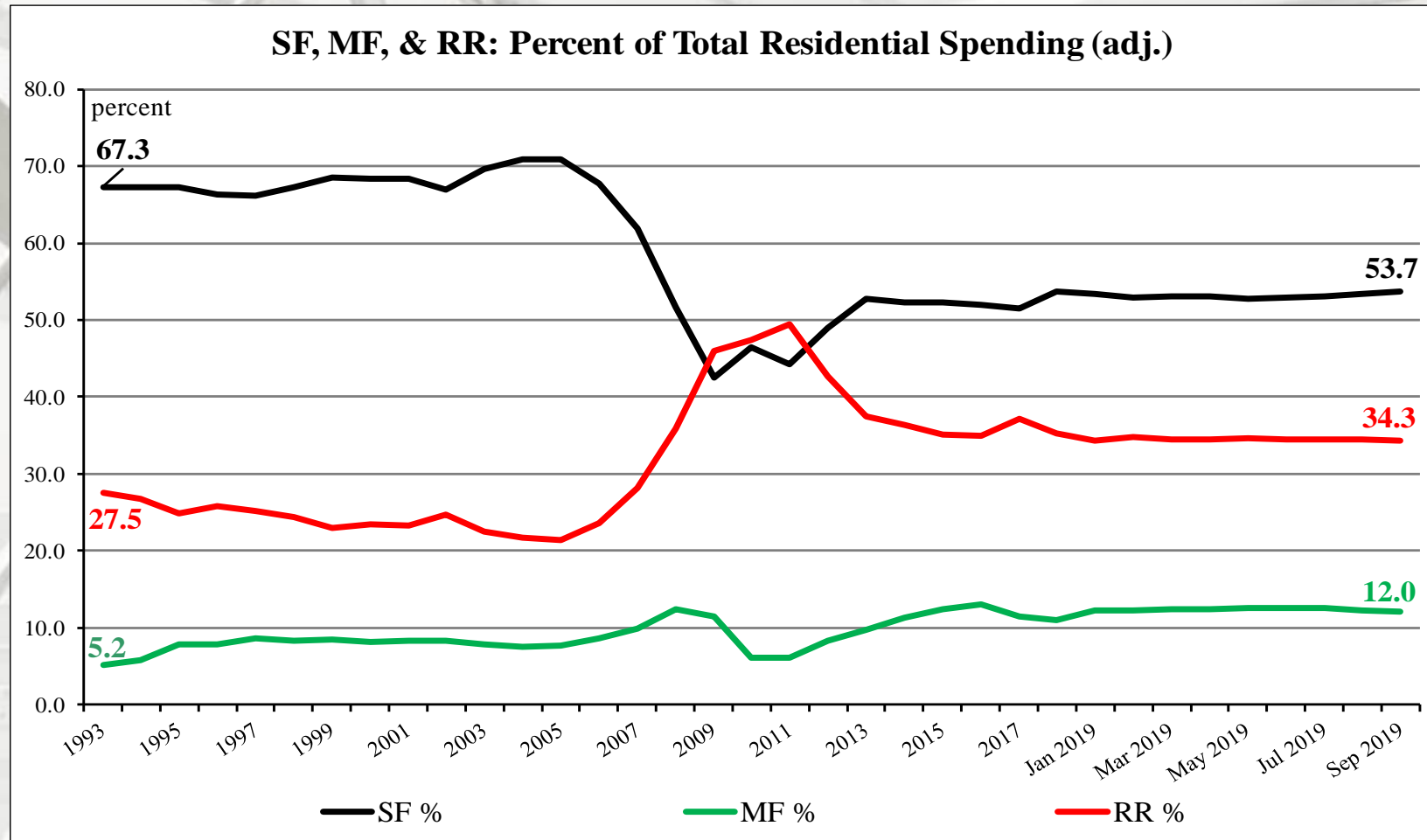
# Total Construction Spending (adjusted): 1993-2019\*



Reported in adjusted US\$: 1993 – 2018 (adjusted for inflation, BEA Table 1.1.9); \*January to September 2019 reported in nominal US\$.



# Construction Spending Shares: 1993 to September 2019



## Total Residential Spending: 1993 through 2006

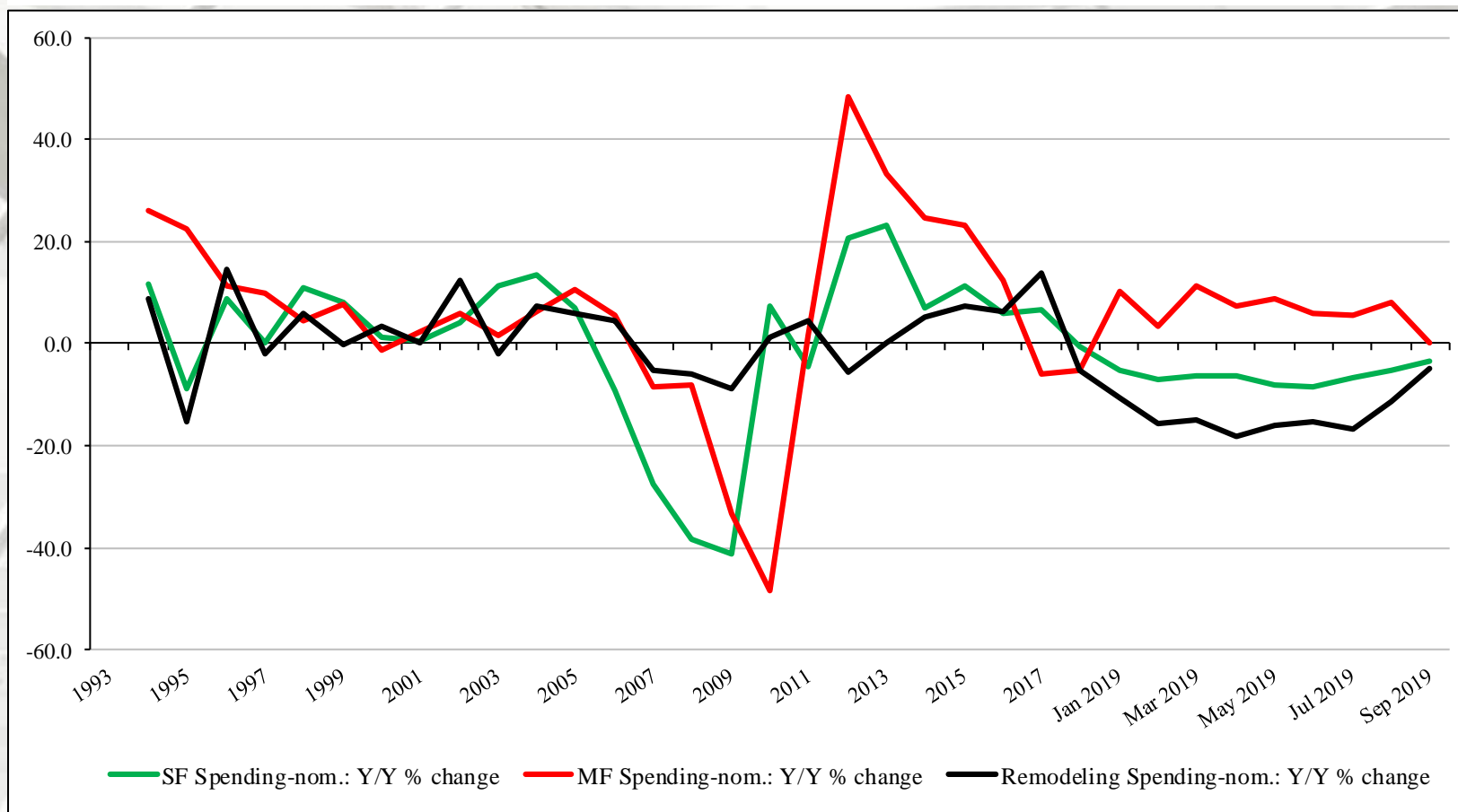
SF spending average: 69.2%

MF spending average: 7.5%

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

Note: 1993 to 2017 (adjusted for inflation, BEA Table 1.1.9); Jan-September 2018 reported in nominal US\$.

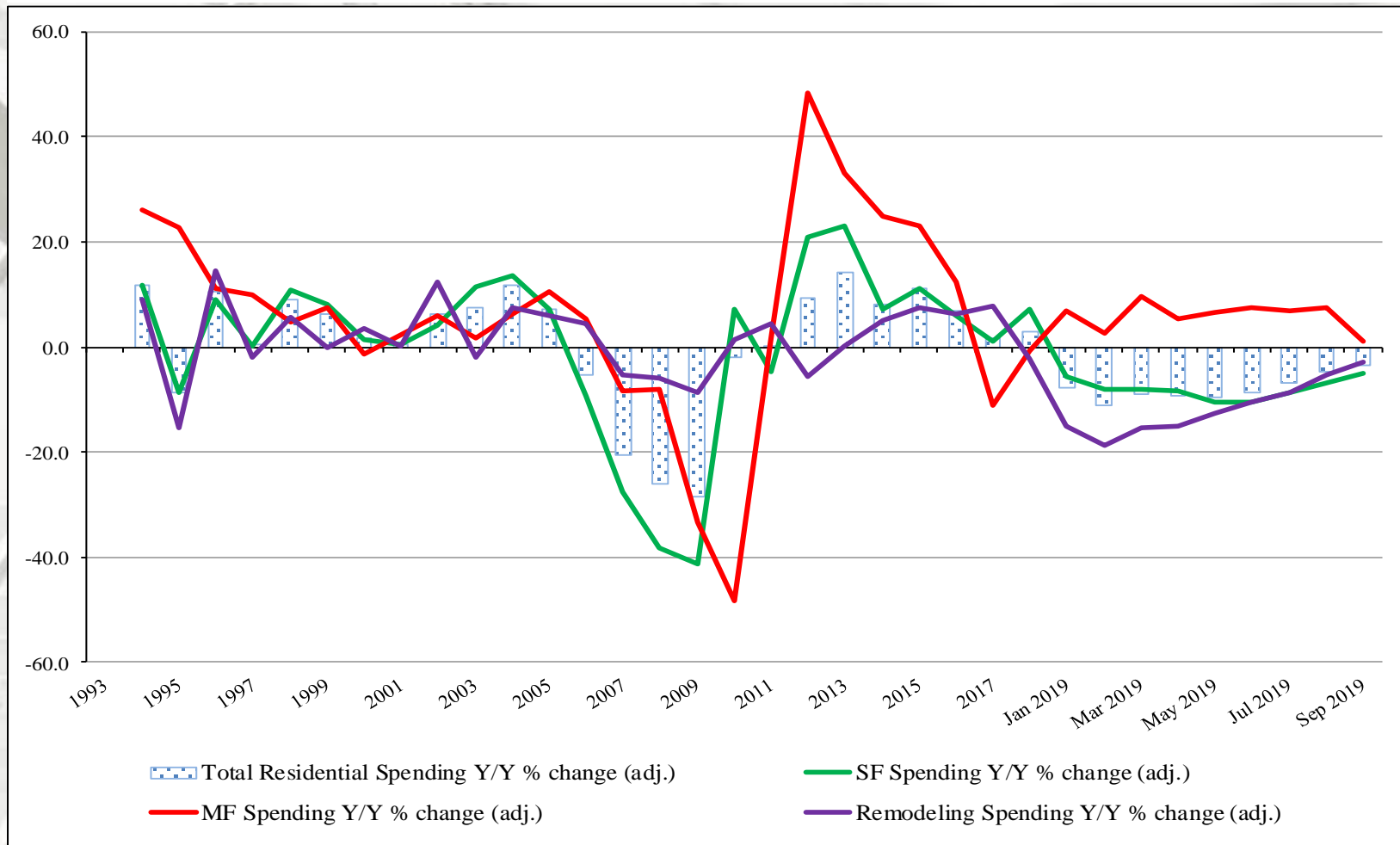
## Adjusted Construction Spending: Y/Y Percentage Change, 1993 to September 2019



## Nominal Residential Construction Spending: Y/Y percentage change, 1993 to September 2019

Presented above is the percentage change of inflation adjusted Y/Y construction spending. Only MF expenditures were positive on a percentage basis, year-over-year. 2019 data reported in nominal dollars.

# Total Adjusted Construction Spending: Y/Y Percentage Change, 1993 to September 2019



## Inflation Adjusted Residential Construction Spending: Y/Y percentage change, 1993 to September 2019

Only MF expenditures was positive in September, all others were negative; 2019 data reported in nominal dollars.

# Remodeling

## Harvard Joint Center for Housing Studies Remodeling Market Expected To Stall In 2020

“Annual gains in homeowner spending for improvements and repairs are set to give out by the second half of next year, according to our latest [Leading Indicator of Remodeling Activity \(LIRA\)](#). The LIRA projects that annual home improvement and maintenance expenditures will post a modest decline of 0.3 percent through the third quarter of 2020.

Continued weakness in existing home sales and new construction will lead to sluggish remodeling activity next year. Slowdowns in other key indicators of improvement spending — project permitting, sales of building materials, and home prices — also suggest the remodeling market may be reaching a turning point.

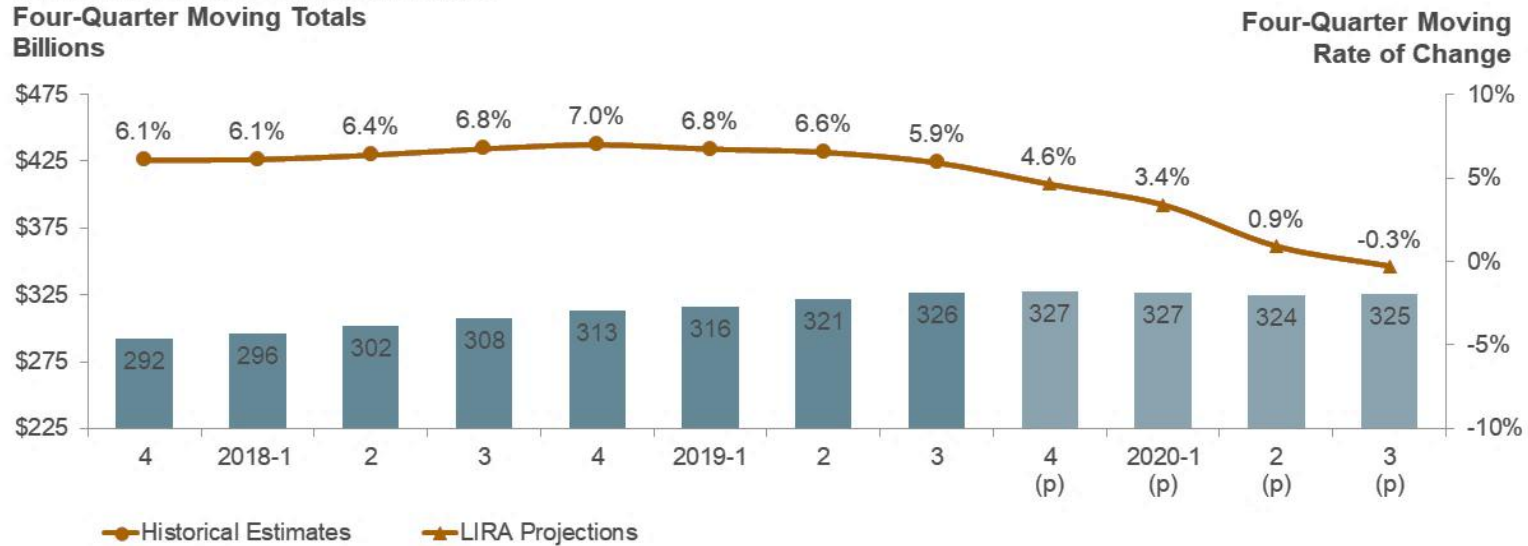
At \$325 billion, owner improvement and repair spending in the coming year is expected to essentially remain flat compared to market spending of \$326 billion over the past four quarters. However, today’s low mortgage interest rates may help counter some of these headwinds, which could buoy home improvement expenditure over the coming year.” – Abbe Will, Research Associate & Associate Project Director, Remodeling Futures; Harvard Joint Center for Housing Studies

# Remodeling

## Harvard Joint Center for Housing Studies Remodeling Market Expected To Stall In 2020

### Leading Indicator of Remodeling Activity – Third Quarter 2019

Homeowner Improvements & Repairs  
Four-Quarter Moving Totals  
Billions



Note: Historical estimates since 2017 are produced using the LIRA model until American Housing Survey benchmark data become available.

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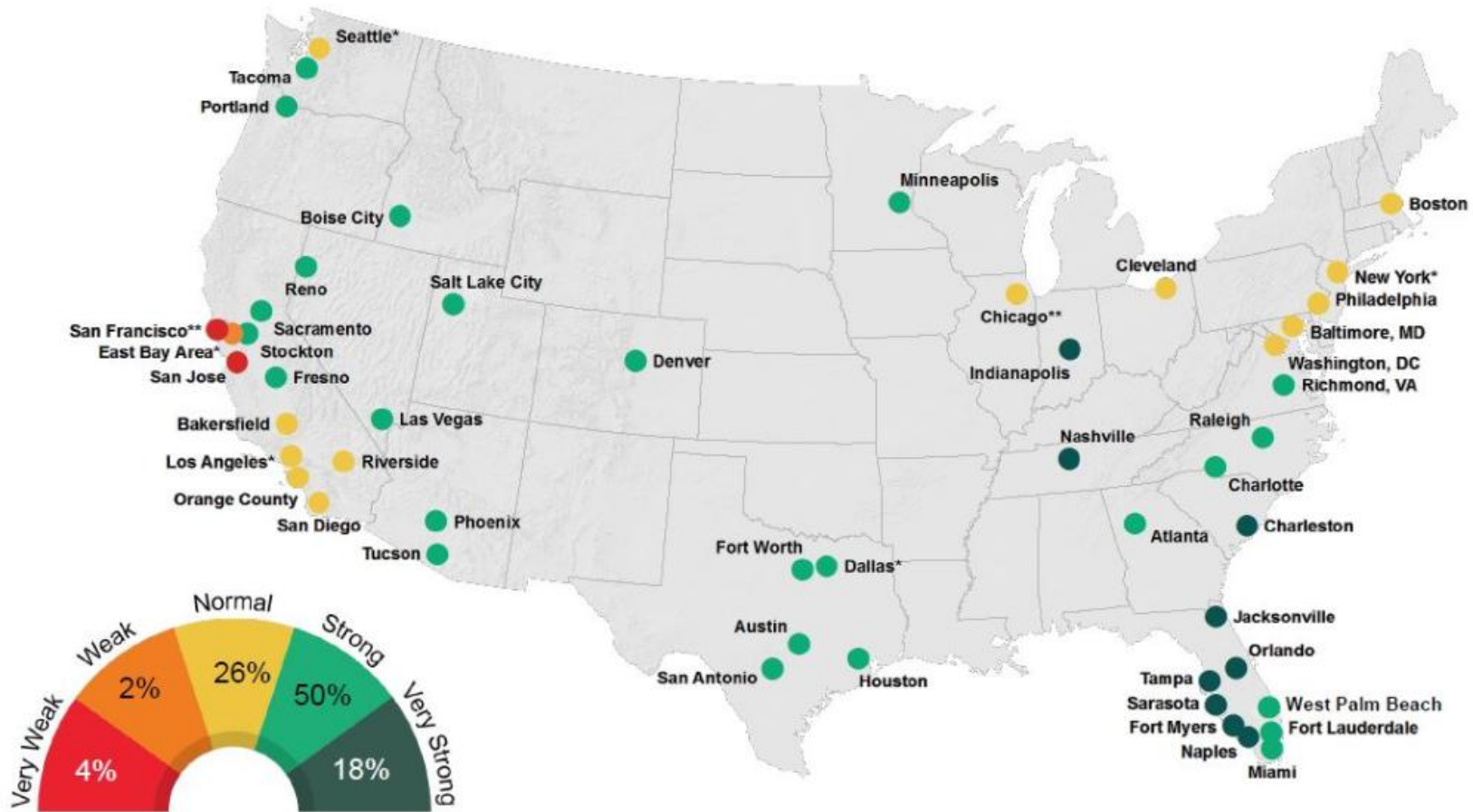
Joint Center for Housing Studies of Harvard University 



# Remodeling

## John Burns Real Estate Consulting

### 2019 Repair & Remodeling Spending Growth for Top 50 Housing Markets



Source: John Burns Real Estate Consulting, LLC (Pub: Oct-19)

“The residential repair and remodeling market is much stronger in the South and especially Florida. Low home price appreciation is hurting California and the Northeast.” – John Burns, President and CEO, John Burns Real Estate Consulting LLC

# Fannie Mae

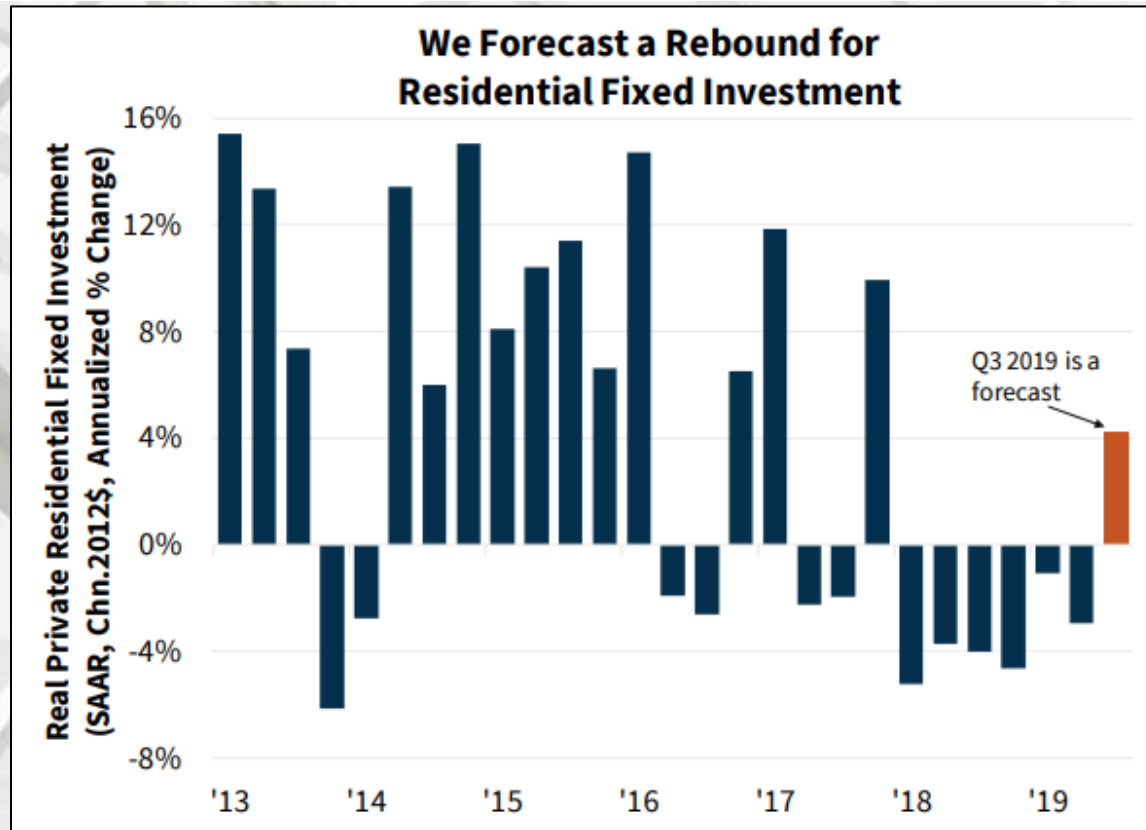
## Housing Should Help Drive Growth into 2020

“Third quarter 2019 residential fixed investment growth is expected to be positive for the first time since 2017. Increases in home sales, housing starts, and construction spending suggest housing will be supportive of growth, counteracting declining growth in business fixed investment and weak business inventory building. We revised downward our outlook on business investment and inventories in response to the General Motors shutdown, as well as the broader slowdown of the manufacturing sector, lowering our real gross domestic product (GDP) growth estimate for the third quarter by two-tenths to 1.7 percent annualized. The slowdown in growth will likely be temporary as we expect inventories to rebound and business investment to turn positive again in the final quarter of the year. Therefore, we maintained our top-line forecast for 2019 GDP growth at 2.2 percent. The GDP projection for 2020 rose one-tenth to 1.7 percent as we expect a still-solid labor market and gains in household wealth drive more consumer spending.

Our upward revision to 2020 U.S. GDP growth means a more positive outlook for housing. We expect total home sales in 2019 to increase by nearly 1.0 percent with another gain of about that magnitude in 2020. Housing starts were up across the forecast horizon with year-over-year growth expected in both 2019 and 2020, though they will remain below historical norms. The annual FHFA home price appreciation path was revised downward for 2019 as home price growth in recent months has been less sensitive to interest rate declines than previously expected, a signal that affordability constraints are still present in many markets. We continue to expect home price deceleration from 2019 but a persistently low interest rate environment likely means less slowdown than previously expected.” – Doug Duncan, SVP and Chief Economist, Mark Palim, VP and Deputy Chief Economist, Brad Case, Director, Rebecca Meeker, Financial Economist, Eric Brescia, Economist, Richard Goyette, Business Analyst; ESR Macroeconomic Forecast Team, Fannie Mae

# Fannie Mae

## Housing Should Help Drive Growth into 2020



### Housing Looks to Be on Solid Footing

“While we had previously anticipated that housing activity would contribute positively to third quarter GDP, recent housing data have come in stronger than expected, leading us to revise upward our forecast for residential fixed investment to 4.2 percent annualized in the third quarter. We expect this strength to provide momentum into the fourth quarter, putting the remainder of the year on a solid footing. What had been a drag on the economy for almost two years will now likely be a near-term source of strength. While the effect has been somewhat modest relative to historical experience, lower interest rates are now clearly supporting the housing market.” – Doug Duncan, SVP and Chief Economist, *et al.*; ESR Macroeconomic Forecast Team, Fannie Mae



# Existing House Sales

**National Association of Realtors**  
**September 2019 sales: 5.380 thousand**

	<b>Existing Sales</b>	<b>Median Price</b>	<b>Mean Price</b>	<b>Month's Supply</b>
September	5,380,000	\$272,100	\$308,500	4.1
August	5,500,000	\$278,900	\$315,000	4.0
2018	5,180,000	\$256,900	\$296,000	4.4
M/M change	-2.2%	-2.4%	-2.1%	2.5%
Y/Y change	3.9%	5.9%	4.2%	-6.8%

All sales data: SAAR

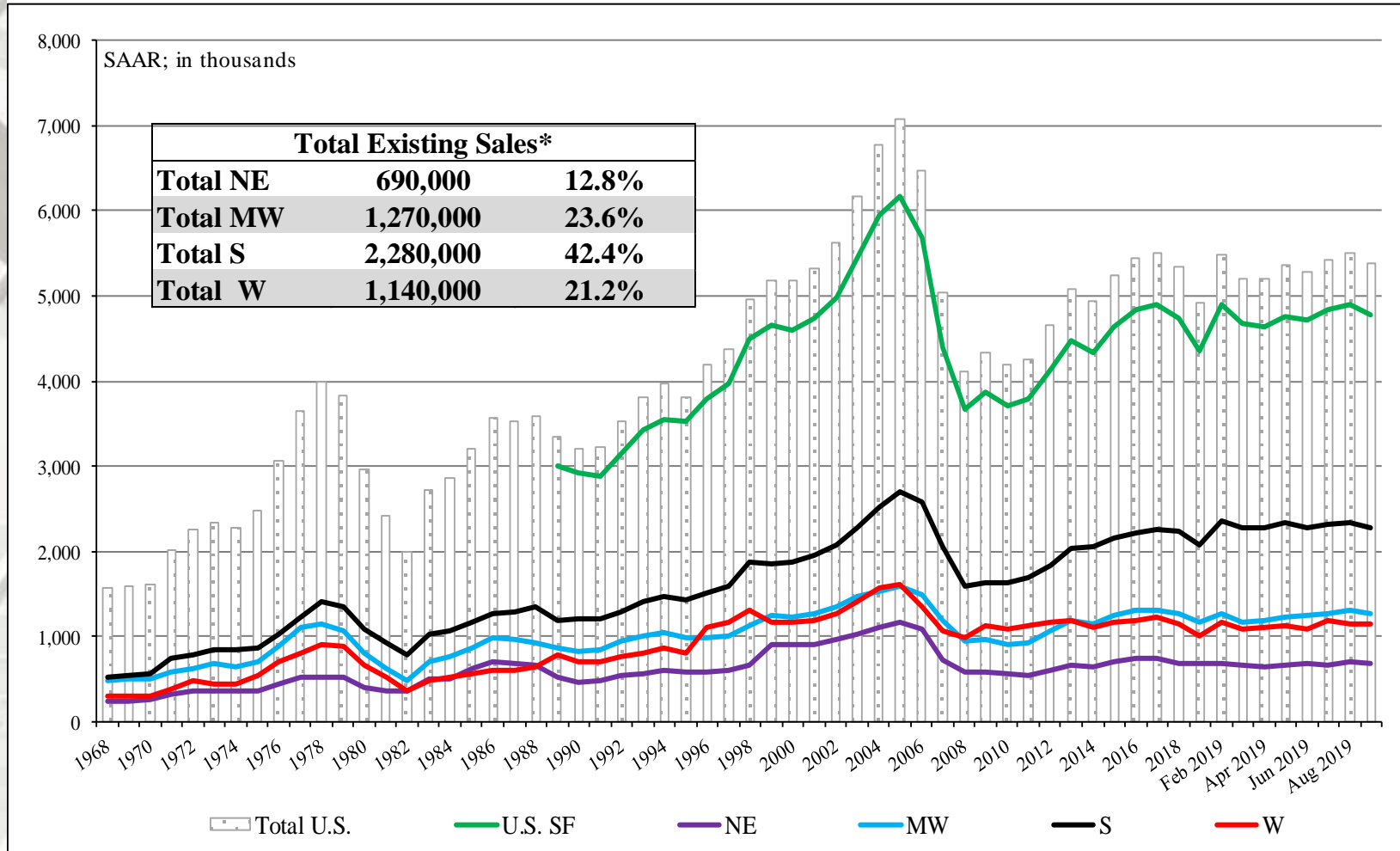
# Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price
September	4,780,000	275,100	310,500
August	4,910,000	281,900	317,000
2018	4,600,000	259,300	297,300
M/M change	-2.6%	-2.4%	-2.1%
Y/Y change	3.9%	6.1%	4.4%

All sales data: SAAR.



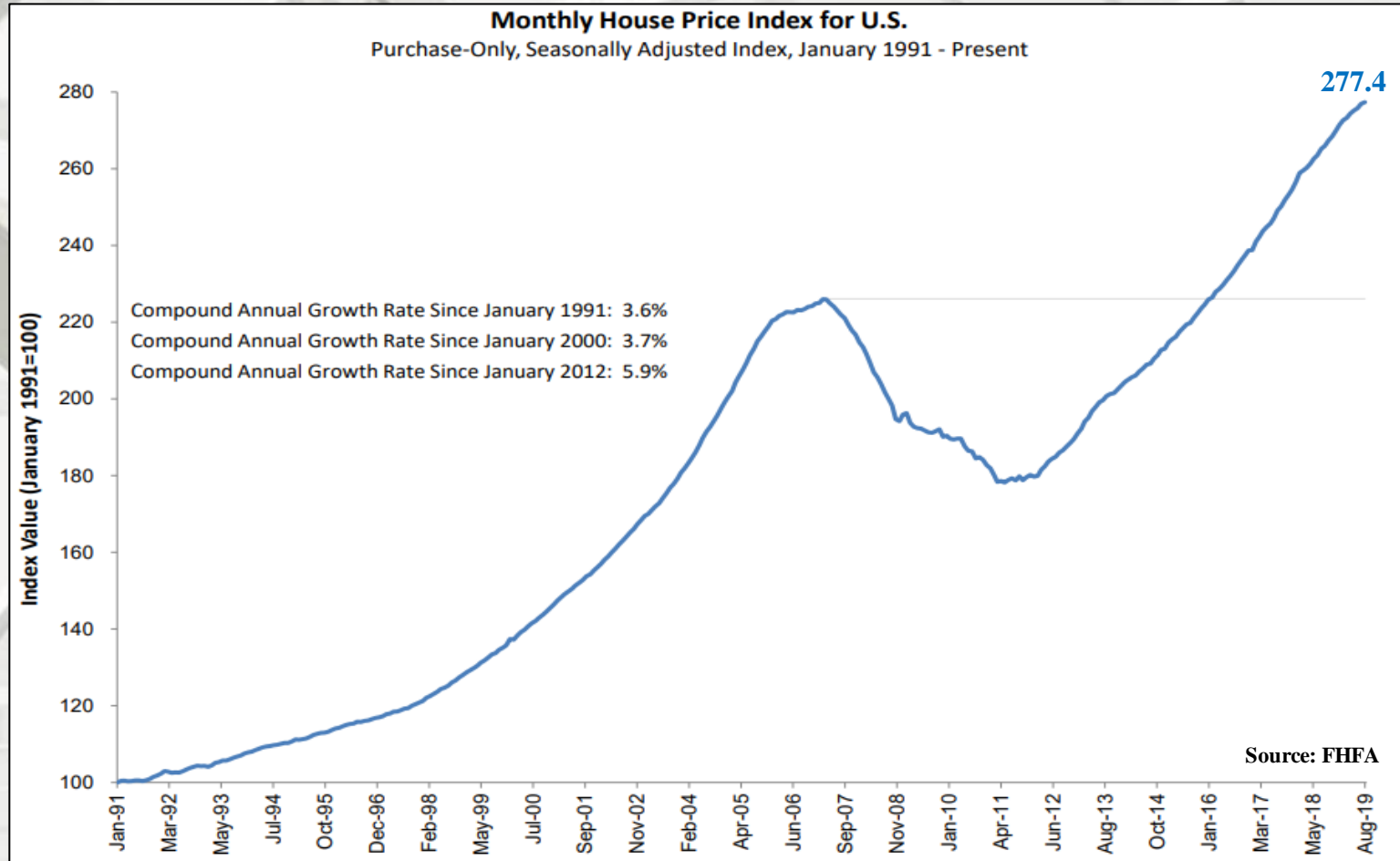
# Existing House Sales



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

\* Percentage of existing sales.

# U.S. Housing Prices



## House Price Index - August 2019

“The FHFA House Price Index (HPI) reported a 0.2 percent increase in U.S. house prices in August from the previous month. From August 2018 to August 2019, house prices were up 4.6 percent. For the nine census divisions, seasonally adjusted monthly price changes from July 2019 to August 2019 ranged from -0.8 percent in the East South Central division to +0.9 percent in the New England division. The 12-month changes were all positive, ranging from +3.9 percent in the Middle Atlantic and Pacific divisions to +6.5 percent in the Mountain division.” – Corinne Russell and Stefanie Johnson, FHFA

# U.S. Housing Prices

## Las Vegas Drops Out of Top Three Cities in Annual Gains According to S&P CoreLogic Case-Shiller Index

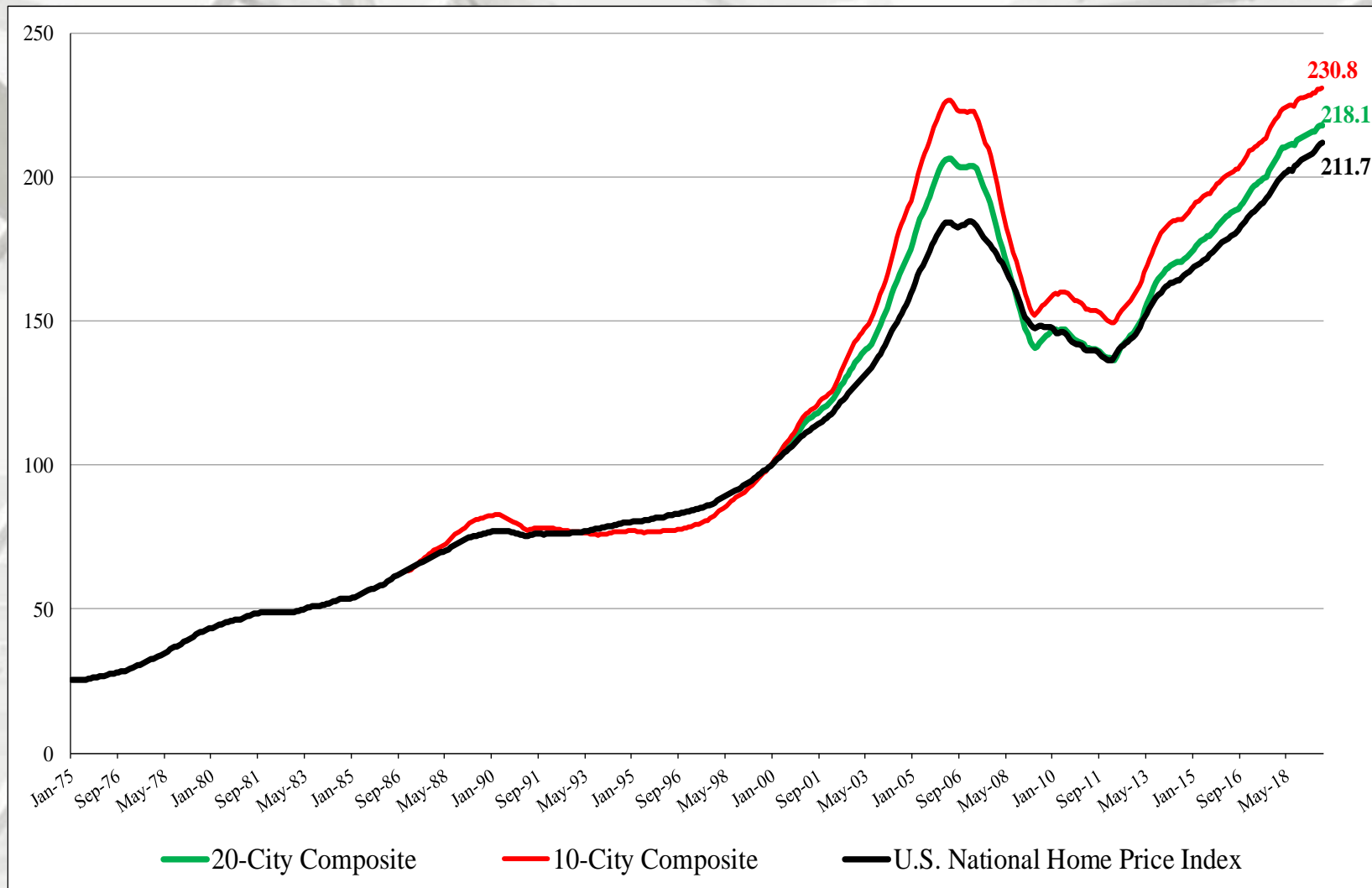
“Data for August 2019 shows that the rate of home price increases across the U.S. continues to slow. The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 3.2% annual gain in August, up from 3.1% in the previous month. The 10-City Composite annual increase came in at 1.5%, down from 1.6% in the previous month. The 20-City Composite posted a 2.0% year-over-year gain, no change from the previous month.

Phoenix, Charlotte, and Tampa reported the highest year-over-year gains among the 20 cities. In August, Phoenix led the way with a 6.3% year-over-year price increase, followed by Charlotte with a 4.5% increase and Tampa with a 4.3% increase. Seven of the 20 cities reported greater price increases in the year ending August 2019 versus the year ending July 2019.

The U.S. National Home Price NSA Index trend remained intact with a year-over-year price change of 3.2%. However, a shift in regional leadership may be underway beneath the headline national index.

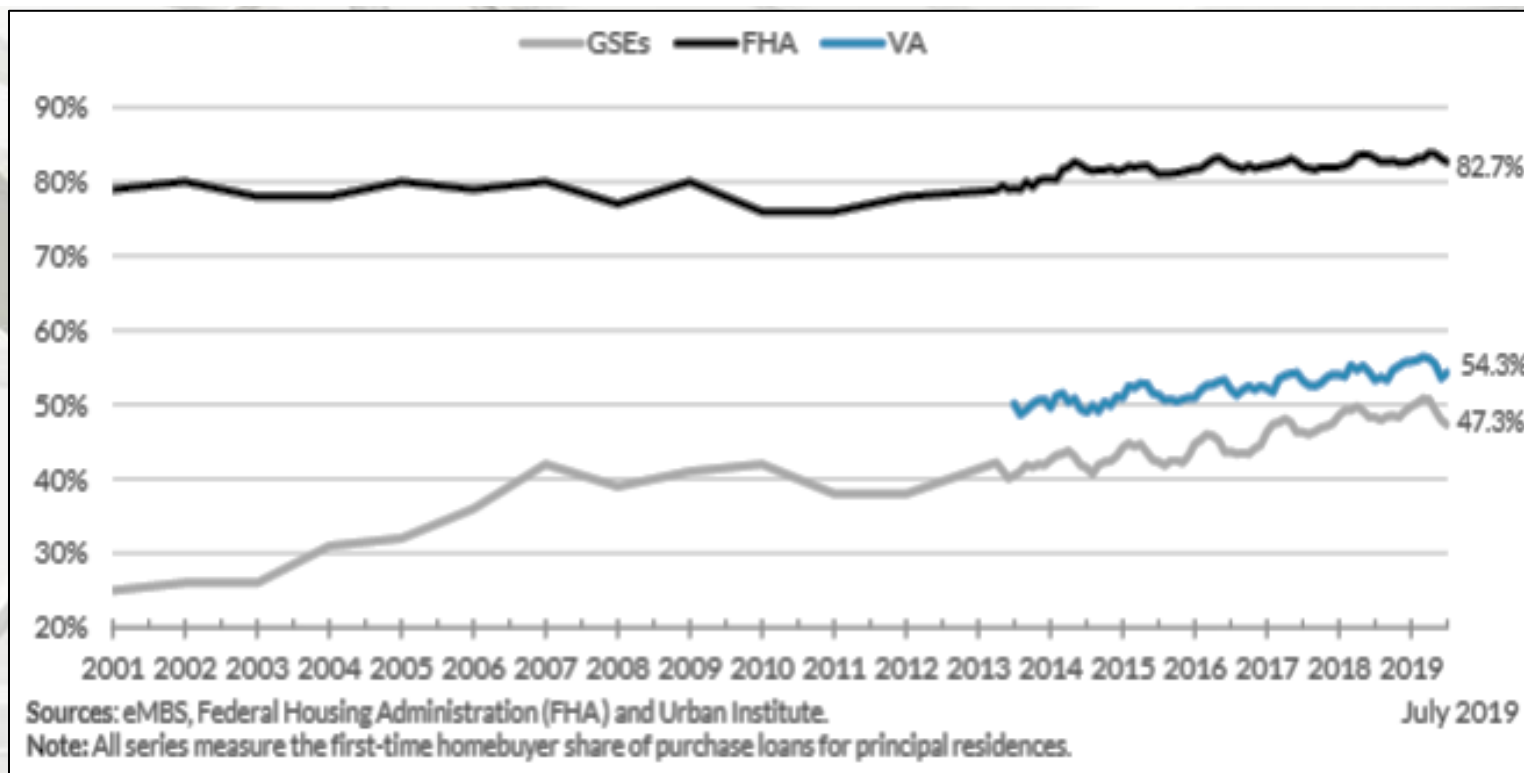
Phoenix saw an increase in its YOY price change to 6.3% and retained its leading position. However, Las Vegas dropped from number two to number eight among the cities of the 20-City Composite, falling from a 4.7% YOY change in July to only 3.3% in August. Meanwhile, the Southeast region included three of the top four cities. Charlotte, Tampa, and Atlanta all recorded solid YOY performance with price changes of 4.5%, 4.3%, and 4.0%, respectively. In the Northwest, Seattle’s YOY change turned positive (0.7%) after three consecutive months of negative YOY price changes. The 10-City Composite YOY price change declined slightly from July to 1.5%, while the 20-City Composite YOY price change remained steady at 2.0%. San Francisco was the only city to record a negative YOY price change (- 0.1%).” – Philip Murphy, Managing Director and Global Head of Index Governance, S&P Dow Jones Indices

# S&P/Case-Shiller Home Price Indices





# First-Time House Buyers

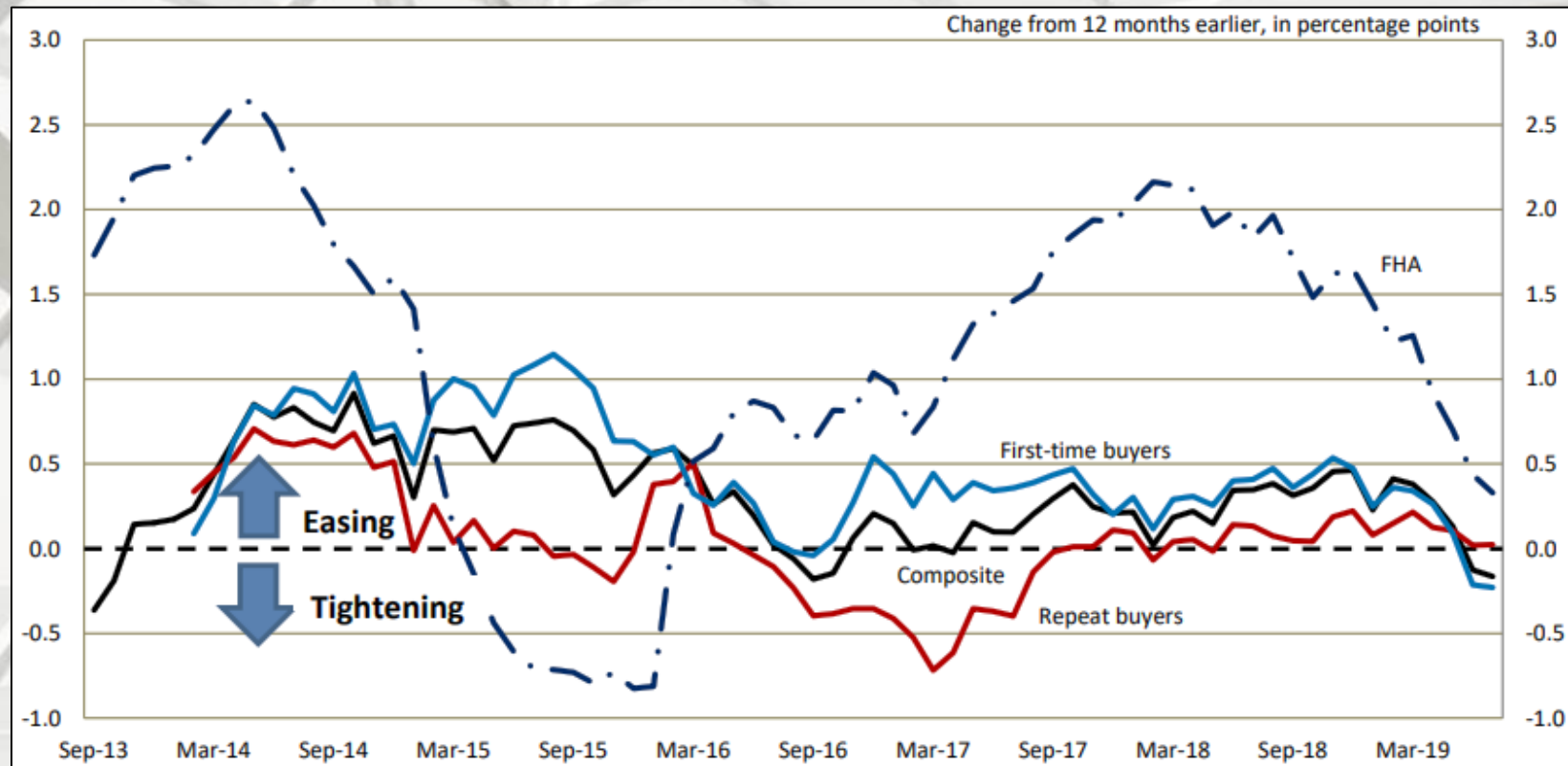


## Urban Institute

“In July 2019, the FTHB share for FHA, which has always been more focused on first time home buyers, fell very slightly to 82.7 percent. The FTHB share of VA lending rose in July, to 54.3 percent. The GSE FTHB share in July was 47.3 percent. The bottom table shows that based on mortgages originated in July 2019, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and higher LTV and higher DTI, thus paying a higher interest rate.” – Bing Lai, Research Associate, Housing Finance Policy Center



# First-Time House Buyers

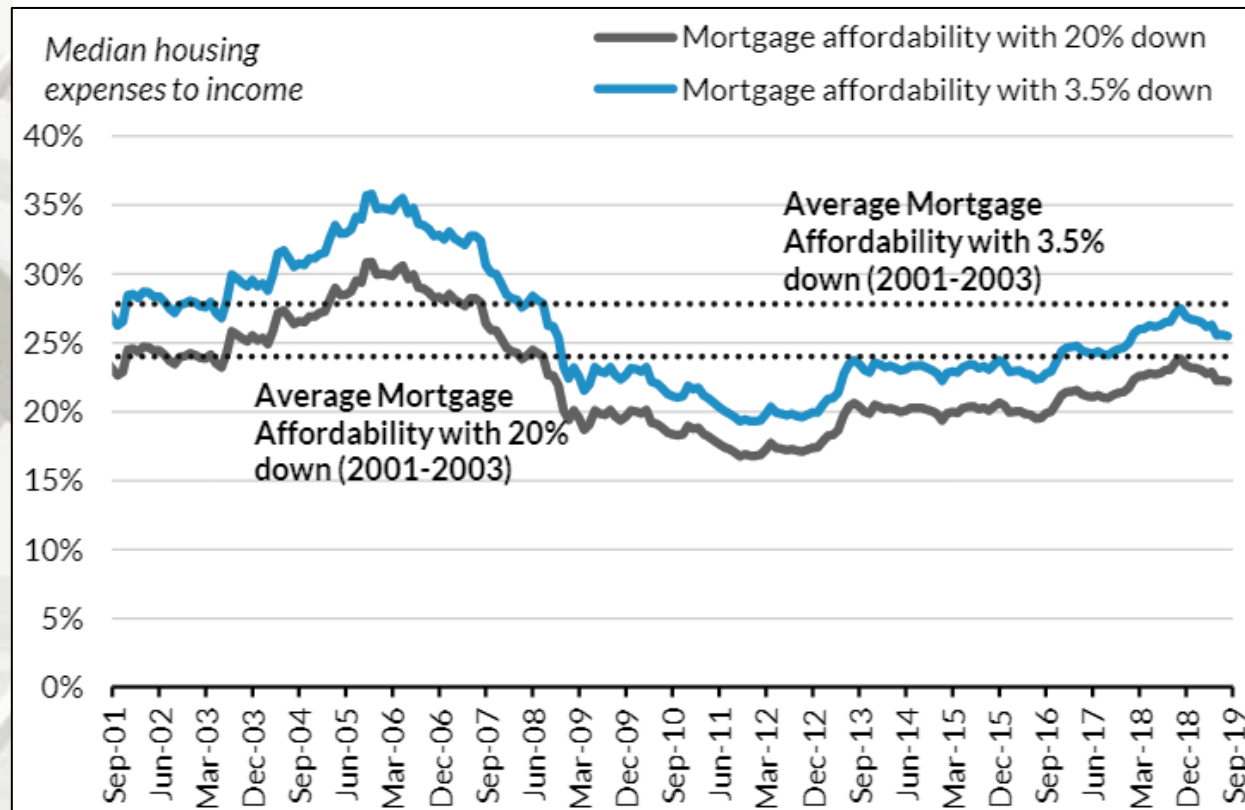


## AEI Housing Center Credit Easing Pauses

“The Composite NMRI for purchase loans declined 0.2% year-over-year (yoy). For FHA, the index is still rising at a rate of 0.3% (yoy), but this is down significantly from a year ago. Interestingly, credit tightened for first-time buyers but remained unchanged for repeat buyers, in a significant trend reversal. Time will tell whether this trend continues.” – Edward Pinto and Tobias Peter, AEI Housing Center

# Housing Affordability

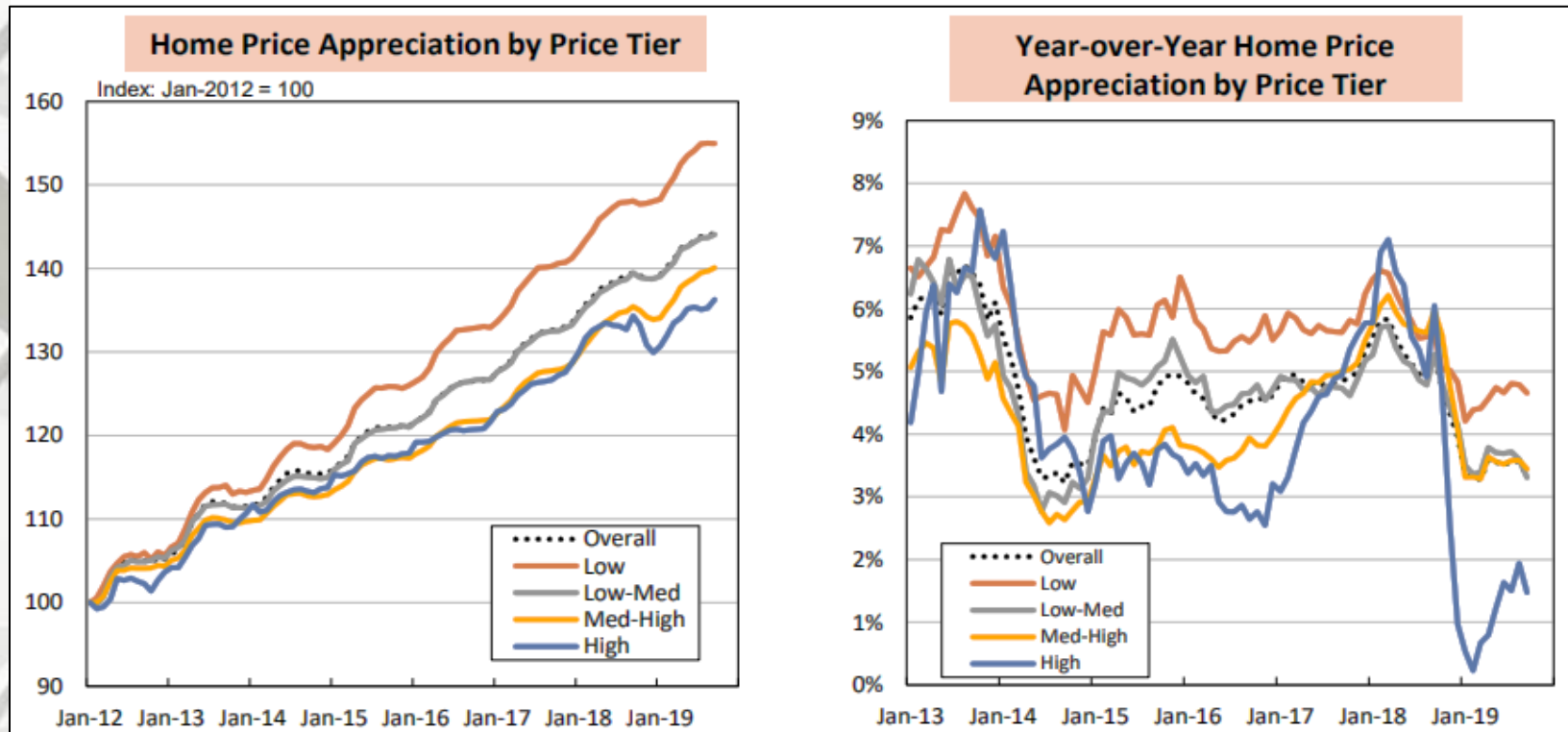
## National Housing Affordability Over Time



## Urban Institute

“Home prices remain affordable by historic standards, despite price increases over the last 7 years, as interest rates remain relatively low in an historic context. As of September 2019, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 22.4 percent; with 3.5 down, it is 25.7 percent. Since February, 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



Note: Data for September 2019 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. From last month's release, we have changed our HPA methodology to better deal with outliers. This change has primarily affected the high price tier.

## AEI Housing Center

### National House Price Appreciation (HPA) by Price Tier

“In September 2019, overheating of the low price tier continued (right panel). HPA in the low price tier was 4.7% year-over-year (yoy). In both the low-medium and medium-high tiers, HPA was 3.3% and 3.4%, respectively. HPA in the high tier (about 7% of the market) was a more modest 1.5%.” – Edward Pinto and Tobias Peter, AEI Housing Center

# Mortgage Credit Availability

## Mortgage Credit Availability Increased in October

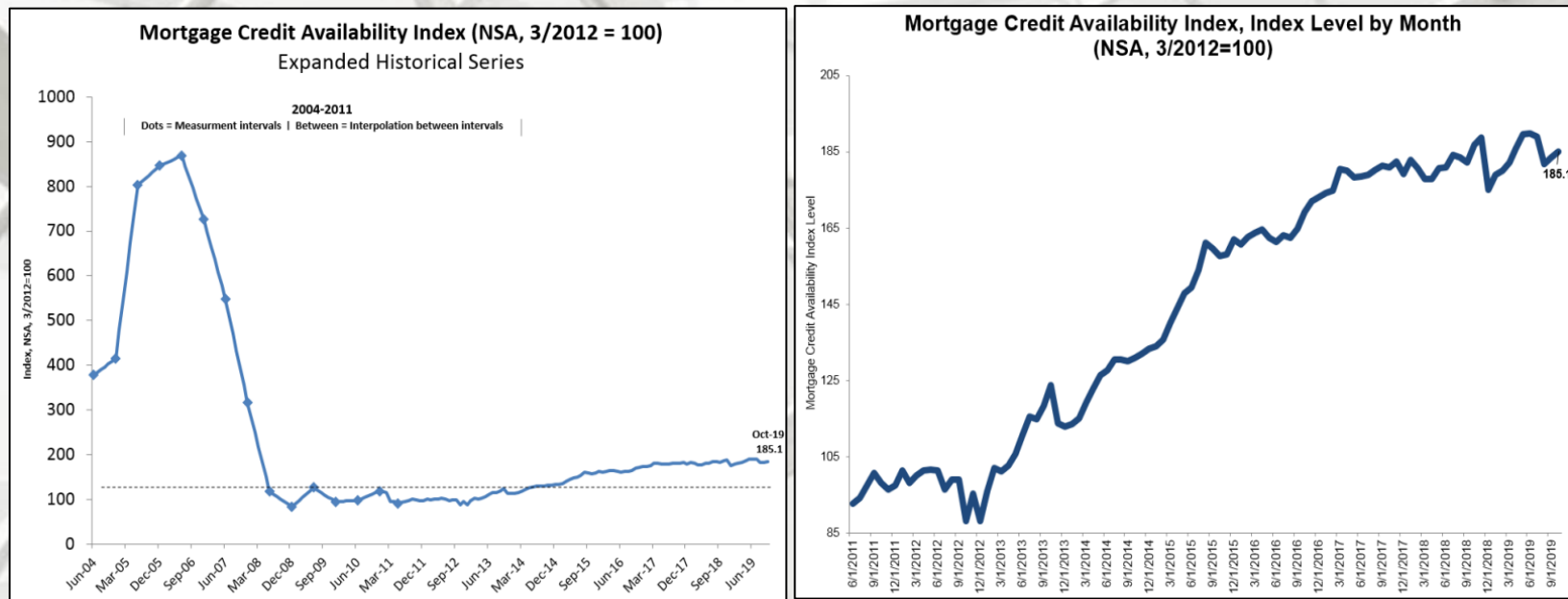
“Mortgage credit availability increased in October according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) which analyzes data from Ellie Mae's AllRegs® Market Clarity® business information tool.

The MCAI rose by 0.9 percent to 185.1 in October. 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 2.4 percent, while the Government MCAI decreased by 0.9 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 3.1 percent, and the Conforming MCAI rose by 1.3 percent.

Mortgage credit availability expanded in October, driven mainly by an increase in conventional loan programs, including more for borrowers with lower credit scores, as well as for investors and second home loans. Credit supply for government mortgages continued to lag, declining for the sixth straight month. Meanwhile, the jumbo credit index increased 3 percent to another survey-high, as that segment of the market stays resilient despite signs of a slowing economy.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA



# Mortgage Credit Availability



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



# Summary

## **In conclusion:**

In September, United States single-family construction data indicated month-over-month improvement in several critical categories, with the exception being completions. Total housing starts, permits, and completions also were positive month-over-month. Only total and single-family under construction were positive on a monthly and yearly basis. Of note, total and single-family construction spending continued year-over-year declines. Declining interest rates have led to improving housing affordability, which is one factor for this month's improvement.

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.

## **Cons:**

- 1) Housing affordability indicates improvement;
- 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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