

# The Virginia Tech – U.S. Forest Service

## February 2018

### Housing Commentary: Section I



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# Opening Remarks

February's permits and starts data were mundane, which is typical for a winter month. New single-family starts were respectable but still remain below its historical average, and new single-family sales data remain volatile. Most other data series improved on a month-to-month basis. Regionally, data were mixed across all sectors. The April 10th Atlanta Fed GDPNow™ residential investment spending model projects an aggregate -1.0% (decrease) for Quarter One 2018. New private permanent site expenditures were projected for a 4.2% rise; the improvement spending forecast was a 3.2% increase; and the manufactured/mobile housing forecast was a 26.0% improvement (all: quarterly log change and seasonally adjusted annual rate).<sup>1</sup>

“Perceptions of affordability and cost continue to play an outsized role in the choices of America's renters, as they overwhelmingly see renting as more affordable and the right choice for them – right now. Remarkably, half of baby boomers who rent do not anticipate owning a home in the future, with a growing number of Generation Xers following suit. Indeed, we are witnessing an historic shift in preference among older Americans, as they increasingly are choosing the size, convenience and affordability that renting offers over ownership.”<sup>2</sup> – David Brickman, Executive Vice President and Head, Freddie Mac Multifamily

This month's commentary also contains applicable housing data; home affordability; and demographic/economic information. Section I contains data and commentary and Section II includes Federal Reserve analysis, private indicators, and demographic and economic commentary.

Sources: <sup>1</sup> <https://www.frbatlanta.org/-/media/Documents/cqer/researchcq/gdpnow/GDPTrackingModelDataAndForecasts.xlsx>; 4/10/18;

<sup>2</sup> [http://www.freddiemac.com/research/consumer-research/20180404\\_preference\\_for\\_renting.html](http://www.freddiemac.com/research/consumer-research/20180404_preference_for_renting.html); 4/4/18

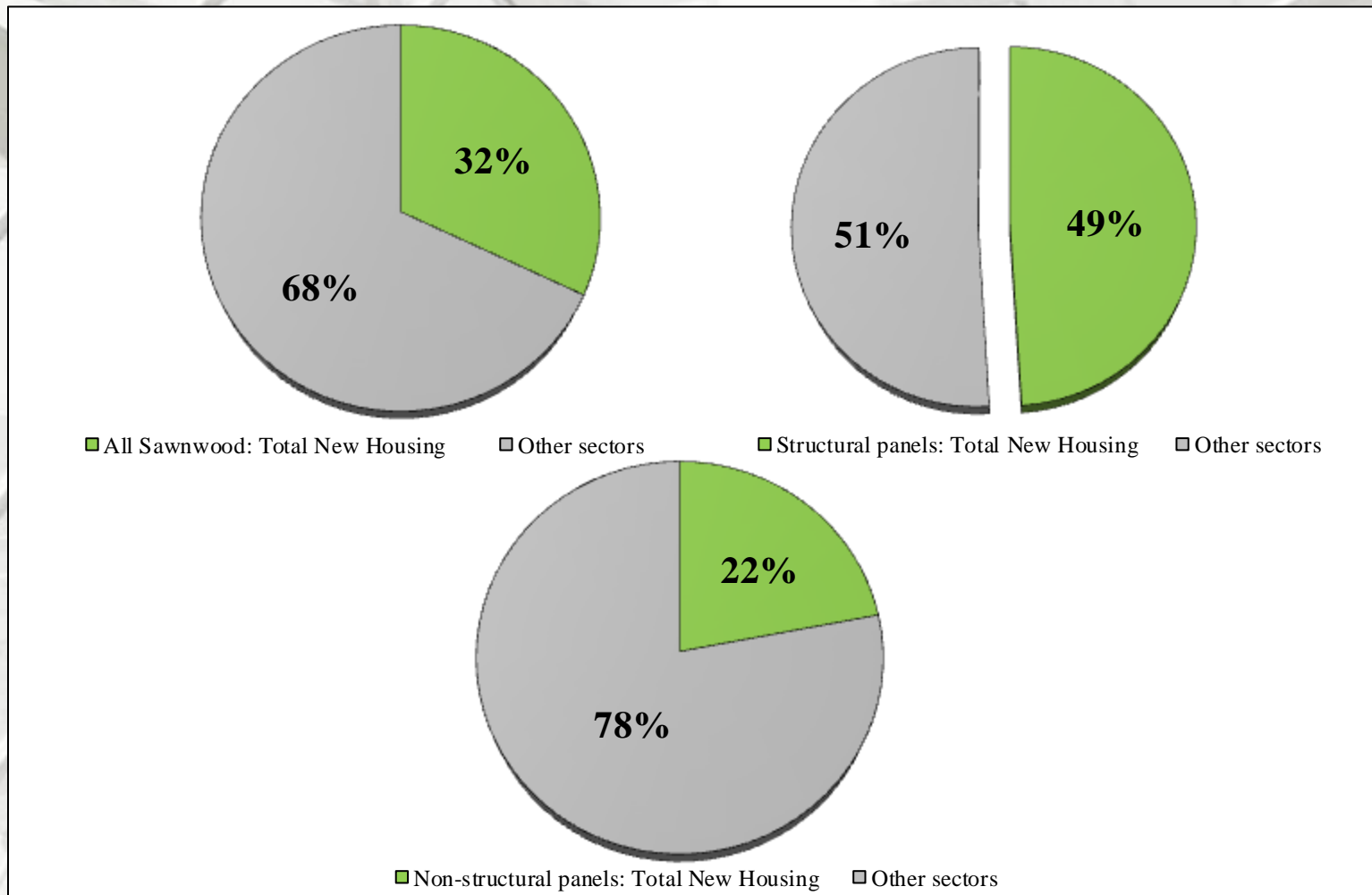
# February 2018

## Housing Scorecard

	M/M		Y/Y	
Housing Starts	▽	7.0%	▽	4.0%
Single-Family Starts	△	2.9%	△	2.9%
Housing Permits	▽	5.7%	△	6.5%
Single-Family Permits	▽	0.6%	△	4.6%
Housing Completions	△	7.8%	△	13.6%
Single-Family Completions	△	3.0%	△	17.3%
New Single-Family House Sales	▽	0.6%	△	0.5%
Private Residential Construction Spending	△	0.1%	△	5.5%
Single-Family Construction Spending	△	0.9%	△	9.5%
Existing House Sales <sup>1</sup>	△	3.0%	△	1.1%

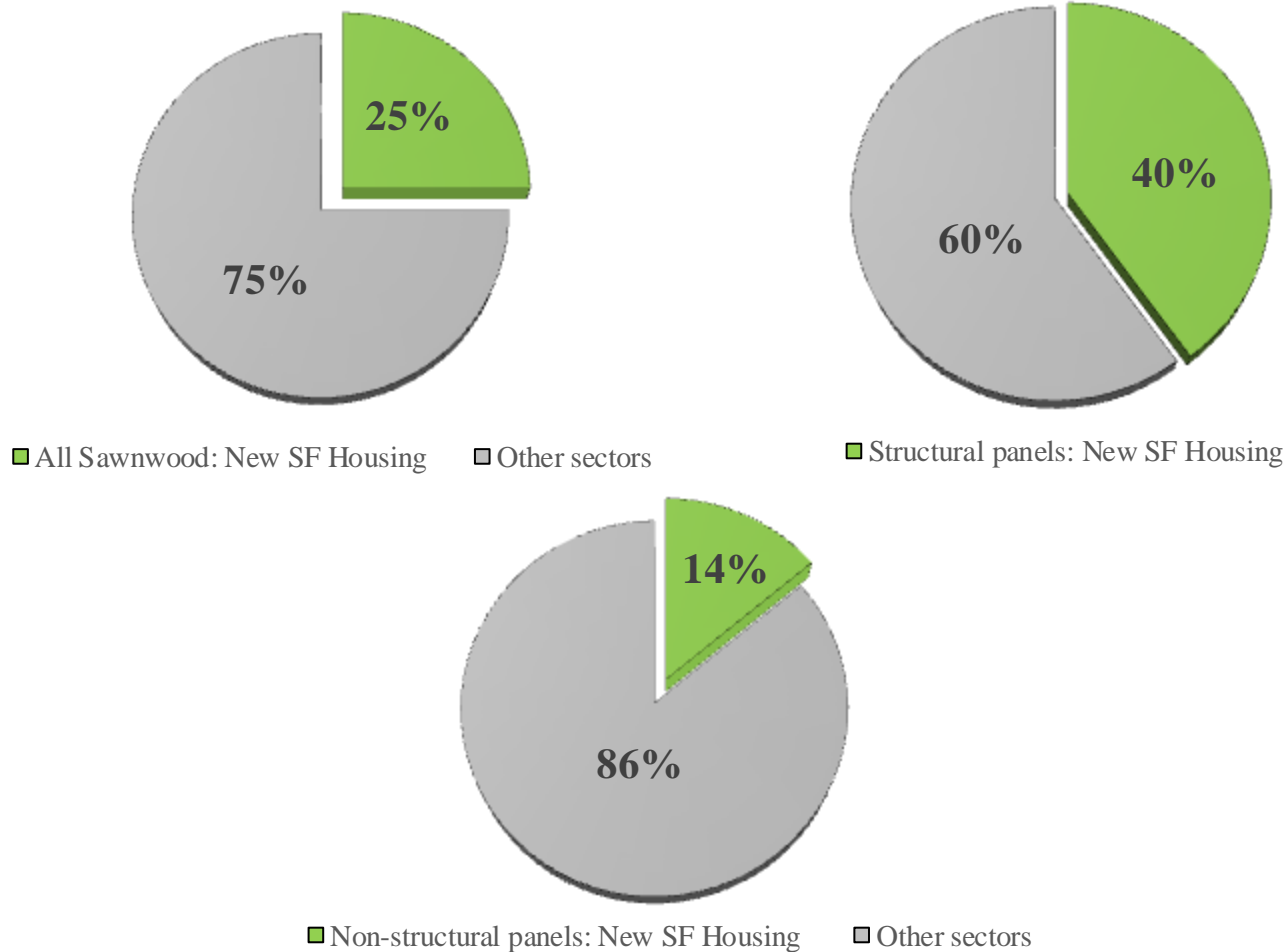
M/M = month-over-month; Y/Y = year-over-year; NC = no change

# New Construction Percentage of Wood Products Consumption

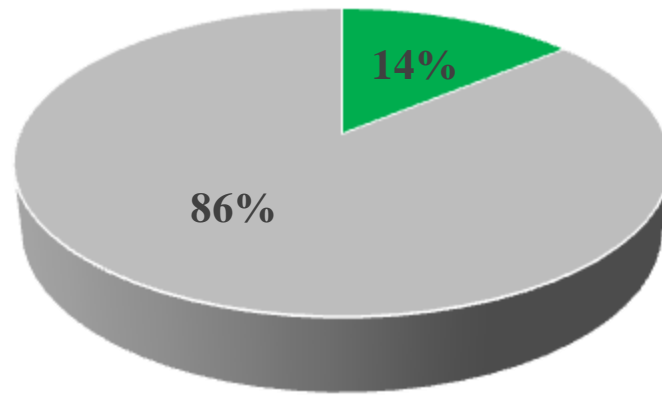




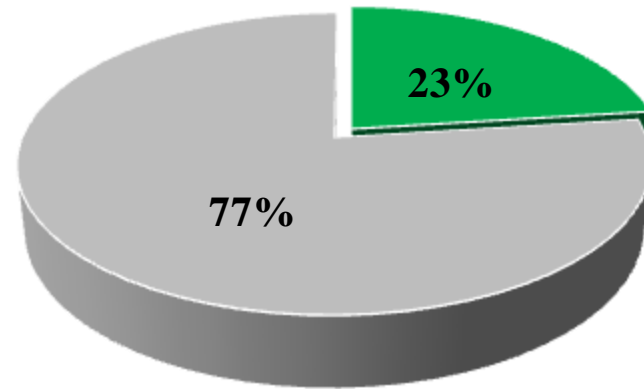
# New SF Construction Percentage of Wood Products Consumption



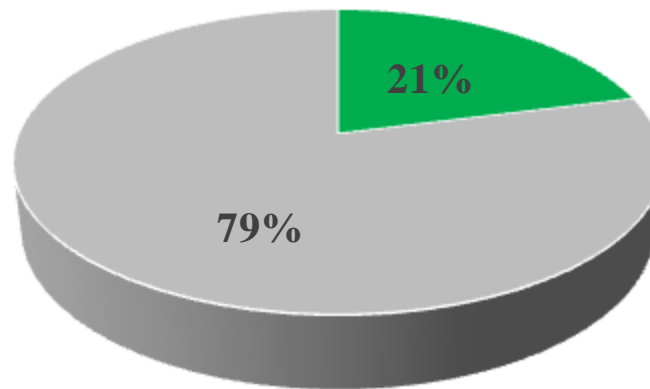
# Repair and Remodeling's Percentage of Wood Products Consumption



■ Non-structural panels: RR ■ Other sectors



■ All Sawnwood: RR ■ Other sectors



■ Structural panels: RR ■ Other sectors

# New Housing Starts

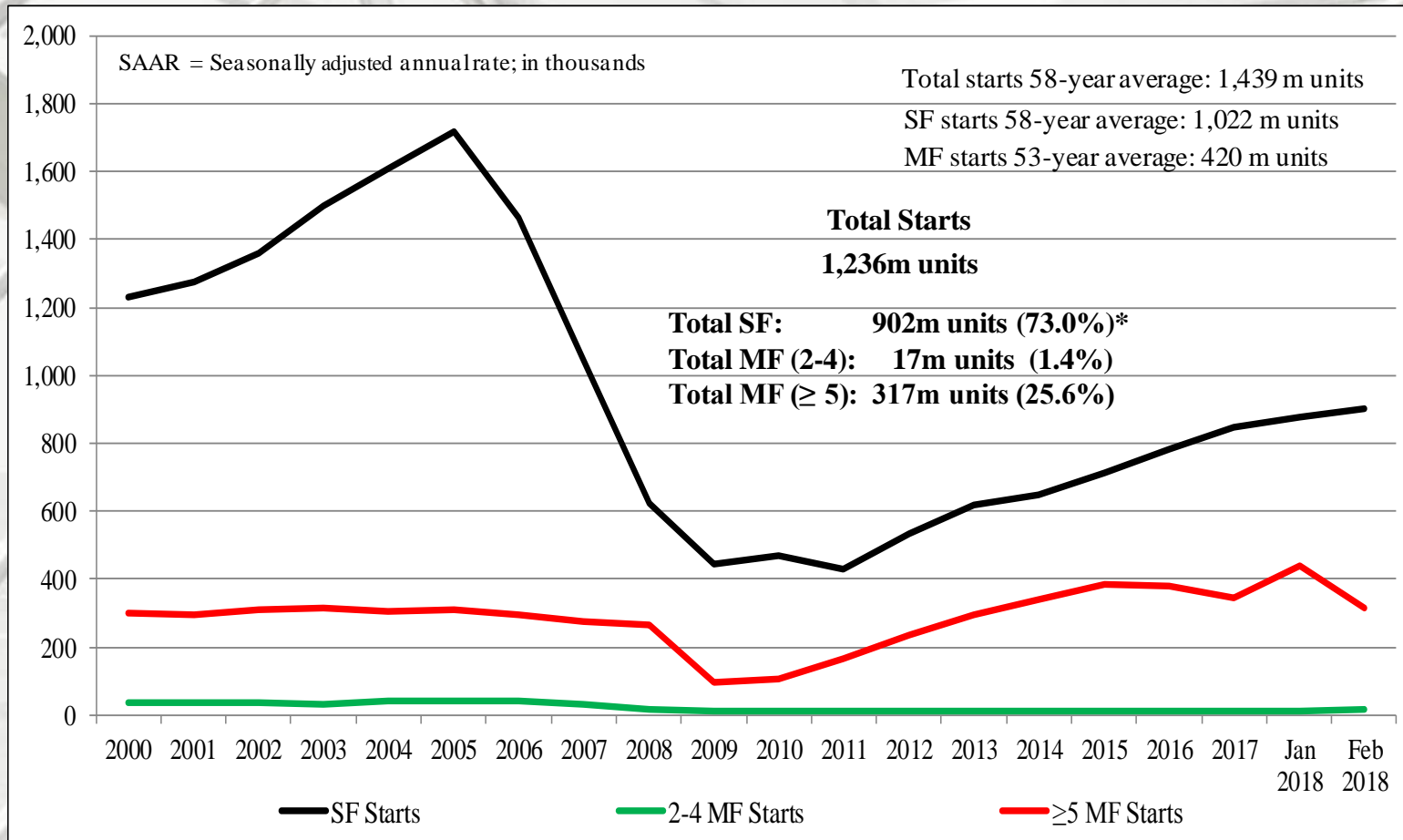
	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
February	1,236,000	902,000	17,000	317,000
January	1,329,000	877,000	12,000	440,000
2017	1,288,000	877,000	19,000	392,000
M/M change	-7.0	2.9	41.7	-28.0
Y/Y change	-4.0	2.9	-10.5	-19.1

\* 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)).

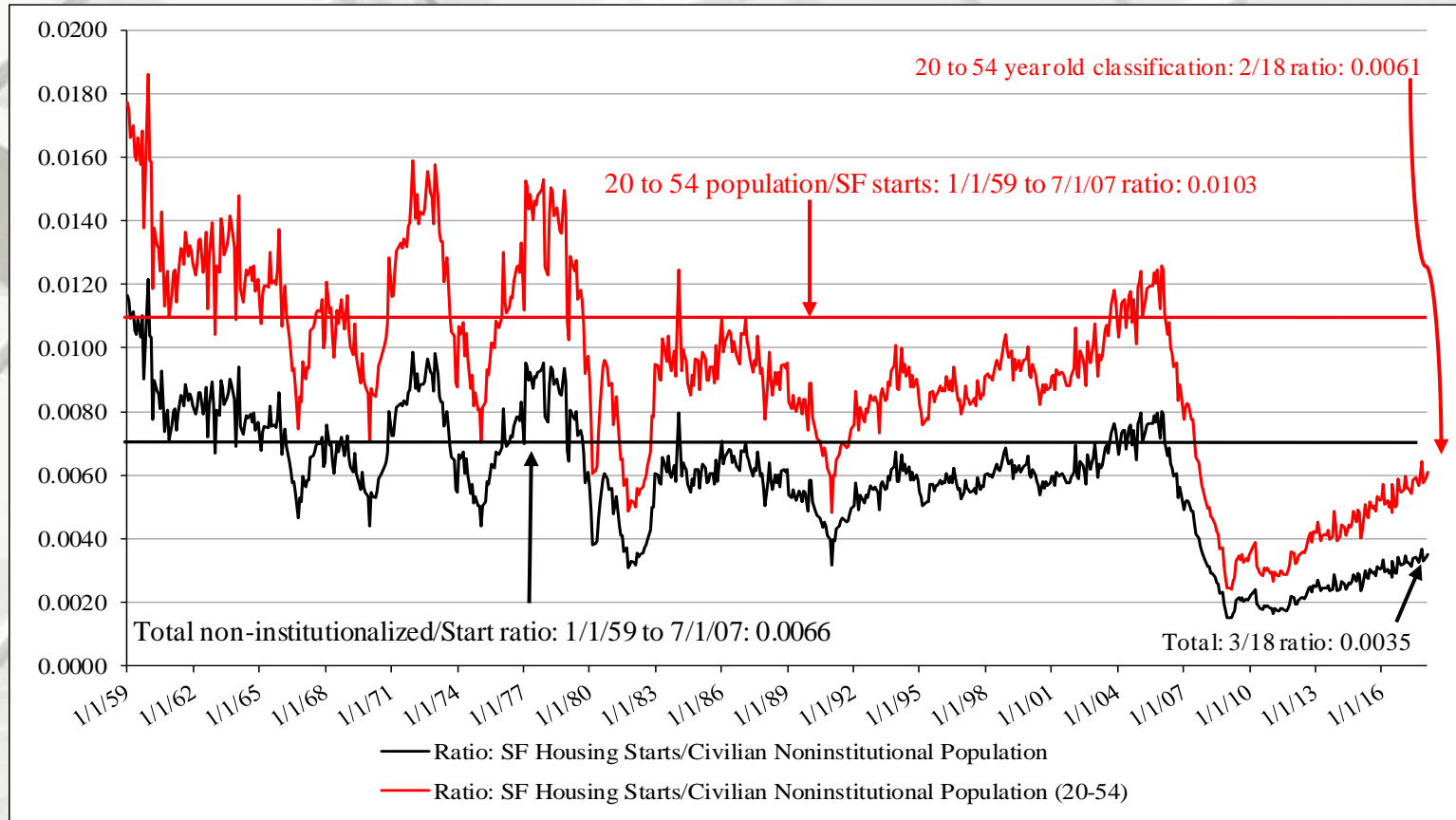


# Total Housing Starts



\* Percentage of total starts.

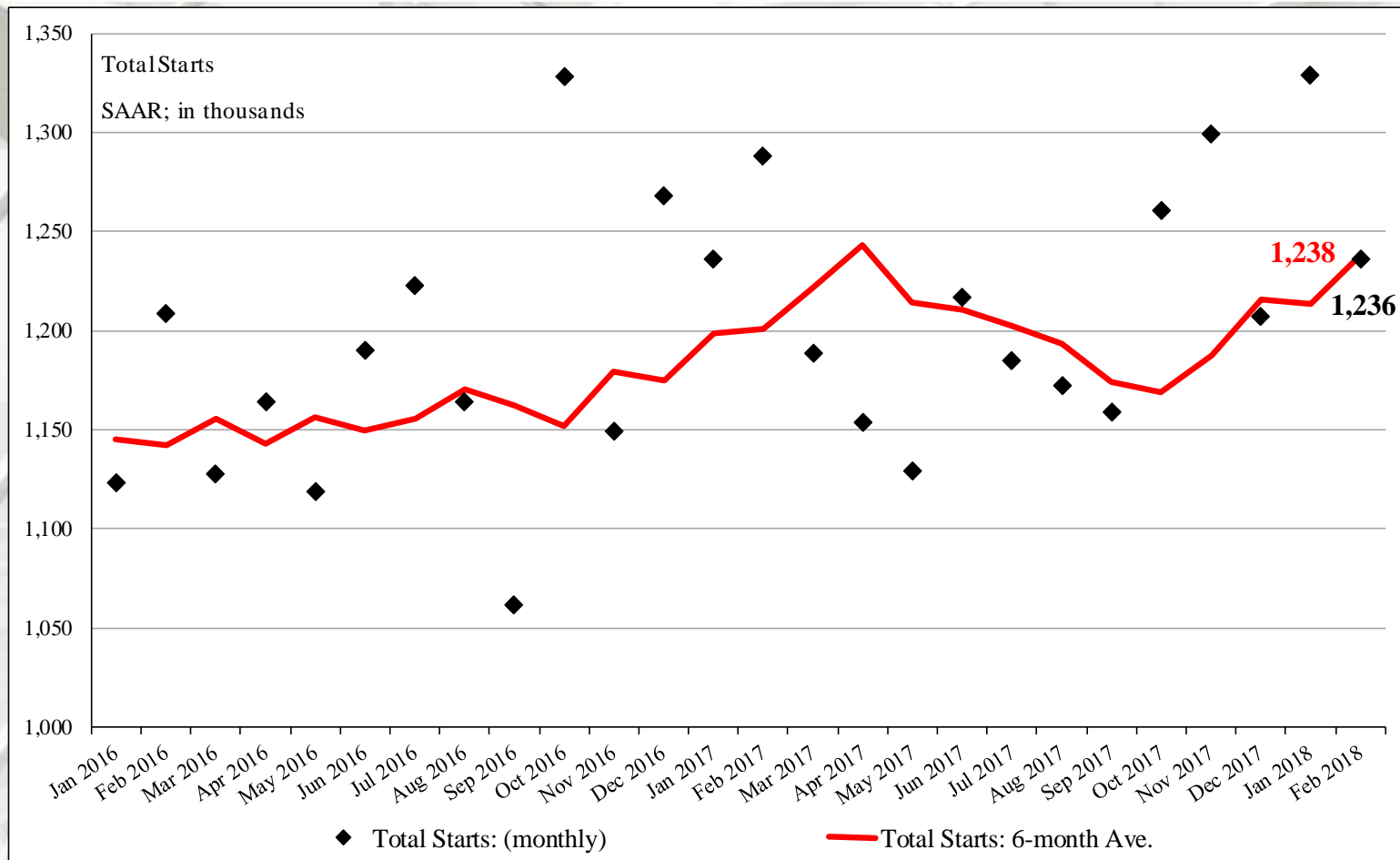
# New SF Starts



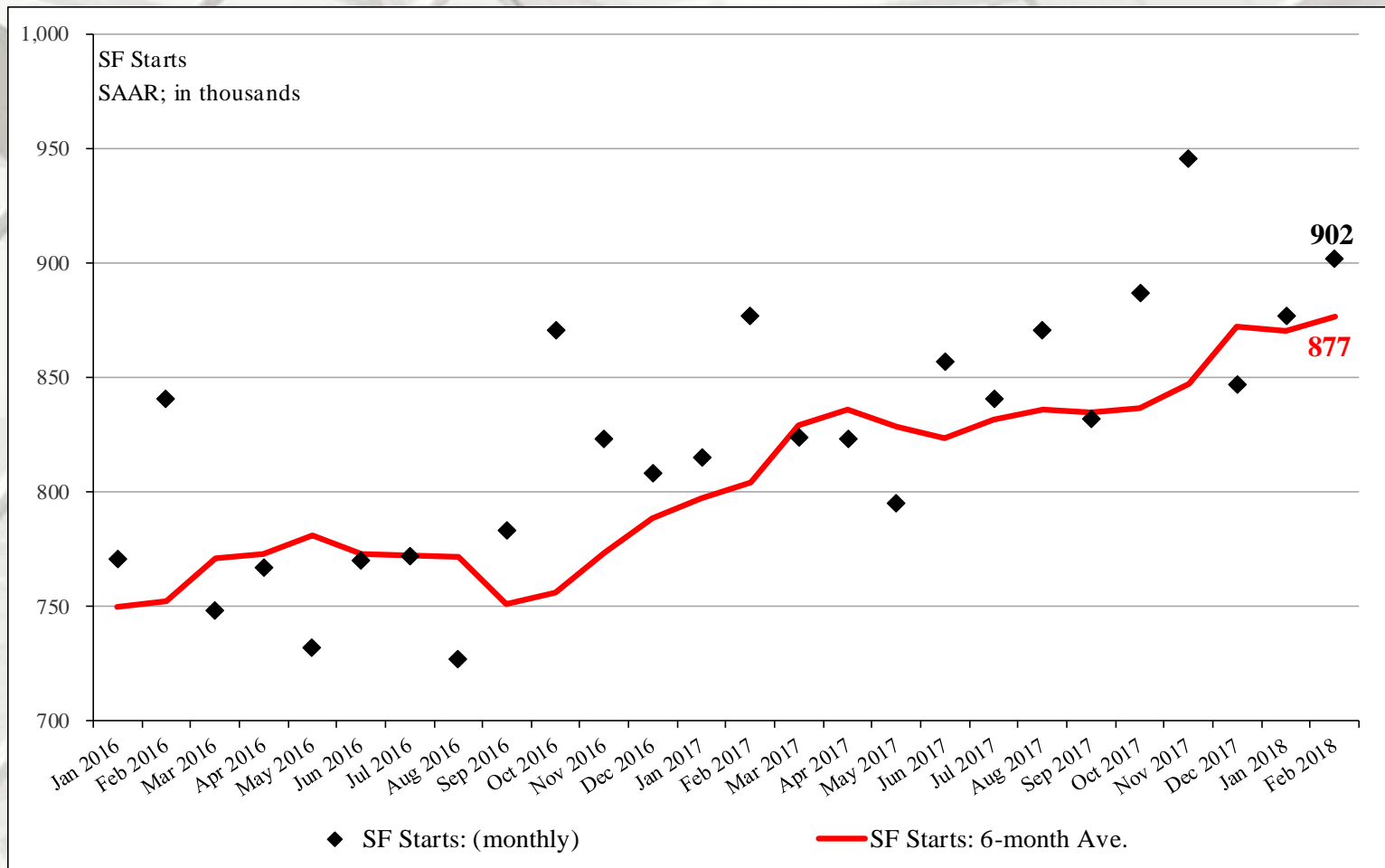
## New SF starts adjusted for the US population

From February 1959 to July 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in February 2017 it was 0.0035 – an increase from January (0.0034). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in February 2017 it was 0.0061 – also an increase from January (0.0059). From a population worldview, 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 Total	NE SF	NE MF**
February	109,000	64,000	45,000
January	113,000	60,000	53,000
2017	111,000	67,000	44,000
M/M change	-3.5	6.7	-15.1
Y/Y change	-1.8	-4.5	2.3

	MW Total	MW SF	MW MF
February	155,000	103,000	52,000
January	144,000	121,000	23,000
2017	182,000	163,000	19,000
M/M change	7.6	-14.9	126.1
Y/Y change	-14.8	-36.8	173.7

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

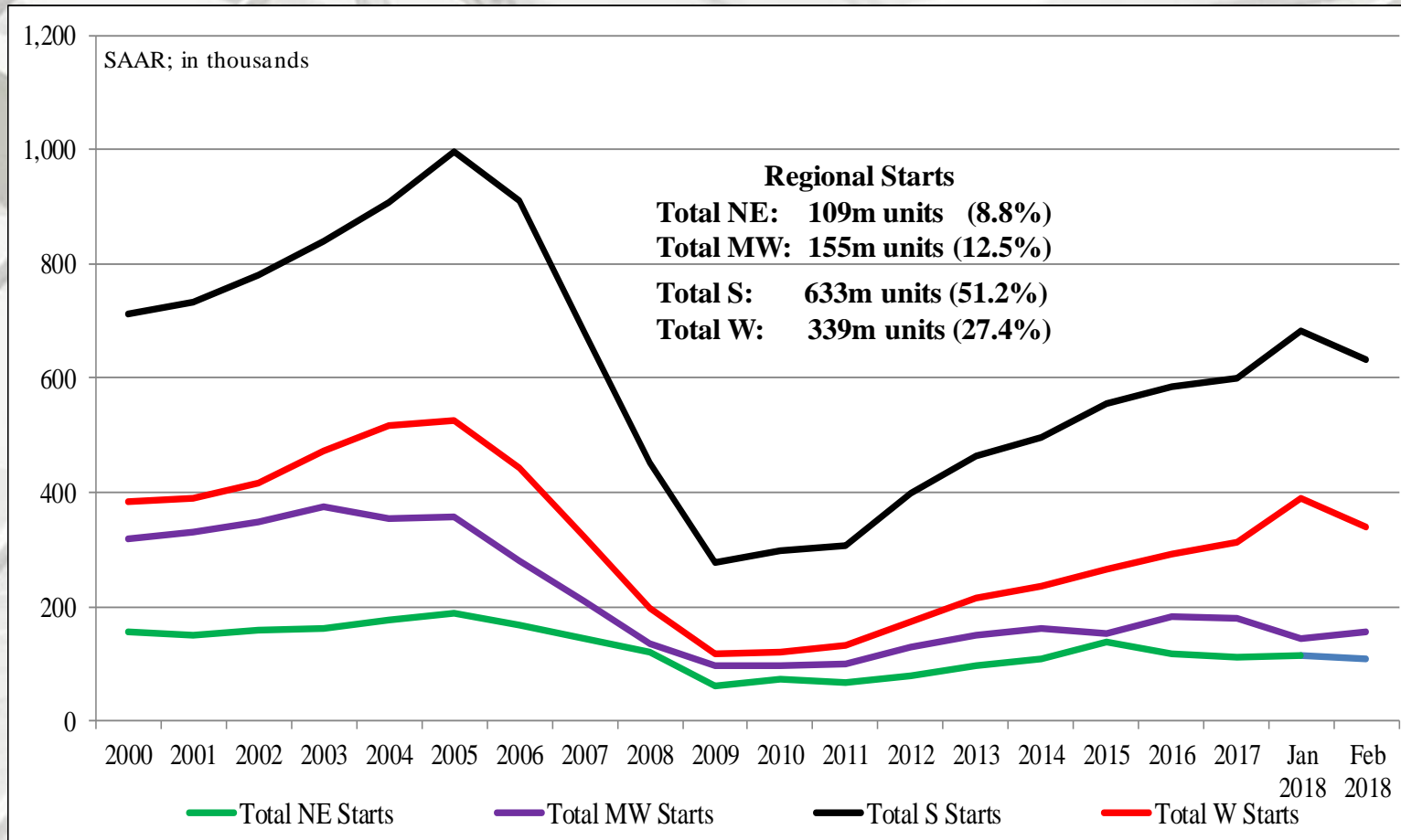
	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
February	633,000	487,000	146,000
January	683,000	468,000	215,000
2017	658,000	448,000	210,000
M/M change	-7.3	4.1	-32.1
Y/Y change	-3.8	8.7	-30.5

	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
February	339,000	248,000	91,000
January	389,000	228,000	161,000
2017	337,000	199,000	138,000
M/M change	-12.9	8.8	-43.5
Y/Y change	0.6	24.6	-34.1

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

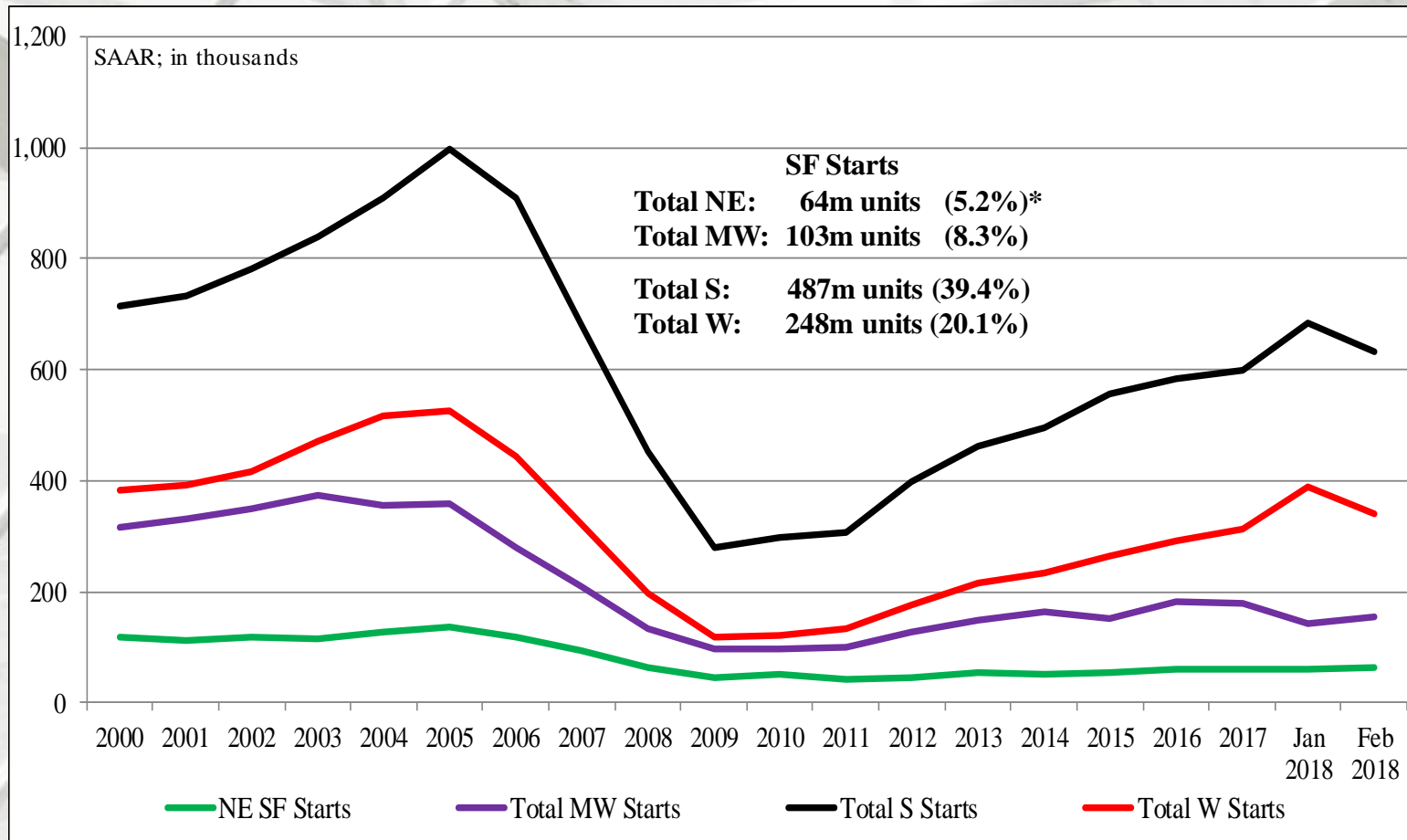
\*\* US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

# Total Housing Starts by Region



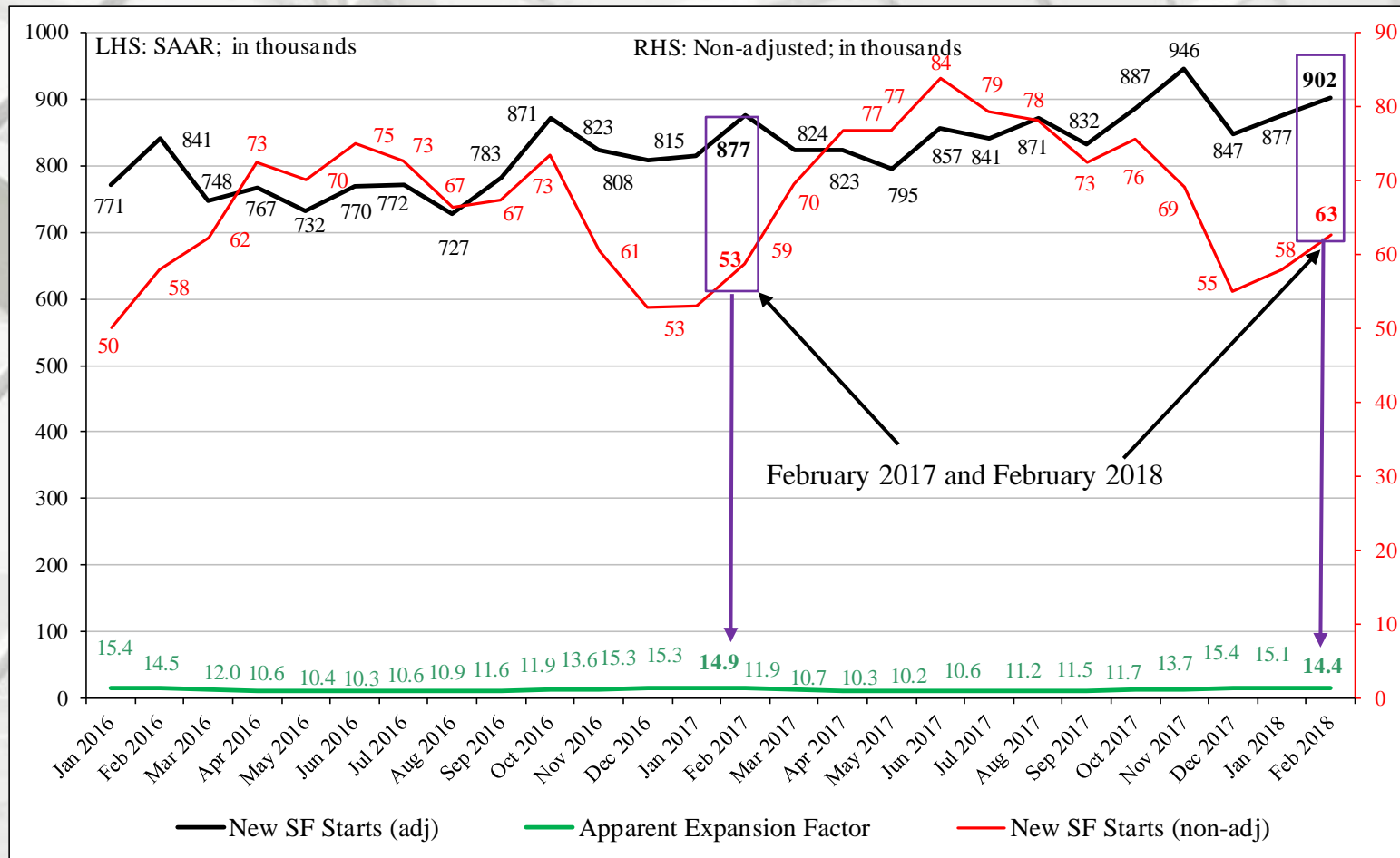
\* Percentage of total starts.

# SF Housing Starts by Region



\* Percentage of total starts.

# Nominal & SAAR SF Starts

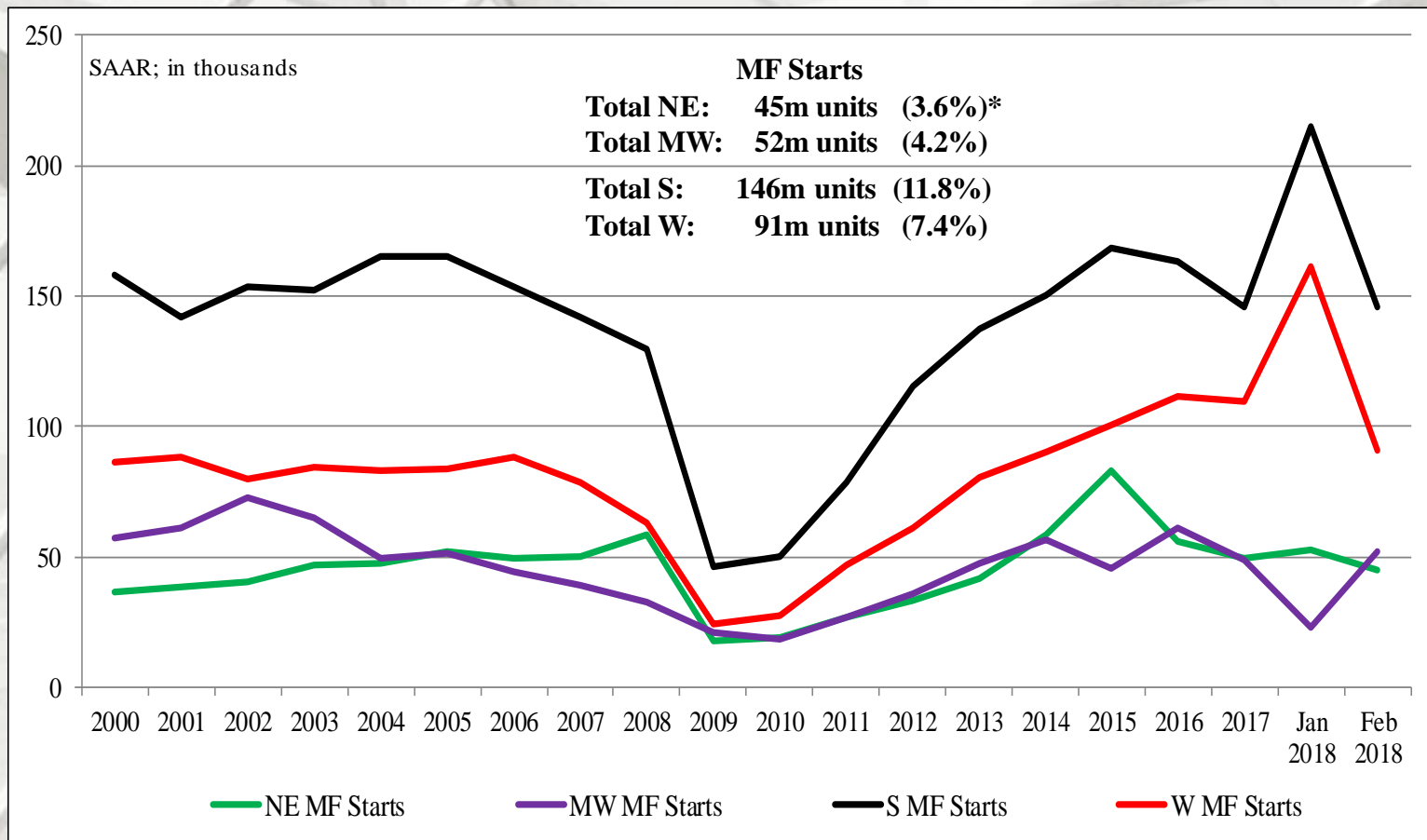


## Nominal and Adjusted New SF Monthly Starts

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

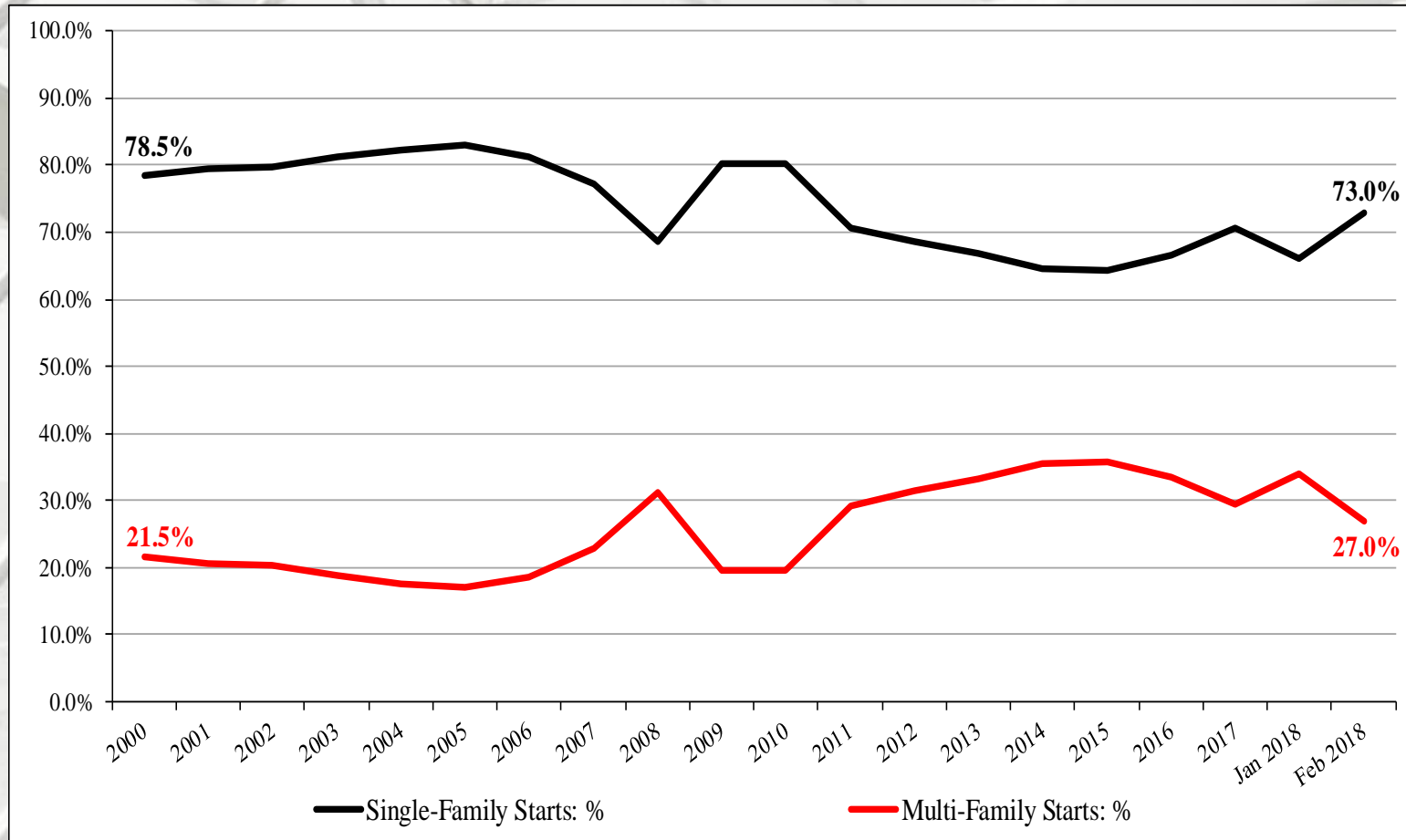
# MF Housing Starts by Region



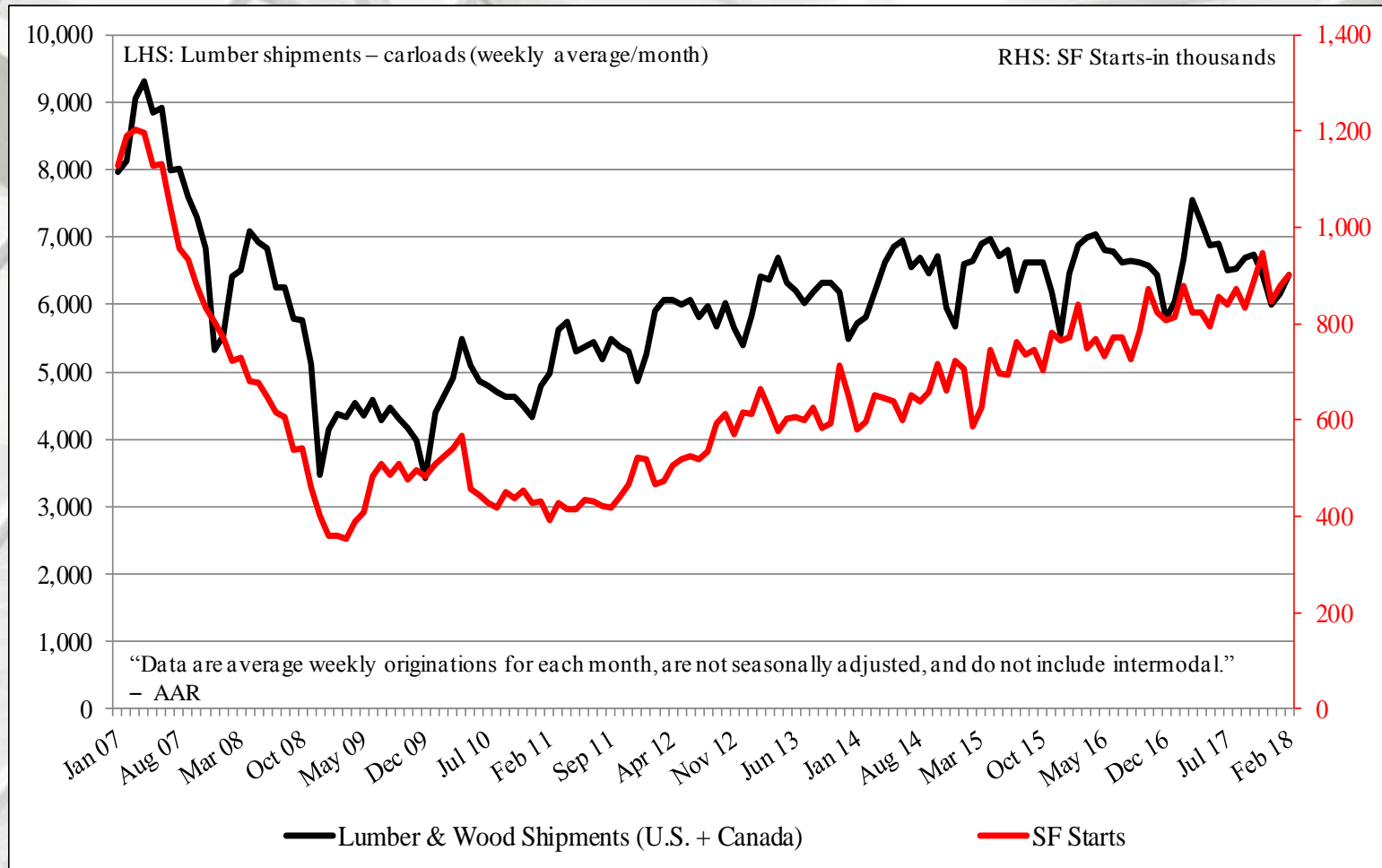
\* Percentage of total starts.



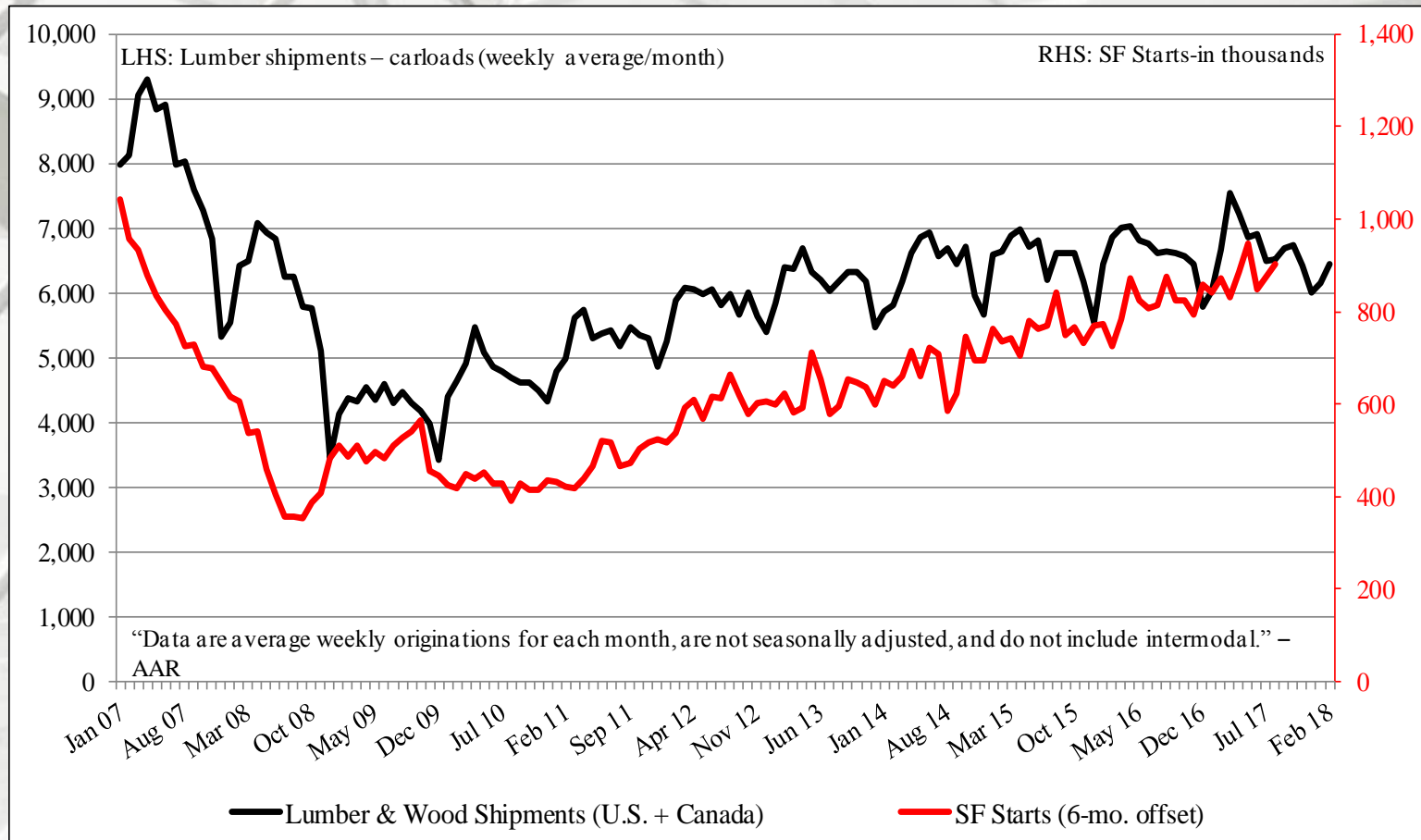
# SF & MF Housing Starts (%)



# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts



# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts: 6-month Offset



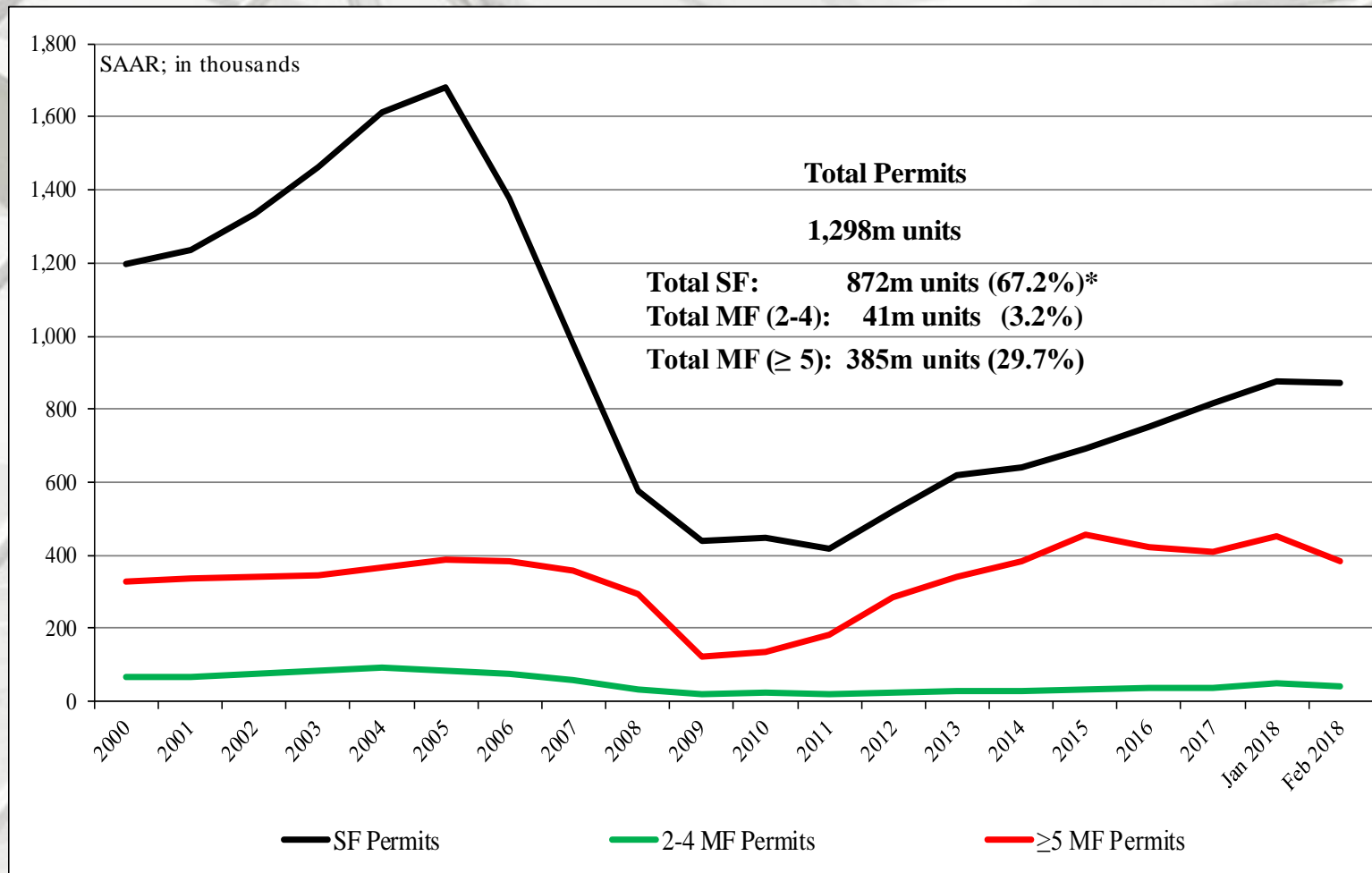
In this graph, January 2007 lumber shipments are contrasted with July 2007 SF starts, and continuing through February 2017 SF starts. The purpose is to discover if lumber shipments relate to future single-family starts. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

# New Housing Permits

	<b>Total Permits*</b>	<b>SF Permits</b>	<b>MF 2-4 unit Permits</b>	<b>MF ≥ 5 unit Permits</b>
February	1,298,000	872,000	41,000	385,000
January	1,377,000	877,000	48,000	452,000
2017	1,219,000	834,000	45,000	340,000
M/M change	-5.7%	-0.6%	-14.6%	-14.8%
Y/Y change	6.5%	4.6%	-8.9%	13.2%

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

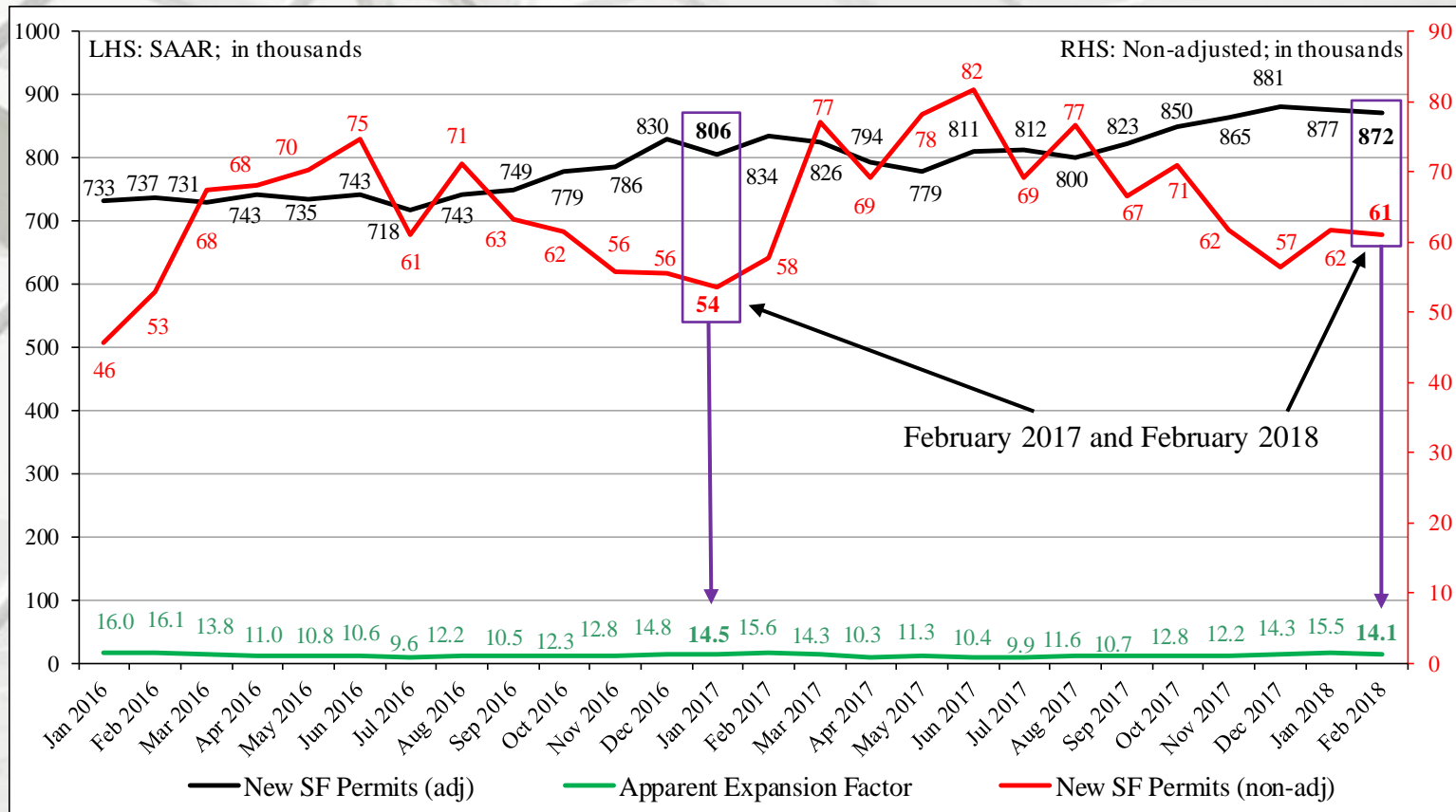
# Total New Housing Permits



\* Percentage of total 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

	NE Total*	NE SF	NE MF**
February	133,000	55,000	78,000
January	118,000	50,000	68,000
2017	117,000	54,000	63,000
M/M change	12.7%	10.0%	14.7%
Y/Y change	13.7%	1.9%	23.8%
	MW Total*	MW SF	MW MF**
February	184,000	126,000	58,000
January	178,000	123,000	55,000
2017	187,000	119,000	68,000
M/M change	3.4%	2.4%	5.5%
Y/Y change	-1.6%	5.9%	-14.7%

- All data are SAAR
- \*\* US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

# New Housing Permits by Region

	<b>S Total*</b>	<b>S SF</b>	<b>S MF**</b>
February	614,000	467,000	147,000
January	701,000	474,000	227,000
2017	585,000	448,000	137,000
M/M change	-12.4%	-1.5%	-35.2%
Y/Y change	5.0%	4.2%	7.3%

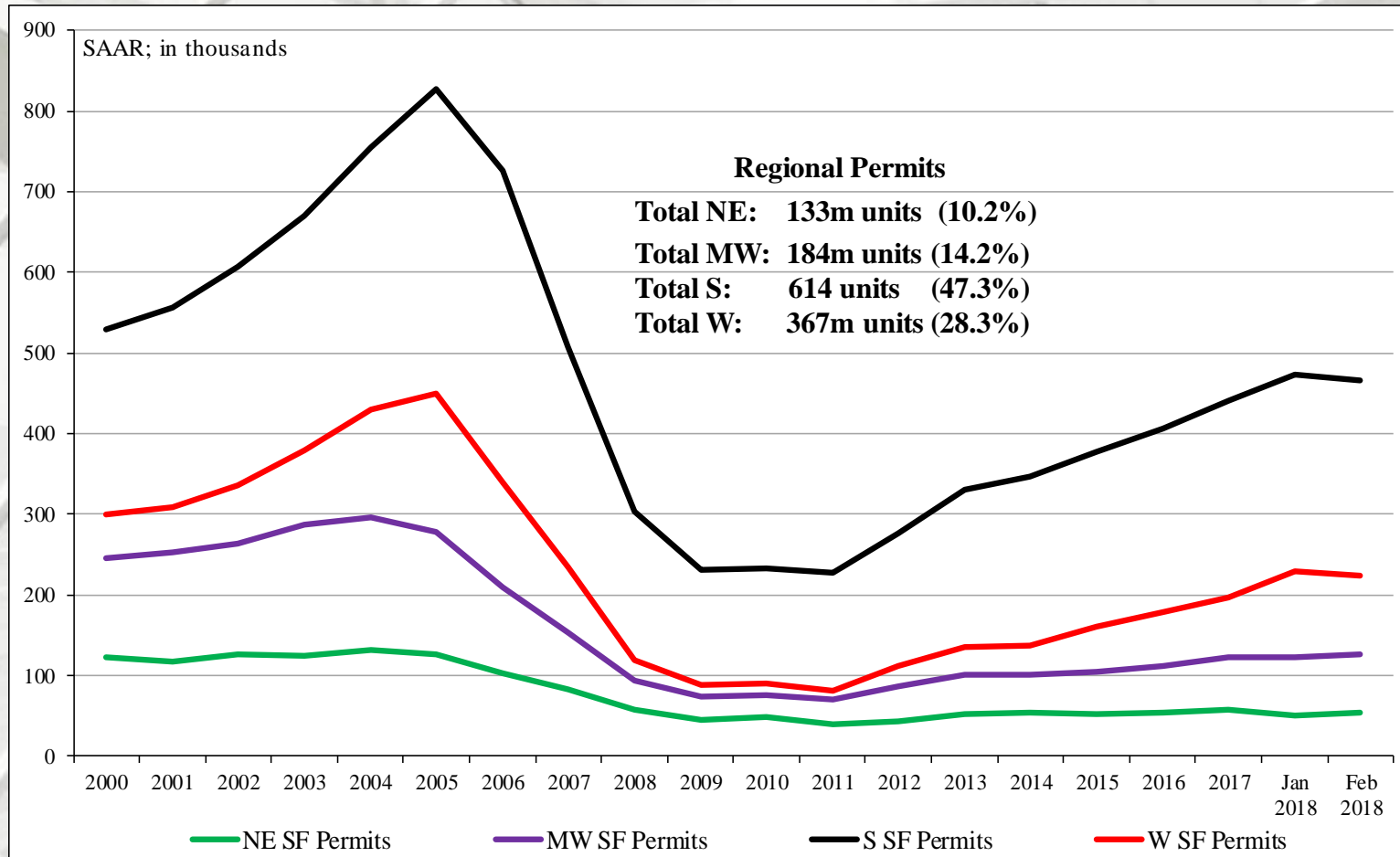
  

	<b>W Total*</b>	<b>W SF</b>	<b>W MF**</b>
February	367,000	224,000	143,000
January	380,000	230,000	150,000
2017	270,000	196,000	74,000
M/M change	-3.4%	-2.6%	-4.7%
Y/Y change	35.9%	14.3%	93.2%

• All data are SAAR

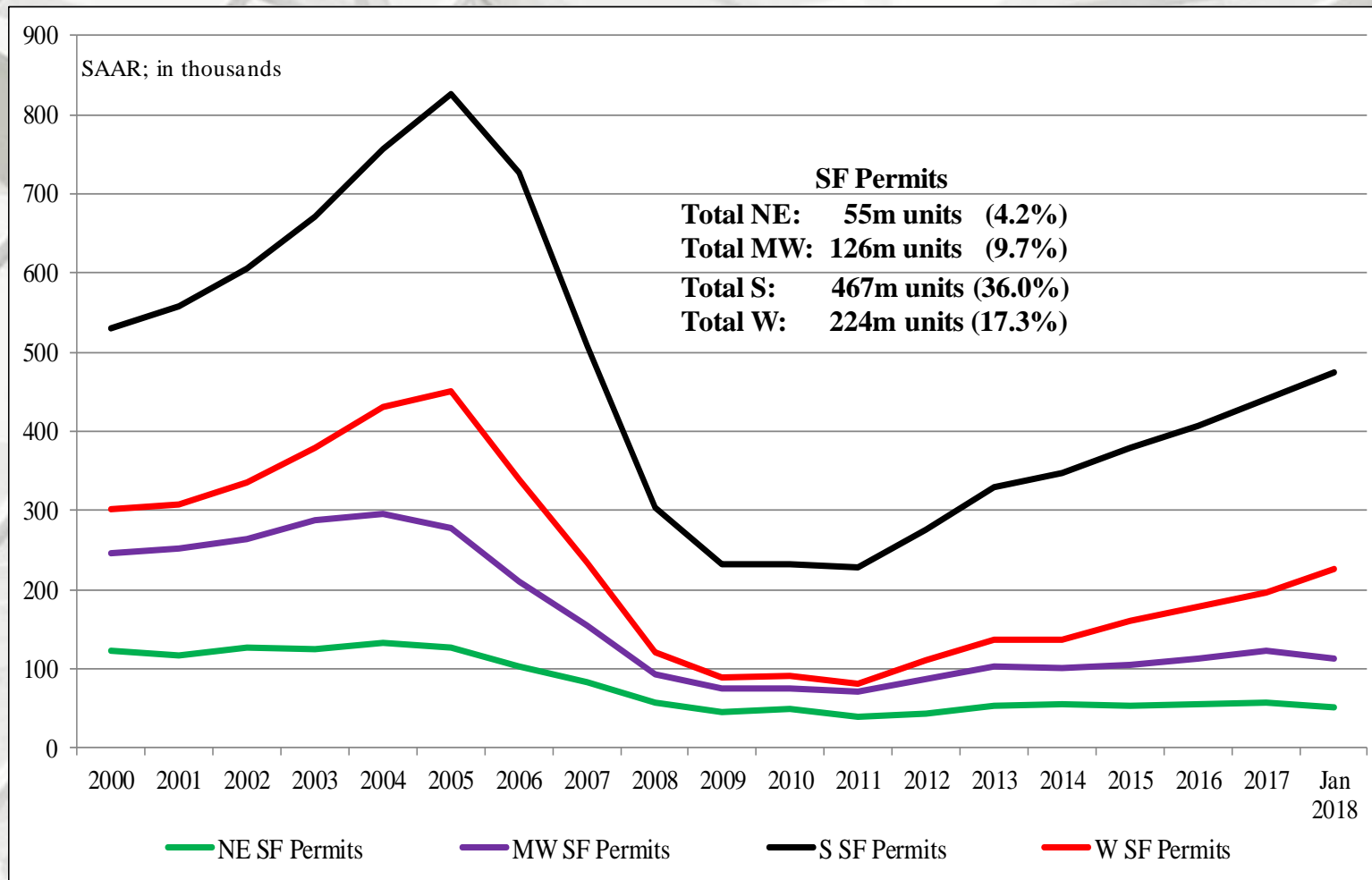
• \*\* US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

# Total Housing Permits by Region



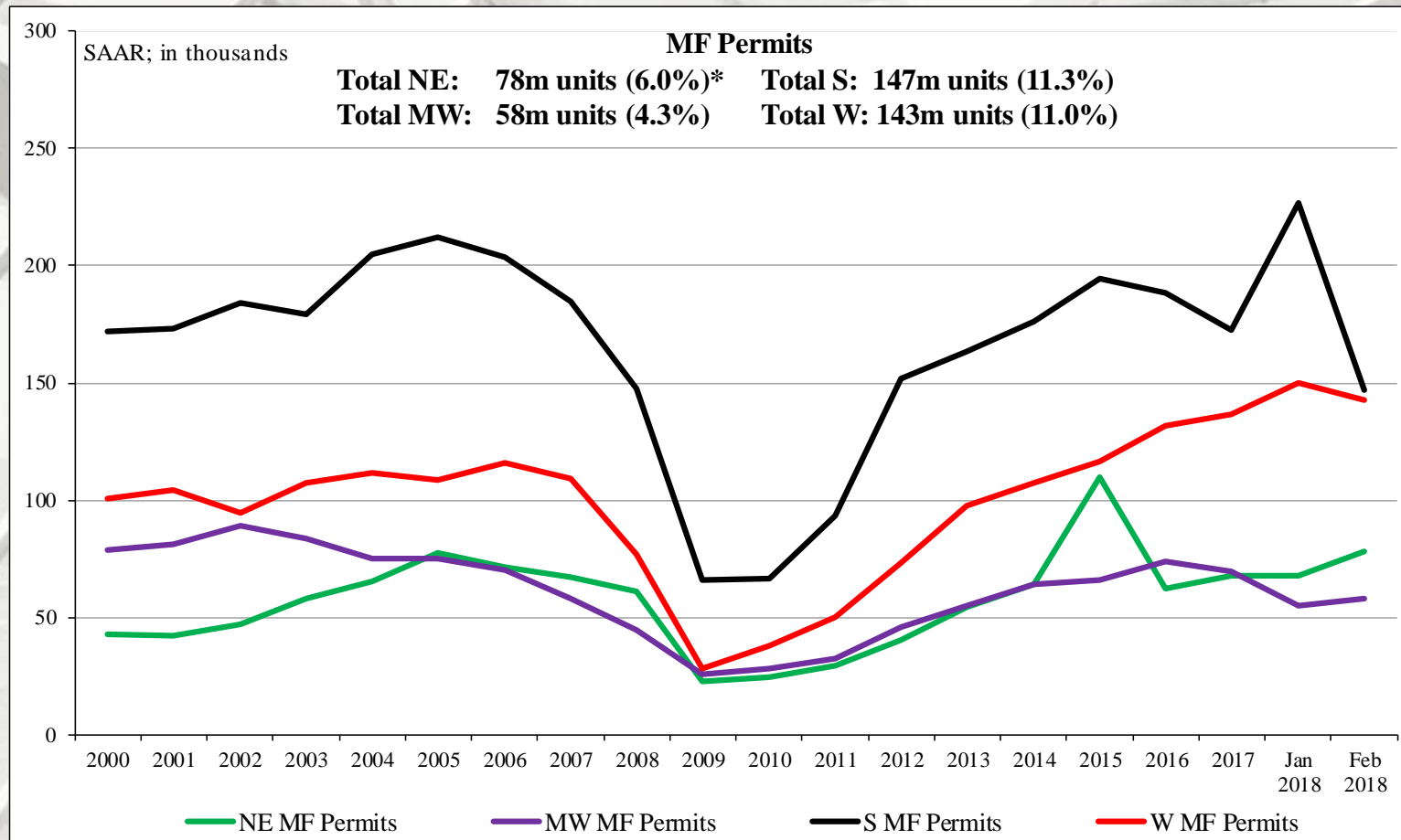
\* Percentage of total permits.

# SF Housing Permits by Region



\* Percentage of total permits.

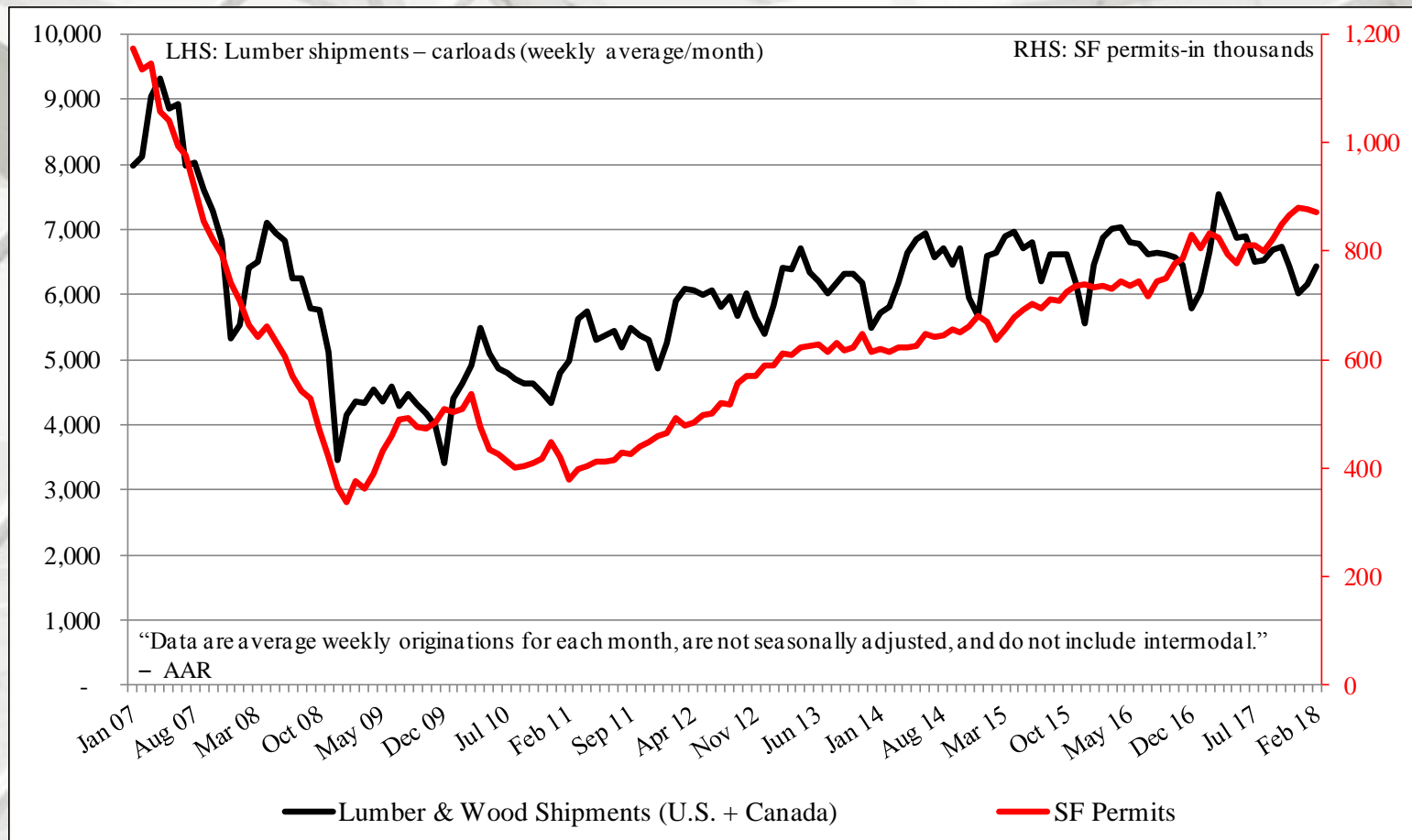
# MF Housing Permits by Region



\* Percentage of total permits.



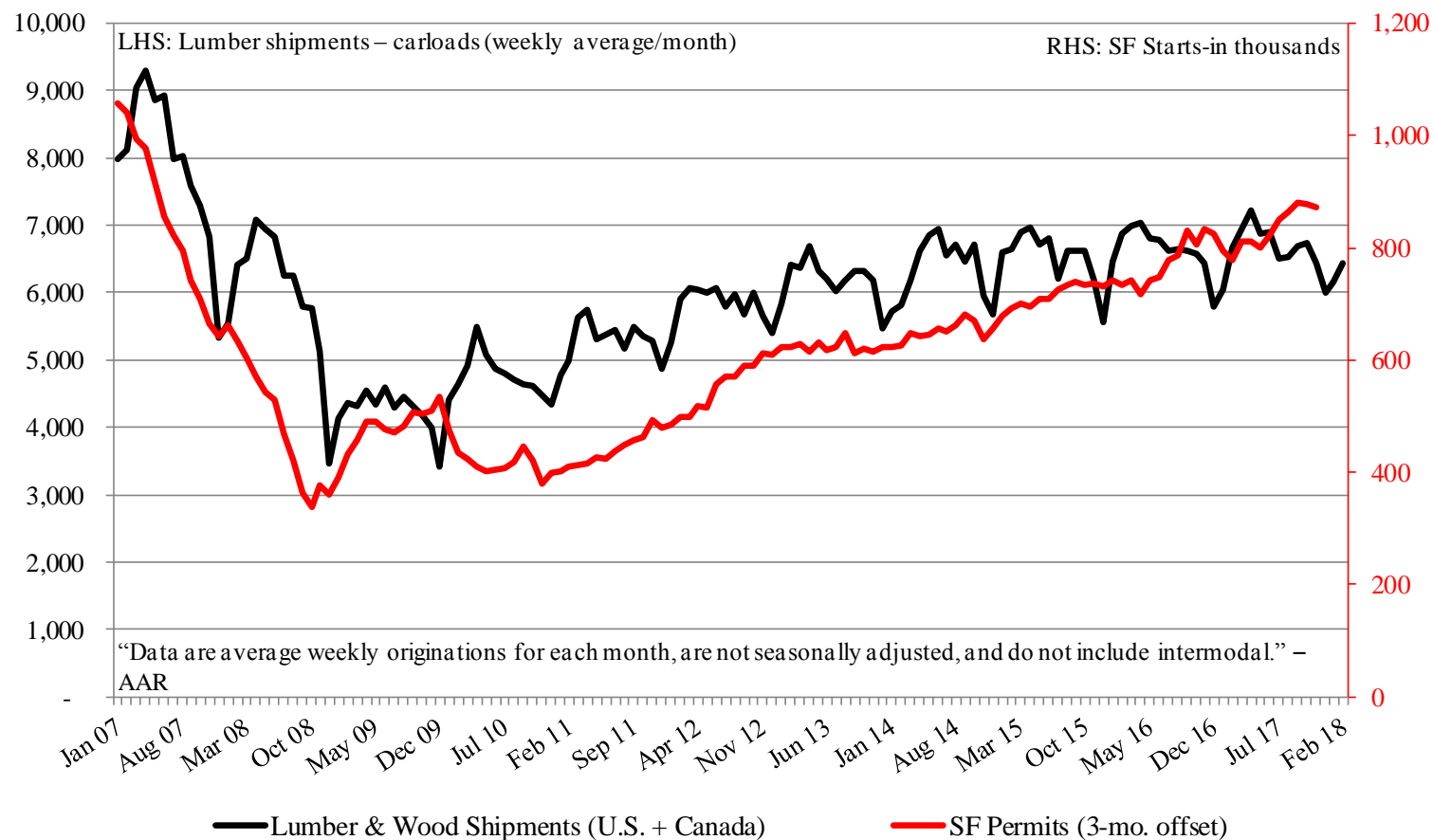
# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 3/9/18; U.S. DOC-Construction; 3/16/18

**Return to TOC**

# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits: 3-month Offset



In this graph, January 2007 lumber shipments are contrasted with April 2007 SF permits, continuing through February 2017. The purpose is to discover if lumber shipments relate to future single-family permits. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

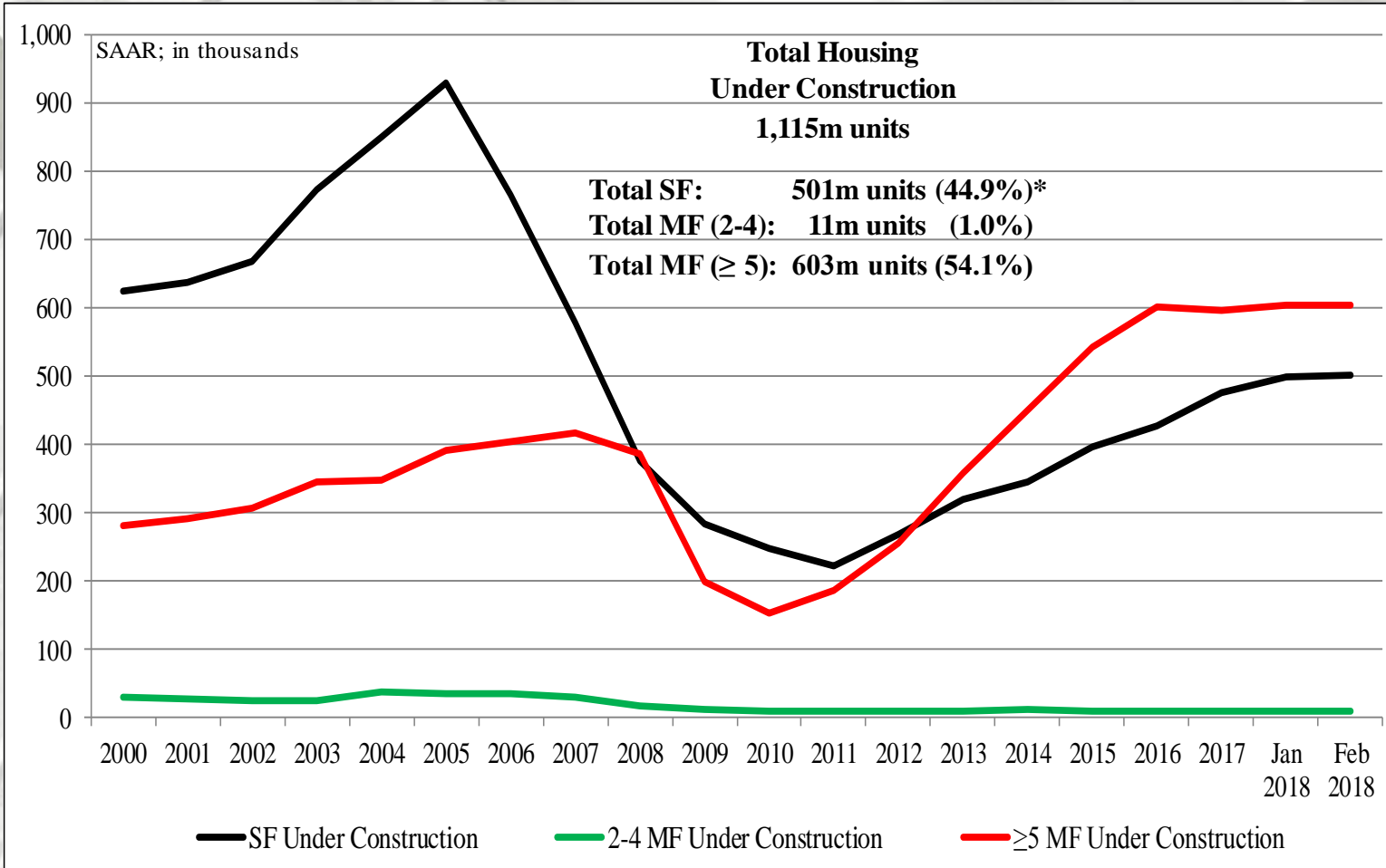
# New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
February	1,115,000	501,000	11,000	603,000
January	1,114,000	500,000	10,000	604,000
2017	1,080,000	455,000	11,000	614,000
M/M change	0.1%	0.2%	10.0%	-0.2%
Y/Y change	3.2%	10.1%	0.0%	-1.8%

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



\* Percentage of total housing under construction units.

# New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
February	186,000	53,000	133,000
January	188,000	53,000	135,000
2017	194,000	54,000	140,000
M/M change	-1.1%	0.0%	-1.5%
Y/Y change	-4.1%	-1.9%	-5.0%

	MW Total	MW SF	MW MF
February	152,000	81,000	71,000
January	151,000	82,000	69,000
2017	151,000	76,000	75,000
M/M change	0.7%	-1.2%	2.9%
Y/Y change	0.7%	6.6%	-5.3%

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

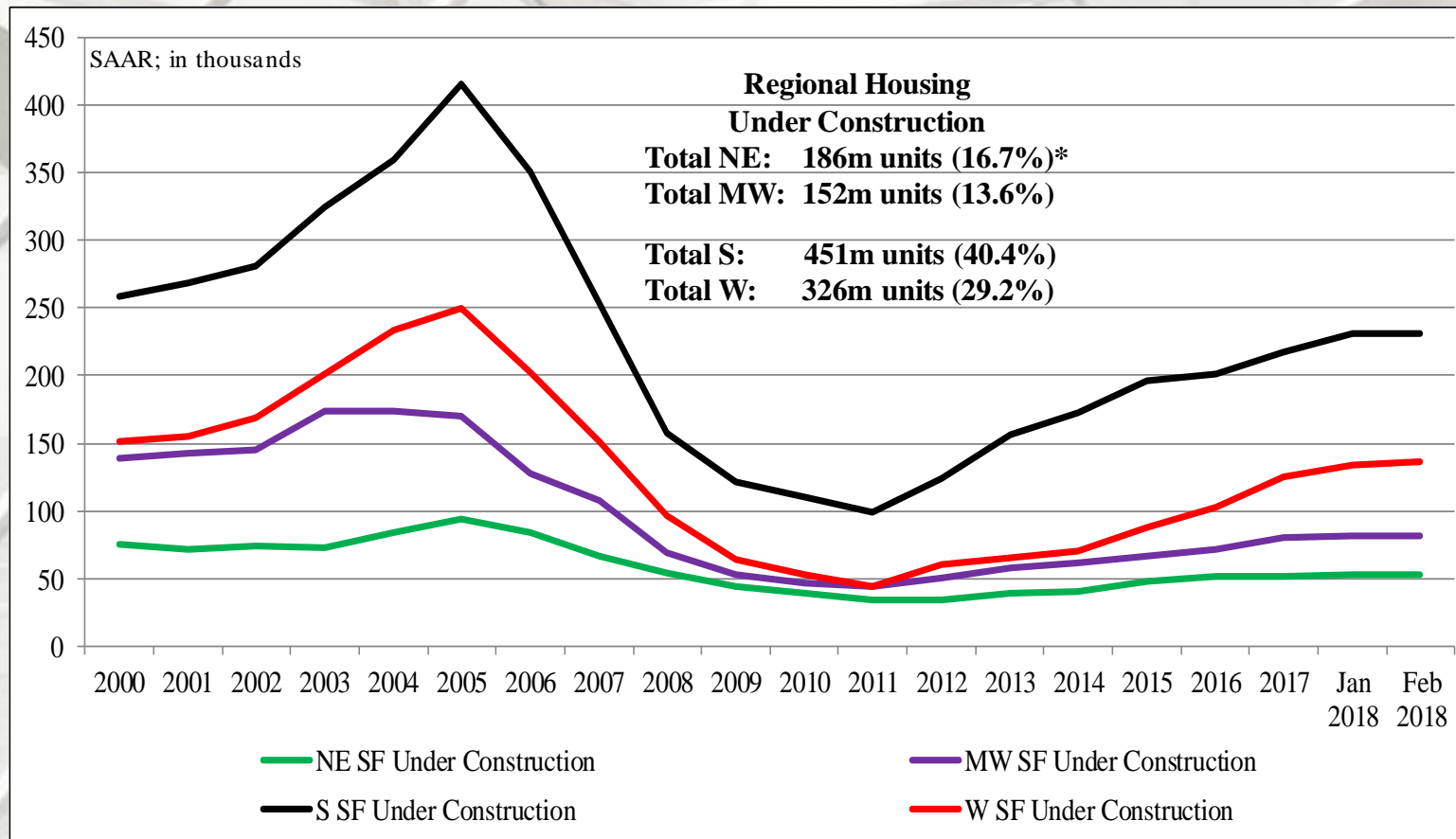
	<b>S Total</b>	<b>S SF</b>	<b>S MF**</b>
February	451,000	231,000	220,000
January	450,000	231,000	219,000
2017	452,000	215,000	237,000
M/M change	0.2%	0.0%	0.5%
Y/Y change	-0.2%	7.4%	-7.2%
	<b>W Total</b>	<b>W SF</b>	<b>W MF</b>
February	326,000	136,000	190,000
January	325,000	134,000	191,000
2017	283,000	110,000	173,000
M/M change	0.3%	1.5%	-0.5%
Y/Y change	15.2%	23.6%	9.8%

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).

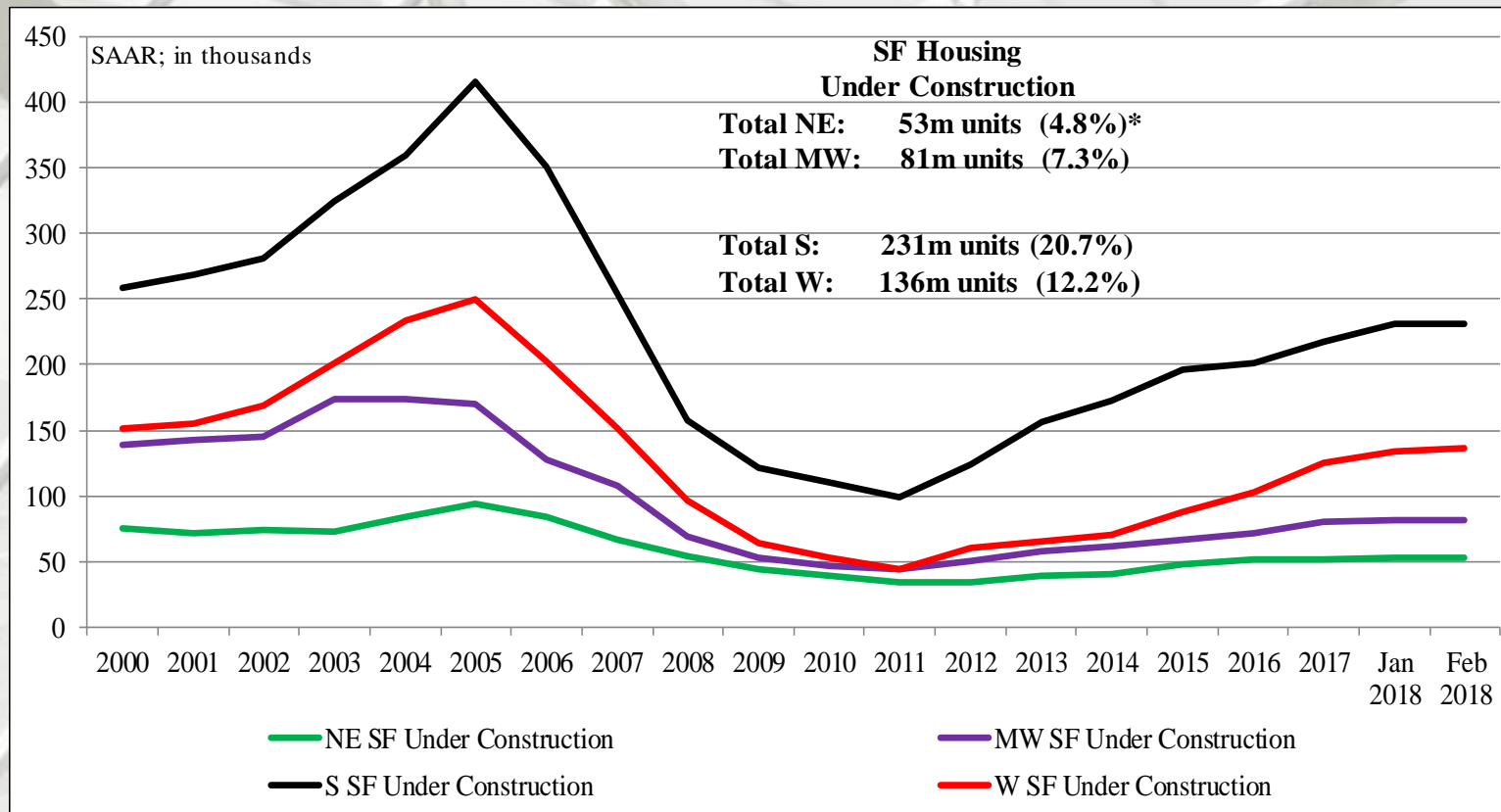


# Total Housing Under Construction by Region



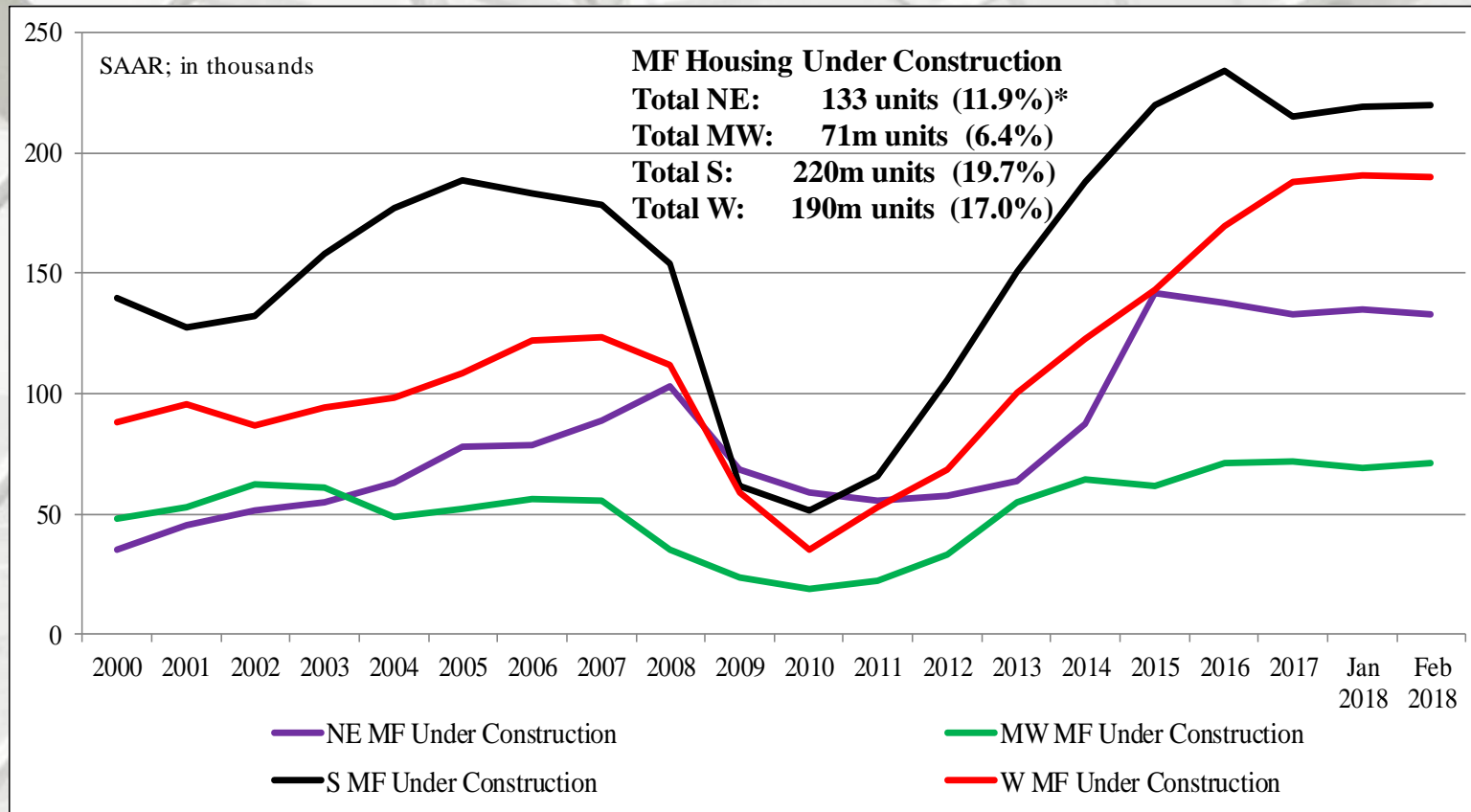
\* Percentage of total housing under construction units.

# SF Housing Under Construction by Region



\* Percentage of total housing under construction units.

# MF Housing Under Construction by Region



\* Percentage of total housing under construction units.

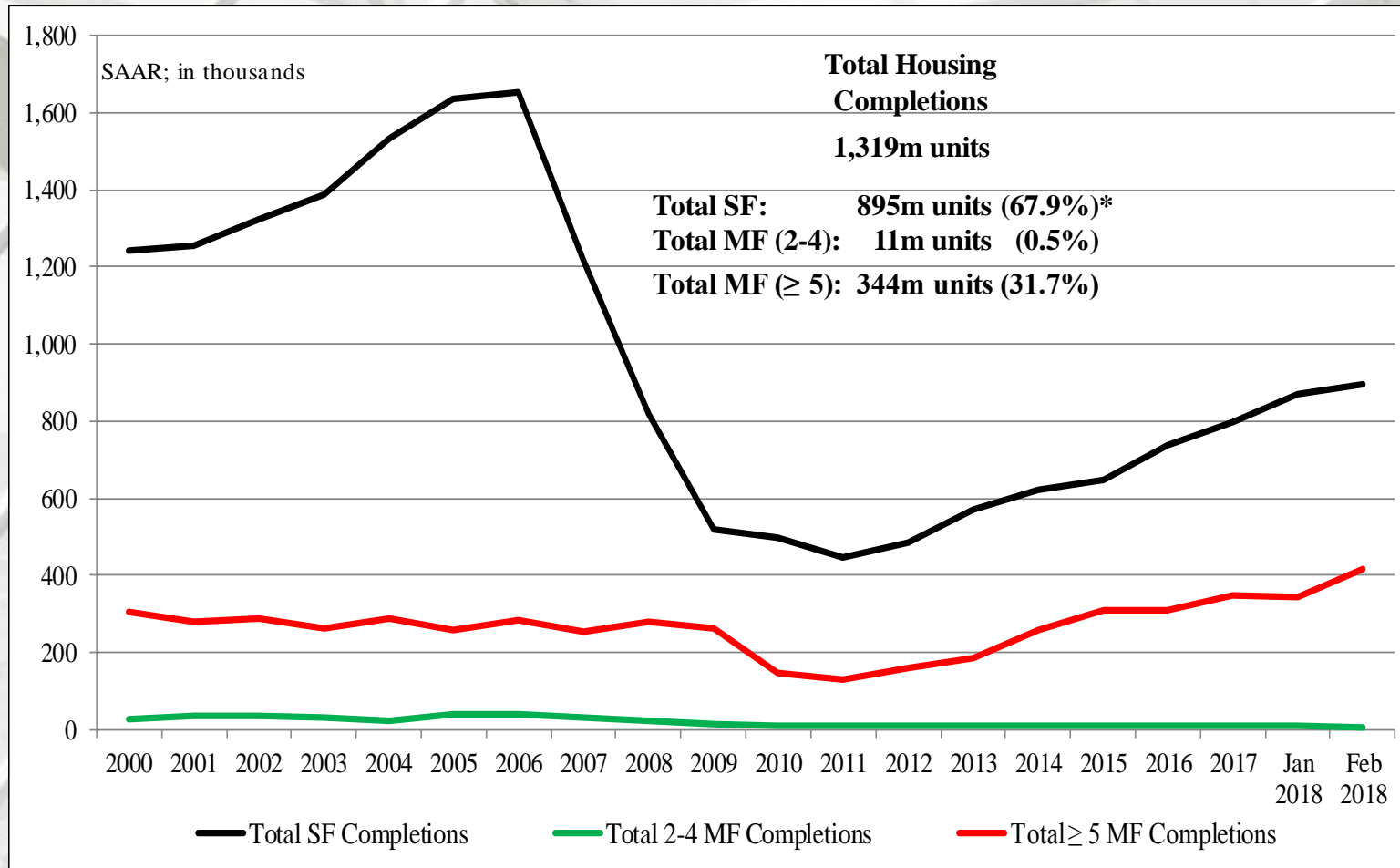
# New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
February	1,319,000	895,000	6,000	418,000
January	1,224,000	869,000	11,000	344,000
2017	1,161,000	763,000	16,000	382,000
M/M change	7.8%	3.0%	-45.5%	21.5%
Y/Y change	13.6%	17.3%	-62.5%	9.4%

\* 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



\* Percentage of total housing completions

# Total Housing Completions by Region

	NE Total	NE SF	NE MF**
February	160,000	61,000	99,000
January	113,000	60,000	53,000
2017	119,000	40,000	44,300
M/M change	41.6%	1.7%	86.8%
Y/Y change	34.5%	52.5%	123.5%
	MW Total	MW SF	MW MF
February	164,000	129,000	35,000
January	169,000	131,000	38,000
2017	123,000	108,000	15,000
M/M change	-3.0%	-1.5%	-7.9%
Y/Y change	33.3%	19.4%	133.3%

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

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



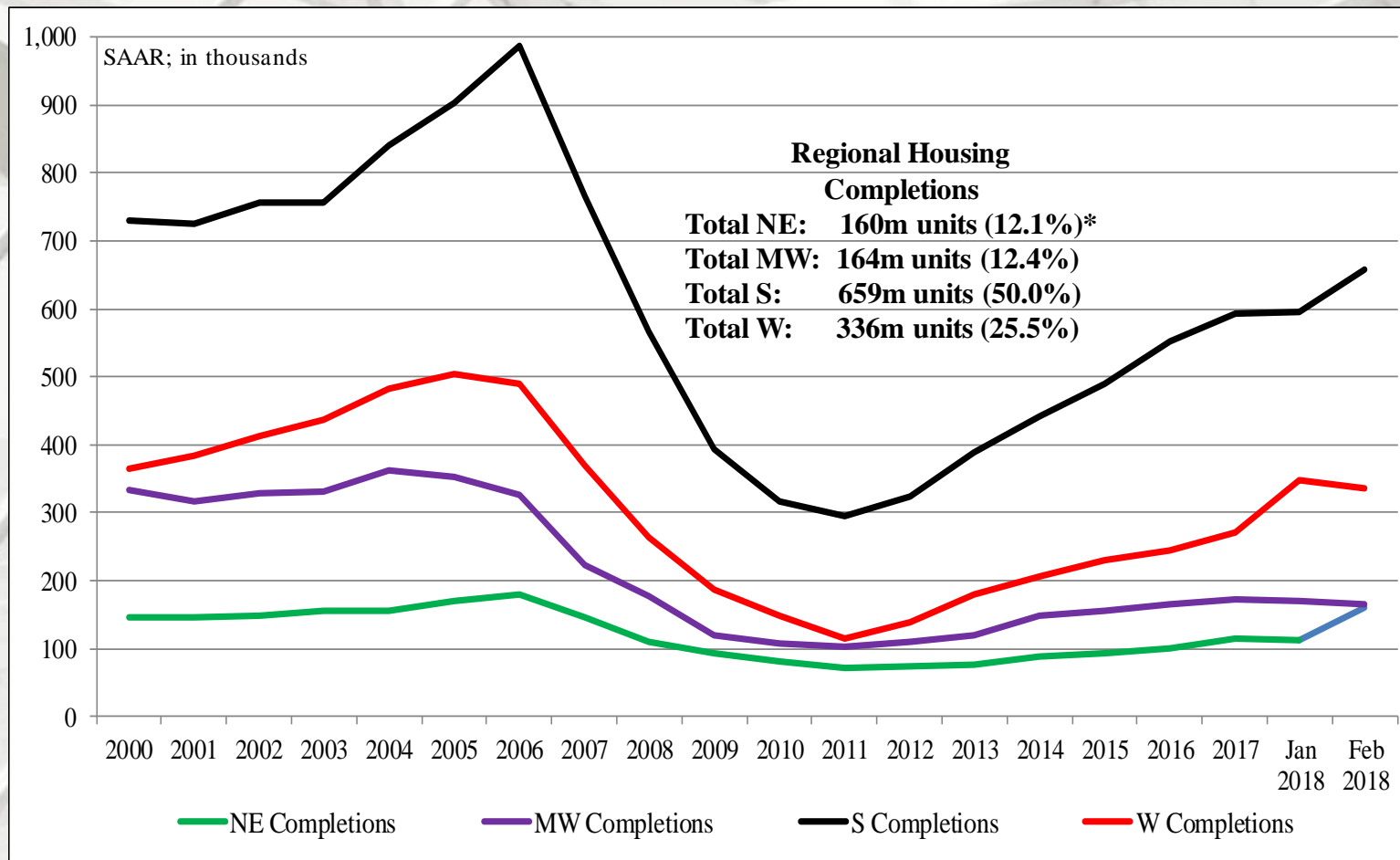
# Total Housing Completions by Region

	S Total	S SF	S MF**
February	659,000	484,000	175,000
January	595,000	450,000	145,000
2017	575,000	402,000	173,000
M/M change	10.8%	7.6%	20.7%
Y/Y change	14.6%	20.4%	1.2%
	W Total	W SF	W MF
February	336,000	221,000	115,000
January	347,000	228,000	119,000
2017	344,000	213,000	131,000
M/M change	-3.2%	-3.1%	-3.4%
Y/Y change	-2.3%	3.8%	-12.2%

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

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

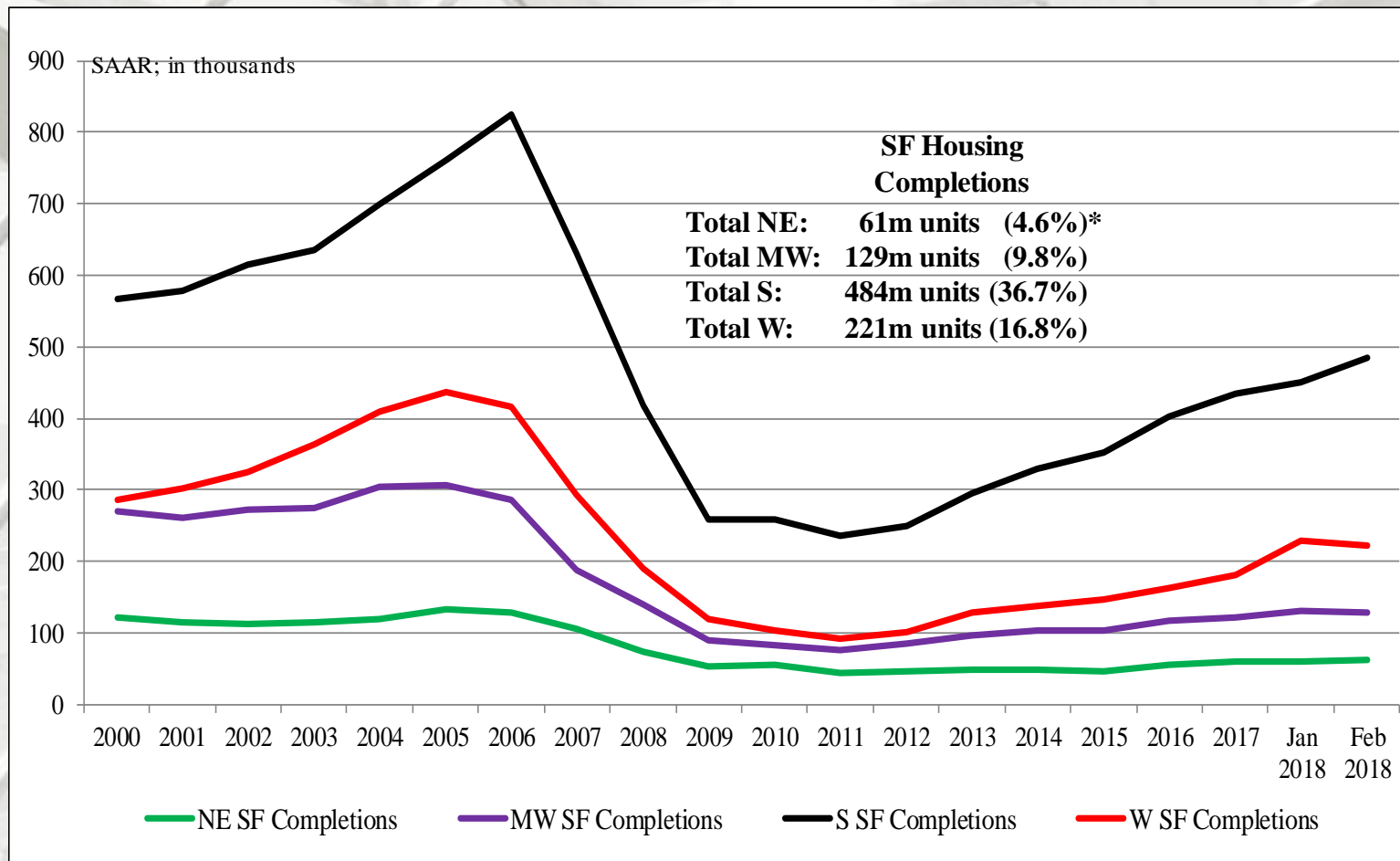
# New Housing Completions by Region



All data are SAAR; NE = Northeast and MW = Midwest; \* Percentage of total housing completions.

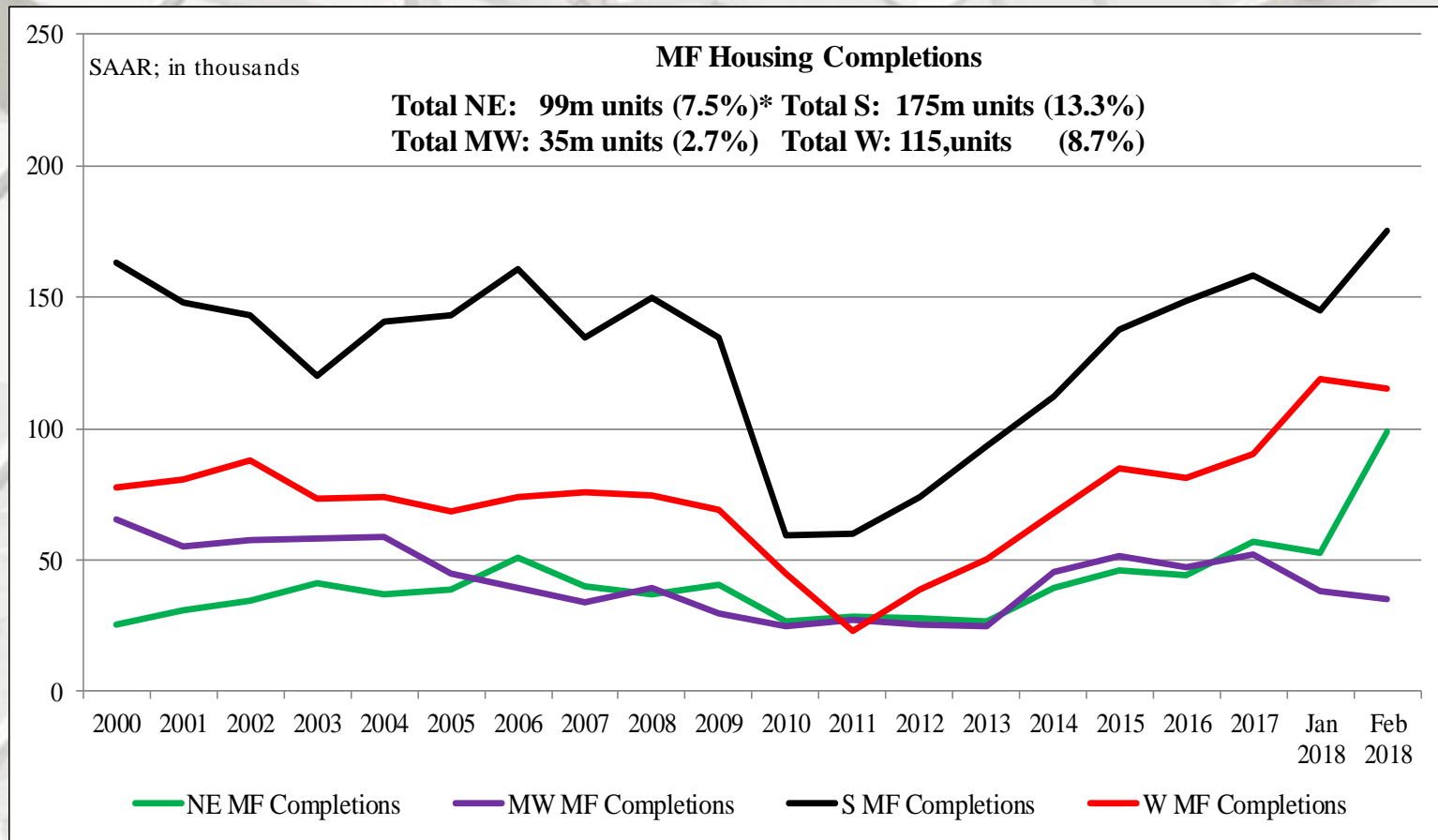
\*\* US DOC does not report multifamily completions directly, this is an estimation (Total completions – SF completions).

# SF Housing Completions by Region



\* Percentage of total housing completions.

# MF Housing Completions by Region



\* Percentage of total housing completions.

# New Single-Family House Sales

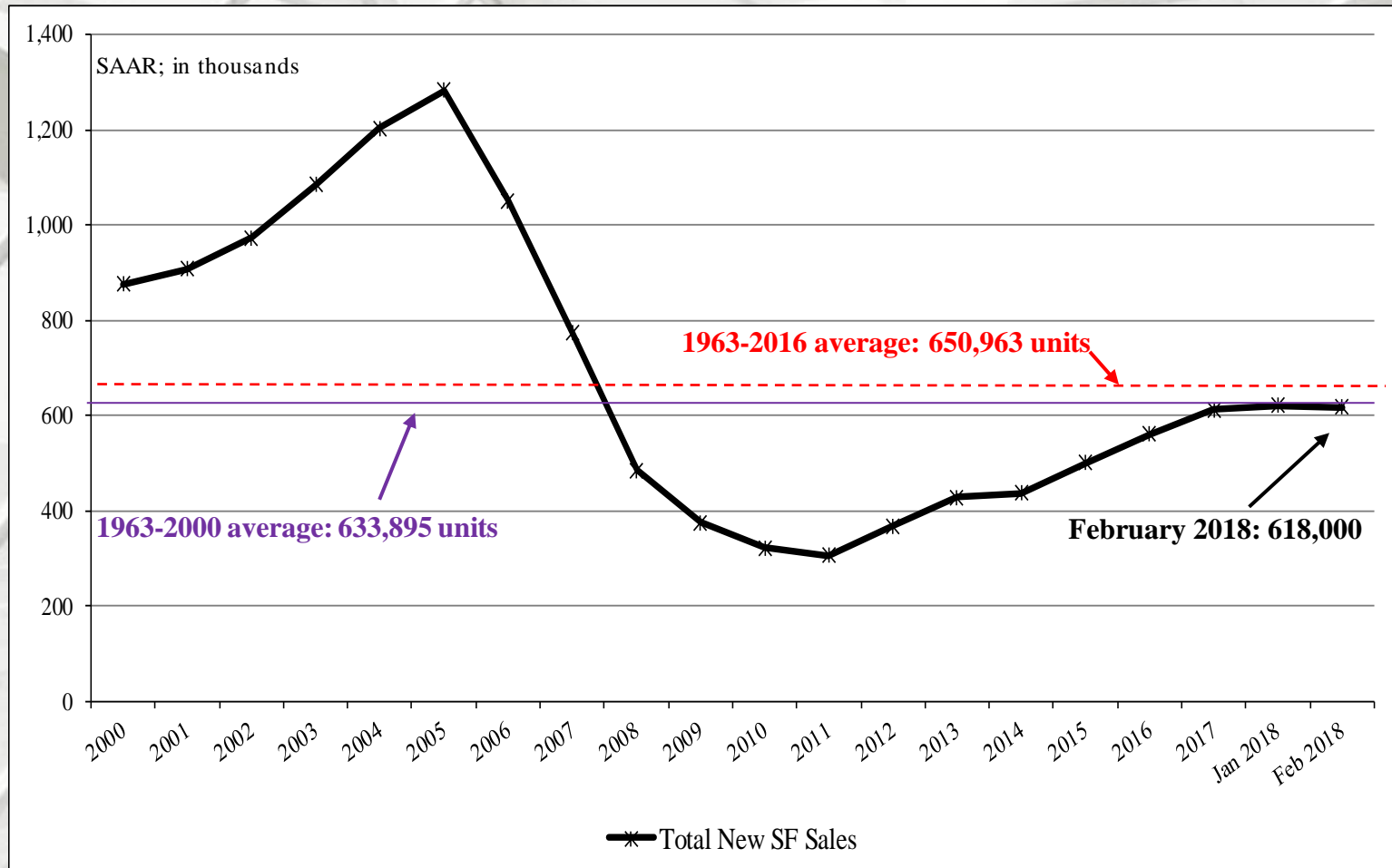
	New SF Sales*	Median Price	Mean Price	Month's Supply
February	618,000	\$326,800	\$376,700	5.9
January	622,000	\$324,900	\$377,100	5.8
2017	615,000	\$298,000	\$370,500	5.1
M/M change	-0.6%	0.6%	-0.1%	1.7%
Y/Y change	0.5%	0.0%	8.8%	15.7%

\* 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 minimally less than the consensus forecast (620 m)<sup>3</sup>. The past three month's new SF sales data were revised substantially downward:

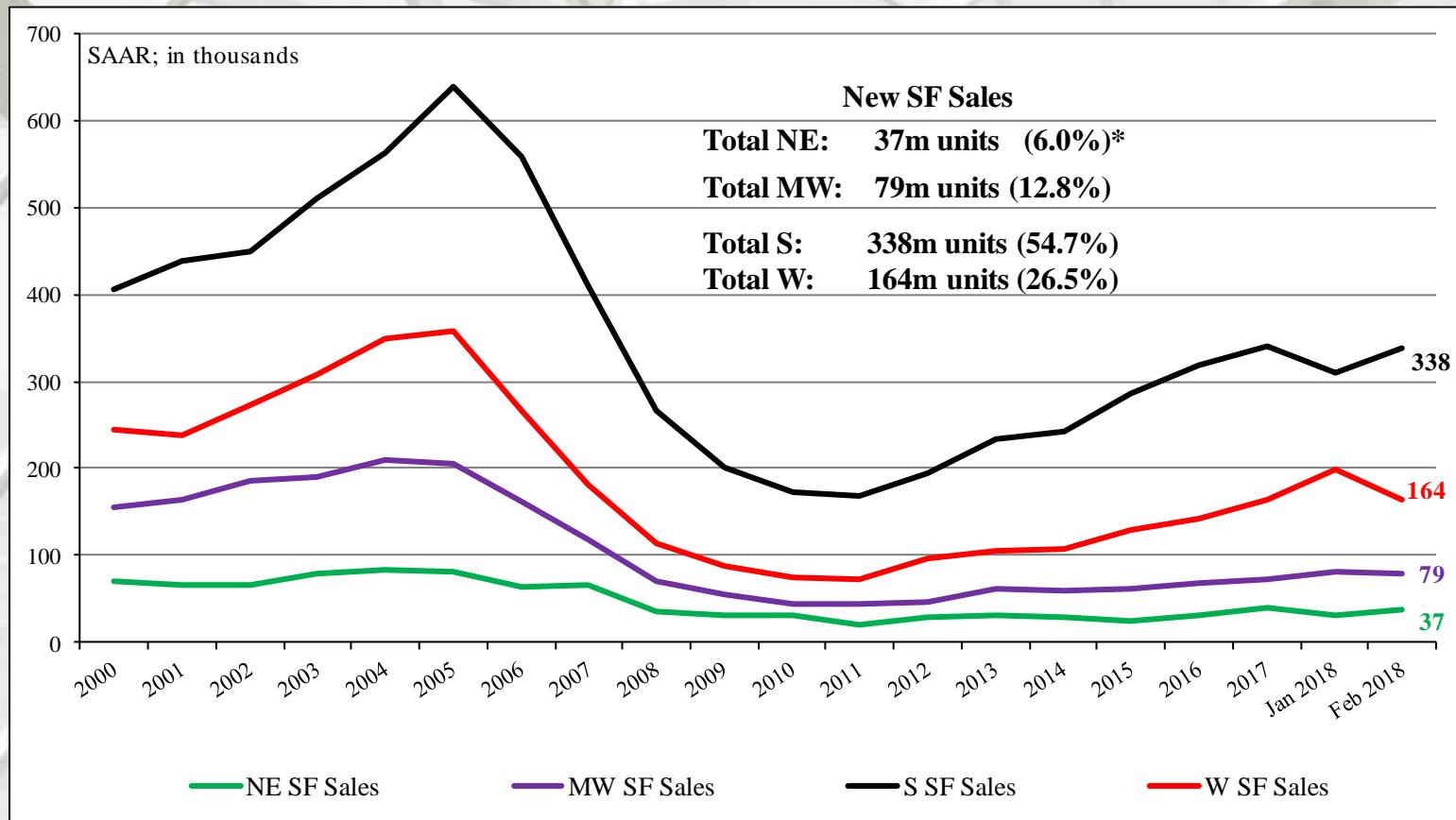
November initial:	733 m revised to 711 m;
December initial:	625 m revised to 653 m;
January initial:	593 m revised to 622 m.

# New SF House Sales



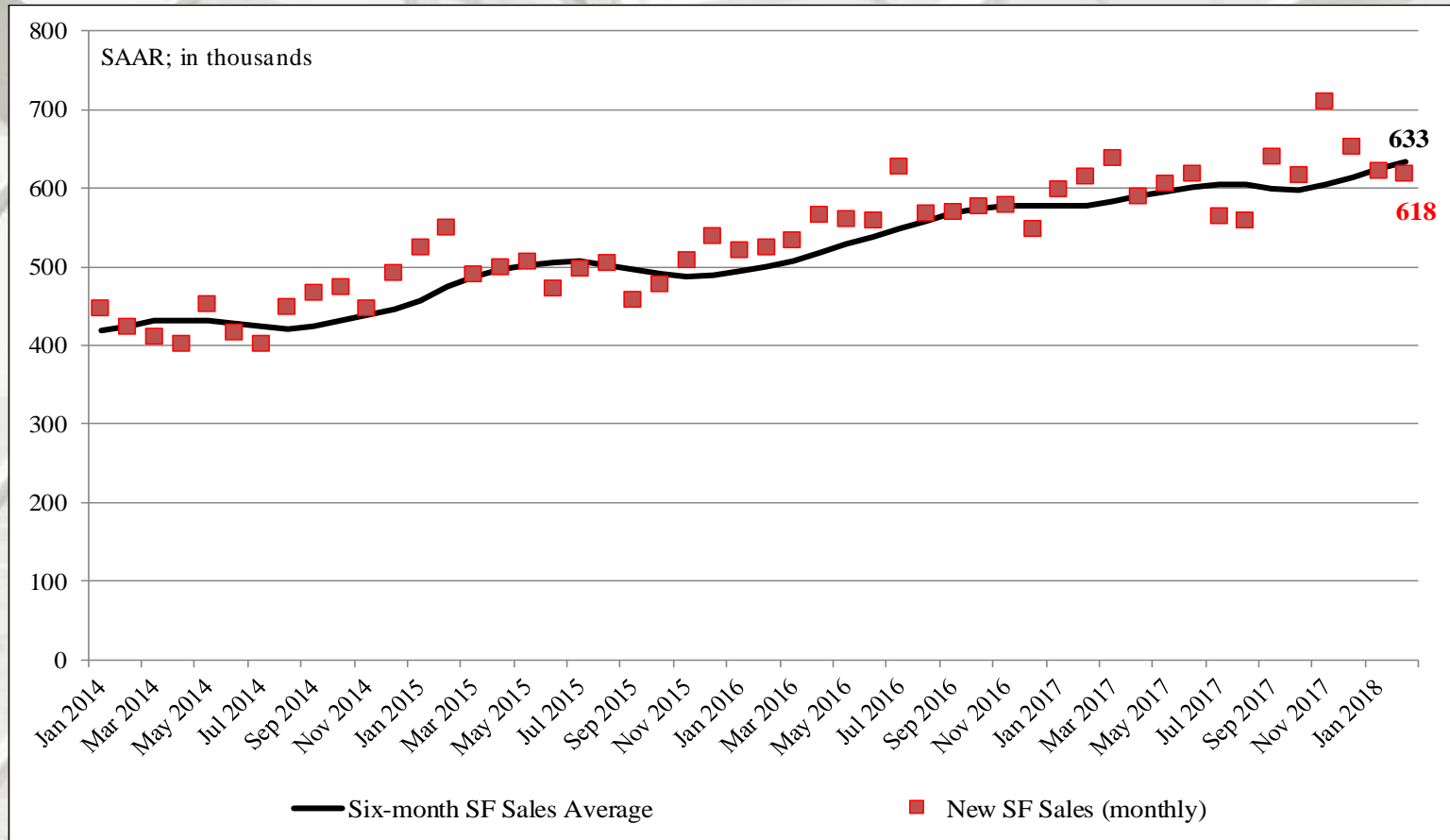


# New SF House Sales by Region

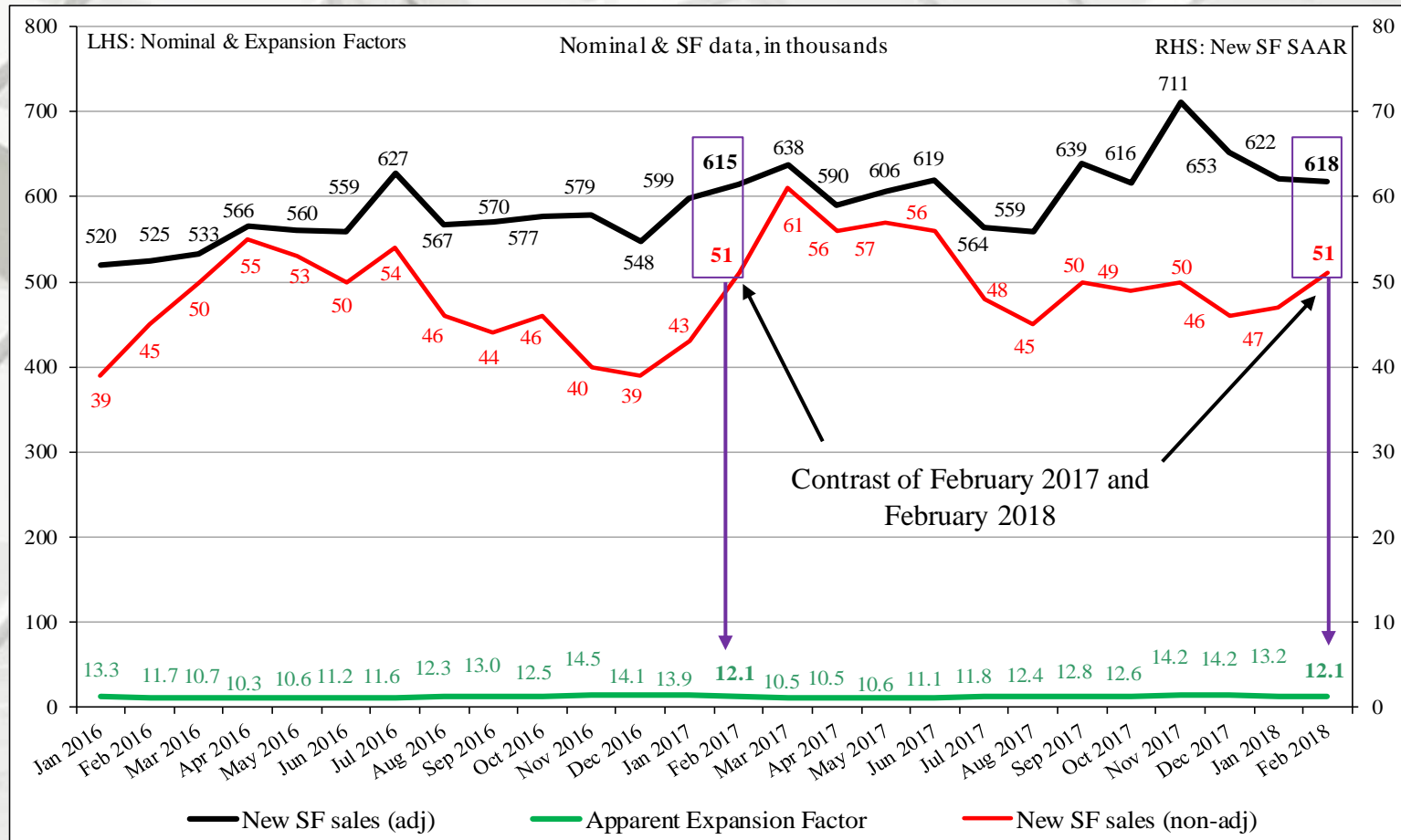


\* Percentage of total new sales.

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



# Nominal vs. SAAR New SF House Sales

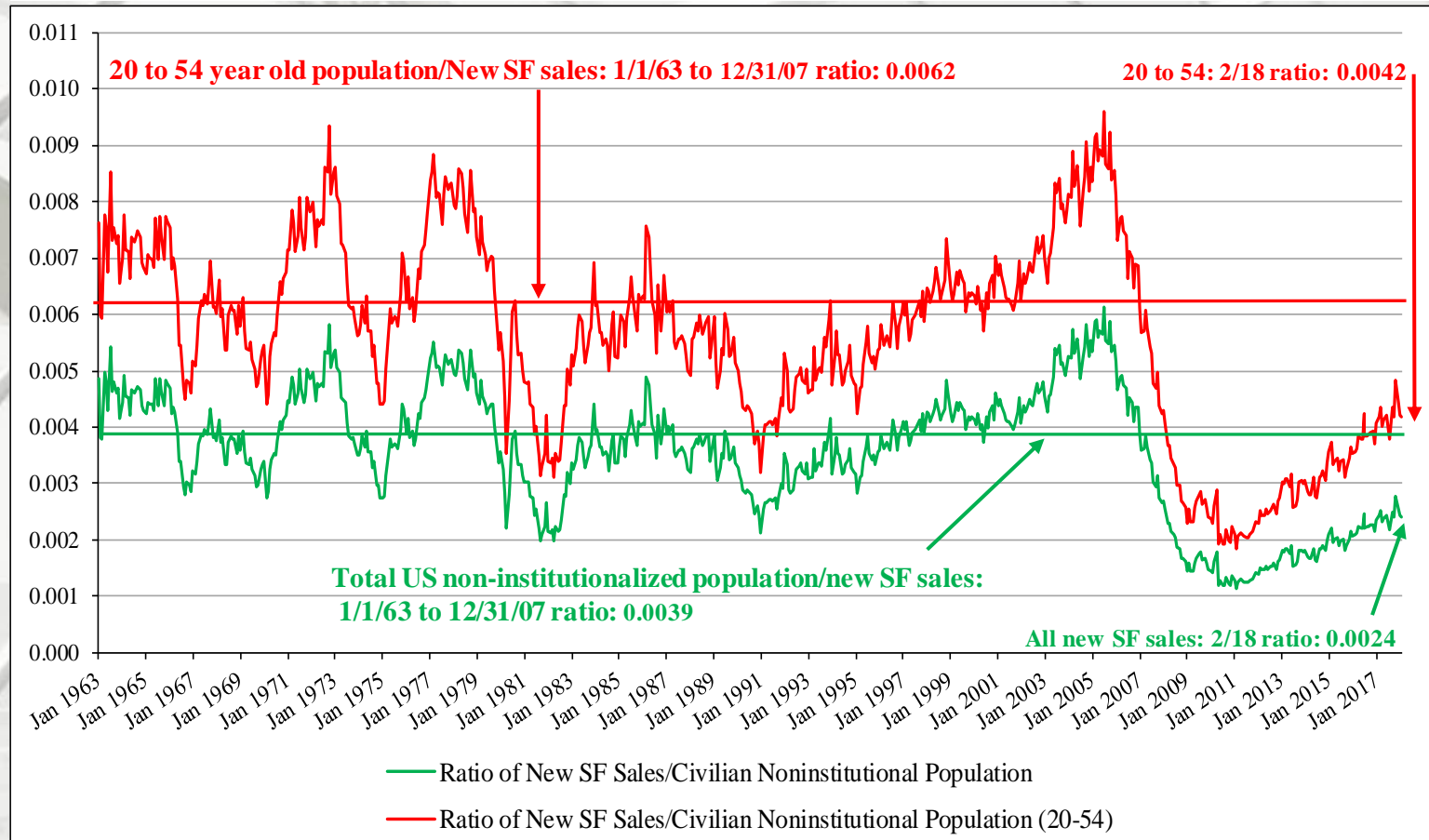


## Nominal and Adjusted New SF Monthly Sales

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

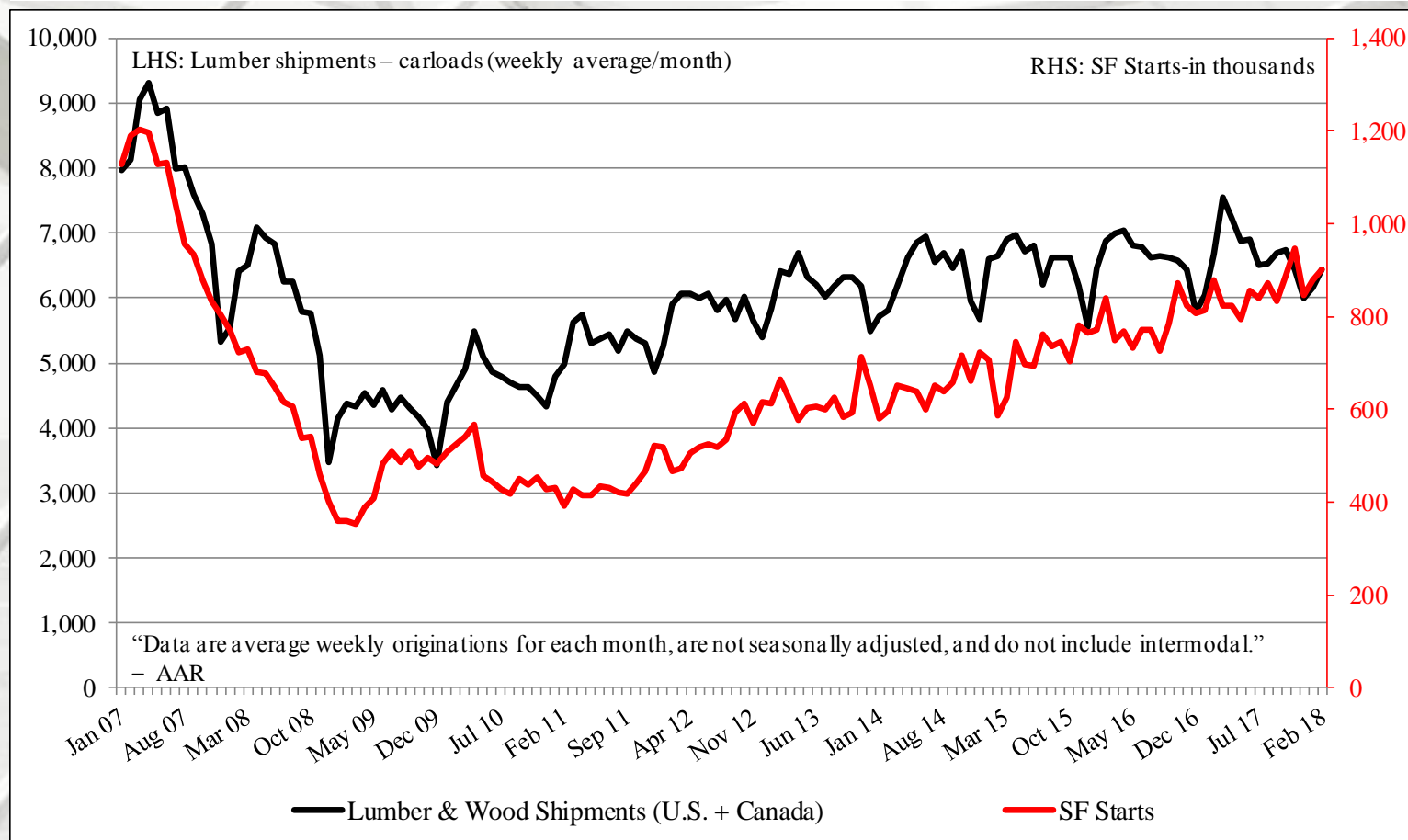
# New SF House Sales



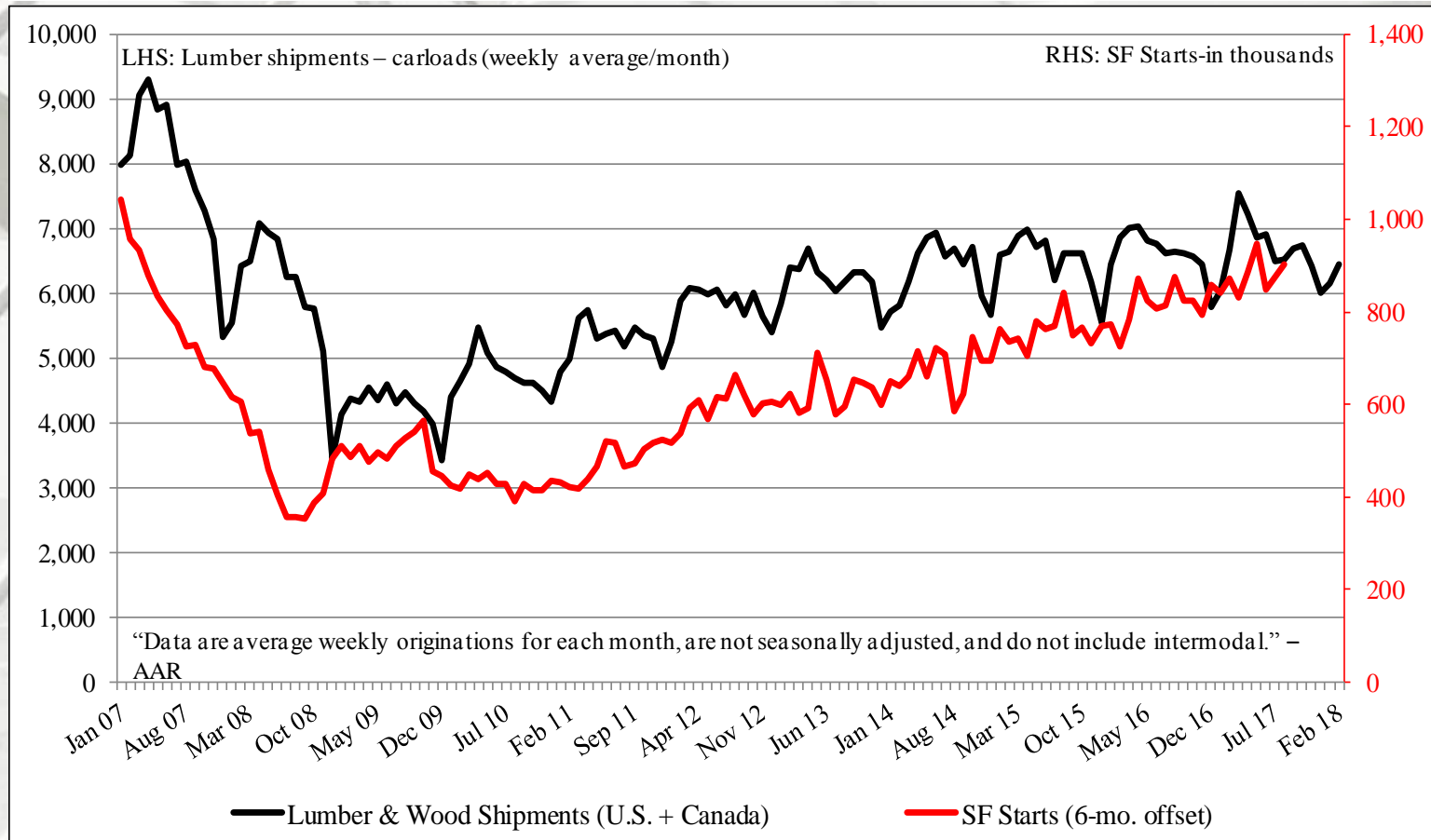
## New SF sales adjusted for the US population

From February 1963 to November 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in February 2018 it was 0.0024 – no change from January. The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in February 2018 it was 0.0042 – also no change from January. All are non-adjusted data. From a population viewpoint, construction is less than what is necessary for changes in population (i.e., under-building).

# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Sales



# Railroad Lumber & Wood Shipments vs. U.S. SF Housing Sales: 1-year Offset



In this graph, February 2007 lumber shipments are contrasted with July 2007 SF starts, and continuing through February 2018 SF starts. The purpose is to discover if lumber shipments relate to future single-family starts. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.



# New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
February	37,000	79,000	338,000	164,000
January	31,000	82,000	310,000	199,000
2017	34,000	86,000	336,000	159,000
M/M change	19.4%	-3.7%	9.0%	-17.6%
Y/Y change	8.8%	-8.1%	0.6%	3.1%

	\$150 - ≤ \$150m	\$200 - \$199.9m	\$300 - 299.9m	\$400 - \$399.9m	\$500 - \$499.9m	\$750 - \$749.9m	≥ \$750m
February <sup>1,2,3,4</sup>	2,000	5,000	15,000	14,000	6,000	6,000	3,000
January	2,000	5,000	13,000	11,000	7,000	6,000	2,000
2017	2,000	7,000	17,000	9,000	8,000	5,000	2,000
M/M change	0.0%	0.0%	15.4%	27.3%	-14.3%	0.0%	50.0%
Y/Y change	0.0%	-28.6%	-23.5%	22.2%	-12.5%	20.0%	0.0%

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

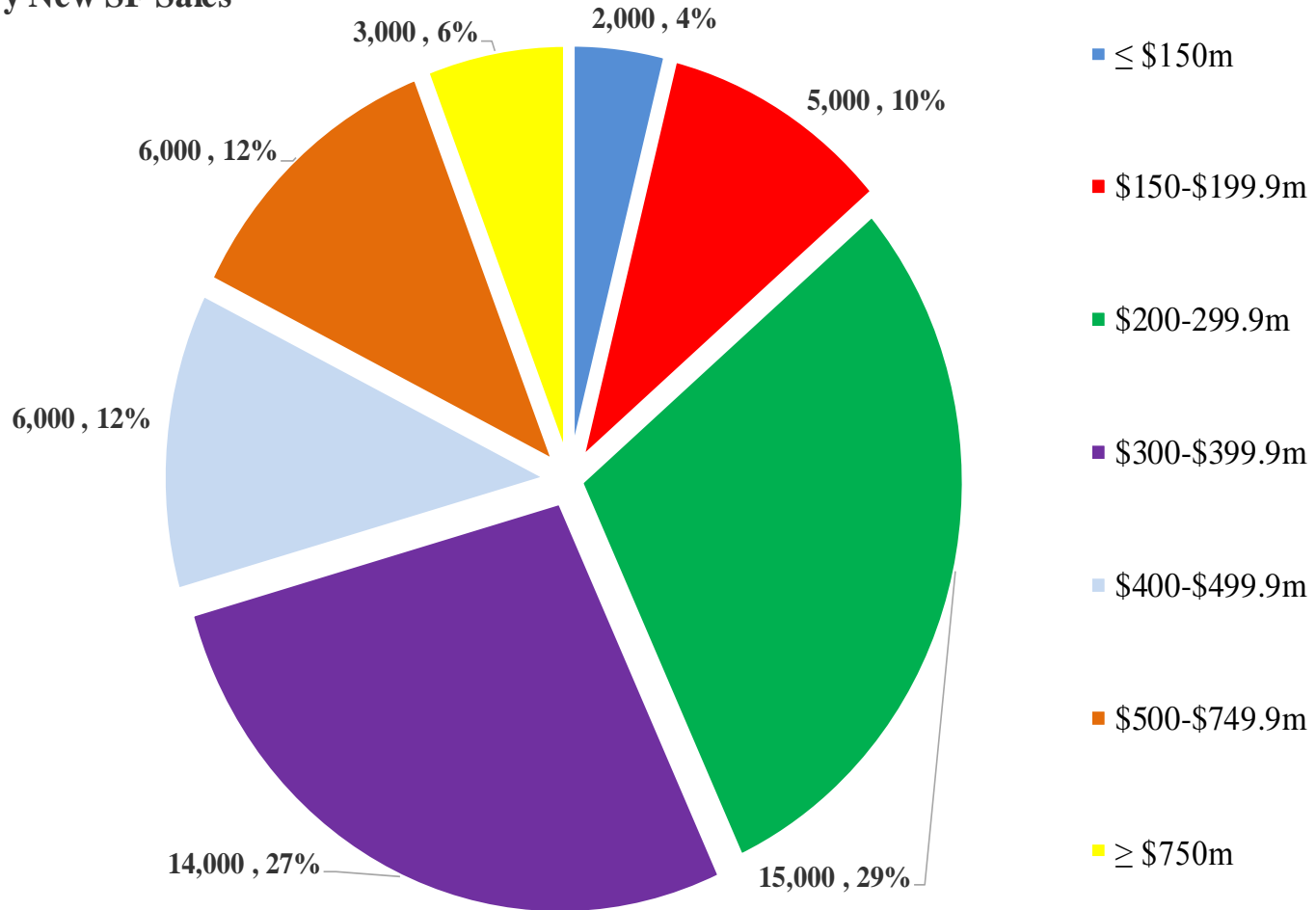
<sup>2</sup> Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

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

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

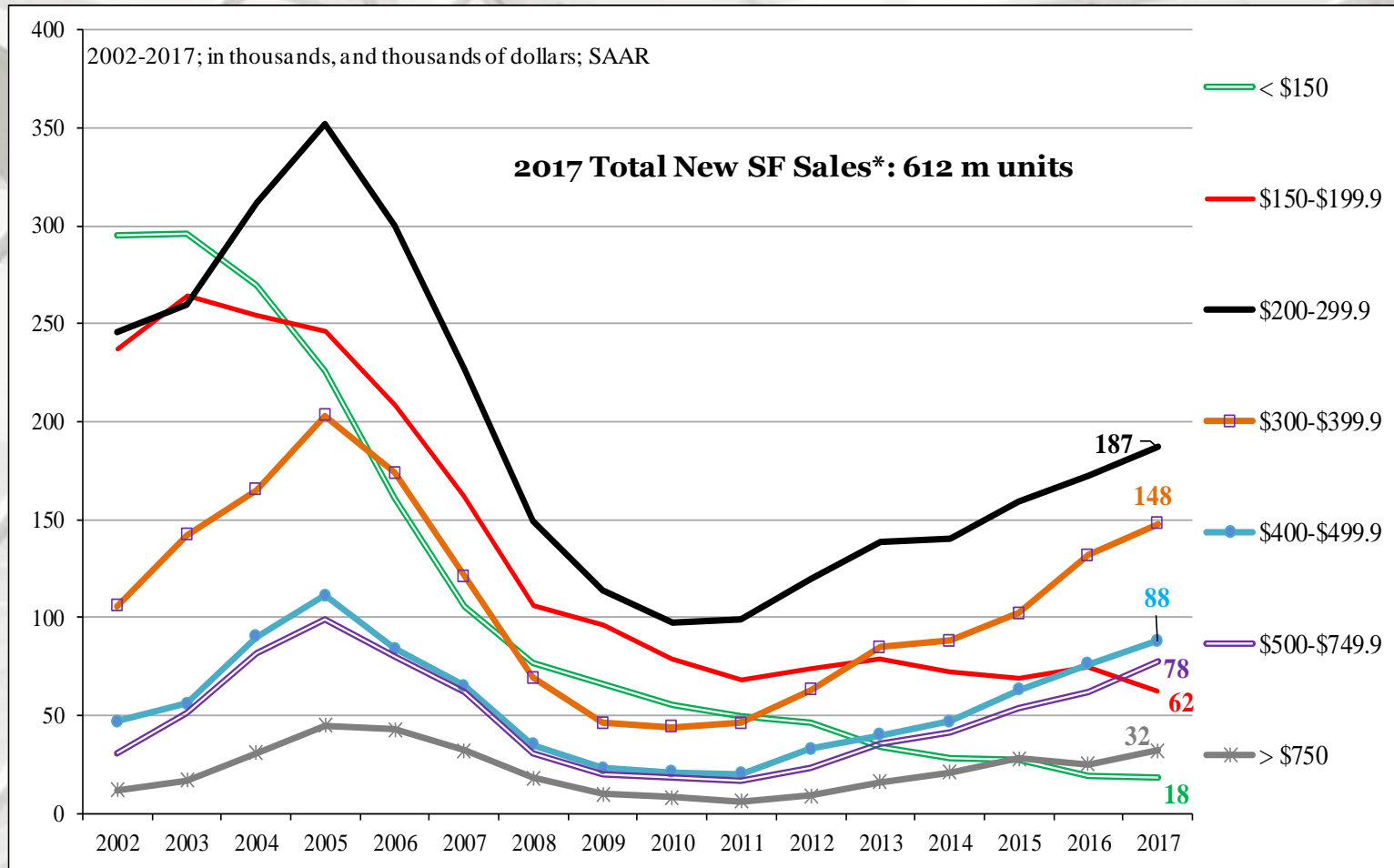
# New SF House Sales

February New SF Sales\*



\* Total and percent of new sales by price category.

# New SF House Sales by Price Category



\* Sales tallied by price category.

# New SF House Sales

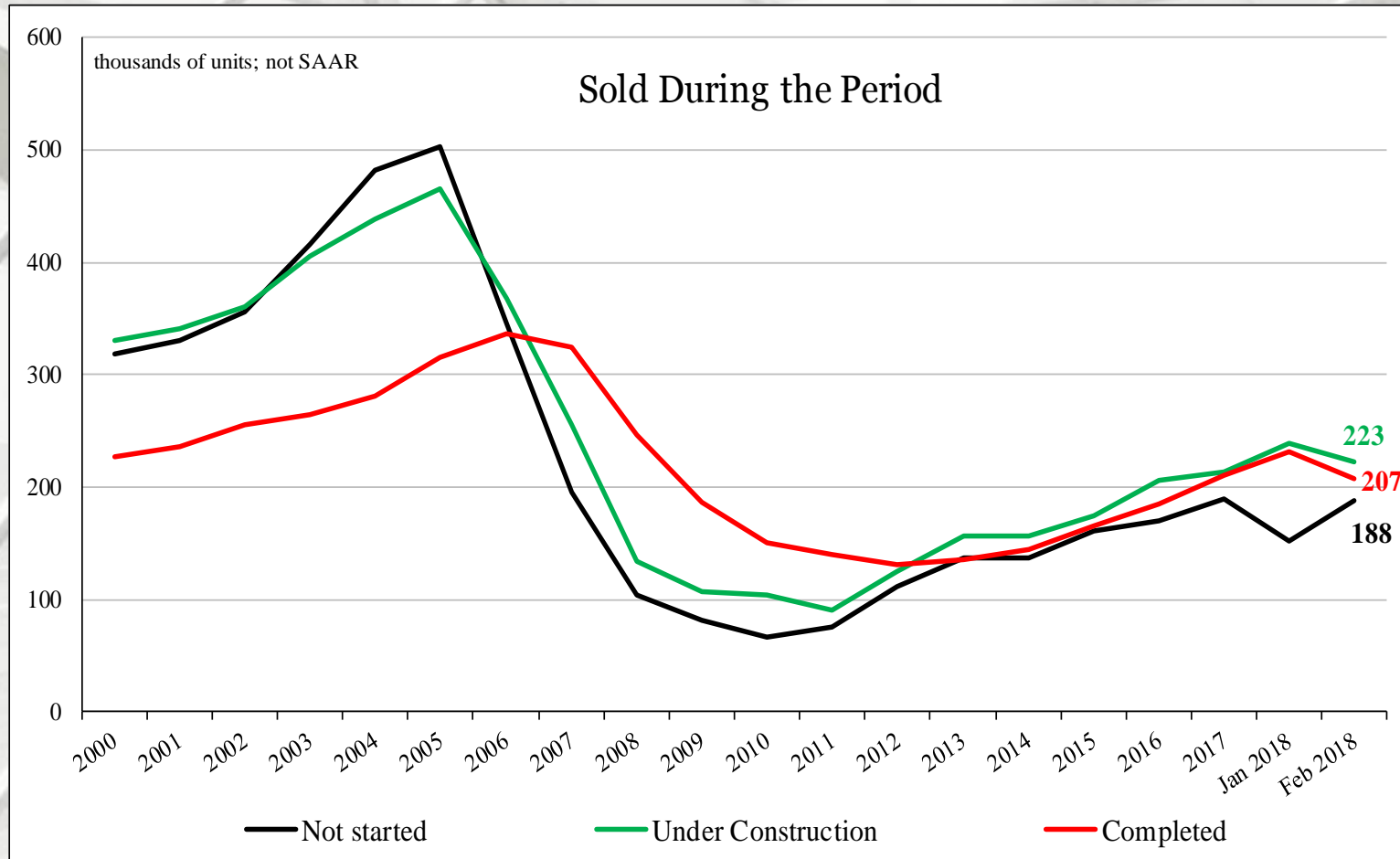
## New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
February	618,000	188,000	223,000	207,000
January	622,000	152,000	239,000	231,000
2016	615,000	177,000	224,000	214,000
M/M change	-0.6%	23.7%	-6.7%	-10.4%
Y/Y change	0.5%	6.2%	-0.4%	-3.3%
Total percentage		30.4%	36.1%	33.5%

## New SF Houses Sold During Period

In February 2018, a substantial portion of new sales – 30.4% – have not been started.

# New SF House Sales



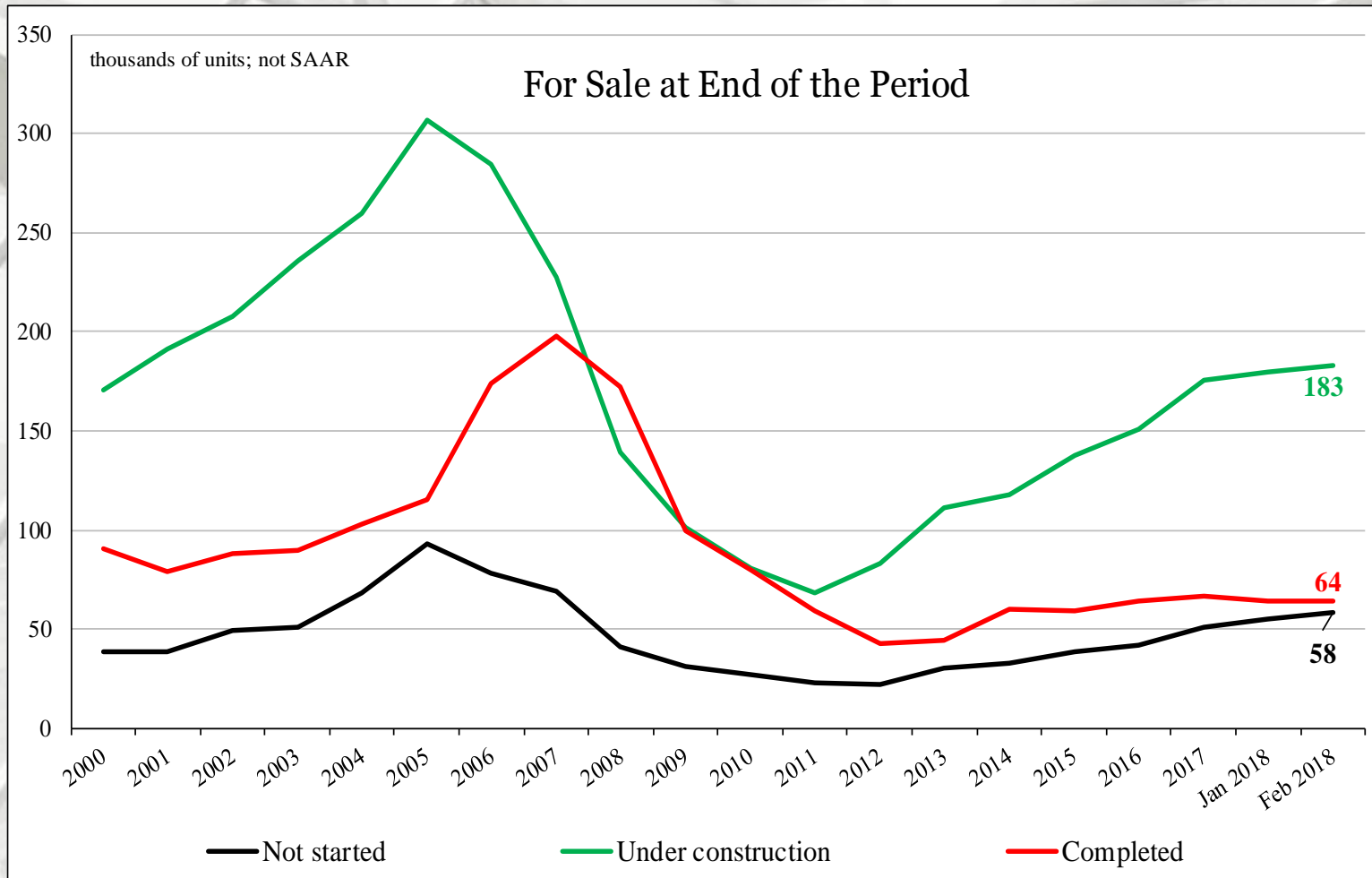
# New SF House Sales

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

	Total	Not started	Under Construction	Completed
February	305,000	58,000	183,000	64,000
January	299,000	55,000	180,000	64,000
2017	263,000	47,000	157,000	59,000
M/M change	2.0%	5.5%	1.7%	0.0%
Y/Y change	16.0%	23.4%	16.6%	8.5%
Total percentage		19.0%	60.0%	21.0%



# New SF House Sales



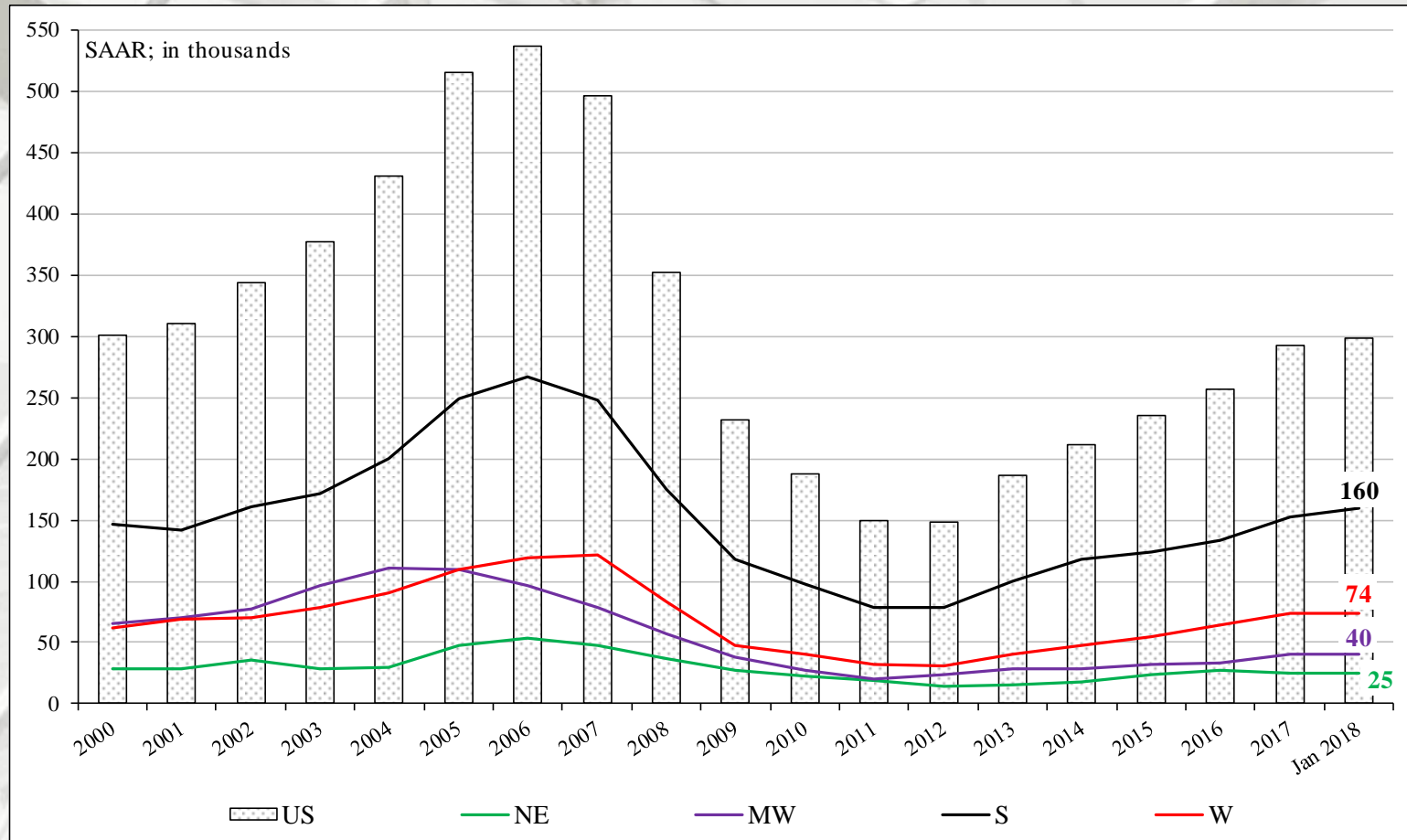
# New SF House Sales

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

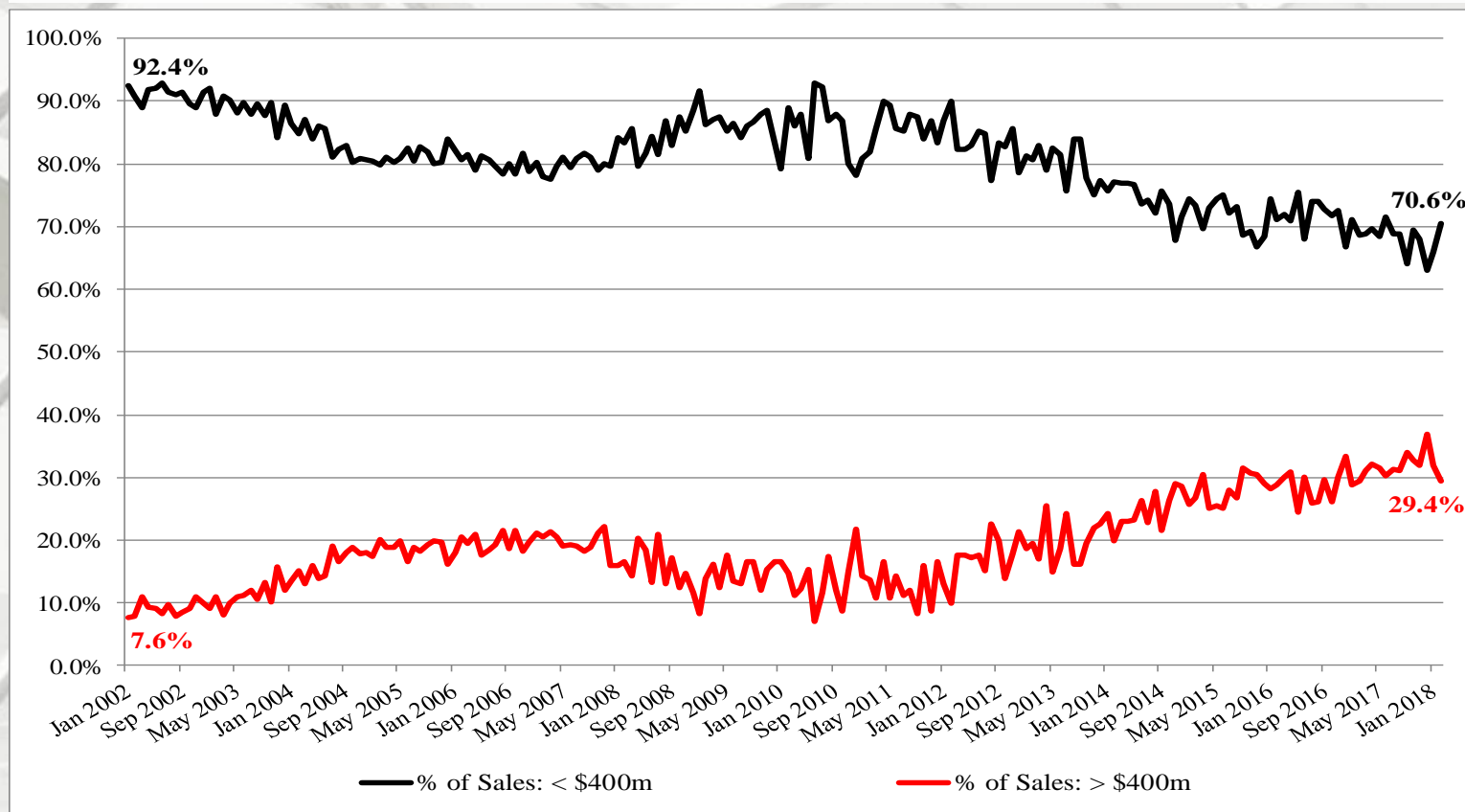
	Total	NE	MW	S	W
February	301,000	24,000	40,000	163,000	74,000
January	297,000	25,000	40,000	158,000	74,000
2017	259,000	26,000	33,000	137,000	63,000
M/M change	1.3%	-4.0%	0.0%	3.2%	0.0%
Y/Y change	16.2%	-7.7%	21.2%	19.0%	17.5%

\* Not SAAR

# New SF Houses Sale at End of Period by Region



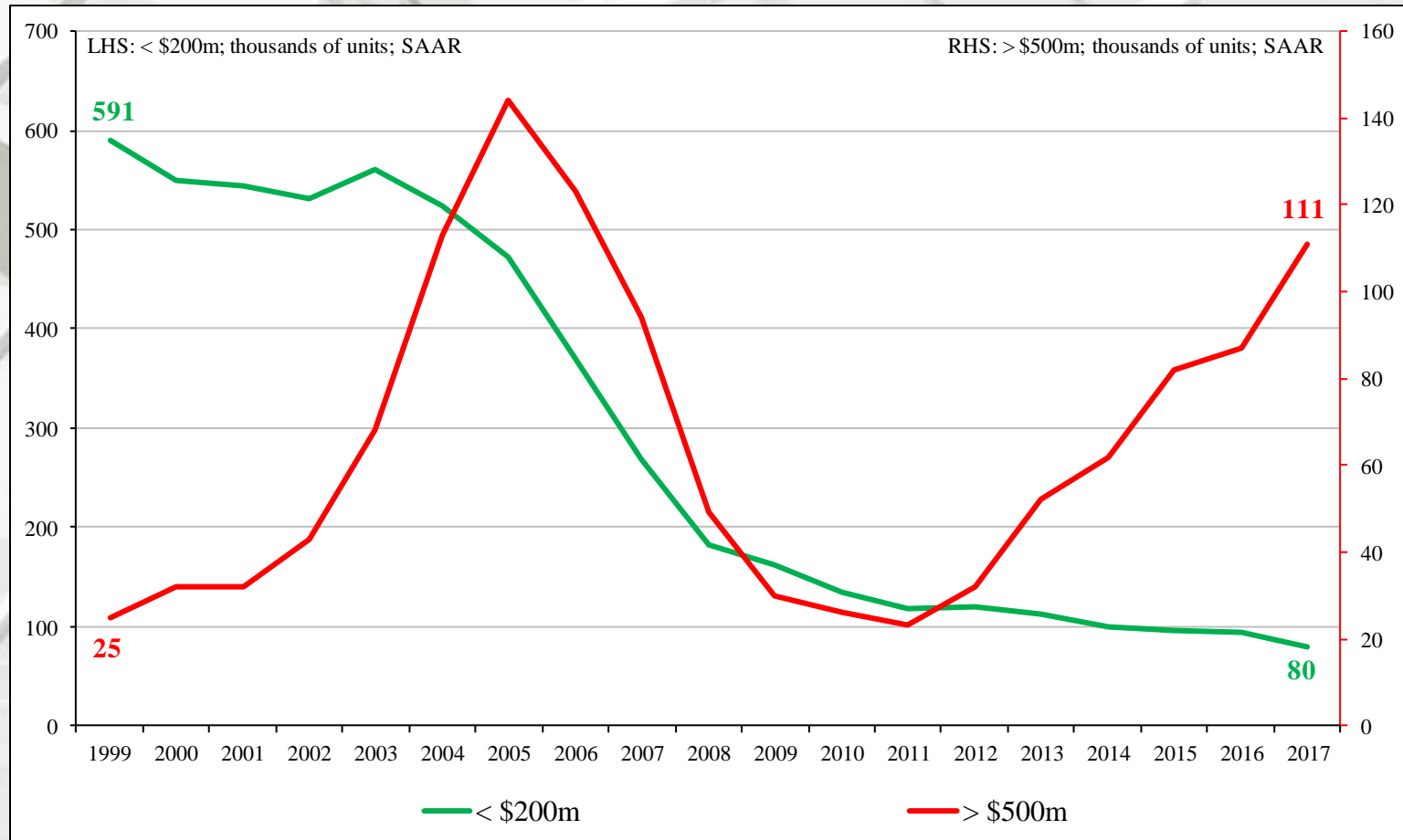
# New SF House Sales



## New SF Sales \$400m houses: 2002 – February 2018

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, 1999 to 2017

The number of < \$200 thousand plus SF houses has declined dramatically since 1999<sup>1,2</sup>. Since 2012, the > \$500 thousand class has soared in contrast to the < \$200m class. One of the most oft mentioned reasons for this occurrence is builder margins. Note: sales values not adjusted for inflation.

# February 2018 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
February	\$533,400	\$281,800	\$63,843	\$187,757
January	\$532,881	\$279,222	\$63,059	\$190,600
2017	\$505,716	\$257,385	\$63,244	\$185,087
M/M change	0.1%	0.9%	1.2%	-1.5%
Y/Y change	5.5%	9.5%	0.9%	1.4%

\* Millions

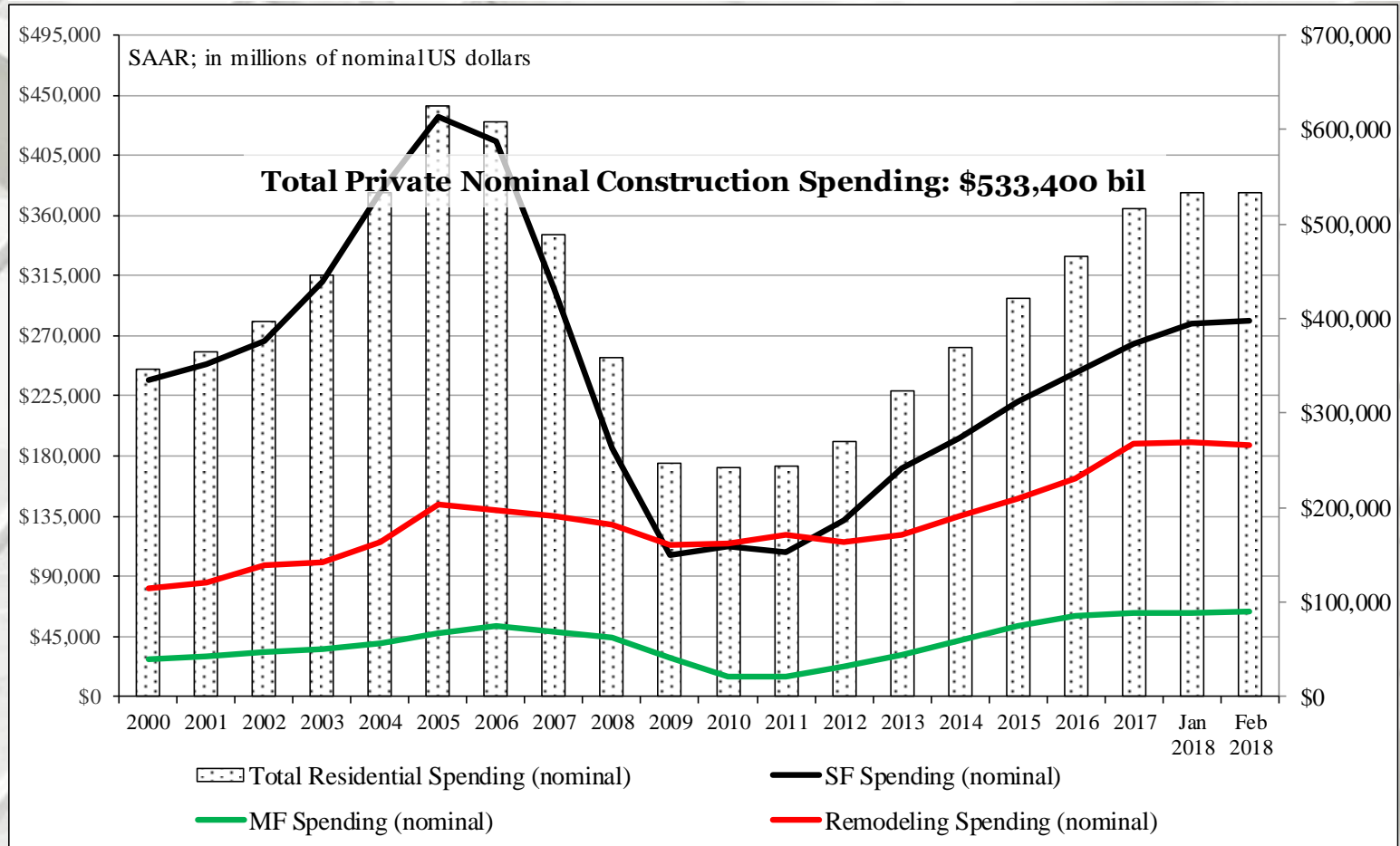
\*\* The US DOC does not report improvement spending directly, this is a monthly estimation for 2017:

((Total Private Spending – (SF spending + MF spending)).

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



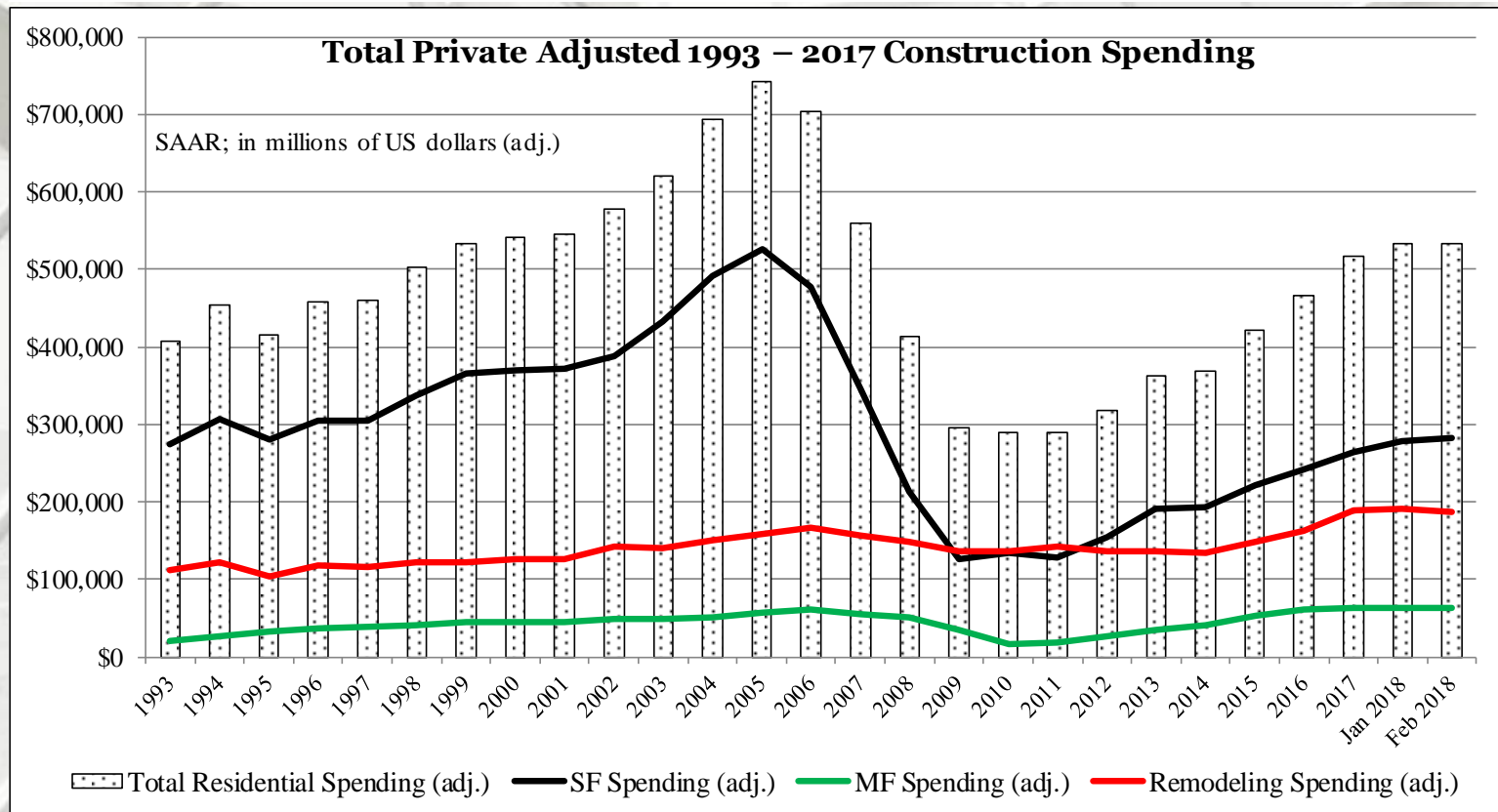
# Total Construction Spending (nominal): 1993 – February 2018



Reported in nominal US\$.

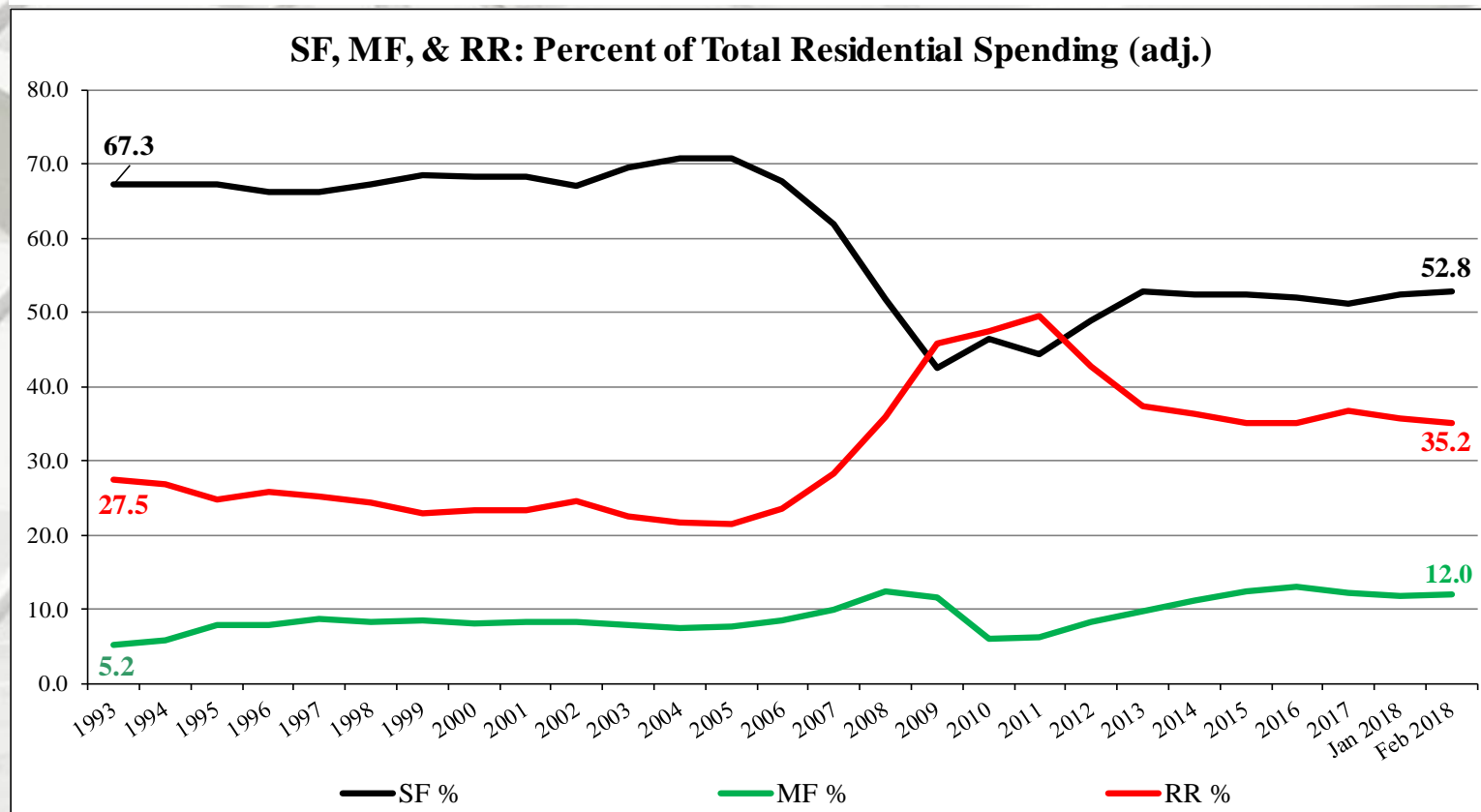
The US DOC does not report improvement spending directly, this is a monthly estimation for 2017.

# Total Construction Spending (adjusted): 1993-2018\*



Reported in adjusted US\$: 1993 – 2017 (adjusted for inflation, BEA Table 1.1.9); \*July 2017 to February 2018 reported in nominal US\$.

# Construction Spending Shares: 1993 to February 2018



## Total Residential Spending: 1993 through 2006

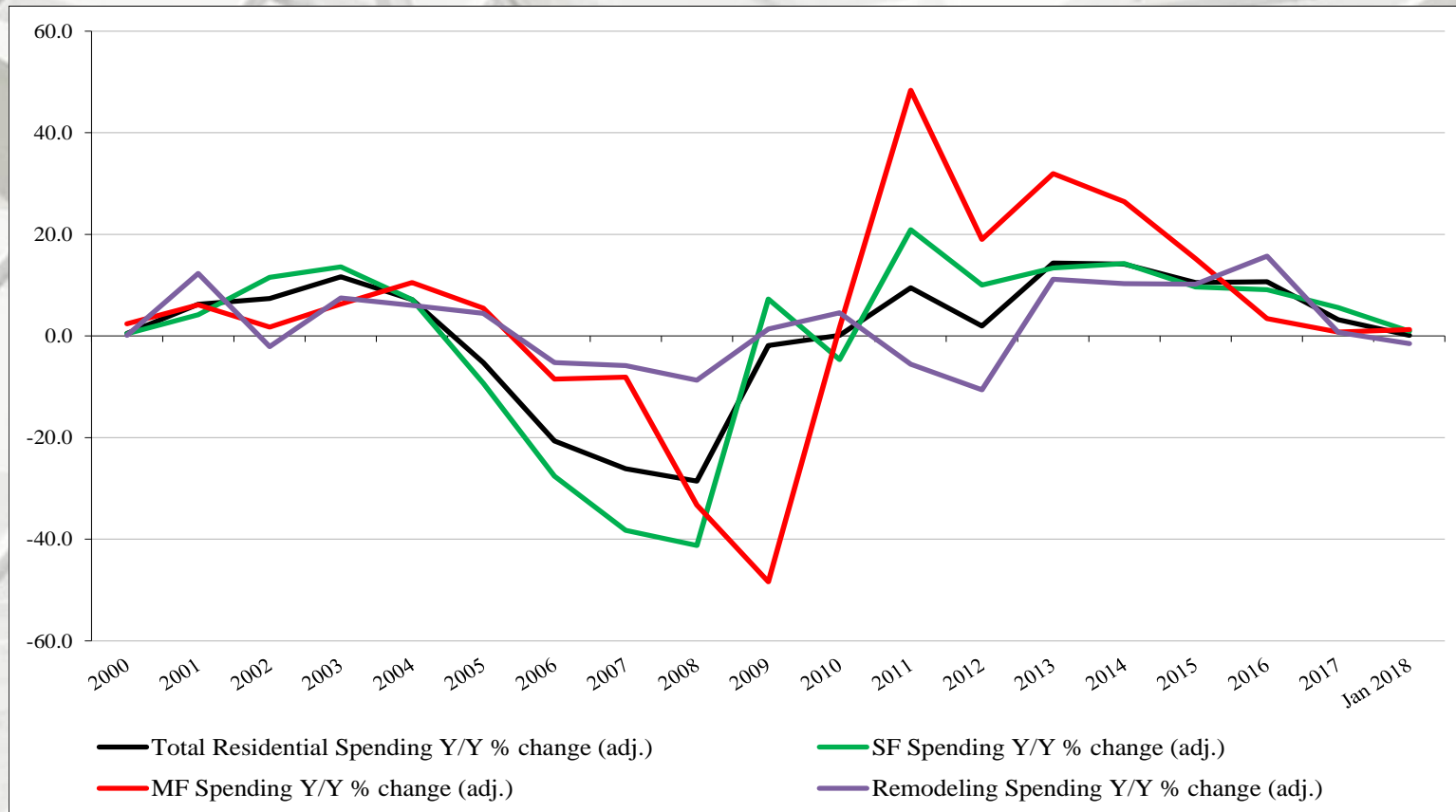
SF spending average: 69.2%

MF spending average: 7.5 %

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

Note: 1993 to 2016 (adjusted for inflation, BEA Table 1.1.9); February-February 2017 reported in nominal US\$.

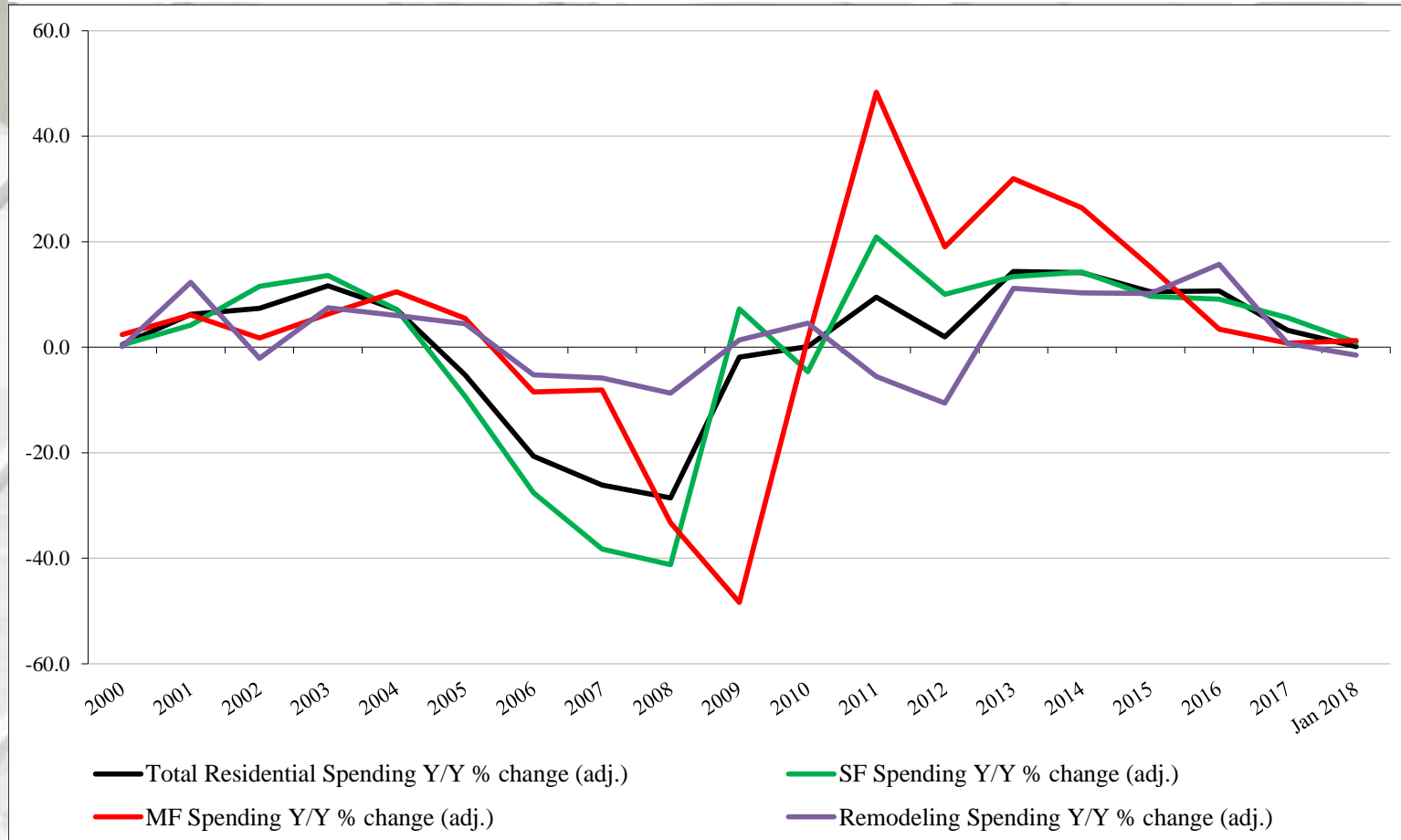
# Adjusted Construction Spending: Y/Y Percentage Change, 1993 to February 2018



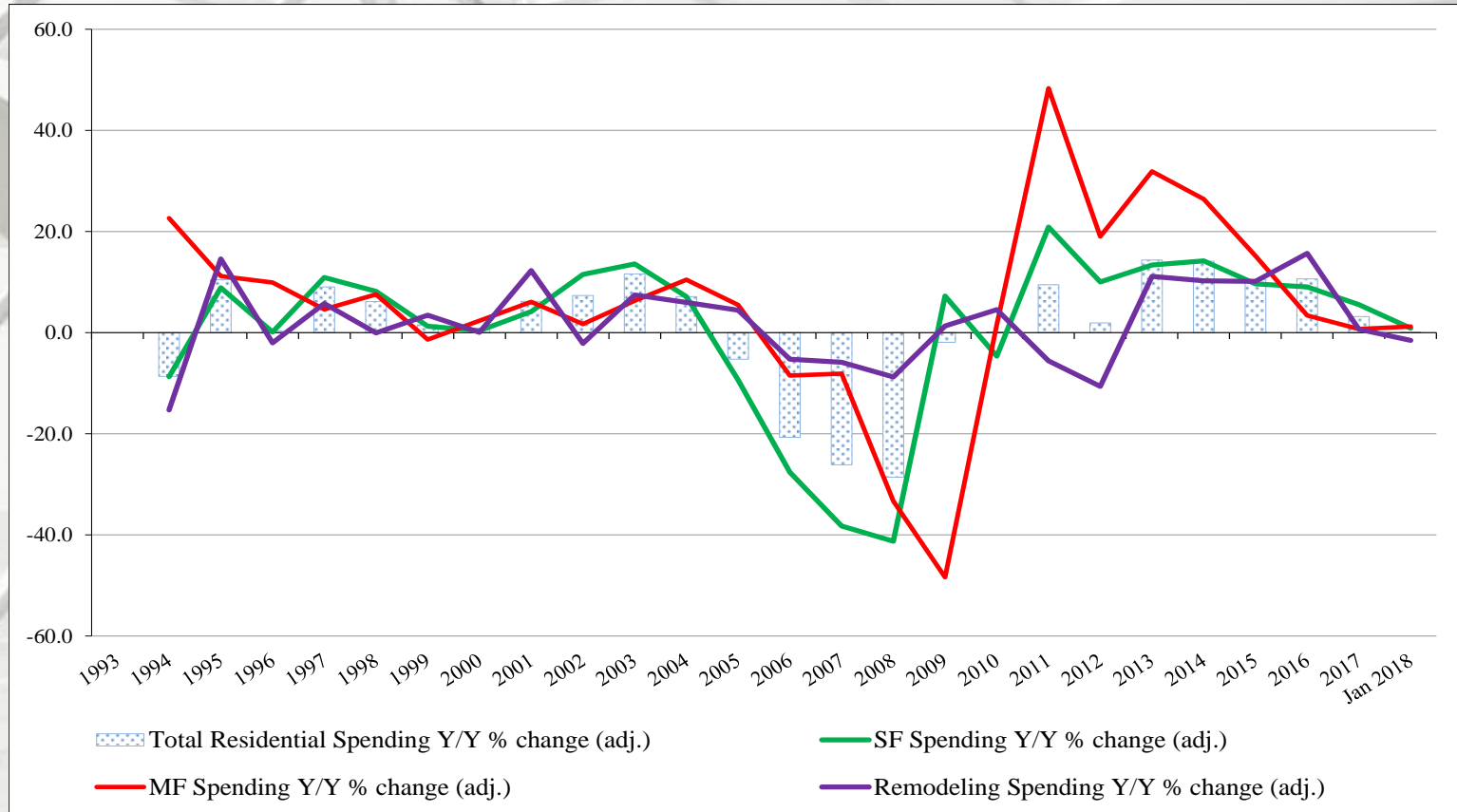
## Residential Construction Spending: Percentage Change, 1993 to February 2018

Presented above is the percentage change of inflation adjusted Y/Y construction spending (1993-2016). Since mid-2015 MF and RR spending have been declining.

# Adjusted Construction Spending: Y/Y Percentage Change, 2000 to February 2018



# Total Adjusted Construction Spending: Y/Y Percentage Change, 1993 to February 2018



## Residential Construction Spending: Percentage Change, 1993 to February 2018

The questions remain: Is construction spending normalizing? Has housing stalled? Or, are there alternative explanations? The percentage change in construction spending has been minimally positive since the beginning of 2017.



# Remodeling

## **Residential Remodeling Index Closes 2017 at All-Time High**

**The RRI has now experienced twenty-three consecutive quarters of year-over-year gains since the bottom of remodeling activity in 2011.**

“The Residential Remodeling Index closed out 2017 on a strong note, reaching a new all-time high of 111.3 in the fourth quarter. The latest reading marked a year-over-year increase of 4.9 percent and a steady 1.2 percent gain from the previous quarter. The RRI has now experienced twenty-three consecutive quarters of year-over-year gains since the bottom of remodeling activity in 2011.

The forecast for 2018 has strengthened, reflecting the strong economy and increased demand in areas that were hit by 2017’s natural disasters. The RRI is projected to average year-over-year gains of 5.2 percent throughout 2018, up from expectations of 4.7 percent in Metrostudy’s previous release. Longer term, the RRI is forecast to continue reaching new highs through 2020.

Remodeling activity is robust, reflecting a U.S. economy with strong underlying growth. The most elusive indicator through the nine-year recovery has been wage growth, which finally made a strong showing during this past quarter. Several times in the past few years, wage growth appeared to be picking up, only to be downwardly revised in subsequent reports. However, there is greater optimism that 2018 pay gains will be more durable—job growth is steady and the unemployment rate has fallen to a 17-year low. A tight labor market translates to companies having to compete more intensely and pay higher wages for workers. At the same time that American workers receive more pay, the remodeling industry also stands to benefit greatly as mortgage rates rise from historical lows over the next few years. With the housing market tight and home prices high, higher rates will persuade more Americans to stay put and remodel the homes they currently have, rather than buy a new home.” – Mark Boud, Chief Economist, Metrostudy

# Existing House Sales

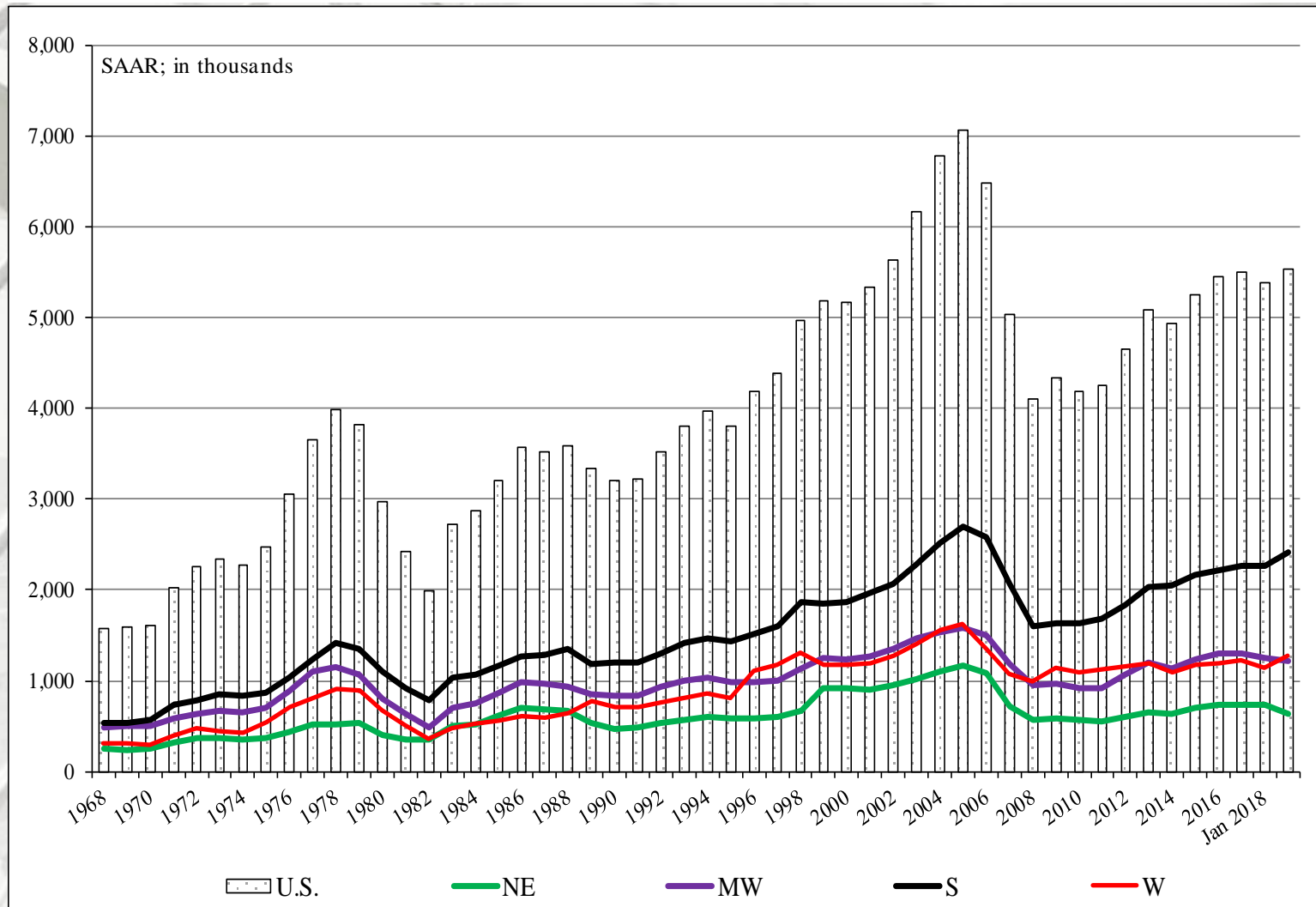
**National Association of Realtors**

**February 2018 sales: 5.540 million**

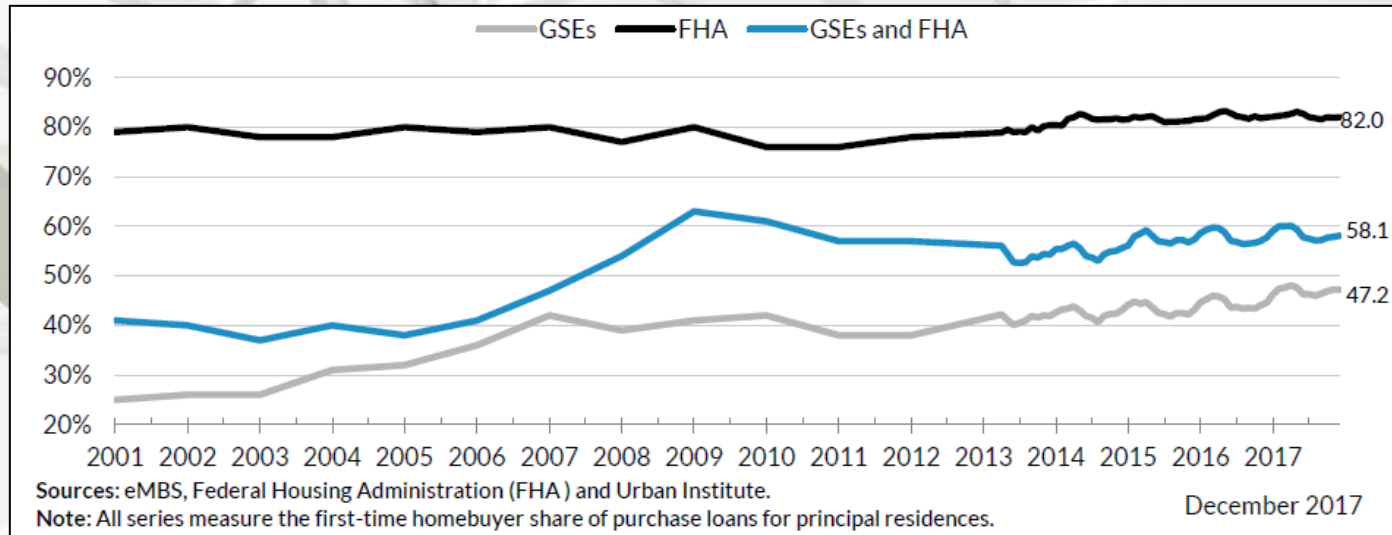
	<b>Existing Sales*</b>	<b>Median Price</b>	<b>Mean Price</b>	<b>Month's Supply</b>
February	5,540,000	\$241,700	\$281,200	3.4
January	5,380,000	\$240,800	\$282,600	3.4
2017	5,480,000	\$228,200	\$269,600	3.8
M/M	3.0%	0.4%	-0.5%	0.0%
Y/Y change	1.1%	5.9%	4.3%	-10.5%
	<b>NE Sales</b>	<b>MW Sales</b>	<b>S Sales</b>	<b>W Sales</b>
February	640,000	1,220,000	2,410,000	1,270,000
January	790,000	1,300,000	2,300,000	1,260,000
2017	690,000	1,220,000	2,330,000	1,240,000
M/M change	-19.0%	-6.2%	4.8%	0.8%
Y/Y change	-7.2%	0.0%	3.4%	2.4%

\* All sales data: SAAR

# Total Existing House Sales



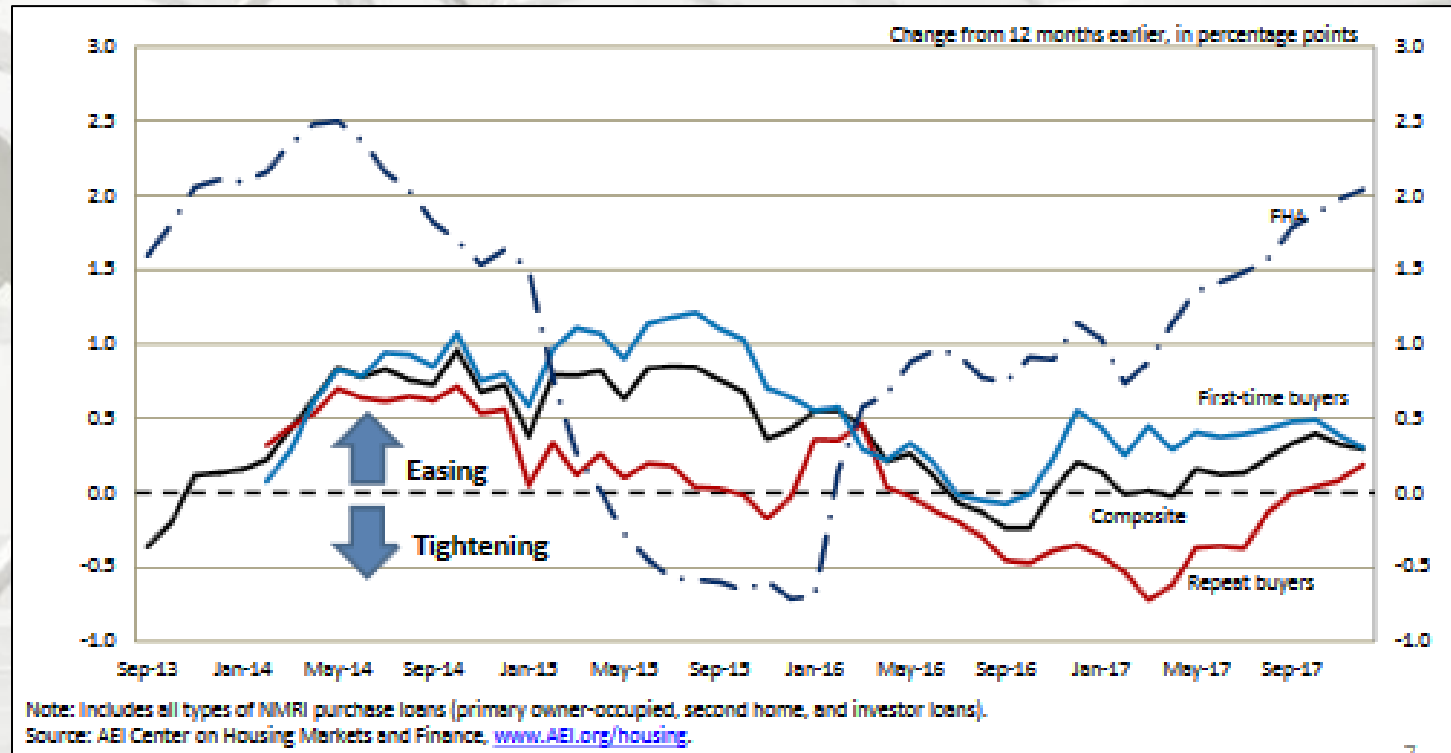
# First-Time Purchasers



## Urban Institute

“In December 2017, the first-time homebuyer share of GSE purchase loans was 47.2 percent, just off the highest level in recent history of 48.1 percent, achieved in April 2017. The FHA has always been more focused on first-time homebuyers, with its first-time homebuyer share hovering around 80 percent; it stood at 82.0 percent in December 2017. The bottom table shows that based on mortgages originated in December 2017, the average first-time homebuyer was more likely than an average repeat buyer to take out a smaller loan and have a lower credit score and higher LTV and DTI, thus requiring a higher interest rate.”<sup>2</sup> – Laurie Goodman, *et al.*, Co-director, Housing Finance Policy Center

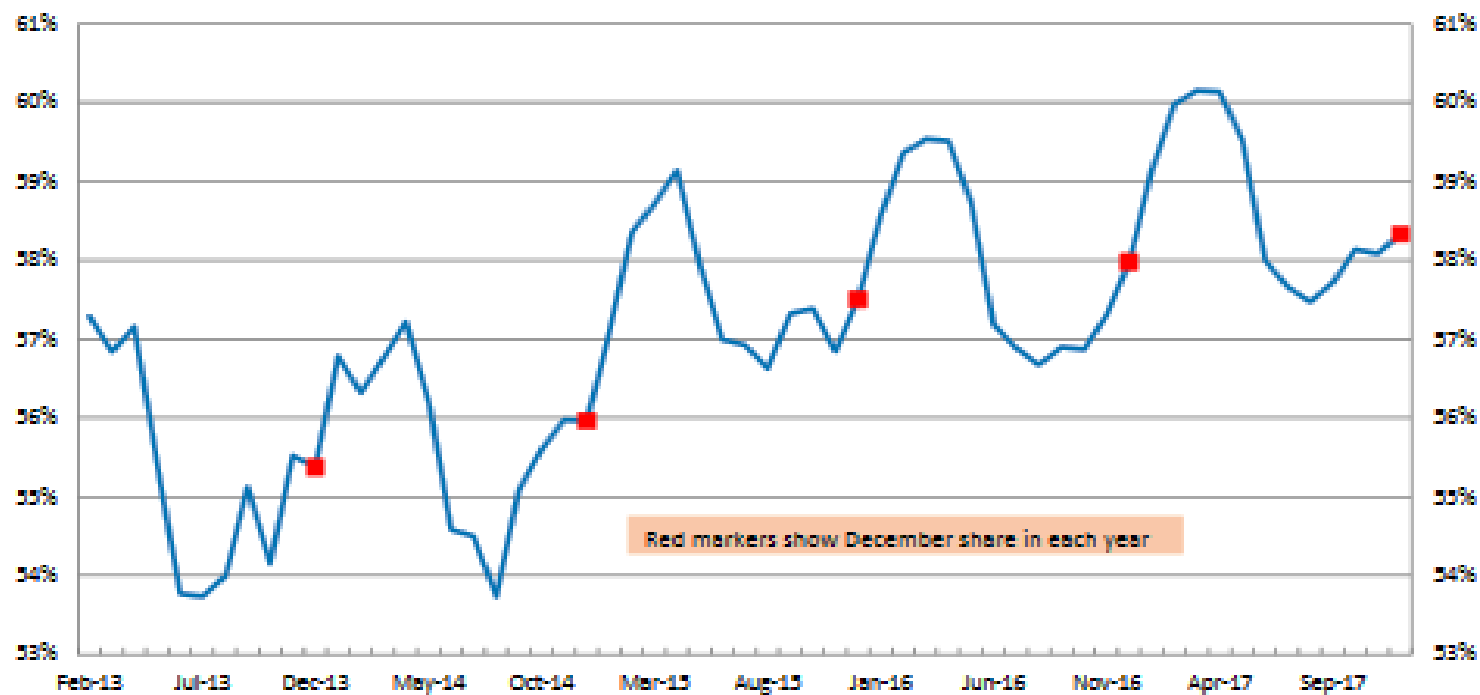
# First-Time Purchasers



## AEI International Center on Housing Risk

“Composite NMRI for purchase increased from already elevated levels a year ago. The index now rising at 2% year-over-year for FHA and was slightly higher for first-time buyers and repeat buyers. First-time buyers in particular have been taking on greater leverage. For 2018 we expect continued easing for first-time buyers and FHA, helping fuel accelerating house price growth for entry-level homes. Entry-level homes will be less affordable and first-time buyers will be faced with a higher risk of default.” –Tobias Peter, AEI International Center on Housing Risk

# First-Time Purchasers



Source: AEI Center on Housing Markets and Finance, [www.AEI.org/housing](http://www.AEI.org/housing).

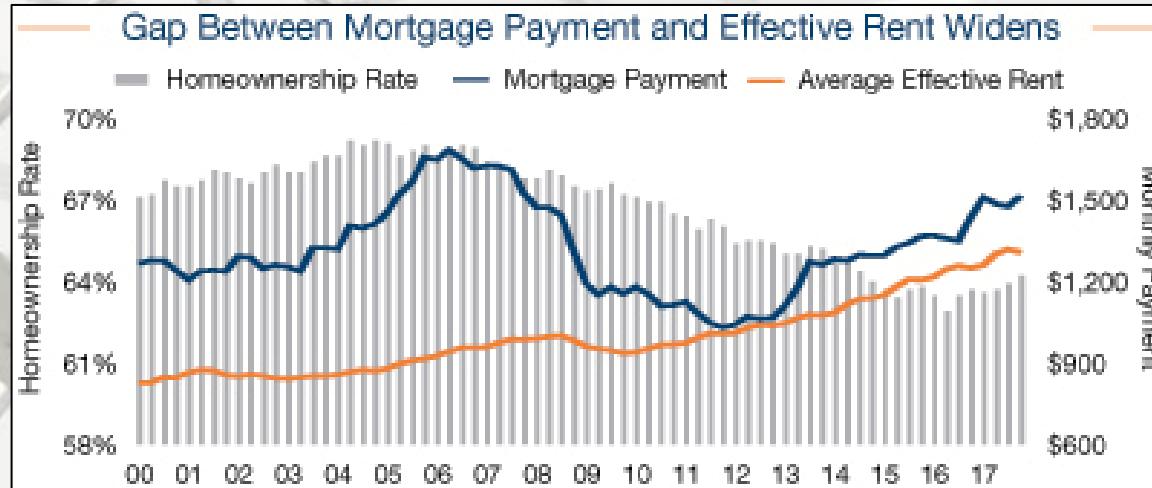
8

## AEI International Center on Housing Risk

“The Agency First-Time Buyer Mortgage Share Index set a new series high for December, coming in at 58.3%, up from 58.0% a year ago and from 55.3% four years ago. Given its current high level, we expect only modest increases in 2018.”—Tobias Peter, AEI International Center on Housing Risk



# Housing Affordability



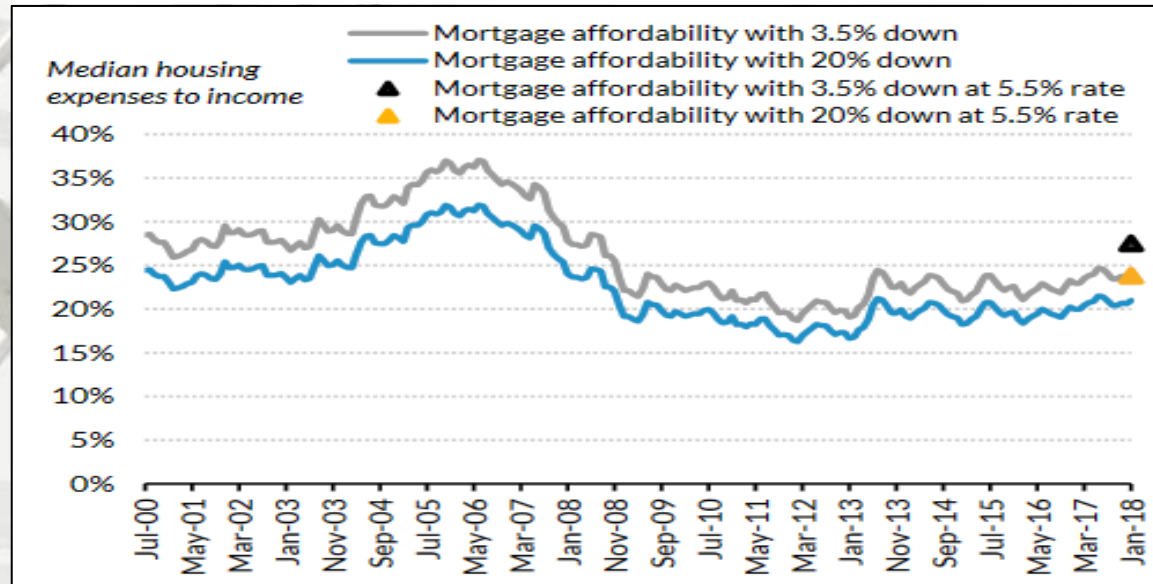
Sources: Marcus & Millichap Research Services; U.S. Census Bureau; Real Page, Inc.; National Association of Realtors; National Association of Home Builders; New York Fed Consumer Credit Panel/Equifax

## Home Price Appreciation Widens Affordability Gap, Sustains Strong Apartment Housing Demand

“In select metros, home prices have appreciated more than 50 percent since the prior peak, with household income growth failing to keep pace. This has driven a wedge in affordability in markets such as Denver, Portland, San Jose and Texas’ four major metros. Of the 335,000 apartments slated for completion this year, more than 80,000 units are in these markets. With monthly rents averaging \$800 less than the mortgage payment on a median-priced home in these metros, renter demand remains healthy through 2018.” –Marcus & Millichap Research Services

# Housing Affordability

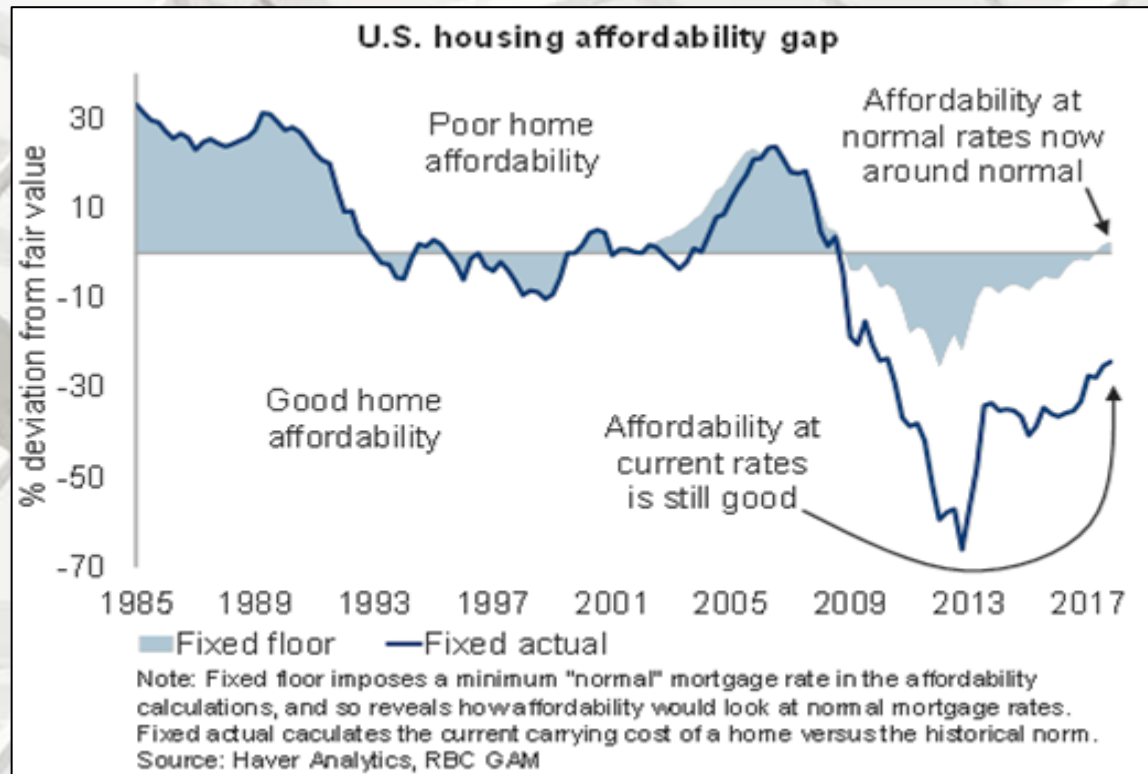
## National Housing Affordability Over Time



### Urban Institute

“Home prices remain affordable by historic standards, despite increases over the last five years and the recent interest rate hikes. As of January 2018, the share of median income needed for the monthly mortgage payment with a 20% down payment stood at 21 percent. With a 3.5% down payment, the share of income is higher, at 24 percent in January 2018. If interest rates rise to 5.5%, the housing expenses to income share with both a 20 percent and a 3.5 percent down payment would be equivalent to the 2001-03 averages (24 and 28 percent, respectively). As shown in the bottom picture, mortgage affordability varies widely across MSAs.” – Bing Lai, Research Associate, Housing Finance Policy Center

# Housing Affordability

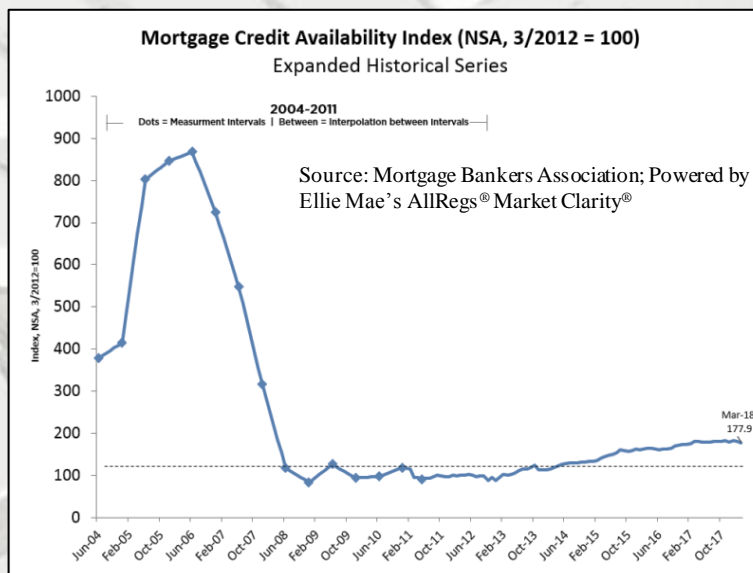
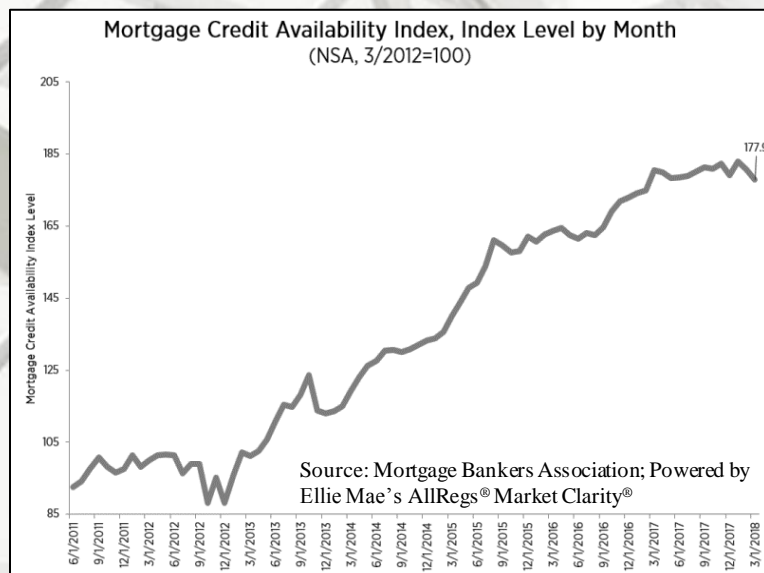


## #MacroMemo

### US housing

“... despite steady price gains over the better part of a decade, U.S. home prices are still cheap from a carrying cost perspective. Even in the unlikely scenario of a sudden spike to historically normal mortgage rates, home prices would be no worse than “fair.” See the chart. Nothing on the price side is about to arrest the housing sector.” – Eric Lascelles, Chief Economist, RBC Global Asset Management

# Mortgage Credit Availability



## Mortgage Credit Availability Decreases in March

“Mortgage credit availability decreased in March according to the Mortgage Credit Availability Index (MCAI), ... . The MCAI decreased 1.5 percent to 177.9 in March. 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 Government MCAI fell by more (down 2.1 percent) than the Conventional MCAI (down 0.8 percent). The component indices of the Conventional MCAI both decreased from the month prior, with the Conforming MCAI falling by more (down 0.8 percent) than the Jumbo MCAI (down 0.7 percent).

Mortgage credit availability decreased in March driven by both conventional and government loan programs. The government MCAI saw the largest decrease which was driven by investors making adjustments to their interest rate reduction offerings for FHA and VA loans.” – Joel Kan, Vice President of Research and Economics, MBA



# United States Housing

## New Research Finds Increasing Preference for Renting

“New research by Freddie Mac reveals that despite growing economic confidence among renters, affordability remains dominant in driving renter behavior. The spring “Profile of Today's Renter” finds a total of 67 percent of renters view renting as more affordable than owning a home, including 73 percent of Baby Boomers (aged 53-71). Similarly, 67 percent of renters who will continue renting say they will do so for financial reasons — up from 59 percent just two years ago.

Conducted by Harris Poll, the [survey PDF](#) finds half (50 percent) of Baby Boomers currently renting do not anticipate buying a home in the future, up eight points from the previous Profile taken six months ago. Of that half, **35 percent have no interest in owning, and 15 percent believe they will never be able to afford it.** Similarly, 31 percent of Generation Xers (aged 38-52) expressed that sentiment, up from 28 percent from the previous profile. Of those respondents, 19 percent lack interest and 12 percent believe they will never be able to afford it.” – Freddie Mac Economic & Housing Research

# United States Housing

## New Research Finds Increasing Preference for Renting Affordability Concerns

“Although the Profile finds a growing number of renters believe their economic situation has improved compared to last summer, it also finds that cost is increasingly driving rental decisions. While 67 percent of renters stated they will continue renting for financial reasons, that number is significantly higher for Millennials (aged 21-37), jumping 15 points from 59 percent in 2016 to 74 percent. Multifamily renters (versus single-family renters) expressing this view jumped eleven points – from 57 percent in 2016 to 68 percent today. And although this increase takes place in all geographic areas, urban renters are increasingly likely to continue renting for financial reasons.

As part of the Profile, a [companion survey PDF](#) conducted by GfK Custom Research was also released today, finding that cost concerns play a major role in mobility and housing choices. The study shows a significant majority, 64 percent, of renters cite price as the most important factor when considering their next home, a theme consistent across all generational cohorts.”  
– Freddie Mac Economic & Housing Research

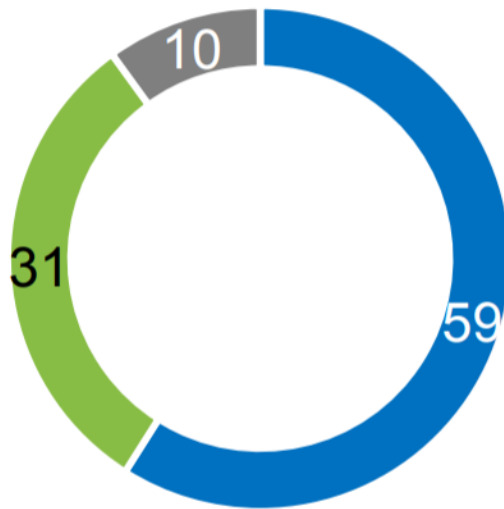


# United States Housing

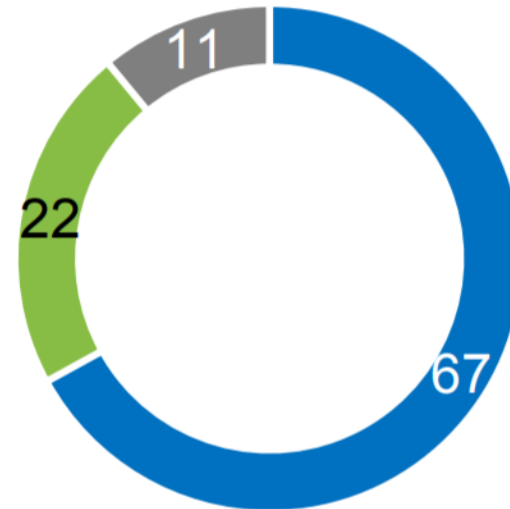
## Reason For Renting Next Residence

■ Financial    ■ Lifestyle    ■ Don't Know

**September 2016**



**February 2018**



# United States Housing

## **New Research Finds Increasing Preference for Renting Rental Satisfaction**

“Rental satisfaction continues to run high. A significant and growing majority of renters – 66 percent – are satisfied with the overall rental experience, up from 60 percent in August of 2017. Even among renters who have experienced a rent increase in the past two years, a growing number – 64 percent – stated they do not plan to move, up from 49 percent in August 2017. This includes a noteworthy 70 percent of Baby Boomers. In addition, a majority of renters – 54 percent – continue to believe that renting is a good choice for them now, including 71 percent of Millennials.

### **Renters in the West Facing Added Difficulty**

The Profile also shows renters living in the western United States with increasing issues related to affordability and the cost of living. Those living in the West feel the impact of rent increases more than other regions, with 64 percent saying they are now spending less on other essentials due to changes in their rent – which is at least nine points more than any other region. Additionally, renters living in the West perceive homeownership as more difficult to attain than other regions, with 51 percent believing homeownership is less accessible than three years ago.” – Freddie Mac Economic & Housing Research

# Summary

## In summary:

February's data was typical for winter – yet, total permits and starts were decidedly negative. However, the new single-family markets can be summed as being in a steady, slow-growth mode. SF construction expenditures were barely positive on a month-over-month basis. A puzzle continues to be the volatility in new SF sales data. Once again, new SF lower-priced tier house sales were less than historical averages. The new SF construction market needs consistent improvement in this category to influence the housing construction market upward.

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

## Pros:

- 1) Historically low interest rates are still in effect, though in aggregate rates are incrementally rising (future Fed actions may cause *i*-rates to rise);
- 2) As a result, housing affordability is good for many in the U.S. – but not all of the U.S.;
- 3) Select builders are beginning to focus on entry-level houses.

## Cons:

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

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