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

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Return TOC

Table of Contents

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

To request the commentary, please email: buehlmann@gmail.com or dalderman@fs.fed.us

Return TOC

Opening Remarks

April 2019 United States housing data was mostly negative, with total housing and single-family starts, and total housing permits reported as positive on month-over-month basis. The year-over-year data also was unpleasant; with only single-family under construction; total housing and single-family completions, and new house sales being positive. The June 14th Atlanta Fed GDPNow™ model for June 2019 projects an aggregate 0.4% increase for residential investment spending. New private permanent site expenditures were projected at an 0.6% increase; the improvement spending forecast was a 1.8% decrease; and the manufactured/mobile housing projection was a 5.6% increase (all: quarterly log change and seasonally adjusted annual rate)[1].

"Despite the continuing economic expansion, home construction remains extremely low by historical benchmarks, constrained by the scarcity of undeveloped land in desired locations and land use regulations. Escaping the resulting housing shortage will take many years and likely require a shift toward multifamily construction, the freeing up of single-family homes by downsizing baby boomers, and the faster relative growth of medium-sized metropolitan areas."[2] – Jordan Rappaport, Senior Economist, The Federal Reserve Bank of Kansas City

This month's commentary contains applicable housing data: Section I contains data and commentary; an analysis of home ownership and residential electricity customers. Section II includes regional Federal Reserve analysis, private indicators, and demographic and economic commentary.

Sources: [1] www.frbatlanta.org/cqer/research/gdpnow.aspx; 6/14/19;
[2] https://www.kansascityfed.org/en/publications/research/eb/articles/2019/escaping-housing-shortage; 6/5/19

Return TOC

April 2019
Housing Scorecard

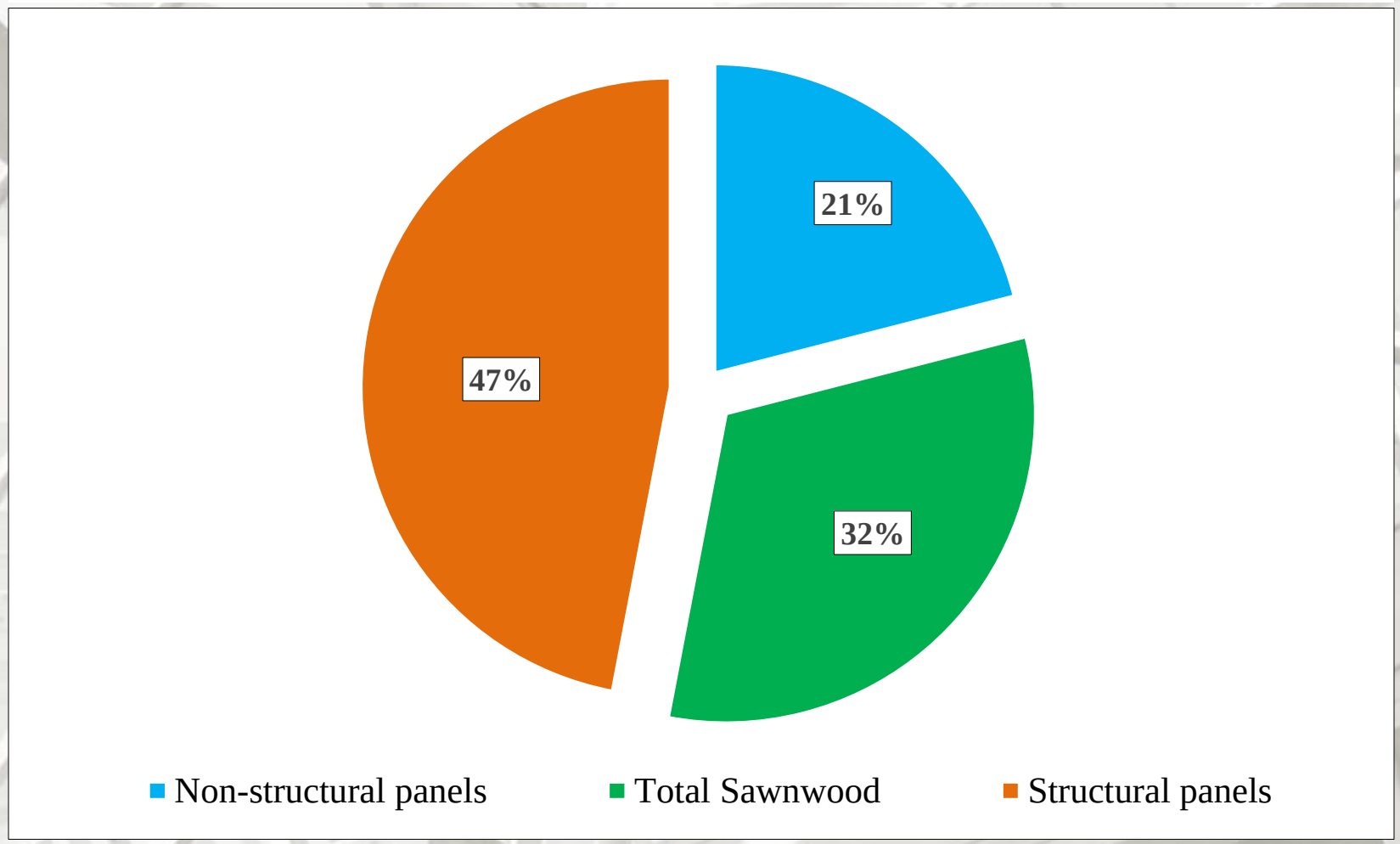
		M/M		Y/Y
Housing Starts	Δ	5.7%	▽	2.5%
Single-Family (SF) Starts	Δ	6.2%	▽	4.3%
Housing Permits	Δ	0.6%	▽	5.0%
SF Permits	▽	4.2%	▽	9.4%
Housing Under Construction	▽	0.9%	▽	0.4%
SF Under Construction	▽	0.8%	Δ	1.7%
Housing Completions	▽	1.4%	Δ	5.5%
SF Completions	▽	4.1%	Δ	16.6%
New SF House Sales	▽	6.9%	Δ	7.0%
Private Residential Construction Spending	▽	0.6%	▽	11.4%
SF Construction Spending		NC	▽	7.6%
Existing House Sales[1]	▽	0.4%	▽	4.4%

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

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

Return TOC

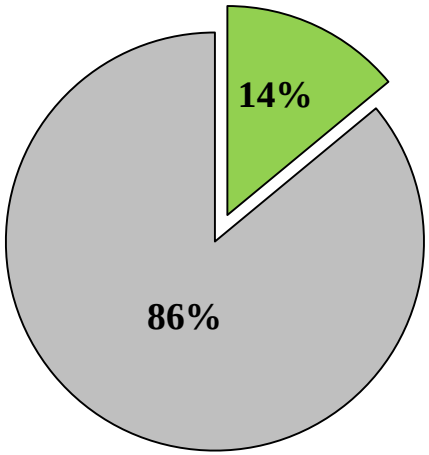
New Construction's Percentage of Wood Products Consumption



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

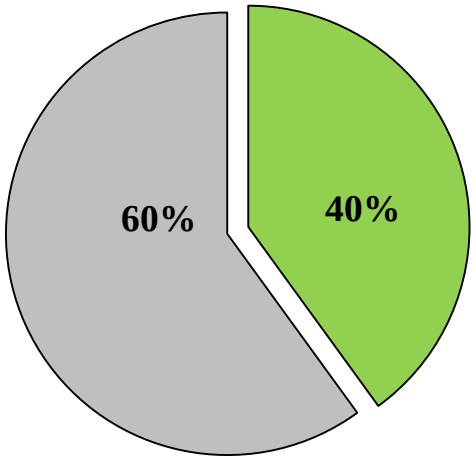
Return TOC

New SF Construction Percentage of Wood Products Consumption



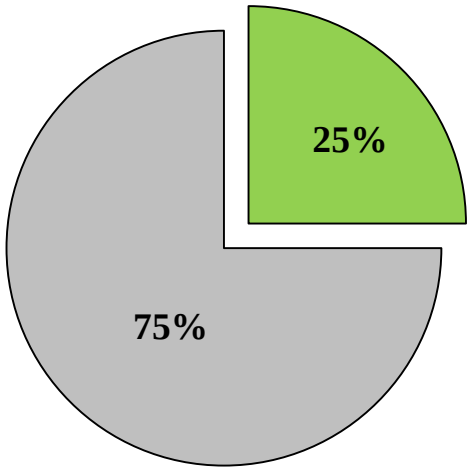
Non-structural panels: New Housing

Other markets



Structural panels: New housing

Other markets



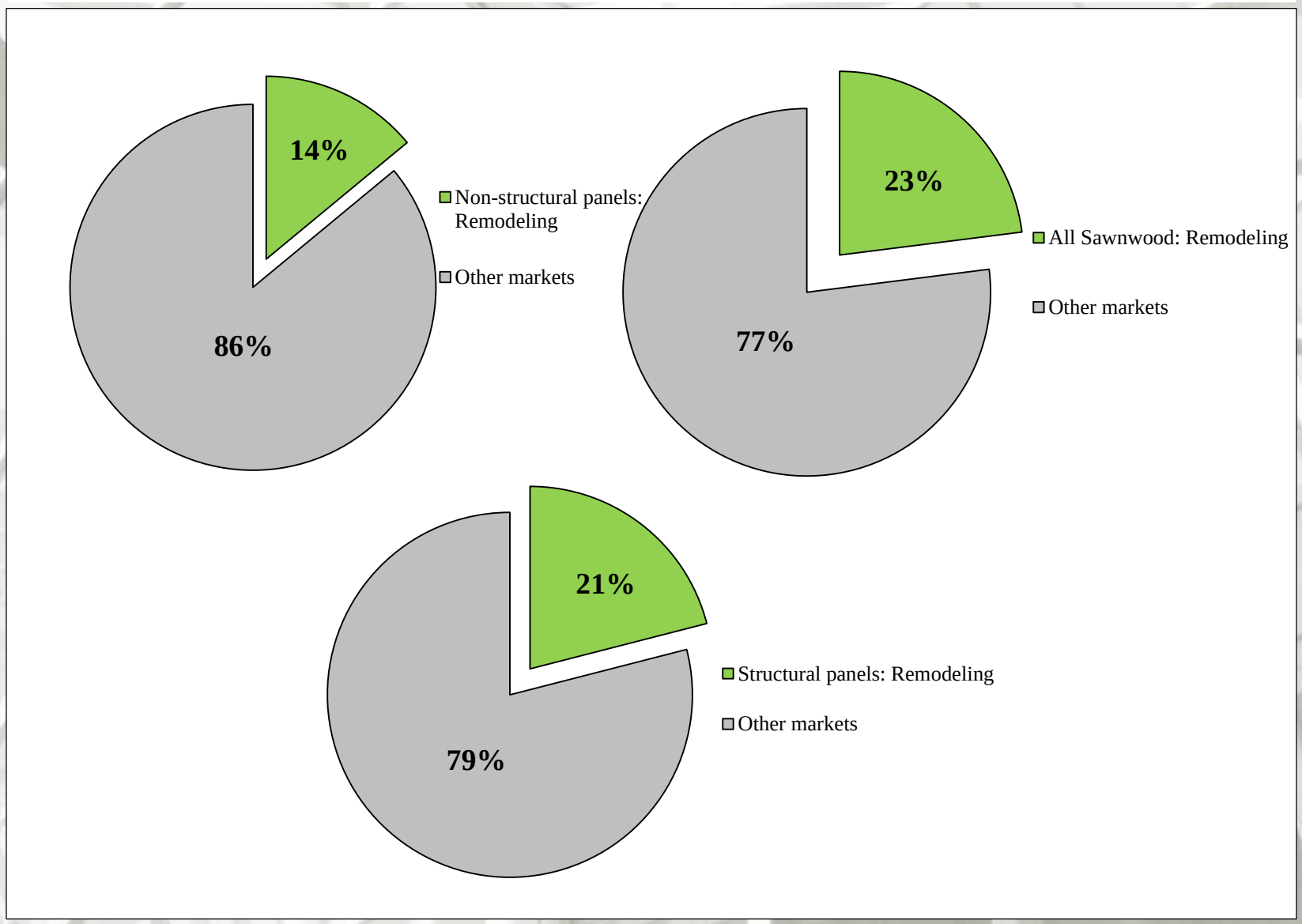
All Sawnwood: New housing

Other markets

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

Return TOC

Repair and Remodeling's Percentage of Wood Products Consumption



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

Return TOC

New Housing Starts

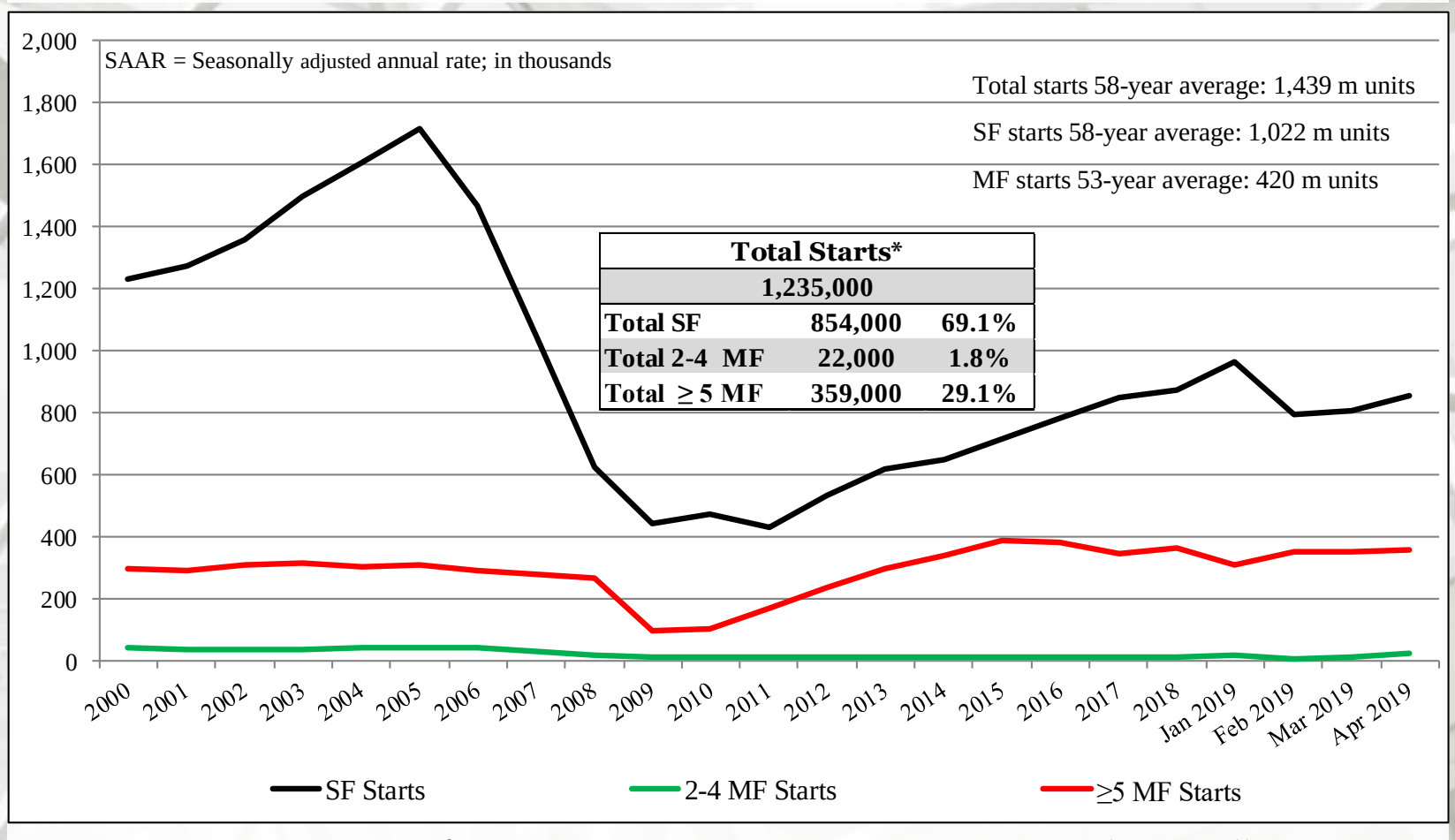
	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
April	1,235,000	854,000	22,000	359,000
March	1,168,000	804,000	13,000	351,000
2018	1,267,000	892,000	21,000	354,000
M/M change	5.7	6.2	69.2	2.3
Y/Y change	-2.5	-4.3	4.8	1.4

* 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)).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Starts



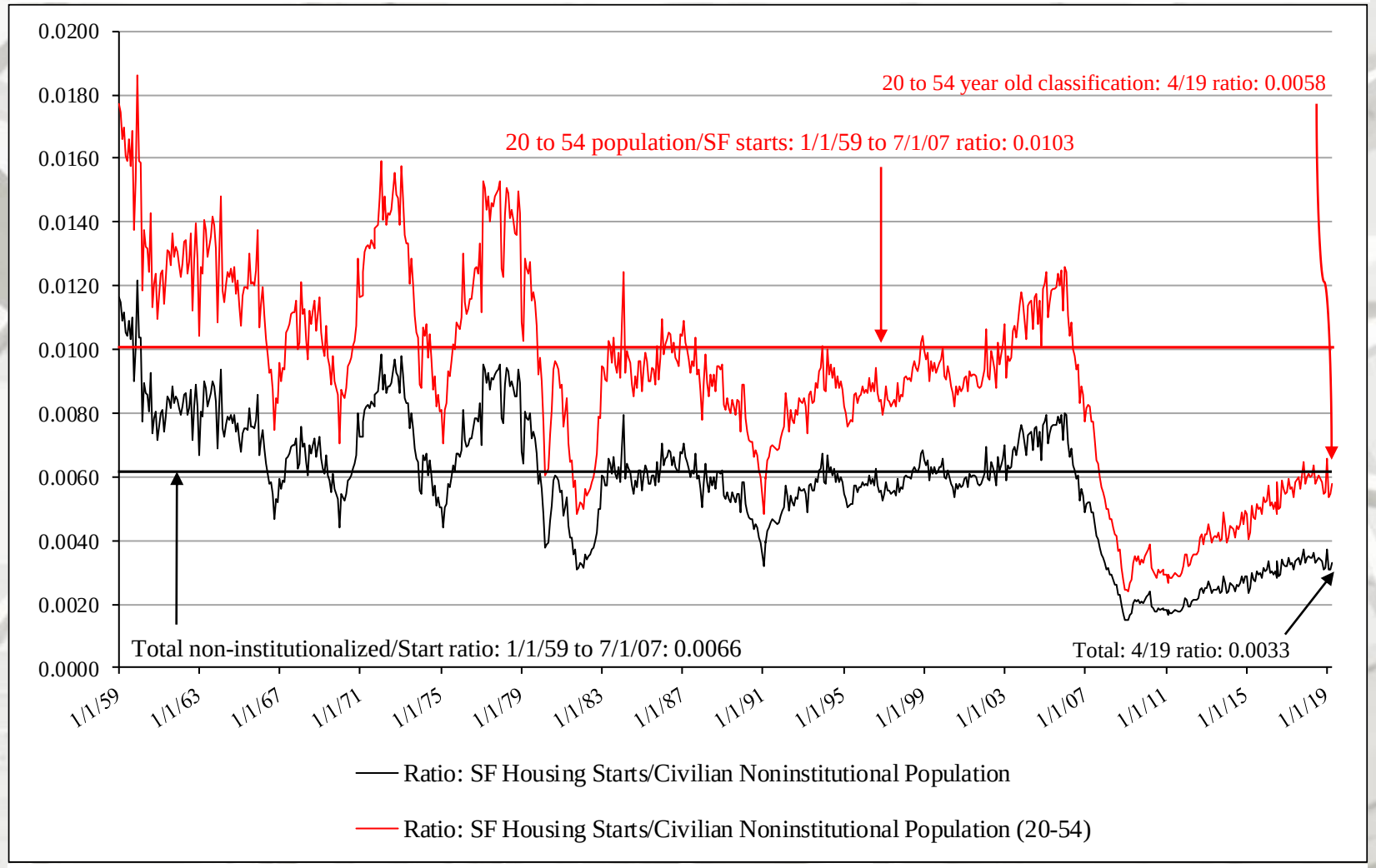
US DOC does not report 2 to 4 multifamily starts directly, this is an estimation: ((Total starts – (SF + ≥ MF)).

* Percentage of total starts.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New SF Starts



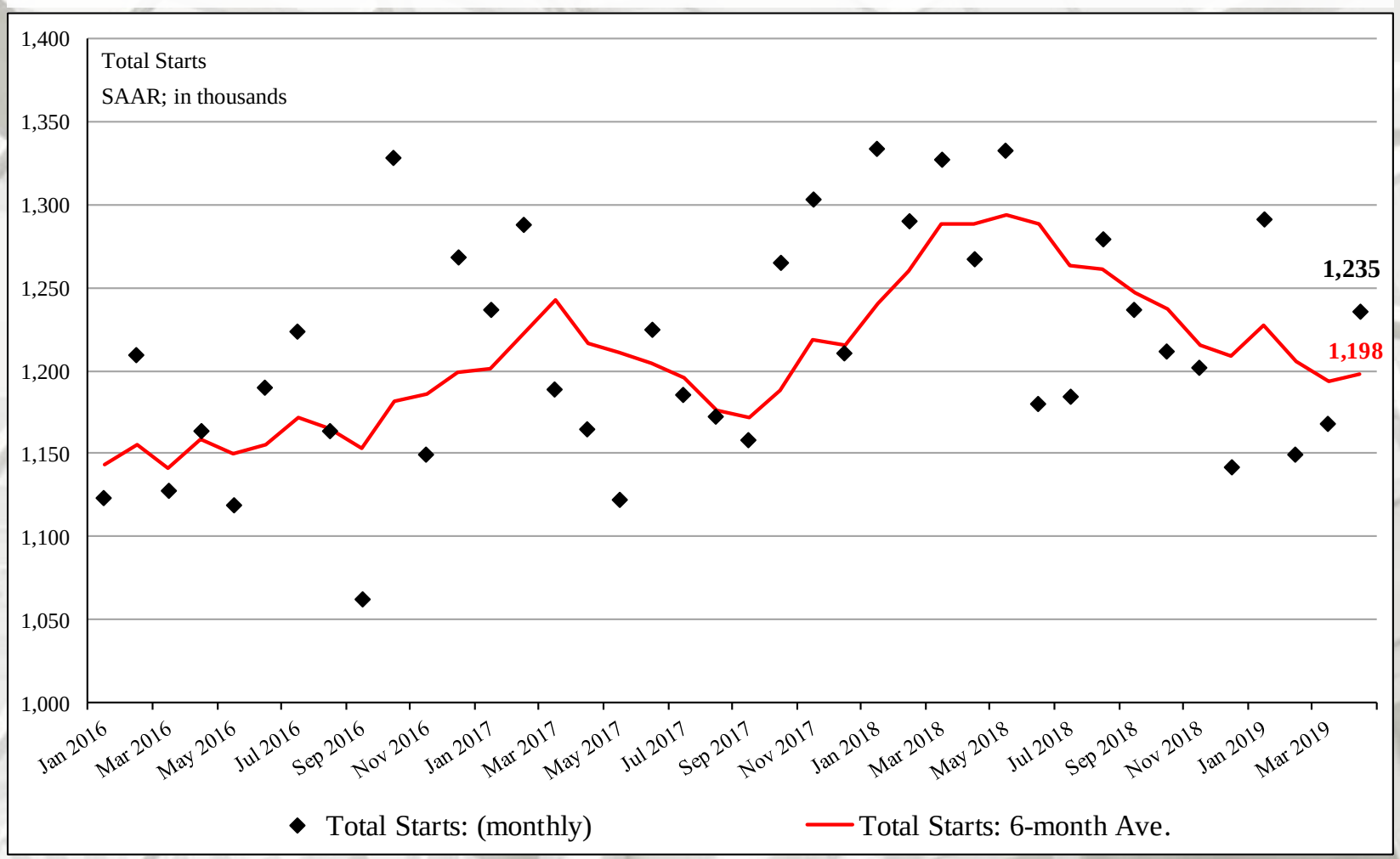
New SF starts adjusted for the US population

From April 1959 to April 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in April 2019 it was 0.0033 – an increase from March. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in April 2018 was 0.0058 – also an improvement from March. From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

Sources: http://www.census.gov/construction/nrc/pdf/newresconst.pdff and The Federal Reserve Bank of St. Louis; 5/16/19

Return TOC

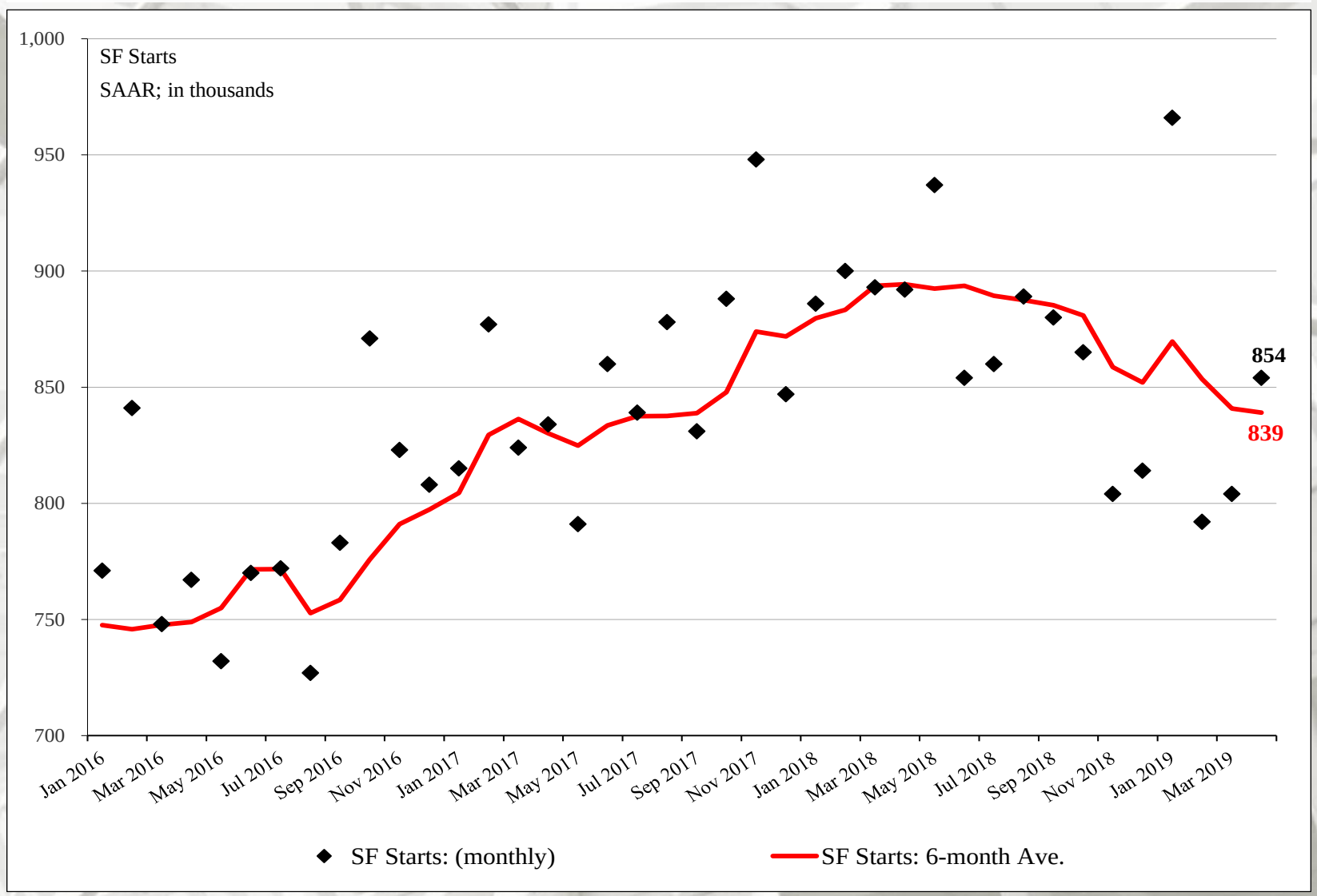
Total Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

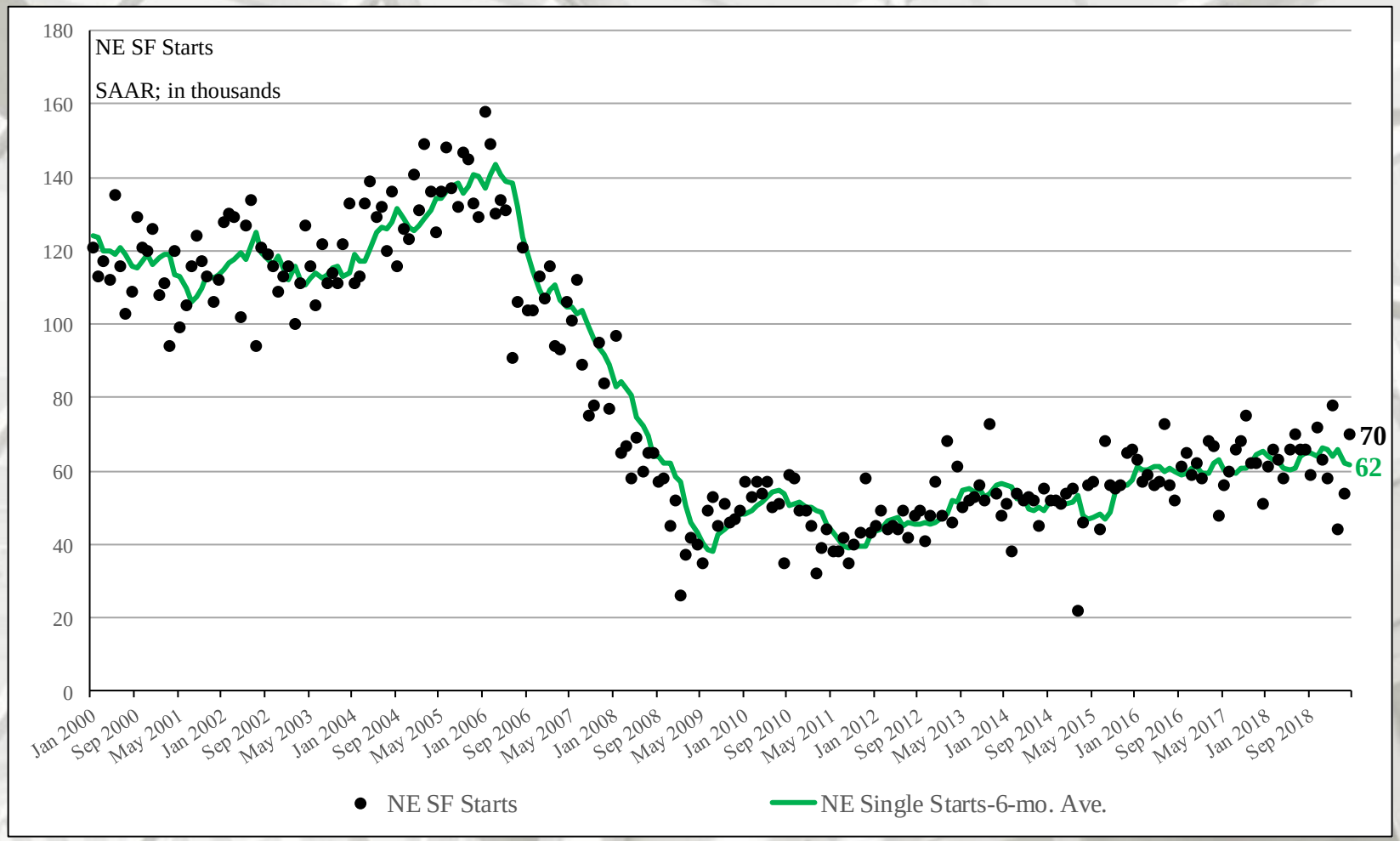
SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

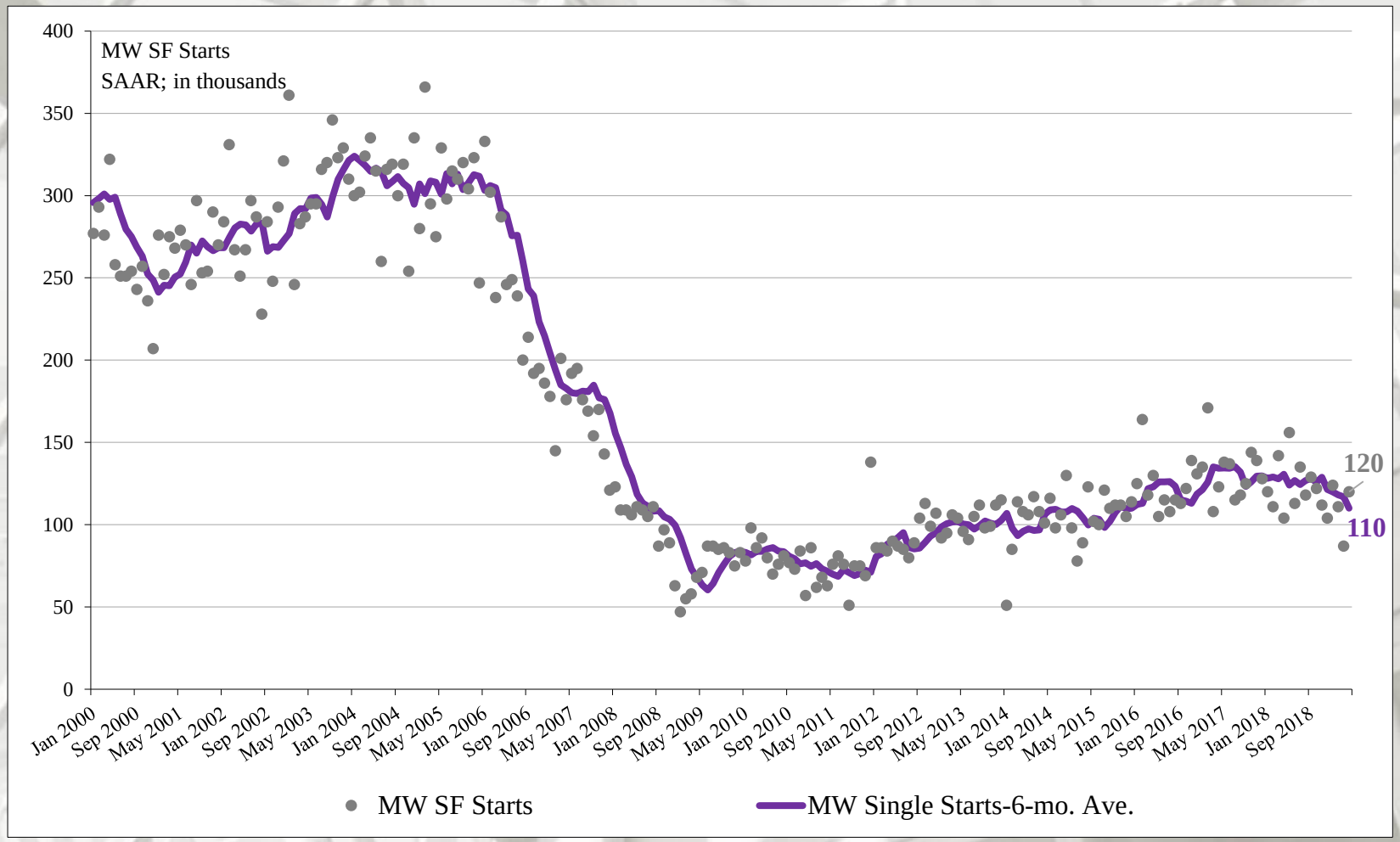
NE SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

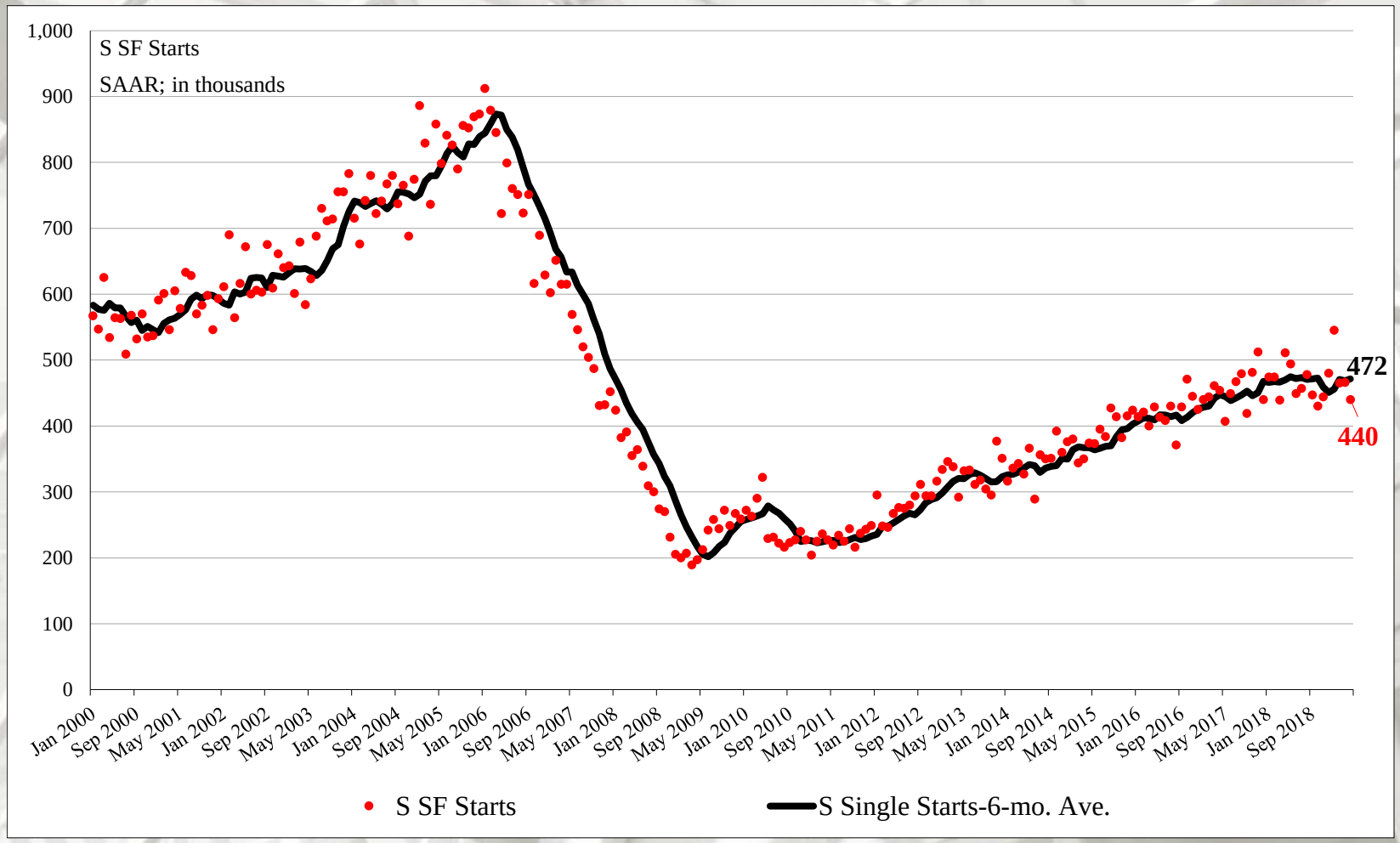
MW SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

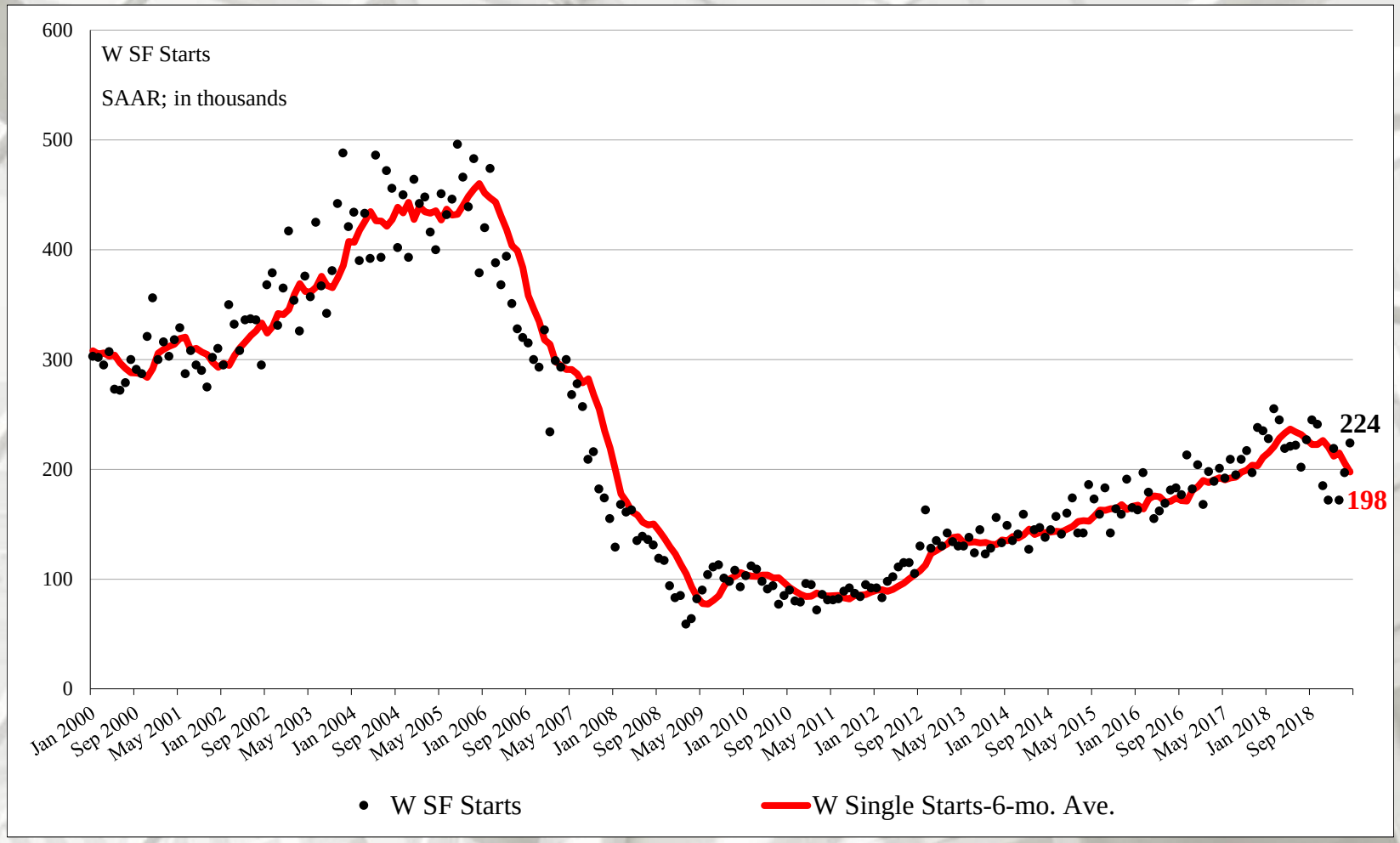
S SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

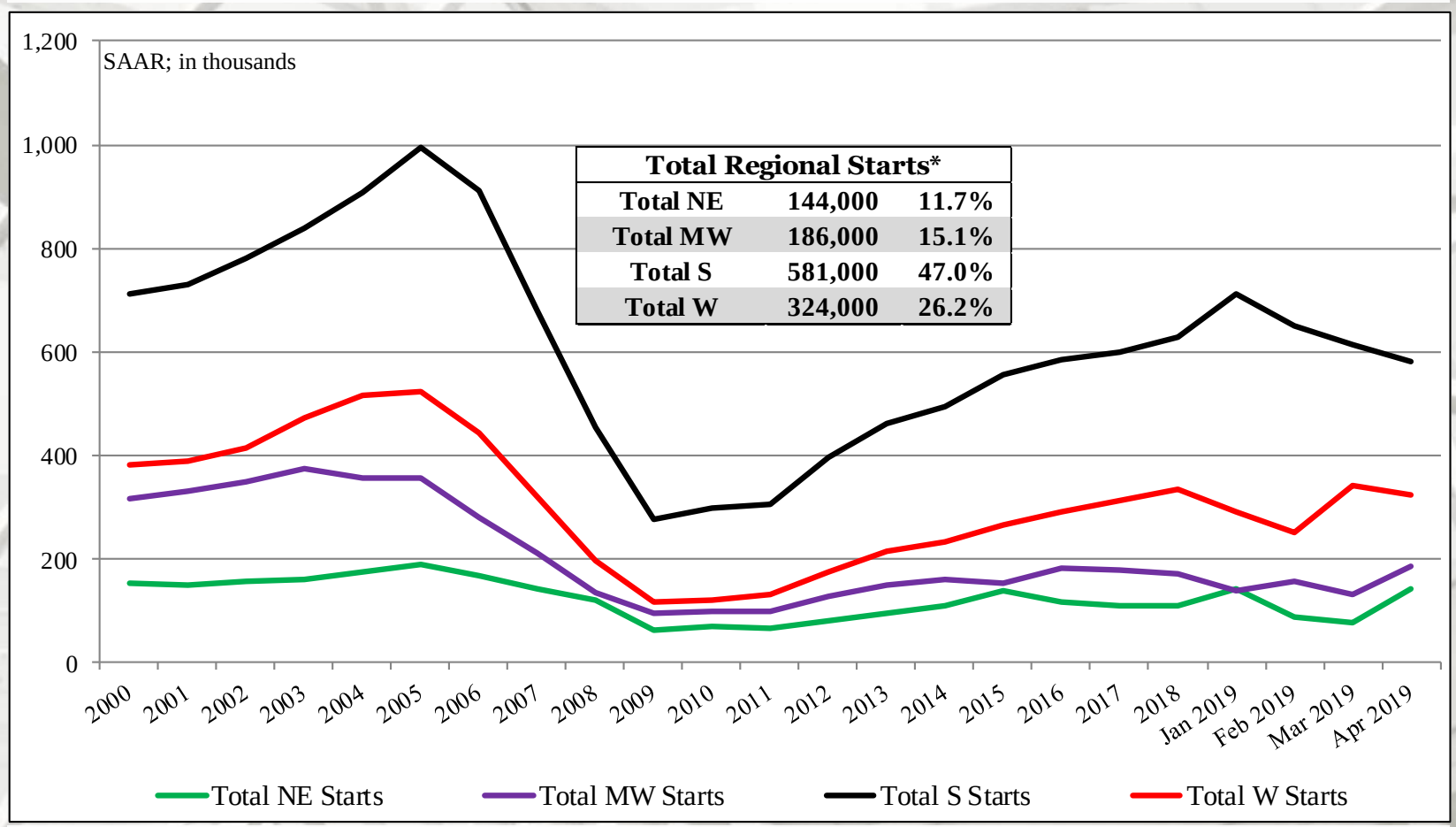
W SF Housing Starts: Six-Month Average



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Starts by Region



Total Regional Starts*		
Total NE	144,000	11.7%
Total MW	186,000	15.1%
Total S	581,000	47.0%
Total W	324,000	26.2%

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

* Percentage of total starts.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Starts by Region

	NE Total	NE SF	NE MF**
April	144,000	70,000	74,000
March	78,000	54,000	24,000
2018	97,000	58,000	39,000
M/M change	84.6	29.6	208.3
Y/Y change	48.5	20.7	89.7
	MW Total	**MW SF**	**MW MF**
April	186,000	120,000	66,000
March	131,000	87,000	44,000
2018	159,000	104,000	55,000
M/M change	42.0	37.9	50.0
Y/Y change	17.0	15.4	20.0

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Starts by Region

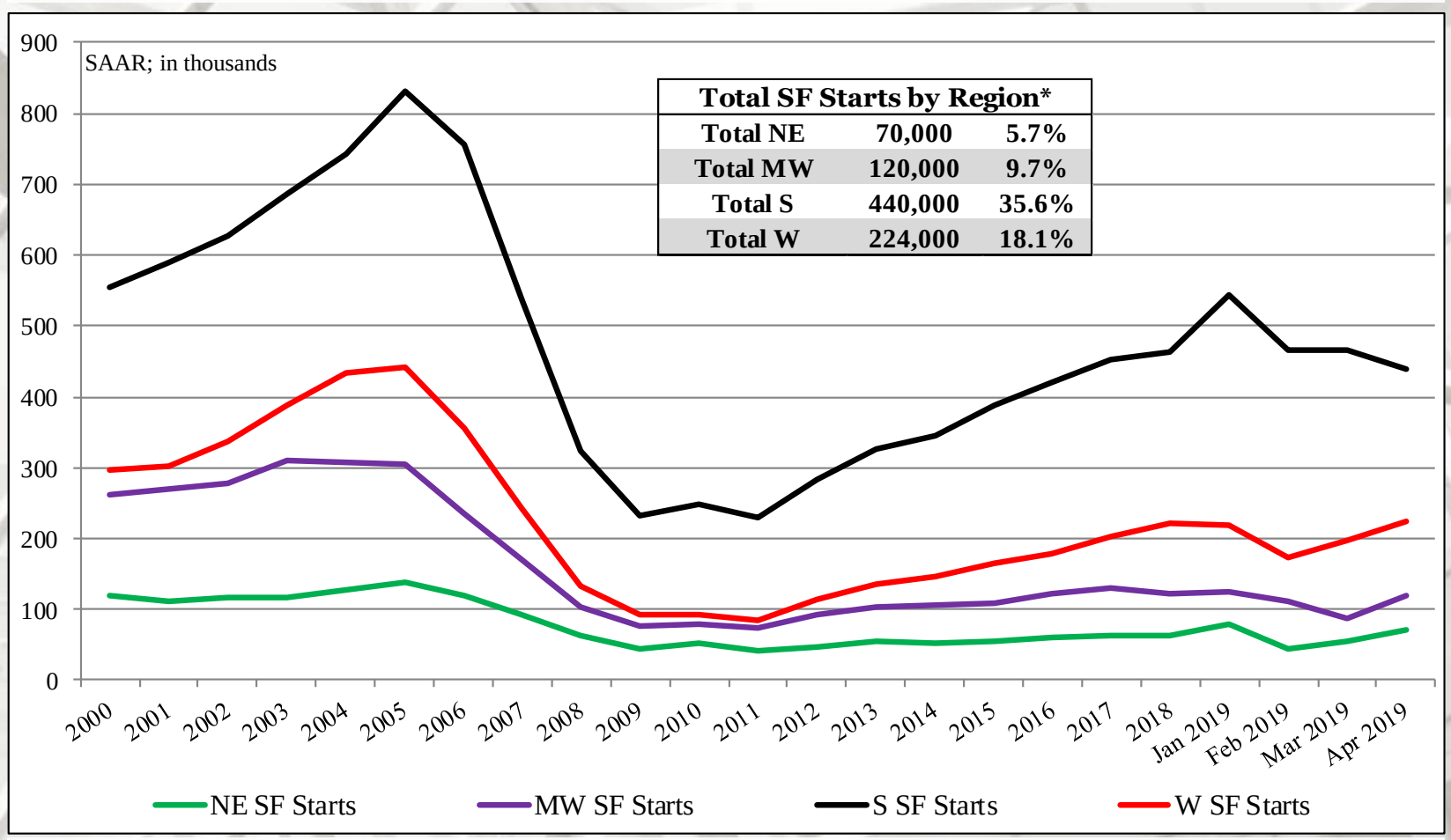
	S Total	S SF	S MF**
April	581,000	440,000	141,000
March	616,000	466,000	150,000
2017	662,000	511,000	151,000
M/M change	-5.7	-5.6	-6.0
Y/Y change	-12.2	-13.9	-6.6
	W Total	**W SF**	**W MF**
April	324,000	224,000	100,000
March	343,000	197,000	146,000
2018	349,000	219,000	130,000
M/M change	-5.5	13.7	-31.5
Y/Y change	-7.2	2.3	-23.1

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total SF Housing Starts by Region



Total SF Starts by Region*		
Total NE	70,000	5.7%
Total MW	120,000	9.7%
Total S	440,000	35.6%
Total W	224,000	18.1%

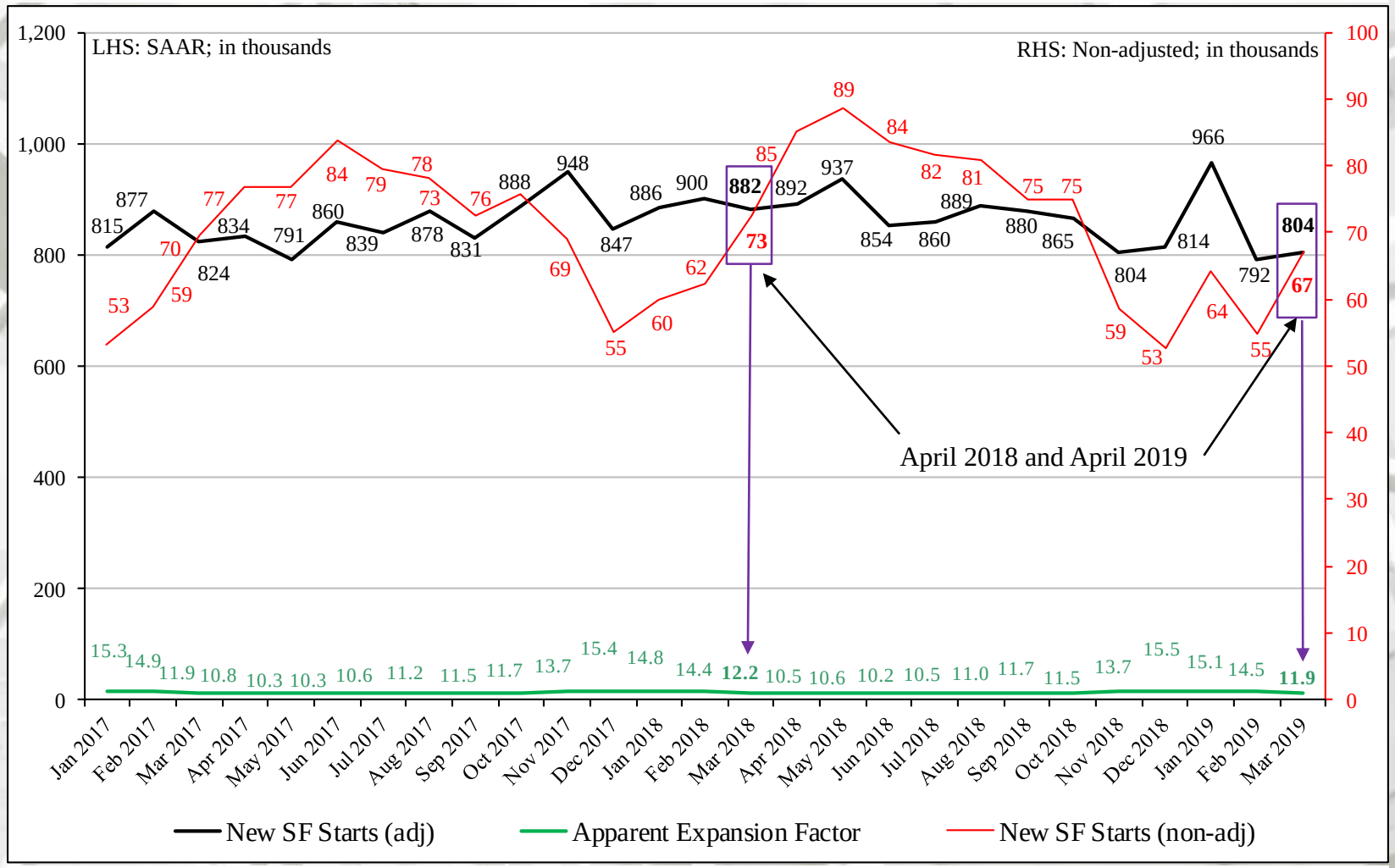
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family starts directly, this is an estimation (Total starts – (SF + ≥ 5 MF starts).

* Percentage of total starts.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

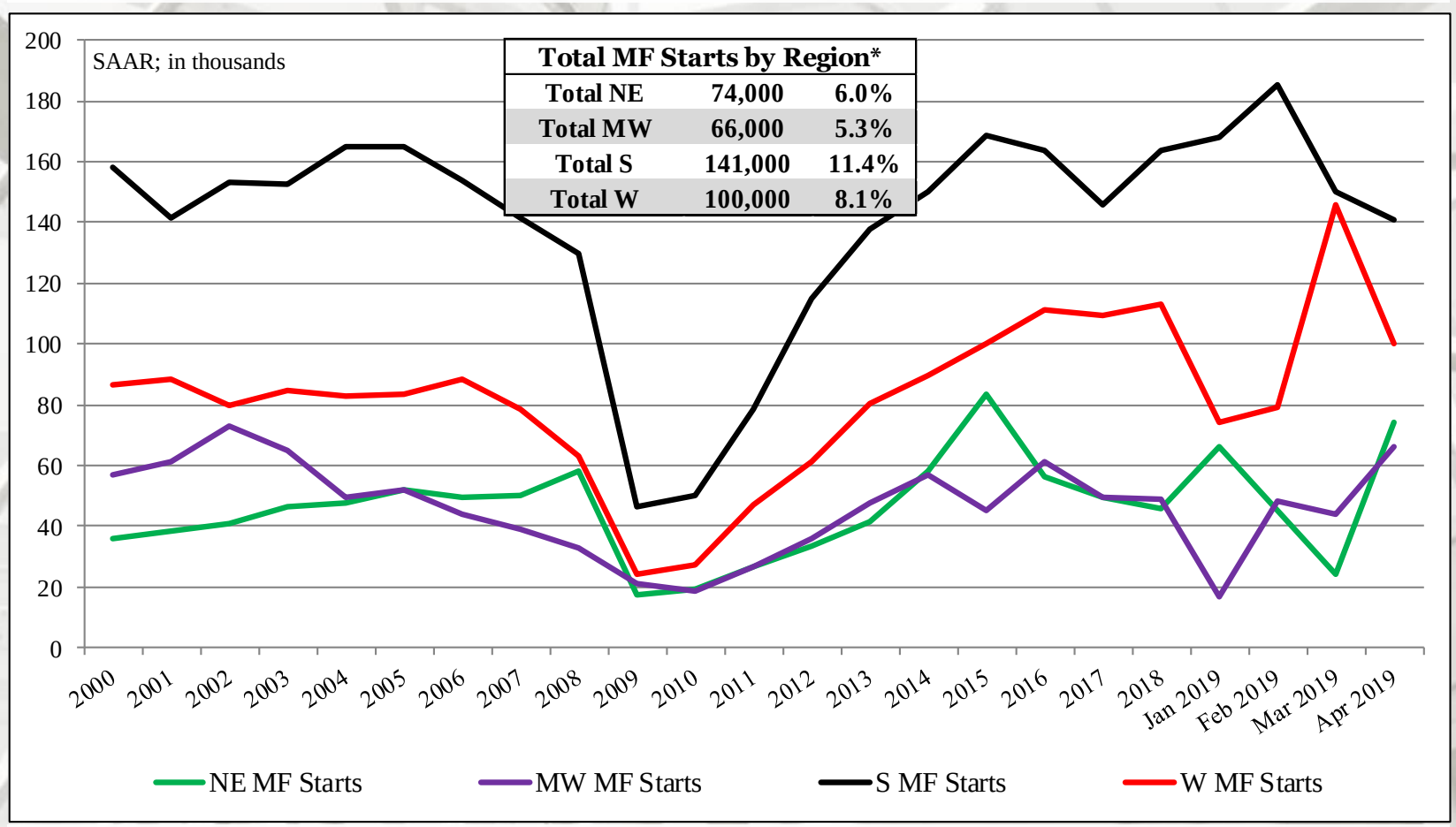
Presented above is nominal (non-adjusted) new SF start data contrasted against SAAR data.

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

MF Housing Starts by Region



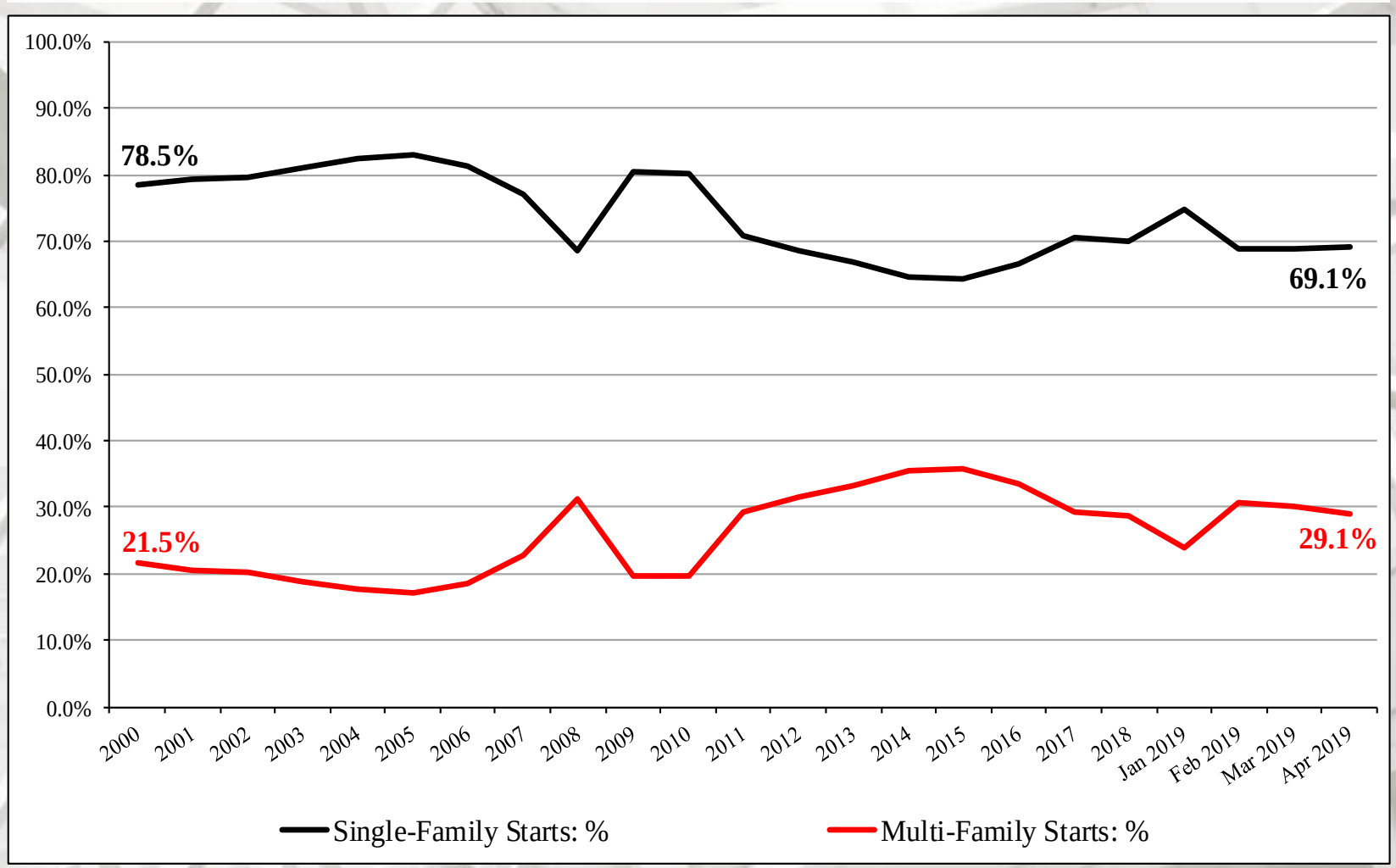
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family starts directly, this is an estimation (Total starts – (SF + ≥ 5 MF starts).

* Percentage of total starts.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

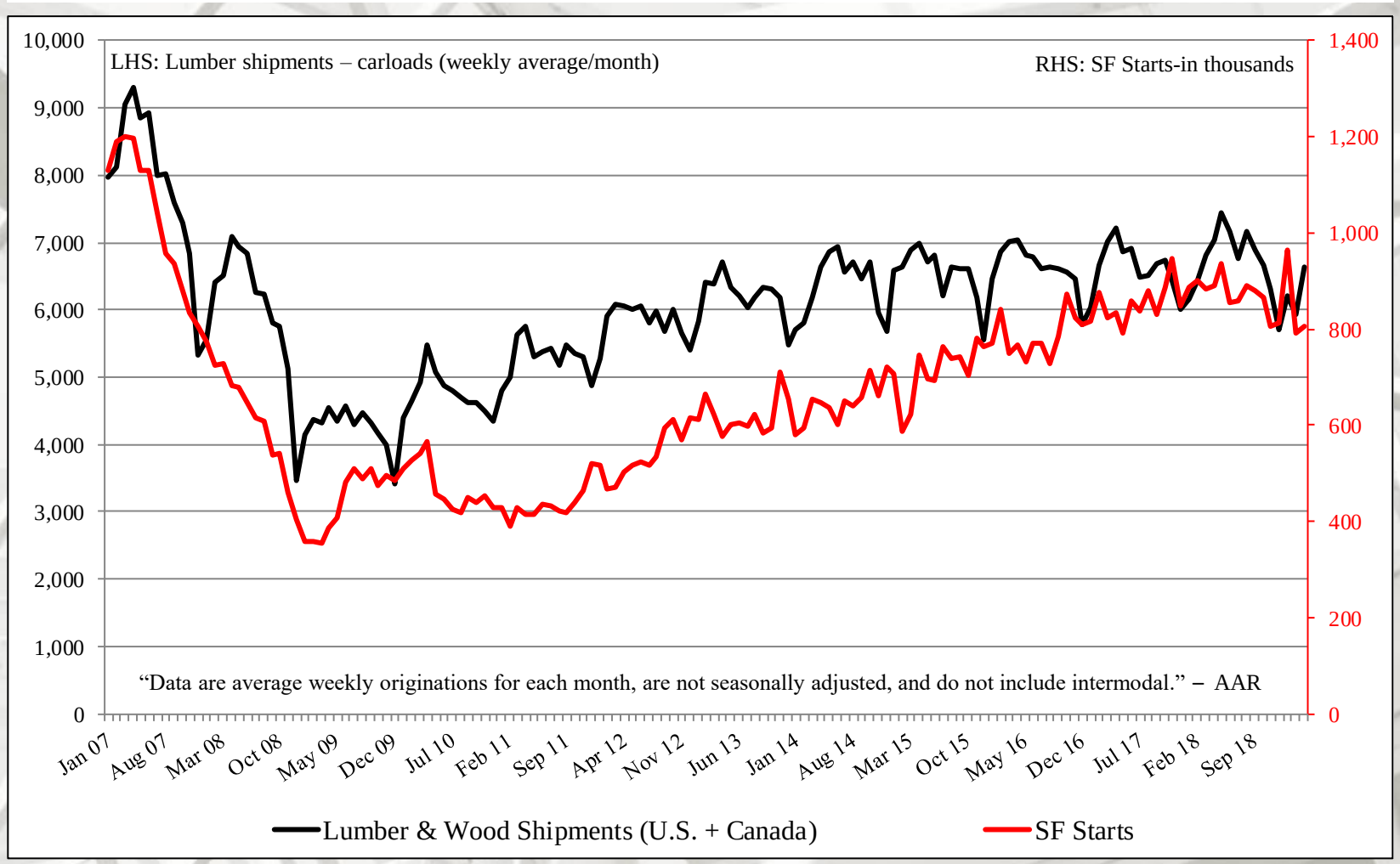
SF vs. MF Housing Starts (%)



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

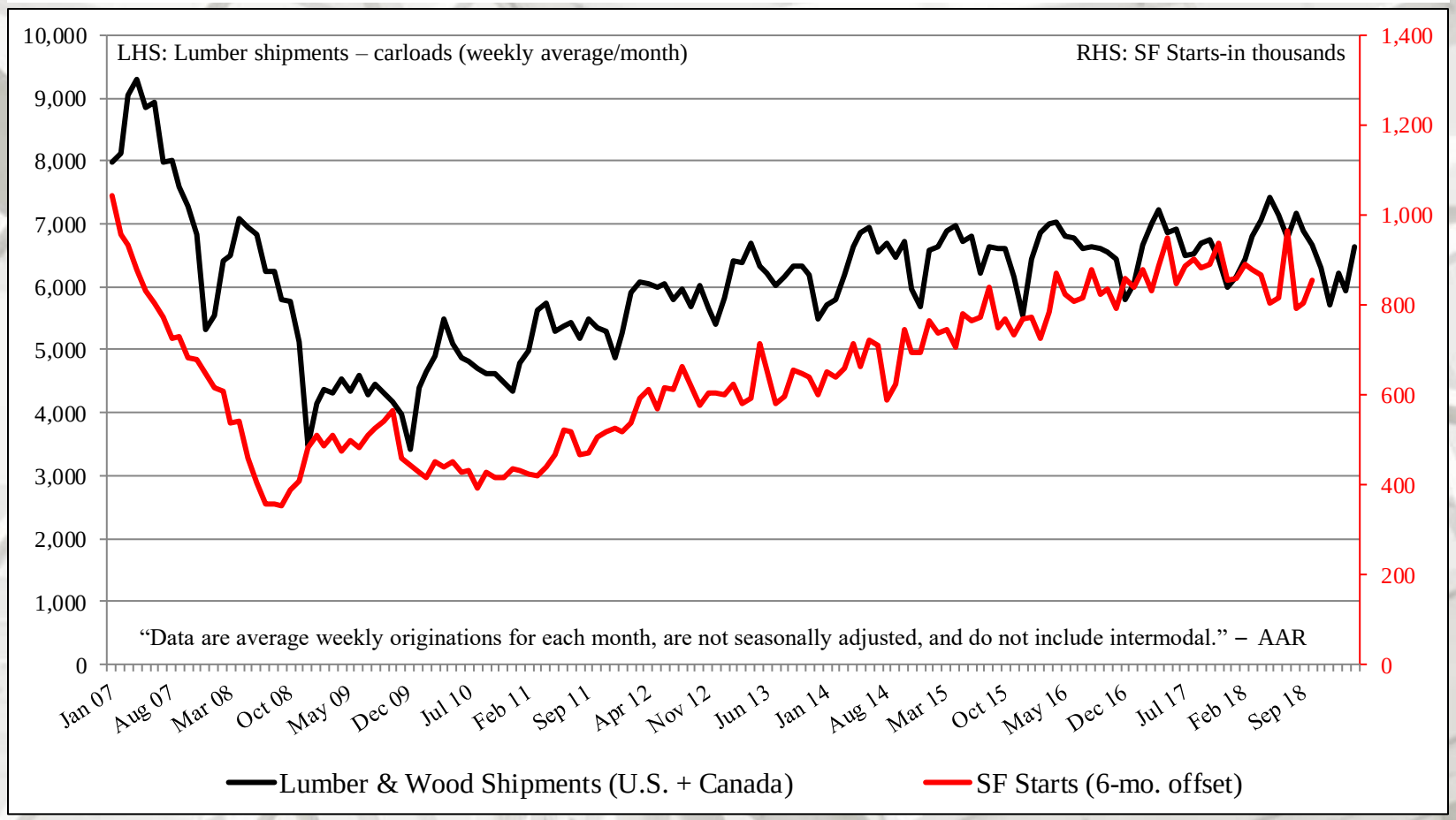
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/19/19

Return TOC

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



In this graph, April 2007 lumber shipments are contrasted with April 2007 SF starts, and continuing through April 2019 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.

Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/19/19

Return TOC

New Housing Permits

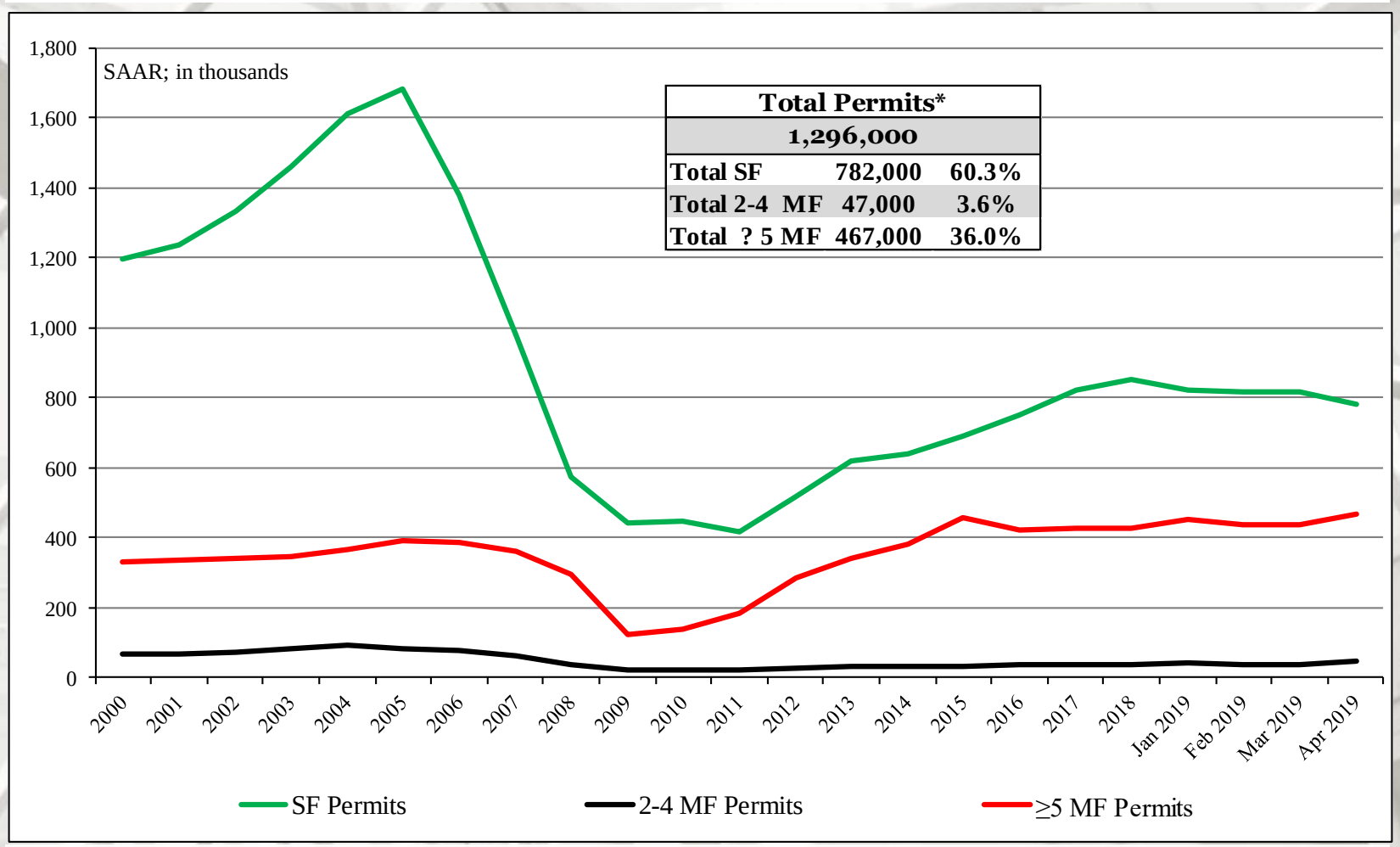
	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
April	1,296,000	782,000	47,000	467,000
March	1,288,000	816,000	36,000	436,000
2018	1,364,000	863,000	41,000	460,000
M/M change	0.6	-4.2	30.6	7.1
Y/Y change	-5.0	-9.4	14.6	1.5

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total New Housing Permits

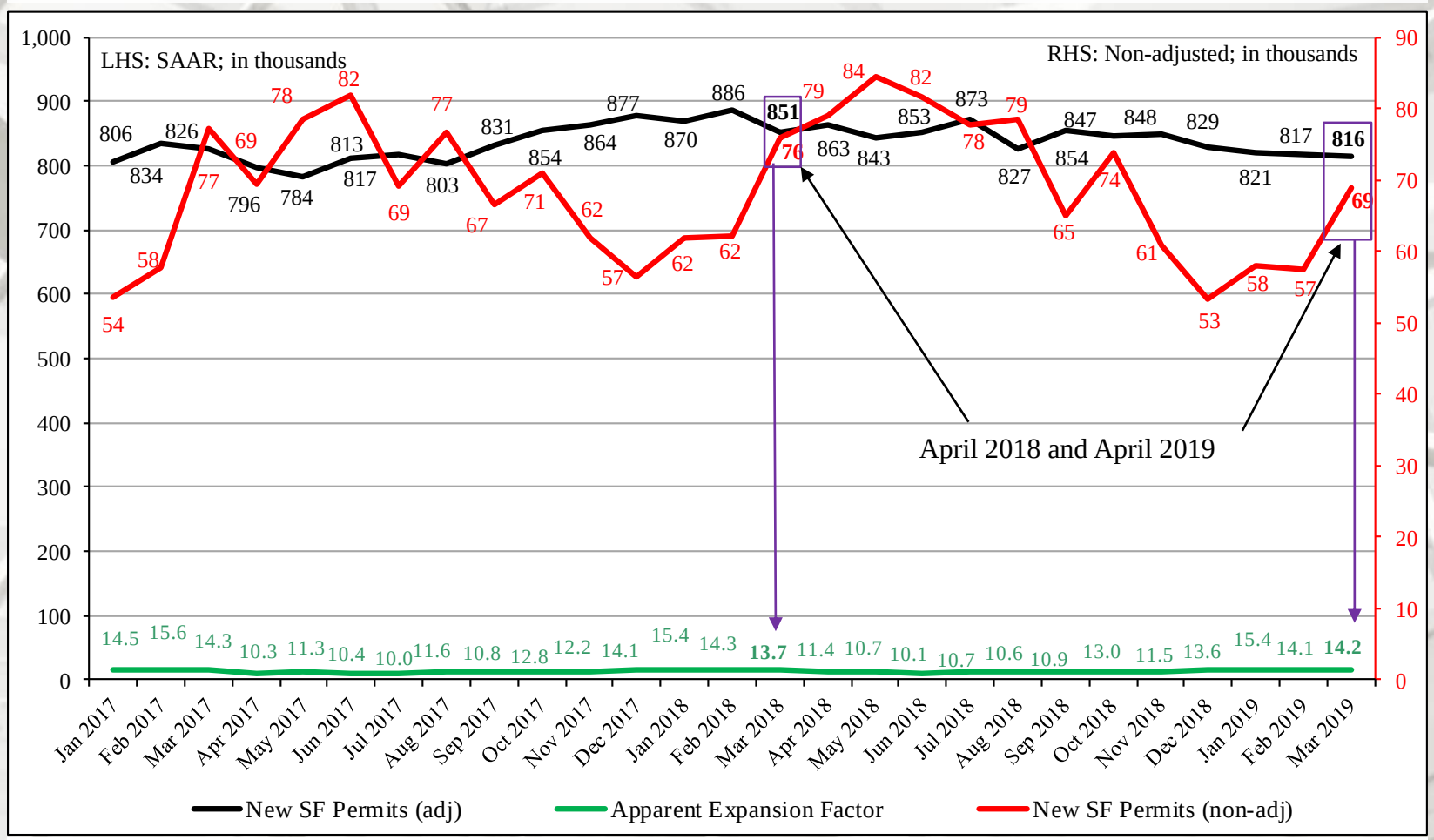


* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Nominal & SAAR SF Permits



Nominal and Adjusted New SF Monthly Permits

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

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
April	120,000	49,000	71,000
March	125,000	53,000	72,000
2018	95,000	51,000	44,000
M/M change	-4.0	-7.5	-1.4
Y/Y change	26.3	-3.9	61.4
	MW Total*	**MW SF**	**MW MF****
April	188,000	114,000	74,000
March	184,000	102,000	82,000
2018	195,000	123,000	72,000
M/M change	2.2	11.8	-9.8
Y/Y change	-3.6	-7.3	2.8

NE = Northeast; ME = Midwest
* All data are SAAR
** US DOC does not report multifamily permits directly, this is an estimation (Total permits – SF permits).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Permits by Region

	S Total*	S SF	S MF**
April	649,000	426,000	223,000
March	657,000	467,000	190,000
2018	727,000	479,000	248,000
M/M change	-1.2	-8.8	17.4
Y/Y change	-10.7	-11.1	-10.1

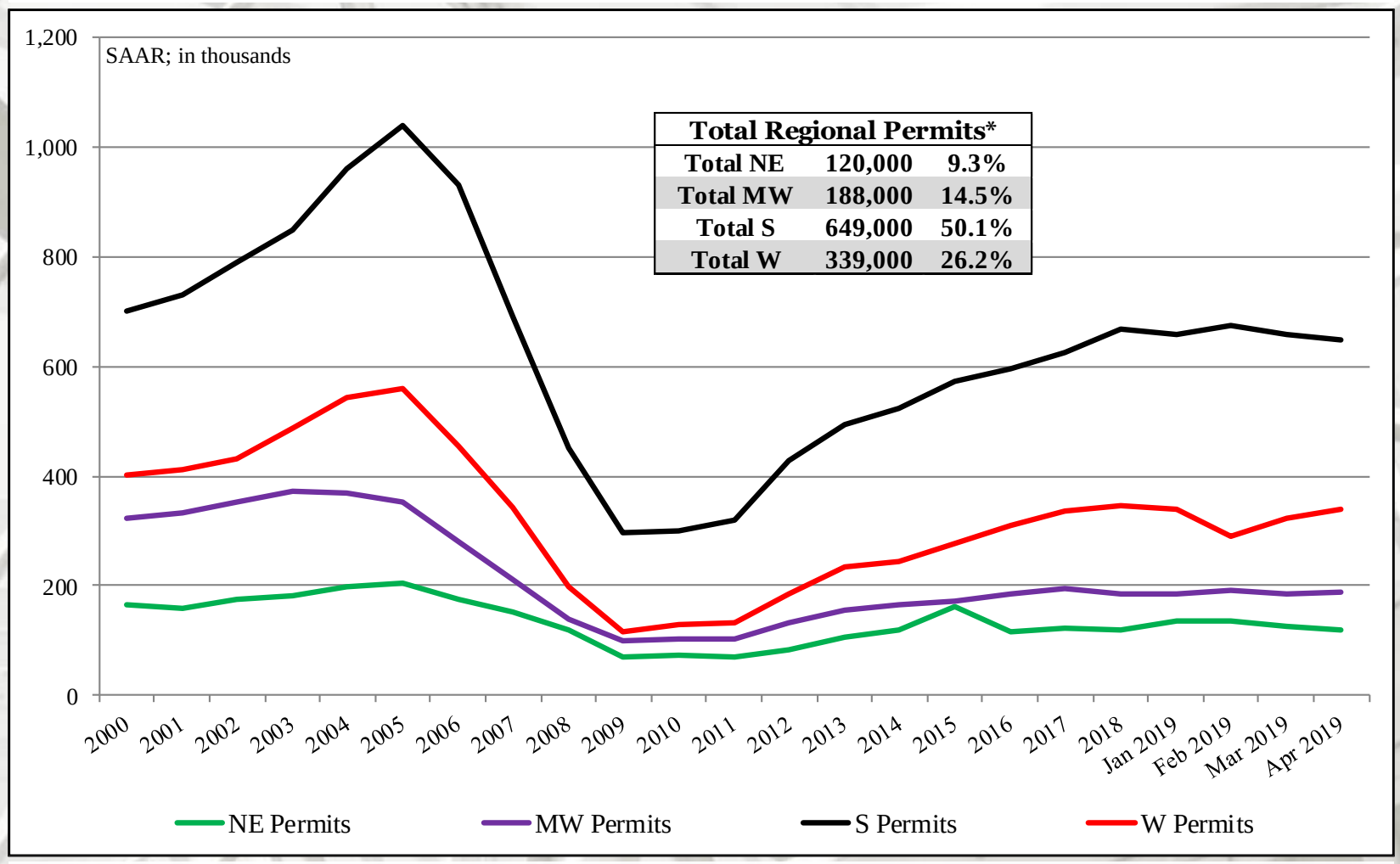
	W Total*	W SF	W MF**
April	339,000	193,000	146,000
March	322,000	194,000	128,000
2018	347,000	210,000	137,000
M/M change	5.3	-0.5	14.1
Y/Y change	-2.3	-8.1	6.6

S = South; W = West
* All data are SAAR
** US DOC does not report multifamily permits directly, this is an estimation (Total permits – SF permits).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Permits by Region



Total Regional Permits*		
Total NE	120,000	9.3%
Total MW	188,000	14.5%
Total S	649,000	50.1%
Total W	339,000	26.2%

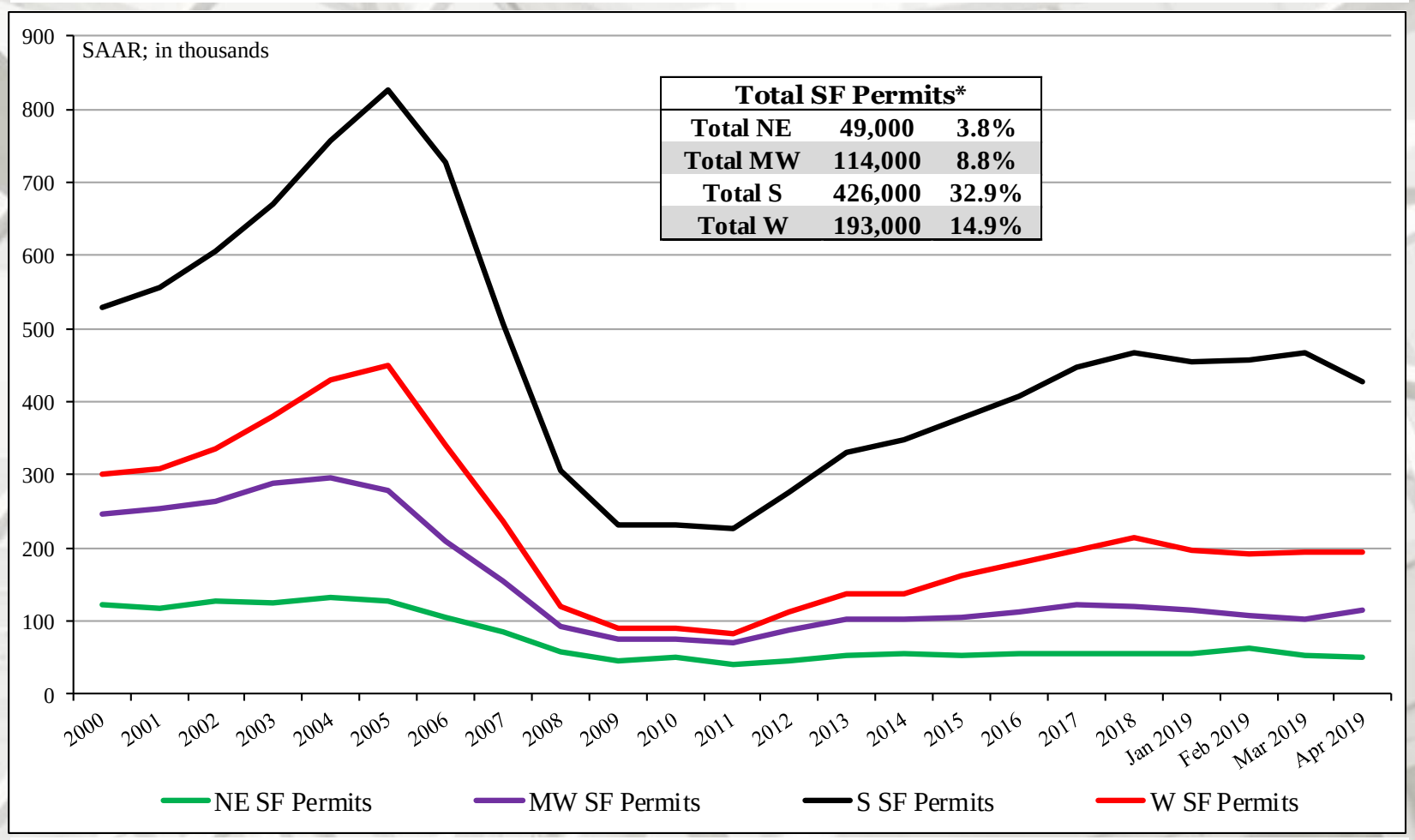
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

SF Housing Permits by Region



Total SF Permits*		
Total NE	49,000	3.8%
Total MW	114,000	8.8%
Total S	426,000	32.9%
Total W	193,000	14.9%

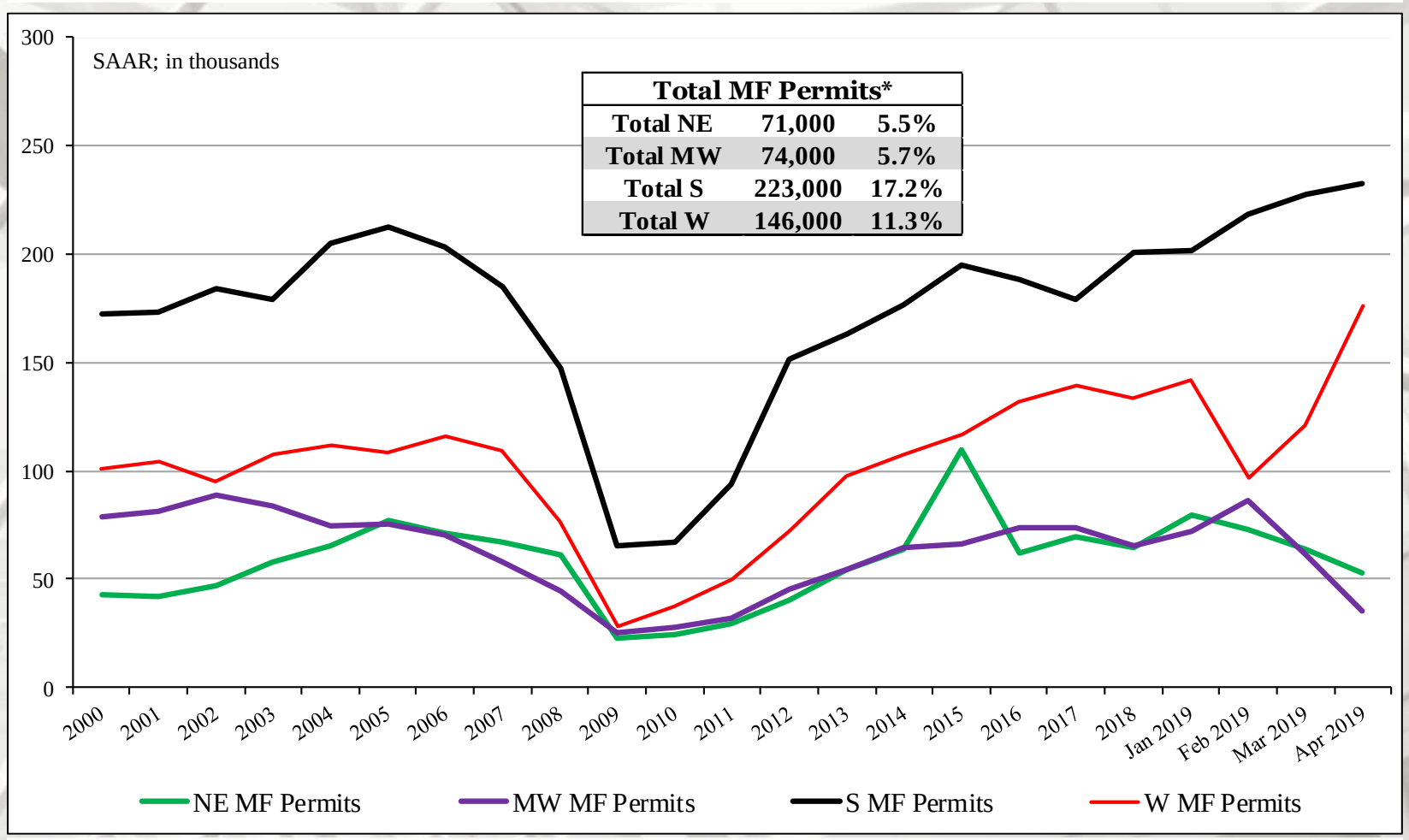
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

MF Housing Permits by Region



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

* Percentage of total permits.

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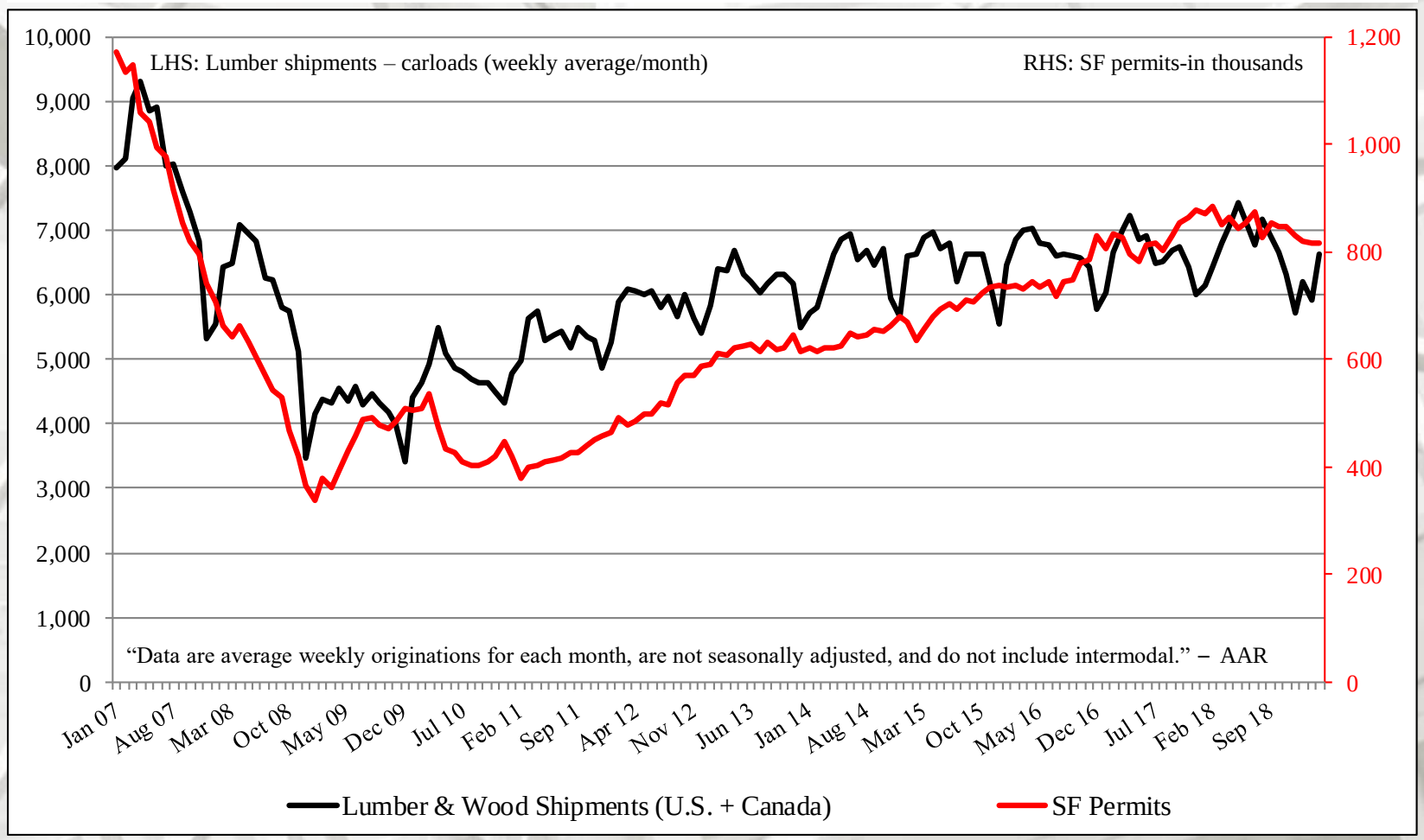
Return TOC

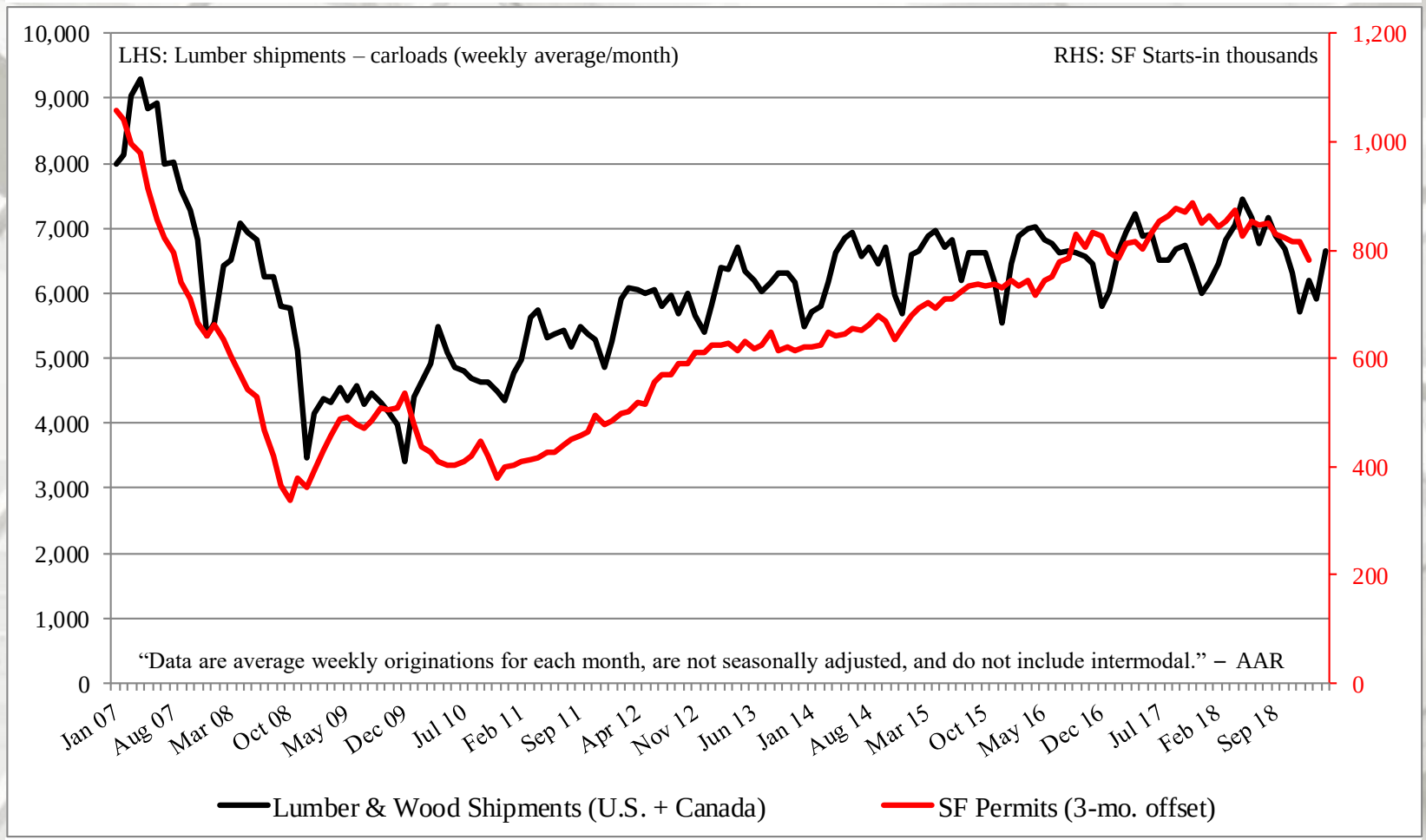
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/19/19

Return TOC

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



In this graph, April 2007 lumber shipments are contrasted with April 2007 SF permits, continuing through April 2019. 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.

Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/19/19

Return TOC

New Housing Under Construction (HUC)

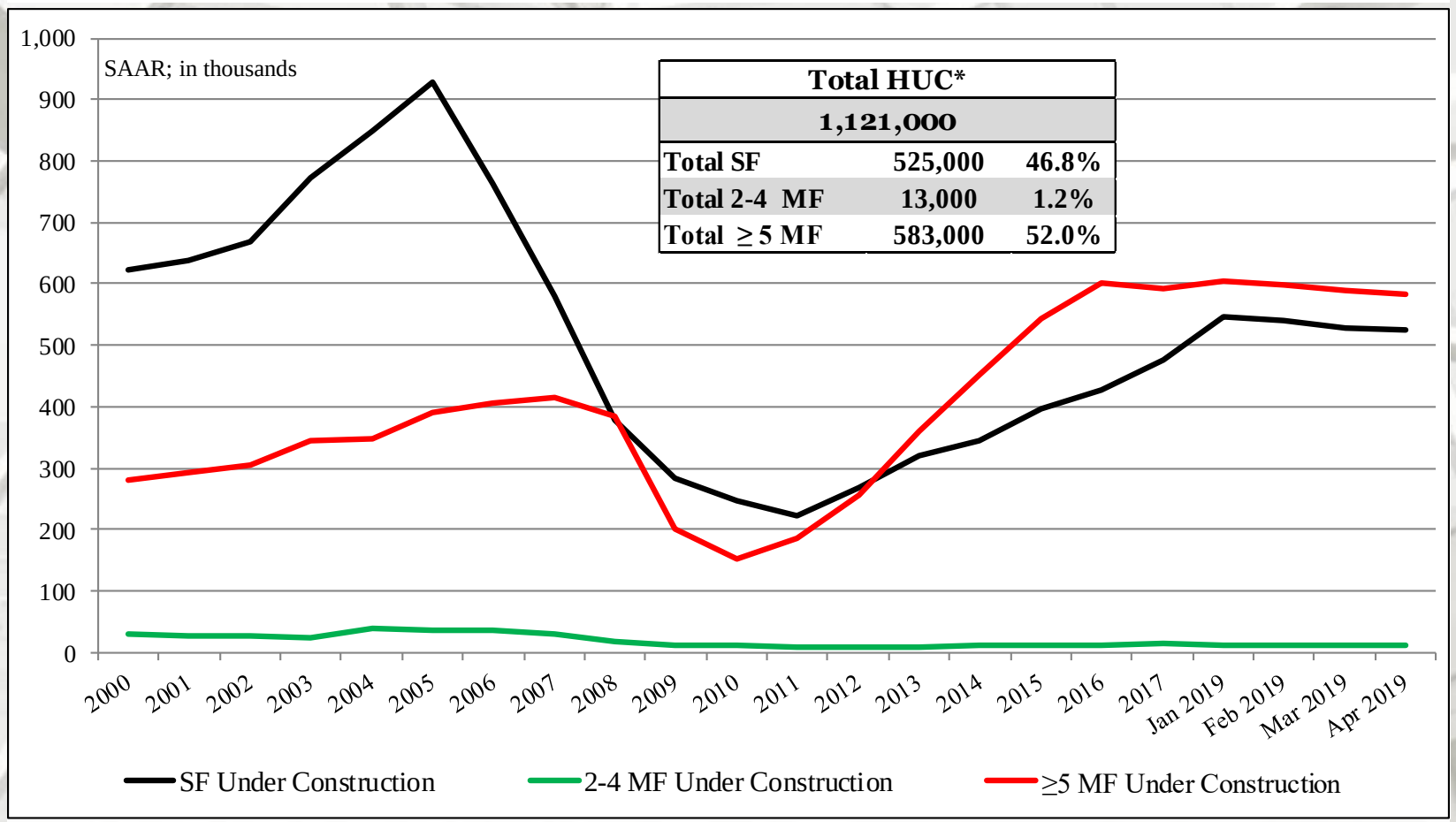
	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
April	1,121,000	525,000	13,000	583,000
March	1,131,000	529,000	12,000	590,000
2018	1,125,000	516,000	10,200	598,800
M/M change	-0.9	-0.8	8.3	-1.2
Y/Y change	-0.4	1.7	27.5	-2.6

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)).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Under Construction



Total HUC*		
1,121,000		
Total SF	525,000	46.8%
Total 2-4 MF	13,000	1.2%
Total ≥ 5 MF	583,000	52.0%

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

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
April	186,000	67,000	119,000
March	184,000	64,000	120,000
2018	182,000	54,000	128,000
M/M change	1.1	4.7	-0.8
Y/Y change	2.2	24.1	-7.0
	MW Total	**MW SF**	**MW MF**
April	144,000	75,000	69,000
March	147,000	77,000	70,000
2018	153,000	82,000	71,000
M/M change	-2.0	-2.6	-1.4
Y/Y change	-5.9	-8.5	-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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Under Construction by Region

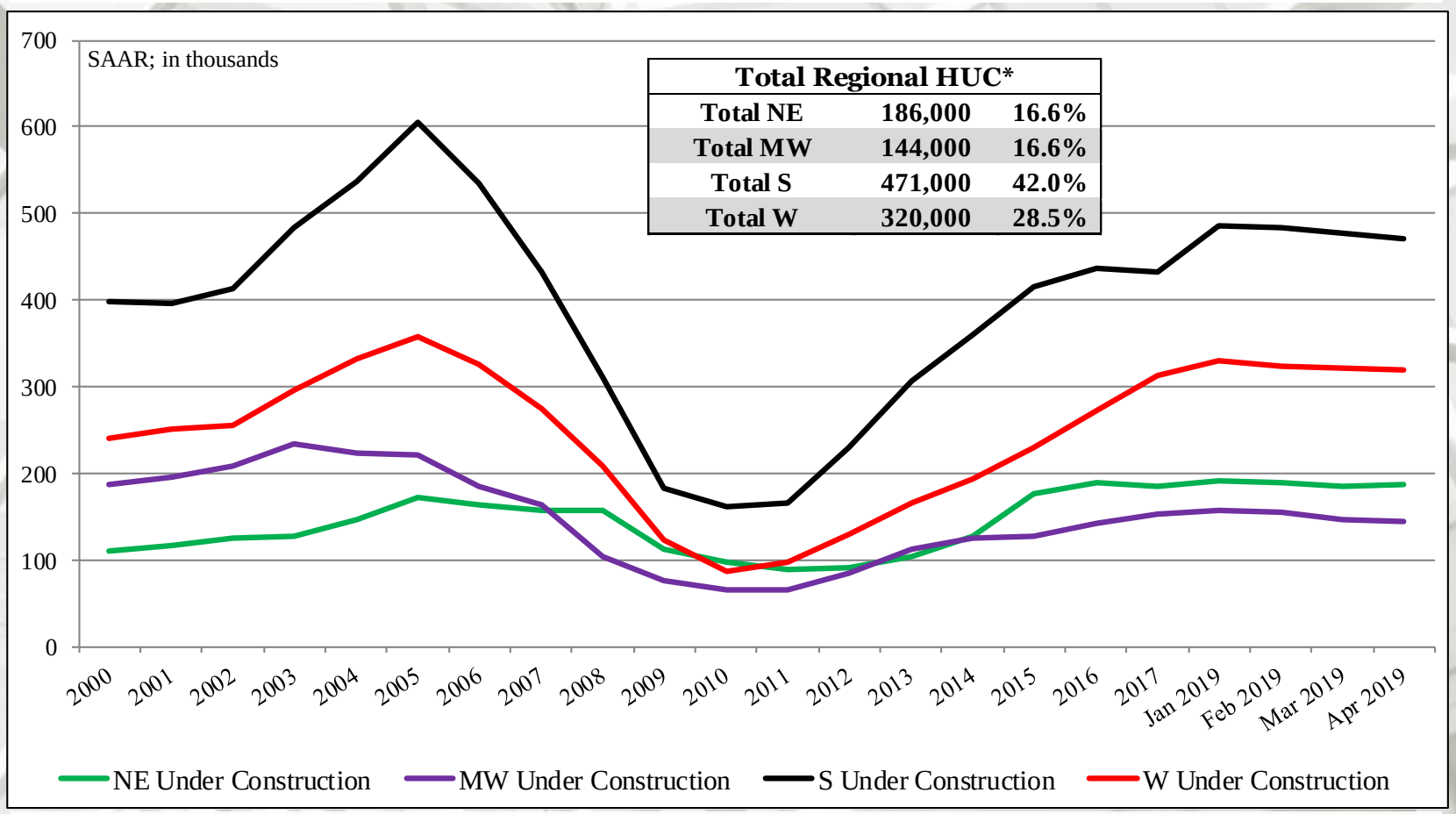
	S Total	S SF	S MF**
April	471,000	247,000	224,000
March	478,000	252,000	226,000
2018	455,000	240,000	215,000
M/M change	-1.5	-2.0	-0.9
Y/Y change	3.5	2.9	4.2
	W Total	**W SF**	**W MF**
April	320,000	136,000	184,000
March	322,000	136,000	186,000
March	335,000	140,000	195,000
M/M change	-0.6	0.0	-1.1
Y/Y change	-4.5	-2.9	-5.6

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Under Construction by Region



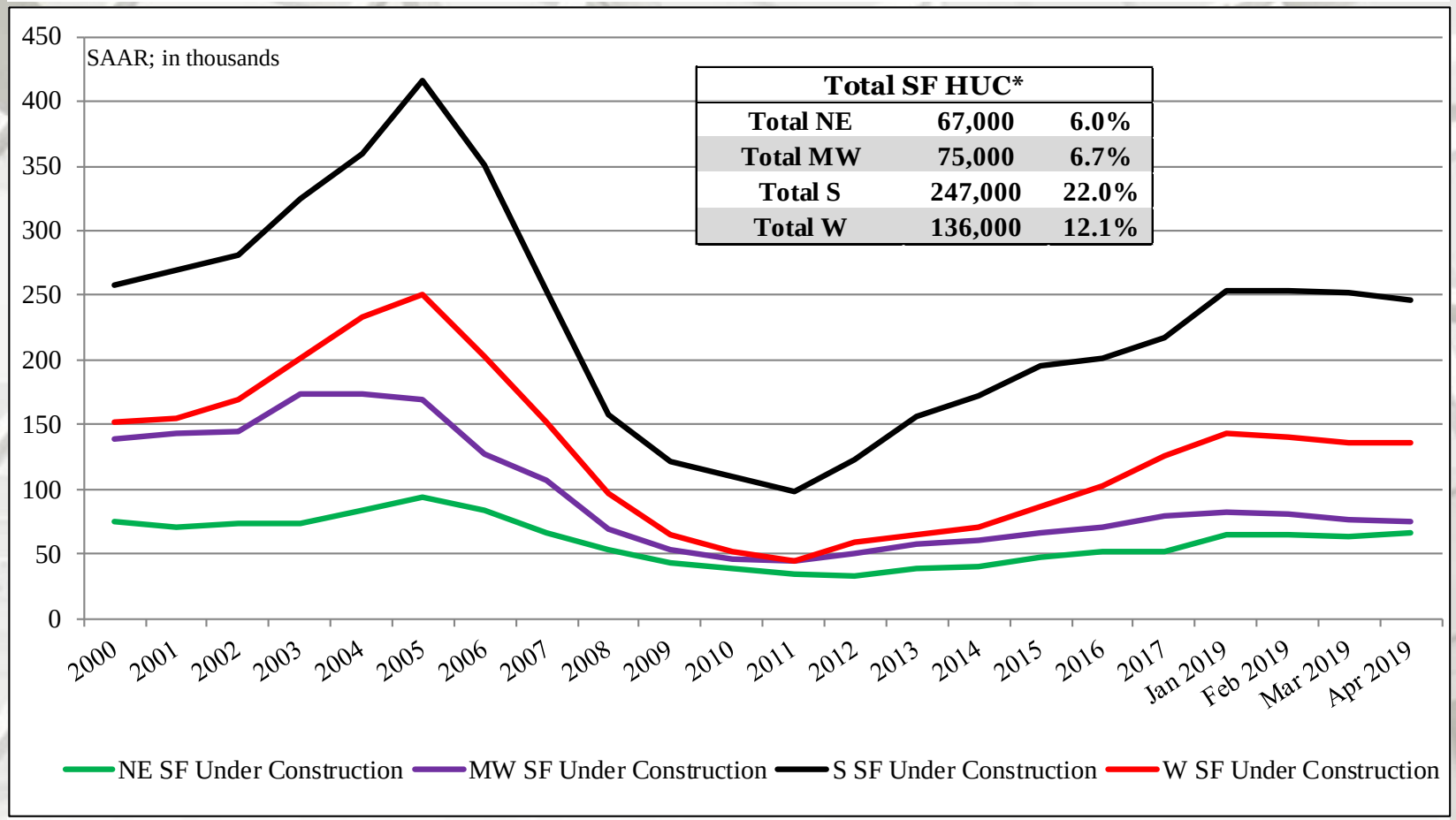
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF under construction).

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

SF Housing Under Construction by Region



Total SF HUC*		
Total NE	67,000	6.0%
Total MW	75,000	6.7%
Total S	247,000	22.0%
Total W	136,000	12.1%

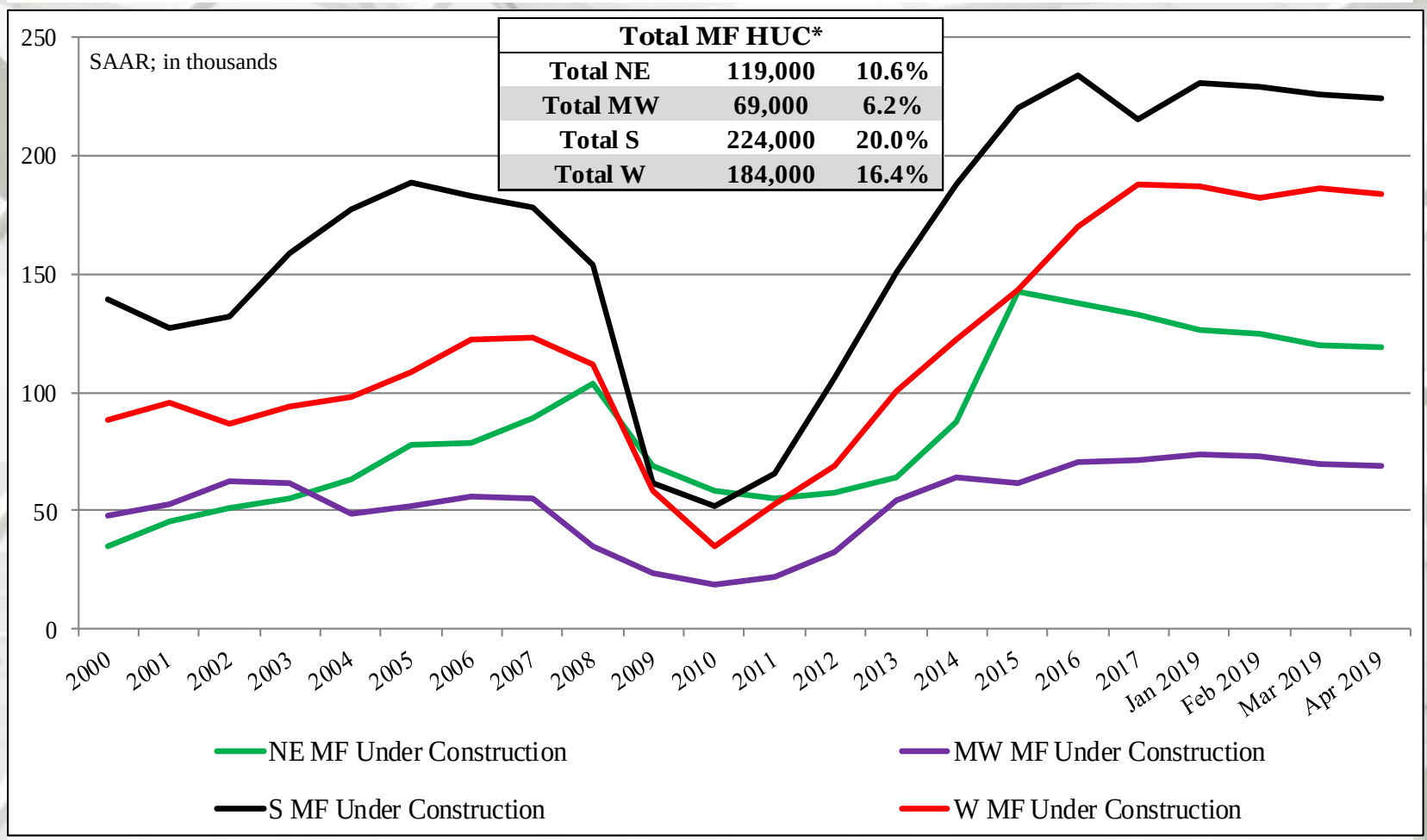
NE = Northeast, MW = Midwest, S = South, W = West.
US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF under construction).

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

MF Housing Under Construction by Region



Total MF HUC*		
Total NE	119,000	10.6%
Total MW	69,000	6.2%
Total S	224,000	20.0%
Total W	184,000	16.4%

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

* Percentage of total housing under construction units.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
April	1,312,000	918,000	13,000	381,000
March	1,331,000	957,000	14,000	360,000
2018	1,244,000	787,000	13,000	444,000
M/M change	-1.4%	-4.1%	-7.1%	5.8%
Y/Y change	5.5%	16.6%	0.0%	-14.2%

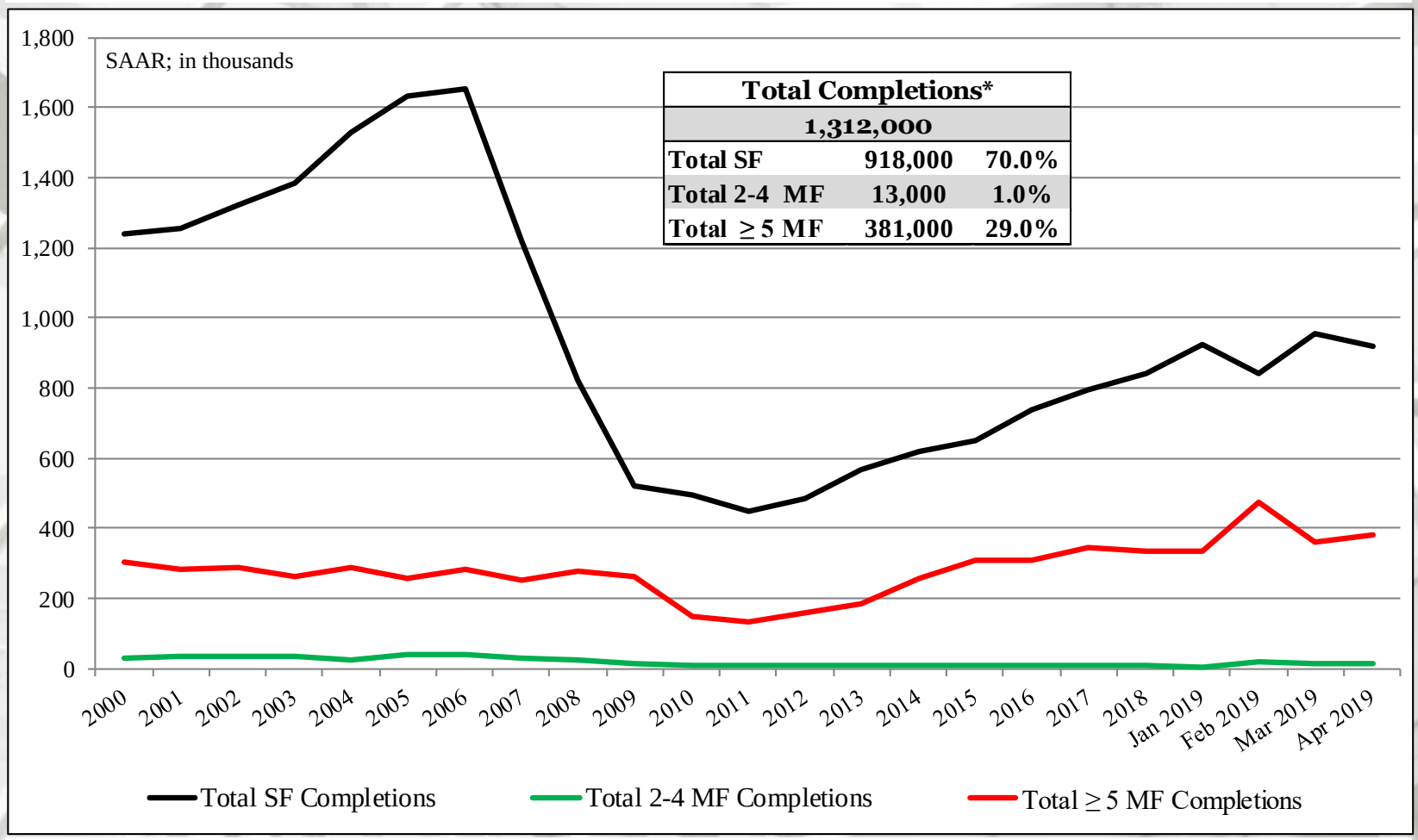
* All completion data are presented at a seasonally adjusted annual rate (SAAR).

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Completions



Total Completions*		
1,312,000		
Total SF	918,000	70.0%
Total 2-4 MF	13,000	1.0%
Total ≥ 5 MF	381,000	29.0%

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

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Completions by Region

	NE Total	NE SF	NE MF**
April	129,000	45,000	84,000
March	133,000	67,000	66,000
2018	142,000	52,000	90,000
M/M change	-3.0%	-32.8%	27.3%
Y/Y change	-9.2%	-13.5%	-6.7%
	MW Total	**MW SF**	**MW MF**
April	189,000	134,000	55,000
March	200,000	146,000	54,000
2018	194,000	124,000	70,000
M/M change	-5.5%	-8.2%	1.9%
Y/Y change	-2.6%	8.1%	-21.4%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Housing Completions by Region

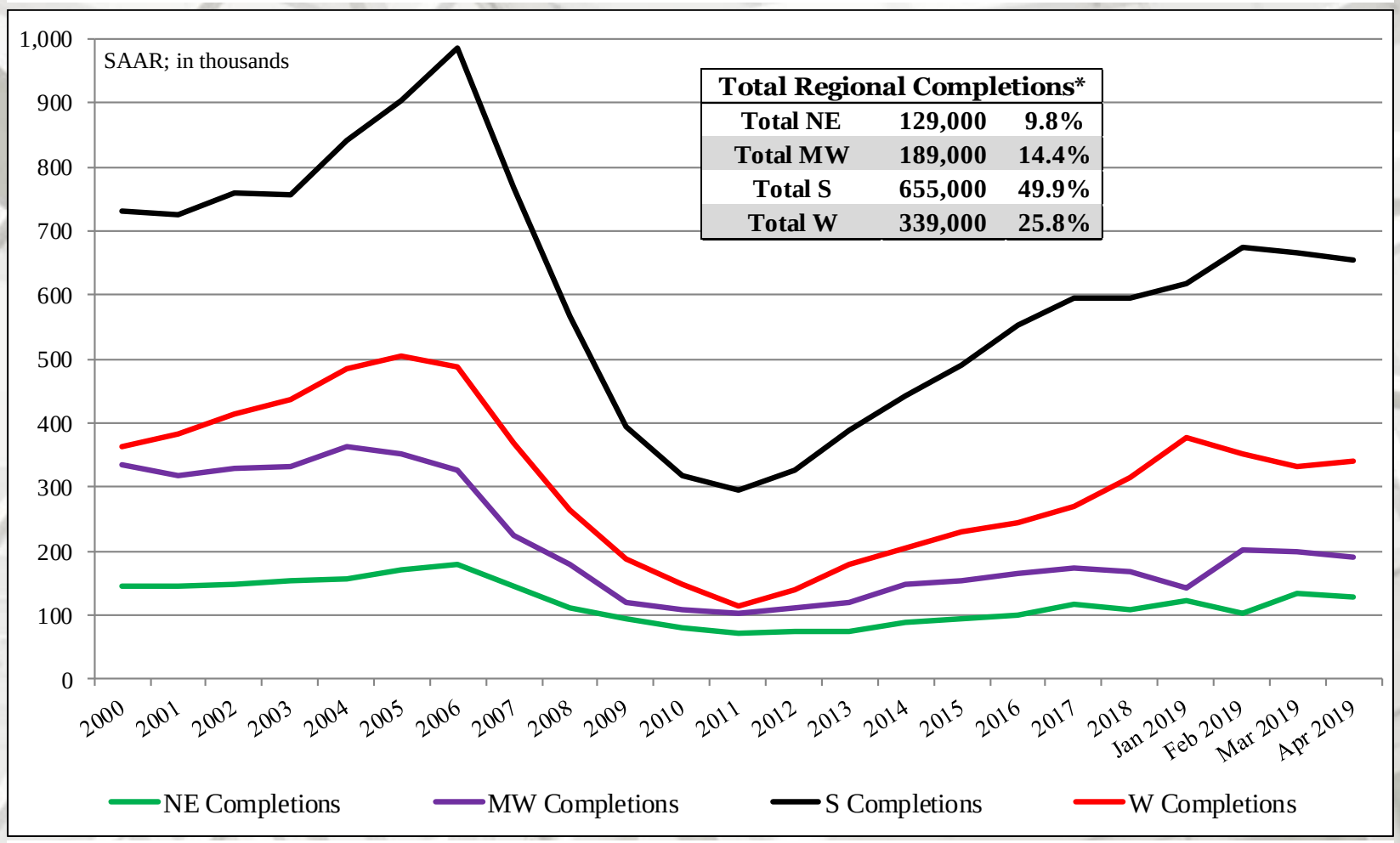
	S Total	S SF	S MF**
April	655,000	520,000	135,000
March	667,000	484,000	183,000
2018	606,000	402,000	204,000
M/M change	-1.8%	7.4%	-26.2%
Y/Y change	8.1%	29.4%	-33.8%
	W Total	**W SF**	**W MF**
April	339,000	219,000	120,000
March	331,000	260,000	71,000
2018	302,000	209,000	93,000
M/M change	2.4%	-15.8%	69.0%
Y/Y change	12.3%	4.8%	29.0%

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).

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

Total Housing Completions by Region



Total Regional Completions*		
Total NE	129,000	9.8%
Total MW	189,000	14.4%
Total S	655,000	49.9%
Total W	339,000	25.8%

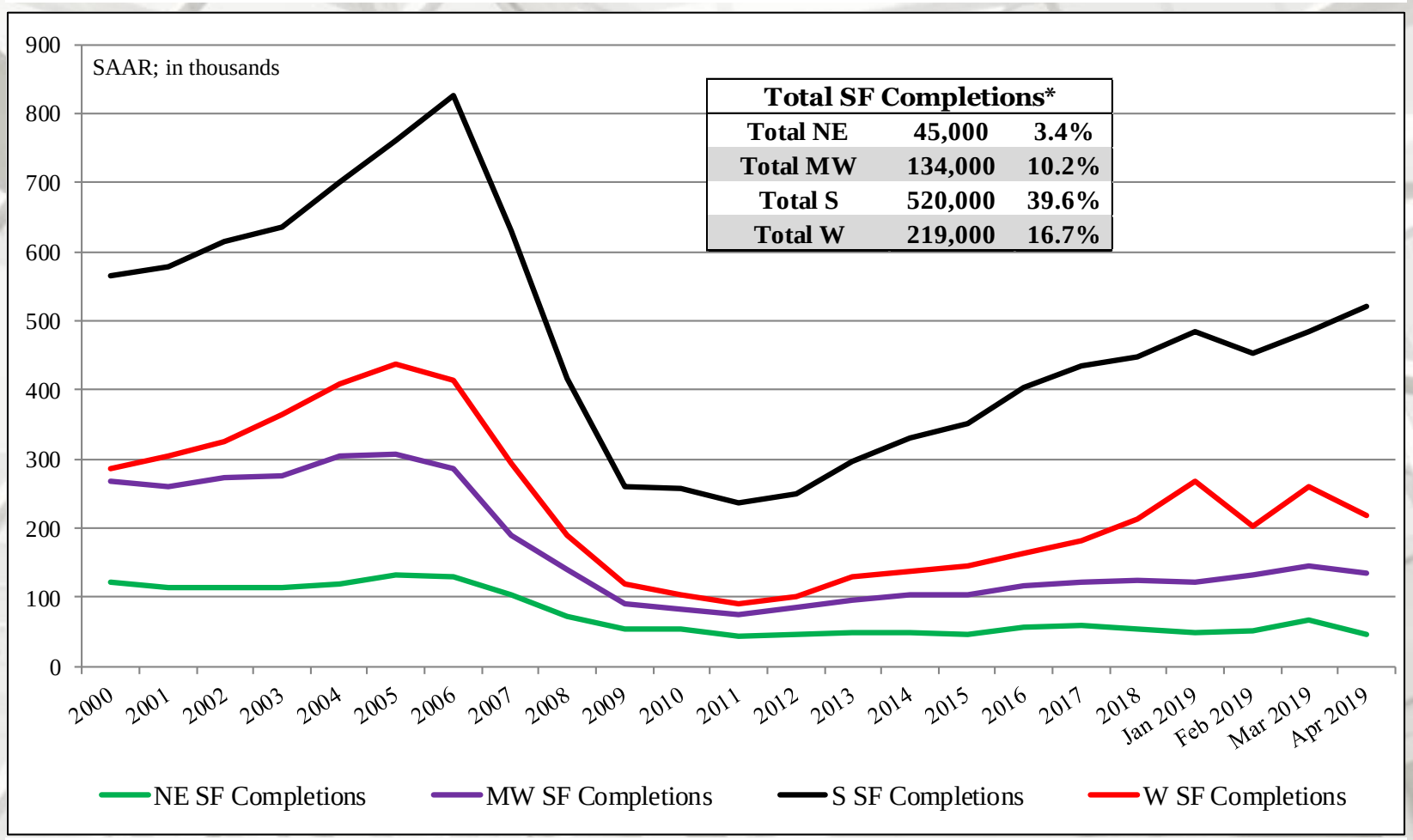
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family completions directly, this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

SF Housing Completions by Region



Total SF Completions*		
Total NE	45,000	3.4%
Total MW	134,000	10.2%
Total S	520,000	39.6%
Total W	219,000	16.7%

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

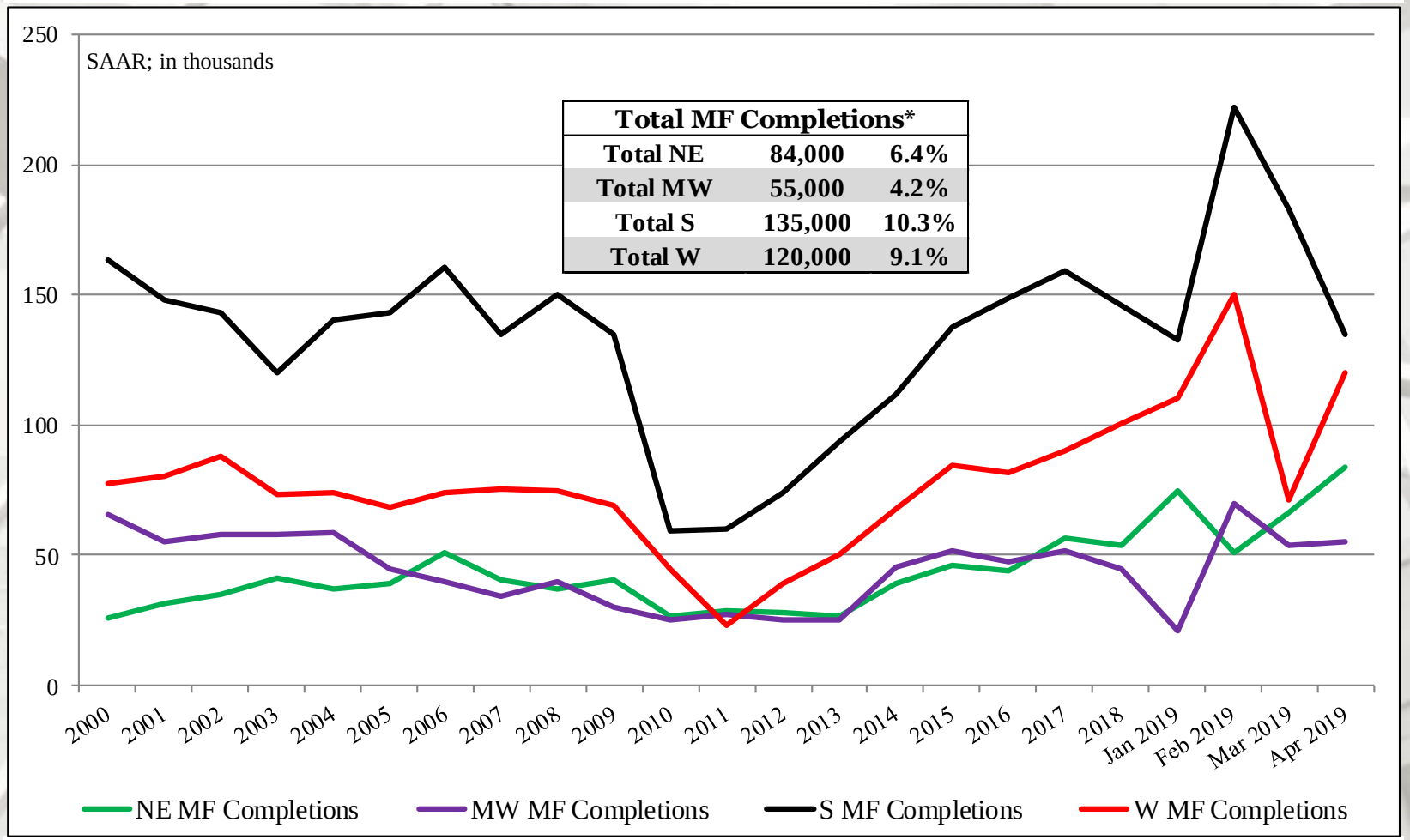
US DOC does not report 2 to 4 multi-family completions directly, this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

MF Housing Completions by Region



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

* Percentage of total housing completions

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/16/19

Return TOC

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
April	673,000	$342,200	$393,700	5.9
March	723,000	$305,800	$372,300	5.6
2018	629,000	$314,400	$385,100	5.7
M/M change	-6.9%	11.9%	5.7%	5.4%
Y/Y change	7.0%	8.8%	2.2%	3.5%

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

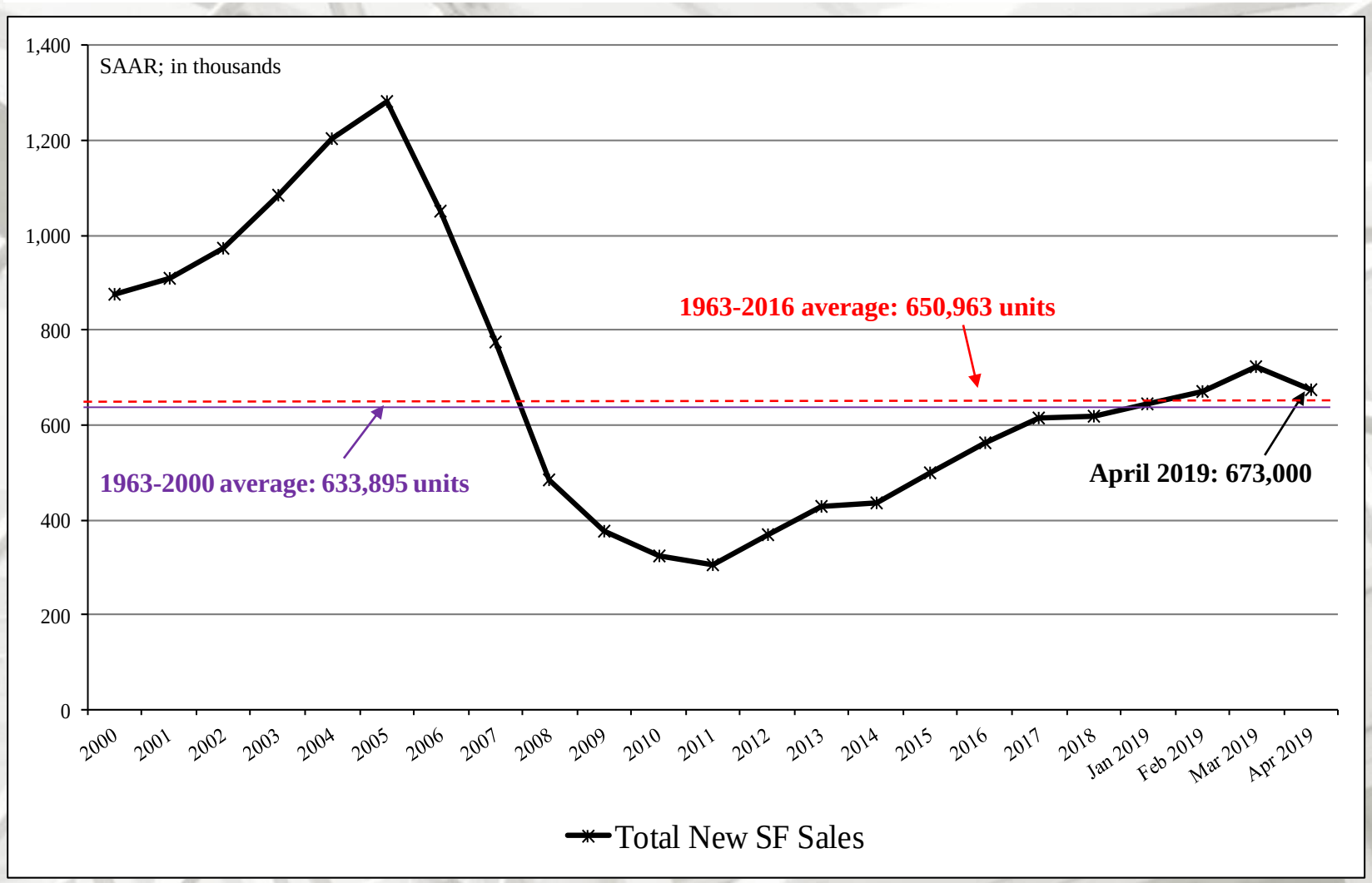
New SF sales were less than the consensus forecast[3] of 680 m (range: 640m to 696 m). The past three month's new SF sales data also were revised:

January initial:	607 m revised to 644 m;
February initial:	667 m revised to 669 m;
March initial:	692 m revised to 723 m.

Sources: [1] http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 5/23/19; [2] https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf
[3] http://us.econoday.com/; 5/23/19

Return TOC

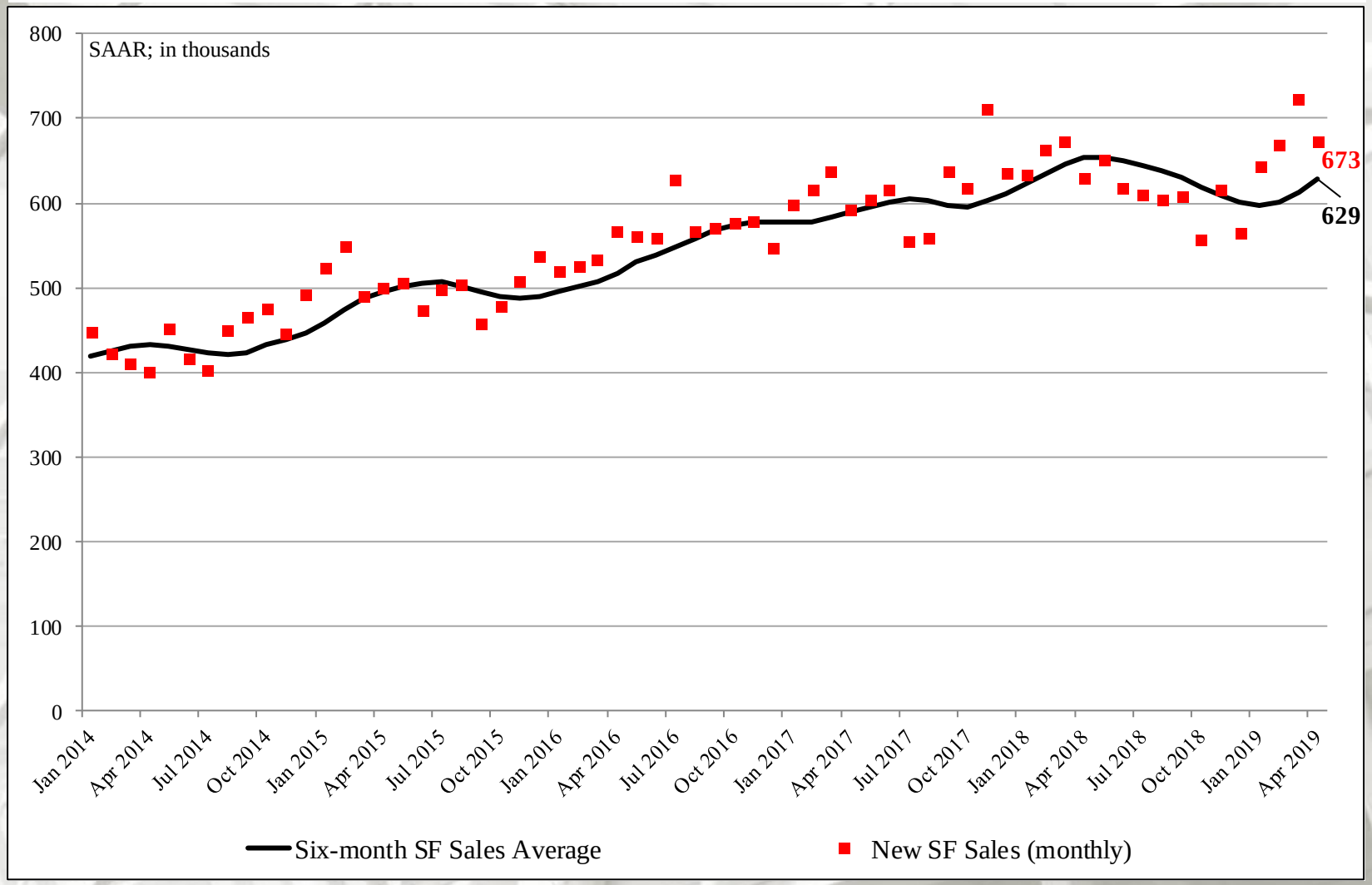
New SF House Sales



Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF Housing Sales: Six-month average & monthly



Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales by Region and Price Category

	NE	MW	S	W
April	29,000	87,000	369,000	188,000
March	26,000	94,000	398,000	205,000
2018	33,000	84,000	351,000	161,000
M/M change	11.5%	-7.4%	-7.3%	-8.3%
Y/Y change	-12.1%	3.6%	5.1%	16.8%

	≤ $150m	$150 - $199.9m	$200 - 299.9m	$300 - $399.9m	$400 - $499.9m	$500 - $749.9m	≥ $750m
April[1,2,3,4]	3,000	6,000	25,000	16,000	10,000	8,000	3,000
March	1,000	5,000	19,000	15,000	7,000	8,000	2,000
2018	2,000	5,000	18,000	19,000	11,000	8,000	3,000
M/M change	200.0%	20.0%	31.6%	6.7%	42.9%	0.0%	50.0%
Y/Y change	50.0%	20.0%	38.9%	-15.8%	-9.1%	0.0%	0.0%
New SF sales: %	4.2%	8.3%	34.7%	22.2%	13.9%	11.1%	4.2%

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

[1] All data are SAAR

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

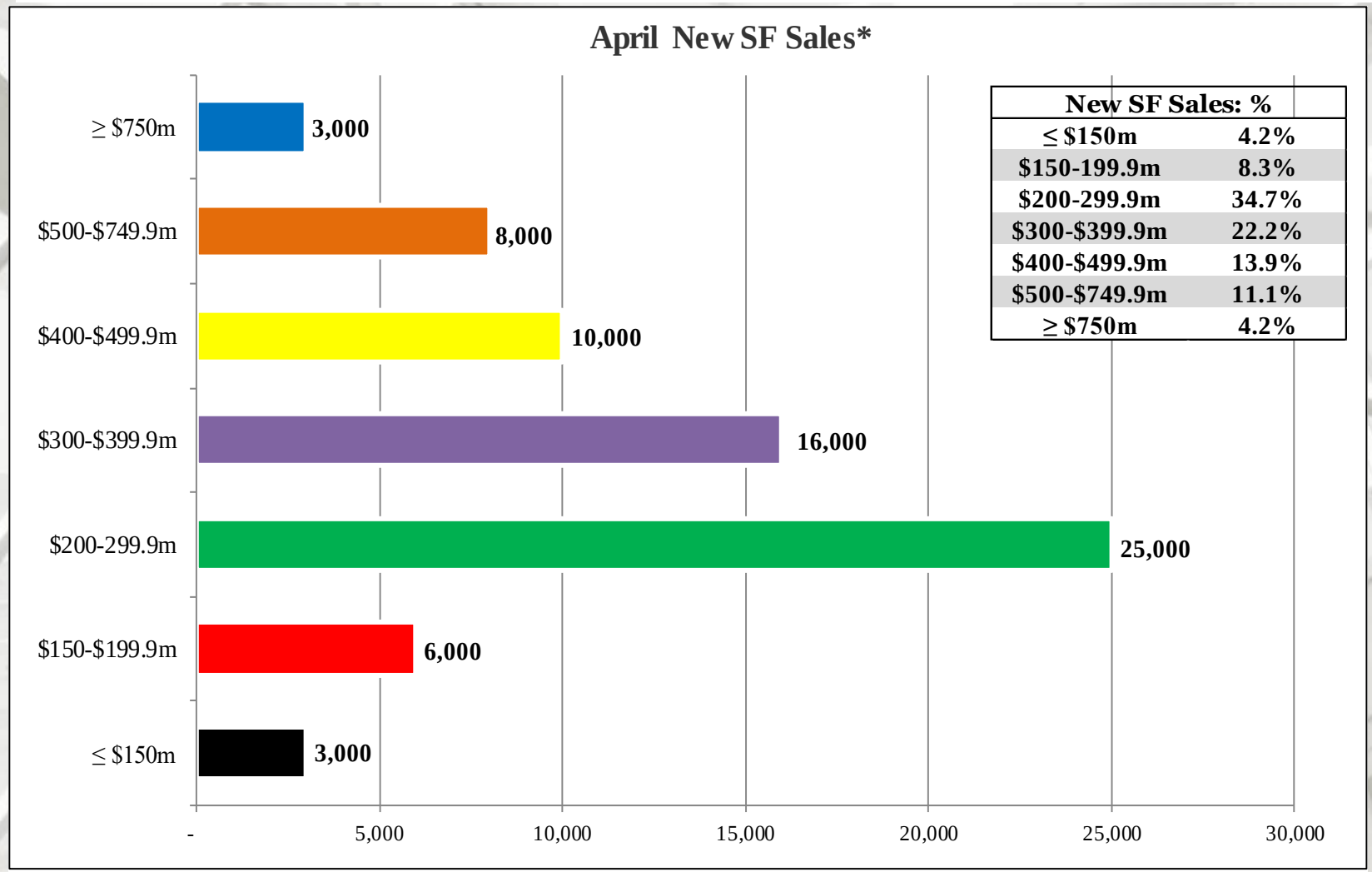
[3] Detail may not add to total because of rounding.

[4] Housing prices are adjusted at irregular intervals.

Sources: [1,2,3] https://www.census.gov/construction/nrs/index.html; 5/23/19;
[4]https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

Return TOC

New SF House Sales



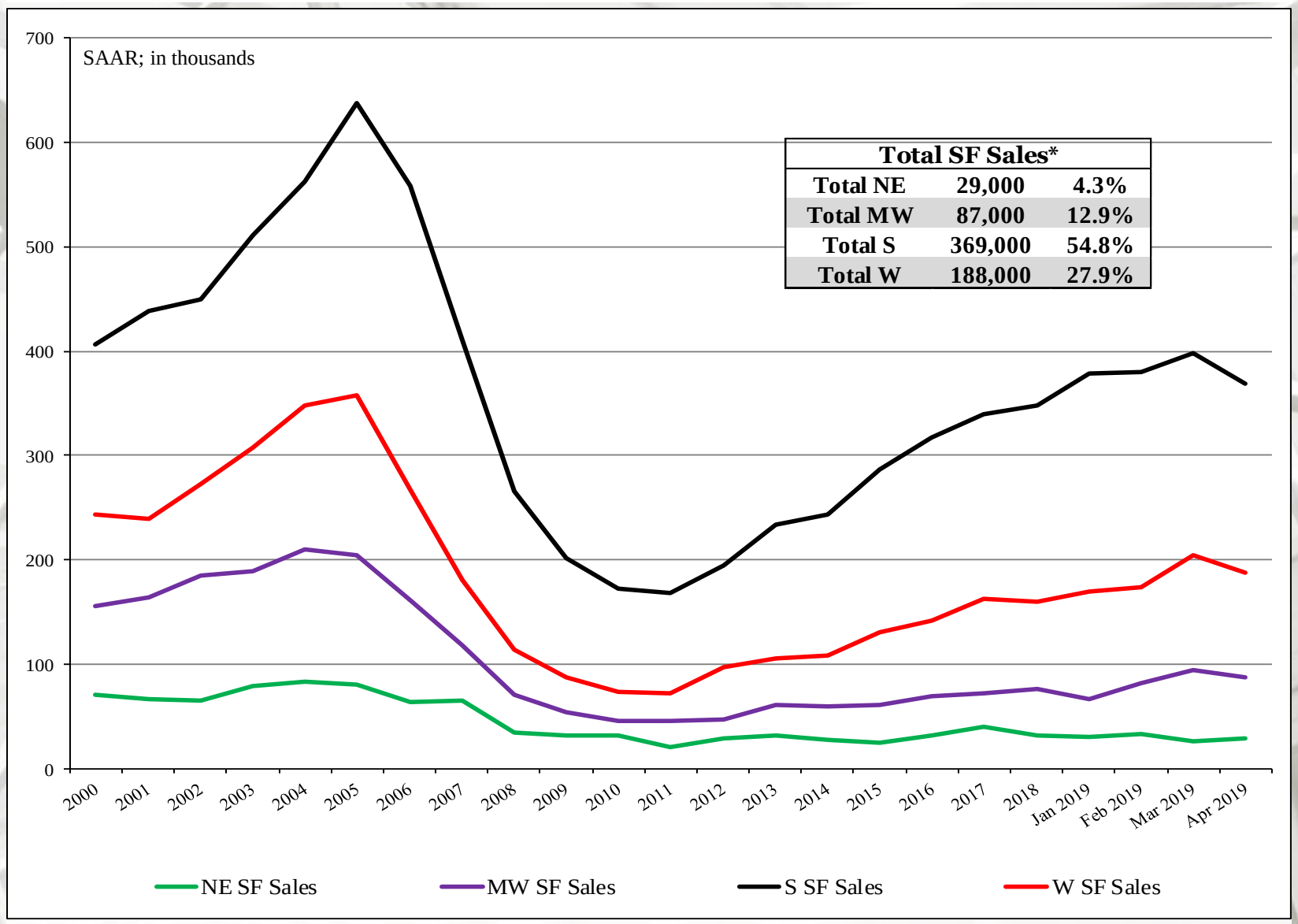
New SF Sales: %	
≤ $150m	4.2%
$150-199.9m	8.3%
$200-299.9m	34.7%
$300-$399.9m	22.2%
$400-$499.9m	13.9%
$500-$749.9m	11.1%
≥ $750m	4.2%

* Total new sales by price category and percent.

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales by Region



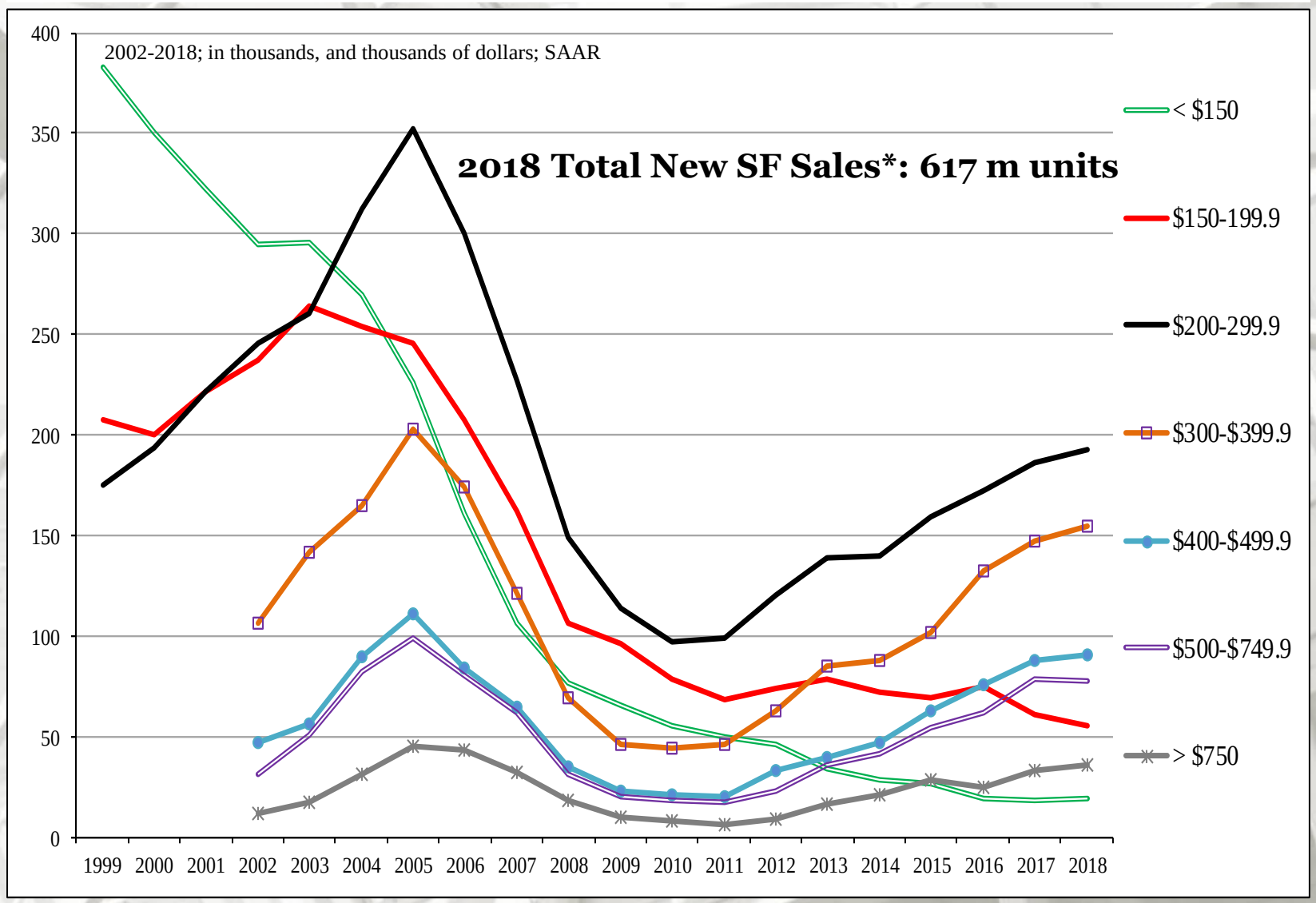
Total SF Sales*		
Total NE	29,000	4.3%
Total MW	87,000	12.9%
Total S	369,000	54.8%
Total W	188,000	27.9%

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

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales by Price Category



Source: https://www.census.gov/construction/nrs/index.html; 2/23/19

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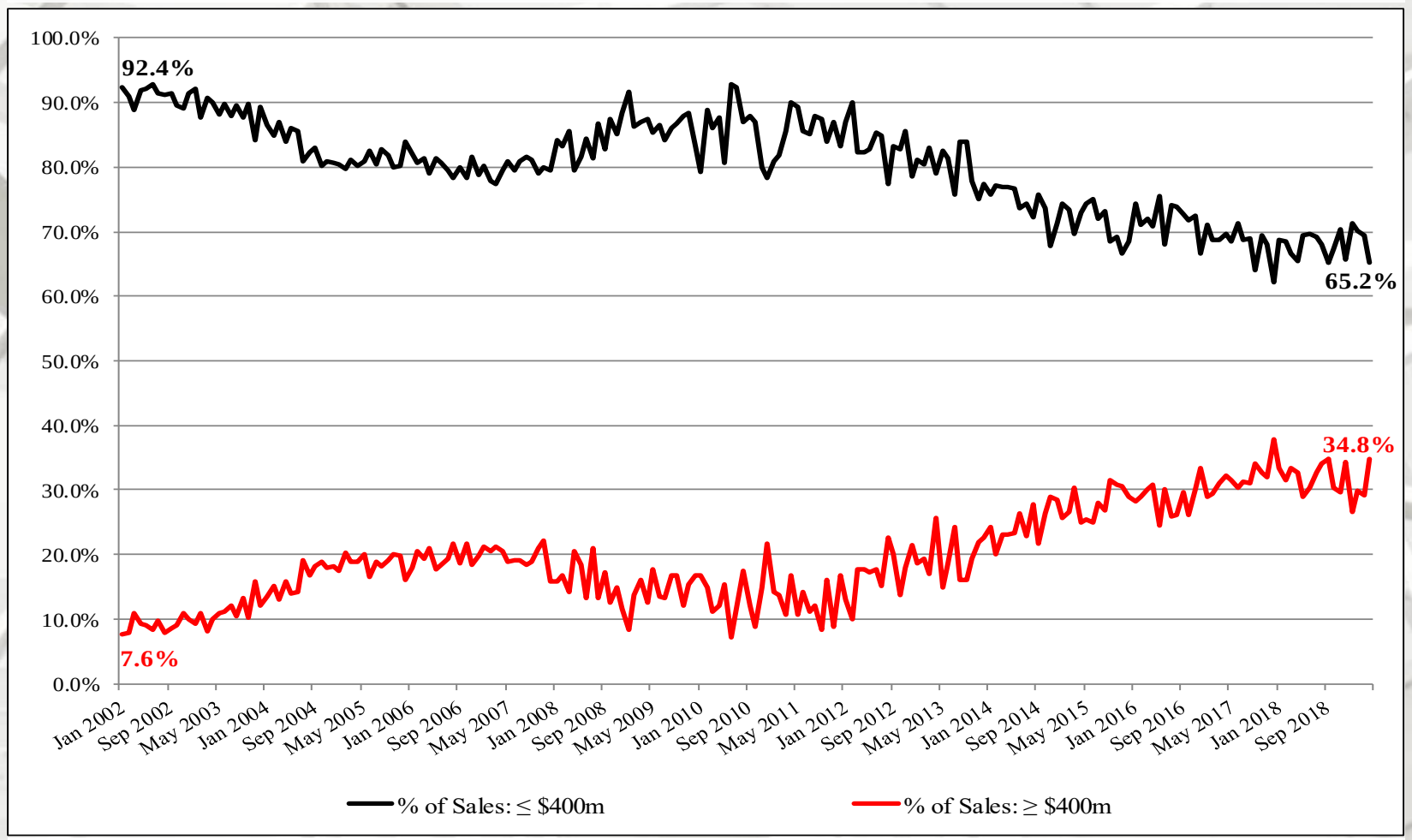
New SF House Sales



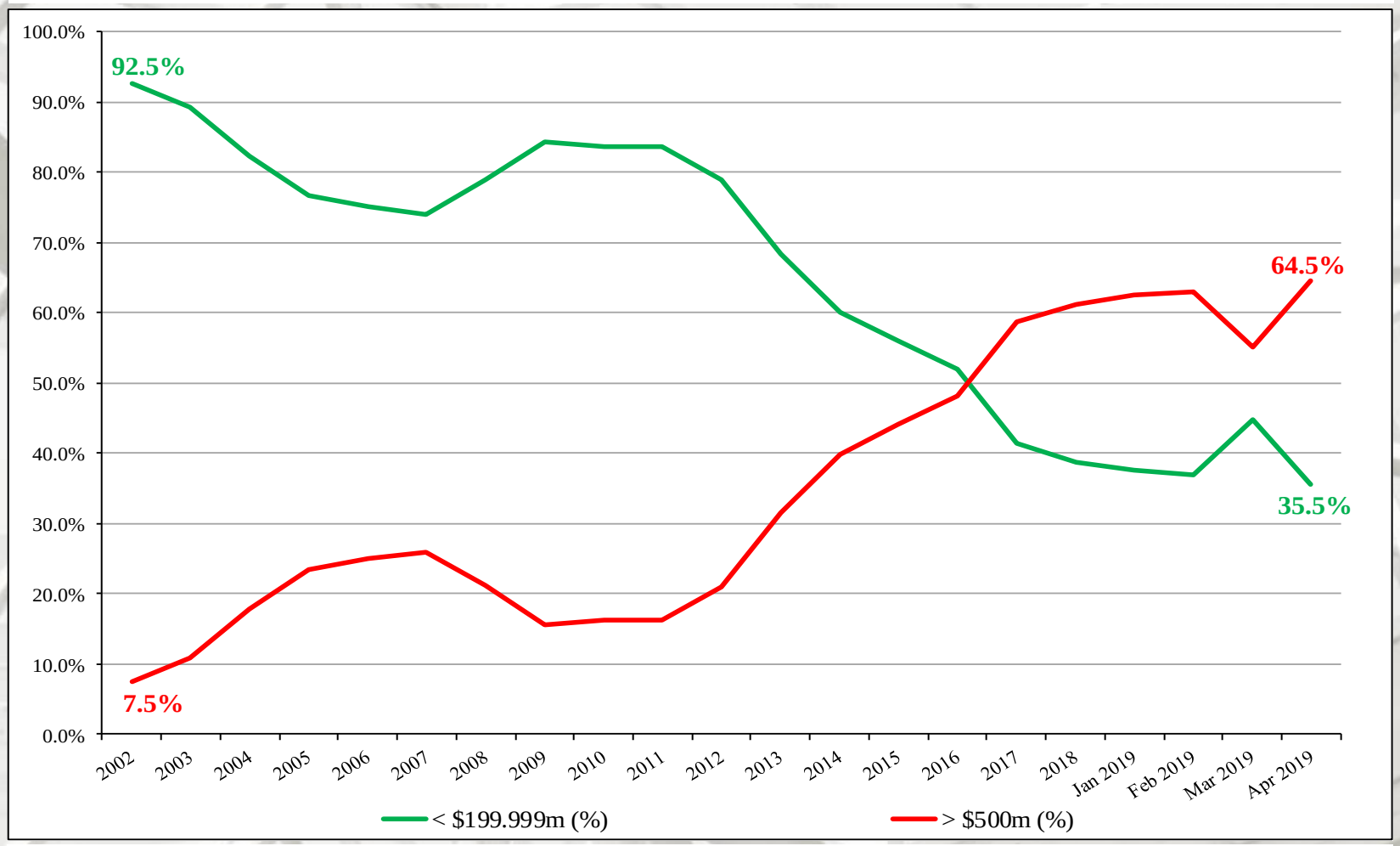
New SF Sales $400m houses: 2002 – April 2019

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

Source: [1] https://www.census.gov/construction/nrs/index.html; [2] https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf 5/23/19

Return TOC

New SF House Sales



New SF Sales: ≤ $ 200m and ≥ $500m: 2002 to April 2019

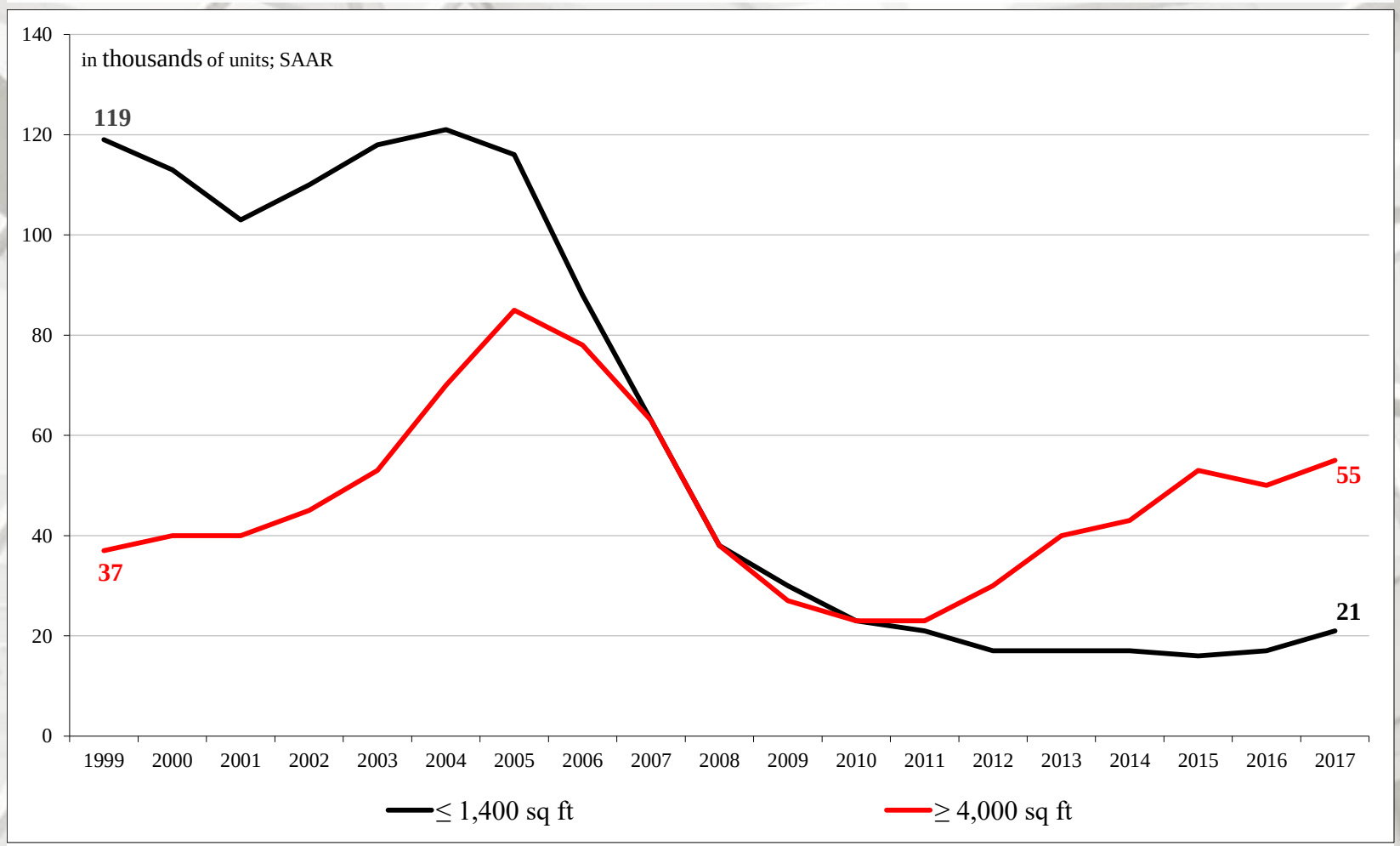
The number of ≤ $200 thousand plus SF houses has declined dramatically since 2002[1, 2]. Subsequently, from 2012 onward, the ≥ $500 thousand class has soared (on a percentage basis) in contrast to the ≤ $200m class. One of the most oft mentioned reasons for this occurrence is builder net margins.

Note: Sales values are not adjusted for inflation.

Source: [1] https://www.census.gov/construction/nrs/index.html; [2] https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf 5/23/19

Return TOC

New SF House Sales by Square Feet of Floor Area



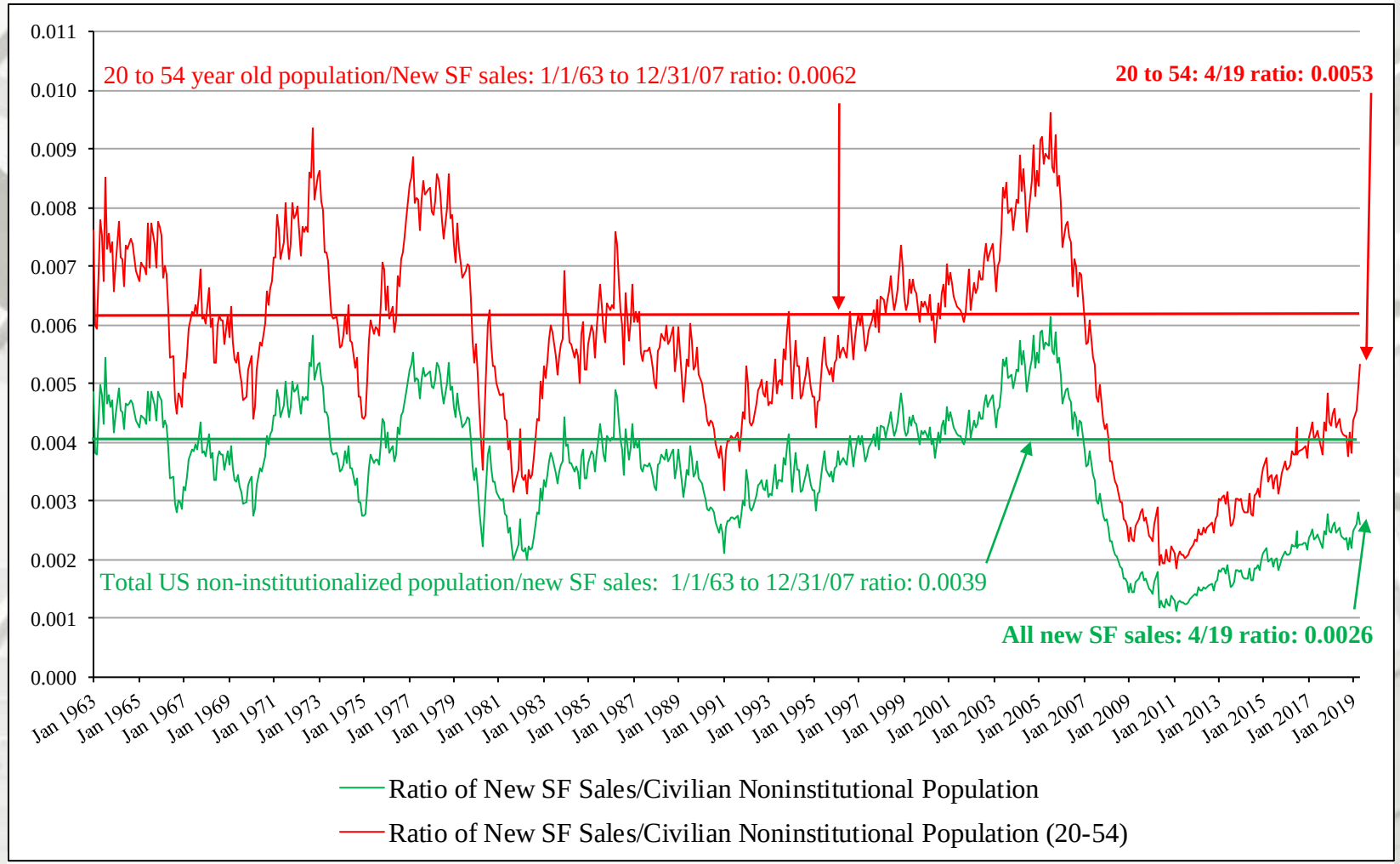
New SF Sales: ≤ 1,400 square feet and ≥ 4,000 square feet: 1999 to 2017

The number of SF houses sold (≥ 4,000 sq ft) has risen dramatically since 2010. Some of the most oft mentioned reasons for this is builder net margins; regulations, and finance availability.

Source: https://www.census.gov/construction/chars/pdf/soldsquarefeet.pdf ; 1/28/19

Return TOC

New SF House Sales



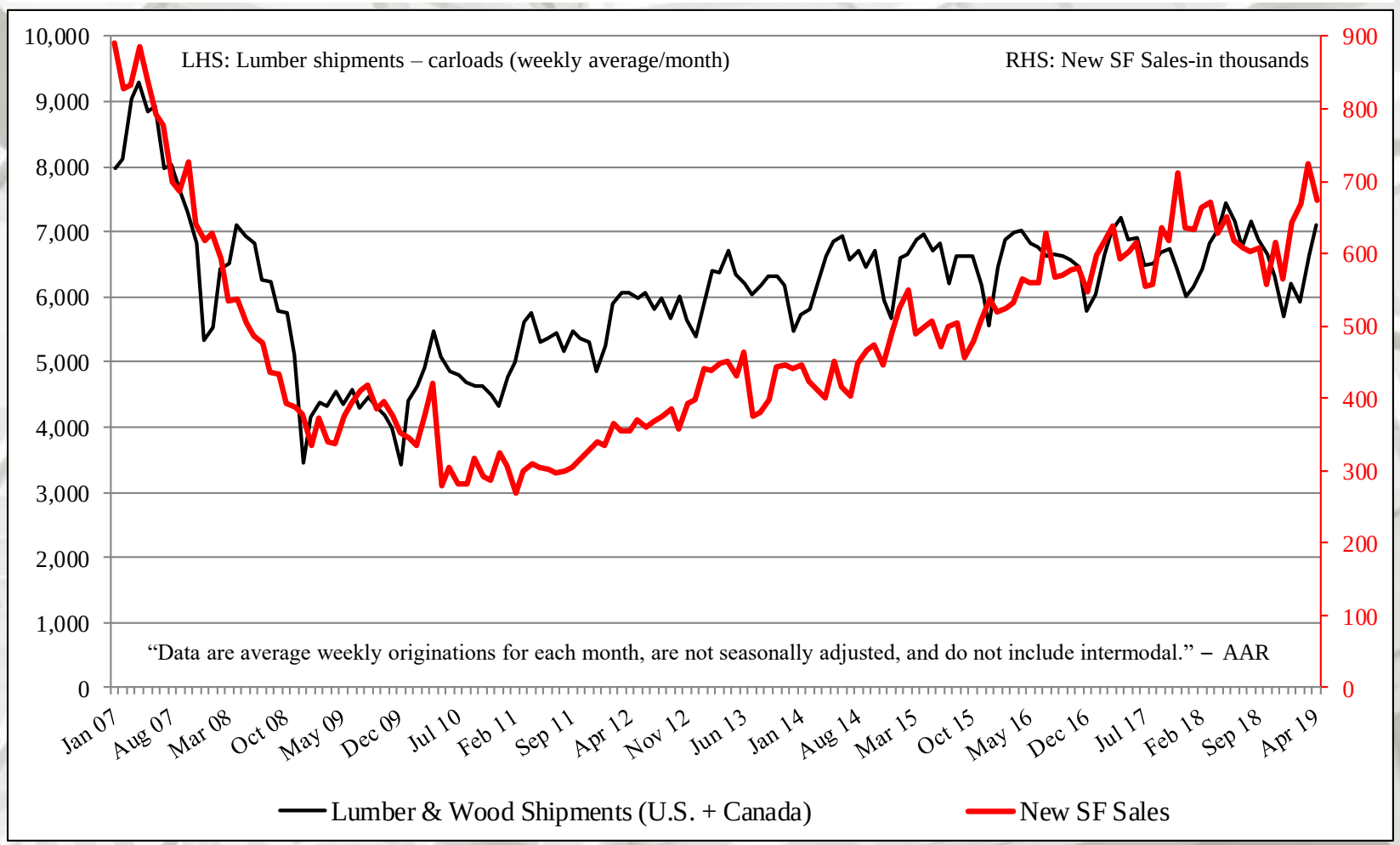
New SF sales adjusted for the US population

From April 1963 to April 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in April 2019 it was 0.0026 – an decrease from March (0.0028). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in April 2019 it was 0.0053 – an increase from March (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).

Sources: https://www.census.gov/construction/nrs/index.html and The Federal Reserve Bank of St. Louis; 5/23/19

Return TOC

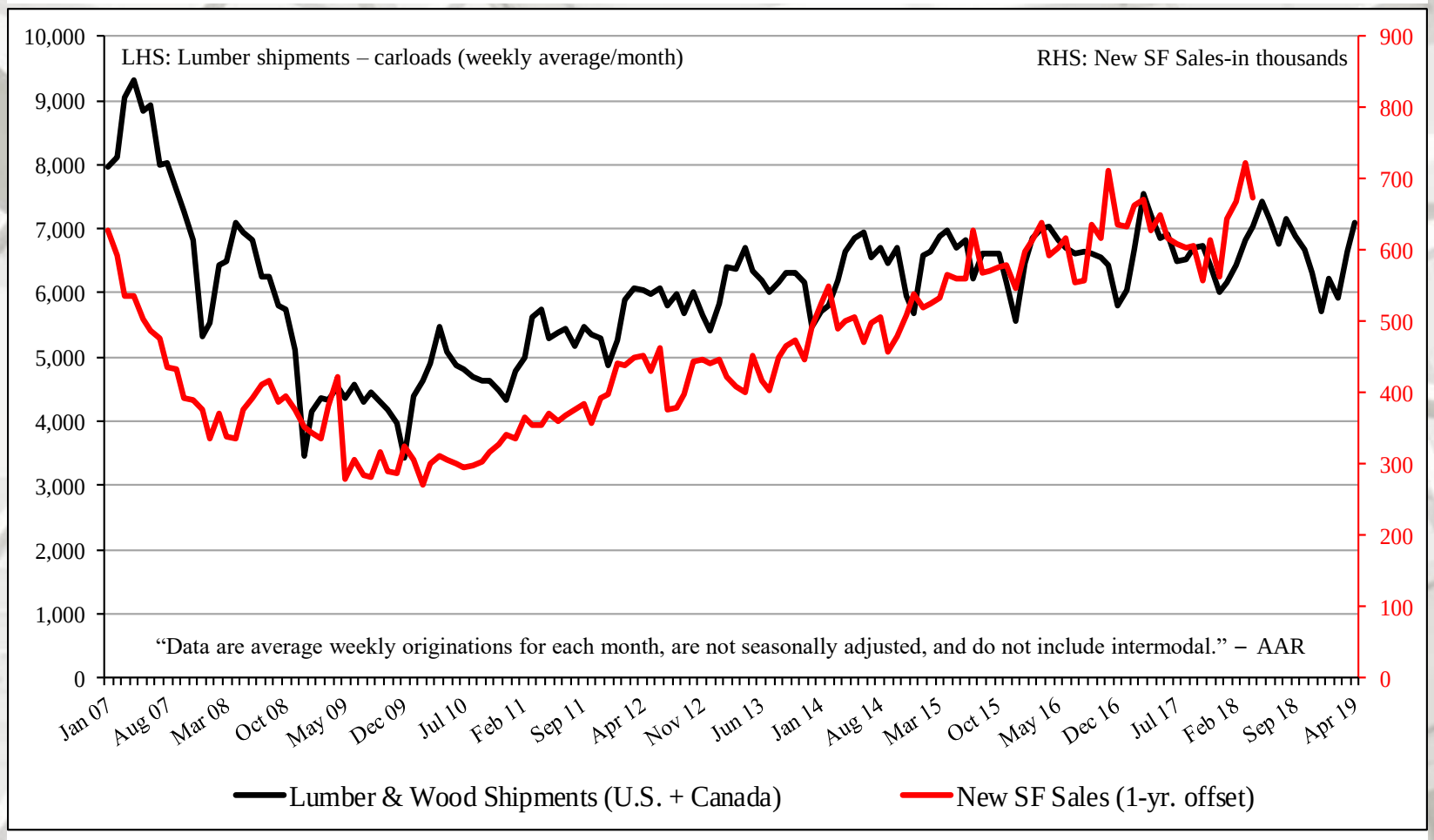
Railroad Lumber & Wood Shipments vs. U.S. SF House Sales



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/23/19

Return TOC

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

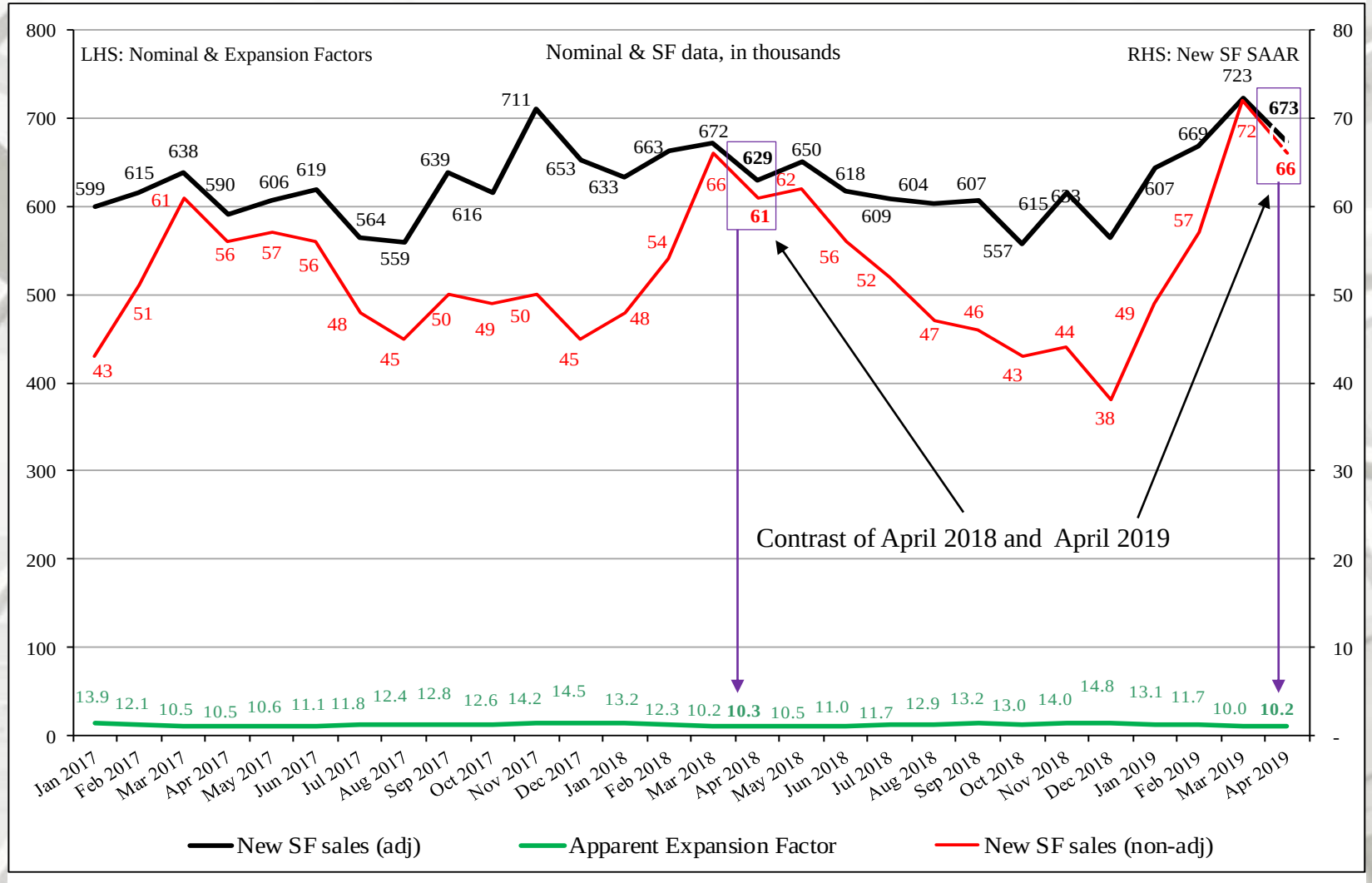


In this graph, April 2007 lumber shipments are contrasted with April 2008 SF sales, and continuing through April 2019. The purpose is to discover if lumber shipments relate to future single-family sales. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 5/3/19; U.S. DOC-Construction; 5/23/19

Return TOC

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

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

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

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales

New SF Houses Sold During Period				
	Total	Not started	Under Construction	Completed
April	673,000	220,000	213,000	240,000
March	723,000	192,000	251,000	280,000
2018	629,000	174,000	240,000	215,000
M/M change	-6.9%	14.6%	-15.1%	-14.3%
Y/Y change	7.0%	26.4%	-11.3%	11.6%
Total percentage		32.7%	31.6%	35.7%

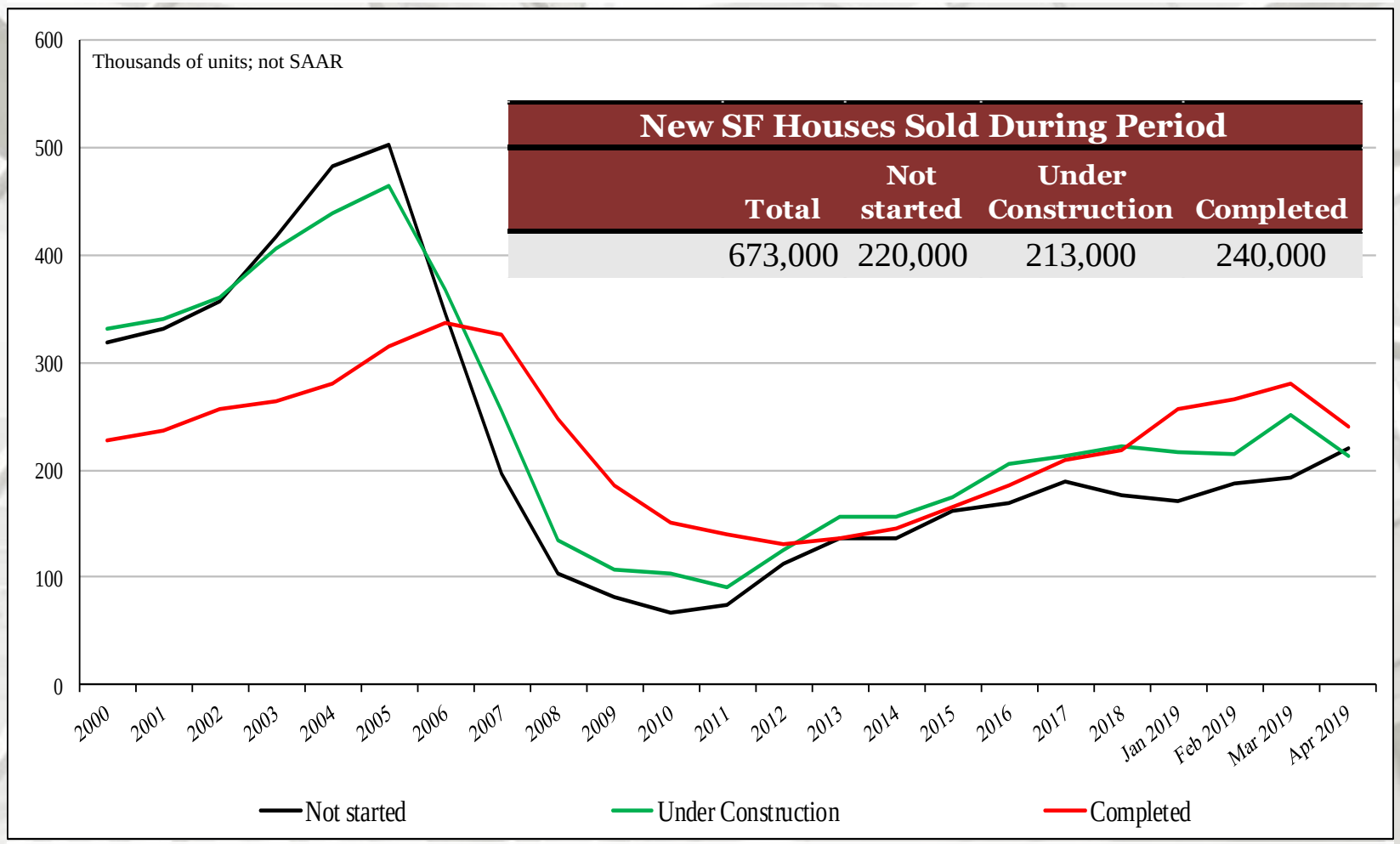
New SF Houses Sold During Period

In April 2018, a substantial portion of new sales, 32.7% – have not been started; an increase from February.
Not SAAR

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales



New SF Houses Sold During Period			
Total	Not started	Under Construction	Completed
673,000	220,000	213,000	240,000

Not SAAR

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales

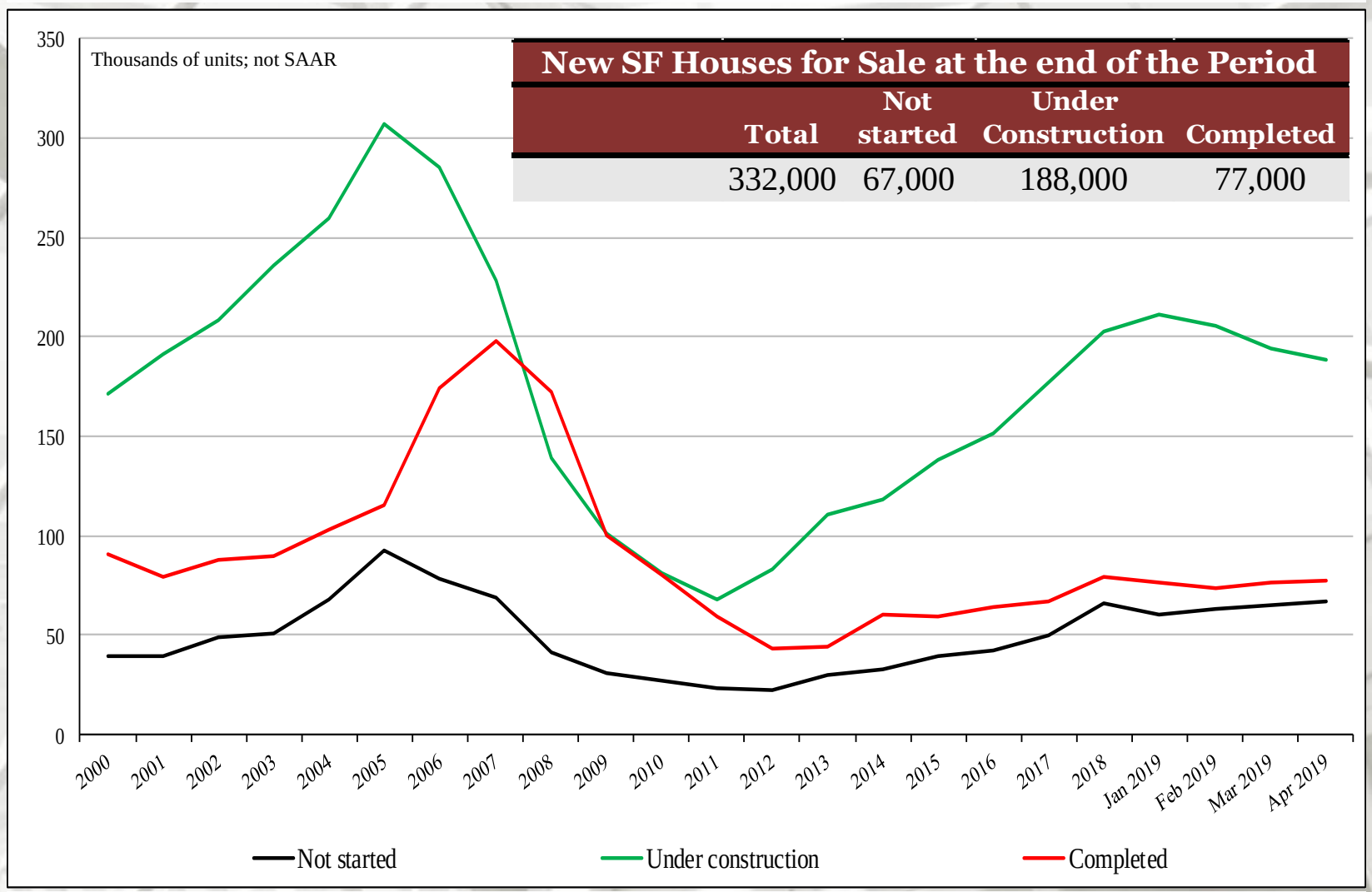
New SF Houses for Sale at the end of the Period				
	Total	Not started	Under Construction	Completed
April	332,000	67,000	188,000	77,000
March	335,000	65,000	194,000	76,000
2018	299,000	54,000	184,000	61,000
M/M change	-0.9%	3.1%	-3.1%	1.3%
Y/Y change	11.0%	24.1%	2.2%	26.2%
Total percentage		20.2%	56.6%	23.2%

Not SAAR

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales



New SF Houses for Sale at the end of the Period			
Total	Not started	Under Construction	Completed
332,000	67,000	188,000	77,000

Not SAAR

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF House Sales

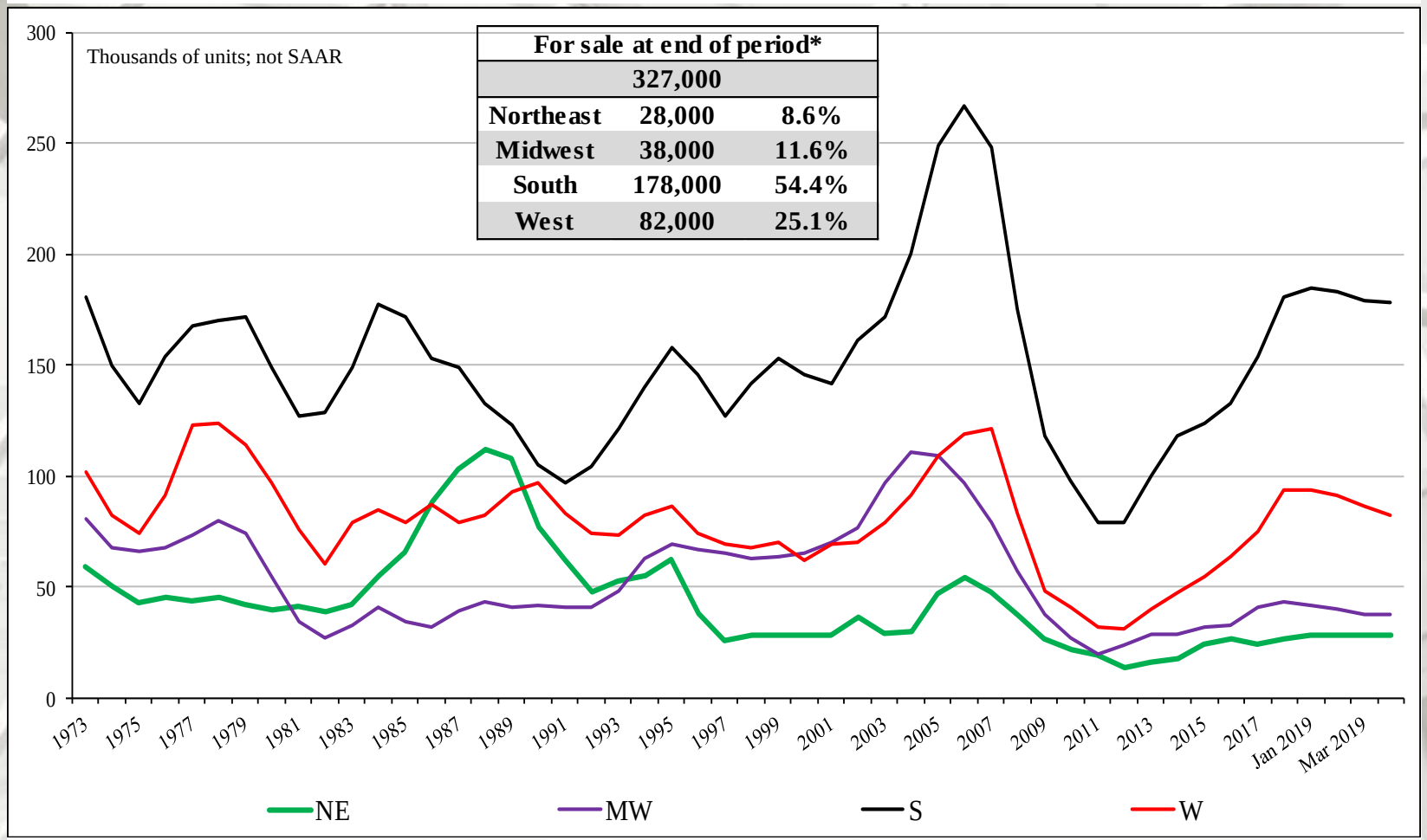
New SF Houses for Sale at the end of the Period by Region*					
	Total	NE	MW	S	W
April	327,000	28,000	38,000	178,000	82,000
March	330,000	28,000	38,000	179,000	86,000
2018	294,000	22,000	39,000	157,000	75,000
M/M change	-0.9%	0.0%	0.0%	-0.6%	-4.7%
Y/Y change	11.2%	27.3%	-2.6%	13.4%	9.3%

NE = Northeast; MW = Midwest; S = South; W = West
Not SAAR

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

New SF Houses Sale at End of Period by Region



For sale at end of period*		
	327,000	
Northeast	28,000	8.6%
Midwest	38,000	11.6%
South	178,000	54.4%
West	82,000	25.1%

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

* Percentage of new SF sales.

Source: https://www.census.gov/construction/nrs/index.html; 5/23/19

Return TOC

April 2019
Construction Spending

	Total Private Residential*	SF	MF	Improvement**
April	$499,320	$264,747	$64,830	$169,743
March	$502,373	$264,849	$63,357	$174,167
2018	$563,367	$286,564	$60,071	$216,732
M/M change	-0.6%	0.0%	2.3%	-2.5%
Y/Y change	-11.4%	-7.6%	7.9%	-21.7%

* billion.

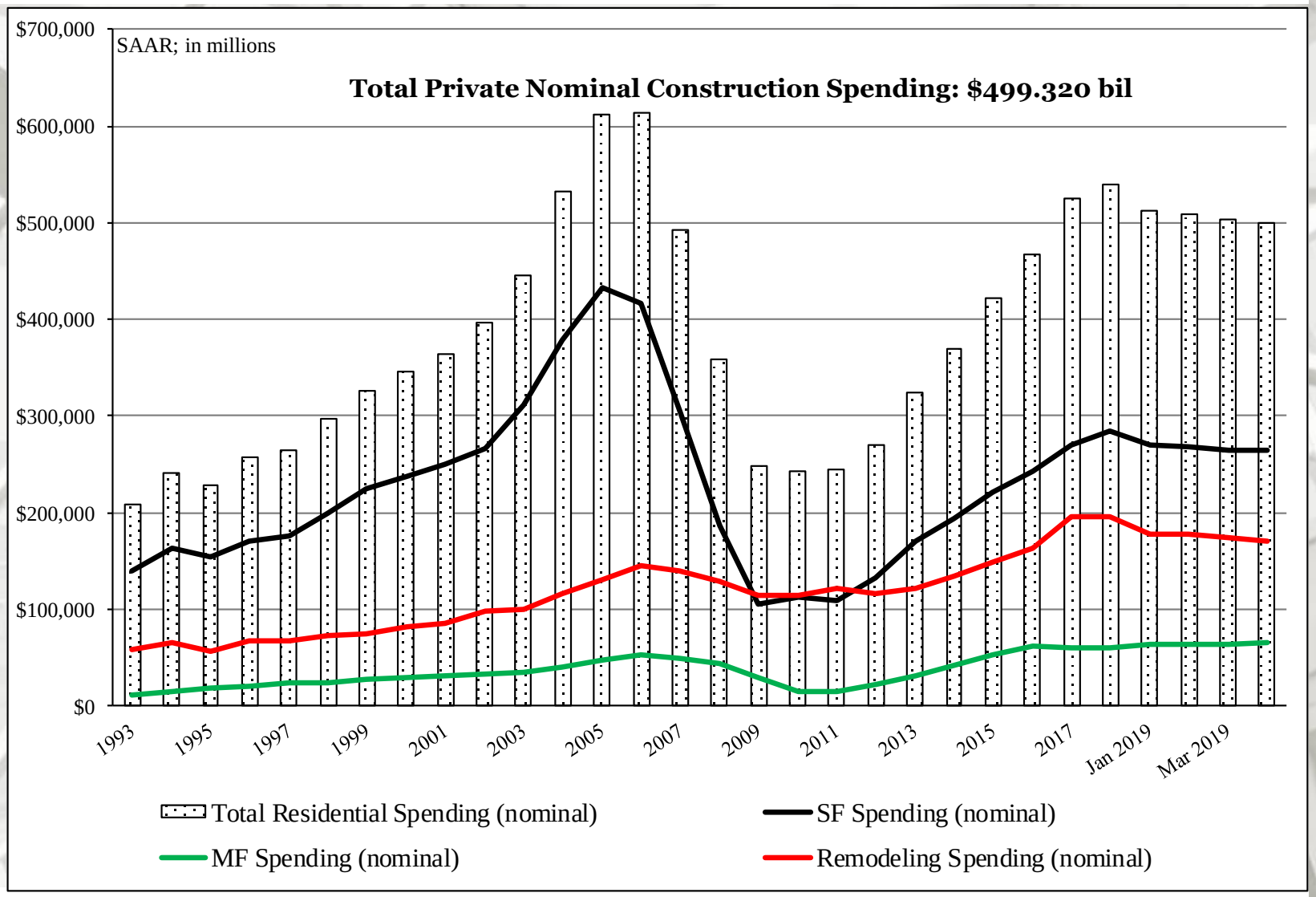
** The US DOC does not report improvement spending directly, this is a monthly estimation: ((Total Private Spending – (SF spending + MF spending)).

All data are SAARs and reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 6/3/19

Return TOC

Total Construction Spending (nominal): 1993 – April 2019

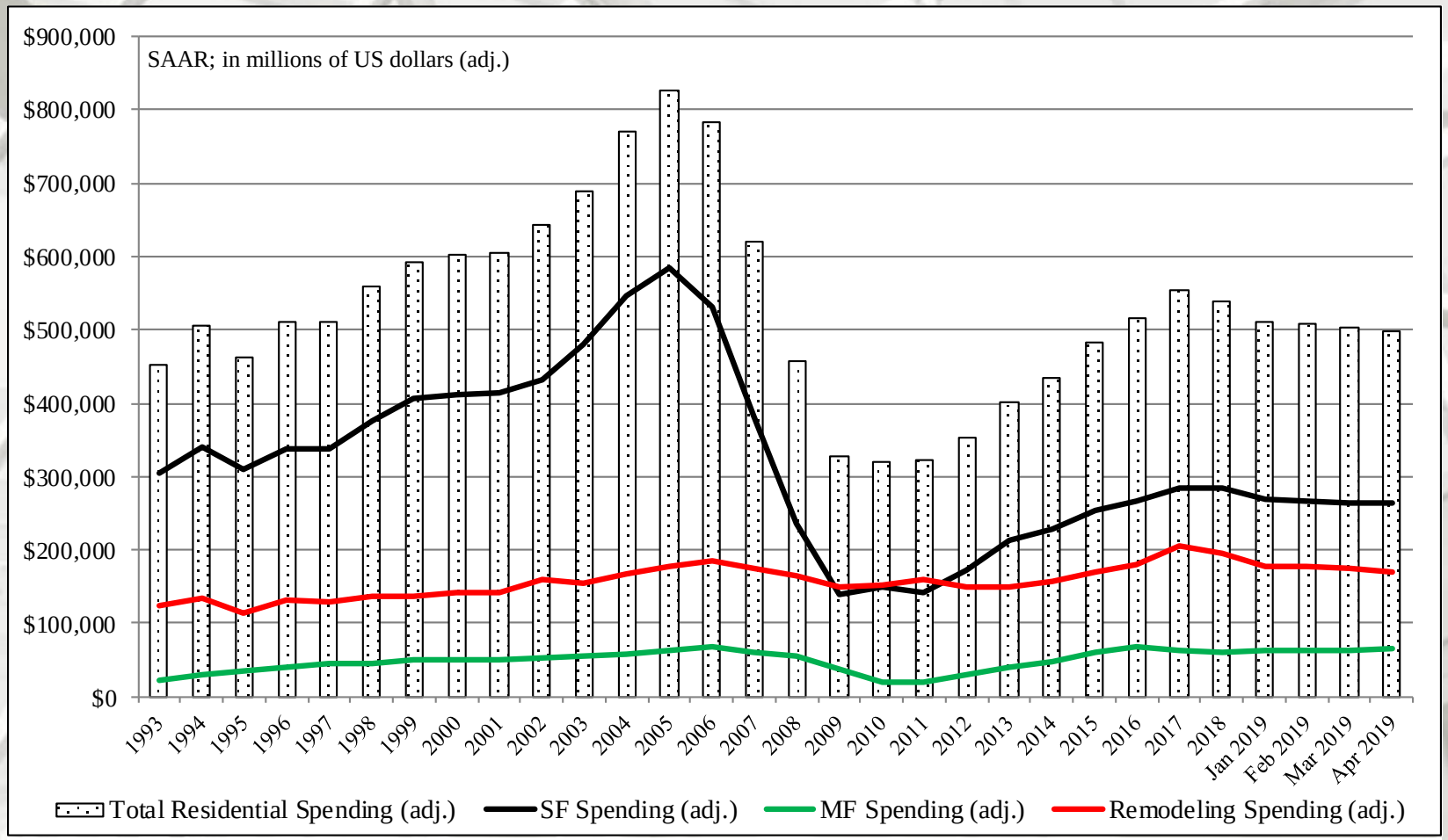


Reported in nominal US$.
The US DOC does not report improvement spending directly, this is a monthly estimation for 2019.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 6/3/19

Return TOC

Total Construction Spending (adjusted): 1993-2019*

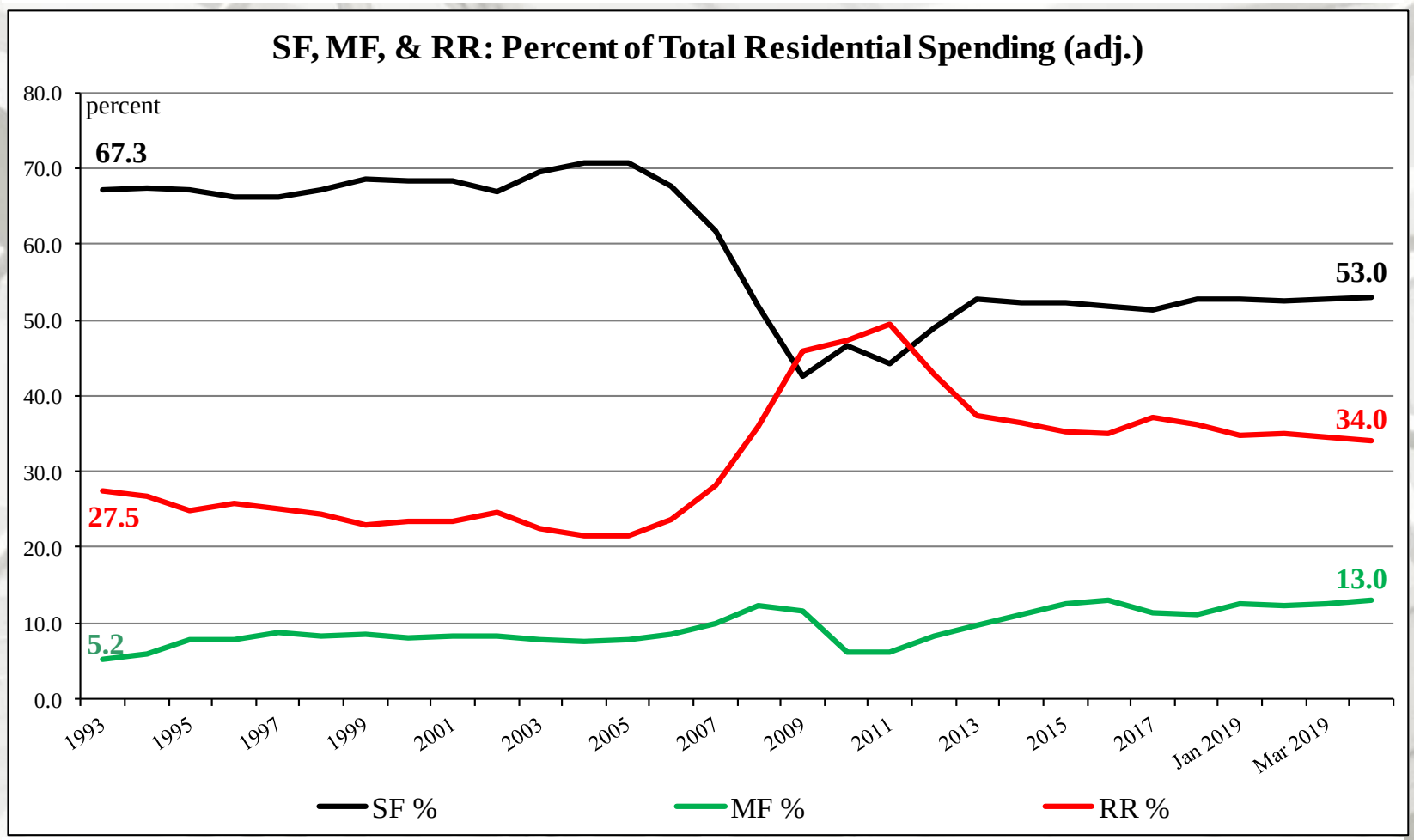


Reported in adjusted US$: 1993 – 2018 (adjusted for inflation, BEA Table 1.1.9); *January to April 2019 reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 6/3/19

Return TOC

Construction Spending Shares: 1993 to April 2019



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

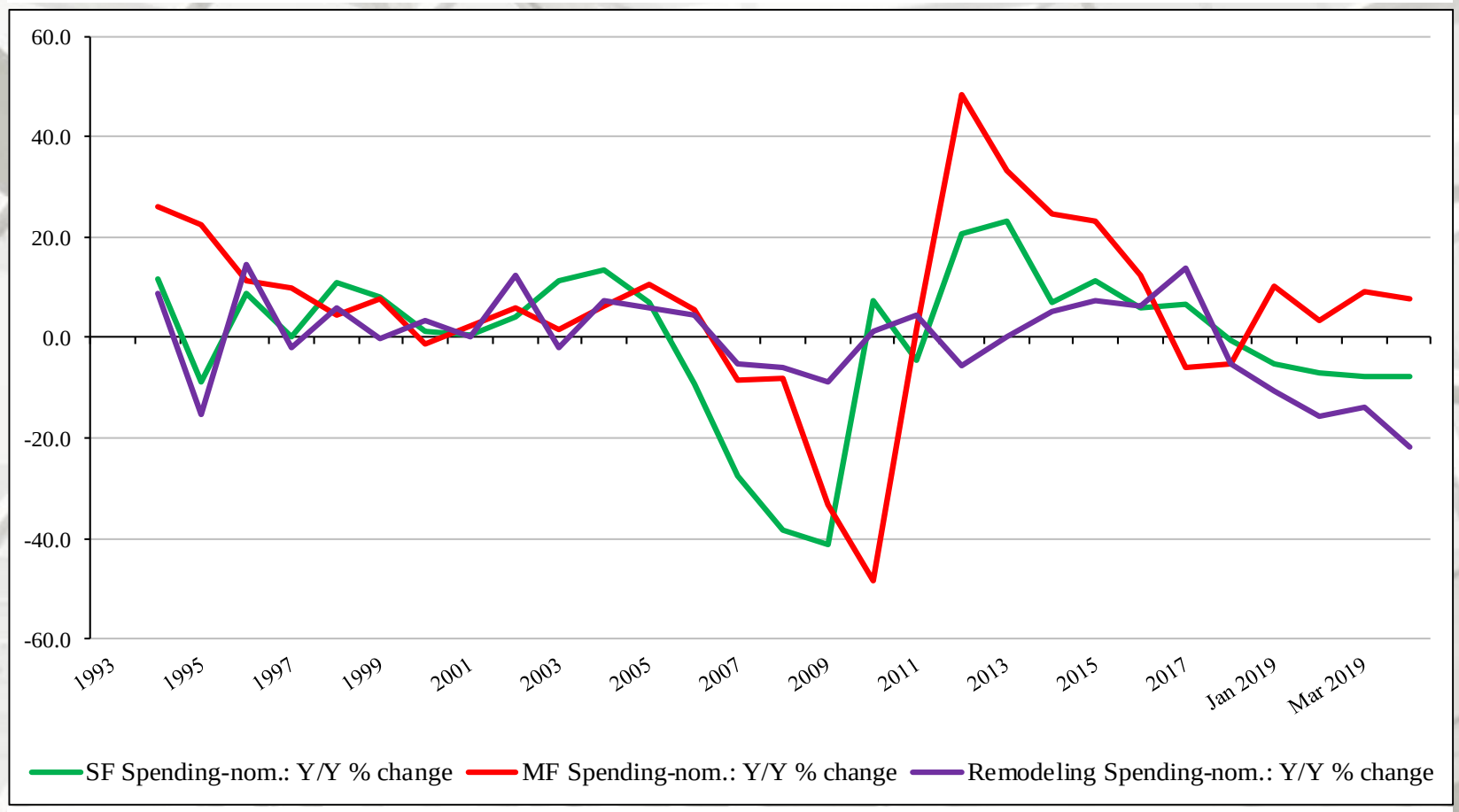
Residential remodeling (RR) spending average: 23.3% (SAAR).

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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 6/3/19

Return TOC

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



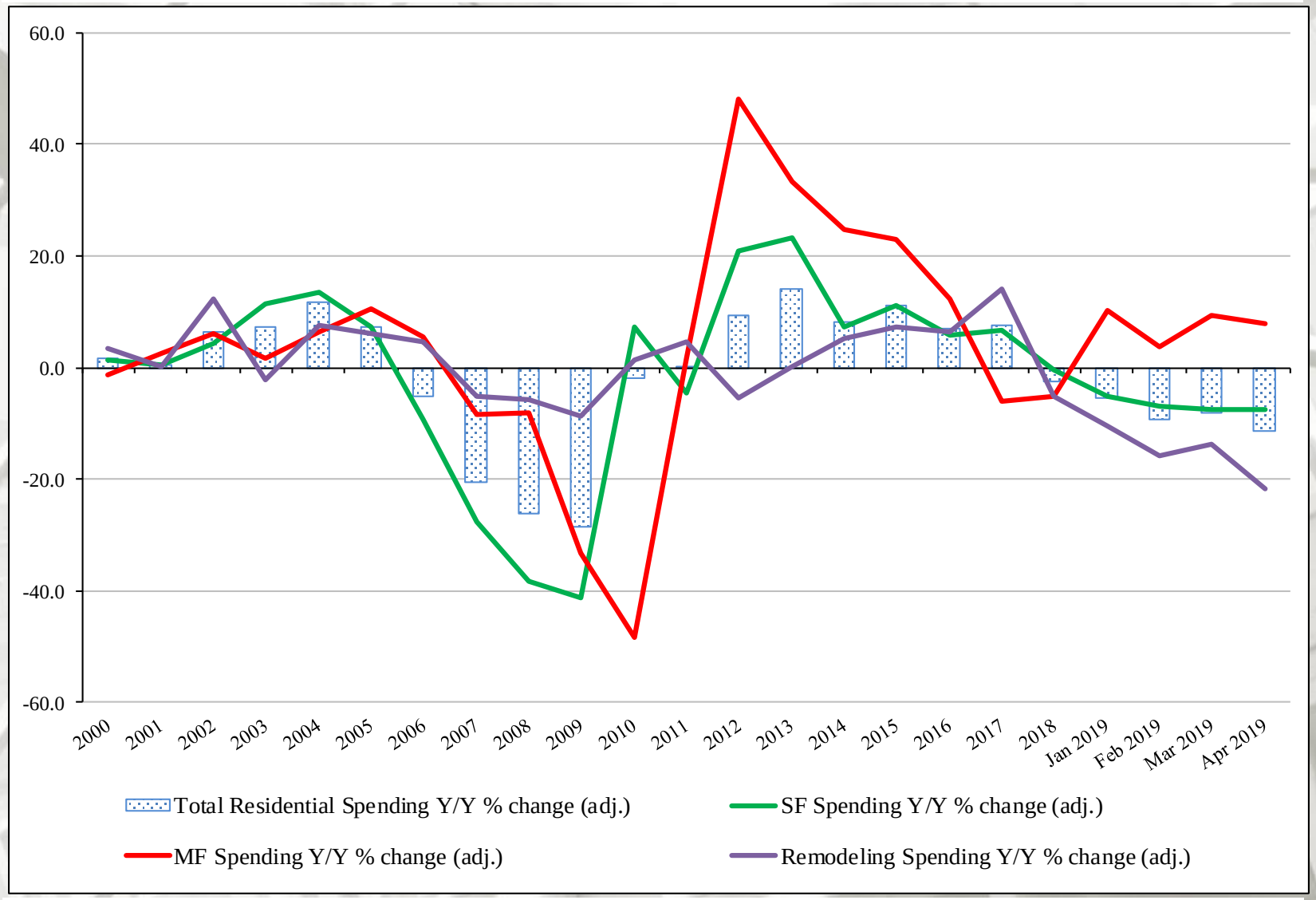
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to April 2019

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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 6/3/19

Return TOC

Adjusted Construction Spending: Y/Y Percentage Change, 2000 to April 2019

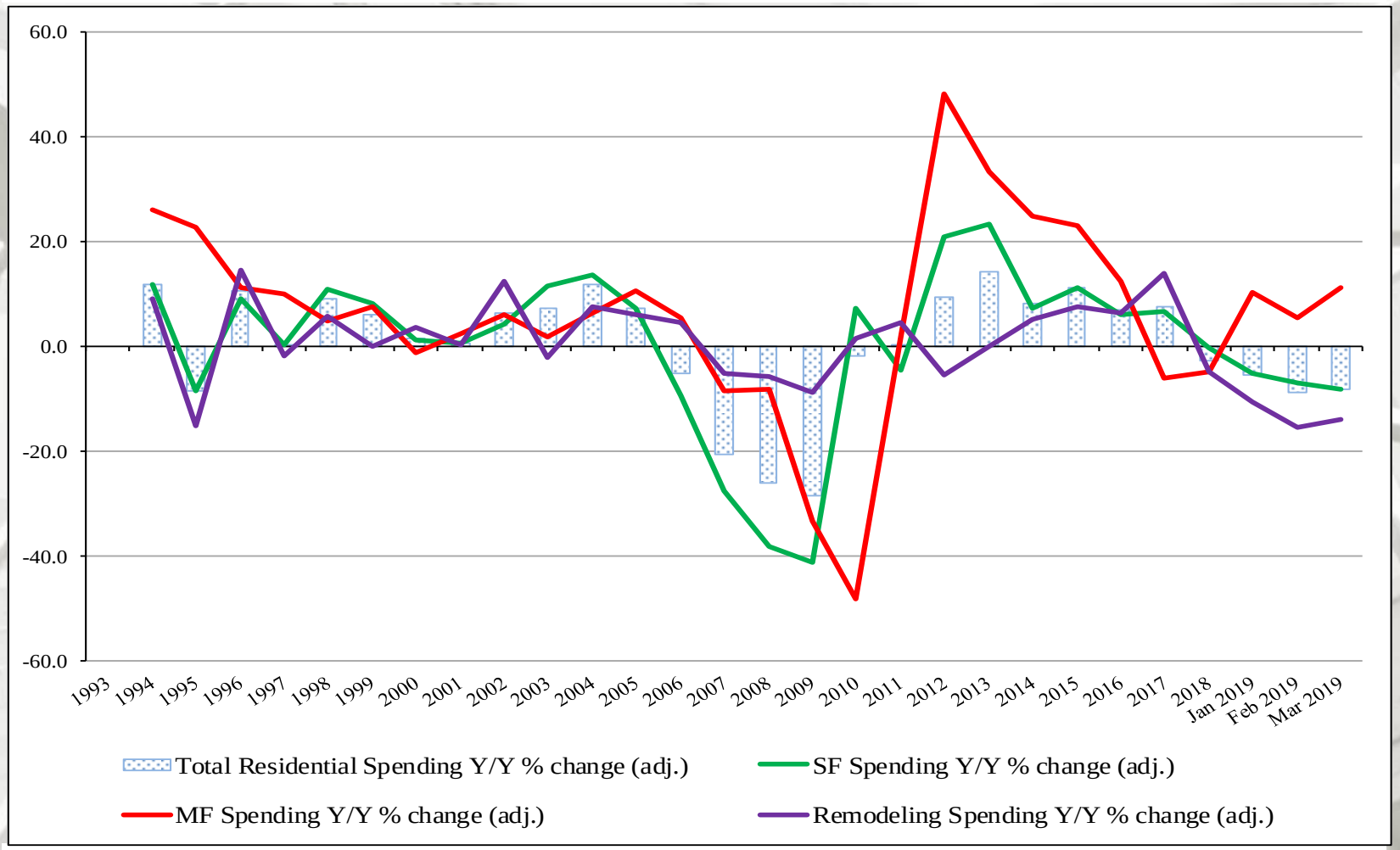


Adjusted dollar values; except 2019 data – reported in nominal dollars.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 6/3/19

Return TOC

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



Inflation Adjusted Residential Construction Spending:

Y/Y percentage change, 1993 to April 2019

All expenditures declined in April, with only MF spending increasing and remaining positive. 2019 data reported in nominal dollars.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 6/3/19

Return TOC

Remodeling

Harvard Joint Center for Housing Studies

Remodeling Spending Growth To Slow In Most Major Metros In 2019

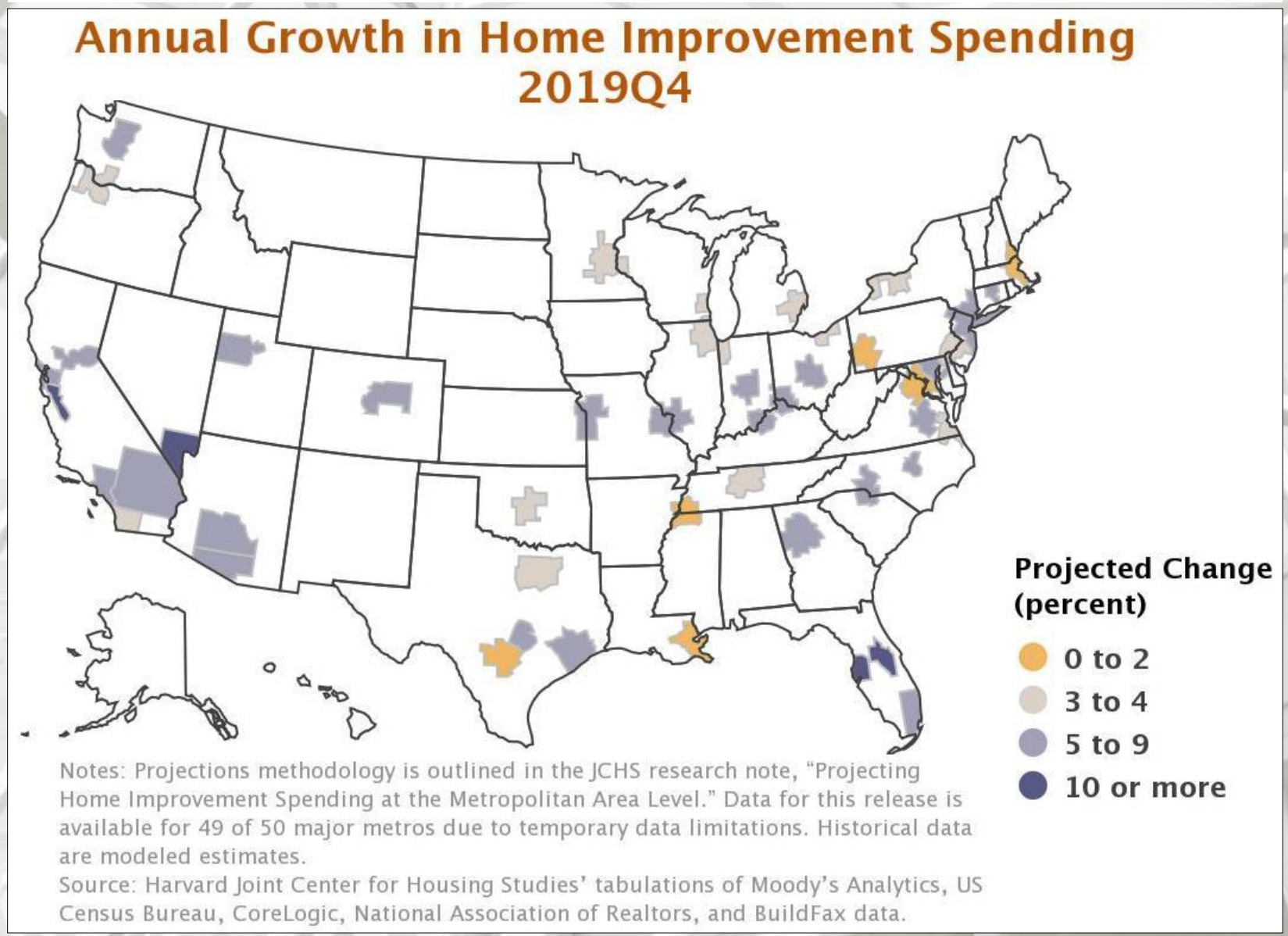
"Annual gains in homeowner spending on improvements are expected to moderate across more than half of the nation's largest metropolitan areas in 2019, according to new projections. While no major metros are projected to see spending levels decline in 2019, our model indicates that the pace of spending by homeowners will slow in 29 of the 49 major metros tracked relative to their estimated 2018 gains. Indeed, annual growth in improvement expenditures is projected to fall to the lowest rate in three years in nearly half (22) of these metros. Metros with cooling home prices and sales activity are not able to sustain the same pace of investment in home improvements as in recent years. Our projections show especially pronounced slowing in markets such as San Antonio, Kansas City, Pittsburgh, Buffalo, and Dallas.

Despite the broader deceleration, remodeling gains should remain strong and even accelerate through year-end in some areas of the country including Orlando and Las Vegas where remodeling permitting, house prices, and homebuilding have picked up. Regionally, the strongest growth in 2019 is expected to be among metros in the West, paced by projected growth of 8 percent or more in Sacramento, Denver, Seattle, Tucson, San Jose, and Las Vegas." – Elizabeth La Jeunesse, Senior Research Analyst, Joint Center for Housing Studies

Source: https://www.jchs.harvard.edu/blog/remodeling-spending-growth-to-slow-in-most-major-metros-in-2019/; 6/4/19

Return TOC

Remodeling



Source: https://www.jchs.harvard.edu/blog/remodeling-spending-growth-to-slow-in-most-major-metros-in-2019/; 6/4/19

Return TOC

Existing House Sales

National Association of Realtors

April 2019 sales: 5.190 thousand

	Existing Sales	Median Price	Mean Price	Month's Supply
April	5,190,000	$267,300	$305,200	4.2
March	5,210,000	$259,700	$297,500	3.8
2018	5,430,000	$257,900	$297,800	4.0
M/M change	-0.4%	2.9%	2.6%	10.5%
Y/Y change	-4.4%	3.6%	2.5%	5.0%

All sales data: SAAR

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 5/21/19

Return TOC

Existing House Sales

	Existing SF Sales	SF Median Price	SF Mean Price
April	4,620,000	$269,300	$306,100
March	4,670,000	$261,500	$298,400
2018	4,810,000	$259,800	$298,700
M/M change	-1.1%	2.9%	2.6%
Y/Y change	-4.0%	3.7%	2.5%

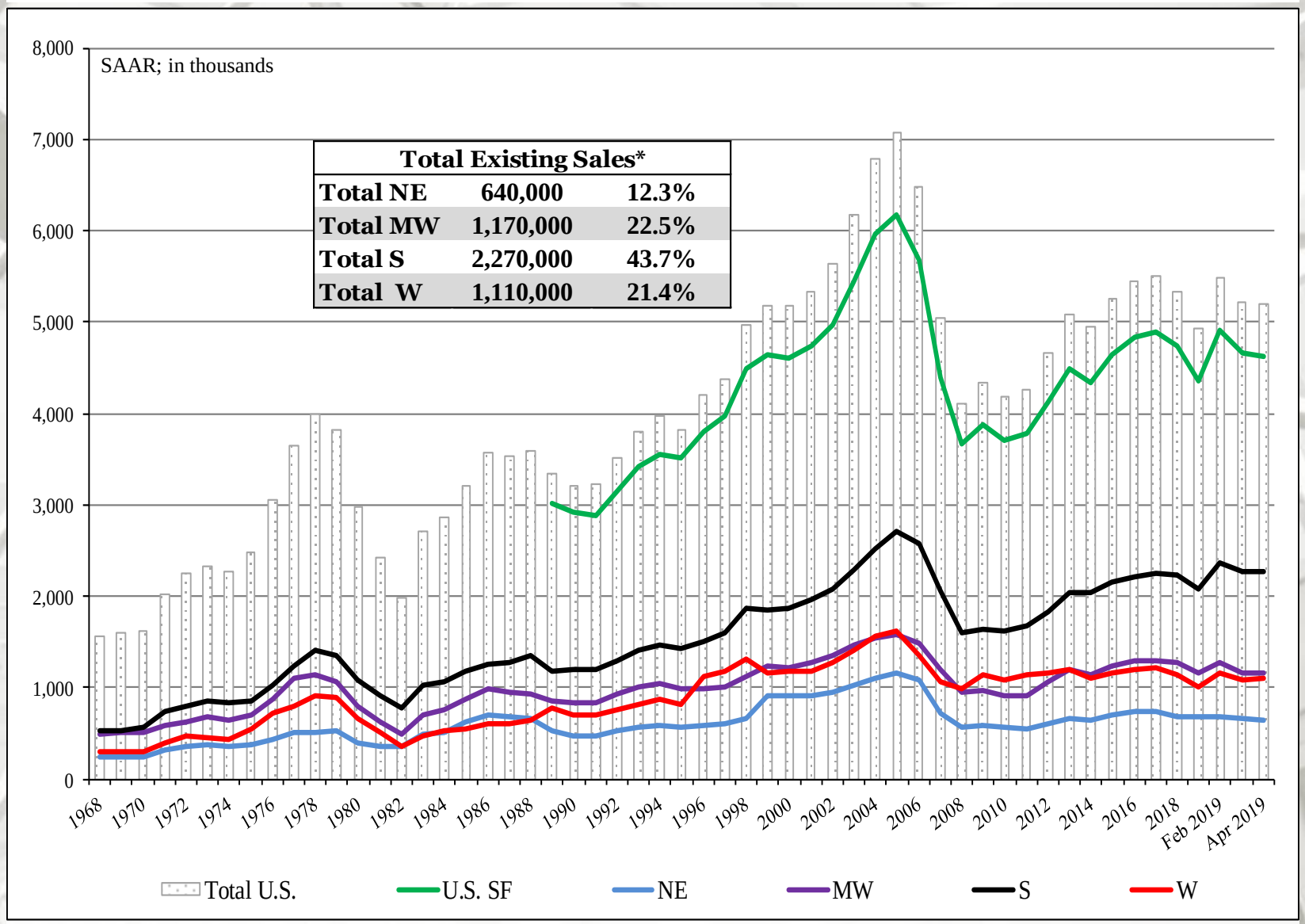
	NE	MW	S	W
April	640,000	1,170,000	2,270,000	1,110,000
March	670,000	1,170,000	2,280,000	1,090,000
2018	670,000	1,270,000	2,310,000	1,180,000
M/M change	-4.5%	0.0%	-0.4%	1.8%
Y/Y change	-4.5%	-7.9%	-1.7%	-5.9%

All sales data: SAAR.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 5/21/19

Return TOC

Existing House Sales



Total Existing Sales*		
Total NE	640,000	12.3%
Total MW	1,170,000	22.5%
Total S	2,270,000	43.7%
Total W	1,110,000	21.4%

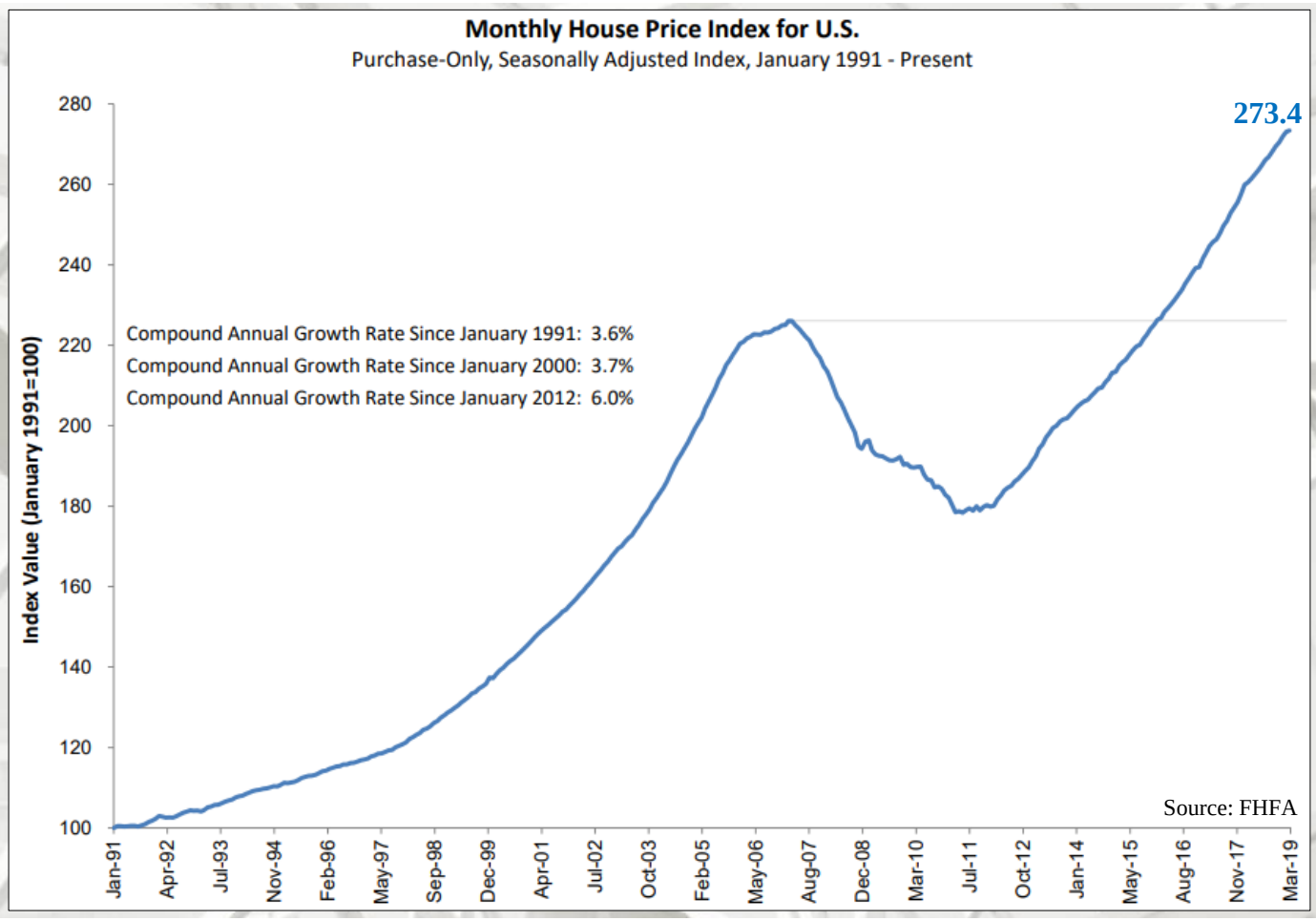
NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of existing sales.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 5/21/19

Return TOC

U.S. Housing Prices



U.S. House Prices Rise 1.1 Percent in First Quarter

"U.S. house prices rose 1.1 percent in the first quarter of 2019 according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose **5.1 percent** from the first quarter of 2018 to the first quarter of 2019. FHFA's seasonally adjusted monthly index for March was up **0.1 percent** from February." – Corinne Russell and Stefanie Johnson, FHFA

"House prices have risen consistently over the last 31 quarters. Although price growth is still positive, the upward pace is softening across the country, especially among states with the largest supplies of housing." – Dr. William Doerner, Supervisory Economist, FHFA

Source: https://www.fhfa.gov//Media/PublicAffairs/Pages/US-House-Prices-Rise-1pt1-Percent-in-First-Quarter-2019.aspx; 5/28/19

Return to TOC

U.S. Housing Prices

"The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 3.7% annual gain in March, down from 3.9% in the previous month. The 10-City Composite annual increase came in at 2.3%, down from 2.5% in the previous month. The 20-City Composite posted a 2.7% year-over-year gain, down from 3.0% in the previous month.

S&P CoreLogic Case-Shiller Index Shows Annual Home Price Gains Continue To Weaken

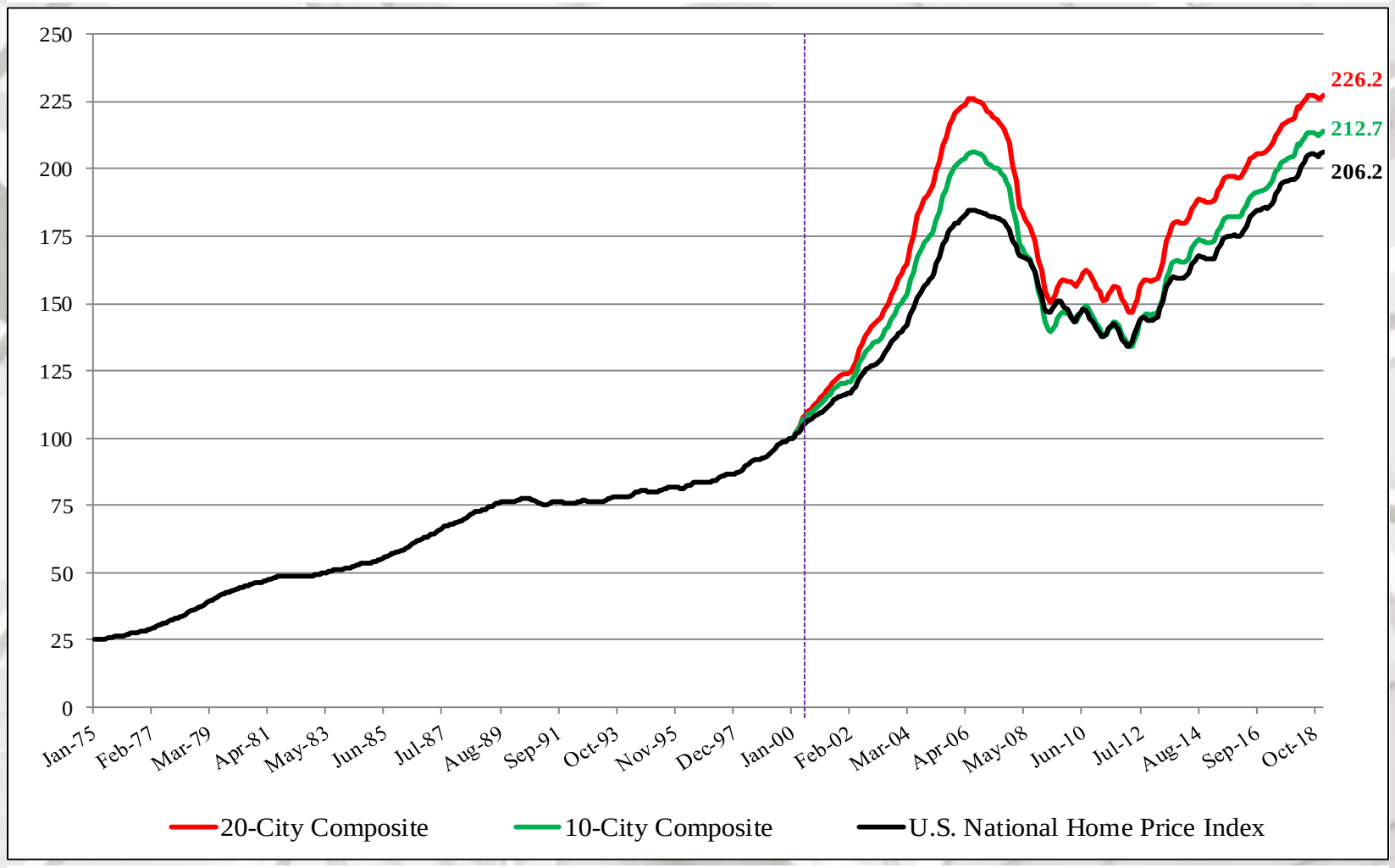
Home price gains continue to slow. The patterns seen in the last year or more continue: year-over-year price gains in most cities are consistently shrinking. Double-digit annual gains have vanished. The largest annual gain was 8.2% in Las Vegas; one year ago, Seattle had a 13% gain. In this report, Seattle prices are up only 1.6%. The 20-City Composite dropped from 6.7% to 2.7% annual gains over the last year as well. The shift to smaller price increases is broad-based and not limited to one or two cities where large price increases collapsed. Other housing statistics tell a similar story. Existing single family home sales are flat. Since 2017, peak sales were in February 2018 at 5.1 million at annual rates; the weakest were 4.36 million in January 2019. The range was 650,000.

Given the broader economic picture, housing should be doing better. Mortgage rates are at 4% for a 30-year fixed rate loan, unemployment is close to a 50-year low, low inflation and moderate increases in real incomes would be expected to support a strong housing market. Measures of household debt service do not reveal any problems and consumer sentiment surveys are upbeat. The difficulty facing housing may be too-high price increases. At the currently lower pace of home price increases, prices are rising almost twice as fast as inflation: in the last 12 months, the S&P Corelogic Case-Shiller National Index is up 3.7%, double the 1.9% inflation rate. Measured in real, inflation-adjusted terms, home prices today are rising at a 1.8% annual rate. This compares to a 1.2% real annual price increases in housing since 1975." – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones Indices

Source: https://us.spindices.com/documents/indexnews/announcements/20190528-934958/934958_cshomeprice-release-0528.pdf; 5/28/19

Return to TOC

S&P/Case-Shiller Home Price Indices

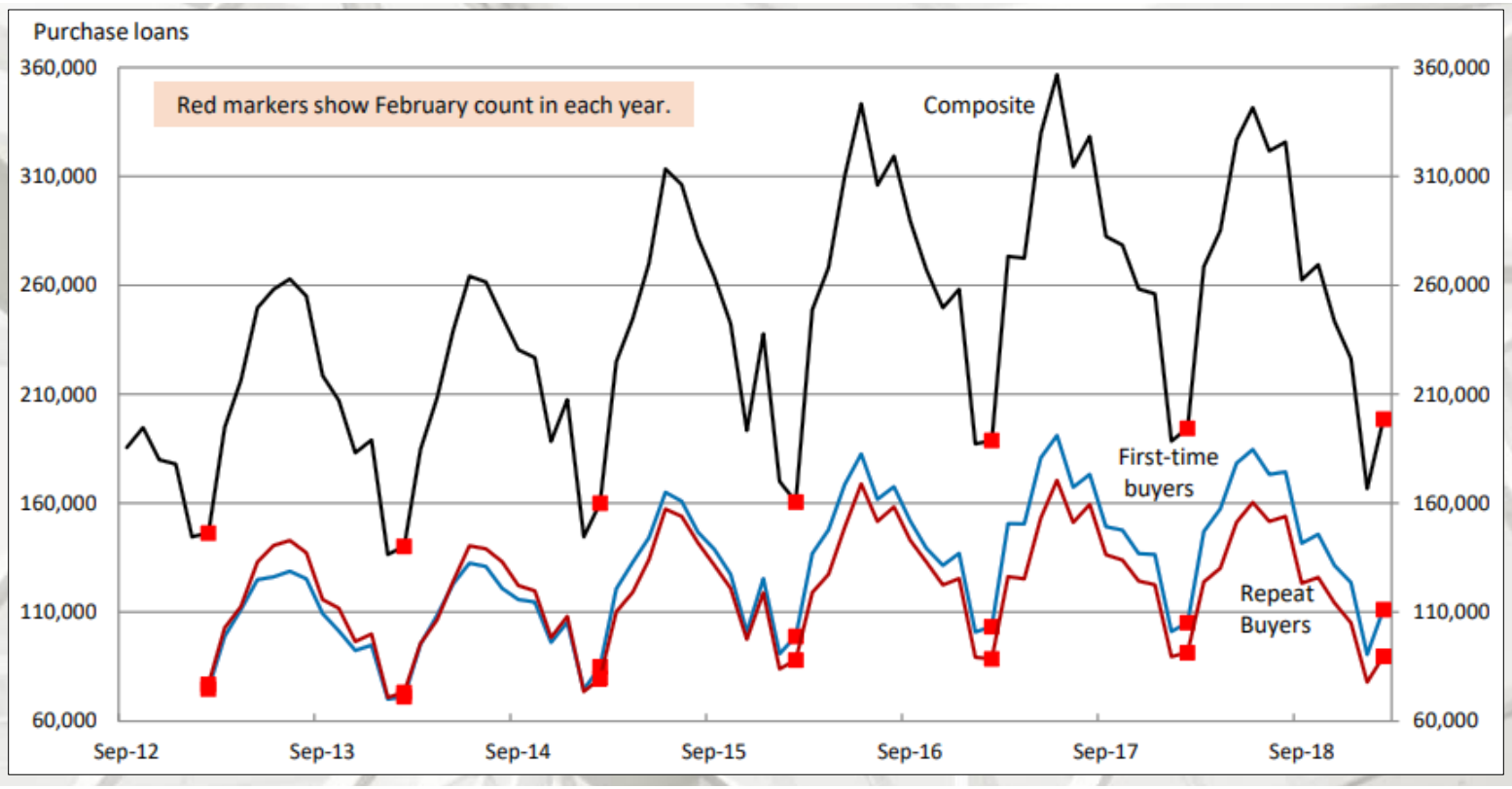


"Las Vegas, Phoenix and Tampa reported the highest year-over-year gains among the 20 cities. In March, Las Vegas led the way with an 8.2% year-over-year price increase, followed by Phoenix with a 6.1% increase, and Tampa with a 5.3% increase. Four of the 20 cities reported greater price increases in the year ending March 2019 versus the year ending February 2019." – Soogyung Jordan, Global Head of Communications, S&P CoreLogic

Source: https://us.spindices.com/documents/indexnews/announcements/20190528-934958/934958_cshomeprice-release-0528.pdf; 5/28/19

Return to TOC

First-Time House Buyers



Leverage Fueled Housing Demand Resumes with Lower Rates

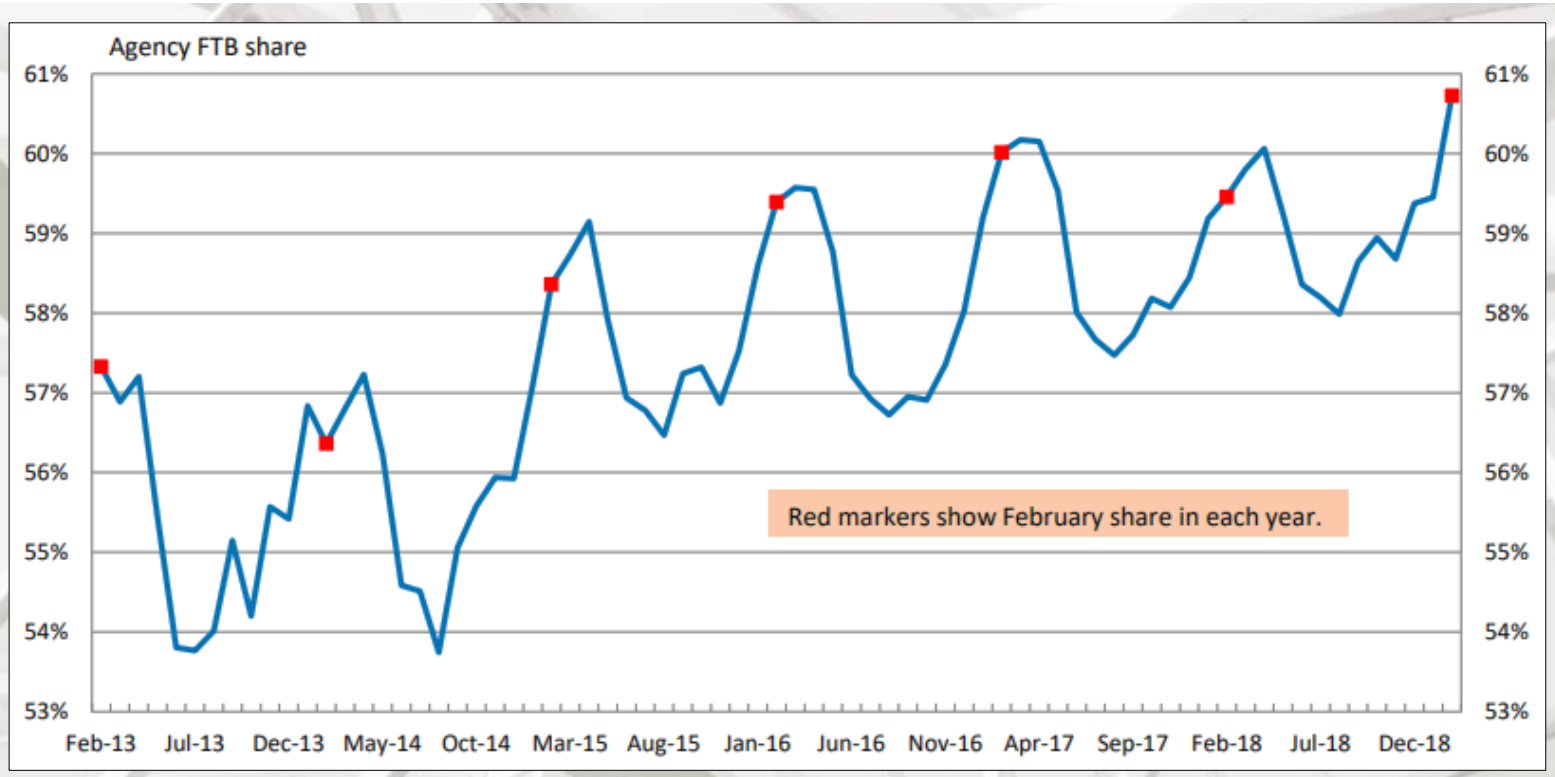
"Purchase volume in February 2019 rose 2.1 percent from a year earlier and 37 percent from 6 years ago. First-time buyer volume was up 5.8 percent, while repeat buyer volume was down 1.9%. Greater access to credit is allowing first-time buyers to offset higher mortgage rates and higher house prices, while move-up buyers, with less access to credit, are electing to stay put in larger numbers." – Edward Pinto and Tobias Peter, AEI Center on Housing Markets and Finance

Note: October 2018 count is a preliminary estimate. First-time buyer volume not available before February 2013.

Sources: https://hello.aei.org/rs/475-PBQ-971/images/HMI-Briefing-presentation-05-28-19-FINAL-revised.pdf; 5/28/19

Return TOC

First-Time House Buyers



Agency First-time Buyer Purchase Loan Share

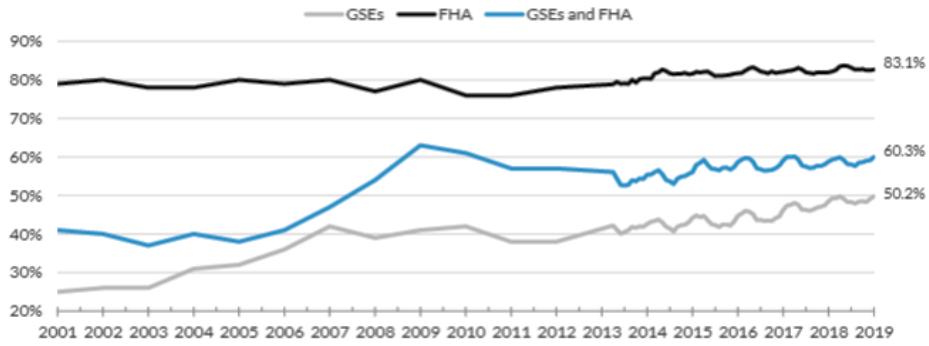
"Agency FTB share set a new series' high. In February, it stood at 60.7%, up 1.3 ppts from a year ago. Contrary to our prediction, agency FTB share continues to increase due to recent declines in high end repeat buyer activity. Increases in agency eligible portfolio lending largely to repeat buyers may also be a factor." – Edward Pinto and Tobias Peter, AEI Center on Housing Markets and Finance

Note: First-time buyer volume not available before February 2013.

Sources: https://hello.aei.org/rs/475-PBQ-971/images/HMI-Briefing-presentation-05-28-19-FINAL-revised.pdf; 5/28/19

Return TOC

First-Time House Buyers



Sources: eMBS, Federal Housing Administration (FHA) and Urban Institute. February 2019
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

Comparison of First-Time and Repeat Homebuyers, GSE and FHA Originations

	GSEs		FHA		GSEs and FHA	
Characteristics	First-time	Repeat	First-time	Repeat	First-time	Repeat
Loan Amount ($)	242,142	264,182	210,779	227,046	229,384	258,060
Credit Score	740	755	669	674	711	741
LTV (%)	88	80	96	94	91	82
DTI (%)	36	37	44	45	39	38
Loan Rate (%)	4.73	4.64	4.90	4.80	4.80	4.67

Sources: eMBS and Urban Institute.
Note: Based on owner-occupied purchase mortgages originated in February 2019.

Urban Institute

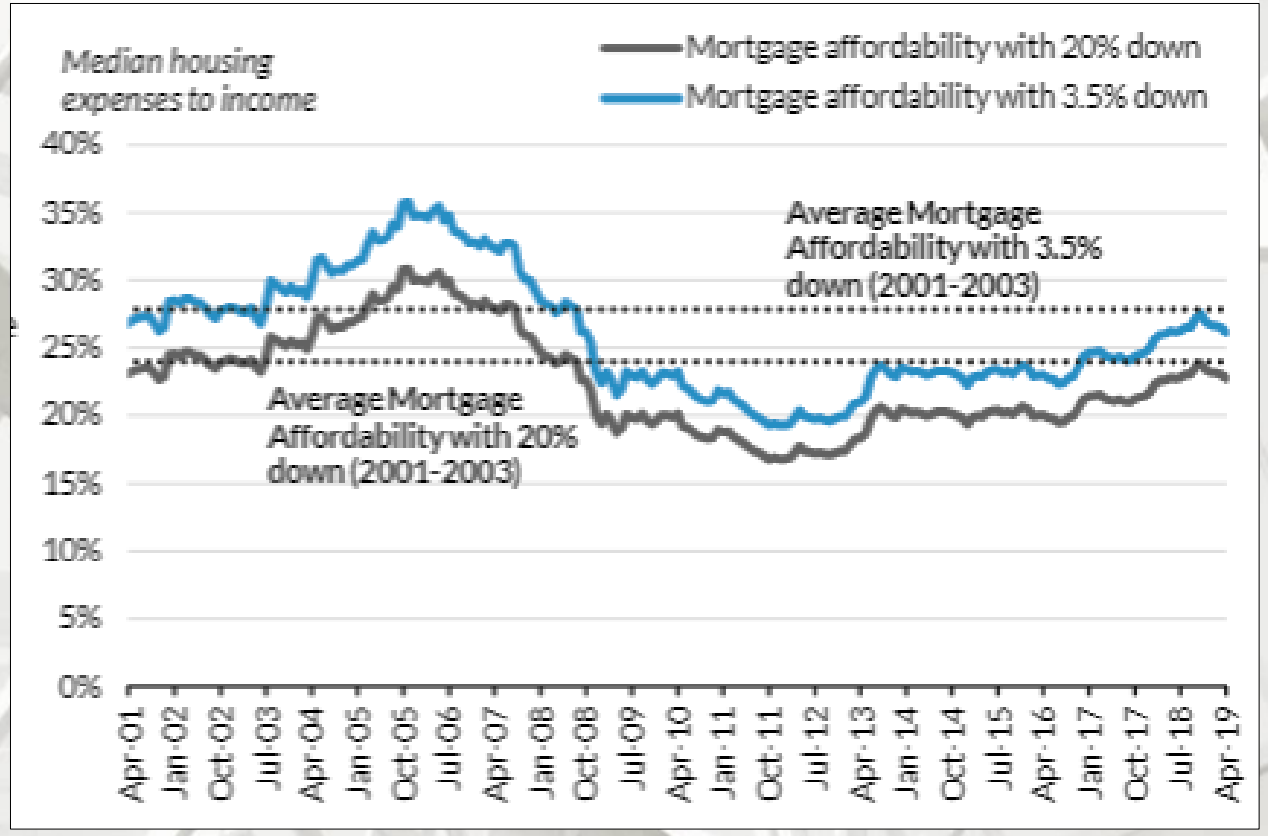
"In February 2019, the first-time homebuyer (FTHB) share for FHA and GSE purchase loans both increased, with the combined FTHB share reaching 60.3 percent, the highest level in the last decade. The FTHB share for FHA, which has always been more focused on first time homebuyers, stood at 83.1 percent in February 2019. The GSE FTHB share in February was 50.2 percent, a historical high. The table shows that based on mortgages originated in February 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

Sources: https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-may-2019; 5/30/19

Return TOC

Housing Affordability

National Housing Affordability Over Time



Urban Institute

"Home prices remain affordable by historical standards, despite price increases over the last 7 years, as interest rates remain relatively low in a historical context. As of April 2019, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 22.7 percent; with 3.5 down, it is 26.1 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

Sources: https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-may-2019; 5/30/19

Return TOC

Mortgage Credit Availability

Mortgage Credit Availability Increased in April

"Mortgage credit availability increased in May 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.

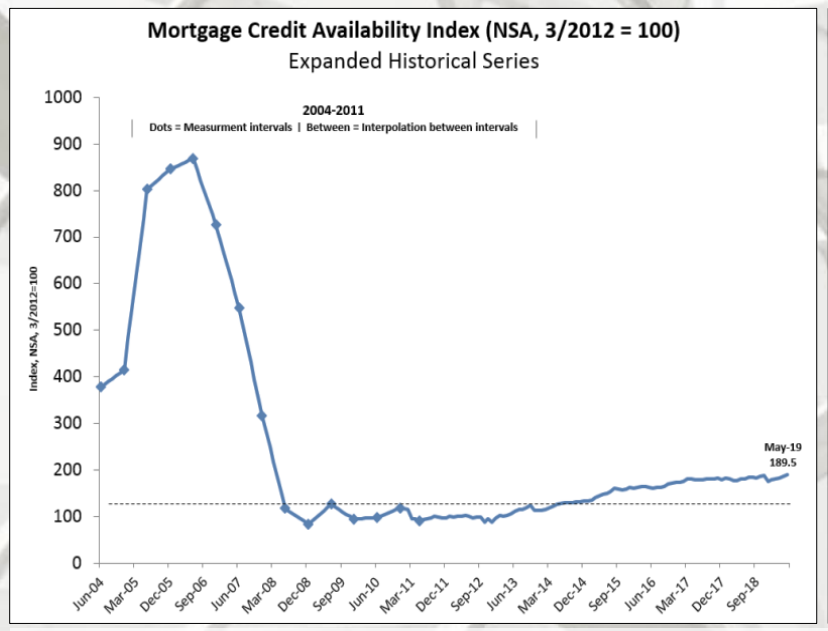
The MCAI rose 1.9 percent to 189.5 in May. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI increased 4.4 percent, while the Government MCAI decreased slightly (0.6 percent). Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 6.8 percent, and the Conforming MCAI rose 0.9 percent.

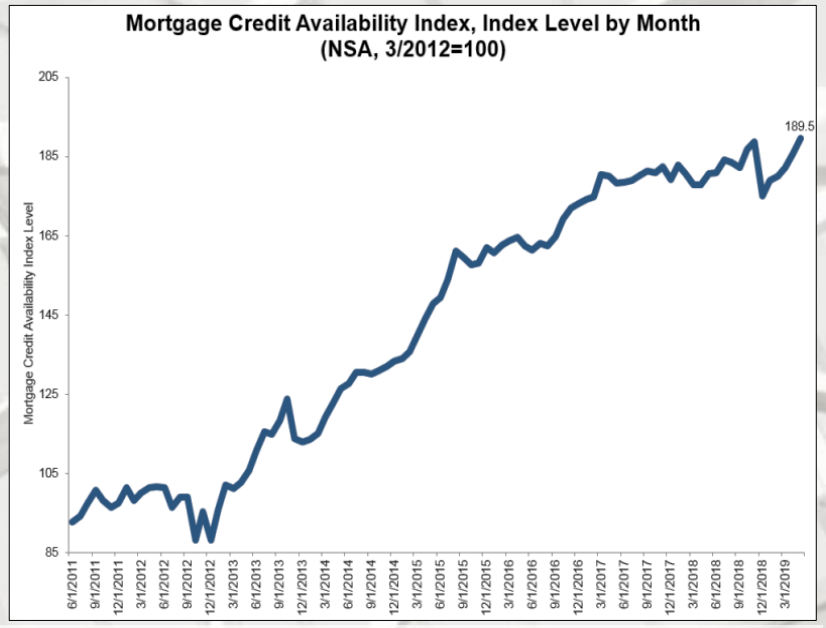
Credit supply increased 2 percent in May, driven by the fifth straight gain in the jumbo index, which was up 7 percent and surpassed last month as the new all-time survey high. The conventional index continues to grow, while the government index has generally been lower this year. Government credit supply continues to decline since peaking in 2017, as there are fewer streamlined refinance programs being offered." – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

Source: https://www.mba.org/2019-press-releases/june/mortgage-credit-availability-increased-in-may; 6/12/19

Return TOC

Mortgage Credit Availability





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

Source: https://www.mba.org/2019-press-releases/june/mortgage-credit-availability-increased-in-may; 6/12/19

Return TOC

U.S. Housing Market News

Amazon is selling entire houses for less than $20,000 — with free shipping

"Residential builders have found a new home: Amazon.

Prefabricated and modular housing — with homes prebuilt in factories — is having another moment. From 2013 to 2018, industry revenue grew an annualized 8.6% to nearly $10.5 billion, including growth of 4.1% in 2018 alone, according to research firm IBISWorld.

Previously associated with **Dwell** and other shelter magazines and websites, these often-tiny homes have now hit Amazon in a big way – and are apparently selling out there. Indeed, multiple news outlets, including real-estate sites Curbed and **the Real Deal**, **reported that one 172-square-foot, $7,250 prefab cabin**, which the manufacturer claims can be built in eight hours and ships free from Amazon, had sold out. (Reports that the home was **back in stock** followed, as did some **consumer warnings** and **social snickering**.).

And it's not the only home for sale on the internet giant — and some can even become full-time residences. "I'm not surprised to see [homes for sale on Amazon]," says Trae Bodge, a shopping expert at **TrueTrae.com**, as "selling these homes online presents a new level of opportunity for the retailer to reach consumers who are outside of their local area." Here are a few homes for sale on Amazon — ranging in price from a few thousand dollars to tens of thousands. …. ." – Catey Hill, Editor, MarketWatch

Source: https://www.marketwatch.com/story/guid/C1ED72EC-7CAC-11E9-AB96-FE6A71633EEB?siteid=cm_newsletter_top_stories; 5/23/19

Return TOC

Summary

In conclusion:

April 2019 United States housing data was mostly negative, with only total housing and single-family starts, and total housing permits reported as positive on month-over-month basis. The year-over-year data also was unpleasant; with only single-family under construction and completions; total housing completions, new house sales being positive.

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 place, though in aggregate rates are incrementally rising;
2) Housing affordability shows minimal improvement;
3) Select builders are beginning to focus on entry-level houses.

Cons:

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

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