The Virginia Tech – U.S. Forest Service August 2016 Housing Commentary: Section I

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Return TOC

Table of Contents

Slide 3: Summary
Slide 4: Housing Scorecard
Slide 5: Wood Use in Construction
Slide 7: New Housing Starts
Slide 9: Regional Housing Starts
Slide 17: New Housing Permits
Slide 21: Regional New Housing Permits
Slide 27: Housing Under Construction
Slide 28: Regional Under Construction
Slide 33: Housing Completions
Slide 35: Regional Housing Completions
Slide 40: New Single-Family House Sales
Slide 43: New Sales-Population Ratio
Slide 44: Regional SF House Sales & Price
Slide 52: Construction Spending
Slide 55: Construction Spending Shares
Slide 58: Existing House Sales
Slide 59: Existing Sales by Price & Region
Slide 61: First-Time Purchasers
Slide 65: Housing Cycle
Slide 73: Affordability
Slide 75: Summary
Slide 76: Virginia Tech Disclaimer
Slide 77: USDA Disclaimer

This report is a free monthly service of Virginia Tech. Past issues can be found at: http://woodproducts.sbio.vt.edu/housing-report. To request the report, please email: buehlmann@gmail.com

Summary

In August, aggregate monthly housing data, based on a month-over-month comparison, were decidedly negative. Total housing permits, new SF starts, and new private SF construction spending were and are problematic – in August they all were negative on a year-over-year basis. New single-family sales appear to be reverting to their recent average. In the expenditures category, private new single-family spending has decreased monthly since March. The October 7th Atlanta Fed GDPNow™ model projects residential investment spending, in Q3, to decrease at a 7.7 percent rate[1] (SAAR). Regionally, data were mixed across all sectors.

Chris Whalen, senior managing director for the Kroll Bond Rating Agency, wrote the following regarding house ownership, "Over the past four decades, the U.S. has seen a dramatic increase in the proportion of homeowners to the U.S. population, peaking just short of 70% in the first quarter of 2005, according to the U.S. Census Bureau. Since then, homeownership has declined to the low 60s. The rate of homeownership is likely to continue to decline further into the mid-to-low 50s as changes in demographic trends, increased regulation and stagnant real incomes all work to make the dream of homeownership more difficult to achieve."[2]

This month's commentary contains pertinent housing data; data exploration; new and existing single-family housing; economics; and demographics. Section I contains data and commentary and Section II includes Federal Reserve analysis; private indicators; and demographic commentary. We hope you find this commentary beneficial.

Sources: [1] https://www.frbatlanta.org/-/media/Documents/cqer/researchcq/gdpnow/GDPTrackingModelDataAndForecasts.xlsx; 10/7/16
[2] http://www.nationalmortgagenews.com/news/voices/why-the-homeownership-rate-will-never-return-to-pre-crisis-peak-1086188-1.html; 9/6/16

Return TOC

August 2016
Housing Scorecard

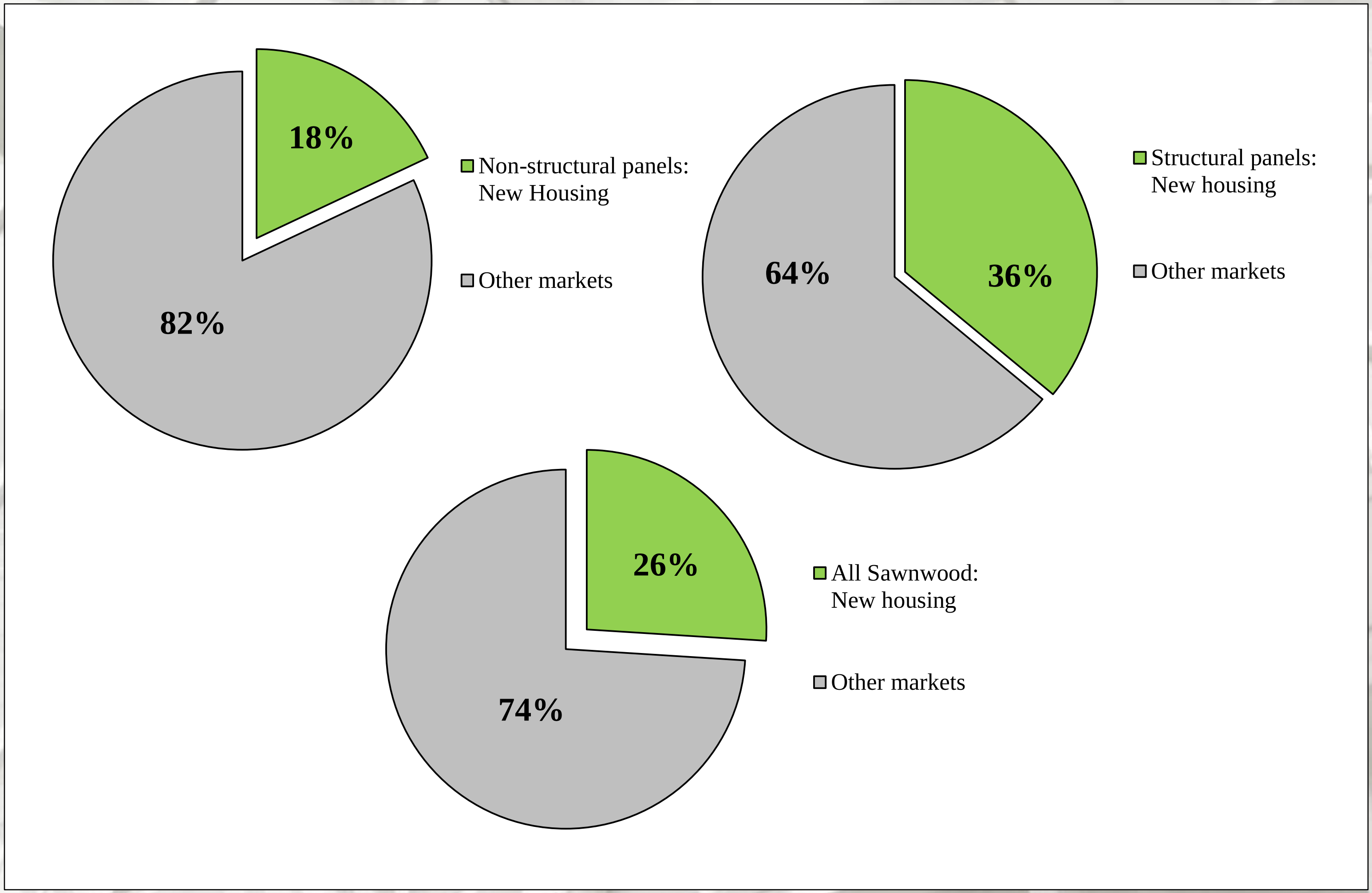
	M/M	Y/Y
Housing Starts	▽ 5.8%	△ 0.9%
Single-Family Starts	▽ 6.0%	▽ 1.2%
Housing Permits	▽ 0.4%	▽ 2.3%
Single-Family Permits	△ 3.7%	△ 3.8%
Housing Completions	▽ 3.4%	△ 8.3%
New Single-Family House Sales	▽ 7.6%	△ 20.6%
Existing House Sales[1]	▽ 0.9%	△ 0.8%
Private Residential Construction Spending	▽ 0.3%	△ 1.4%
Single-Family Construction Spending	▽ 0.9%	▽ 1.5%

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

Source: U.S. Department of Commerce-Construction; [1]National Association of Realtors® (NAR®)

Return TOC

New Construction’s Percentage of Wood Products Consumption



Source: U.S. Forest Service. Howard, J. and D. McKeever. 2015. U.S. Forest Products Annual Market Review and Prospects, 2010-2015

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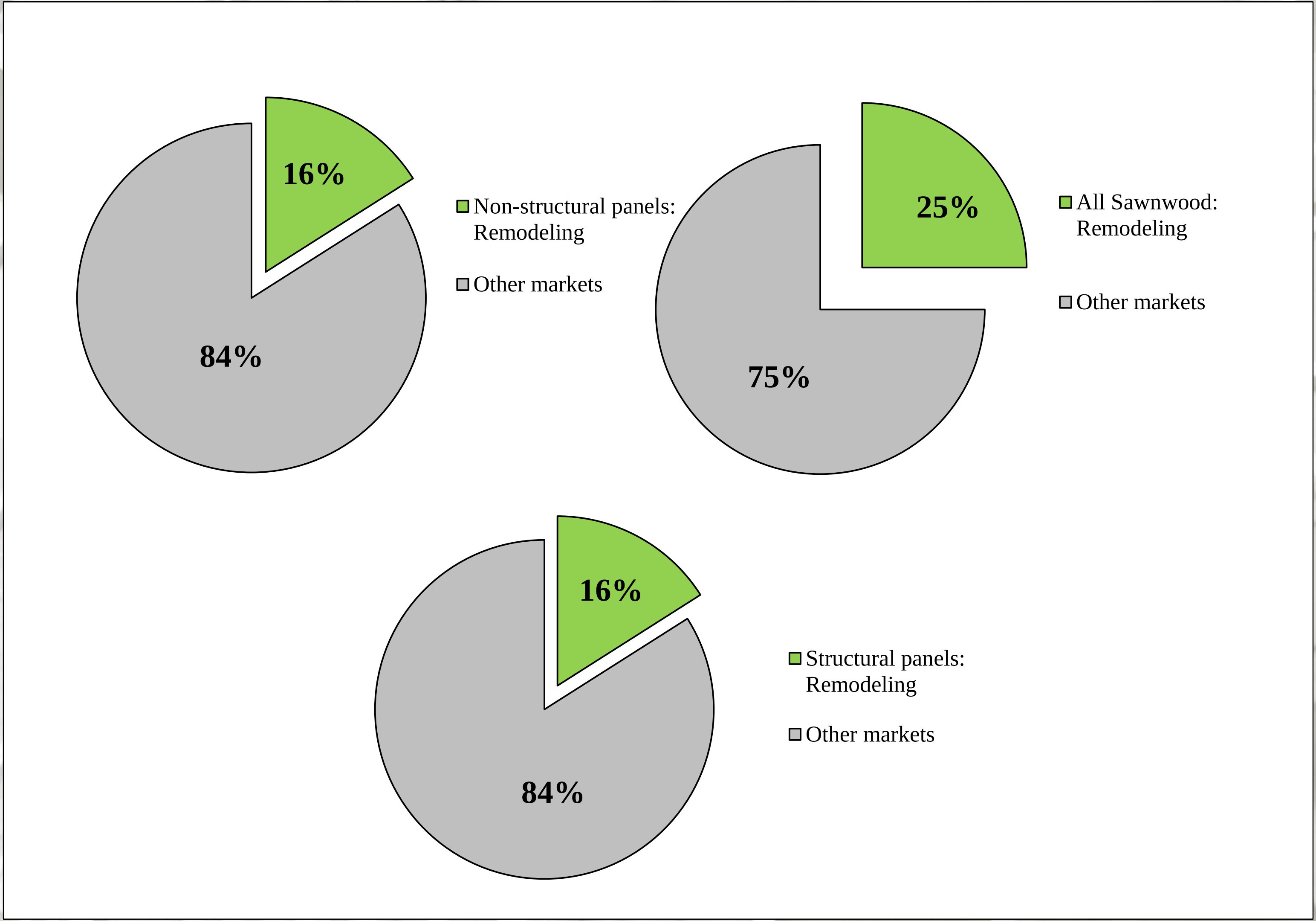
Repair and Remodeling's Percentage of Wood Products Consumption



Source: U.S. Forest Service. Howard, J. and D. McKeever. 2015. U.S. Forest Products Annual Market Review and Prospects, 2010-2015

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New Housing Starts

	Total Starts*	Single-Family (SF) Starts	Multifamily (MF) 2-4 unit** Starts	MF ≥ 5 unit Starts
August	1,142,000	722,000	17,000	403,000
July	1,212,000	768,000	11,000	433,000
2015	1,132,000	731,000	7,000	394,000
M/M change	-5.8%	-6.0%	54.5%	-6.9%
Y/Y change	0.9%	-1.2%	142.9%	2.3%

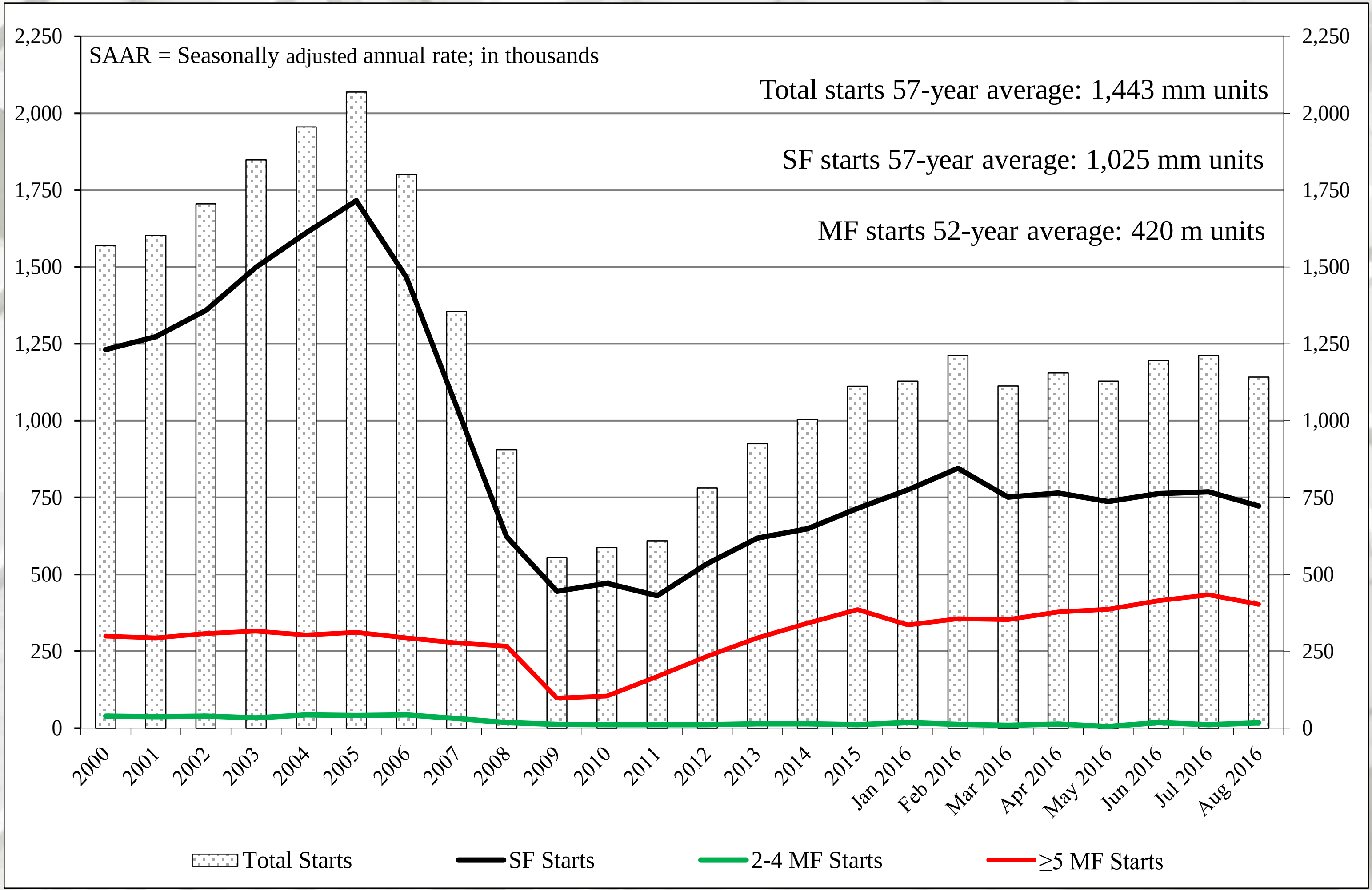
* All start data are presented at a seasonally adjusted annual rate (SAAR).

** 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; 9/21/16

Return TOC

Total Housing Starts



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Starts by Region

	NE Total	NE SF	NE MF**
August	141,000	50,000	91,000
July	131,000	58,000	73,000
2015	113,000	55,000	58,000
M/M change	7.6%	-13.8%	24.7%
Y/Y change	24.8%	-9.1%	56.9%

	MW Total	MW SF	MW MF
August	171,000	116,000	55,000
July	162,000	109,000	53,000
2015	146,000	105,000	41,000
M/M change	5.6%	6.4%	3.8%
Y/Y change	17.1%	10.5%	34.1%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Starts by Region

	S Total	S SF	S MF**
August	543,000	370,000	173,000
July	637,000	426,000	211,000
2015	625,000	427,000	198,000
M/M change	-14.8%	-13.1%	-18.0%
Y/Y change	-13.1%	-13.3%	-12.6%

	W Total	W SF	W MF
August	287,000	186,000	101,000
July	282,000	175,000	107,000
2015	248,000	144,000	104,000
M/M change	1.8%	6.3%	-5.6%
Y/Y change	15.7%	29.2%	-2.9%

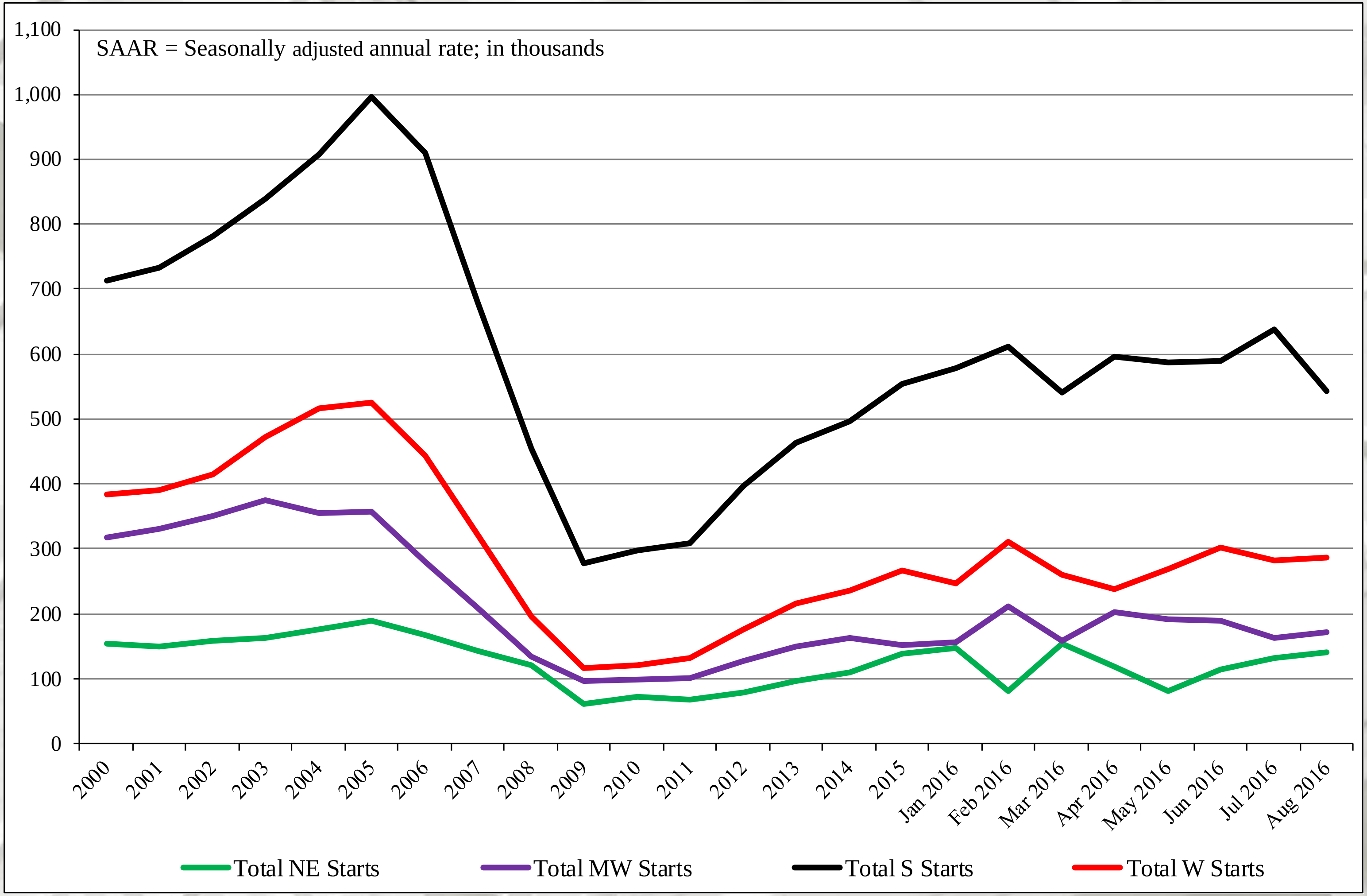
All data are SAAR; S = South and W = West.

** 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; 9/21/16

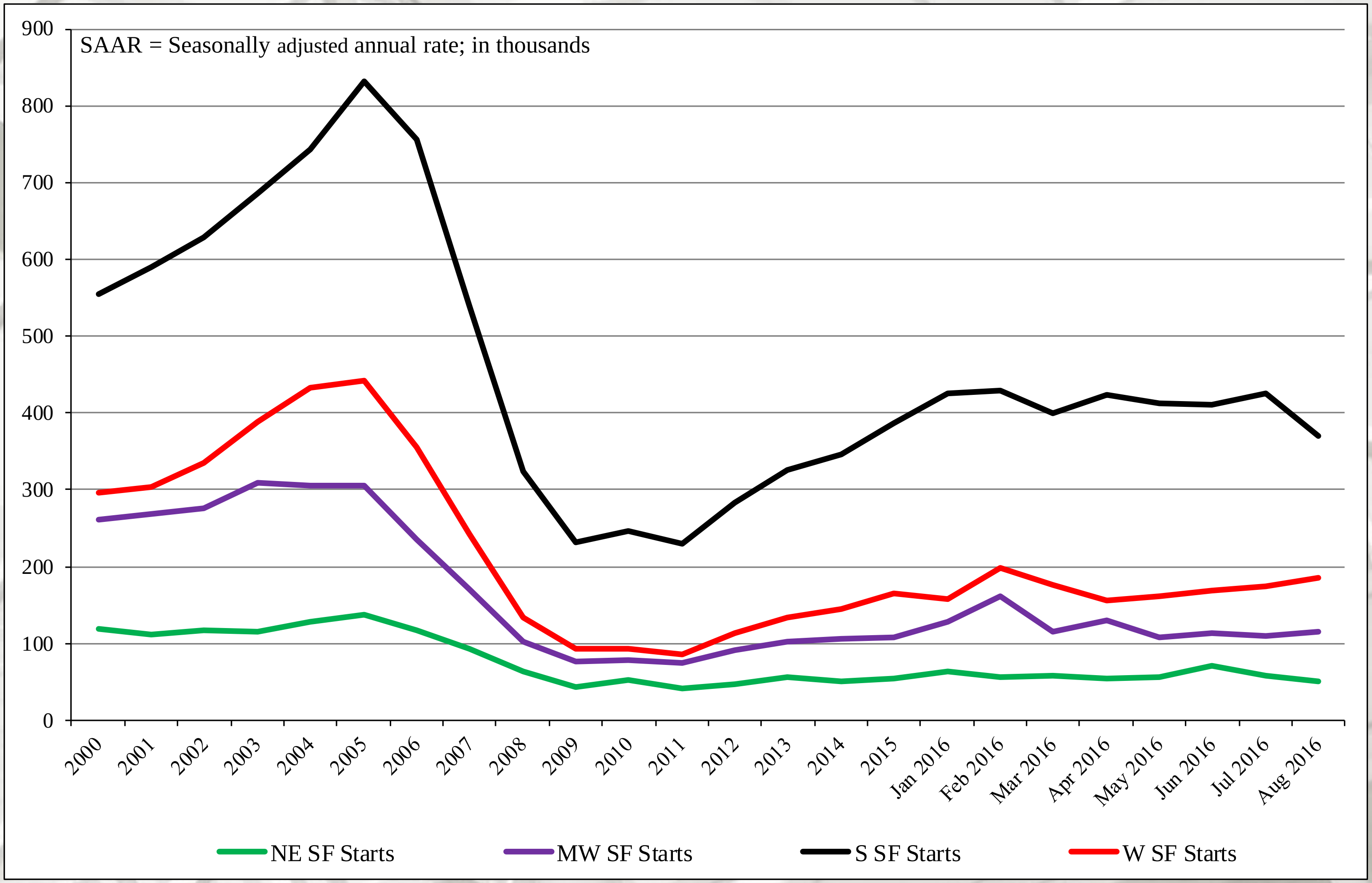
Return TOC

Total Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

SF Housing Starts by Region



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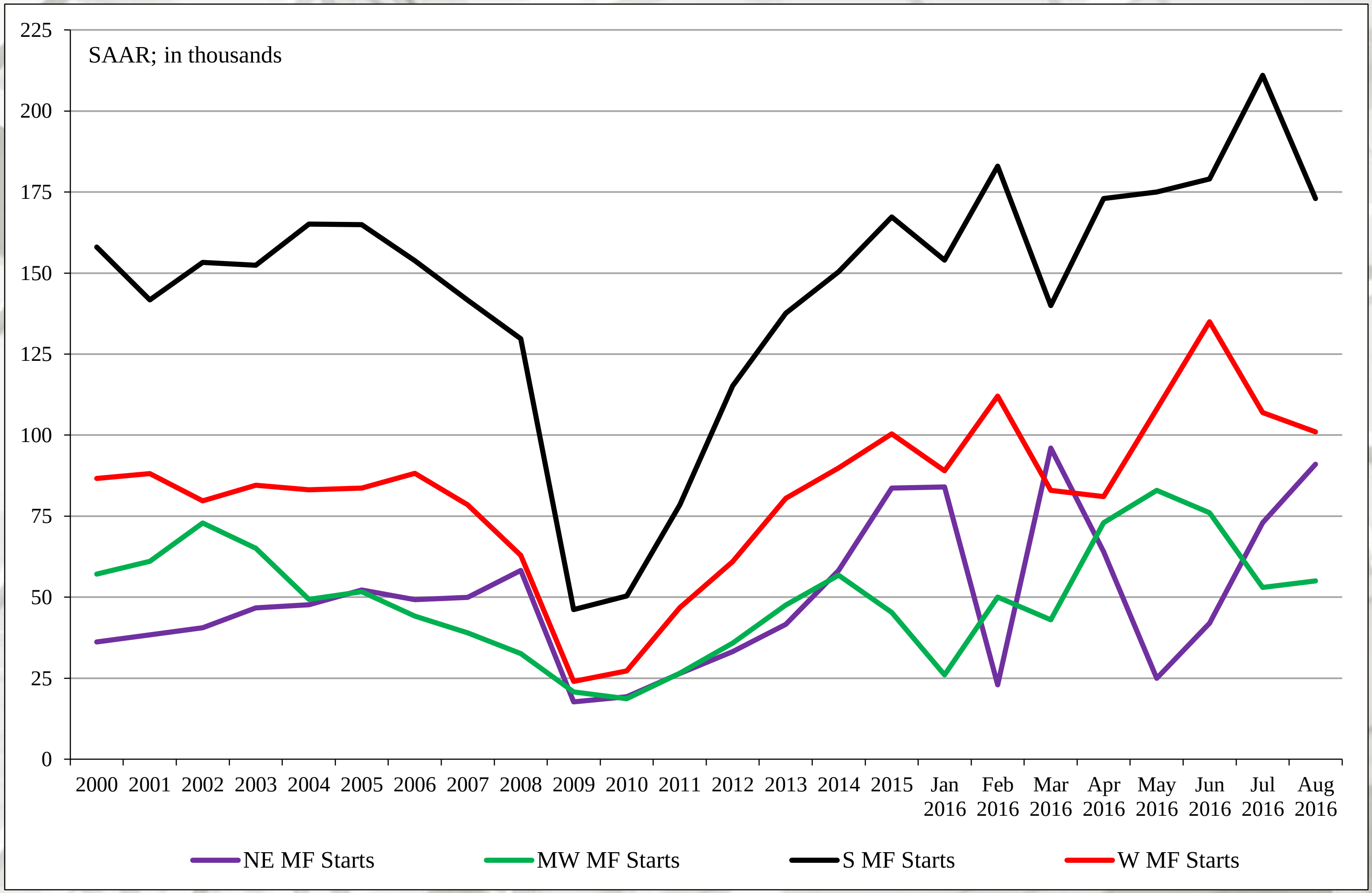
Return TOC

MF Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

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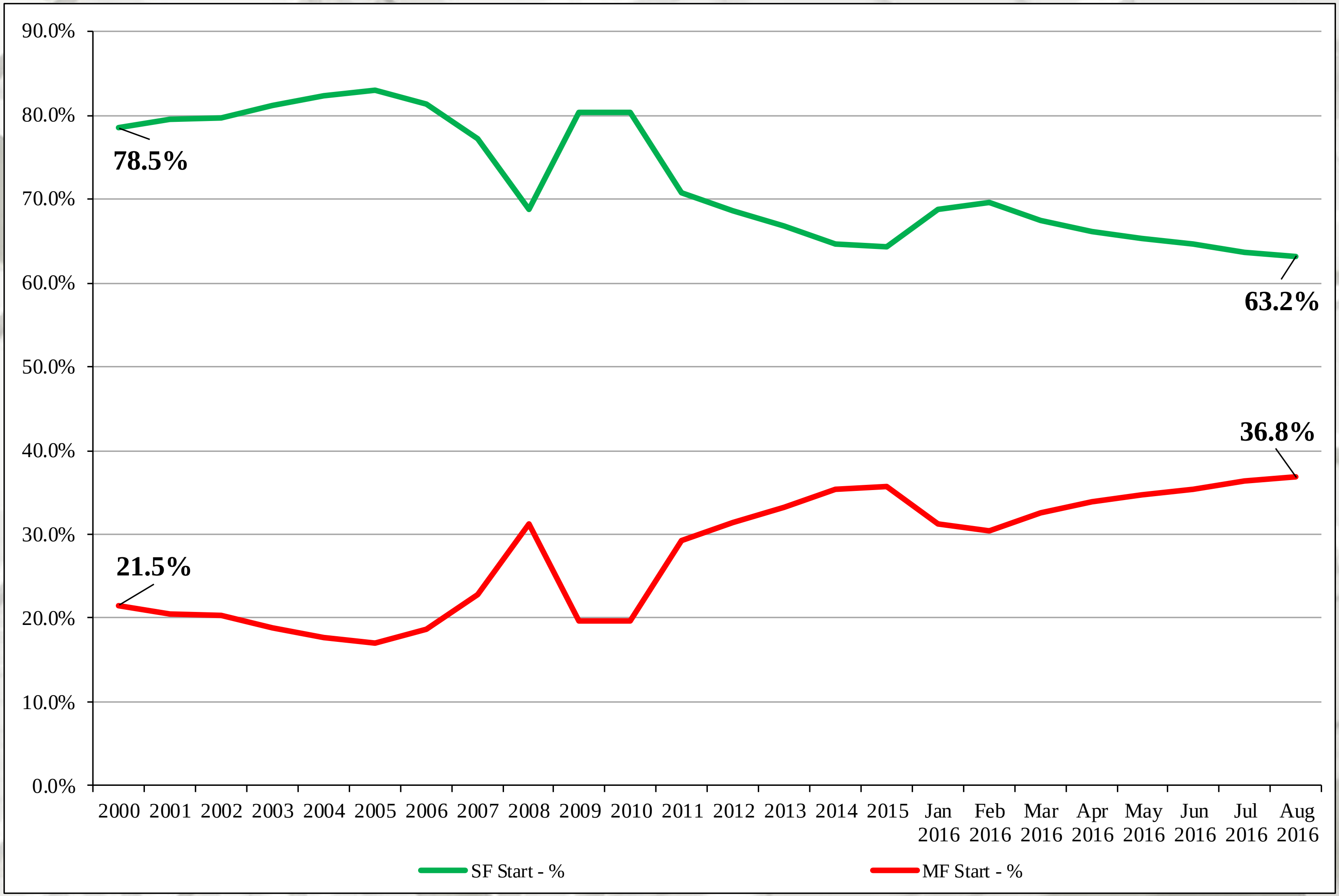
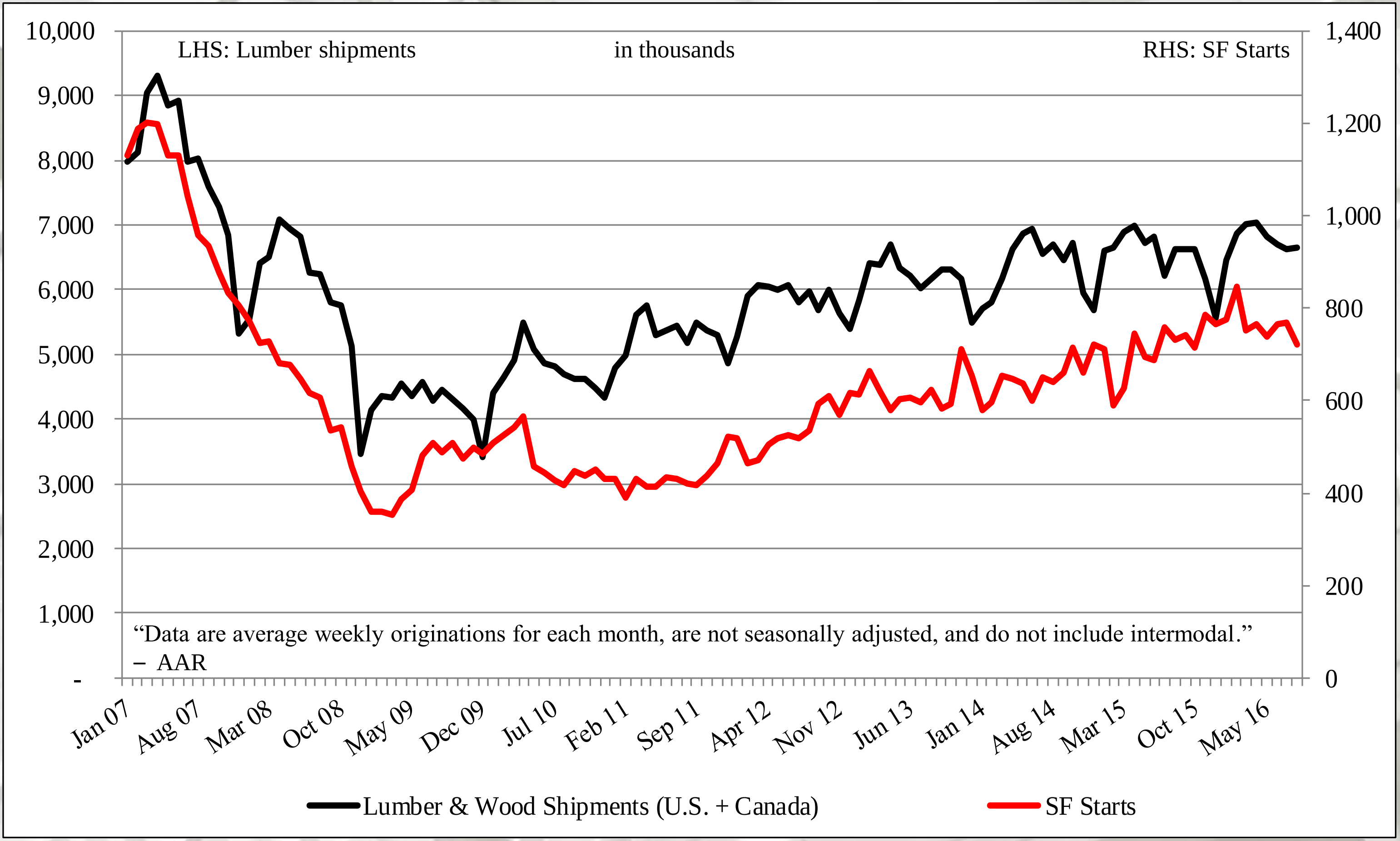
Housing Starts by Percent



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

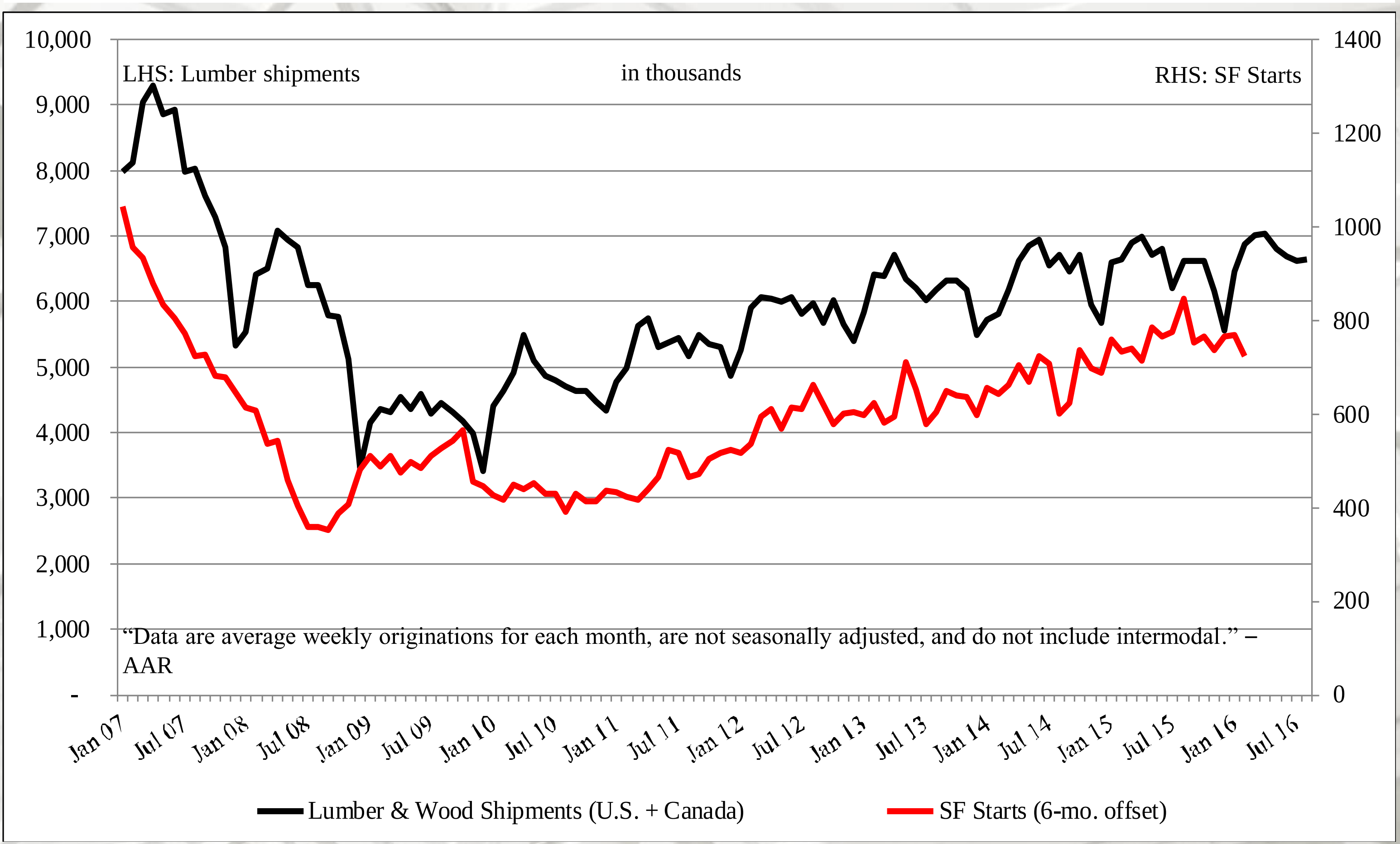
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 8/9/16; U.S. DOC-Construction; 9/21/16

Return to TOC

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



In this graph, January 2007 lumber shipments are contrasted with August 2007 SF starts, and continuing through August 2016 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 8/9/16; U.S. DOC-Construction; 9/21/16

Return to TOC

New Housing Permits

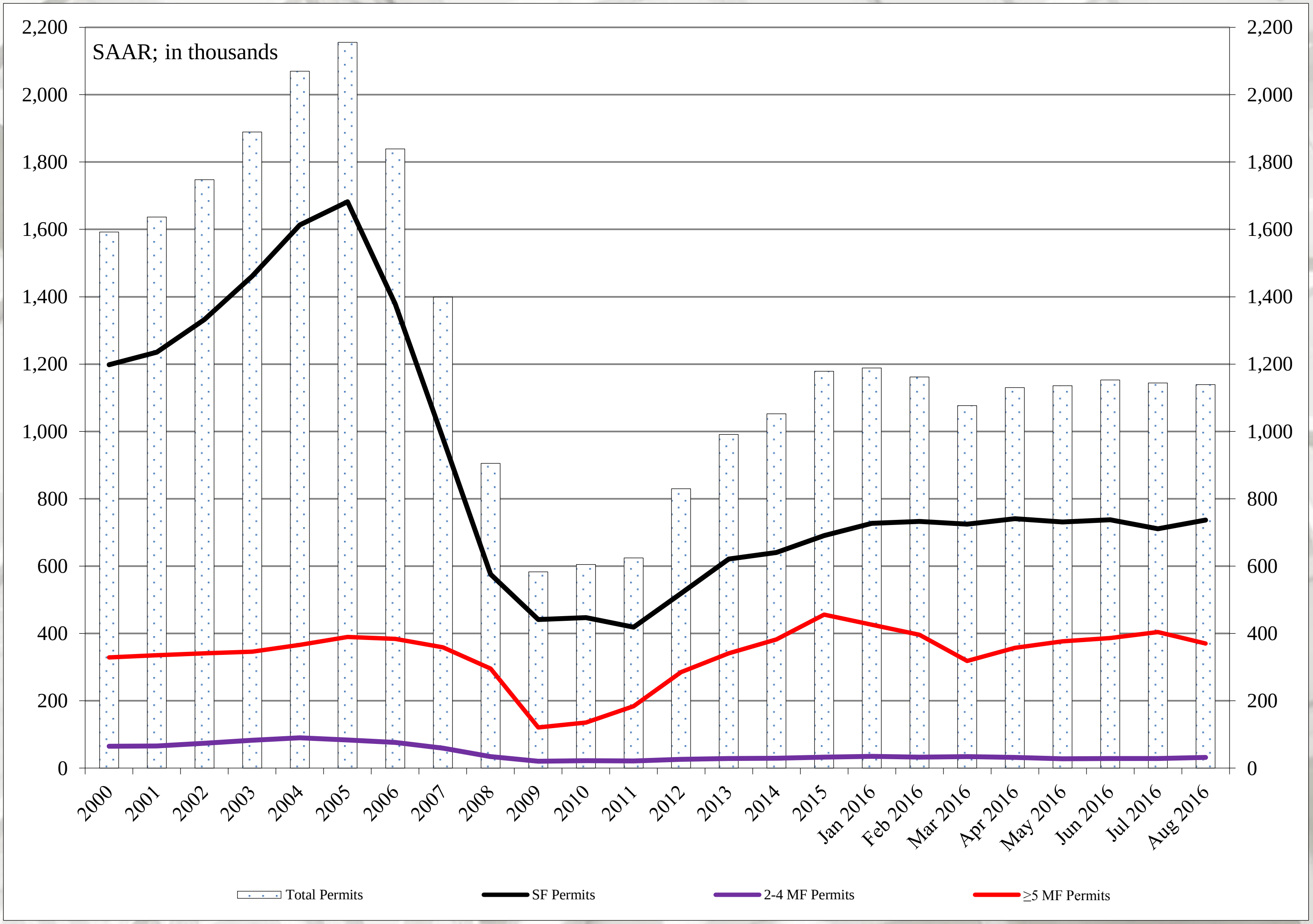
	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
August	1,139,000	737,000	32,000	370,000
July	1,144,000	711,000	29,000	404,000
2015	1,166,000	710,000	30,000	426,000
M/M change	-0.4	3.7	10.3	-8.4
Y/Y change	-2.3	3.8	6.7	-13.1

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

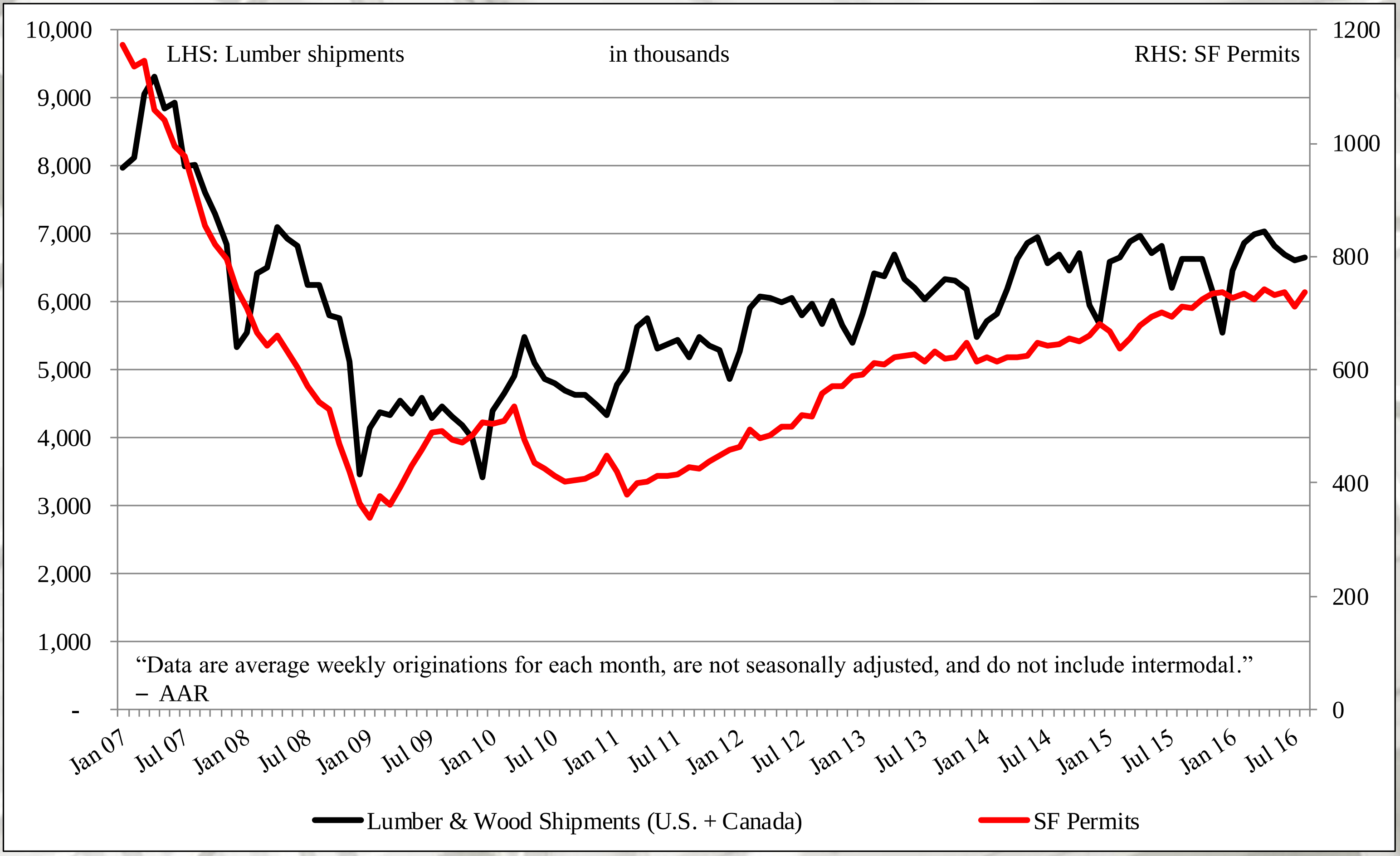
Total New Housing Permits



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

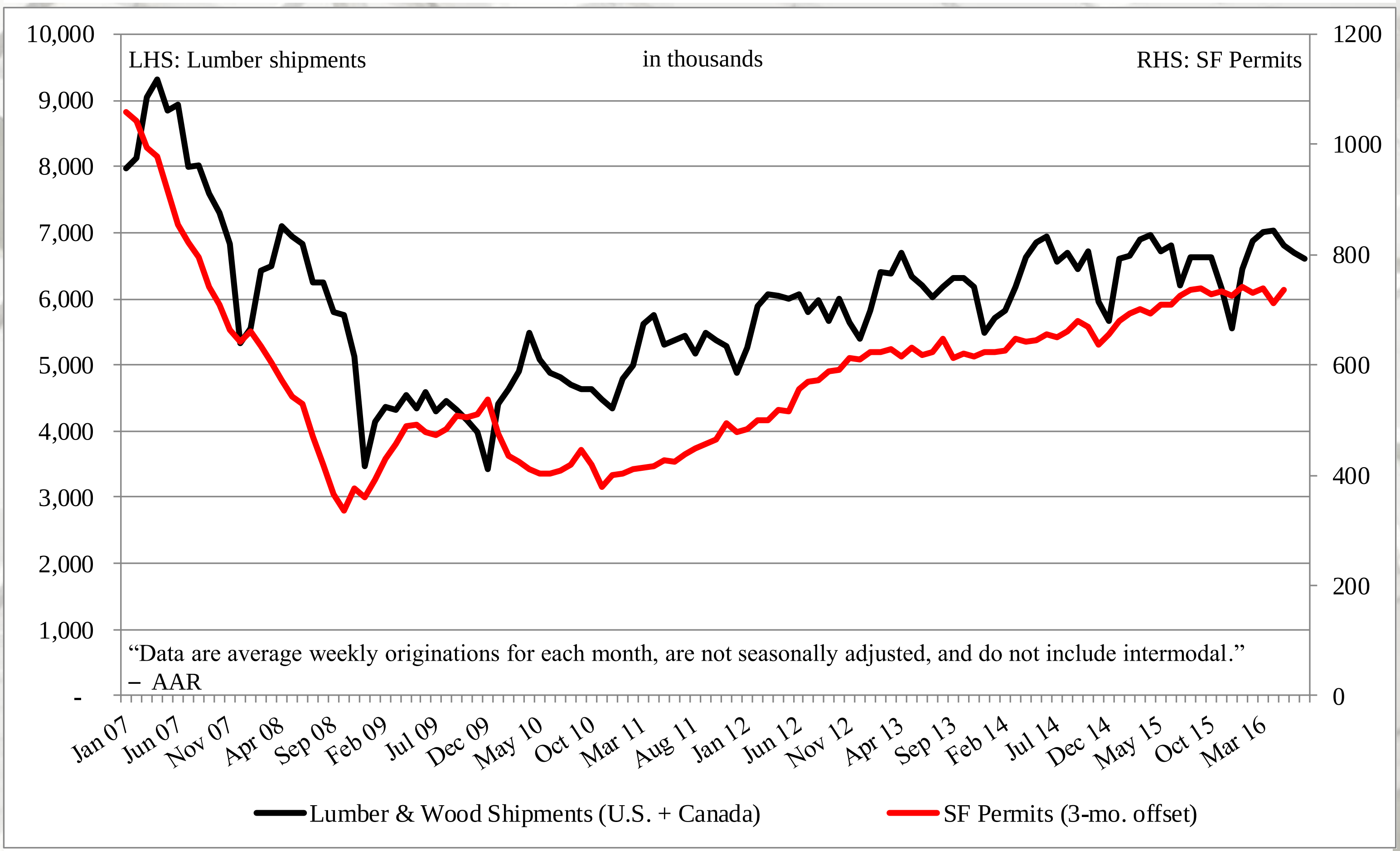
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 9/9/16; U.S. DOC-Construction; 9/21/16

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 March 2007 SF permits, and continuing through August 2016 SF permits. The purpose is to discover if lumber shipments relate to future single-family building 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 9/9/16; U.S. DOC-Construction; 9/21/16

Return to TOC

New Housing Permits by Region

	NE Total	NE SF	NE MF
August	103,000	51,000	52,000
July	98,000	51,000	47,000
2015	110,000	60,000	52,000
M/M change	5.1%	0.0%	10.6%
Y/Y change	-6.4%	-15.0%	0.0%

	MW Total	MW SF	MW MF
August	197,000	116,000	81,000
July	189,000	107,000	82,000
2015	177,000	104,000	73,000
M/M change	4.2%	8.4%	-1.2%
Y/Y change	11.3%	11.5%	11.0%

* All data are SAAR.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Permits by Region

	S Total	S SF	S MF
August	567,000	404,000	163,000
July	587,000	390,000	197,000
2015	589,000	380,000	211,000
M/M change	-3.4%	3.6%	-17.3%
Y/Y change	-3.7%	6.3%	-22.7%

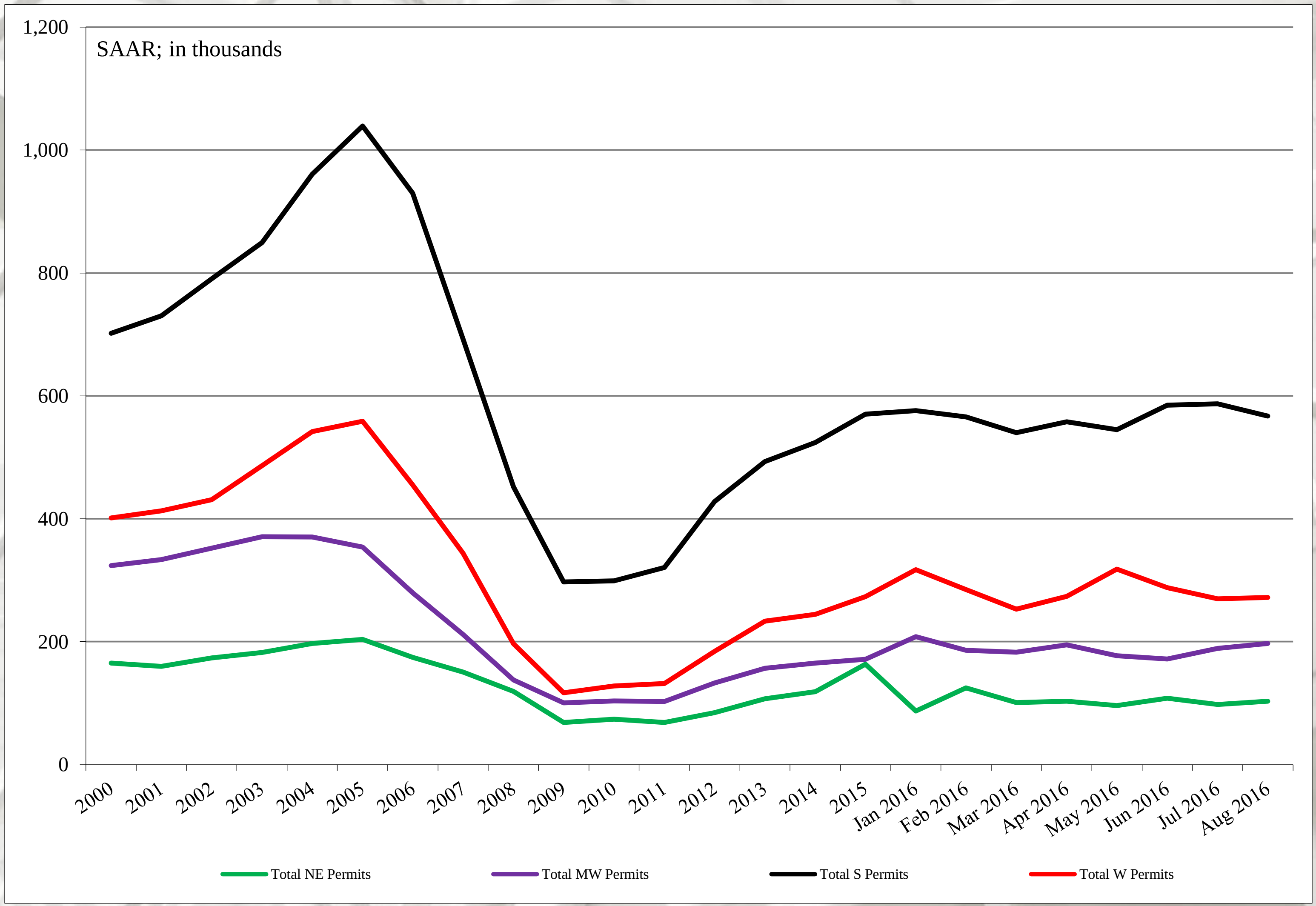
	W Total	W SF	W MF
August	272,000	166,000	106,000
July	270,000	163,000	107,000
2015	290,000	166,000	126,000
M/M change	0.7%	1.8%	-0.9%
Y/Y change	-6.2%	0.0%	-15.9%

* All data are SAAR.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

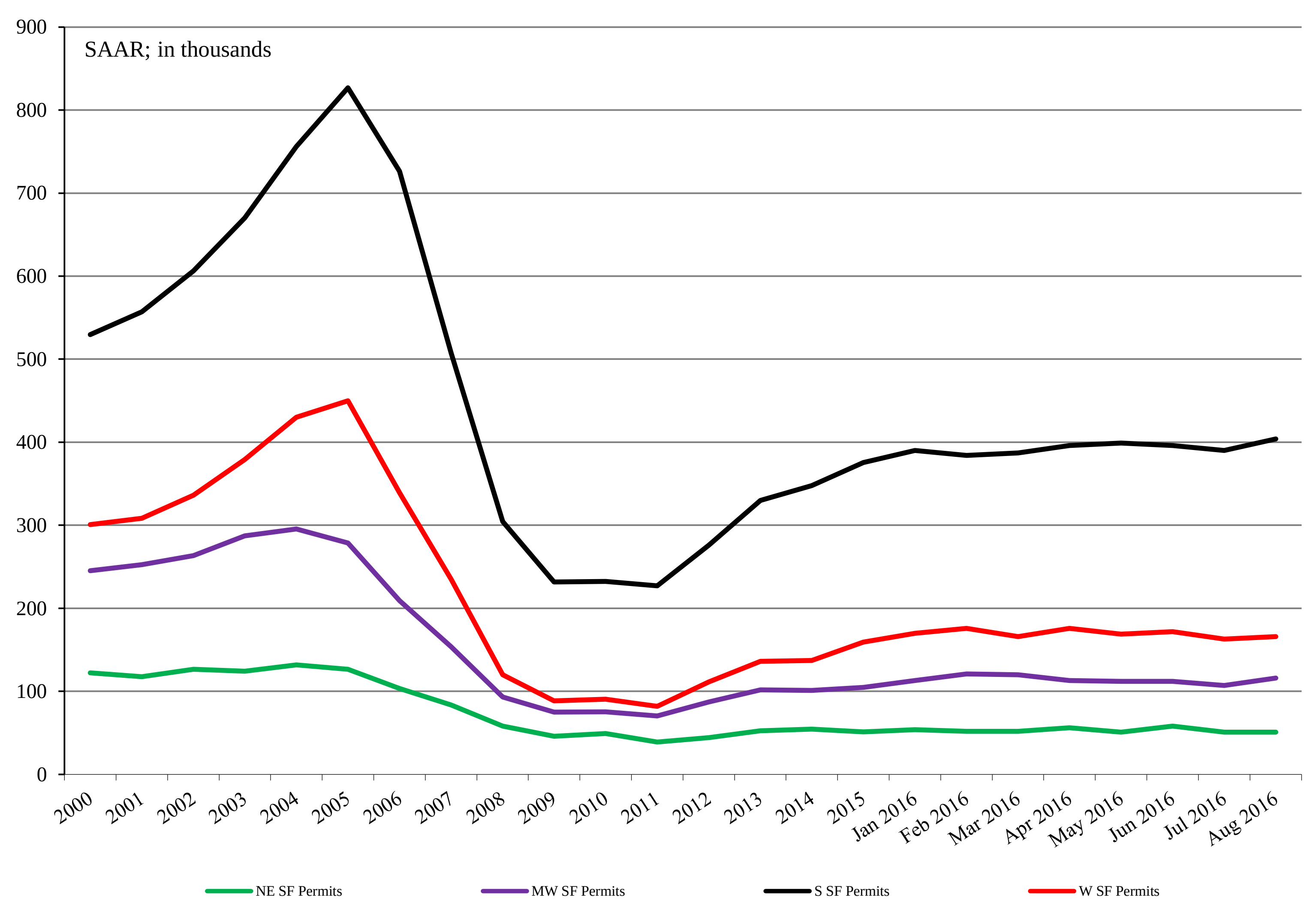
Total Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

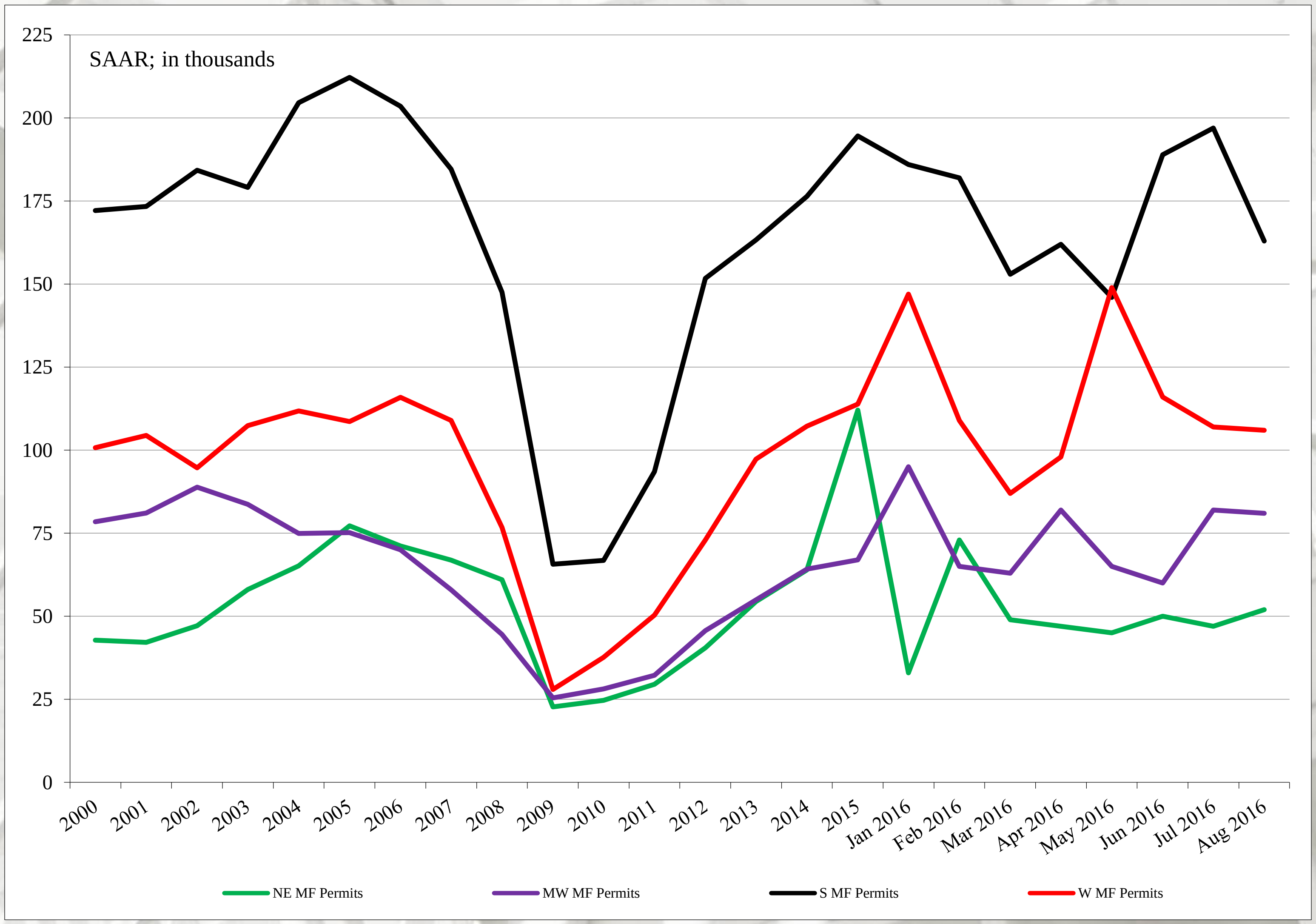
SF Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

MF Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
August	1,038,000	428,000	11,000	599,000
July	1,029,000	429,000	11,000	589,000
2015	917,000	392,000	11,000	514,000
M/M change	0.9%	-0.2%	0.0%	1.7%
Y/Y change	13.2%	9.2%	0.0%	16.5%

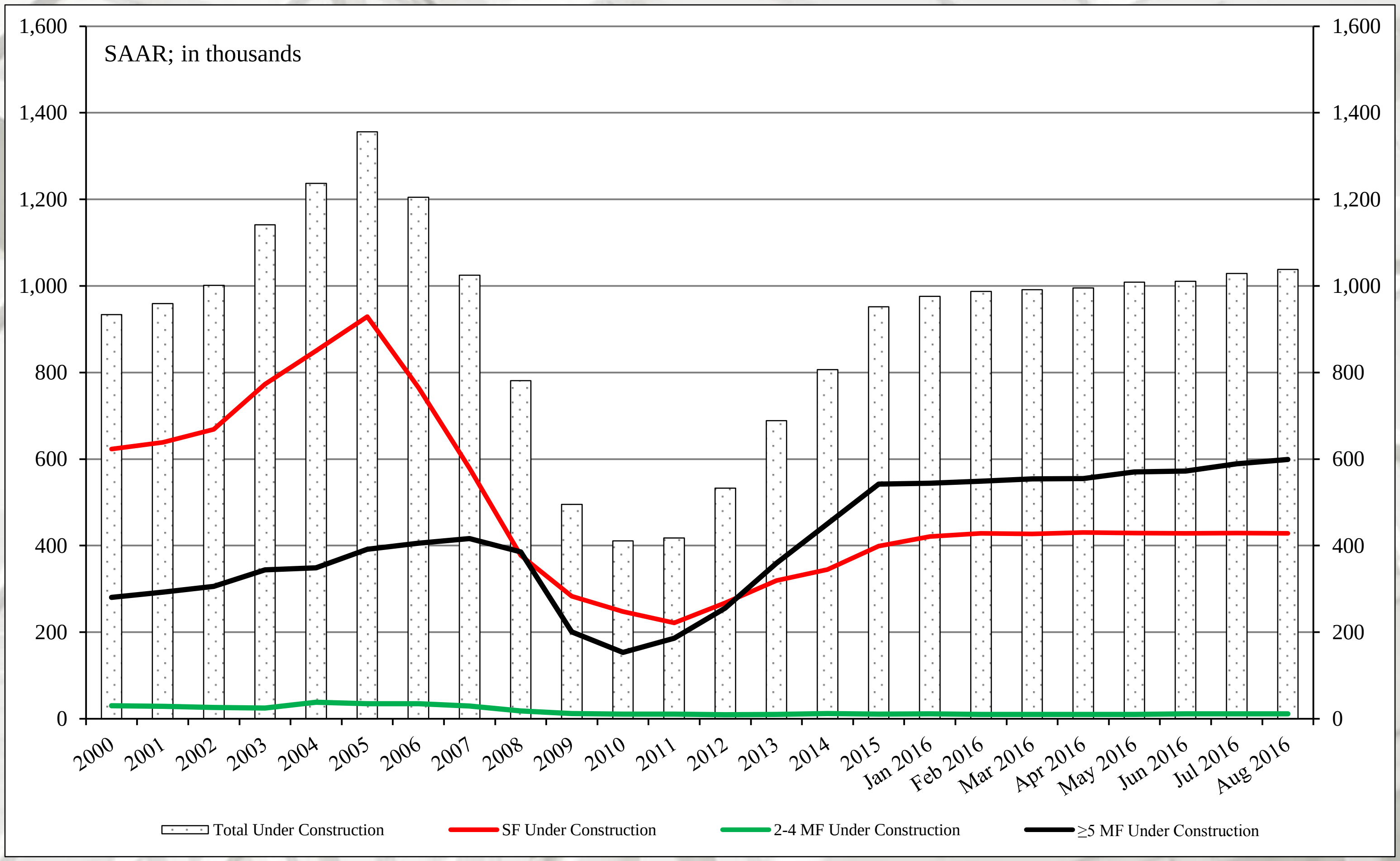
All housing under construction data are presented at a seasonally adjusted annual rate (SAAR).

** 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; 9/21/16

Return TOC

Total Housing Under Construction



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
August	194,000	50,000	144,000
July	191,000	50,000	141,000
2015	167,000	46,000	121,000
M/M change	1.6%	0.0%	2.1%
Y/Y change	16.2%	8.7%	19.0%

	MW Total	MW SF	MW MF
August	138,000	71,000	67,000
July	137,000	70,000	67,000
2015	126,000	65,000	61,000
M/M change	0.7%	1.4%	0.0%
Y/Y change	9.5%	9.2%	9.8%

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; 9/21/16

Return TOC

New Housing Under Construction by Region

	S Total	S SF	S MF**
August	446,000	208,000	238,000
July	447,000	212,000	235,000
2015	396,000	194,000	202,000
M/M change	-0.2%	-1.9%	1.3%
Y/Y change	12.6%	7.2%	17.8%

	W Total	W SF	W MF
August	260,000	99,000	161,000
July	254,000	97,000	157,000
2015	228,000	87,000	141,000
M/M change	2.4%	2.1%	2.5%
Y/Y change	14.0%	13.8%	14.2%

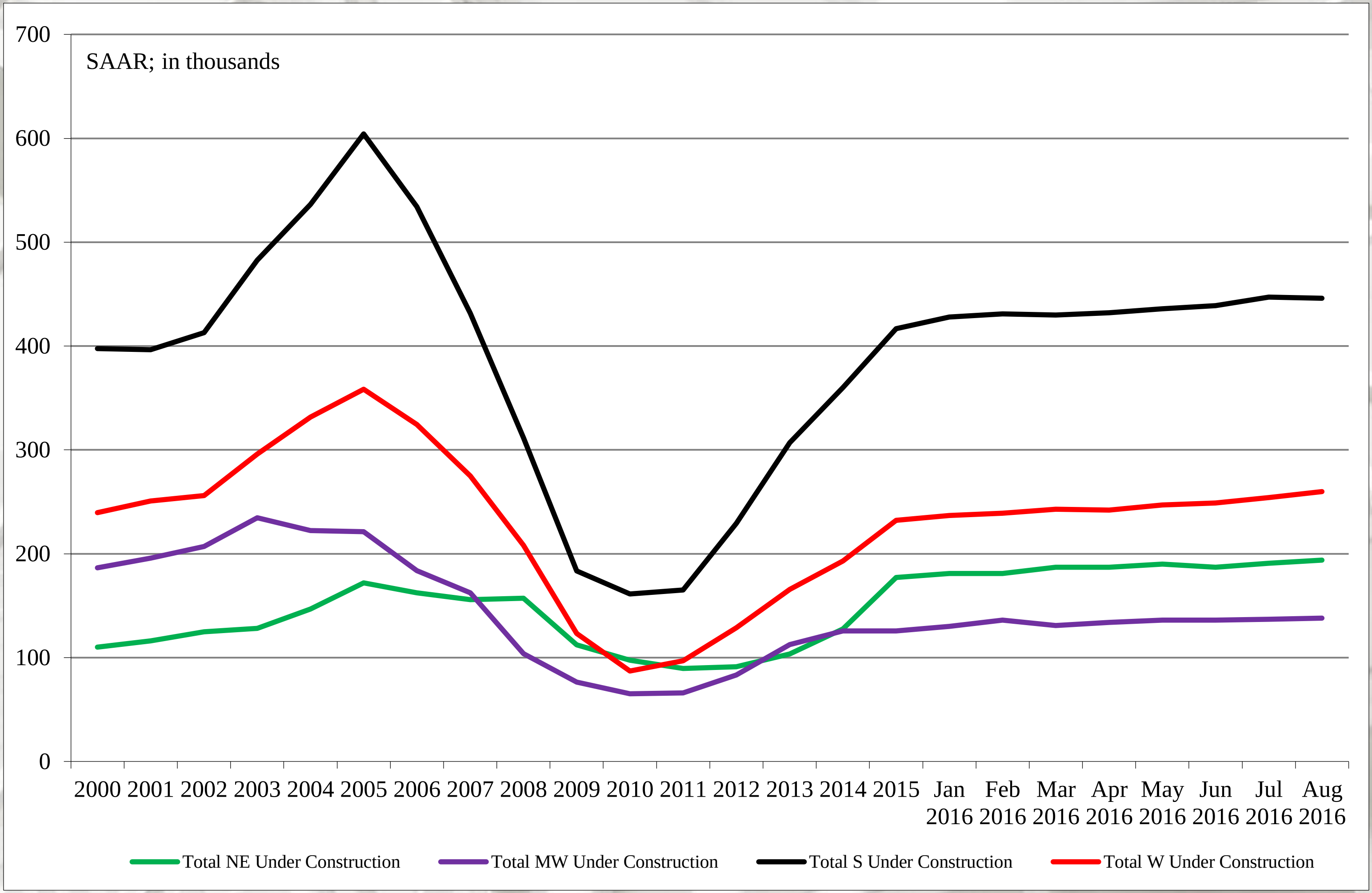
All data are SAAR; S = South and W = West.

** 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; 9/21/16

Return TOC

Total Housing Under Construction by Region



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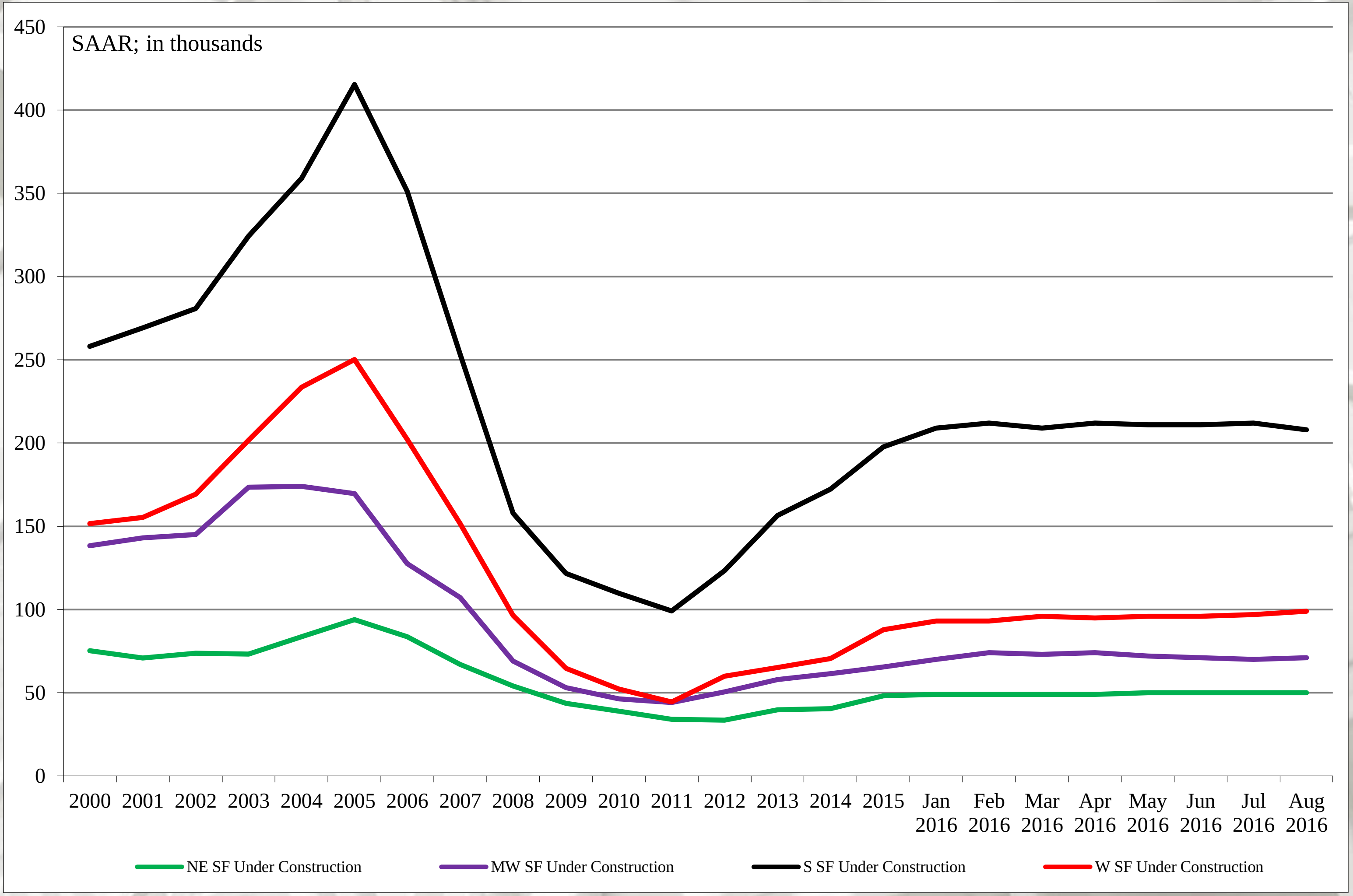
Return TOC

SF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

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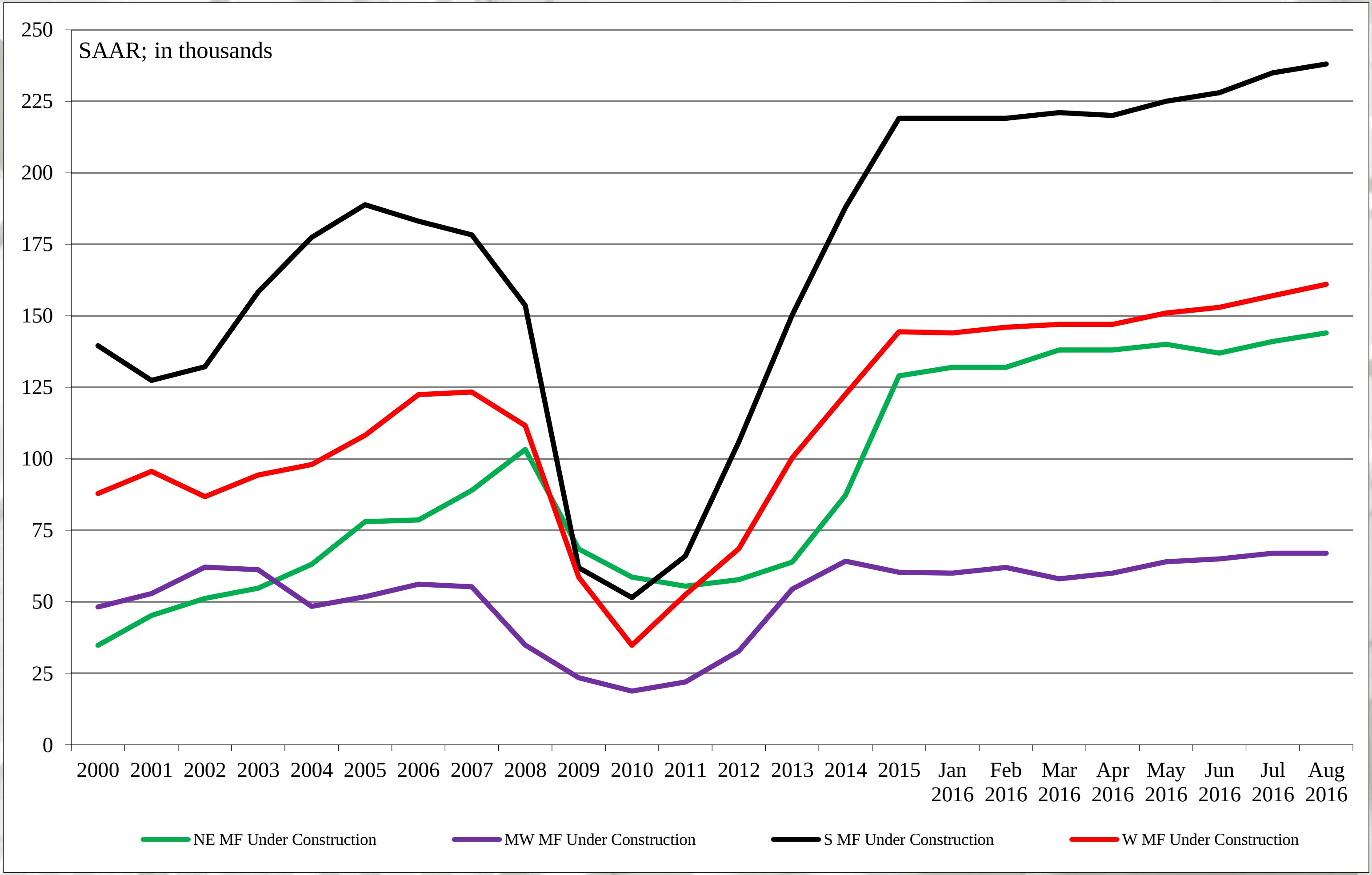
MF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
August	1,043,000	752,000	8,000	283,000
July	1,080,000	754,000	8,000	318,000
2015	963,000	664,000	7,000	292,000
M/M change	-3.4%	-0.3%	0.0%	-11.0%
Y/Y change	8.3%	13.3%	14.3%	-3.1%

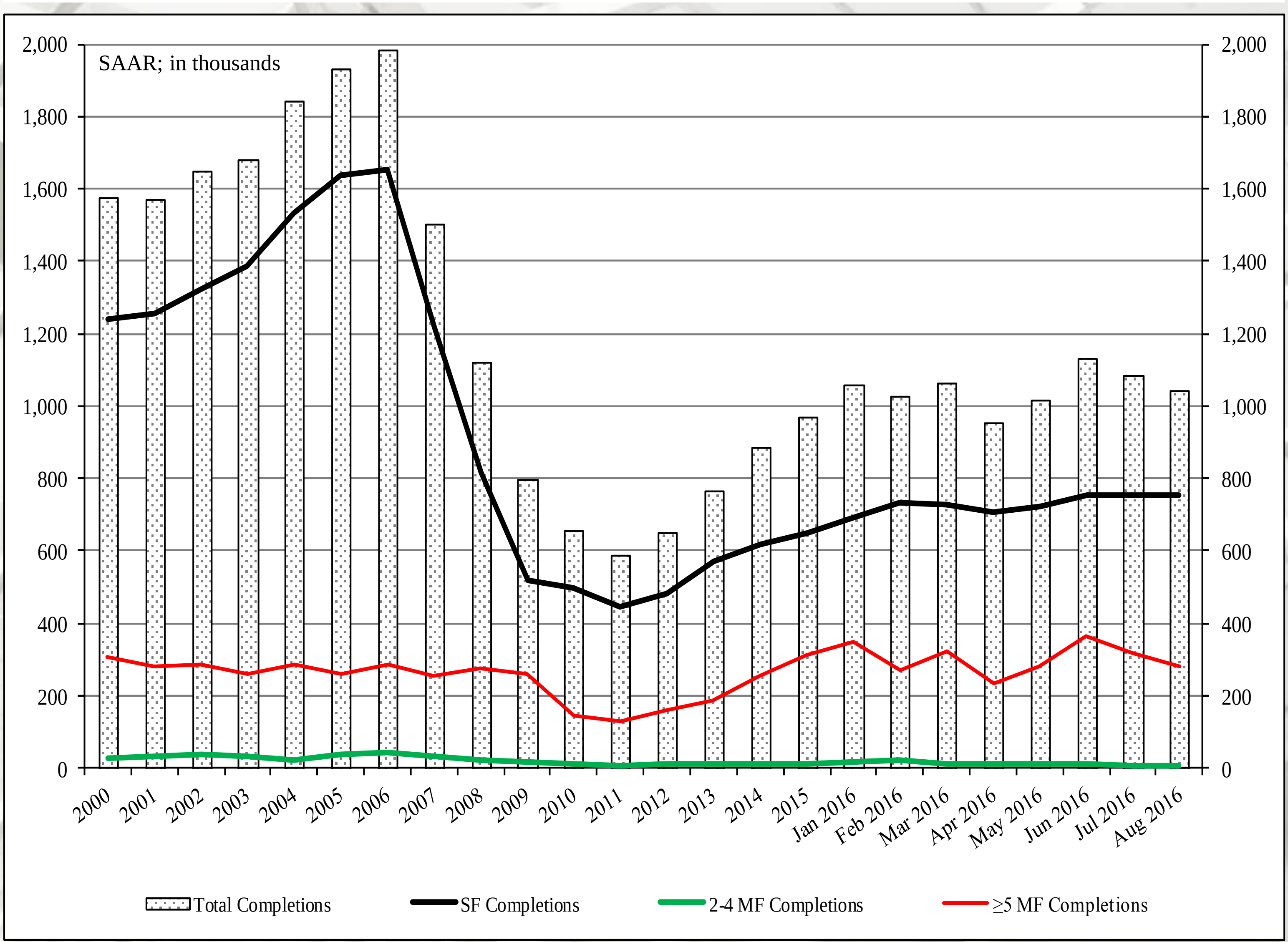
All completion data are presented at a seasonally adjusted annual rate (SAAR).

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

Total Housing Completions



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Completions by Region

	NE Total	NE SF	NE MF**
August	120,000	58,000	62,000
July	92,000	50,000	42,000
2015	76,000	49,000	27,000
M/M change	30.4%	16.0%	47.6%
Y/Y change	57.9%	18.4%	129.6%

	MW Total	MW SF	MW MF
August	156,000	106,000	50,000
July	177,000	124,000	53,000
2015	155,000	106,000	49,000
M/M change	-11.9%	-14.5%	-5.7%
Y/Y change	0.6%	0.0%	2.0%

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

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

New Housing Completions by Region

	S Total	S SF	S MF**
August	549,000	423,000	126,000
July	536,000	417,000	119,000
2015	482,000	358,000	124,000
M/M change	2.4%	1.4%	5.9%
Y/Y change	13.9%	18.2%	1.6%
	W Total	**W SF**	**W MF**
August	218,000	165,000	53,000
July	275,000	163,000	112,000
2015	250,000	151,000	99,000
M/M change	-20.7%	1.2%	-52.7%
Y/Y change	-12.8%	9.3%	-46.5%

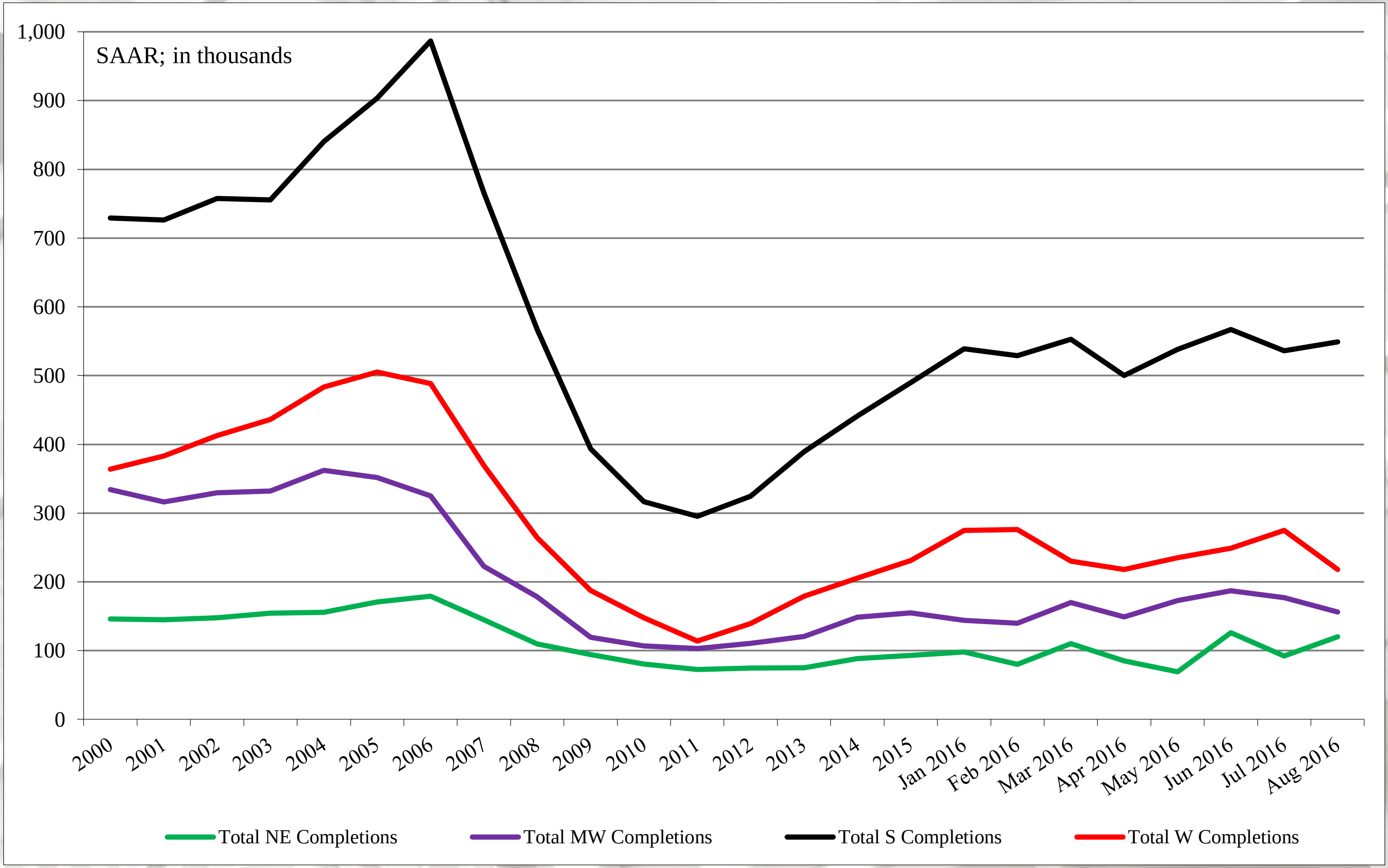
All data are SAAR; S = South and W = West.

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

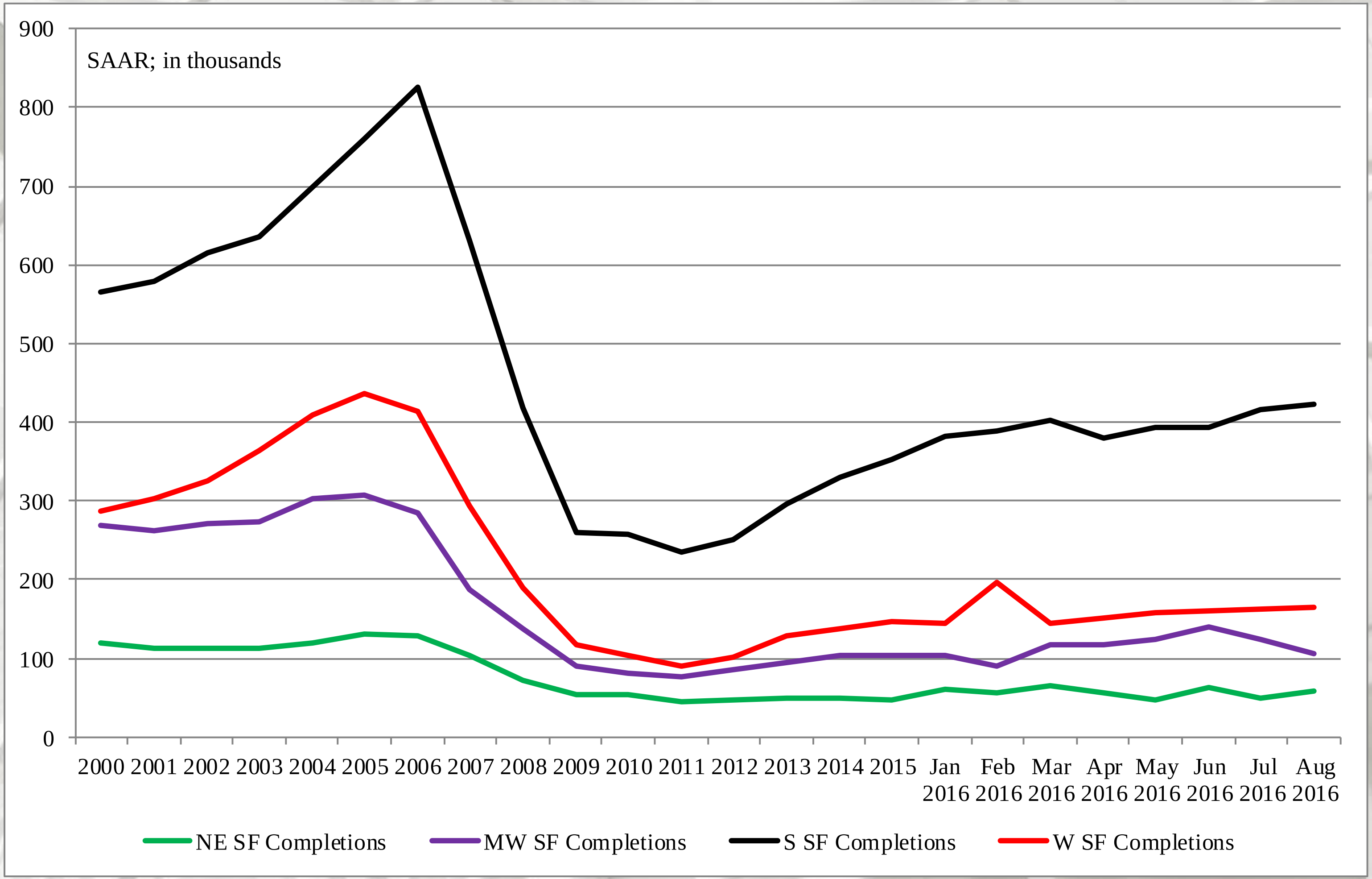
Total Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

Return TOC

SF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

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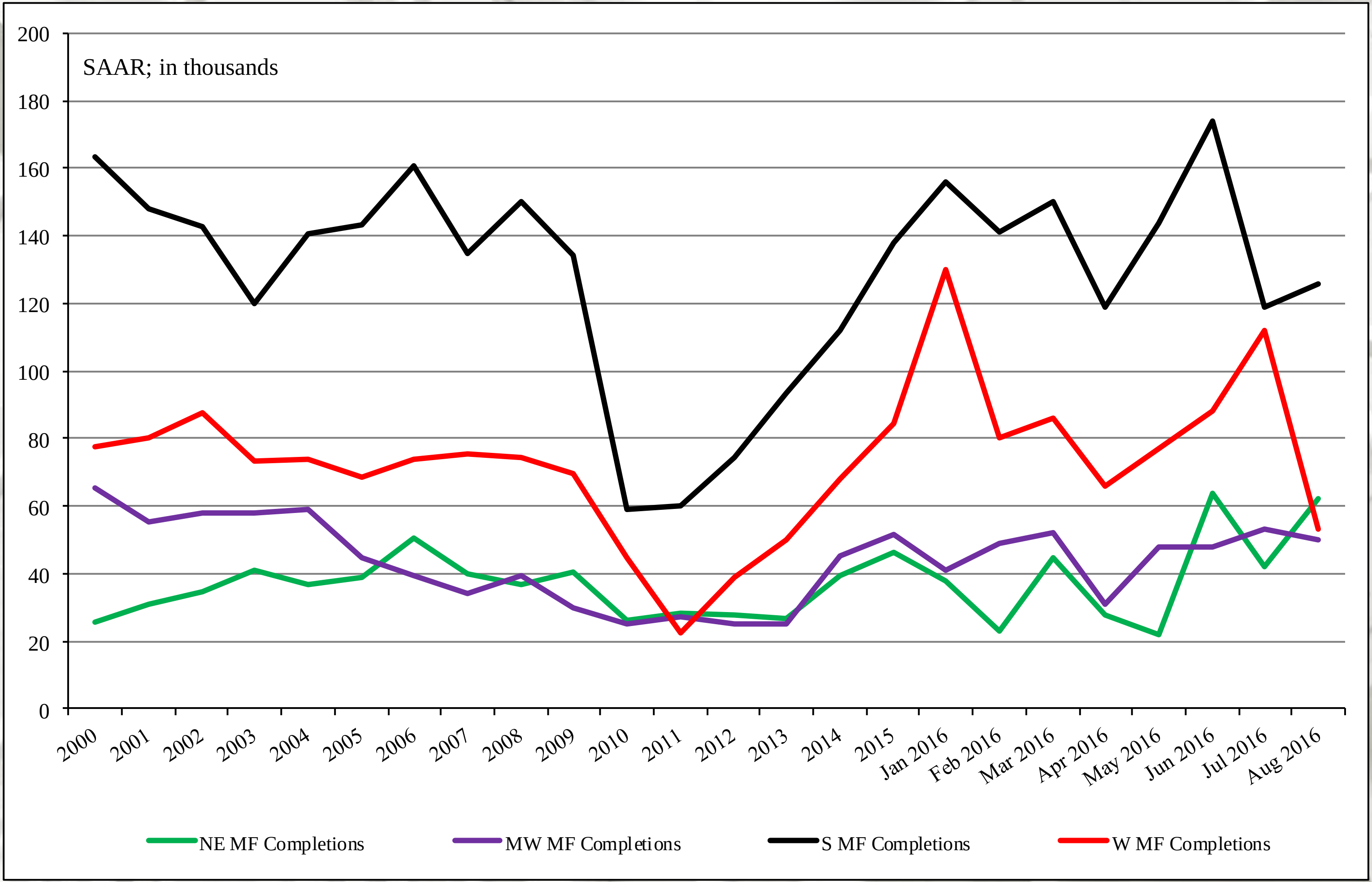
MF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 9/21/16

New Single-Family House Sales

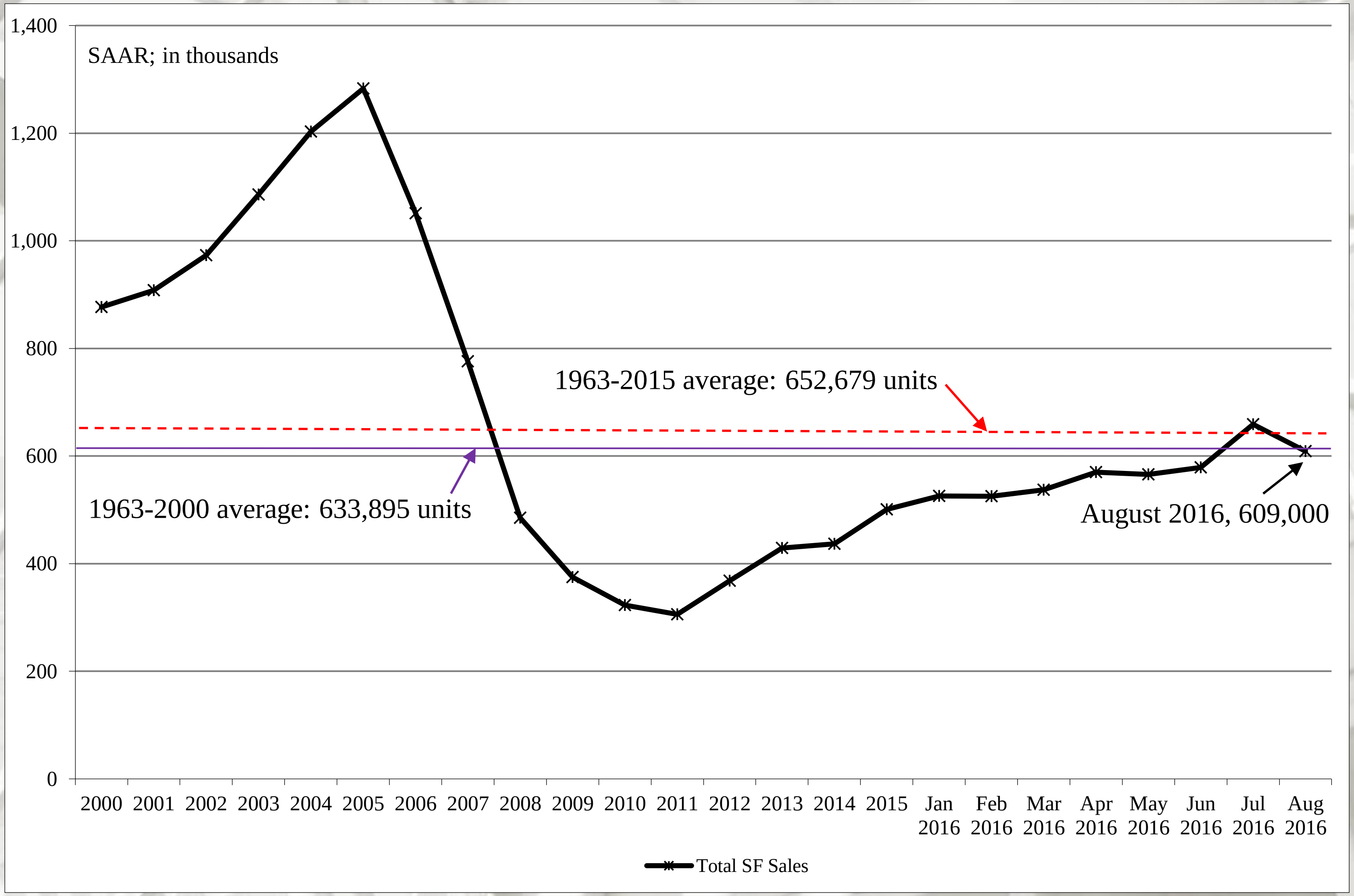
	New SF Sales*	Median Price	Mean Price	Month's Supply
August	609,000	$284,000	$353,600	4.6
July	659,000	$293,100	$352,000	4.2
2015	505,000	$300,200	$348,800	5.2
M/M change	-7.6%	-3.1%	0.5%	9.5%
Y/Y change	20.6%	-5.4%	1.4%	-11.5%

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

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

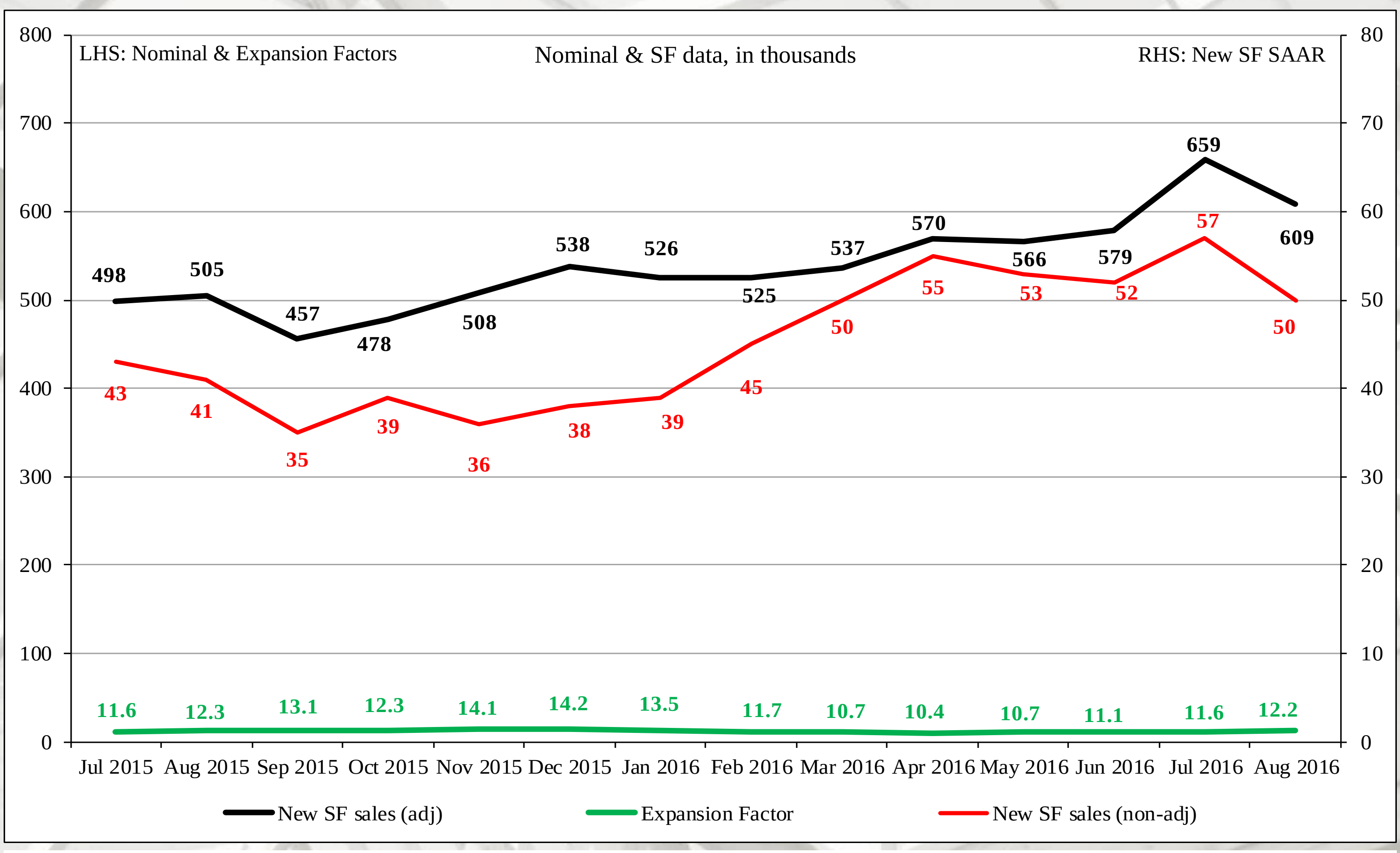
Return TOC

New SF House Sales



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

New SF House Sales



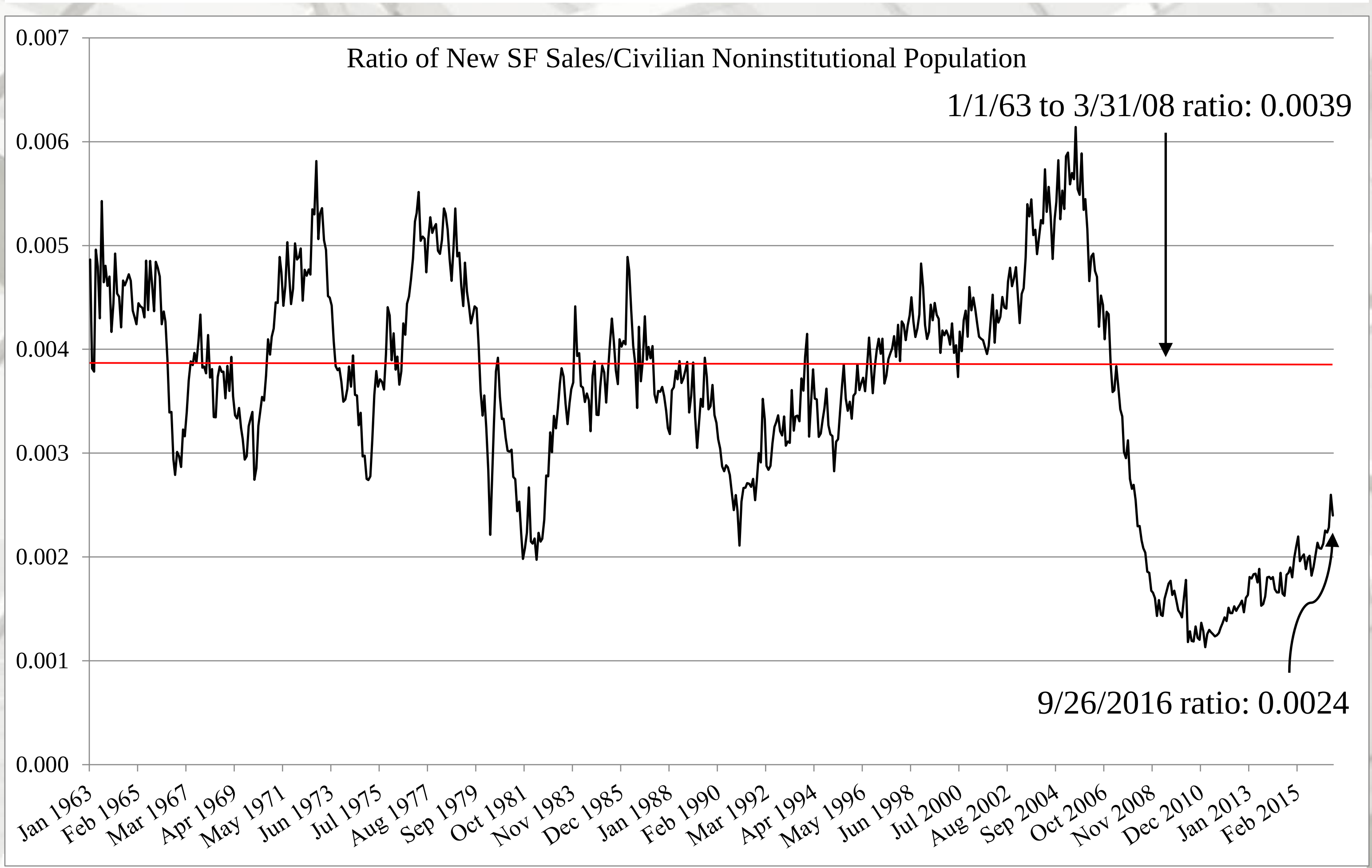
Nominal and Adjusted New SF Monthly Sales

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

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

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

New SF House Sales



New SF sales adjusted for the US population

From January 1963 to December 2007, the long-term ratio of new house sales to the US population was 0.0039 – in August 2016 it was 0.0024 – an 8.3% decline from July. From a population viewpoint, construction is less than what is necessary for changes in population (i.e., under-building).

Sources: http://www.census.gov/construction/nrs/xls/newressales.xls and The Federal Reserve Bank of St. Louis; 9/26/16

Return TOC

New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
August	23,000	81,000	343,000	162,000
July	35,000	83,000	391,000	150,000
2015	31,000	58,000	296,000	120,000
M/M change	-34.3%	-2.4%	-12.3%	8.0%
Y/Y change	-25.8%	39.7%	15.9%	35.0%

	< $150m	$150 - $199.9m	$200 - 299.9m	$300 - $399.9m	$400 - $499.9m	$500 - $749.9m	> $750m
August[1,2]	3,000	6,000	19,000	10,000	5,000	5,000	2,000
July	2,000	9,000	19,000	13,000	7,000	5,000	3,000
2015	2,000	6,000	12,000	10,000	5,000	4,000	2,000
M/M change	50.0%	-33.3%	0.0%	-23.1%	-28.6%	0.0%	-33.3%
Y/Y change	0.0%	50.0%	58.3%	30.0%	40.0%	25.0%	50.0%

All data are SAAR.

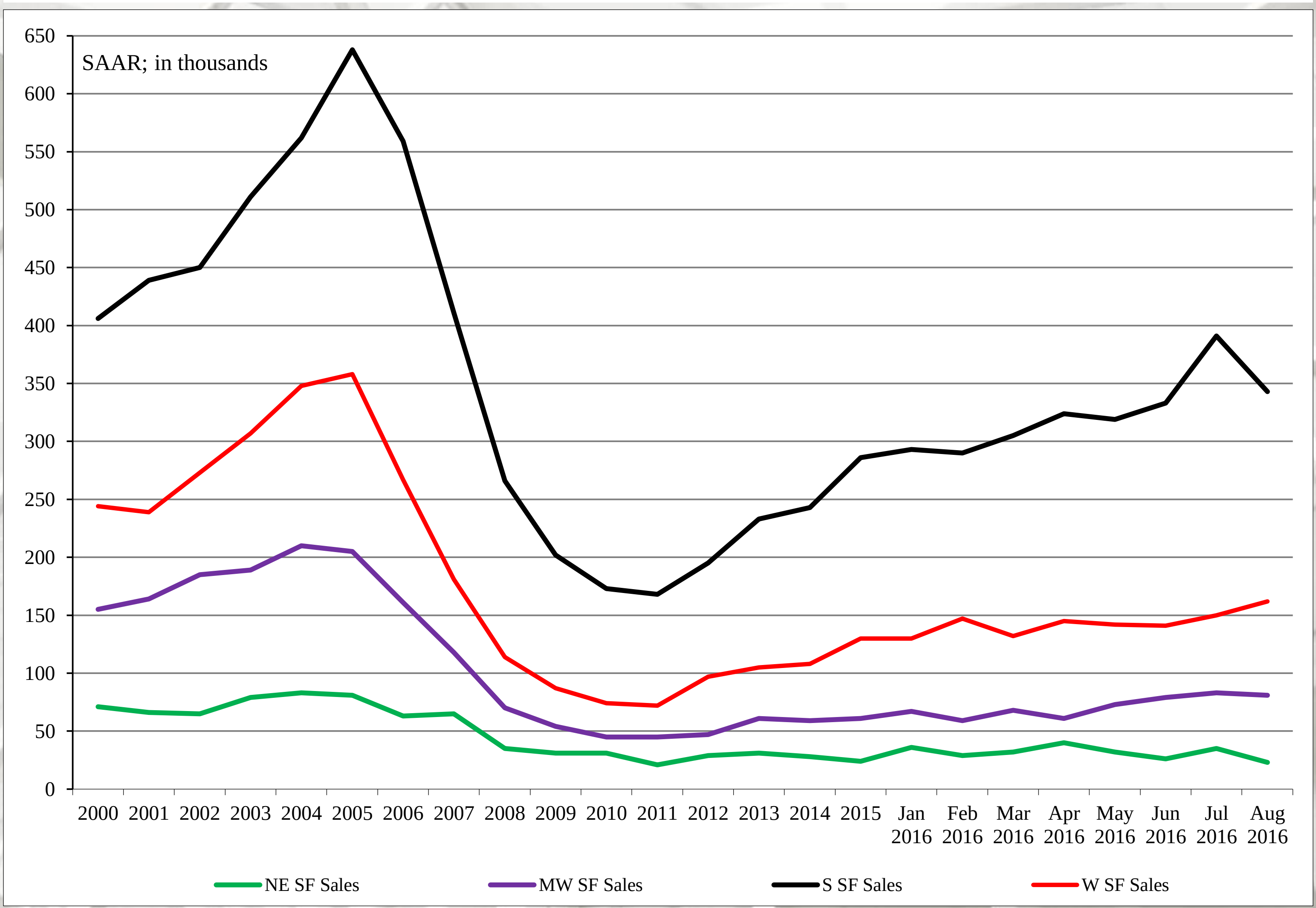
[1] Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

[2] Detail June not add to total because of rounding.

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

Return TOC

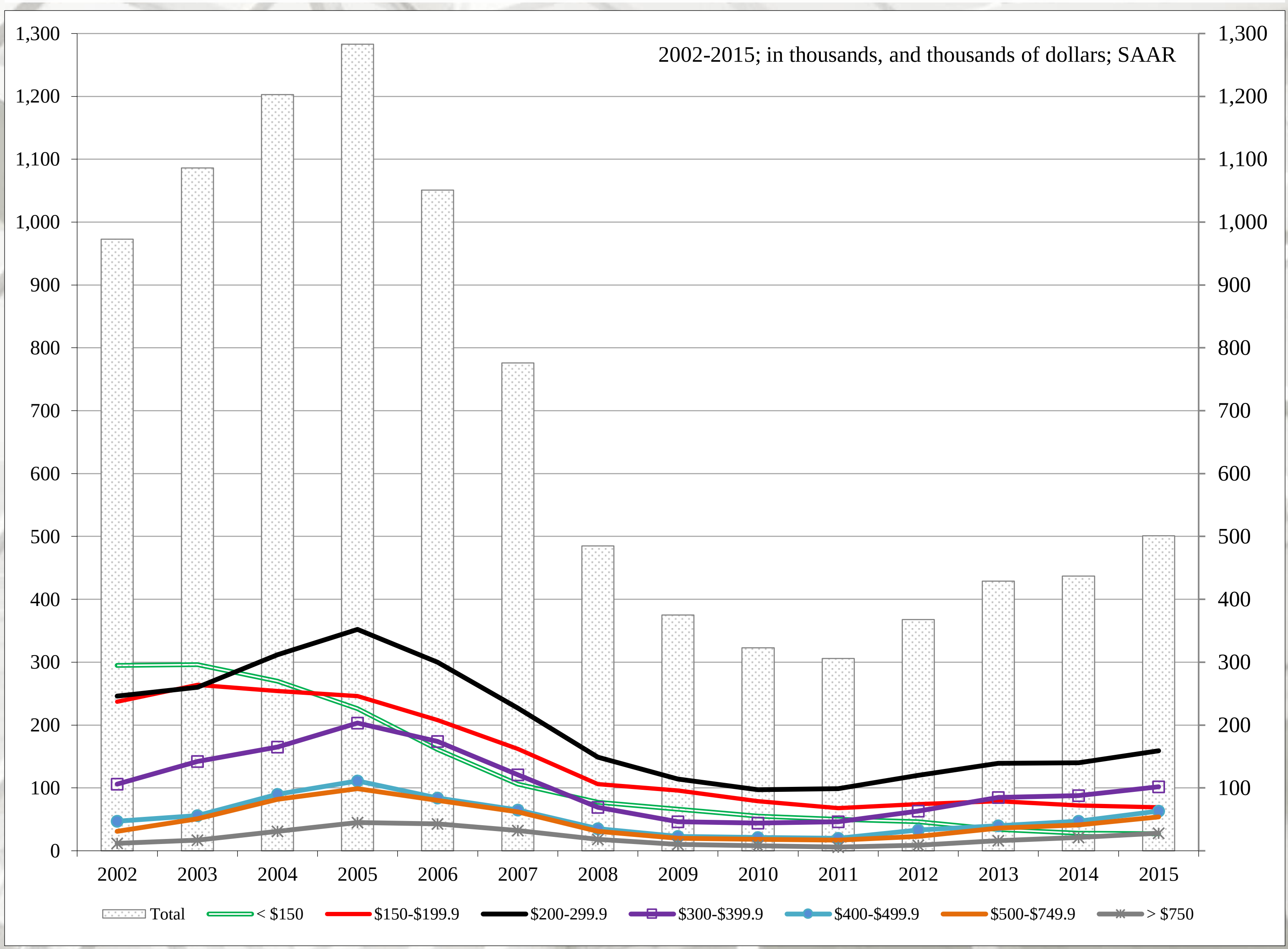
New SF House Sales by Region



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

Return TOC

New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 8/23/16

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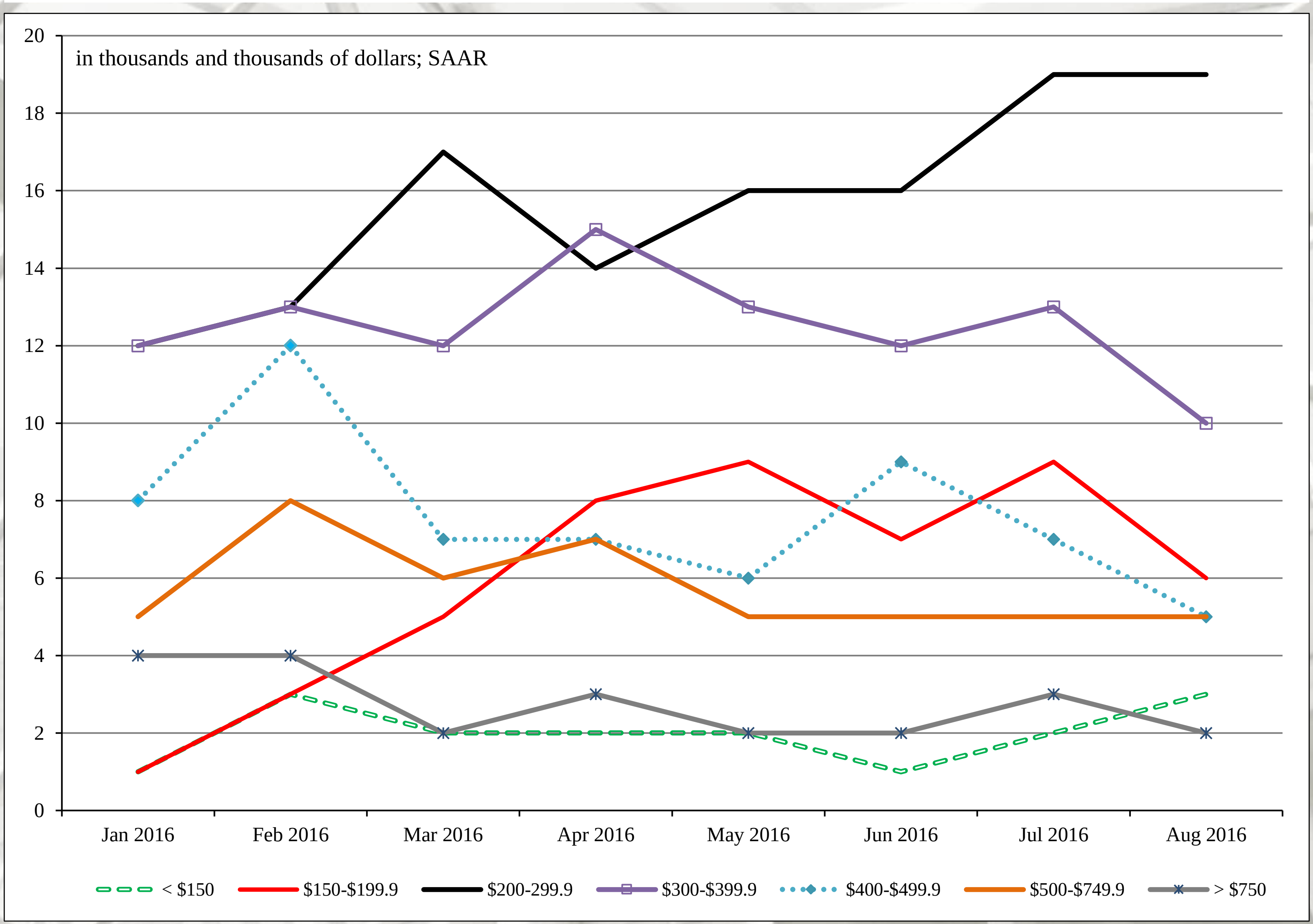
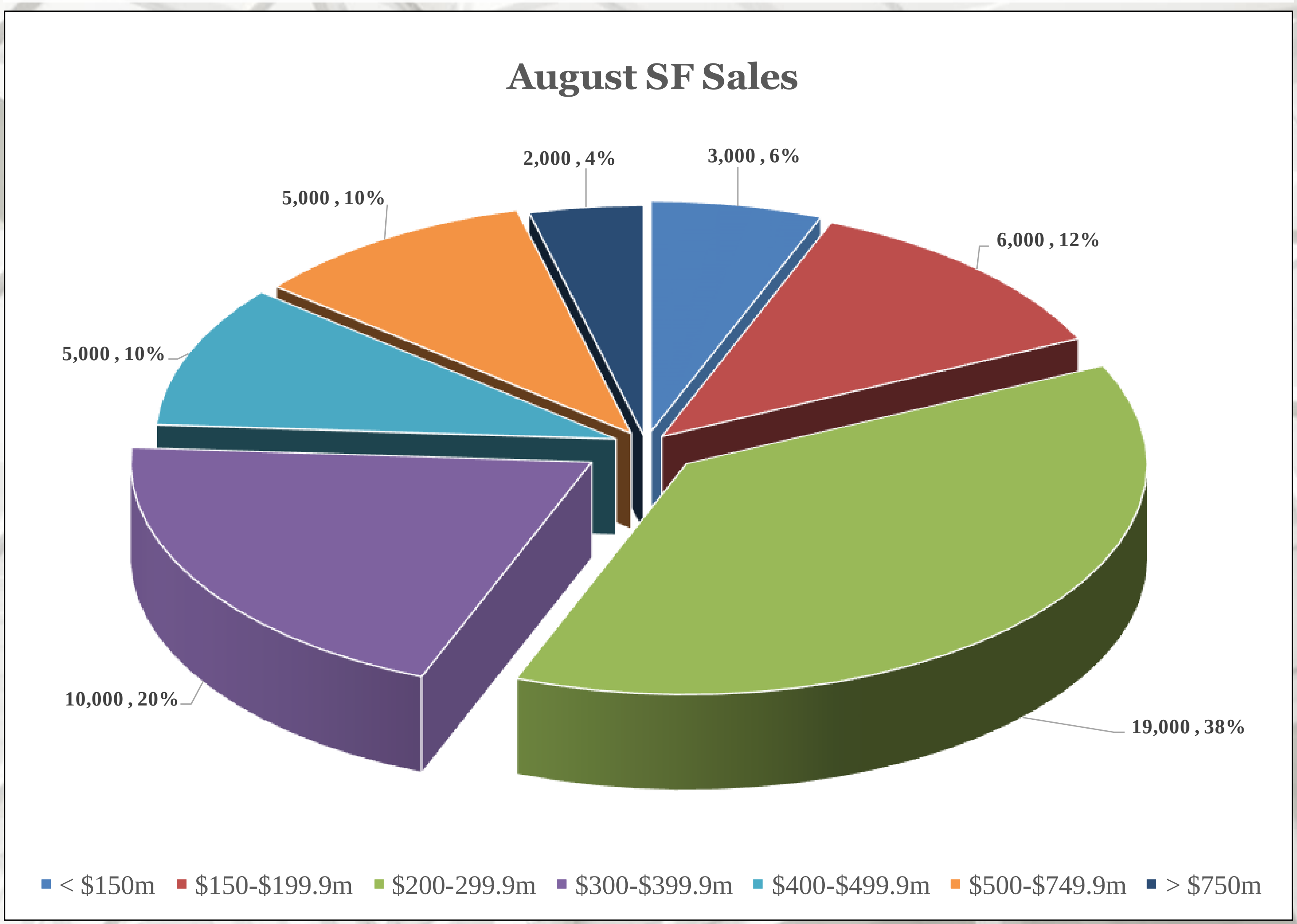
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

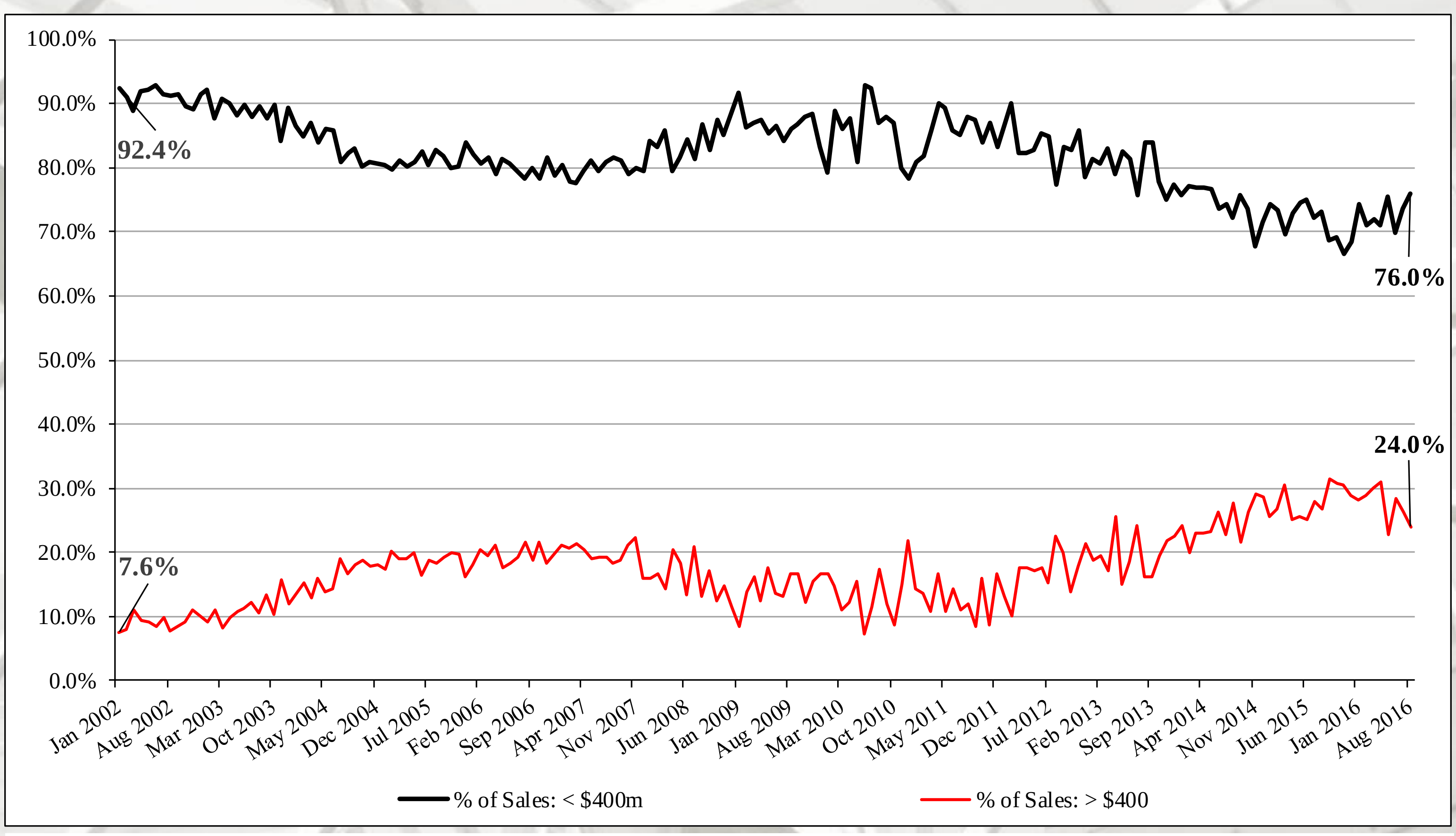
Return TOC

New SF House Sales



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 9/26/16

New SF House Sales



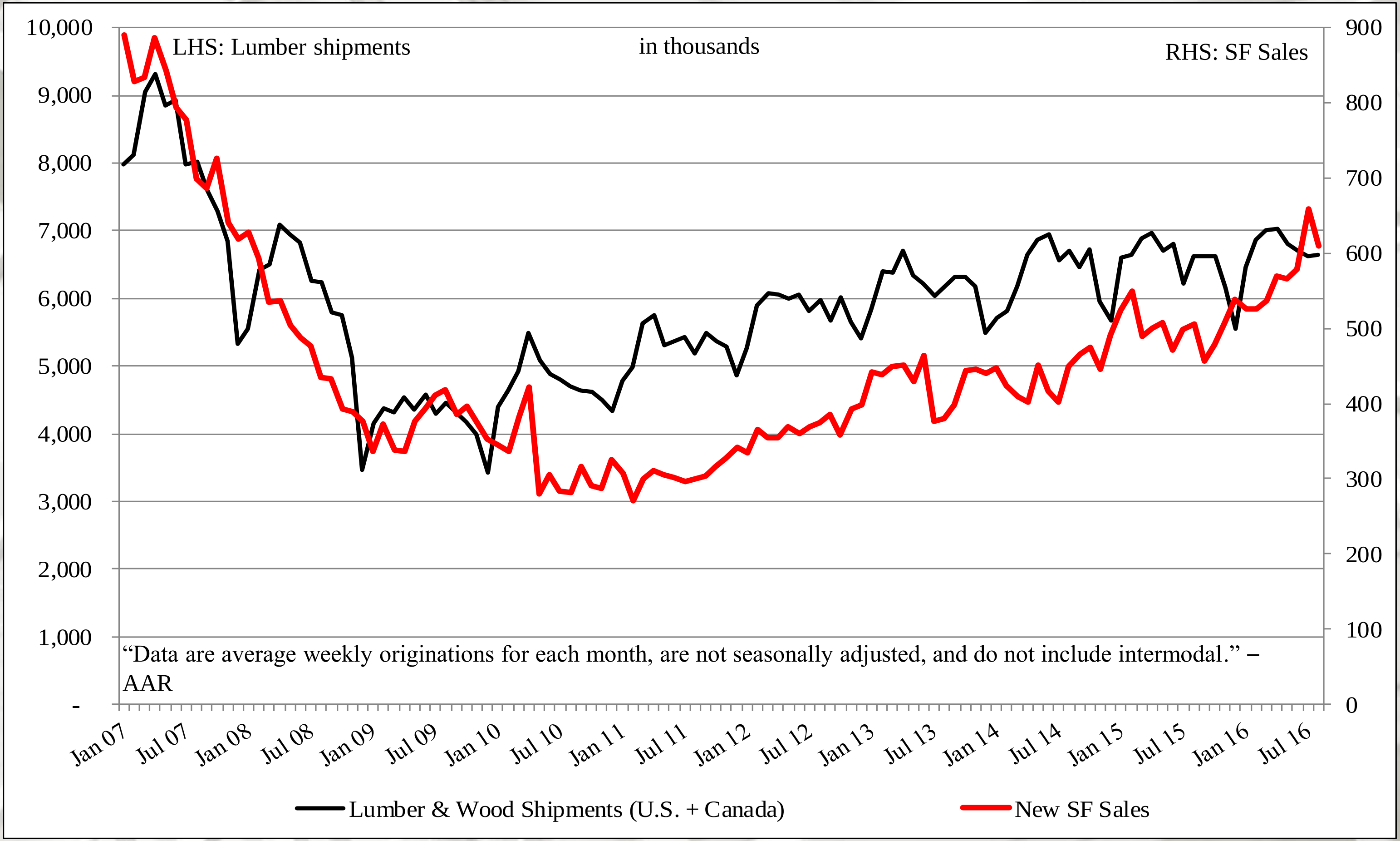
New SF Sales: 2002 – August 2016

The sales share of $400 thousand plus SF houses is presented above. Since 2011, the upper priced houses have and are garnering a greater percentage of sales. 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: http://www.census.gov/construction/nrs/xls/newressales.xls; 8/23/16

Return TOC

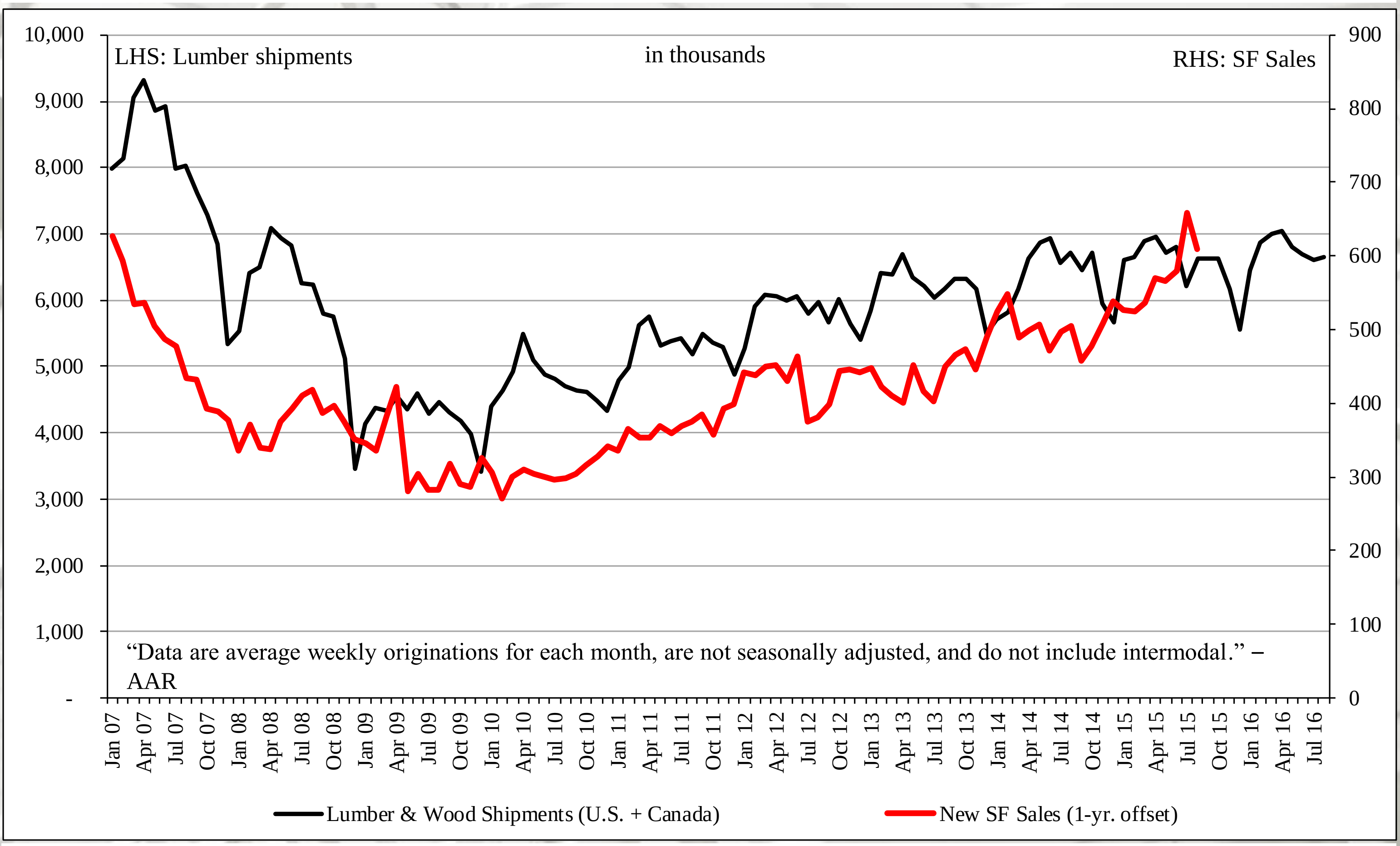
Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales



Sources: Association of American Railroads (AAR), *Rail Time Indicators* report 9/9/16; U.S. DOC-Construction; 9/26/16

Return to TOC

Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales: 1-year offset



In this graph, initially January 2007 lumber shipments are contrasted with January 2008 new SF sales through August 2016 new SF sales. The purpose is to discover if lumber shipments relate to future new SF house 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 9/9/16; U.S. DOC-Construction; 9/26/16

Return to TOC

August 2016
Construction Spending

2016 August Total Private Residential Construction:

$449.2 billion (SAAR)

-0.3% less than the revised July estimate of $450.4 billion (SAAR)
1.4% greater than the August 2015 estimate of $443.1 billion (SAAR)

August SF construction: $235.6 billion (SAAR)
-0.9% less than July: $237.9 billion (SAAR)
-1.5% less than August 2015: $239.3 billion (SAAR)

August MF construction: $62.0 billion (SAAR)
2.4% more than July: $60.5 billion (SAAR)
13.9% greater than August 2015: $549.4 billion (SAAR)

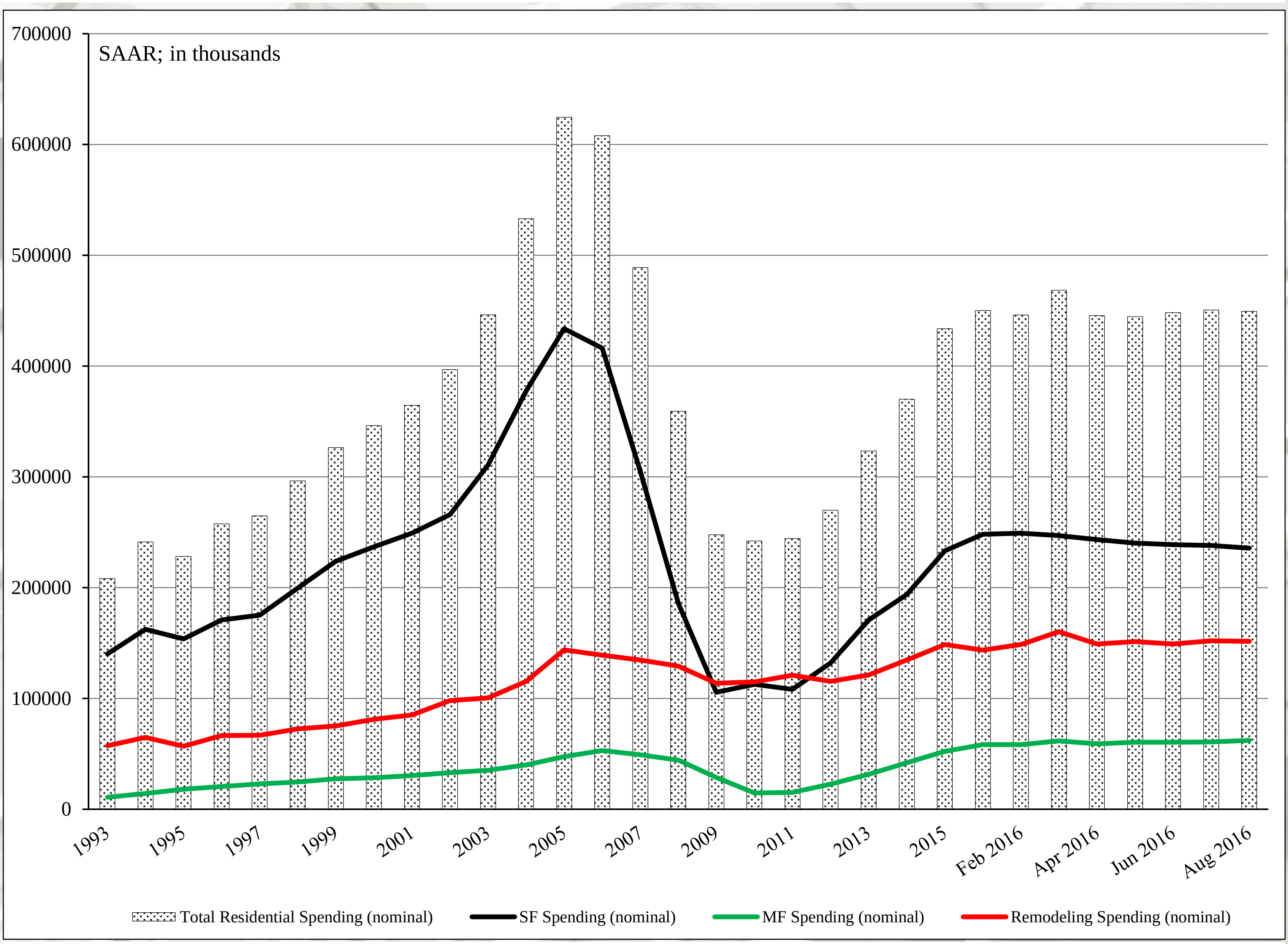
August Improvement[C] construction: $144.7 billion (SAAR)
-0.3% less than July: $151.2 billion (SAAR)
1.5% more than August 2015: $149.3 billion (SAAR)

[C] The US DOC does not report improvement spending directly, this is an 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; 10/1/16

Return TOC

Total Construction Spending (nominal): 1993-2016

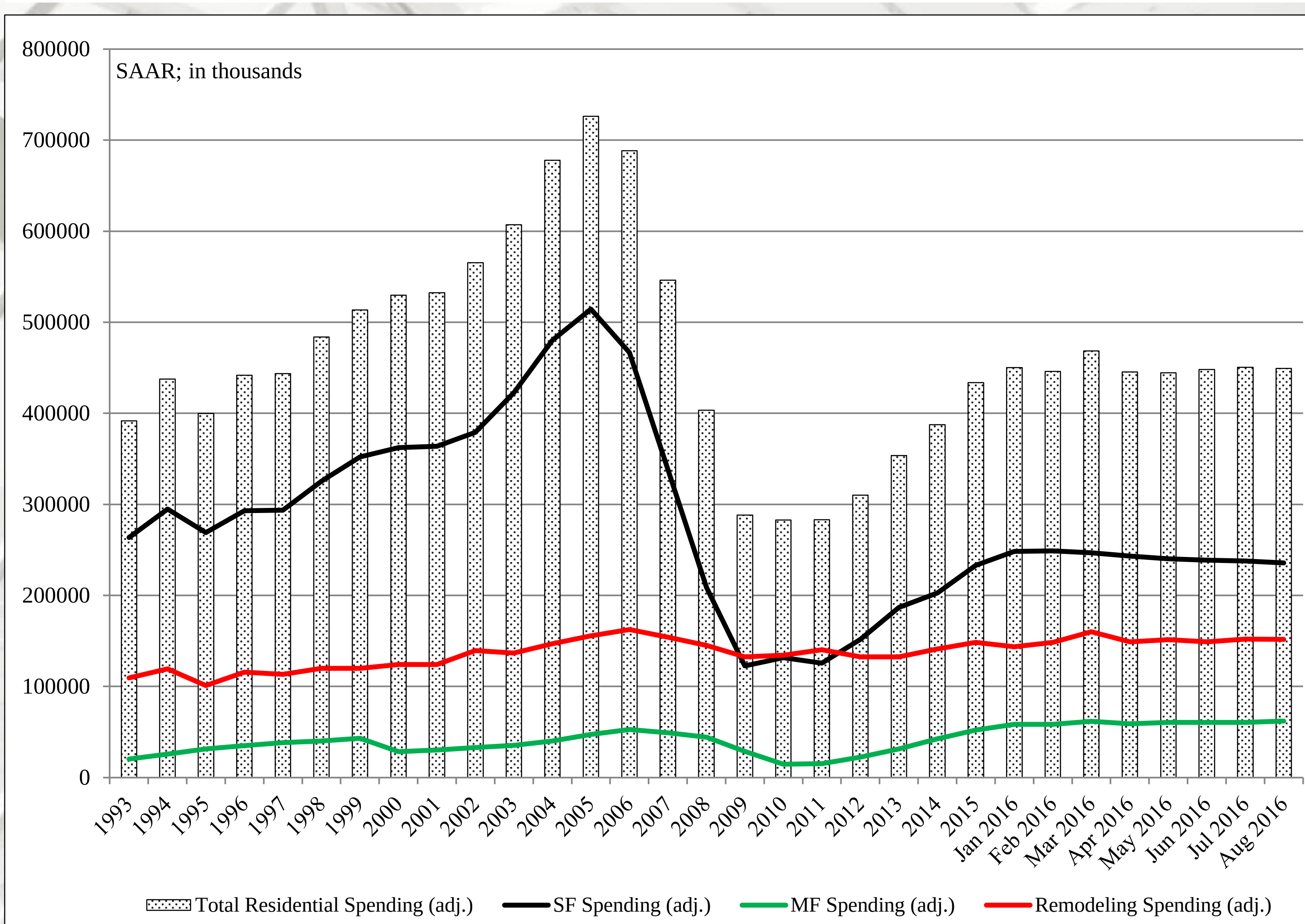


Reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 10/1/16

Return TOC

Total Construction Spending (adjusted): 1993-2016*

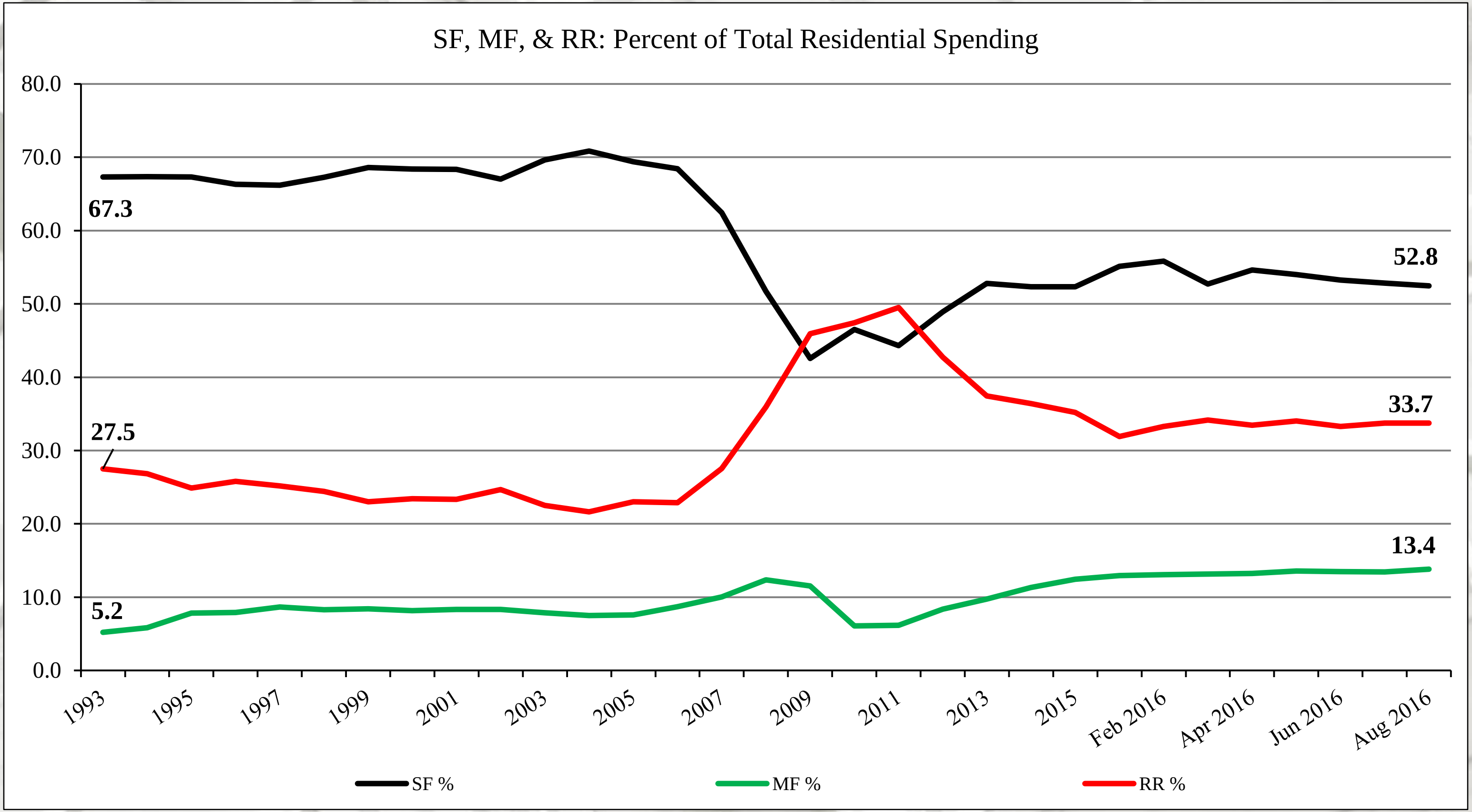


Reported in adjusted US$: 1993 – 2015 (adjusted for inflation, BEA Table 1.1.9); *January-August 2016 reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 10/1/16

Return TOC

Construction Spending Shares: 1993 to August 2016



Total Residential Spending: 1993 through 2006

SF spending average: 69.2 %

MF spending average: 7.5 %;

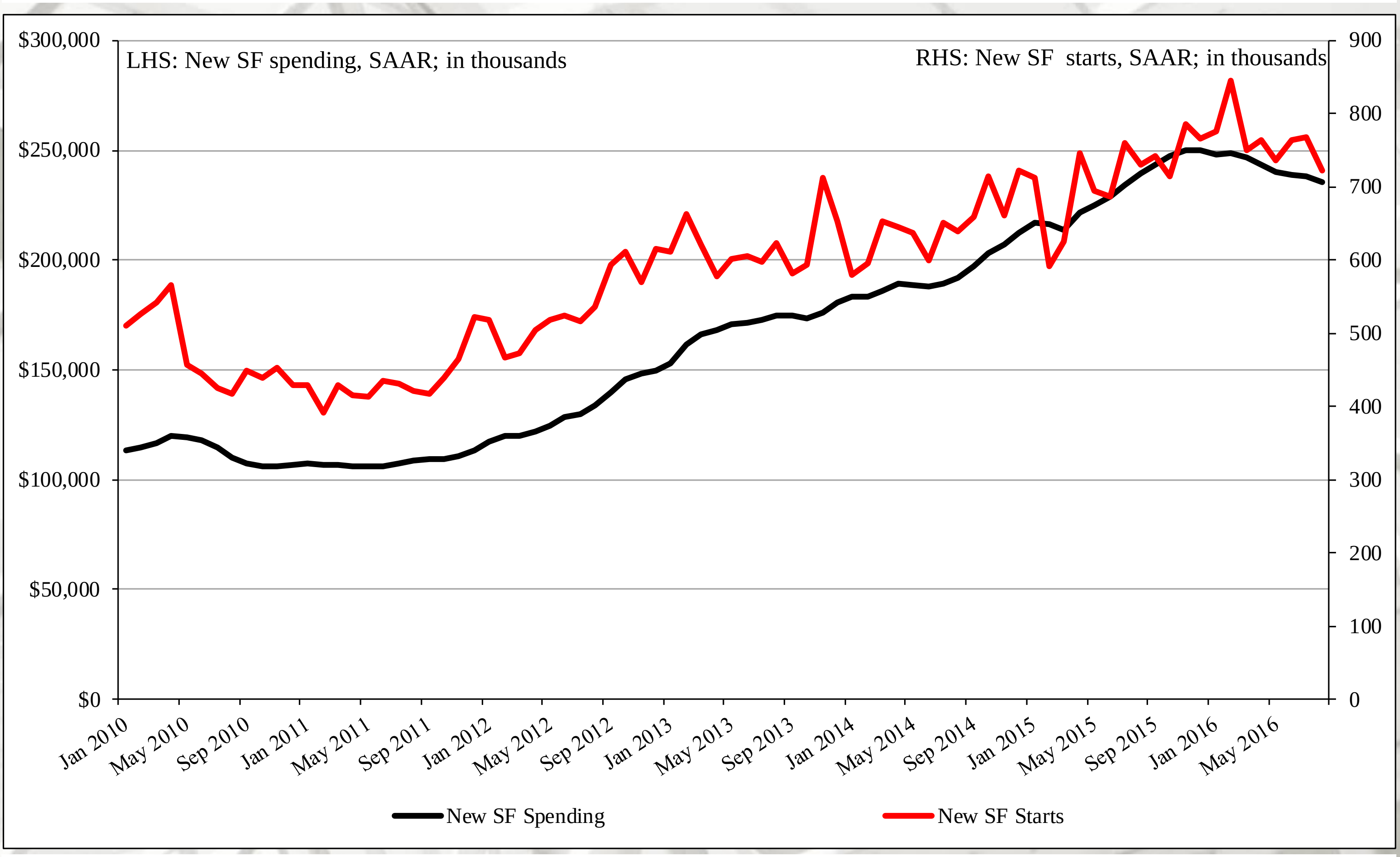
Residential remodeling (RR) spending average: 23.3 % (SAAR).

Note: 1993 to 2015 (adjusted for inflation, BEA Table 1.1.9); January-August 2016 reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 10/1/16

Return TOC

Construction Spending & Starts: 2010 to August 2016



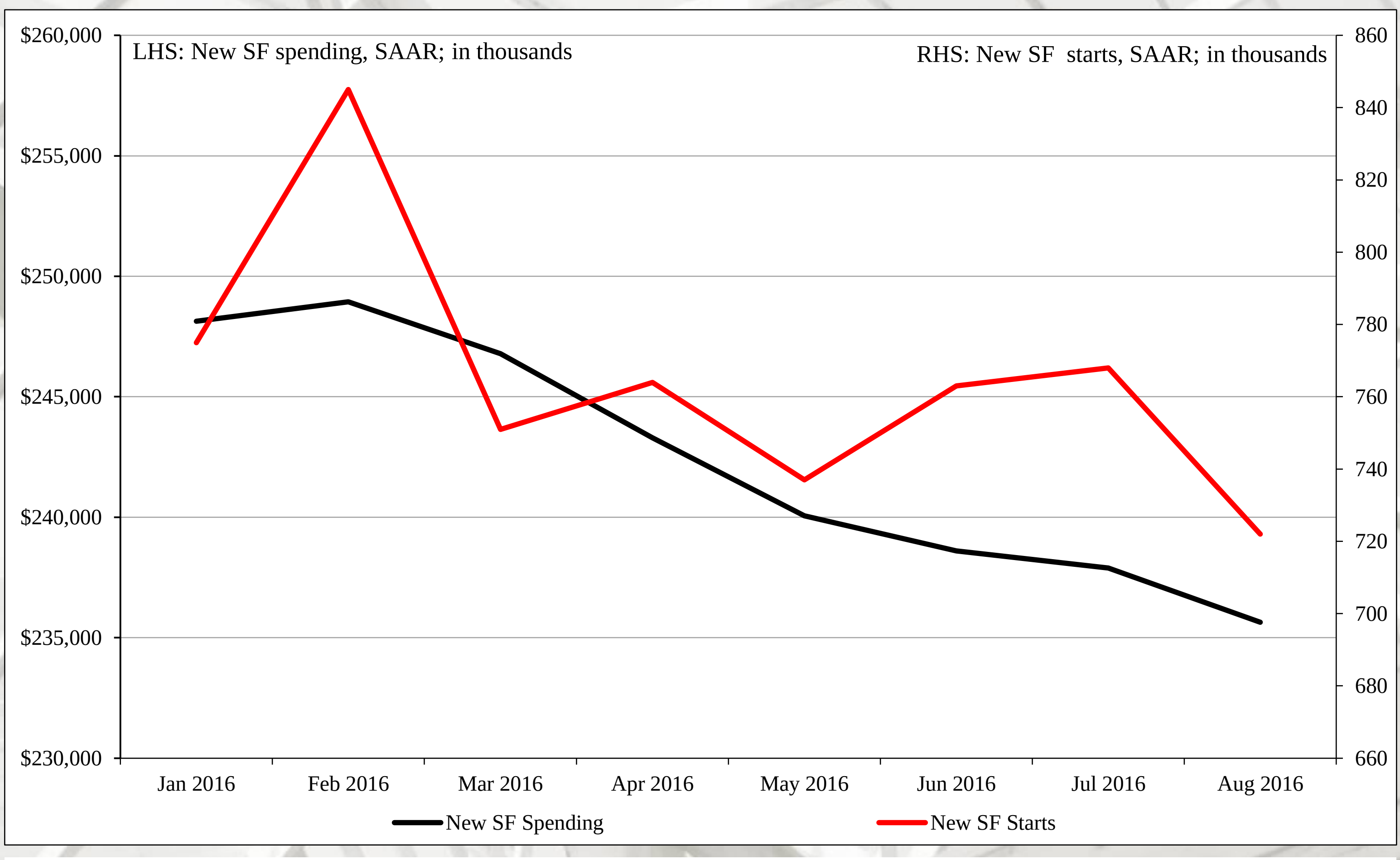
New SF Residential contrasted against New SF Starts: 2010 through 2016

In the above graph, new SF construction spending is compared to new SF starts. Generally, as SF starts increase so does spending. However, there are other factors involved: house size, amenities, lot price, location, etc.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and : http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 10/1/16-9/21/16

Return TOC

Construction Spending & Starts: 2016



New SF Residential contrasted against New SF Starts: 2010 through 2016

As presented above, it appears that the decline in spending corresponds with the decrease in starts. Other factors are involved as well; for instance, new SF house size (square feet) has declined since the beginning of 2106 and lower-priced new houses have increased in sales frequency.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and : http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 10/1/16-9/21/16

Return TOC

Existing House Sales

National Association of Realtors (NAR®)

August 2016 sales: 5.330 million houses sold (SAAR)

Distressed house sales: 5% of total sales –
(4% foreclosures and 1% short-sales);
5% in June and 7% in August 2015.

All-cash sales: 22% and 21% in July,
and 22% (August 2015).

Individual investors still purchase a considerable portion of "all cash" sale houses – 13% in August;
11% in July and 12% in August 2015.

62% of investors paid cash in August.

Source: NAR® http://www.realtor.org/news-releases/2016/09/existing-home-sales-soften-further-in-august; 9/22/16

Return TOC

Existing House Sales

	Existing Sales*	Median Price	Mean Price	Month's Supply
August	5,330,000	$240,200	$274,100	4.6
July	5,380,000	$243,300	$278,600	4.7
2015	5,290,000	$228,500	$271,900	5.1
M/M change	-0.9%	-1.3%	-1.0%	-2.1%
Y/Y change	0.8%	5.1%	4.0%	-9.8%

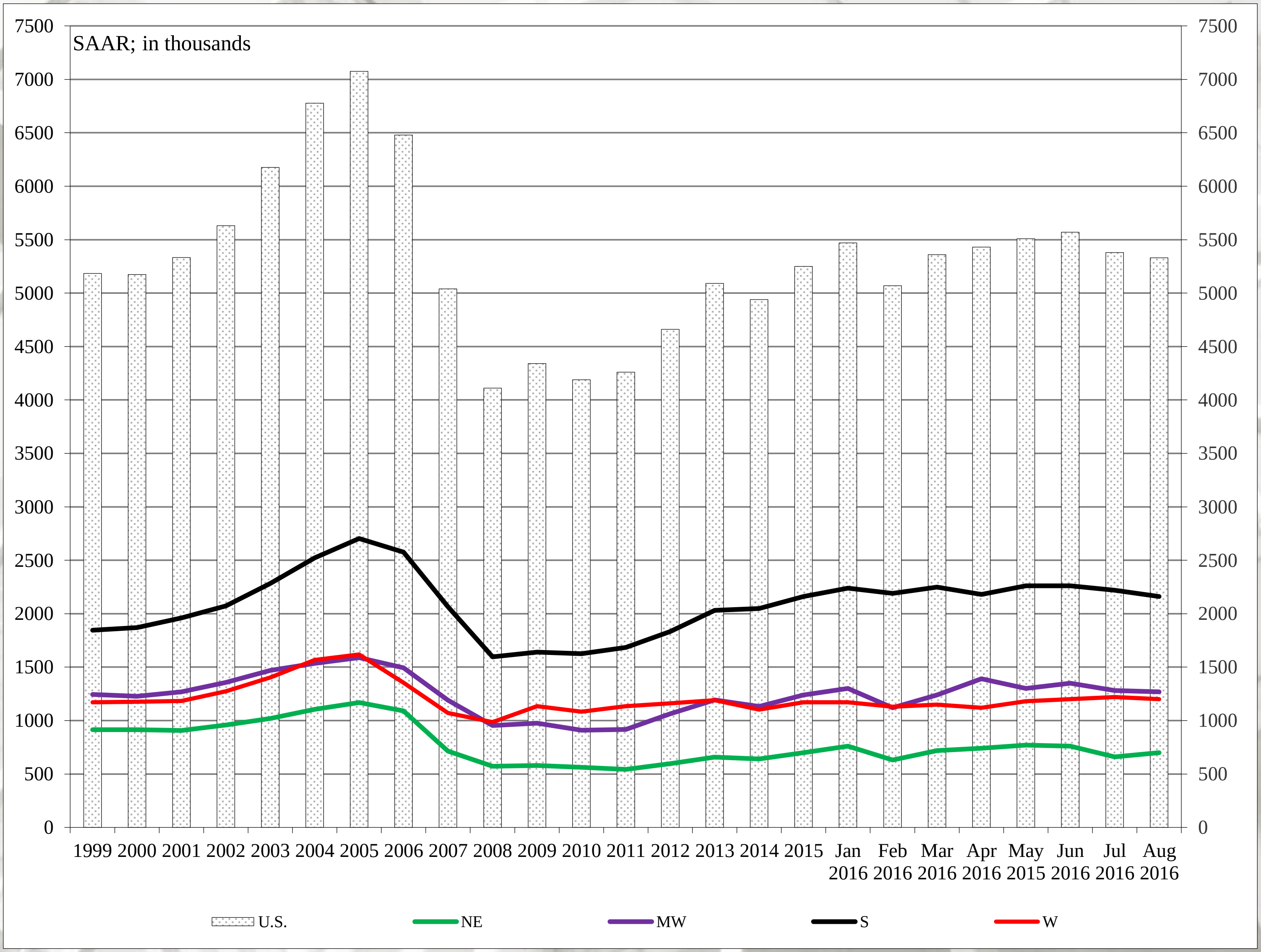
	NE Sales	MW Sales	S Sales	W Sales
August	700,000	1,270,000	2,160,000	1,200,000
July	660,000	1,280,000	2,220,000	1,220,000
2015	700,000	1,260,000	2,140,000	1,190,000
M/M change	6.1%	-0.8%	-2.7%	-1.6%
Y/Y change	0.0%	0.8%	0.9%	0.8%

* All sales data: SAAR

Source: NAR® www.realtor.org/topics/existing-home-sales; 9/20/16

Return TOC

Total Existing House Sales



Source: NAR® www.realtor.org/topics/existing-home-sales; 9/20/16

Return TOC

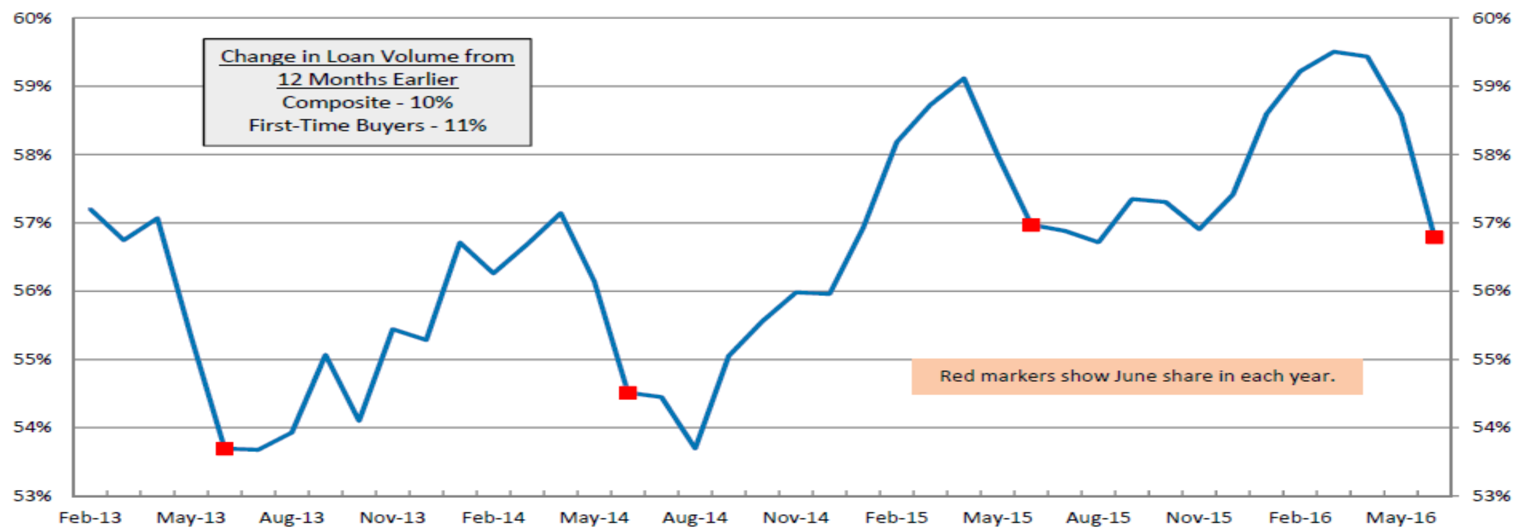
First-Time Purchasers

National Association of Realtors (NAR®)

31% of sales in August 2016 – 32% in July 2016 and 32% in August 2015.

American Enterprise Institute
International Center on Housing Risk

"The Agency First-Time Buyer Mortgage Share Index stood at 56.8 in June, slightly down from 57.0 a year ago. The first-time buyer share has risen over the past 3 years as gains in first-time buyer loan counts have outpaced other buyers." – Edward Pinto and Stephen Oliner, Codirectors, American Enterprise Institute International Center on Housing Risk

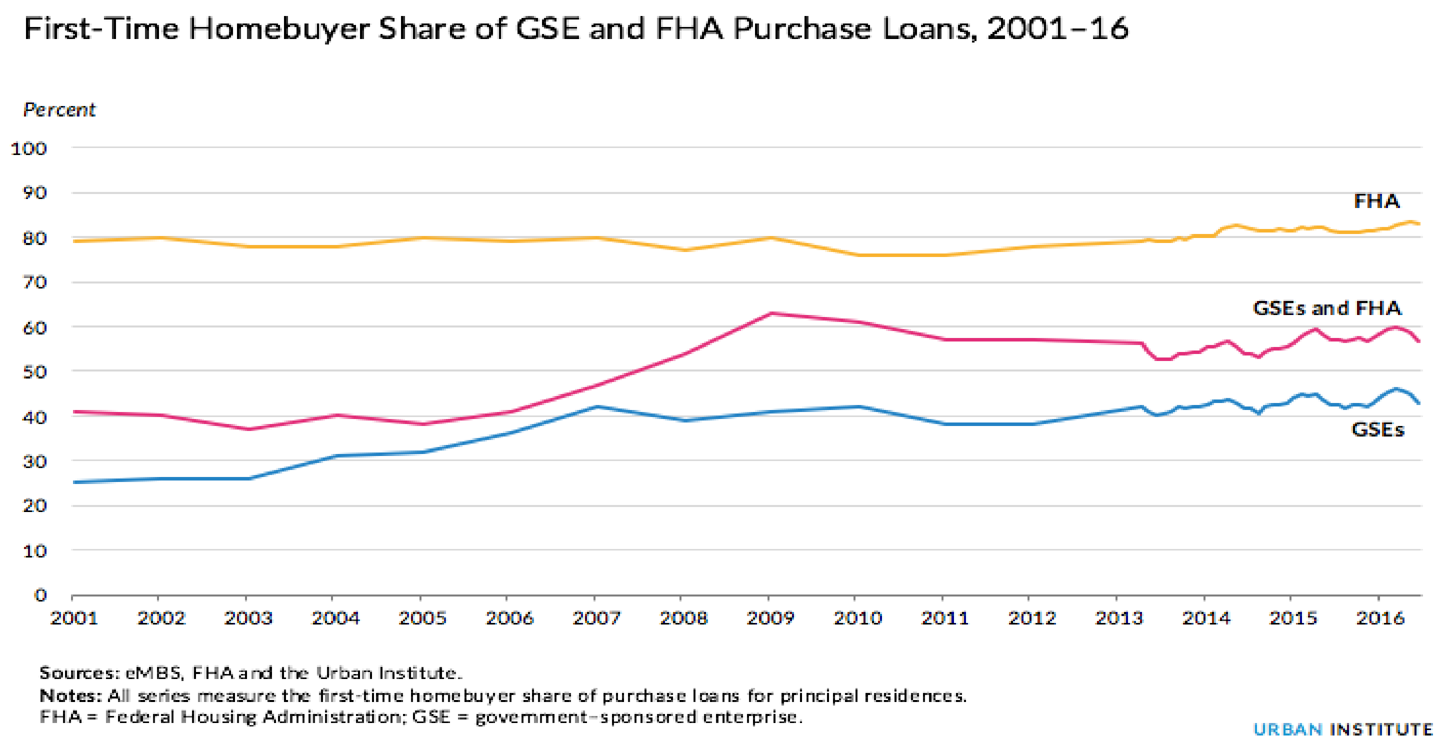


Note. Calculated as a share of primary owner-occupied home purchase mortgages with a government guarantee.
Dates refer to origination month.
Source: AEI International Center on Housing Risk, www.HousingRisk.org.

Sources: http://www.realtor.org/topics/existing-home-sales, 9/20/16; http://www.housingrisk.org, 9/26/16

Return TOC

First-Time Purchasers



Urban Institute

“The first-timers’ share of all government-sponsored enterprise (GSE) and Federal Housing Administration (FHA) loans declined from 59 to 57 percent between January and June 2016, and the share hasn’t been above 60 percent since hitting highs of 62 and 63 percent in 2009 and 2010.

In the past decade, however, first-timers have been doing well. They have consistently represented at least 53 percent of the market since 2008 compared with less than 48 percent between 2001 and 2007.” – Laurie Goodman et al., Codirector, Housing Finance Policy Center

Source: http://www.urban.org/urban-wire/do-we-have-generation-stuck-starter-homes, 9/26/16

Return TOC

First-Time Purchasers

Urban Institute

“What’s changed is the presence of repeat homebuyers in the market, the families who have lived in their starter home or their second or third home for a few years and are ready to buy a different, usually larger/more expensive home as a result of their increased equity and higher earning power.

In 2001, there were 1.8 million repeat homebuyers in the market, and while their numbers declined until 2008, there were always at least one million each year. In 2009, there were just under 700,000 repeat homebuyers. By 2015, this number had recovered to just over 900,000 but this is still half the number from 2001.

What’s happened to the number of first-timers in that same period? There were 1.3 million in 2001 and 1.3 million in 2015. There has been some variation throughout the 14 years, but much less volatility than for repeat homebuyers.

…….

So the next time you hear that first-time homebuyers have it hard these days, you’ll know better. First-time homebuyers represent a higher percentage of the market than they did before the financial crises. It’s the homebuyers who bought before the boom and hoped to cash in on price appreciation to trade up to their dream home who are struggling these days. While their numbers are rising, we do appear to have a generation stuck in their starter homes.” – Laurie Goodman et al., Codirector, Housing Finance Policy Center

Source: http://www.urban.org/urban-wire/do-we-have-generation-stuck-starter-homes, 9/26/16

United States House Sales

Week of	Week	4-Week Avg.
9/4/16	-9.7%	-3.3%
9/11/16	14.0%	-0.1%
9/18/16	-0.2%	0.2%
9/25/16	-1.5%	1.2%

Appraisal volume trudges through September

Only one week in September posted a rise

"…the four-week average for the month … 1.2%. Kevin Golden, director of analytics with a la mode, added that the NAVI has fallen five of the last six weeks, with the only exception being the rebound week after the slow Labor Day week.

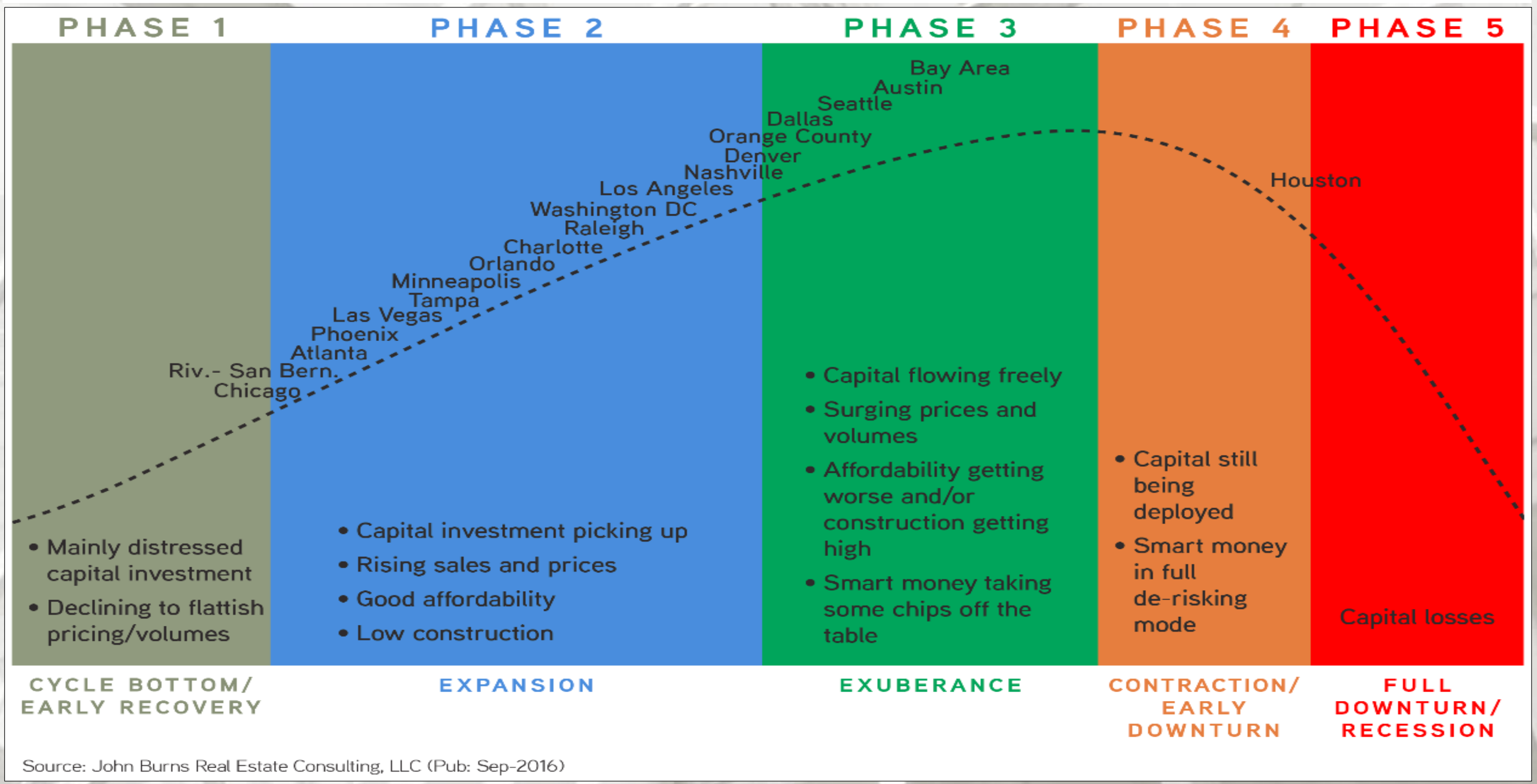
Appraisal volume is an indicator of market strength and has some advantages over mortgage applications. Fallout is less for appraisals since they are ordered later in the mortgage process after credit worthiness is determined and there are few multiple-orders." – Brena Swanson, Digital Reporter, HousingWire.com

Source: http://www.housingwire.com/articles/38203-appraisal-volume-trudges-through-september; 10/4/16

United States Housing

The Housing Cycle: Market by Market

"*Where are we in the housing cycle?* This, by far, is the question we get asked the most. It's often framed with the metaphor of a nine-inning baseball game: *What inning are we in?* This question implies that markets move in unison, driven by similar factors. In reality, every market has its own unique set of industry influences, supply impediments (or lack thereof), and demographic drivers. While some markets took it on the chin during the last cycle, many others were left relatively unscathed. To better answer the cycle question, we examined all of these influences across the 20 largest new home volume markets. I break down our findings below." – Rick Palacios Jr., Director of Research, John Burns Real Estate Consulting



Source: https://www.realestateconsulting.com/stay-informed/building-market-intelligence/; 9/22/16

Return TOC

United States Housing

The Housing Cycle: Market by Market

"**Phase 1: Cycle Bottom / Early Recovery**

Declining to flattish home price and sales trends remain the norm, and investors can still find distressed opportunities. Only Chicago remains in the Early Recovery phase. Home values there are 23% below prior peak, and new home sales lag a whopping 85% below prior peak. Chicago's economy continues to underperform, hampered by underperforming sectors such as manufacturing, financial services, and government. Lastly, budget and pension problems increase the likelihood of tax increases down the road — a risk many local builders/developers/homebuyers aren't interested in taking.

Phase 2: Expansion

Capital investment picks up in the Expansion phase, accompanied by rising home values and sales trends. Affordability is good, and construction activity has reached healthy levels. Many of our clients today are laser-focused on these geographies, continuously adding to their investments in these markets. Job growth has come back nicely, with the lion's share of Expansion markets recovering all of the jobs lost during the Great Recession. Prices have yet to rebound massively, with home values roughly 20%–30% below prior peak in markets such as Las Vegas, Riverside-San Bernardino, Phoenix, Orlando, and Tampa. Investment risk also remains fairly muted. Our Housing Cycle Risk Index™ (measuring demand/supply/affordability within each market) indicates low to very low risk levels in all Phase 2 markets except Denver, Nashville, and Orange County. All three markets have nearly reached the Exuberance phase." – Rick Palacios, Director of Research, John Burns Real Estate

Source: https://www.realestateconsulting.com/stay-informed/building-market-intelligence/; 9/22/16

Return TOC

United States Housing

The Housing Cycle: Market by Market

"Phase 3: Exuberance

Capital has flowed freely for several years now in these markets. Prices and sales volumes have surged, and smart money is now investing more cautiously. Austin, Dallas, the Bay Area, and Seattle all fit this description. It's important to note that Texas markets never shot up to the extent that Phase 1 and Phase 2 markets did during the mid-2000s. Home values in both Austin and Dallas barely budged during the Great Recession, falling a modest 3%. Since then, prices have been on a tear, rising almost 50%. Job growth has also been phenomenal, with Dallas and Austin now possessing roughly 20% and 30% more jobs than during their prior peaks. Higher-paying jobs in tech, health care, and construction have driven this increase.

Other Phase 3 markets, such as the Bay Area and Seattle, didn't quite experience the run-up that other markets did during the subprime heyday. Rather, their economies were still recovering from the dot-com bust, with job losses stretching from 2001–2004. Tech has since entered a renaissance: surging job growth, booming construction activity, and sky-high home prices have become the norm in these markets. Along with a possible tech slowdown, our biggest concern in all Phase 3 markets is lack of affordability. Already we are beginning to see signs that look eerily familiar to prior boom/bust cycles. Builders in more affordable spillover markets such as Sacramento note a surge in transplants. Bay Area buyers are cashing out or are simply priced out of buying close to where they work." – Rick Palacios, Director of Research, John Burns Real Estate

Source: https://www.realestateconsulting.com/stay-informed/building-market-intelligence/; 9/22/16

Return TOC

United States Housing

The Housing Cycle: Market by Market

"Phase 4: Contraction / Early Downturn

Only Houston has entered the Contraction phase. Oil's move from $100+/barrel to just $45 has resulted in job growth falling from 100,000 jobs per year to less than 10,000. Construction activity has pulled back, particularly in apartments. Higher price point homes have felt the brunt of the downturn, while lower price points have held up remarkably well. We believe Houston will remain in Phase 4 through 2017 and will most likely avoid the full-fledged downturn/recession associated with Phase 5.

Phase 5: Full Downturn / Recession

Capital losses are the norm and are typically unavoidable at this point in the cycle. At the moment, none of the major new home markets are in recession.

Takeaways

Our job is to help our clients decide when and where to place their investment chips throughout the cycle. We do this by objectively assessing risk/return profiles in housing markets throughout the country. We believe that the vast majority of markets remain in the Expansion phase. Plenty of innings are left to be played this recovery in these markets. There are a handful of markets that appear long in the tooth based on our market-specific definition of the housing cycle. In baseball terms, we're pretty close to the 7th-inning stretch in Austin, Dallas, the Bay Area, and Seattle. These four markets are currently some of the strongest and most profitable markets in the country for our clients — and could very well remain so for quite some time, especially if rates stay low and tech avoids a major correction." – Rick Palacios, Director of Research, John Burns Real Estate

Source: https://www.realestateconsulting.com/stay-informed/building-market-intelligence/; 9/22/16

Return TOC

United States Housing

Why 'Starter Homes' Aren't What They Used to Be

Buying the second home first

"A starter home is "smaller, it's cheaper and in an area that might not be in an area where you eventually want to settle down," says Dr. Issi Romem, chief economist for BuildZoom, a real estate construction marketplace. But these days, first-time buyers aren't choosing starter homes.

That's partly because novice homeowners have become "a financially select group," according to Romem. "Not everyone who would have become a first-time homebuyer a few years ago can become one now," he says.

Stagnant wages, rising home prices and tight housing inventory are skewing the population of buyers toward higher earners — and they're buying bigger homes. In fact, in 2013, first-time buyers purchased homes with an average 1,845 square feet, while the average home in the U.S. is just 1,819 square feet, according to Romem's analysis of data from the Census Bureau's American Housing Survey.

So those homebuyers who probably would have been looking for the lowest-end homes 10 years ago during the housing boom are today just not able to buy. And those that are able to buy are looking further upmarket," Romem says." – Hal Bundrick, Staff Writer, NerdWallet

Source: https://www.nerdwallet.com/blog/mortgages/why-starter-homes-arent-used; 9/22/16

Return TOC

United States Housing

Why ‘Starter Homes’ Aren’t What They Used to Be

Your first and last home

“Rather than buying a starter home and planning to upgrade in five years or so, first-time homeowners are buying and staying put, according to research conducted by the National Association of Realtors.

“When they do purchase, they’re planning on living there longer than buyers that we’ve seen in the past,” says Jessica Lautz, NAR’s managing director of survey research. “They’re expecting to live there 10 years.”

That trend is borne out in another survey, fielded by Bank of America in early 2016. The research found that 75% of first-time buyers would prefer to skip the starter home stage and find a house that meets their present and future needs. And more than one-third of those surveyed (35%) said they intended to be “one and done” — actually planning to retire in their first home.” – Hal Bundrick, Staff Writer, NerdWallet

Source: https://www.nerdwallet.com/blog/mortgages/why-starter-homes-arent-used; 9/22/16

Return TOC

United States Housing

Why ‘Starter Homes’ Aren’t What They Used to Be

Saving the starter home

“So is this the end of the starter home? Romem offers one way to prevent them from going the way of wall-to-wall carpeting.

I think that one solution for people who are finding it hard to afford a home today is to seriously consider which city they want to live in,” he says. “It’s extremely hard to be a first-time homebuyer in the expensive coastal cities — not just in San Francisco, but in L.A. and Seattle, and on the East Coast as well.”

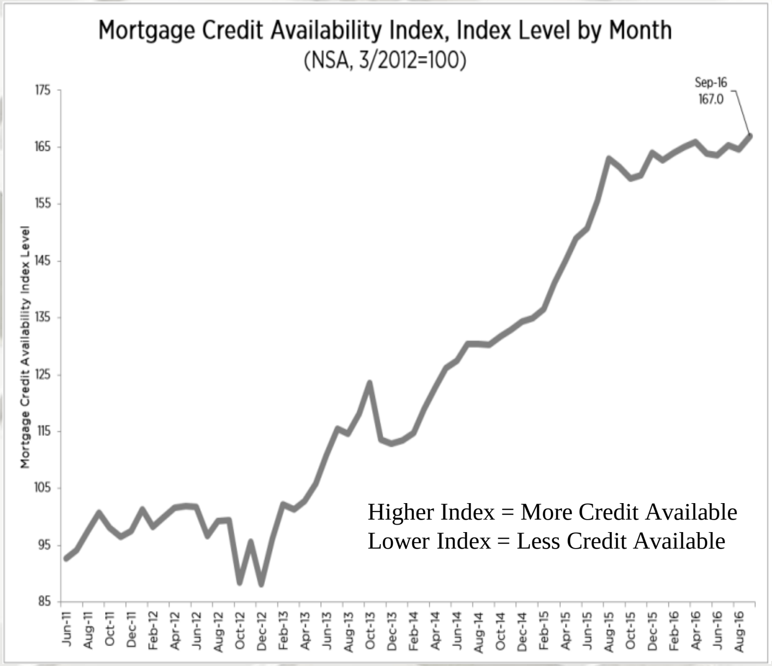
He suggests would-be homeowners consider more affordable locales, such as Texas, Atlanta or parts of the Midwest.

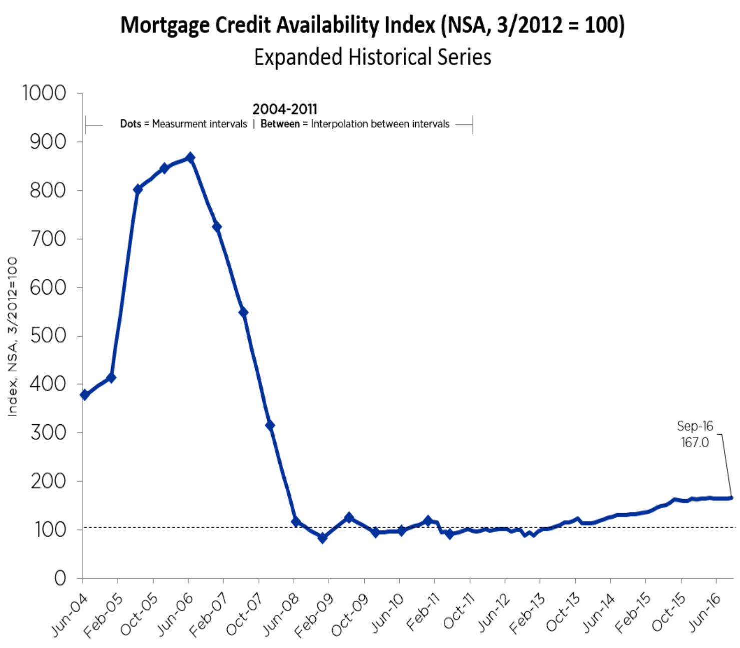
It’s a big deal to move, but that can make the difference between being able to buy a home and being a renter until the day you retire,” he says.” – Hal Bundrick, Staff Writer, NerdWallet

Source: https://www.nerdwallet.com/blog/mortgages/why-starter-homes-arent-used; 9/22/16

Return TOC

Mortgage Credit Availability





Mortgage Credit Availability Decreases in August

"The MCAI increased 1.4 percent to 167.0 in September. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit.

The increase in credit availability in September was driven by more investors offering streamlined refinance programs to borrowers with USDA and FHA loans. Streamline programs allow borrowers who have been consistently making their mortgage payments and meet other eligibility requirements, to refinance their existing mortgage into a lower interest rate with reduced documentation requirements. While these programs accounted for most of the increase, we also observed investors continuing their rollout of the new Fannie Mae and Freddie Mac low down payment (97 LTV) loan programs, and some increased availability of jumbo loans." – Lynn Fisher, Vice President of Research and Economics, Mortgage Bankers Association (MBA)

Source: https://www.mba.org/news-research-and-resources/research-and-economics/single-family-research/mortgage-credit-availability-index; 10/6/16

Return TOC

Housing Affordability

24 Percent of U.S. County Housing Markets Less Affordable Than Their Historic Norms in Q3 2016

- “Affordability improves in 37 percent of markets compared to year ago
- Affordability worsened in 261 counties (63 percent) compared to a year ago
- Home prices have increased 10 times faster than wages since 2012
- Home price growth outpaced wage growth in 89 percent of counties

ATTOM Data Solutions’ Q3 2016 Home Affordability Index shows that 24 percent of U.S. county housing markets were less affordable than their historic affordability averages in the third quarter, up from 22 percent of markets in the previous quarter and up from 19 percent of markets a year ago to the highest share of since Q3 2009 – when 47 percent of markets were less affordable than their historic affordability averages. Out of the 414 counties analyzed in the report, 101 counties (24 percent) had an affordability index below 100 in the third quarter of 2016, meaning that buying a median-priced home in that county was less affordable than the historic average for that county going back to the first quarter of 2005.

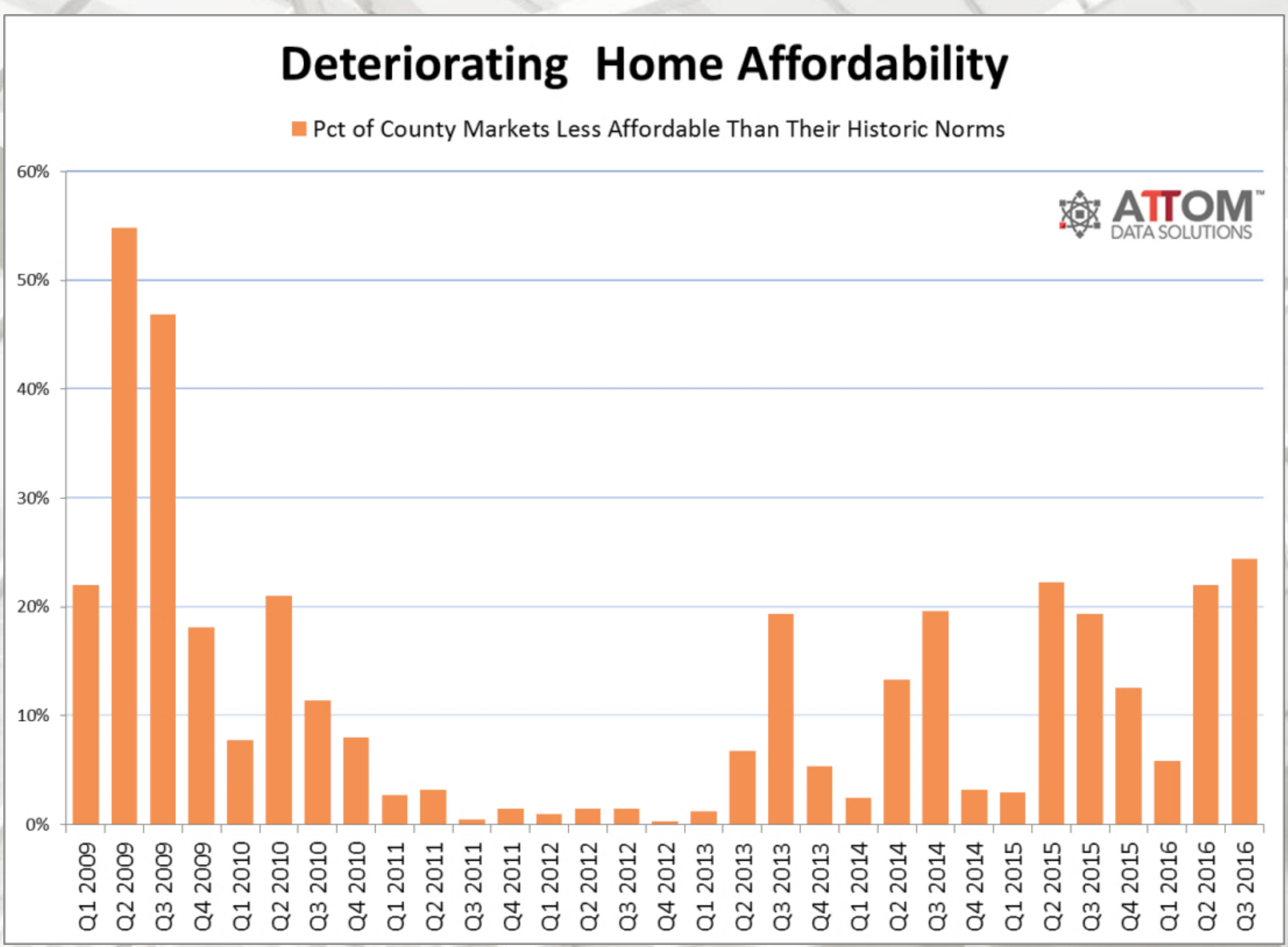
The improving affordability trend we noted in our second quarter report reversed course in the third quarter as home price appreciation accelerated in the majority of markets and wage growth slowed in the majority of local markets as well as nationwide, where average weekly wages declined in the first quarter of this year following 13 consecutive quarters with year-over-year increases. This unhealthy combination resulted in worsening affordability in 63 percent of markets despite mortgage rates that are down 45 basis points from a year ago.

Some silver lining in this report is that affordability actually improved in some of the highest-priced markets that have been bastions of bad affordability, mostly the result of annual home price appreciation slowing to low single-digit percentages in those markets. This is an indication that home prices are finally responding to affordability constraints – a modicum of good news for prospective buyers who have been priced out of those high-priced markets.” – Daren Blomquist, Senior Vice President, ATTOM Data Solutions

Source: http://www.realtytrac.com/news/company-news/q3-2016-home-affordability-index/; 9/29/16

Return TOC

Housing Affordability



Source: http://www.realtytrac.com/news/company-news/q3-2016-home-affordability-index/; 9/29/16

Summary

In summary:

The August housing data were problematic: several categories are now negative on a year-over-year basis, which includes new SF starts and private new SF construction spending. Both of these data sectors are considered indicators of the health of the overall economy by many analysts and economists. New sales declined and the $200-299,000 and less categories still remain in the doldrums. Existing sales decreased slightly – yet, they are greater than the early 2000s.

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

Pros:

1) Historically low interest rates are still in effect;
2) As a result, housing affordability is good for most of – but not all of the U.S.;
3) Household formations improved in 2016; yet, 100% of the formations were in renter-occupied households (owner-occupied decreased by 22,000) (occupied housing data from the Current Population/Housing Vacancy surveys);
4) According to the CP/A survey, real median incomes increased by 5.7% in 2015;
5) Select builders are beginning to focus on entry-level houses.

Cons:

1) Lot availability and building regulations (according to several sources);
2) Mortgage credit availability – according to some analysts;
3) Changing attitudes towards SF ownership and as stated by some – “gentrification”;
4) Job creation is improving and consistent but some economists question the quantity and types of jobs being created;
5) Will apparent global bank problems such as Duestche (Germany) and Monte dei Paschi di Siena (Italy) affect the global economy?
6) Other global uncertainties.

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