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

Urs Buehlmann
Department of Sustainable Biomaterials
College of Natural Resources & Environment
Virginia Tech
Blacksburg, VA
540.231.9759
buehlmann@gmail.com

Delton Alderman
Forest Products Marketing Unit
Forest Products Laboratory
U.S. Forest Service
Madison, WI
304.431.2734
dalderman@fs.fed.us

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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

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Summary

In March, seasonally-adjusted housing data was mostly negative, with a few series indicating minimal increases. All data series remain positive year-over-year, particularly single-family starts and completions. Regionally, data were mixed across all sectors and of particular note was the substantial decrease in West's new single-family house sales. From the beginning of 2010, housing has improved incrementally. However, most sectors of the housing market remain well less than their respective historical averages.

How does a leading housing economist describe the current market? "New home sales unexpectedly declined in March, led by the weakest sales pace in the West since July 2014. The longer-term declining trend across topline sales since the start of the year, however, suggests a more broad-based decline in construction activity during one of the sector's busiest seasons of the year. While construction activity has been positing limited activity as of late, with still-low borrowing costs and relatively positive employment trends, the housing market is, nevertheless, well positioned to continue to positively contribute to headline GDP growth amid a positive, albeit it modest, pace of recovery. In other words, the housing sector remains a welcome support to an otherwise fragile economy; however, unlike the run-up leading into the Great Recession, the housing market will no longer be the driver of the economy with a positive but limited contribution."[1] – Lindsey Piegza, Chief Economist, Stifel Fixed Income.

This month's commentary includes several slides that address first-time buyers; student debt and home ownership; aggregate home ownership; and housing affordability. The information presented on first-time buyers and student debt contraindicates the assessments of these categories that are often bandied by various news agencies. Once again, 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.

[1] - http://www.housingwire.com/articles/36876-heres-the-good-news-behind-the-volatile-new-home-sales-data; 4/25/16

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March 2016
Housing Scorecard

	M/M	Y/Y
Housing Starts	∇ 8.8%	Δ 14.2%
Single-Family Starts	∇ 9.2%	Δ 22.6%
Housing Permits	∇ 7.7%	Δ 4.6%
Housing Completions	Δ 3.5%	Δ 31.6%
New Single-Family House Sales	∇ 1.5%	Δ 5.4%
Existing House Sales[1]	Δ 5.1%	Δ 1.5%
Private Residential Construction Spending	Δ 1.6%	Δ 7.8%
Single-Family Construction Spending	∇ 0.03%	Δ 13.4%

M/M = month-over-month; Y/Y = year-over-year

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

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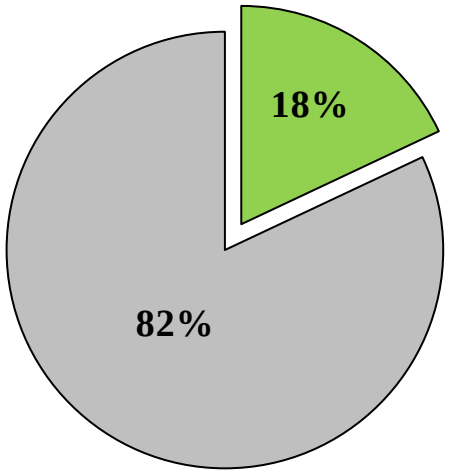
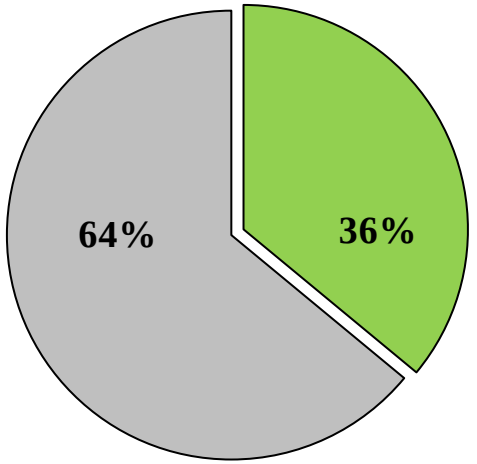
New Construction's Percentage of Wood Products Consumption



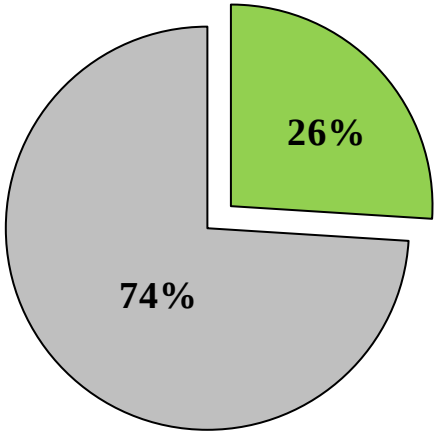
Non-structural panels: New Housing

Other markets



Structural panels: New housing

Other markets



All Sawnwood: New housing

Other markets

Source: 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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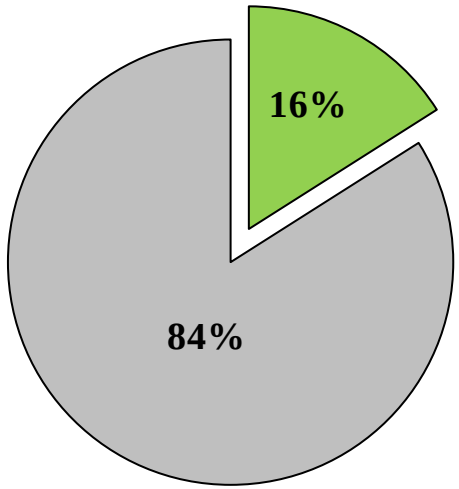
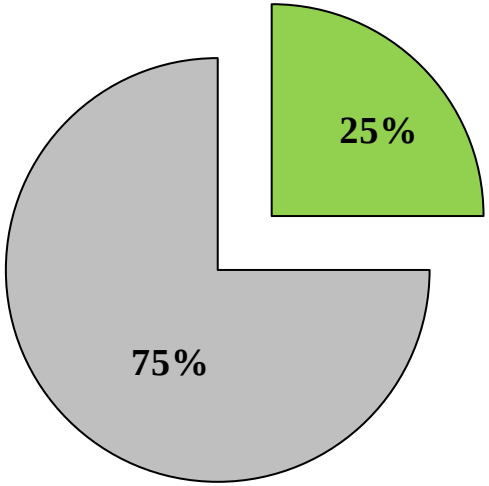
Repair and Remodeling's Percentage of Wood Products Consumption



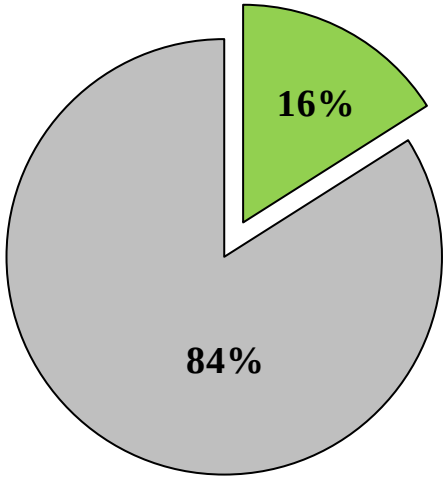
Non-structural panels: Remodeling

Other markets



All Sawnwood: Remodeling

Other markets



Structural panels: Remodeling

Other markets

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
March	1,089,000	764,000	13,000	312,000
February	1,194,000	841,000	12,000	341,000
2015	954,000	623,000	20,000	311,000
M/M change	-8.8%	-9.2%	8.3%	-8.5%
Y/Y change	14.2%	22.6%	-35.0%	0.3%

* 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; 4/19/16

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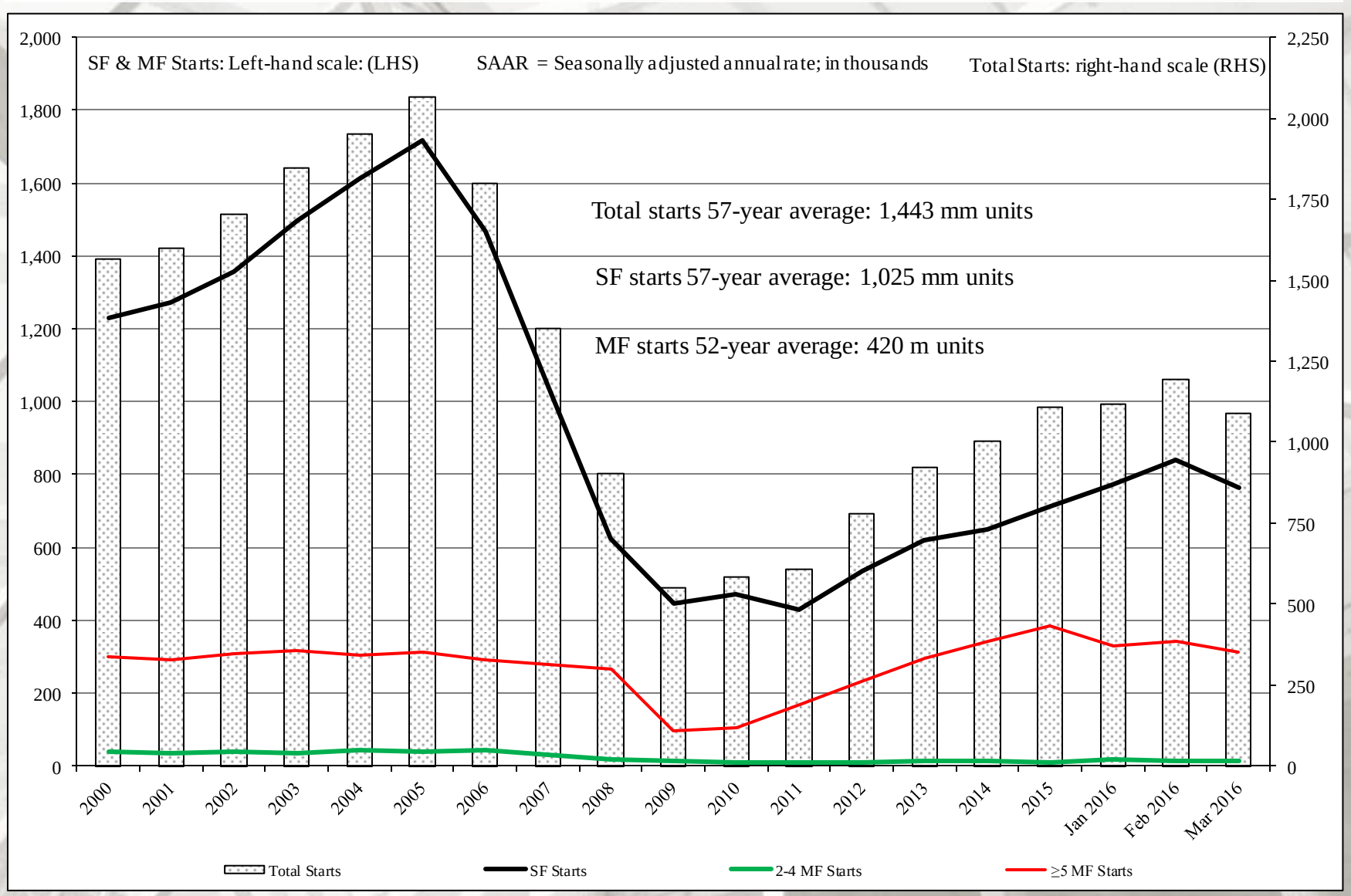
Total Housing Starts



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Starts by Region

	Northeast (NE) Total Starts	NE SF Starts	NE MF Starts**
March	121,000	53,000	68,000
February	75,000	58,000	17,000
2015	100,000	44,000	56,000
M/M change	61.3%	-8.6%	300.0%
Y/Y change	21.0%	20.5%	21.4%

	Midwest (MW) Total Starts	MW SF Starts	MW MF Starts
March	150,000	123,000	27,000
February	201,000	156,000	45,000
2015	142,000	87,000	55,000
M/M change	-25.4%	-21.2%	-40.0%
Y/Y change	5.6%	41.4%	-50.9%

* 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; 4/19/16

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New Housing Starts by Region

	South (S) Total Starts	S SF Starts	S MF Starts**
March	555,000	409,000	146,000
February	606,000	430,000	176,000
2015	511,000	348,000	163,000
M/M change	-8.4%	-4.9%	-17.0%
Y/Y change	8.6%	17.5%	-10.4%

	West (W) Total Starts	W SF Starts	W MF Starts
March	263,000	179,000	179,000
February	312,000	197,000	197,000
2015	201,000	144,000	144,000
M/M change	-15.7%	-9.1%	-27.0%
Y/Y change	30.8%	24.3%	47.4%

* 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; 4/19/16

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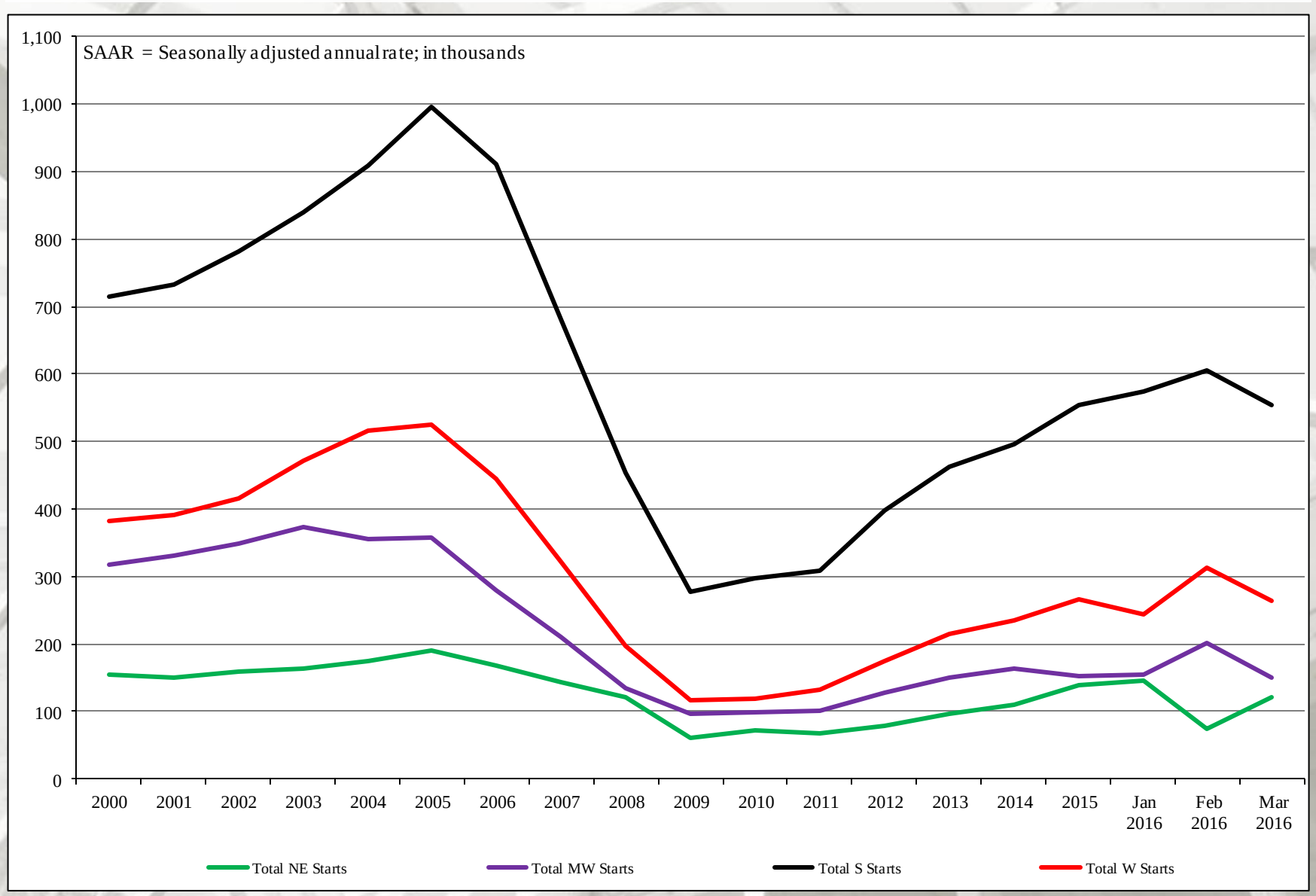
Total Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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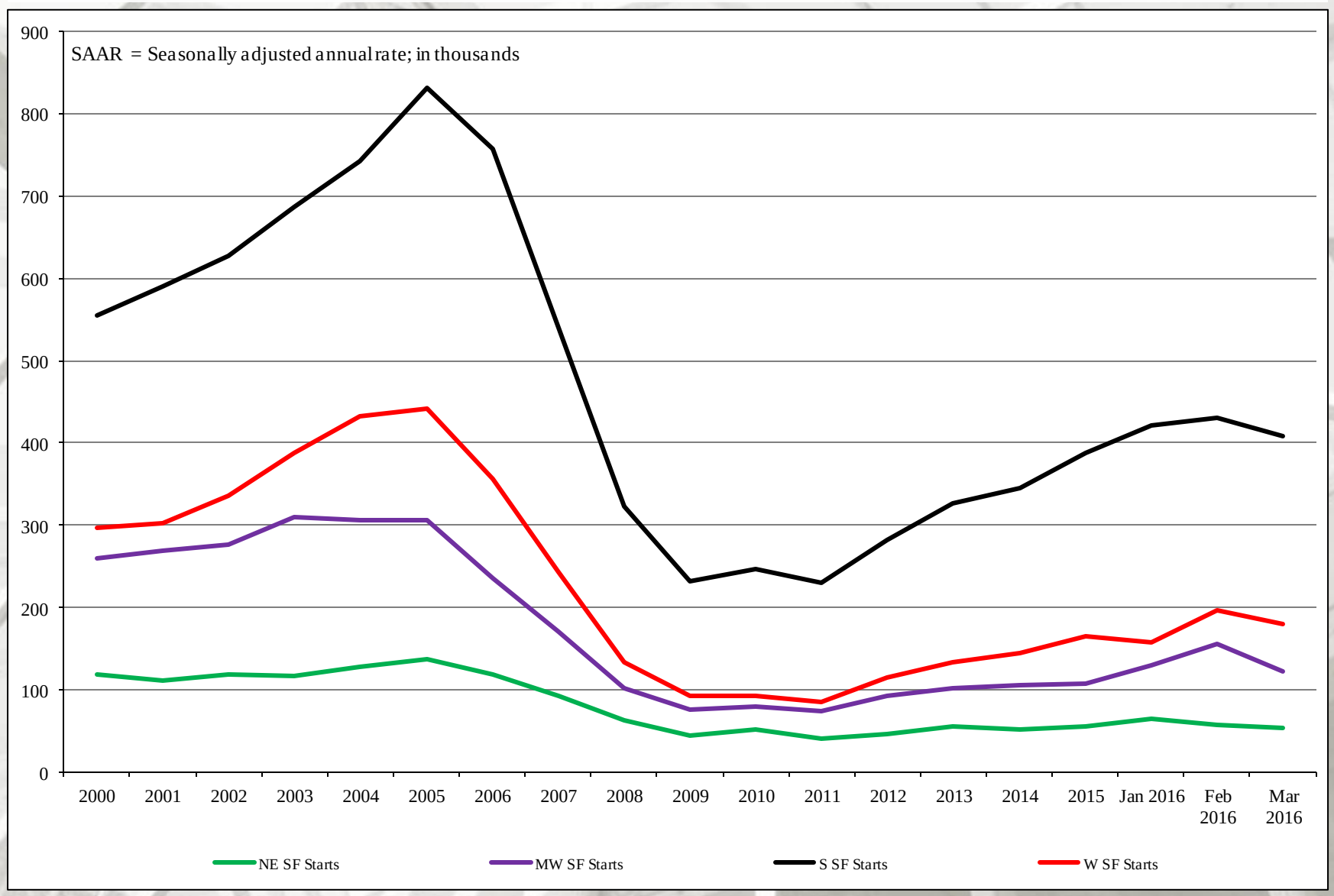
SF Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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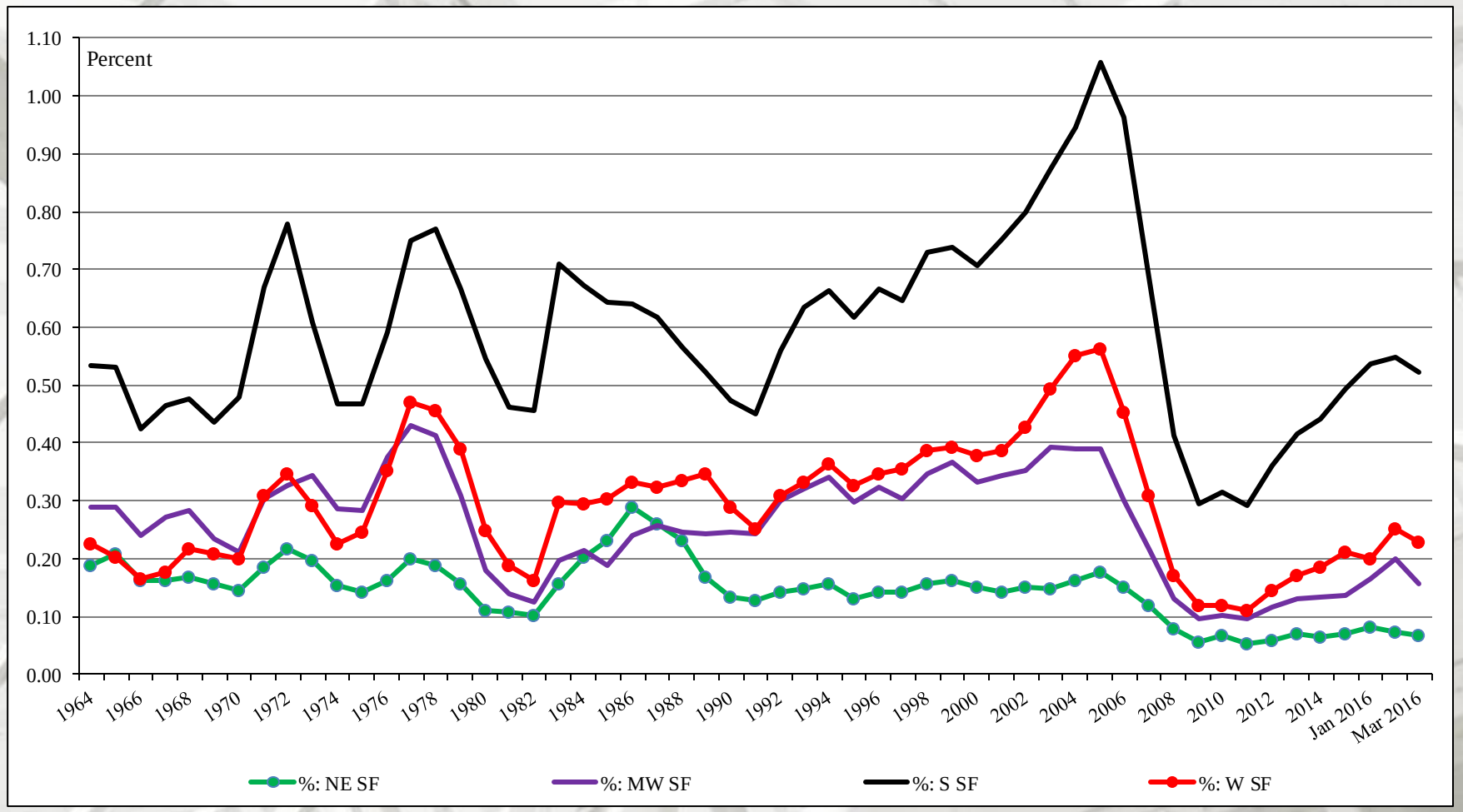
Percentage of SF Housing Starts by Region



SF Starts: Cumulative Percentage of Total Housing Starts circa 1964

South:	35.5%	West:	16.1%
Midwest:	14.2%	Northeast:	8.0%

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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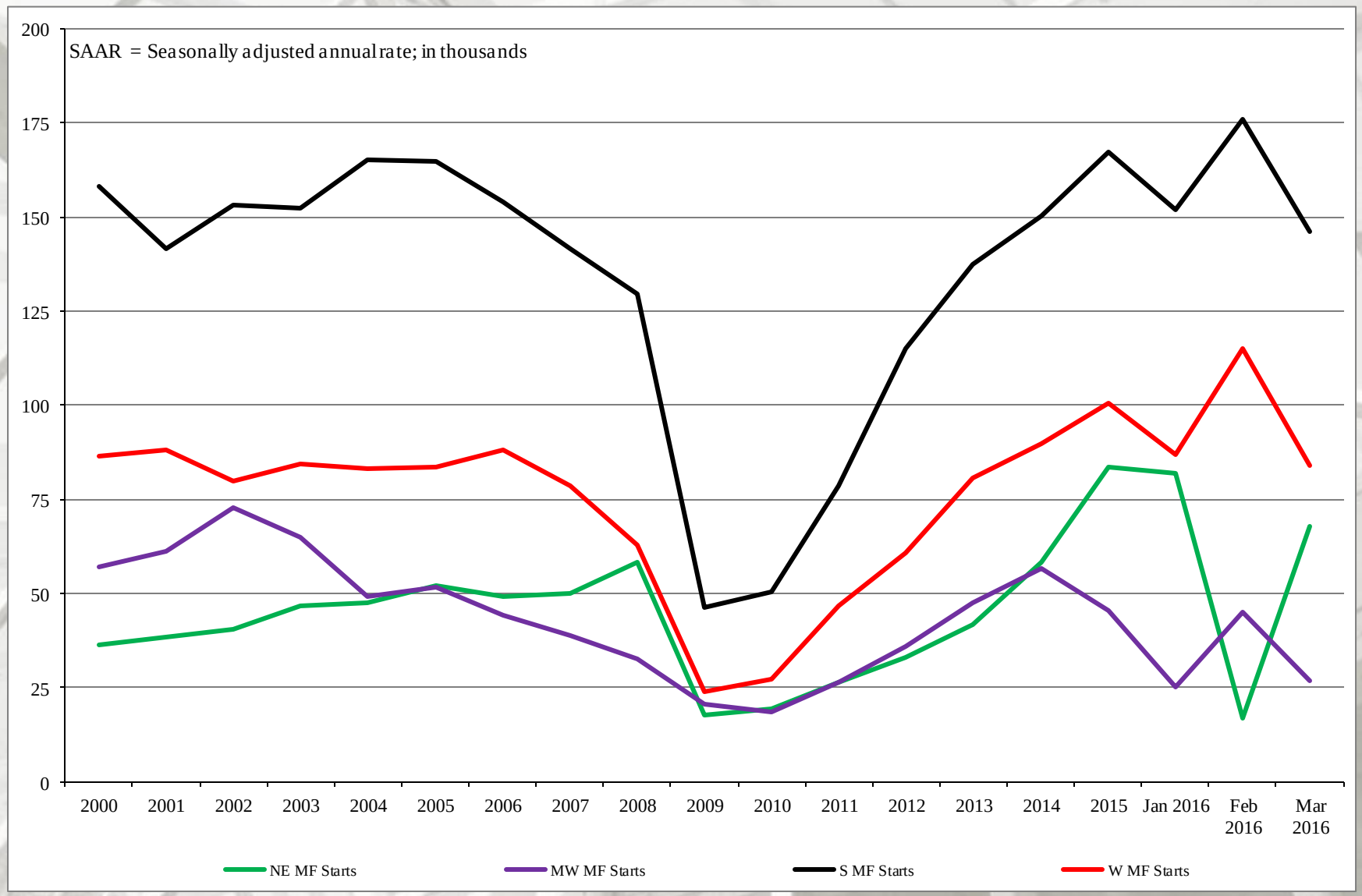
MF Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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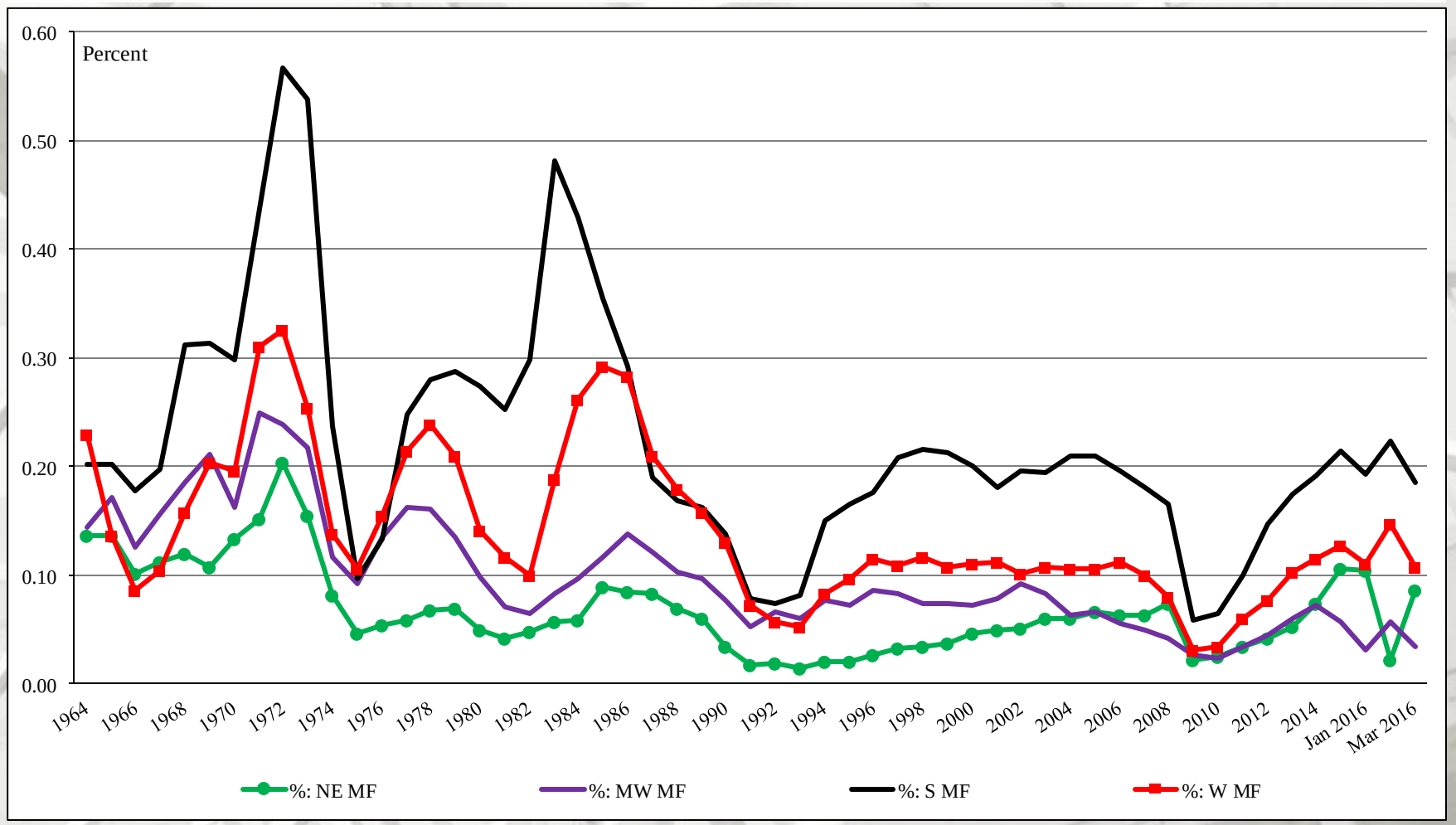
Percentage of MF Housing Starts by Region



MF Starts: Cumulative Percentage of Total Housing Starts circa 1964

South:	12.2%	West:	7.8%
Midwest:	5.4%	Northeast:	3.7%

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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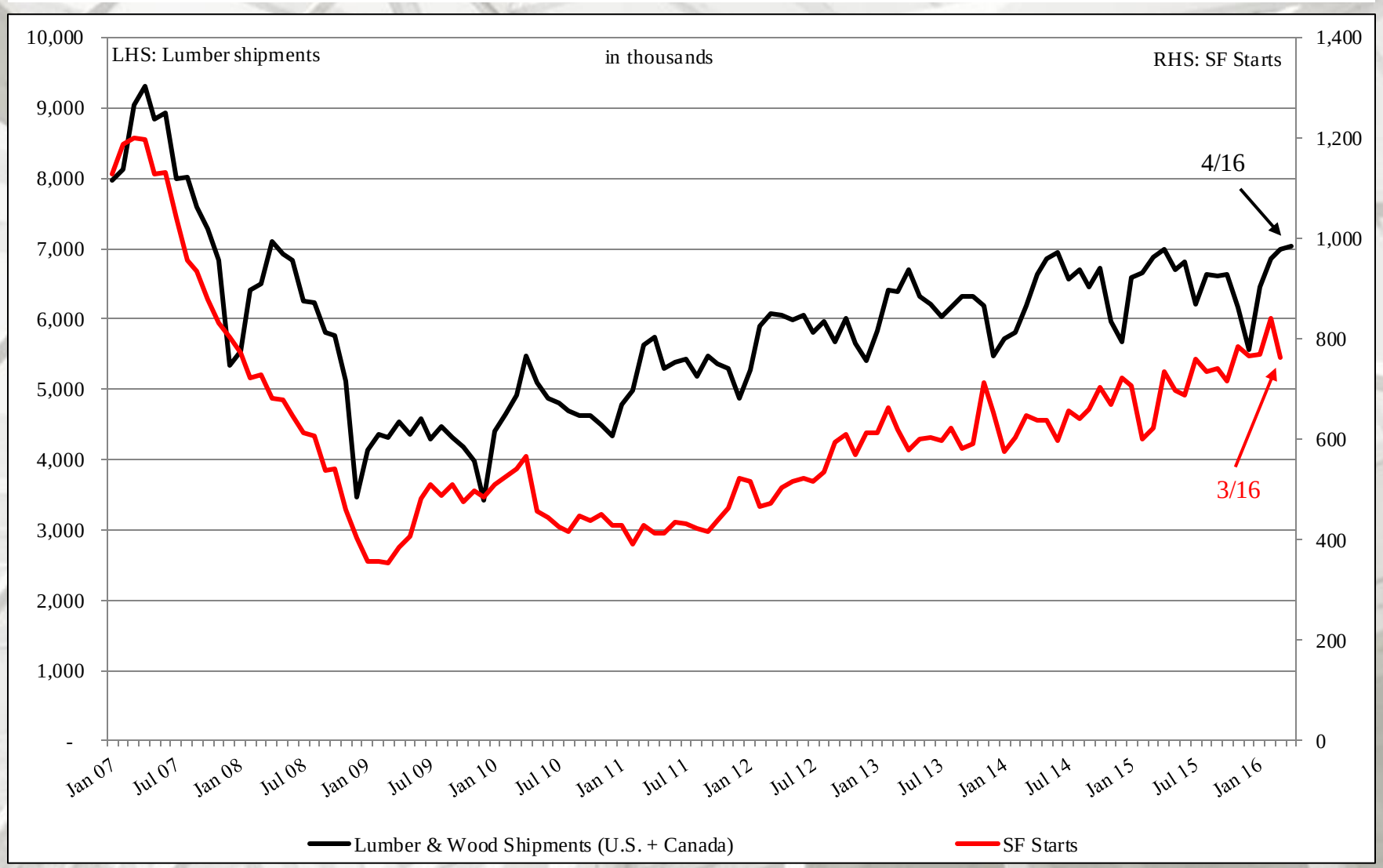
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts



Sources: Association of American Railroads, *Rail Time Indicators* report 4/6/16; U.S. DOC-Construction; 4/19/16

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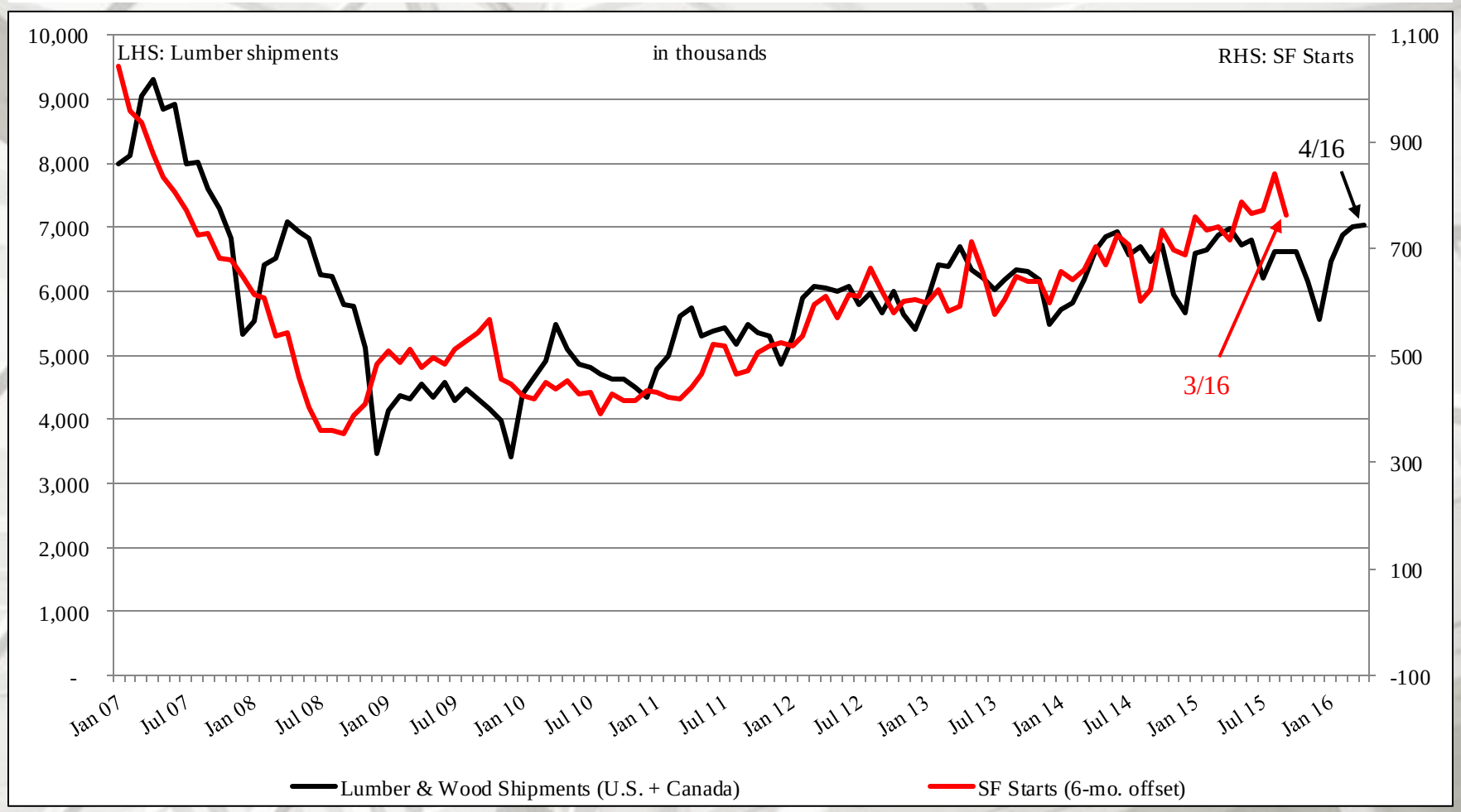
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts: 6-month Offset



In this graph, February 2007 lumber shipments are contrasted with July 2007 starts, and continuing through March 2016 data. 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, *Rail Time Indicators* report; 4/6/16; U.S. DOC-Construction; 4/19/16

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New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
March	1,086,000	727,000	35,000	324,000
February	1,177,000	736,000	33,000	408,000
2015	1,038,000	642,000	26,000	370,000
M/M change	-7.7%	-1.2%	6.1%	-20.6%
Y/Y change	4.6%	13.2%	34.6%	-12.4%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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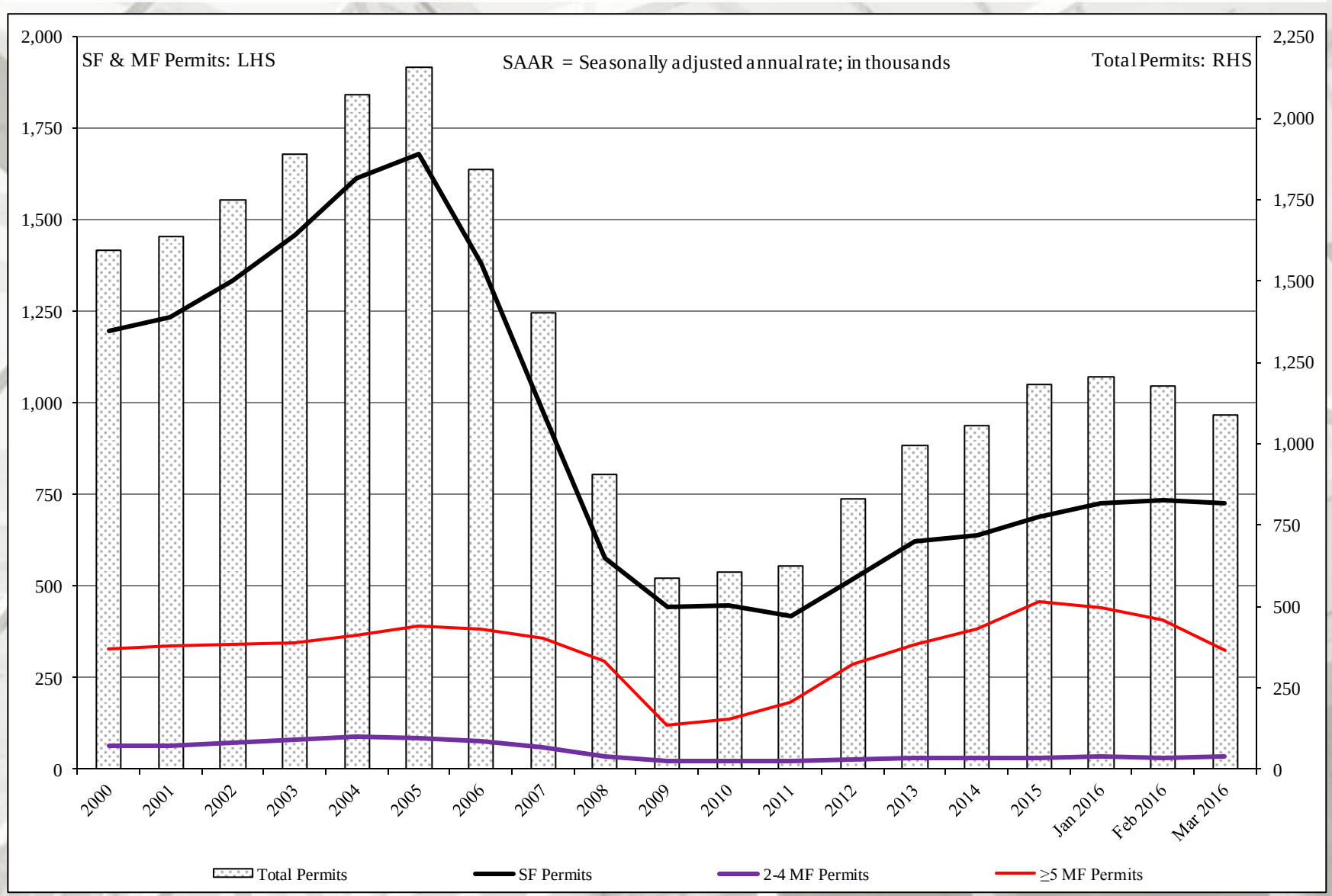
Total New Housing Permits



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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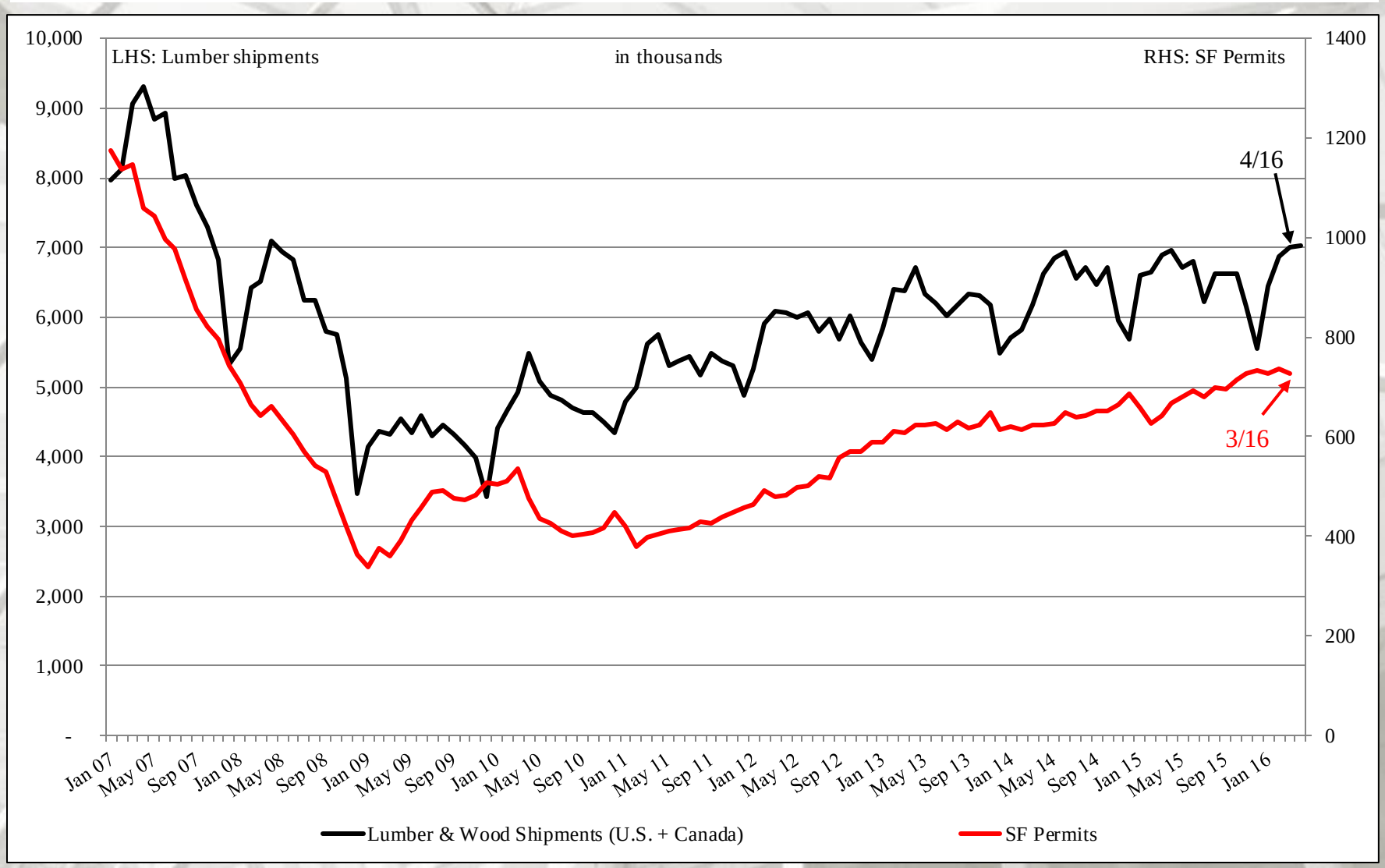
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads, *Rail Time Indicators* report; 4/6/16; U.S. DOC-Construction; 4/19/16

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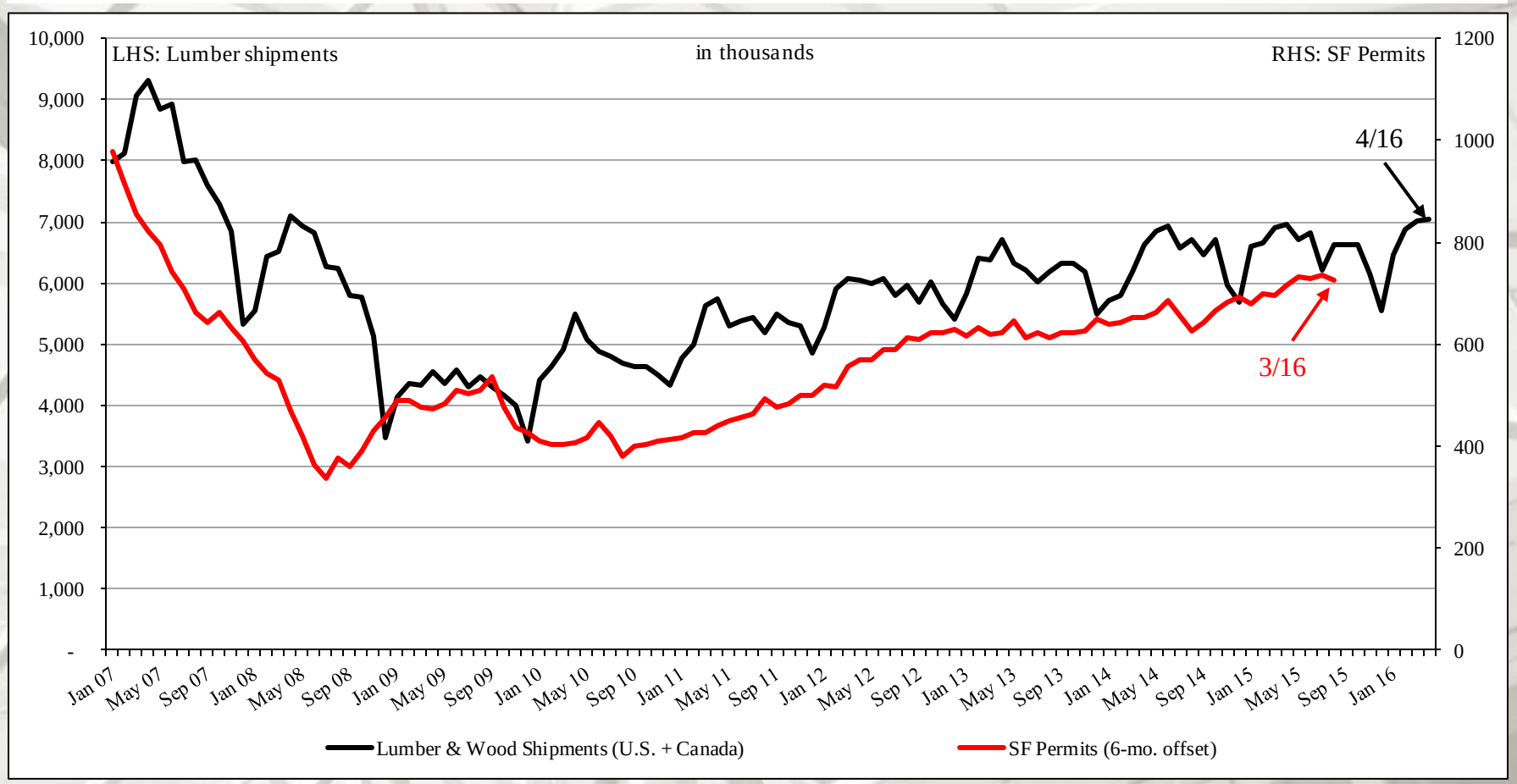
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits: 6-month Offset



In this graph, February 2007 lumber shipments are contrasted with July 2007 permits, and continuing through March 2016 data. 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, *Rail Time Indicators* report; 4/6/16; U.S. DOC-Construction; 4/19/16

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New Housing Permits by Region

	NE Total Permits	NE SF Permits	NE MF Permits
March	101,000	52,000	49,000
February	123,000	52,000	71,000
2015	129,000	42,000	87,000
M/M change	-17.9%	0.0%	-31.0%
Y/Y change	-21.7%	23.8%	-40.7%

	MW Total Permits	MW SF Permits	MW MF Permits
March	185,000	120,000	65,000
February	191,000	124,000	67,000
2015	149,000	99,000	50,000
M/M change	-3.1%	-3.2%	-3.0%
Y/Y change	24.2%	21.2%	30.0%

* All data are SAAR.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Permits by Region

	S Total Permits	S SF Permits	S MF Permits
March	552,000	390,000	162,000
February	570,000	383,000	187,000
2015	496,000	352,000	144,000
M/M change	-3.2%	1.8%	-13.4%
Y/Y change	11.3%	10.8%	12.5%

	W Total Permits	W SF Permits	W MF Permits
March	248,000	165,000	83,000
February	293,000	177,000	116,000
2015	264,000	149,000	115,000
M/M change	-15.4%	-6.8%	-28.4%
Y/Y change	-6.1%	10.7%	-27.8%

* All data are SAAR

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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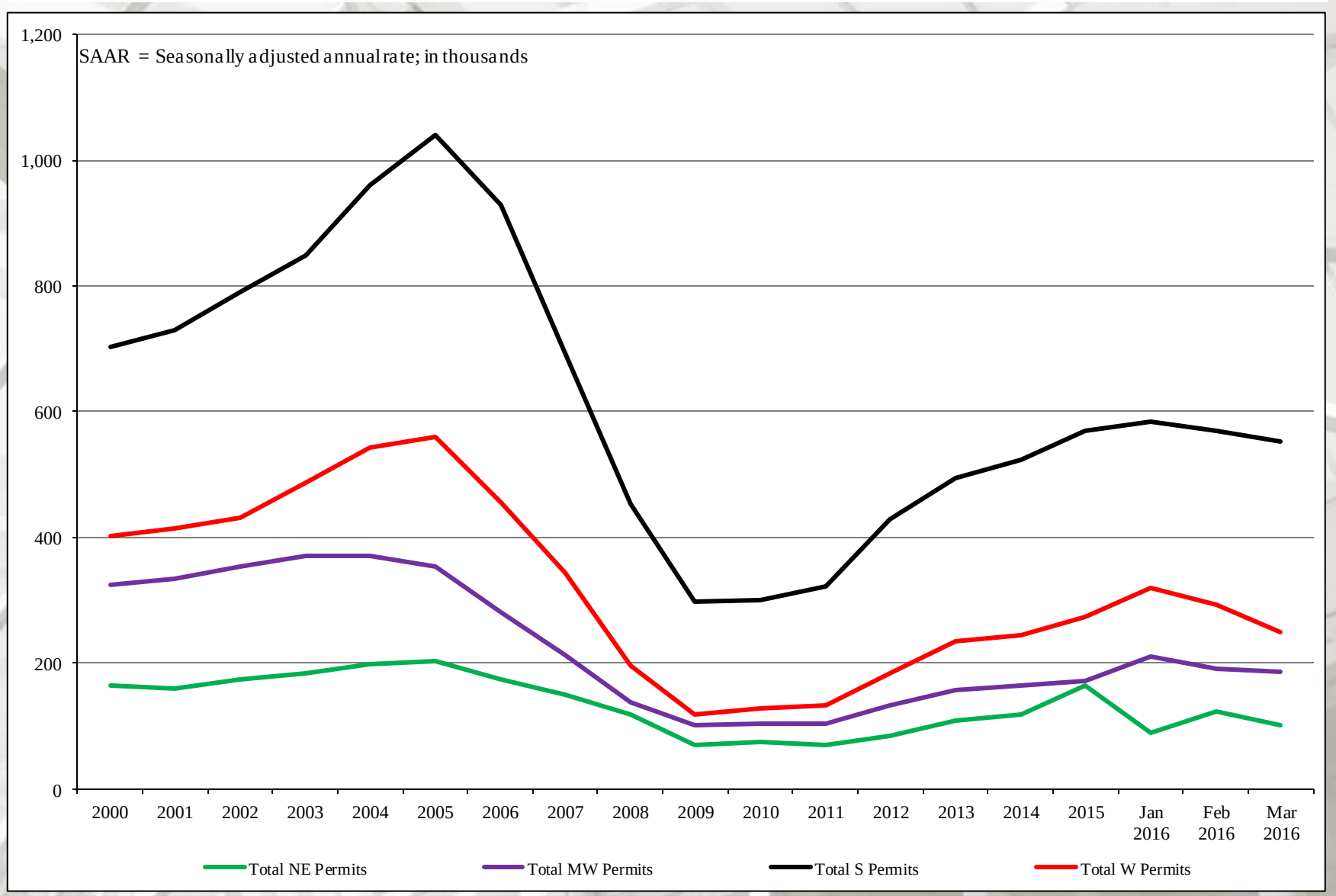
Total Housing Permits by Region



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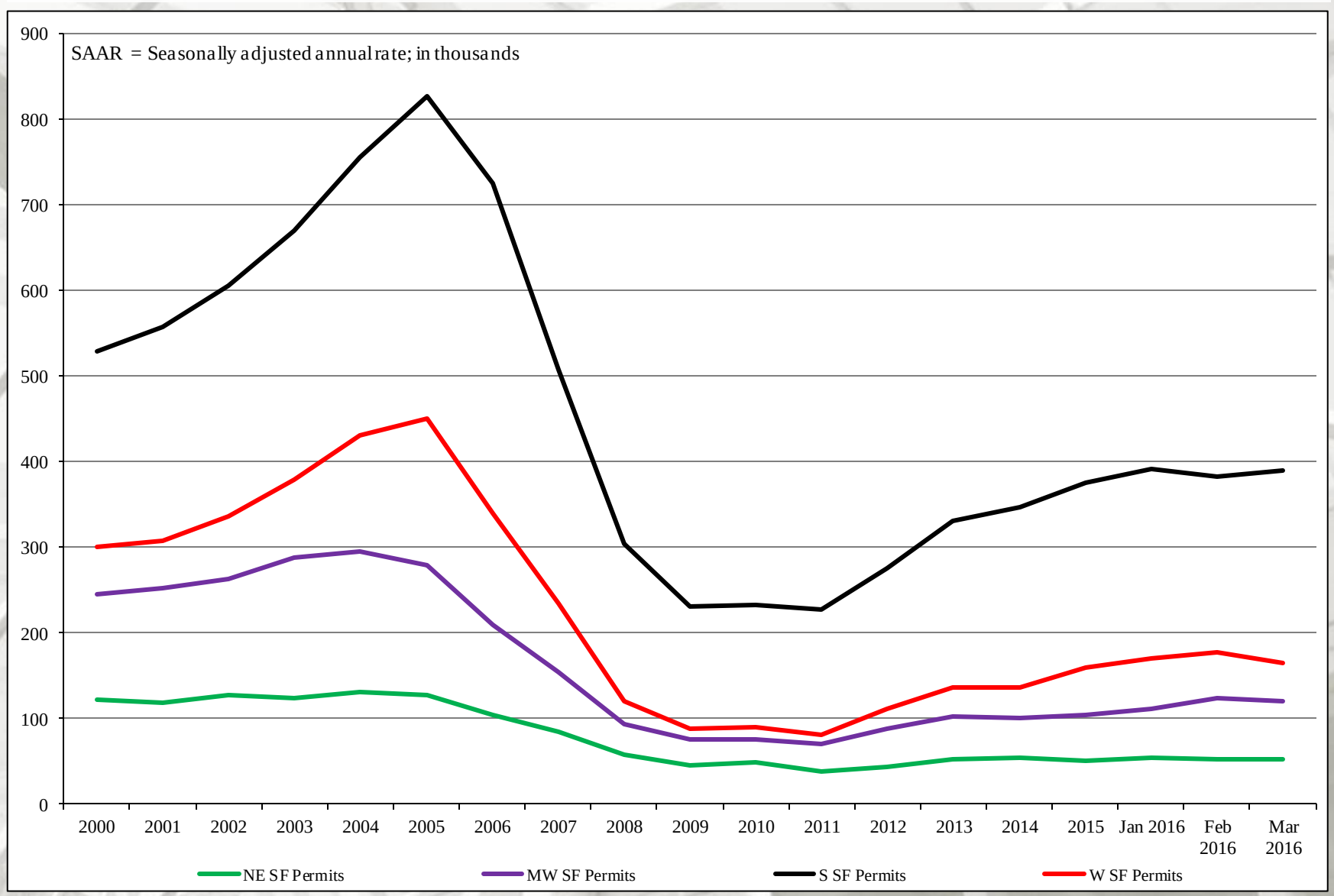
SF Housing Permits by Region



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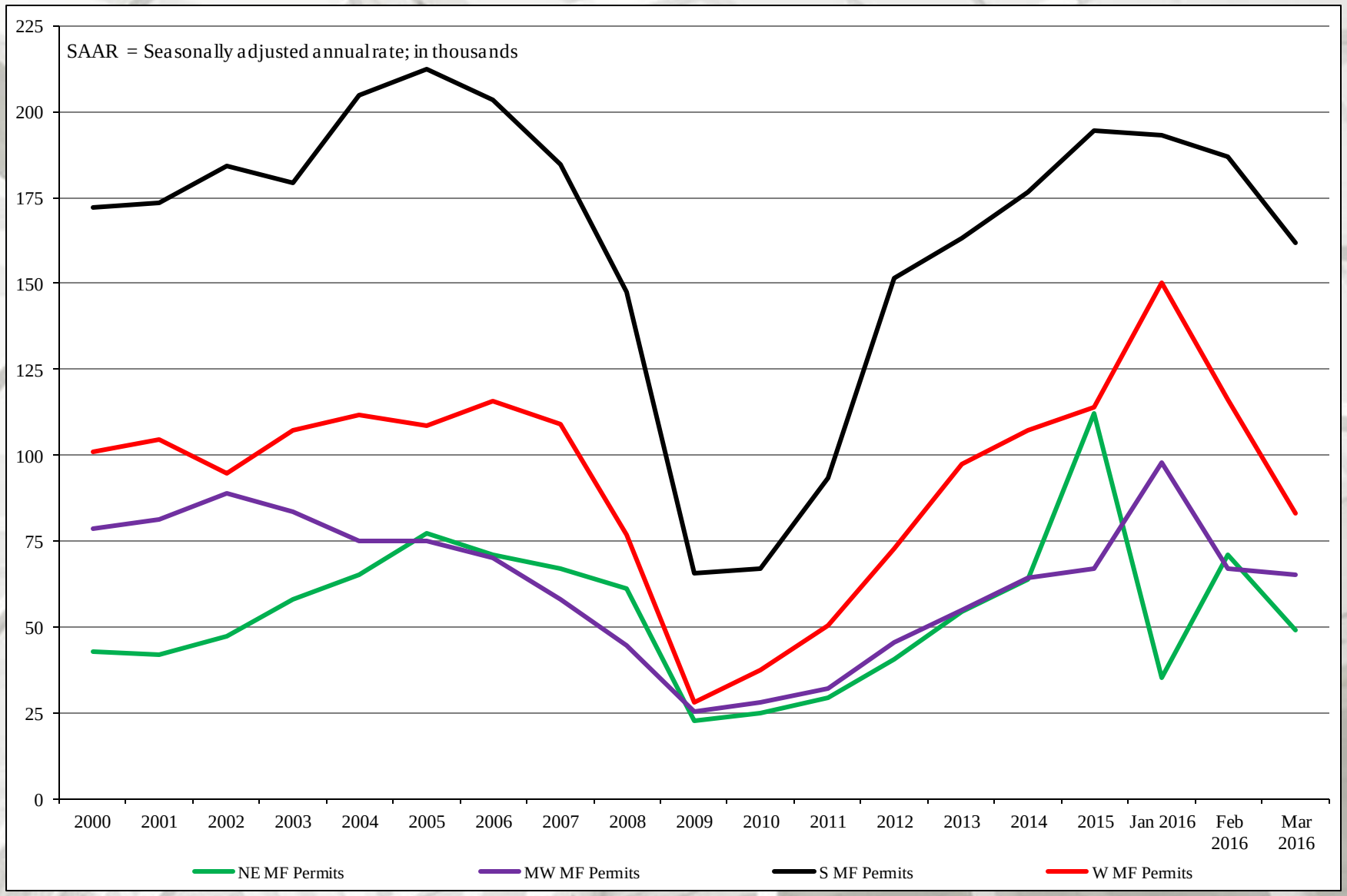
MF Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
March	990,000	428,000	10,000	549,000
February	985,000	427,000	10,000	546,000
2015	842,000	360,000	11,000	463,000
M/M change	0.5%	0.2%	0.0%	0.5%
Y/Y change	17.6%	18.9%	-9.1%	18.6%

* 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; 4/19/16

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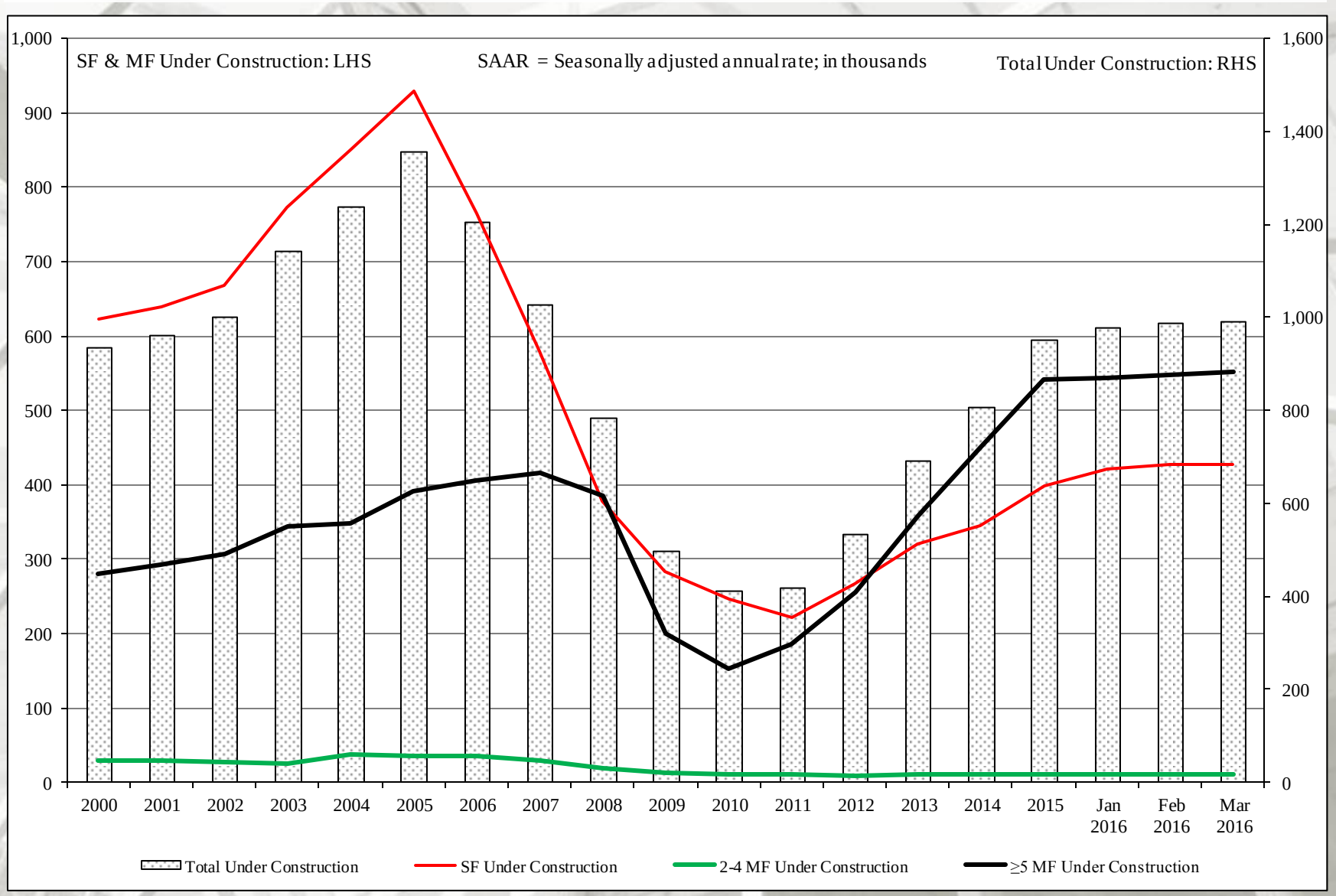
Total Housing Under Construction



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
March	185,000	49,000	136,000
February	181,000	49,000	132,000
2015	129,000	41,000	88,000
M/M change	2.2%	0.0%	3.0%
Y/Y change	43.4%	19.5%	54.5%

	MW Total	MW SF	MW MF
March	130,000	72,000	58,000
February	132,000	73,000	59,000
2015	129,000	63,000	66,000
M/M change	-1.5%	-1.7%	-1.7%
Y/Y change	0.8%	-12.1%	-12.1%

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; 4/19/16

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New Housing Under Construction by Region

	S Total	S SF	S MF**
March	431,000	212,000	219,000
February	432,000	212,000	220,000
2015	376,000	175,000	201,000
M/M change	-0.2%	0.0%	-0.5%
Y/Y change	14.6%	21.1%	9.0%

	W Total	W SF	W MF
March	244,000	95,000	149,000
February	240,000	93,000	147,000
2015	208,000	81,000	127,000
M/M change	1.7%	2.2%	1.4%
Y/Y change	17.3%	17.3%	17.3%

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; 4/19/16

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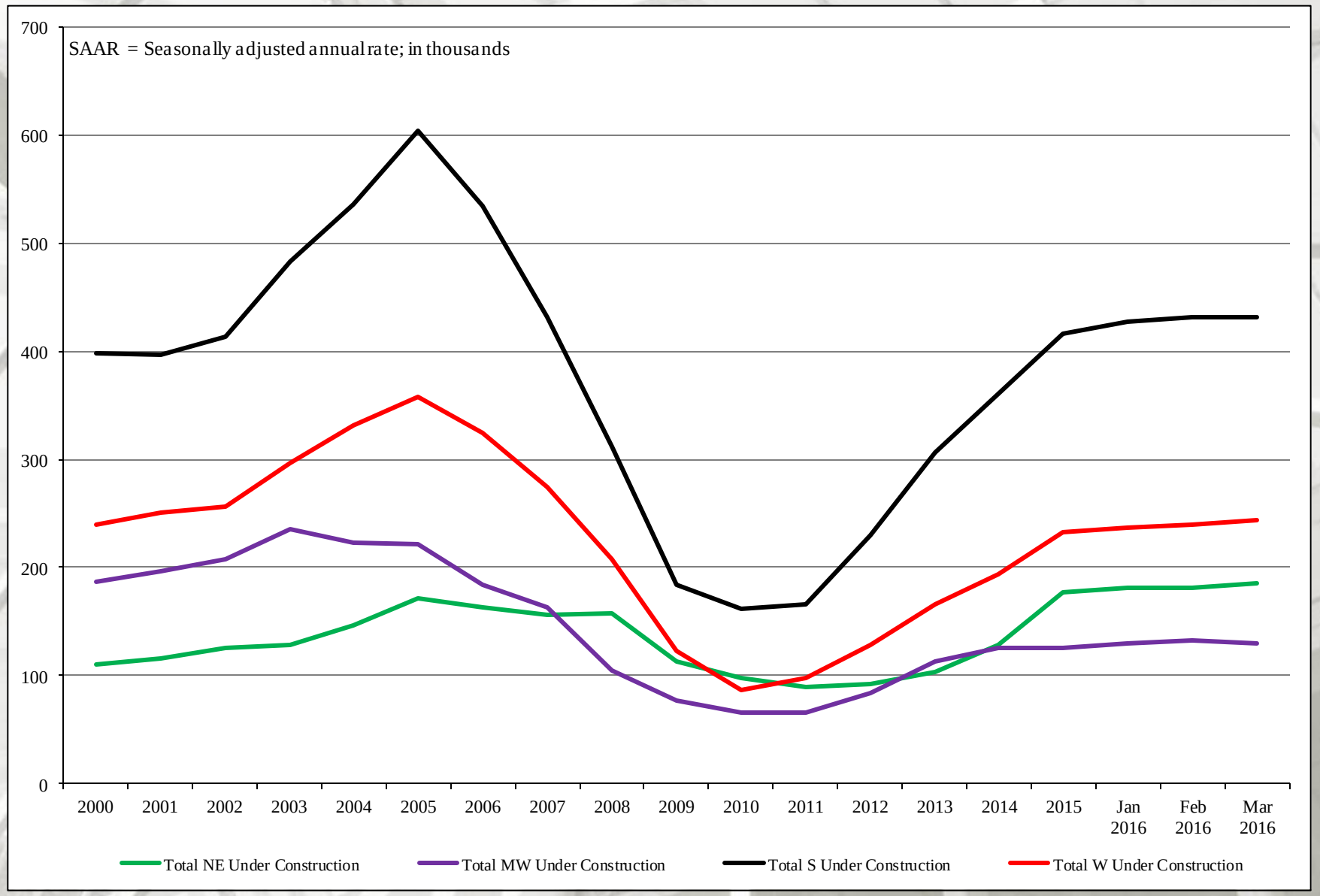
Total Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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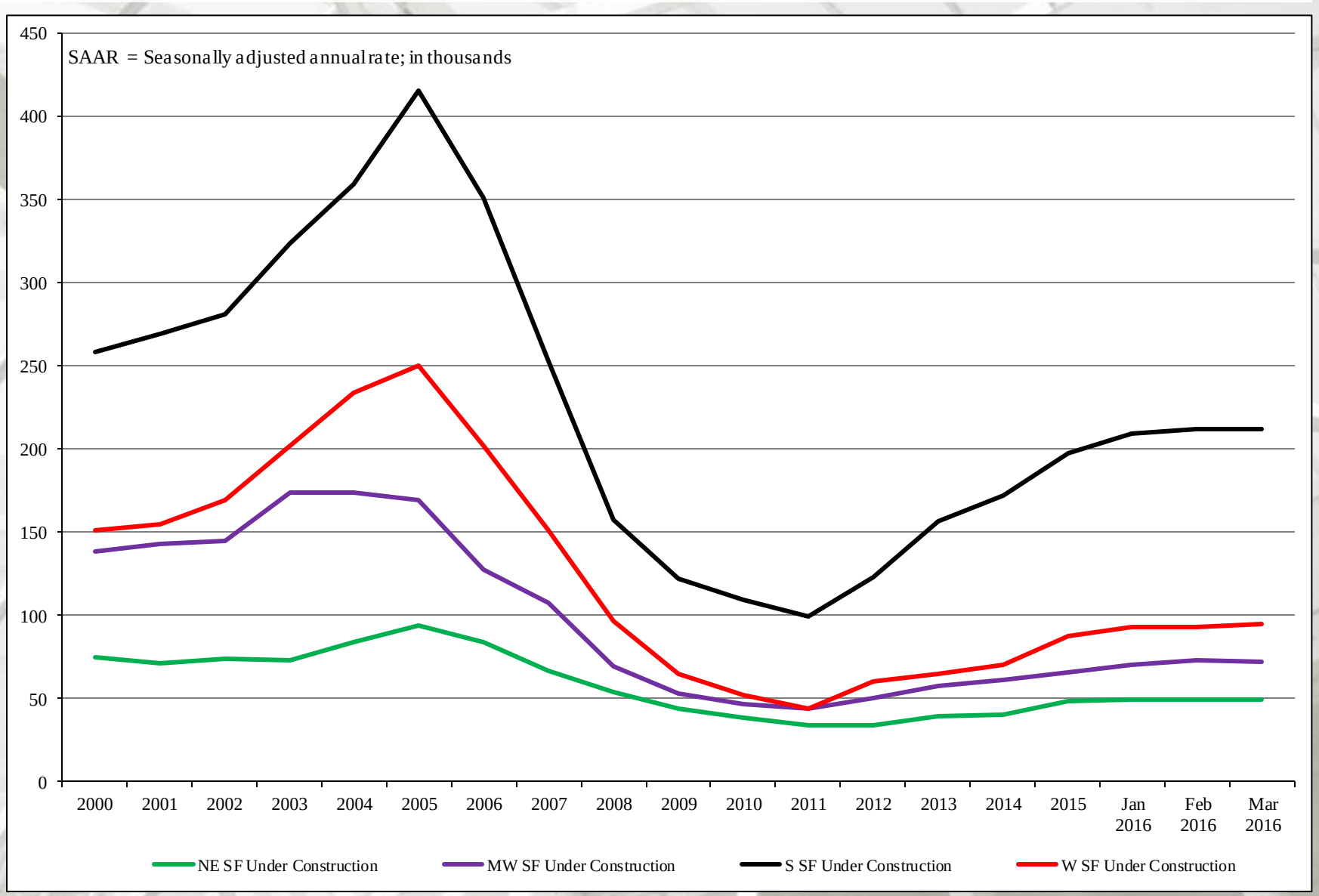
SF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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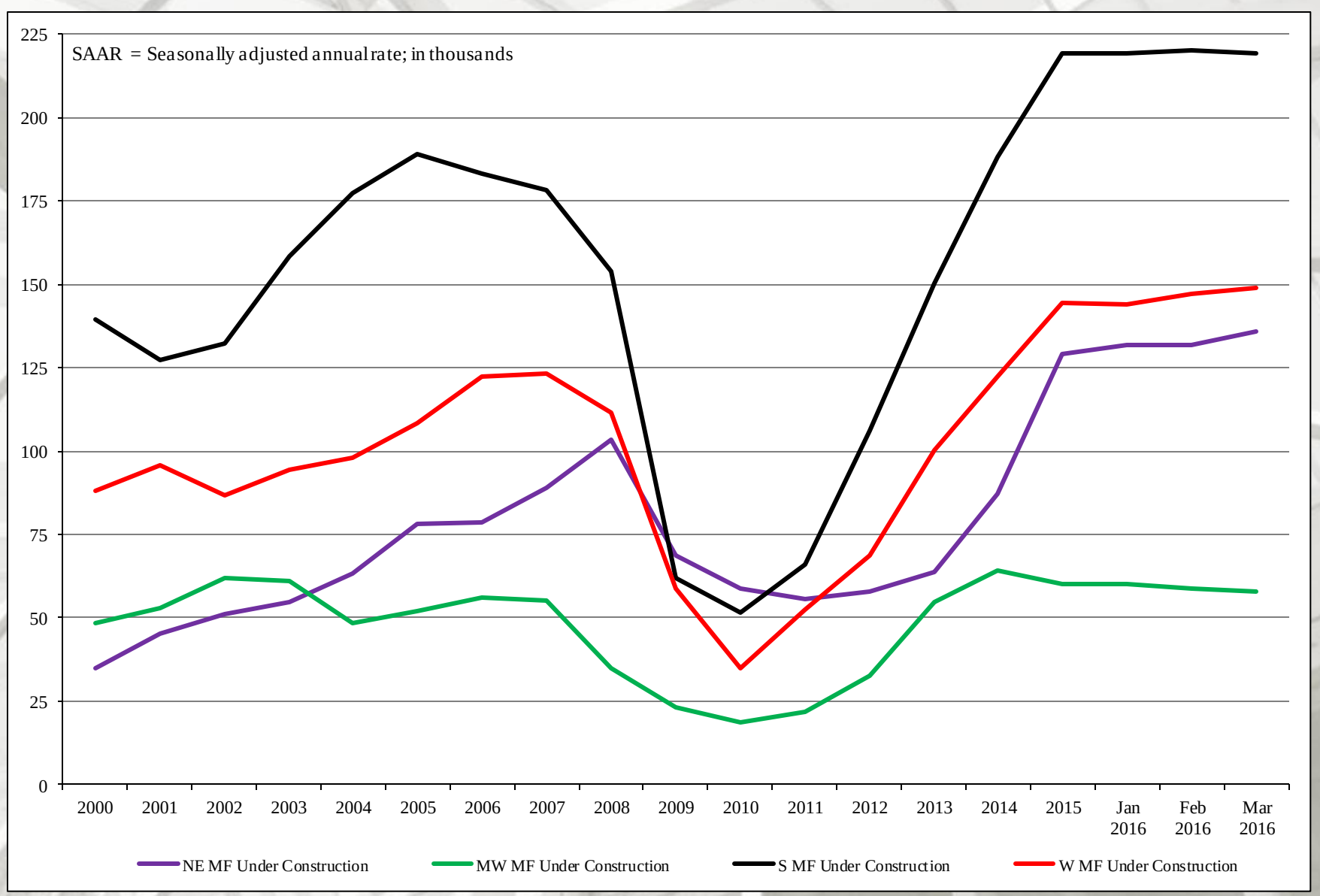
MF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
March	1,061,000	734,000	11,000	316,000
February	1,025,000	736,000	21,000	268,000
2015	806,000	596,000	11,000	199,000
M/M change	3.5%	-0.3%	-47.6%	17.9%
Y/Y change	31.6%	23.2%	0.0%	58.8%

* 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; 4/19/16

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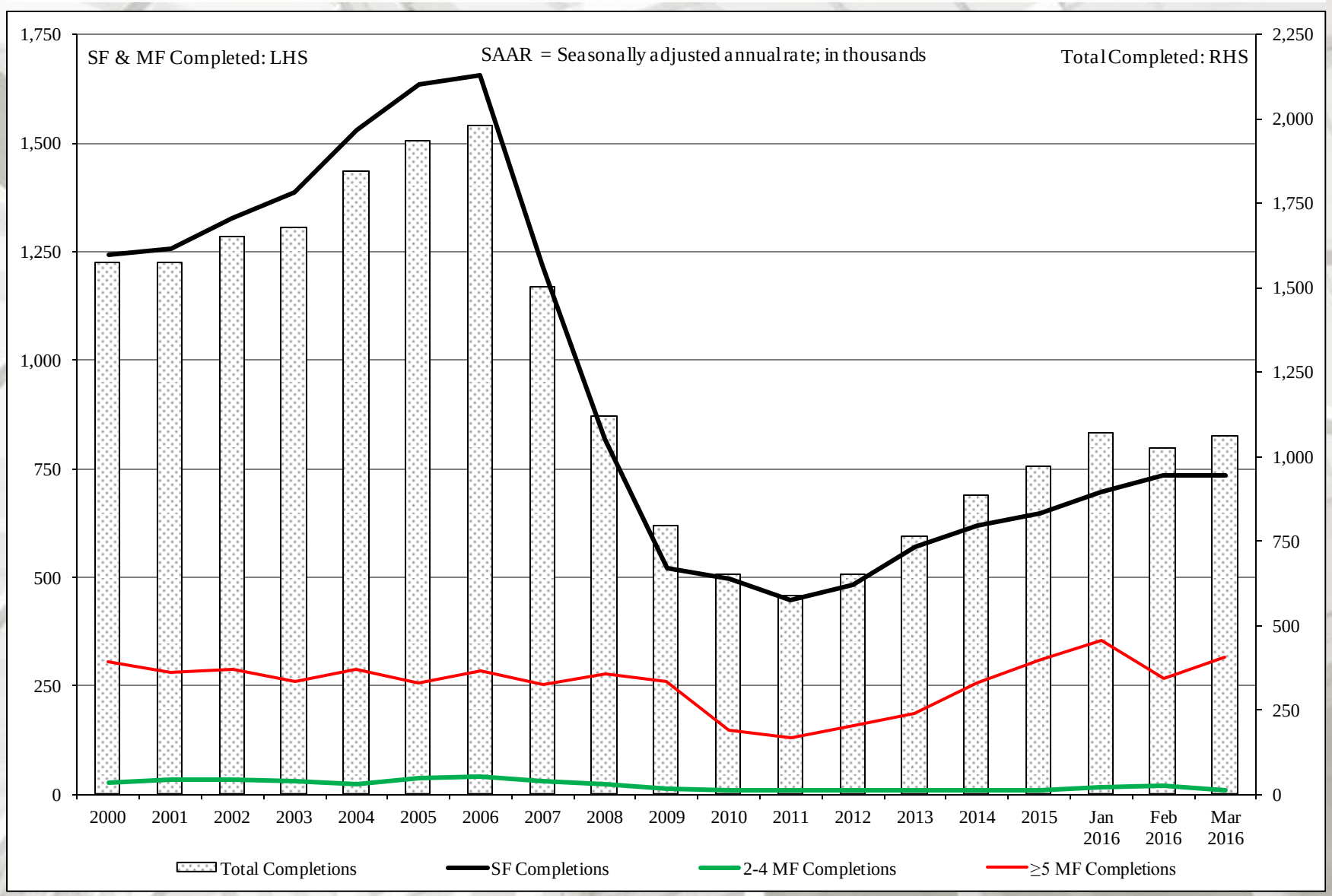
Total Housing Completions



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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New Housing Completions by Region

	NE Total	NE SF	NE MF**
March	94,000	63,000	31,000
February	78,000	56,000	22,000
2015	57,000	47,000	10,000
M/M change	20.5%	12.5%	40.9%
Y/Y change	64.9%	34.0%	210.0%

	MW Total	MW SF	MW MF
March	170,000	122,000	48,000
February	143,000	92,000	51,000
2015	101,000	84,000	17,000
M/M change	18.9%	32.6%	-5.9%
Y/Y change	68.3%	45.2%	182.4%

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; 4/19/16

Return TOC

New Housing Completions by Region

	S Total	S SF	S MF**
March	571,000	408,000	163,000
February	535,000	395,000	140,000
2015	452,000	343,000	109,000
M/M change	6.7%	3.3%	16.4%
Y/Y change	26.3%	19.0%	49.5%

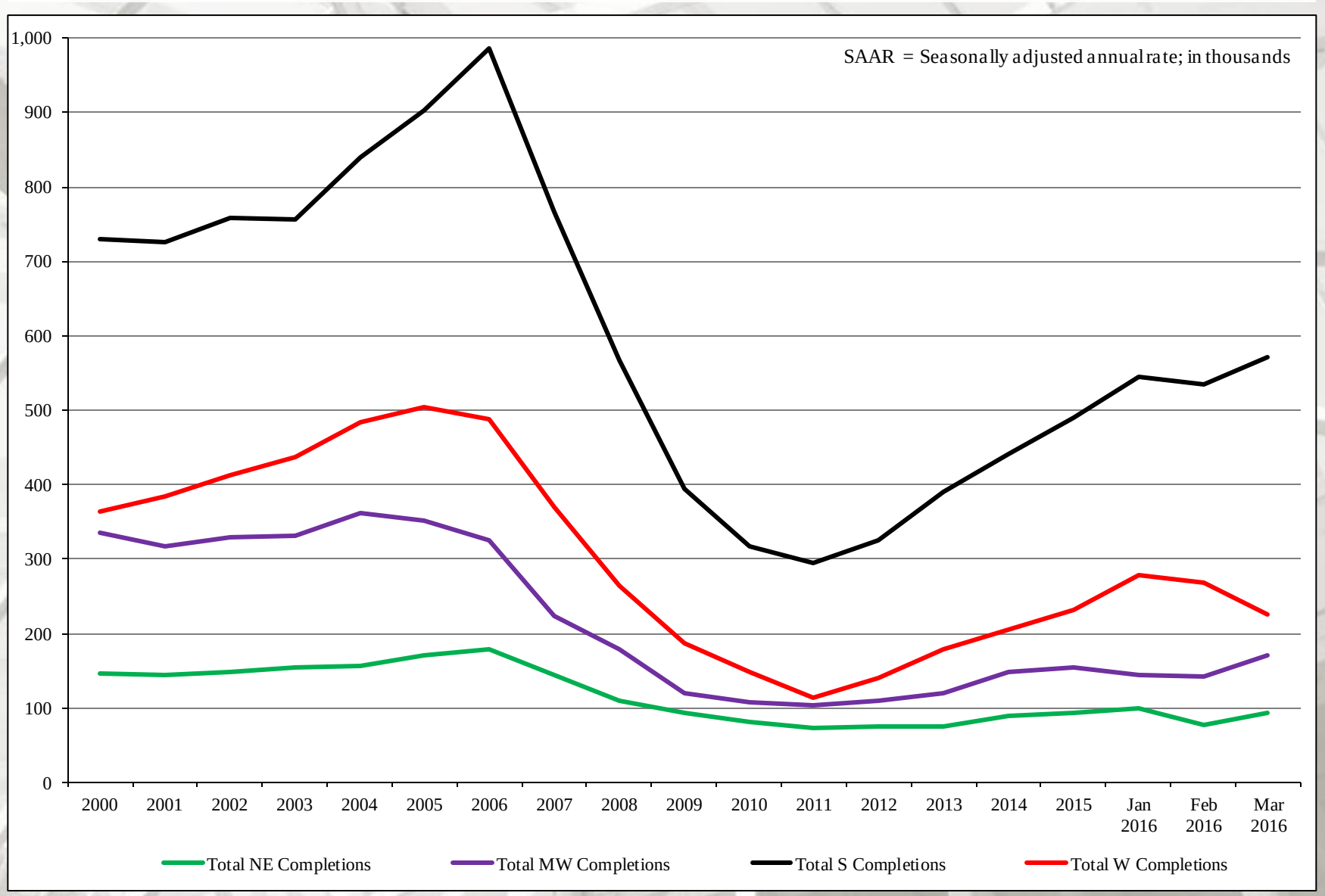
	W Total	W SF	W MF
March	226,000	141,000	85,000
February	269,000	193,000	76,000
2015	196,000	122,000	74,000
M/M change	-16.0%	-26.9%	11.8%
Y/Y change	15.3%	15.6%	14.9%

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; 4/19/16

Return TOC

Total Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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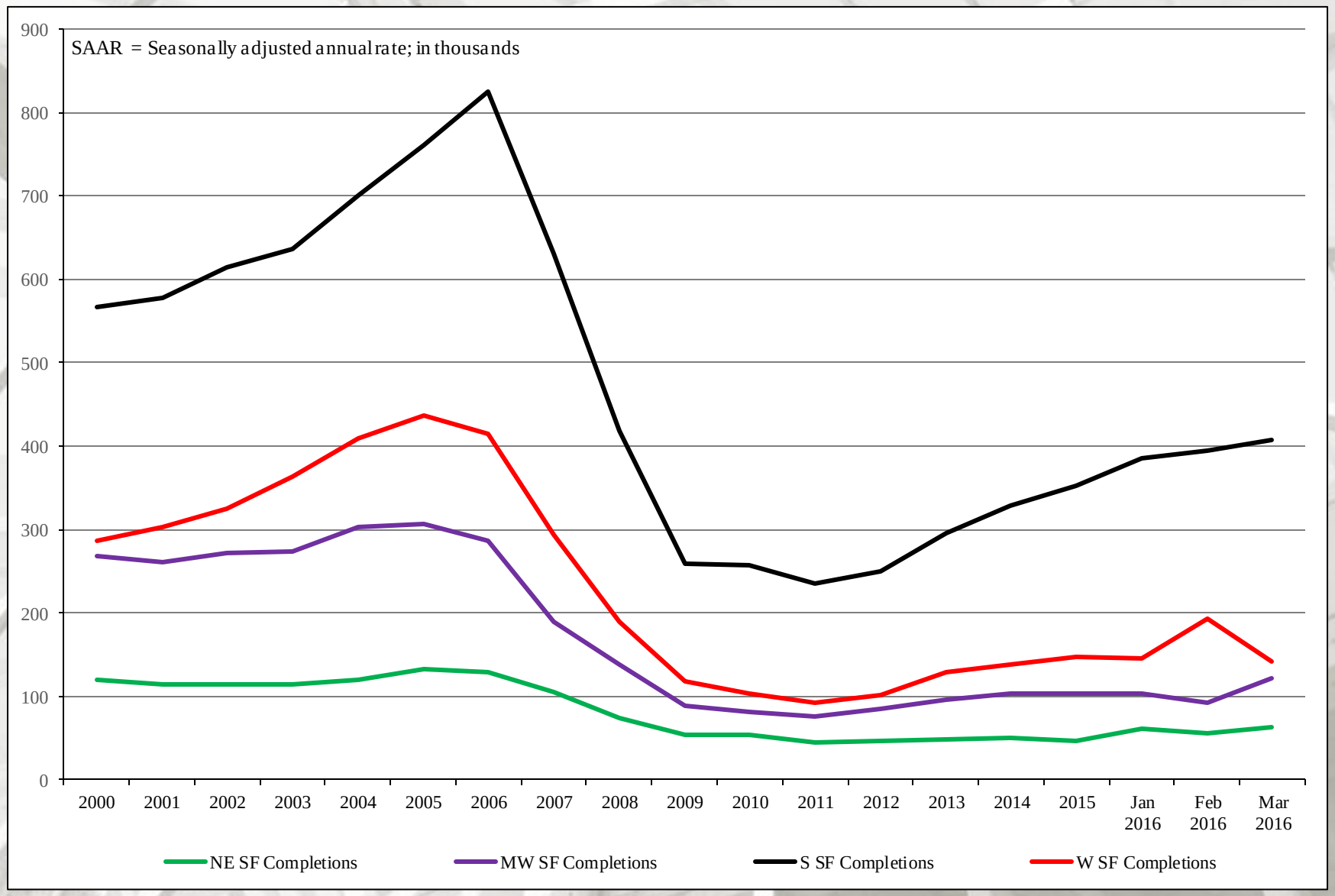
SF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

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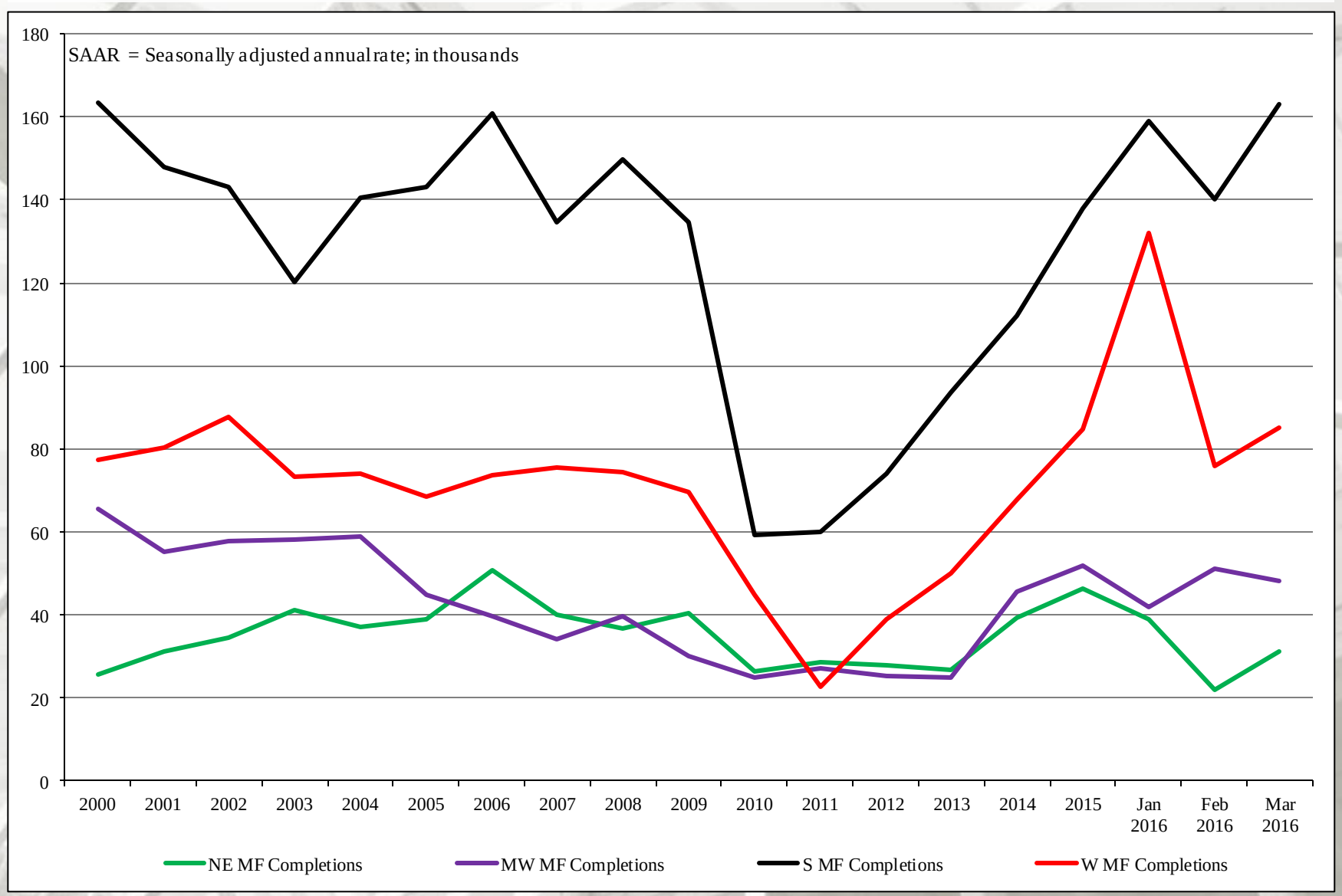
MF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 4/19/16

Return TOC

New Single-Family House Sales

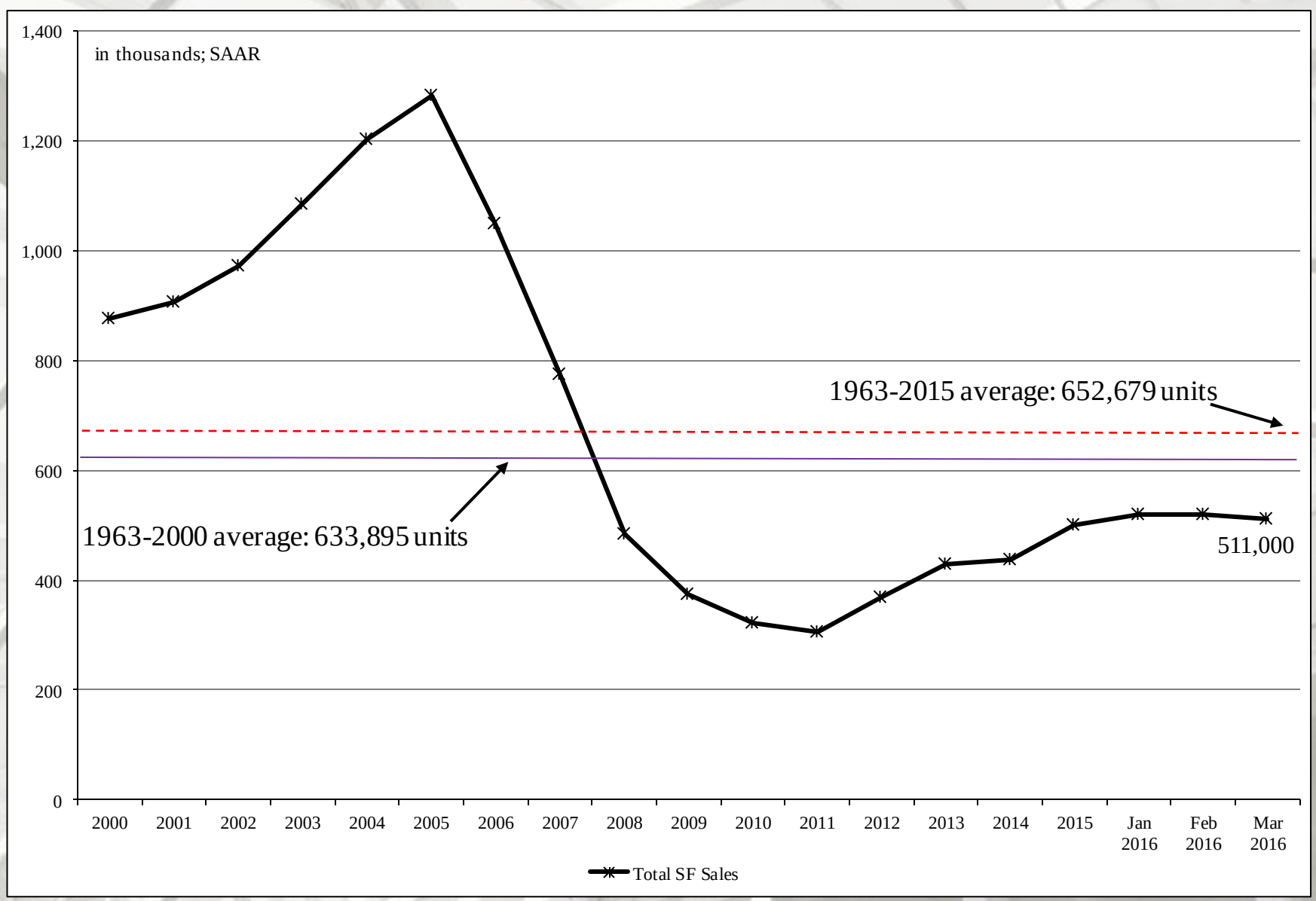
	New SF Sales*	Median Price	Mean Price	Month's Supply
March	511,000	$288,000	$356,200	5.8
February	519,000	$297,400	$342,100	5.6
2015	485,000	$293,400	$352,700	5.1
M/M change	-1.5%	-3.2%	4.1%	3.6%
Y/Y change	5.4%	-1.8%	1.0%	13.7%

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

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25/16

Return TOC

New SF House Sales



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25/16

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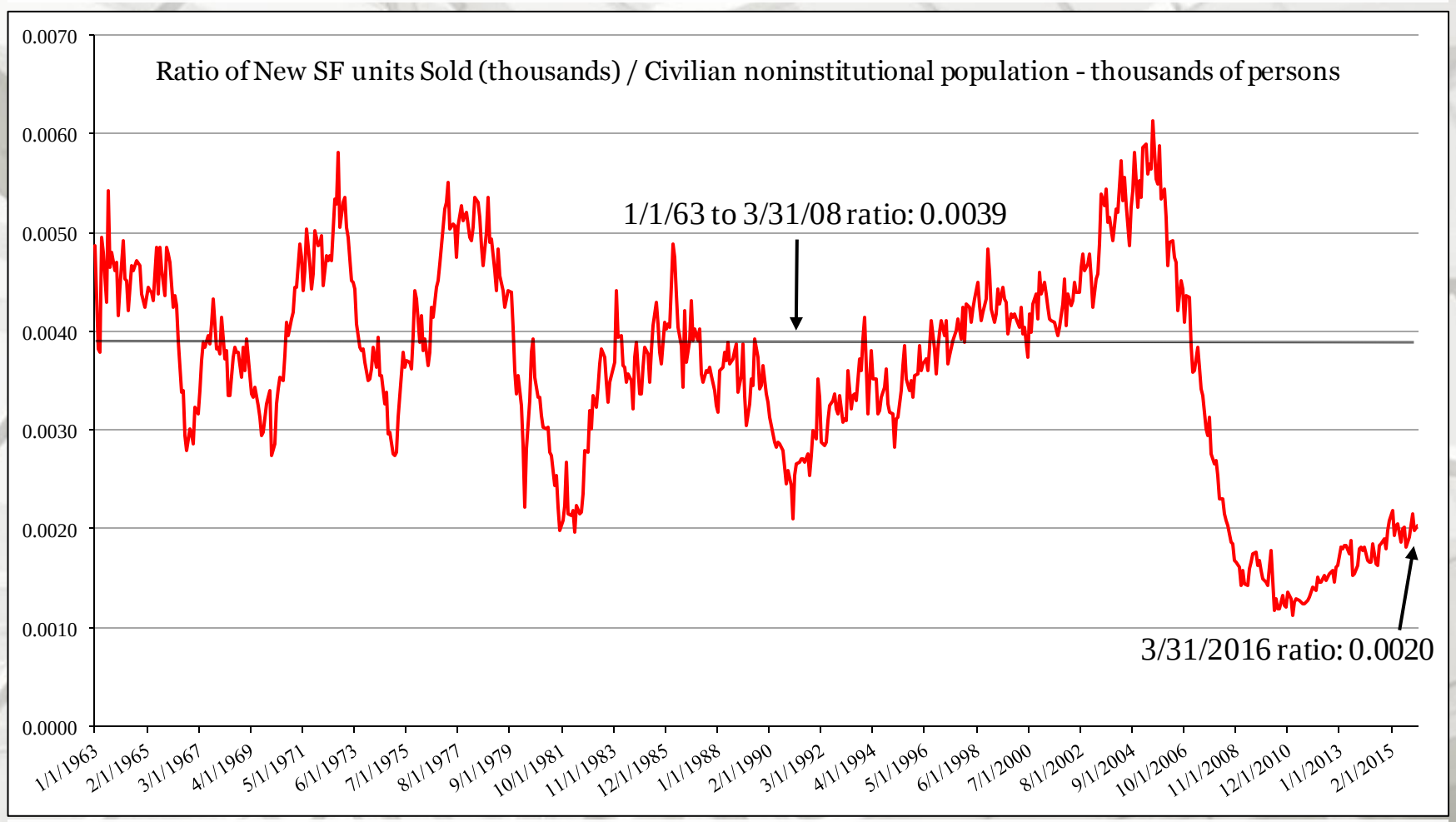
New SF House Sales



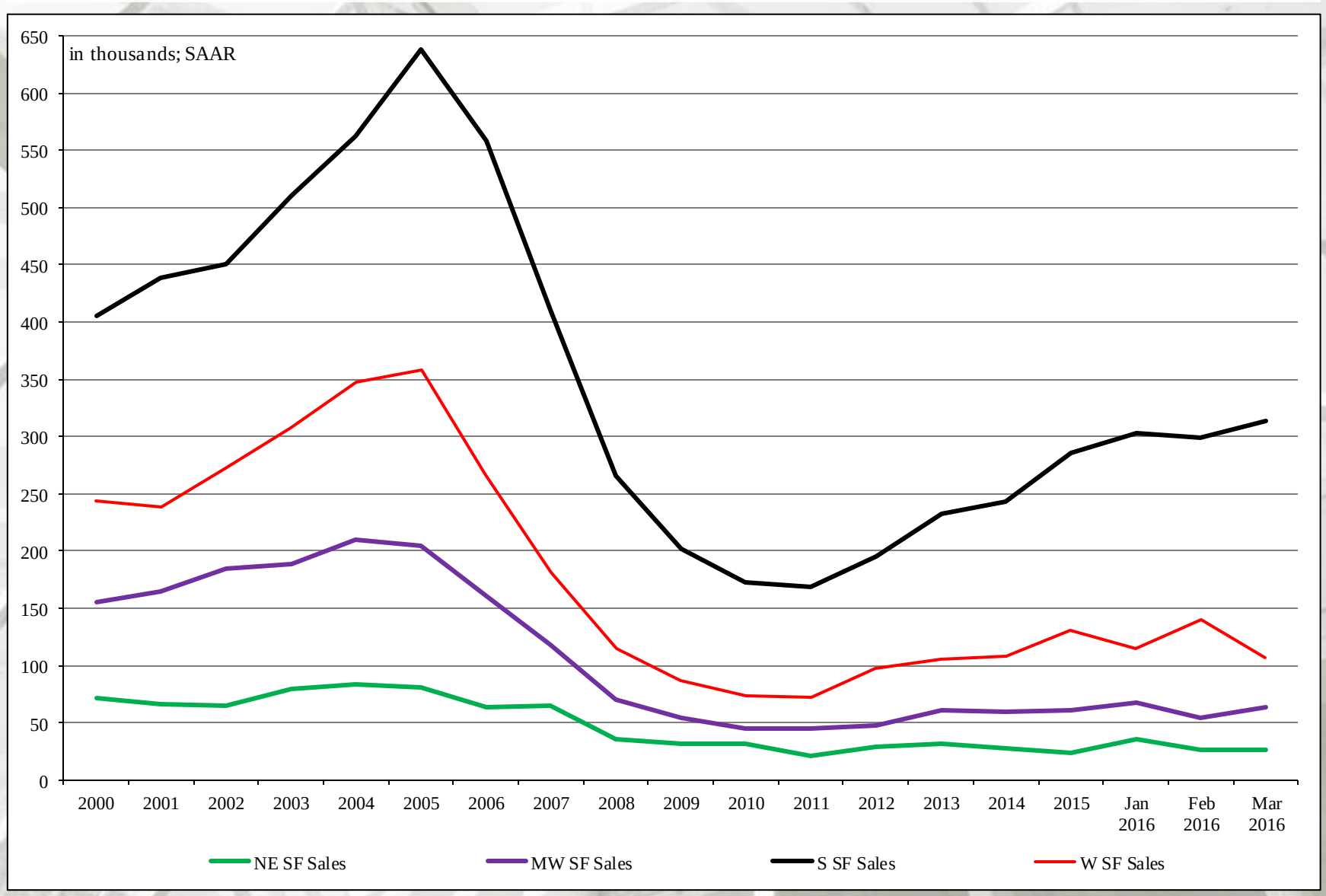
New SF sales adjusted for the US population

From March 1963 to March 2008, the long-term ratio of new house sales to the US population was 0.0039 – in March it was 0.0020 – a slight decrease from February. From a population viewpoint, under construction has occurred in the new SF segment and there is ample room for improvement.

Sources: http://www.census.gov/construction/nrs/xls/newressales.xls and The Federal Reserve Bank of St. Louis; 4/23/16

Return TOC

New SF House Sales by Region



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25/16

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New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
March	26,000	64,000	314,000	107,000
February	26,000	54,000	299,000	140,000
2015	20,000	58,000	272,000	115,000
M/M change	0.0%	18.5%	5.0%	-23.6%
Y/Y change	30.0%	10.3%	15.4%	-20.7%

	< $150m	$150-$199.9m	$200-299.9m	$300-$399.9m	$400-$499.9m	$500-$749.9m	> $750m
March	3,000	6,000	18,000	7,000	5,000	2,000	2,000
February	3,000	4,000	16,000	11,000	6,000	4,000	1,000
2015	1,000	7,000	15,000	9,000	6,000	5,000	3,000
M/M change	0.0%	50.0%	12.5%	-27.3%	-14.3%	25.0%	100.0%
Y/Y change	200.0%	0.0%	20.0%	-11.1%	0.0%	0.0%	-33.3%

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 may not add to total because of rounding.

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25//16

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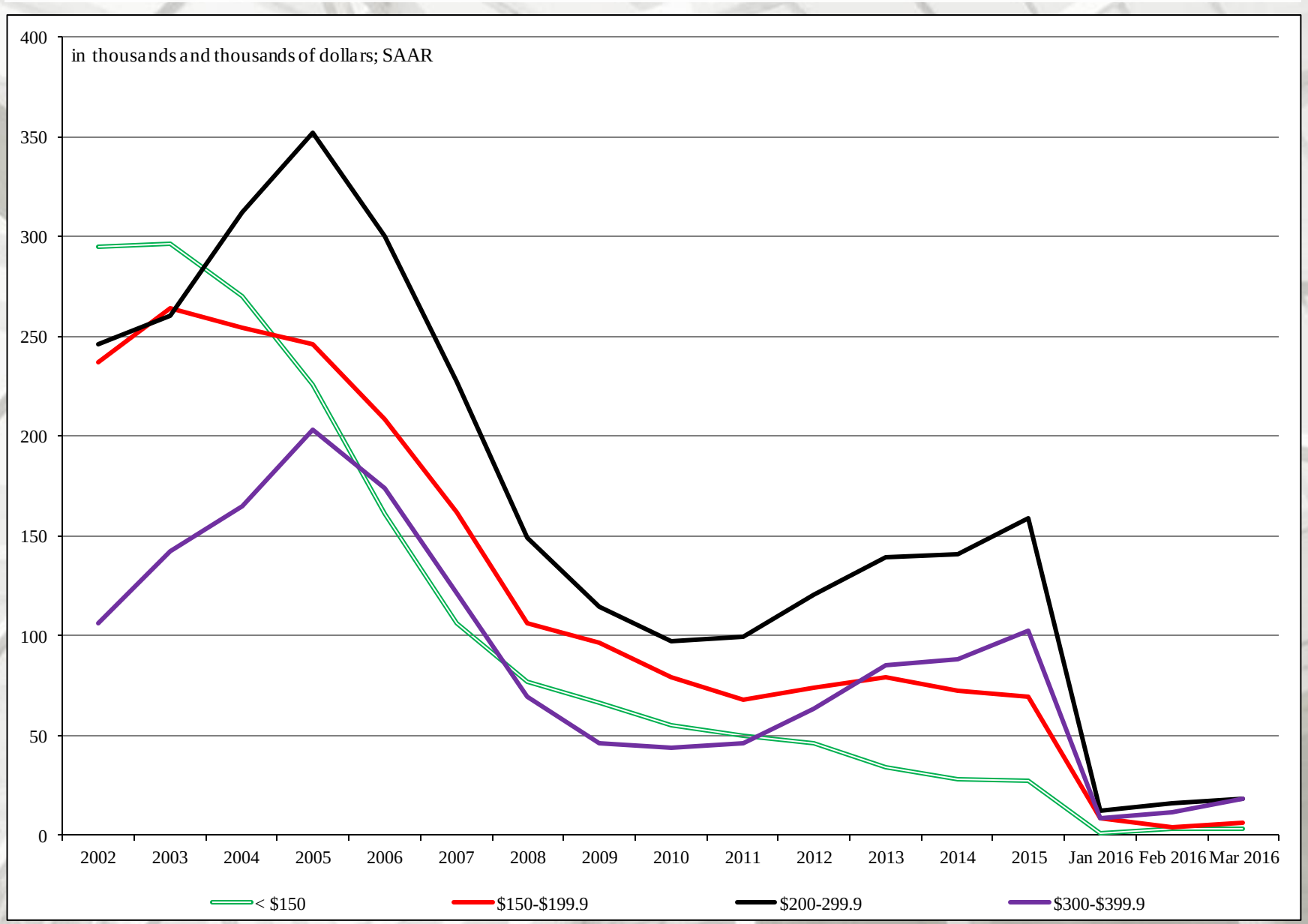
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25//16

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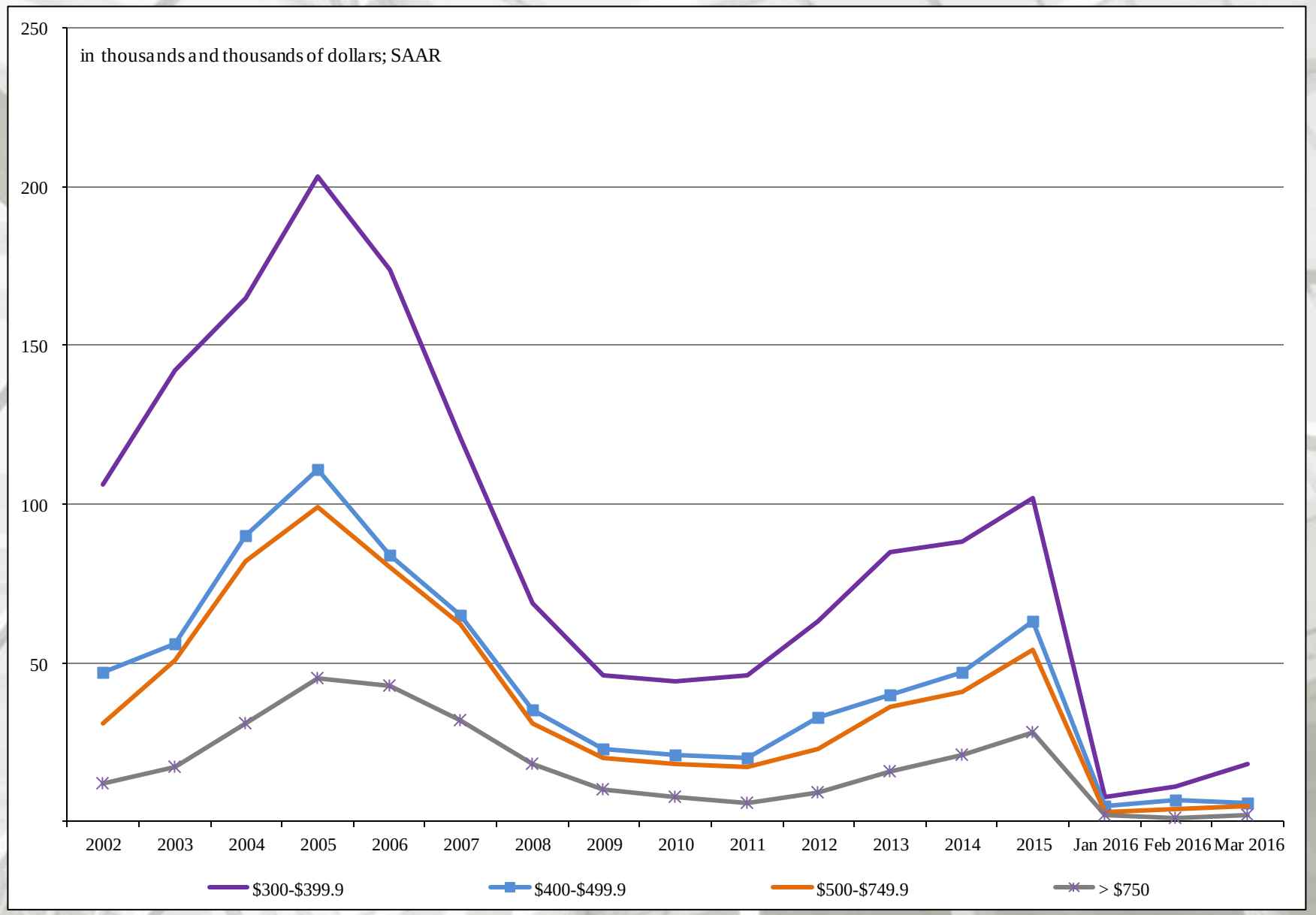
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25//16

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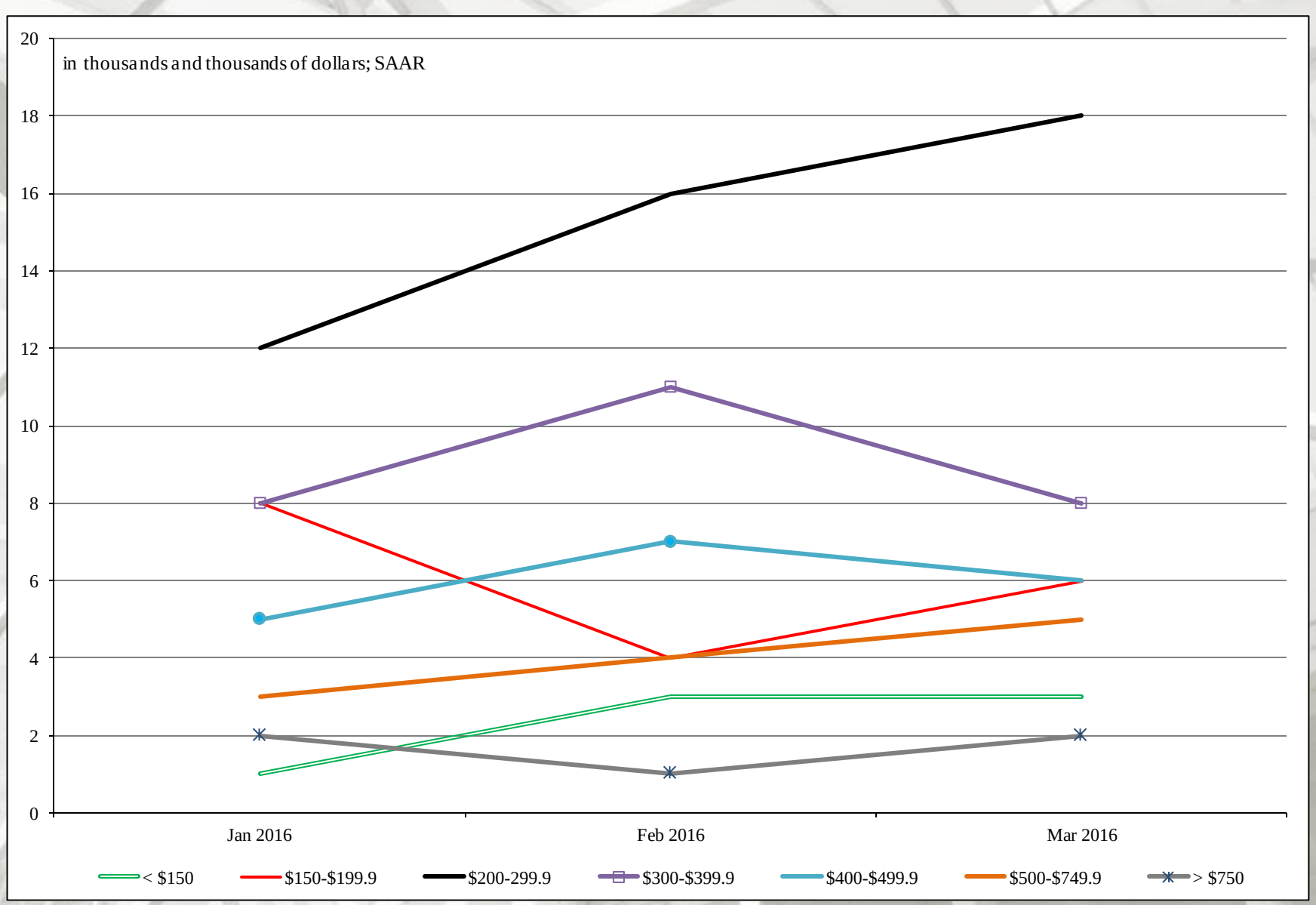
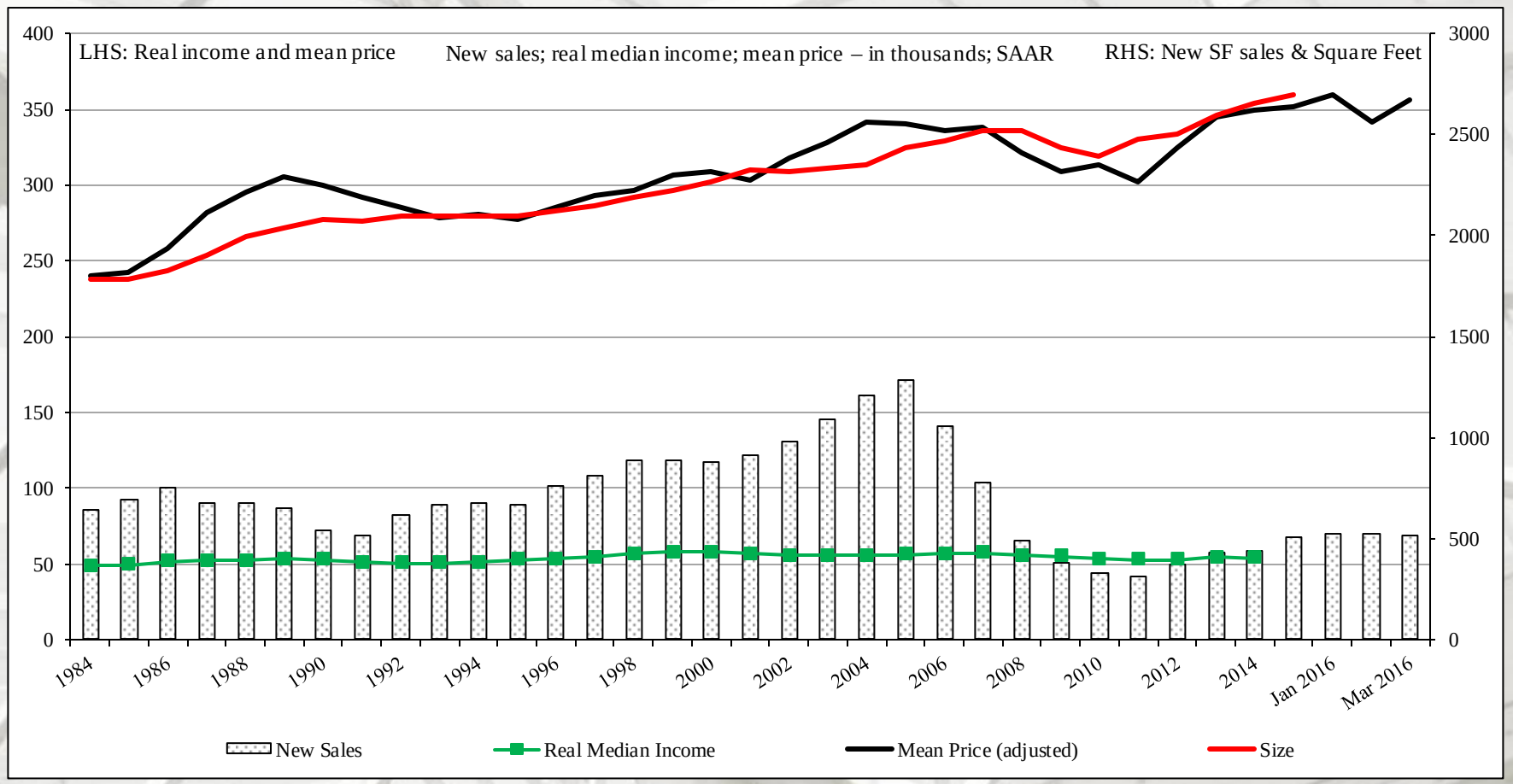
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 4/25/16

Return TOC

New SF Sales, Mean Price, Size, and Real Household Median Income



New SF housing size and mean price (adjusted through December 2015) are increasing – yet, real median household income is flat and new SF sales are less than the 1963 total of 560,000. In 1963, the U.S. population was 189.2 million; Census estimates a population of 323.4 million as of April 27, 2016.

In a price context, in March,18.8% of new SF house sales were less than the $200-$300m category and nearly 43.7% were more than that same category. Is this a bifurcated market? Possibly. Is there an opportunity for new, SF lower-priced tier houses? A few builders across the U.S. are targeting this segment.

Sources: http://www.census.gov/construction; https://research.stlouisfed.org; http://www.bea.gov

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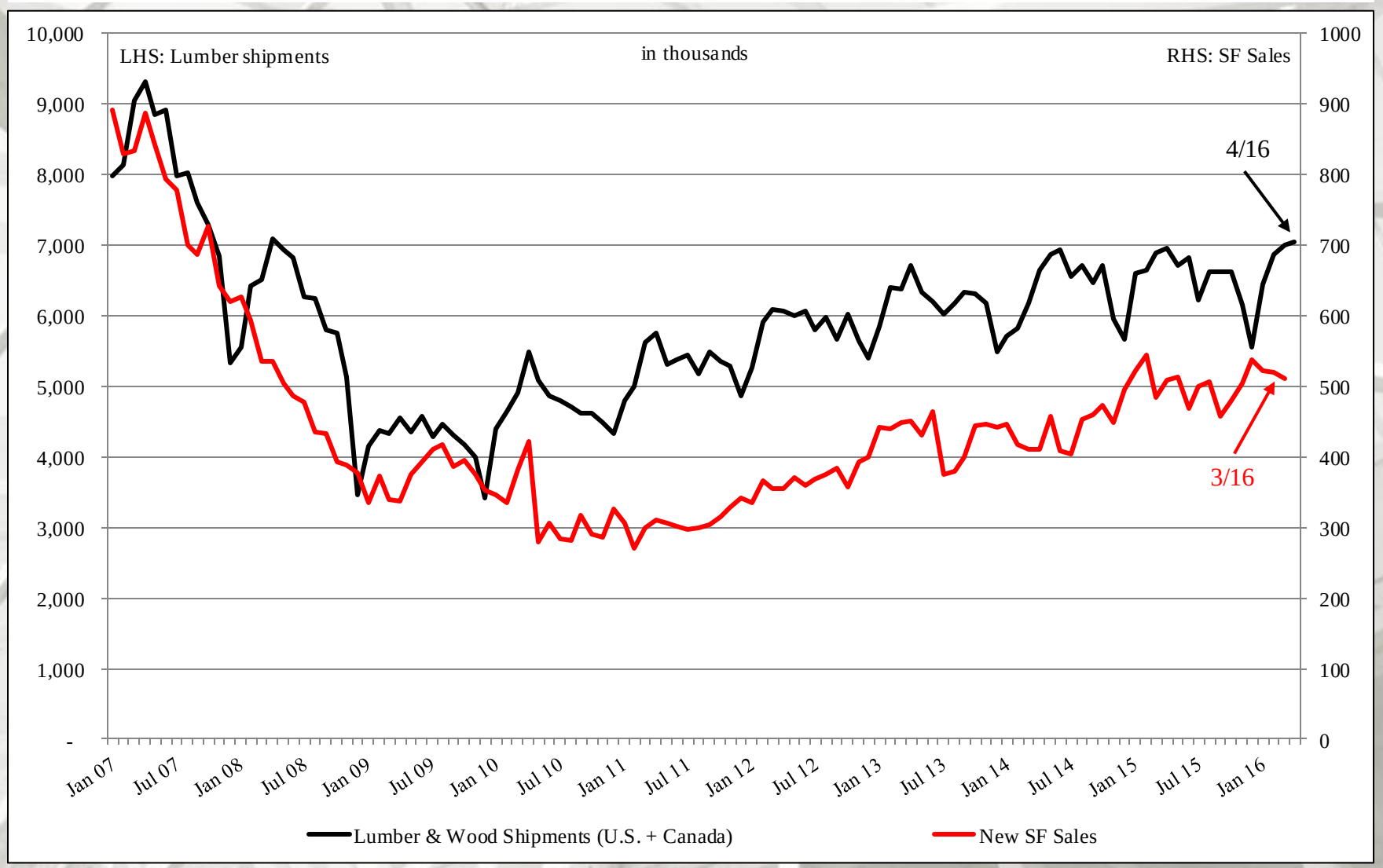
Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales



Sources: Association of American Railroads, *Rail Time Indicators* report; 4/6/16; U.S. DOC-Construction; 3/23/16

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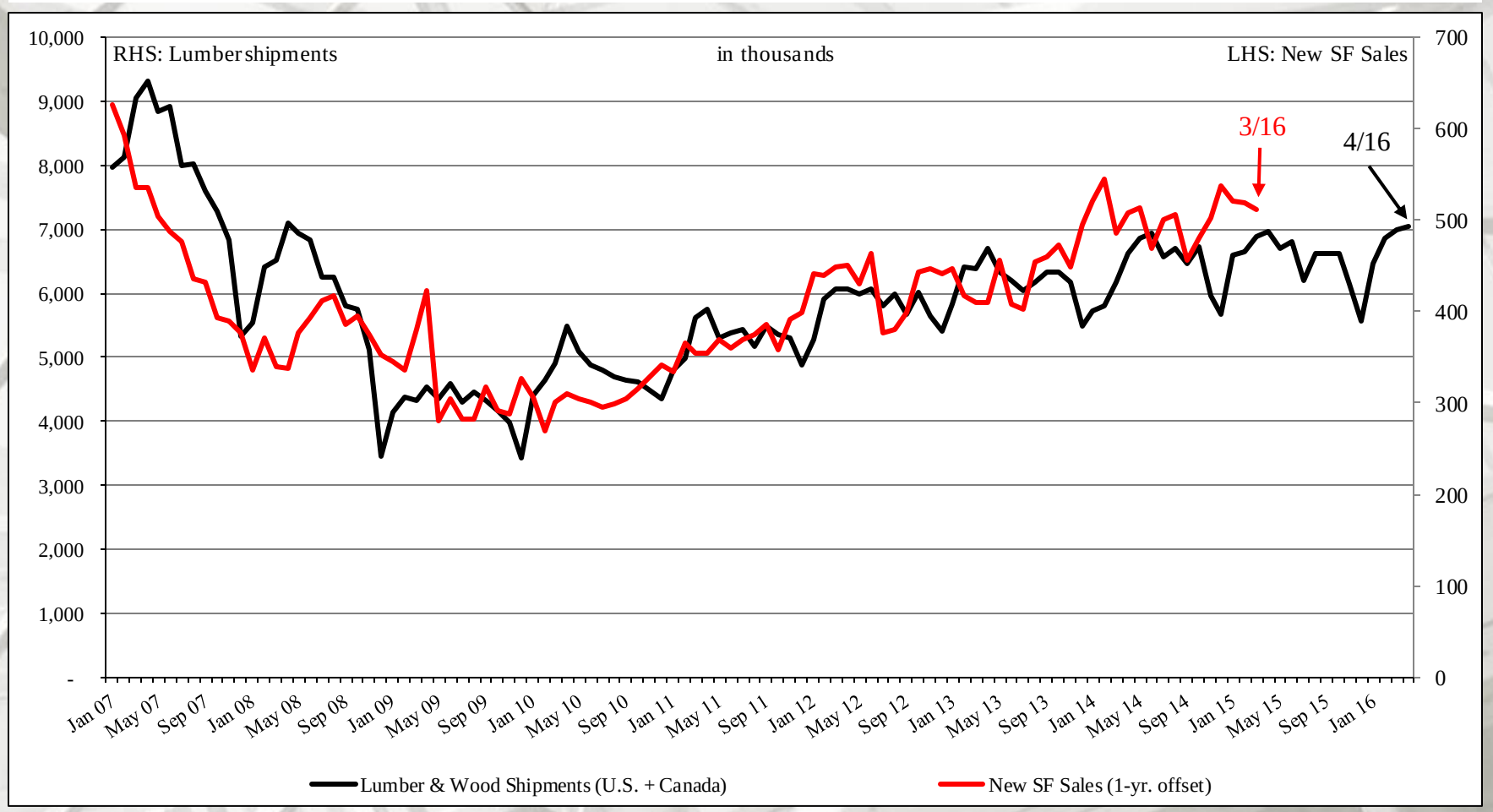
Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales: 1-year offset



In this graph, initially February 2007 lumber shipments are contrasted with February 2008 new SF sales through March 2016 data. 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, *Rail Time Indicators* report; 4/616; U.S. DOC-Construction; 3/23/16

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March 2016 Construction Spending

2016 March Total Private Residential Construction: $435.48 billion (SAAR)

1.6% more than the revised February estimate of $404.06 billion (SAAR)
7.8% greater than the March 2015 estimate of $ 428.82 billion (SAAR)

March SF construction: $236.27 billion (SAAR)
-0.03% less than February: $236.21 billion (SAAR)
13.4% greater than March 2015: $208.33 billion (SAAR)

March MF construction: $64.43 billion (SAAR)
5.6% more than February: $61.02 billion (SAAR)
34.6% greater than March 2015: $47.85 billion (SAAR)

March Improvement[C] construction: $134.78 billion (SAAR)
2.4% more than February: $131.59 billion (SAAR)
-8.9% less than March 2015: $147.88 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; 5/2/16

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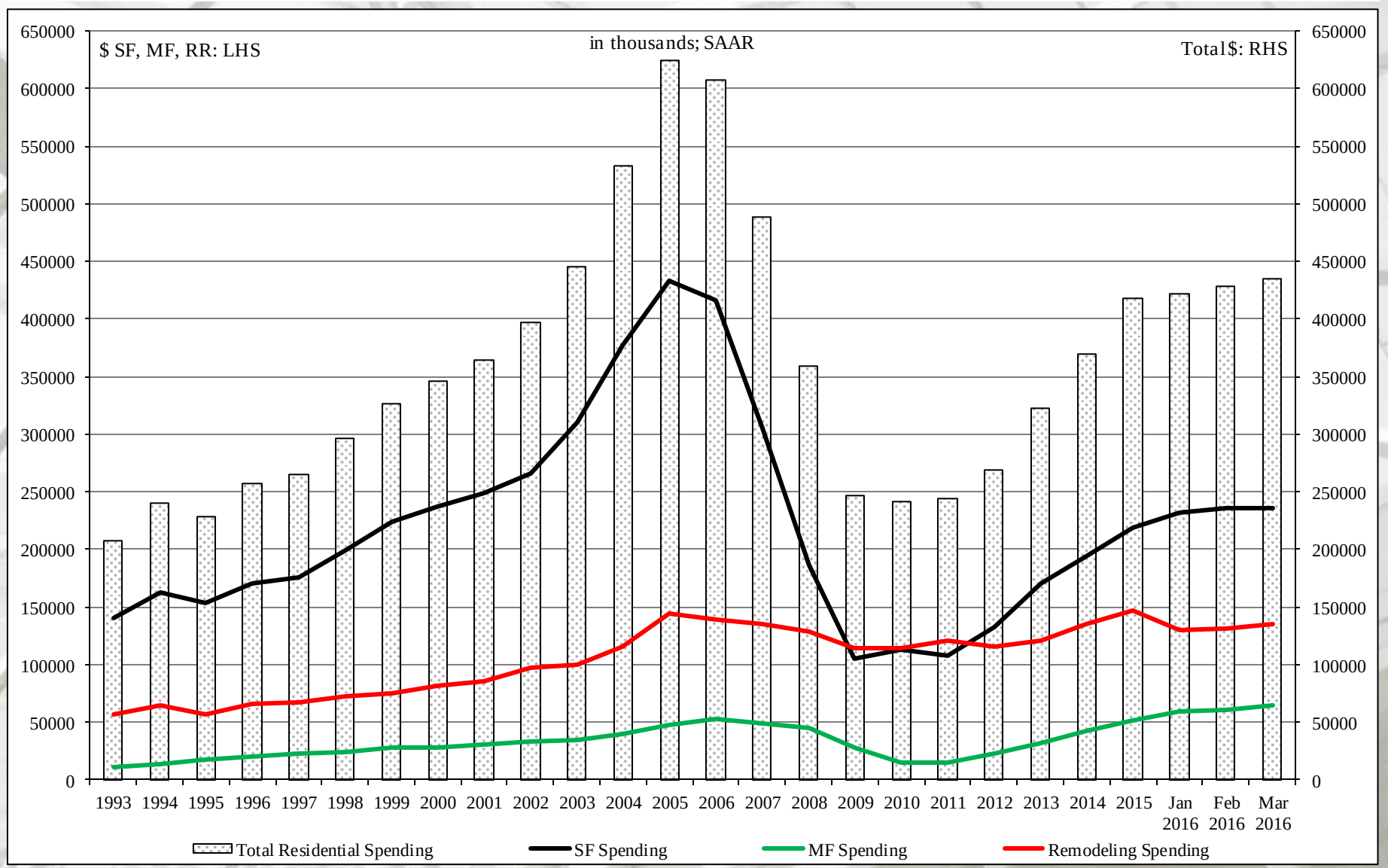
Construction Spending (nominal): 1993-2016



Reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 5/2/16

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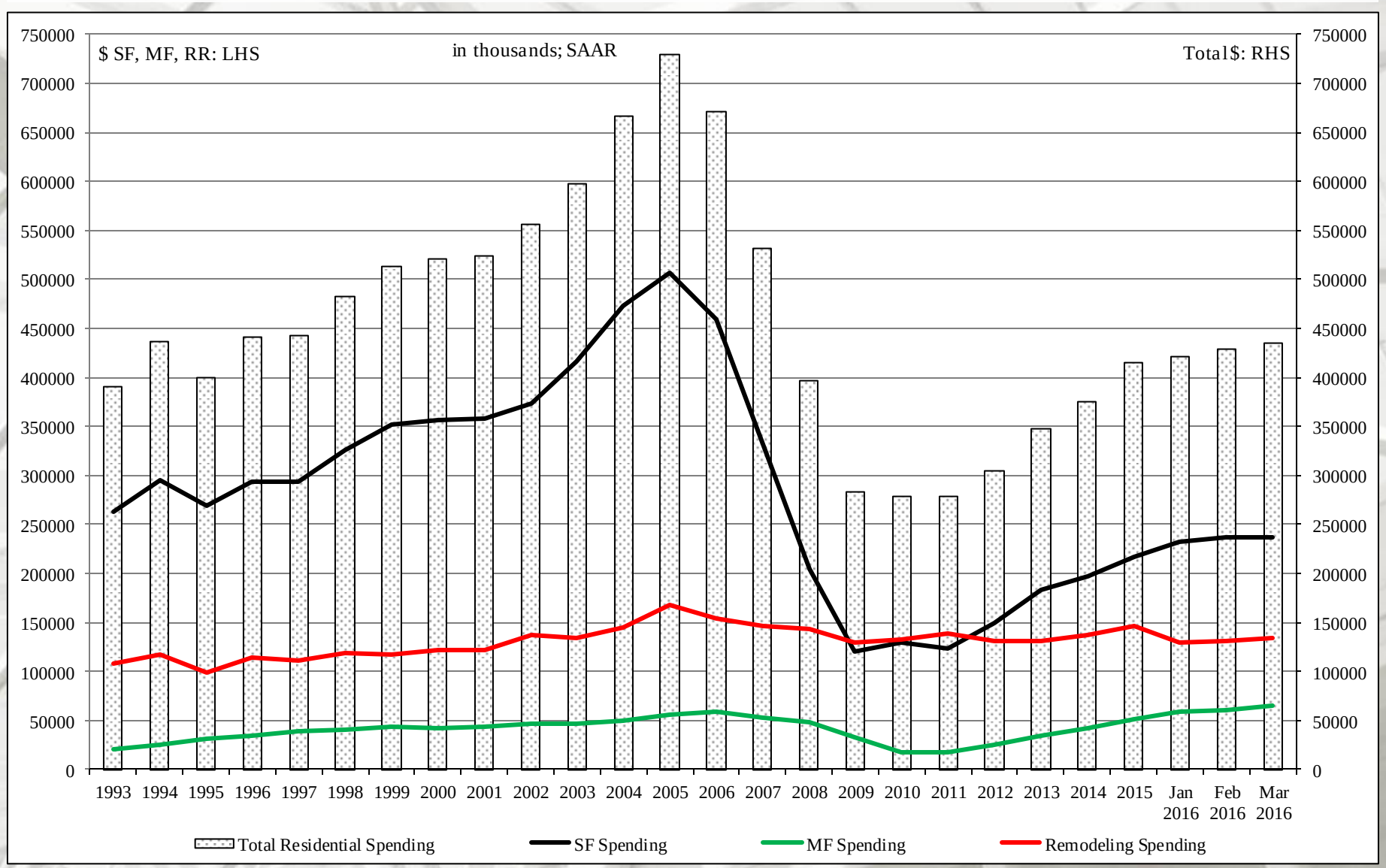
Construction Spending (adjusted): 1993-2016*



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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 5/2/16

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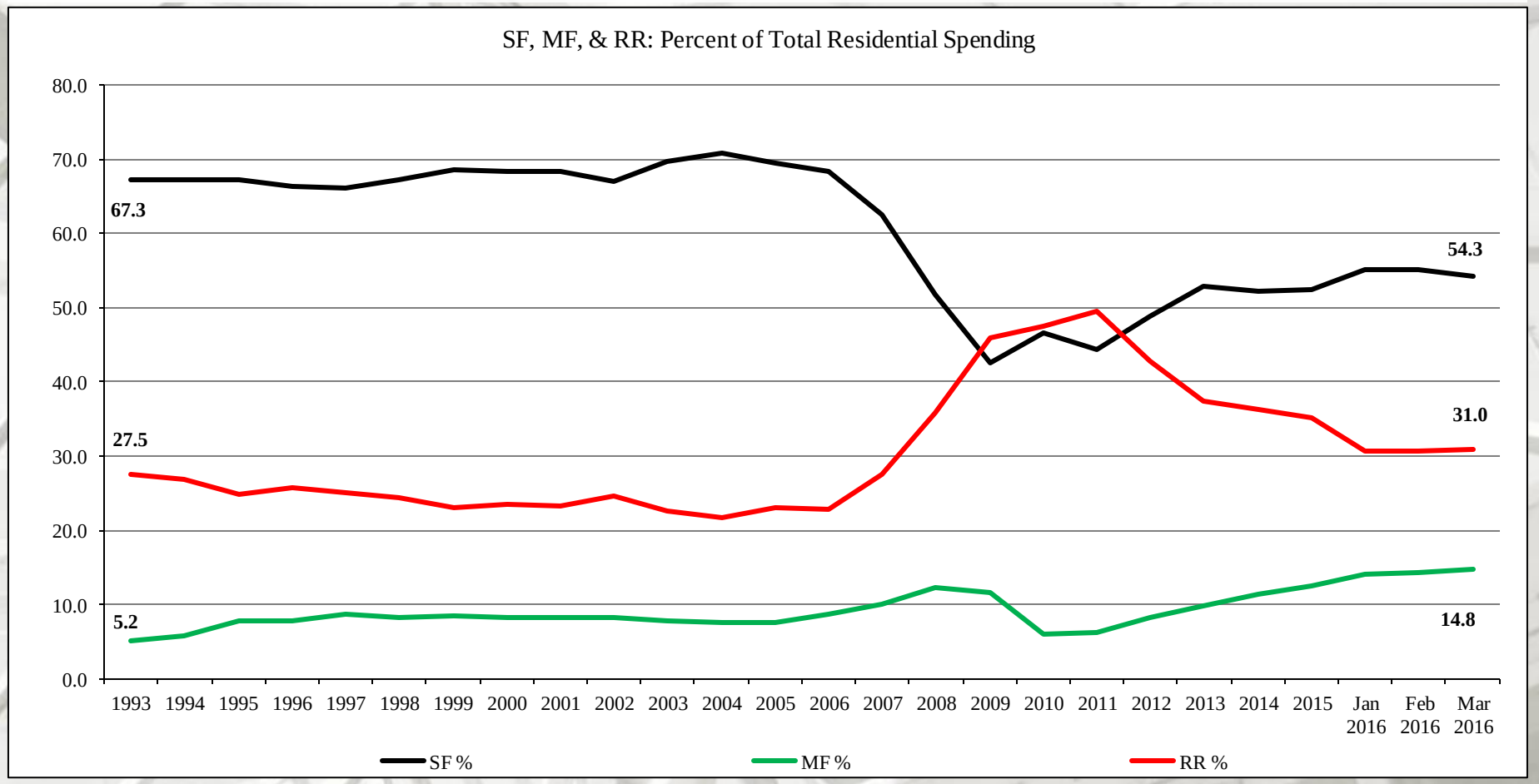
Construction Spending Shares: 1993 to March 2016



SF spending: 69.2 % of total residential spending:1993 through 2006;
MF spending: 7.5 %;
RR spending: 23.3 % (SAAR).

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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 5/2/16

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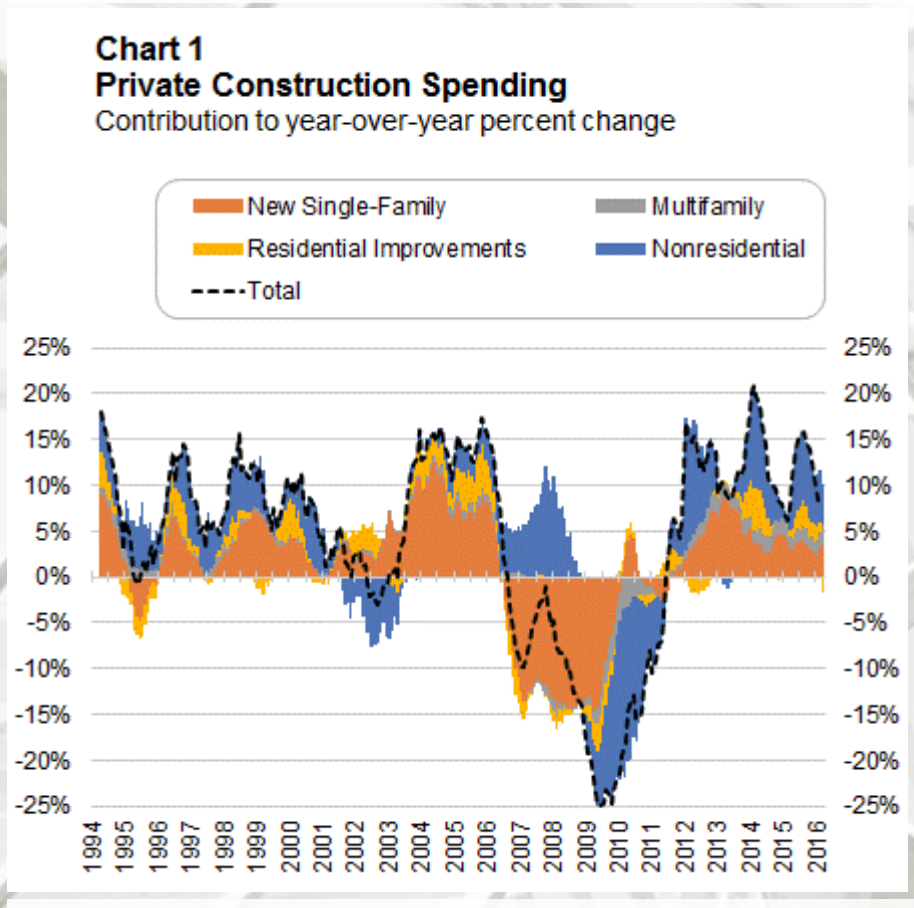
Construction Spending



Construction Spending Update

"Private construction spending increased 8.5 percent on a year-over-year basis. The breakdown of growth by segment shown in chart 1 reveals that private residential (the sum of new single-family, multifamily, and residential improvements) and private nonresidential spending contributed almost equally to this increase (4.0 and 4.5 percent respectively)."

"Private residential construction spending, on the other hand, remains 35.8 percent below its previous peak. With that said, after zooming out to look at spending over the entire horizon of the series and adjusting for inflation (chart 2), it doesn't seem particularly wise to judge the health of construction spending relative to the past peak. In hindsight, the last peak was clearly an aberration, especially for residential spending." – Jessica Dill, Economic Policy Analysis Specialist, The Federal Reserve Bank of Atlanta

Source: http://realestateresearch.frbatlanta.org/rer/2016/05/construction-spending-update.html; 5/3/16

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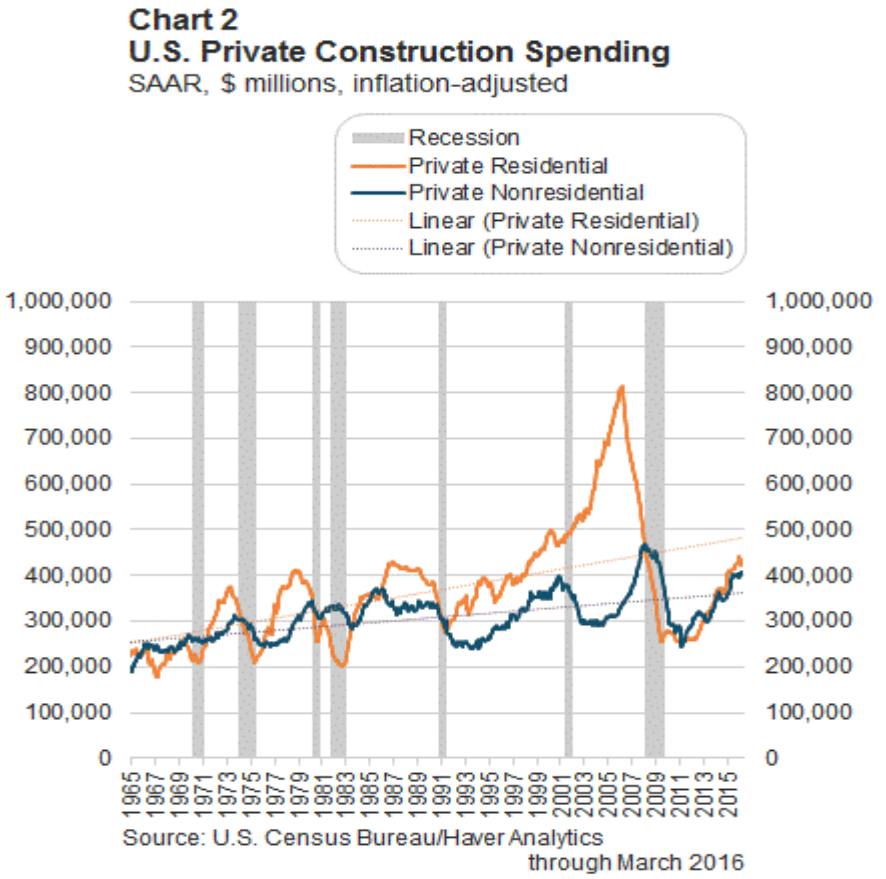
Construction Spending



Construction Spending Update

"Using this longer-running and inflation-adjusted time series to help put current spending in context, it's hard not to notice that the level of private nonresidential spending has surpassed the level seen in earlier peaks (the most recent peak excluded) while private residential spending now looks to be about on par with levels seen in earlier peaks. This surface-level comparison is a bit short-sighted, as this is not a mean-reverting time series. An upward trend in aggregate real construction spending seems perfectly reasonable as the population and economy grow over time."

Shifting focus to the dashed trend lines in chart 2, we see that spending on residential construction has yet to catch up with trend but is much closer than when compared with the previous peak, while spending on nonresidential construction is at a level that exceeds its trend." – Jessica Dill, Economic Policy Analysis Specialist, The Federal Reserve Bank of Atlanta

Source: http://realestateresearch.frbatlanta.org/rer/2016/05/construction-spending-update.html; 5/3/16

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Existing House Sales

	Existing Sales	Median Price	Average Price	Month's Supply
March	5,330,000	$222,700	$265,200	4.5
February	5,070,000	$212,100	$255,300	4.4
2015	5,250,000	$210,700	$256,300	4.6
M/M change	5.1%	5.0%	3.9%	2.3%
Y/Y change	1.5%	5.7%	3.5%	-2.2%

	NE Sales	MW Sales	S Sales	W Sales
March	700,000	1,230,000	2,250,000	1,150,000
February	630,000	1,120,000	2,190,000	1,130,000
2015	650,000	1,220,000	2,200,000	1,180,000
M/M change	11.1%	9.8%	2.7%	1.8%
Y/Y change	7.7%	0.8%	2.3%	-2.5%

* All sales data: SAAR

Source: NAR® www.realtor.org/topics/existing-home-sales; 4/20/16

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Existing House Sales

National Association of Realtors (NAR®)

March 2016 sales: 5.33 million houses sold (SAAR)

Distressed house sales: 8% of sales –
(7% foreclosures and 1% short-sales);

10% in February and 10% in March 2015.

All-cash sales: 25% and 25% in February,
and 24% (March 2015).

Individual investors still purchase a considerable portion of
"all cash" sale houses – 14% in March;
18% in February and 14% in March 2015.

66% of investors paid cash in March.

Source: NAR® www.realtor.org/topics/existing-home-sales; 4/20/16

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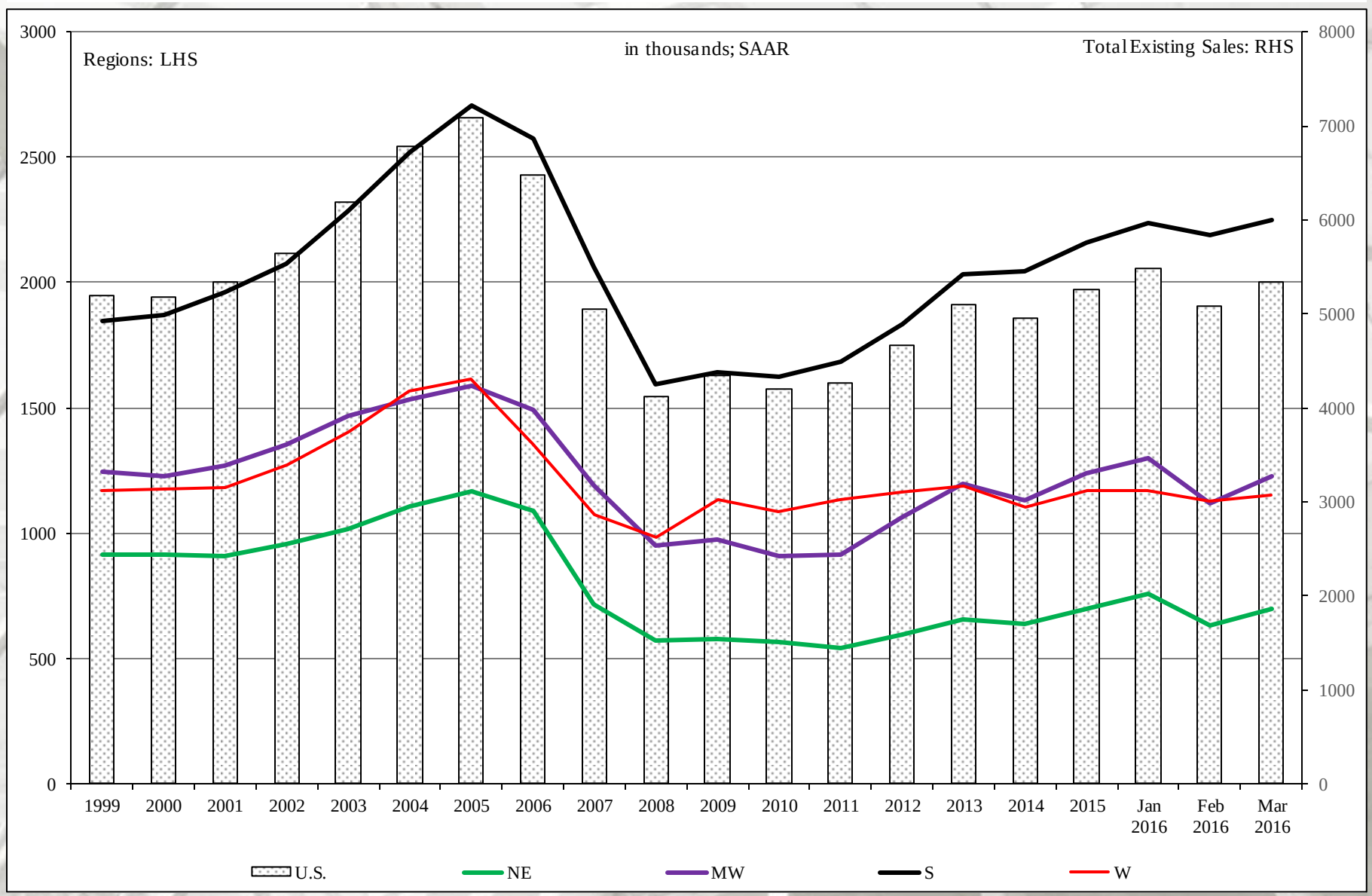
Total Existing House Sales



Source: NAR® www.realtor.org/topics/existing-home-sales; 4/20/16

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First-Time Purchasers

National Association of Realtors (NAR®)
First-Time Purchases

30% of sales in March – 30% in February and 30% in March 2015.

American Enterprise Institute Center on Housing Risk
First-Time Purchases

"Purchase loan volume surged 18% in March from a year earlier, paced by a 21% jump for first-time buyers. The steep rise in volume was driven by looser lending standards… . First-time buyers have been the focus of the easing in credit standards for Agency purchase loans. The first-time buyer National Mortgage Risk Index (NMRI) stood at 15.67% in March, up 0.62 percentage point from a year earlier, and well above Repeat Primary Homebuyer NMRI of 10.01%." – Paul Urbashee, AEI-CHR

U.S. Census Bureau – Housing Vacancy Survey

First quarter 2015 home ownership rate: 30 – 34 year olds: 45.8 percent
First quarter 2016 home ownership rate: 30 – 34 year olds: 45.7 percent

First quarter 2015 home ownership rate: 35 – 39 year olds: 55.1 percent
First quarter 2016 home ownership rate: 35 – 39 year olds: 55.3 percent

Source: NAR® www.realtor.org/topics/existing-home-sales, 4/20/16; American Enterprise Institute: www.housingrisk.org; 4/20/16; www.census.gov/programs-surveys/ahs.html; 4/28/16

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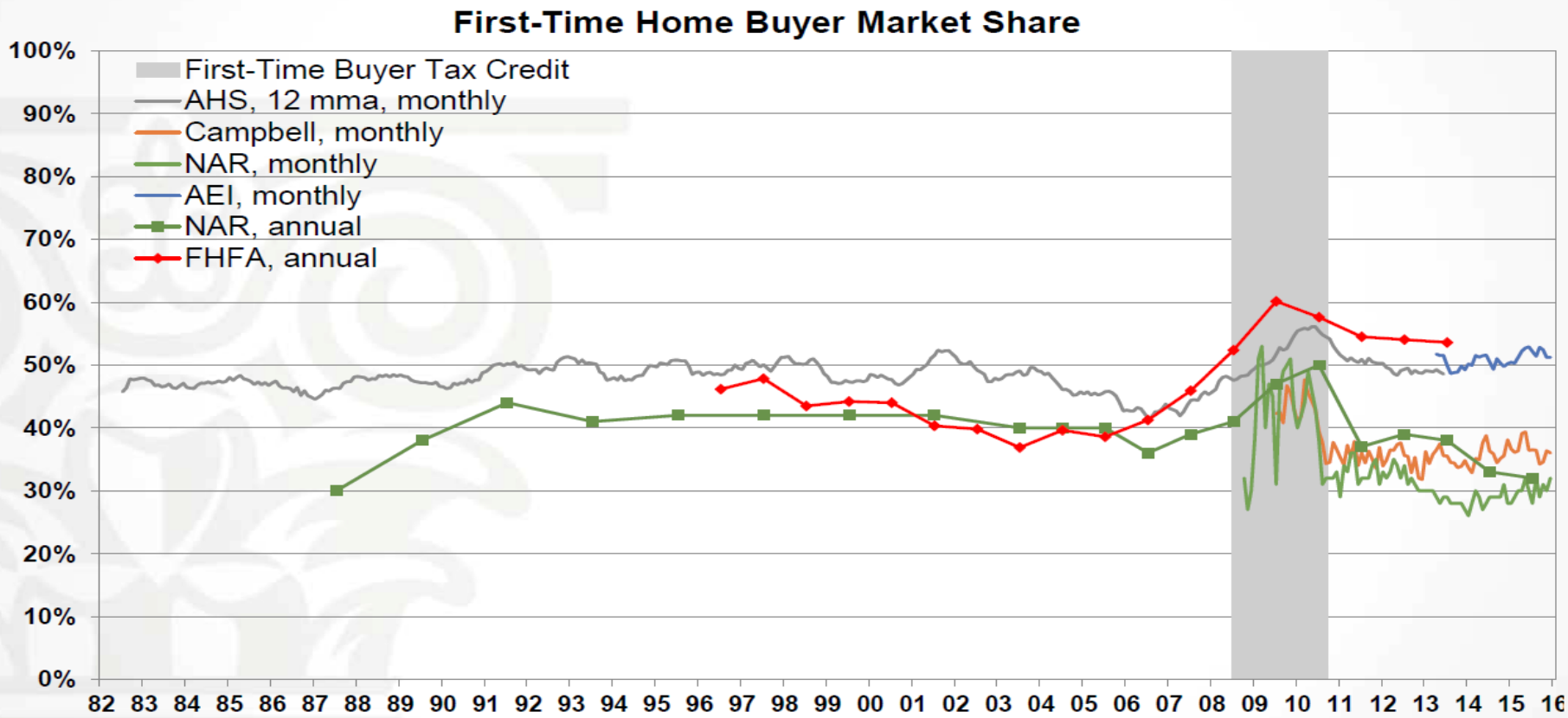
First-Time Purchasers

Measures of First-Time Buyer Market Share



Sources: National Association of Realtors (NAR) Confidence Index through Dec 2015, National Association of Realtors (NAR) *Profile of Home Buyers and Sellers* through 2015, Campbell/Inside Mortgage Finance HousingPulse Tracking Survey through Dec 2015, Federal Reserve Bank of Atlanta staff calculations of the Census Bureau's American Housing Survey (AHS) Public Use Microdata through Jun 2013, Federal Housing Finance Agency through 2013, American Enterprise Institute's International Center on Housing Risk through Dec 2015.
See http://realestateresearch.frbatlanta.org/rer/2013/08/examining-reported-decline-in-first-time-homebuyer-share.html.

Source: https://www.frbatlanta.org/-/media/Documents/news/conferences/2016/0210-econversations-checking-first-time-home-buyers/presentation.pdf, 2/10/16

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First-Time Purchasers

Checking In on First-Time Home Buyers

"I'd like to call your attention to the first green line (Slide 62) that starts in 2008 and it's a solid green line with no markers. This is a measure produced by the National Association of Realtors. It's a monthly measure and it's derived from a survey of realtors who are out there selling homes. They're asked to say what share of homes went to first-time buyers. As you can see, the series starts in 2008 and it spikes pretty early in the series to about 50 percent and then it falls after the home buyer tax credit, to about 30 percent.

The second series that I'll call your attention to is the NAR annual series. It's the green line with markers and blocks. It dates back to the late '80s and the series hovers around 40 percent before, and after, the first-time home buyer tax-credit period.

It's been hovering around 50 percent but what we find is that series has been kind of flat. So we tested each of these series to see if it's trending upward or downward over time. Once you account for the first time home-buyer tax credit period, which goosed demand and pulled forward some of the first-time home buyers, we found that the trend line wasn't statistically different from zero. Put differently, it's been flat over time. I thought that was pretty interesting, given this focus about this decline from a historical share of 40 percent down to a current share of 30 percent. So the takeaway here is, generally, if you look across the longer term, the first-time home buyer market share has been flat but there are several different measures. There's not a "normal" share, so to say." – Jessica Dill, Economic Policy Analyst, The Federal Reserve Bank of Atlanta

Source: https://frbatlanta.org/news/conferences/2016/0210-econversations-checking-first-time-home-buyers/video-transcript, 2/10/16

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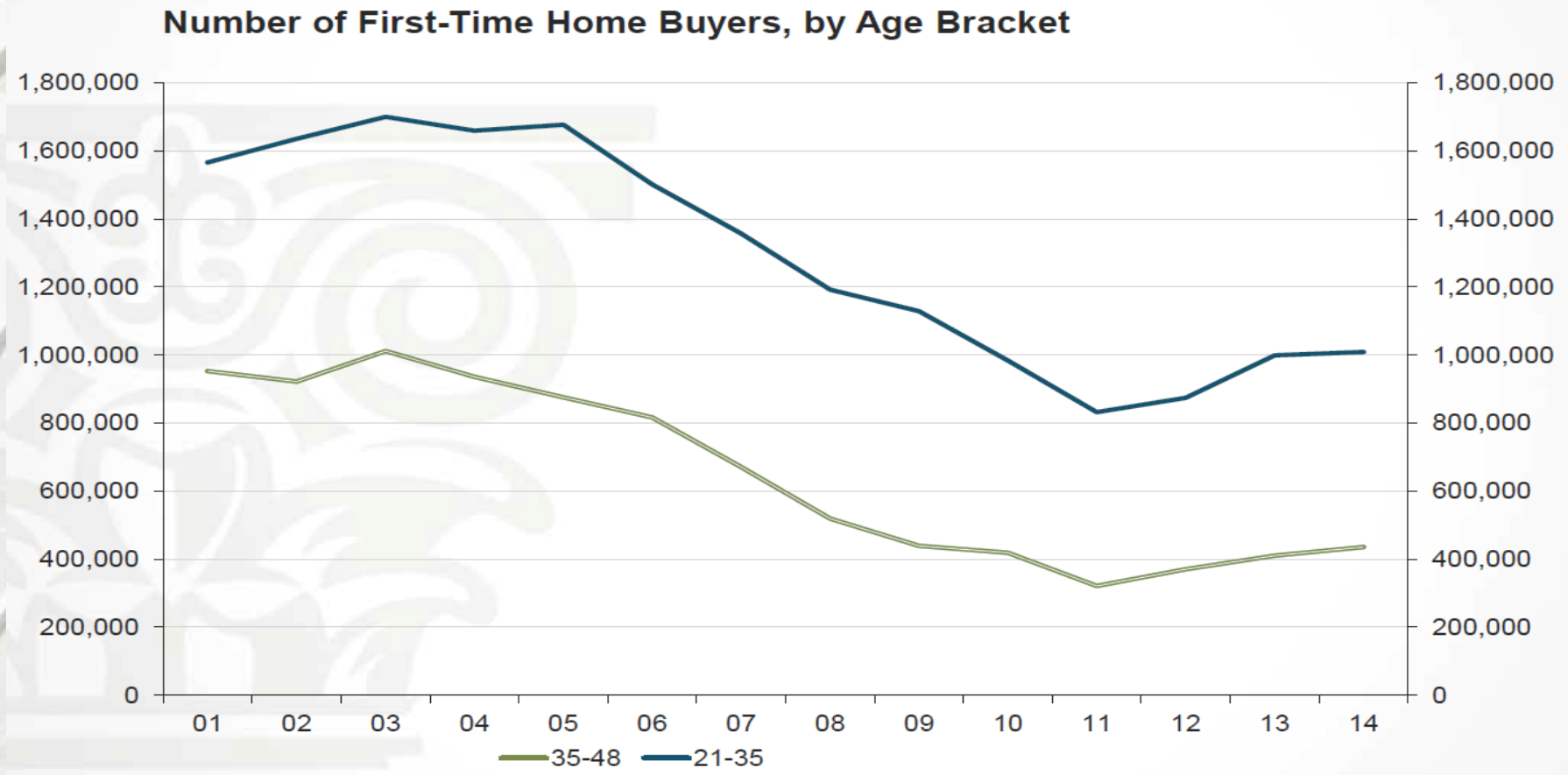
First-Time Purchasers

Fewer but Younger First-Time Buyers



Source: Federal Reserve Bank of New York Consumer Credit Panel (CCP), authors' calculations
See http://realestateresearch.frbatlanta.org/rer/2015/07/are-millennials-responsible-for-the-decline-in-first-time-home-purchases-part-2.html.

Source: https://www.frbatlanta.org/-/media/Documents/news/conferences/2016/0210-econversations-checking-first-time-home-buyers/presentation.pdf, 2/10/16

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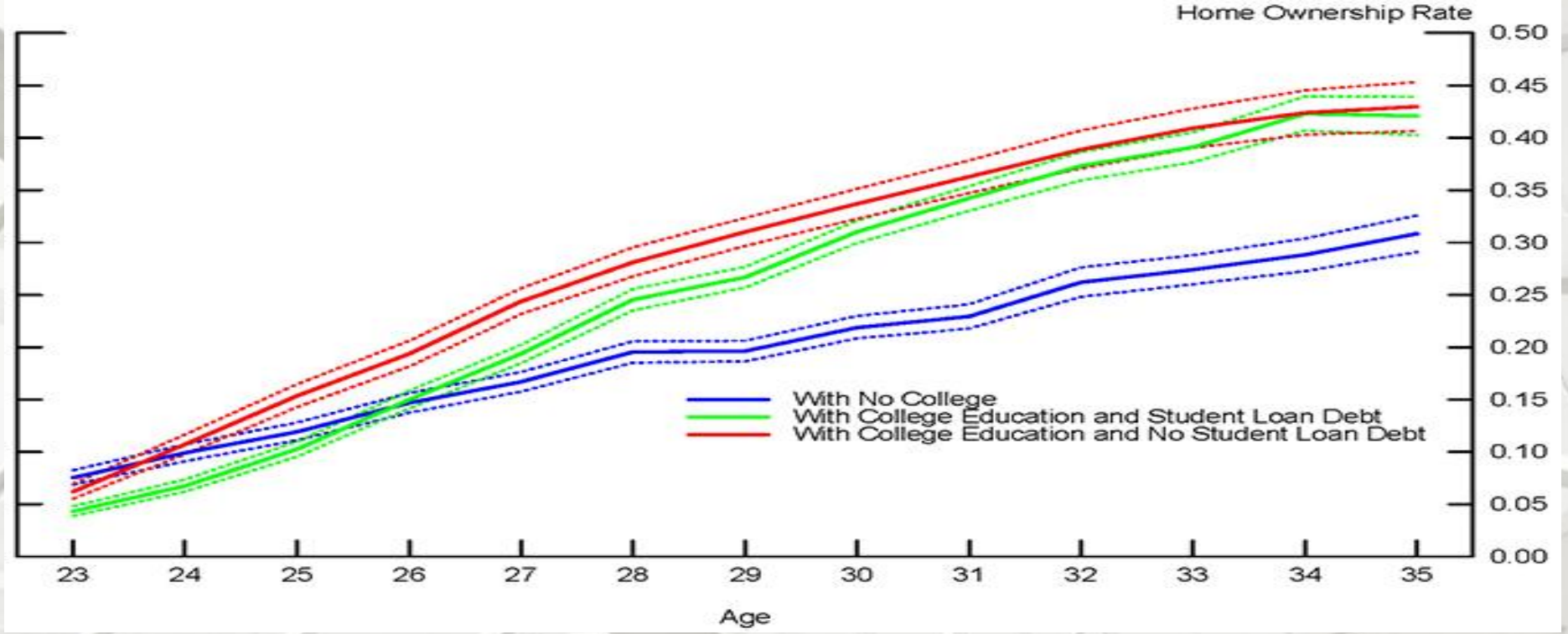
Student Debt – A Drag on Housing?



The dividing line between haves and have-nots in home ownership: Education, not student debt

"Those who borrow for college do have a slower start to homeownership than those who went to college debt-free. This makes sense: loan payments add to the monthly debt-to-income ratio that determines eligibility for a mortgage. But by the time people are in their thirties, when the typical borrower would have finished paying off their student loans, the home ownership rates of the two college-educated groups are statistically indistinguishable. The striking, large gap is between the college-educated and those who stopped with high school." – Susan Dynarski, Nonresident Senior Fellow, Brookings

Source: http://www.brookings.edu/research/reports/2016/05/03-dividing-line-between-haves-have-nots-home-ownership-education-not-student-debt-dynarski, 5/3/16

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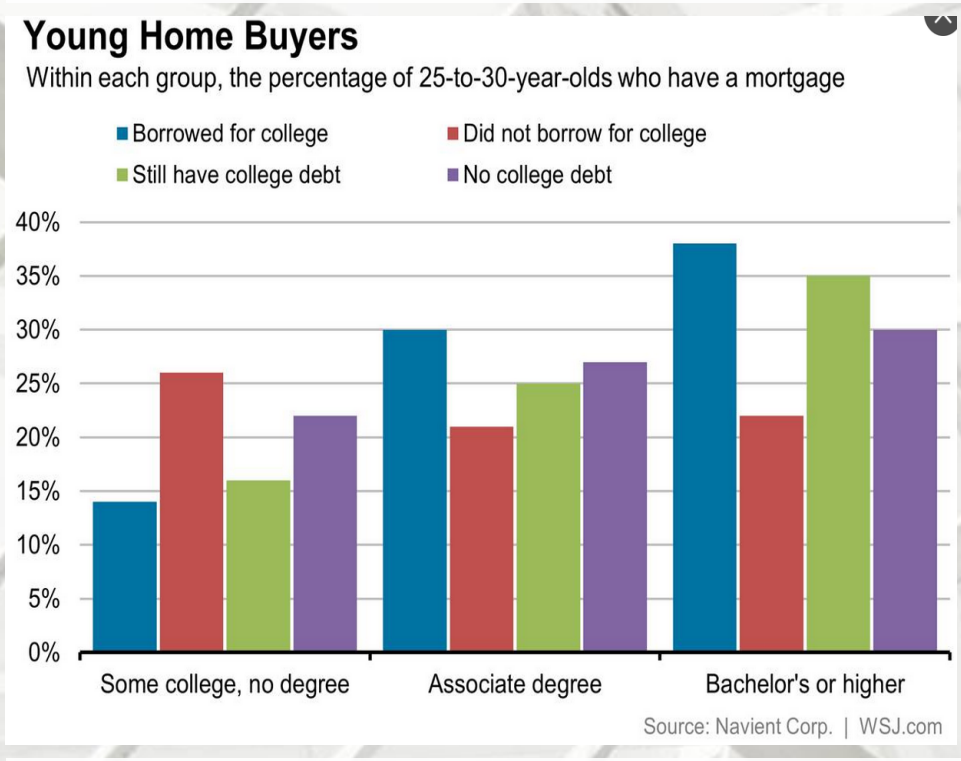
Student Debt – A Drag on Housing?



Student Debt Is Holding Back Millennials? Not So Fast

"The likelihood of holding a mortgage, getting married and having children increase with age and educational attainment. And those who took out student debt and earned a degree are far more likely to have done those things than those who borrowed and dropped out. Perhaps more surprisingly, they were more likely to even than some who graduated and didn't borrow."

New research suggests student debt is indeed a barrier for college dropouts, but that it's generally not holding back those who earned degrees

"Among 25-to-30-year-olds who borrowed for college and earned a bachelor's or higher, 38% held a mortgage — the highest of any other group. Among those with a bachelor's or higher who still owed student debt, 35% held a mortgage — the second-highest. The lowest rate? Those who took out student debt but never earned a degree — just 14% had a mortgage. Among all 25-to-30-year-olds, 22% had a mortgage." – Josh Mitchell, Reporter, Wall Street Journal

Source: http://blogs.wsj.com/economics/2016/04/11/student-debt-is-holding-back-millennials-not-so-fast/; 4/11/15

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Overall House Sales

Appraisal volume dented by low inventory, tight credit

Four-week moving average increases

"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

"The four-week average rose this week to 2.7% due to the decline in late March dropping out. The NAVI seems to be plodding along this spring due to the low inventories and tight credit balanced by low interest rates and good employment numbers." – Kevin Golden, Director of Analytics, a la mode

Week of	Weekly	4-Week Avg.
4/3/16	2.6%	-0.3%
4/10/16	3.6%	0.5%
4/17/16	2.2%	1.7%
4/24/16	1.0%	2.7%

Sources: http://www.housingwire.com/articles/36951-appraisal-volume-dented-by-low-inventory-tight-credit; 5/3/16

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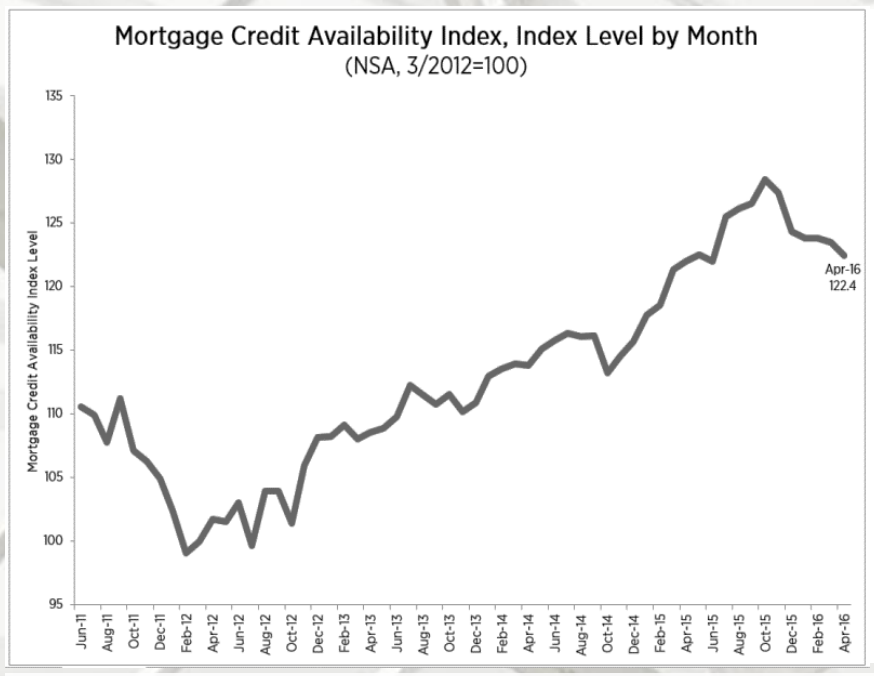
Mortgage Credit Availability



Mortgage Credit Availability Down Again in April

"Mortgage credit became less available in April as a result of two opposing trends, resulting in a net decrease to the index. Investors continued to roll out Fannie Mae and Freddie Mac's low down payment loan programs, which had a loosening effect on credit availability. However, this was more than offset by tightening among high balance and jumbo loan programs." – Lynn Fisher, Vice President of Research and Economics, Mortgage Bankers Association (MBA)

The MCAI is calculated using several factors related to borrower eligibility (credit score, loan type, loan-to-value ratio, etc.). These metrics and underwriting criteria for over 95 lenders/investors are combined by MBA using data made available via the AllRegs® Market Clarity® product and a proprietary formula derived by MBA to calculate the MCAI, a summary measure which indicates the availability of mortgage credit at a point in time. Base period and values for total index is March 31, 2012=100; Conventional March 31, 2012=69; Government March 31, 2012= 222.

Source: ttps://www.mba.org/news-research-and-resources/forecasts-data-and-reports/single-family-research/mortgage-credit-availability-index; 5/5/16

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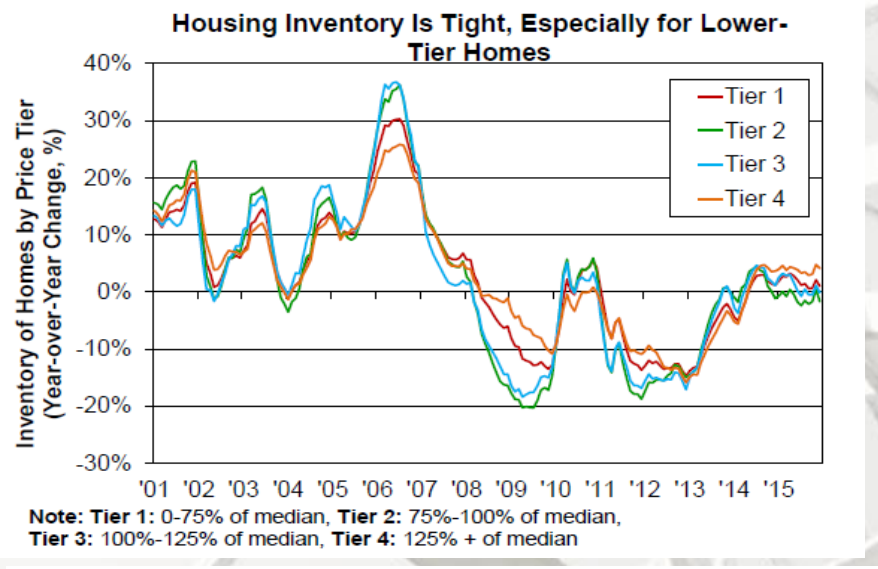
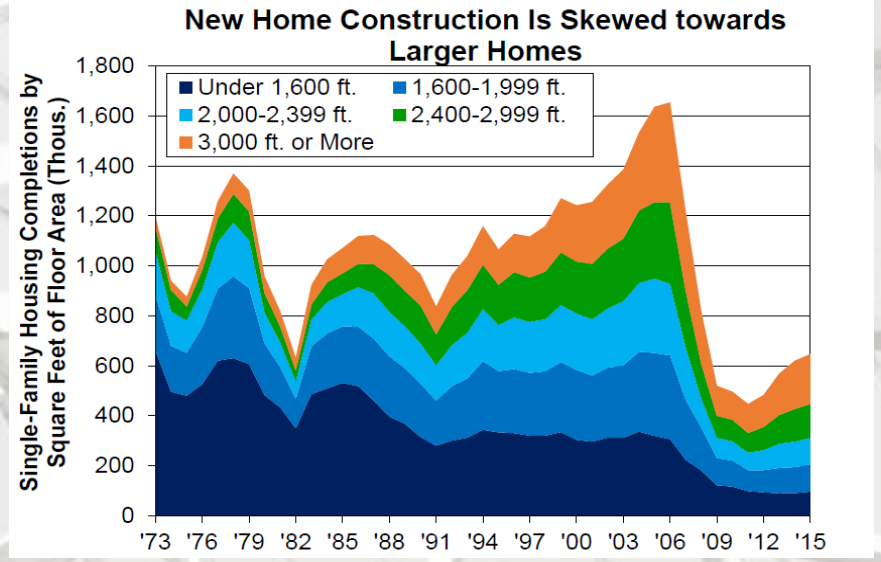
Housing Affordability





Housing Affordability Constrains

"Despite historically low mortgage rates, strong home price appreciation is eroding home purchase affordability for potential first-time homebuyers, whose income gains lag behind home price appreciation. A great deal of pent-up housing demand exists among young adults, many of whom still live with their parents. These young adults will likely rent rather than buy when they can afford to establish their own households. We noted earlier that rent increases are poised to moderate going forward, taking some pressure out of core inflation. This is especially true for rents in Class A properties, which have a substantial supply pipeline. However, supply is tighter for more affordable Class B and Class C properties, which will likely command higher rent increases than Class A properties, especially for new tenants. Elevated rental cost burdens will hurt purchase affordability by inhibiting renters' abilities to save for down payments." – Doug Duncan, SVP and Chief Economist; Mark Palim, VP; Orawin Velz, Director; Frank Shaw, Analyst; and Hamilton Fout, Director, ESR Macroeconomic Forecast Team, Fannie Mae

Source: http://fanniemae.com/resources/file/research/emma/pdf/Economic_Summary_041516.pdf; 4/15/16

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Housing Affordability

Worry About Not Being Able to Pay Rent, Mortgage or Other Housing Costs, Homeowners vs. Renters

% "Very" or "moderately worried"

	Renters %	Homeowners %	Difference (pct. pts.)
National adults	49	25	24
Annual household income			
Less than $30,000	63	47	16
$30,000 to $74,999	42	27	15
$75,000 or more	29	15	14

2013-2016 GALLUP ECONOMY AND PERSONAL FINANCE SURVEYS

U.S. Renters Worry More Than Homeowners About Housing Costs

- "49% of renters and 25% of homeowners worry about paying for housing
- More renters than homeowners worry at all income levels
- Gap in owner-renter worry growing for the middle- and upper-income

Americans who rent their home are nearly twice as likely as those who own their home to say they worry about not being able to pay their housing costs. While upper-income Americans are more likely to own and lower-income Americans are more likely to rent, renters worry more than homeowners at all income levels. Overall, during this time, 33% of Americans said they were very (15%) or moderately (18%) worried about not being able to pay their "rent, mortgage or other housing costs."

The declining percentage of homeowners and the increasing percentage of renters in the U.S. adult population help explain why Americans today are significantly more worried about being able to pay their housing costs than they were in the past. From 2001 through 2007, before the housing market crashed, an average 24% of Americans worried about paying their housing costs. Since then, an average of 35% have. Although Americans' worry about a variety of financial matters is up since 2007, worries about making housing payments are up the most." – Jeffrey M. Jones, Gallup Poll Managing Editor, Gallup

Source: http://www.gallup.com/poll/191102/renters-worry-homeowners-housing-costs.aspx; 4/27/16

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Housing Affordability

The U.S. Housing Affordability Crisis: How a Rent and Low-Income Problem is Becoming Everyone's Problem

- "As of the end of 2015, Americans making the nation's median annual income ($55,589) and looking to buy the typical American home (valued at $183,600 as of December) could expect to pay 15 percent of their income towards their monthly mortgage payment. More renters than homeowners worry at all income levels.
- The same American looking to rent a typical home should plan to set aside 30 percent of their income each month to pay their landlord.
- Worsening affordability in the areas that have historically given parents the best opportunities to ensure a better future for their children is creating an additional barrier for lower-income Americans.

Continued deterioration in U.S. housing affordability – particularly at the low end of the market and for renters – is bringing to light a number of problems around income growth and social mobility that may have big implications for all Americans going forward.

As of the end of 2015, the average American making the nation's median annual income ($55,589) and looking to buy the typical American home (valued at $183,600 as of December) could expect to pay 15 percent of their income towards their monthly mortgage payment. Compared to historic norms, this is quite affordable: In the years between 1985 and 2000, homebuyers could expect to pay 21 percent of their income on a monthly mortgage payment, on average.

The same American looking to rent a typical home should plan to set aside 30 percent of their income each month to pay their landlord. Unlike paying a mortgage, paying rent today is much less affordable than it was historically, when a renter could expect to pay 26 percent of their income on rent." – Svenja Gudell, Chief Economist, Zillow

Source: http://www.zillow.com/research/housing-affordability-q4-2015-12111; 4/11/16

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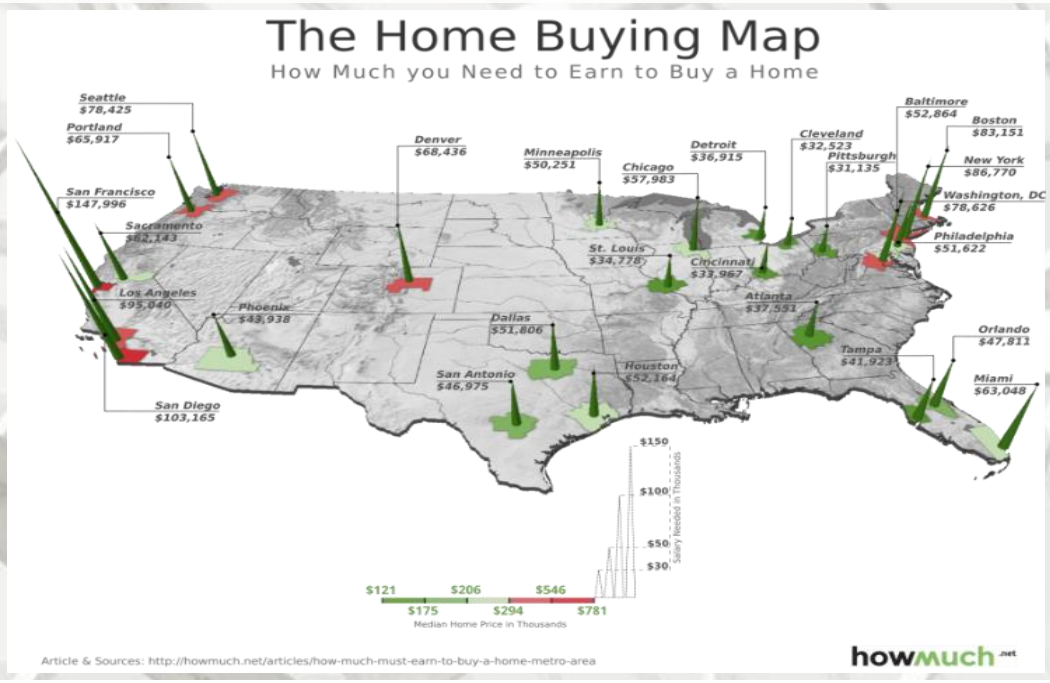
Housing Affordability



Affordability: Home Builders' and Customers Role

Data shows that household means and housing prices -- for both rents and ownership -- are decoupling in more and more places. That's where builders' work comes into play.

"Interesting visualization here from Raul Amoros at HowMuch.net, on affordability. As expressed here in what you've got to earn in 27 cities in order to afford a median-priced for-sale home. As Amoros says:

> "The higher the cone rising out of the map, the greater the salary needed to buy a home. Additionally, we have highlighted the metro areas from green to red to represent the median home price. Darker green represents lower median home prices and darker red represents higher median home prices. Of the 27 metro areas we looked at, the range of salaries needed to own a home varies from $31,134 to $147,996, which is a difference of over $100,000!"" – John McManus, Editorial and Digital Content Director, Builder Online

Source: http://www.builderonline.com/money/affordability/affordability-home-builders-and-customers-role_o; 4/12/16

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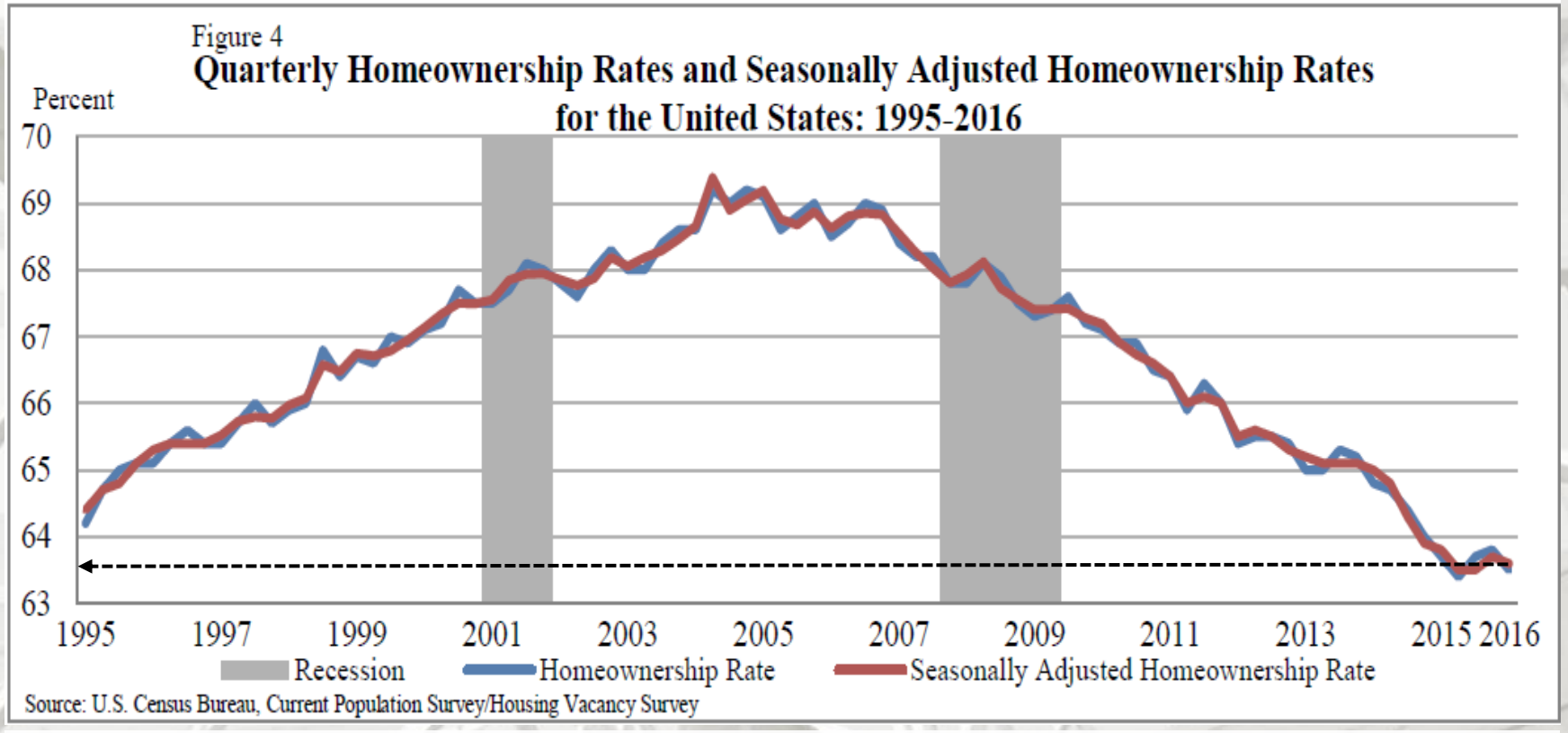
Home Ownership



Residential Vacancies and Homeownership In The First Quarter 2016

"The homeownership rate of 63.5 percent was 0.2 percentage points (+/-0.4) lower than the first quarter 2015 rate (63.7 percent) and 0.3 percentage points (+/-0.4) lower than the fourth quarter 2015 rate (63.8 percent)." – Robert Callis and Melissa Kresin, Social, Economic and Housing Statistics Division, U.S. Census

Sources: http://www.census.gov/housing/hvs/files/currenthvspress.pdf; 4/28/16

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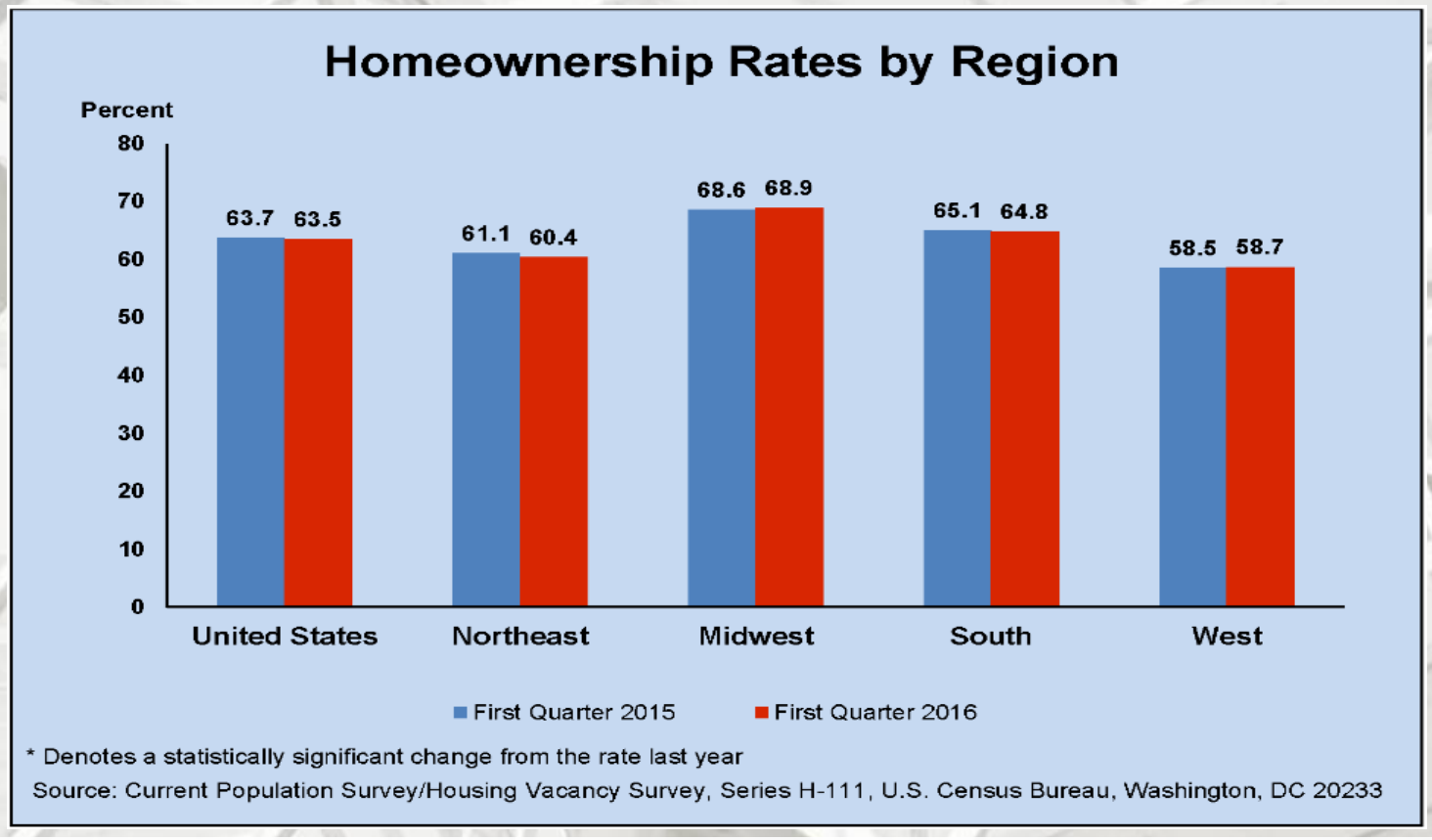
Home Ownership



Home Ownership

In the fourth quarter of 2004, the home ownership rate was reported at 69.2 percent – a zenith for house ownership. The current home ownership rate of 63.5 percent is one-tenth of a basis point more than in the fourth quarter of 1965 (63.4 percent).

Sources: http://www.census.gov/housing/hvs/files/currenthvspress.pdf; 4/28/16

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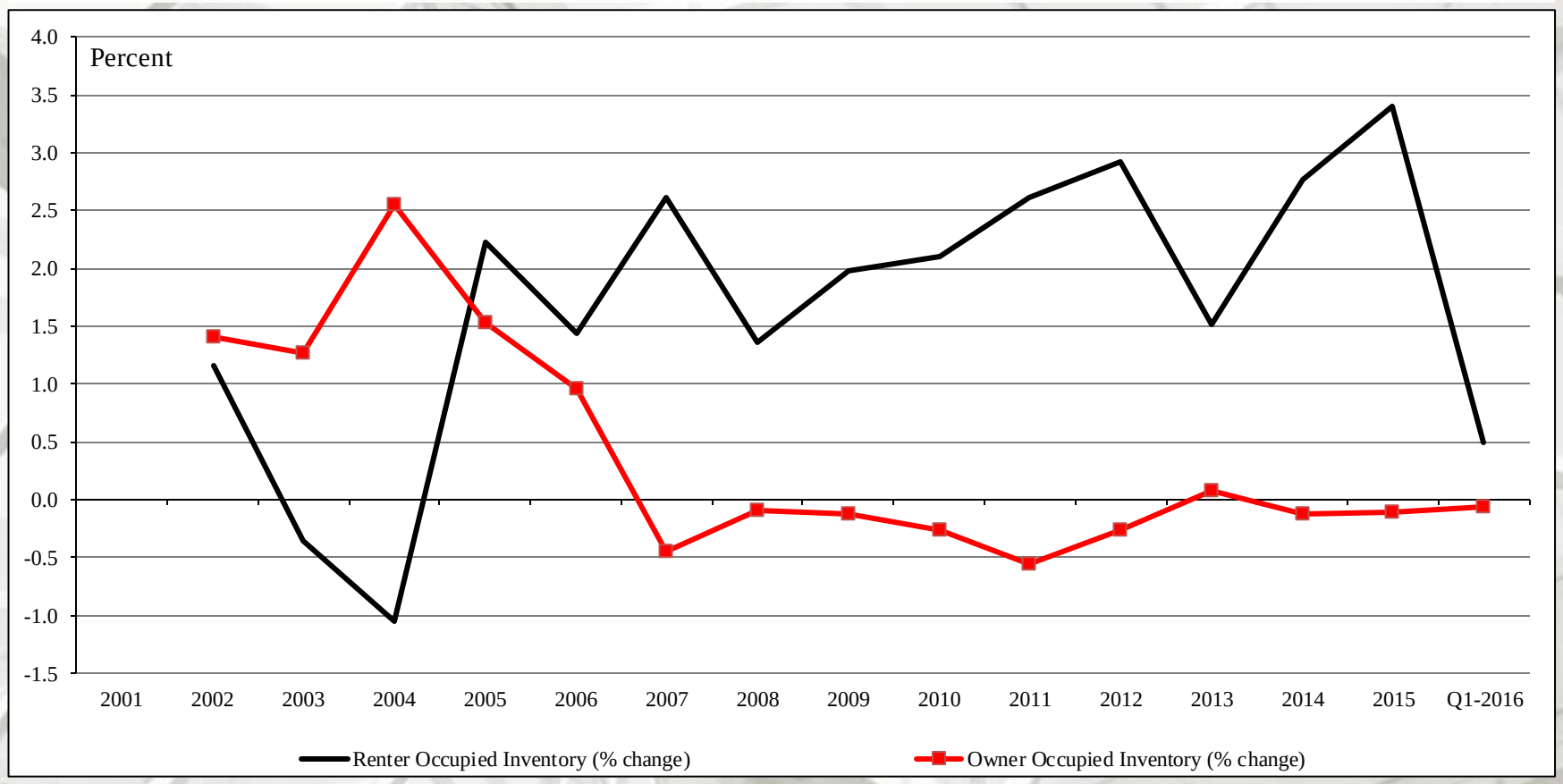
House Owners and Renters



Percentage Change in Renter and Owner Occupied Housing

Presented above is the change in renter occupied versus owner occupied houses since 2001 through Q1 of 2016. Obviously, rental occupied houses have increased most; with owner occupied housing decreasing some 2.5 percent since 2004.

Sources: http://www.census.gov/housing/hvs/index.html 5/3/16

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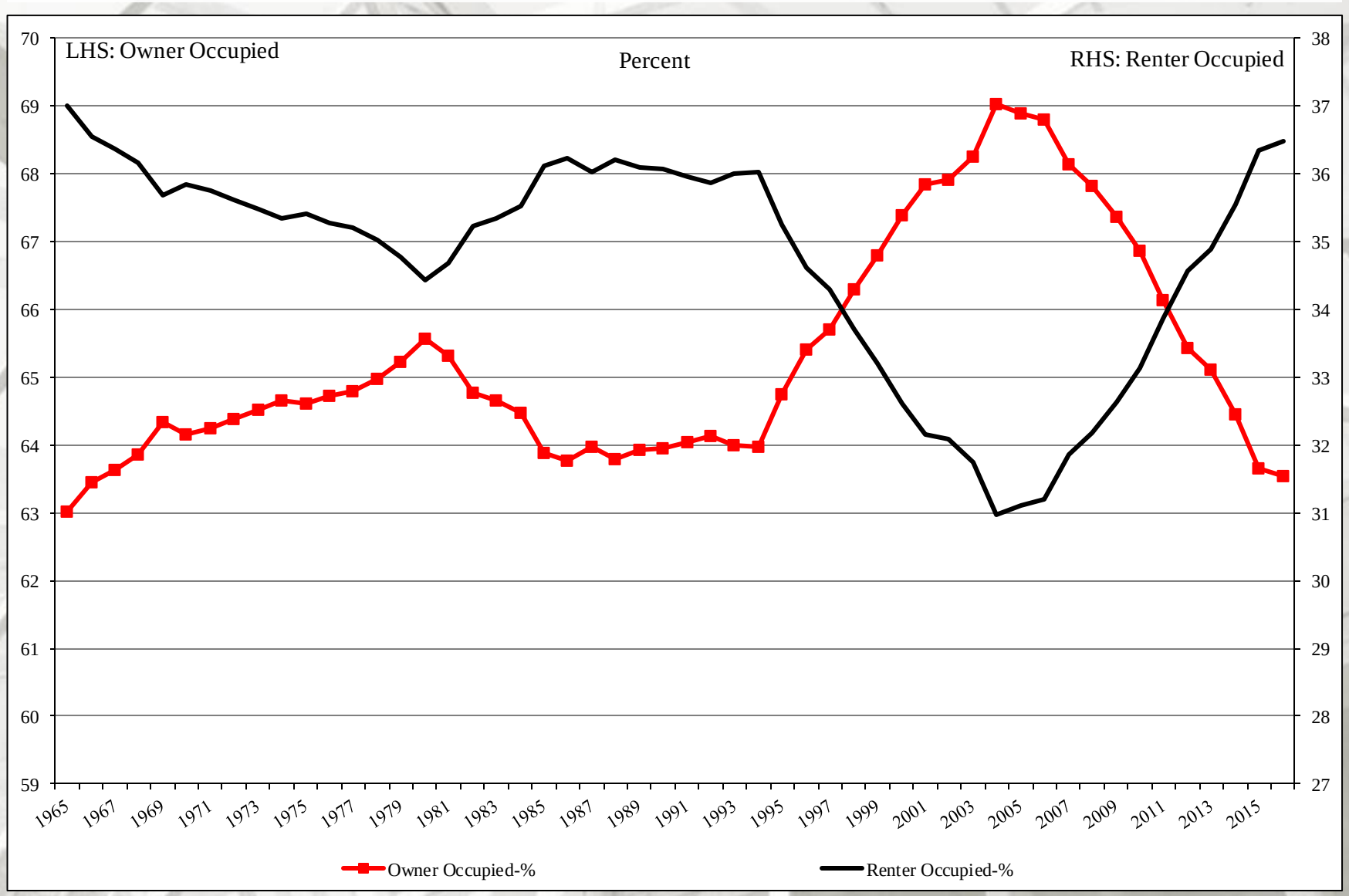
Historical House Owners and Renters



Sources: http://www.census.gov/housing/hvs/index.html; 5/3/16

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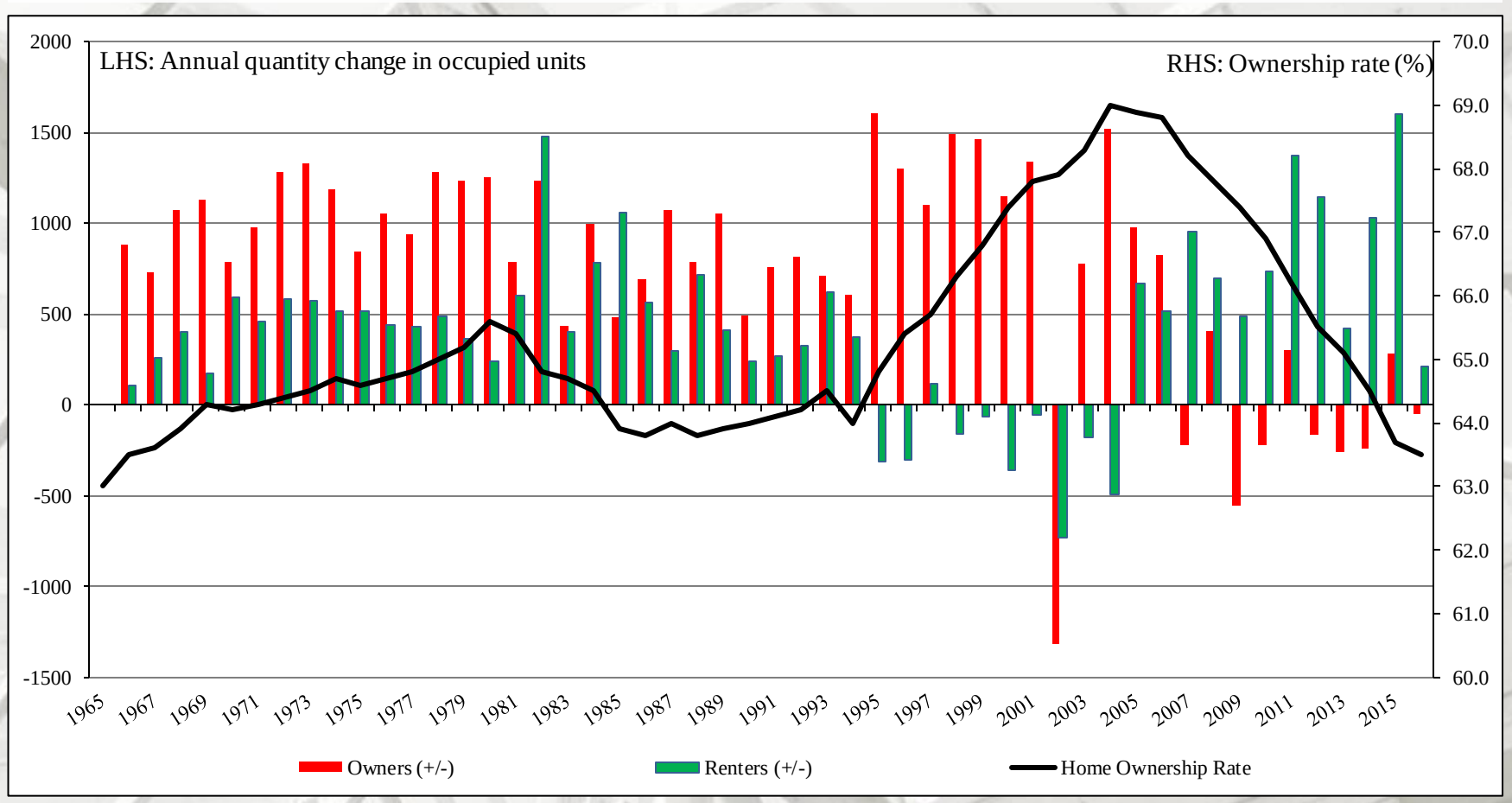
House Owners and Renters



Home Ownership Rate and Annual Change in Occupied Units

This figure represents the quantity change in owner and renter occupied houses from 1964 through Q1 of 2016. Increases in rental occupied houses, combined with minimal gains to substantial losses in owner occupied housing, are directly related to the plummeting home ownership rate.

Sources: https://www.census.gov/housing/hvs/data/histtab7.xlsx; 5/3/16

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Summary

In summary:

In aggregate, housing data were somewhat disappointing for March. Will we see a rebound in April based on the mostly positive unadjusted March data? Multifamily construction spending is at the greatest level since construction spending began being reported in 1993. New sales are still stressed as they remain well below their historical average. Existing house sales were flat for the first quarter; construction and sales of new single-family houses in the upper price echelons are solid; and improvement or remodeling expenditures decreased year-over-year.

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 from Q1 2015 to Q1 2016; yet, nearly 66% of the formations were renter households (occupied housing data from the Current Population/Housing Vacancy surveys);
4) Some builders are beginning to focus on entry-level houses; and
5) Consumer attitudes towards housing are improving.

Cons:

1) Lot availability and building regulations (according to several sources);
2) Changing attitudes towards SF ownership and as stated by some – "gentrification";
3) Job creation is improving and consistent but some economists question the quantity and types of jobs being created;
4) Stagnant real median household incomes;
5) Strict home loan lending standards (including TRID) plus constrained builder loans – AD&C; and
6) Global uncertainty?

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