

The Virginia Tech – U.S. Forest Service

April 2016

Housing Commentary: Section I



VirginiaTech
Invent the Future



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



2016

Virginia Polytechnic Institute and State University

VCE-ANR 207NP

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Interim Administrator, 1890 Extension Program, Virginia State University, Petersburg.

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 15: [New Housing Permits](#)

Slide 19: [Regional New Housing Permits](#)

Slide 24: [Housing Under Construction](#)

Slide 26: [Regional Under Construction](#)

Slide 31: [Housing Completions](#)

Slide 33: [Regional Housing Completions](#)

Slide 38: [New Single-Family House Sales](#)

Slide 40: [New Sales-Population Ratio](#)

Slide 42: [Regional SF House Sales & Price](#)

Slide 55: [Construction Spending](#)

Slide 60: [Existing House Sales](#)

Slide 59: [Existing Sales by Price & Region](#)

Slide 62: [First-Time Purchasers](#)

Slide 65: [Housing Affordability](#)

Slide 66: [Summary](#)

Slide 67: [Virginia Tech Disclaimer](#)

Slide 68: [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 April, aggregate housing data was positive, with new single-family housing exhibiting a surprisingly big increase. Yet, there are problematic cues – completions decreased month-over-month and year-over-year. Housing permits and starts also decreased year-over-year. Also challenging were total private residential and single-family construction spending declining month-over-month (Note, these are reported in nominal dollars). Regionally, data were mixed across all sectors. From the beginning of 2010, housing has improved. Nonetheless, most sectors of the housing market remain well less than their respective historical averages.

Here's how the current and future housing market is shaping up according to Ivy Zelman of Zelman & Associates, "This cycle will be elongated, and the slope of the recovery is flatter than what we thought the trajectory would look like when we called the bottom in 2012. Builders have been slower to see the growth. There's a shortage of shelter. We're pretty indifferent whether shelter should be owned or rented. We're just saying there isn't enough. The U.S. is at a 30-year low of inventory available for sale. We are predicting double-digit housing-starts growth this year, next year, and in 2018.¹"

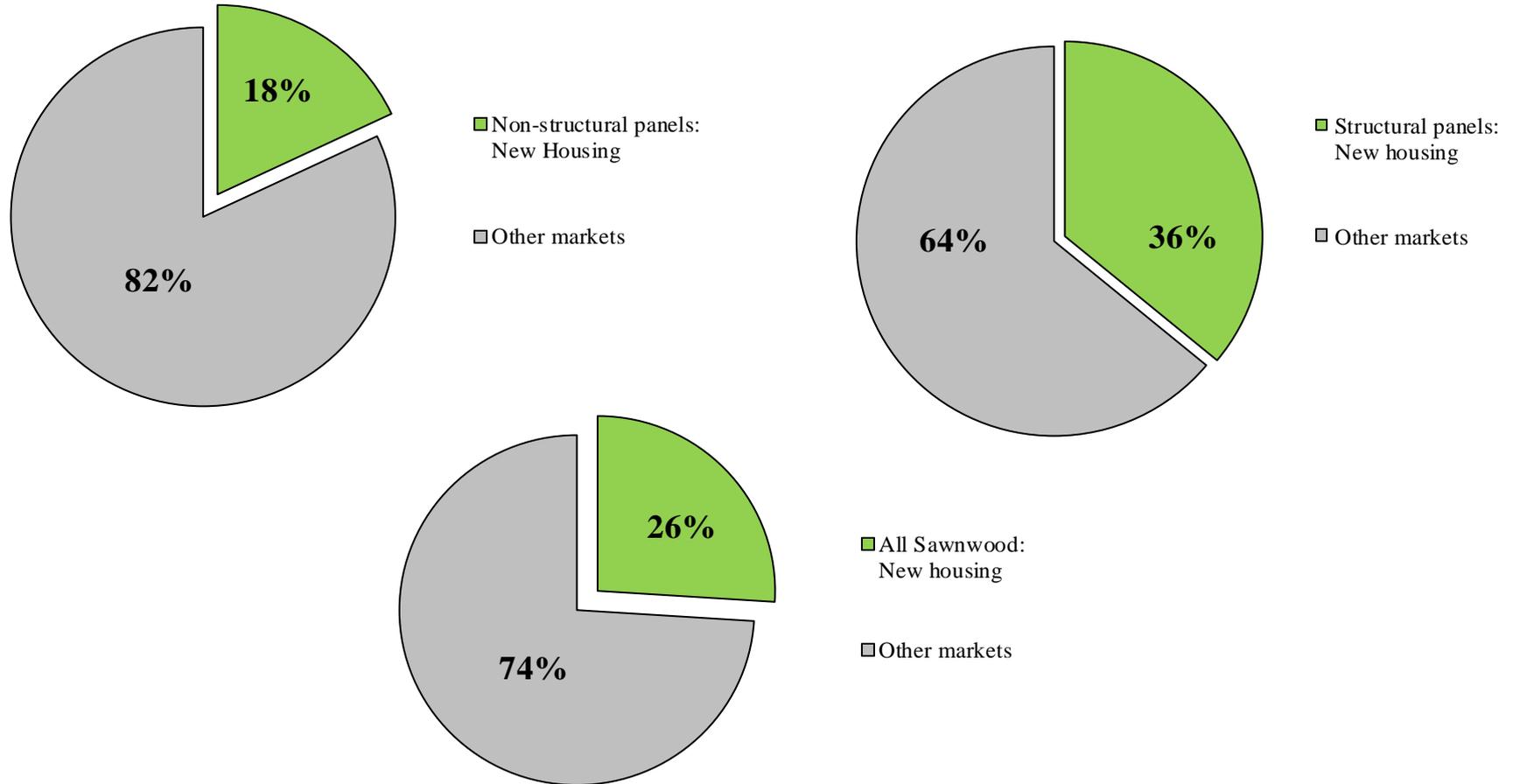
This month's commentary includes several slides addressing housing prices; affordability; student debt; living arrangements; household formation; and retirees. Once again, Section I contains data and commentary and Section II includes Federal Reserve analysis; private indicators; and demographic commentary. We hope you find this commentary beneficial.

April 2016 Housing Scorecard

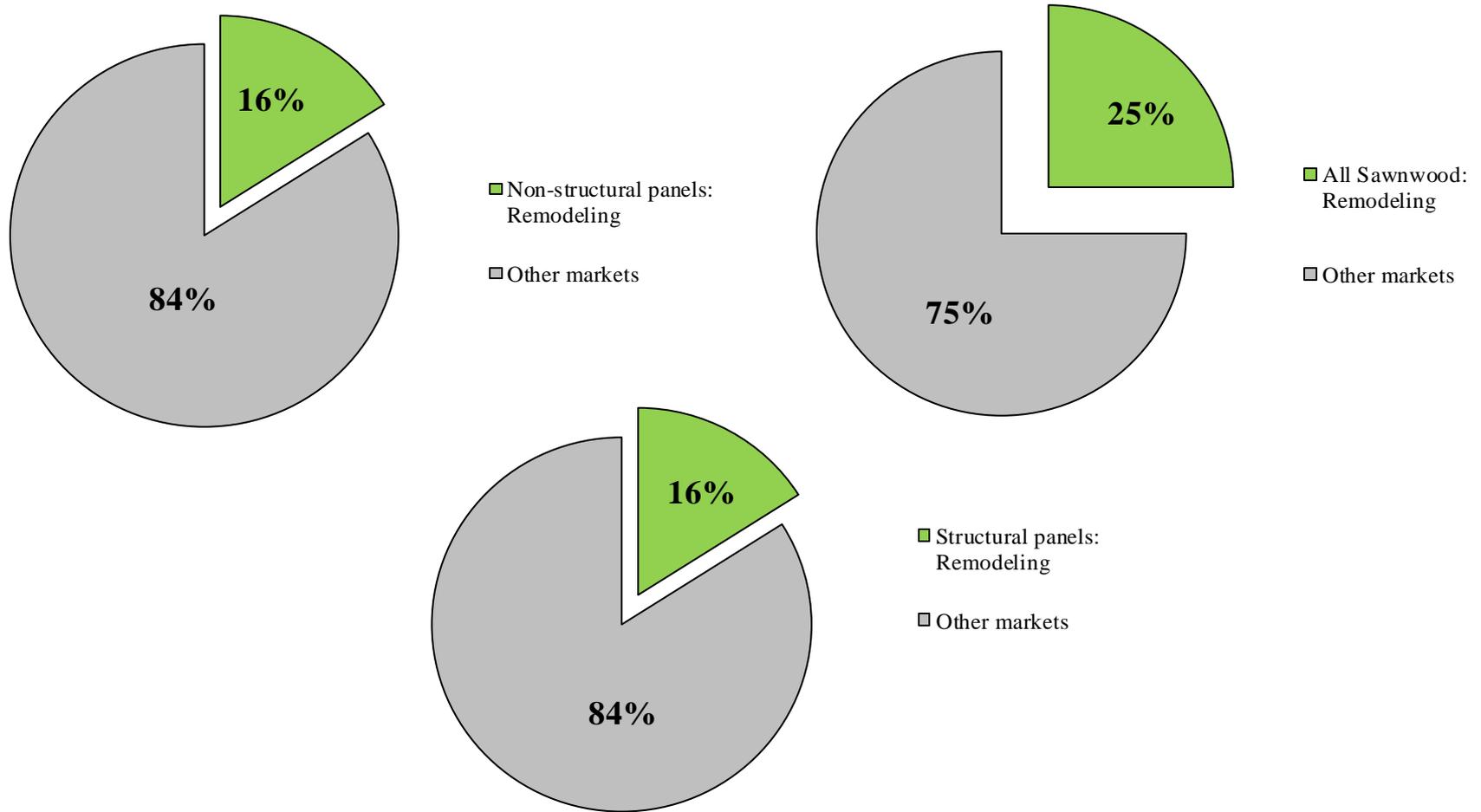
	M/M	Y/Y
Housing Starts	△ 6.6%	▽ 1.7%
Single-Family Starts	△ 3.3%	△ 4.3%
Housing Permits	△ 3.6%	▽ 5.3%
Housing Completions	▽ 11.0%	▽ 7.4%
New Single-Family House Sales	△ 16.6%	△ 23.8%
Existing House Sales ¹	△ 1.7%	△ 6.0%
Private Residential Construction Spending	▽ 1.5%	△ 8.0%
Single-Family Construction Spending	▽ 0.004%	△ 12.9%

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

New Construction's Percentage of Wood Products Consumption



Repair and Remodeling's Percentage of Wood Products Consumption



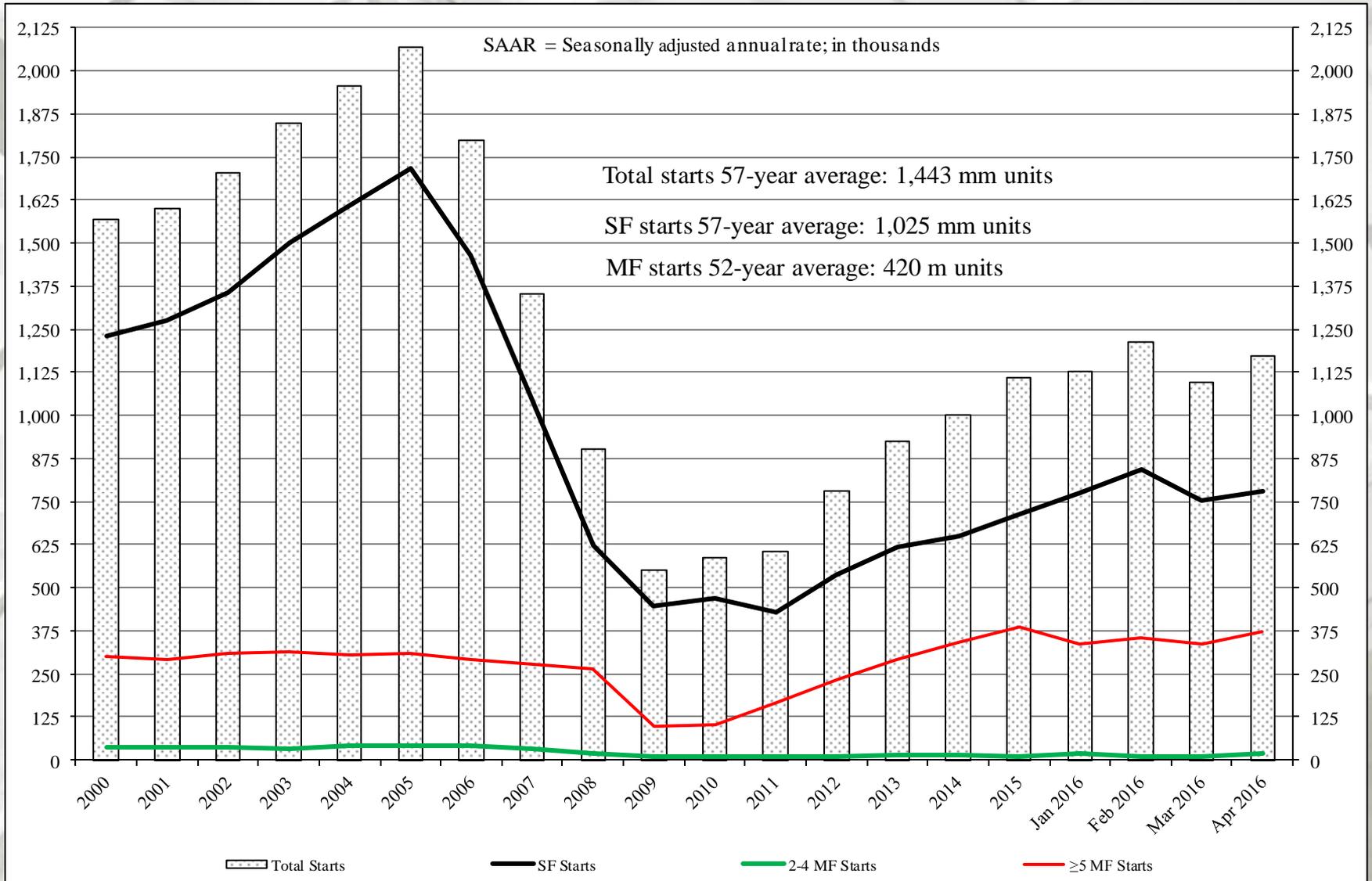
New Housing Starts

	Total Starts*	Single -Family (SF) Starts	Multifamily (MF) 2-4 unit** Starts	MF ≥ 5 unit Starts
April	1,172,000	778,000	21,000	373,000
March	1,099,000	753,000	9,000	337,000
2015	1,192,000	746,000	18,000	428,000
M/M change	6.6%	3.3%	133.3%	10.7%
Y/Y change	-1.7%	4.3%	16.7%	-12.9%

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

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

Total Housing Starts



New Housing Starts by Region

	NE Total	NE SF	NE MF**
April	134,000	56,000	78,000
March	145,000	57,000	88,000
2015	191,000	54,000	137,000
M/M change	-7.6%	-1.8%	-11.4%
Y/Y change	-29.8%	3.7%	-43.1%

	MW Total	MW SF	MW MF
April	187,000	132,000	55,000
March	153,000	117,000	36,000
2015	168,000	125,000	43,000
M/M change	22.2%	12.8%	52.8%
Y/Y change	11.3%	5.6%	27.9%

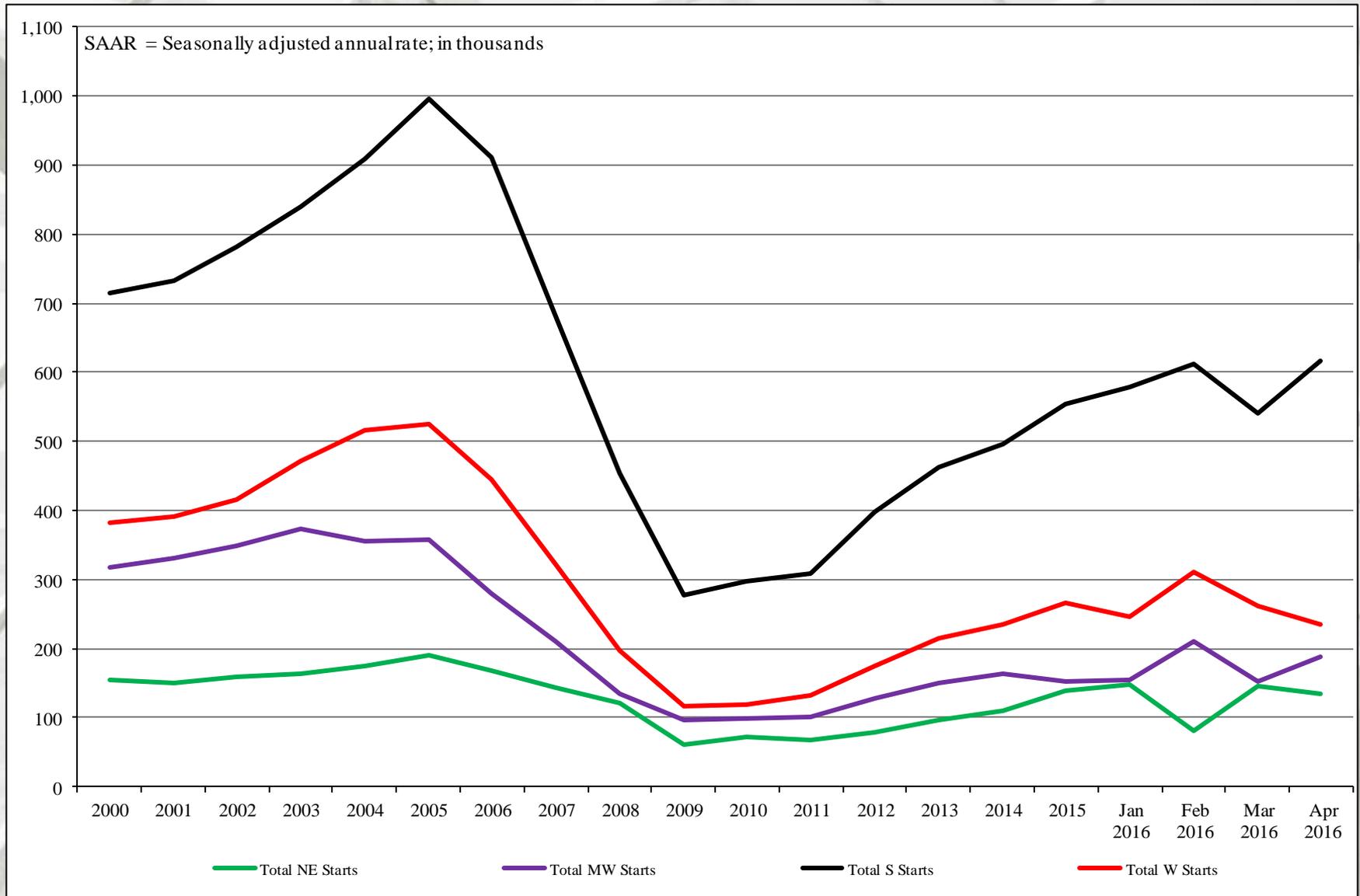
All data are SAAR; NE = Northeast and MW = Midwest. ** US DOC does not report multifamily starts directly, this is an estimation (Total starts – SF starts).

New Housing Starts by Region

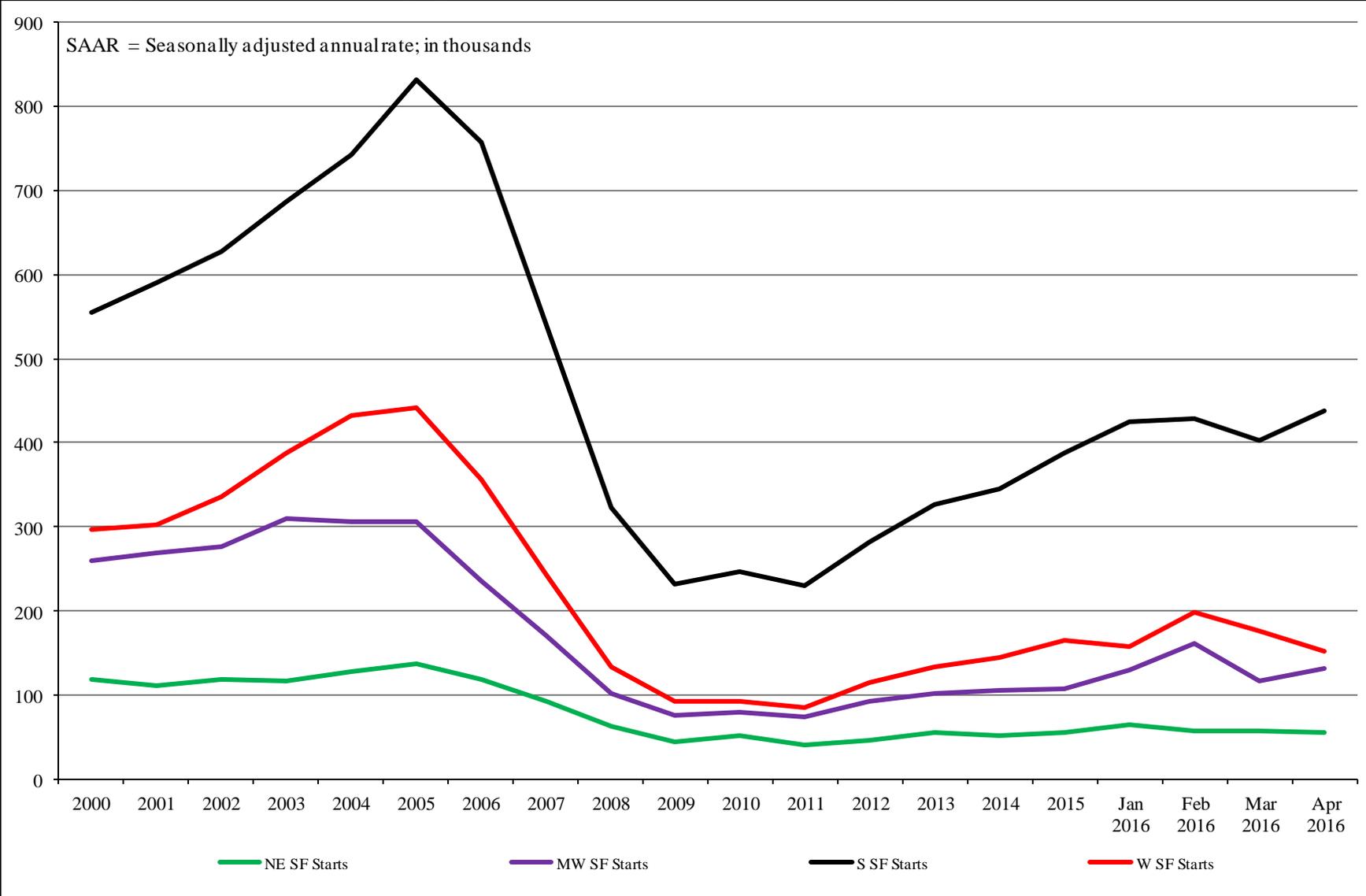
	S Total	S SF	S MF**
April	616,000	438,000	178,000
March	540,000	402,000	138,000
2015	521,000	378,000	143,000
M/M change	14.1%	9.0%	29.0%
Y/Y change	18.2%	15.9%	24.5%
	W Total	W SF	W MF
April	235,000	152,000	83,000
March	261,000	177,000	84,000
2015	312,000	189,000	123,000
M/M change	-10.0%	-14.1%	-1.2%
Y/Y change	-24.7%	-19.6%	-32.5%

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

Total Housing Starts by Region

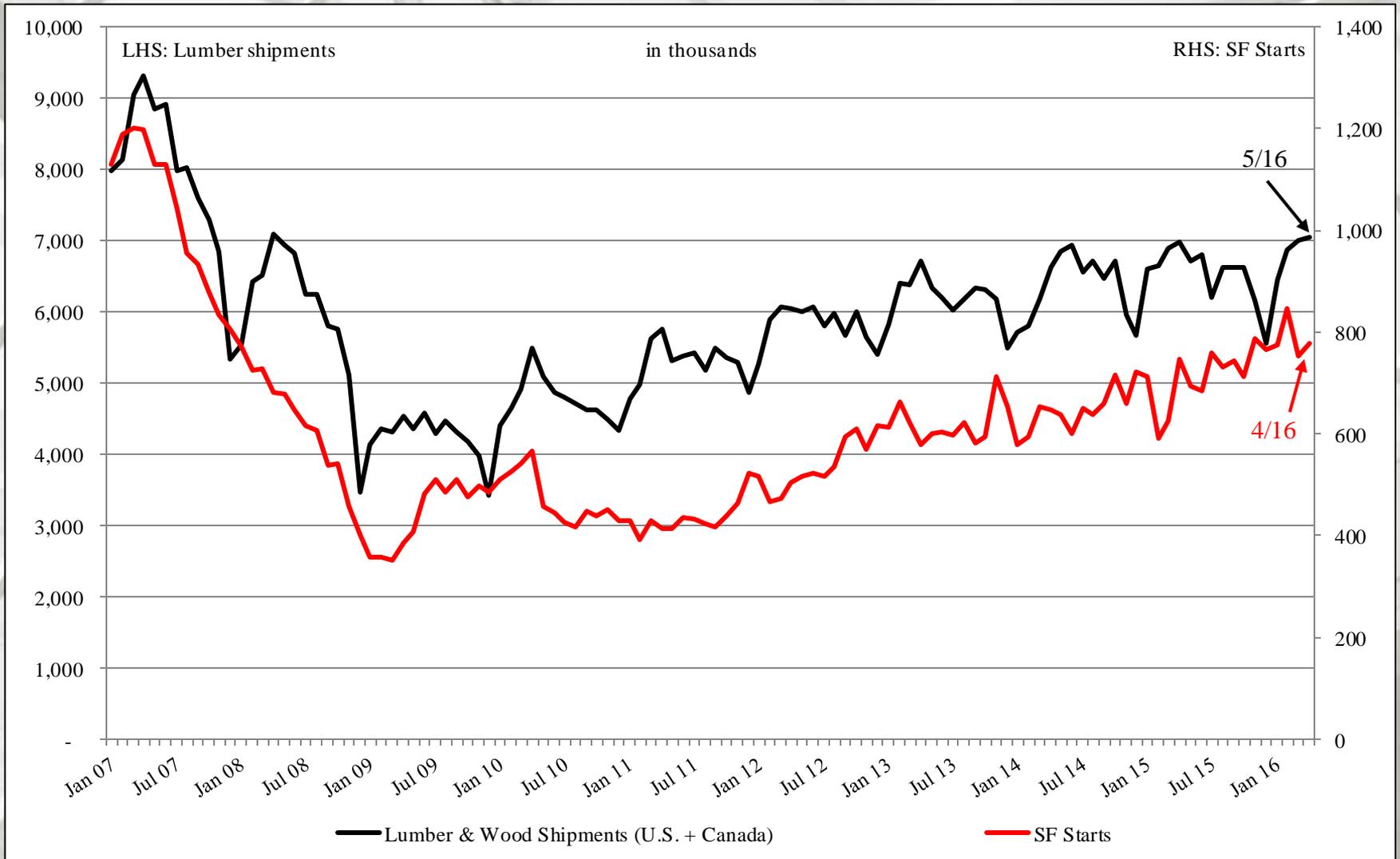


SF Housing Starts by Region

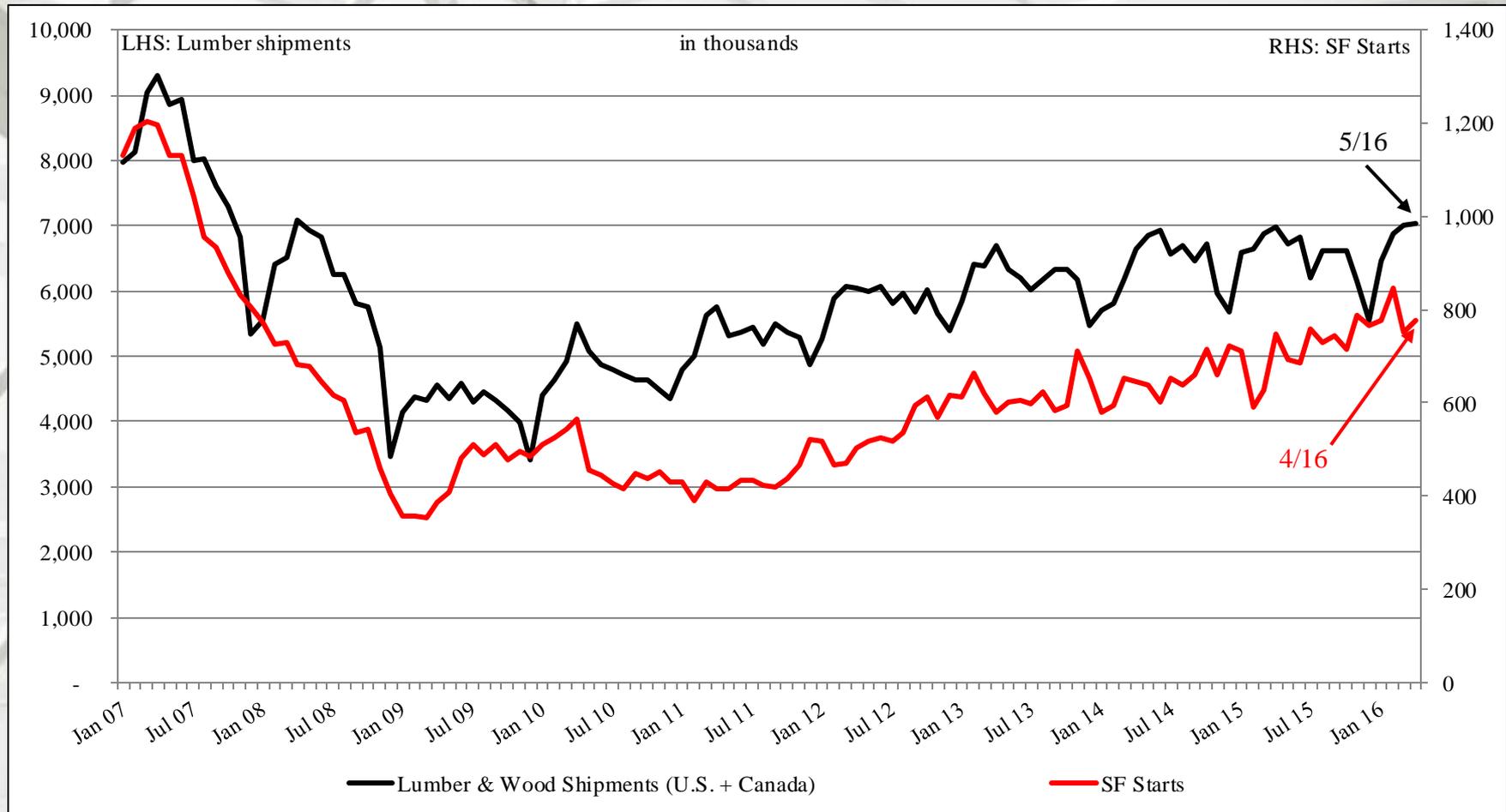


Source: <http://www.census.gov/construction/nrc/pdf/newresconst.pdf>; 5/17/16

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



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



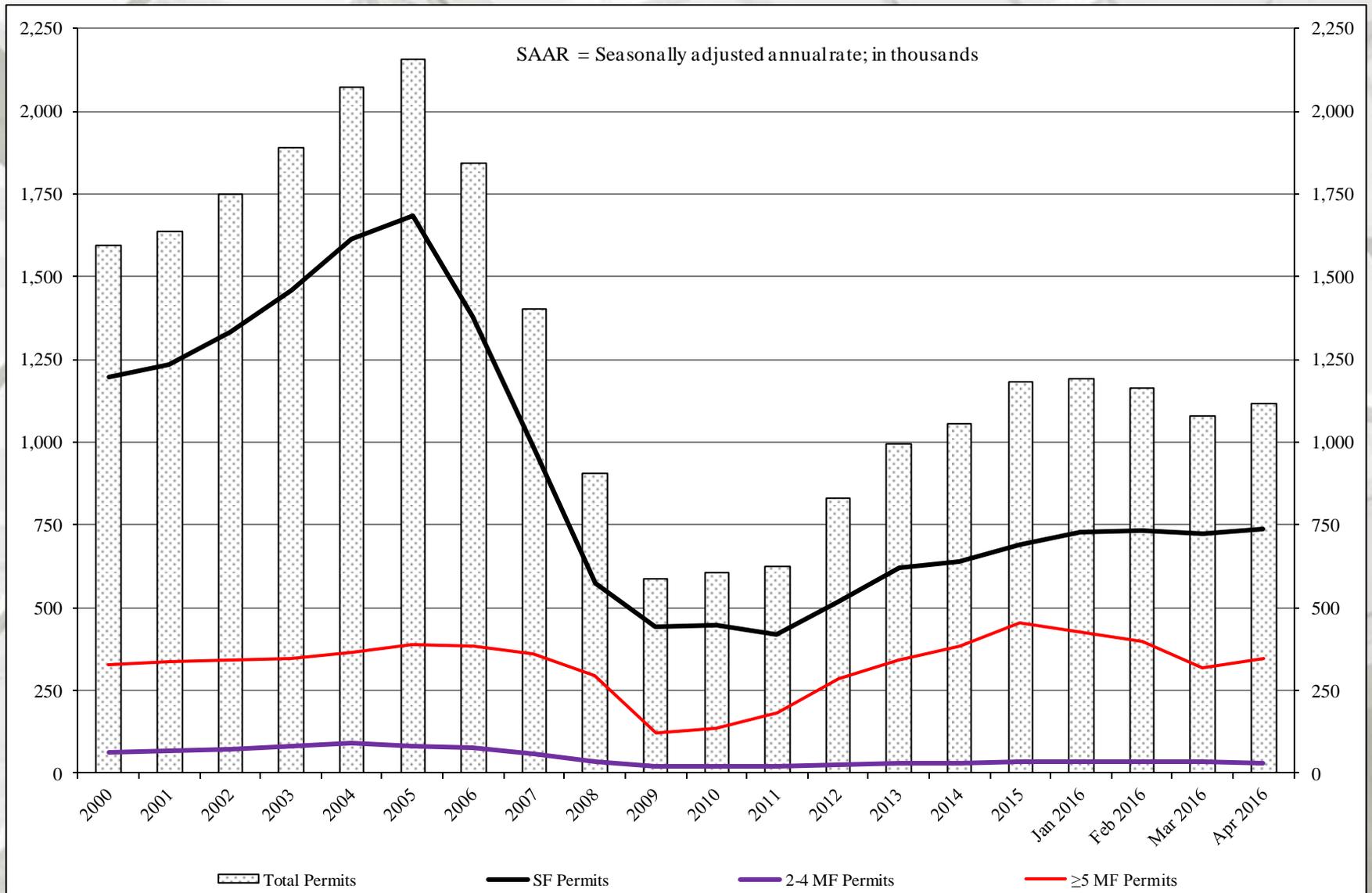
In this graph, January 2007 lumber shipments are contrasted with July 2007 starts, and continuing through April 2016 starts. The purpose is to discover if lumber shipments relate to future single-family starts. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

New Housing Permits

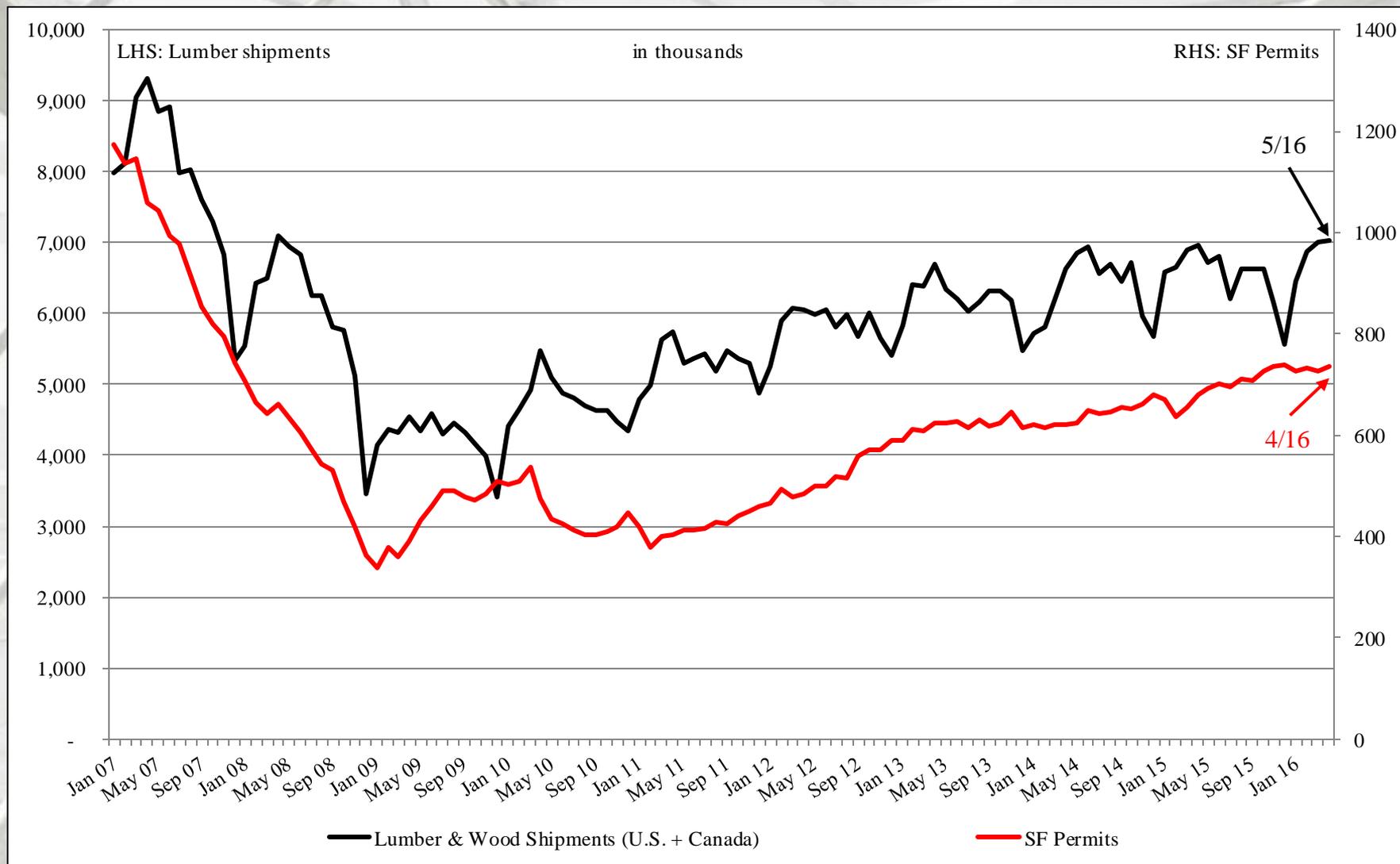
	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
April	1,116,000	736,000	32,000	348,000
March	1,077,000	725,000	34,000	318,000
2015	1,178,000	679,000	33,000	466,000
M/M change	3.6%	1.5%	-5.9%	9.4%
Y/Y change	-5.3%	8.4%	-3.0%	-25.3%

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

Total New Housing Permits

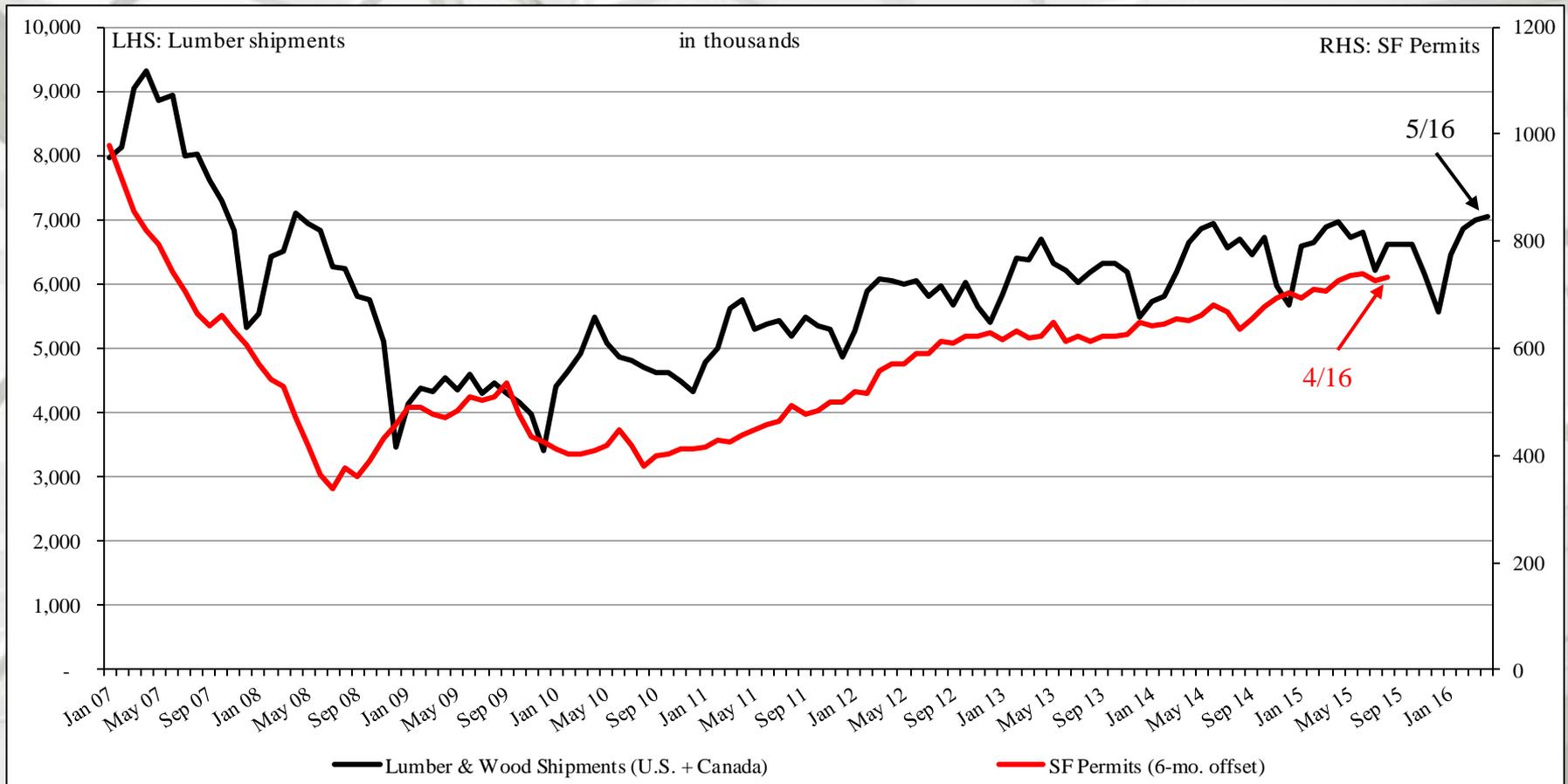


Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads, *Rail Time Indicators* report; 6/6/16; U.S. DOC-Construction; 5/17/16

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



In this graph, January 2007 lumber shipments are contrasted with July 2007 permits, and continuing through April 2016 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.

New Housing Permits by Region

	NE Total	NE SF	NE MF
April	104,000	56,000	48,000
March	101,000	52,000	49,000
2015	177,000	47,000	130,000
M/M change	3.0%	7.7%	-2.0%
Y/Y change	-41.2%	19.1%	-63.1%

	MW Total	MW SF	MW MF
April	189,000	113,000	76,000
March	183,000	120,000	63,000
2015	153,000	102,000	47,000
M/M change	3.3%	-5.8%	20.6%
Y/Y change	23.5%	10.8%	61.7%

* All data are SAAR.

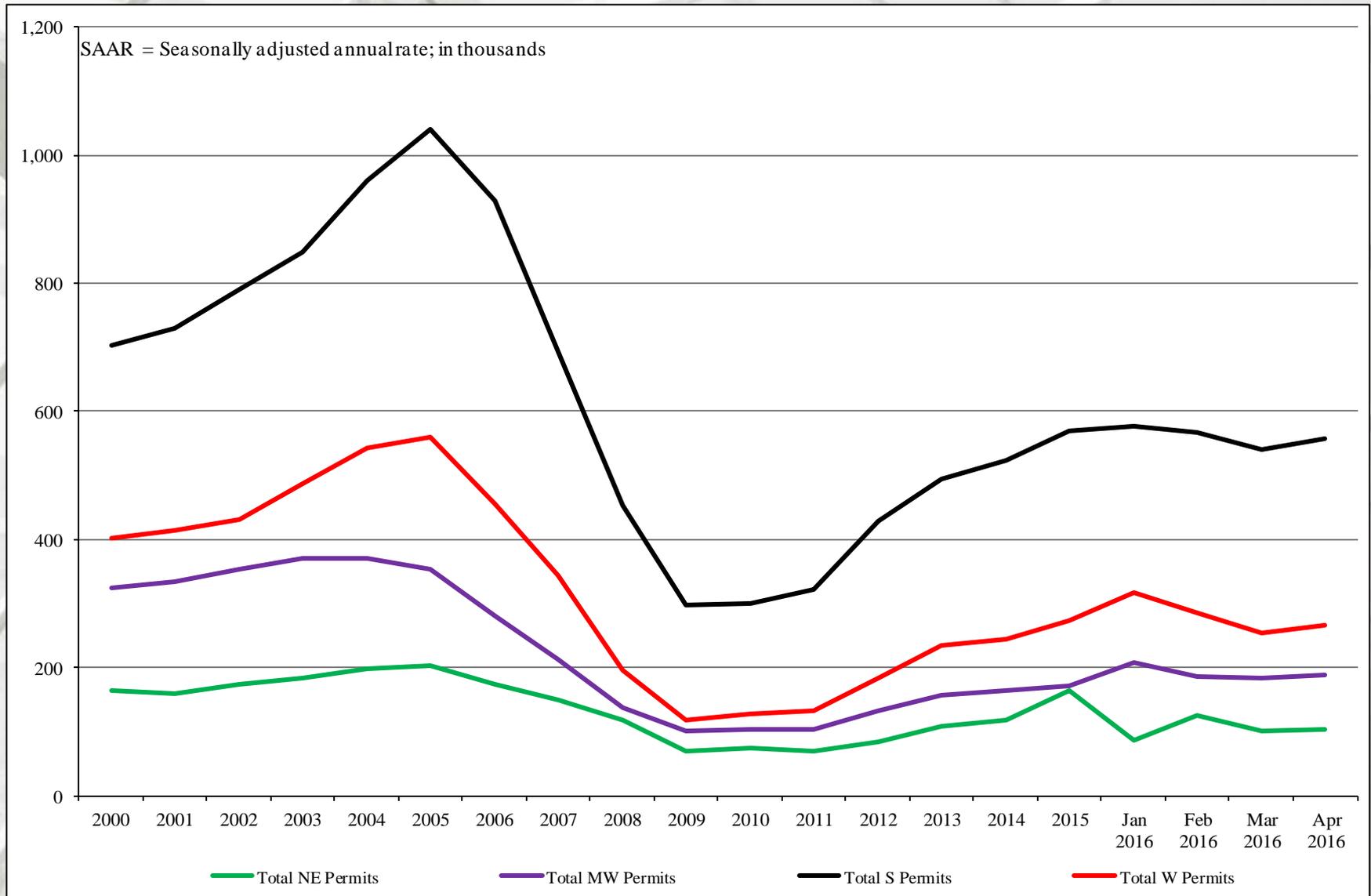
New Housing Permits by Region

	S Total	S SF	S MF
April	558,000	395,000	163,000
March	540,000	387,000	153,000
2015	573,000	371,000	186,000
M/M change	3.3%	2.1%	6.5%
Y/Y change	-2.6%	6.5%	-12.4%

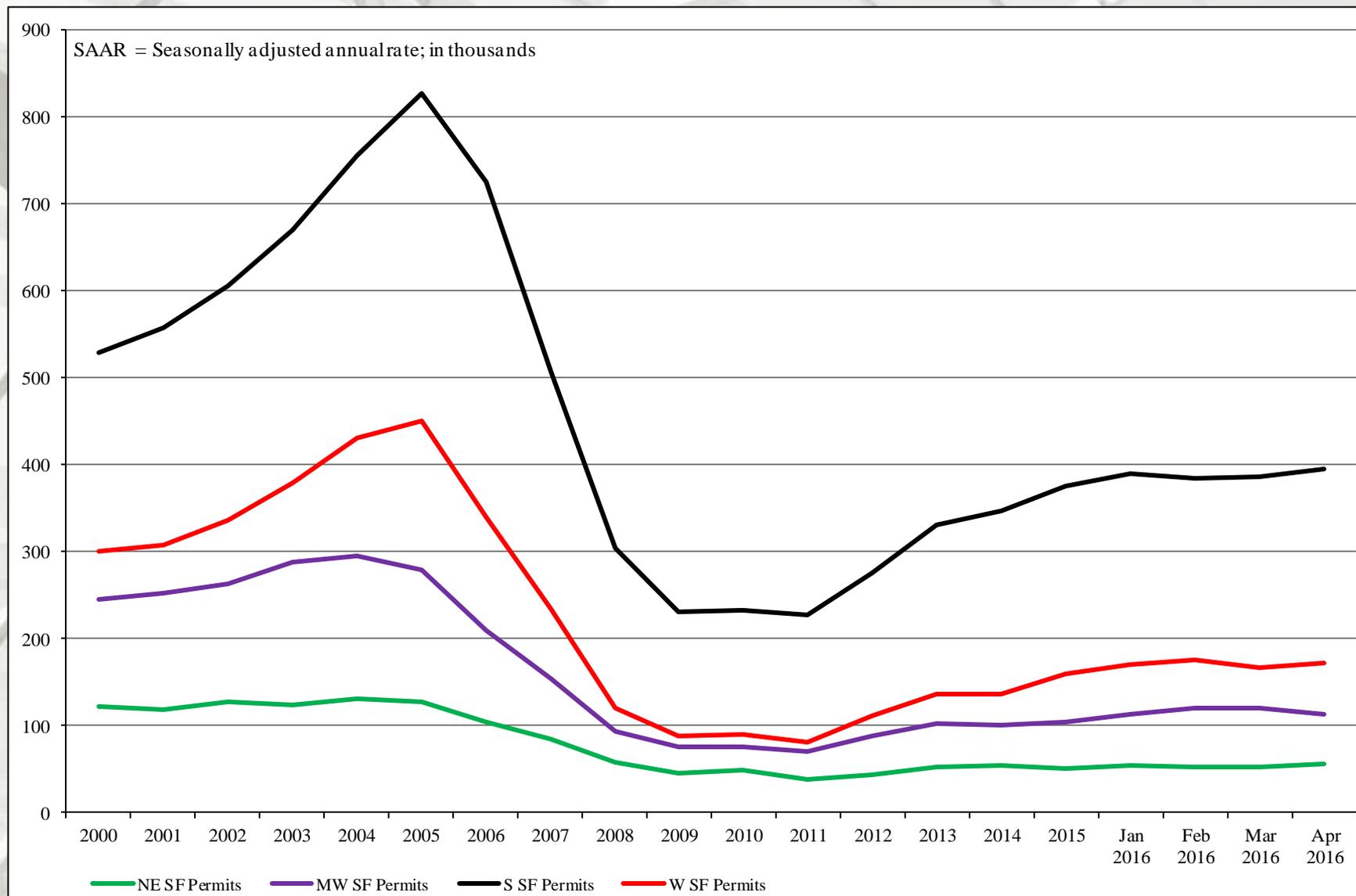
	W Total	W SF	W MF
April	265,000	172,000	93,000
March	253,000	166,000	87,000
2015	275,000	159,000	111,000
M/M change	4.7%	3.6%	6.9%
Y/Y change	-3.6%	8.2%	-16.2%

* All data are SAAR

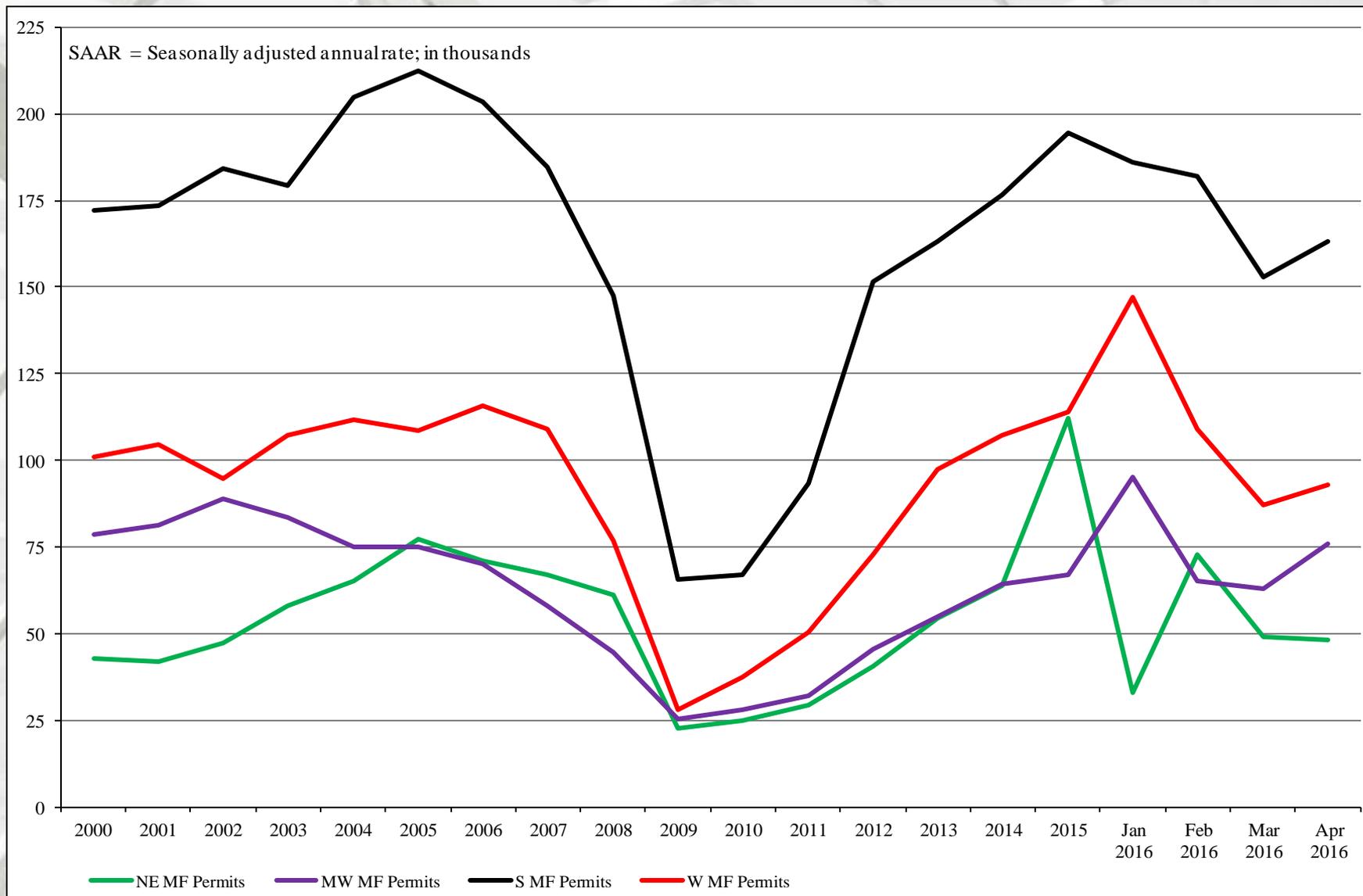
Total Housing Permits by Region



SF Housing Permits by Region



MF Housing Permits by Region



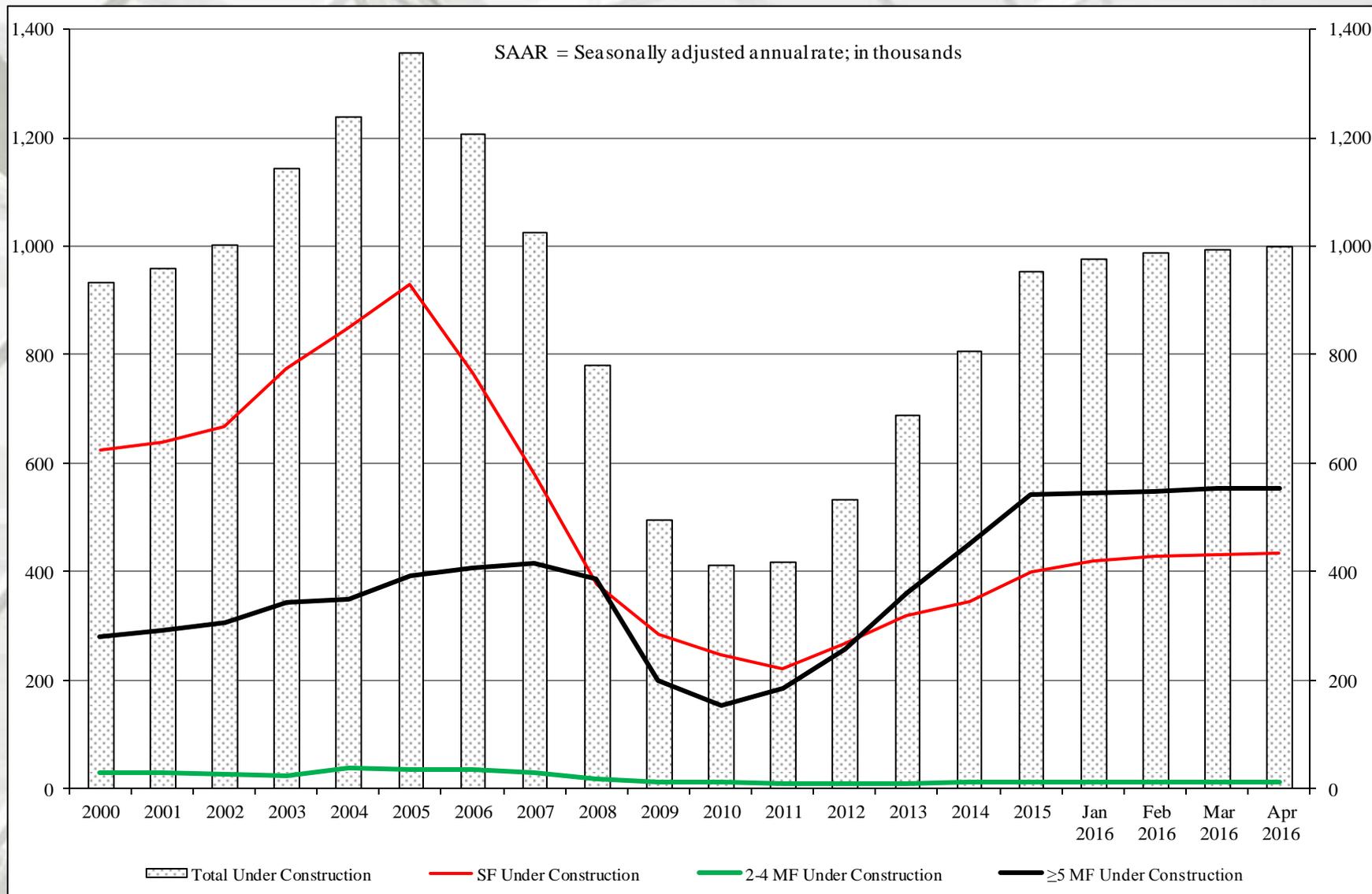
New Housing Under Construction

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
April	933,000	691,000	10,000	232,000
March	1,048,000	717,000	10,000	321,000
2015	1,008,000	678,000	13,000	317,000
M/M change	-11.0%	-3.6%	0.0%	-27.7%
Y/Y change	-7.4%	1.9%	-23.1%	-26.8%

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

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

Total Housing Under Construction



New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
April	186,000	49,000	137,000
March	185,000	49,000	136,000
2015	143,000	42,000	101,000
M/M change	0.5%	0.0%	0.7%
Y/Y change	30.1%	16.7%	35.6%

	MW Total	MW SF	MW MF
April	135,000	74,000	61,000
March	134,000	73,000	61,000
2015	129,000	63,000	66,000
M/M change	0.7%	1.4%	0.0%
Y/Y change	4.7%	17.5%	-7.6%

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

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

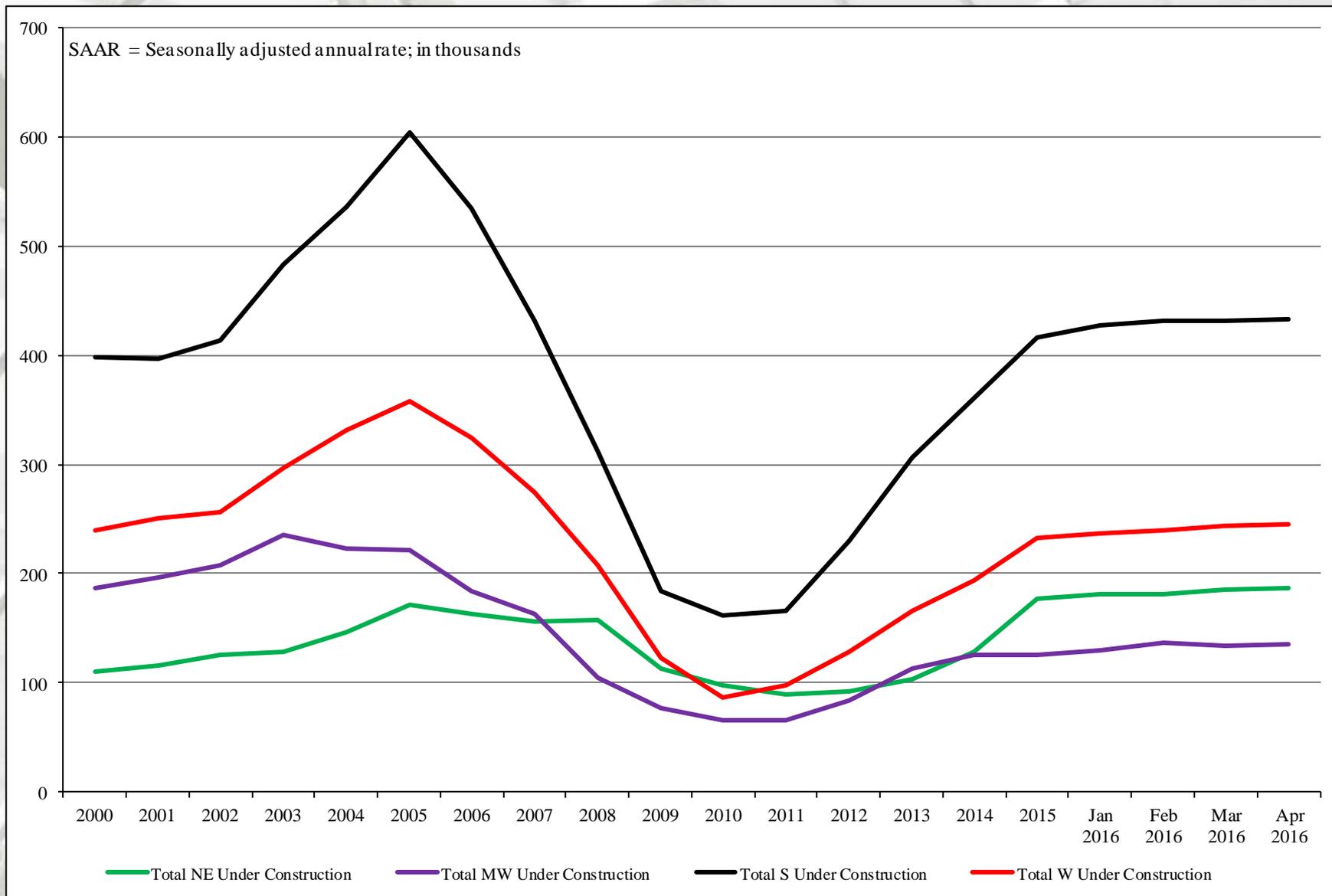
New Housing Under Construction by Region

	S Total	S SF	S MF**
April	433,000	215,000	218,000
March	431,000	213,000	218,000
2015	380,000	178,000	202,000
M/M change	0.5%	0.9%	0.0%
Y/Y change	13.9%	20.8%	7.9%
	W Total	W SF	W MF
April	245,000	95,000	150,000
March	244,000	96,000	148,000
2015	215,000	84,000	131,000
M/M change	0.4%	-1.0%	1.4%
Y/Y change	14.0%	13.1%	14.5%

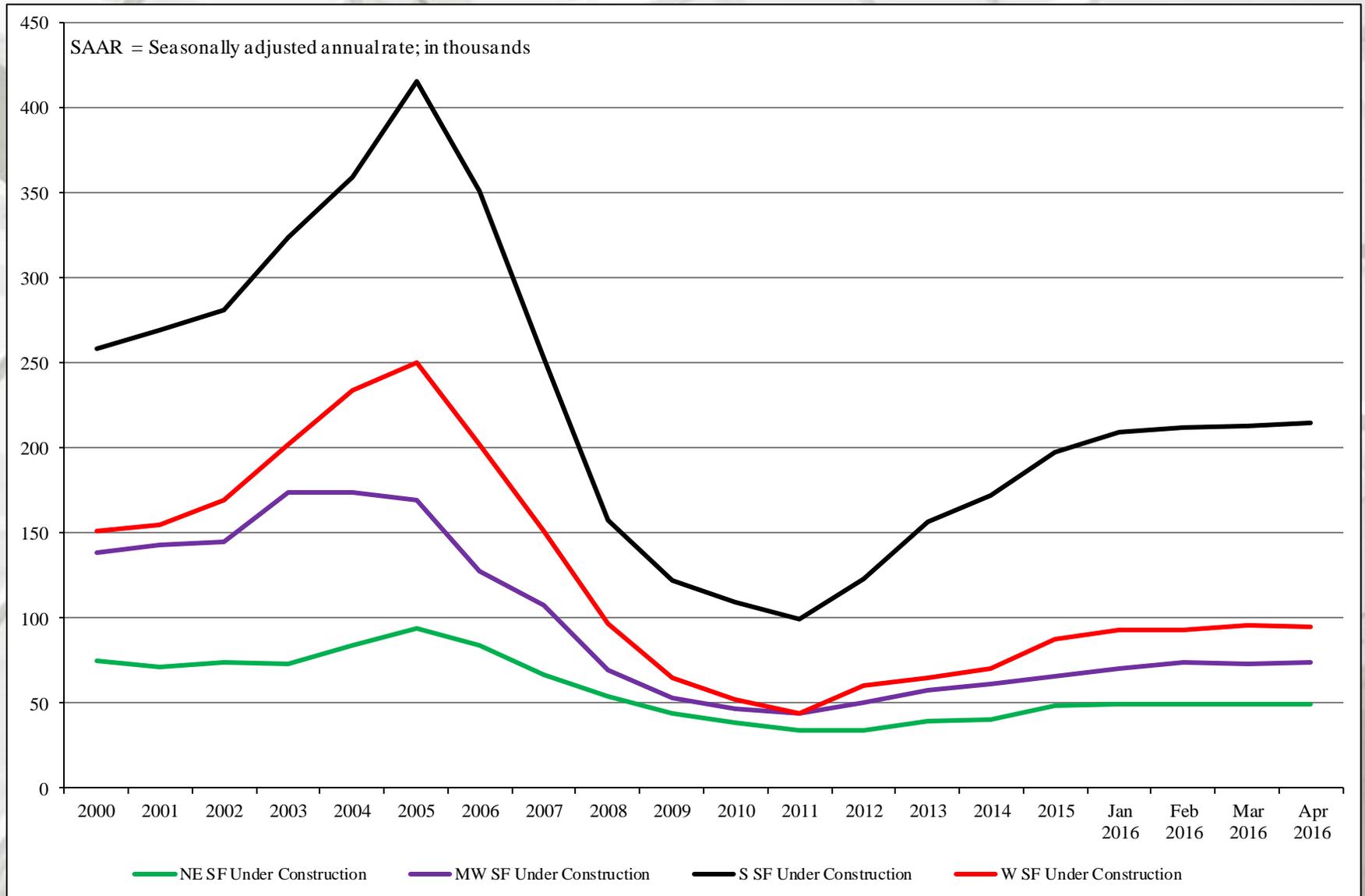
All data are SAAR; S = South and W = West.

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

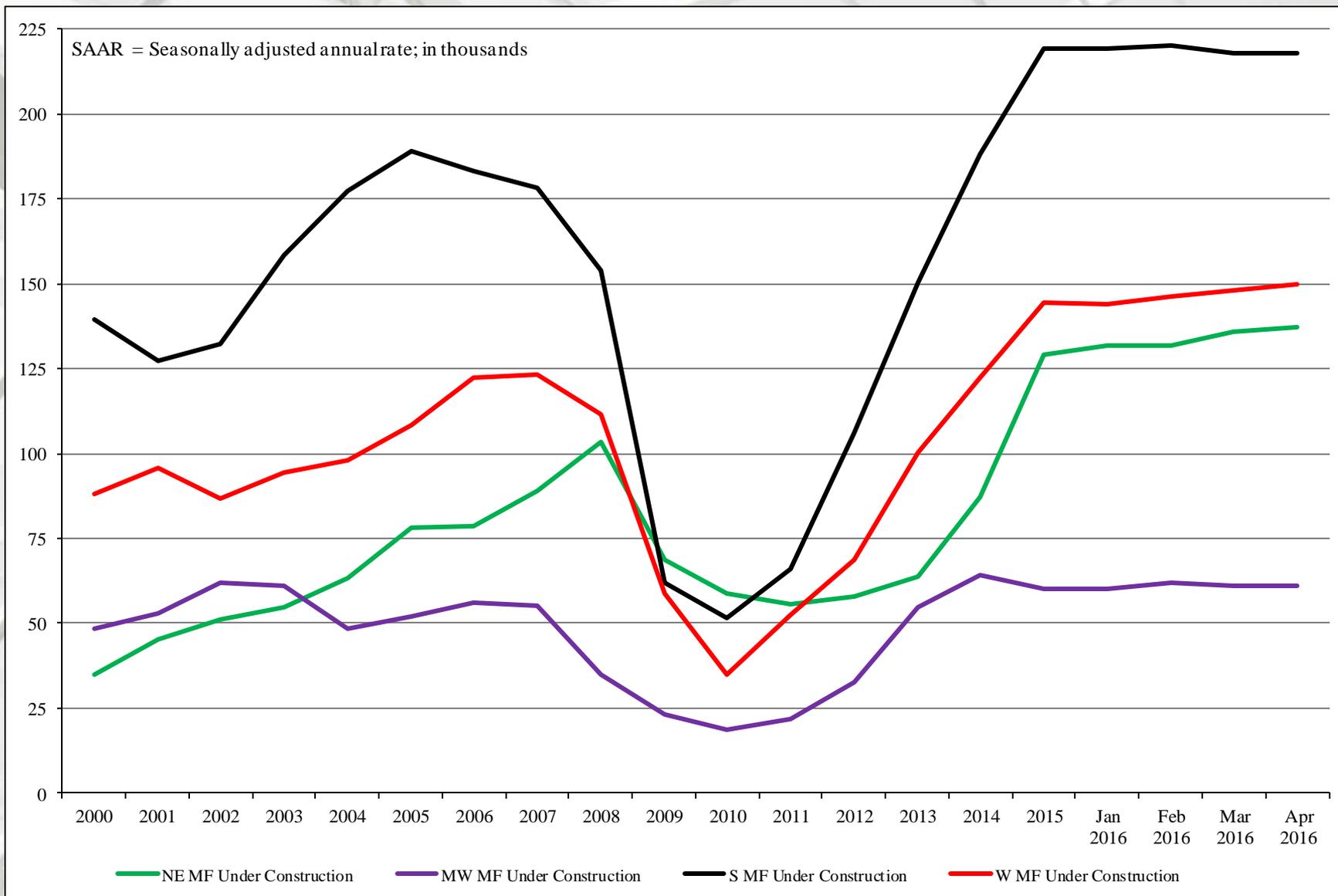
Total Housing Under Construction by Region



SF Housing Under Construction by Region



MF Housing Under Construction by Region



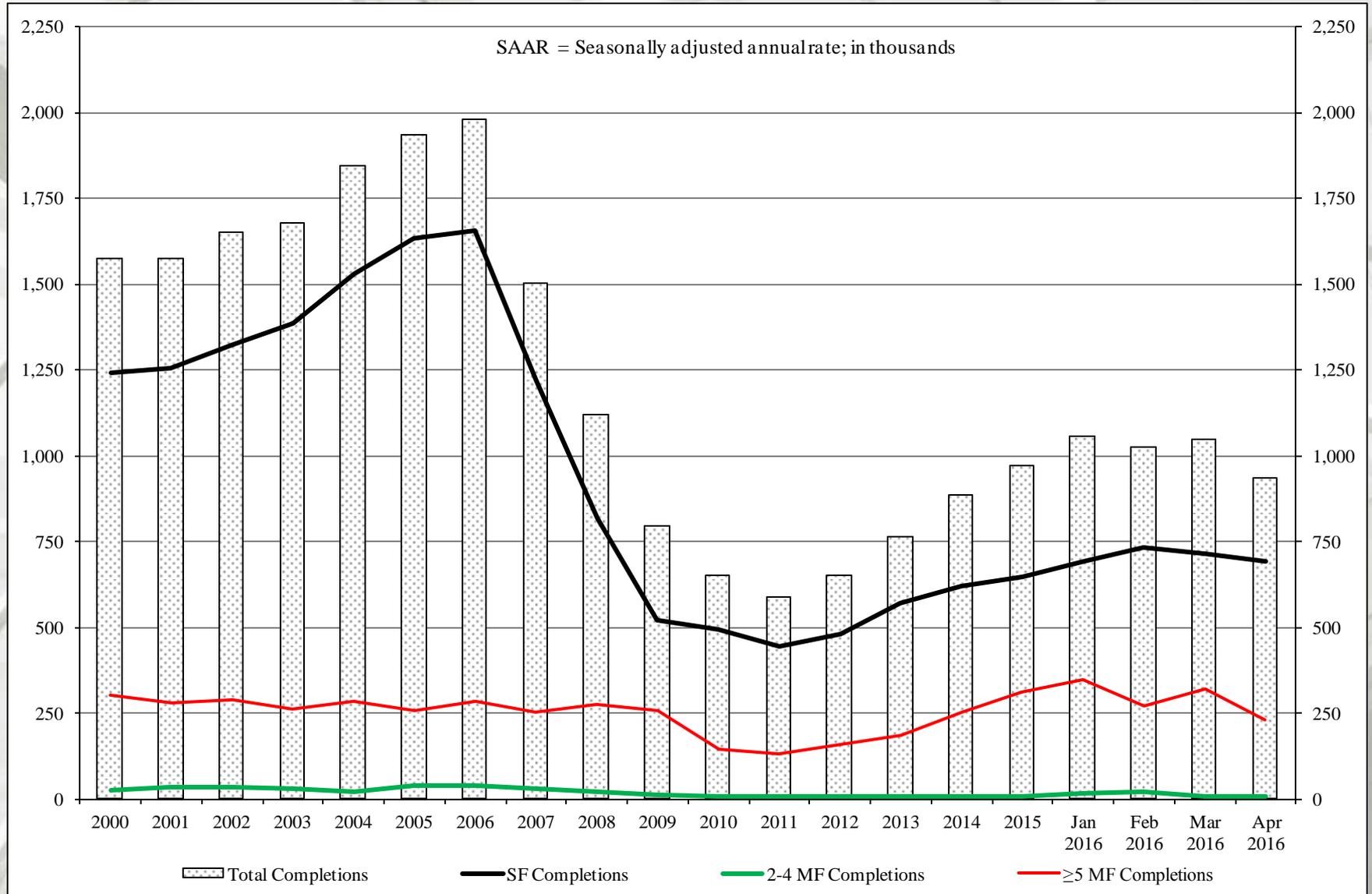
New Housing Completions

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	Under Construction
April	999,000	433,000	11,000	555,000
March	994,000	431,000	11,000	553,000
2015	867,000	367,000	12,000	488,000
M/M change	0.5%	0.5%	0.0%	0.4%
Y/Y change	15.2%	18.0%	-8.3%	13.7%

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

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

Total Housing Completions



New Housing Completions by Region

	NE Total	NE SF	NE MF**
April	88,000	57,000	31,000
March	107,000	61,000	46,000
2015	114,000	47,000	67,000
M/M change	-17.8%	-6.6%	-32.6%
Y/Y change	-22.8%	21.3%	-53.7%

	MW Total	MW SF	MW MF
April	141,000	114,000	27,000
March	172,000	119,000	53,000
2015	186,000	122,000	64,000
M/M change	-18.0%	-4.2%	-49.1%
Y/Y change	-24.2%	-6.6%	-57.8%

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).

New Housing Completions by Region

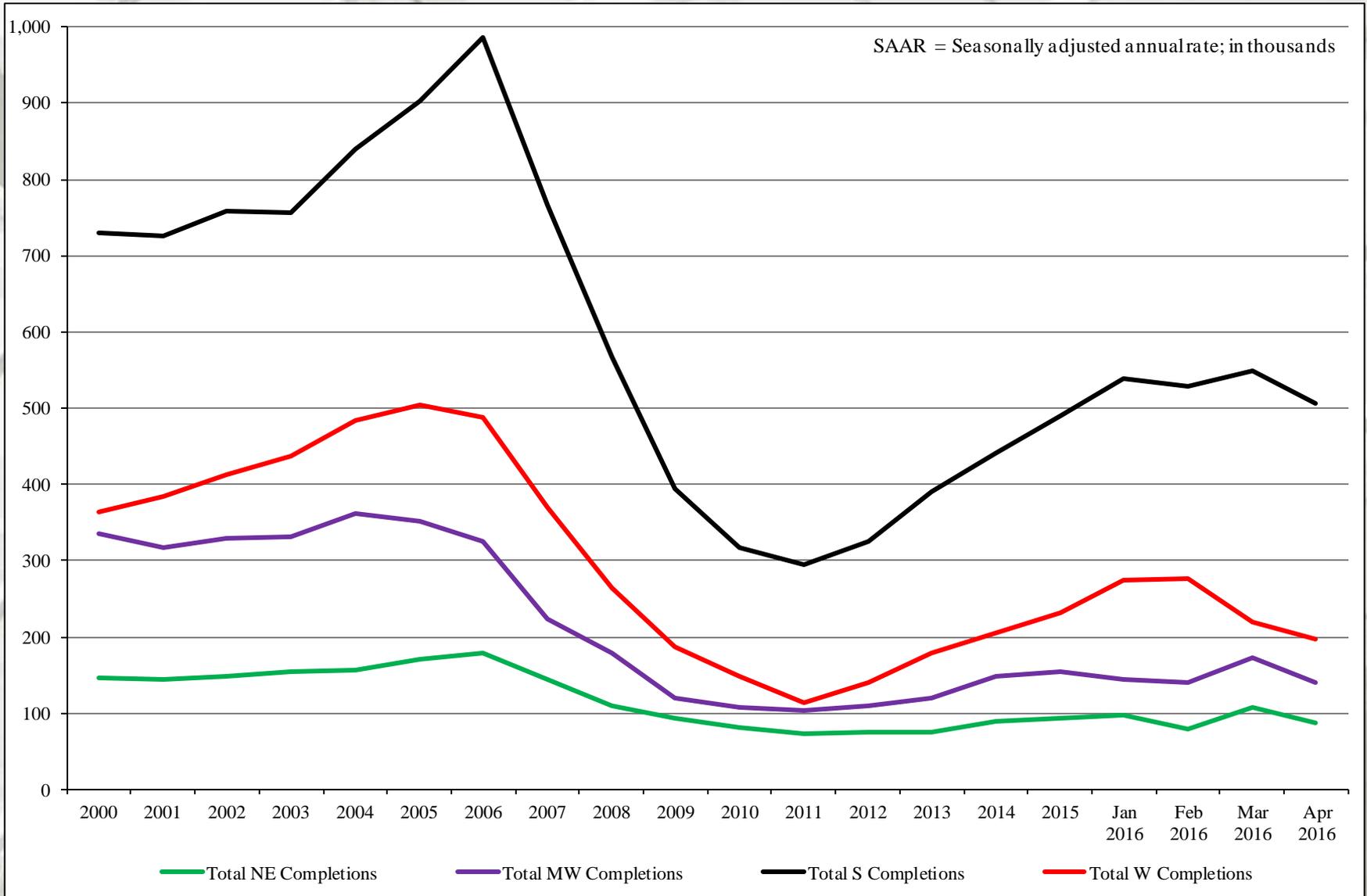
	S Total	S SF	S MF**
April	506,000	383,000	123,000
March	549,000	395,000	154,000
2015	473,000	352,000	121,000
M/M change	-7.8%	-3.0%	-20.1%
Y/Y change	7.0%	8.8%	1.7%

	W Total	W SF	W MF
April	198,000	137,000	61,000
March	220,000	142,000	78,000
2015	235,000	157,000	78,000
M/M change	-10.0%	-3.5%	-21.8%
Y/Y change	-15.7%	-12.7%	-21.8%

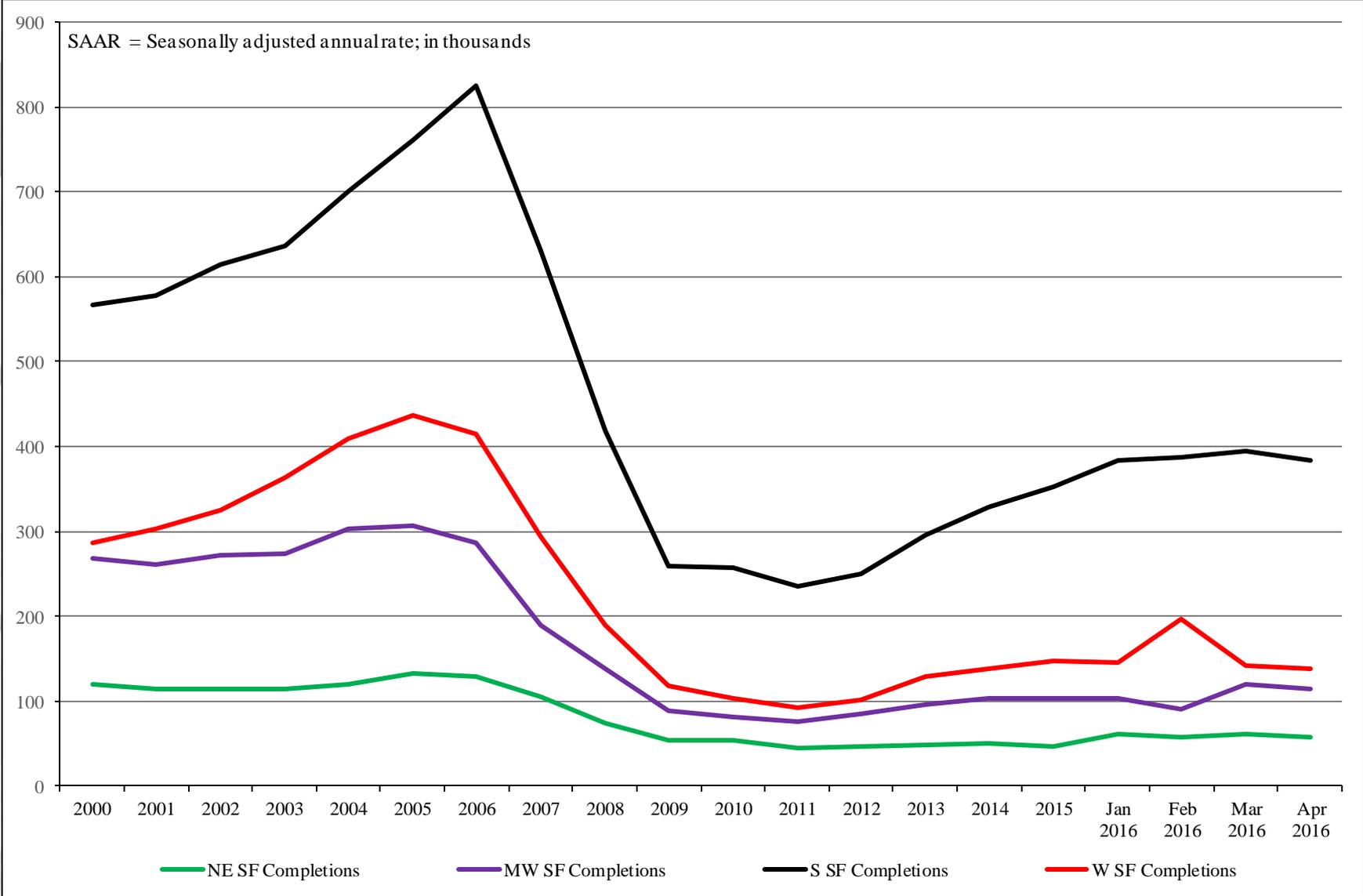
All data are SAAR; S = South and W = West.

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

Total Housing Completions by Region

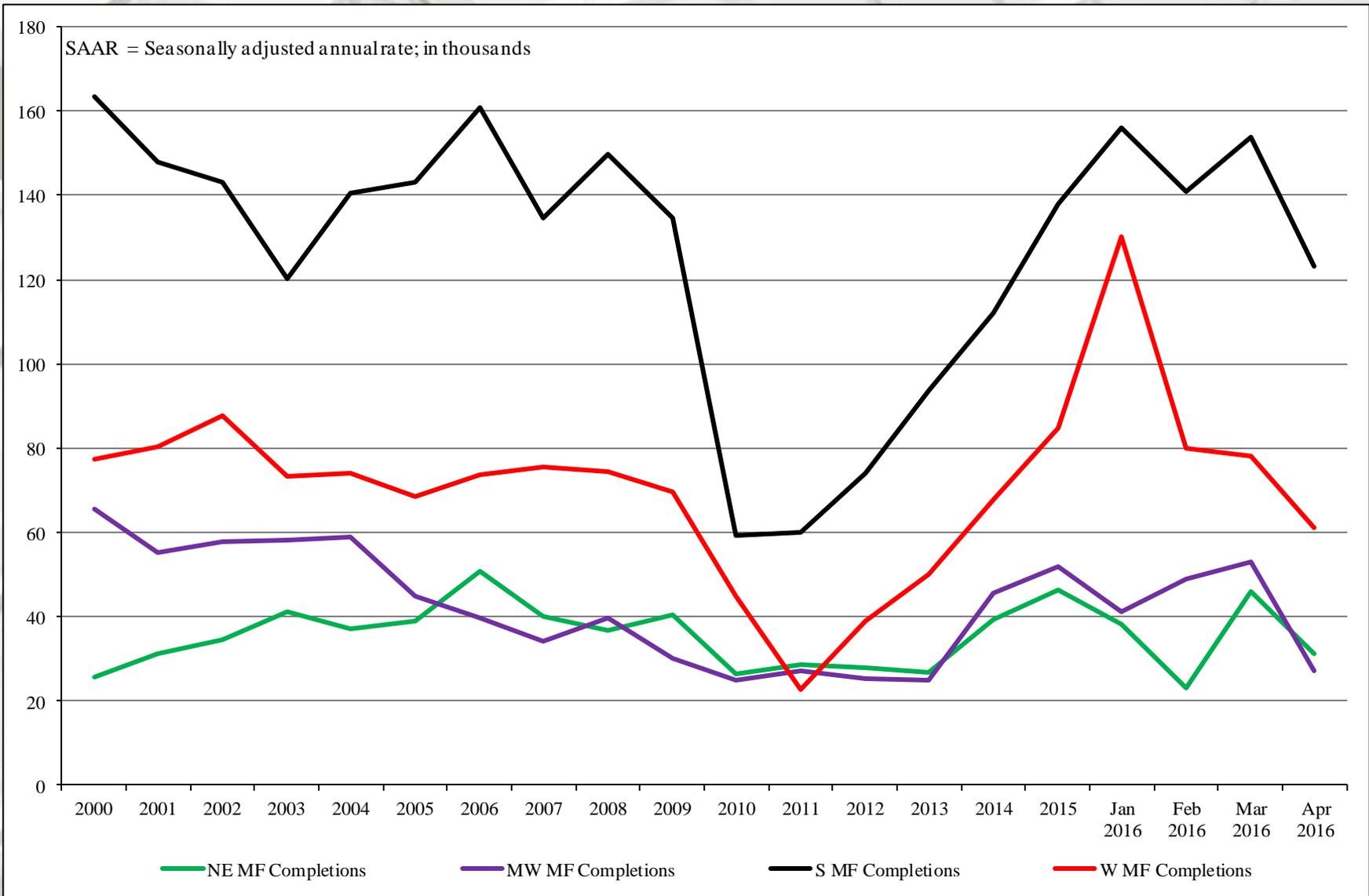


SF Housing Completions by Region



Source: <http://www.census.gov/construction/nrc/pdf/newresconst.pdf>; 5/17/16

MF Housing Completions by Region

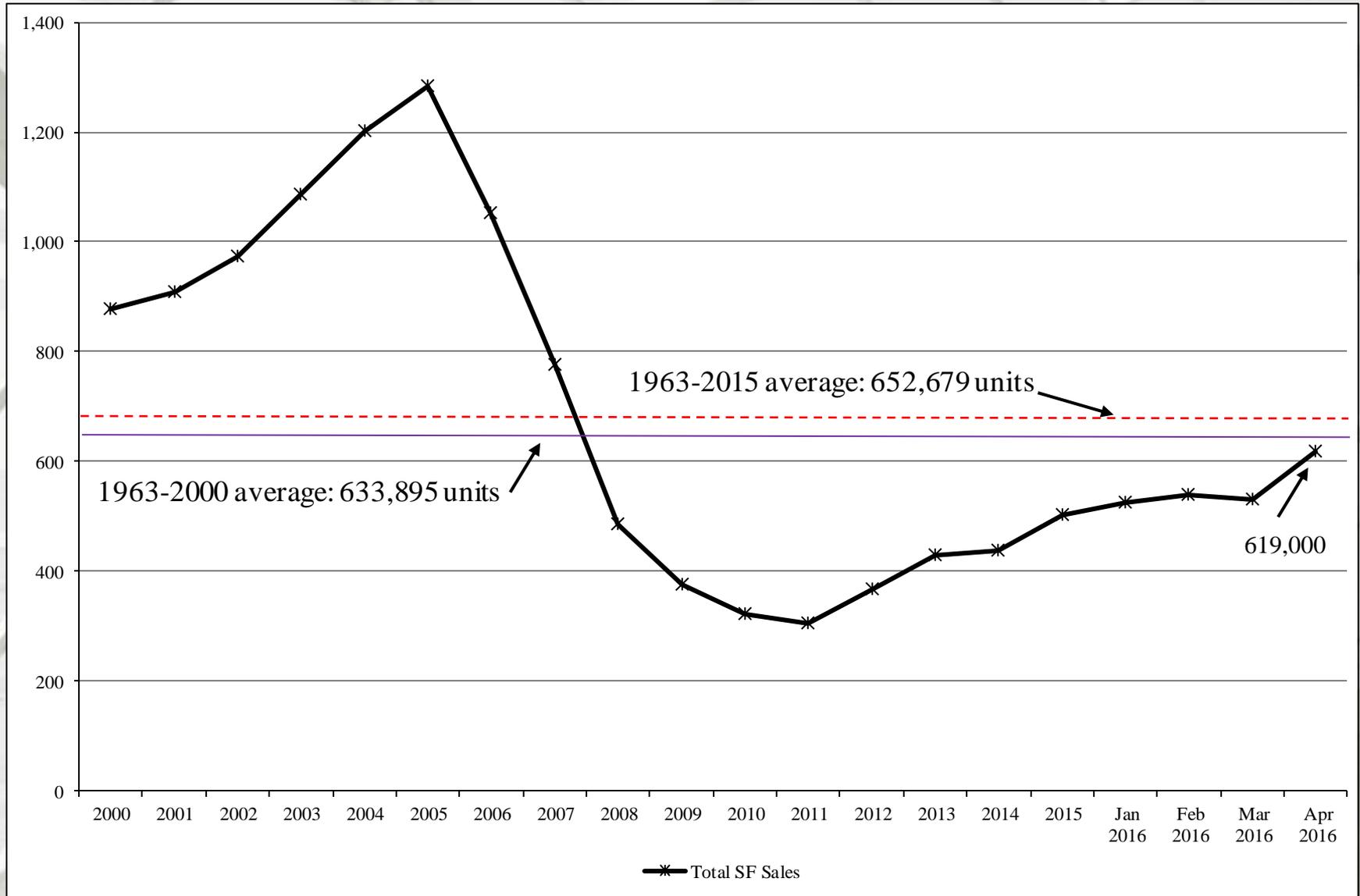


New Single-Family House Sales

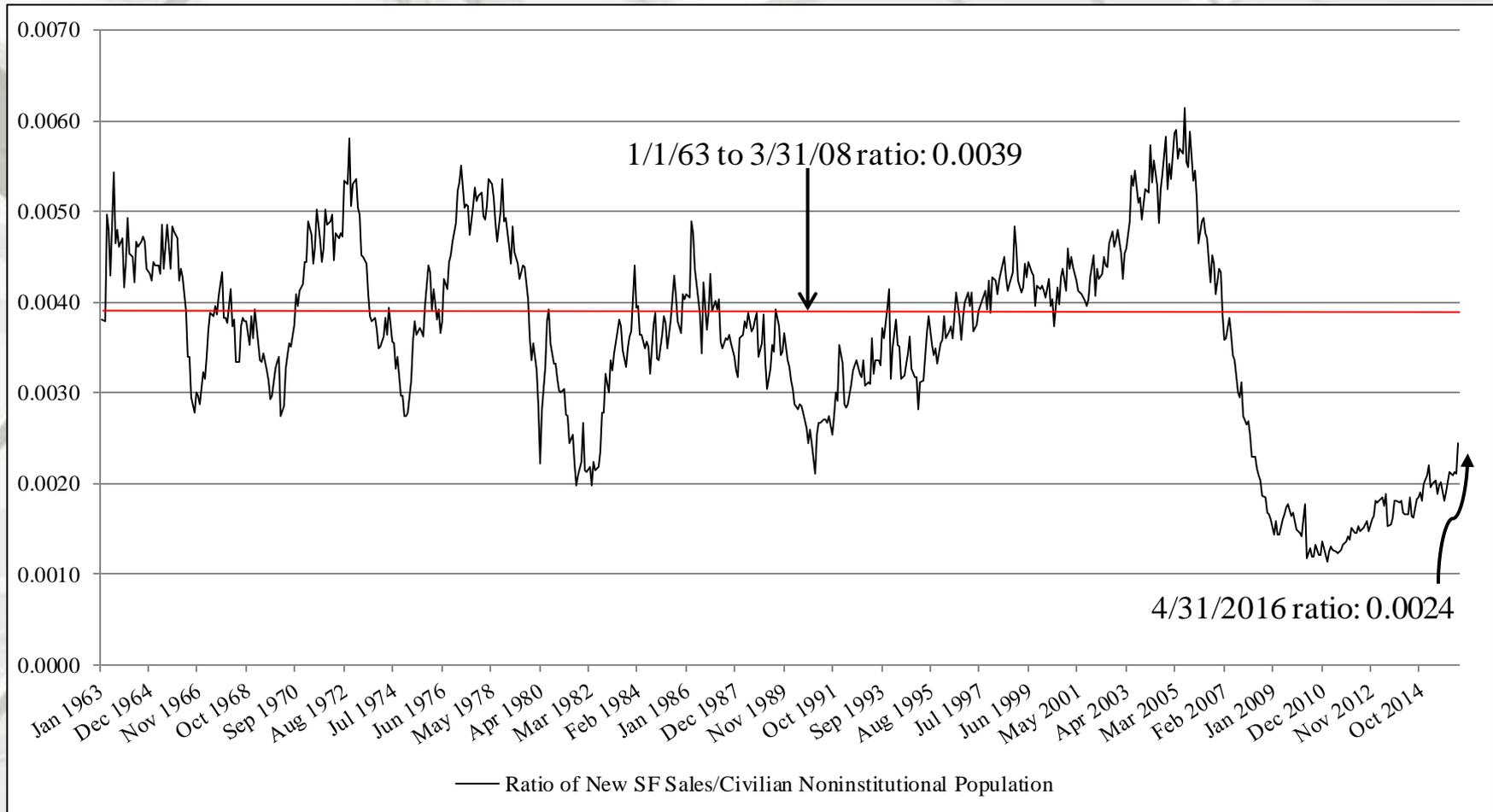
	New SF Sales*	Median Price	Mean Price	Month's Supply
April	619,000	\$321,100	\$379,800	4.7
March	531,000	\$297,900	\$353,900	5.5
2015	500,000	\$292,700	\$334,700	5.0
M/M change	16.6%	7.8%	7.3%	-14.5%
Y/Y change	23.8%	9.7%	13.5%	-6.0%

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

New SF House Sales



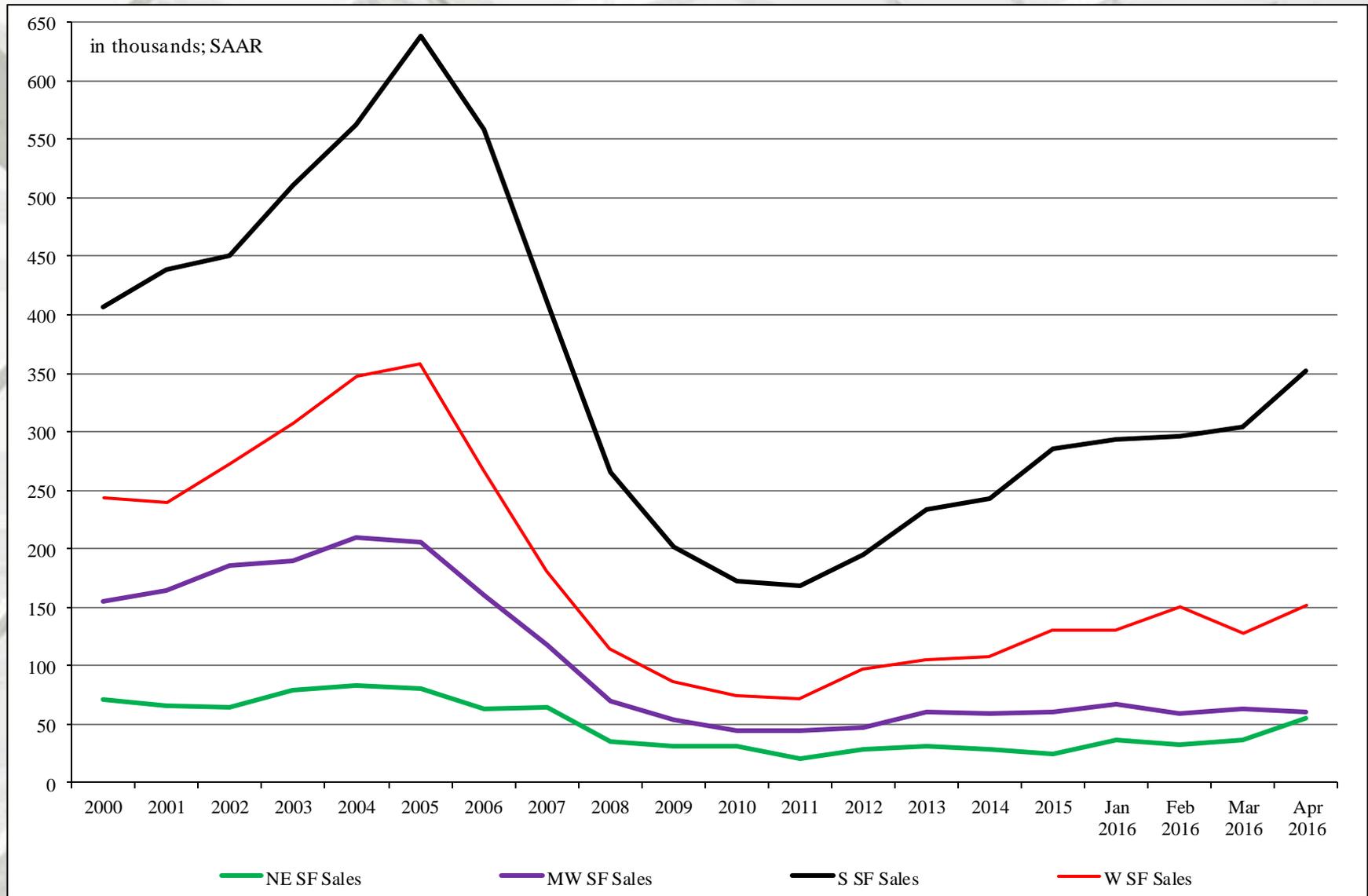
New SF House Sales



New SF sales adjusted for the US population

From April 1963 to April 2008, the long-term ratio of new house sales to the US population was 0.0039 – in April it was 0.0024 – an increase from March. From a population viewpoint, construction is less than what is necessary for changes in population.

New SF House Sales by Region



New SF House Sales by Region and Price Category

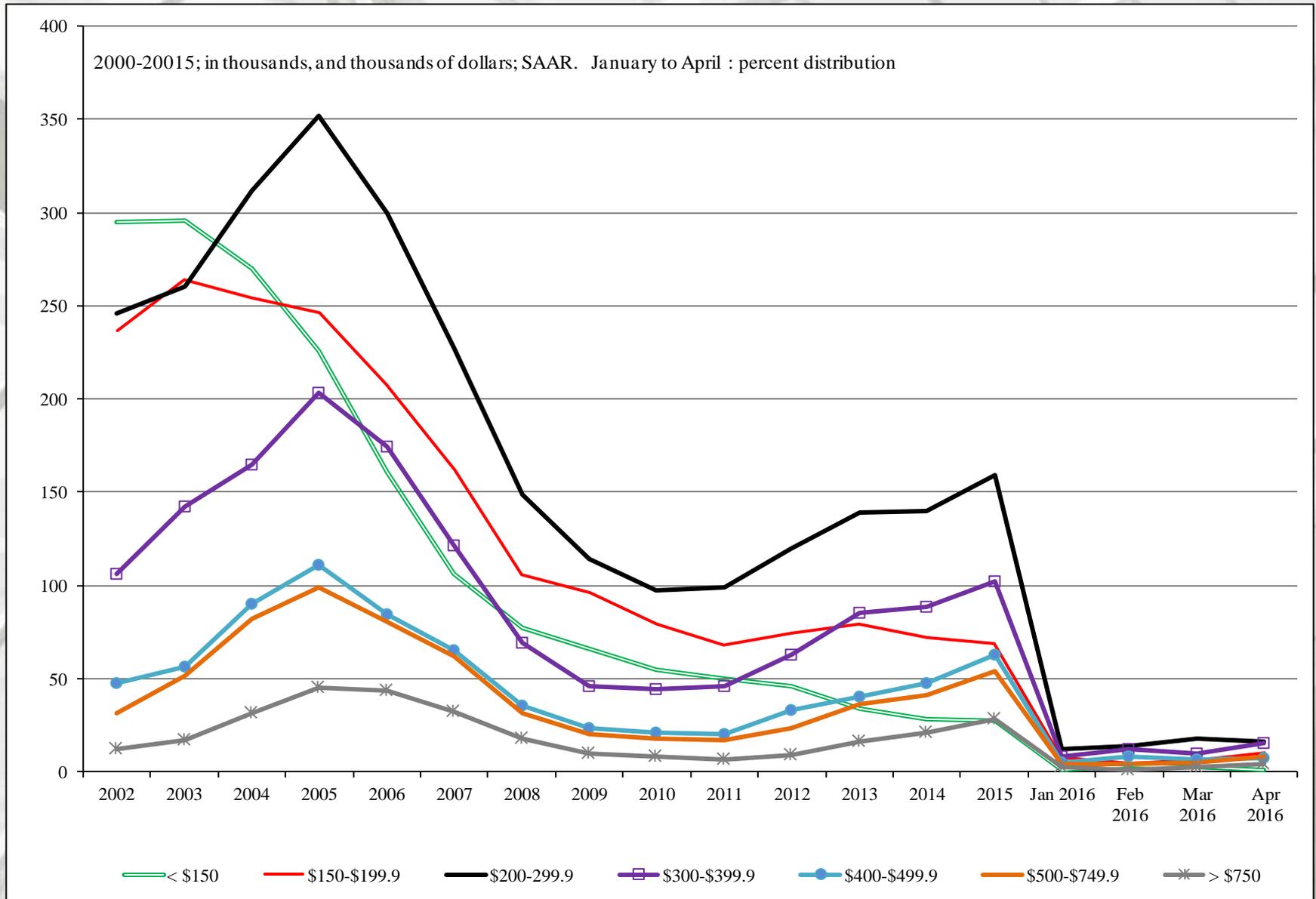
	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
April	55,000	60,000	352,000	152,000
March	36,000	63,000	304,000	128,000
2015	13,000	66,000	298,000	123,000
M/M change	52.8%	-4.8%	15.8%	18.8%
Y/Y change	323.1%	-9.1%	18.1%	23.6%

	< \$150m	\$150 - \$199.9m	\$200 - 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	> \$750m
April	1,000	10,000	16,000	15,000	7,000	8,000	4,000
March	2,000	6,000	18,000	10,000	6,000	5,000	2,000
2015	2,000	7,000	16,000	10,000	6,000	5,000	1,000
M/M change	-50.0%	66.7%	-11.1%	50.0%	16.7%	60.0%	100.0%
Y/Y change	-50.0%	42.9%	0.0%	50.0%	16.7%	60.0%	300.0%

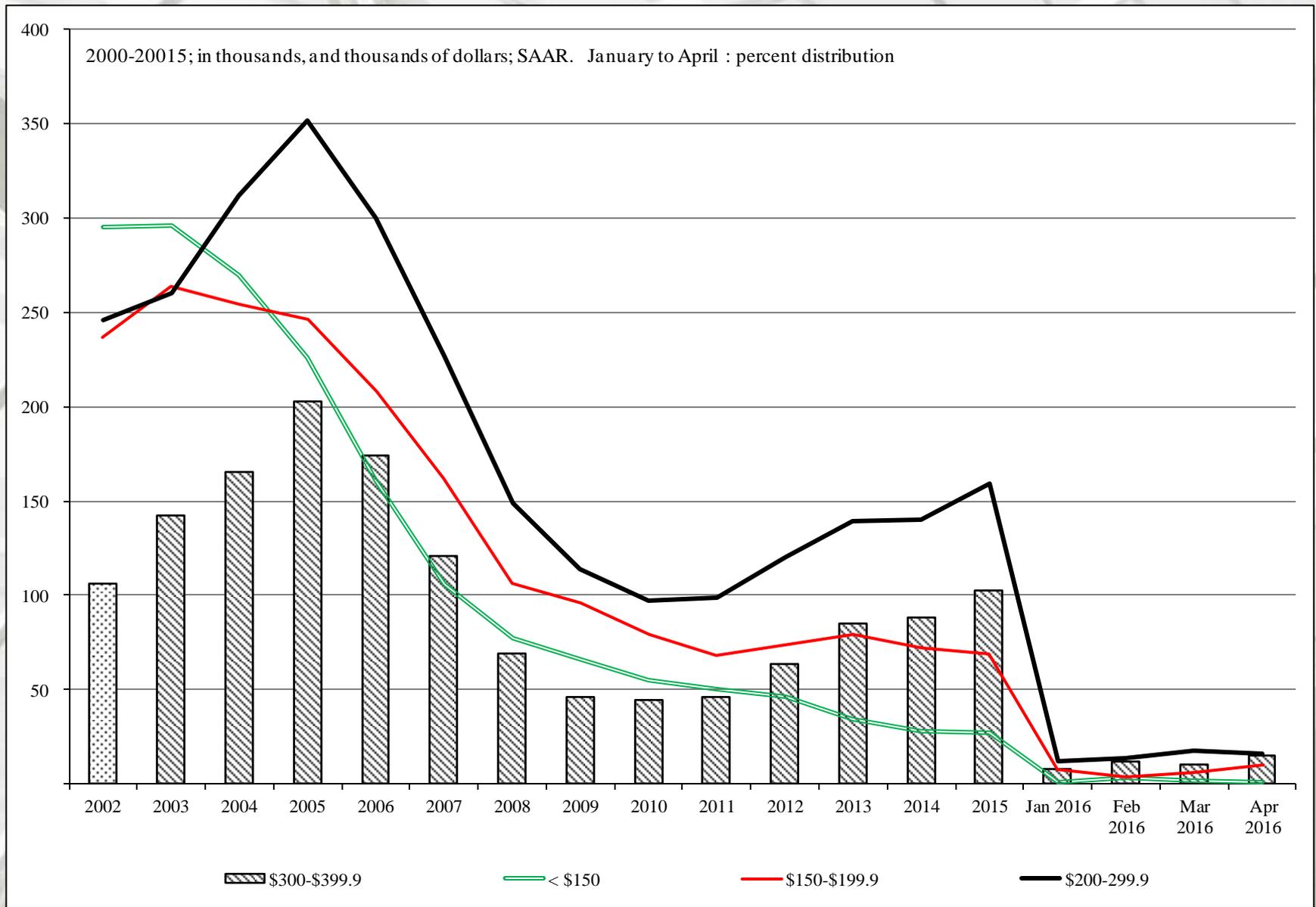
All data are SAAR; ¹Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

²-Detail may not add to total because of rounding.

New SF House Sales by Price Category

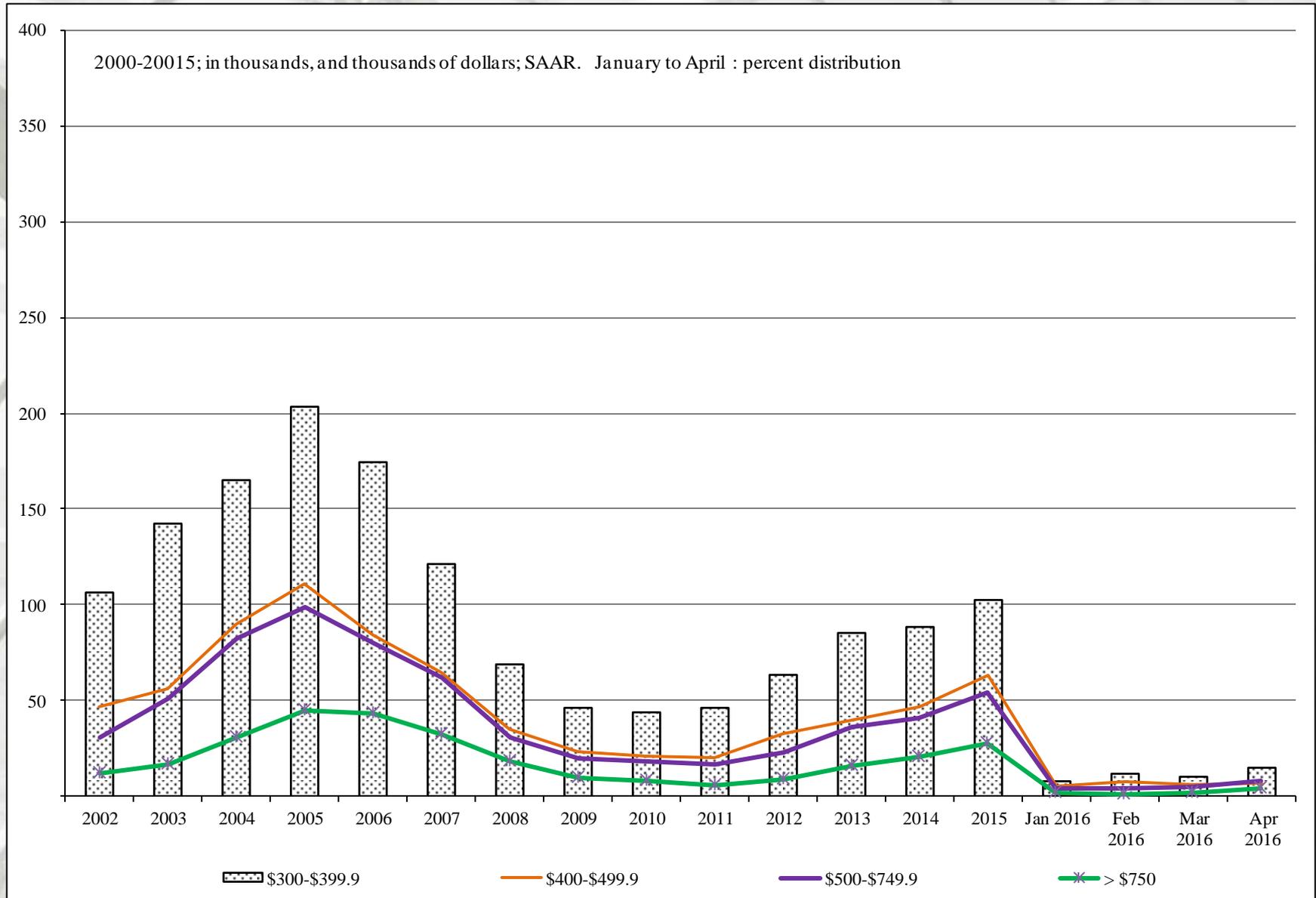


New SF House Sales by Price Category

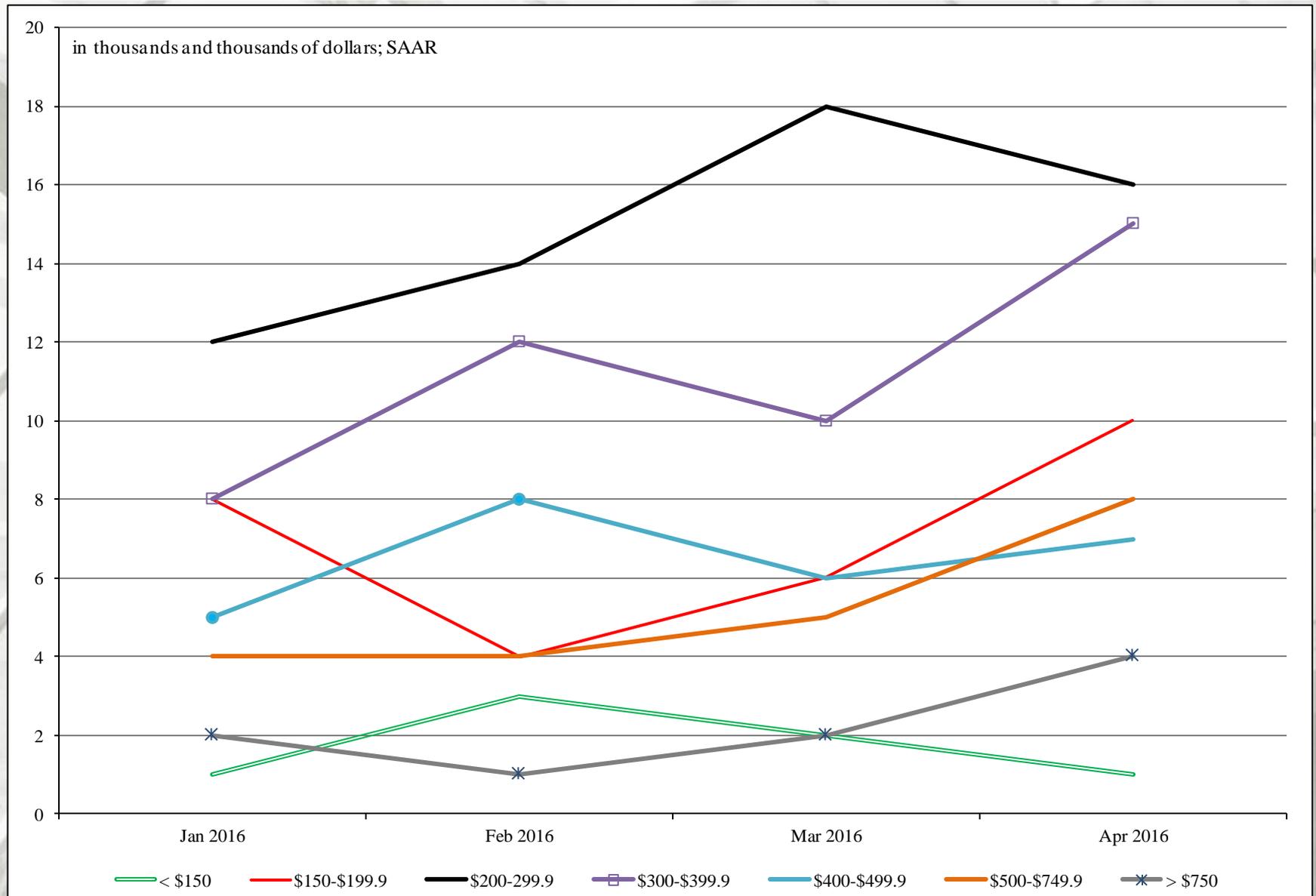


Source: <http://www.census.gov/construction/nrs/xls/newressales.xls>; 5/24/16

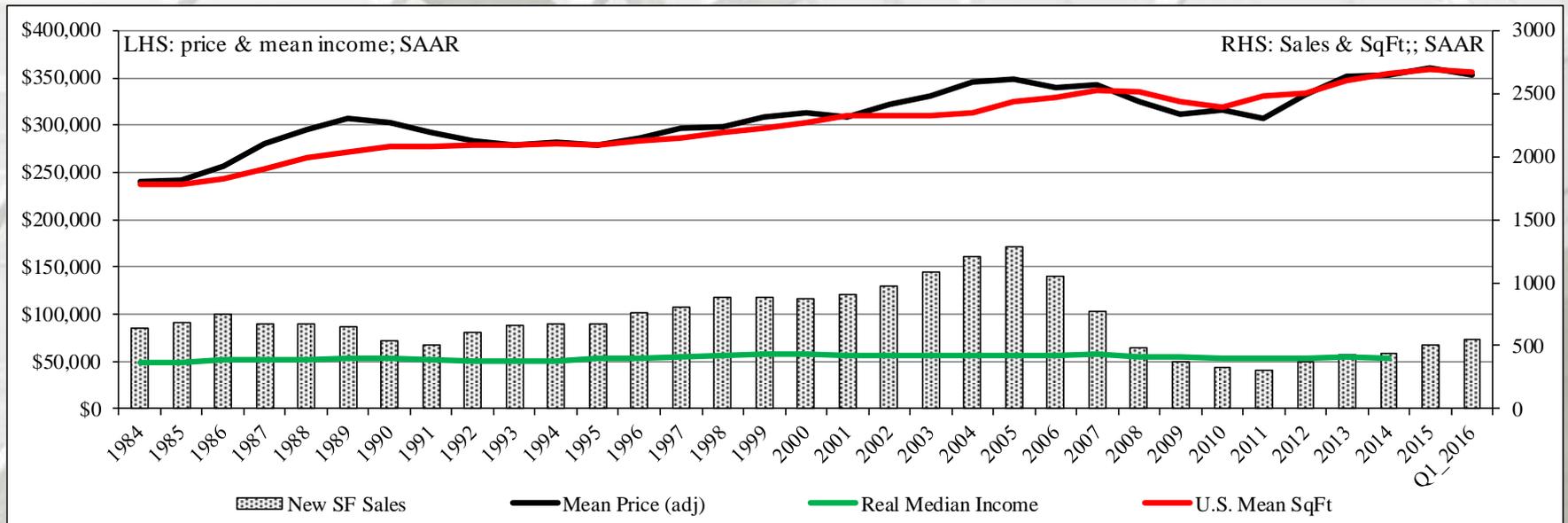
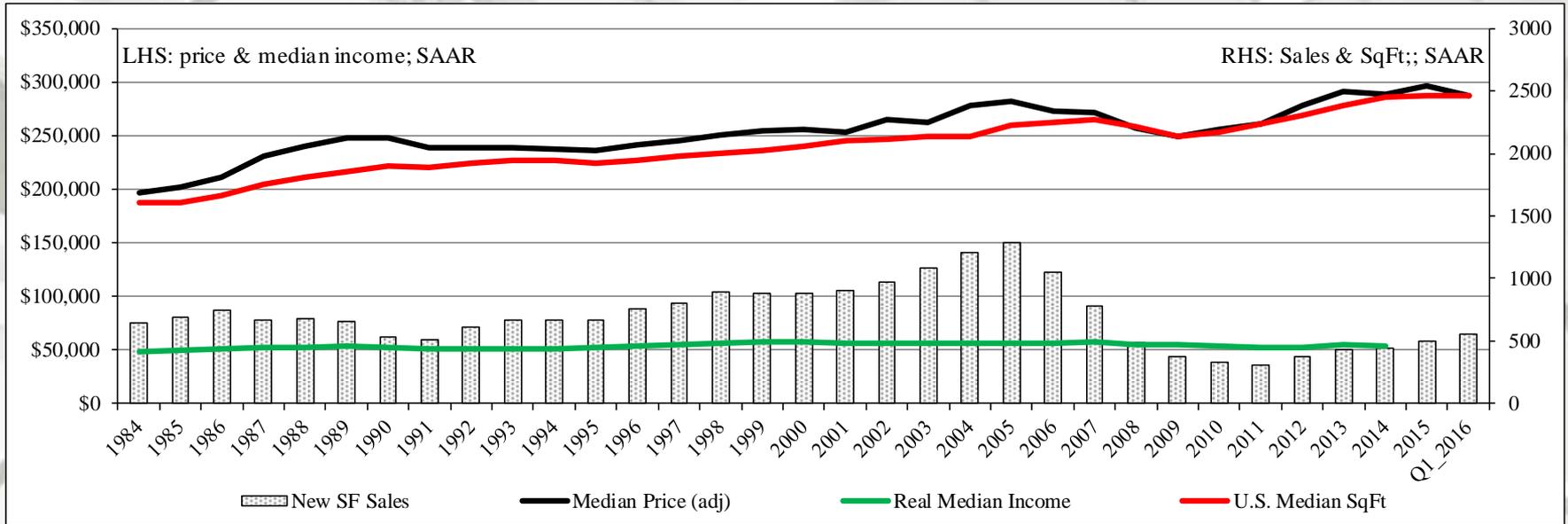
New SF House Sales by Price Category



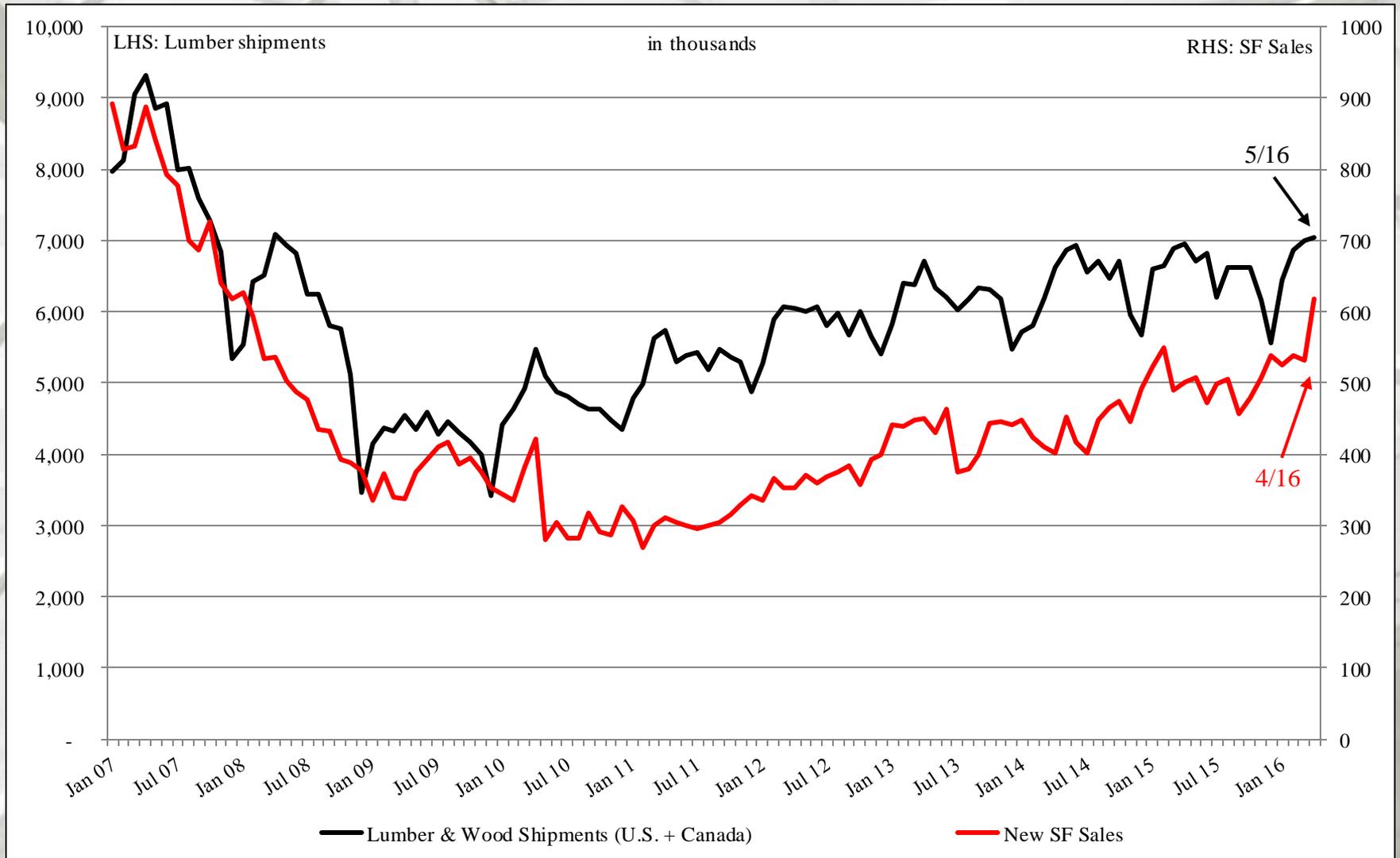
New SF House Sales by Price Category



New SF Sales Median & Mean: Price and Size

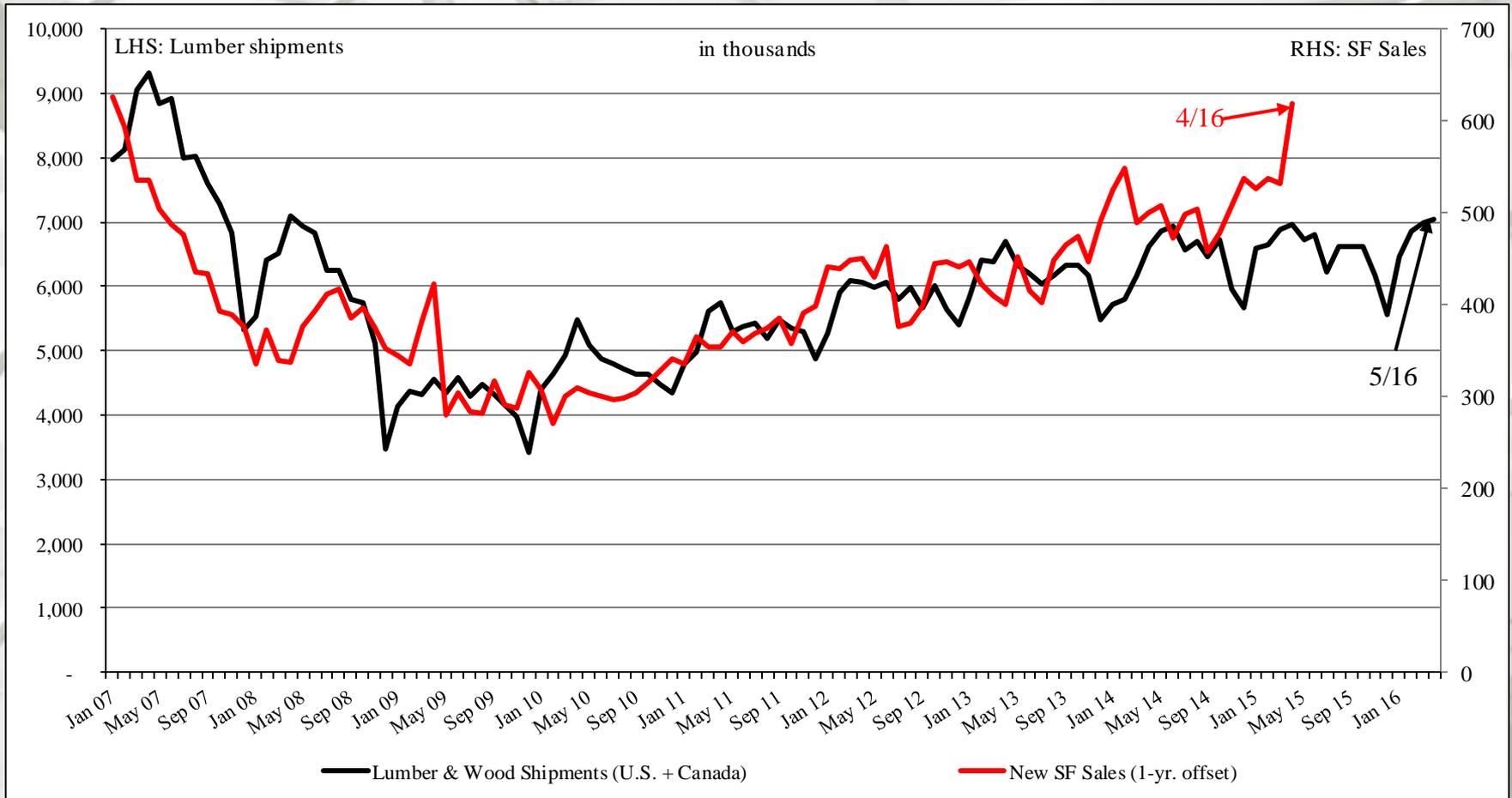


Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales



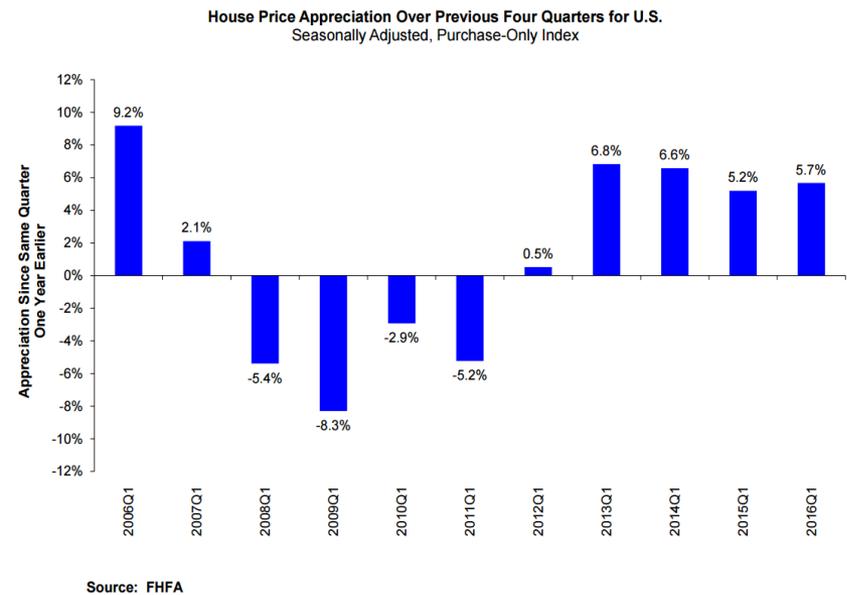
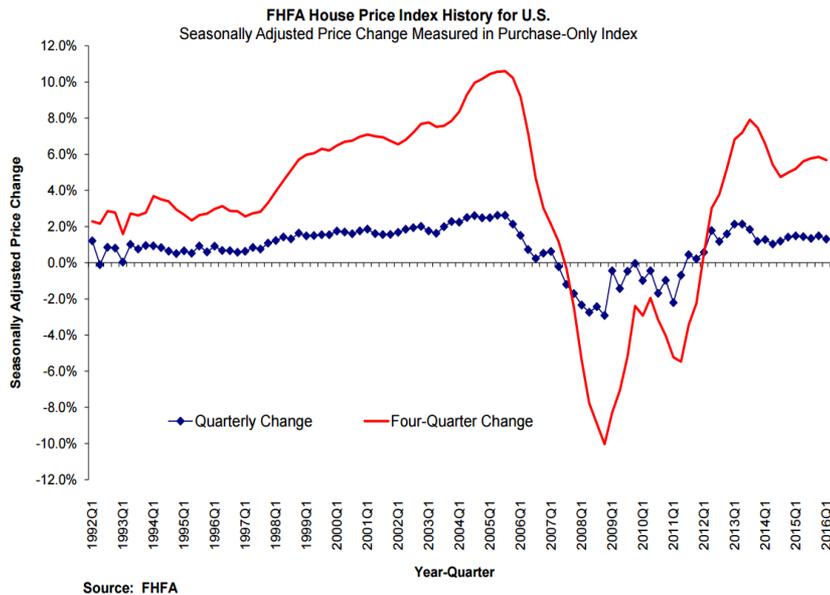
Sources: Association of American Railroads, *Rail Time Indicators* report; 6/6/16; U.S. DOC-Construction; 5/24/16

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 April 2016 new 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.

FHFA: House Prices



U.S. House Prices Rise 1.3 Percent in First Quarter; 19 Consecutive Quarterly Increases

“House prices rose 5.7 percent from the first quarter of 2015 to the first quarter of 2016. This is the fourth consecutive year in which prices grew more than 5 percent. FHFA’s seasonally adjusted monthly index for March was up 0.7 percent from February.”

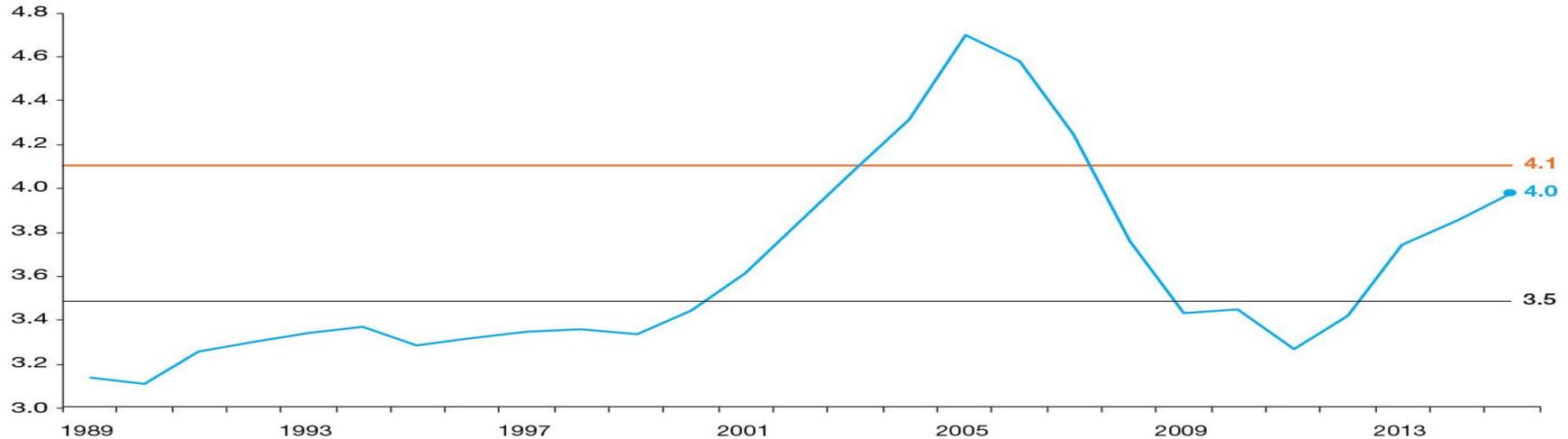
“While the overall appreciation rate was robust in the first quarter, home price appreciation was somewhat less widespread than in recent quarters. Twelve states and the District of Columbia saw price declines in the quarter – the most areas to see price depreciation since the fourth quarter of 2013. Although most declines were modest, such declines are notable given the pervasive and extraordinary appreciation we have been observing for many years.

While the purchase-only HPI rose 5.7 percent from the first quarter of 2015 to the first quarter of 2016, prices of other goods and services were nearly unchanged. The inflation-adjusted price of homes rose approximately 5.6 percent over the latest year.” – Andrew Leventis, Supervisory Economist, FHFA

Freddie Mac: House Prices

EXHIBIT 2

United States price-to-income ratio



Sources: NAR, Moody's Analytics

How to Worry About House Prices

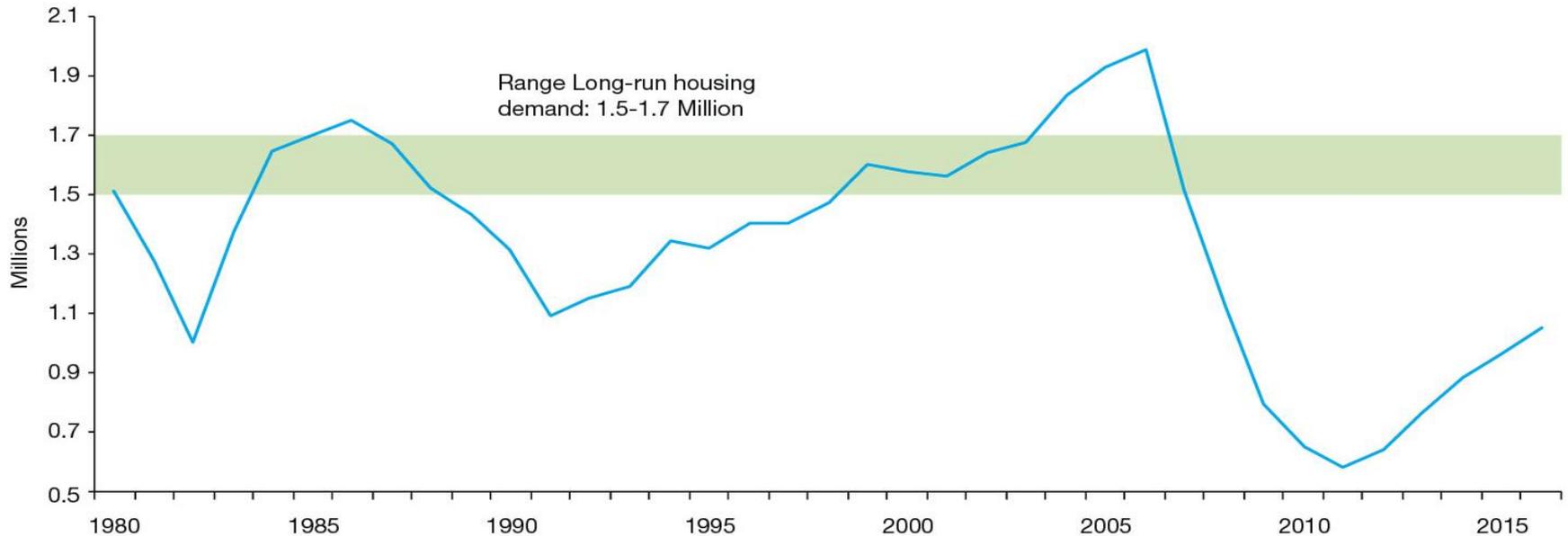
“House prices have breached the peak levels of 2006, raising concerns about the long-term sustainability of current price levels. The difficulty of forecasting house price appreciation and the conflicting signals of the multitude of house price metrics make it challenging to assess whether – and where – house price risk is indeed increasing.

The approach described above provides an organized method for assessing house price risk. This method is not a crystal ball that predicts the path of future prices. Instead the approach describes a two-stage method for identifying areas where worry may be justified. The first stage uses the ratio of house prices to household income to “thin the herd”, that is, to screen out the majority of areas that are unlikely to pose near-term risk. For the remaining areas, the second stage assembles supporting information that can either confirm reasons for concern or, alternatively, muster evidence that a collapse in house prices is unlikely.”

Freddie Mac: House Prices

EXHIBIT 5

Housing completions



Source: Moody's Analytics

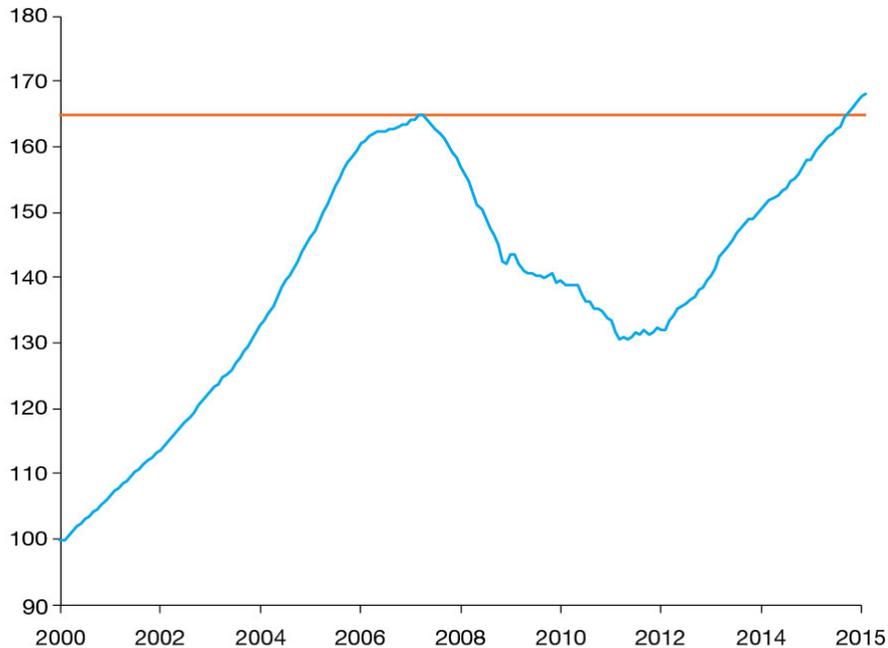
How to Worry About House Prices

“The low rate of new home completions suggests the shortage of inventory may persist for several years (Exhibit 5). A completion rate of 1.5 million to 1.7 million houses per year roughly covers the rate of household growth and the rate at which older homes become uninhabitable. Since the onset of the housing crisis, the completion rate has fallen far below this range. The completion rate has been increasing since the trough of 0.5 million units in 2011, but most forecasters believe it will take two to three years before the completion rate reaches the 1.5 - million-to-1.7-million-unit rate”

Freddie Mac: House Prices

EXHIBIT 1

FHFA house price index (Jan 2000 = 100)



Source: FHFA purchase-only house price index, seasonally adjusted

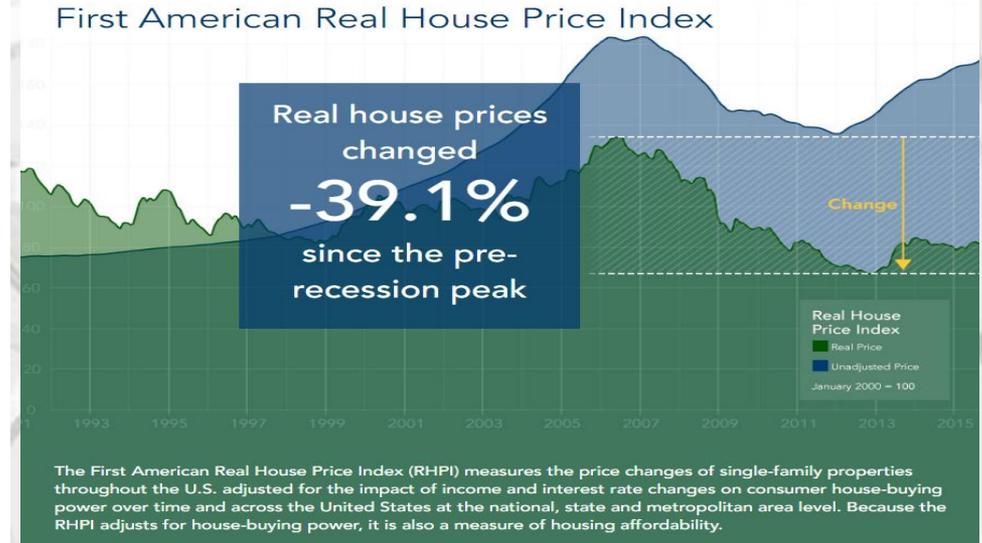
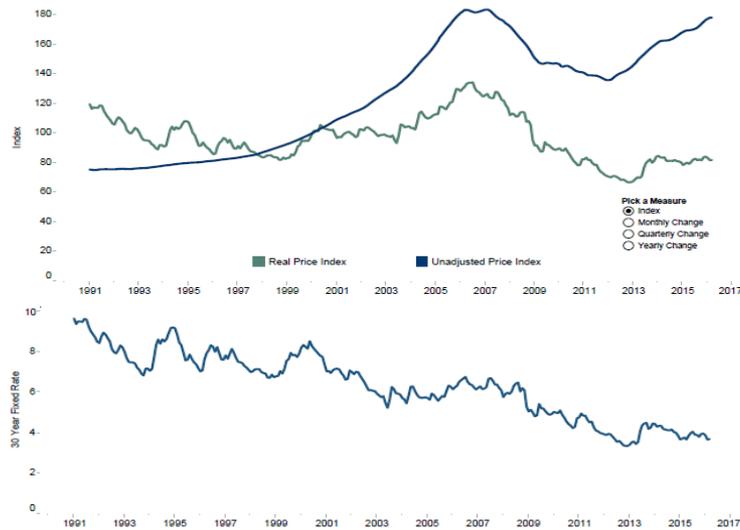
“Our first stage identified ten large metro areas with unusually-high house prices relative to the household incomes in those areas. However, the second stage failed to produce compelling evidence of increasing house price risk.

- Tight inventories of homes for sale are boosting house prices and are likely to continue supporting high house prices for several years. In addition, increases in income inequality may be exaggerating the true price-to-income ratios.
- The credit quality of originations in recent years remains high, and the performance of these originations is much better than that of loans originated during the housing boom of the early-to-mid 2000s.
- At present, home owners have not increased their leverage despite the rapid increase in the equity in their homes.”

“This last point highlights what is likely to be the “canary in the coal mine.” As long as leverage remains low, home owners will remain resilient in the face of economic fluctuations. However, if leverage creeps up, home owners’ financial cushion will shrink, leaving them more vulnerable to economic shocks.

In sum, this analysis suggests that, aside from isolated areas, we don’t need to worry about house prices – yet.” – Sean Beckett, Chief Economist; Elias Yannopoulos, Quantitative Analyst; and Brock Lacy, Quantitative Analyst; Economic & Housing Research; Freddie Mac

First American Real House Price Index



March 2016 Real House Price Index

Real House Prices Remain 39 Percent Below The Housing Boom Peak

“After adjusting for increased consumer house-buying power, real house prices are significantly lower than they were prior to the housing boom. Real house prices are 39.1 percent below their housing-boom peak in July 2006 and 18 percent below the level of prices in January 2000. Unadjusted house prices are expected to increase by 5.1 percent in March on a year-over-year basis, but real house prices increased by a more modest 2.1 percent over the same period. Unadjusted, the national price level is less than 2.9 percent away from the housing-boom peak in 2007. The First American RHPI was unchanged in March 2016 as compared with February 2016 and increased 2.1 percent as compared with March 2015.

Many potential homebuyers this spring may experience sticker shock when house hunting, as unadjusted prices are consistently outpacing income growth. Yet, the real price level is much lower than even in the years before the housing boom, largely because consumer house-buying power is significantly higher today due to the current environment of historically low mortgage rates.” – Mark Fleming, Chief Economist, First American

April 2016 Construction Spending

2016 April Total Private Residential Construction: \$439.7 billion (SAAR)

- 1.5% less than the revised March estimate of \$446.3 billion (SAAR)
- 8.0% greater than the April 2015 estimate of \$407.2 billion (SAAR)

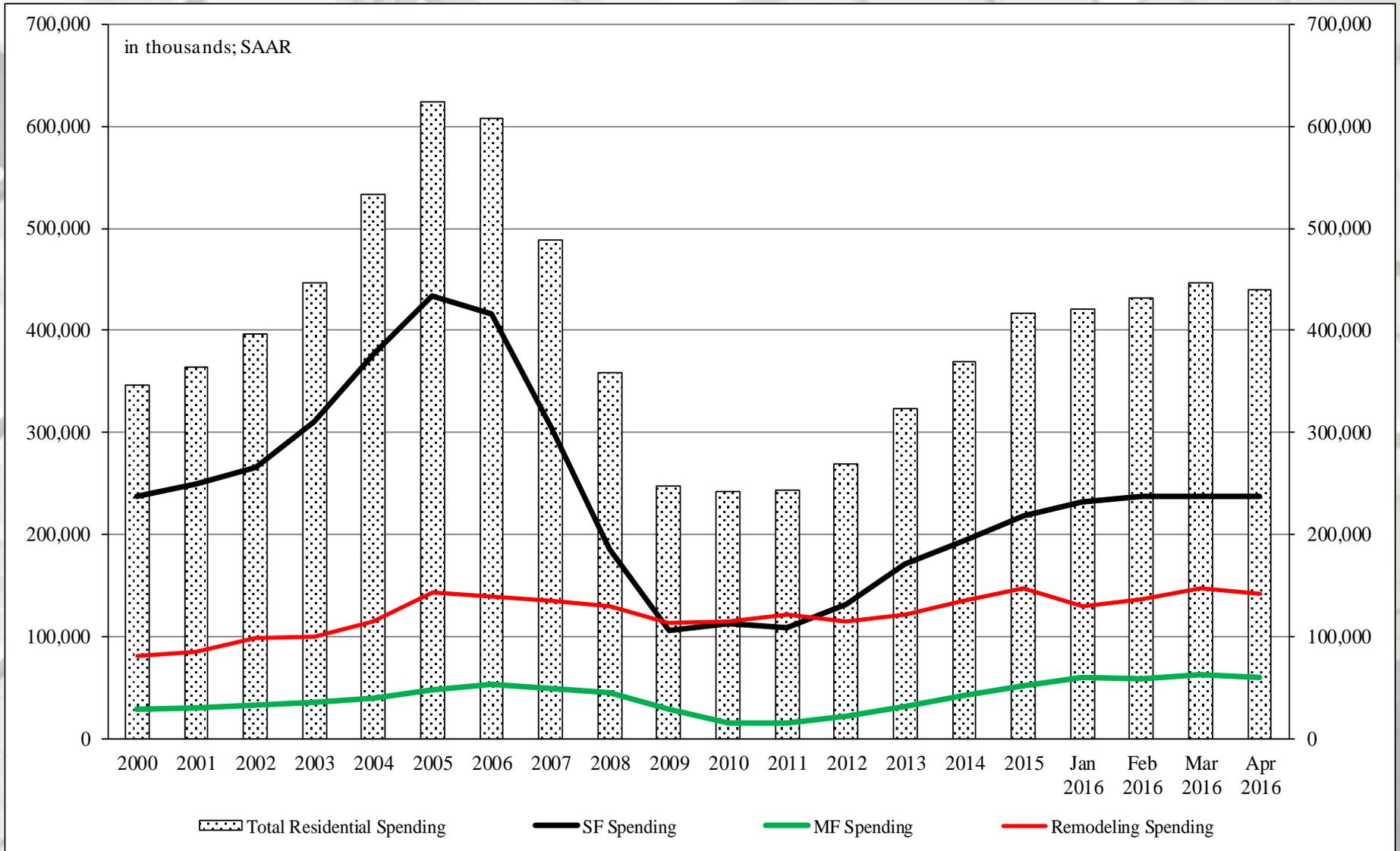
April SF construction: \$237.49 billion (SAAR)
-0.004% less than March: \$237.50 billion (SAAR)
13.4% greater than April 2015: \$210.44 billion (SAAR)

April MF construction: \$60.0 billion (SAAR)
-3.1% less than March: \$61.9 billion (SAAR)
21.4% greater than April 2015: \$49.5 billion (SAAR)

April Improvement^C construction: \$142.2 billion (SAAR)
-3.2% less than March: \$146.8 billion (SAAR)
-3.5% less than April 2015: \$147.2 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\$.

Construction Spending (nominal): 2000-2016

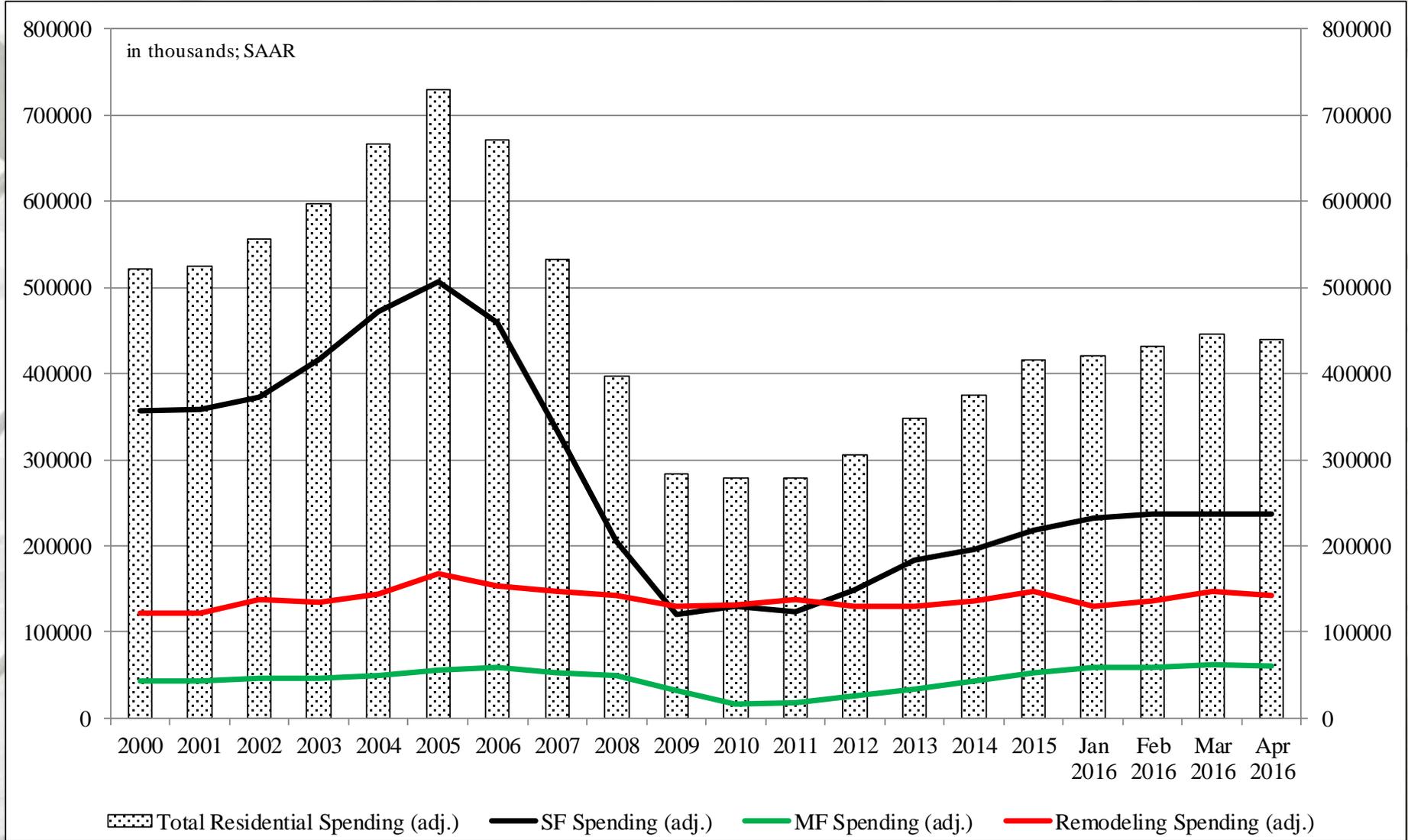


Reported in nominal US\$.

Source: <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 6/1/16

Return TOC

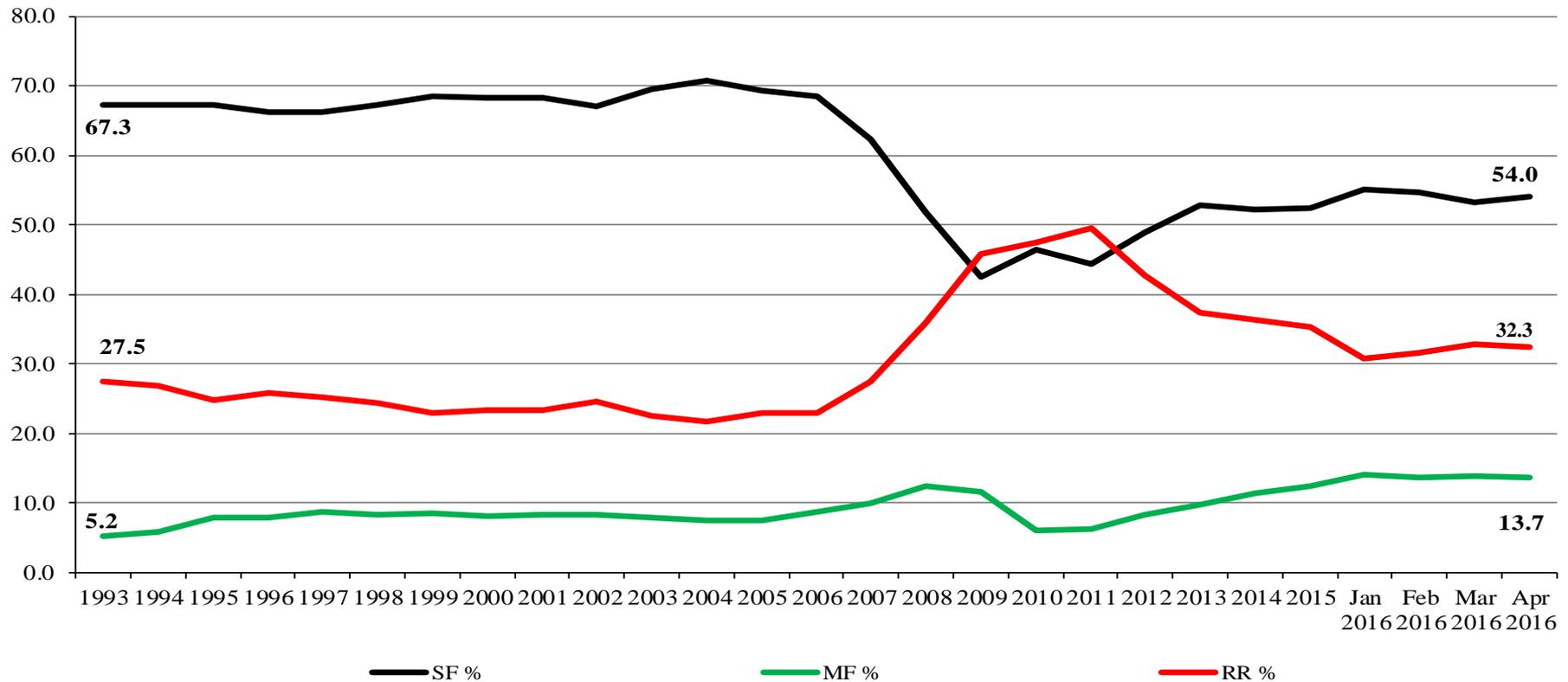
Construction Spending (adjusted): 2000-2016*



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

Construction Spending Shares: 1993 to April 2016

SF, MF, & RR: Percent of Total Residential Spending



Total Residential Spending: 1993 through 2006

SF spending average: 69.2 %

MF spending average: 7.5 %;

RR spending average: 23.3 % (SAAR).

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

Existing House Sales

	Existing Sales*	Median Price	Mean Price	Month's Supply
April	5,450,000	\$232,500	\$275,000	4.7
March	5,360,000	\$221,500	\$264,400	4.4
2015	5,140,000	\$218,700	\$263,900	5.2
M/M change	1.7%	5.0%	4.0%	6.8%
Y/Y change	6.0%	6.3%	4.2%	-9.6%

	NE Sales	MW Sales	S Sales	W Sales
April	740,000	1,390,000	2,190,000	1,130,000
March	720,000	1,240,000	2,250,000	1,150,000
2015	630,000	1,240,000	2,100,000	1,170,000
M/M change	1.7%	2.8%	12.1%	-2.7%
Y/Y change	6.0%	17.5%	12.1%	4.3%

* All sales data: SAAR

Existing House Sales

National Association of Realtors (NAR®)

April 2016 sales: 5.450 million houses sold (SAAR)

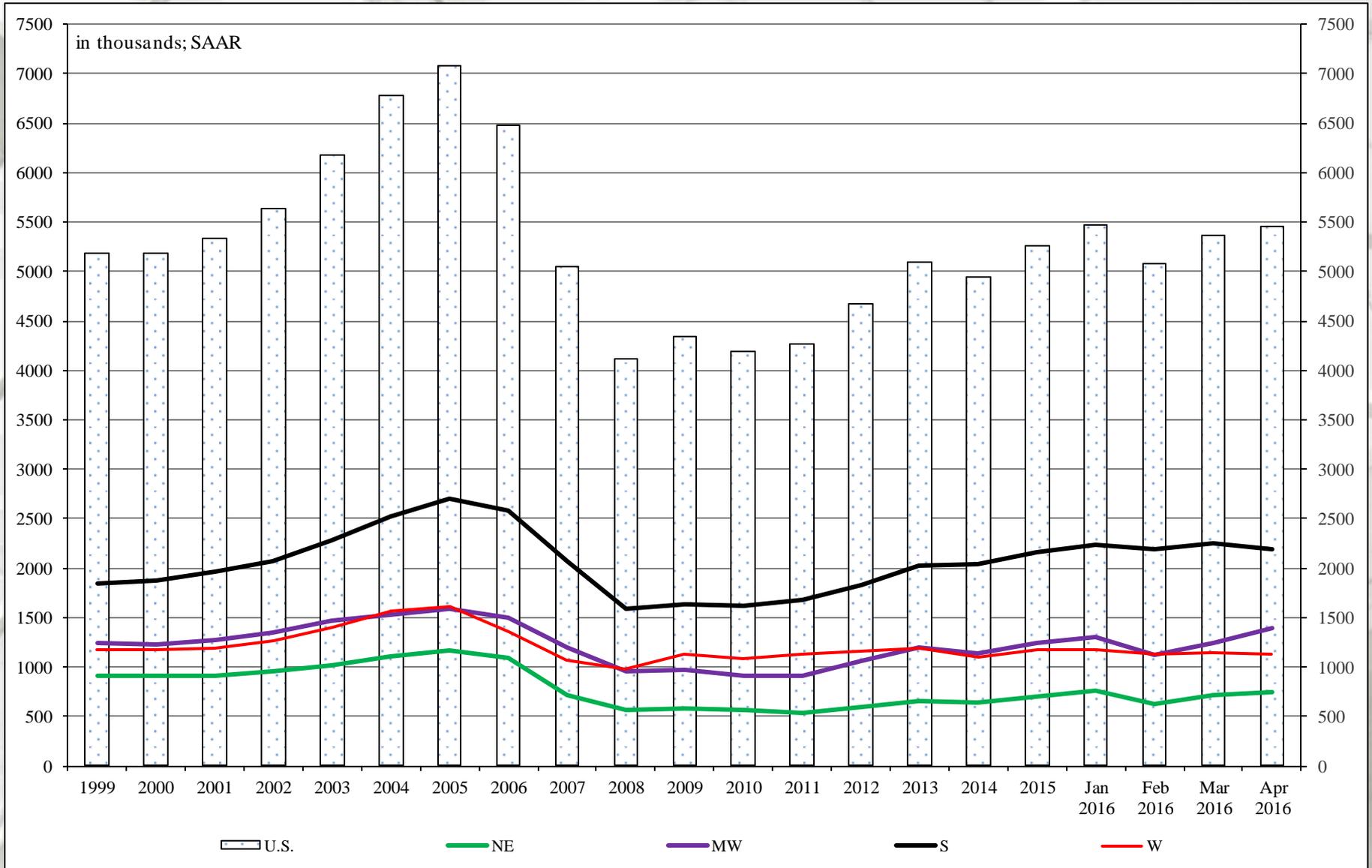
Distressed house sales: 7% of sales –
(5% foreclosures and 2% short-sales);
8% in March and 10% in April 2015.

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

Individual investors still purchase a considerable portion of
“all cash” sale houses – 13% in April;
14% in March and 14% in April 2015.

69% of investors paid cash in April.

Total Existing House Sales



First-Time Purchasers

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

32% of sales in April – 30% in March and 30% in April 2015.

American Enterprise Institute International Center on Housing Risk First-Time Purchases

“Purchase loan volume surged 16% in April from a year earlier, paced by an 18% jump for first-time buyers. 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 15.84% in April, up 0.62 percentage point from a year earlier, and well above Repeat Primary Homebuyer NMRI of 10.21%.” – Paul Urbashee, AEI-ICHR

“Of the estimated 1½ million first-time buyers in our data over the past year, more than a million bought homes with a down payment of 5 percent or less. The sheer scale of this number shows that many, many households are buying their first homes with little money down.” – Stephen Oliner, Codirector, AEI-ICHR

Campbell Surveys

“First time homebuyers increased this month to 38.9%, up from 38.1% last month and 37.2% last year. The number of first time buyers increased for five consecutive months from December to April. They now trail current home owners share of home purchases by just 6.8%. Investors make up the other 15.4%. Demand from first-time homebuyers is surging in springtime.” – Tom Popik, Research Director, Campbell Surveys

Overall House Sales

Appraisal volume dented by low inventory, tight credit

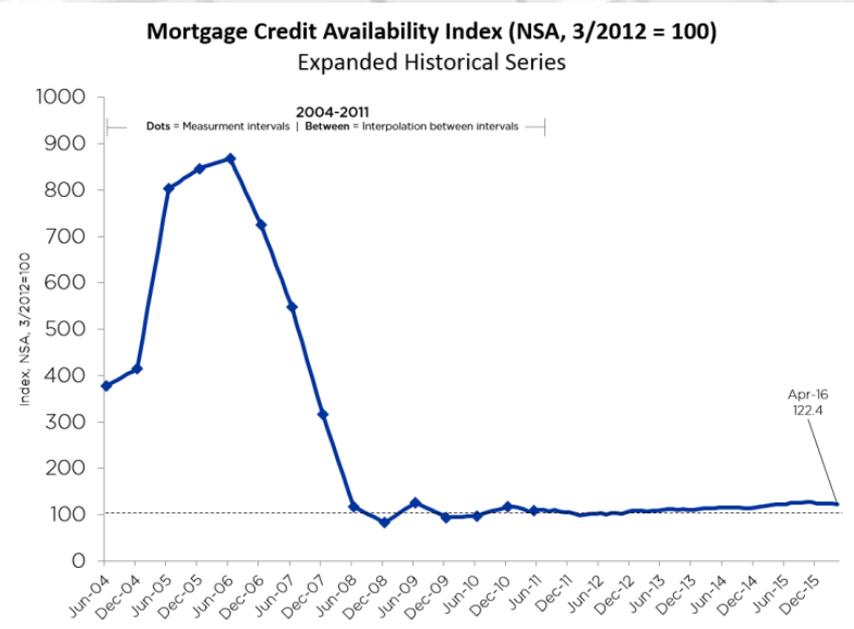
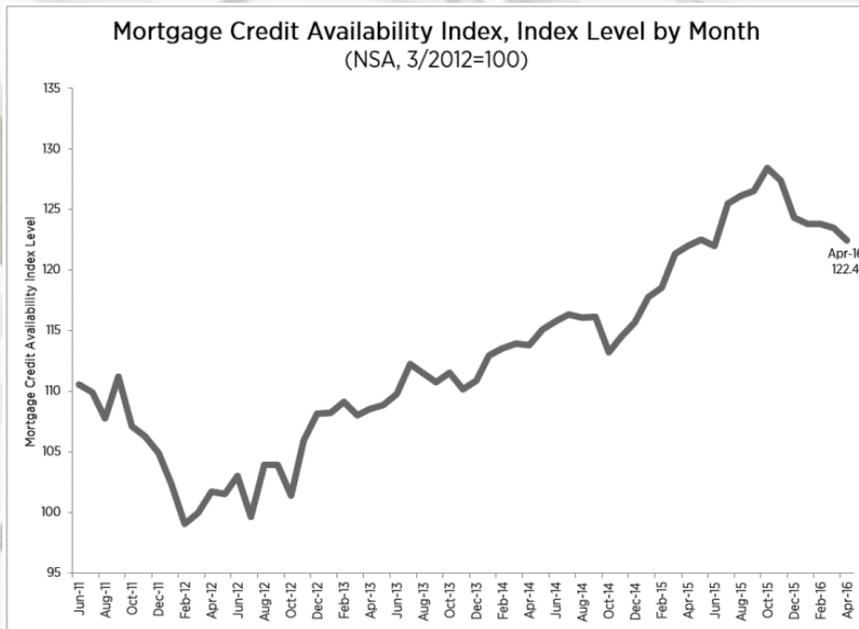
Four-week moving average increases

“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 April 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%

Mortgage Credit Availability

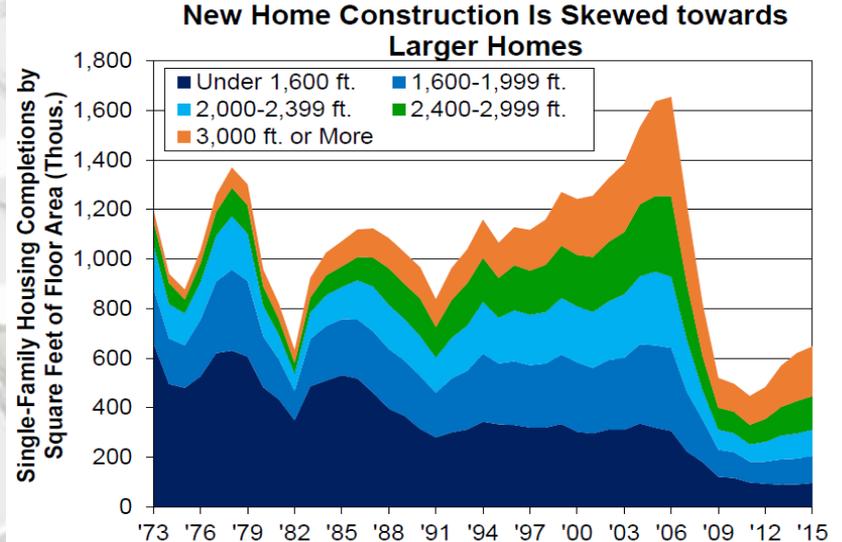
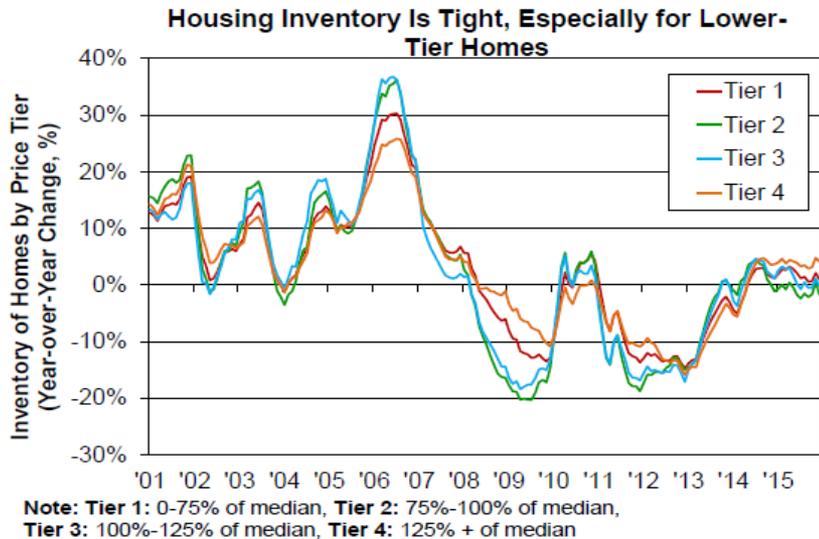


Mortgage Credit Availability Down Again in April

“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 April 31, 2012=100; Conventional April 31, 2012=69; Government April 31, 2012= 222.

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

Summary

In summary:

In total, housing data improved in April 2016 – particularly new single-family house sales. Multifamily construction and spending appear to be leveling off. Remodeling expenditures are somewhat baffling – there have been adjustments made the past two-months and even with the adjustments remodeling has decreased year-over-year. This is counter to several projections for 2016. Existing house sales are trending in a healthy direction. Completions and permits, in April, were problematic.

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?

Virginia Tech Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you may find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.

U.S. Department of Agriculture Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents available from this server, neither the United States Government nor any of its employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by the U.S. Department of Agriculture of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, the Department does not exercise any editorial control over the information you may find at these locations. All links are provided with the intent of meeting the mission of the Department and the Forest Service web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.720.2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call 800.795.3272 (voice) or 202.720.6382 (TDD). The USDA is an equal opportunity provider and employer.