

The Virginia Tech – U.S. Forest Service

October 2015

Housing Commentary: Section I



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Table of Contents

Slide 3: [Executive Summary](#)

Slide 4: [Housing Scorecard](#)

Slide 5: [Wood Use in Construction](#)

Slide 7: [2016 Housing Forecasts](#)

Slide 9: [New Housing Starts](#)

Slide 13: [Regional Housing Starts](#)

Slide 18: [Housing Permits](#)

Slide 19: [Regional Housing Permits](#)

Slide 27: [Housing Under Construction](#)

Slide 31: [Regional Housing Under
Construction](#)

Slide 36: [Housing Completions](#)

Slide 39: [Regional Completions](#)

Slide 45: [New SF House Sales](#)

Slide 48: [Regional SF House Sales](#)

Slide 49: [Construction Spending](#)

Slide 52: [Housing and GDP](#)

Slide 53: [Existing House Sales](#)

Slide 56: [Summary](#)

Slide 57: [Virginia Tech Disclaimer](#)

Slide 58: [U.S. Forest Service Disclaimer](#)

Executive Summary

October's housing data was variable and mildly disappointing, with total starts negative on a month-over-month (single-family too) and year-over-year basis. New sales, permits, and single-family and improvement construction spending improved on a monthly basis. The same cannot be written about existing sales and completions, which decreased. On a regional basis, permits, starts, and completions were mixed; with housing under construction being positive. The housing market typically slows this time of year. Hence we should look at all data on a long-term basis and not from a monthly perspective.

As has been the case since the bottom of 2009 – multifamily construction has been solid – and multifamily completions appear to be improving. The Southern region is by far the star of the United States housing market as both single-family and multifamily data exceed all other regions. The economy is firm, neither hot nor cold. Real median incomes have incrementally improved in the past few months. Globally there are economic and political concerns that potentially may affect the United States economy.

Section A contains information on housing permits, starts, under construction, completions, and construction spending – nationally and by region. Housing forecasts for 2016 are included and also new single-family and existing house sales. Section B provides economic information from the Federal Reserve Bank System and by private associations. Lastly, we introduce housing data contrasted to shipments of lumber by Canadian and United States rail companies. The purpose is to discern if there is a relationship between rail shipments of lumber and housing permits/starts. It is realized that all lumber is not shipped via rail nor is all lumber utilized in housing.

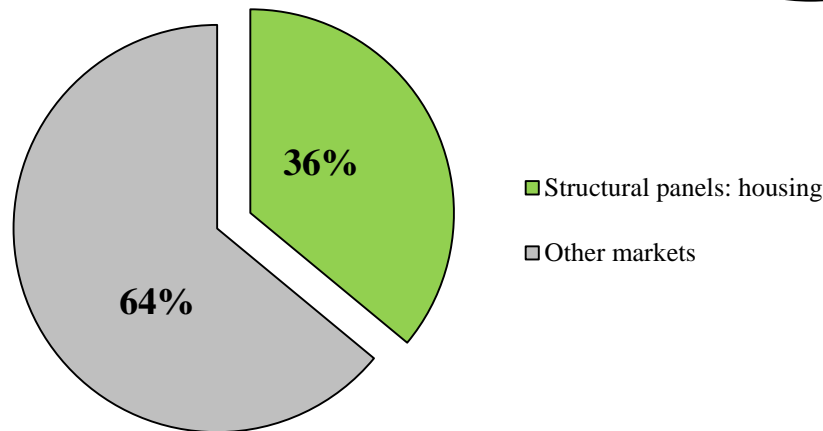
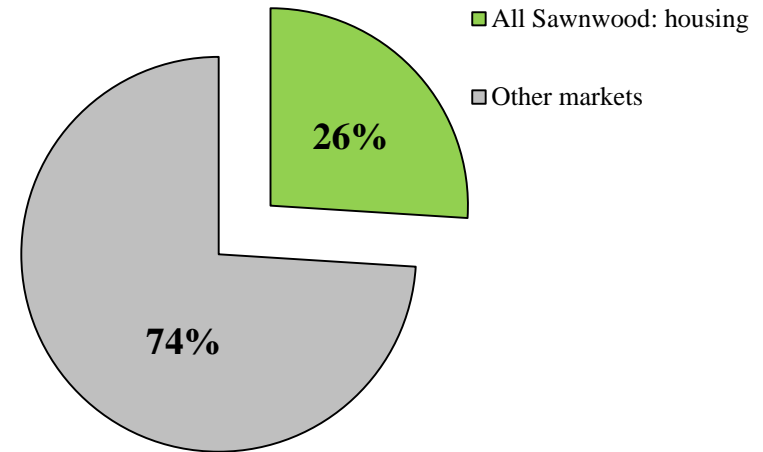
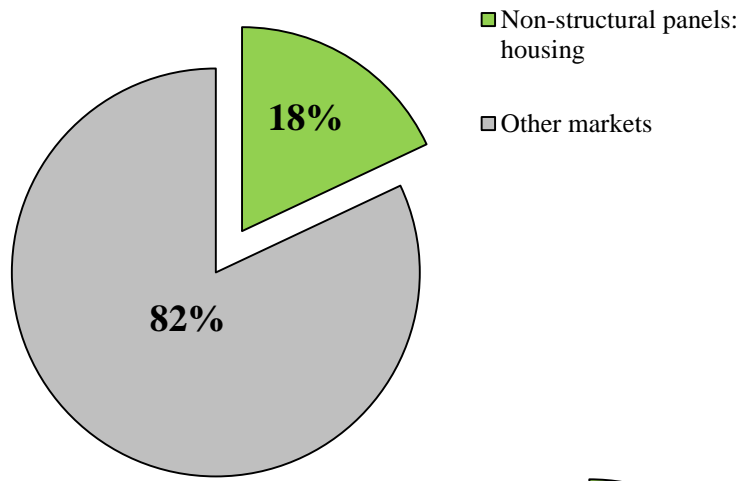
October 2015

Housing Scorecard

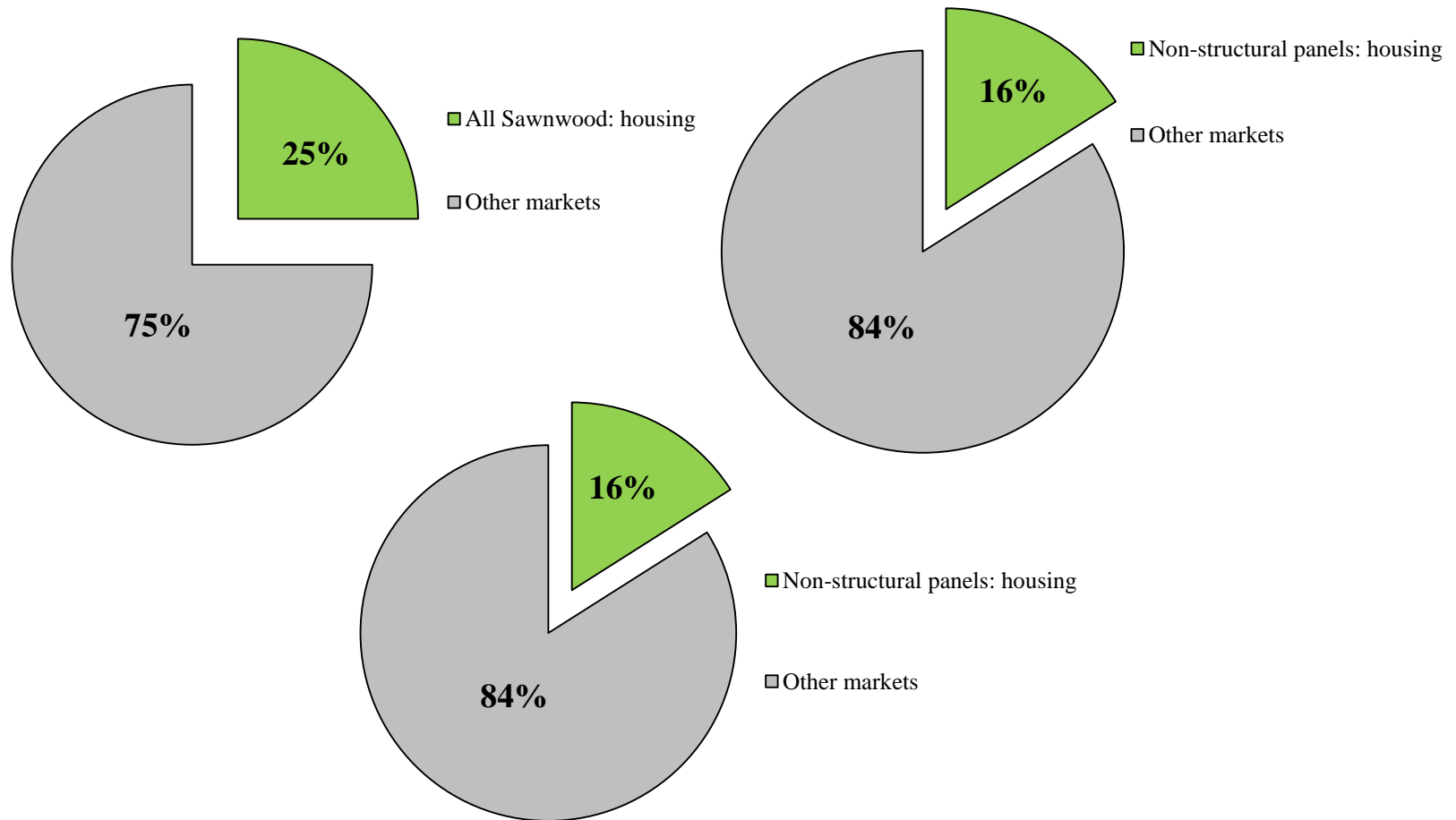
	M/M	Y/Y
Housing Starts	▽ 11.0%	▽ 1.8%
Single-Family (SF) Starts	▽ 2.4%	△ 2.4%
Housing Permits	△ 4.1%	△ 2.7%
Housing Completions	▽ 6.0%	△ 5.2%
New Single-Family House Sales	△ 10.7%	△ 4.9%
Existing House Sales ¹	▽ 3.4%	△ 3.9%
Private Residential Construction Spending	△ 1.0%	△ 16.6%
Single-Family Construction Spending	△ 1.6%	△ 11.4%

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



2016 Housing Forecasts

Organization	Total Starts	Single-Family Starts	New House Sales
Fannie Mae ^a	1,224.0	826.7	562.0
Freddie Mac ^b	1,330.0		
National Association of Homebuilders ^c	1,292.0	914.0	
Export Development Canada ^d	1,435.0		
Metrostudy ^e	1,235.0	750.0-770.0	625.0
Mortgage Bankers Association ^f	1,233.0	823.0	593.0
The Conference Board ^g	1,320.0		
UCLA Ziman Center for Real Estate ^h	1,420.0		
Urban Land Institute ⁱ		842.0	
Goldman Sachs ^k	1,300.0		
Royal Bank of Canada ^l	1,356.5		
Scotiabank ^m	1,300.0		
TD Economics ⁿ	1,340.0		
Wells Fargo ^o	1,265.0	820.0	620.0

in thousands

2016 Housing Forecasts

References

- a-http://www.fanniemae.com/resources/file/research/emma/pdf/Housing_Forecast_111915.pdf
- b-<http://www.freddiemac.com/finance/ehforecast.html>
- c-<http://www.nahb.org/en/news-and-publications/Press-Releases/2015/october/housing-recovery-to-pick-up-steam-in-2016-but-challenges-remain.aspx>
- d-<https://www.edc.ca/EN/Knowledge-Centre/Economic-Analysis-and-Research/Documents/gef-fall-2015-summary.pdf>
- e-<http://blog.buildingsolutions.com/blog/beware-the-wildly-optimistic-construction-forecast>
- f-<https://www.mba.org/Documents/Research/Mtg%20Finance%20Forecast%20Nov%202015.pdf>
- g-<https://www.conference-board.org/data/usforecast.cfm>
- h-<http://www.anderson.ucla.edu/centers/ucla-ziman-center-for-real-estate>
- i-<http://uli.org/press-release/consensus-forecast-september-2015/>
- j-<http://www.housingwire.com/articles/35648-goldman-sachs-residential-investment-on-pace-for-solid-growth-chart?eid=311702681&bid=1239337>
- k-http://www.rbc.com/economics/economic-data/pdf/economy_us.pdf
- l-http://www.gbm.scotiabank.com/English/bns_econ/forecast.pdf
- m-https://www.td.com/document/PDF/economics/qef/long_term_sep2015.pdf
- n-<https://www08.wellsfargomedia.com/assets/pdf/commercial/insights/economics/real-estate-and-housing/housing-wrapup-20151030.pdf>

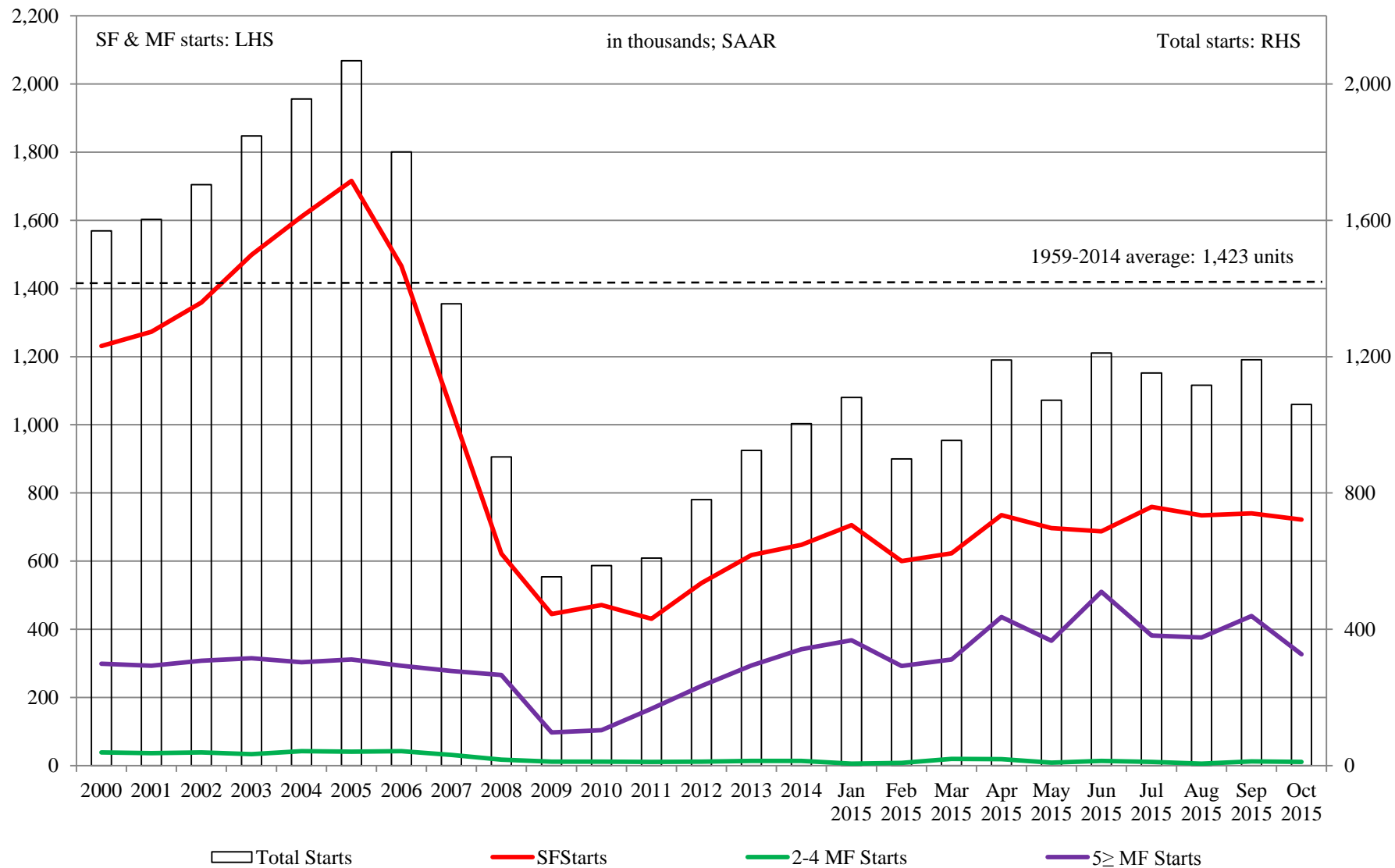
New Housing Starts

	Total Starts*	Single-Family Starts	Multifamily 2-4 unit Starts**	Multifamily ≥ 5 unit Starts
October	1,060,000	722,000	11,000	327,000
September	1,191,000	740,000	12,000	439,000
2014	1,079,000	705,000	17,000	357,000
M/M change	-11.0%	-2.4%	-8.3%	-25.5%
Y/Y change	-1.8%	2.4%	-35.5%	-8.4%

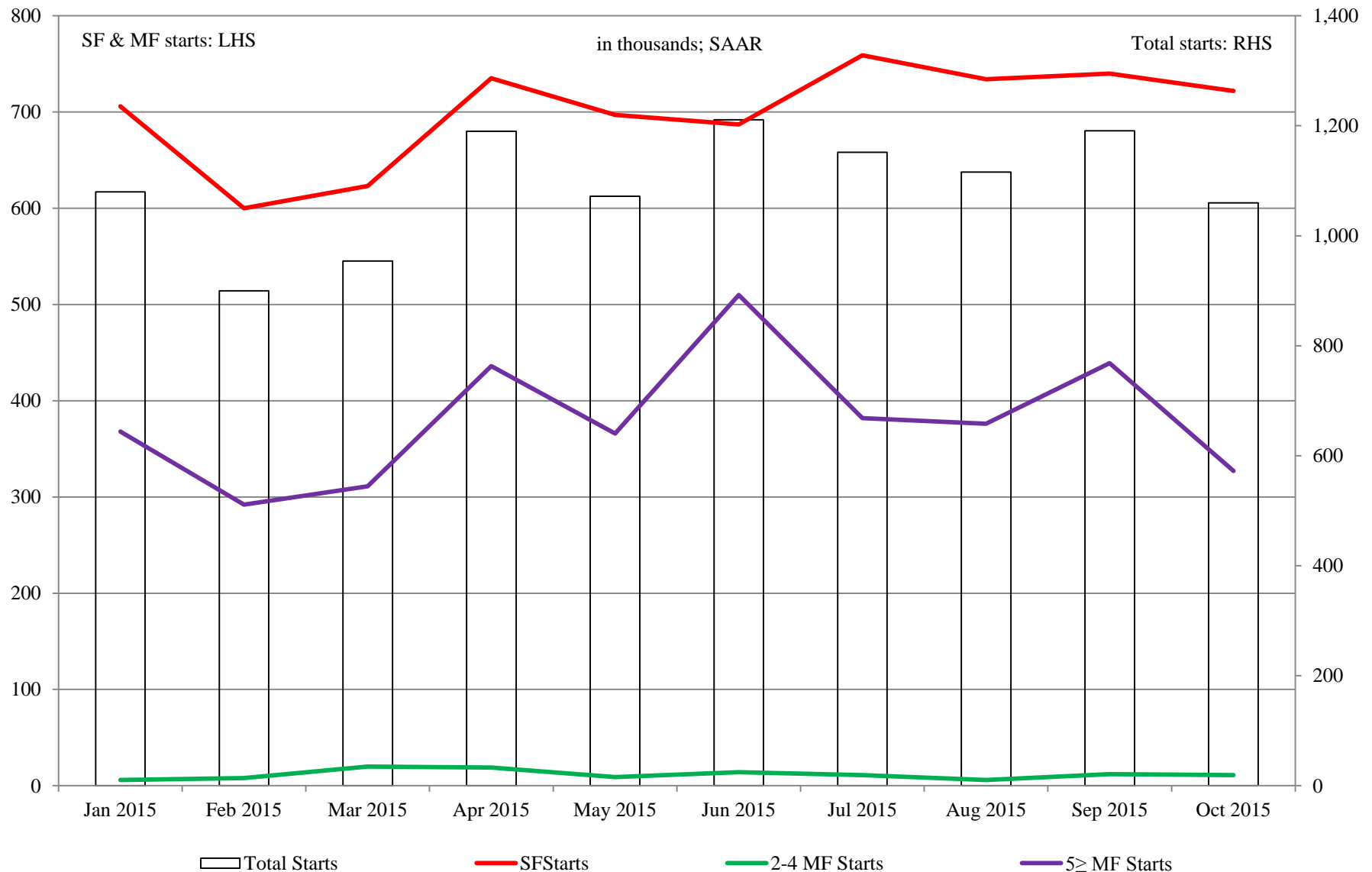
* All start data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2 to 4 multi-family starts directly, this is an estimation.

Total Housing Starts



Total Housing Starts: 2015



New Housing Starts by Region

	Northeast (NE) Total Starts	NE SF Starts	NE MF Starts
October	140,000	61,000	79,000
September	127,000	57,000	70,000
2014	100,000	55,000	45,000
M/M change	10.2%	7.0%	12.8%
Y/Y change	40.0%	10.9%	75.5%

	Midwest (MW) Total Starts	MW SF Starts	MW MF Starts
October	161,000	114,000	47,000
September	140,000	111,000	29,000
2014	162,000	101,000	61,000
M/M change	15.0%	2.7%	62.1%
Y/Y change	-0.6%	12.9%	-77.1%

* All data are SAAR

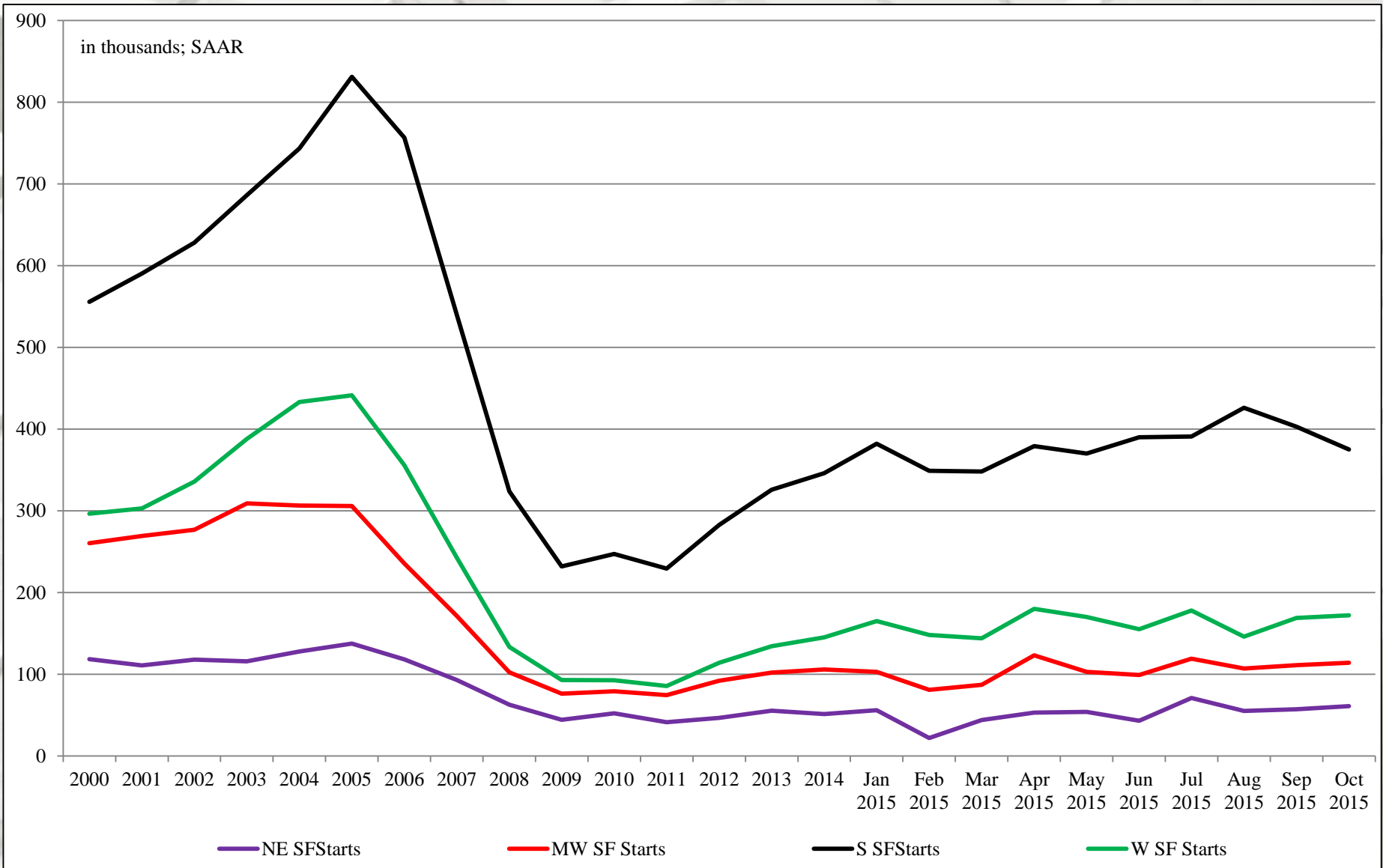
New Housing Starts by Region

	South (S) Total Starts	S SF Starts	S MF Starts
October	506,000	375,000	131,000
September	622,000	403,000	219,000
2014	596,000	390,000	206,000
M/M change	-18.6%	20.9%	-40.2%
Y/Y change	-15.1%	9.2%	-36.4%

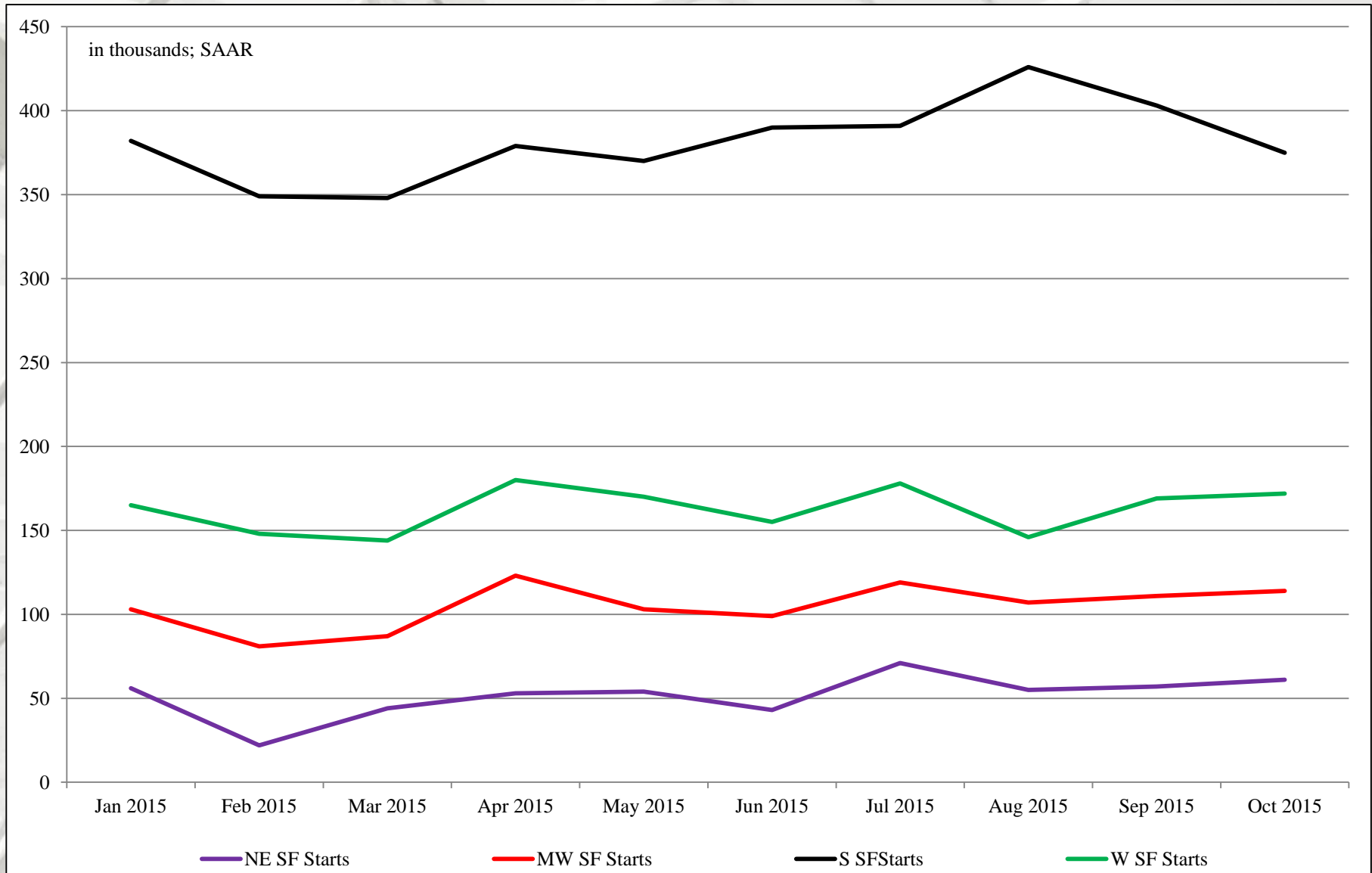
	West (W) Total Starts	W SF Starts	W MF Starts
October	253,000	172,000	81,000
September	302,000	169,000	133,000
2014	221,000	159,000	62,000
M/M change	-16.2%	1.8%	-39.1%
Y/Y change	14.5%	8.2%	30.6%

* All data are SAAR

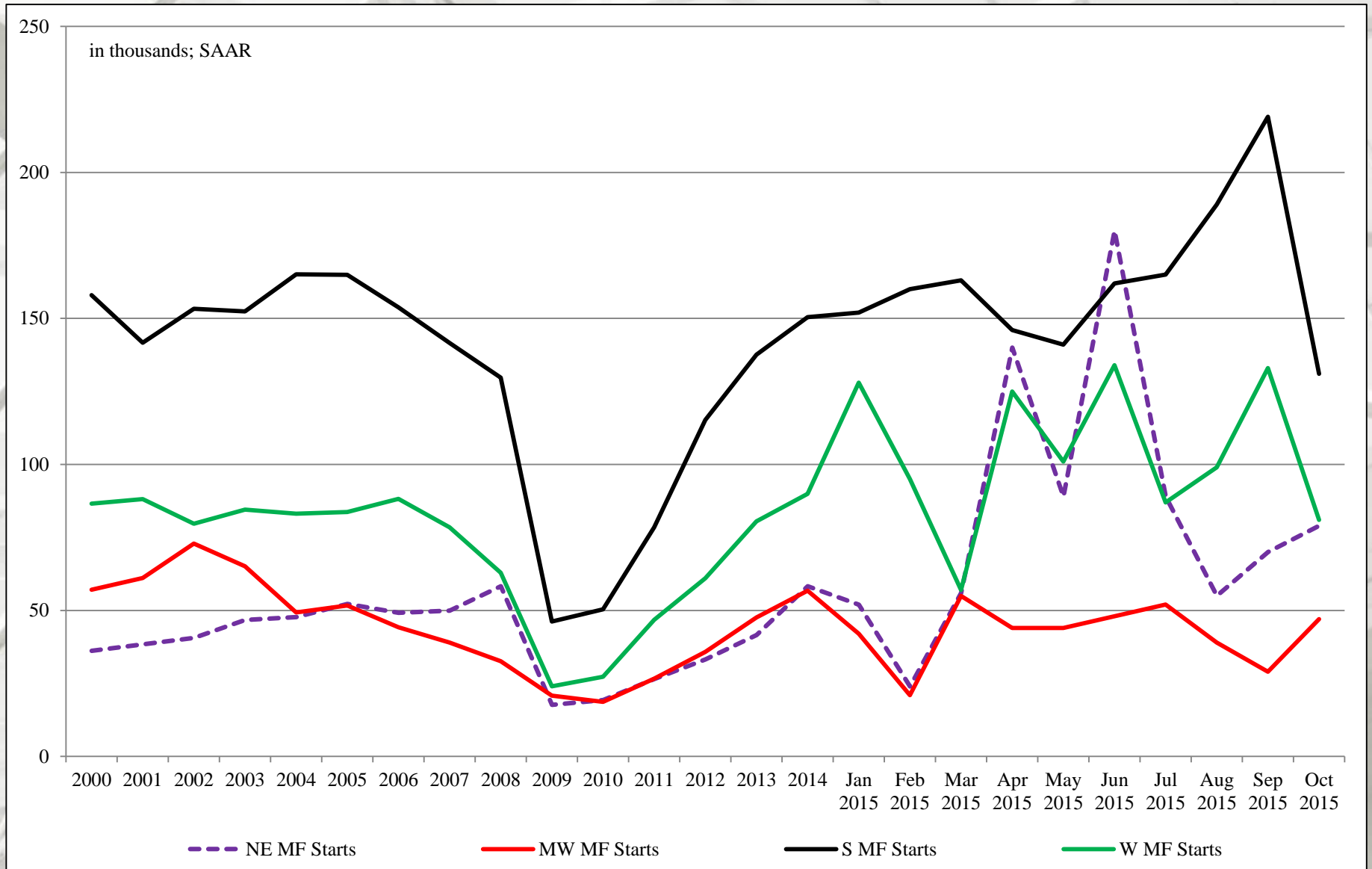
Regional SF Housing Starts



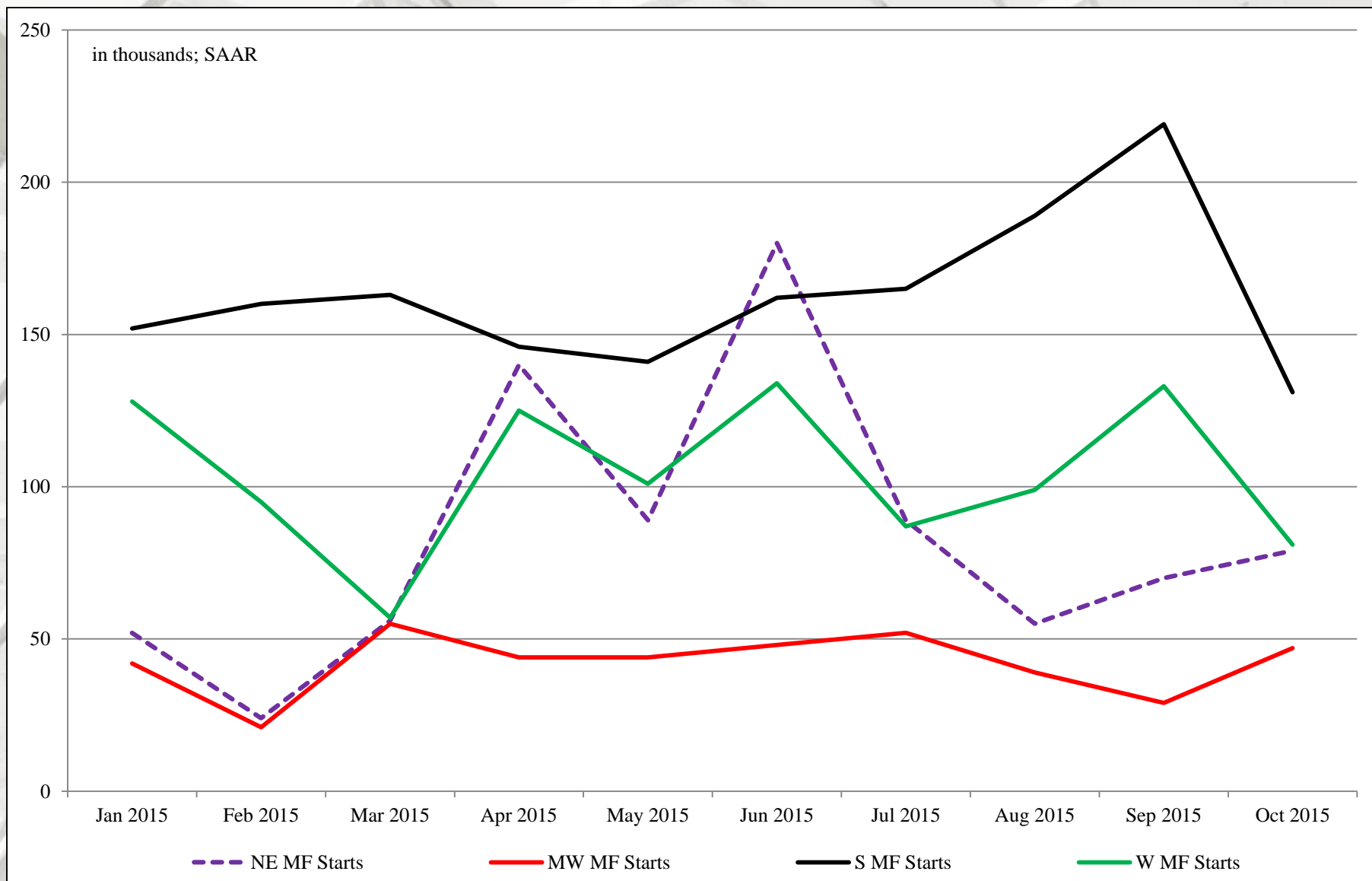
Regional SF Housing Starts: 2015



Total MF Housing Starts



Regional MF Housing Starts: 2015



New Housing Permits

	Total Permits*	Single-Family Permits	Multifamily 2-4 unit Permits	Multifamily ≥ 5 unit Permits
October	1,150,000	711,000	34,000	405,000
September	1,105,000	694,000	37,000	374,000
2014	1,120,000	652,000	32,000	436,000
M/M change	4.1%	2.4%	-8.1%	8.3%
Y/Y change	2.7%	9.0%	6.3%	-7.1%

New Housing Permits by Region

	NE Total Permits	NE SF Permits	NE MF Permits
October	125,000	51,000	74,000
September	118,000	52,000	66,000
2014	117,000	55,000	62,000
M/M change	5.9%	-1.9%	12.1%
Y/Y change	6.8%	-7.3%	19.3%

	MW Total Permits	MW SF Permits	MW MF Permits
October	172,000	103,000	69,000
September	168,000	102,000	66,000
2014	158,000	102,000	56,000
M/M change	2.4%	1.0%	4.5%
Y/Y change	8.9%	1.0%	23.2%

* All data are SAAR

New Housing Permits by Region

	S Total Permits	S SF Permits	S MF Permits
October	587,000	396,000	191,000
September	546,000	384,000	162,000
2014	559,000	360,000	199,000
M/M change	7.5%	3.1%	17.9%
Y/Y change	5.0%	10.0%	-4.0%

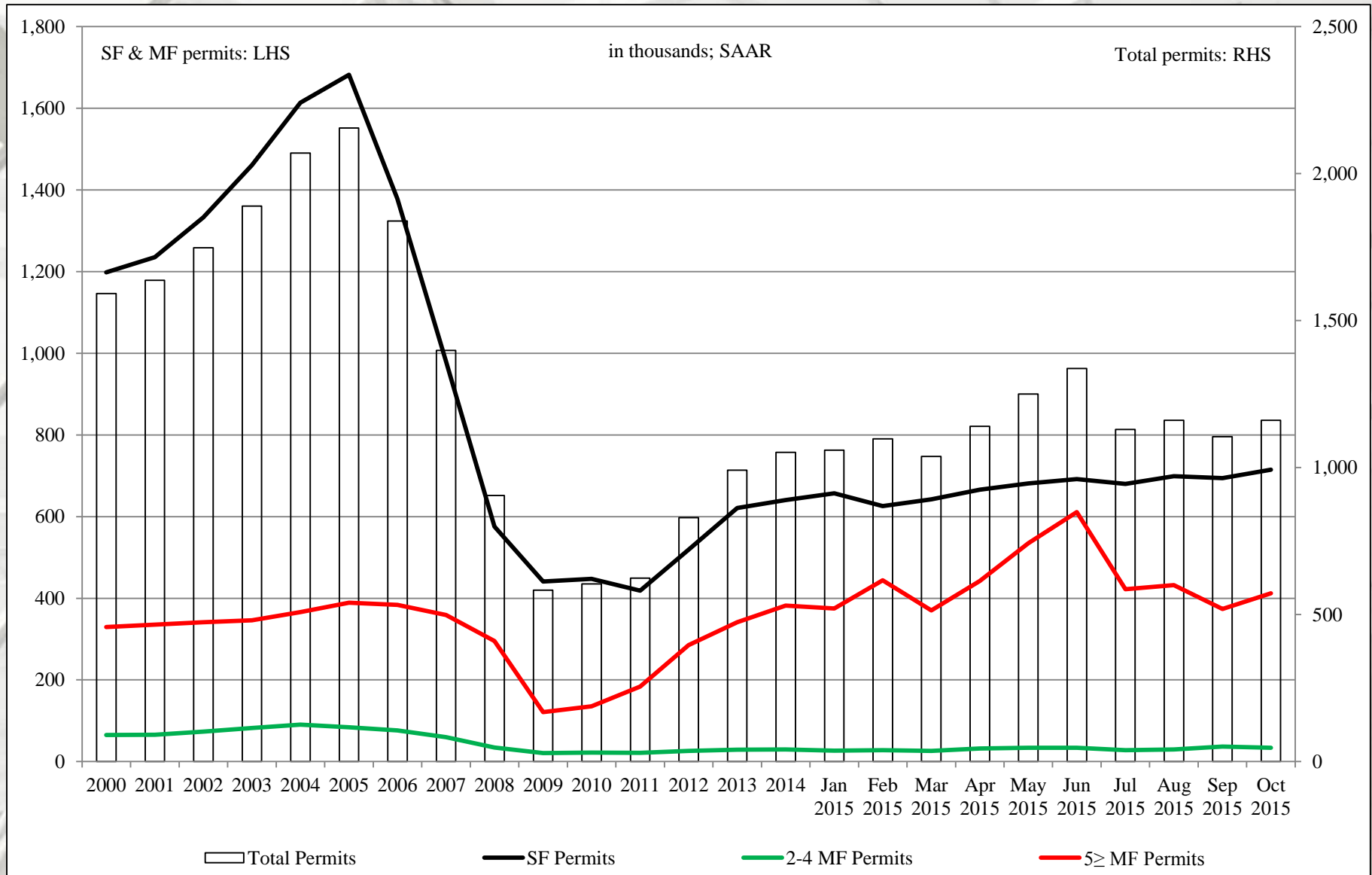
	W Total Permits	W SF Permits	W MF Permits
October	266,000	161,000	105,000
September	273,000	156,000	117,000
2014	286,000	135,000	151,000
M/M change	-2.6%	3.2%	-10.2%
Y/Y change	-7.0%	19.3%	-30.5%

* All data are SAAR

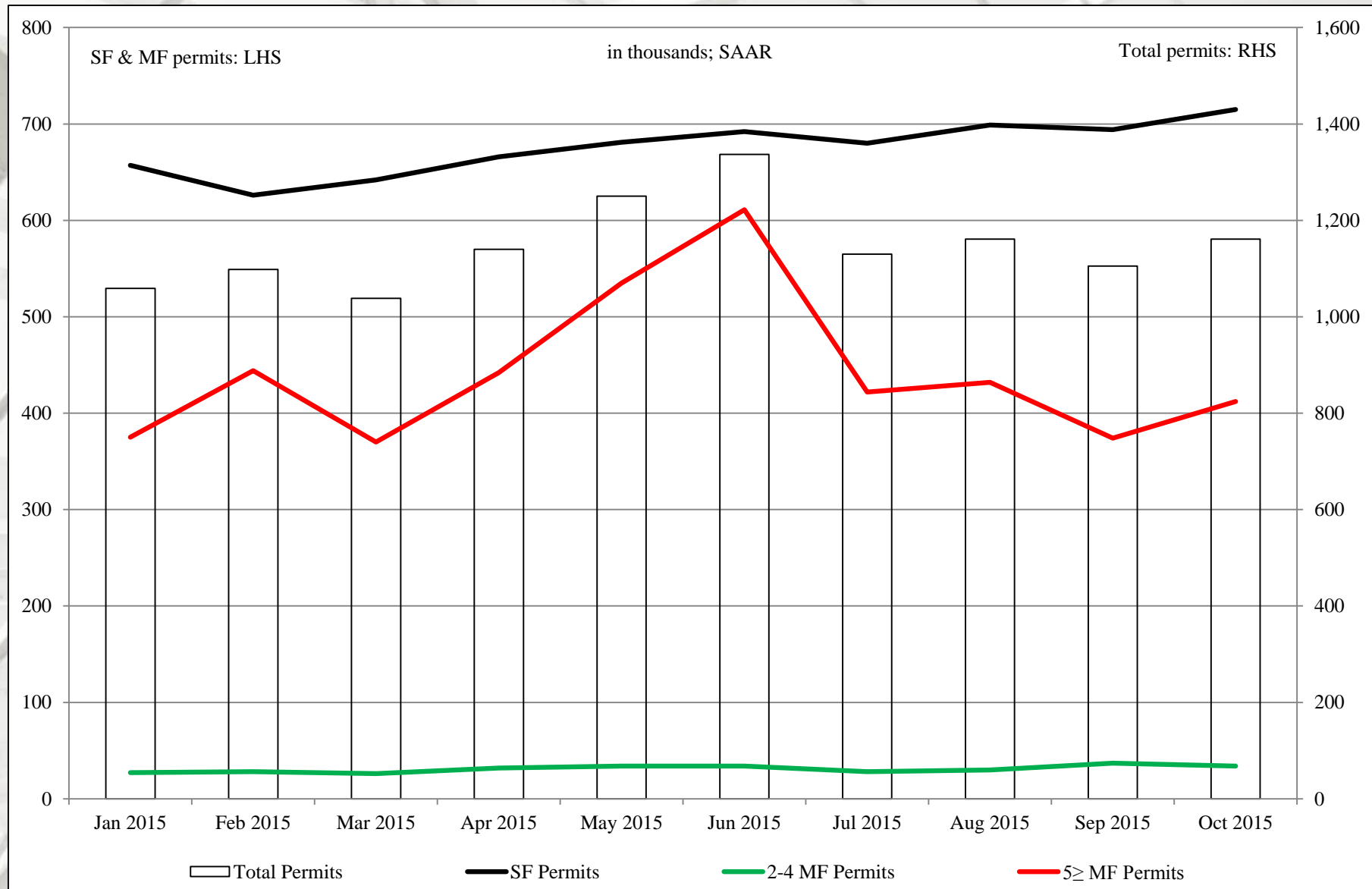
Source: U.S. Department of Commerce-Construction: www.census.gov/construction/nrc/pdf/newresconst.pdf; 11/18/15

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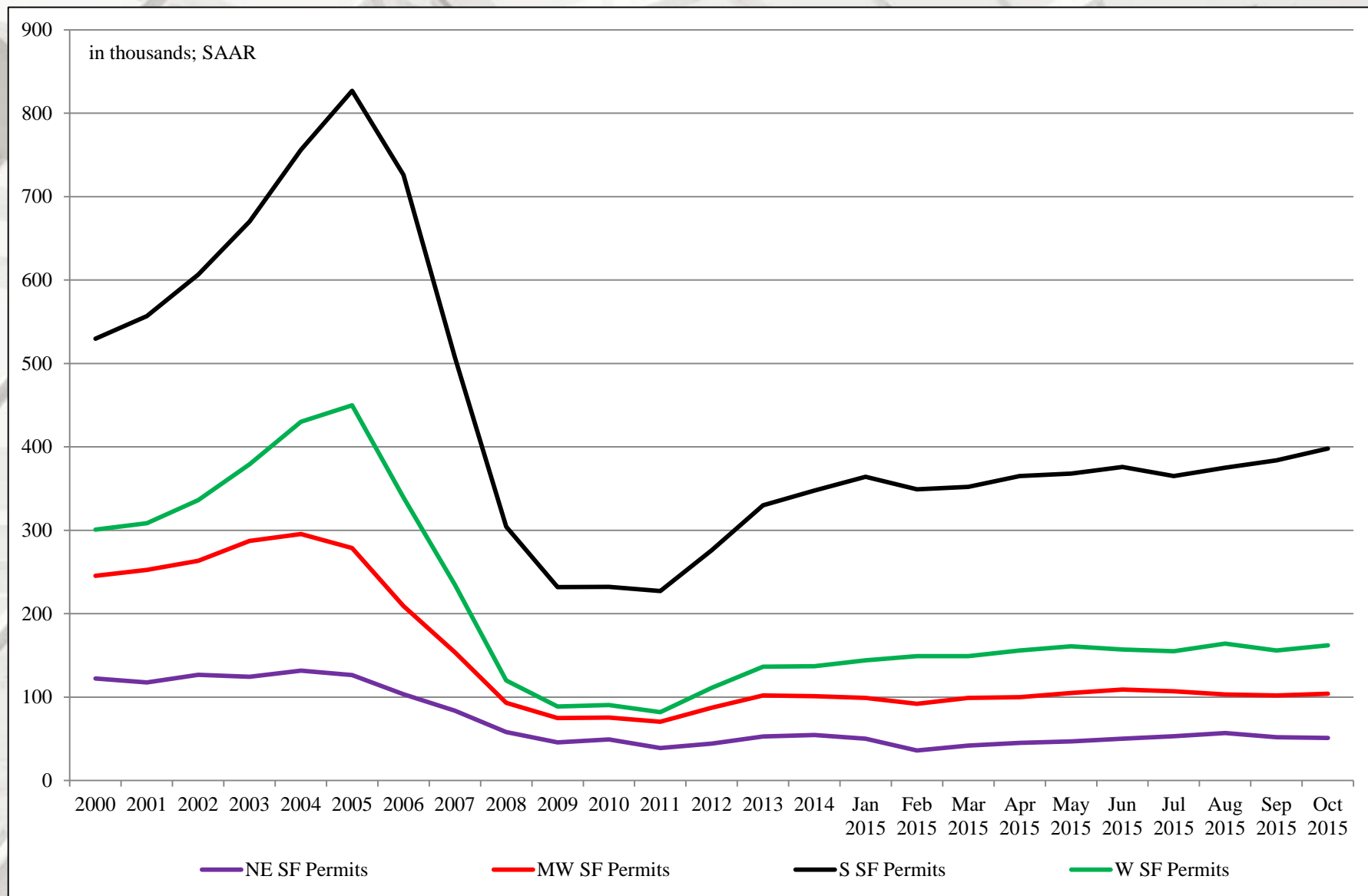
Total Housing Permits



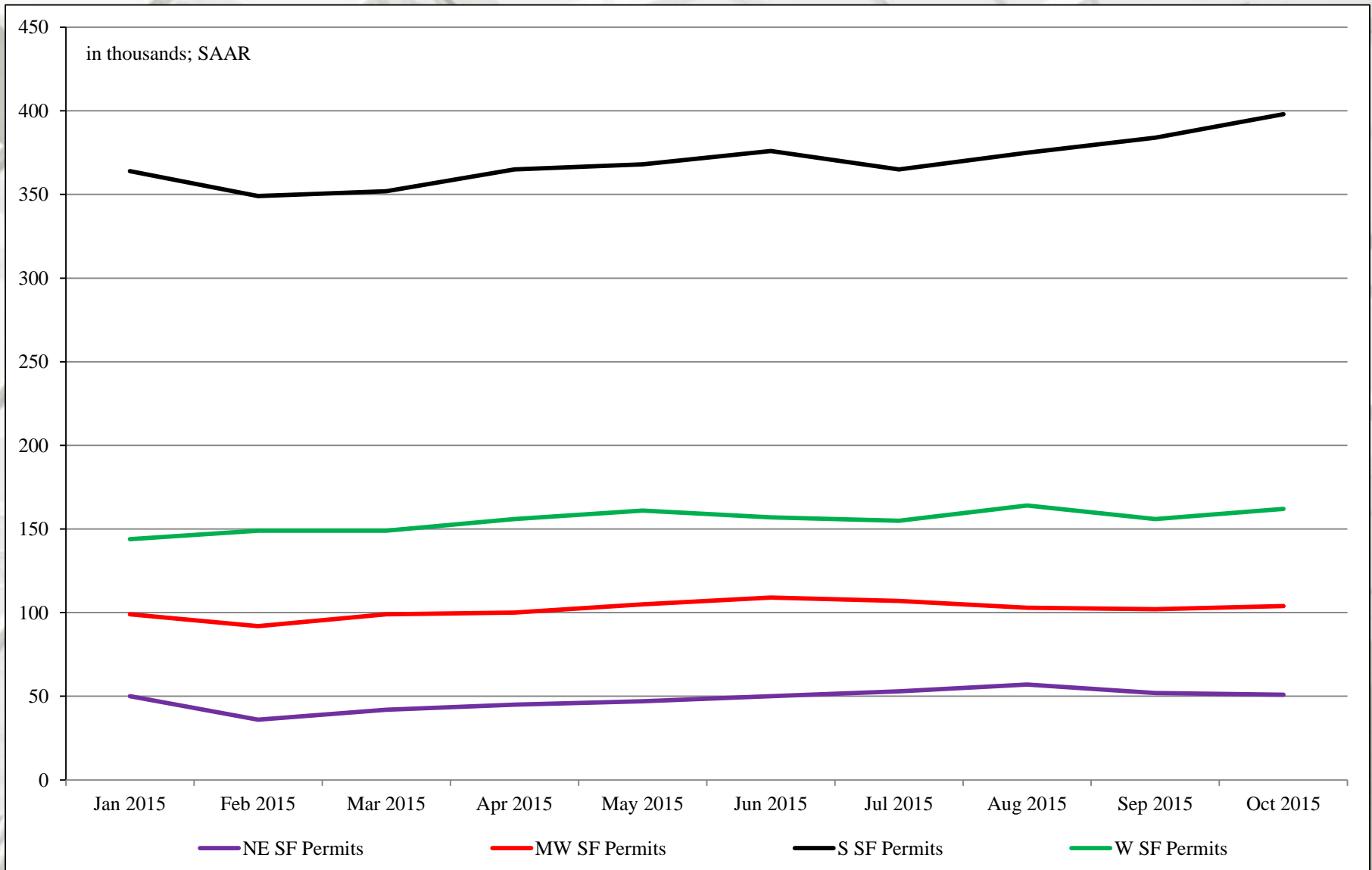
Total Housing Permits: 2015



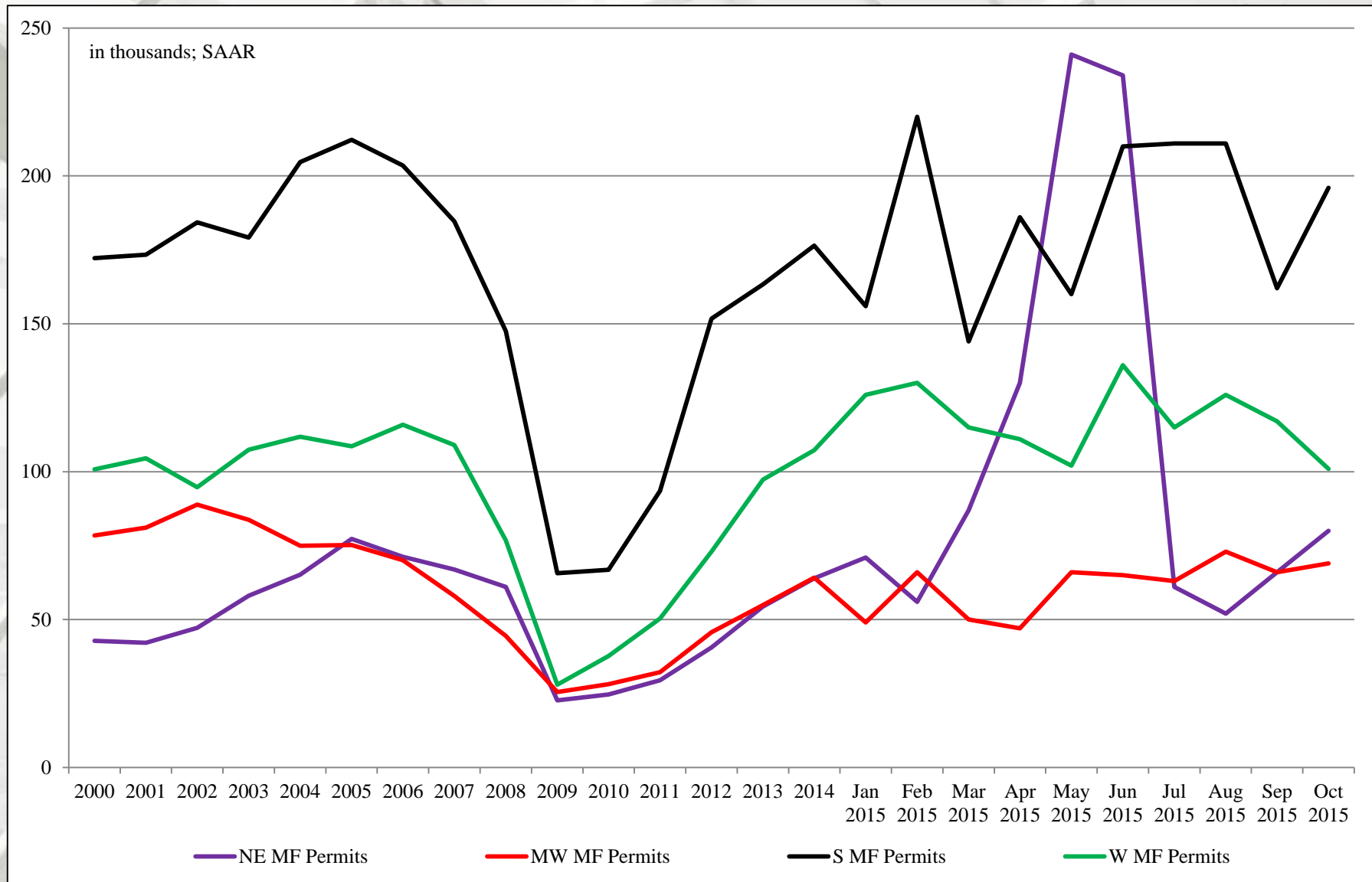
Regional SF Housing Permits



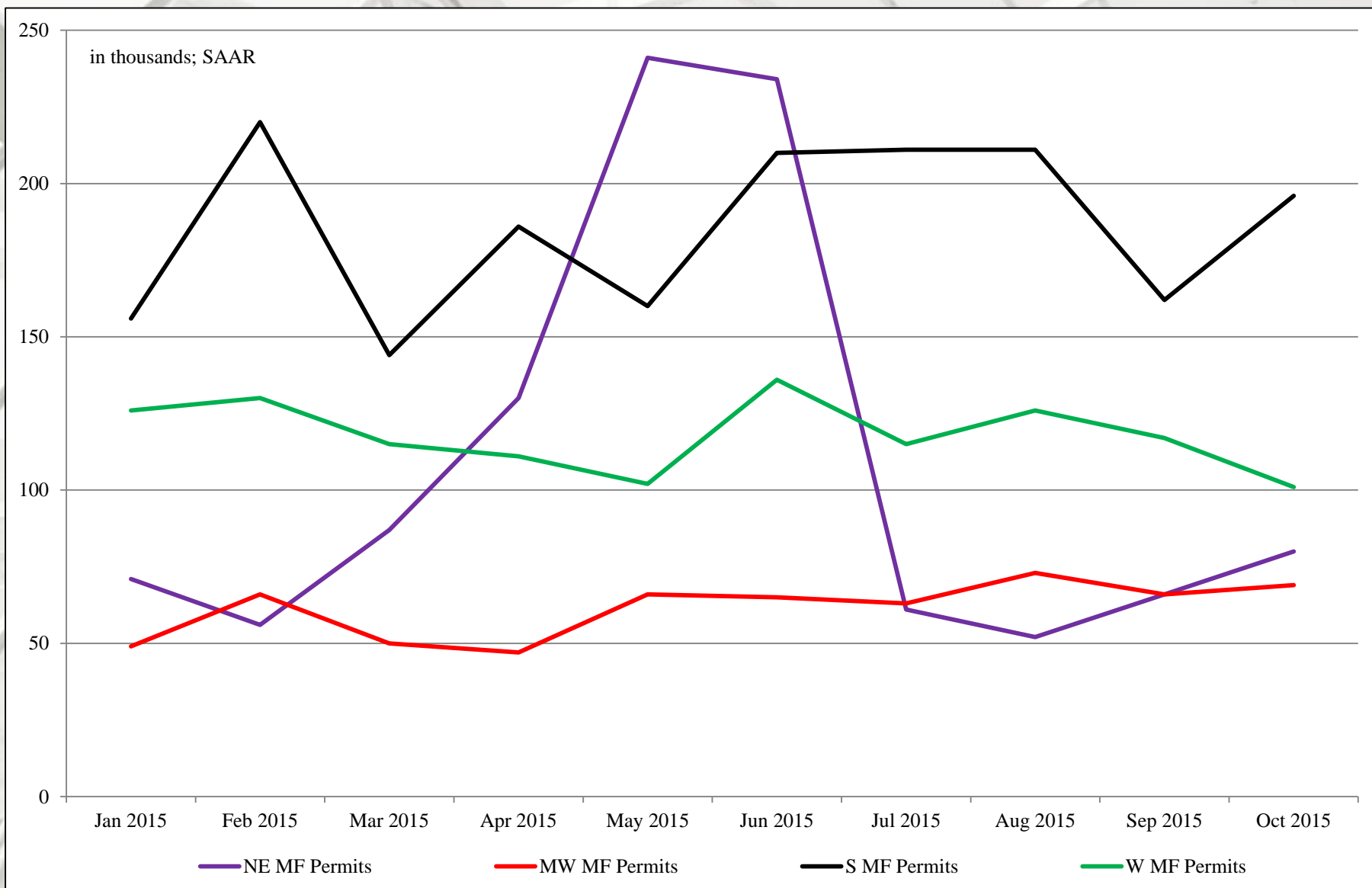
Regional SF Housing Permits: 2015



Regional MF Housing Permits



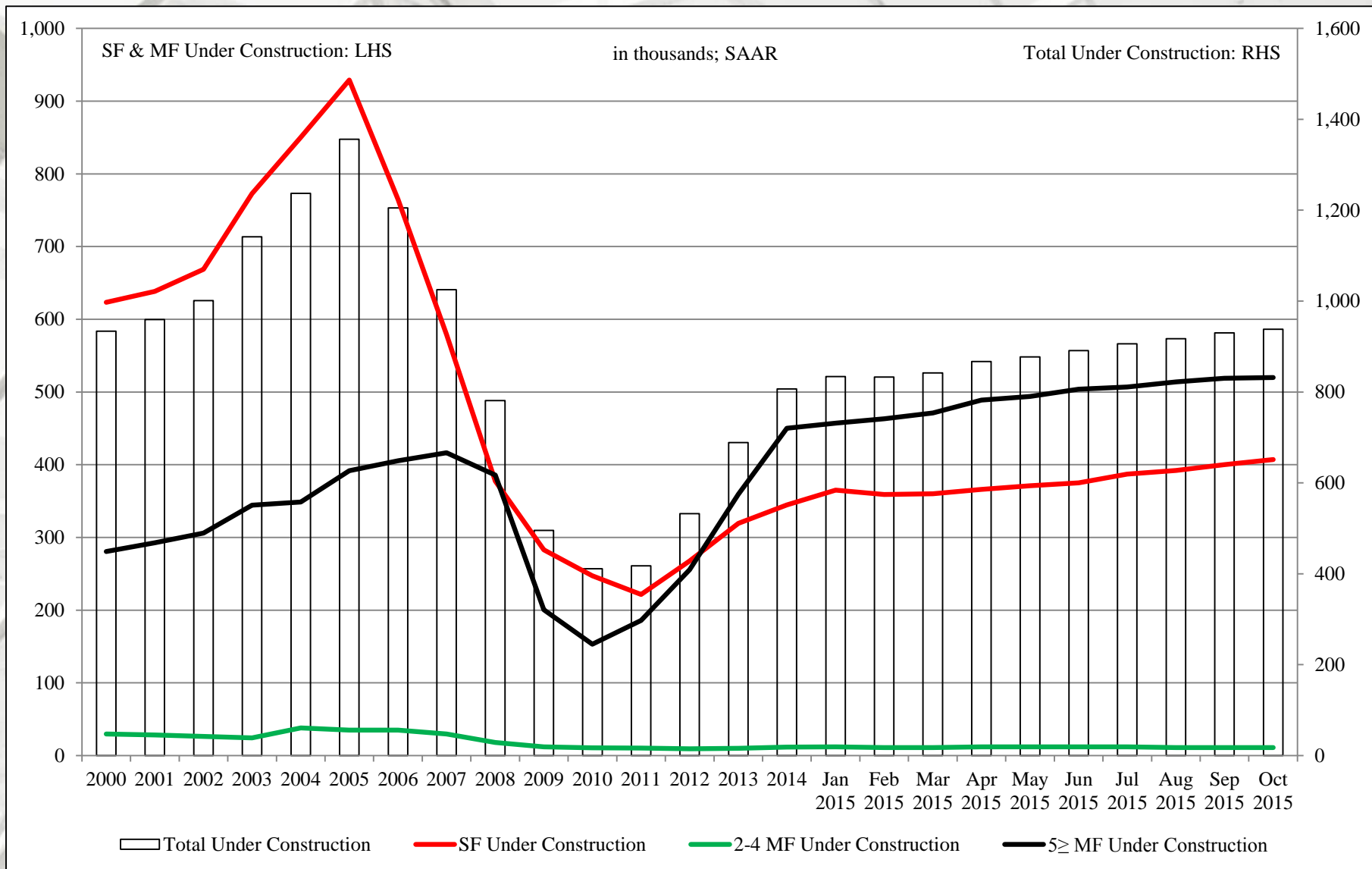
Regional MF Housing Permits: 2015



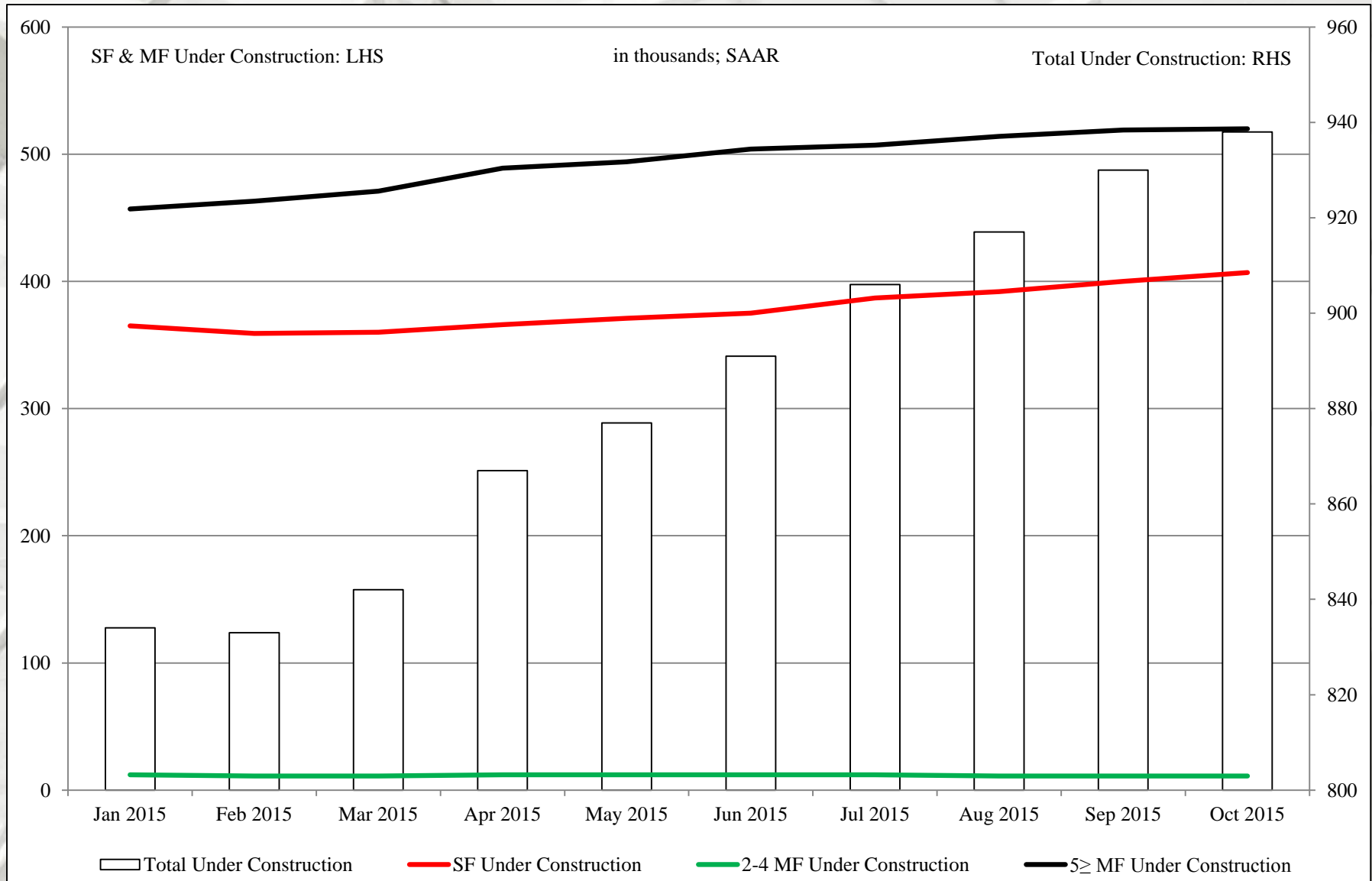
New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 units Under Construction	MF ≥ 5 unit Under Construction
October	938,000	407,000	11,000	520,000
September	930,000	400,000	11,000	519,000
2014	806,000	357,000	12,000	437,000
M/M change	0.9%	1.8%	0.0	0.2%
Y/Y change	16.4%	14.0%	-8.3%	19.0%

Total Houses Under Construction



Total Houses Under Construction: 2015



New Housing Under Construction by Region

	NE Total	NE SF	NE MF
October	170,000	47,000	123,000
September	168,000	46,000	122,000
2014	121,000	40,000	81,000
M/M change	1.2%	2.2%	0.8%
Y/Y change	40.5%	17.5%	51.8%

	MW Total	MW SF	MW MF
October	120,000	67,000	53,000
September	119,000	66,000	53,000
2014	124,000	62,000	62,000
M/M change	0.8%	1.5%	--
Y/Y change	-3.2%	13.4%	-14.5%

* All data are SAAR

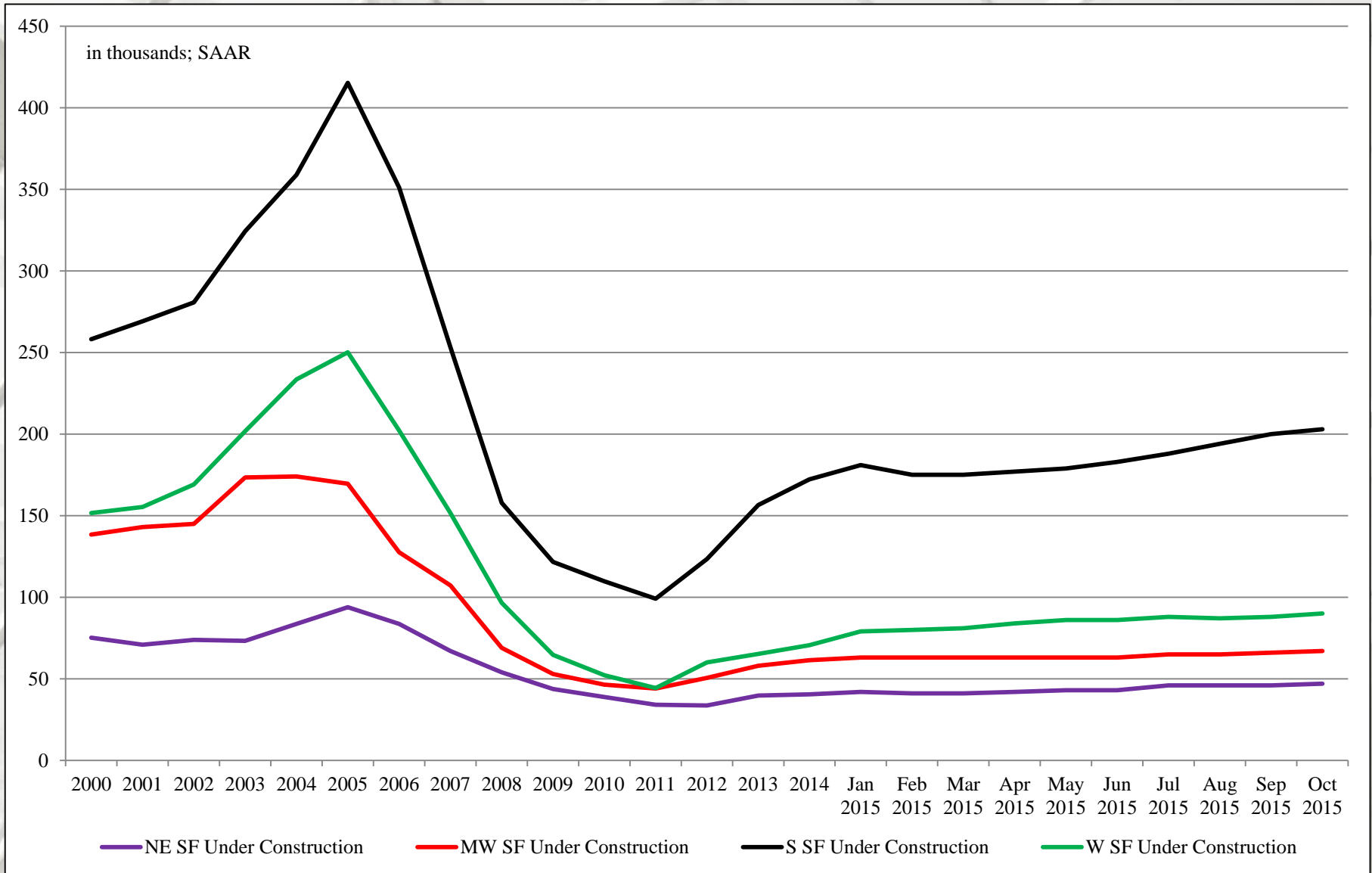
New Housing Under Construction by Region

	S Total	S SF	S MF
October	413,000	203,000	210,000
September	409,000	200,000	209,000
2014	369,000	179,000	190,000
M/M change	1.0%	1.5%	0.5%
Y/Y change	11.9%	13.4%	10.5%

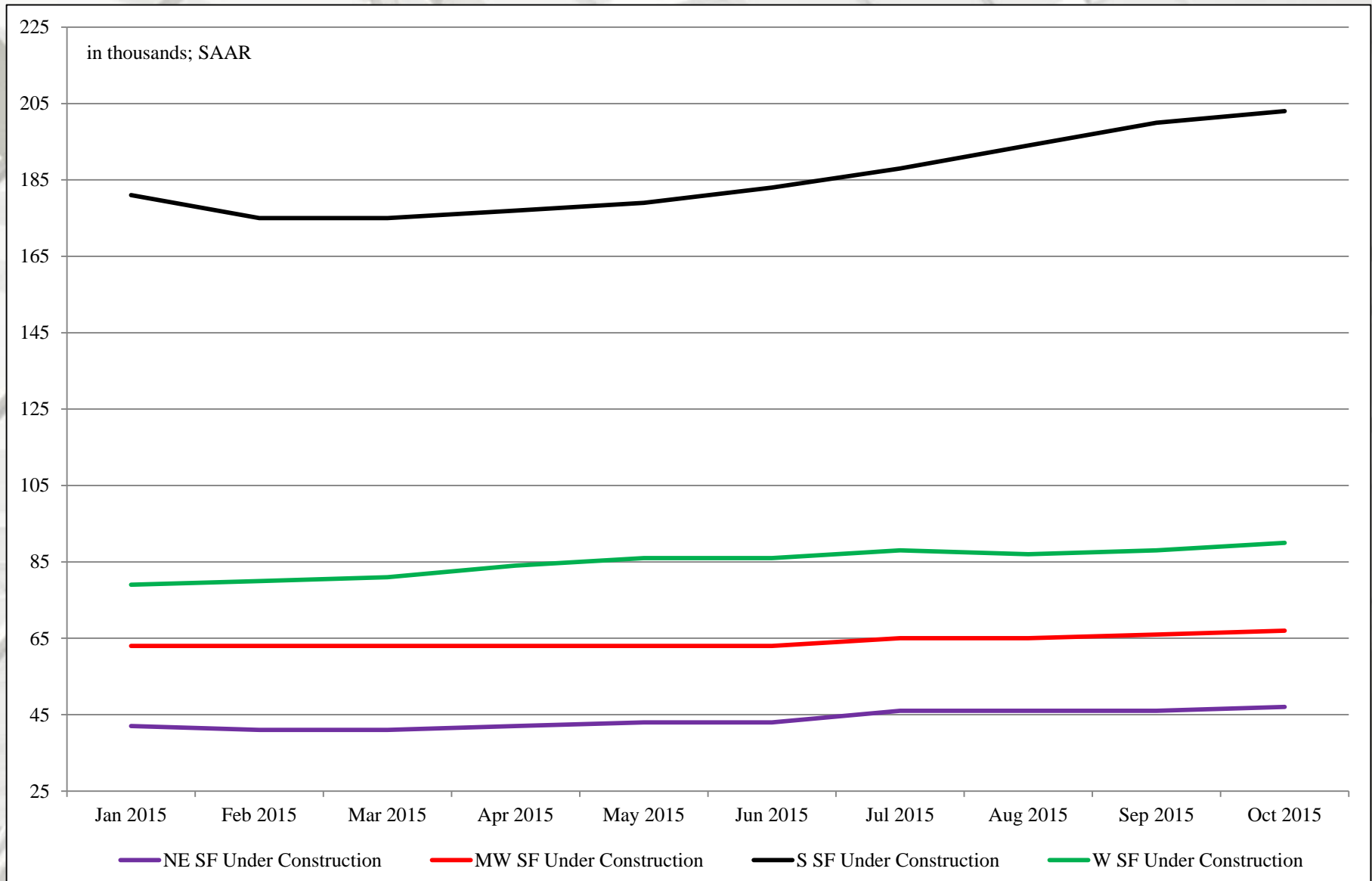
	W Total	W SF	W MF
October	234,000	89,000	145,000
September	227,000	87,000	146,000
2014	196,000	75,000	116,000
M/M change	3.1%	2.3%	-0.7%
Y/Y change	14.0%	15.0%	25.0%

* All data are SAAR

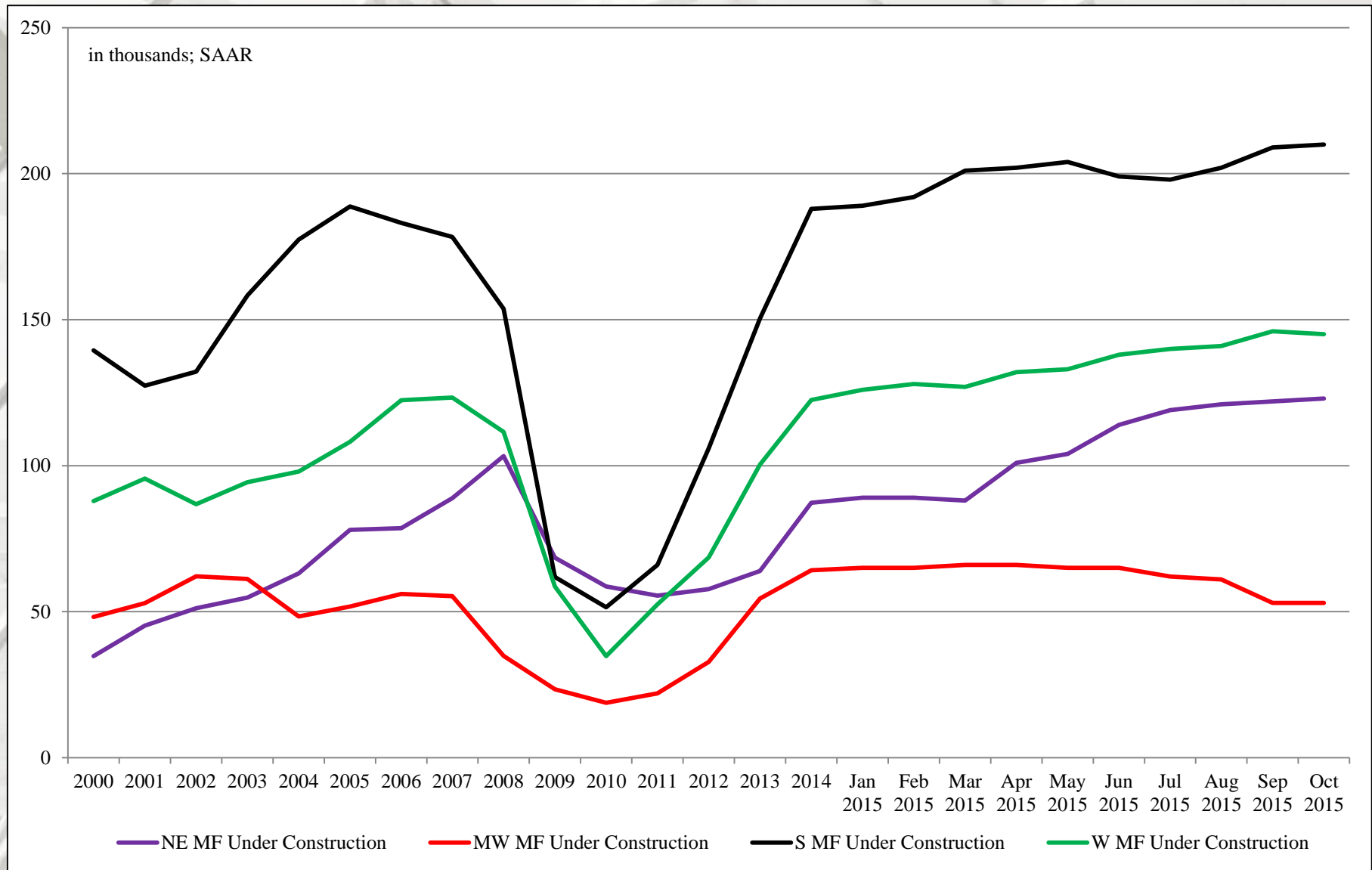
Regional SF Houses Under Construction



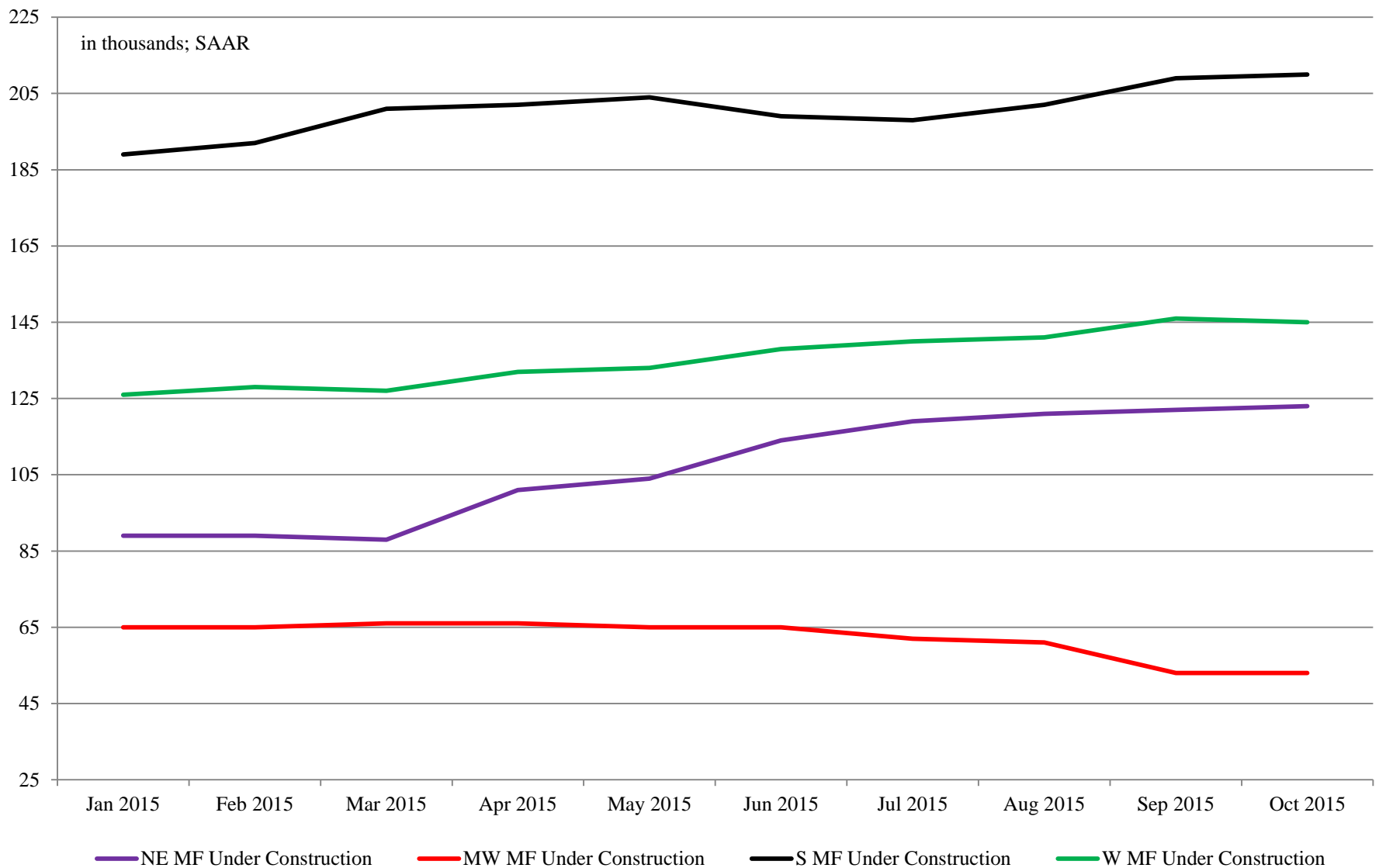
Regional SF Houses Under Construction: 2015



Regional MF Houses Under Construction



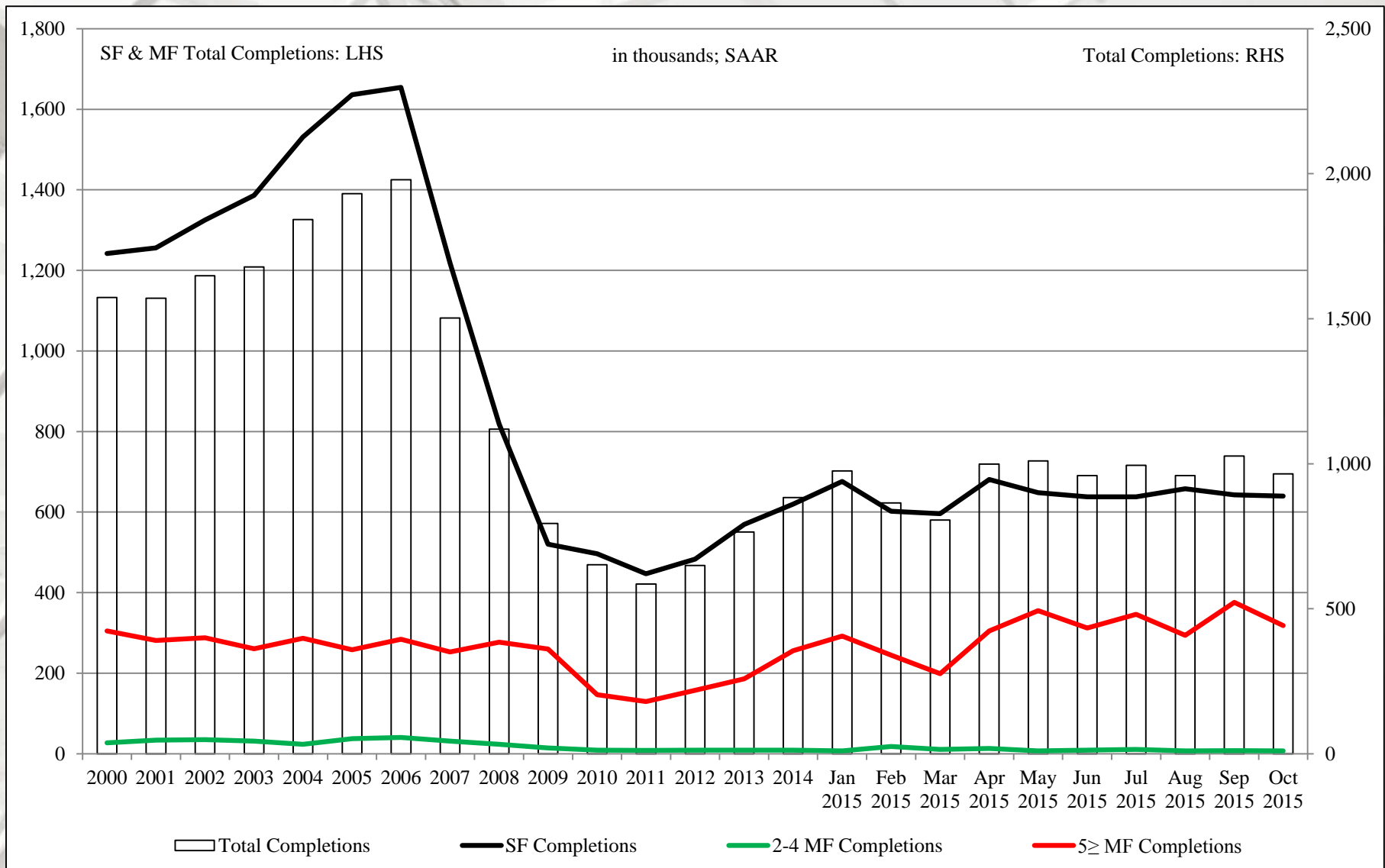
Regional MF Houses Under Construction: 2015



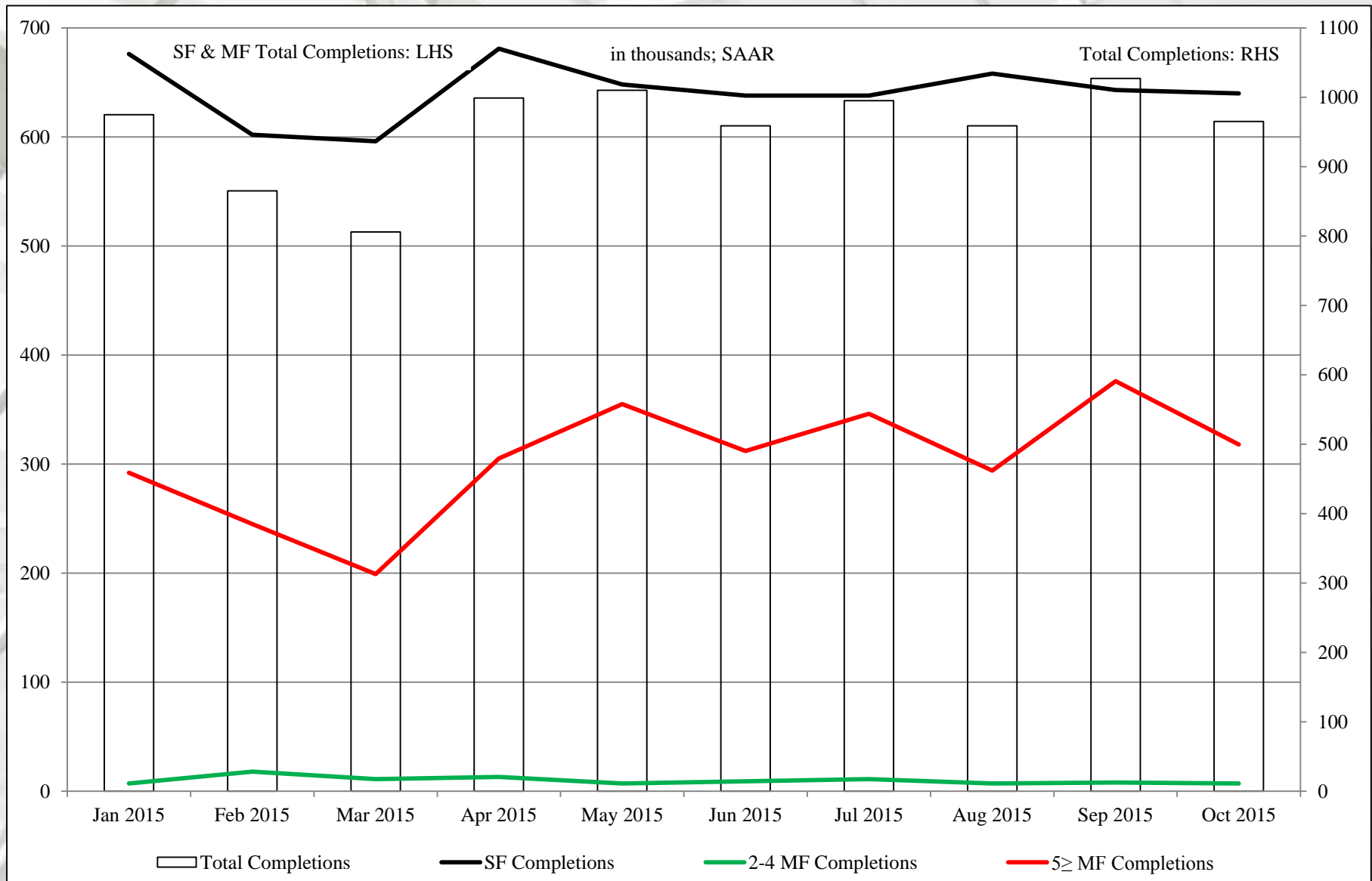
New Housing Completions

	Total Completions*	Single-Family Completions	Multifamily 2-4 unit Completions	Multifamily ≥ 5 unit Permits
October	965,000	640,000	7,000	318,000
September	1,027,000	643,000	8,000	376,000
2014	917,000	611,000	7,000	299,000
M/M change	-6.0%	-0.5%	-12.5%	-15.4%
Y/Y change	5.2%	4.7%	0.0	6.4%

Total Housing Completions



Total Housing Completions: 2015



New Housing Completions by Region

	NE Total	NE SF	NE MF
October	122,000	47,000	75,000
September	124,000	49,000	75,000
2014	98,000	47,000	51,000
M/M change	-1.6%	-4.1%	--
Y/Y change	24.5%	--	47.1%

	MW Total	MW SF	MW MF
October	148,000	101,000	47,000
September	214,000	112,000	102,000
2014	148,000	101,000	47,000
M/M change	-30.8%	-9.8%	-53.9%
Y/Y change	--	--	--

* All data are SAAR

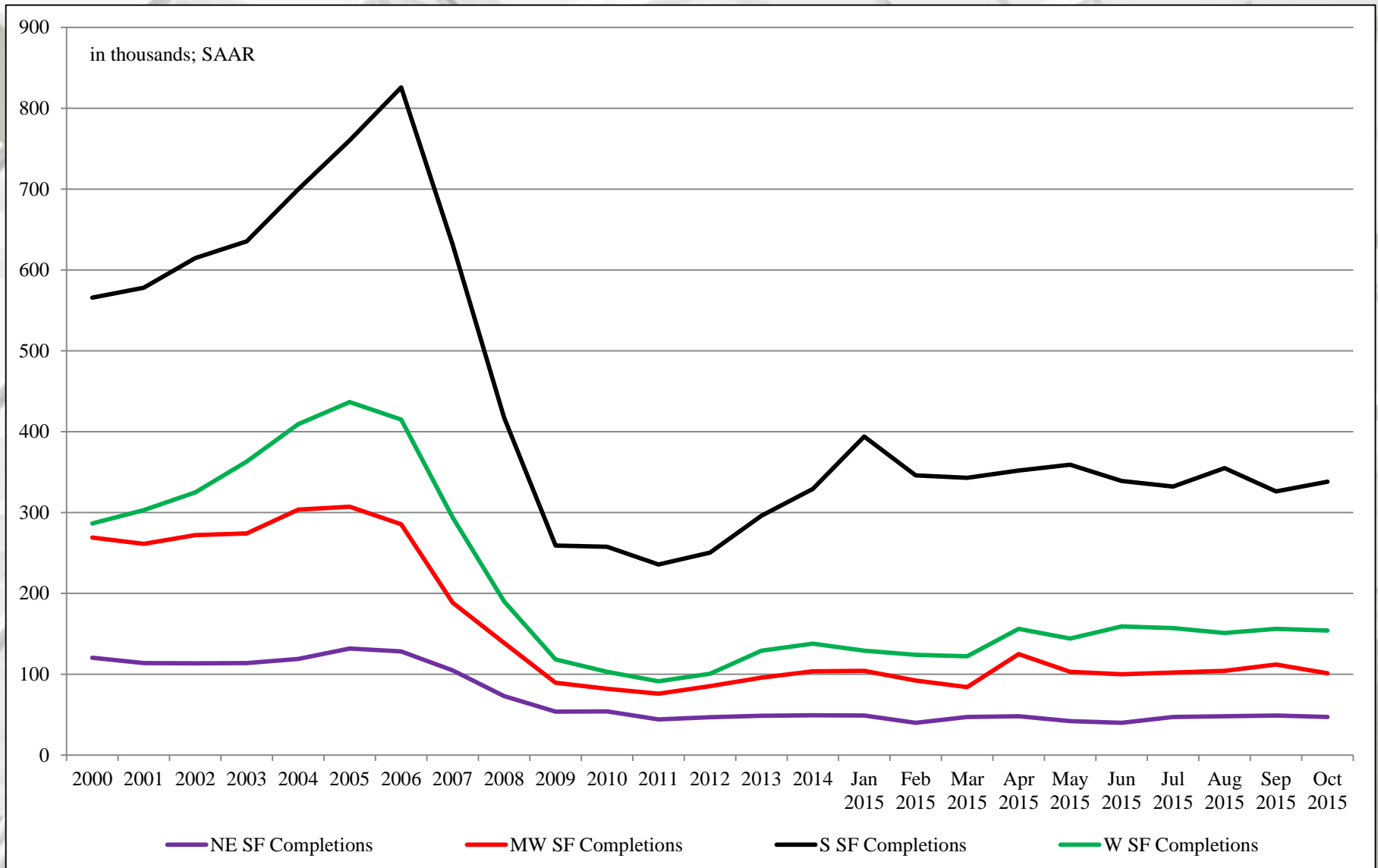
New Housing Completions by Region

	S Total	S SF	S MF
October	455,000	338,000	117,000
September	450,000	326,000	124,000
2014	418,000	317,000	101,000
M/M change	1.1%	3.7%	-5.6%
Y/Y change	8.9%	6.6%	15.8%

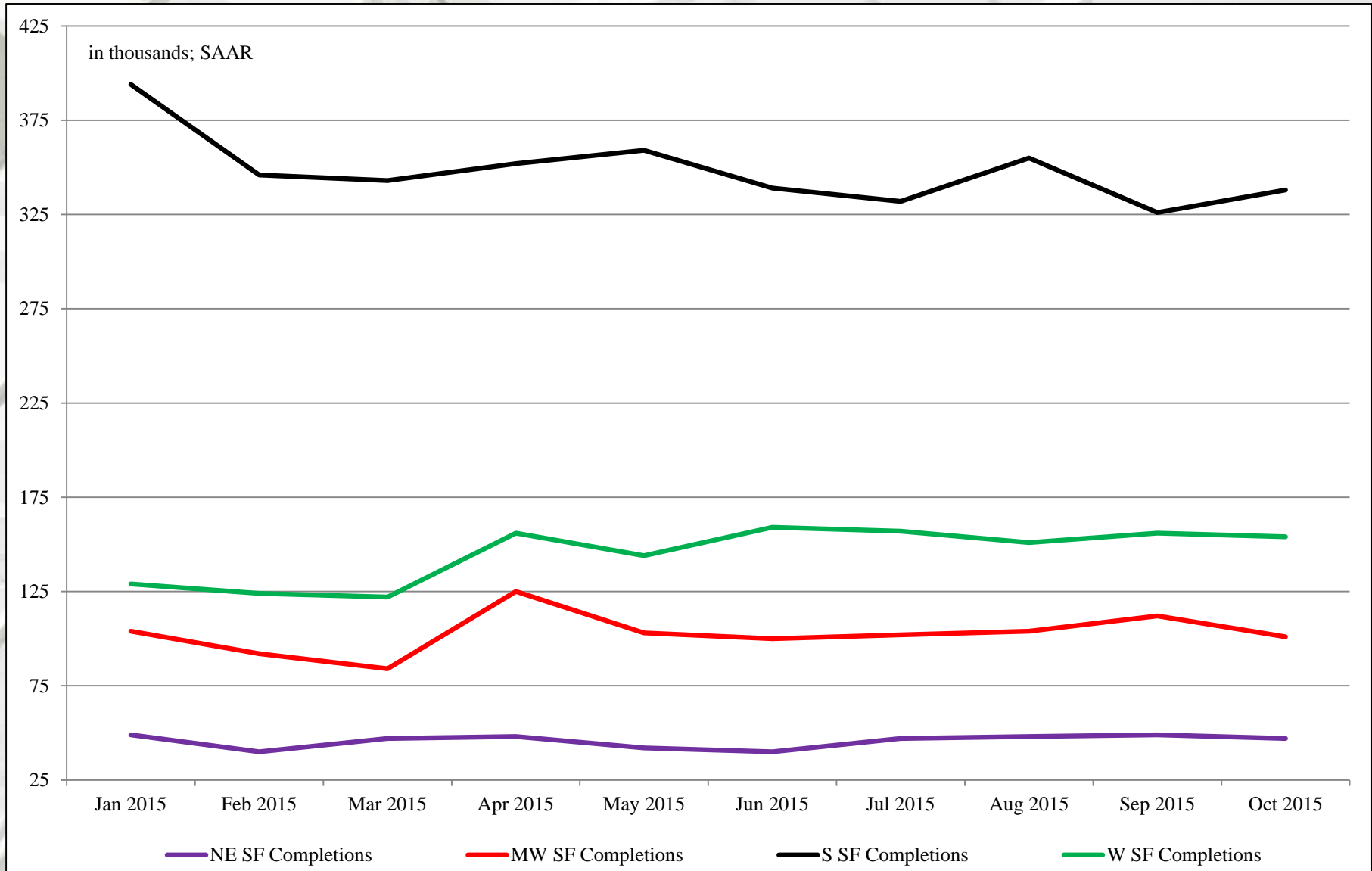
	W Total	W SF	W MF
October	240,000	154,000	86,000
September	239,000	156,000	83,000
2014	253,000	146,000	107,000
M/M change	0.4%	-1.3%	3.6%
Y/Y change	-5.1%	5.5%	-19.6%

* All data are SAAR

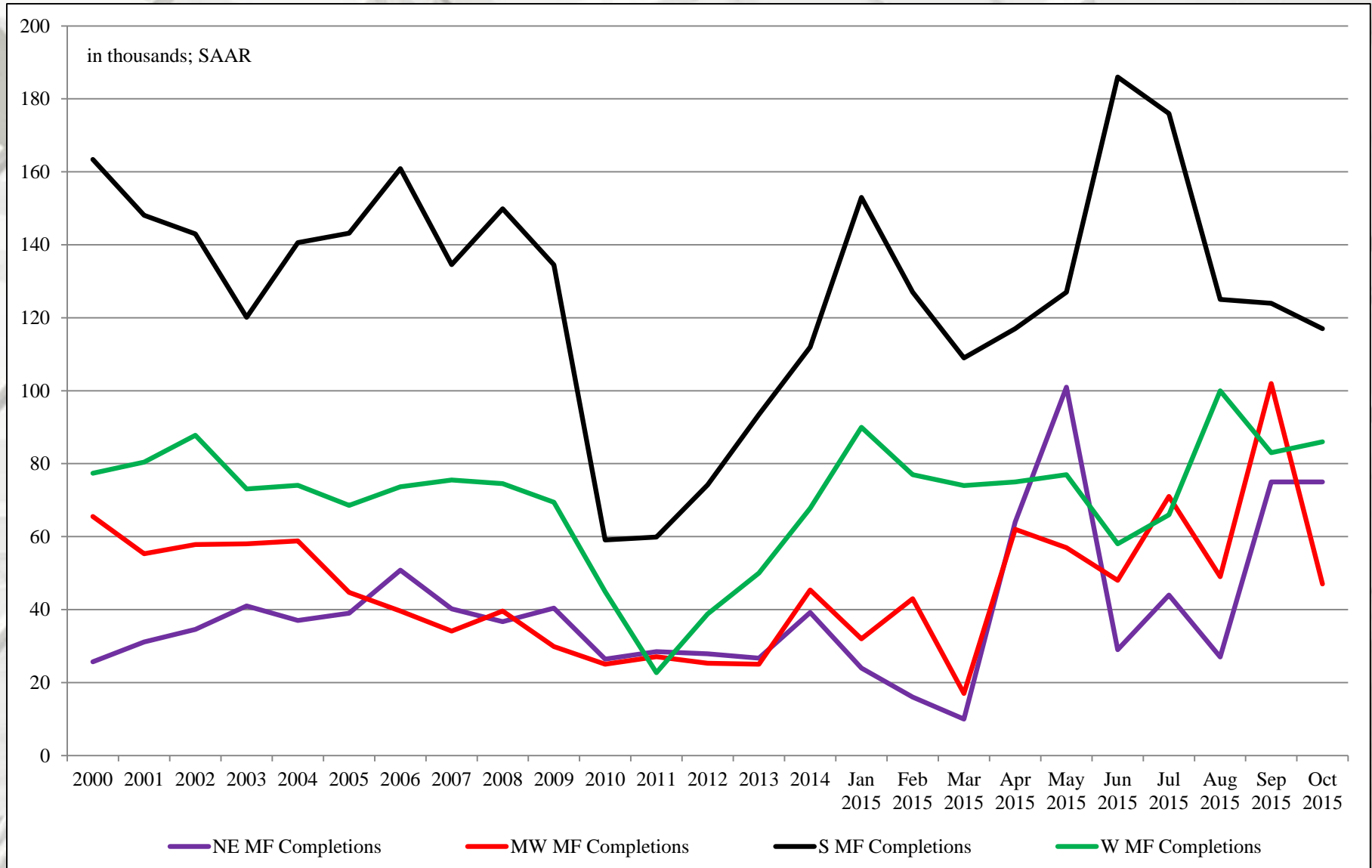
Regional SF Housing Completions



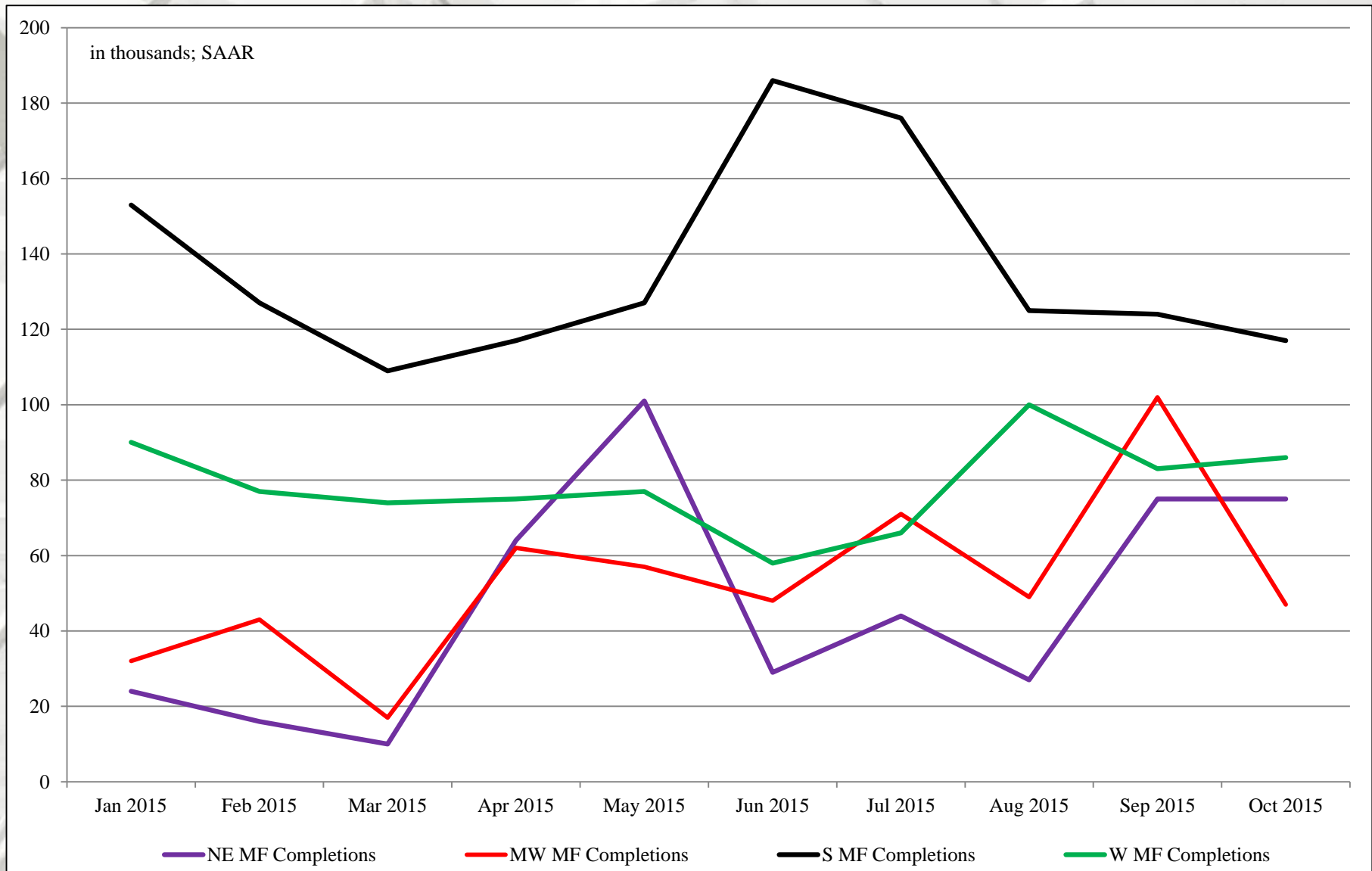
Regional SF Housing Completions: 2015



Regional MF Housing Completions



Regional MF Housing Completions: 2015

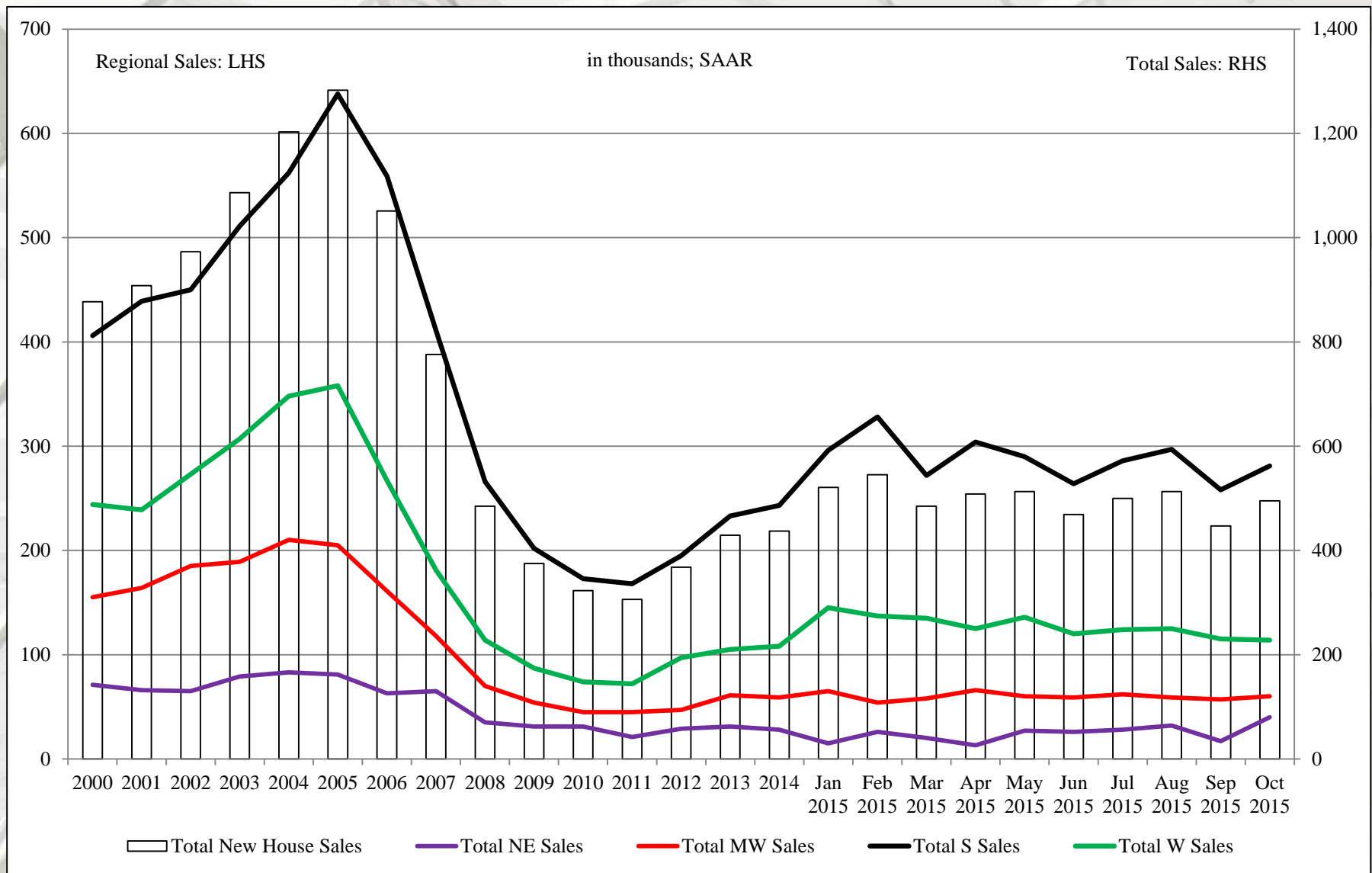


New Single-Family House Sales

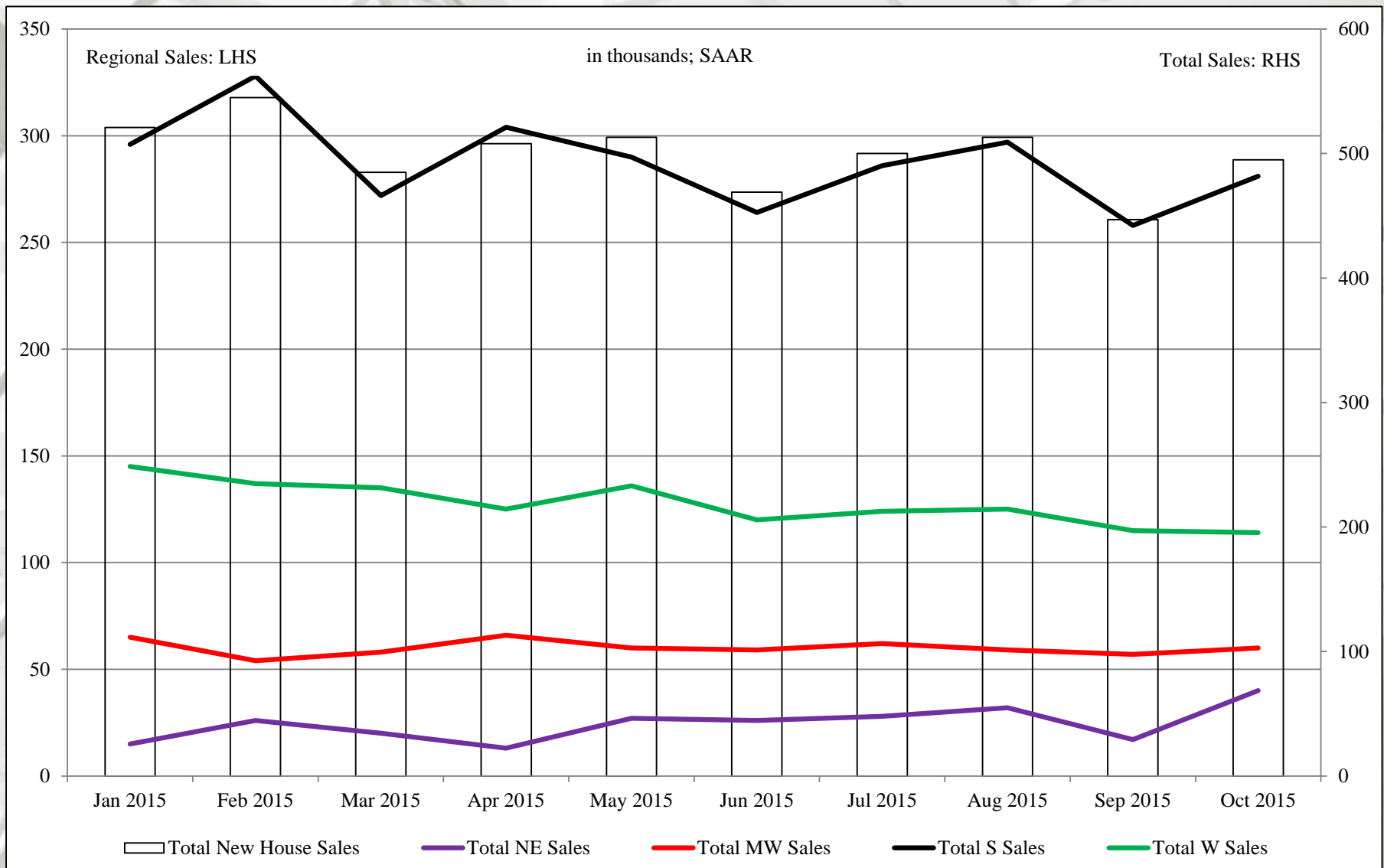
	New SF Sales*	Median Price	Mean Price	Month's Supply
October	495,000	\$281,500	\$366,000	5.5
September	447,000	\$307,800	\$369,600	6.0
2014	472,000	\$299,400	\$384,000	5.3
M/M change	10.7%	-8.5%	-0.9%	-8.3%
Y/Y change	4.9%	-5.9%	-4.7%	3.8%

* All sales data are SAAR

Total New SF House Sales



Total New SF House Sales: 2015



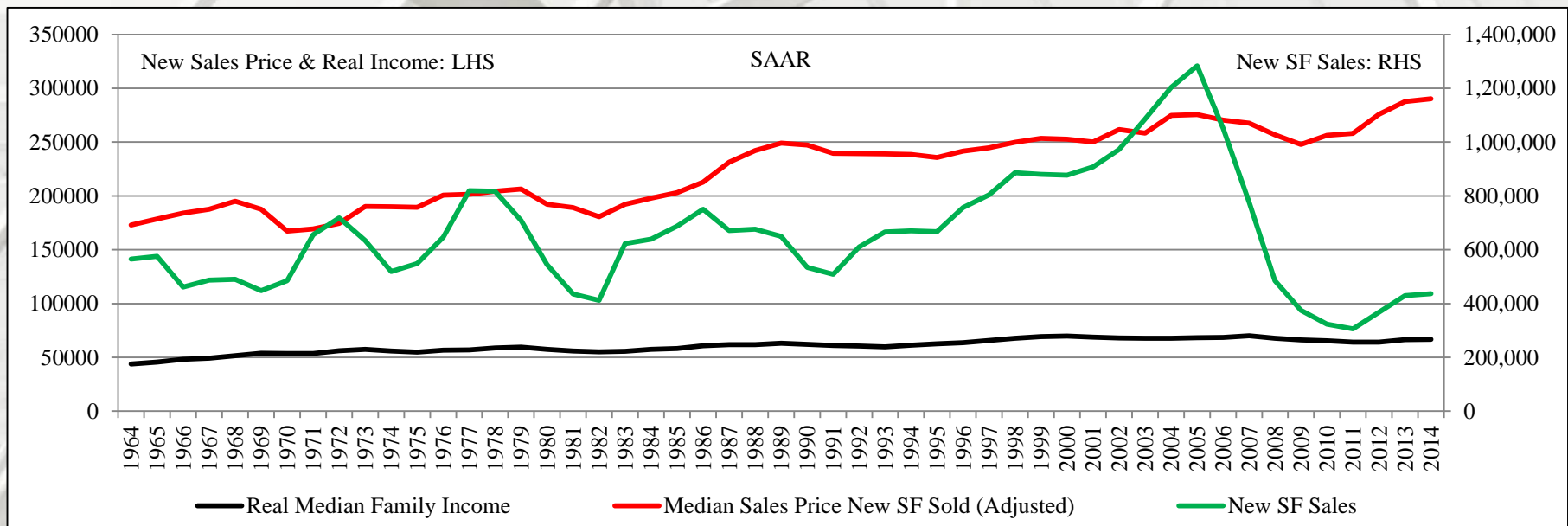
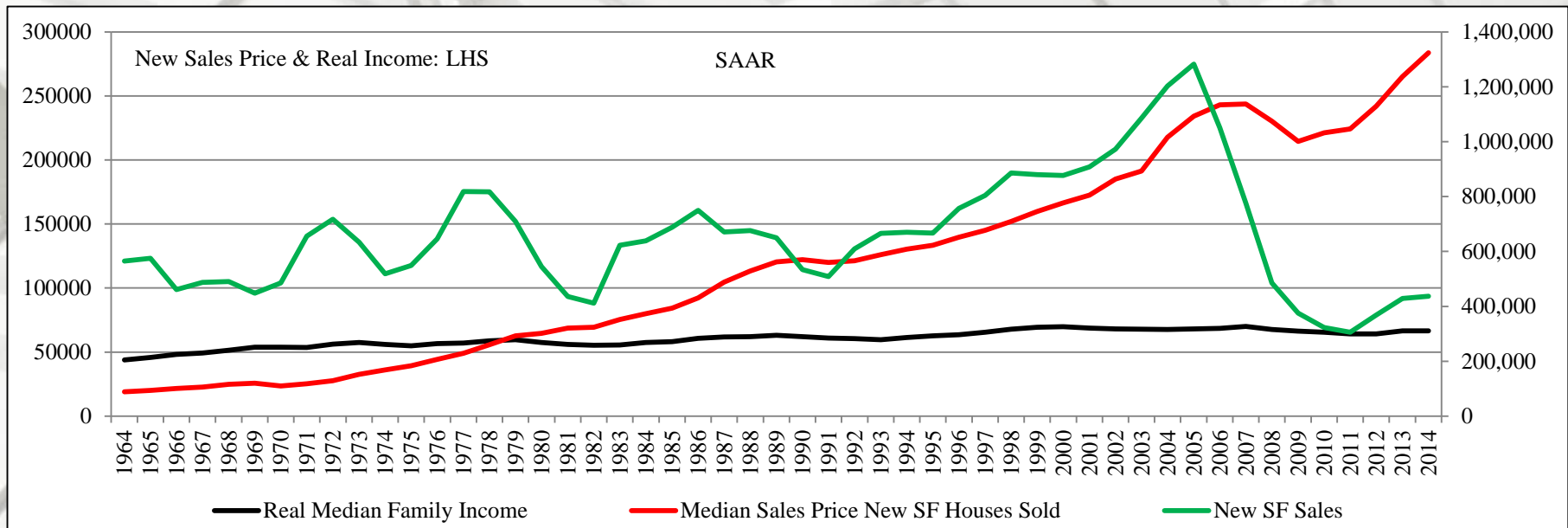
New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales	Total SF Sales
October	40,000	60,000	281,000	114,000	495,000
September	17,000	57,000	258,000	115,000	447,000
2014	25,000	63,000	267,000	117,000	472,000
M/M change	135.3%	5.3%	8.9%	-0.9%	10.7%
Y/Y change	60.0%	-4.8%	5.2%	-2.6%	4.9%

	< \$150m	\$150- \$199.9m	\$200- 299.9m	\$300- \$399.9m	\$400- \$499.9m	\$500- \$749.9m	> \$750m	Total ^{1,2}
October	2,000	6,000	14,000	9,000	4,000	3,000	3,000	41,000
September	2,000	5,000	10,000	7,000	7,000	3,000	2,000	34,000
2014	3,000	5,000	11,000	9,000	3,000	4,000	3,000	38,000
M/M change	--	20.0%	40.0%	28.6%	-42.8%	--	50.0%	-16.3%
Y/Y change	-33.3%	20.0%	27.3%	--	33.3%	-25.0%	--	-2.7%

* All data are SAAR; 1-Houses for which sales price was 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 Price and Real Median Income



October 2015 Construction Spending

October 2015 Private Construction: \$399.0 billion (SAAR)

1.0% more than the revised September estimate of \$395.0 billion (SAAR)

16.6% greater than the October 2014 estimate of \$342.1 billion (SAAR)

October SF construction: \$226.2 billion (SAAR)

1.6% more than September: \$222.6 billion (SAAR)

11.4% greater than October 2014: \$203.1 billion (SAAR)

October MF construction: \$58.4 billion (SAAR)

1.4% more than September: \$57.6 billion (SAAR)

27.9% greater than October 2014: \$45.6 billion (SAAR)

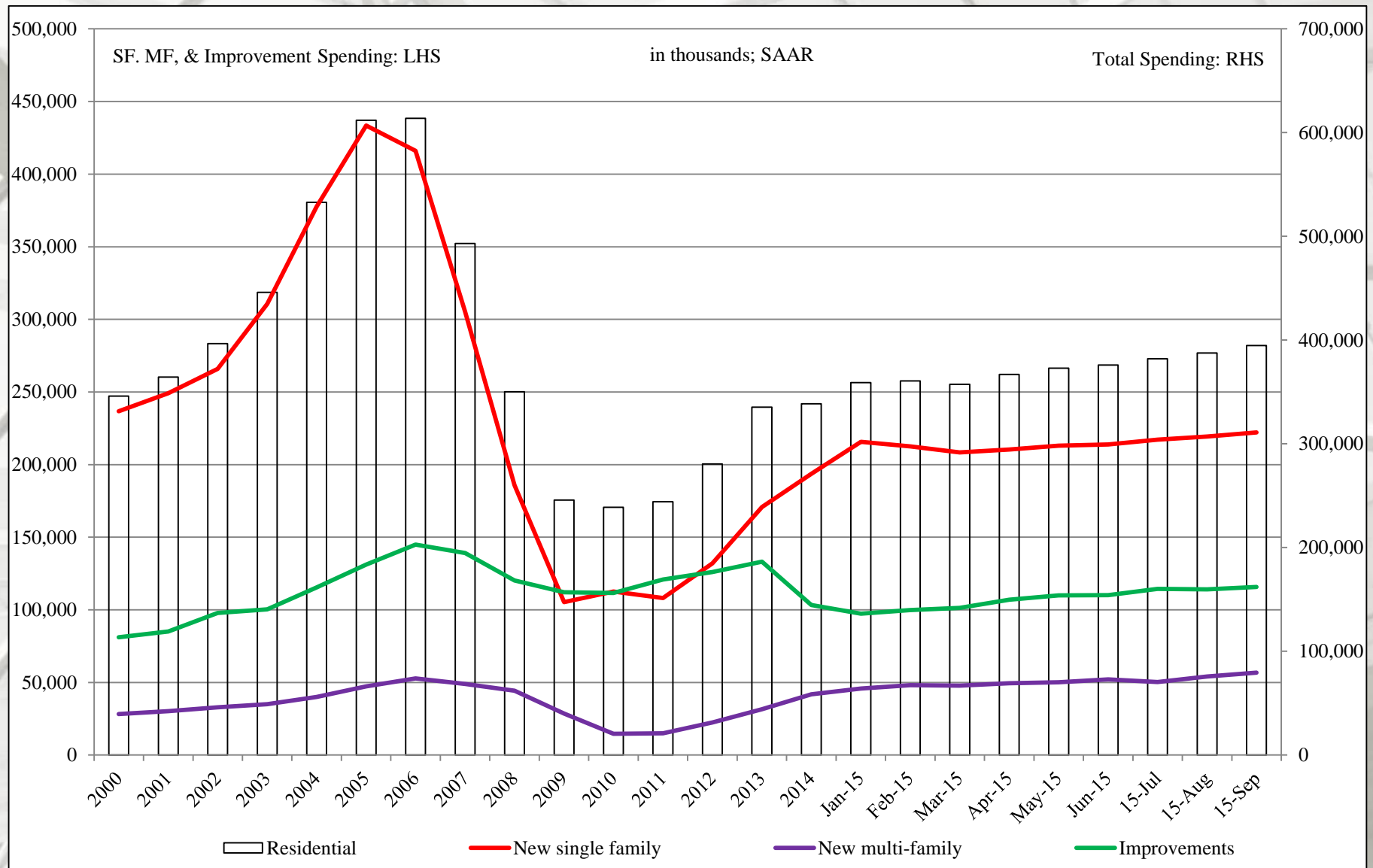
October Improvement^C construction: \$114.5 billion (SAAR)

3.9% more than September: \$110.1 billion (SAAR)

22.6% greater than October 2014: \$93.4 billion (SAAR)

^C The US DOC does not report improvement spending directly, this is an estimation. All data are SAARs and reported in nominal US\$.

October 2015 Private Construction Spending

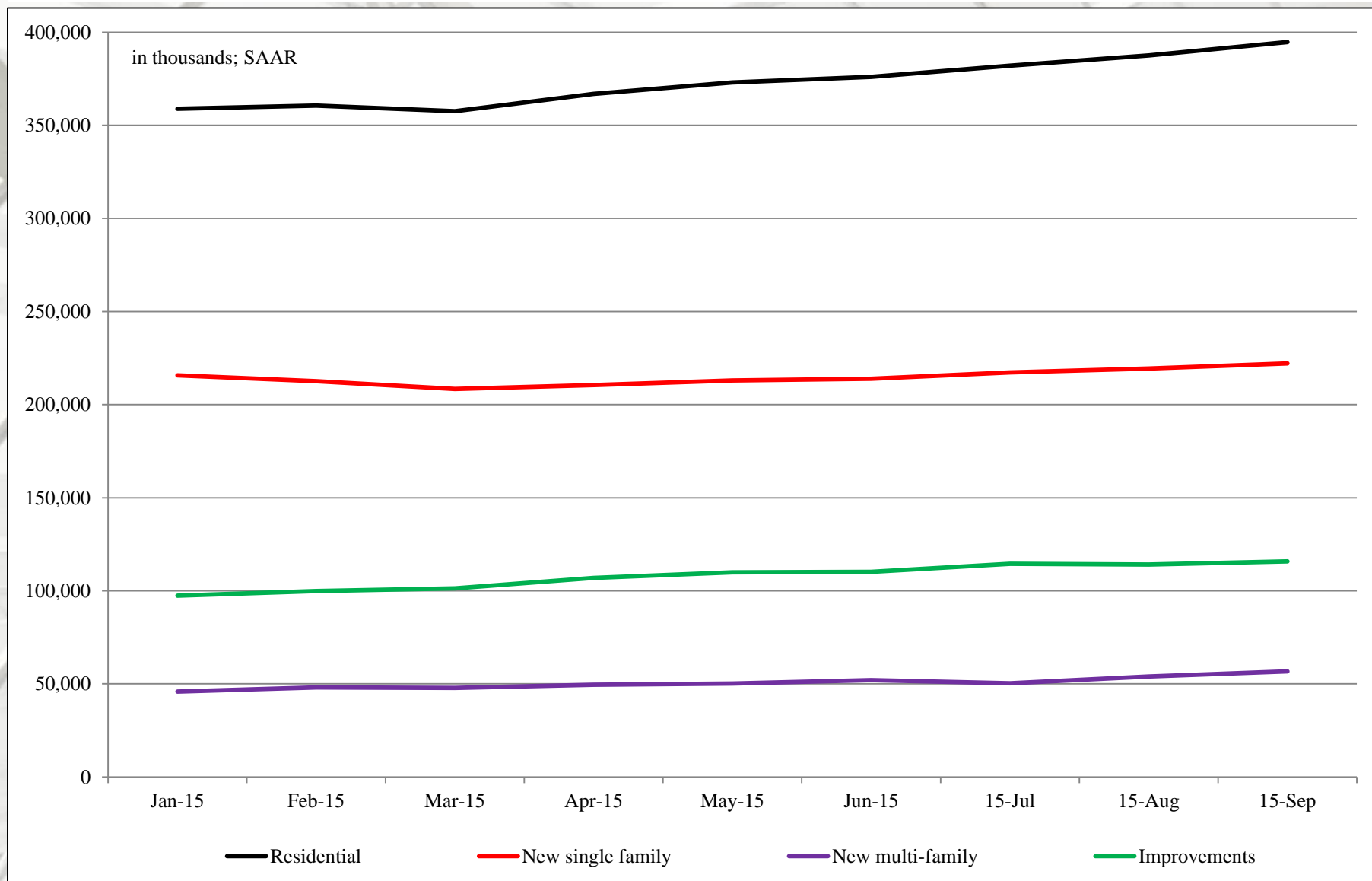


All data are SAARs and reported in nominal US\$.

Source: U.S. Department of Commerce-C30 Construction: www.census.gov/construction/c30/pdf/privsa.pdf; 12/2/15

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October Construction Spending: 2015

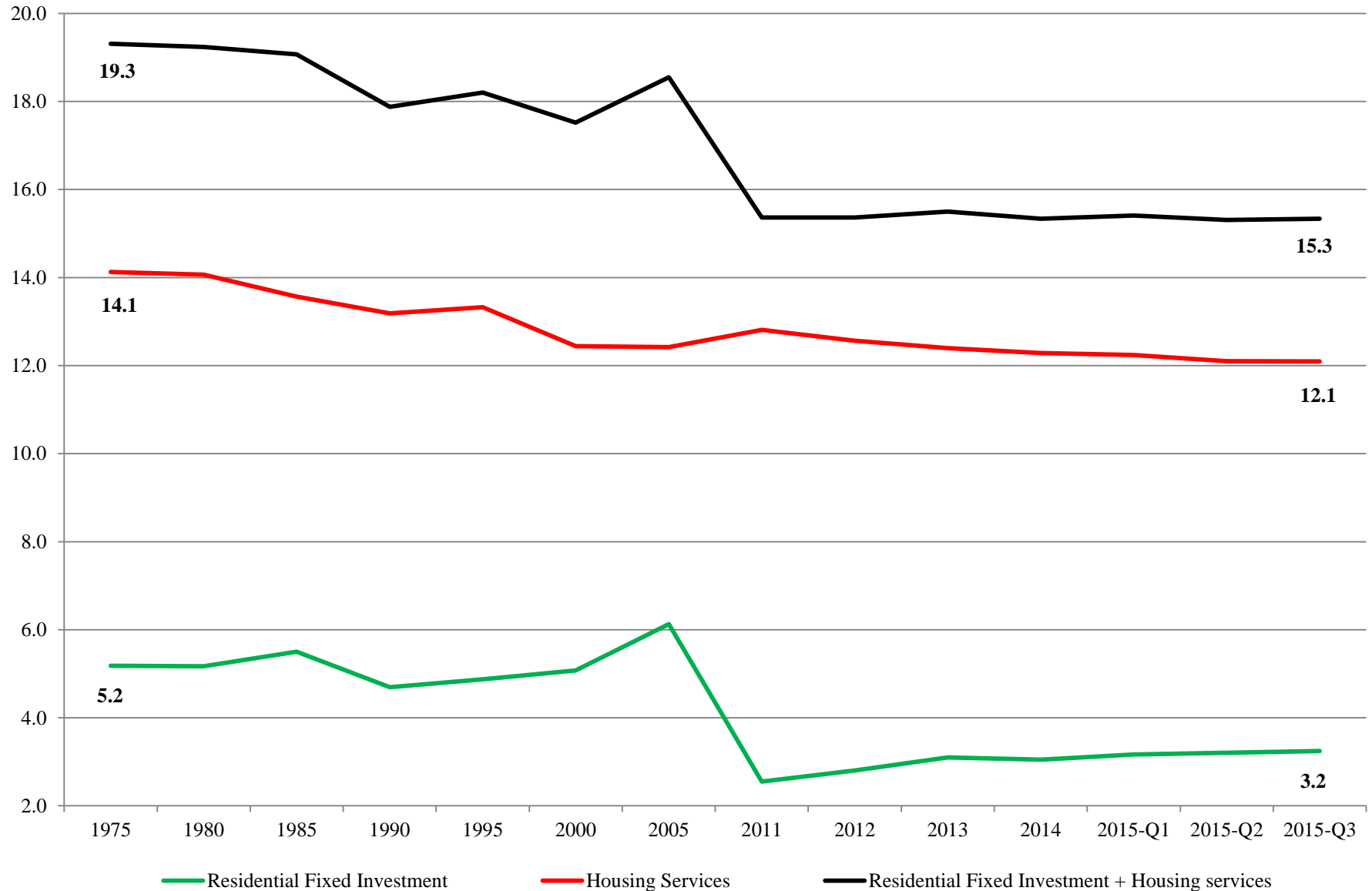


All data are SAARs and reported in nominal US\$.

Source: U.S. Department of Commerce-C30 Construction: www.census.gov/construction/c30/pdf/privsa.pdf; 12/2/15

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Housing's Contribution to GDP: Q3 2015



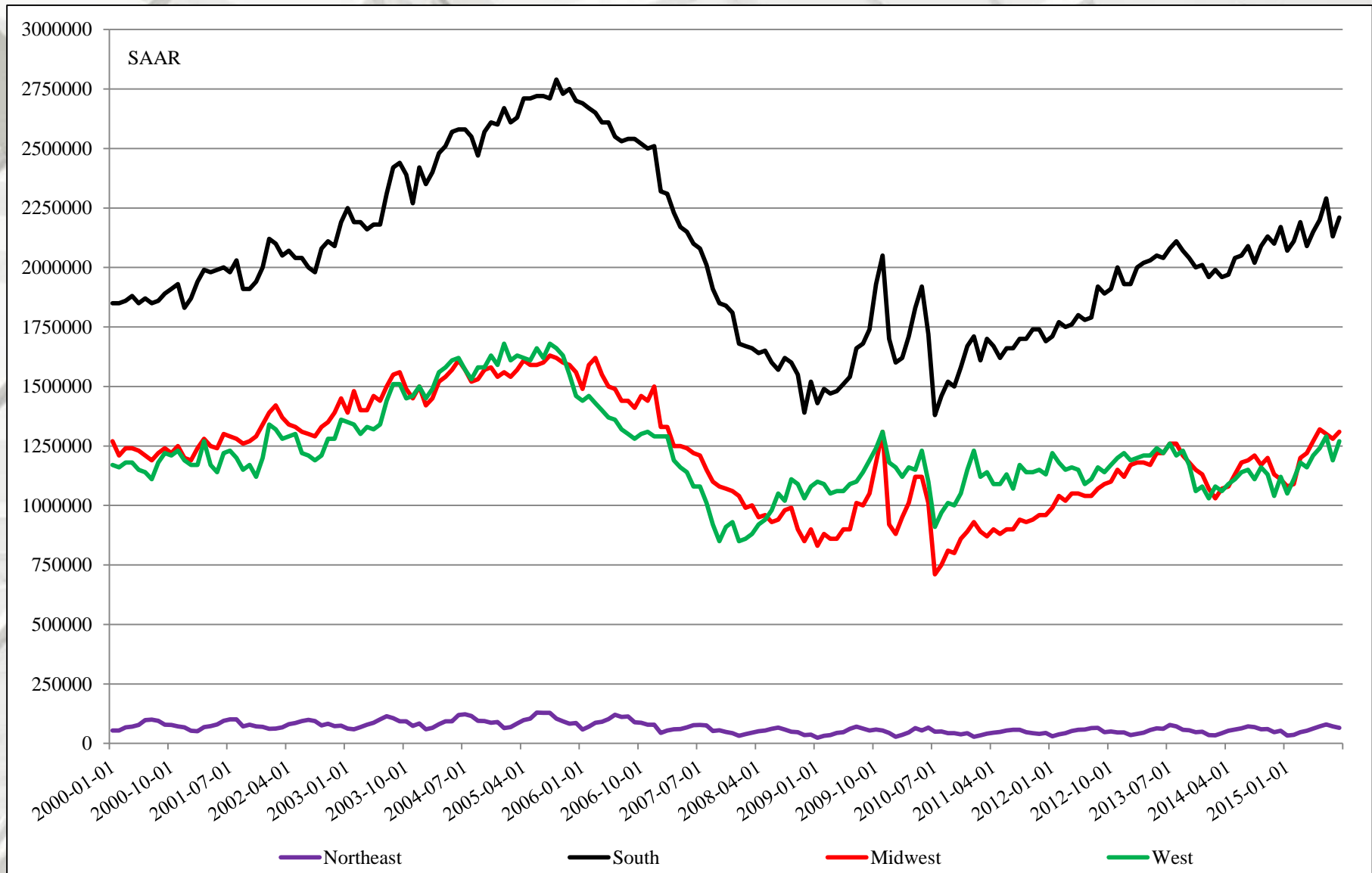
Existing House Sales

	Existing Sales	Median Price	Month's Supply
October	5,360,000	\$219,600	4.8
September	5,500,000	\$221,700	4.7
2014	5,160,000	\$207,500	5.2
M/M change	-3.4%	-0.9%	2.1%
Y/Y change	3.9%	5.8%	-7.7%

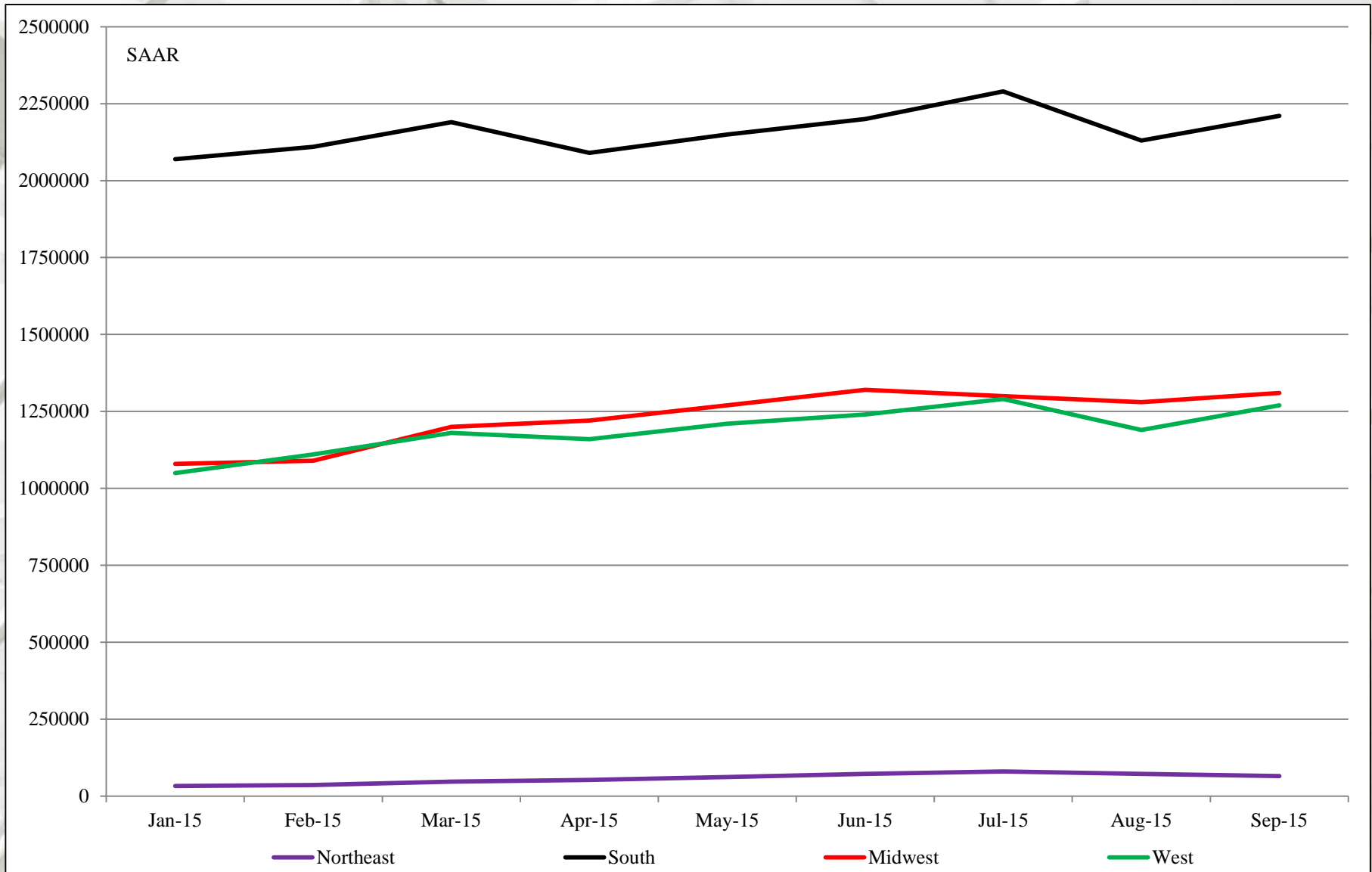
	NE Sales	MW Sales	S Sales	W Sales
October	760,000	1,300,000	2,140,000	1,160,000
September	760,000	1,310,000	2,210,000	1,270,000
2014	700,000	1,200,000	2,130,000	1,130,000
M/M change	--	-0.8%	-3.2%	-8.7%
Y/Y change	11.8%	8.3%	0.5%	2.7%

* All sales data: SAAR

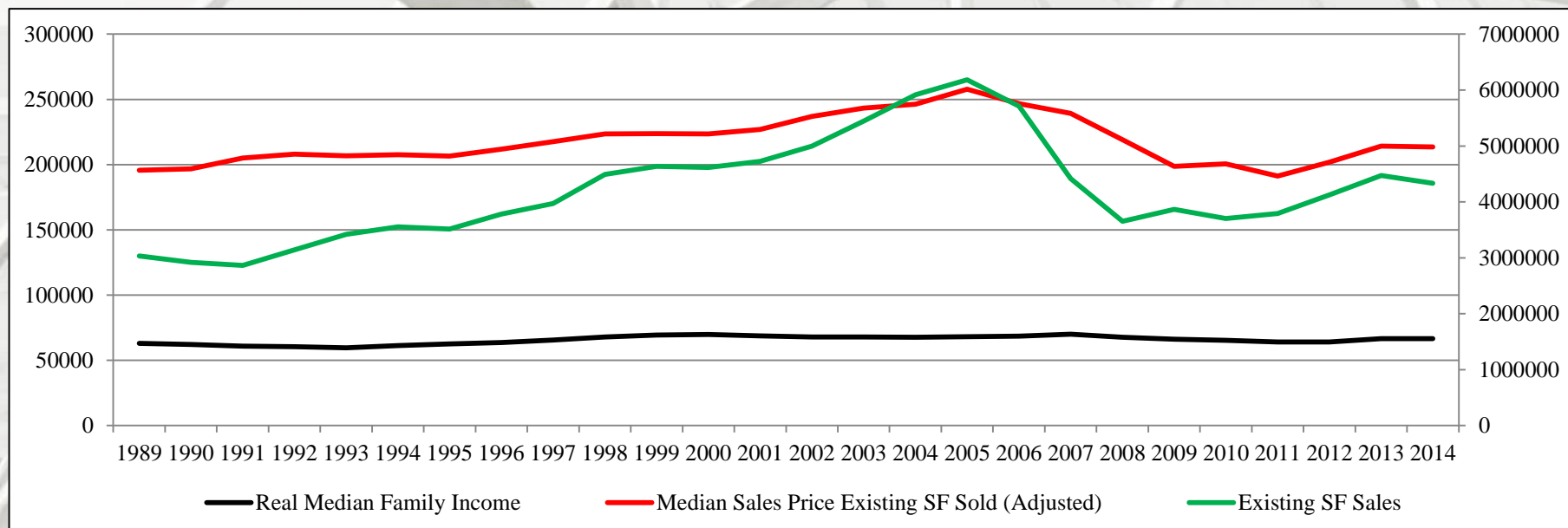
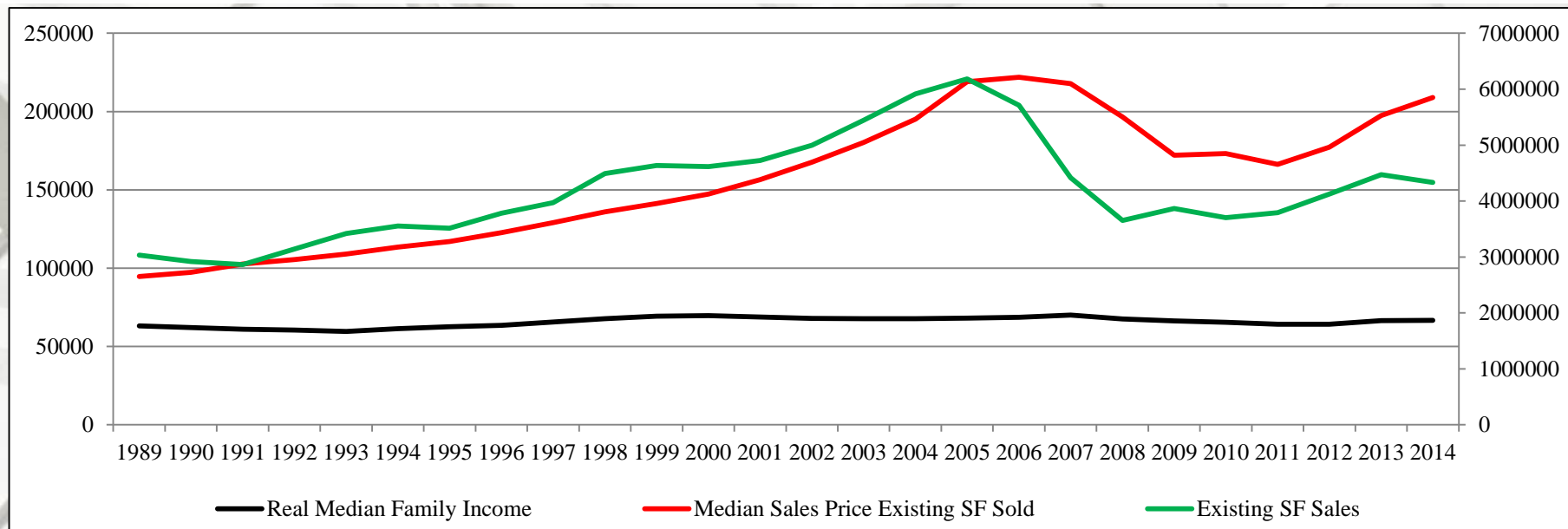
Total Existing House Sales



Total Existing House Sales: 2015



Existing SF House Sales Price & Real Median Income



Existing House Sales

National Association of Realtors (NAR®)

October 2015 sales data: 5.3 million houses sold (SAAR)

Distressed house sales: 6% of sales –
(5% foreclosures and 1% short-sales);

7% in September and 9% in October 2014.

All-cash sales: no change at 24%; 24% in September,
and 27% (October 2014).

Individual investors still purchase a considerable portion of
“all cash” sale houses – 13% in October,
13% in September and 15% in October 2014.

62% of investors paid cash in October.

Summary

In summary:

The housing market sputtered in October, which is typical. Multifamily remains steady; construction and sales of new single-family houses in the upper price echelons remains solid; and improvement or remodeling expenditures appear to be steady. Existing house sales declined but are positive year-over-year.

Even with this improvement, most housing data categories remain far less than historical averages. There are positives and negative factors that influence the housing market and overall economy. This includes:

Pros:

- 1) Housing affordability is good for most of the country;
- 2) Historically low interest rates;
- 3) Household formations increased in Q4 2014 (using occupied housing data from the September 2015 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) Job creation – improving, yet most analysts state there is room for improvement;
- 2) A tepid economy;
- 3) Declining real median annual household incomes – though increases the past two-months;
- 4) Strict home loan lending standards, plus (TRID and Federal Housing Administration's new single-family guidelines) ; and
- 5) Global uncertainty???

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