

Virginia Tech – U.S. Forest Service

August 2015 Housing Commentary

Part A: Current Data



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Executive Summary

Welcome to the inaugural Virginia Tech-U.S. Forest Service housing commentary. The goal of this commentary is to provide users with relevant data, straightforward analysis, and information about the United States housing market.

August's housing data was truly mixed on a monthly basis. Permits, new sales, and construction spending all improved. Starts, existing sales, and completions decreased. From a regional perspective the data were similar. All data were positive on a year-over-year basis.

Housing has improved incrementally since January 2010. As written then, the housing market remains far from normal. In some respects new sales are bifurcated, as the aggregate share of lower-valued price category homes is declining while the higher-valued group share is increasing. Multifamily construction is solid; yet the number of multifamily units remains less than permitted and constructed in the early 1970s.

This report provides information for housing, demographics, economics, private and government indicators, and forecasts for the global and United States economy. This month's commentary is long and has been partitioned into four segments. It is expected that the report will not be this lengthy in the future. One reason for the length is that a number of long-range forecasts were released last month by U.S. government agencies, the Mortgage Bankers Association, the U.S. Green Building Council, and several prominent investment firms.

The first segment of the commentary is data based. Segment two contains current housing market information and segment three provides demographic and economic material, and segment four has several long-range forecasts. We hope you find this commentary beneficial.

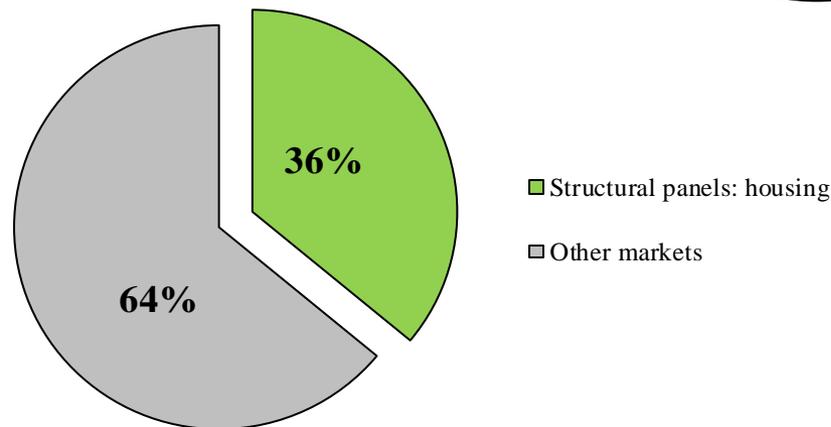
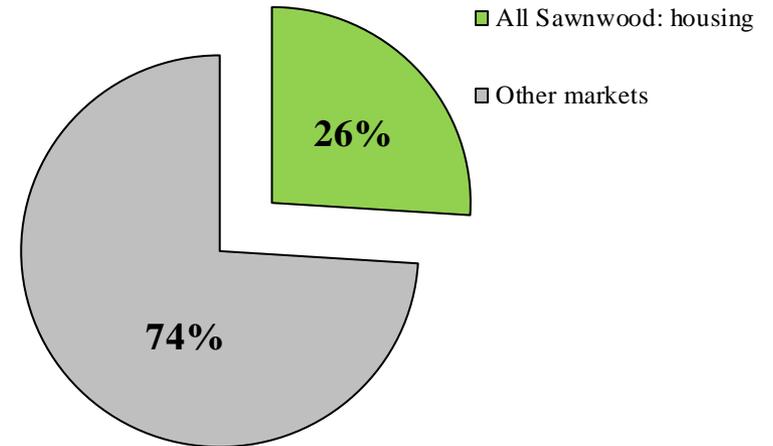
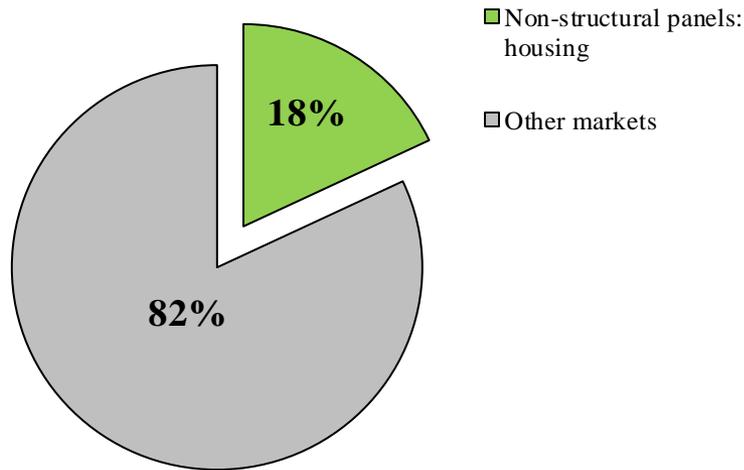
August 2015

Housing Scorecard

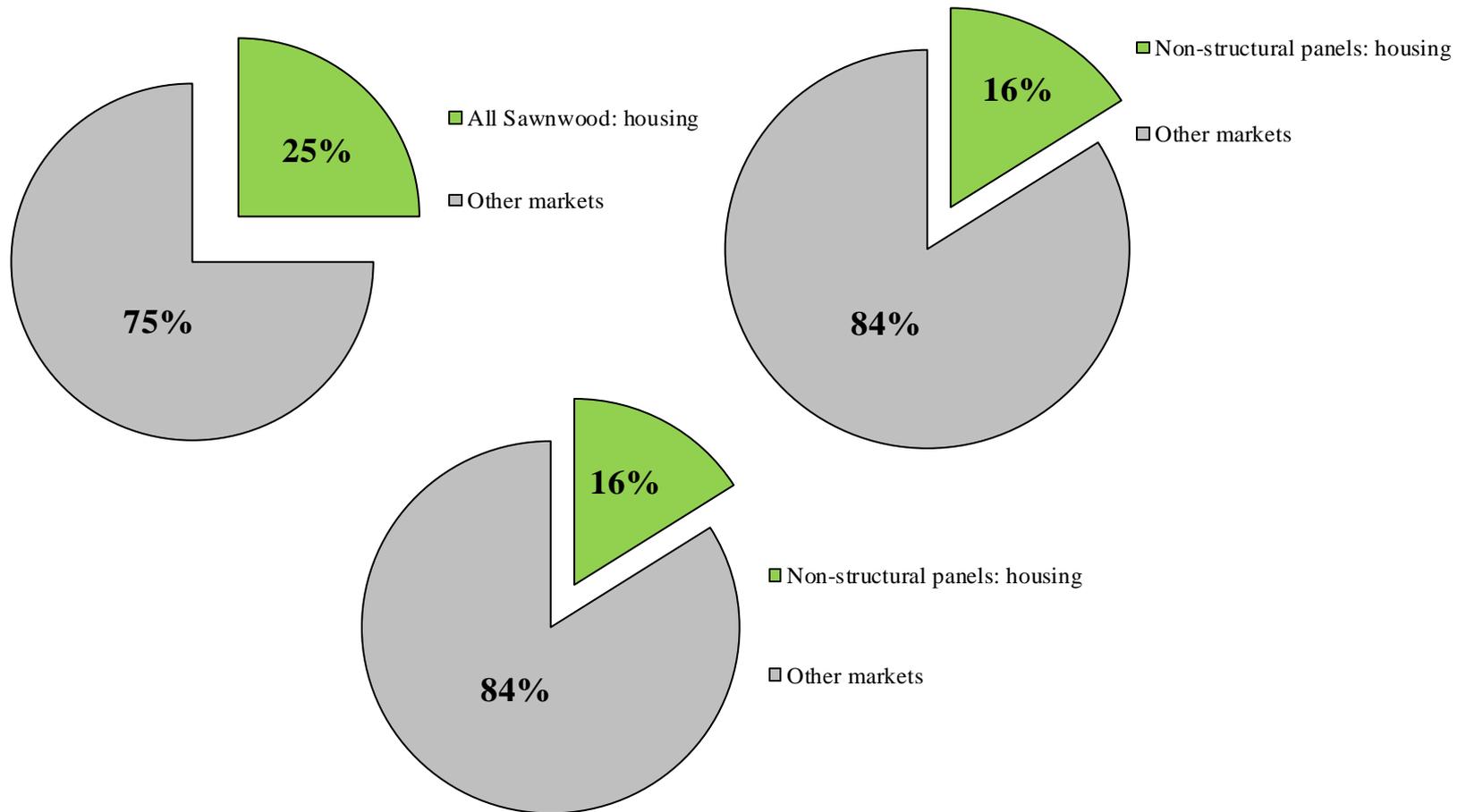
	M/M	Y/Y
Housing Starts	▽ 3.0%	△ 16.6%
Single-Family Starts	▽ 3.0%	△ 14.9%
Housing Permits	△ 3.5%	△ 12.5%
Housing Completions	▽ 6.1%	△ 3.3%
New Single-Family House Sales	△ 5.7%	△ 21.6%
Existing House Sales ¹	▽ 4.8%	△ 6.2%
Private Residential Construction Spending	△ 1.3%	△ 16.4%
Single-Family Construction Spending	△ 0.7%	△ 14.0%

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 Starts	Multi-Family 2-4 unit Starts**	Multi-Family ≥ 5 unit Starts
August	1,126,000	739,000	6,000	381,000
July	1,161,000	762,000	9,000	390,000
2014	966,000	643,000	17,000	306,000
M/M change	-3.0%	-3.0%	-33.3%	-2.3%
Y/Y change	16.6%	14.9%	-64.7%	24.5%

* 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.

New Housing Starts by Region

	NE Total Starts	NE SF Starts	NE MF Starts
August	108,000	57,000	51,000
July	163,000	71,000	92,000
2014	107,000	54,000	53,000
M/M change	-33.7%	-19.7%	-44.6%
Y/Y change	0.9%	5.6%	-3.8%

	MW Total Starts	MW SF Starts	MW MF Starts
August	157,000	107,000	50,000
July	174,000	119,000	55,000
2014	180,000	98,000	82,000
M/M change	-9.8%	-10.1%	-9.1%
Y/Y change	-12.8%	9.2%	-39.0%

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

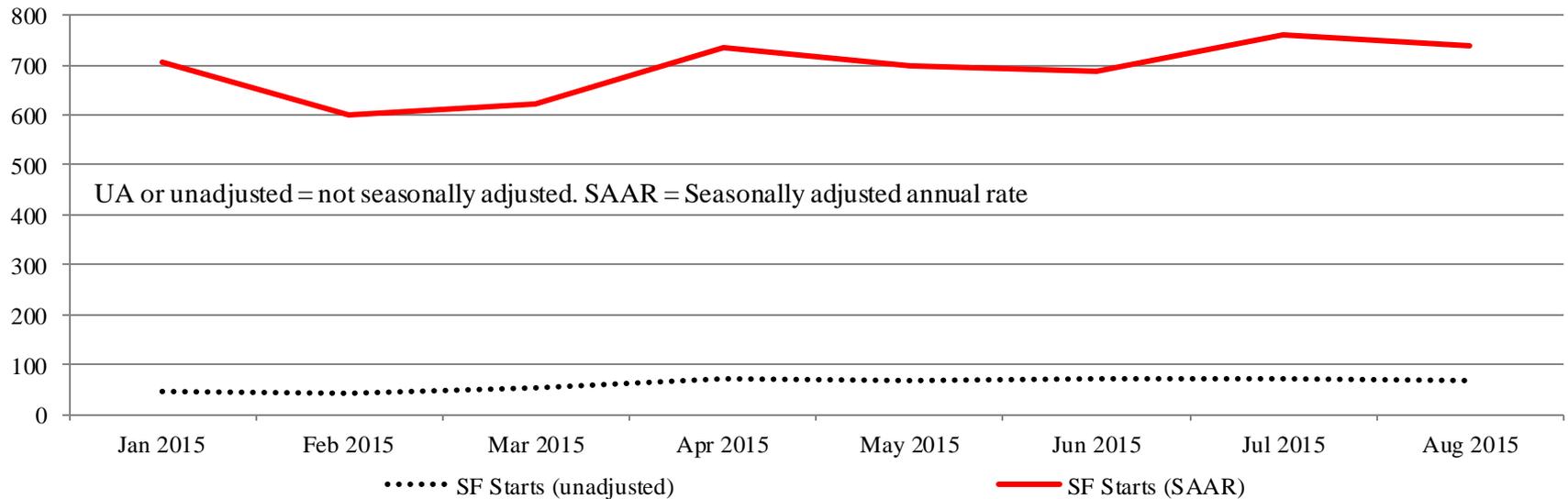
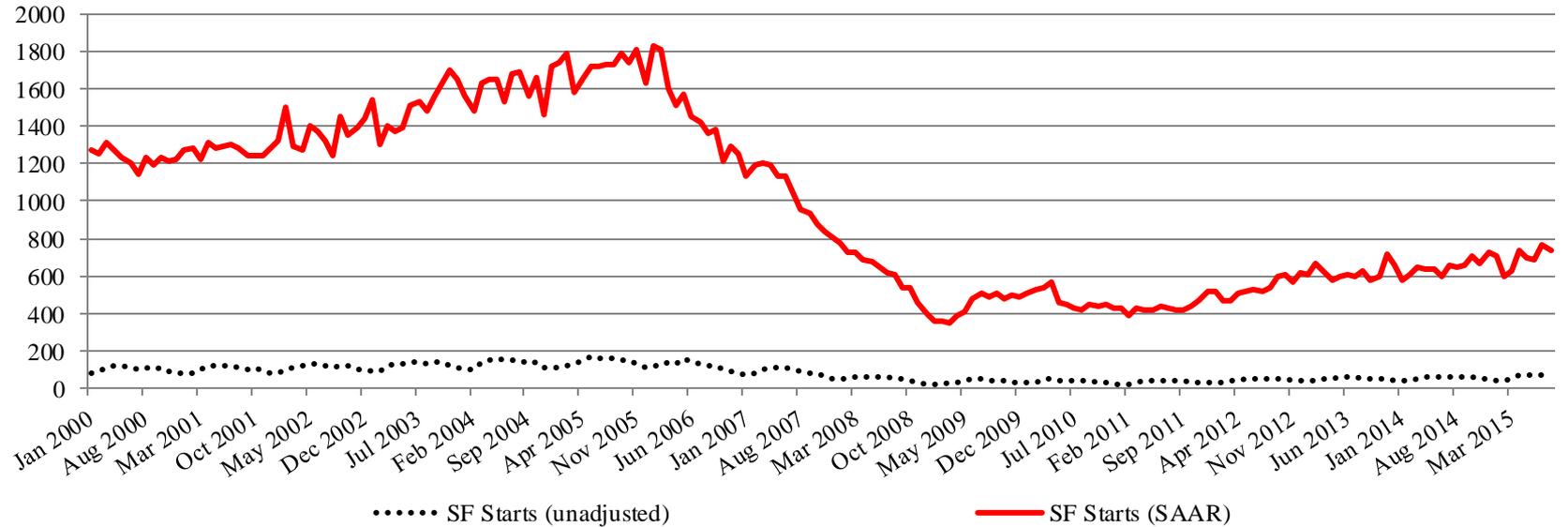
New Housing Starts by Region

	S Total Starts	S SF Starts	S MF Starts
August	602,000	428,000	174,000
July	562,000	392,000	170,000
2014	477,000	354,000	123,000
M/M change	26.2%	20.9%	41.5%
Y/Y change	7.1%	9.2%	2.4%

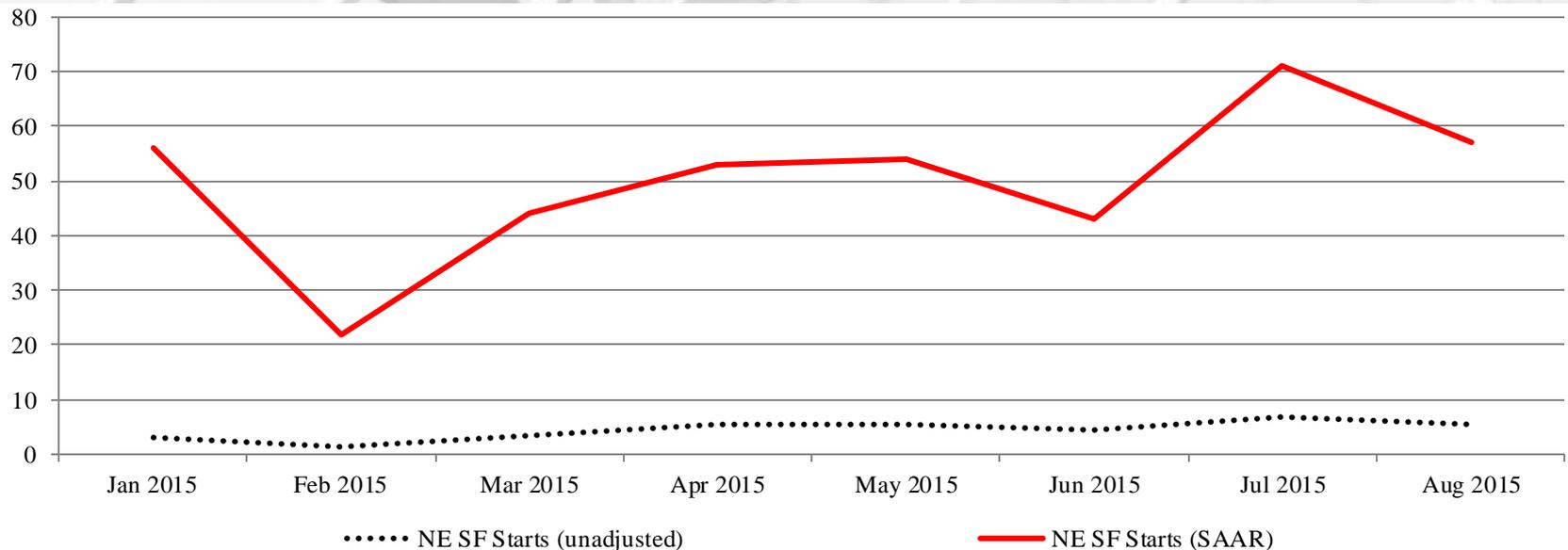
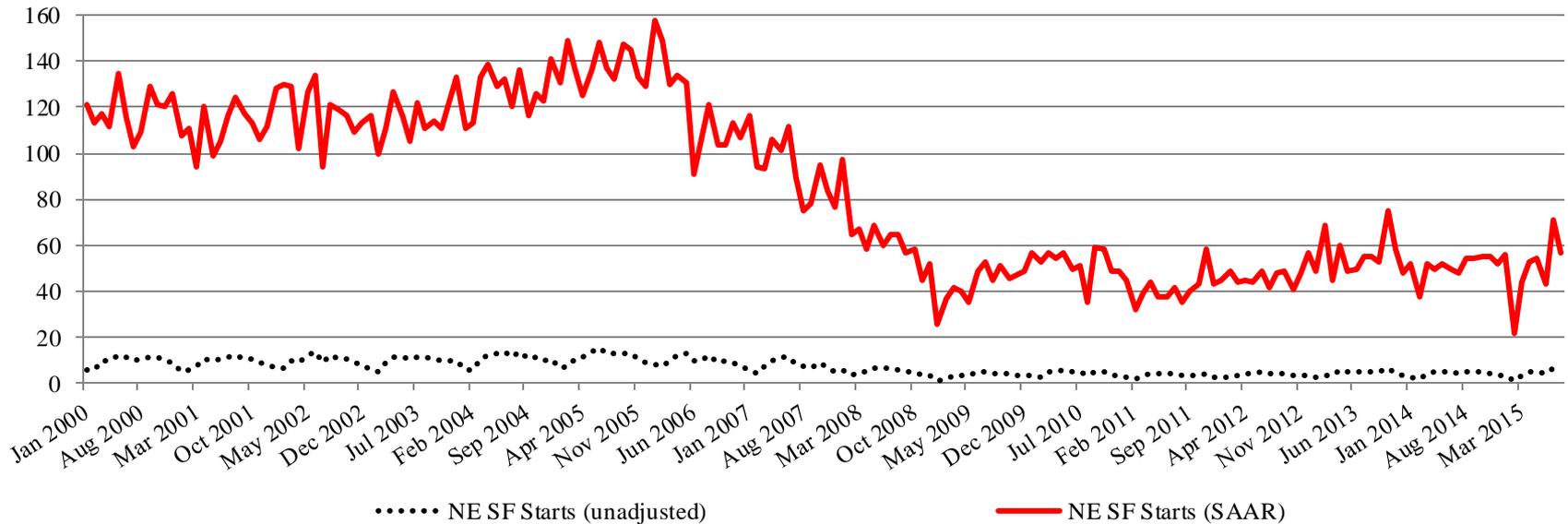
	W Total Starts	W SF Starts	W MF Starts
August	259,000	147,000	112,000
July	262,000	180,000	82,000
2014	202,000	137,000	65,000
M/M change	-1.1%	-18.3%	36.6%
Y/Y change	28.2%	7.3%	72.3%

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

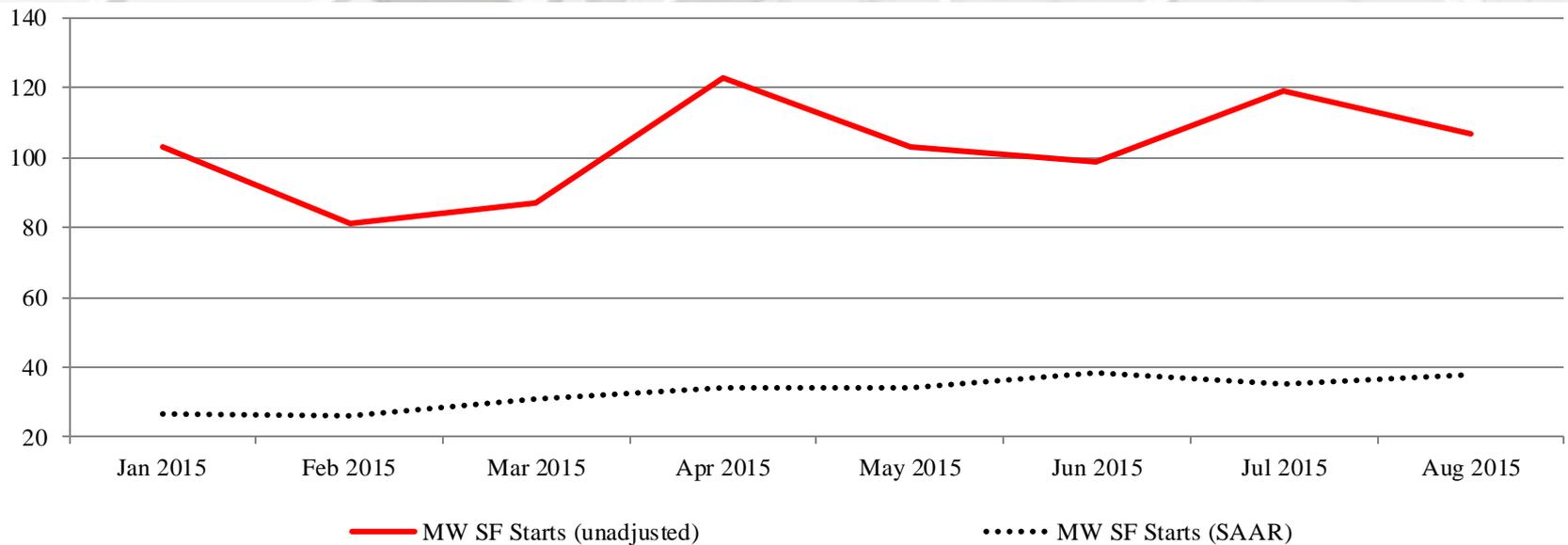
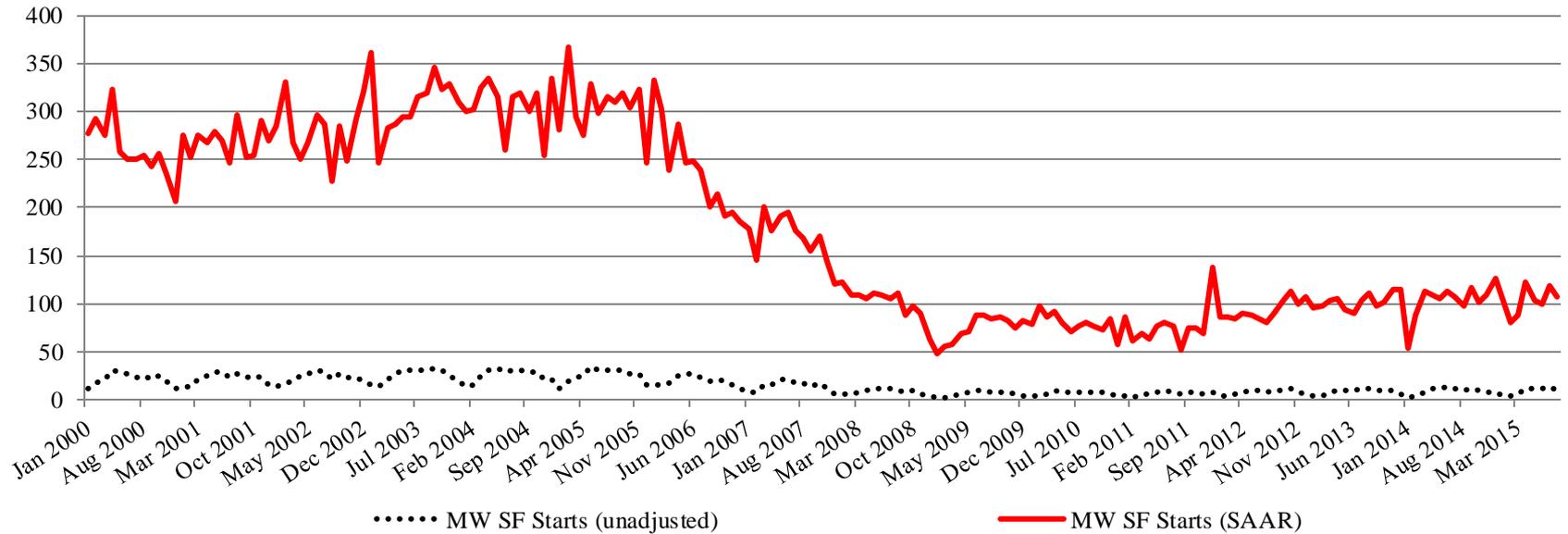
New SF Housing Starts



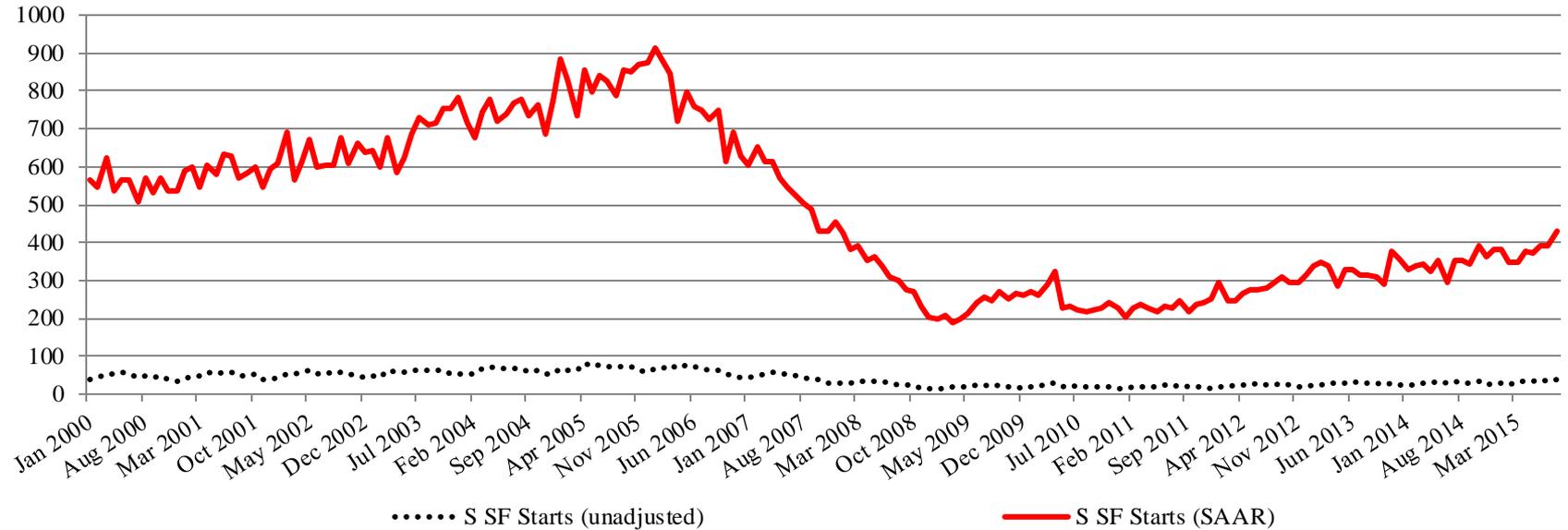
New SF Housing Starts: NE Region



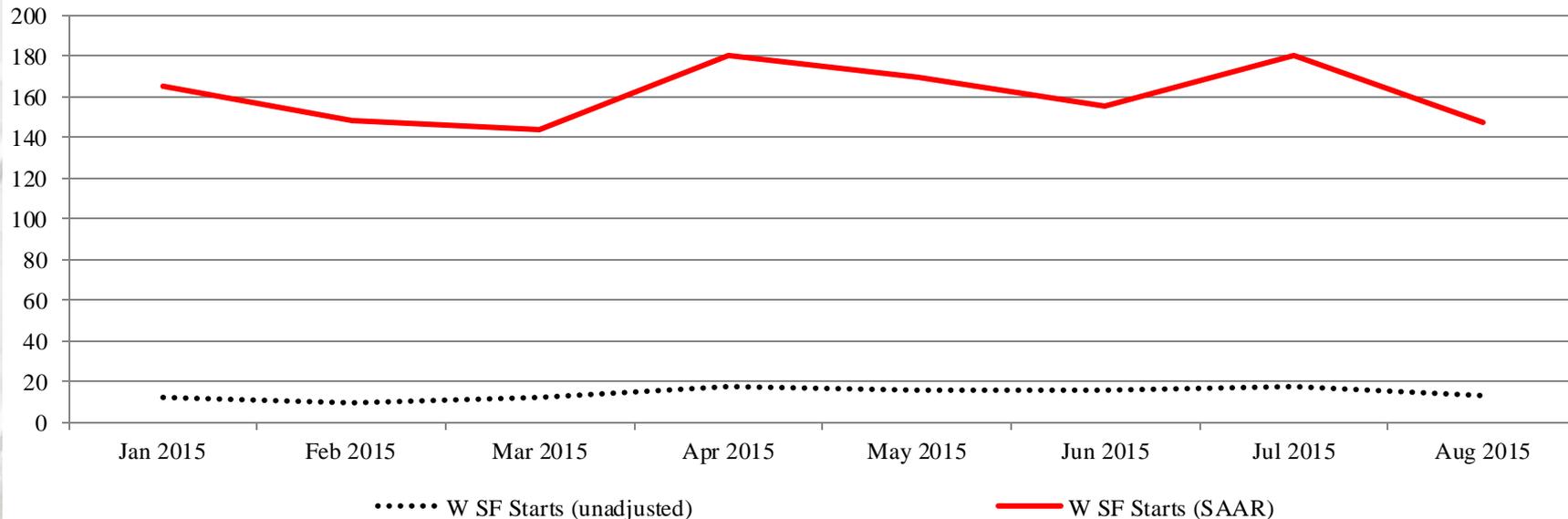
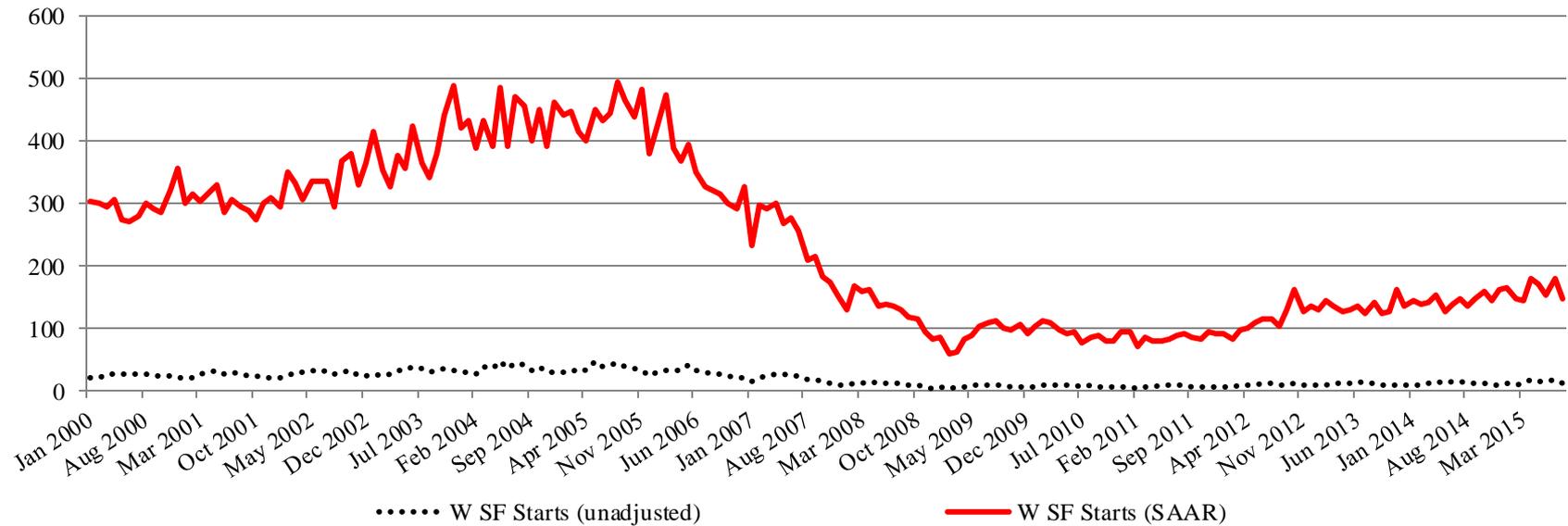
New SF Housing Starts: MW Region



New SF Housing Starts: S Region



New SF Housing Starts: W Region



New Housing Permits and Completions

	Total Permits*	Single-Family Permits	Multi-Family 2-4 unit Permits	Multi-Family ≥ 5 unit Permits
August	1,170,000	699,000	31,000	440,000
July	1,330,000	680,000	28,000	422,000
2014	1,040,000	643,000	35,000	362,000
M/M change	3.5%	2.8%	10.7%	4.3%
Y/Y change	12.5%	8.7%	-11.4%	21.5%

	Total Completions*	Single-Family Completions	Multi-Family 2-4 unit Completions	Multi-Family ≥ 5 unit Permits
August	935,000	646,000	6,000	283,000
July	996,000	636,000	11,000	349,000
2014	905,000	613,000	10,000	282,000
M/M change	-6.1%	1.6%	-45.5%	-18.9%
Y/Y change	3.3%	5.4%	-40.0%	0.4%

New Housing Permits by Region

	NE Total Permits	NE SF Permits	NE MF Permits
August	109,000	56,000	53,000
July	114,000	53,000	61,000
2014	117,000	54,000	63,000
M/M change	-4.4%	5.7%	-13.1%
Y/Y change	-6.8%	3.7%	-15.9%

	MW Total Permits	MW SF Permits	MW MF Permits
August	175,000	104,000	71,000
July	170,000	107,000	63,000
2014	170,000	108,000	62,000
M/M change	2.9%	-2.8%	12.7%
Y/Y change	2.9%	-3.7%	14.5%

* All data are SAAR

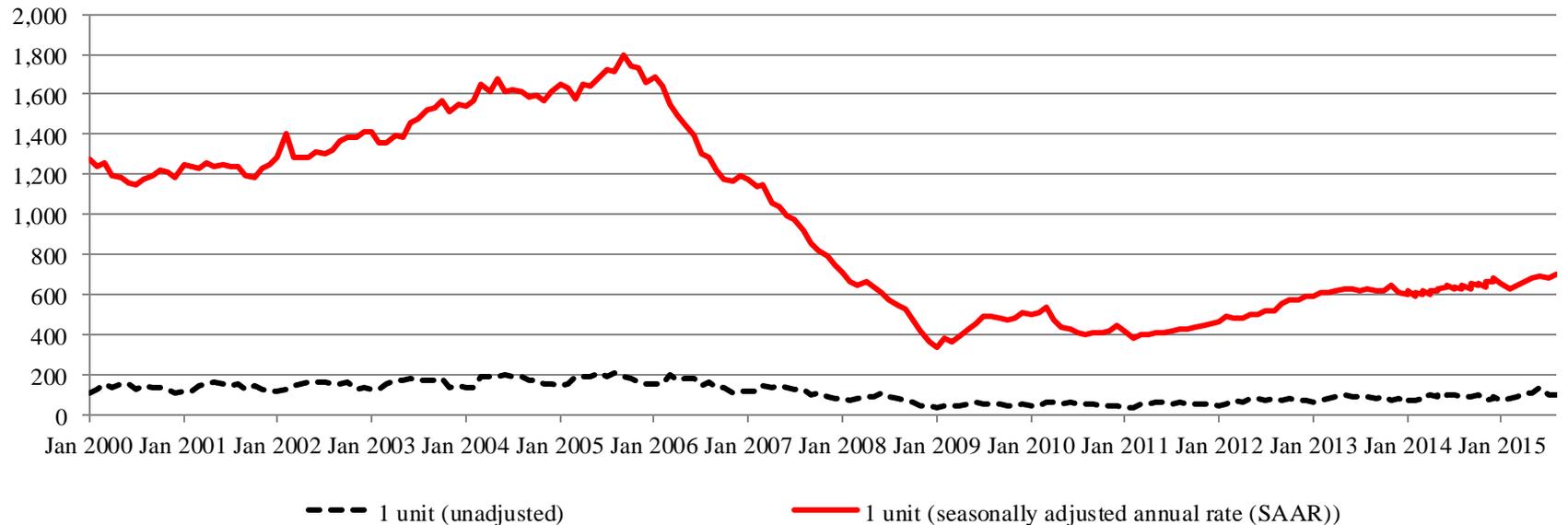
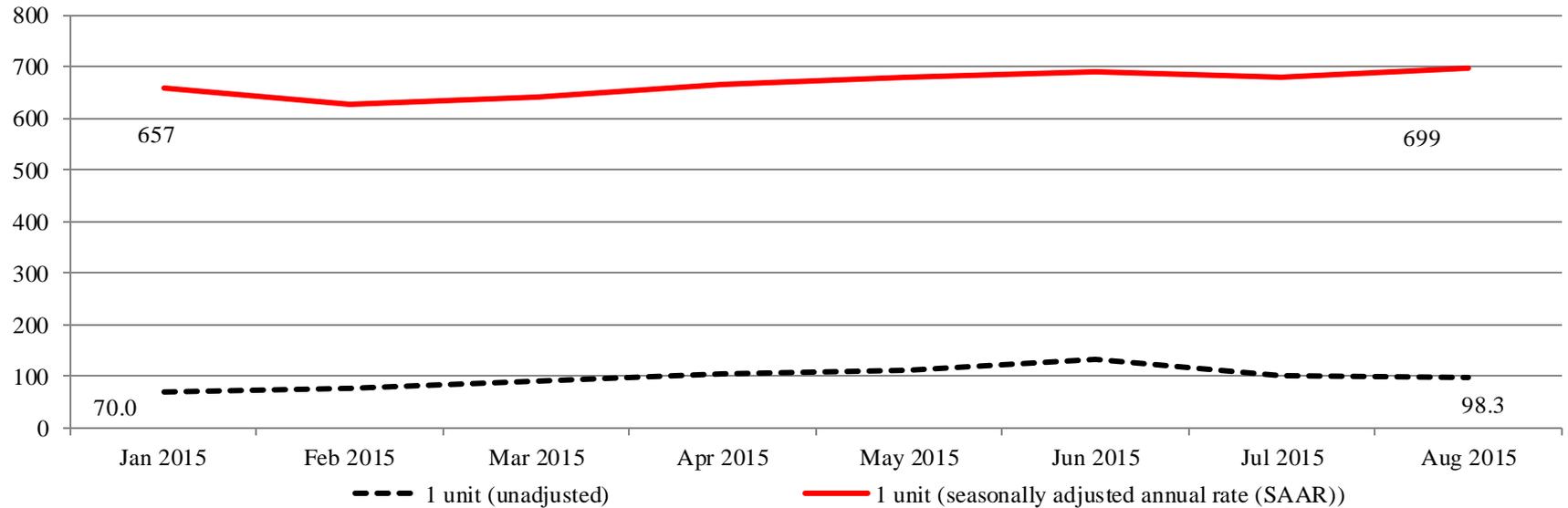
New Housing Permits by Region

	S Total Permits	S SF Permits	S MF Permits
August	590,000	375,000	215,000
July	576,000	365,000	211,000
2014	536,000	353,000	183,000
M/M change	2.4%	2.7%	1.9%
Y/Y change	10.1%	6.2%	17.5%

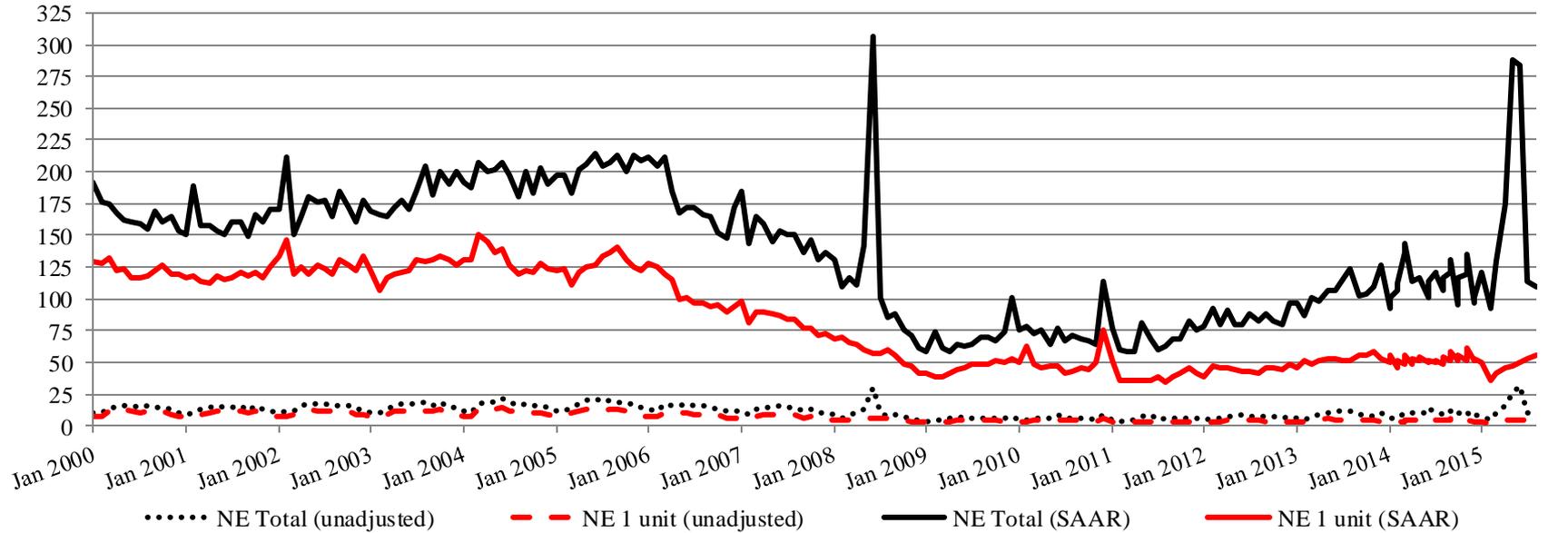
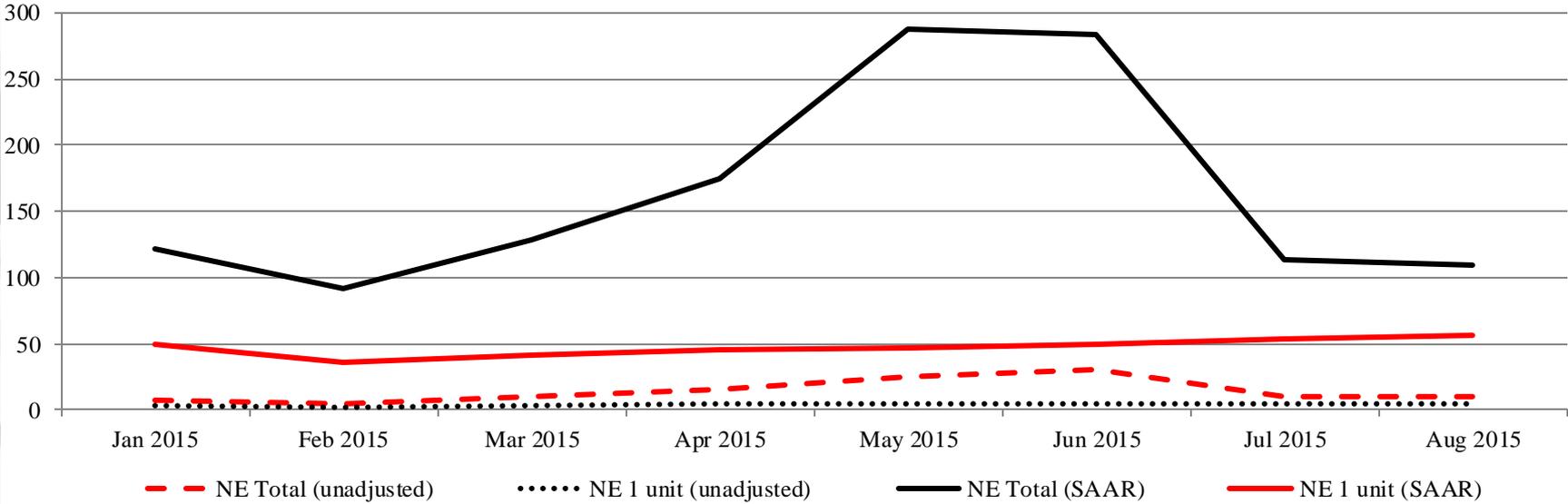
	W Total Permits	W SF Permits	W MF Permits
August	296,000	164,000	132,000
July	270,000	155,000	115,000
2014	217,000	128,000	89,000
M/M change	9.6%	5.8%	14.8%
Y/Y change	36.4%	28.1%	48.3%

* All data are SAAR

New SF Housing Permits

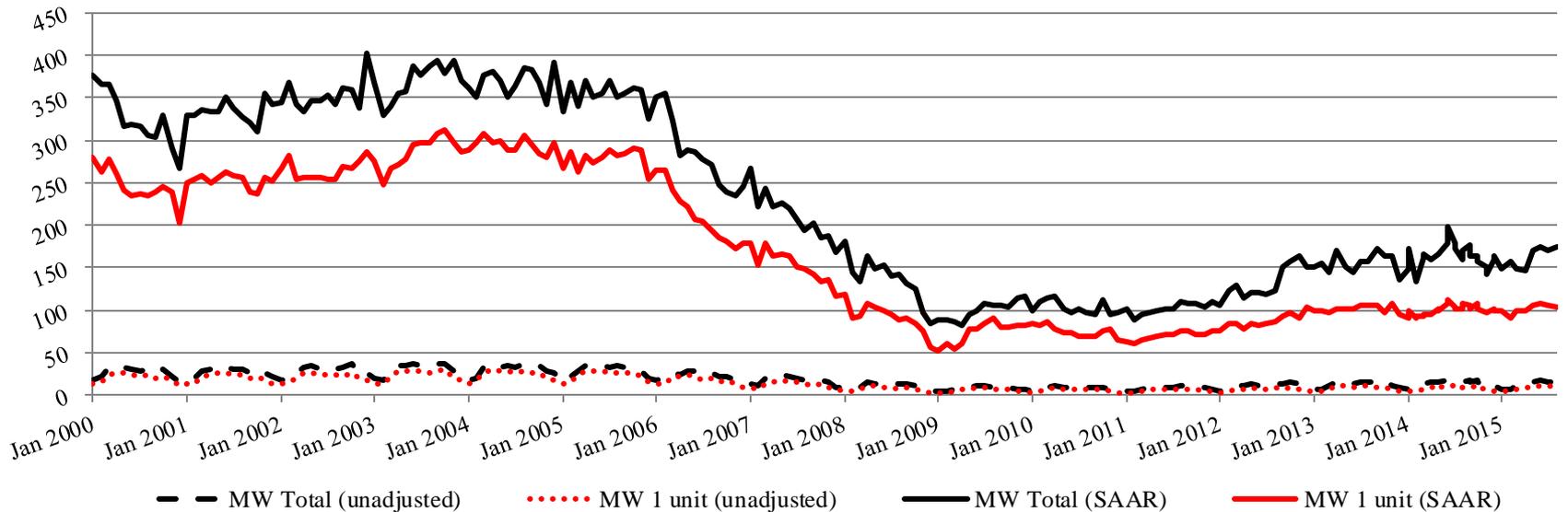
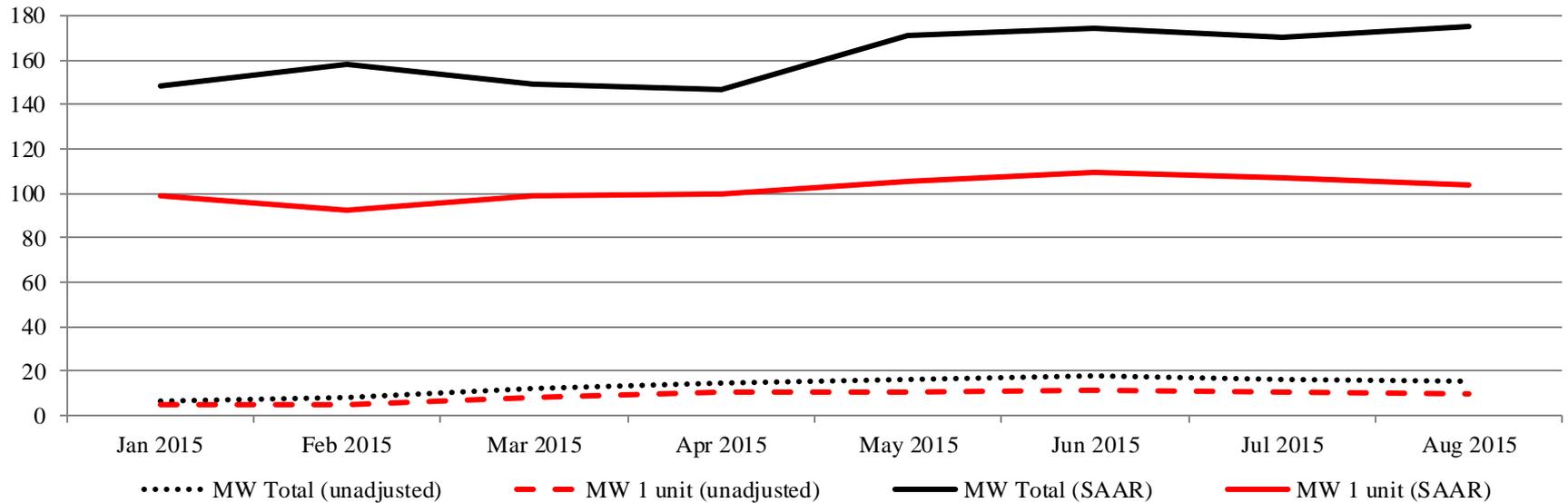


New SF Housing Permits: NE Region

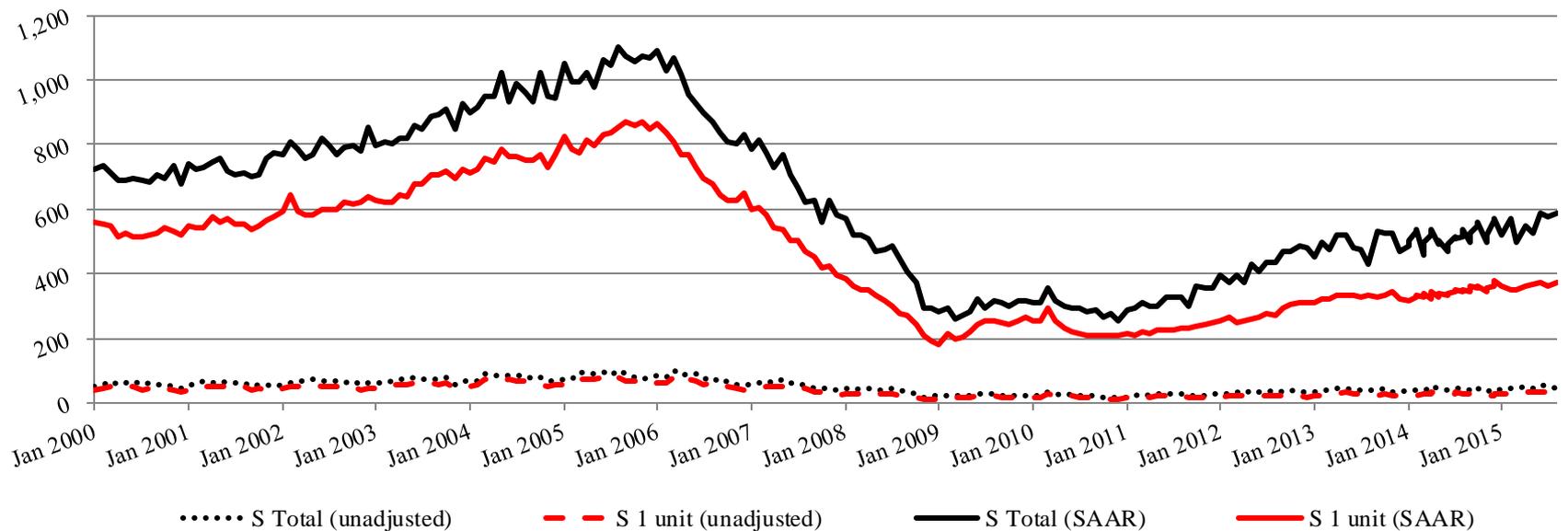
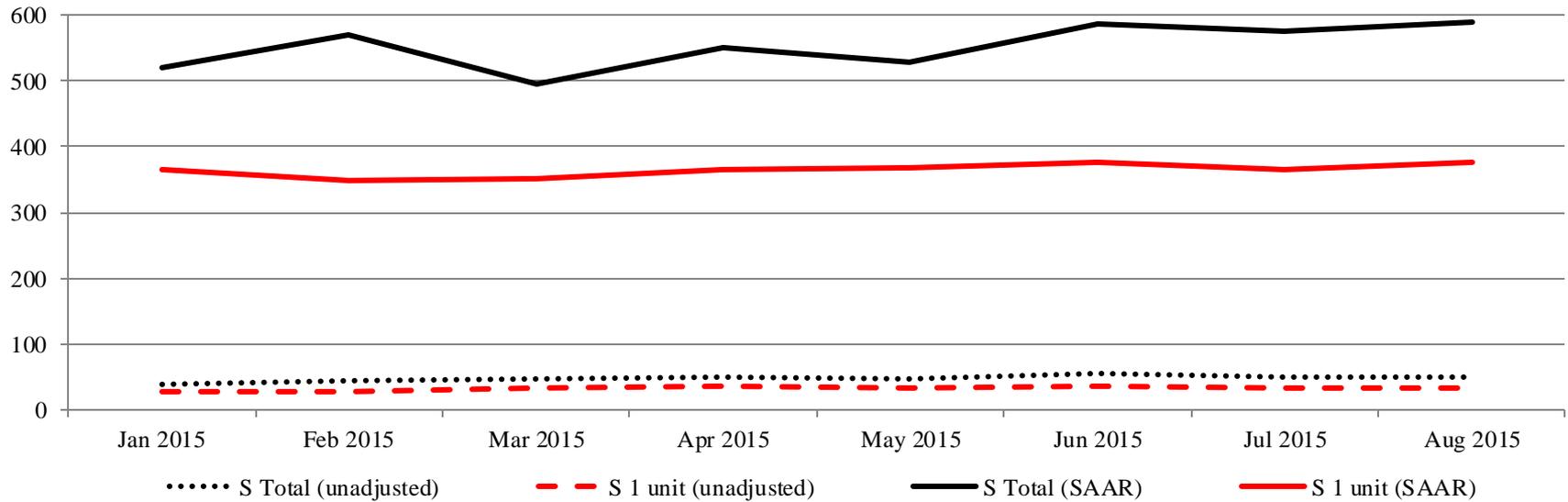


Source: U.S. Department of Commerce-Construction: www.census.gov/construction/nrc/pdf/newresconst.pdf ; 9/19/15

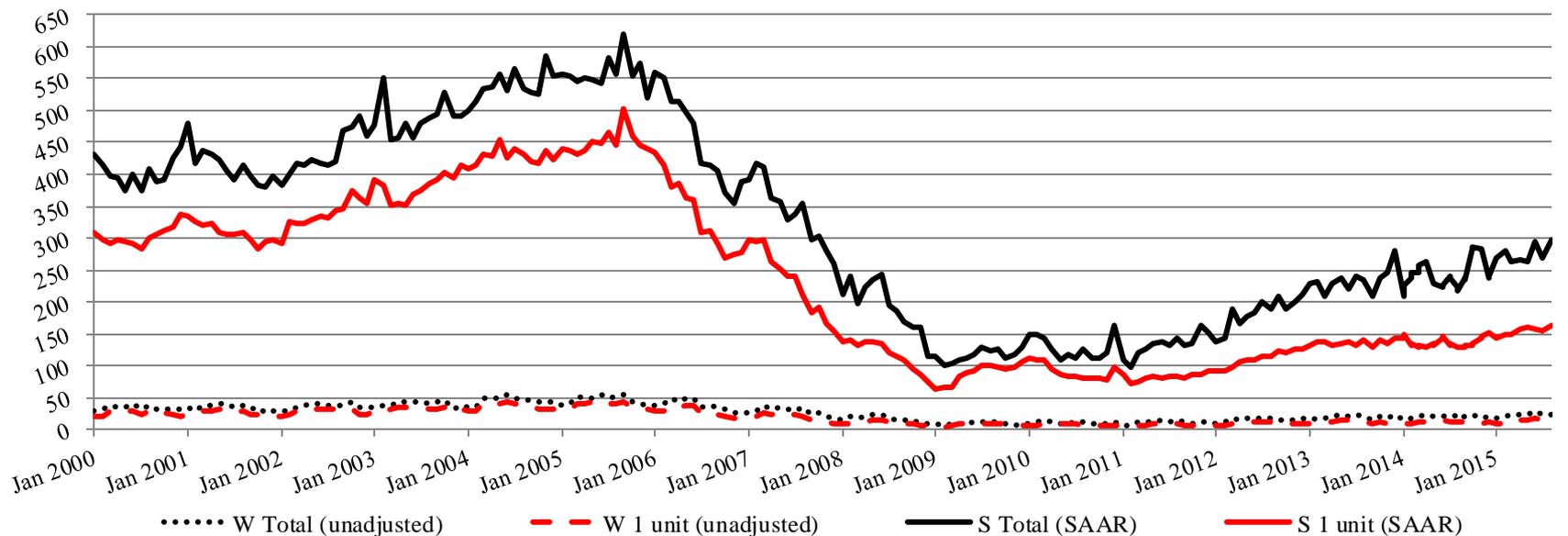
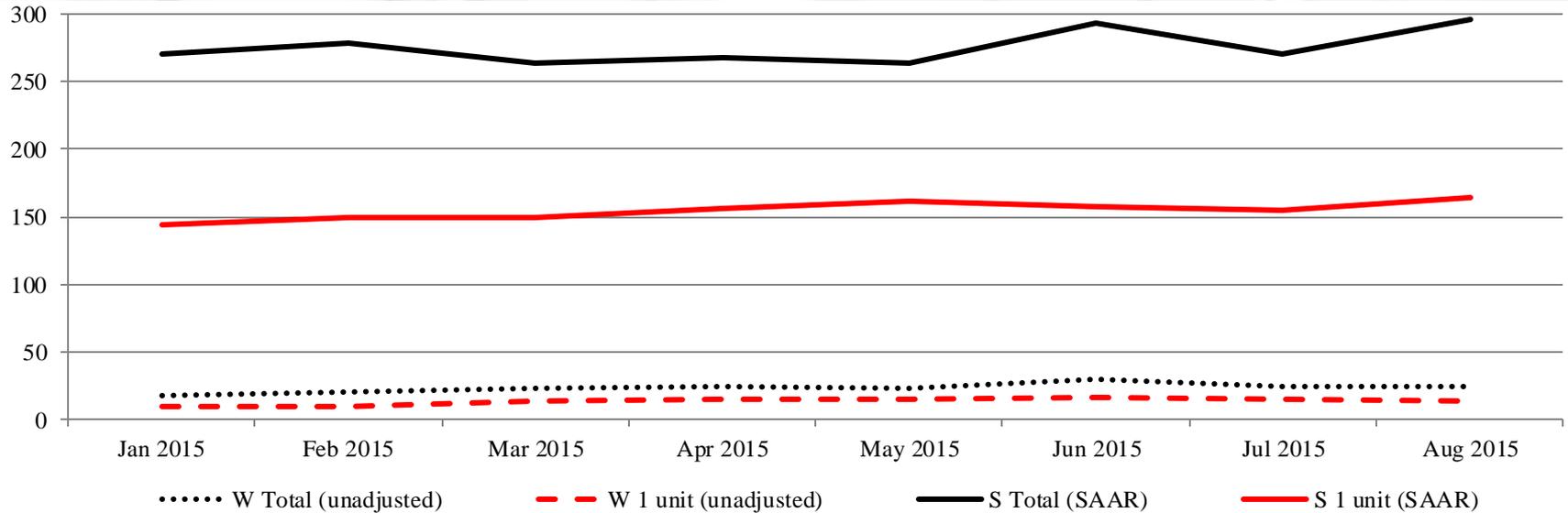
New SF Housing Permits: MW Region



New SF Housing Permits: S Region



New SF Housing Permits: W Region



New Housing Completions by Region

	NE Total	NE SF	NE MF
August	78,000	49,000	53,000
July	96,000	46,000	50,000
2014	96,000	43,000	29,000
M/M change	-18.8%	6.5%	-42.0%
Y/Y change	-18.8%	14.0%	-45.3%

	MW Total	MW SF	MW MF
August	147,000	98,000	61,000
July	172,000	102,000	70,000
2014	162,000	101,000	49,000
M/M change	-14.5%	-3.9%	-30.0%
Y/Y change	-3.9%	-3.0%	-19.7%

* All data are SAAR

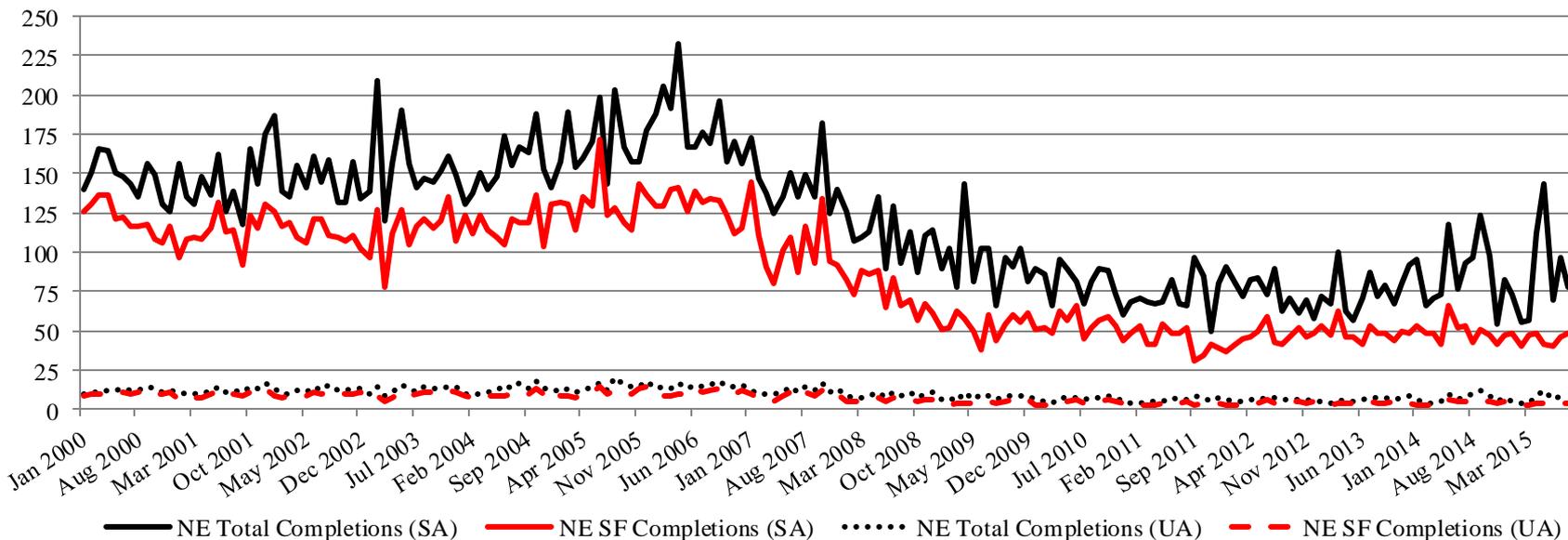
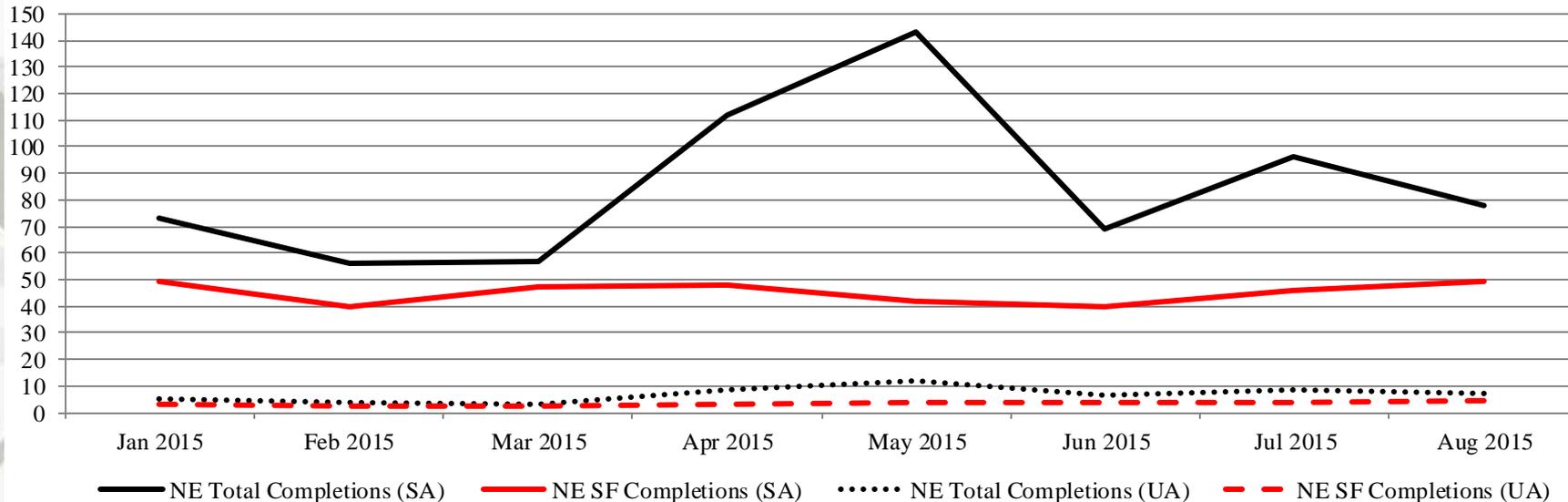
New Housing Completions by Region

	S Total	S SF	S MF
August	461,000	351,000	131,000
July	508,000	331,000	177,000
2014	449,000	318,000	110,000
M/M change	-9.3%	6.0%	-37.9%
Y/Y change	2.7%	10.4%	-16.0%

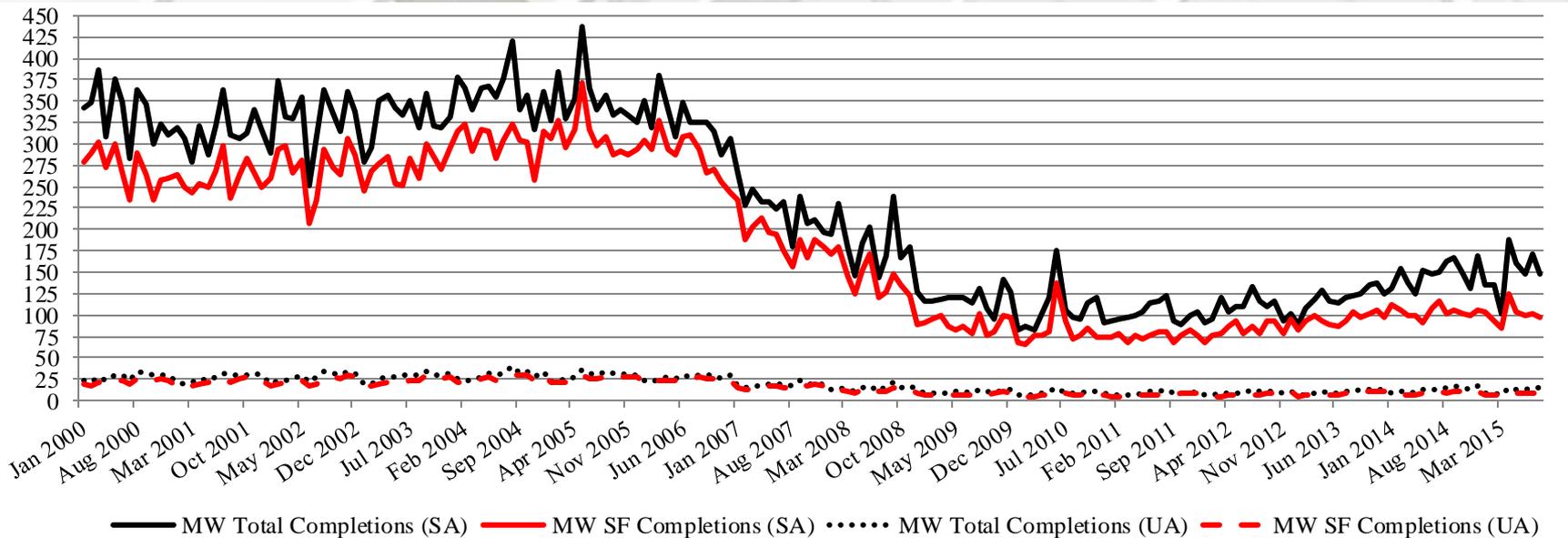
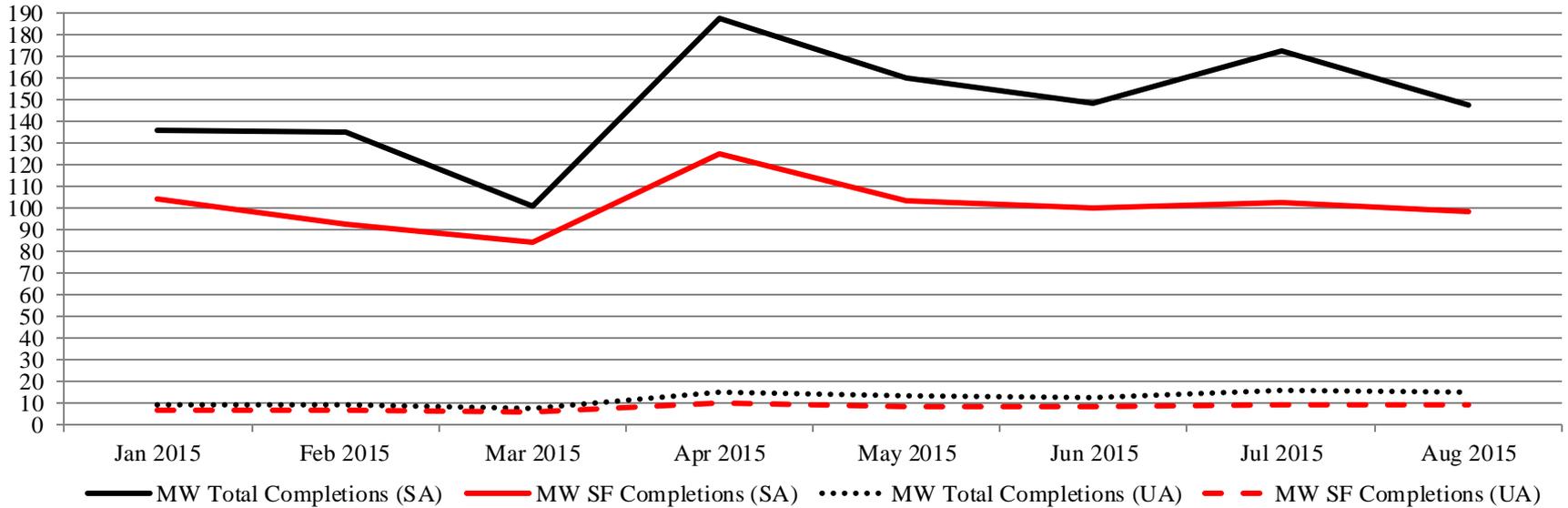
	W Total	W SF	W MF
August	249,000	148,000	47,000
July	220,000	157,000	63,000
2014	198,000	151,000	101,000
M/M change	13.2%	-5.7%	60.3%
Y/Y change	25.8%	-2.0%	114.9%

* All data are SAAR

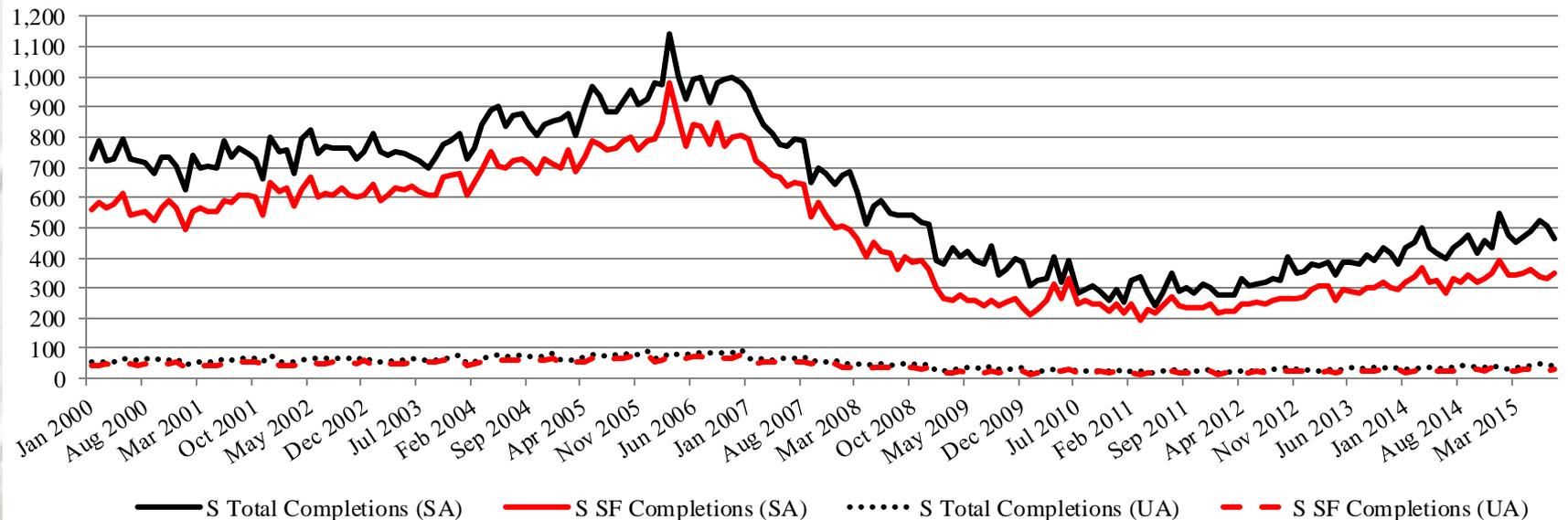
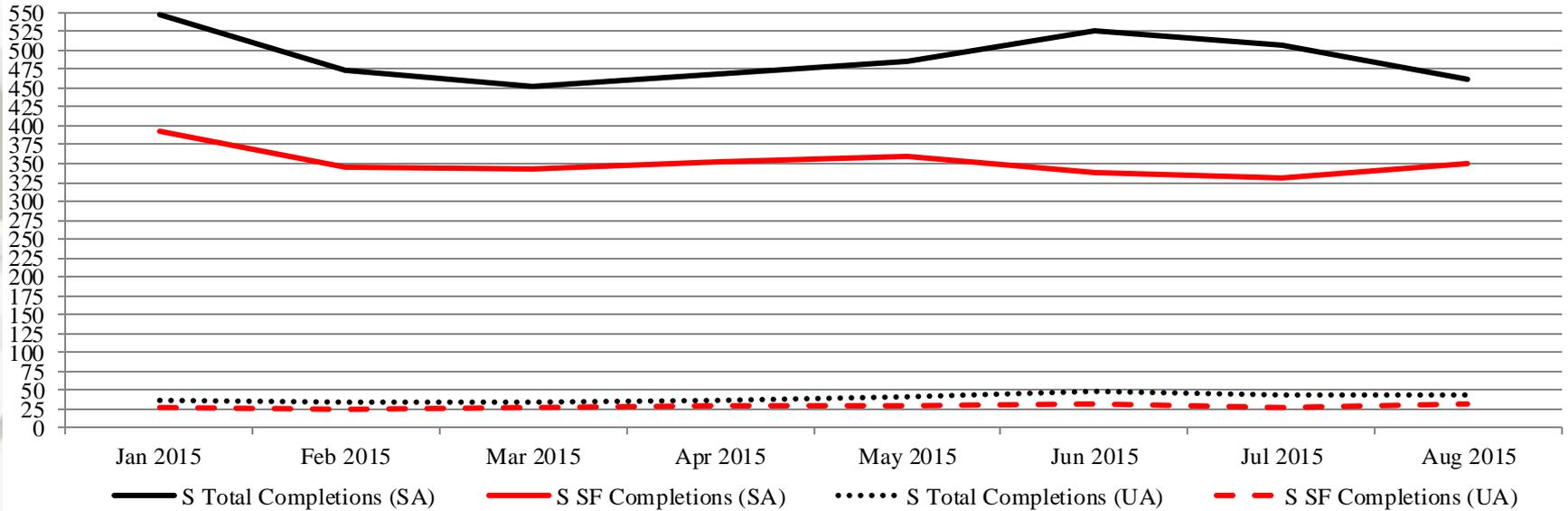
New SF Housing Completions: NE Region



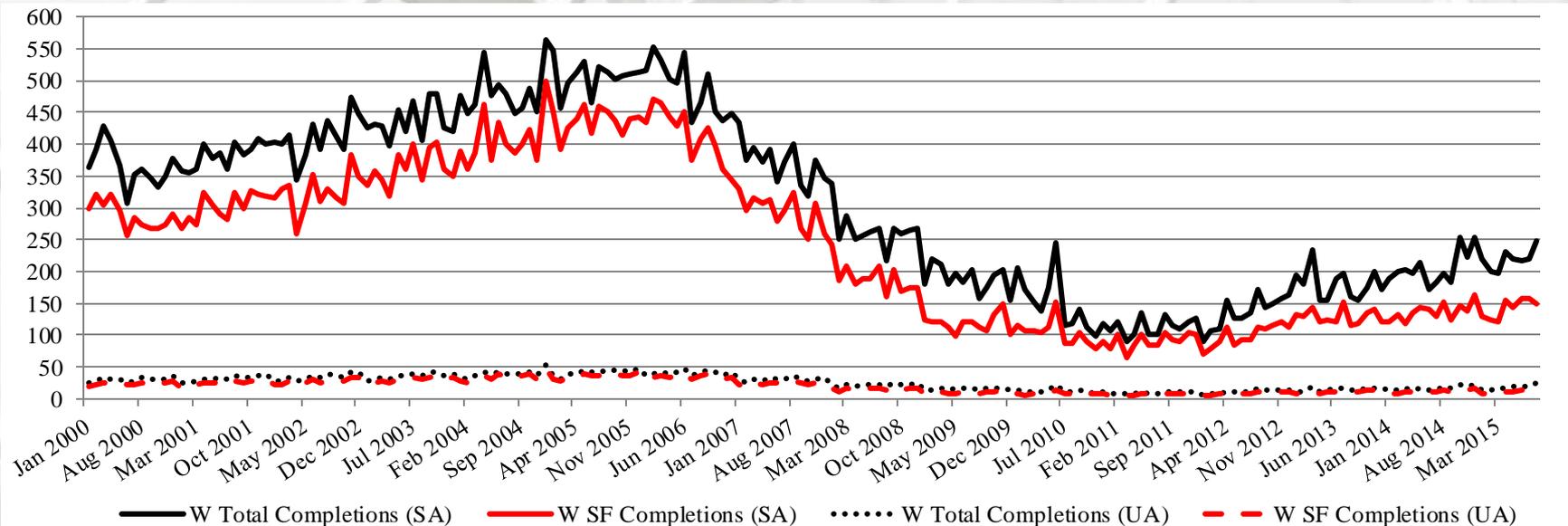
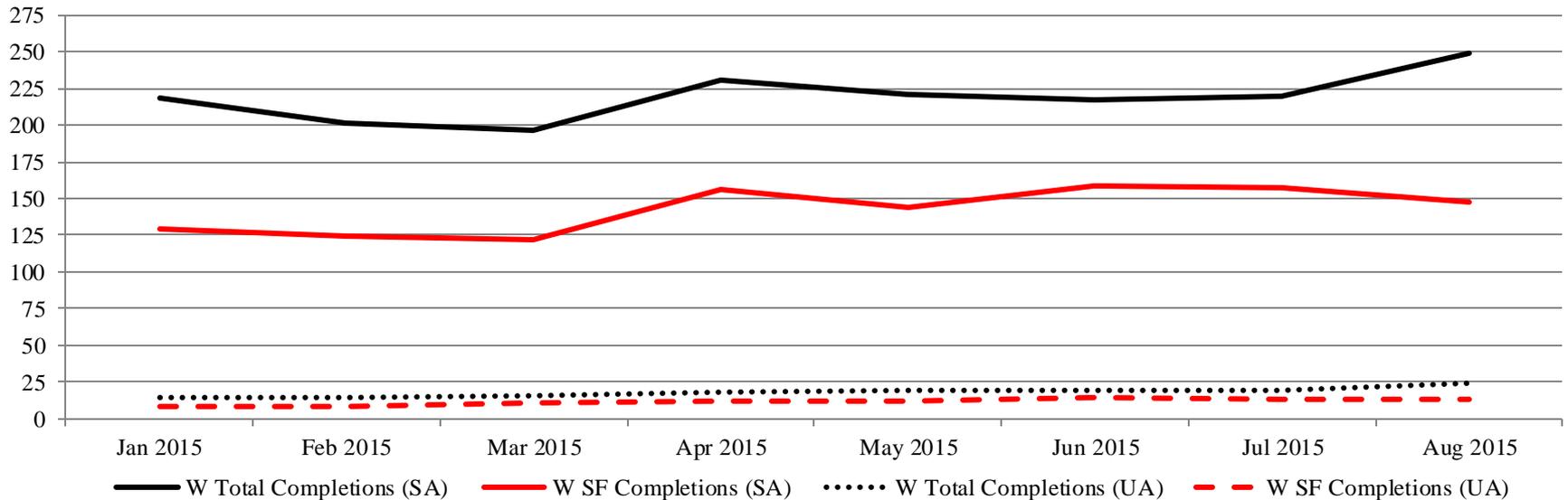
New SF Housing Completions: MW Region



New SF Housing Completions: S Region

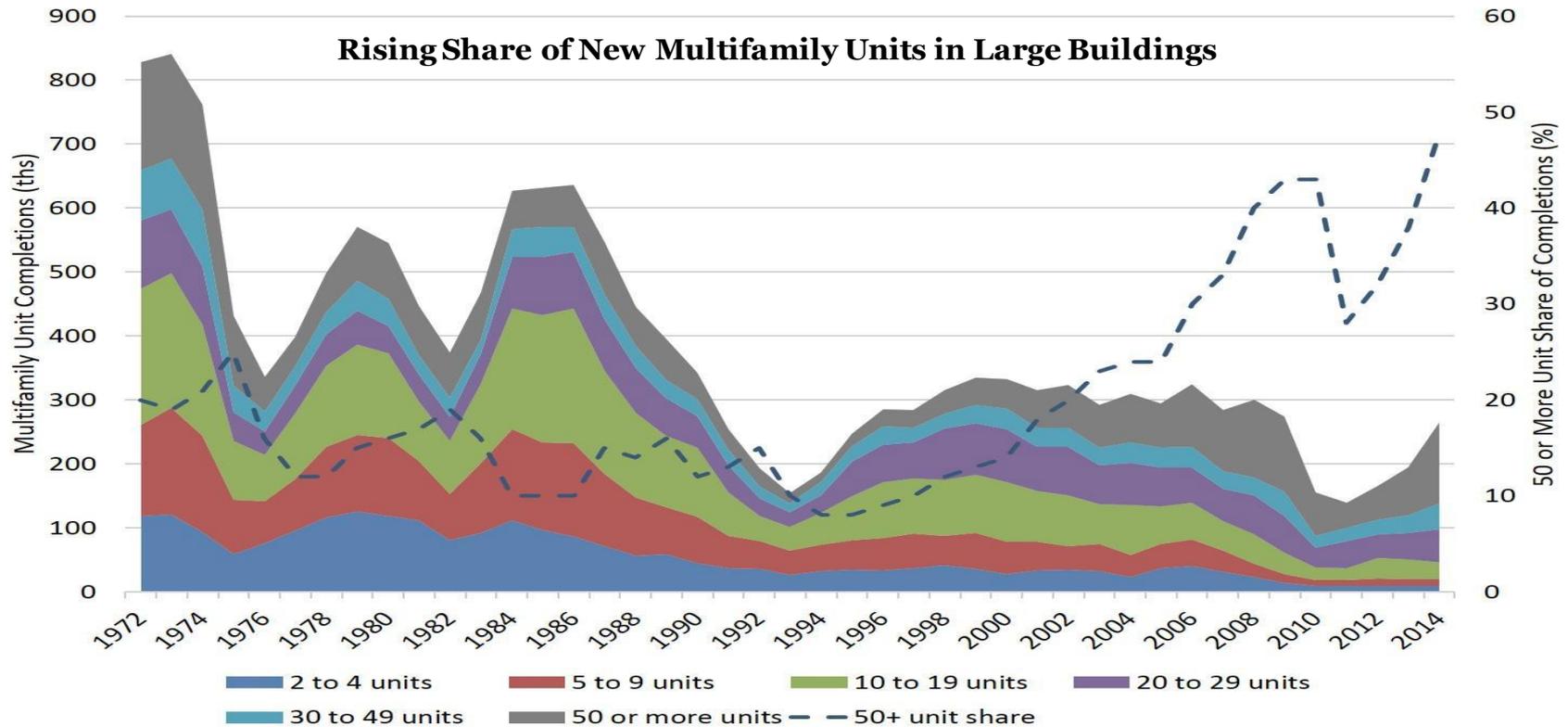


New SF Housing Completions: W Region



Multifamily

Multifamily Completions:
Distribution by Number of Units per Building



“An increasing number of newly-built multifamily units are found in larger buildings, as measured by the number of apartments per building. According to Census Bureau data of multifamily completions, the share of new multifamily units in buildings with 50 or more units reached a data series high of 48% during 2014.

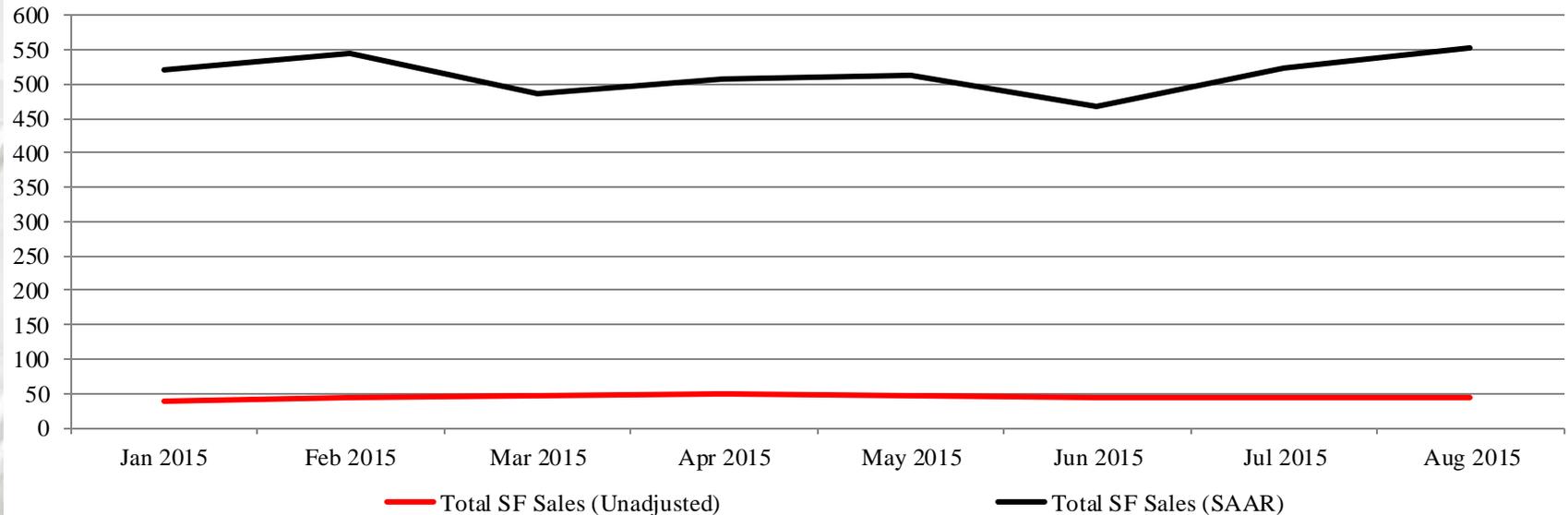
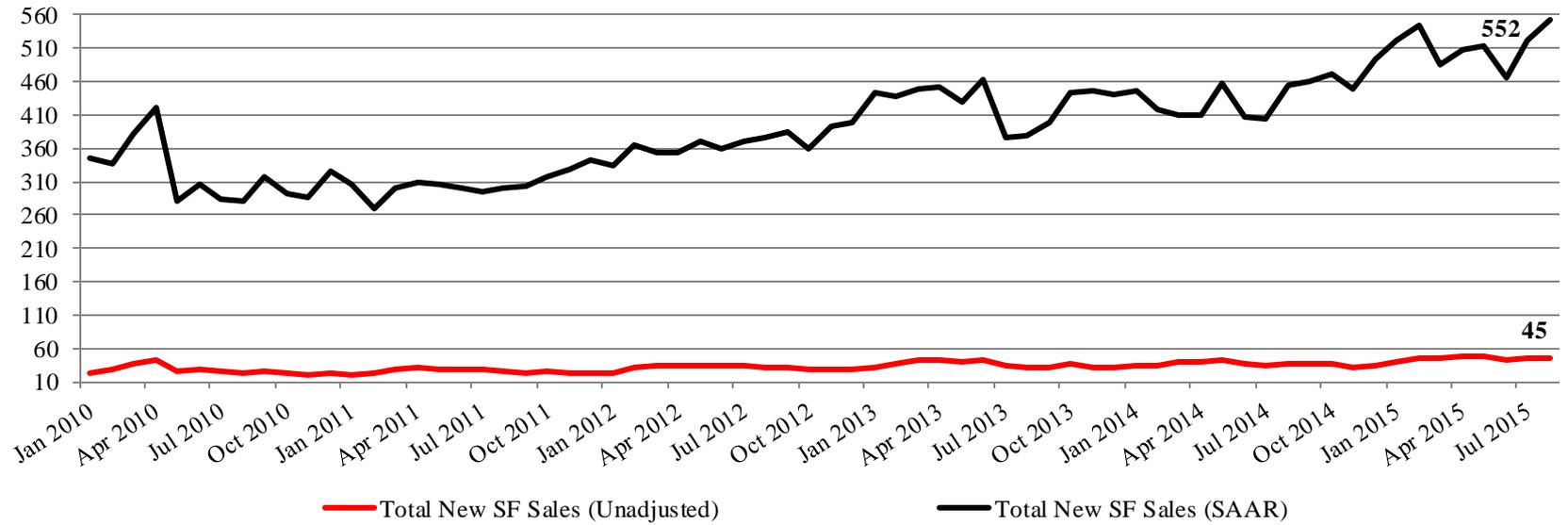
The share of new units in large buildings (50+ units or more) has been rising steadily since 1996, after reaching a data series low of 8% during 1994 and 1995, albeit with one exception. The share declined to 28% in 2011 after recording a 43% mark for 2010.” -- Robert Dietz, Ph.D., Vice-President, Tax and Market Analysis, NAHB

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
August	552,000	\$292,700	\$353,400	4.7
July	522,000	\$291,100	\$344,800	4.9
2014	454,000	\$291,700	\$356,200	5.4
M/M change	5.7%	0.5%	2.5%	-4.1%
Y/Y change	21.6%	0.3%	-0.8%	-13.0%

* All sales data are SAAR

New SF House Sales



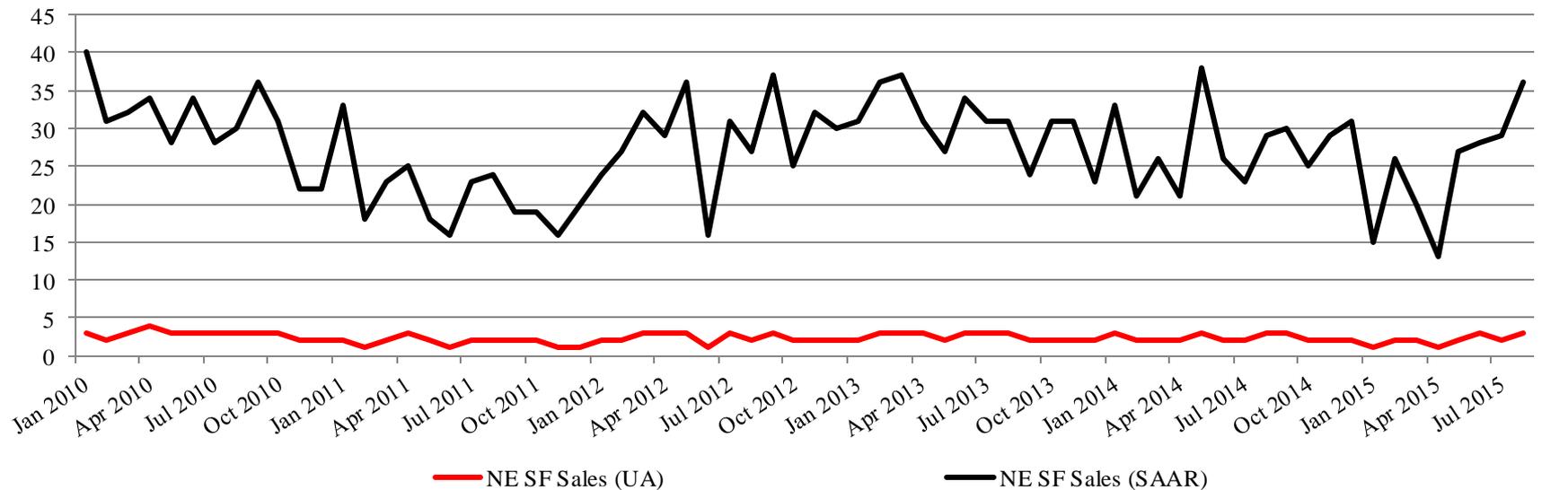
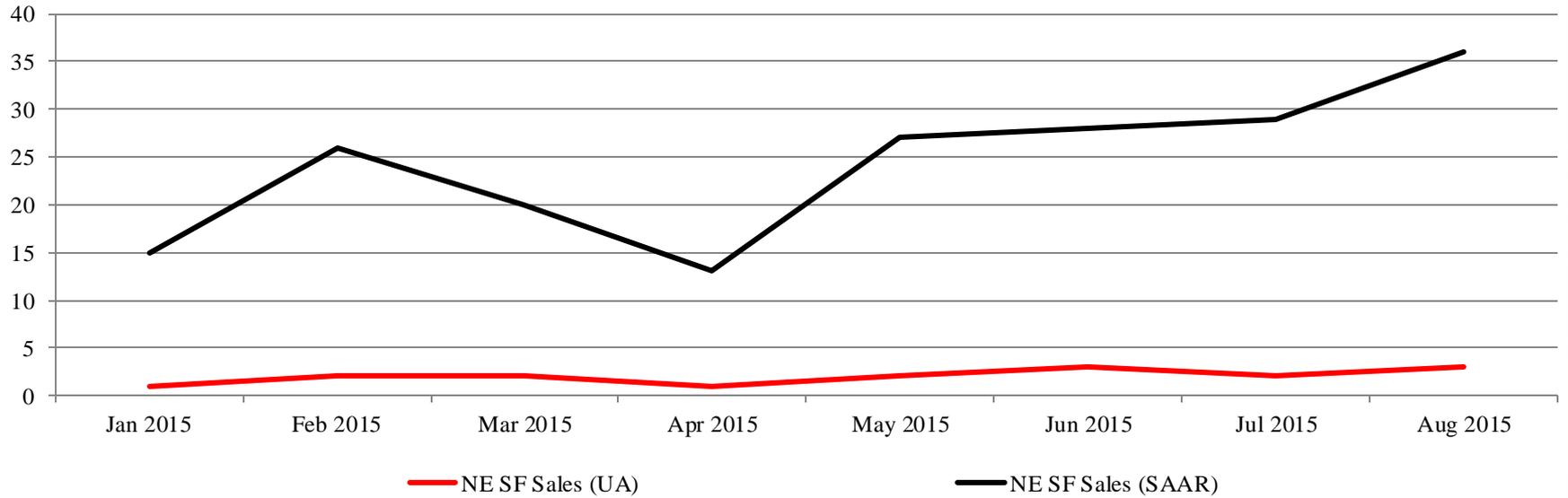
New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales	Total SF Sales
August	36,000	60,000	319,000	137,000	552,000
July	29,000	66,000	297,000	130,000	522,000
2014	29,000	52,000	250,000	123,000	454,000
M/M change	24.1%	-9.1%	7.4%	5.4%	5.7%
Y/Y change	24.1%	15.4%	27.6%	11.4%	21.6%

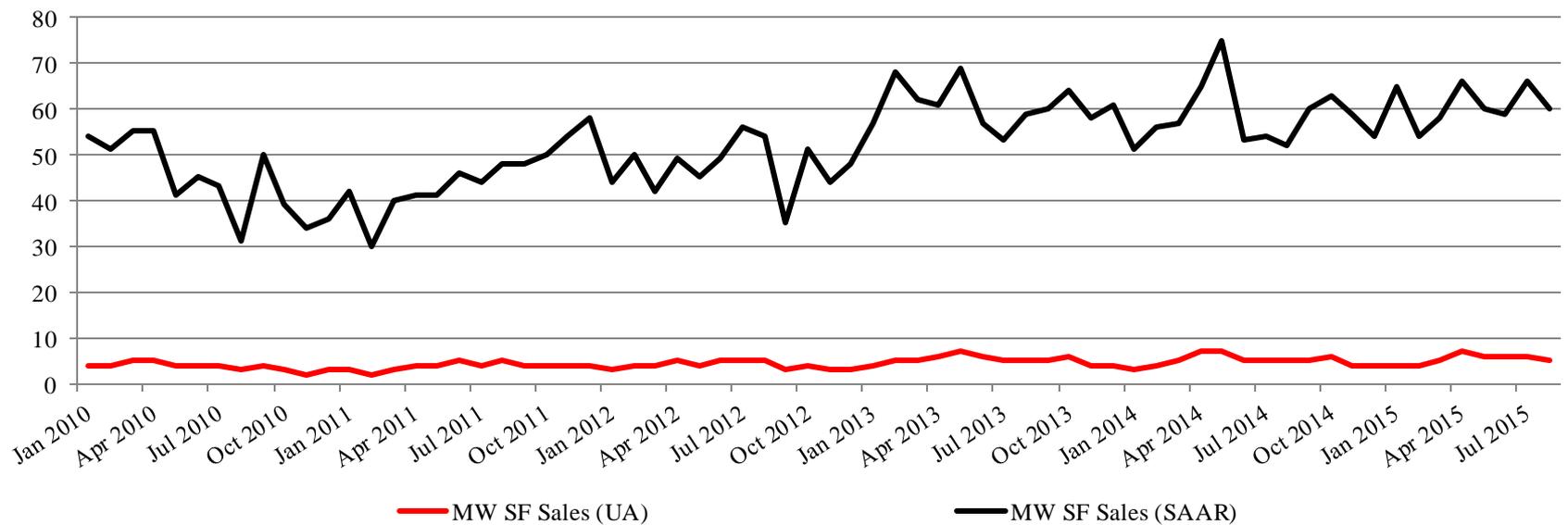
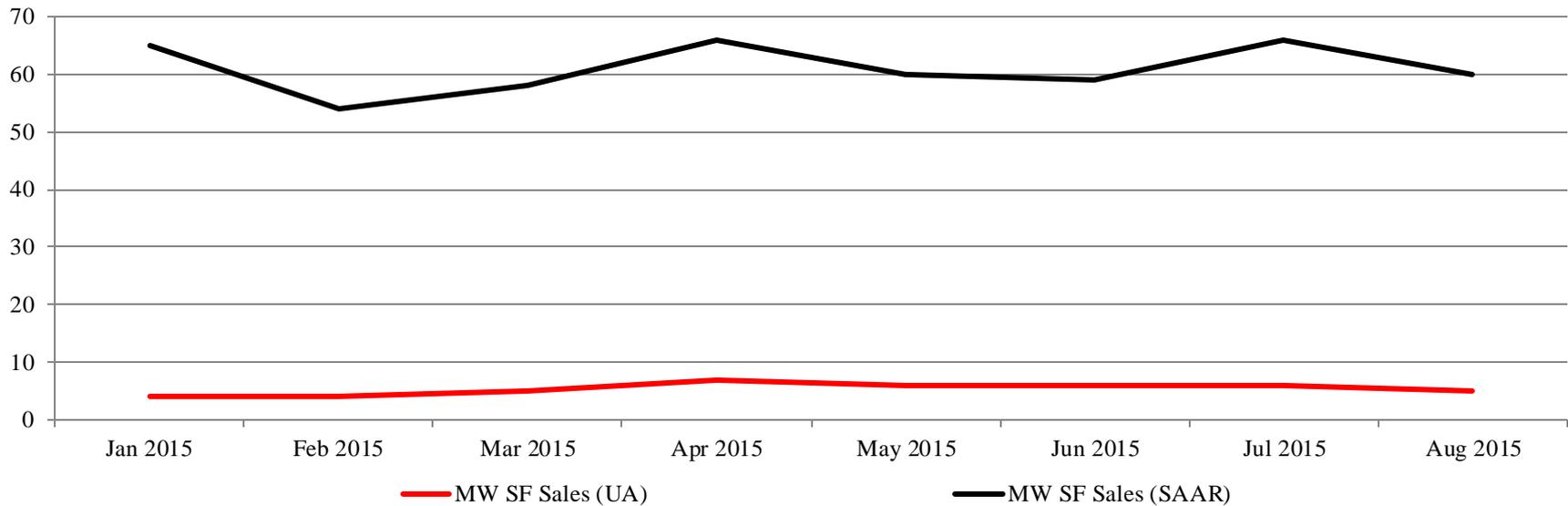
	< \$150m	\$150- \$199.9m	\$200- 299.9m	\$300- \$399.9m	\$400- \$499.9m	\$500- \$749.9m	> \$750m	Total ^{1,2}
August	3,000	7,000	13,000	10,000	5,000	5,000	2,000	45,000
July	2,000	7,000	14,000	10,000	5,000	4,000	2,000	44,000
2014	2,000	5,000	12,000	7,000	5,000	3,000	2,000	36,000
M/M change	50.0%	--	-7.1%	--	--	25.0%	--	2.3%
Y/Y change	--	40.0%	8.3%	42.9%	--	66.7%	--	25.0%

* All data are SAAR; ¹-Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported; ²-Detail may not add to total because of rounding.

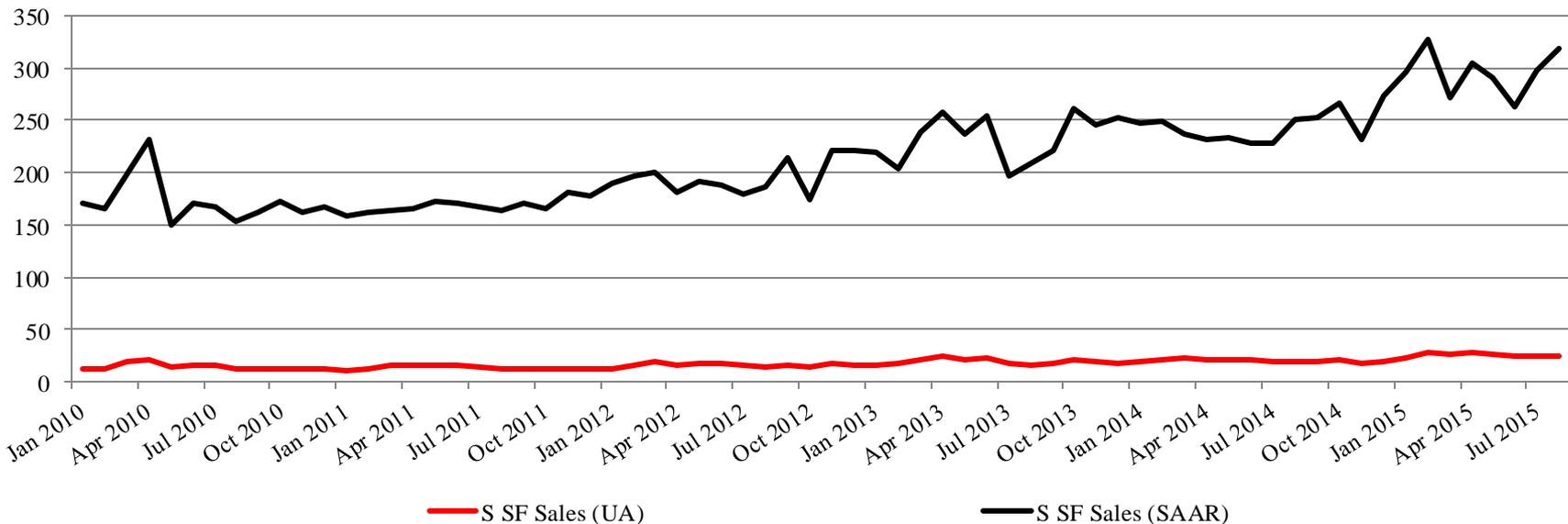
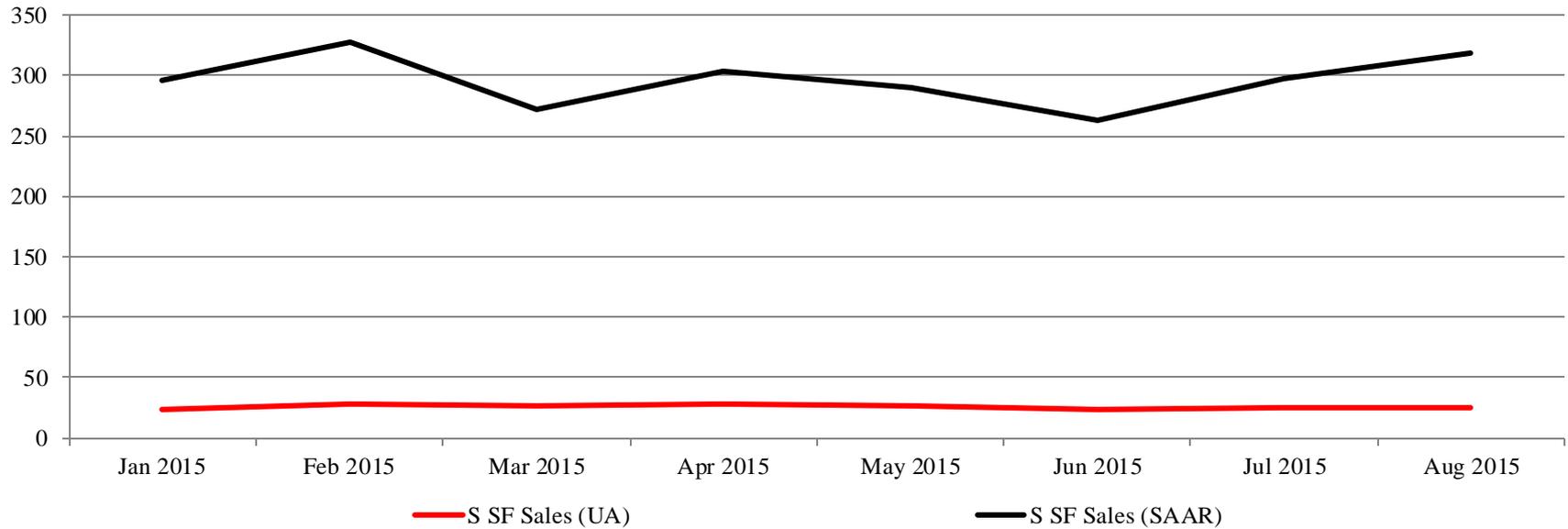
New SF House Sales: NE Region



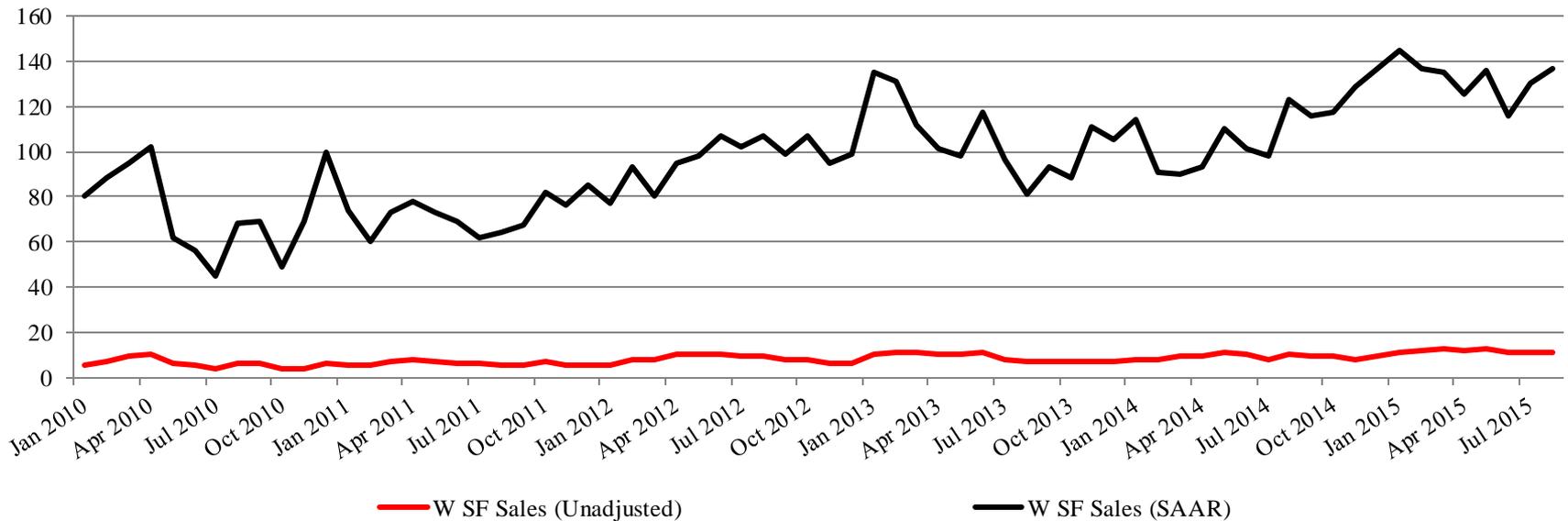
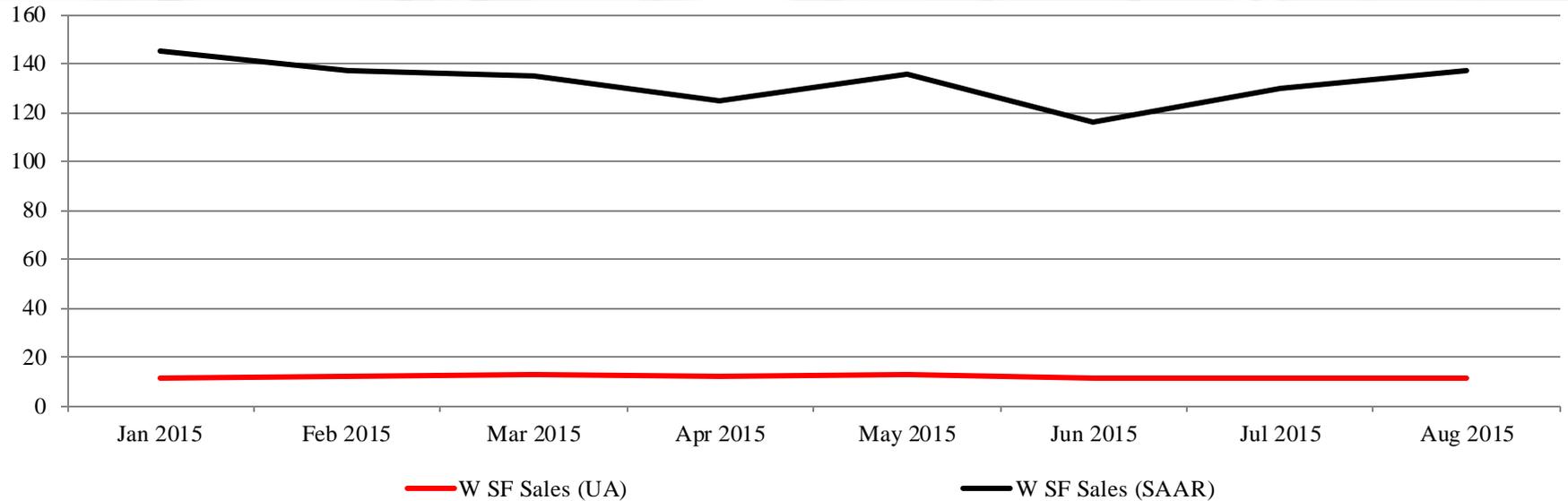
New SF House Sales: MW Region



New SF House Sales: S Region

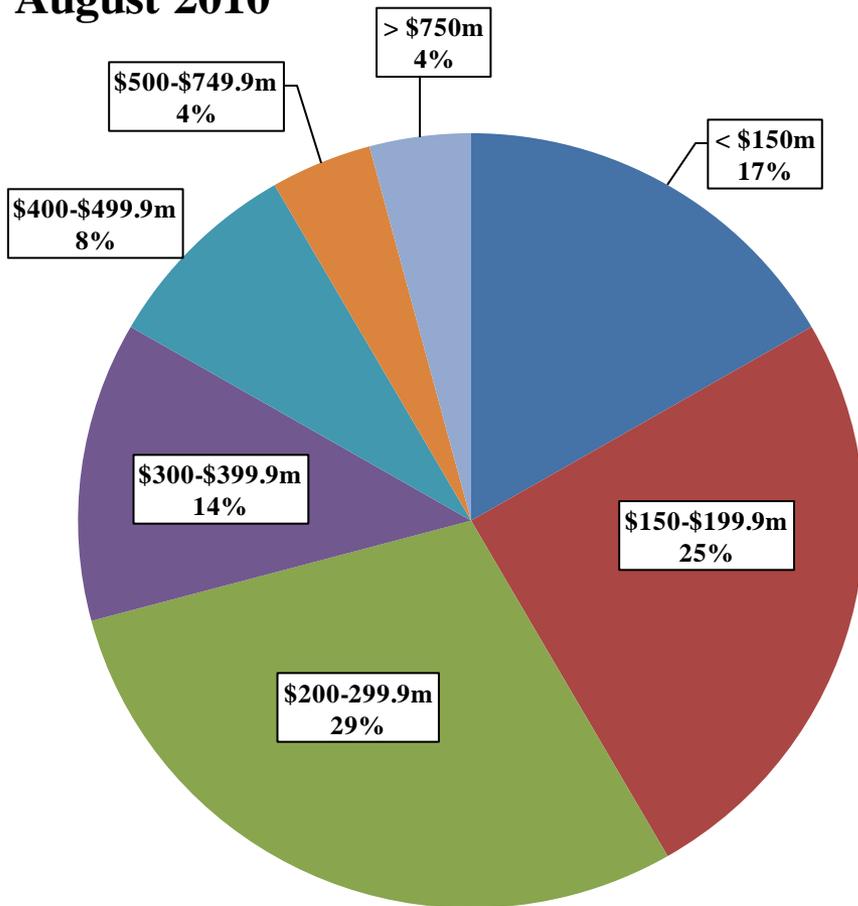


New SF House Sales: W Region

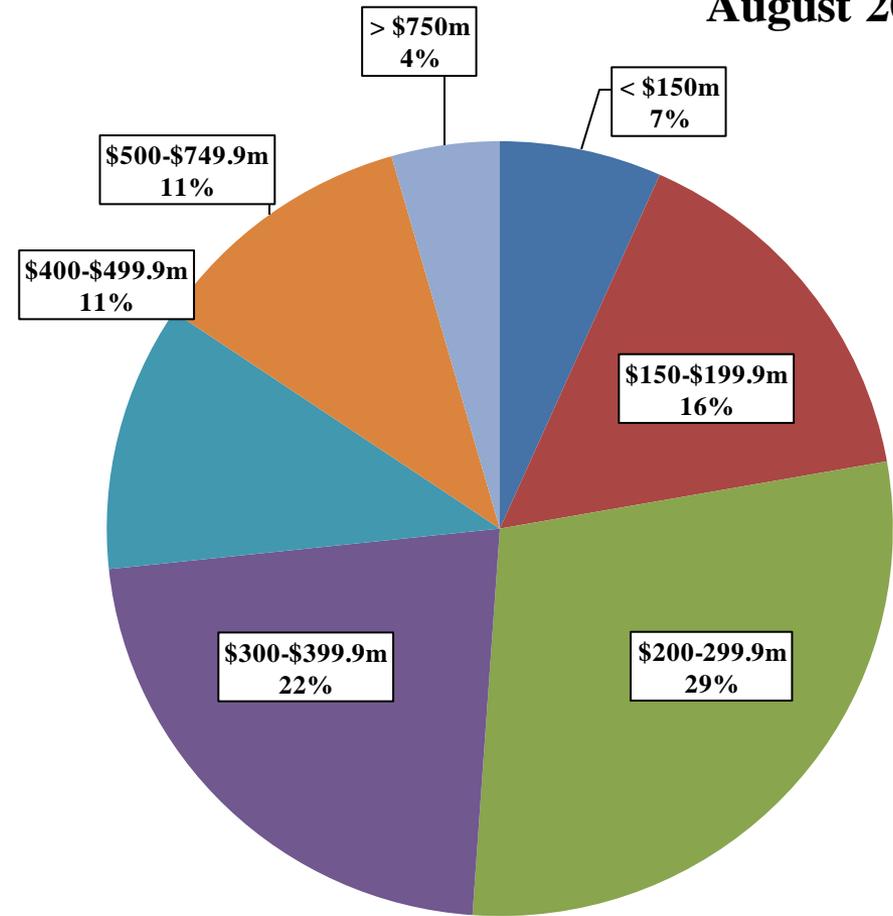


New SF House Sales: 2010 vs. 2015

August 2010

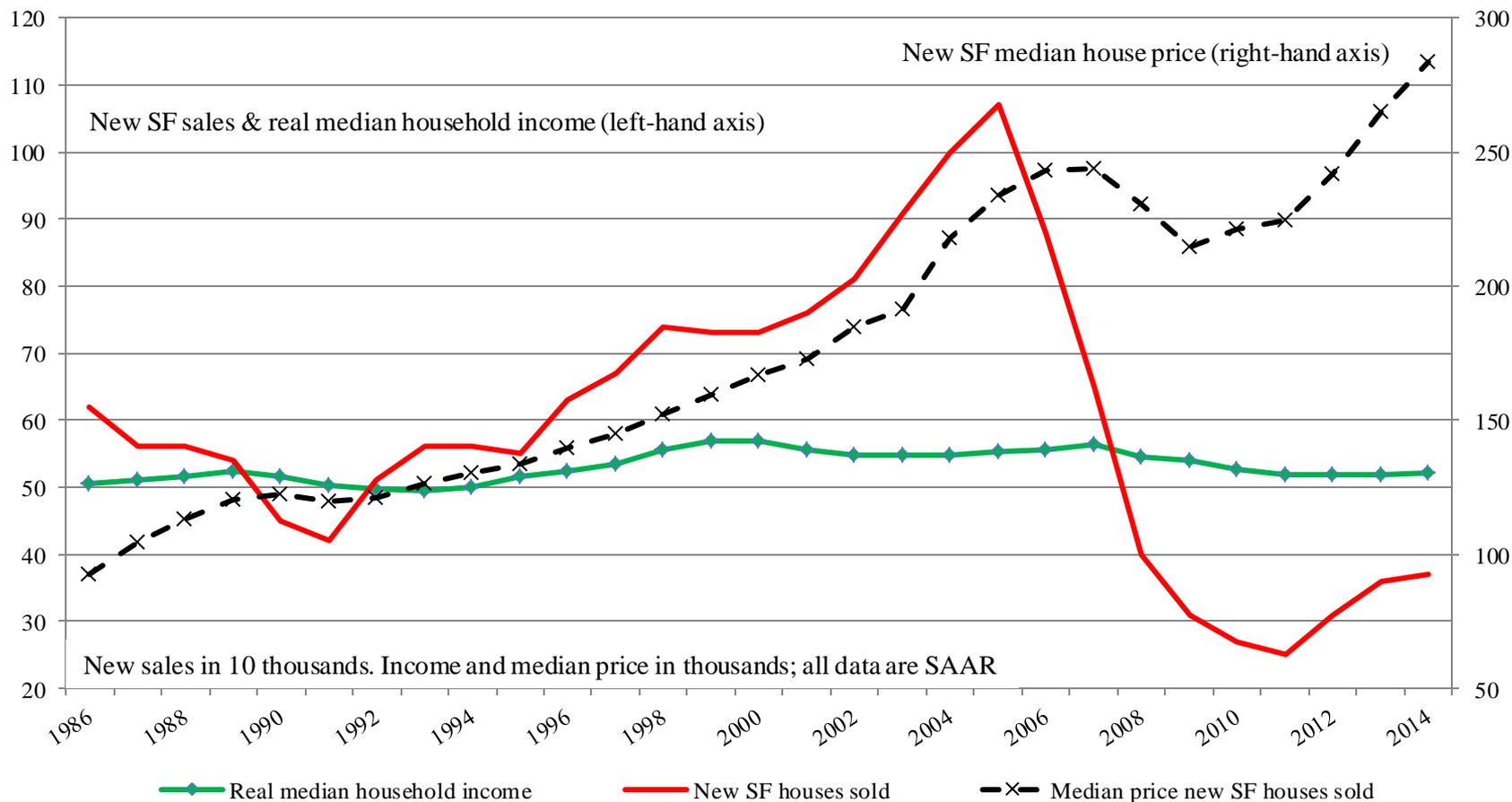


August 2015



Note the change in percentages – with higher priced houses gaining share

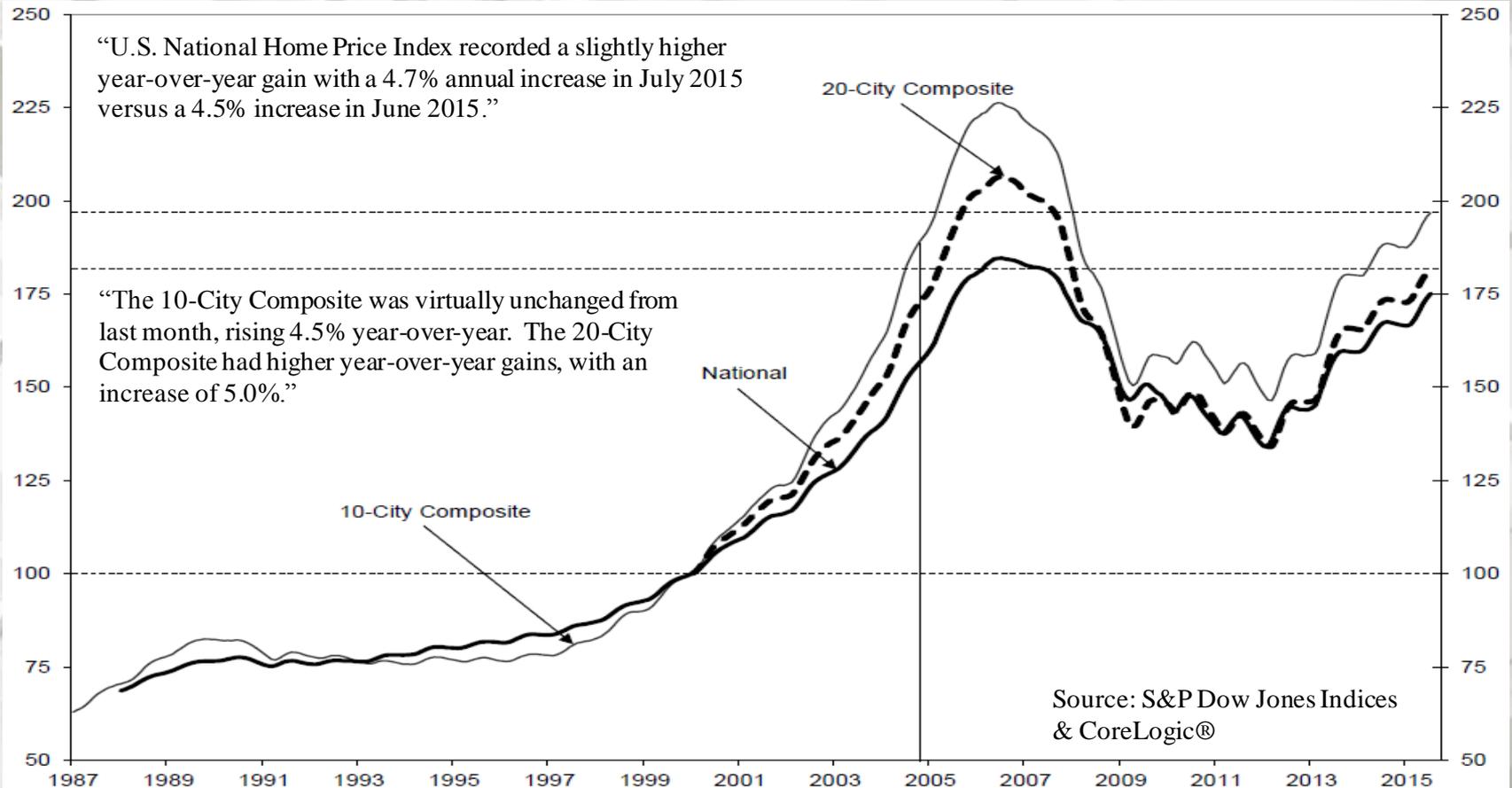
New SF House Sales & Real Median Income



Housing square footage has increased; thus, median prices have increased too. Several analysts have suggested that increased house size, combined with lackluster real median income growth, are two factors for the tepid new house sales market. Other factors include limited lot availability and new inventory, and labor shortages.

Sources: U.S. Census Bureau; Bureau of Economic Analysis; Federal Reserve Bank of St. Louis; all 8/24/15

Case-Shiller Home Price Index



“Prices of existing homes and housing overall are seeing strong growth and contributing to recent solid growth for the economy. The S&P/Case Shiller National Home Price Index has risen at a 4% or higher annual rate since September 2012, well ahead of inflation. Most of the strength is focused on states west of the Mississippi.” -- David Blitzer, Chairman of the Index Committee, S&P Dow Jones Indices

August 2015 Construction Spending

August 2015 Private Construction: \$383.2 billion (SAAR)

1.3% more than the revised July estimate of \$378.5 billion (SAAR)

16.1% greater than the August 2014 estimate of \$330.1 billion (SAAR)

August SF construction: \$218.8 billion (SAAR)

0.7% more than July: \$217.3 billion (SAAR)

14.0% greater than August 2014: \$191.9 billion (SAAR)

August MF construction: \$53.4 billion (SAAR)

4.8% more than July: \$51.0 billion (SAAR)

24.7% greater than August 2014: \$42.9 billion (SAAR)

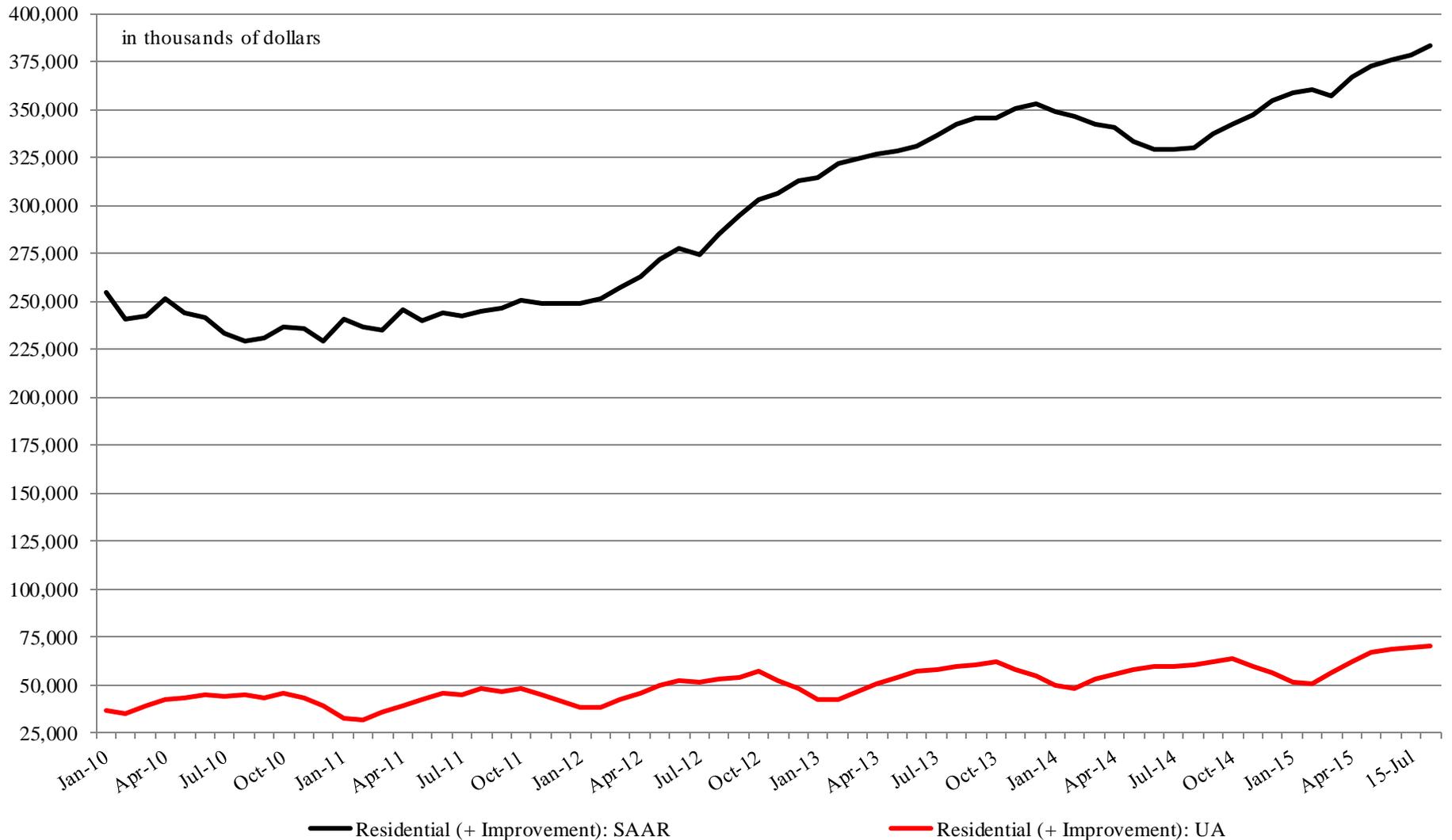
August Improvement^C construction: \$110.9 billion (SAAR)

0.7% more than July: \$110.2 billion (SAAR)

16.5% greater than August 2014: \$95.2 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\$.

August 2015 Private Construction Spending

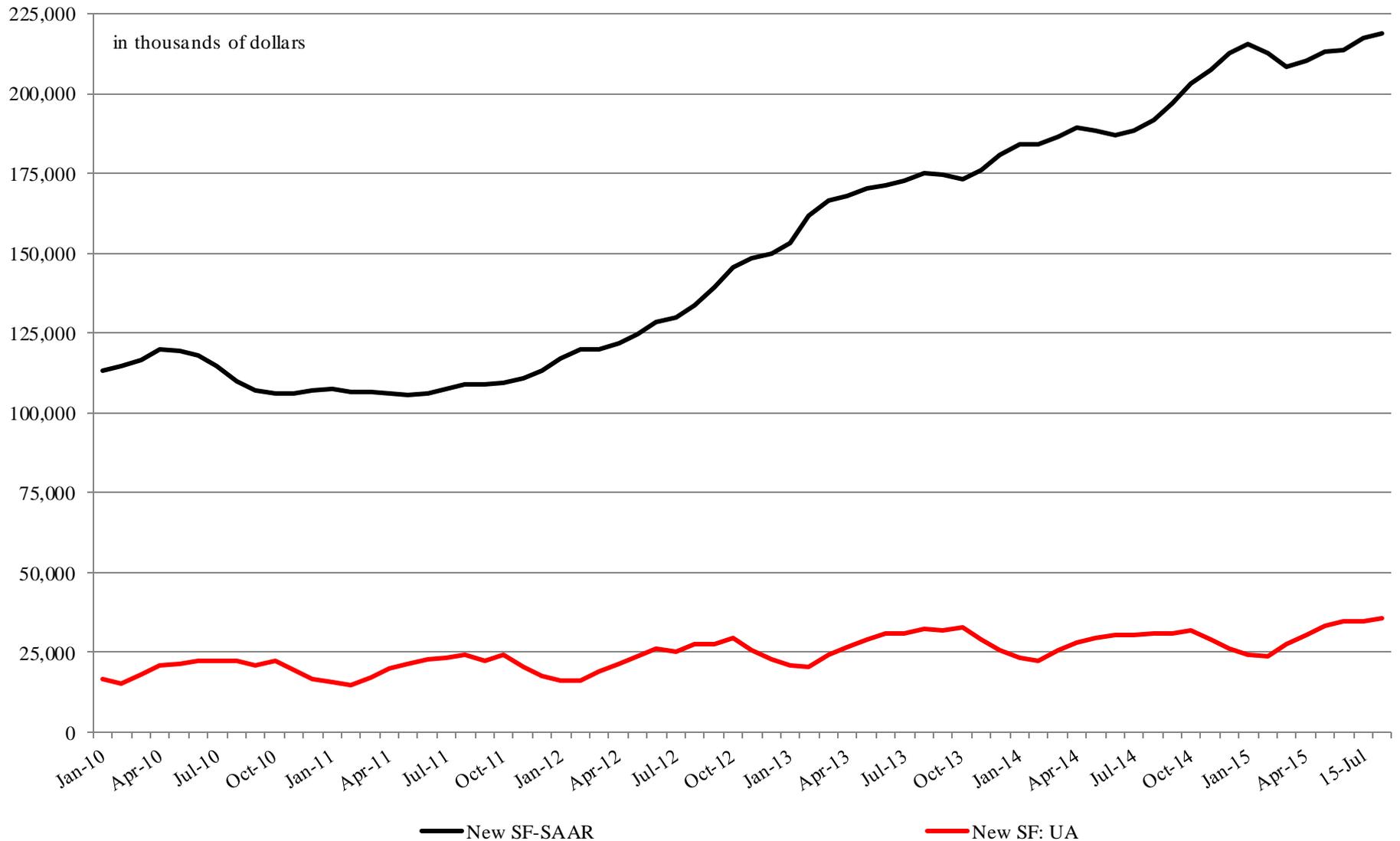


All data are SAARs and reported in nominal US\$.

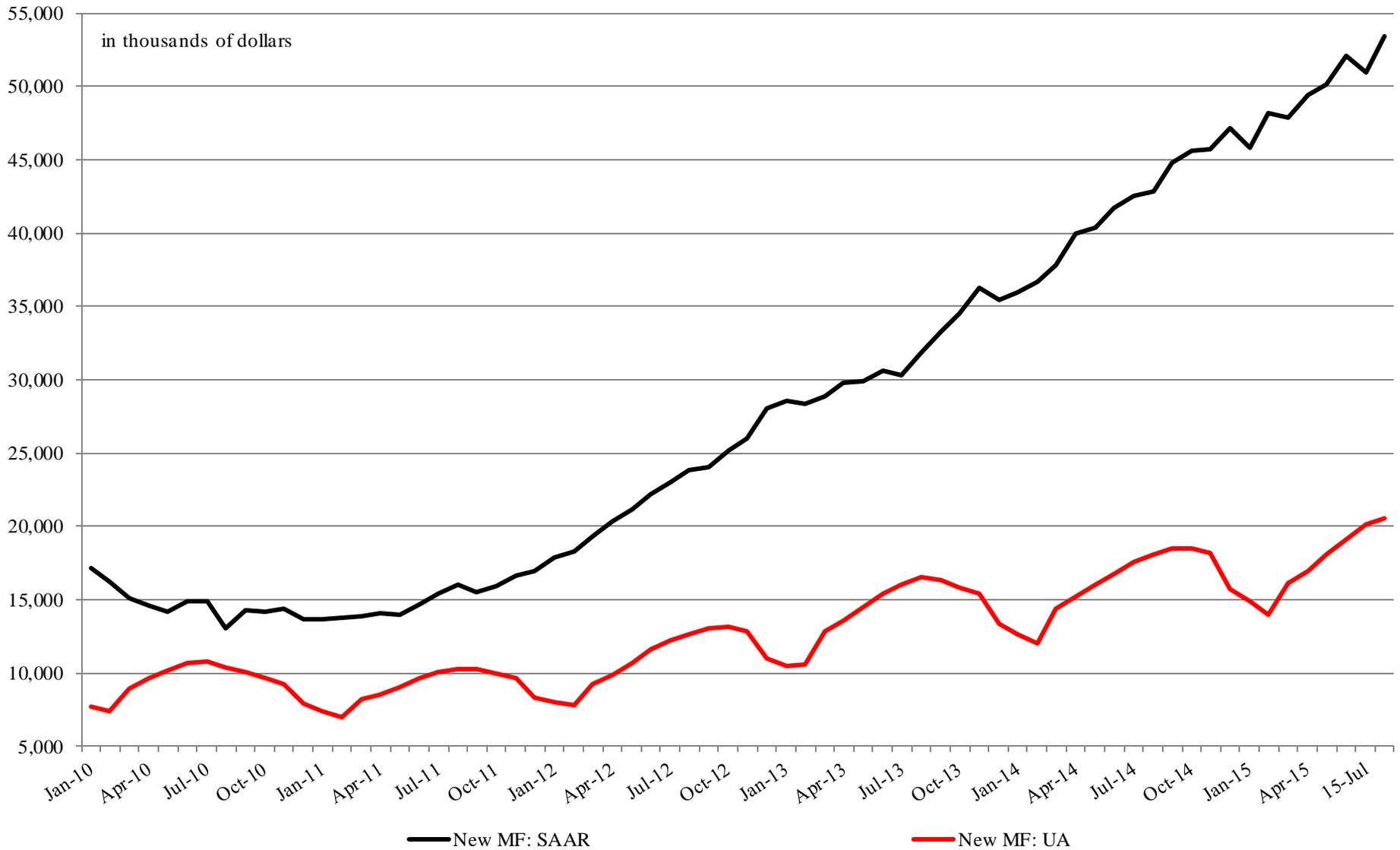
Source: U.S. Department of Commerce-C30 Construction: www.census.gov/construction/c30/pdf/privsa.pdf; 10/1/15

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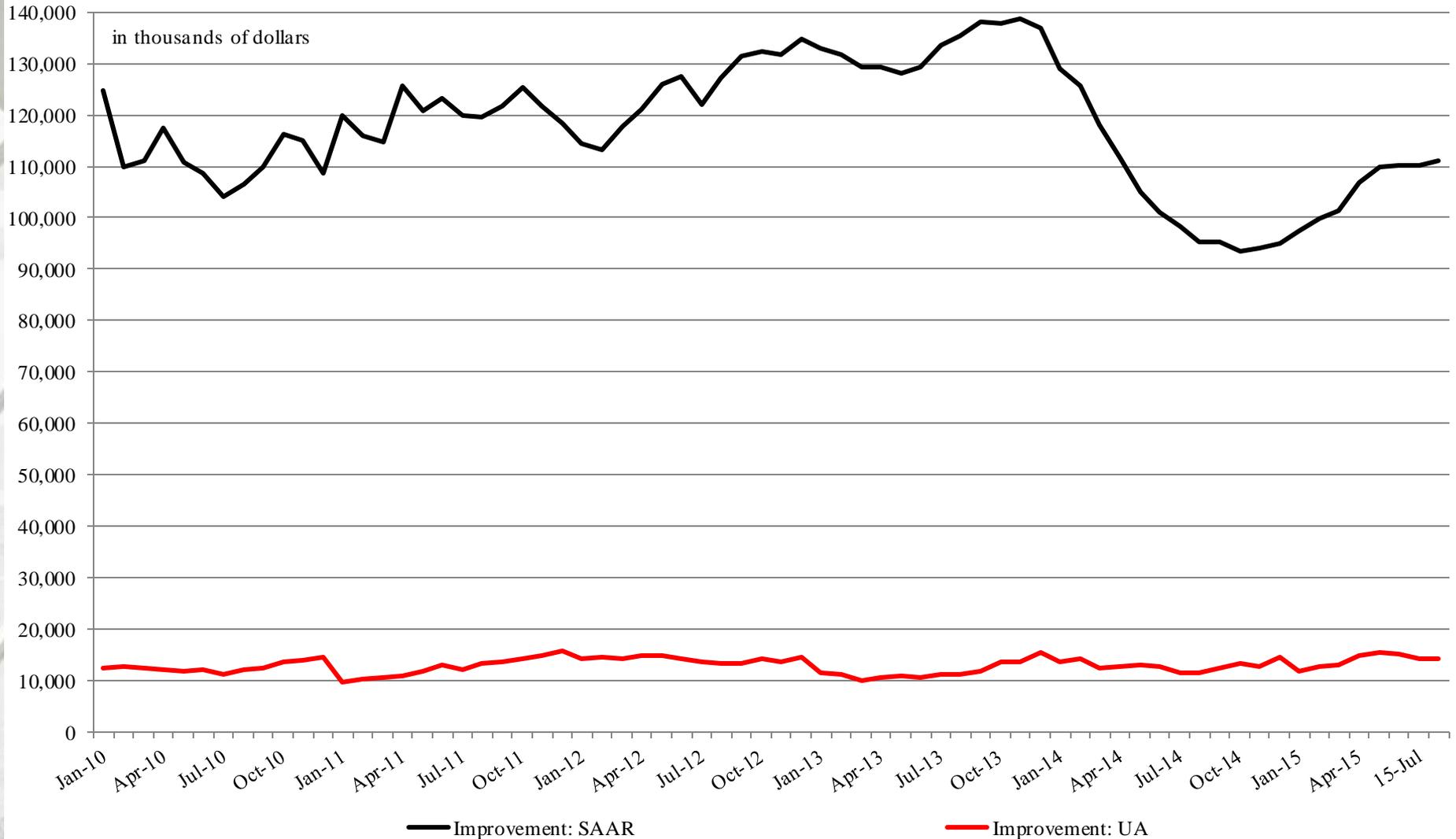
August 2015 SF Construction Spending



August 2015 MF Construction Spending



August 2015 Improvement Spending



The US DOC does not report improvement spending directly, this is an estimation. SAAR and reported in nominal US\$.

Existing House Sales

	Existing Sales	Median Price	Month's Supply
August	5,310,000	\$228,700	5.2
July	5,580,000	\$231,800	4.9
2014	5,000,000	\$218,400	5.6
M/M change	-4.8%	-1.3%	6.1%
Y/Y change	6.2%	4.7%	-7.1%

	NE Sales	MW Sales	S Sales	W Sales
August	700,000	1,280,000	2,140,000	1,190,000
July	700,000	1,300,000	2,290,000	1,290,000
2014	660,000	1,210,000	2,020,000	1,110,000
M/M change	--	-1.5%	-6.6%	-7.8%
Y/Y change	6.2%	5.8%	5.9%	7.2%

* All sales data are SAAR

Existing House Sales

National Association of Realtors (NAR®)

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

Distressed house sales: 7% of sales –
(5% foreclosures and 2% short-sales);

7% in July and 8% in August 2014.

All-cash sales: decreased to 22%; 23% in August 2014.

Individual investors still purchase a considerable portion of
“all cash” sale houses – 12% in August 2015,
13% in July 2015 and 12% in August 2014.

60% of investors paid cash in August.

First-Time Buyer Estimates

National Association of Realtors®: 32% in August; 28% in July 2015 and 29% in August 2014.

AEI's International Center on Housing Risk:

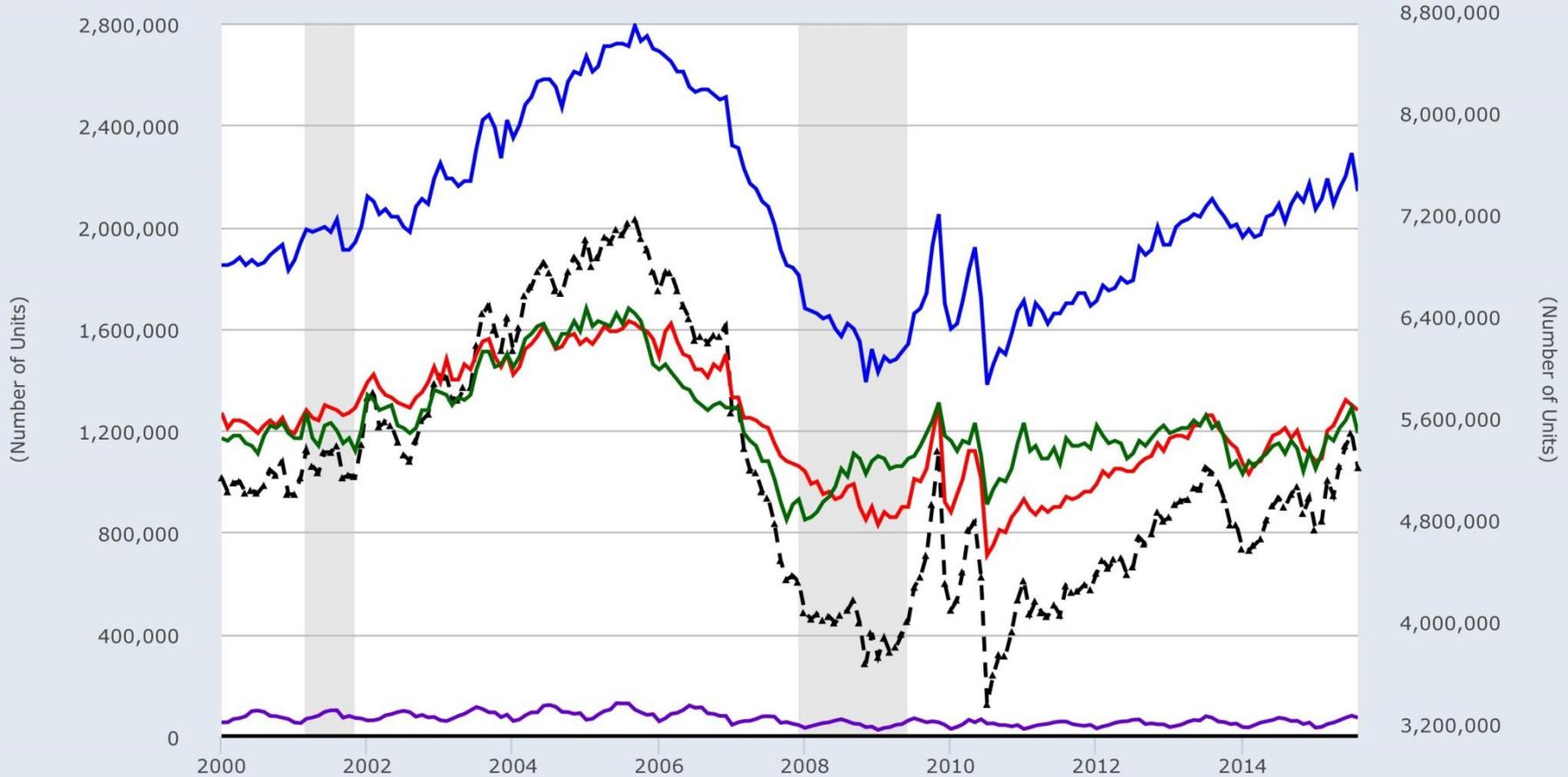
“First-time buyers accounted for 56.9% of primary owner-occupied home purchase mortgages with a government guarantee, up from 54.5% the prior August.

The Combined FBMSI (which measures the share of first-time buyers for both government-guaranteed and private-sector mortgages) stood at an estimated 51.4%, up from 49.3% the prior August.”

Existing House Sales by Region

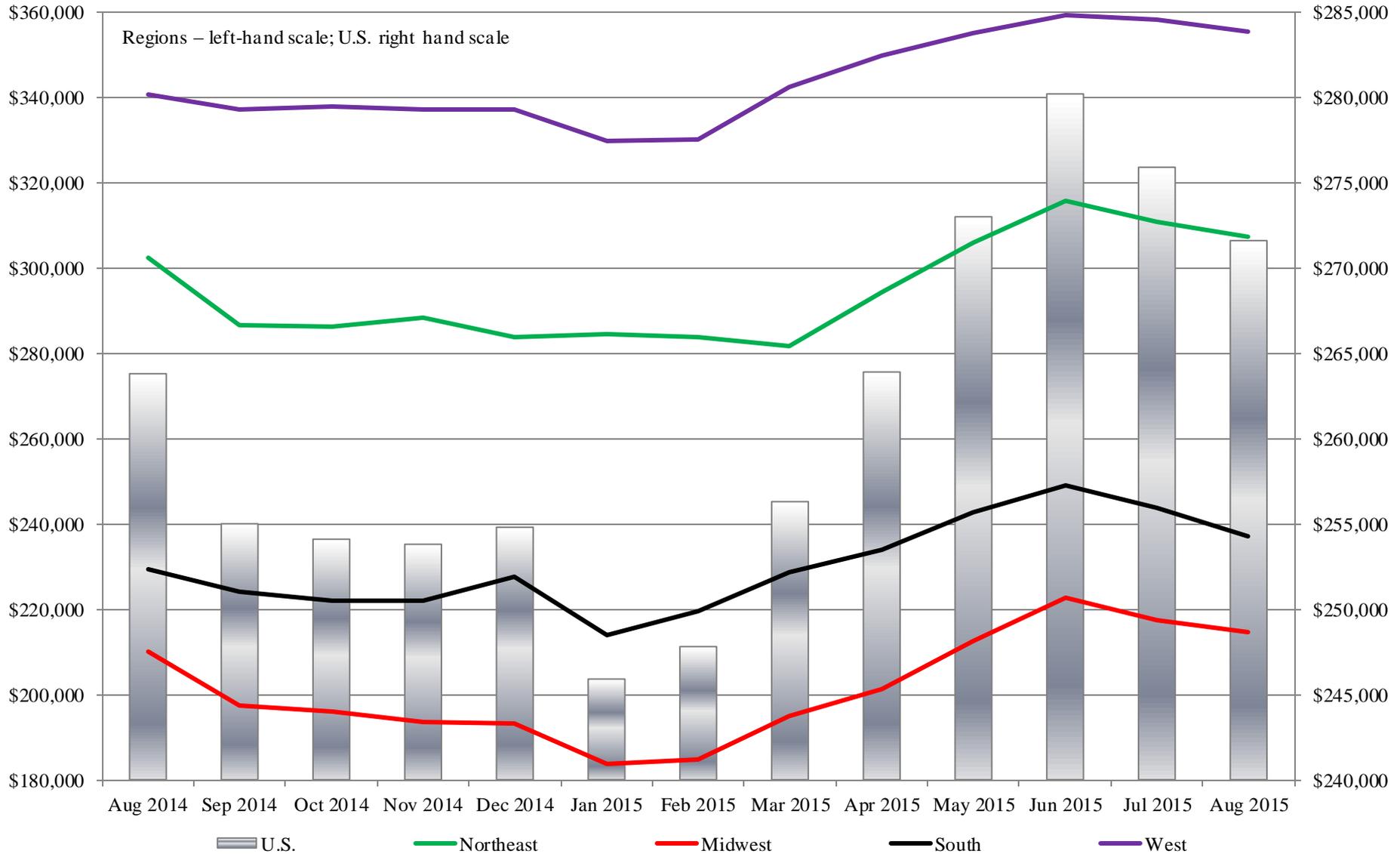


- Existing Home Sales© (right)
- Existing Home Sales in Northeast Census Region© (left)
- Existing Home Sales in Midwest Census Region© (left)
- Existing Home Sales in South Census Region© (left)
- Existing Home Sales in West Census Region© (left)

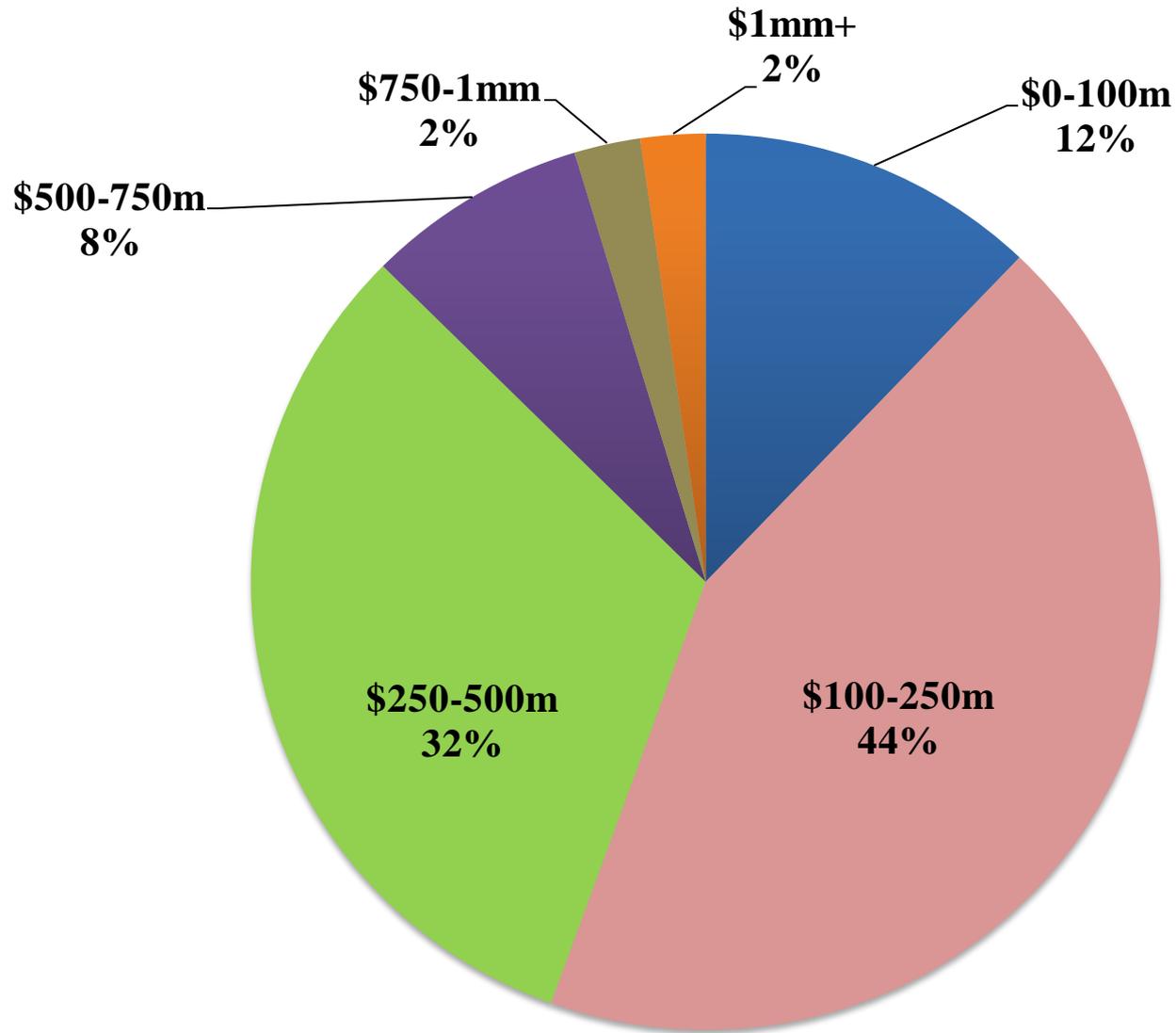


Shaded areas indicate US recessions - 2015 research.stlouisfed.org

Existing Sales Price by Region

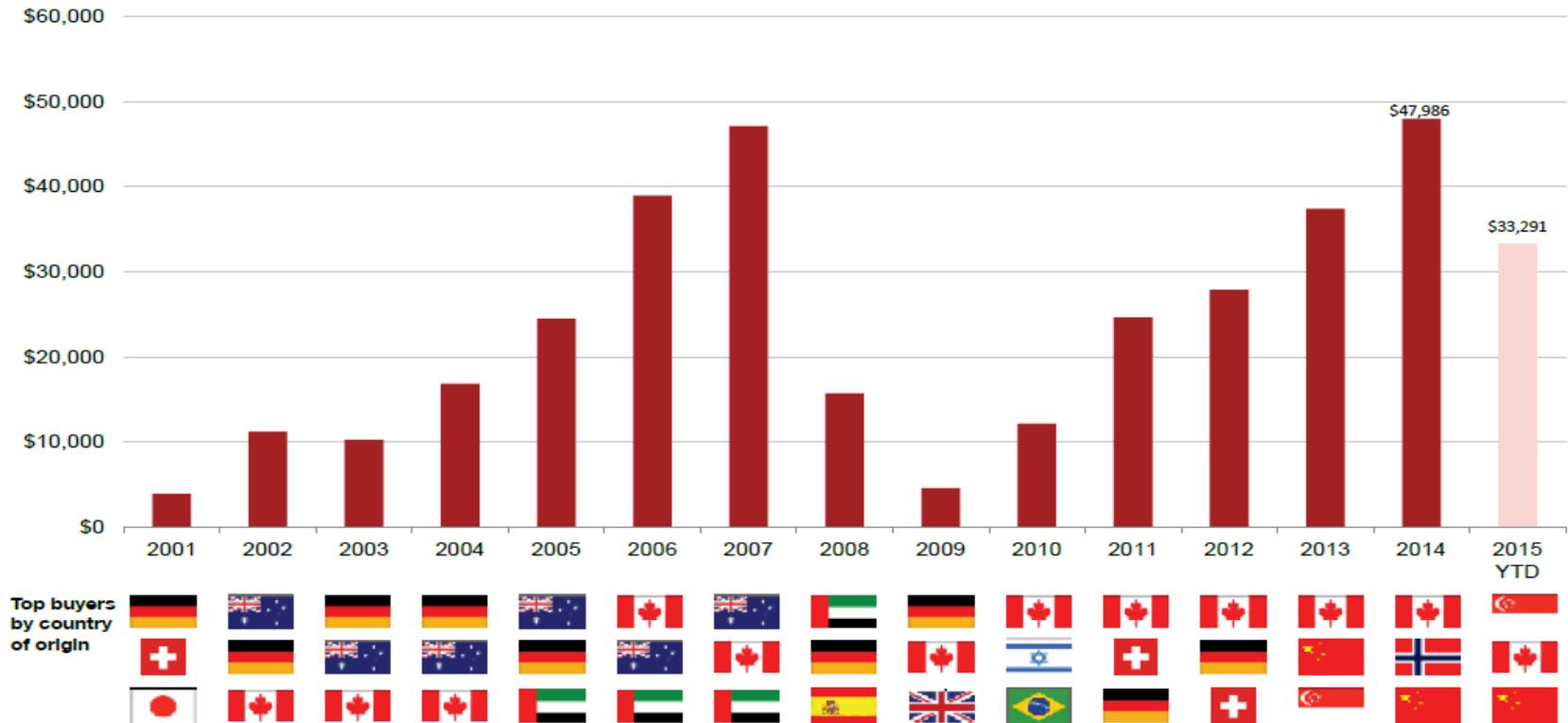


Existing House Sales by Price Range



Investor Purchases

Figure 1: Volume of foreign real estate investment in the US (\$m)

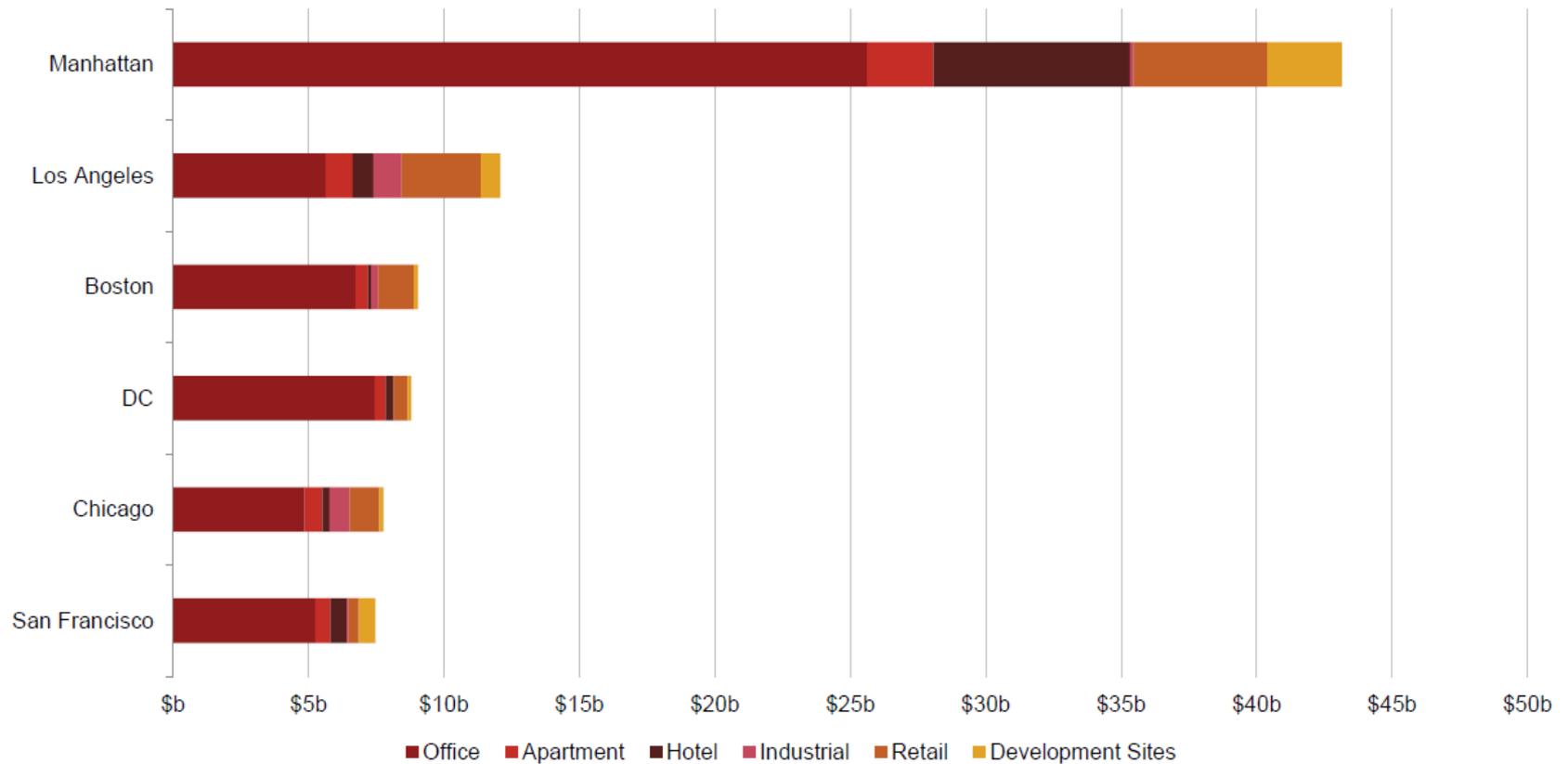


Source: Real Capital Analysis. 2015 YTD figures as at 5/19/2015.

“Canadian investors and pension funds comprised four of the top ten foreign investors in the US over the past five years and Canada was the number one source of foreign capital acquiring US property from 2010 to 2014.” – Jack Keating, PricewaterhouseCoopers (PwC)

Investor Purchases

Figure 2: Foreign commercial real estate investment volumes (5 years to May 2015)



Source: Real Capital Analytics.

“Manhattan is far and away the most targeted by foreign buyers... .” – Jack Keating, Director, PwC

Summary

In summary:

The housing market continues to move forward – albeit incrementally. Multifamily remains steady; construction and sales of new single-family houses in the upper price echelons are solid; and improvement or remodeling expenditures appear to be steady.

The fact remains that in most housing data categories, construction and sales remain far less than historical averages. Depending on how much water is in your glass, this is either a curse or a potential blessing. Existing house sales are strong – this is good. Yet, from a wood products utilization perspective, the new housing sector is where the bulk of forest products are used and this is the housing sector that still 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 the country;
- 3) Household formations increased in Q4 2014 (using occupied housing data from the July 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 is consistent but some economists question the quantity and types of jobs being created;
- 2) Declining real median annual household incomes – though increasing the past few months;
- 3) Strict home loan lending standards – plus CFPB's new TILA-RESPA Integrated Disclosure rules; and
- 4) Global uncertainty???

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