

The Virginia Tech – U.S. Forest Service

September 2016

Housing Commentary: Section I



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<http://woodproducts.sbio.vt.edu/housing-report>. To request the report, please email: buehlmann@gmail.com

Summary

In September, aggregate monthly housing data, based on a month-over-month comparison, were decidedly positive. Only housing starts and completions, were negative on a month-over-month and year-over-year basis. New single-family sales have edged lower for the past two-months. In the expenditures category, private new single-family spending increased for the first time since March; though keep in mind this was reported on a nominal basis. The November 9th Atlanta Fed GDPNow™ model projects residential investment spending, in Q4, to decrease at a -4.9 percent seasonally adjusted annual rate¹. Regionally, data were mixed across all sectors.

Jordan Rappaport, a senior economist for the Federal Reserve Bank of Kansas City wrote, “Looking forward, single-family construction is likely to continue to drag down residential investment. Single-family housing starts peaked in March 2016 and have since sharply declined. As building a single-family home typically takes about six months, the recent decline in starts will put downward pressure on single-family construction during the third and fourth quarters. Moreover, single-family permits, a more forward-looking and better-measured indicator of construction, have been running considerably below starts, suggesting that single-family construction will remain weak in 2017.”²

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

Sources: ¹ <https://www.frbatlanta.org/-/media/Documents/cqer/researchcq/gdpnow/GDPTTrackingModelDataAndForecasts.xlsx>; 11/9/16

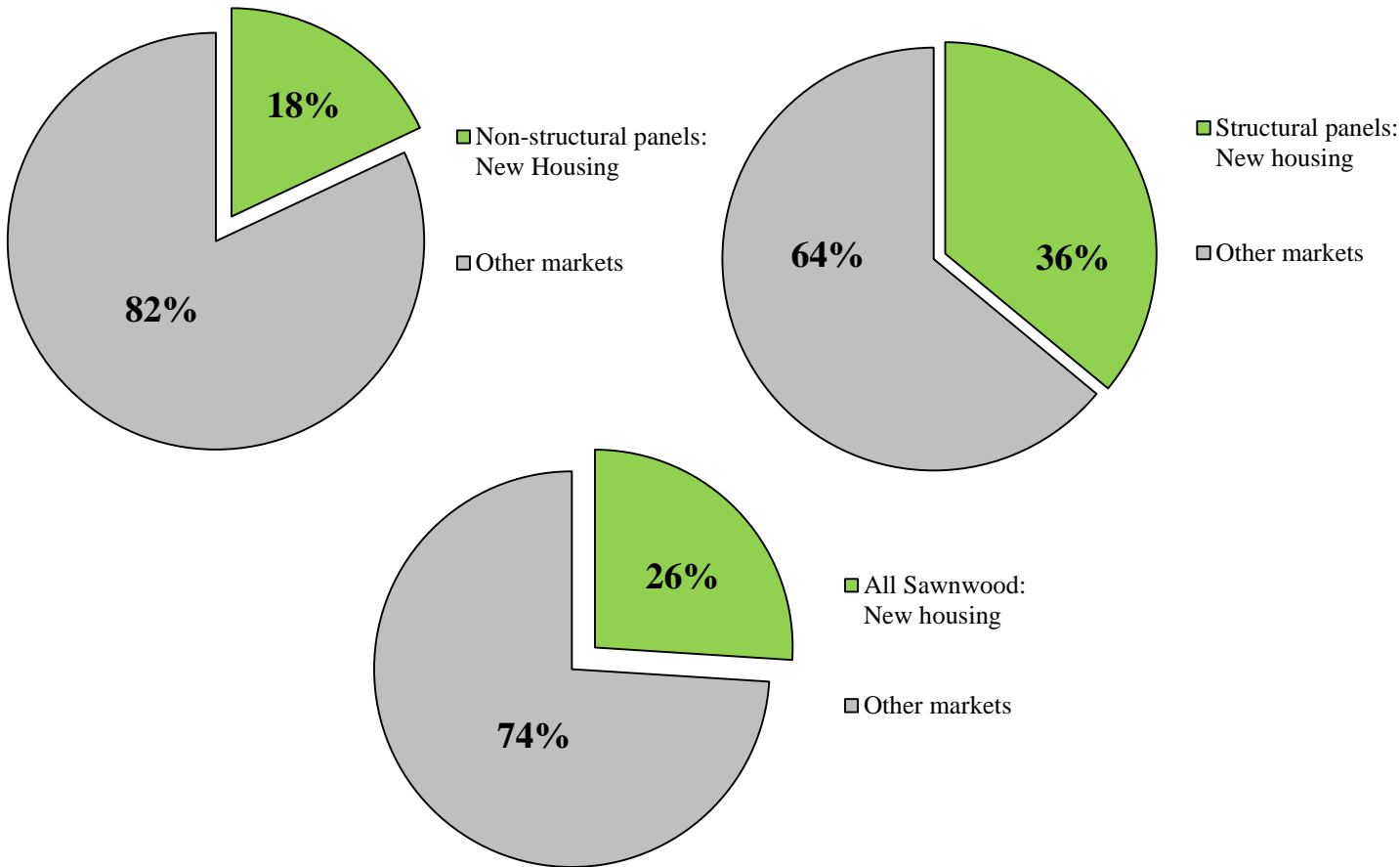
² <https://www.kansascityfed.org/-/media/files/publicat/research/macrobuletins/mb16rappaport1006.pdf>; 10/6/16

September 2016 Housing Scorecard

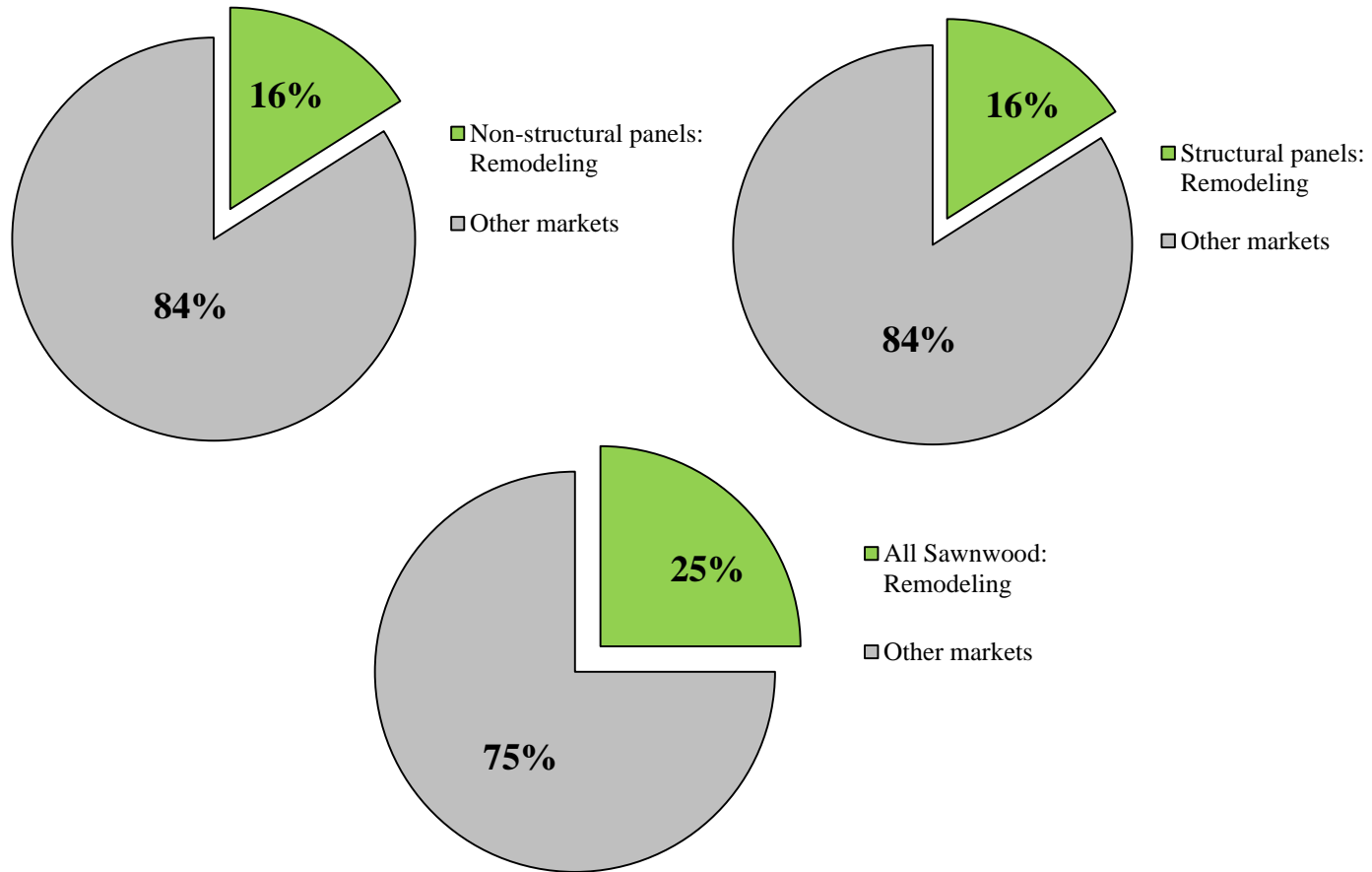
	M/M	Y/Y
Housing Starts	▽ 9.0%	▽ 11.9%
Single-Family Starts	△ 8.1%	△ 5.4%
Housing Permits	△ 6.3%	△ 8.5%
Single-Family Permits	△ 0.4%	△ 4.4%
Housing Completions	▽ 8.4%	▽ 5.8%
New Single-Family House Sales	△ 3.1%	△ 29.8%
Existing House Sales ¹	△ 3.2%	△ 0.6%
Private Residential Construction Spending	△ 0.5%	△ 0.9%
Single-Family Construction Spending	△ 0.1%	▽ 2.9%

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

New Construction's Percentage of Wood Products Consumption



Repair and Remodeling's Percentage of Wood Products Consumption



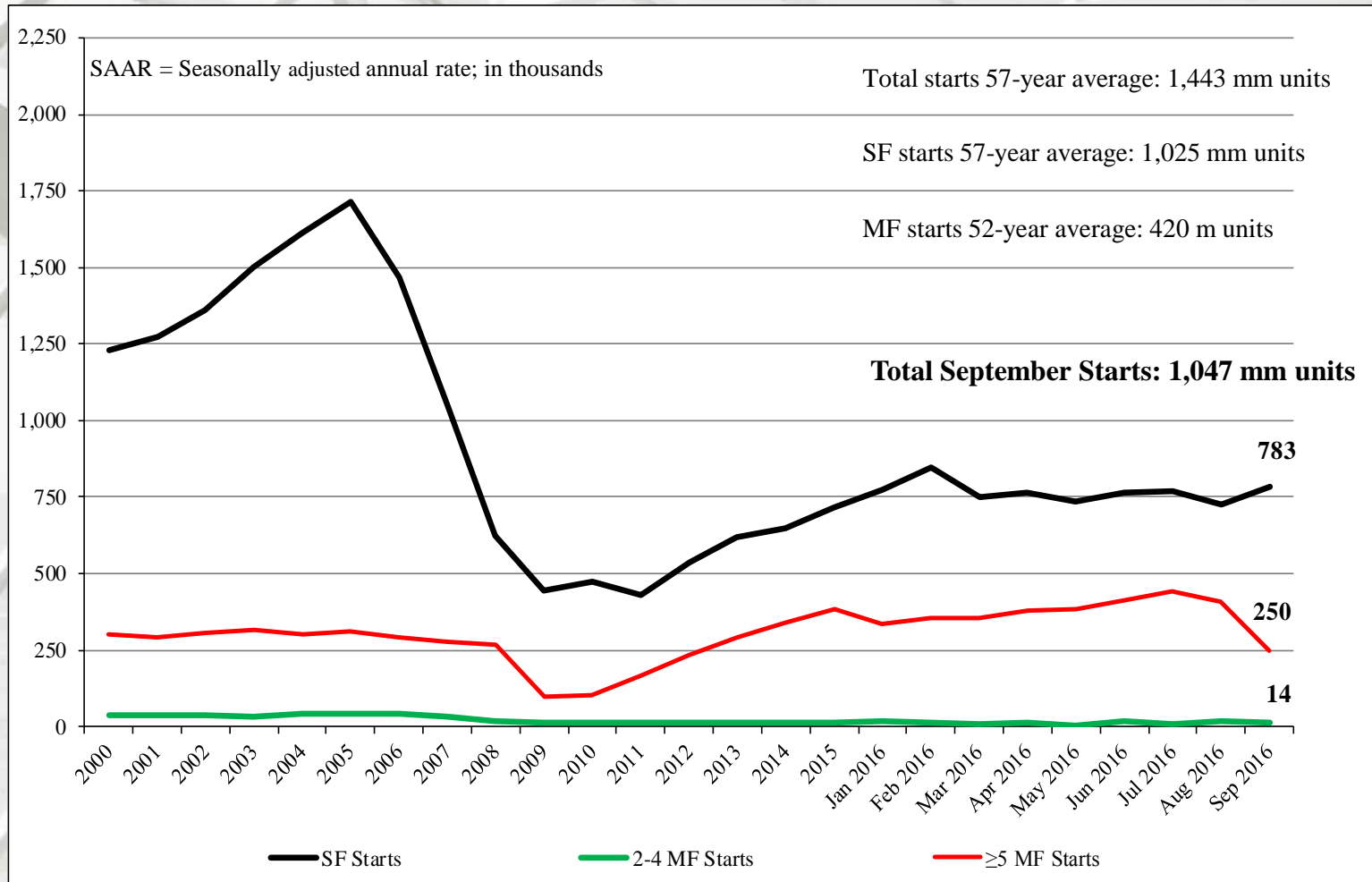
New Housing Starts

	Total Starts	SF Starts	MF 2-4 Starts	MF ≥5 Starts
September	1,047,000	783,000	14,000	250,000
August	1,150,000	724,000	17,000	409,000
2015	1,189,000	743,000	11,000	435,000
M/M change	-9.0%	8.1%	-17.6%	-38.9%
Y/Y change	-11.9%	5.4%	27.3%	-42.5%

* 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**
September	87,000	60,000	27,000
August	136,000	50,000	86,000
2015	127,000	56,000	71,000
M/M change	-36.0%	20.0%	-68.6%
Y/Y change	-31.5%	7.1%	-62.0%

	MW Total	MW SF	MW MF
September	146,000	118,000	28,000
August	170,000	111,000	59,000
2015	137,000	112,000	25,000
M/M change	-14.1%	6.3%	-52.5%
Y/Y change	6.6%	5.4%	12.0%

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

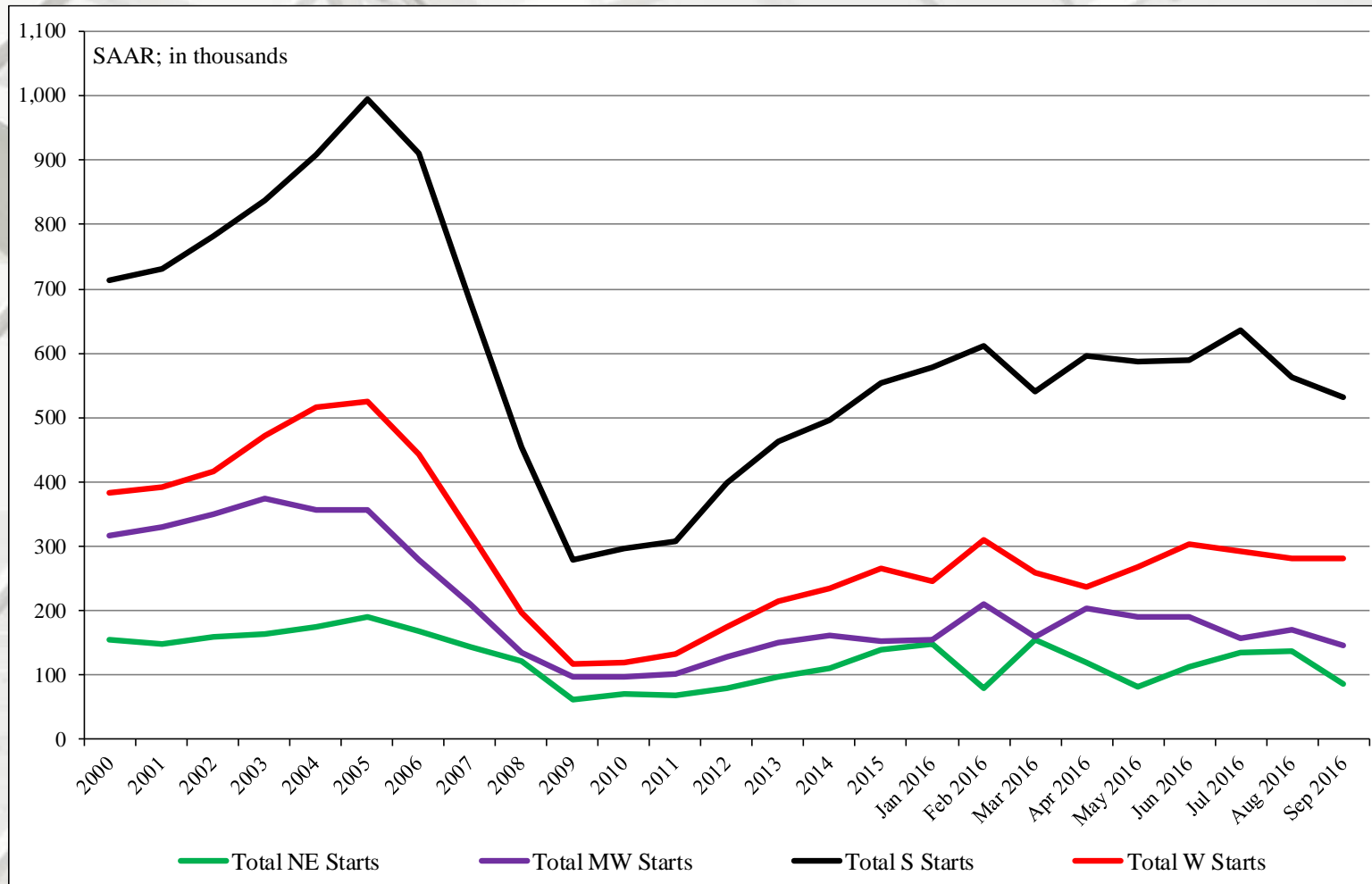
	S Total	S SF	S MF**
September	532,000	426,000	106,000
August	562,000	380,000	182,000
2015	630,000	408,000	222,000
M/M change	-5.3%	12.1%	-41.8%
Y/Y change	-15.6%	4.4%	-52.3%

	W Total	W SF	W MF
September	282,000	179,000	103,000
August	282,000	183,000	99,000
2015	295,000	167,000	128,000
M/M change	0.0%	-2.2%	4.0%
Y/Y change	-4.4%	7.2%	-19.5%

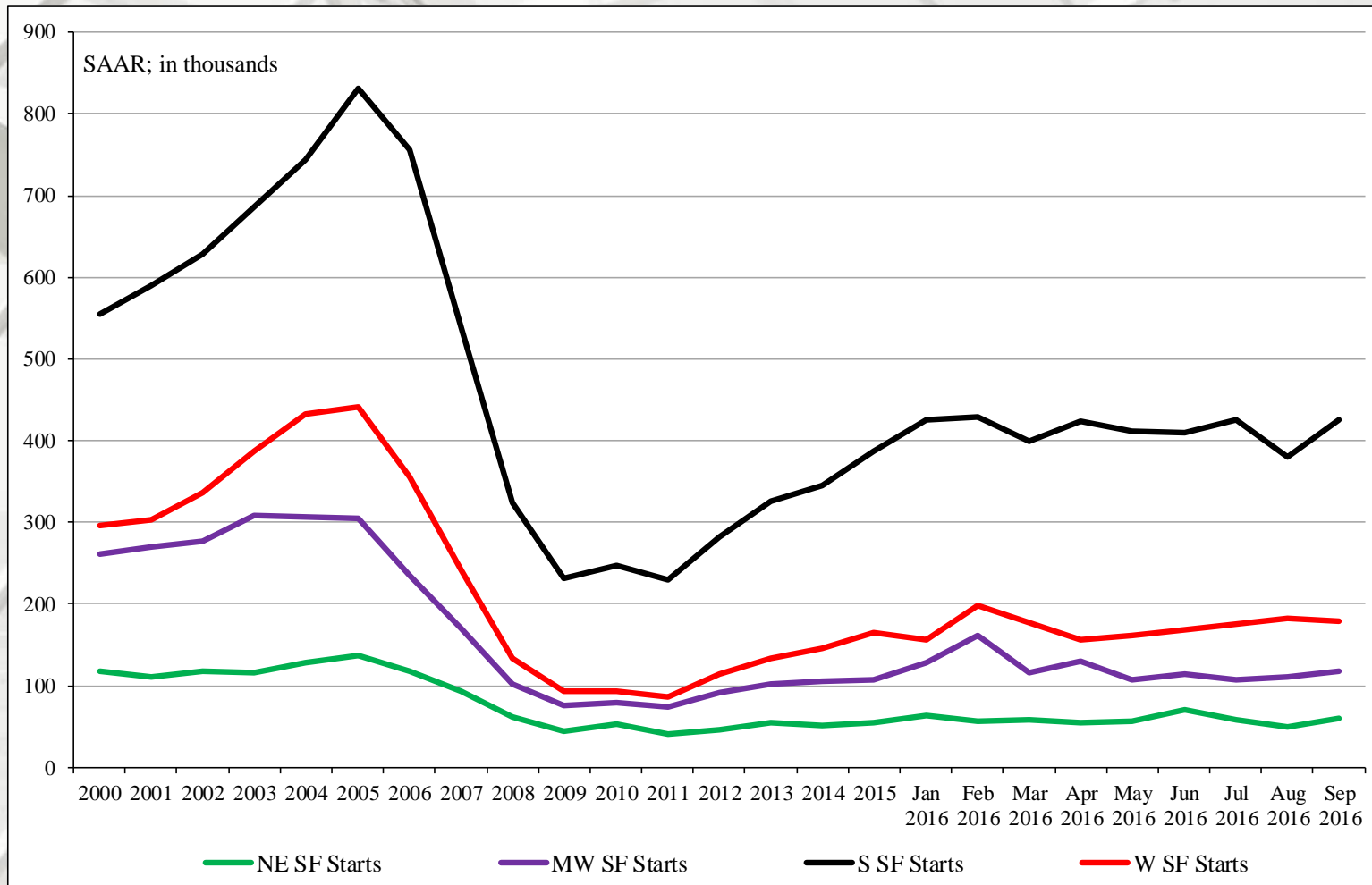
All data are SAAR; S = South and W = West.

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

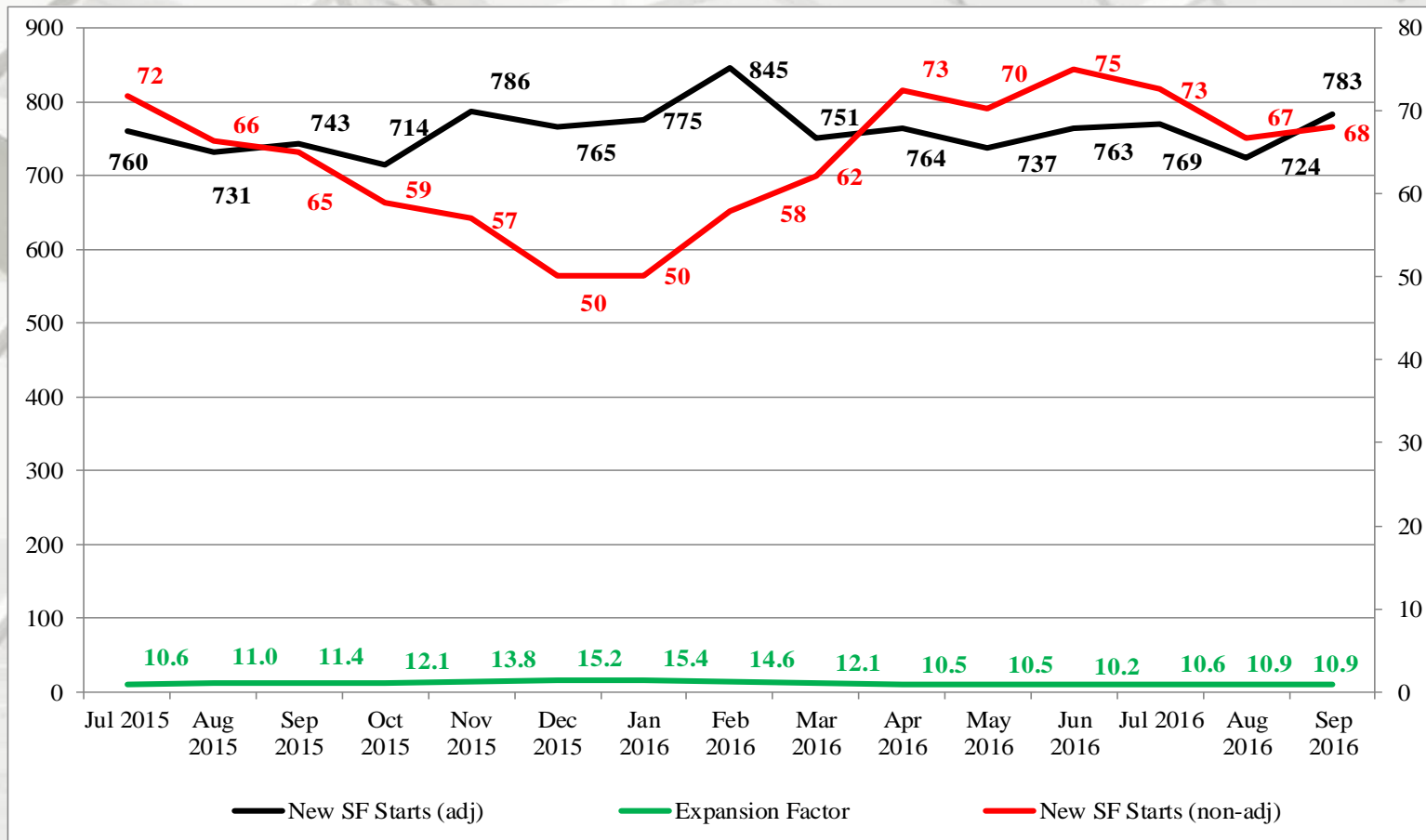
Total Housing Starts by Region



SF Housing Starts by Region



Nominal & SAAR SF Housing Starts

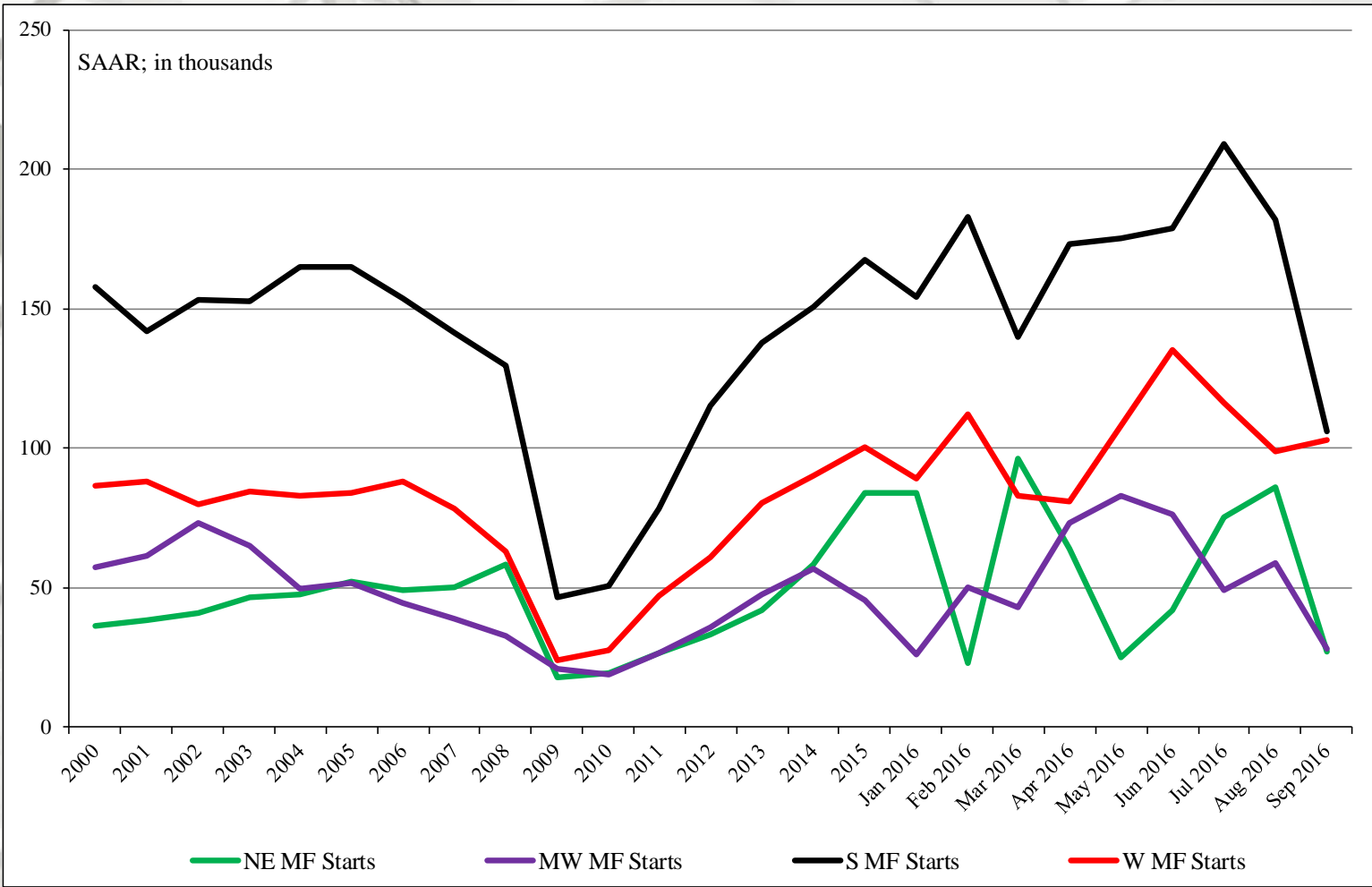


Nominal and Adjusted New SF Monthly Sales

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

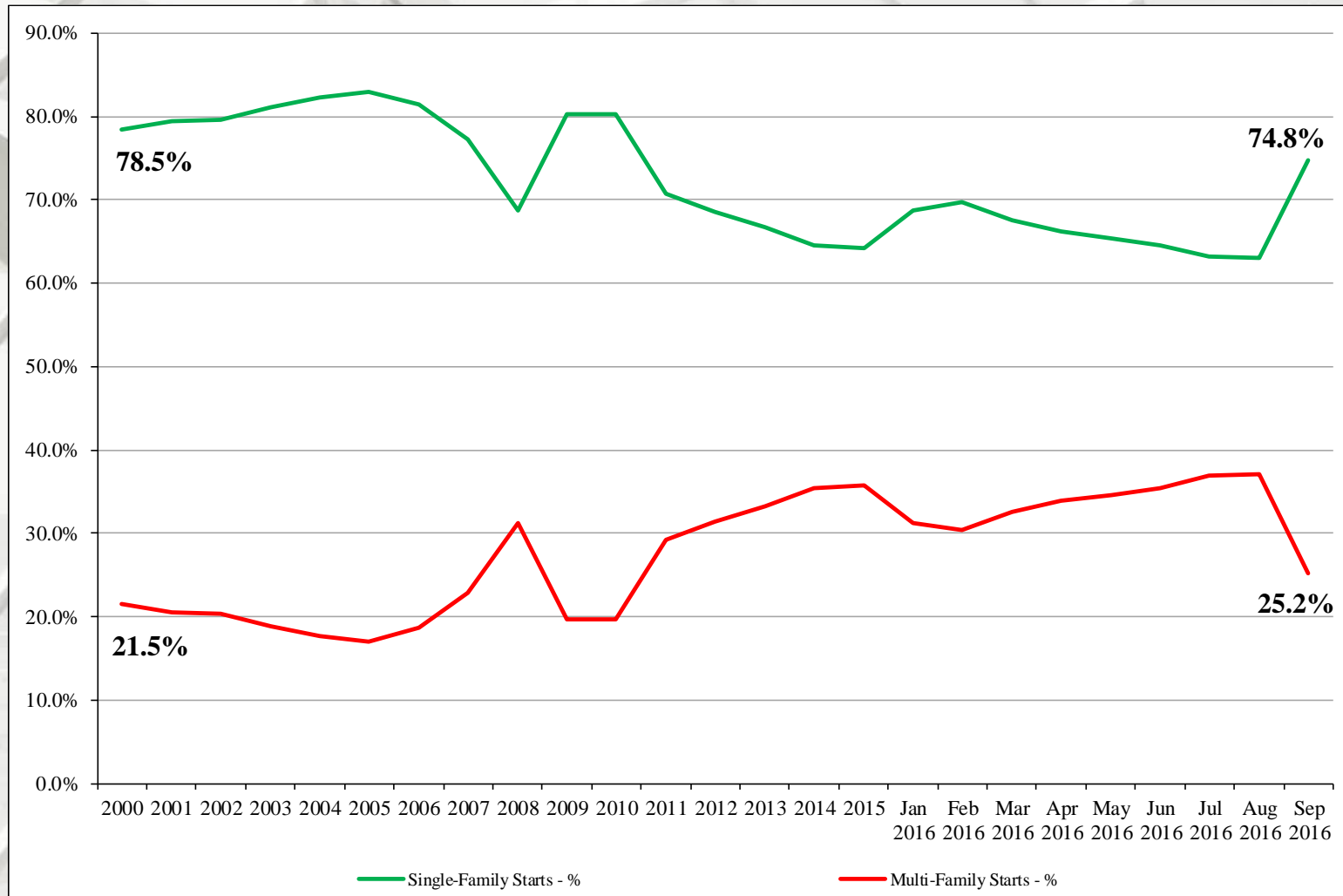
The expansion factor "...is the ratio of the unadjusted number of houses started in the US to the seasonally adjusted number of houses started in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

MF Housing Starts by Region

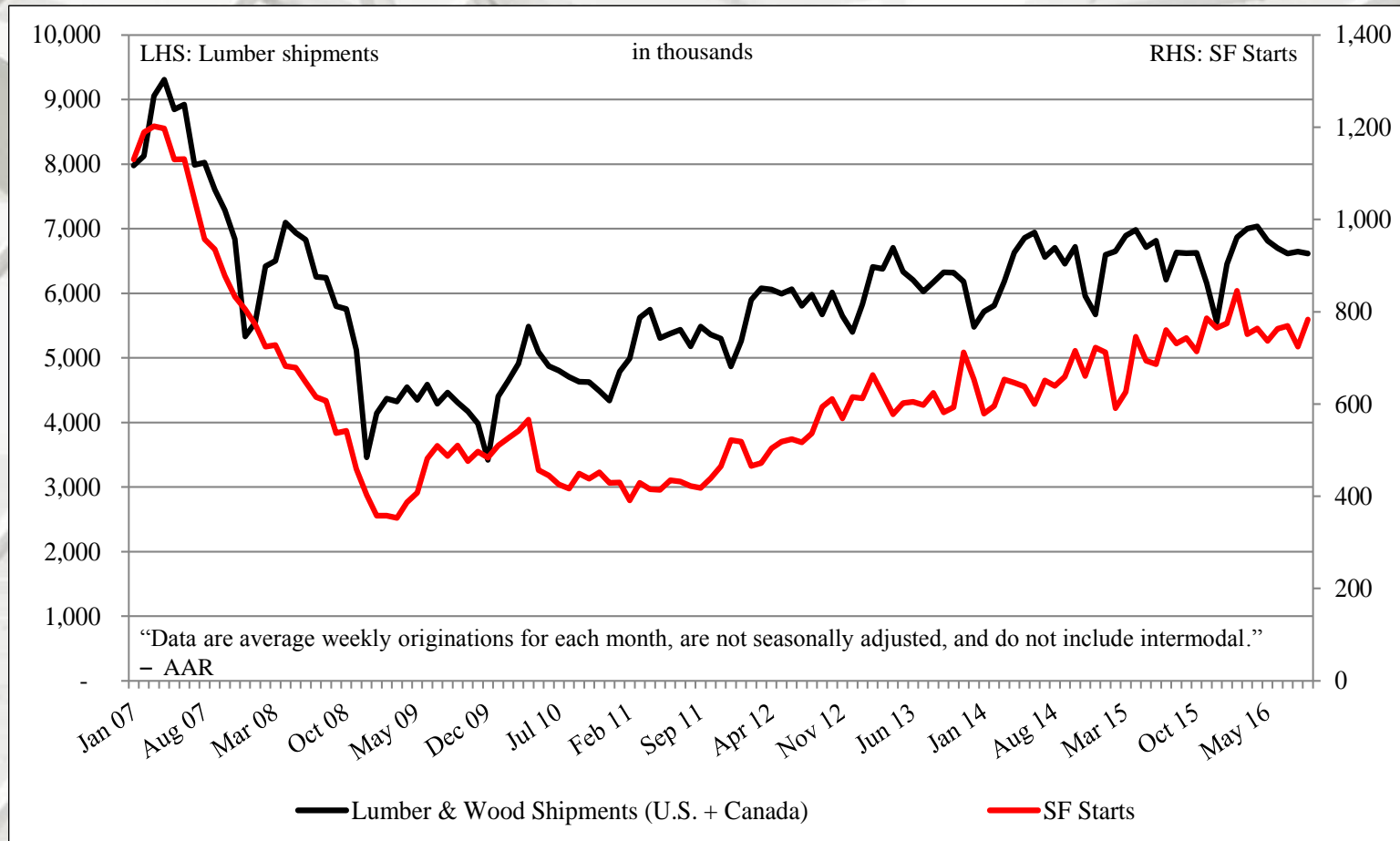


Source: <http://www.census.gov/construction/nrc/pdf/newresconst.pdf>; 10/19/16

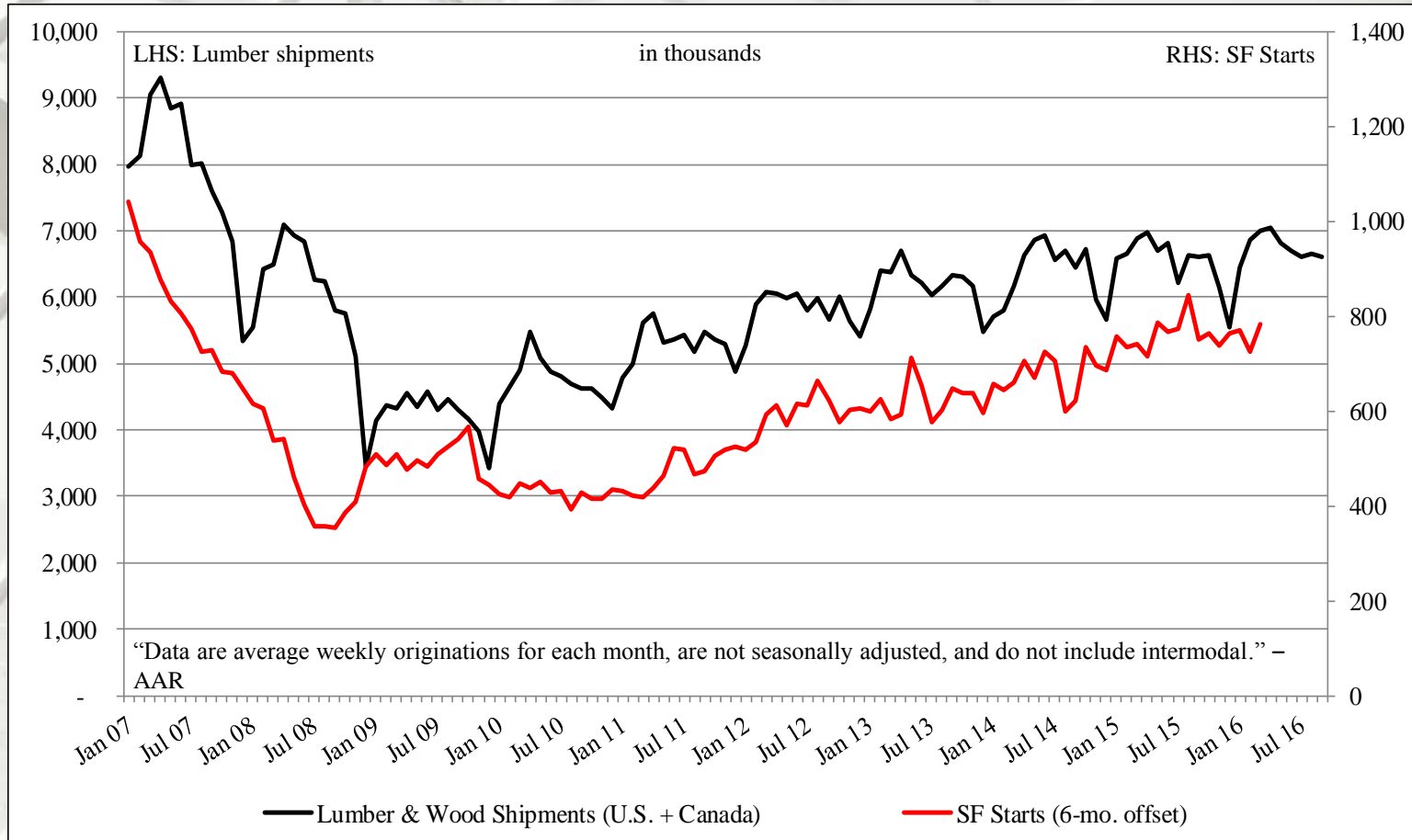
Housing Starts by Percent



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 September 2007 SF starts, and continuing through September 2016 SF starts. The purpose is to discover if lumber shipments relate to future single-family starts. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

Inside the Dodge 2017 Construction Outlook: Commercial and Residential Predictions

THE PATTERN OF U.S. CONSTRUCTION STARTS

Billions of Dollars

	2011	2012	2013	2014	2015	2016	2017
Total Construction	441.5 +1%	492.9 +12%	547.3 +11%	601.0 +10%	667.7 +11%	676.4 +1%	712.9 +5%
Single Family Housing	97.3 -3%	125.8 +29%	159.2 +27%	163.8 +3%	186.2 +14%	203.5 +9%	227.1 +12%
Multifamily Housing	29.7 +34%	40.8 +37%	51.7 +27%	68.9 +33%	84.0 +22%	86.8 +3%	86.6 0%

Single-Family predictions

2016: +7% starts; 730,000 units

2017: +9% starts; 795,000 units

Multi-Family predictions

2016: -5% starts; 445,000 units

2017: -2% starts; 435,000 units

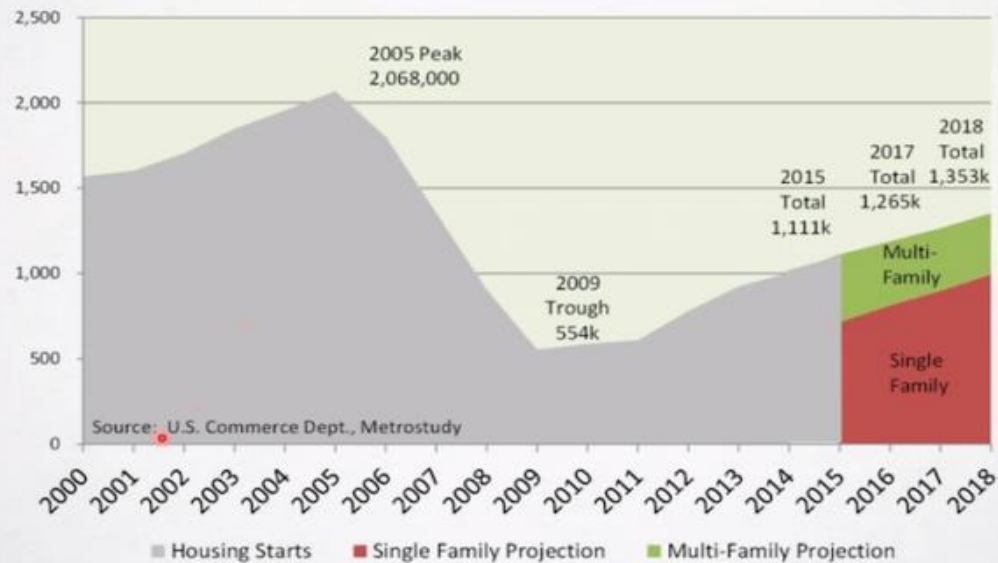
“Although single-family construction hasn't swelled to the levels that economists predicted last year, it continues to pick up steam as more millennials make the switch from renting to owning. Murray said the transition of the millennial generation into homeownership has been “a slower process than in previous generations,” due largely to affordability concerns. However, now that the number of younger buyers is growing, the single-family sector “might be adding a helpful boost” toward the latter half of the current construction cycle, Robert Murray, Chief Economist, Dodge Data & Analytics said”. – Emily Peiffer, Editor, *Industry Dive's Construction Dive*

Metrostudy 4Q16 Housing Webcast

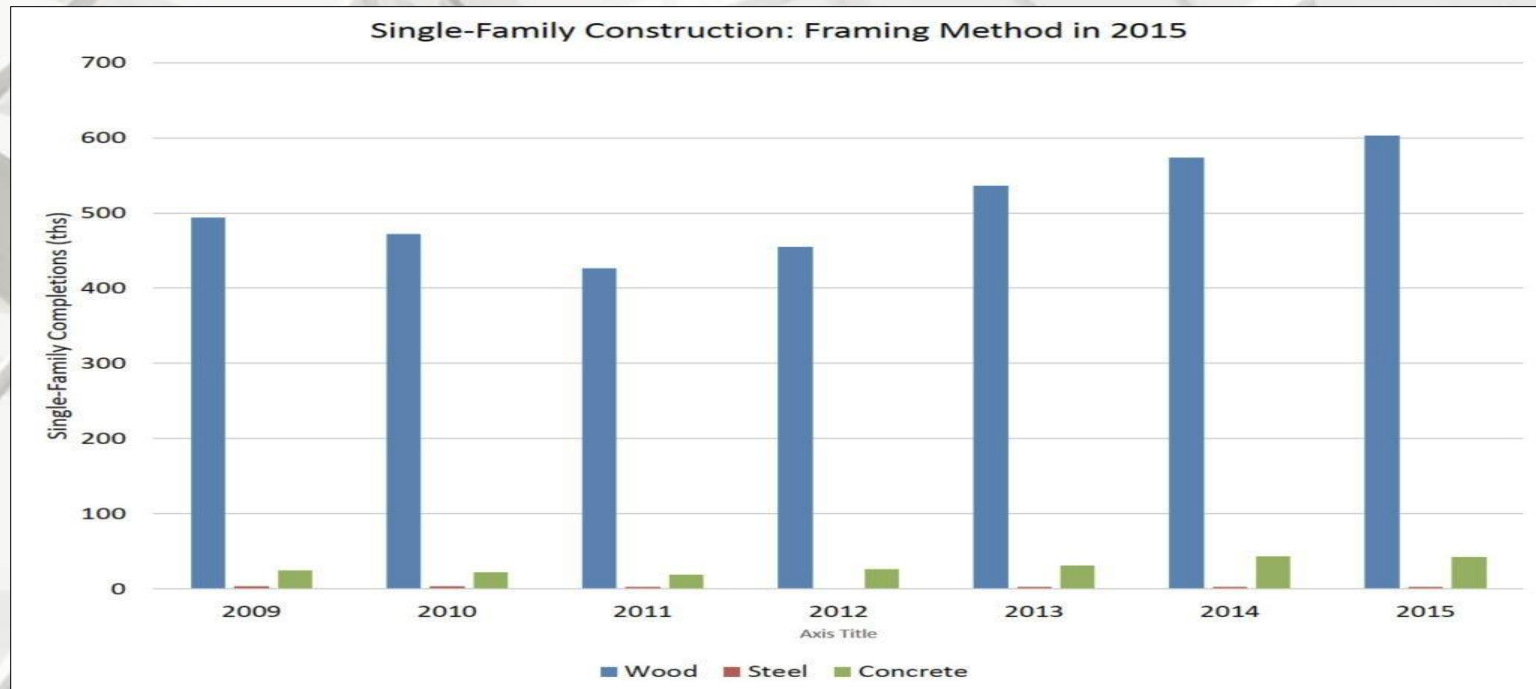
Where are we in the Housing Cycle?

Housing Starts Rise But Remain Below Norm

Housing Starts 2000-2018 (in 000s)



NAHB's "Framing Methods for Single-Family Homes: 2015"



“Wood framing remains the most dominant construction method for single-family homes in the U.S., according to NAHB analysis of Census Bureau data. For 2015 completions, 93% of new homes were wood-framed. Another 7% were concrete homes, and less than half a percent were steel-framed.

In absolute number terms, 603,000 single-family homes were completed in 2015 and had wood frames. Concrete homes totaled 42,000 in 2015. This was down from 43,000 in 2014, but a represented a 221% gain from the 2011 total of 19,000. Steel-framed homes totaled 2,000 in 2015.

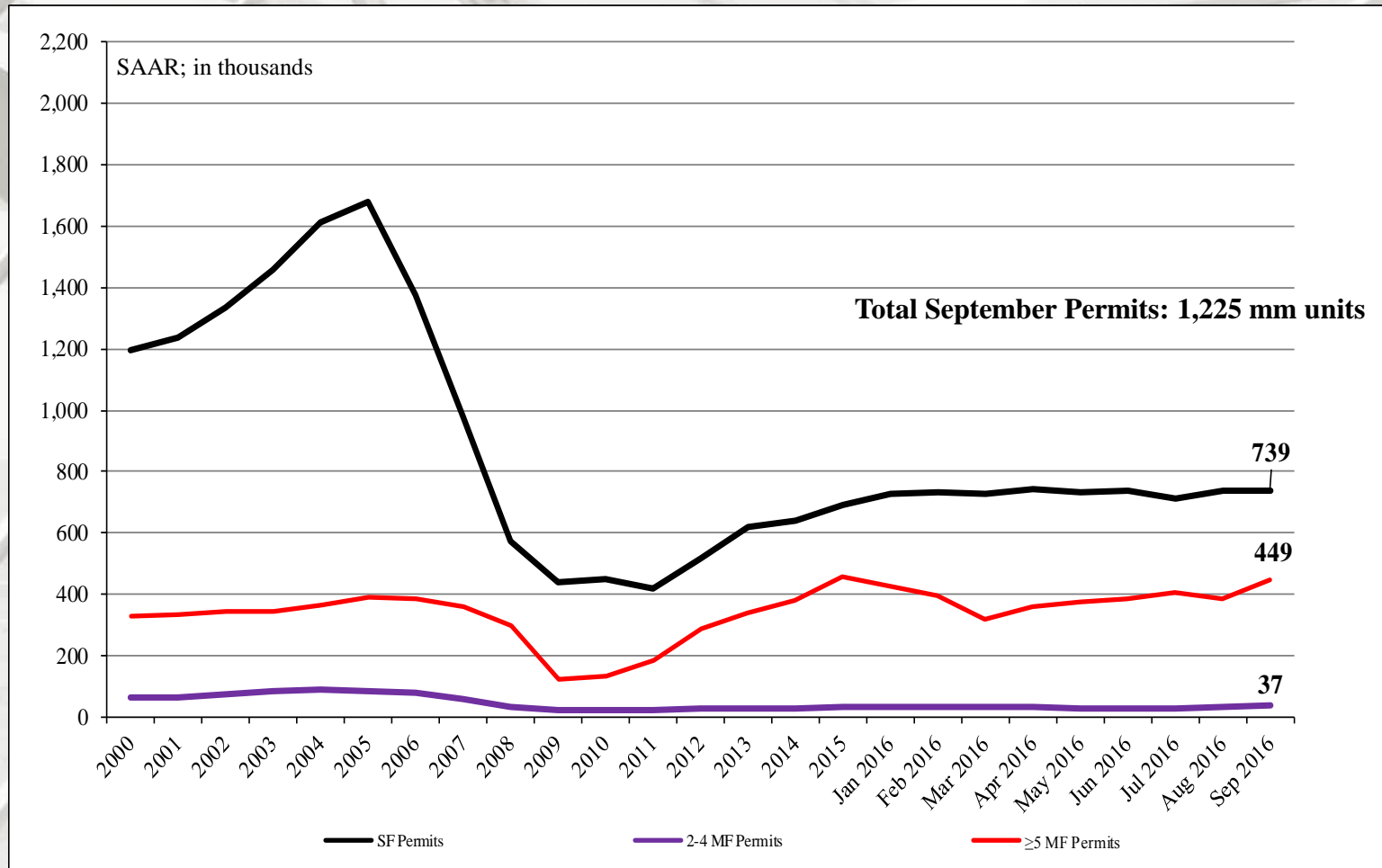
Non-wood based framing methods are primarily concentrated in the South. For 2015, 98% of concrete framed homes were built in the South. Similarly, and almost all steel-framed homes were constructed in the South.” – Robert Dietz, Chief Economist and Senior Vice President, Economics and Housing Policy, NAHB

New Housing Permits

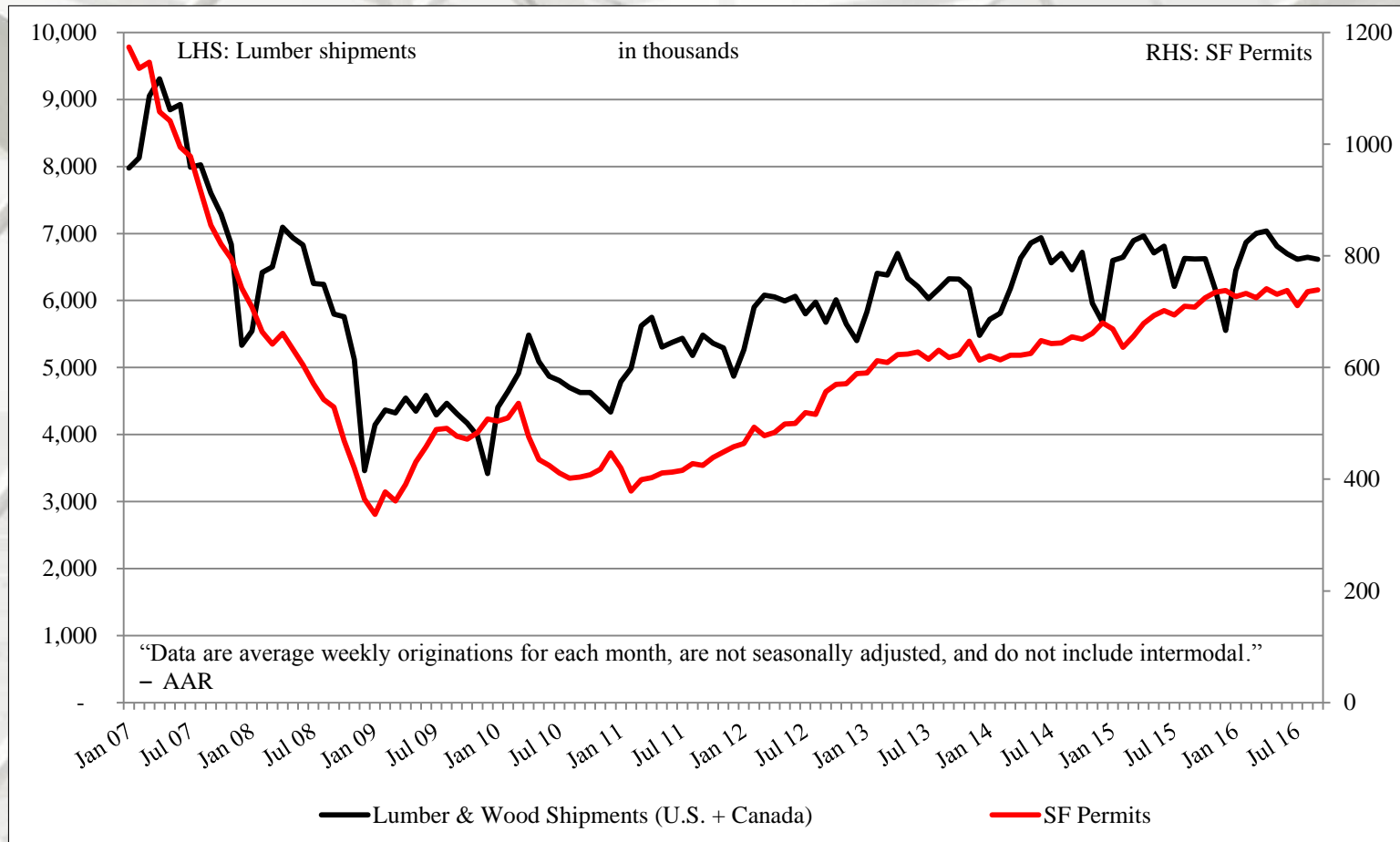
	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
September	1,225,000	739,000	37,000	449,000
August	1,152,000	736,000	33,000	383,000
2015	1,129,000	708,000	38,000	383,000
M/M change	6.3	0.4	12.1	17.2
Y/Y change	8.5	4.4	-2.6	17.2

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

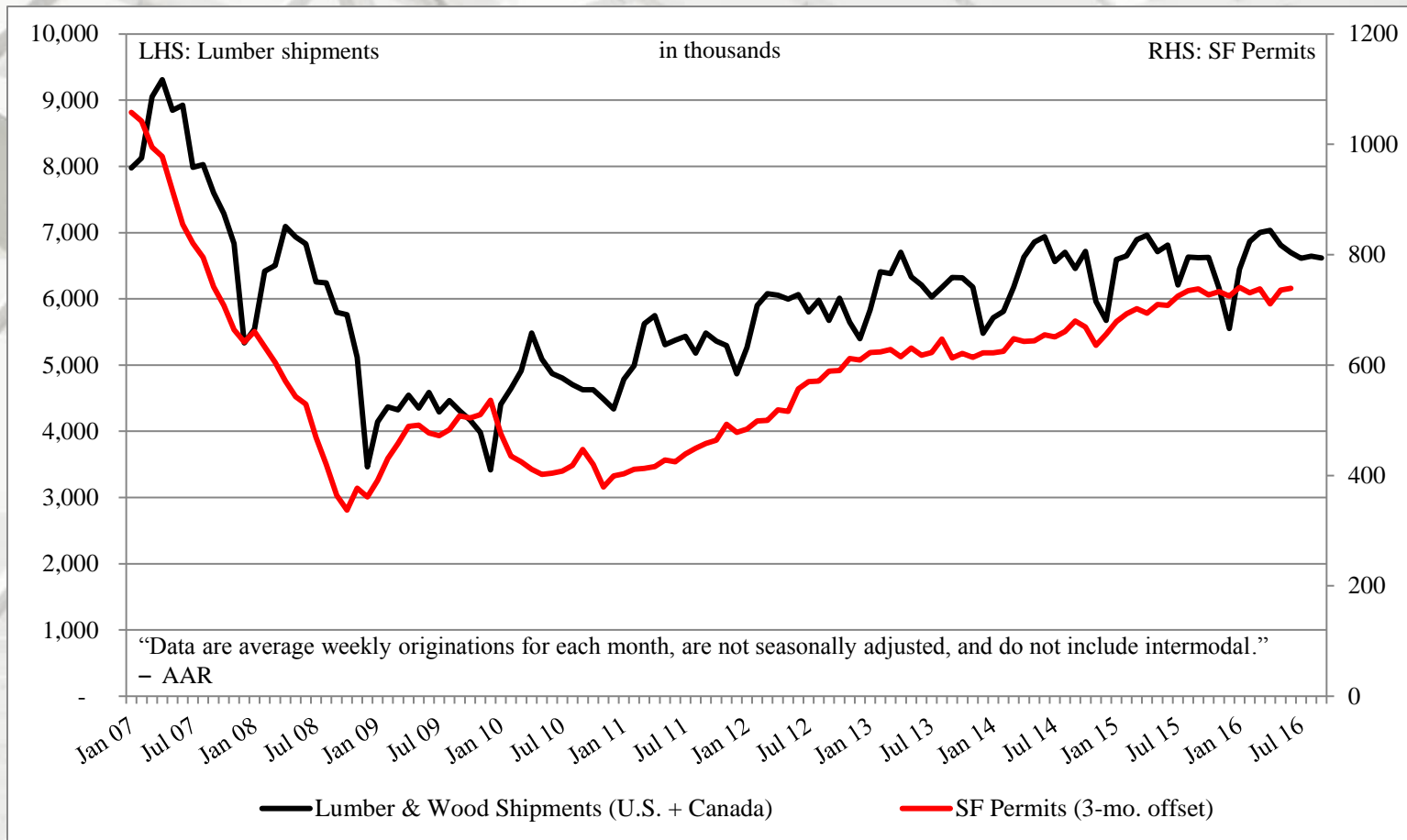
Total New Housing Permits



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



Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits: 3-month Offset



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

New Housing Permits by Region

	NE Total	NE SF	NE MF
September	131,000	52,000	79,000
August	106,000	52,000	54,000
2015	115,000	55,000	66,000
M/M change	23.6%	0.0%	46.3%
Y/Y change	13.9%	-5.5%	19.7%

	MW Total	MW SF	MW MF
September	184,000	116,000	68,000
August	194,000	115,000	79,000
2015	173,000	104,000	66,000
M/M change	-5.2%	0.9%	-13.9%
Y/Y change	6.4%	11.5%	3.0%

* All data are SAAR.

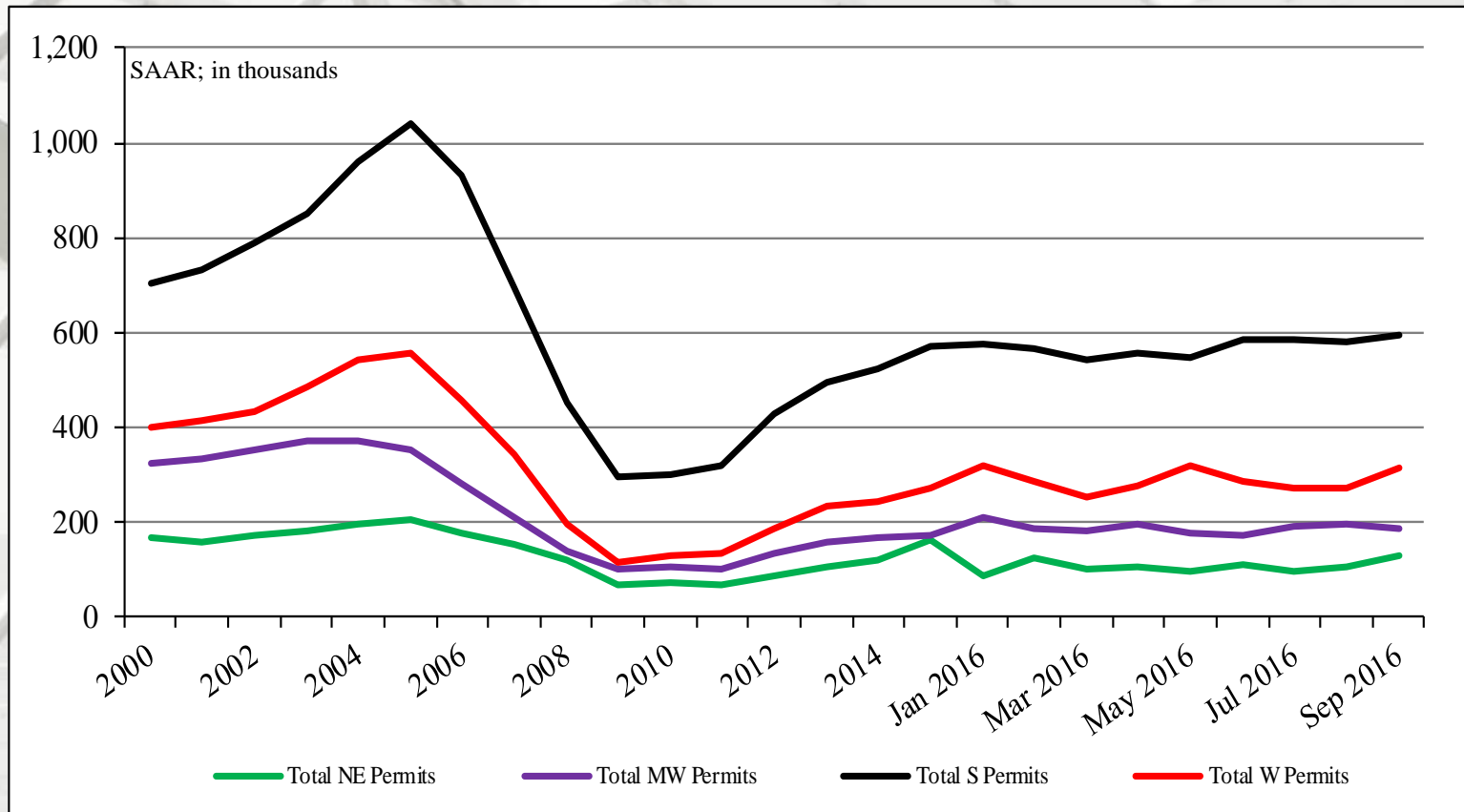
New Housing Permits by Region

	S Total	S SF	S MF
September	594,000	403,000	191,000
August	579,000	402,000	177,000
2015	562,000	389,000	162,000
M/M change	2.6%	0.2%	7.9%
Y/Y change	5.7%	3.6%	17.9%

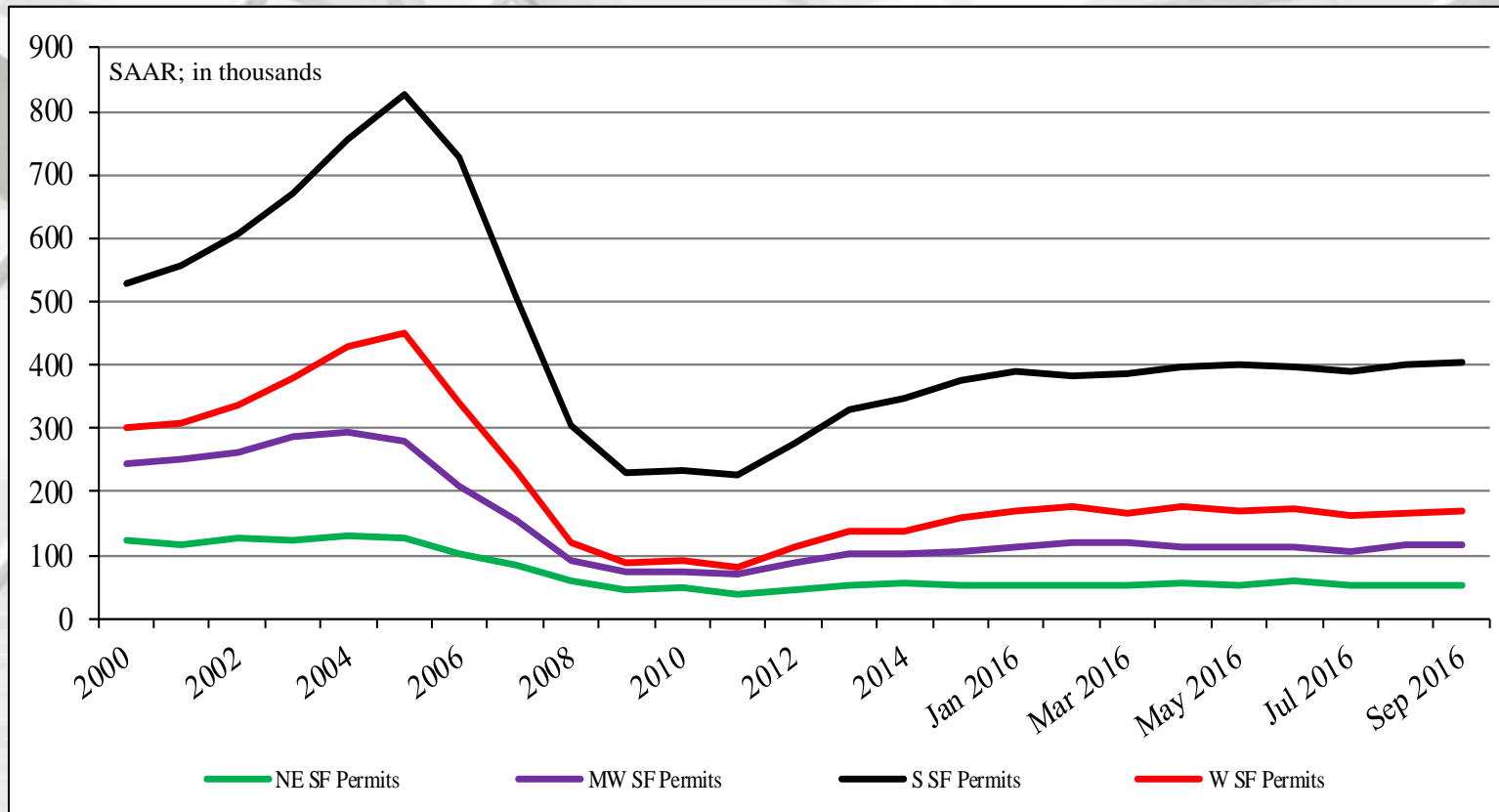
	W Total	W SF	W MF
September	316,000	168,000	148,000
August	273,000	167,000	106,000
2015	279,000	160,000	117,000
M/M change	15.8%	0.6%	39.6%
Y/Y change	13.3%	5.0%	26.5%

* All data are SAAR.

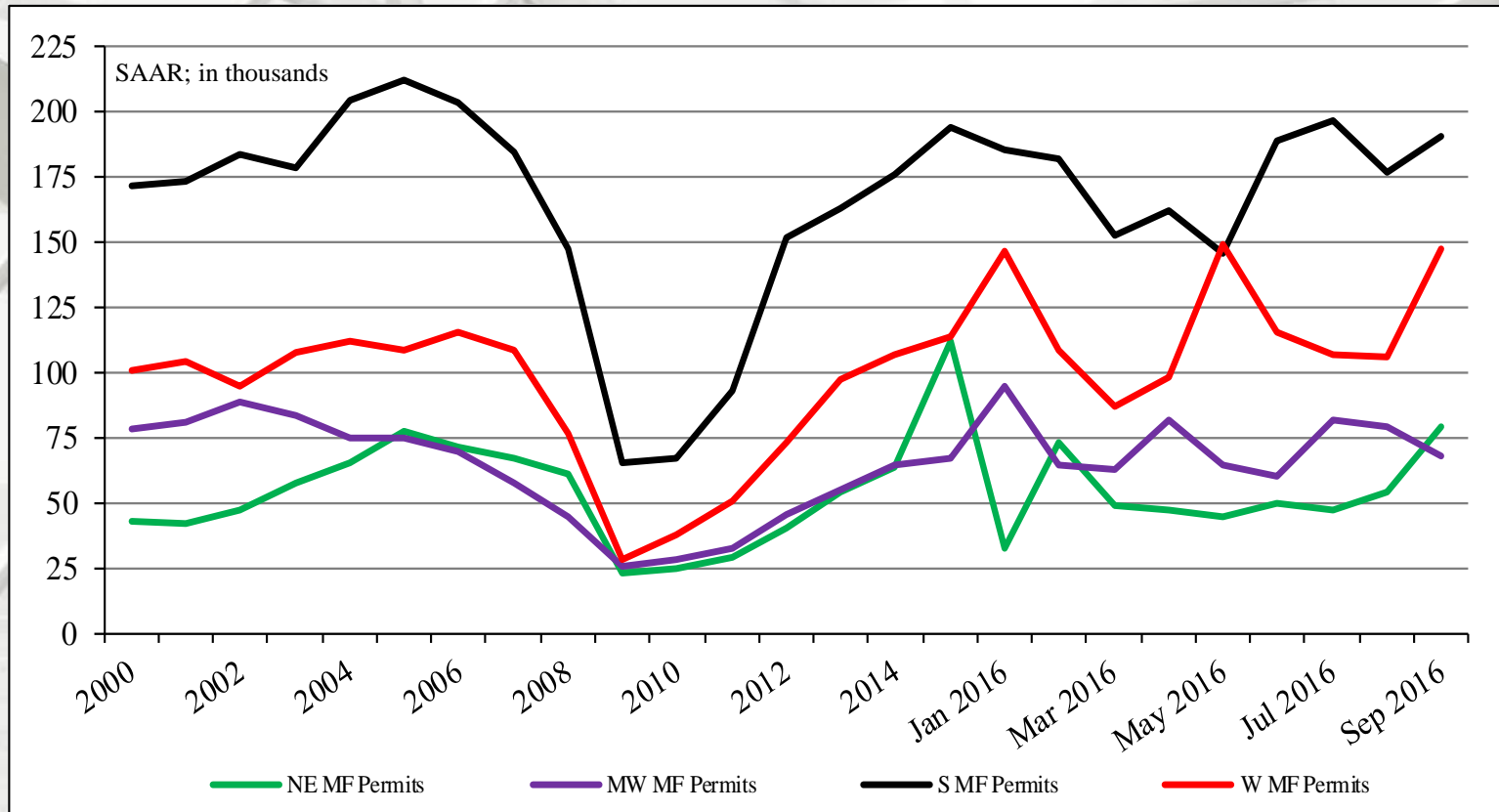
Total Housing Permits by Region



SF Housing Permits by Region



MF Housing Permits by Region



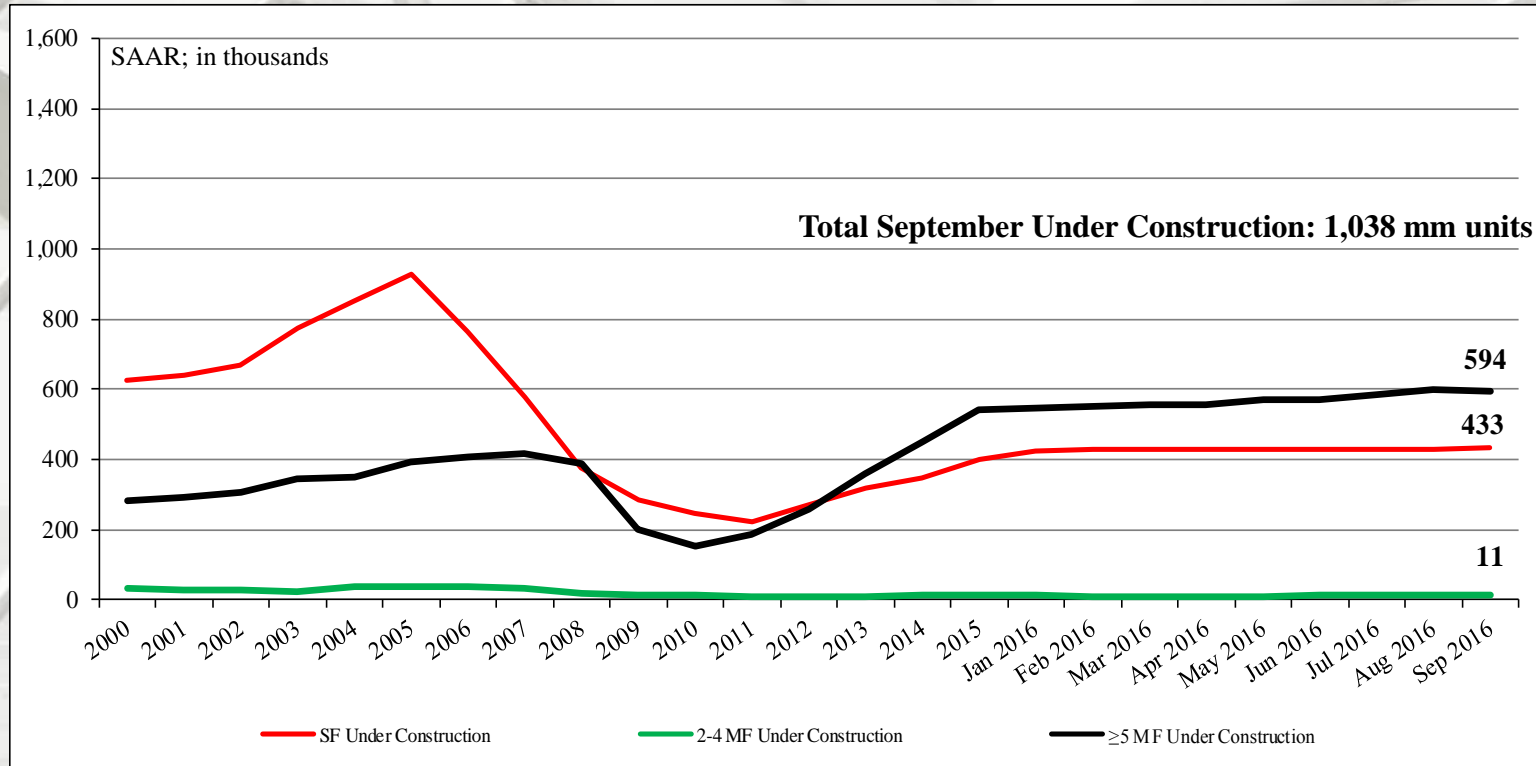
New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
September	1,038,000	433,000	11,000	594,000
August	1,039,000	429,000	11,000	599,000
2015	935,000	398,000	11,000	526,000
M/M change	-0.1%	0.9%	0.0%	-0.8%
Y/Y change	11.0%	8.8%	0.0%	12.9%

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**
September	189,000	49,000	140,000
August	192,000	49,000	143,000
2015	169,000	46,000	123,000
M/M change	-1.6%	0.0%	-2.1%
Y/Y change	11.8%	6.5%	13.8%
	MW Total	MW SF	MW MF
September	140,000	72,000	68,000
August	138,000	71,000	67,000
2015	120,000	65,000	55,000
M/M change	1.4%	1.4%	1.5%
Y/Y change	16.7%	10.8%	23.6%

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).

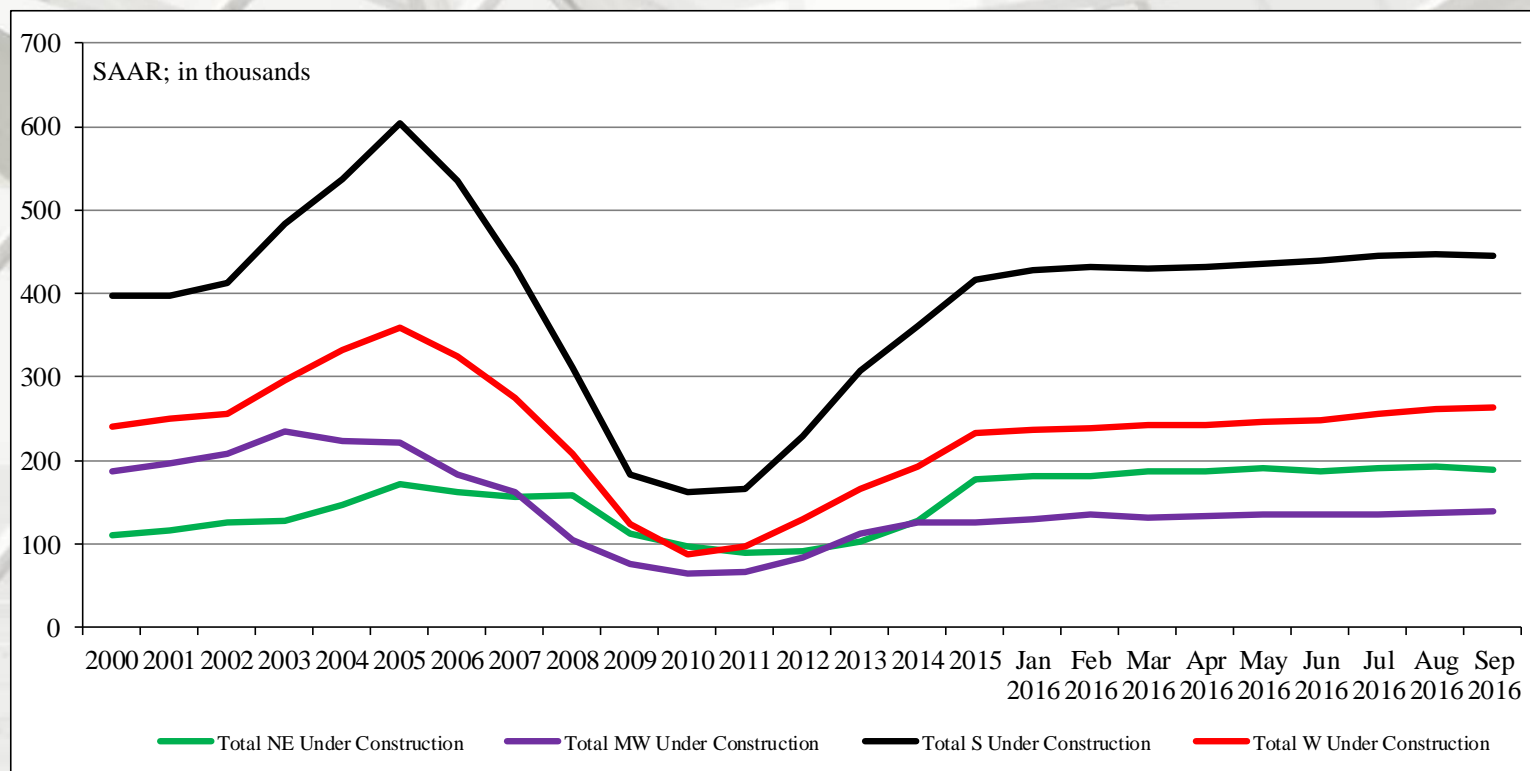
New Housing Under Construction by Region

	S Total	S SF	S MF**
September	446,000	212,000	234,000
August	448,000	209,000	239,000
2015	410,000	199,000	211,000
M/M change	-0.4%	1.4%	-2.1%
Y/Y change	8.8%	6.5%	10.9%
	W Total	W SF	W MF
September	263,000	100,000	163,000
August	261,000	100,000	161,000
2015	236,000	88,000	148,000
M/M change	0.8%	0.0%	1.2%
Y/Y change	11.4%	13.6%	10.1%

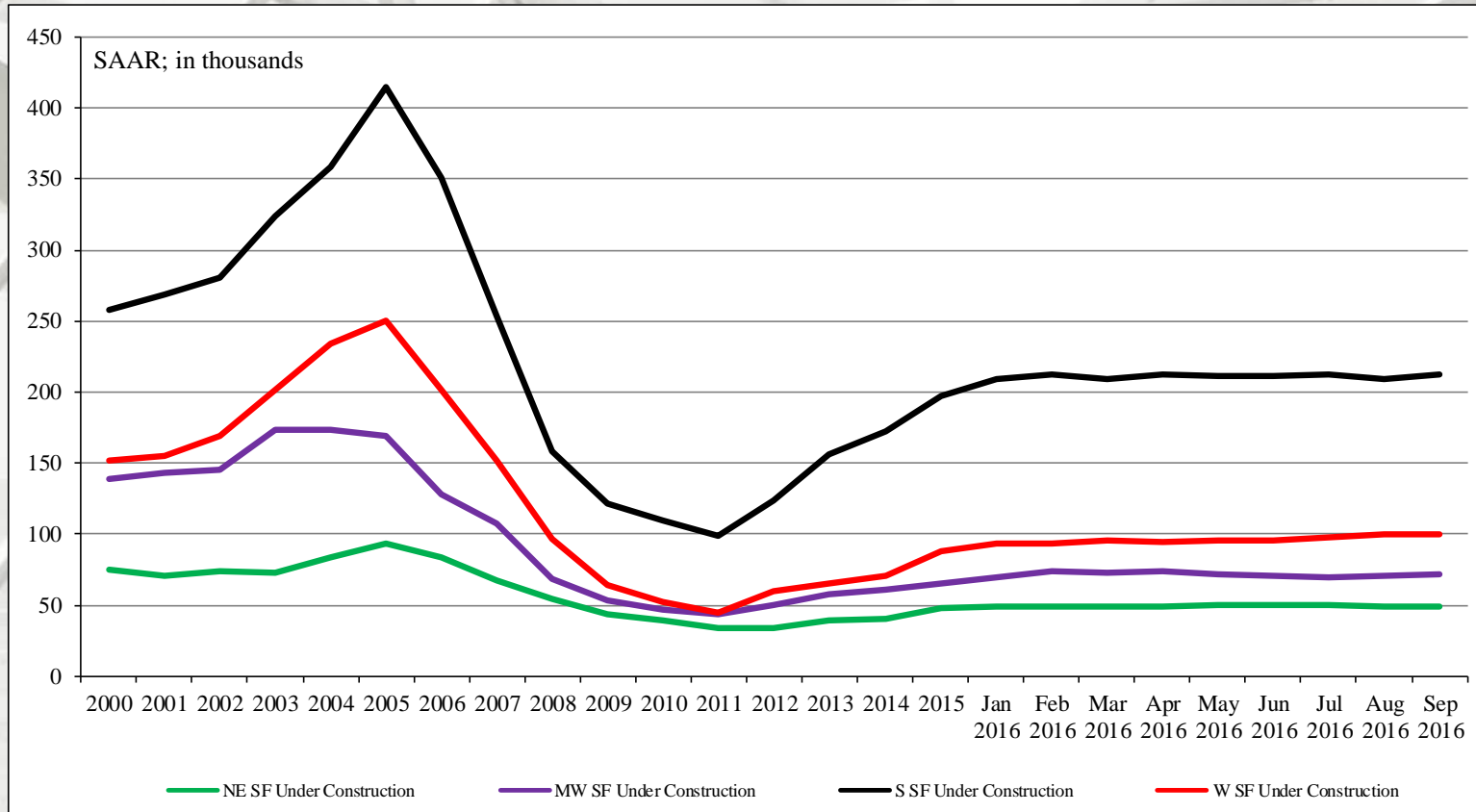
All data are SAAR; S = South and W = West.

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

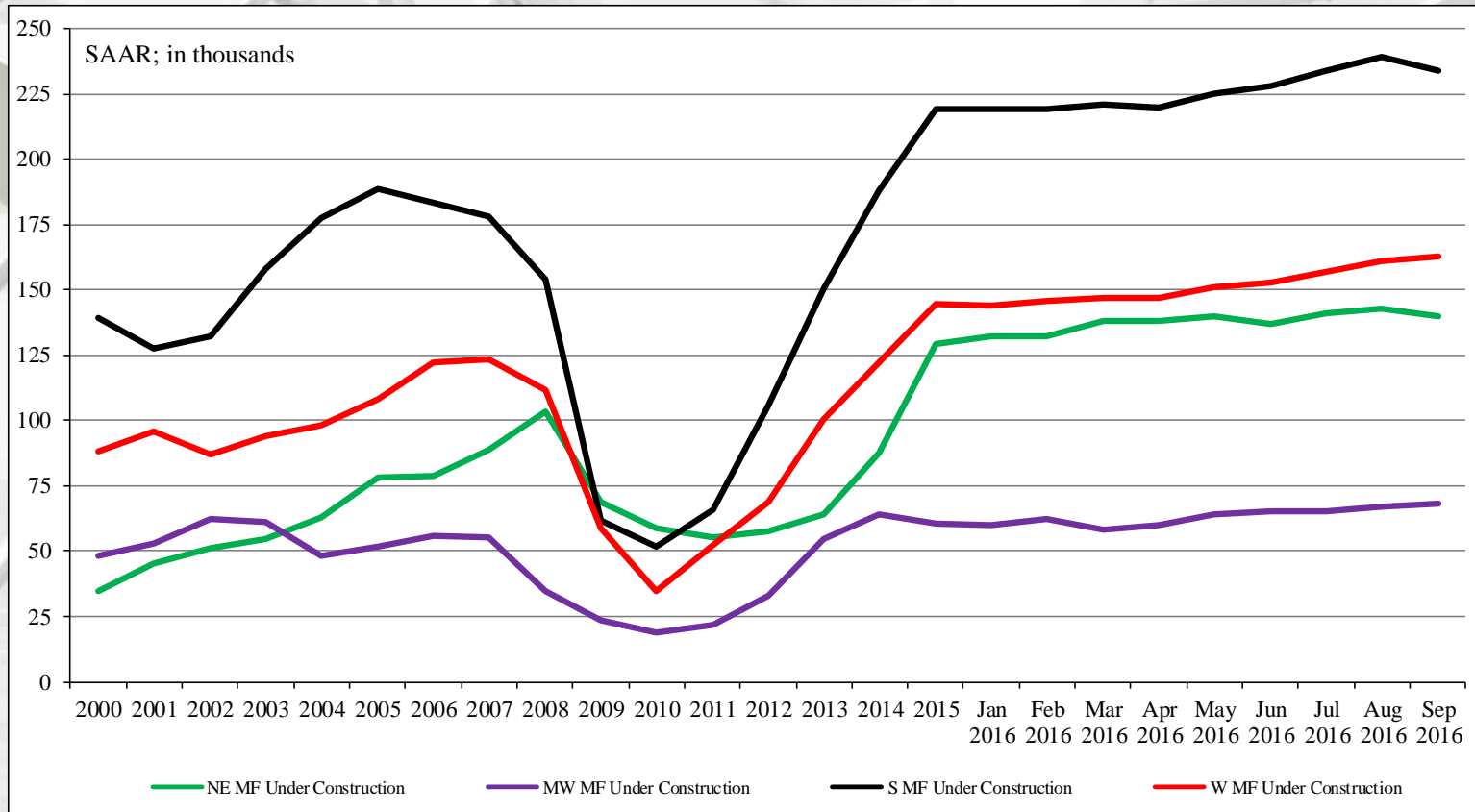
Total Housing Under Construction by Region



SF Housing Under Construction by Region



MF Housing Under Construction by Region



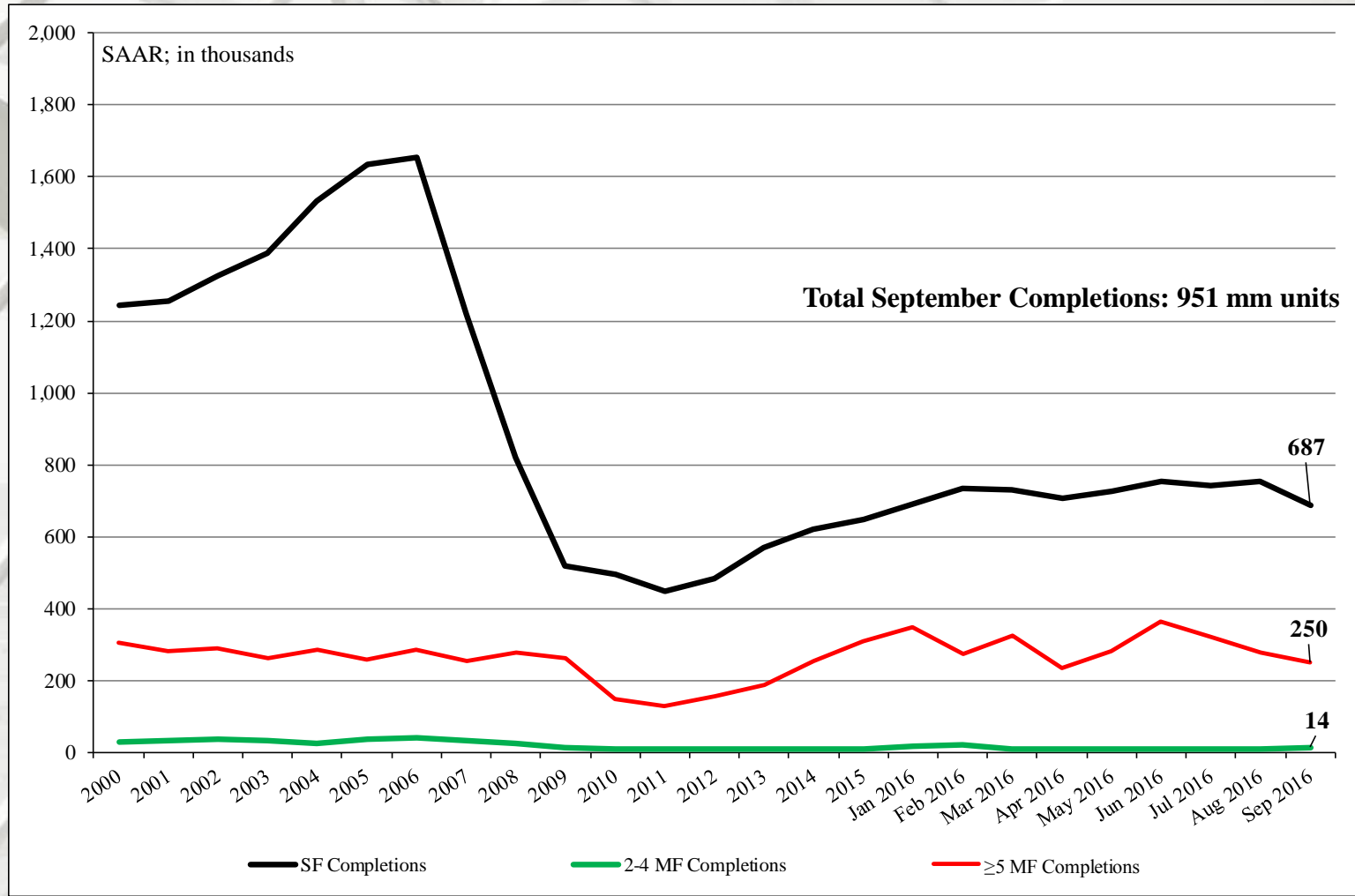
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
September	951,000	687,000	14,000	250,000
August	1,038,000	753,000	7,000	278,000
2015	1,010,000	644,000	7,000	359,000
M/M change	-8.4%	-8.8%	100.0%	-10.1%
Y/Y change	-5.8%	6.7%	100.0%	-30.4%

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

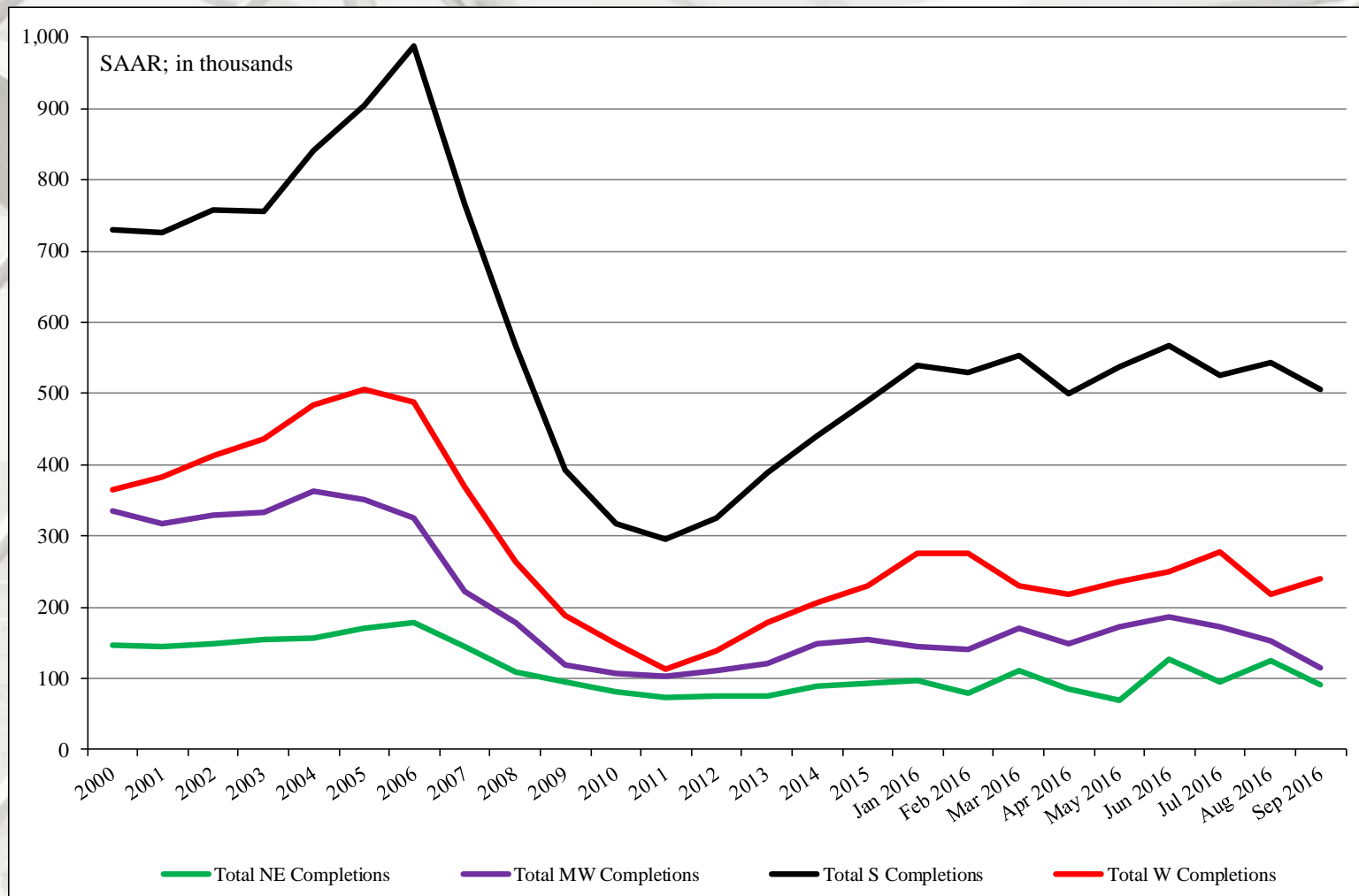


Total Housing Completions by Region

	NE Total	NE SF	NE MF**
September	92,000	56,000	36,000
August	124,000	62,000	62,000
2015	116,000	48,000	68,000
M/M change	-25.8%	-9.7%	-41.9%
Y/Y change	-20.7%	16.7%	-47.1%

	MW Total	MW SF	MW MF
September	115,000	105,000	10,000
August	152,000	104,000	48,000
2015	211,000	113,000	98,000
M/M change	-24.3%	1.0%	-79.2%
Y/Y change	-45.5%	-7.1%	-89.8%

New Housing Completions by Region



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

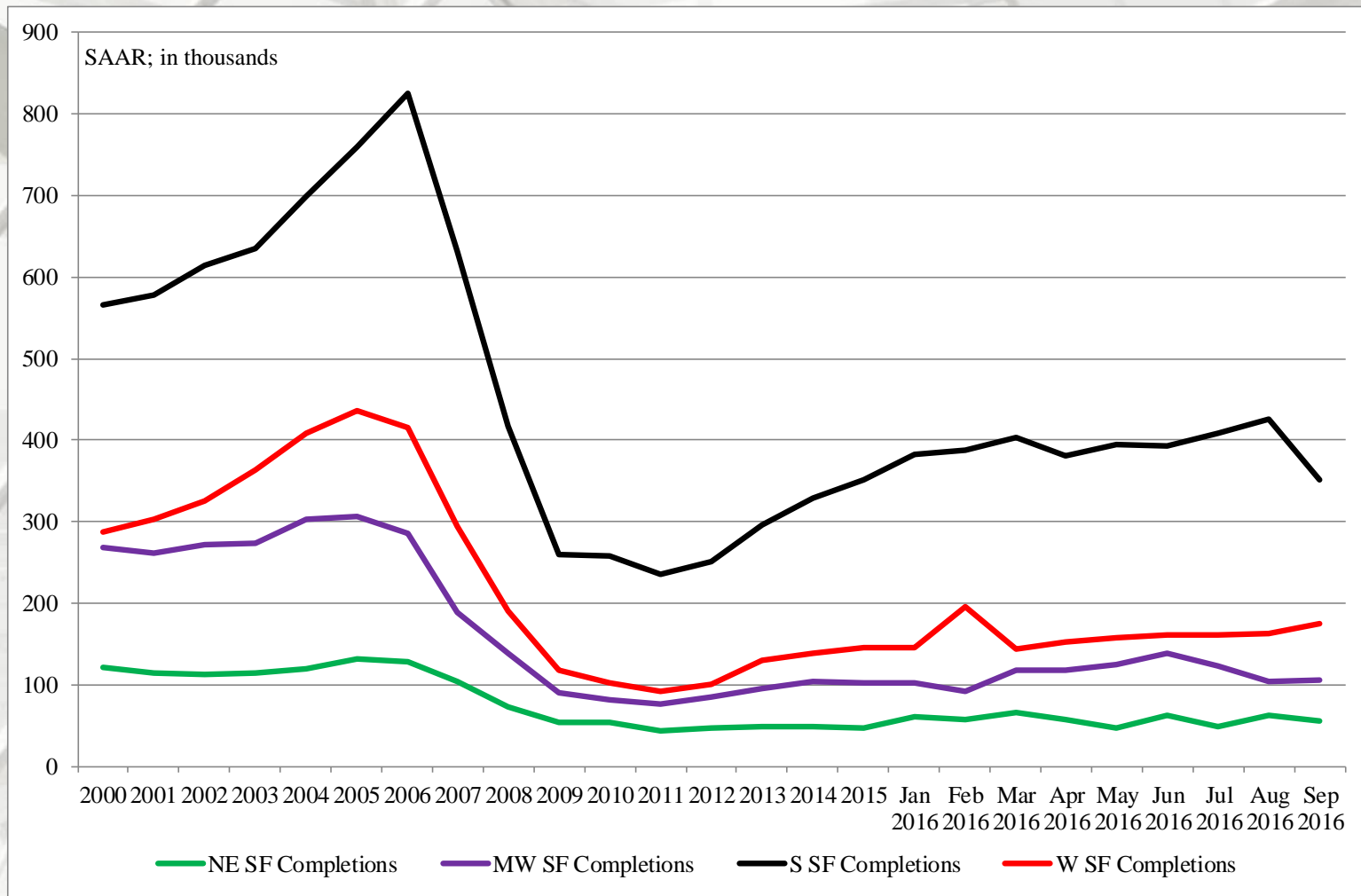
	S Total	S SF	S MF**
September	505,000	352,000	153,000
August	544,000	425,000	119,000
2015	450,000	330,000	120,000
M/M change	-7.2%	-17.2%	28.6%
Y/Y change	12.2%	6.7%	27.5%

	W Total	W SF	W MF
September	239,000	174,000	65,000
August	218,000	162,000	56,000
2015	233,000	153,000	80,000
M/M change	9.6%	7.4%	16.1%
Y/Y change	2.6%	13.7%	-18.8%

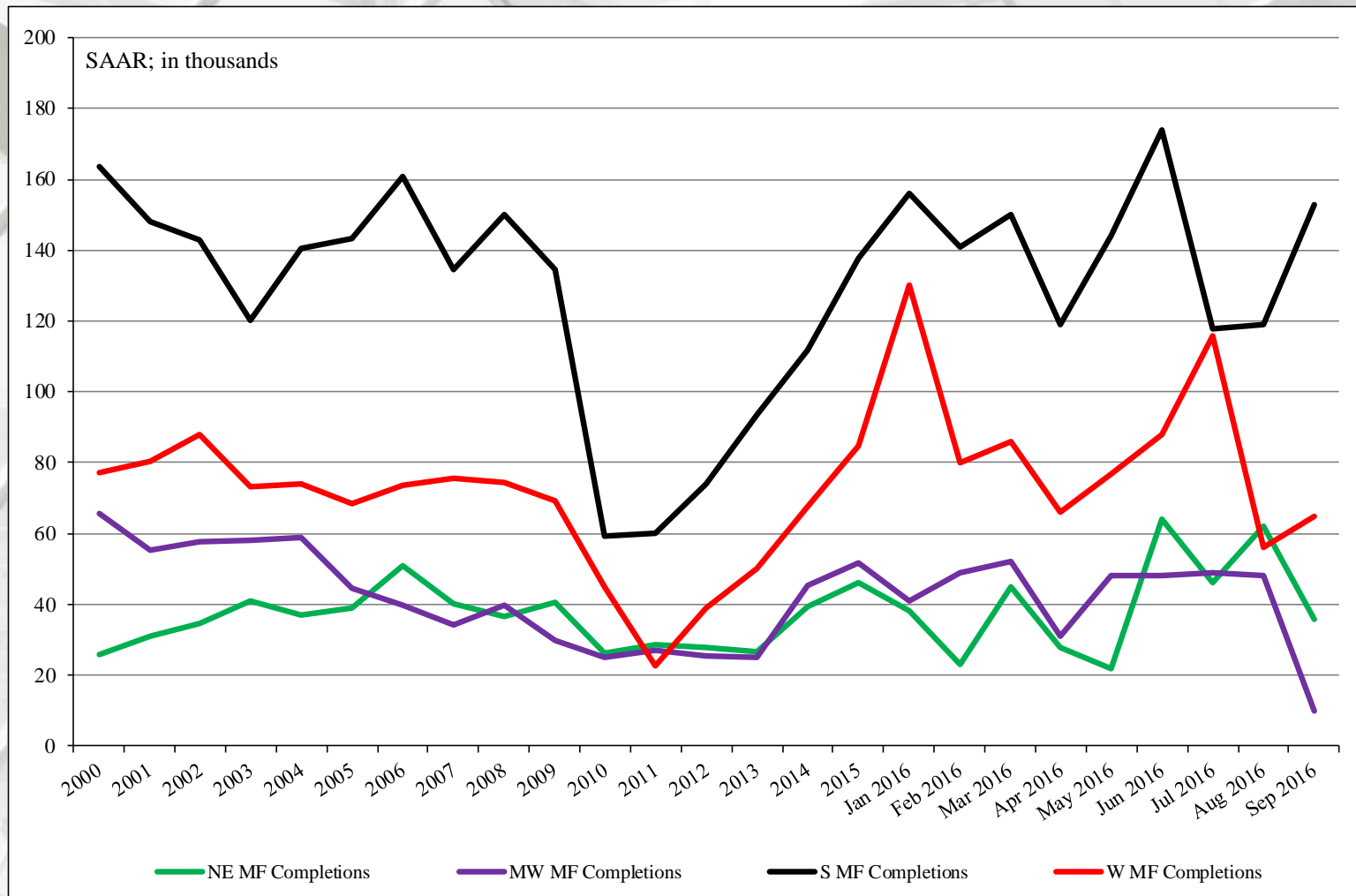
All data are SAAR; S = South and W = West.

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

SF Housing Completions by Region



MF Housing Completions by Region



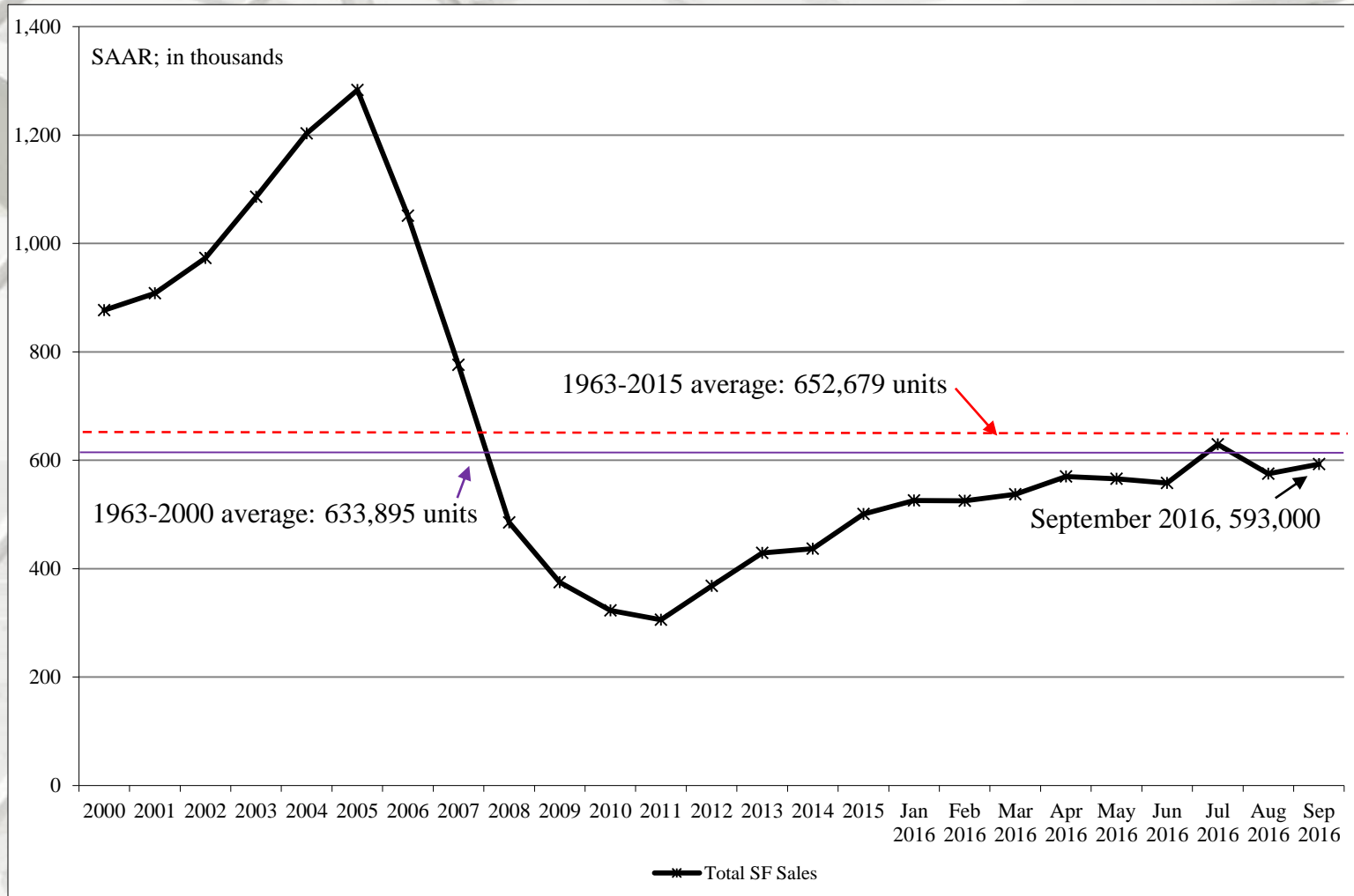
Source: <http://www.census.gov/construction/nrc/pdf/newresconst.pdf>; 10/19/16

New Single-Family House Sales

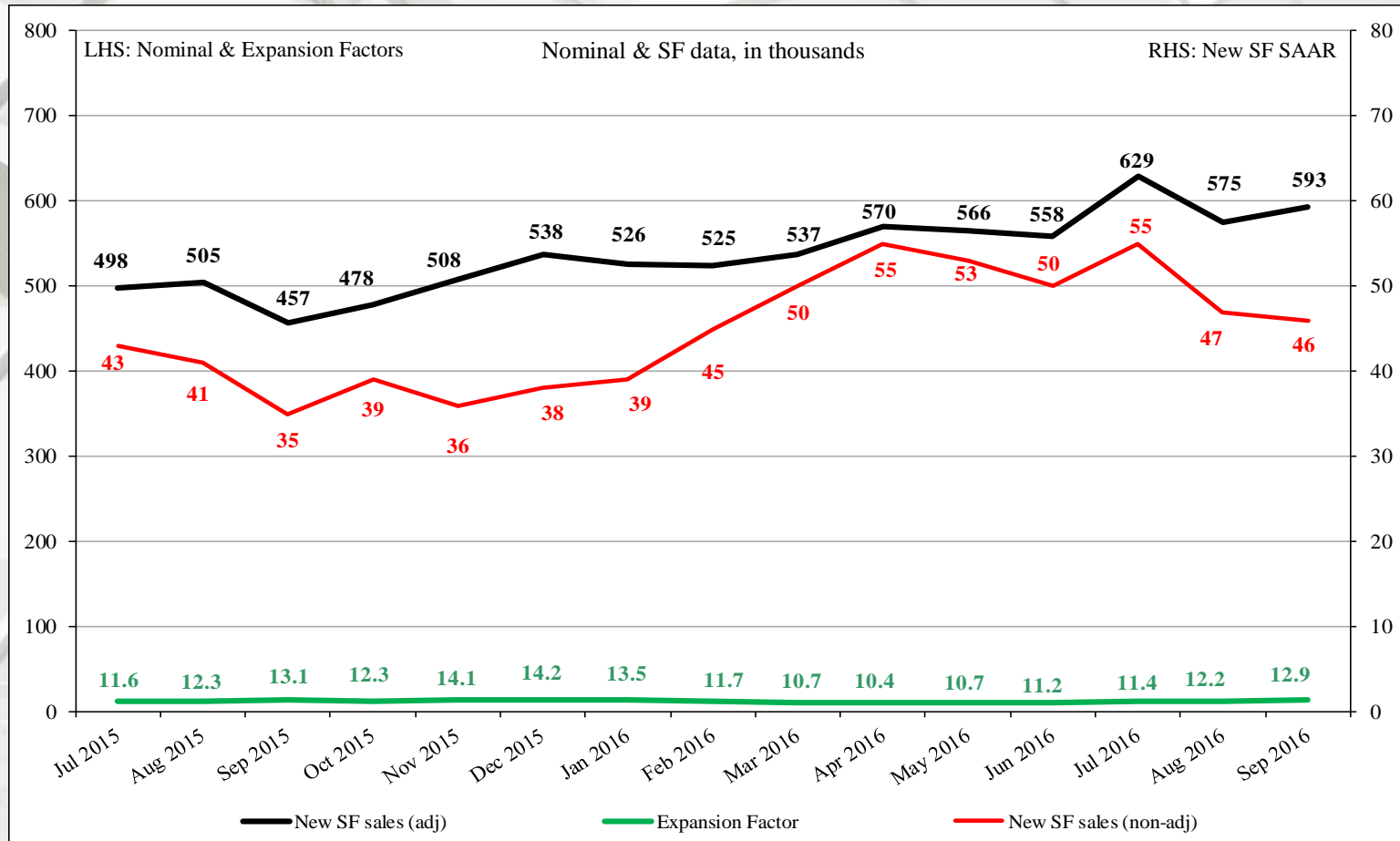
	New SF Sales*	Median Price	Mean Price	Month's Supply
September	593,000	\$313,500	\$377,700	4.8
August	575,000	\$293,800	\$356,200	4.9
2015	457,000	\$307,600	\$367,800	5.8
M/M change	3.1%	6.7%	6.0%	-2.0%
Y/Y change	29.8%	1.9%	2.7%	-17.2%

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

New SF House Sales



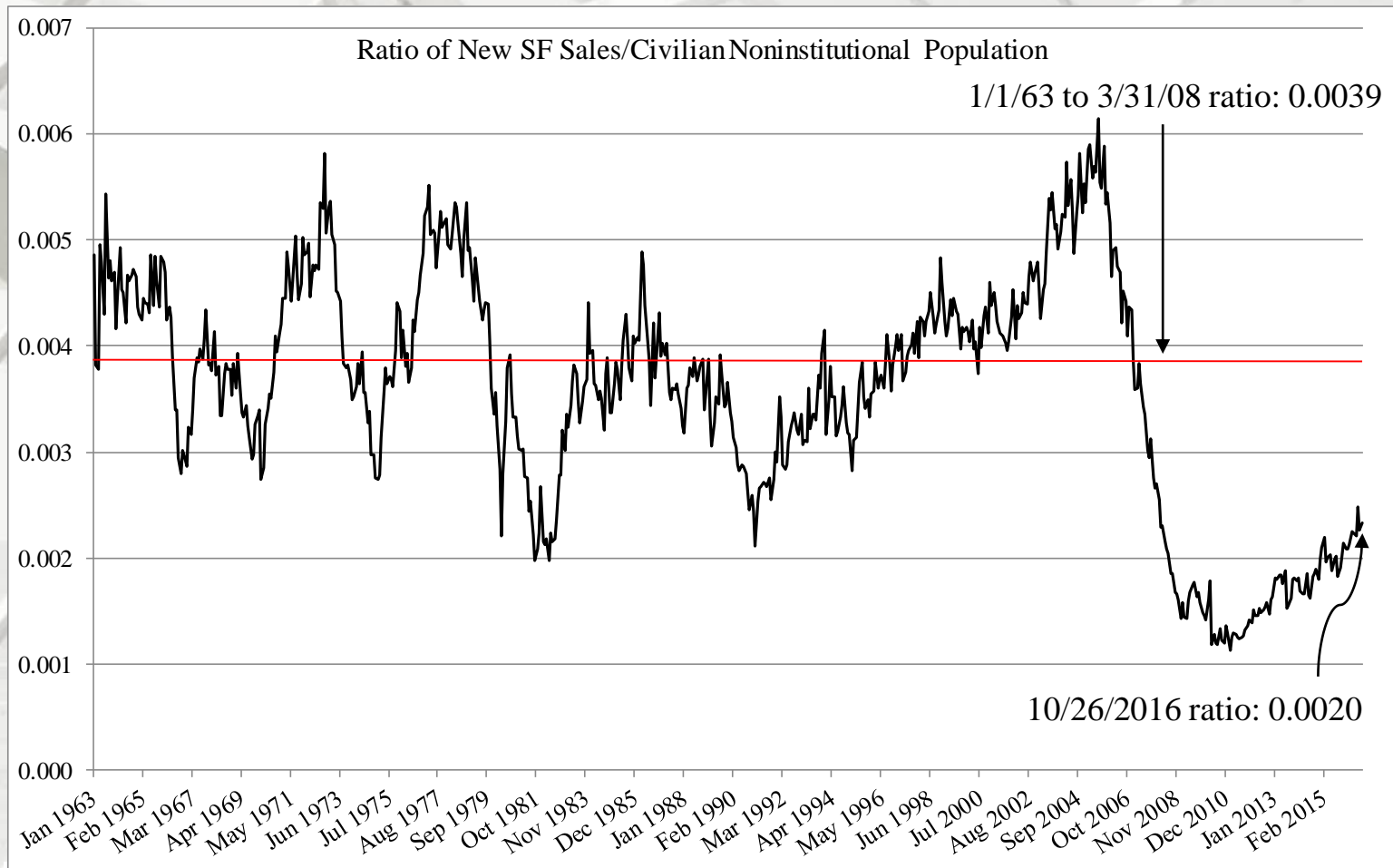
New SF House Sales



Nominal and Adjusted New SF Monthly Sales

Presented above is nominal (non-adjusted) new SF sales data contrasted against SAAR data. The expansion factor "...is the ratio of the unadjusted number of houses sold in the US to the seasonally adjusted number of houses sold in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

New SF House Sales



New SF sales adjusted for the US population

From January 1963 to December 2007, the long-term ratio of new house sales to the US population was 0.0039 – in September 2016 it was 0.0020 – no change from August. From a population viewpoint, construction is less than what is necessary for changes in population (i.e., under-building).

New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
September	32,000	76,000	338,000	147,000
August	24,000	70,000	327,000	154,000
2015	20,000	57,000	269,000	111,000
M/M change	33.3%	8.6%	3.4%	-4.5%
Y/Y change	60.0%	33.3%	25.7%	32.4%

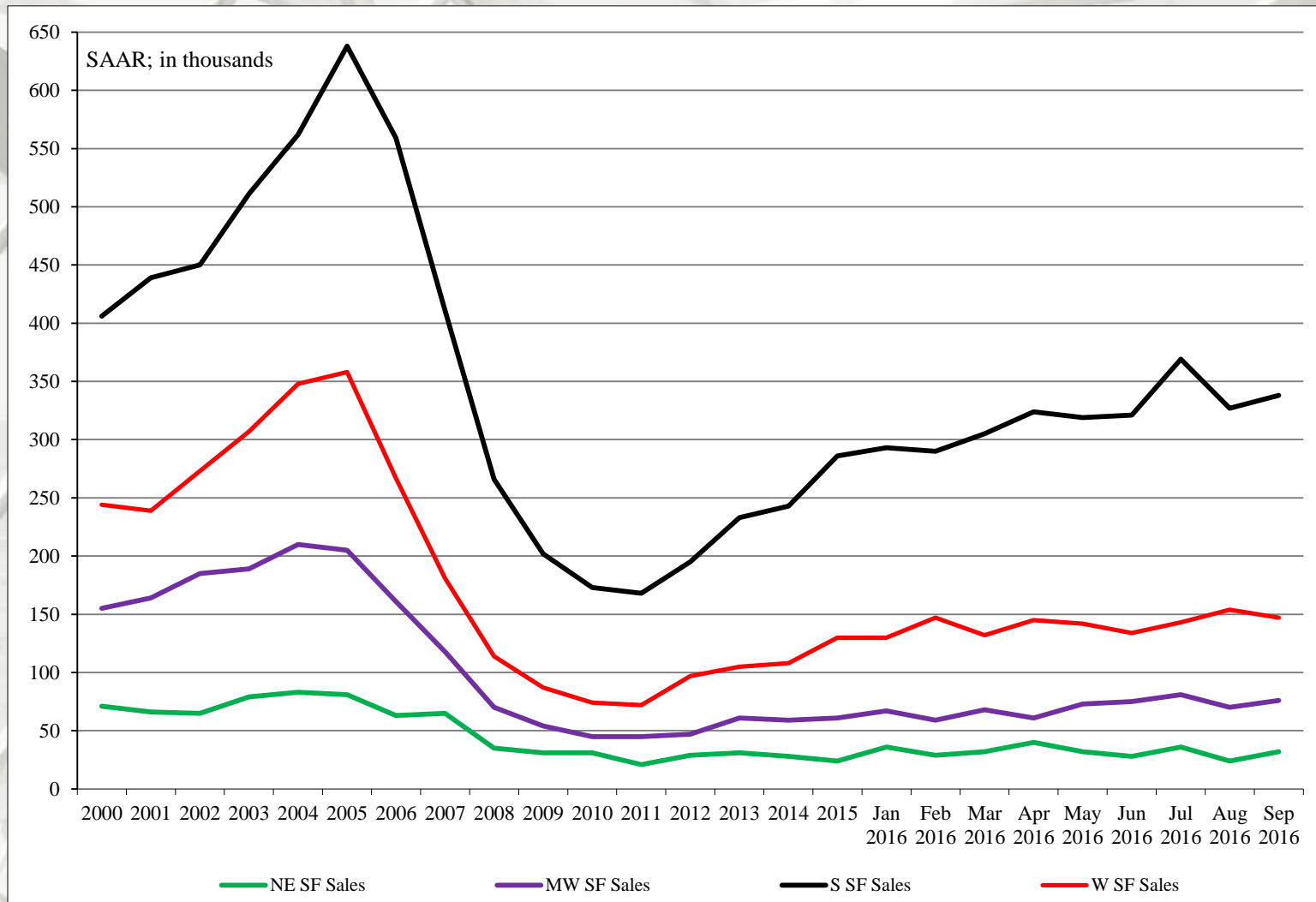
	≤ \$150m	\$150 - \$199.9m	\$200 - 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m
September ^{1,2}	1,000	6,000	13,000	13,000	5,000	6,000	2,000
August	2,000	6,000	16,000	11,000	5,000	4,000	2,000
2015	2,000	5,000	10,000	7,000	7,000	3,000	1,000
M/M change	-50.0%	0.0%	-18.8%	18.2%	0.0%	50.0%	0.0%
Y/Y change	-50.0%	20.0%	30.0%	85.7%	-28.6%	100.0%	100.0%

All data are SAAR.

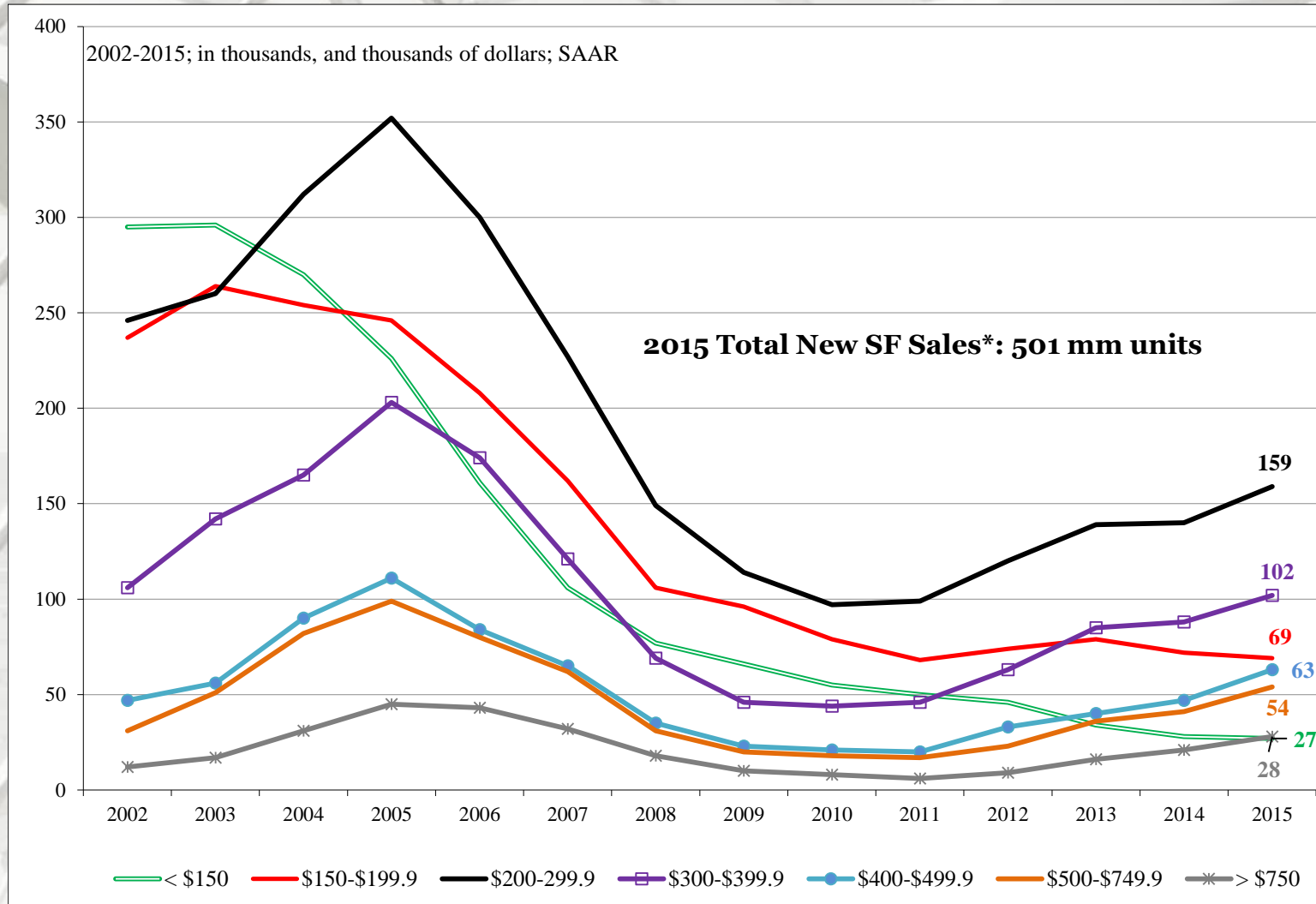
¹ Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

² Detail June not add to total because of rounding.

New SF House Sales by Region

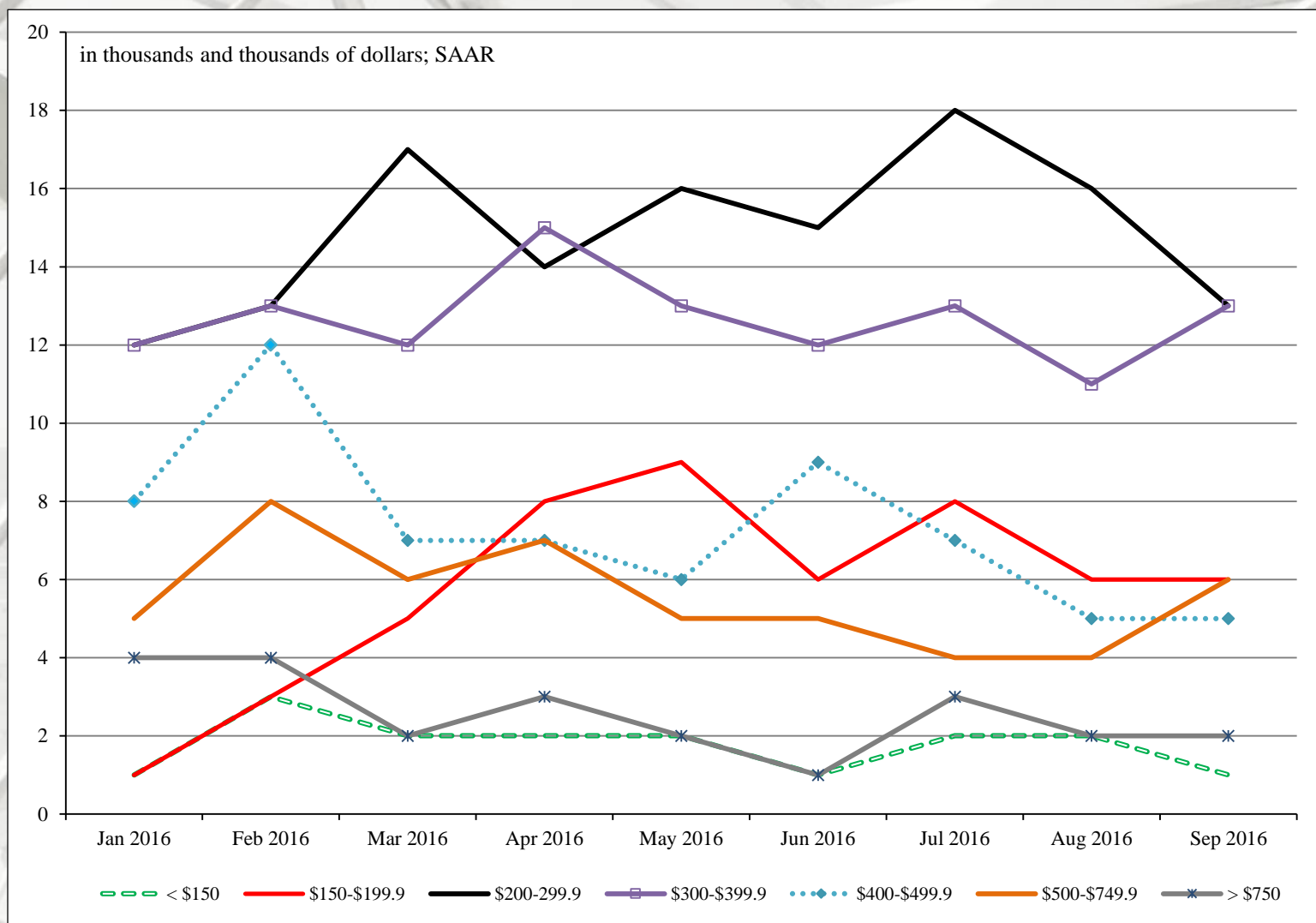


New SF House Sales by Price Category



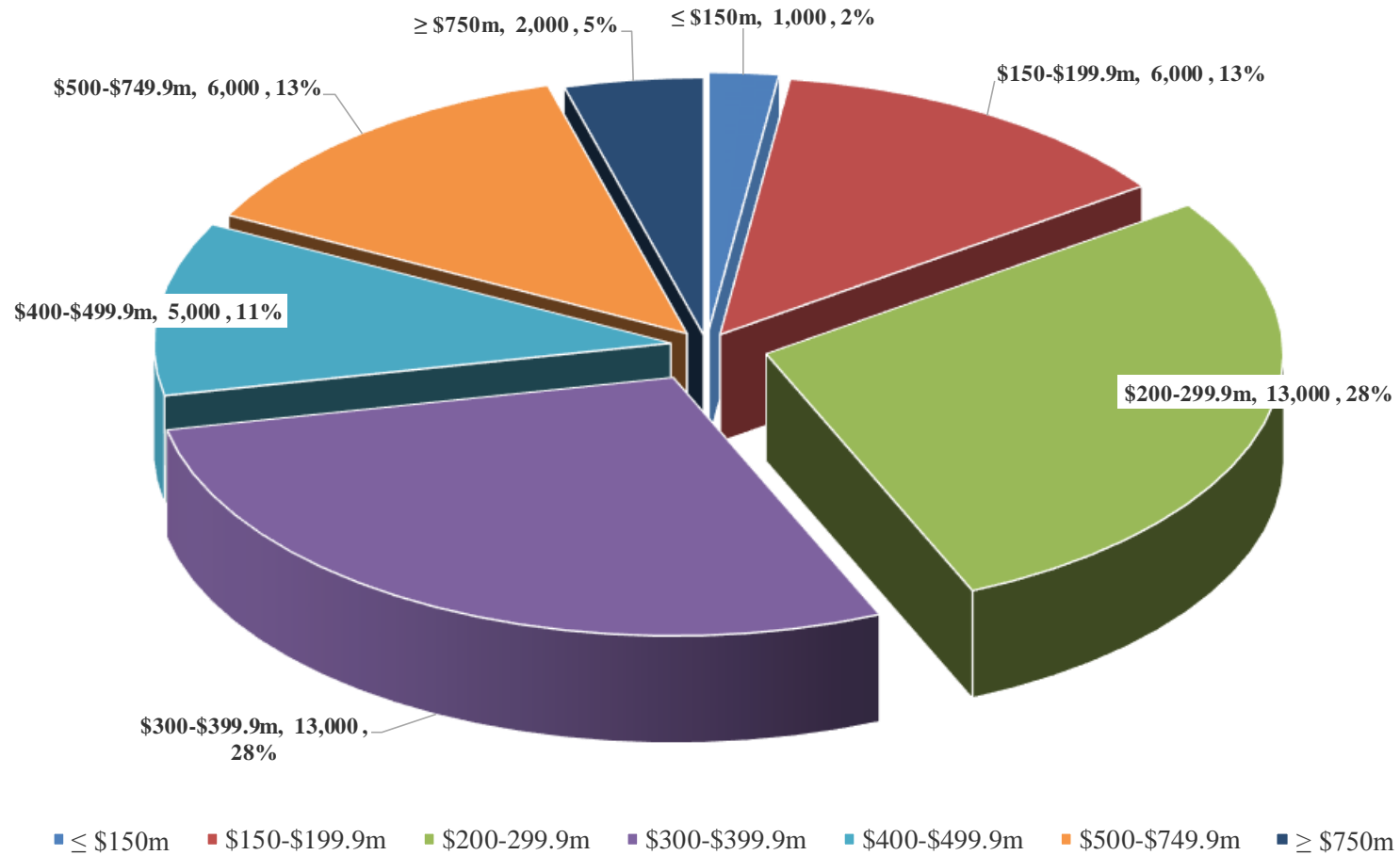
* Sales tallied by price category.

New SF House Sales by Price Category

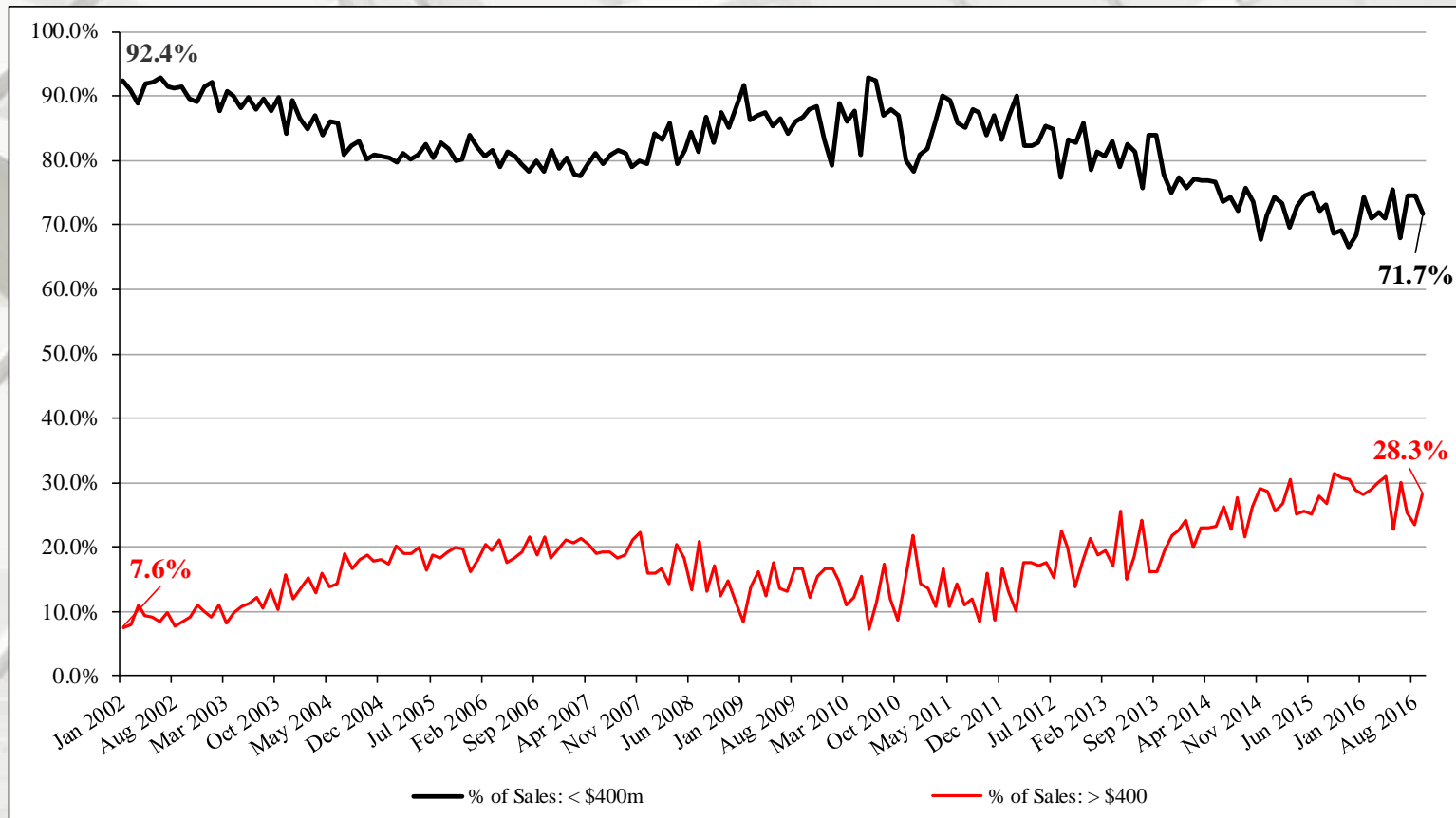


New SF House Sales

September SF Sales



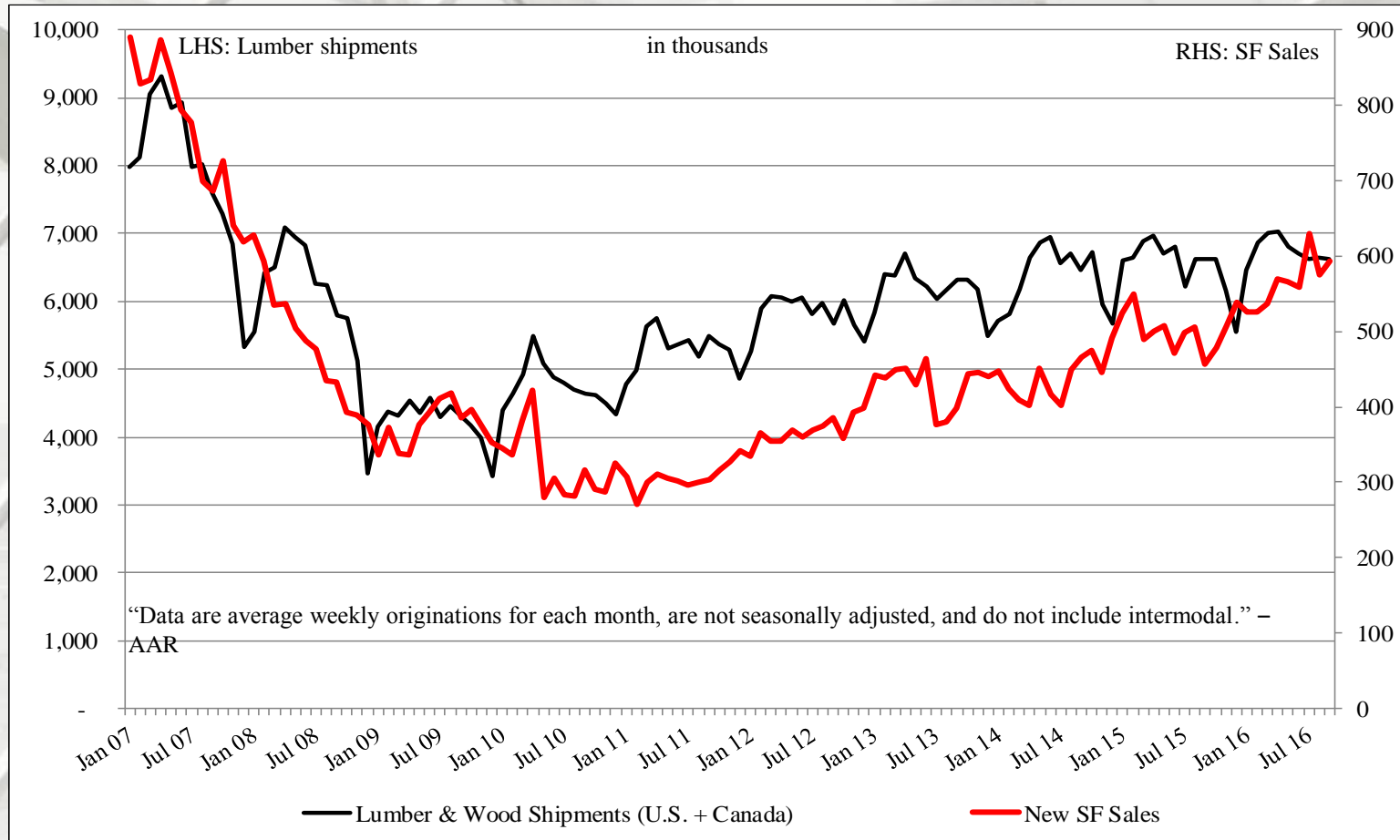
New SF House Sales



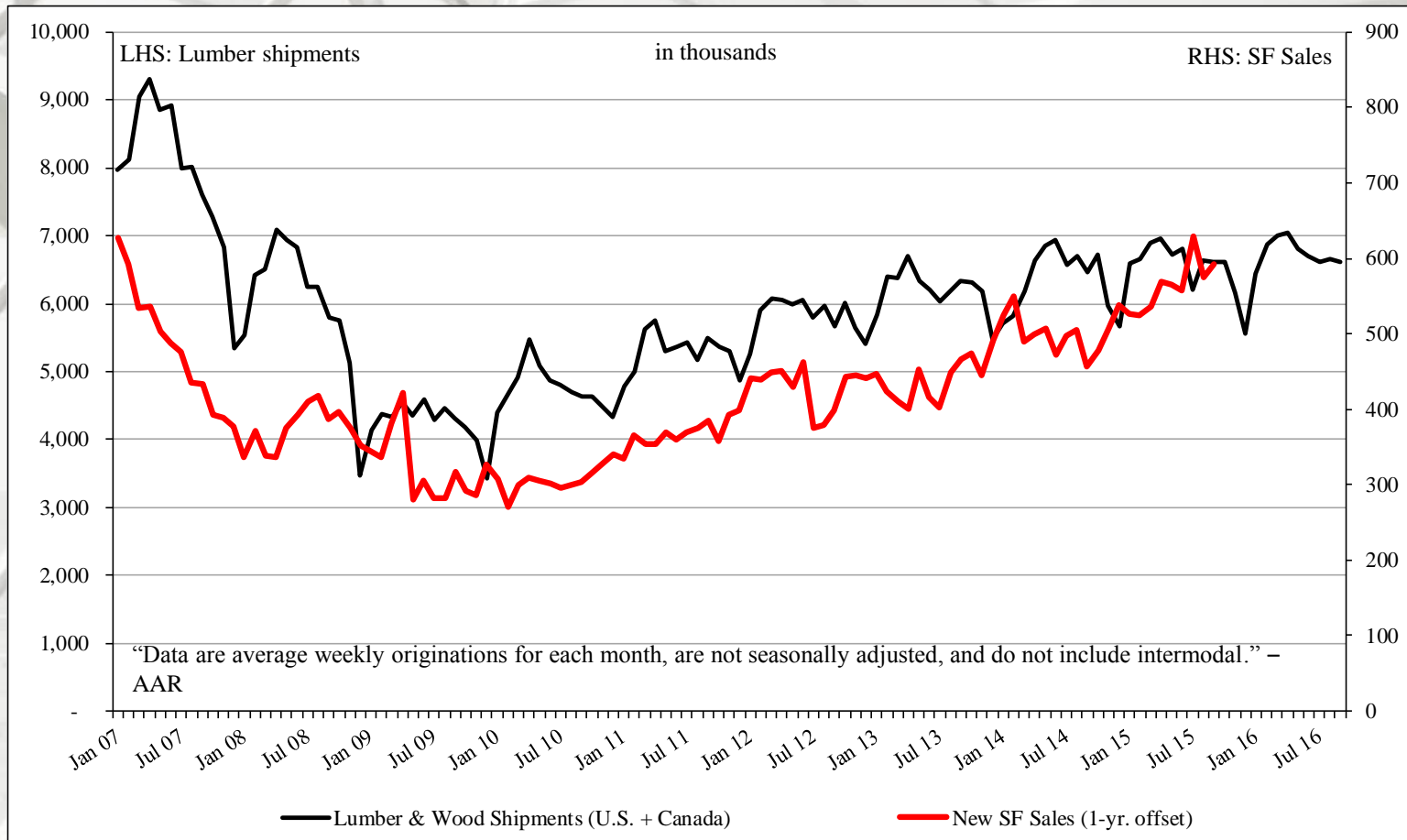
New SF Sales: 2002 – September 2016

The sales share of \$400 thousand plus SF houses is presented above. Since the beginning of 2012, the upper priced houses have and are garnering a greater percentage of sales. Several reasons are offered by industry analysts; 1) builders can realize a profit on higher priced houses; 2) historically low interest rates have indirectly resulted in increasing house prices; and 3) purchasers of upper end houses fared better financially coming out of the Great Recession.

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



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 September 2016 new SF sales. The purpose is to discover if lumber shipments relate to future new SF house sales. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

September 2016 Construction Spending

**2016 September Total Private Residential Construction:
\$453.7 billion (SAAR)**

0.5% more than the revised August estimate of \$451.3 billion (SAAR)
0.9% greater than the September 2015 estimate of \$449.7 billion (SAAR)

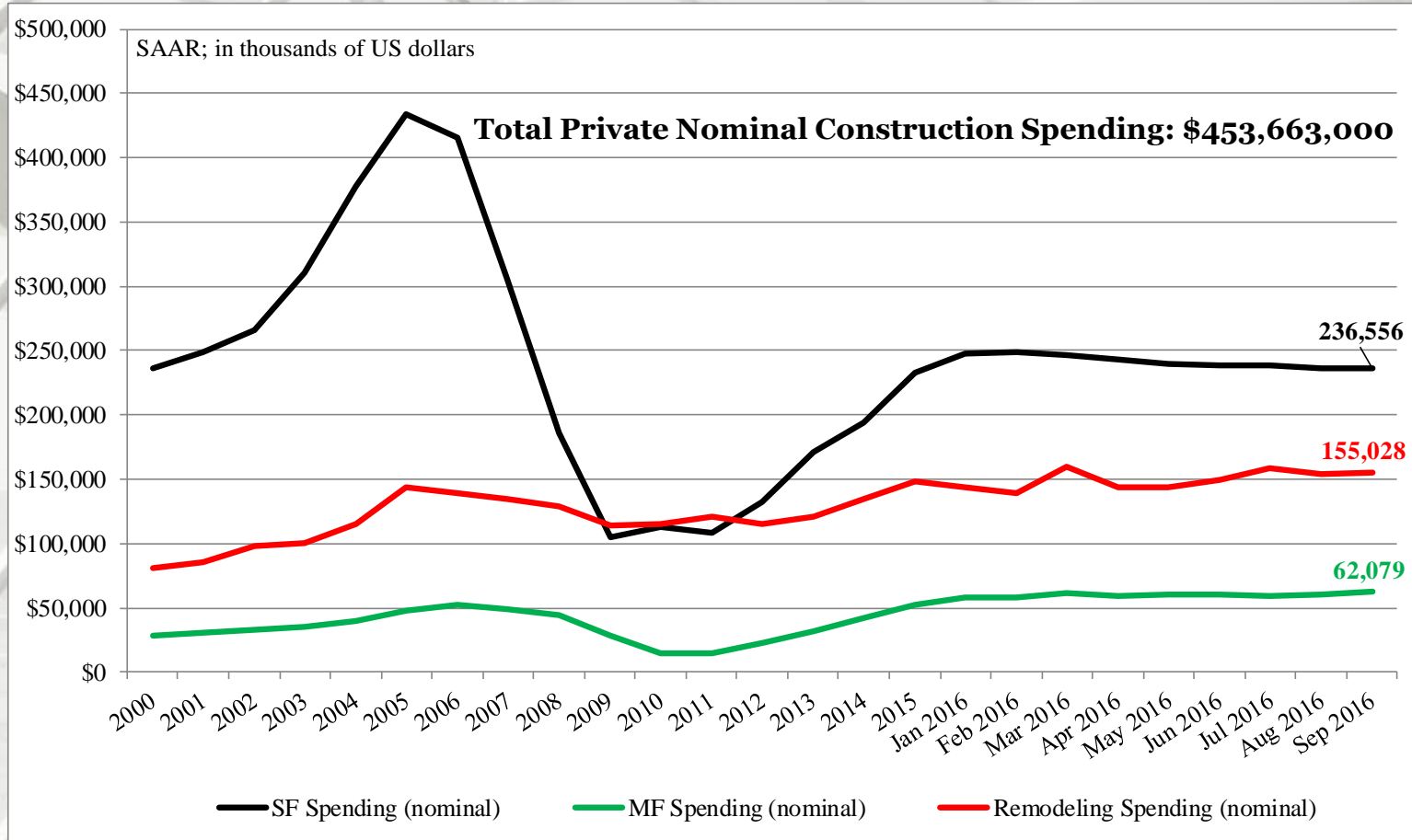
September SF construction: \$236.5 billion (SAAR)
0.1% more than August: \$236.3 billion (SAAR)
-2.9% less than September 2015: \$243.7 billion (SAAR)

September MF construction: \$62.1 billion (SAAR)
2.0% more than August: \$60.8 billion (SAAR)
9.1% greater than September 2015: \$56.9 billion (SAAR)

September Improvement^C construction: \$155.0 billion (SAAR)
0.6% greater than August: \$154.2 billion (SAAR)
4.0% more than September 2015: \$149.1 billion (SAAR)

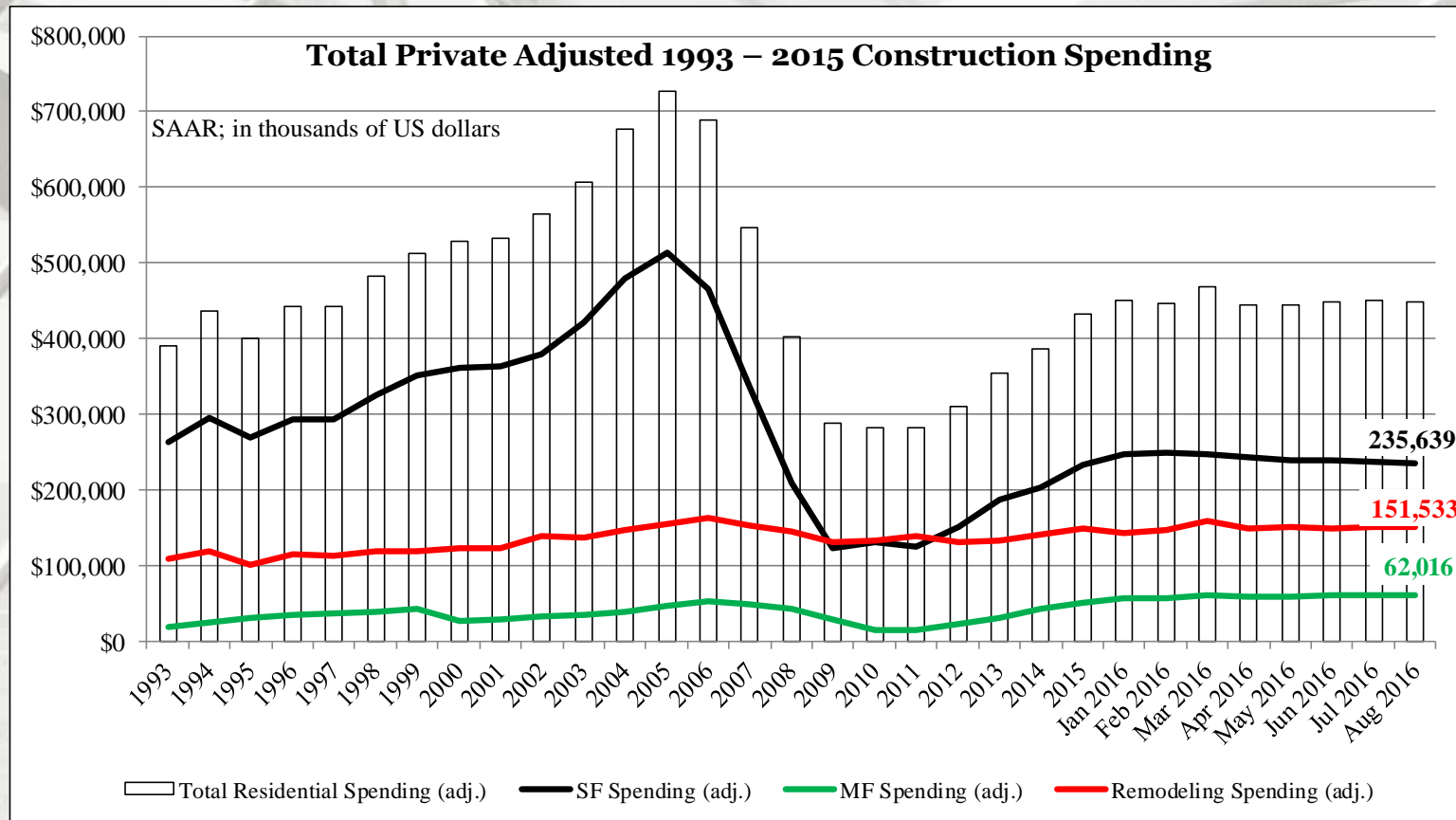
^C The US DOC does not report improvement spending directly, this is an estimation:
((Total Private Spending – (SF spending + MF spending)).
All data are SAARs and reported in nominal US\$.

Total Construction Spending (nominal): 1993 – September 2016



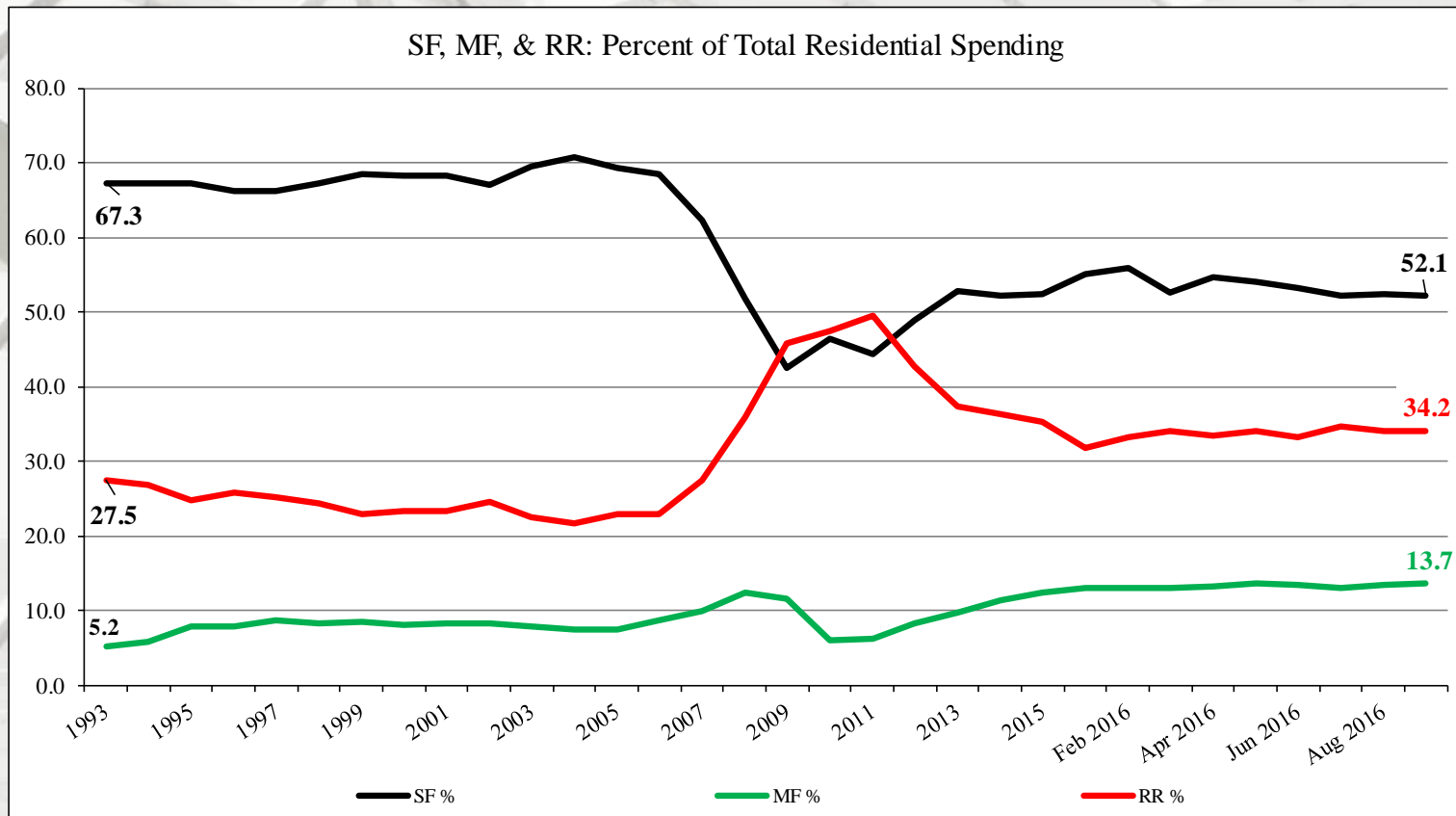
Reported in nominal US\$.

Total Construction Spending (adjusted): 1993-2016*



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

Construction Spending Shares: 1993 to September 2016



Total Residential Spending: 1993 through 2006

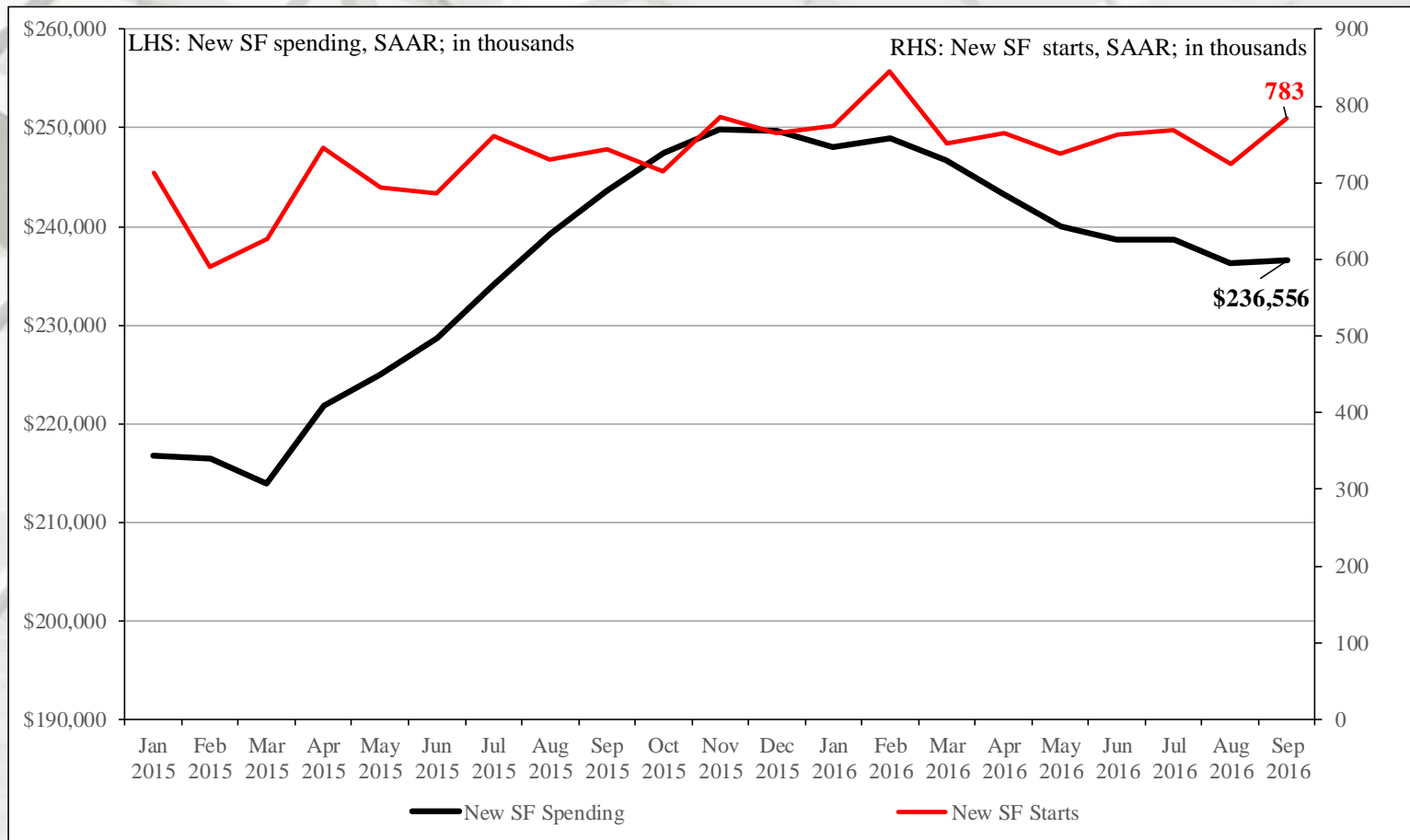
SF spending average: 69.2 %

MF spending average: 7.5 %;

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

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

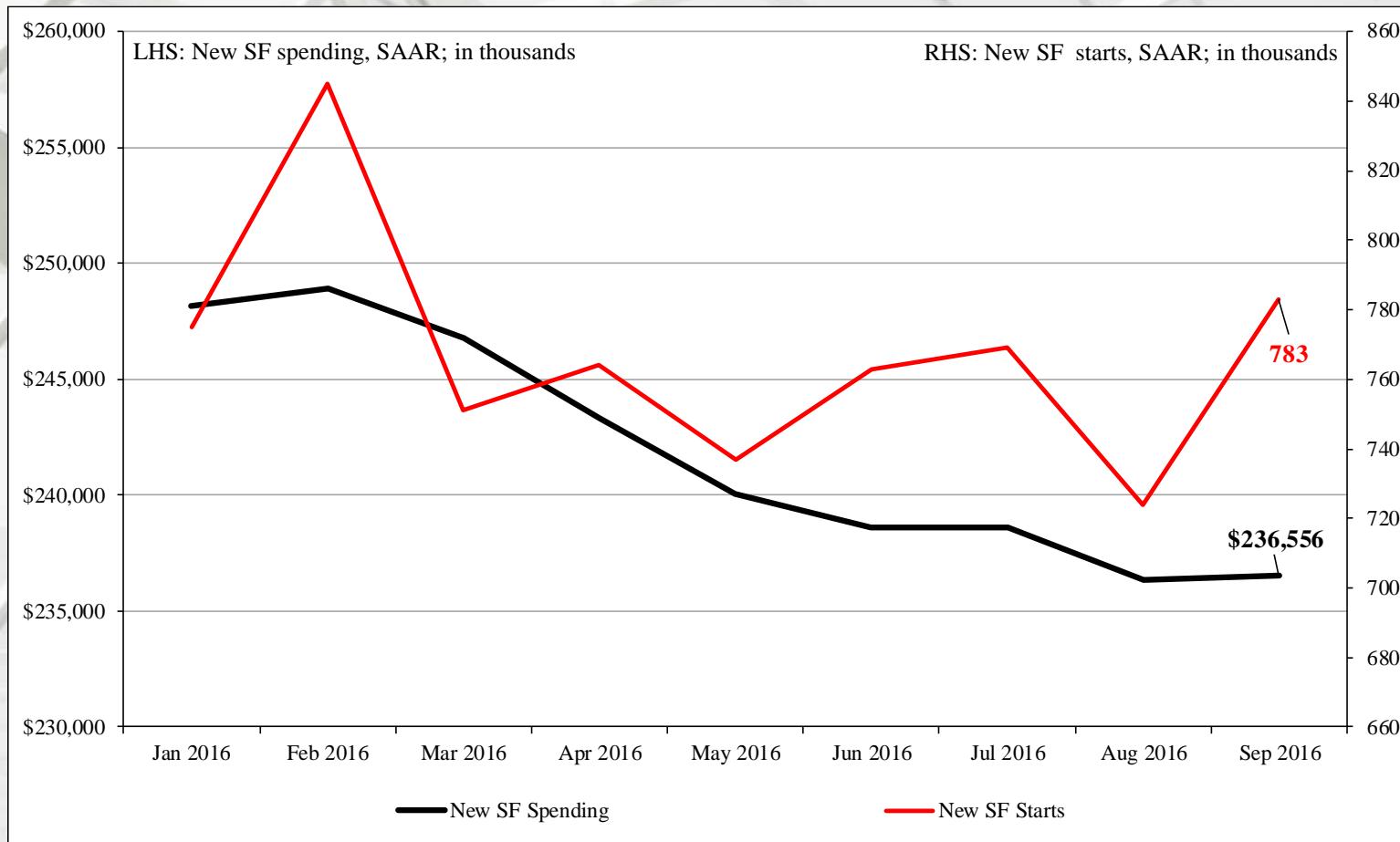
Construction Spending & Starts: 2010 to September 2016



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

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

Construction Spending & Starts: 2016

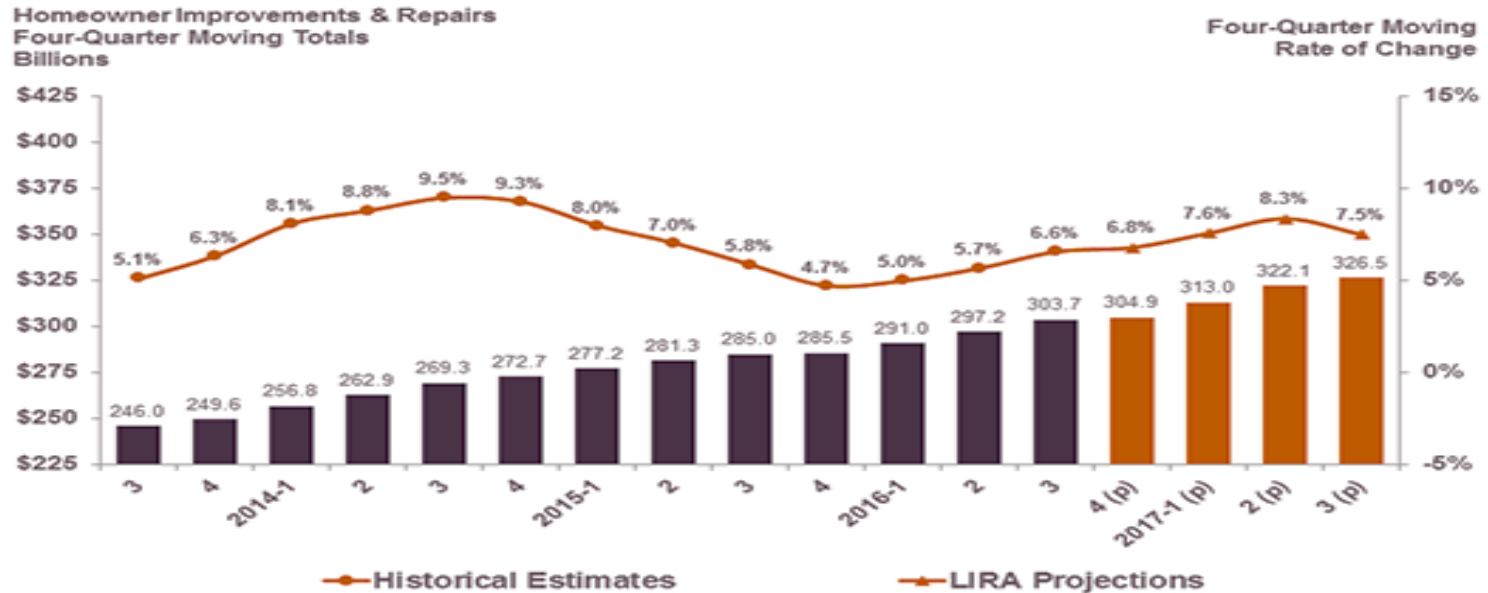


New SF Residential contrasted against New SF Starts: 2016

As presented above, the decline in spending decoupled from starts in September. Given that it is one-month of data, we should pay attention to this relationship going forward.

Remodeling

Leading Indicator of Remodeling Activity – Third Quarter 2016



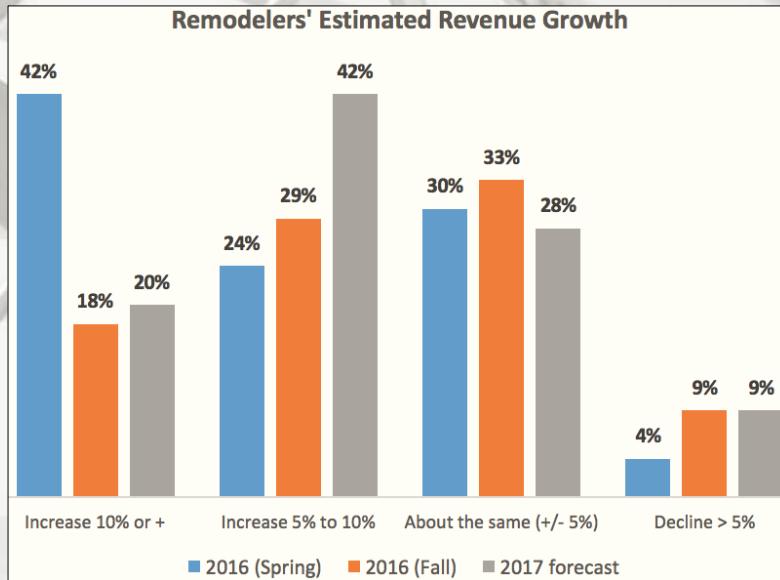
Notes: The former LIRA modeled homeowner improvement activity only, while the re-benchmarked LIRA models home improvement and repair activity. Historical estimates are produced using the LIRA model until American Housing Survey data become available.
 Source: Joint Center for Housing Studies.

Growth in Remodeling Spending Projected to Peak in 2017

“Strong gains in home renovation and repair spending are expected to continue into next year before tapering, according to our latest Leading Indicator of Remodeling Activity (LIRA). The LIRA projects that annual growth in home improvement and repair expenditures will continue to increase, surpassing eight percent by the second quarter of 2017 before moderating somewhat later in the year.

Even as remodeling growth trends back down, levels of spending are expected to reach new highs by the third quarter of next year. At \$327 billion annually, the homeowner improvement and repair market will surpass its previous inflation-adjusted peak from 2006.” – Abbe Will, Research Analyst, Harvard Joint Center for Housing Studies

Remodeling



Remodelers Estimated Revenue Growth

	2016 (Spring)	2016 (Fall)	2017 forecast
Increase 10% or +	42%	18%	20%
Increase 5% to 10%	24%	29%	42%
About the same (+/- 5%)	30%	33%	28%
Decline > 5%	4%	9%	9%

Remodelers Modestly Optimistic About 2017 Revenues, Survey Finds

“The sunny optimism for 2016 that remodelers showed last spring has turned cloudier and will remain that way through 2017, a survey of several hundred remodelers shows.

Kermit Baker, head of the JCHS Remodeling Futures group, suggested to conference attendees that the change indicated that remodelers were getting less optimistic about business. That's backed up in part by this year's Remodeling 550, which found that replacement contractors expected their sales will rise 27.2% this year from 2015, while full-service firms predicted only a 4.9% gain, and insurance restoration companies a 2.5%. Remodelers polled by The Farnsworth Group tended to be mid-sized, full-service firms, Baker said.” – Craig Webb, Editor-in-Chief, REMODELING

Remodeling

National Indices For New Home Construction And Existing Home Remodeling

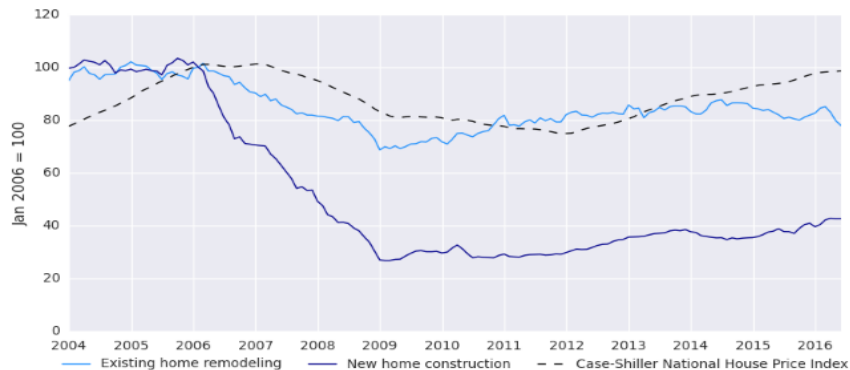
(Seasonally adjusted)

	Last 12 months	Last 12 months	Year-on-year
	vs. 2005	vs. 2009	change ¹
	(2)	(2)	(4)
Construction of New Homes	-59.4%	+40.6%	+11.9%
Remodeling of Existing Homes ²	-17.3%	+14.4%	-4.1%

¹ Year-on-year change is calculated on a quarterly basis, i.e. the last 3 months vs. the same period last year.

² Throughout the report, the term remodeling is used broadly to include home improvement, maintenance and repair.

Source: BuildZoom.



The BuildZoom and Urban Economics Lab Index: Second Quarter 2016

- “Residential remodeling is arguably a better indicator of consumer sentiment than new construction, and is of similar importance as an indicator of national economic health.
- Remodeling of existing homes is 14.4% above its 2009 housing bust level, but remains 17.3% below its 2005 housing boom level, and that new home construction is 40.6% above its 2009 level, but remains 59.4% below its 2005 level.
- Year-over-year, residential new construction increased by 11.9% and residential remodeling decreased by 4.1%.” – Jack Cookson, Author, BuildZoom

Existing House Sales

National Association of Realtors (NAR®)

September 2016 sales: 5.470 million houses sold (SAAR)

Distressed house sales: 4% of total sales –
(3% foreclosures and 1% short-sales);
5% in August and 7% in September 2015.

All-cash sales: 21% and 22% in August,
and 24% (September 2015).

Individual investors still purchase a considerable portion of
“all cash” sale houses – 14% in September;
13% in August and 13% in September 2015.
65% of investors paid cash in September.

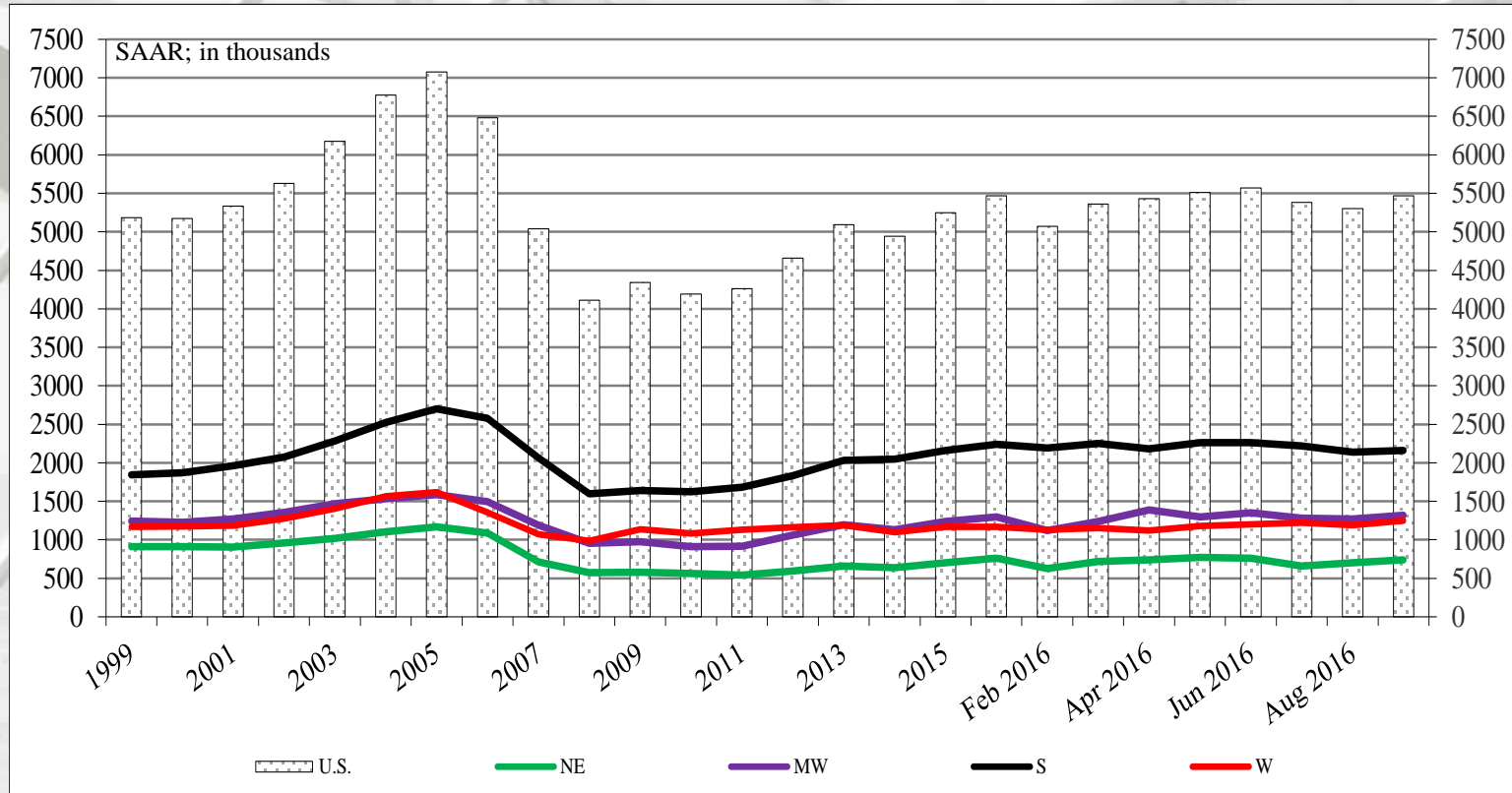
Existing House Sales

	Existing Sales*	Median Price	Mean Price	Month's Supply
September	5,470,000	\$234,200	\$261,600	4.5
August	5,300,000	\$239,900	\$274,100	4.6
2015	5,440,000	\$221,700	\$256,200	4.8
M/M change	3.2%	-2.4%	-2.1%	-2.2%
Y/Y change	0.6%	5.6%	4.2%	-6.3%

	NE Sales	MW Sales	S Sales	W Sales
September	740,000	1,320,000	2,160,000	1,250,000
August	700,000	1,270,000	2,140,000	1,190,000
2015	740,000	1,290,000	2,180,000	1,230,000
M/M change	5.7%	3.9%	0.9%	5.0%
Y/Y change	0.0%	2.3%	-0.9%	1.6%

* All sales data: SAAR

Total Existing House Sales



First-Time Purchasers

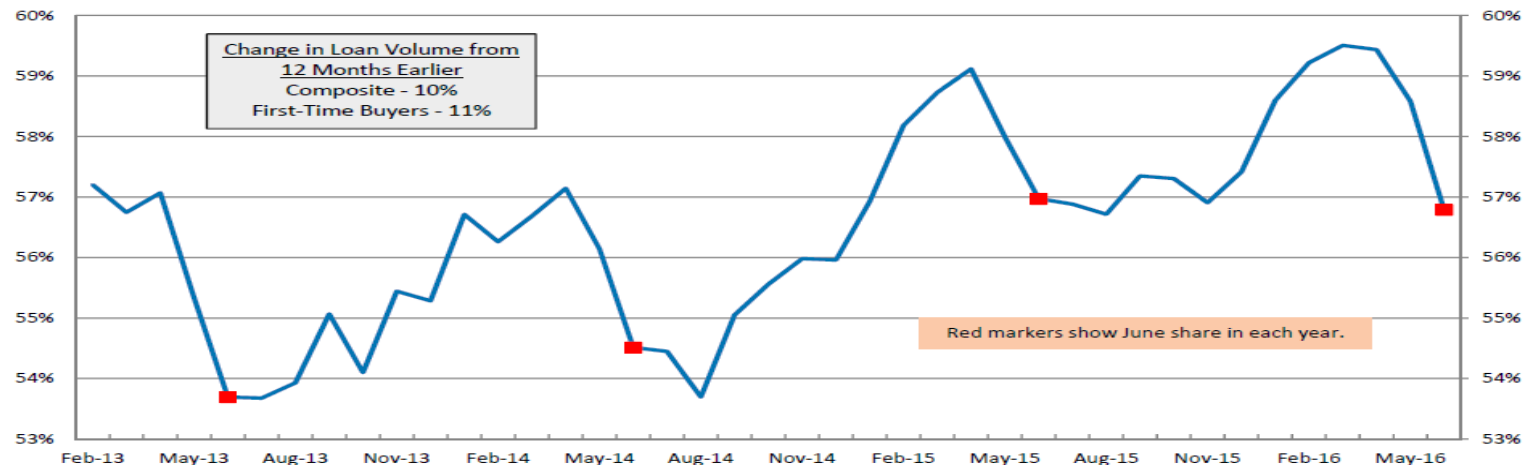
National Association of Realtors (NAR®)

34% of sales in September 2016 – 31% in August 2016 and 29% in September 2015.

American Enterprise Institute International Center on Housing Risk

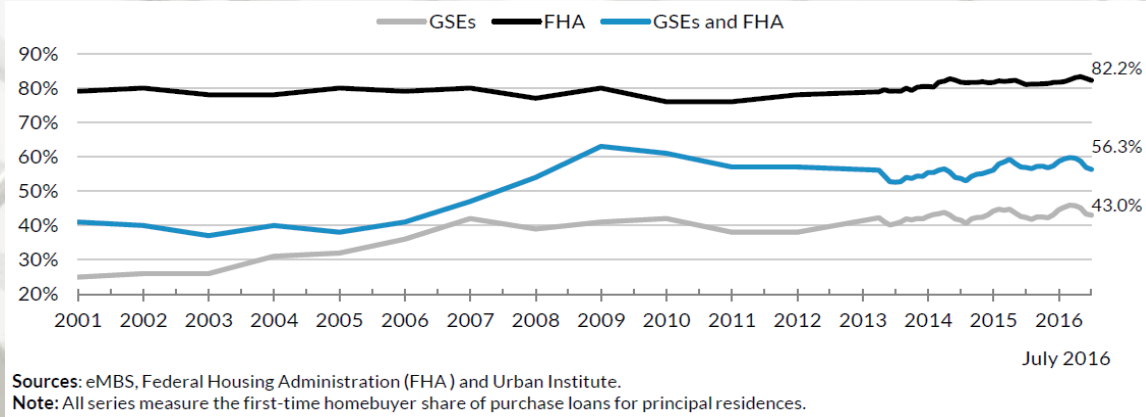
“Despite little change in this month’s lending standards, credit is still readily available for first-time buyers. The first-time buyer NMRI stood at 15.47% in July, up 0.01 percentage point from a year earlier, and well above the Repeat Primary Homebuyer NMRI of 8.71%.

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



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

First-Time Purchasers



Urban Institute

“In July 2016, the first-time homebuyer share of GSE purchase loans continued to decline to 43 percent. The FHA has always been more focused on first-time homebuyers, with its first-time homebuyer share hovering around 80 percent. The share stood at 82.2 percent in July 2016, slightly down from the peak of 83.3 percent in May 2016. The bottom table shows that based on mortgages originated in July 2016, the average first-time homebuyer was more likely than an average repeat buyer to take out a smaller loan and have a lower credit score and higher LTV and DTI, thus requiring a higher interest rate.”— Laurie Goodman et al., Codirector, Housing Finance Policy Center

Inside Mortgage Finance: Campbell/Inside Mortgage Finance HousingPulse Tracking Survey

“First-time homebuyers had a 34.8 percent share of purchases in September, based on a three-month moving average. That was the lowest share for first-timers since August 2014. Moreover, the first-time homebuyer share has declined for four consecutive months. Back in May, the reading was 40.4 percent.” – Brandon Ivey, Editor, Inside Mortgage Finance

United States House Sales

Week of	Weekly	4-week Avg.
10/2/16	-4.1%	2.4%
10/9/16	-0.1%	-0.9%
10/16/16	1.5%	-0.6%
10/23/16	-1.3%	-0.5%

Appraisal volume rise short lived, falls back down

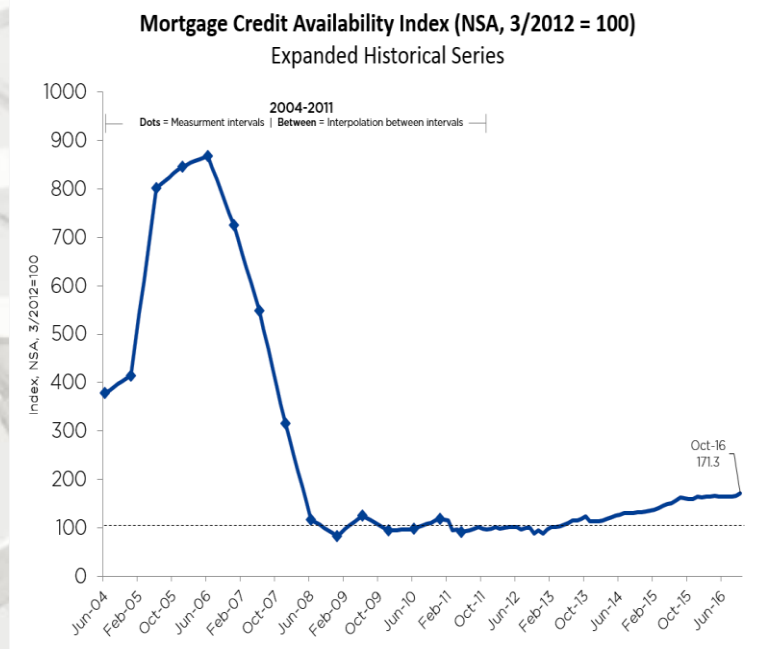
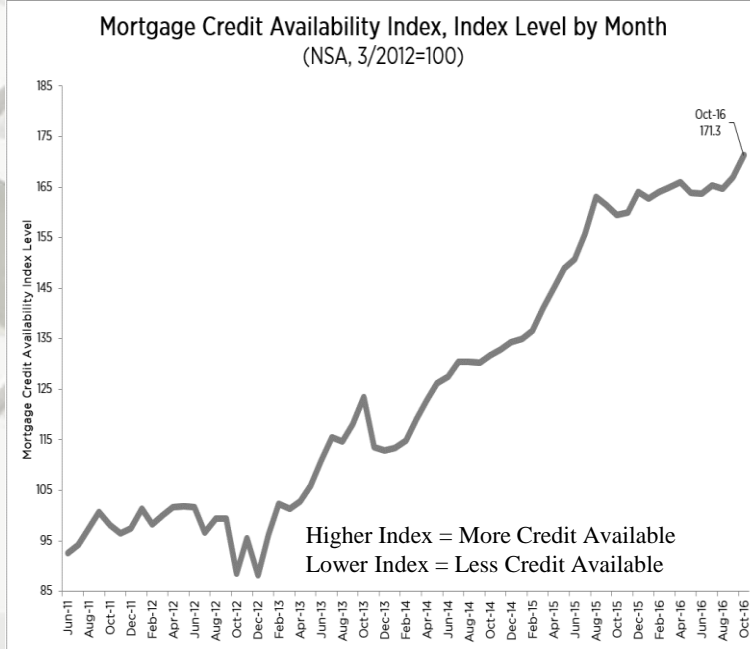
Continues downward trend

“Despite a brief rise last week, appraisal volume fell in the latest report from **a la mode**, which is provided exclusively to HousingWire. The 1.3% drop in the National Appraisal Volume Index for the week of Oct. 23 nearly wiped out the 1.5% gain the prior week.

Furthermore, eight of the last 10 weeks recorded negative results. The four-week average barely moved, coming in at -0.5%.

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

Mortgage Credit Availability

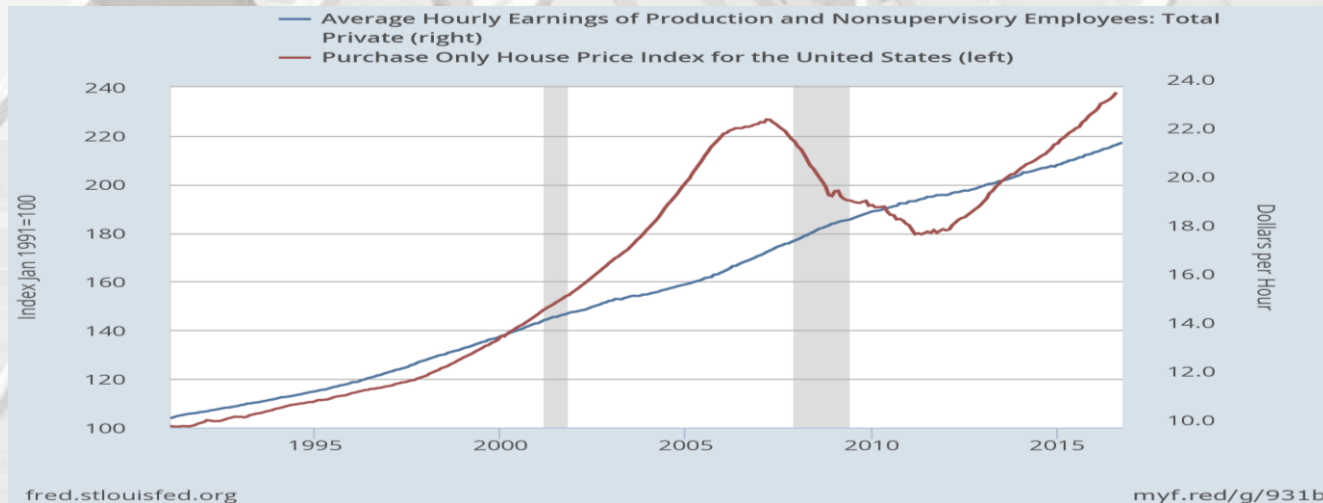


Mortgage Credit Availability Increases in October

“The MCAI increased 2.6 percent to 171.3 in October. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. Of the four component indices, the Jumbo MCAI saw the greatest increase in availability over the month (up 5.8 percent), followed by the Conventional MCAI (up 4.0 percent), the Conforming MCAI (up 2.2 percent), and the Government MCAI (up 1.6 percent).”

“Credit availability loosened in October driven by several different factors. The index was pushed up by an increase in the number of investors as well as an uptick in the availability of jumbo and high balance loan programs. We are also seeing greater availability of conventional conforming loan programs that are designed to provide home ownership to a greater number of consumers.” – Lynn Fisher, Vice President of Research and Economics, Mortgage Bankers Association (MBA)

Housing Affordability



Average Hourly Earnings & Purchase Only House Price Index

For the every day American, housing affordability is problematic. As presented above, affordability is much better for the professional – business sector (top) as compared to the production – non-supervisory sector (bottom).

Summary

In summary:

The September housing data were mostly positive. Yet, only new SF housing sales are substantially greater than one year ago. New sales increased; however, the \$200-299,000 and less categories appear to have reversed to their previous levels. These are the sectors that need consistent improvement for the new construction market to drive the construction market forward and upward. Existing sales increased slightly – yet, they are greater than the early 2000s.

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

Pros:

- 1) Historically low interest rates are still in effect;
- 2) As a result, housing affordability is good for most of – but not all of the U.S.;
- 3) Household formations improved in Q3 of 2016; yet, 52.8% of the formations were in renter-occupied households (occupied housing data from the Current Population/Housing Vacancy surveys);
- 4) According to the CP/A survey, real median incomes increased by 5.7% in 2015;
- 5) Select builders are beginning to focus on entry-level houses.

Cons:

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

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