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

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This report is a free monthly service of Virginia Tech. Past issues can be found at: http://woodproducts.sbio.vt.edu/housing-report. To request the report, please email: buehlmann@gmail.com

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Summary

In February, housing was mixed. Total and single-family starts improved modestly month-over-month. Once again, aggregate housing permits were disappointing – total permits decreased month-over-month; single-family permits eked out a gain, and multifamily permits were decidedly negative. Housing under construction data indicated minimal increases and housing completions were negative. Total private and new single-family construction spending increased somewhat. New house sales exhibited some growth and existing sales were disappointingly negative. With the exception of new single-family house sales, all housing data remained positive year-over-year. From a regional perspective, data were mixed across all sectors. Since February of 2010, housing has improved incrementally; yet most sectors of the housing market remain well less than their respective historical averages. On a different tact, it will be interesting to see if the mild weather of February and March pull forward demand for both starts and sales.

There are several common themes proffered by industry reports regarding the sluggishness of the current housing market: Low inventory; available supply of building lots; construction labor; regulations – banking and construction; changing preferences; and housing affordability in certain “hot” markets. More recently commentaries are including rising rents that negatively affect saving for a house and real median incomes. In the positive, for most of the country, housing affordability has rarely been this good; with historically low interest rates; and an improving jobs market in several areas of the United States.

Once again, the economic data for the first quarter of 2016 are concerning. Included in this month’s edition are slides about the current status of todays renters – some of responses and analyses are sobering. Currently, it appears that several million renters will be challenged when entering the house purchasing market.

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.

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February 2015 Housing Scorecard

	M/M	Y/Y
Housing Starts	△ 5.2%	△ 30.9%
Single-Family Starts	△ 7.2%	△ 30.7%
Housing Permits	▽ 3.1%	△ 6.3%
Housing Completions	▽ 4.2%	△ 17.5%
New Single-Family House Sales	△ 2.0%	▽ 6.1%
Existing House Sales[1]	▽ 7.1%	△ 2.2%
Private Residential Construction Spending	△ 0.9%	△ 10.7%
Single-Family Construction Spending	△ 1.2%	△ 10.6%

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

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

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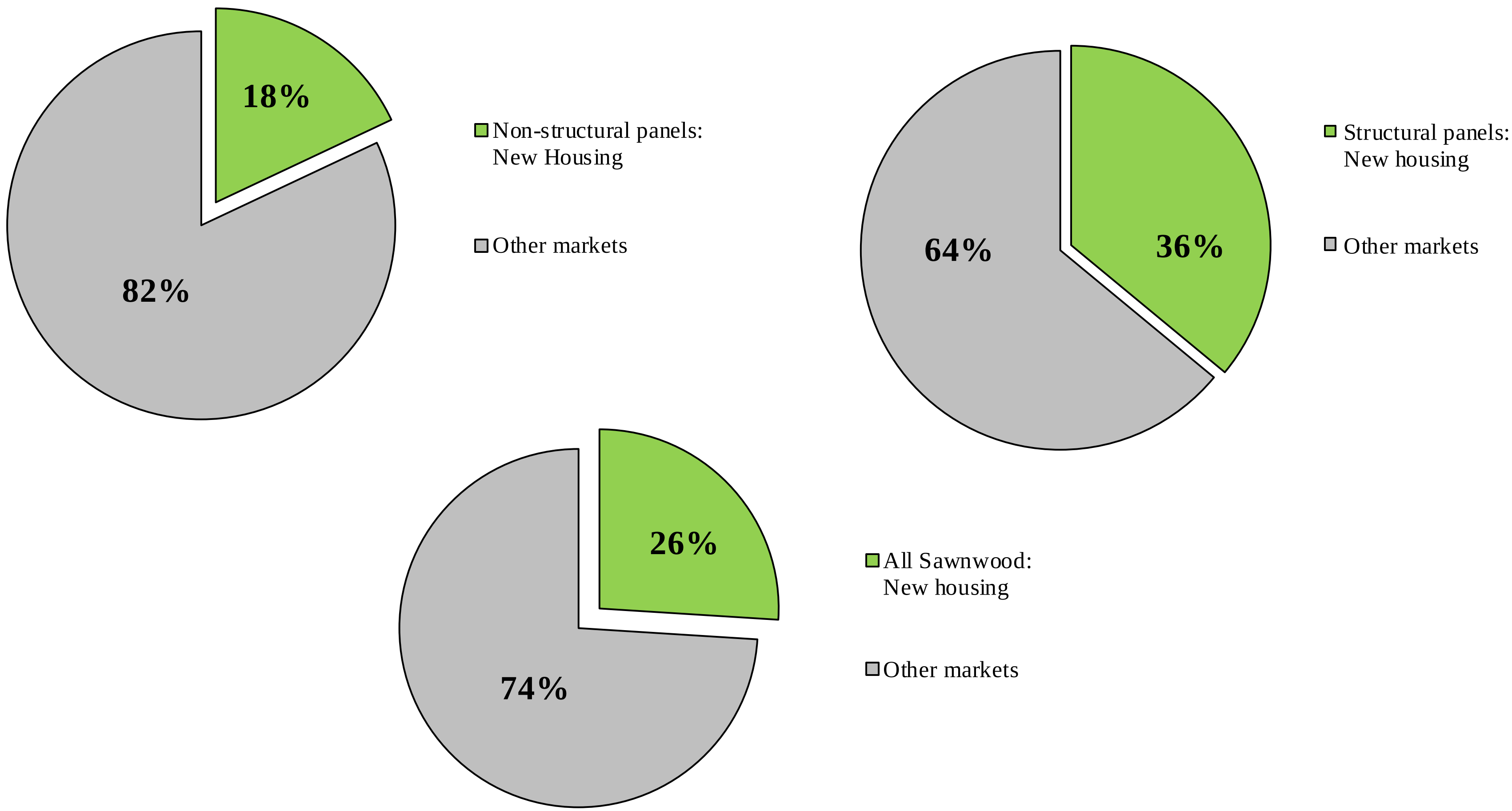
New Construction's Percentage of Wood Products Consumption



Source: U.S. Forest Service. Howard, J. and D. McKeever. 2015. U.S. Forest Products Annual Market Review and Prospects, 2010-2015

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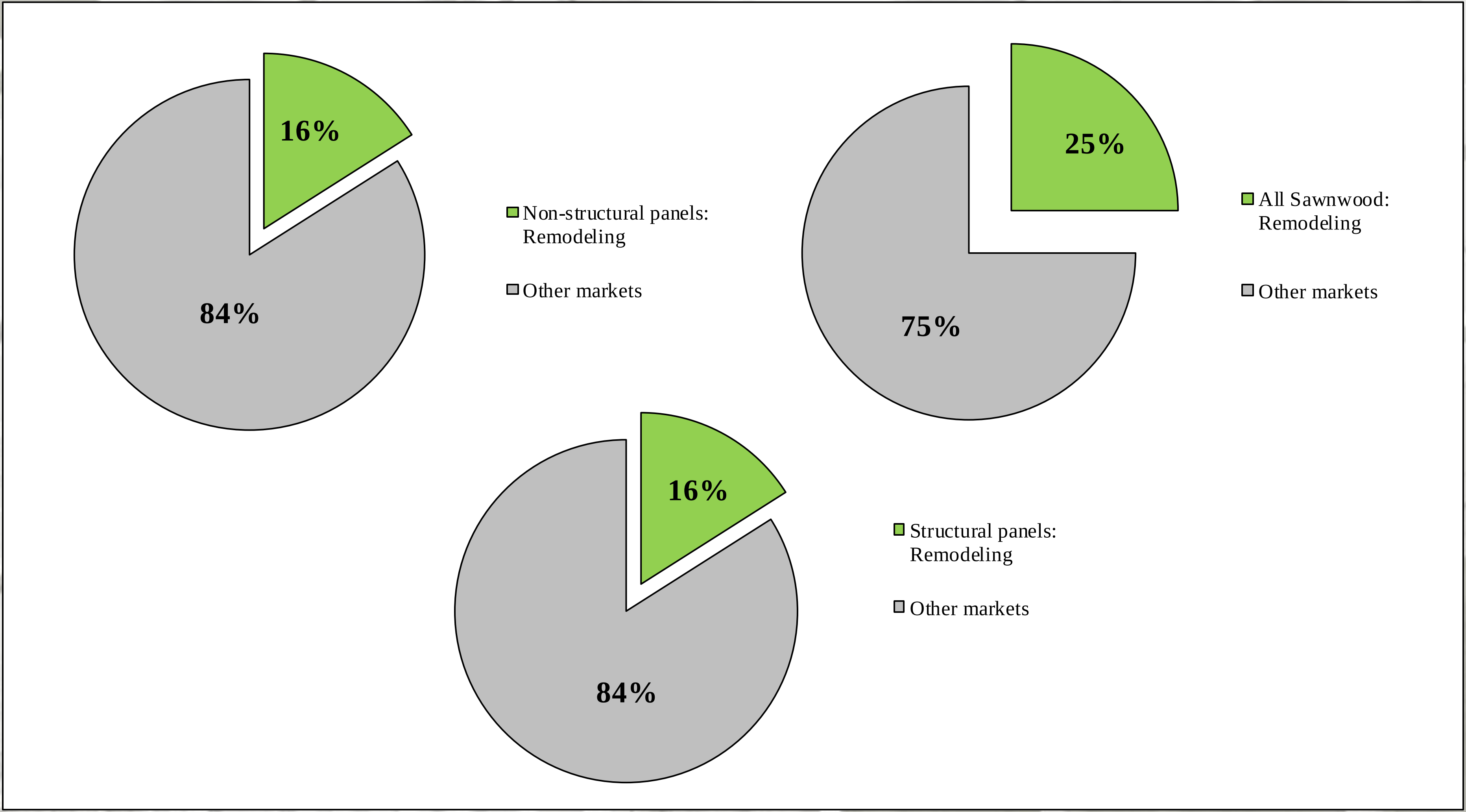
Repair and Remodeling's Percentage of Wood Products Consumption



Source: U.S. Forest Service. Howard, J. and D. McKeever. 2015. U.S. Forest Products Annual Market Review and Prospects, 2010-2015

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New Housing Starts

	Total Starts*	Single-Family (SF) Starts	Multi-Family (MF) 2-4 unit Starts**	MF ≥ 5 unit Starts
February	1,178,000	822,000	14,000	341,000
January	1,120,000	767,000	16,000	333,000
2015	900,000	600,000	6,000	292,000
M/M change	5.2%	7.2%	-25.0%	2.4%
Y/Y change	30.9%	37.0%	87.5%	16.8%

* 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.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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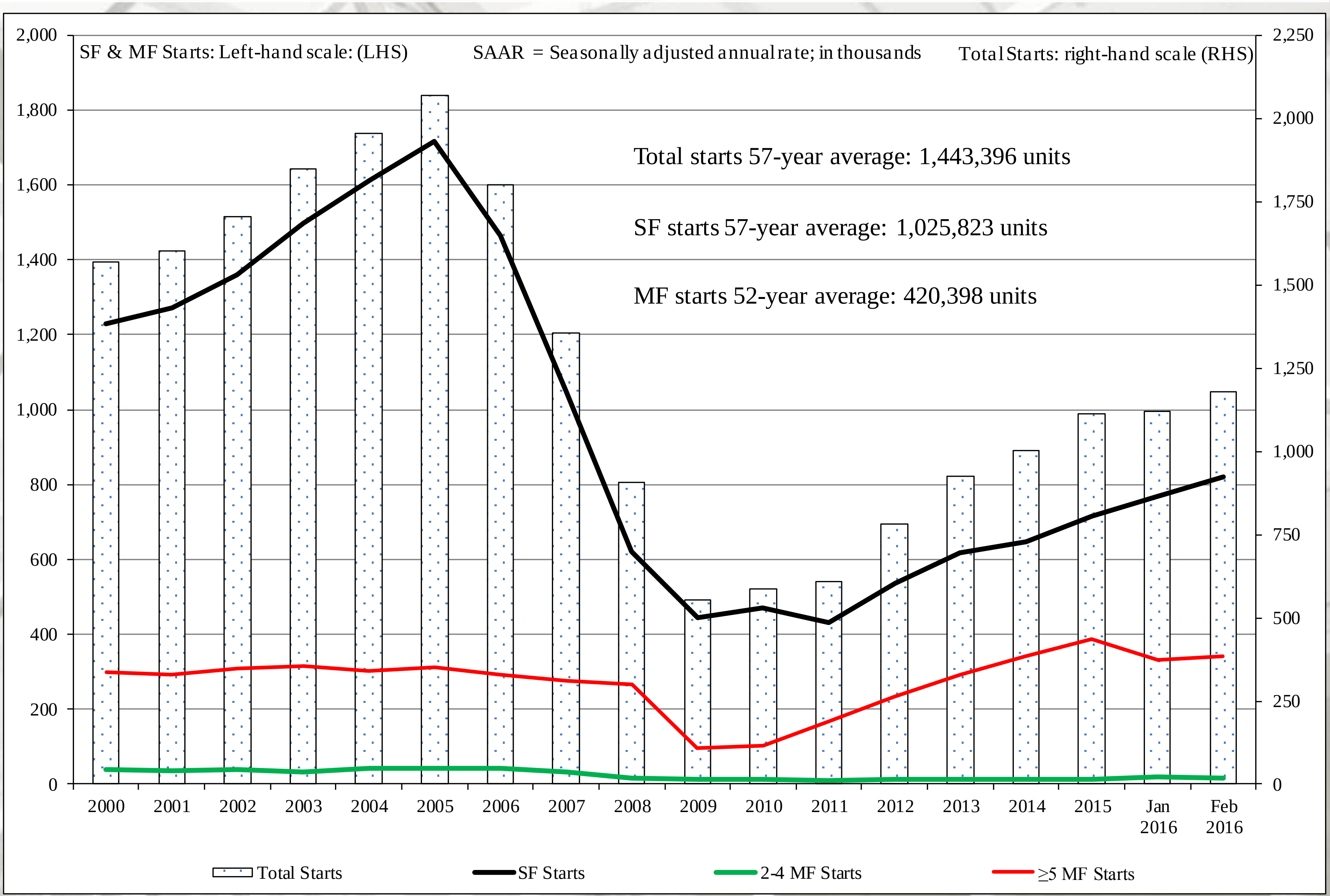
Total Housing Starts



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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New Housing Starts by Region

	Northeast (NE) Total Starts	NE SF Starts	NE MF Starts**
February	73,000	56,000	17,000
January	150,000	64,000	86,000
2015	46,000	22,000	24,000
M/M change	-51.3%	-12.5%	-80.2%
Y/Y change	58.7%	154.5%	-29.2%

	Midwest (MW) Total Starts	MW SF Starts	MW MF Starts
February	181,000	153,000	28,000
January	151,000	129,000	22,000
2015	102,000	81,000	21,000
M/M change	19.9%	18.6%	27.3%
Y/Y change	77.5%	88.9%	33.3%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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New Housing Starts by Region

	South (S) Total Starts	S SF Starts	S MF Starts**
February	615,000	417,000	198,000
January	574,000	417,000	157,000
2015	509,000	349,000	160,000
M/M change	7.1%	0.0%	26.1%
Y/Y change	20.8%	19.5%	23.8%

	West (W) Total Starts	W SF Starts	W MF Starts
February	309,000	196,000	113,000
January	245,000	157,000	88,000
2015	243,000	148,000	95,000
M/M change	26.1%	24.8%	28.4%
Y/Y change	27.2%	32.4%	18.9%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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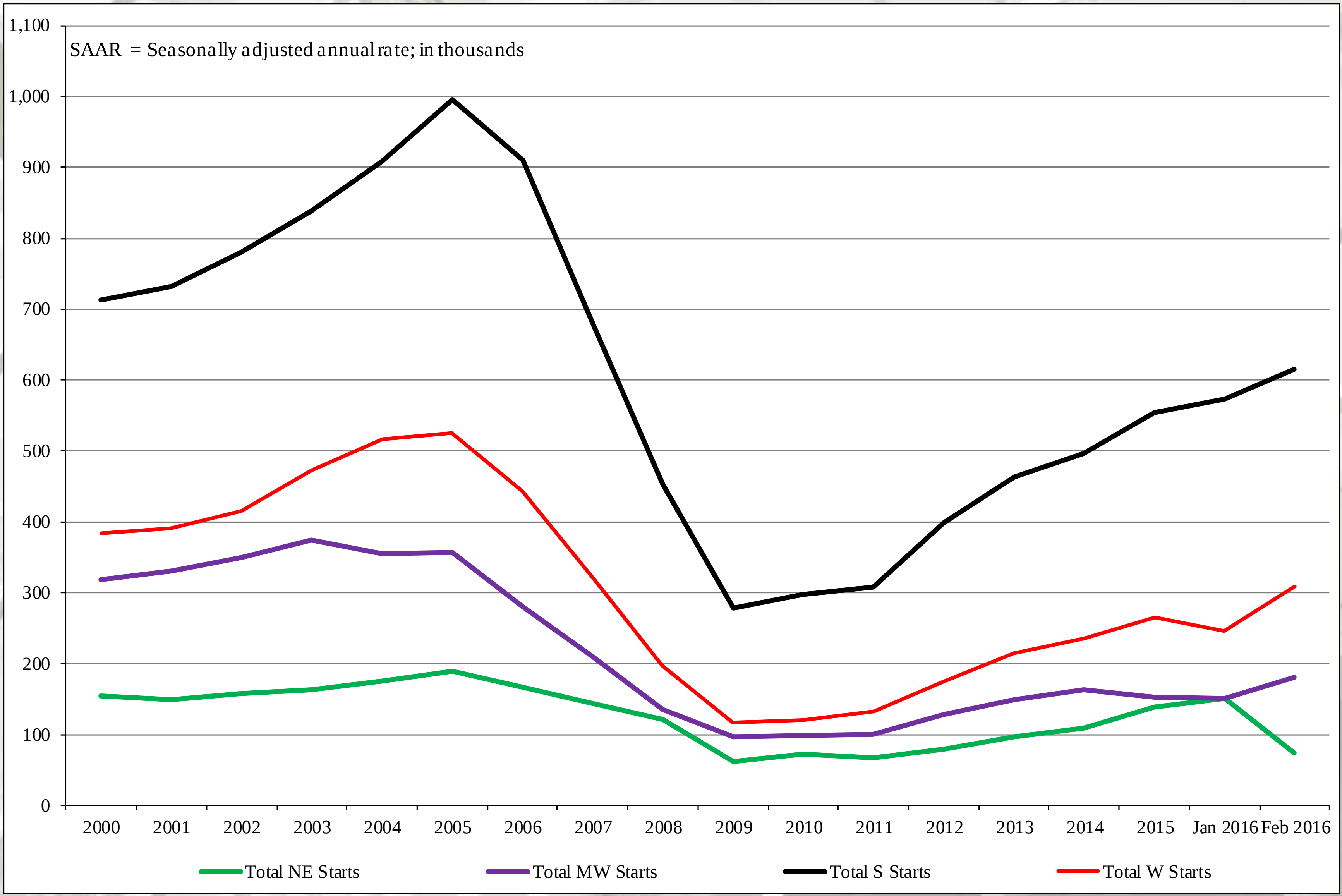
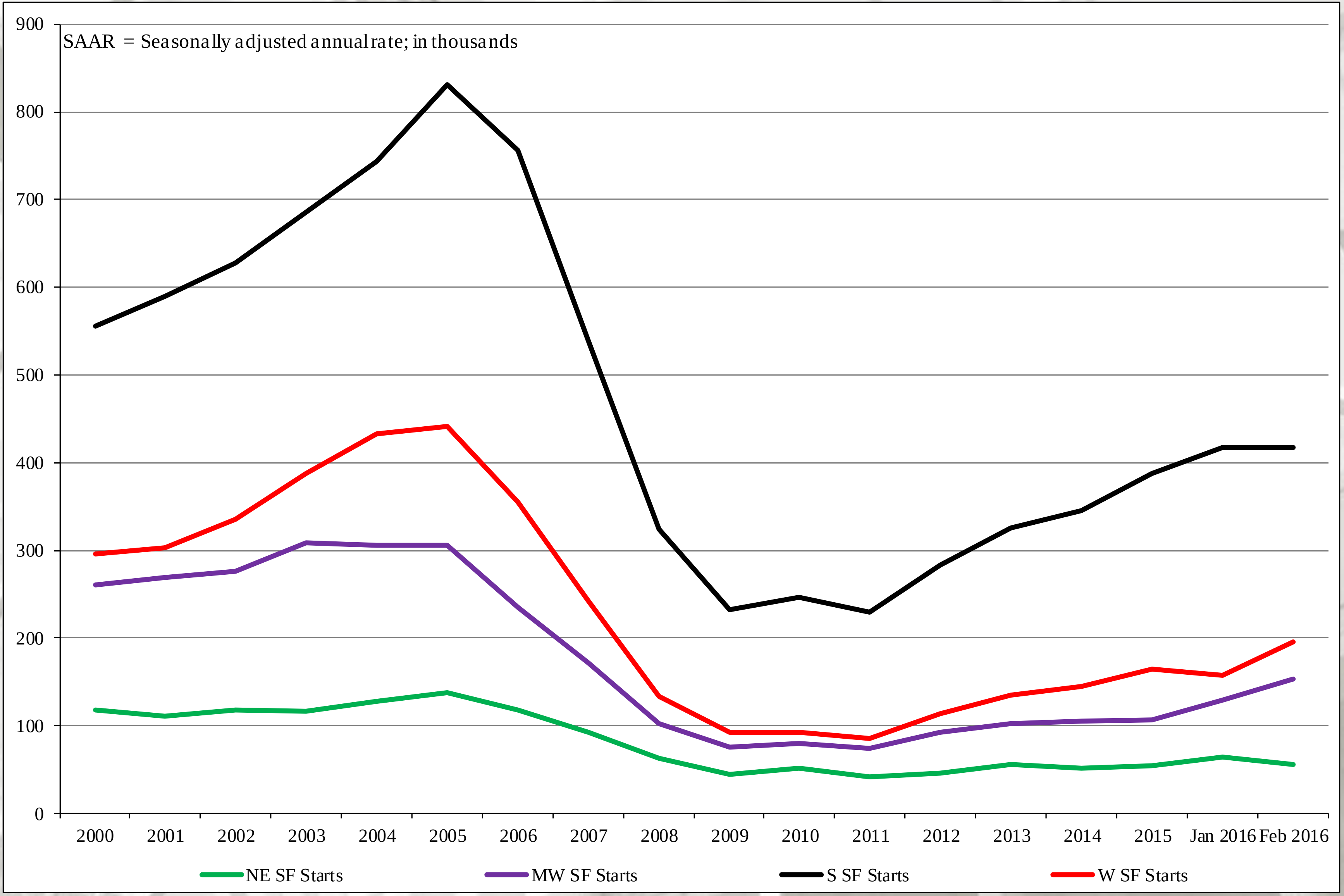
Total Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

SF Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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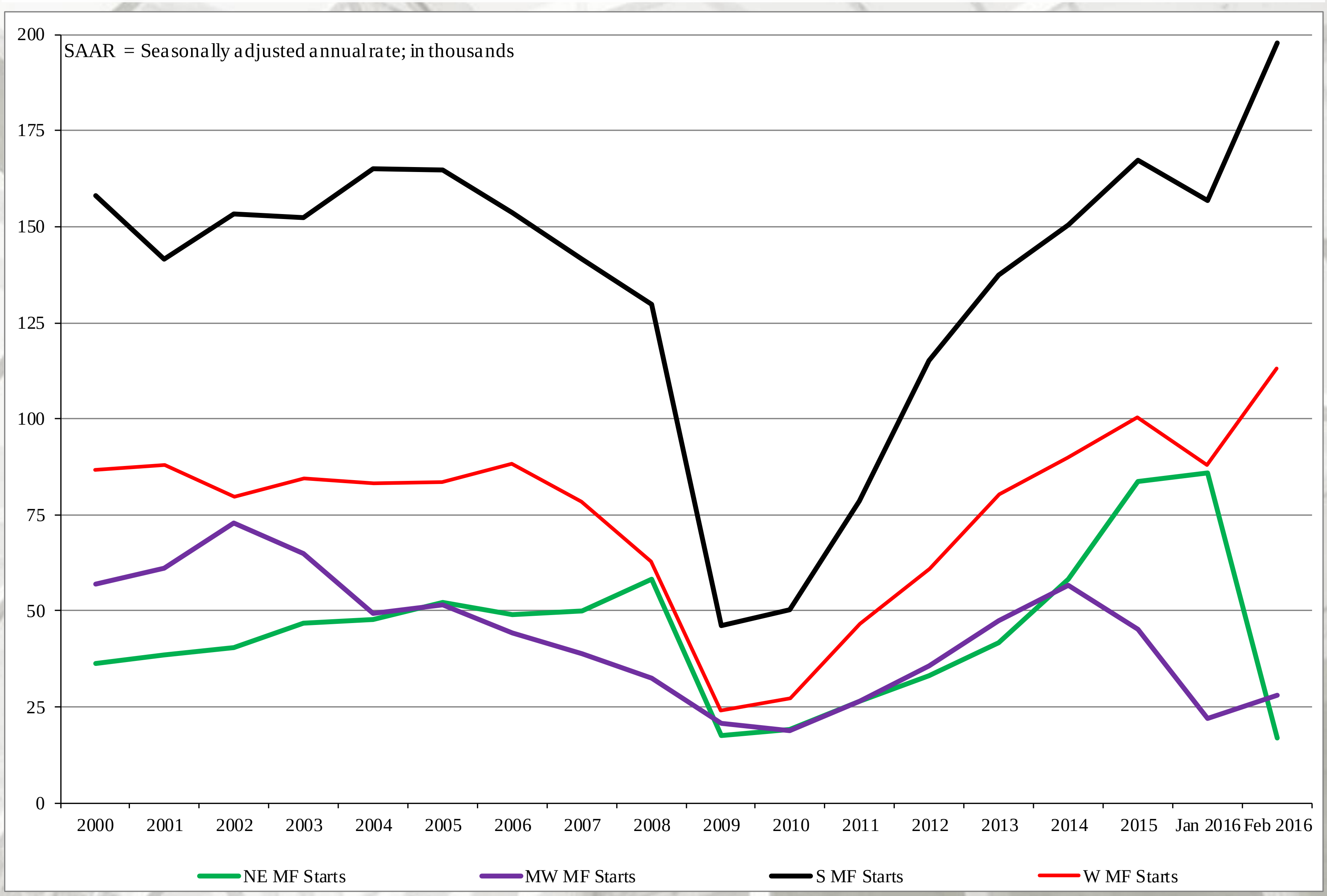
MF Housing Starts by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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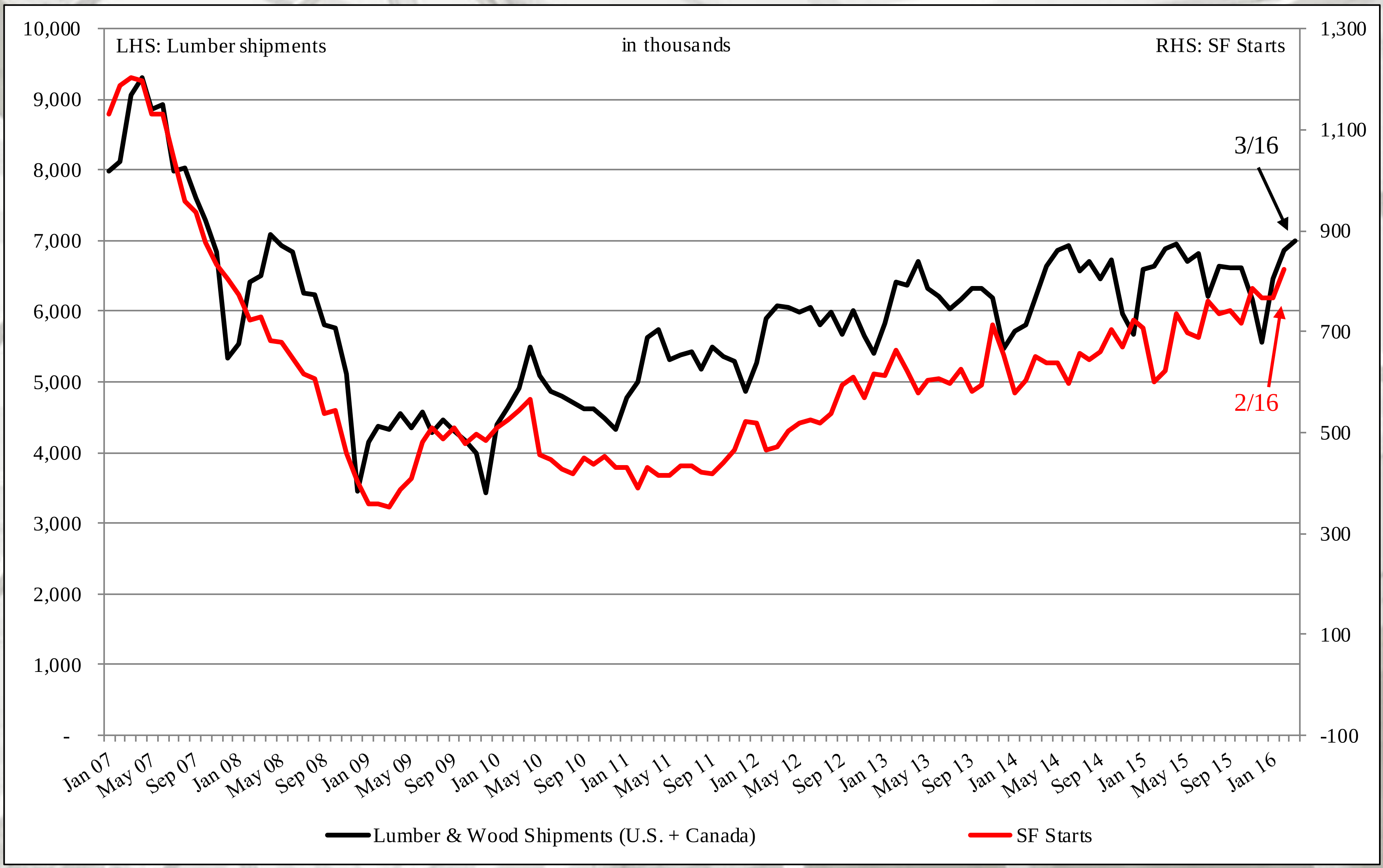
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts



Sources: Association of American Railroads, *Rail Time Indicators* report 4/7/16; U.S. DOC-Construction; 3/16/16

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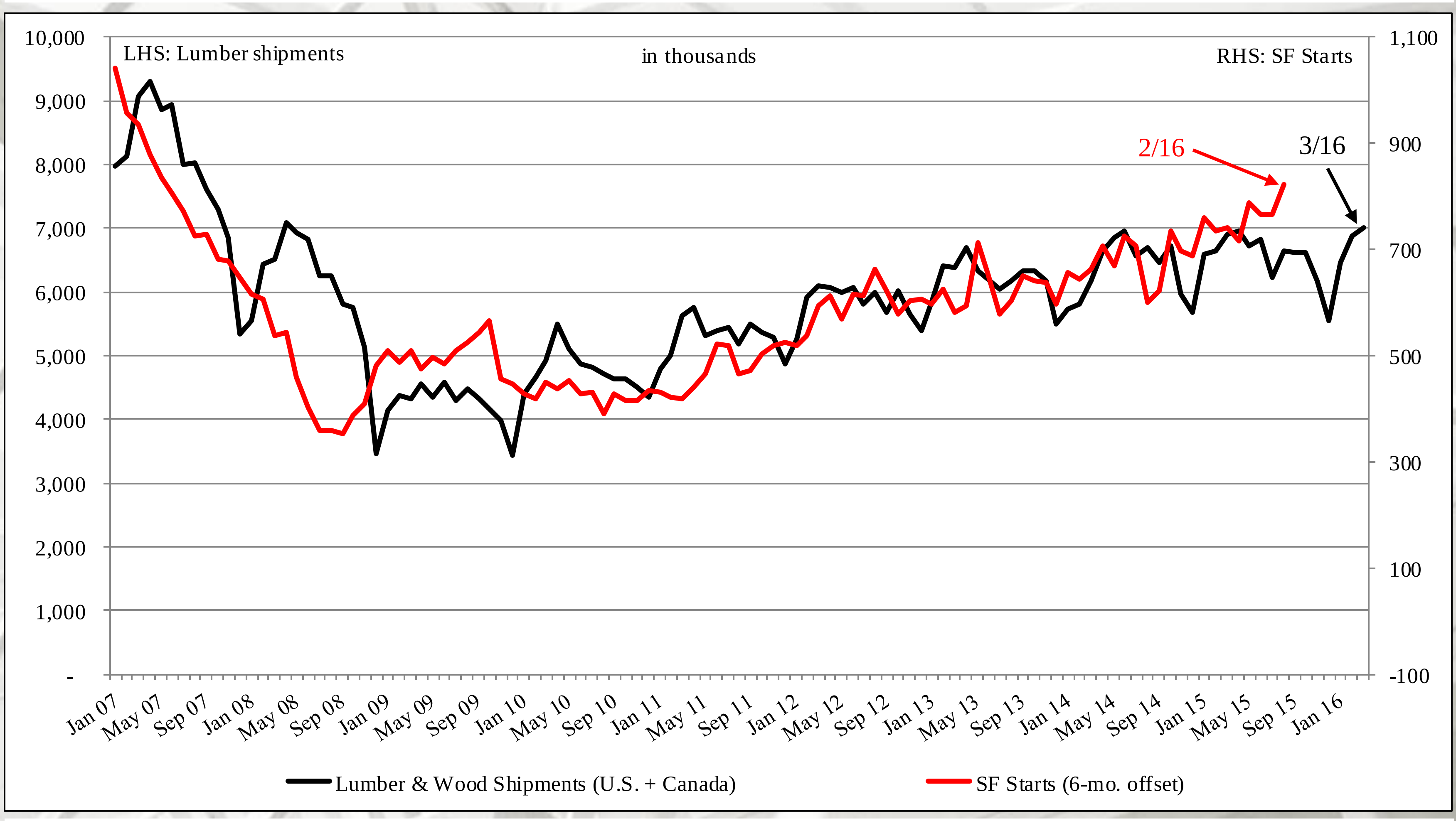
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Starts: 6-month Offset



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

Sources: Association of American Railroads, *Rail Time Indicators* report; 3/7/16; U.S. DOC-Construction; 3/16/16

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Extraordinary Development and Compliance Costs Stifle New Home Construction

"New regulations to protect the environment and to shore up local city finances have made it extremely difficult for home builders to build affordable homes. Now, more than ever, the demand for affordable entry-level housing will need to be met by the resale market, since new homes have become permanently more expensive to build.

After hearing many horror stories of cost increases that were far more than just materials and labor, we formally surveyed more than 100 home building executives across the country for specific examples of new home construction costs that did not exist 10 years ago. We were overwhelmed by the reply as well as the builders' level of frustration. Many of our private equity clients who work with builders all over the country tell us that every project has experienced cost overruns!

National Issues (mentioned over and over)

- **$5,000+ per house erosion control costs**. Stormwater Pollution Prevention Plan (SWPPP) compliance costs, even in areas that rarely get rain, can now total $5,000+ per home plus fines for noncompliance. Many builders hire newly formed companies to plan, sandbag, sweep, monitor, photograph, and clean up the entire development every day, regardless of the weather forecast.
- **$2,500+ energy code costs**. Several builders in Florida, Illinois, Minnesota, Pennsylvania, and California cited $8,000 or more per house in new energy code costs.
- **$750+ mortgage documentation and closing costs**. While we expect the cost to comply with new mortgage documentation requirements to exceed $750 per home, one builder noted that the new TRID mortgage compliance rules alone have added at least that much.
- **$5,000+ fire sprinkler costs**. In at least 7 markets that we could identify, builders mentioned new requirements to install sprinklers in townhomes, as well as in single-family homes, at a cost of $5,000–$10,000 per home.
- **Understaffed jurisdiction offices**. Many planning and permit offices continue to operate with reduced staffing from the bottom of the housing correction, causing costly delays in plan approvals, building permits, and inspections.
- **Utility company delays**. Builders across the country complain of much longer than usual delays and rising costs associated with connecting electric, gas, phone, and cable services to new communities." – Jody Kahn, Senior Vice President, Research, John Burns Real Estate Consulting LLC

Source: http://realestateconsulting.com/extraordinary-development-and-compliance-costs-stifle-new-home-construction/; 4/5/16

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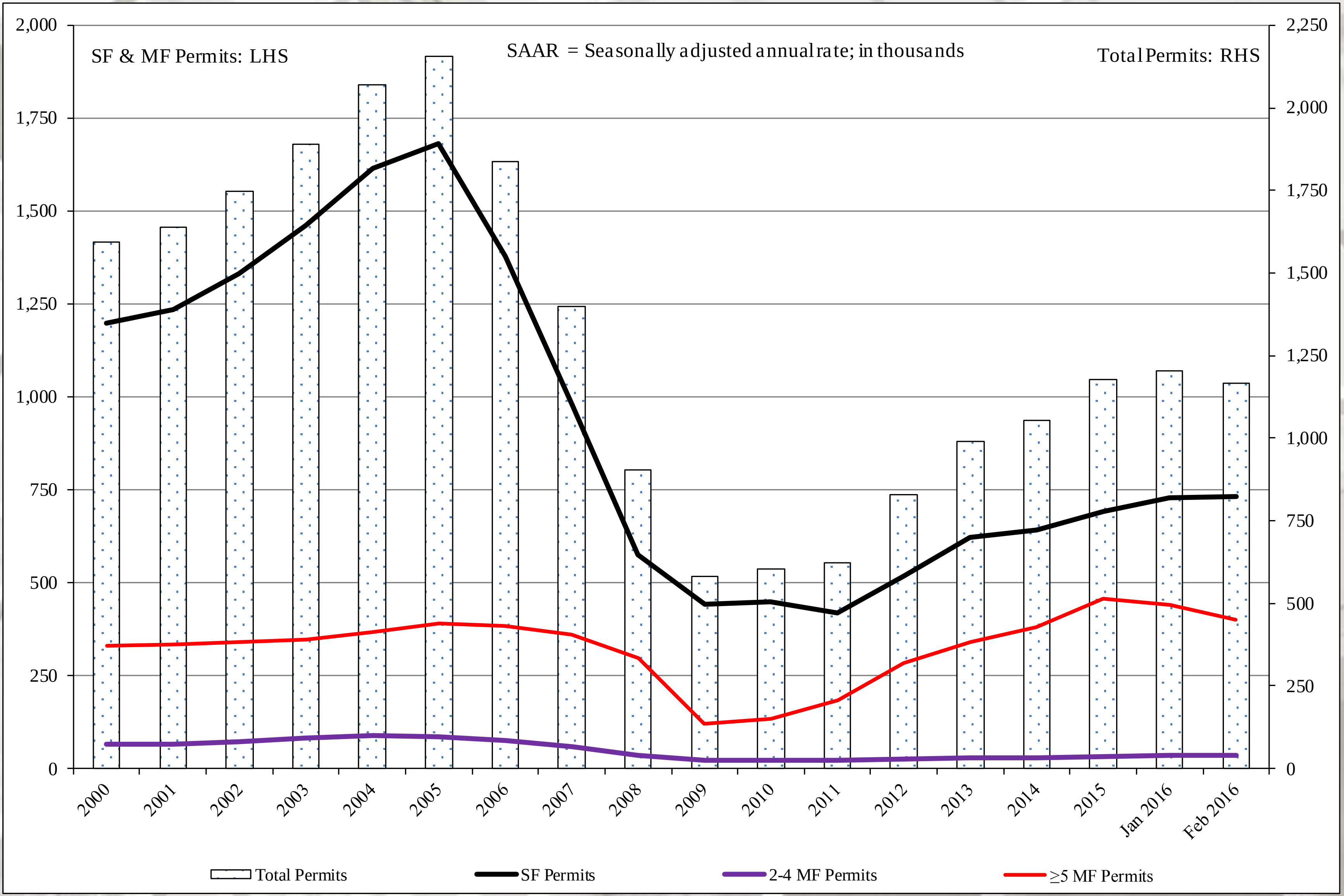
New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
February	1,167,000	731,000	35,000	401,000
January	1,204,000	728,000	35,000	441,000
2015	1,098,000	626,000	28,000	444,000
M/M change	-3.1%	0.4%	0.0%	-9.1%
Y/Y change	6.3%	16.8%	25.0%	-9.7%

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

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Total New Housing Permits



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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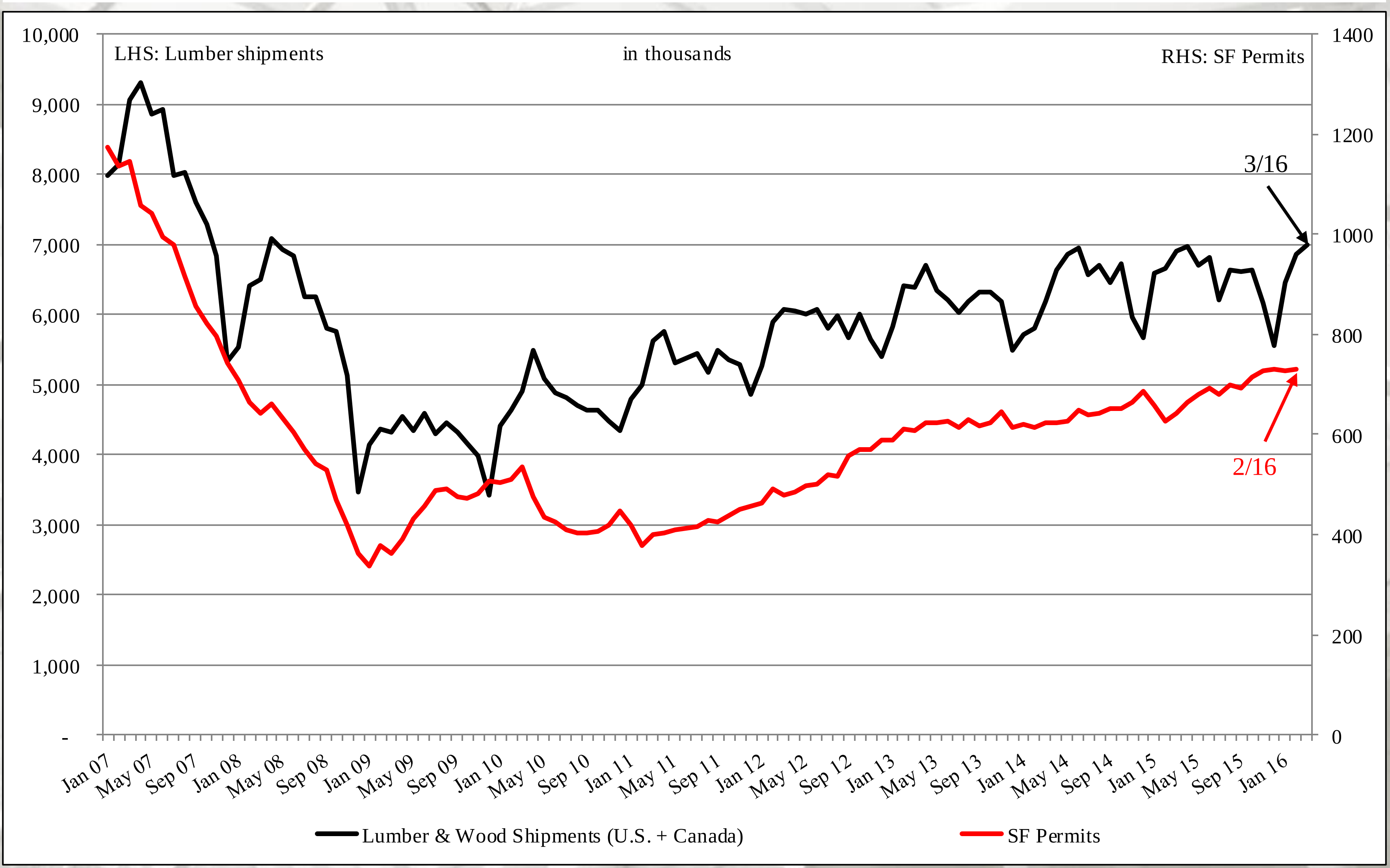
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits



Sources: Association of American Railroads, *Rail Time Indicators* report; 4/7/16; U.S. DOC-Construction; 3/16/16

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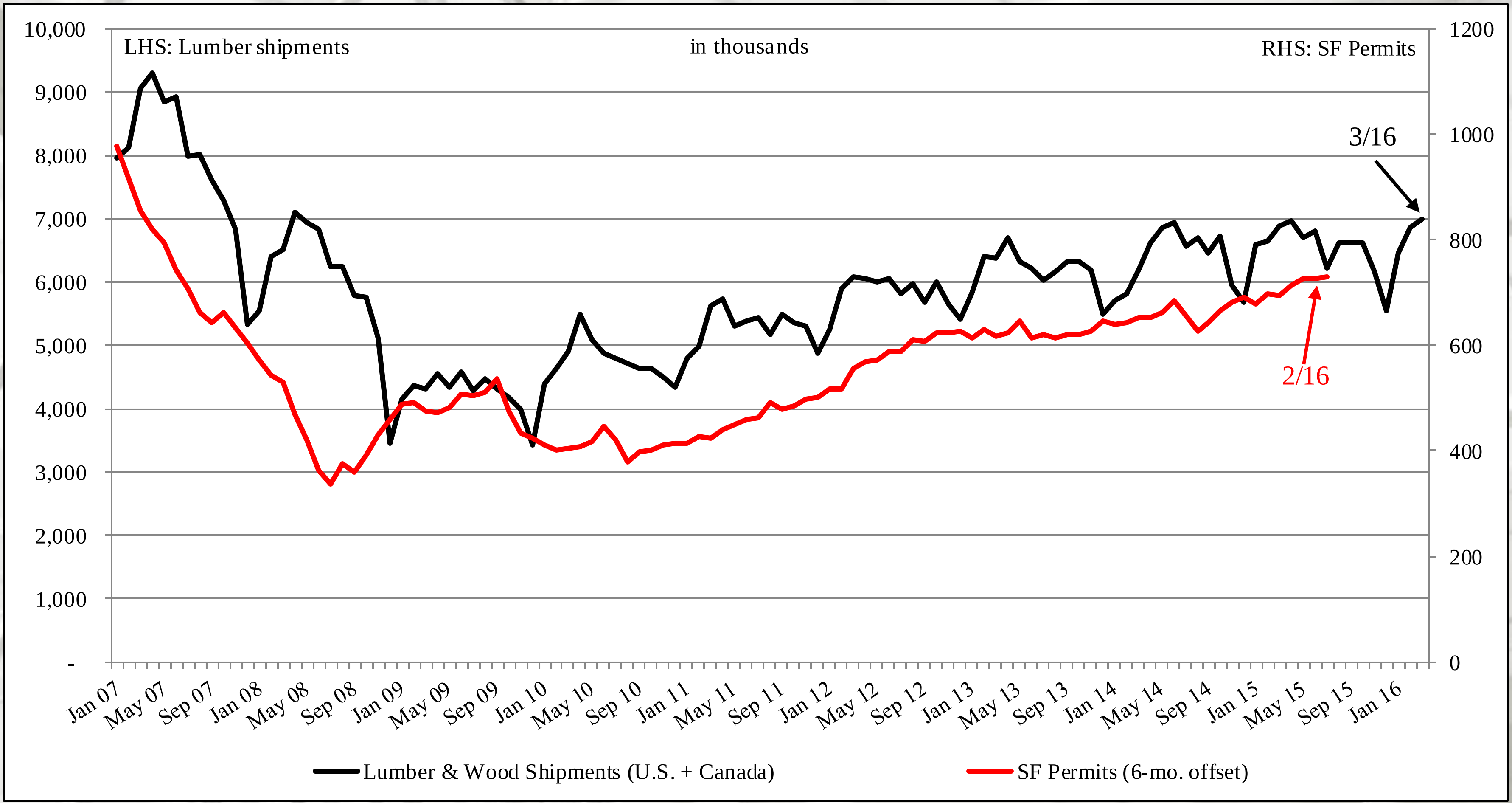
Railroad Lumber & Wood Shipments vs. U.S. SF Housing Permits: 6-month Offset



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

Sources: Association of American Railroads, *Rail Time Indicators* report; 4/7/16; U.S. DOC-Construction; 3/16/16

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New Housing Permits by Region

	NE Total Permits	NE SF Permits	NE MF Permits
February	125,000	52,000	73,000
January	89,000	54,000	35,000
2015	92,000	36,000	56,000
M/M change	40.4%	-3.7%	108.6%
Y/Y change	35.9%	44.4%	30.4%

	MW Total Permits	MW SF Permits	MW MF Permits
February	186,000	122,000	64,000
January	210,000	112,000	98,000
2015	158,000	92,000	66,000
M/M change	-11.4%	8.9%	-34.7%
Y/Y change	17.7%	32.6%	-3.0%

* All data are SAAR.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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New Housing Permits by Region

	S Total Permits	S SF Permits	S MF Permits
February	559,000	379,000	180,000
January	585,000	392,000	193,000
2015	569,000	349,000	220,000
M/M change	-4.4%	-3.3%	-5.7%
Y/Y change	-1.8%	8.6%	-18.0%

	W Total Permits	W SF Permits	W MF Permits
February	297,000	178,000	150,000
January	320,000	170,000	119,000
2015	297,000	149,000	130,000
M/M change	-7.2%	4.7%	-20.7%
Y/Y change	6.5%	19.5%	-8.5%

* All data are SAAR

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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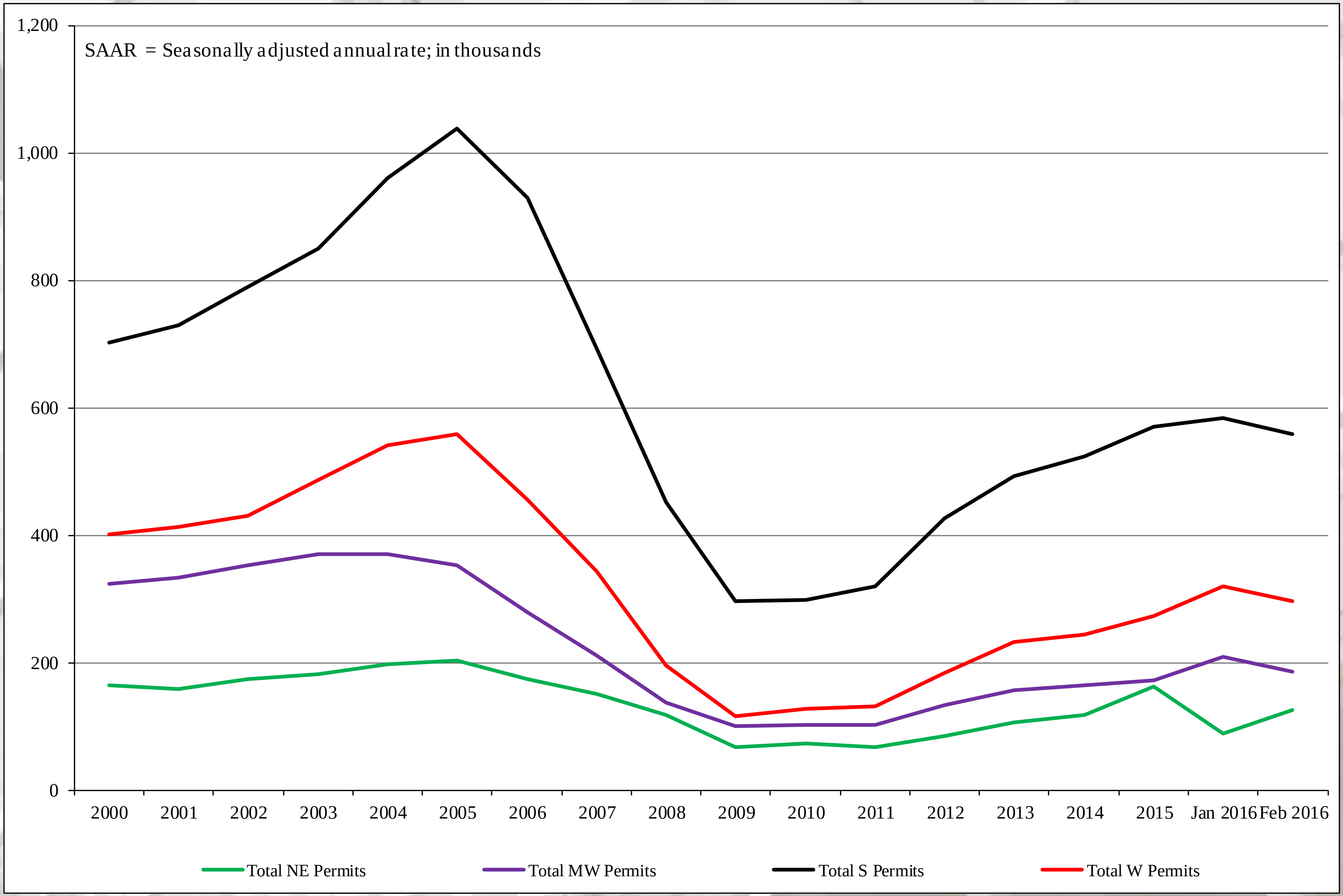
Total Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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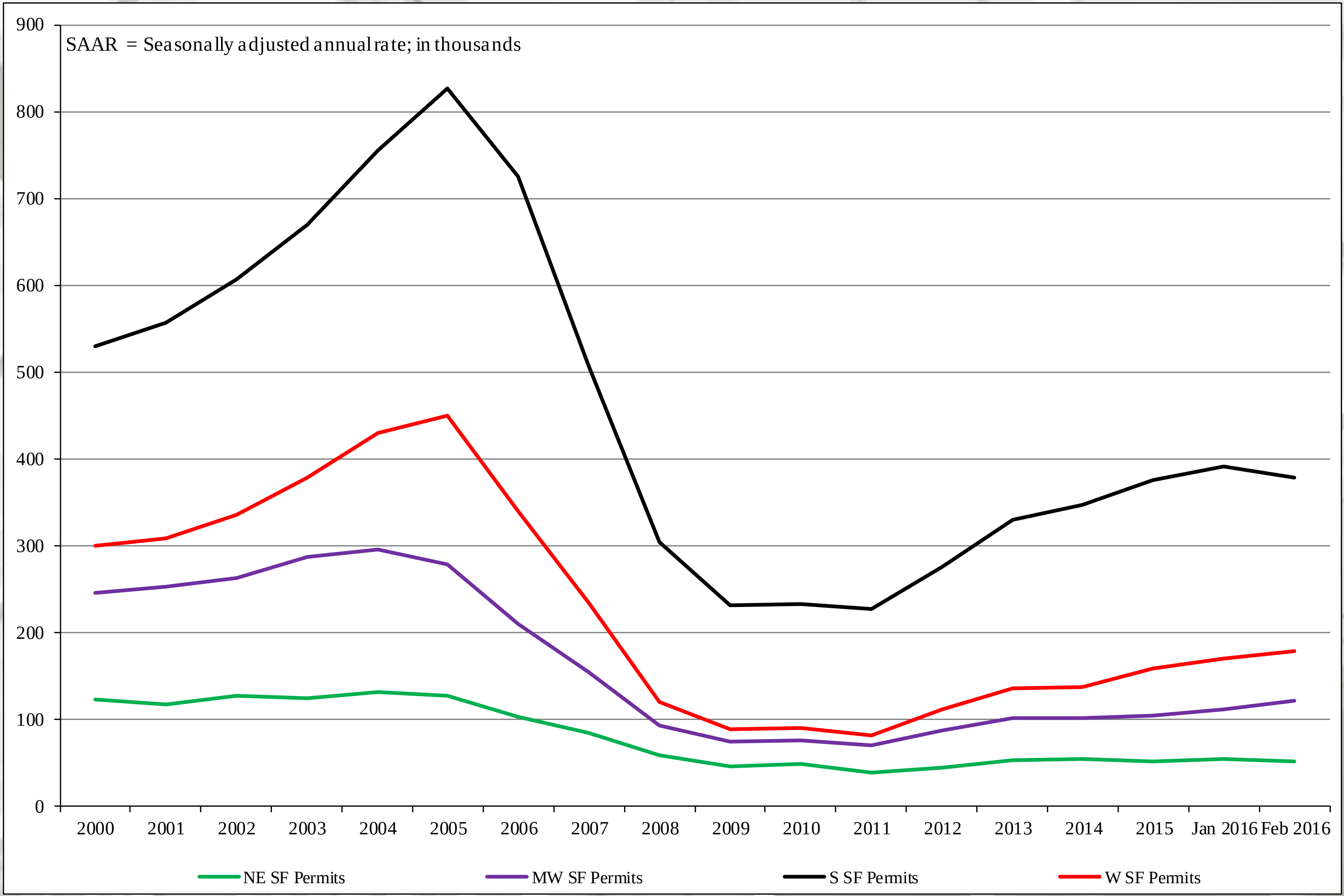
SF Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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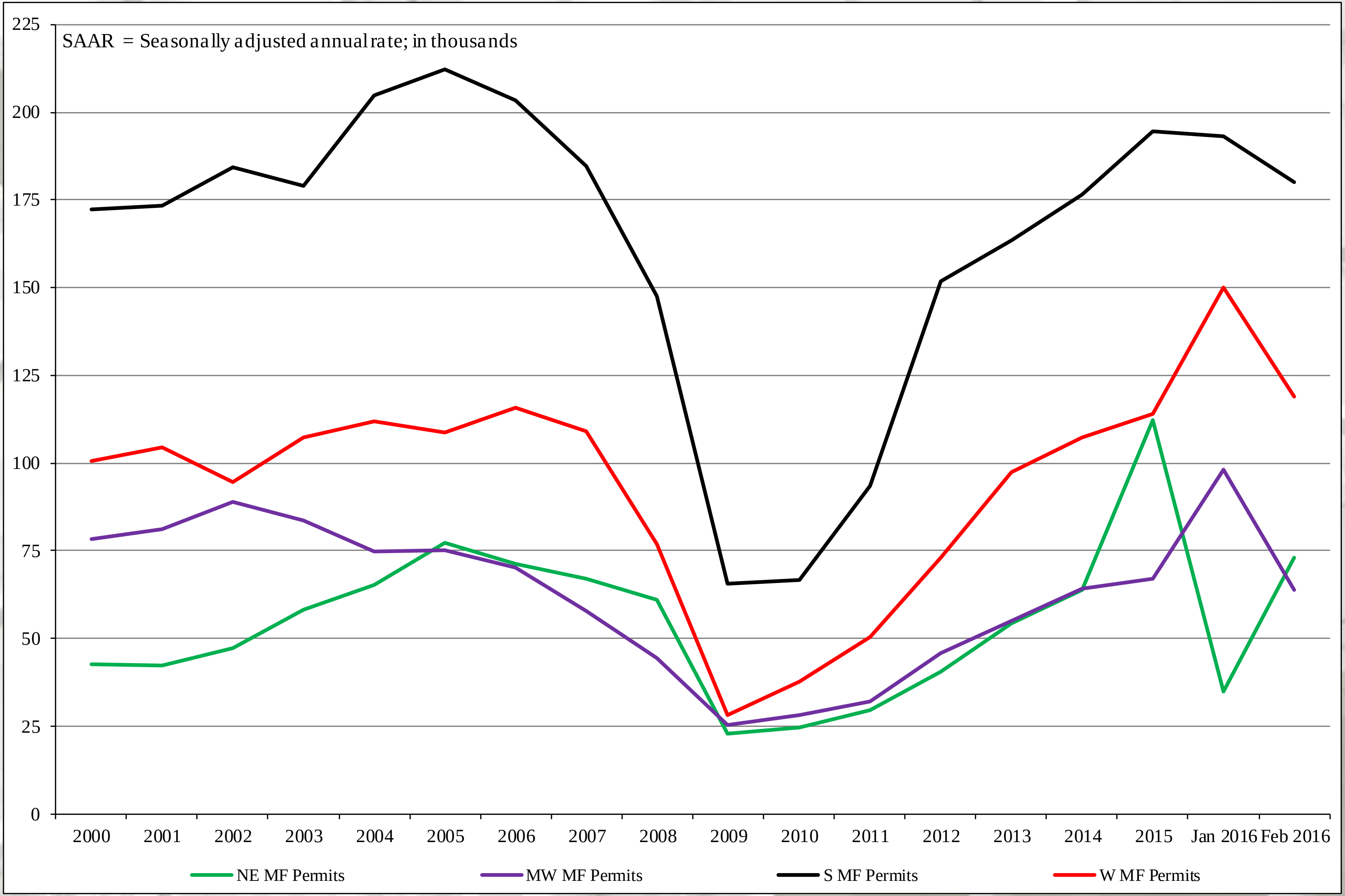
MF Housing Permits by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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Freddie Mac Multifamily

More Than Half of Renters Plan to Keep Renting

"Despite rent increases and feeling burdened by their finances, 70 percent of renters currently feel renting is a more affordable choice than homeownership, according to a Freddie Mac survey, and 55 percent plan to keep renting in the next three years. When looking across the generations, the views are similar with 70 percent of Millennials, 61 percent of Gen Xers and 73 percent of Baby Boomers thinking that renting is a more affordable choice for them.

For the Freddie Mac quarterly online survey of renters conducted in January and February 2016, 46 percent say renting is a good choice for them now regardless of whether they plan to buy or believe they will be able to afford to do so. The perception is even more positive among Millennials with 54 percent saying renting is a good choice for now."

"Renting is becoming a popular choice among many age groups. While most renters still have favorable views toward homeownership and aspire to it, many choose to rent because they view it as more affordable and a better fit for their lifestyle right now." – David Brickman, Executive Vice President, Freddie Mac Multifamily

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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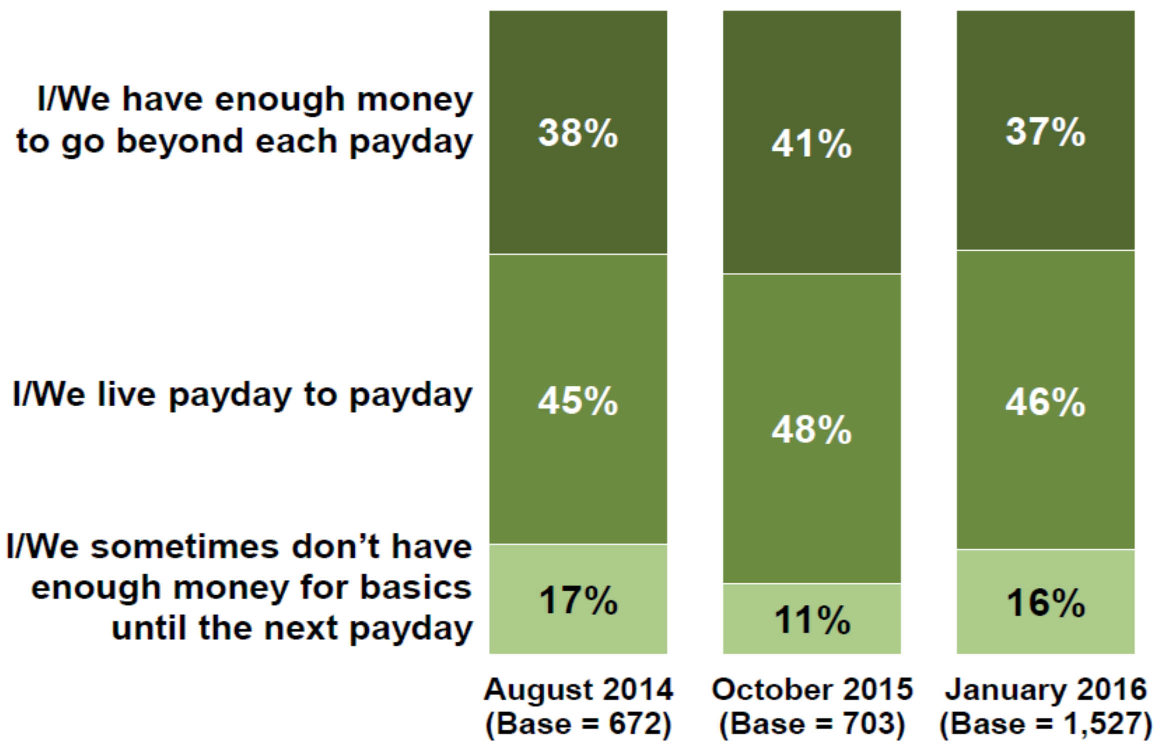
Freddie Mac Multifamily

Renter Perceptions of Their Finances Remain Stable Since 2014

Q: Which of the following statements best describes your household's general financial situation?



(Base = Total renters)

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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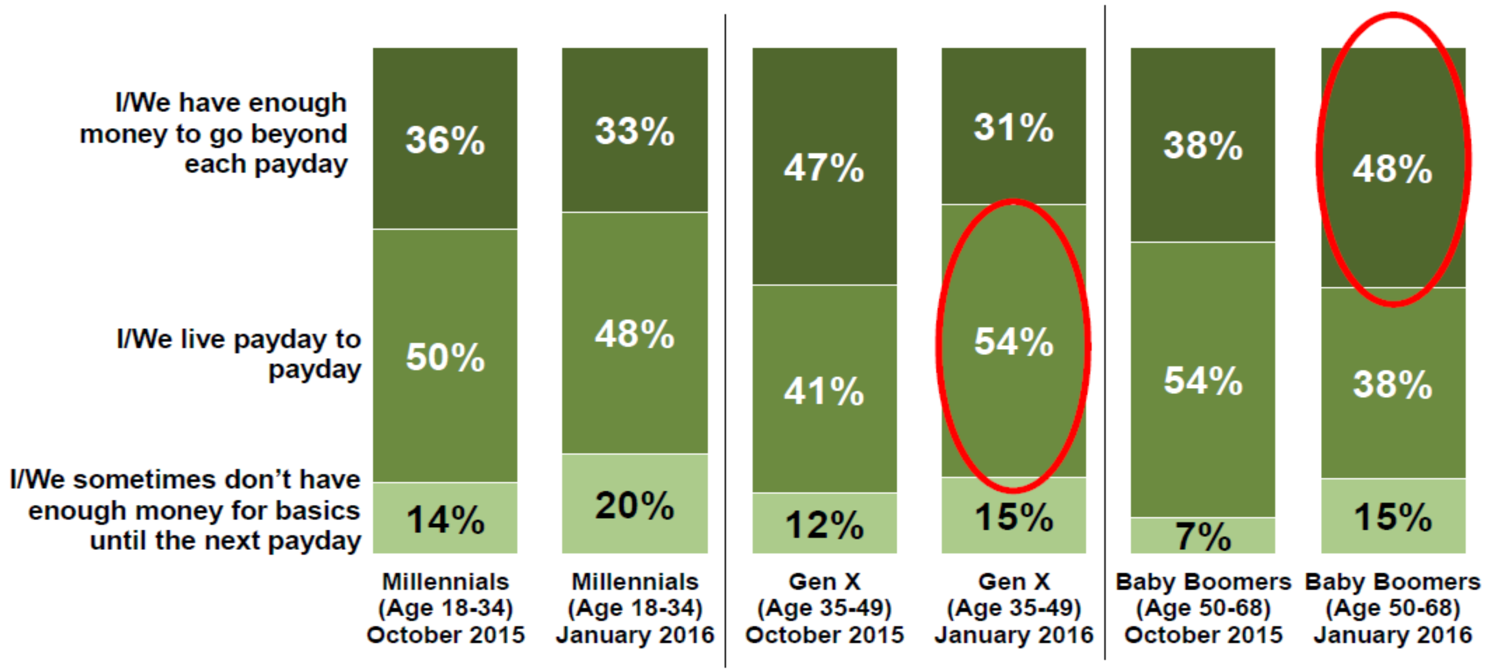
Freddie Mac Multifamily

More Boomers Feel Comfortable Financially, While Gen-Xers Living Payday To Payday

FreddieMac

Q: Which of the following statements best describes your household's general financial situation?



(January 2016 Base = 644 Millennials, 408 Gen X and 395 Baby Boomers; October 2015 Base = 307 Millennials, 188 Gen X and 170 Baby Boomers)
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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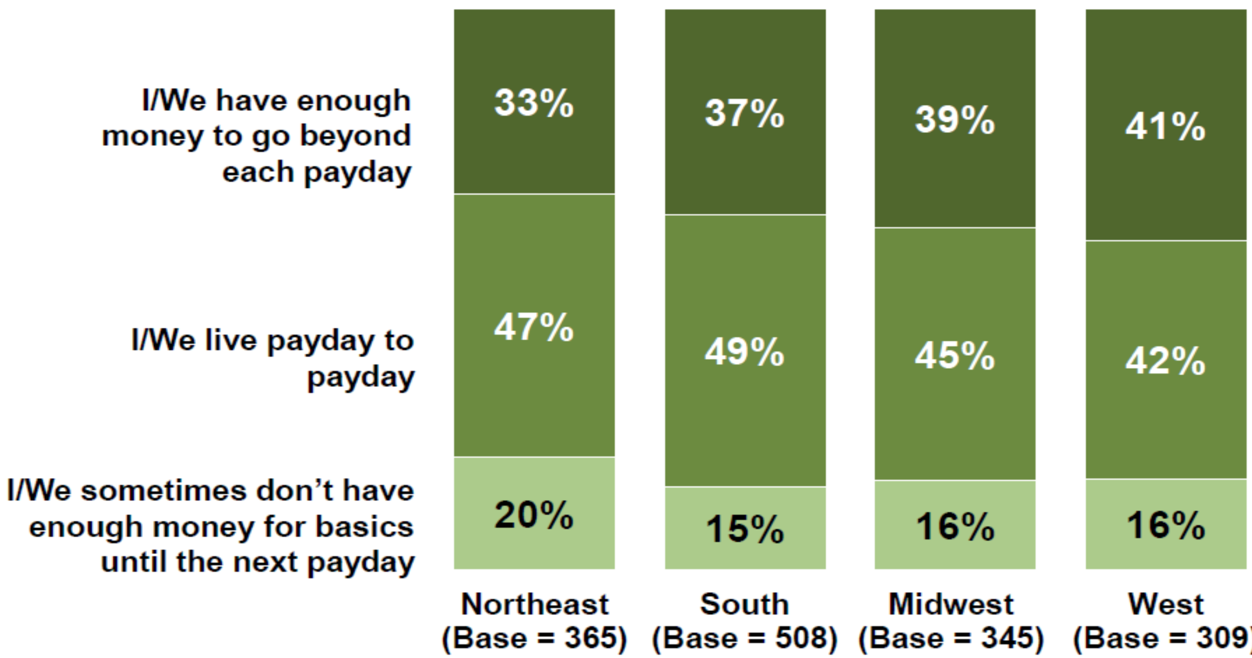
Freddie Mac Multifamily

Western Renters Slightly More Comfortable With Their Finances

Freddie Mac

Q: Which of the following statements best describes your household's general financial situation?



(Base = Total renters)

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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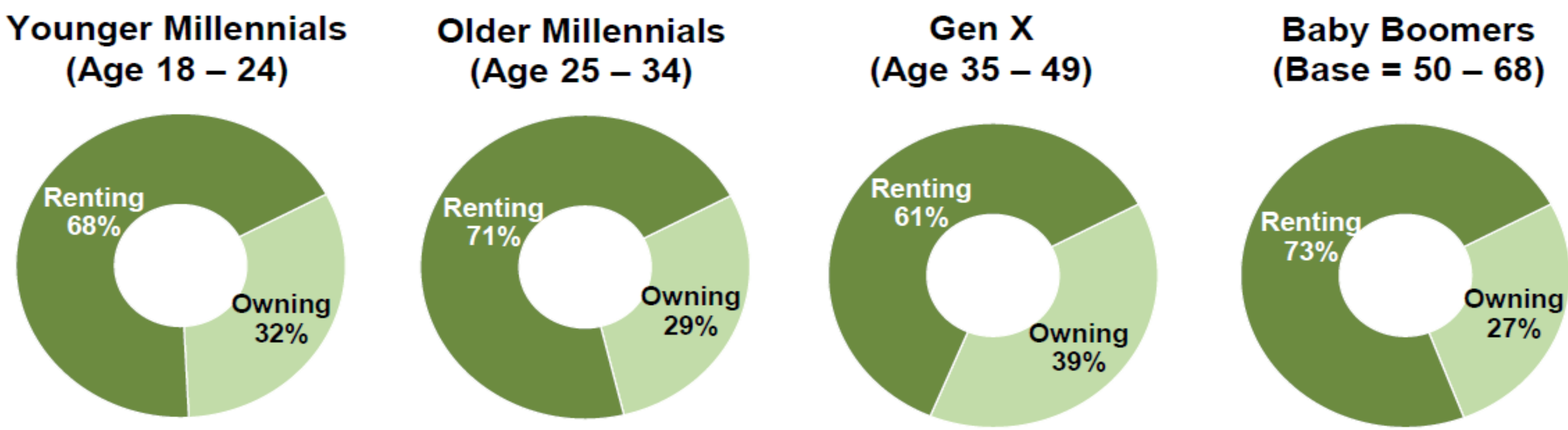
Freddie Mac Multifamily

Regardless of Age, Renting seen as More Affordable Than Owning

Freddie Mac

Q: Overall, which do you think is more affordable for you today?



(Base = 205 Younger Millennials, 439 Older Millennials, 408 Gen X and 395 Baby Boomers)
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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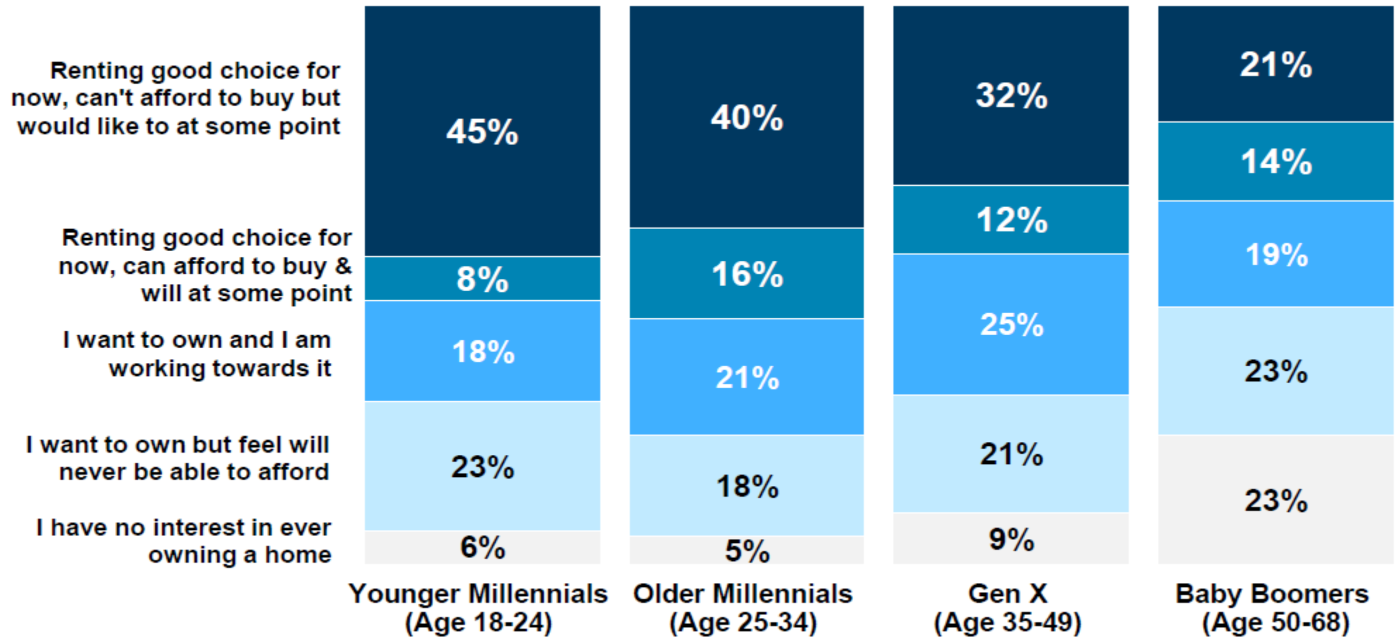
Freddie Mac Multifamily

Older Millennials Even Though They Can Afford to Buy More Likely to Say Renting a Good Choice Now

FreddieMac

Q: Which one of the these statements best reflects your views about why you are currently renting?



(Base = 205 Younger Millennials, 439 Older Millennials, 408 Gen X and 395 Baby Boomers)
Excludes "Mature" generational renters (Age 69+) given extremely small sample size.

Source: http://freddiemac.mwnewsroom.com/press-releases/more-than-half-of-renters-plan-to-keep-renting-otcqb-fmcc-1249419; 3/16/16

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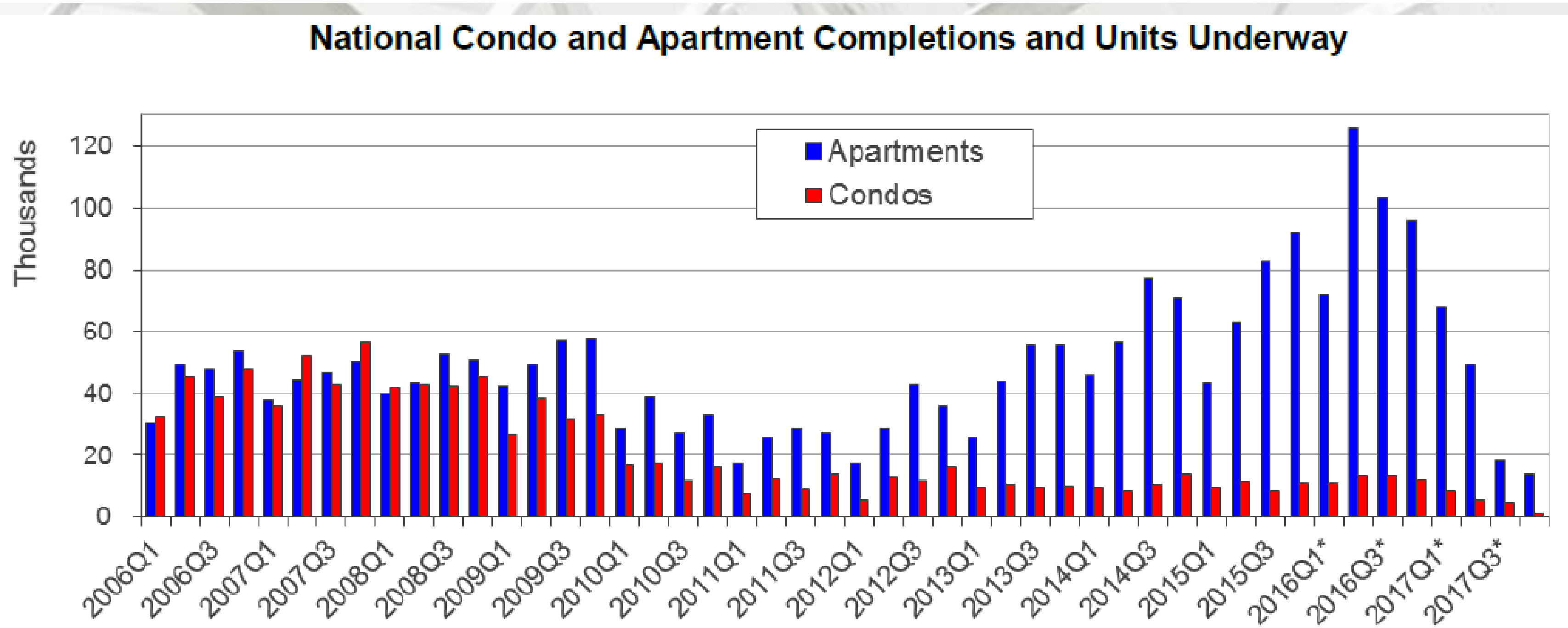
Fannie Mae Multifamily

Multifamily Market Commentary – March 2016

New Multifamily Supply Short-Lived Over the Short Term

"There are more than 582,000 apartment and condominium units currently underway. But we expect that amount of new multifamily supply to be short-lived. As the chart below shows, the bulk of this construction should come online this year, with the remainder completing in 2017 and 2018." – Kim Betancourt, Director of Economics and Tim Komosa, Economist Manager, Multifamily Economics and Market Research, Fannie Mae



Source: CBRE-EA/Dodge Data & Analytics. NOTE: Pipeline data is not an actual forecast of activity. It is a monitor of activity reported on to date. As more projects are planned and tracked, figures in future periods might go up.

Source: http://www.fanniemae.com/resources/file/research/emma/pdf/MF_Market_Commentary_031716.pdf/; 2/7/16

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Fannie Mae Multifamily

Multifamily Market Commentary – March 2016

National Multifamily Long-Term Outlook Remains Stable

"Moody's Analytics' forecasts for a general slowdown in job growth and new household growth between 2019 and 2021 may not be good news for developers. But that should give members of Generation Z time to create pent-up demand as they resume forming new households as job growth improves.

Most of today's multifamily development is taking place in core and downtown submarkets in a handful of major metros. These are places where Millennials and some baby boomers say they want to live, work, and play. But what about Generation Z? The expectation is that they will want the same amenities and lifestyle as the Millennials. But they are sophisticated users of technology. They may feel less constrained about where they can live, if social media and technology allow them to live anywhere. And they might not choose to live in urban centers, but in the suburbs, exurbs, or even more rural areas. If that happens, there could be a dramatic shift in the location of future multifamily demand – to very different metros and submarkets than today.

But overall, Generation Z helps provide a more stable outlook for multifamily further out into the long-term forecast. Despite a more subdued job growth forecast, there will be a healthy overall number of people in the Generation Z cohort. And that should provide ongoing, steady demand for multifamily rental housing over the coming decade, although the location of the bulk of that demand is not clear." – Kim Betancourt, Director of Economics and Tim Komosa, Economist Manager, Multifamily Economics and Market Research, Fannie Mae

Source: http://www.fanniemae.com/resources/file/research/emma/pdf/MF_Market_Commentary_031716.pdf/; 2/7/16

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Urban Wire: Housing and Housing Finance

127 million US renters:

- “76 percent never had a mortgage
- 15 percent had a mortgage
- 9 percent now have a mortgage (12 million)

- 64 million renters have credit scores below 650 and may not qualify for a mortgage
- 96 million renters have never had a mortgage, and 42 percent of them have debt in collections
- Many middle-aged renters who used to have a mortgage appear to have been forced out of homeownership by financial troubles” –

Laurie Goodman, Director, Housing Finance Policy Center and Wei Li, Senior Research Associate, Urban Institute

Source: http://www.urban.org/urban-wire/what-having-mortgage-can-tell-us-about-other-debt; 3/17/16

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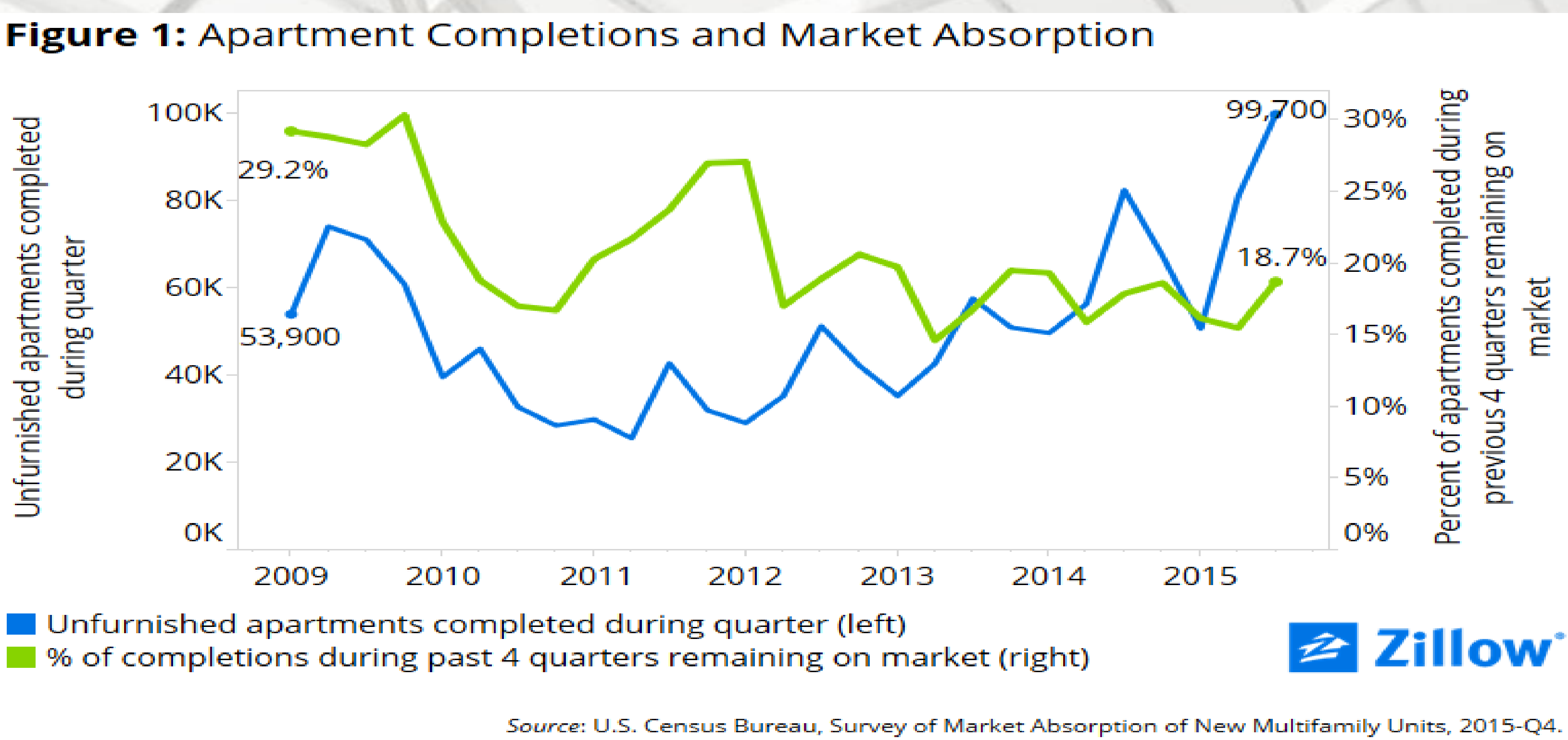
Zillow: Multifamily Commentary



Hunger Games: Builders Keep Serving Up More Apartments, Renters Keep Scarfing Them Down

- "Almost 100,000 new apartments came online in Q3 2015, more than any time since the late 1980s. The vast majority of these units were rented within 12 months.
- The number of new apartments, and the rate at which they are rented, shows a clear seasonal pattern: Q4 appears to be the best time for renters searching for a newly built apartment.
- The most affordable studio and 1-bedroom units rent much more quickly than higher-priced units." – Aaron Terrazas, Senior Economist, Zillow

Source: http://www.zillow.com/research/apartment-absorption-q4-2015-11892/; 3/8/16

New Housing Under Construction

	Total Under Construction*	SF Under Construction	MF 2-4 unit** Under Construction	MF ≥ 5 unit Under Construction
February	987,000	427,000	11,000	549,000
January	978,000	421,000	11,000	546,000
2015	833,000	359,000	11,000	463,000
M/M change	0.9%	1.4%	0.0%	0.5%
Y/Y change	18.5%	18.9%	0.0%	18.6%

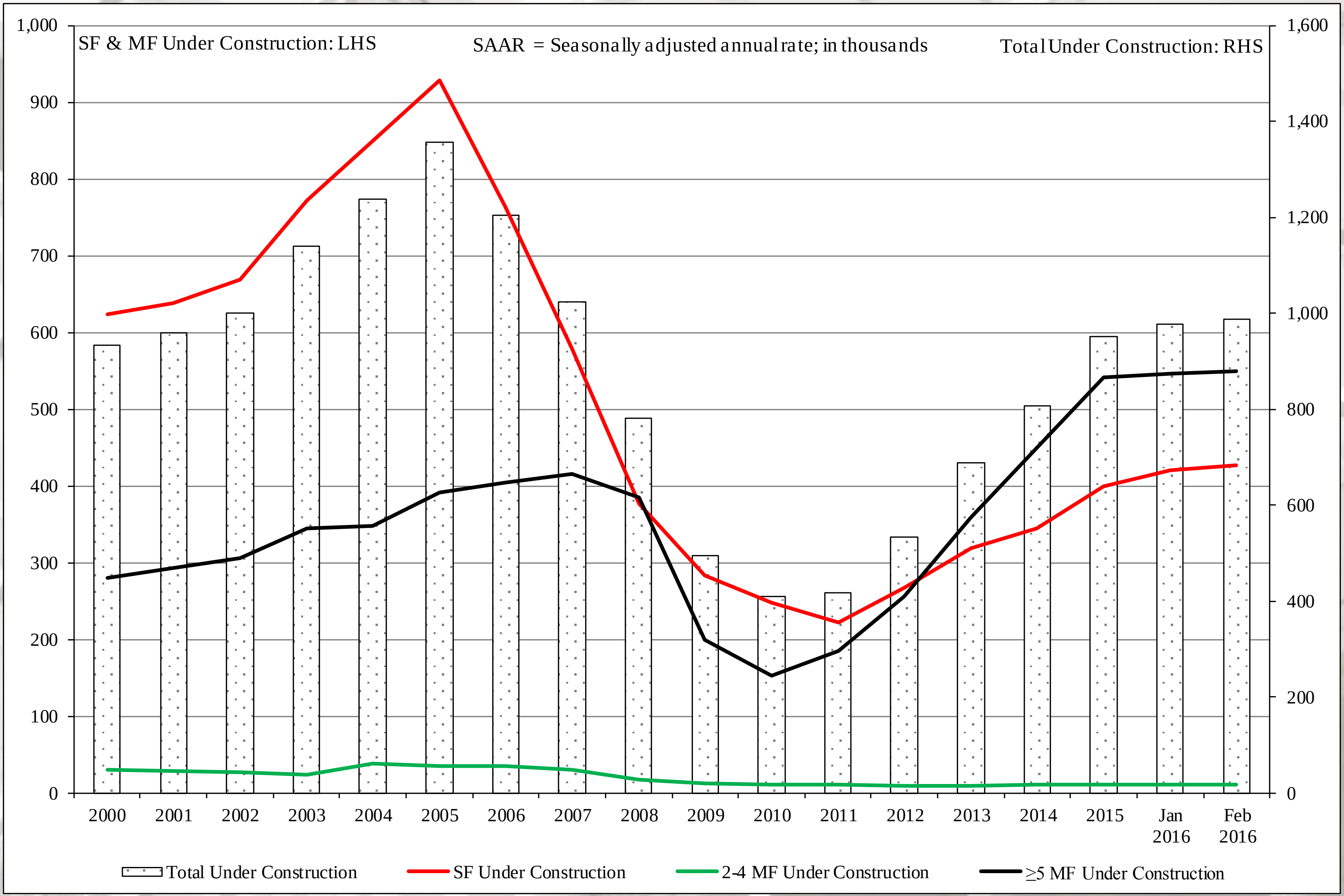
* All housing under construction data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2-4 multifamily units under construction directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

Total Housing Under Construction



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
February	183,000	50,000	133,000
January	182,000	49,000	133,000
2015	130,000	41,000	89,000
M/M change	0.5%	2.0%	0.0%
Y/Y change	40.8%	22.0%	49.4%

	MW Total	MW SF	MW MF
February	131,000	72,000	59,000
January	130,000	70,000	60,000
2015	128,000	63,000	65,000
M/M change	0.8%	2.9%	-1.7%
Y/Y change	2.3%	14.3%	-9.2%

All data are SAAR; NE = Northeast and MW = Midwest.
** US DOC does not report multifamily units under construction directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

New Housing Under Construction by Region

	S Total	S SF	S MF**
February	432,000	211,000	221,000
January	427,000	208,000	219,000
2015	367,000	175,000	192,000
M/M change	1.2%	1.4%	0.9%
Y/Y change	17.7%	20.6%	15.1%

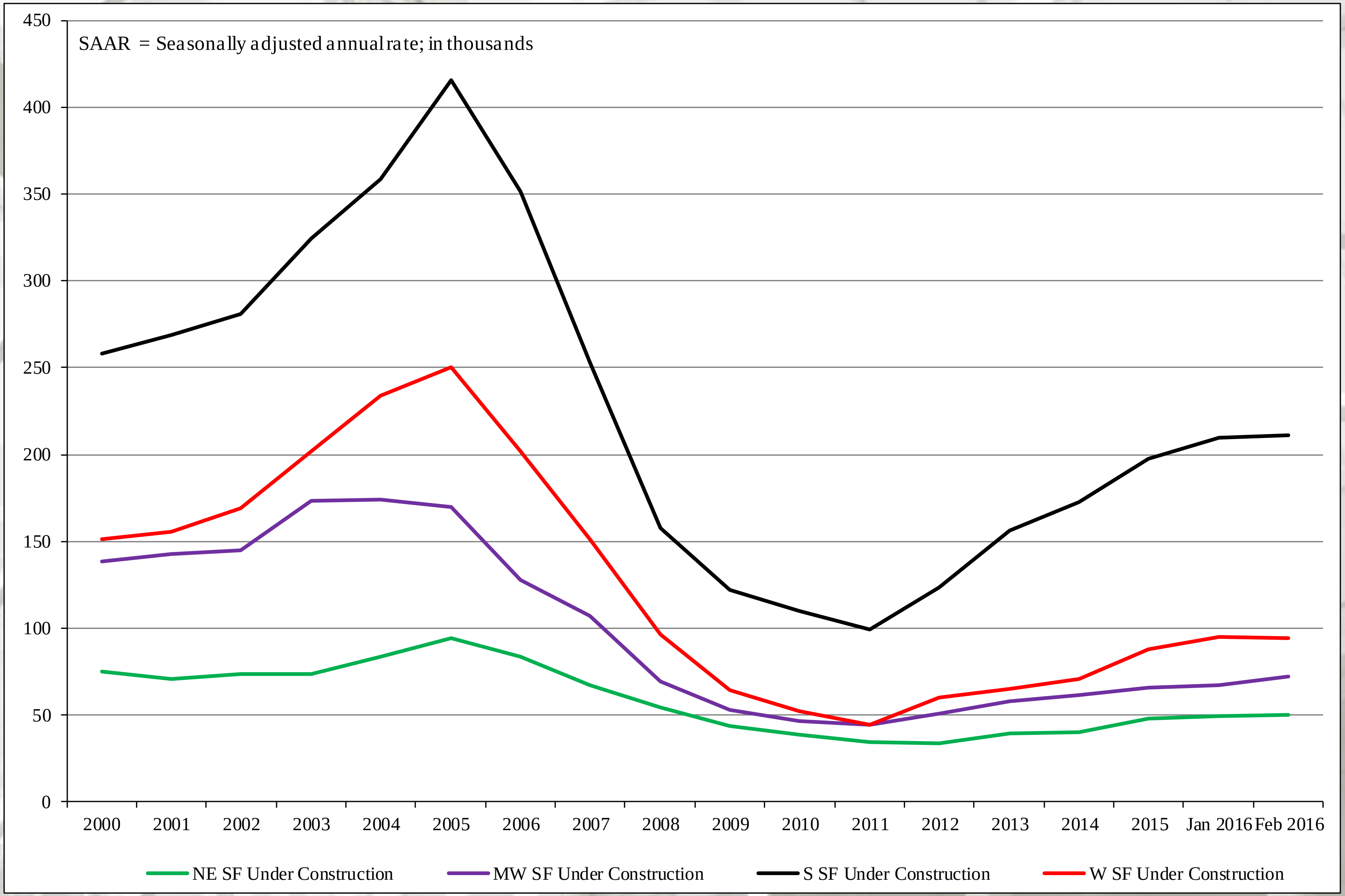
	W Total	W SF	W MF
February	241,000	94,000	147,000
January	239,000	94,000	145,000
2015	208,000	80,000	128,000
M/M change	0.8%	0.0%	1.4%
Y/Y change	15.9%	17.5%	14.8%

All data are SAAR; S = South and W = West.
** US DOC does not report multi-family units under construction directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

Total Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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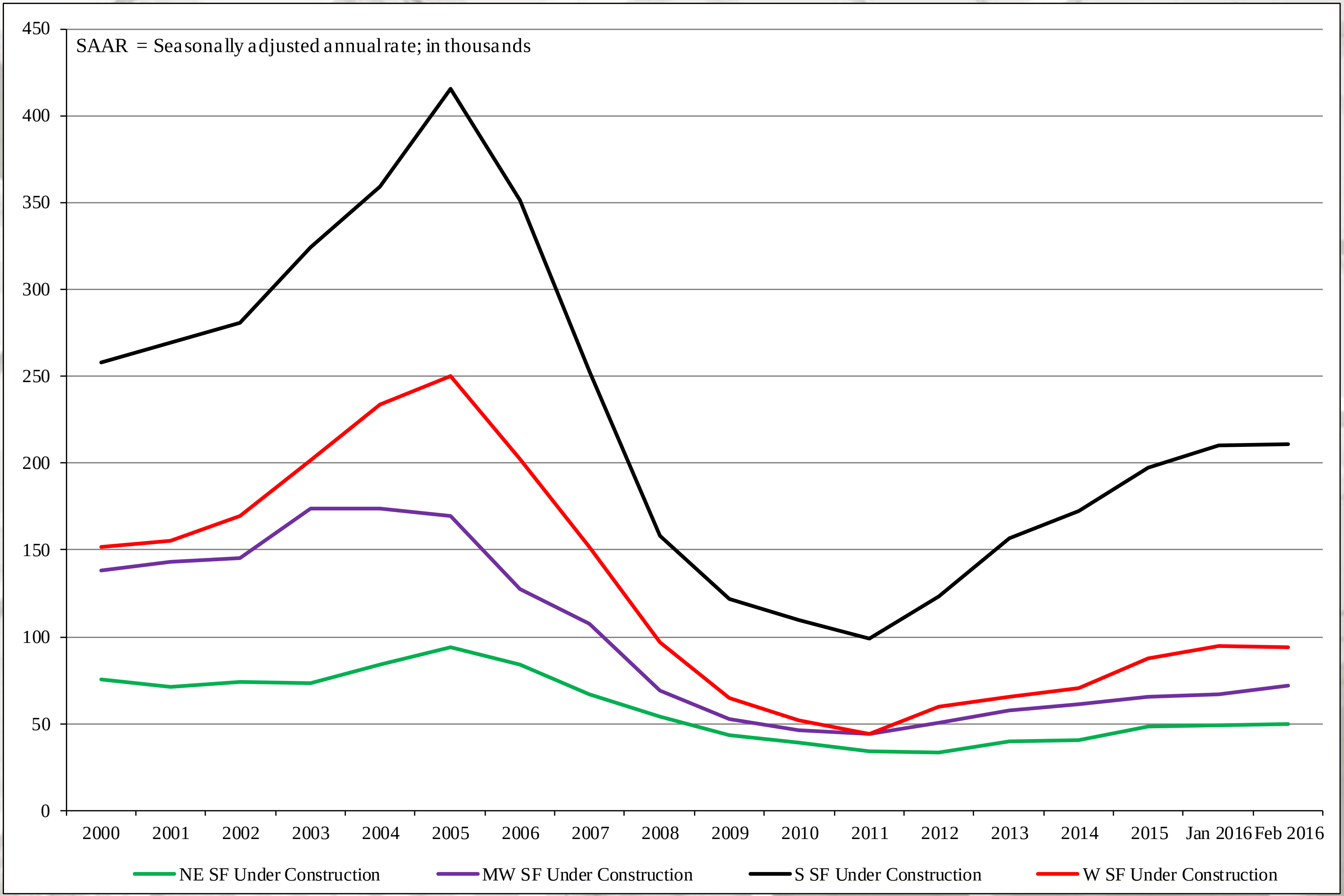
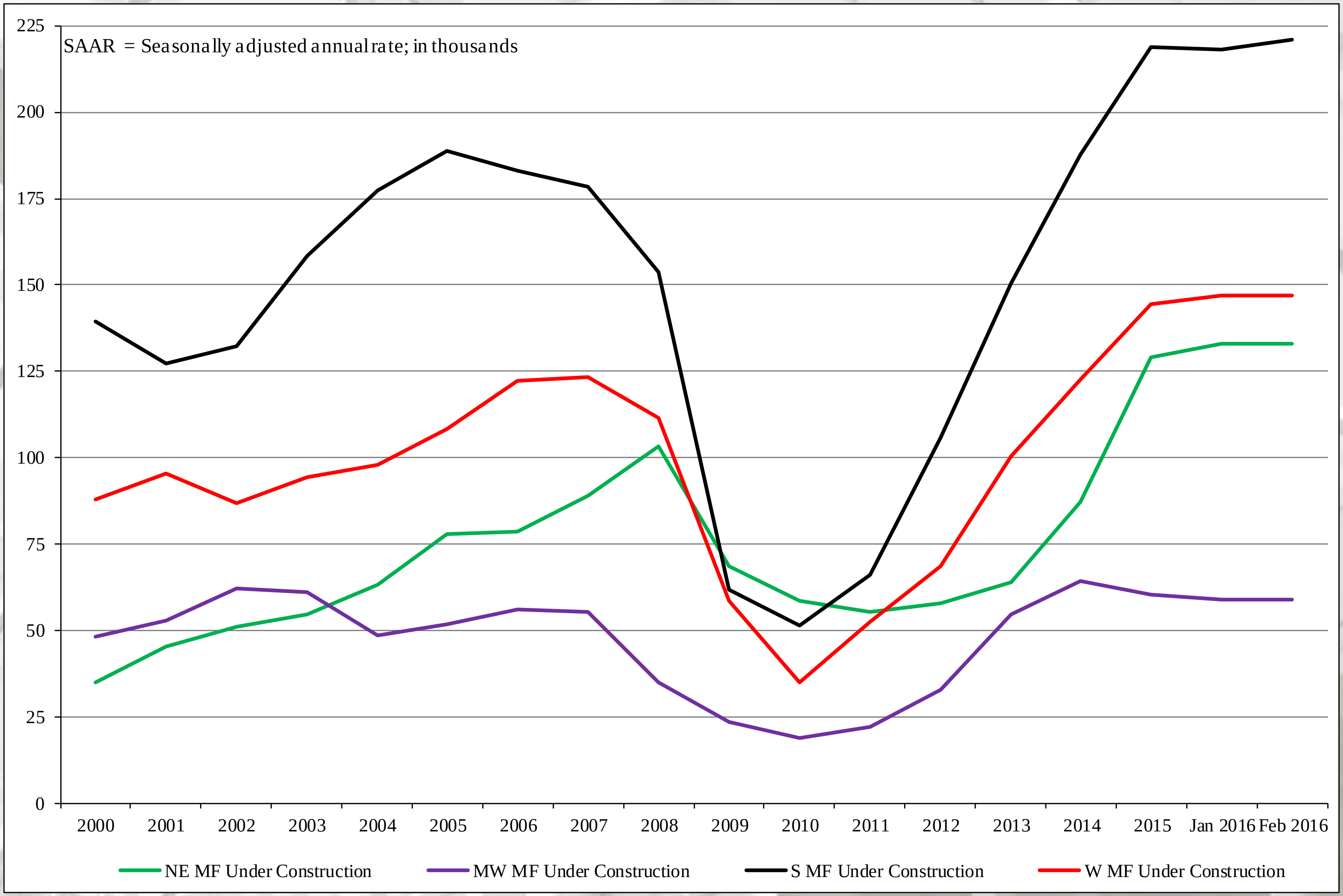
SF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

MF Housing Under Construction by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

New Housing Completions

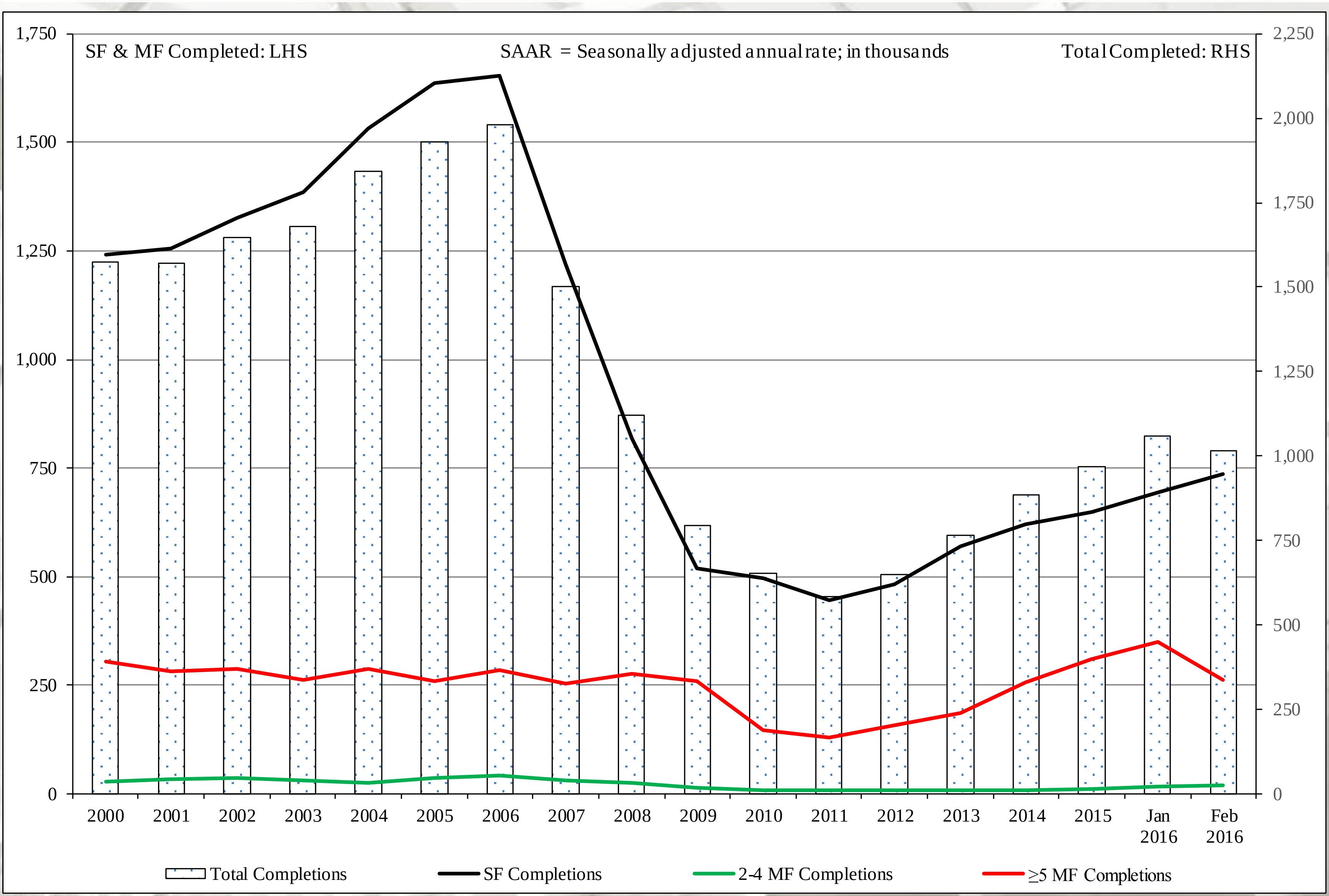
	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
February	1,016,000	736,000	19,000	261,000
January	1,060,000	694,000	17,000	349,000
2015	865,000	602,000	18,000	245,000
M/M change	-4.2%	6.1%	11.8%	-25.2%
Y/Y change	17.5%	22.3%	5.6%	6.5%

* All completion data are presented at a seasonally adjusted annual rate (SAAR).
** US DOC does not report multifamily completions directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

Total Housing Completions



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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New Housing Completions by Region

	NE Total	NE SF	NE MF**
February	72,000	54,000	18,000
January	99,000	60,000	39,000
2015	56,000	40,000	16,000
M/M change	-27.3%	-10.0%	-53.8%
Y/Y change	28.6%	35.0%	12.5%

	MW Total	MW SF	MW MF
February	137,000	94,000	43,000
January	144,000	100,000	44,000
2015	135,000	92,000	43,000
M/M change	-4.9%	-6.0%	-2.3%
Y/Y change	1.5%	2.2%	0.0%

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

** US DOC does not report multifamily completions directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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New Housing Completions by Region

	S Total	S SF	S MF**
February	535,000	399,000	136,000
January	541,000	387,000	154,000
2015	473,000	346,000	127,000
M/M change	-1.1%	3.1%	-11.7%
Y/Y change	13.1%	15.3%	7.1%

	W Total	W SF	W MF
February	272,000	189,000	83,000
January	276,000	147,000	129,000
2015	201,000	124,000	77,000
M/M change	-1.4%	28.6%	-35.7%
Y/Y change	35.3%	52.4%	7.8%

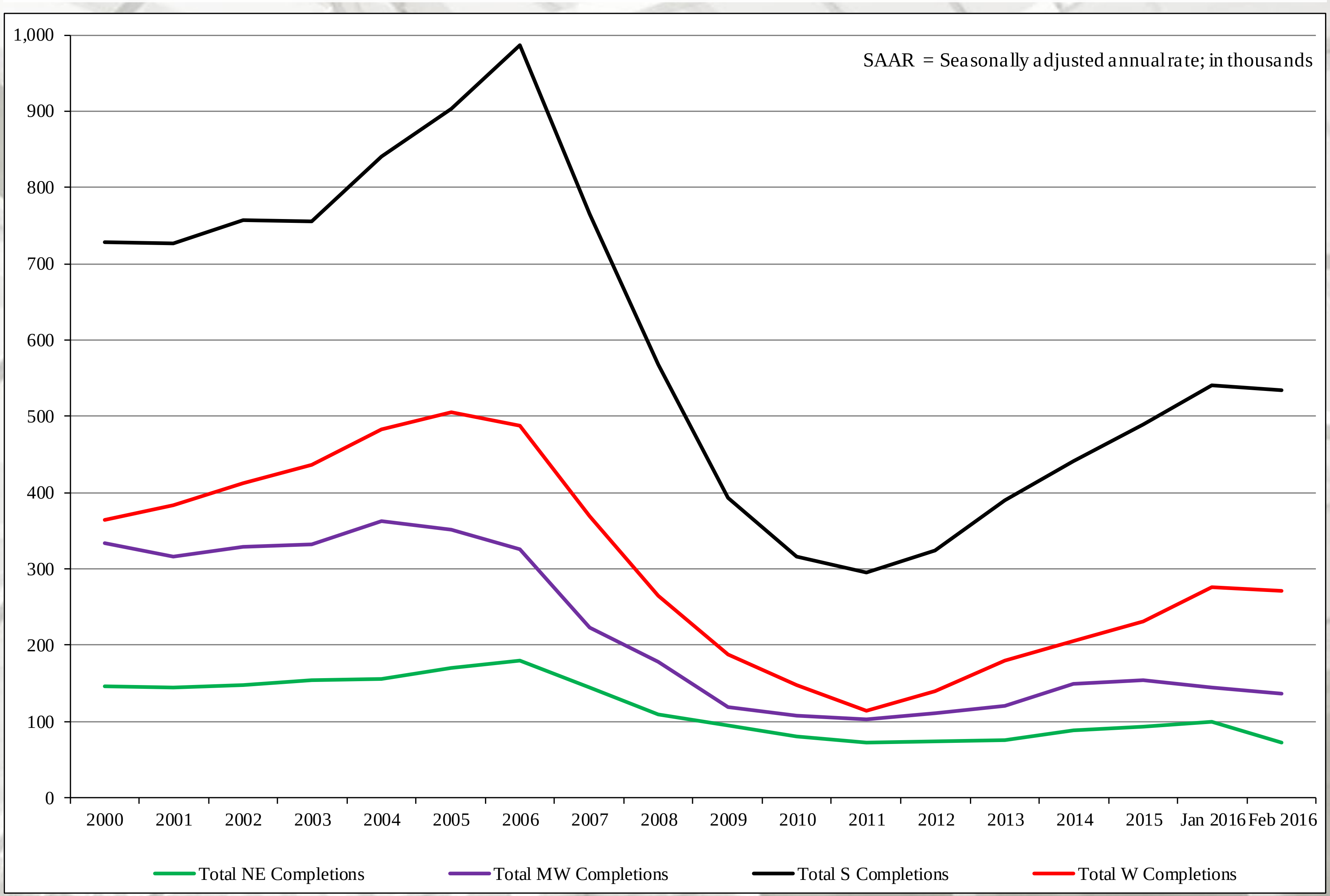
All data are SAAR; S = South and W = West.

** US DOC does not report multi-family completions directly, this is an estimation.

Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

Total Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

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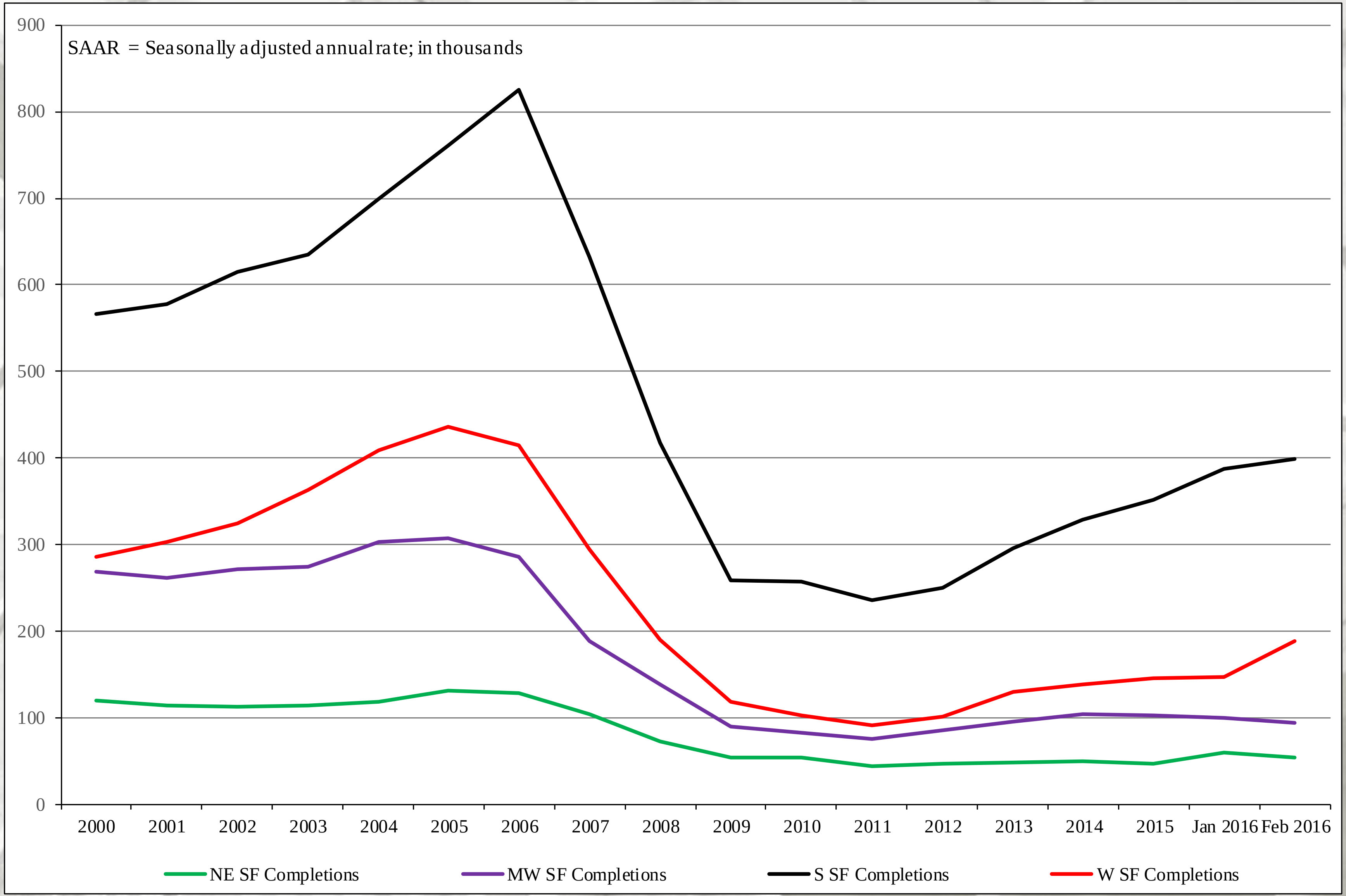
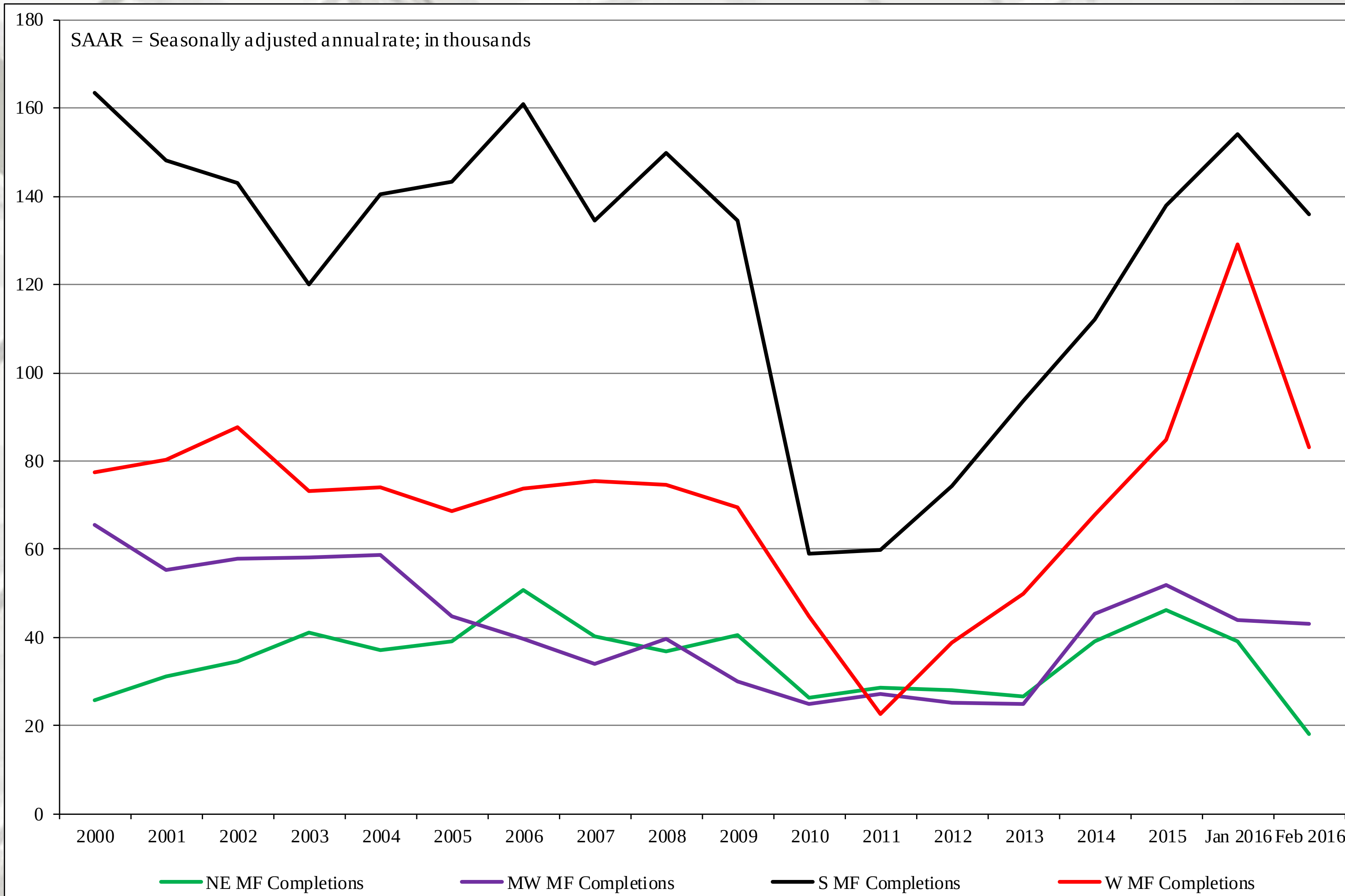
SF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

MF Housing Completions by Region



Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 3/16/16

Return TOC

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
February	512,000	$301,400	$348,900	5.6
January	502,000	$283,900	$363,400	5.6
2015	545,000	$297,000	$355,900	4.8
M/M change	2.0%	6.2%	-4.0%	0.0%
Y/Y change	-6.1%	2.6%	-2.0%	24.4%

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

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23/16

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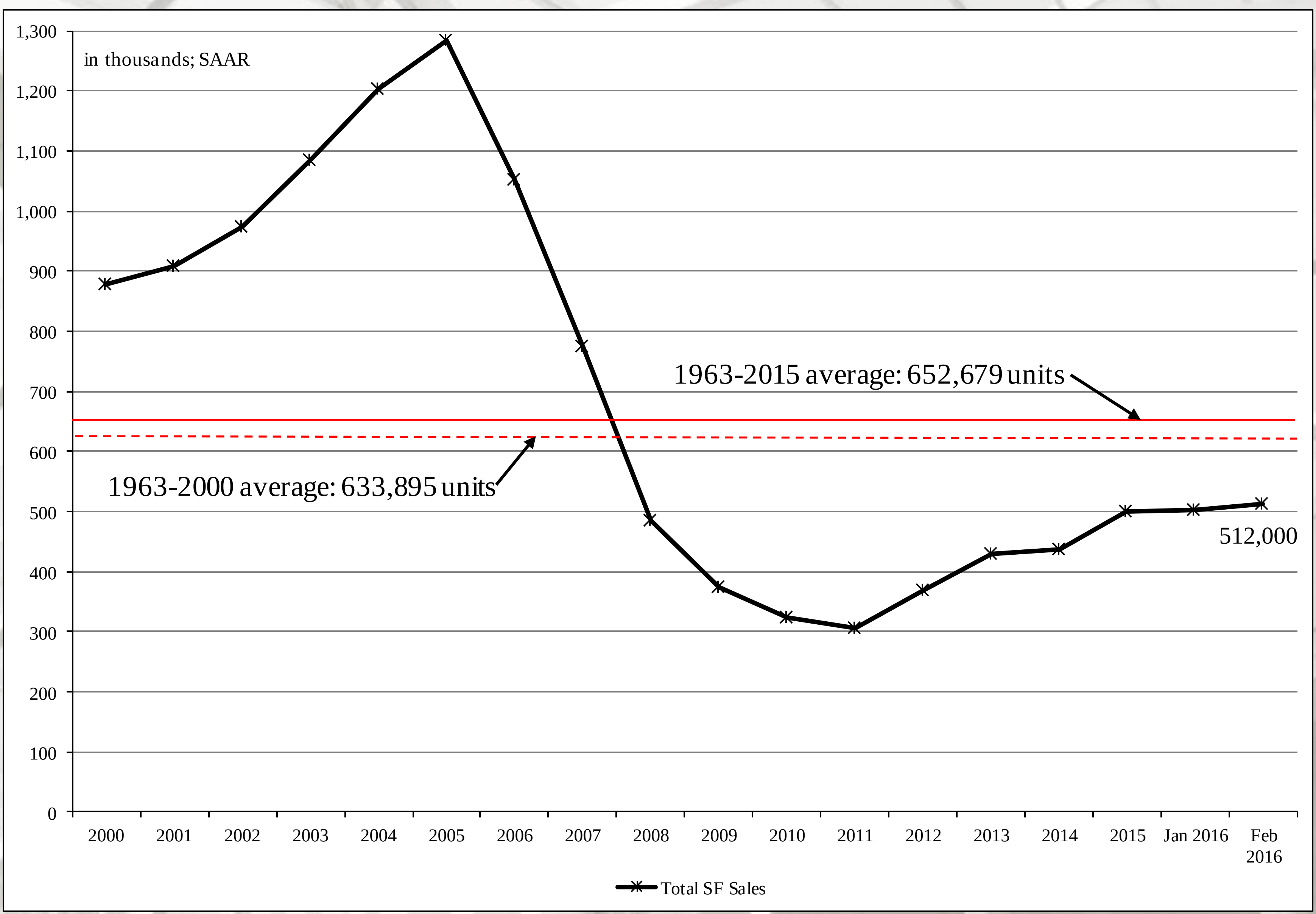
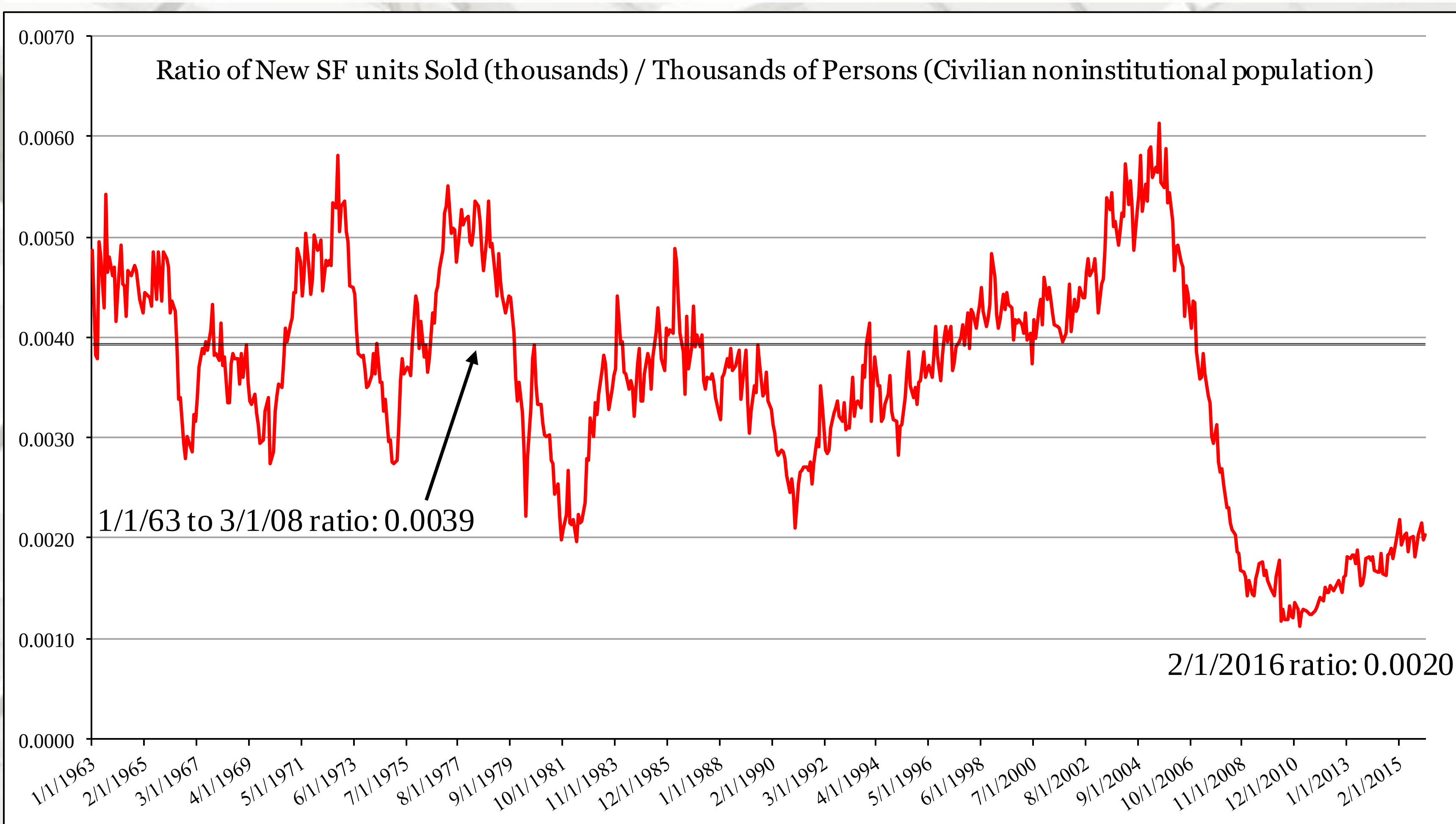
New SF House Sales



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23/16

New SF House Sales



New SF sales adjusted for the US population

From February 1963 to March 2008, the long-term ratio of new house sales to the US population was 0.0039 – in February it was 0.0020 – no change from January. From a population view, under construction has occurred in the new SF segment and there is ample room for improvement.

Sources: http://www.census.gov/construction/nrs/xls/newressales.xls and The Federal Reserve Bank of St. Louis; 3/23/16

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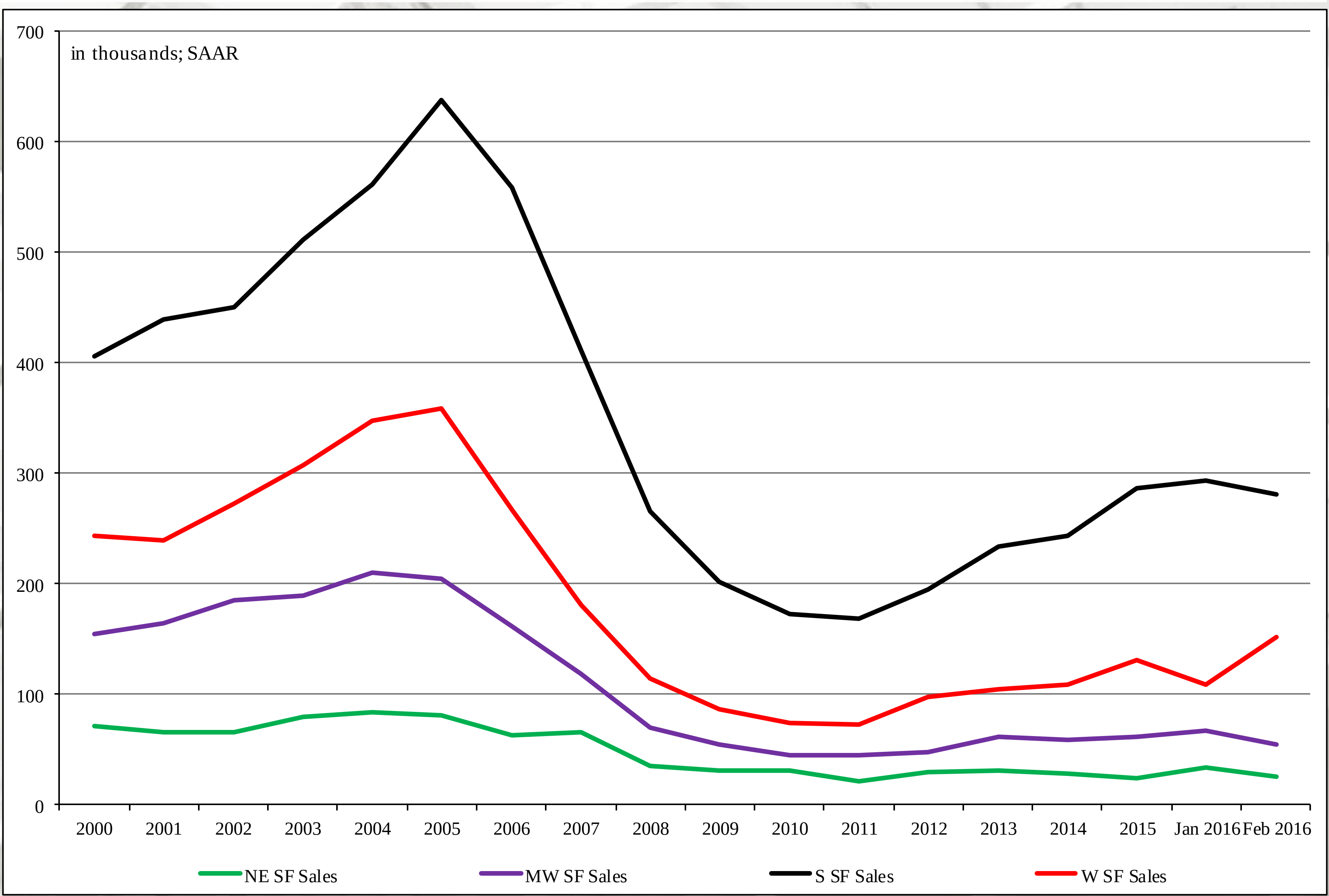
New SF House Sales by Region



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23/16

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New SF House Sales by Region and Price Category

	NE SF Sales	MW SF Sales	S SF Sales	W SF Sales
February	25,000	55,000	281,000	151,000
January	33,000	67,000	293,000	109,000
2015	26,000	54,000	328,000	137,000
M/M change	-24.2%	-17.9%	-4.1%	38.5%
Y/Y change	-3.8%	1.9%	-14.3%	10.2%

	< $150m	$150-$199.9m	$200-299.9m	$300-$399.9m	$400-$499.9m	$500-$749.9m	> $750m
February	2,000	7,000	12,000	7,000	5,000	2,000	2,000
January	2,000	4,000	16,000	11,000	6,000	4,000	1,000
2015	2,000	6,000	16,000	9,000	5,000	5,000	2,000
M/M change	0.0%	50.0%	0.0%	-18.2%	-16.7%	25.0%	100.0%
Y/Y change	0.0%	16.7%	-25.0%	-22.2%	0.0%	-60.0%	0.0%

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.

Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23//16

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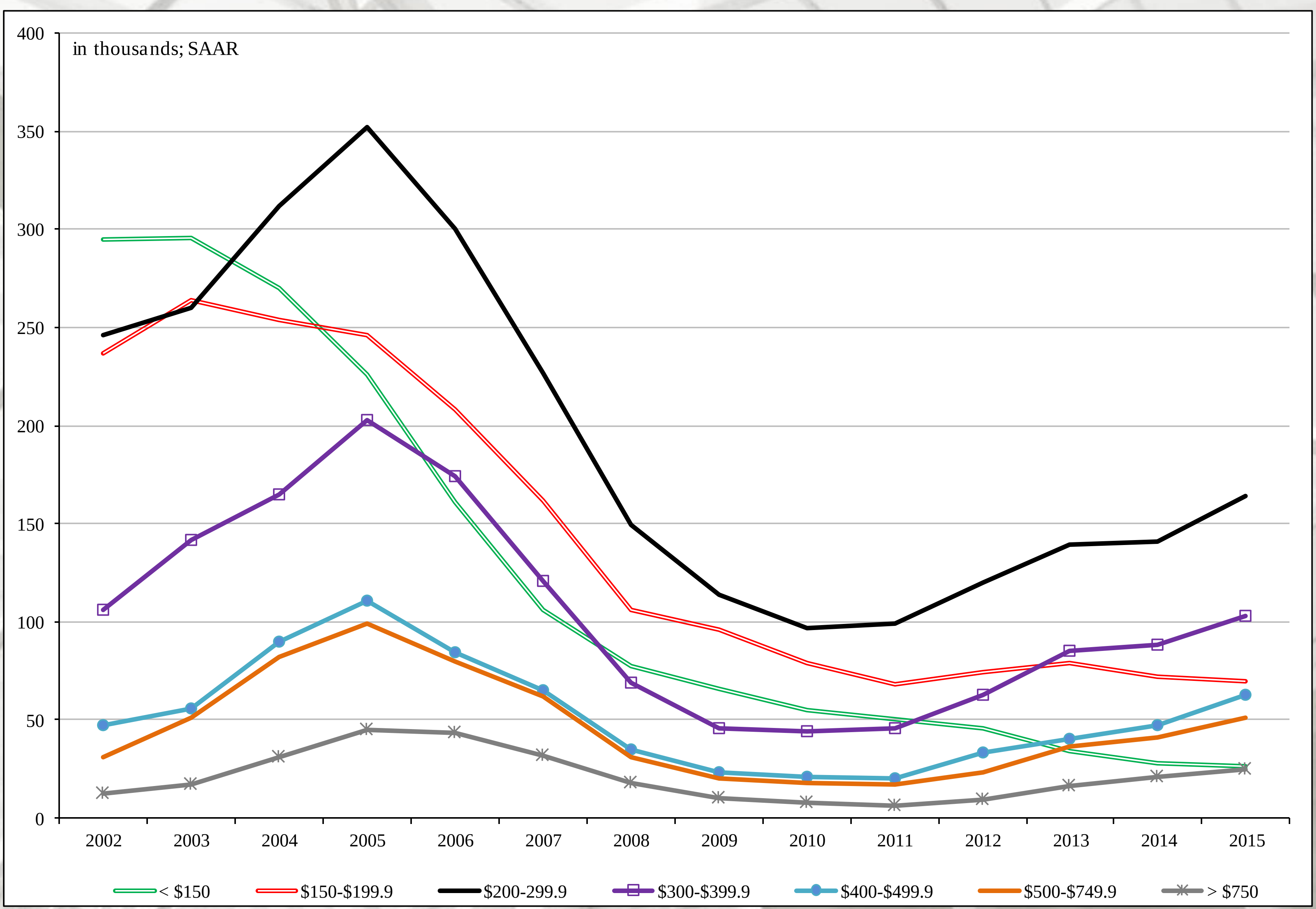
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23//16

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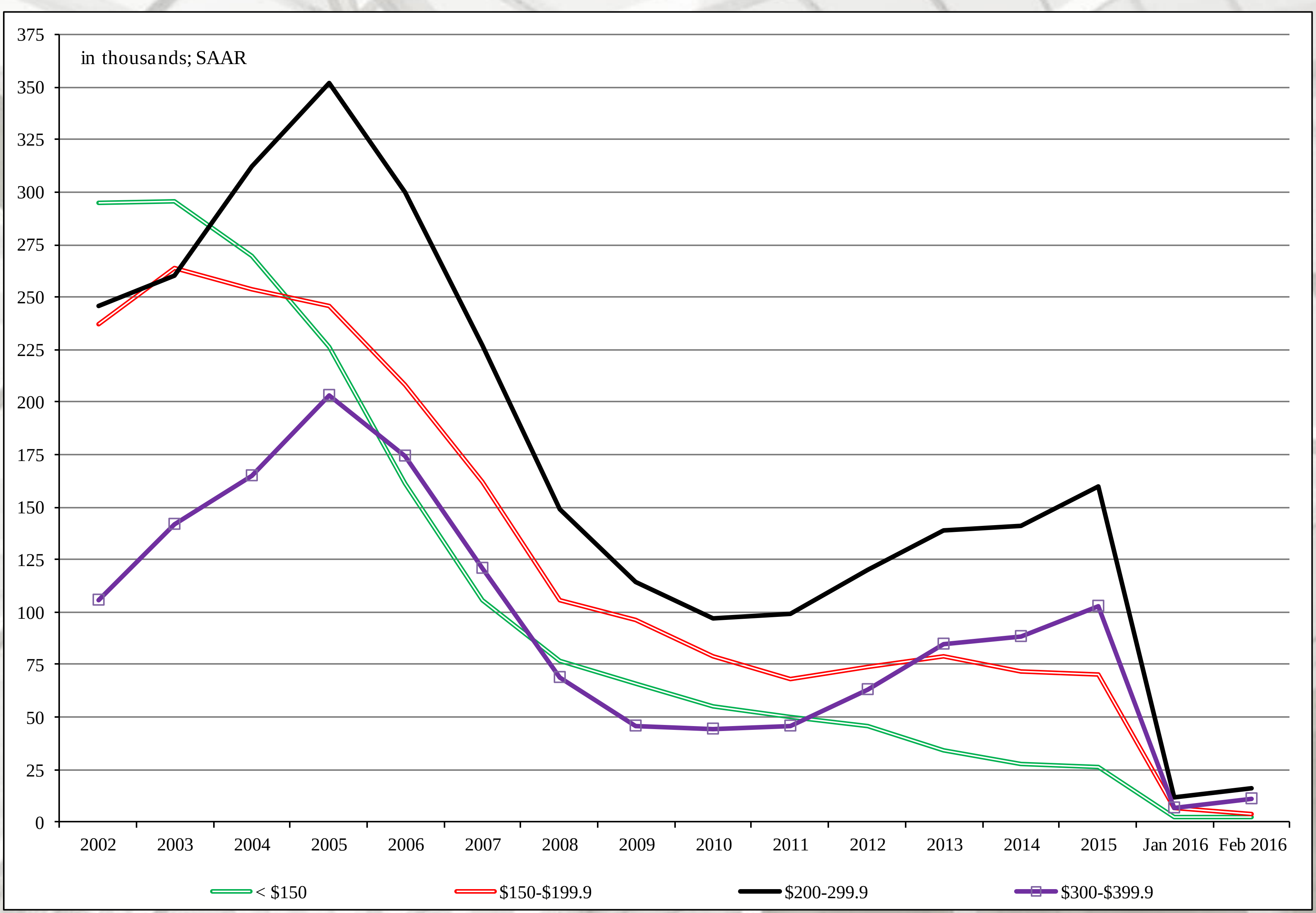
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23//16

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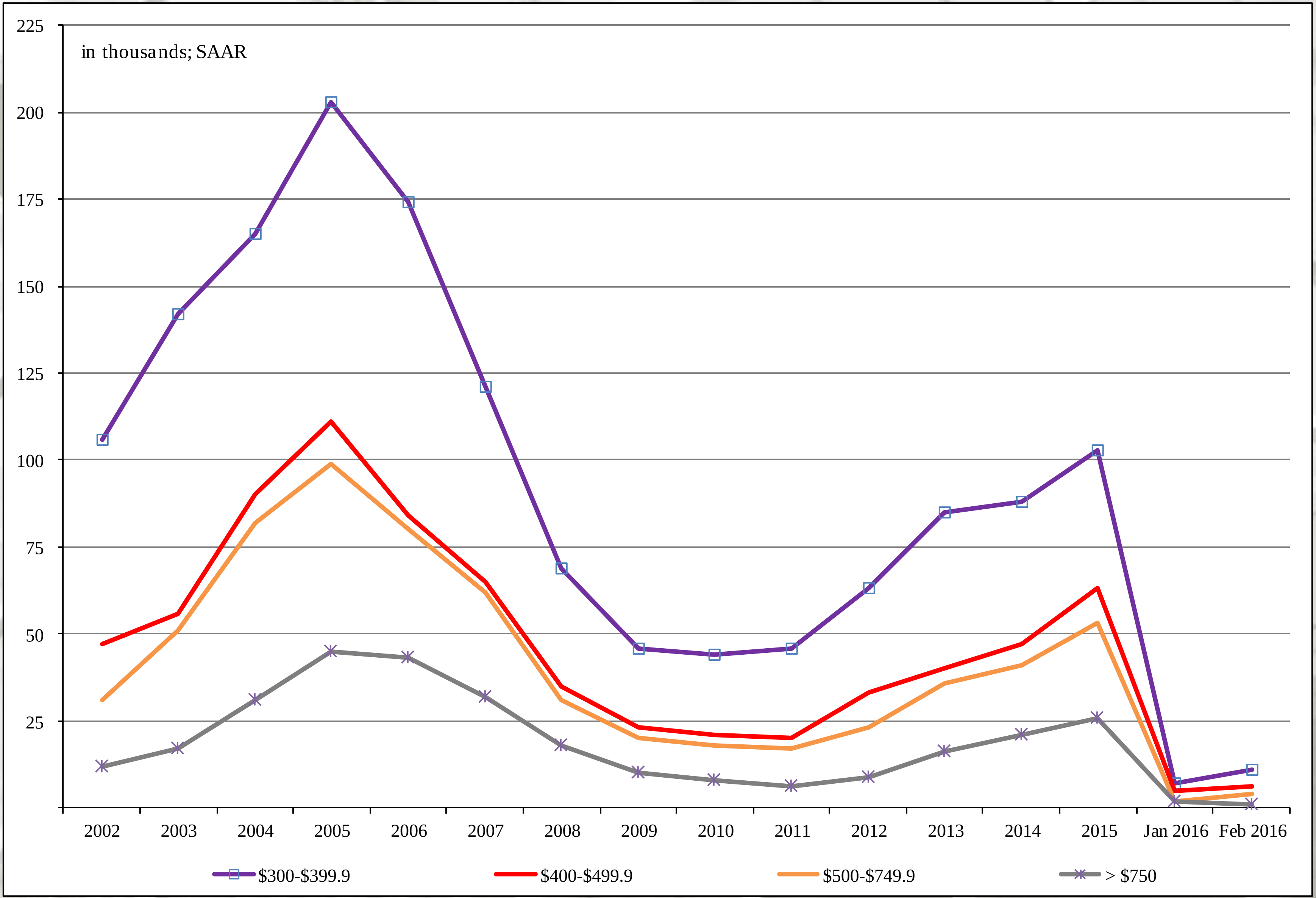
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23//16

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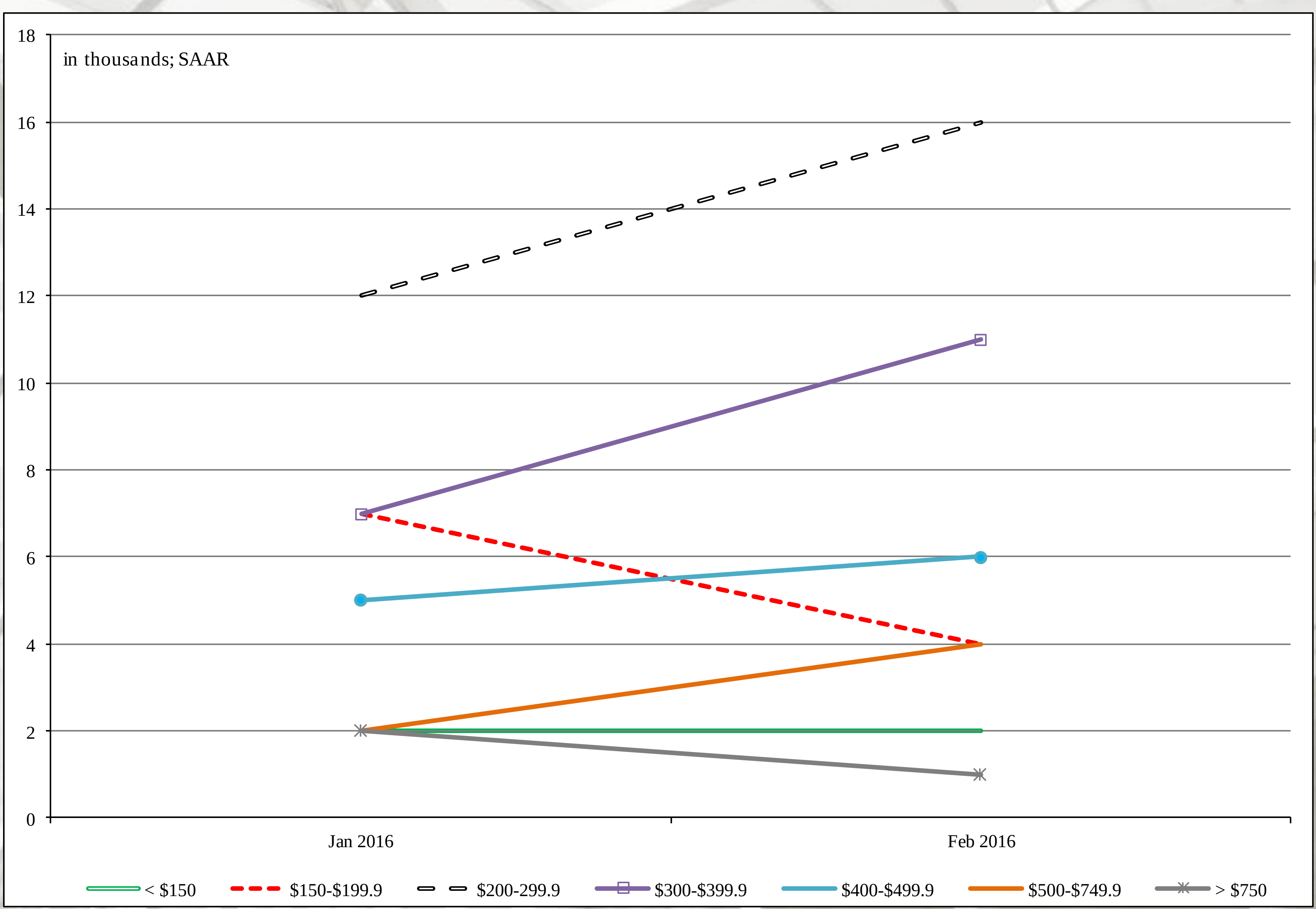
New SF House Sales by Price Category



Source: http://www.census.gov/construction/nrs/xls/newressales.xls; 3/23//16

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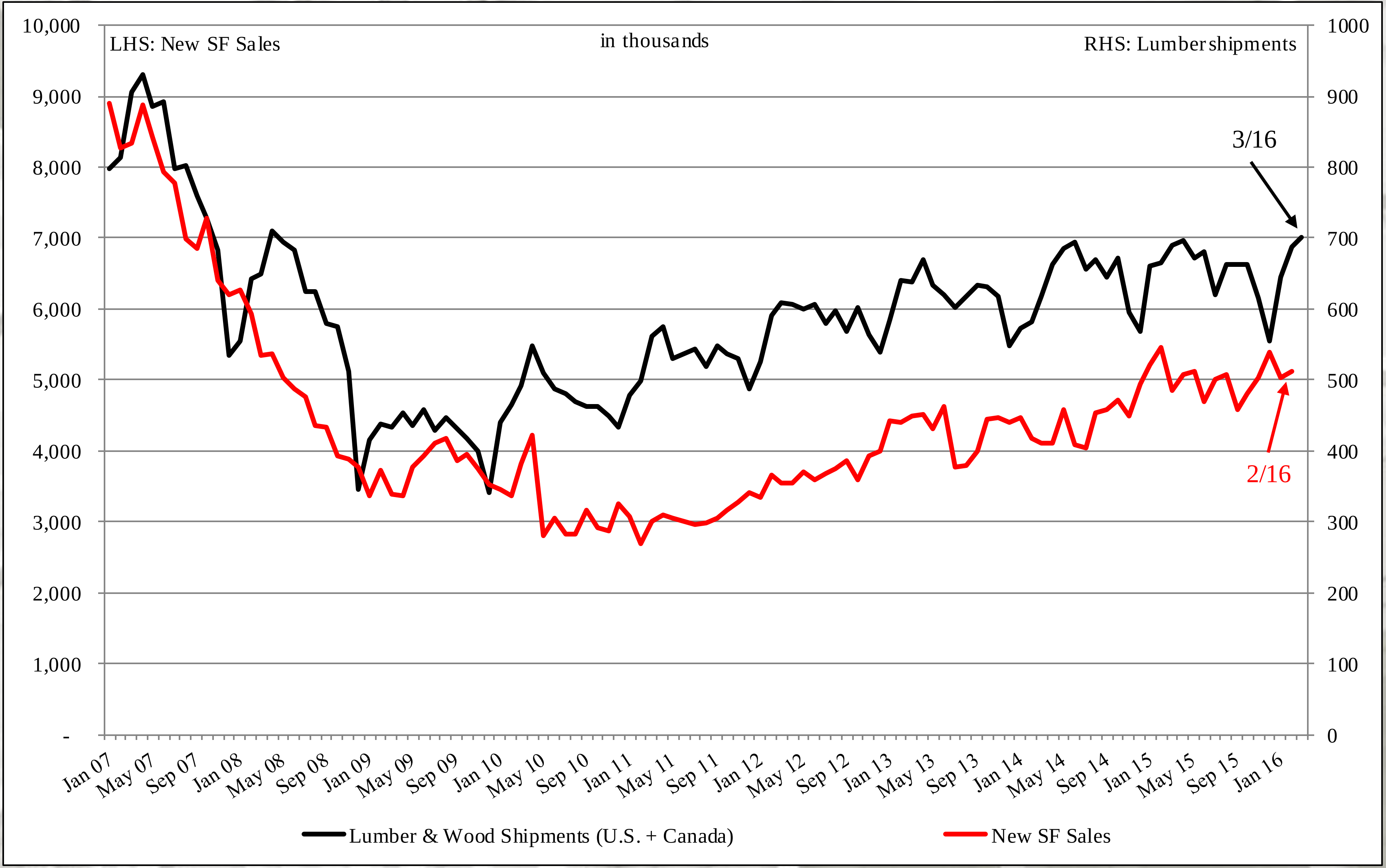
Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales



Sources: Association of American Railroads, *Rail Time Indicators* report; 4/7/16; U.S. DOC-Construction; 3/23/16

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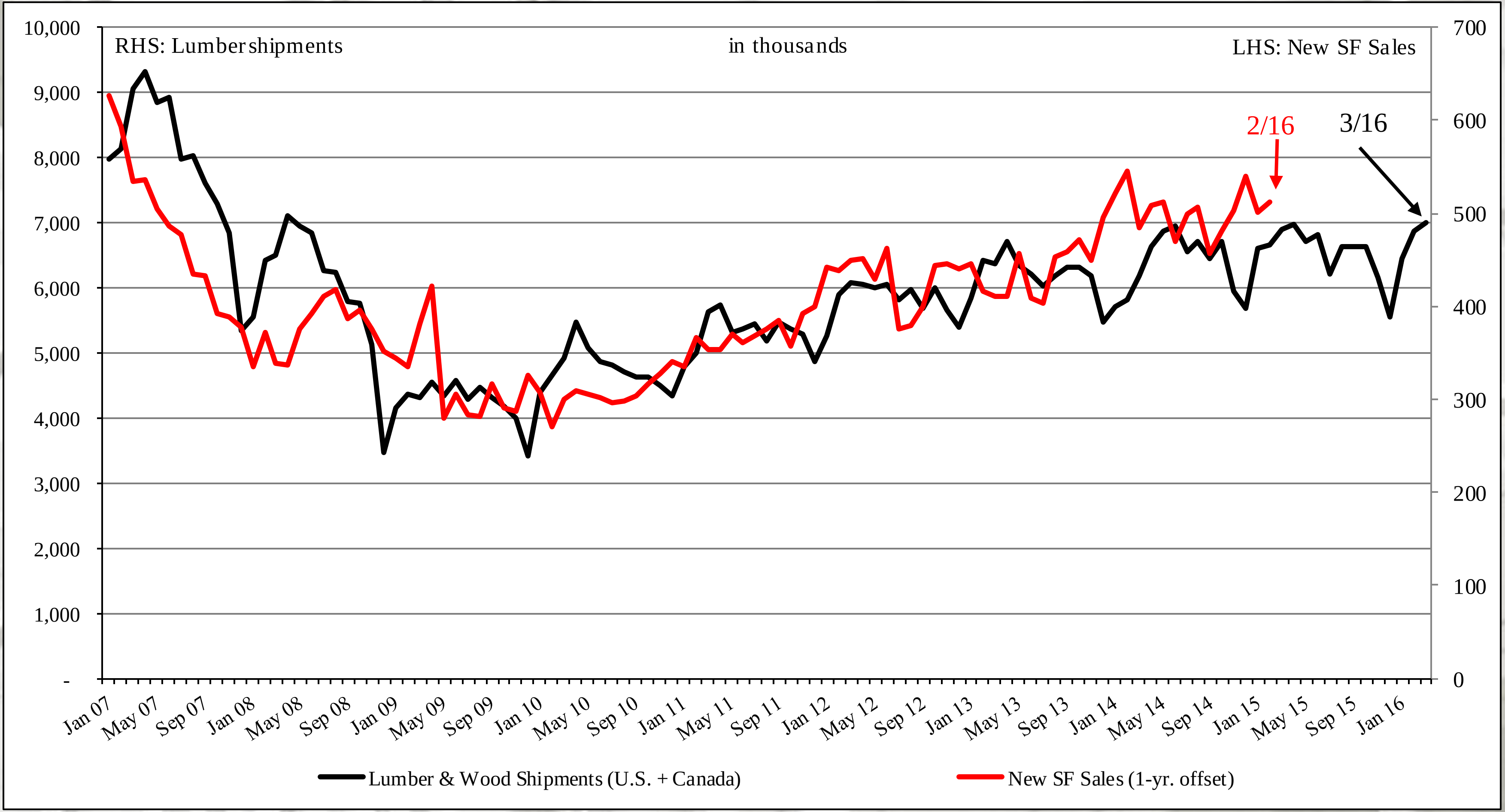
Railroad Lumber & Wood Shipments vs. U.S. New SF House Sales: 1-year offset



In this graph, initially January 2007 lumber shipments are contrasted with January 2008 new SF sales through March 2016 data. The purpose is to discover if lumber shipments relate to future new SF house sales. Also, it is realized that lumber and wood products are trucked; however, to our knowledge comprehensive trucking data is not available.

Sources: Association of American Railroads, *Rail Time Indicators* report; 4/7/16; U.S. DOC-Construction; 3/23/16

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February 2016 Construction Spending

2016 February Total Private Residential Construction: $447.95 billion (SAAR)

0.9% more than the revised January estimate of $433.79 billion (SAAR)
10.7% greater than the February 2015 estimate of $404.64 billion (SAAR)

February SF construction: $235.03 billion (SAAR)
1.2% more than January: $232.21 billion (SAAR)
10.6% greater than February 2015: $212.53 billion (SAAR)

February MF construction: $59.77 billion (SAAR)
0.9% more than January: $59.24 billion (SAAR)
24.1% greater than February 2015: $48.15 billion (SAAR)

February Improvement[C] construction: $153.15 billion (SAAR)
0.5% more than January: $152.34 billion (SAAR)
6.4% greater than February 2015: $143.95 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$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 4/1/16

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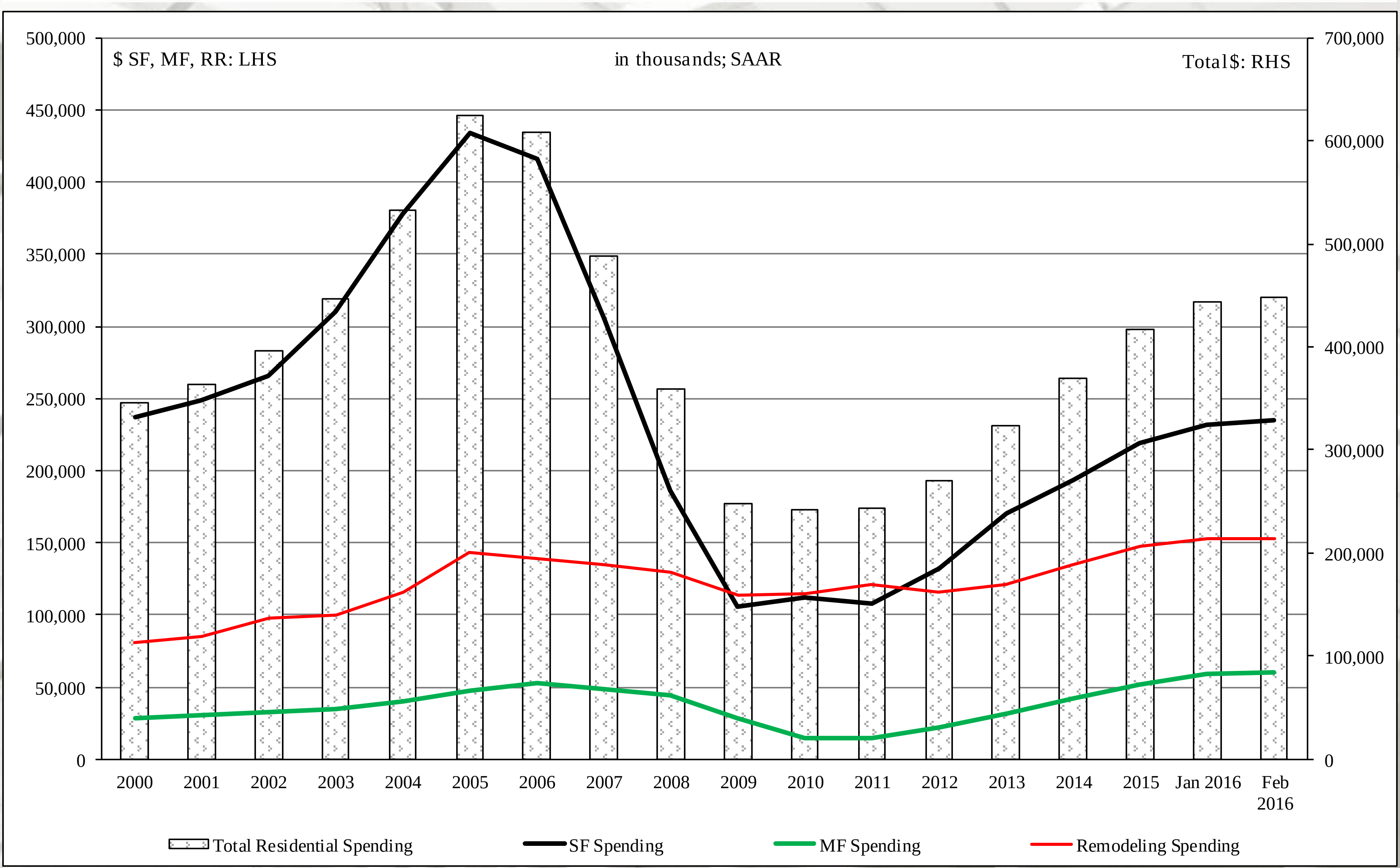
Construction Spending: 2000-February 2016



Reported in nominal US$.

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf; 4/1/16

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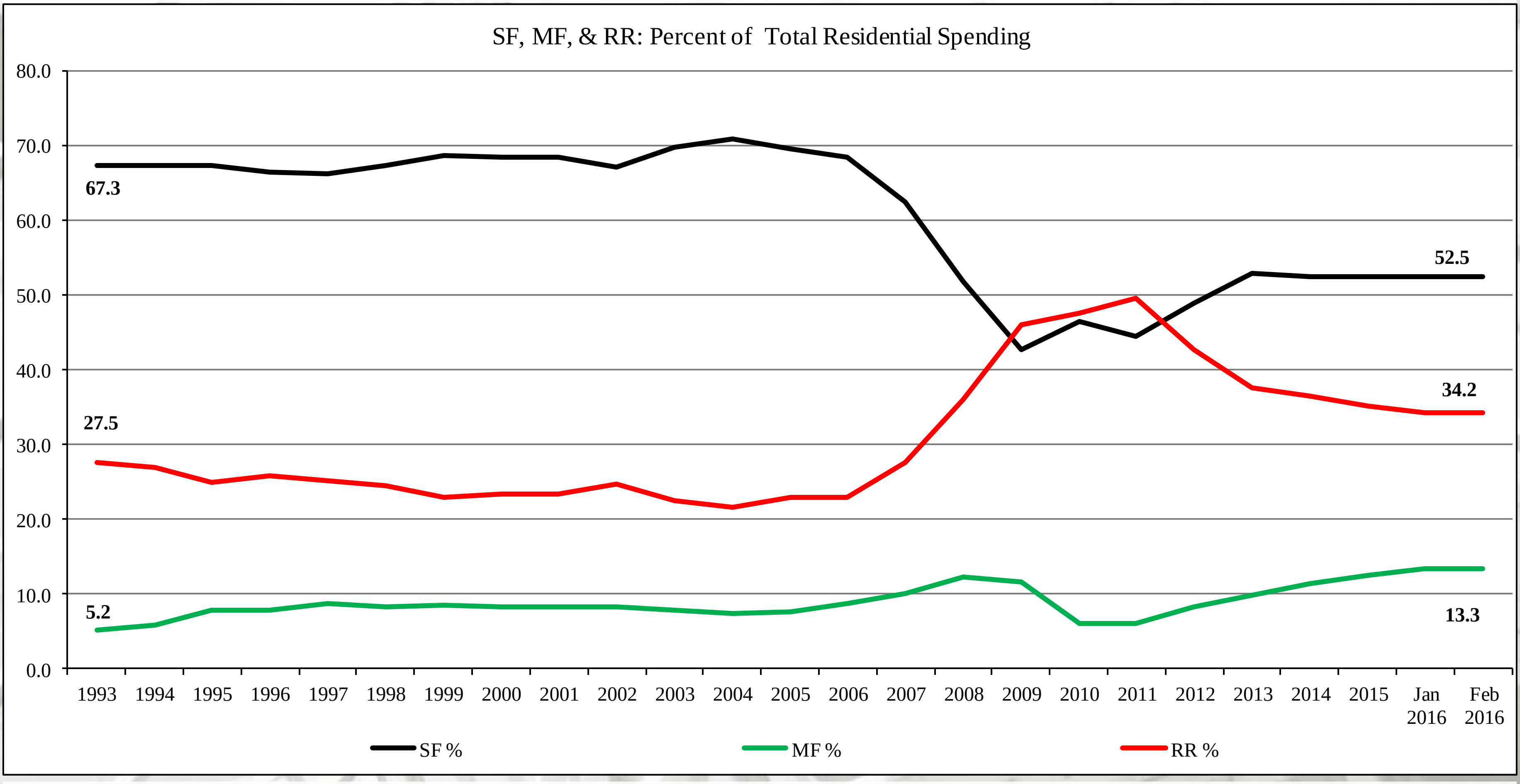
Construction Spending Shares:
1993 to February 2016



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

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

Source: http://www.census.gov/construction/c30/pdf/privsa.pdf and http://www.bea.gov/iTable/iTable.cfm; 4/1/16

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Construction Spending

What Drives Construction Spending?

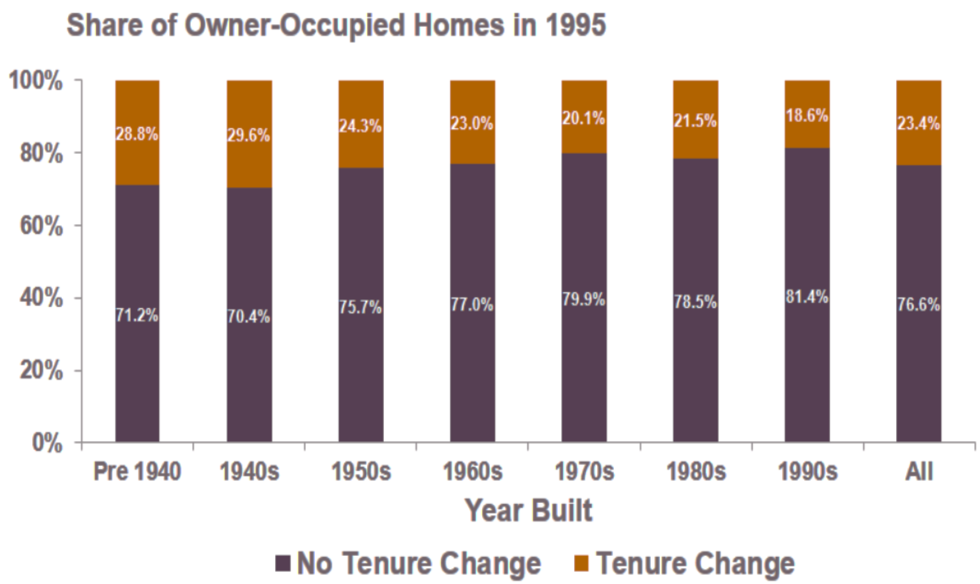
"New construction starts drive construction spending. For all the discussion regarding the monthly rise and fall of spending, most of the spending in any given month is already predetermined since two thirds of all construction spending in 2016 comes from projects that were started prior to 2016. This is commonly referred to as backlog.

The average of residential starts for the last three months is higher than any time since 2007 when residential starts were already on the decline by 24% from the previous year. The volume of residential starts predicts that spending should be higher than it is currently. This could mean that some starts have been delayed. Or, it could be because residential starts have the shortest duration, they may be the most difficult to predict spending from starts." — Ed Zarenski, Construction Economics Analyst, Construction Analytics

Source: http://edzarenski.com/2016/03/23/what-drives-construction-spending/; 3/24/16

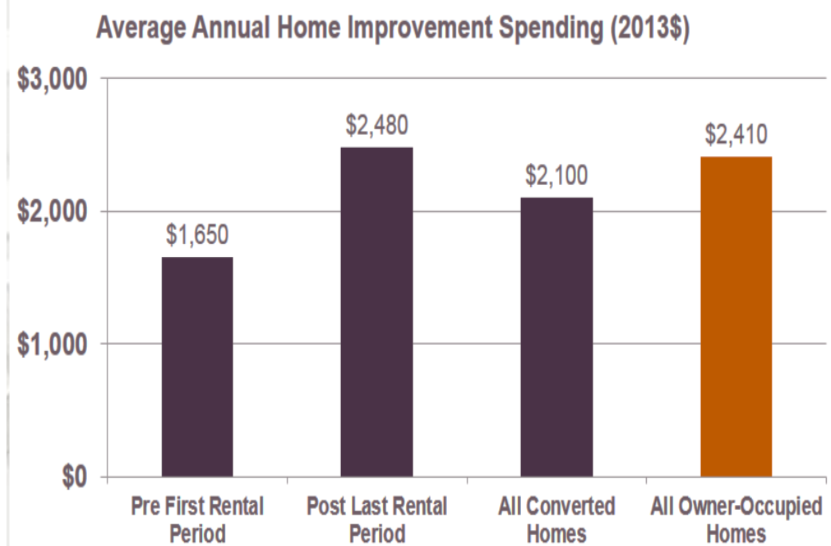
Construction Spending

Figure 1: Older Homes Are About 50% More Likely to be Converted to Rentals Than Newer Homes



Note: Sample composed of owner-occupied units in 1995 that were occupied in at least 7/10 surveys from 1995-2013.
Source: JCHS tabulations of HUD, 1995-2013 American Housing Surveys.

Figure 2: Less Spent on Converted Units, But More Spent on Rentals Converted Back



Notes: Rental sample composed of occupied units in 1995 that were occupied in at least 7/10 surveys from 1995-2013 and were owner-occupied in at least two surveys before first rental period and after last rental period. Average spending is calculated for years in which the unit was owner-occupied. Broader sample composed of occupied units in 1995 that were occupied in at least 7/10 surveys from 1995-2013 and were owner-occupied in at least one survey.
Source: JCHS tabulations of HUD, 1995-2013 American Housing Surveys.

Home Conversions – and Reconversions – Expected to Generate More Remodeling Activity

"Typically, homes that were converted to rentals were somewhat less desirable than homes that were continuously owner-occupied over this period. On average, they

- are older – pre-1940 homes were 50% more likely to be converted than homes built after 1990,
- have a lower value – homes valued at $100,000 or less were twice as likely to be converted as homes valued at $200,000 or more,
- and are more likely to be located in central cities." — Kermit Baker, Senior Research Fellow, Harvard's Joint Center for Housing Studies

Source: http://housingperspectives.blogspot.com/2016/03/home-conversions-and-reconversions.html/; 3/24/16

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Existing House Sales

National Association of Realtors (NAR®)

February 2016 sales: 5.08 million houses sold (SAAR)

Distressed house sales: 10% of sales –
(7% foreclosures and 3% short-sales);

9% in January and 11% in February 2015.

All-cash sales: decreased to 25%, 26% in January,
and 26% (February 2015).

Individual investors still purchase a considerable portion of
"all cash" sale houses – 18% in February;
17% in January and 15% in February 2015.

64% of investors paid cash in February.

Source: NAR® www.realtor.org/topics/existing-home-sales; 3/21/16

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Existing House Sales

	Existing Sales	Median Price	Average Price	Month's Supply
February	5,080,000	$213,800	$253,900	4.4
January	5,470,000	$223,200	$257,700	4.0
2015	4,970,000	$197,600	$247,800	4.6
M/M change	-7.1%	-4.2%	-1.5%	10.0%
Y/Y change	2.2%	4.4%	4.4%	-4.3%

	NE Sales	MW Sales	S Sales	W Sales
February	630,000	1,120,000	2,220,000	1,130,000
January	760,000	1,300,000	2,240,000	1,170,000
2015	600,000	1,120,000	2,130,000	1,120,000
M/M change	-17.1%	-13.8%	-1.8%	-3.4%
Y/Y change	5.0%	0.0%	2.5%	0.9%

* All sales data: SAAR

Source: NAR® www.realtor.org/topics/existing-home-sales; 3/21/16

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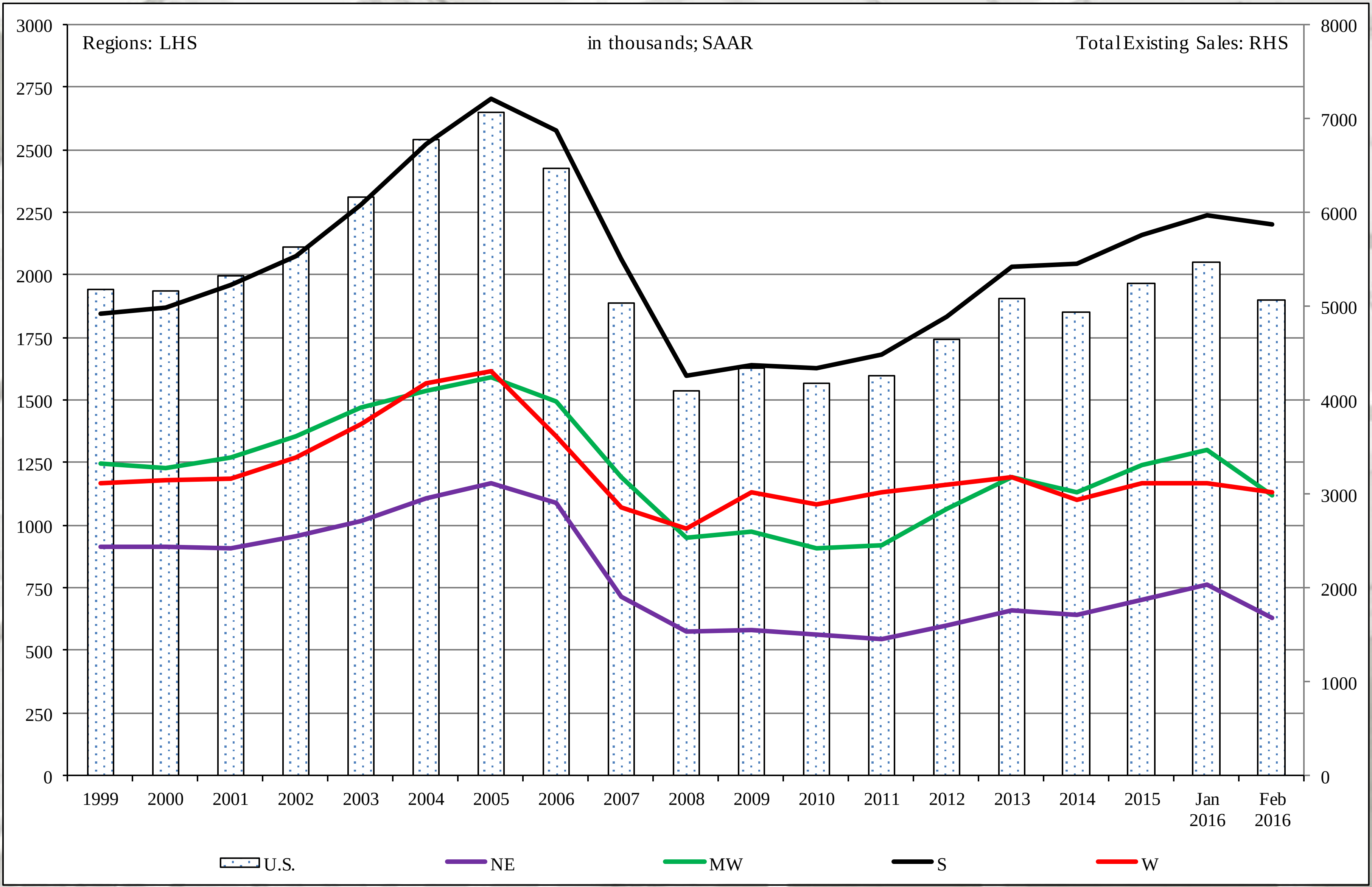
Total Existing House Sales



Source: NAR® www.realtor.org/topics/existing-home-sales; 3/21/16

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First-Time Purchasers

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

30% of sales in February – 32% in January and 29% in February 2015.

American Enterprise Institute Center on Housing Risk
First-Time Purchases

"First-time buyers continued to increase their presence in the market as both the first-time buyer share and volume were up considerably in February from a year earlier. First-time buyers accounted for 56.7 percent of primary owner-occupied home purchase mortgages with a government guarantee, up from 55.9 percent and 55.3 percent in February 2015 and 2014 respectively." - AEI-CHR

U.S. Census Bureau – Housing Vacancy Survey

Fourth quarter 2015 home ownership rate: 30 – 34 year olds: 47.4 percent
Third quarter 2015 home ownership rate: 30 – 34 year olds: 46.8 percent

Source: NAR® www.realtor.org/topics/existing-home-sales, 3/21/16; American Enterprise Institute: www.housingrisk.org; 3/21/16; www.census.gov/programs-surveys/ahs.html; 1/29/16

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Overall House Sales

House Arrest: How Low Inventory Is Slowing Home Buying

- "Nationally, inventory has dropped most for starter and trade-up homes, but less so for premium homes;
- Regionally, starter home inventory is down most in the West and South. Starter home affordability is down most in California;
- Rising prices is causing homebuyer gridlock. The growing price spread between premium homes and trade-up homes in some markets is highly correlated with fewer trade-up homes coming onto market."

"Nationally, the number and share of starter and trade-up homes on the market has decreased over the past four years. We find increases of premium home prices are strongly correlated with a drop in the number of trade-up homes on the market, while a larger share of homes owned by investors is likely affecting the supply of starter homes.

America is experiencing a housing shortage. Not only are there fewer homes available to buyers of all income levels, those just starting out or making their first foray into home ownership are worse off than they've been in years. There are fewer homes available, an even if they can find a home, it's likely to be more expensive. Compared to other inventory reports, the Trulia Inventory and Price Watch is a new quarterly report that offers buyers and sellers deeper insight into the supply and affordability of homes within different segments: starter homes, trade-up homes, and premium homes." – Ralph McLaughlin, Chief Economist, Trulia

Source: http://www.trulia.com/blog/trends/inventory-price-watch-q116/; 3/21/16

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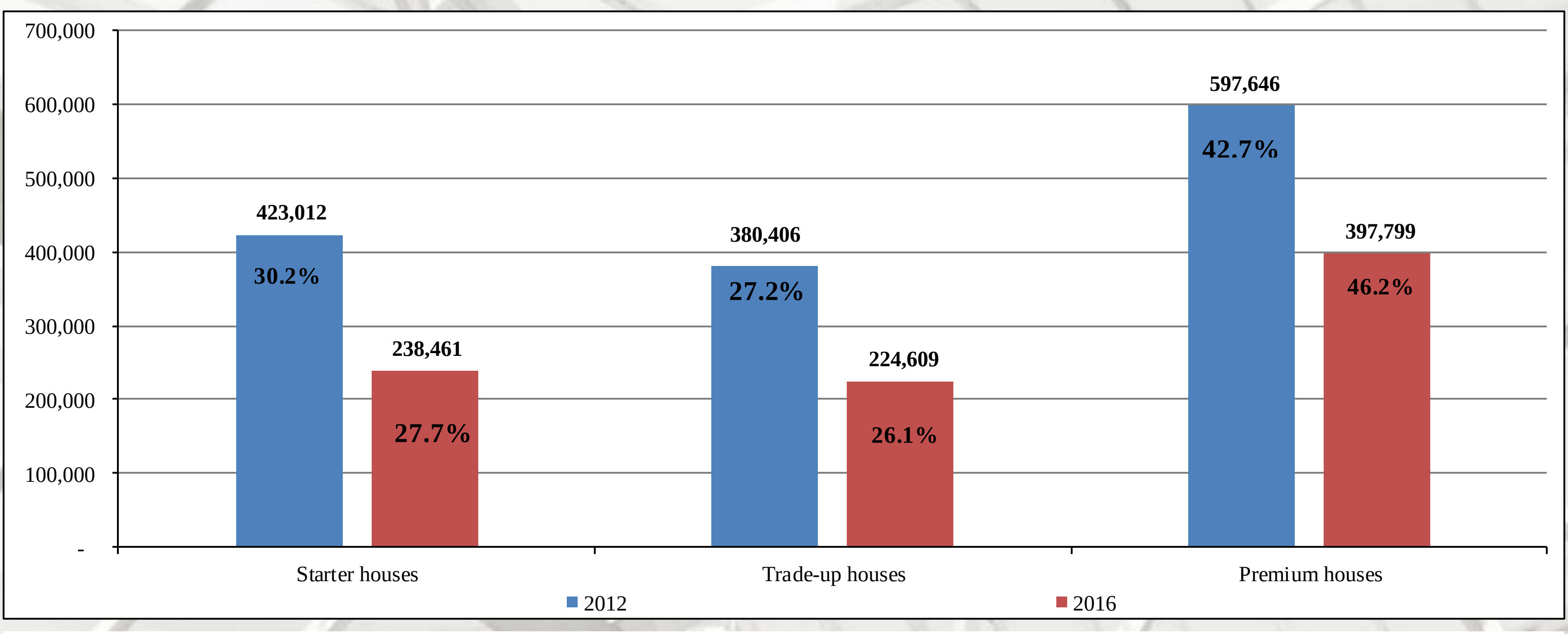
Overall House Sales



House Arrest: How Low Inventory Is Slowing Home Buying

- "The number of starter homes on the market dropped by 43.6%, while the share of starter homes dropped from 30.2% to 27.7%. Starter homebuyers today will need to shell out 5.6% more of their income — based on the median income of start-up buyers — towards a home purchase than in 2012;
- The number of trade-up homes on the market decreased by 41%, while the share of trade-up homes dropped from 27.2% to 26.1%. Trade-up homebuyers today will need to pay 2.6% more of their income for a home than in 2012;
- The number of premium homes on the market decreased by 33.4%, while the share of premium homes increased from 42.7% to 46.2%. Premium homebuyers today will need to spend 1.4% more of their income for a home than in 2012." – Ralph McLaughlin, Chief Economist, Trulia

Source: http://www.trulia.com/blog/trends/inventory-price-watch-q116/; 3/21/16

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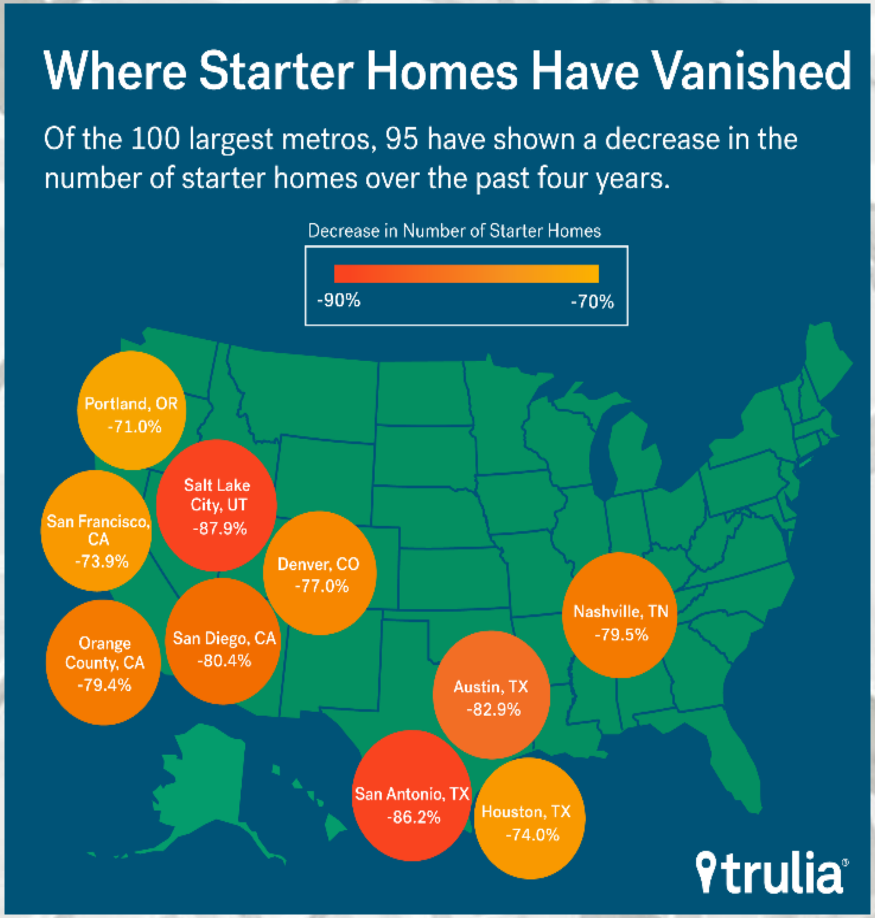
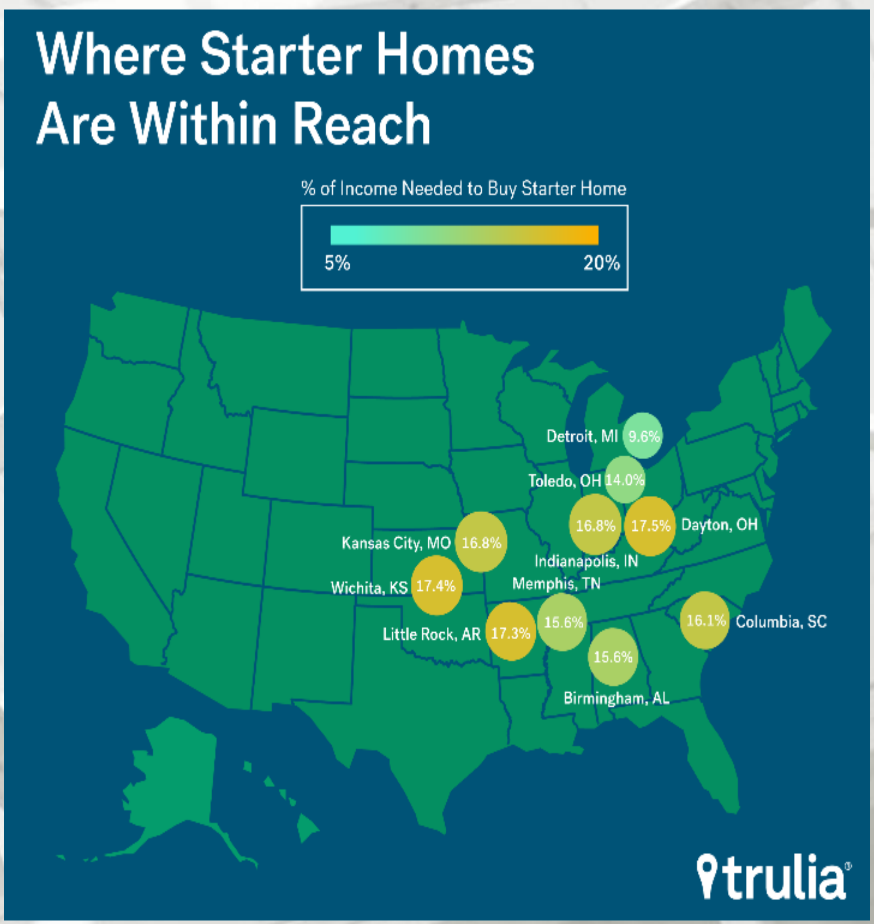
Overall House Sales





Source: http://www.trulia.com/blog/trends/inventory-price-watch-q116/; 3/21/16

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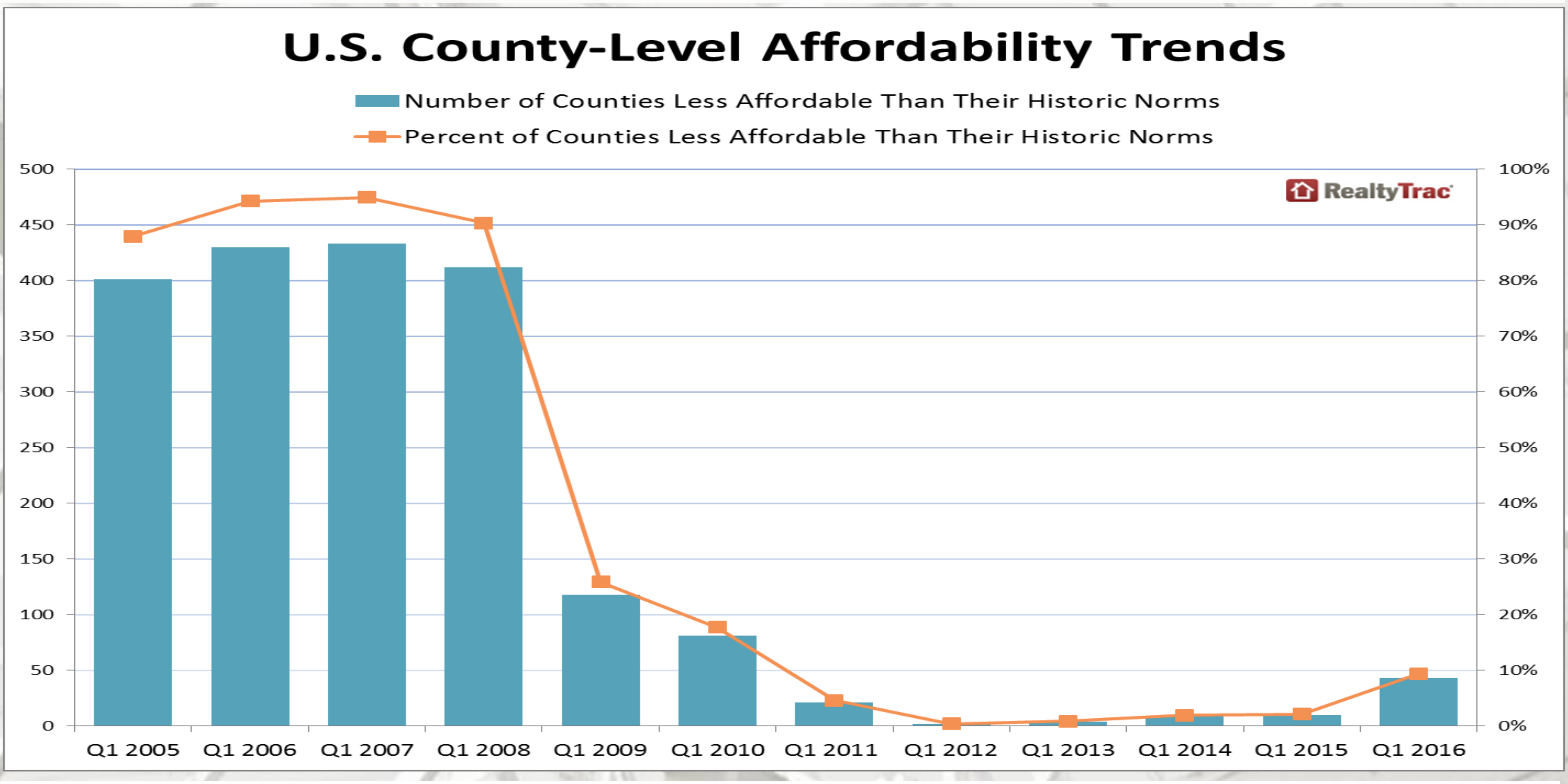
Housing Affordability



9 Percent of U.S. Housing Markets Less Affordable in Q1 2016 Than Historic Norms, Up From 2 Percent a Year Ago

"Out of the 456 counties analyzed in the report, 43 counties (9 percent) had an affordability index below 100 in the first quarter of 2016, meaning buying a home was less affordable than the historically normal level for that county going back to the first quarter of 2005. That was up from 10 counties (2 percent of the 456 counties analyzed) exceeding historically normal home affordability levels in the first quarter of 2015." – Daren Blomquist, Senior Vice President, RealtyTrac®

Source: http://www.realtytrac.com/news/home-prices-and-sales/q1-2016-realtytrac-home-affordability-index/; 3/22/16

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Housing Affordability

Housing Affordability Trends

"At the peak of the housing bubble in Q2 2006, 454 of the 456 counties analyzed (more than 99 percent) were less affordable than their historic norms. In Q1 2012, when median home prices bottomed out nationally, only two counties out of the 456 analyzed (less than one-half percent) exceeded their historically normal affordability levels.

While the vast majority of housing markets are still affordable by their own historic standards, home prices are floating out of reach for average wage earners in a growing number of U.S. housing markets.

The recent drop in interest rates has helped to soften the blow of high-flying price appreciation in some markets, but the affordability equation could change quickly if interest rates trend higher and home prices continue to rise faster than wages.

National median home price requires 30 percent of average wage

Nationwide in the first quarter of 2016, the average wage earner needed to spend 30.2 percent of monthly wages to make monthly mortgage payments (including property taxes and insurance) on a median-priced home ($199,000), up from 26.4 percent of average wages needed to buy a median-priced home in the first quarter of 2015.

When home prices were most affordable nationwide in Q1 2012, the average wage earner needed to spend 22.2 percent of monthly wages to buy a median-priced home. When home prices were least affordable nationwide in Q2 2006, the average wage earner needed to spend 53.2 percent of monthly wages to buy a median priced home." – Daren Blomquist, Senior Vice President, RealtyTrac®

Source: http://www.realtytrac.com/news/home-prices-and-sales/q1-2016-realtytrac-home-affordability-index/; 3/22/16

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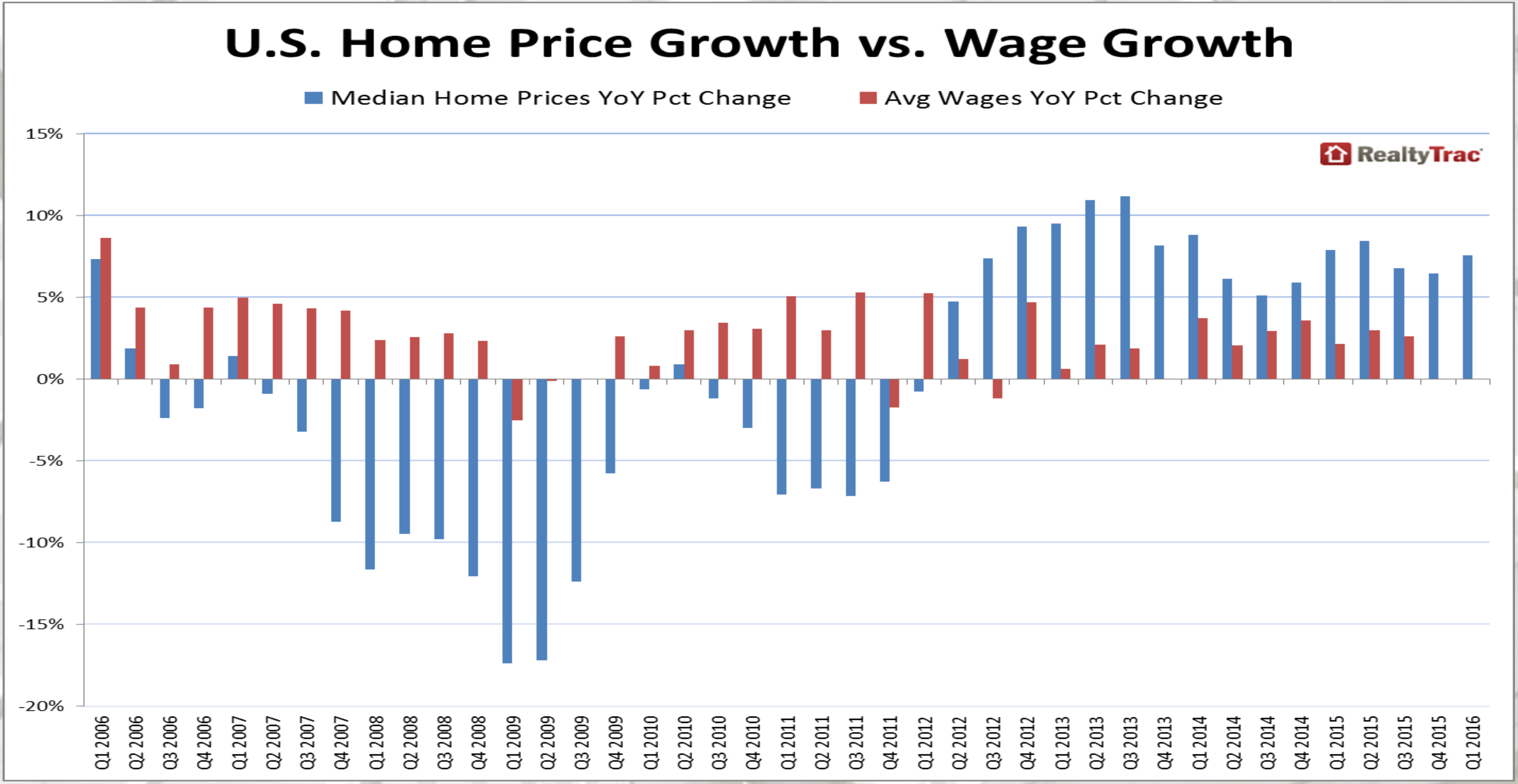
Housing Affordability



Home price growth outpacing wage growth in 61 percent of markets

"Annual change in median home prices in Q1 2016 outpaced annual change in average weekly wages in Q3 2015 (the most recent county-level wage data available from BLS) in 276 of the 456 counties analyzed for the report (61 percent)." – Daren Blomquist, Senior Vice President, RealtyTrac®

Source: http://www.realtytrac.com/news/home-prices-and-sales/q1-2016-realtytrac-home-affordability-index/; 3/22/16

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Summary

In summary:

Aggregate housing data were typical for this time period. Multifamily construction spending is at the greatest level reported since construction spending has been reported. New sales are steady, though they remain well below the historical average. Existing house sales were disconcerting for the first quarter; construction and sales of new single-family houses in the upper price echelons are solid; and improvement or remodeling expenditures remain positive on a nominal basis.

Housing in the majority of categories continue to be less than their historical averages. The new 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 increased in Q1 and 2 2015, but decreased sharply in Q3 and Q4 (occupied housing data from the Current Population/Housing Vacancy surveys);
4) Some builders are beginning to focus on entry-level houses; and
5) Consumer attitudes towards housing are improving.

Cons:

1) Lot availability and building regulations;
2) Changing attitudes towards SF ownership and “gentrification”;
3) Job creation is consistent but some economists question the quantity and types of jobs being created;
4) Stagnant real median household incomes;
5) Strict home loan lending standards, including TRID; and
6) Global uncertainty?

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