

# The Virginia Tech – U.S. Forest Service

## January 2020

### Housing Commentary: Section I



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# Opening Remarks

In January, total building permits increased to their highest level in 13-years on a seasonally-adjusted annualized basis. Total housing starts recorded their best two months in December and January since mid-2006. Yet, total and single-family starts declined on a month-over-month basis. Total, single- and multi-family completions, and existing sales also decreased monthly. Single-family units under construction and single-family completions and existing were negative on a year-over-year basis.

The March 6th Atlanta Fed GDPNow™ model forecasts an aggregate 13.8% increase for residential investment spending. New private permanent site expenditures were projected at a 19.2% increase; the improvement spending forecast was a 7.2% increase; and the manufactured/mobile housing projection was a 3.1% increase (all: quarterly log change and seasonally adjusted annual rate).<sup>1</sup>

“Commercial construction starts continue to be the bulwark of U.S. construction activity as strong demand for office and warehouse buildings pushes the value of construction to higher levels. Multifamily starts, however, are past their peak and have entered cyclical decline. The growing divide however between the larger and smaller metro areas was stark in 2019. While commercial and multifamily starts in the top 20 metro areas in the country moved 11% higher in 2019, those metros ranked 21-50 lost 7%. For 2020 multifamily construction starts are likely to continue lower as the declines broaden to more and more metropolitan areas. Meanwhile commercial starts have posted gains for nine consecutive years, but a slowing economy in 2020 will likely lead to fewer large value projects, causing national starts to pull back from their 2019 level.”<sup>2</sup> – Richard Branch, Chief Economist, Dodge Data & Analytics

This month’s commentary contains applicable housing data. Section I contains updated housing forecasts, data and commentary. Section II includes regional Federal Reserve analysis and private firm indicators.

Sources: <sup>1</sup> [www.frbatlanta.org/cqer/research/gdpnow.aspx](http://www.frbatlanta.org/cqer/research/gdpnow.aspx); 3/6/20;

<sup>2</sup> <https://www.forconstructionpros.com/business/press-release/21115465/dodge-data-analytics-commercial-and-multifamily-construction-starts-accelerated-in-top-metro-areas-in-2019>; 2/11/20



# January 2020

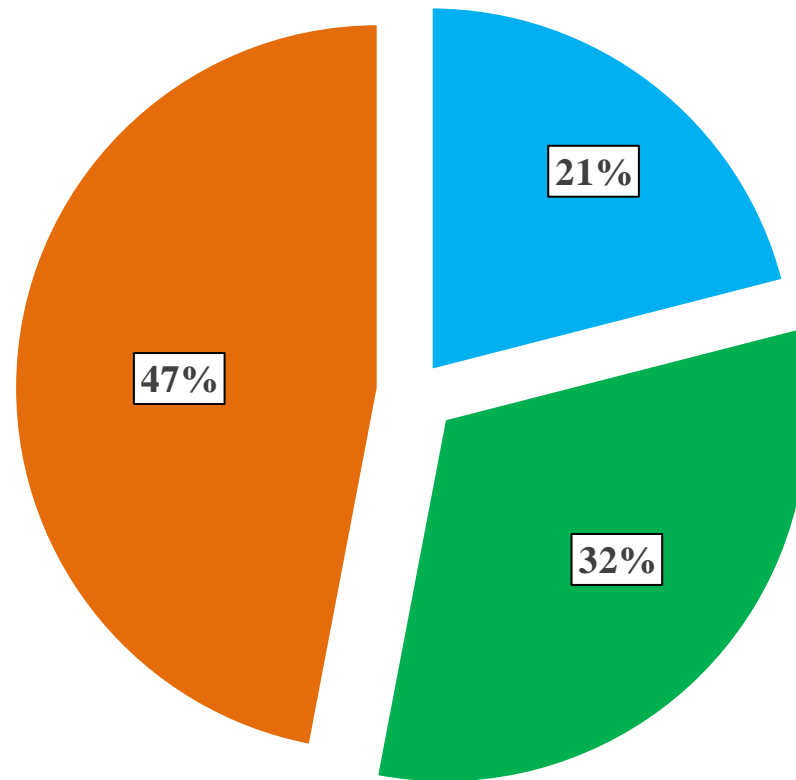
## Housing Scorecard

|   | M/M     | Y/Y     |
|---|---------|---------|
| Housing Starts                            | ▼ 3.6%  | ▲ 21.4% |
| Single-Family (SF) Starts                 | ▼ 5.9%  | ▲ 4.6%  |
| Multi-Family (MF) Starts*                 | ▲ 0.7%  | ▲ 71.4% |
| Housing Permits                           | ▲ 9.2%  | ▲ 17.9% |
| SF Permits                                | ▲ 6.4%  | ▲ 20.2% |
| MF Permits*                               | ▲ 14.6% | ▲ 13.9% |
| Housing Under Construction                | ▲ 1.3%  | ▲ 3.4%  |
| SF Under Construction                     | ▲ 1.5%  | ▼ 1.3%  |
| Housing Completions                       | ▼ 3.3%  | ▲ 1.5%  |
| SF Completions                            | ▼ 3.5%  | ▼ 4.9%  |
| New SF House Sales                        | ▲ 7.9%  | ▲ 18.6% |
| Private Residential Construction Spending | ▲ 2.1%  | ▲ 9.0%  |
| SF Construction Spending                  | ▲ 2.8%  | ▲ 9.6%  |
| Existing House Sales <sup>1</sup>         | ▼ 1.3%  | ▲ 9.6%  |

\* All multi-family (2 to 4 + ≥ 5-units)

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

# New Construction's Percentage of Wood Products Consumption

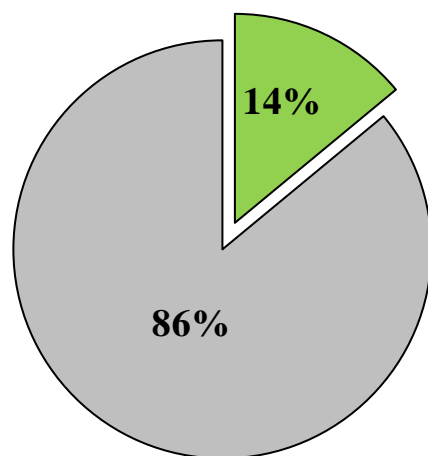


■ Non-structural panels

■ Total Sawnwood

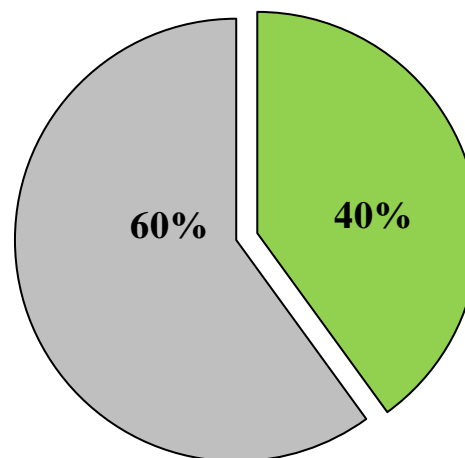
■ Structural panels

# New SF Construction Percentage of Wood Products Consumption



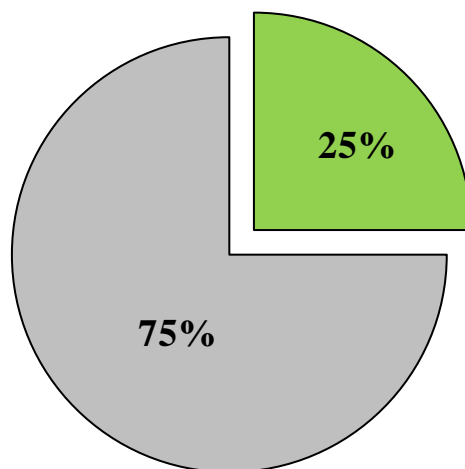
■ Non-structural panels:  
New Housing

■ Other markets



■ Structural panels:  
New housing

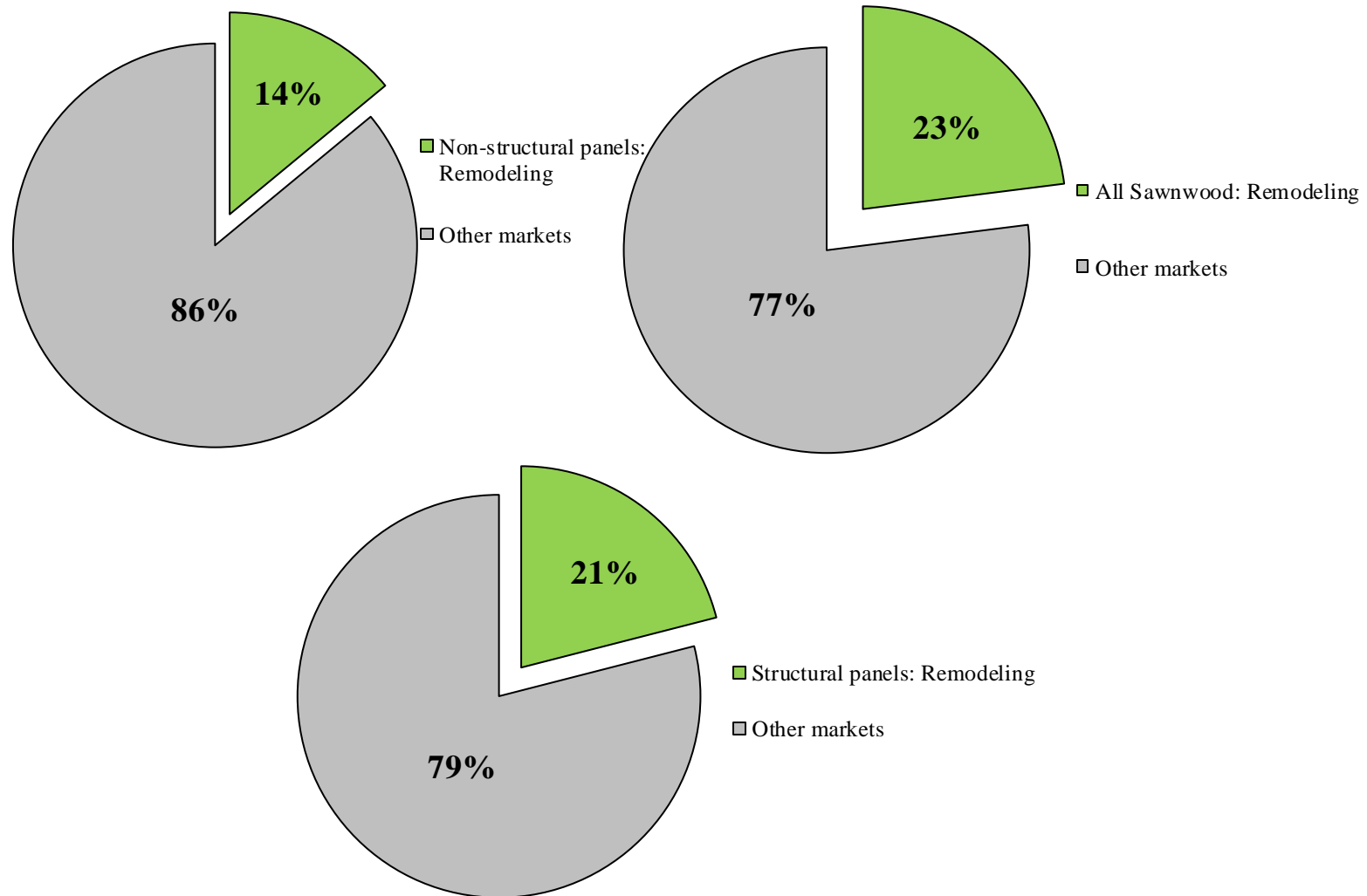
■ Other markets



■ All Sawnwood: New housing

■ Other markets

# Repair and Remodeling's Percentage of Wood Products Consumption



# New Housing Starts

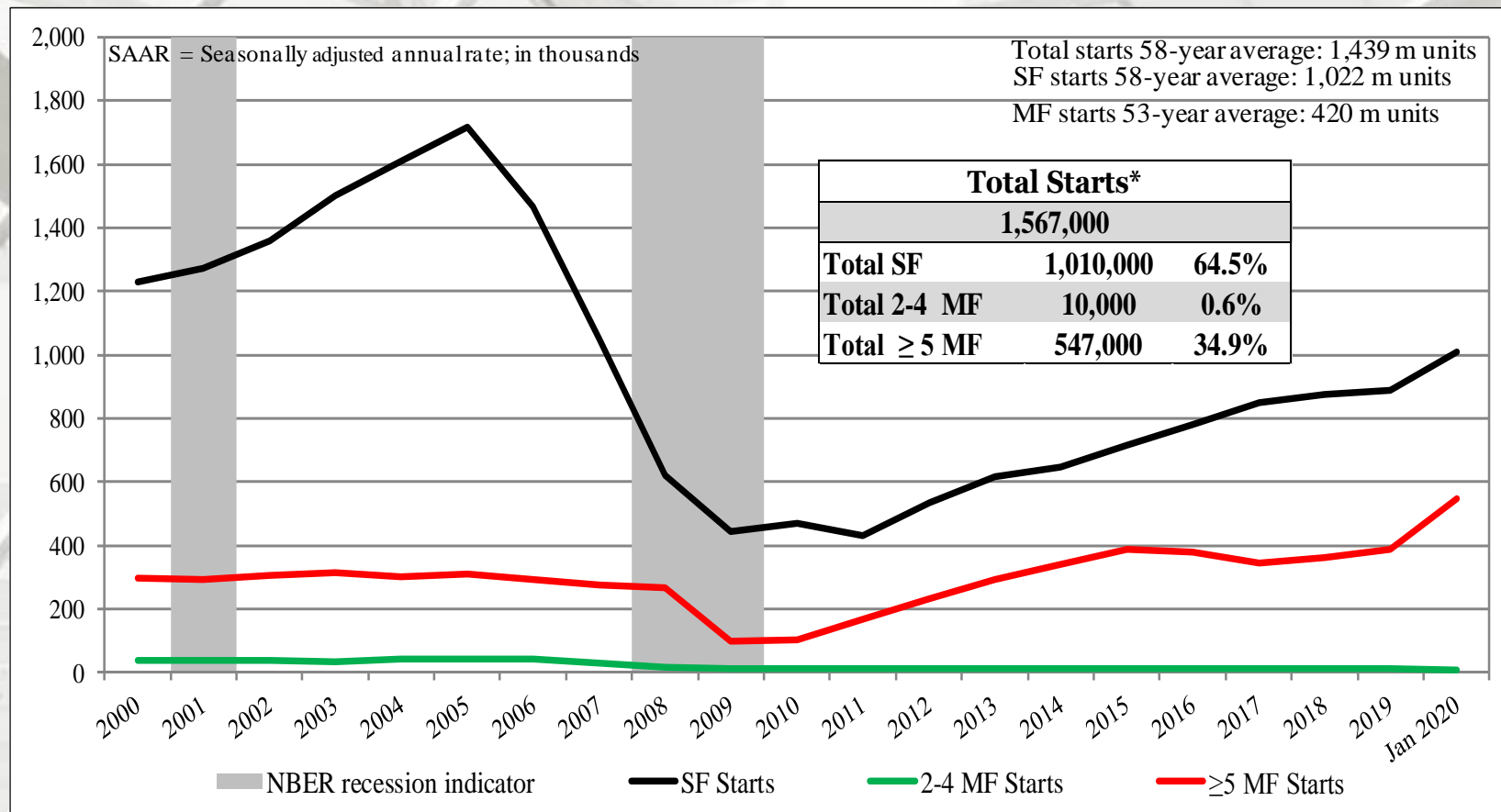
|            | Total Starts* | SF Starts | MF 2-4 Starts** | MF ≥5 Starts |
|------------|---------------|-----------|-----------------|--------------|
| January    | 1,567,000     | 1,010,000 | 10,000          | 547,000      |
| December   | 1,626,000     | 1,073,000 | 22,000          | 531,000      |
| 2019       | 1,291,000     | 966,000   | 17,000          | 308,000      |
| M/M change | -3.6%         | -5.9%     | -54.5%          | 3.0%         |
| Y/Y change | 21.4%         | 4.6%      | -41.2%          | 77.6%        |

\* 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

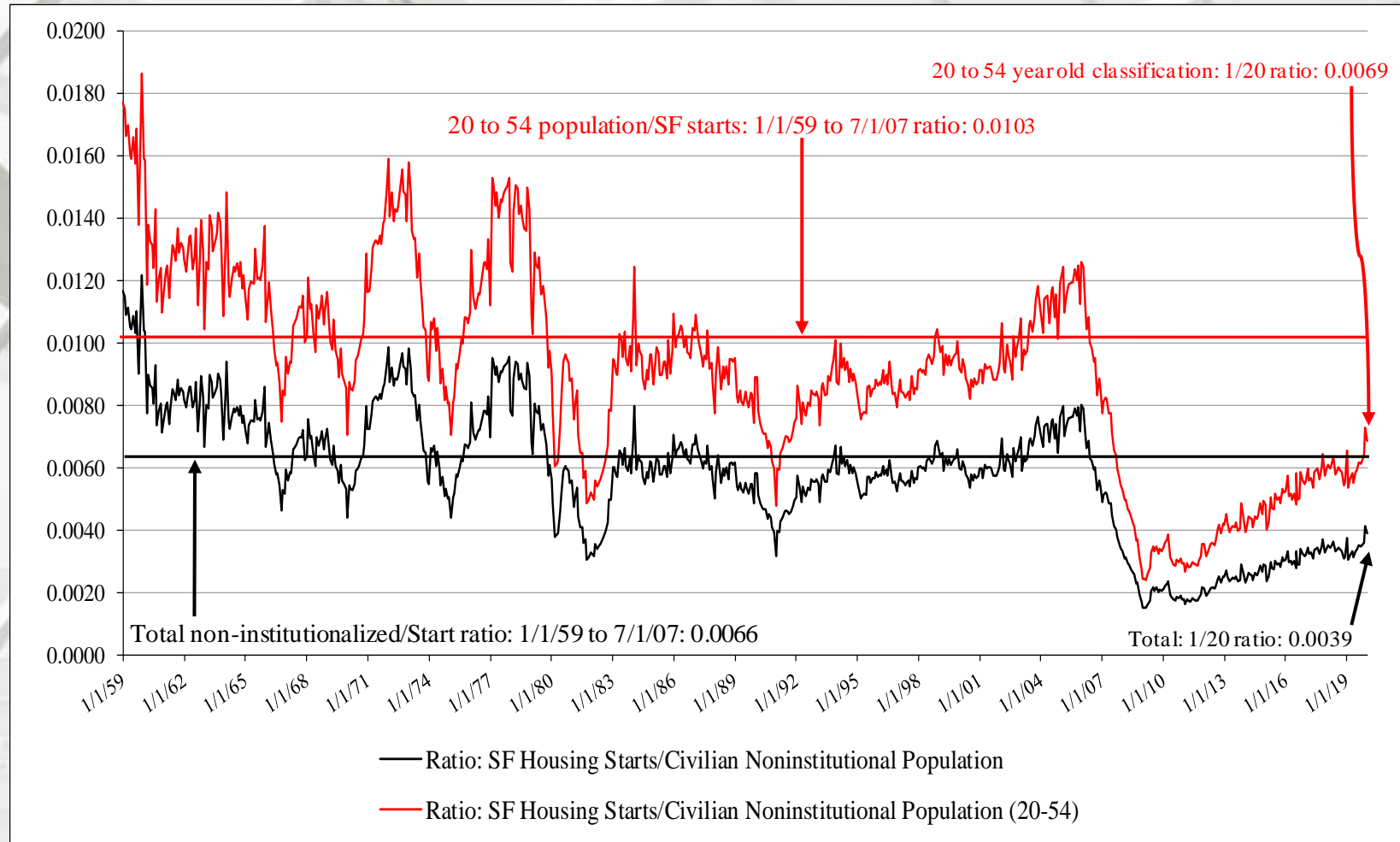


US DOC does not report 2 to 4 multifamily starts directly, this is an estimation: ((Total starts – (SF + ≥ MF)).

\* Percentage of total starts.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

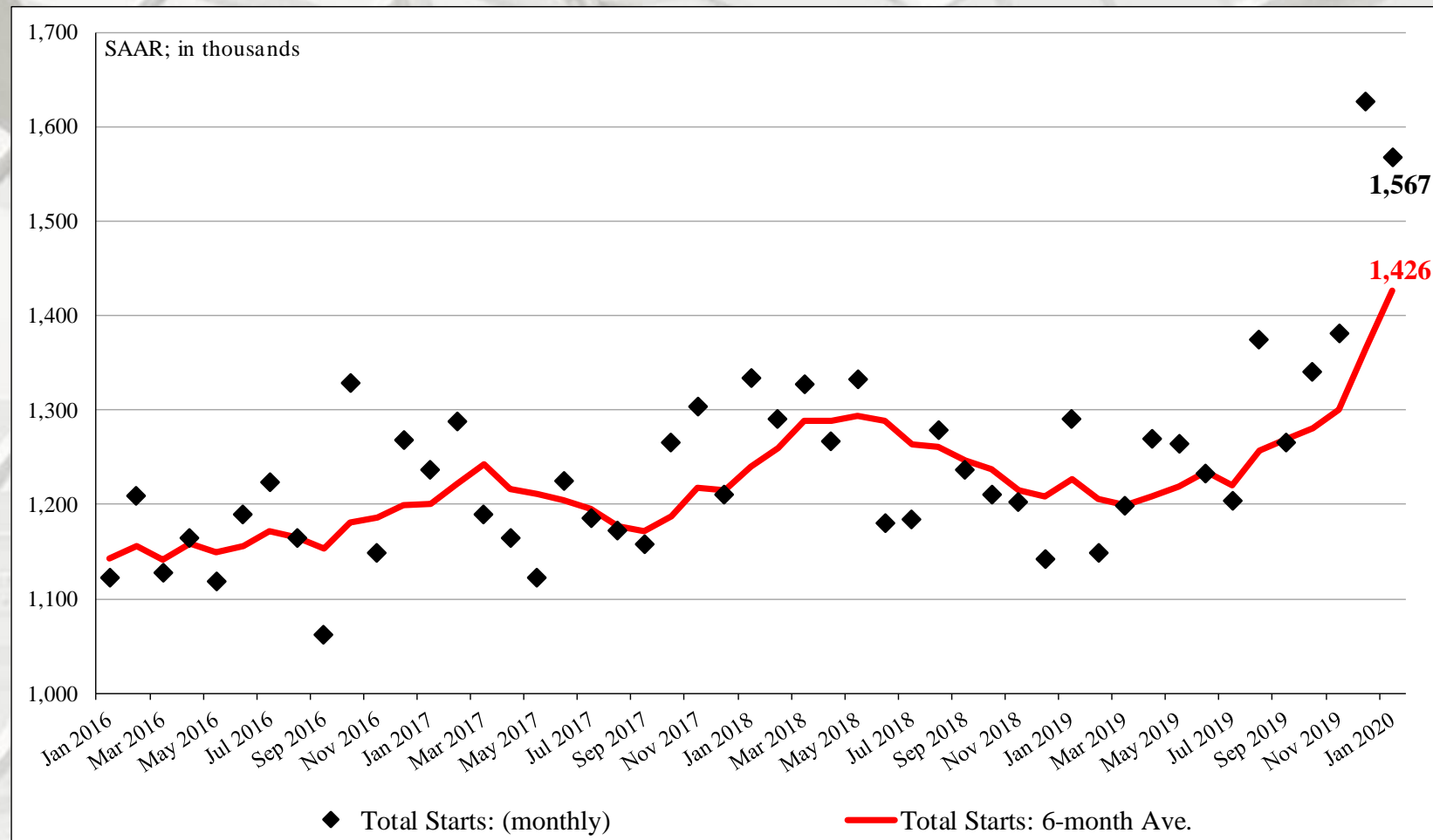
# New SF Starts



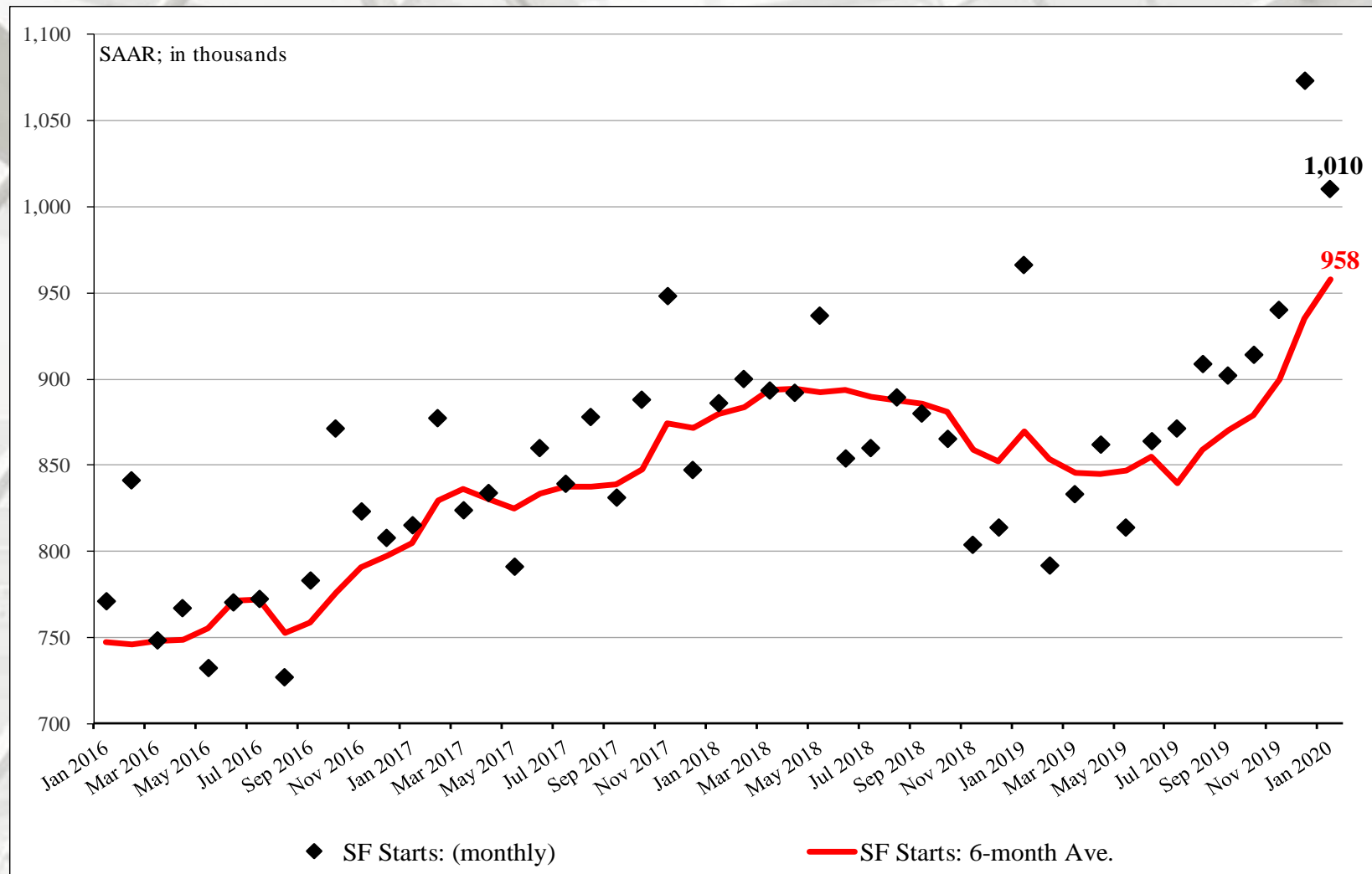
## New SF starts adjusted for the US population

From January 1959 to January 2007, the long-term ratio of new SF starts to the total US non-institutionalized population was 0.0066; in January 2020 it was 0.0039 – a decrease from December (0.0041). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in January 2020 was 0.0069 – also an decrease from December (0.0073). From a population worldview, new SF construction is less than what is necessary for changes in population (i.e., under-building).

# Total Housing Starts: Six-Month Average

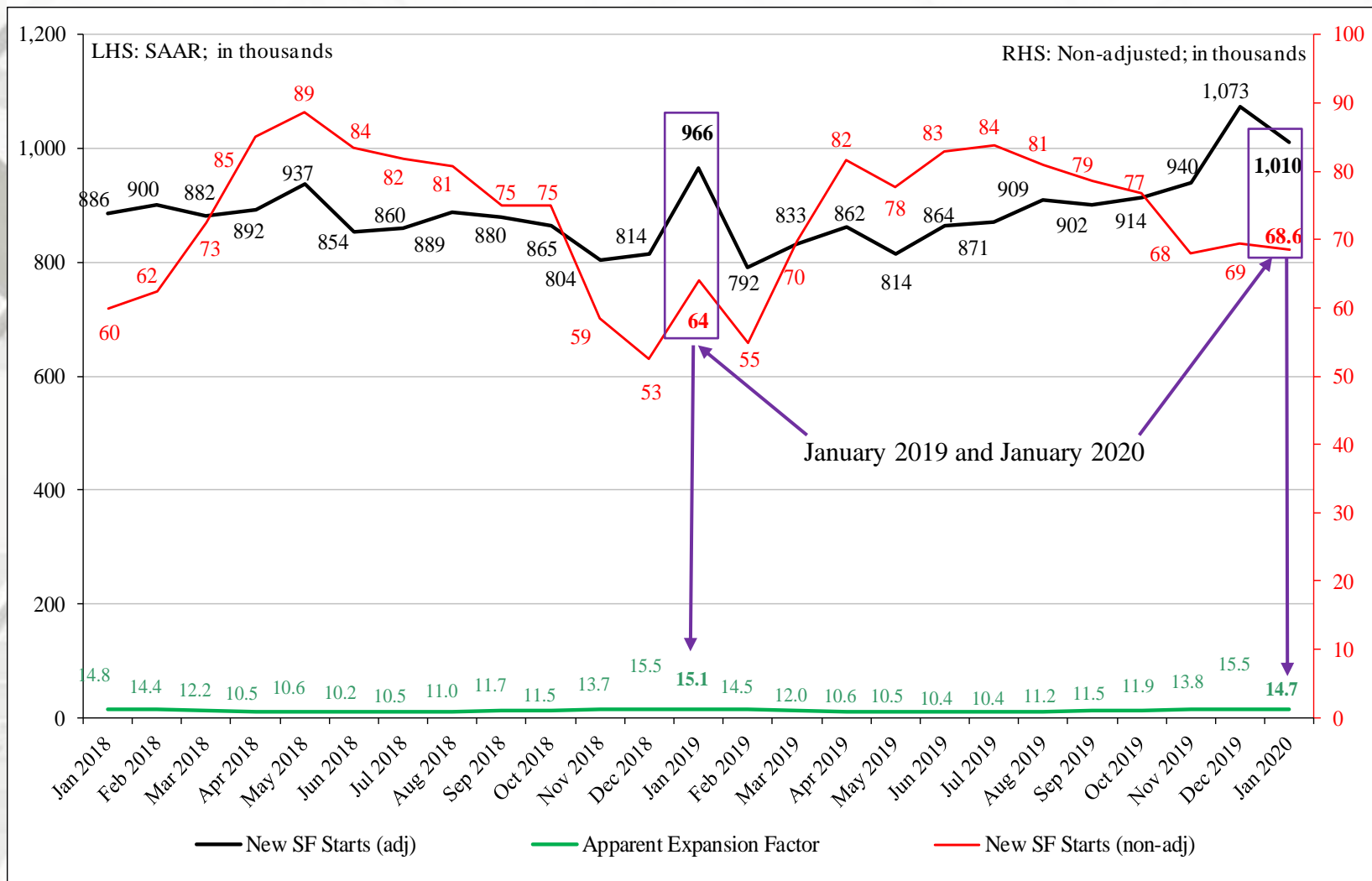


# SF Housing Starts: Six-Month Average





# Nominal & SAAR SF Starts



## Nominal and Adjusted New SF Monthly Starts

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

The apparent 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

# New Housing Starts by Region

|            | NE Total | NE SF   | NE MF** |
|------------|----------|---------|---------|
| January    | 178,000  | 66,000  | 112,000 |
| December   | 135,000  | 64,000  | 71,000  |
| 2019       | 144,000  | 78,000  | 66,000  |
| M/M change | 31.9%    | 3.1%    | 57.7%   |
| Y/Y change | 23.6%    | -15.4%  | 69.7%   |
|            | MW Total | MW SF   | MW MF   |
| January    | 180,000  | 146,000 | 34,000  |
| December   | 243,000  | 172,000 | 71,000  |
| 2019       | 141,000  | 124,000 | 17,000  |
| M/M change | -25.9%   | -15.1%  | -52.1%  |
| Y/Y change | 27.7%    | 17.7%   | 100.0%  |

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).

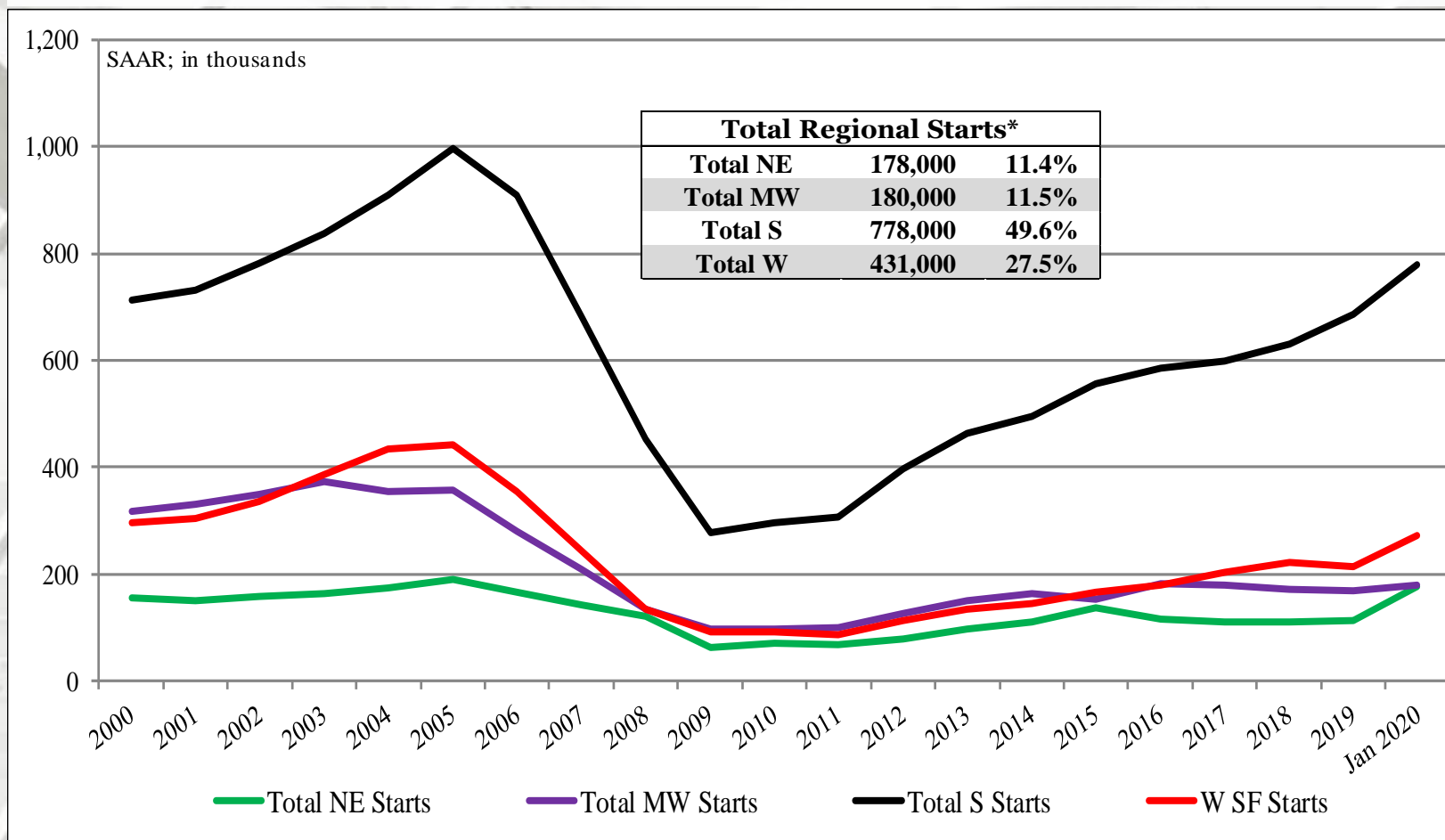
# New Housing Starts by Region

|            | S Total | S SF    | S MF**  |
|------------|---------|---------|---------|
| January    | 778,000 | 525,000 | 253,000 |
| December   | 822,000 | 598,000 | 224,000 |
| 2019       | 713,000 | 545,000 | 168,000 |
| M/M change | -5.4%   | -12.2%  | 12.9%   |
| Y/Y change | 9.1%    | -3.7%   | 50.6%   |
|            | W Total | W SF    | W MF    |
| January    | 431,000 | 273,000 | 158,000 |
| December   | 426,000 | 239,000 | 187,000 |
| 2019       | 293,000 | 219,000 | 74,000  |
| M/M change | 1.2%    | 14.2%   | -15.5%  |
| Y/Y change | 47.1%   | 24.7%   | 113.5%  |

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).

# New Housing Starts by Region



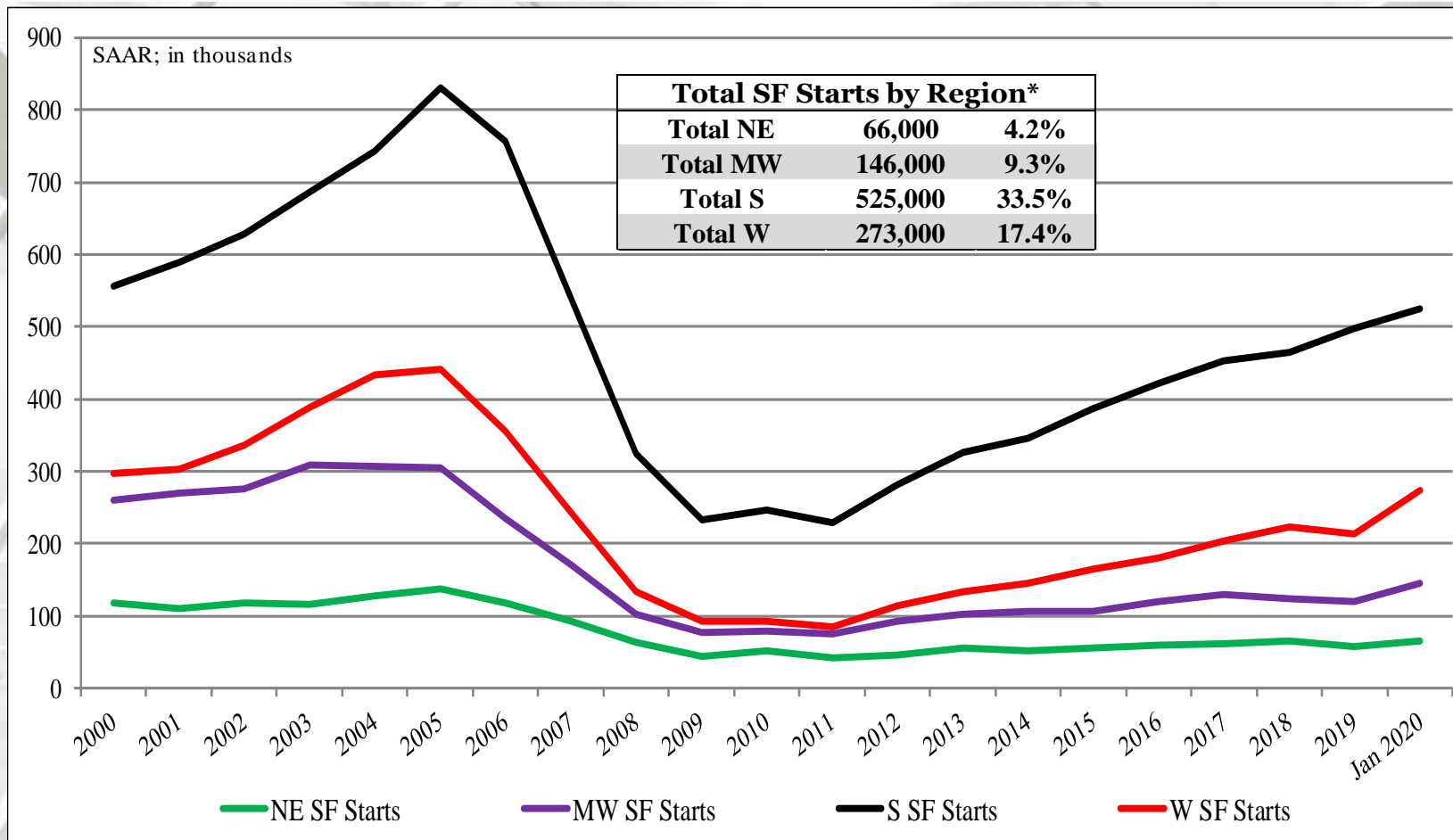
NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family starts directly, this is an estimation (Total starts – (SF + ≥ 5 MF starts)).

\* Percentage of total starts.



# Total SF Housing Starts by Region

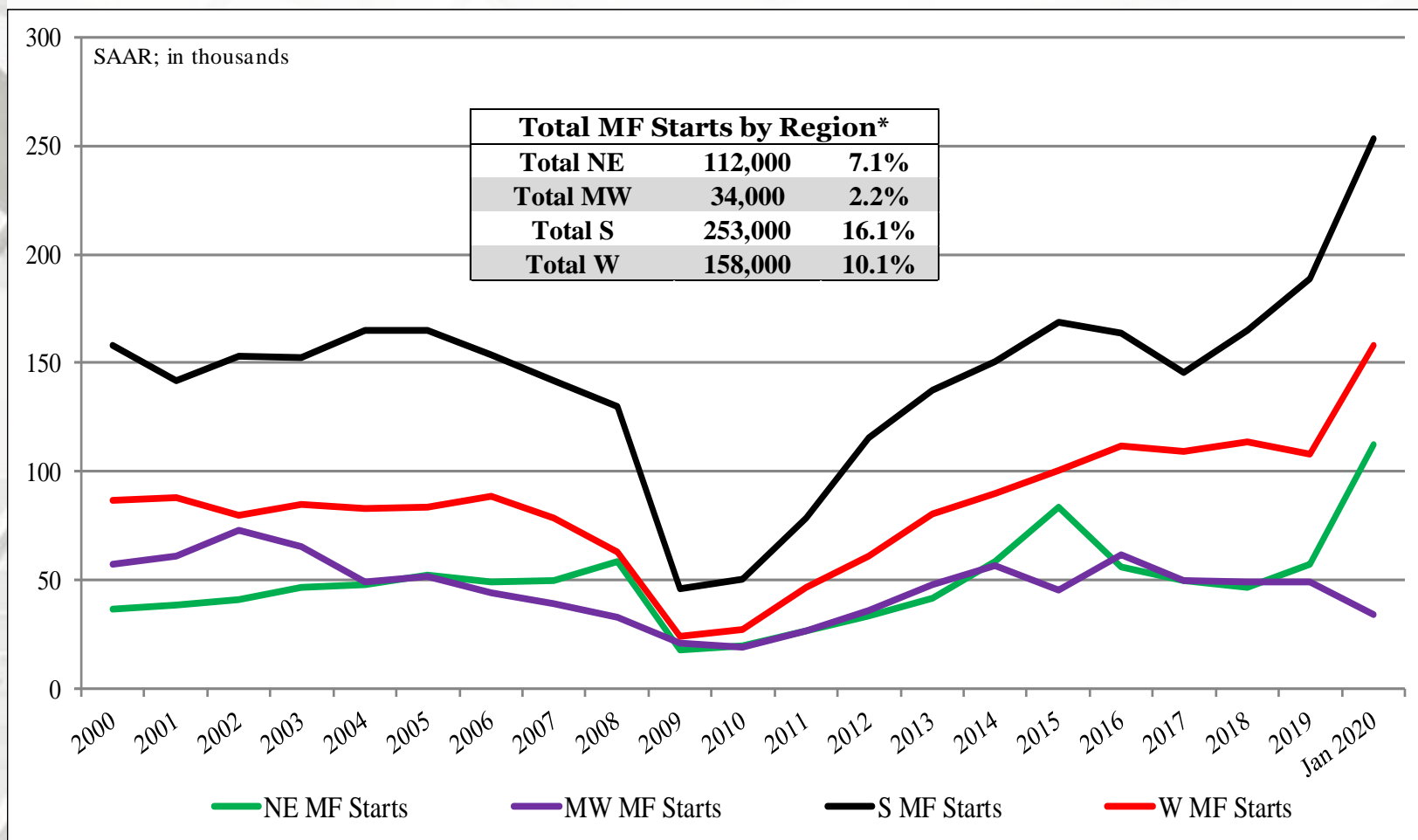


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family starts directly, this is an estimation (Total starts – (SF + ≥ 5 MF starts)).

\* Percentage of total starts.

# MF Housing Starts by Region

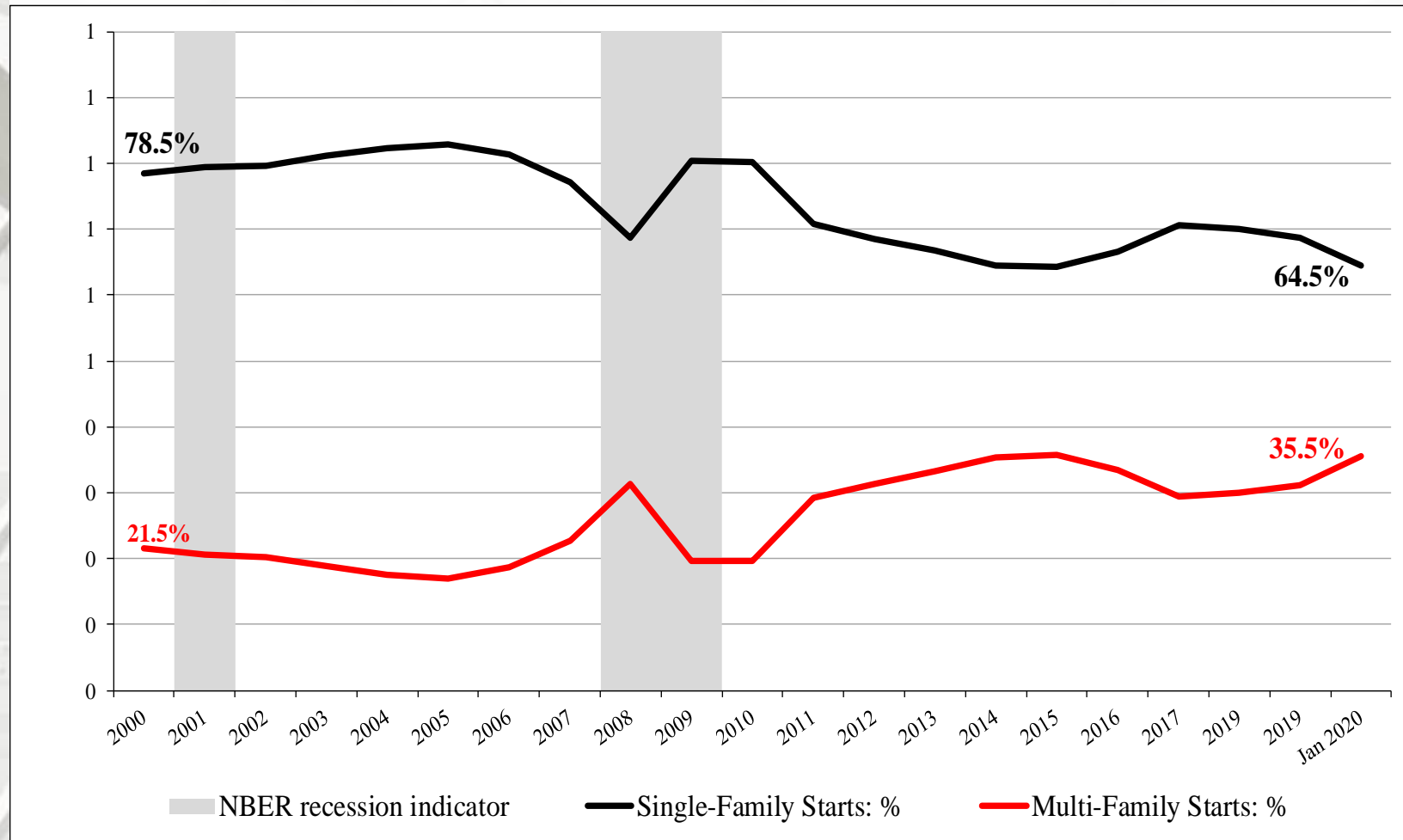


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family starts directly, this is an estimation (Total starts – (SF + ≥ 5 MF starts)).

\* Percentage of total starts.

# SF vs. MF Housing Starts (%)



NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

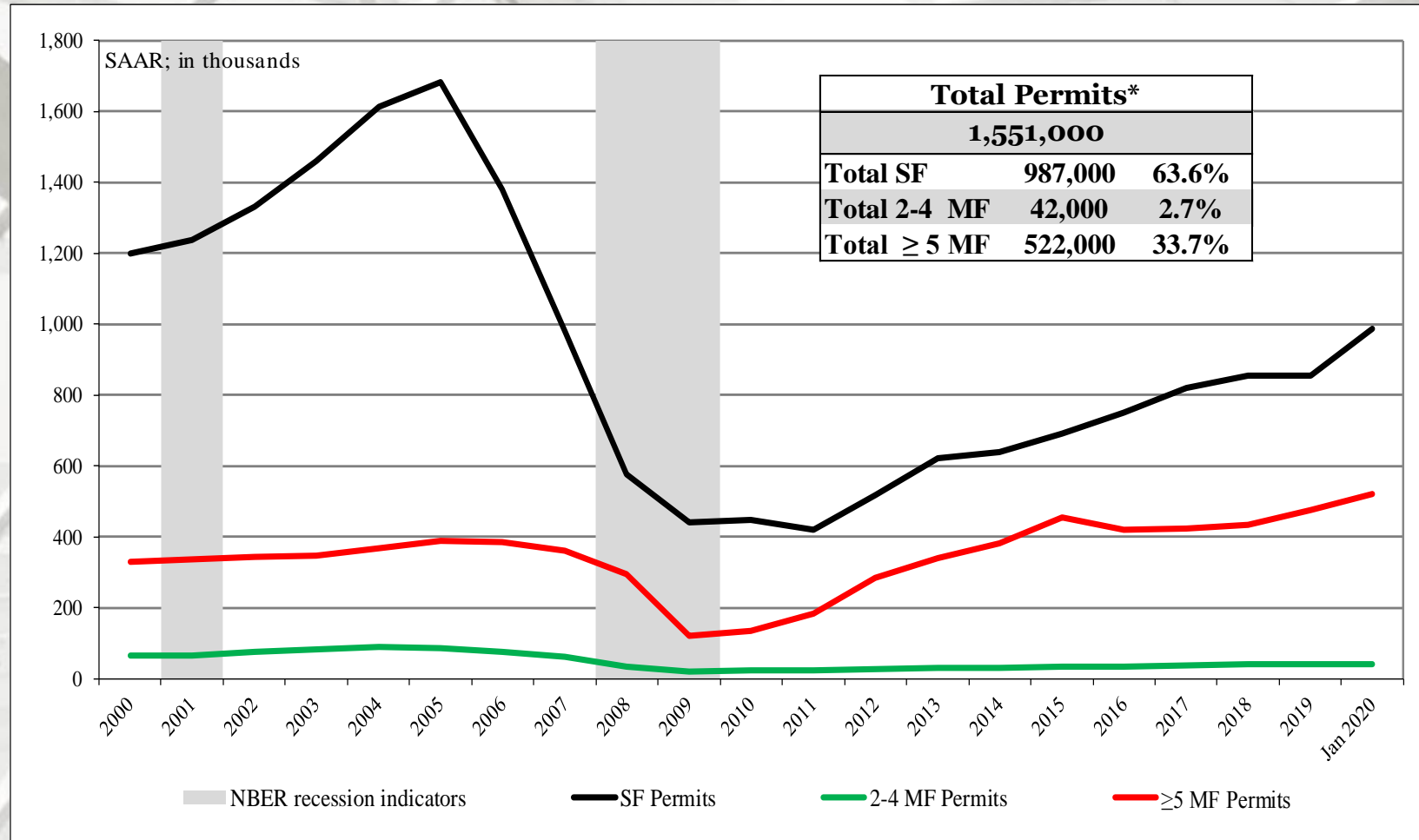
# New Housing Permits

|            | Total Permits* | SF Permits | MF 2-4 unit Permits | MF ≥ 5 unit Permits |
|------------|----------------|------------|---------------------|---------------------|
| January    | 1,551,000      | 987,000    | 42,000              | 522,000             |
| December   | 1,420,000      | 928,000    | 39,000              | 453,000             |
| 2019       | 1,316,000      | 821,000    | 45,000              | 450,000             |
| M/M change | 9.2%           | 6.4%       | 7.7%                | 15.2%               |
| Y/Y change | 17.9%          | 20.2%      | -6.7%               | 16.0%               |

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



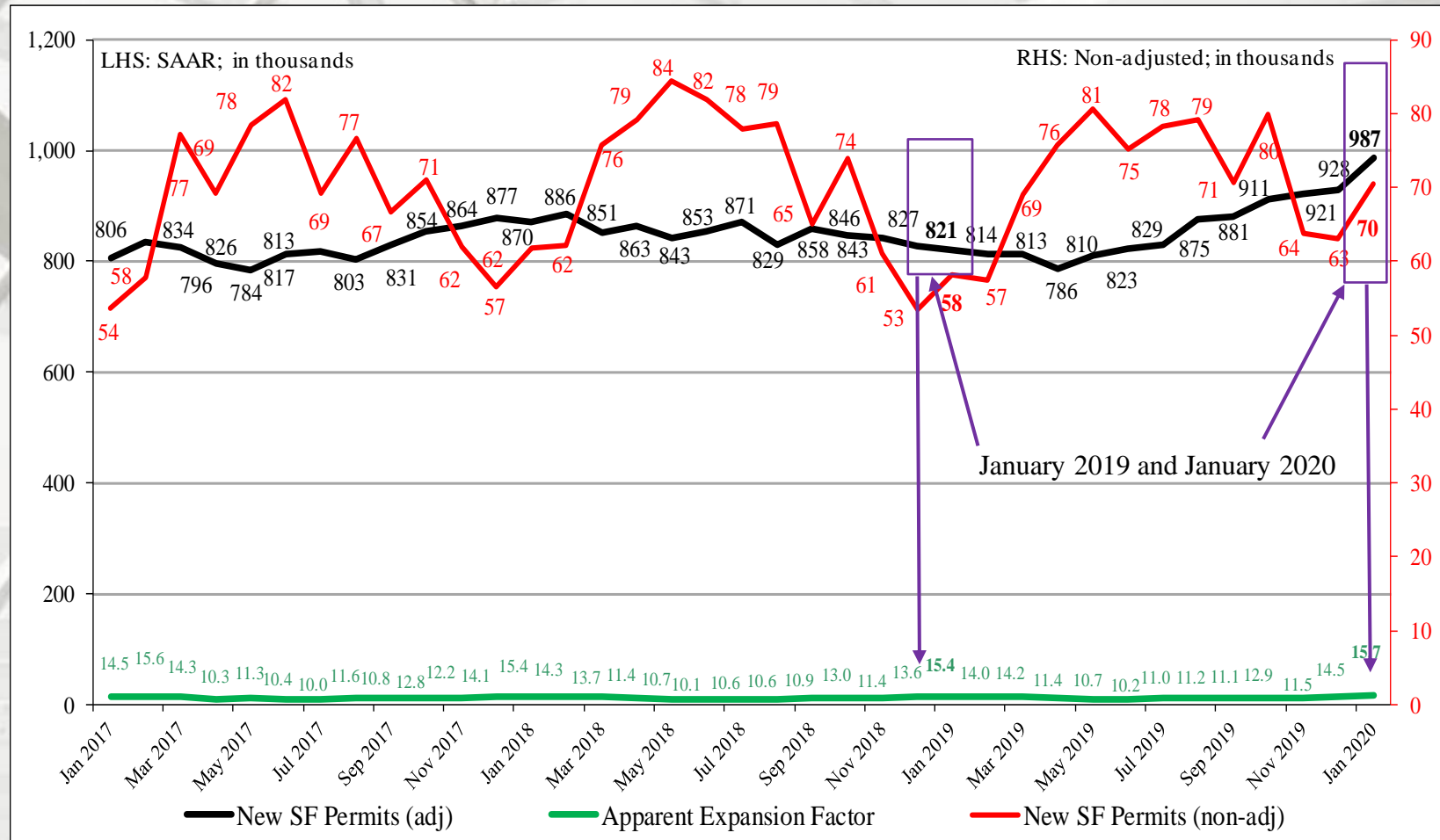
# Total New Housing Permits



\* Percentage of total permits.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# Nominal & SAAR SF Permits



## Nominal and Adjusted New SF Monthly Permits

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

The apparent 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

# New Housing Permits by Region

|            | NE Total* | NE SF   | NE MF** |
|------------|-----------|---------|---------|
| January    | 183,000   | 67,000  | 116,000 |
| December   | 136,000   | 48,000  | 88,000  |
| 2019       | 136,000   | 55,000  | 81,000  |
| M/M change | 34.6%     | 39.6%   | 31.8%   |
| Y/Y change | 34.6%     | 21.8%   | 43.2%   |
|            | MW Total* | MW SF   | MW MF** |
| January    | 225,000   | 137,000 | 88,000  |
| December   | 208,000   | 134,000 | 74,000  |
| 2019       | 187,000   | 116,000 | 71,000  |
| M/M change | 8.2%      | 2.2%    | 18.9%   |
| Y/Y change | 20.3%     | 18.1%   | 23.9%   |

NE = Northeast; ME = Midwest

\* All data are SAAR

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

# New Housing Permits by Region

|            | <b>S Total*</b> | <b>S SF</b> | <b>S MF**</b> |
|------------|-----------------|-------------|---------------|
| January    | 745,000         | 542,000     | 203,000       |
| December   | 690,000         | 516,000     | 174,000       |
| 2019       | 652,000         | 453,000     | 199,000       |
| M/M change | 8.0%            | 5.0%        | 16.7%         |
| Y/Y change | 14.3%           | 19.6%       | 2.0%          |
|            | <b>W Total*</b> | <b>W SF</b> | <b>W MF**</b> |
| January    | 398,000         | 241,000     | 157,000       |
| December   | 386,000         | 230,000     | 156,000       |
| 2019       | 341,000         | 197,000     | 144,000       |
| M/M change | 3.1%            | 4.8%        | 0.6%          |
| Y/Y change | 16.7%           | 22.3%       | 9.0%          |

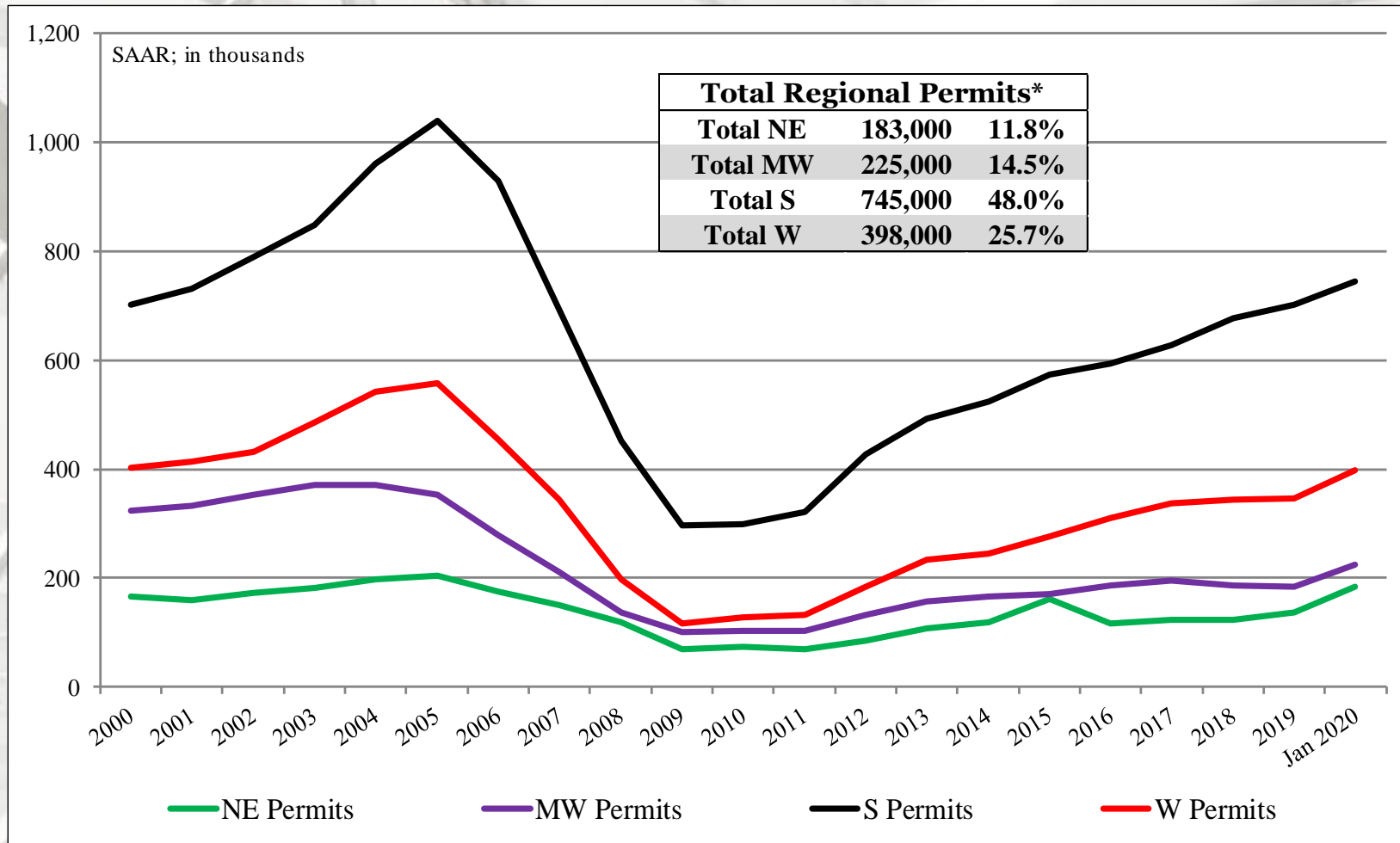
S = South; W = West

\* All data are SAAR

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



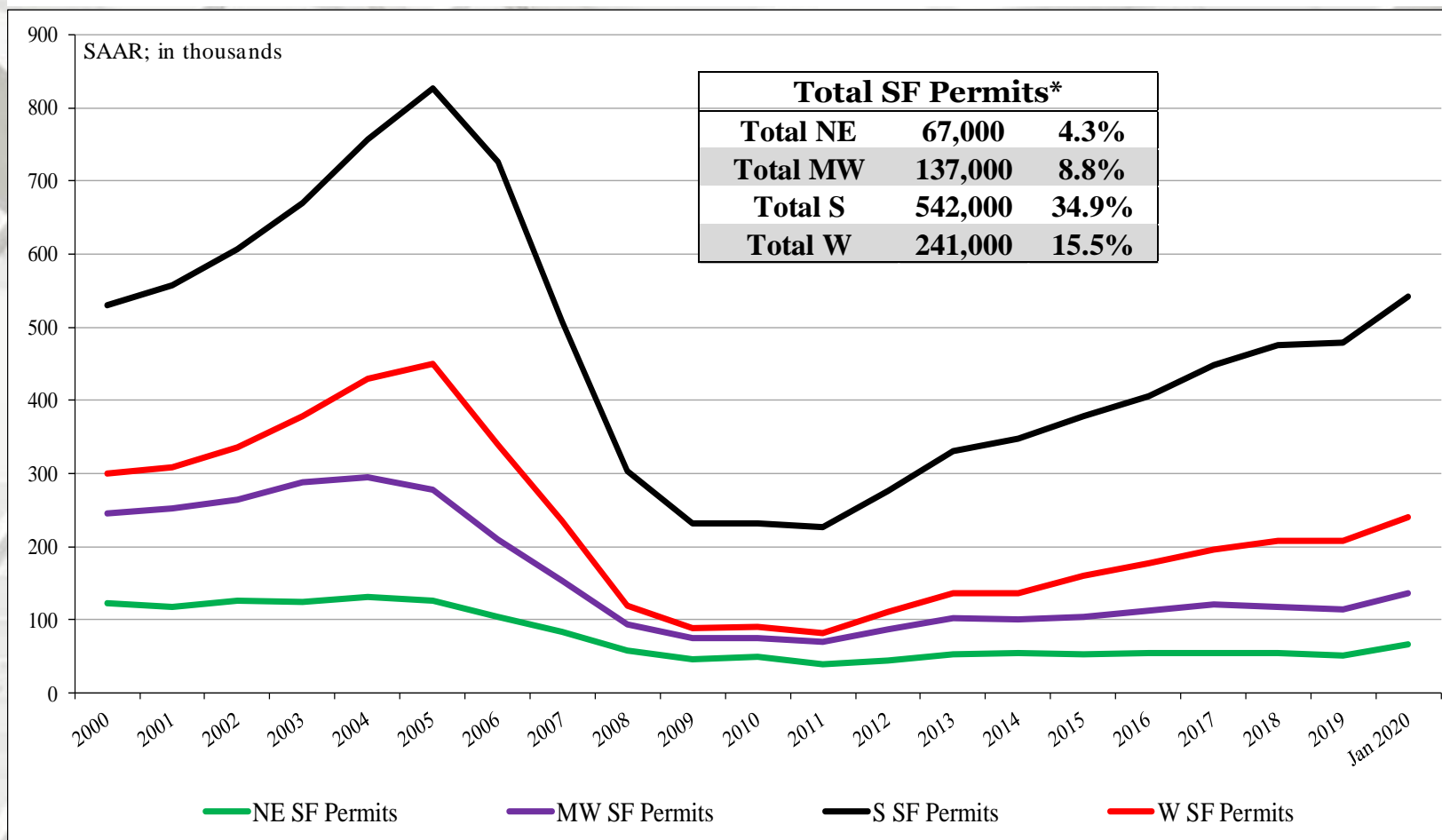
# Total Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

\* Percentage of total permits.

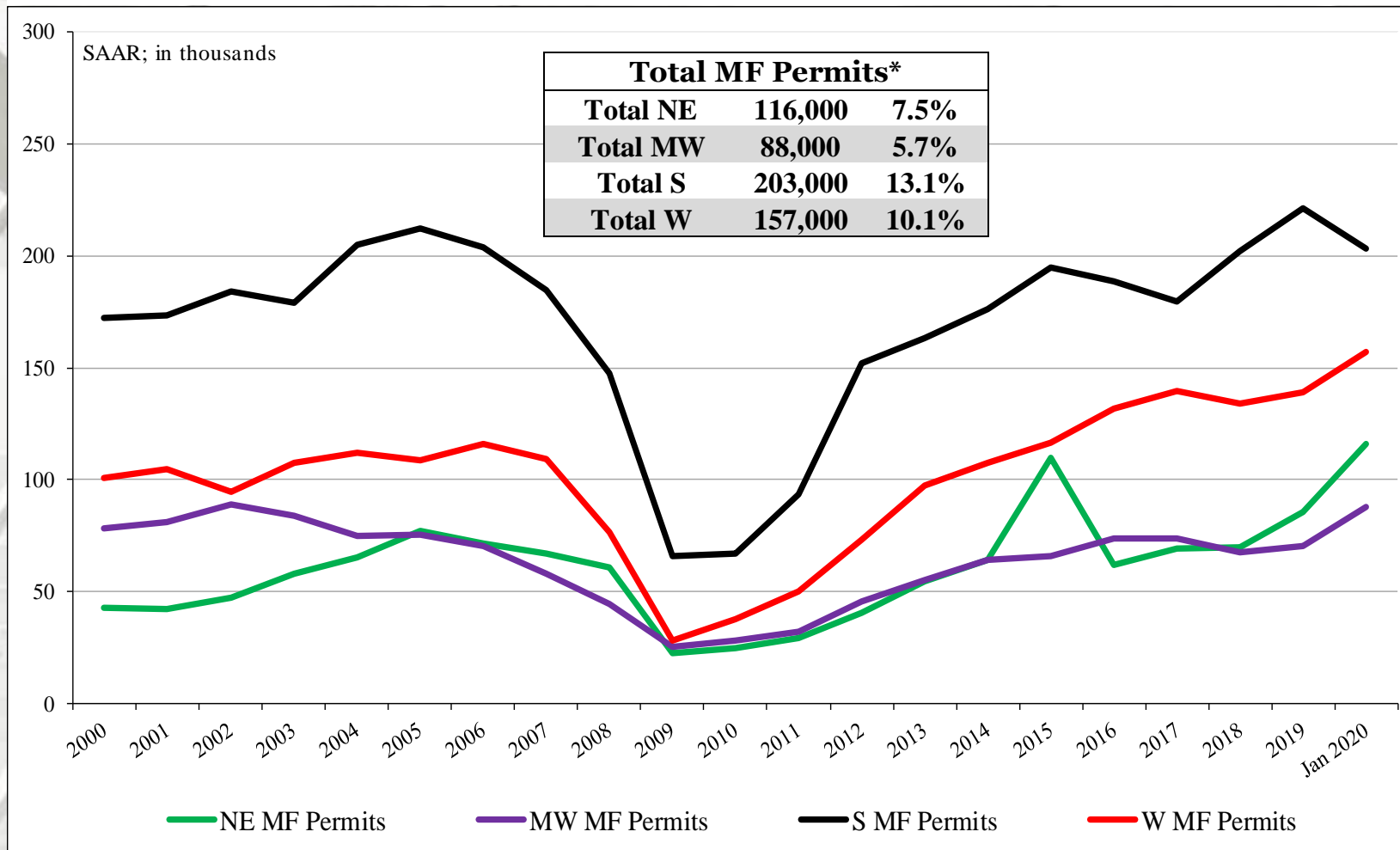
# SF Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

\* Percentage of total permits.

# MF Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

\* Percentage of total permits.

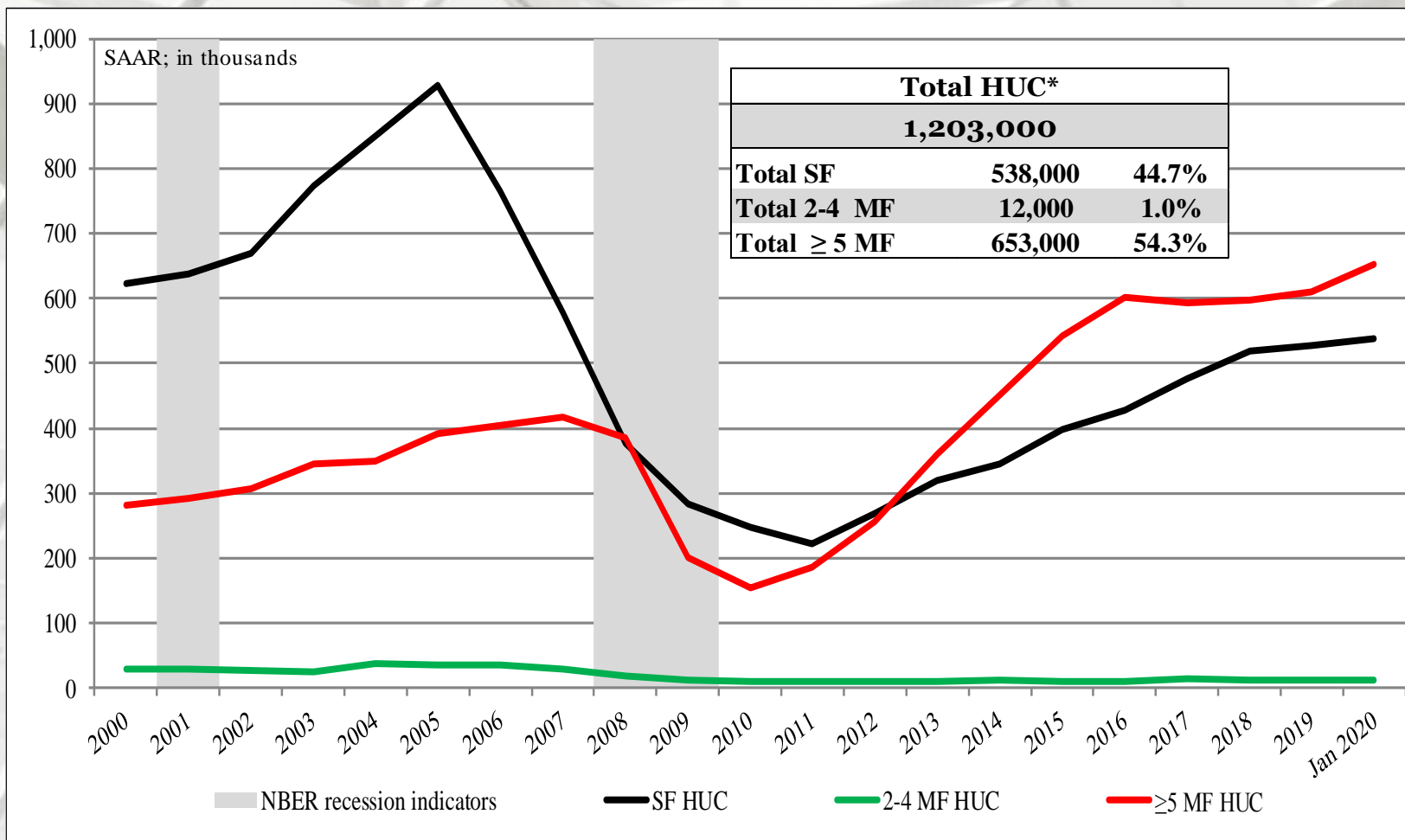
# New Housing Under Construction (HUC)

|            | Total Under Construction* | SF Under Construction | MF 2-4 unit** Under Construction | MF ≥ 5 unit Under Construction |
|------------|---------------------------|-----------------------|----------------------------------|--------------------------------|
| January    | 1,203,000                 | 538,000               | 12,000                           | 653,000                        |
| December   | 1,188,000                 | 530,000               | 12,000                           | 646,000                        |
| 2019       | 1,163,000                 | 545,000               | 13,000                           | 605,000                        |
| M/M change | 1.3%                      | 1.5%                  | 0.0%                             | 1.1%                           |
| Y/Y change | 3.4%                      | -1.3%                 | -7.7%                            | 7.9%                           |

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



US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF +  $\geq 5$  MF under construction)).

\* Percentage of total housing under construction units.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).



# New Housing Under Construction by Region

|            | NE Total | NE SF  | NE MF** |
|------------|----------|--------|---------|
| January    | 176,000  | 55,000 | 121,000 |
| December   | 171,000  | 56,000 | 115,000 |
| 2019       | 191,000  | 65,000 | 126,000 |
| M/M change | 2.9%     | -1.8%  | 5.2%    |
| Y/Y change | -7.9%    | -15.4% | -4.0%   |
|            | MW Total | MW SF  | MW MF   |
| January    | 155,000  | 80,000 | 75,000  |
| December   | 156,000  | 79,000 | 77,000  |
| 2019       | 157,000  | 83,000 | 74,000  |
| M/M change | -0.6%    | 1.3%   | -2.6%   |
| Y/Y change | -1.3%    | -3.6%  | 1.4%    |

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).

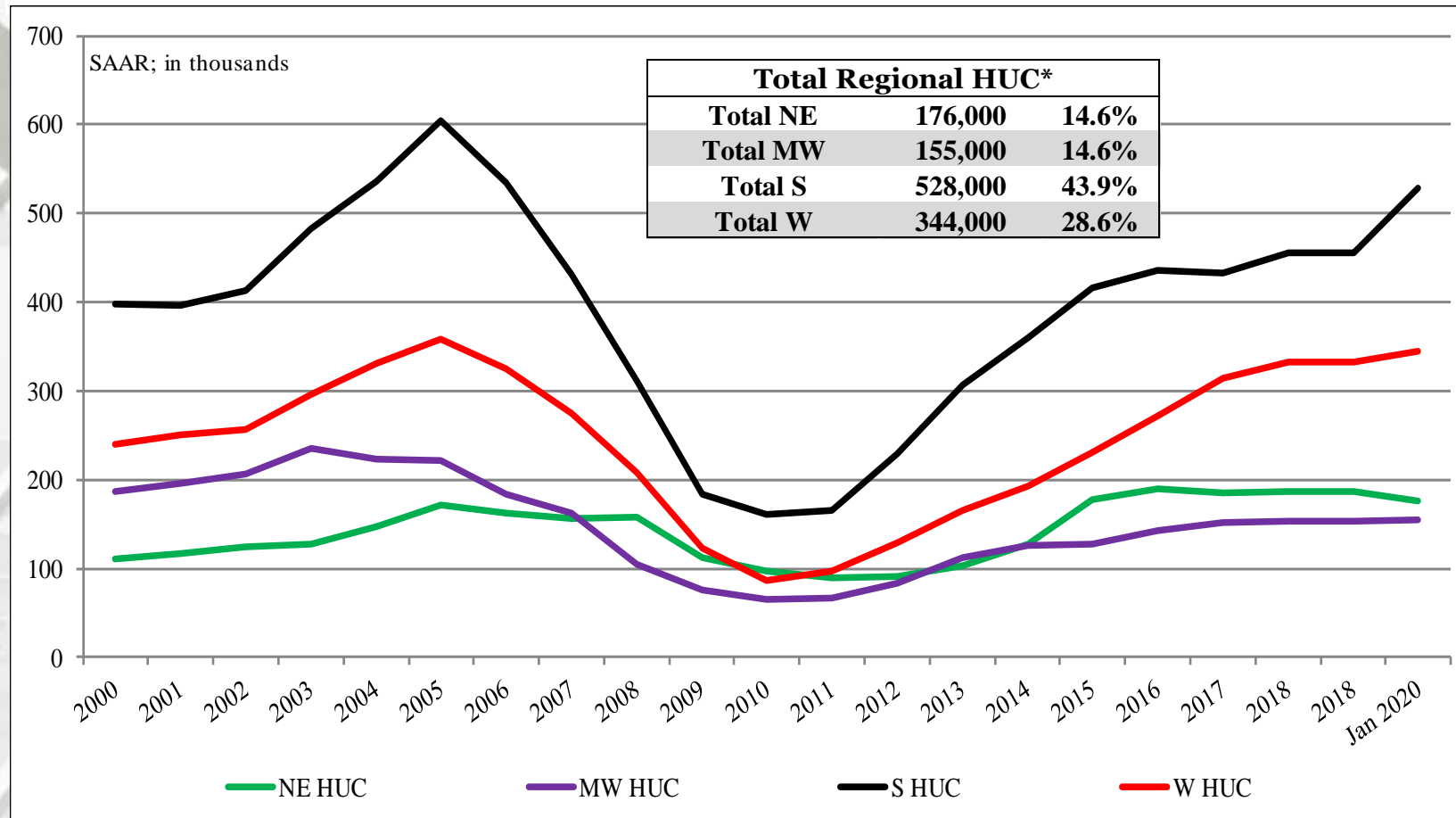
# New Housing Under Construction by Region

|            | <b>S Total</b> | <b>S SF</b> | <b>S MF**</b> |
|------------|----------------|-------------|---------------|
| January    | 528,000        | 258,000     | 270,000       |
| December   | 519,000        | 253,000     | 266,000       |
| 2019       | 485,000        | 254,000     | 231,000       |
| M/M change | 1.7%           | 2.0%        | 1.5%          |
| Y/Y change | 8.9%           | 1.6%        | 16.9%         |
|            | <b>W Total</b> | <b>W SF</b> | <b>W MF</b>   |
| January    | 344,000        | 145,000     | 199,000       |
| December   | 342,000        | 142,000     | 200,000       |
| 2019       | 330,000        | 143,000     | 187,000       |
| M/M change | 0.6%           | 2.1%        | -0.5%         |
| Y/Y change | 4.2%           | 1.4%        | 6.4%          |

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

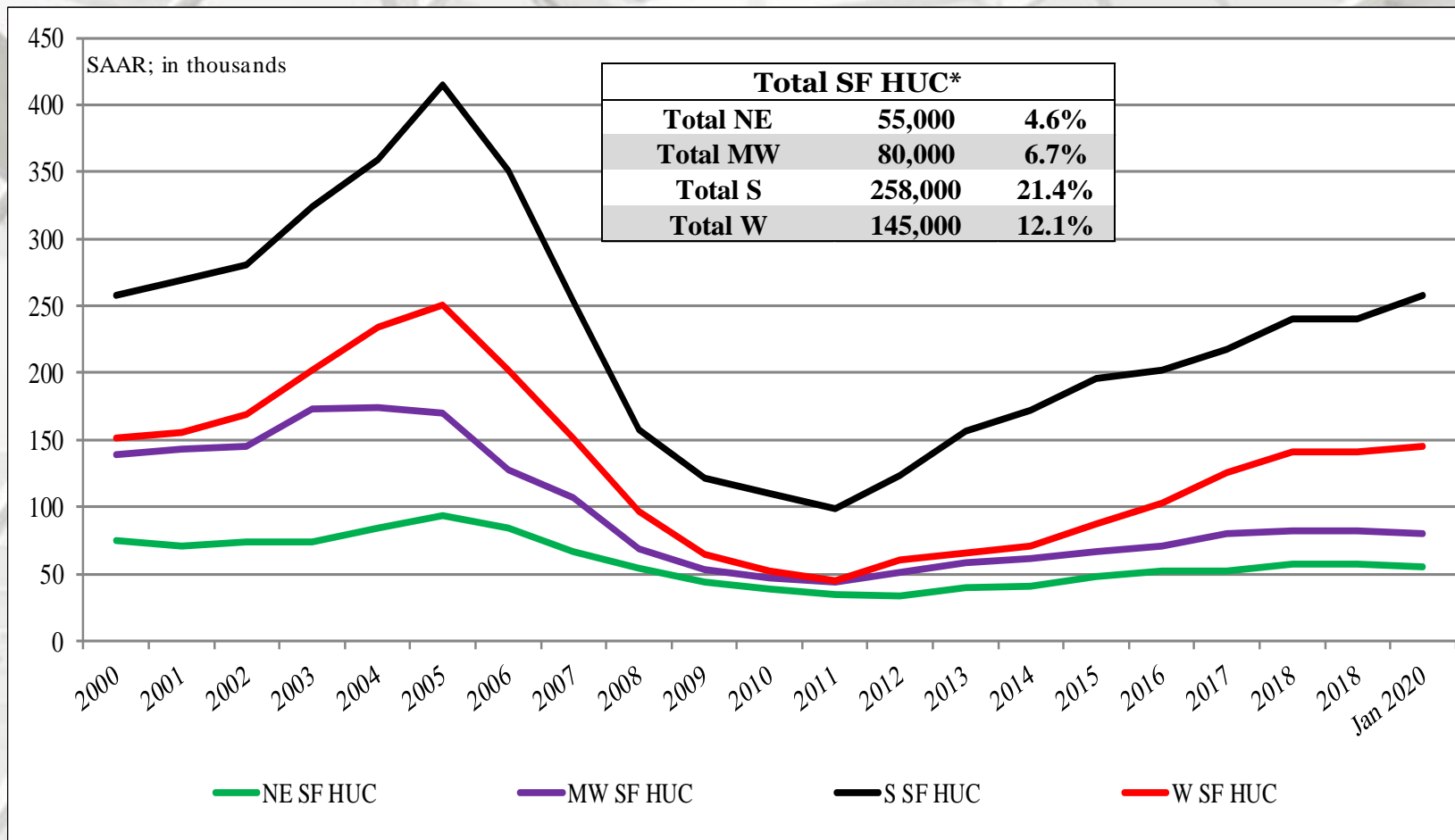


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF +  $\geq 5$  MF under construction)).

\* Percentage of total housing under construction units.

# SF Housing Under Construction by Region

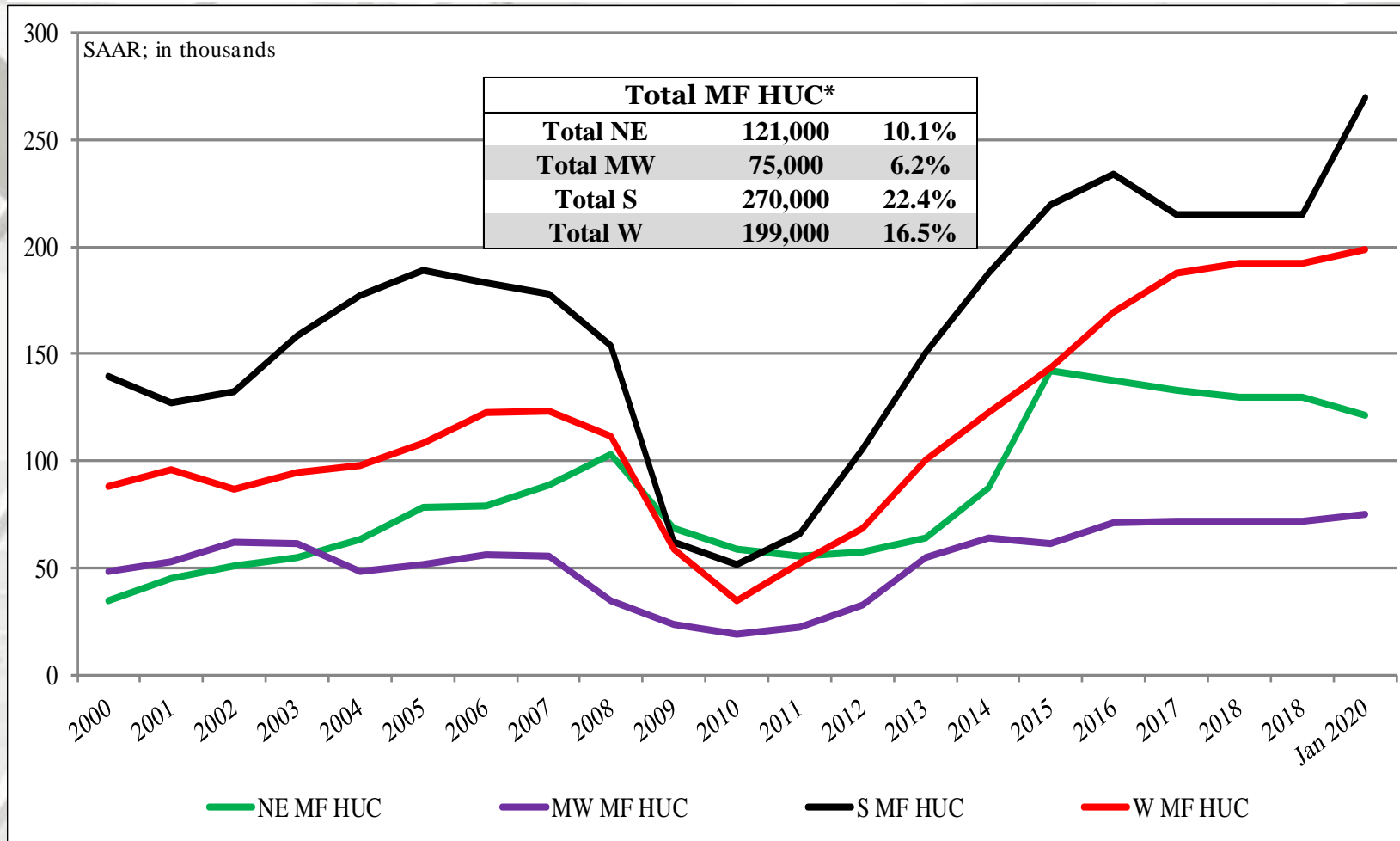


NE = Northeast, MW = Midwest, S = South, W = West.

US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF +  $\geq 5$  MF under construction)).

\* Percentage of total housing under construction units.

# MF Housing Under Construction by Region



NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + ≥ 5 MF under construction)).

\* Percentage of total housing under construction units.



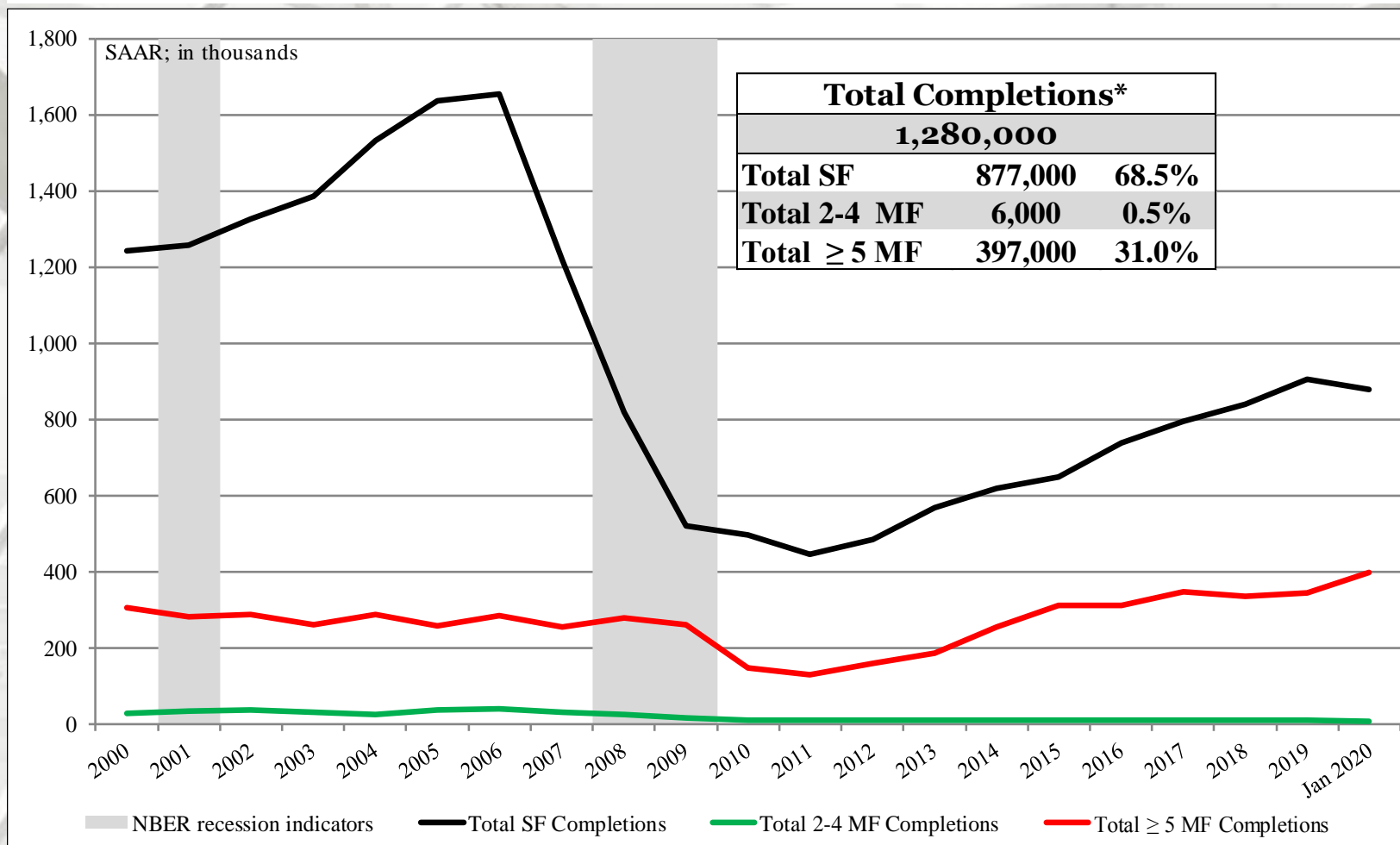
# New Housing Completions

|            | Total Completions* | SF Completions | MF 2-4 unit** | MF ≥ 5 unit Completions |
|------------|--------------------|----------------|---------------|-------------------------|
| Janaury    | 1,280,000          | 877,000        | 6,000         | 397,000                 |
| December   | 1,323,000          | 909,000        | 8,000         | 406,000                 |
| 2019       | 1,261,000          | 922,000        | 3,000         | 336,000                 |
| M/M change | -3.3%              | -3.5%          | -25.0%        | -2.2%                   |
| Y/Y change | 1.5%               | -4.9%          | 100.0%        | 18.2%                   |

\* 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



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

\* Percentage of total housing completions

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# New Housing Completions by Region

|            | NE Total | NE SF   | NE MF** |
|------------|----------|---------|---------|
| January    | 103,000  | 80,000  | 23,000  |
| December   | 208,000  | 59,000  | 149,000 |
| 2019       | 123,000  | 48,000  | 75,000  |
| M/M change | -50.5%   | 35.6%   | -84.6%  |
| Y/Y change | -16.3%   | 66.7%   | -69.3%  |
|            | MW Total | MW SF   | MW MF   |
| January    | 192,000  | 133,000 | 59,000  |
| December   | 143,000  | 110,000 | 33,000  |
| 2019       | 143,000  | 122,000 | 21,000  |
| M/M change | 34.3%    | 20.9%   | 78.8%   |
| Y/Y change | 34.3%    | 9.0%    | 181.0%  |

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

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

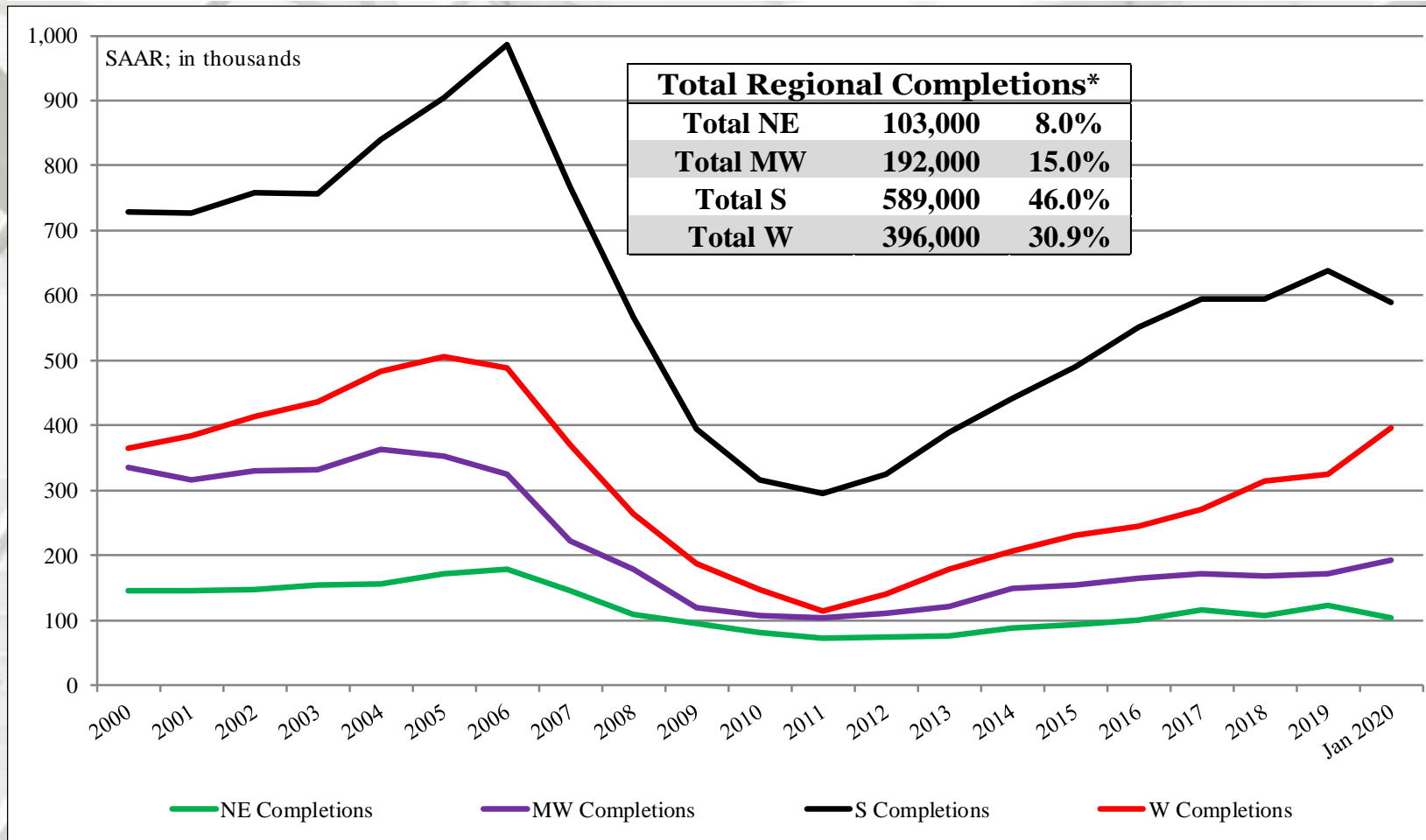
# New Housing Completions by Region

|            | <b>S Total</b> | <b>S SF</b> | <b>S MF**</b> |
|------------|----------------|-------------|---------------|
| January    | 589,000        | 429,000     | 160,000       |
| December   | 648,000        | 516,000     | 132,000       |
| 2019       | 618,000        | 485,000     | 133,000       |
| M/M change | -9.1%          | -16.9%      | 21.2%         |
| Y/Y change | -4.7%          | -11.5%      | 20.3%         |
|            | <b>W Total</b> | <b>W SF</b> | <b>W MF</b>   |
| January    | 396,000        | 235,000     | 161,000       |
| December   | 324,000        | 224,000     | 100,000       |
| 2019       | 377,000        | 267,000     | 110,000       |
| M/M change | 22.2%          | 4.9%        | 61.0%         |
| Y/Y change | 5.0%           | -12.0%      | 46.4%         |

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

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

# Total Housing Completions by Region



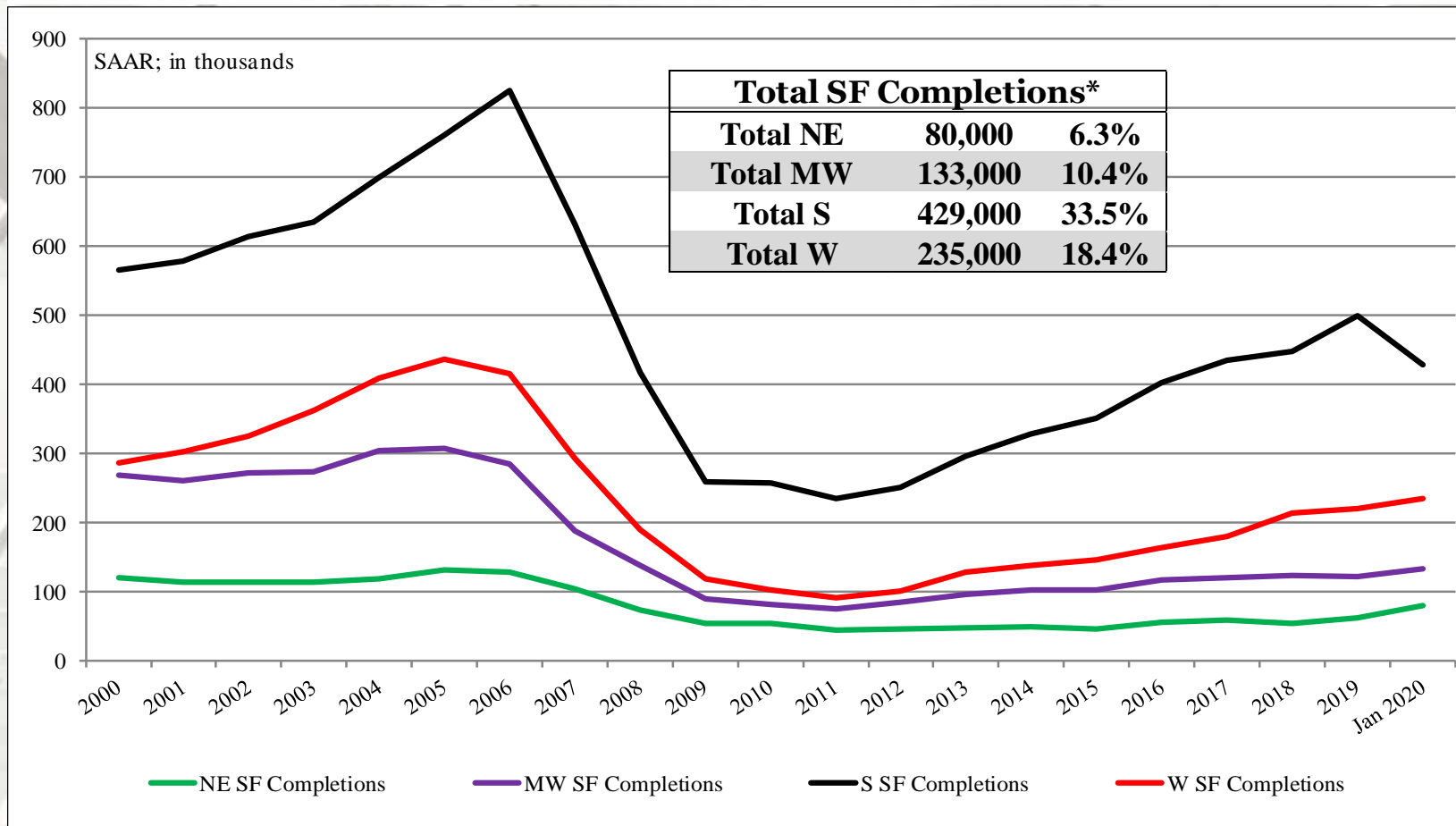
NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly, this is an estimation (Total completions – SF completions).

\* Percentage of total housing completions



# SF Housing Completions by Region

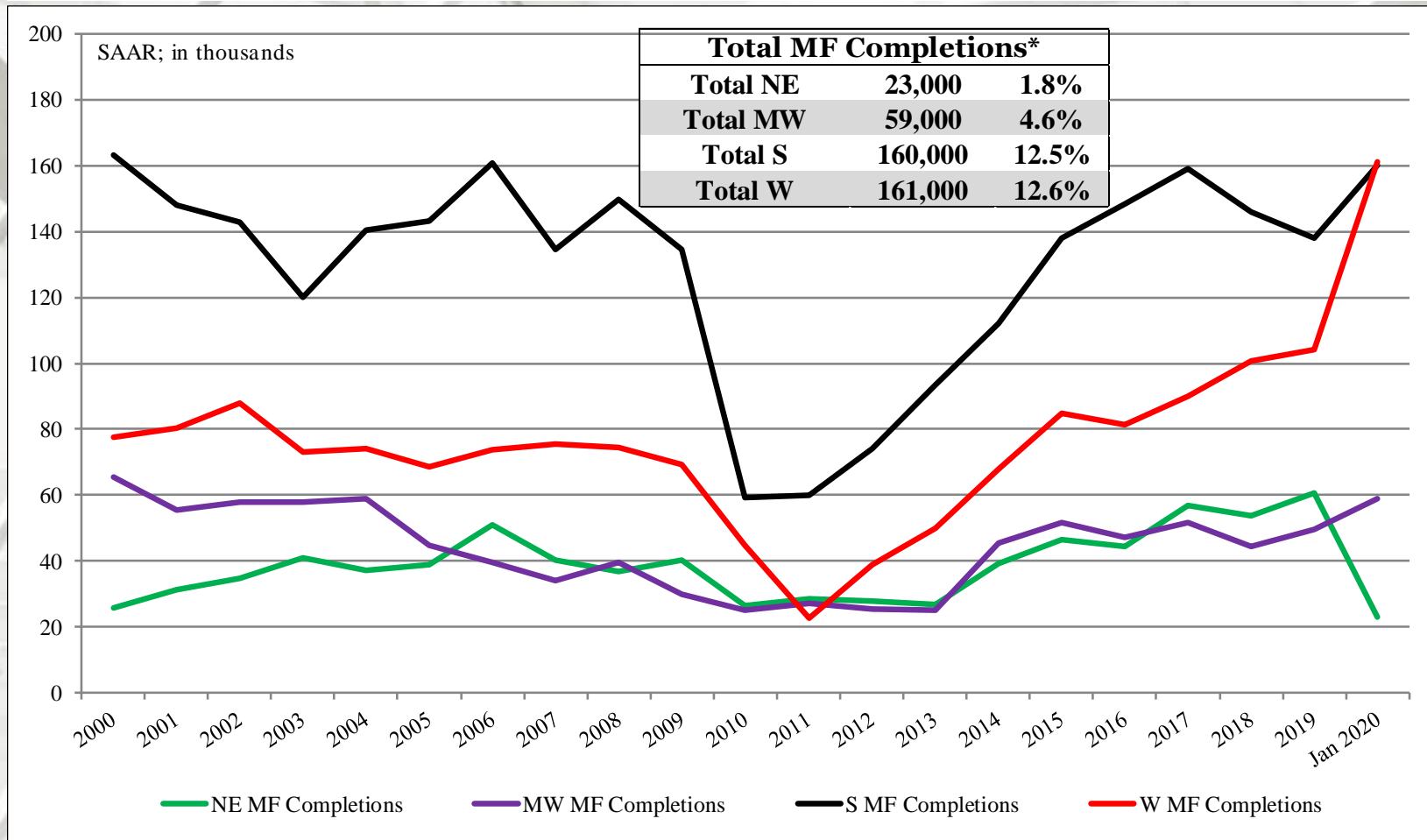


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly, this is an estimation (Total completions – SF completions).

\* Percentage of total housing completions

# MF Housing Completions by Region



NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly, this is an estimation (Total completions – SF completions).

\* Percentage of total housing completions

# New Single-Family House Sales

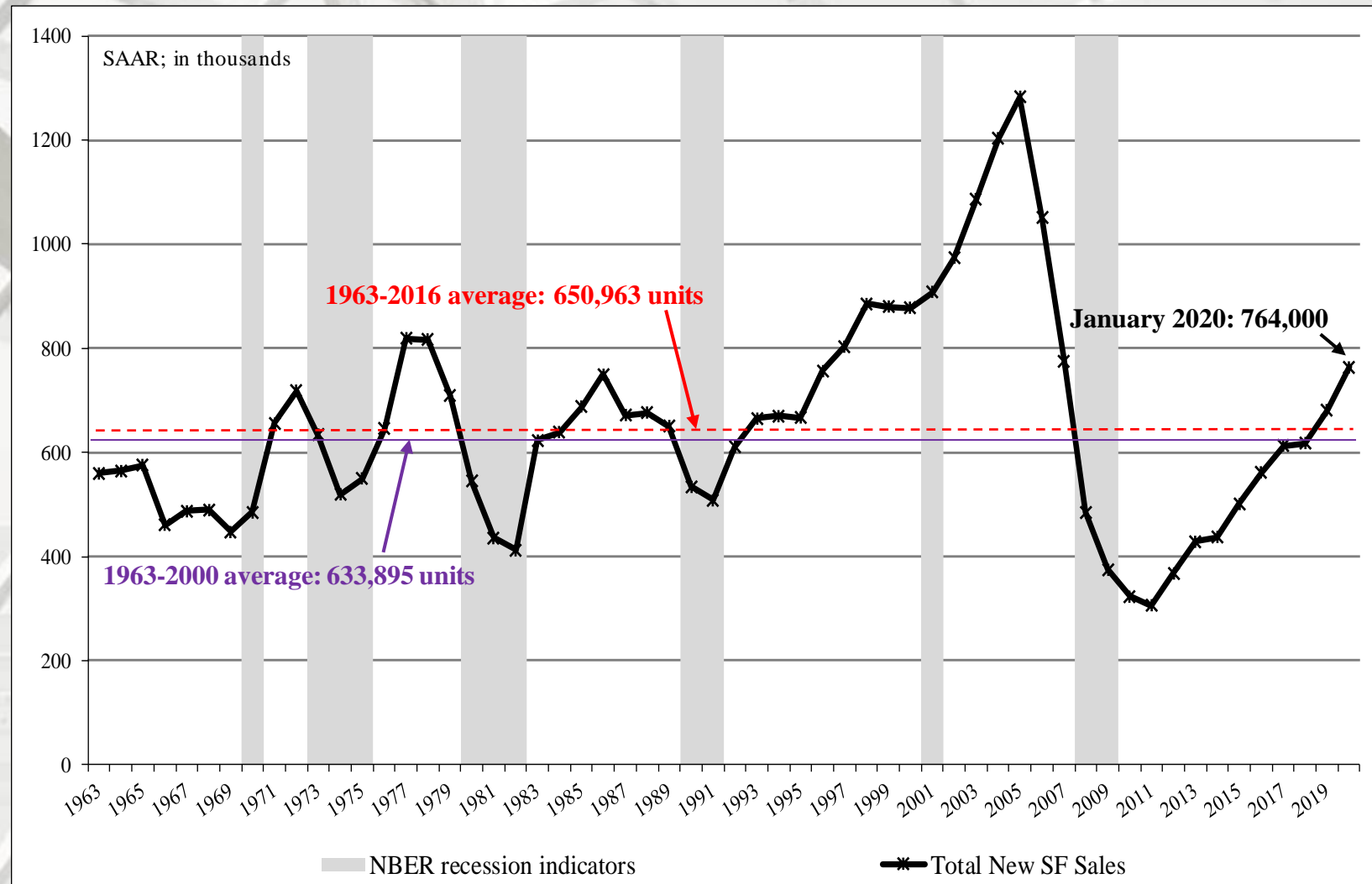
|            | New SF Sales* | Median Price | Mean Price | Month's Supply |
|------------|---------------|--------------|------------|----------------|
| January    | 764,000       | \$348,200    | \$402,300  | 5.1            |
| December   | 708,000       | \$324,100    | \$373,300  | 5.5            |
| 2019       | 644,000       | \$305,400    | \$361,100  | 6.5            |
| M/M change | 7.9%          | 7.4%         | 7.8%       | -7.3%          |
| Y/Y change | 18.6%         | 14.0%        | 11.4%      | -21.5%         |

\* All new sales data are presented at a seasonally adjusted annual rate (SAAR)<sup>1</sup> and housing prices are adjusted at irregular intervals<sup>2</sup>.

New SF sales were far greater than the consensus forecast<sup>3</sup> of 710 m (range: 700 m to 727 m). The past three month's new SF sales data also were revised:

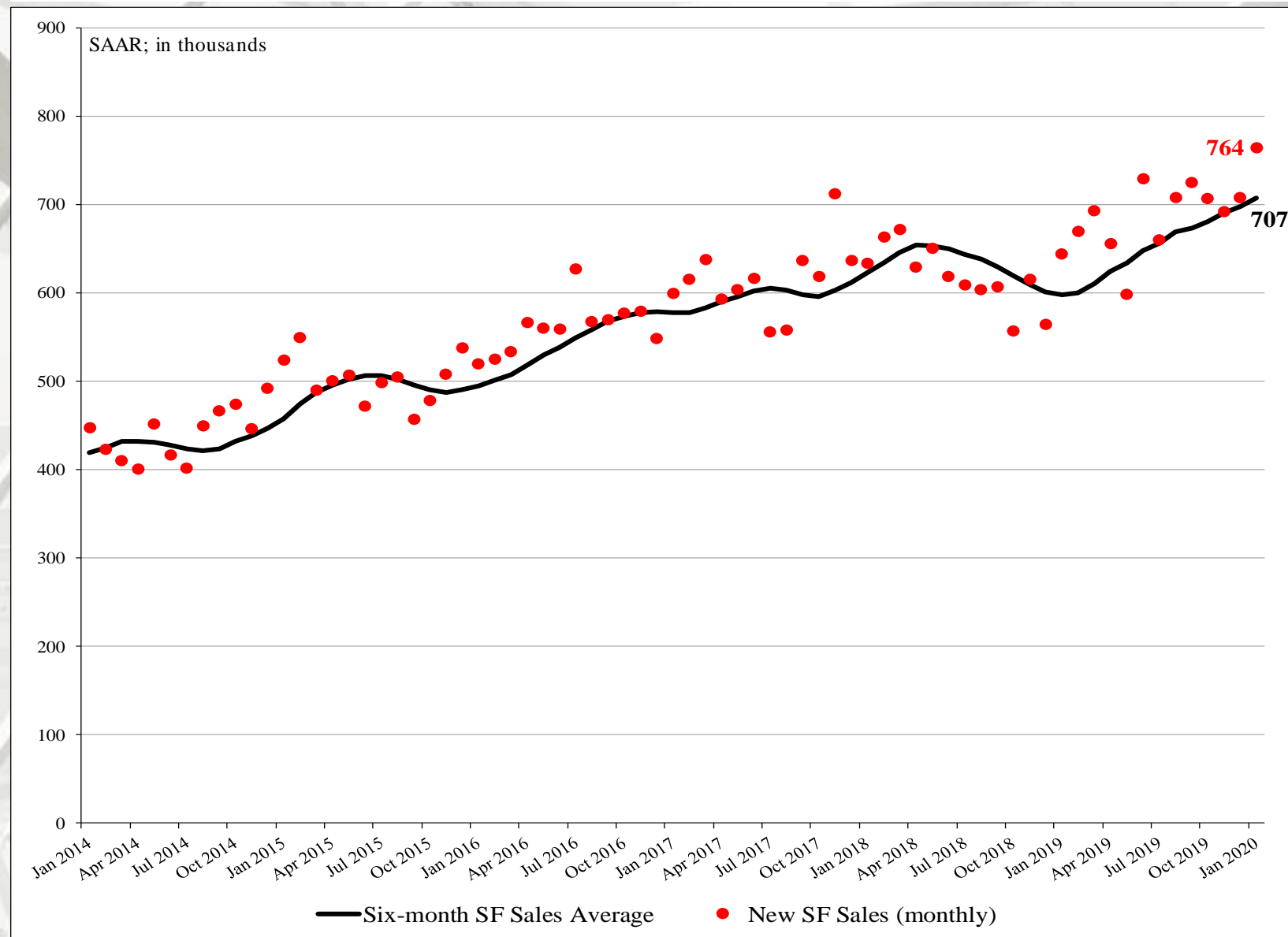
|                   |                         |
|-------------------|-------------------------|
| October initial:  | 733 m revised to 707 m; |
| November initial: | 719 m revised to 692 m; |
| December initial: | 694 m revised to 708 m. |

# New SF House Sales



NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# New SF Housing Sales: Six-month average & monthly





# New SF House Sales by Region and Price Category

|                            | NE   | MW   | S  | W  |  |                                |        |
|----------------------------|--|--|--|--|--|--------------------------------|--------|
| January                    | 44,000   | 99,000   | 369,000  | 252,000  |  |                                |        |
| December                   | 42,000   | 76,000   | 386,000  | 204,000  |  |                                |        |
| 2019                       | 30,000   | 67,000   | 378,000  | 169,000  |  |                                |        |
| M/M change                 | 4.8%   | 30.3%  | -4.4%  | 23.5%  |  |                                |        |
| Y/Y change                 | 46.7%  | 47.8%  | -2.4%  | 49.1%  |  |                                |        |
|                            | <div><div>\$150 -</div><div>≤ \$150m</div></div> | <div><div>\$200 -</div><div>299.9m</div></div> | <div><div>\$300 -</div><div>\$399.9m</div></div> | <div><div>\$400 -</div><div>\$499.9m</div></div> | <div><div>\$500 -</div><div>\$749.9m</div></div> | <div><div>≥ \$750m</div></div> |        |
| January <sup>1,2,3,4</sup> | 1,000  | 4,000  | 19,000   | 13,000   | 9,000  | 8,000                          | 4,000  |
| December                   | 1,000  | 4,000  | 16,000   | 13,000   | 6,000  | 7,000                          | 2,000  |
| 2019                       | 1,000  | 3,000  | 19,000   | 12,000   | 6,000  | 5,000                          | 2,000  |
| M/M change                 | 0.0%   | 0.0%   | 18.8%  | 0.0%   | 50.0%  | 14.3%                          | 100.0% |
| Y/Y change                 | 0.0%   | 33.3%  | 0.0%   | 8.3%   | 50.0%  | 60.0%                          | 100.0% |
| New SF sales: %            | 1.8%   | 7.0%   | 33.3%  | 22.8%  | 15.8%  | 14.0%                          | 7.0%   |

NE = Northeast; MW = Midwest; S = South; W = West

<sup>1</sup> All data are SAAR

<sup>2</sup> Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

<sup>3</sup> Detail January not add to total because of rounding.

<sup>4</sup> Housing prices are adjusted at irregular intervals.

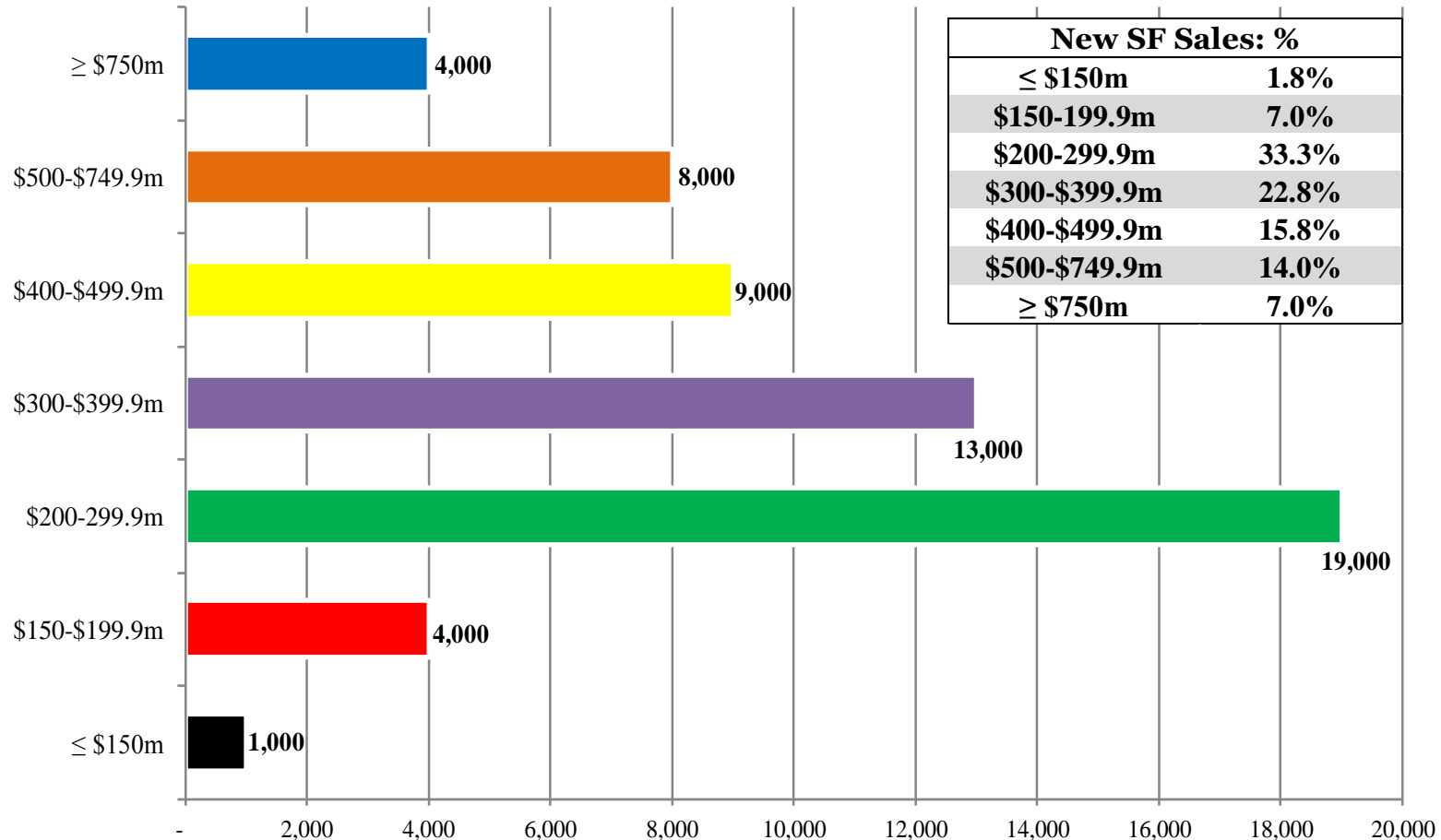
<sup>5</sup> Z = Less than 500 units or less than 0.5 percent

Sources: <sup>1,2,3</sup> <https://www.census.gov/construction/nrs/index.html>; 2/26/20;

<sup>4</sup> [https://www.census.gov/construction/cpi/pdf/descpi\\_sold.pdf](https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf)

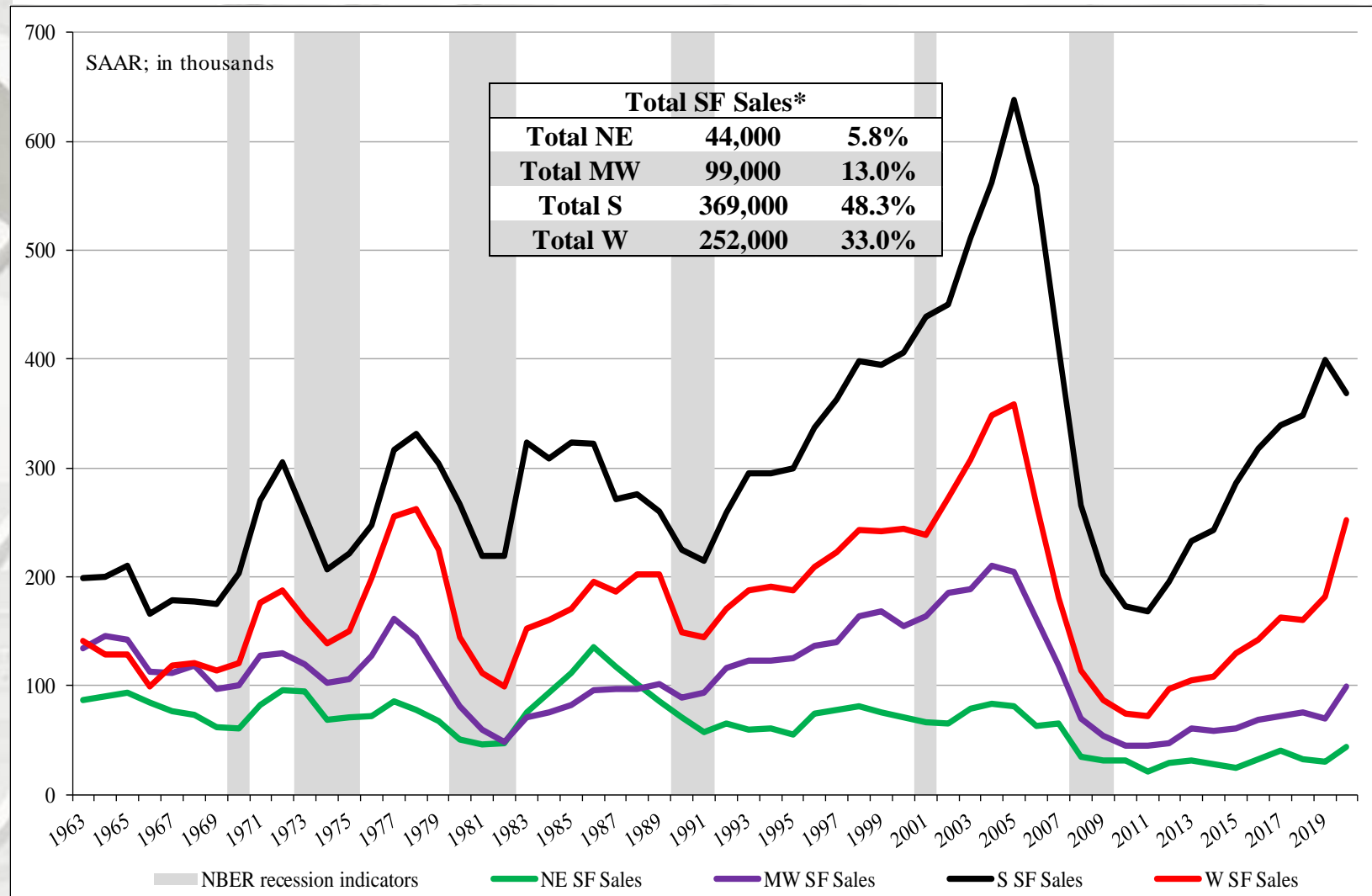
# New SF House Sales

January New SF Sales\*



- Total new sales by price category and percent.

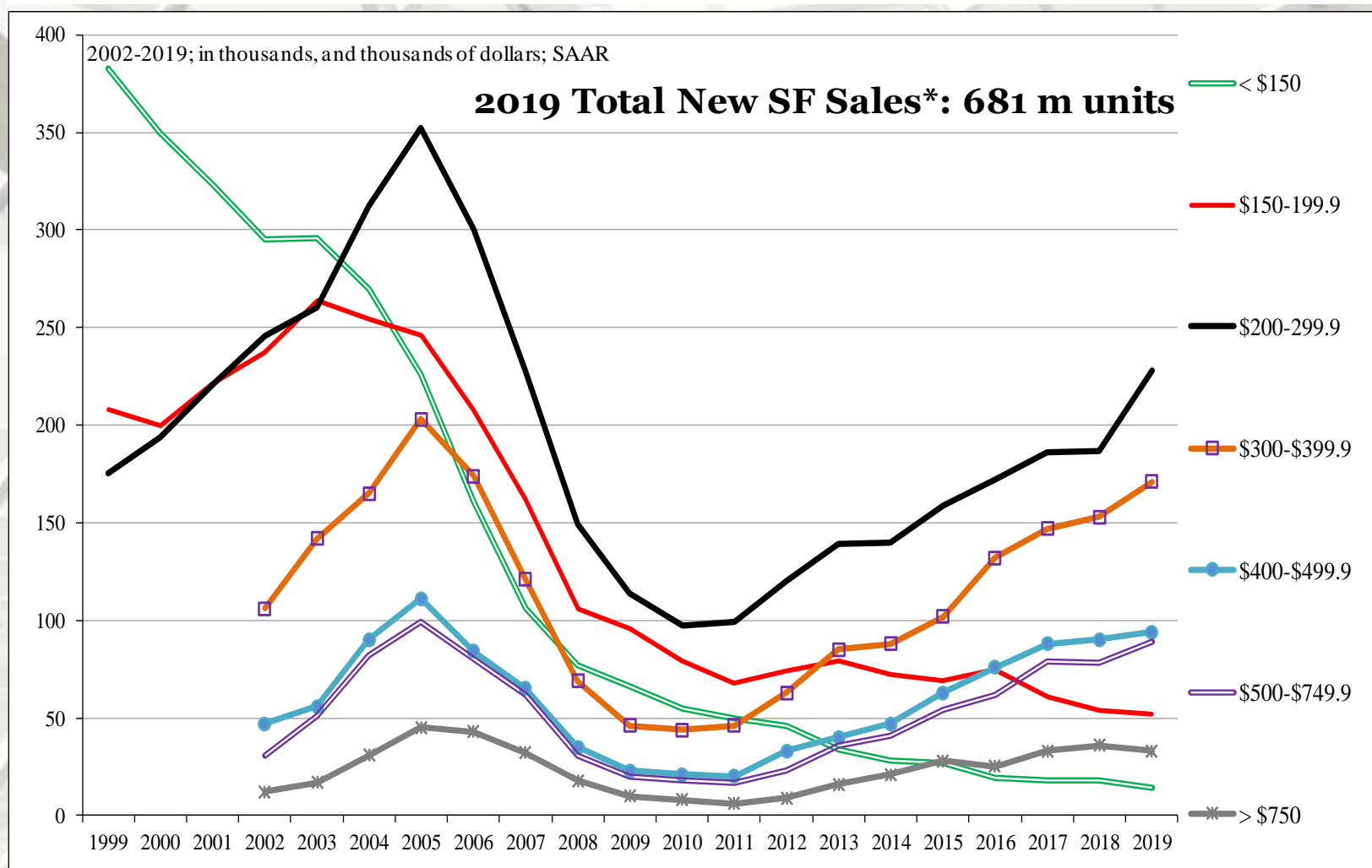
# New SF House Sales by Region



NE = Northeast; MW = Midwest; S = South; W = West

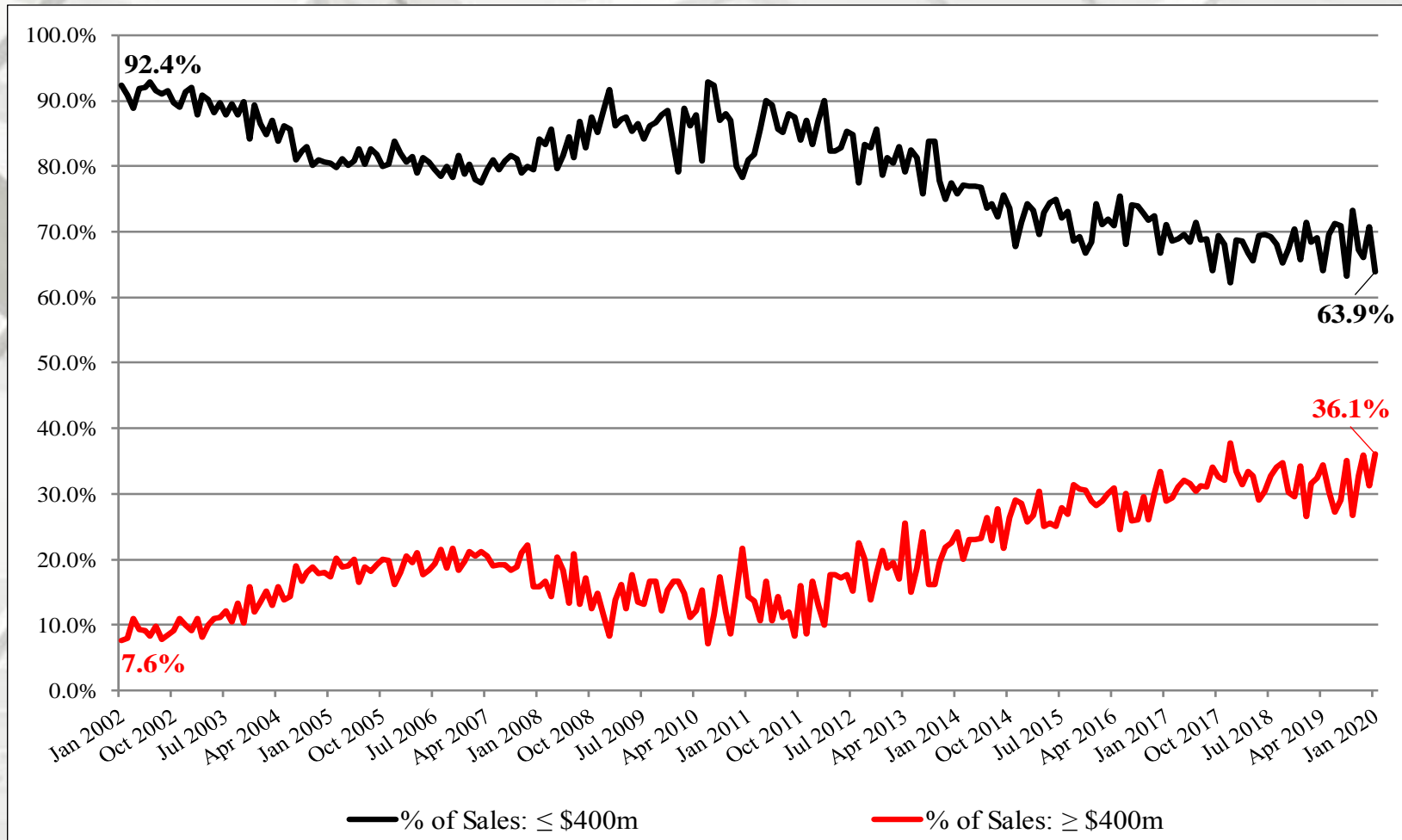
\* Percentage of total new sales.

# New SF House Sales by Price Category



\* Sales tallied by price category.

# New SF House Sales

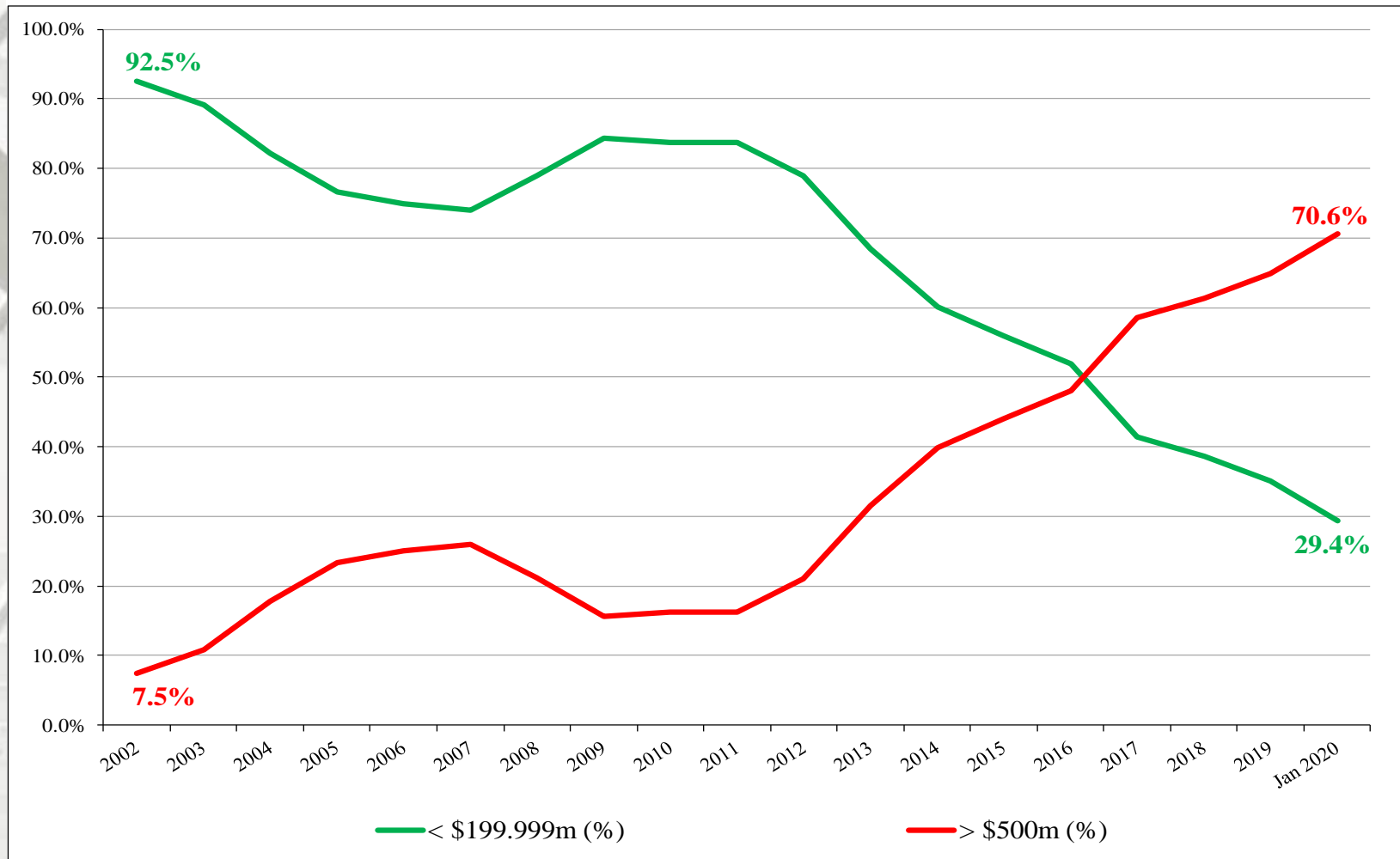


## New SF Sales \$400m houses: 2002 – January 2020

The sales share of \$400 thousand plus SF houses is presented above<sup>1,2</sup>. Since the beginning of 2012, the upper priced houses have and are garnering a greater percentage of sales. A decreasing spread indicates that more high-end luxury homes are being sold. 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.



# New SF House Sales

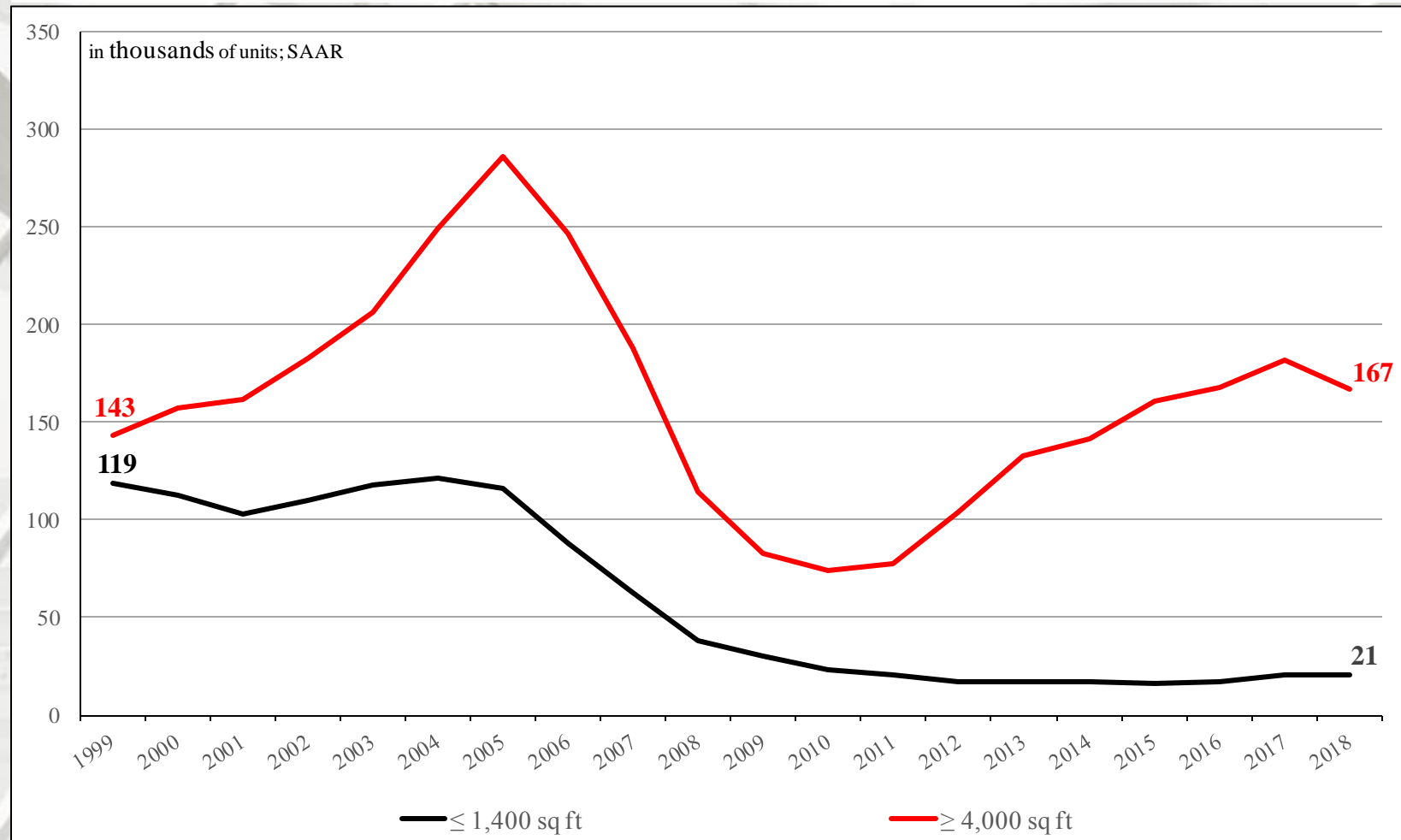


## New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to January 2020

The number of ≤ \$200 thousand plus SF houses has declined dramatically since 2002<sup>1,2</sup>. Subsequently, from 2012 onward, the ≥ \$500 thousand class has soared (on a percentage basis) in contrast to the ≤ \$200m class. One of the most oft mentioned reasons for this occurrence is builder net margins.

Note: Sales values are not adjusted for inflation.

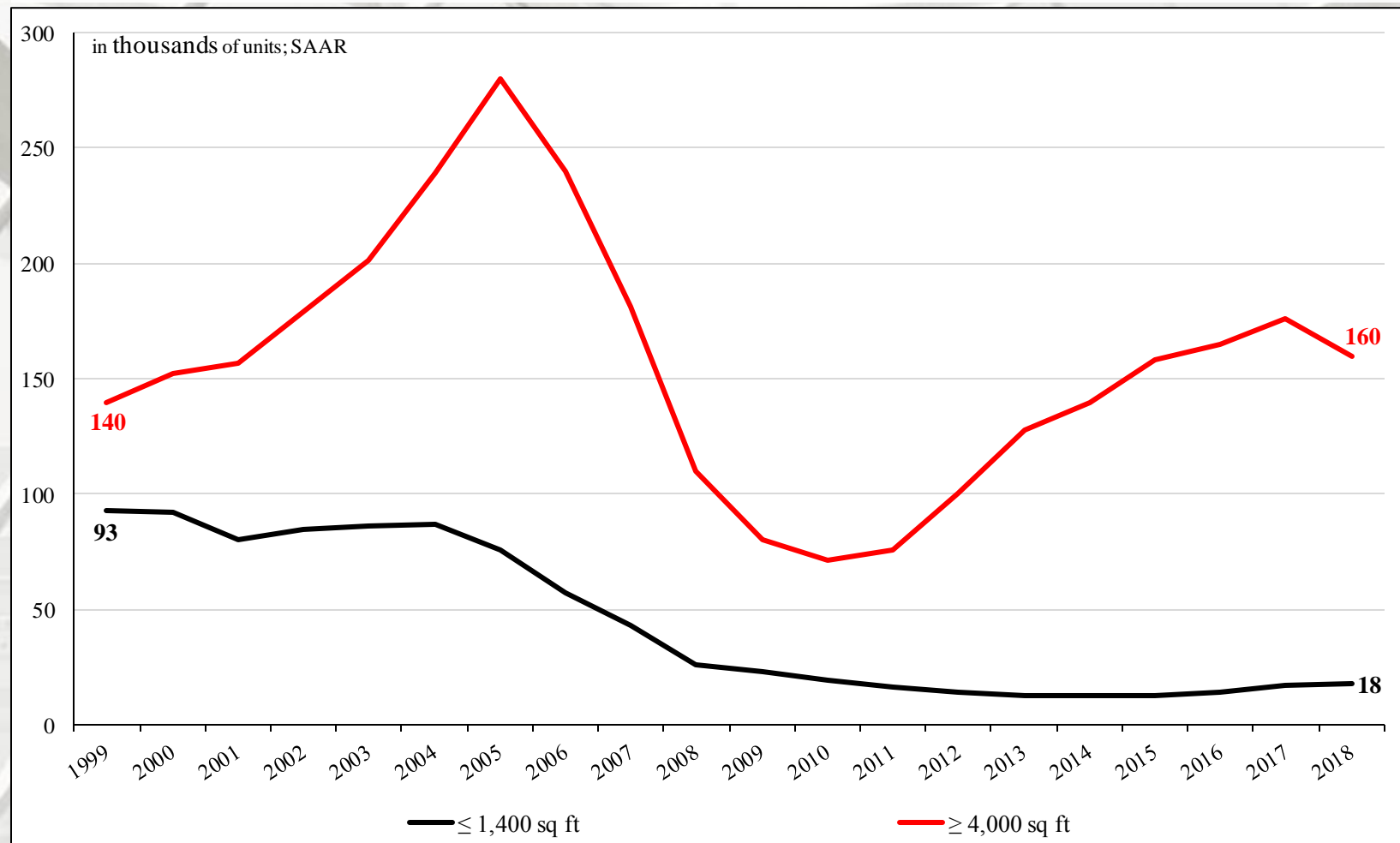
# Total New SF House Sales by Square Feet of Floor Area



## Total new SF Sales: ≤ 1,400 square feet and ≥ 4,000 square feet: 1999 to 2019

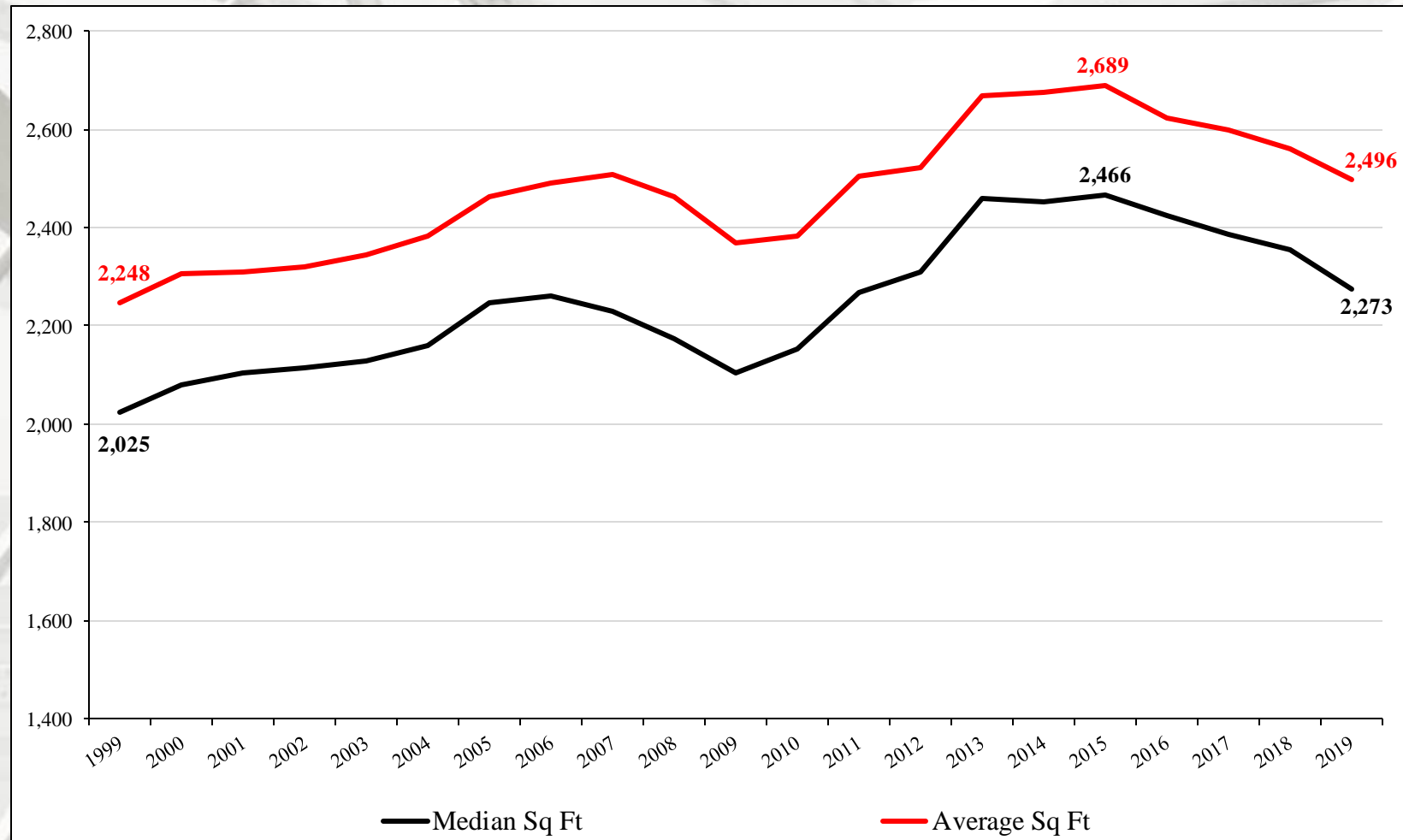
The number of SF houses sold ( $\geq 4,000$  sq ft) has risen dramatically since 2010 in comparison to the  $\leq 1,400$  sq ft houses. Some of the most oft mentioned reasons for this is builder net margins and regulation.

# New Detached SF House Sales by Square Feet of Floor Area



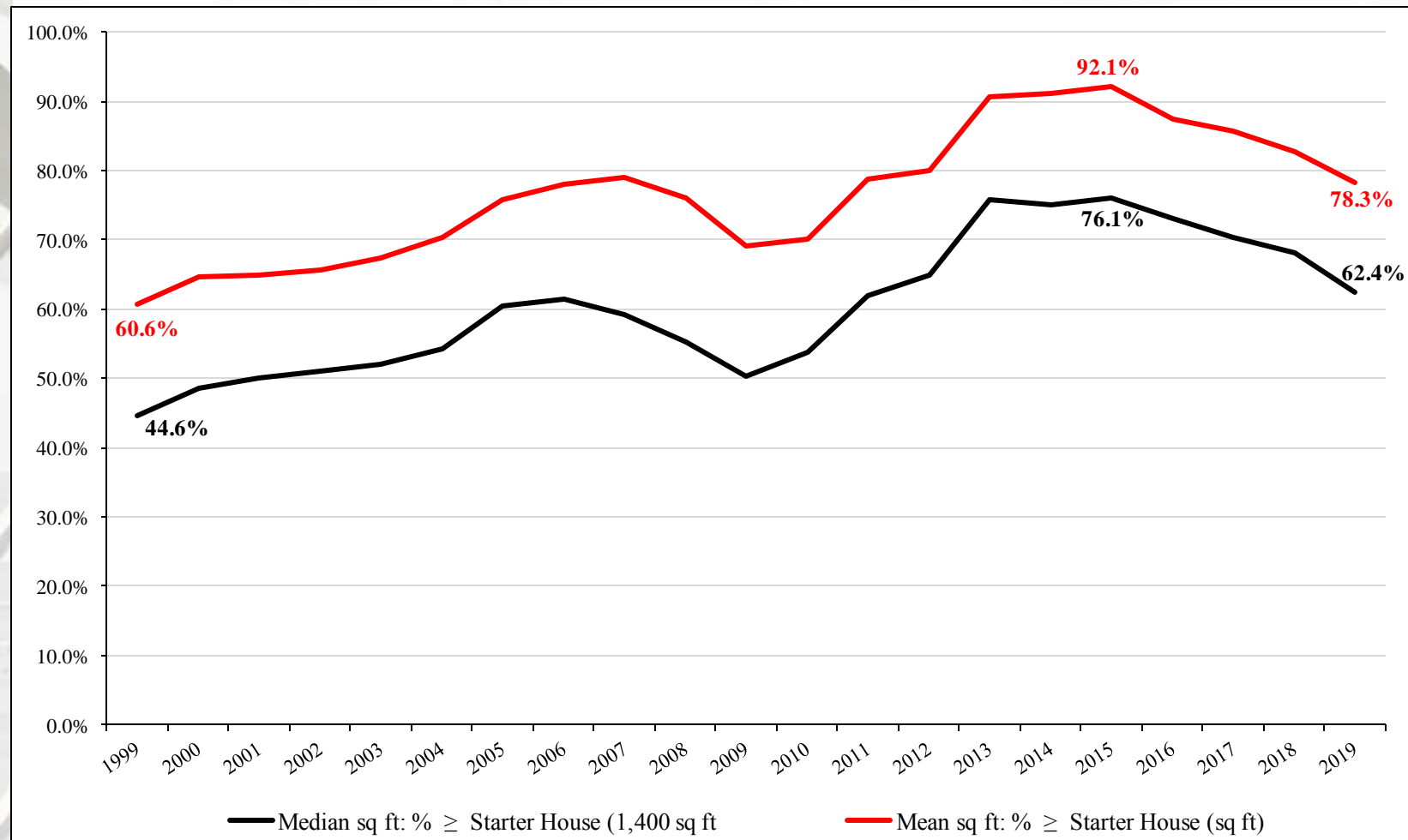
**New Detached SF Sales: ≤ 1,400 square feet and  
≥ 4,000 square feet: 1999 to 2018**

# New SF Housing: Square Feet



**New Detached SF Sales:  $\leq 1,400$  square feet and  $\geq 4,000$  square feet: 1999 to 2018**

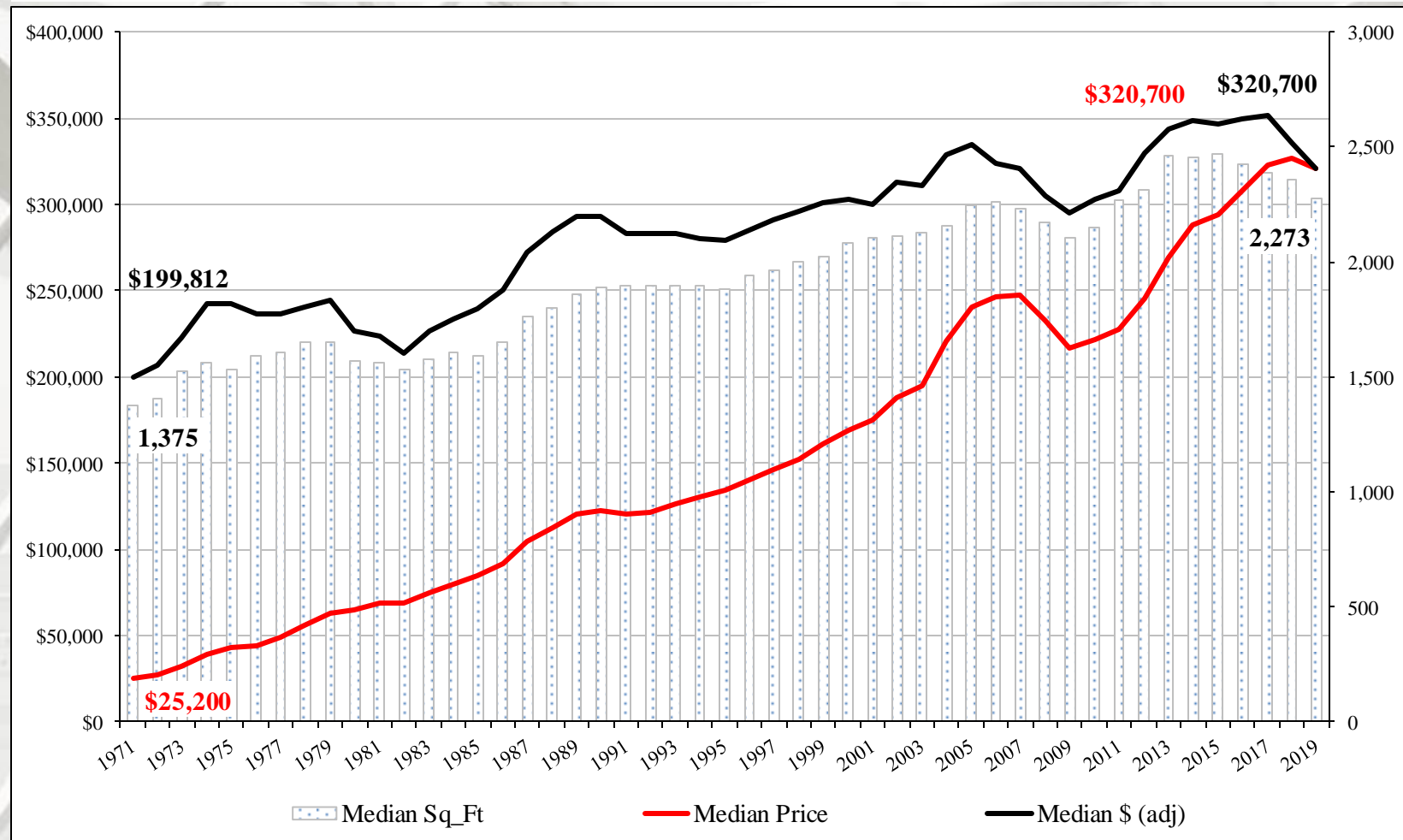
# New SF Housing: Percent > 1,400 sq ft



**New Detached SF Sales: ≤ 1,400 square feet and  
≥ 4,000 square feet: 1999 to 2018**

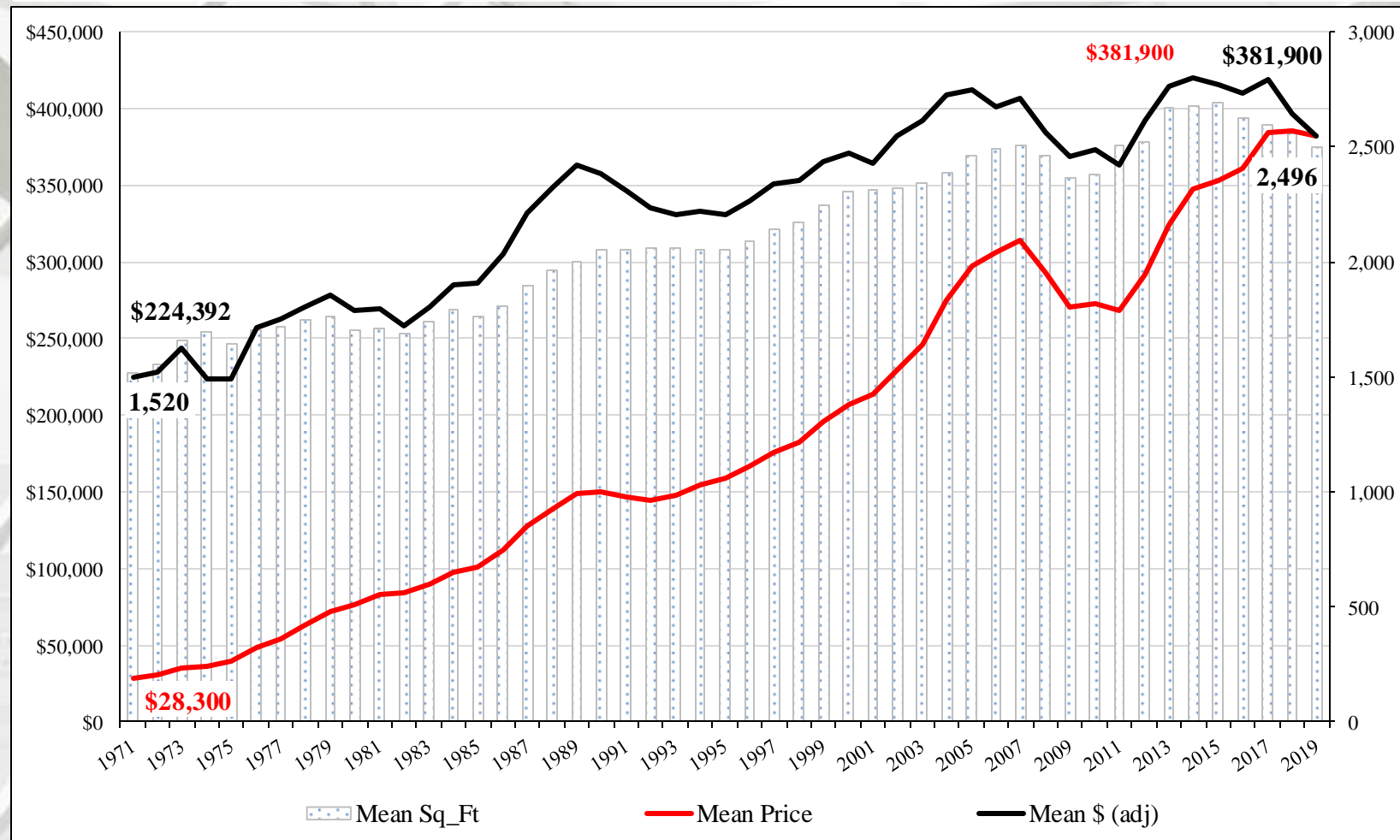


# New SF Housing: Median Price & Square Footage



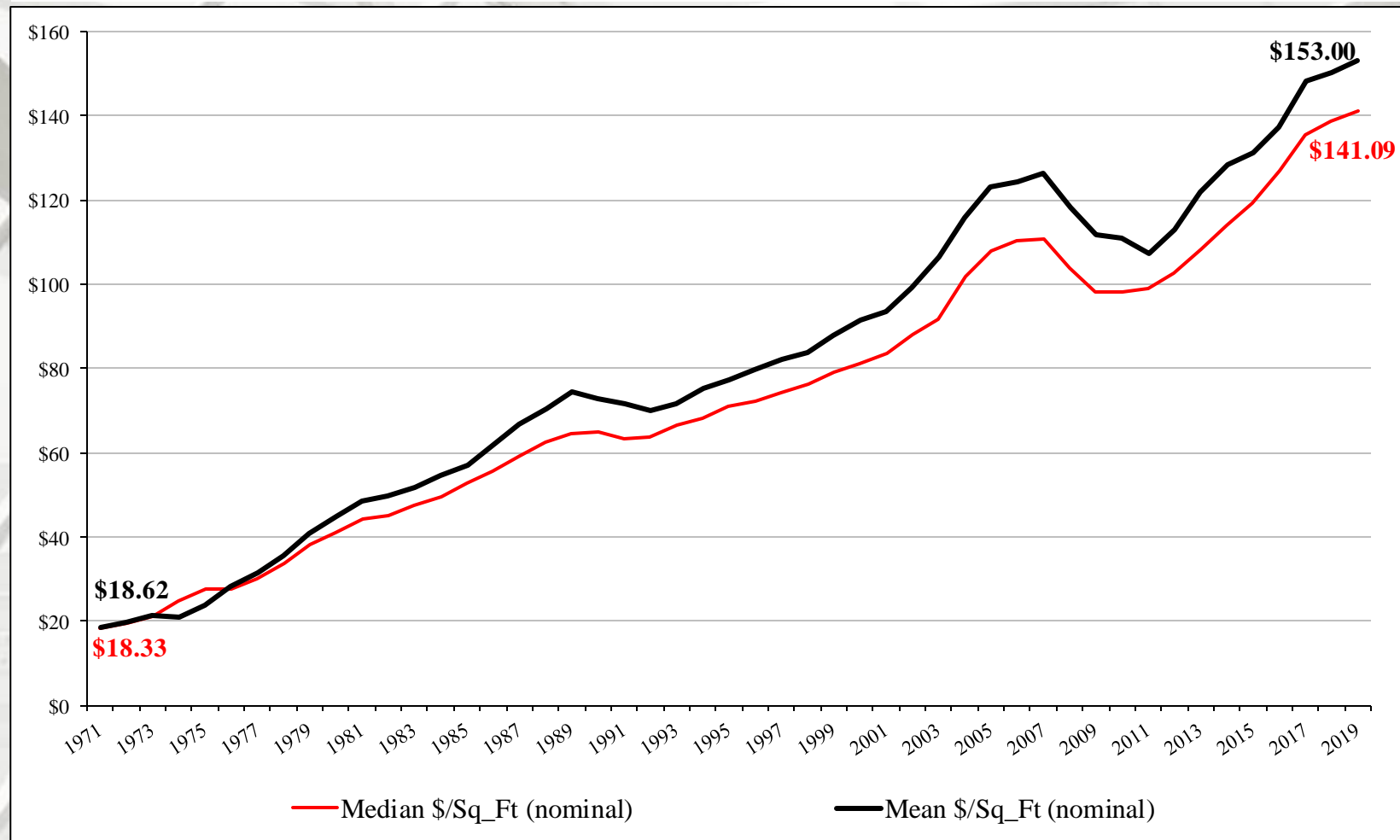
**New Detached SF Sales:  $\leq 1,400$  square feet and  $\geq 4,000$  square feet: 1999 to 2018**

# New SF Housing: Mean Price & Square Footage

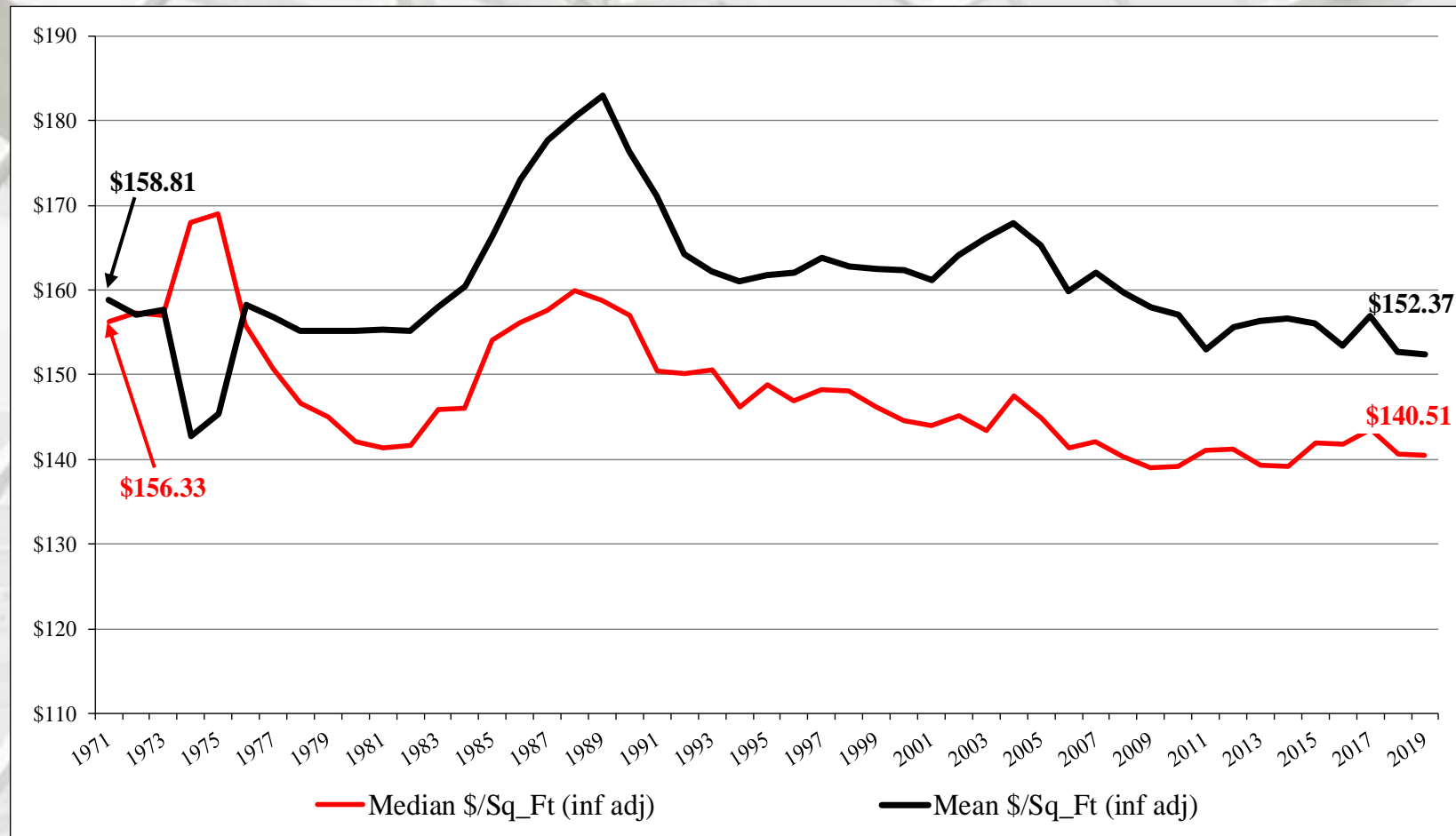


**New Detached SF Sales:  $\leq 1,400$  square feet and  $\geq 4,000$  square feet: 1999 to 2018**

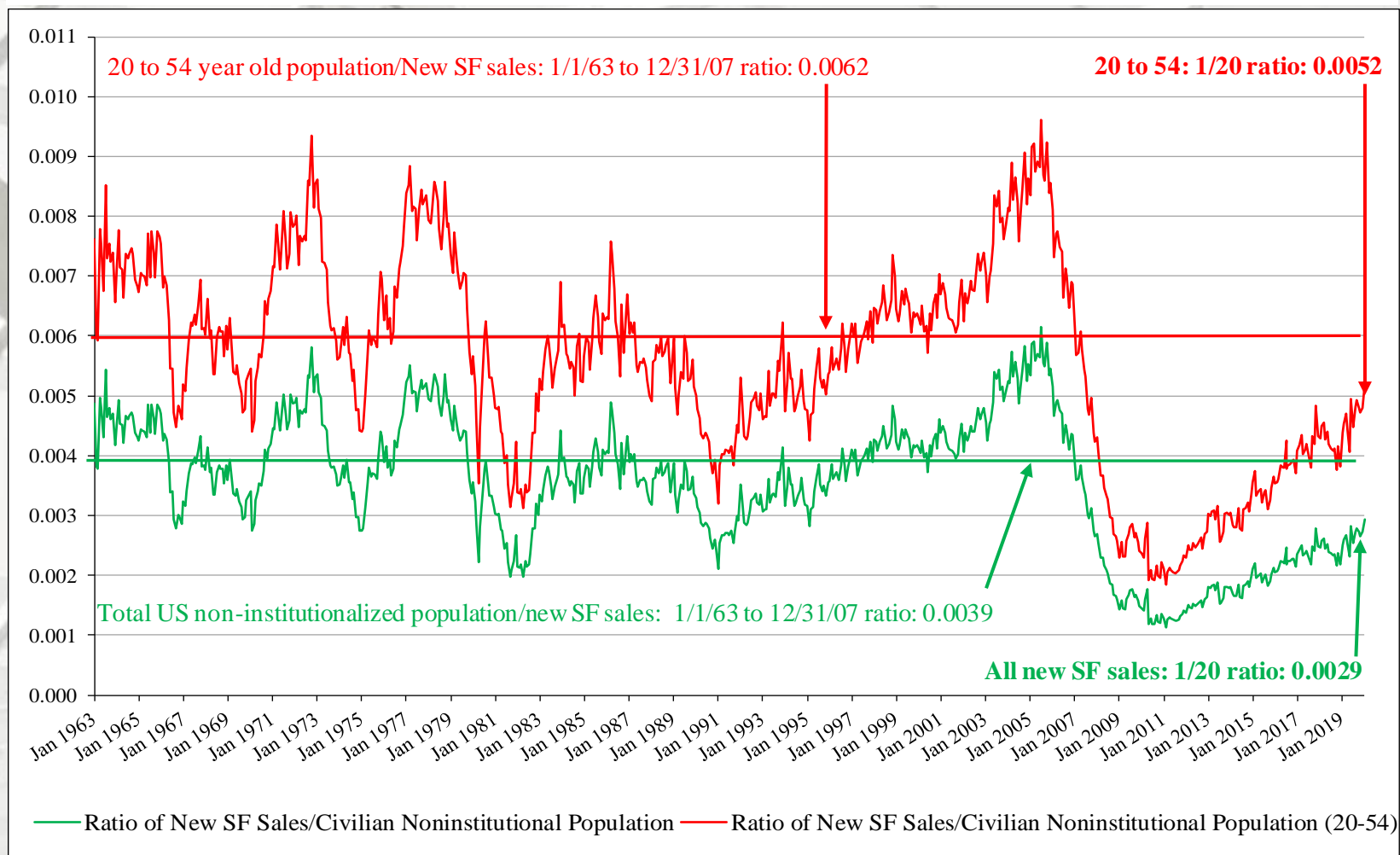
# New SF Housing: Median & Mean Price x Square Foot



# New SF Housing: Median & Mean Adjusted Price x Square Footage



# New SF House Sales

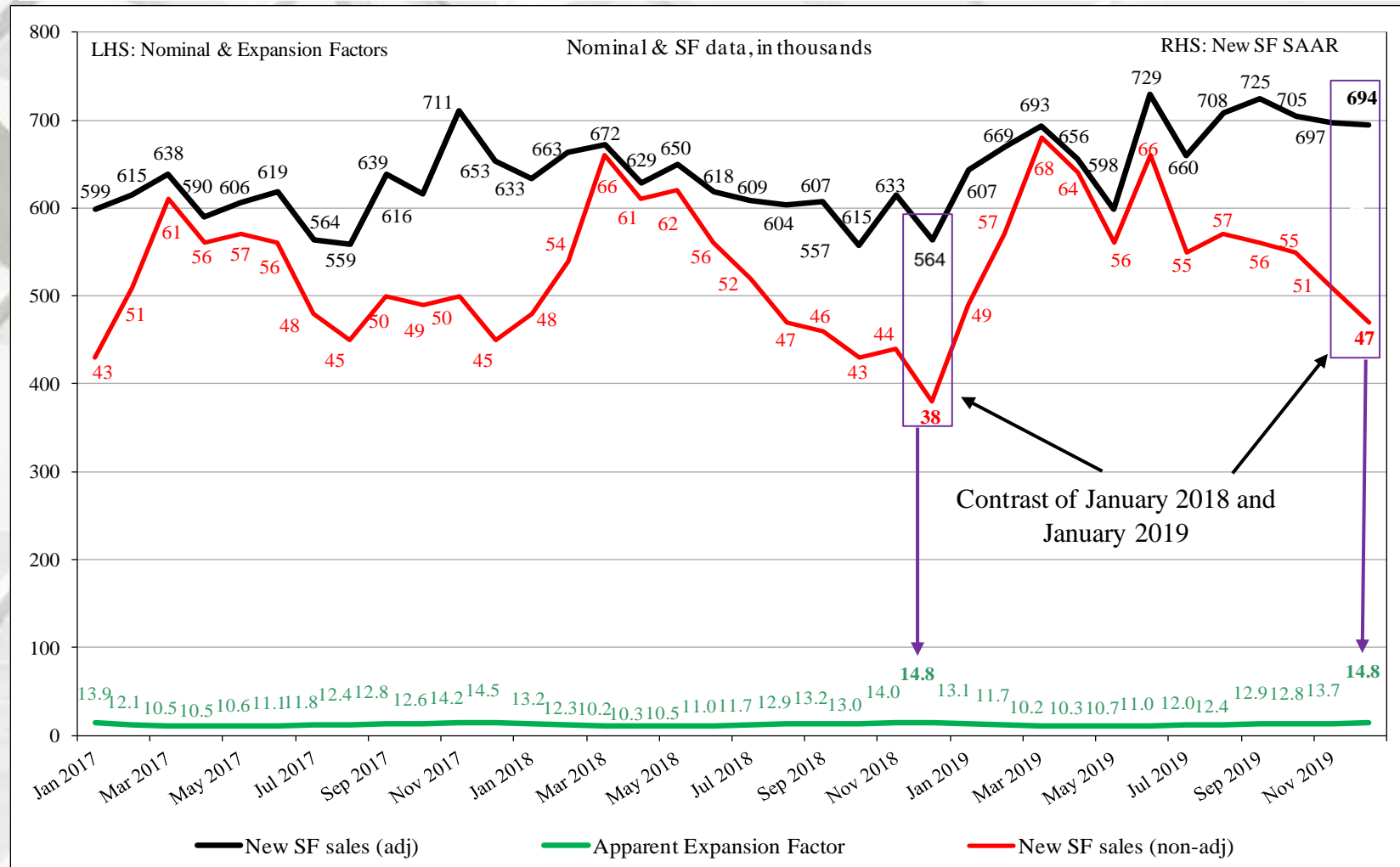


## New SF sales adjusted for the US population

From January 1963 to January 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in January 2020 it was 0.0029 – an increase from December (0.0027). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in January 2020 it was 0.0052 – also an increase from December (0.0048). All are non-adjusted data. From a population viewpoint, construction is less than what is necessary for changes in the population (i.e., under-building).



# Nominal vs. SAAR 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 apparent 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

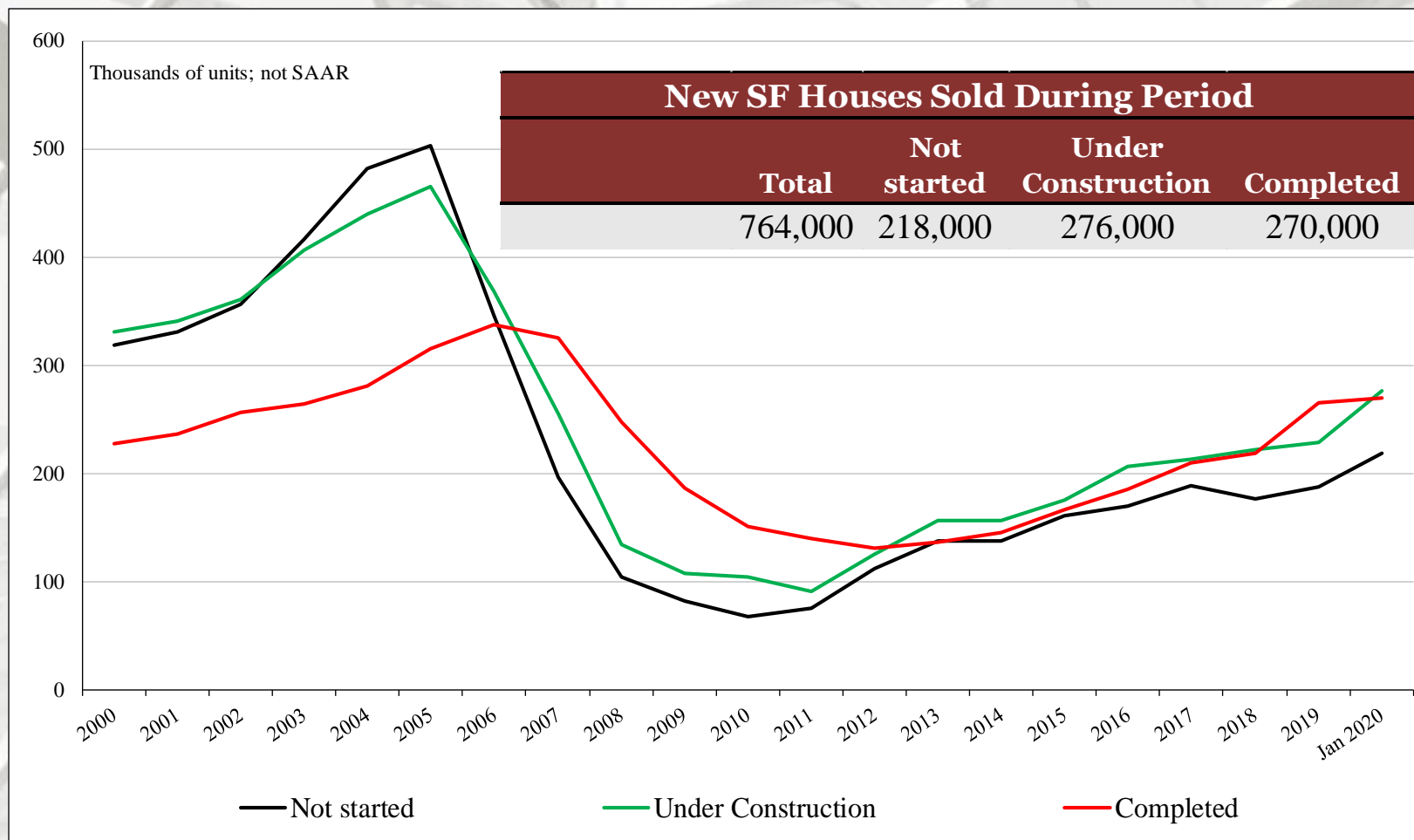
# New SF House Sales

## New SF Houses Sold During Period

|                  | Total   | Not started | Under Construction | Completed |
|------------------|---------|-------------|--------------------|-----------|
| January          | 764,000 | 218,000     | 276,000            | 270,000   |
| December         | 708,000 | 190,000     | 252,000            | 266,000   |
| 2019             | 644,000 | 171,000     | 216,000            | 257,000   |
| M/M change       | 7.9%    | 14.7%       | 9.5%               | 1.5%      |
| Y/Y change       | 18.6%   | 27.5%       | 27.8%              | 5.1%      |
| Total percentage |         | 28.5%       | 36.1%              | 35.3%     |

Not SAAR

# New SF House Sales: Sold During Period



Not SAAR

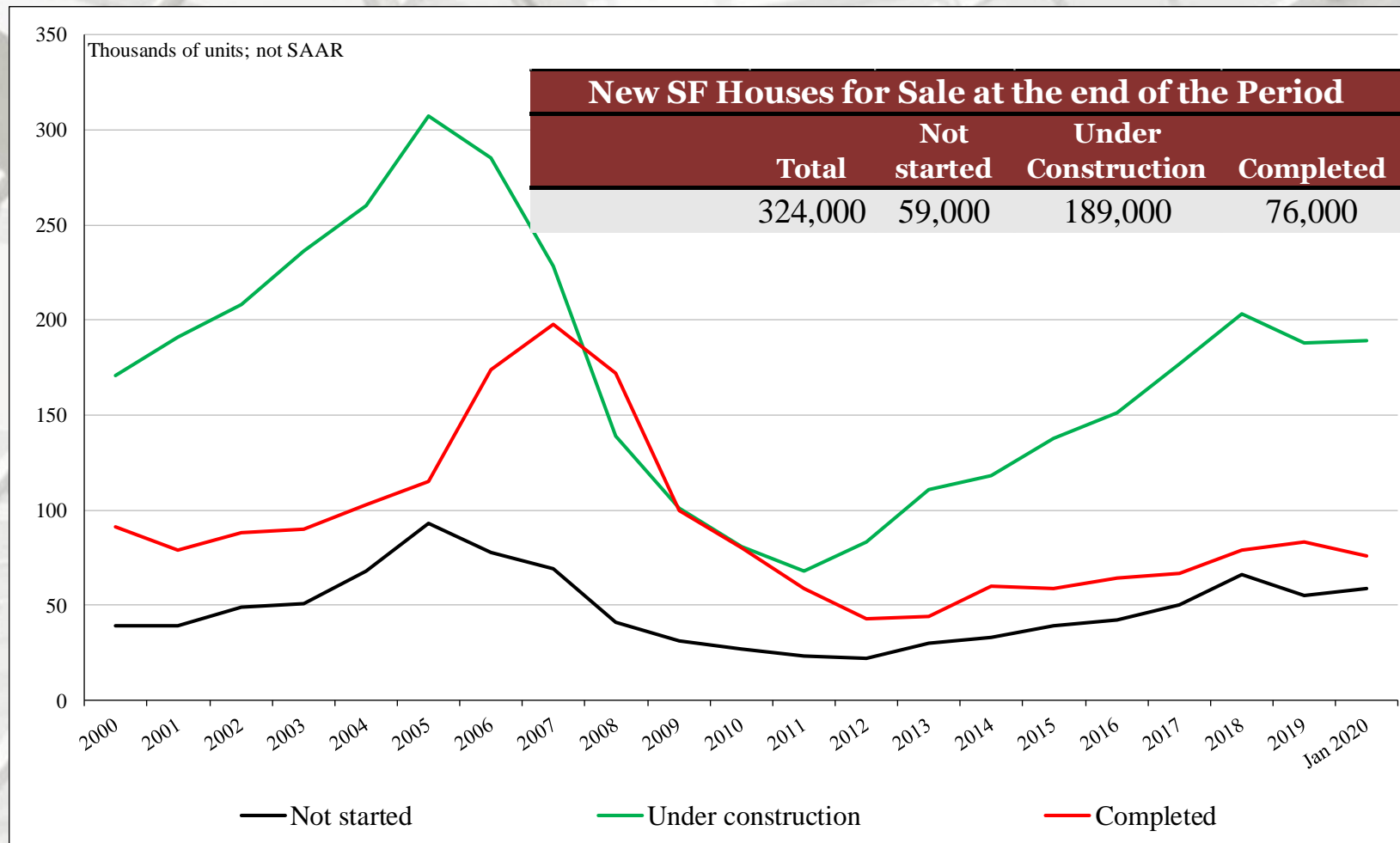
# New SF House Sales: For Sale at End of Period

## New SF Houses for Sale at the end of the Period

|                  | Total   | Not<br>started | Under<br>Construction | Completed |
|------------------|---------|----------------|-----------------------|-----------|
| January          | 324,000 | 59,000         | 189,000               | 76,000    |
| December         | 323,000 | 55,000         | 190,000               | 78,000    |
| 2019             | 347,000 | 60,000         | 211,000               | 76,000    |
| M/M change       | 0.3%    | 7.3%           | -0.5%                 | -2.6%     |
| Y/Y change       | -6.6%   | -1.7%          | -10.4%                | 0.0%      |
| Total percentage |         | 18.2%          | 58.3%                 | 23.5%     |

Not SAAR

# New SF Houses for Sale at End of Period





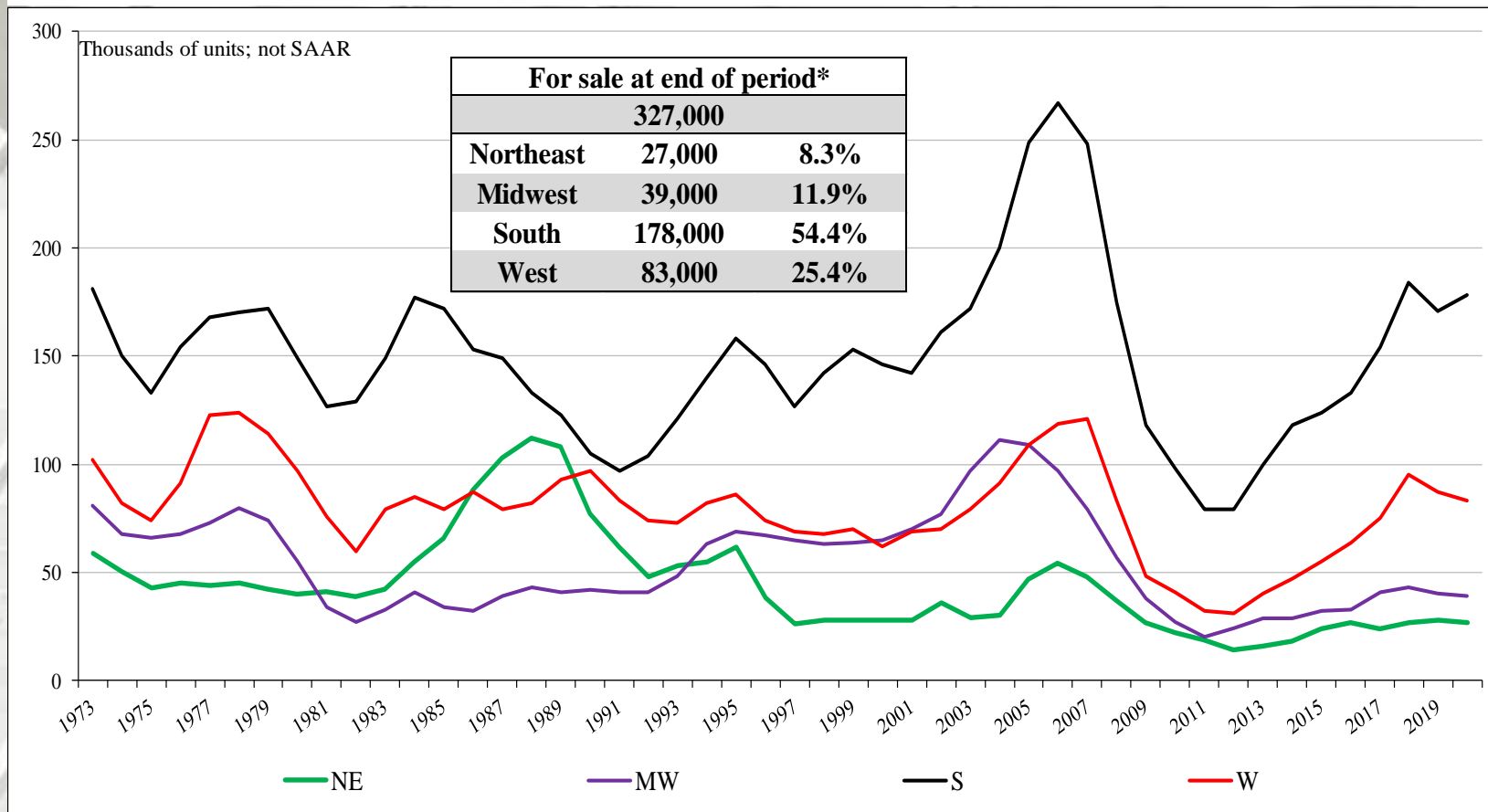
# New SF House Sales

## New SF Houses Sold During Period

|            | Total   | NE     | MW     | S       | W      |
|------------|---------|--------|--------|---------|--------|
| January    | 327,000 | 27,000 | 39,000 | 178,000 | 83,000 |
| December   | 325,000 | 28,000 | 40,000 | 171,000 | 87,000 |
| 2019       | 349,000 | 28,000 | 42,000 | 185,000 | 94,000 |
| M/M change | 0.6%    | -3.6%  | -2.5%  | 4.1%    | -4.6%  |
| Y/Y change | -6.3%   | -3.6%  | -7.1%  | -3.8%   | -11.7% |

Not SAAR

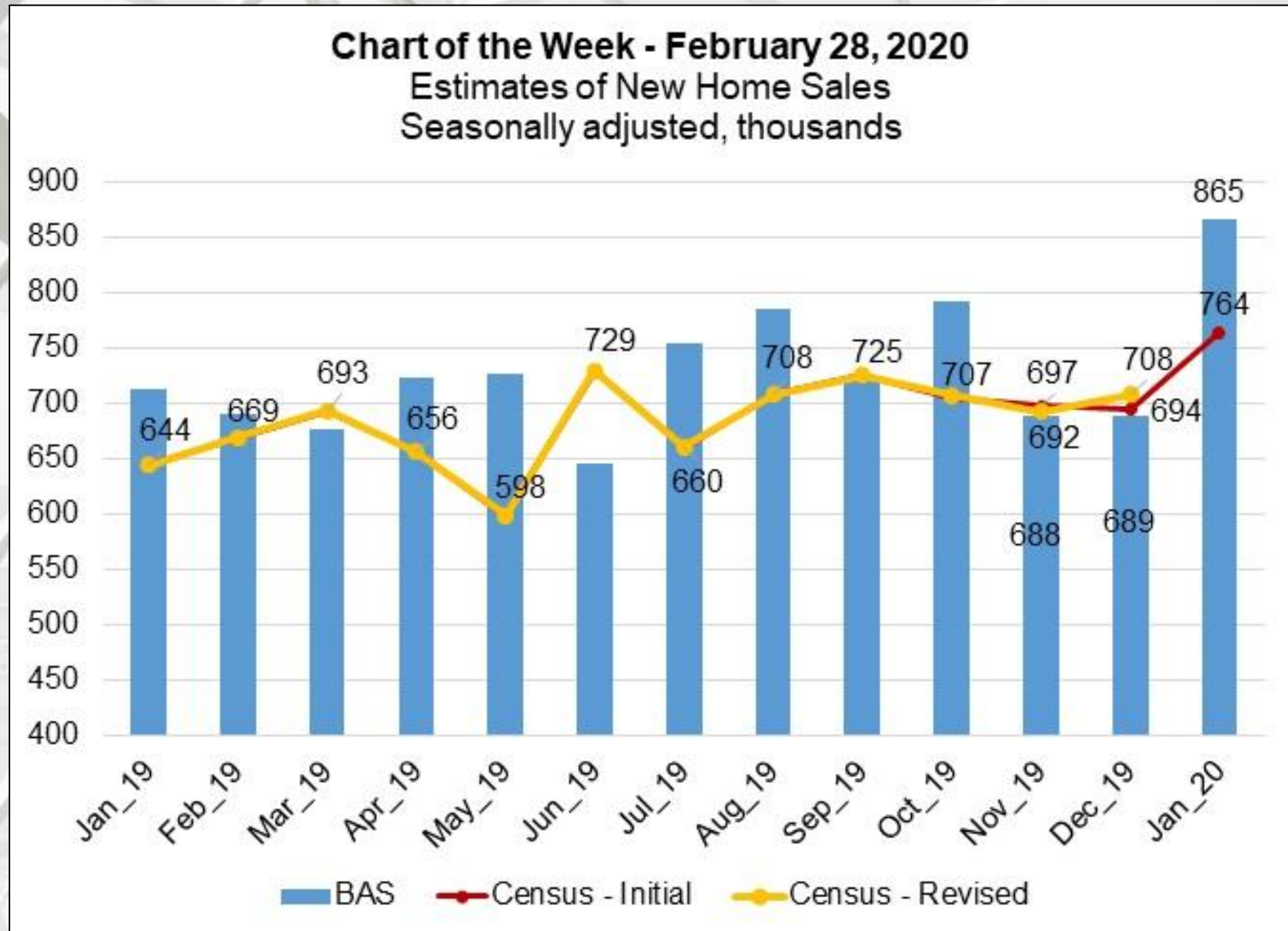
# New SF Houses for Sale at End of Period by Region



NE = Northeast; MW = Midwest; S = South; W = West

\* Percentage of new SF sales.

# New SF House Sales



Sources: U.S. Census Bureau, MBA Builder Applications Survey

# New SF House Sales

## Mortgage Bankers Association (MBA) Chart of the Week

“Earlier this week, the Census Bureau reported that new home sales surged 7.9 percent in January to a seasonally-adjusted annual rate of 764,000 – the strongest pace of new sales since July 2007. This comes as no surprise if you saw the January BAS release two weeks ago.

Utilizing the BAS, which is comprised of mortgage affiliates of homebuilders, and thus tends to be more representative of the activity of larger homebuilders, MBA publishes trends on applications for new home purchases as well as estimates of new home sales. Our survey is estimated to cover over 30 percent of the new home sales market, and we typically release our results within the first two weeks of each month.

We believe that the BAS new home sales estimate has consistently provided an early indicator of the Census numbers. This week's chart shows how the two series compared over 2019, and highlights that for the November and December, the Census revisions have remained close to the BAS estimates. For example, the BAS showed 689,000 new home sales for December, and 11 days later, the Census released showed 694,000 units, which was revised to 708,000 units in its most recent release. Most recently, our estimate showed a large increase in home sales for January at an annualized pace of 865,000 units, and Census followed that with their estimate of 764,000 units.

Early 2020 has been good for home builders. Data on new residential construction and new home sales have started on a strong note, which has been a positive development for this inventory-strapped housing market. In addition to January's big new home sales jump, single-family housing starts and permits have hit their highest levels since the mid-2000's. Will this strong stretch continue? You may want to check the February BAS release – out in mid-March – for an accurate estimate.” – Anh Doan, Mike Fratantoni, and Joel Kan; MBA



# January 2019 Construction Spending

|            | Total Private<br>Residential* | SF        | MF       | Improvement** |
|------------|-------------------------------|-----------|----------|---------------|
| January    | \$554,785                     | \$297,787 | \$57,253 | \$199,745     |
| December   | \$543,578                     | \$289,608 | \$57,268 | \$196,702     |
| 2019       | \$509,091                     | \$271,580 | \$62,438 | \$175,073     |
| M/M change | 2.1%                          | 2.8%      | 0.0%     | 1.5%          |
| Y/Y change | 9.0%                          | 9.6%      | -8.3%    | 14.1%         |

\* billion.

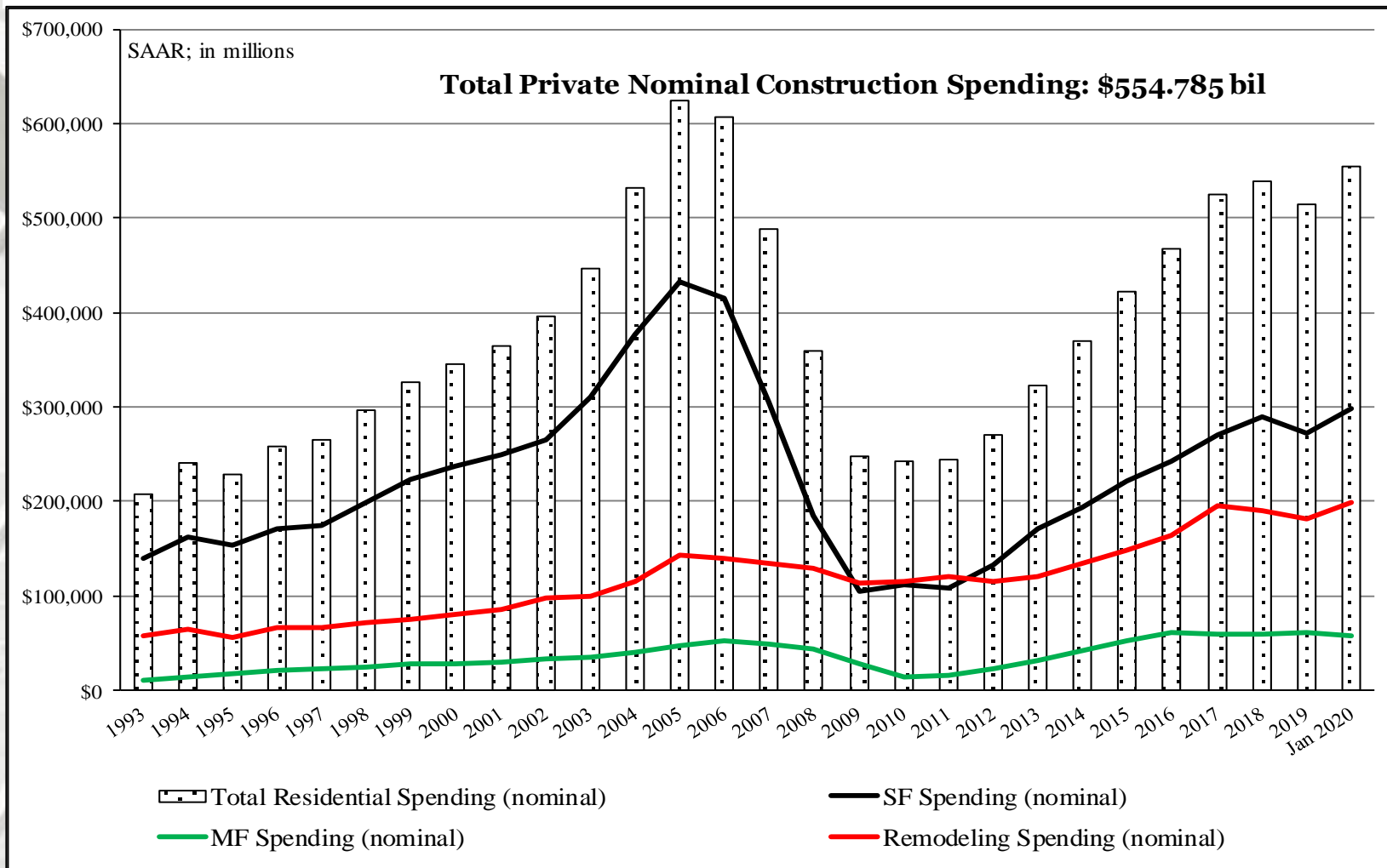
\*\* The US DOC does not report improvement spending directly, this is a monthly estimation:

((Total Private Spending – (SF spending + MF spending)).

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



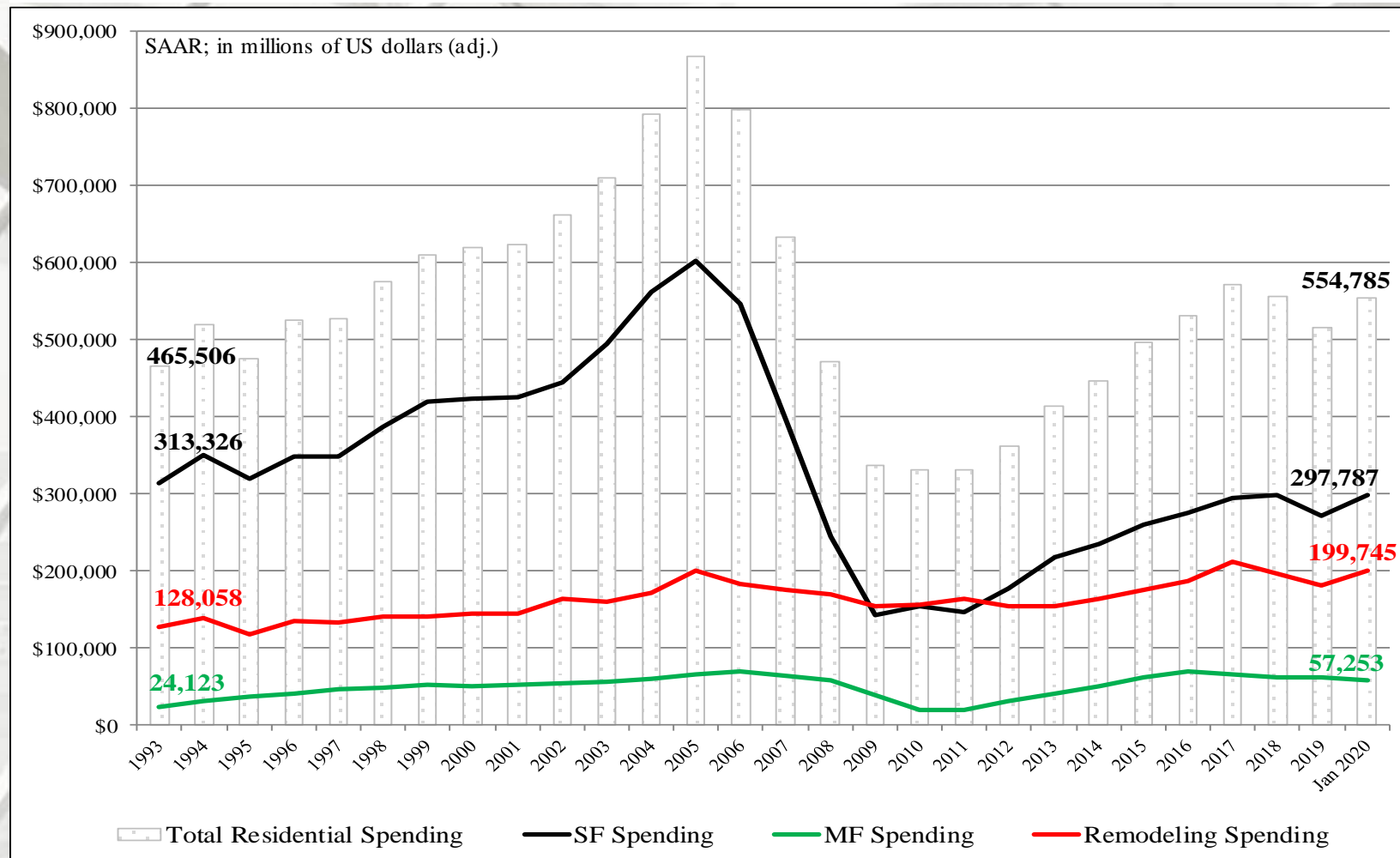
# Total Construction Spending (nominal): 1993 – January 2019



Reported in nominal US\$.

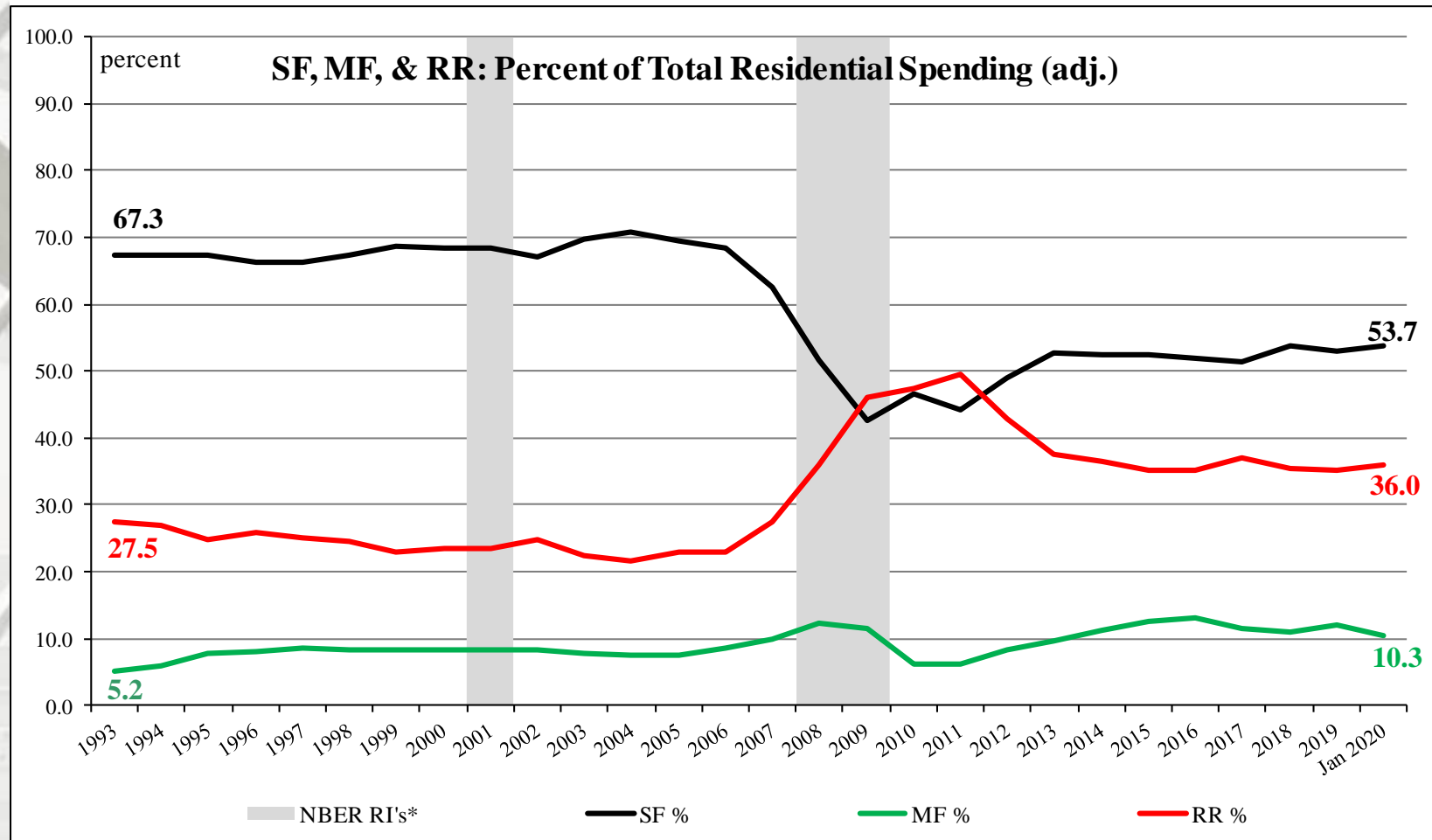
The US DOC does not report improvement spending directly, this is a monthly estimation for 2019.

# Total Construction Spending (adjusted): 1993-2020<sup>^</sup>



Reported in adjusted US\$: 1993 – 2018 (adjusted for inflation, BEA Table 1.1.9); <sup>^</sup>January to January 2019 reported in nominal US\$.  
 \* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# Construction Spending Shares: 1993 to January 2020



## Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5 %

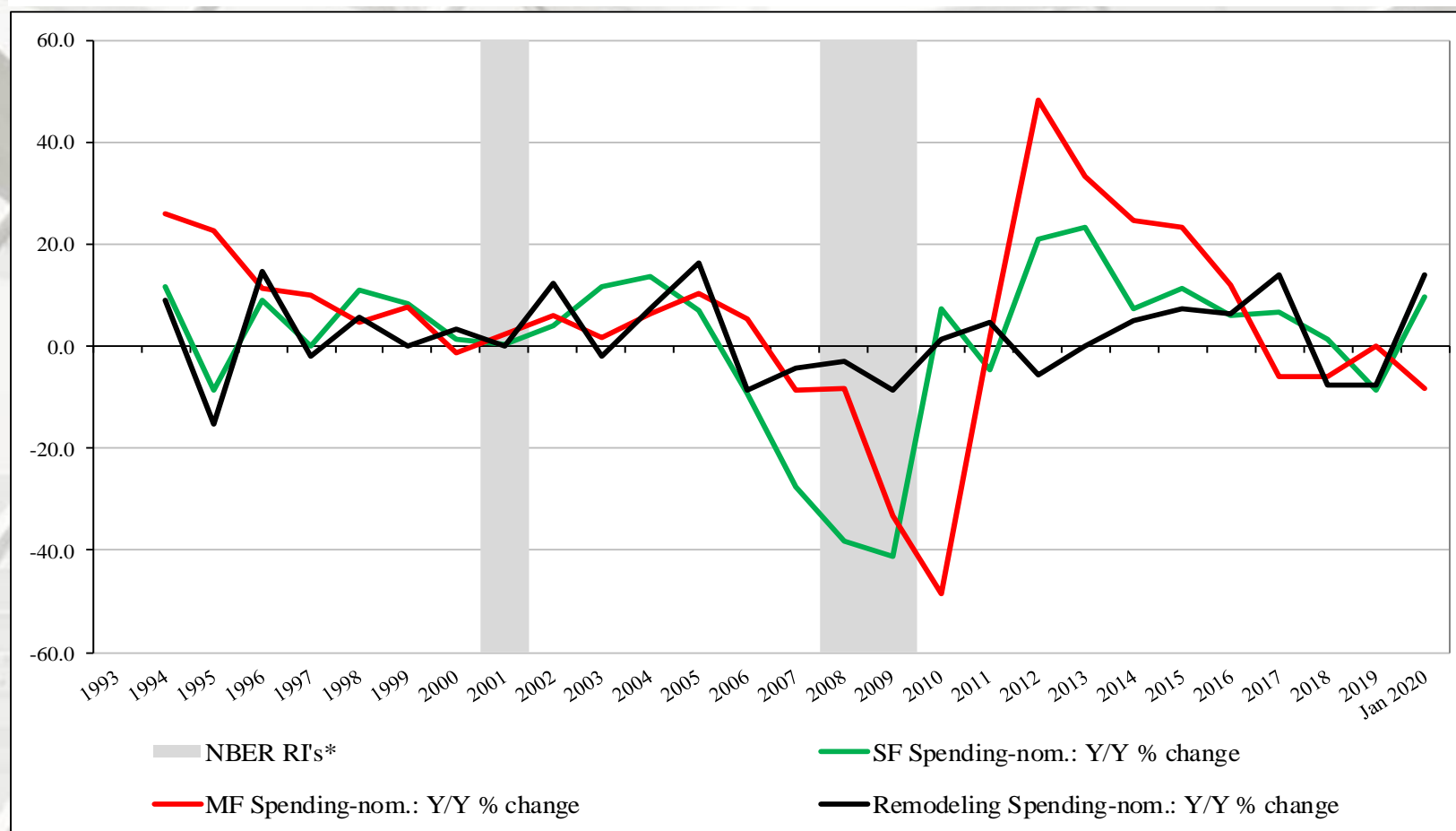
Residential remodeling (RR) spending average: 23.3 % (SAAR).

Note: 1993 to 2019 (adjusted for inflation, BEA Table 1.1.9); January 2020 reported in nominal US\$.

\* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Sources: \* <https://fred.stlouisfed.org/series/USREC>, 2/3/20; <http://www.census.gov/construction/c30/pdf/privsa.pdf> and <http://www.bea.gov/iTable/iTable.cfm>; 3/2/20

# Adjusted Construction Spending: Y/Y Percentage Change, 1993 to January 2020



## Nominal Residential Construction Spending: Y/Y percentage change, 1993 to January 2019

Presented above is the percentage change of inflation adjusted Y/Y construction spending. SF and RR expenditures were positive on a percentage basis, year-over-year (2020 data reported in nominal dollars).

\* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

# Remodeling

## Metrostudy/Zonda

### Residential Remodeling Index (RRI)

“Big-ticket remodeling spending increased 2.5% year over year (YOY) in the fourth quarter of 2019 and 0.5% from the third quarter, Metrostudy/Zonda announced in its release of the latest [Residential Remodeling Index](#) (RRI). The index rose to a new high of 119.6, indicating economic conditions known to influence remodeling activity are 19.6% higher than the old peak in 2007.

Growth in the RRI marks the 31st consecutive quarter of YOY gains since national remodeling bottomed in 2011. Despite the increase, YOY growth is coming at an increasingly moderate pace compared with the nearly 5% growth the industry averaged between 2016 and 2018. Big-ticket remodeling activity growth averaged 3.1% YOY growth in 2019, including annual growth of 2.5% for the final two quarters of 2019.

Metrostudy/Zonda expects remodeling activity to continue to expand over the next few years, but forecasts growth to remain moderate as the economic cycle eventually wanes and low housing turnover takes some potential off the table. The RRI is projected to average YOY gains of 2.6% in both 2020 and 2021, before firming to an average of 3% in 2022.” – Vincent Salandro, Assistant Editor, Remodeling and ProSales



# Remodeling

## Metrostudy/Zonda

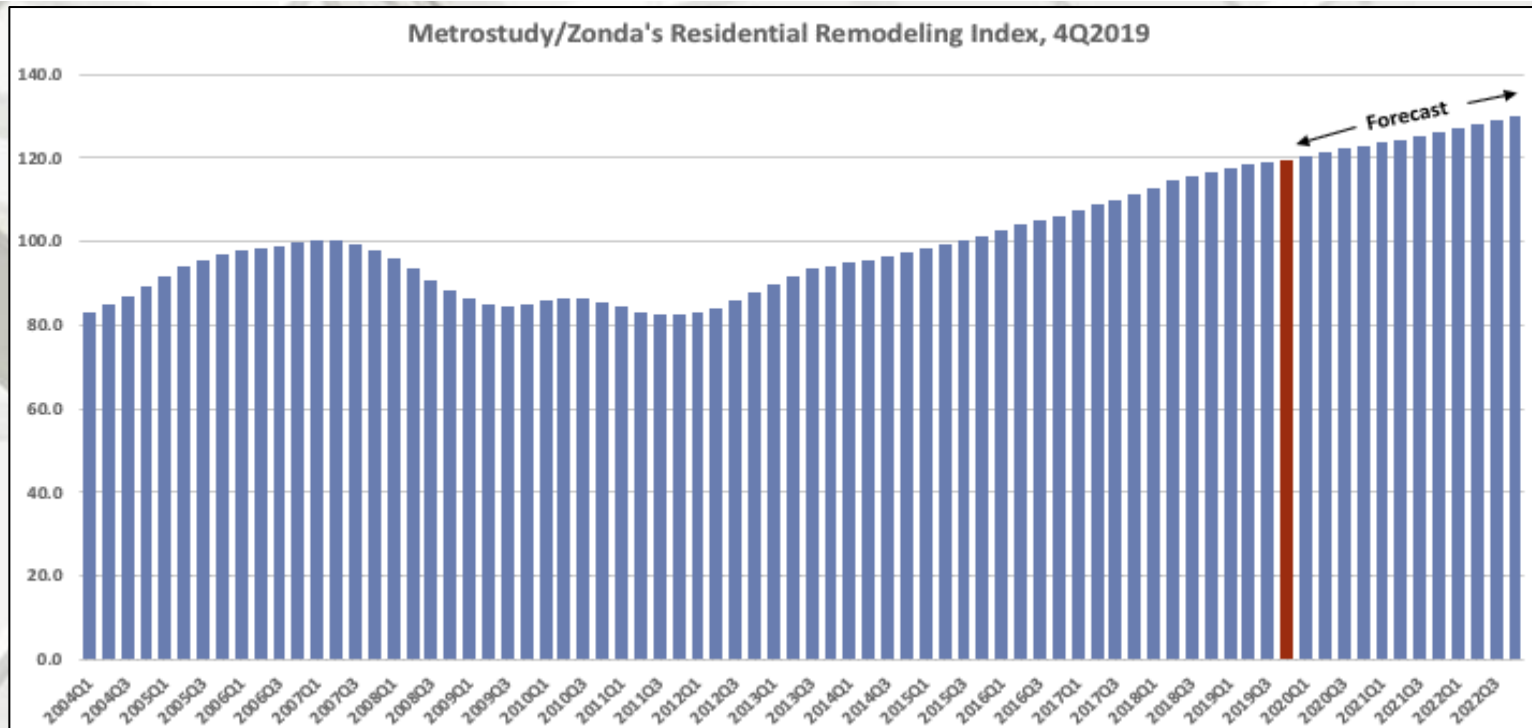
### Residential Remodeling Index (RRI)

““The remodeling industry continues to ride the strength of the economy, but the tight housing market and high cost of labor has caused slower renovation growth compared to years past, as some of the activity that is initiated in the wake of new homeownership has been limited,” Metrostudy/Zonda chief economist Mark Boud said in a public statement. “In December, the inventory of existing homes in the U.S. dropped to a 3.0-month supply, the lowest since the National Association of Realtors began tracking that data in 1999.”

Boud said the shortage of existing homes for sale is made worse by low levels of new home construction, a trend expected to continue over the next several years as builders are forecast to encounter difficulty delivering homes in lower price ranges. Boud said as more Americans choose to stay put in the tight housing market, they will upgrade their current homes, an offset that will continue to benefit remodeling in the near future.

Metrostudy/Zonda projects the number of remodeling projects worth \$1,000 or more will total 13.3 million in 2020, an increase of nearly 350,000, or 2.67%, compared to 2019. Big-ticket flooring, exterior, and basement projects are expected to experience the largest increases in 2020 compared to the previous year, while big-ticket pool, siding, and addition projects will have the smallest YOY increases. The inflation-adjusted value of big-ticket remodeling projects is forecast to increase 4.21% YOY to \$212.2 billion in 2020.” – Vincent Salandro, Assistant Editor, Remodeling and ProSales

# Remodeling



## Metrostudy/Zonda Residential Remodeling Index (RRI)

“According to Metrostudy/Zonda, 94.2% of analyzed metropolitan statistical areas are expected to see growth in 2020 project volume, and among these markets, the average growth rate is expected to be 3.2%. Major metros in Florida (including Tampa-St. Petersburg-Clearwater, Orlando-Kissimmee-Sanford, Miami-Fort Lauderdale-West Palm Beach, and Jacksonville), Colorado (including Boulder and Denver-Aurora-Lakewood), Texas (Houston-The Woodlands-Sugar Land), and Nevada (Las Vegas-Henderson-Paradise) are among the MSAs not projected to see growth in project volume in 2020.” – Vincent Salandro, Assistant Editor, Remodeling and ProSales

# Remodeling

## Kitchen & Bath Market Index (KBMI)

### Kitchen & Bath Market Index Projects a Robust 2020

The Q4 2019 index reported industry health and optimism at their highest levels since the launch of the KBMI.

“The [National Kitchen & Bath Association \(NKBA\)](#) and [John Burns Real Estate Consulting's](#) KBMI revealed an “energetic expansion” in the final quarter of 2019 despite showing signs of a slower pace throughout the year. The Q4 2019 KBMI posted a reading of 69.8, well above the previous two quarterly readings of 64.3 in Q3 and 65.4 in Q2. Any reading above 50 indicates positive growth in the industry.

“A strong Q4 is great news for industry professionals and consumers going into 2020,” Bill Darcy, CEO of NKBA, said in a public statement. “As we move into the new year, we’re encouraged that this dynamic industry continues to grow and business outlooks are positive.”

The KBMI is based on online survey data from NKBA members across three metrics: the respondent's last quarter sales growth compared to the same quarter in the prior year, expectations for the next quarter's sales compared to the same quarter in the prior year, and the respondent's view of the overall health of the industry.

Despite a strong fourth quarter, weaker business performance in the first three quarters of 2019 dragged down year-end revenues for NKBA members relative to 2018. Across all segments, the industry reported total revenues were down 0.4% year over year (YOY), compared to 5.8% YOY sales growth reported in 2018.” – Vincent Salandro, Assistant Editor, Remodeling and ProSales

# Remodeling

## Kitchen & Bath Market Index (KBMI)

### Kitchen & Bath Market Index Projects a Robust 2020

“NKBA members reported feeling more positively about future market conditions than current conditions. The more positive future outlook likely can be partially attributed to an increase in home builds and sales, according the KBMI, due to the future construction and remodeling opportunities these trends provide. Respondents reported expecting robust 10.8% full-year sales growth in 2020, up significantly from the modest mid-single digit growth expectations reported in earlier reports in 2019.

Despite economic uncertainty through 2019, including fears of a recession and the impact of tariffs, NKBA members rated the state of the economy at a 7 out of 10 in the fourth quarter KBMI. Only 7% of respondents rated the economy below a 5. Among respondents, 86% of manufacturers are maintaining or increasing current levels of capital investments, suggesting the industry is confident revenue growth will continue in the short-term. Members also rated industry health at a 7.2 out of 10, up from 6.7 in the previous three quarters.

Despite generally positive outlooks from NKBA members, respondents indicated the cost and availability of skilled workers as their primary business concern. Certain estimates suggested as many as 750,000 jobs will open in the design and construction industry through 2026. Respondents also indicated the cost of materials as a top business challenge and concern.

NKBA members reported countertops are consumers' primary “splurge” item in both kitchen and bathroom jobs. Homeowners also are increasingly trading up on stoves and ranges and cabinets in the kitchen, and vanities, medicine cabinets, and tiled showers in the bathroom, according to the fourth quarter KBMI.” – Vincent Salandro, Assistant Editor, Remodeling and ProSales

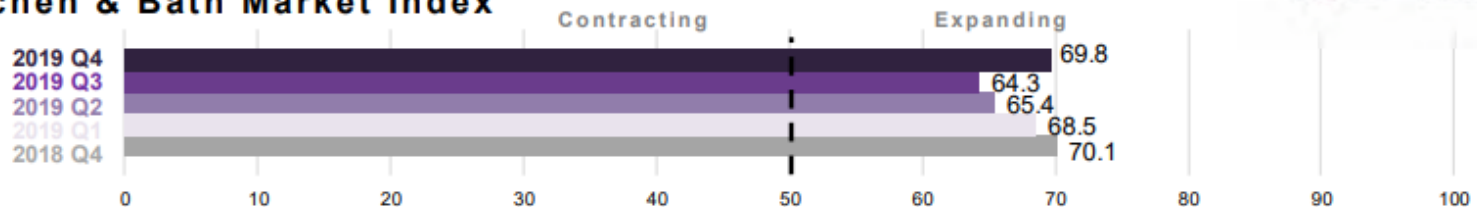


# Remodeling

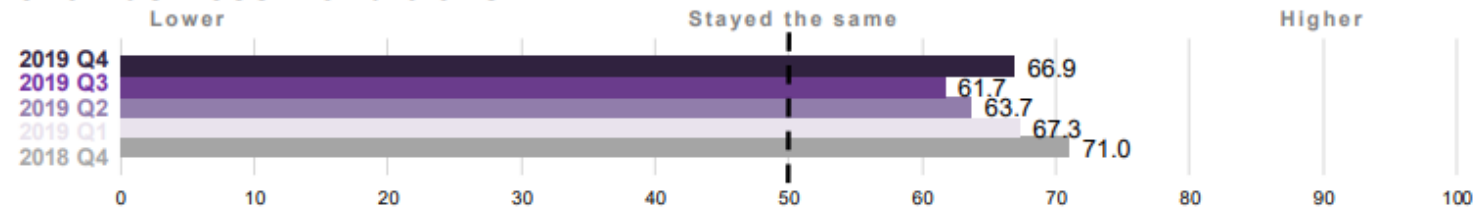
## EXECUTIVE SUMMARY



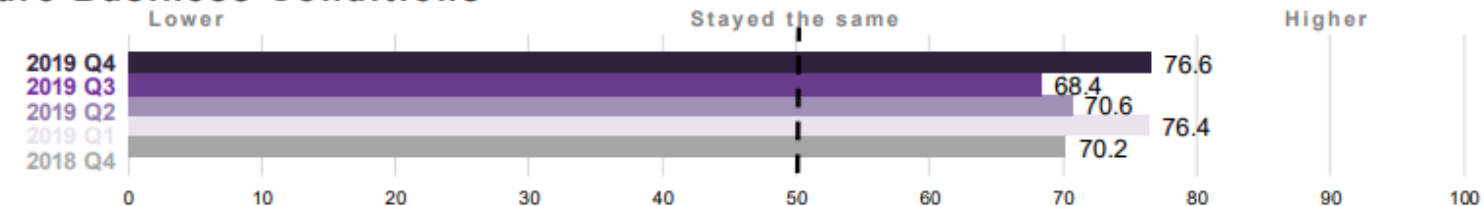
### Kitchen & Bath Market Index



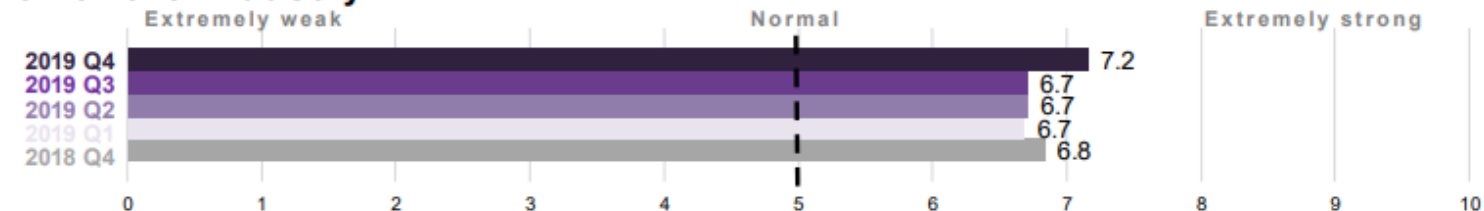
### Current Business Conditions



### Future Business Conditions



### Health of the Industry



Sources: NKBA; John Burns Real Estate Consulting, LLC (Data: 4Q19, Pub: Feb-20) \*Values are KBMI totals.

See the methodology note on page 4 for more information about our weighting methodology.

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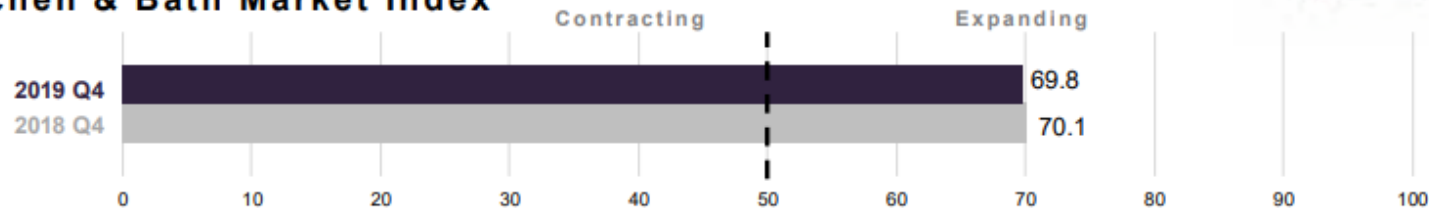


# Remodeling

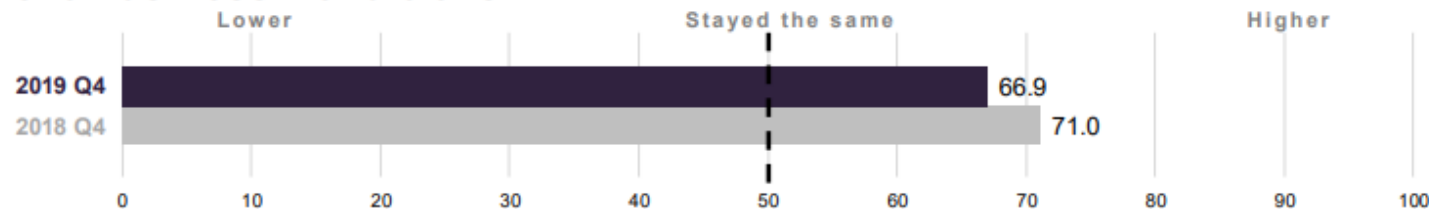
## KBMI YEAR-OVER-YEAR COMPARISON



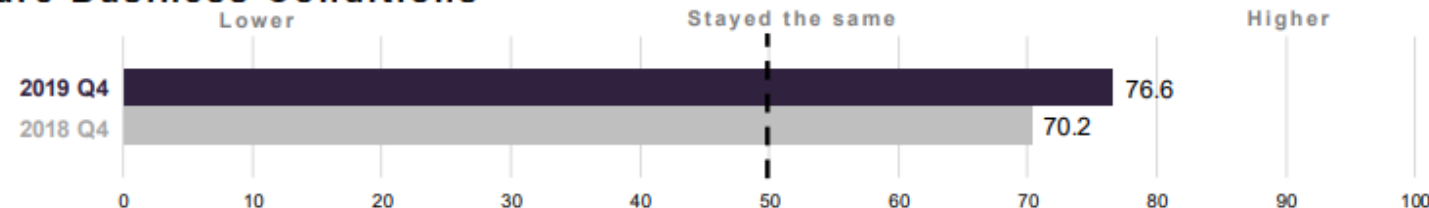
### Kitchen & Bath Market Index



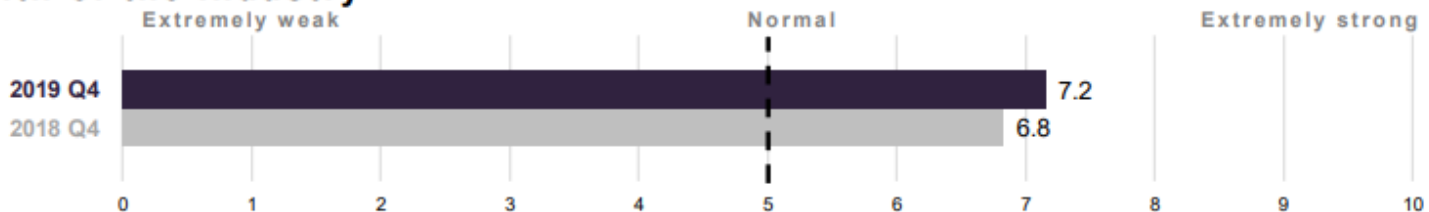
### Current Business Conditions



### Future Business Conditions



### Health of the Industry



Sources: NKBA; John Burns Real Estate Consulting, LLC (Data: 4Q19, Pub: Feb-20) \*Values are KBMI totals.

See the methodology note on page 4 for more information about our weighting methodology.

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# Existing House Sales

**National Association of Realtors**

**January 2019 sales: 5.460 thousand**

|            | <b>Existing<br/>Sales</b> | <b>Median<br/>Price</b> | <b>Mean<br/>Price</b> | <b>Month's<br/>Supply</b> |
|------------|---------------------------|-------------------------|-----------------------|---------------------------|
| January    | 5,460,000                 | \$266,300               | \$302,700             | 3.1                       |
| December   | 5,530,000                 | \$274,500               | \$311,000             | 3.0                       |
| 2019       | 4,980,000                 | \$249,400               | \$288,200             | 3.8                       |
| M/M change | -1.3%                     | -3.0%                   | -2.7%                 | 3.3%                      |
| Y/Y change | 9.6%                      | 6.8%                    | 5.0%                  | -18.4%                    |

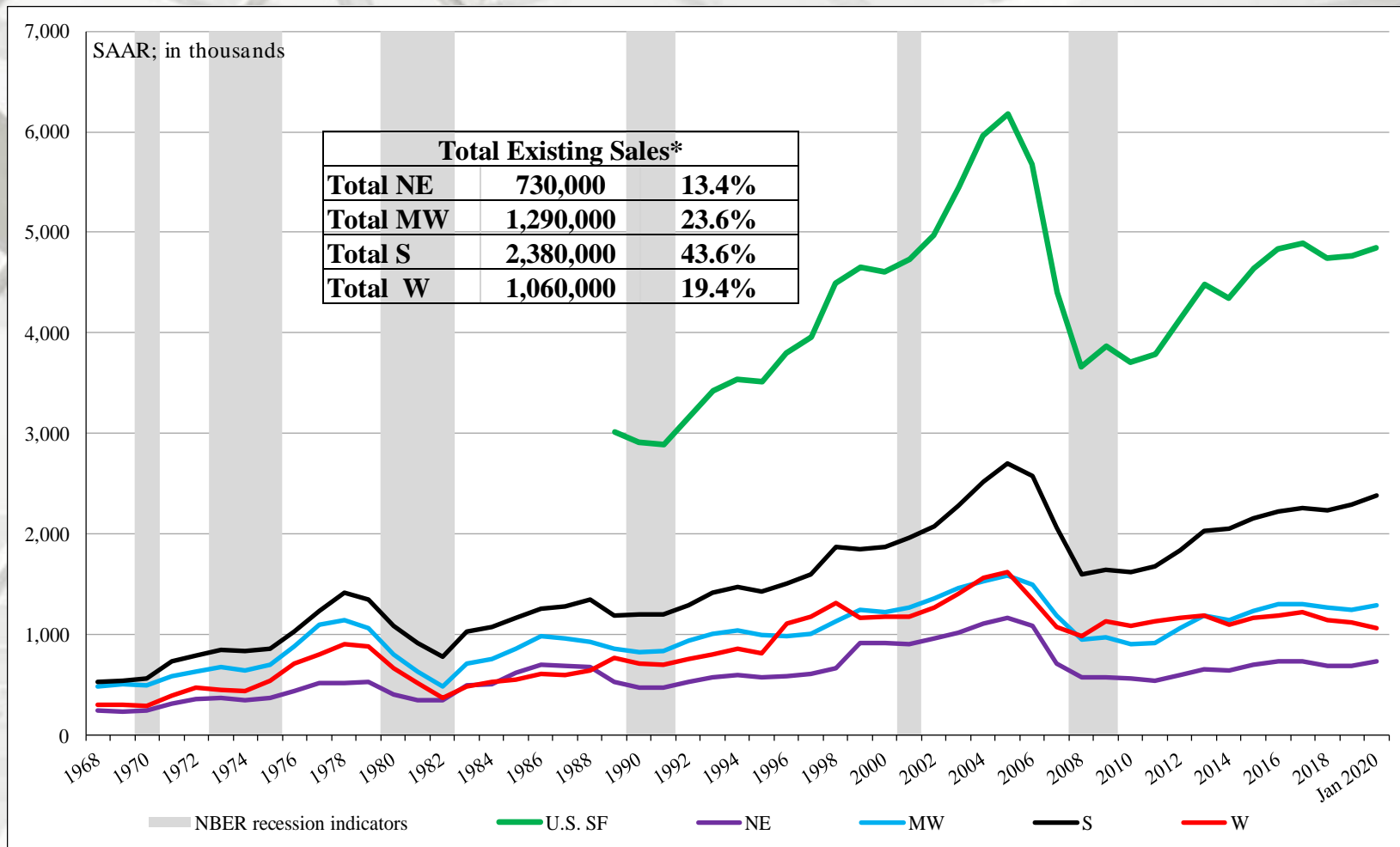
All sales data: SAAR

# Existing House Sales

|            | Existing SF Sales | SF Median Price | SF Mean Price |           |
|------------|-------------------|-----------------|---------------|-----------|
| January    | 4,850,000         | 268,600         | 303,700       |           |
| December   | 4,910,000         | 277,700         | 312,300       |           |
| 2019       | 4,420,000         | 251,200         | 288,900       |           |
| M/M change | -1.2%             | -3.0%           | -2.8%         |           |
| Y/Y change | 9.7%              | 6.9%            | 5.1%          |           |
|            | NE                | MW              | S             | W         |
| January    | 730,000           | 1,290,000       | 2,380,000     | 1,060,000 |
| December   | 730,000           | 1,260,000       | 2,370,000     | 1,170,000 |
| 2019       | 680,000           | 1,190,000       | 2,130,000     | 980,000   |
| M/M change | 0.0%              | 2.4%            | 0.4%          | -9.4%     |
| Y/Y change | 7.4%              | 8.4%            | 11.7%         | 8.2%      |

All sales data: SAAR.

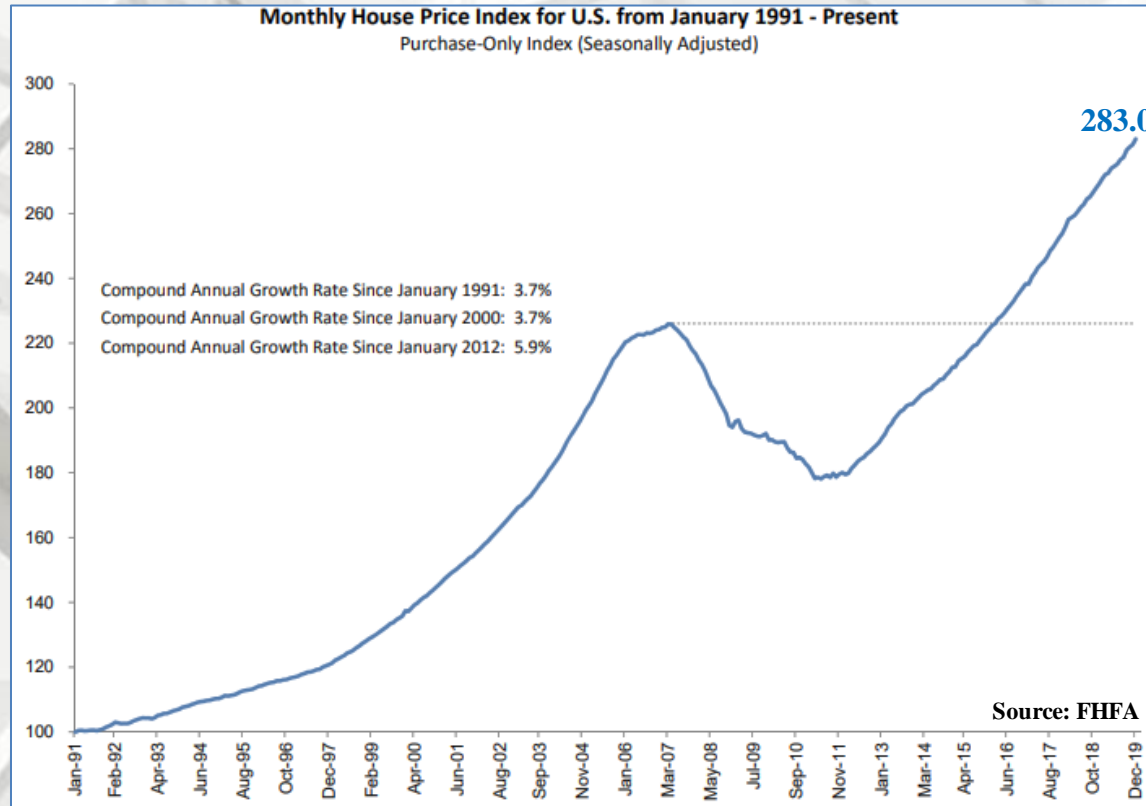
# Existing House Sales



NE = Northeast; MW = Midwest; S = South; W = West

\* Percentage of existing sales.

# U.S. Housing Prices



## U.S. House Prices Rise 1.3 Percent in Fourth Quarter; Up 5.1 Percent from Last Year

“U.S. house prices rose in the fourth quarter of 2019, up **1.3 percent** according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose **5.1 percent** from the fourth quarter of 2018 to the fourth quarter of 2019. FHFA's seasonally adjusted monthly index for December was up **0.6 percent** from November.

“Growth in U.S. home prices stabilized at the end of 2019 with fourth quarter prices increasing 5.1 percent from the same period a year ago. The revised measure of home price growth in the third quarter was also 5.1 percent. Prices in the Mountain region had the highest gains, posting a 6.7 annual growth rate in the fourth quarter.” – Dr. Lynn Fisher, Deputy Director of the Division of Research and Statistics, FHFA



# U.S. Housing Prices

## **S&P CoreLogic Case-Shiller Index Continues Shows Growth In Annual Home Price Gains To End 2019**

**Data released for December 2019 show that home prices continue to increase at a modest rate across the U.S.**

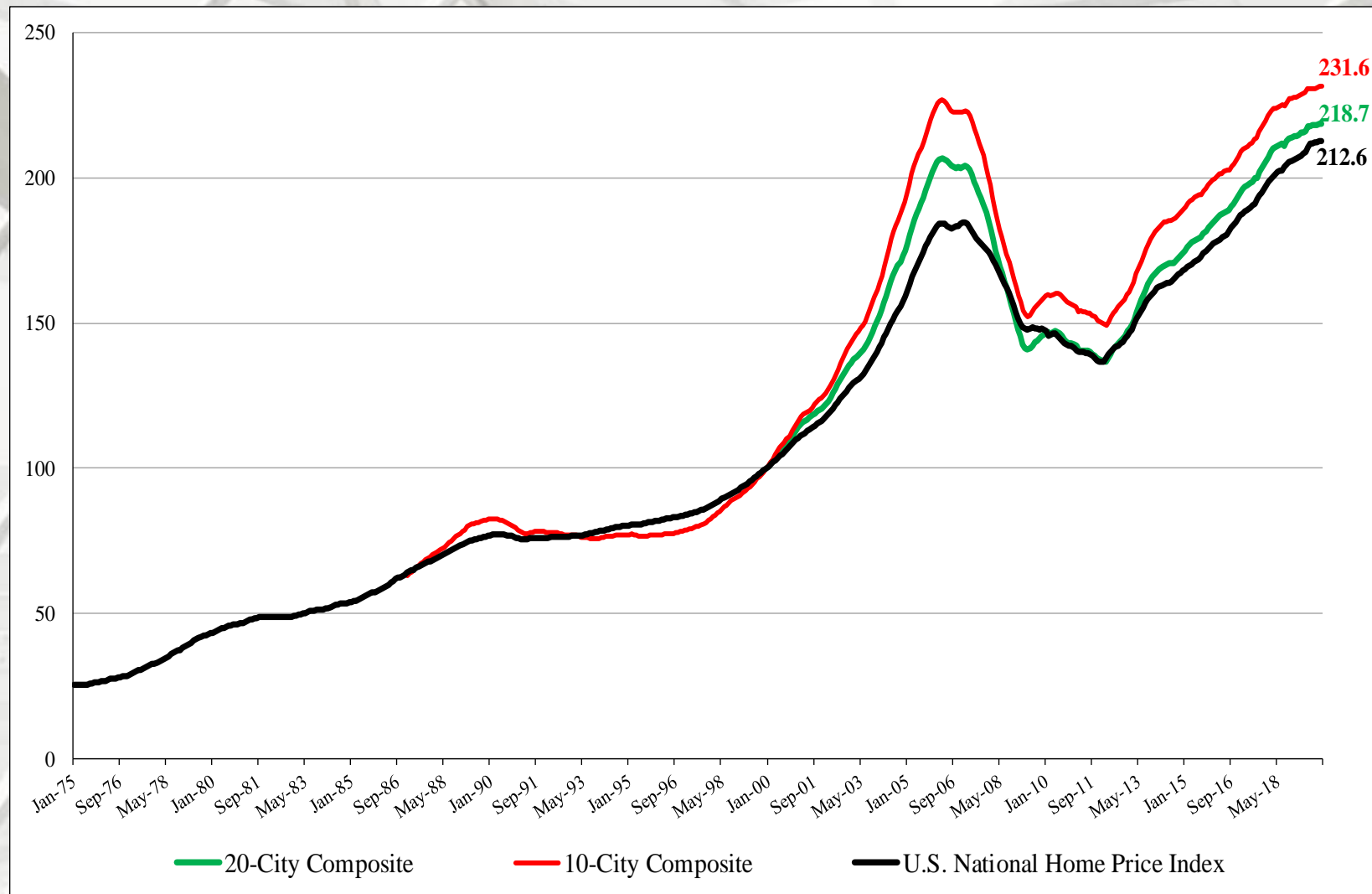
“The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 3.8% annual gain in December, up from 3.5% in the previous month. The 10-City Composite annual increase came in at 2.4%, up from 2.0% in the previous month. The 20-City Composite posted a 2.9% year-over-year gain, up from 2.5% in the previous month.

Phoenix, Charlotte and Tampa reported the highest year-over-year gains among the 20 cities. In December, Phoenix led the way with a 6.5% year-over-year price increase, followed by Charlotte with a 5.3% increase and Tampa with a 5.2% increase. Twelve of the 20 cities reported greater price increases in the year ending December 2019 versus the year ending November 2019.

The U.S. housing market continued its trend of stable growth in December. December’s results bring the National Composite Index to a 3.8% increase for calendar 2019. This marks eight consecutive years of increasing housing prices (an increase which is echoed in our 10- and 20-City Composites). At the national level, home prices are 59% above the trough reached in February 2012, and 15% above their pre-financial crisis peak. Results for 2019 were broad-based, with gains in every city in our 20-City Composite.

At a regional level, Phoenix retains the top spot for the seventh consecutive month, with a gain of 6.5% for December. Charlotte and Tampa rose by 5.3% and 5.2% respectively, leading the Southeast region. The Southeast has led all regions for the past year. As was the case last month, after a long period of decelerating price increases, the National, 10-City, and 20-City Composites all rose at a faster rate in December than they had done in November; 12 of our 20 cities likewise saw accelerating prices. It is, of course, too soon to say whether this marks an end to the deceleration or is merely a pause in the longer-term trend.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

# S&P/Case-Shiller Home Price Indices



# U.S. Housing Market

## Nasdaq

### **How Coronavirus Can Shake the Thriving U.S. Housing Sector**

“... As the virus has now tightened its grip on 55 countries, with no signs of abating any time soon, a clear picture of the global economic impact has begun to emerge. No industry, including U.S. construction, is immune to it. The U.S. housing industry, which has so far been grappling with shortage of skilled labor, higher land costs and tariff-related woes, is expected to witness another phase of the coronavirus outbreak-induced instability.

As China’s manufacturing output is expected to decline with factories temporarily sidelined, U.S. building product supply chains will likely get affected. This can potentially raise costs for builders. According to Richard Branch, chief economist at Dodge Data & Analytics, nearly 30% of products used in U.S. building construction are imports from China. This makes China the largest single supplier to the United States. Meanwhile, Canada and Mexico supply about 20% each.

Hence, upon failure of quick containment of the virus, the supplies may continue to tighten causing a rise in building costs. This will probably delay or cancel projects. To this end, it is important to note that luxury home builder Toll Brothers Inc. highlighted during its fiscal first-quarter earnings call that the outbreak in China led to shortages of lighting fixtures and small appliances, prompting it to delay the sale of 11 homes in California, which is one of the company’s biggest markets.” – Shrabana Mukherjee, Contributor, Zacks

# U.S. Housing Market

## Nasdaq

### **How Coronavirus Can Shake the Thriving U.S. Housing Sector**

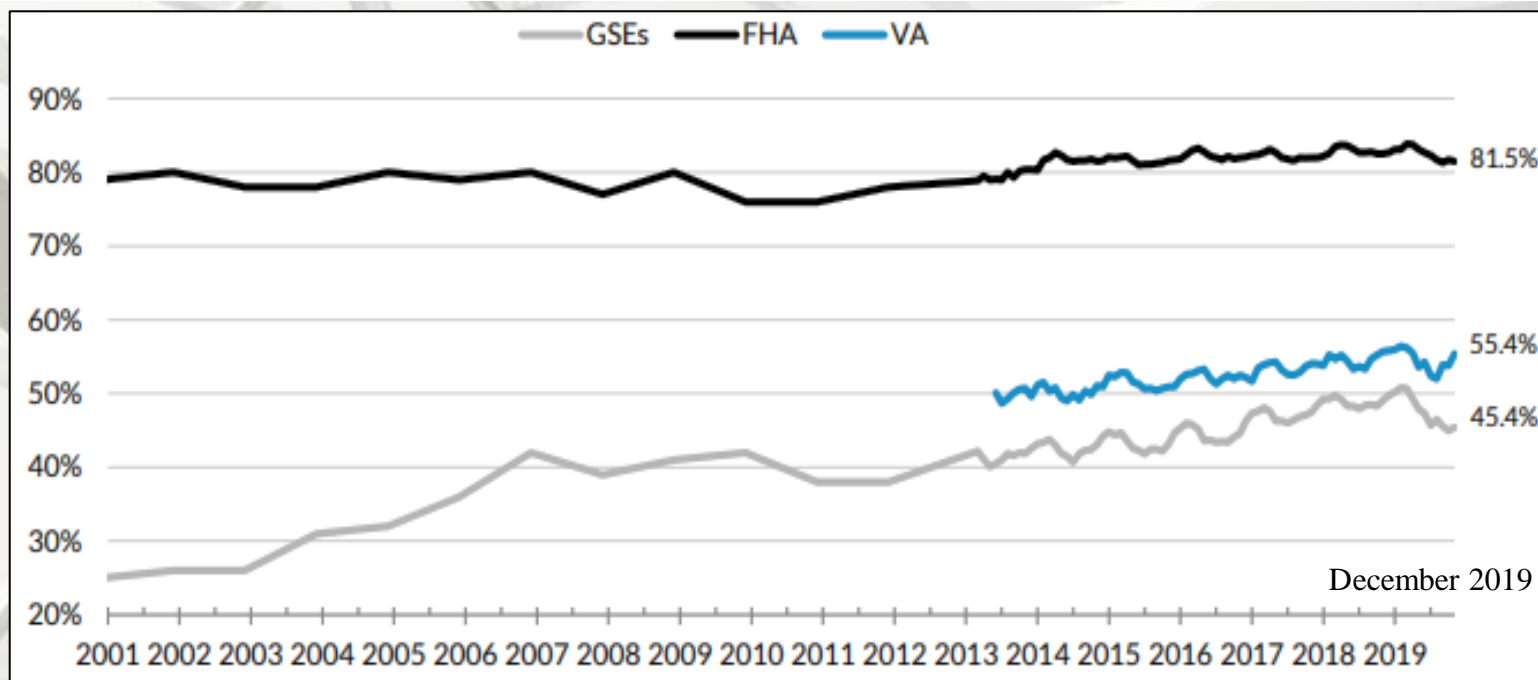
“Now, the extent of the impact is subject to the capability of U.S. builders to substitute products from China with supplies from domestic or other international vendors. Notably, Asian countries, like Japan, South Korea and Vietnam, which also export building products to the United States, hugely depend on China for raw materials.

The coronavirus outbreak will mostly hurt those U.S. real estate companies which depend on material supply from China. As the outbreak has taken the shape of a global crisis, material supply chain disruptions could also impact construction sites and development pipelines.

Dodge Data & Analytics currently expects a modest decline in construction starts this year. Among many other headwinds that the U.S. economy is currently facing, the virus outbreak will likely lead to economic slowdown and push starts lower. ...” – Shrabana Mukherjee, Contributor, Zacks



# First-Time House Buyers



Sources: eMBS, Federal Housing Administration (FHA) and Urban Institute.

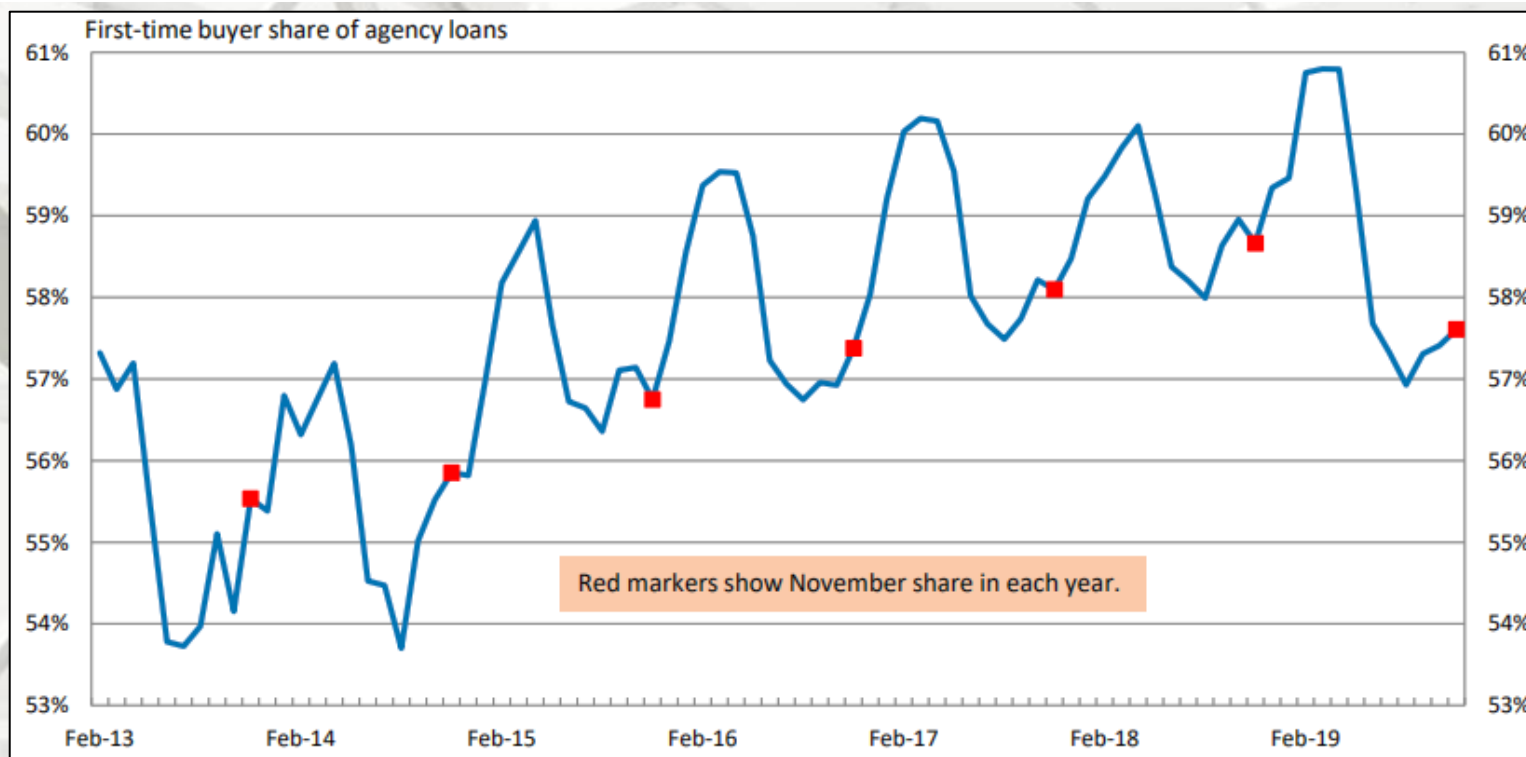
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

## Urban Institute

“In December 2019, the FTHB share for FHA, which has always been more focused on first time home buyers, fell very slightly to 81.5 percent. The FTHB share of VA lending increased in December, to 55.4 percent. The GSE FTHB share in December was 45.4 percent. The bottom table shows that based on mortgages originated in December 2019, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and higher LTV, thus paying a higher interest rate.” – Bing Lai, Research Associate, Housing Finance Policy Center



# First-Time House Buyers



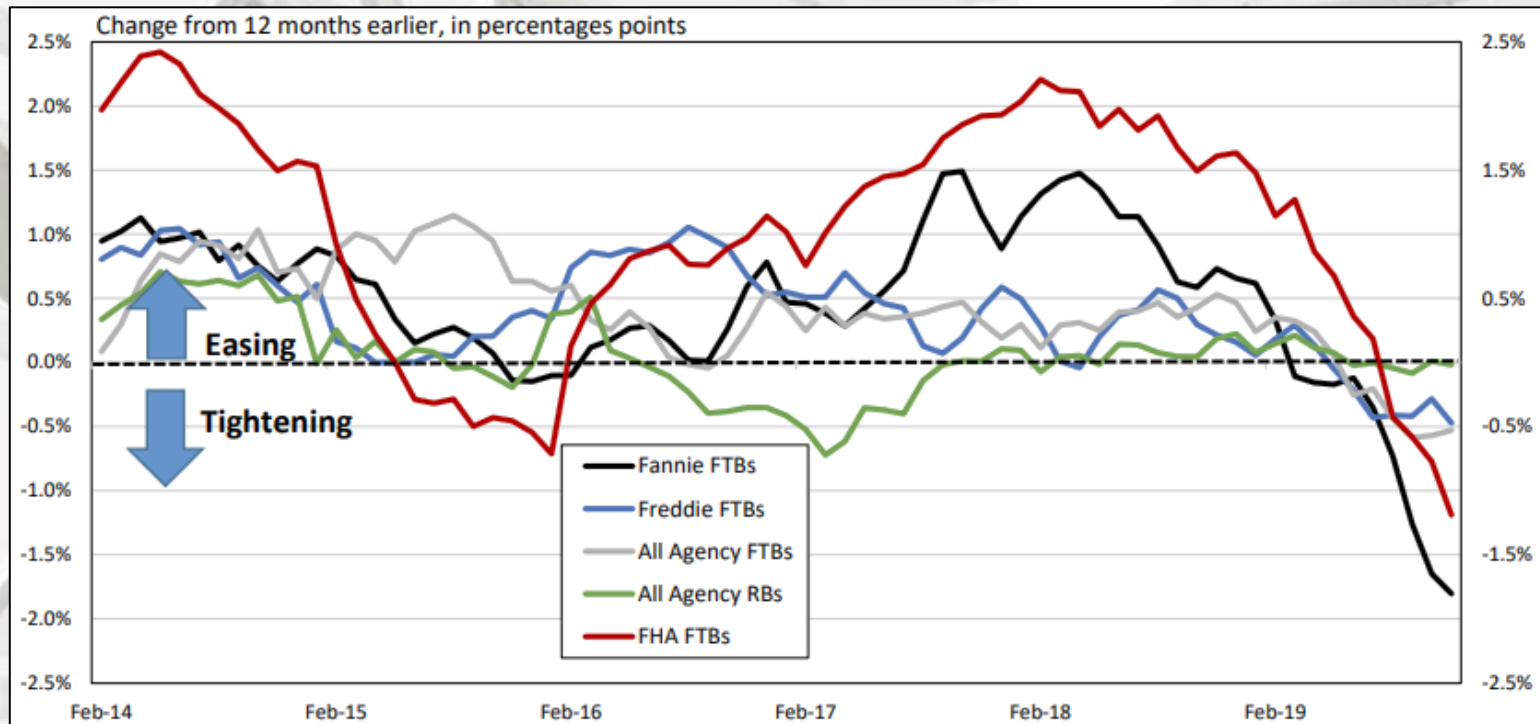
Note: Data are for primary owner-occupied agency purchase loans.

## AEI Housing Center

### Agency First-time Buyer (FTB) Loan Share

“The Agency FTB loan share was 57.6% in November 2019. This is down from 58.7% in November 2018 and represents a significant trend reversal from the last 5 years, during which the FTB share continuously marched up. The decline in FTB volume has helped reduce the overall level of mortgage risk. This is evidence of counter-cyclical policies, especially appropriate at this point in the 8-year long home price boom.” – Edward Pinto and Tobias Peter, AEI Housing Center

# First-Time House Buyers



Note: Includes all types of NMRI purchase loans (primary owner-occupied, second home, and investor loans).

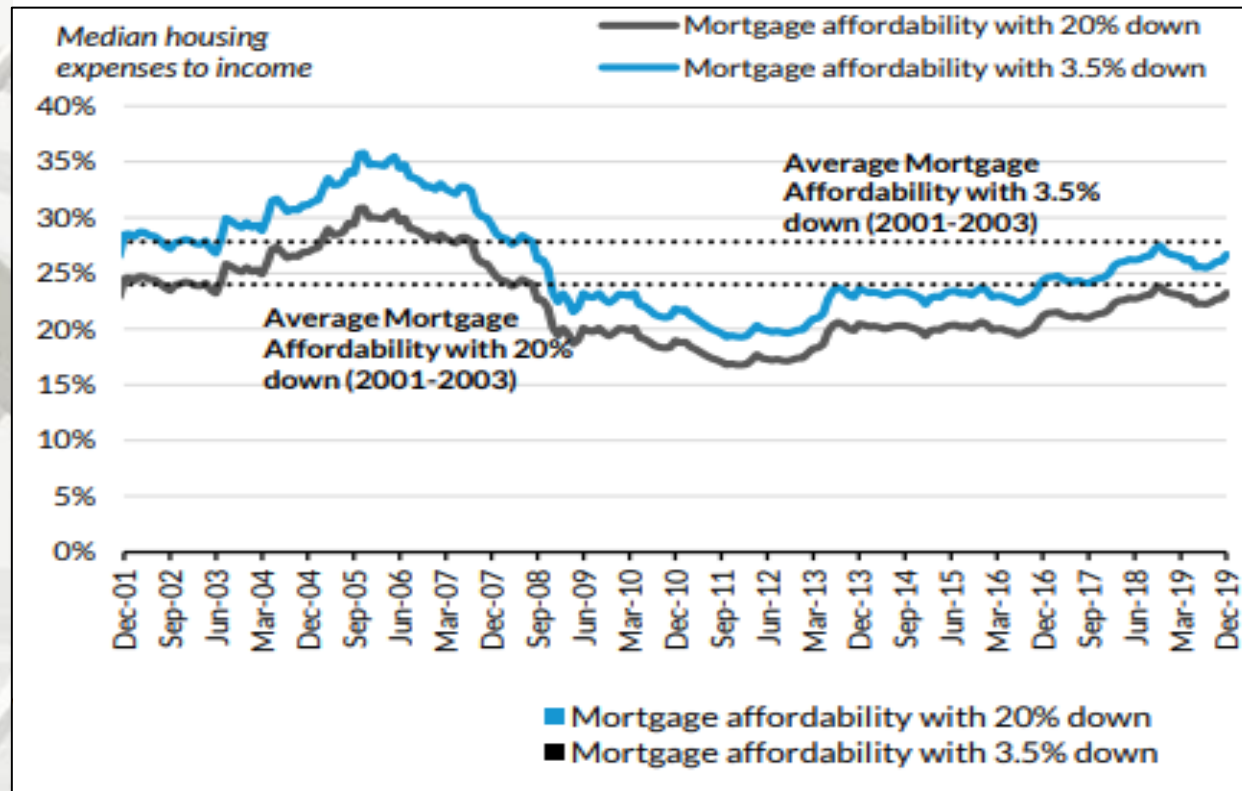
## AEI Housing Center

### FTB Purchase Loan NMRI: Credit Tightening Continues

“The First-time Buyer (FTB) MRI continued to decrease (y-o-y) led by Fannie, which has been tightening since March 2019. FHA’s First-time Buyer MRI stood at 27.6% in November, down 1.2 ppt from a year earlier. While this change is encouraging, the decrease is coming off of very high risk levels and more needs to be done. The Repeat Buyer MRI has been fairly unchanged for quite some time.” – Edward Pinto and Tobias Peter, AEI Housing Center

# Housing Affordability

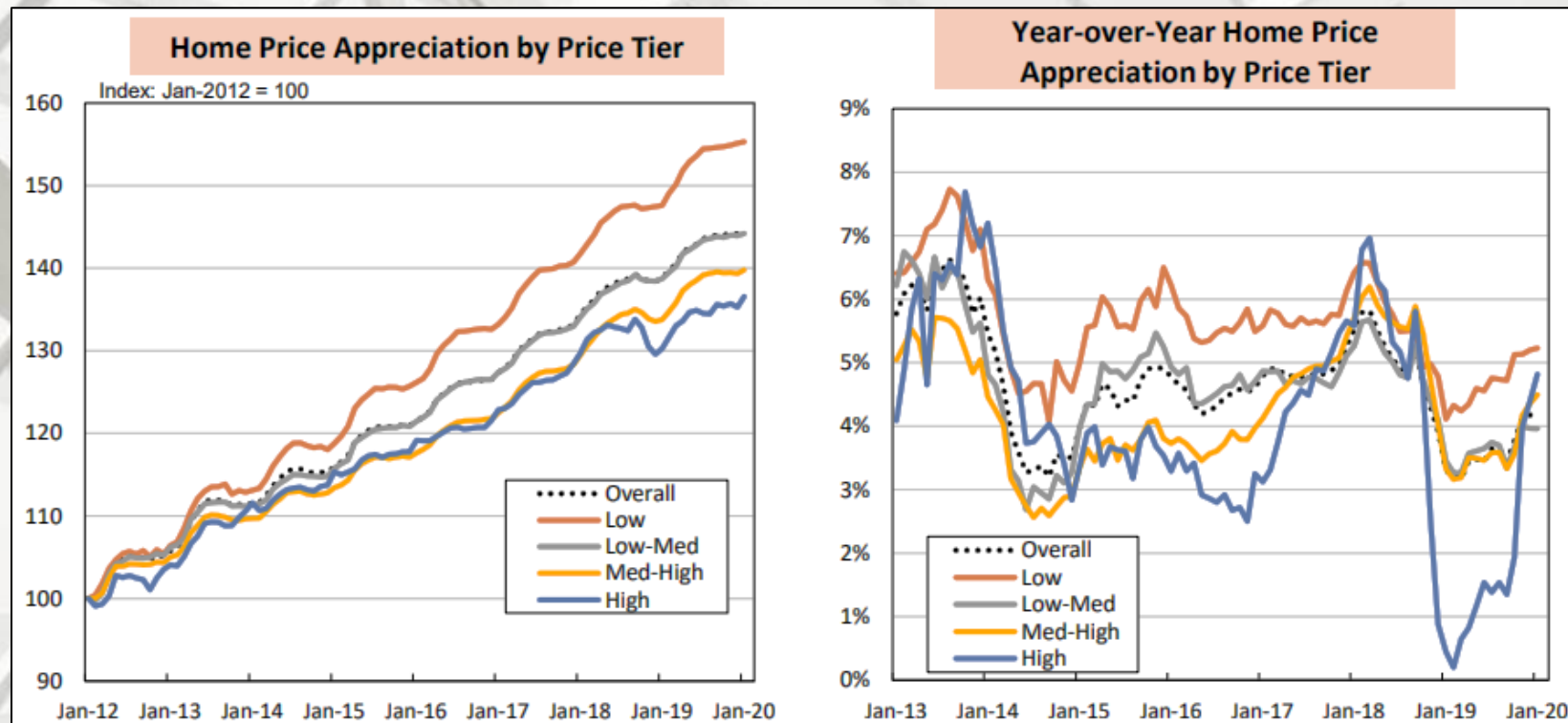
## National Housing Affordability Over Time



## Urban Institute

“Home prices remain affordable by historic standards, despite price increases over the last 7 years, as interest rates remain relatively low in an historic context. As of December 2019, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 23.3 percent; with 3.5 down, it is 26.7 percent. Since February 2019, the median housing expenses to income ratio has been slightly lower than the 2001-2003 average. As shown in the bottom picture, mortgage affordability varies widely by MSA.” – Laurie Goodman, VP, Housing Finance Policy Center

# Housing Affordability



Note: Data for January 2020 are preliminary. Price tiers are set at the metro level and are defined as follows: Low: all sales at or below the 40<sup>th</sup> percentile of FHA sales prices; Low-Medium: all sales at or below the 80<sup>th</sup> percentile of FHA sales prices; Medium-High: all sales at or below the 125% of the GSE loan limit; and High: all other sales. HPAs are smoothed around the times of FHFA loan limit changes.

## AEI Housing Center

### National House Price Appreciation (HPA) by Price Tier

“In January 2020, overheating of the low price tier continued (right panel). HPA in the low price tier was 5.2% year-over-year. In the low-medium and medium-high tiers, HPA was 4.0% and 4.5%, respectively. HPA in the high tier (about 7% share) increased significantly to 4.8% compared to a year ago. This tier was first hit by the Fed’s tightening and is now buoyed by the Fed’s loosening.” – Edward Pinto and Tobias Peter, AEI Housing Center



# Mortgage Credit Availability

## Mortgage Credit Availability Decreased in February

“Mortgage credit availability decreased in February according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) which analyzes data from Ellie Mae's AllRegs® Market Clarity® business information tool.

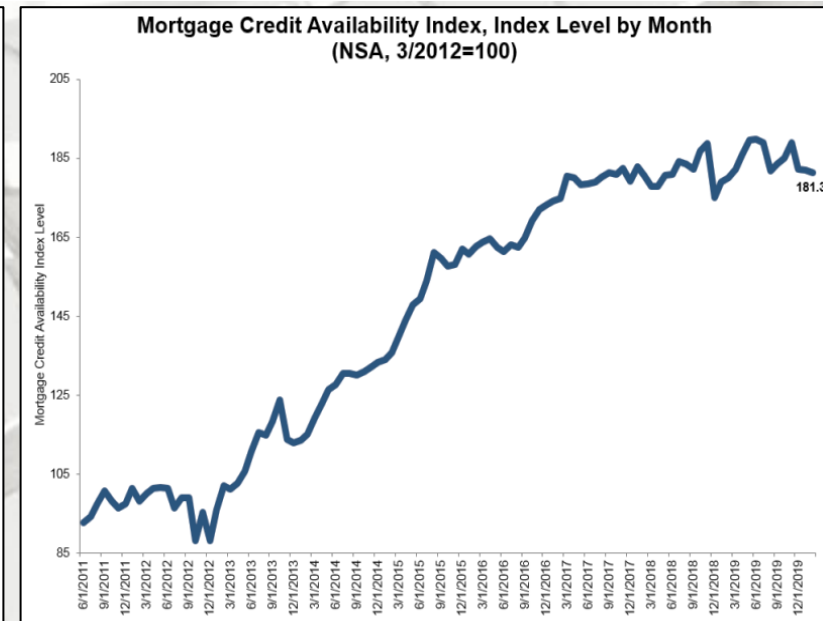
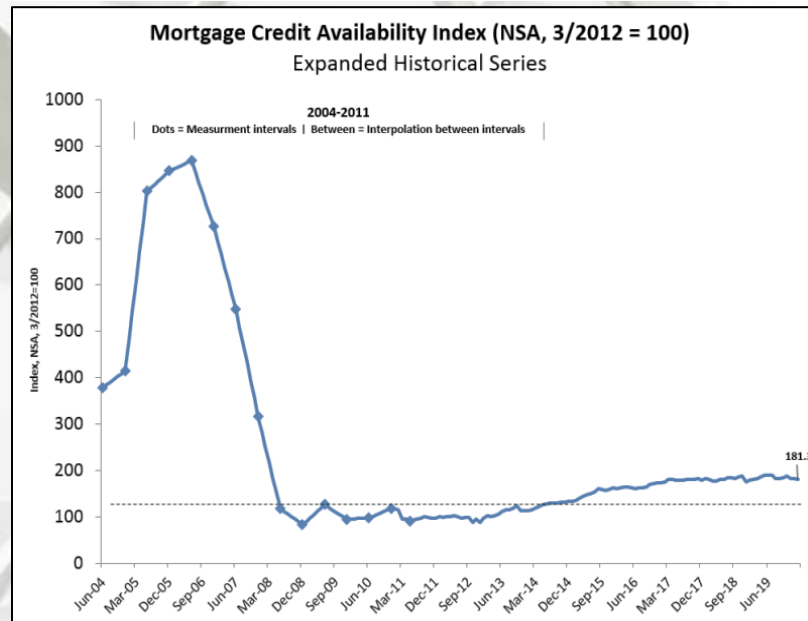
The MCAI fell by 0.3 percent to 181.3 in February. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI decreased 1.2 percent, while the Government MCAI increased by 0.7 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 1.0 percent, and the Conforming MCAI fell by 1.6 percent.

Mortgage credit supply decreased in February, as both conforming and jumbo segments of the market saw a decline. There were also reductions in ARM program offerings, as well as in low credit score programs offered by investors.”

Last month's activity was the calm before the storm. Mortgage rates dropped steeply in the last week of February and a large surge of refinance activity followed. Investors may adjust their future mortgage credit offerings based on the sudden upswing in demand.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA



# Mortgage Credit Availability



Source: *Mortgage Bankers Association*; Powered by *Ellie Mae's AllRegs® Market Clarity®*

# MBA Mortgage Finance Forecast

|   | 2019   |        |        |        | 2020   |        |        |        | 2021   |        |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | Q1     | Q2     | Q3     | Q4     | Q1     | Q2     | Q3     | Q4     | Q1     | Q2     | Q3     | Q4     | 2019   | 2020   | 2021   | 2022   |
| <b>Housing Measures</b>                         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Housing Starts (SAAR, Thous)                    | 1,213  | 1,256  | 1,282  | 1,449  | 1,410  | 1,390  | 1,355  | 1,370  | 1,420  | 1,435  | 1,440  | 1,450  | 1,300  | 1,381  | 1,436  | 1,463  |
| Single-Family                                   | 864    | 847    | 894    | 976    | 970    | 950    | 935    | 950    | 980    | 995    | 1,000  | 1,010  | 895    | 951    | 996    | 1,013  |
| Two or More                                     | 349    | 409    | 388    | 473    | 440    | 440    | 420    | 420    | 440    | 440    | 440    | 440    | 405    | 430    | 440    | 450    |
| Home Sales (SAAR, Thous)                        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Total Existing Homes                            | 5,207  | 5,287  | 5,427  | 5,414  | 5,508  | 5,489  | 5,468  | 5,604  | 5,748  | 5,788  | 5,829  | 5,899  | 5,334  | 5,517  | 5,816  | 5,904  |
| New Homes                                       | 669    | 661    | 699    | 723    | 778    | 763    | 748    | 755    | 775    | 780    | 784    | 793    | 688    | 761    | 783    | 795    |
| FHFA US House Price Index (YOY % Change)        | 5.5    | 5.1    | 4.8    | 5.1    | 5.2    | 5.1    | 5.0    | 4.8    | 4.6    | 4.4    | 4.2    | 4.0    | 5.1    | 4.8    | 4.0    | 3.2    |
| Median Price of Total Existing Homes (Thous \$) | 253.0  | 276.8  | 276.9  | 272.3  | 271.7  | 275.1  | 276.4  | 273.0  | 278.0  | 282.0  | 284.6  | 288.5  | 269.7  | 274.1  | 283.3  | 290.3  |
| Median Price of New Homes (Thous \$)            | 312.3  | 321.2  | 317.0  | 325.2  | 325.4  | 325.6  | 326.2  | 326.3  | 331.9  | 332.5  | 333.9  | 335.0  | 318.9  | 325.8  | 333.3  | 338.4  |
| <b>Interest Rates</b>                           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 30-Year Fixed Rate Mortgage (%)                 | 4.4    | 4.0    | 3.7    | 3.7    | 3.4    | 3.3    | 3.3    | 3.4    | 3.6    | 3.7    | 3.7    | 3.8    | 3.7    | 3.4    | 3.8    | 4.0    |
| 10-Year Treasury Yield (%)                      | 2.7    | 2.3    | 1.8    | 1.8    | 1.3    | 1.1    | 1.3    | 1.4    | 1.7    | 1.9    | 1.9    | 2.0    | 1.8    | 1.4    | 2.0    | 2.2    |
| <b>Mortgage Originations</b>                    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Total 1- to 4-Family (Bil \$)                   | 325    | 501    | 651    | 696    | 563    | 838    | 724    | 484    | 386    | 523    | 550    | 467    | 2,173  | 2,609  | 1,926  | 1,907  |
| Purchase  | 228    | 355    | 375    | 314    | 257    | 380    | 402    | 338    | 268    | 398    | 423    | 347    | 1,272  | 1,377  | 1,436  | 1,478  |
| Refinance                                       | 97     | 146    | 276    | 382    | 306    | 458    | 322    | 146    | 118    | 125    | 127    | 120    | 901    | 1,232  | 490    | 429    |
| Refinance Share (%)                             | 30     | 29     | 42     | 55     | 54     | 55     | 44     | 30     | 31     | 24     | 23     | 26     | 41     | 47     | 25     | 22     |
| <b>Mortgage Debt Outstanding</b>                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1- to 4-Family (Bil \$)                         | 10,362 | 10,446 | 10,555 | 10,658 | 10,759 | 10,875 | 10,994 | 11,105 | 11,210 | 11,328 | 11,450 | 11,564 | 10,658 | 11,105 | 11,564 | 12,022 |

Notes: 12.7% 7.0% 7.2% 7.6% 4.3% 4.7% 5.2% 2.8%

Housing starts and home sales are seasonally adjusted 4.4% 4.2% 6.2% 5.7%

Total existing home sales include condos and co-ops.

Mortgage rate forecast is based on Freddie Mac's 30-Yr fixed rate which is based on predominantly home purchase transactions.

The 10-Year Treasury Yield and 30-Yr mortgage rate are the average for the quarter, but annual columns show Q4 values.

Total 1-to-4-family originations and refinance share are MBA estimates. These exclude second mortgages and home equity loans.

The FHFA US House Price Index is the forecasted year over year percent change of the FHFA All Transactions House Price Index.

The mortgage debt outstanding forecast is for 1-4 unit mortgage debt and excludes home equity loans. Annual MDO numbers reflect EOP values.

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# Summary

## **In conclusion:**

In January, total building permits increased to their highest level in 13-years on a seasonally-adjusted annualized basis. Total housing starts recorded their best two months in December and January since mid-2006. Yet, total and single-family starts declined on a month-over-month basis. Total, single- and multi-family completions, and existing sales also decreased monthly. Single-family units under construction and single-family completions and existing were negative on a year-over-year basis.

Housing, in the majority of categories, remains substantially less than their respective historical averages. The new SF housing construction sector is where the majority of value-added forest products are utilized and this housing sector has ample room for improvement.

## **Pros:**

- 1) Historically low interest rates are still in place;
- 2) Select builders are beginning to focus on entry-level houses.

## **Cons:**

- 1) Housing affordability indicates improvement;
- 2) Lot availability and building regulations (according to several sources);
- 3) Laborer shortages;
- 4) Household formations still lag historical averages;
- 5) Changing attitudes towards SF ownership;
- 6) Job creation is improving and consistent but some economists question the quantity and types of jobs being created;
- 7) Debt: Corporate, personal, government – United States and globally;
- 8) Other global uncertainties.

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