

An Economic Overview: What Does 2020 Look Like?



Fed Chairman Jerome Powell

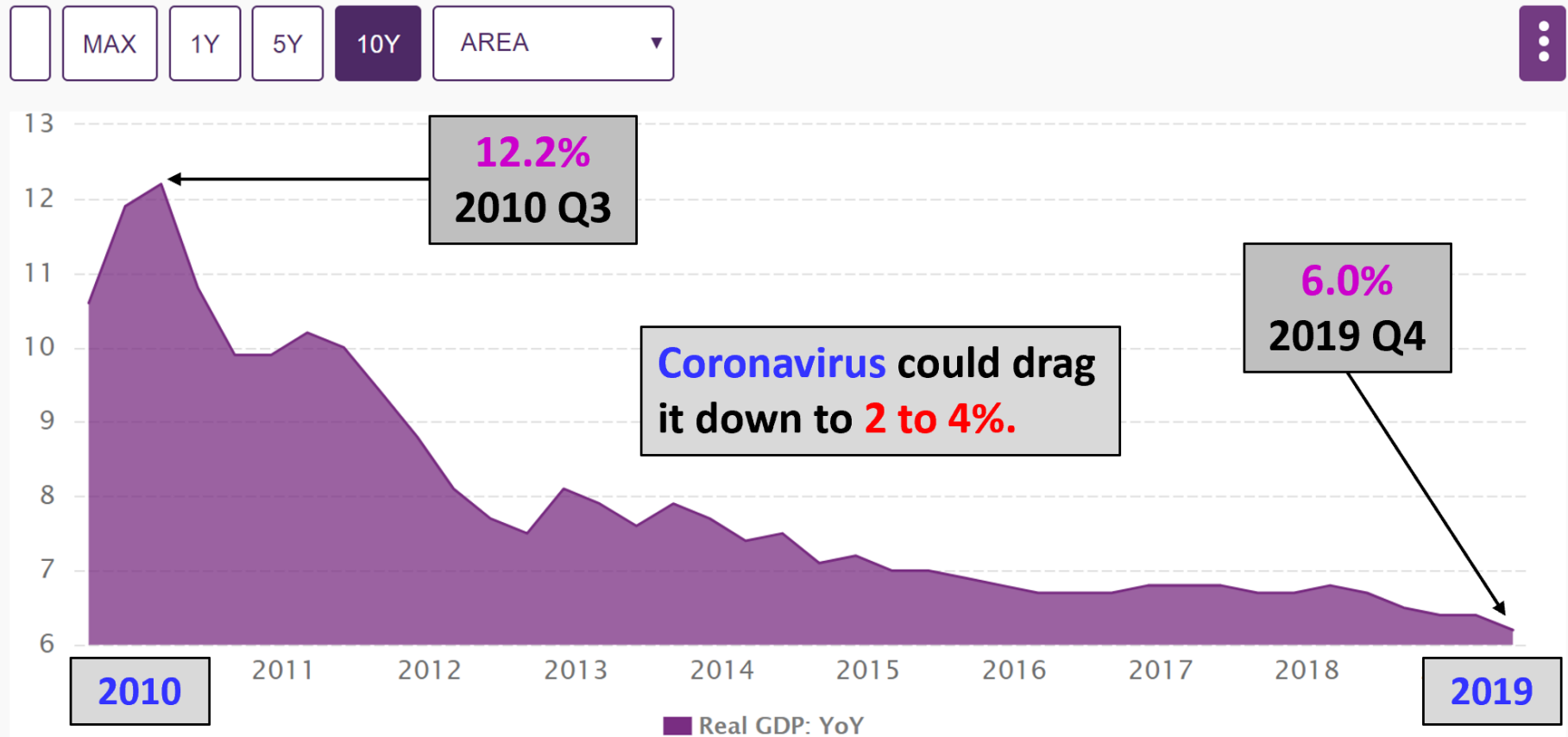
Harold Hunt, PhD
Real Estate Center at Texas A&M
hhunt@tamu.edu

Global Slowdown Continues

- The apprehension about **slower global economic growth** continues.
 - Forecasting only **1.0% GDP growth for the EU** in 2020
 - **\$15 Trillion in negative interest rate** bonds globally
 - **53% of global debt** (w/o the U.S.) is negative yielding
 - **Chinese economic growth** still slowing
 - **China – US trade policy** has been biggest global concern
 - **Coronavirus** only makes things worse

China's Real GDP Growth Still Slowing

View China's Real GDP Growth



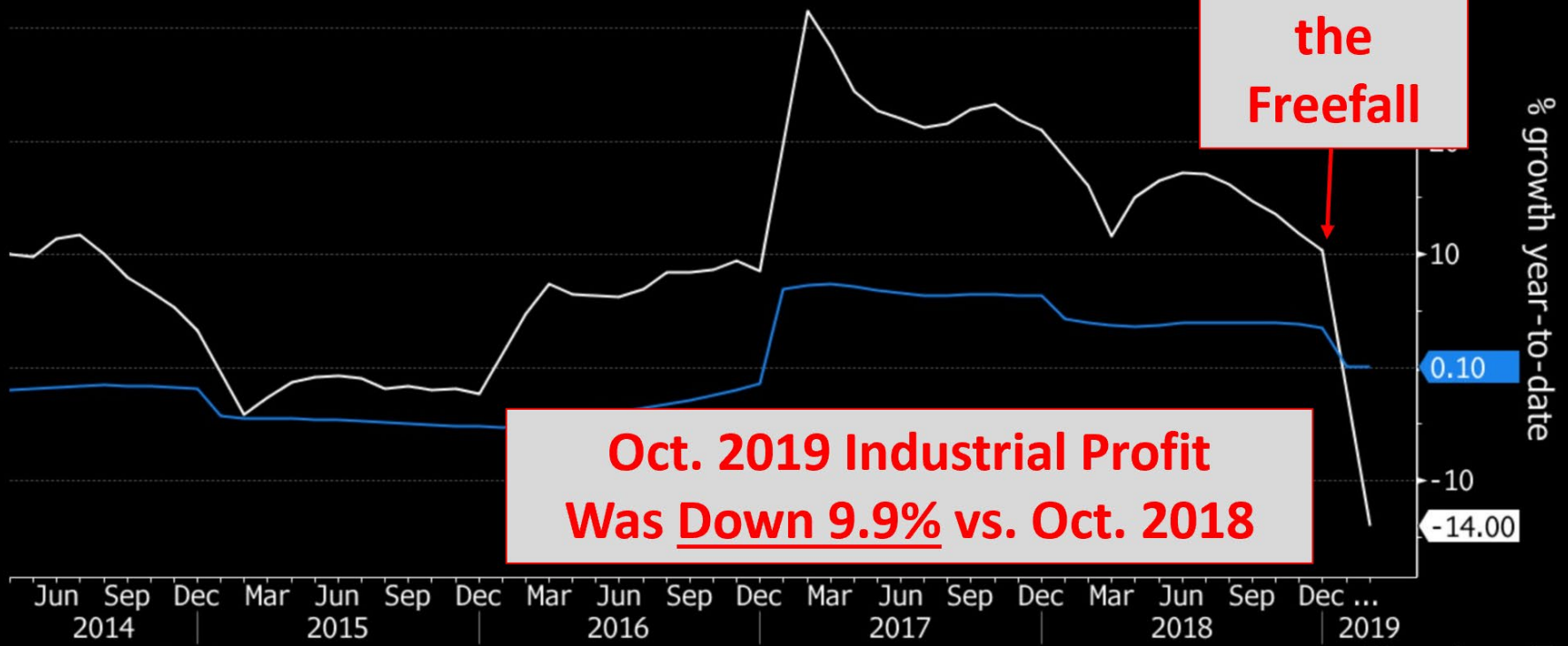
SOURCE: WWW.CEICDATA.COM | CEIC Data

China's Industrial Profit Plummeted in 2019

Worst Start

China's industrial profit saw the biggest drop in a decade

■ Profit of industrial enterprises ■ Producer price index



**Jan. 2019
Started
the
Freefall**

**Oct. 2019 Industrial Profit
Was Down 9.9% vs. Oct. 2018**

Source: National Bureau of Statistics

Bloomberg

The Phase 1 Trade Deal

- **China is pledging to:**
 - To **open its financial sector** further.
 - To **not devalue the Chinese yuan.**
 - Offer **better protection for U.S. intellectual property.**
 - **Increase purchases of U.S. farm goods by \$32 bil.** over the next 2 years (to total \$40 bil./yr)
 - **Conduct Semi-annual talks** to push for further economic reform and resolve disputes.

The Phase 1 Trade Deal

- **The U.S. is pledging to:**
 - Cancel new tariffs on \$156 bil. In Chinese imports set to take effect last Dec. 15th.
 - Includes smartphones, toys and some consumer electronics
 - Cut in half the 15% tariff on \$120 bil. Of Chinese goods imposed last Sep. 1st.
 - Keep in place the 25% tariff on \$250 bil. In goods put in place last year.
 - Includes machinery, furniture, chemicals & plastics

A Couple of Uncertainties About China Still Hanging Out There

- **Questions:**

Will the U.S. be able to monitor and enforce the **Phase 1** trade agreement?

Will the **coronavirus** wind up having a significant impact on global growth?

The U.S. Economy



The U.S. Economy

Will 2020 (an election year) end in:

1) A Recession

or

2) Continued Economic Growth

11 U.S. Economic Expansions Since 1950

(Average Duration: 61 months)

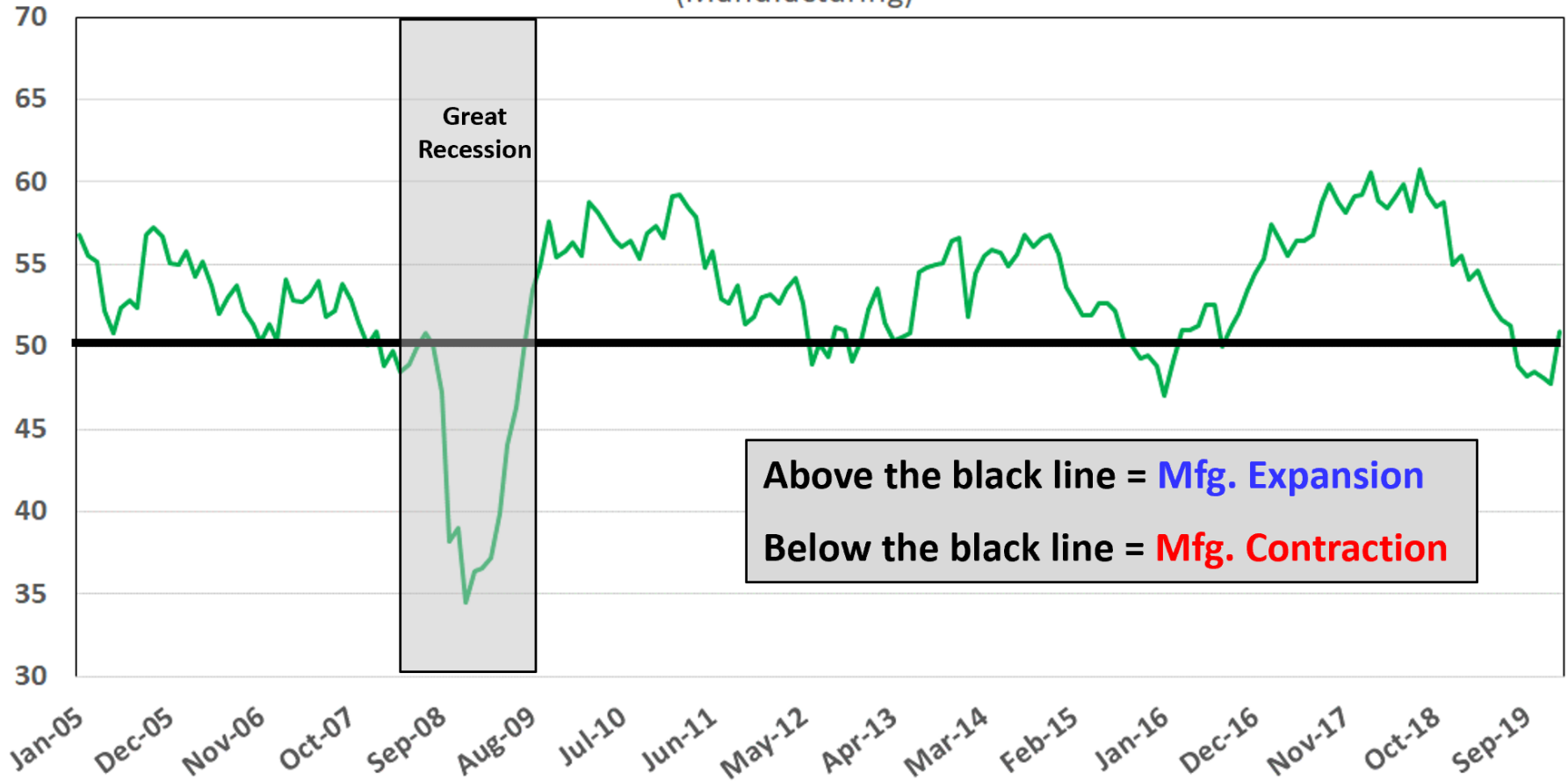
• Nov 1949	July 1953	46 months
• Jun 1954	Aug 1957	39 months
• May 1958	Apr 1960	24 months
• Mar 1961	Dec 1969	106 months
• Dec 1970	Nov 1973	36 months
• Apr 1975	Jan 1980	58 months
• Aug 1980	Jul 1981	12 months
• Dec 1982	Jul 1990	92 months
• Apr 1991	Mar 2001	120 months
• Dec 2001	Dec 2007	73 months
• June 2009	present	130 months

U.S. Economy:

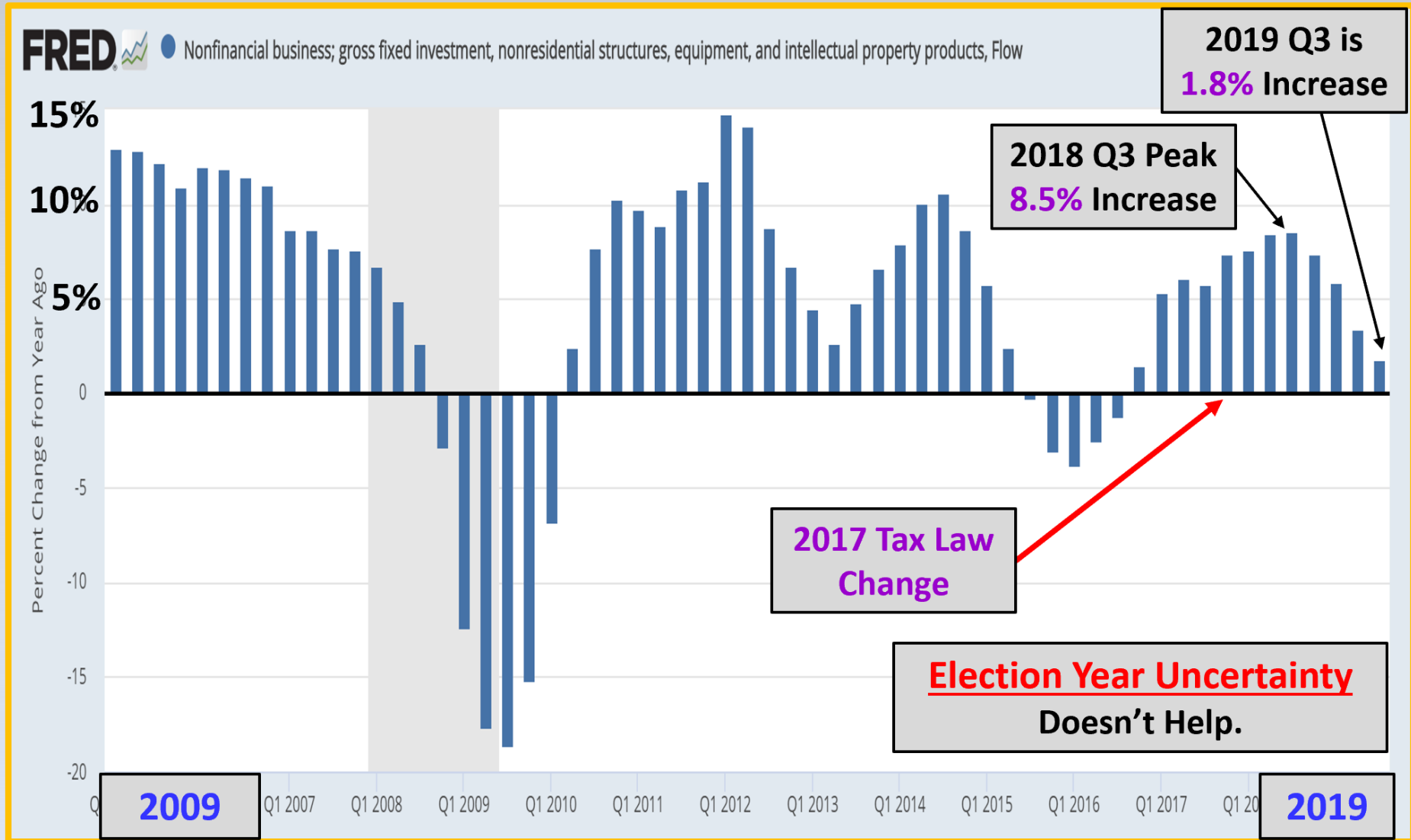
Negative Economic Indicators

The Manufacturing Sector Contracted From August, 2019 to Dec. 2019

Institute for Supply Management Purchasing Managers' Index
(Manufacturing)



Business Investment Is Steadily Declining



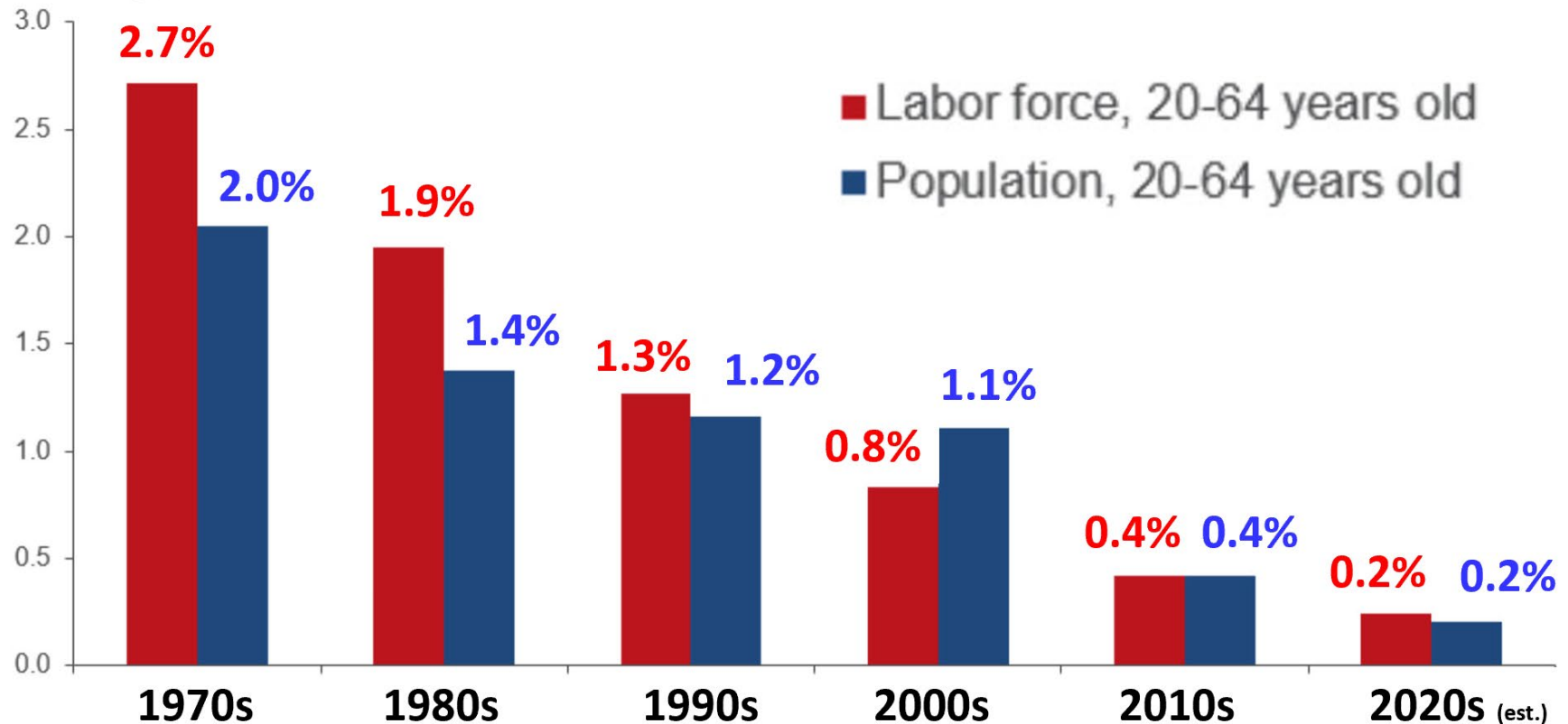
Source: St. Louis Federal Reserve (FRED)

The Two Components That Drive GDP Growth Have Been Slowing

(Problem: GDP Growth Needs Labor Force & Productivity Growth)

Labor Force and Working-Age Population Growth Rates Declining

Percent change, annualized



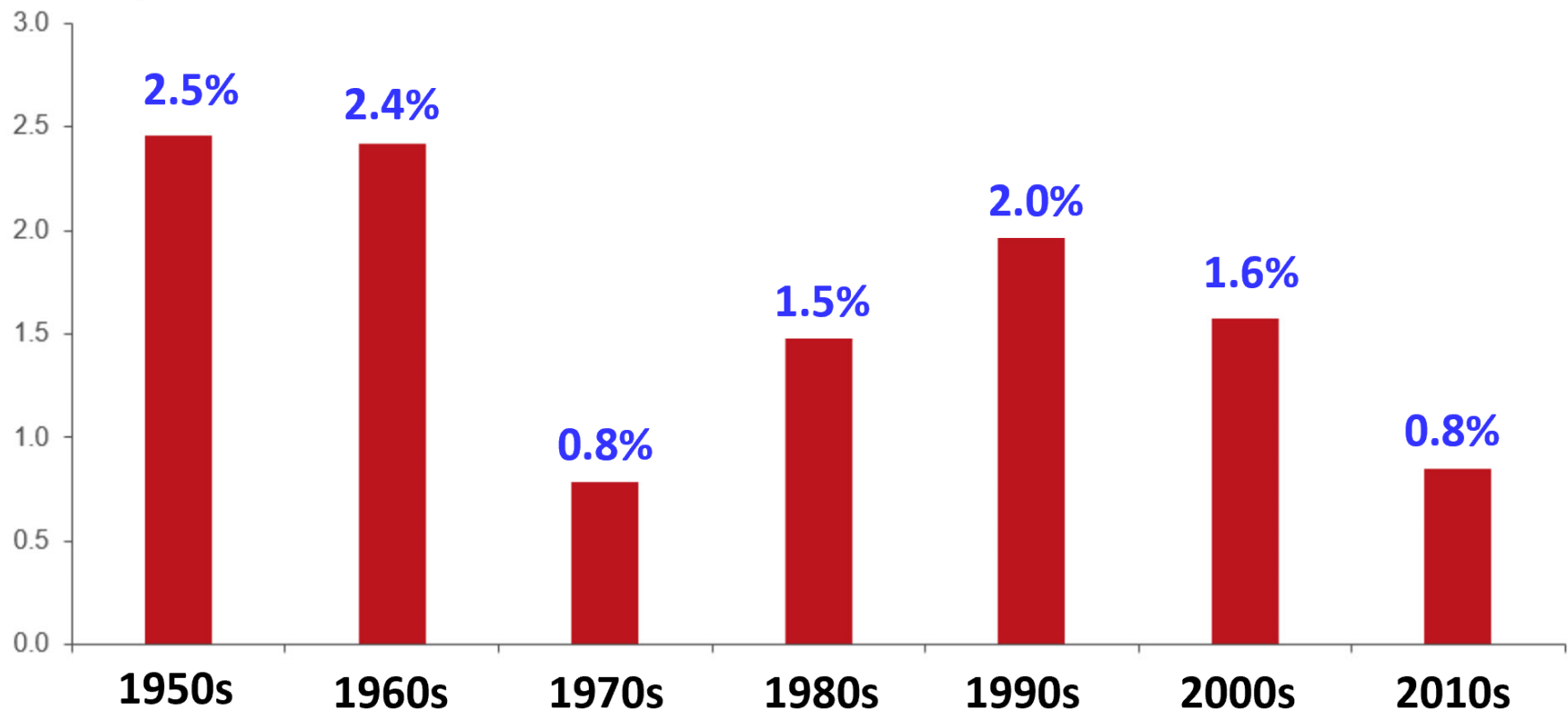
NOTE: "e" denotes an estimated value.

SOURCE: Bureau of Labor Statistics (2020–2028 growth rates from Employment Projections program; 2020s estimates only through 2028).

The Two Components That Drive GDP Growth Have Been Slowing

(Problem: GDP Growth Needs Labor Force & Productivity Growth)

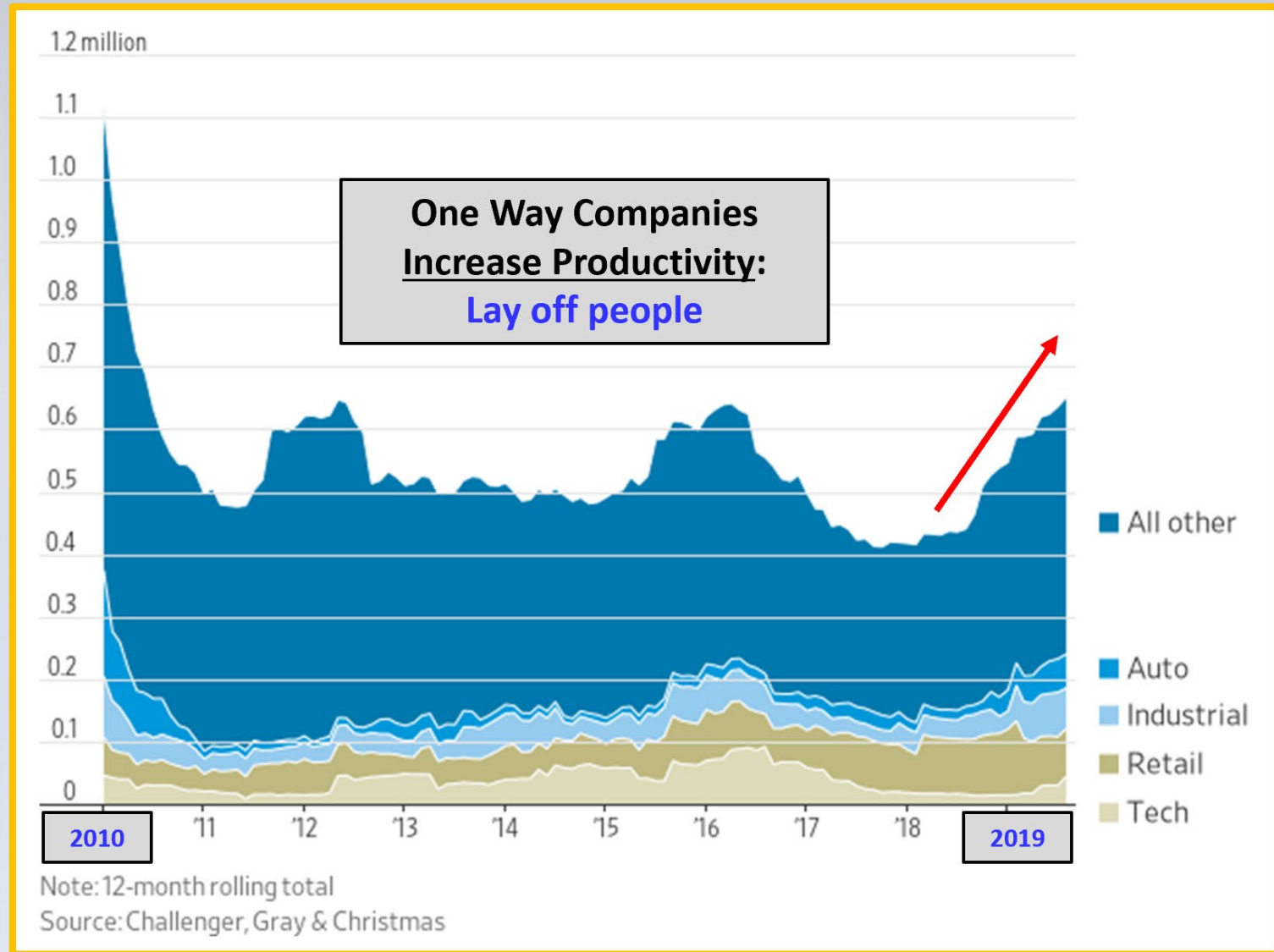
Annual Pct. Increase in Output per Worker (Productivity) By Decade



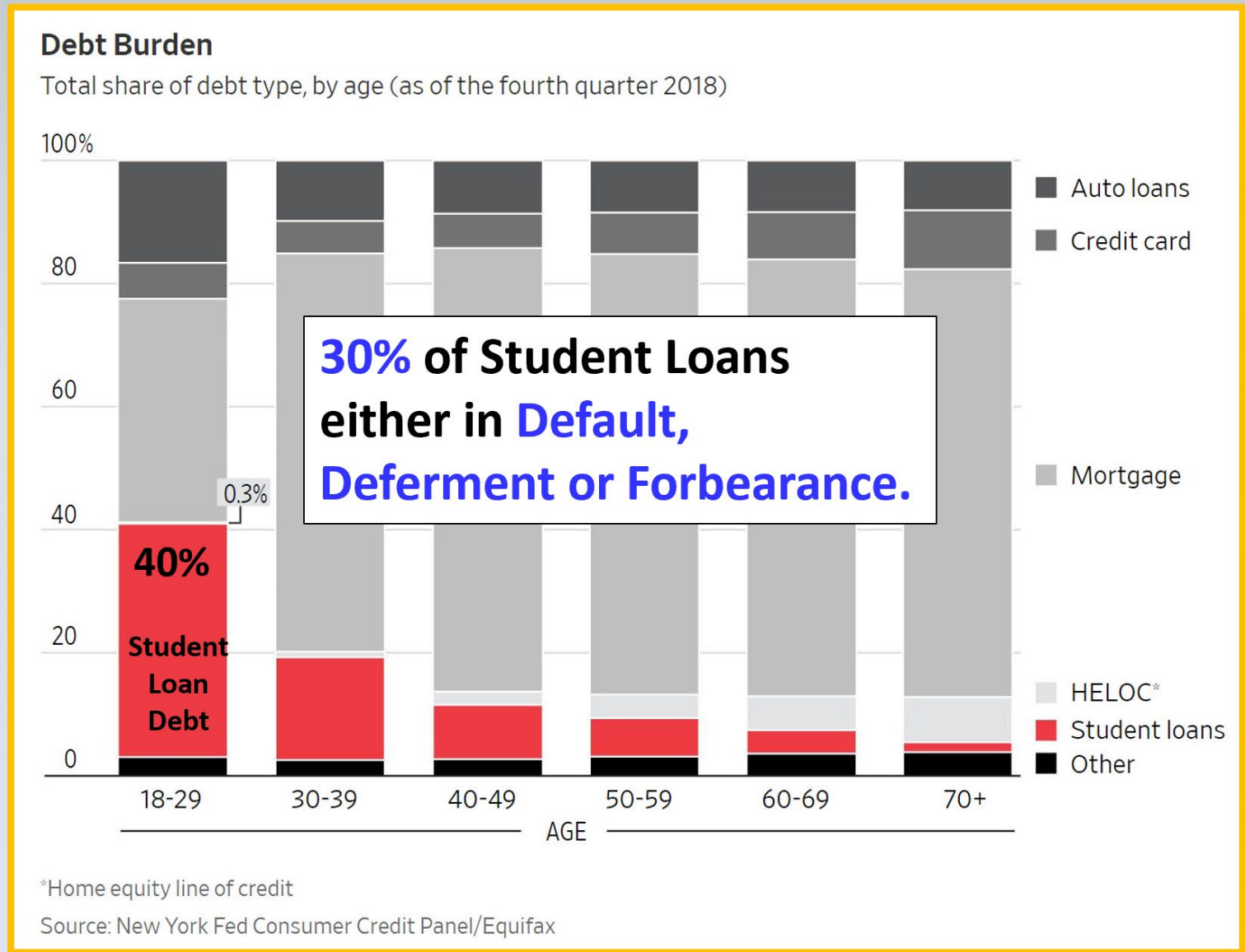
NOTE: "e" denotes an estimated value.

SOURCES: Bureau of Labor Statistics; Bureau of Economic Analysis.

Future Job Cuts Announced By U.S.-Based Employers Trended Up In 2019

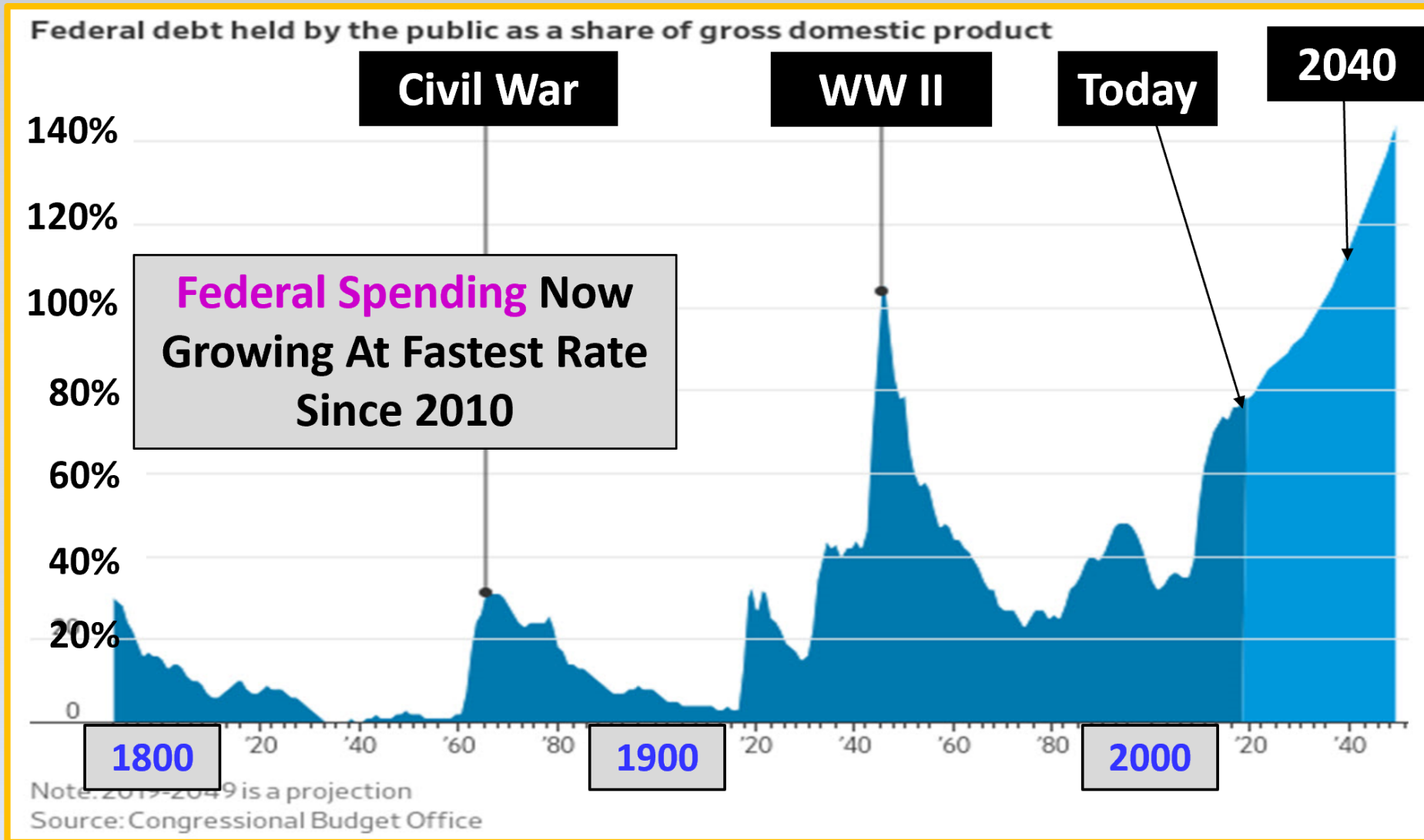


About 40% of Total Debt for 18 to 29 Year Olds is Student Loan Debt



This could have long-term economic consequences.

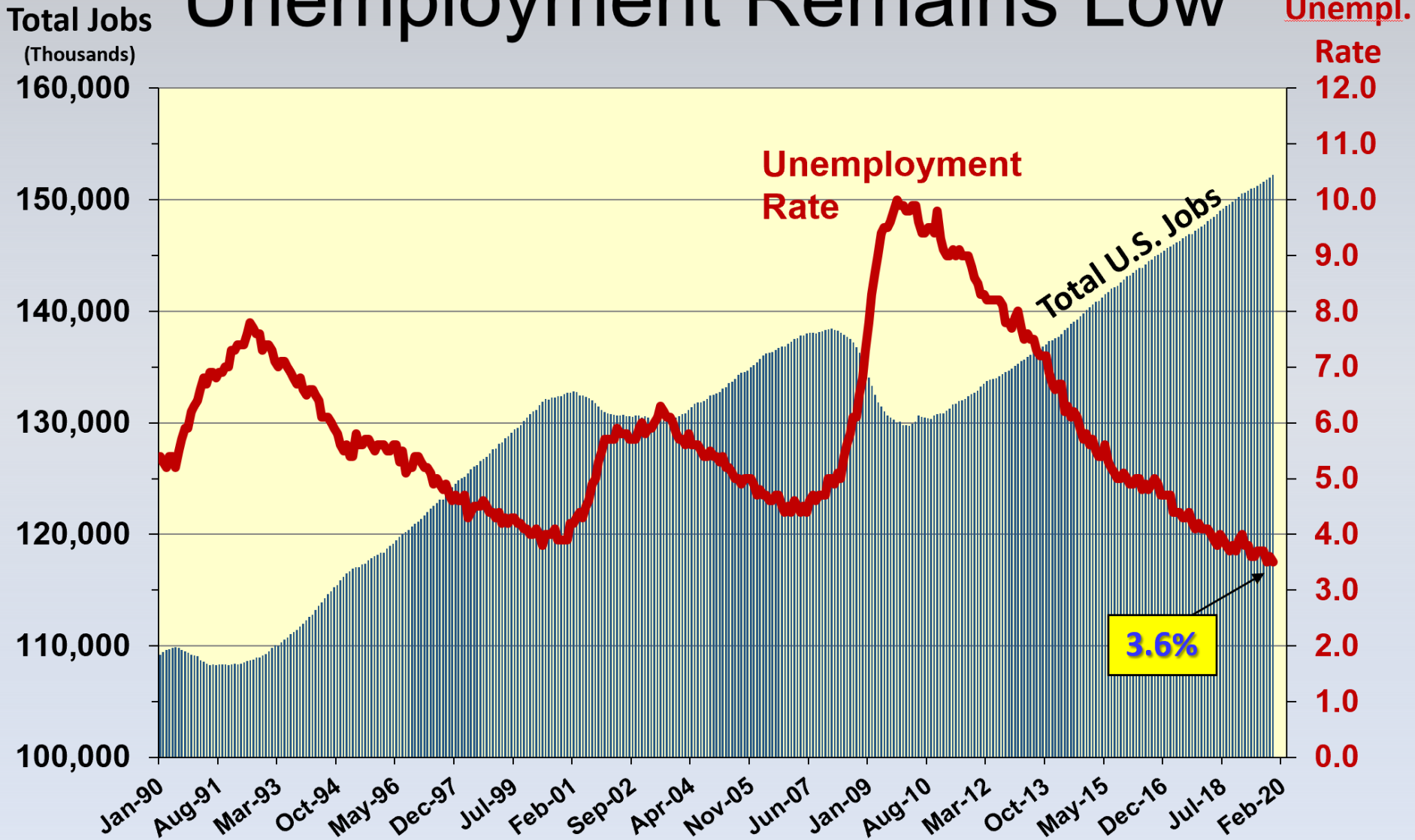
Neither Political Party Cares About Deficits (Interest Payments Will Crowd Out Other Spending)



U.S. Economy:

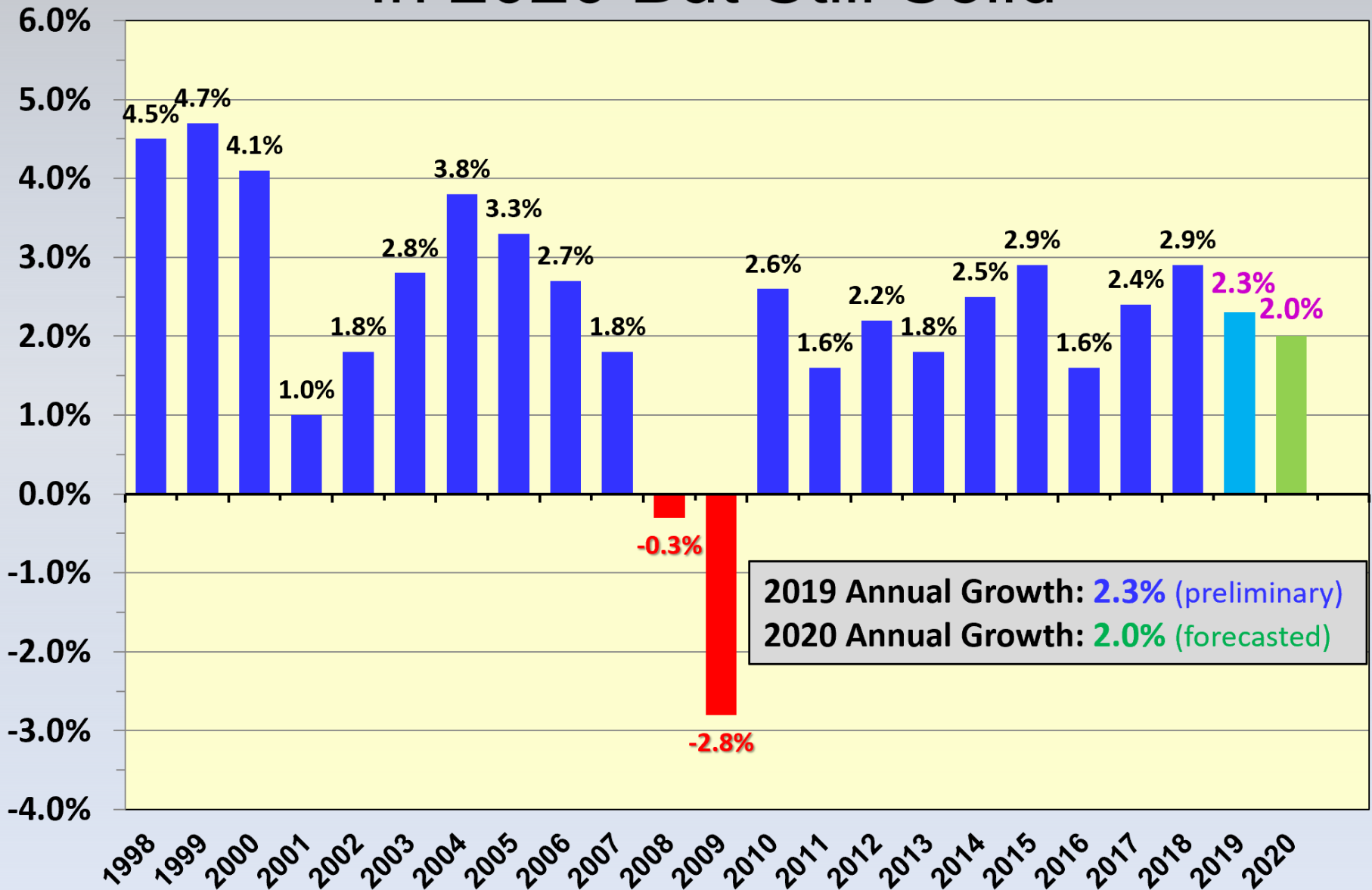
Positive Economic Indicators

U.S. Jobs Continue to be Created and Unemployment Remains Low



Source: BLS/Haver Analytics; Real Estate Center at Texas A & M University

Real GDP Predicted To Slow A Bit In 2020 But Still Solid

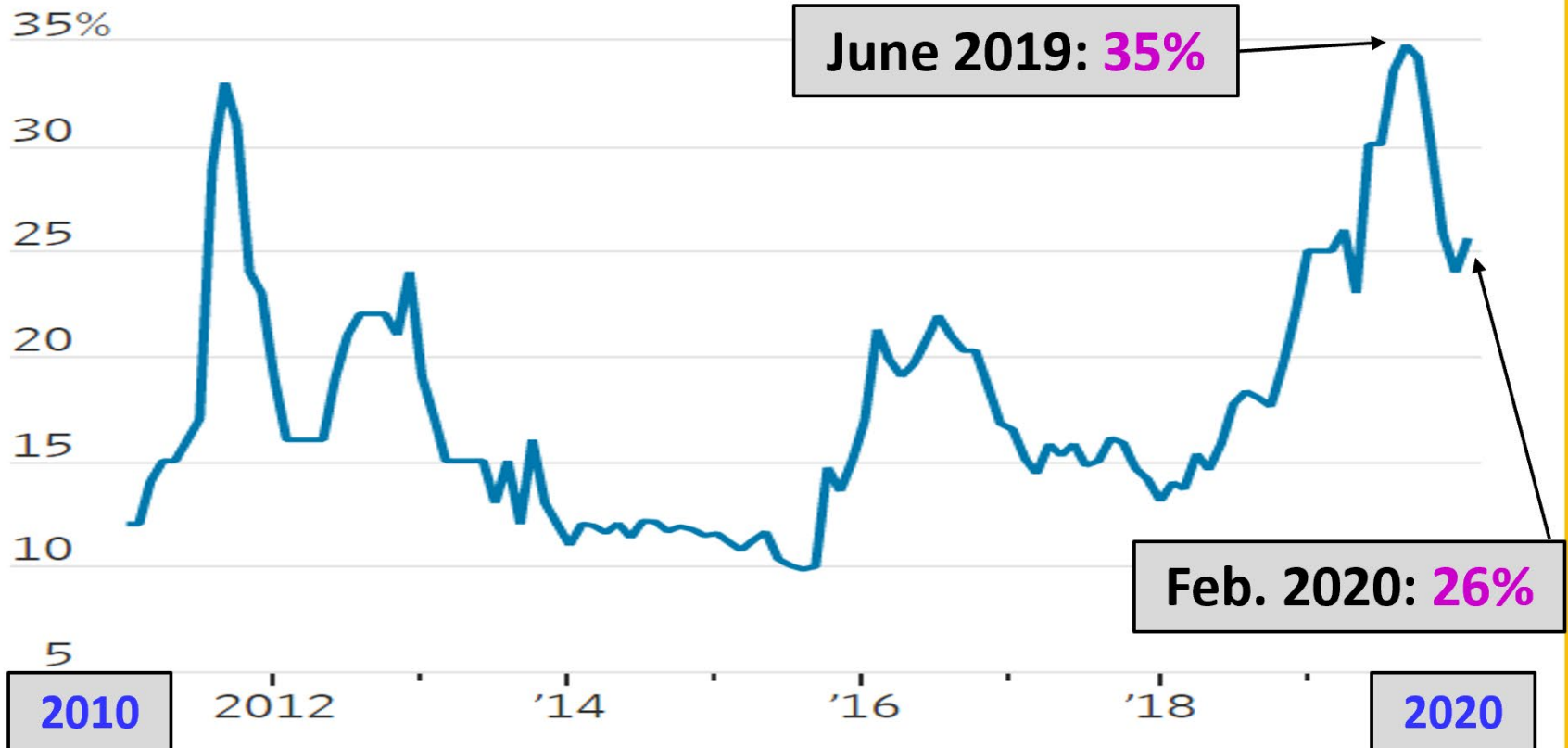


Source: Bureau of Economic Analysis (Quarterly Change Annualized)

Economists' Probability of Recession in Next 12 Months Has Dropped Since June

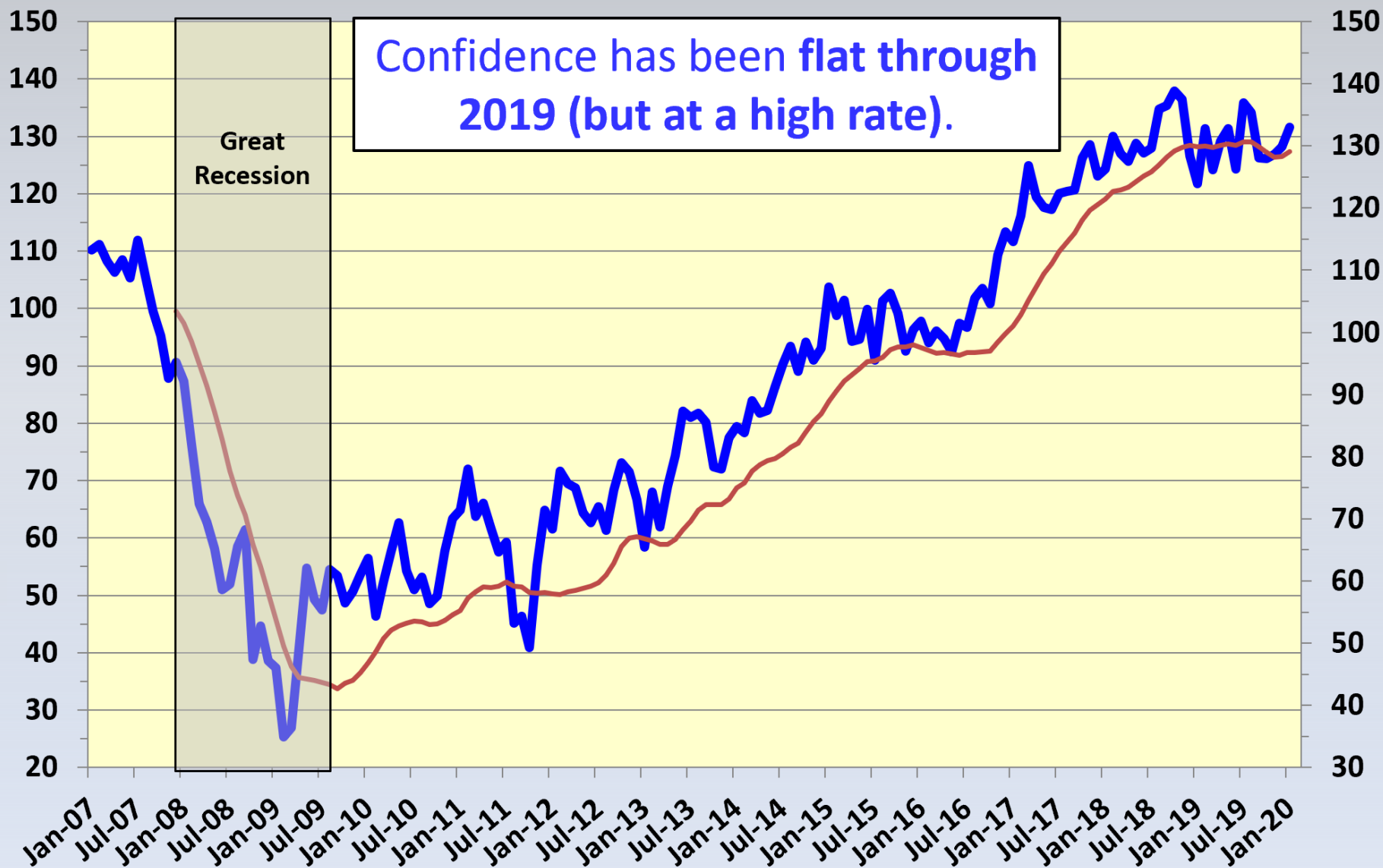
Recession Odds

The average probability of the U.S. economy being in a recession within the next 12 months



Source: WSJ Survey of Economists

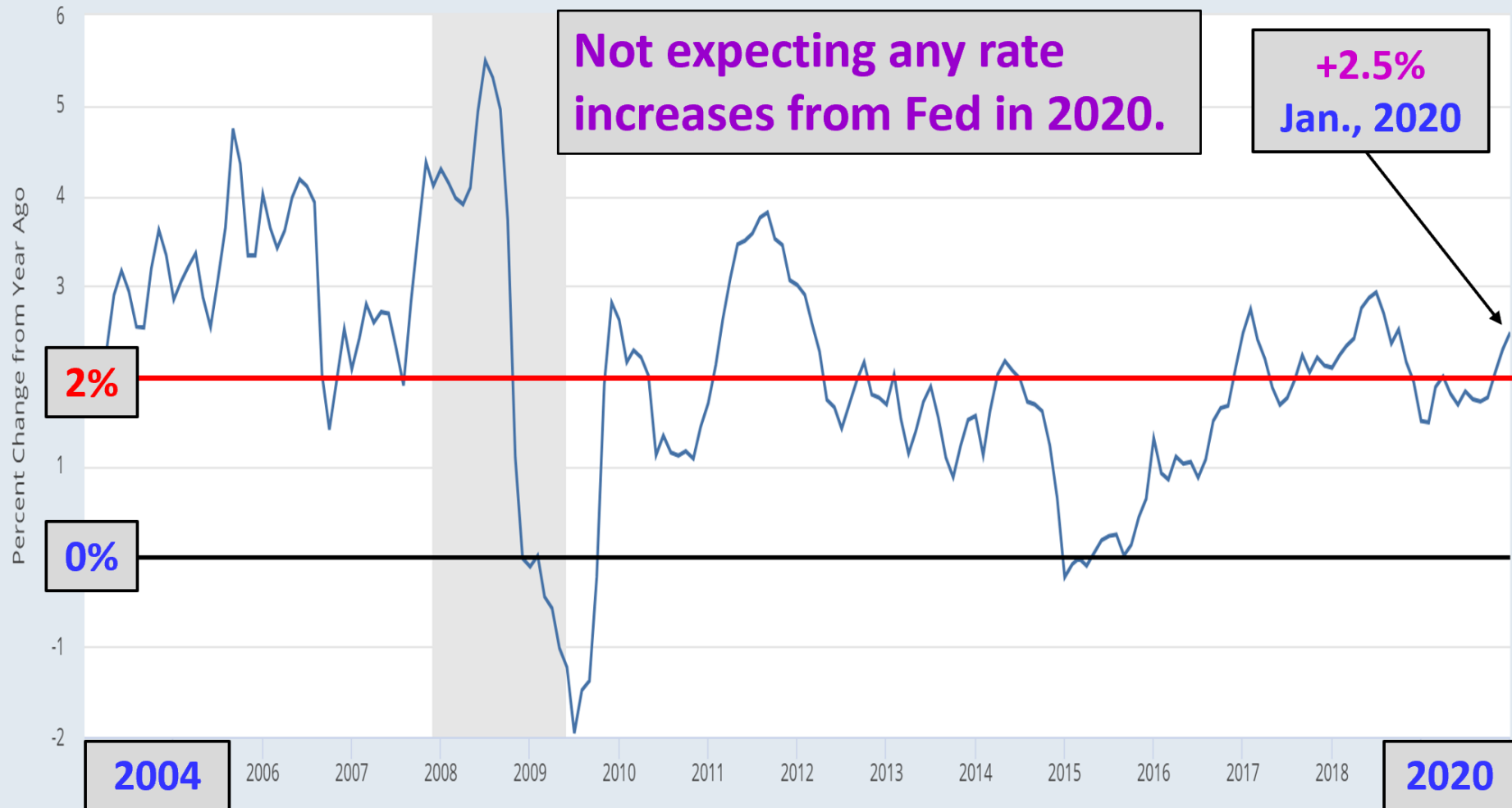
U.S. Consumer Confidence Still Strong



Inflation Is Just Above The Fed's 2% Goal

FRED

— Consumer Price Index for All Urban Consumers: All Items in U.S. City Average



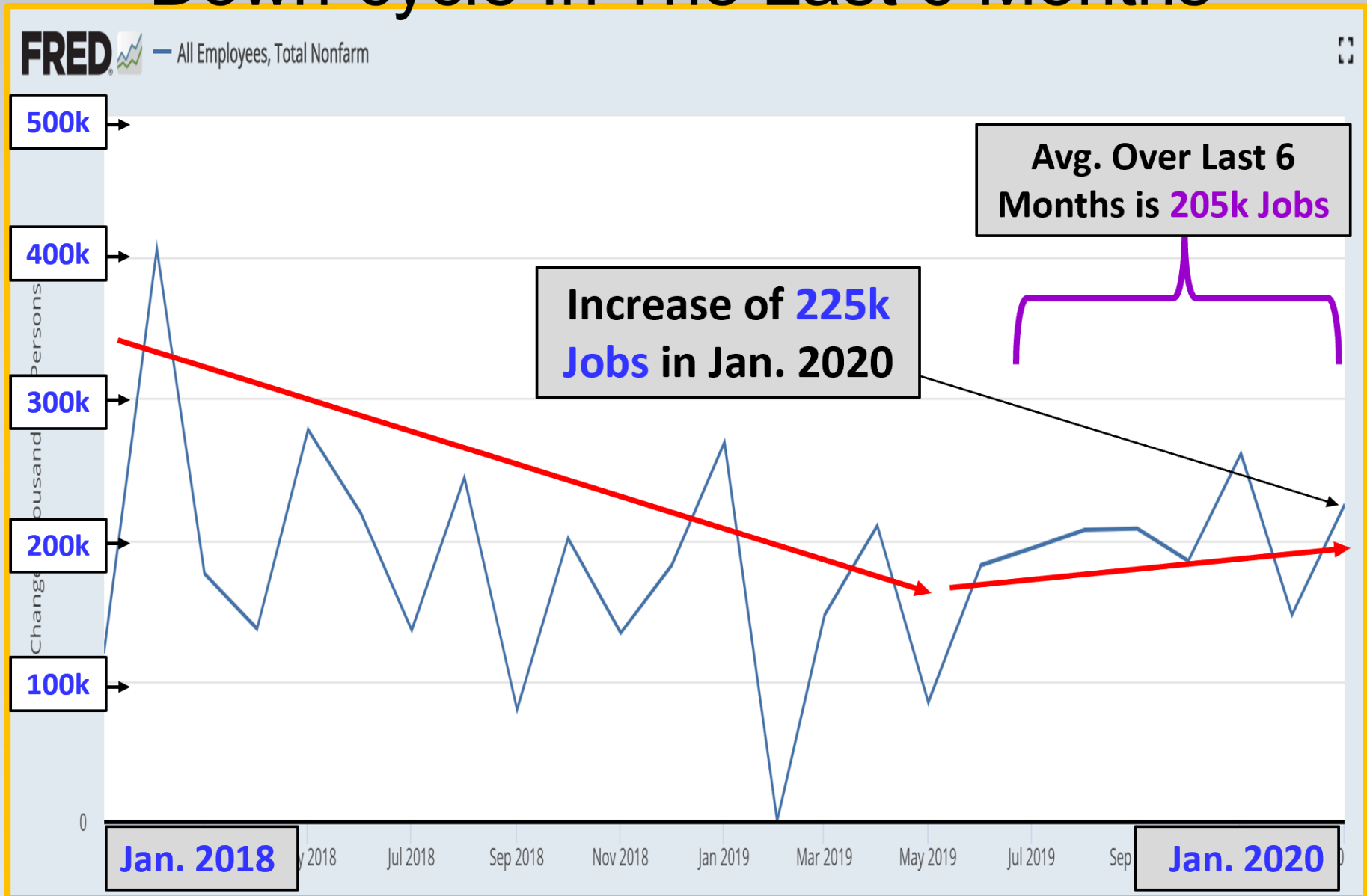
Inflation “Expectations” For The Next Five Years Are Still Quite Low



Lower expectations may be due to : **1) more efficient markets** and **2) more substitutes**.

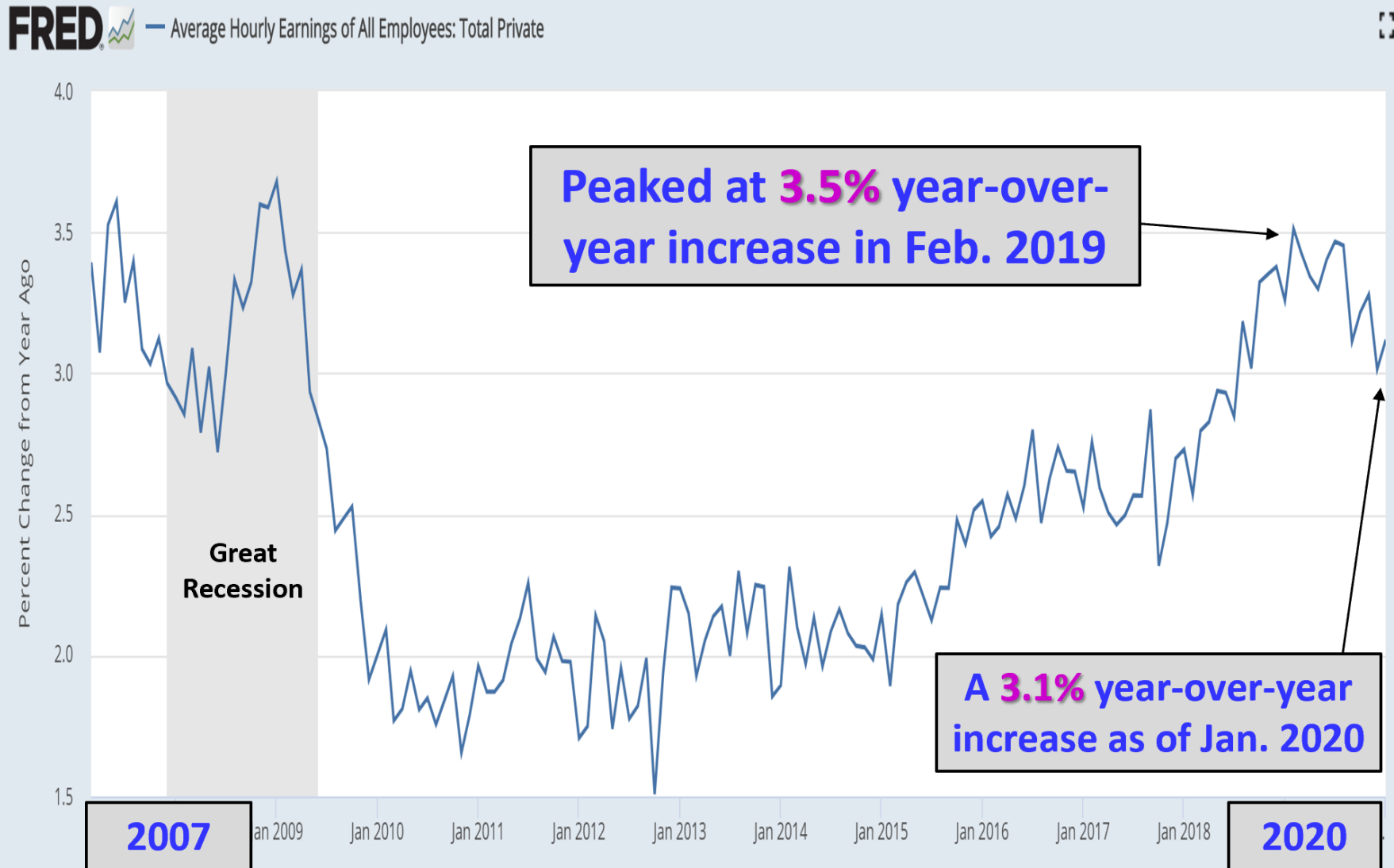
Source: St. Louis Federal Reserve FRED (monthly data thru January, 2020)

U.S. Monthly Job Growth Has Broken The Down-cycle In The Last 6 Months



Source: St. Louis Federal Reserve FRED (monthly thru Jan. 2020)

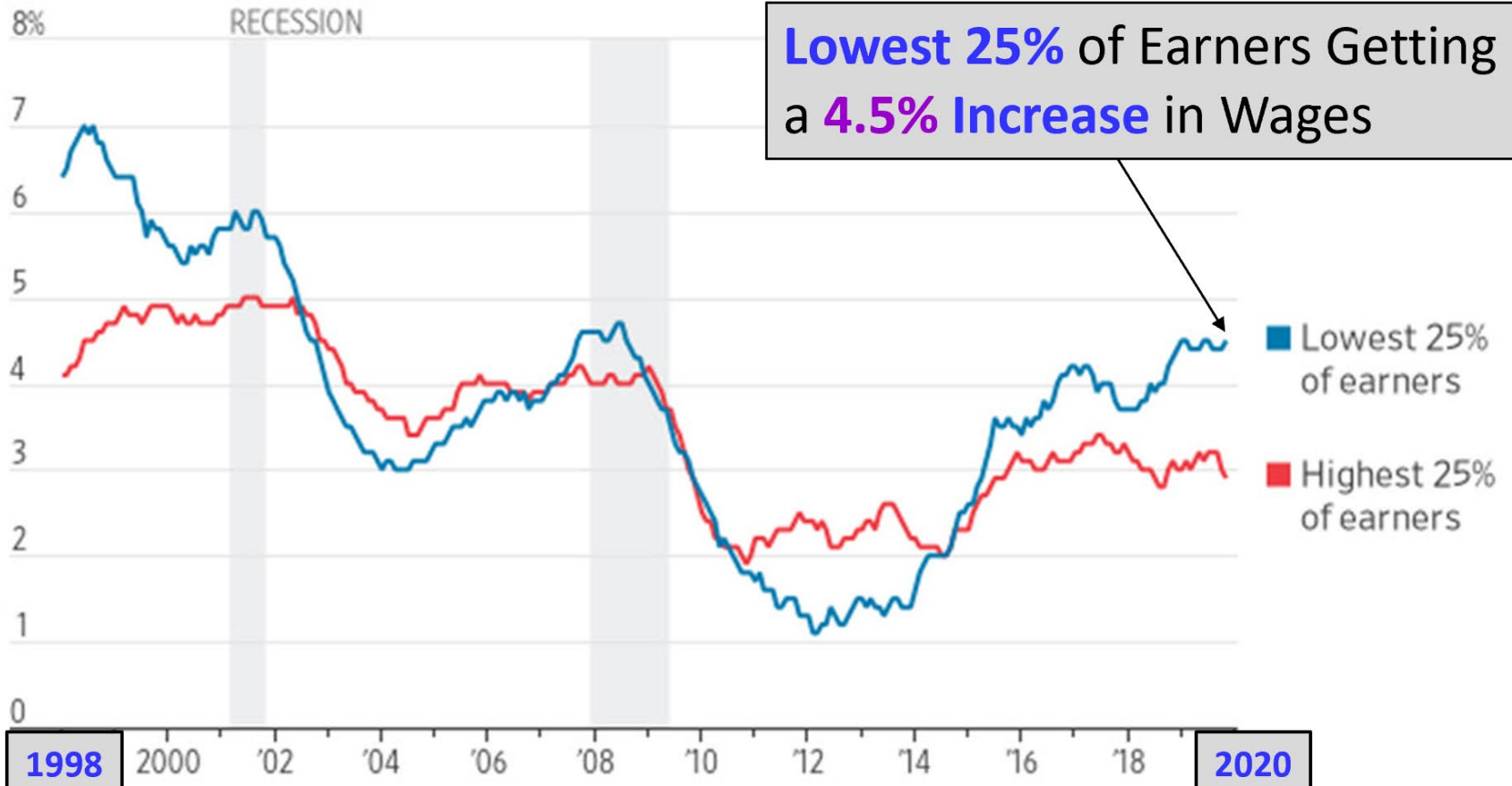
Average Hourly Wage Increases Have Slowed A Bit



Source: U.S. Bureau of Labor Statistics (monthly data thru July 2019)

But The Lowest Earners Are Getting Better Wage Increases

Annual change in hourly pay by wage level

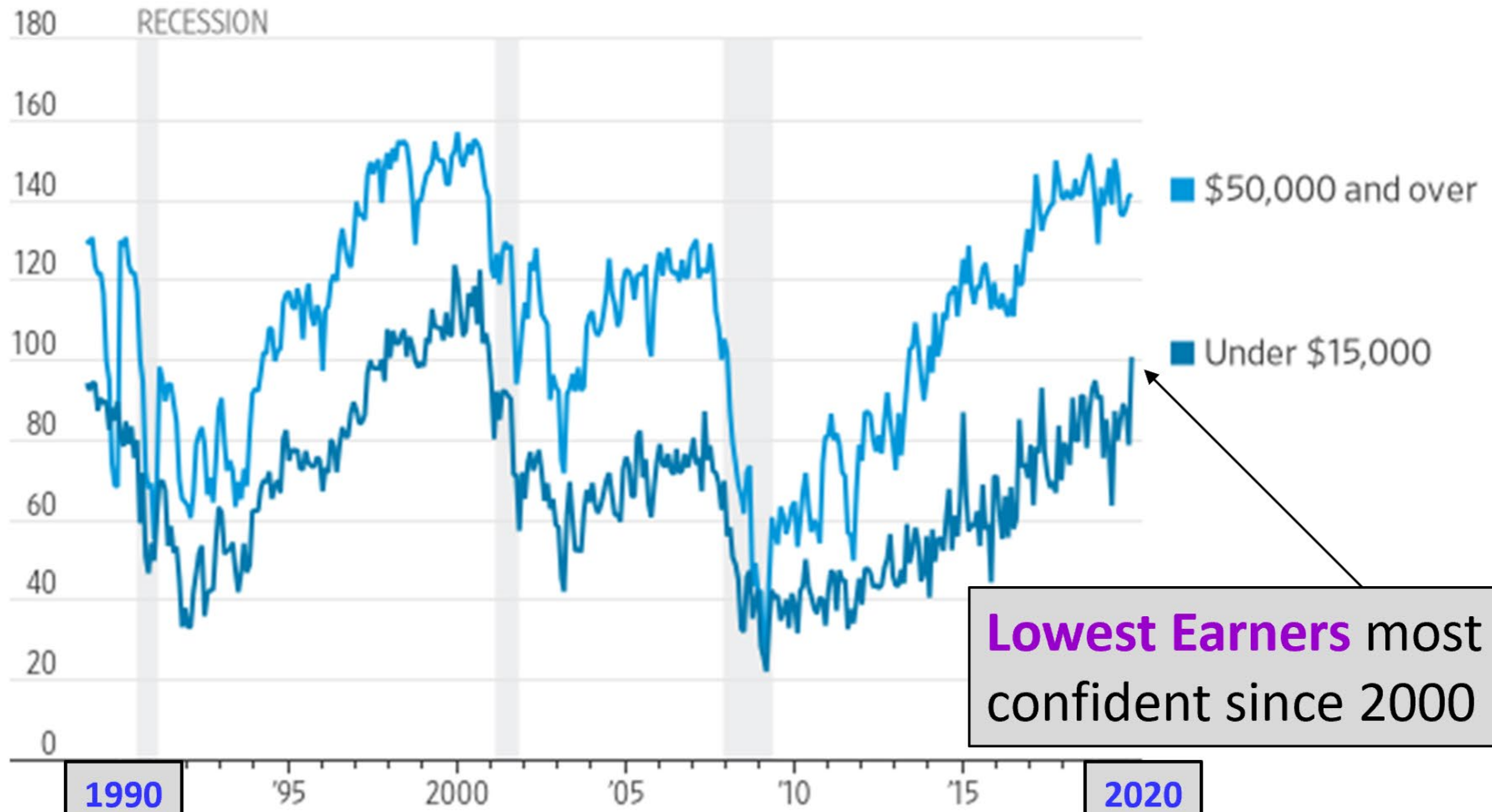


Note: 3-month moving average

Source: Federal Reserve Bank of Atlanta

Lowest Earning Consumers Are Also Showing Increasing Confidence

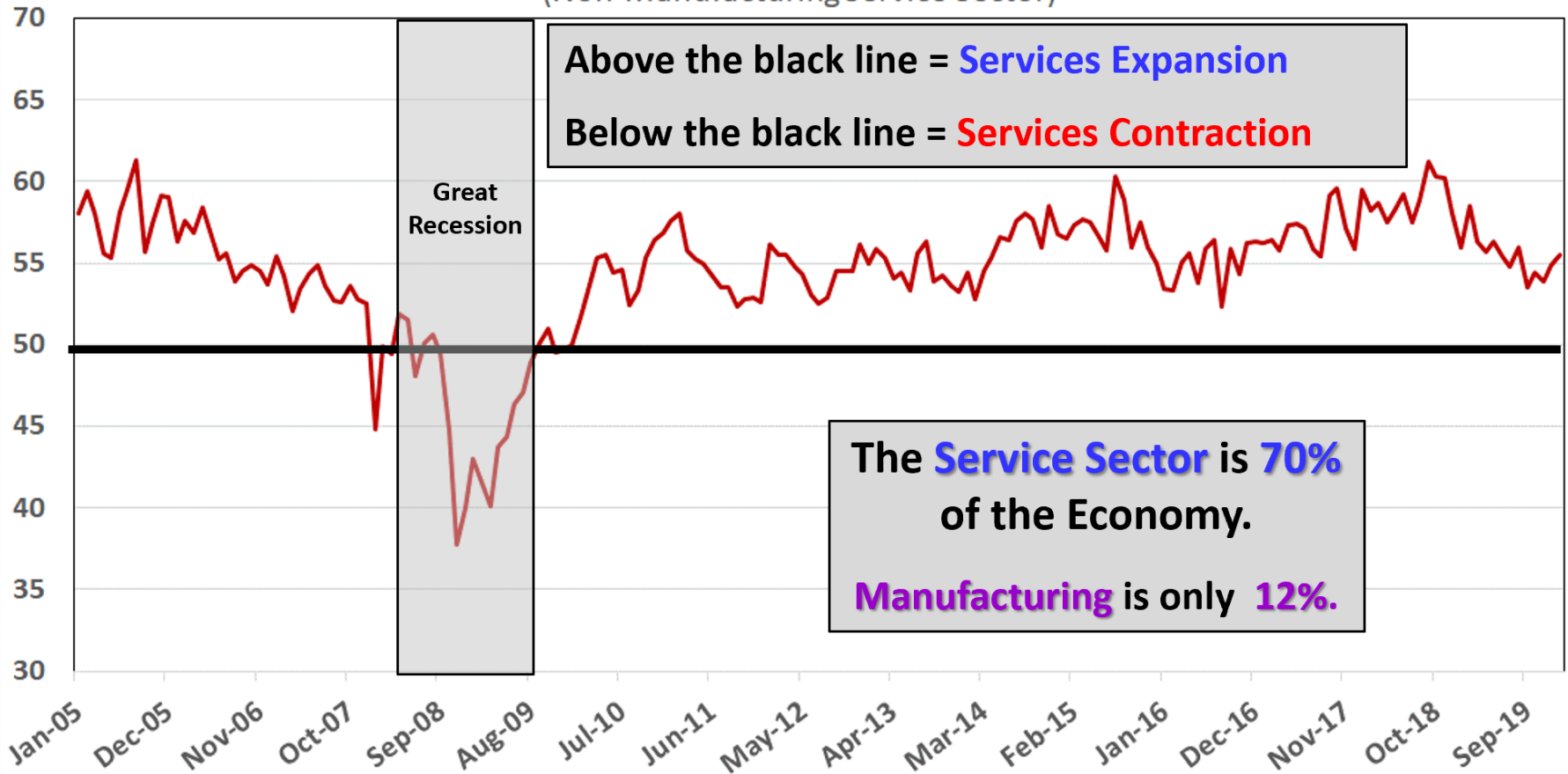
Consumer confidence index for households with annual incomes...



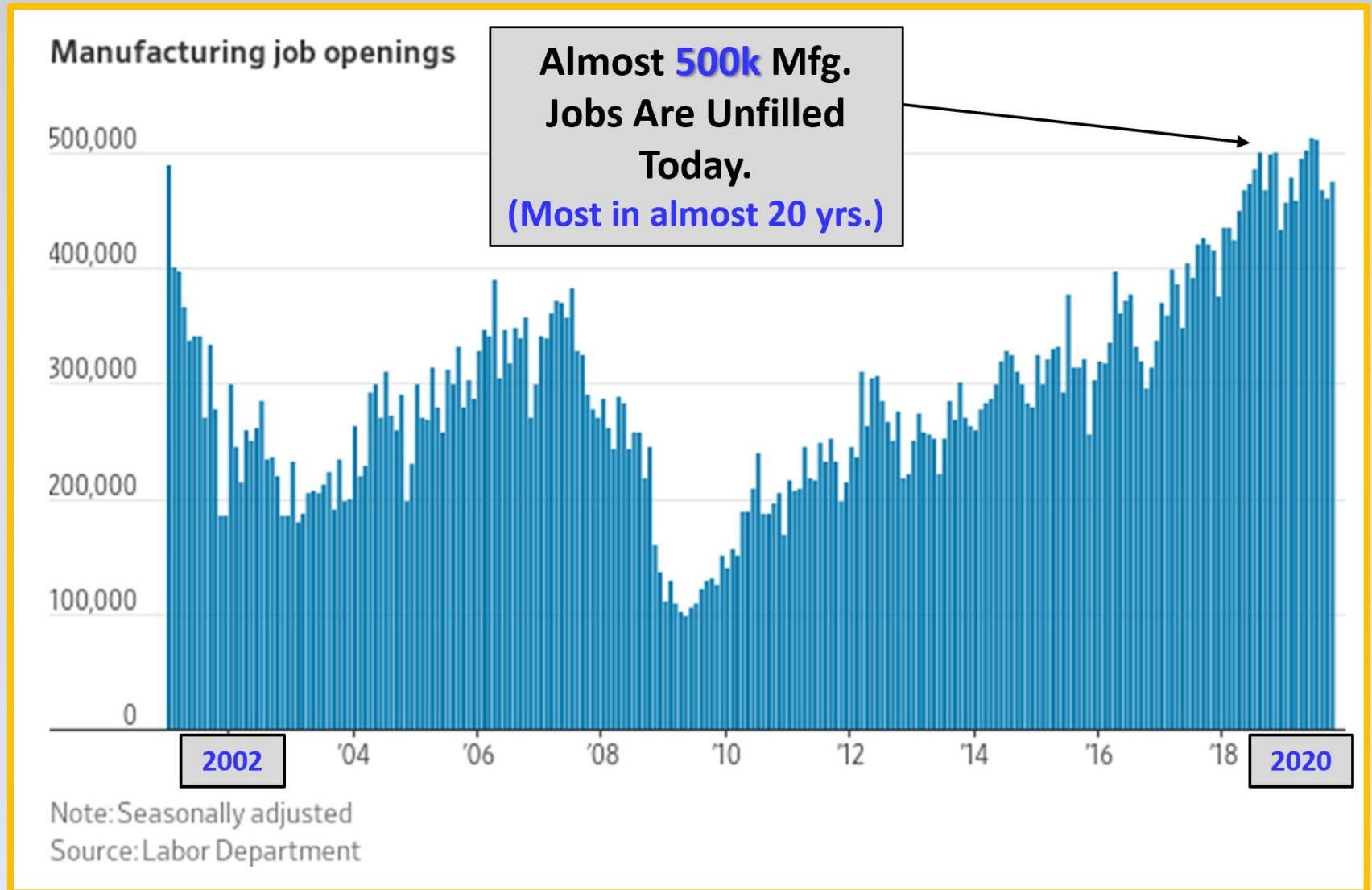
Source: The Conference Board

The Service Sector Has Been Expanding Uninterrupted Since August, 2009

Institute for Supply Management Purchasing Managers' Index
(Non-Manufacturing Service Sector)



And There Are Plenty of U.S. Manufacturing Jobs Available But Remaining Unfilled



Workers Don't Want To Relocate As Much Today As In Past

Stand Still

Share of people in the U.S. who moved geographically in the past year is at a low.

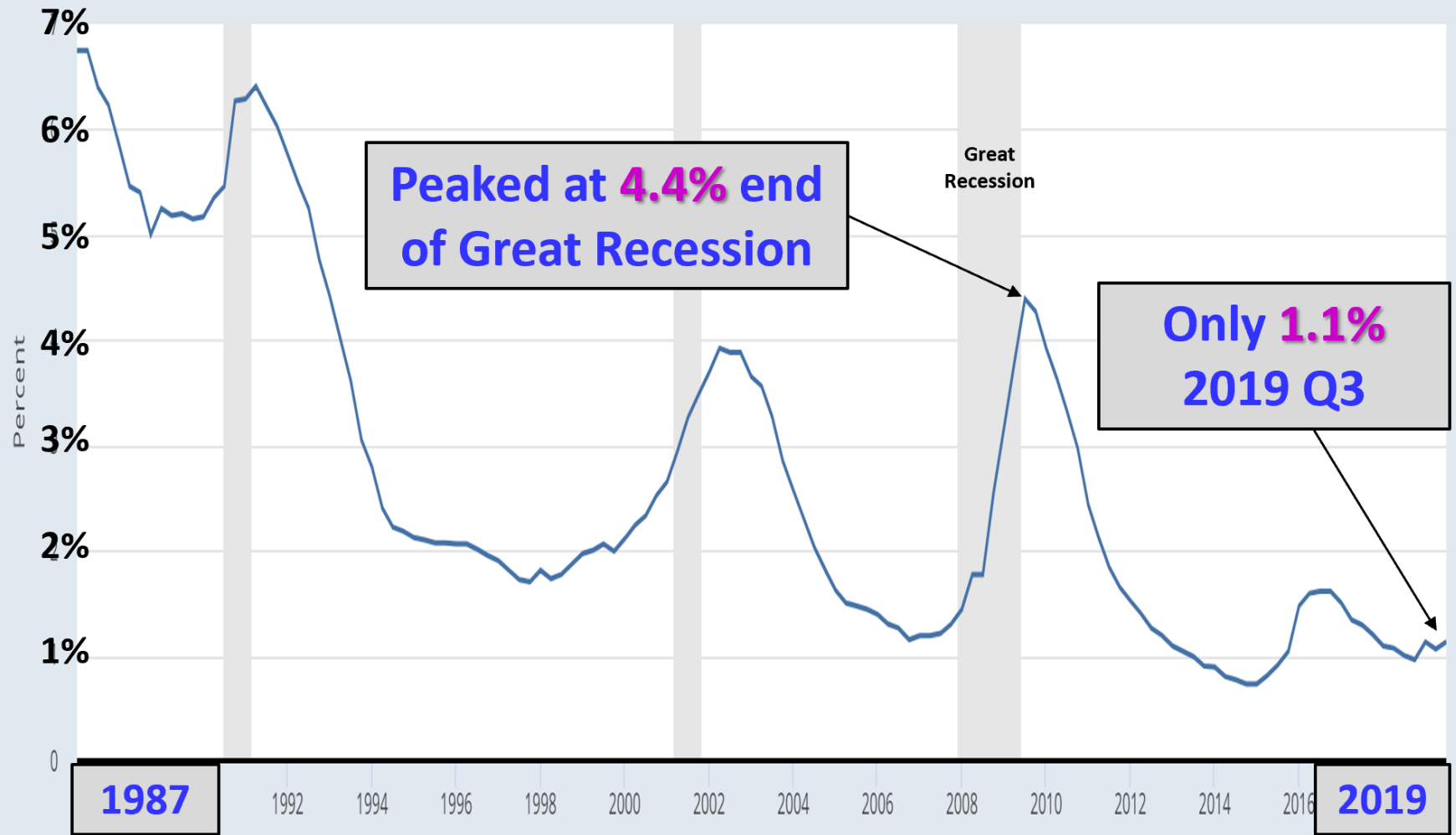


Source: U.S. Census

Commercial & Industrial Loan Delinquencies From Commercial Banks Are Still Low

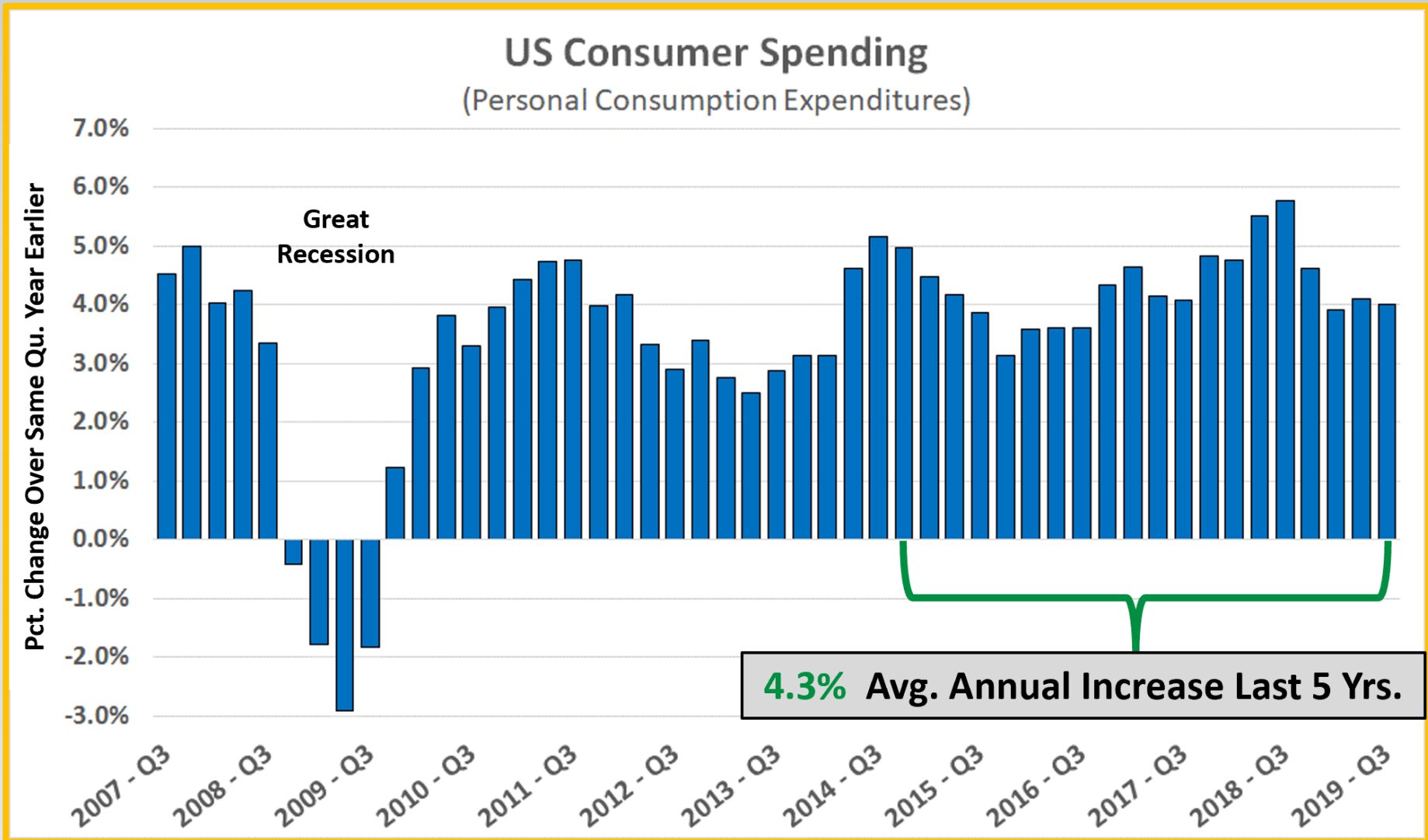
FRED

— Delinquency Rate on Commercial and Industrial Loans, All Commercial Banks

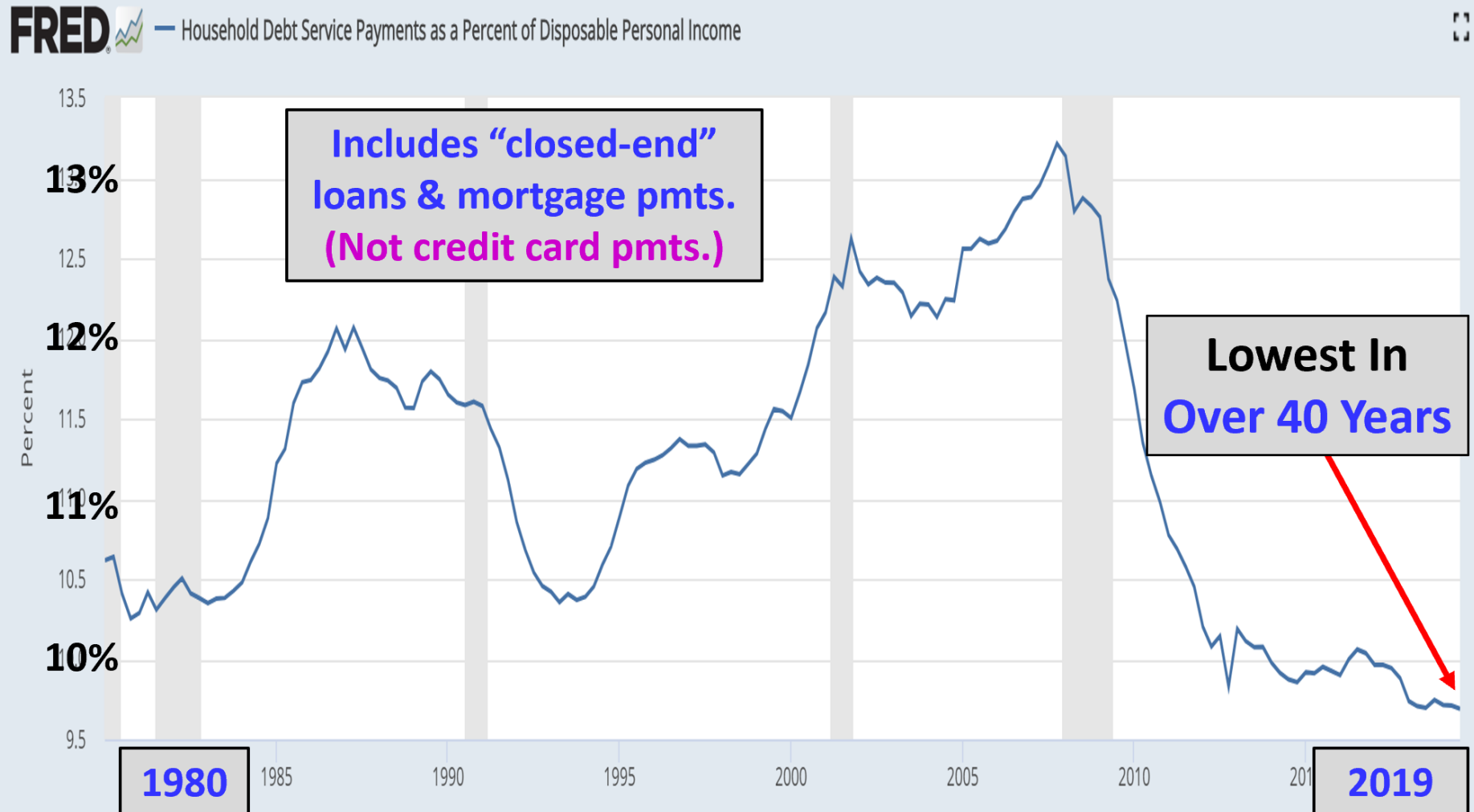


Source: St. Louis Federal Reserve (FRED)

Consumer Spending Remains Strong

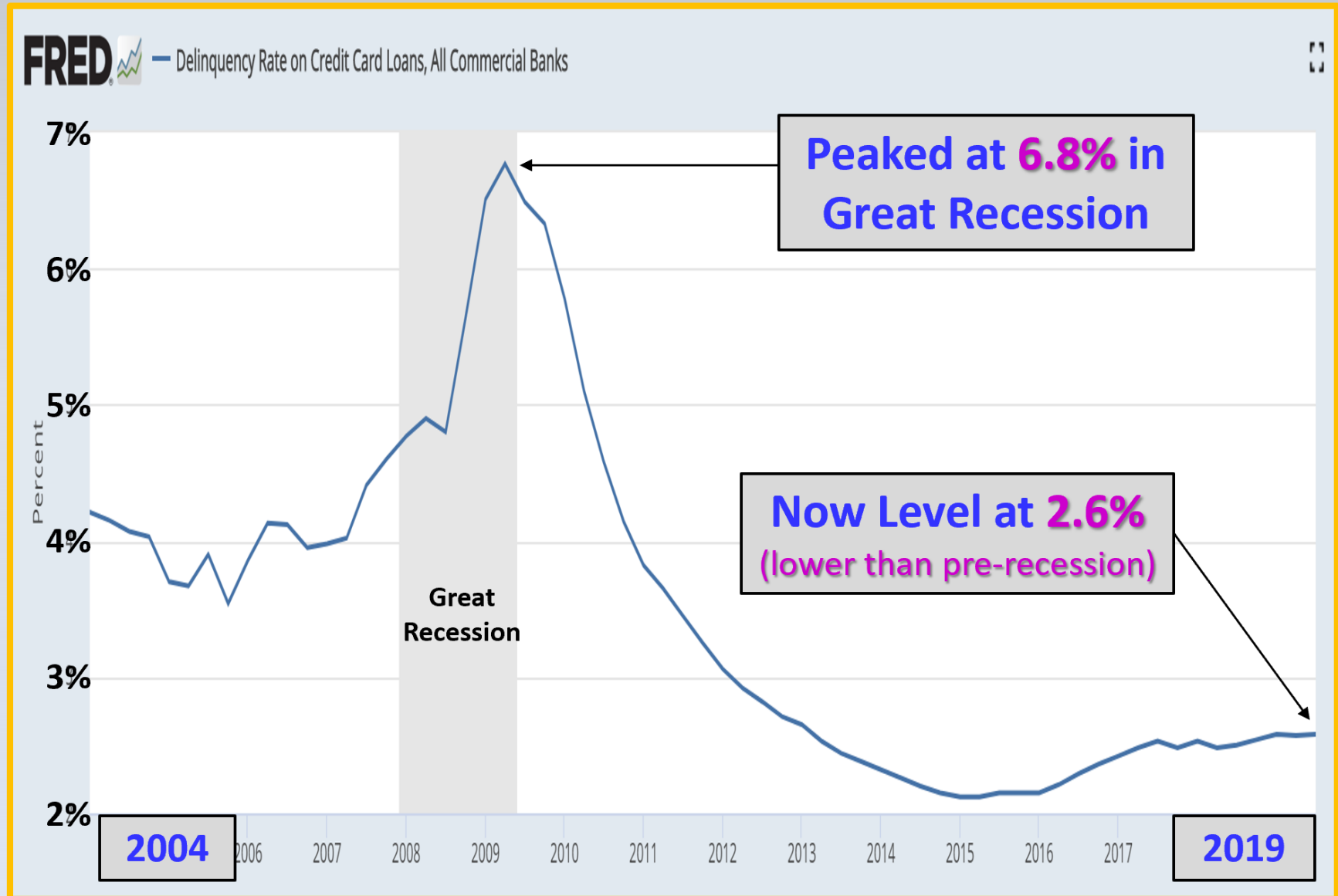


Household Debt Service Payments As A Pct. Of Disposable Income Are Still Trending Lower



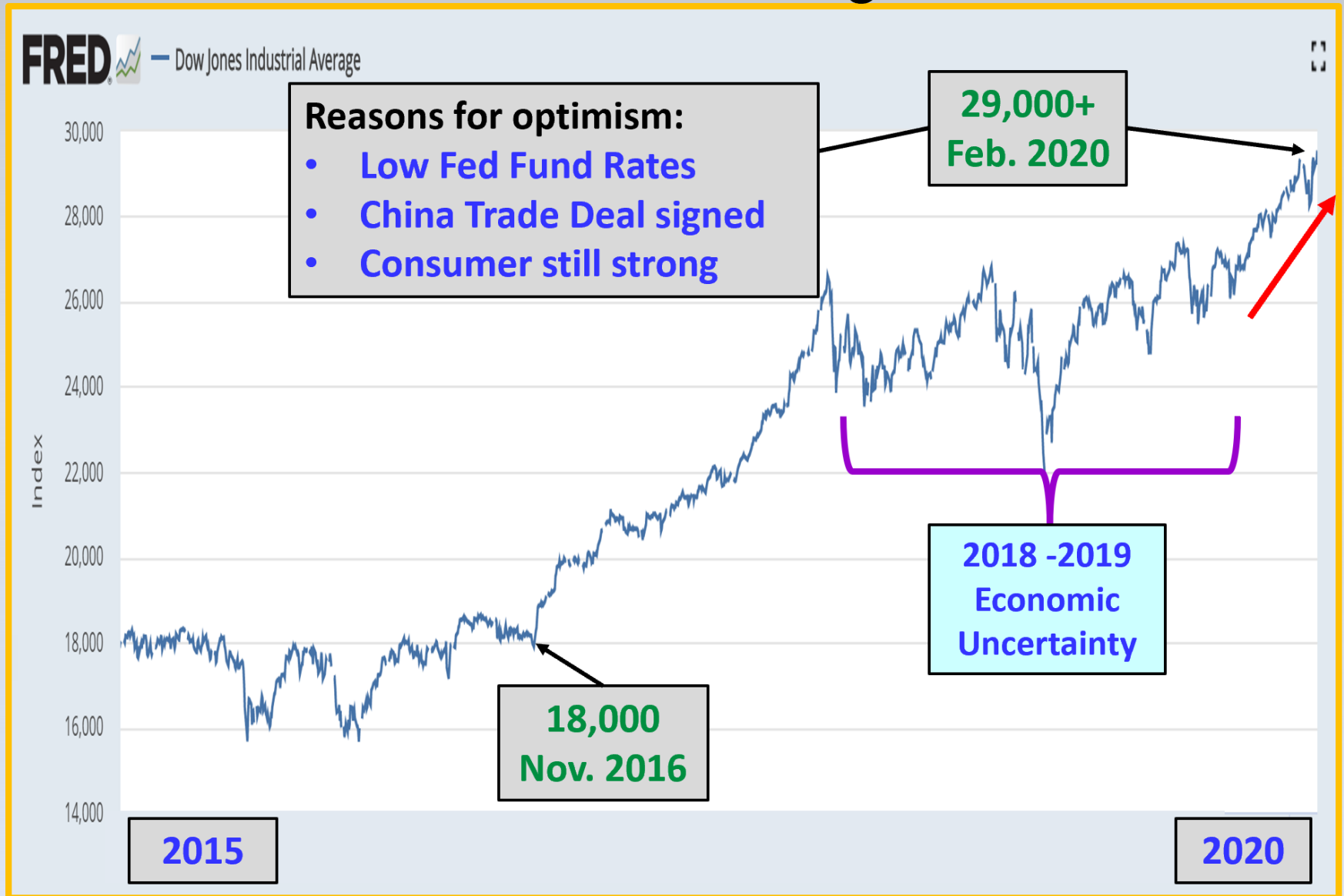
Source: St. Louis Federal Reserve (FRED)

Credit Card Delinquencies Are Remaining Flat At A Low Level



Source: Board of Governors of the Federal Reserve System and St. Louis Fed

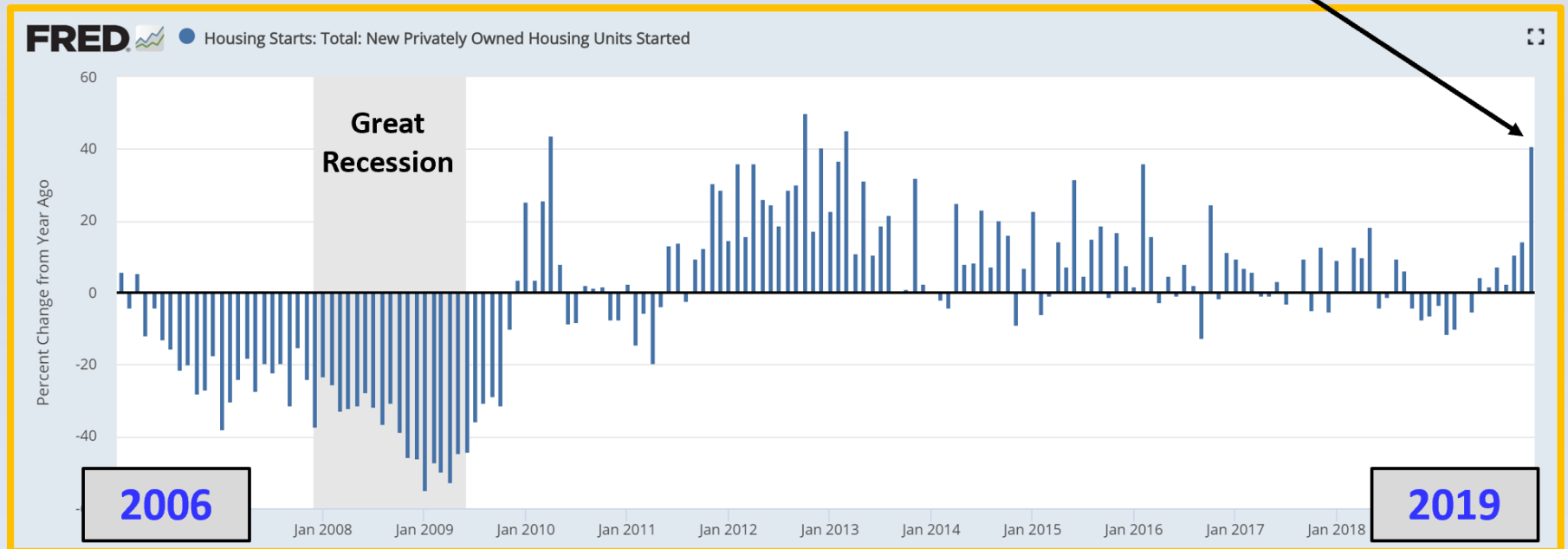
Is The Stock Market Saying Future Economic Conditions Are Looking Better?



A Couple Of Other Positives

Trump signed the new **USMCA Agreement** that will replace NAFTA. (Should be a plus for both the U.S. and Texas economies.)

U.S. Housing Starts in Dec. 2019 were 41% higher than Dec. 2018. (Lower interest rates & better weather)

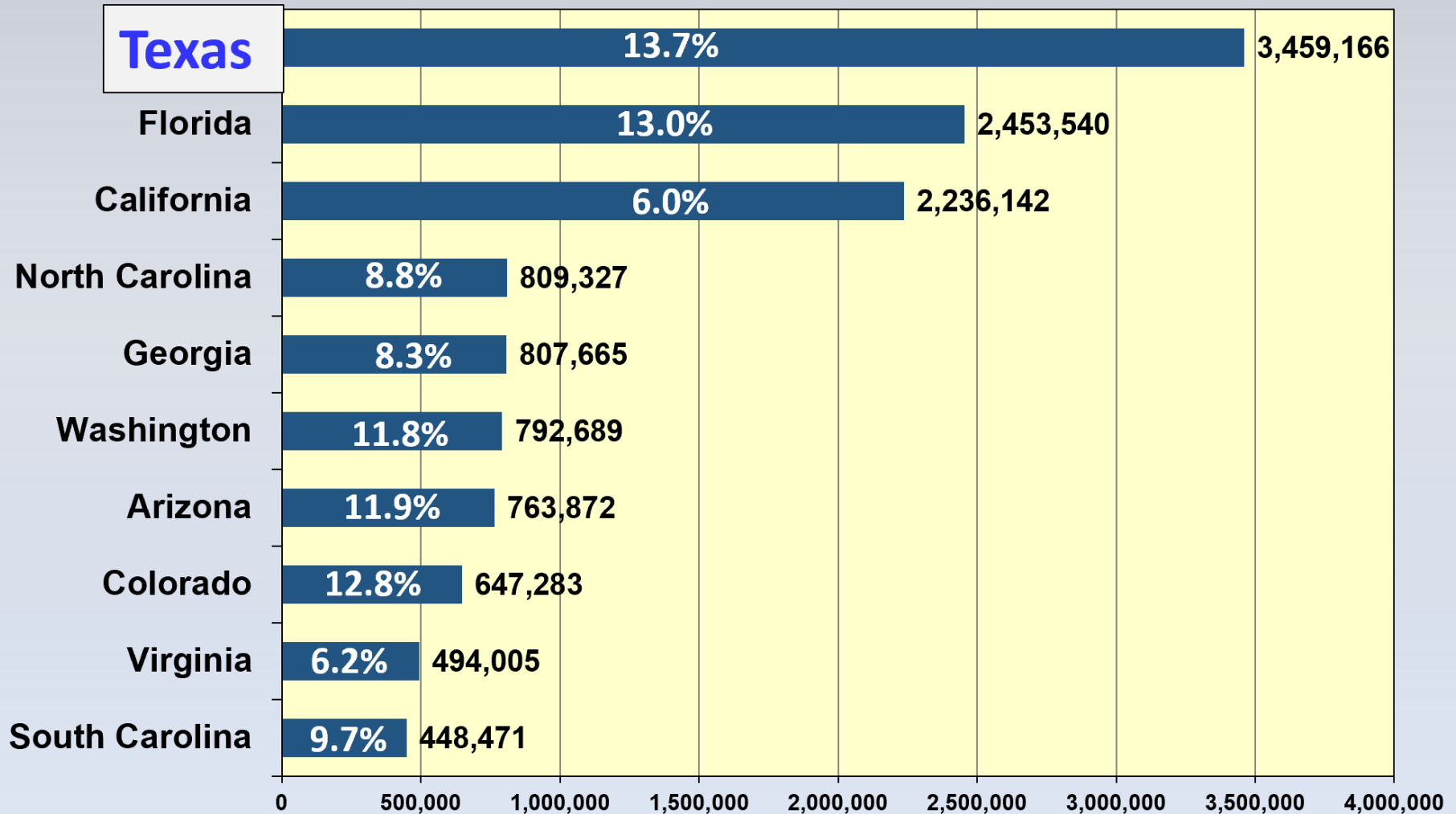


The Texas Economy



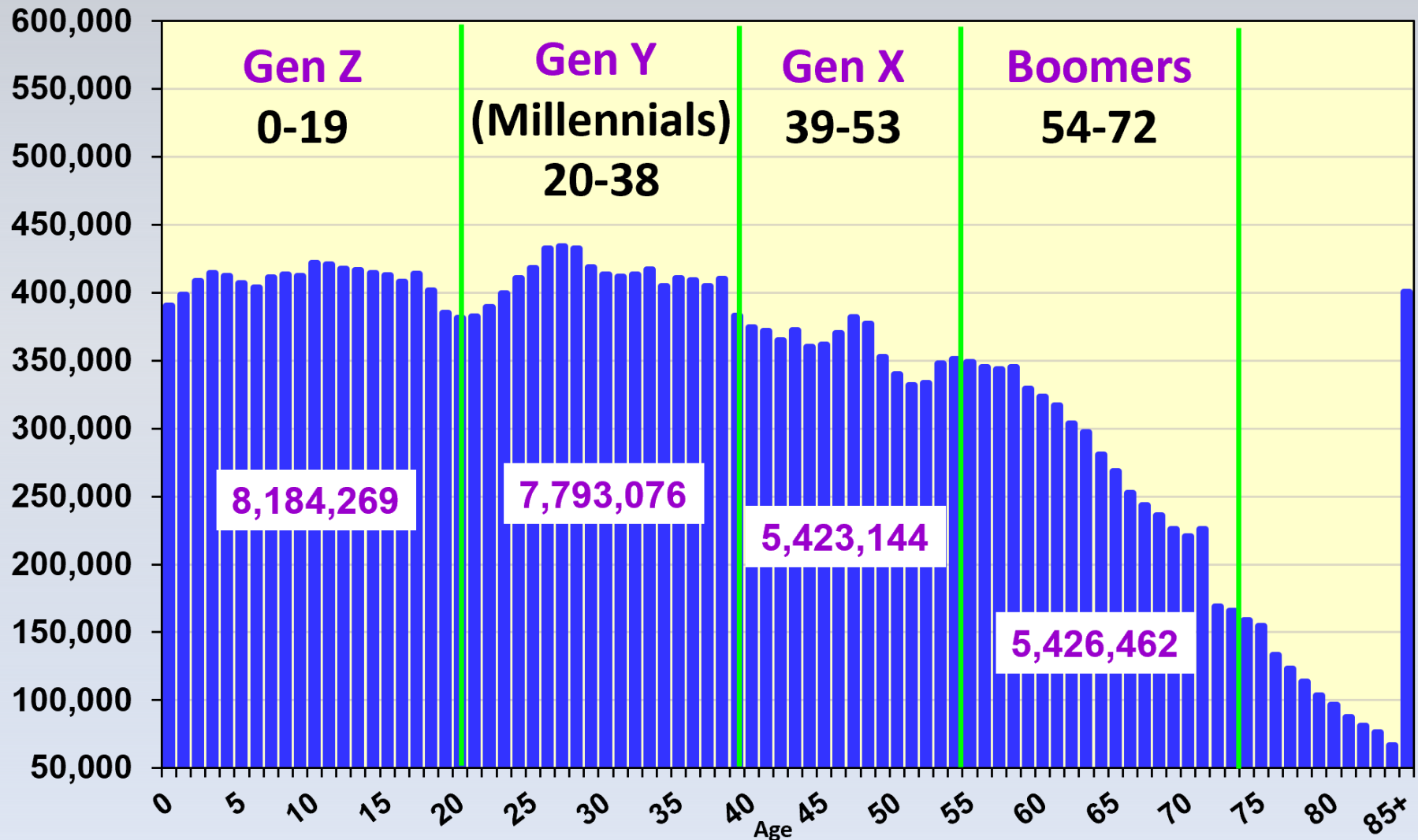
2010-2018 Population Growth

(Top 10 States by Number of People)



Source: U.S. Census Bureau & Real Estate Center at Texas A&M University

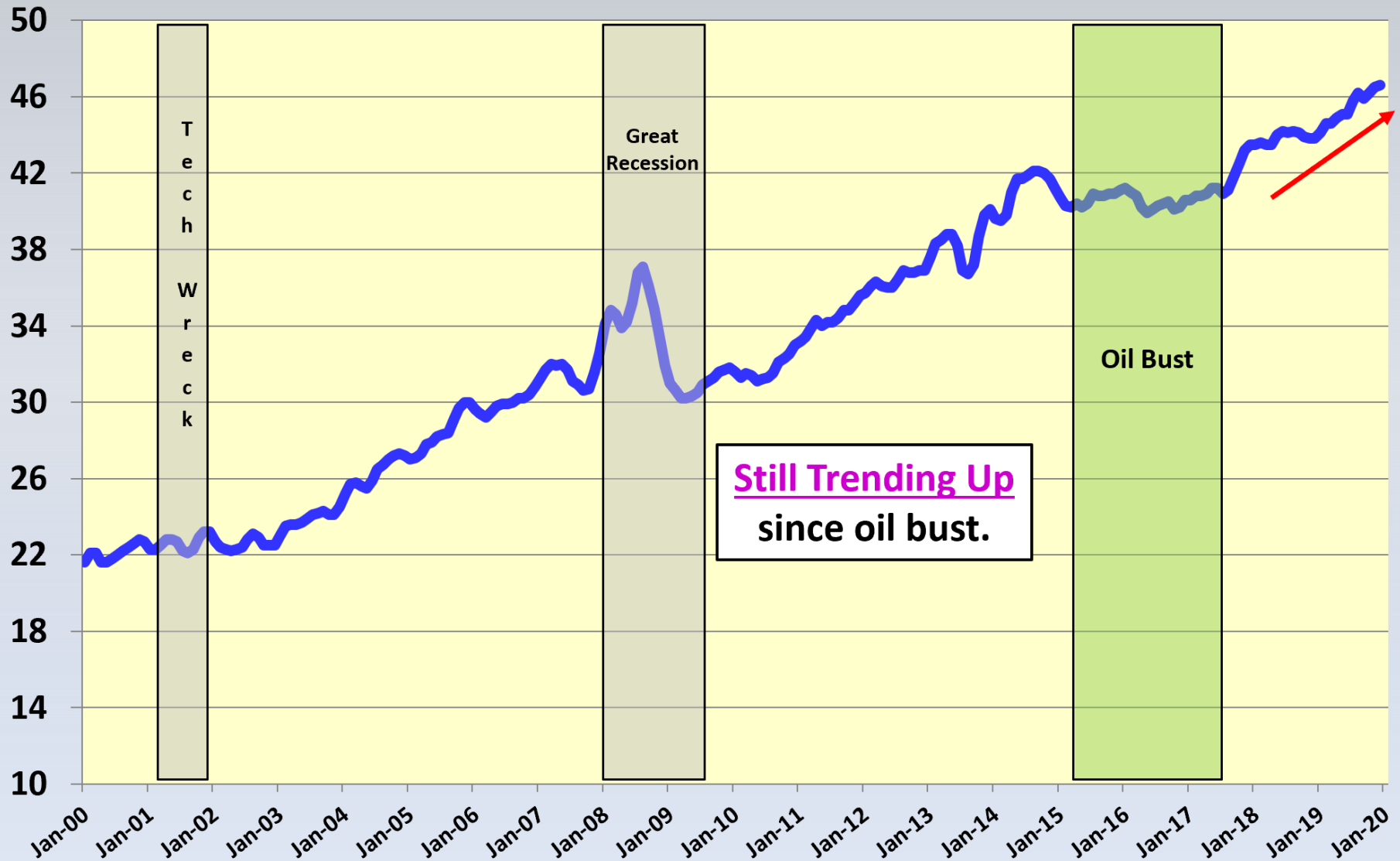
Texas Population is Young Compared To Other States



Source: U.S. Census Bureau, National Population by Characteristics: 2010-2018 and REC at Texas A&M

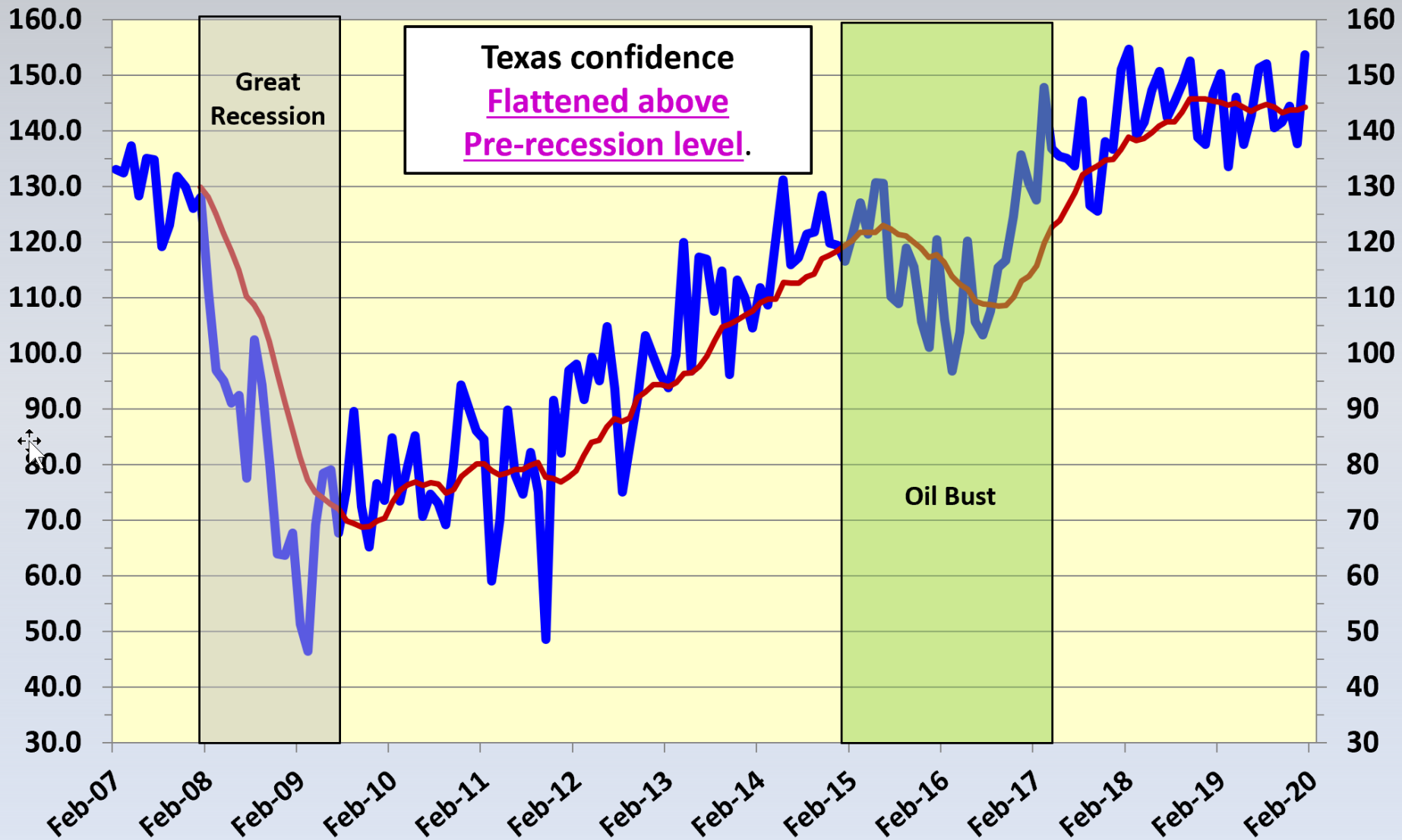
Texas Retail Sales

(Monthly Data Seasonally Adjusted in Billions of Dollars)

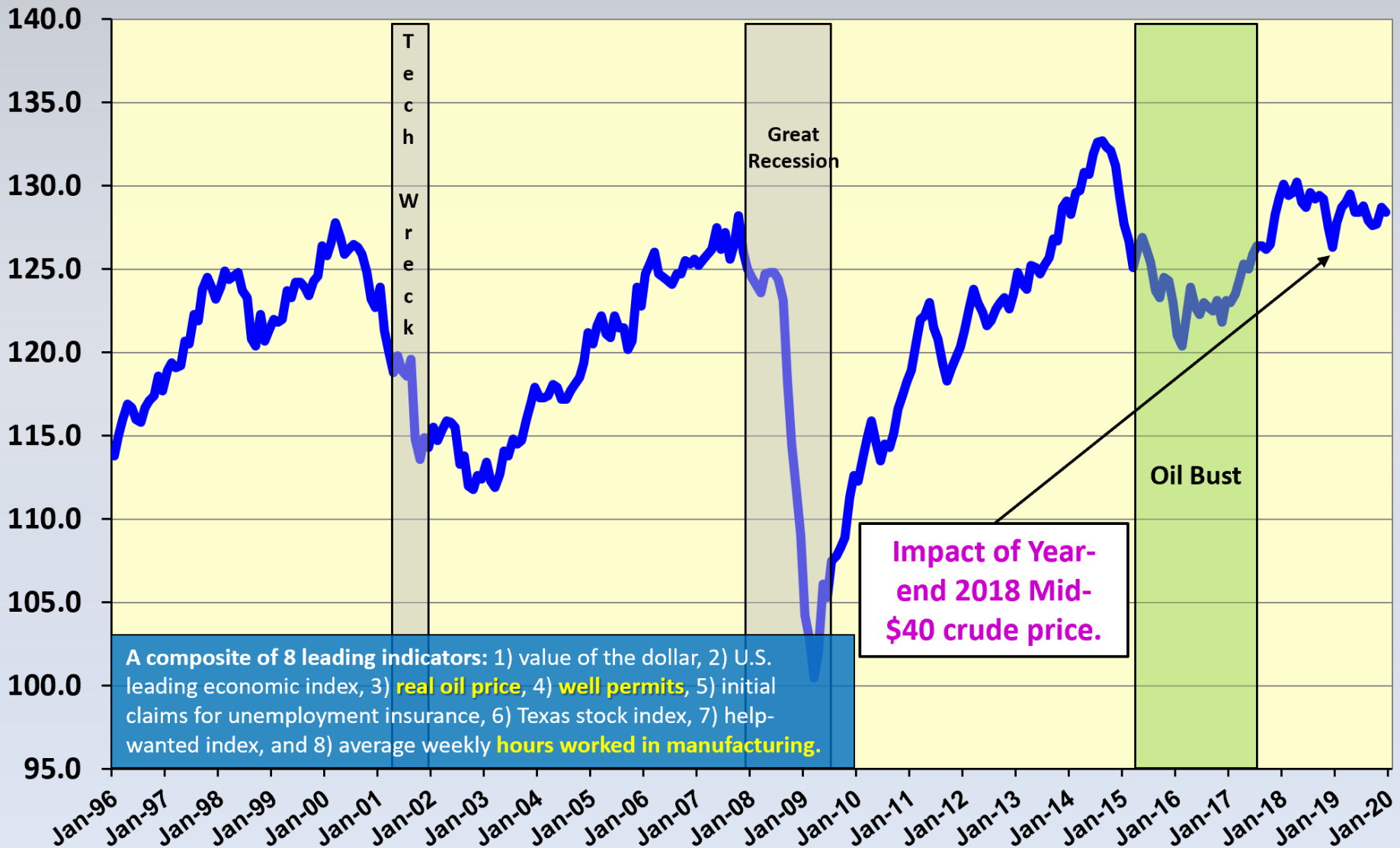


Still Trending Up
since oil bust.

Texas Consumer Confidence Index



Texas Leading Economic Index

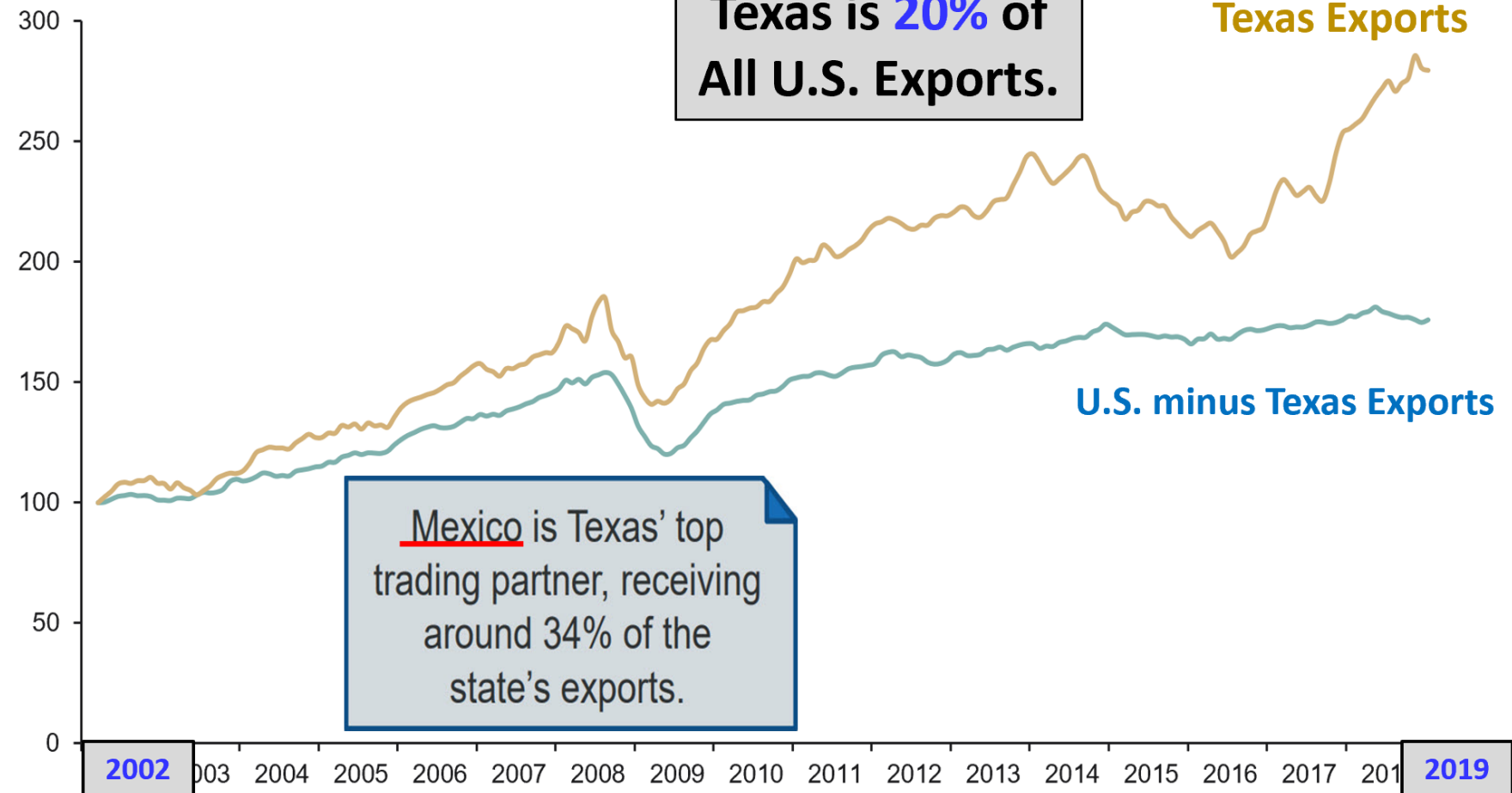


Texas Export Growth Still Strong

Chart 1

Texas Exports Soar Since 2016

Index, March 2002 = 100*



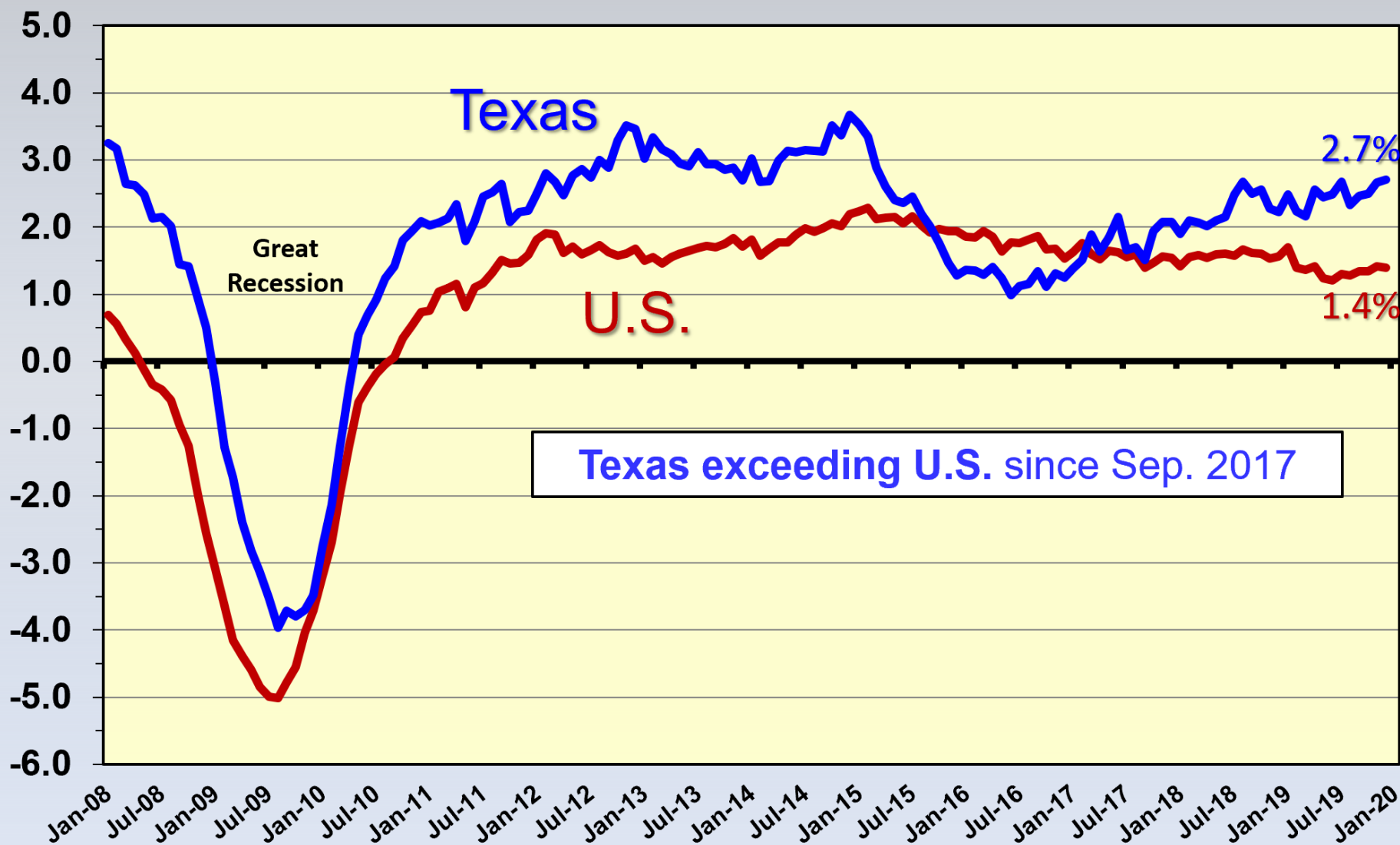
*Three-month moving average of seasonally adjusted, real dollars.

SOURCES: Census Bureau; Bureau of Labor Statistics; authors' calculations.

Federal Reserve Bank of Dallas

Employment Growth Rates Since Recession

(Total Non-farm: Y/Y Change by month for U.S. & Texas thru Dec. 2019)



Texas Employment Change by Sector:

(Year-over-Year Chg. Dec. 2018 to Dec. 2019)

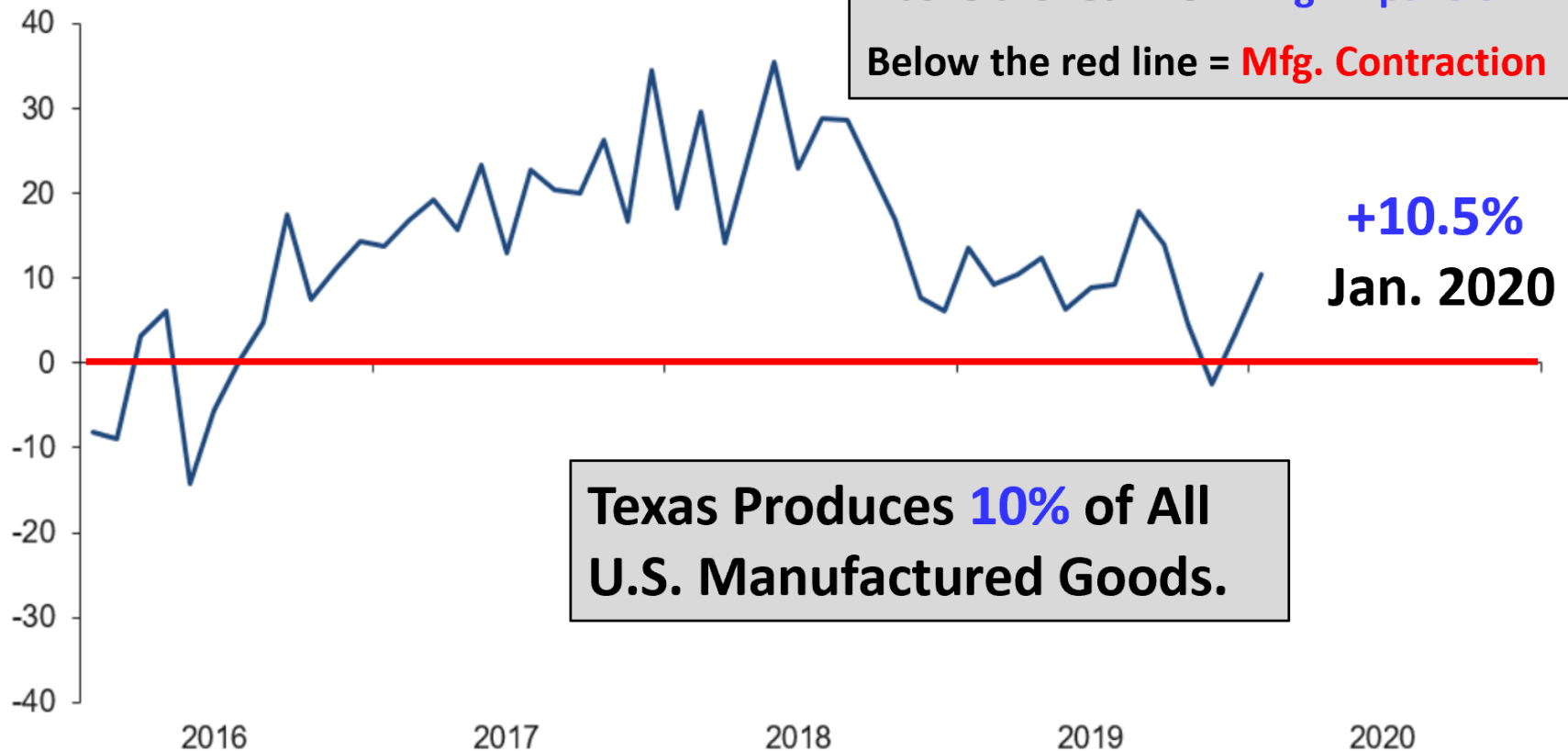
Industry	Jobs as of Dec. 2019	Change in Jobs Since Dec. 2018	Pct. Change	2018 Avg. Annual Salary (TX)
Construction	808,200	56,900	7.6%	\$65,554
Financial Activities	821,100	37,900	4.8%	\$83,356
Other Services	456,500	20,400	4.7%	\$39,429
Educ. & Health Services	1,778,300	57,700	3.4%	\$48,036
Prof. & Bus. Services	1,806,000	55,900	3.2%	\$74,443
Leisure & Hospitality	1,396,200	40,600	3.0%	\$21,861
Trade, Transp. & Utilities	2,619,100	52,700	2.1%	\$52,337
Manufacturing	919,700	18,400	2.0%	\$77,648
Government	1,999,700	16,200	0.8%	\$51,499
Information	203,400	-2,100	-1.0%	\$87,085
<u>Mining & Logging</u>	247,000	-10,400	-4.0%	\$126,997
Total Non-farm Jobs	13,055,200	344,200	2.7%	\$58,622

Source: [Haver Analytics](#) for Texas Total Non-farm Employment

Texas Manufacturing Production Has Bounced Back

Texas Manufacturing Outlook Survey Production Index

Index, seasonally adjusted



Federal Reserve Bank of Dallas

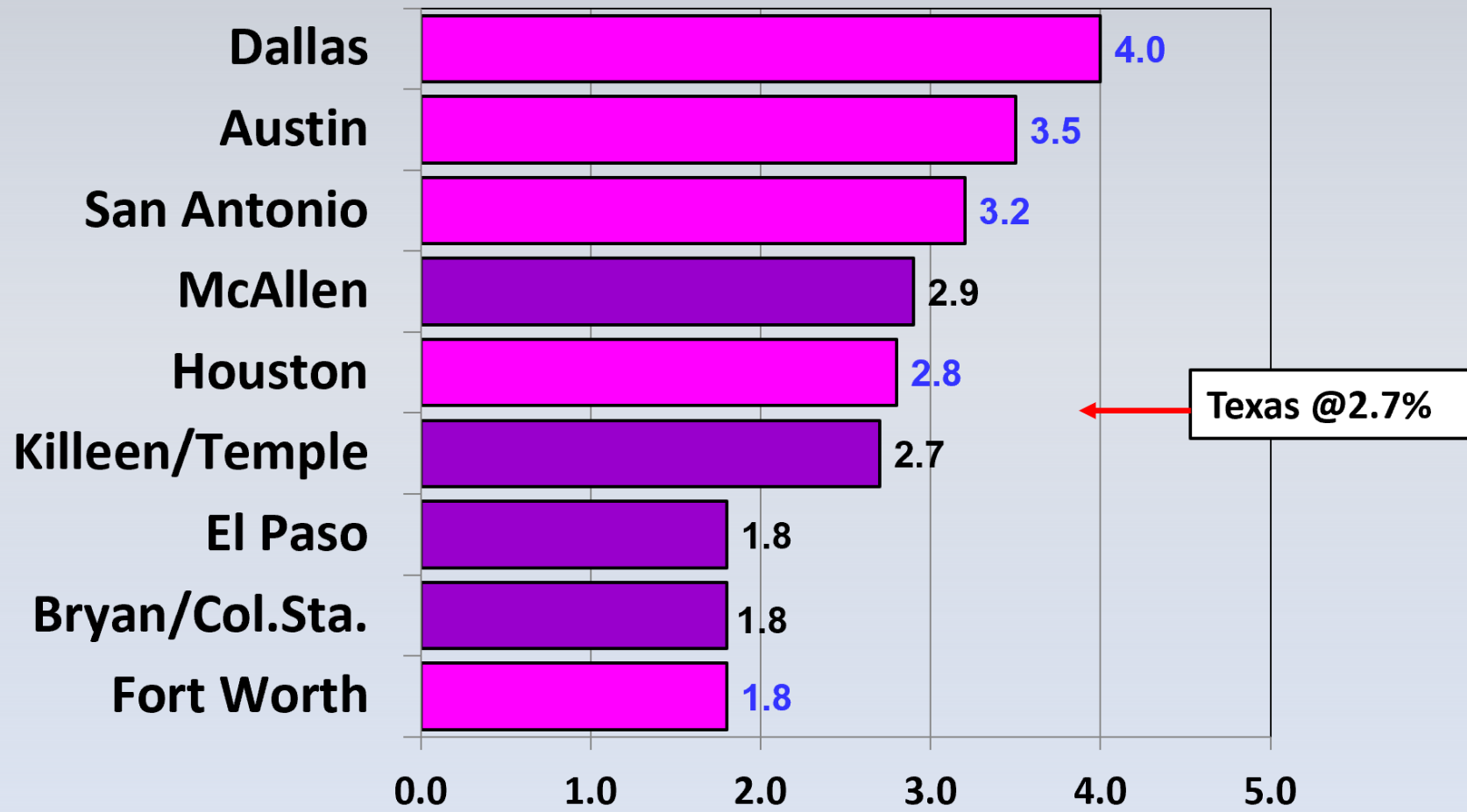
Ranking the Texas Metros

Job Growth



Ranking **Job Growth** in Past 12 Months

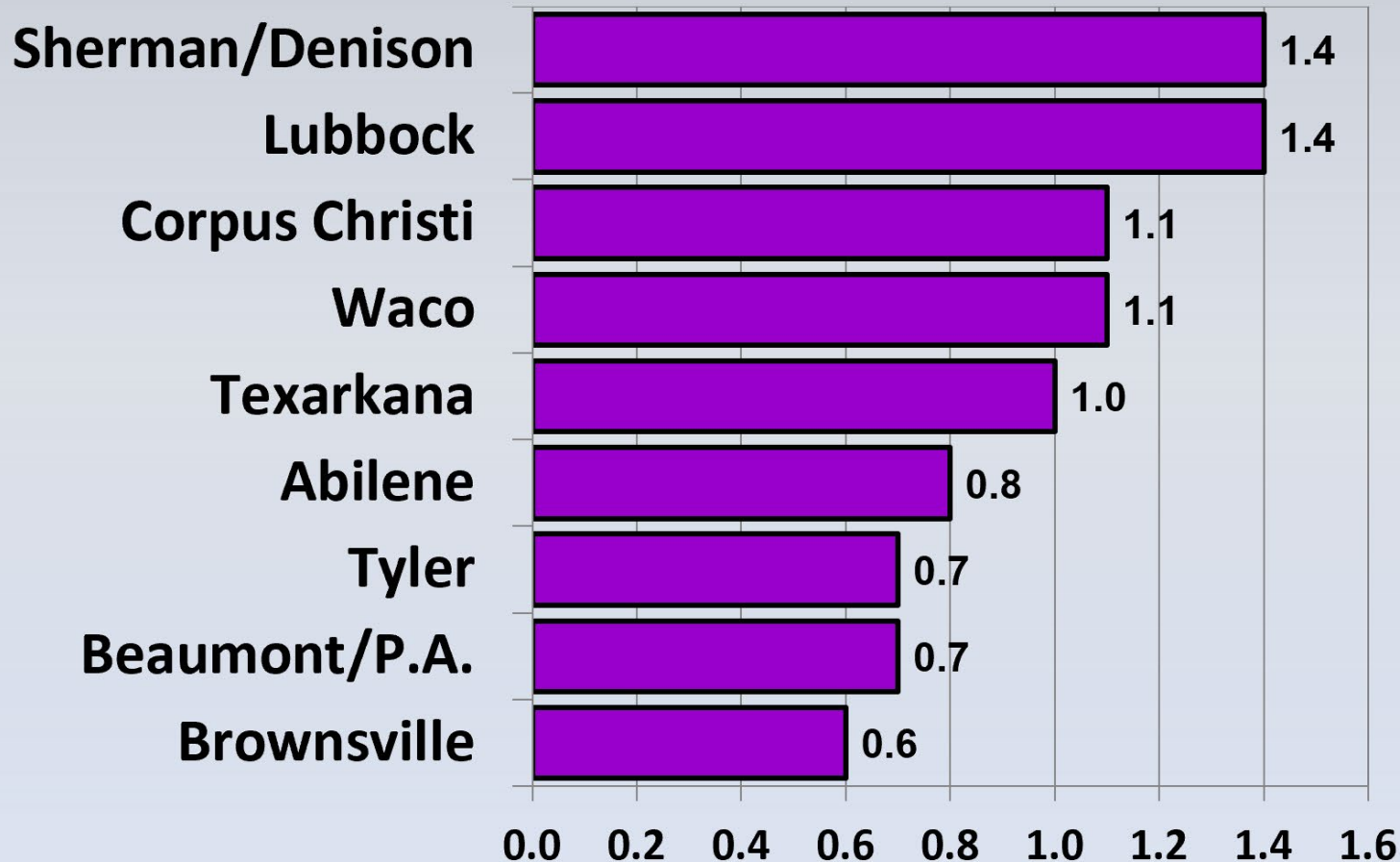
(Total Non-farm: Pct. Increase Dec. 2018 to Dec. 2019)



Source: [Haver](#) Analytics for the Metropolitan Statistical Area (MSA)

Ranking **Job Growth** in Past 12 Months

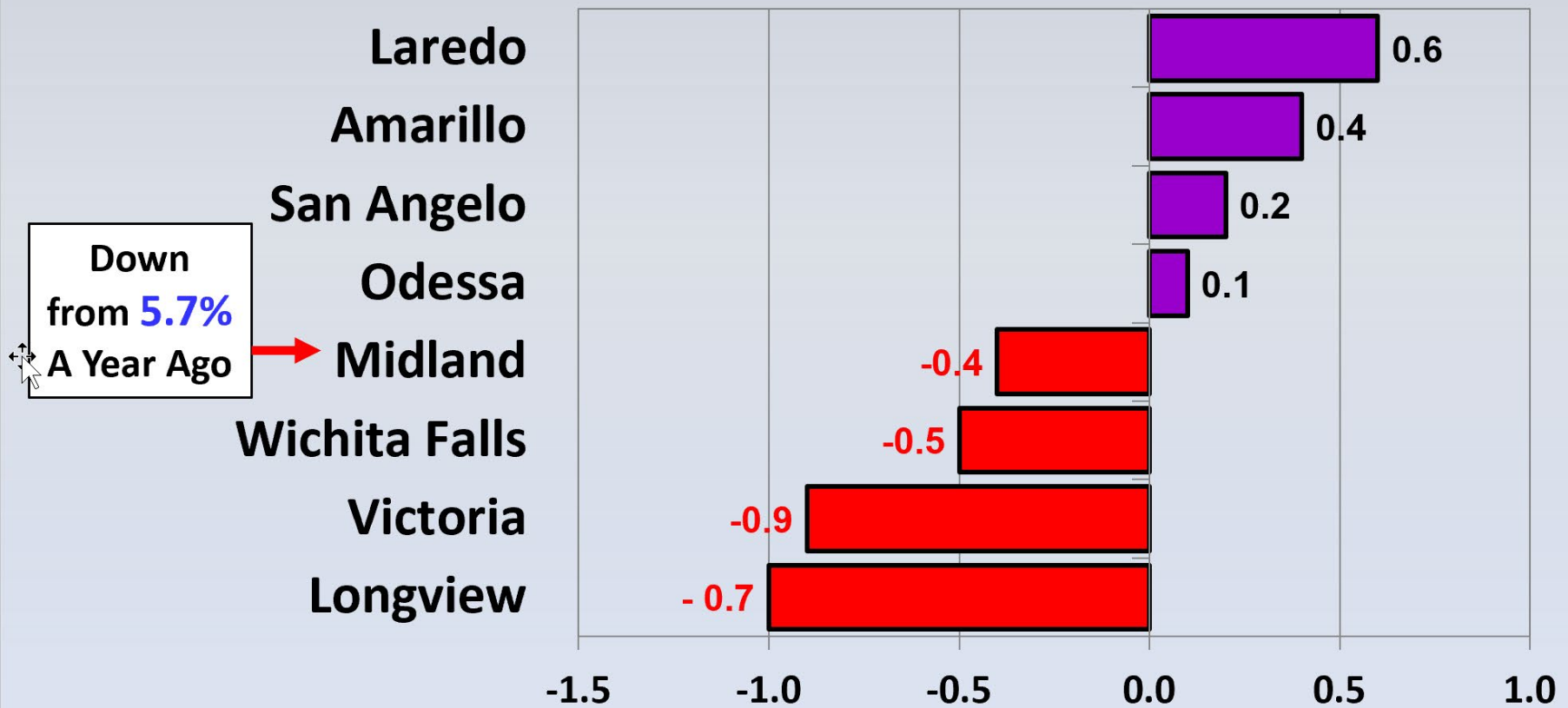
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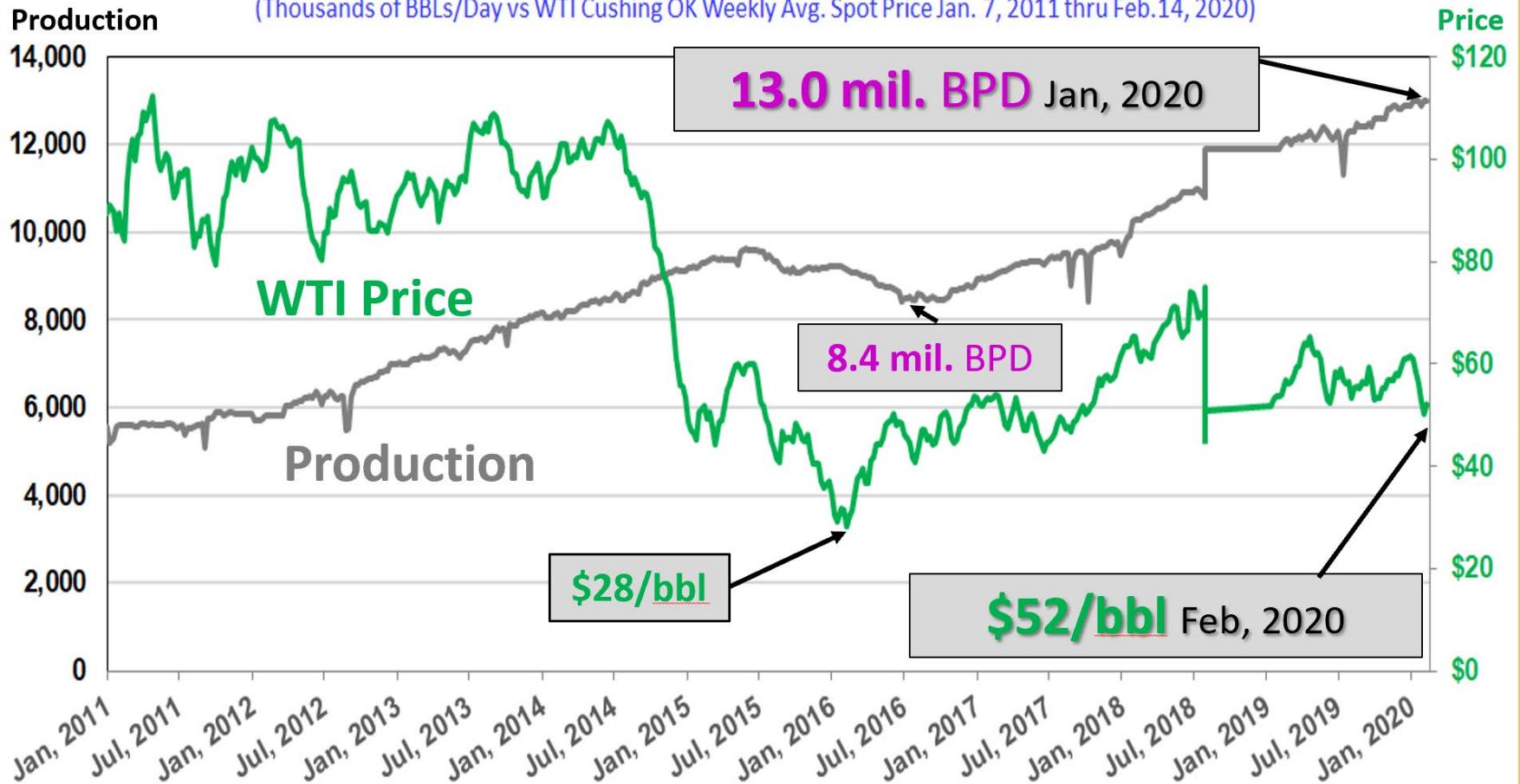
The Energy Market



U.S. Crude Production vs WTI Crude Price

U.S. Crude Production vs WTI Price

(Thousands of BBLs/Day vs WTI Cushing OK Weekly Avg. Spot Price Jan. 7, 2011 thru Feb.14, 2020)



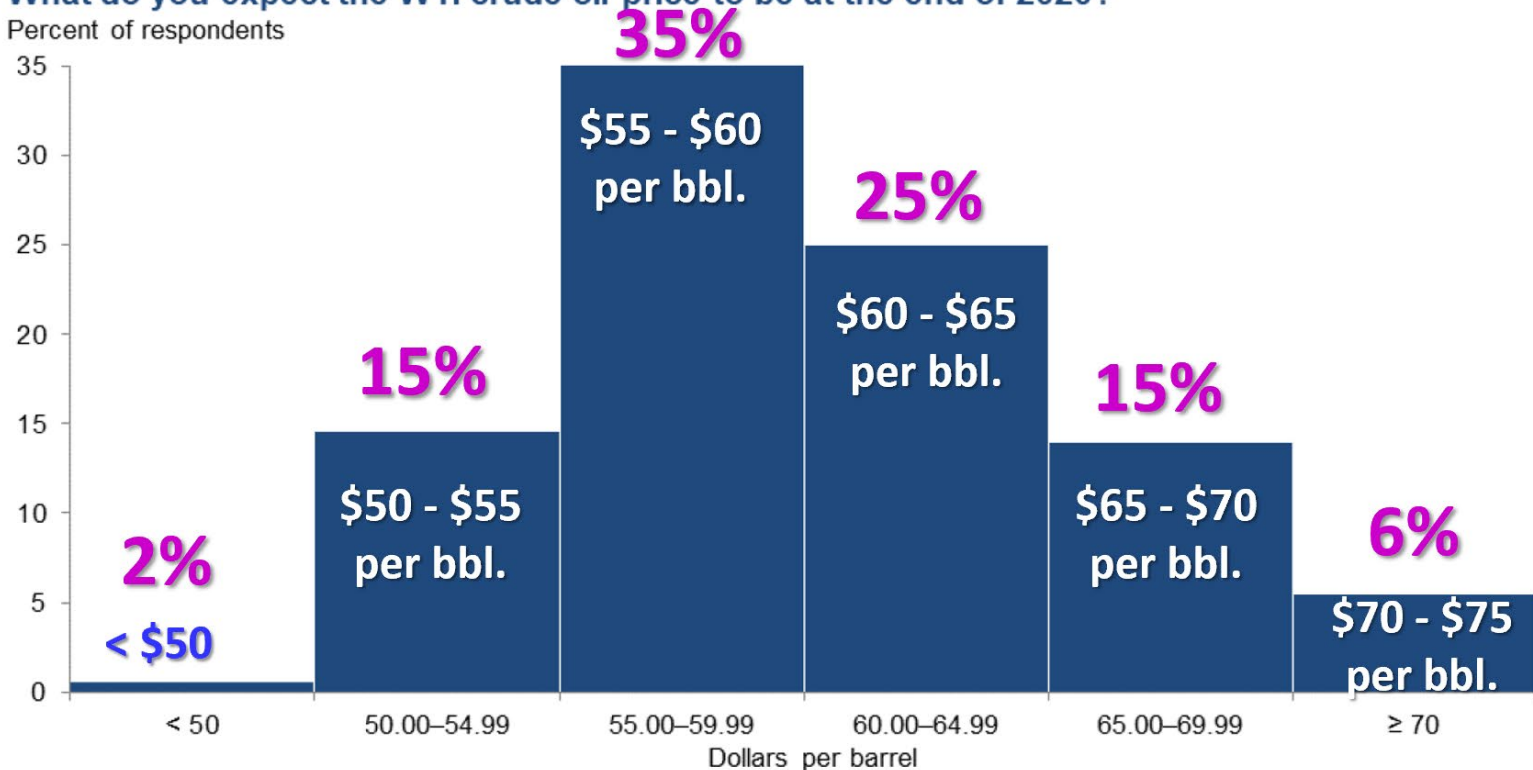
Source: U.S. Energy Information Administration

A Dec. 2019 Guess By 160 Oil Executives Where **Crude Oil Price** Will Be At YE-2020

West Texas Intermediate Crude

What do you expect the WTI crude oil price to be at the end of 2020?

Percent of respondents

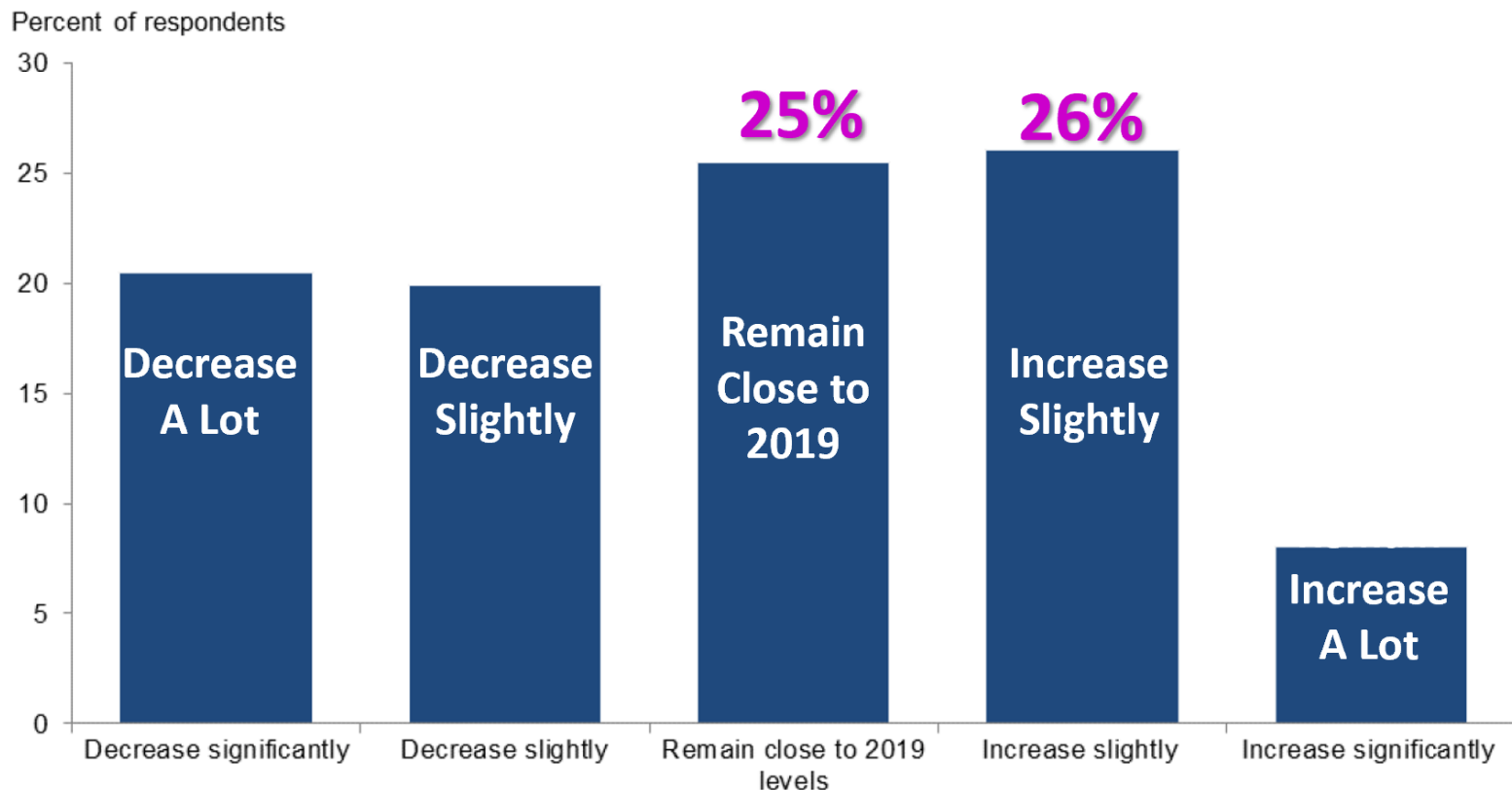


NOTES: Executives from 164 oil and gas firms answered this question during the survey collection period, Dec. 11-19, 2019. For reference, WTI (West Texas Intermediate) spot prices averaged \$60.19 per barrel during the period.

SOURCES: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

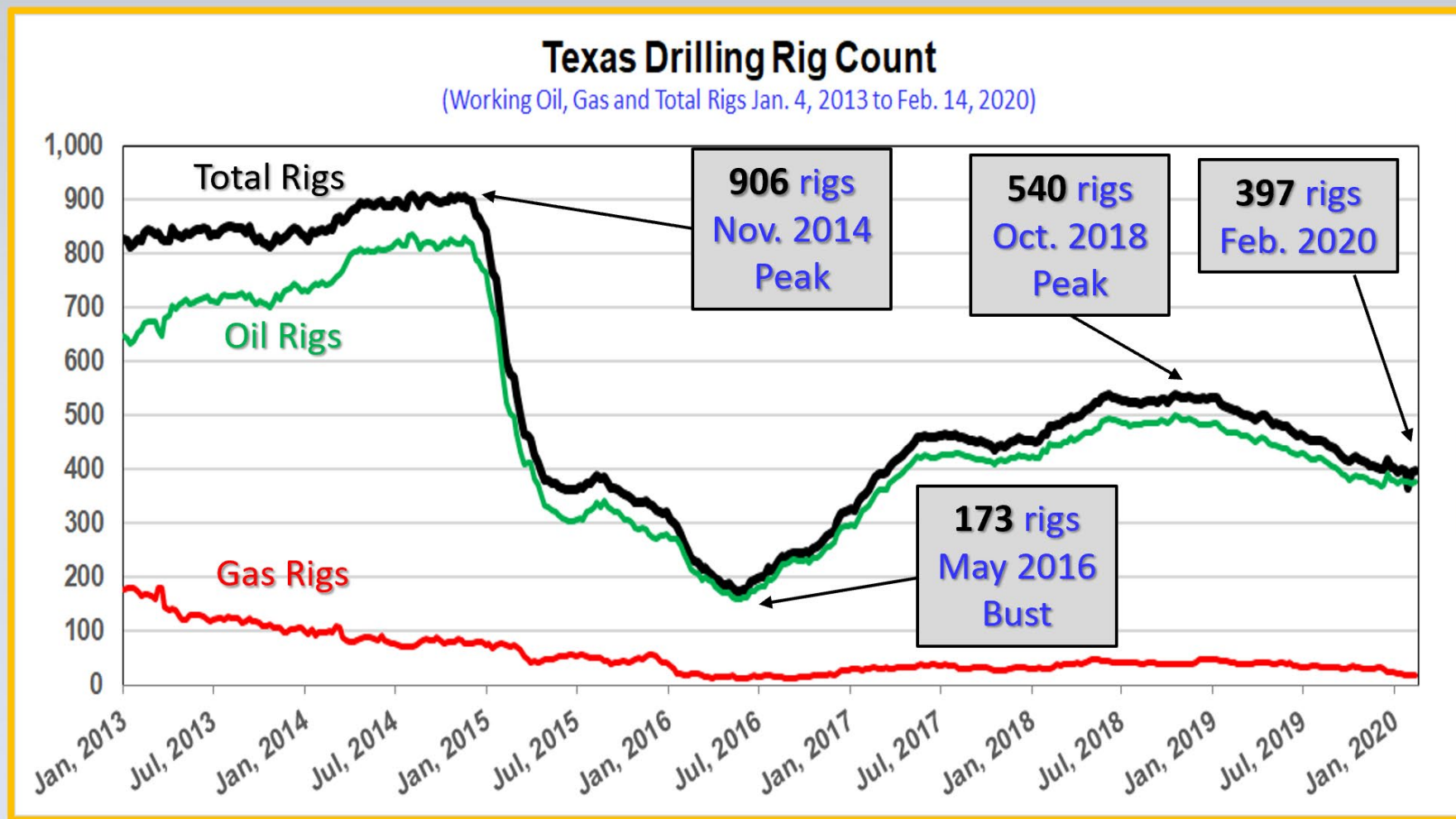
More Than Half Of Firms Expect No or Slight **Capital Spending** Increases

What are your expectations for your firm's capital spending in 2020 versus 2019?



NOTE: Executives from 161 oil and gas firms answered this question during the survey collection period, Dec. 11–19, 2019.
SOURCE: Federal Reserve Bank of Dallas.

Texas Rig Count Down 143 Since Oct.'18

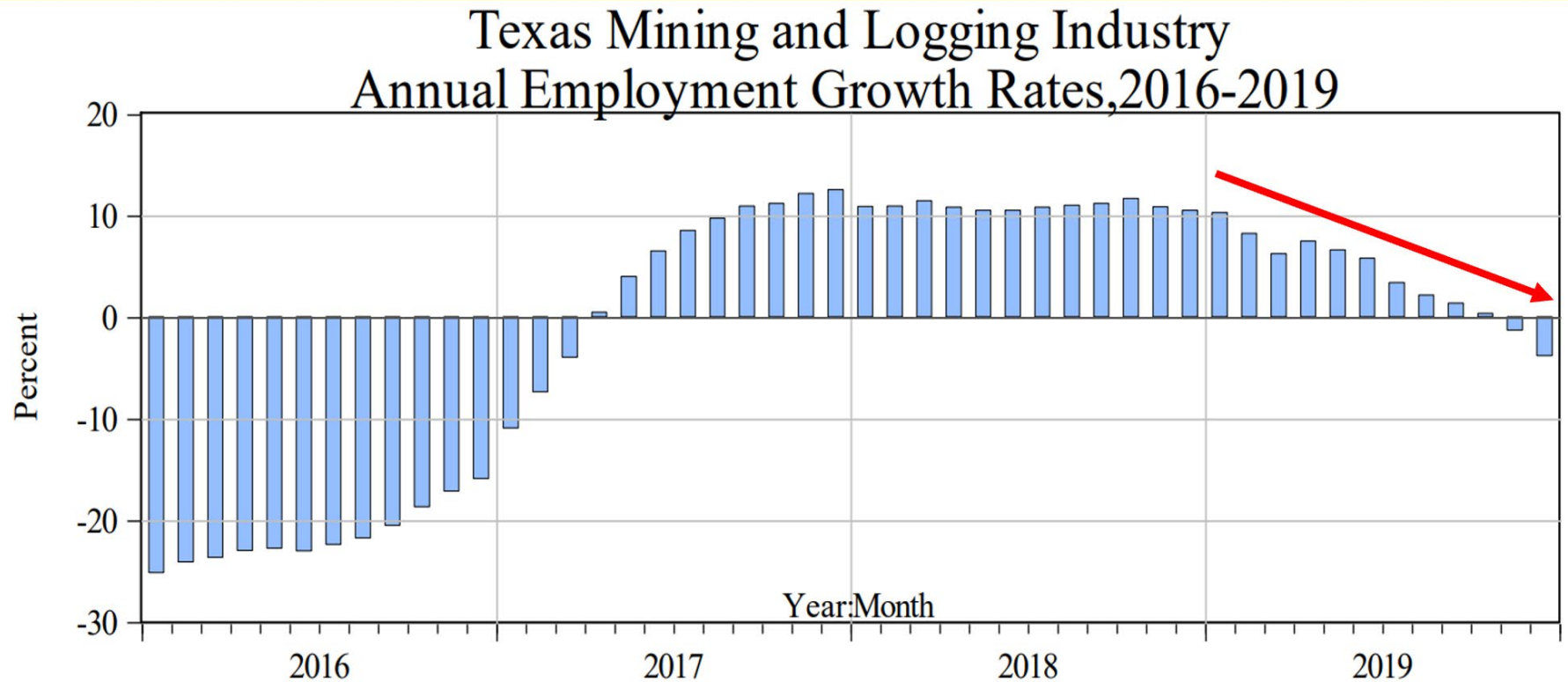


Texas Daily Crude Production: 2014: 3.6 mil. BPD vs 2019: 5.2 mil. BPD

Source: Baker Hughes and Texas Railroad Commission

Texas Mining & Logging **Employment** Continues To Drift Lower

(Year-over-Year Percentage Change thru Dec. 2019)



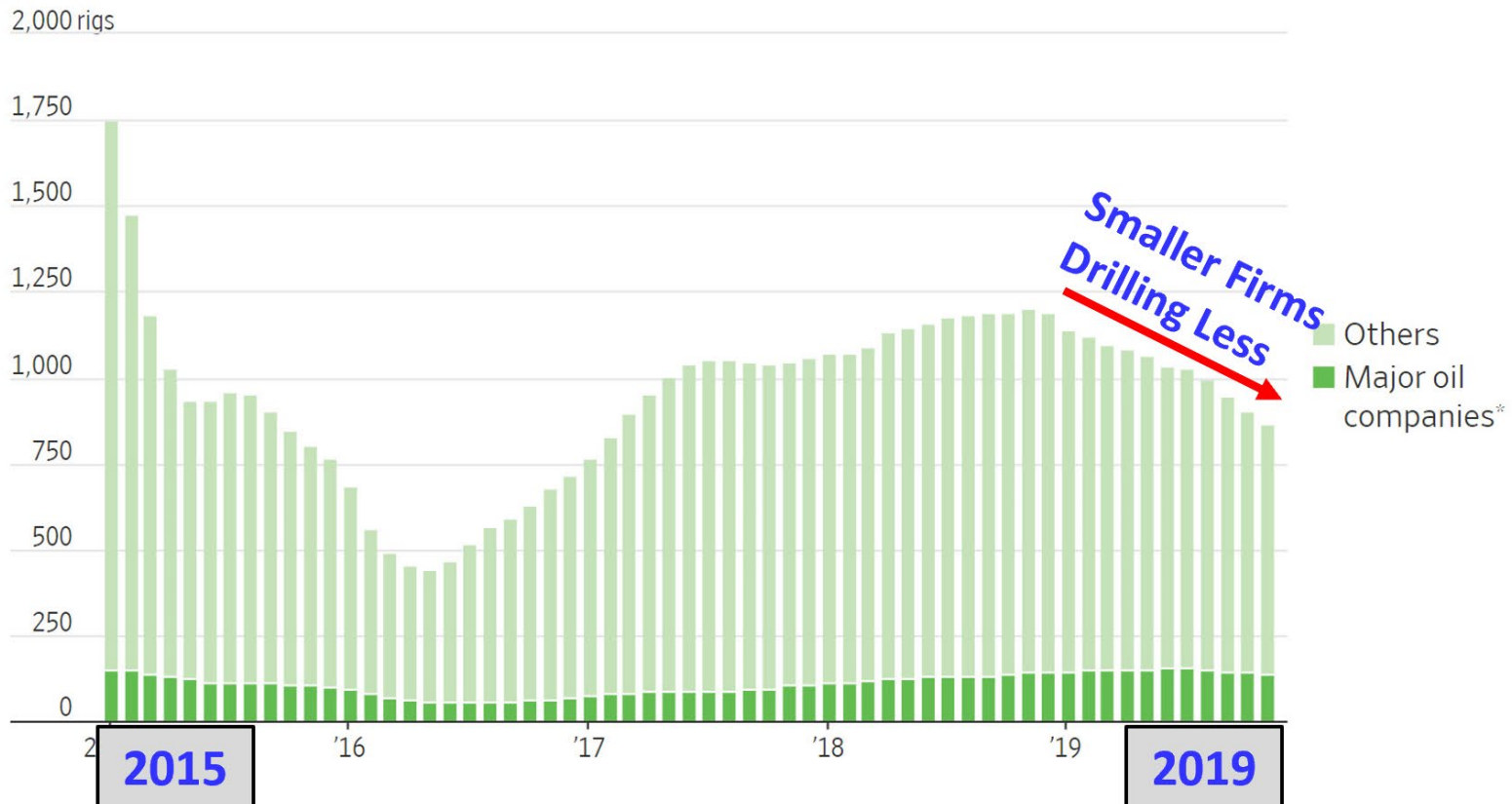
Sources: Texas Workforce Commission and Real Estate Center at Texas A&M University

The Ongoing **Credit Crunch** Is Hurting Small Downstream O&G Firms Much Harder

Drilling Decline

The number of active drilling rigs has fallen, even as larger companies continue to drill.

U.S. rig count



*BP, Chevron, Conoco, Equinor, Exxon, Shell, Total.

Source: Enverus

The Forecast for **Global Crude Demand** Continues to Drop

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≡ MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV USA

ENERGY

OPEC lowers forecast for oil demand growth, says its own market share is dwindling

PUBLISHED TUE, NOV 5 2019•3:30 AM EST | UPDATED TUE, NOV 5 2019•7:41 AM EST

 **Sam Meredith**
@SMEREDITH19

SHARE    

- “At the global level, growth is forecast to slow from a level of 1.4 million b/d in 2018 to around 0.5 million b/d towards the end of the next decade,” OPEC said in the report.

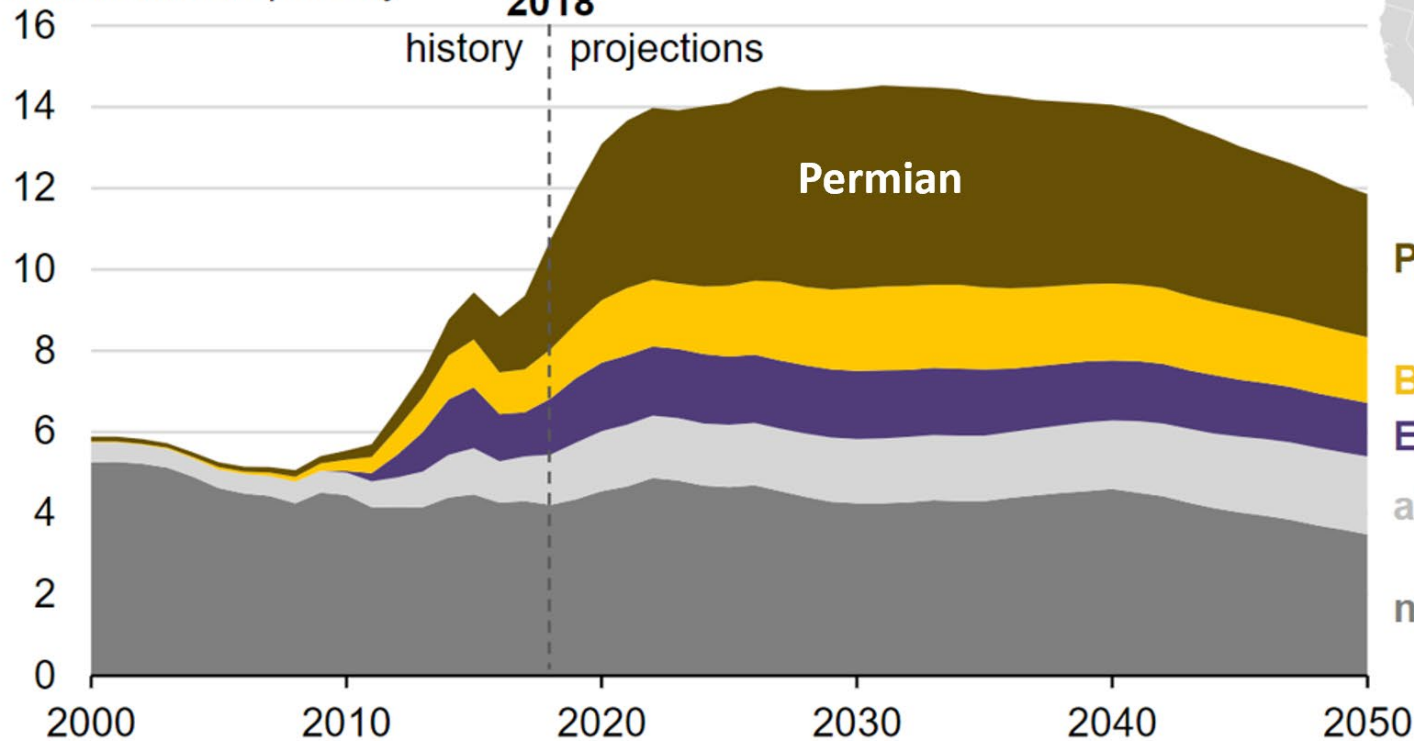
Permian Should Remain The Most Important Crude Oil Play For Decades

U.S. crude oil production in the AEO2019 Reference case (2000-2050)

million barrels per day

2018

history projections



Permian

Bakken

Eagle Ford

all other tight plays

nontight oil

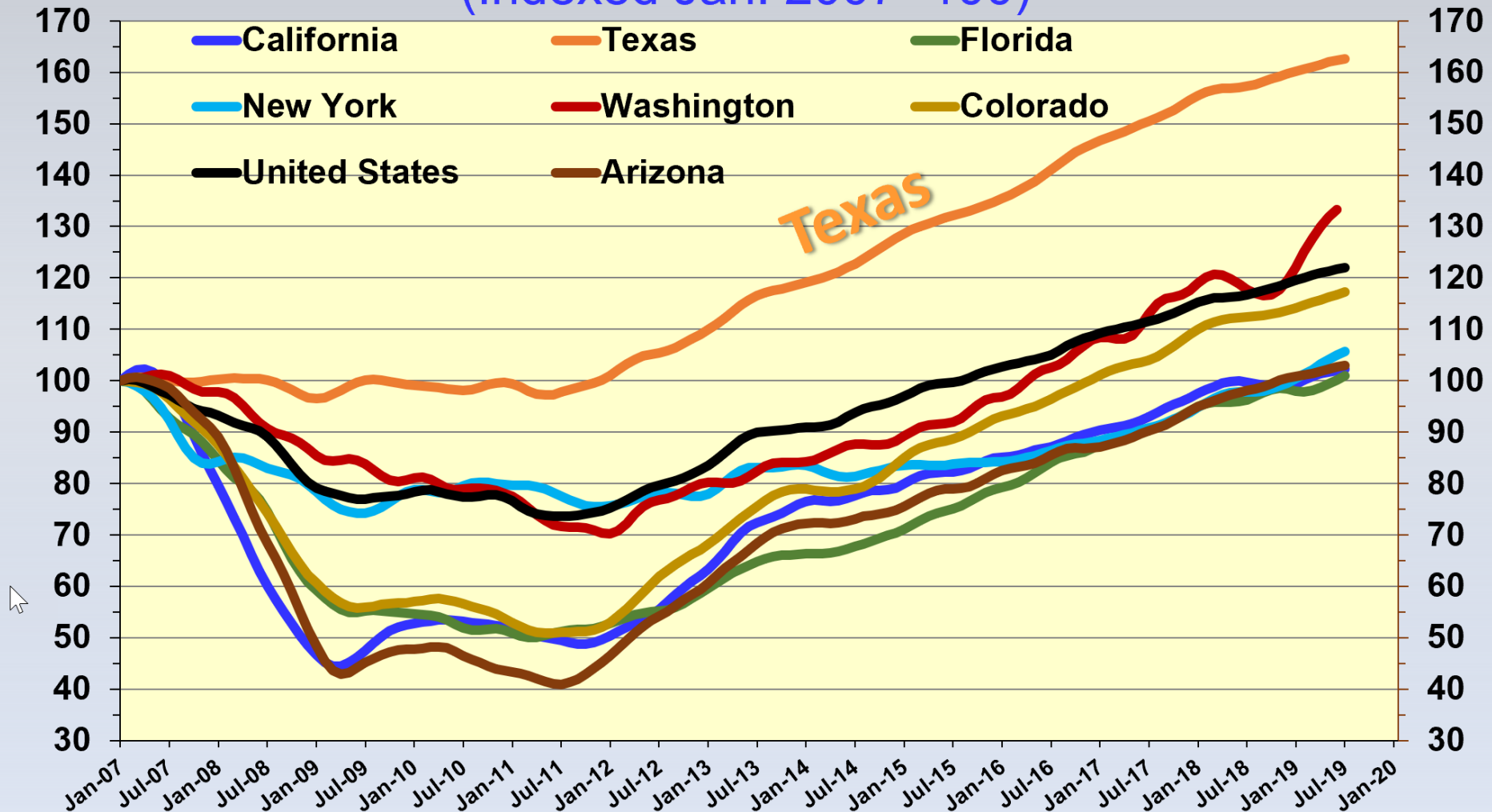


Texas Housing Market



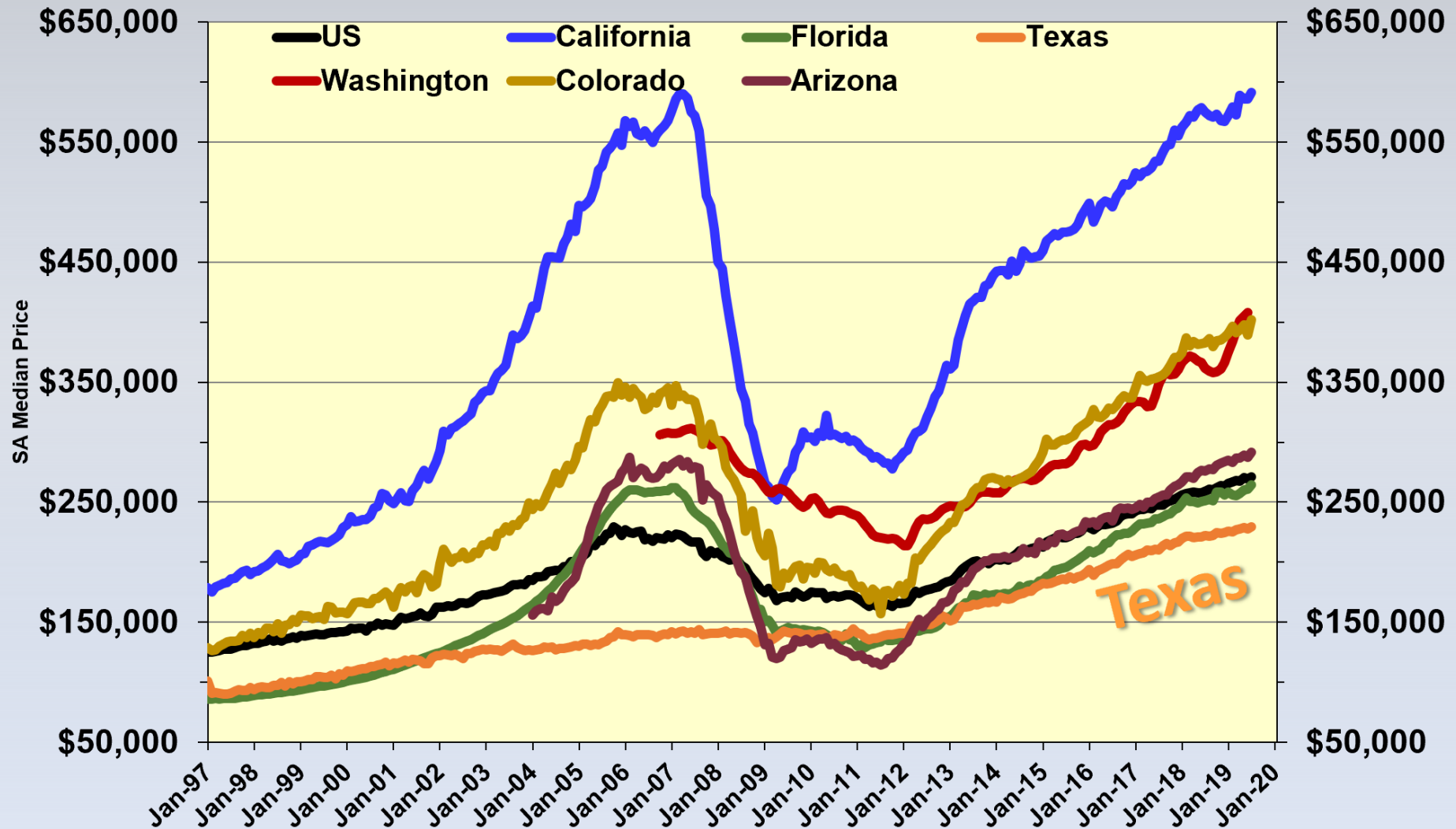
Texas Leads Median Home Price Increases Against These States

(Indexed Jan. 2007=100)



Source: NAR; State Associations of Realtors®; Washington RE Center;
Real Estate Center at Texas A&M University

But We Are Lowest In Actual Median Home Price



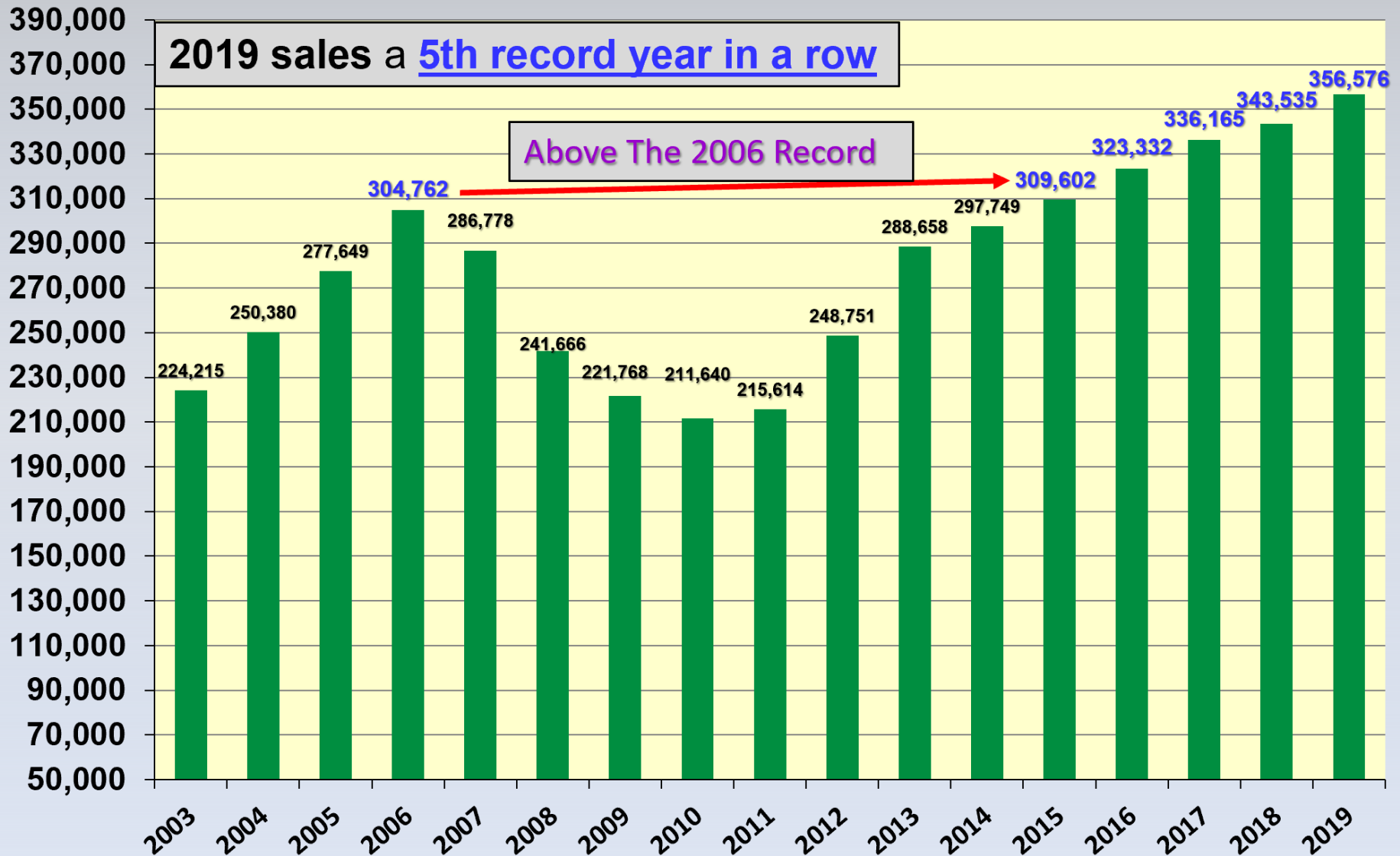
Source: NAR; State Associations of Realtors®; Washington RE Center;
Real Estate Center at Texas A&M University

Texas Housing Market Totals

(2019 Summary Statistics)

- Sales: 356,576 (+3.8% over 2018)
- Avg. Price: \$291,833 (+3.2% over 2018)
- Avg. Price/SF: \$132.00 (+3.9% over 2018)
- Median Price: \$240,000 (+3.2% over 2018)
- Median Price/SF: \$121.00 (+4.2% over 2018)
- New Listings: 504,408 (+3.5% over 2018)
- Dec. Mo. Inventory: 3.1 (vs. 3.2 in Dec. 2018)

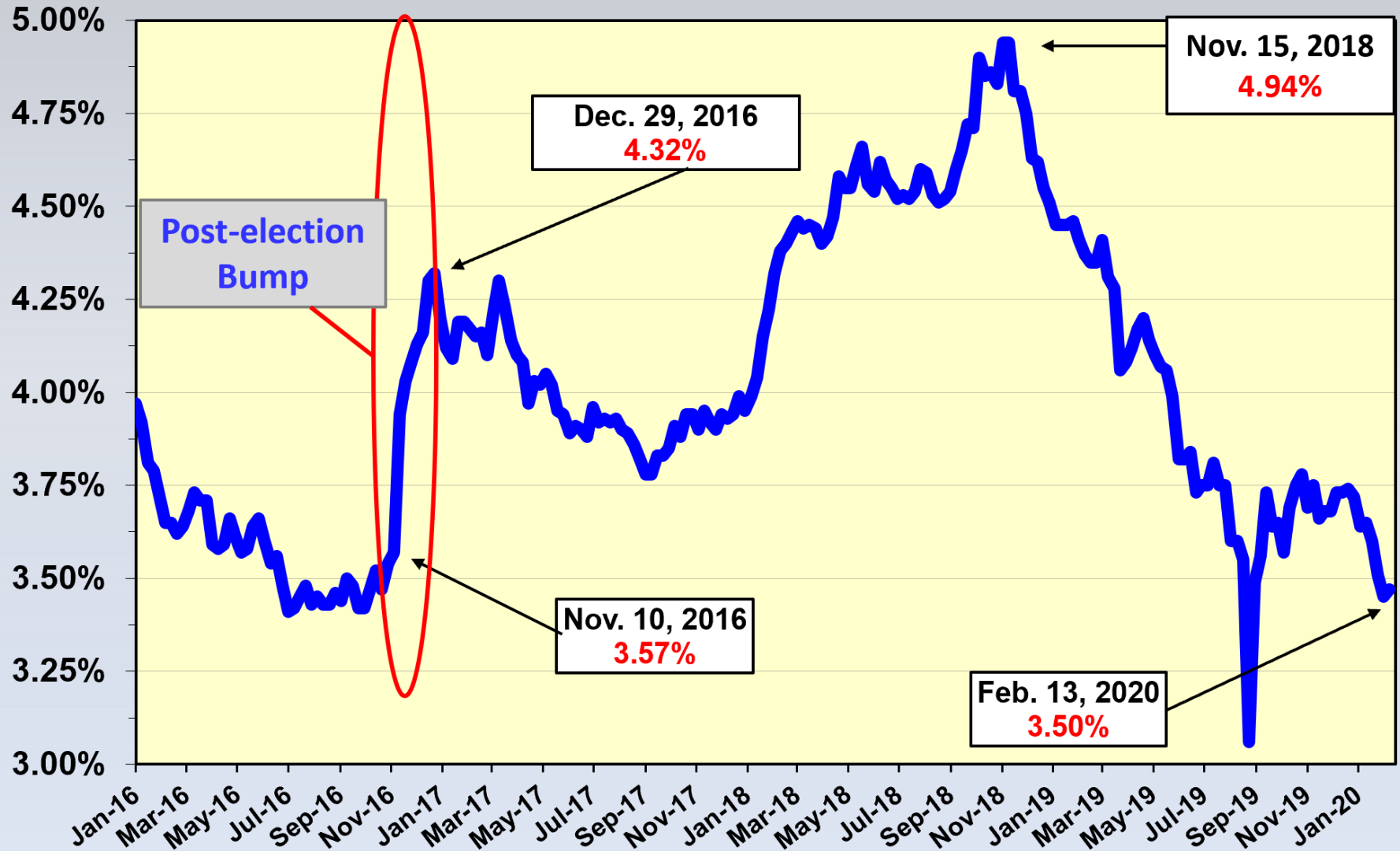
Texas Home Sales



Source: Real Estate Center at Texas A&M University (New & Existing Homes Sold thru MLS's)

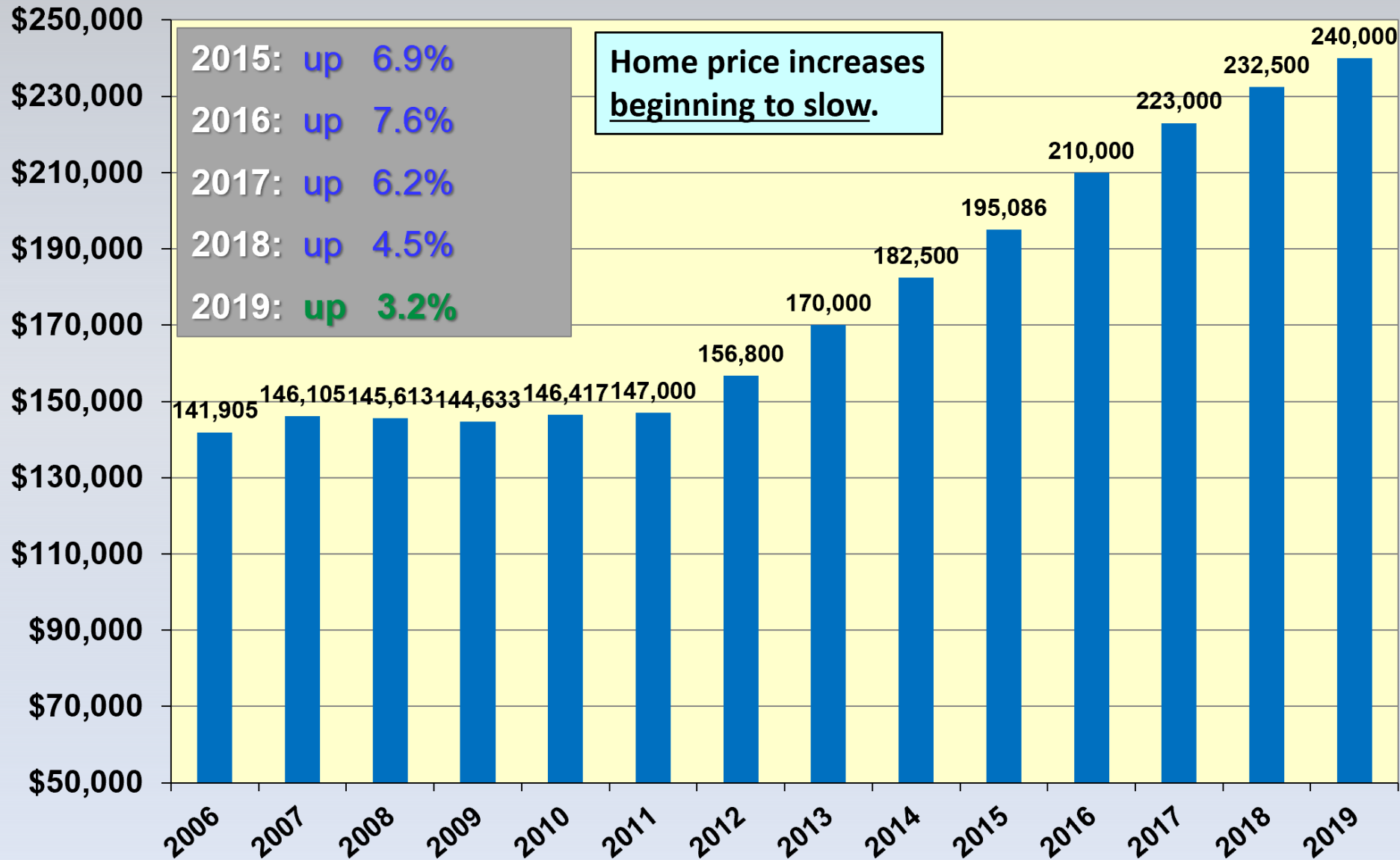
Weekly 30-Year Fixed Mortgage Rate

Considerably Lower Than Nov. 2018 Peak



Source: Freddie Mac Weekly Mortgage Market Survey

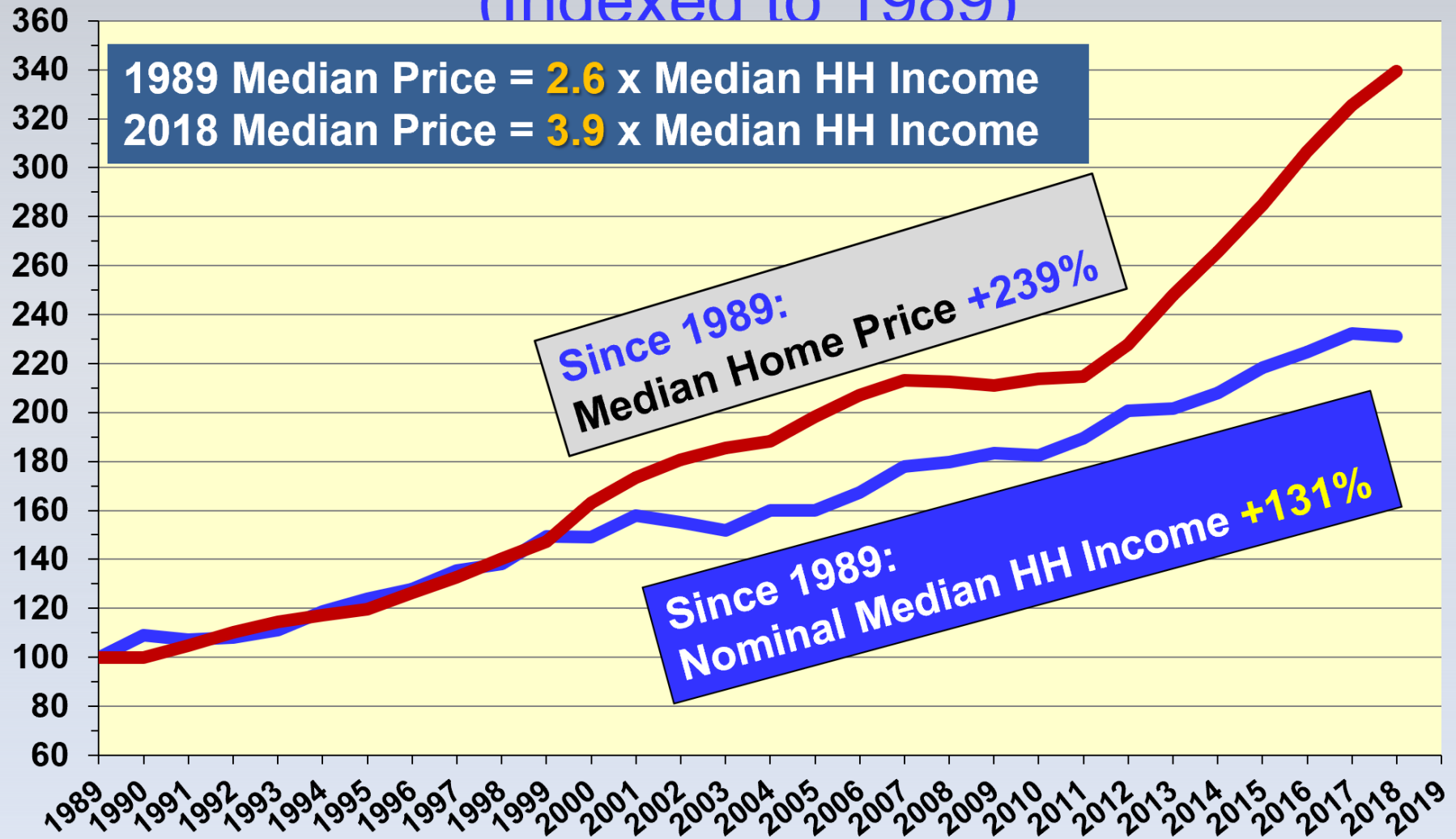
Texas Median Home Prices



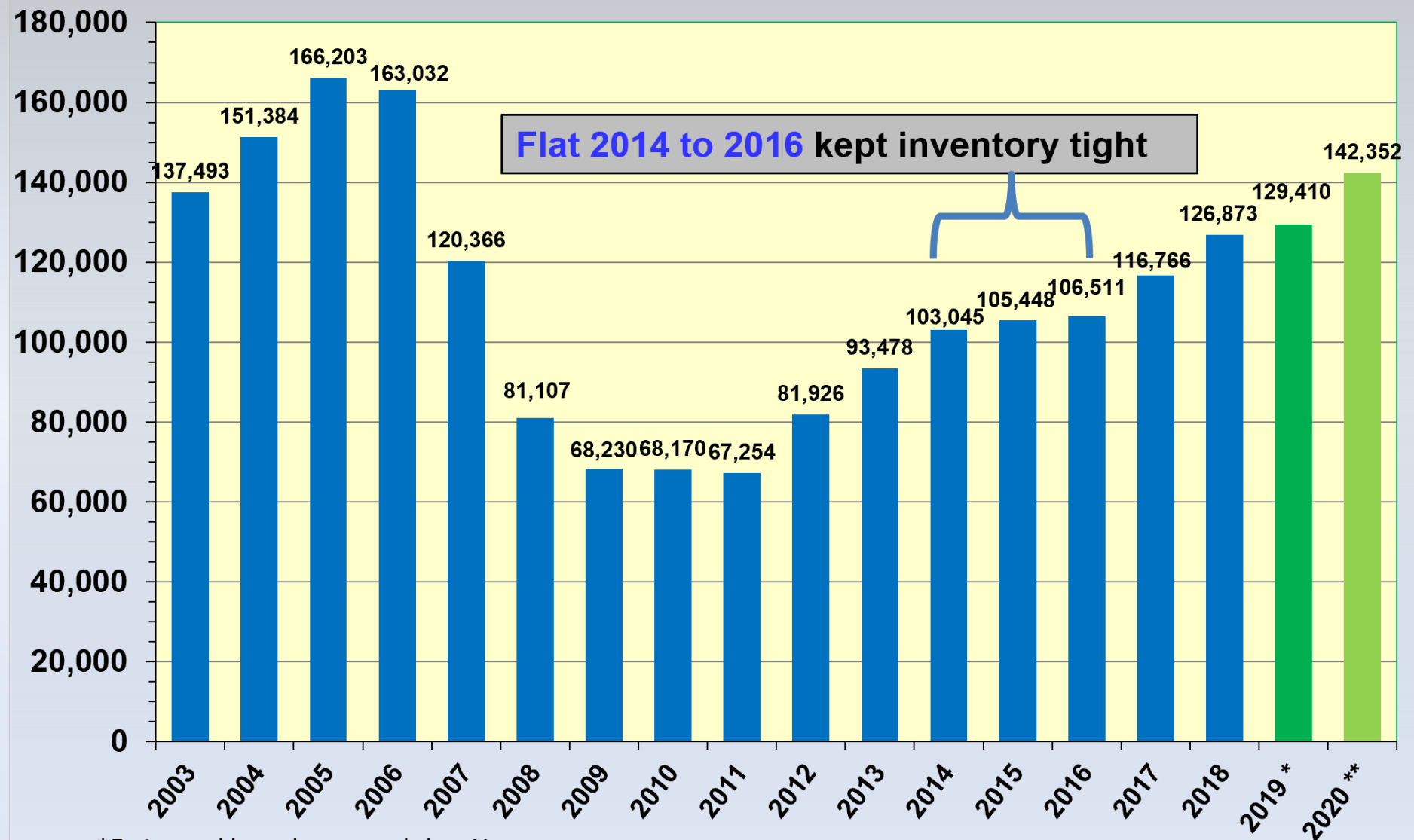
Source: Real Estate Center at Texas A&M University (New & Used Homes Sold thru MLS's)

Texas Median Home Prices Increasing Much Faster Than Median HH Incomes

(Indexed to 1989)



Texas Single-Family Building Permits



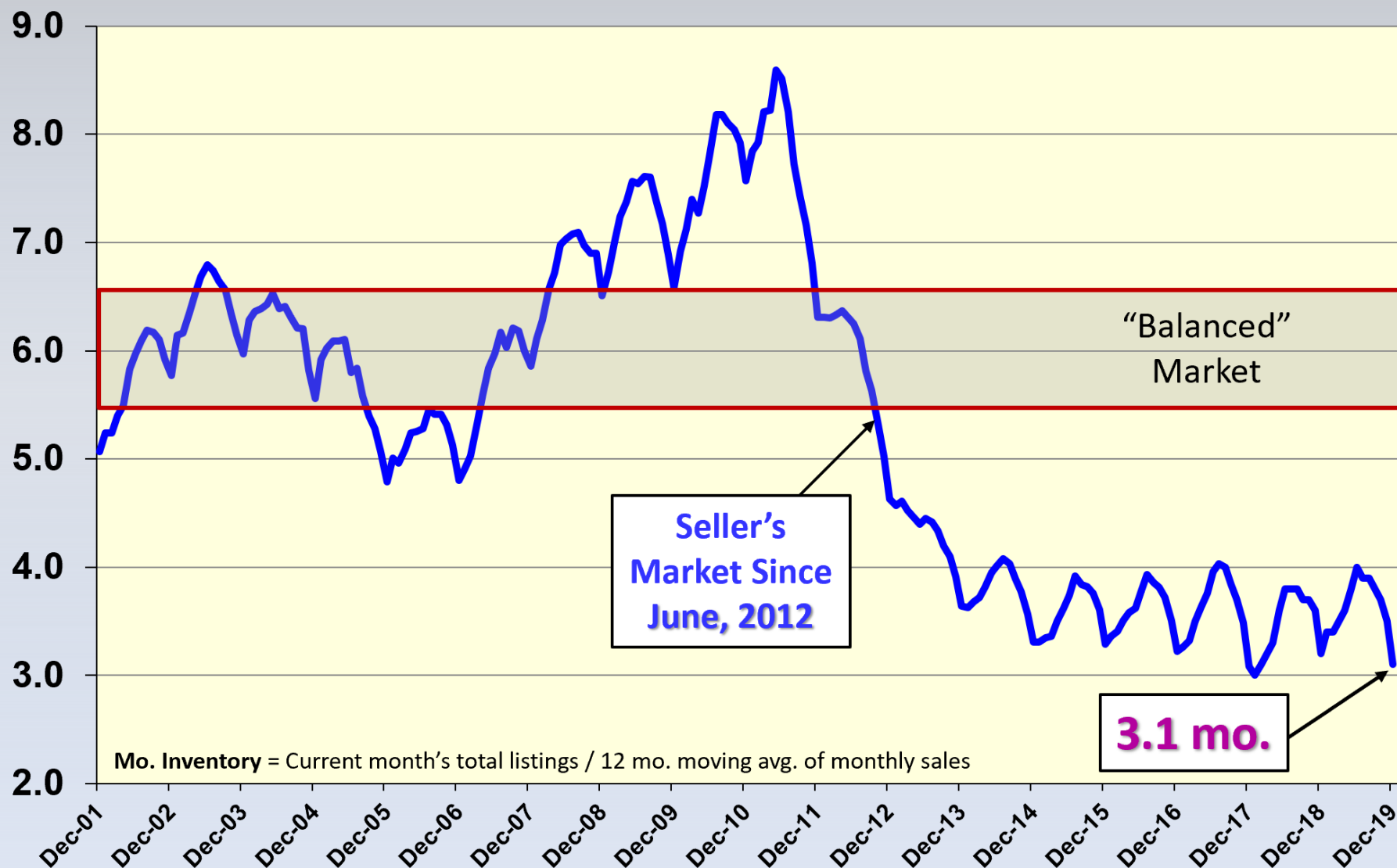
*Estimated based on actual thru Nov.

**Forecasted

Source: U. S. Census Bureau, Real Estate Center

Texas Months' Inventory Still Quite Low

(Homes Sold Thru MLS thru Dec., 2019)



Texas 2019 Home Sales & Current Months Inventory by Price

Demand

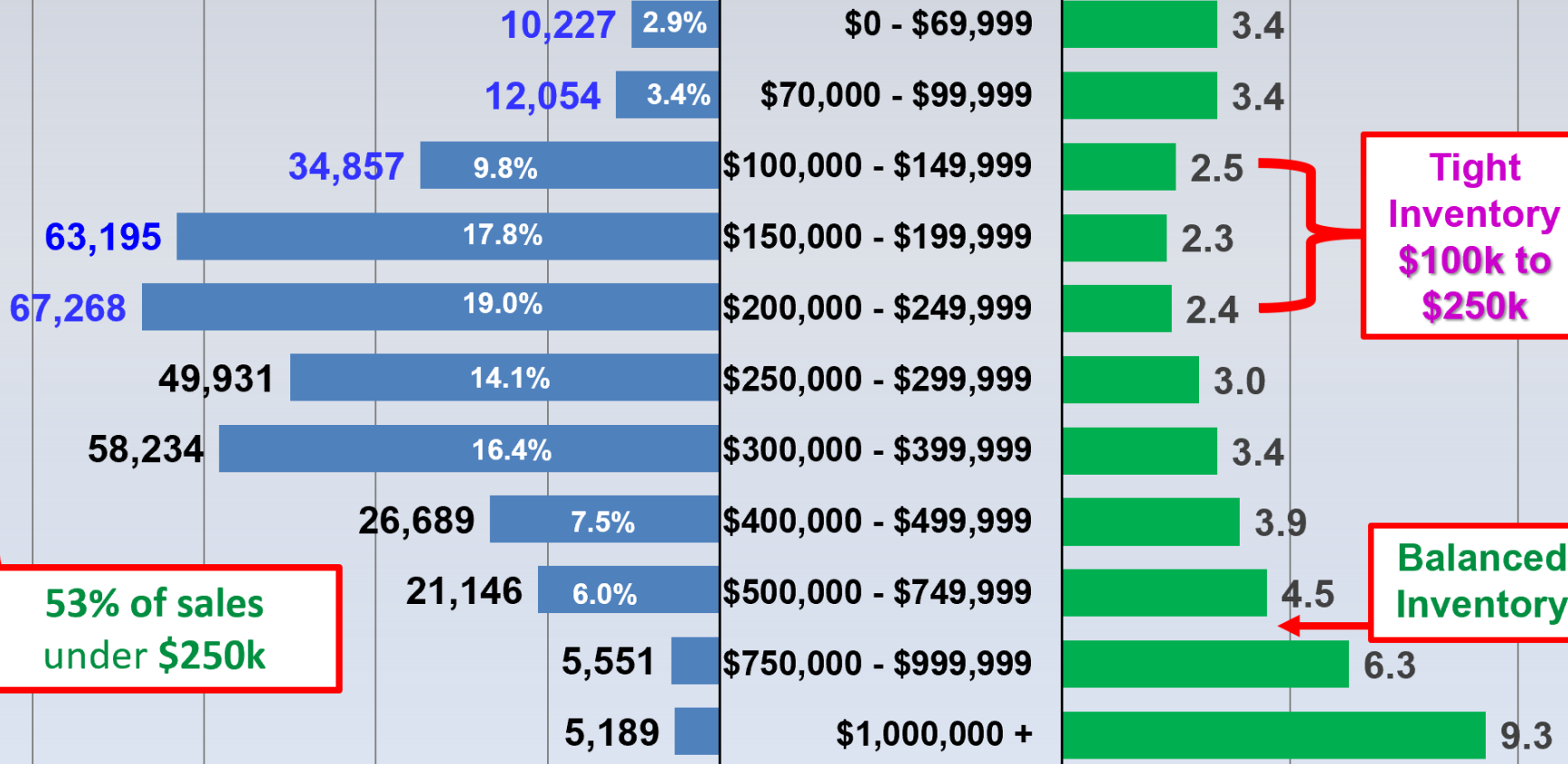
2019 Sales Volume

80,000 60,000 40,000 20,000 0

Supply

Current Mo. Inventory

0.0 5.0 10.0



Major Metros Housing Markets

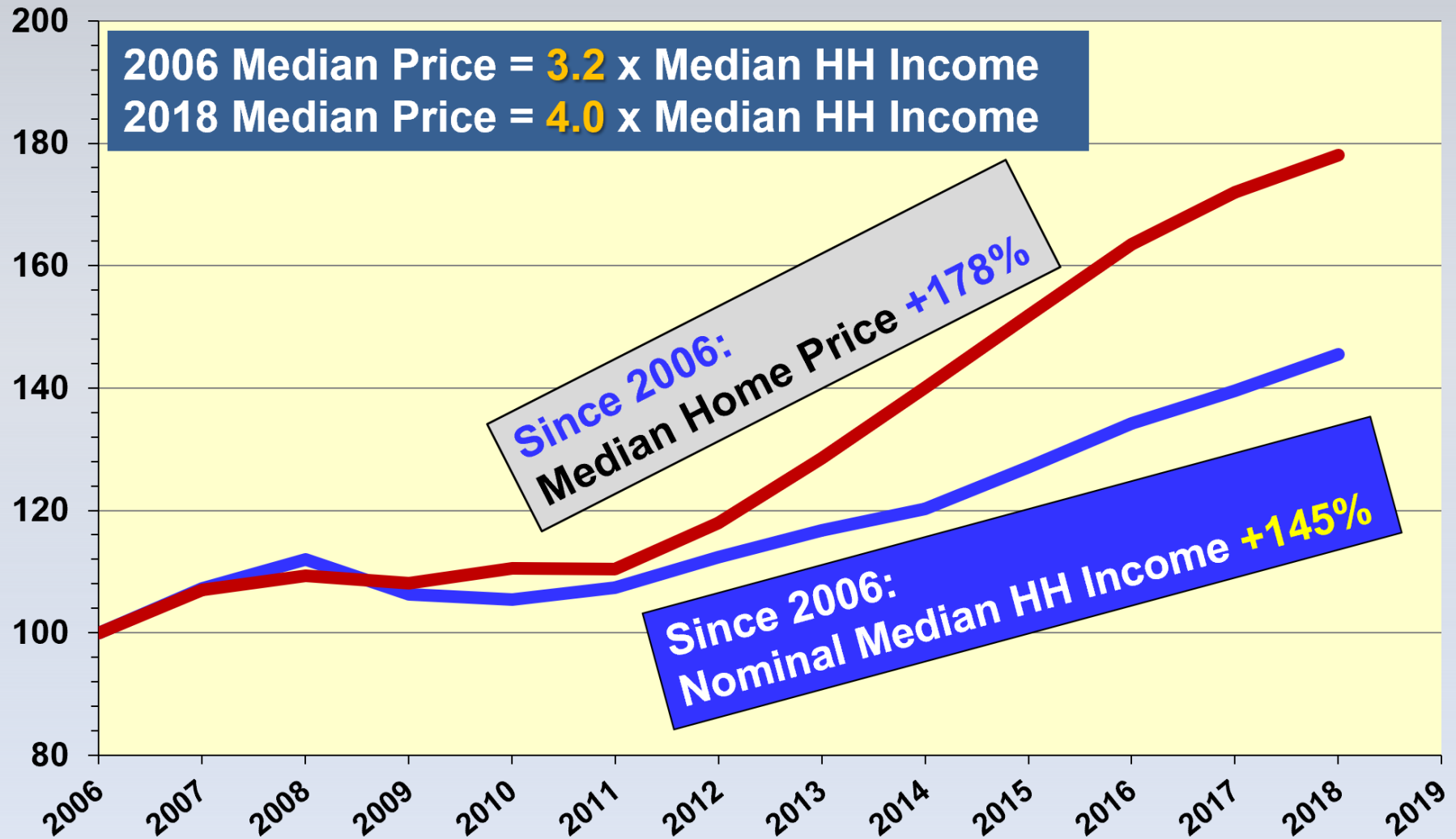


Austin MSA Housing Market

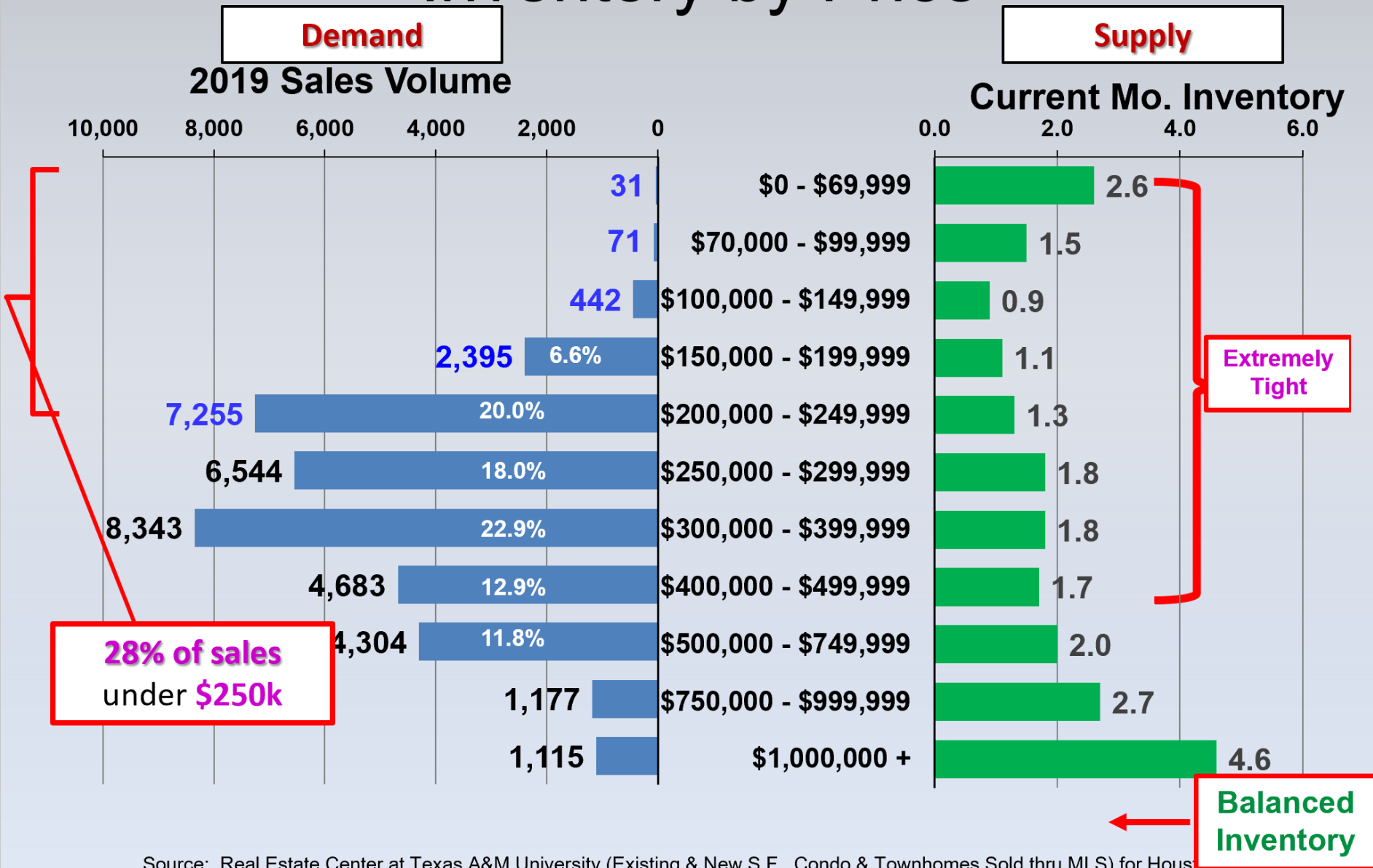
(2019 Summary Statistics)

- Sales: 36,639 (+5.9% over 2018)
- Avg. Price: \$393,448 (+3.6% over 2018)
- Avg. Price/SF: \$190.00 (+4.0% over 2018)
- Median Price: \$315,000 (+3.3% over 2018)
- Median Price/SF: \$159.00 (+3.3% over 2018)
- New Listings: 43,866 (+0.7% over 2018)
- Dec. Mo. Inventory: 1.8 (vs. 2.2 in Dec. 2018)

Austin MSA Median Home Price vs. Median HH Income (Indexed to 2006)



Austin MSA 2019 Sales & Current Months Inventory by Price

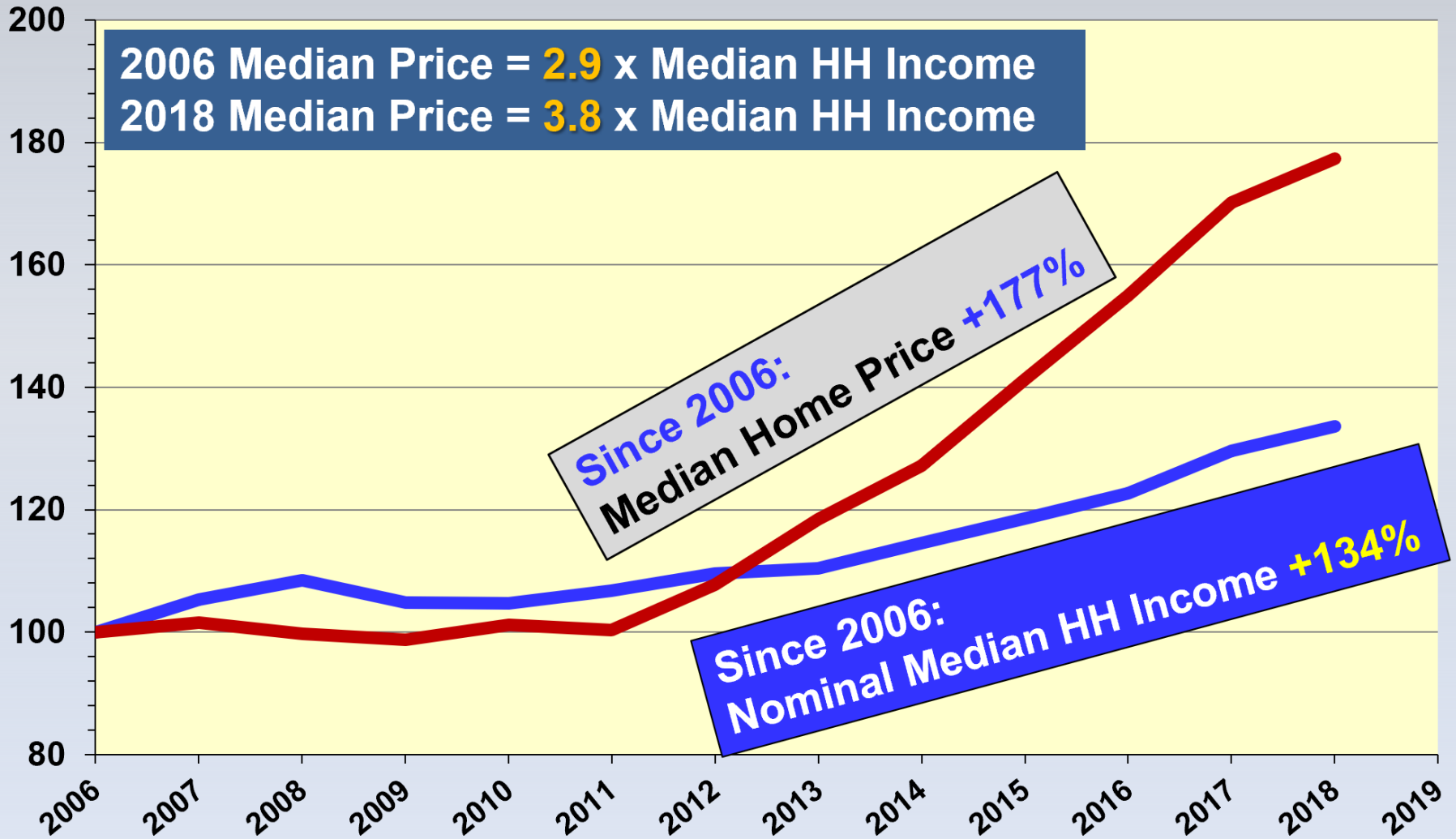


DFW MSA Housing Market

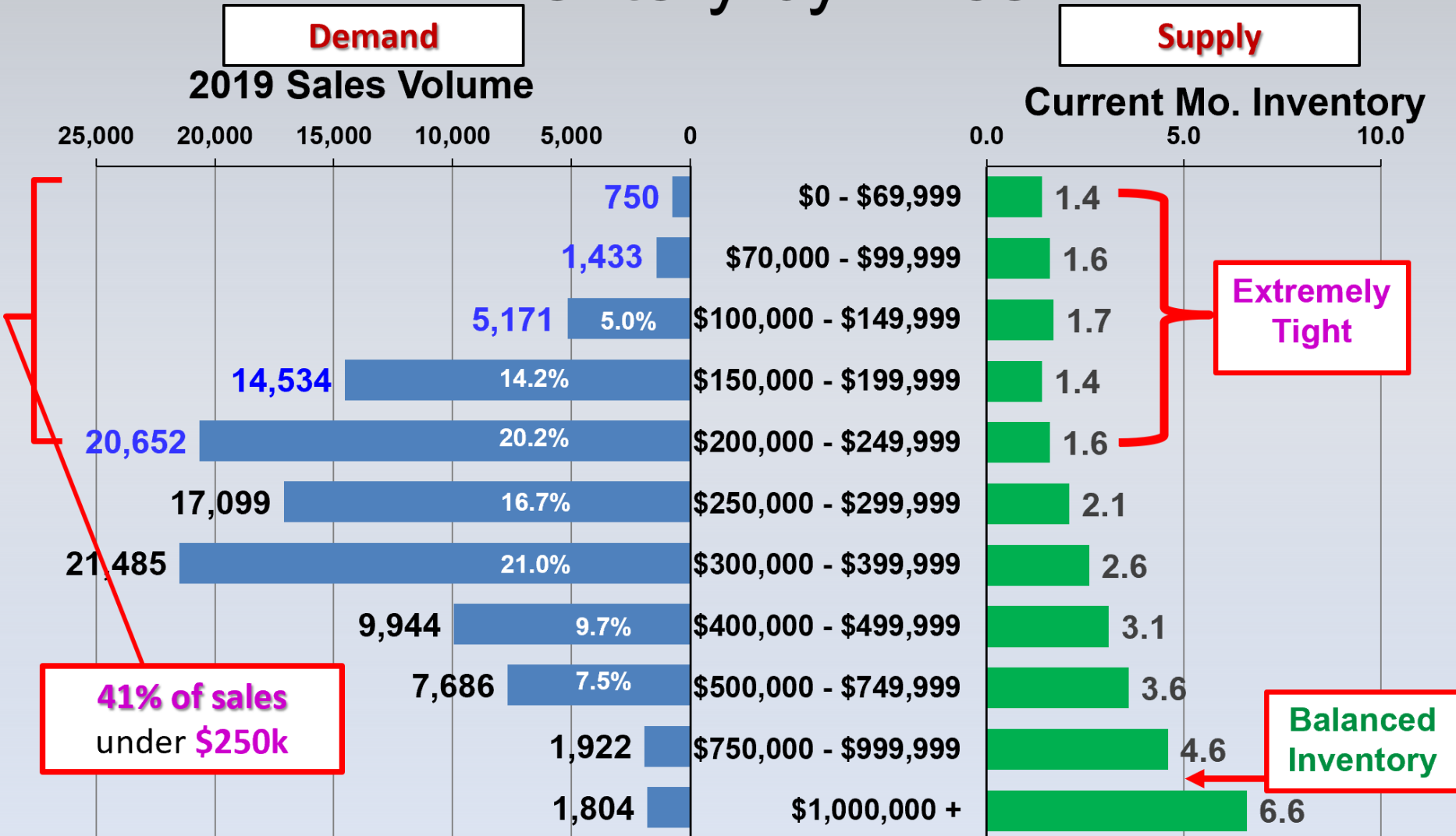
(2019 Summary Statistics)

- Sales: 103,189 (+3.0% over 2018)
- Avg. Price: \$328,370 (+2.4% over 2018)
- Avg. Price/SF: \$140.00 (+2.8% over 2018)
- Median Price: \$273,500 (+3.2% over 2018)
- Median Price/SF: \$131.00 (+3.3% over 2018)
- New Listings: 137,531 (+2.8% over 2018)
- Dec. Mo. Inventory: 2.3 (vs. 2.4 in Dec. 2018)

DFW MSA Median Home Price vs. Median HH Income (Indexed to 2006)



DFW MSA 2019 Sales & Current Months Inventory by Price

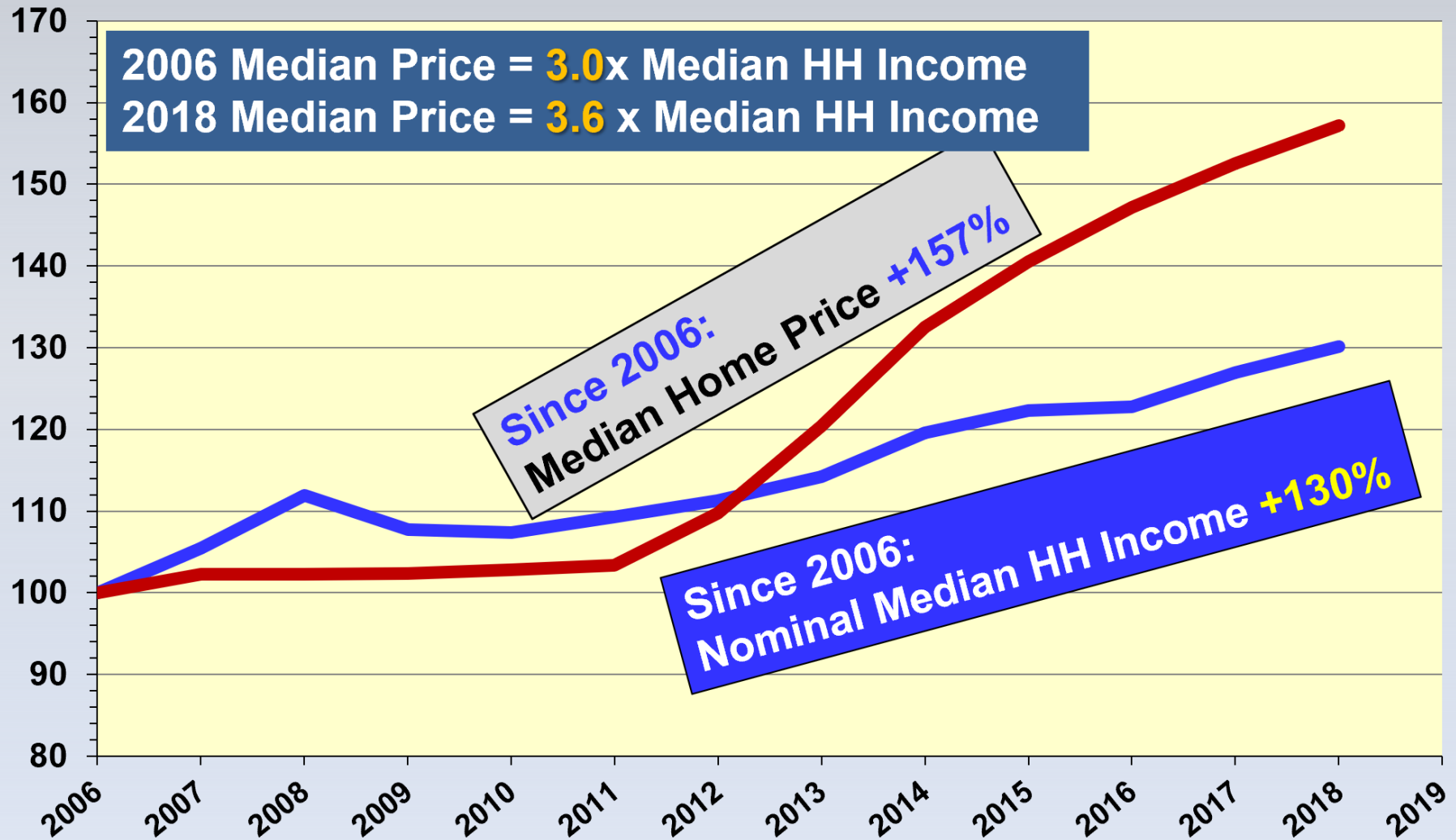


Houston MSA Housing Market

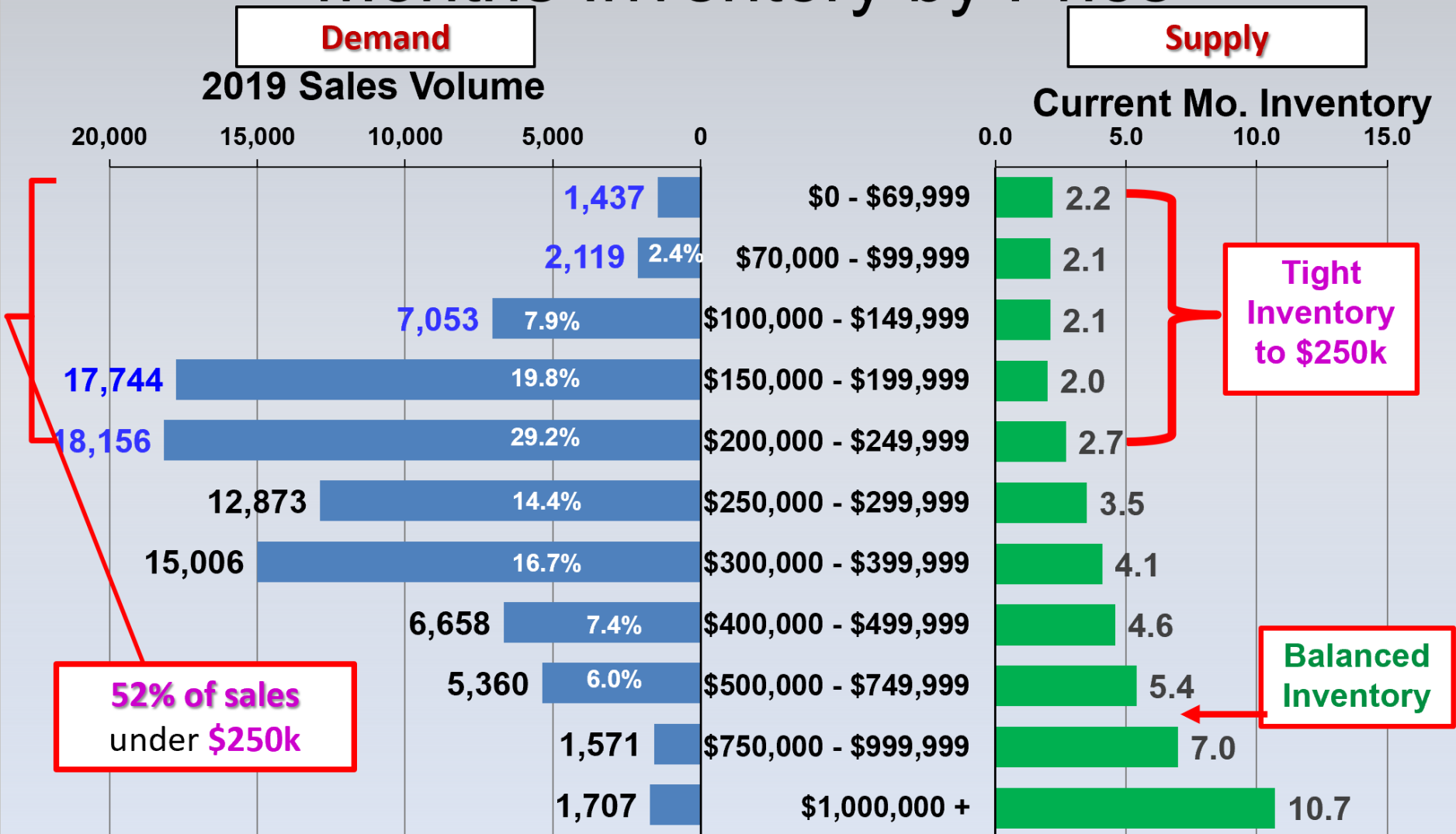
(2019 Summary Statistics)

- Sales: 90,049 (+3.4% over 2018)
- Avg. Price: \$304,670 (+2.6% over 2018)
- Avg. Price/SF: \$127.00 (+2.7% over 2018)
- Median Price: \$245,000 (+4.3% over 2018)
- Median Price/SF: \$113.00 (+3.5% over 2018)
- New Listings: 143,160 (+4.0% over 2018)
- Dec. Mo. Inventory: 3.4 (vs. 3.4 in Dec. 2018)

Houston MSA Median Home Price vs. Median HH Income (Indexed to 2006)



Houston MSA 2019 Sales & Current Months Inventory by Price

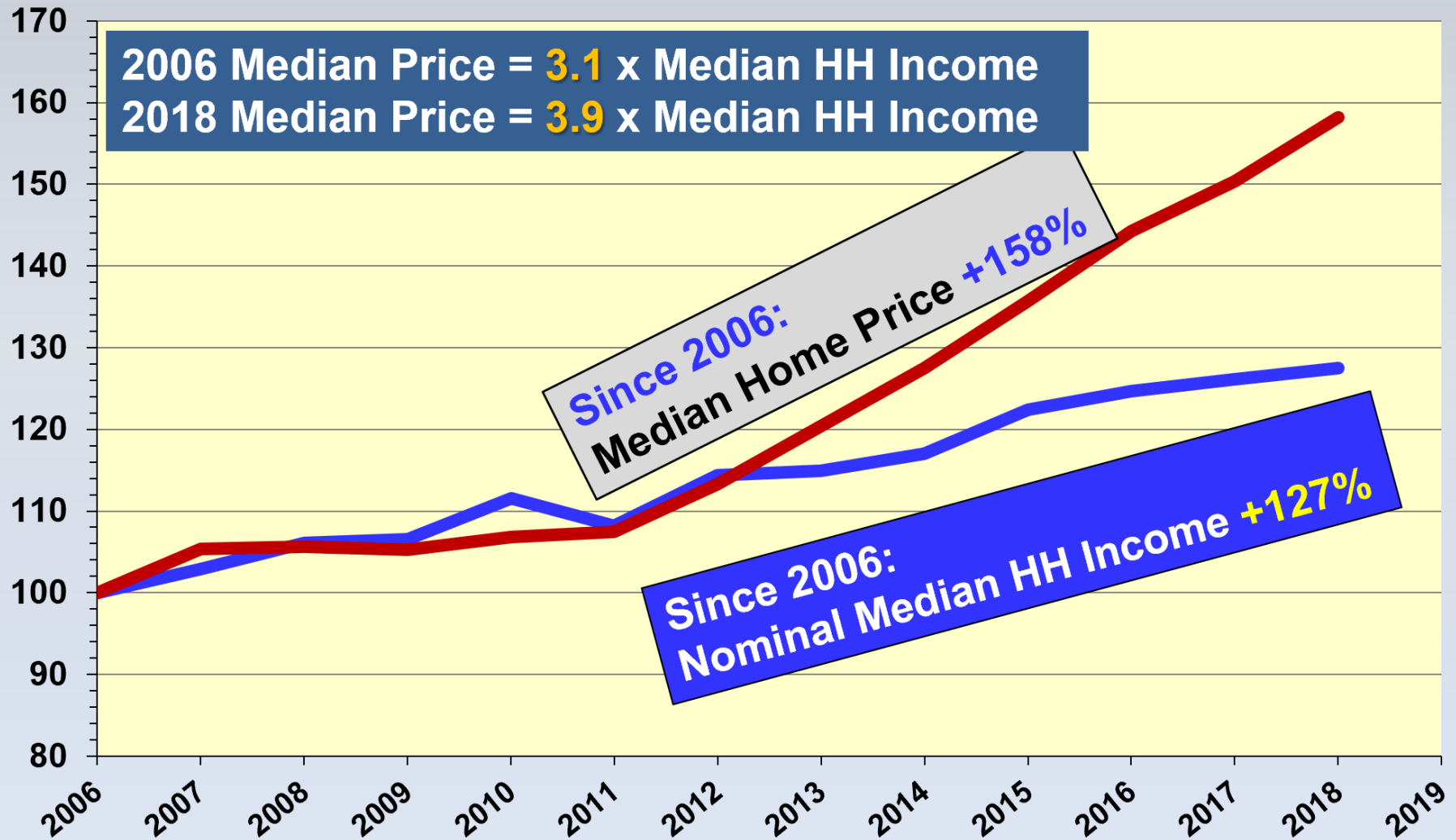


San Antonio MSA Housing Market

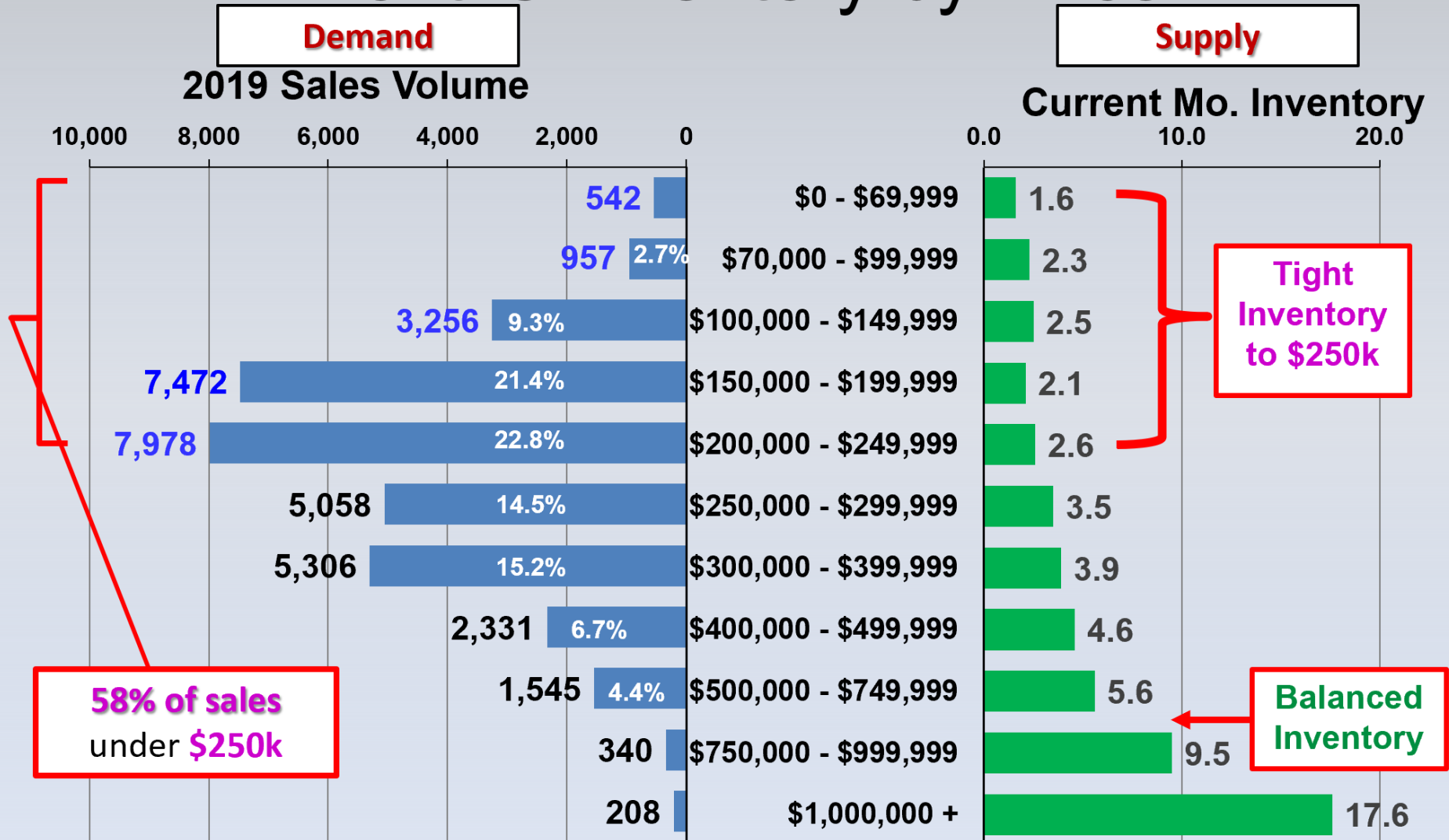
(2019 Summary Statistics)

- Sales: 35,352 (+5.7% over 2018)
- Avg. Price: \$268,273 (+4.2% over 2018)
- Avg. Price/SF: \$125.00 (+4.9% over 2018)
- Median Price: \$230,000 (+3.6% over 2018)
- Median Price/SF: \$120.00 (+5.2% over 2018)
- New Listings: 48,473 (+8.3% over 2018)
- Dec. Mo. Inventory: 3.2 (vs. 3.1 in Dec. 2018)

San Antonio MSA Median Home Price vs. Median HH Income (Indexed to 2006)



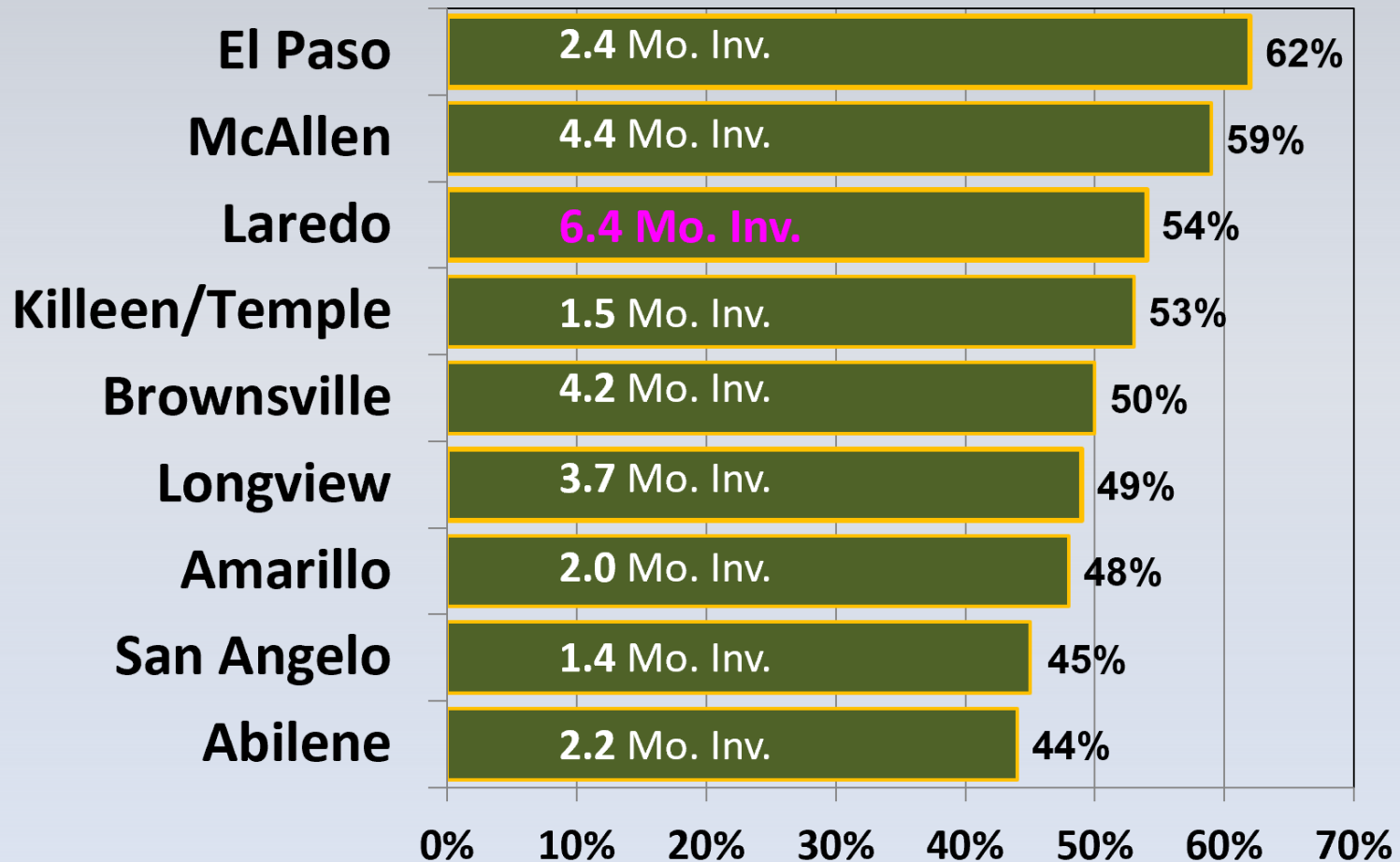
San Antonio MSA 2019 Sales & Current Months Inventory by Price



Ranking 2019 Lower-end Home Sales

(Pct. of Residential Sales Between \$100k and \$200k)

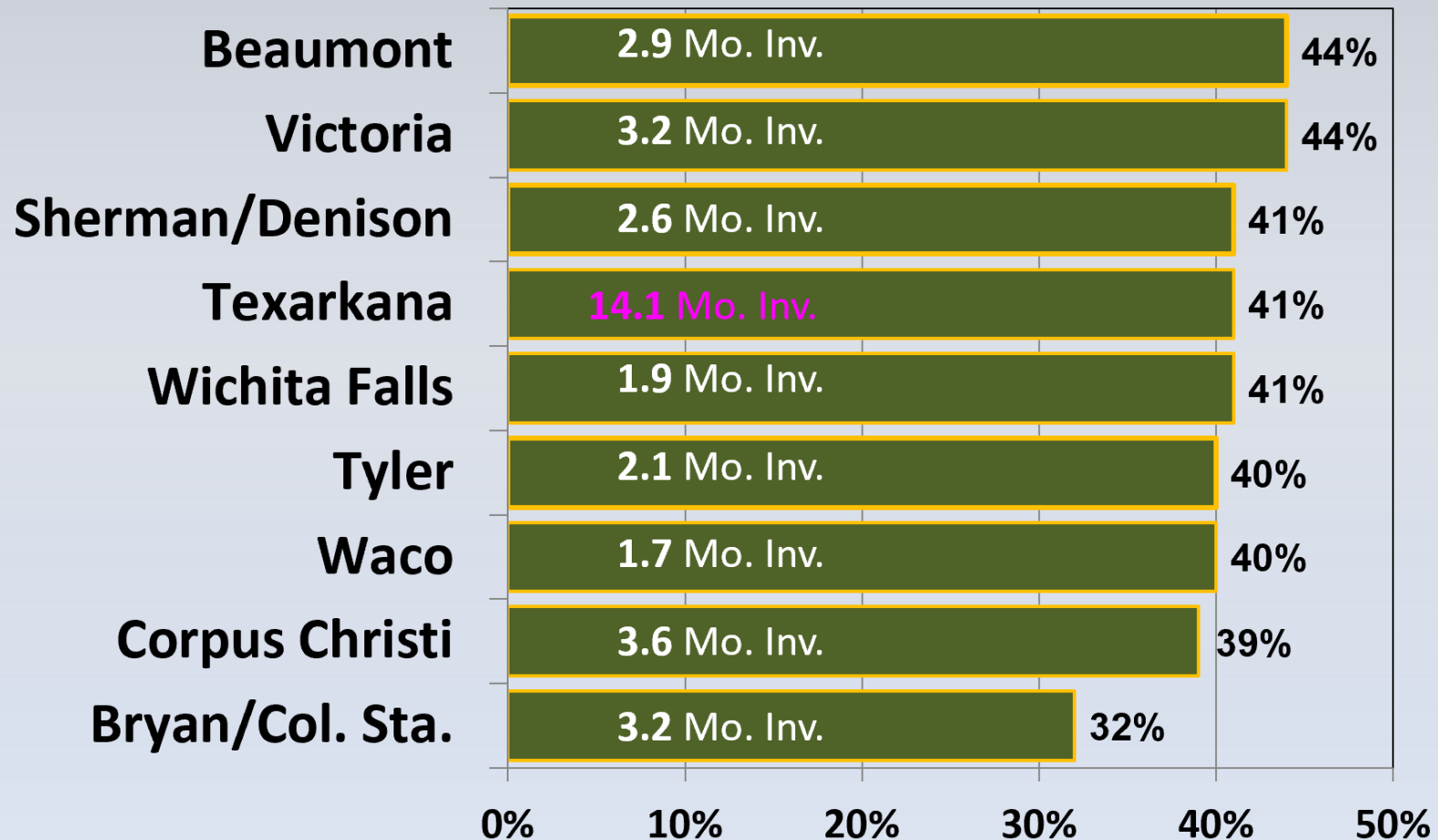
Current Months Inventory is for That Price Range



Ranking 2019 Lower-end Home Sales

(Pct. of Residential Sales Between \$100k and \$200k)

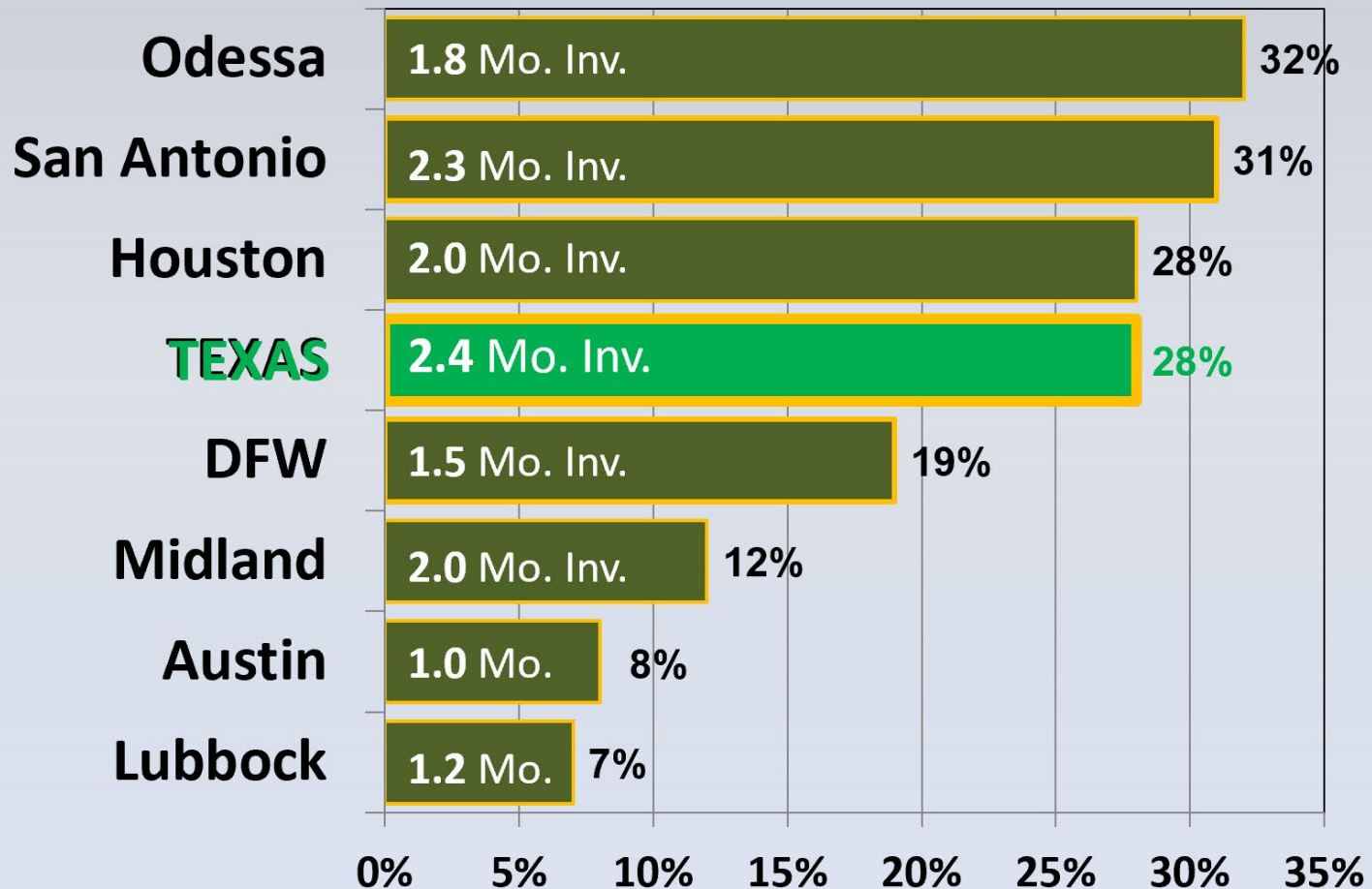
Current Months Inventory is for That Price Range



Ranking 2019 Lower-end Home Sales

(Pct. of Residential Sales Between \$100k and \$200k)

Current Months Inventory is for That Price Range



A New Manufactured Housing Product Has Been Developed

(They're calling it: CrossMod)



Fannie Mae “MH Advantage” Financing



MH Advantage™

MH Advantage is an innovative new mortgage option that offers affordable conventional financing for manufactured housing (MH) with features similar to site-built homes, including:

- Roof treatments distinct from traditional manufactured homes, including eaves and higher pitch rooflines.
- Lower profile foundations, carports, garages, porches, and/or dormers.
- Interiors that feature drywall and kitchens and bathrooms with upgraded cabinets.
- Exteriors that feature durable siding materials.

MH Advantage-eligible homes can become a seamless part of any single-family neighborhood.

Freddie Mac “ChoiceHome” Financing



Courtesy of Clayton Homes

ChoiceHomeSM Financing Launched for Focus on
Manufactured Homes that Change Perceptions

Clayton's MH Advantage Homes in Knoxville

1st Home Sold in June, 2019 for:

Price: \$195,000 (incl. lot)

Interest rate: 4.25%

Size: 1,651 Sq. Ft.



Clayton's MH Advantage Homes in Knoxville



Clayton's MH Advantage Homes in Knoxville



Clayton's MH Advantage Homes in Knoxville



Clayton's MH Advantage Homes in Knoxville



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Clayton's MH Advantage Homes in Knoxville



Clayton's MH Advantage Homes in Knoxville



Clayton's MH Advantage Homes in Knoxville



The First Texas MH Advantage Home in Canyon Lake, TX



The First Texas MH Advantage Home in Canyon Lake, TX

Local Realtors that were
bussed in to tour the house.

Under contract in 1 week.



The First Texas MH Advantage Home in Canyon Lake, TX



The First Texas MH Advantage Home in Canyon Lake, TX



Conclusions

U.S. Economic Outlook

- **Economic growth** should remain positive through 2020, although business investment is slowing.
 - 2020 U.S. GDP growth is forecast to be 2.0%.
 - A bit slower than 2019, but not bad.
 - Still, companies will hesitate to expand until they get more political clarity.
- An enforceable Phase 1 agreement with China will help the U.S. economy long-term.
- To really spur long-term growth, we need fiscal policy attacking structural issues (ex. immigration, infrastructure, healthcare, education, entitlement reform)

Texas Economic Outlook

- **Texas employment forecast for 2020** we see job growth slightly lower than 2019.
 - **2019** is currently **2.7% growth**, but may get revised down in Mid-March.
 - **2020** forecast by the Dallas Fed is **2.1% growth**
- **Real GDP growth for 2020** is forecast to be **3.0%**
 - Preliminary estimate is **4.0%** for 2019
- Overall, **2020 should see slower economic growth than 2019** due to the **increased political uncertainty** and **slowing O&G sector**.

Texas Housing Outlook

- **Forecasting another good year** for the State's single-family residential market.
- **Low mortgage rates** and **positive employment** growth provide a tailwind.
- **Single-family Forecast: 2020 (% Chg.)**
 - **Texas**
 - SF. Building Permits **+10%**
 - Sales **+ 6%**
 - Price/Sq.Ft. **+ 5%**

Major MSA Housing Outlook

- Single-family Forecast: 2020 (% Chg.)

	<u>Aus</u>	<u>DFW</u>	<u>Hou</u>	<u>San Ant</u>
• SF. Bldg. Permits	+10%	+8%	+8%	+10%
• Sales	+9%	+4%	+4%	+6%
• Price/ <u>Sq.Ft.</u>	+7%	+5%	+4%	+5%

Thank You

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