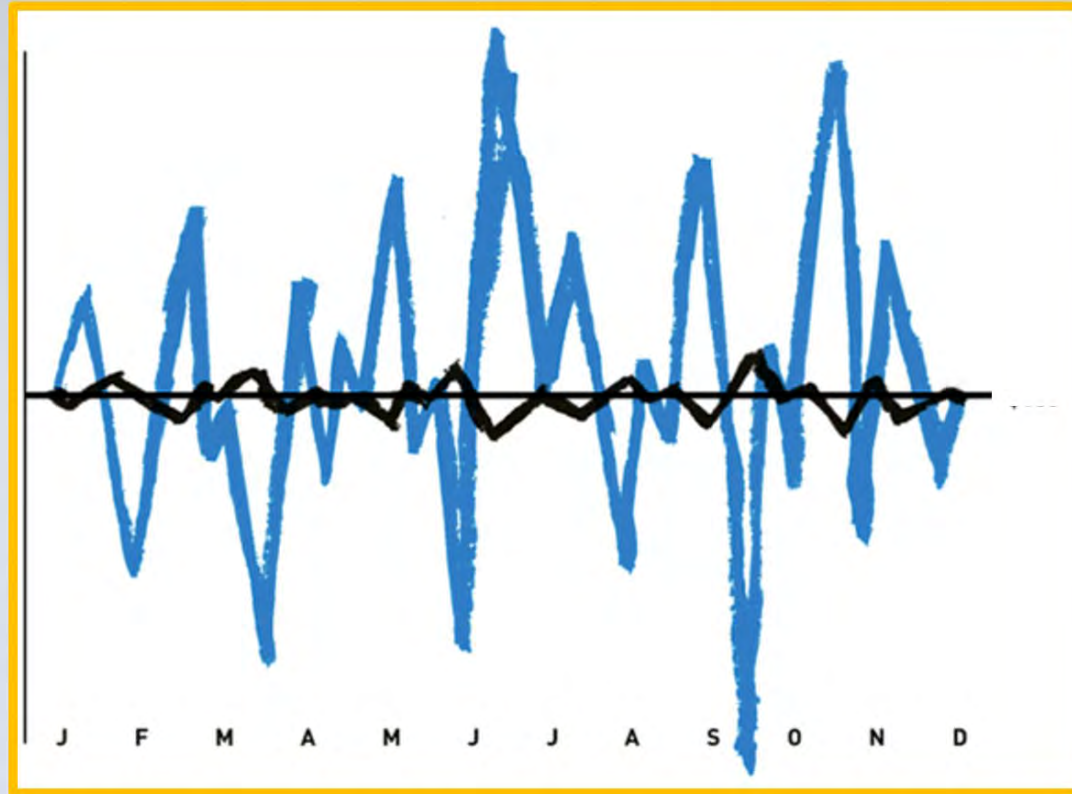
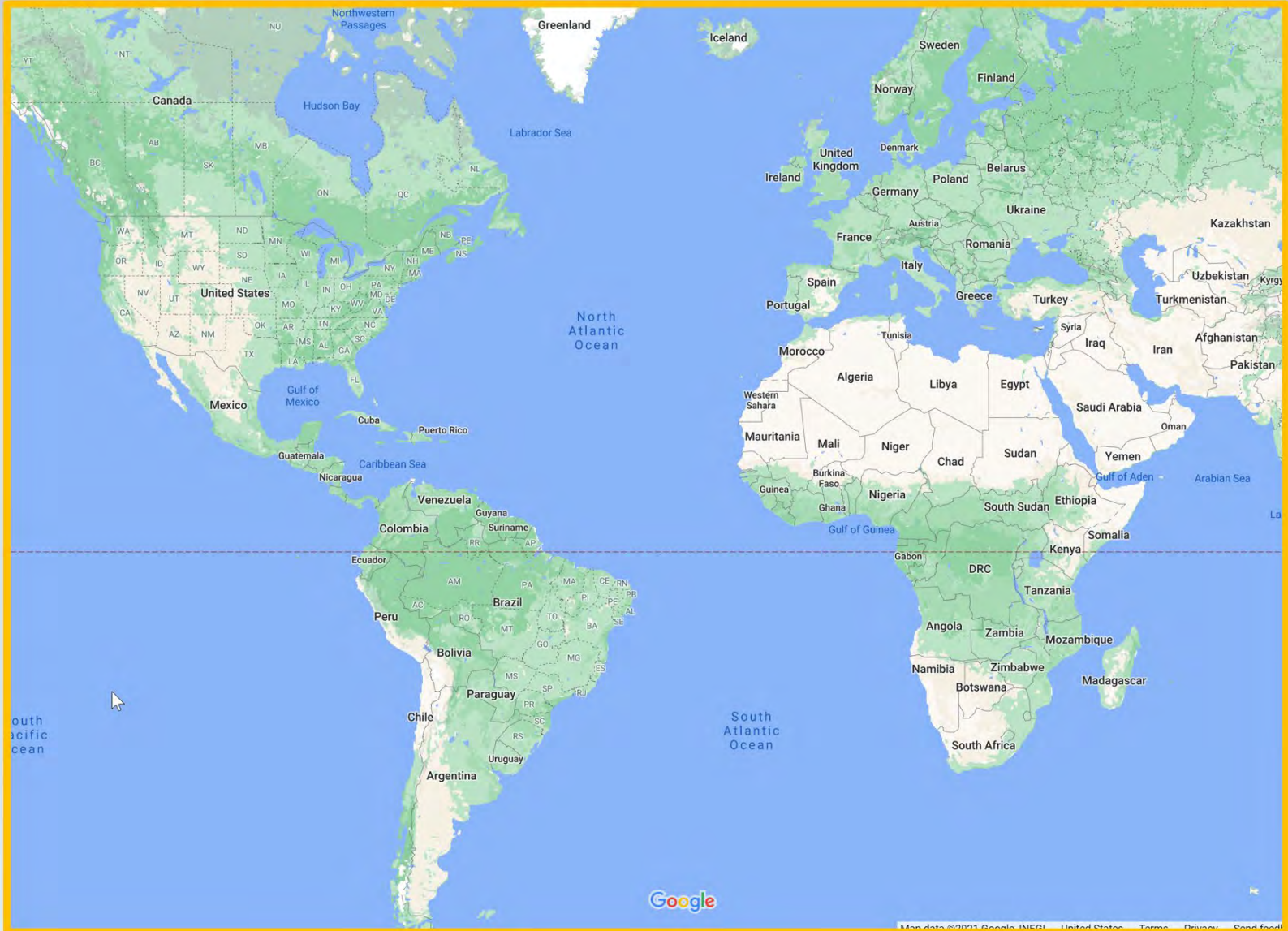


Texas Economic & Real Estate Outlook: In The Post-Pandemic Economy

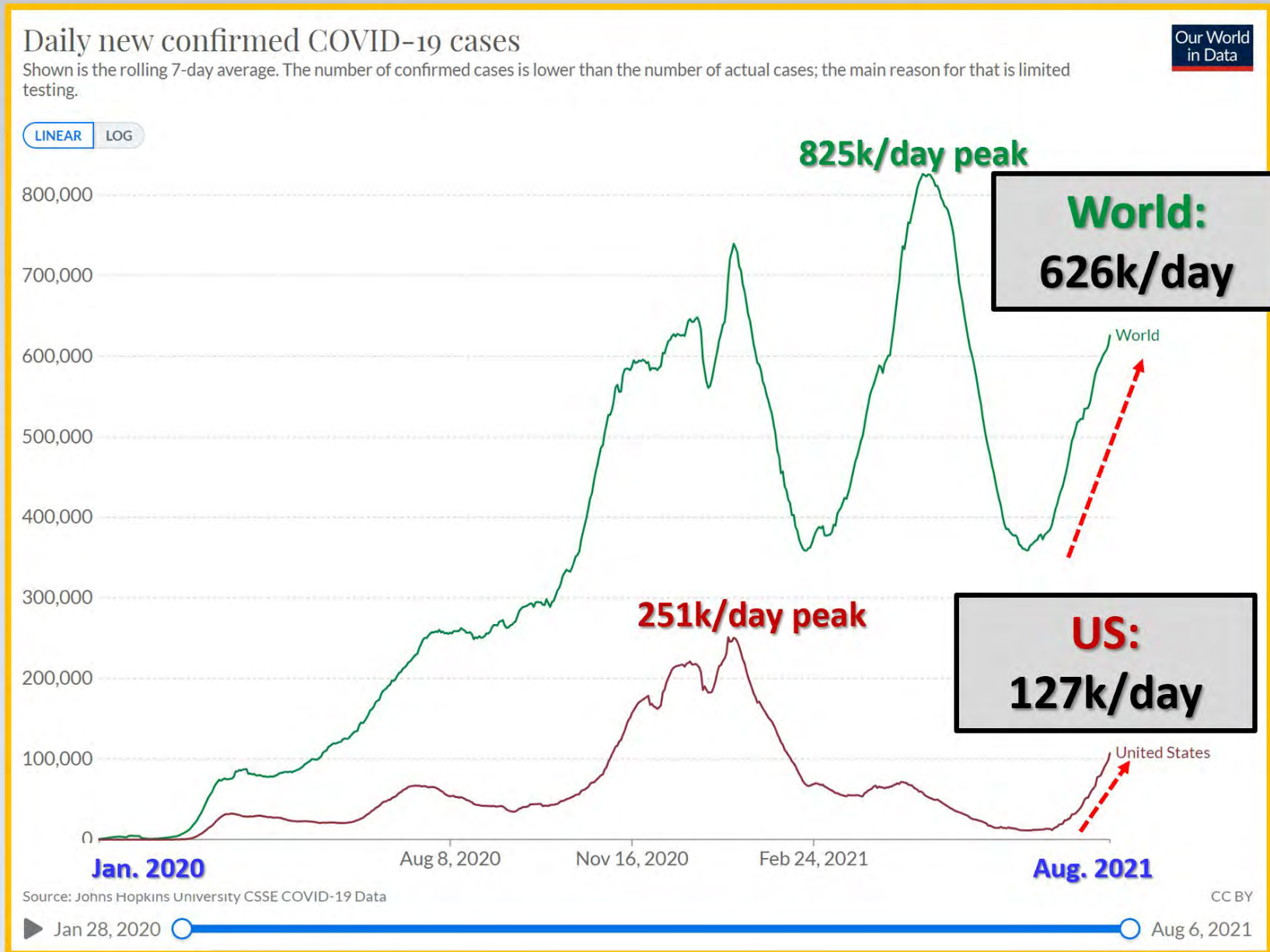


Harold Hunt, PhD
Texas A&M Real Estate Research Center
hhunt@tamu.edu

The Global Economy



Global & U.S. New Confirmed Covid Cases



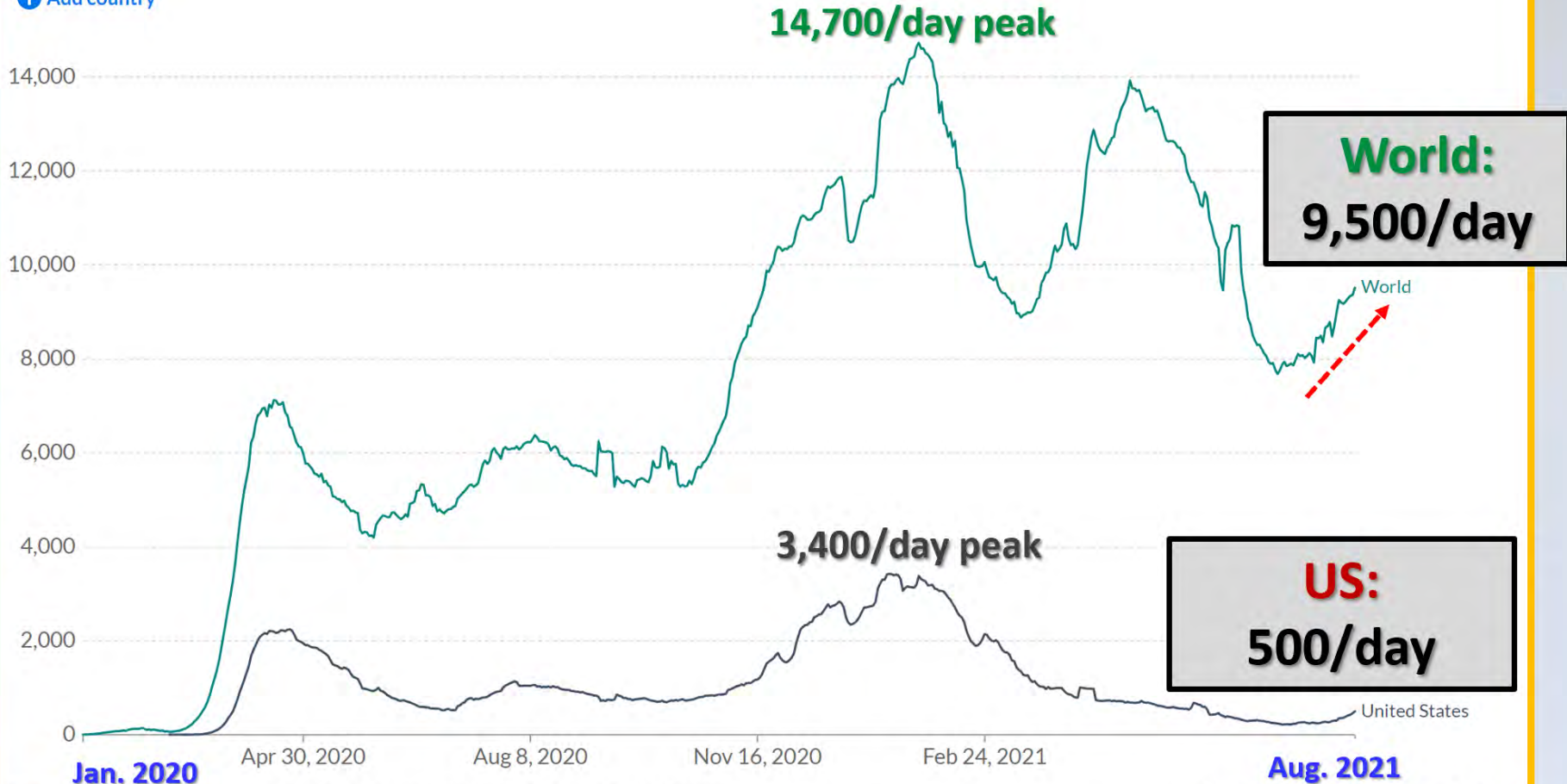
Global & U.S. Daily Covid Deaths

Daily confirmed COVID-19 deaths, rolling 7-day average

Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

Our World
in Data

+ Add country



Source: Johns Hopkins University CSSE COVID-19 Data - Last updated 7 August, 11:03 (London time)

OurWorldInData.org/coronavirus • CC BY

Note: The rolling average is the average across seven days - the confirmed deaths on the particular date, and the previous six days. For example, the value for 27th March is the average over the 21st to 27th March.

▶ Jan 24, 2020 ○

○ Aug 6, 2021

Global & U.S. Fully Vaccinated Folks

Number of people fully vaccinated against COVID-19

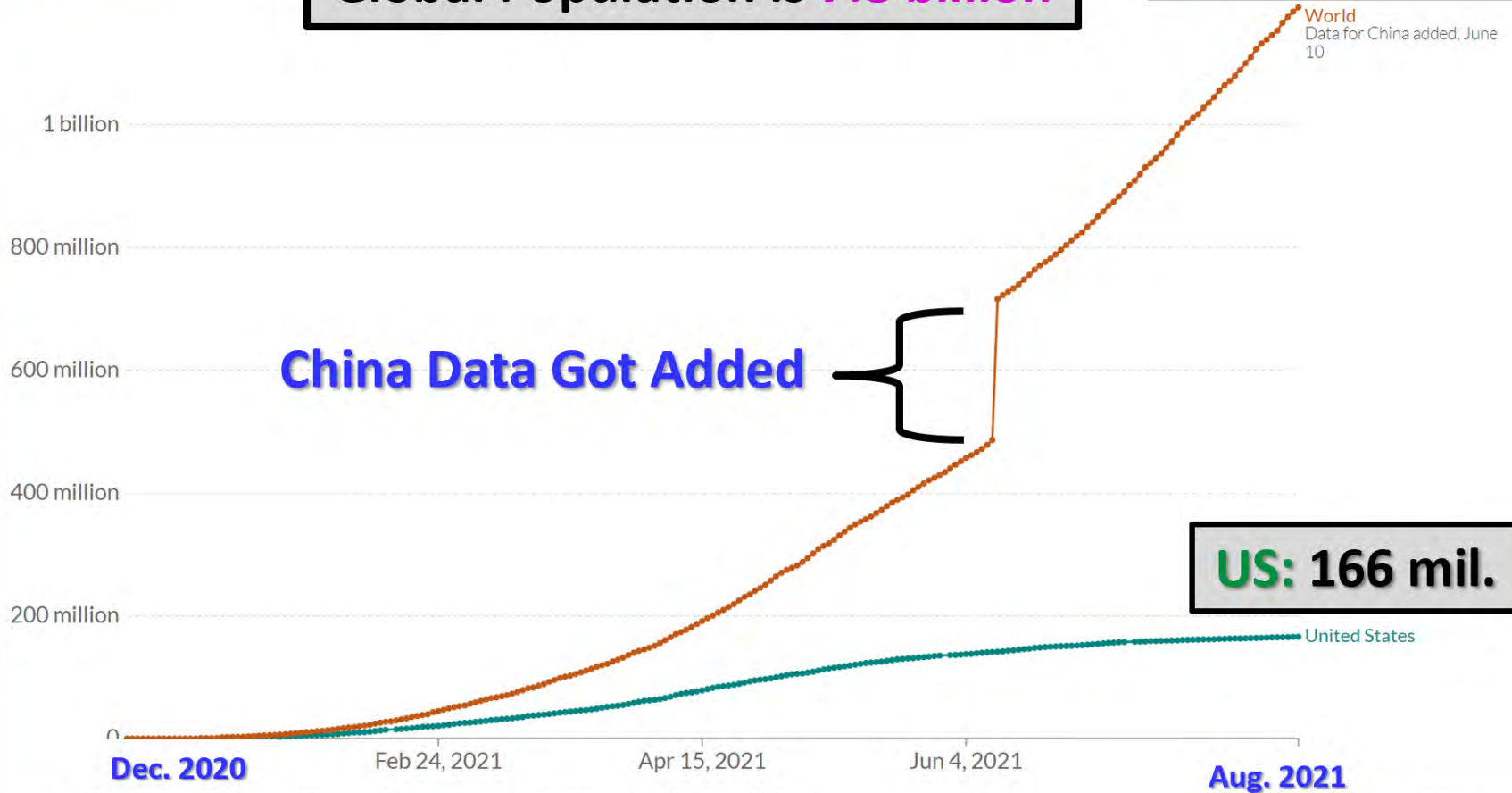
Total number of people who received all doses prescribed by the vaccination protocol.

Our World
in Data

+ Add country

Global Population is **7.8 billion**

World: 1.2 bil.



Source: Official data collated by Our World in Data - Last updated 7 August 2021, 09:00 (London time)

Note: This data is only available for countries which report the breakdown of doses administered by first and second doses. Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

ourworldindata.org/coronavirus • CC BY

▶ Dec 27, 2020

○ Aug 6, 2021

Global Chip Shortage Impacting Many Sectors Of Many Economies

A global chip shortage that has hobbled auto makers is reaching more sectors. Manufacturers of home appliances, heavy-equipment, servers and, well, even sex toys, are struggling with semiconductor stocks. The squeeze is even companies like freight operators and retailers that don't use chips as their core business, the WSJ's Eun-Young Jeong and Dan Strumpf report, as queues for the key components grow longer. **The tight supply for many chips is likely to persist through this year**, with the shortfalls leading to missed business opportunities in a global economic recovery that is gaining momentum. Freight railroad **Kansas City Southern** says cutbacks at Mexican automotive plants due to the semiconductor crunch were behind an 18% drop in first-quarter freight volume. More chips are on the way, with one forecast projecting a 13% increase in global shipments this year. But some widely used, inexpensive semiconductors are almost nowhere to be found.

Oil-Related Global Issues Are Mixed

On the supply side:

OPEC+ holding to crude production cuts of about 5.8 mil. BPD.
(But production cuts phase out totally by September, 2022)

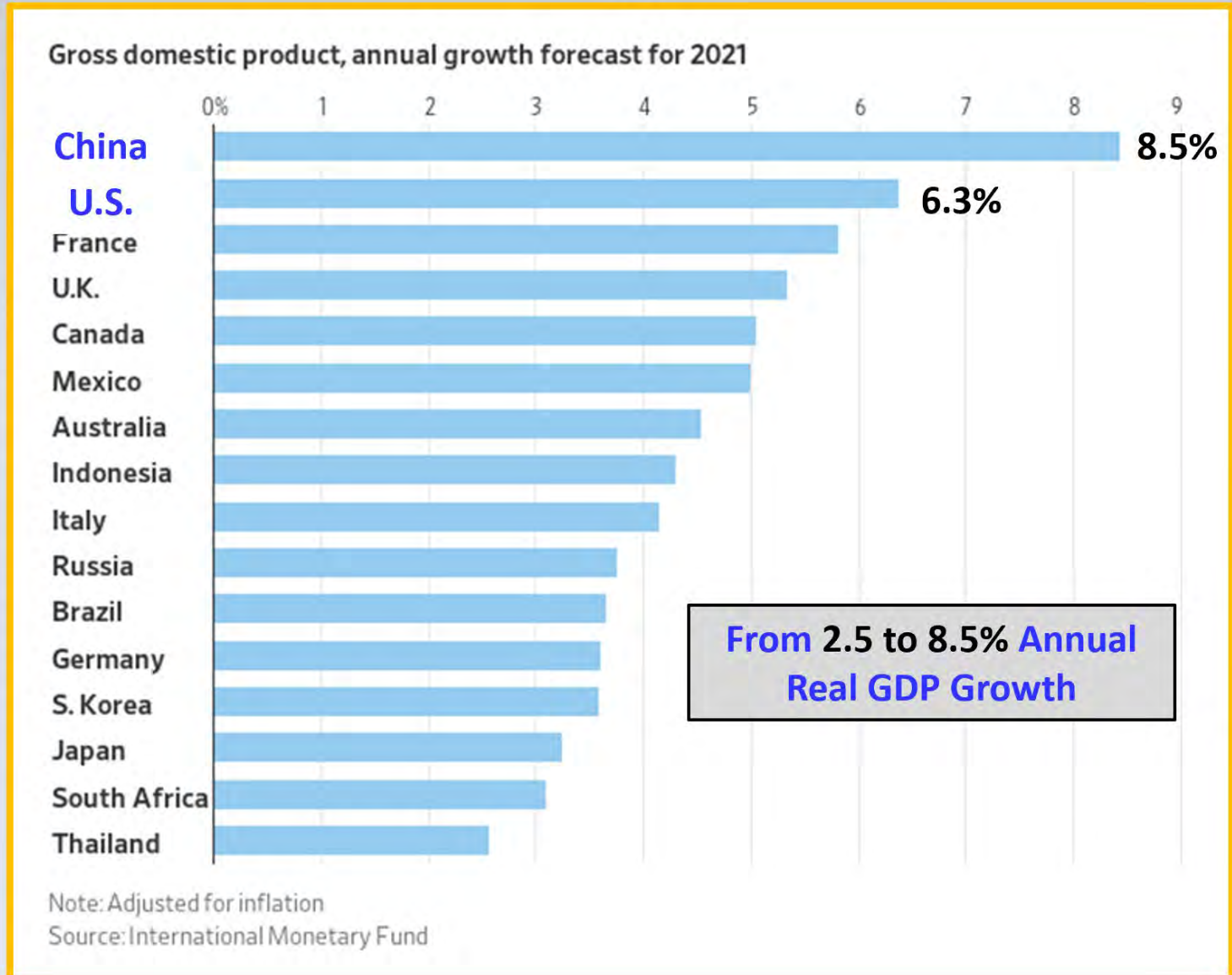
Iran seems intent on increasing crude production.
(Added 500k Bbls/day since October, 2020)

On the demand side:

China, the largest importer of crude (11mil. BPD in 2020), is seeing their economy come back quite strong.

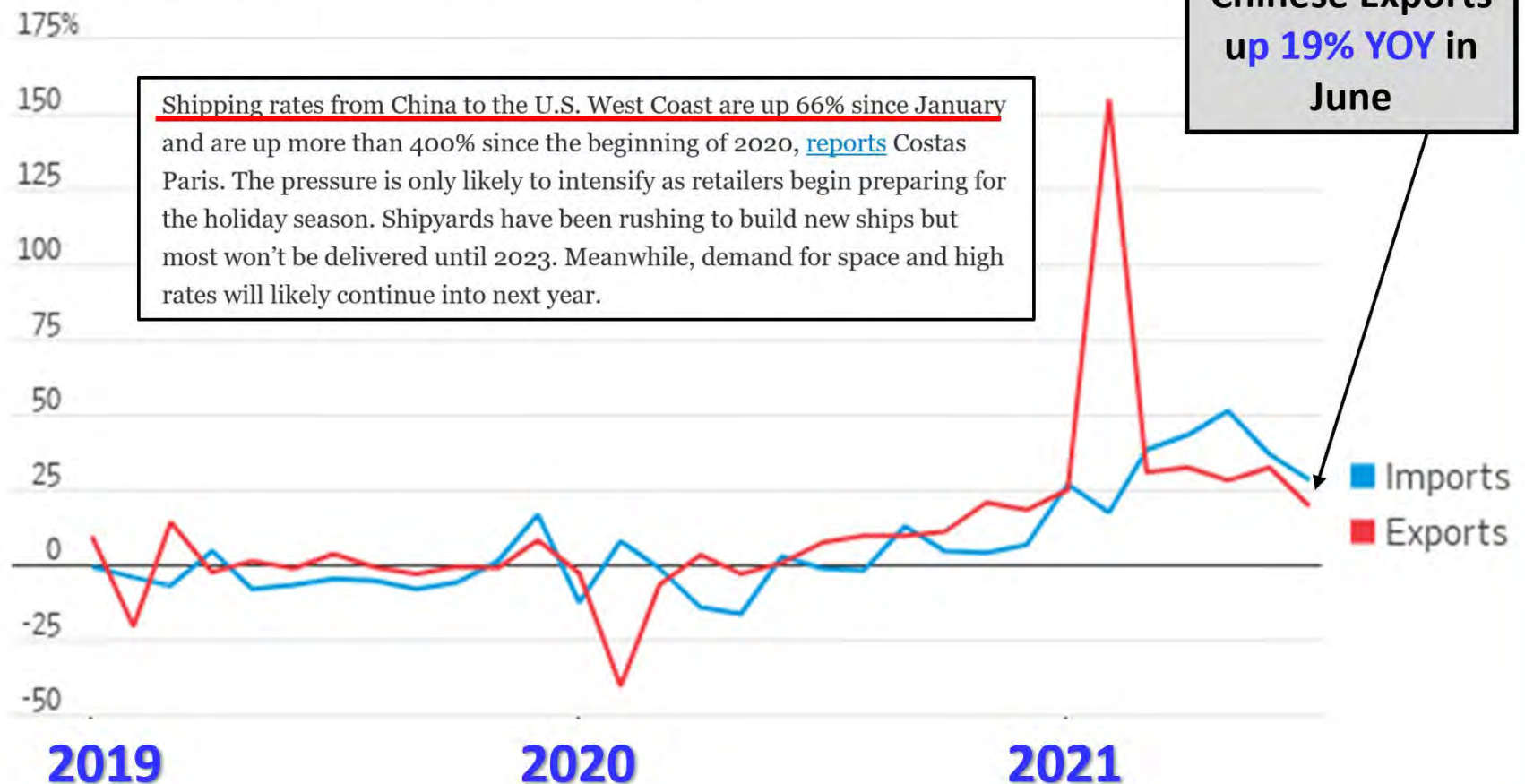
India, the 2nd largest importer of crude (4mil. BPD in 2020), is just now starting to come back from extremely high Covid cases.

2021 Annual GDP Forecast by Country Still Looks Strong Overall



Chinese Exports Still Quite Strong

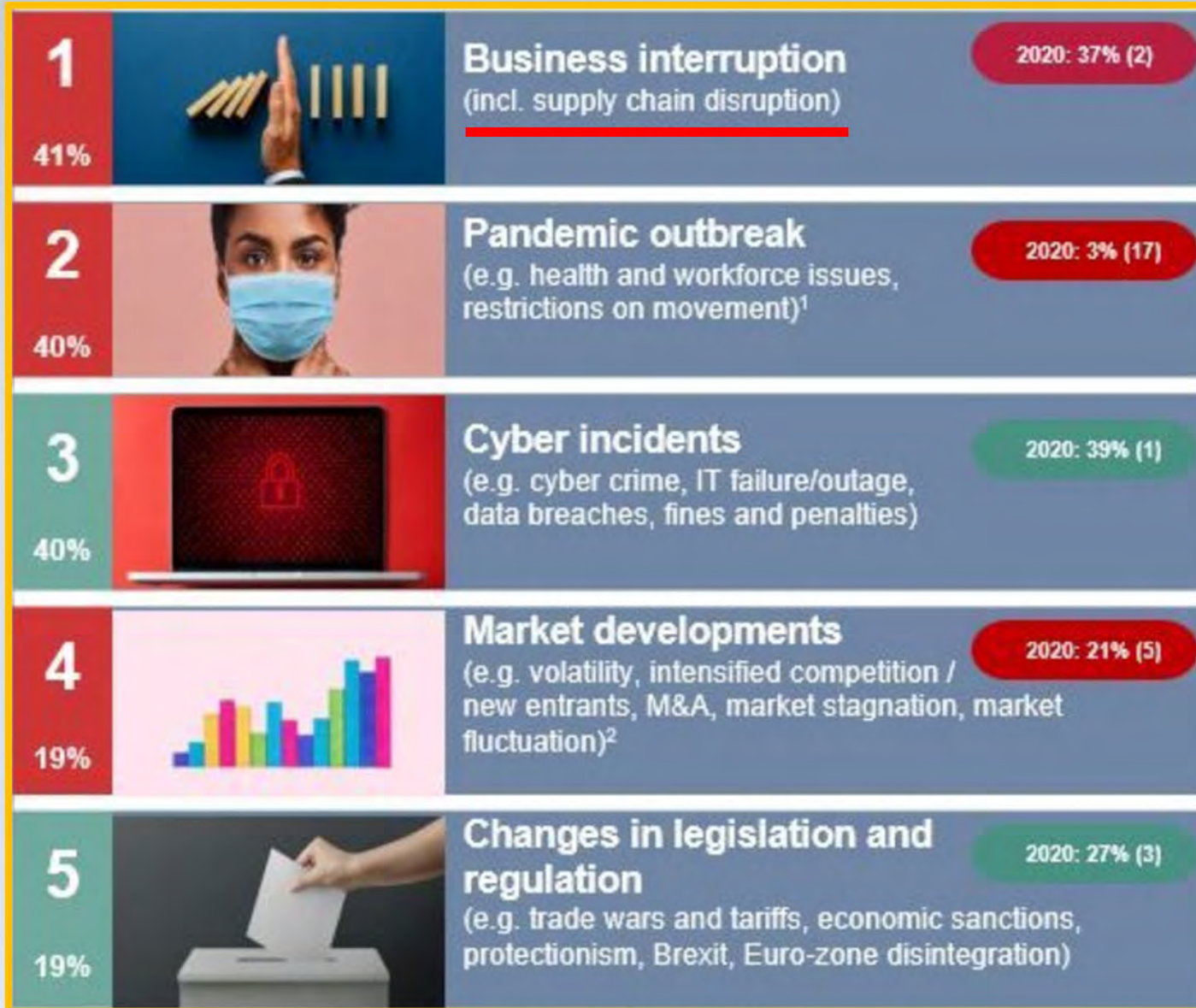
China's imports and exports, change from one year earlier



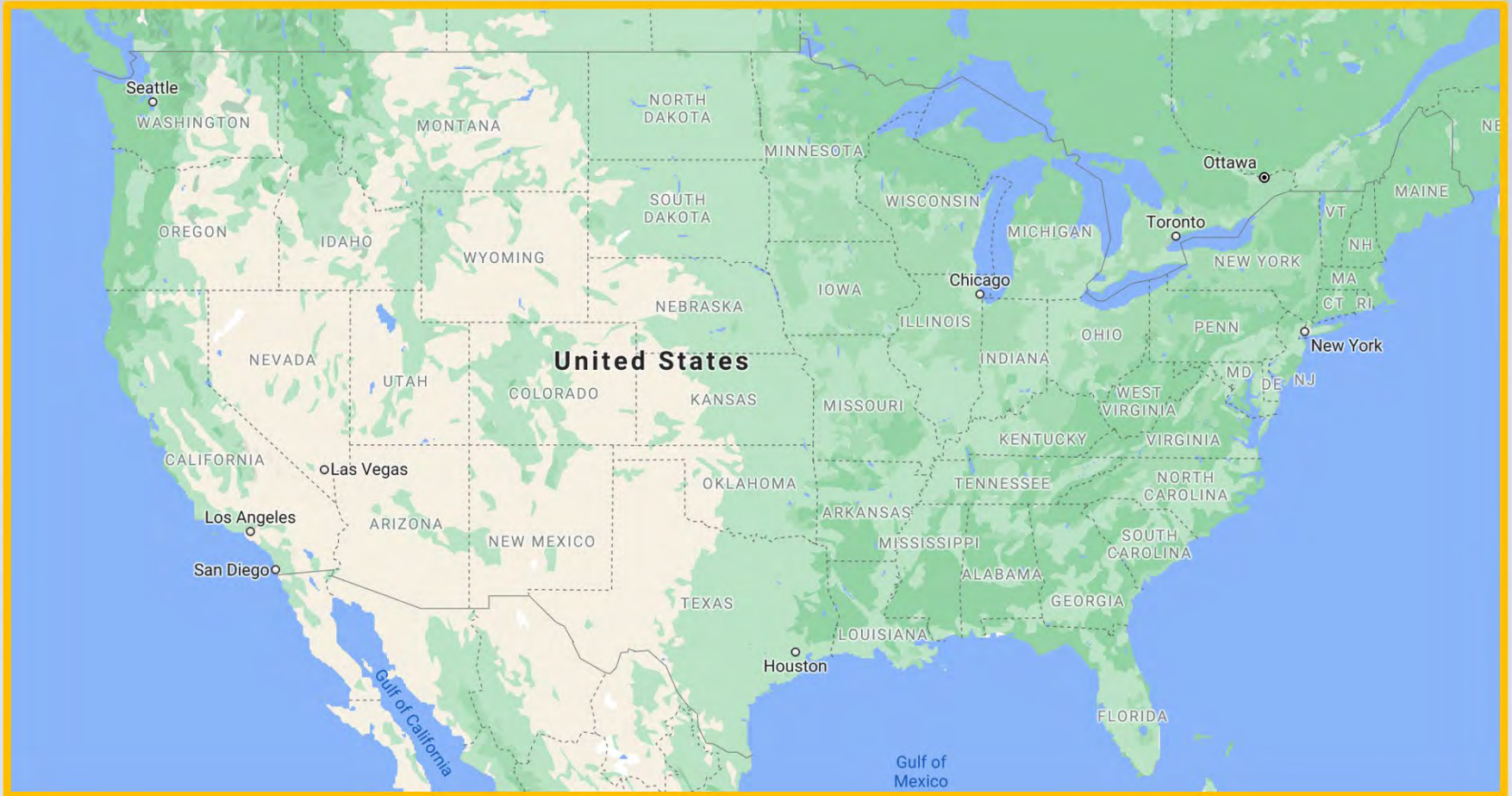
Shipping rates from China to the U.S. West Coast are up 66% since January and are up more than 400% since the beginning of 2020, [reports](#) Costas Paris. The pressure is only likely to intensify as retailers begin preparing for the holiday season. Shipyards have been rushing to build new ships but most won't be delivered until 2023. Meanwhile, demand for space and high rates will likely continue into next year.

Chinese Exports
up 19% YOY in
June

Top 5 Global Business Risks in 2021



U.S. Economy

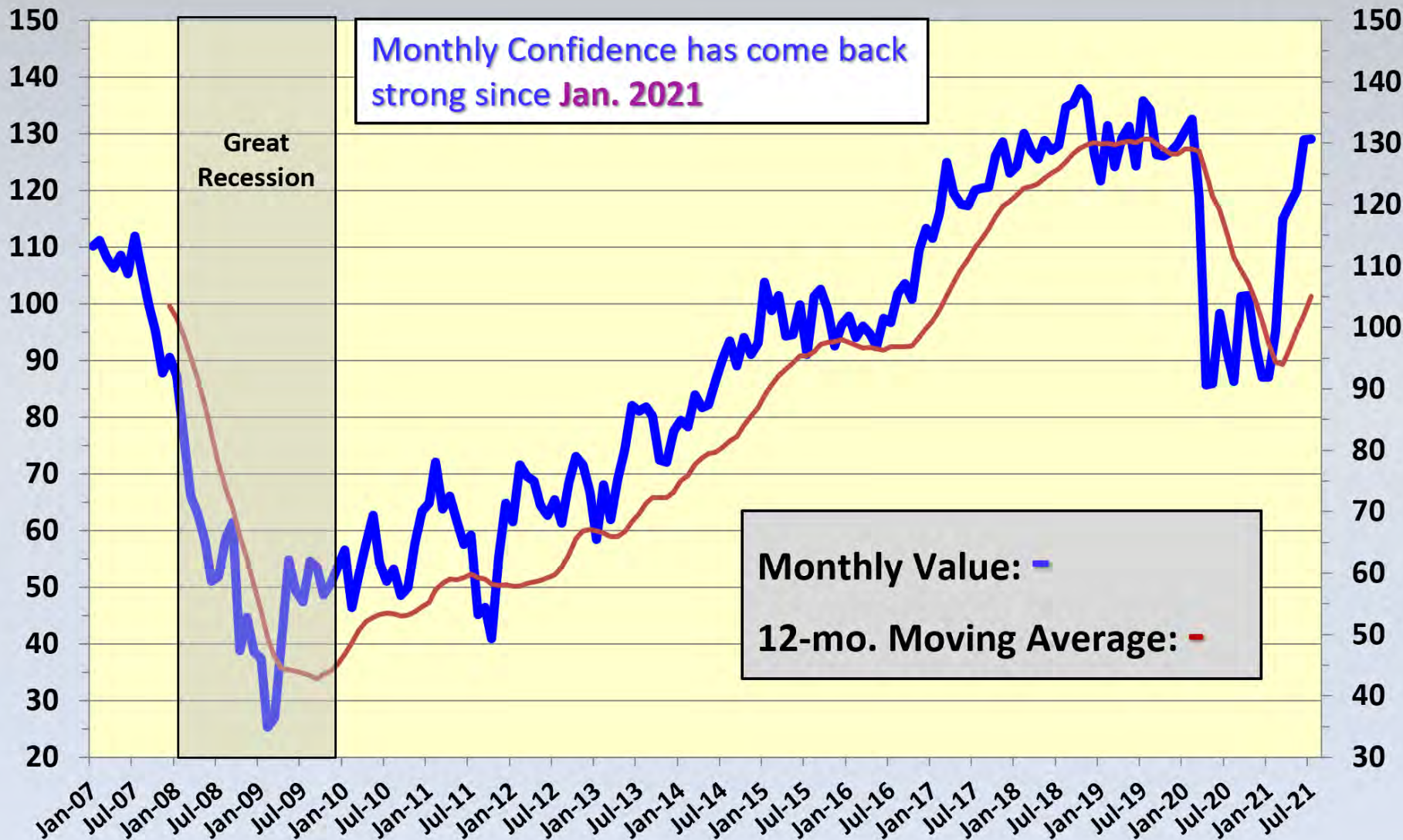


How Are We Doing So Far?

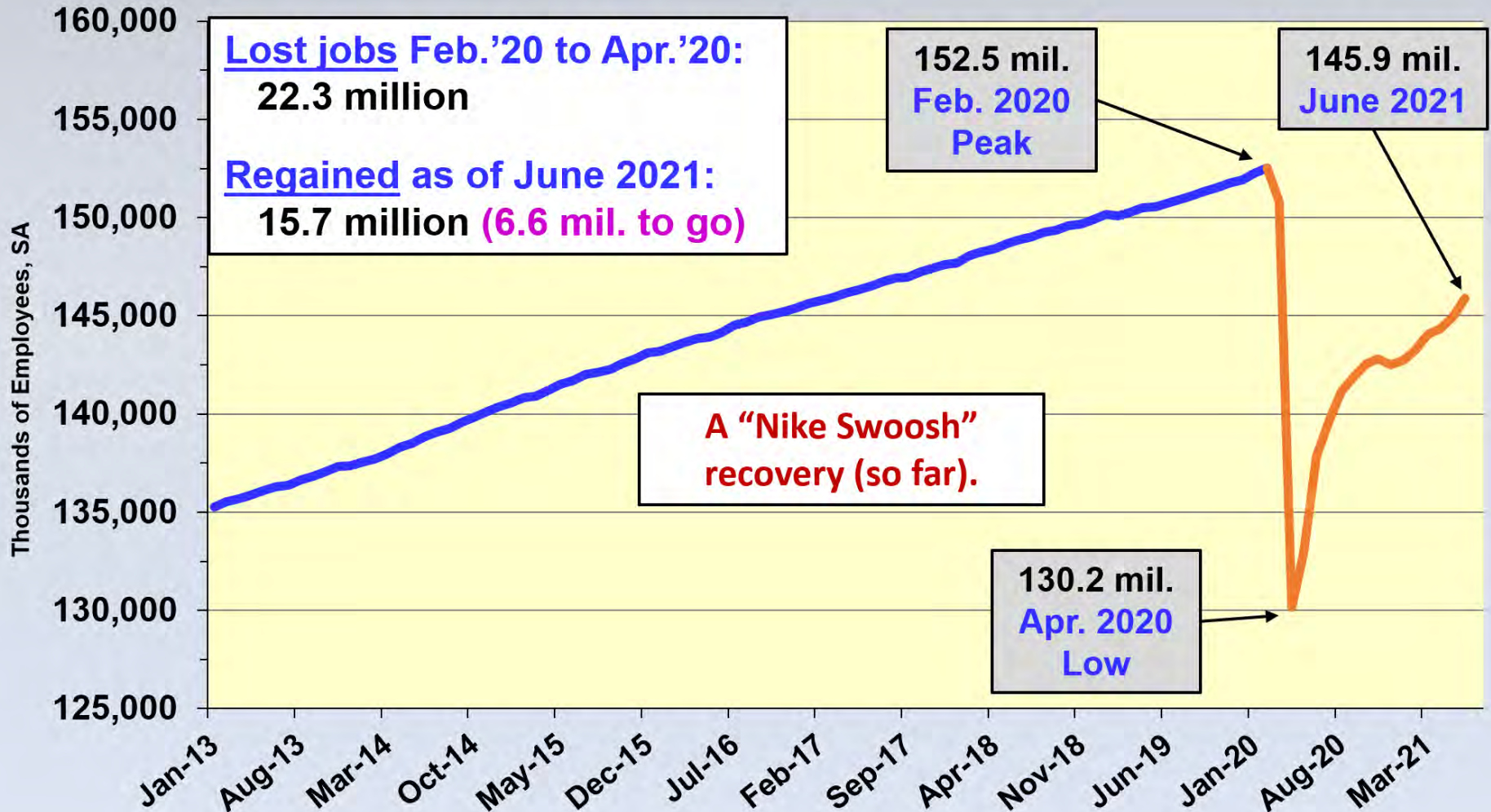
- **Major fiscal stimulus** packages during the past year helped. (\$1 Tril. Infrastructure bill just passed Senate.)
- **Improved household spending** from jobs, fiscal stimulus, pent-up demand and savings being spent.
- **Federal Reserve** still buying Treasuries, MBS's and keeping interest rates low. (But, pressure to “taper” is on.)
- Seeing **inflationary pressures** (The Big Worry).
- **Vaccinations** have alleviated COVID's impact. (But the Delta variant is the other Big Worry.)

The Good News

U.S. Consumer Confidence Has Jumped

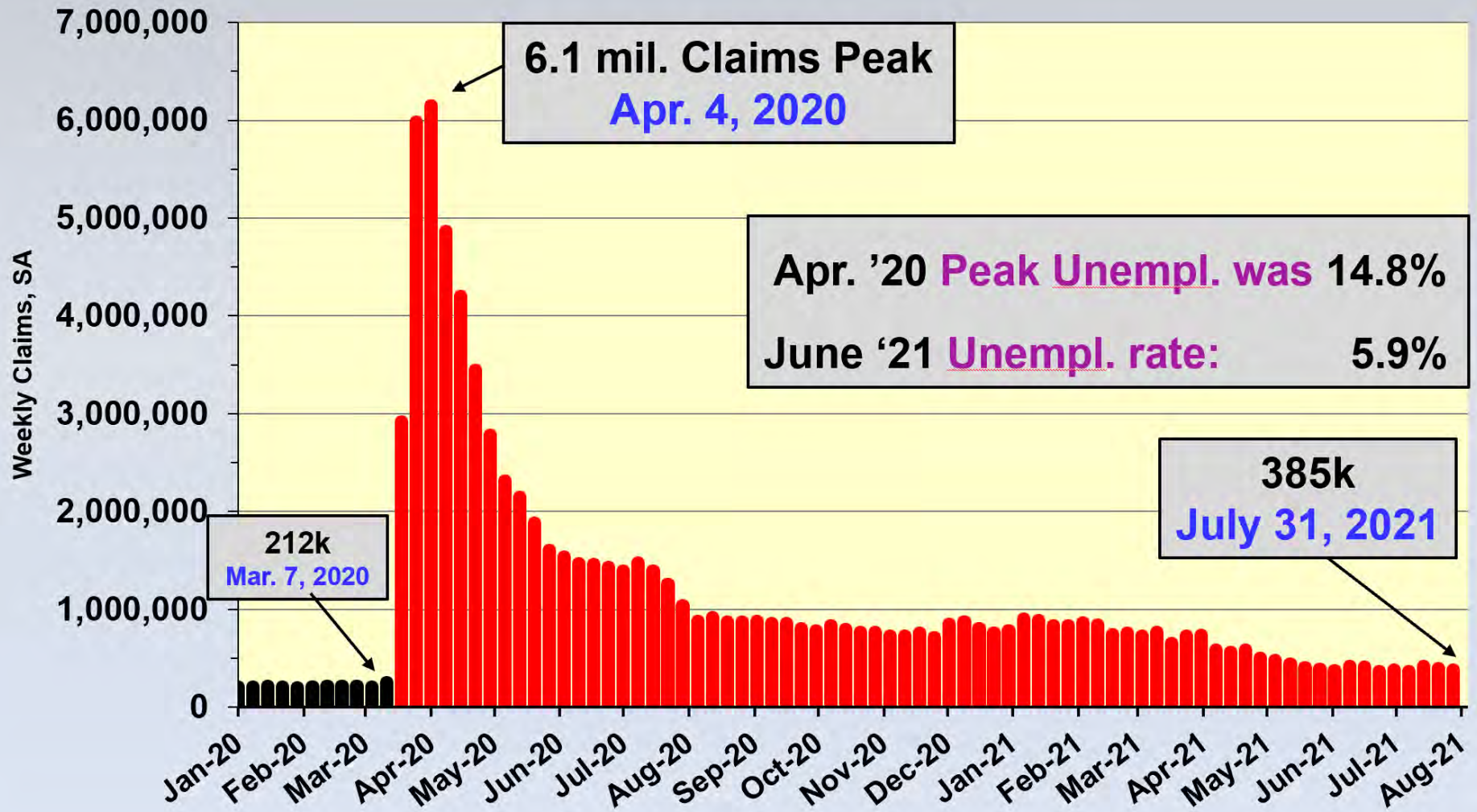


Total U.S. Nonfarm Employment is Coming Back



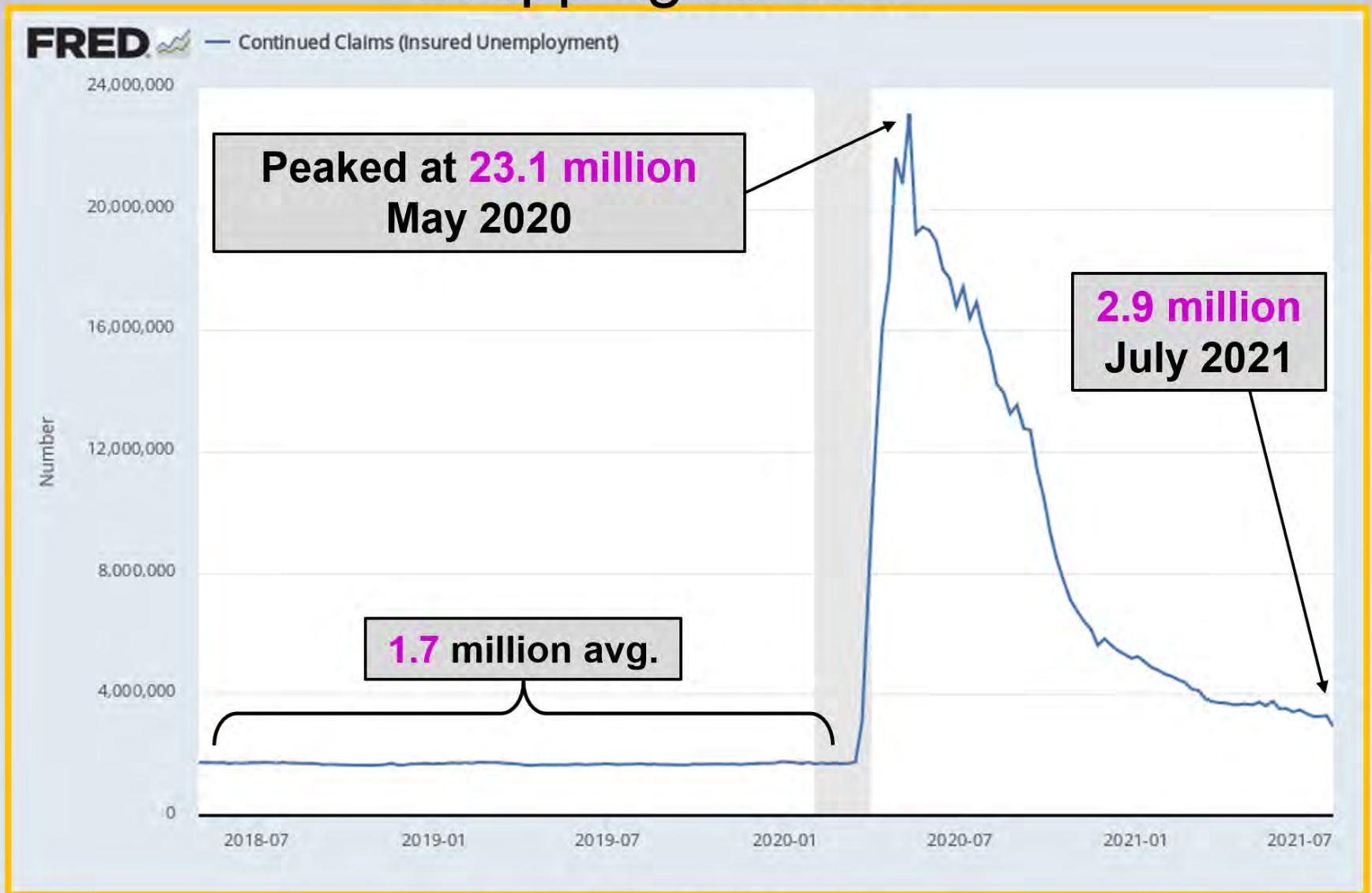
Source: Haver Analytics

U.S. Weekly Initial Unemployment Claims Are Still Dropping (slowly)



Source: St. Louis Federal Reserve "FRED"

U.S. Weekly Continuing Unemployment Claims Dropping As Well



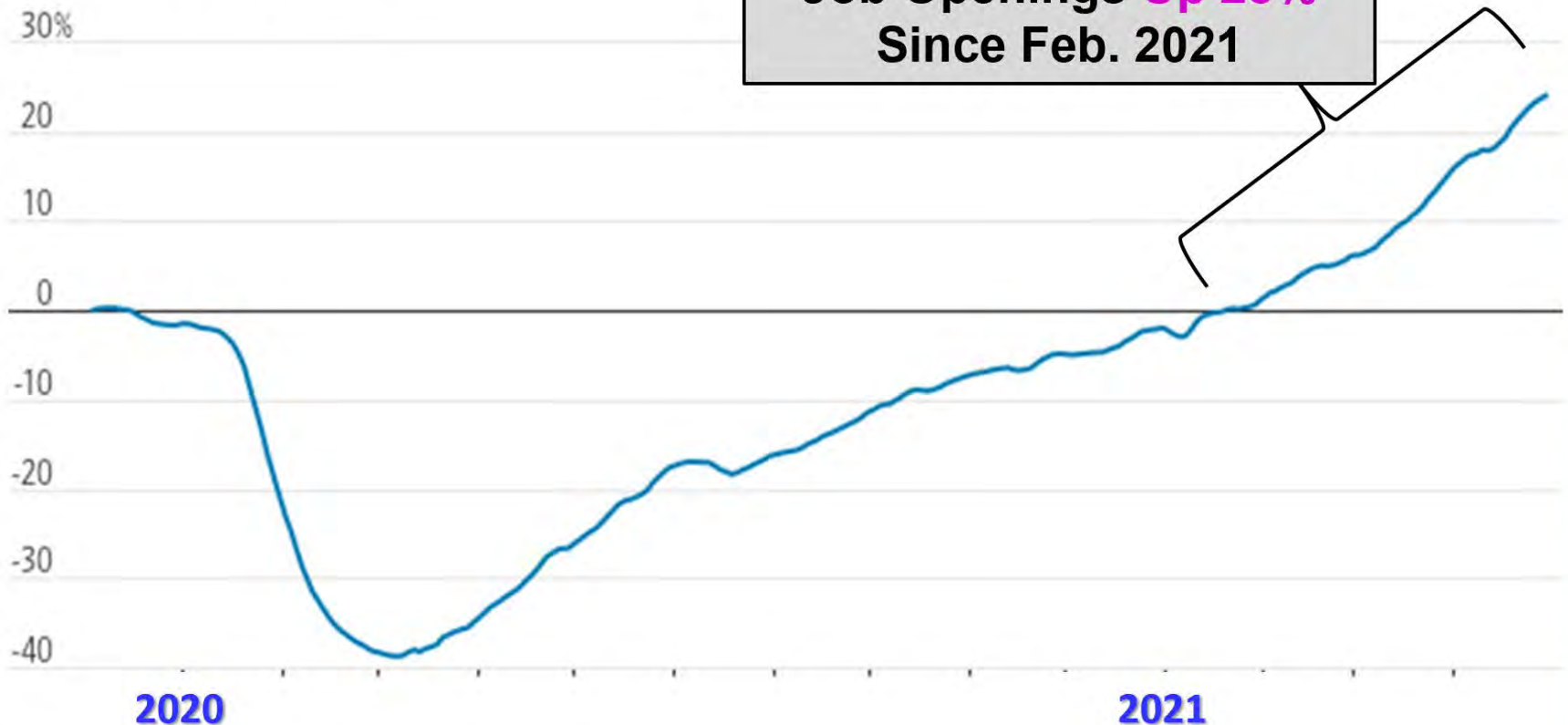
Source: St. Louis Federal Reserve FRED

Percentage Change in U.S. Job Openings Strengthening

Now Hiring

Job openings have increased steadily from a low point one year ago early in the pandemic.

Change in job openings from Feb. 1, 2020

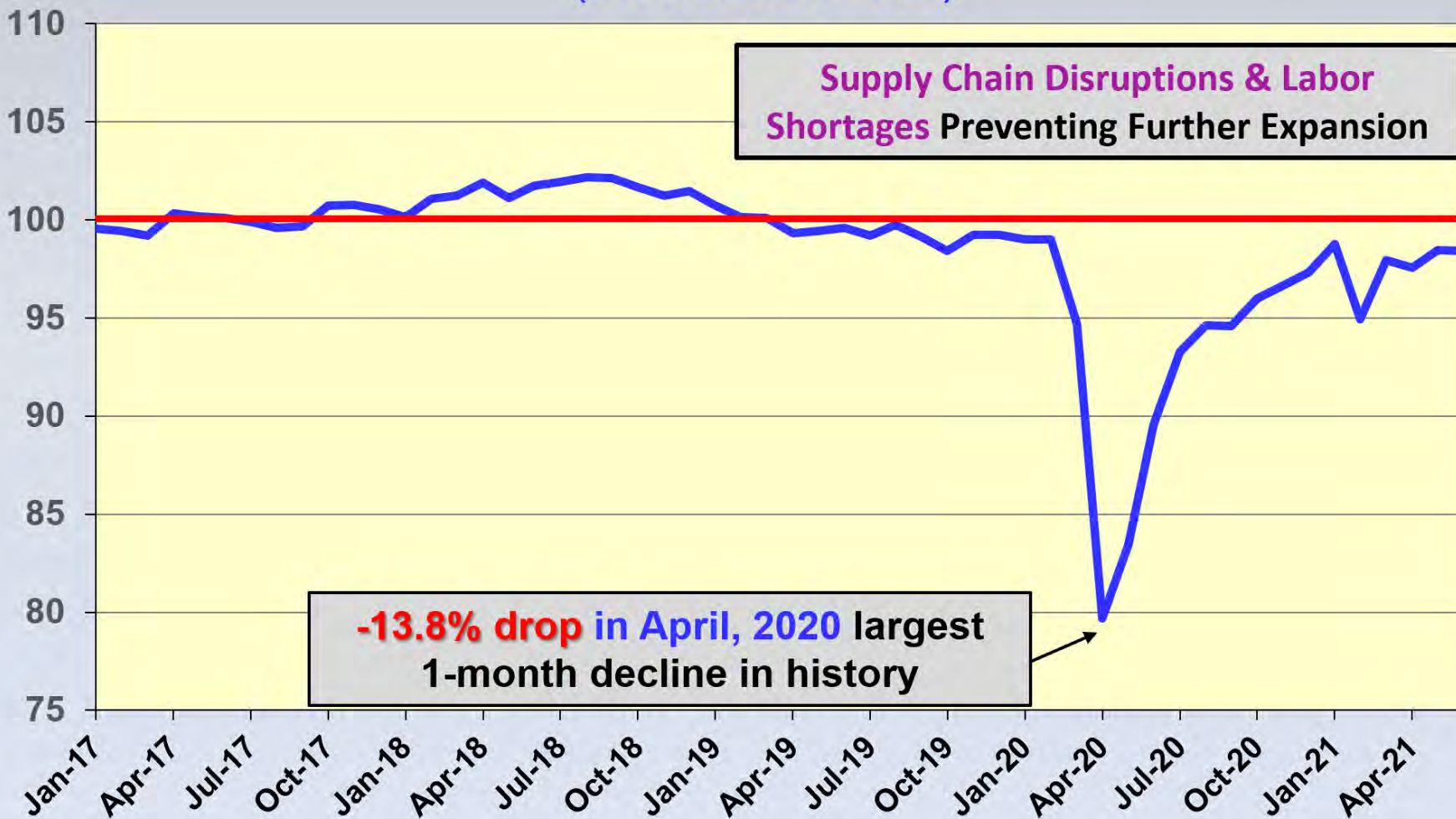


Job Openings **Up 25%**
Since Feb. 2021

Source: Indeed and Wall Street Journal

Manufacturing Sector Industrial Production Has Come Back Significantly

(Index 2012=100)

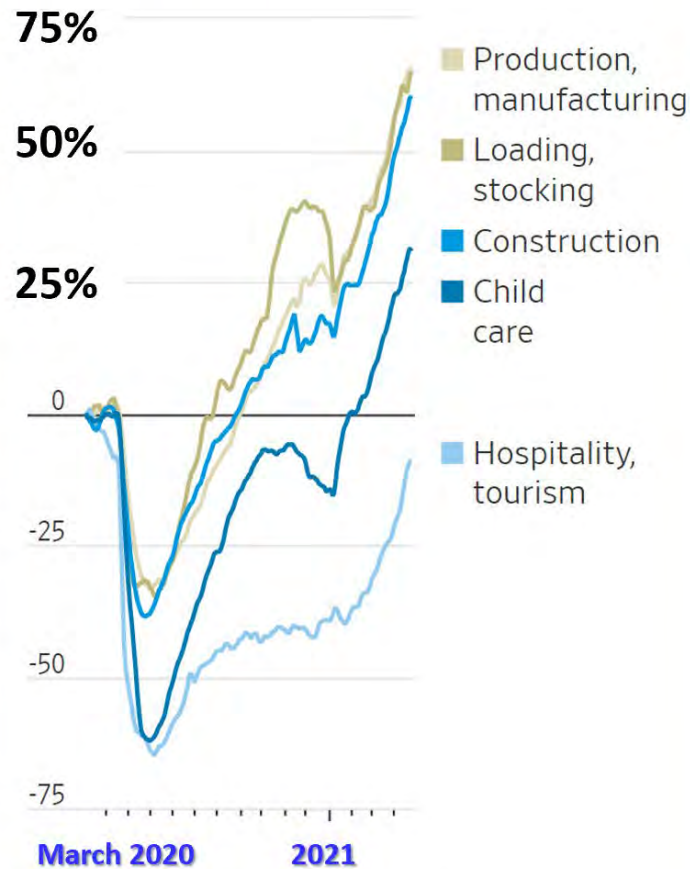


Pct. Change in U.S. Job Openings

(Selected Sector Increases Since Feb. 2020)

Help Wanted

Change in job openings from Feb. 1, 2020, in selected sectors.



High Demand for Industrial, Construction & Child Care jobs.

Source: Indeed and Wall Street Journal

Employees Who Voluntarily Left Jobs Shows Increasing Confidence In Job Market

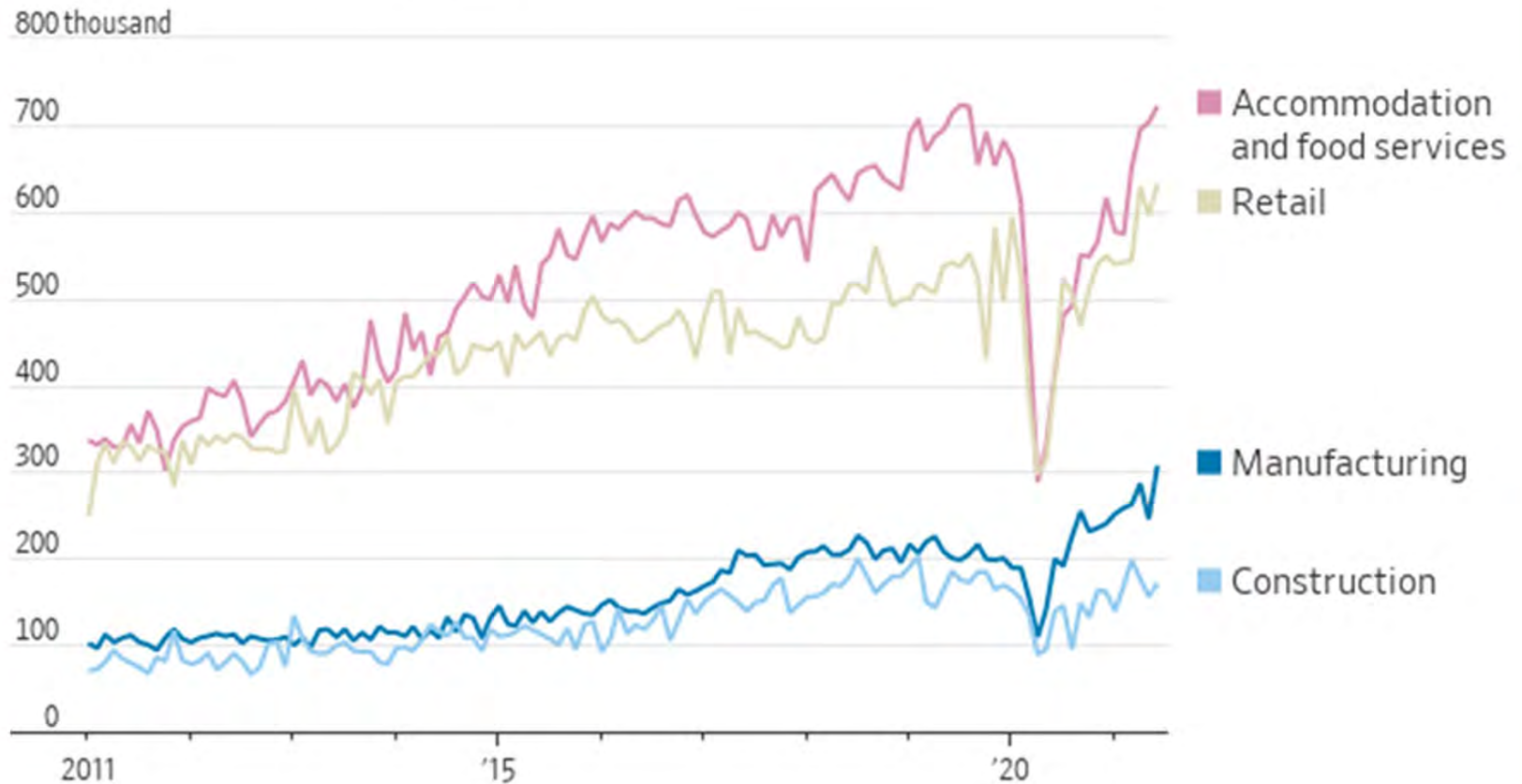
U.S. employees who voluntarily left a job, monthly



Note: Seasonally adjusted
Source: Labor Department

Retail, Accommodation and Food Service Folks Quitting the Most

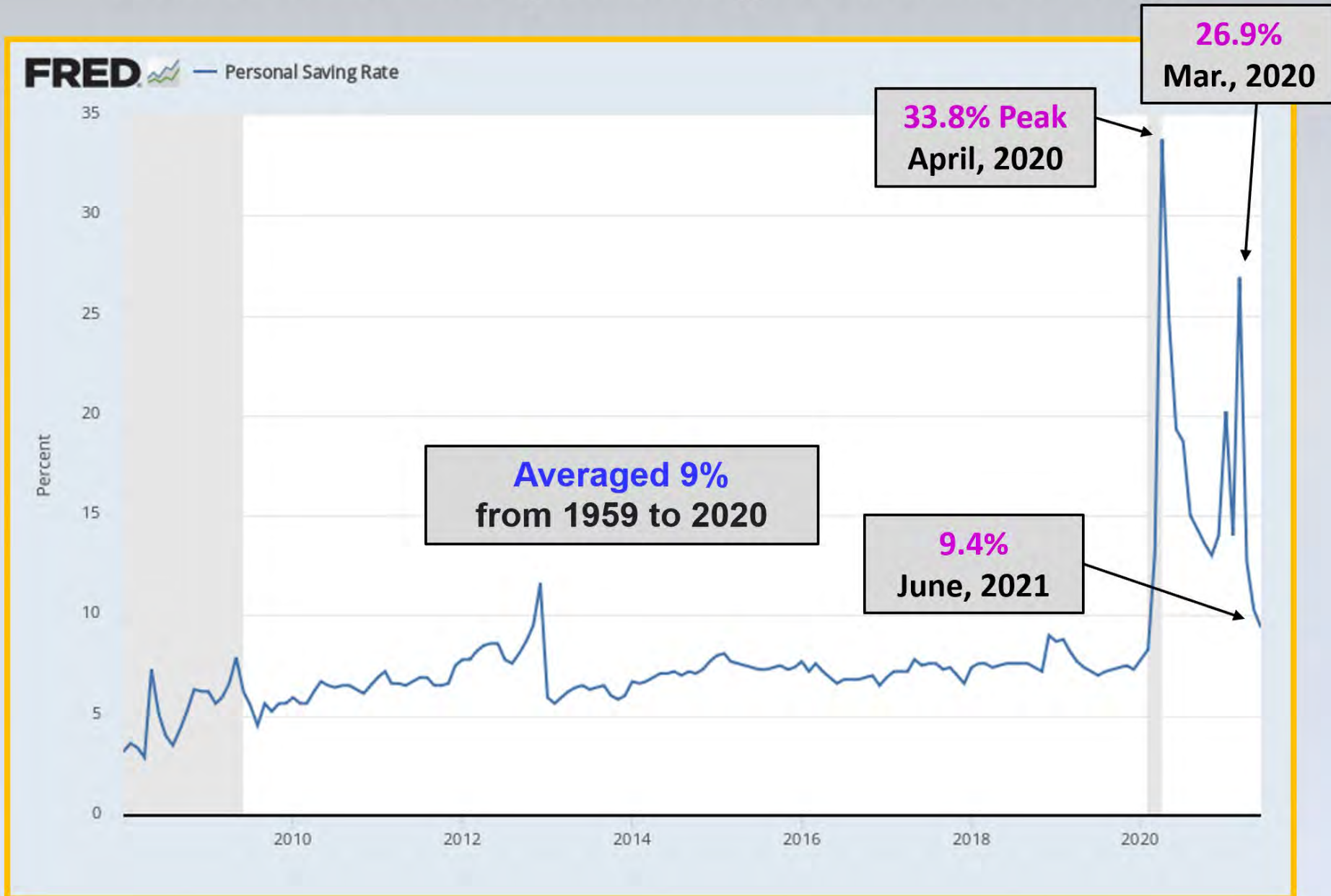
Number of workers who quit a job, monthly



Note: Seasonally adjusted

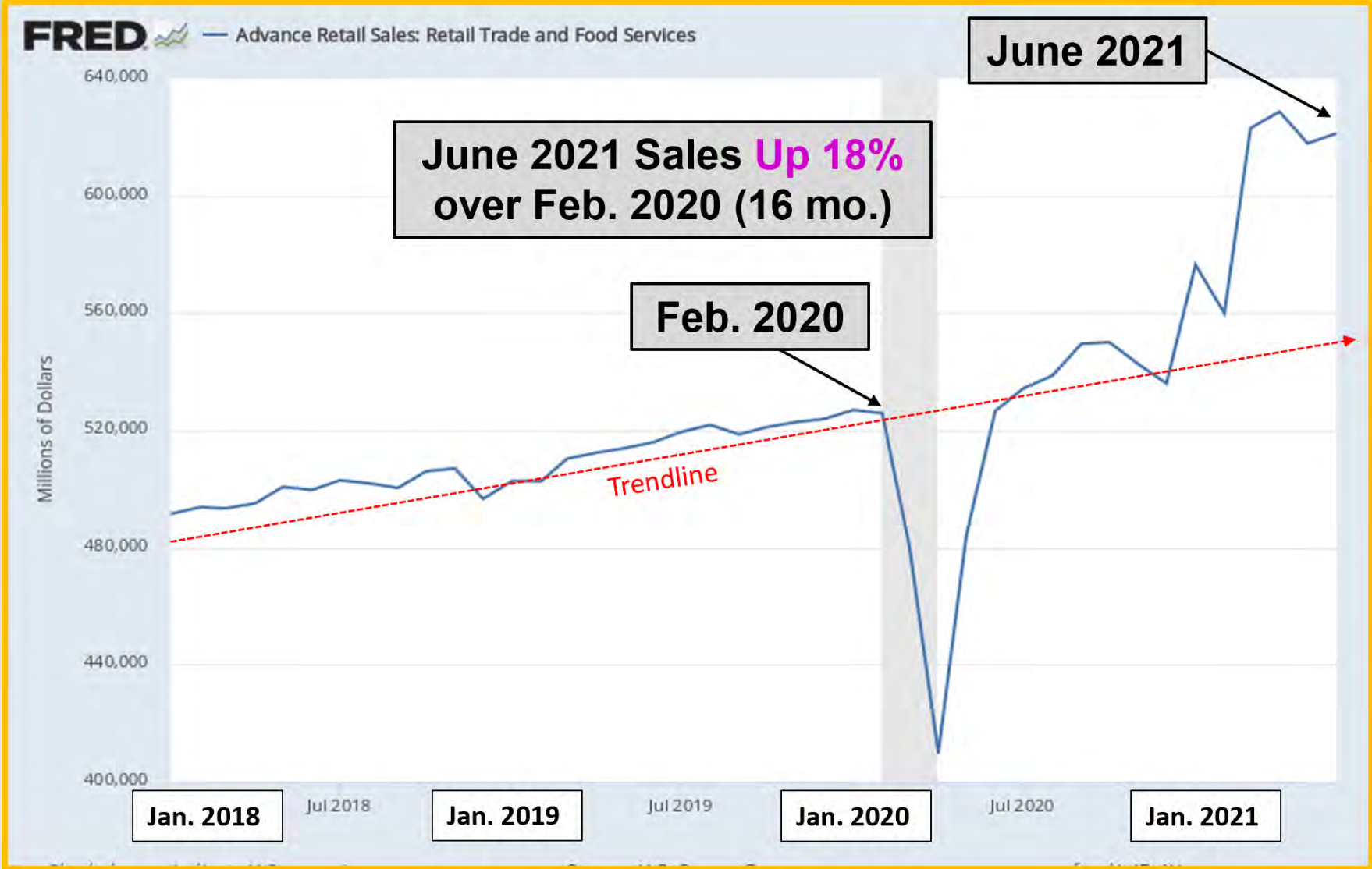
Source: Labor Department

Consumers Spending Their Savings



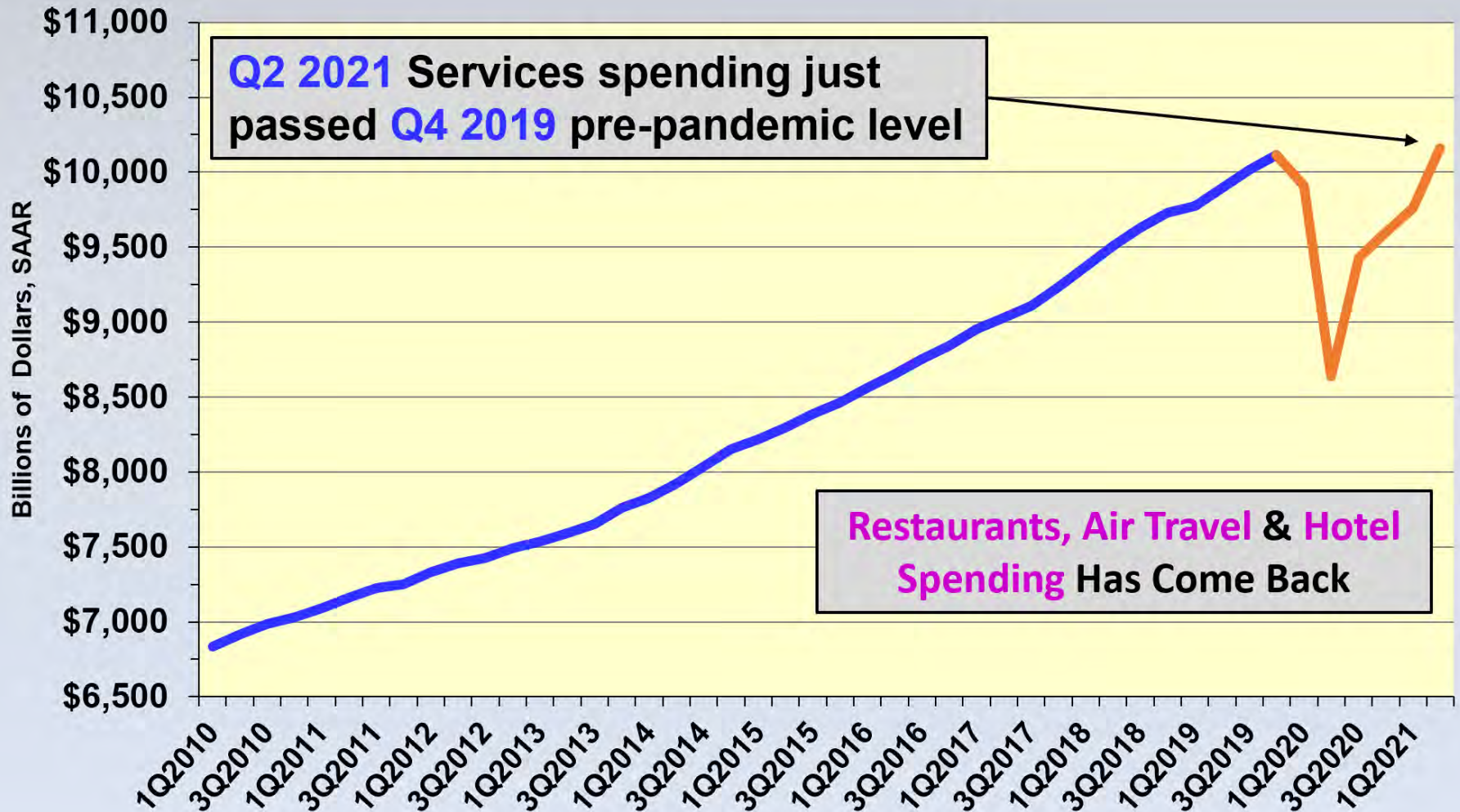
Retail Sales Showing Solid Rebound

(Advance Retail Sales: Goods & Services, Total, SA)



Source: St. Louis Federal Reserve FRED

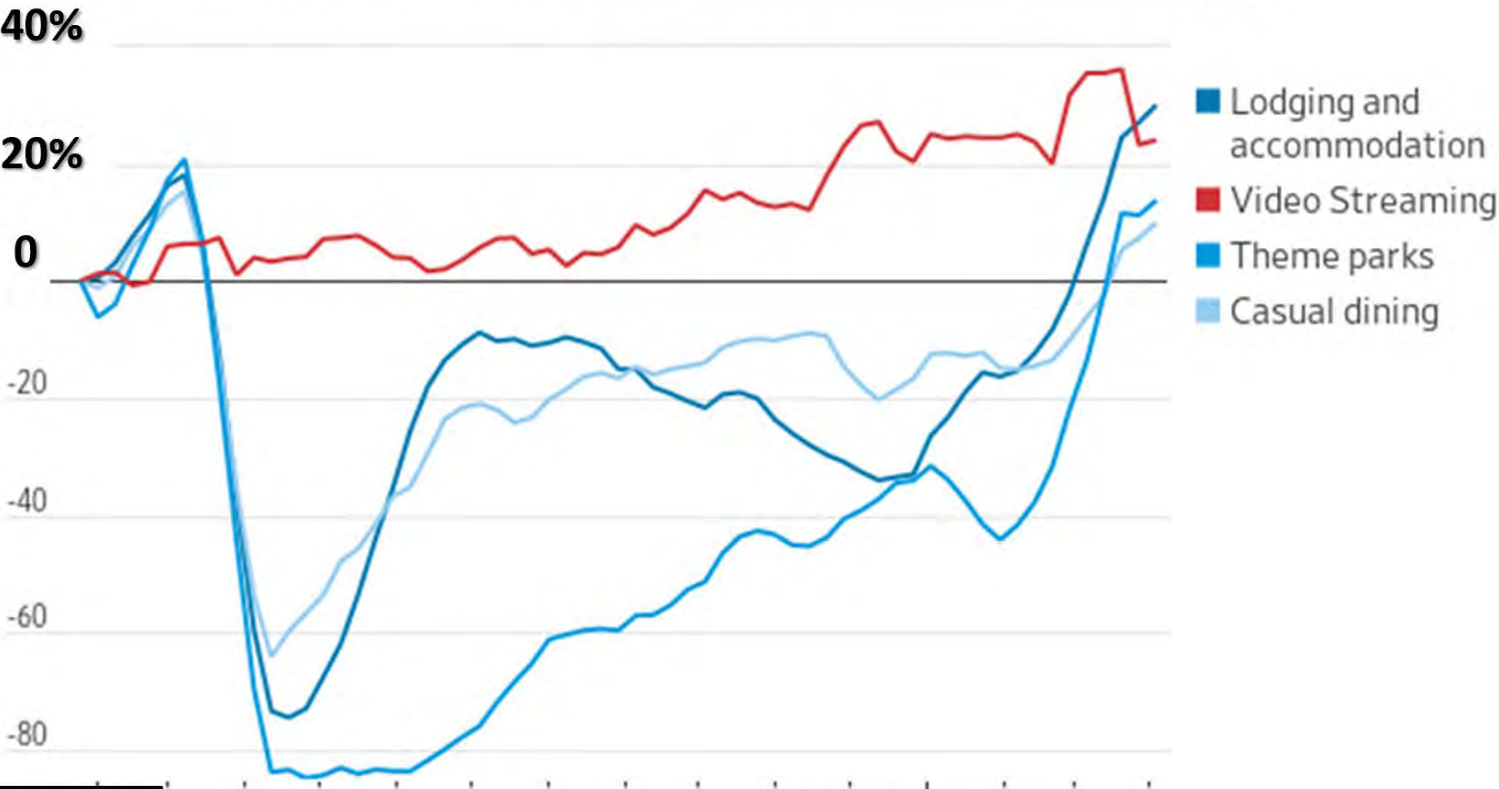
Personal Spending On Services Only Finally Above 2019 Peak



Source: FRED, St. Louis Federal Reserve Bank; Real Estate Center at Texas A&M University

Credit & Debit Card Spending Up For Lodging, Dining & Theme Parks

U.S. credit- and debit-card spending, change since week ending Jan. 29, 2020

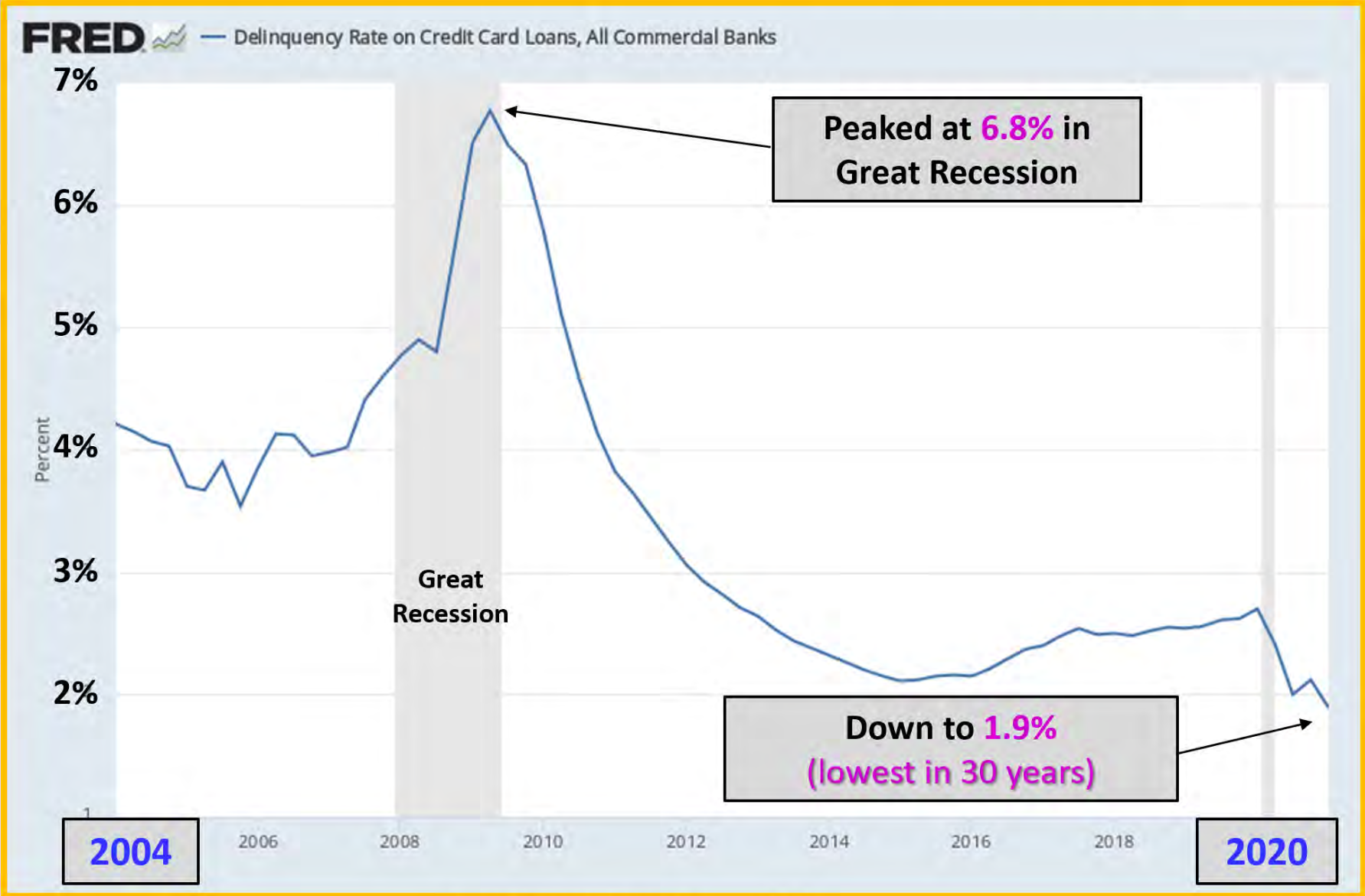


2020

2021

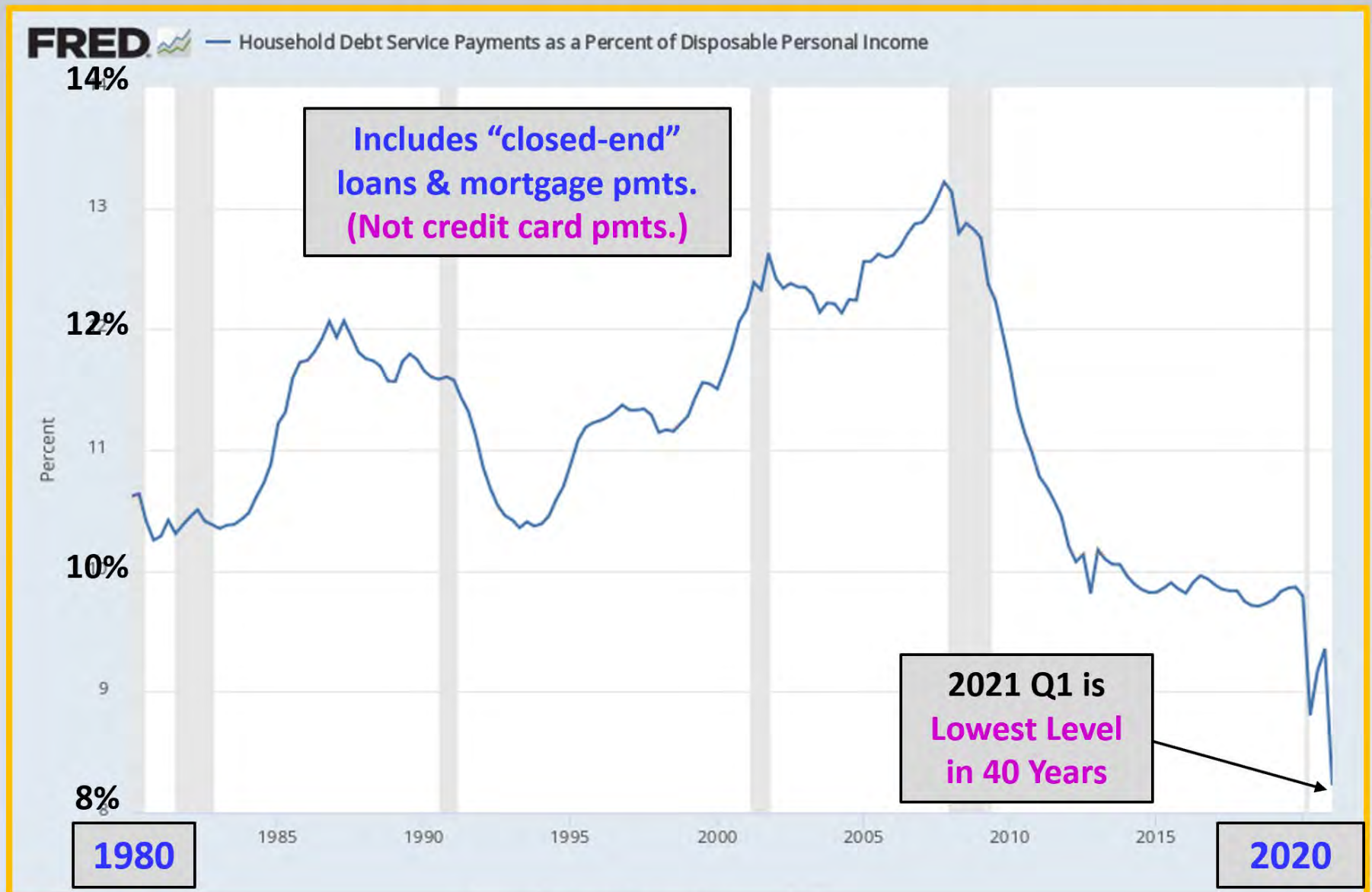
Source: Earnest Research

Credit Card Delinquencies Extremely Low



Source: St. Louis Federal Reserve FRED

Households Are Paying Down Other Debt



Source: St. Louis Federal Reserve FRED

U.S. Real Annual GDP Predicted To Be 6% (Or More) in 2021

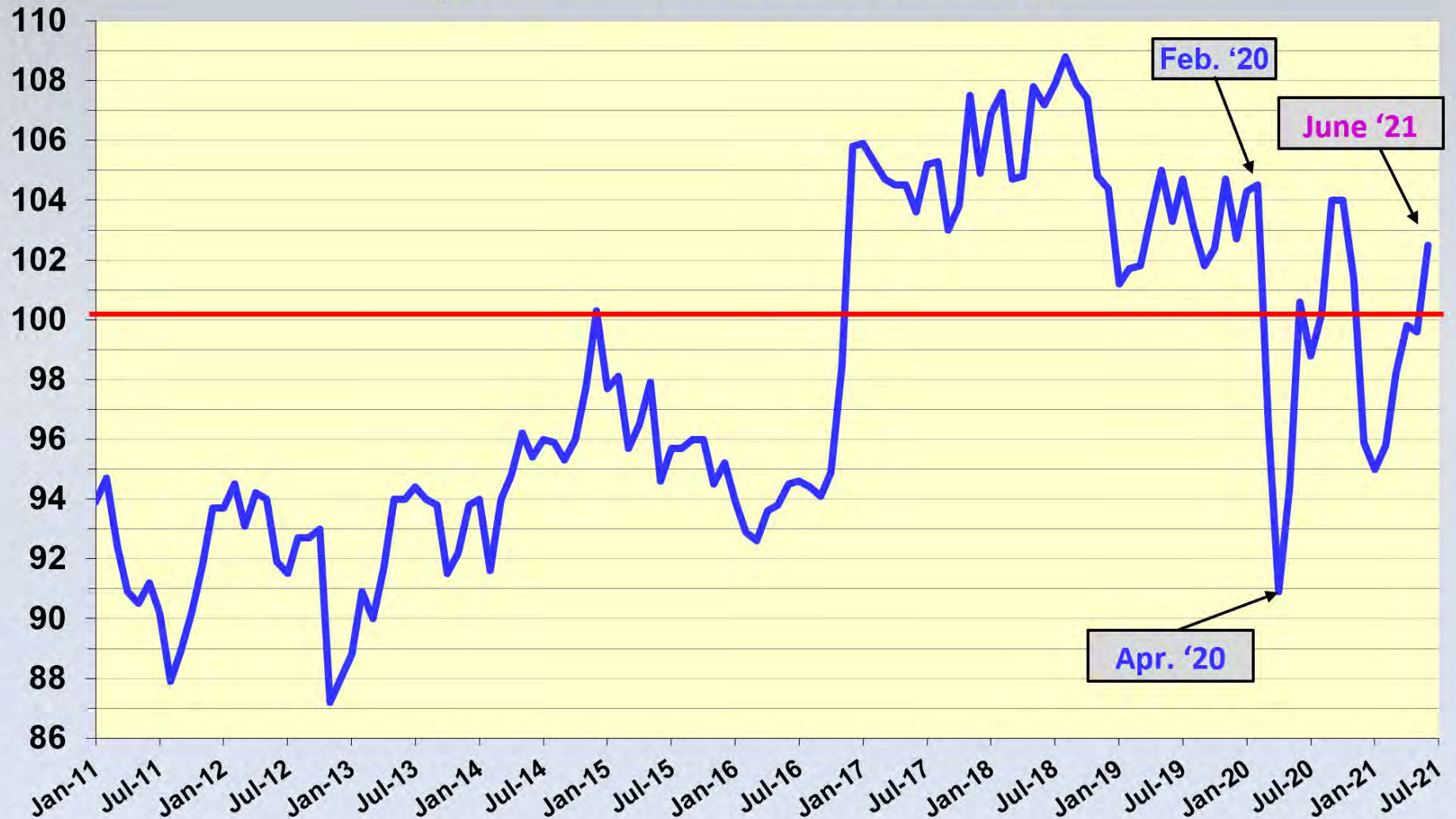


Source: Bureau of Economic Analysis (Quarterly Change Annualized) and Conference Board

NFIB Small Business Optimism Index

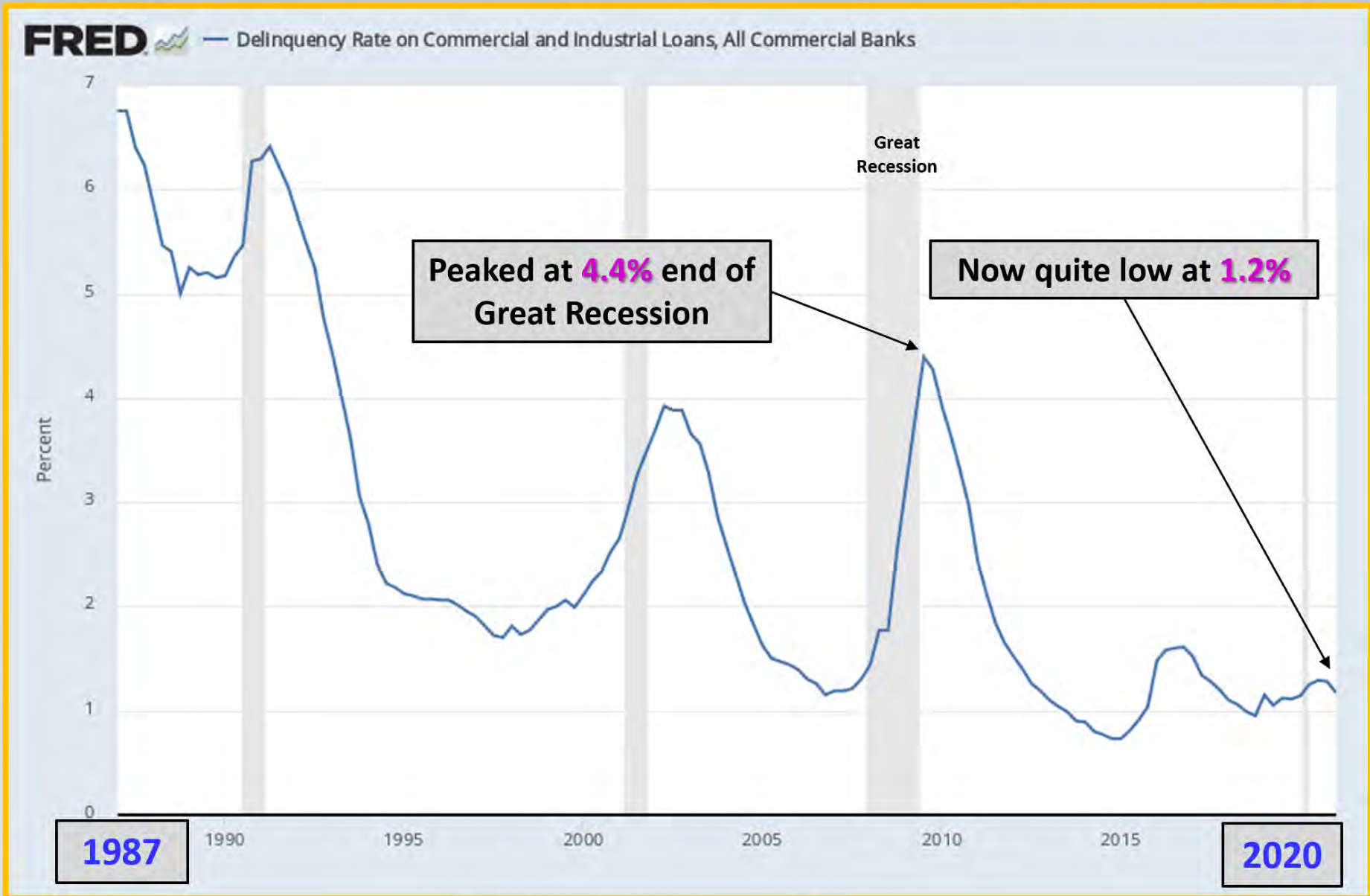
Rebounding Again

(Overall Index SA 1986 = 100)



Source: National Federation of Independent Businesses; based on ten survey indicators

Commercial & Industrial Loan Delinquencies Low



Source: St. Louis Federal Reserve FRED

Challenges

Economic Headwinds

- **Labor shortage** – need more folks to come back to work.
- **Inflation** – reaching levels not seen in years.
- **Fiscal policy(ies) – new taxes & spending:** Will they be economic drags?
- **Covid** – when will we fully recover from it?
- **Stock market** – a major correction would impact the “wealth” effect.

Seen A Massive Inflow Into Stocks Just In The Past Few Months

Inflows to stocks over the past five months exceed those of the prior 12 years

Inflows to global equity funds



SOURCE: Bank of America Global Investment Strategy, EPFR Global



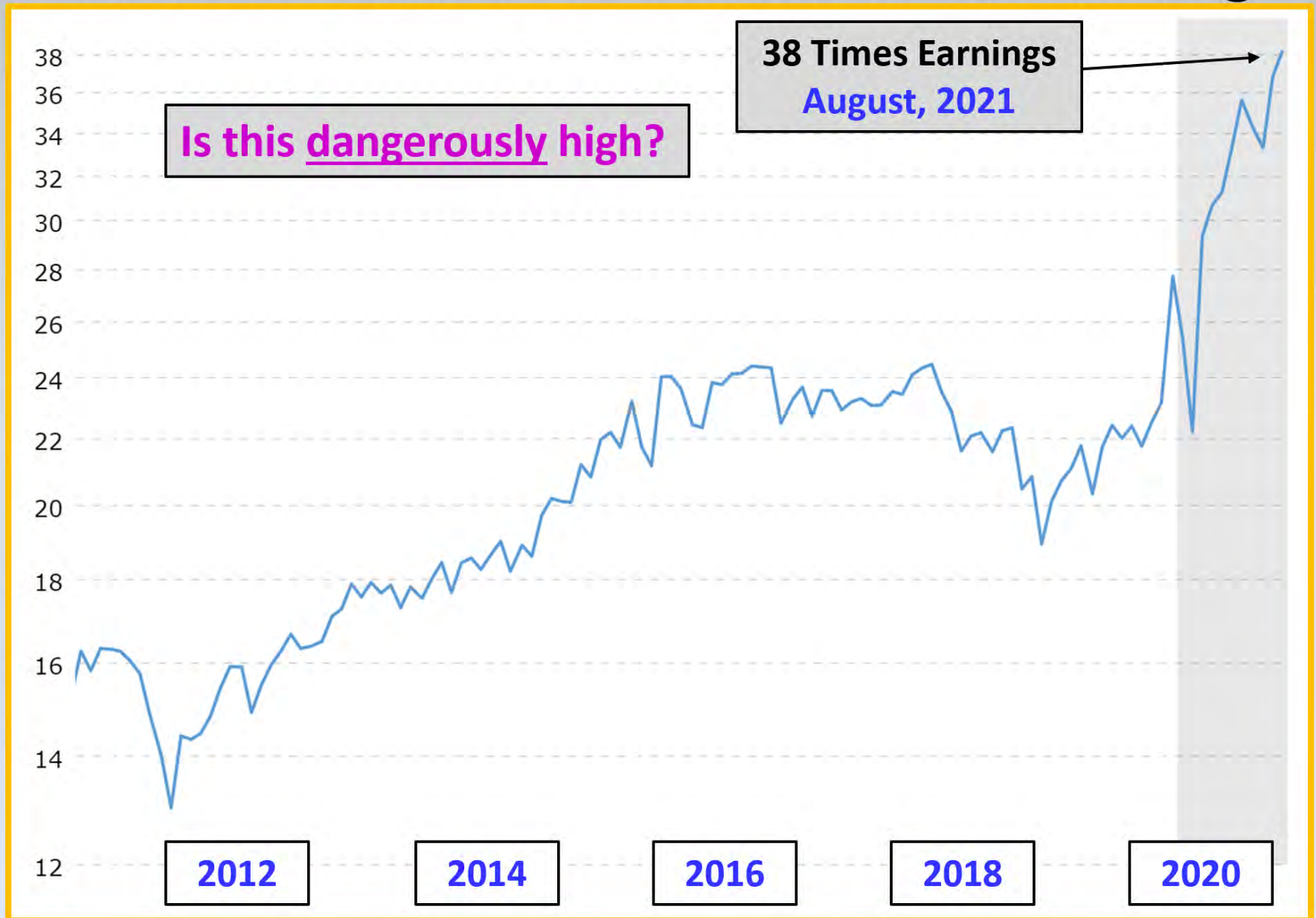
Source: CNBC

Stock Market Is Benefitting From High Liquidity



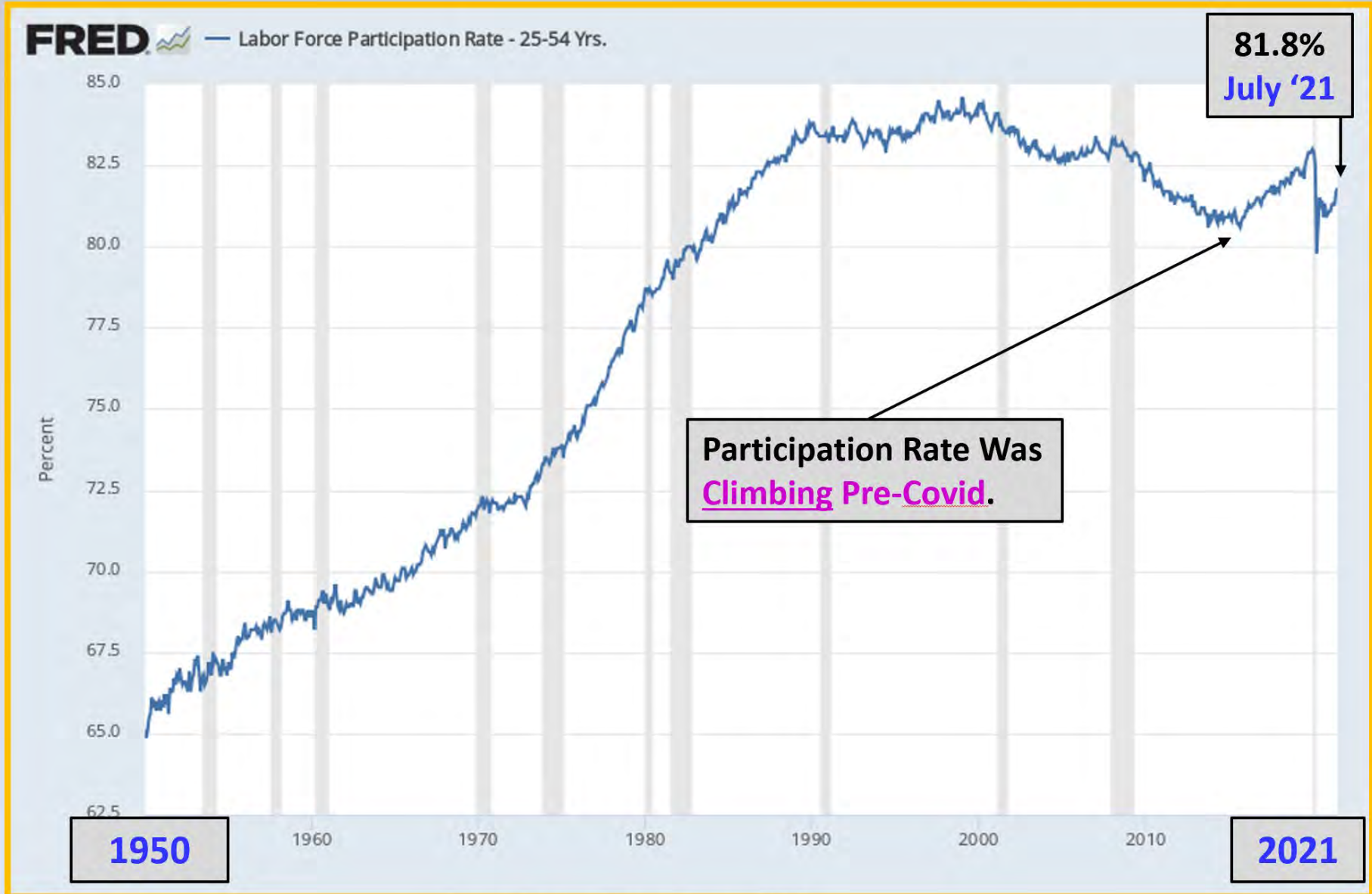
Source: St. Louis Federal Reserve FRED Database

The S&P 500 P/E Ratio is Quite High



Source: Macrotrends.net Trailing twelve month S&P 500 PE ratio

Labor Participation Needs To Come Up



Source: St. Louis Federal Reserve FRED

No. of Small Businesses With Positions They're Not Able to Fill Extremely High

JOB OPENINGS

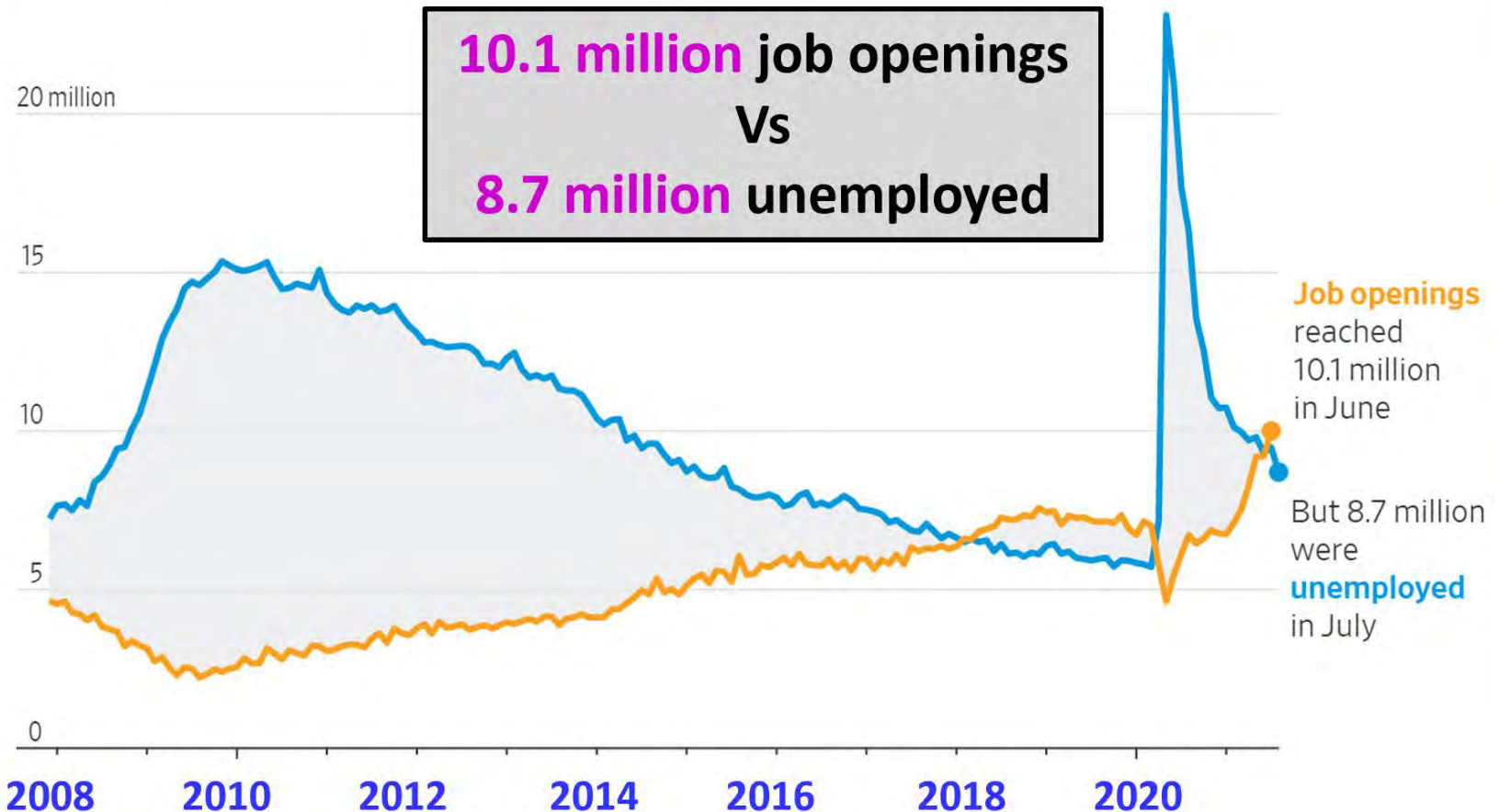
Percent With Positions Not Able to Fill Right Now
(Seasonally Adjusted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	29	28	25	29	27	29	26	30	24	28	31	29
2017	31	32	30	33	34	30	35	31	30	35	30	31
2018	34	34	35	35	33	36	37	38	38	38	34	39
2019	35	37	39	38	38	36	39	35	35	34	38	33
2020	37	38	35	24	23	32	30	33	36	33	34	32
2021	33	40	42	44	48	46	49					

July's 49% of businesses was highest since the 1970s

Now More Job Openings Than Unemployed Folks

Job openings and unemployment level in the U.S. since December 2007

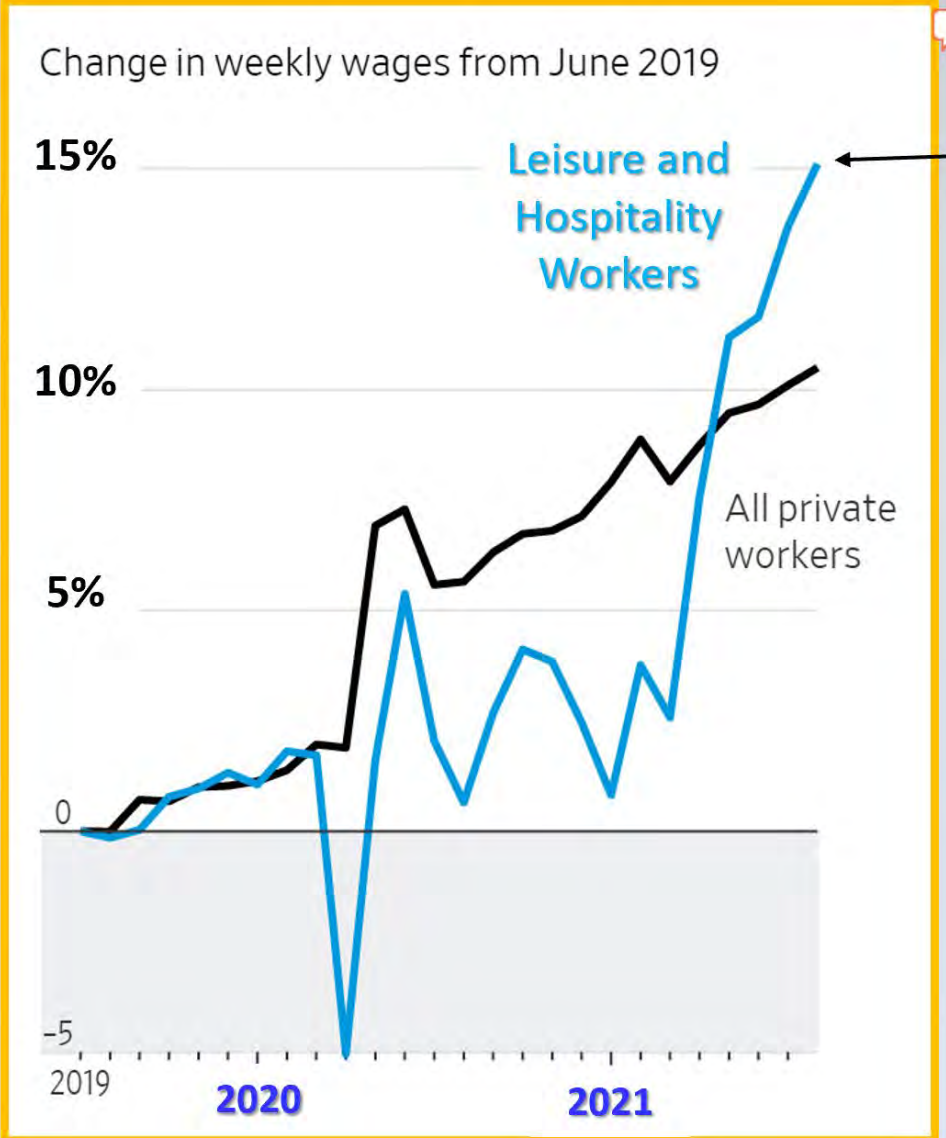


Source: Labor Department

Suggested Reasons For Folks Not Taking A Job

- **Women staying at home** to provide childcare while schools and daycares are closed.
- Fear of **contracting Covid**.
- **Making more on unemployment** than working.
(But, Texas opted out of \$300/week Fed benefit on June 26th)
- Taking the time to **look for the “perfect” job**.
- **Location mismatch** (Folks unwilling to relocate.)

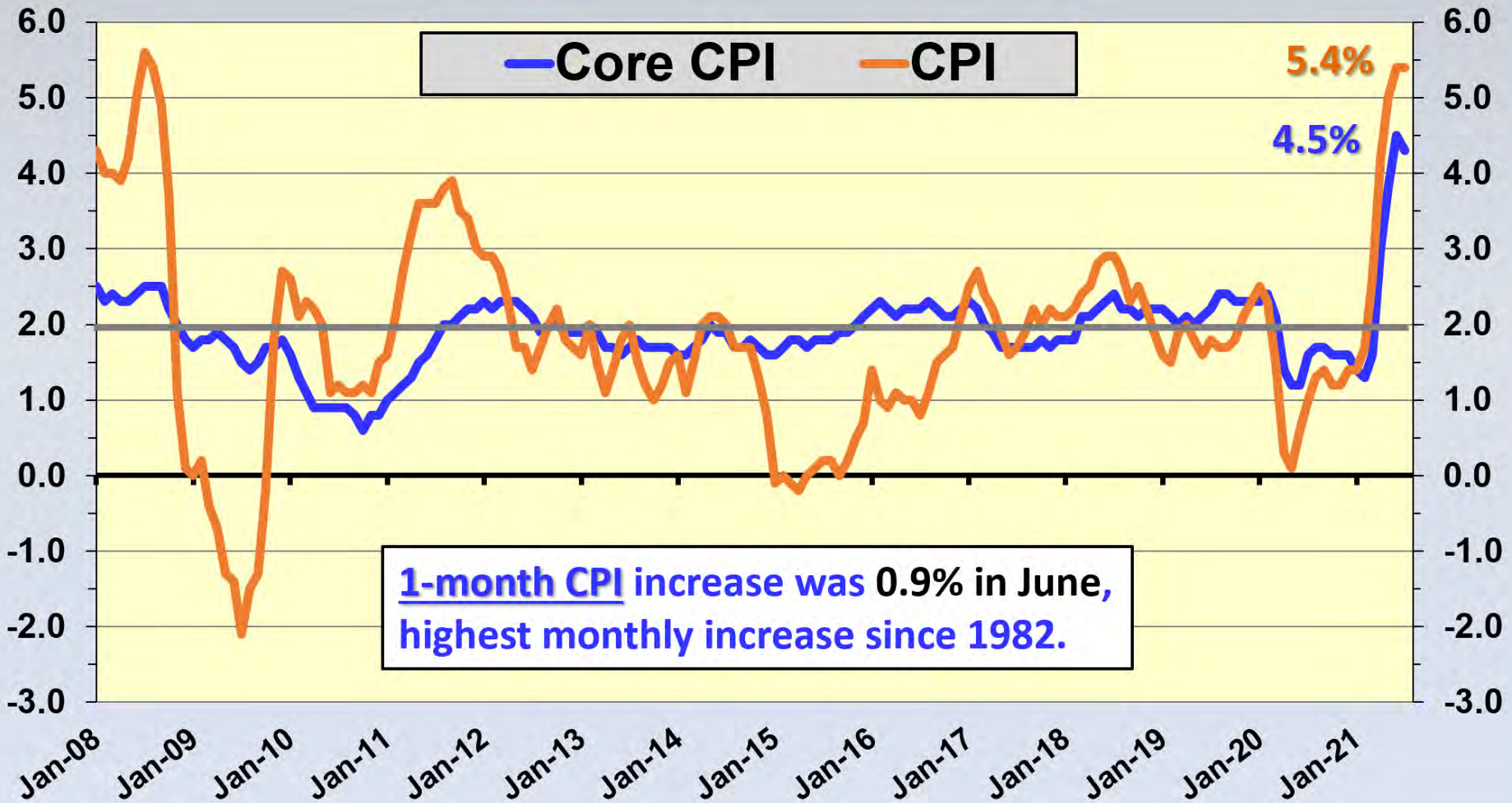
Employers Are Trying To Attract Lowest-paid Workers With Higher Wages



**Leisure & Hosp.
Wages Up 15%
Since June,
2019**

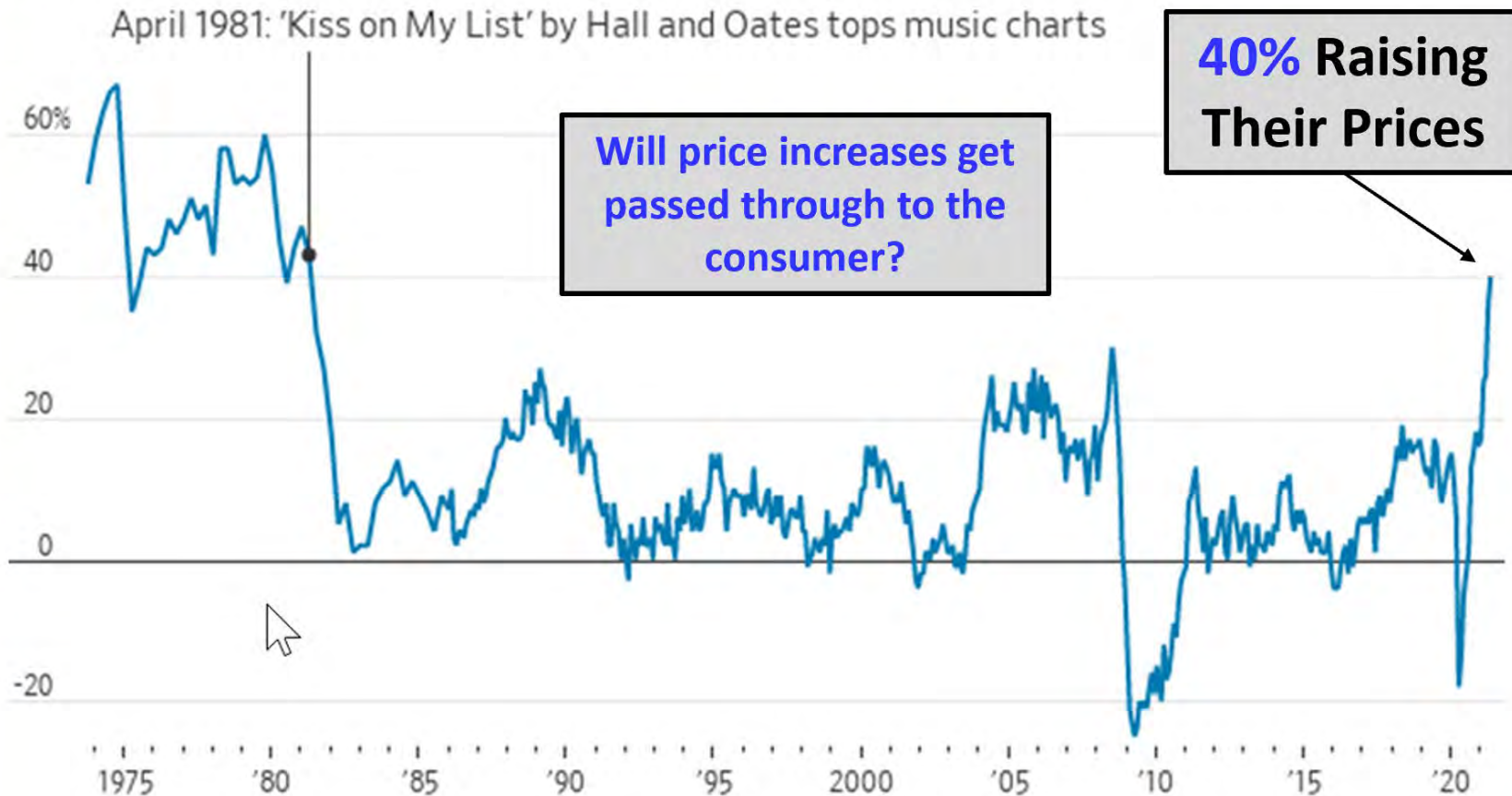
Inflation Ticked Up Significantly in June

(Year-Over-Year Percent Change in Index)



Big Increase in No. of Small Businesses Raising Selling Prices

Share of small-business owners raising average selling prices



Note: Seasonally adjusted; survey conducted quarterly from 1973-1985, monthly from 1986-present.

Sources: National Federation of Independent Business via Haver Analytics, Billboard

ISM Price Indexes for Manufacturing & Services Industries Increasing

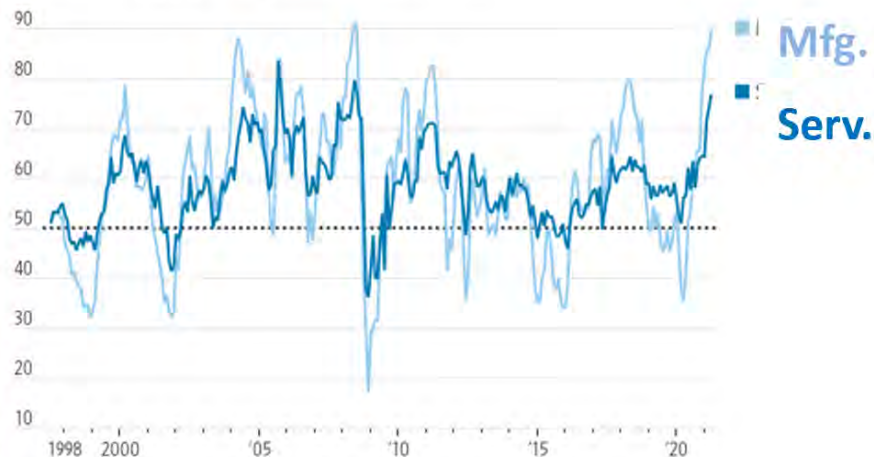
**Prices Climbing
Fastest Since
Mid-2008.**

**Still Being
Impacted by:**

- 1) Material Shortages**
- 2) Logistics Challenges**
- 3) Labor Shortages**

One recurring theme across the U.S. economy: Strong demand, supply constraints and rising prices. The Institute for Supply Management's survey of purchasing managers in the service sector showed business activity and new orders expanding at a slower pace in April than March. But delivery times rose faster, inventories started shrinking and prices climbed at the fastest pace since mid-2008. Readings from the factory sector were similar. Back in 2008, energy costs were the main culprit behind rising prices—crude neared \$150 a barrel compared with about \$65 recently. Now? "Production-capacity constraints, material shortages, weather and challenges in logistics and human resources continue to affect deliveries, which has resulted in a reduction of inventories," said Anthony Nieves, who oversees the services survey.

Institute for Supply Management price indexes



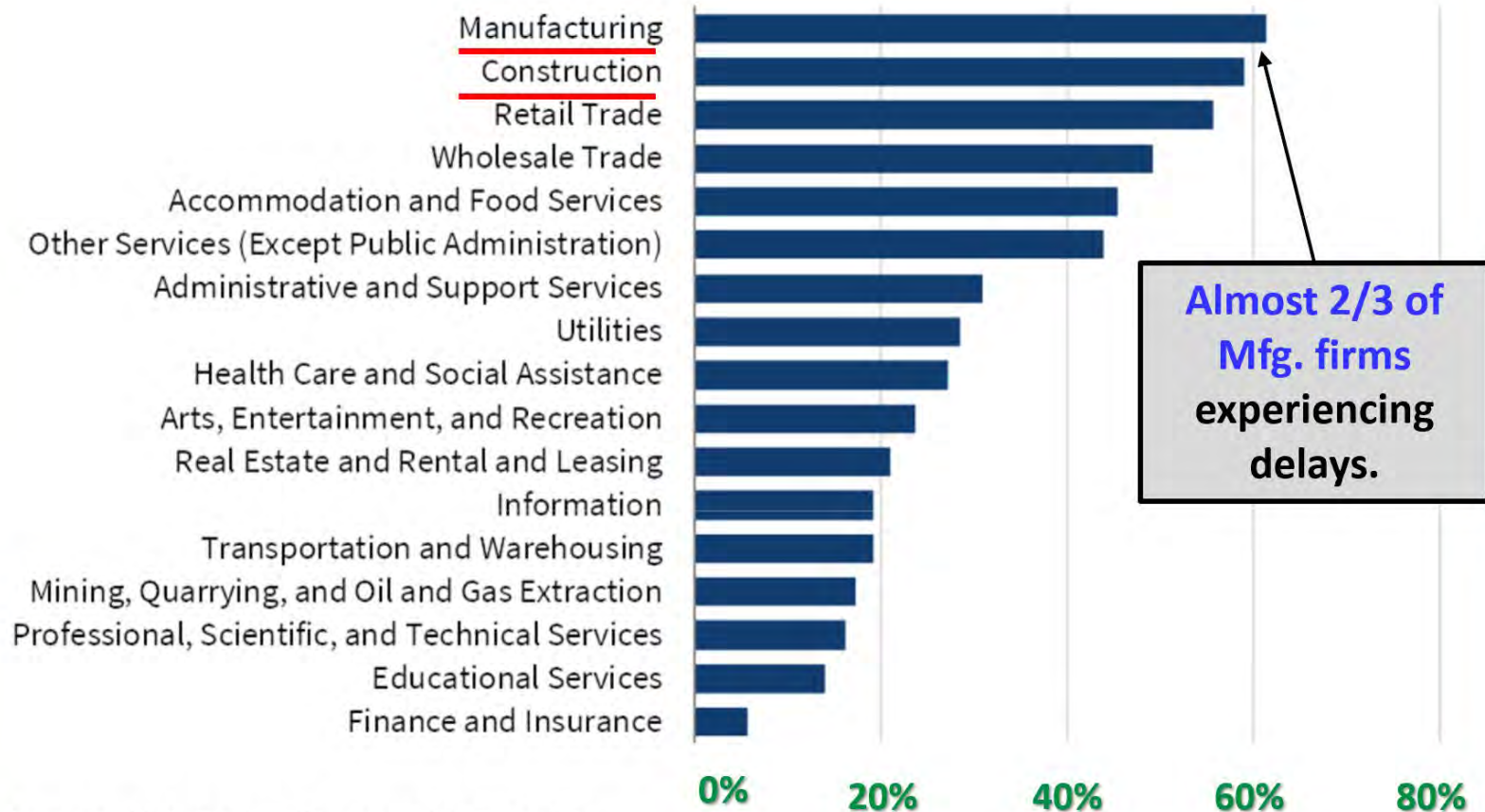
Note: A reading above 50 indicates input prices are rising, below 50 falling.

Source: Institute for Supply Management

Manufacturing & Construction Hardest Hit By Supply Chain Disruptions

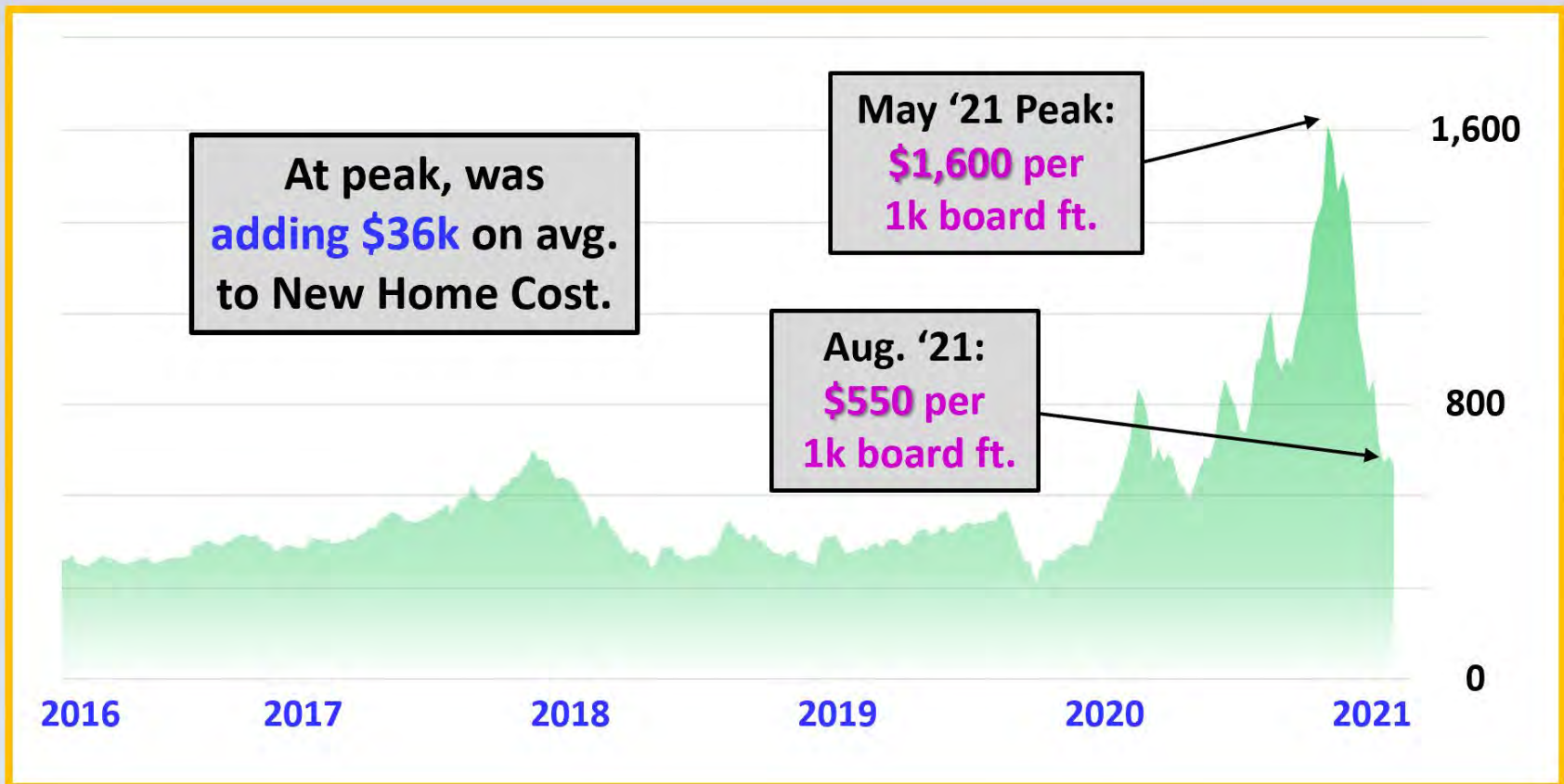
Figure 2. Supply-Chain Disruptions By Sector

In the last week, did this business have domestic supplier delays? (percentage saying yes)

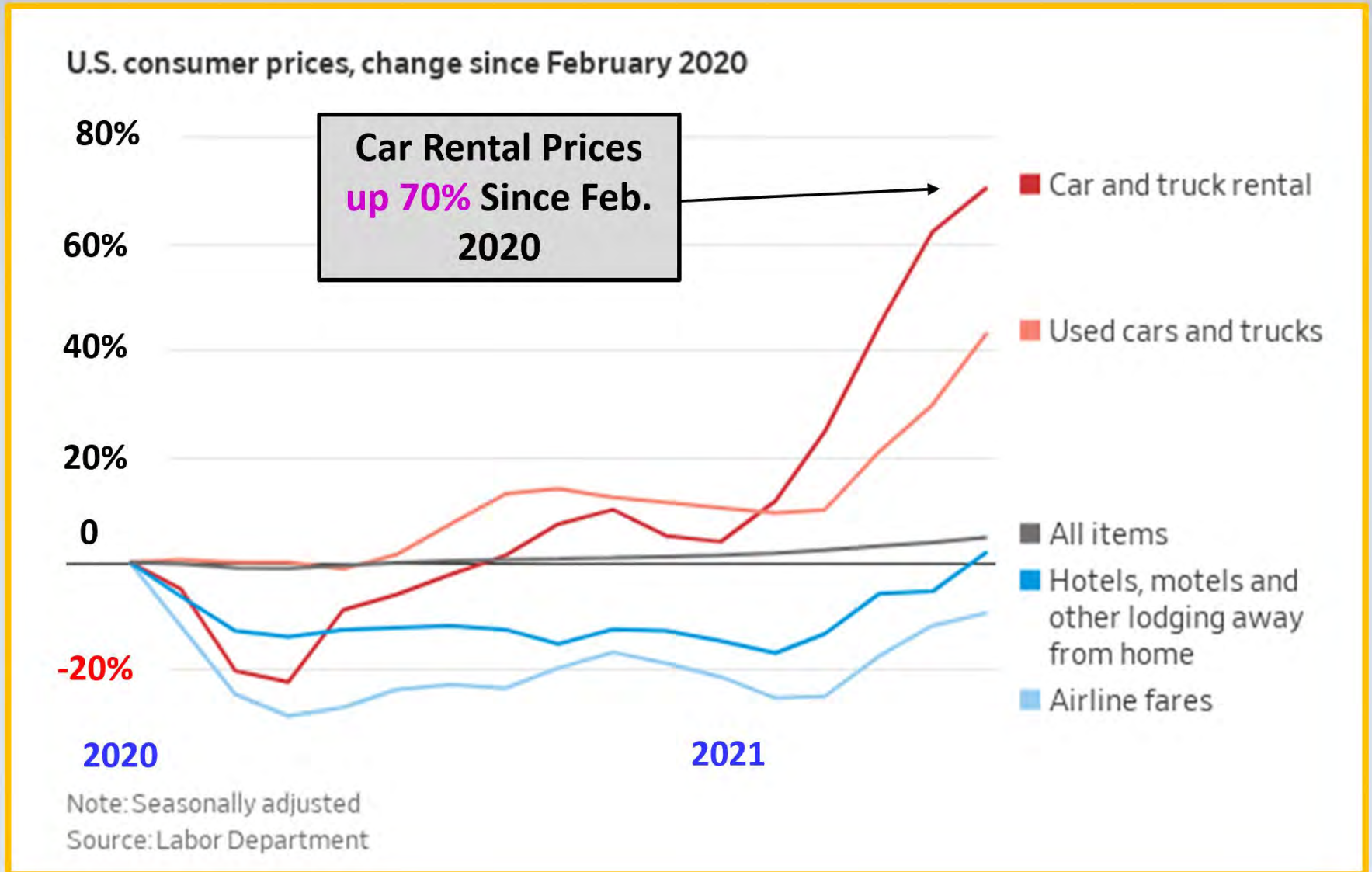


Sources: U.S. Census Bureau; CEA Calculations.

Lumber Price Has Come Down Significantly This Year, But Still High

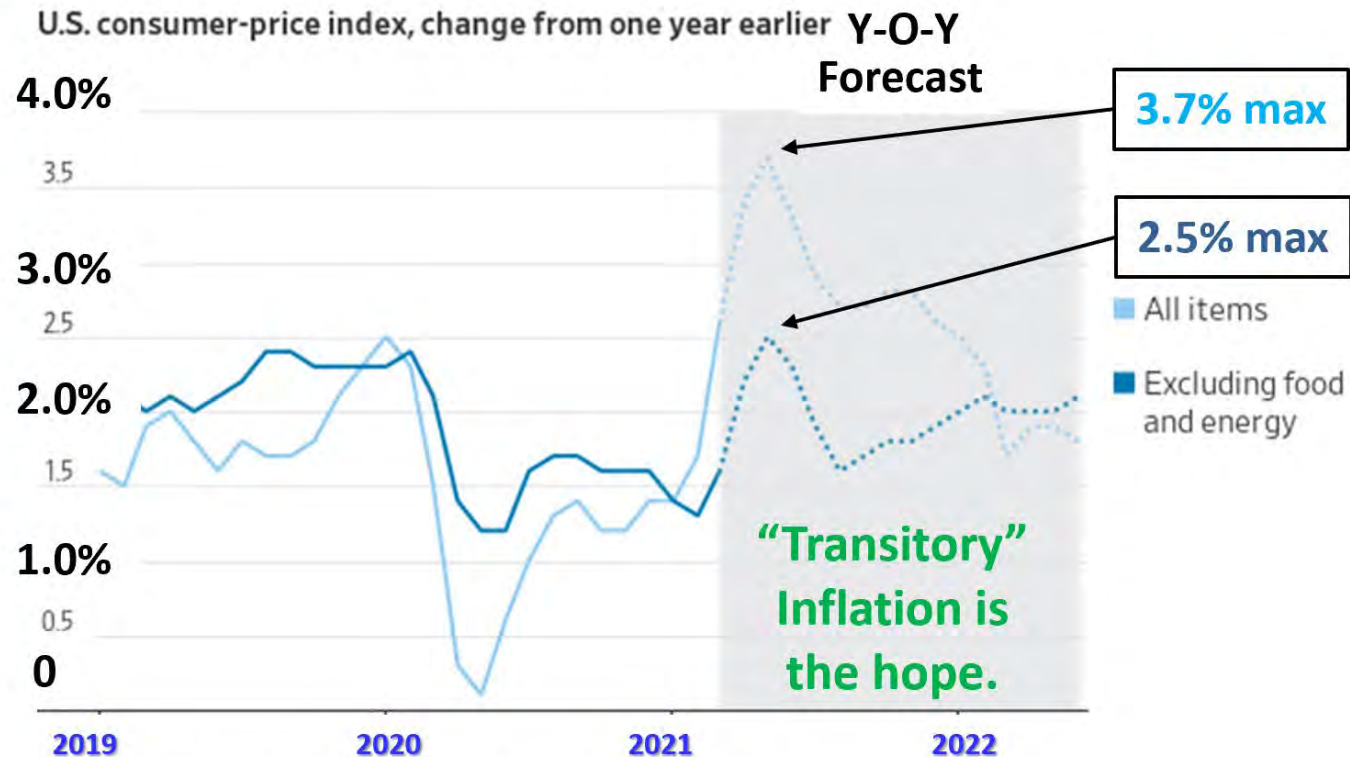


Lack Of Vehicles Available For Sale Driving Up Car Prices & Car Rentals



But, U.S. Inflation Forecast is Predicting a “Temporary” Jump & Then Reduction

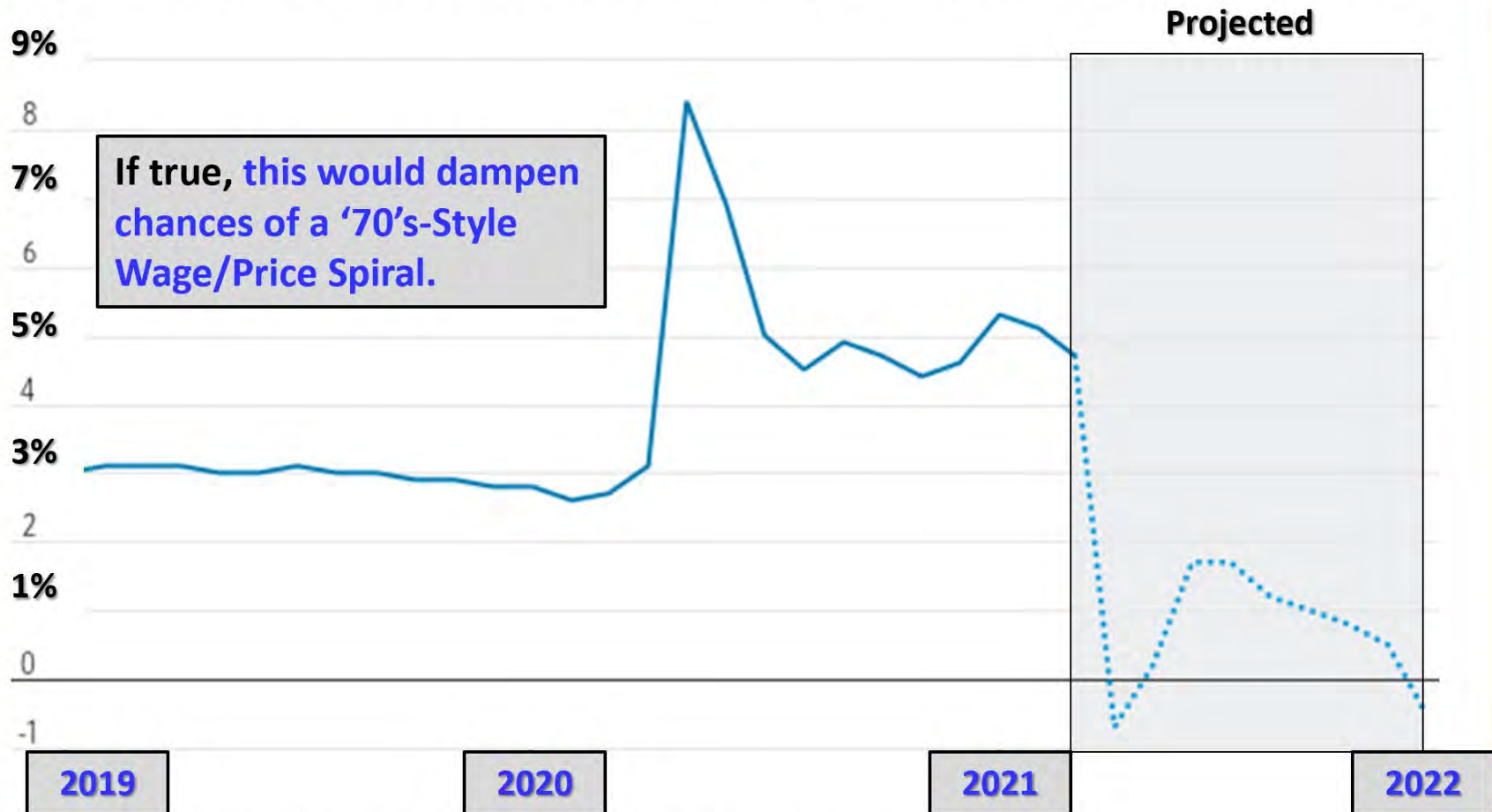
The Labor Department's consumer-price index, due out Wednesday morning, offers the next key reading on inflation. Federal Reserve officials expect inflationary pressures to be temporary.



Note: Figures from April 2021-June 2022 are a Barclays forecast
Sources: Labor Department, Barclays

White House Predicting That Wage Increases Will Start To Cool Into 2022

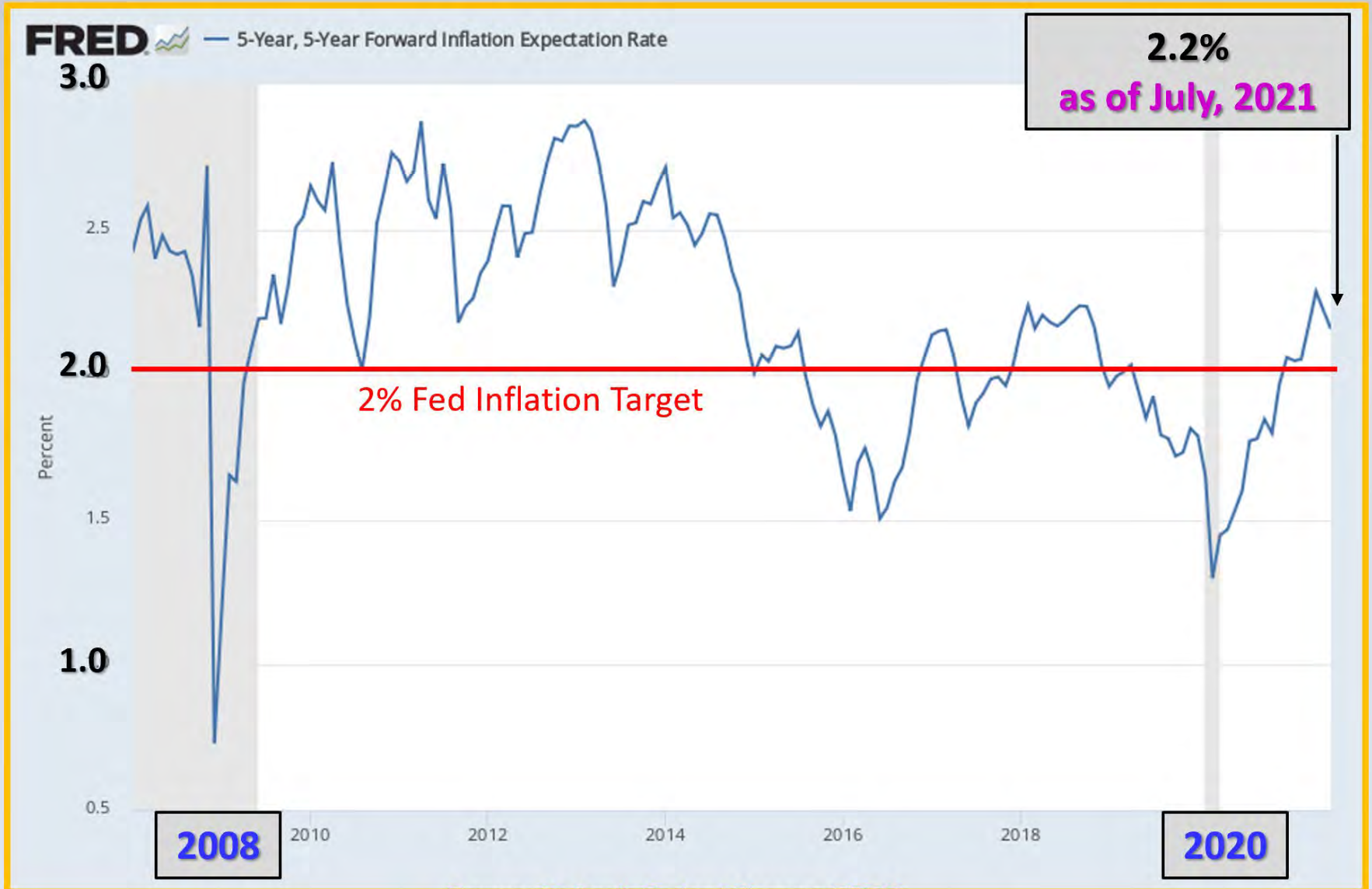
Wage growth using weighted averages for industry and employment levels, annual change



Source: White House Council of Economic Advisers and Wall Street Journal

Long-term Inflation Expectations Are Low

(Avg. Annual Inflation Expected By Consumers, Next 5 Years)

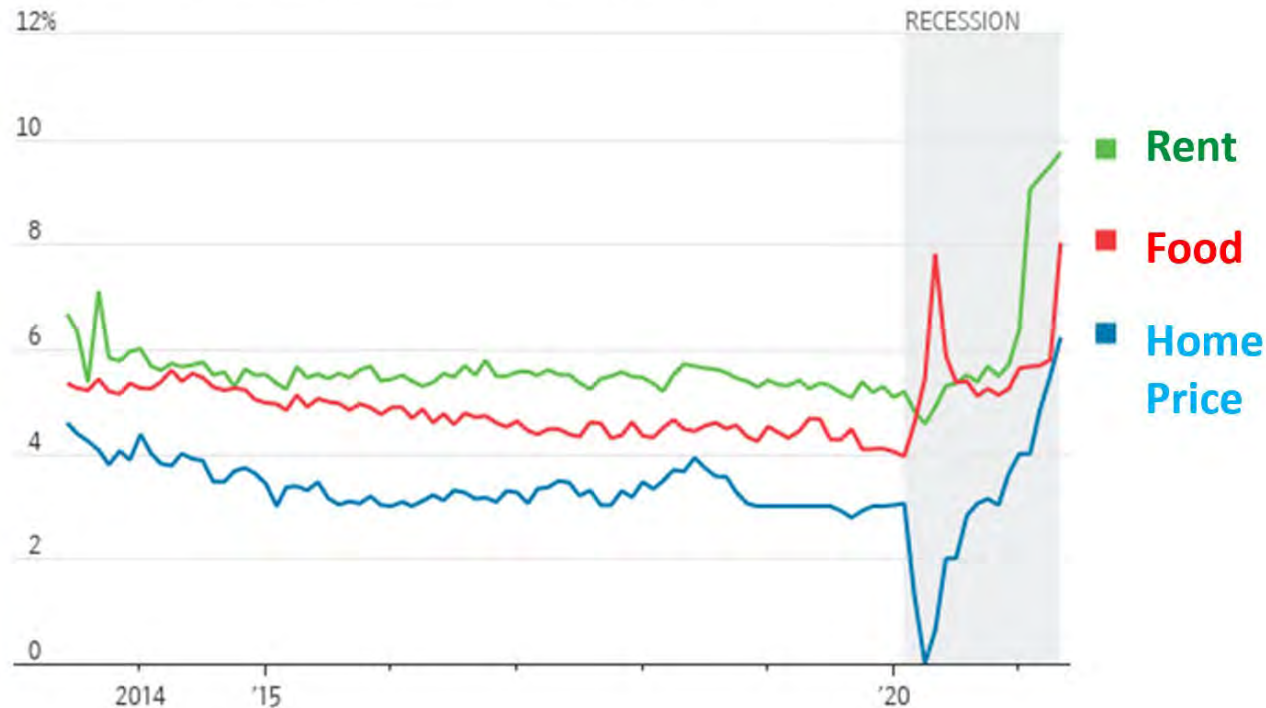


Source: St. Louis Federal Reserve FRED

But, 1-Year Inflation Expectations Are High

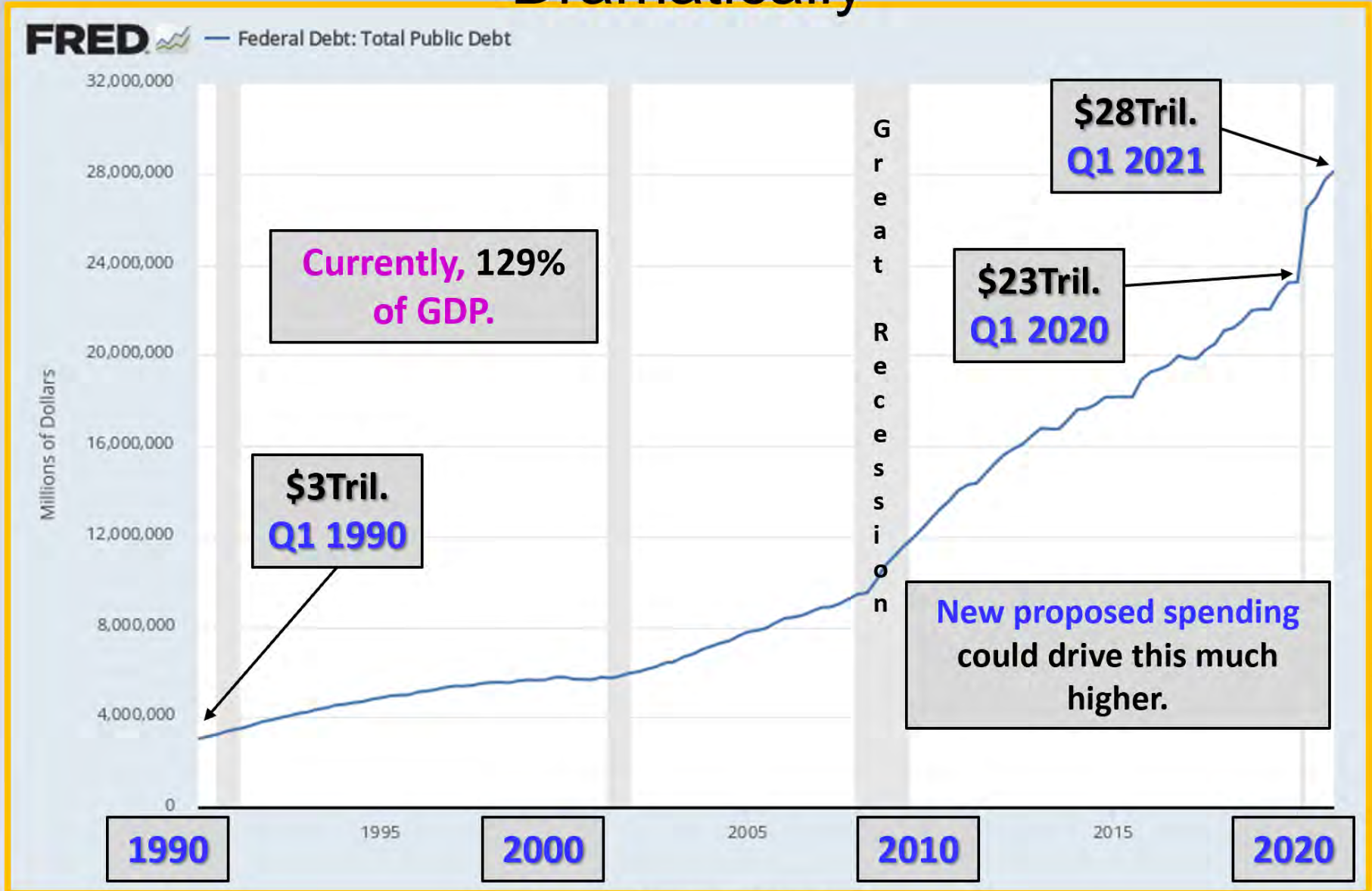
Driving this increase is a sharp rise in the expected price of basic necessities, [writes](#) Michael Derby. Survey respondents see rents rising 9.7% a year from now, up from 4.9% a year ago. Food prices are anticipated to rise 8% up from 7.8% and home prices are seen rising by 6.2%, up from 0.6%.

Year-ahead inflation expectations for selected categories



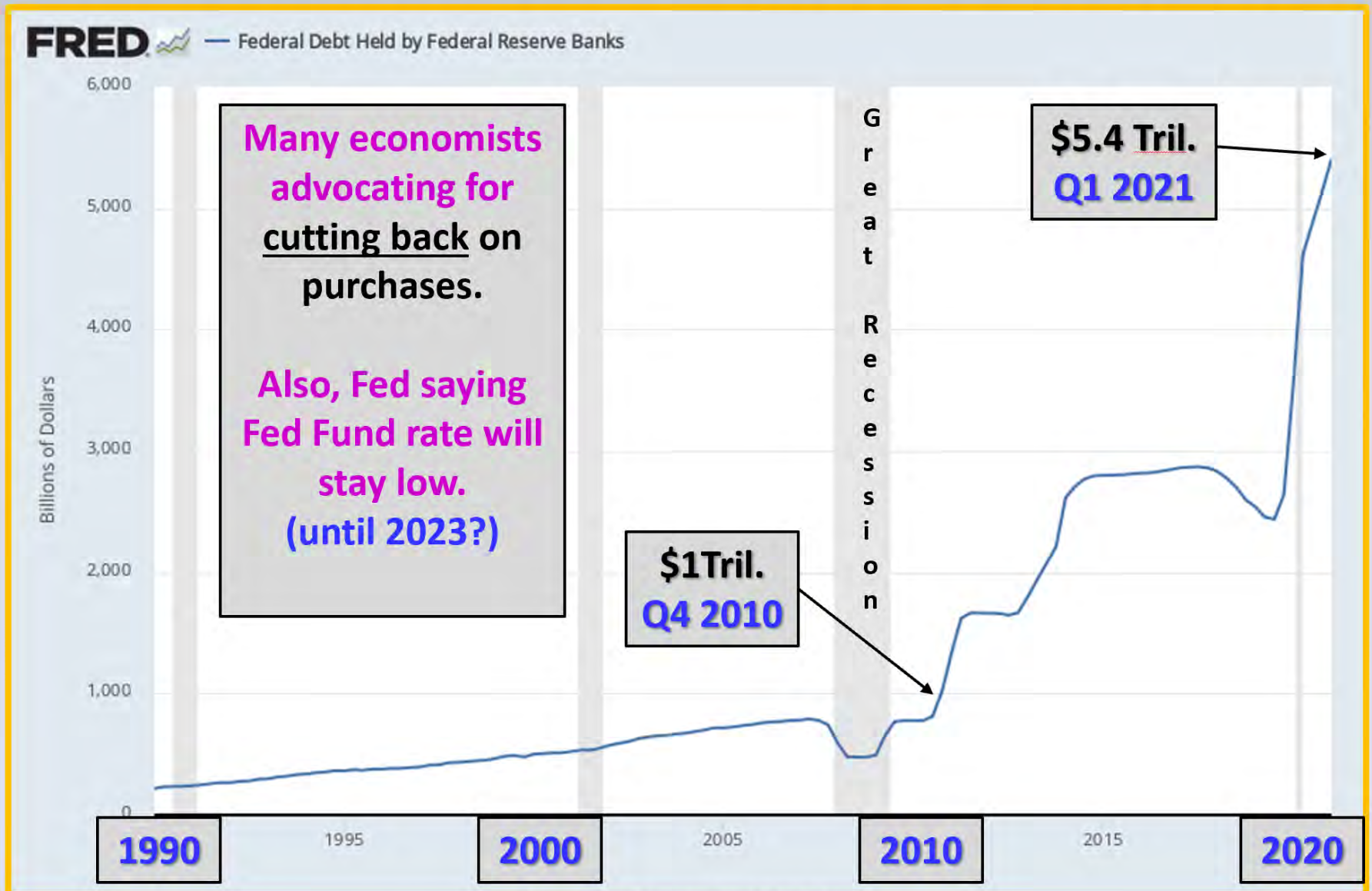
Source: New York Fed

And Federal Debt Level Has Been Increasing Dramatically



Source: St. Louis Fed FRED

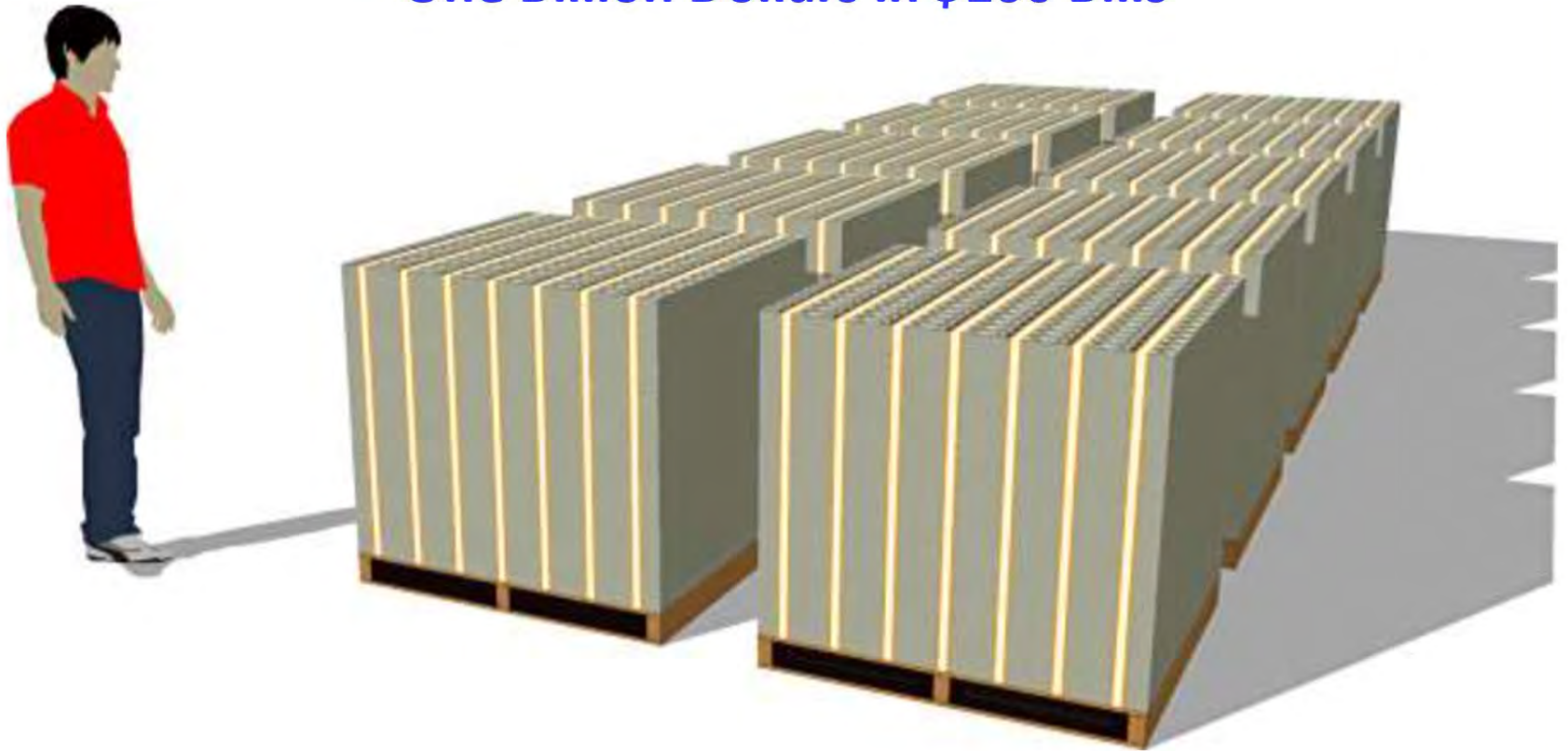
Bonds Held By Federal Reserve Climbing



Source: St. Louis Fed FRED

What Does One Billion Dollars Look Like?

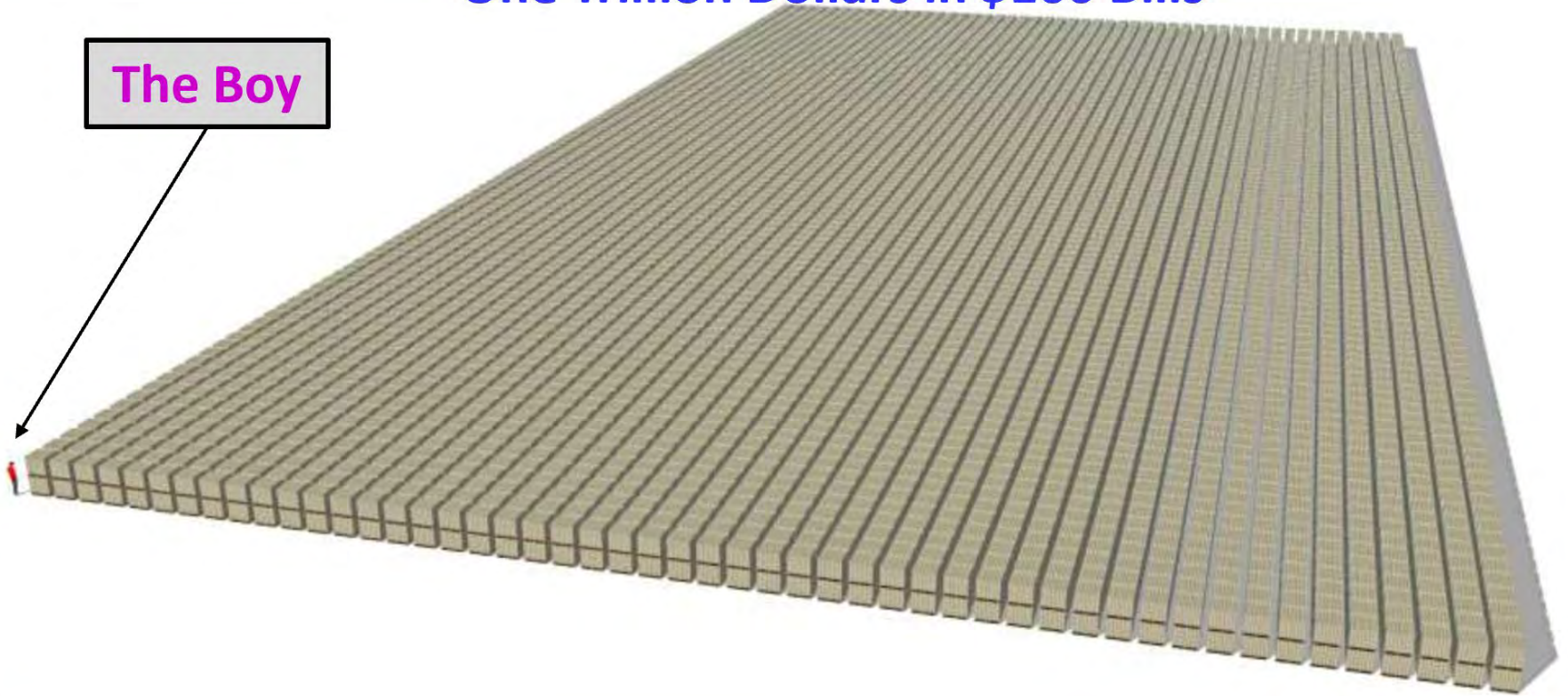
One Billion Dollars in \$100 Bills



What Does One Trillion Dollars Look Like?

One Trillion Dollars in \$100 Bills

The Boy



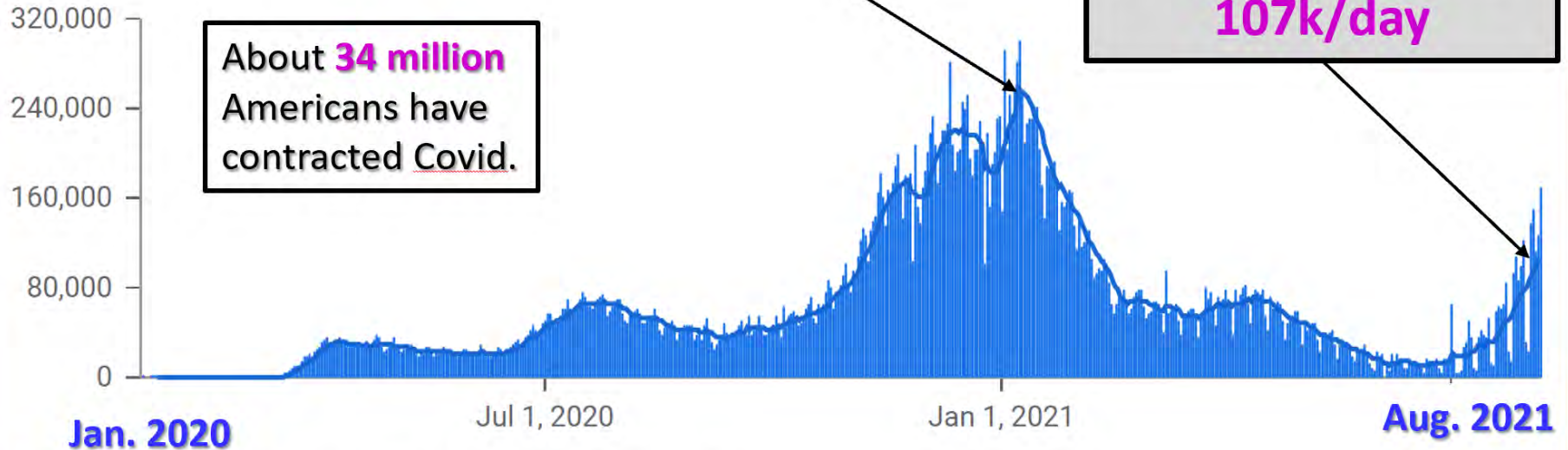
U.S. New Covid Cases Per Day

(Daily & 7-day Moving Avg.)

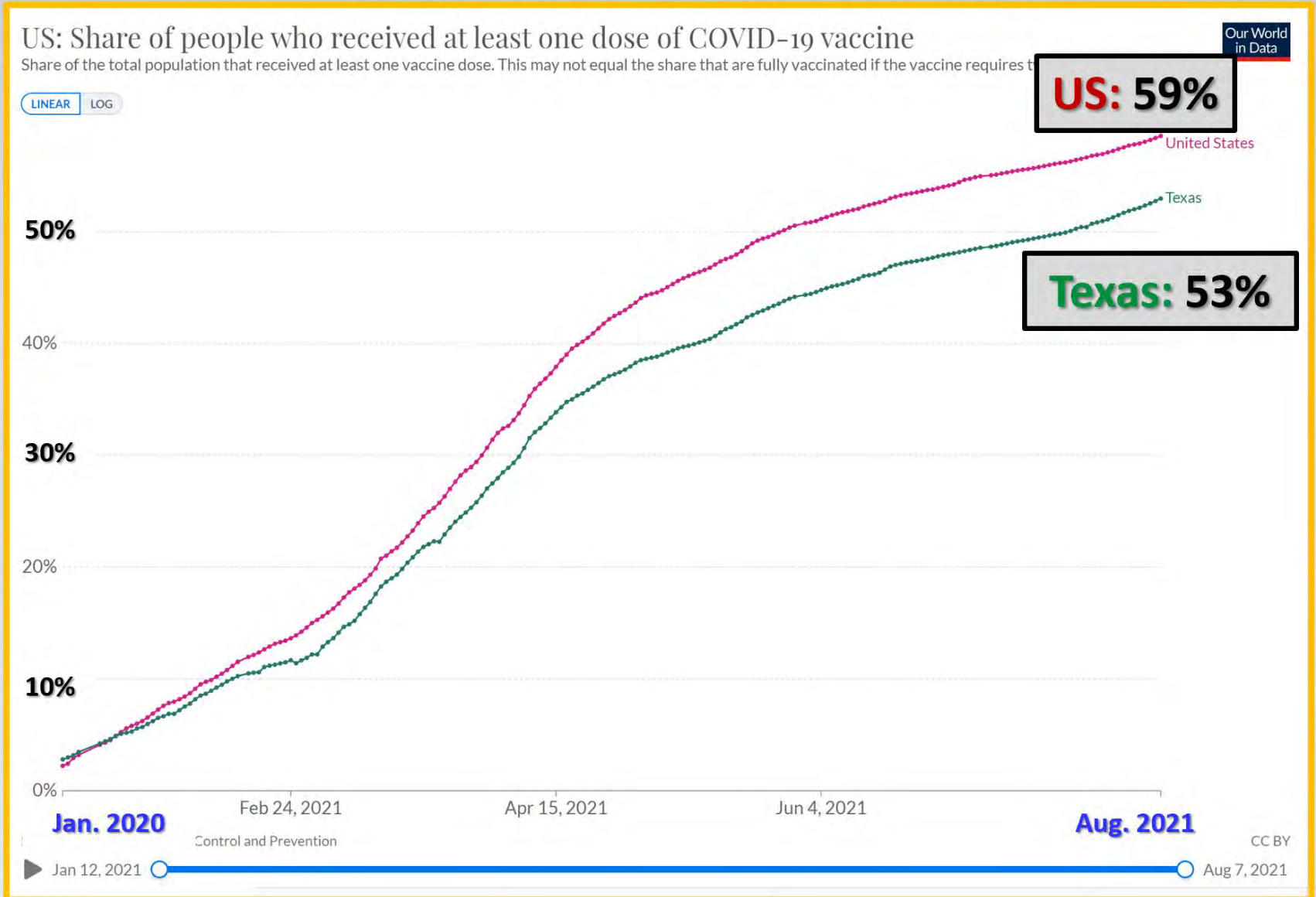
Cases

United States

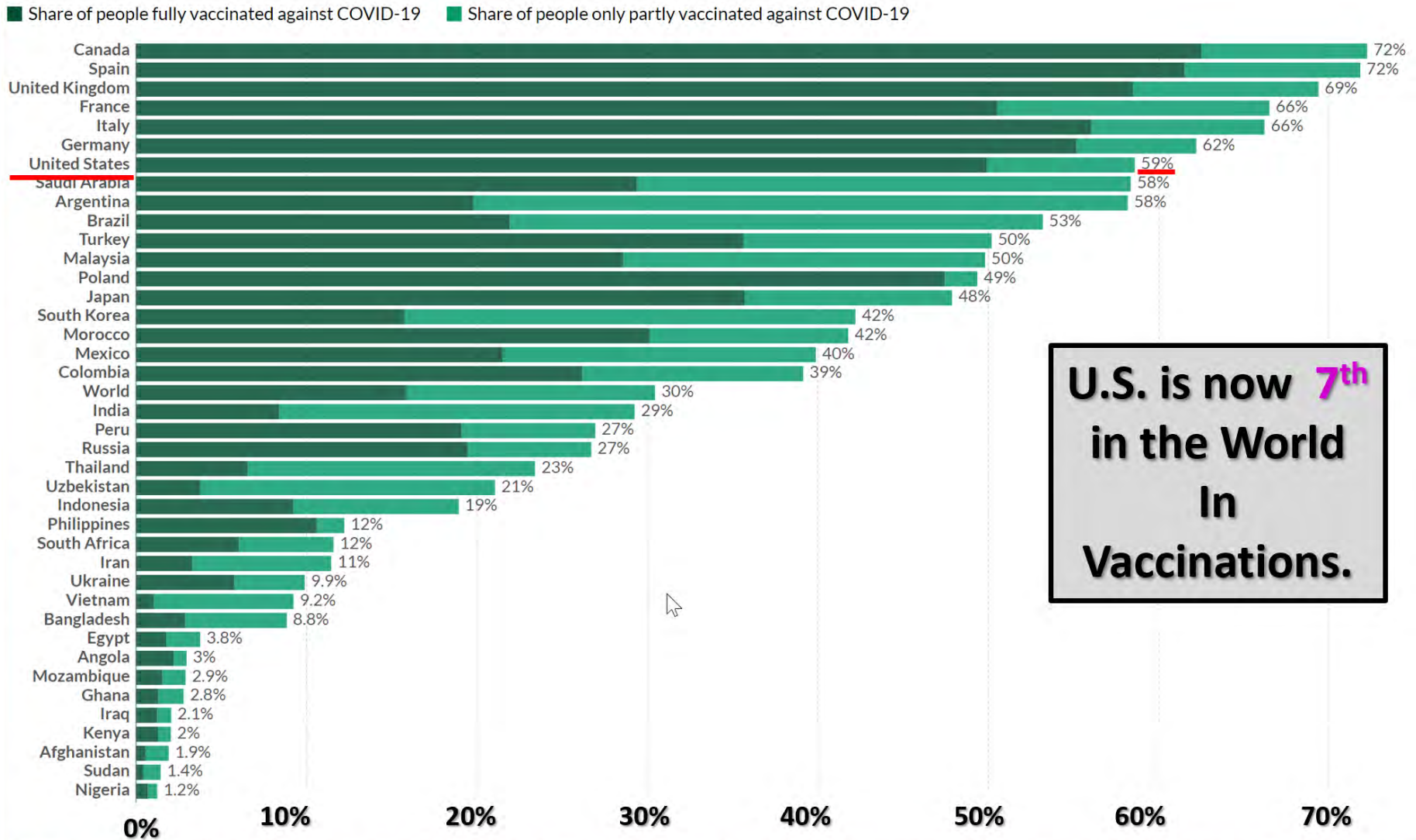
Cases: **New** Total



Percentage of Folks Receiving at Least One Dose of the Vaccine



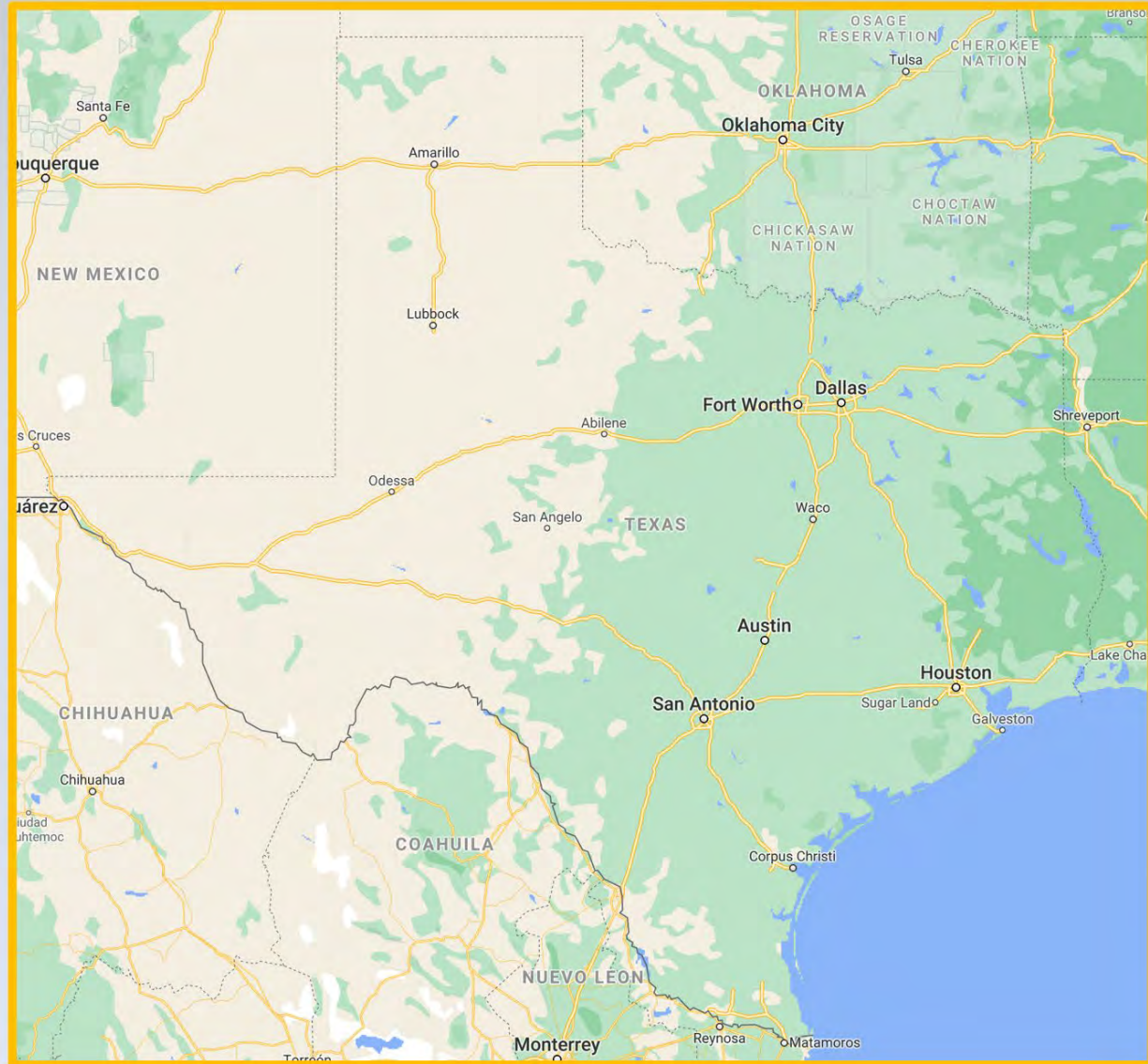
Percentage Vaccinated by Country



**U.S. is now 7th
in the World
In
Vaccinations.**

Source: Official data collated by Our World in Data. This data is only available for countries which report the breakdown of doses administered by first and second doses in absolute numbers.

The Texas Economy



Texas New Covid Cases Per Day

(Daily & 7-day Moving Avg.)

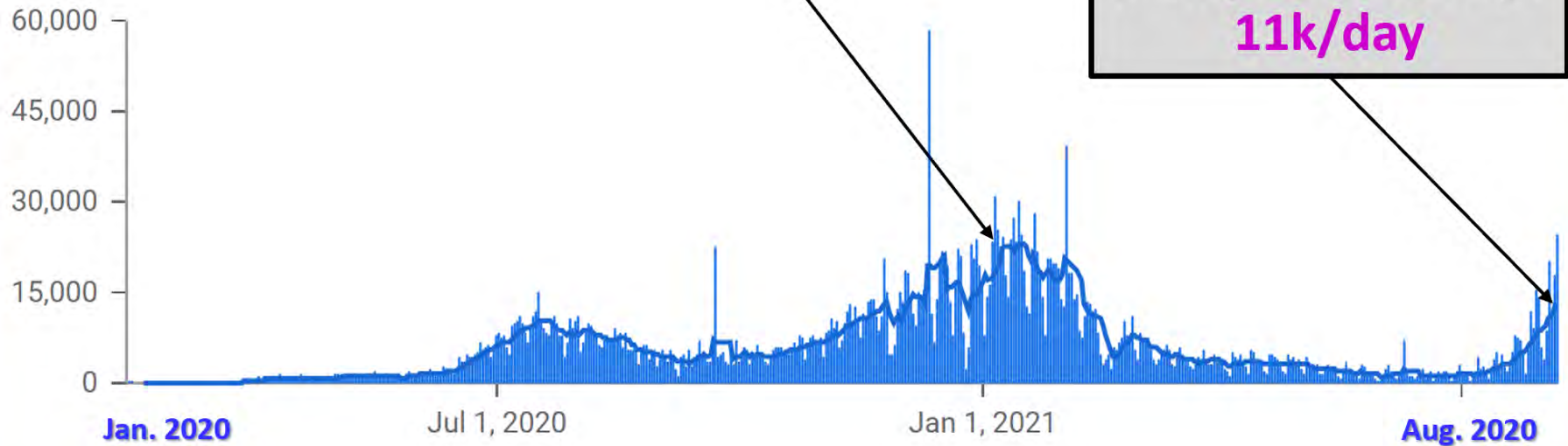
Cases

Texas

Cases:

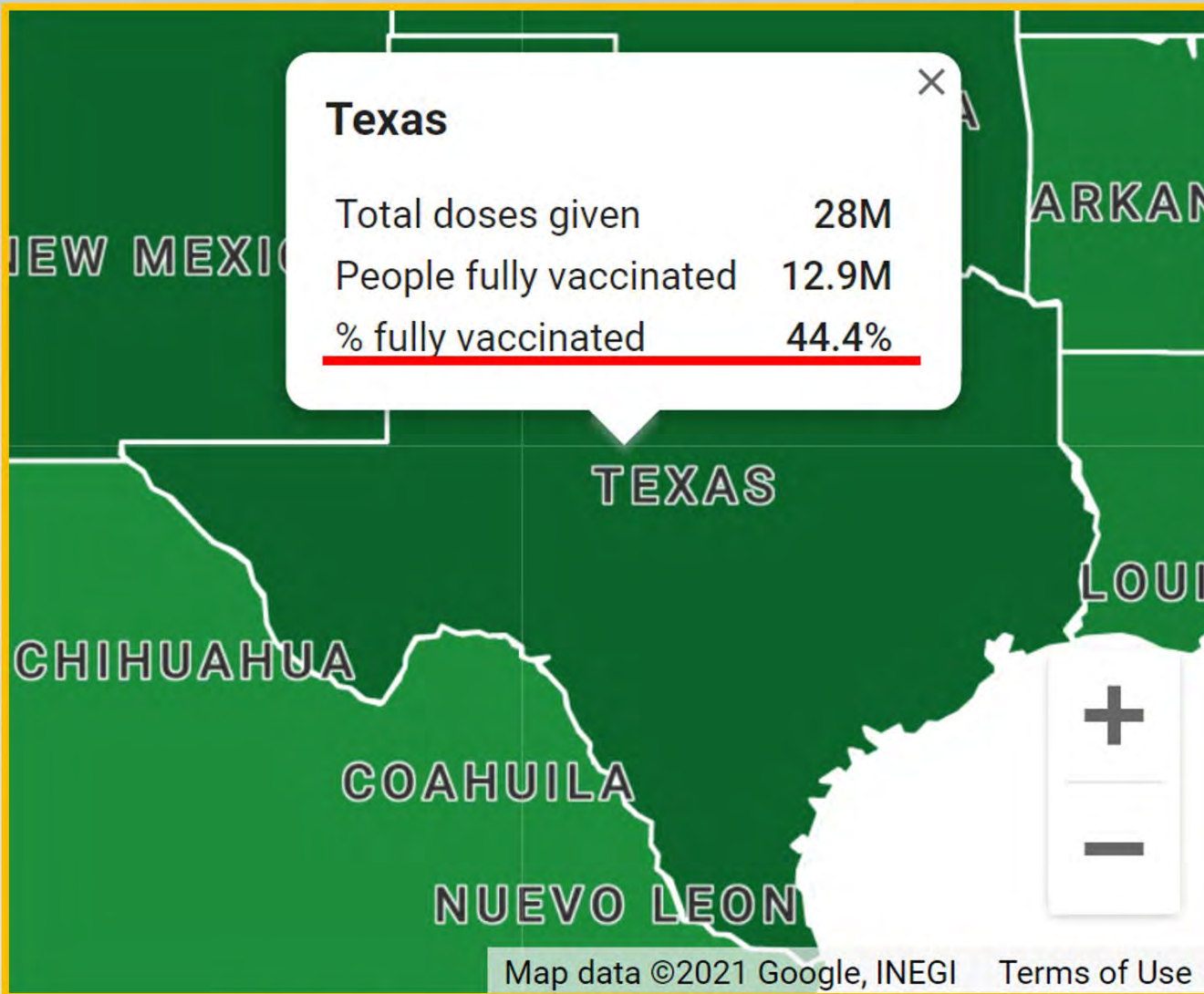
New

Total



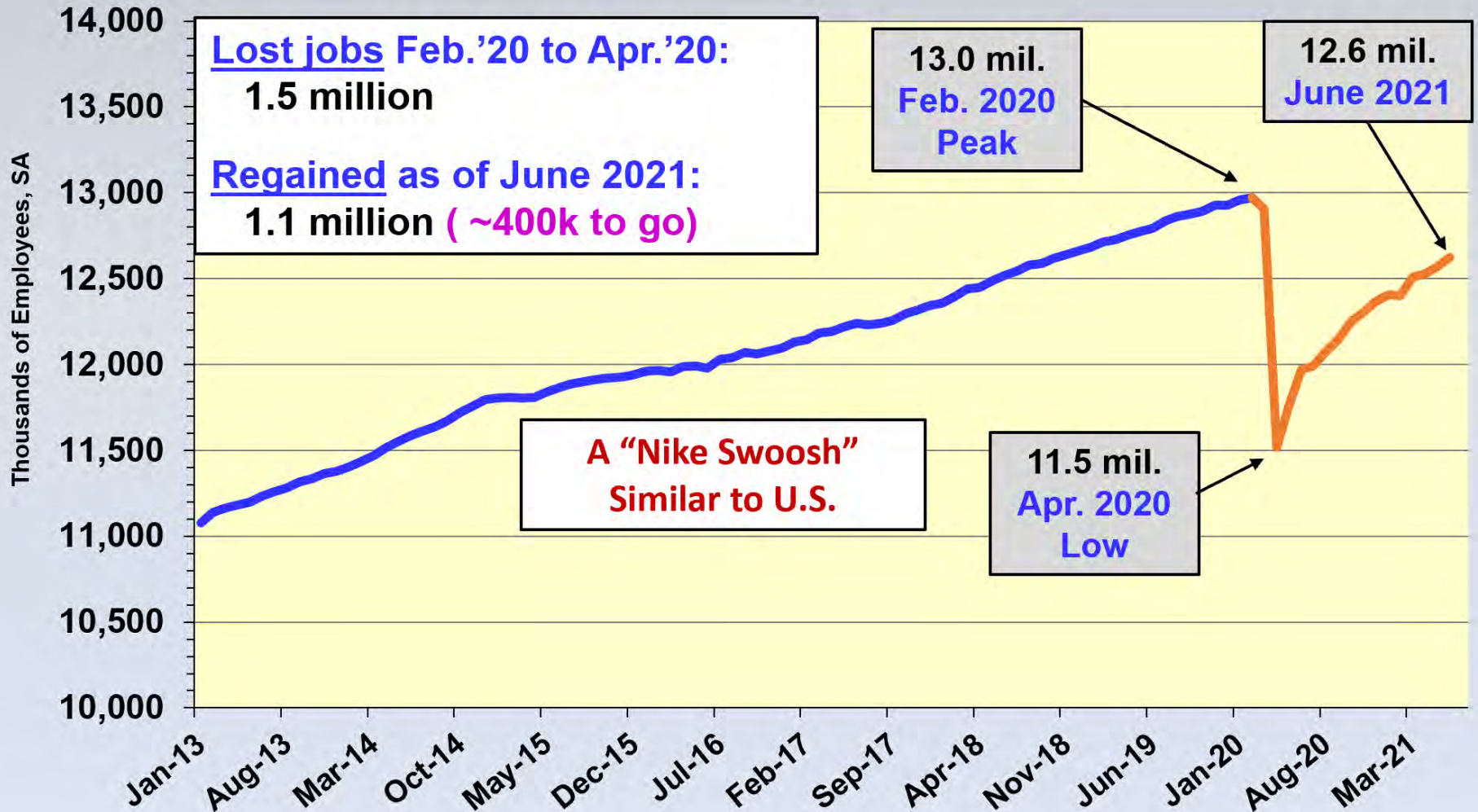
Each day shows new cases reported since the previous day

Texas Covid Vaccination Rate



53% of Texans have received at least 1 dose.

Texas Nonfarm Employment Level is Coming Back, But Still a Way to Go



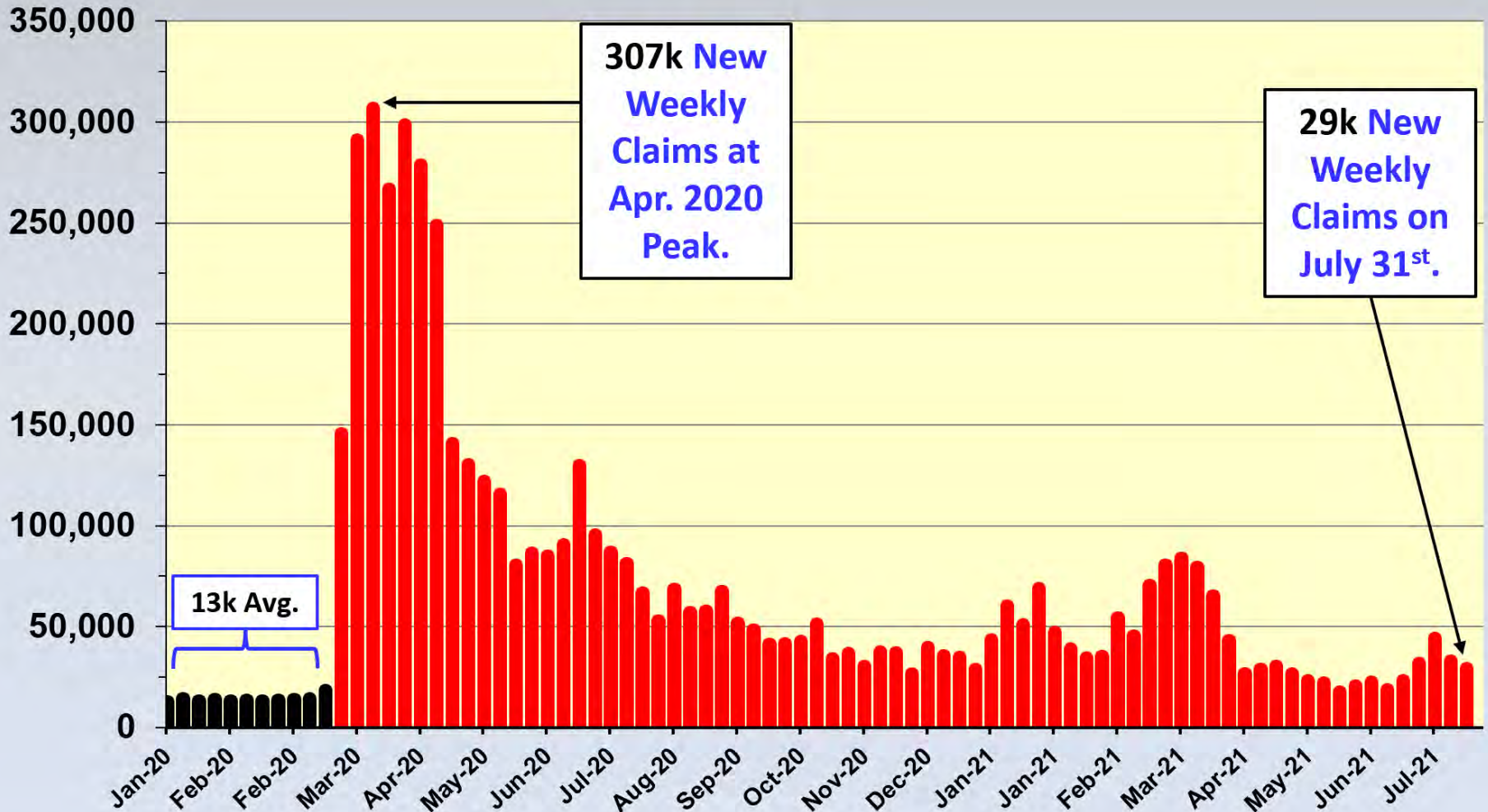
Source: Haver Analytics

Covid Impact on Texas Jobs By Subsector

(Pre-Covid Peak-to-Covid Trough -to- June 2021)

Industry Subsector	No. of Jobs Pre-Covid Peak	No. of Jobs at Covid Trough	Pct. Drop From Peak	Current No. of Jobs (June 2021)	Pct. Gain From Trough	No. of Jobs Needed To Equal Peak
Trade, Transp. & Utilities	2,537,000	2,327,600	-8.3%	2,564,700	10.2%	(27,700)
Prof. & Bus. Services	1,833,700	1,677,800	-8.5%	1,855,800	10.6%	(22,100)
Financial Activities	818,200	793,400	-3.0%	827,200	4.3%	(9,000)
Information	212,300	191,000	-10.0%	202,300	5.9%	10,000
Manufacturing	911,600	850,300	-6.7%	874,800	2.9%	36,800
Government	2,001,200	1,916,000	-4.3%	1,964,000	2.5%	37,200
Other Services	453,800	339,800	-25.1%	408,400	20.2%	45,400
Mining & Logging (O&G)	234,900	169,500	-27.8%	189,200	11.6%	45,700
Construction	780,700	716,300	-8.2%	726,600	1.4%	54,100
Educ. & Health Services	1,775,800	1,599,000	-10.0%	1,719,800	7.6%	56,000
Leisure & Hospitality	1,416,400	854,200	-39.7%	1,291,500	51.2%	124,900
Total Non-farm Jobs	12,970,000	11,517,400	-11.2%	12,614,300	9.5%	355,700

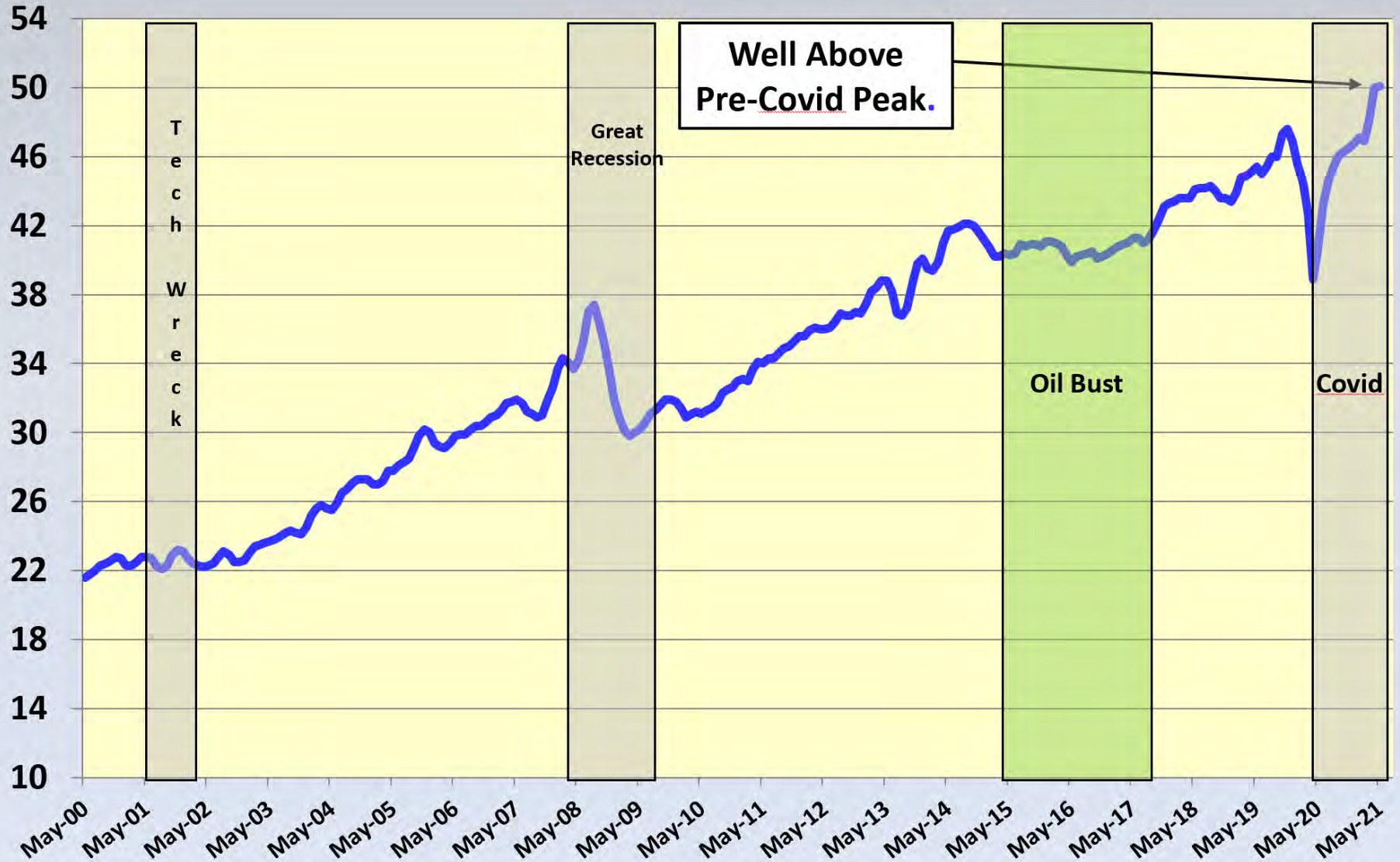
Texas New Weekly Unemployment Claims



Sources: U.S. Employment and Training Administration; Real Estate Center at Texas A&M University

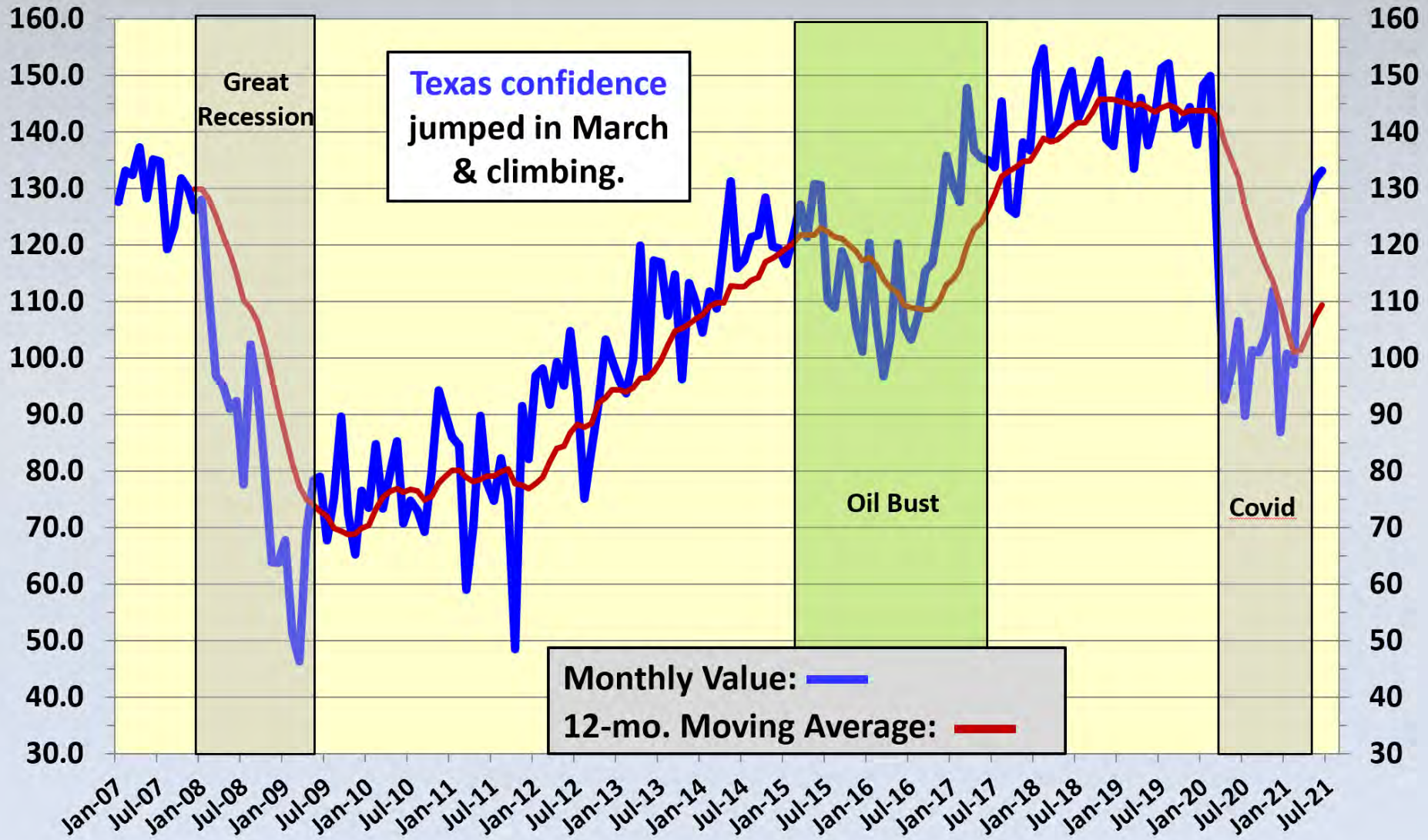
Texas Retail Sales

(Monthly Data Seasonally Adjusted in Billions of Dollars)

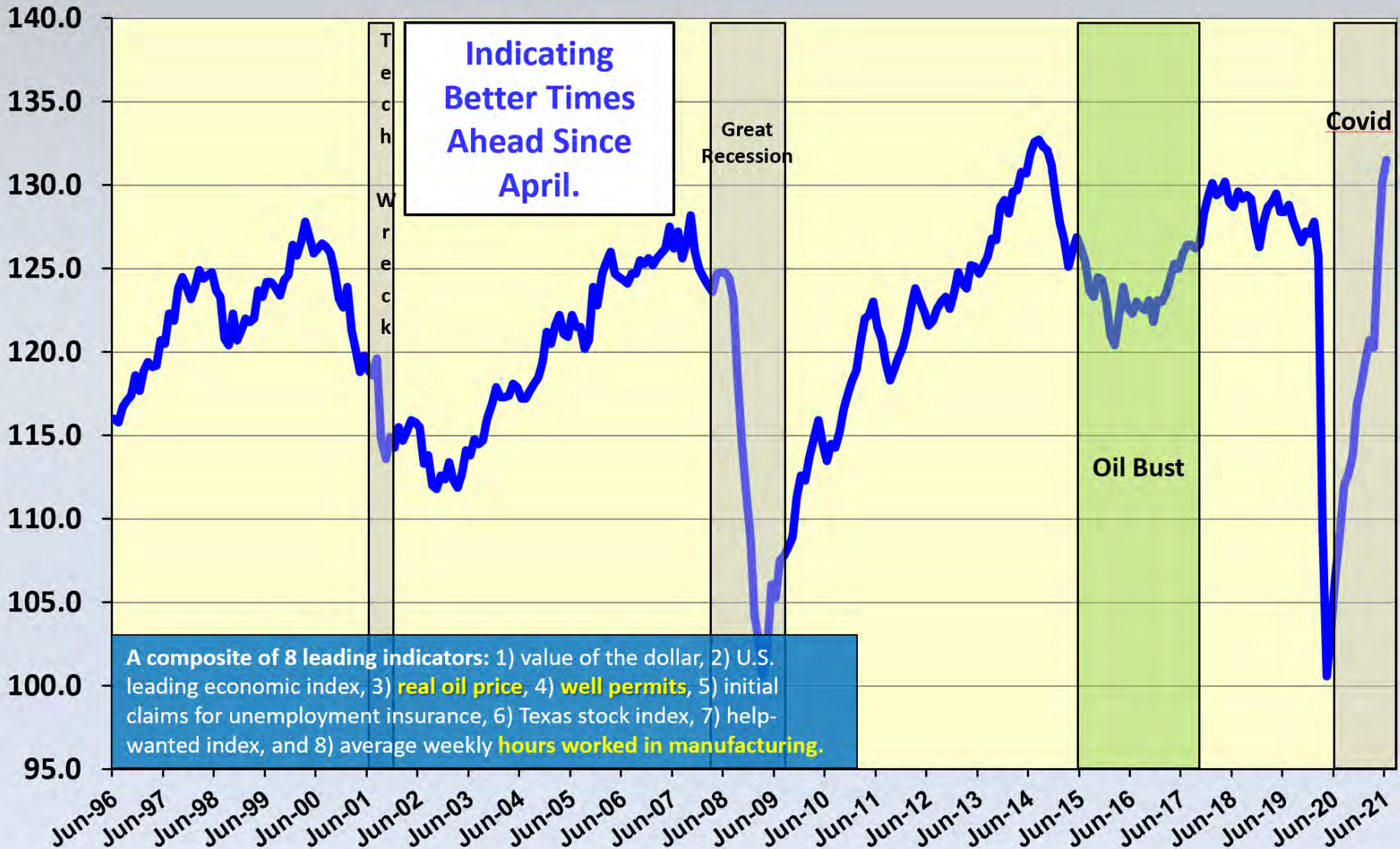


Source: Federal Reserve Bank of Dallas

Texas Consumer Confidence Index



Texas Leading Economic Index

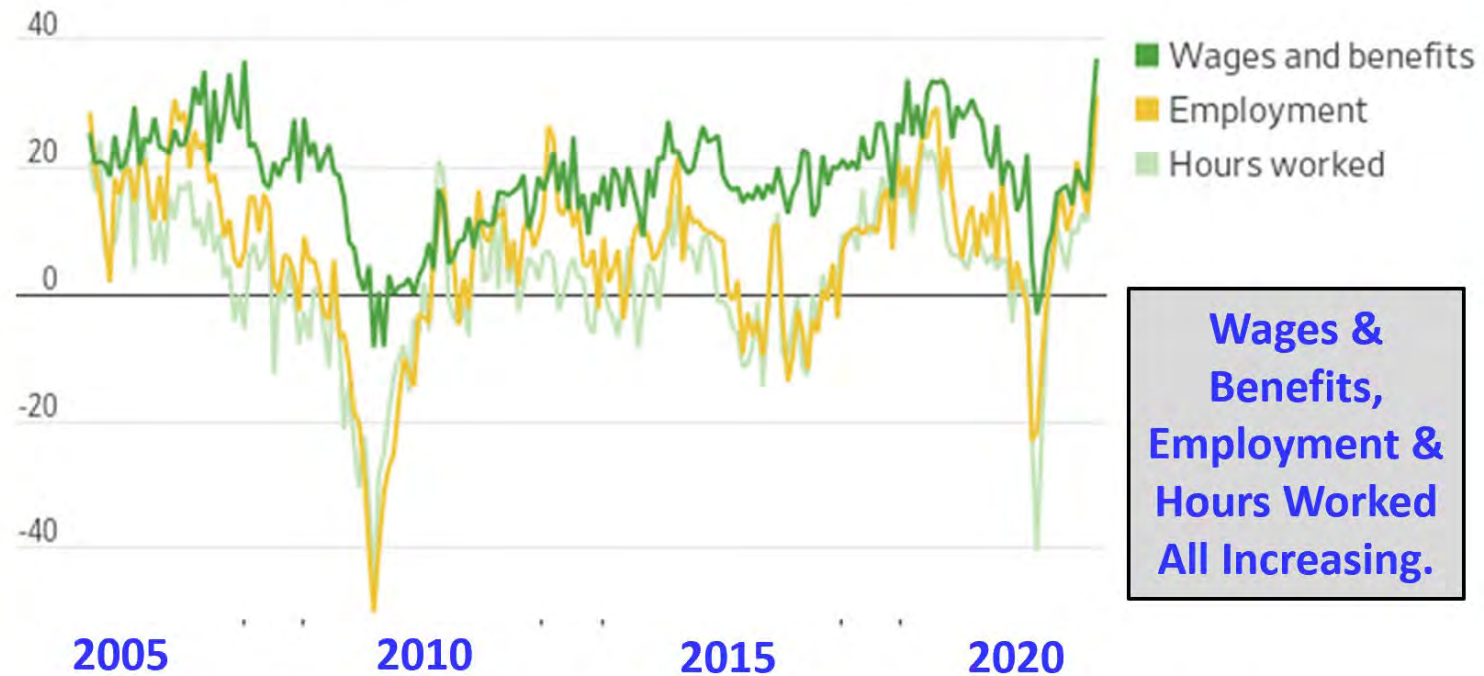


A composite of 8 leading indicators: 1) value of the dollar, 2) U.S. leading economic index, 3) real oil price, 4) well permits, 5) initial claims for unemployment insurance, 6) Texas stock index, 7) help-wanted index, and 8) average weekly hours worked in manufacturing.

Texas Mfg. Outlook Survey Looks Strong

And manufacturers are hiring workers, adding hours and increasing wages. The survey's employment index, and wages and benefits index were both the highest on record.

Texas Manufacturing Outlook Survey



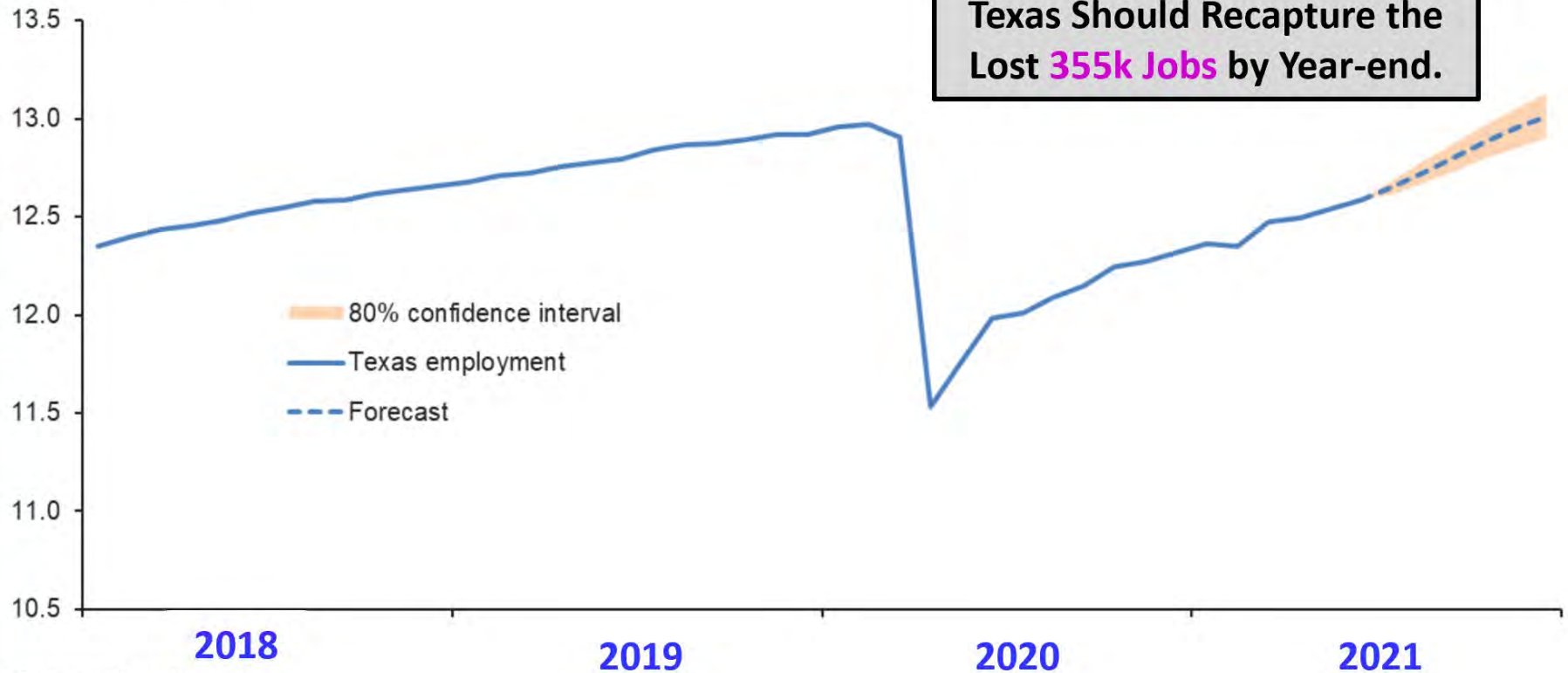
Note: Seasonally adjusted; readings above zero indicate that the share of firms reporting an increase exceeds the share reporting a decrease.

Source: Federal Reserve Bank of Dallas

Dallas Fed Forecasting Texas Employment Back to Pre-Covid High by Year-end 2021

Forecast Anticipates Texas Employment to Return to Prepandemic Level by Year-End

Employment, millions*



*Seasonally adjusted.

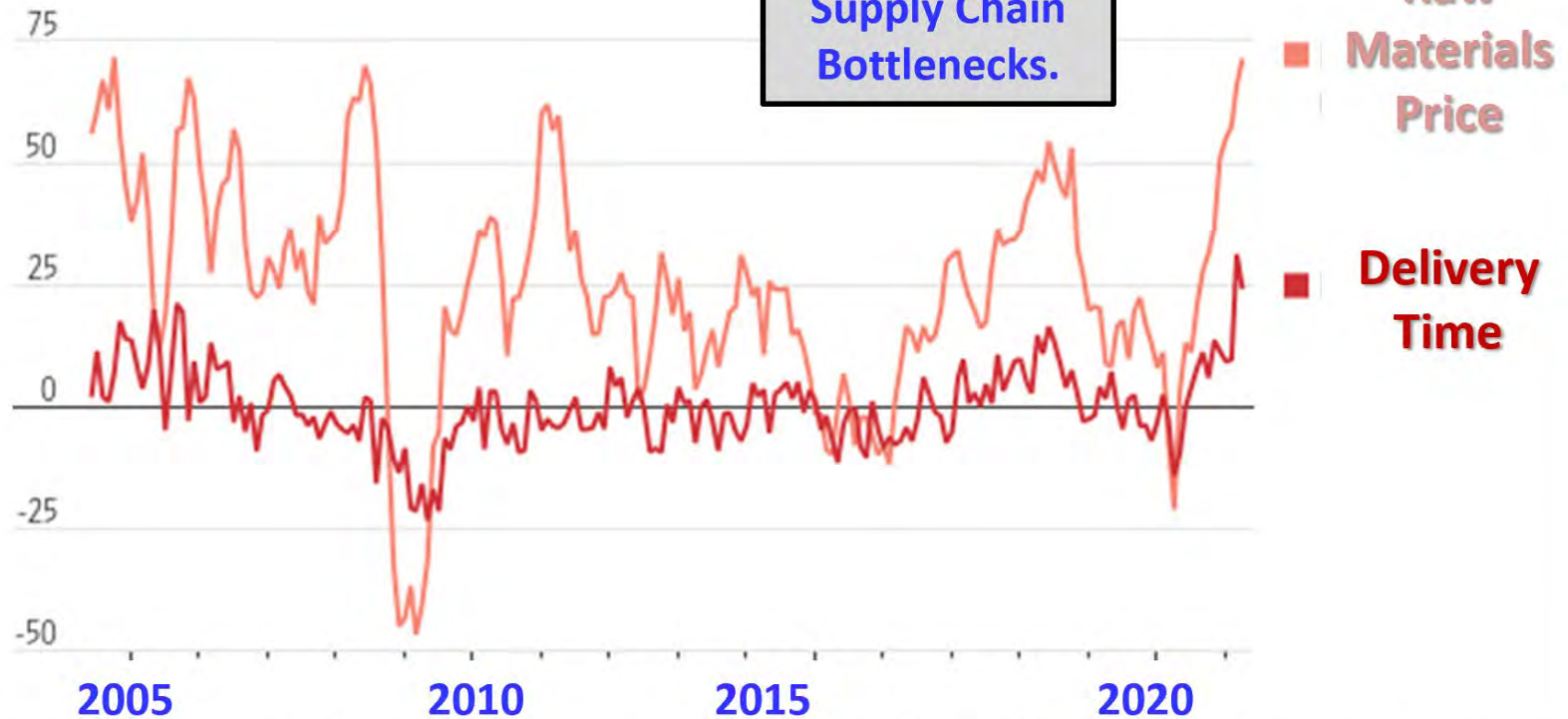
NOTE: Data are through June 2021.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; Federal Reserve Bank of Dallas.

But, Texas Mfg. Outlook Survey Showing Increasing Prices & Delivery Times

Factories are coping with rising prices and long delivery times.

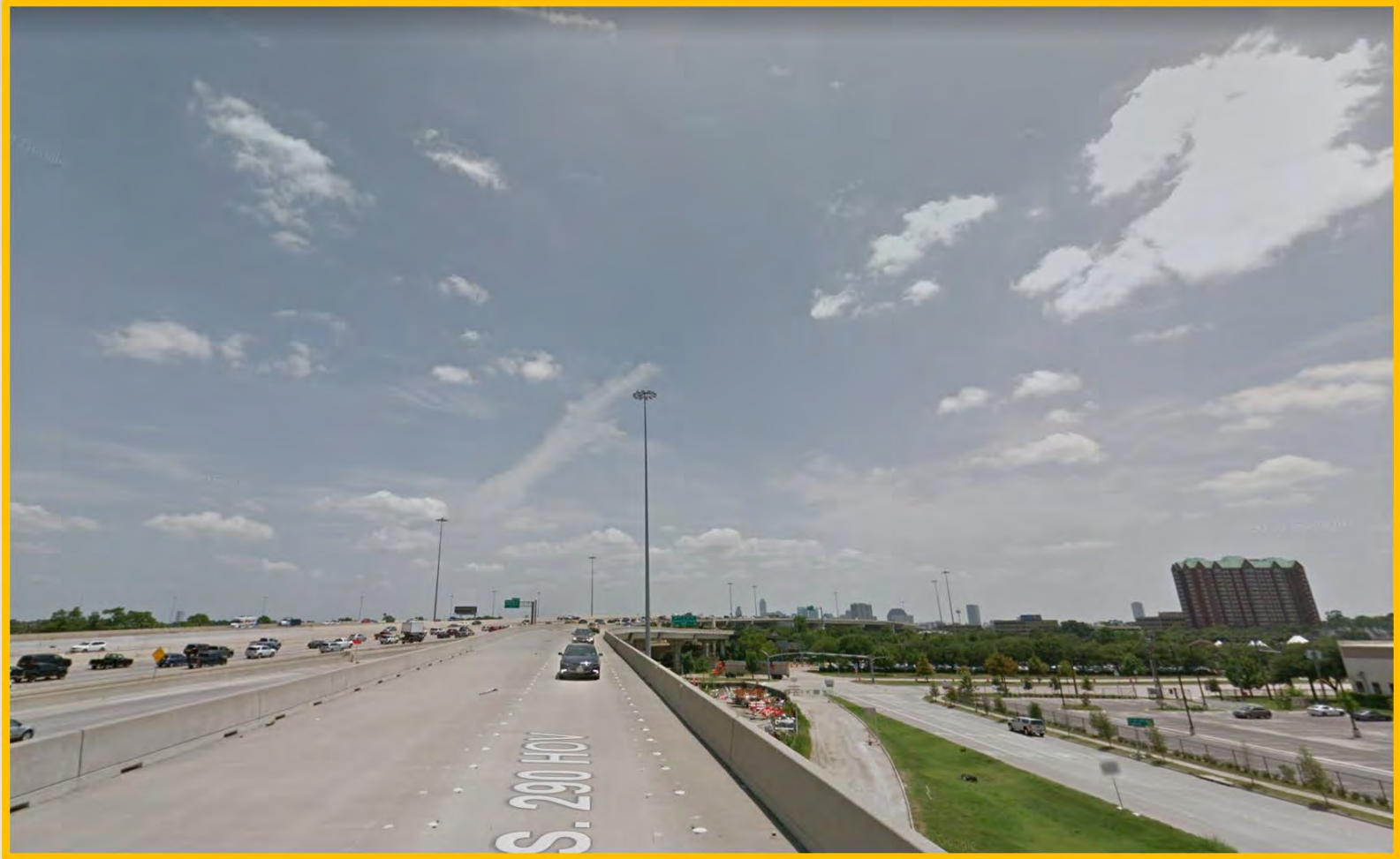
Texas Manufacturing Outlook Survey



Note: Seasonally adjusted; readings above zero indicate that the share of firms reporting an increase exceeds the share reporting a decrease.

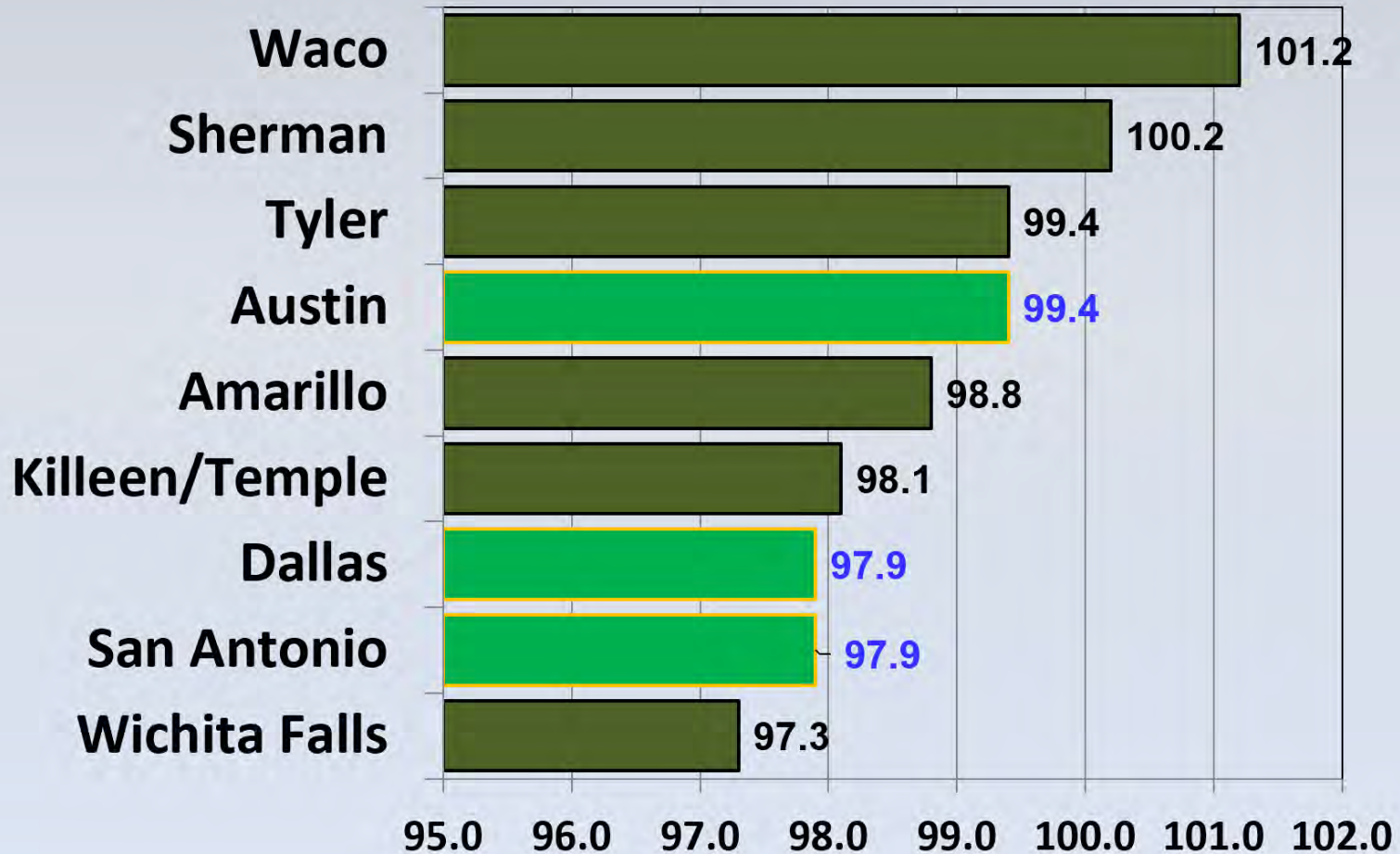
Source: Federal Reserve Bank of Dallas

Ranking the Texas Metros



Ranking MSA Jobs as Percentage of Their Pre-Pandemic Peak

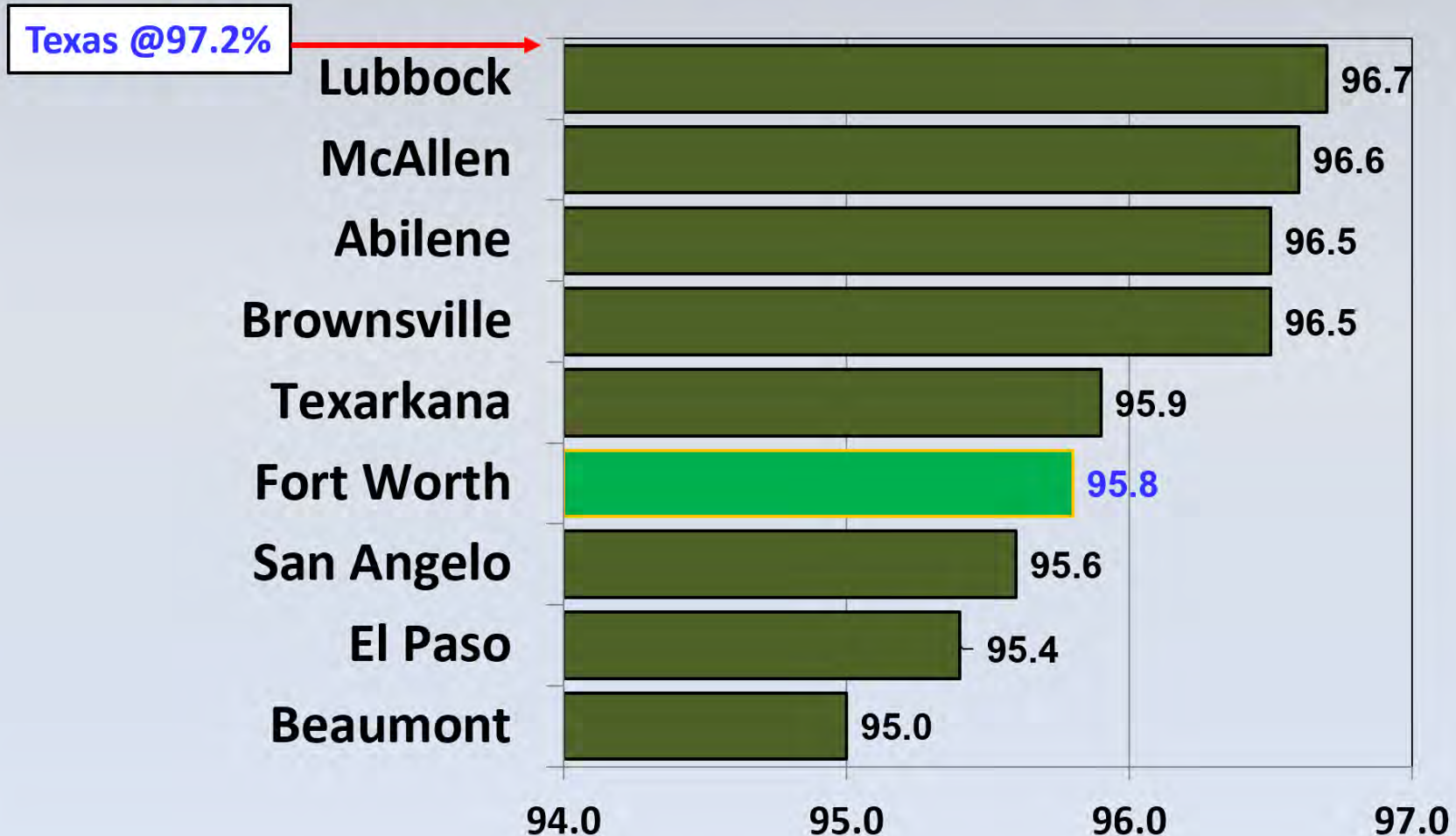
(Pre-Pandemic Peak Month-to-June 2021)



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

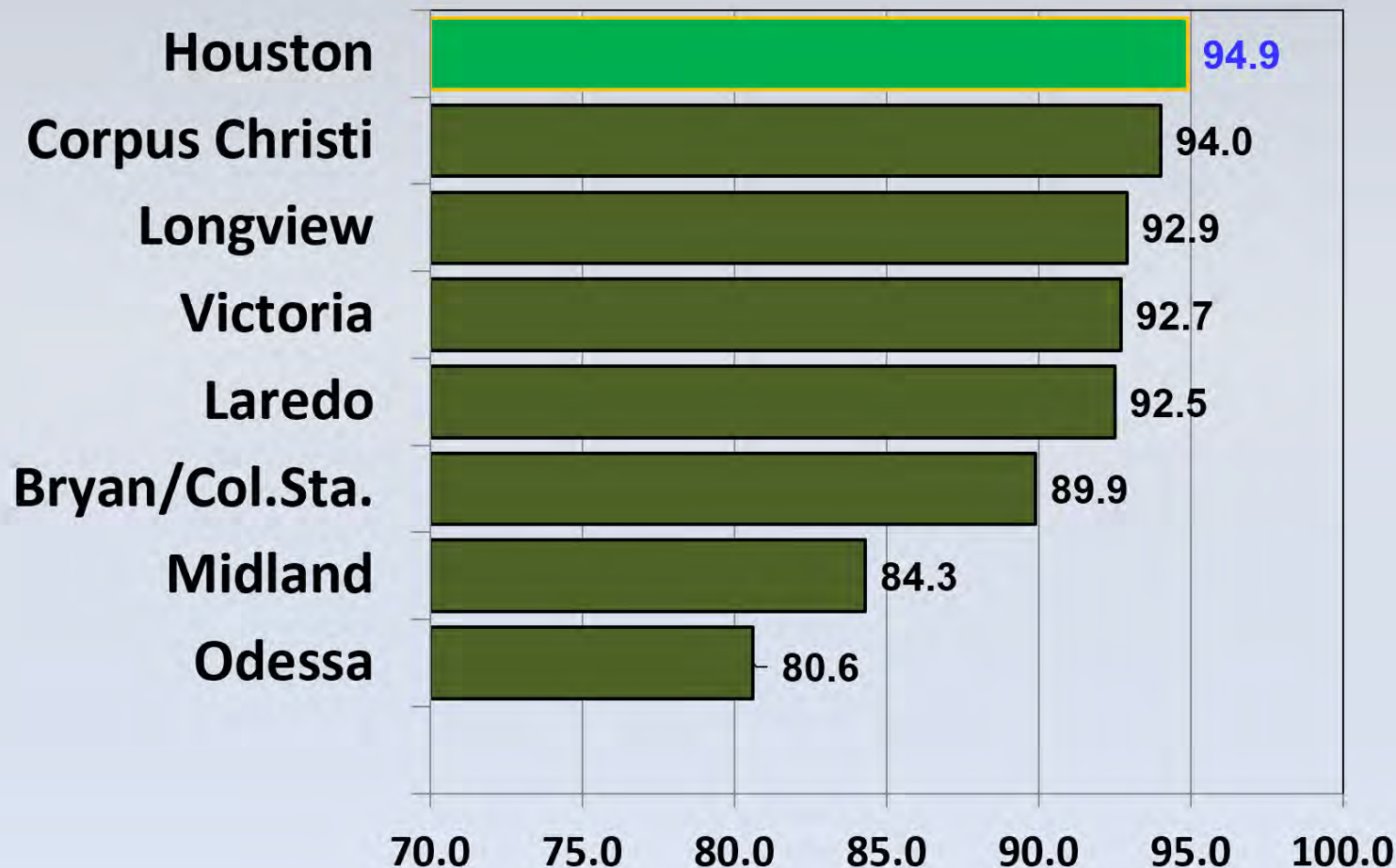
Ranking MSA Jobs as Percentage of Their Pre-Pandemic Peak

(Pre-Pandemic Peak Month-to-June 2021)



Ranking MSA Jobs as Percentage of Their Pre-Pandemic Peak

(Pre-Pandemic Peak Month-to-June 2021)



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

Ranking MSAs By Current Annual Job Growth

(June 2020 to June 2021)

MSA	Pct.	MSA	Pct.	MSA	Pct.
Austin	7.3%	Fort Worth	4.0%	Lubbock	3.3%
Dallas	6.6%	Abilene	3.9%	McAllen	3.0%
Beaumont	6.6%	Amarillo	3.9%	Laredo	2.6%
San Antonio	6.3%	B/CS	3.8%	San Angelo	2.3%
Sherman	6.0%	Killeen	3.6%	Corpus	1.9%
Midland	5.6%	Wichita Falls	3.5%	Victoria	1.9%
Tyler	4.9%	Longview	3.5%	Brownsville	1.7%
Texarkana	4.6%	El Paso	3.5%	Odessa	-0.7%
Waco	4.4%	Houston	3.4%	Texas	5.5%

*Blue shaded box shows MSAs with job growth exceeding the State average.

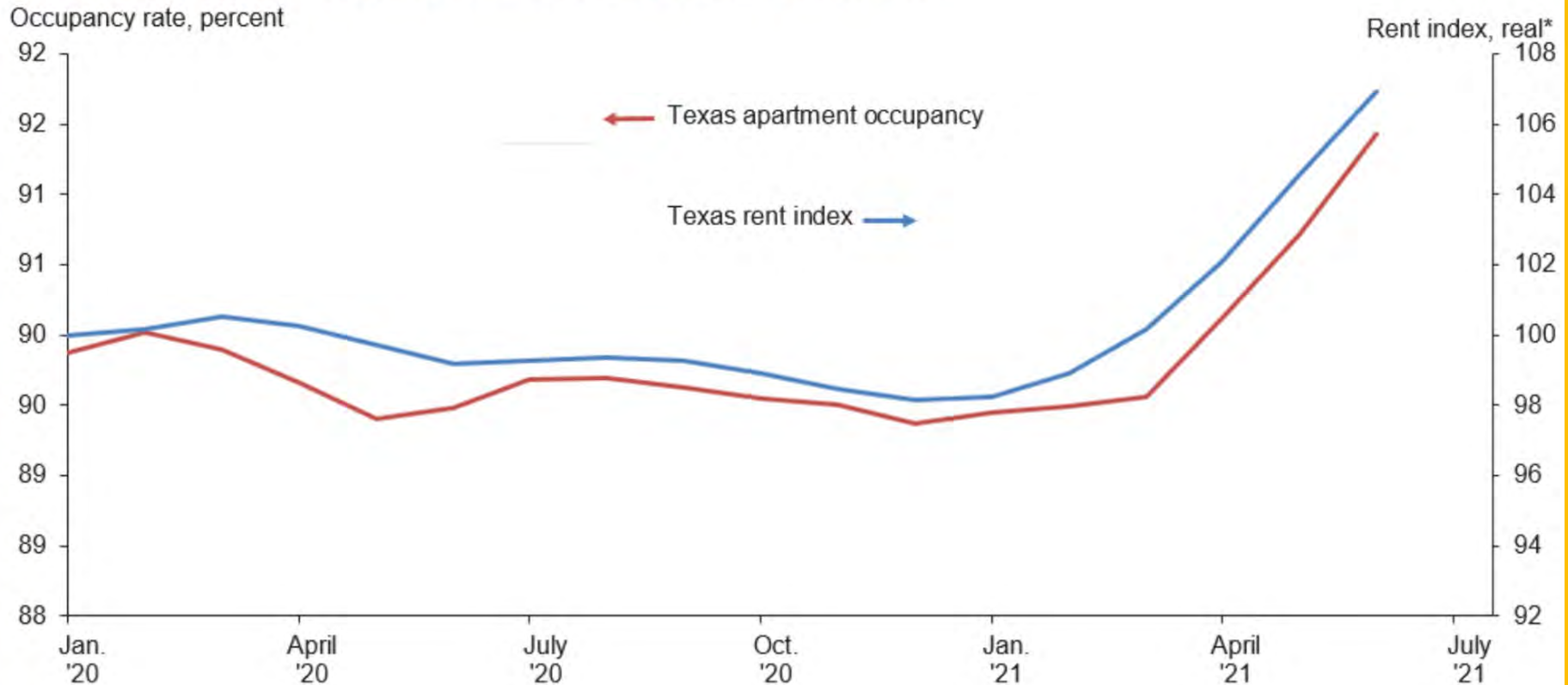
Texas Housing Market



Apartments

Texas Rental Rates & Occupancies Are Up

Texas Rents Surge, Occupancy Climbs During Second Quarter 2021



*January 2020 = 100.

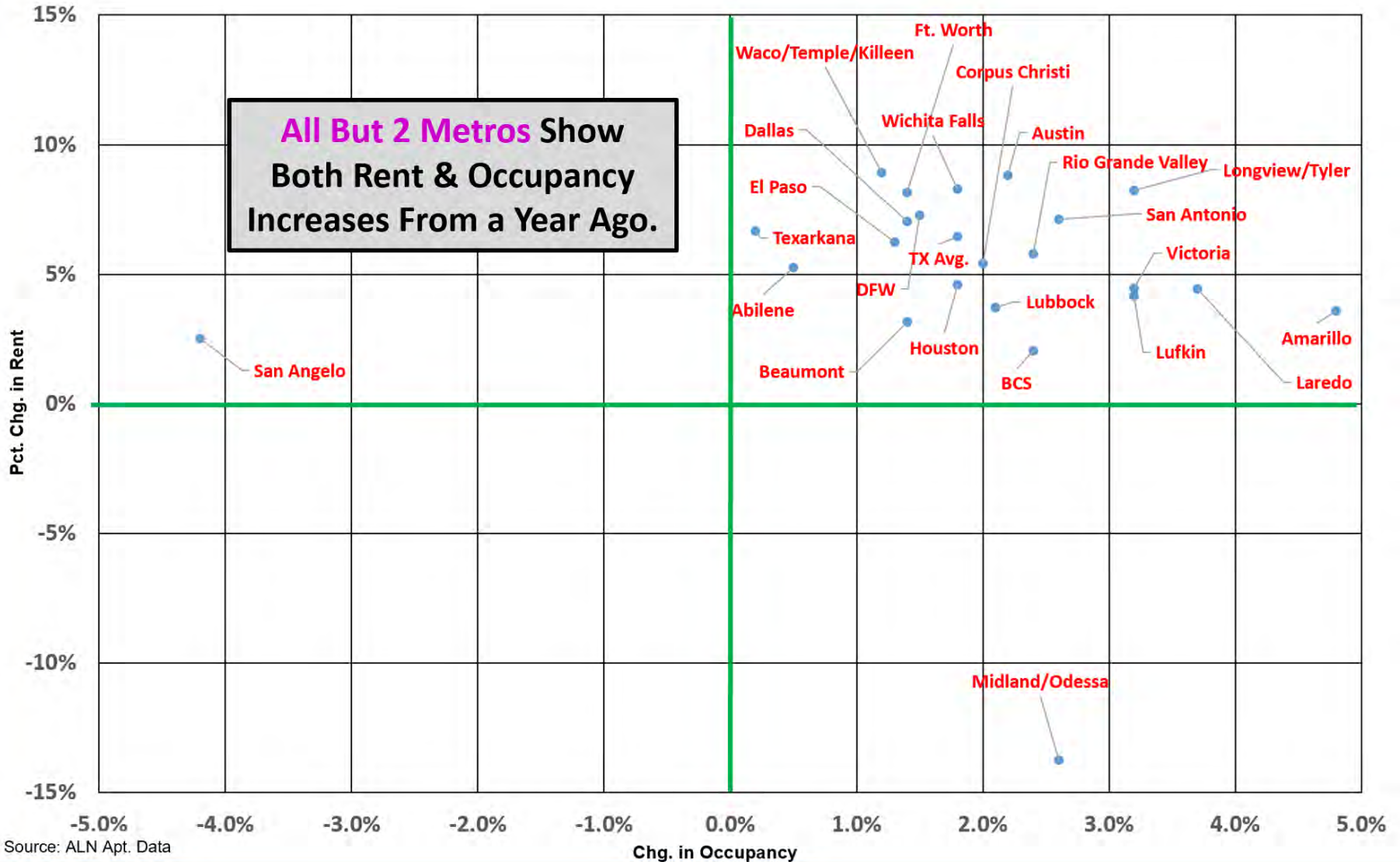
NOTE: Data are through June 2021.

SOURCES: ApartmentData; Apartment List.

Pct. Change in Rents & Change in Occupancy

(Year-over-Year Change June, 2020 to June 2021)

Y-O-Y Pct. Chg. in Effective Rent vs Occupancy Change
(Overall Market June, 2020 to June, 2021)

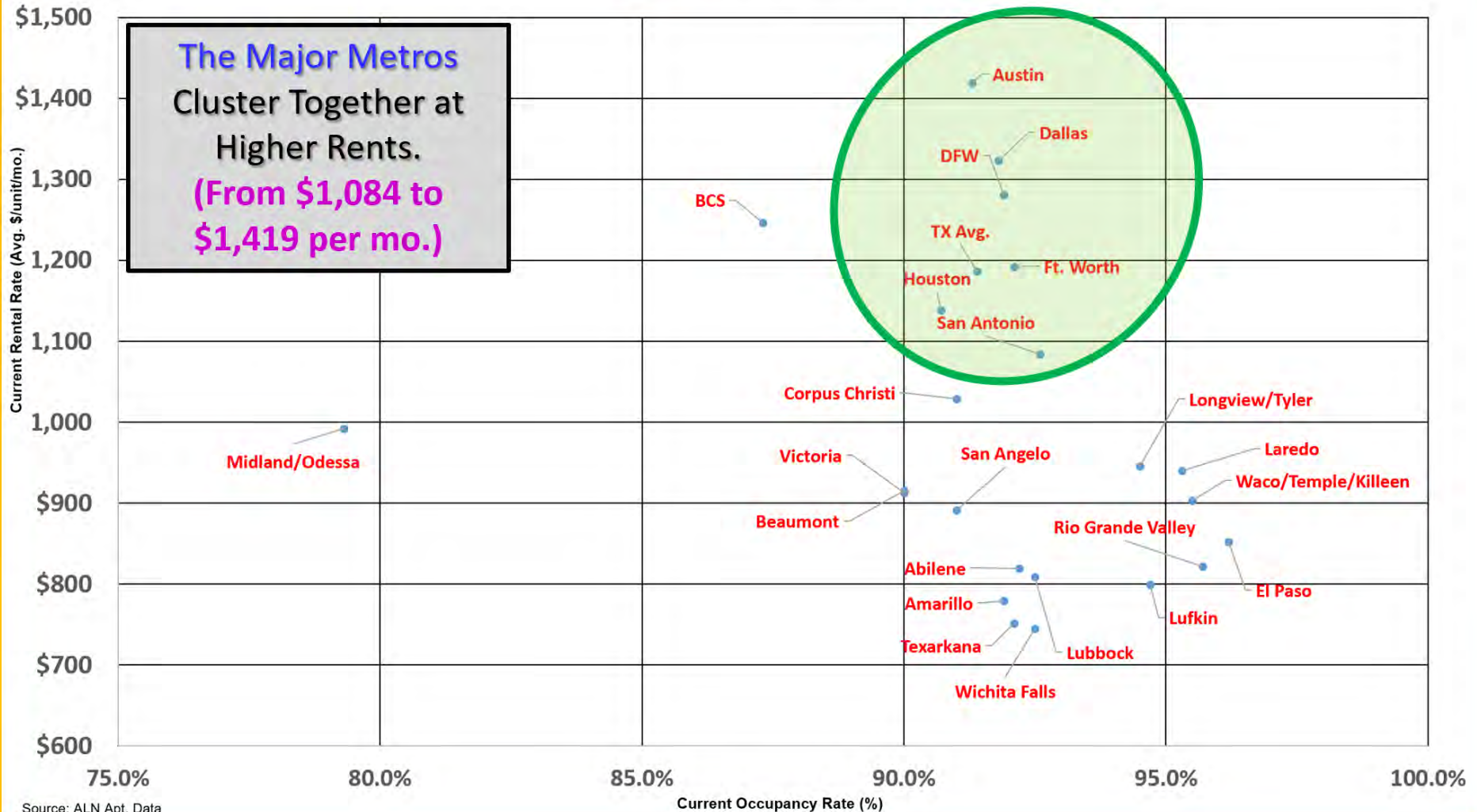


Rents & Occupancy Levels

(June, 2020 to June 2021)

Current Effective Rental Rate vs Occupancy Level

(Overall Market June, 2021)

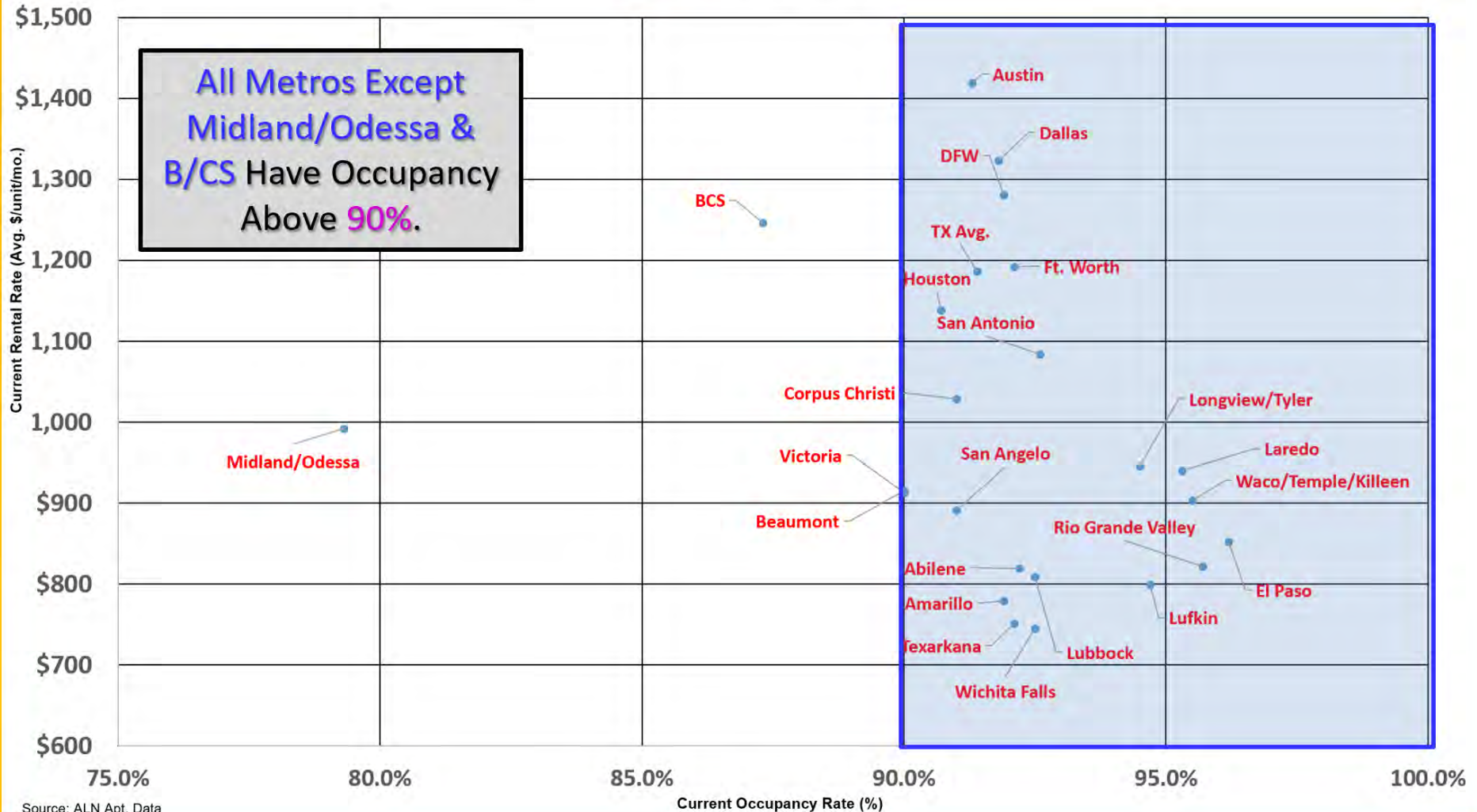


Rents & Occupancy Levels

(June, 2020 to June 2021)

Current Effective Rental Rate vs Occupancy Level

(Overall Market June, 2021)



Source: ALN Apt. Data

Texas Residential Construction Leading Index Flattening At High Level

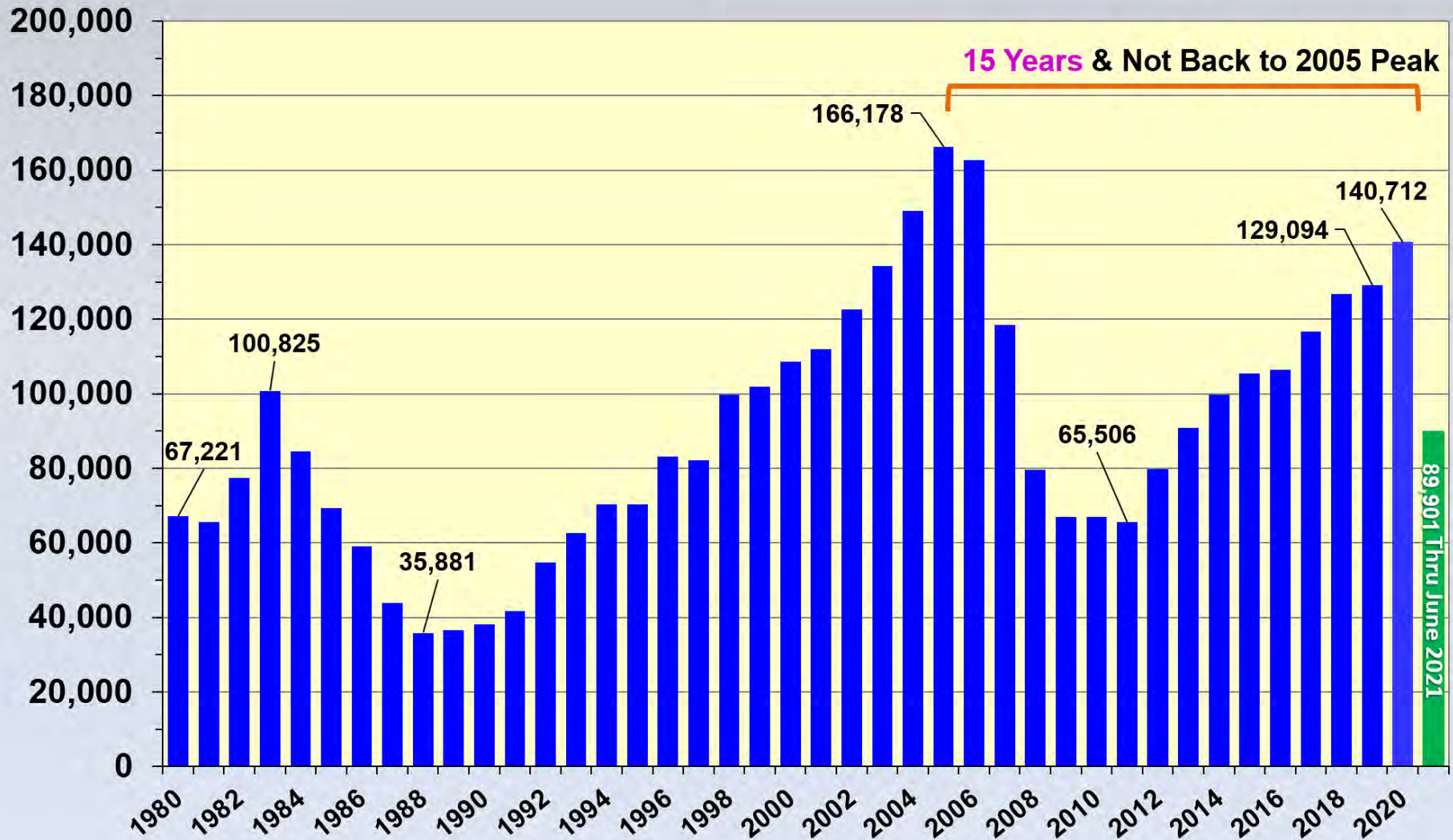
Texas Residential Construction Coincident and Leading Index
(Index 2000=100)



Note: Seasonal adjustment. Shaded area refers to U.S. recession.

Source: Federal Reserve Bank of Dallas and Texas Real Estate Research Center at Texas A&M University

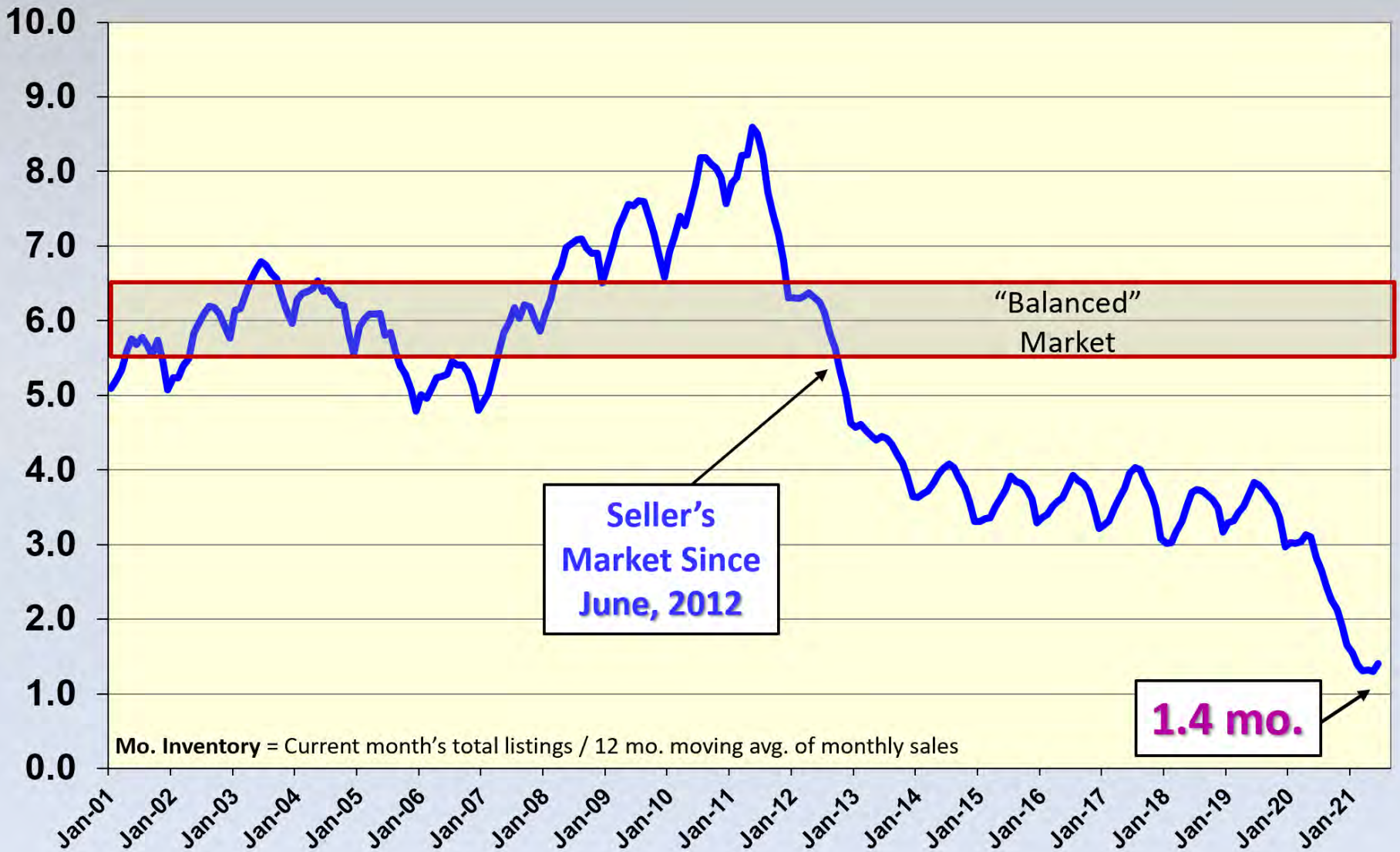
But, Texas Single-family Building Permits Still Not Enough To Catch Up



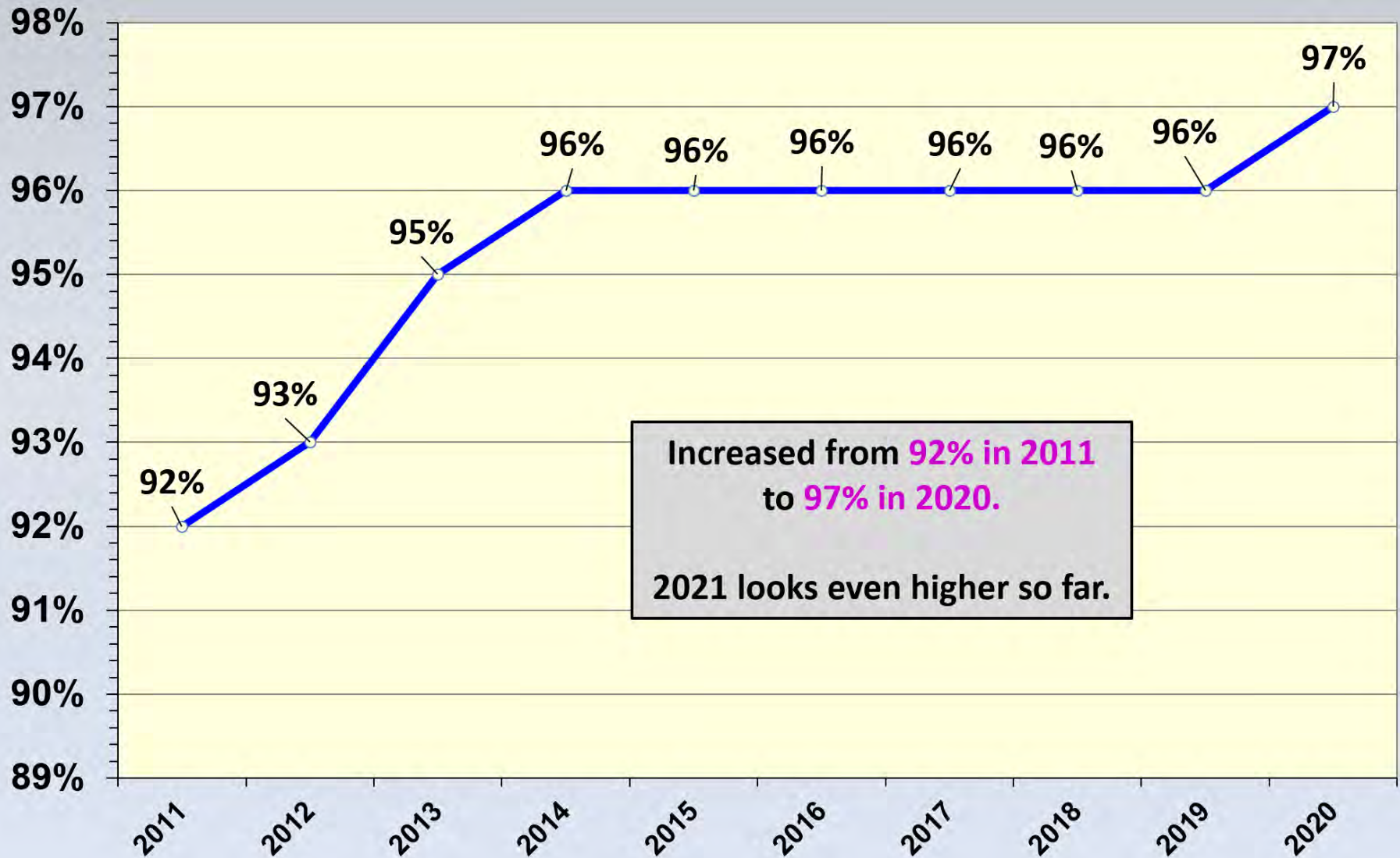
Source: US Census Bureau, Real Estate Center at Texas A&M

Texas Months' Inventory Extremely Low

(Homes Sold Thru MLS thru June, 2021)

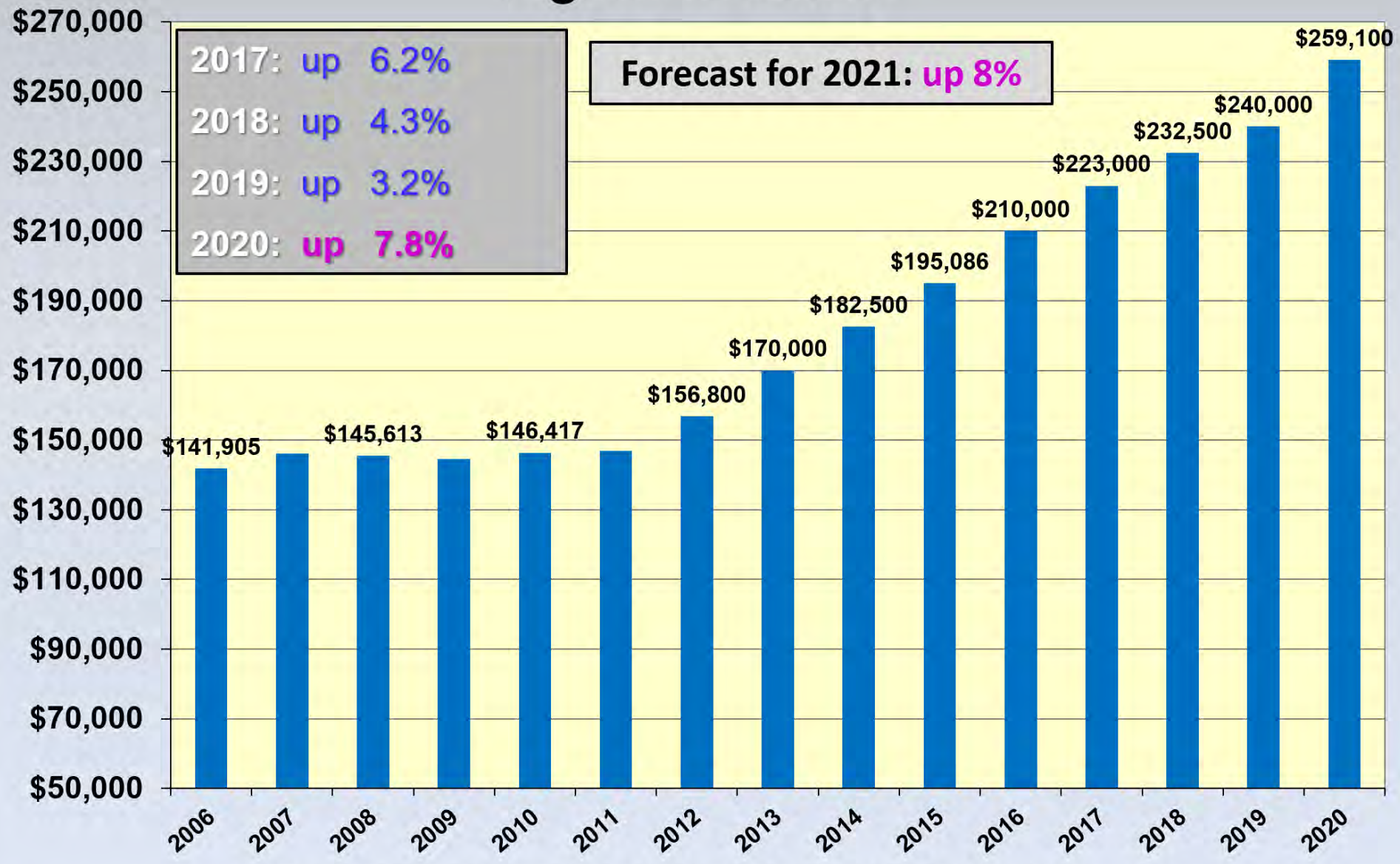


Texas Home Sales Price-to-Listing Price Ratio Shows Bargaining Strength of Sellers



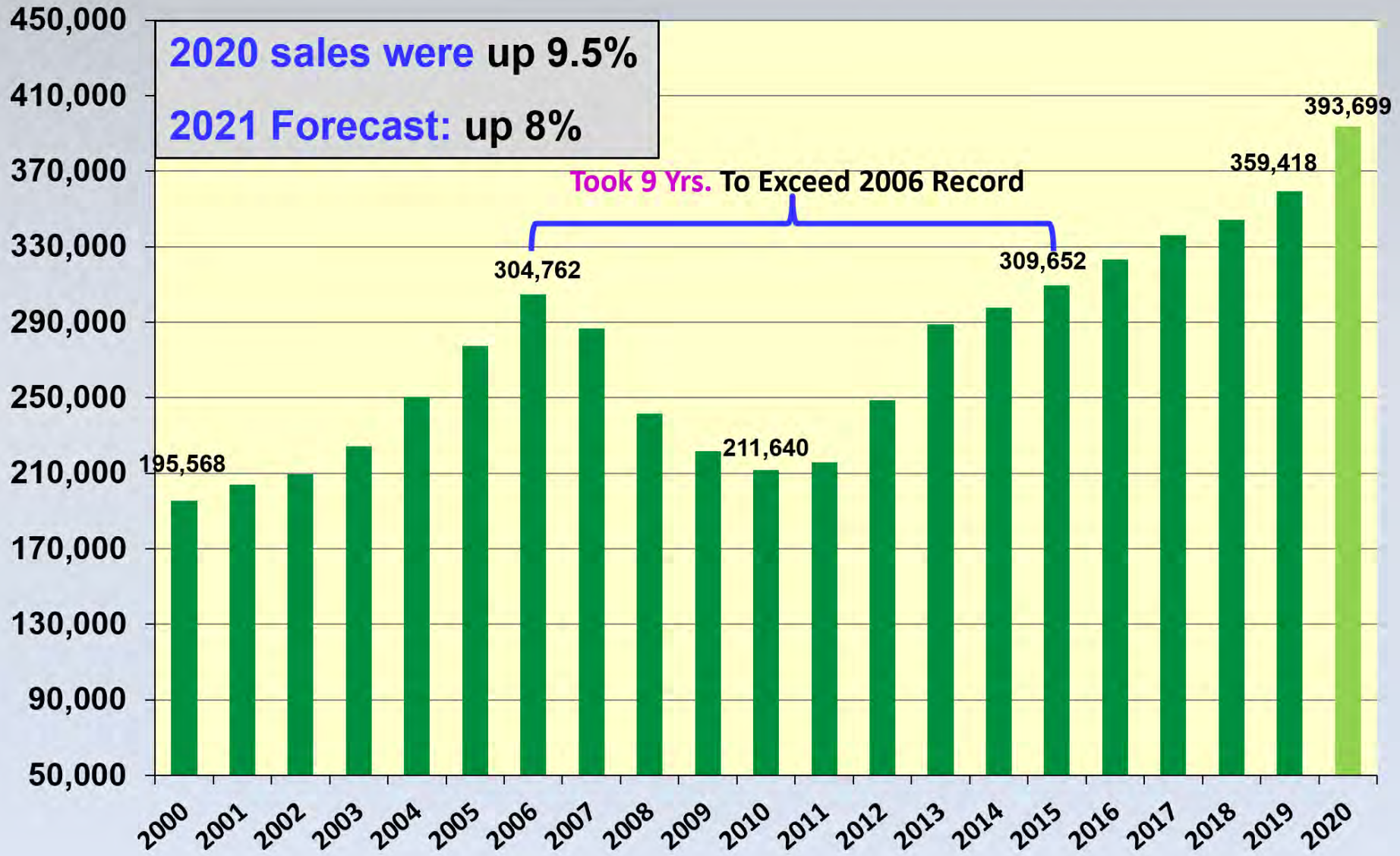
Source: Real Estate Center at Texas A&M University (New & Used Homes Sold thru MLS's)

Texas Median Home Price Climbed Faster Again in 2020



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

But, Texas Home Sales Also Accelerated in 2020



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

Weekly 30-Year Fixed Mortgage Rate Has Declined A Lot From Nov. 2018 Peak



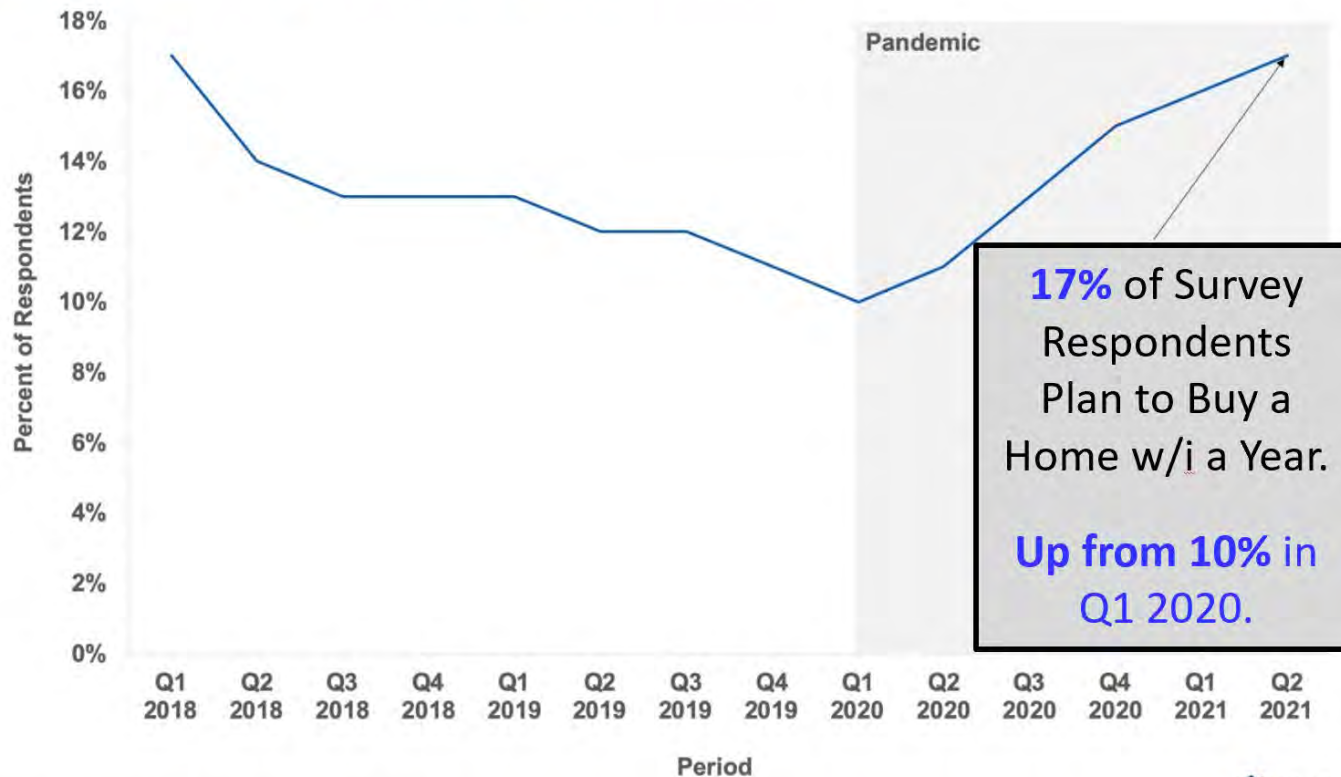
Source: Freddie Mac Weekly Mortgage Market Survey

First-Time Homebuyer Numbers Increasing

Number of Prospective First-Time Homebuyers Increases in Second Quarter

Many Plan To Buy Within a Year

Desire To Buy a House Increased



Source: National Association of Home Builders, July 2021

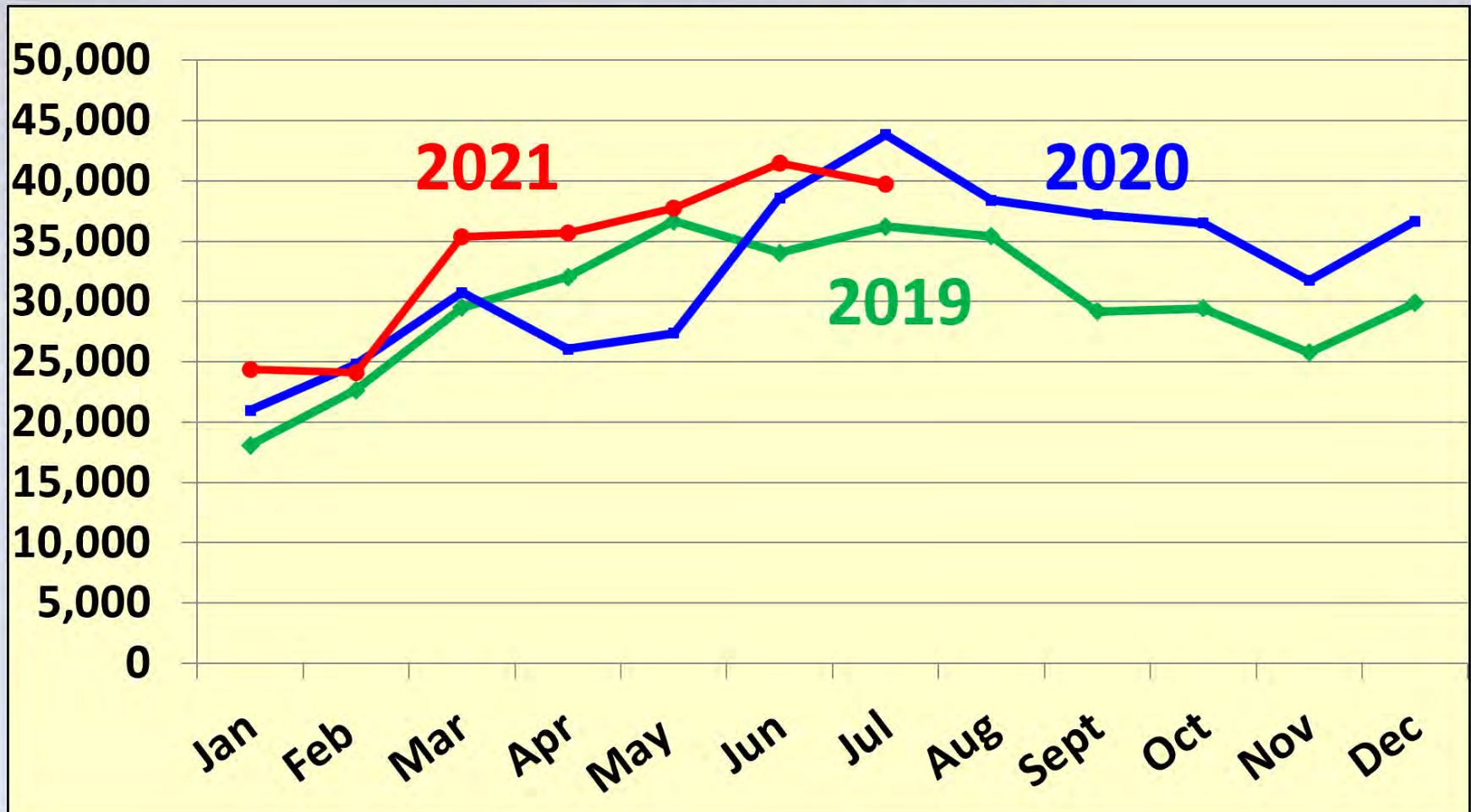


Texas Single-family Home Sales Statistics: 2021 Through July

- **Total Sales** (Jan. thru July.): **238,453** (up **12.3%** over 2020)
- **Median Price** (July): **\$310,000** (up **15.7%** over July 2020)
- **Median Price/SF** (July): **\$153.11** (up **18.4%** over July 2020)
- **Months Inventory** (July): **1.6 months** (**2.7 mo.** In July 2020)

Texas Single-family Home Sales Slowed In July

(Homes Sold Thru MLSs)



Home Lending Market Requirements Have Tightened Despite Strong Sales

- Mortgage Bankers Association's Mortgage **Credit Availability Index** has declined.
- **Higher credit scores** are being required.
- **Lenders are being cautious**, given the spike in mortgage delinquency rates in Q2 2020.

Texas Housing Outlook

- **Lack of housing inventory** is a major headwind.
- Low inventories will be especially prevalent for **homes less than \$300,000**, affecting home sales in that price range. **(And, what is there to buy if you sell?)**
- **New homes sales** may outpace existing home sales this year due to folks staying in place in existing homes.
- The housing market will continue to see **strong price growth**.
 - **More millennials** will continue to enter the market.

Texas Housing Outlook

- Is a **housing bubble** forming?
 - **Doubtful**, with such low inventory.
 - Would have to see: 1) interest rates probably above 5%, and 2) massive level of new construction.

- **Characteristics of the 2006-2007 housing bubble** are not currently present. Back then you had:
 - Loose lending standards
 - Lax oversight
 - Exuberant speculation (investment motive)

Texas Housing Outlook

- Mortgage Bankers Association reports that 2.3 million U.S. homeowners (4.5 percent of all home loans) are currently in forbearance.

Table 3. Likelihood of Having to Leave this House in Next Two Months Due to Foreclosure

	Very Likely	Somewhat Likely	Not Very Likely	Not Likely at All	Did Not Report
United States	4%	13%	37%	44%	1%
Texas	8%	11%	39%	42%	-
Dallas-Fort Worth	2%	22%	58%	18%	-
Houston-The Woodlands-Sugar Land	-	20%	47%	33%	-

Note: Nonseasonally adjusted. Total includes only individuals who are 18 years and older, that are not current on mortgage payments, and are reported living in owner-occupied housing units and excludes those living in different types of housing units, and also those who did not report their housing situation.

Source: U.S. Census Bureau Household Pulse Survey, June 9-21, 2021

Texas Housing Outlook

- **Once forbearance ends**, the share of homeowners able to make mortgage payments is unknown.
- So far, **foreclosures kept low** despite the recession due to government moratorium policy.
- Housing market could easily **absorb any foreclosures**, given such low inventories.
- But, no need for foreclosure. **Just sell your house.**

Texas Housing Outlook

- **New-home supply** will probably continue to lag.
 - Building new homes in the **suburbs or the outer city borders** where land costs are lower, especially to build lower-priced homes.
 - Trend was prevalent prior to the pandemic but has **accelerated due to COVID-19**.
- **Builders** are trying to build homes to satisfy demand at the **more affordable end**, but increasing **material costs & supply bottlenecks** have driven prices up.

A New Factory-built Manufactured Housing Product



Fannie Mae “MH Advantage” Financing for “CrossMod” MH

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 for “CrossMod” MH



Courtesy of Clayton Homes

ChoiceHomeSM Financing Launched for Focus on
Manufactured Homes that Change Perceptions

The First “CrossMod” Home in Texas

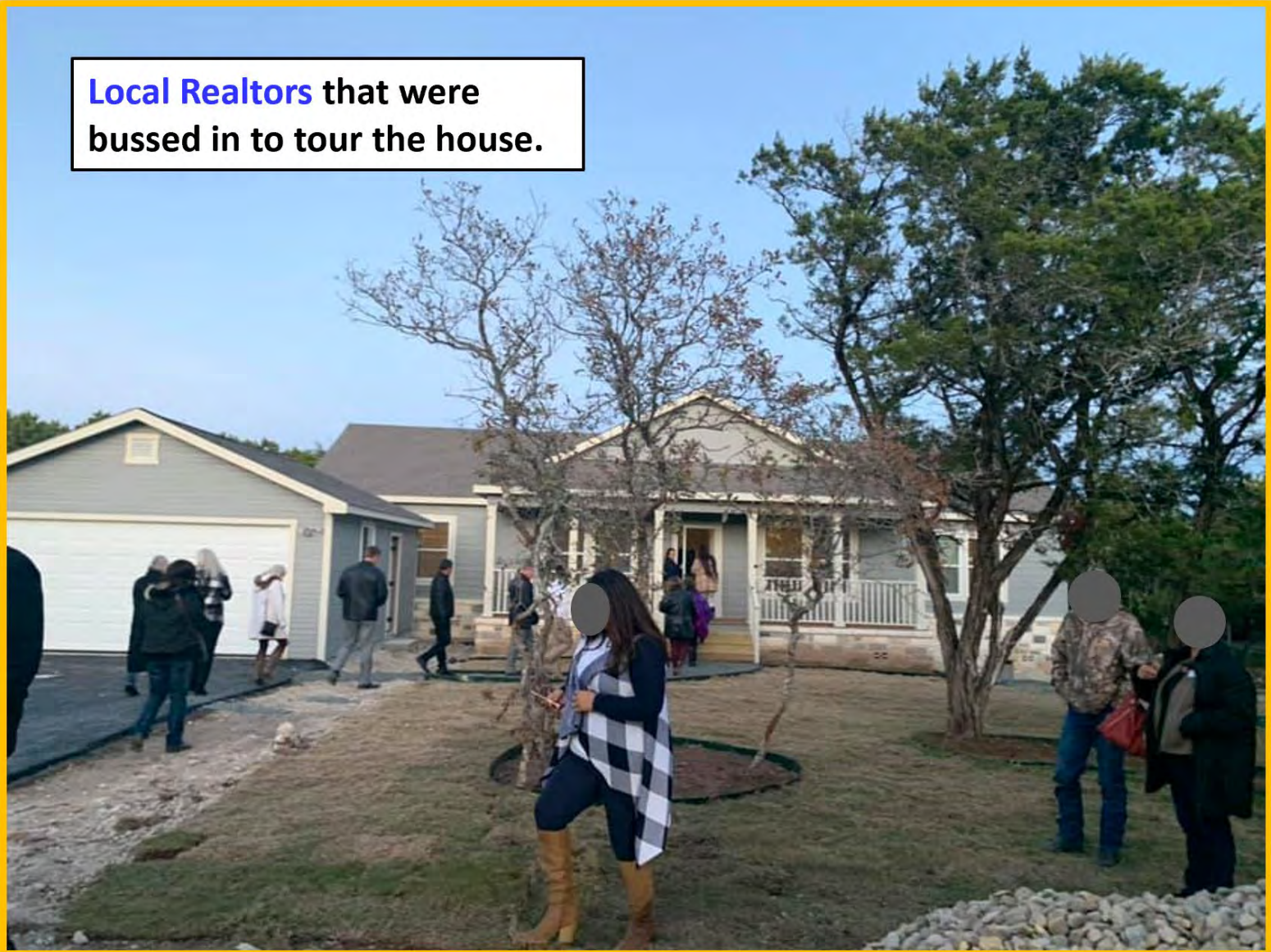
(2019 in Canyon Lake, TX)



The First “CrossMod” Home in Texas

(2019 in Canyon Lake, TX)

Local Realtors that were
bussed in to tour the house.



The First “CrossMod” Home in Texas (2019 in Canyon Lake, TX)



The First “CrossMod” Home in Texas

(2019 in Canyon Lake, TX)



First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)



First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)



Prices from **\$185k to \$230k** with 1-acre lots & **1,113 to 1,789 SF.**

First “CrossMod” Subdivision in Texas (2021 outside Seguin, TX)



First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)



First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)



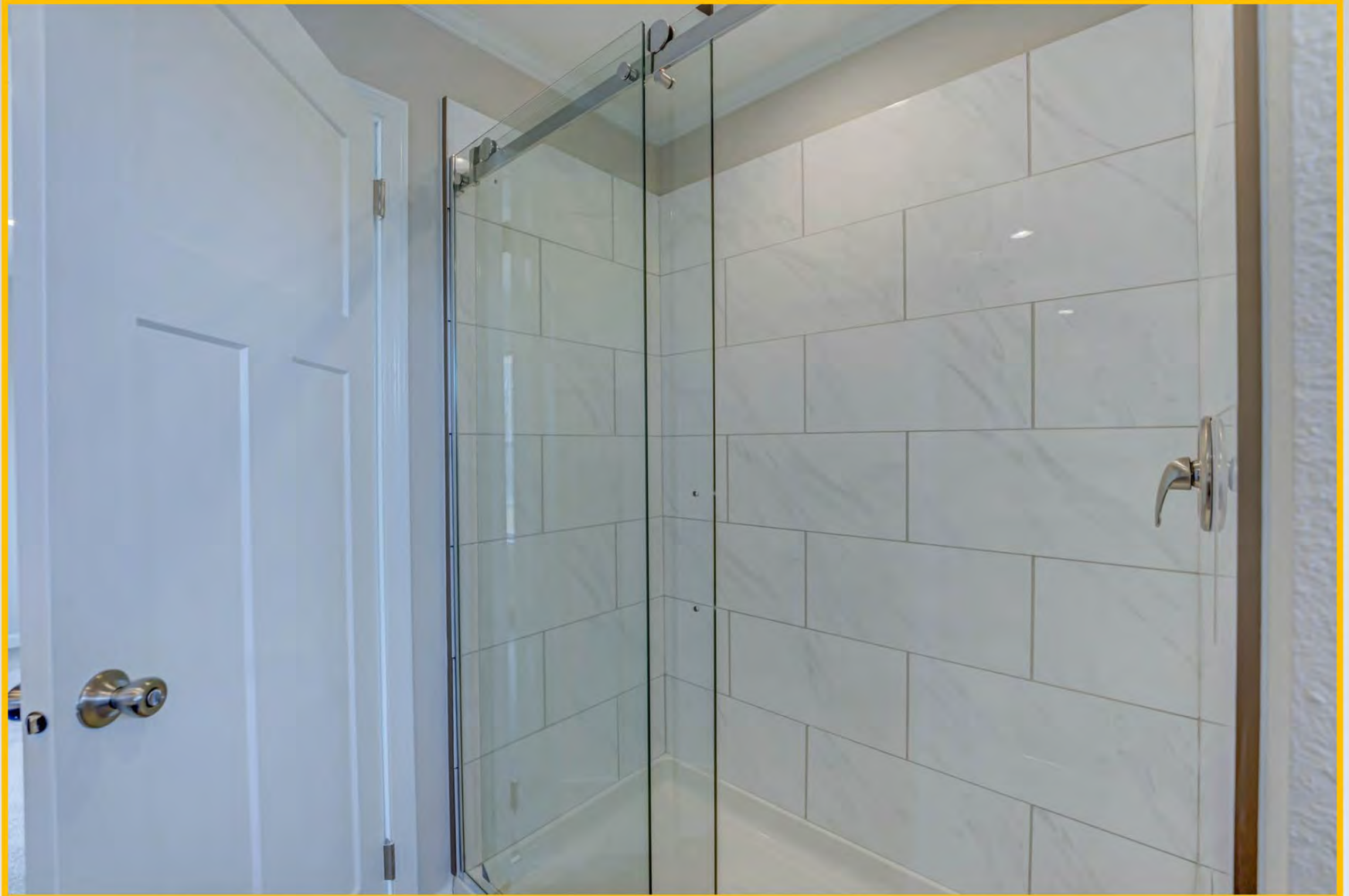
First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)



First “CrossMod” Subdivision in Texas

(2021 outside Seguin, TX)

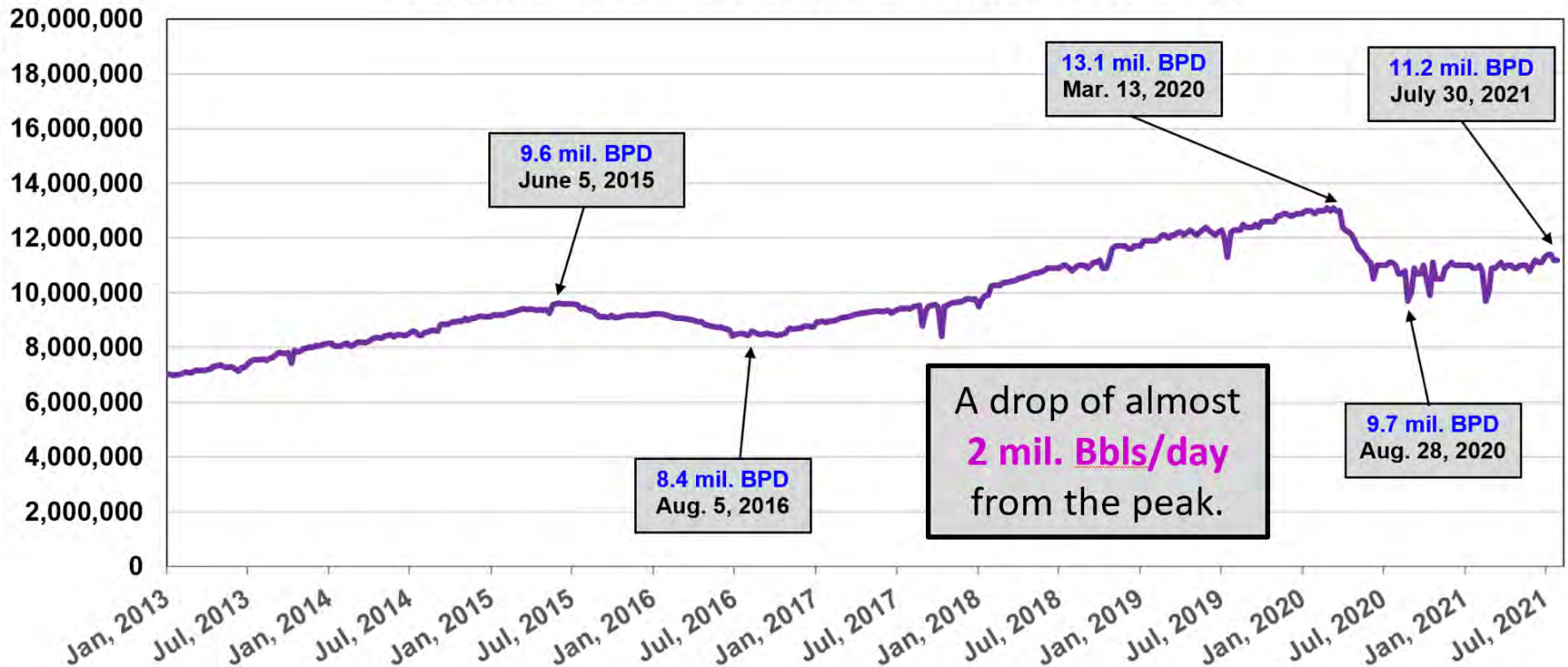


Energy Market



U.S. Crude Production Flat At 11.2 mil. BPD

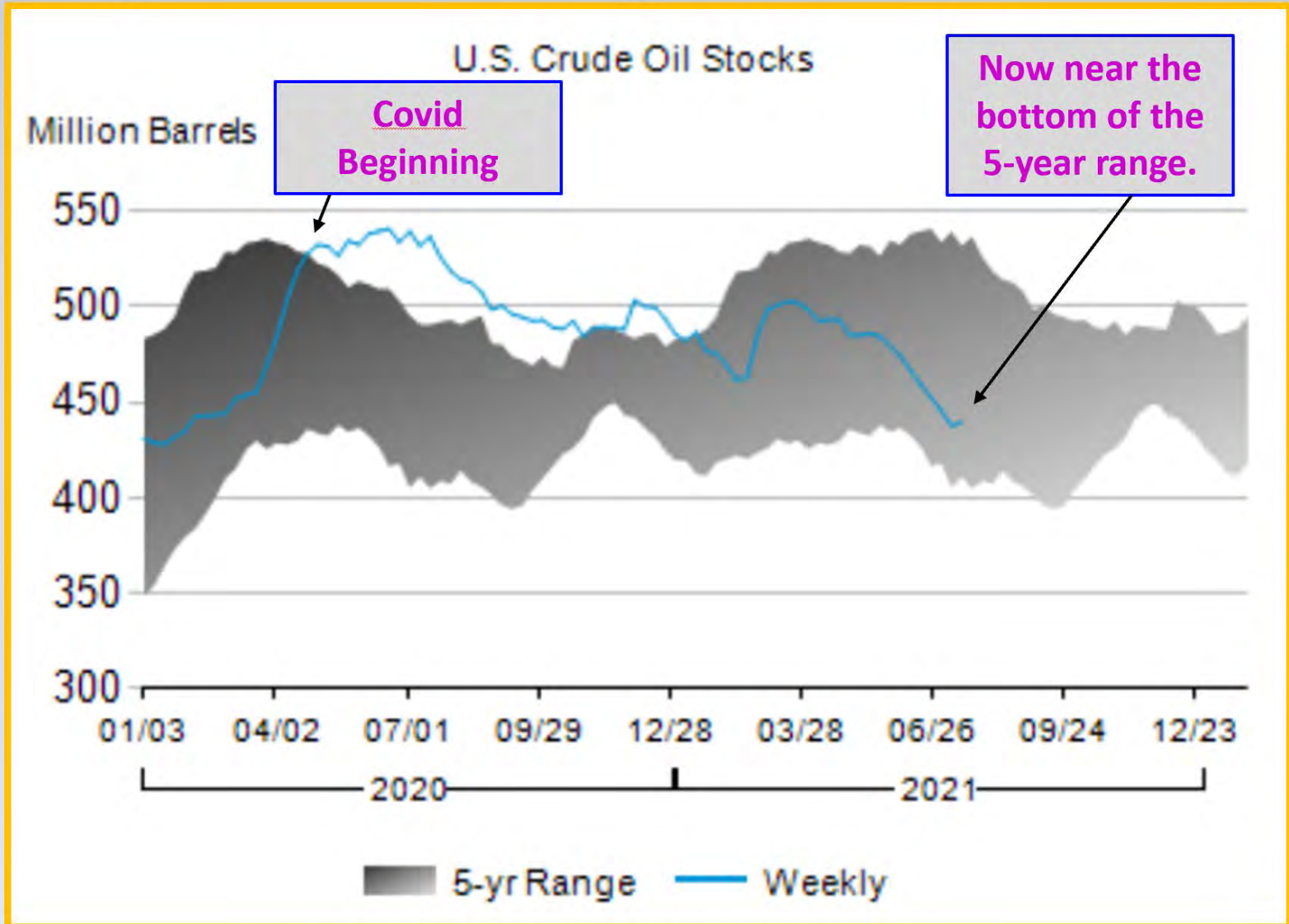
U.S. Field Production of Crude Oil
(Daily Production Estimated Each Friday from Jan. 4, 2013 thru July 30, 2021)



Source: U.S. Energy Information Administration

Texas Daily Crude Production: May 2021: **4.7 mil. BPD** Peak was **5.4 mil. BPD** in Jan. 2020

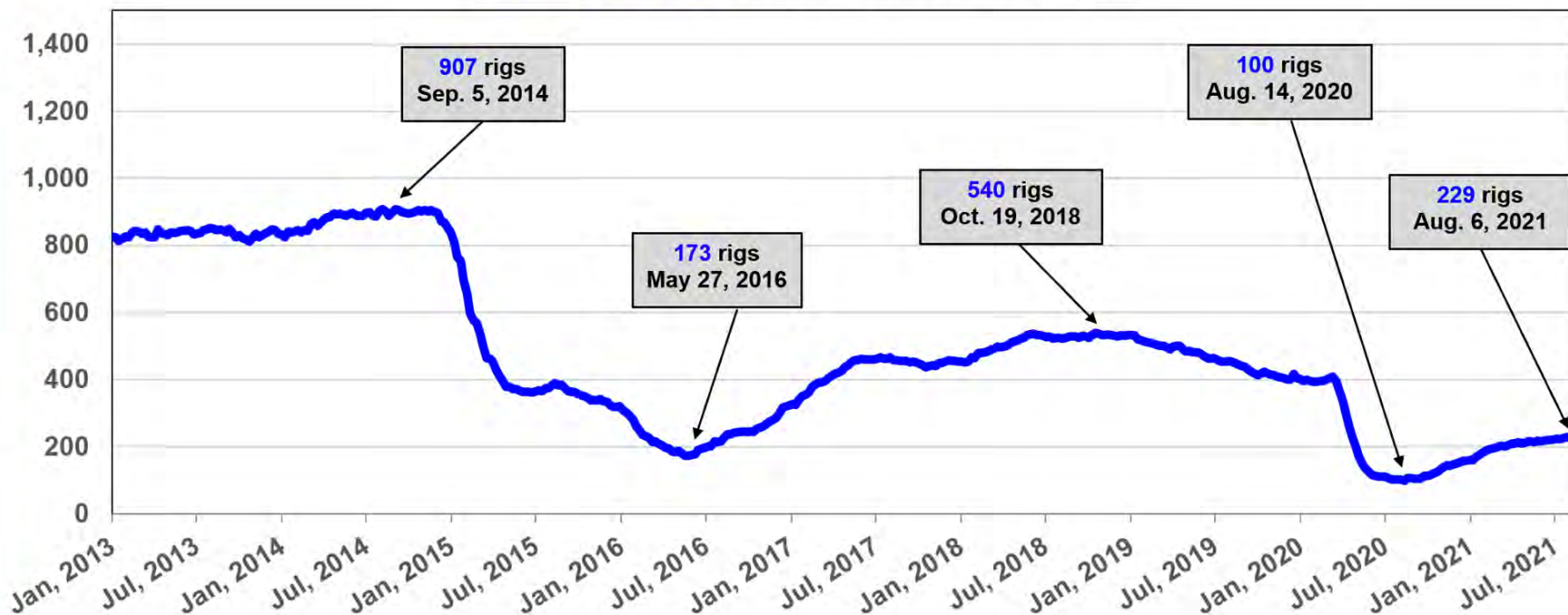
High U.S. Crude Storage Levels From Covid's Impact Have Finally Been Worked Off



Source: U.S. Energy Information Administration

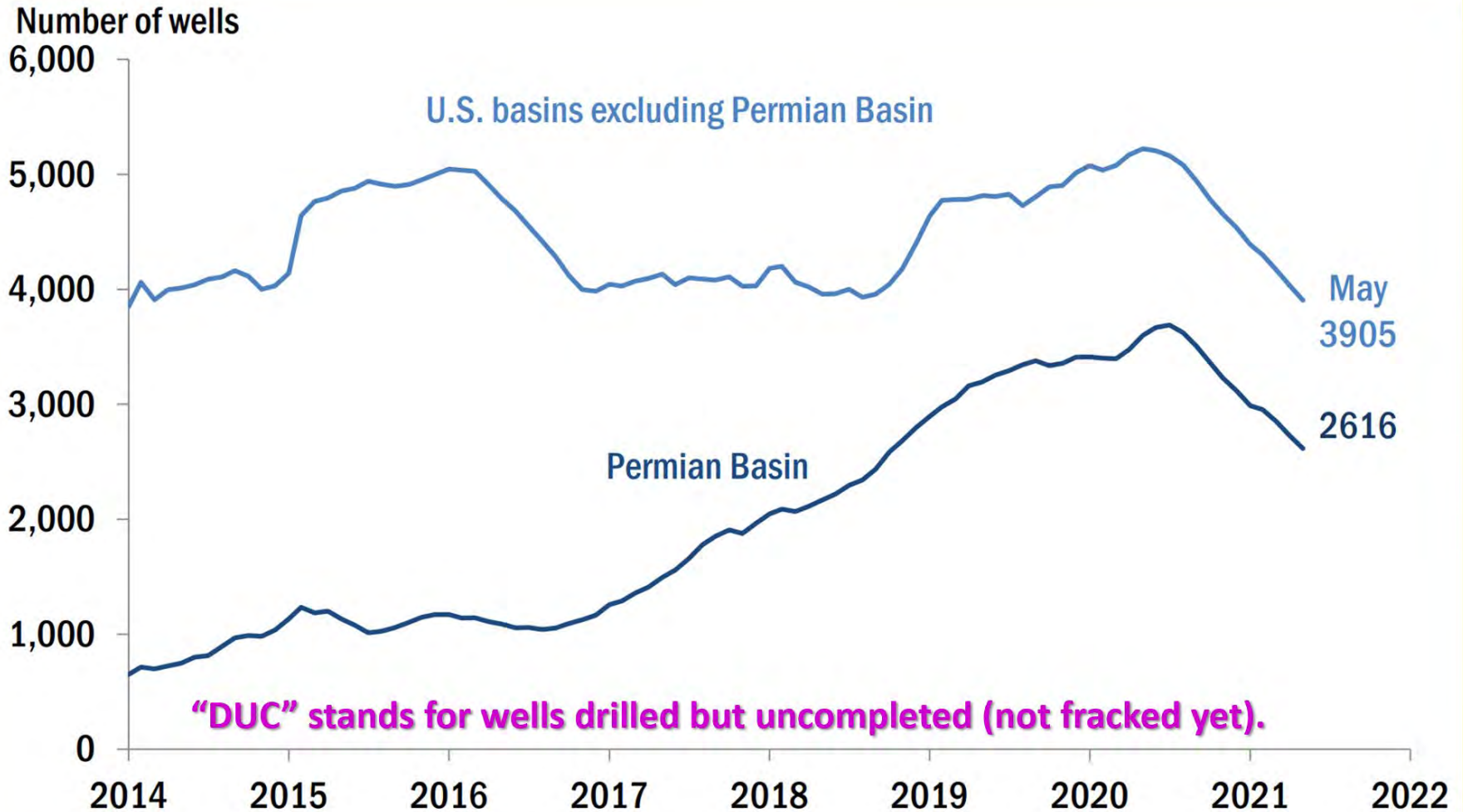
But, Texas Rig Count Only Rising Slowly Since Aug. 2020 With Improved Crude Prices

Drilling Rig History
(Working Texas Rigs from Jan. 4, 2013 to Aug 6, 2021)



Source: Baker Hughes and Haver Analytics

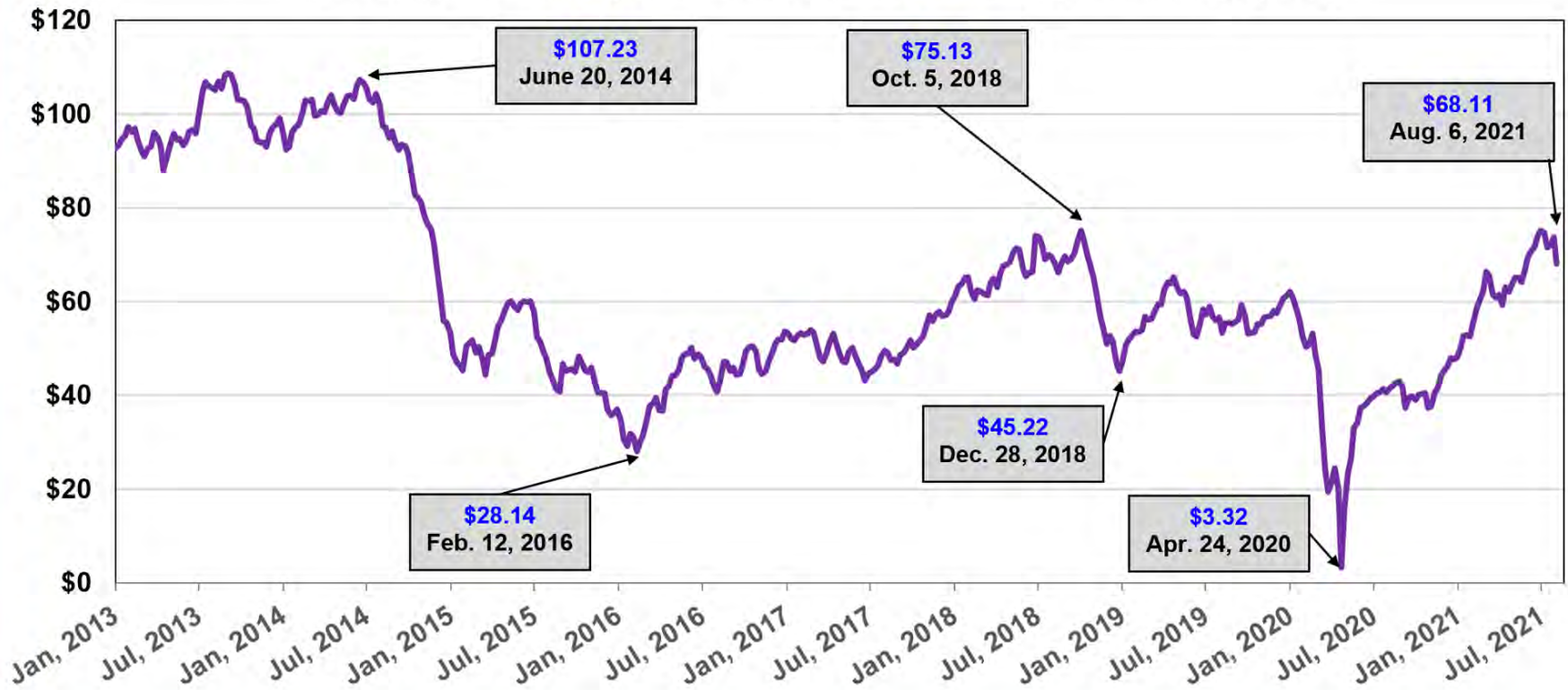
DUC Inventory Getting Worked Off Since the 2020 Price Drop, Tempering New Drilling



WTI Crude Price In High \$60's/bbl

Weekly Spot Price for Crude

(WTI Cushing OK Weekly Spot Price Taken Each Friday From Jan. 4, 2013 thru Aug. 6, 2021)

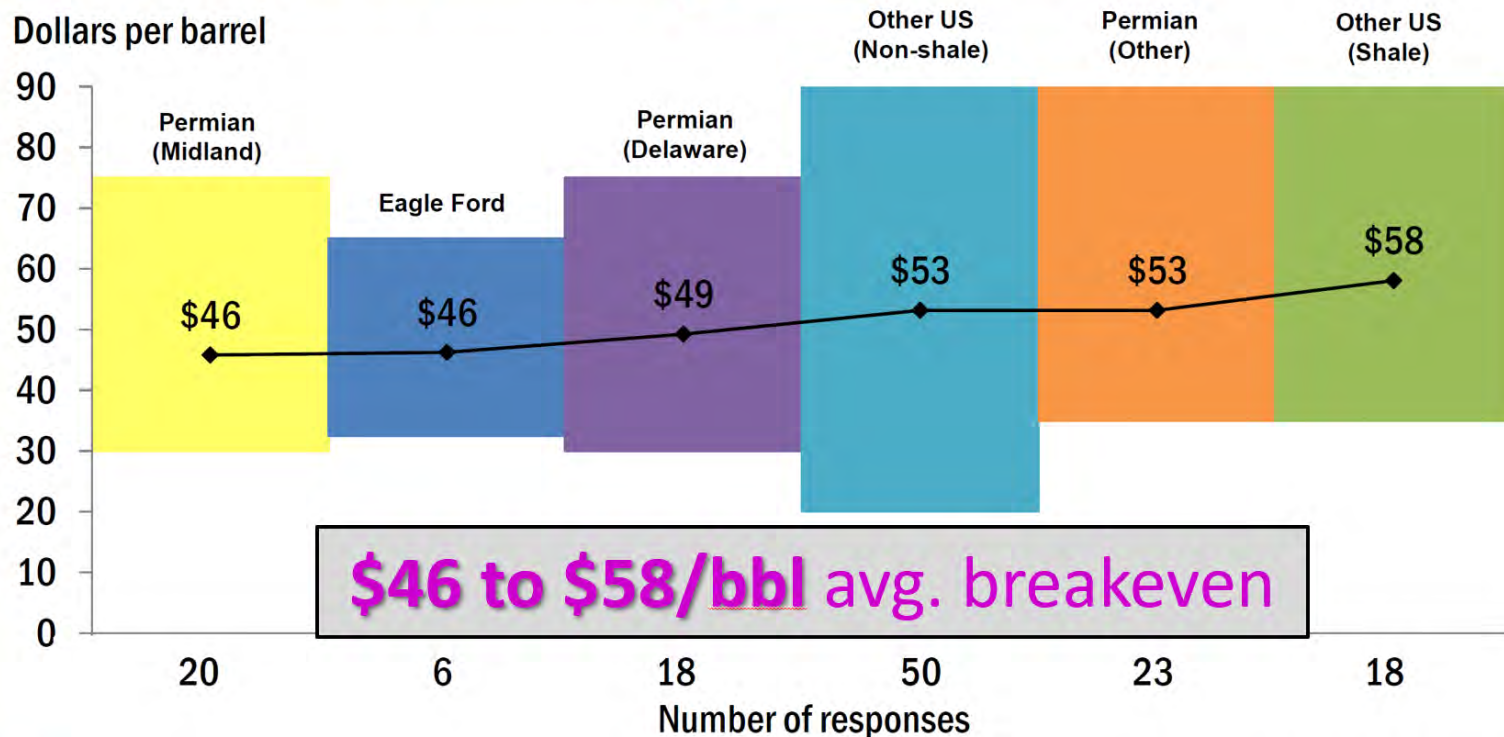


Source: U.S. Energy Information Administration

Breakeven **Crude Price** By Play

Breakeven Prices for New Wells

Dallas Fed Energy Survey—In the top two areas in which your firm is active: What WTI oil price does your firm need to profitably drill a new well?

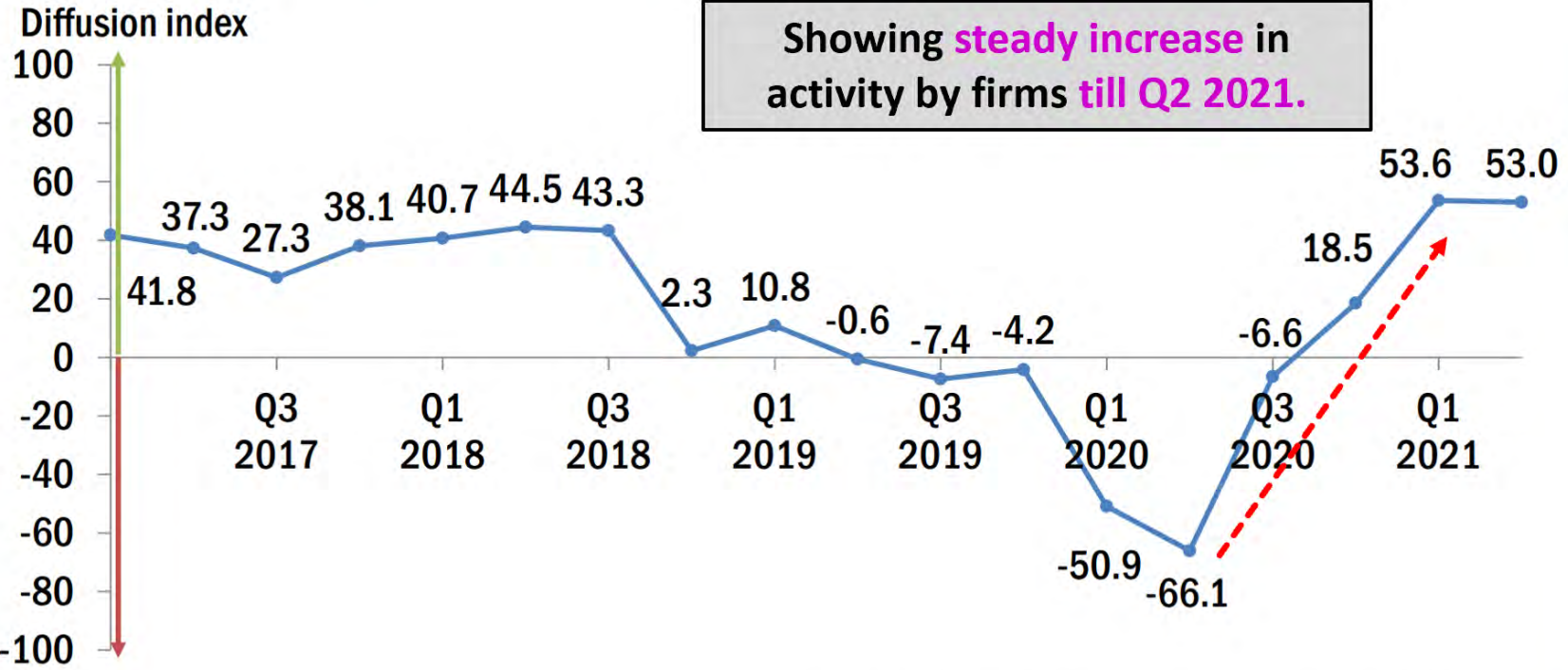


Federal Reserve Bank of Dallas

NOTES: Line shows the mean, and bars show the range of responses. 92 E&P firms answered this question from March 10-18, 2021. SOURCE: Federal Reserve Bank of Dallas.

Firms Showing Fairly Solid Business Activity

In the current quarter vs. the prior quarter: has your firm's level of business activity increased, not changed or decreased?

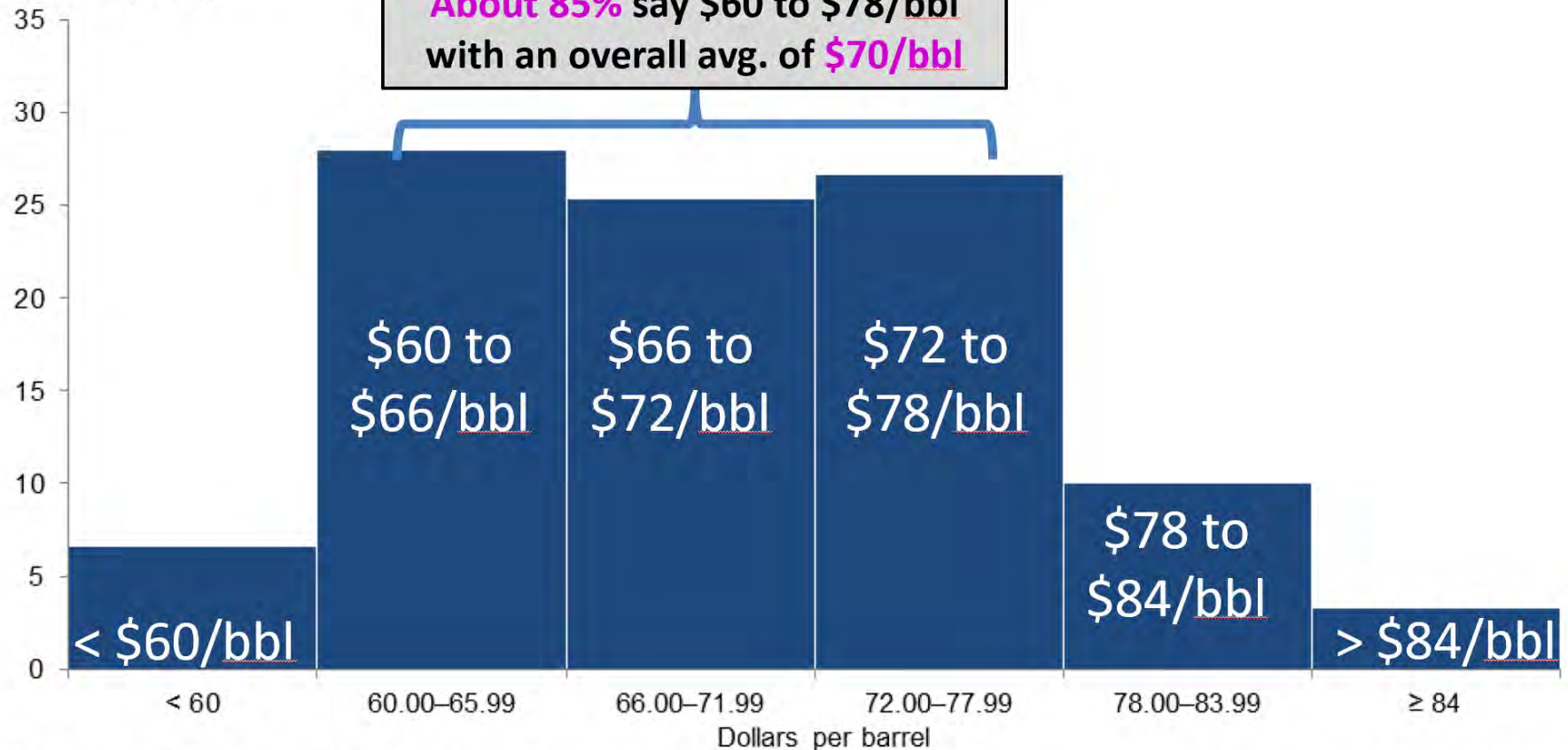


NOTES: Index is the percentage of firms reporting an increase in activity since the prior quarter minus the percentage reporting a decrease. Positive values reflect expansion in oil and gas activity, negative values reflect contraction and zero reflects no change since last quarter. SOURCE: Federal Reserve Bank of Dallas.

Crude Price Forecast For Year-end 2021

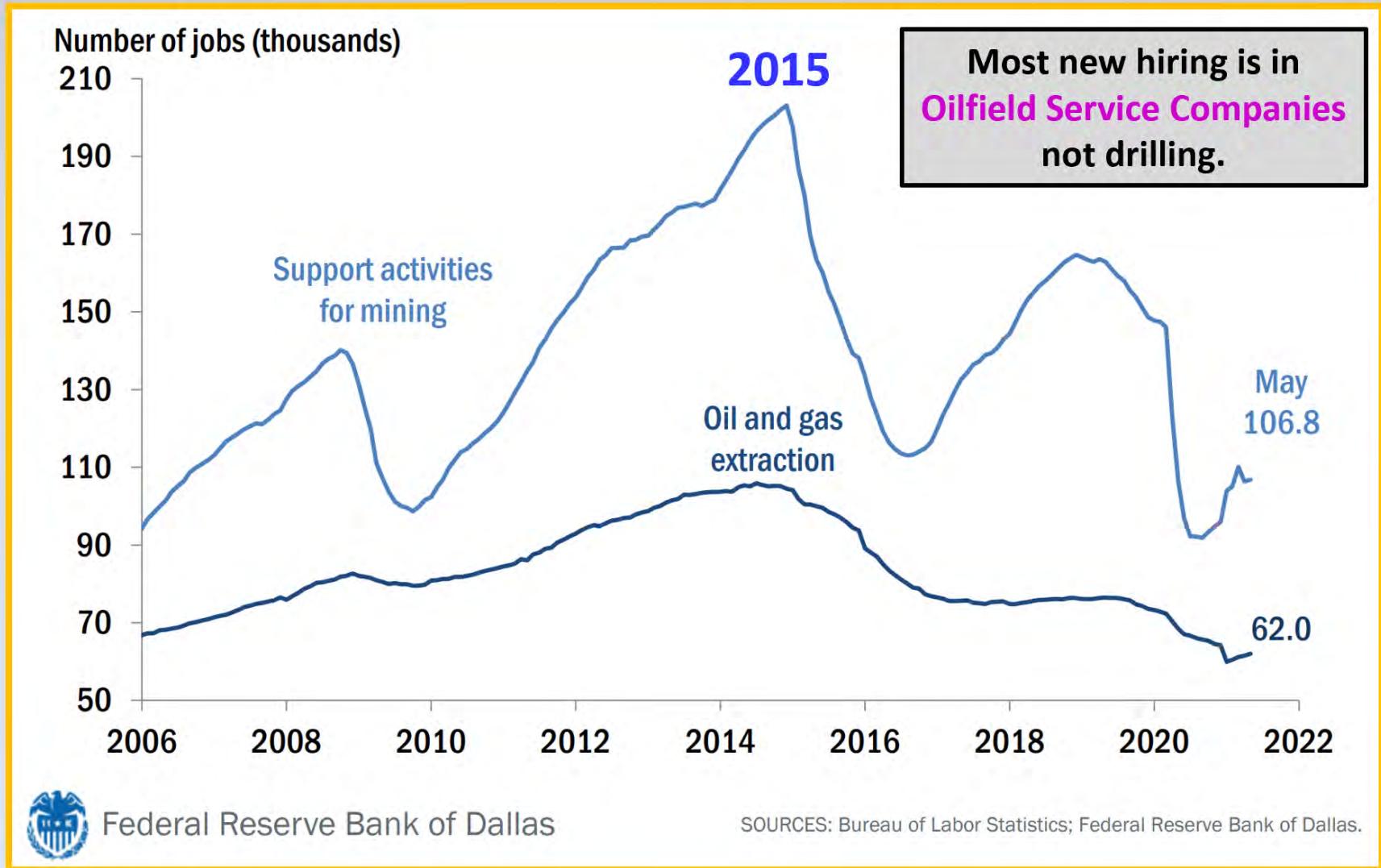
What do you expect the WTI crude oil price to be at the end of 2021?

Percent reporting



NOTES: Executives from 150 oil and gas firms answered this question during the survey collection period, June 9–17, 2021. For reference, WTI (West Texas Intermediate) spot prices averaged \$71.05 per barrel during the period.
SOURCES: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

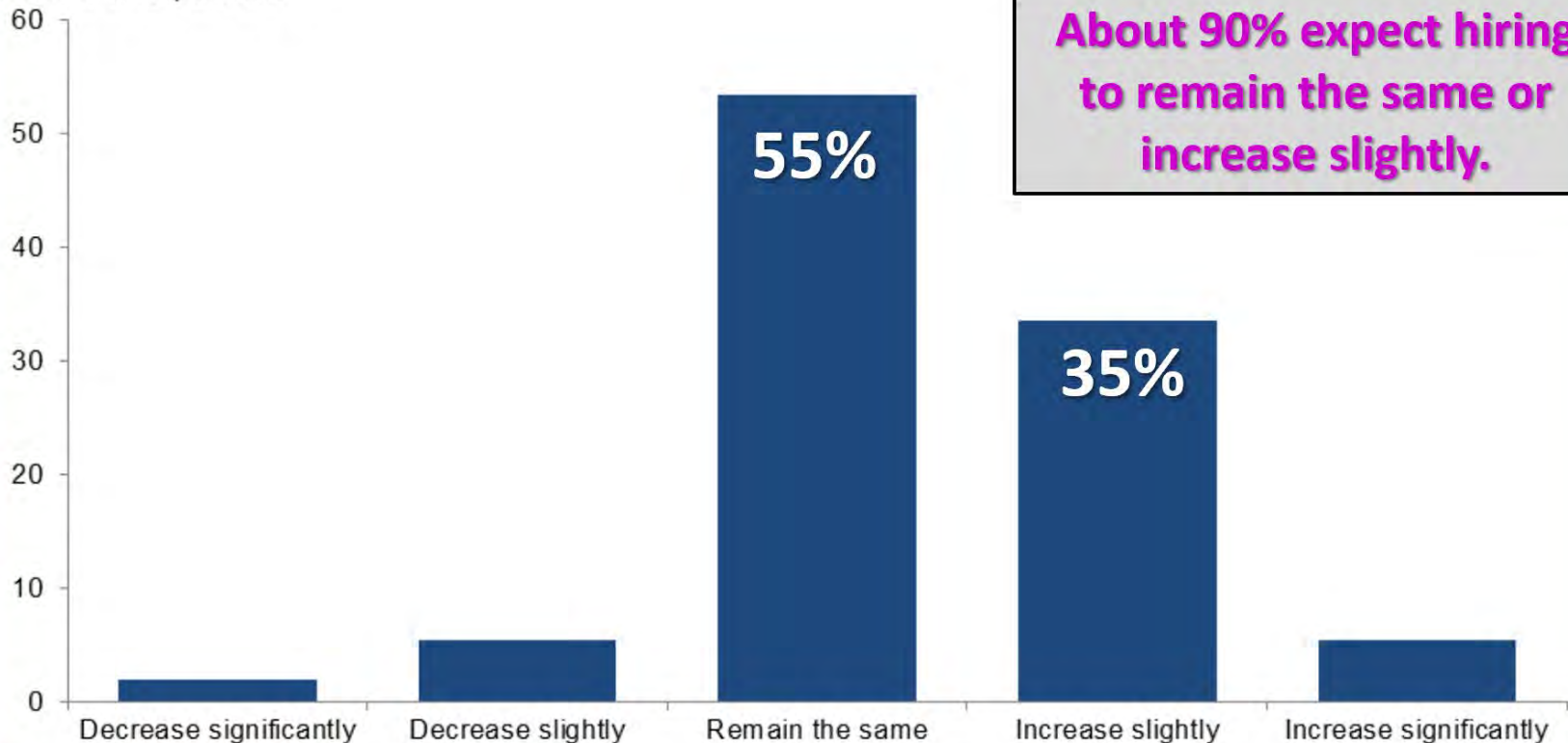
Mining & Logging Employment is Still Nowhere Near 2015 Peak Levels



O&G Executives Predicting Little, If Any, New Hiring Throughout This Year

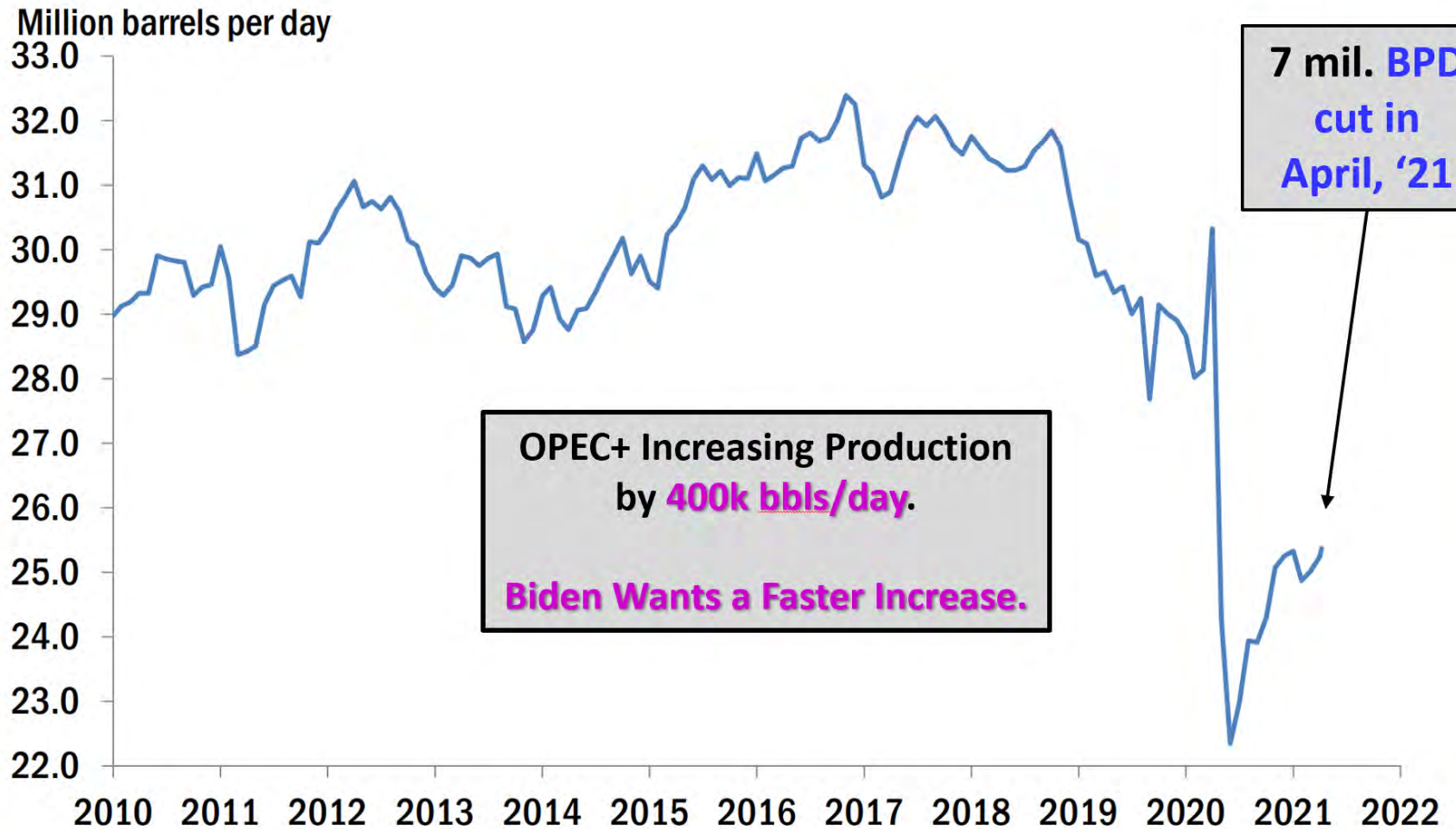
How do you expect the number of employees at your company to change from December 2020 to December 2021?

Percent of respondents



NOTE: Executives from 146 oil and gas firms answered this question during the survey collection period, March 10–18, 2021.
SOURCE: Federal Reserve Bank of Dallas.

The Problem for U.S. Firms: OPEC Crude Production Cuts For Covid Are Being Reversed



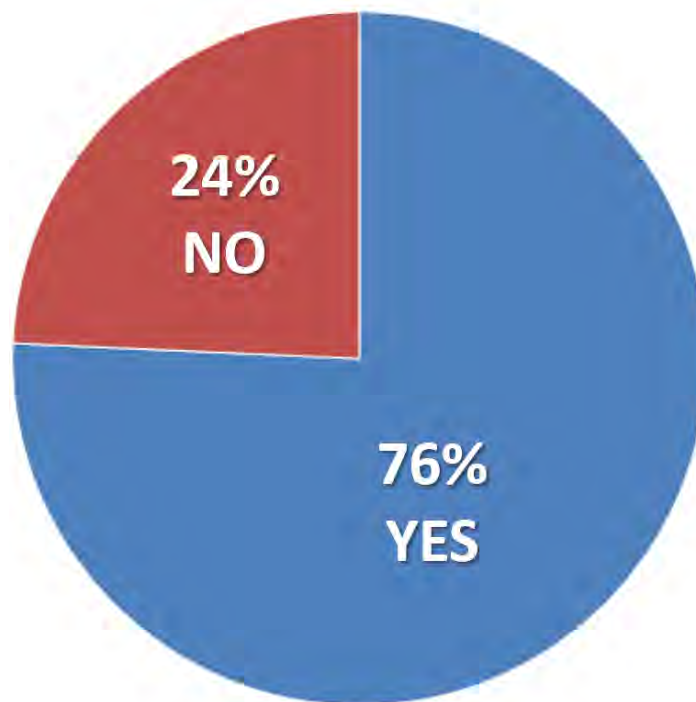
Federal Reserve Bank of Dallas

NOTES: OPEC is the Organization of the Petroleum Exporting Countries. Dashed line represents a forecast.
SOURCE: Energy Information Administration.

Still, Most O&G Firms Believe a Global Crude Supply Shortage Is Coming

Do you believe there will be a global crude oil supply gap in the next two to four years?

Seventy-six percent of executives said they believe there will be a global crude oil supply gap in the next two to four years.



NOTE: Executives from 140 oil and gas firms answered this question during the survey collection period, June 9–17, 2021.
SOURCE: Federal Reserve Bank of Dallas.

Conclusions

U.S. Economy is a Mixed Bag

- **Virus** has been under control. (But, **Delta variant** is picking up & could slow the recovery.)
- Lots of **job openings**. (but co's finding them hard to fill.)
- Consumer & business **spending and confidence** are up. (But **savings have dropped**. Savings aren't endless.)
- **Inflation** is a more pressing concern every day. (**Federal Reserve action can cool demand** but do nothing to alleviate supply bottlenecks.)
- **Federal Govt. passing \$1Tril. Infrastructure bill** helps. (But only if it's **spent wisely** to improve productivity.)

Texas Economic Outlook

- Dallas Federal Reserve predicting **4.2% job growth for 2021**, which is pretty strong. (Texas has generally outperformed most other states for some time.)
- Employment continues to recover in 2021, probably returning to **pre-pandemic levels by end of this year**. (But, we can be impacted by the same caveats on the previous slide.)

Texas Energy Outlook

- Oil and natural gas demand should keep increasing throughout 2021 as the global and U.S. economies rebound from the pandemic.
- However, prices in the \$60's will not be enough to create significant employment gains in the sector.
- In addition, the administration's Green New Deal could be a major headwind for the industry (if it passes).

What To Watch

Impactful things to monitor:

- Continued **supply chain disruptions & material shortages**. (How long to work these out?)
- **Fed action** to begin tapering Treasury & MBS purchases. (Guess for the taper start went from early 2023 to late this fall.)
- Passage of **Biden's next \$3.5 trillion spending bill**. (Could put a lot more pressure on inflation.)
- **Covid cases**. (Impact of Delta currently a wildcard.)

Thank You

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make the best
real estate decisions
since 1971.

A lot has changed since 1971. Our mission hasn't.