



ECONOMIC
LEADERSHIP

Trends and Future Work

Place Comparisons
Data Analytics

Best Practices

Strategic Plans

C O COUNCIL OF
S C STATE CHAMBERS
National Economic Advisor

INNOVATIVE PRACTICES IN WORKFORCE DEVELOPMENT

CONFERENCE BRIEFING RESEARCH

Prepared for The Home of Future Thinking Conference and the Danville Regional Foundation

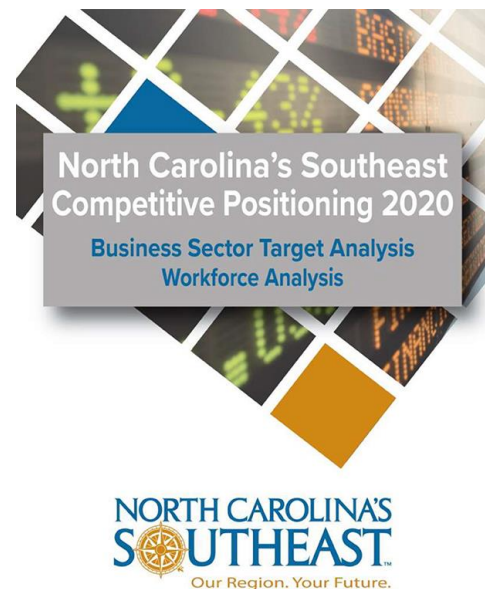


ECONOMIC
LEADERSHIP

NOVEMBER 2018



The Challenge to Compete
Kansas Workforce 2020



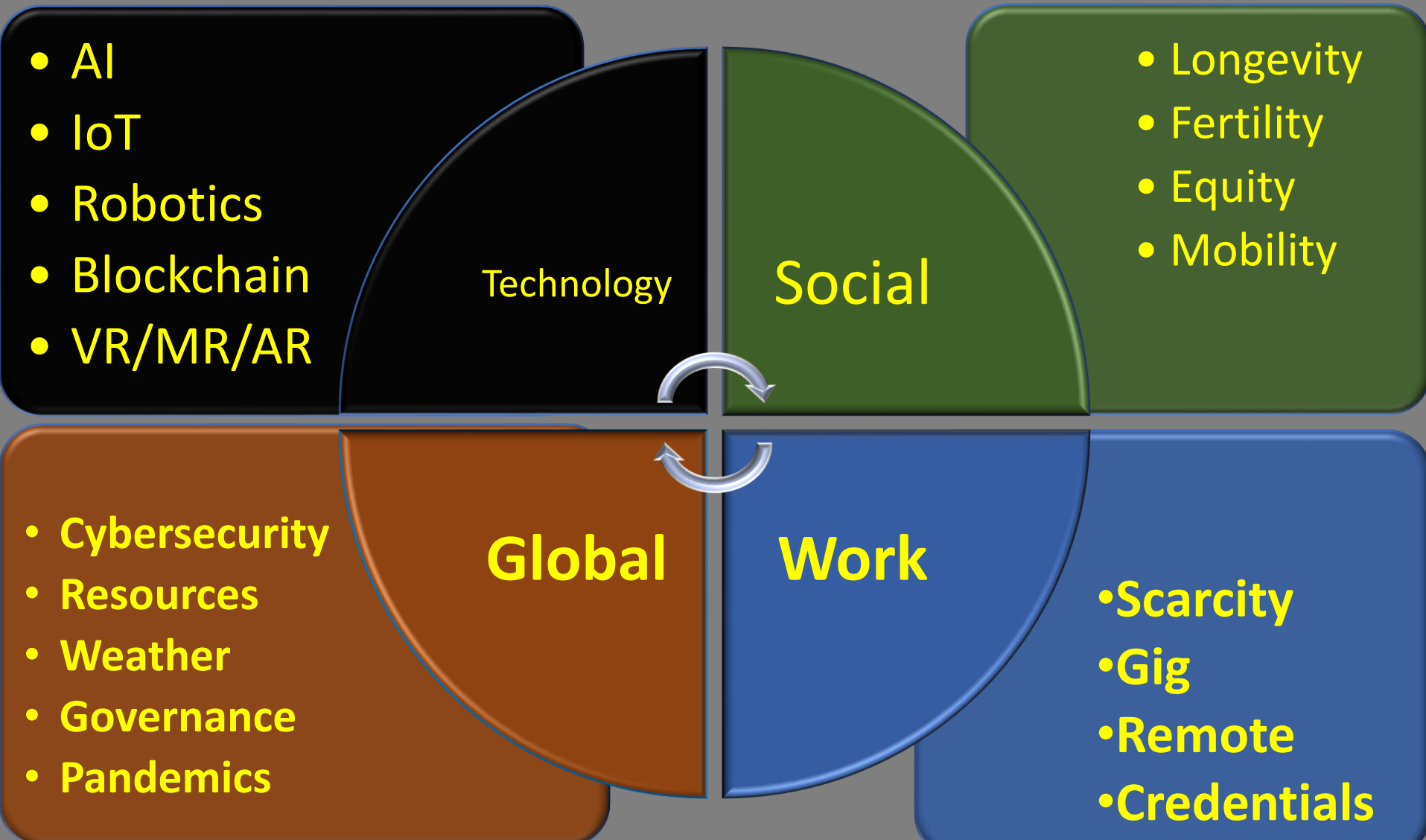
North Carolina's Southeast
Competitive Positioning 2020

Business Sector Target Analysis
Workforce Analysis



ECONOMIC
LEADERSHIP

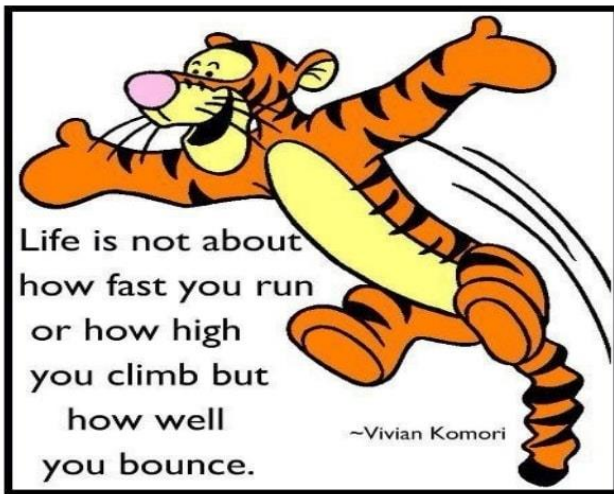
2019 Complexity, Disruption & Acceleration!





Is there anyone with us today that thinks you, your community, or your company will have less disruption, the pace of change will get slower, or we will have less information complexity going forward?



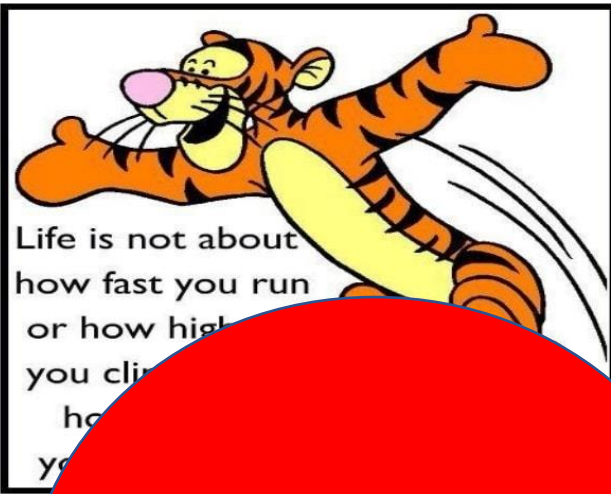


Economic Developer's Resiliency Test

- 3 points if you have ever been fired
- 3 points if you have gone down w/ship
- 3 points if your largest employer closed
- 2 points if your board chair ever tried to fire you (and failed)
- 2 points if your budget was ever cut by 25% or more
- 2 points if you have been part of a merger
- 2 points if have ever been interviewed by police
- 1 point if you have been named in an editorial (why didn't we get XXX)
- 1 point if someone at a public hearing has flat lied about what you said
- 1 point for each divorce
- 1 point for each major health crisis



Economic Developer's Resiliency Test



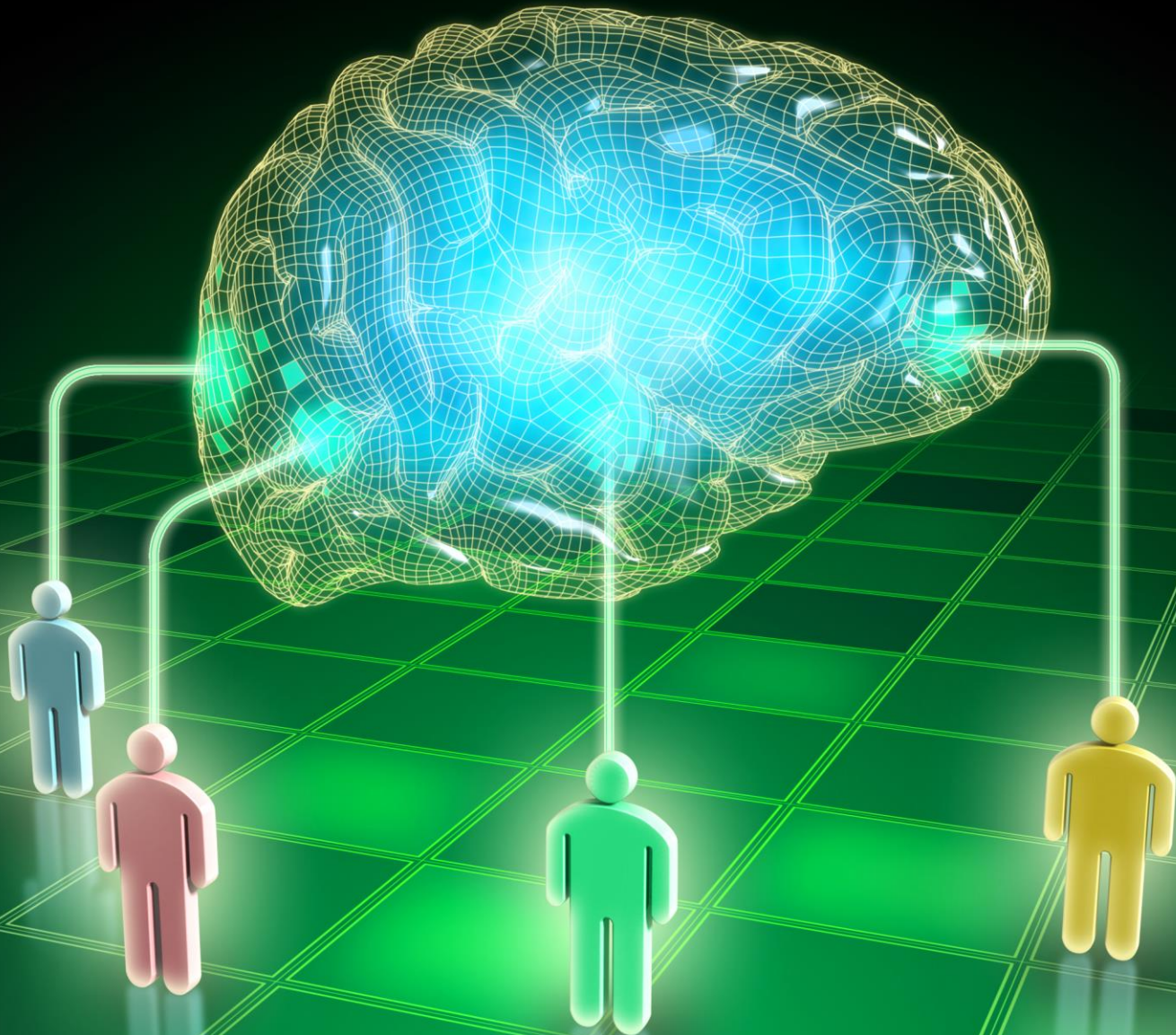
Anybody
beat a 21?

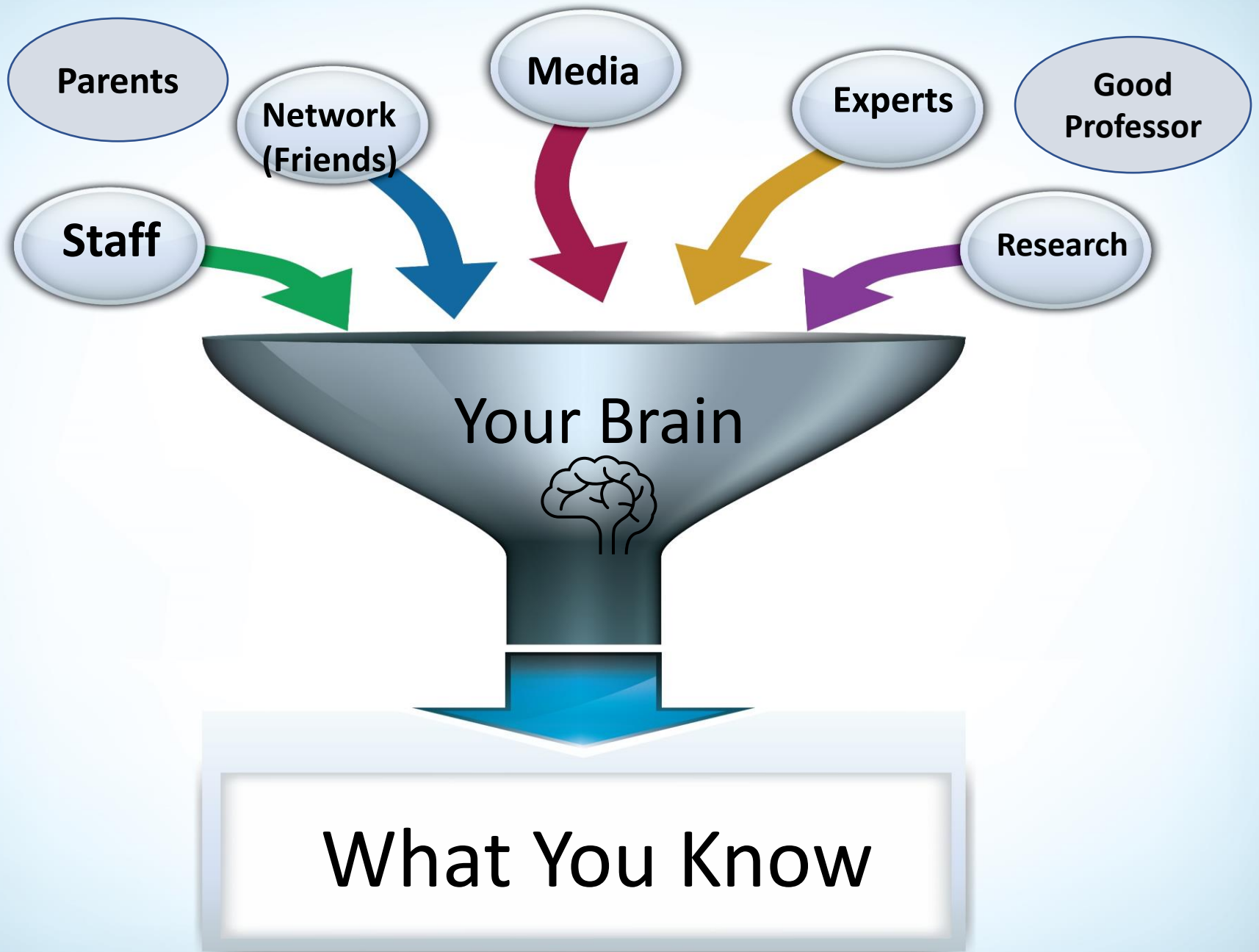


Leadership



We All Depend on Collective Intelligence

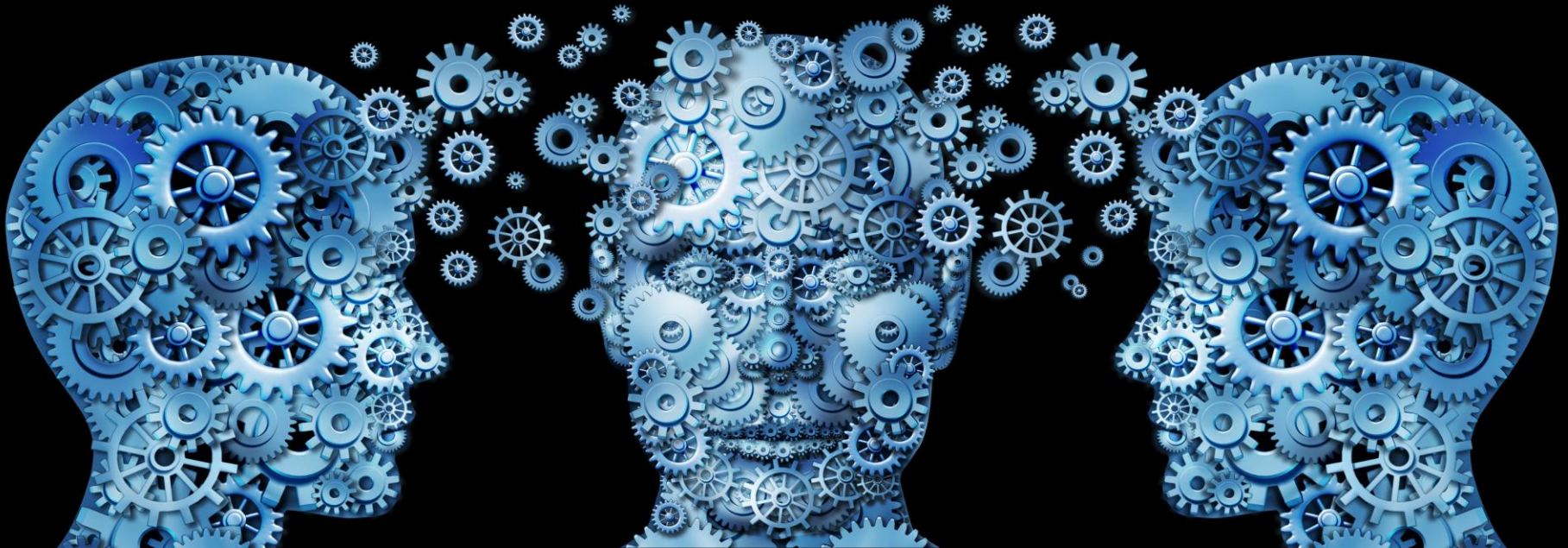





Collective Intelligence



Curated Information & Ideas



The image features a dense collection of incandescent light bulbs scattered across a dark, reflective surface. Most of the bulbs are unlit and appear as dark, matte spheres. In the center-left of the frame, one bulb is illuminated, casting a warm, yellow glow. This lit bulb is positioned directly beneath the text 'Thought Leader'. To the right of the lit bulb, the main title is written in a large, bold, yellow font.

**Build a stronger
personal network
of people whose
thinking you trust!**

**Thought
Leader**

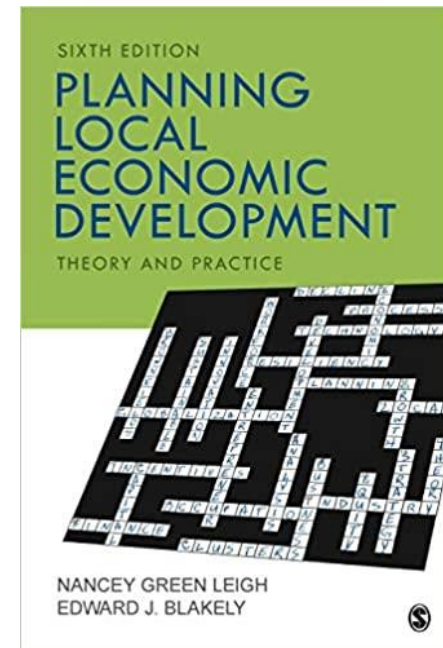
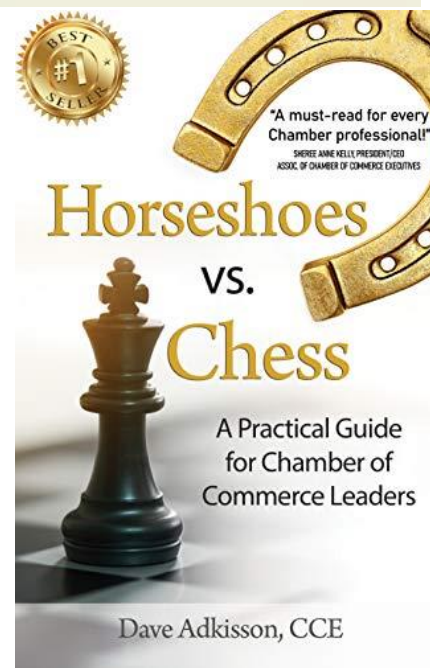
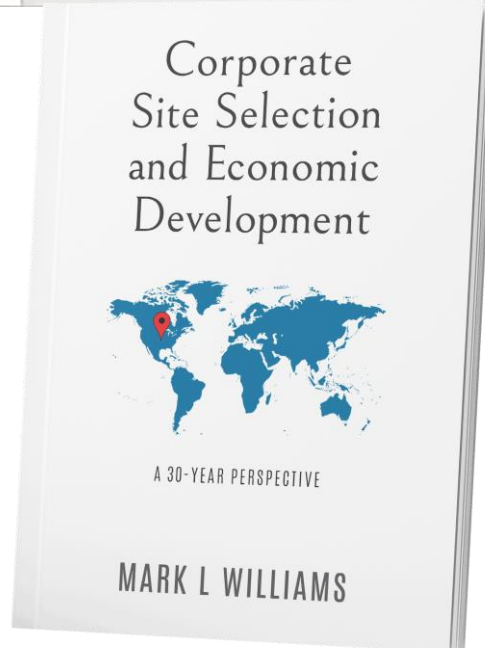
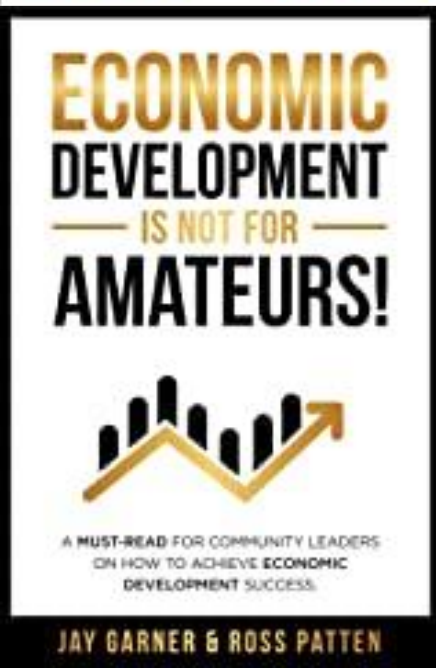
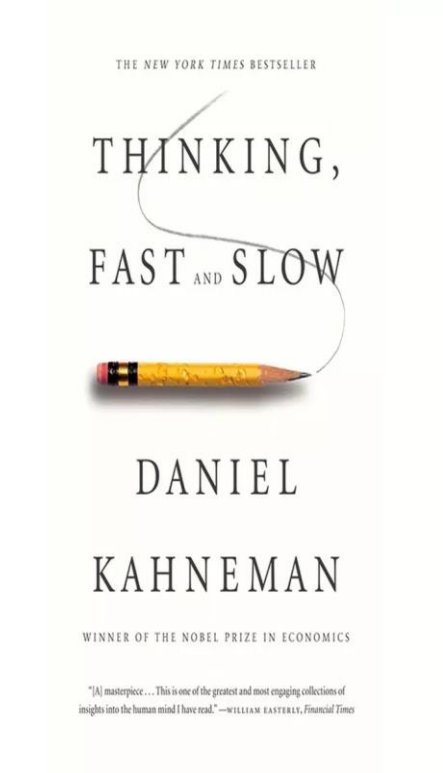
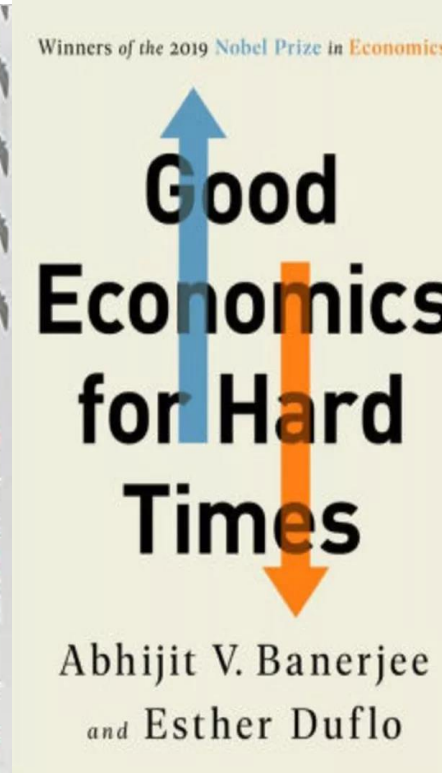
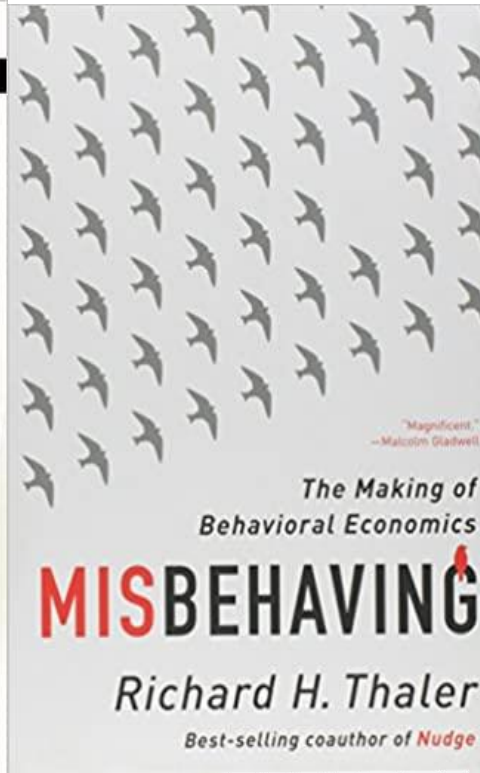
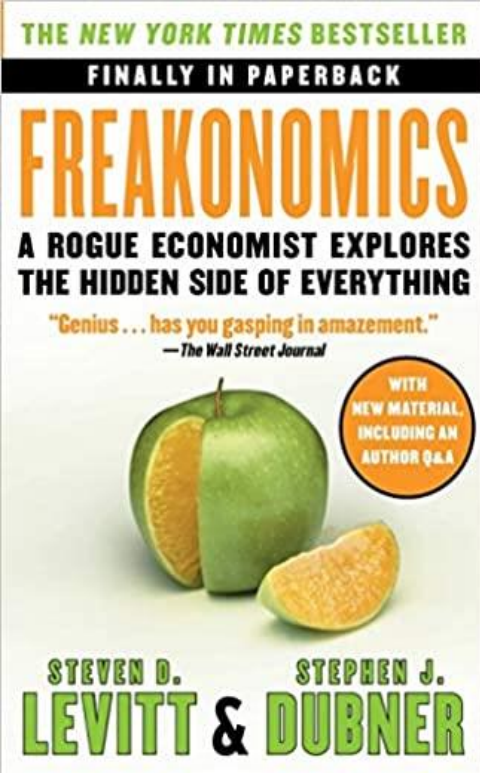


Read More and Read Widely
(incorporate as many sources as possible)

or woman

**"The man who does not
read, has no advantage over
the man who cannot read."**

~Mark Twain

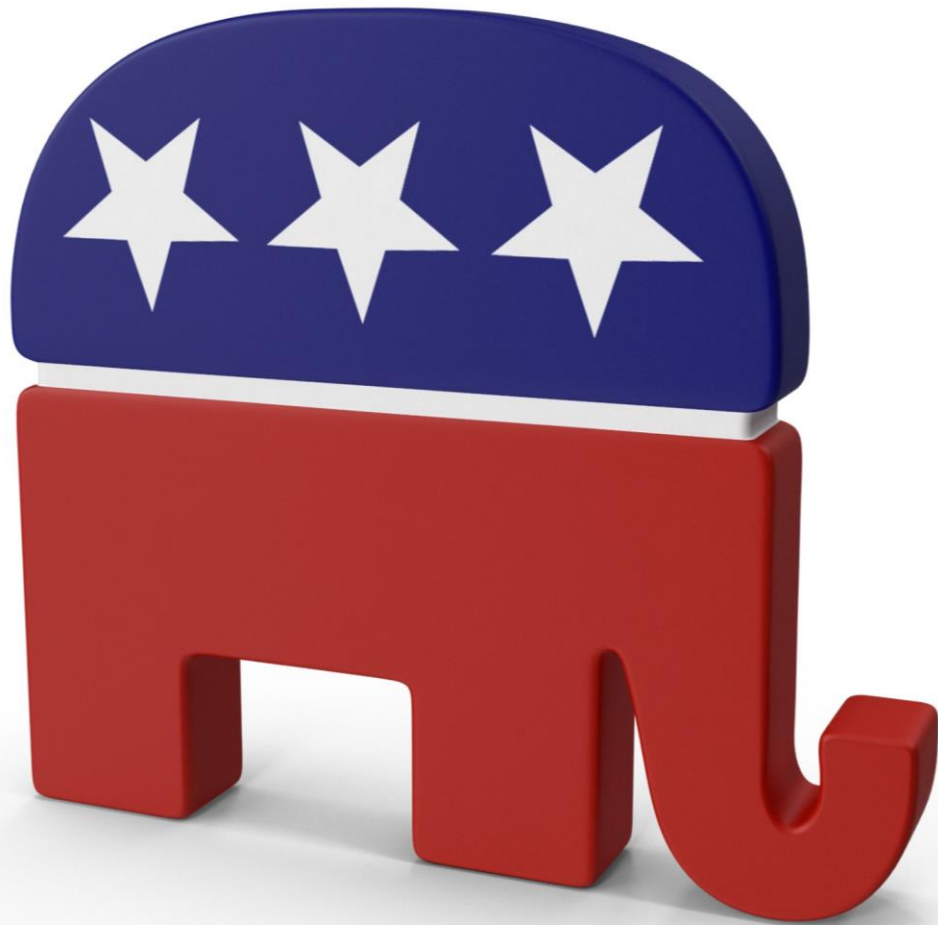


Be Aware of Your Own

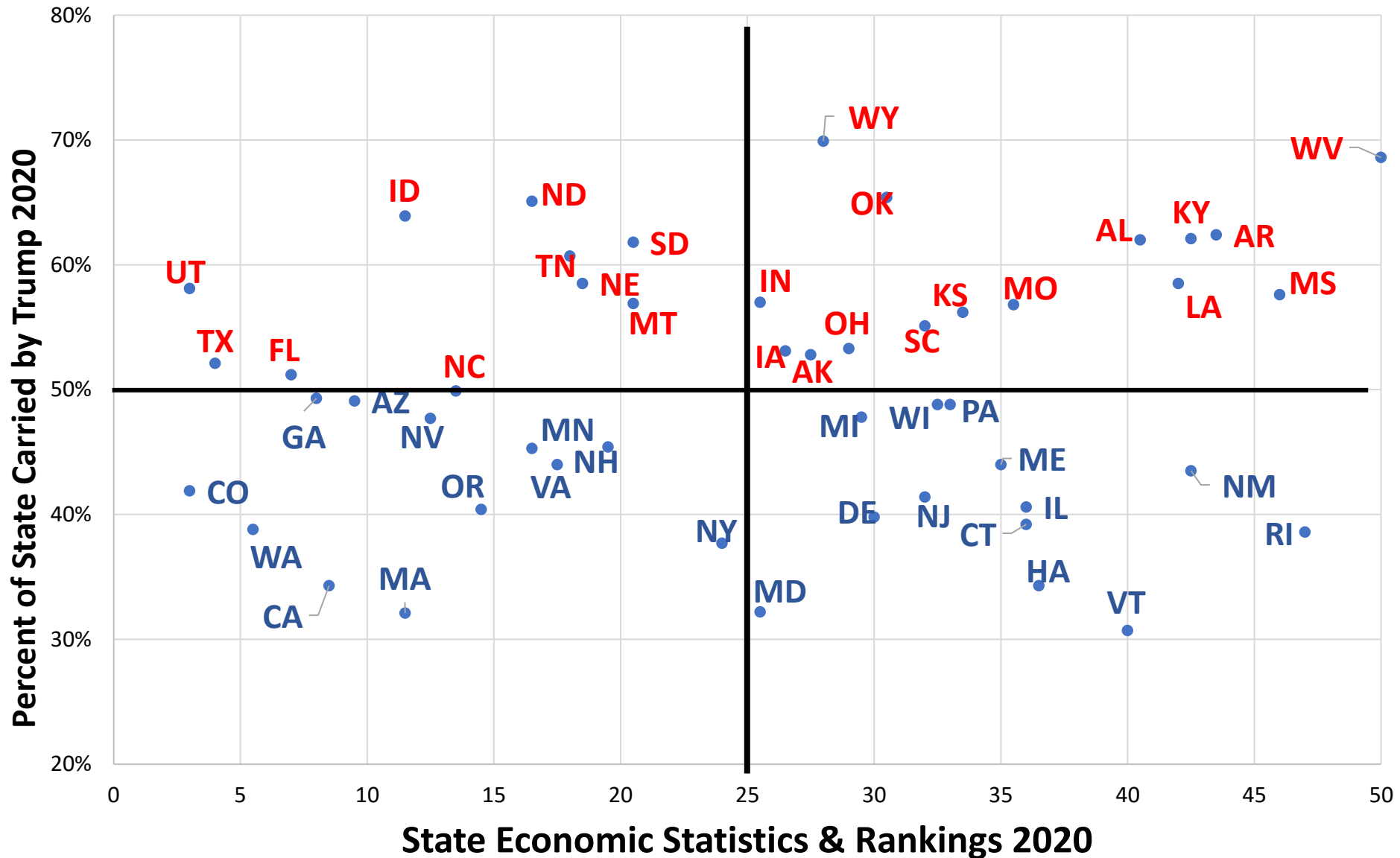


COGNITIVE BIAS

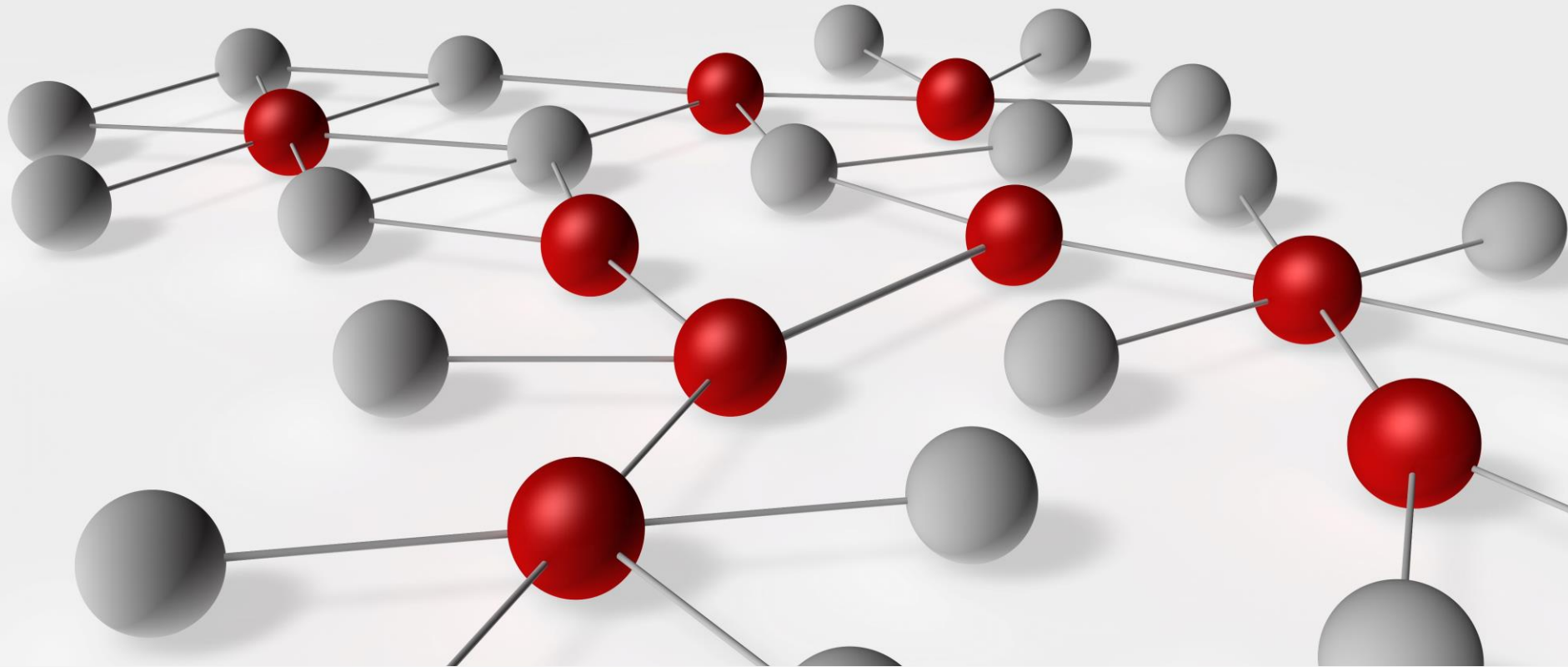
Confirmation
Bias



State Economic Rankings vs Election Results



Leadership



Strategically Connecting Disparate Data,
Information & Ideas into Thoughtful,
Impactful Action is **the Goal**

ECONOMY



USA Nonfarm Payroll Employment

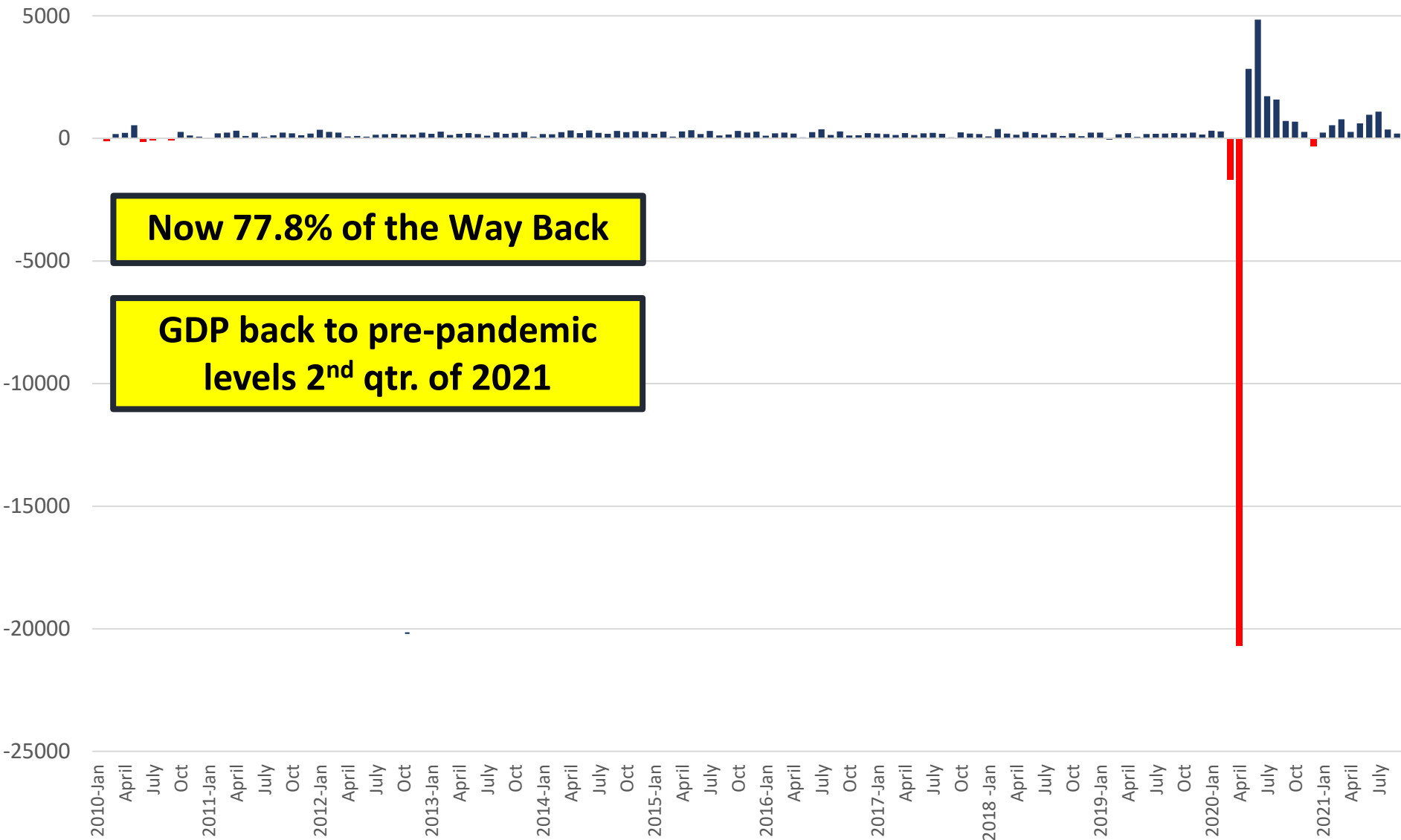
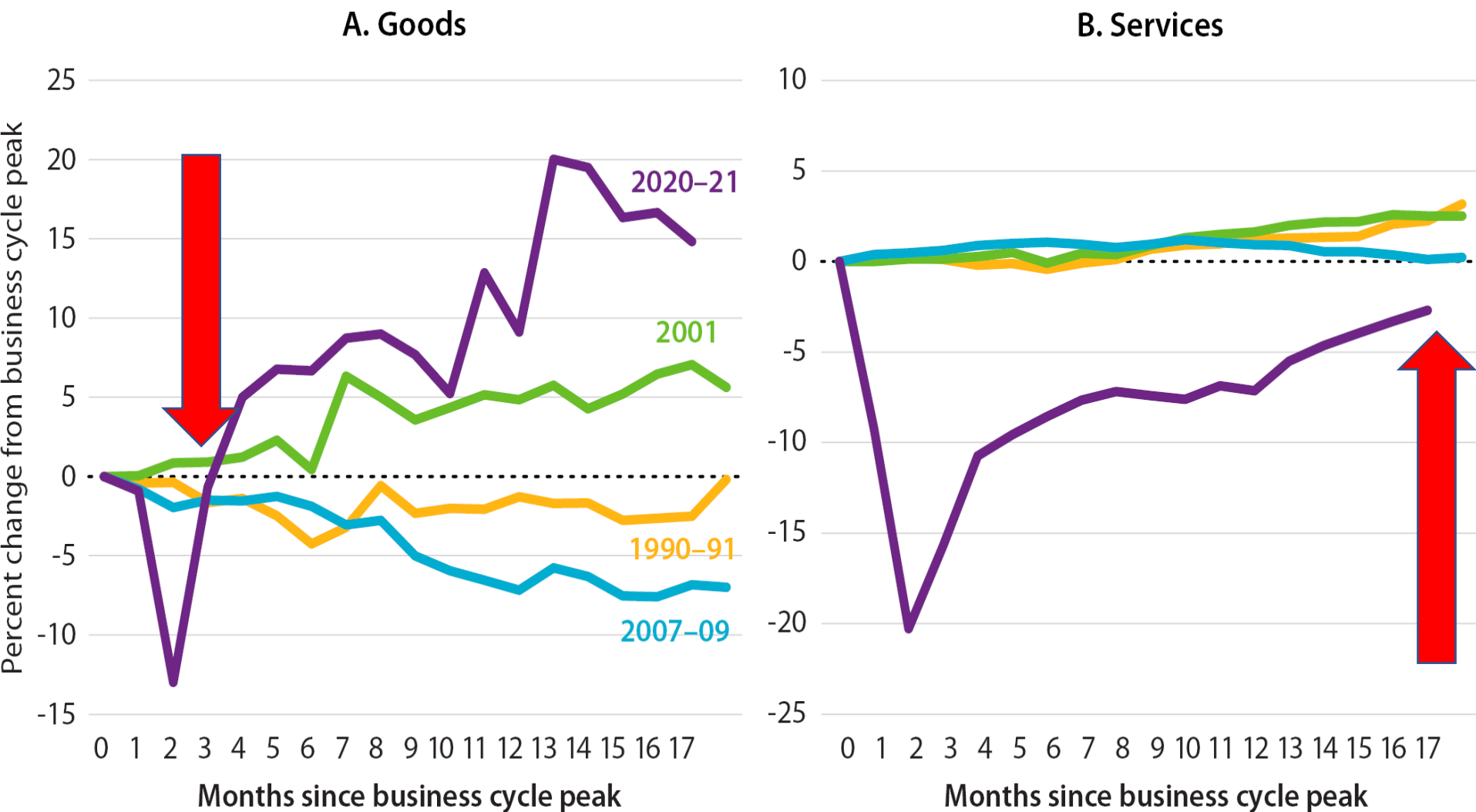


FIGURE 9.
Percent Change in Real Personal Consumption Expenditures from Business Cycle Peaks, 1990–2021

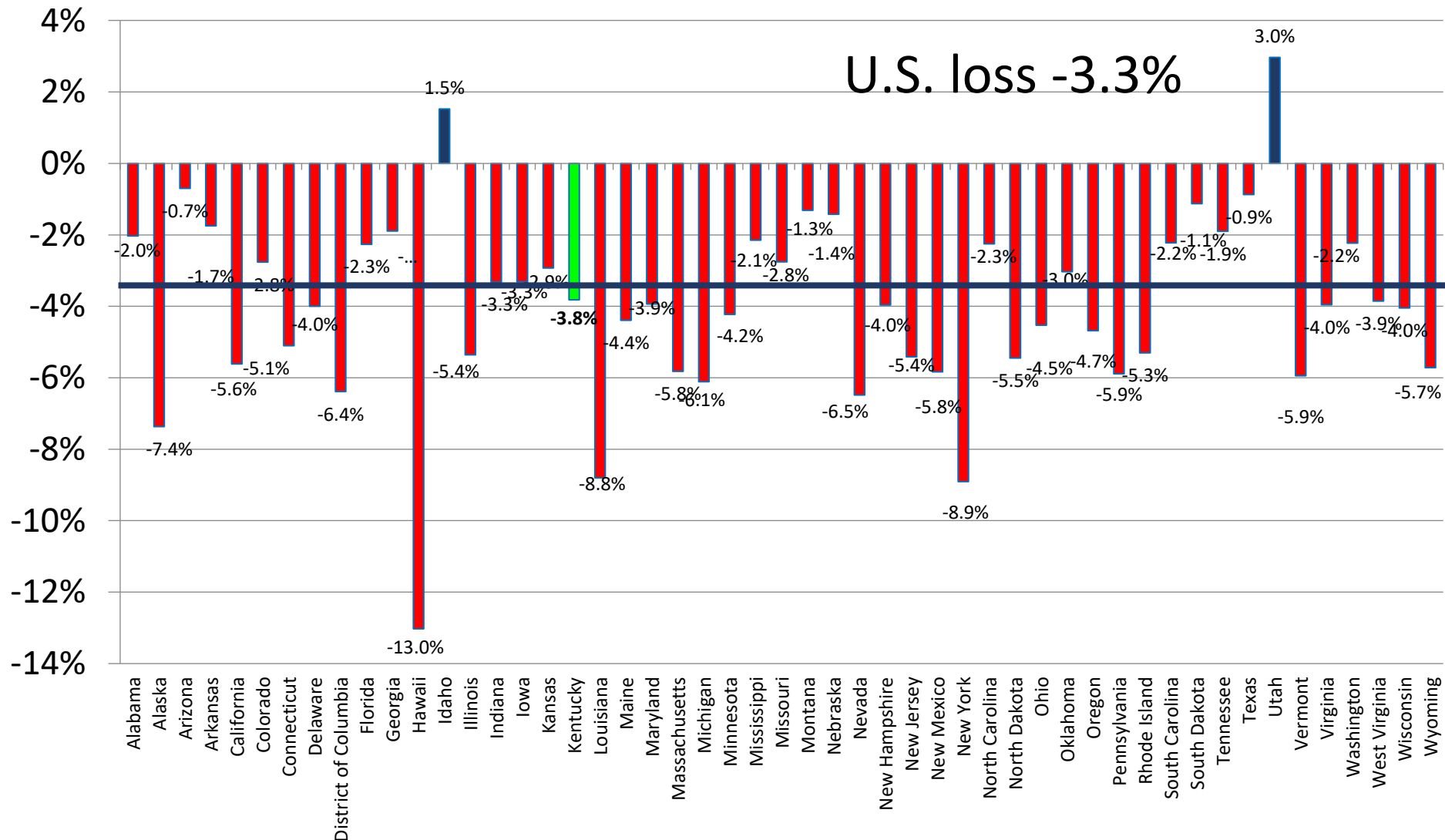


Source: Bureau of Economic Analysis 2021c; National Bureau of Economic Research n.d.; authors' calculations.

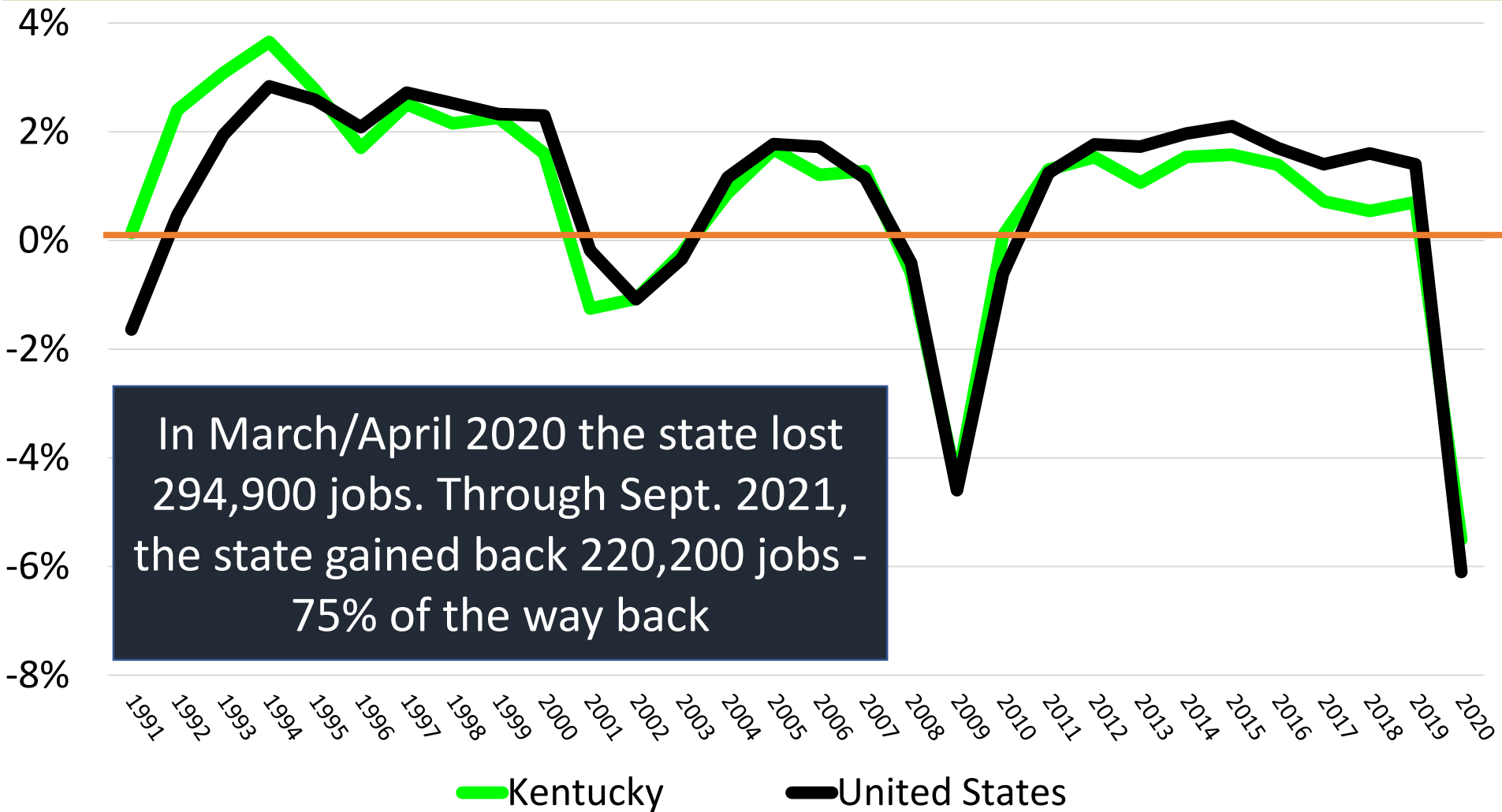
Note: Figure shows the percent change from the peak month of each business cycle in seasonally-adjusted real personal consumption expenditures.

All States Since Start of Covid

Total Non-Farm Employment Percentage Change Feb 2020 to Sept 2021

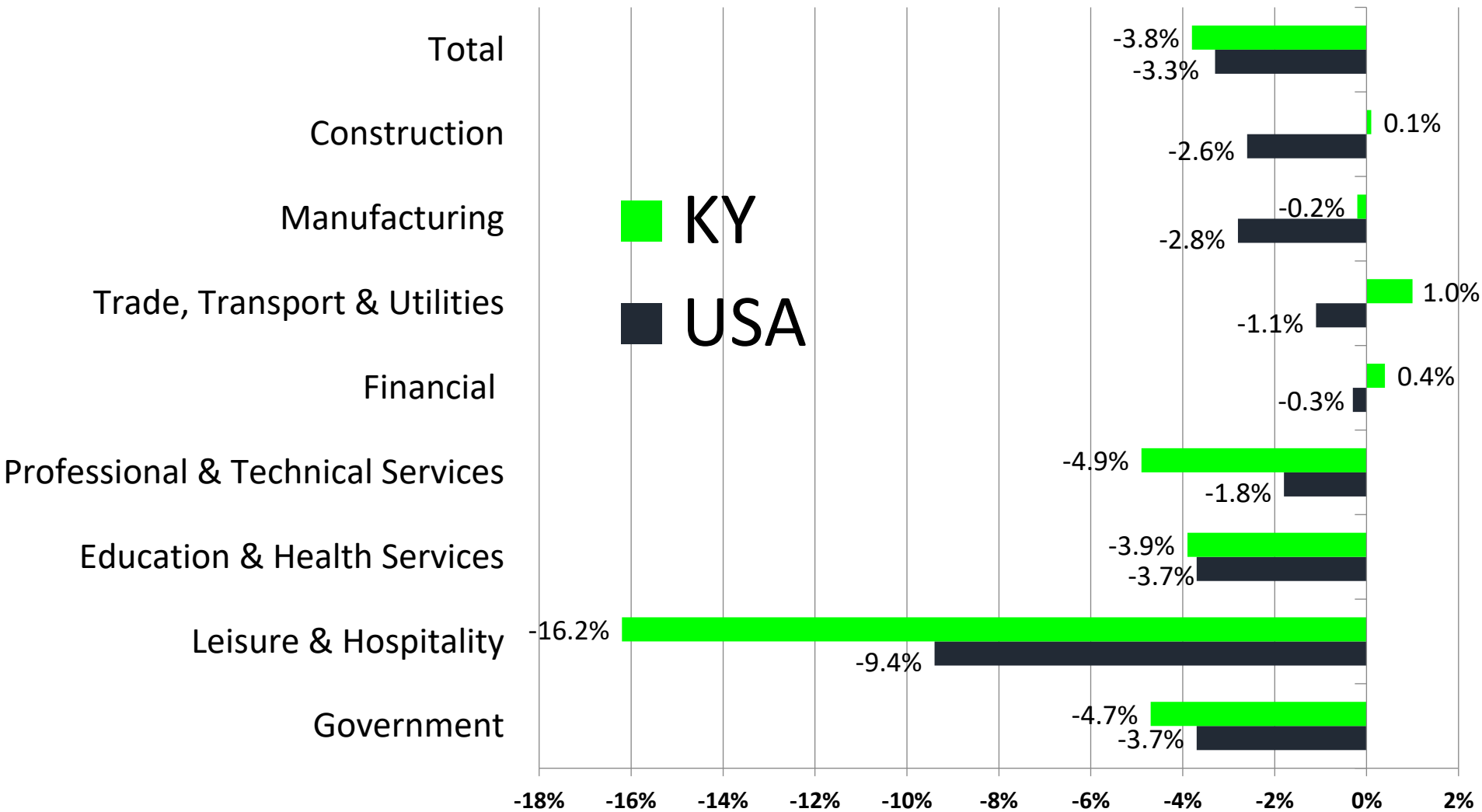


Kentucky Annual % Jobs Change 1990-2020



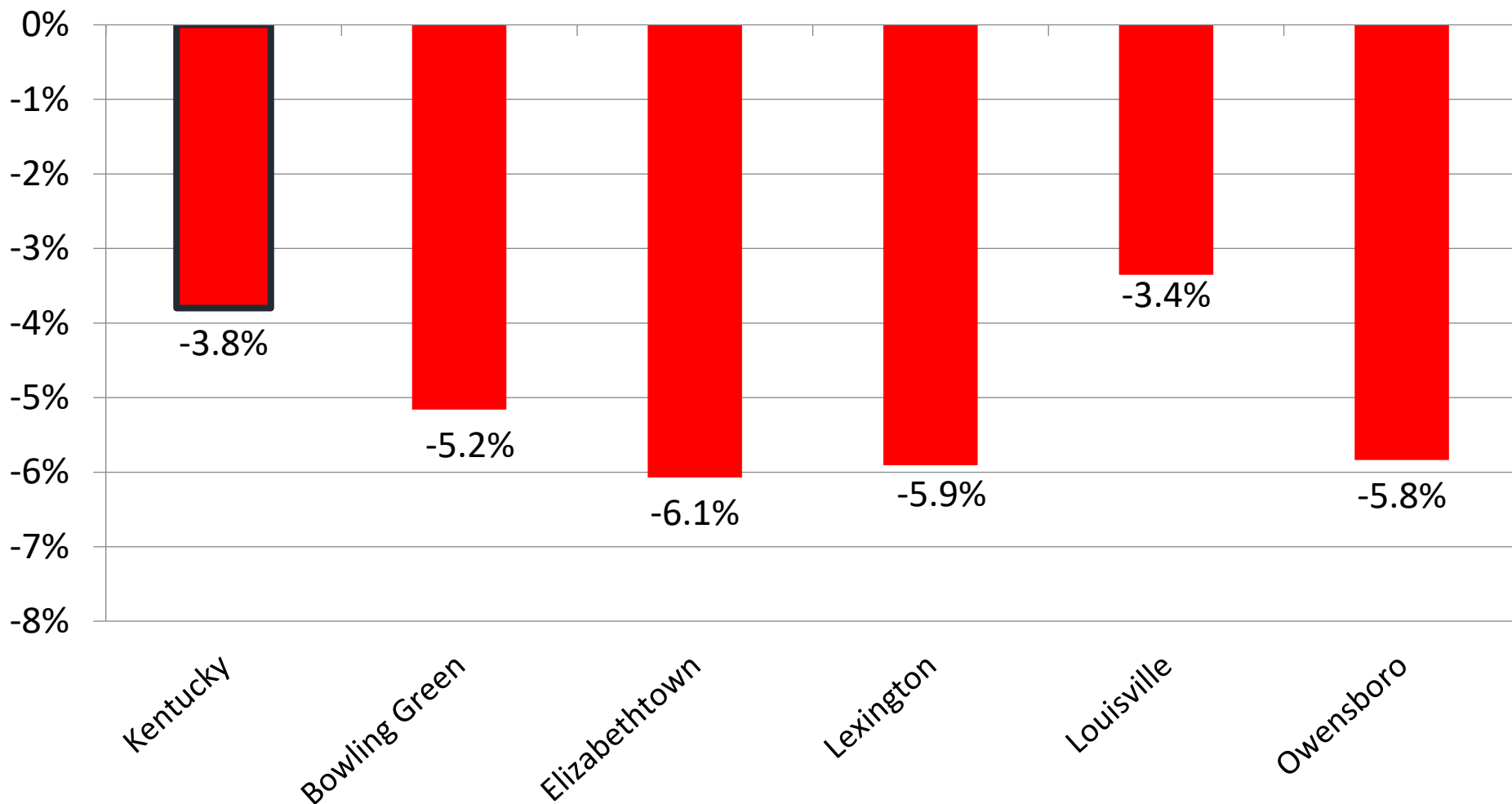
Employment Change by Sector for the US & KY

February 2020 – September 2021

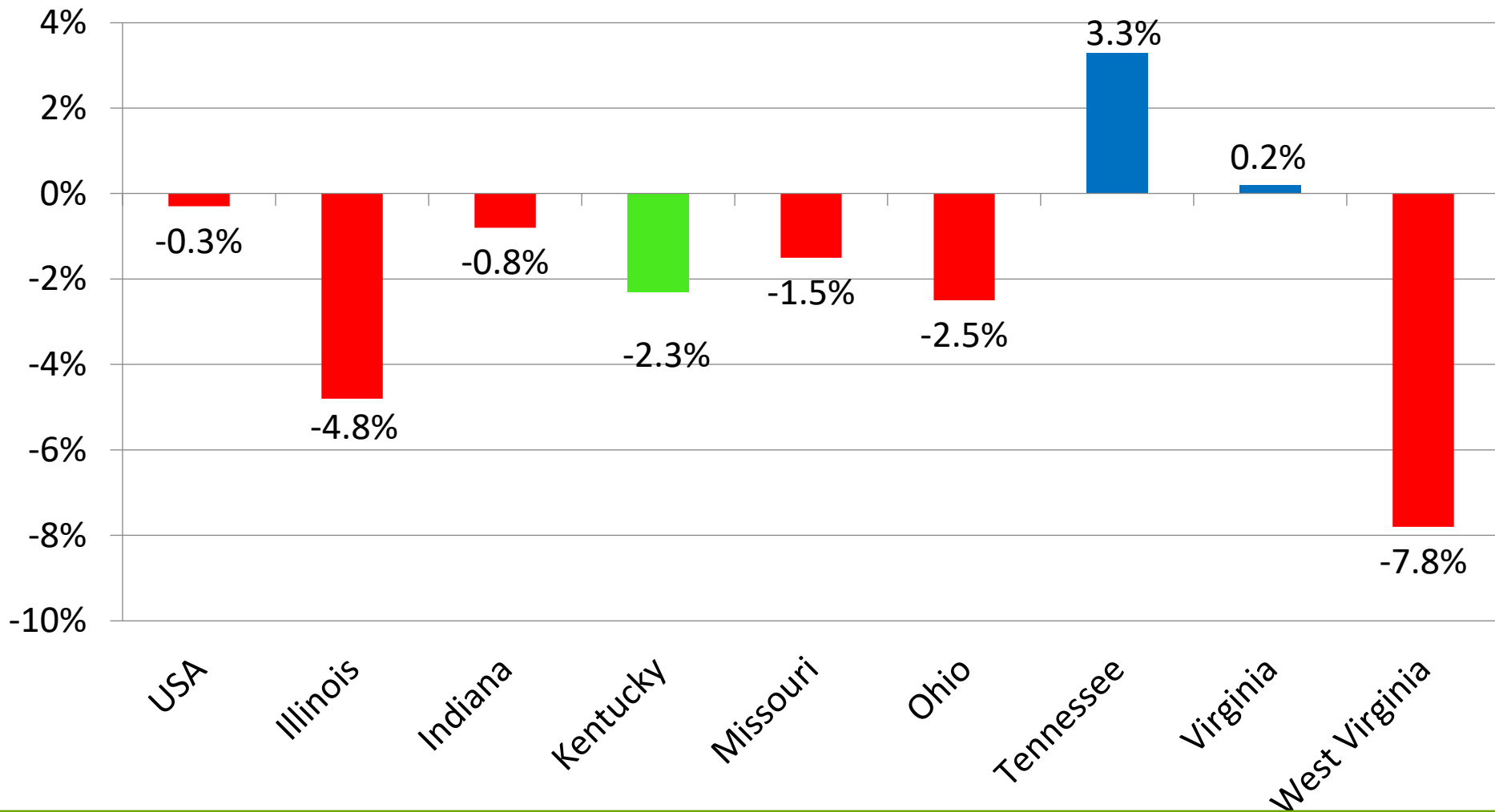


Kentucky Metros

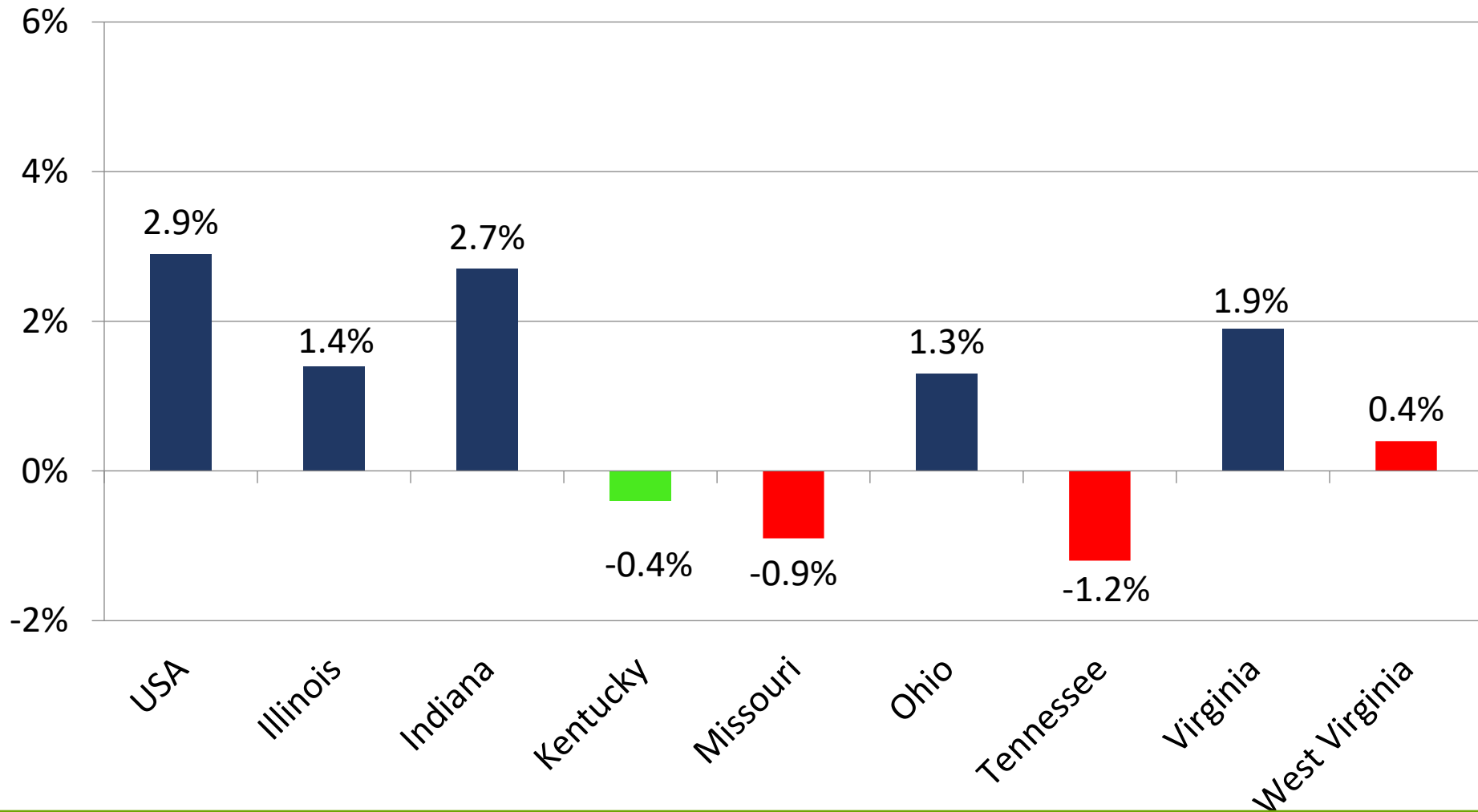
Non-Farm Employment February 2020 to Sept. 2021



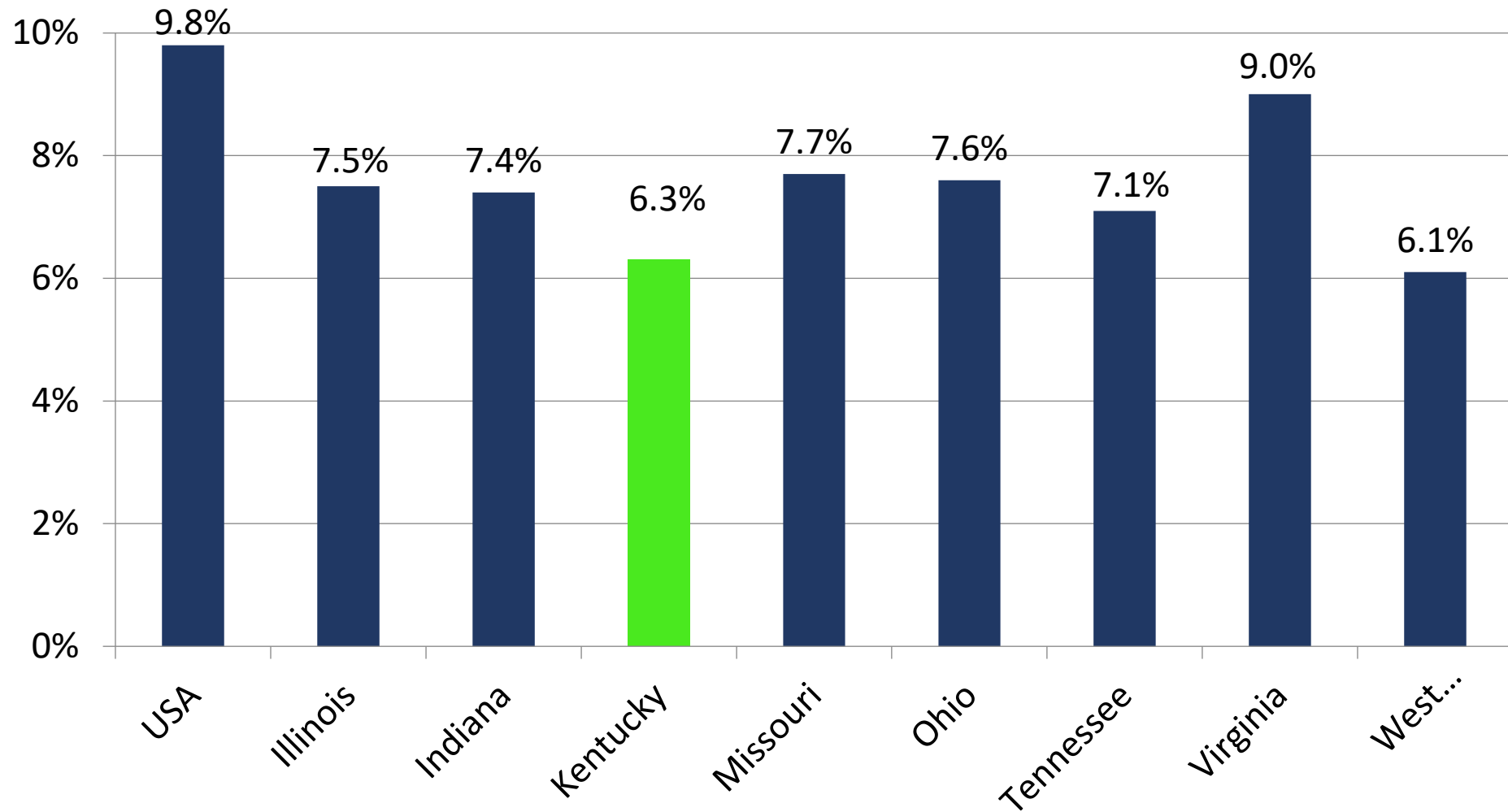
5 Year Percentage **Job** Growth Kentucky & Neighboring States 2015-2020



5 Year Percentage GDP per Capita Growth Kentucky & Neighboring States 2015-2020

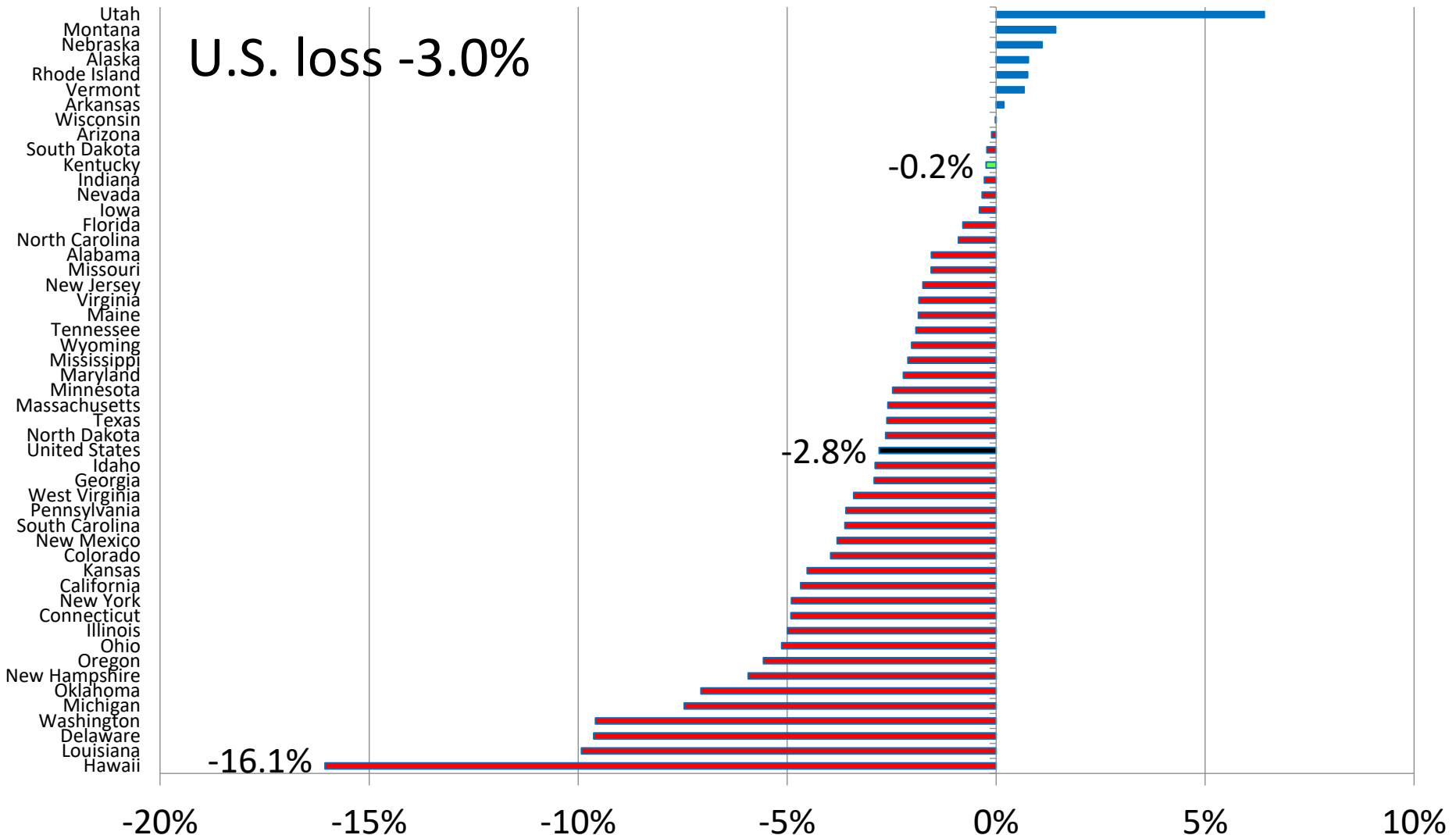


5 Year Percentage **Wage** Growth Kentucky & Neighboring States 2015-2020

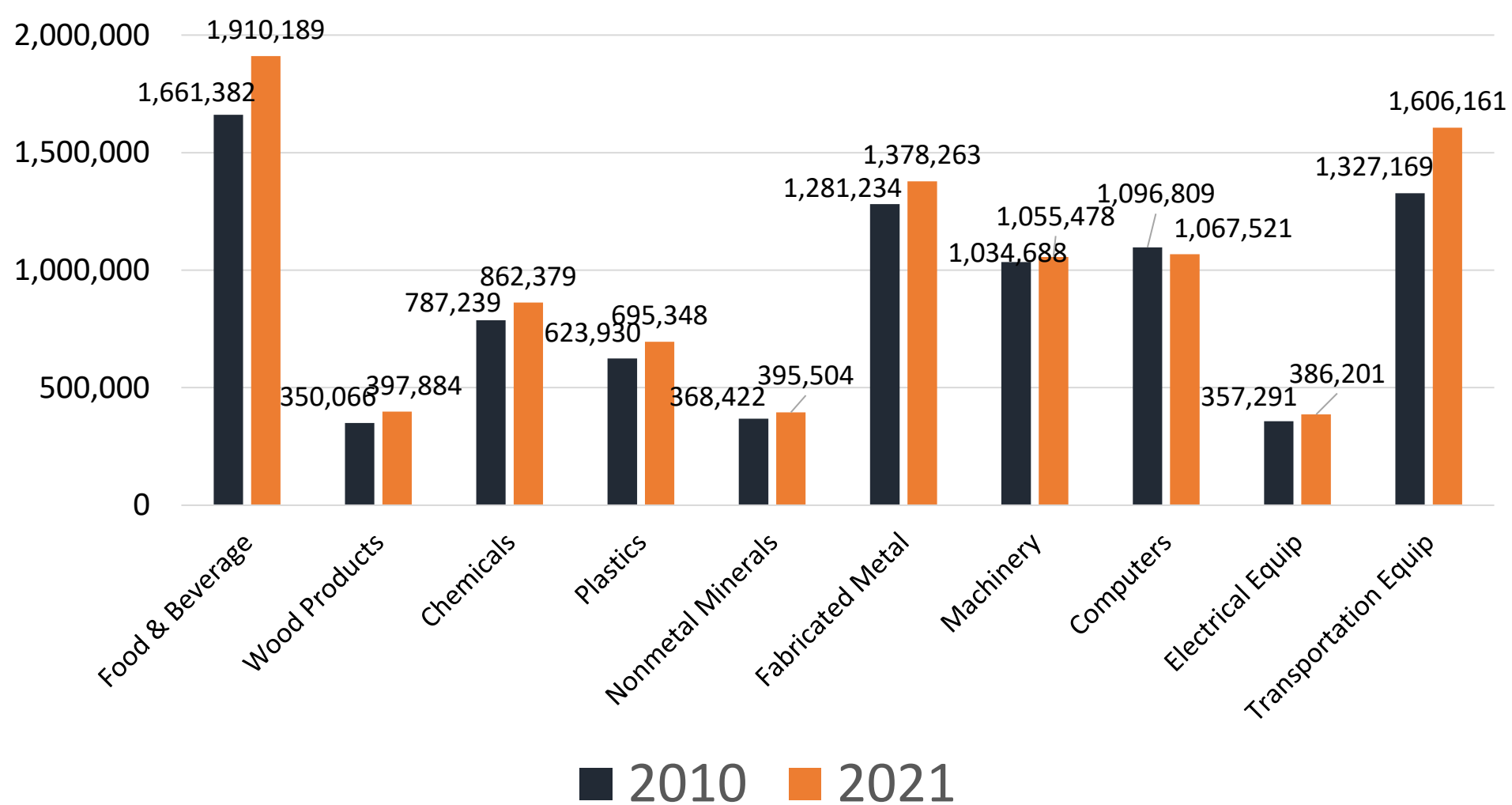


All States Since Start of Covid

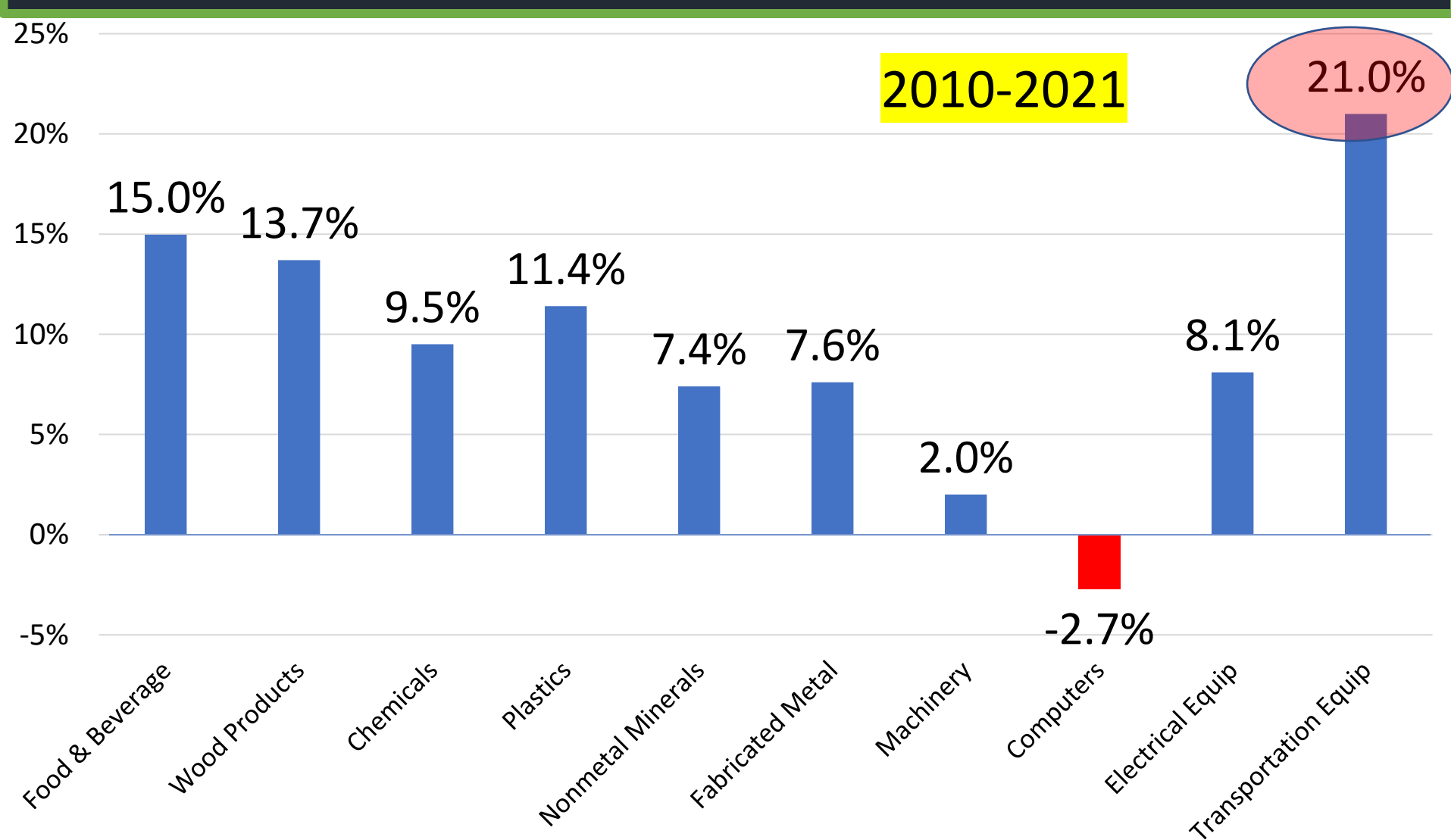
Total **Manufacturing** Employment Percentage **Change Feb 2020 - Sept 2021**



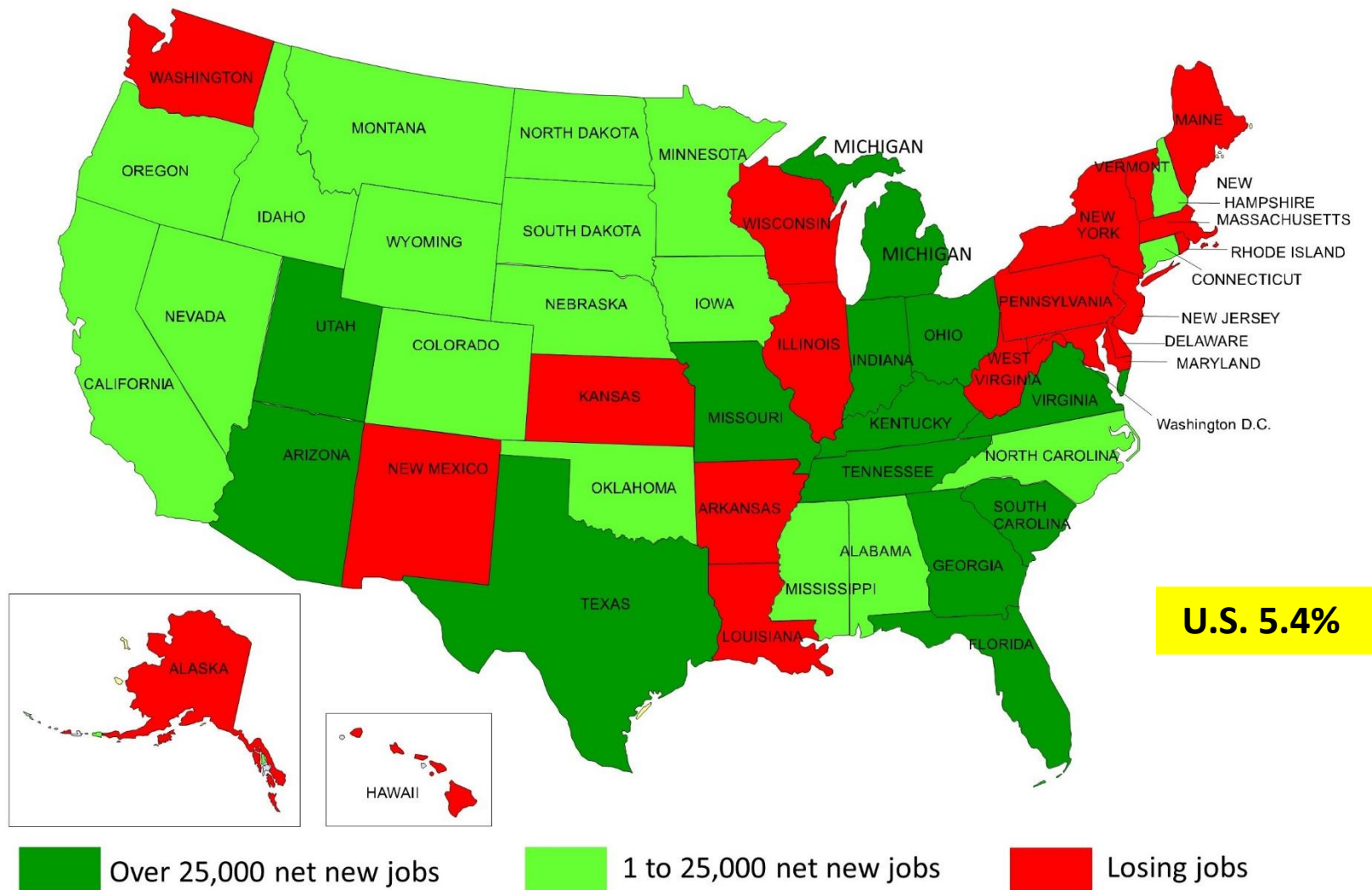
U.S. Manufacturing Jobs 2010 & 2021



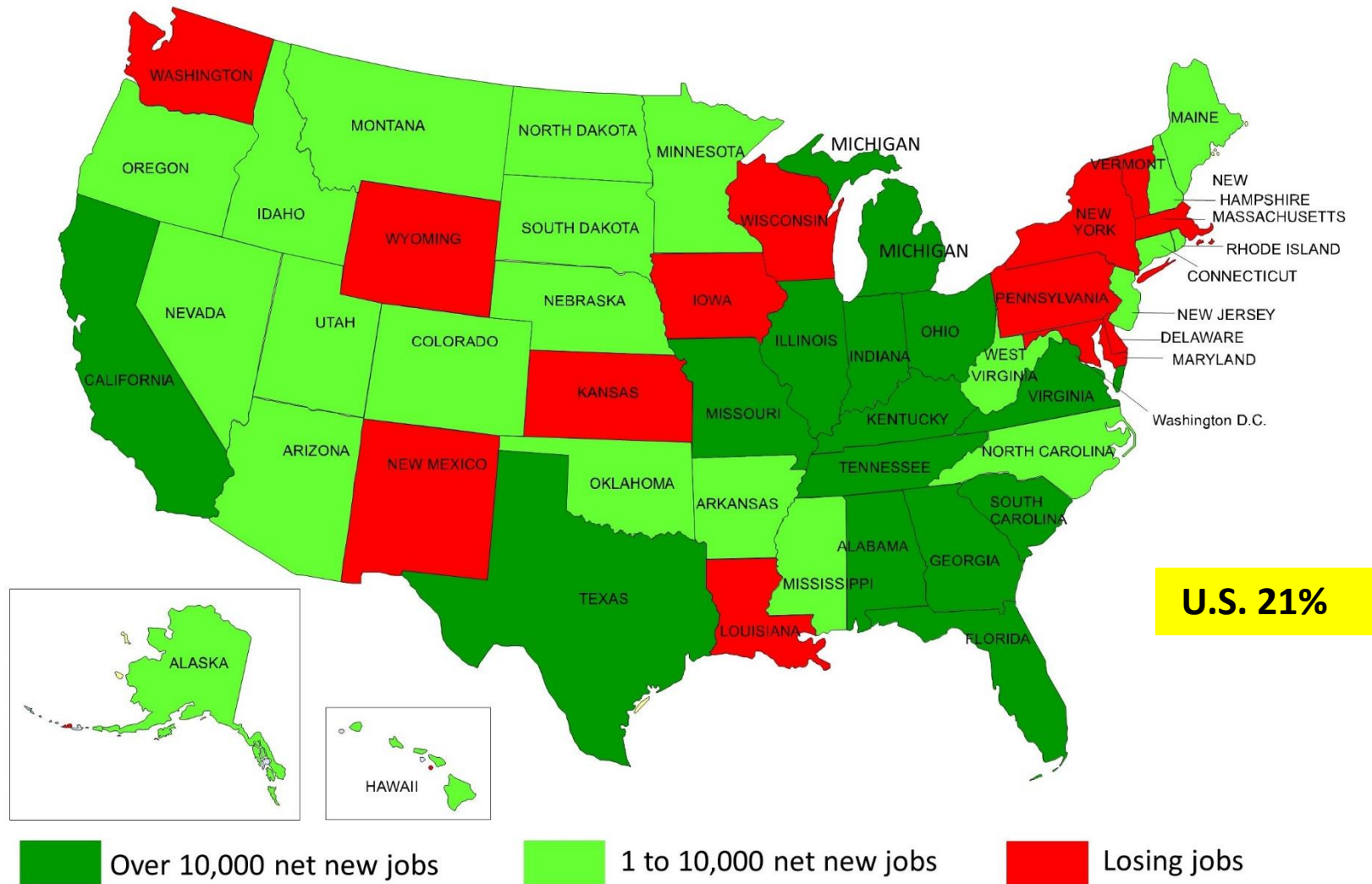
Growth in U.S. Manufacturing Jobs



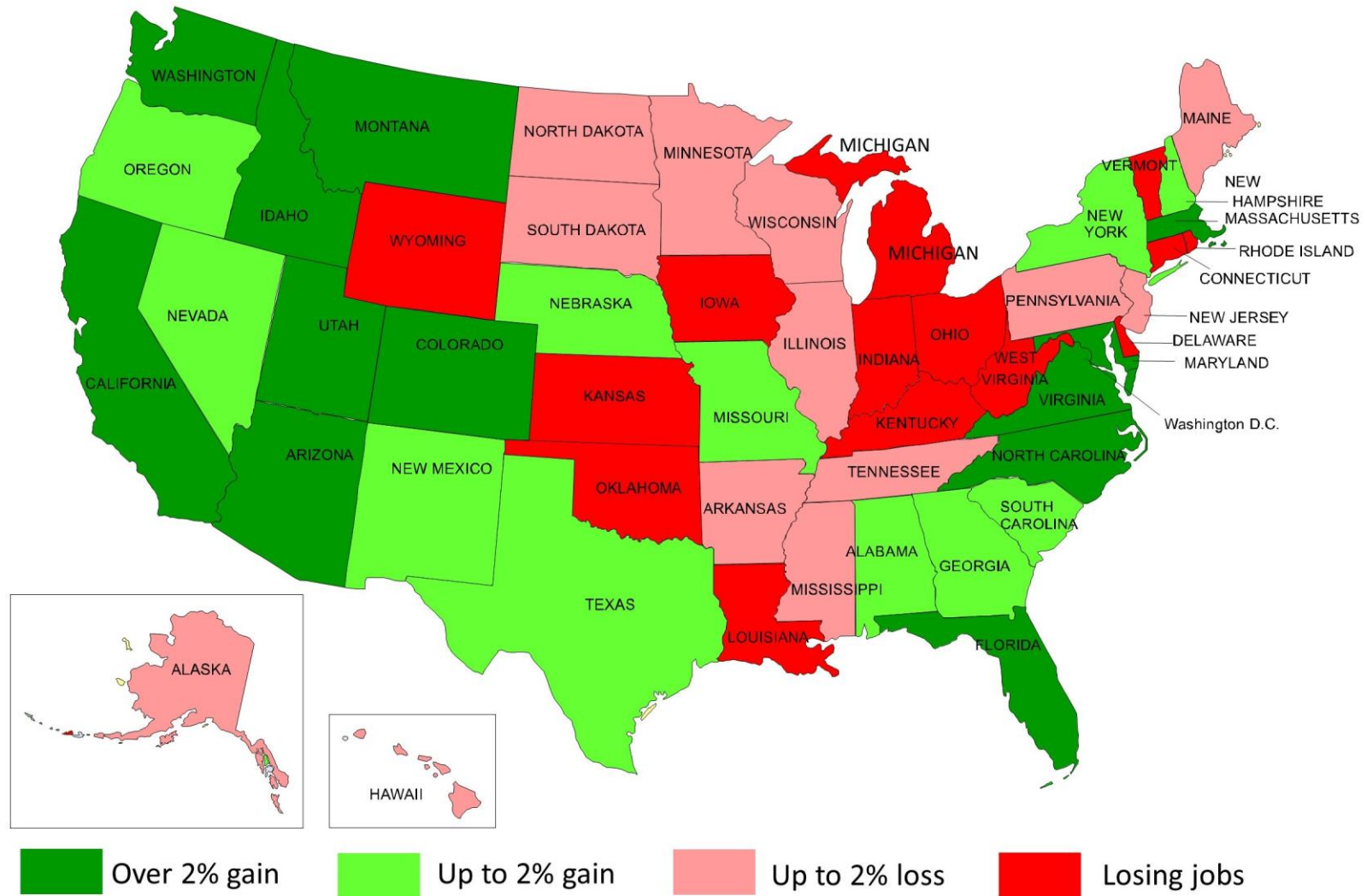
Change Manufacturing Jobs 2010-2021



Change Transportation Equipment Manufacturing Jobs 2010-2021



% Change Advanced Industry Jobs 2019-2021



KY Ranked Compared to All States

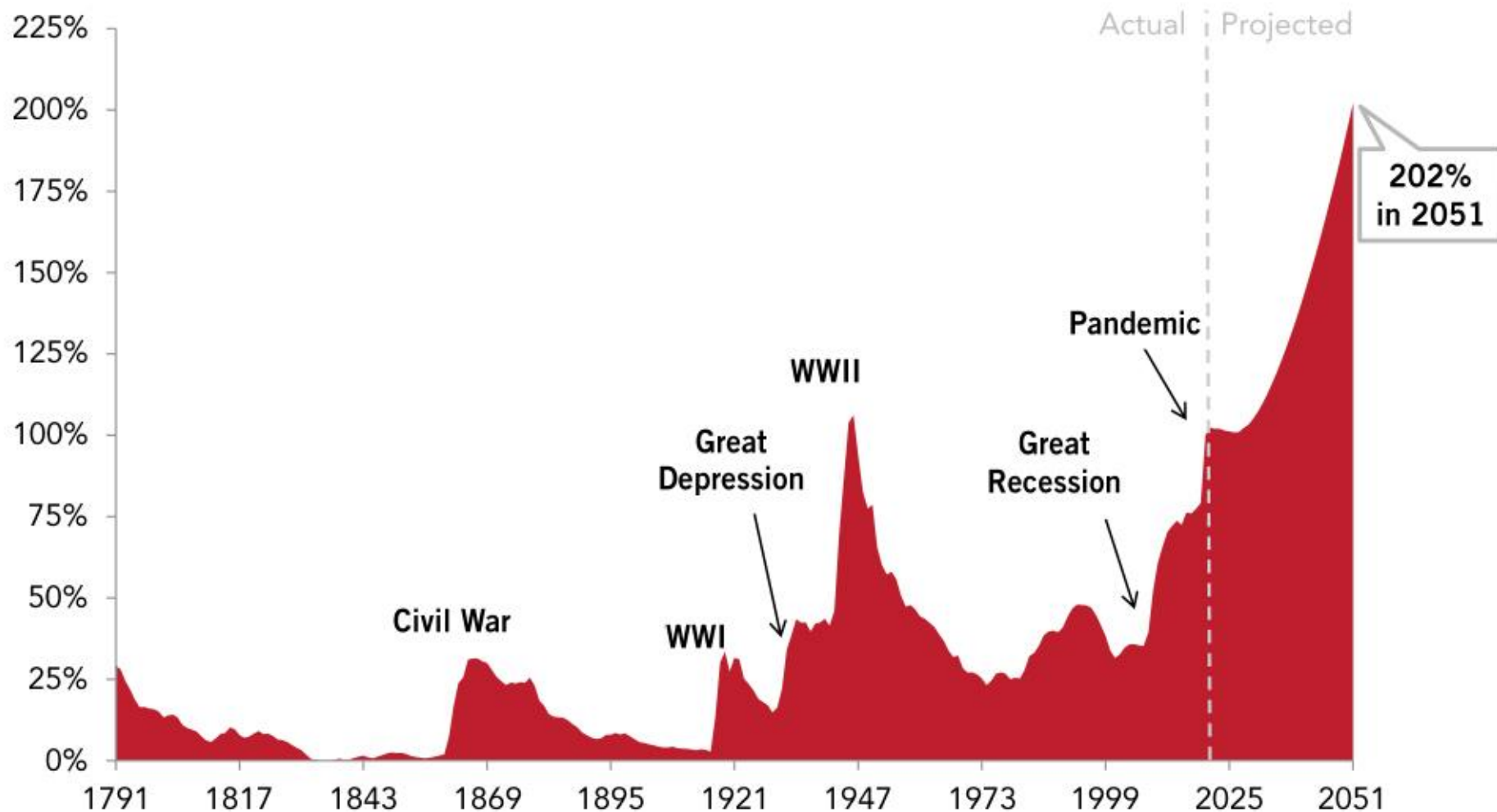
	<u>Job Growth</u>	<u>Wage Growth</u>	<u>GDP Growth</u>
1 Year 2019 – 2020	25	43	27
5 Year 2015 – 2020	29	41	35
10 Year 2010 - 2020	27	41	39

DC is included so that all rankings are of 51 “states”



Federal debt is on an unsustainable path

DEBT HELD BY THE PUBLIC (% OF GDP)



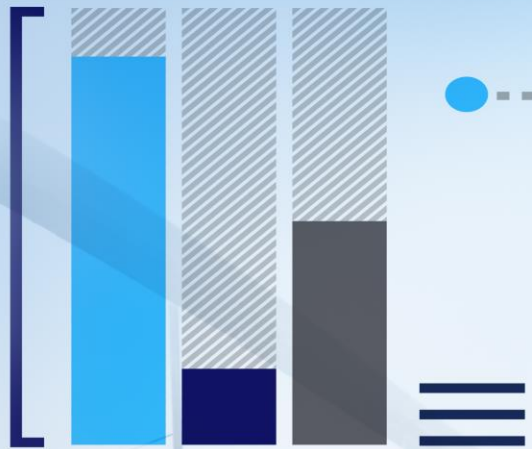
SOURCES: Congressional Budget Office, *The 2021 Long-Term Budget Outlook*, March 2021, and *The Budget and Economic Outlook: 2020 to 2030*, January 2020.

If I burned \$100 bill every second, it would take about 3 hours to burn a million dollars

It would take about 3 months to burn a billion dollars



It would take me (and all of you) a year to burn a trillion dollars



≡

**CREATIVE
THINKING**



**Big
TRENDS**



hire retain
TRAIN
recruit
ATTRACT
replace
Workforce
Crisis
PAY
satisfy
reward
ENGAGE
netwo



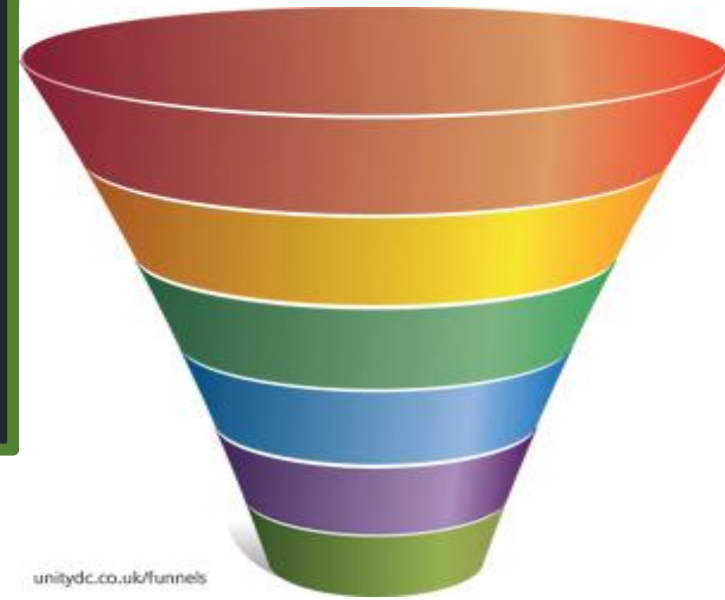
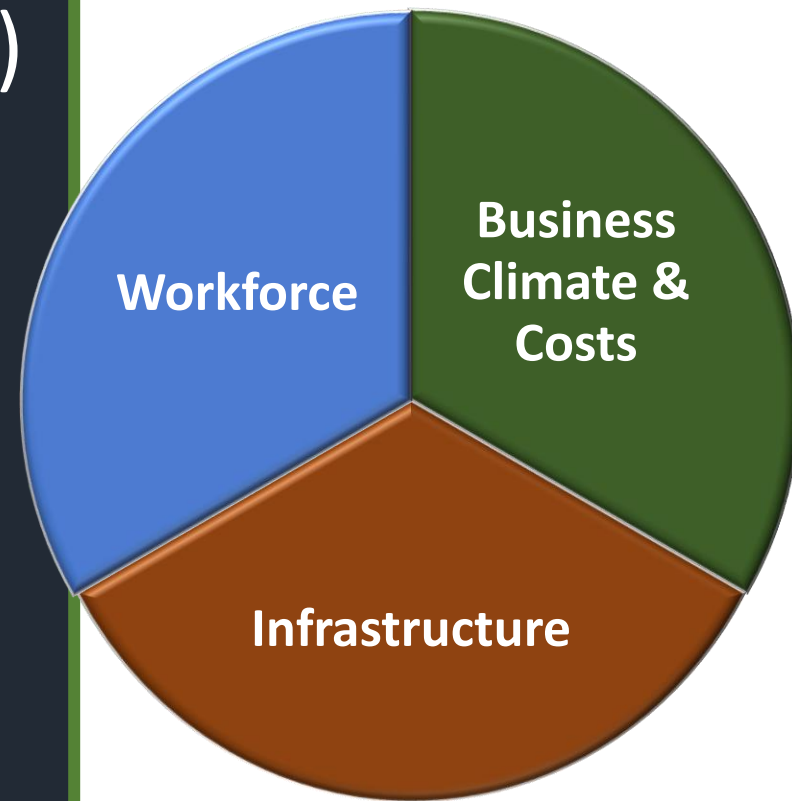
**STAFFING
SHORTAGE**

Site Selection Factors (Execs)

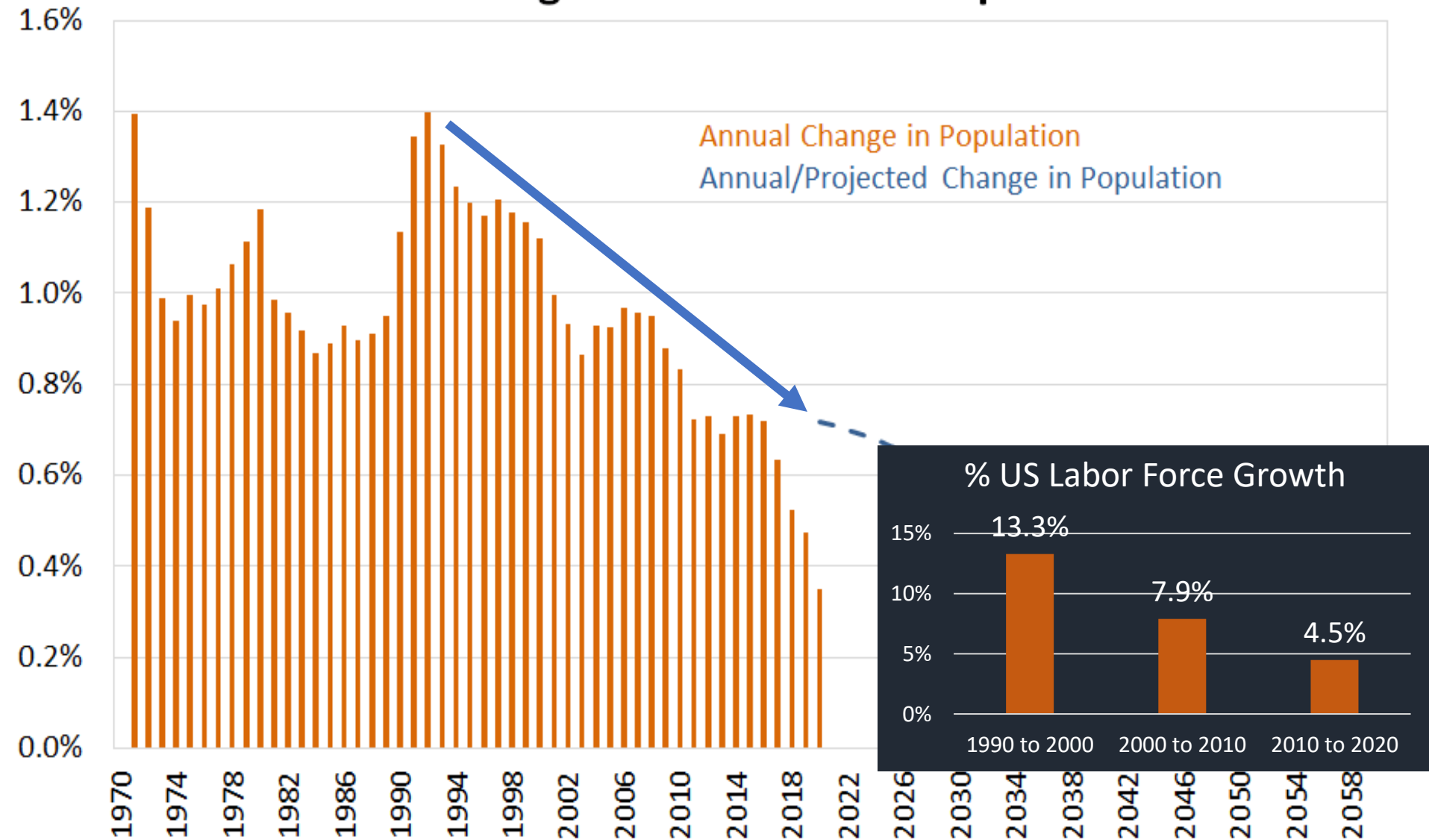
1. Availability of skilled labor	91.4
2. Highway accessibility	88.7
3. Energy availability and costs	85.3
4. Quality-of-life	84.8
5. Labor costs	84.2
6. Occupancy or construction costs	80.6
7. Corporate tax rate	80.0
8. Tax exemptions	78.6
9. State and local incentives	77.2
10. Inbound/outbound shipping costs	76.8

Factors (Consultants)

1. Labor Costs	100.0
2. Availability of skilled labor	98.3
3. Highway accessibility	98.3
4. Energy Avail & cost	94.7
5. State & local incentives	93.0

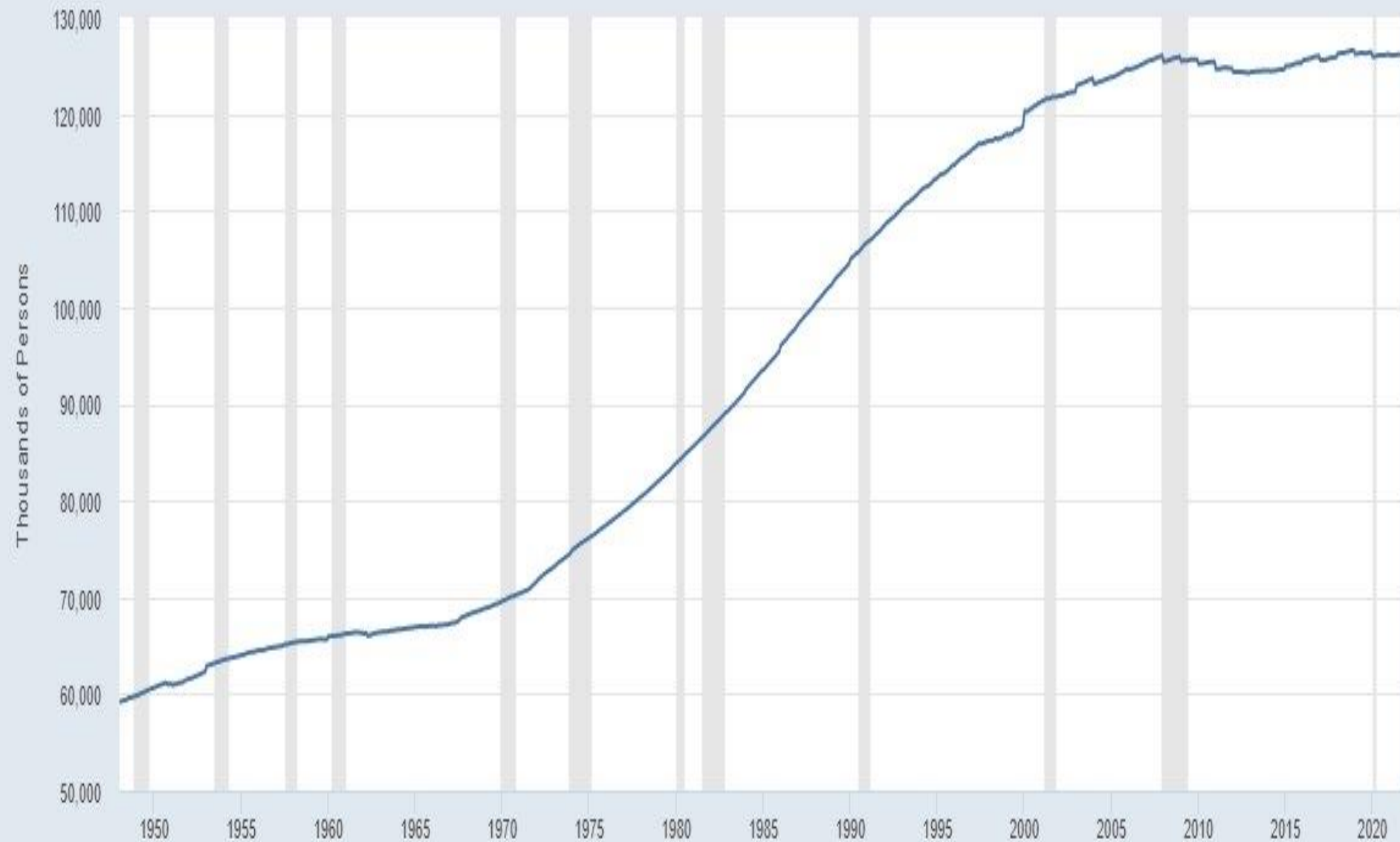


Annual Change in U.S. Resident Population



NOTES: The actual change in population is as of Dec. 22. The projected change is as of April 16 and displays the actual change from 1970 through 2019.

SOURCES: Census Bureau and Haver Analytics.



Shaded areas indicate U.S. recessions.

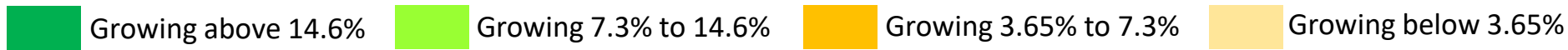
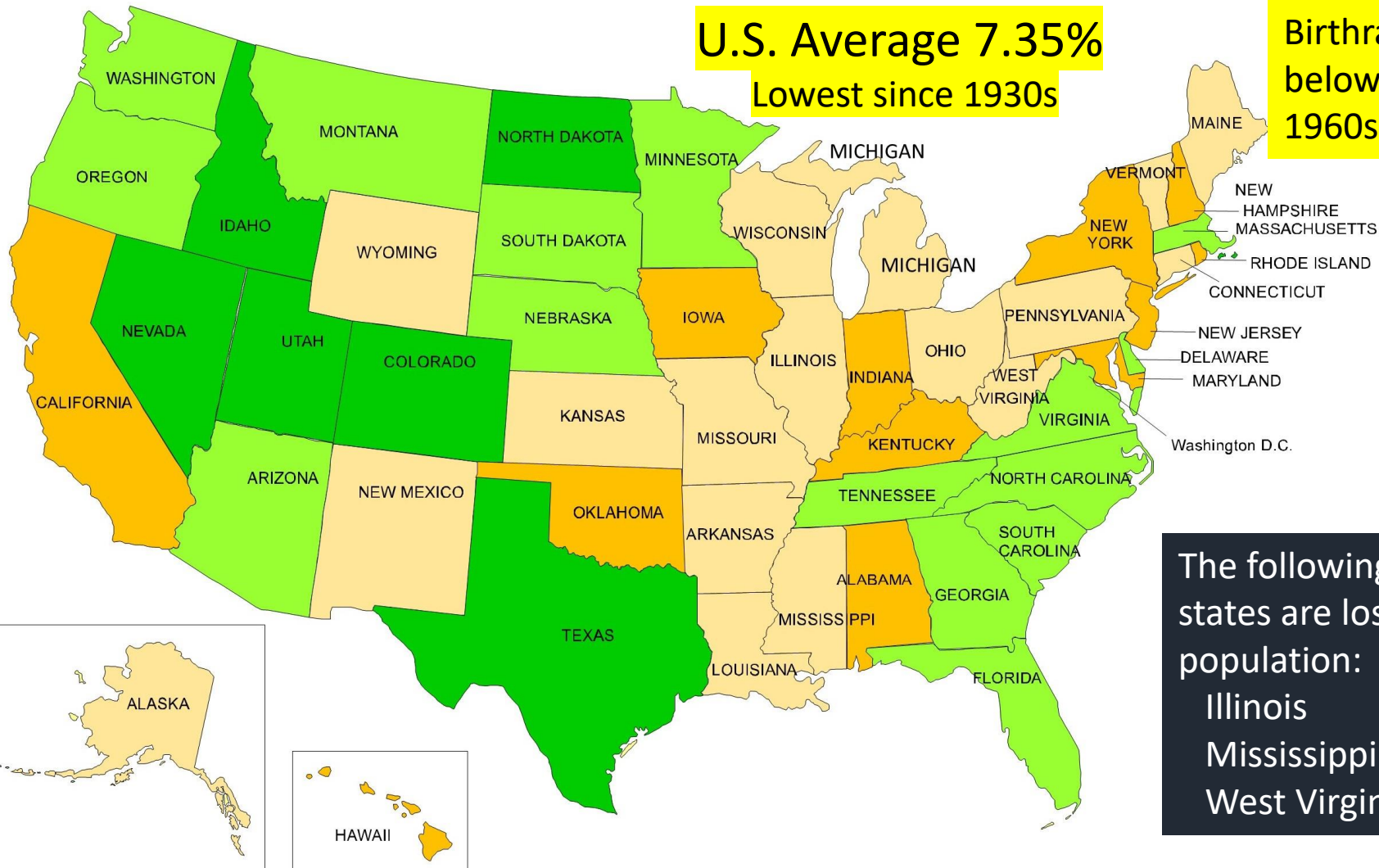
Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org

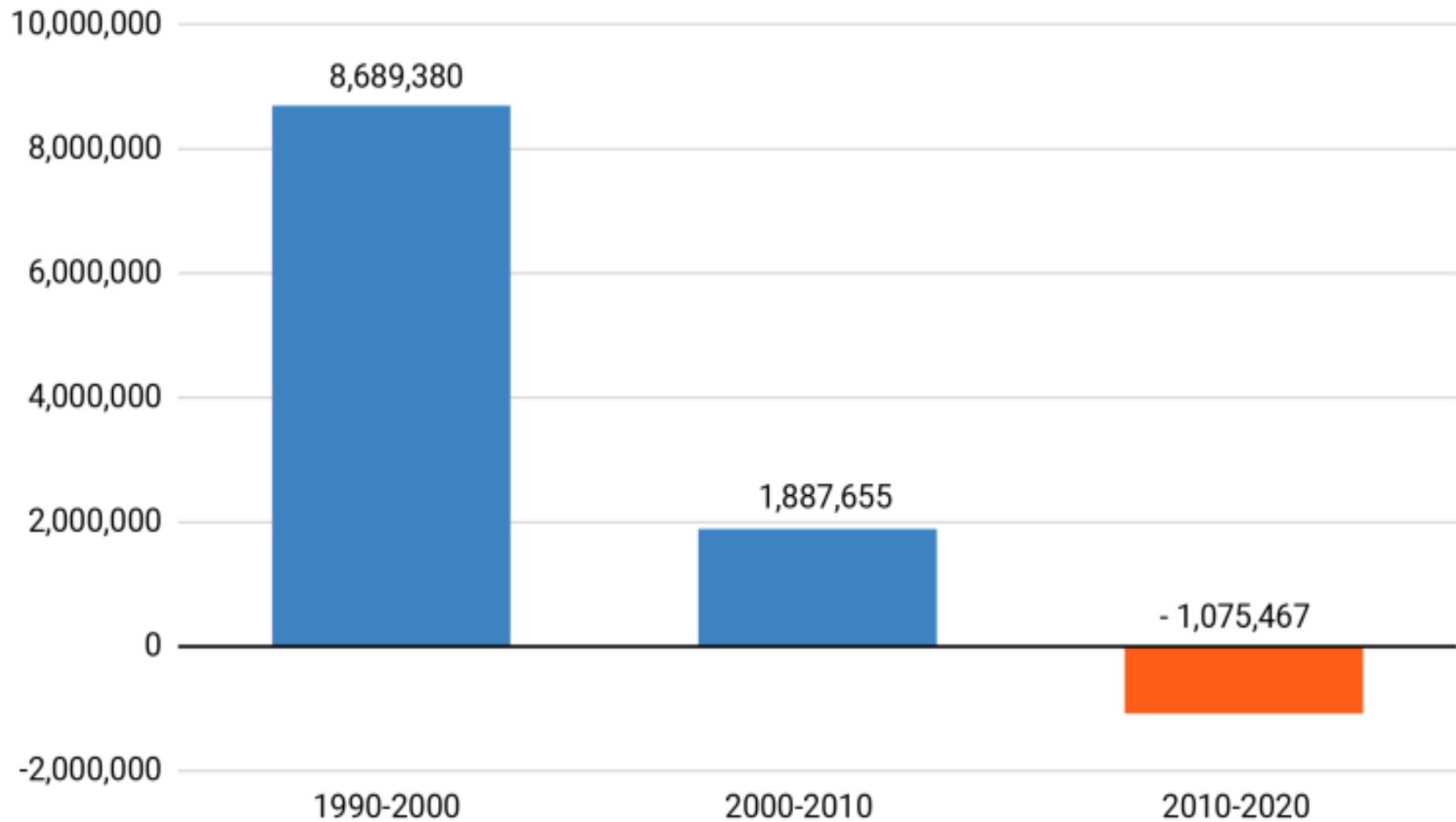
Population Growth 2010 to 2020

U.S. Average 7.35%
Lowest since 1930s

Birthrate 50%
below the
1960s



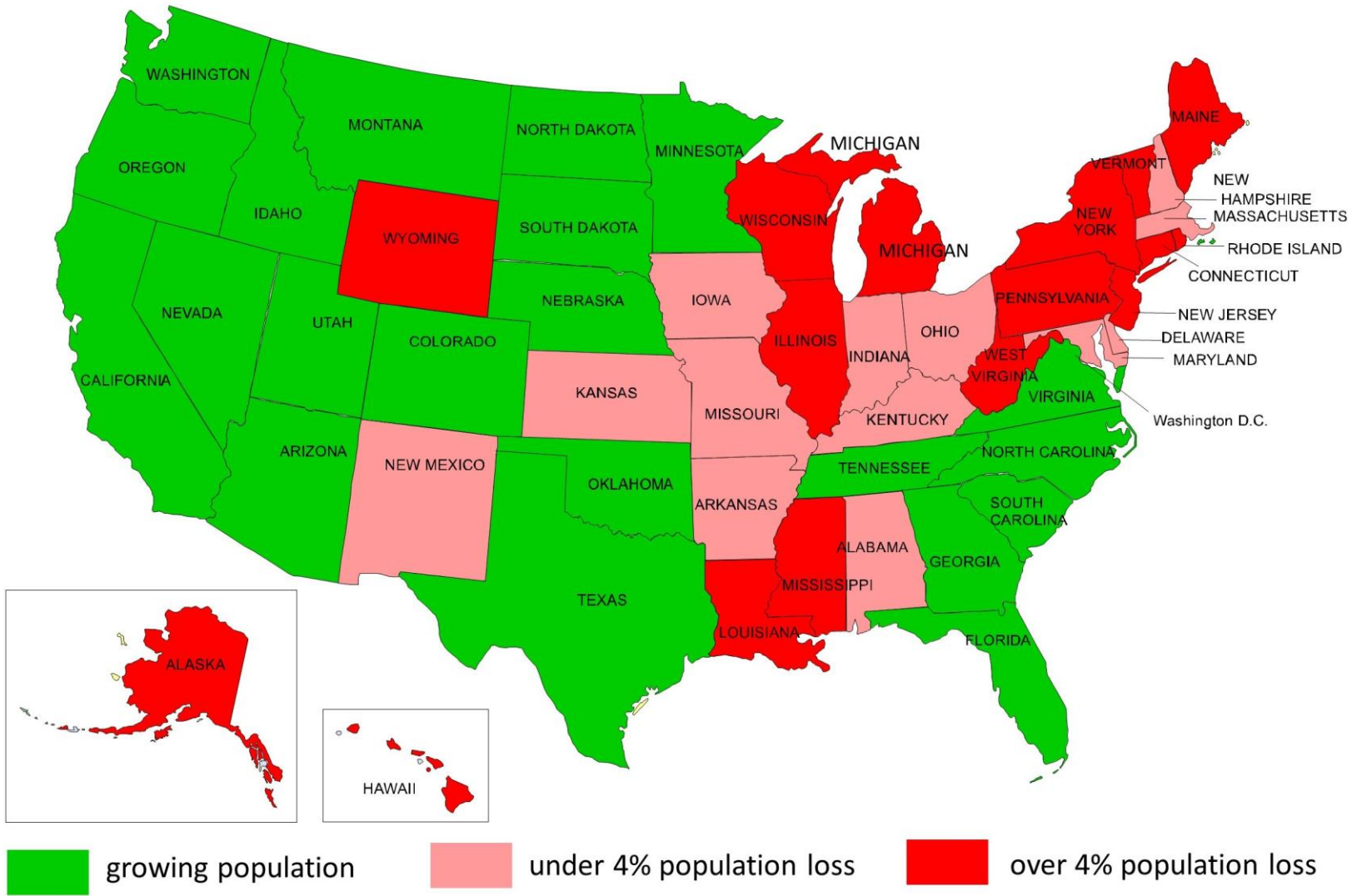
U.S. Under 18 Age Population Change by Decade



Source: William H. Frey analysis of 1990 and 2020 U.S. decennial censuses.

Projected Population Change 2020 – 2030

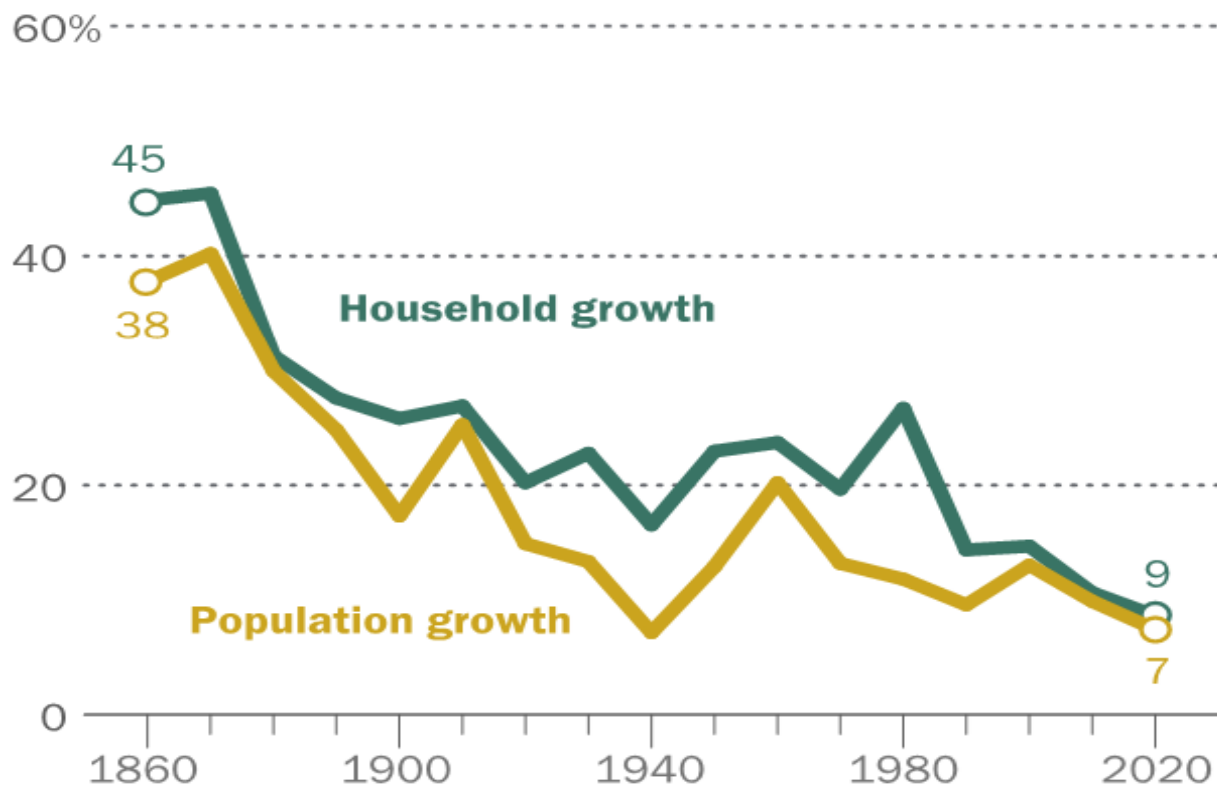
Ages 25-64 (Working Age)



Rise in multifamily households

2010s had slowest percentage growth in households in at least 160 years

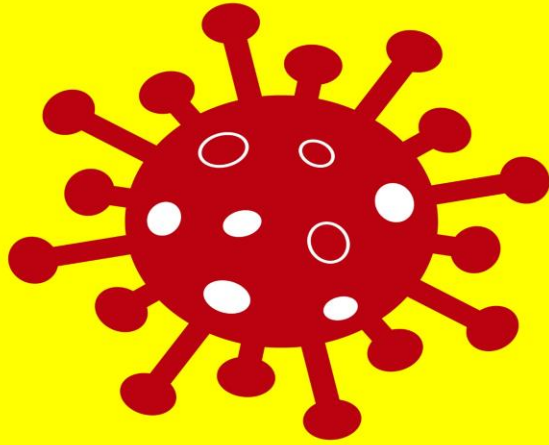
% growth in number of U.S. households and population per decade



Note: Population growth refers to growth in the population residing in households since the previous decennial census.

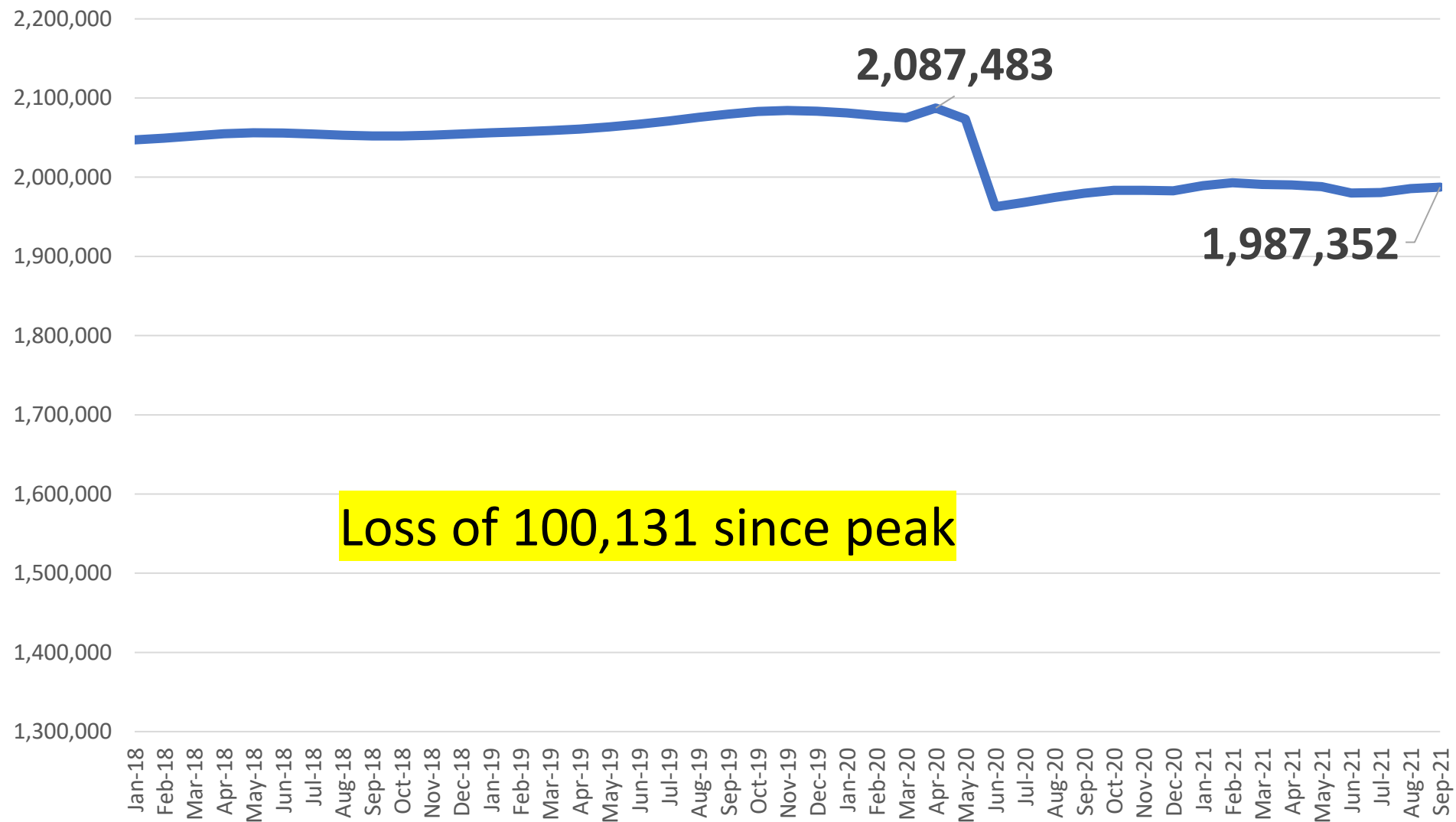
Source: Pew Research Center analysis of Census Bureau historical statistics and 2010 and 2020 census PL94-171 redistricting data.

PEW RESEARCH CENTER

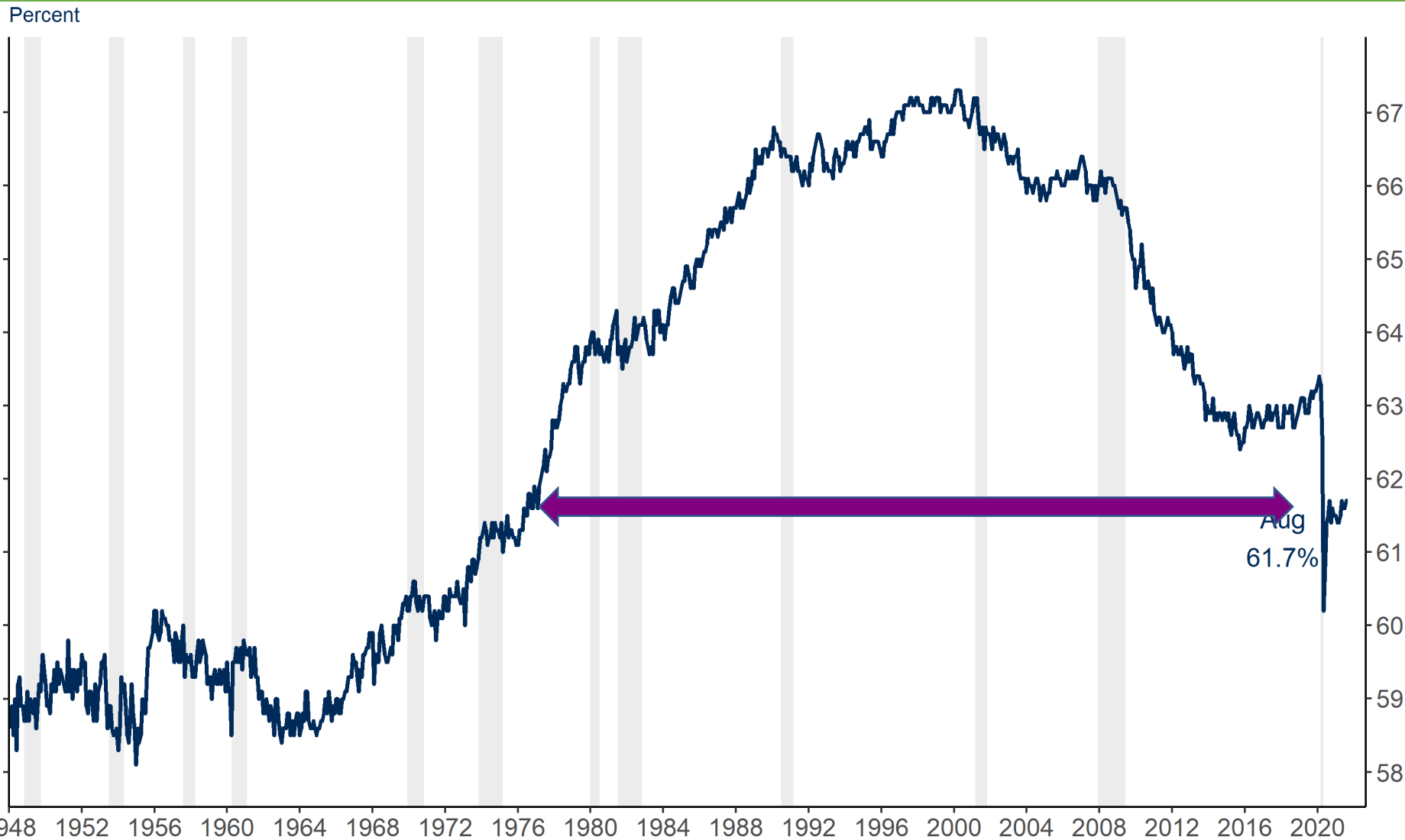


COVID 19 **IMPACTS**

Kentucky Labor Force



Labor Force Participation





Of the 25 million who lost
jobs in March-April 2020
1.7 million unemployed
7.7 million out of LF

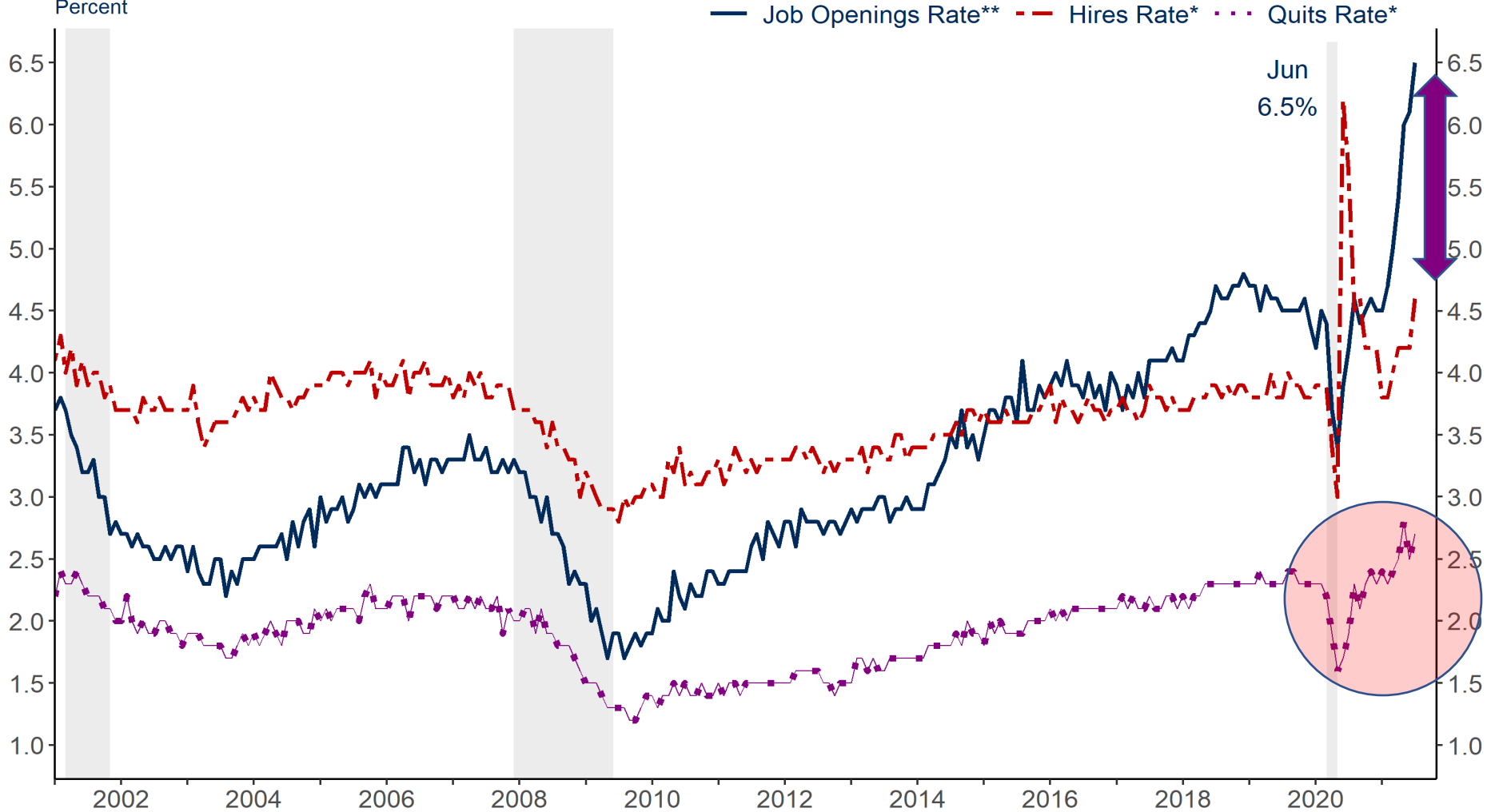


Childcare Services Employment is 10.4% less than Pre-Pandemic

Labor Market Flows

Labor Market Flows

Percent



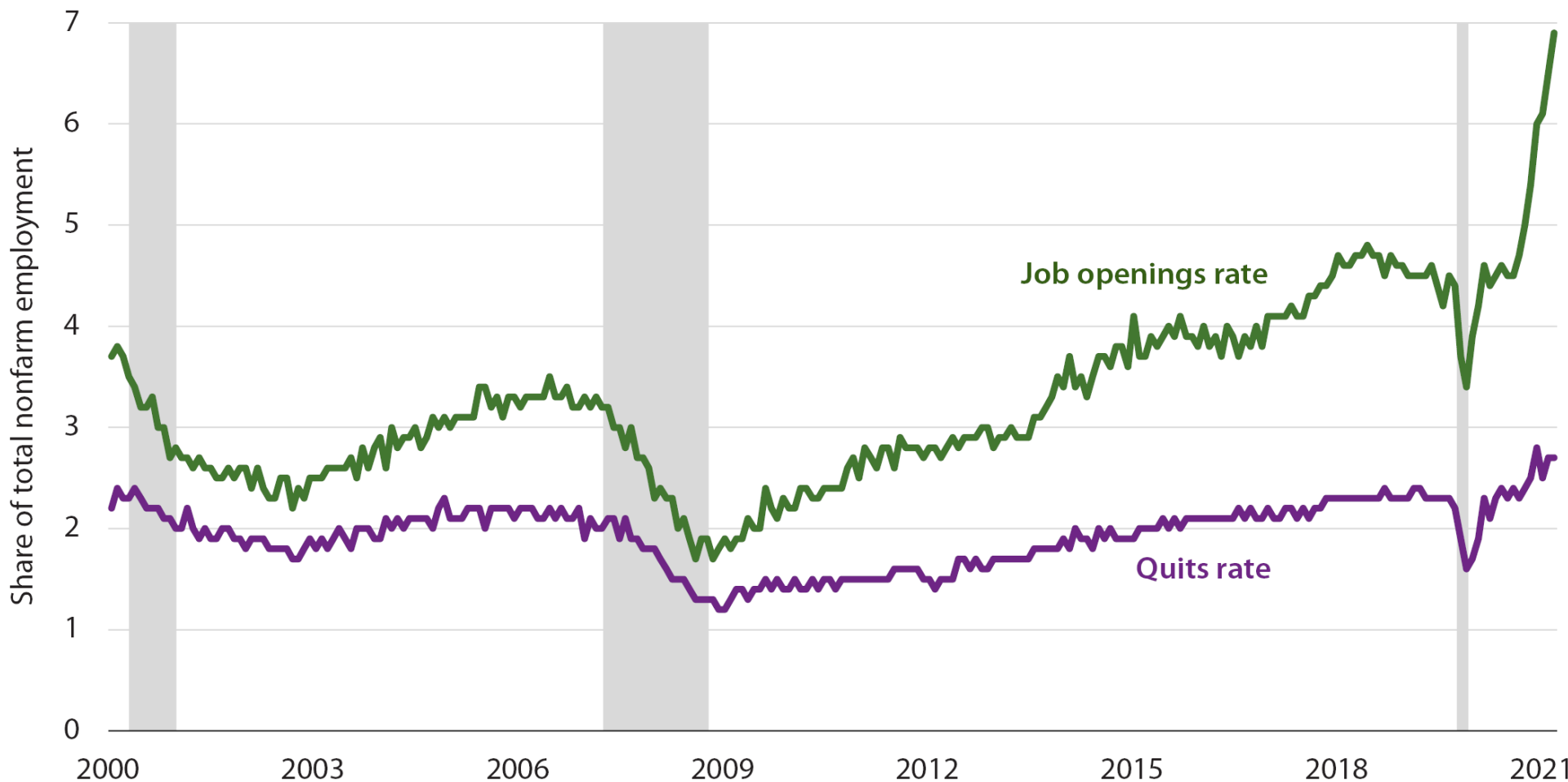
DEAR BOSS,

I QUIT!

(IT'S NOT YOU, IT'S ME)

A record 15 million US workers have quit their job since April 2021

FIGURE 4.
Monthly Job Openings and Quits as a Share of Total Employment



Source: Bureau of Labor Statistics 2021b.

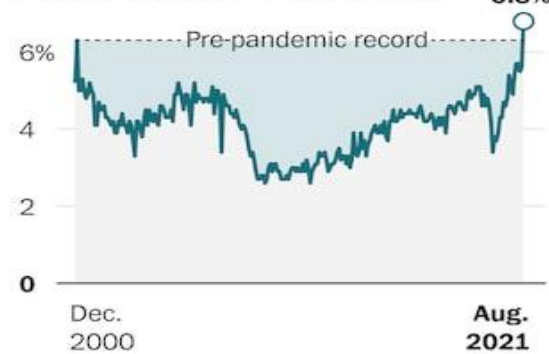
Note: Shaded areas indicate recessions. Rates of job openings and quits are defined as the ratio of total nonfarm job openings and quits as a share of the total nonfarm employment. All underlying series are seasonally-adjusted, monthly values.

Although every industry is experiencing record “quits”, manufacturing is currently the lowest rate

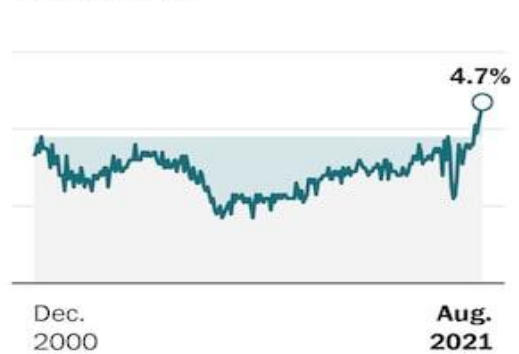
Many industries see employees quit at record rates

Rate at which employees are voluntarily quitting

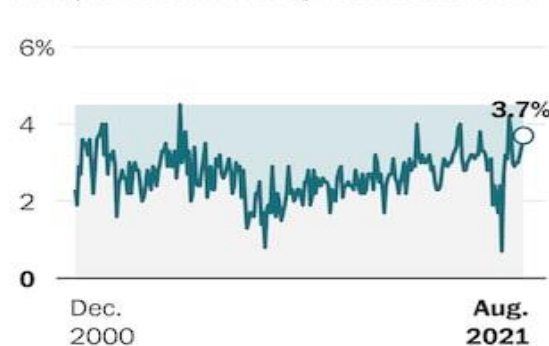
Restaurants, bars and hotels



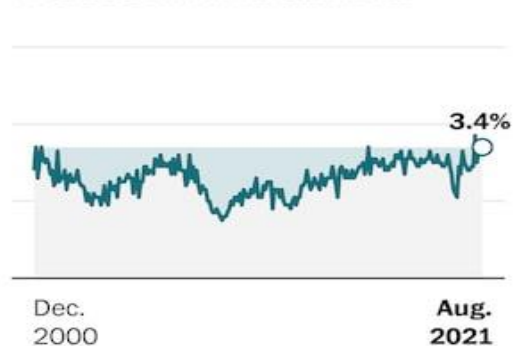
Retail trade



Arts, entertainment, and recreation



Professional and business



Health care and social assistance



Manufacturing

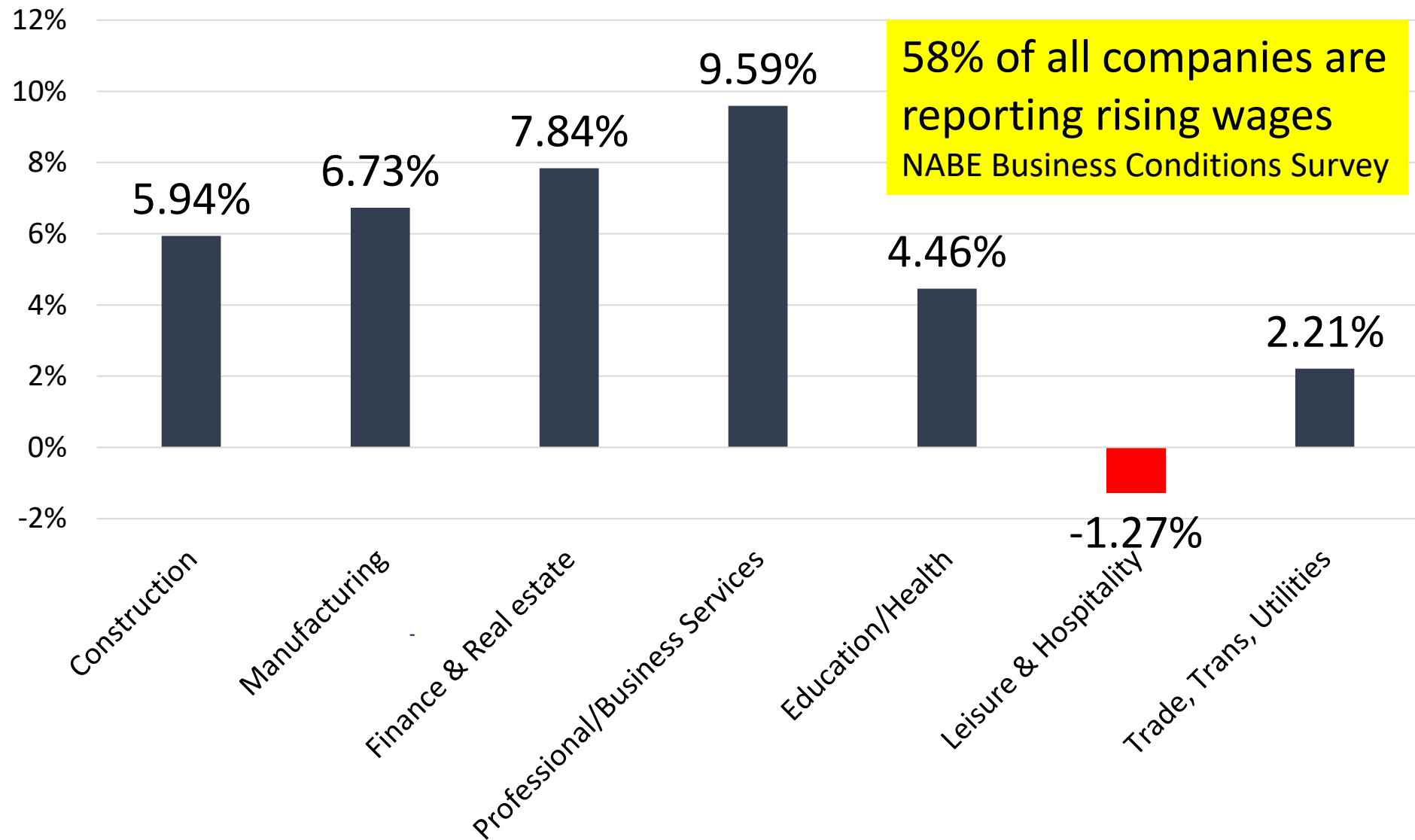


Note: Seasonally adjusted

Source: Bureau of Labor Statistics via FRED

THE WASHINGTON POST

Quitters - New Job Wage Gain



DEAR BOSS,

I QUIT!

(IT'S NOT YOU, IT'S ME)

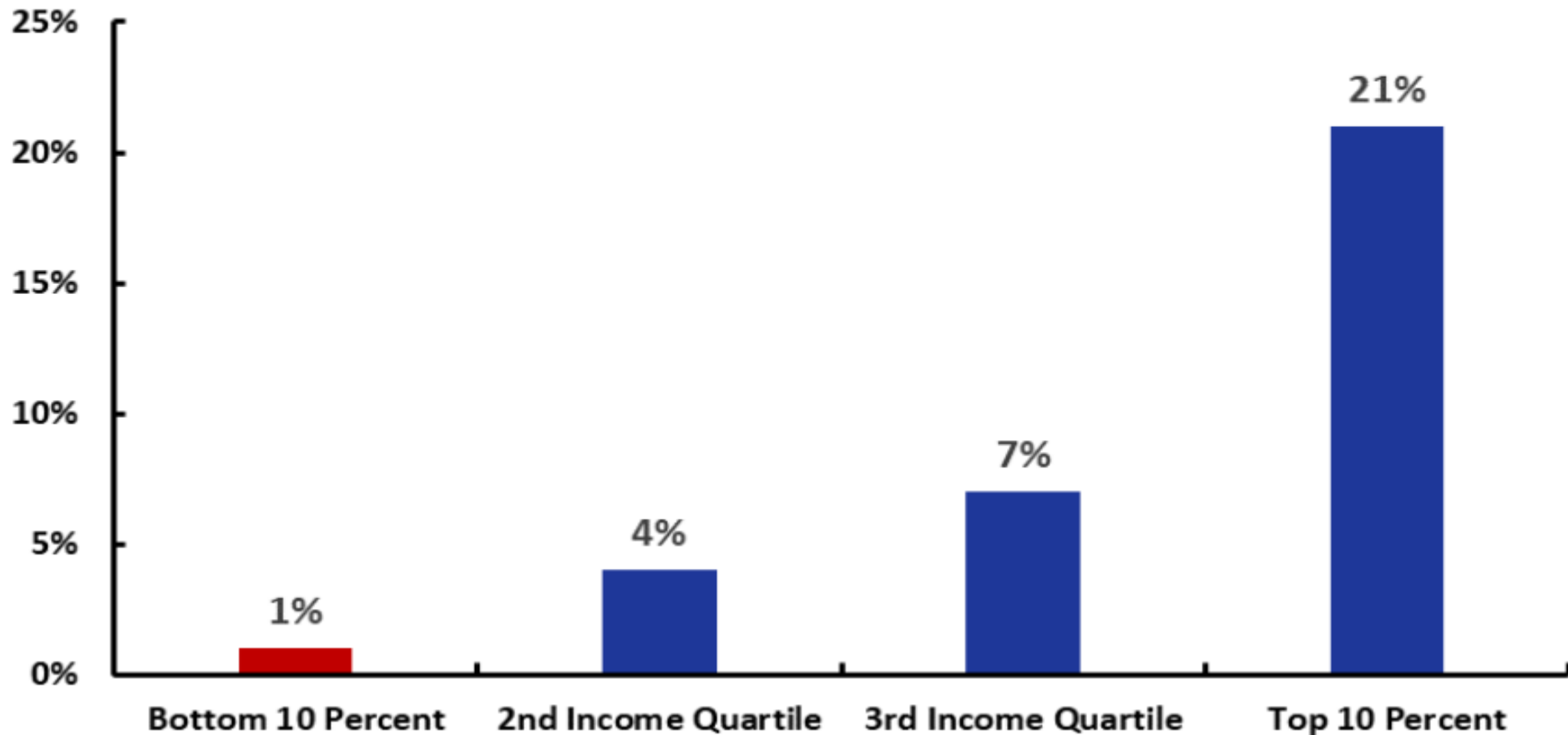
In a recent survey 40% said that they were somewhat likely to leave their current job within 6 months



Remote Work as a Norm

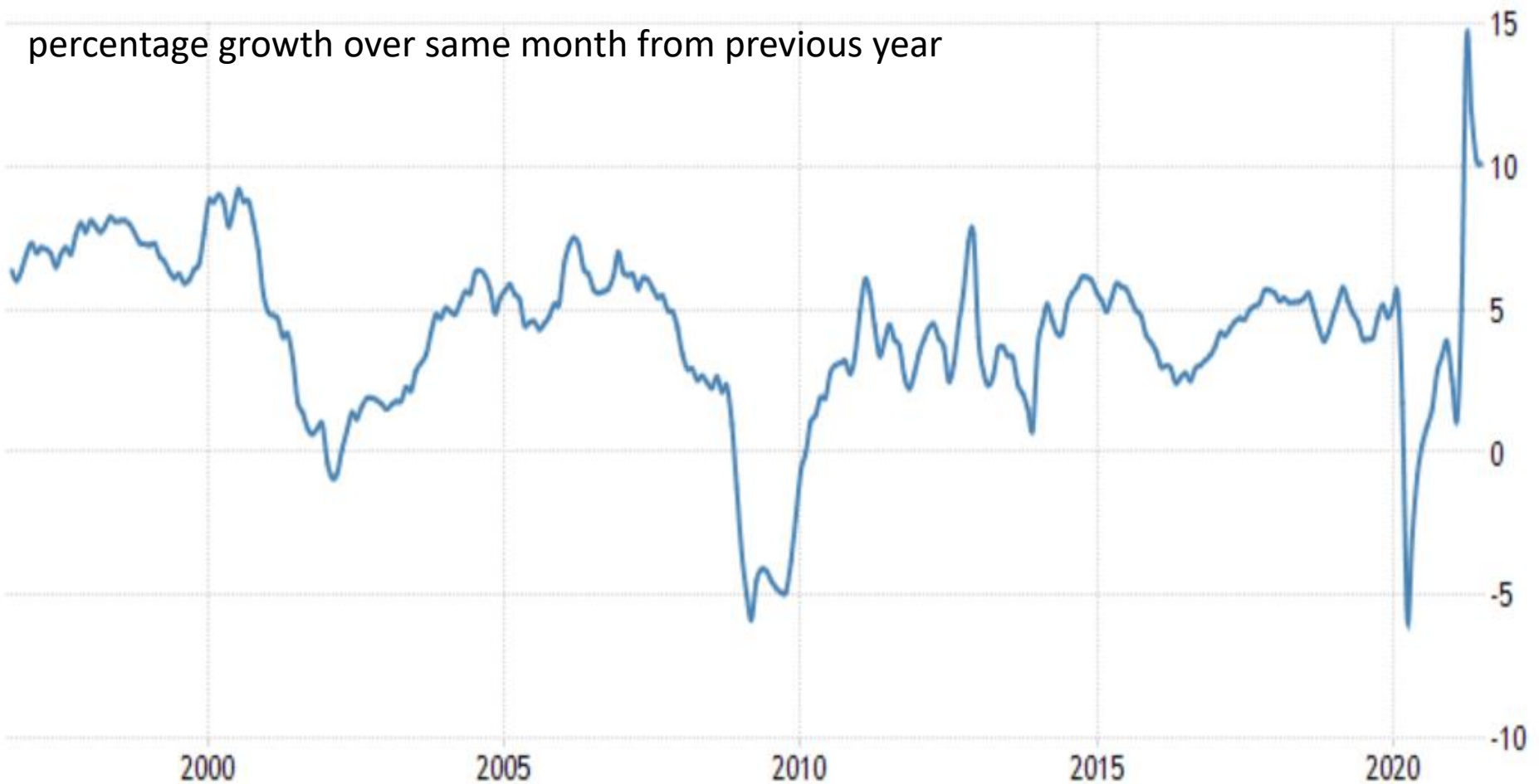
Remote Work Availability by Income

Most Workers Do Not Have Jobs that Allow Them to Work From Home, But Low Wage Workers Are Least Likely



U.S. 25 Year % Wage Growth

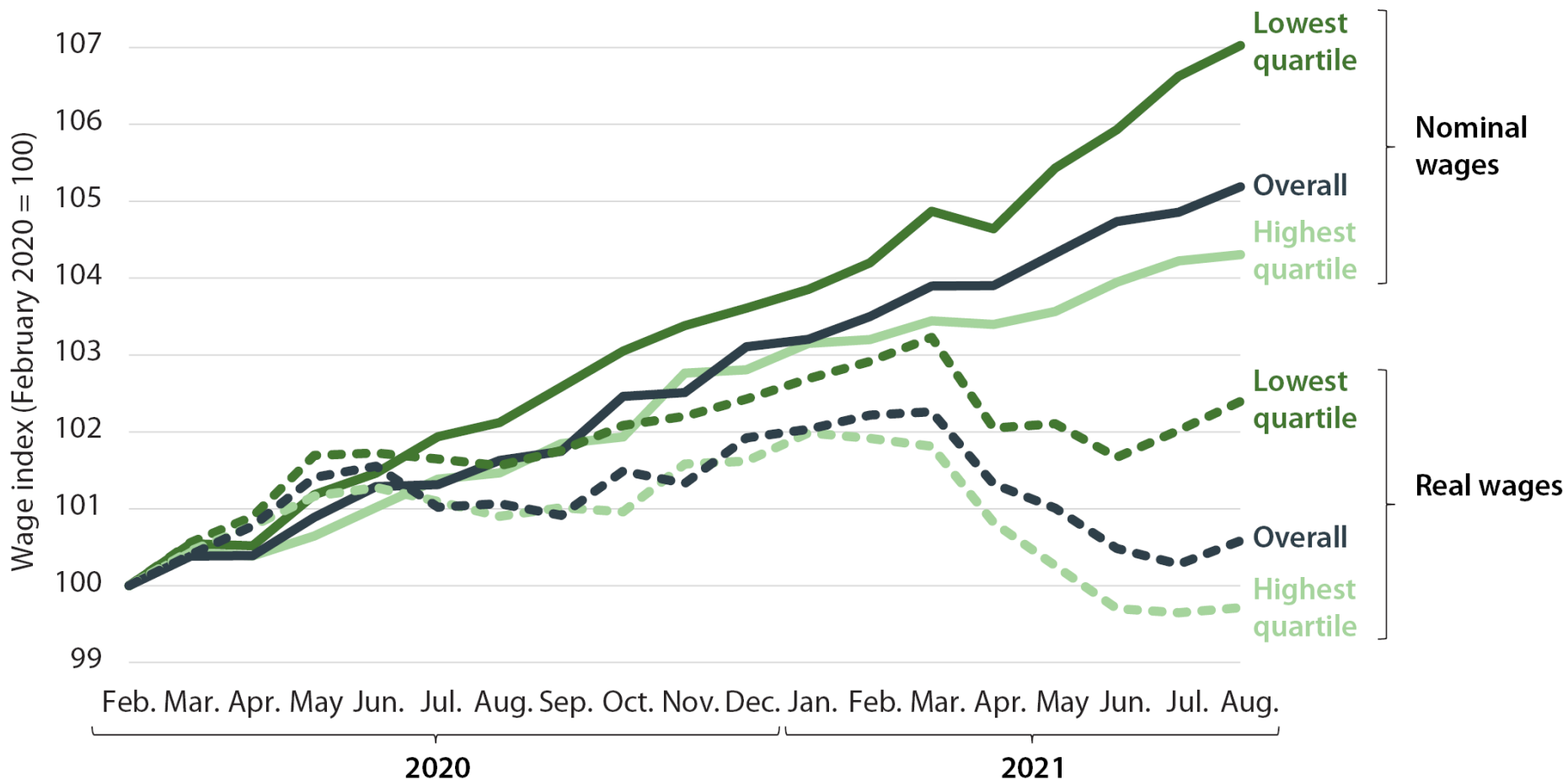
percentage growth over same month from previous year



SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF ECONOMIC ANALYSIS

FIGURE 5.

Changes in Nominal and Real Wages since February 2020



Source: Federal Reserve Bank of Atlanta 2021; Bureau of Labor Statistics 2021c.

Note: Wage indexes were constructed using the Atlanta Fed's Wage Growth Tracker, which constructs wage changes following individuals over time. As a result, it is unlike other measures that are greatly influenced by the composition of who is working. The wage growth measures are 12-month moving average nominal annual growth rates and are available by wage quartiles. Nominal indexes were created as follows: For the first 12 months of wage data, which start at the end of 1997, an index was computed by using a non-annualized version of the wage growth data as a proxy for one-month growth rates. Then, for future months, the index values were computed using the annual wage growth data. Finally, the index was benchmarked to make February 2020 equal 100. Real growth rates were calculated by subtracting 12-month growth rates in the consumer price index excluding food and energy (core CPI inflation) from nominal wage growth. Then, the real wage index was computed as above.

Mobility

Annual migration in 1947 showed 20%.
That dropped to 9.3% annually in 2019, a record low.

In a July 2021 poll, 29% of Americans have moved since the pandemic started or plan to move within the next 12 months.

48% of those ages 18-24

46% of those 25-44

19% of those ages 45-64

7% of those 65 and above



Cost of living, job opportunities, more affordable housing, and being closer to family were leading reasons for moving among all age groups

Important Factors in Relocation Decision

Housing cost



Cost of living



Housing availability



Safety/crime rates



Welcoming/friendly local population



Quality healthcare



Proximity to family



Climate



Diverse population



Outdoor recreational opportunities



Alternative job opportunities in your new location



Higher education opportunities



Job opportunities for your spouse/partner



Arts/cultural amenities



Quality of K-12 education system



Public transportation/walkable



Proximity to friends/others in same age or demographic group



Nightlife/active social scene



Political climate supports my beliefs



Most Important Lifestyle Factors

Good school systems | **19%**

Outdoor recreation | **13%**

Safety/security | **10%**

Jobs | **8%**

Nightlife | **8%**

Sense of community | **7%**

Lack of congestion | **6%**

Diverse, plentiful activities | **4%**

Housing | **3%**

Close to family | **3%**

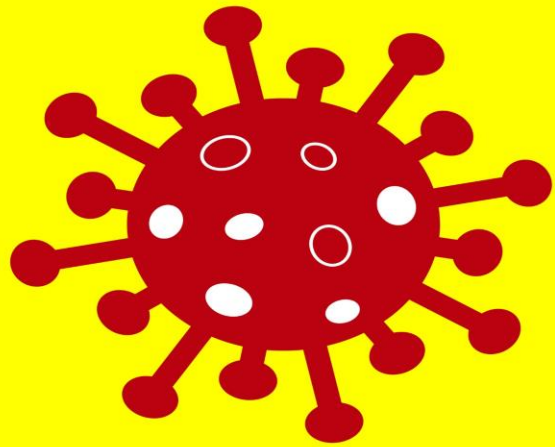


what's next?



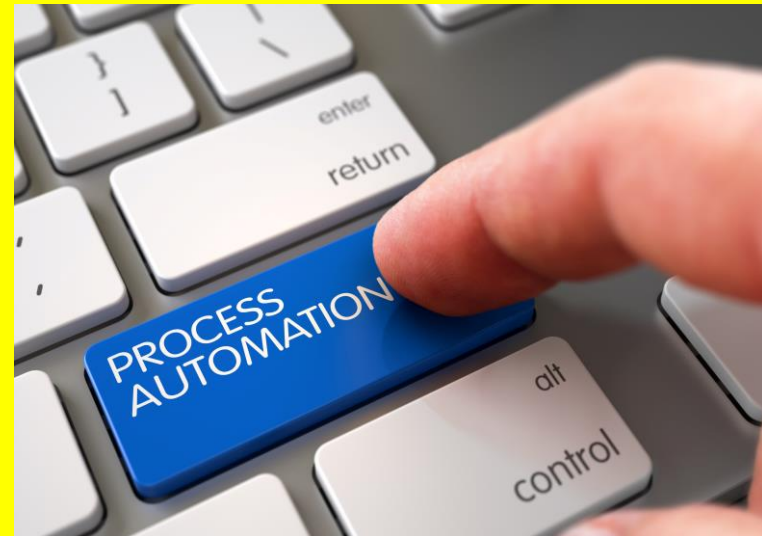
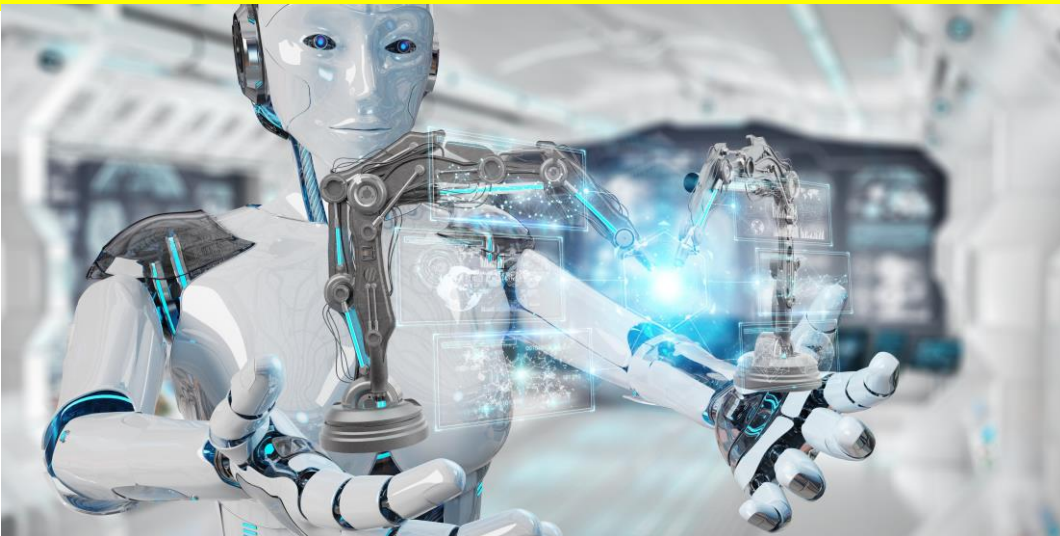
Remote Rules!



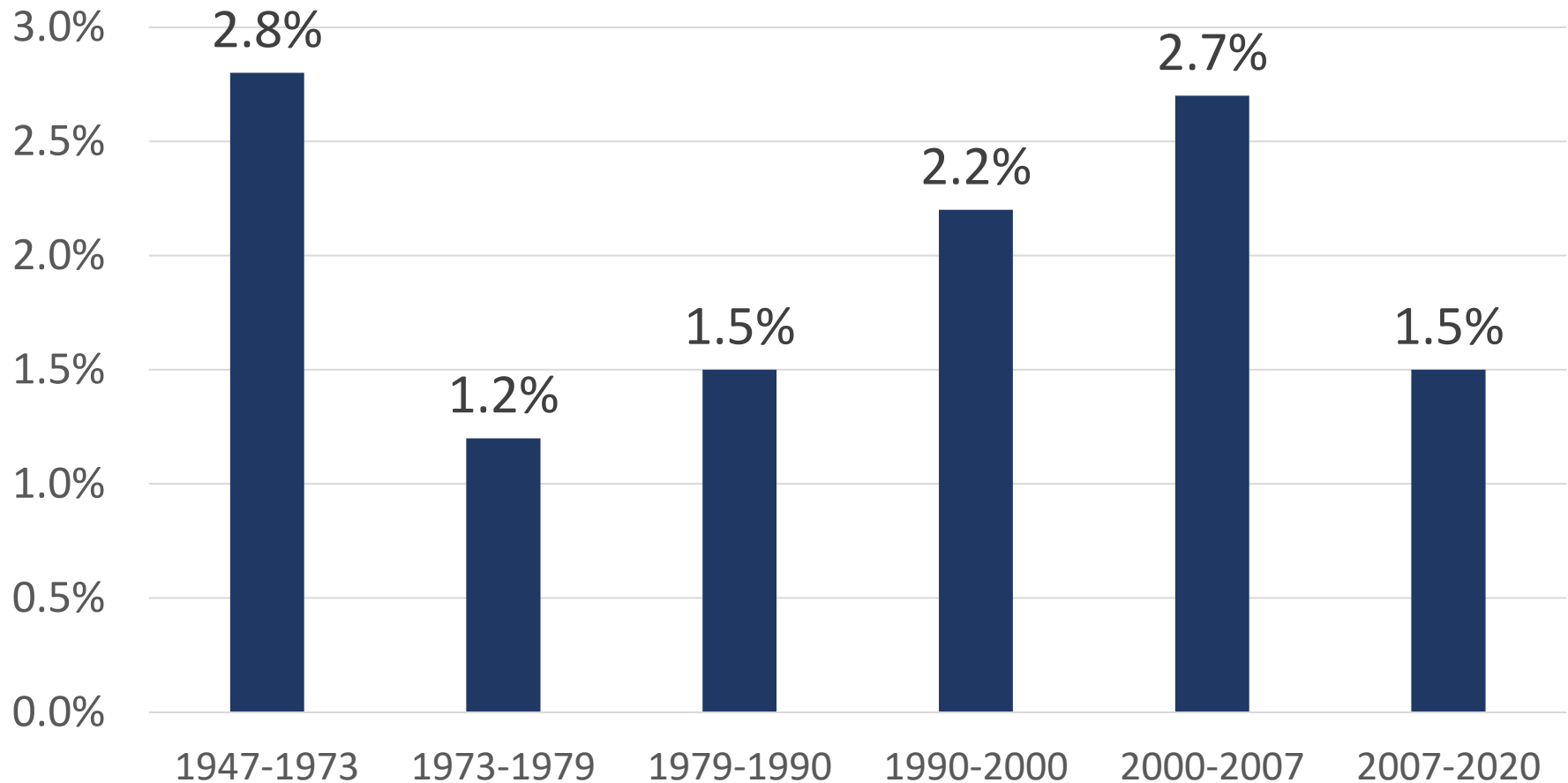


COVID 19 IMPACTS

Accelerated Automation



Productivity Change in Nonfarm Business Sector 1947-2020



Automation-Productivity Accelerants

“The acceleration in technology is something that feels real and lasting.”

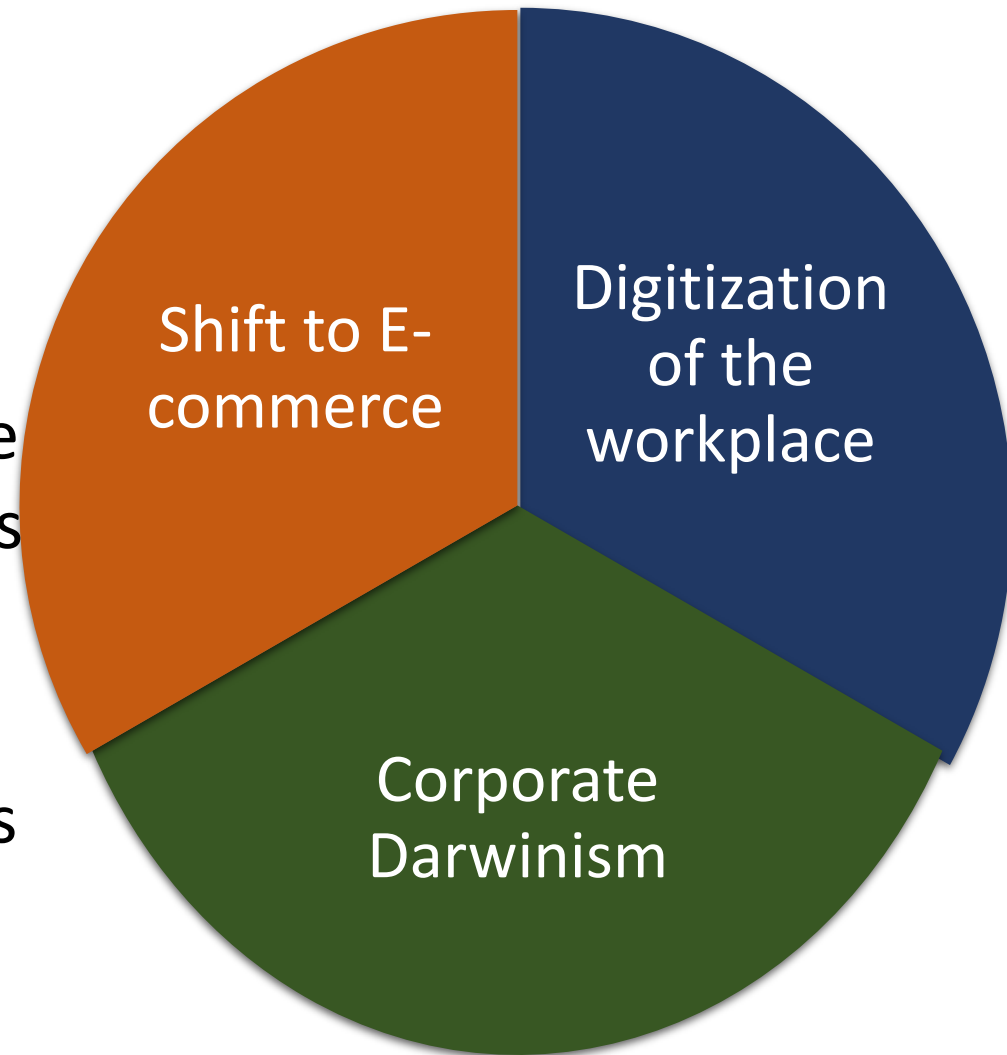
Jan Mischke, McKinsey Global Institute

8 of 10 workplaces will introduce or increase the use of robots. 85% say COVID has been a game changer.

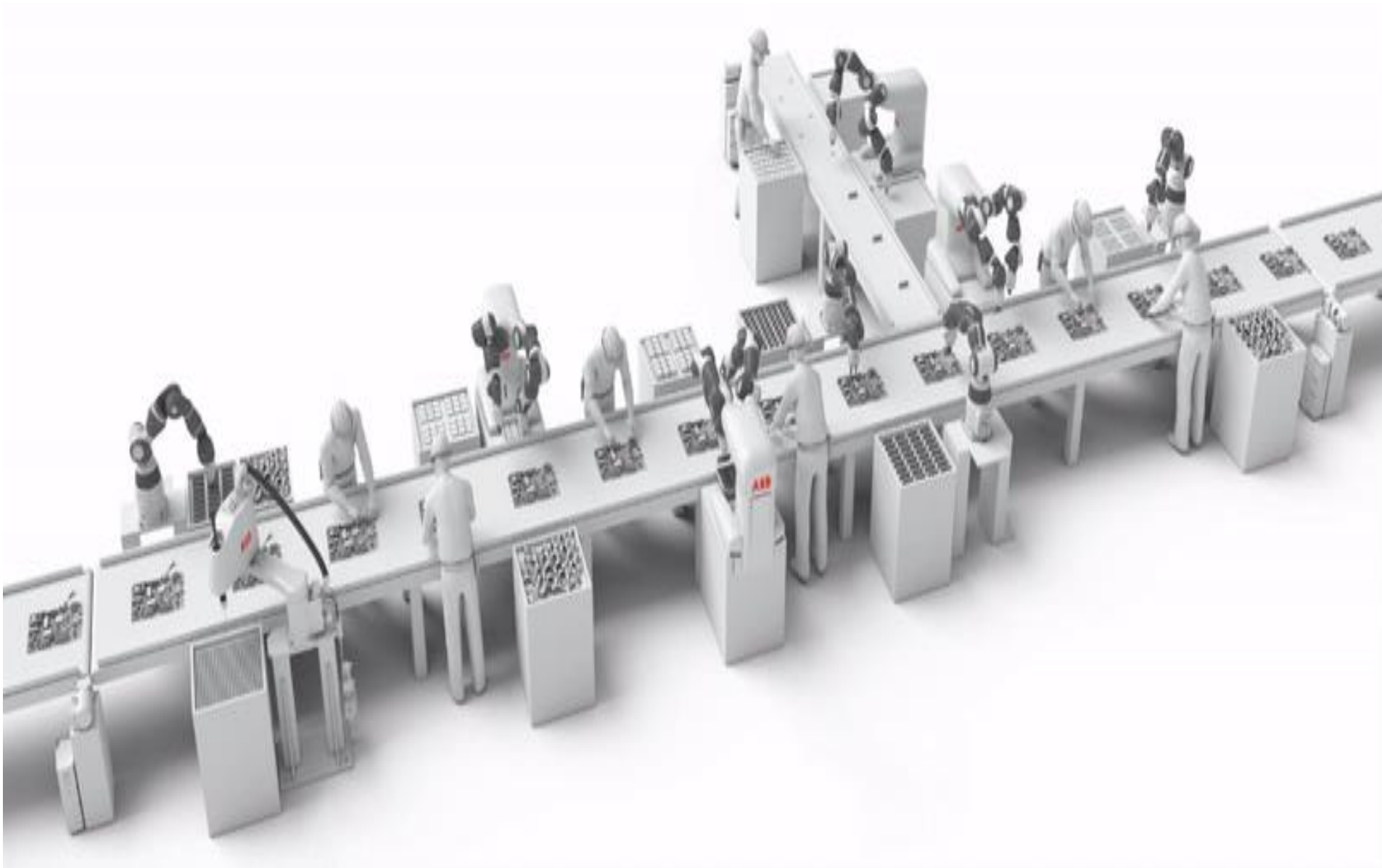
Study by ABB Ltd

64% jump in robot purchases in 4th quarter 2020

Robotic Industries Institute



Increased Automation and Human Integration

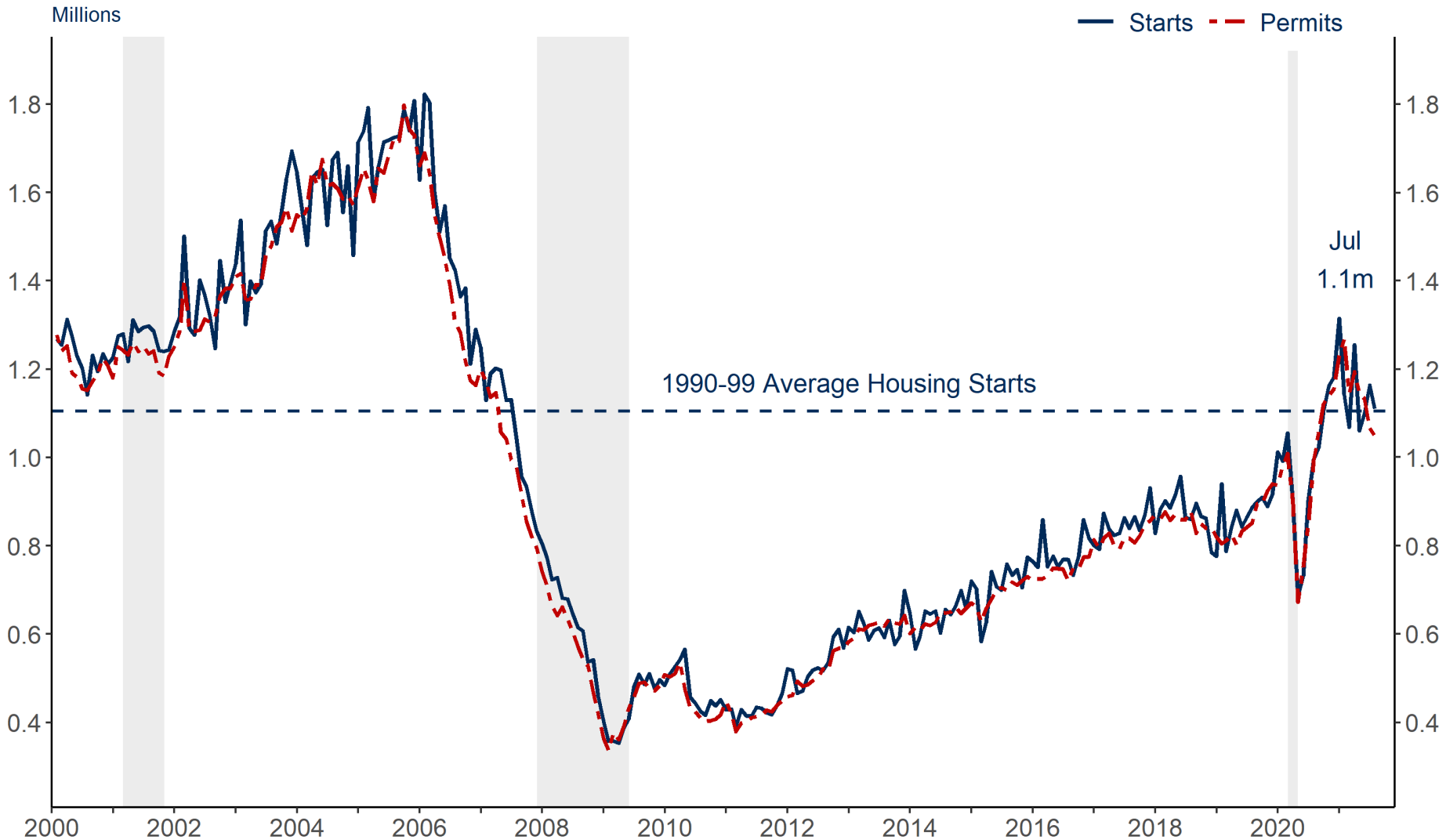


GIF from SMEC Labs in India





Private SF Housing Starts



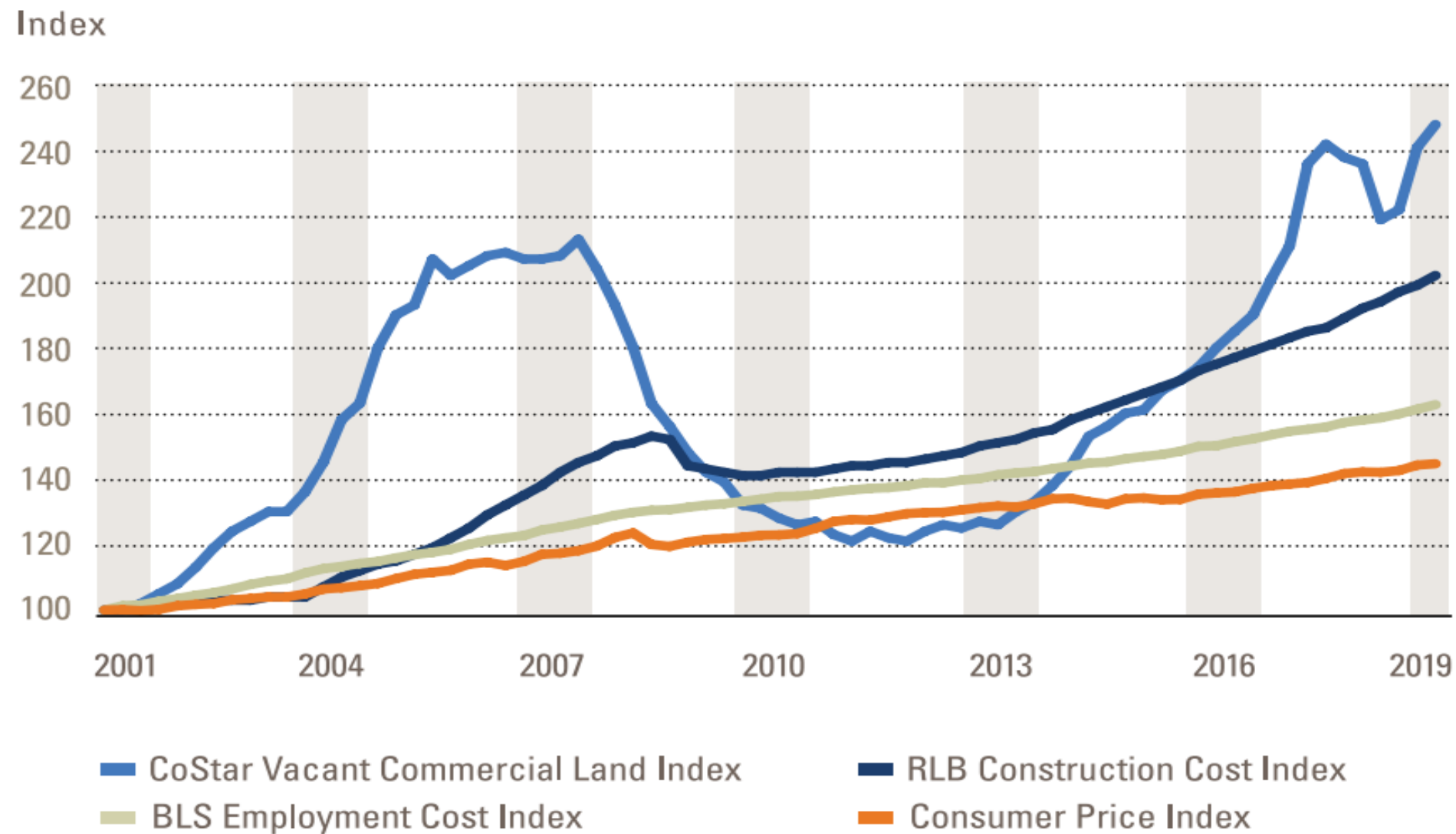
The Home Ownership Affordability Monitor showed declining national affordability for the 5th consecutive month.

Home prices hit a new record high.

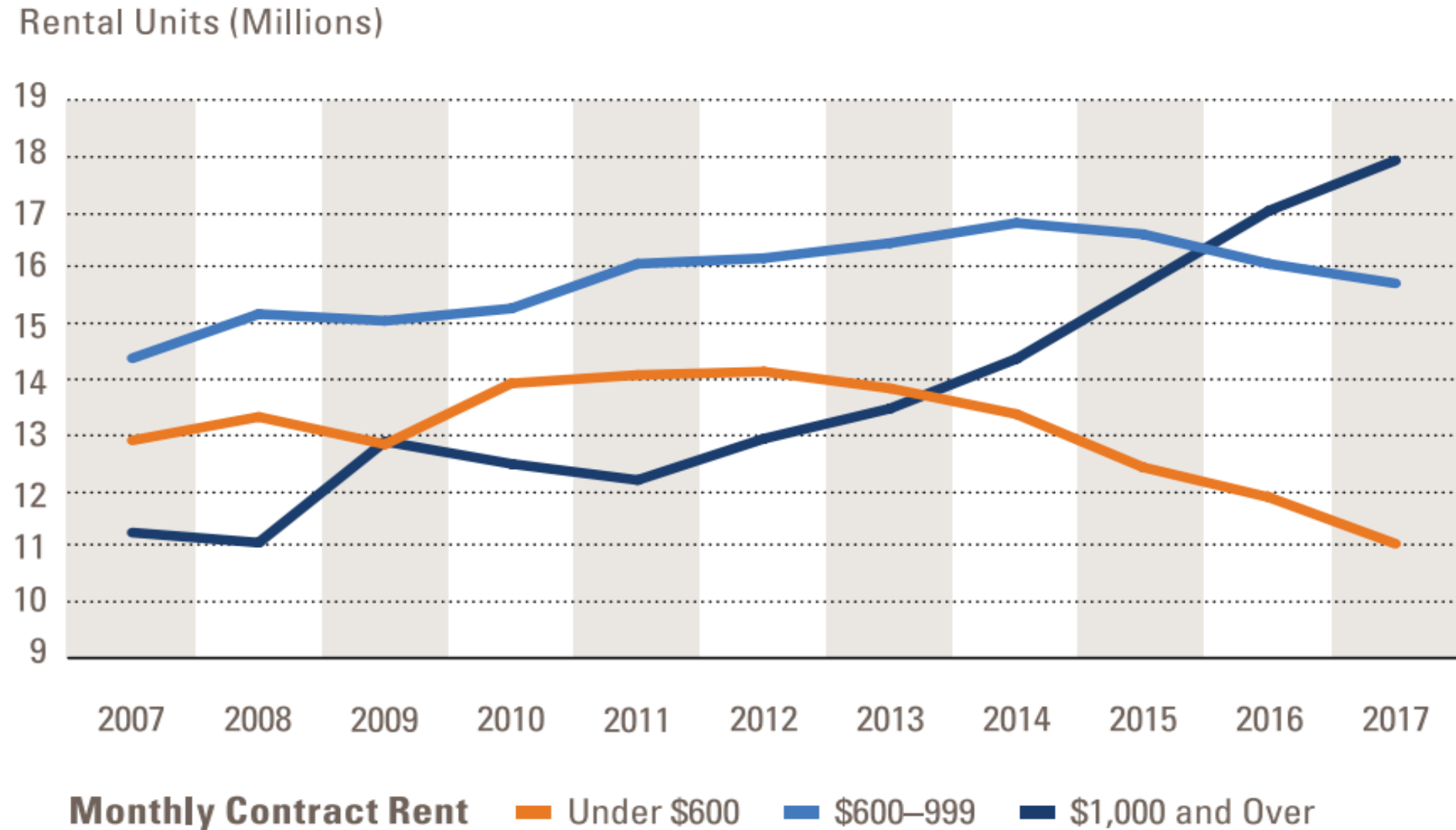
The median U.S. home price rose to \$330,500 on a three-month average, with a record gain of 21.6% year-over-year.



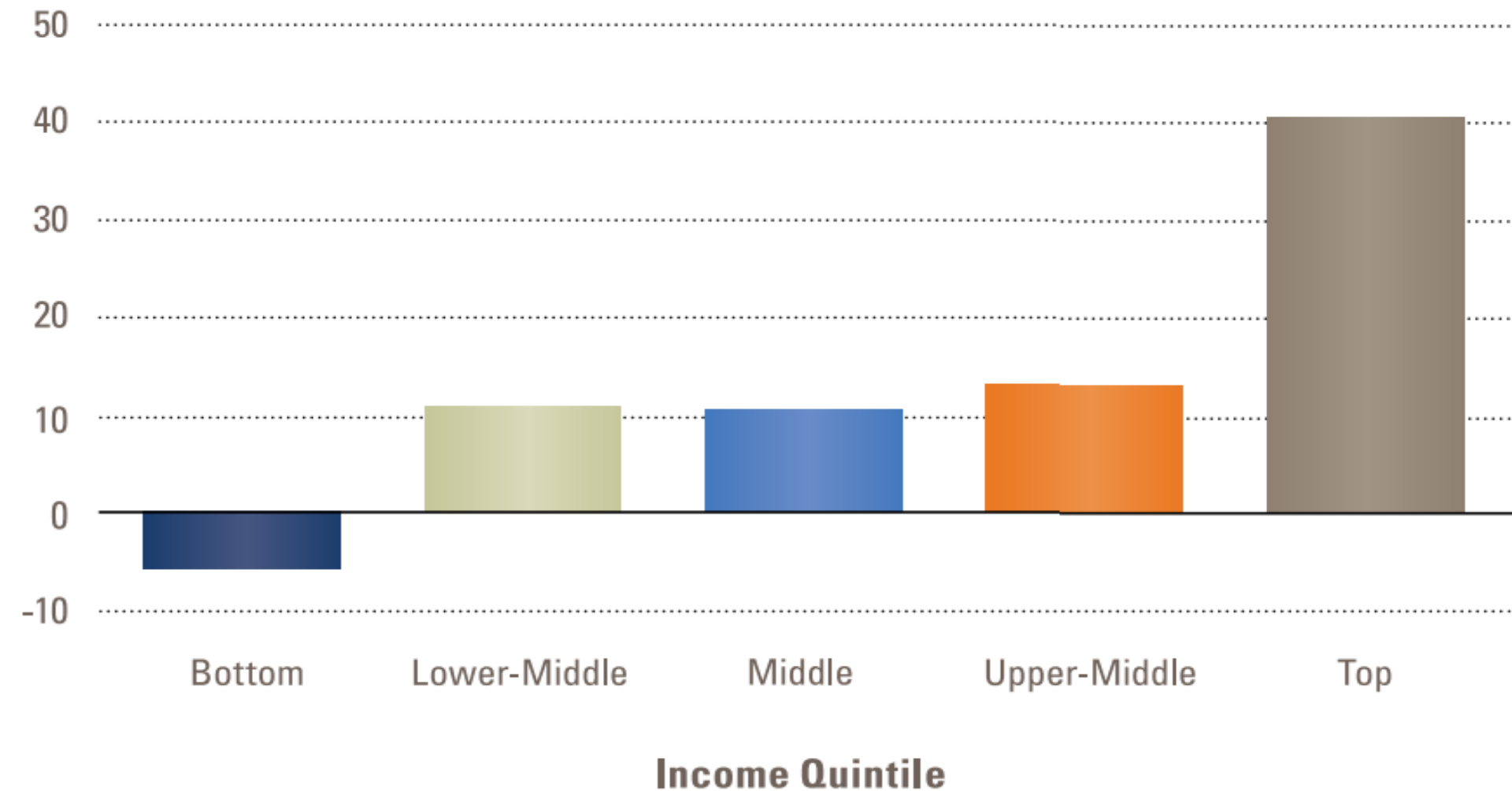
Costs Climb Faster than Inflation



Number of Rental Units by Rent Cost



Percent Change in Average Renter Income 1989 - 2019

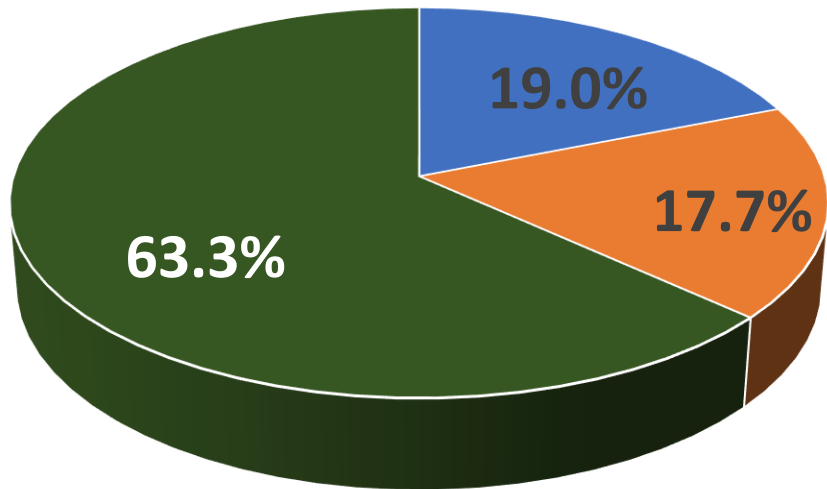




Business Concentration and Fragmentation

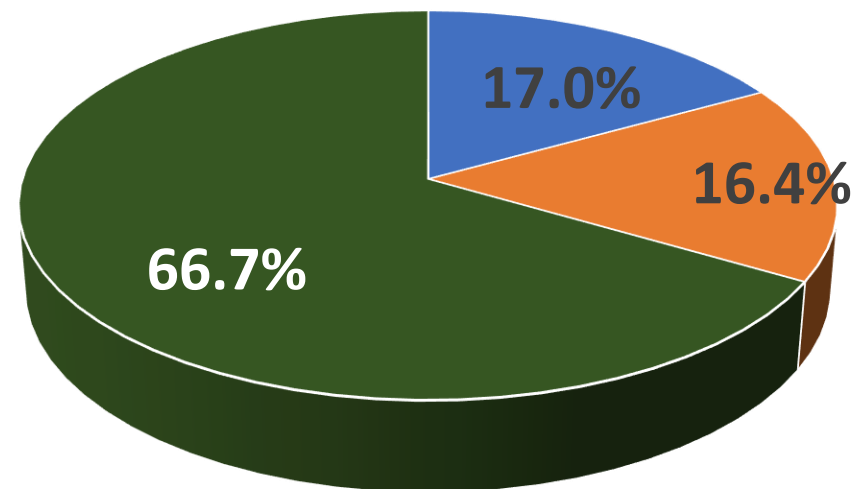
More American are Working for Larger Companies- Consolidations

USA Employment 2000



■ 1 to 19 ■ 20 to 99 ■ 100 or more

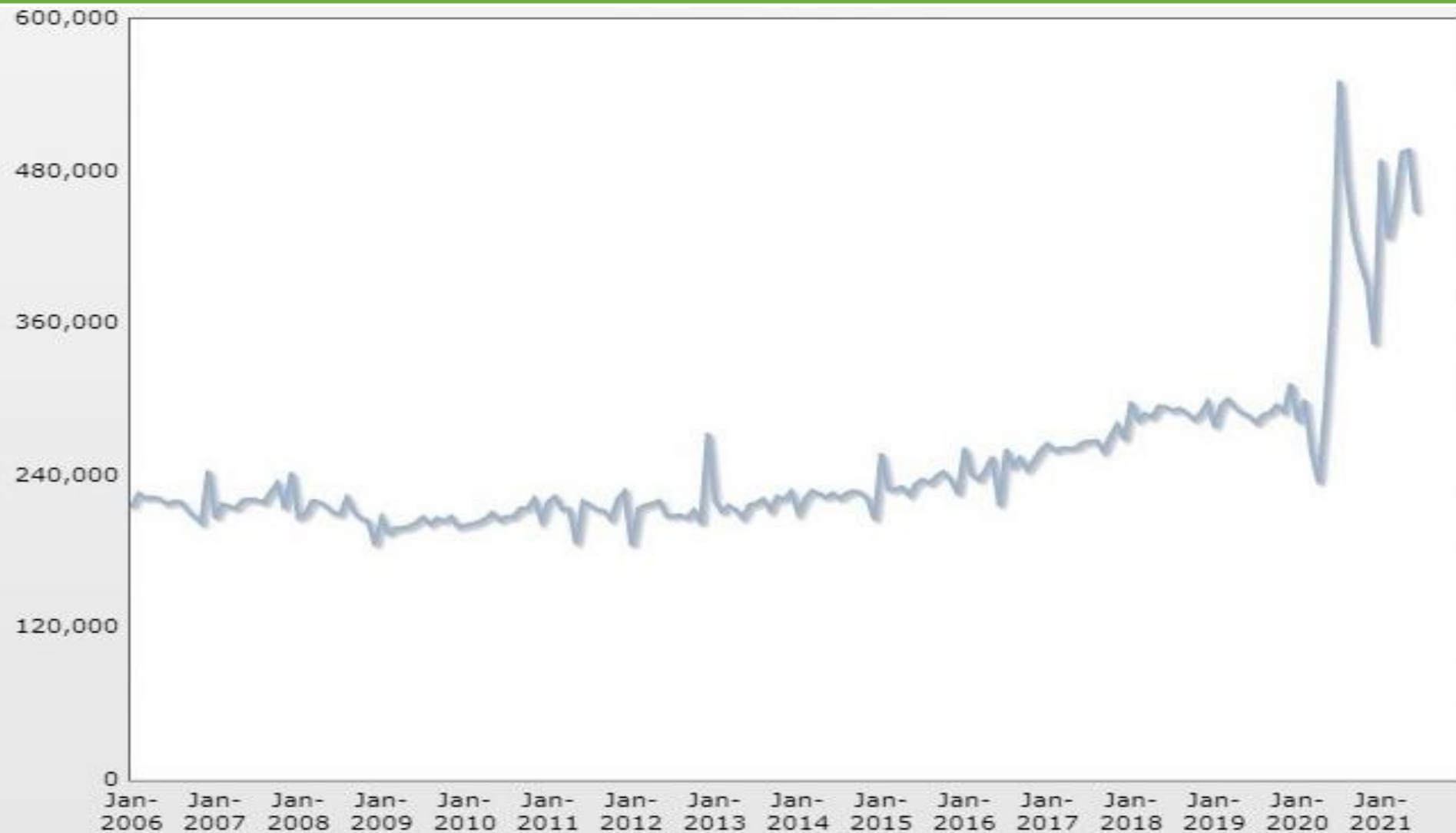
USA Employment 2018



■ 1 to 19 ■ 20 to 99 ■ 100 or more

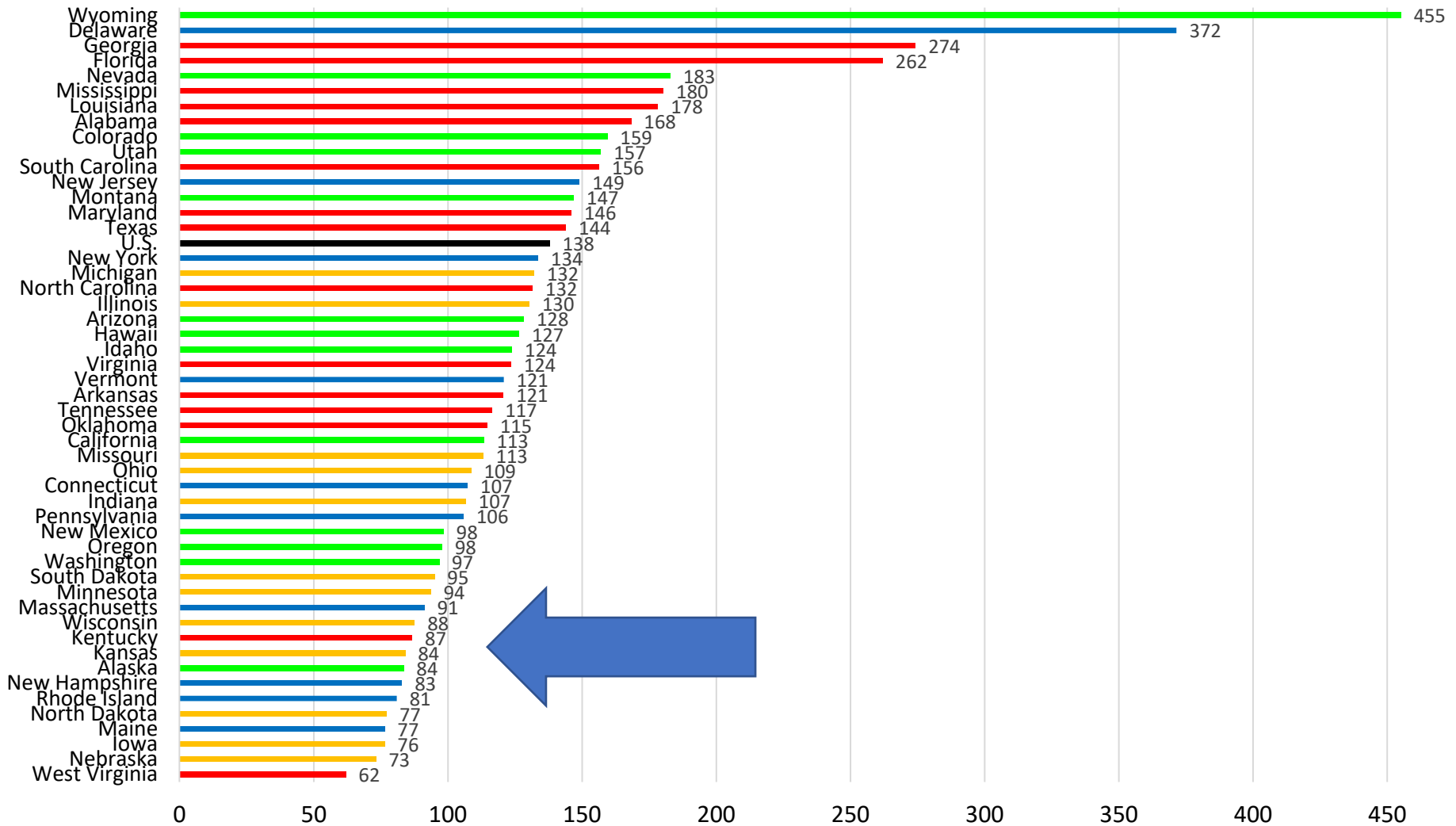
U.S. Business Applications

2006 - 2021



U.S. Business Formations

Business Applications per 100,000 Population July 2021



The Worker-Employer Compact is Evolving

- 89% of workers - February 2021 global *Harvard Business Review* said that their work life was getting worse
- 40% of the global workforce is considering leaving their employer this year
- 86% of executives believe workers will gain greater independence and influence in the future.



Think business
climate beyond
taxes, regulation
and legal



FLORIDA CHAMBER SAFETY COUNCIL

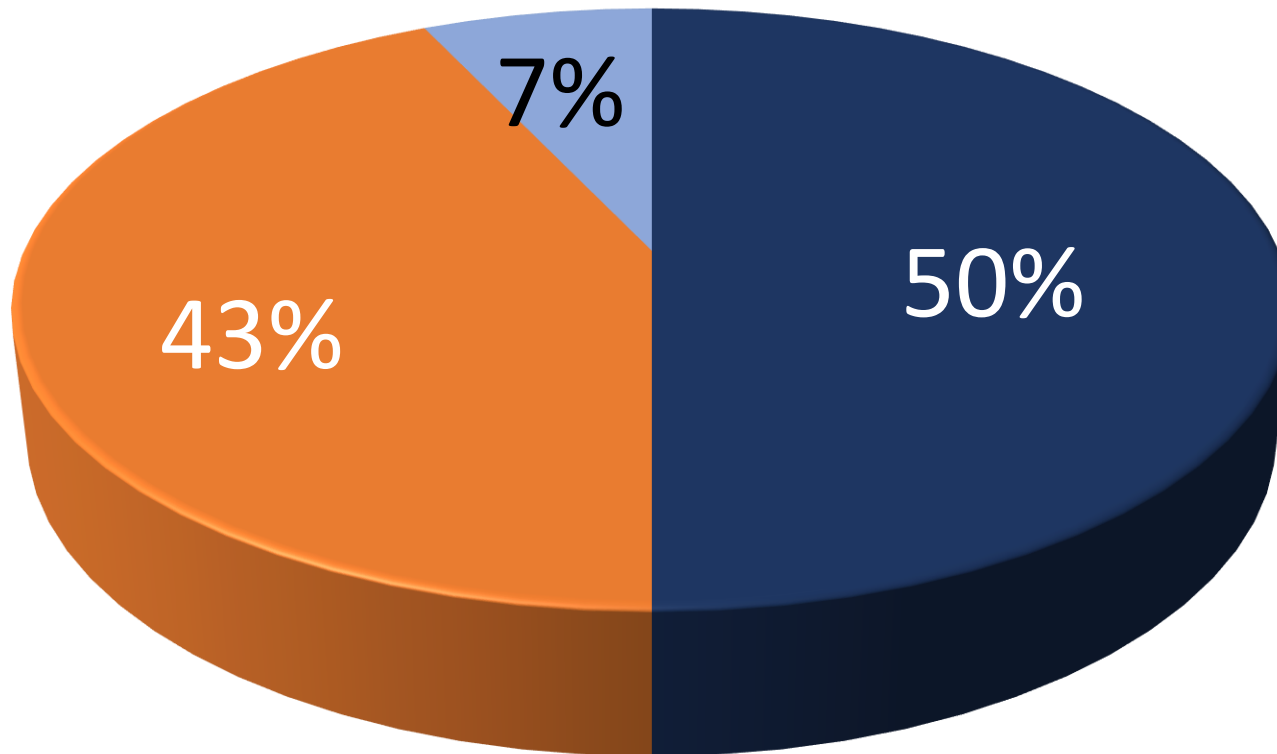
Making Florida Safer, Healthier and More Sustainable

Health and Safety and Sustainability

Influence of Health on Productivity

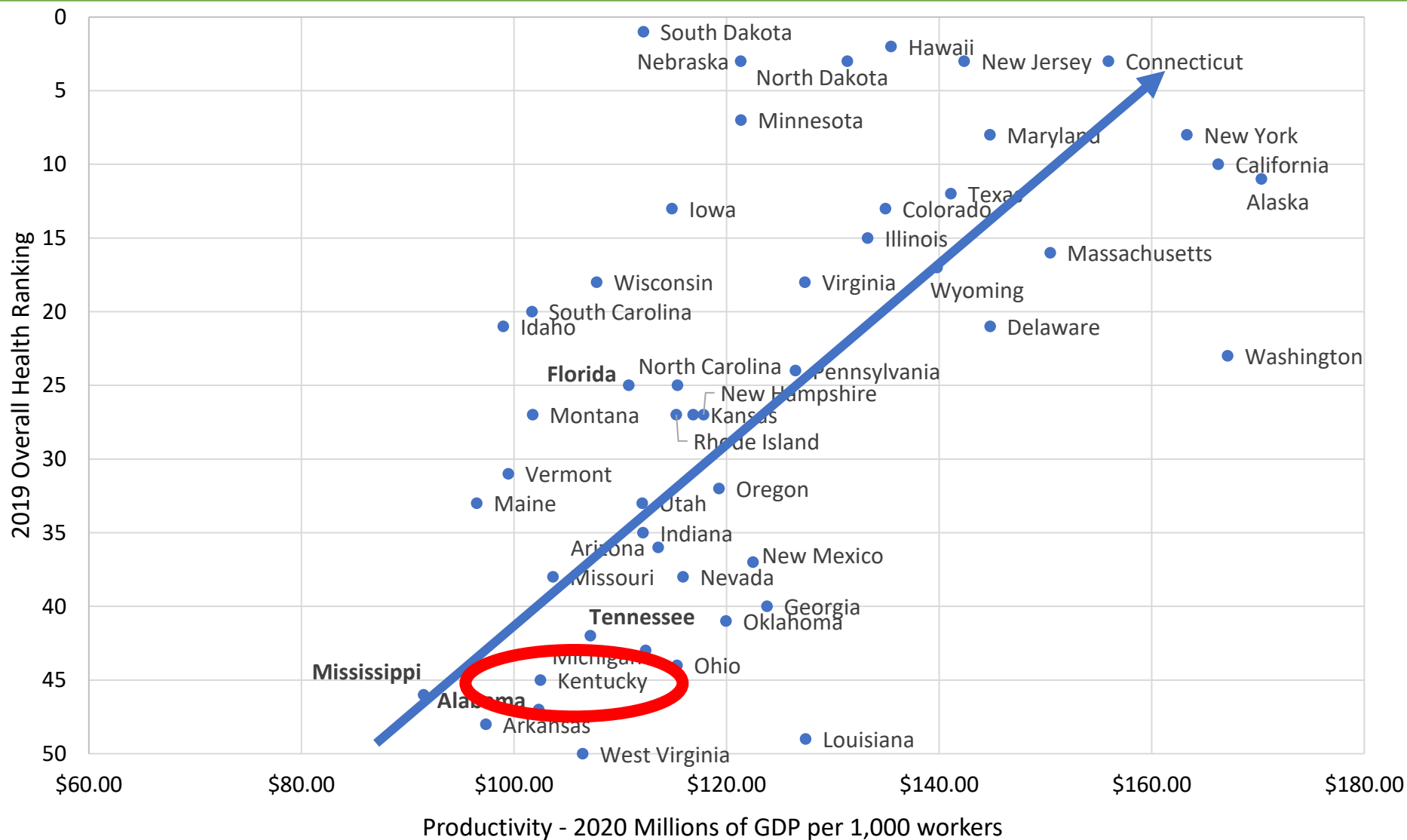
(A Survey of 500 Companies)

Business Leaders Views

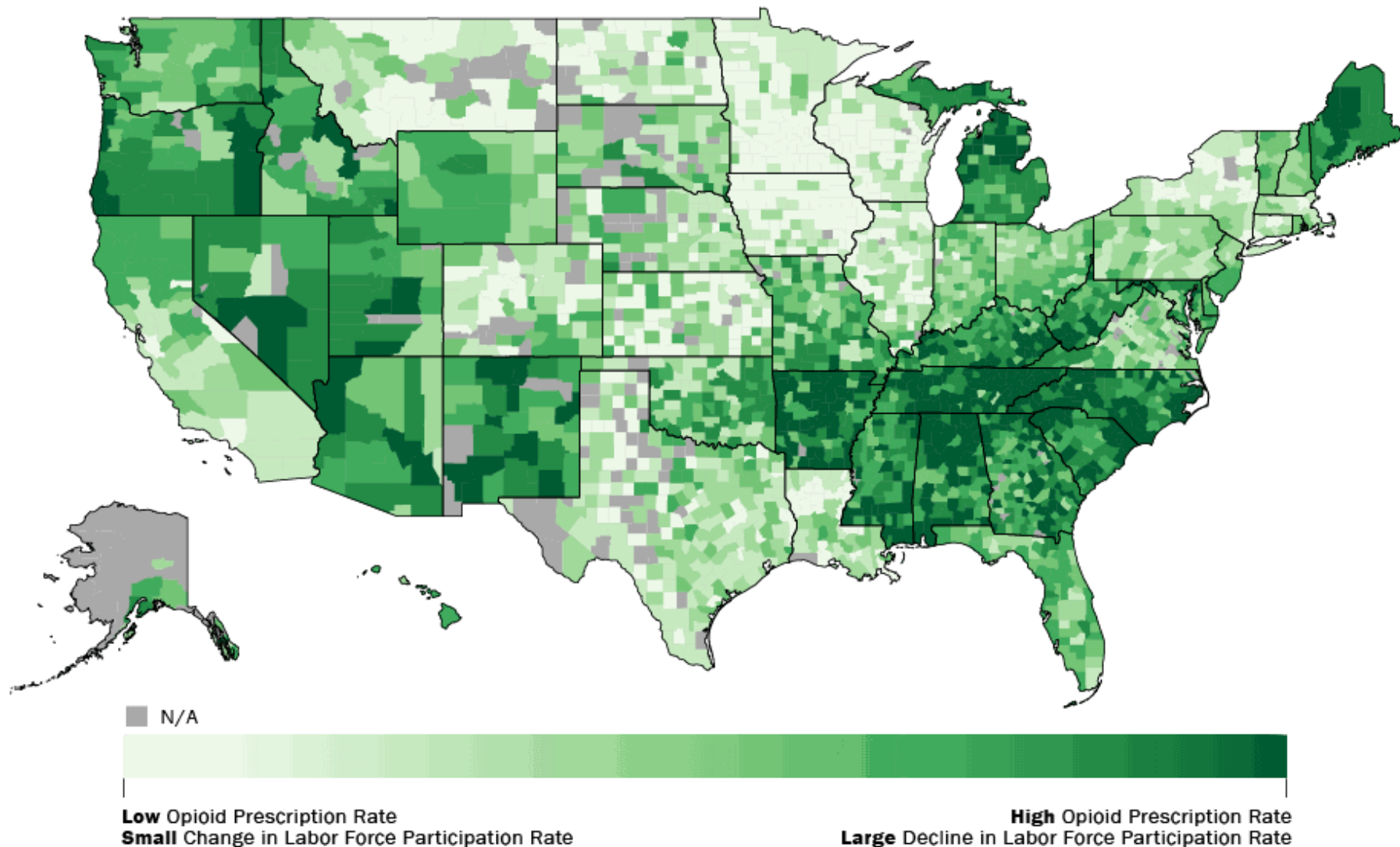


■ Very Significant ■ Significant ■ Modest

Health and Productivity Rankings



Combined Effect of Opioid Prescription Rates and Change in Labor Force Participation Rate Prime Age Adults, Ages 25–54

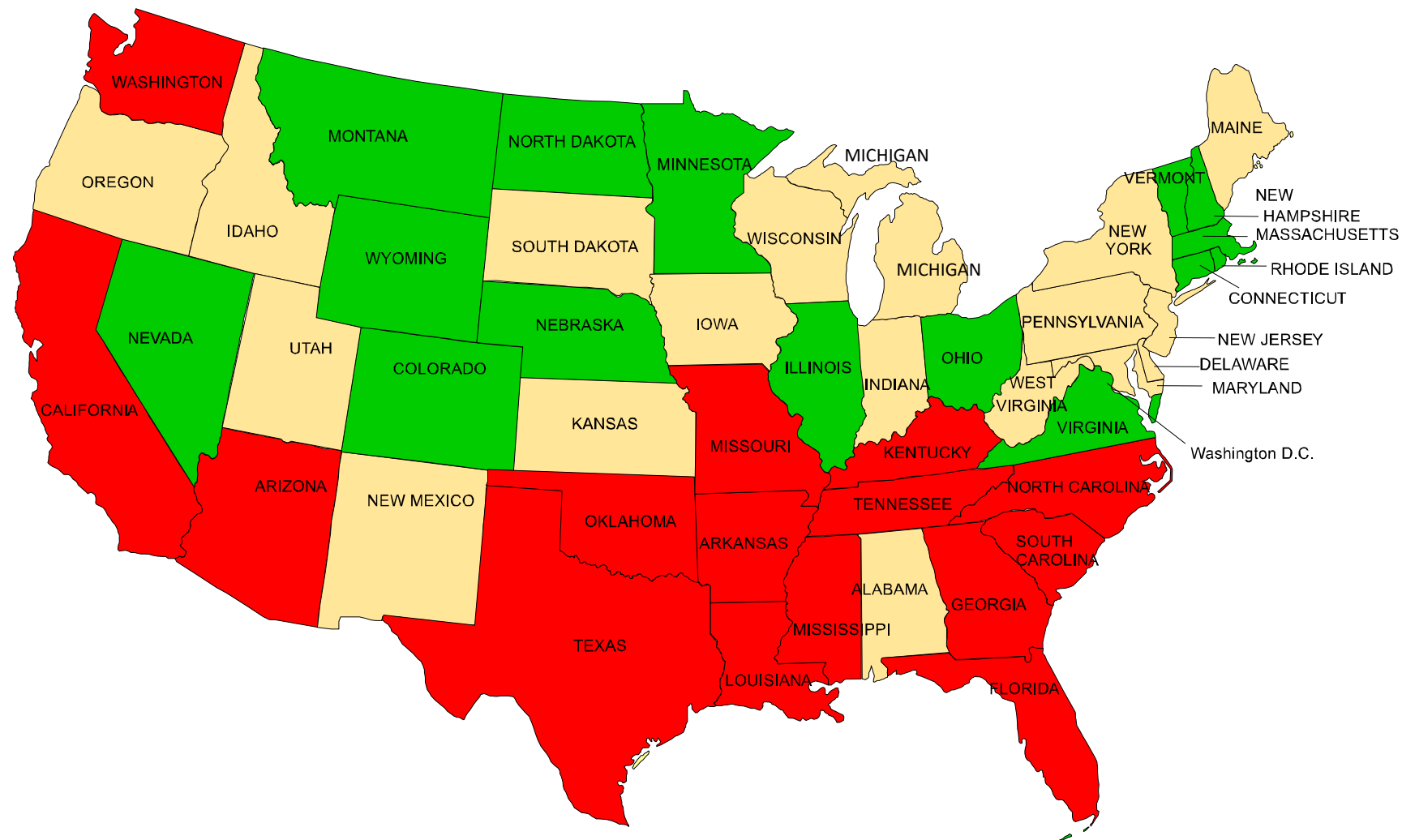


Note: Data on change in state-level labor force participation is from CPS years 1999–2001 and 2014–2016 for prime age adults and county-level data on opioid levels is from CDC Vital Signs (QuintilesIMS). For each county, the combined effect is the average of the percentile rank of labor force participation change and the percentile rank of opioid prescription rate.

Based on data used in “Where Have All the Workers Gone? An Inquiry into the Decline of the U.S. Labor Force Participation Rate” by Alan Krueger. Brookings Papers on Economic Activity, Fall 2017



Best & Worst States for Climate/Weather Change

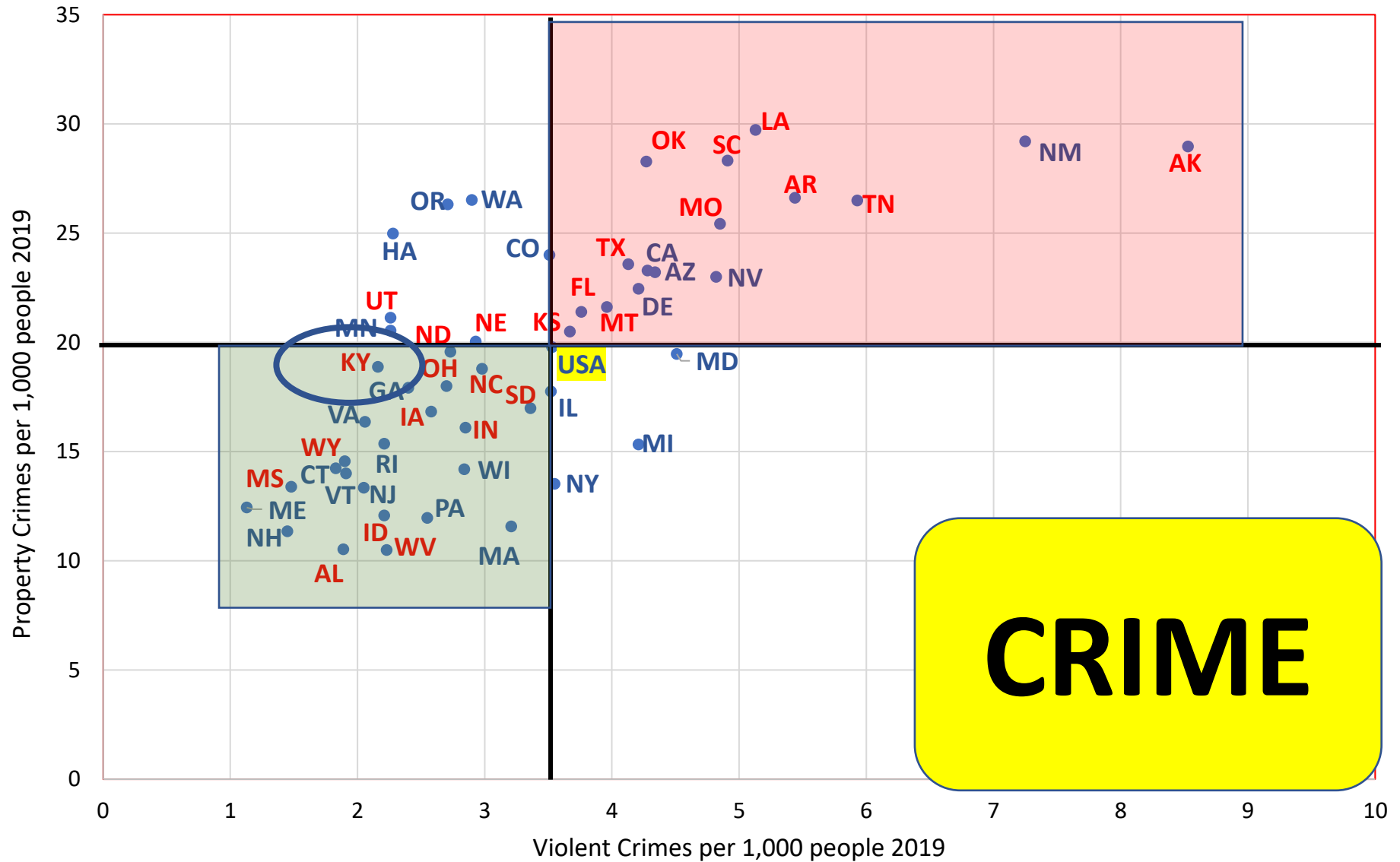


15 lowest risk states

middle risk states

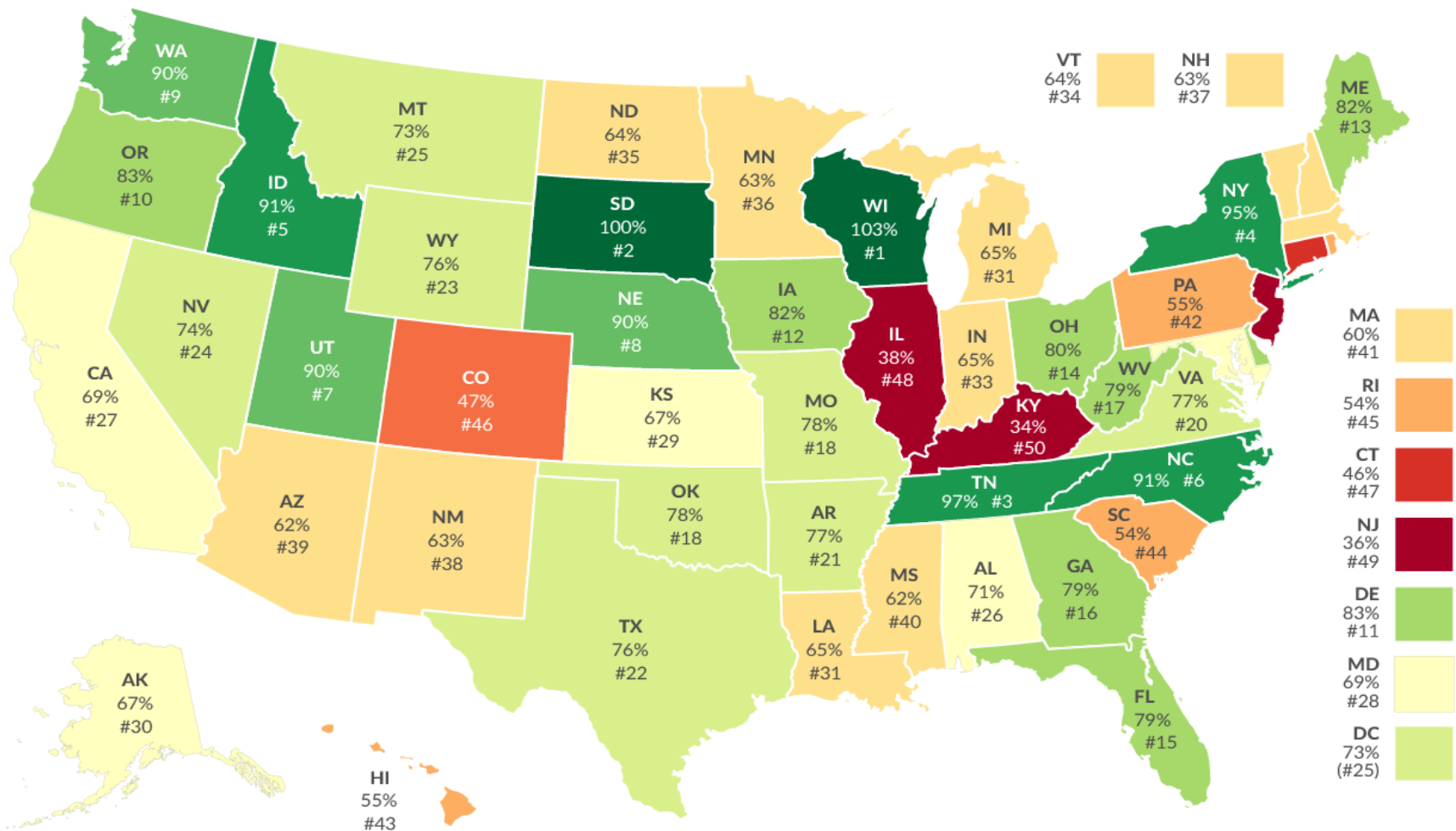
15 highest risk states

Violent Crime vs Property Crime



How Well-Funded Are Pension Plans in Your State?

Funded Ratio of Public Pension Plans, Fiscal Year 2017



Note: Funded ratio is defined as the level of assets in proportion to accrued pension liability.

Source: The Pew Charitable Trusts, "The State Pension Funding Gap: 2017" (2019).

Funded Ratio of Public Pension Plans,



The background is a composite image. On the left, a portion of the Earth is visible, showing continents in shades of green and yellow and oceans in blue. On the right, a profile of a human face is depicted in a light blue, almost ethereal tone. The face appears to be looking towards the left, towards the Earth. The overall composition suggests a connection between the planet and human intellect.

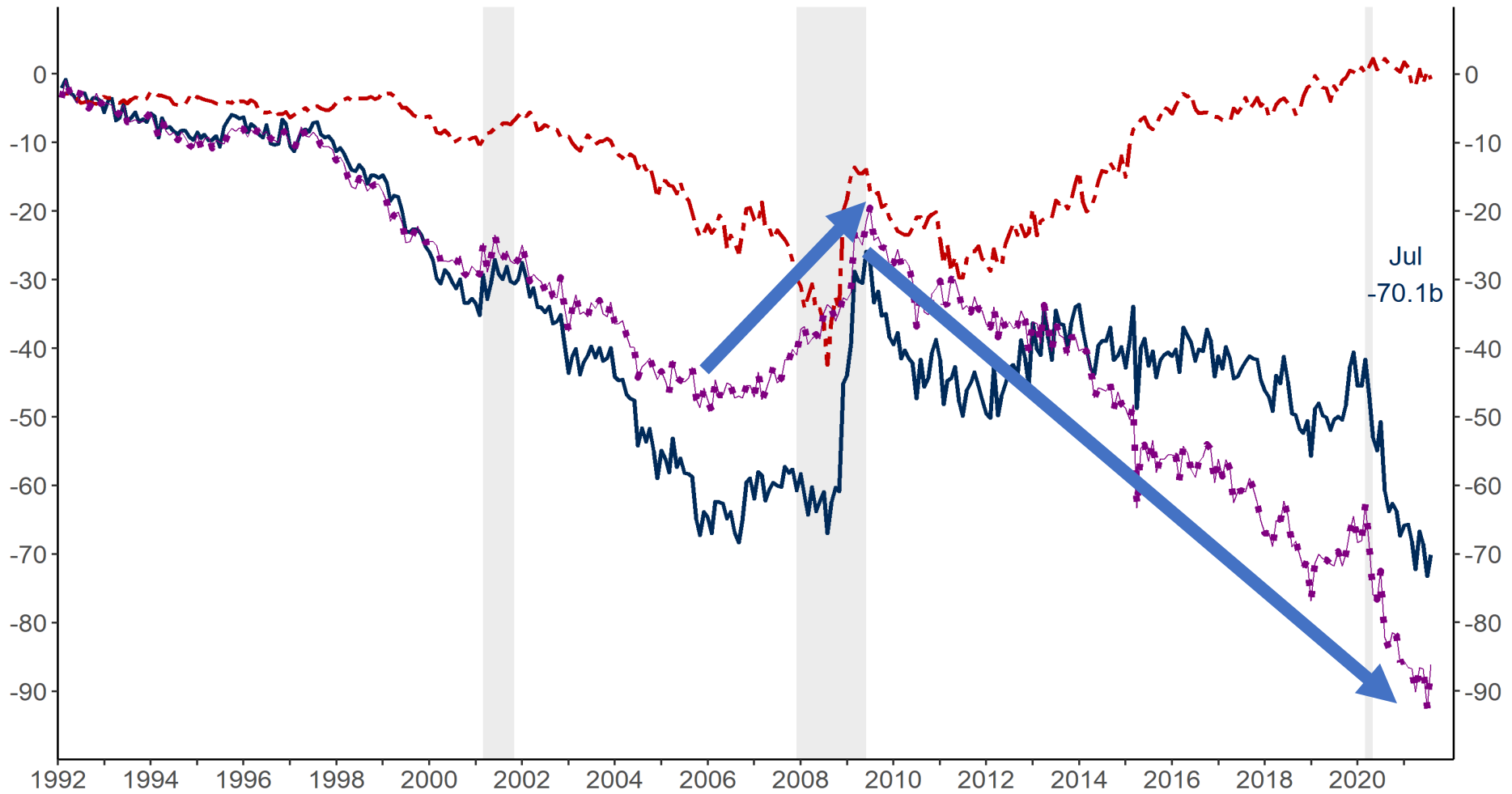
**It's Time We All Raise
Our Global IQ**

Balance of International Trade

Balance of International Trade

\$, Billions

— Trade Balance - - - Petroleum Balance ··· Non-Petroleum Balance



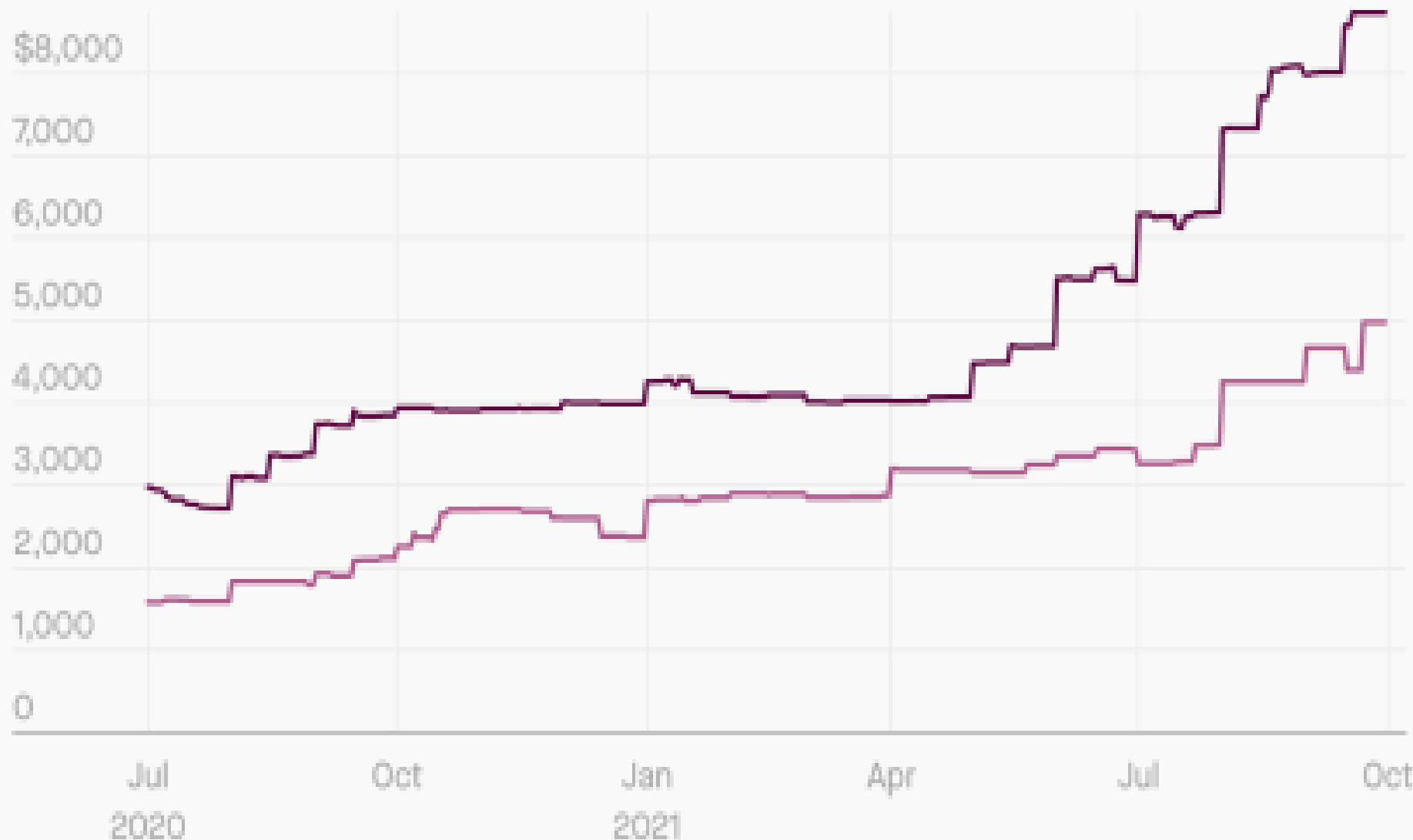




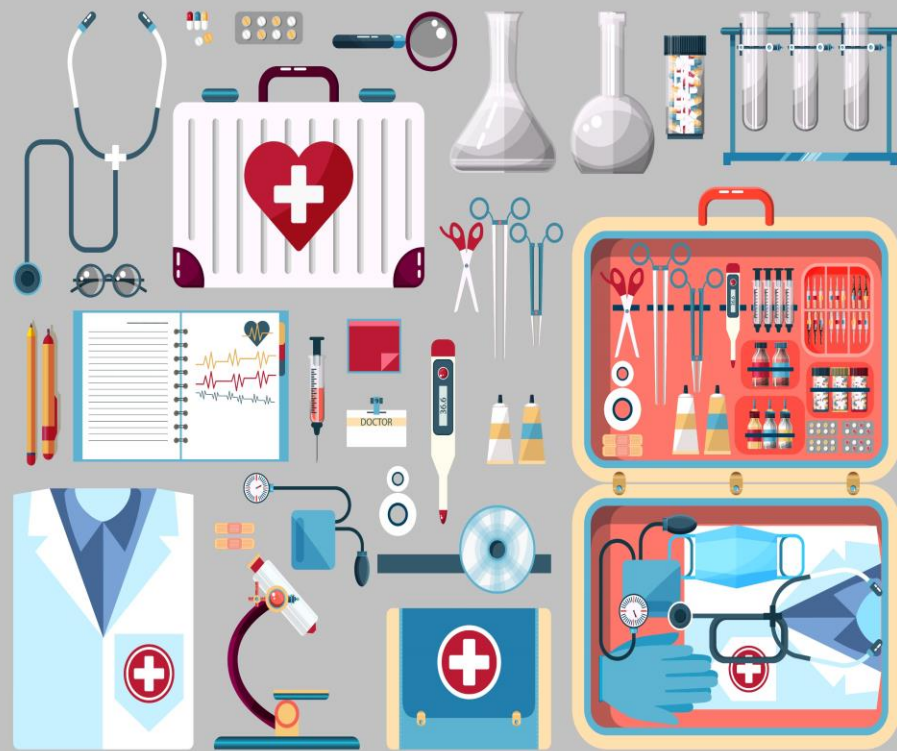


Average price to ship a 40-foot container from Asia to the US

— Recent long-term contract rate — Spot rate



Quartz | qz.com | Data: Xeneta | Note: The recent long-term contract rate includes deals signed in the preceding three months.





“Resilient systems are typically characterized by the very features—diversity and redundancy, or slack—that efficiency seeks to destroy.”



**Hard
Power**



**Econ
Power**



**Soft
Power**



USAID
FROM THE AMERICAN PEOPLE





BIOSCIENCES & BIOTECHNOLOGY



Physical and Life Sciences

POST /DataRetrieve HTTP/1.1

Host: 192.168.1.1

Content-Type: application/octet-stream; charset=utf-8

Content-Transfer-Encoding: base64

Content-Length: 6239

<?xml version="1.0"?>

Artificial Intelligence and Autonomous Systems

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<m:SecurityArray>...</m:SecurityArray>
<verifiedToken>
report value 88268;

var method = ("https:

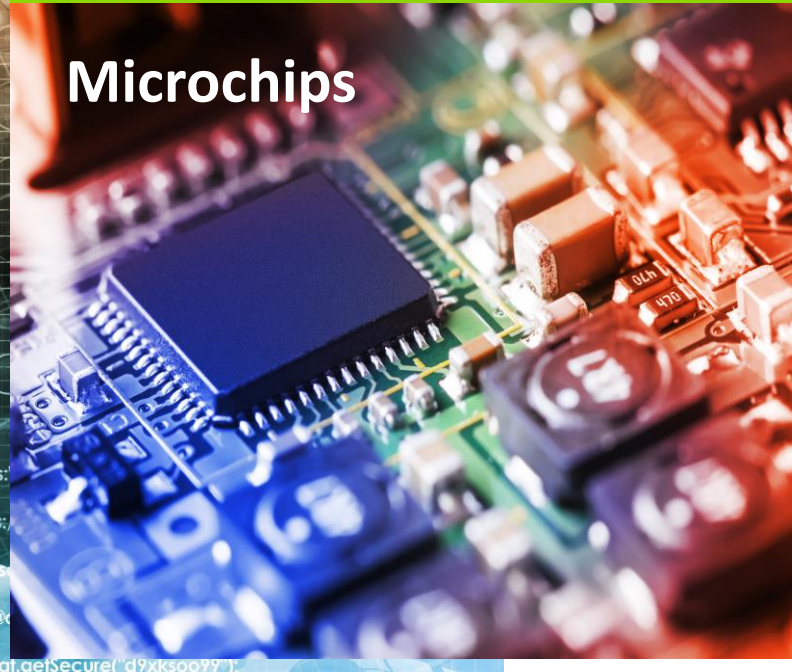
topSecure var ("https:

document.write(unesc

document.write("5P@

var pageTracker = adf.gelSecure('d9xksoo997

Microchips





78/12/14 DT:12:10



CTMX	▲ +98.0%
CSTO	▼ -0.05%
FTR	▼ -20.0%
CHK	▲ +50.0%
AVIO	▼ -30.0%
DEX	▼ -30.0%
NKY	▲ +65.0%
THLD	▲ +55.0%
OLP	▼ -35.0%
JIB	▼ -25.0%



CTMX	▲ +98.0%
CSTO	▼ -0.05%
FTR	▼ -20.0%
CHK	▲ +50.0%
AVIO	▼ -30.0%
DEX	▼ -30.0%
NKY	▲ +65.0%
THLD	▲ +55.0%
OLP	▼ -35.0%
JIB	▼ -25.0%

Competitiveness Data Analytics Rule the World



STOCK MARKET REPORT

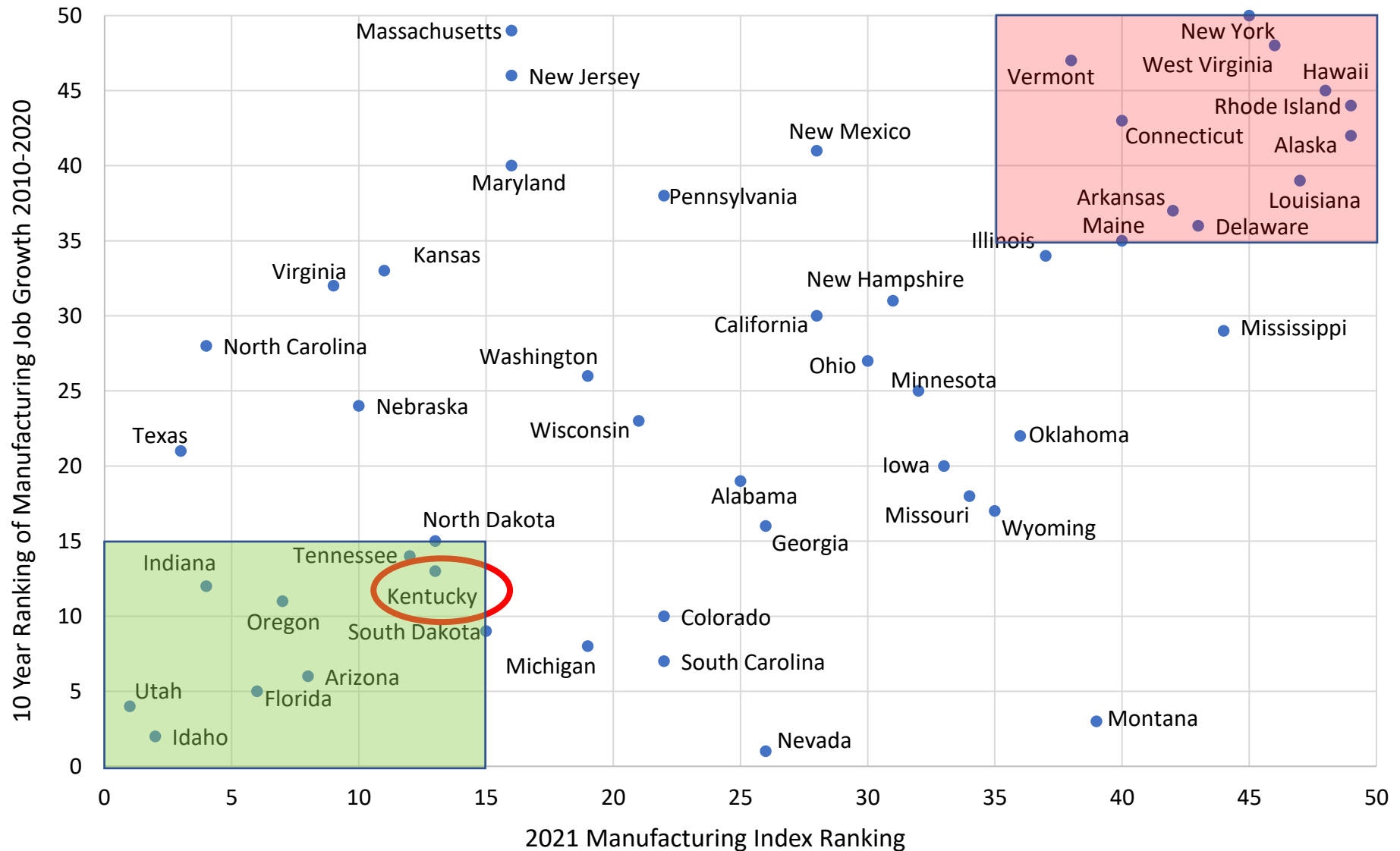
Collective Intelligence + Data Analytics = Third Party Validation



2021 Manufacturing Rankings

		BUSINESS CLIMATE	WORKFORCE	INFRA- STRUCTURE	INNOVATION	ECONOMIC STRENGTH
1	Utah	3	1	5	18T	2
2	Idaho	7	15	7	16	7
3	Texas	23	13	1	13	17T
4T	Indiana	14	14	23T	25	3
4T	North Carolina	2	10	35	5	27
6	Florida	10	18T	14	8	31T
7	Oregon	28	36	10	4	4
8	Arizona	8	33	23T	7	13
9	Virginia	6	7	6	28	42
10	Nebraska	24	5	8	38T	20
11	Kansas	30	25	4	31	8T
12	Tennessee	9	28T	27T	26	10
13T	Kentucky	19	18T	16	40	8T
13T	North Dakota	4	6	3	42	46
15	South Dakota	1	9	11	43	44
16T	New Jersey	50	21	26	9T	6
16T	Massachusetts	38	4	45T	2	23
16T	Maryland	39	16	13	14	30
19T	Michigan	18	39	25	12	19
19T	Washington	32	8	41	3	29
21	Wisconsin	33	12	27T	27	16
22T	Pennsylvania	47	24	12	20	14
22T	South Carolina	17	38	9	36	17T
22T	Colorado	35	2	34	11	35
25	Alabama	25	35	19	34	5
26T	Georgia	29	27	22	18T	25
26T	Nevada	11	32	15	32	31T
28T	California	49	34	38	1	1
28T	New Mexico	12	49	2	22T	38
30	Ohio	20	26	40	24	15
31	New Hampshire	27	18T	47	9T	26
32	Minnesota	44	22	21	17	28
33	Iowa	42	17	17	30	33
34	Missouri	15	41	36T	15	36
35	Wyoming	5	3	48	49	40
36	Oklahoma	13	30	18	41	45
37	Illinois	48	42	29	21	11
38	Vermont	37	23	20	33	39
39	Montana	31	11	32	38T	48
40T	Maine	34	31	44	35	22
40T	Connecticut	40	28T	33	22T	43
42	Arkansas	21T	43	43	44	21
43	Delaware	36	37	31	29	41
44	Mississippi	16	48	39	48	24
45	New York	45	40	50	6	37
46	West Virginia	21T	47	36T	50	34
47	Louisiana	46	44T	49	45	12
48	Hawaii	26	46	42	47	50
49T	Rhode Island	43	44T	45T	37	47
49T	Alaska	41	50	30	46	49

Manufacturing Rankings vs 10 Year Job Growth/Loss



A hand is shown interacting with a digital interface. The hand's index finger is touching a white padlock icon. To the left of the lock is a blue and white toggle switch. To the right is a large, circular button with a metallic, concentric-ring border. Inside the button, the words "FINAL THOUGHTS" are written in a bold, purple, serif font. The background is a blurred image of a person in a white lab coat, suggesting a medical or scientific setting. A bright, multi-colored light flare is visible on the left side of the image.

FINAL THOUGHTS



BLACK

SWAN

EVENTS

Continued Blurring of the Business-Employee-Society Relationship



← 22-51
WALL ST

The Expectations of Corporations Today

From Shareholders

From Customers

Pressure to
Take a Stand

From Employees

Elected Officials

Skills in Demand Today

- Analytical thinking & innovation
- Complex problem solving
- Critical thinking and analysis
- Active learning
- Creativity, originality, and initiative
- Attention to detail, trustworthiness
- Emotional intelligence
- Reasoning, problem solving, and ideation
- Leadership and social influence
- Coordination and time management





7 Predictions for 2021 & Beyond

- 1) Affordability will drive some increased relocations of people and companies, but not to rural
- 2) Talent attraction incentive programs explode
- 3) Workforce shortage will accelerate automation
- 4) Cluster strength becomes more important due to workforce depth
- 5) Supply chain targeting will be an increasing priority
- 6) Small business formation records will be set
- 7) Data analytics will have more influence on location decisions (companies & people)

NATIONAL BESTSELLER



NICHOLAS D. KRISTOF
and SHERYL WUDUNN

AUTHORS OF *HALF THE SKY*

TIGHTROPE

Americans Reaching for Hope



"May well be the timeliest and most engrossing work of nonfiction this year." — *Newsweek*

THE INTERNATIONAL BESTSELLER

2030

"Brilliant"
ANGELA
DUCKWORTH

"Bold, provocative"
ADAM GRANT

HOW TODAY'S BIGGEST TRENDS
WILL COLLIDE *and* RESHAPE
THE FUTURE OF EVERYTHING

"Thought-
provoking"
*FINANCIAL
TIMES*

"A must-read"
DAMBISA MOYO



MAURO F. GUILLÉN



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