



THE OHIO STATE UNIVERSITY

2023 Inflation and Macroeconomic Outlook

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Swank Chair in Rural-Urban Policy

Presented as part of OSU AEDE Economic Outlook

November 15, 2022



Outline

- 1. Basic 2023 macro forecast primarily considering GDP & growth.
 - **Real** GDP growth in US and rest of world.
- 2. Change to forecast is inflation discussion!
 - Since circa 2009, inflation rates were a steady 2%. Who cares about inflation????
- Now its 1965-1974 condensed into 2 years.
- Whose fault? International phenomenon.
“Covid meets the supply chain: Are inflation and empty shelves Joe Biden’s fault?” April 2022



Outline

- 3. Brief Ohio economic discussion.
- 4. Add political context after '22 midterms assuming 50-50 Senate, barely Republican House, Biden positioning for '24, and Republican supermajority trifecta in state government.



U.S. Growth will continue to slow in '23

From: OECD, World Bank, and IMF forecasts

Definition: Inflation is the rate at which the value of a currency is falling and consequently, the ***general*** level of prices for goods and services are rising. [<https://www.investopedia.com/terms/i/inflation.asp>]

- Rises in volatile sectors like energy and food alone is not general inflation and such issues should **not** be tackled by monetary policy or fiscal policy **per se**. Use micro policy.
- Generally, given perfect capital mobility, fiscal policy has weak effects on inflation.



U.S. Growth will continue to slow in '23

Forecast uncertainty is incredibly high this year.

- **Will central banks overcorrect for inflation causing global downturn? PPL are pessimistic.**
- When will Russia's "special operation" in Ukraine conclude?
- Energy and food prices?
- Recovery of global supply chain?
- China's zero-tolerance Covid policy
- What about Covid?



Figure 7. **Global growth is significantly weaker than expected prior to the war in Ukraine**

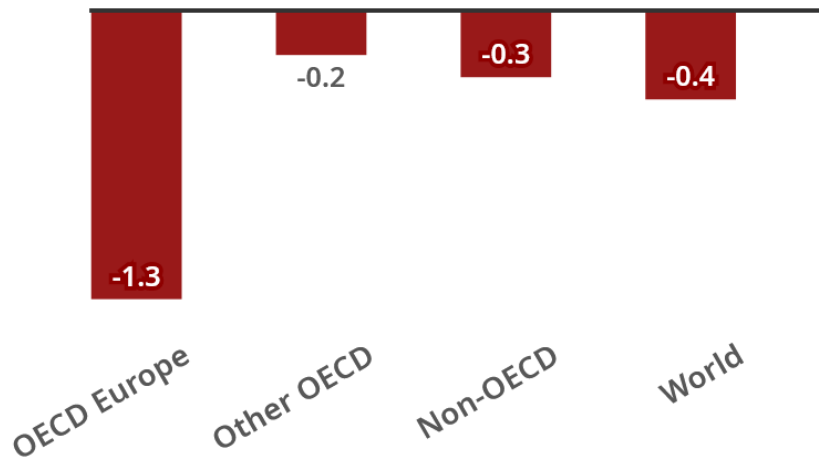


Source: OECD Economic Outlook 110 database; and OECD Interim Economic Outlook 112 database.

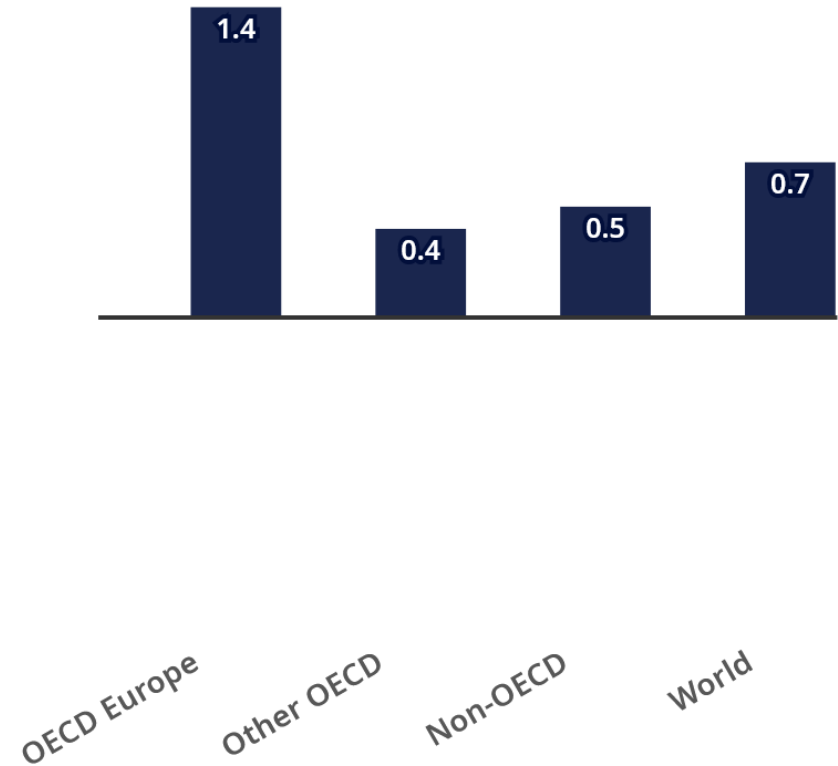
Impact of further energy price hikes and disruptions

% points difference from baseline projection

Impact on GDP growth



Impact on inflation



Assumes: global gas, oil and fertiliser prices to rise by 50%, 10% and 25% respectively; a 1 percentage point increase in the household saving rate; a 1 percentage point increase in the user cost of capital; and a temporary period of enforced rationing in industry use.

Source: [OECD Economic Outlook, Interim Report September 2022](#)

New York Fed Global Supply Chain Index: Standard Deviation from Avg, Aug 2015-Oct 2022



Sources: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; authors' calculations.

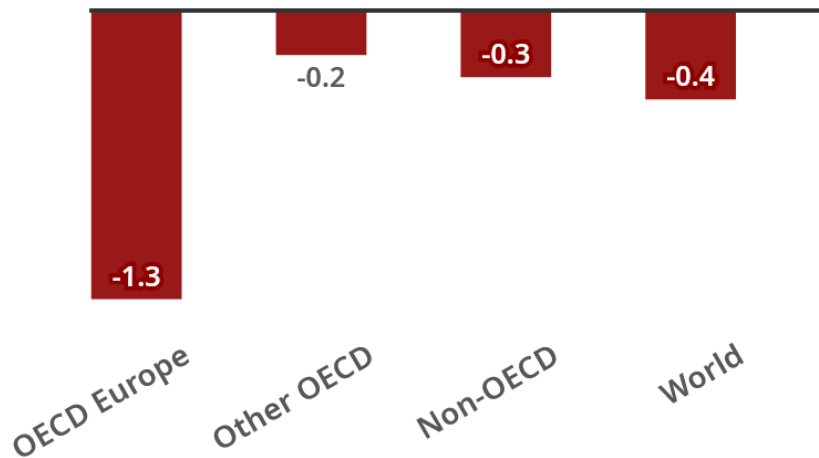
Notes: GSCPI readings for the most recent months can be revised as realized data become available, replacing the imputed values generated through principal component analysis. Further, for some series, mainly the BLS airfreight cost indices, each new release comes with revisions to up to twelve months of previous data. Thus, revisions can have an impact up to a year back in time.



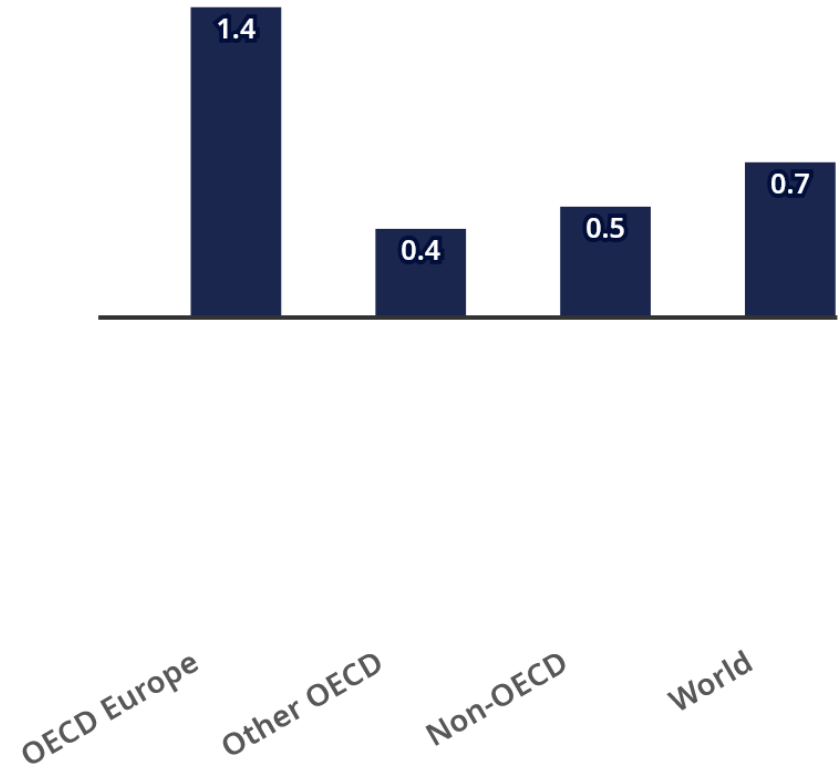
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Impact on inflation



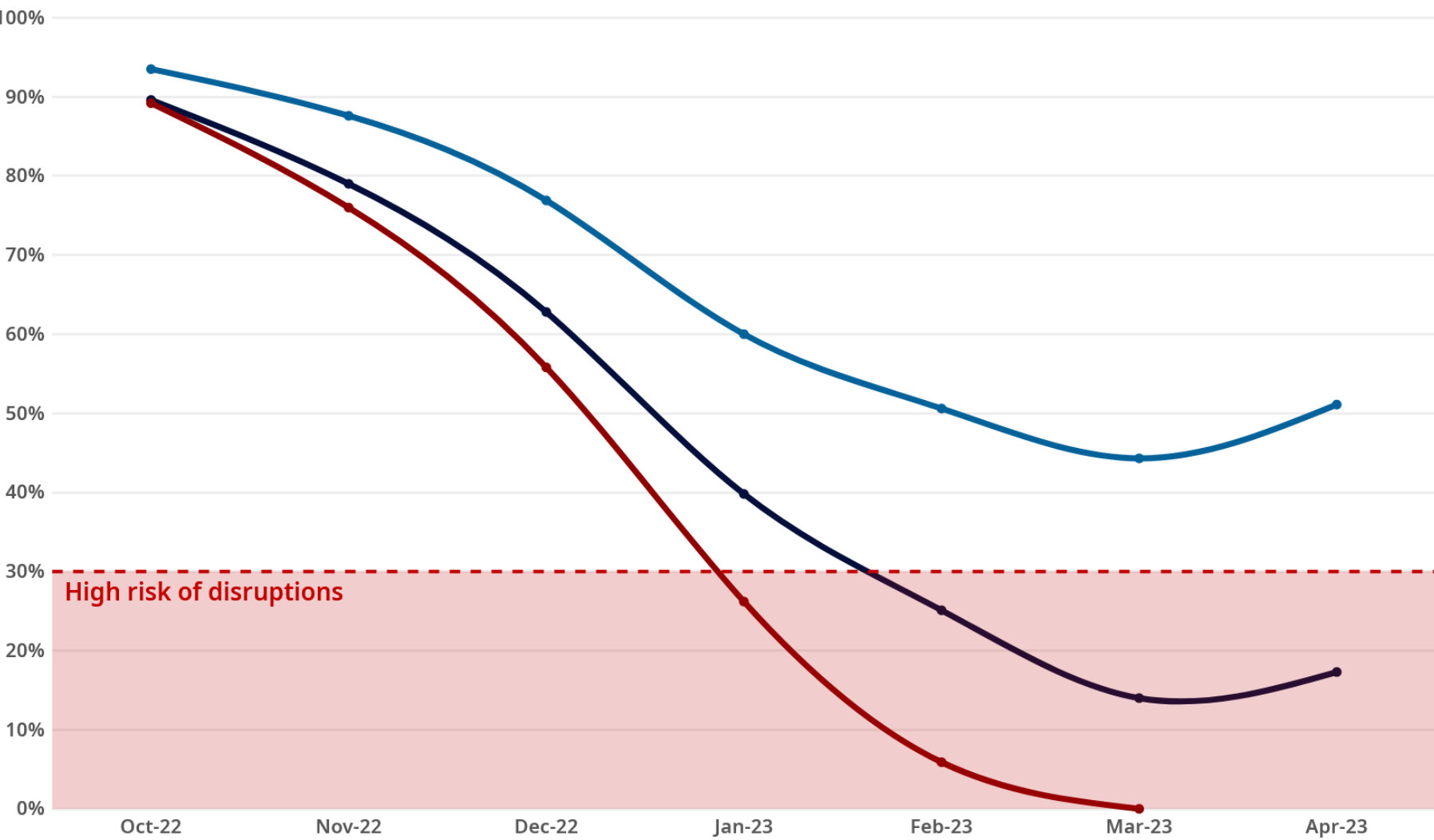
Assumes: global gas, oil and fertiliser prices to rise by 50%, 10% and 25% respectively; a 1 percentage point increase in the household saving rate; a 1 percentage point increase in the user cost of capital; and a temporary period of enforced rationing in industry use.

Source: [OECD Economic Outlook, Interim Report September 2022](#)

Projected European gas stock scenarios

% of storage capacity

No change in gas consumption -10% change in gas consumption Cold winter



High risk of disruptions

Projections for EU and United Kingdom, based on 2017-2021 gas consumption: "No change" average consumption; "Cold winter" maximum consumption; "-10% change" 90% of average consumption.
Source: [OECD Economic Outlook, Interim Report September 2022](#)

Rare unrest in Chinese city of Guangzhou as people protest over Covid restrictions – video

The Guardian

<https://www.theguardian.com/world/video/2022/nov/15/rare-unrest-chinese-city-guangzhou-people-protest-covid-restrictions-video>



Protesters poured on to the streets of the southern Chinese city in a rare demonstration against strict Covid-19 restrictions. Video circulating on social media shows crowds of people marching through the Haizhu district, breaking Covid barriers in noisy scenes. Cases have also been rising in other large Chinese cities, including Beijing, Chongqing and Zhengzhou. China still operates a policy of strict lockdowns and quarantines even after small outbreaks, which it says are necessary for public safety

● Covid curbs fuel unrest in southern Chinese city, video shows



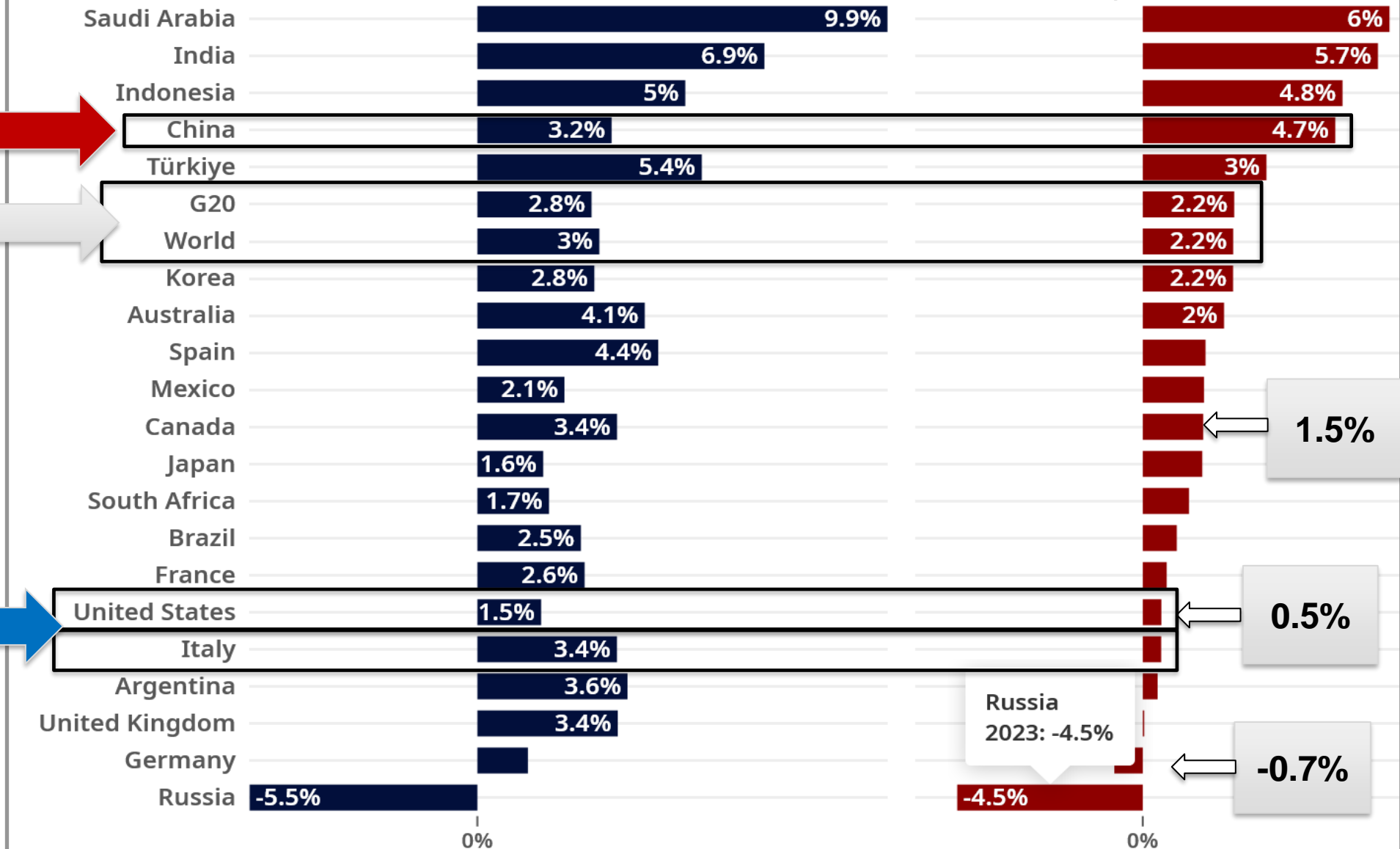
IMF Forecast



Real GDP growth projections for 2022 and 2023

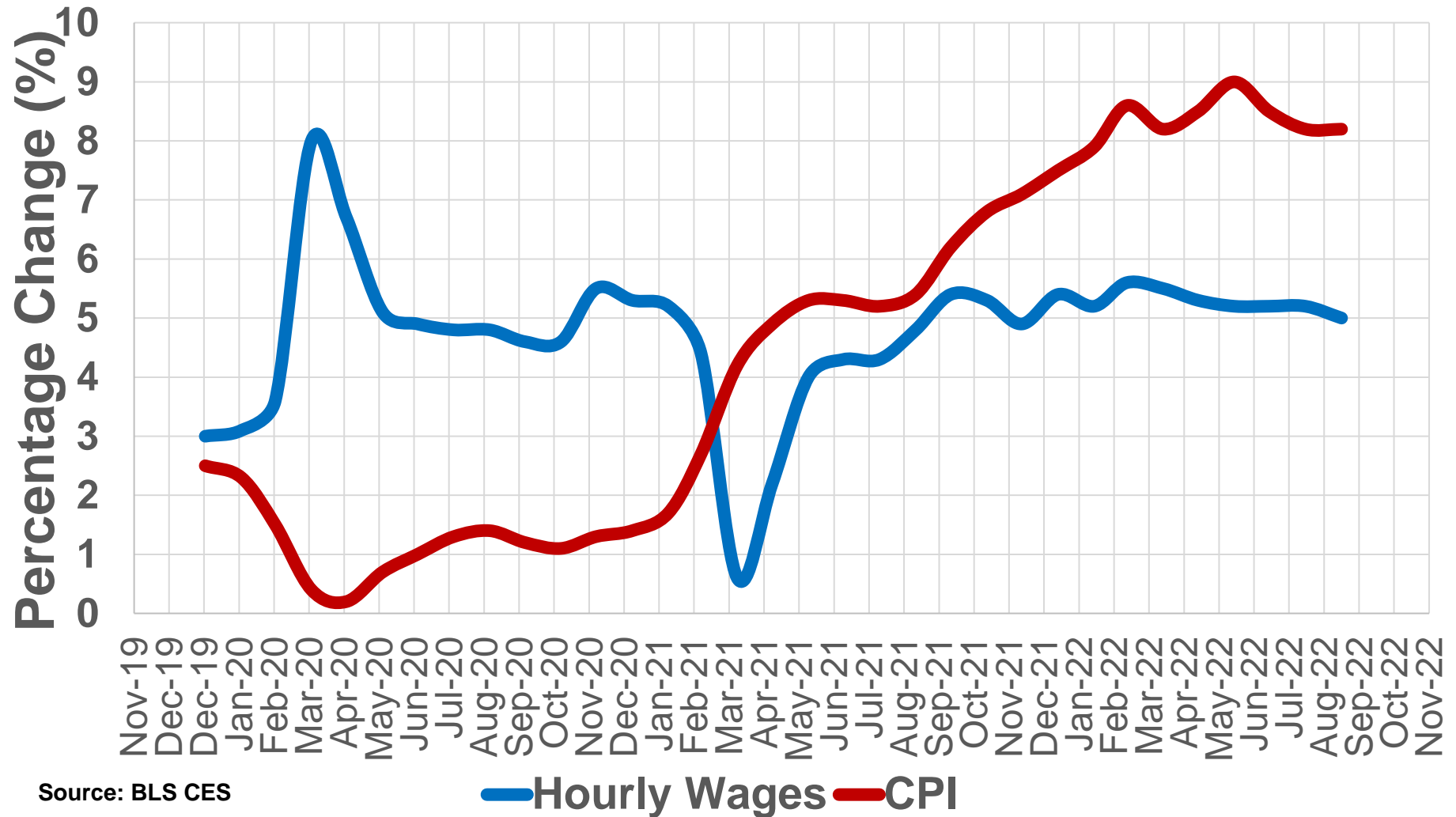
Year-over-year, %

Source: OECD Oct. Economic Outlook,
<https://www.oecd.org/economic-outlook/september-2022/>



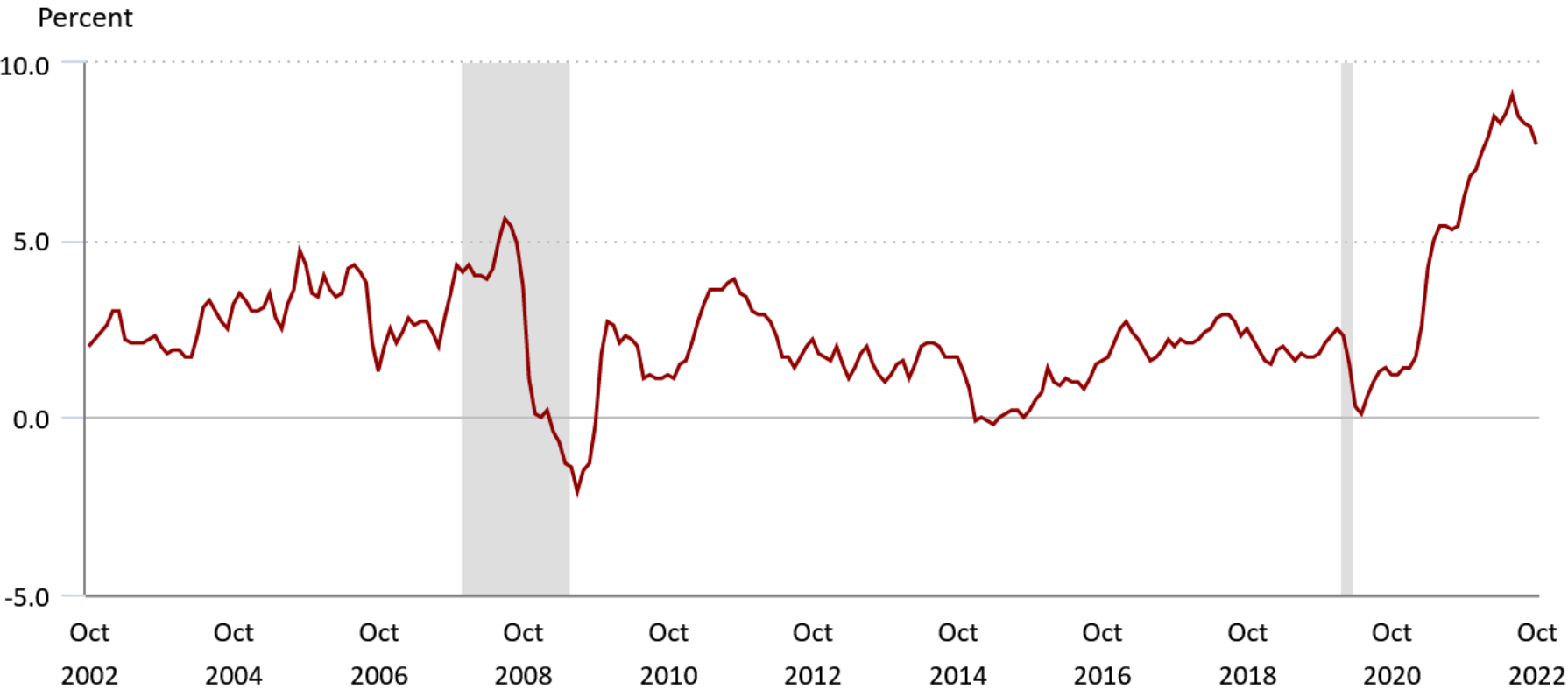


Annual Percentage Change in Hourly Wages and Consumer Price Index Jan. 2020- Oct. 2022



12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted

- All items
- Food at home
- Energy
- Electricity
- All items less food and energy
- Apparel
- Medical care commodities
- Shelter
- Education and communication
- Food
- Food away from home
- Gasoline (all types)
- Natural gas (piped)
- Commodities less food and energy com...
- New vehicles
- Services less energy services
- Medical care services

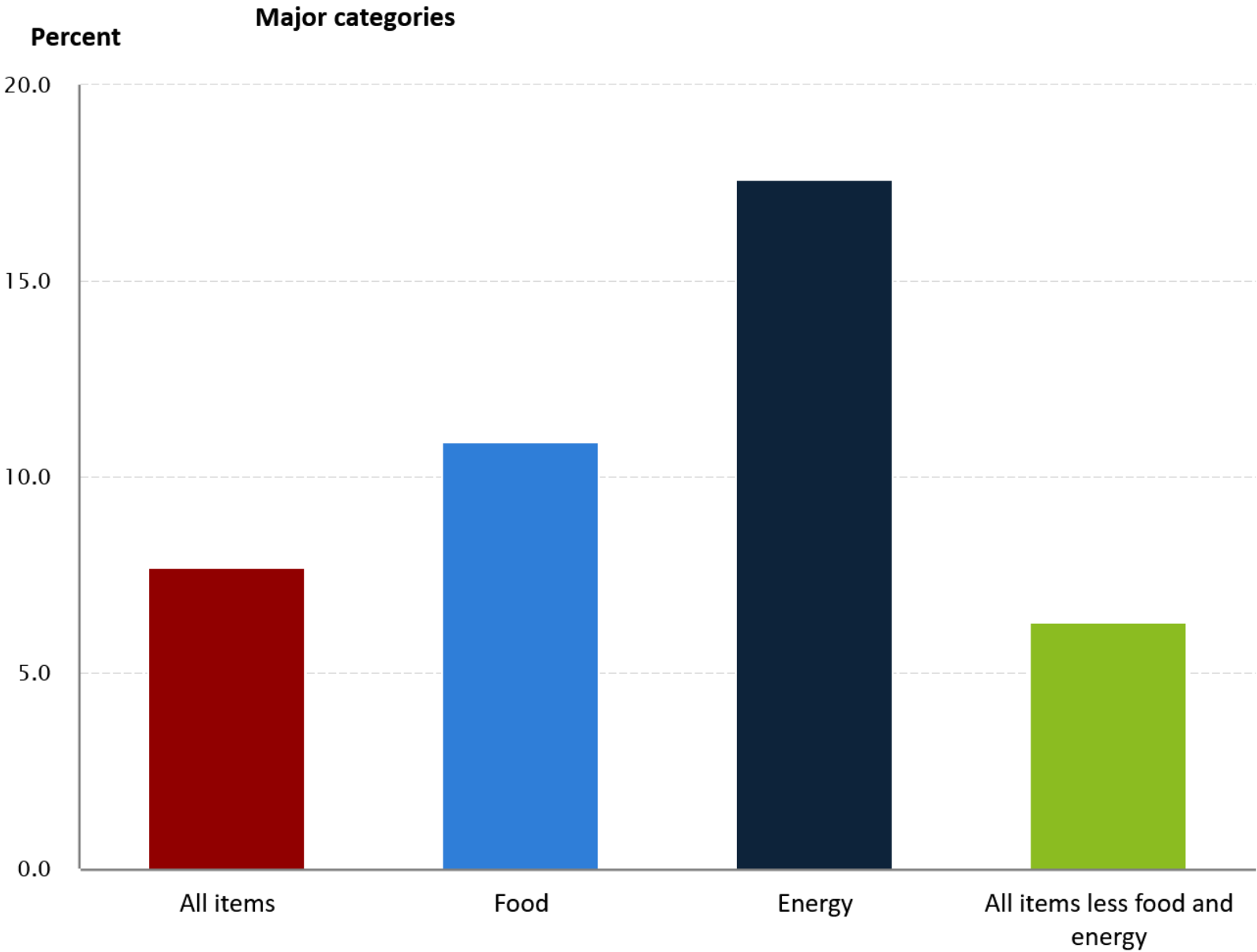


Hover over chart to view data.
Note: Shaded area represents recession, as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.



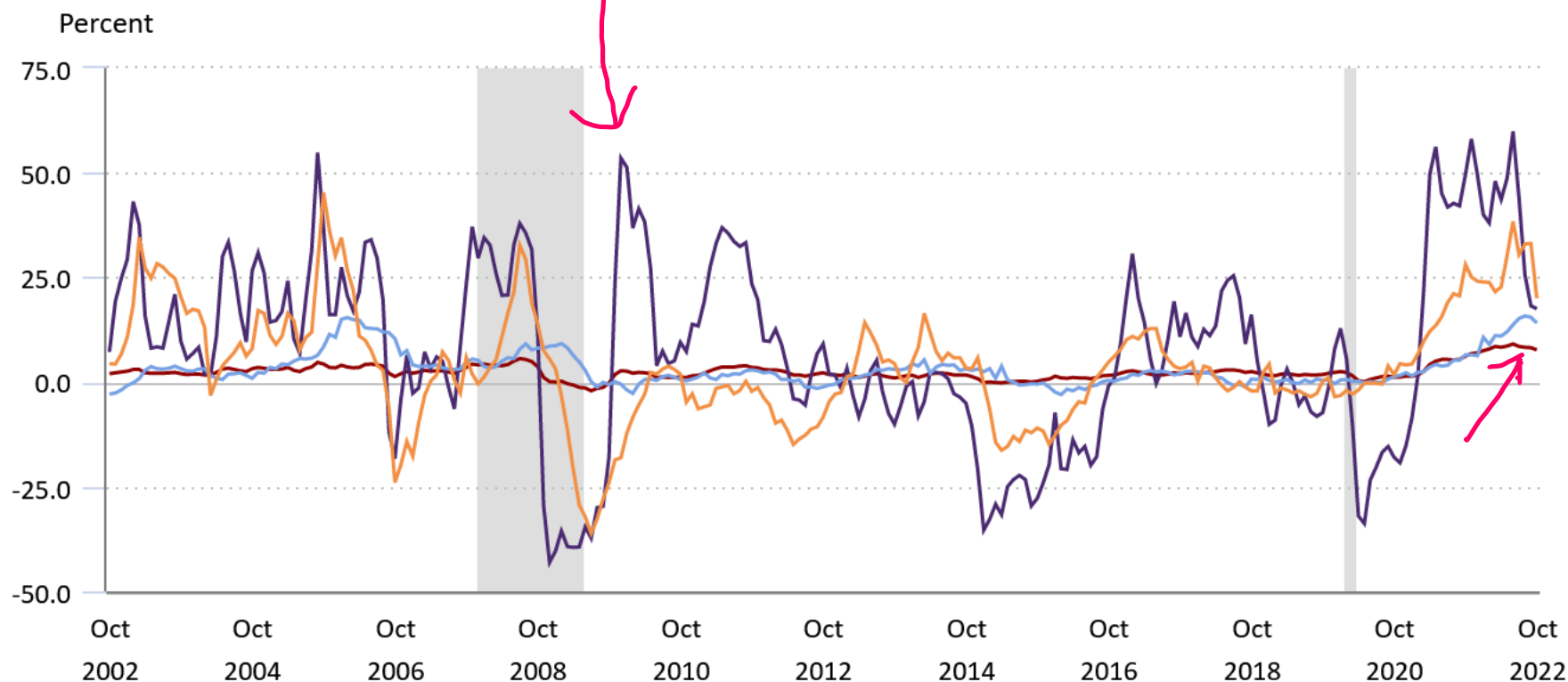
12-month percentage change, Consumer Price Index, selected categories, October 2022, not seasonally adjusted

Click on columns to drill down



12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted

- All items
- Food at home
- Energy
- Electricity
- All items less food and energy
- Apparel
- Medical care commodities
- Shelter
- Education and communication
- Food
- Food away from home
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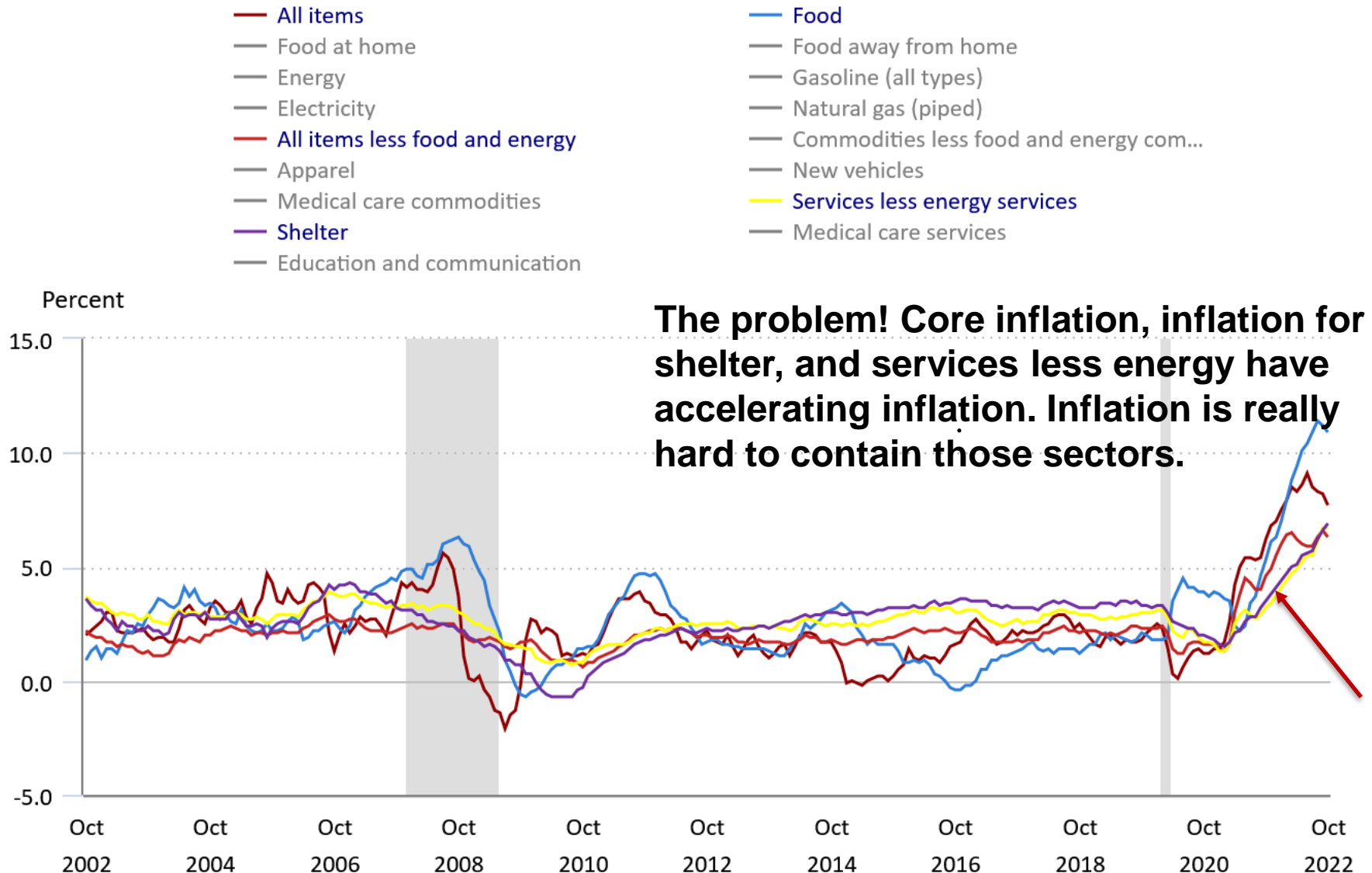
Hover over chart to view data.

Note: Shaded area represents recession, as determined by the National Bureau of Economic Research.

Source: U.S. Bureau of Labor Statistics.



12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted



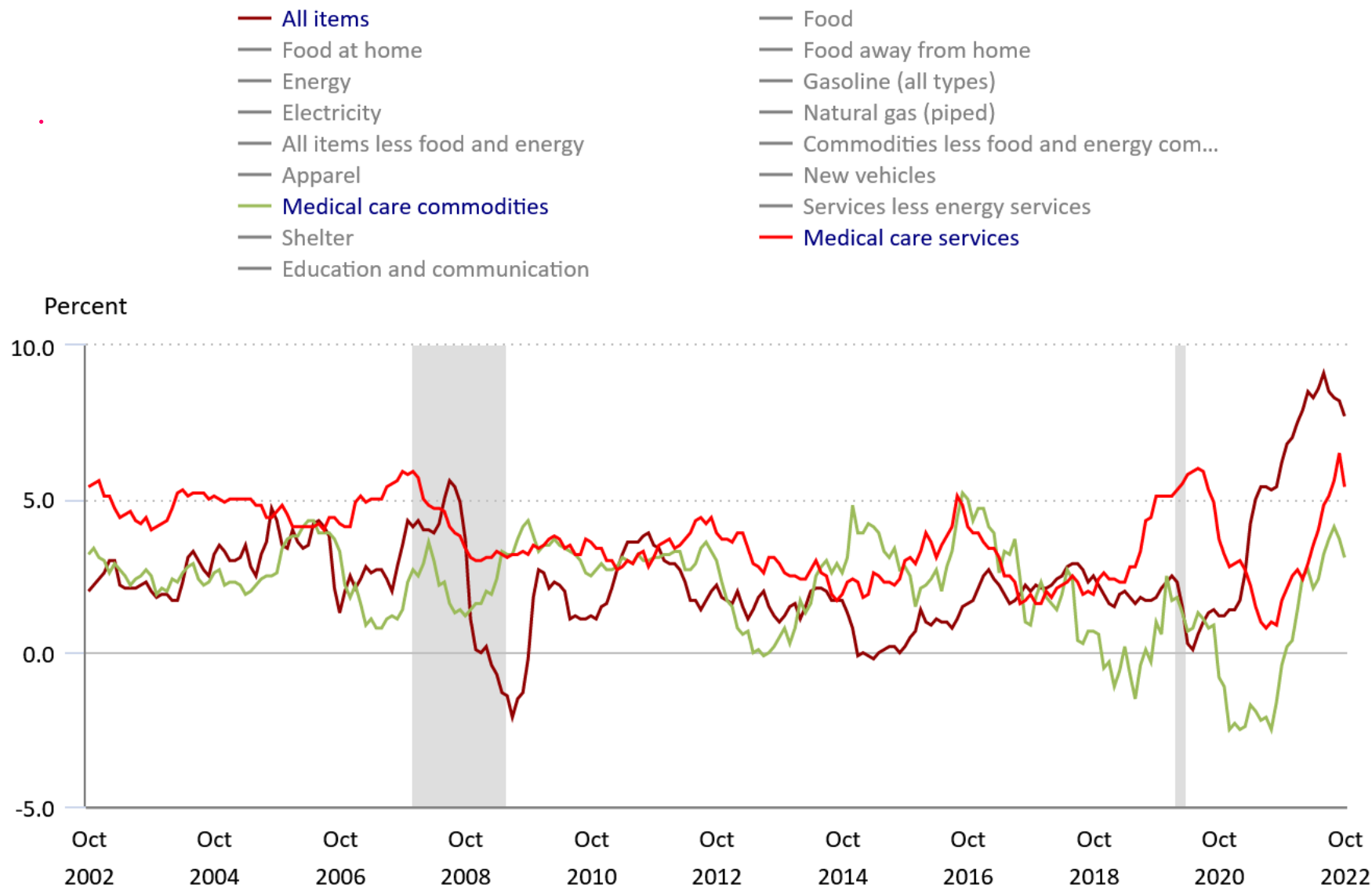
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Source: U.S. Bureau of Labor Statistics.



12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted



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Source: U.S. Bureau of Labor Statistics.



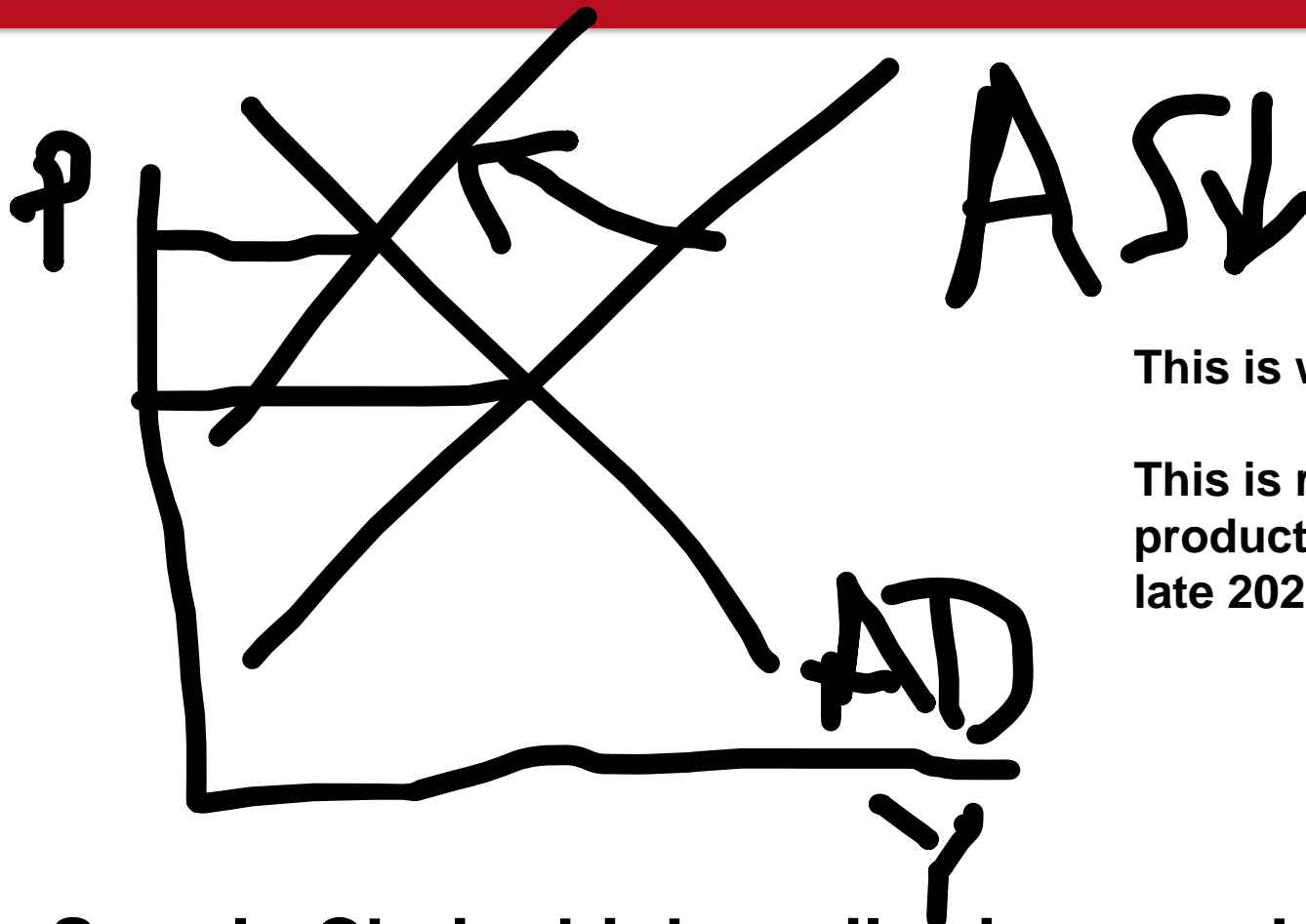


U.S. Inflation has reared its ugly head!

Possible reasons.

- **It's not Biden's fiscal policies!**

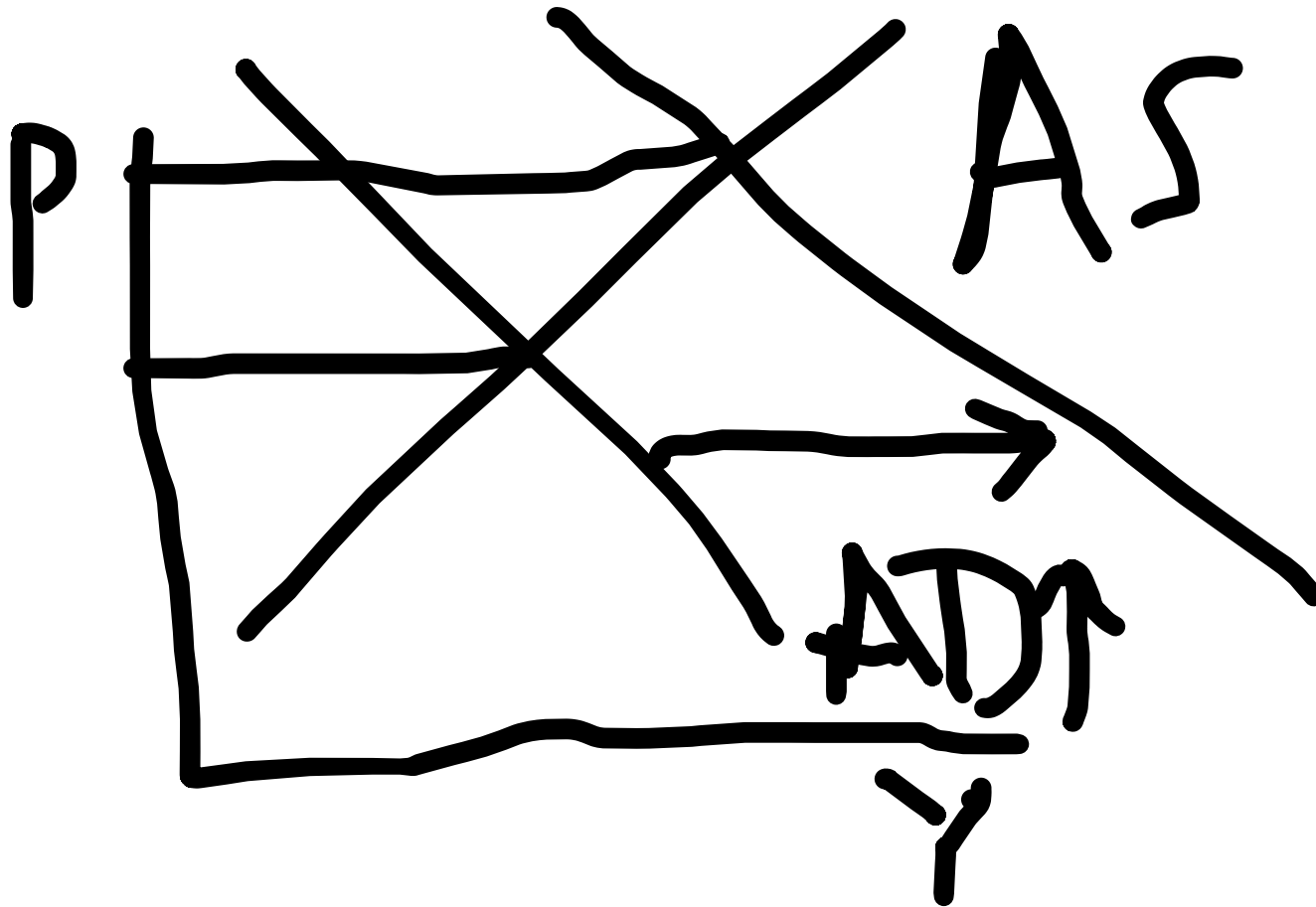
1. Supply-Chain Issues
2. Inflation became more systemic in fall 2021.
i.e., went from isolated sectors to general prices increases.
3. Federal Reserve was too cautious to avoid past mistakes.
4. Trump/Biden Administration policy errors.
5. “Great Resignation” and labor shortage—the restructuring of ppl switching jobs has hurt supply-side of economy.
6. Russia’s “special operation” in Ukraine.
7. Covid shifted consumer demand to goods from services.
8. Firms used inflation as cover to increase profit margin.



This is what happened!

This is reflected in sluggish productivity growth since late 2021

Supply Chain, higher oil prices, and labor restructuring causes AS to decline leading to sluggish growth and inflation



This is not what is happening!

4th Quarter 2019 to 3rd Quarter 2022, annual GDP grew at a 1.5% rate vs. the 1.9% growth in potential GDP

Current GDP is below the economy's potential GDP

Positive aggregate demand shift would be from Trump/Biden/Fed stimulus leading to rapid growth and greater inflation



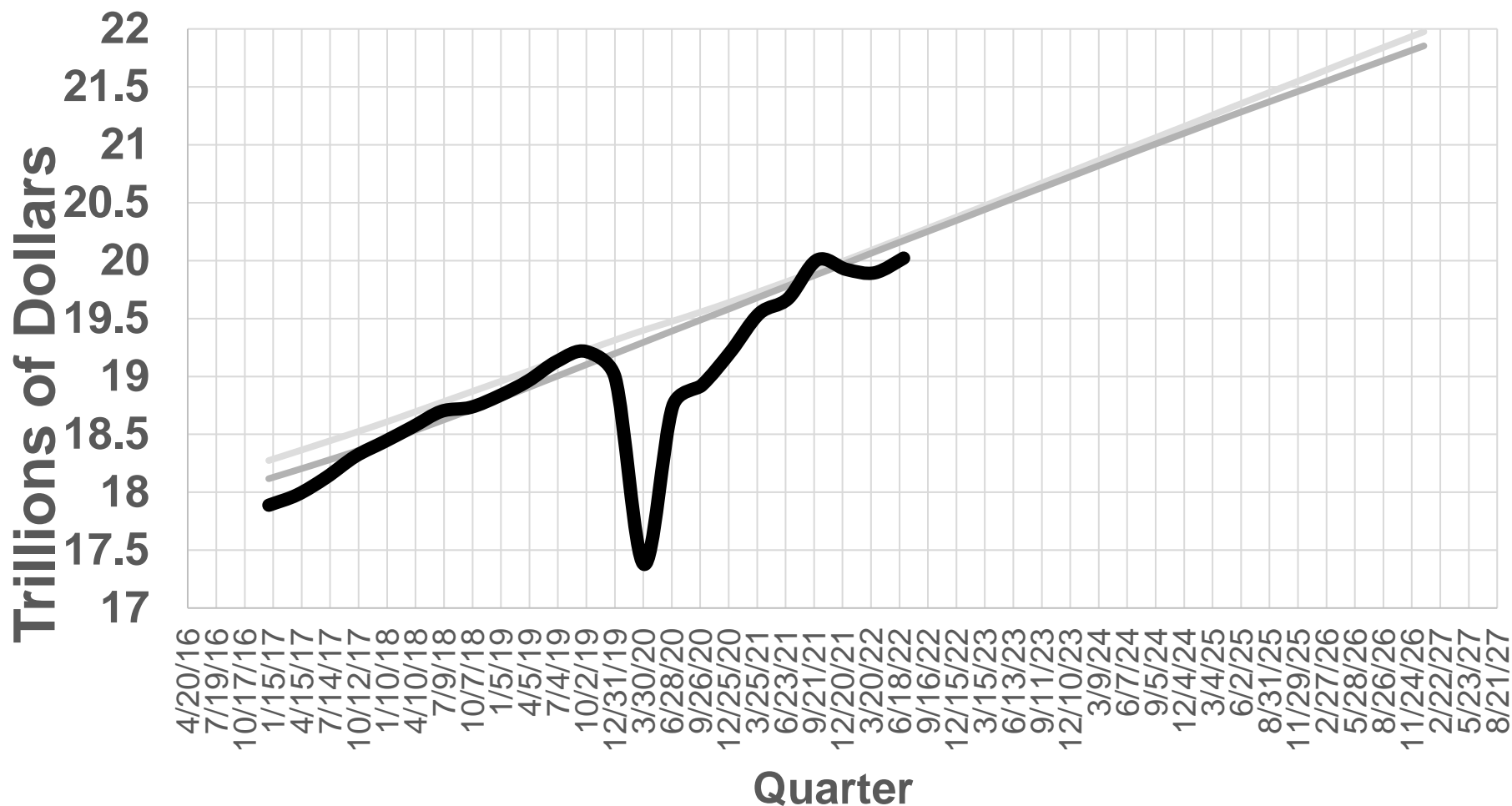
It was apparent by Oct. 2021 inflation report in mid November 21, inflation was widespread and not a temporary phenomenon.

2022 Fed Rate Hikes: Taming Inflation

FOMC Meeting Date	Rate Change (bps)	Federal Funds Rate
Nov 2, 2022	+75	3.75% to 4.00%
Sept 21, 2022	+75	3.00% to 3.25%
July 27, 2022	+75	2.25% to 2.5%
June 16, 2022	+75	1.5% to 1.75%
→ May 5, 2022	+50	0.75% to 1.00%
→ March 17, 2022	+25	0.25% to 0.50%

Source: Forbes: <https://www.forbes.com/advisor/investing/fed-funds-rate-history/>

Pre- and Post- COVID CBO Potential GDP vs. Actual Real GDP (2012 Chained Dollars)



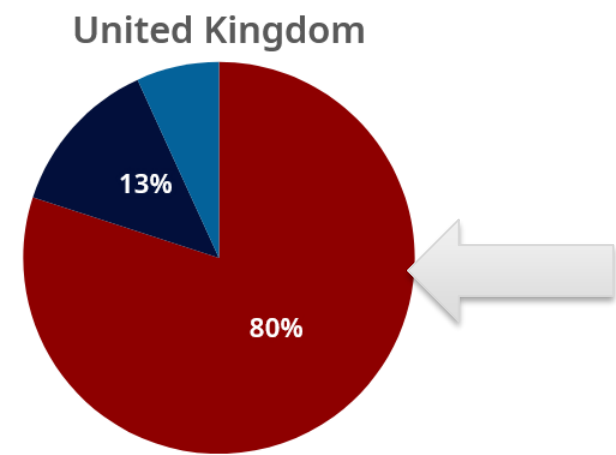
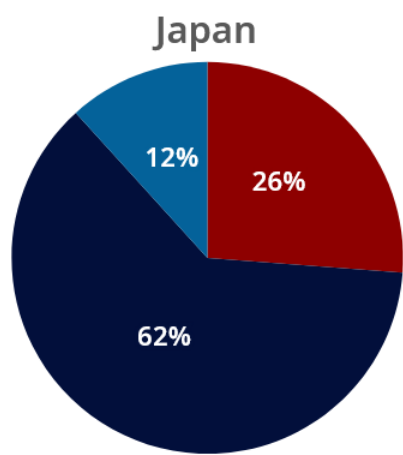
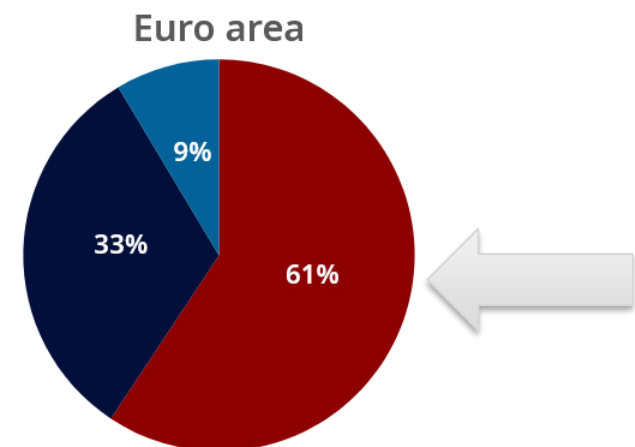
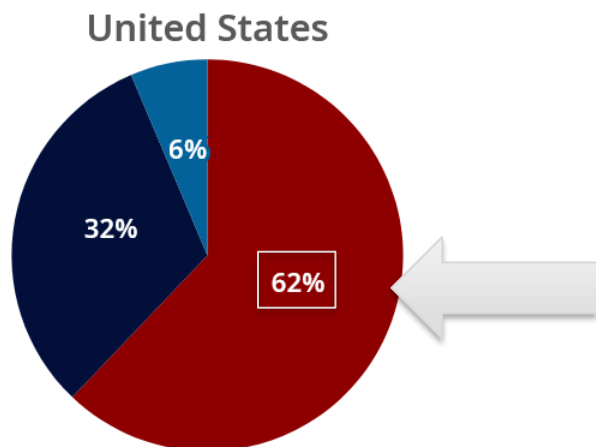
Source: BEA and CBO

Potential GDP estimated by CBO in Jan 2020 and July 2022 —
Actual GDP in —

Inflation levels of consumer goods and services

% of consumer basket items

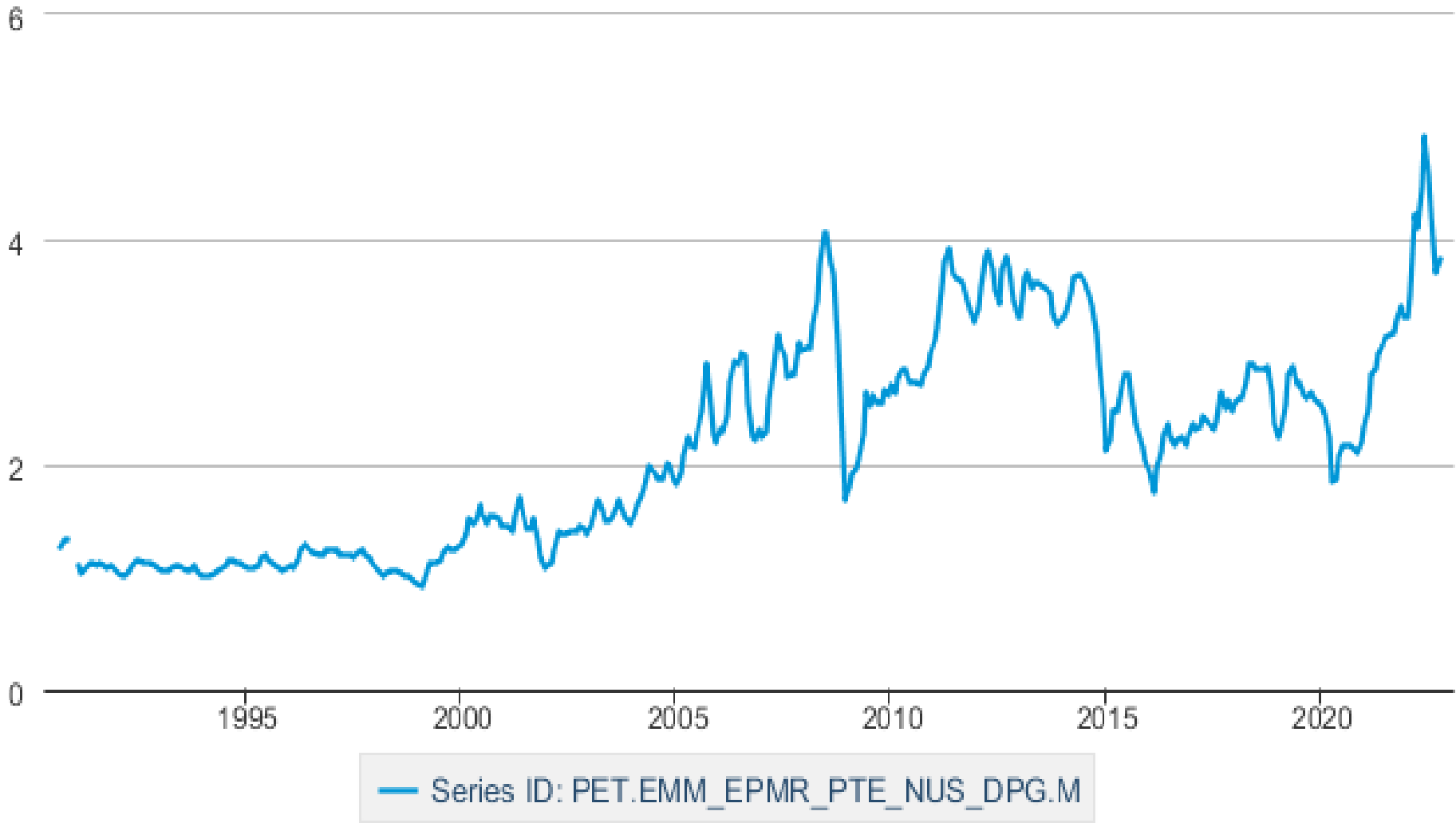
Inflation: ■ < 0% ■ 0% - 4% ■ > 4%



Data refers to July 2022 for United States and August 2022 otherwise.
Source: [OECD Economic Outlook, Interim Report September 2022](#)

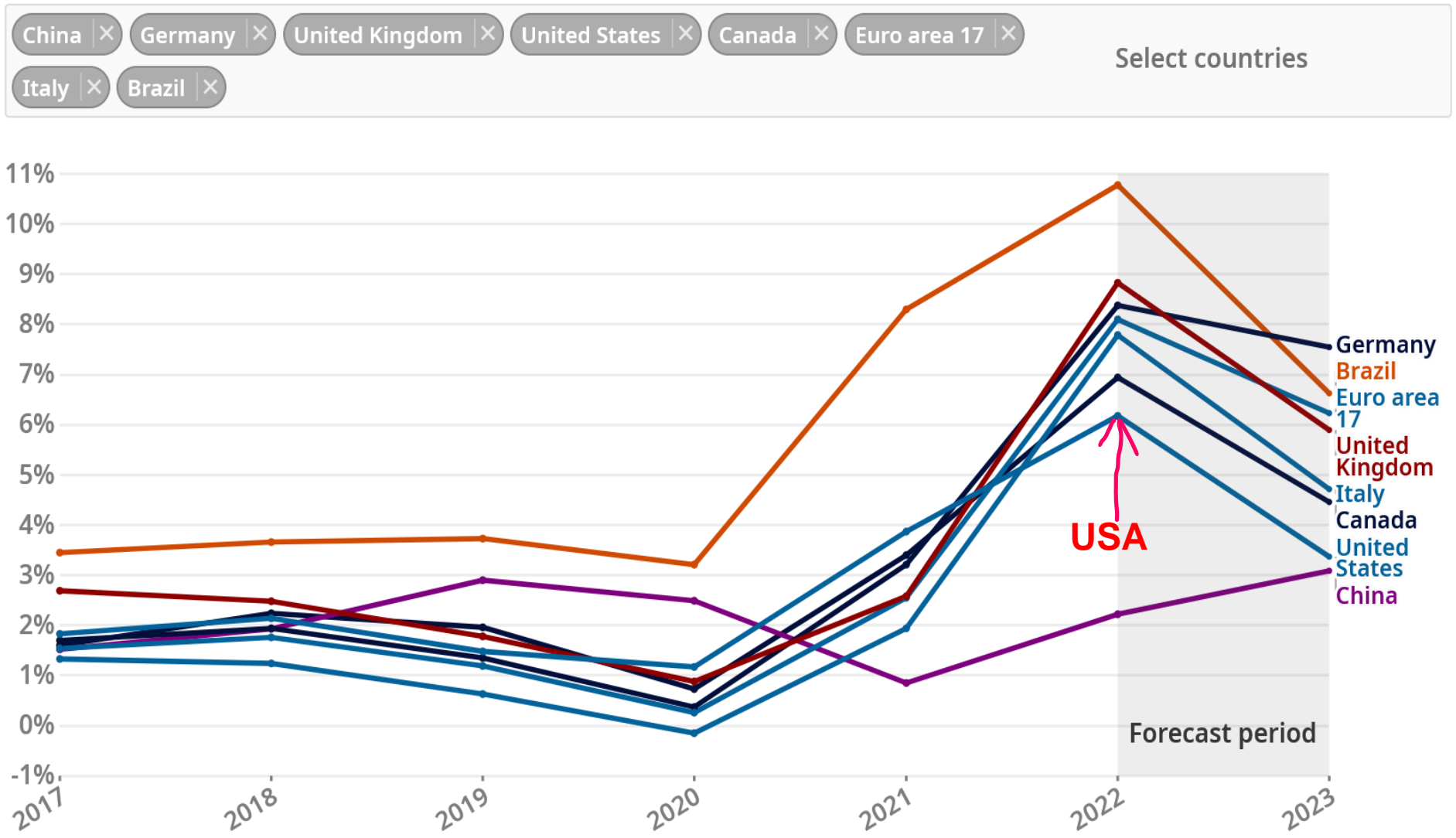
U.S. Regular All Formulations Retail Gasoline Prices, Monthly

Dollars per Gallon



Inflation is hitting the world economy

Year-over-year, %



Source: [OECD Economic Outlook, Interim Report September 2022](#)

Inflation projections

%

	2021	2022	2023		2021	2022	2023
G20	3.8	8.2	6.6				
Australia	2.8	6.1	4.4	Argentina	50.9	92.0	83.0
Canada	3.4	6.9	4.5	Brazil	8.3	10.8	6.6
Euro area	2.6	8.1	6.2	China	0.8	2.2	3.1
Germany	3.2	8.4	7.5	India	5.5	6.7	5.9
France	2.1	5.9	5.8	Indonesia	1.6	4.1	3.9
Italy	1.9	7.8	4.7	Mexico	5.7	7.9	4.9
Spain	3.0	9.1	5.0	Russia	6.7	13.9	6.8
Japan	-0.2	2.2	2.0	Saudi Arabia	3.1	2.5	3.2
Korea	2.5	5.2	3.9	South Africa	4.6	6.7	5.9
United Kingdom	2.6	8.8	5.9	Türkiye	19.6	71.0	40.8
United States	3.9	6.2	3.4				

Note: India projections are based on fiscal years, starting in April. The European Union is a full member of the G20, but the G20 aggregate only includes countries that are also members in their own right. Spain is a permanent invitee to the G20.
Source: OECD Economic Outlook database; OECD calculations.





Shelves are less empty than in winter and spring '22.

(1) Less and Less “Back in the USSR”



USA

Washington Post



United Kingdom



Why has inflation surged? Supply Chain

Empty Shelves: USSR Moscow 1990





Supply Chain—why it collapsed?

- The global supply chain designed as plan for the best and hope for the best.
- Transportation mess is improving for ocean freight but American Farm Bureau data suggests that rail on-time delivery is still problematic at best.
- Cost to ship container from China to Long Beach was:
- \$2,000 pre-covid; \$25,000+ late 2021; \$8,500 April 2022
- Delays at Western US ports declining since 2021, but delays are increasing in Eastern US ports.
 - Suggests trucking situation is improving. <https://www.freightos.com/freight-resources/port-of-long-beach-congestion-delays-news/>.
- Fragmented global supply chain is vulnerable to any disruption. If you need 40 ingredients for producing paint and are missing one from (say) Vietnam, then you can't produce paint.

GET A QUOTE

Origin

City, Port or Zip Code

Destination

City, Port or Zip Code

Cargo

1x20ft

SEARCH RATES

Important Note: Transport Conditions Announcement from all destinations to North America [View All Notices \(2\)](#)

Transparent Pricing Policy

Routes: All ▼

Currency: USD ▼

Sort by: Lowest Price ▼

SERVICES INCLUDED

✓ International Freight

✓ Destination

SERVICES NOT INCLUDED

— Pickup [Add](#)

— Origin [Add](#)

— Delivery [Add](#)

CNYTN, Yantian Pt > USLGB, Long Beach

CHINA

UNITED STATES

Gate-in by: 23 Nov 2022 ⓘ

Estd. Transit Time: 13 Days

USD 2,275.50

FCL

Cheapest

Direct

[Show Details & Charges](#)

SELECT

CNYTN, Yantian Pt > USLAX, Los Angeles

CHINA

UNITED STATES

Gate-in by: 23 Nov 2022 ⓘ

Estd. Transit Time: 13 Days

USD 2,275.50

FCL

Cheapest

Direct

[Show Details & Charges](#)

SELECT

Looking for assistance?

You can send us a message and one of our agents will get back to you shortly.



But why inflation today?

- If employment/population ratio returned to Feb. 2020 pre-Covid levels:
- For example, in April 2022, “missing” about 1.284 million men compared to Feb 2020.
- April 2022, “missing” about 1.486 million women compared to Feb 2020.
- Long-covid is feared to have caused 2 to 4 million workers drop of the labor force.



Policy Solutions: There will be pain!

- **Fed delayed inflation response in 2021.**
- **I'd raise Fed-Funds rate by 0.25% in December and wait & see over ensuing 8-12 weeks.**
- **Biden should eliminate Biden/Trump tariffs that began with Trump trade wars. Peterson institute estimates there would be 2-4 percentage point decrease in price levels (Peterson Institute).**
- **Enhanced federal railroad regulation!!! Common services such as RRs should meet delivery expectations.**
- **A pause in the Jones Act, to allow foreign ships & foreign crews for *intra* US shipping.**
- **Strong federal utility regulation—frustrating example of “industry capture” of regulatory bodies.**



POLICY BRIEF

22-4 For Inflation Relief, the United States Should Look to Trade Liberalization

Gary Clyde Hufbauer, Megan Hogan, and Yilin Wang

March 2022

The authors thank Madi Sarsenbayev for carefully reviewing data in this Policy Brief.

Table 1
US Imports sitting under high tariffs, penalty duties, or severe quotas, 2021

Protective policy	Approximate 2021 Import value affected by high protection (billions of US dollars)
Antidumping and countervailing duties ^a	112.0
Most favored nation tariffs between 10 and 20 percent on agricultural products	1.1
Most favored nation tariff greater than 20 percent	21.2
Trump's trade war tariffs ^b	336.0
Buy America ^c	90.0
Section 232 steel tariffs	33.5
Generalized System of Preferences (GSP)	16.0
Tariffs on Moroccan potash fertilizer ^d	0.7
Total	610.5

a. Based on Bown (2022), 4.3 percent of US imports from G20 countries in 2019 were covered by antidumping or countervailing duties. To give a rough estimate for 2021 and for all US imports, we use 4 percent to multiply 2021 total US imports from the world.

b. Based on Bown (2021), 66.4 percent of US imports from China in 2017 were covered by the trade war tariff. To roughly estimate this for 2021, we take US imports from China in 2021, \$506 billion, and then multiply that by 66.4 percent.

c. In his 2022 State of the Union Address, President Biden said: "The federal government spends about \$600 billion a year to keep the country safe and secure." Without Buy America, we estimate about 15 percent of that number would probably be imported.

d. There may be slight double counting between this policy and the first one in this table, "Antidumping and countervailing duties."

Sources: Chad P. Bown, *Trump ended WTO dispute settlement. Trade remedies are needed to fix it*, PIIE Working Paper 22-1 (2022, Washington: Peterson Institute for International Economics); Chad P. Bown, *US-China Trade War Tariffs: An Up-to-Date Chart*, PIIE Chart (March 16, 2021, Washington: Peterson Institute for International Economics); Congressional Research Service, *Generalized System of Preferences (GSP)*, CRS Report No. IF11232 version 7 (updated January 13, 2022, Washington);

Table 2

Direct and competitive effects of liberalization measures on US consumer price Index (CPI) inflation

Action	Direct effect through lower Import prices	Competitive effect through lower domestic prices	Possible long-term effect
	(1)	(2)	(1) + (2)
<i>Liberalization goal set in this Policy Brief</i>			
2 percentage point tariff-equivalent reduction	0.2 percentage point reduction in CPI inflation	1.1 percentage point reduction in CPI inflation	1.3 percentage point reduction in CPI inflation
Total			1.3 percentage point reduction in CPI inflation

Specific tariff reduction measures

1.	Eliminate Trump's trade war tariffs	2.9 percentage point tariff-equivalent reduction, corresponding to 0.3 percentage point reduction in CPI inflation	0.96 percentage point reduction in CPI inflation (Robinson and Thierfelder's 1.3 percentage points ^a minus 0.3 percentage point [direct effect item (1)] minus 0.04 percentage point [direct effect item (2)]; direct effect of item (3) is negligible and thus not factored in here)	1.3 percentage point reduction in CPI inflation
2.	Dismantle Trump's 25 percent Section 232 "national security" steel tariffs	0.3 percentage point tariff-equivalent reduction, corresponding to 0.04 percentage point reduction in CPI inflation		
3.	Waive penalty duties on Canadian lumber	Saving of \$33 million		
4.	Relax Buy America rules	0.9 percentage point tariff-equivalent reduction, corresponding to 0.1 percentage point reduction in CPI inflation	0.5 percentage point reduction in CPI inflation (0.9 percentage point tariff-equivalent reduction * 0.67 [Robinson-Thierfelder coefficient] - 0.1 percentage point [direct effect]).	0.6 percentage point reduction in CPI inflation
5.	Cap "peak tariffs" at 10 percent	0.14 percentage point tariff-equivalent reduction, corresponding to 0.02 percentage point reduction in CPI inflation	0.07 percentage point reduction in CPI inflation (0.14 percentage point tariff-equivalent reduction * 0.67 [Robinson-Thierfelder coefficient] - 0.02 percentage	0.09 percentage point reduction in CPI inflation

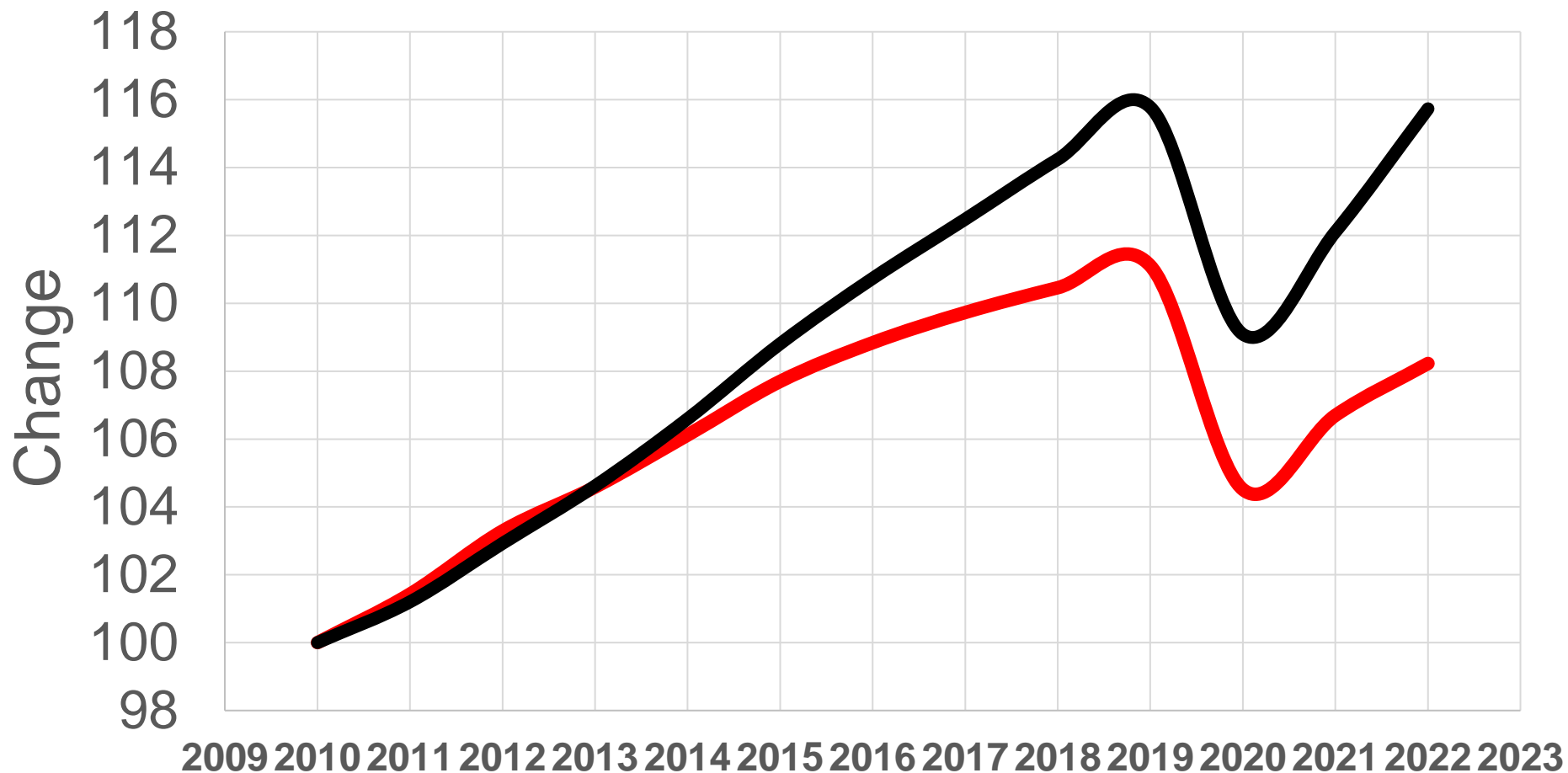


OHIO ECONOMY--2023

- UGH! Not so good but first a little background.
- Your nerdy speaker spent a few hours one night to precisely identify when Ohio faltered. [Why does my wife and everyone else find me sooo boring?]
- 1950s, Ohio above average growth.
- 1960s, Ohio slightly below average but the first half or so of the 1960s, Ohio did fine.
- 1970s and thereafter, way below average.
- Census Bureau pop. estimates clearly show that mid 1966 was OH's breakpoint. Why? One thing is that marked the beginning of an accelerated decline in US manufacturing. I attribute it to Vietnam.... But isn't that war over?????



Annual Nonfarm Employment 2010 – Sept 2022, 2010=100

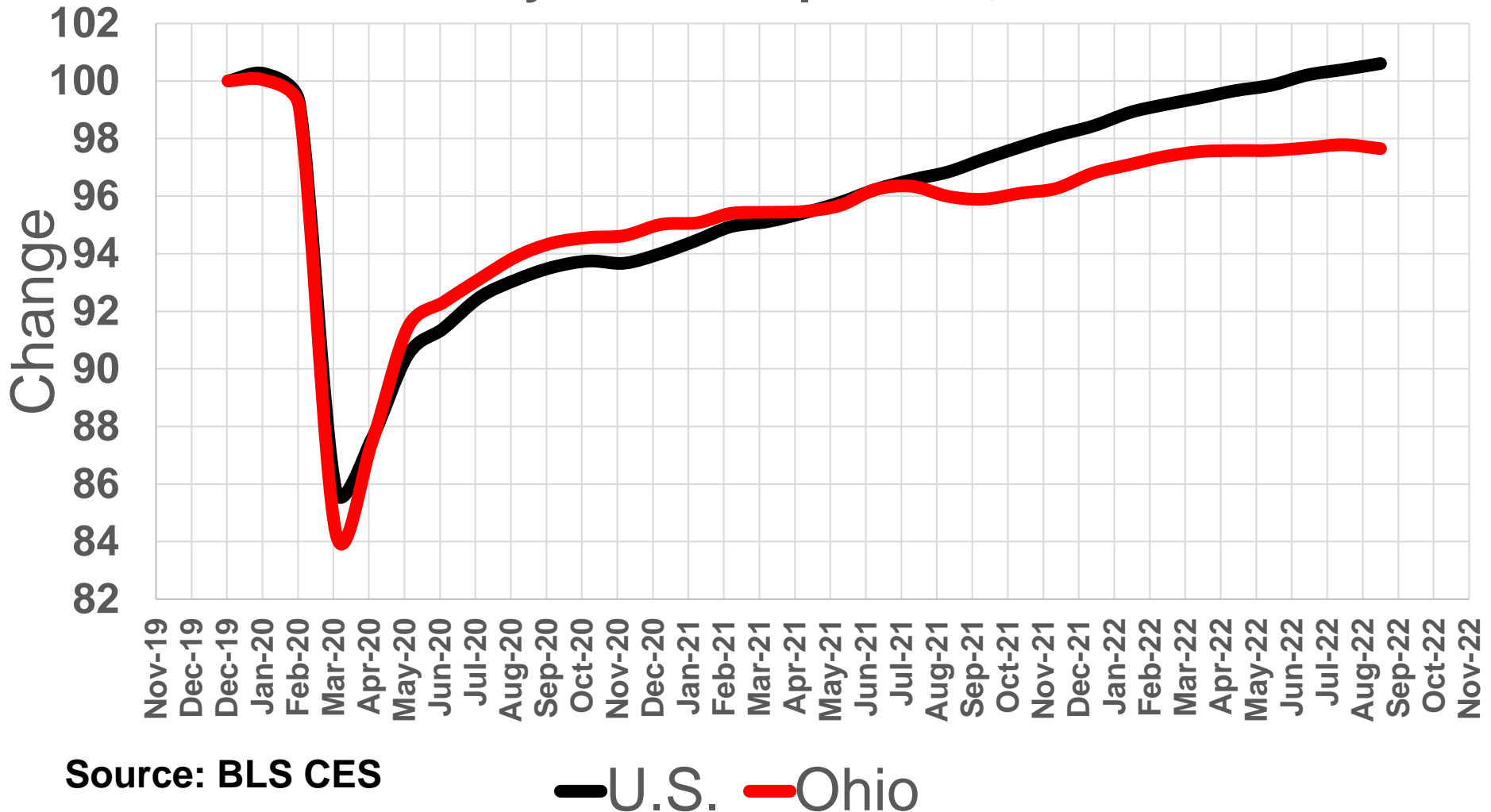


Source: BLS CES, 2022 is a monthly
seasonally-adjusted average through
Sept. 2022

— Ohio — U.S.



Monthly Nonfarm Employment January 2020 – Sept. 2022, Jan 2020=100

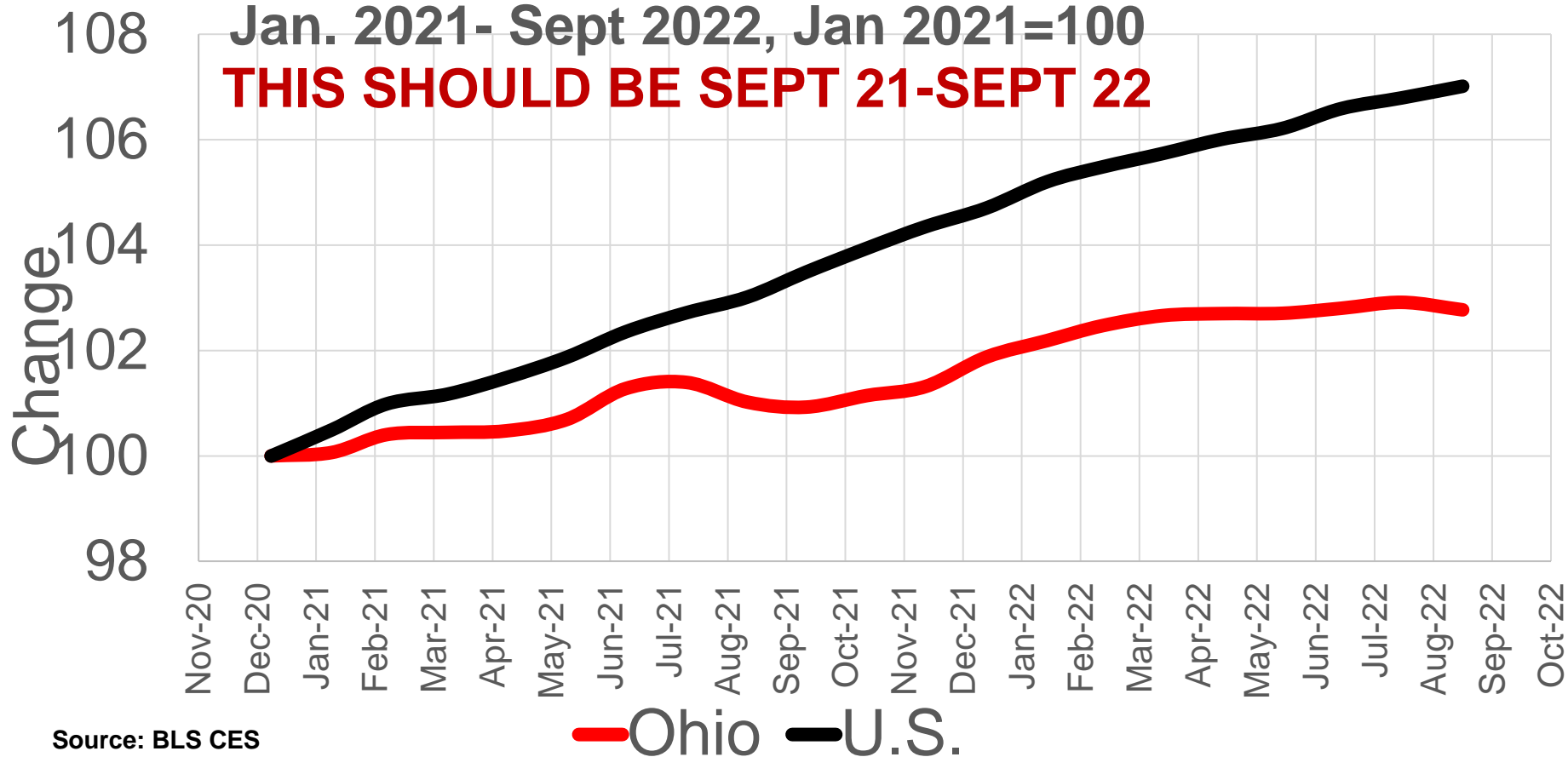


Source: BLS CES



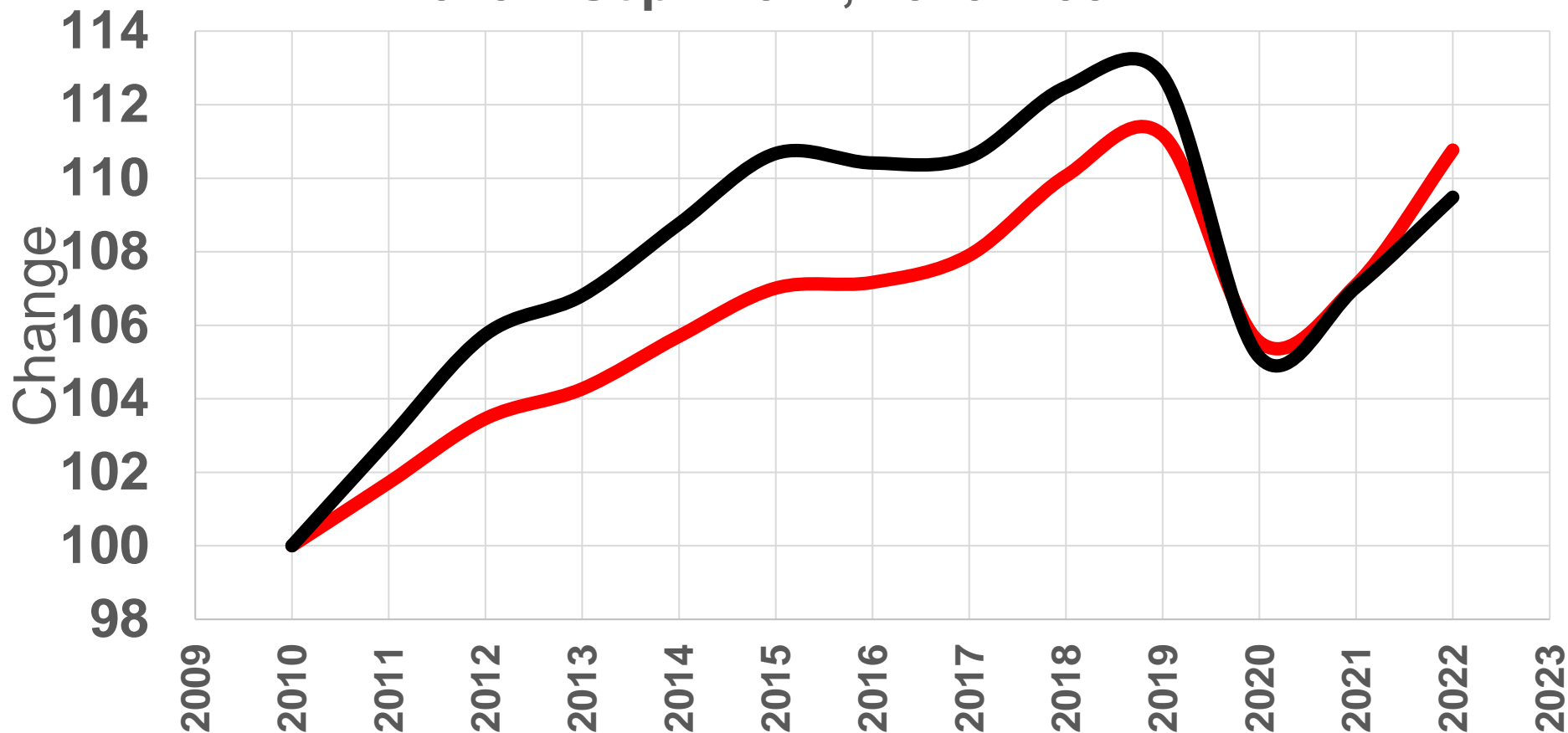
Monthly Non-Farm Employment, Jan. 2021- Sept 2022, Jan 2021=100

THIS SHOULD BE SEPT 21-SEPT 22



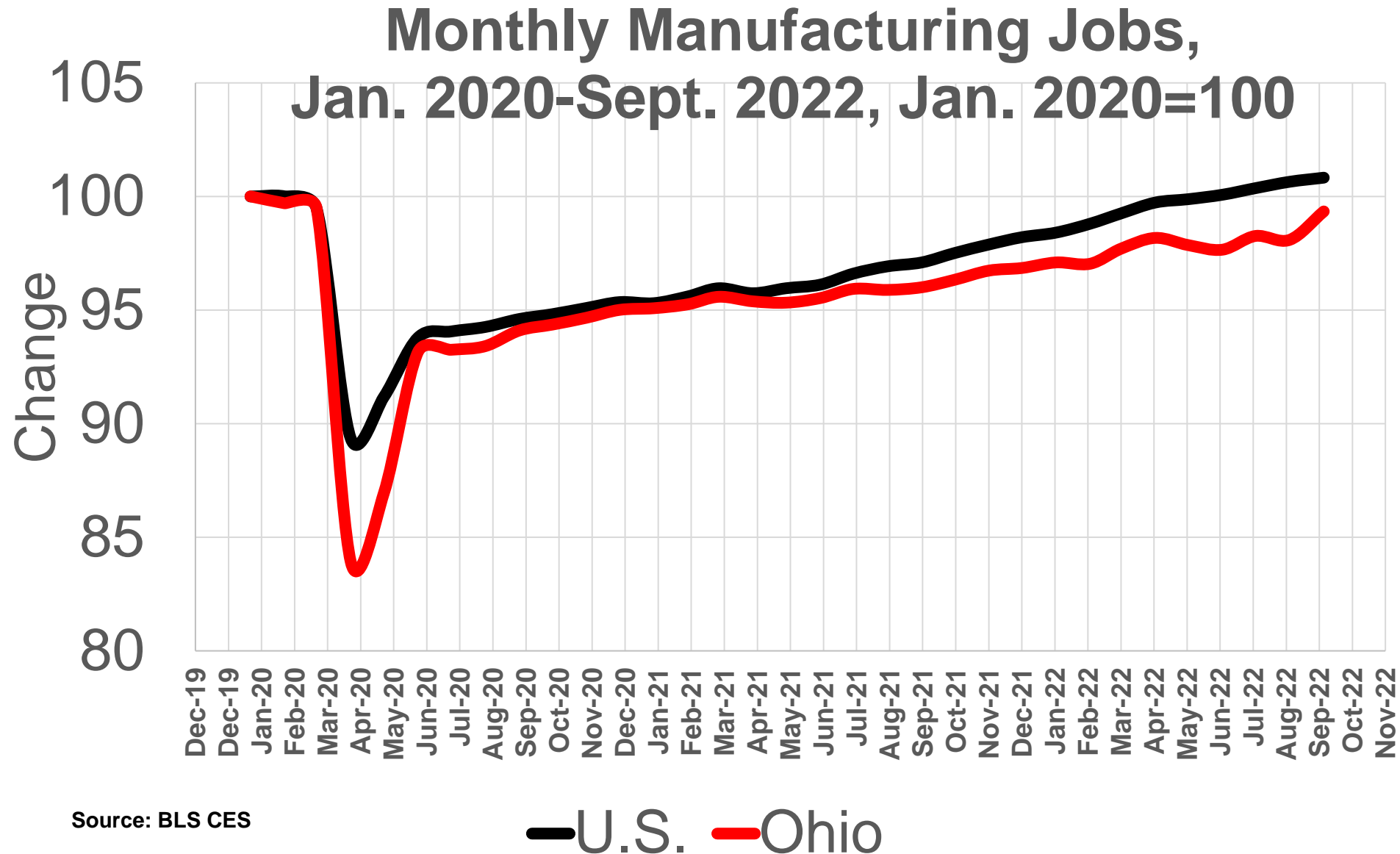


Annual Manufacturing Employment, 2010 – Sept. 2022, 2010=100



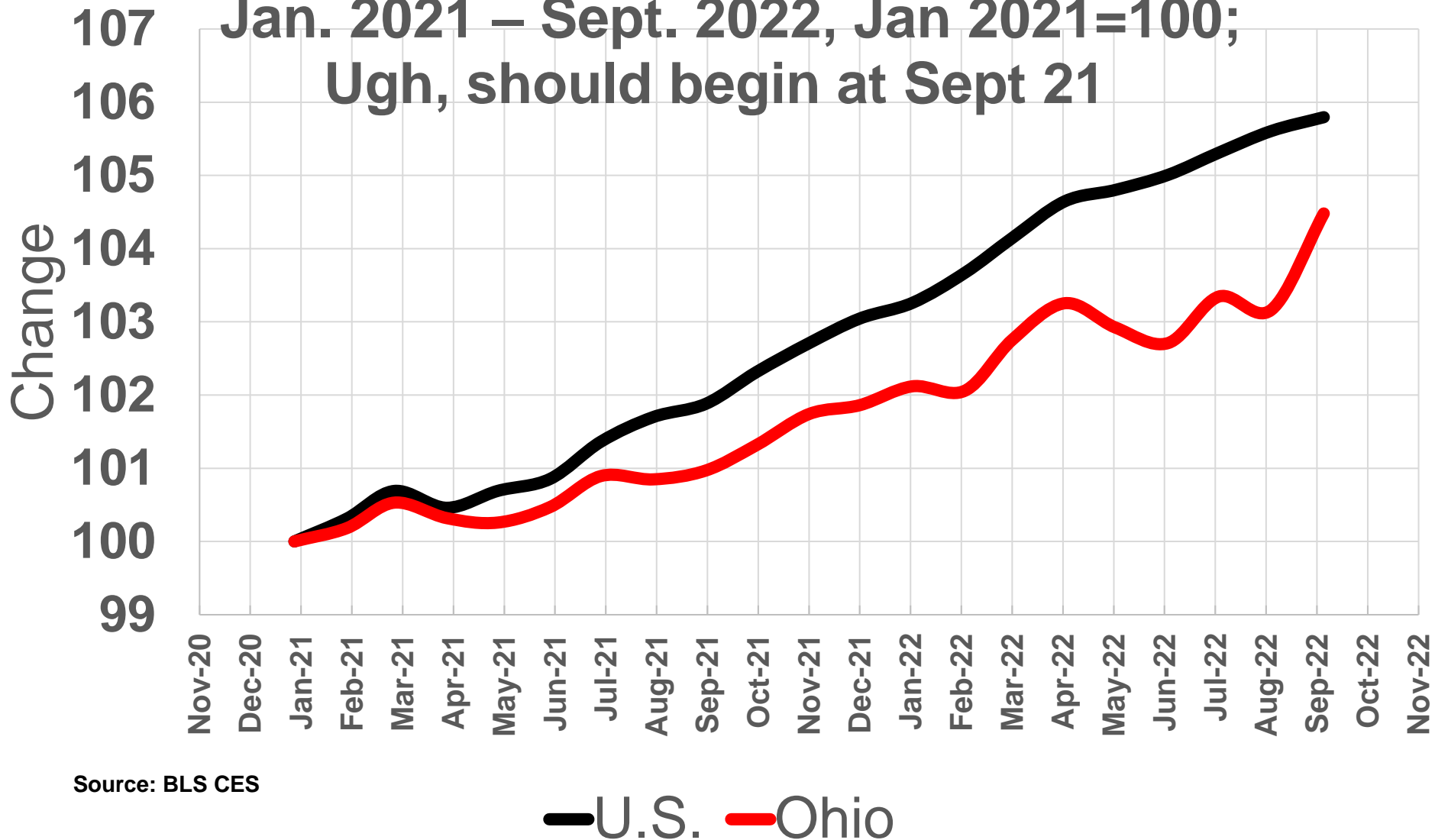
Source: BLS CES, 2022 is a monthly average
through Sept. 2022

— U.S. — Ohio



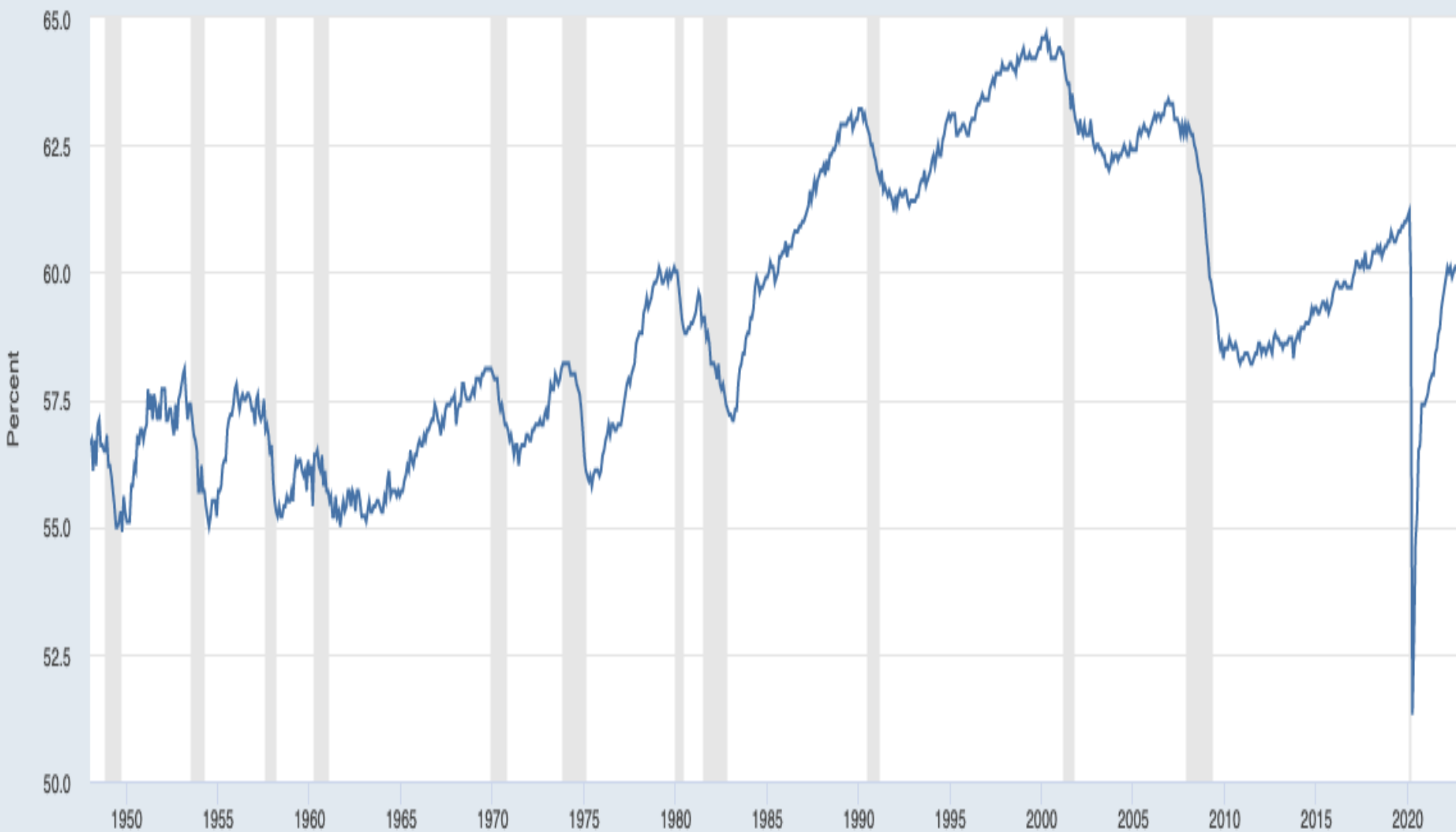


Monthly Change in Manufacturing Jobs, Jan. 2021 – Sept. 2022, Jan 2021=100; Ugh, should begin at Sept 21



Source: BLS CES

Employment/Population Ratio: Jan. 1947-Oct. 2022



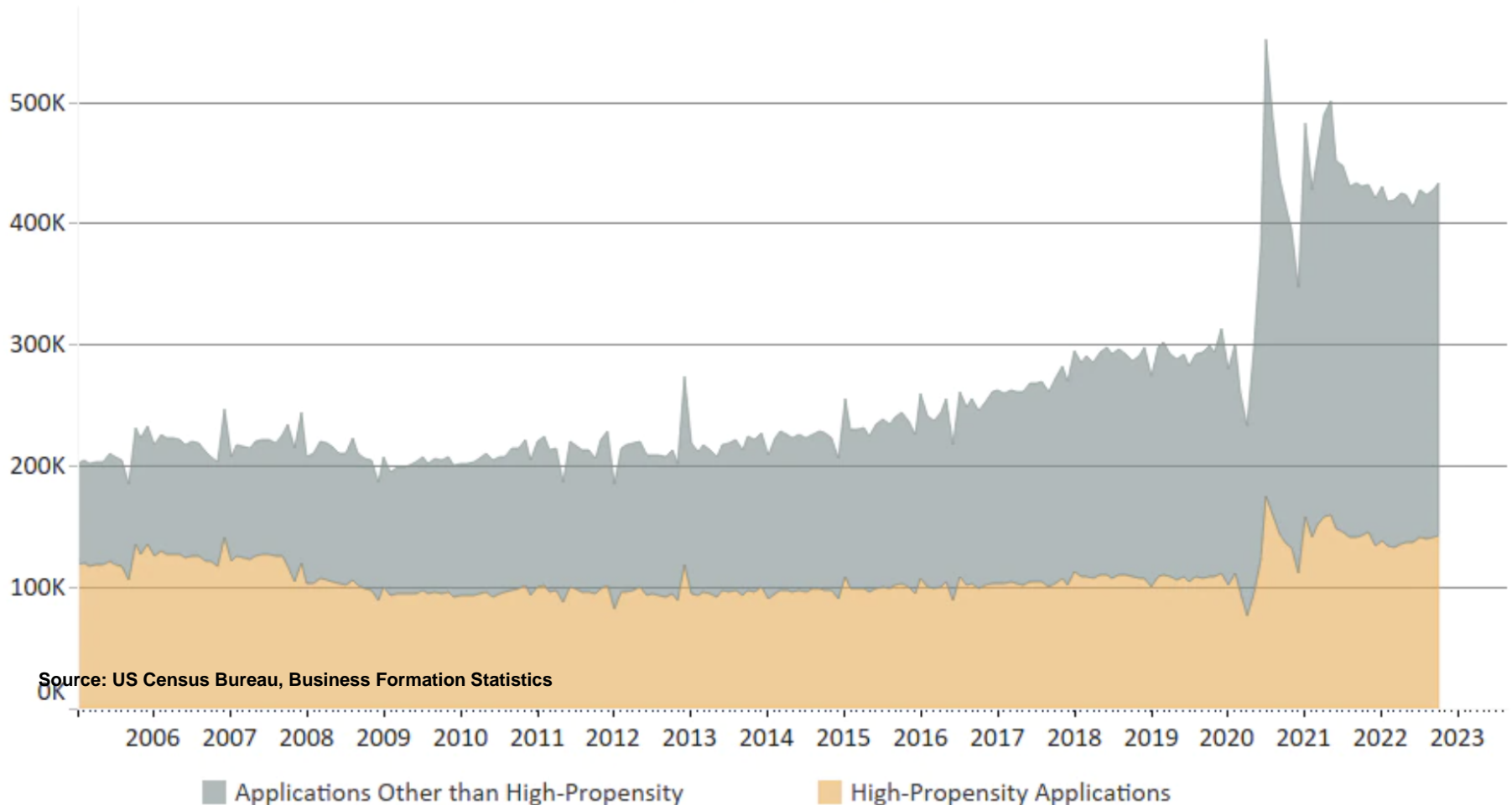
Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org



US Monthly Business Applications: Jan 2005-Oct. 2022

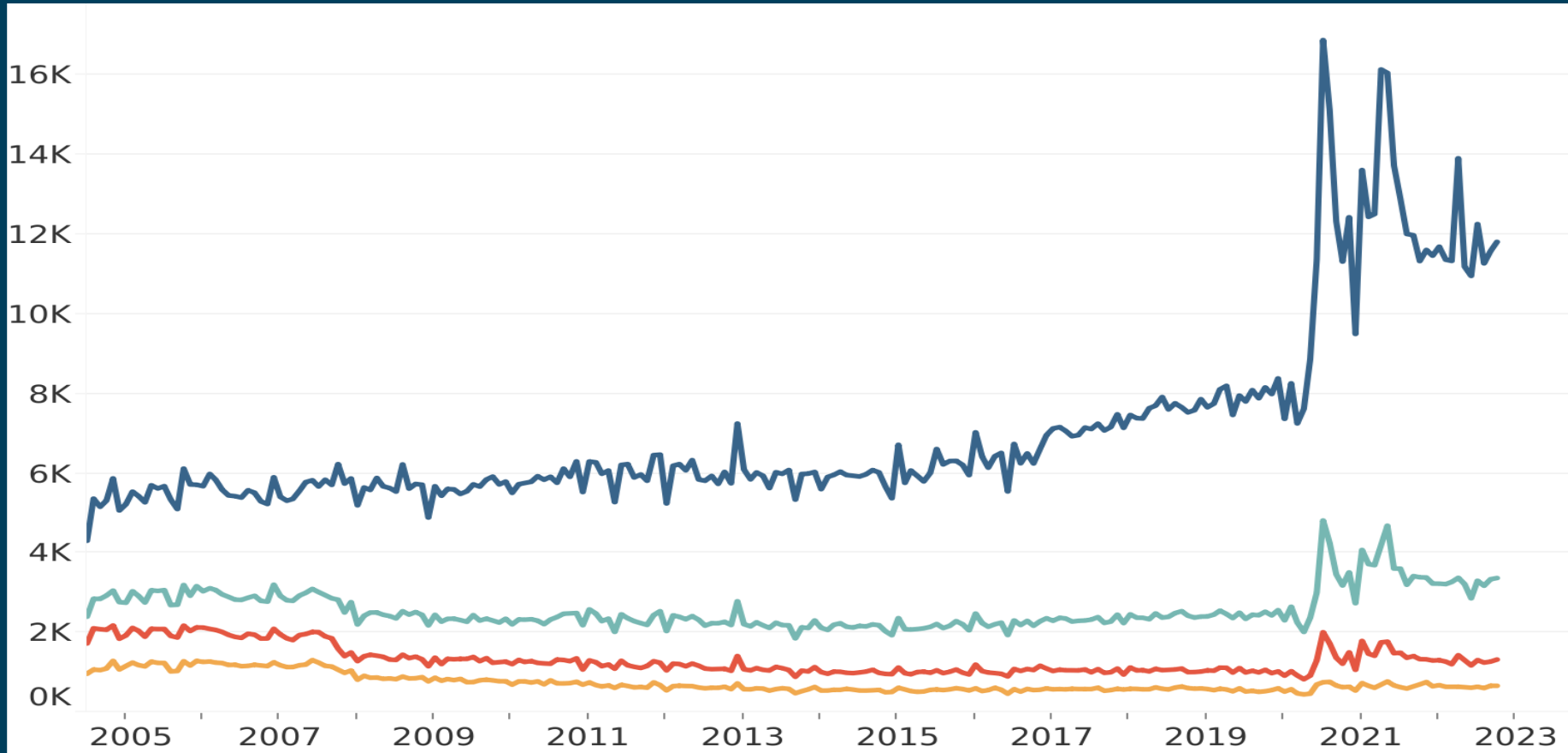




Monthly Business Applications by State (Seasonally Adjusted)

Ohio

Ohio



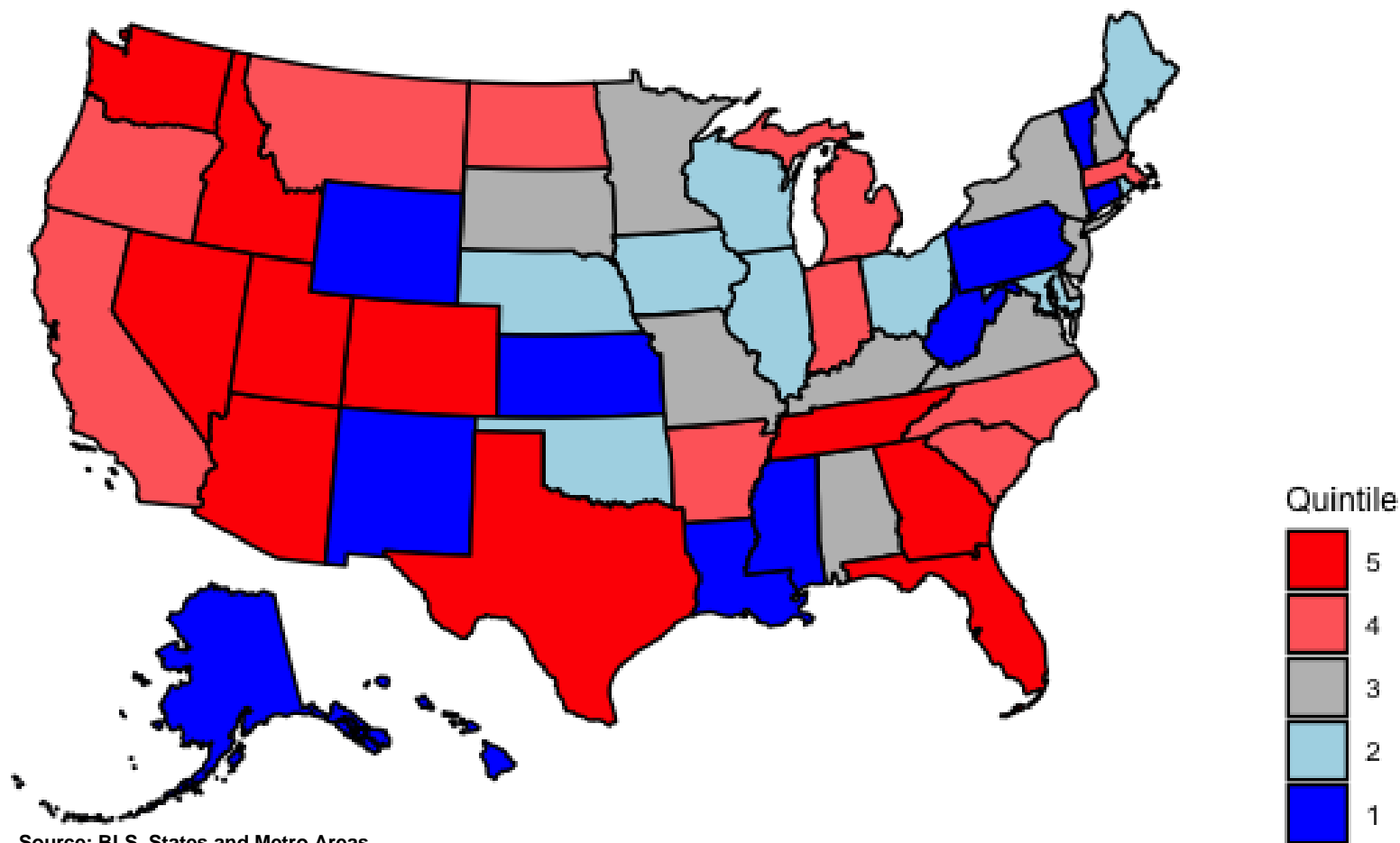
- Business Applications
- Business Applications from Corporations
- Business Applications with Planned Wages
- High-Propensity Business Applications

United States

% Change in Non-Farm Employment 2010-2022

2010 - Sept. 2022

Ohio Rank = 32 out of 51

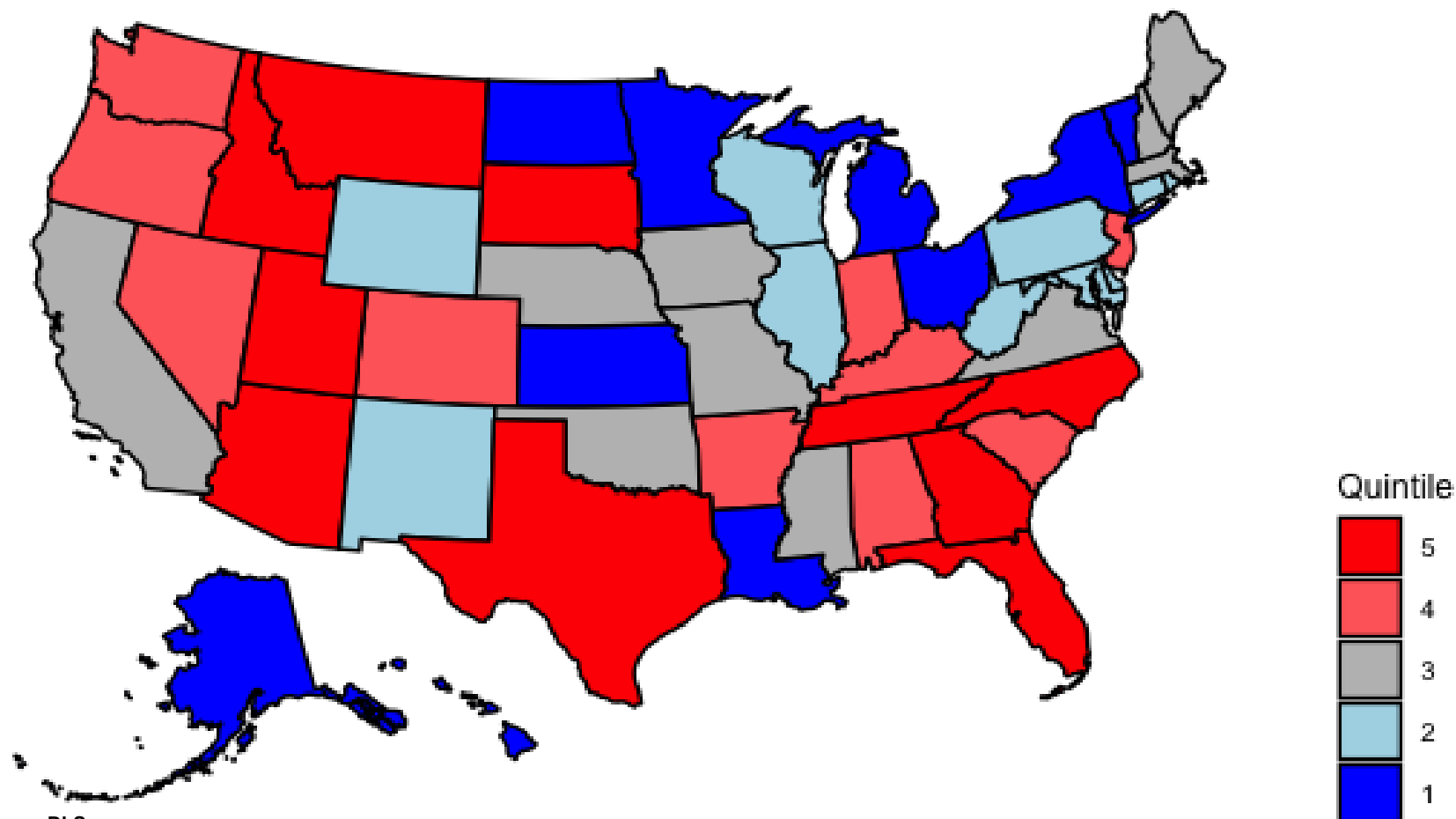


United States

% Change in Non-Farm Employment 2020-2022

Jan. 2020 - Sept. 2022

Ohio Rank = 45 out of 51

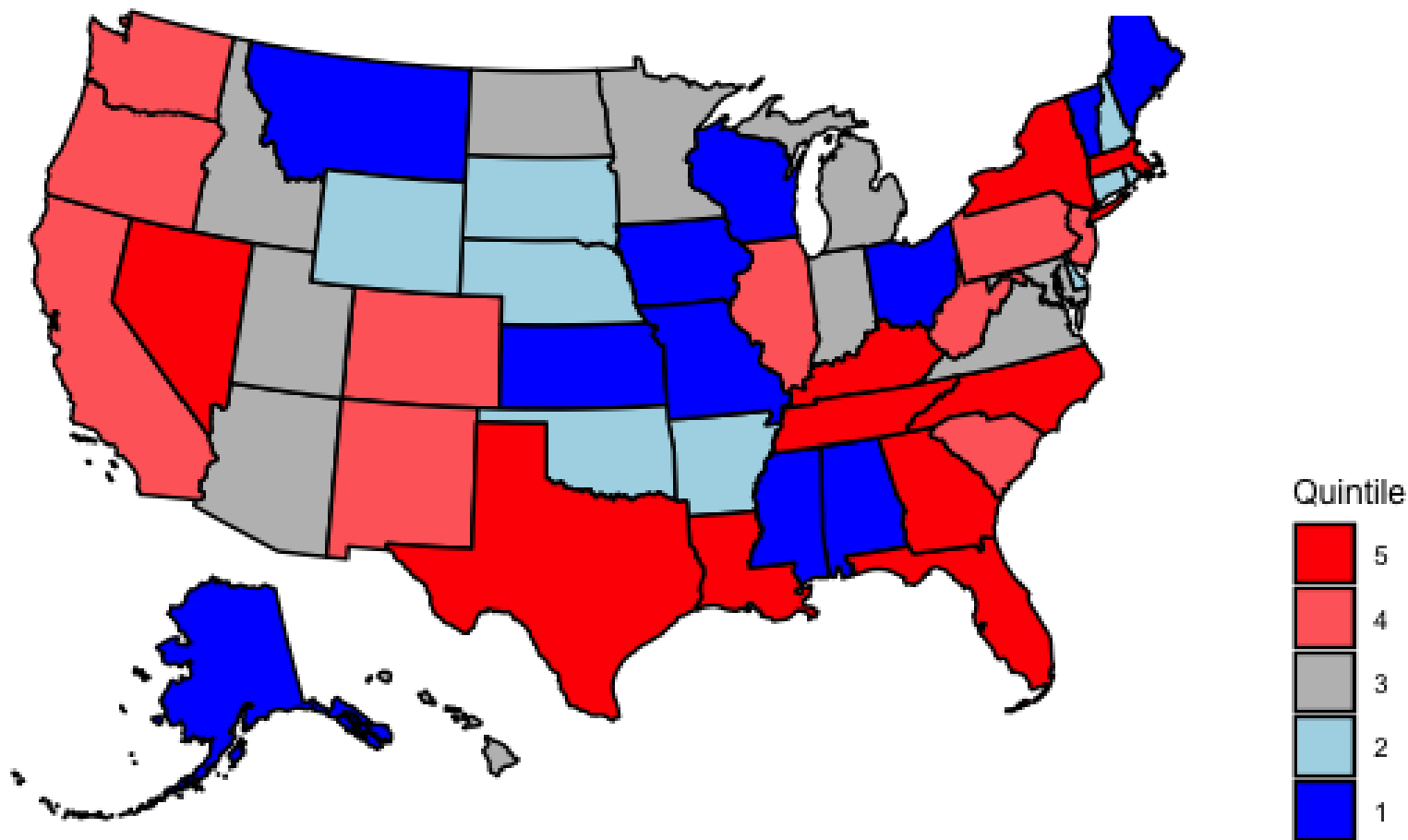


Source: BLS

United States

% Change in Non-Farm Employment 2021-2022

Sept. 2021 - Sept. 2022
Ohio Rank = 50 out of 51

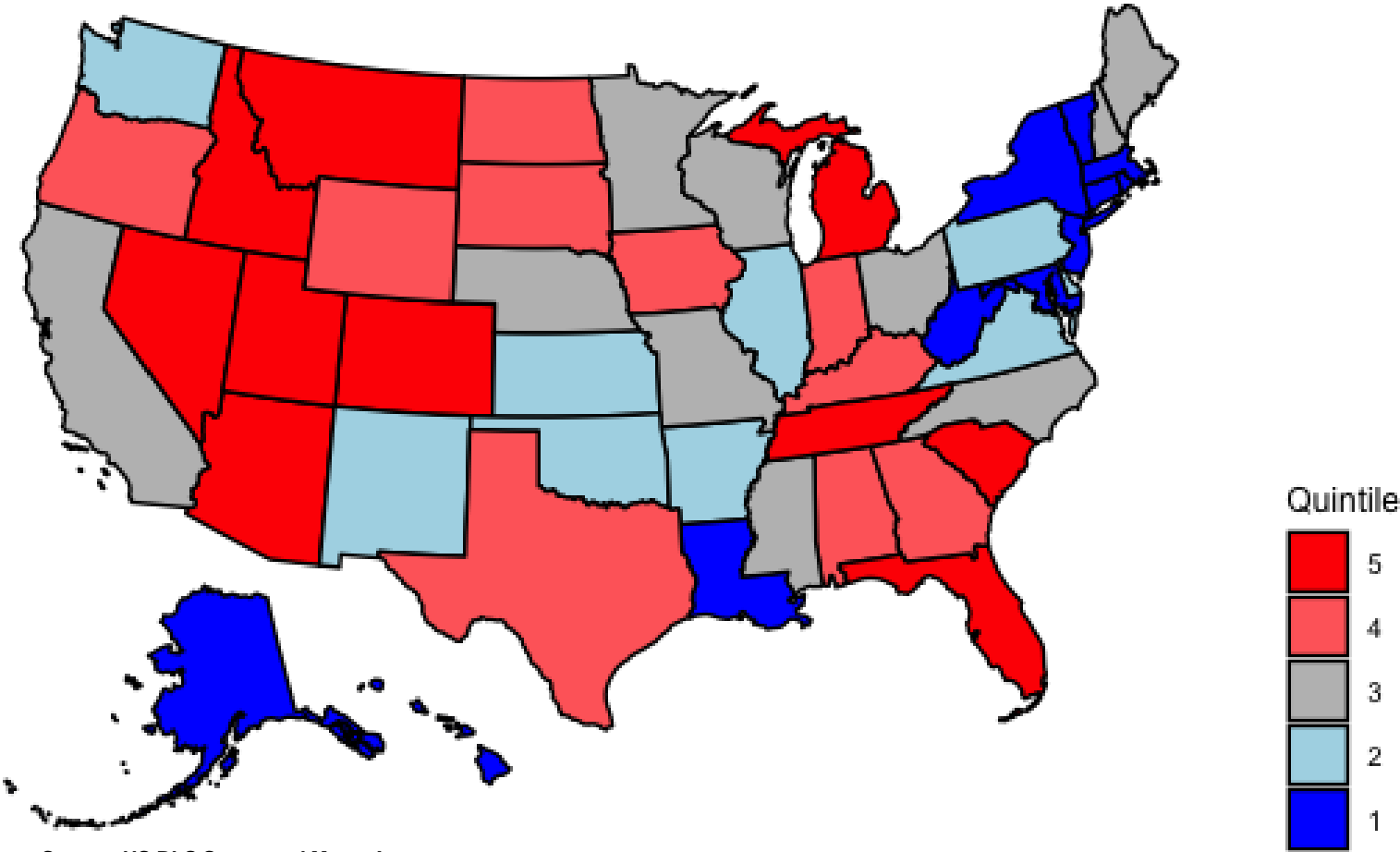


Source: US BLS States and Metro Areas

United States

% Change in Manufacturing Employment 2010-2022

Jan. 2010 - Sept. 2022
Ohio Rank = 26 out of 51



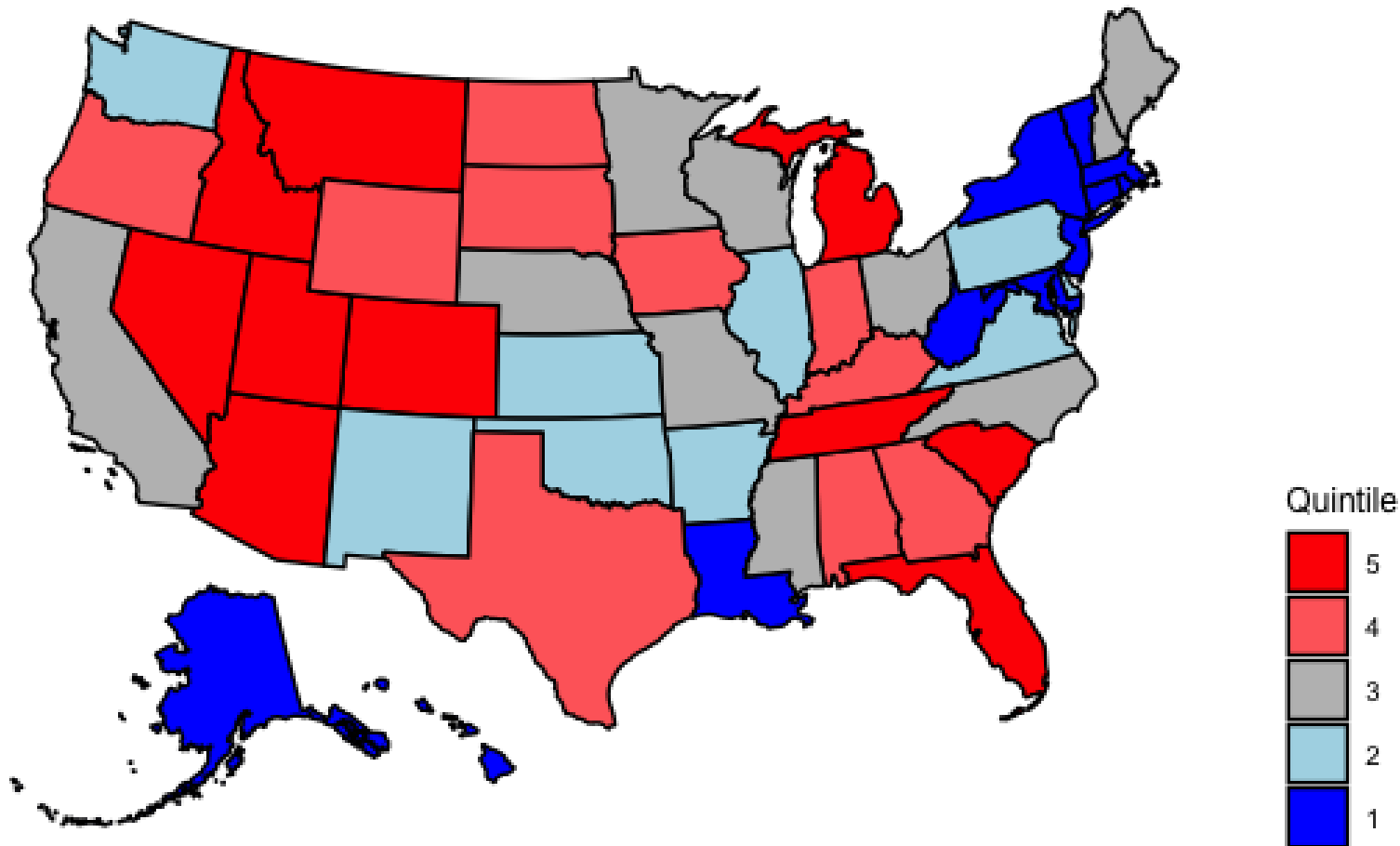
Source: US BLS States and Metro Areas

United States

% Change in Manufacturing Employment 2020-2022

Jan. 2020 - Sept. 2022

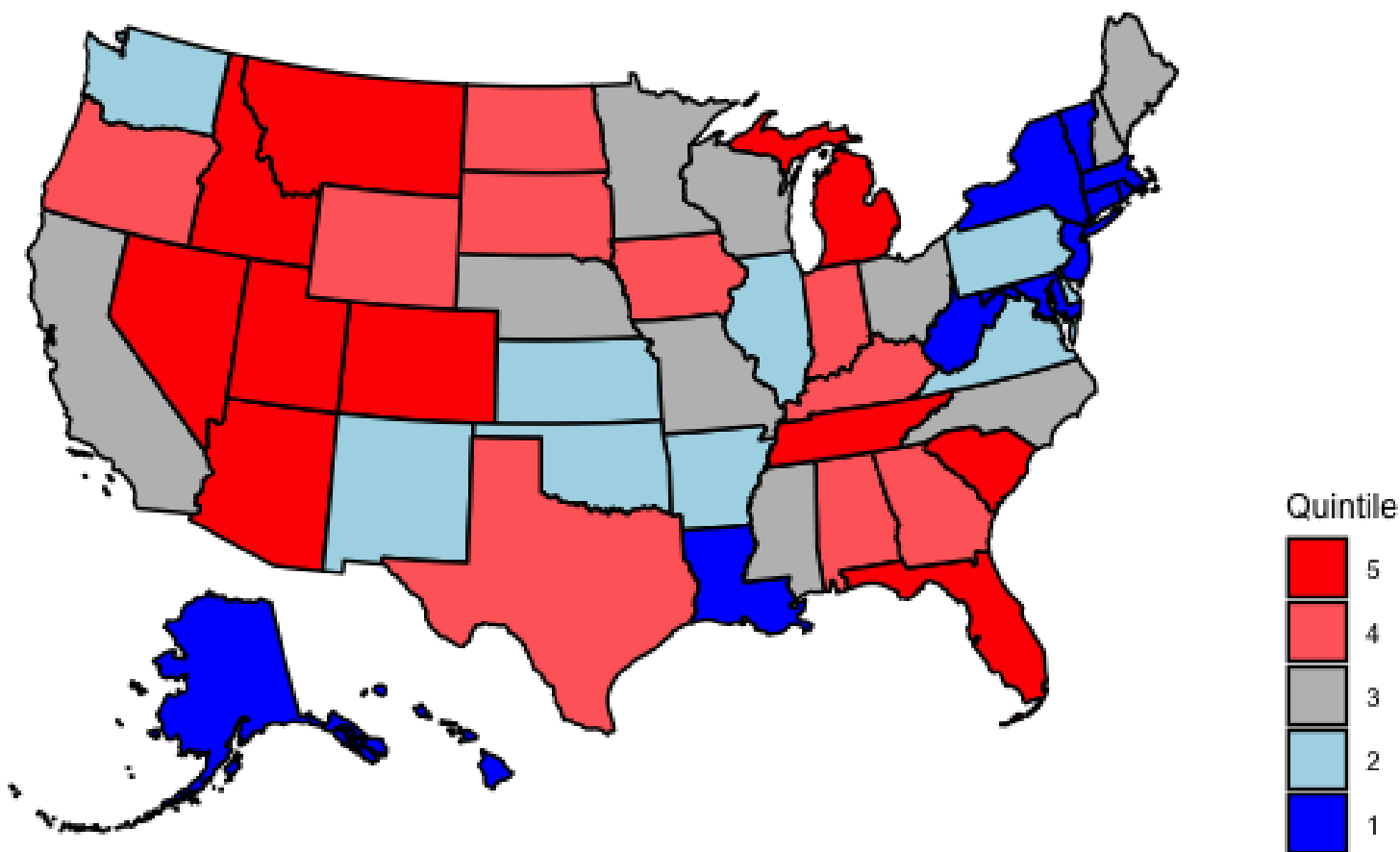
Ohio Rank = 31 out of 51



Source: US BLS States and Metro Areas

United States
% Change in Manufacturing Employment 2021-2022

Sept. 2021- Sept. 2022
Ohio Rank = 26 out of 51



Source: US BLS States and Metro Areas



What's the Matter with Ohio?—(sorry Thomas Frank)

Ohio's economic development strategy is predominantly “Smokestack Chasing” with massive incentives—i.e., “picking winners.”

--2022 was an orgy of Ohio tax incentives. [New York is another subsidy star.]

--Adding all state and local tax subsidies, it's about \$4 billion for Intel, or \$1.33 million per job.

--\$200+ million for a Ford plant in Loraine County that Ford already promised the UAW they were going to build or replace.

--Or to rephrase...



- Ohio leaders pushed “business-friendly” tax cuts & regulatory policies after (ca) 1991. Tax-cuts accelerated after 2005.
 - And Ohio led in “picking winners” with tax incentives! 8 out of the last 20 years, Ohio has been #1 in attracting (typically incentivized) large facilities (per-capita) (*Site Selection Magazine*). OH was never lower than #4. **Regarding stated policy goals, it was wildly successful!!!**
- But, Ohio still has persistently low economic growth. Ugh, it looks like something attributed to Einstein regarding insanity.
 - I’m blessed. Resided in Illinois, Georgia, Minnesota, etc. They provide useful lessons—GA vs MN for instance. But....
 - I moved to Ohio in 2006 after 3 years in Saskatchewan, which was in yr 62 of almost exclusively European-style social-democratic govt. SK is the North American mother of “Medicare for All,” for instance.
 - Whatever progress this approach garnered, it had long run its course by 2006. A rightward business-friendly govt was necessary.
 - Indeed, the ensuing SK “conservative” government had economic success for perhaps 10 yrs.



- **What's the Matter with Ohio?—continued.** <<
- **Answer: It goes both ways – *Jobs attract people and people attract jobs—rise of the Sunbelt and the fall of the Rustbelt illustrates this brilliantly.***
- Two curves on a labor market graph—labor demand by firms/labor supply by people.
 - **BOTH CURVES MOVE!** Ohio policy assumes away responses in labor supply or by people.



- **What's the Matter with Ohio?—cont.**
- OH's population is disproportionately > 60 yrs. Retention problem for those under 60.
 - E.g., Recent college graduates can live anywhere. What do they want? We may not like the answer but ignoring it means they will continue to “vote with their feet.”
- This population retention problem is the “main suspect” for ongoing sluggish performance.
- Or, its not enough to have jobs if the key demographic groups don't like the place.
- Especially when migration data shows young adults are vastly more geographically mobile than older adults. Moves of young adults a key driver of where growth is occurring.



Top 10 2010-2020 growth rates & middle 2 states.

Table E. Numeric and Percent Change in Resident Population of the 50 States, the District of Columbia, and Puerto Rico: 2020 Census and 2010 Census

Where are the West and East Coast States?	2020 Census Resident Population	2010 Census Resident Population	Numeric Change	Percent Change	State Rank Based on 2020 Census Resident Population	State Rank Based on Percent Change
Area						
Utah	3,271,616	2,763,885	507,731	18.4	30	1
Idaho	1,839,106	1,567,582	271,524	17.3	38	2
Texas	29,145,505	25,145,561	3,999,944	15.9	2	3
North Dakota	779,094	672,591	106,503	15.8	47	4
Nevada	3,104,614	2,700,551	404,063	15.0	32	5
Colorado	5,773,714	5,029,196	744,518	14.8	21	6
Washington	7,705,281	6,724,540	980,741	14.6	13	7
Florida	21,538,187	18,801,310	2,736,877	14.6	3	8
Arizona	7,151,502	6,392,017	759,485	11.9	14	9
South Carolina	5,118,425	4,625,364	493,061	10.7	23	10
New Jersey	9,288,994	8,791,894	497,100	5.7	11	25
Oklahoma	3,959,353	3,751,351	208,002	5.5	28	26



Table E. Numeric and Percent Change in Resident Population of the 50 States, the District of Columbia, and Puerto Rico: 2020 Census and 2010 Census

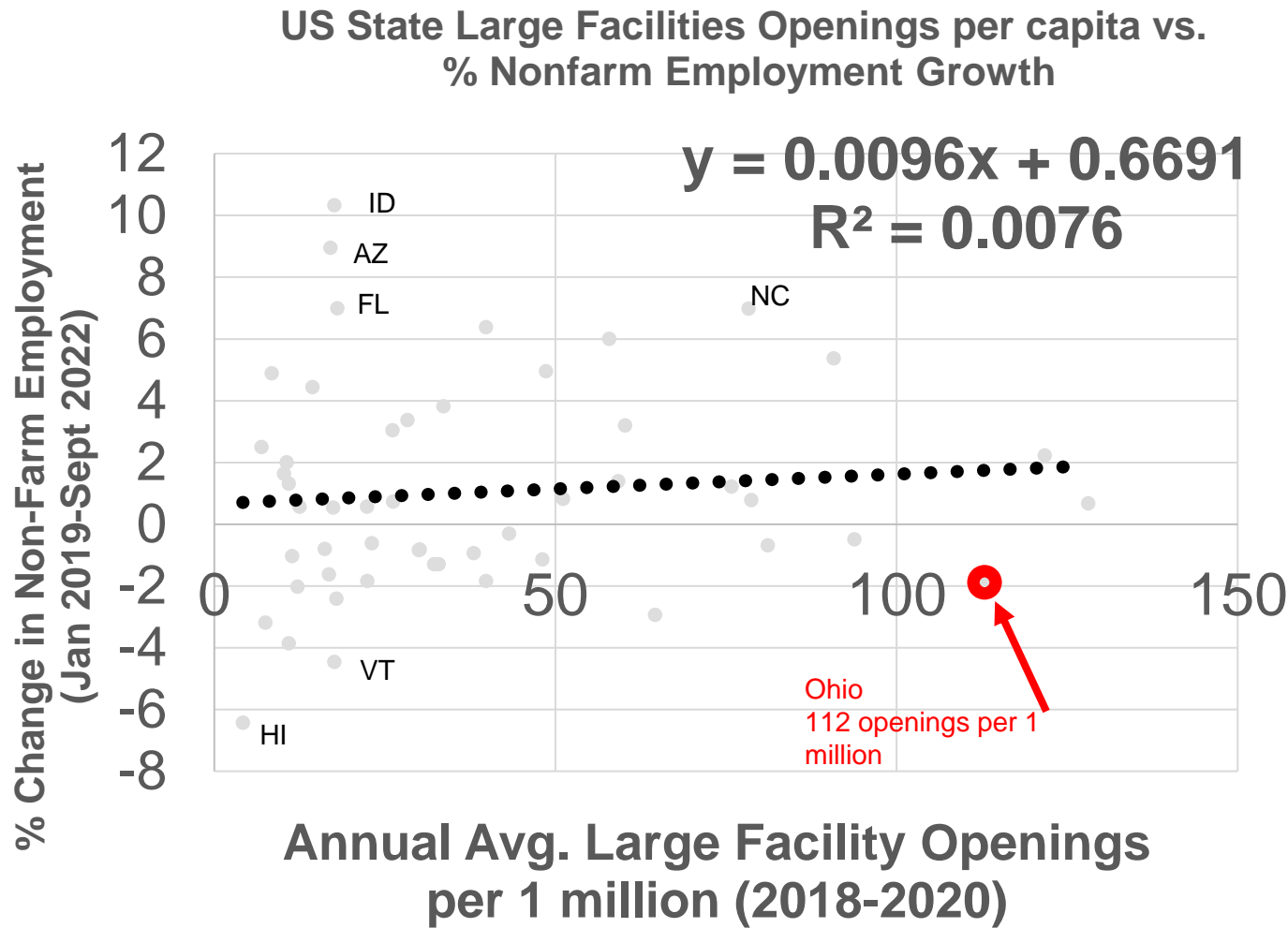
Area	2020 Census Resident Population	2010 Census Resident Population	Numeric Change	Percent Change	State Rank Based on 2020 Census Resident Population	State Rank Based on Percent Change
Louisiana	4,657,757	4,533,372	124,385	2.7	25	41
Maine	1,362,359	1,328,361	33,998	2.6	42	42
Pennsylvania	13,002,700	12,702,379	300,321	2.4	5	43
Wyoming	576,851	563,626	13,225	2.3	50	44
Ohio	11,799,448	11,536,504	262,944	2.3	7	45
Michigan	10,077,331	9,883,640	193,691	2.0	10	46
Connecticut	3,605,944	3,574,097	31,847	0.9	29	47
Illinois	12,812,508	12,830,632	-18,124	-0.1	6	48
Mississippi	2,961,279	2,967,297	-6,018	-0.2	34	49
West Virginia	1,793,716	1,852,994	-59,278	-3.2	39	50

Indiana ranked 29th with 2010-20 growth of 4.7%

Wisconsin ranked 33rd with 2010-20 growth of 3.6%



So, let's look at how well Ohio's strategy works across the country—heavy subsidies and a manufacturing focus.



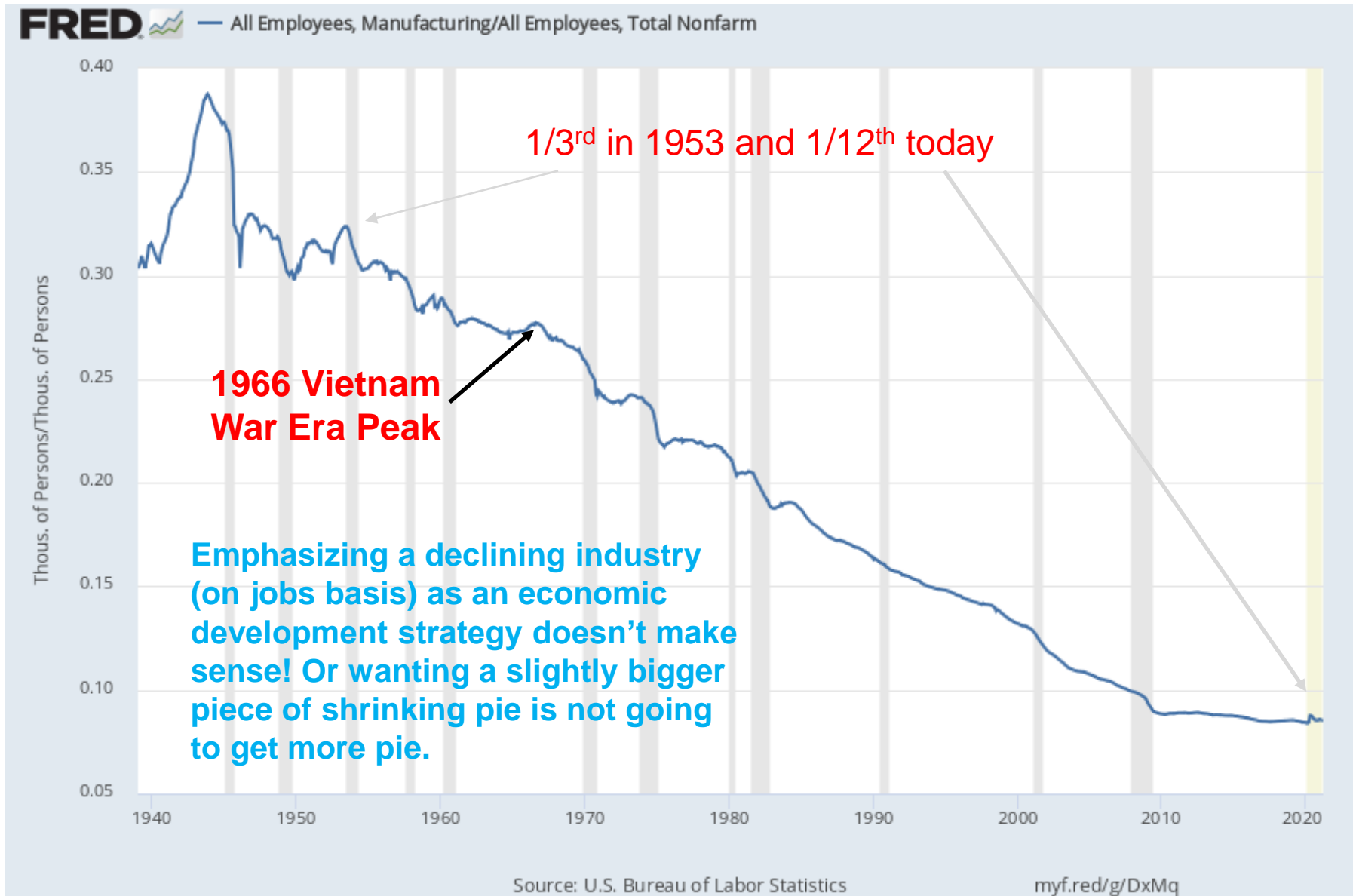
Big facility openings
per capita, Ohio
nationally ranked:

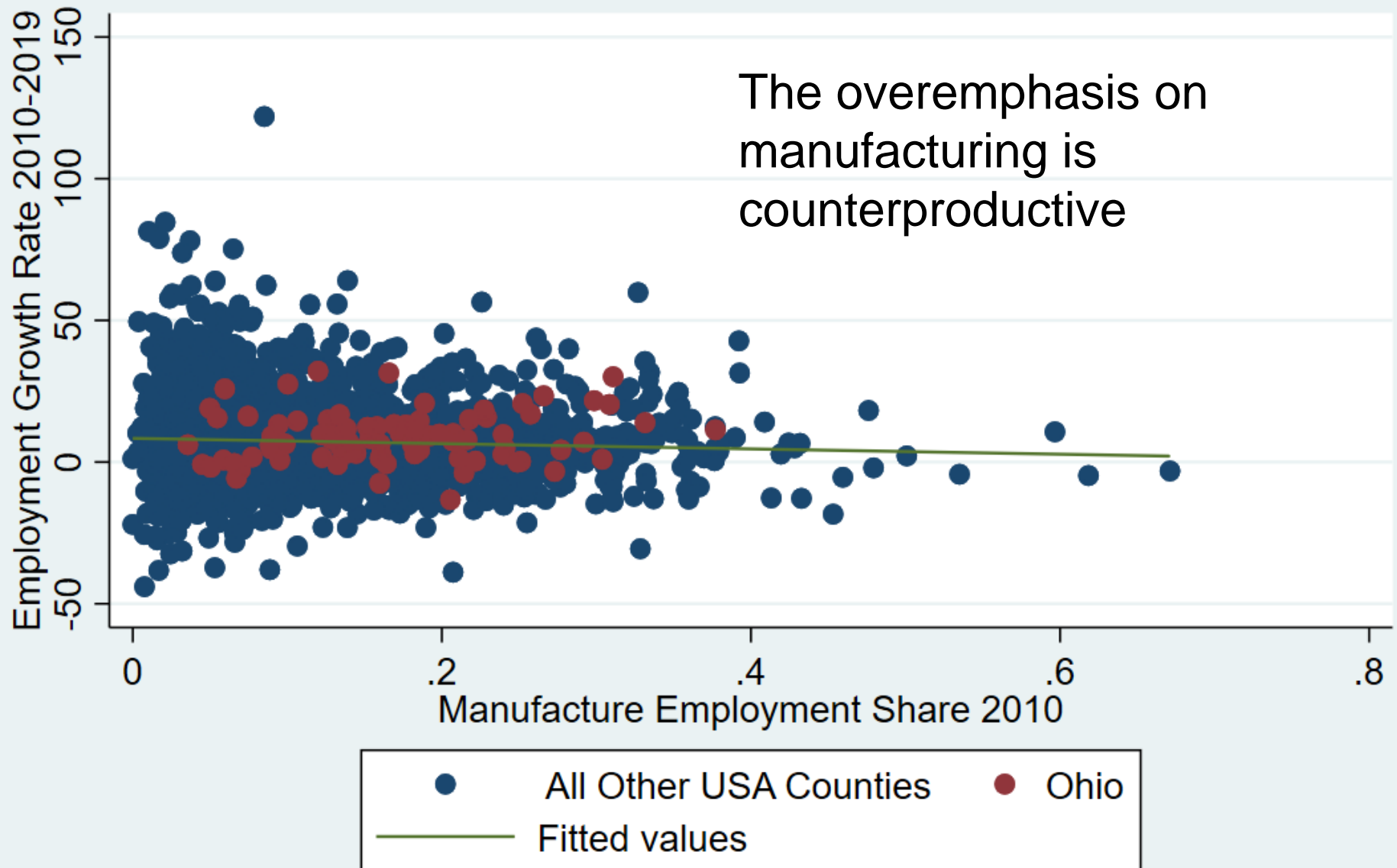
2006 - #1
2007 - #1
2008 - #1
2009 - #1
2010 - #2
2011 - #1
2012 - #2
2013 - #2
2014 - #3
2015 - #3
2016 - #3
2017 - #3
2018 - #3
2019 - #1
2020 - #1
2021 - #4

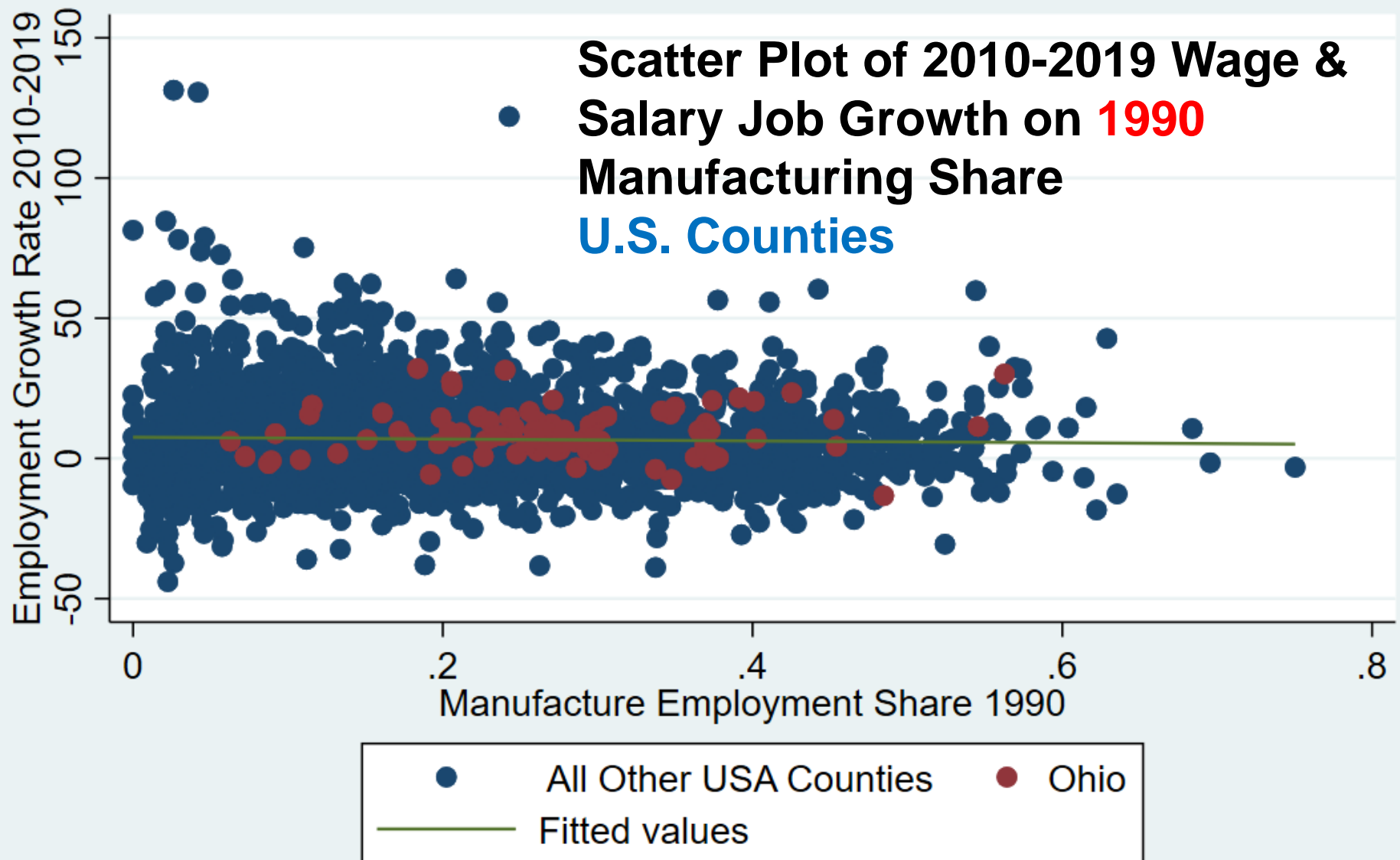
Data sources: Site Selection Magazine & BLS

*Large plant openings have either a minimum investment of \$1 million, at least 20 new jobs, or at least 20,000 sq. feet.

US Manufacturing Share of Nonfarm Employment: 1939-2021







$y = 7.560213 - 3.270466 x$
Observations = 2907
R-squared=.0009
Source: BEA



- ***THANK YOU!***



How did the perception of Ohio go from World's Innovator to Economic Decline?



1969 Cuyahoga River Fire

Smithsonian Magazine



Abandoned NE Ohio Factory

Pinterest.com



Apportionment of the U.S. House of Representatives Based on the 2020 Census

Change from 2010 to 2020

- State gaining 2 seats
- State gaining 1 seat
- No change
- State losing 1 seat

The map shows the following seat counts for each state:

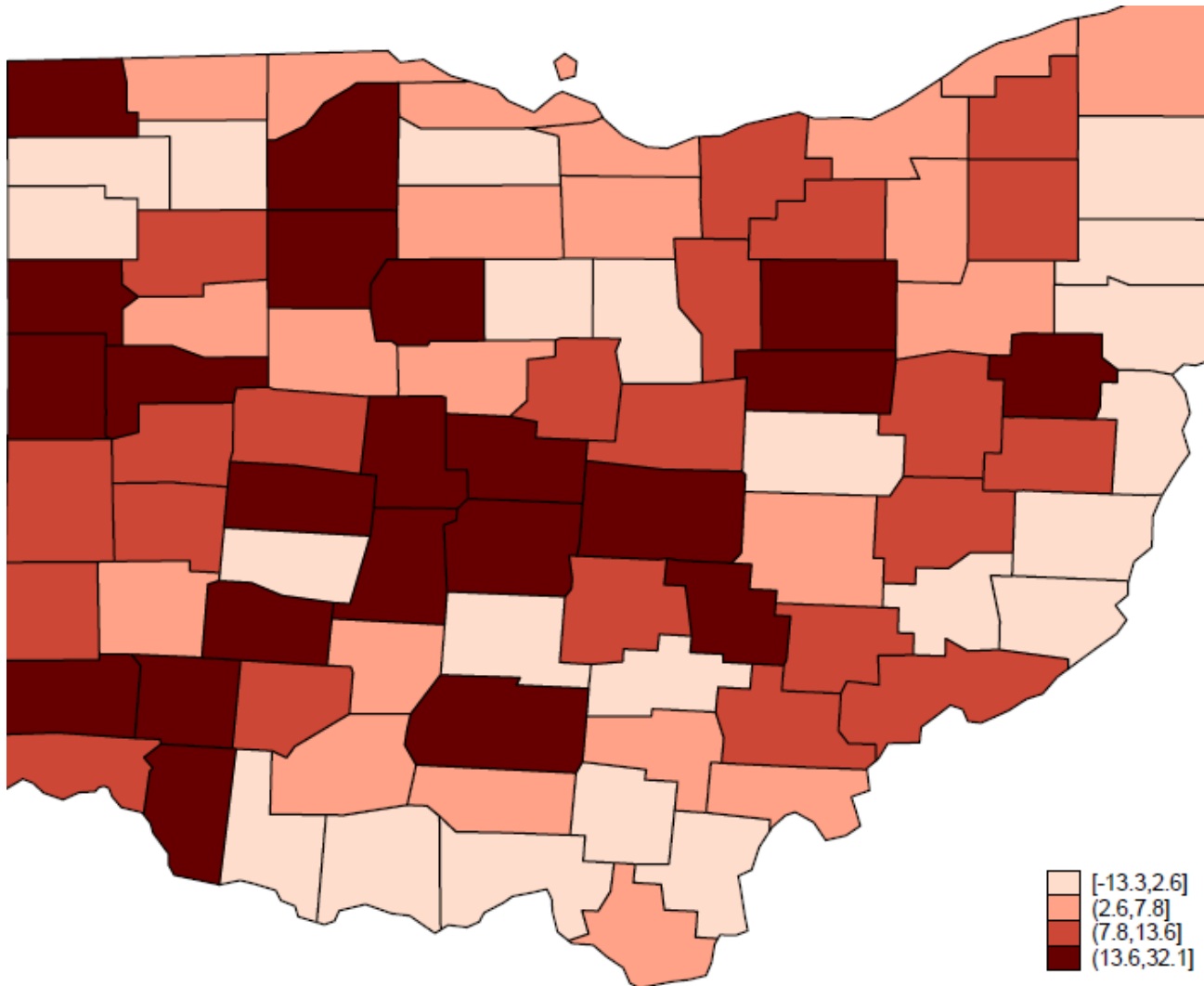
State	Seats	Change
AK	1	No change
AL	6	No change
AR	4	No change
AS	1	No change
AZ	9	No change
CA	32	Losing 1 seat
CO	8	Gaining 1 seat
CT	5	No change
DE	1	No change
FL	28	Gaining 1 seat
GA	11	No change
HI	2	No change
ID	2	No change
IL	17	Losing 1 seat
IN	9	No change
IOWA	4	No change
KANSAS	4	No change
KS	4	No change
LA	6	No change
MA	9	No change
MD	8	No change
ME	2	No change
MICHIGAN	14	Losing 1 seat
MINN.	8	No change
MISSISSIPPI	4	No change
MO	4	No change
MT	2	Gaining 1 seat
NEBRASKA	2	No change
NH	7	No change
NJ	12	No change
NM	3	No change
NC	14	Gaining 1 seat
ND	1	No change
NE	2	No change
NV	4	No change
N.Y.	26	Losing 1 seat
OHIO	16	Losing 1 seat
OK	5	No change
OR	6	Gaining 1 seat
PENNSYLVANIA	17	Losing 1 seat
R.I.	2	No change
SC	7	No change
SD	1	No change
TENN.	4	No change
TEXAS	38	Gaining 2 seats
TN	4	No change
UT	4	No change
V.A.	11	No change
VT	2	No change
WA	10	No change
WISCONSIN	8	No change
W.V.	2	Losing 1 seat
WYOMING	1	No change

© 2021 U.S. Representative News Desk
Number of representatives per seat and total number of US representatives

United States
Census
2020



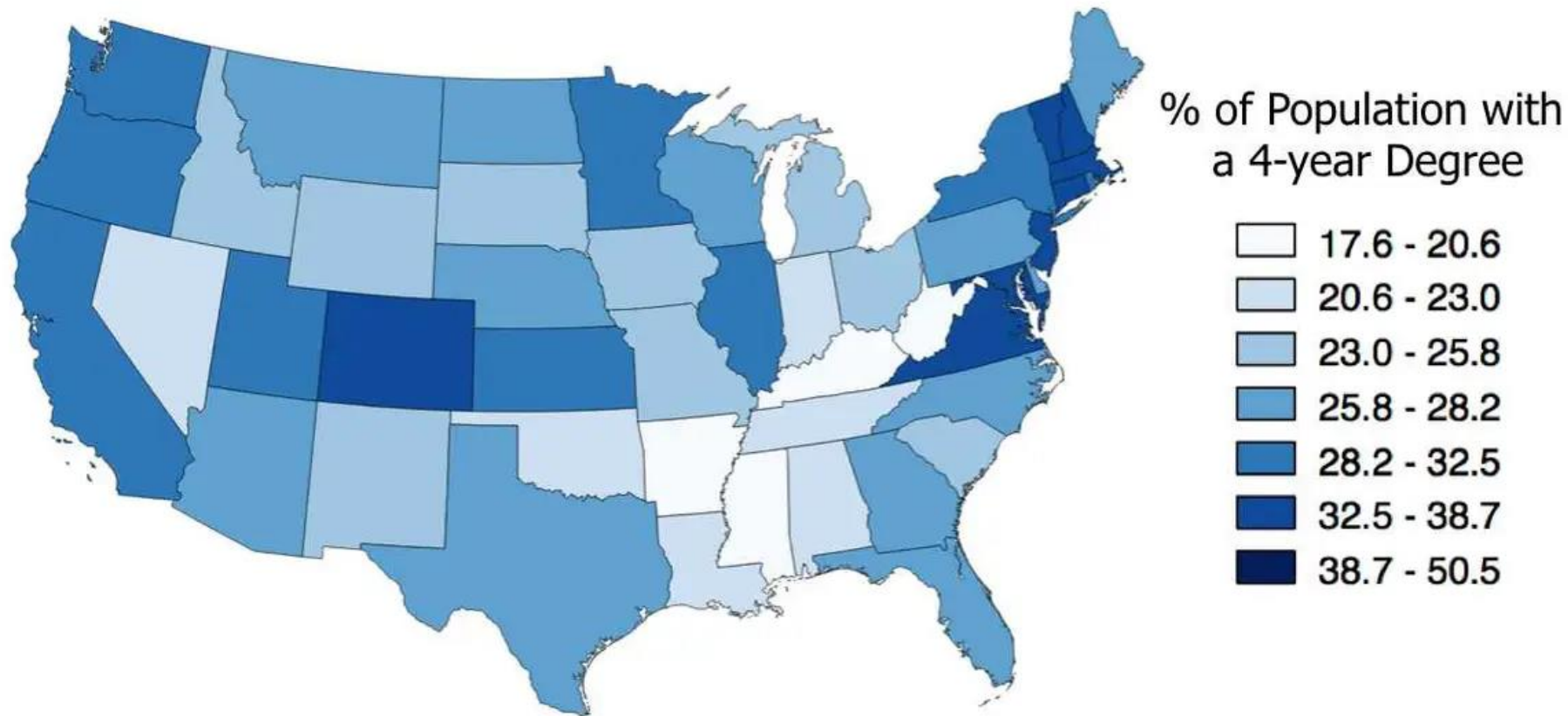
2010-2019 Wage & Salary Job Growth Rate in Percent





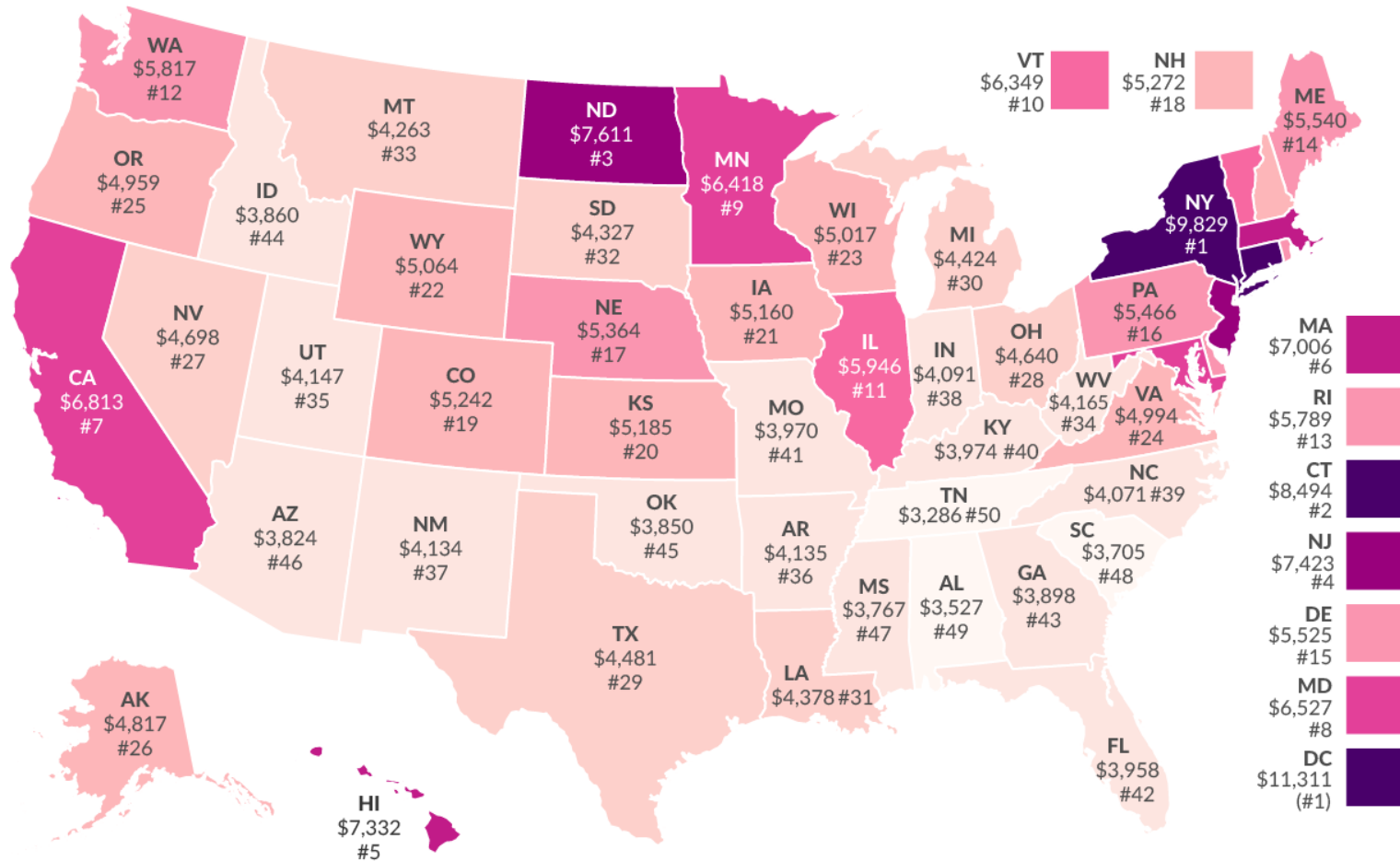
US State Adult Population Share with 4-year+ College Degree: OH ranks 35th at about 29%

Source Business Insider and U.S. Census Bureau



How High are State and Local Tax Collections in Your State?

State and Local Tax Collections per Capita, Fiscal Year 2018

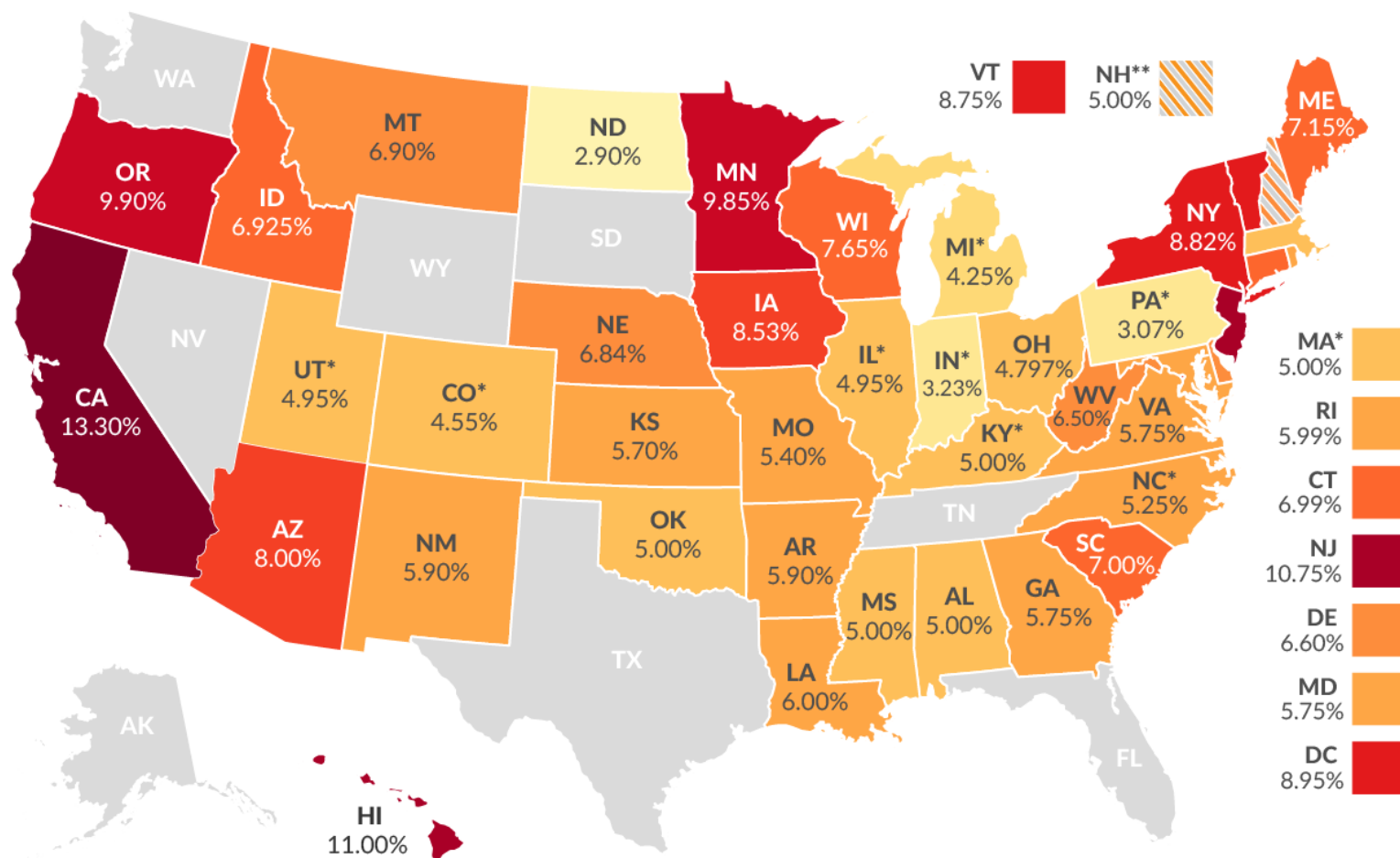


Note: D.C.'s rank does not affect states' ranks, but the figure in parentheses indicates where it would rank if included.

Sources: U.S. Census Bureau, "Annual Survey of State and Local Government Finances"; Tax Foundation calculations.

How High Are Individual Income Tax Rates in Your State?

Top State Marginal Individual Income Tax Rates, 2021



Note: Map shows top marginal rates: the maximum statutory rate in each state. This map does not show effective marginal tax rates, which would include the effects of phase-outs of various tax preferences. Local income taxes are not included.

(*) State has a flat income tax.

(**) State only taxes interest and dividends income.

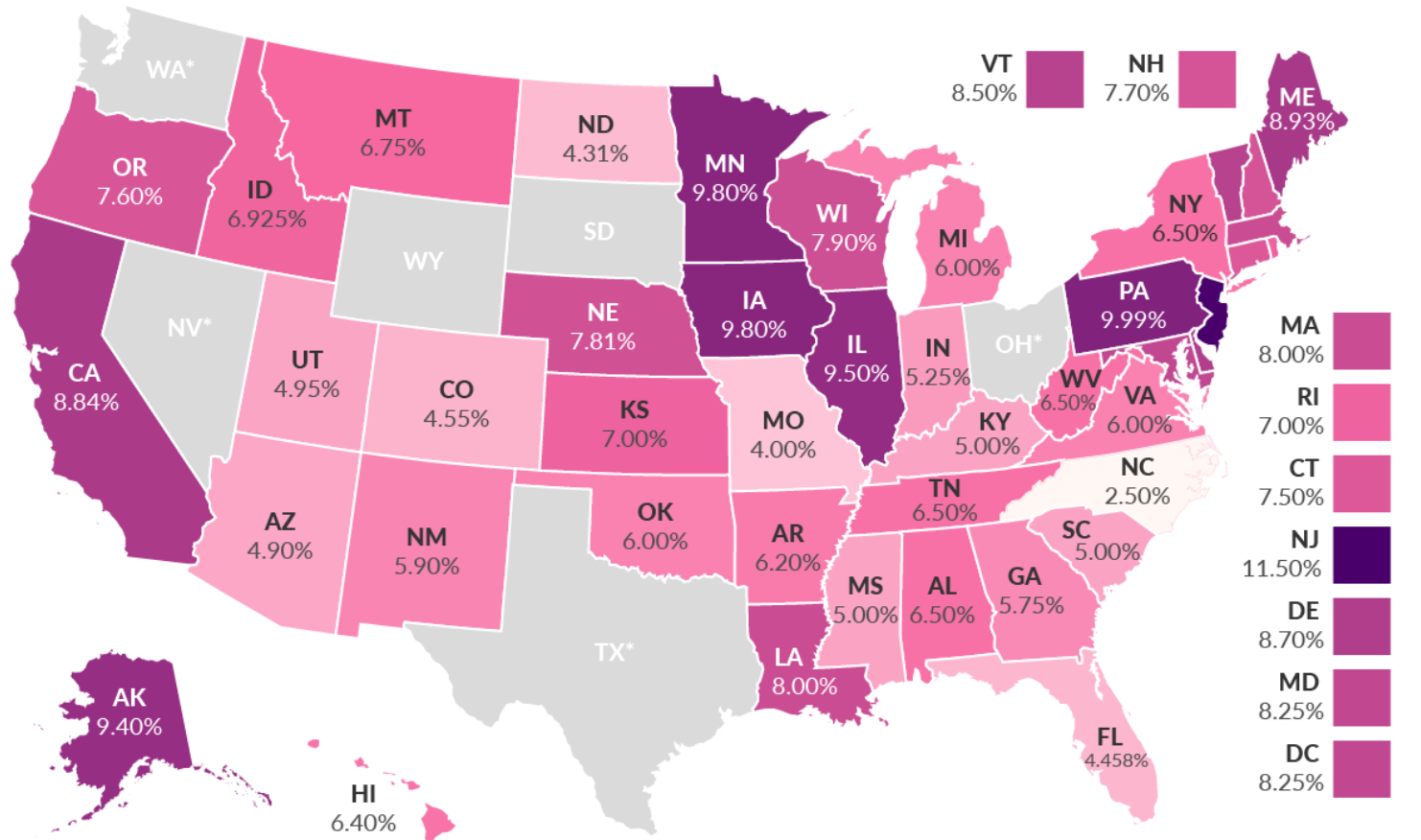
Sources: Tax Foundation; state tax statutes, forms, and instructions; Bloomberg BNA.

Top State Marginal Individual Income Tax Rates



How High are Corporate Income Tax Rates in Your State?

Top Marginal Corporate Income Tax Rates as of January 1, 2021



Note: (*) Nevada, Ohio, Texas, and Washington do not have a corporate income tax but do have a gross receipts tax with rates not strictly comparable to corporate income tax rates. Delaware, Tennessee, and Oregon have gross receipts taxes in addition to corporate income taxes, as do several states like Pennsylvania, Virginia, and West Virginia, which permit gross receipts taxes at the local (but not state) level.

Illinois' rate includes two separate corporate income taxes, one at a 7% rate and one at a 2.5% rate. Indiana's rate will change to 4.9% on July 1, 2021. In New Jersey, the rates indicated apply to a corporation's entire net income rather than just income over the threshold. A temporary and retroactive surcharge is in effect from 2020 to 2023, bringing the rate to 11.5% for businesses with income over \$1 million. In addition to regular income taxes, many states impose other taxes on corporations such as gross receipts taxes and capital stock taxes. Some states also impose an alternative minimum tax and special rates on financial institutions.

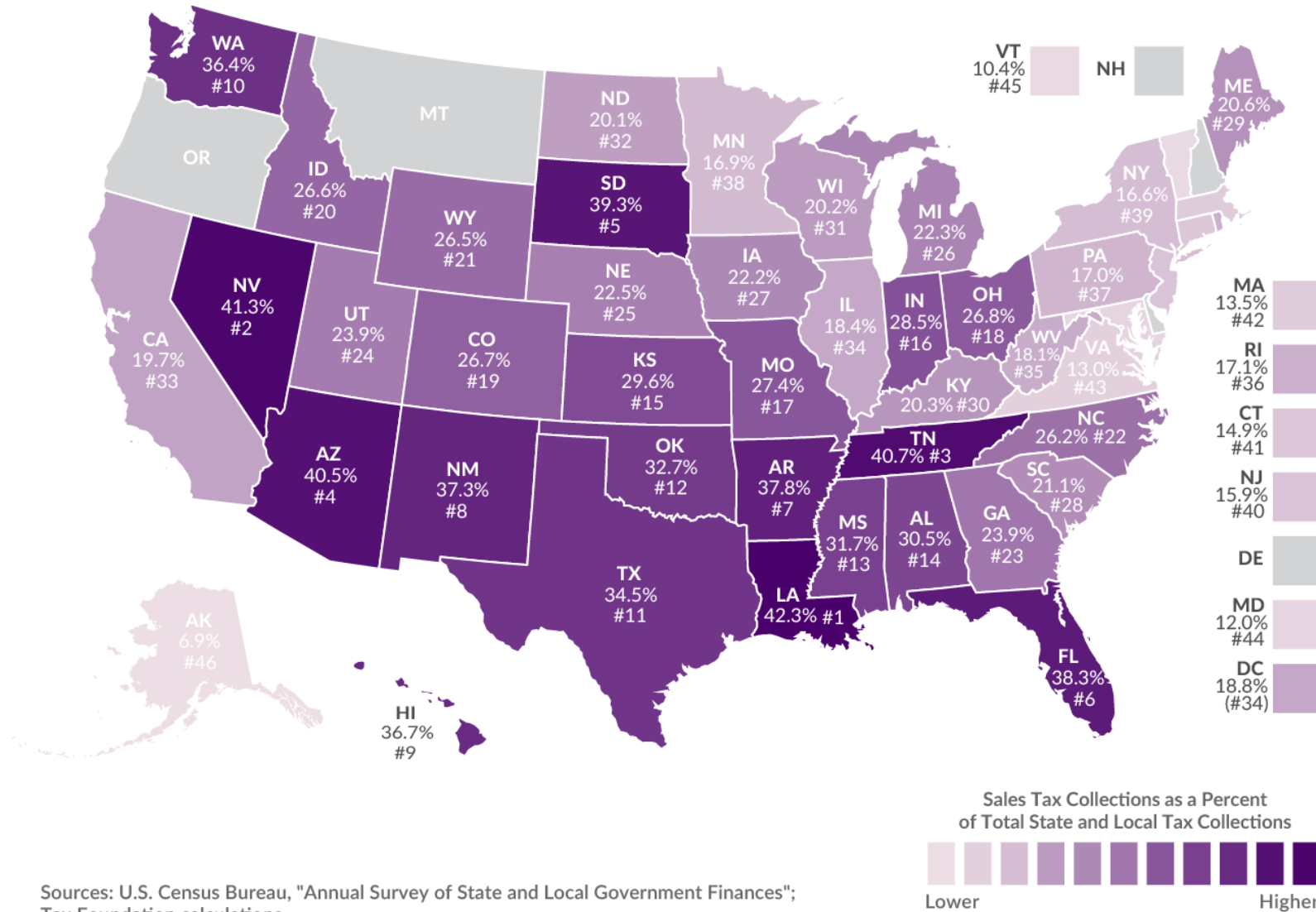
Sources: Tax Foundation; state tax statutes, forms, and instructions; Bloomberg Tax.

Top State Marginal Corporate
Income Tax Rates as of January 1, 2021



How Much Does Your State Rely on Sales Taxes?

Sales Tax Collections as a Percent of Total State and Local Tax Collections, FY 2018



Sources: U.S. Census Bureau, "Annual Survey of State and Local Government Finances"; Tax Foundation calculations.

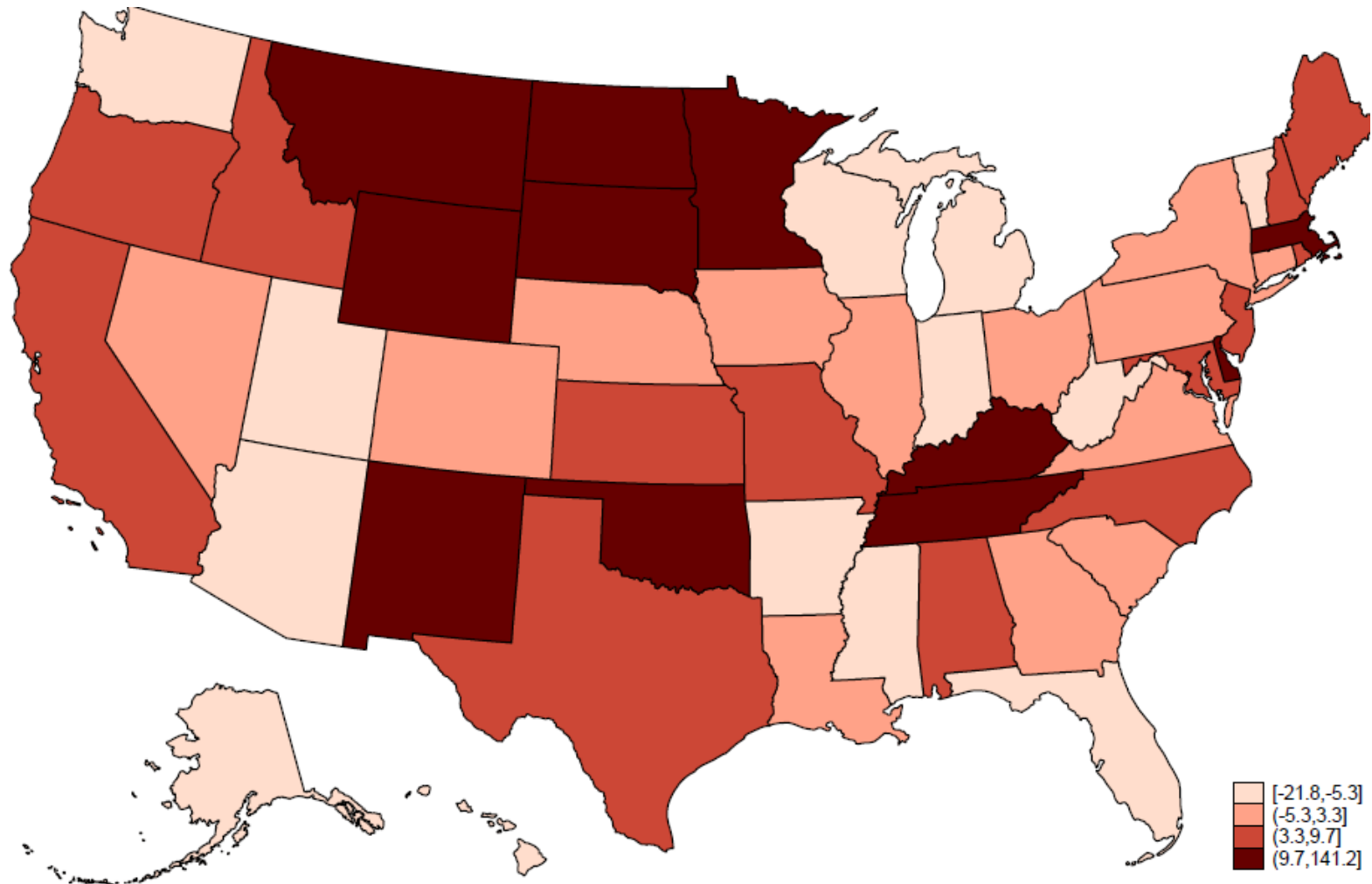


Falling Behind Notes Several Reasons,

continued

- 4a. Relatively low natural amenities such as climate. However, Stephans and Partridge (2015) and *Falling Behind* note Ohio underutilizes its natural assets, especially Lake Erie.
- 4b. Quality-of-Life is more important than business-climate measures.
- 5. Ohio's post 2005-policy of reduced taxes and shifting burden from income/corporate taxes has failed to pay off.
- For example, the \$250K/3% write-off and max tax rate for pass-through business income has apparently failed

Share of nonfarm employment created by firms less than one-year old: 2010-2019 (does not include firm closures)





SLIDE PURPOSELY BLANK

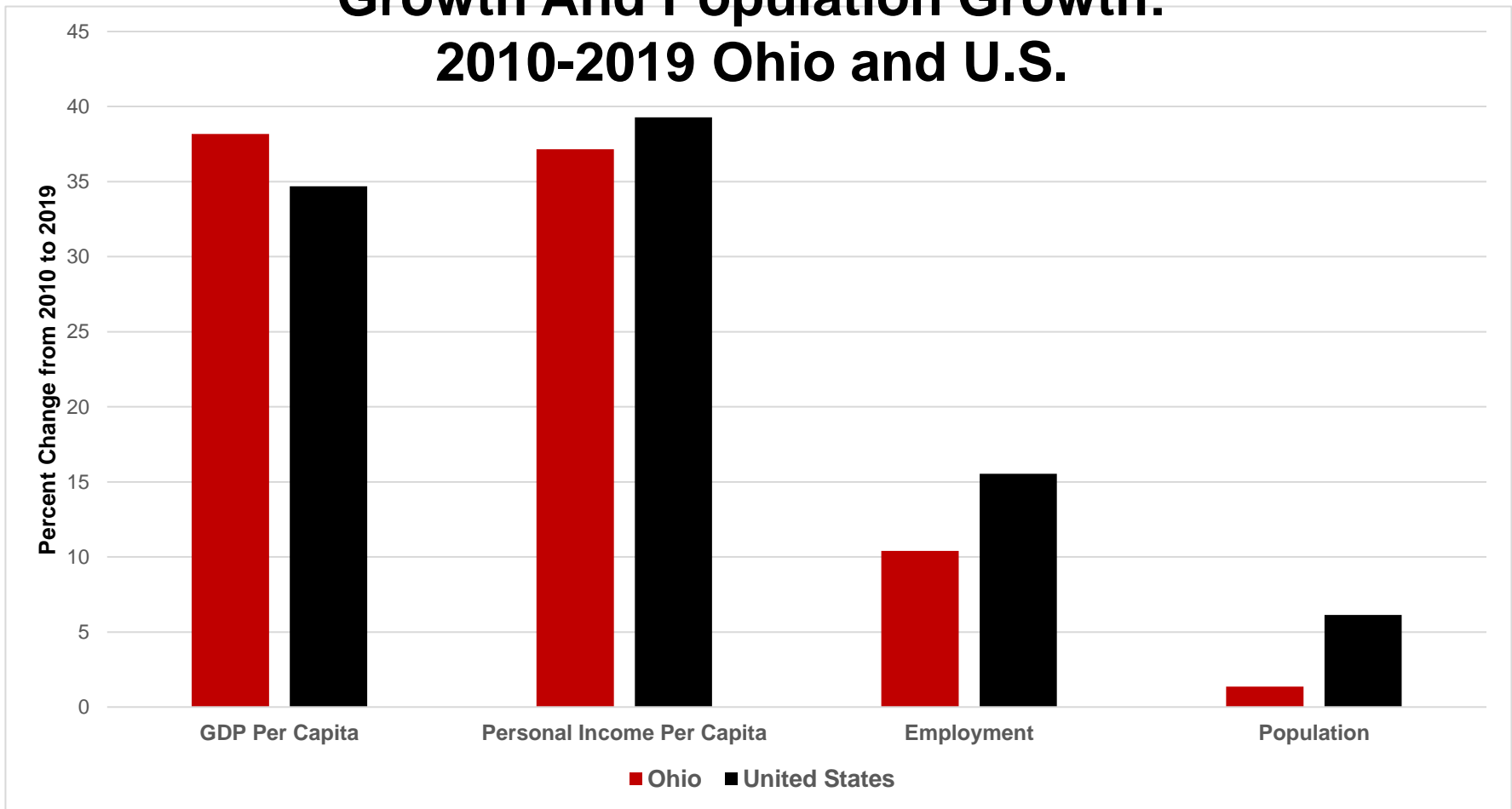


What's going on?

- **Growth of an area depends on both households and firms being happy.**
- **Ohio policymakers have mainly focused on firms or “job creators.”**

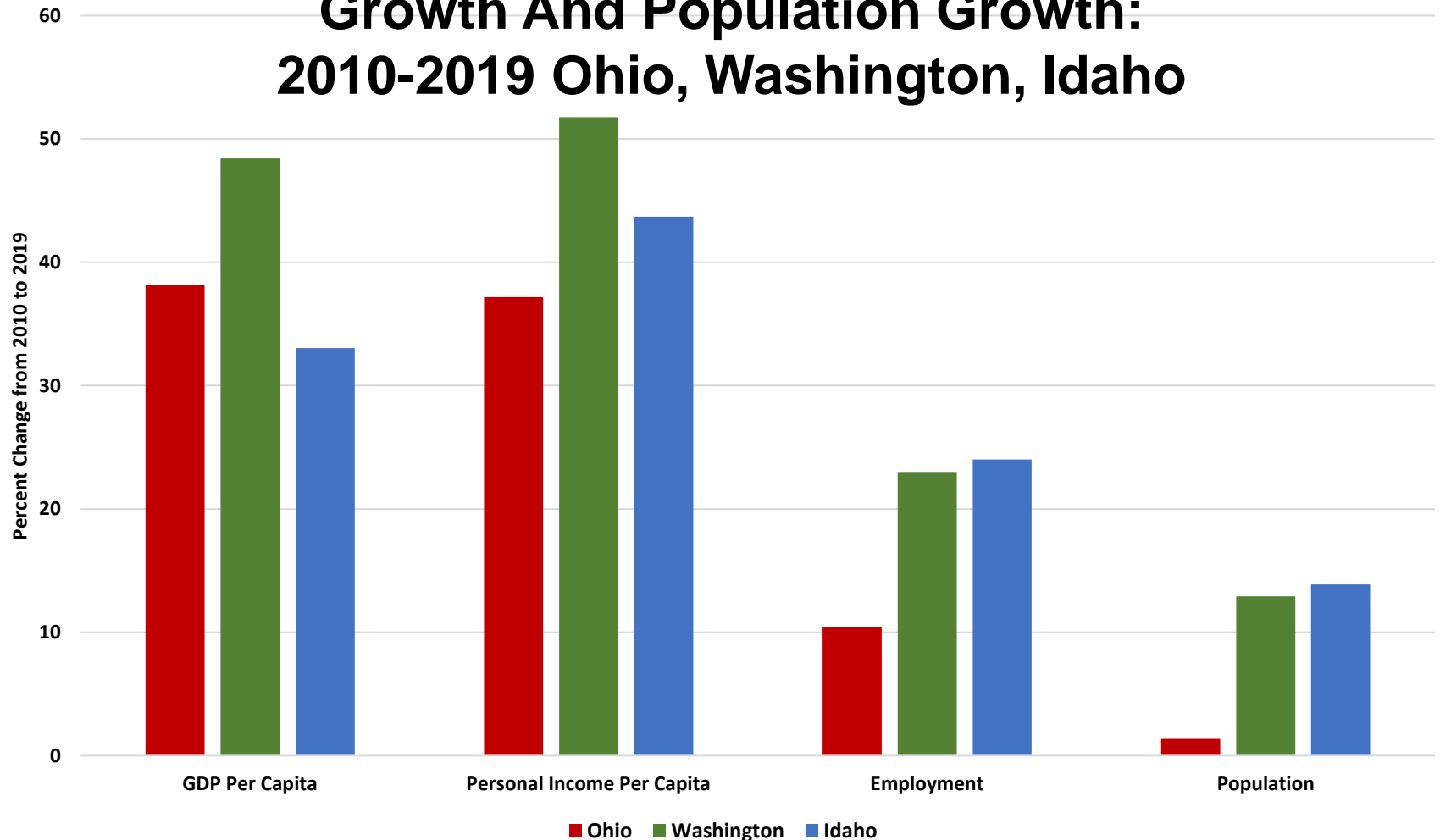


GDP Growth, Personal Income Growth, Employment Growth And Population Growth: 2010-2019 Ohio and U.S.





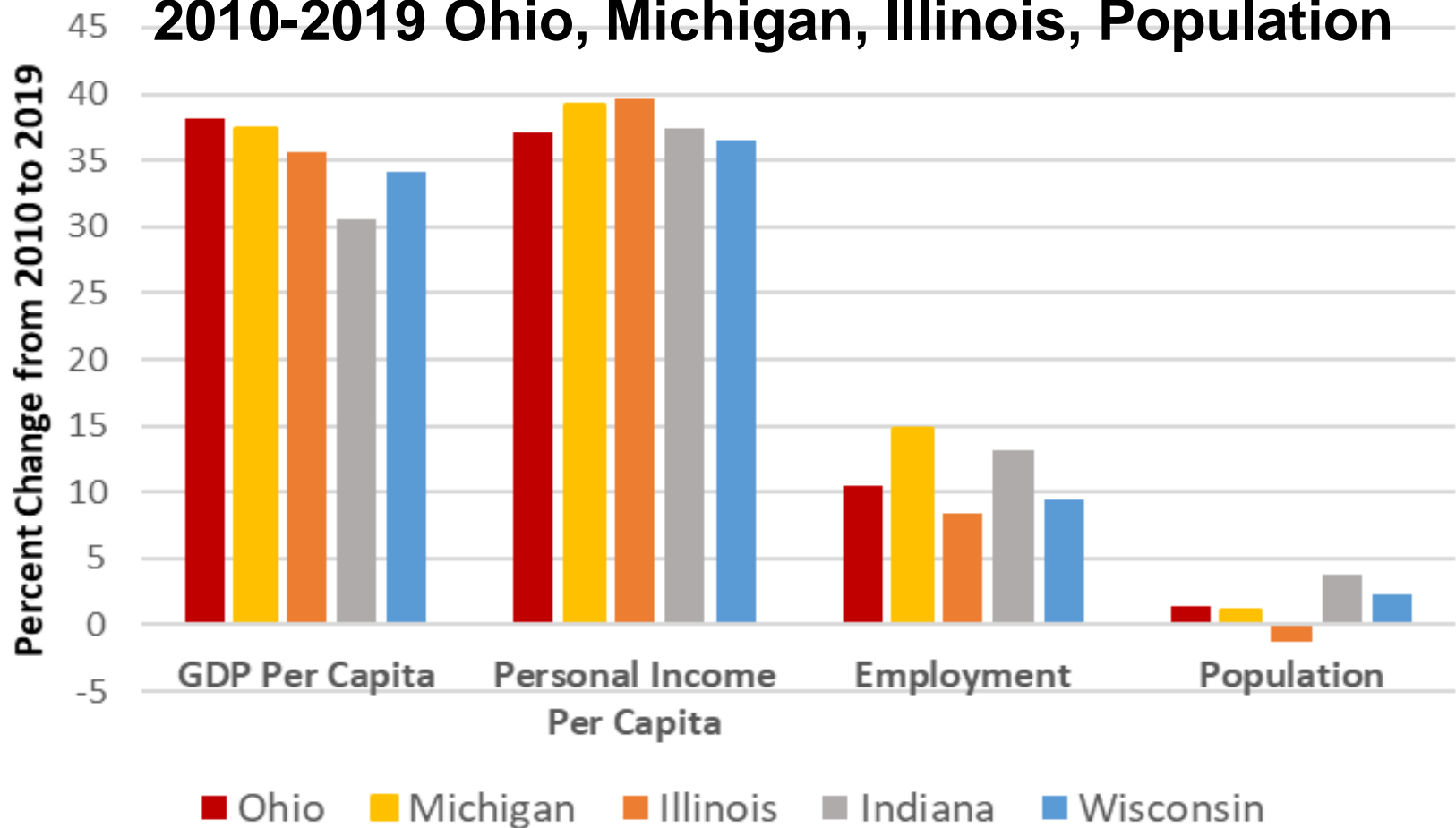
GDP Growth, Personal Income Growth, Employment Growth And Population Growth: 2010-2019 Ohio, Washington, Idaho

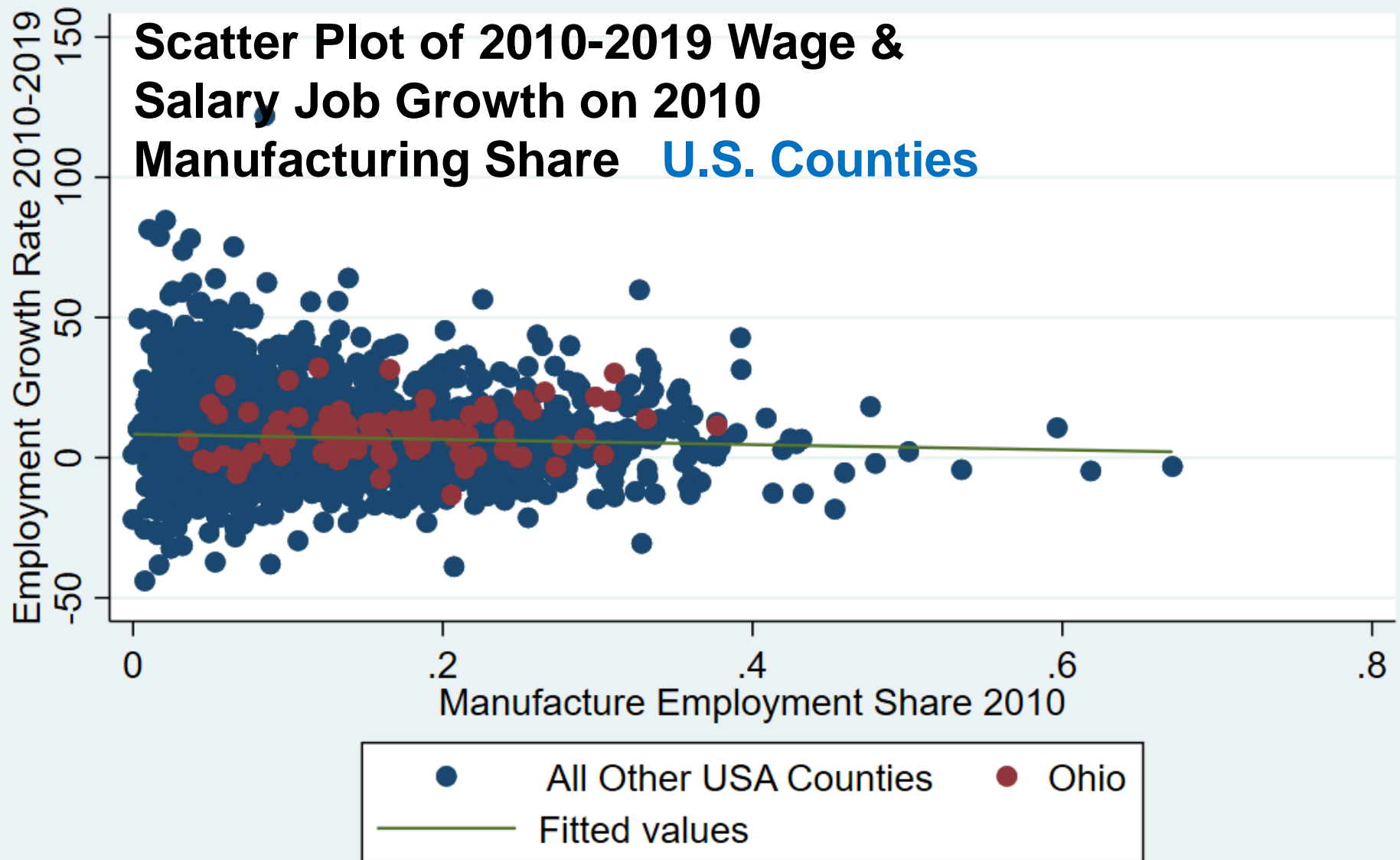




GDP Growth, Personal Income Growth, Employment Growth And Population Growth:

2010-2019 Ohio, Michigan, Illinois, Population

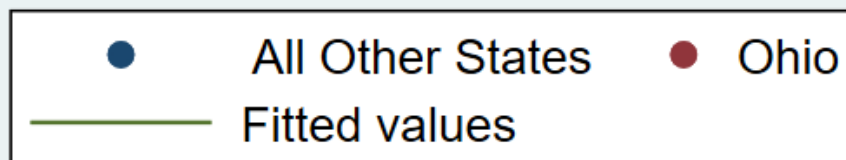
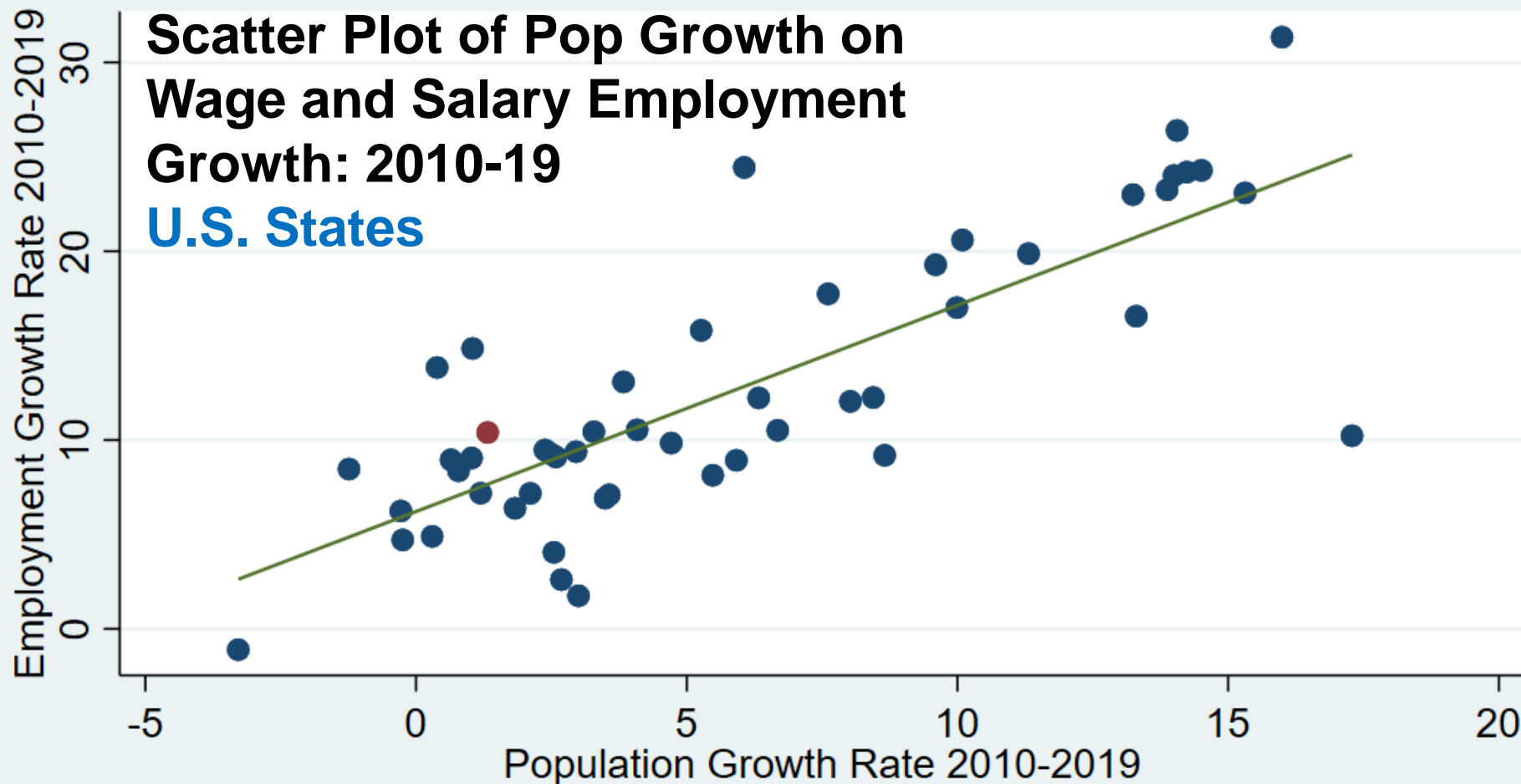




$y = 8.396399 - 9.34588 x$
Observations = 2680
R-squared=.0031
Source: BEA

Scatter Plot of Pop Growth on Wage and Salary Employment Growth: 2010-19

U.S. States



$$y = 6.215022 + 1.092418 x$$

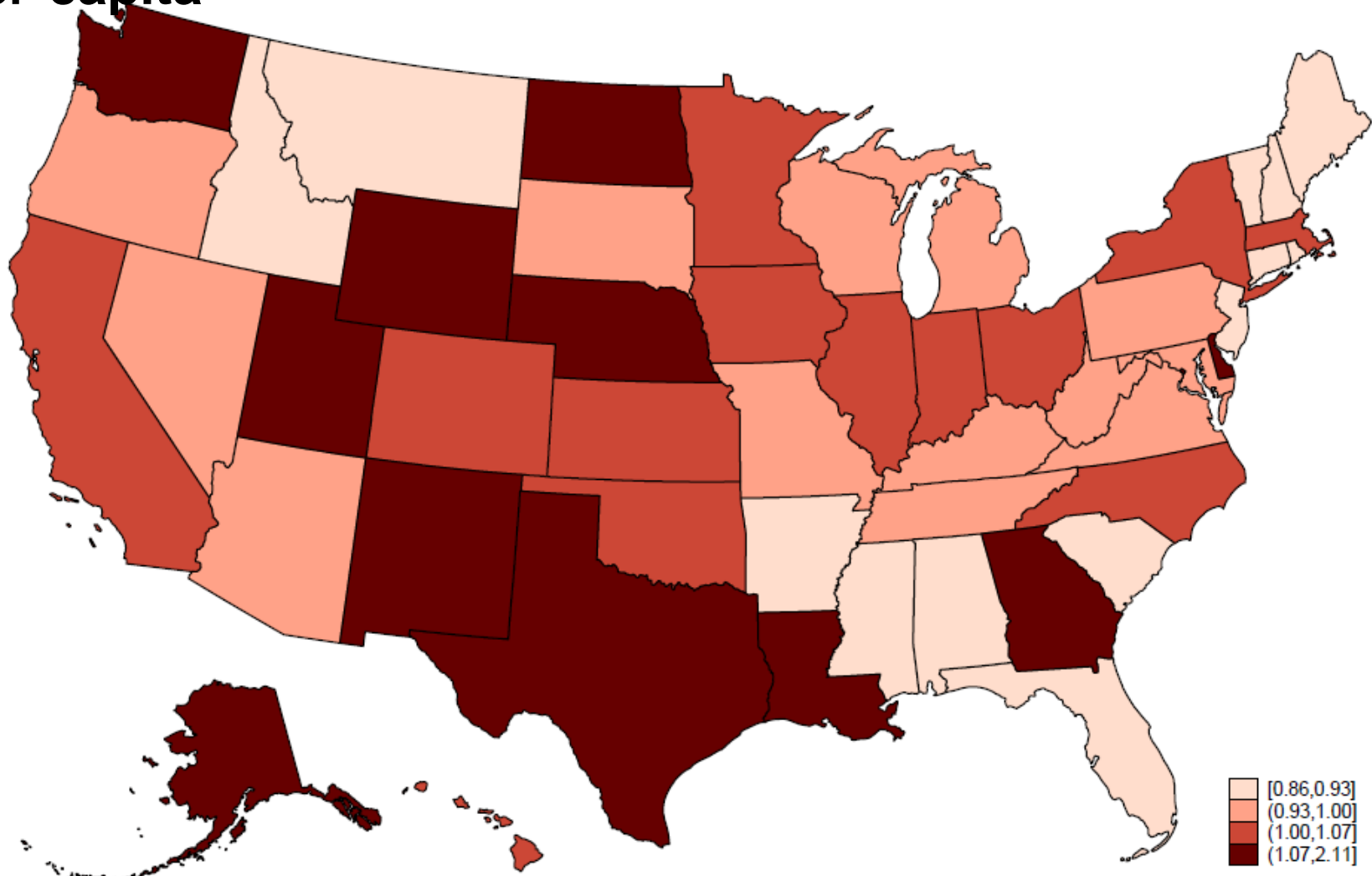
Observations = 51

R-squared=.6418

Source: BEA & Census

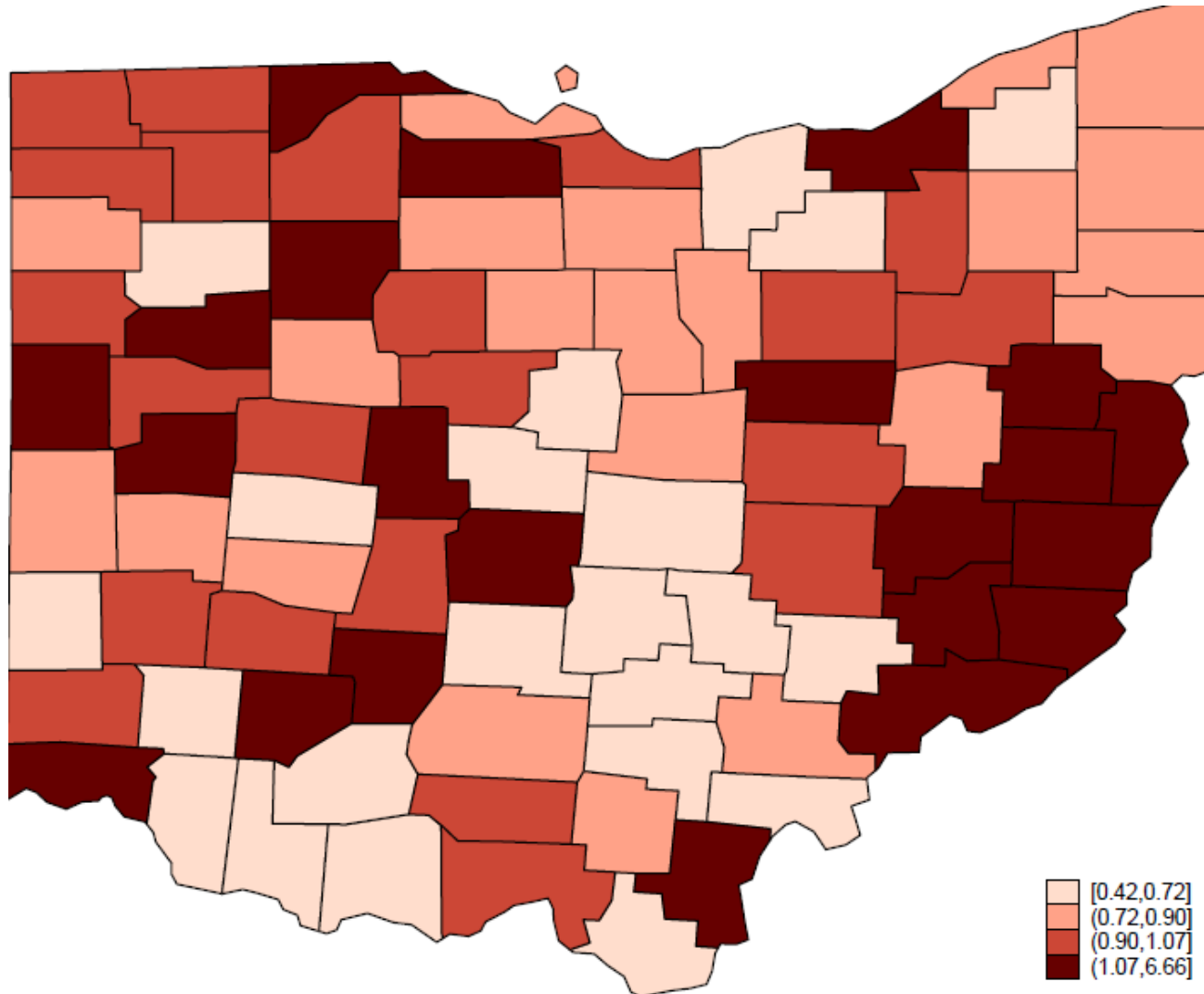


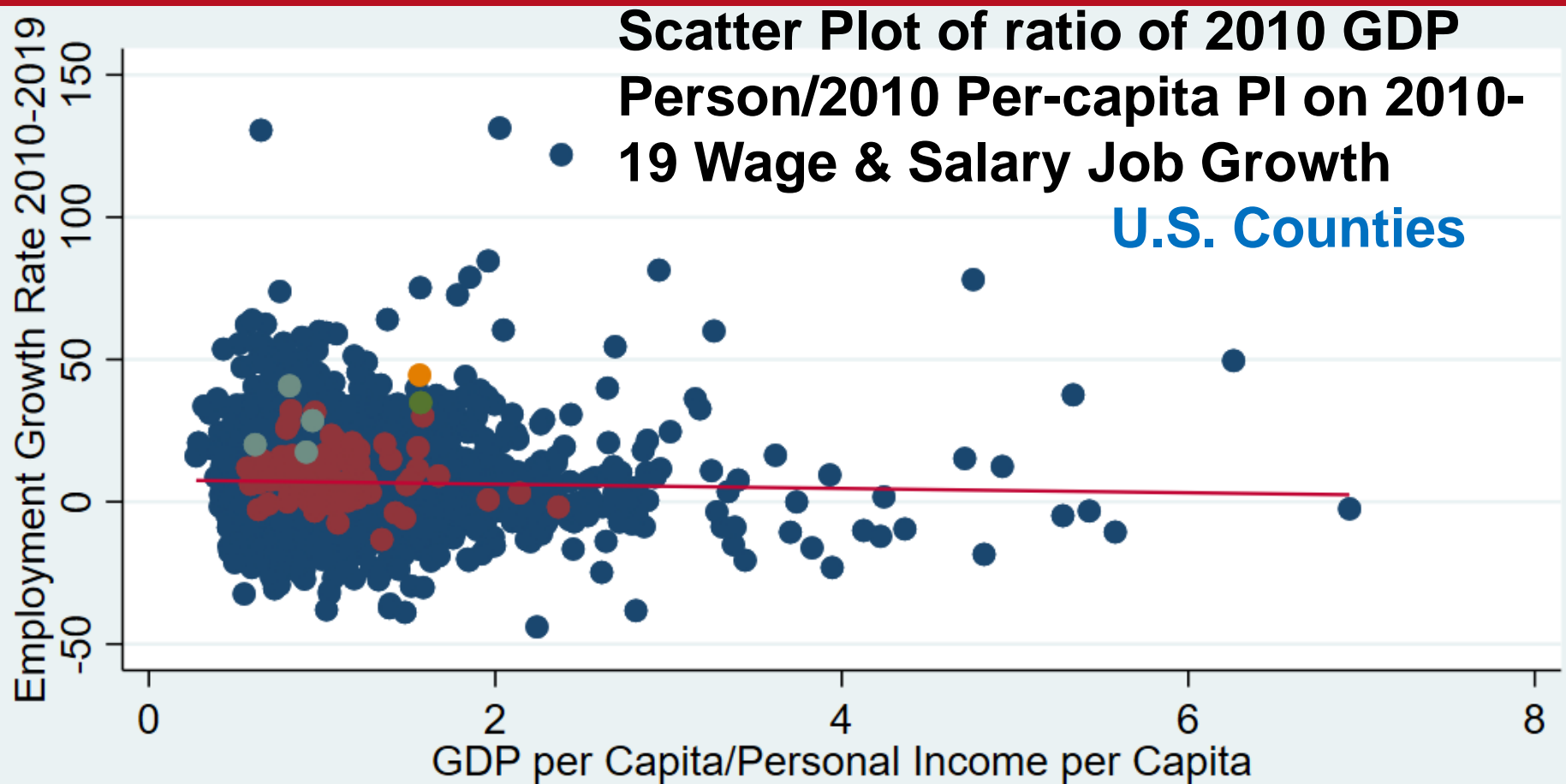
2019 Ratio of GDP per-capita divided by Personal Income Per-capita





2019 Ratio of GDP per-capita divided by Personal Income Per-capita: Ohio Counties





● All Other USA Counties	● Ohio
● San Jose	● San Francisco
● New York City	— Fitted values

$y = 7.69044 - .7561081 x$
Observations = 2988
R-squared=.0007
Source: BEA



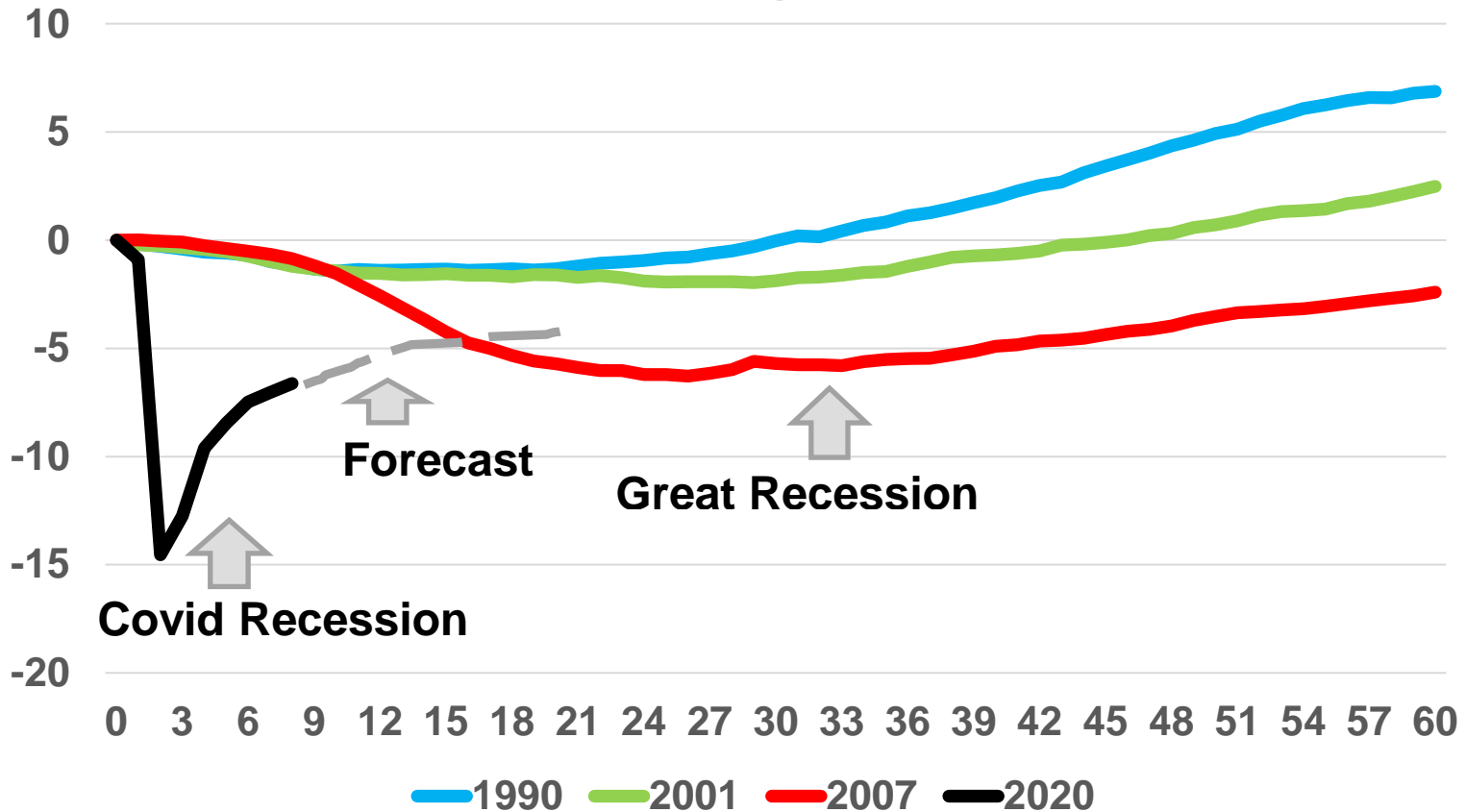
Conclusion.

- ***Falling Behind* is an excellent summary of what's happened in Ohio.**
- **Ohio policymakers pay too much attention to firm profits and not enough on household well-being.**
- **Tax cuts including the one for pass-through business profits have not paid off in new jobs and new businesses. Need to be reevaluated.**





National Monthly Percent Change in Employment by Recession



Source:
BLS

Values for Feb 20, Apr 20, Oct 20

Emp/Pop: 61.1%, 51.3%, 57.4% (highest on record, 64.7% in 2000)

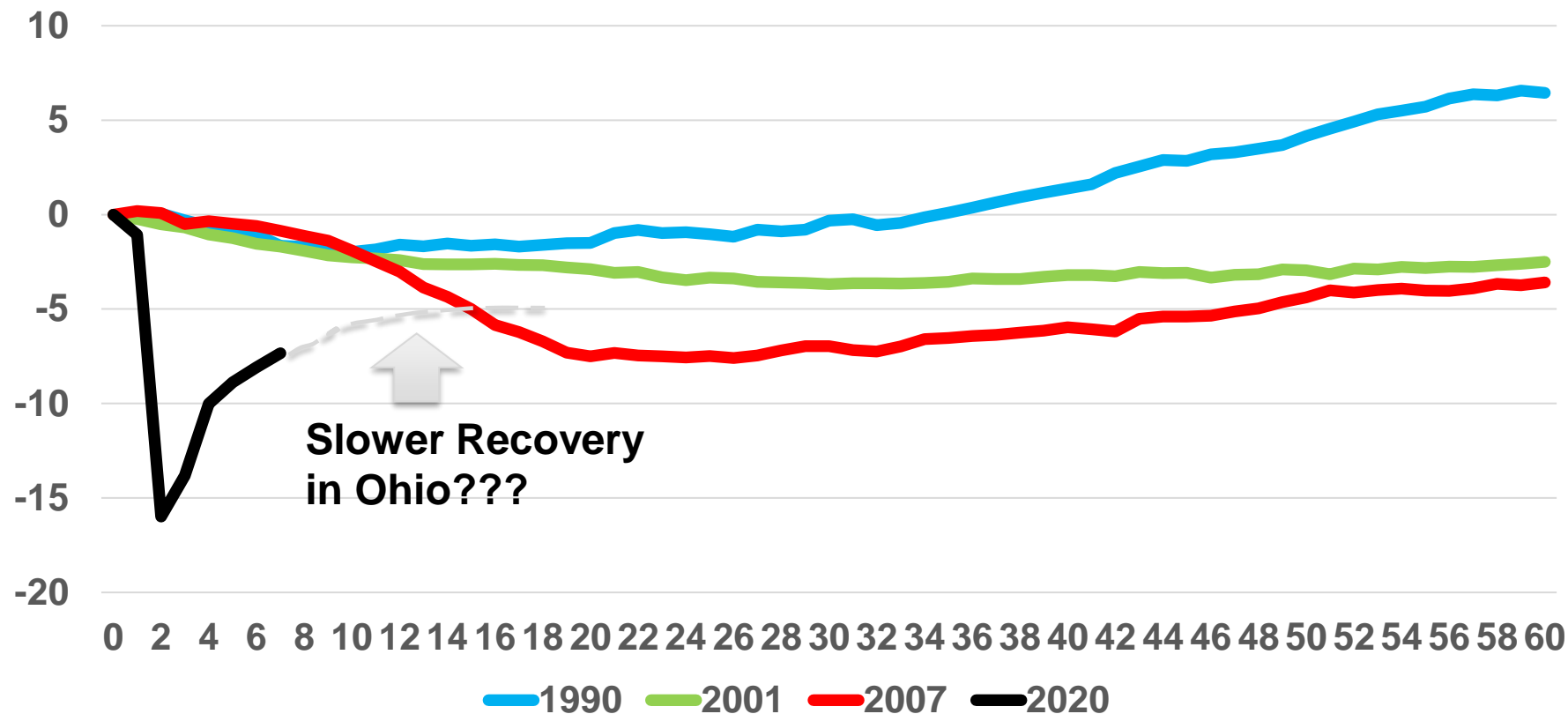
UR: 3.5%, 14.7%, 6.9%

UI claims: Feb 15, 208,000; Mar. 28 6.9million; Oct 31, 756,000; Nov 7, 709,000

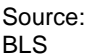
Pre-Pandemic record 695 000 in 1982



Ohio Monthly Percent Change in Employment by Recession

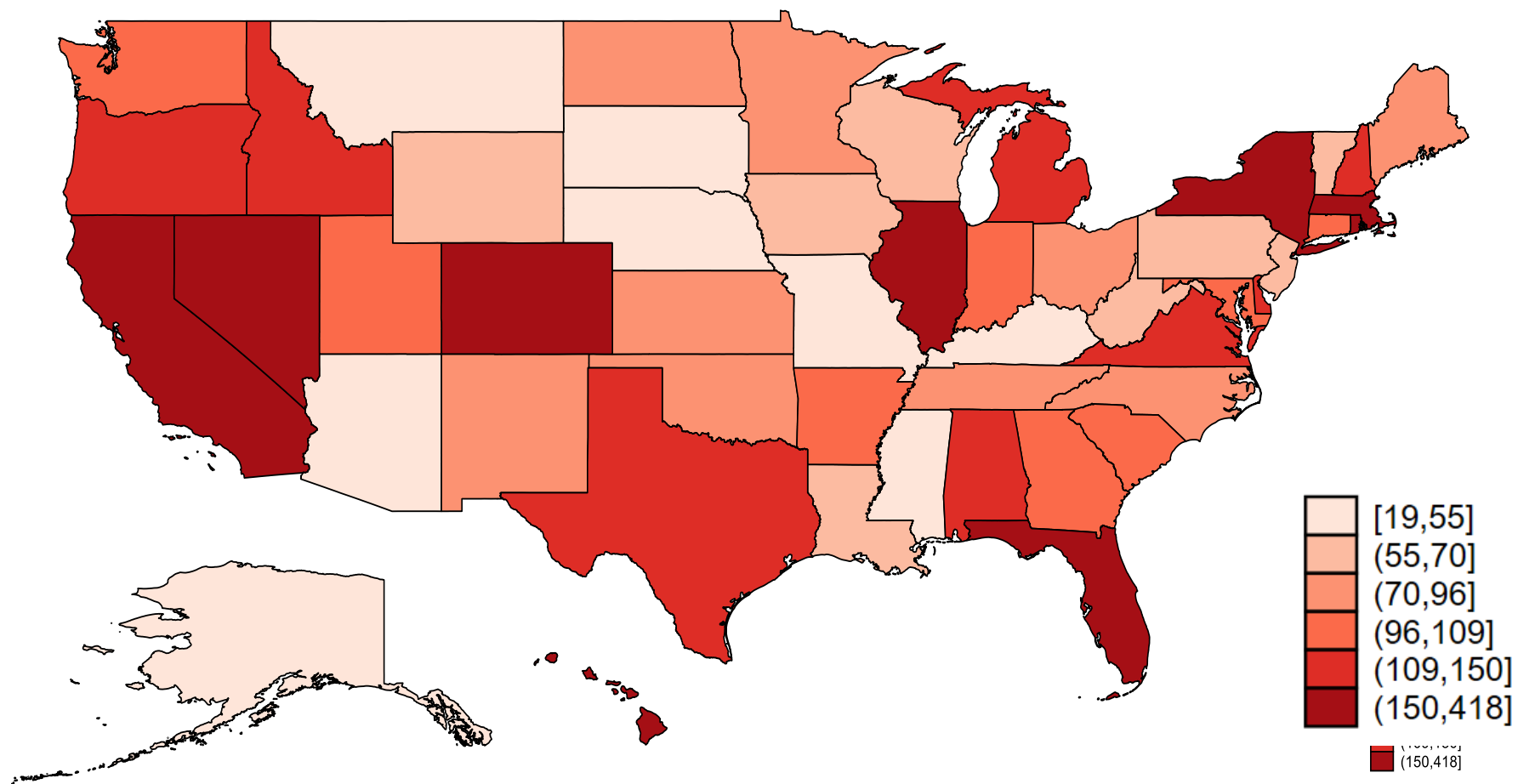


Employment





Feb 2020-Sep 2020 **Percent** Change in Unemployment

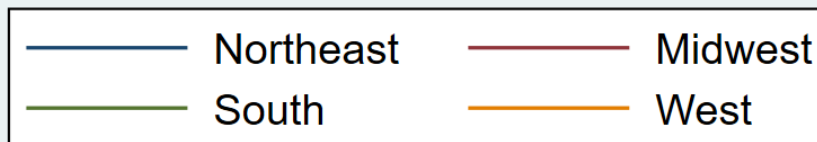




% Change Region High Propensity Business Applications 202



Source: U.S.
Census Bureau





Introduction—Economy today and '21

- Why the Uncertainty?
- Election/Biden policies which I get to.
- The initial response to Covid was an unprecedented (approx.) \$3 trillion stimulus.
 - While perhaps not well designed, it kicked in and saved us from initial economic disaster.
- But despite pleading from the Fed plus economists, future stimulus is uncertain.
- What is for sure, the election suggests that it will be less than thought before the election.



Introduction—Economy today and ‘21

- But the elephant in the room is Covid.
 - Until Covid is controlled, economic problems will remain.
 - Even under rosy scenarios, Pfizer's vaccine faces implementation challenges including the need for storage at extreme low temps.
 - E.g., Minks in Denmark; will ppl take vaccine; 2 doses adds hurdles; is it really 90% effective; safety?; etc.....
 - Perhaps expecting a tangible impact before '22 is unrealistic.

INVESTIGATIONS

Pfizer CEO Sold Millions In Stock After
Coronavirus Vaccine News, Raising
Questions





Election—Way to Go Joe (???)

BUSINESS
INSIDER

As of 7:30am EST, Nov. 12, 2020

Presidential Results >



290 JOE BIDEN ✓

78,240,263 | 51% votes

270 to win

DONALD TRUMP **232**

47% votes | 72,882,850



a. --Biden up 3.4% or
5.3 million votes

b. --Biden's margin is
1.3% better than
Clinton in '16 (2.4m)

c. --Biden's exp.
electoral vote = 306 =
Trump in '16

d. --Just like '16, switch
of ~85,000 votes in PA,
GA, AZ Trump wins!

Senate Results >

48 DEM

REP **50**

51 to control

House Results >

218 DEM ✓

REP **202**

218 to control



U.S. Election: Who has the mandate?

- Republicans did amazing in my view (or reverse).
- Conditions of pandemic, recession, civic unrest!
- High turnout election that should favor Dems
 - Up to 16% more votes cast than 16.
- Reps (likely) held the Senate and gained House seats despite forecasts of the opposite.
- Trump is a master politician (Joe???)!
- Trump has about ~10 mill. more votes than 16.
 - With roughly 5.8 million more total votes to be counted.
- McConnell risked a lot in 16, 18, & 20 and won the bets!



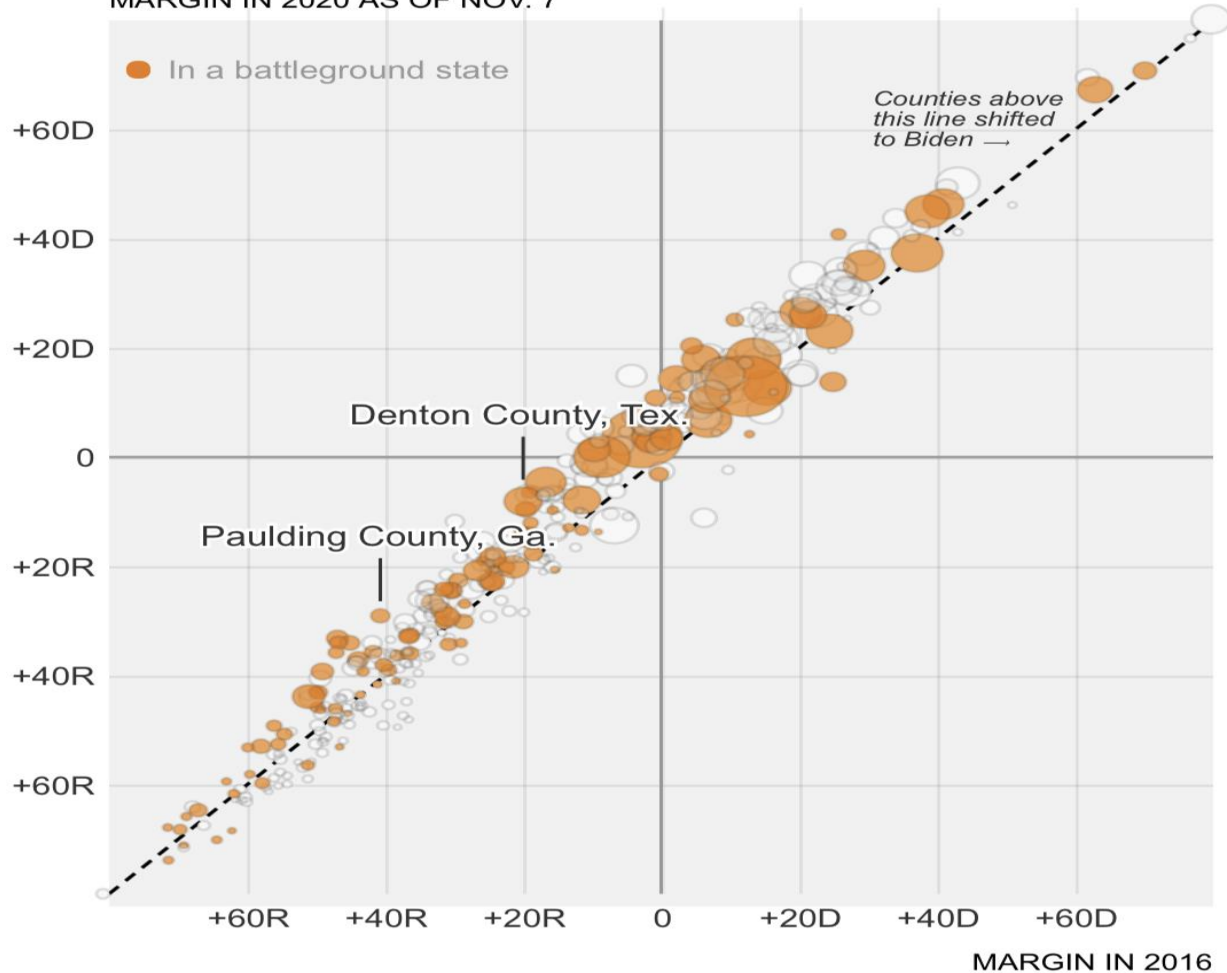
U.S. Election: Who has the mandate?

- McConnell has the bargaining power and splitting off individual Republican Senators will be **extremely** difficult as in the past—e.g., he won't bring bills for a vote.
 - McConnell will likely remain “brutal” and will only bargain when receiving major concessions.
 - Biden and Pelosi are not particularly good negotiators.
- The results present real challenges for Biden if he is going to bargain on (say) healthcare, taxes, energy/climate, stimulus, min. wage, etc.
- How did Biden win: Rich high-educated suburbs.



How Suburban Counties Shifted to Biden

MARGIN IN 2020 AS OF NOV. 7



Note: The battleground states shown here are Arizona, Florida, Georgia, Michigan, Nevada, North Carolina, Pennsylvania, Texas and Wisconsin

Economic Measurements and the 2020 Vote

County correlations with swings away from the president from 2016 to 2020, where 1 represents a perfect relationship and 0 no relationship.

Fundamental economic and status measures

Higher percent college degree	0.49
Higher median household income	0.36
Higher projected job growth	0.20
Higher percent routine jobs	-0.39

Economic outcomes under Trump during pandemic ...

Change in employment, Feb.-Sept. 2020	0.27
Increase in unemployment rate, Feb.-Sept. 2020	-0.24

.. and before pandemic

Change in employment, 2016 Q4 to 2019 Q4	0.23
--	------

VARIABLES	(2) Change in Margin of Democrats-Republican
Turnout growth rate	0.205*** (0.0335)
Trump votes share in 2016	0.0607 (0.0581)
College graduates share	0.357*** (0.0958)
White share	0.157*** (0.0422)
African Americans share	0.102** (0.0473)
Hispanics share	-0.0182 (0.0417)
Constant	-0.267*** (0.0560)
Observations	54
R-squared	0.619
F	12.72
rss	0.0326

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1



U.S. Election: Who has the mandate?

- Where did Biden gain and lose relative Clinton
- (Clinton-Trump followed by Biden-Trump). White share fell from 74% to 67% of electorate).*
- 18-29: +30 +24
- 65+: -9 -5
- 50-64, -6 -5
- White men: -30 -23
- White women: -2 -11 (I'm skeptical)
- Black men: +67 +60
- Black women: +98 +81
- Latino men: +37 +23
- Latino women: +39 +39
- Other races: Clinton NA Biden +20 for 8% of electorate in 2020 vs. 6% in 2016



Discussion:

- Biden lost ground with traditional Democratic voting groups but gained with conservatives.
- The question is whether Biden will focus his agenda on well educated in the suburbs at the expense of other groups. (that was his campaign)
- If he does, it will likely lead to further alienation as winners continue to do well, but not the losers. But then, Biden will exacerbate inequality in urban America, not just rural America, and
- It is clear that regardless of his agenda, he won't get much unless he cuts "tough" deals with Mitch.



Thank you

Mark Partridge

Swank Chair in Rural-Urban Policy

AEDE, The Ohio State University

Google "Partridge Swank" and you will get my website

(614) 688-4907

partridge.27@osu.edu

Swank Program Website for policy brief.

<http://aede.osu.edu/programs/swank/>



APPENDIX