Presented by the Center for Business and Economic Research

BUSINESS FORECAST

2022



THANK YOU TO OUR 2022 BUSINESS FORECAST SPONSORS

PRESENTED BY: CENTER FOR BUSINESS AND ECONOMIC RESEARCH

WALTON PRESENTING PARTNER



WALTON ACADEMIC PARTNERS

GREENWOOD GEARHART



CHASE 🗅

WALTON CORPORATE PARTNERS















KUTAKROCK SYZ WRIGHT LINDSEY JENNINGS THANK YOU TO OUR 2022 BUSINESS FORECAST SPONSORS

PRESENTED BY: CENTER FOR BUSINESS AND ECONOMIC RESEARCH

WALTON BUSINESS PARTNERS





Sam M. Walton College of Business Center for Business & Economic Research

Business Forecast 2022 January 28, 2022 11:30 a.m. - 1:30 p.m. Schedule of Events

Welcome and Contest Awards	Mervin Jebaraj director, Center for Business and Economic Research Sam M. Walton College of Business University of Arkansas
Special Remarks	Matt Waller dean, Sam M. Walton College of Business University of Arkansas
Introduction of Moderator	Matt Waller
Special Remarks and Introduction of Panelists	Brett Biggs executive vice president and chief financial officer Walmart
Global Forecaster	Juhi Dhawan senior managing director, partner, and macro strategist Wellington Management
Domestic Forecaster	David Altig executive vice president and director of research Federal Reserve Bank of Atlanta
Regional Forecaster	Mervin Jebaraj
Panel Discussion	Juhi Dhawan, David Altig, Mervin Jebaraj
Recognitions and Announcements	Matt Waller

Business Forecast 2022 is in association with the National Association for Business Economics (NABE). Please use Twitter hashtag #BF2022 for this event.



Brett Biggs is the executive vice president and chief financial officer for Walmart. He is responsible for Walmart Enterprise Solutions, which includes all finance functions as well as Global Procurement. Prior to his current role, Brett has held the roles of chief financial officer for Walmart International, Walmart U.S. and Sam's Club. He has also served as senior vice president of international strategy, mergers and acquisitions, and as senior vice president of corporate finance. Brett was also the senior vice president of operations for Sam's Club. Prior to joining Walmart in 2000, Brett held various M&A and corporate finance positions with Leggett & Platt, Phillips Petroleum Co., and Price Waterhouse. Brett serves on the American Red Cross Board of Governors, the Walton Arts Center Board and the Board of Trustees of the National Urban League. Brett also serves on the Board of Regents at Pepperdine University and is Walmart's corporate representative on the McCombs School of Business Advisory Council at the University of Texas. Within Walmart, he serves on the Walmart Foundation Board as well as being an executive sponsor for the Hispanic/Latino Resource Group. Brett graduated from Harding University with a bachelor's degree in accounting and received a Master of Business Administration with Honors from Oklahoma State University.



Juhi Dhawan is the is the senior managing director, partner, and macro strategist for Wellington Management. As a member of the firm's Global Macro Strategy Group, Juhi leads Wellington Management's analysis of the US economy. Her work on growth, inflation, interest rates, and economic policy is a core input to portfolio managers and analysts across the firm. She is an active participant in investment strategy groups and works closely with investors to translate her work into investment ideas and themes. Prior to joining Wellington Management in 1995, Juhi held positions at the International Monetary Fund (1991 – 1992) and the World Bank (1992). Juhi received her PhD (1995) and AM (1991) in economics at Brown University. She also holds a BA from the University of Delhi (1989).



David Altig is executive vice president and director of research at the Federal Reserve Bank of Atlanta, overseeing the Bank's Research Division leading the research and engagement portfolio on benefits cliffs. He serves as a member of the Management and Discount Committees and is the executive cosponsor of the Working Families Employee Resource Network. Dr. Altig is an adjunct professor of economics in the Booth School of Business at the University of Chicago. He is currently the vice president-elect of the National Association for Business Economics, for which he served as director from 2016 to 2019. He is also a member of the Advisory council of the Global Interdependence Center and serves on the board of the Konstanz Seminar on Monetary Theory and Policy. His research includes articles in the American Economic Review, the Journal of Econometrics, the Journal of Monetary Economics, and the National Tax Journal. Prior to joining the Atlanta Fed, Dr. Altig served as vice president and associate director of research at the Federal Reserve Bank of Cleveland. Previously, Dr. Altig was a faculty member in the department of business economics and public policy at Indiana University. Dr. Altig graduated from the University of Iowa with a bachelor's degree in business administration. He earned his master's and doctoral degrees in economics from Brown University.



Mervin Jebaraj is the drector of the Center for Business and Economic Research. During his time at the center, he has been instrumental in creating and executing economic studies for clients such as the Arkansas Economic Development Commission, the Northwest Arkansas Council, the Walton Family Foundation, Arvest Bank, the University of Arkansas and many others. He has contributed to economic thinking and public policy discussion that journalists, business people, and community leaders alike rely on to understand how national and regional issues impact Northwest Arkansas and Arkansas as a whole. Arkansas Business and the Northwest Arkansas Business Journal recognized Mervin in their 40 Under 40 lists and on the Arkansas 250 list. He makes presentations that share the center's expertise directly to over 5,000 individuals annually and tens of thousands more hear and see his economic analysis and commentary through TV, radio and print media. Jebaraj serves on the Community Development Advisory Council of the Federal Reserve Bank of St. Louis and on the Board of Directors for both the Northwest Arkansas National Airport and the Walton Arts Center.



FEDERAL RESERVE BANK *of* ATLANTA

The views expressed in this presentation do not represent those of the Federal Reserve Bank of Atlanta, the Federal Reserve System, or anyone other than the presenter. If you think you heard otherwise, you are mistaken. The U.S. Macroeconomic Outlook

University of Arkansas Business Forecast Luncheon

January 28, 2022

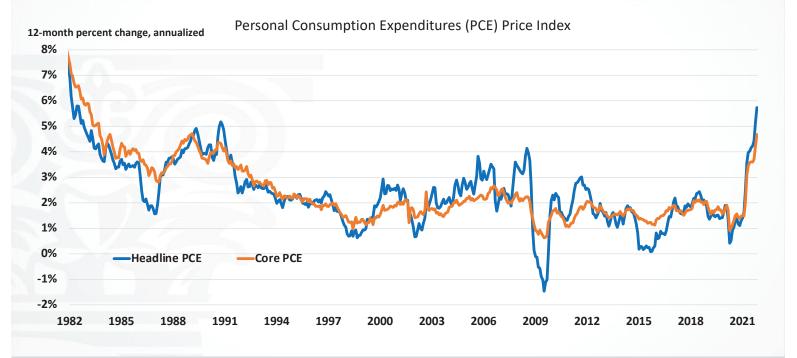
"The path of the economy continues to depend on the course of the virus."

> Statement of the FOMC, December 135, 2021 https://www.federalreserve.gov/monetarypolicy/files/monetary20211215a1.pdf

"The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run"

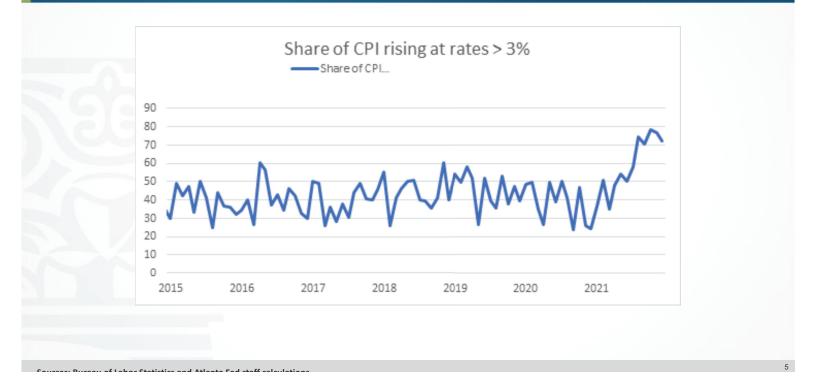
Statement of the FOMC, December 135, 2021 https://www.federalreserve.gov/monetarypolicy/files/monetary20211215a1.pdf

We have to go back to the 1980s to find (year-over-year) *core* inflation at current levels.

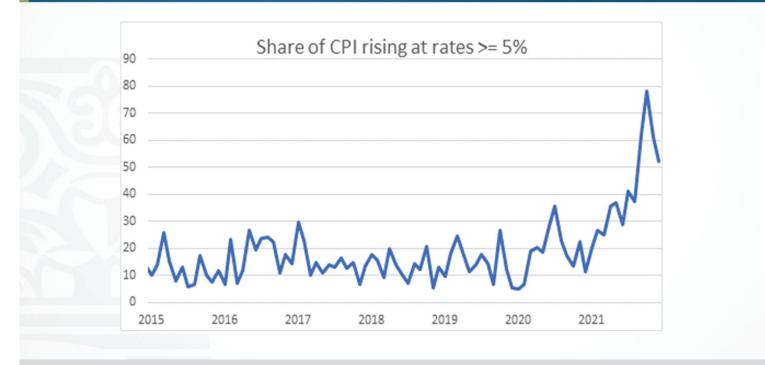


Source: Bureau of Economic Analysis

We have to go back to the 1970s to find inflation as high percentage of prices rising at a 3% annual rate...



... or 5% (!), for that matter.



Inflation measures have been hot across the board.

Inflation Measure (12-month) Growth Rate	1-year window	Color code:
Core PCE Index		On target:
Market-Based PCE Index		Within 0.25 percentage points (ppts) of target
FRB Dallas Trimmed-Mean Index		Below target: Between 0.25 and 0.50 ppt below target
FRB San Francisco Cyclical Core PCE Index		More than 0.50 ppt below target
Stock and Watson Cyclically Sensitive Inflation		Above target: Between 0.25 and 0.50 ppt above target
Core CPI		
FRB Cleveland Median CPI		 More than 0.50 ppt above target
FRB Cleveland 16% Trimmed-		
Mean CPI		
FRB Atlanta Sticky-Price CPI		

The Atlanta Inflation Dashboard

Source: See the Federal Reserve Bank (FRB) of Atlanta Underlying Inflation Dashboard: https://www.frbatlanta.org/research/inflationproject/underlying-inflation-

"...the Committee seeks to achieve inflation that averages 2 percent over time, and therefore judges that, following periods when inflation has been running persistently below 2 percent, appropriate monetary policy will likely aim to achieve inflation moderately above 2 percent for some time."

Statement on Longer-Run Goals and Monetary Policy Strategy, Adopted effective January 24, 2012; as reaffirmed effective January 26, 2021 https://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals.pdf

Inflation indicators are on-target-to-hot over a 5-year window.

The Atlanta Inflation Dashboard

Inflation Measure (12-month) Growth Rate	1-year window	5-year window
Core PCE Index		
Market-based PCE Index		
FRB Dallas Trimmed Mean Index		
FRB San Francisco Cyclical Core PCE Index		
Stock and Watson Cyclically Sensitive Inflation		
Core CPI		
FRB Cleveland Median CPI		
FRB Cleveland 16-Percent Trimmed-Mean CPI		
FRB Atlanta Sticky-Price CPI		

Color code:

On target:

Within 0.25 ppt of target

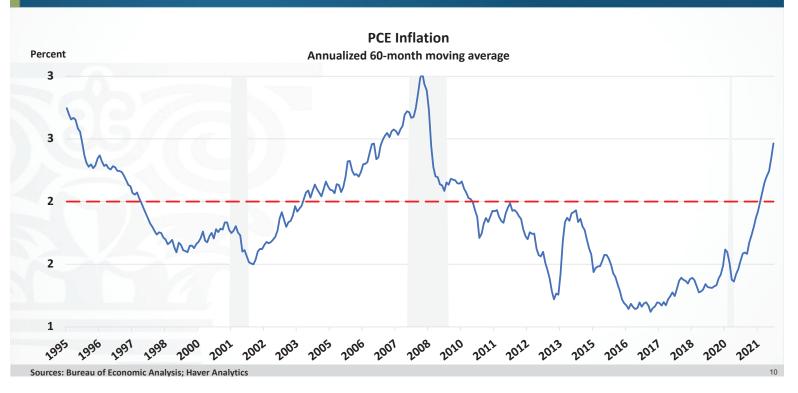
Below target:

- Between 0.25 and 0.50 ppt below target
- More than 0.50 ppt below target

Above target:

- Between 0.25 and 0.50 ppt above target
- More than 0.50 ppt above target

Over a 5-year window, the sub-2% inflation picture has been more than offset by recent price-level growth.

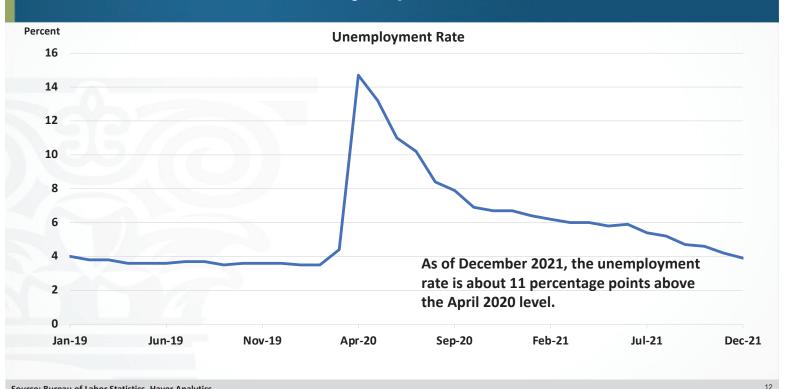


"...if these high levels of inflation get entrenched in our economy and people's thinking, then inevitably that will lead to much higher monetary policy from this," [Chair Powell] said. "That could lead to a recession and that will be bad for workers."



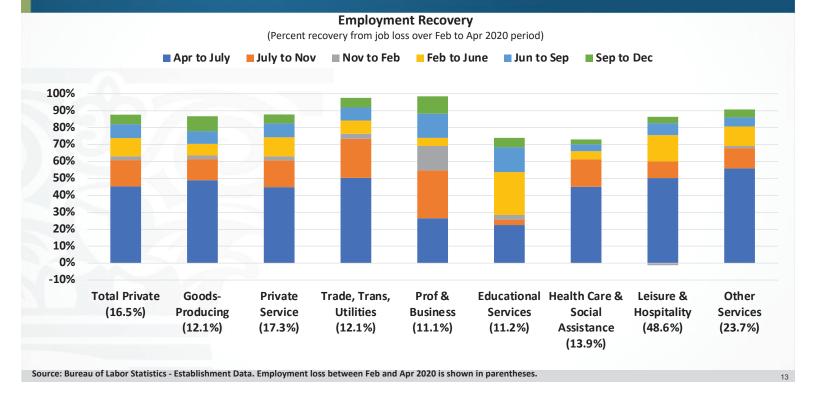
Source: CNBC, January 11, 2022: https://www.cnbc.com/2022/01/11/powell-says-rate-hikes-tighter-policy-will-beneeded-to-control-inflation.html

Labor markets are substantially improved...

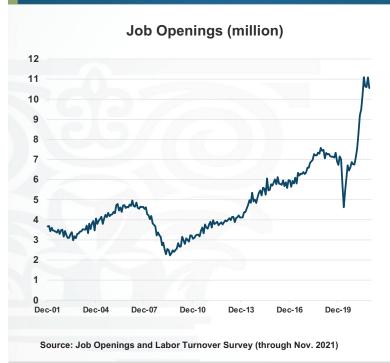


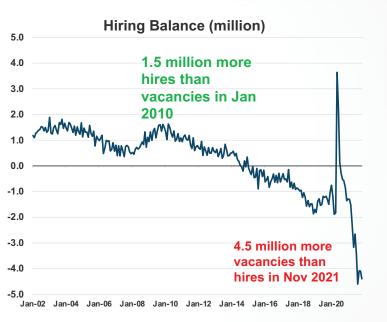
11

... and the recovery has been reasonably broad based.



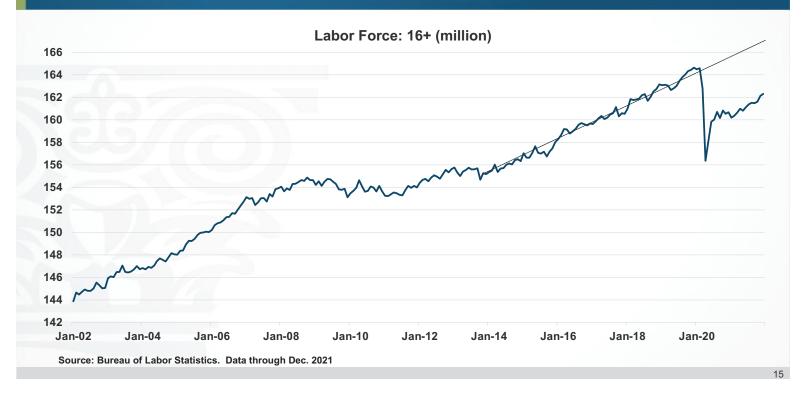
Firms are trying to hire a lot of workers. But the shortfall of hires over vacancies is extremely large.



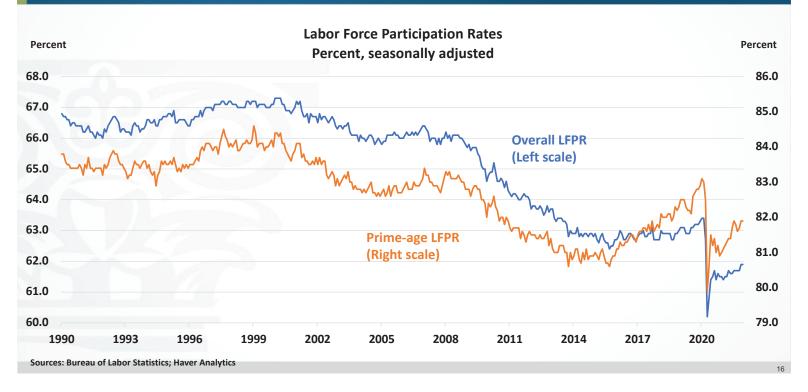


Source: Job Openings and Labor Turnover Survey. Data through Nov. 2021. Hiring Balance is the number of hires in a month less the stock of posted job openings at the end of the prior month.

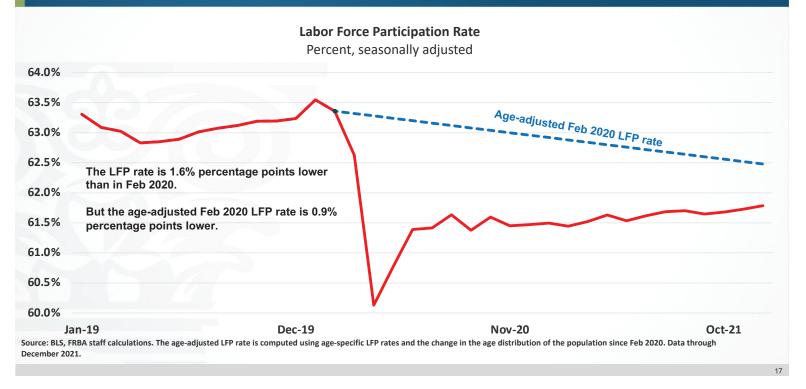
The size of labor market remains much smaller than before COVID.



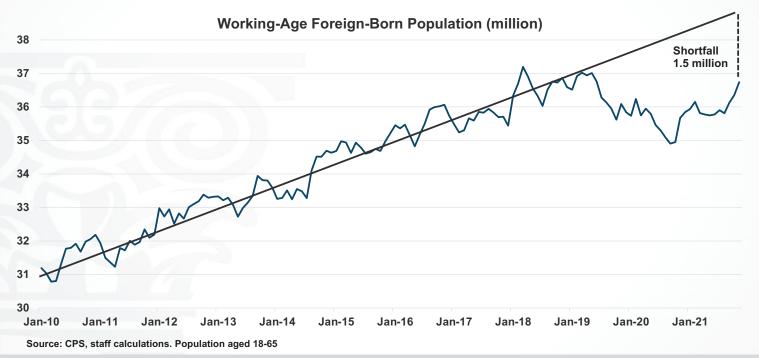
Prime-age participation is much closer to "normal" than overall participation.



Aging of the population potentially accounts more than half of the participation rate "gap."



A decline in immigration has been adding to labor supply problems.

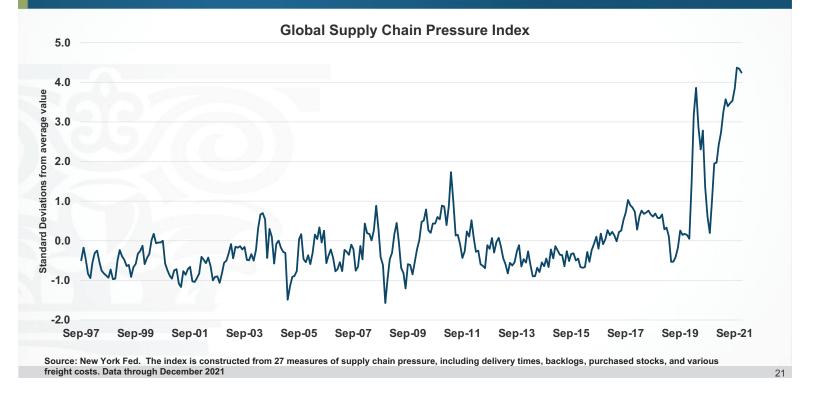


On the watch list.

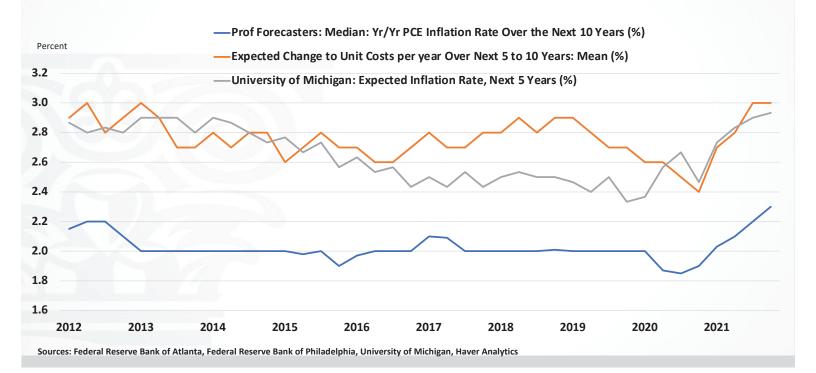


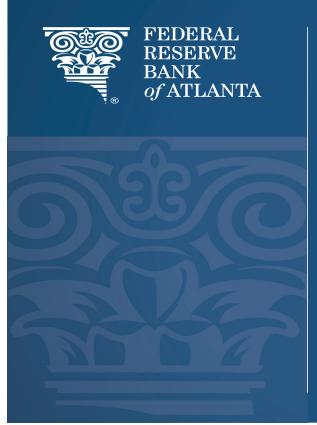
\$/Hour	Wage Growth	\$/Hour
10.20	—Real Avg Hourly Earnings for Prod & Nonsupervisory Workers (SA, 1982-1984\$/Hour) (Left scale)	26.3
10.00 —	-Avg Hrly Earnings of Prod & Nonsupervisory Employees:	25.3
9.80 —	Total Private (SA, \$/Hour) (Right scale)	23.3
9.60		24.3
9.40		
9.20		23.3
9.00		22.3
8.80		
8.60 2017	2018 2019 2020 2021	21.3
	2016 2019 2020 2021 I of Labor Statistics/Haver Analytics	20

Global supply chain pressures on goods remain elevated.



Longer-run inflation expectations have ticked up, but much less so than near-term measures.





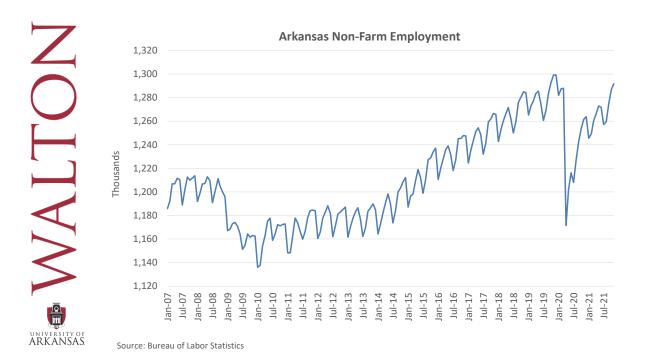
The U.S. Macroeconomic Outlook

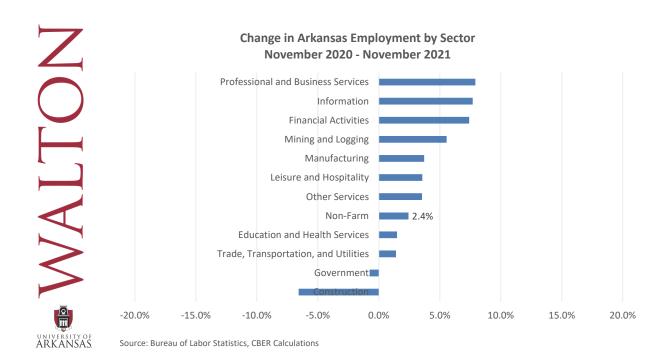


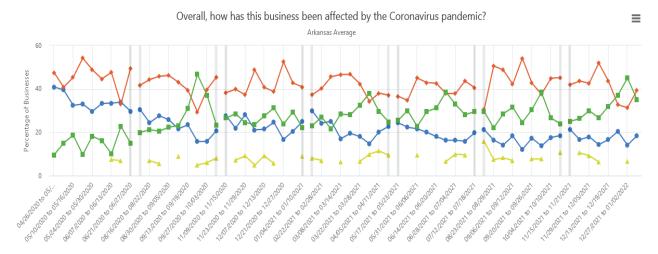
The Arkansas Economy in 2022

Mervin Jebaraj, Director Center for Business and Economic Research January 28, 2022

> Twitter: #BF2022 @uawaltoncollege @MervinJebaraj

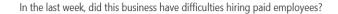


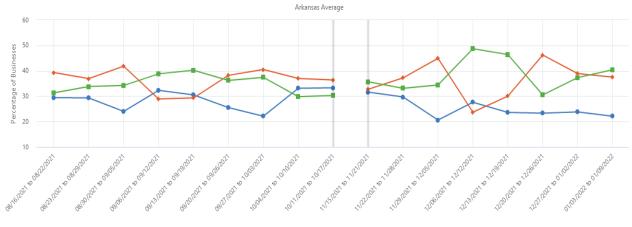




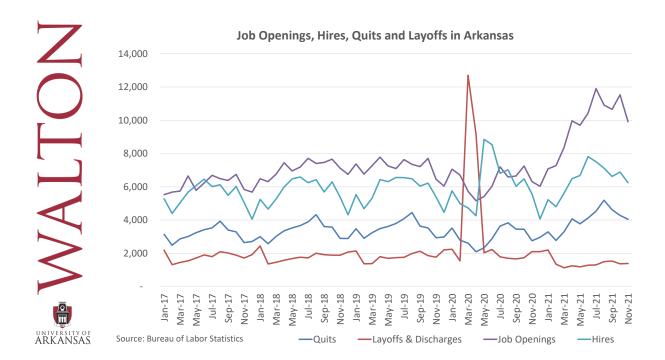
Note: No data collected between: 06/28/2020 – 08/08/2020, 10/13/2020 - 11/8/2020, 01/11/2021 – 02/14/2021, 04/19/2021 – 05/16/2021, 07/19/2021 - 08/15/2021 and 10/18/2021 - 11/14/2021.

→ Large negative effect → Moderate negative effect → Little or no effect → Moderate positive effect → Large positive effect

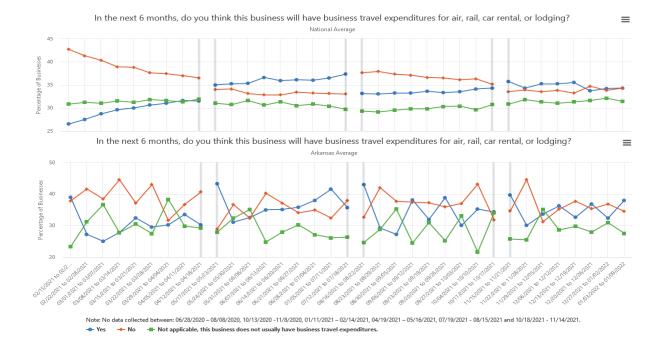




Note: No data collected between: 06/28/2020 - 08/08/2020, 10/13/2020 - 11/8/2020, 01/11/2021 - 02/14/2021, 04/19/2021 - 05/16/2021, 07/19/2021 - 08/15/2021 and 10/18/2021 - 11/14/2021.



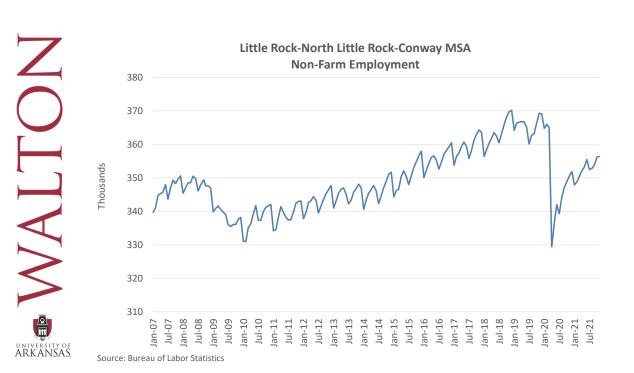
≡

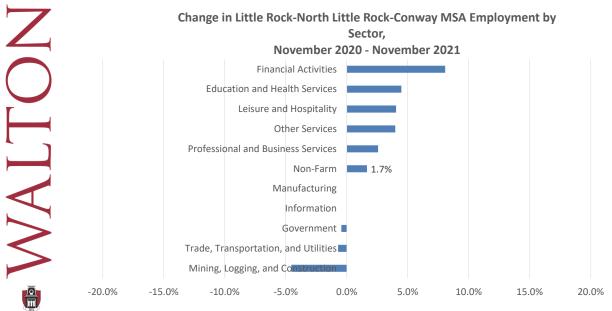




Note: No data collected between: 06/28/2020 - 08/08/2020, 10/13/2020 - 11/8/2020, 01/11/2021 - 02/14/2021, 04/19/2021 - 05/16/2021, 07/19/2021 - 08/15/2021 and 10/18/2021 - 11/14/2021.

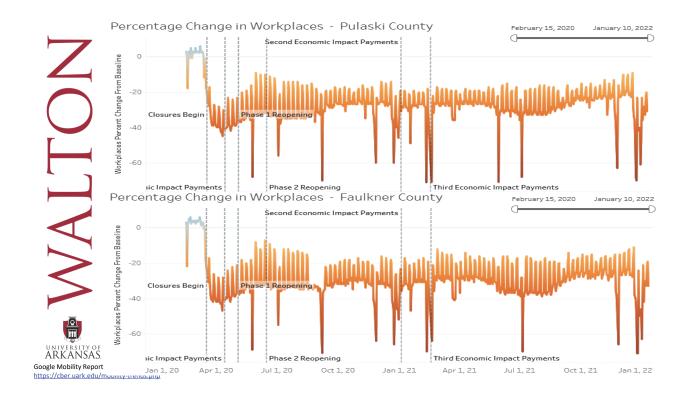
- 1 month or less
- 4-6 months
- ➡ I do not believe this business will return to its normal level of operations.
- + This business has permanently closed. (not collected in phase 1)
- + 2-3 months 🛨 More than 6 months
- There has been little or no effect on this business's normal level of operations.
- This business has returned to its normal level of operations. (not collected in phase 1)

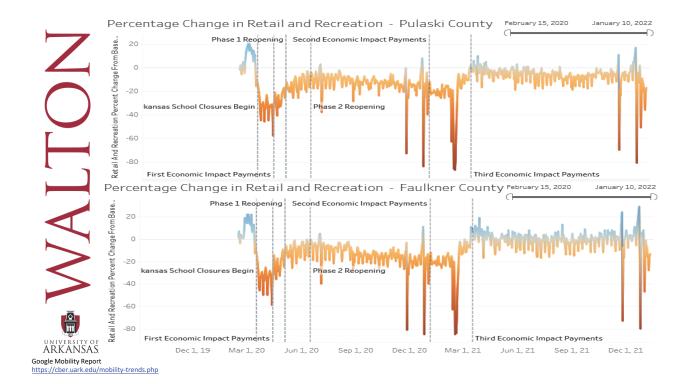




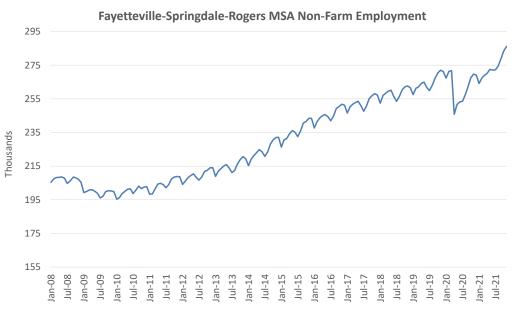
UNIVERSITY OF ARKANSAS.

Source: Bureau of Labor Statistics, CBER Calculations

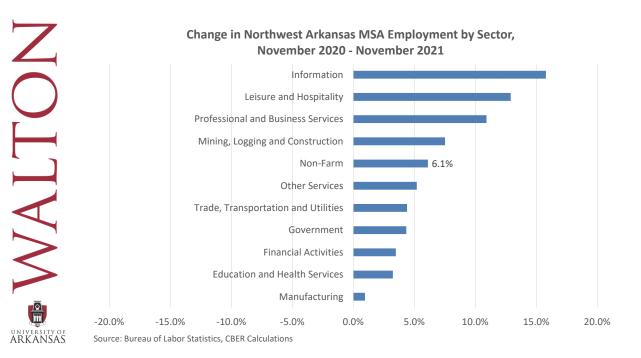


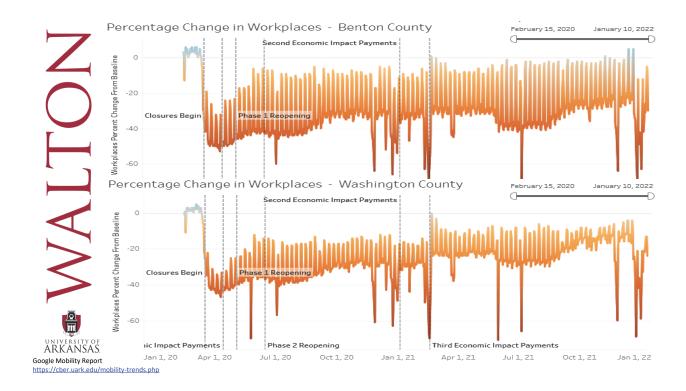


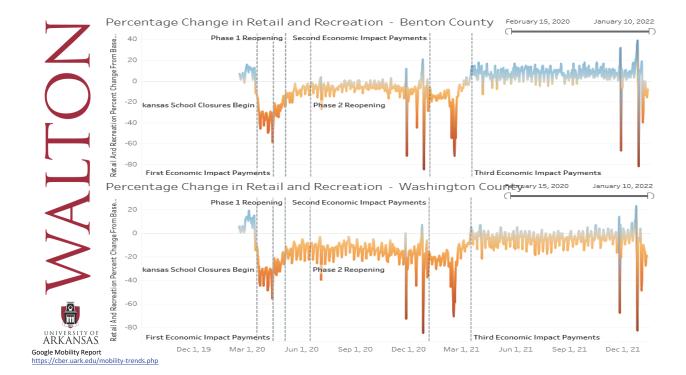


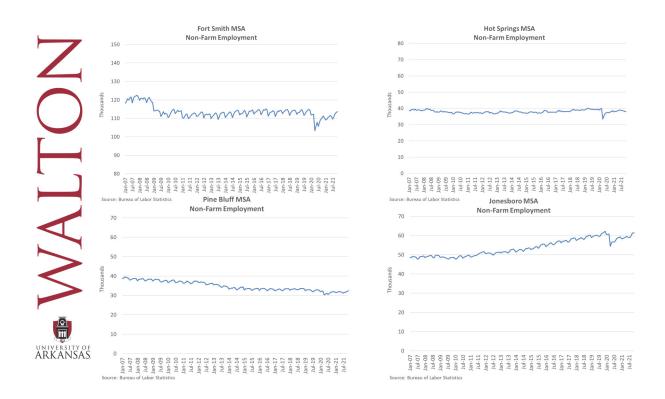


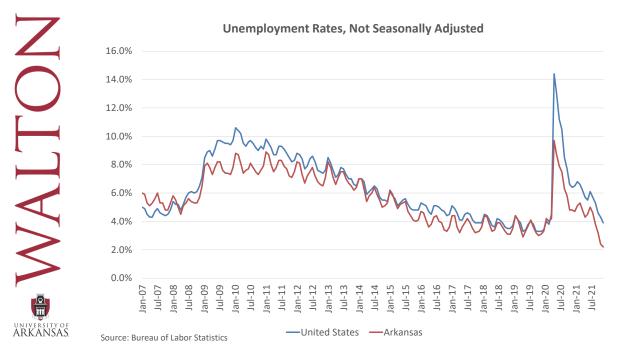
Source: Bureau of Labor Statistics



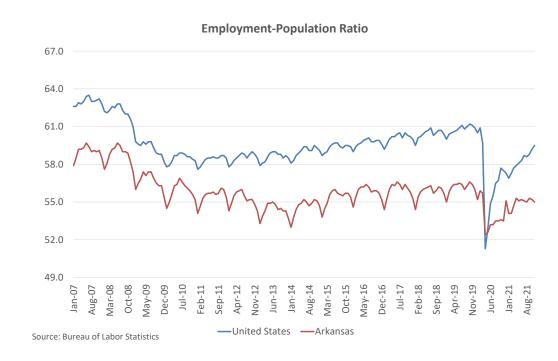


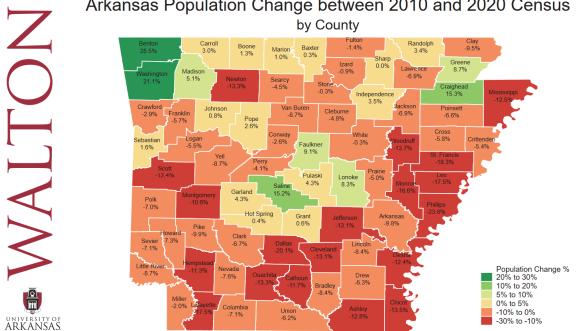






VALT UNIVERSITY OF ARKANSAS





Arkansas Population Change between 2010 and 2020 Census

NOTE: Data comes from the Census Bureau's 2010 and 2020 Decennial Census



۲

Sam M. Walton College of Business Center for Business & Economic Research

۲

۲