

LOUISIANA TECH UNIVERSITY COLLEGE OF BUSINESS

► **CENTER FOR ECONOMIC RESEARCH**

# REAL

REGIONAL ECONOMIC ANALYSIS OF LOUISIANA

# REPORT

WINTER 2021



## Dean's Message

The Center for Economic Research, along with undergraduate economics students in the College of Business, has now produced five installments of the Regional Economic Analysis of Louisiana (REAL) Report, a series of publications designed to provide insight into recent economic developments in Louisiana.

This issue, like the previous two, explores the economic impact of the COVID-19 pandemic, with a specific focus on economic forecasts for the state of Louisiana. Additionally, our team researched the statewide effects of the American Rescue Plan Act stimulus payments and how the financial crisis has impacted housing markets in Louisiana.

The REAL Report is produced by the Center for Economic Research, in collaboration with faculty and students in Louisiana Tech University's College of Business, for the state of Louisiana and our region of the South. Economics students from the College of Business specifically provide strong analytical and critical thinking skills to a growing North Louisiana region. Undergraduate economics majors, as they progress through their degree program, not only learn economic intuition and modeling skills, but also data science and statistics which makes them some of the most highly sought after graduates from the University. This report is compiled by undergraduate economics majors in partial fulfillment of their Regional Economic Analysis class.

This report and all subsequent issues can be found at [business.latech.edu/realreport](https://business.latech.edu/realreport). For more information on the report, the Center for Economic Research, or the Regional Economic Analysis class (ECON 425), please contact Dr. Patrick Scott at [pscott@latech.edu](mailto:pscott@latech.edu). Inquiries about specific sections of the report should be referred to the author of each section, while media inquiries should be directed to [waldroup@latech.edu](mailto:waldroup@latech.edu).

As always, I hope this report is beneficial to your efforts.

Sincerely,



CHRISTOPHER L. MARTIN, PH.D.  
Dean and Chase Endowed Professor  
College of Business  
Louisiana Tech University

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Analysis for this edition of the REAL Report concluded on March 1, 2021. All data included in the report was collected prior to that date.

## Meet the Team



**John Blackwell** is a junior economics major from Shreveport, LA. He has aspirations relating to law, and a fascination with technology and investing. He is expected to graduate in 2022. Afterward, John plans to attend graduate school.

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**Joshua Whitlow** is a junior finance major from Converse, Louisiana. He has interests in economics, politics, and foreign culture. He plans to graduate in May 2022.

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**Dr. Patrick Scott** is an assistant professor of economics and director of the Center For Economic Research. He teaches macroeconomics, monetary theory, and research methods at Louisiana Tech University. His research interests include optimal monetary policy models, dynamic general equilibrium models, time series forecasting, and Bayesian econometrics.

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# Louisiana Economic Indicator Forecasts

BY C. PATRICK SCOTT, PH.D.

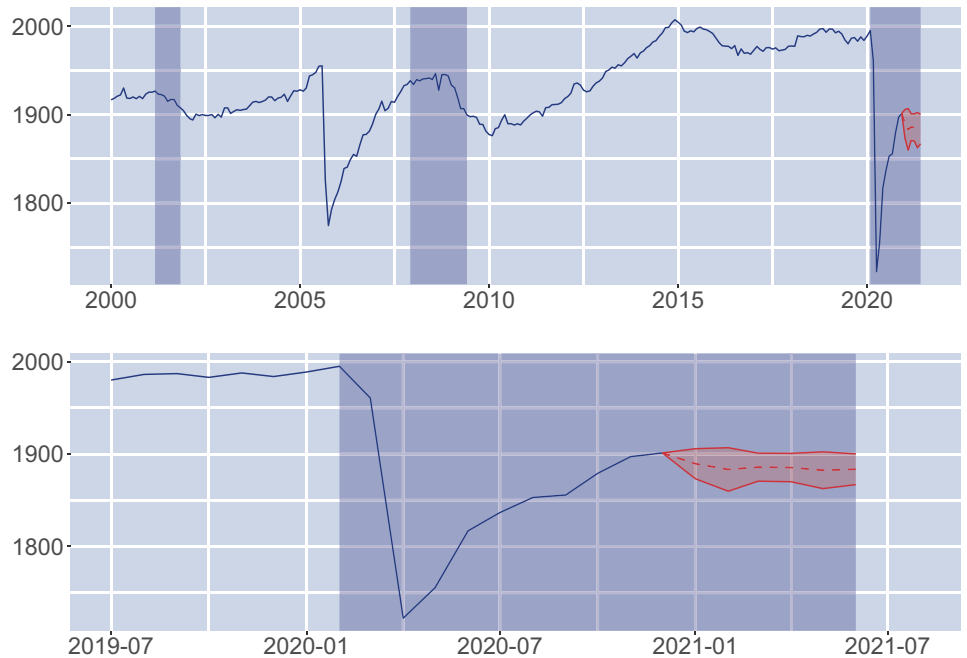
Forecasts are provided using a Bayesian model averaging approach from many statistical models. This method is utilized to capture the relative uncertainty that any one individual model is not properly specified and thus accounting for that uncertainty in our analysis. All data used below extend to December 2020.

## Figure 1: Forecasted Non-Farm Employment (Thousands)

Total non-farm employment is still down approximately 100,000 jobs from pre-pandemic levels for the state. We estimate that about 30 percent of these are permanently disaffected workers that have dropped out of the labor force. Total employment is not expected to continue its correction in the short-term. Initial jobless claims are still three times higher than their long-run average and continued claims are nearly four times higher than their long-run average for Louisiana.

**Punchline: The long-term unemployed should be the focus of policy measures.**

Figure 1: Forecasted Non-Farm Employment (Thousands)

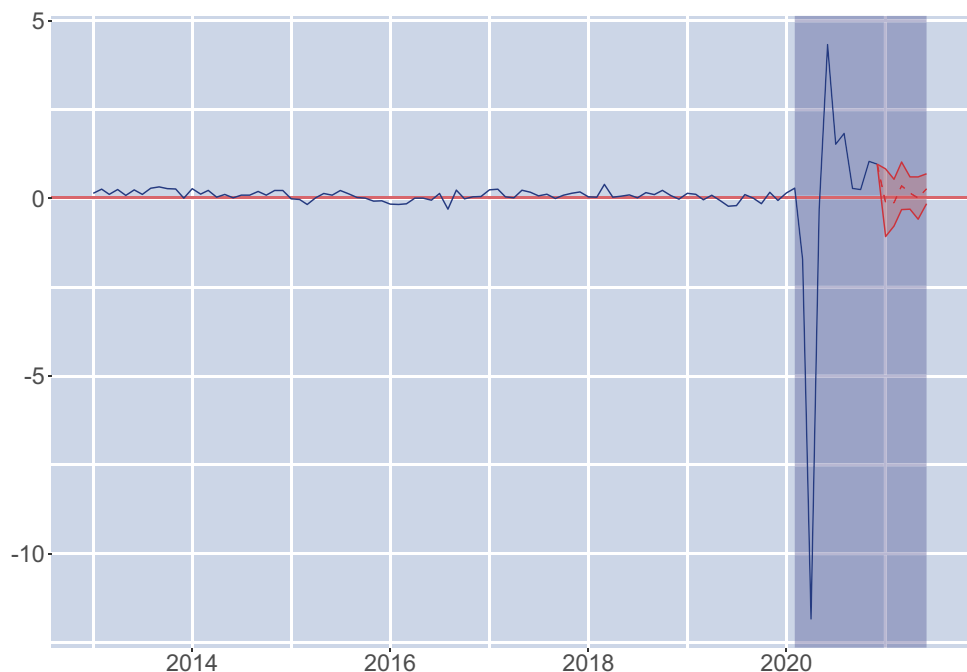


## Figure 2: Forecasted Economic Coincident Index (Percent Growth)

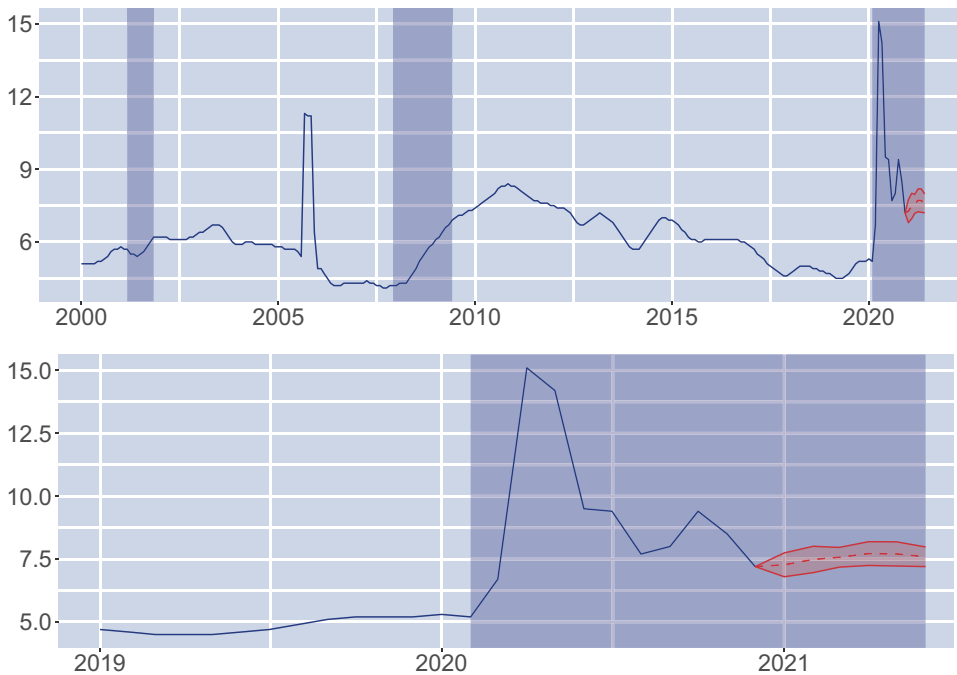
The economic coincident index is a metric that represents economic activity for the state. The average long-run growth is approximately 0.08 percent (red horizontal line). The sharp decline of nearly 12 percent, which wiped away all economic gains since 2003, was not reversed fully in the last half of the year but is expected to return to its long-run growth rate soon. While this implies that the economic pain is less sharp for the average Louisianan, the healing is far from over.

**Punchline: Economic growth is improving but at a lower level.**

Figure 2: Forecasted Economic Coincident Index (Percent Growth)



**Figure 3: Forecasted Unemployment Rate (Percent)**

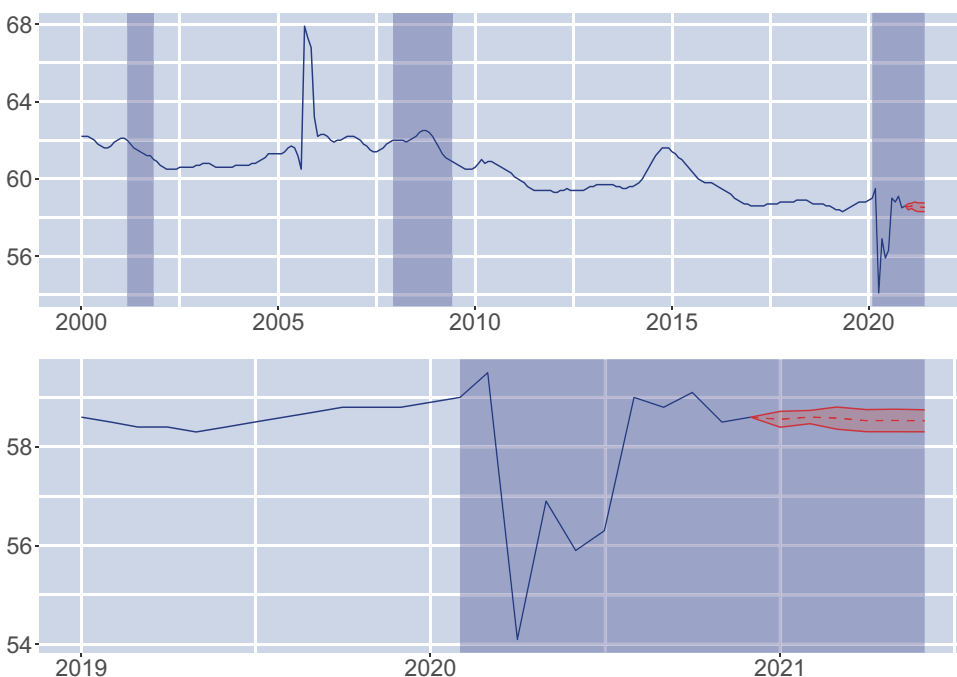


**Figure 3: Forecasted Unemployment Rate (Percent)**

The unemployment rate still remains relatively high in Louisiana. As the healthcare and economic crises continue, industries that are less able to adapt to the new normal are struggling. The unemployment rate is not capturing those that have dropped out of the labor force in the last 12 months. It is underrepresenting the long-term unemployment dynamics and thus is expected to increase in the coming months as more of those workers reenter the labor force.

**Punchline: The long-term unemployed are expected to shift this number as they reenter the labor market.**

**Figure 4: Forecasted Labor Force Participation Rate (Percent)**



**Figure 4: Forecasted Labor Force Participation Rate (Percent)**

The labor force participation rate is the ratio of labor force (employed and unemployed) to working age population. In the long run, this proportion has been on a steady decline for much of the past two decades. In the short run, it has largely recovered in percent terms. Just under 30,000 workers have dropped out of the labor force. If these workers reengage the labor force as unemployed, the unemployment rate increases. If they reenter as employed, it decreases but by relatively less.

**Punchline: The long-term unemployed will determine the time to full employment.**



# Keep Showing Me the Money: American Rescue Plan Act Stimulus Checks

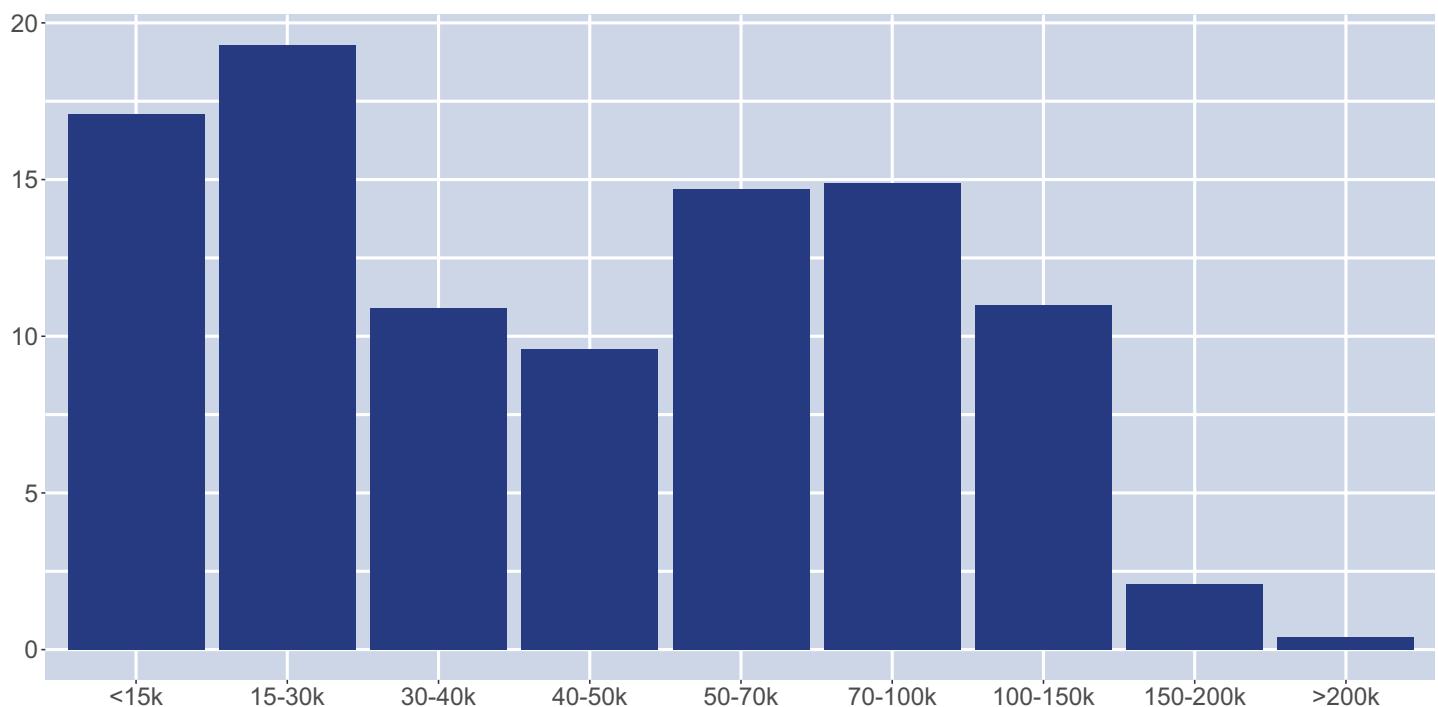
BY JOSHUA WHITLOW

In the concluding days of former President Trump's administration, Congress approved direct stimulus payments of \$600 per person. At that time, President-Elect Joe Biden proposed \$2,000 direct stimulus payment checks. The current stimulus bill, the American Rescue Plan Act of 2021, includes \$1,400 check payments in addition to the \$600 payments passed last year. At the time this report goes to press, the bill has just been signed into law.

The economic effect of the new fiscal policy proposal is examined below for Louisiana. To measure the shock, the number of individuals expected to receive a check is cross referenced with the number of households in each income bracket to determine the disbursement of stimulus payments. These payout rates are in keeping with the Spring 2020 REAL report article, “Show Me The Money: CARES Act Stimulus Rebate Checks.” Assuming the checks were distributed at this rate, the total estimated amount Louisiana would receive is approximately \$3.9 billion which is estimated to yield a net output of \$4.2 billion statewide. The corresponding multiplier of 1.8 implies that for every \$1 of stimulus payment, output increases by \$1.80.

Figure 5 shows the proportion of the total stimulus payments allocated to each income bracket. Households that make \$30,000 or less would gain an aggregate \$1,442,820,680 of wealth, while households making \$30,001 to \$50,000 would receive \$808,807,698. Those who make \$50,001 to \$100,000 will gain \$1,172,048,535. Finally, households earning \$100,001 or more gain \$533,683,021 of aggregate wealth.

**Figure 5: Allocation of Stimulus Checks: By Household Income Size (Percent)**





## Keep Showing Me the Money: American Rescue Plan Act Stimulus Checks (Cont.)

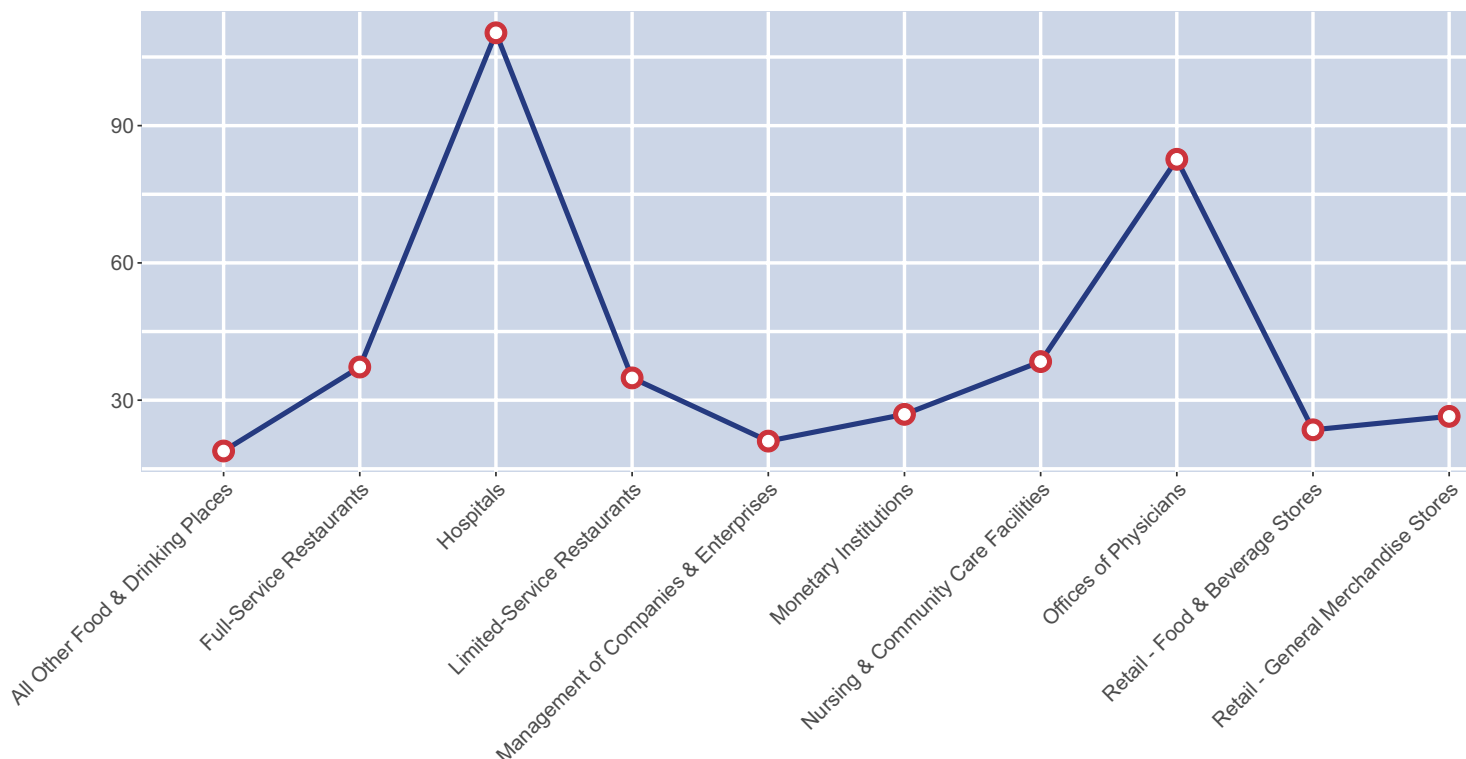
Each household's income change is used as an economic shock to consumer wealth. This change in wealth is spent and causes a positive economic effect in the state. Utilizing an input-output table, the total economic impact can be estimated using actual production and income data. Figure 6 shows the highest expected growth industries by output. Nursing and community care facilities, tenant-occupied housing, and tobacco products manufacturing are expected to see an increase in output by greater than three percent. Many types of retail stores such as food and beverages, clothing, clothing accessories, sporting goods, hobbies, musical instruments, books, furniture, home furnishing, electronics, and appliances are predicted to see output gains ranging from 2.46 percent to 2.54 percent annually. Offices of dentists and outpatient care facilities are expected to increase annual output by 2.51 percent and 2.46 percent respectively.

**Figure 6: Top 10 Estimated Growth Industries (Percent Growth)**





**Figure 7: Top 10 Estimated Income Growth Industries (Millions of Dollars)**



The stimulus checks also generate additional income growth when they are spent. This is referred to as an induced economic effect. Figure 7 shows the top 10 income growth industries from this induced effect in millions of dollars. Health-related industries are predicted to induce the highest employee income growth. This is expected especially since some of these direct stimulus funds are likely to go to medical-related bills. Hospitals, physician's offices, and nursing and community care facilities will generate induced income of \$110 million, \$82 million, and \$38 million respectively. Food service employees are also expected to recover somewhat with full-service restaurants at \$38 million, limited-service restaurants at \$37 million, and other food and drinking places at \$19 million. Employee incomes in general merchandise retail will grow about \$26 million while food and beverage retail incomes will grow about \$24 million. Management companies as well as monetary institutions are estimated to also gain from the induced output. It should be noted that while these numbers seem large, they are relatively small as a percent of the total income among these industries.

In conclusion, the new fiscal policy proposed by President Joe Biden will induce positive increases to many Louisiana industries. Health-based fields will feel the most overall benefit both on output and employee compensation dimensions. Additionally, several types of retailers are expected to see moderate increases. Overall, while the stimulus checks are predicted to provide some much-needed respite and financial security for the citizens of Louisiana, it will likely produce only a moderate impact on the state's economy.

# Housing Markets in Louisiana

BY C. PATRICK SCOTT, PH.D.

The 2007-2009 financial crisis and subsequent recession was precipitated by the bursting of a housing bubble that formed in the early 2000s. The conditions in the housing market were a perfect storm of rapid deregulation of lending and underwriting standards, innovation in financial services (adjustable rate and sub-prime mortgages as well as mortgage backed securities and credit default swaps), and accommodative central bank policy which put downward pressure on mortgage interest rates. The culmination of this, at the time, led to the deepest recession we have seen in the U.S. since the 1970s. Today, the housing market is flipping the script yet again. In this case it is the result of the economic crash and policy response, not the cause.

The Federal Housing Finance Agency produces quarterly house price index (HPI) estimates at the Metropolitan Statistical Area (MSA) level. Like any other price index, these show the trajectory of nominal house prices in their respective area. HPI estimates include both same property sales (to account for quality changes) and refinances of existing properties (to capture increased house values of off-market transactions). Figure 8 shows these estimates since 1995 for eight of Louisiana's nine MSAs (Hammond MSA was only recently added as an MSA). While price indices are all unitless variables, they are helpful to show how prices change over time relative to themselves. The upward trend in house prices over the past 25 years is evident, as well as the dip in home prices just prior to 2010 after the housing bubble burst. New Orleans – Metairie and Houma – Thibodaux MSAs doubled the average price of a home in under 13 years. Lake Charles MSA almost

Figure 8: House Price Index: By MSA (1995 = 100)

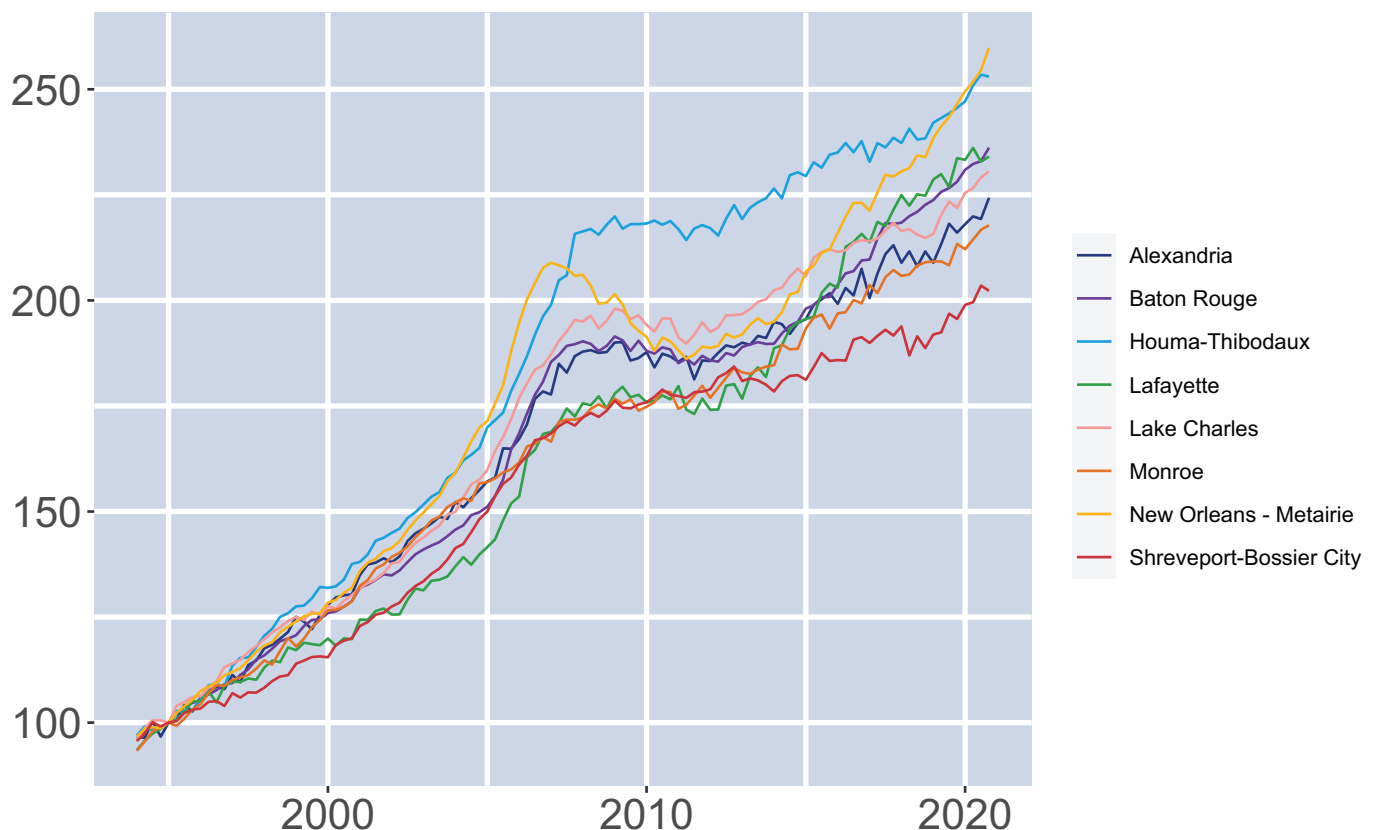
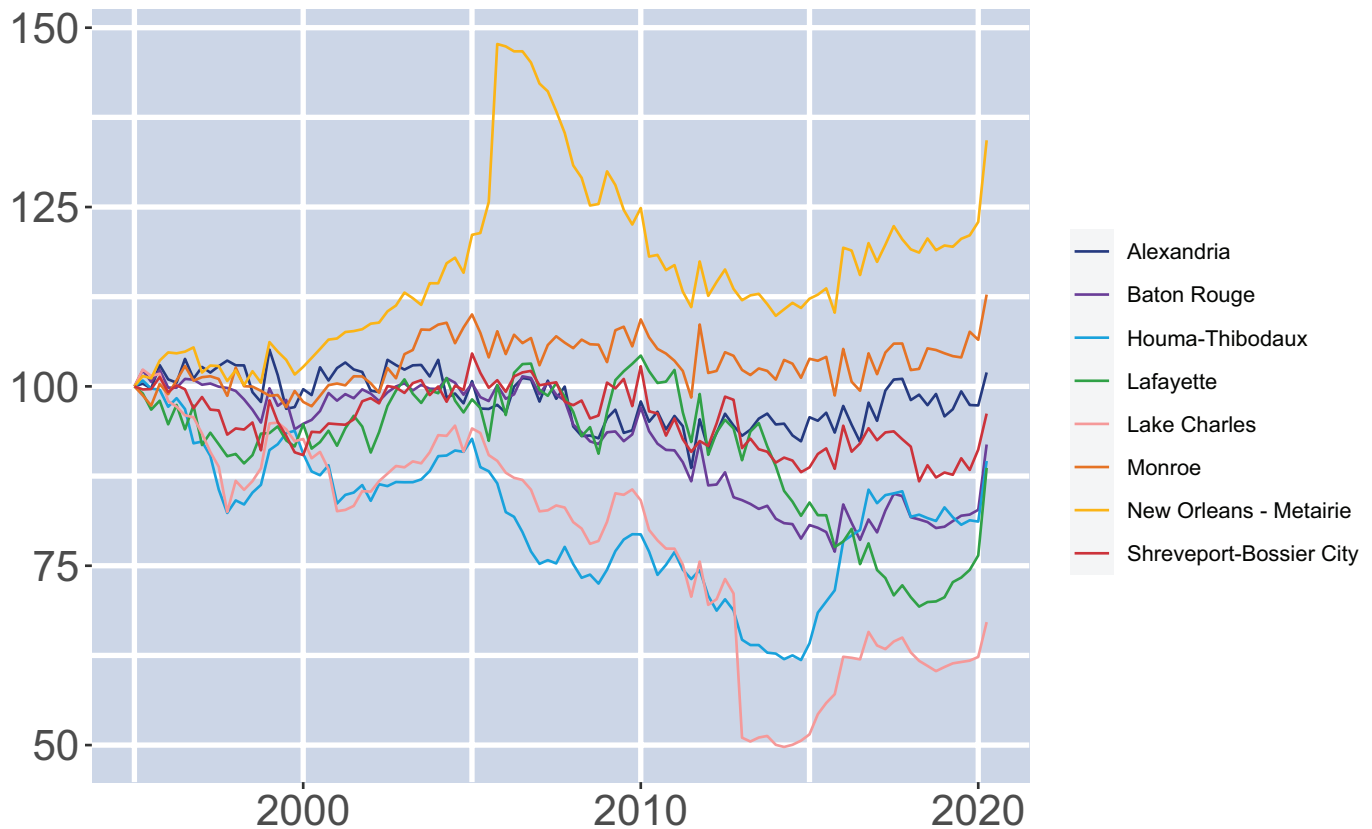


Figure 9: Wage Adjusted House Price Index: By MSA (1995 = 100)



follows suit, but house prices stabilized, and it took another five years to double. The other MSAs take over 20 years to double, with the exception of Shreveport-Bossier City MSA. This MSA experienced the most stable growth of all the MSAs and took the longest to double home prices.

Figure 8 doesn't help us understand the affordability of housing in Louisiana. Figure 9 shows these same house price indices adjusted for wages at the MSA level. Wage adjusted real house prices show considerably different dynamics for Louisiana. New Orleans – Metairie, for most of the time plotted, still has the highest home prices, but wage growth in both Houma – Thibodaux and Lake Charles MSAs improved the affordability of home prices in the state. Wage data at the MSA level only extends to the second quarter of 2020 at the time of publication. This is at the height of COVID-19 restrictions and closures in the state. Wages fell sharply that quarter and drove up the real price of homes in every MSA. This is expected to undo itself over the next two or three quarters.

An interesting feature of the housing market this recession is the increase in refinances happening across the nation and state. Households are treating their built-up equity as a vehicle of forced savings. Refinancing of the home has allowed some families to tap into low mortgage rates afforded by Federal Reserve policy, and at the same time liquidate their home equity to subsidize lost wage income. This explains why in this recession we are seeing sustained increases in home prices despite record unemployment.



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## MISSION STATEMENT

Through market-responsive academic programs and impactful teaching and scholarship, Louisiana Tech University's College of Business graduates business and academic leaders who are innovative, entrepreneurially minded, and analytically and technologically skilled for a globally competitive marketplace.