# REAL

**REGIONAL ECONOMIC ANALYSIS OF LOUISIANA**

# REPORT

WINTER QUARTER 2024

# Dean's Message

Thank you for reading this edition of the Regional Economic Analysis of Louisiana (REAL) Report, produced during the Winter Quarter of 2024. We hope that this report, along with previous issues, serves as a valuable tool by providing insight into recent economic developments in Louisiana.

This issue includes in-depth analyses written by undergraduate students and faculty in Louisiana Tech's College of Business. The REAL Report is produced for stakeholders across the state of Louisiana and our region of the South. Providing an invaluable learning experience, the report is compiled by undergraduates who work with faculty in the Center for Economic Research. Their work serves as partial fulfillment of the Regional Economic Analysis (ECON 425) course.

Louisiana Tech's Center for Economic Research serves to connect the University community with economic development efforts in the state by supplying detailed economic impact analysis of both private enterprise and government policy initiatives. It also serves as a hub of industry and research expertise, consulting with local and regional governments on projects and providing analysis to media.

This report and all subsequent issues can be found online at **Business.LATech.edu/RealReport**. For more information on the report or the Center for Economic Research, please contact Dr. Patrick Scott at 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.

I hope you find this report relevant and 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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# CER Director's Message

The 2023/2024 academic year marks the fifth year that the REAL Report has been published by the Center for Economic Research in Tech's College of Business. During this time, 31 undergraduate research fellows have examined over 75 research topics that increase our understanding of our state and regional economy.  The span of these topics range from industry-level analysis, parish-wide wages and employment, state-level input-output analysis of economic shocks, and region-based comparisons of major macroeconomic indicators. Our research fellows don't just write a report. They chose their own projects, conduct background research to uncover the core economic drivers, perform analysis, create impactful visualizations, and write up their findings in a way that is approachable to a general audience. Since this experiential-learning course is taken for a year, the process develops a skillset that makes these students highly sought after in both private sector and graduate schools.

The past five years have provided a blueprint for undergraduate curricular integration into the normal operating practices of a university economic research center. Historically, these types of centers do not intersect directly with education outcomes. The model that the CER has developed at Louisiana Tech University leverages the evolving pool of exceptional undergraduate talent to produce targeted, value-driven research. Additionally, some of our undergraduate research fellows have had the opportunity to learn and participate in other research efforts at the municipal, parish, and state level outside of the classroom.

If you would like more information about the Center for Economic Research, any of our undergraduate research fellows, or have further questions about past projects, please do not hesitate to reach out to me. Thank you for your continued support in our economic development efforts, not only for North Louisiana, but the whole state as well.

Sincerely,

PATRICK SCOTT, PH.D.
Associate Professor of Economics
Patricia Garland Endowed Professor
Director of the Center for Economic Research
College of Business
Louisiana Tech University

# Meet the Team

**Landace Abshire** is a third-year business economics major from Baton Rouge, LA. She is involved in Phi Mu Fraternity, serves on leadership for the Temple collegiate ministry, and is secretary of Tech's powerlifting team. She plans to graduate in the Fall of 2024 and is concurrently pursuing her master's in business administration.

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**Abhi Chadha** is a third-year business economics major originally from New Delhi, India. Abhi works as a data analyst at Origin Bank and is actively engaged in the Student Government Association and Pi Kappa Phi Fraternity. He plans to graduate in Fall 2024 and pursue a master's in business administration.

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**Anna Griffin** is a third-year business economics major from Shreveport, LA. She is a member of Alpha Chi Omega Sorority. She spent one semester in France studying international economics and law. She plans to graduate in the Fall of 2024 and pursue graduate study.

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**Ellis Griffin** is a fourth-year business economics major from Ruston, LA. He is involved on campus through the percussion philanthropy fraternity Phi Buda Ruda. He graduated in March 2024.

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**Jordan Hatter** is a fourth-year business economics major with a minor in communications from Lewisville, TX. She is a member of Phi Kappa Phi and Beta Gamma Sigma honor societies. She graduated in March 2024 and plans to pursue a master's in education.

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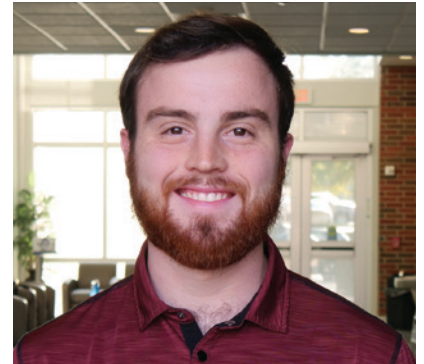
**Kody Herrick** is a third-year business economics major at Louisiana Tech University from Sarepta, LA. He works part-time at Louisiana National Bank in Ruston. Kody plans to graduate in March of 2025.

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**Abigail Pierce** is a third-year business economics major from Deville, LA. She is Founder and President of Mock Trial, Chief Justice for Student Government Association and an executive board member of Phi Mu Fraternity. She plans to graduate in May 2024 and intends to pursue a law degree.

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**Madison Remrey** is a master's student in communication technologies from Tioga, LA. She earned her bachelor's degree in communication in 2022. Upon completion of her master's degree, she plans to continue her graduate studies and pursue a Ph.D. in political communication.

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**Charles Watkins** is a fifth-year business economics major from Haughton, LA. He completed an internship at Amazon specializing in operations management. He graduated in March 2024 and is pursuing a doctorate in macroeconomics.

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**Micah White** is a fourth-year finance student from Shreveport, Louisiana. He is the founder and president of The Investment Society. He graduated in March of 2024 and has secured a position as an analyst with a private investment firm in Stuart, Florida.

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**Dr. Patrick Scott** is an associate 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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# National and Louisiana Economic Indicator Forecasts

## BY C. PATRICK SCOTT, PH.D.

Forecasts are provided using a Bayesian model averaging approach from hundreds of 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.

### Louisiana Non-Farm Employment

The Bureau of Labor Statistics seasonally adjusted many of the estimates for total non-farm employment in 2023. The revisions reflect a slower growth trajectory for job gains in Louisiana than previously reported. This highlights some of the challenges facing policy makers at the local level. While nationally pandemic-related job losses have fully recovered, Louisiana has yet to recover. Most forecasting models predict modest employment gains of about 5,000 jobs over the next six months.

**Punchline: Just when we thought the end was in sight, the goalpost moved.**



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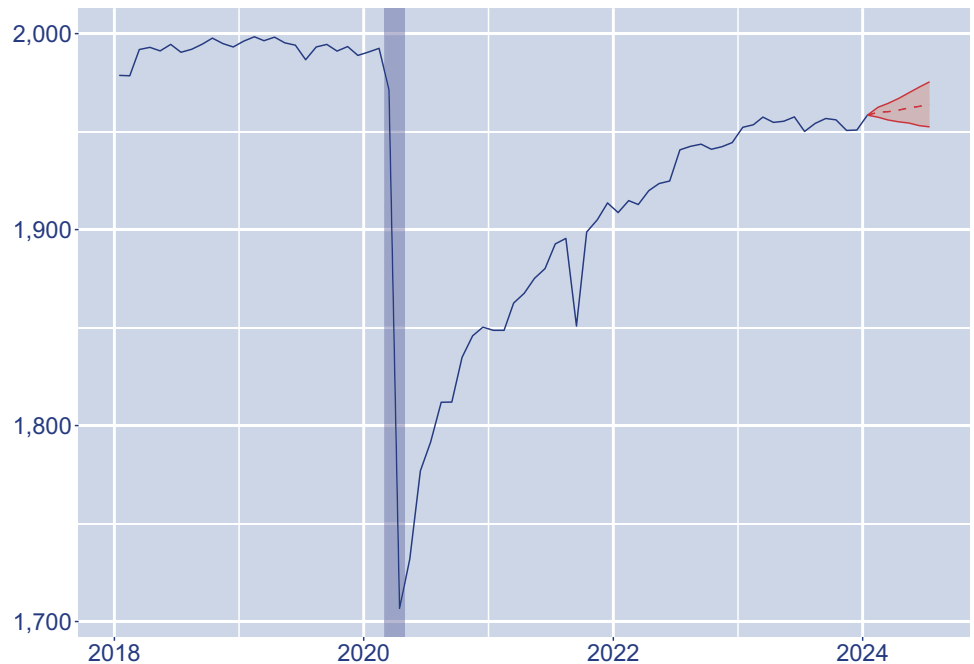
### Louisiana Unemployment Rate

The unemployment rate for Louisiana has slowly inched up over the past few months, but absent any major shocks, this is relatively good news. As more of our population enters the workforce, this number will rise as new job seekers are considered unemployed. Most models indicate a stable unemployment rate for the foreseeable future, not changing more than 0.1% on average. National demand shocks or other economic disruptions may jolt this number in the long term.

**Punchline: A stable unemployment rate points to stable hiring by firms.**



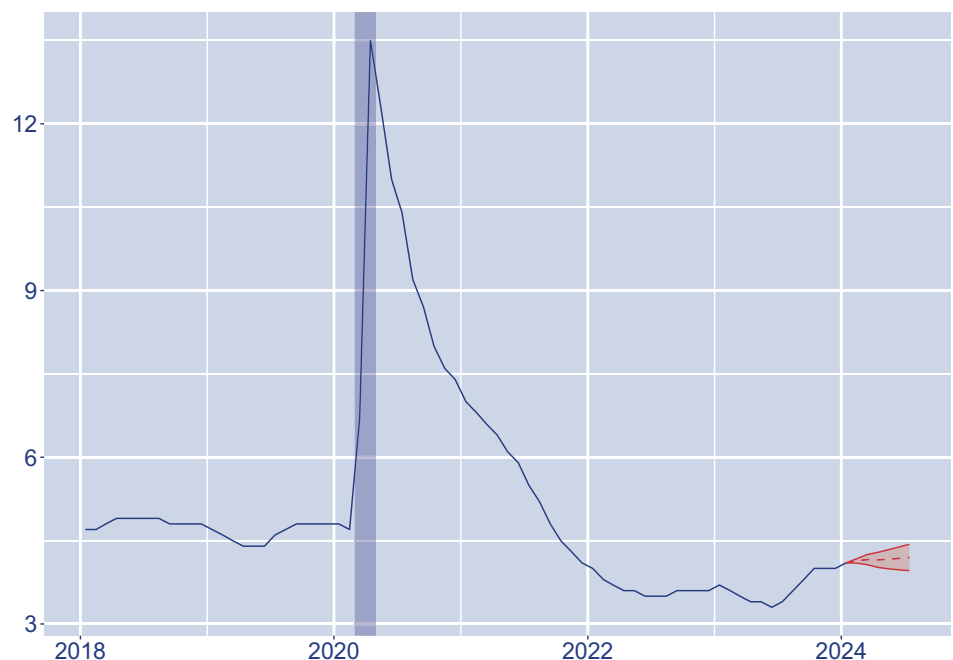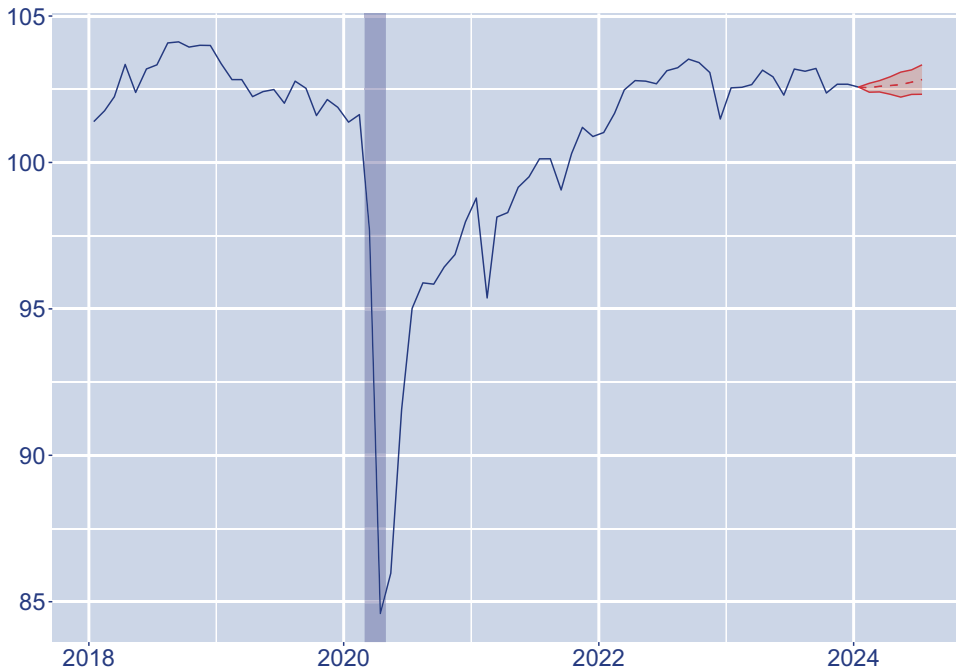Figure 2: Forecasted Unemployment Rate (Percent)

## Figure 3: Forecasted Industrial Production Index (2017 = 100)



## National Industrial Production Index

The national industrial production index is a measure of firm-level production that tends to co-move with national output. It is a monthly indicator, so it updates more frequently than real GDP. Most models show firm-level production gaining some traction over the next six months. Even the lower bound of the forecast range shows it holding steady. This makes the Fed's job harder when determining what policy course to pursue. The economy appears stronger than we thought it would be six months ago.

Punchline: Firm level output is picking up modestly. This will add wage pressure which will fuel inflation.

## Figure 4: Forecasted Trimmed Mean Personal Consumption Expenditure Inflation (Percent)
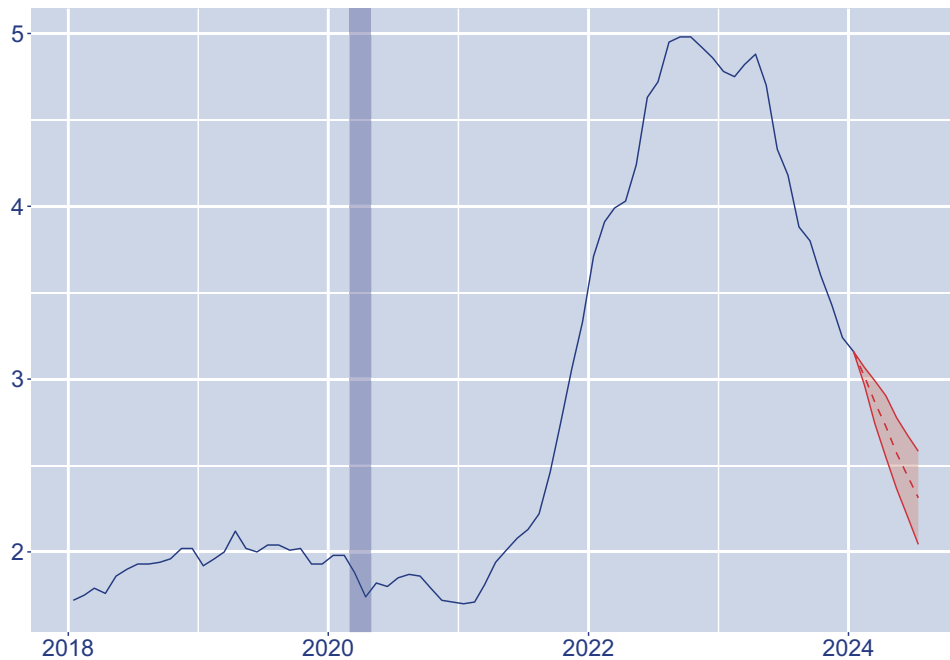


## National Trimmed Mean PCE Inflation

While the Fed's preferred inflation rate cooled at a slower rate last month, inflation is still expected to continue its general decline to get back to a more manageable 2% range. Most forecast models predict an acceleration of that decline as hiring cools, and general uncertainty about future possible rates cuts remains palpable.

Punchline: All eyes are on labor market and inflation numbers to see if the Fed has truly pulled off that illusive 'soft landing.'

Monthly employment, unemployment rate, industrial production, and inflation rate data for this section extend to January 2024 and include the most current releases at the time of publication.

# The Southern Wage Gap

## BY ABIGAIL PIERCE

In 2023, southern states including Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, and Texas had lower average wages than the national average. Southern states are known to lack state minimum wage laws, are reliant on sales tax, and have lower unionization rates. Each of these factors results in these states having lower average wages compared to the national average.

Figure 5 depicts wages across Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, and Texas as a percent deviation from their long-run growth trend. In recent years, Arkansas, Mississippi, Oklahoma, and Texas have experienced wages growing faster than the long-run trend, while Alabama and Louisiana have shown slower growth in wages.

The average annual indexed salary in 2023 for the United States is $59,428. Louisiana and Oklahoma have the same average annual salary at $50,940. Alabama has a similar average annual salary of $50,920. Arkansas and Mississippi have considerably lower average annual salaries of $48,570 and $45,180, respectively. Texas' average annual salary is $57,300, the closest to the national average of all Southern states in this study. Over time, there are many factors that contribute to the South having lower wages than the national average.

Businesses in the South have historically relied on access to large pools of cheap labor. Over decades, this has led many manufacturing facilities to locate in this region. As the United States economy pivoted to a services-based economy, many of these firms have moved out of the region. This slows wage growth and creates a destructive economic cycle. States across the South also promote low wages for many workers by the policies they implement or choose not to implement. Louisiana, Mississippi, and Alabama have no state minimum wage; thus, the federal

minimum wage is binding at $7.25 per hour and $2.13 per hour for tipped workers. Fewer than half of the Southern states have a minimum wage higher than the federal minimum wage. In every other region, more than half of the states have minimum wages higher than $7.25. The lack of a state minimum wage suppresses wage growth, leading these states to fall behind the national average.

Workers who experience minimum wage violations tend to be paid less than the applicable minimum wage. Additionally, about 10.8% of workers in Texas have experienced minimum wage violations (Cooper and Kroeger, 2017). Southern states have actively fought against the federal government's efforts to raise wages in their states. In 2022, the Attorneys General of Texas, Louisiana, and Mississippi sued the federal government to prevent an increase in the wages of federal contractors. Additionally, the lack of policy and the resistance to increasing minimum wages is not evenly shared across all sectors of society.

While many Southern states have a non-binding minimum wage policy and a resistance to increasing the minimum wage requirement, they also continue to seek to eliminate or limit corporate and personal income taxes. Southern states, including Mississippi and Oklahoma, have used temporary budget surpluses — surpluses resulting from the distribution of federal dollars to states intended to address COVID-19 and the associated recession — as an excuse to further cut already low income-tax rates. Texas has no

## Table 1: Wage Growth, Union Participation, and Sales Tax Revenues for Southern States

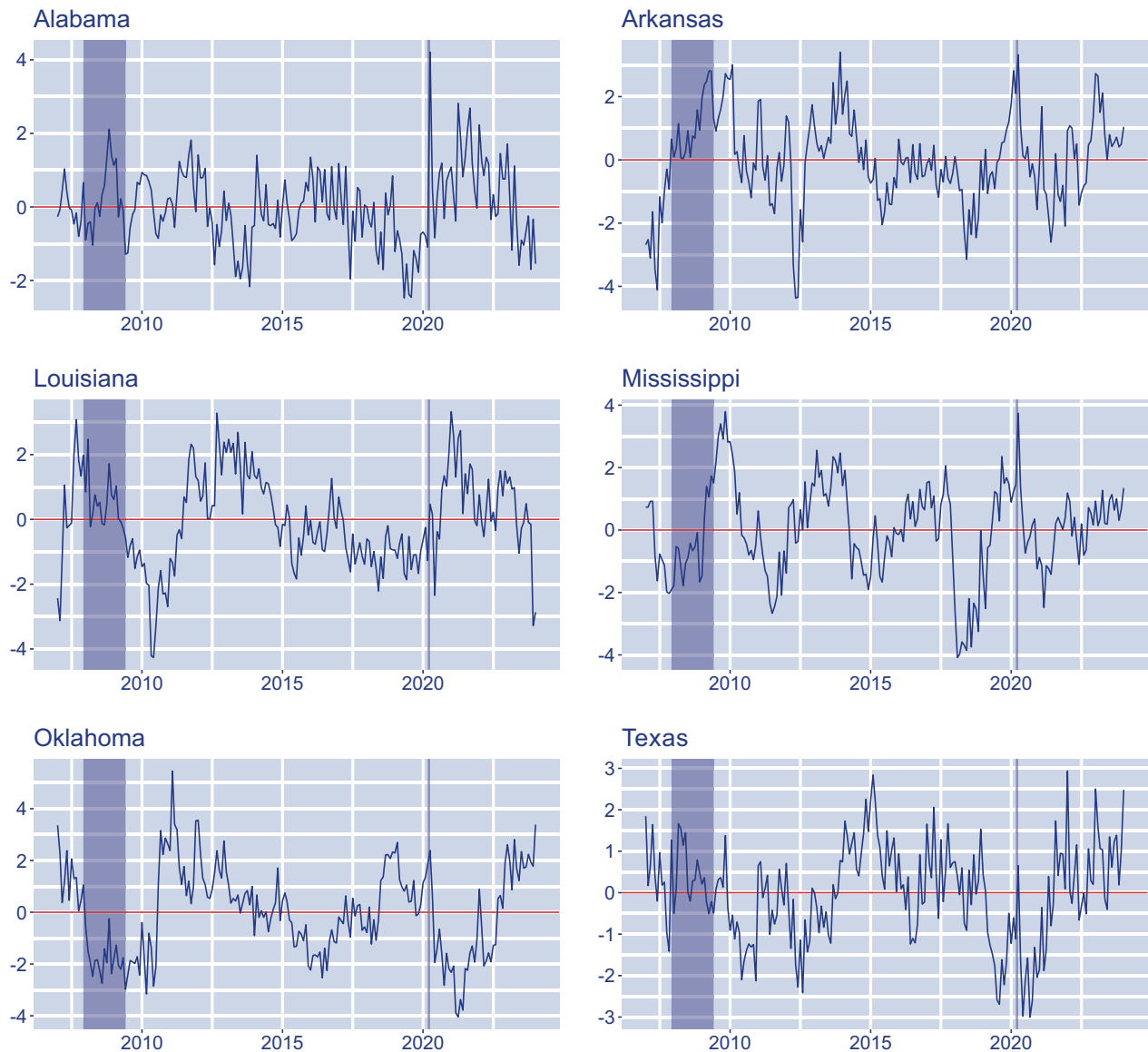| State | Wage Growth Rate | 2023 Union Membership Rate | Percent of Budget from Sales Tax |
|---|---|---|---|
| Alabama | 3.5% | 7.5% | 30.8% |
| Arkansas | 3.6% | 5.1% | 38.5% |
| Louisiana | 2.6% | 4.3% | 39.2% |
| Mississippi | 2.7% | 7.0% | 32.4% |
| Oklahoma | 3.0% | 6.8% | 33.2% |
| Texas | 3.3% | 4.5% | 34.2% |

income tax and in other Southern states, income tax rates fail to raise adequate revenue, requiring those states to rely on sales and property taxes to pay for many public services. These services include education, public health, public safety, infrastructure, and other services. In 2019, nearly 40% of all state and local tax revenue came from sales taxes in Southern states. Table 1 shows wage growth rates, union membership rates, and sales tax as a percent of budget in the South.

According to several studies, higher rates of unionization are associated with higher wages, better working conditions, less inequality, less racial animosity, greater economic mobility, and greater civic participation (Banerjee et al. 2021; Freeman et al. 2015; Frymer and Grumbach 2021; Mishel 2021; Mishel, Rhinehart, and Windham 2020). Despite this, Southern states have adopted policies that prevent workers' ability to form unions. Table 1 shows the annual average union membership rates in 2023 for each state. The national average is 10%. While union rates and sales tax policy are not the only factors that drive wage growth, both variables offer key insights for the critical examination of policy effects for workers and the quality of life in the South.

## Figure 5: Wage Gaps by Southern States (Percent Deviation from Long-Run Trend)

References:
https://www.epi.org/publication/rooted-in-racism/
https://www.bls.gov/regions/southwest/news-release/unionmembership_louisiana.htm
https://www.forbes.com/advisor/business/average-salary-by-state/
https://www.cbpp.org/research/state-budget-and-tax/states-with-temporary-budget-surpluses-should-invest-in-people-not
Data for Figure 5 are provided by the Bureau of Labor Statistics and extend to January 2024 , the most current released at the time of publication.

# Help Wanted: A Parish-by-Parish Look at Louisiana's Employment Rates

## BY LANDACE ABSHIRE

The United States has an employment rate of about 60% for much of the past few years. This is calculated as the ratio of employed persons (full-time equivalent) to total population. The remaining approximately 40% of the population is either too young to work, too old to work, not able to work, or choose not to work. Figure 6 shows the degree of variation among Louisiana parishes for this statistic. Some parishes have employment rates above the national average, while some are well below that critical value. Cameron Parish is excluded from this analysis since its population is dropping faster than its employment. Cameron Parish employees are provided by people commuting there. Typically, urban parishes like East Baton Rouge and Orleans tend to have higher employment rates than more rural parishes. Some of these rural parishes include Carrol, St. Helena, Assumption, Tensas, and others.

**Figure 6: Parish Level Employment Rates (Percent)**
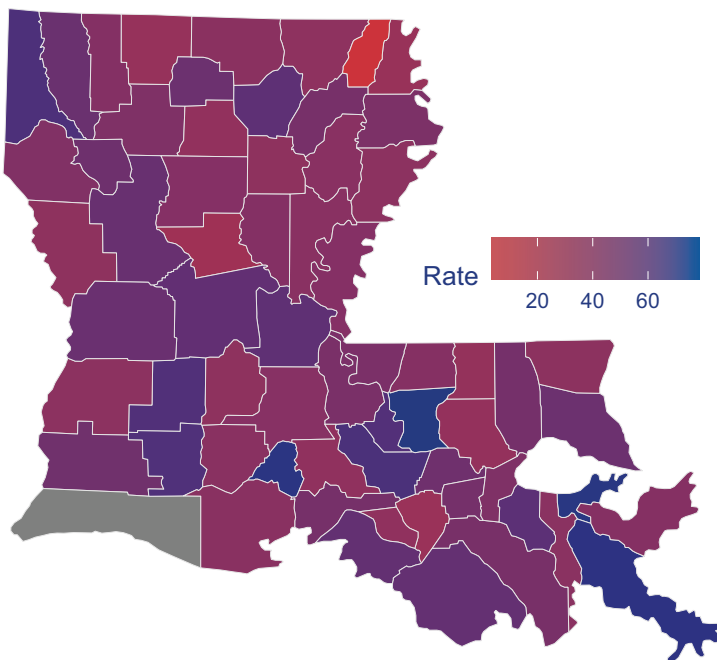


Proactive economic planning is required to prevent diverging parish employment rates. Many rural parishes already suffer from declining populations as younger residents move to urban areas for jobs (sometimes out of state entirely). Younger workers are relatively more mobile and since they have less ties to the area, are more likely to move for a job. Rural population decline means a smaller labor force and talent pools for employers. Parishes like Tensas, East Carroll, and Red River have lost over 30% of their population since 2000. Louisiana has one of the fastest-growing retirement-age populations as well. As more workers retire, labor shortages occur in parishes with an aging workforce like Plaquemines, Jefferson, and Vernon. Replacing retirees with younger workers may

prove challenging. Growing disability rates also contribute to this. According to the last Decennial Census, 38.6% of people 65+ had at least one disability in Louisiana. The U.S. average of people with disabilities is 33%. This leads to fewer available workers in the last few years of the traditional working age for adults. This can have longer term consequences as well if proper retirement planning has not occurred.

One of the main long-term drivers of Louisiana parish employment rate dynamics is education levels. Lower education levels reduce employment opportunities in a couple of ways. First, parishes with lower education may have difficulty adapting to dynamic labor market conditions. As technology augments labor demand, workers that are not able to leverage their skillset or retool in the face of those changes, find themselves exposed to downside risks. Second, it leads to fewer high-skilled job opportunities that require college degrees because employers do not want to locate there. This widens parish-level disparities. Educational attainment is a key predictor of employment at the parish level in Louisiana and it can be seen in Figure 7. This plot shows the percent of the population at every education level. All education levels have 64 points which represent the 64 parishes. This shows not only the clustering around education levels, but also the distribution within each level of attainment. Figure 7 shows that high school education not only has the highest proportion, but also has the largest variance among the parishes. Some education levels exhibit relatively wide disparities. For example, Orleans Parish has 29% of adults with a bachelor's degree or higher, and maintains one of the highest employment rates in the state. Compare that to West Carroll Parish where only 10% of adults have a bachelor's degree. It has the lowest employment rate in the state (Cameron Parish not withstanding).

**Figure 7: Percent of Parish Population per Education Level**
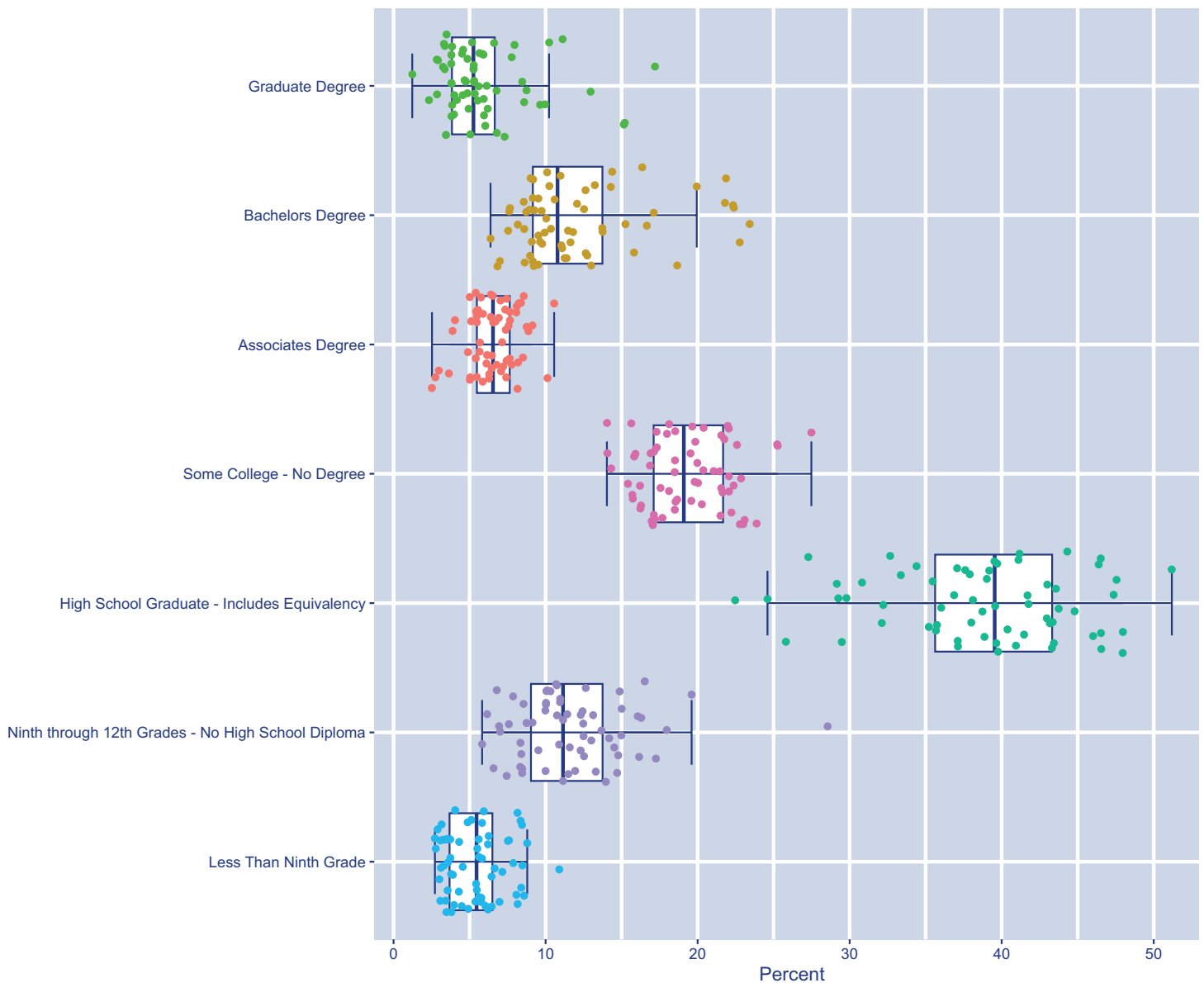


Major industries that employ many people in Louisiana include oil/gas, chemical manufacturing, shipping/logistics, tourism/hospitality, agriculture, and the military. The presence and strength of these industries in different parishes impact local employment rates and their importance is difficult to overstate. The decline of traditional industries like oil, gas, and agriculture, coupled with the rise of tech/service jobs, favors urban parishes like East Baton Rouge. Rural parishes linked to declining industries struggle to attract new employment sectors and educational attainment challenges make this problem worse.

The circular nature of the education-job prospect problem also makes this difficult to attack from a policy perspective. Do employers not come because of lack education, or do people not seek advanced education because of lack of employment opportunities? Which one comes first? Employment rates vary considerably among parishes in Louisiana, and this has been a consistent problem for some time now. A two-pronged policy approach that incentivizes educational attainment for people and provides proper incentives for more diverse employment opportunities would be important for long term growth. Improving the scope of industry and education will help to bring in more candidates for targeted workforce opportunities and make a more desirable economy encouraging population growth.

Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2022. 2023 estimates are expected in December 2024.

# Bayou Efficiency: Louisiana's Labor Productivity

## BY ANNA GRIFFIN

From culture to cuisine to economy, Louisiana is a diverse state in many ways. Among all the industries in the country, Louisiana boasts about 91% of them operating here. These range from petrochemical manufacturing to entertainment. While each industry represents a unique opportunity, not all industries contribute the same to labor productivity in each community. Economic impacts ricochet around their economic base as dollars circulate. Labor productivity and industry penetration rates at the parish level provide insights into growth prospects for the communities therein.

Figure 8 illustrates the average individual income across different parishes. Notably, Cameron Parish is missing from this plot since population estimates for this parish indicate a quickly shrinking economy (similar to the analysis on page 10). St. Charles Parish is denoted by a dark blue color, indicating that the average worker's income exceeds $85,000. Approximately 525 individuals are employed in the manufacturing sector here, primarily focusing on petrochemical manufacturing and industrial gas manufacturing. Petrochemical manufacturing, derived from petroleum refining, involves the separation of ethane, propane, and butane, with an average employee compensation of $273,870.30 annually. Similarly, industrial gas manufacturing offers an average employee compensation of $232,409.50 per annum. Across Louisiana, the manufacturing sector exhibits a consistent trend, employing 6.8% of the state's workforce and contributing about 17% of the total gross domestic product in 2022. In St. Charles Parish, this trend persists, with the primary industries employing workers in petroleum refineries, electric power generation via nuclear energy, and agricultural chemical manufacturing, collectively employing 2,543 individuals. The average employee compensation within these sectors ranges from $185,346.10 to $304,363.30.

Agricultural chemical manufacturing relies heavily on the byproducts of petroleum refineries within the parish for the production of pesticides and related products. Moreover, other industries, such as the Arsenal Hill Powerplant in Caddo Parish, depend on petroleum refining byproducts for power generation. The presence of these industries in Cameron and St. Charles Parishes provides significant economic opportunities for their residents, enabling them to secure substantial incomes reaching hundreds of thousands of dollars annually.



**Figure 8: Average Income per Worker (2022 Dollars)**

Thousands of Dollars

40  50  60  70  80
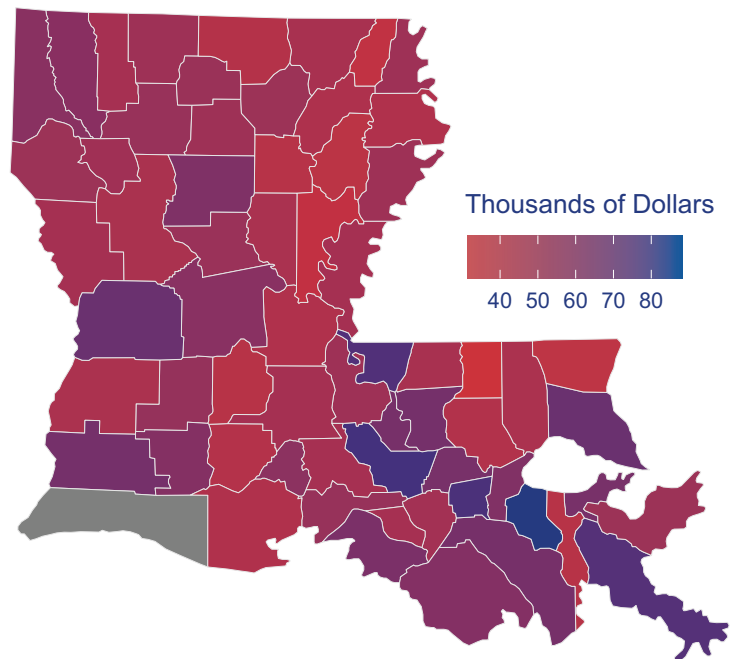
While Cameron and St. Charles Parish have a higher average income per person, there are two parishes that bring in significantly less than the rest. In East Carroll, grain farming, cotton farming, and the school system employ most of the people in the parish. The average employee compensation in grain and cotton farming ranges from $28,500 to $32,000, which is around the federal poverty line. While in St. Helena, office administration services, local school systems, and all other crop farming[1] employ the most people in the parish. These industries employ the most people in their respective parishes but do not generate as much economic output for the state as other industries.

[1] All other crop farming does not include grains and/or oilseeds; vegetable and/or melons; fruits and/or tree nuts; greenhouse, nursery, and/or floriculture products.

Figure 9 graphically depicts the distribution and composition of industries within each parish, focusing on those with a workforce exceeding ten full-time employees. In East Baton Rouge Parish, the proportion of industries surpassing this employment threshold notably exceeds 70%. Of particular significance is the prominent presence of the state government as the leading employer within East Baton Rouge Parish, notably in the domains of education and other state-funded services. Given the parish's designation as the state capital, these industries play a pivotal role in bolstering local employment rates. Meanwhile, Jefferson Davis Parish accommodates 60% of total industries, while 49% of all industries support a workforce exceeding ten employees per industry. Among the noteworthy sectors in Jefferson Davis is the healthcare industry, comprised of its hospitals which collectively employ over 13,000 residents as of 2022.

Across the state, Figure 9 highlights the prevalence and significance of industry penetration. This is important because Louisiana produces mostly intermediate goods. Most of the industries represented within the state do not patronize one another, so production within the state is not well integrated. Economic effects leak out of the region relatively quickly so dollars to have a low circulation rate when investment occurs. While Louisiana hosts a diverse array of industries which collectively contribute to a gross domestic product of $281 billion as of 2022, most of the value-added contribution to the state is exported to other regions. Parishes associated with the petroleum and energy sectors exhibit the highest average employee compensation but are not final goods producing. The petroleum industry, encompassing various facets such as drilling, extraction, refining, and petrochemical manufacturing, commands a notable 9% share of the state's overall output. Despite the pivotal role played by the petroleum sector in bolstering gross domestic product, it is imperative to acknowledge that Louisiana must pivot to industries that command a greater contribution to final goods/services production in order to boost the quality of life for all Louisiana residents.

**Figure 9: Percent of Louisiana Industries Present per Parish (Percent)**
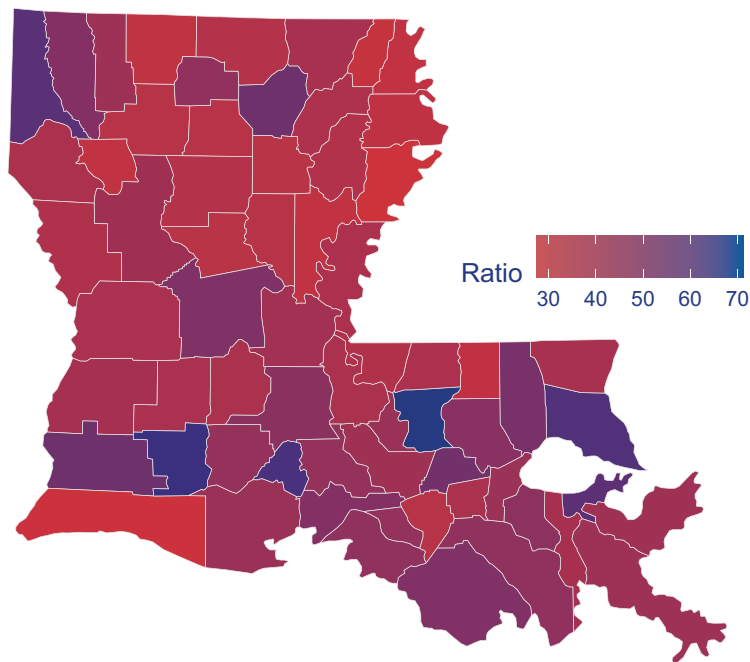


Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2022. 2023 estimates are expected in December 2024.

# Premiums Per State:
# Homeowners Insurance Across the South

## BY JORDAN HATTER

Homeowners insurance is a service, represented by a product, that many people do not fully understand. An HO-3 policy is one of many of these products. HO-3 policies are the most common packages written for homeowners insurance coverage. These policies exclude coverage for ordinances or laws forcing residents' action, earth movement, water damage, power failure, neglect, war, nuclear hazard, intentional loss, or governmental action. As the impact of the included factors are not the same across states, the policy premiums differ from state to state to reflect that. The purpose of this study is to analyze HO-3 price indices among nearby states. What state has the lowest HO-3 policy premium? What impact do natural disasters have on the prices over the long term?

From 2007 to 2020, the average United States premium increased a net $489. This number may sound large, but it is less than half of the change experienced by Oklahoma residents. Figure 10 shows the average policy premium for the same HO-3 policy in Louisiana, Arkansas, Texas, Oklahoma, Mississippi, Alabama, and the overall national average.

As shown in Figure 10, all the states discussed have premiums higher than the national average except for Arkansas in 2007 and 2008. After that, all the states remain above the national average. This happens because of factors such as weather conditions which impact all these states. Rates increase in the next year to make up for the

money that insurance companies had to pay towards claims made. They increase for everyone in the state, county/parish, or even city, to not directly punish those who needed to make a weather-related claim.

Various weather conditions or events can cause increases in HO-3 premiums. States along the coast have higher premiums because of the probability of hurricanes. An example of this increase is shown by the Louisiana premium increase of $116 from 2009 to 2010 following hurricanes Gustav and Ike. Another weather condition that increases HO-3 premiums is hail damage. Except for 2014, Texas has consistently ranked first in the number of hail events that people file claims for against their policies. An example

**Figure 10: HO-3 Policy Premiums by State (Dollars)**



Legend — State:
- United States
- Louisiana
- Arkansas
- Texas
- Oklahoma
- Mississippi
- Alabama
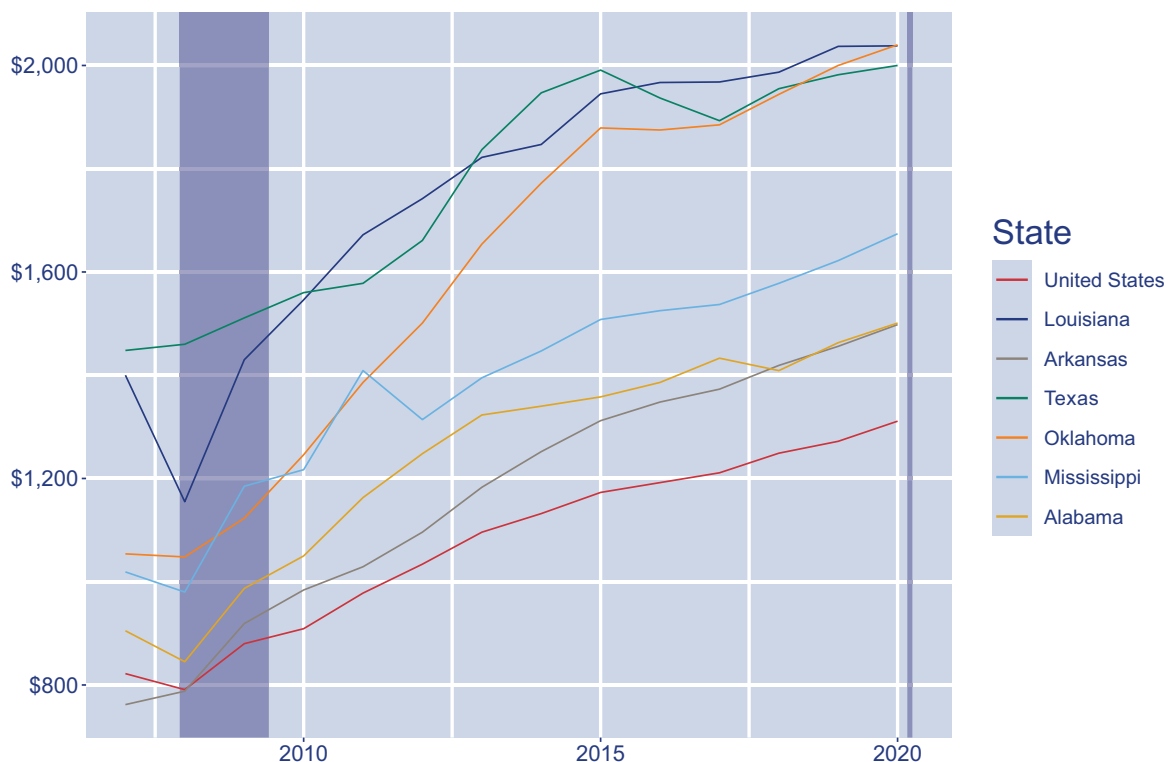
## Figure 11: HO-3 Policy Premium Indices Relative to Louisiana
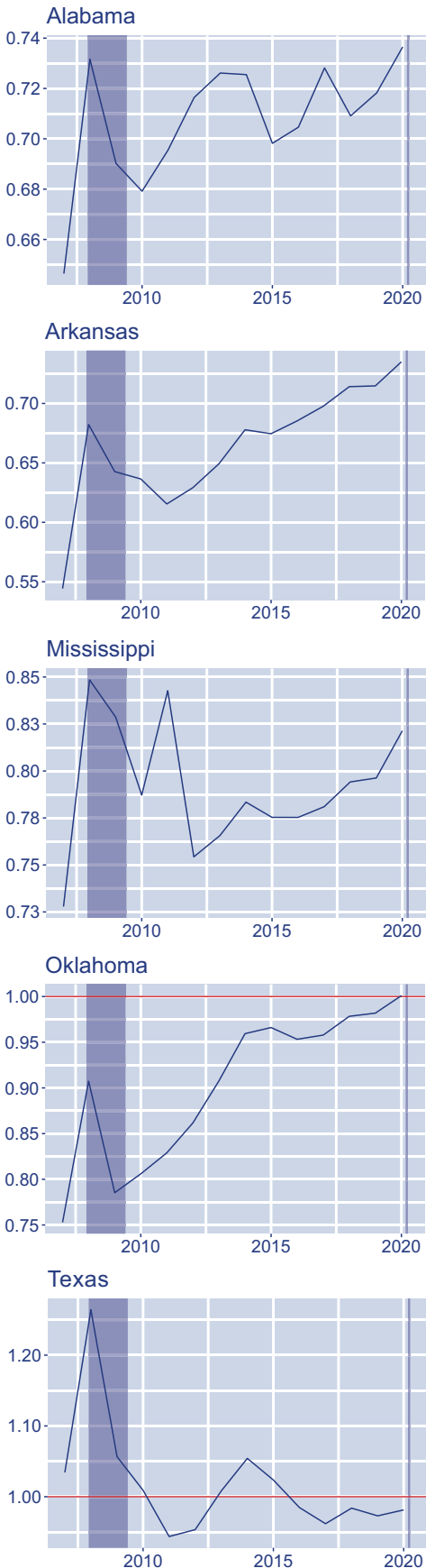


of this would be the increase of $110 to the average premium from 2013 to 2014. This followed a reported 651 hail events in the state during 2013. Tornadoes are another weather condition that increases HO-3 premiums. In 2011, 62 tornadoes happened over two months in Arkansas. From 2011 to 2012, the average Arkansas HO-3 premium increased by $67 as opposed to the $45 increase experienced the year prior. In 2010, Alabama experienced 2,357 fires throughout the state. This is reflected in the $113 premium increase from 2010 to 2011.

While these events are reflected in the premium for each state, they are also mostly reflected in the indices relative to Louisiana (Figure 11). As seen in both figures, Louisiana's average premium is higher than the other states' premiums. The only exception to this is Texas. Texas' index first fell below one in the change from 2010 to 2011. In this time, Louisiana's premium was $94 higher than Texas'. Another time Texas' status changed was in 2013. The Texas premium increased by $176 from the previous year making it $15 higher than Louisiana's. In 2012, Texas faced extreme weather conditions in many parts of the state that increased premiums the next year. These instances include supercells, hail, and tornadoes. Texas' index falls below one in 2016. From 2015 to 2016, Texas' HO-3 premium decreased by $54. In 2016, Louisiana's premium was $30 higher than Texas'.

Figure 11 shows that all the states experienced a sharp peak in their index in 2008. As seen by the dark blue column, this happened at the start of The Great Recession. The peak happens because of a sharp decrease in Louisiana's premium. All the premiums except for Louisiana experience a change in premium less than $100 whether that be an increase or decrease. In that year, Louisiana decreases by $245. The peak decreases within the year because of the increase the next year of $275 for Louisiana. Alabama's, Arkansas', and Mississippi's index all stay below one, indicating that the same premium is generally less expensive in these states. Over the last decade, Oklahoma has experienced sharp increases in HO-3 policy premiums, and the state is almost in parity with Louisiana. In the final year accounted (2020), Oklahoma's relative index was one. Figure 2 shows that the general increase began in 2010 after rates increased from weather in 2009. This severe weather includes an EF4 tornado that killed eight and injured almost 50 people.

Louisiana has one of the highest HO-3 premiums in the country. Texas and Oklahoma are the two states that have a premium closest to Louisiana's. Natural disasters impact premiums by influencing insurance providers to increase prices in the next year to reimburse them from amounts paid for earlier claims. While inflation does have an impact on the average HO-3 premium, weather conditions are a factor that causes differences among the states.

HO-3 policy data provided by the Insurance Information Institute and extends through 2020.

# Gasoline Consumption and Price Trends Over the Last 13 Years

## BY ELLIS GRIFFIN AND C. PATRICK SCOTT, PH.D.

One fundamental component of market analysis is understanding the sensitivity of quantity demanded when prices change. The numerical calculation of this is referred to as an elasticity. Some goods are more sensitive to price changes because they may not be 'necessity' items, or they may have many substitutes. These are said to be relatively elastic in their demand. Conversely, some goods are not sensitive to large price swings. These consumers have fewer options for substitutes, so when prices increase, their consumption is relatively unchanged. One example of an inelastically demanded good is gasoline. Most consumers of gasoline are not only what economists would consider price-takers, but since they have few alternatives, they are less likely to change their consumption patterns. When prices increase, consumers tend to substitute away from other nonrelated goods than buy less gas or change their driving habits.

Figure 12 shows historical data for both gasoline deliveries by prime suppliers and wholesale price per gallon for Louisiana. While these data start in 2010, even the extended long-term of the data indicate relative stability for the quantity of gas sold. Consumers are relatively stable in their demand irrespective of price. A near 50% drop in the price of gas at the end of 2014 has little effect on quantity for the corresponding time. During the initial months of the COVID-19 pandemic, the quantity of gasoline sold drops about 32%, while the drop in price (which confirms a demand shock) was about 64%. The variation in stability of these corresponding percent changes motivates the following exercise.

Long-term elasticity estimates are calculated using regression analysis. A two-stage least squares estimator is used that employs two lags of the independent variable to account for any errors-in-variables problem. The log-log regression model estimate is then decomposed to solve for

**Figure 12: Louisiana Gasoline Deliveries - Top (Thousands of Gallons per Day) and Wholesale Price - Bottom (Dollars per Gallon)**
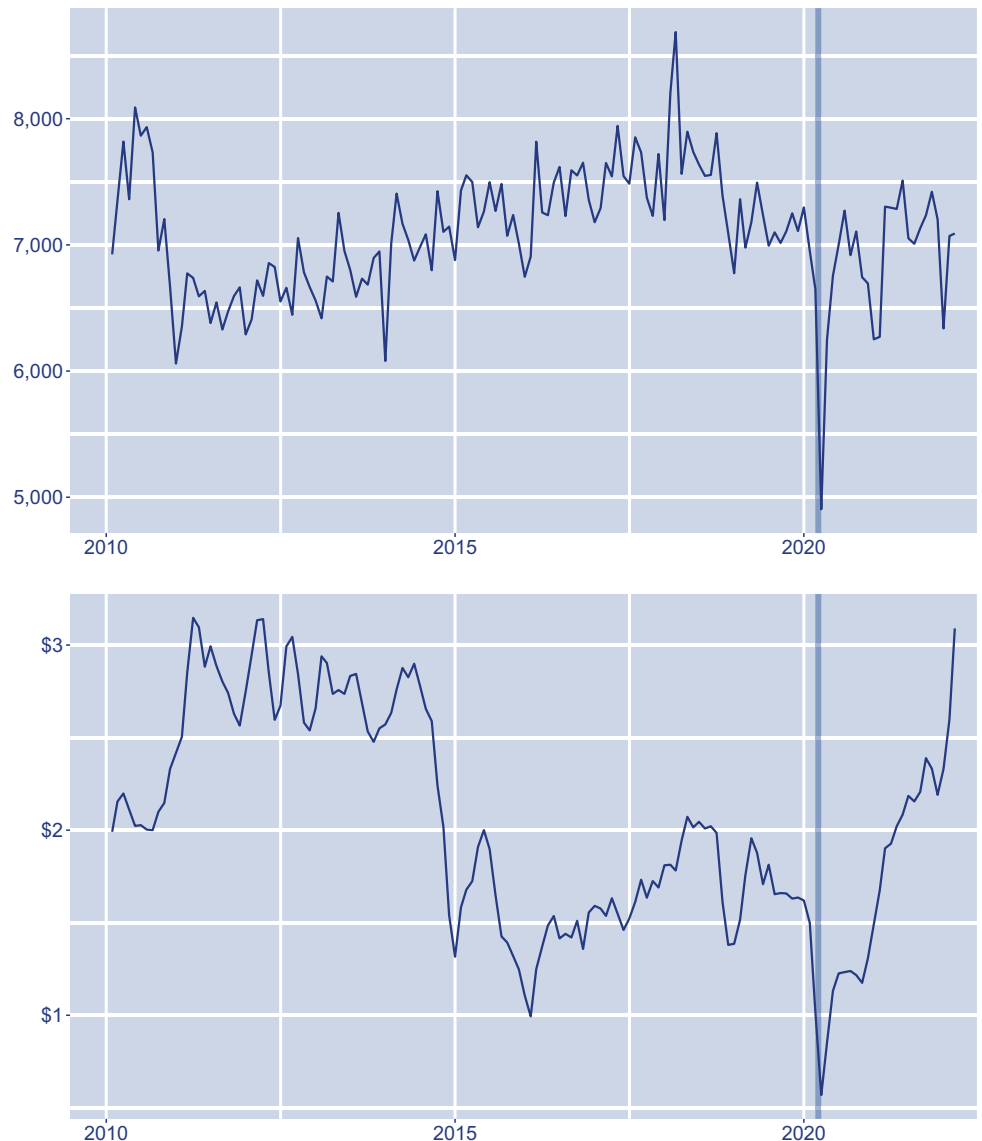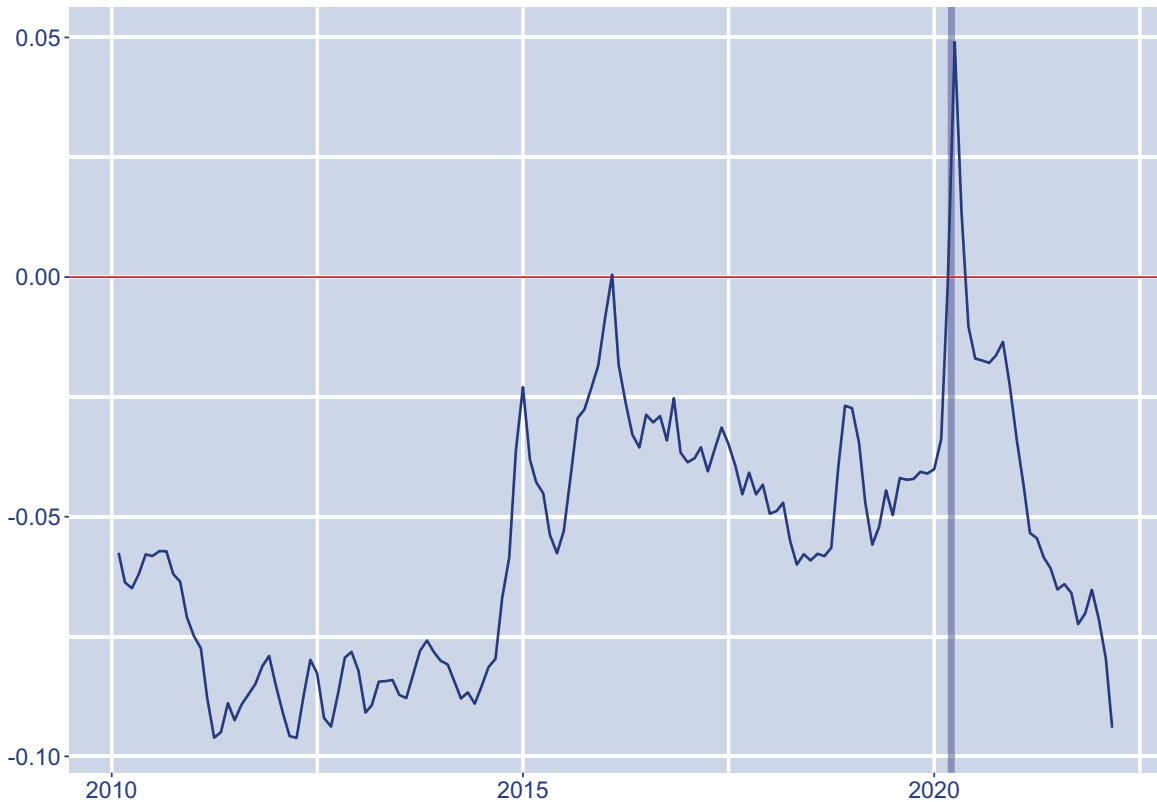
**Figure 13: Time-Varying Price Elasticity of Demand Estimates for Gasoline in Louisiana**



an instantaneous rate of change (since the regression line passes through the mean of the dependent and independent variable). A time-varying elasticity is then reconstructed using actual observed data and the previously solved for instantaneous rate of change.

Figure 13 shows the combined results of the statistical model and the reconstructed elasticity estimates. The blue line represents the percent change in quantity when price increases by 1% at any given point in time. The elasticity data inherit dynamics from both the raw price and raw quantity data. In most instances of time, the elasticity estimate is negative indicating that a traditional demand curve relationship holds for this market. The estimates are all greater than negative one indicating that the market for gasoline is relatively inelastic in its demand structure. The COVID-19 pandemic, initially at least, warps the parameter estimates since it is such a large economic disruption. The elasticity estimate for that period becomes positive briefly. Since this is relatively brief, it is not so much a violation of the law of demand

as it is indicative of supply uncertainty. The reader is cautioned not to put too much faith in elasticity estimates surrounding periods of extreme economic disruption.

The broader context of this exercise is important from a taxation perspective. When markets are taxed, the revenue that they generate is comprised of the individual benefit from both producers and consumers in that market. All taxation produces loss to society. If equilibrium in that market exists in the neighborhood of a price inelastic point, taxation policy is more likely to minimize that loss. The estimates in Figure 13 provide evidence that gasoline is relatively inelastically demanded and thus taxing this good is relatively less disruptive to society than other (more elastic) goods. That said, since consumers have relatively little ability to directly substitute gasoline, they tend to substitute away from non-gasoline consumption. These substitution effects are not accounted for in this analysis and should be considered.

Data for this report are provided by the U.S. Energy Information Administration. Monthly data extend to March 2022.

# Roadmap to Efficiency: Analyzing Louisiana's Transportation Dynamics

## BY KODY HERRICK

Roads are crucial for economic activity in any state. They serve as a lifeline for transportation systems, enabling social connectivity and ensuring efficient movement of goods and people. In Louisiana, there are approximately 16,500 miles of roads maintained by the Department of Transportation and Development (DOTD). Comparing the parish road miles with daily vehicle miles traveled (DVMT), we see how roads are being used (or not used) at the parish level.  In the broader context, this analysis contributes to a data-driven approach for optimizing the state's transportation network. It facilitates informed decision-making for future infrastructure projects, ensuring that limited resources are directed toward areas with the highest need and potential impact on the community.

The funding that LADOTD has available for pavement and bridge preservation is part of the overall annual funding allocation that it receives from Congress and the State Legislature. The comprehensive annual operating and capital budgets derive funding from diverse sources, constituting a total of $3.2 billion. Federal funds contribute significantly, amounting to $1.19 billion, while GO bonds and other sources contribute $1.31 billion. A self-generated income of $60 million adds to the financial pool, supplemented by $41 million from state Health Infrastructure (HI) funds. The 16-cent state Transportation Trust Fund (TTF) contributes $544 million, and an additional $66 million is sourced from inter-agency transfers. This multi-faceted funding structure ensures a robust financial foundation for the organization's operational and capital endeavors, reflecting a strategic approach to budgetary sustainability.

About $2.5 billion went toward program and project delivery last year. $500 million went toward transportation funding to multimodal/debt service. $90 million went to DOTD administration and support services, and $174 million went to operations and maintenance.
Over the last six years, the preservation/sustainability category, encompassing preservation, rehabilitation, and asset replacement in the Transportation Asset Management Plan (TAMP), has consistently represented an average of 50% of the total budget allocation. There is considerable variation in this number, however. The highest percentage was recorded at 61.3% in SFY 2020-21, while the lowest was 41.5% in SFY 2021-22. During the same period, operations, safety, and non-discretionary programs have maintained average percentages of 8.8%, 9.1%, and 21.6% of the total budget, respectively.



**Figure 14: Daily Vehicle Miles Traveled per DOTD Mile Obligation (Logarithmic Scale)**

Log(Daily Traffic per DOTD Mile)

7    8    9    10
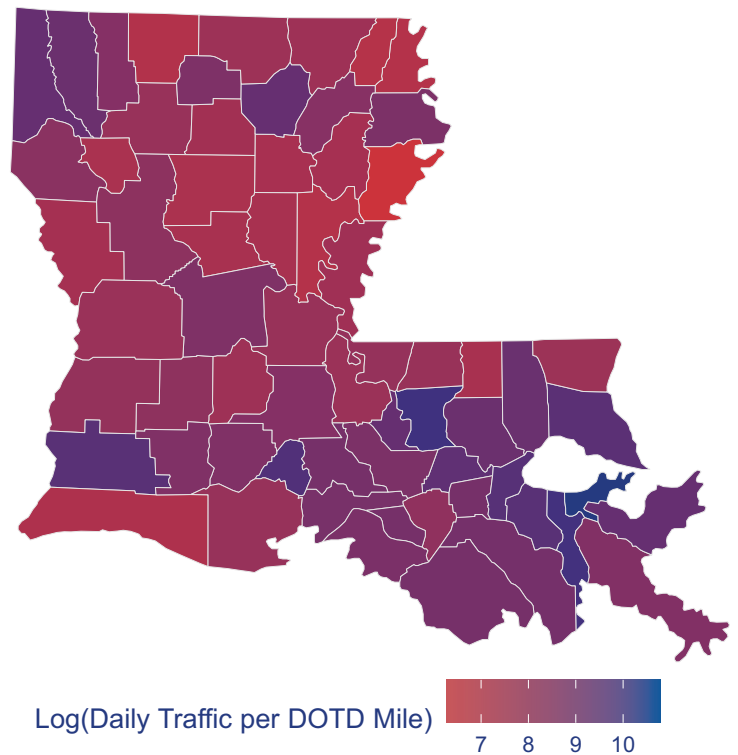
In terms of capacity, the average allocation has been 10.5% over the six-year span, with no allocation in SFYs 2019-20 and 2020-21. Presently, capacity projects are limited to those secured through special appropriations or discretionary grant funding.

One prominent aspect to consider is the uneven distribution of road usage across parishes, exemplified by the map in Figure 14. This metric serves as a gauge for

DOTD Mile per 1,000 people

10    20    30

63.9
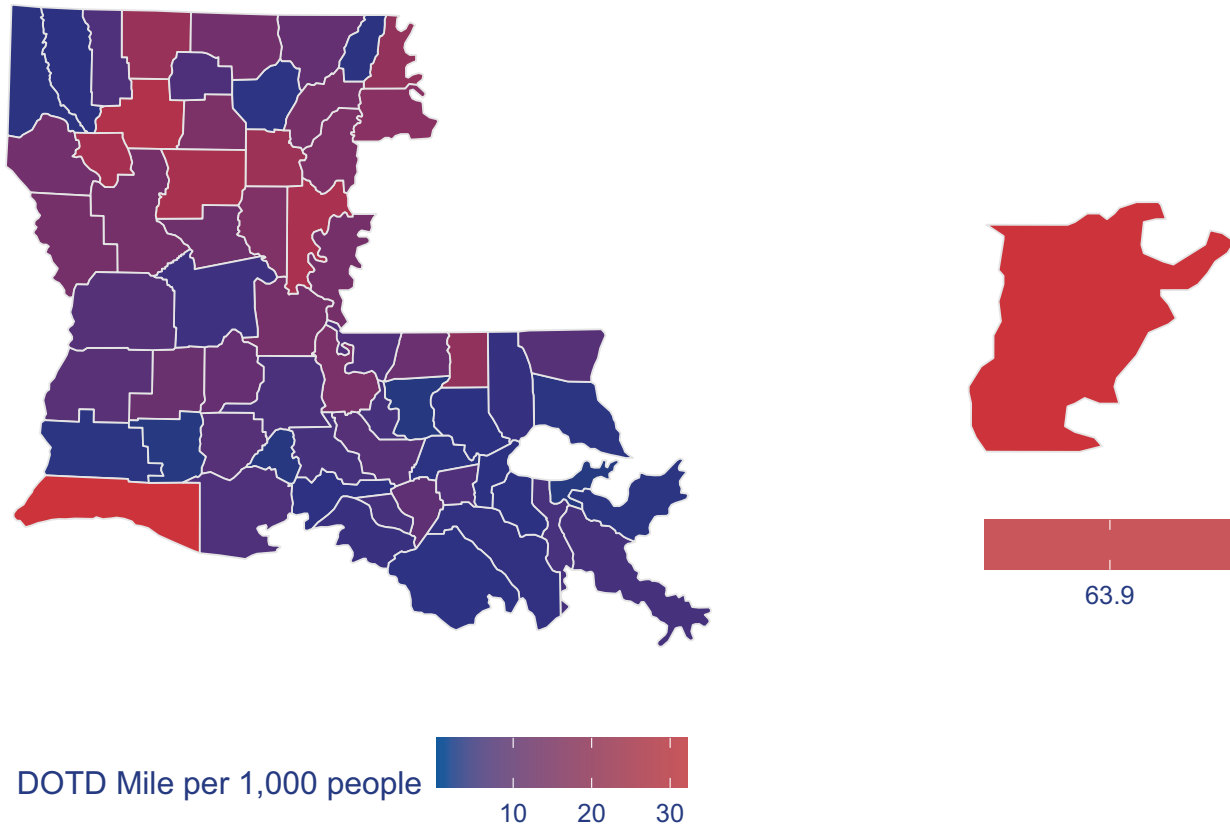
the efficiency of road networks, showing how many miles are traveled daily in relation to the miles of roads maintained. To find this metric, the number of miles traveled in a parish is divided by the number of miles in that same parish. A high DVMT per mile obligation suggests heavy utilization of roads in that parish. For instance, relatively populous parishes like East Baton Rouge and Orleans exhibit high DVMT figures, indicating a substantial demand for transportation infrastructure. On the other hand, in parishes like Tensas with a lower population density and a low DVMT per mile obligation, fewer resources may be needed to maintain roads.

Figure 15 shows the relationship between road miles and population. It provides a measure of road density in terms of DOTD mile obligations relative to the parish population. These patterns identify parishes where road usage surpasses infrastructure provision which allows for a targeted approach to resource distribution. Conversely, parishes with underutilized roads relative to population density may warrant a reassessment of infrastructure investments. The opportunity cost argument comes to the forefront, emphasizing the need to allocate resources efficiently based on the actual demand and usage of roads. To find this metric, the road miles are divided by the total population of that parish. Notably, Tensas stands out with a relatively high number of road miles compared to its population. This indicates a potentially overextended road network relative to its demographic size. Tensas, with a low population but high road miles, raises questions about the necessity and efficiency of the extensive road infrastructure in the region.

Data for this report are provided by the Department of Transportation and Development and the Bureau of Economic Analysis.

# The Economic Effect of Payday Loan Regulation in Louisiana

## BY CHARLES WATKINS

Over the past 30 years, the payday lending industry has grown to 20,000 outlets nationwide. However, with the industry's explosive growth, regulations have not kept pace to protect consumers from outrageously high interest rates. Consumers are not properly advised of all the stipulations and financial penalties that could occur if they are not careful. Since many of the consumers in this market are not financially literate, there has been a regulatory push that is uneven across the United States. Some states, such as Arkansas, have banned the industry altogether. This study examines what the economic effect of such a policy would do in Louisiana.

Interest rates on an annualized basis for these products range from 400% to 1000%, far above any high interest rate credit card. However, this interest rate isn't displayed as such, but rather a fee that is taken off the top of the loan. For example, if someone were to take out a $200 loan and the fee is $15, the customer would receive $185. In some cases, this can create a habitual borrowing pattern thus snowballing into a massive, almost unpayable, debt for families. On top of this, most of these borrowers are underbanked or unbanked for a multitude of reasons, the most notable being the lack financial institutions in smaller communities. In Louisiana, the FDIC reported that 20.1% of the population was considered underbanked and another 8.1% was considered unbanked. Both Louisiana and Mississippi ranked as the top two most unbanked states whereas Arkansas comes in with 15.9% underbanked and 3.4% unbanked. Why is this significant? Arkansas outright banned payday lending in 2008. Since then, the state's personal income rose 48% in part due to the less constrictive debt put on families and the increased abundance of jobs in the financial sector. Louisiana, on the other hand, saw an increase of only 34% over the same period.

An economic impact analysis is calculated based on the outcomes and magnitudes observed from the Arkansas ban. This creates two broad level impacts. The first is the employment loss from the industry



Figure 16: Multiplier Values by Economic Shock

Multipliers

Employment     Labor Income     Output     Value Added
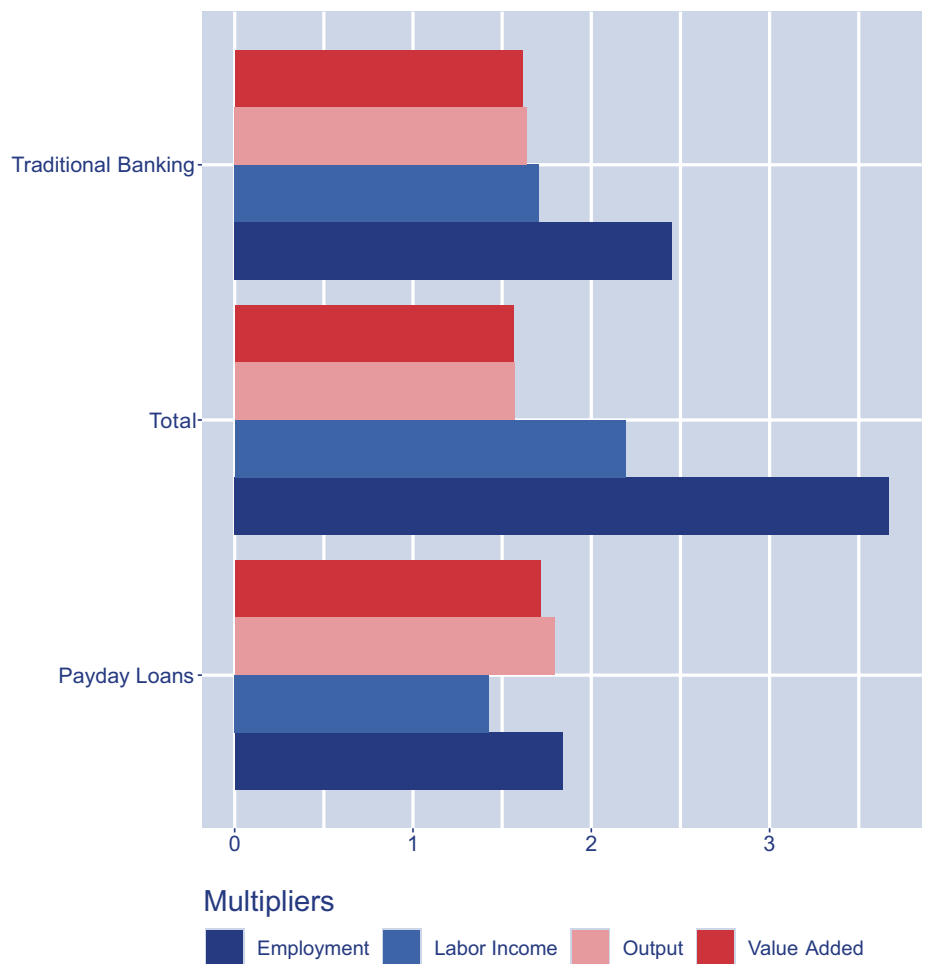
## Table 2: Annual Tax Revenue Changes by Individual Economic Shock (2023 Dollars)

| Impact | Parish | State | Federal | Total |
|---|---|---|---|---|
| Direct | -$405,763.26 | -$2,344,788.40 | -$11,251,818.98 | -$14,996,290.01 |
| Indirect | -$113,836.48 | -$648,122.20 | -$2,681,885.70 | -$3,722,669.73 |
| Induced | -$520,896.74 | -$1,980,015.90 | -$3,744,877.90 | -$7,521,458.69 |
| Direct | $514,797.713 | $4,235,803.47 | $21,463,652.22 | $27,475,337.99 |
| Indirect | $594,983.78 | $2,845,922.24 | $9,367,633.44 | $14,265,763.64 |
| Induced | $1,002,950.88 | $3,812,411.98 | $7,210,636.42 | $14,482,210.77 |

that is banned, amounting to about 700 jobs displaced. The second is an estimate of the amount of financial intermediation activity that would migrate to traditional banks. This is estimated at approximately 24% of the industry. The first shock is negative, while the second is positive. The magnitude of the second shock is much larger than the first, generating a net positive economic effect.

Figure 16 highlights the multipliers for four economic indicators according to each economic shock and the combined effect of the two. Multipliers are always positive, but the initial shock may not be. The combined multiplier for employment is relatively large. As funds migrate to traditional bank activity, it is more efficiently used. More of it stays in the local economy, and that leads to a disproportionately larger virtuous economic cycle. The loss to employment and labor income is more than made up for by the gains in traditional banking. Value added and total output are still positive, but not disproportionately so. This is because most proprietor income leaks out of the state in both cases.

Table 2 summarizes the tax implications of both economic shocks. The loss of employment is represented by the red rows, and the growth in the banking industry is in blue. The direct effects are the initial changes, the indirect rows represent supply chain or business to business effects, and the induced rows enumerate the additional rounds of consumer spending. The table communicates possibly why there has been little state-wide policy action on this.

The total change in annual tax revenues is relatively small, about $5 million, at the state level. This is not a major revenue shifter for the state, and thus the legislature may have little economic interest to change course. While there is an estimated net positive to state revenues, there may be other considerations beyond the economic effects that deter policy action.

It is difficult to argue that this industry does not need some type of regulatory measures at the state level. Twenty-one states have enacted payday loan regulations, all under the justification that those consuming this service are not financially literate to understand fully what they are agreeing to. Louisiana needs appropriate regulation and to ensure proper education when it comes to taking on predatory debt. It needs to enact measures to curb habitual borrowing for low-income families. In North Carolina, they ran an experiment that became extremely successful and similar products are popping up around the country. The product, in particular, acts very similar to traditional payday lending with two key aspects, the most notable of which is the interest rate being 12% annually. Now you can borrow on a bi-weekly basis, but 5% of the loan is put aside in a special savings account in an effort for the borrower to make withdrawals instead of taking out another loan. Once a customer withdraws from the account, they are barred from taking out another loan for six months to encourage them to practice smarter spending and saving habits over time. Louisiana has an interest to educate citizens on both proper saving practices and borrowing. Education is key.

Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2022. 2023 estimates are expected in December 2024.

# Building the Future: The Effect of Forecasted Employment Growth in Construction

## BY MICAH WHITE

Construction workers make up 7% of Louisiana's workforce. The U.S. Bureau of Labor Statistics (BLS) anticipates a 4% annual growth in the number of construction workers nationally from 2022 to 2032, translating into roughly 2,381 new full-time equivalent jobs in Louisiana alone. Given this expected growth in construction employment, what are the effects on the growth of personal income taxes, production, and import taxes, and its indirect impact on employee growth in various industries?

Personal income taxes, levied at both the federal and state levels, will be affected by the forecasted growth in construction labor. Notably, households with higher annual incomes will contribute the most substantial increase in tax revenue. Income taxes are not charged at the parish level.

**Table 3: Income Tax Growth by Household Income Bracket**

| Household Income Bracket | Federal Tax | State Tax |
|---|---|---|
| < $15k | ($6,200) | ($1,442) |
| $15-$30k | ($70,290) | ($1,170) |
| $30-$40k | ($31,806) | $21,739 |
| $40-$50k | $90,593 | $51,237 |
| $50-$70k | $629,496 | $205,469 |
| $70-$100k | $1,743,045 | $516,656 |
| $100-$150k | $3,728,276 | $951,501 |
| $150-$200k | $3,000,033 | $663,507 |
| > $200k | $7,478,091 | $1,263,753 |

According to Table 3, tax growth varies across income brackets. Households with incomes under $50k experience tax breaks, as the progressive tax structure offers relief for lower-income earners. However, as income surpasses this threshold, the impact of the progressive tax structure becomes evident. While the households earning above $70k face a considerable increase in their tax burden, there are more of them. This offsets the household level burden. The effect is particularly pronounced for households with incomes greater than $200k, projected to contribute the most to federal tax growth — over double the forecast of the $150k-$200k bracket.

Louisiana's state personal income tax follows a trend like federal income tax, though the magnitude is smaller. State income tax growth continues upward as household income increases but rises sharply at $150-$200k. Households with income greater than $200k again provide the most growth, forecasting a $1.26 million increase.

In May 2022, the BLS estimates median annual pay for a construction worker to be $39,520. This would place the laborer in the $30-$40k household income bracket. If the laborer is married to a spouse of equal salary, their combined household income would fall in the $70k-$100k bracket. However, these brackets provide some of the least amount of estimated growth in personal income taxes.

Tax revenue from production and imports is depicted in Figure 17. At the federal level, production taxes project a modest increase and the least amount of growth, expecting $644,709 in revenue. This amount is near-equally distributed between $332,962 in excise taxes and $339,746 in customs duty taxes. In contrast, forecasts predict that state-level production and import taxes will experience the most growth, with an anticipated revenue increase of approximately $6.47 million. This surge in state tax revenue is primarily driven by state sales and severance taxes, with sales taxes contributing an estimated $5.58 million and severance taxes adding roughly $470,000. Notably, this indicates that most of the tax benefit remains within the state of Louisiana and does not flow outward to the federal level.

The anticipated job growth in construction will indirectly stimulate growth in employment across various industries in the state. Industries closely tied to construction projects will experience the most growth. Figure 18 illustrates the top 15 industries according to indirect or supply chain connections with construction. These industries are ranked based on their contribution to employee growth. As we delve into the rankings, it becomes evident that all the listed industries play a role in the construction sector.
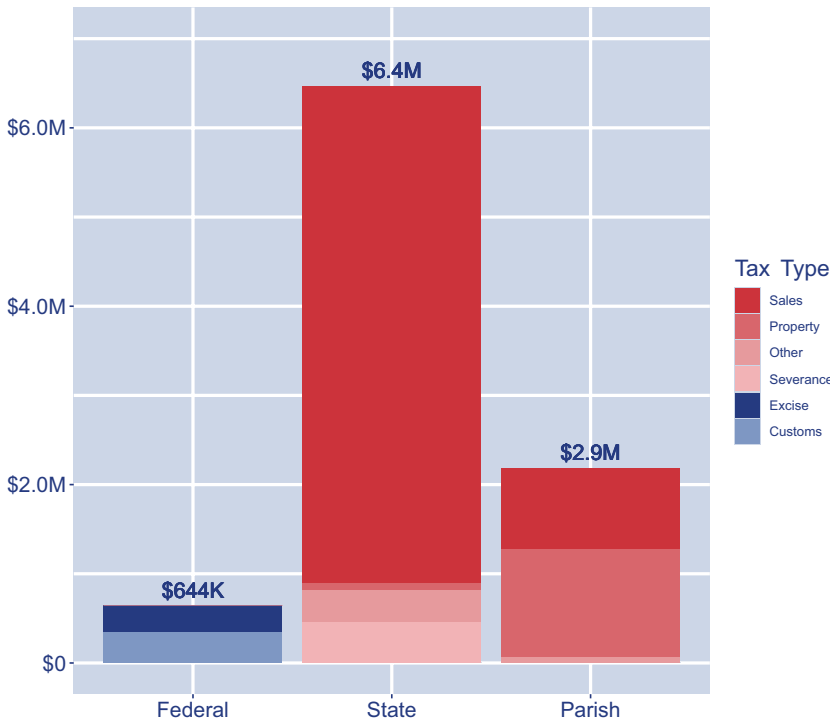
demands and skill requirements across various construction projects, it is likely that employment services play a crucial role in connecting construction employers to laborers with the right talent.

A projected 4% growth in construction labor will significantly impact various aspects of Louisiana's economy. Notably, state- and parish-level tax revenue will experience substantial growth. With personal income and production tax growth alone, Louisiana anticipates an increase of $10,142,174 at the state level and $2,185,730 at the parish level. Furthermore, this growth will stimulate industries indirectly linked to the construction sector. In terms of employment, the top 15 indirectly affected industries are projected to require an additional 226 employees to meet increased demand.

According to Figure 18, one of the key beneficiaries of the expansion in construction labor is the architectural, engineering, and related services industry. With the surge in construction activity, these firms will witness a heightened demand for designing and planning new projects. Subsequently, the completion of these projects will lead to enhanced property development in the state, which likely explains why real estate emerges as the second most impacted sector. Given the necessity for materials in constructing and finalizing projects, it is unsurprising that durable goods wholesalers rank third in terms of employee growth. Moreover, the employment services industry emerges as the fourth most heavily impacted sector. Given the diverse employment

**Figure 18: Indirect Employee Growth by Industry**
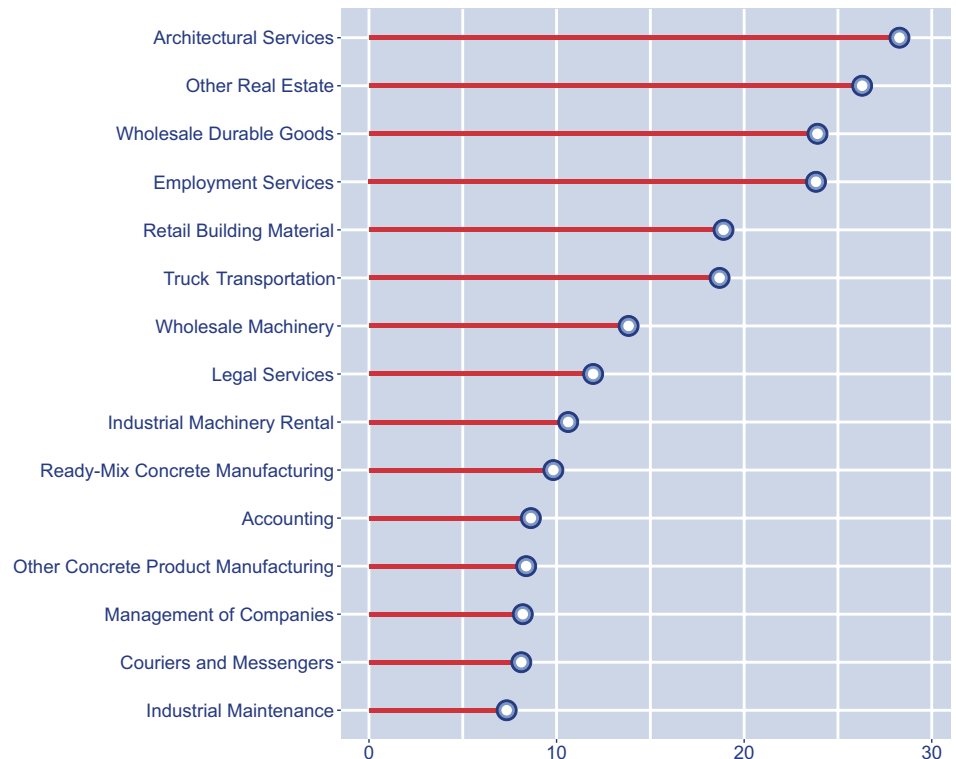
References:
Daily Report Staff. (2023, August 14). Nearly 7% of Louisiana jobs are in the construction industry, topping US average. Baton Rouge Business Report. Retrieved from https://www.businessreport.com/business/nearly-7-of-louisiana-jobs-are-in-the-construction-industry-topping-us-average

U.S. Bureau of Labor Statistics. (2023, November 17). Construction Laborers and Helpers. Retrieved from https://www.bls.gov/ooh/construction-and-extraction/construction-laborers-and-helpers.htm

Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2022. 2023 estimates are expected in December 2024.

# Low- and Moderate-Income Mortgage Loan Allocation in Louisiana's Parishes

## BY ABHI CHADHA

Louisiana, known for its rich economic diversity and cultural vibrancy, serves as the focal point of this study. Our investigation delves into the distribution of home loans among individuals earning low- and moderate-income (LMI) levels across its 64 parishes. As the state navigates its path toward economic growth, it is imperative to address the fair distribution of home loans among its diverse population.

Homeownership is a cornerstone of financial stability for many households, offering a means of accumulating savings through regular mortgage payments and typically representing the largest asset in an individual household's portfolio. Access to housing finance is crucial for promoting economic mobility and social equity, as homeownership contributes to generational wealth building and provides economic stimulus through demand for housing-related goods and services. Homeownership enables individuals to leverage home equity for various purposes, including retirement savings and investments. While offering significant economic benefits, its suitability as an investment strategy depends on individual circumstances and market conditions.

The disparities in home loan distribution have profound implications for economic development and social equity in Louisiana. Access to affordable housing finance is pivotal for enhancing economic mobility and mitigating income inequality. Excluding marginalized communities from accessing housing loans sustains cycles of poverty and restricts their full participation in the economy. Moreover, an inadequate distribution of home loans can impede overall economic growth. Housing construction and related industries play a significant role in job creation and stimulate local economies. By ensuring equitable access to housing finance, policymakers and financial institutions can catalyze economic development across all regions of Louisiana. Thus, examining the allocation of home loans to individuals earning LMI levels. This is about empowering a segment of the population to rise above poverty.

**Figure 19: Percent of Approved Mortgages to Low- and Moderate-Income Households (Percent)**
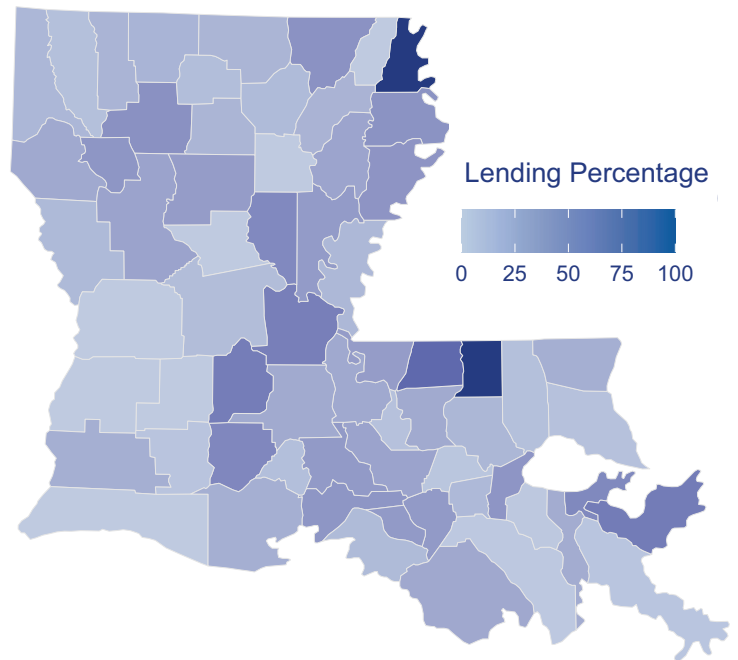


This analysis draws from Federal Reserve mortgage data as of 2021 sourced from every parish in Louisiana. The objective is to assess the banking industry's commitment to serving this demographic by evaluating the distribution of home loans among individuals earning LMI levels. The percentages were computed using the following formula:

$$LMI\ Percent = \frac{Low\ and\ Moderate\ Income\ Mortgages}{Total\ Mortgages}$$

The analysis unveils that the overall percentage of home loans designated for those earning LMI levels across all parishes in Louisiana averaged approximately 21%. This figure underscores significant room for improvement in serving this demographic, given the ideal threshold for adequate service hovers around 50%.

The visual representation depicted in Figure 19 provides insight into the geographical patterns of lending disparities in Louisiana. As illustrated in the heat map, which showcases lending percentages in each parish from 0% to 100%, the variation across parishes becomes evident. The spectrum of colors, ranging from light blue to dark blue, underscores the disparities in lending percentages. While some parishes demonstrate relatively higher percentages of home loans to LMI earners, most fall significantly below the ideal threshold.

Parishes such as East Carroll and St. Helena exhibit remarkably high percentages, exceeding 60% and 99%, respectively, indicating affordable housing access options for LMI borrowers. Conversely, parishes like Allen, Beauregard, and Cameron are depicted in shades of light blue, indicating lending percentages close to zero and shedding light on disparity in regional housing finance practices.

To address the disparities illuminated by this analysis, several policy interventions can be proposed. First, targeted financial incentives should be implemented to encourage banks and lending institutions to extend loans to LMI borrowers. These incentives could include tax credits or subsidies for institutions that demonstrate a commitment to working with underserved communities. Second, strengthen community reinvestment programs. Enacted

in 1977, the Community Reinvestment Act (CRA) aims to broaden access to bank loans in underserved communities, particularly those in LMI neighborhoods. Under the CRA, federal banking agencies are tasked with evaluating insured depository institutions' efforts to meet the credit needs of their entire community, including LMI neighborhoods, while maintaining sound financial operations. Strengthening and enforcing the CRA can compel financial institutions to allocate a portion of their resources toward supporting affordable housing initiatives and lending activities in marginalized areas. This would foster greater economic stability and social equity. By ensuring that banks adhere to their CRA obligations, communities across Louisiana can enjoy heightened access to credit, a vital catalyst for economic growth, and the reduction of wealth and opportunity disparities. Third, investing in education and counseling services for LMI individuals is of greatest importance. By enhancing financial literacy and aiding with credit counseling and loan application processes, individuals can strengthen their eligibility for home loans and make more informed financial decisions. Finally, fostering partnerships between financial institutions and nonprofit organizations can amplify efforts to expand access to housing finance. These collaborations can facilitate the development of innovative loan products tailored to the needs of underserved communities and offer support services such as down payment assistance and homebuyer education. By implementing these policy recommendations, Louisiana can make significant strides toward addressing the disparities in home loan distribution, thereby fostering economic development and social equity across the state.

Data for this report are provided by the Federal Reserve Bank for 2021. Parish-level retail mortgage loan data are produced with a long lag.

# Broadband Accessibility: Economic Value of the Affordable Connectivity Program in Louisiana

## BY MADISON REMREY

The Affordable Connectivity Program is a federally funded program started by the Biden administration in 2021 to expand broadband access based on income. According to a February 2024 press release from the White House, Louisiana has received $250 million in funding for the ACP, and nearly 544,000 households in the state participate in the program. That same press release estimates that the ACP saves Louisiana families $15.3 million each month.

As of late February 2024, the federal government has not renewed funding for the ACP. Because of this, it is expected that the ACP will run out of funds around mid-April 2024 and the program will cease operations. As of Feb. 7, applications for and enrollments into the ACP were discontinued. Existing participants were not booted from the program at the time applications stopped being accepted. However, that may soon change if funding for the program is not renewed.

As the ACP faces a looming end, it is important to evaluate what sort of economic gain (if any) the program brings to Louisiana. To find the answer, an economic impact analysis was conducted using an input/output table methodology where the shock is the total of federal ACP expenditures. Multipliers for the economic variables and multipliers for the tax revenues generated at various levels were calculated as well. The results show that Louisiana's economic gain due to the ACP outweighs the federal costs of the program.

According to the Federal Communications Commission (FCC), a qualifying household can receive a discount of up to $30 per month on their internet bill and those who live on qualifying Tribal lands can receive the same discount for up to $75 per month. Not only do participants receive a subsidized internet bill, but the program also offers a discount of up to $100 toward the one-time purchase of technology such as laptops and telephones from participating providers.

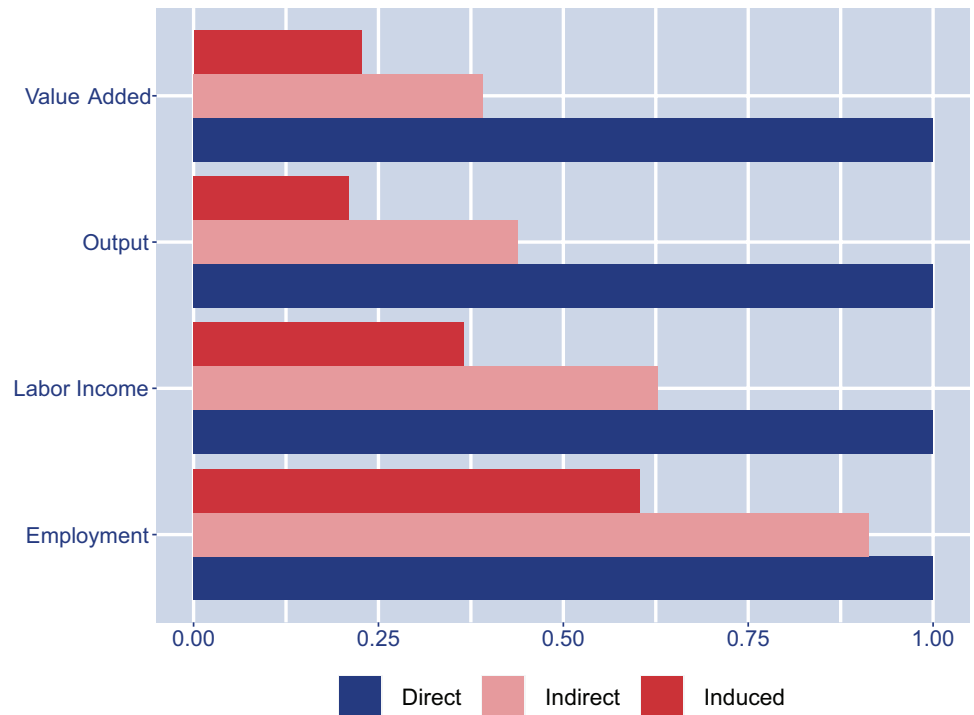**Figure 20: Multiplier Values by Economic Impacts for Regional Indicators**



Figure 20 shows the components of economic multipliers (direct, indirect, and induced effects) regarding the ACP dollars on an annualized basis. In this figure, value added refers to Gross State Product (GSP); output refers to all economic output (including intermediate inputs); labor income refers to the total change of income due to the ACP for employees and employers alike in the researched area; and employment refers to the total change in full-time equivalent workers. A multiplier is the ratio of total economic effect divided by direct economic effect. This tells us the degree of total economic reach when considering both supply chain effects and additional rounds of consumer spending as a percent of initial ACP expenditures (benefits). Expanding the number of households who are able to afford

**Figure 21: Tax Multipliers by Region**
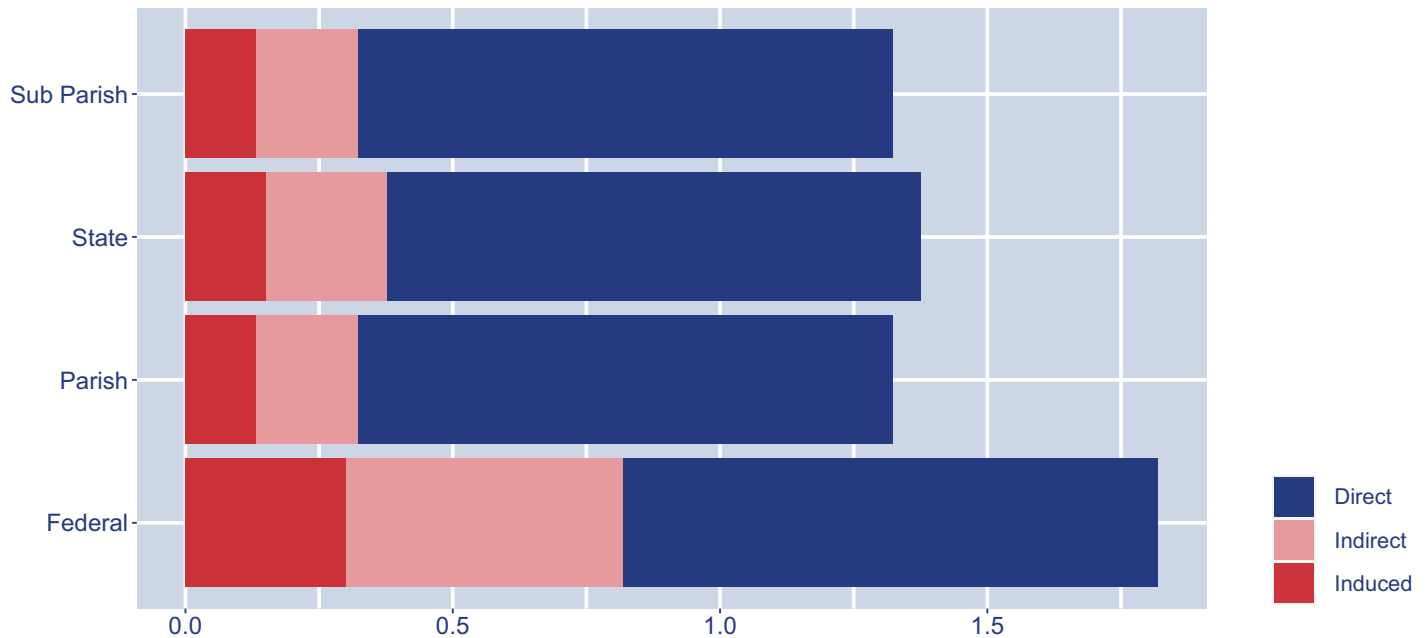


broadband services increases the amount of jobs in the broadband industry and creates a virtuous economic cycle. As demand for broadband services increases, then more employees are needed to produce those services and more employees are needed to satisfy the additional demand for other goods and services as incomes grow. Since the broadband industry tends to not have strong supply chain linkages within Louisiana, the indirect and induced effects are relatively small for this industry for indicators except employment.

Figure 21 shows the total tax multiplier values, as well as the percent of each tax multiplier that comes from direct, indirect, and induced effects, at each level of government for ACP expenditures. While Figure 20 summarizes each economic effect across indicators, Figure 21 shows what the economic effects generate in terms of tax revenues. These tax revenues represent a tax incentive for government to maintain the program because these revenues offset the total expenditures via economic growth. These estimates show that the ACP has the greatest tax impact at the federal tax level. Thus, the federal government expenditures for the ACP are offset by economic gains that would not otherwise

exist. The indirect impact (supply chain) is greater for state-level taxes than sub-state levels, which reflects less supply chain integration at the parish level. The induced impact was found to be the greatest within state-level taxes as well. The increase in state taxes (predominately from sales taxes) come from an increase in additional rounds of consumer spending on goods and services outside of the broadband industry.

Overall, it was found that state, parish, and sub-parish tax revenues imply economic gains that justify ACP expenditure politically. Not only that, but the gains would also benefit rural areas in ways the federal government does not directly benefit from.

The ACP brings enough value to Louisiana's economy to justify the funds spent on running the program. Thus, the impacts of the ACP ending would be negatively felt by Louisianians. However, the economic implications are not the only factor to look at here. It is important to understand the social implications Louisiana families would face should the ACP cease to function. The implications would include loss of access to many things such as work, education, healthcare, and more.

Reference:

The White House. (2024, February). President Biden's Affordable Connectivity Program is delivering in Louisiana. https://www.whitehouse.gov/wp-content/uploads/2024/01/Louisiana-ACP-Fact-Sheet.pdf

Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2022. 2023 estimates are expected in December 2024.

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