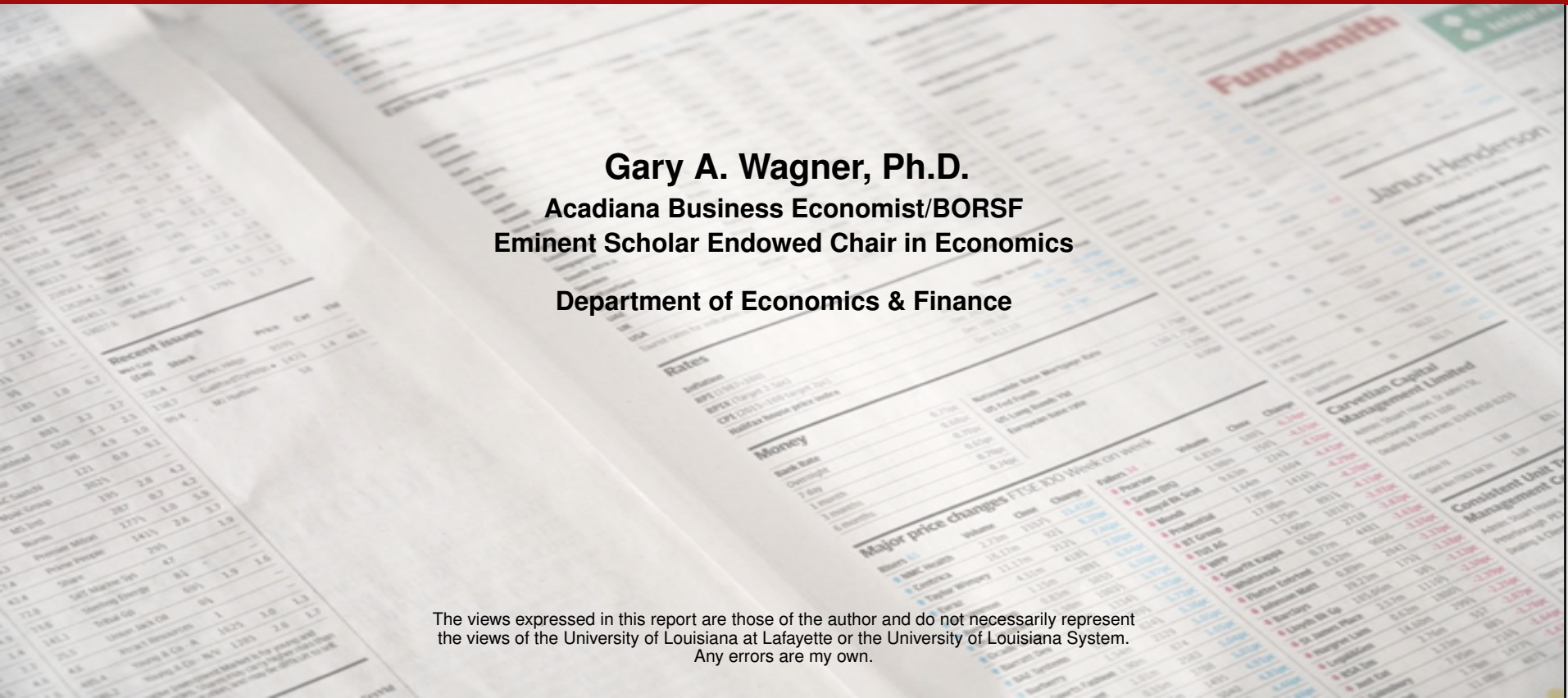
UNIVERSITY of LOUISIANA LAFAYETTE
B.I. Moody III College of Business Administration

November 24, 2024

Louisiana Economic Activity Forecast

2024:Q4



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Executive Summary

The outlook for the national economy and Louisiana has improved over the past six months. Inflation continues to moderate and year-over-year wage growth across industries and age groups has outpaced inflation each of the last 9 months. Consumers are – on average – starting to recover some of the purchasing power destroyed by rising prices. In Louisiana, employment is expected to increase by 7,800 over the next four quarters, close to the state's historical norm. Despite year-over-year job losses for four consecutive quarters in the Monroe, New Orleans, and Shreveport metro regions, some job growth is expected in every region over the next year. The unemployment rate is expected to increase modestly over the next year, while home price growth is expected to increase to an average of 2.6% per quarter.

7,800

Projected statewide employment gains over the next four quarters.

0.4%

Projected increase in the unemployment rate over the next four quarters.

2.6%

Projected average growth rate in statewide home prices over the next five quarters.

2025 Report Release Schedule:
First Quarter: No report
Second Quarter: May 23, 2025
Third Quarter: August 22, 2025
Fourth Quarter: November 21, 2025

Contents

List of Tables

List of Figures

Introduction

Both the national and state economic outlook have improved modestly over the past six months. Professional forecasters expect inflation-adjusted U.S. Gross Domestic Product (GDP) to grow at an annualized average pace of 2.0% over the next four quarters, up from 1.2% six months ago. Near-term recession risks have also fallen sharply in the past few months as inflationary pressures continue to moderate. Except for New Orleans and Monroe, the current pace of job growth is expected to continue in state metro areas. Over the next four quarters, Louisiana is projected to add 7,800 jobs, which is very close to our historical average. The unemployment rate is projected to increase slightly over the next year, and home price growth is also expected to be stable. This research brief uses the latest projections for U.S. economic activity to present Baseline, Optimistic, and Pessimistic scenarios for key Louisiana economic indicators through the third quarter of 2025.

Forecasting models make projections on the most likely path of future variables based on historical data, past trends, and the expected future path of other critical variables. Because these relationships change over time, no model is able to perfectly incorporate unexpected changes in economic conditions, policy decisions at the federal or state level, or shifts in consumer or firm behavior. This means that every model is embedded with uncertainty. For this reason, the projection scenarios provided in this report should be interpreted as providing broad guidance on the most probable path for economic activity in Louisiana **if** the underlying assumptions of the model evolve as anticipated. For example, all of the scenarios in this report depend strongly on how the growth in U.S. gross domestic product (GDP) evolves over the next 3 to 18 months. If U.S. growth turns out to be much stronger *or* much weaker than is currently envisioned, then the expected accuracy of the Louisiana projections decrease. To simplify the presentation of multiple scenarios, the figures in this report do not show the confidence intervals around the scenario point estimates. One should always bear in mind that a point estimate of (say) 1.1% for employment growth in the next quarter is the mid-point of a range of potential values.

The Louisiana Forecast Model (LFM) projects employment, unemployment rate, home prices, and gross domestic product using a Vector Autoregression (VAR) framework (see the Technical Appendix for more details). The model also takes other variables into account and assumes that their future values are given with certainty. These external variables include real U.S. gross domestic product, U.S. unemployment rate, oil prices, the state's real trade-weighted exchange rate, and the global prices of soybeans and rice.

Results from a regional employment model are also presented. The Louisiana Regional Employment Model (LREM) nests the Louisiana Forecast Model by adding statewide employment projections to the external variables in order to generate projections for each of the state's metropolitan statistical areas (MSAs). Employment in these nine metro areas account for approximately 90% of non-agricultural jobs in the state.

Alternative Economic Scenarios

Three alternative scenarios are considered in this report: Baseline, Optimistic, and Pessimistic. The scenarios differ only in how they treat the future values of selected variables external to the Louisiana Forecast Model, namely U.S. gross domestic product, U.S. unemployment rate, and oil prices. The projected future values of other external variables to the model - Louisiana's trade-weighted exchange rate and the prices of soybeans and rice - are identical across scenarios so they are omitted from the table below.

Table 1 shows the future expected values for U.S. GDP, unemployment rate, and oil prices under each scenario. 2024:Q3 values for the Baseline, Optimistic, and Pessimistic scenarios are identical because this quarter has already occurred. This row is shaded gray. Values for 2024:Q4 to 2025:Q3 have yet to be realized.

Table 1: Assumed Future Values of External Variables

	U.S. GDP (% SAAR)			U.S. Unemployment Rate (%)			Oil Prices ($ per barrel)		
Quarter	Baseline	Optimistic	Pessimistic	Baseline	Optimistic	Pessimistic	Baseline	Optimistic	Pessimistic
2024:Q3	2.80	2.80	2.80	4.20	4.20	4.20	76.43	76.43	76.43
2024:Q4	2.17	2.32	1.89	4.20	4.13	4.22	72.32	62.41	82.47
2025:Q1	1.93	2.25	1.78	4.21	4.20	4.30	73.67	61.04	86.58
2025:Q2	1.76	2.24	1.80	4.27	4.16	4.40	73.17	56.90	93.04
2025:Q3	2.22	2.28	1.90	4.25	4.20	4.40	71.17	53.82	96.56

The Baseline scenario in Table 1 shows the most likely path for U.S. GDP, unemployment rate, and oil prices based on the most current information. The expected future path for U.S. GDP and the U.S. unemployment rate are the median projections from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters outlook released on November 15, 2024. The Baseline expected path of oil prices is from the U.S. Energy Information Administration's Short-Term Economic Outlook released on November 13, 2024.

The Federal Reserve's target inflation rate is 2%. The personal consumption expenditures (PCE) price index, which is the key inflation metric tracked by the Federal Reserve, increased at a pace of 2.1% in Q3. This is the lowest reading since 2021:Q1. Shorter-term measures, such as the 3-month, and 1-month annualized PCE inflation rates, have both been at, or below, the 2% target since June 2024. This is some of the

strongest evidence to date that inflation may be returning to “normal” levels. More importantly, inflation-adjusted wages across all industries and age groups have outpaced inflation for each the past 9 months, indicating that – on average – consumers are starting to recapture some of the purchasing power that was lost over the past few years because of inflation.

Although labor market conditions have eased over the past 18 months, the U.S. economy has averaged over 158,000 net new jobs per month in 2024, very close to our historical norms. Job openings have slowed to 7.4 million, down from a peak of 12.1 million in March 2022. However, current openings (7.4 million) remain above the 12-month average preceeding the COVID-19 pandemic (7 million).

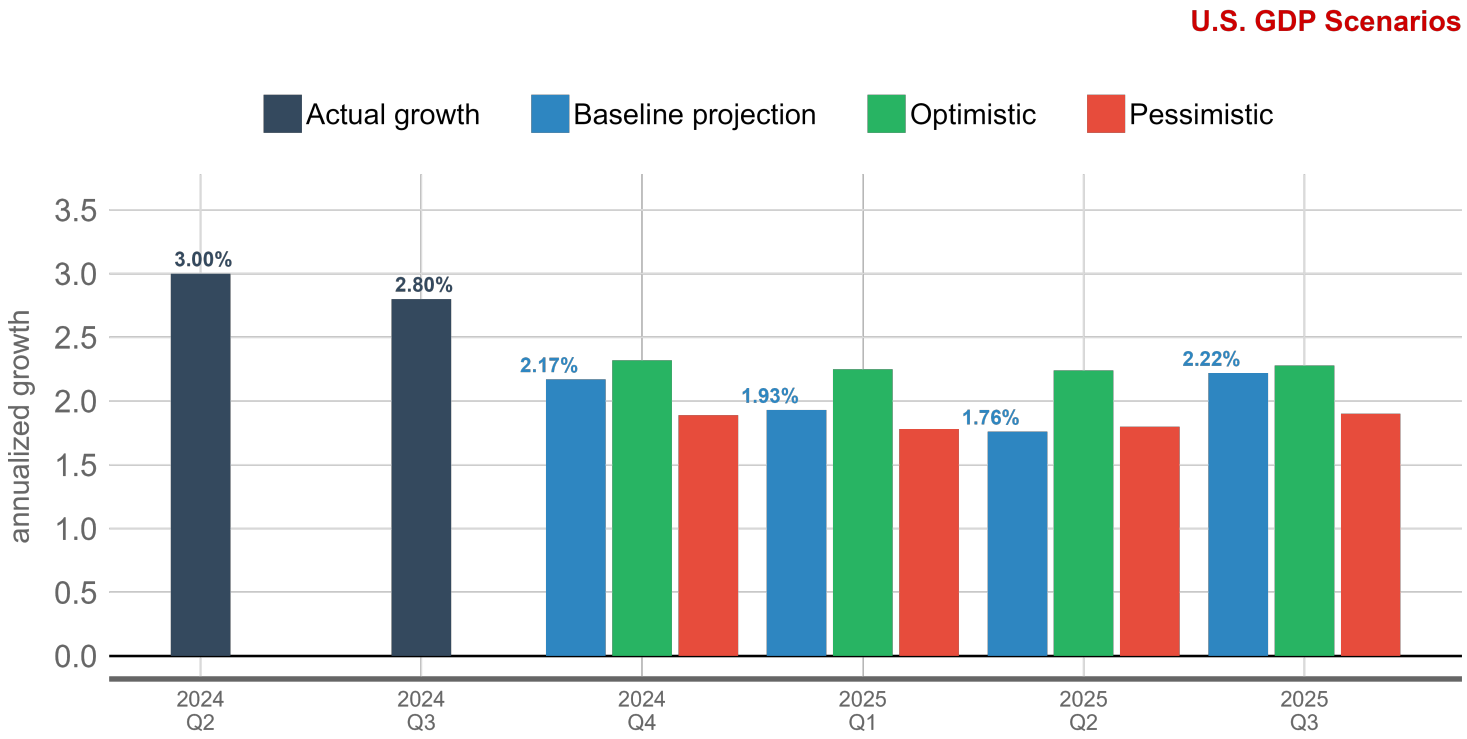
With inflation subsiding, professional forecasters have sharply downgraded the probability of a national recession within the next four quarters. For instance, the probability of recession in 2025:Q1 has fallen over the past three months from 27.3% to 15.0% (see Figure 8).

Inflation-adjusted GDP expanded at annualized rates of 3.0% and 2.8%, respectively, over the past two quarters. This marks the 8th consecutive quarter that (inflation-adjusted) has outpaced projections from professional forecasters, signaling the underlying strength of the U.S. economy. Consumer spending remains solid, and business spending, particularly on structures, has rebounded in the past 6 months. Early projections for Q4 from the Federal Reserve Bank of Atlanta’s GDPNow also points to continued expansion.

The Optimistic and Pessimistic scenarios, which I would assign a 35% and 15% probability respectively, vary the severity and recovery time for oil prices, unemployment, and U.S. GDP growth. The Optimistic scenario assumes that U.S. GDP growth will be higher than the Baseline projection, while the Pessimistic scenario assumes that GDP growth will be slower than projected. Consistent with last quarter’s report, I would assign a 50% probability to the Baseline forecast.

The Baseline scenario projects U.S. GDP to grow at an annual pace of 2.0% over the next four quarters. This is essentially the average expansion growth rate in the U.S. post-2008 financial crisis. Figure 1 on the next page shows U.S. GDP under the three scenarios considered. For the third quarter in a row, all three scenarios have the U.S. economy avoiding a recession any time in the next year.

Figure 1: U.S. Economic Growth Scenarios



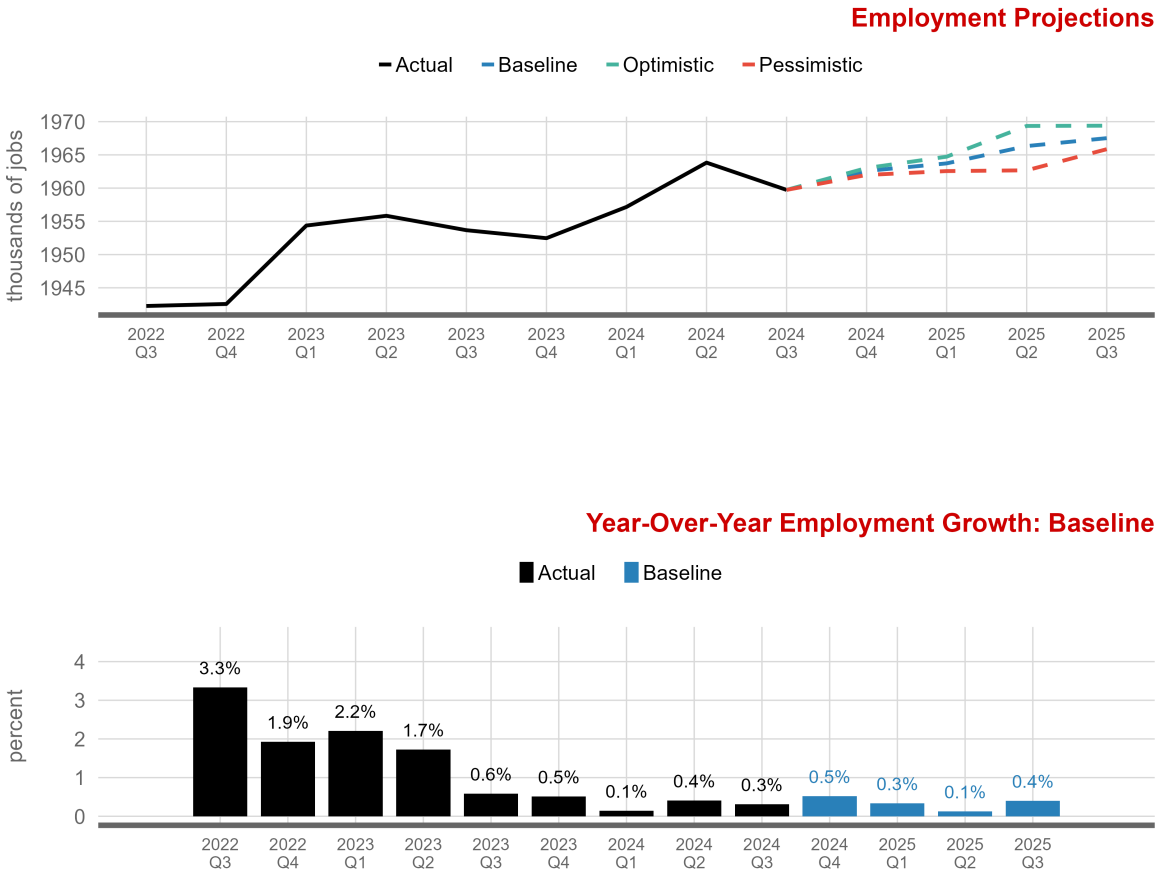
Louisiana Employment Projections

With an upward revision in national economic conditions, job growth in Louisiana has also improved since the last report. The baseline projection points to statewide gains of 7,800 over the next four quarters, which is close to the state's historical norm.

Year-over-year job growth has now fallen for four consecutive quarters in the Monroe, New Orleans, and Shreveport metro areas. Job growth is expected to be strongest in Baton Rouge and Houma-Thibodaux over the next four quarters. Job growth is also expected to rebound, albeit slowly, in Monroe, New Orleans, and Shreveport by mid-2025.

The employment forecast error from the previous report was 0.12%. See Table 2 for forecast errors from the previous report.

Figure 2: Louisiana Employment Projections

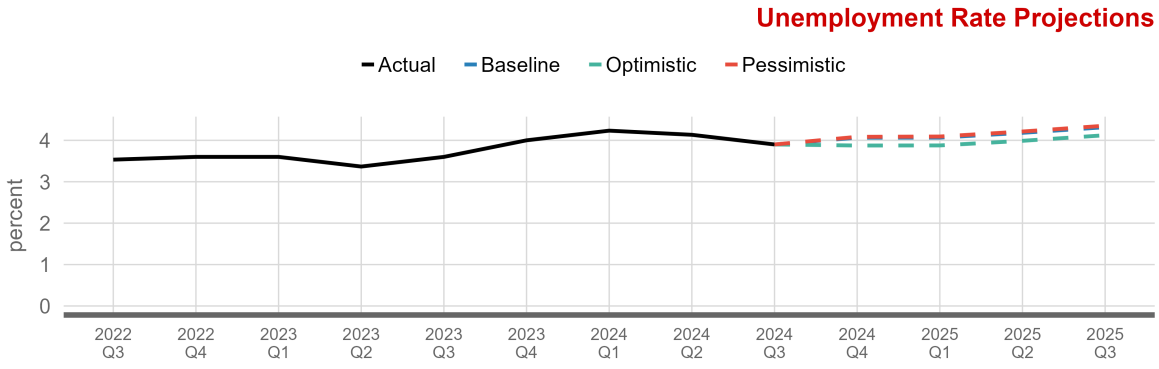


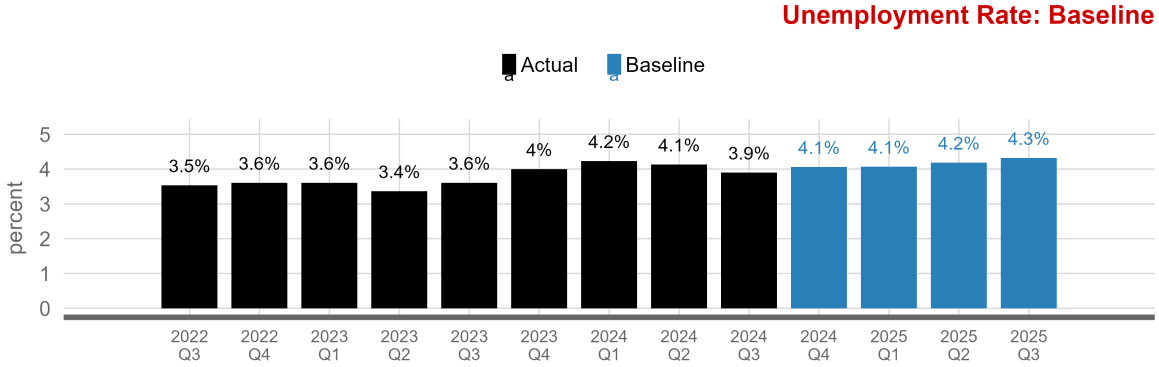
Louisiana Unemployment Rate Projections

Figure 3: Louisiana Unemployment Rate Projections

Louisiana's unemployment rate averaged 3.9% in the third quarter, falling more than projected. Over the next year, the state's unemployment is projected to essentially remain flat, increasing by 0.4% or less.

The unemployment rate forecast error from the previous report was 12.8%. See Table 2 for forecast errors from the previous report.



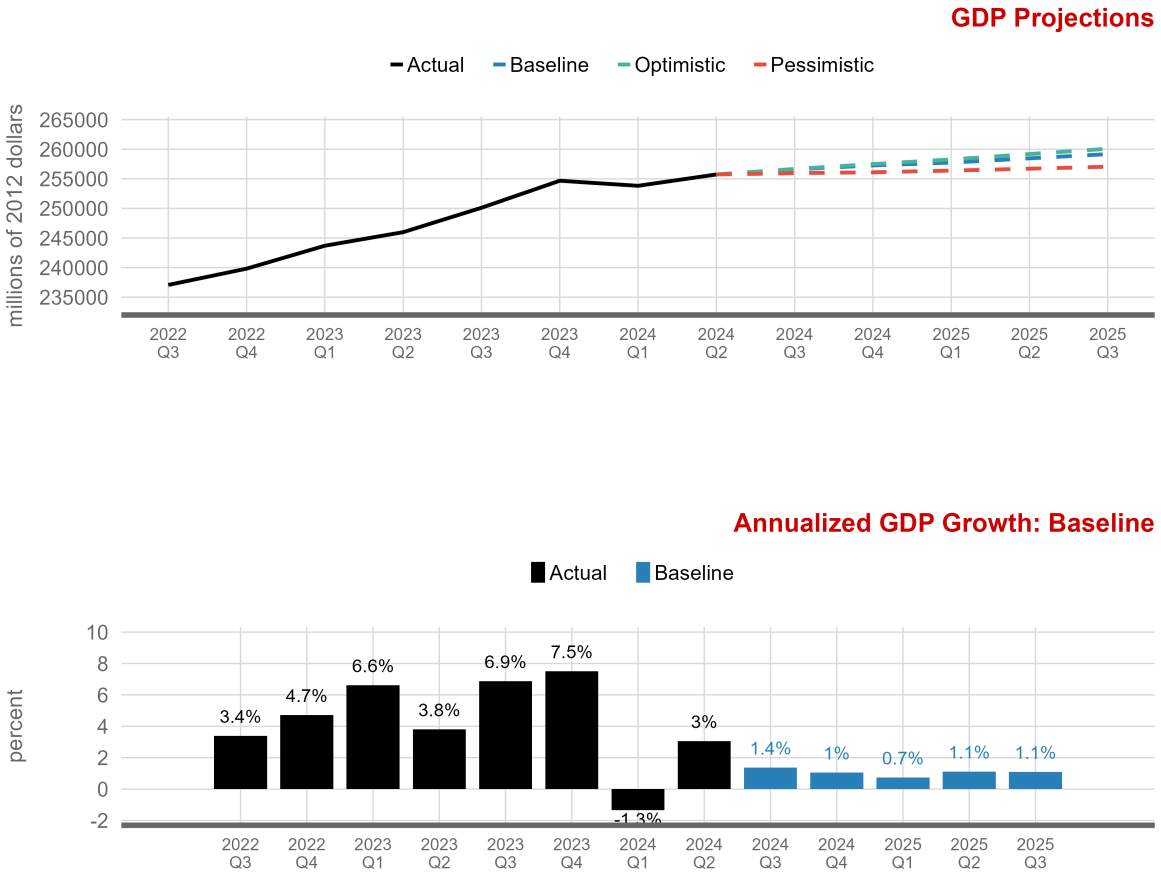


Louisiana GDP Projections

After declining 1.3% in Q1, inflation-adjusted GDP for Louisiana rebounded strongly in Q2, coming in at just over 3%. The Baseline projection points to average annual growth of 1.2%, largely consistent with last quarter's report.

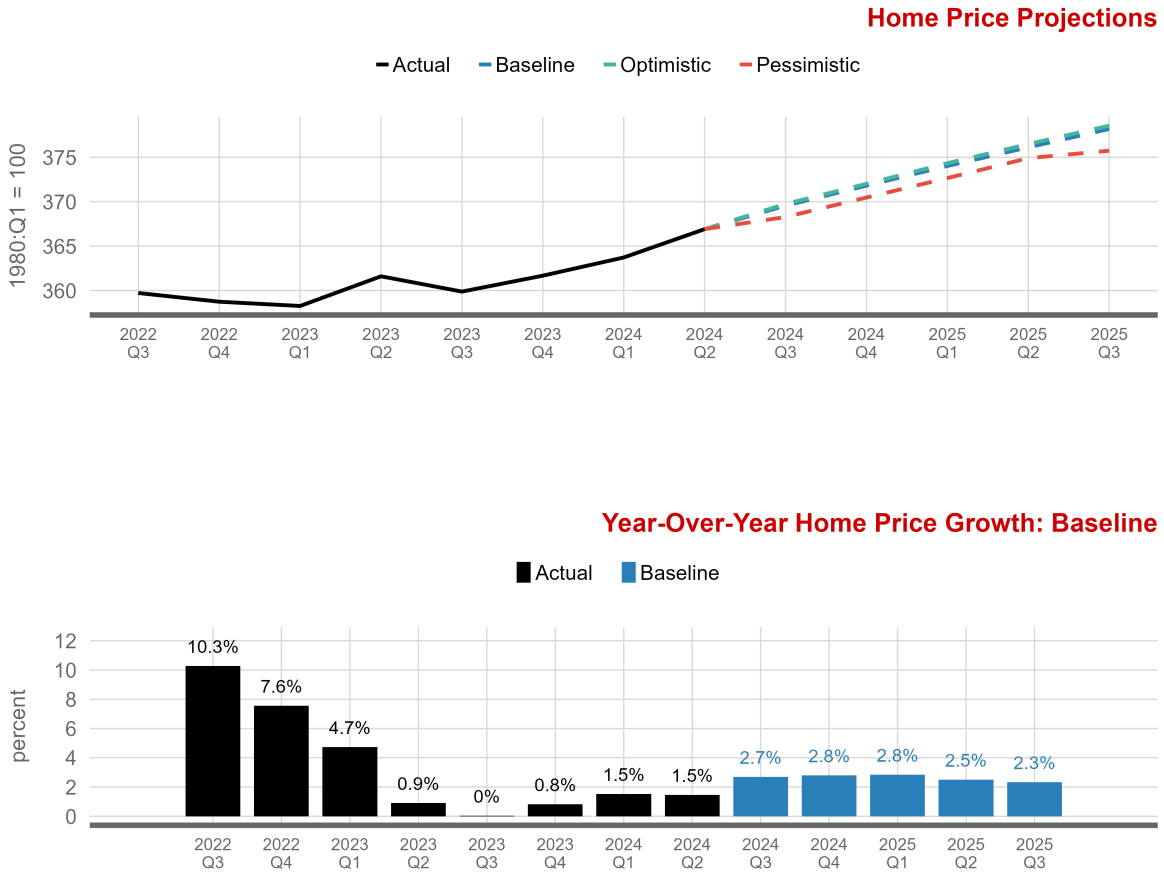
The GDP forecast error from the previous report was 4.56%. See Table 2 for forecast errors from the previous report.

Figure 4: Louisiana GDP Projections



Louisiana Home Price Projections

Figure 5: Louisiana Home Price Projections



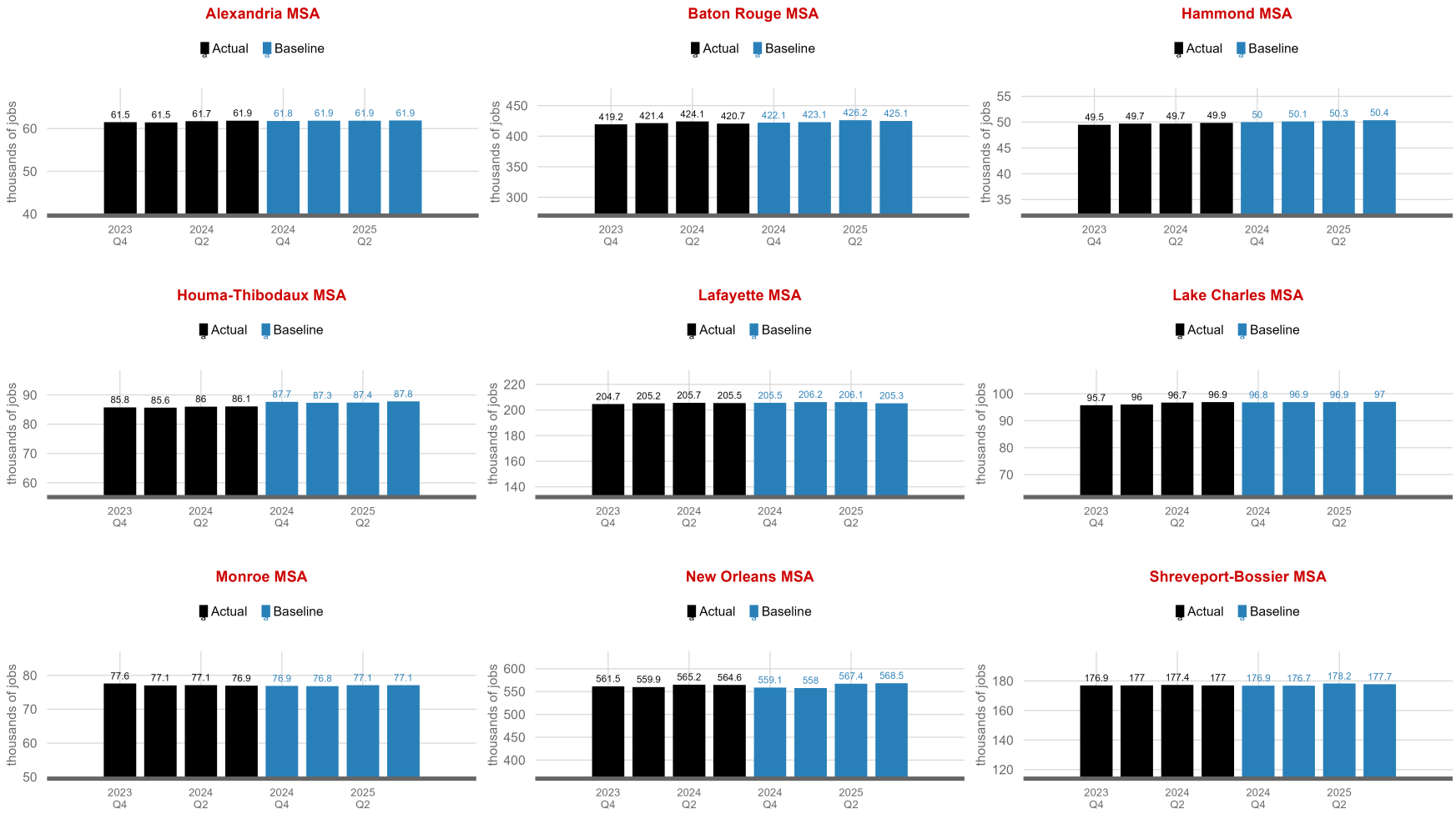
Year-over-year home price growth has rebounded nicely from its quarterly low of 0.04% in 2023:Q3. Price growth has averaged 1.5% over the past two quarters and is expected to expand at an average rate of 2.6% over the next five quarters. This is a slight upgrade from the previous report.

Additional housing charts are provided for each metro region to track individual market corrections.

The previous LEAF report's forecast error for home prices was 0.46%. See Table 2 for forecast errors from the previous report.

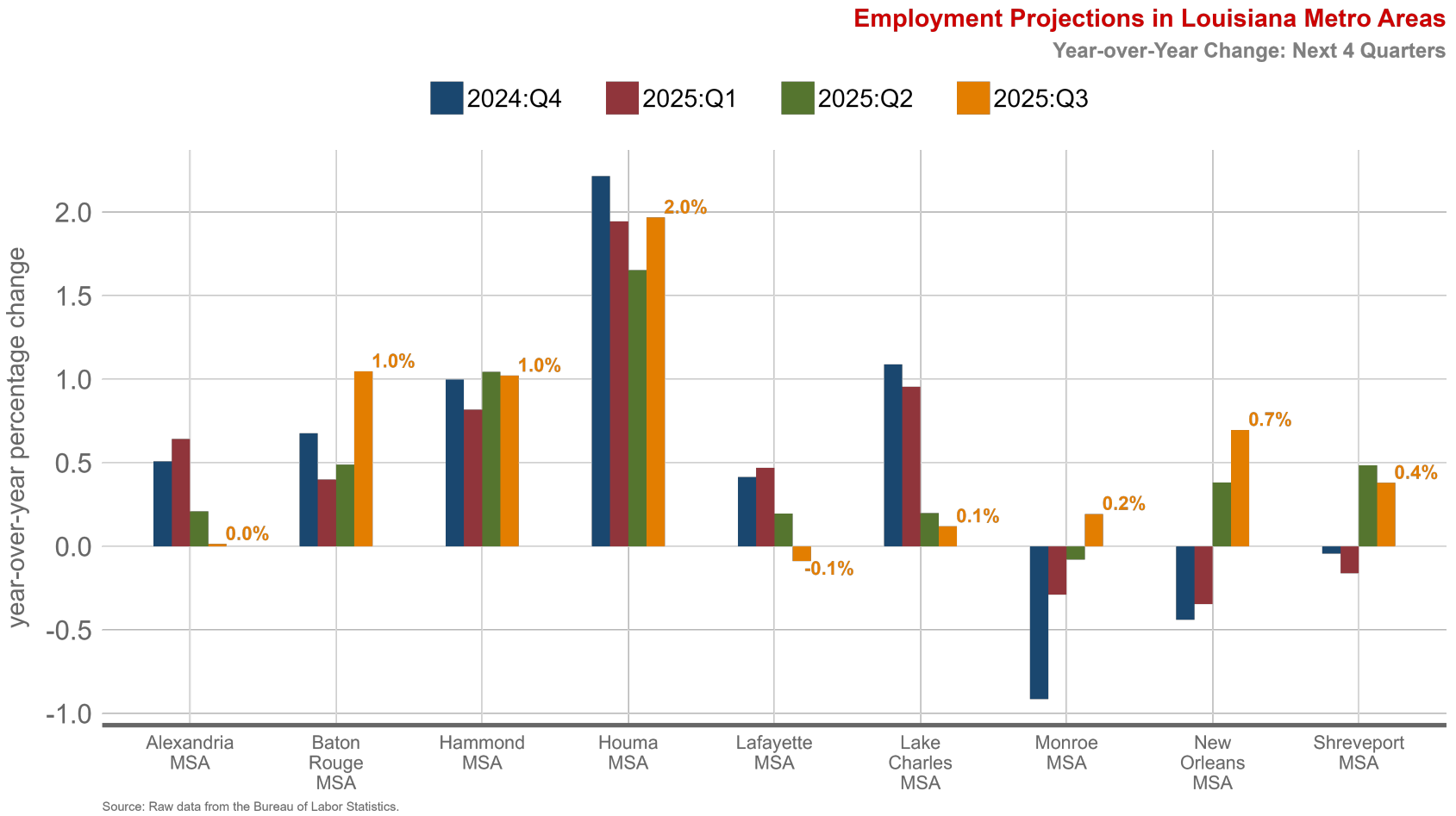
Metro Area Employment Projections

Figure 6: Metro Employment Projections



Year-Over-Year Metro Area Employment Projection Comparisons

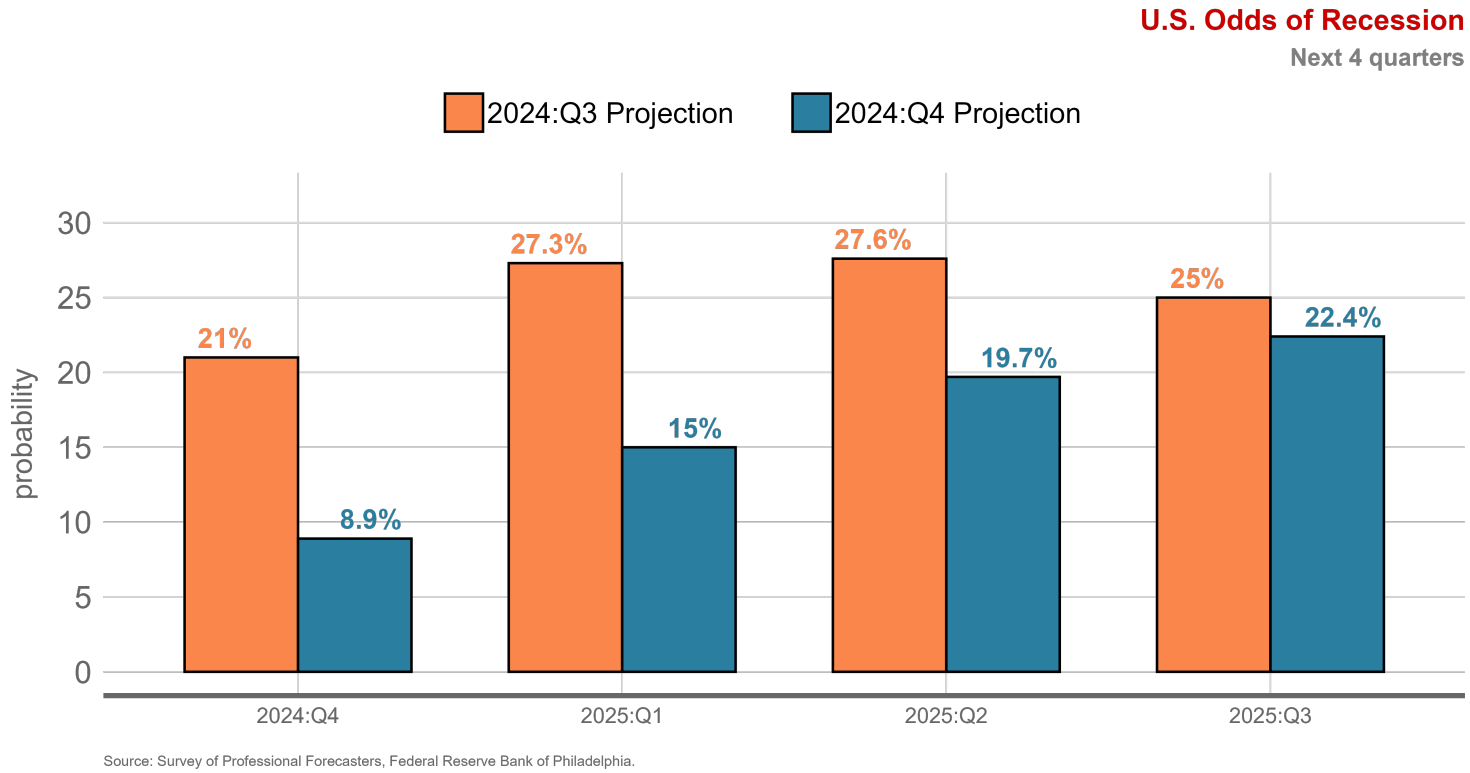
Figure 7: Metro Employment Projection Comparisons



Source: Raw data from the Bureau of Labor Statistics.

Recession Probabilities Over the Next Year

Figure 8: Recent Recession Probabilities



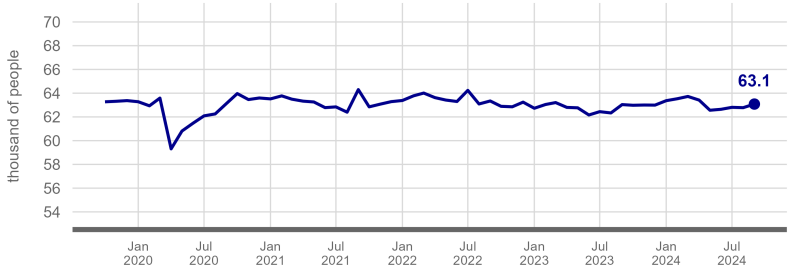
Source: Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia.

Alexandria MSA: Additional Charts

Figure 9: Alexandria Metro Area: Additional Charts

Alexandria MSA Labor Force (Seasonally Adjusted)

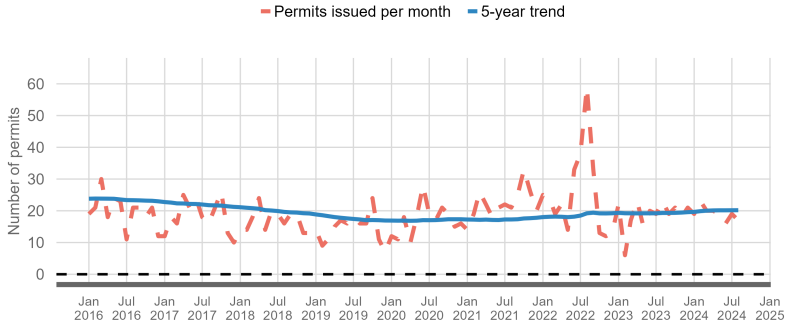
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Alexandria MSA: Single-Family Building Permits Issued

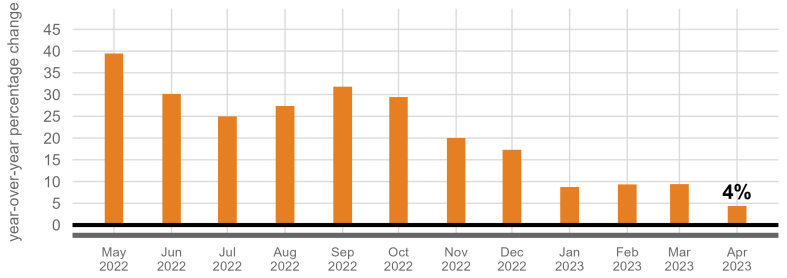
Jan 2016 to Aug 2024



Source: Census Bureau.

Alexandria MSA: Median Residential Home List Price

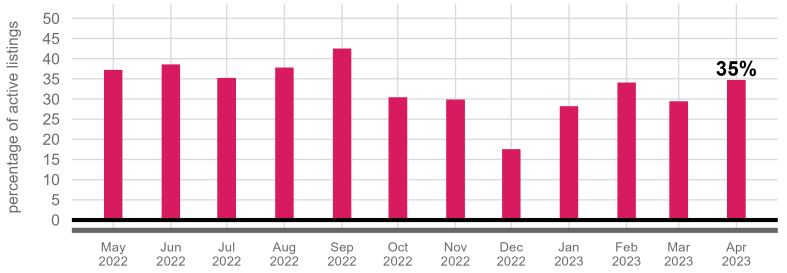
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Alexandria MSA: Share of Active Residential Listings Lowering Price

Past 12 months



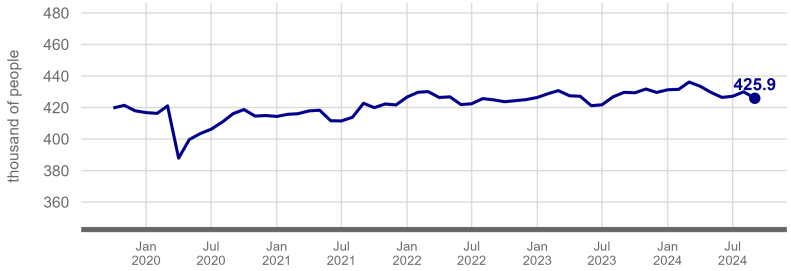
Source: Realtor.com.

Baton Rouge MSA: Additional Charts

Figure 10: Baton Rouge Metro Area: Additional Charts

Baton Rouge MSA Labor Force (Seasonally Adjusted)

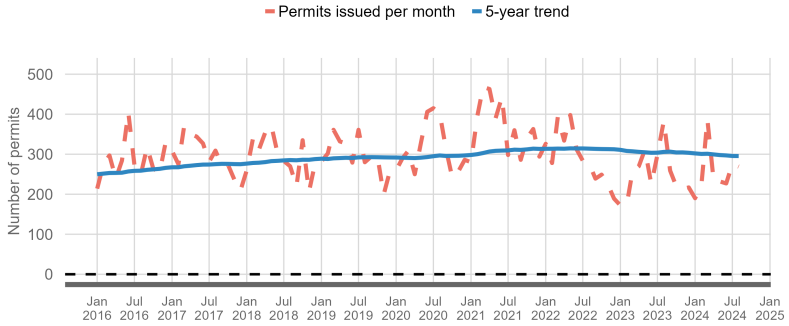
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Baton Rouge MSA: Single-Family Building Permits Issued

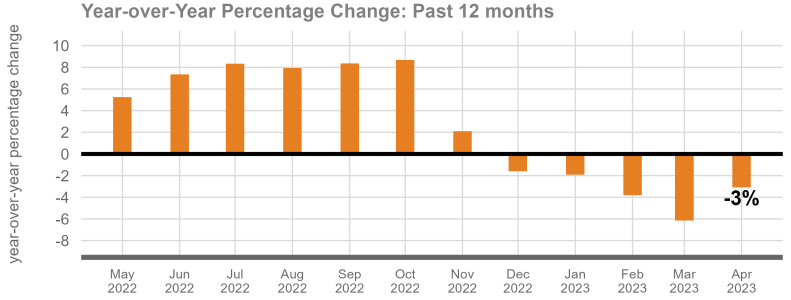
Jan 2016 to Aug 2024



Source: Census Bureau.

Baton Rouge MSA: Median Residential Home List Price

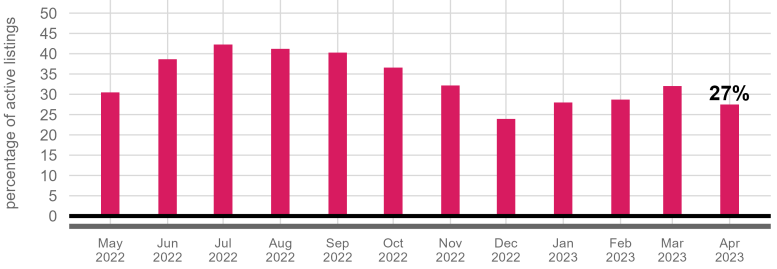
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Baton Rouge MSA: Share of Active Residential Listings Lowering Price

Past 12 months



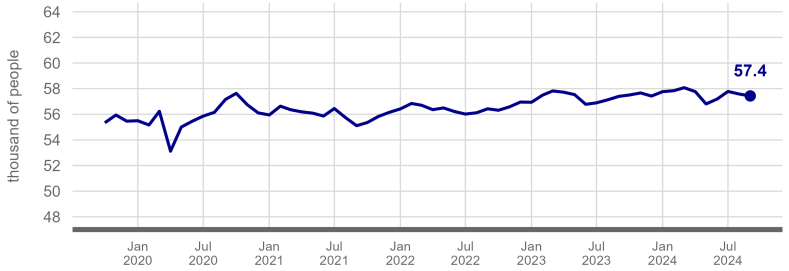
Source: Realtor.com.

Hammond MSA: Additional Charts

Figure 11: Hammond Metro Area: Additional Charts

Hammond MSA Labor Force (Seasonally Adjusted)

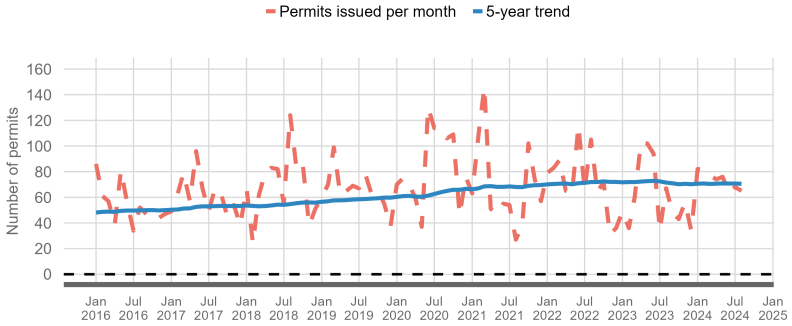
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Hammond MSA: Single-Family Building Permits Issued

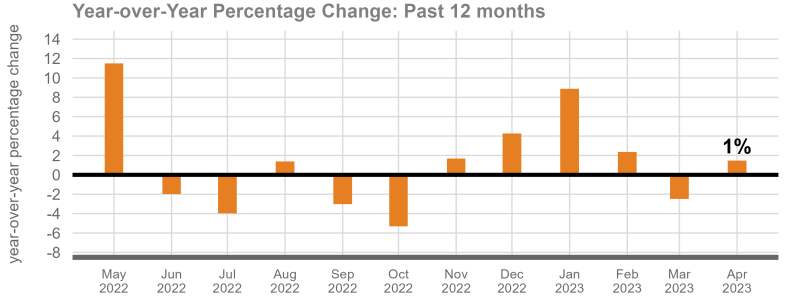
Jan 2016 to Aug 2024



Source: Census Bureau.

Hammond MSA: Median Residential Home List Price

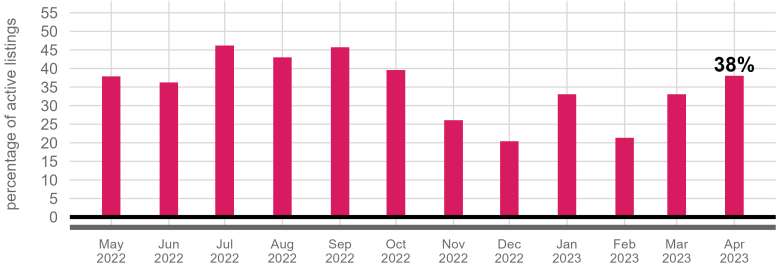
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Hammond MSA: Share of Active Residential Listings Lowering Price

Past 12 months



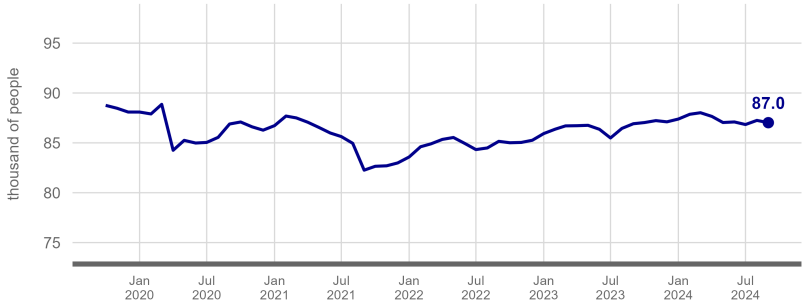
Source: Realtor.com.

Houma-Thibodaux MSA: Additional Charts

Figure 12: Houma-Thibodaux Metro Area: Additional Charts

Houma-Thibodaux MSA Labor Force (Seasonally Adjusted)

Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Houma-Thibodaux MSA: Single-Family Building Permits Issued

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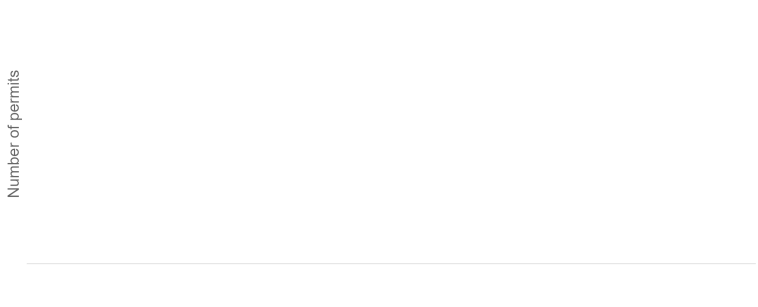
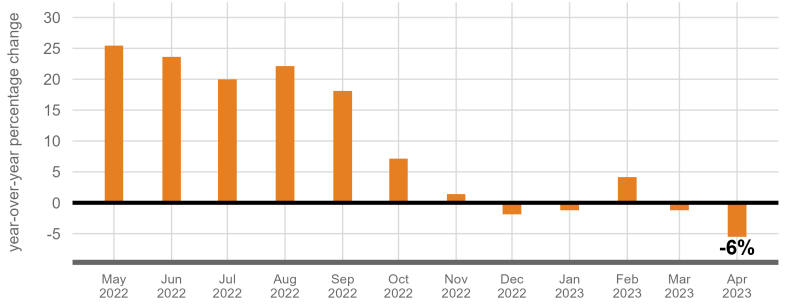


Source: Census Bureau.

Houma-Thibodaux MSA: Median Residential Home List Price

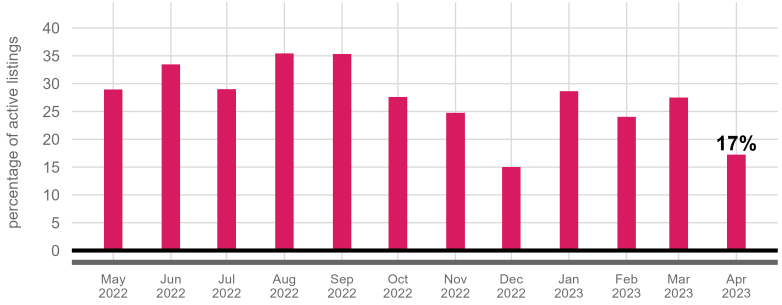
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Houma-Thibodaux MSA: Share of Active Residential Listings Lowering Price

Past 12 months



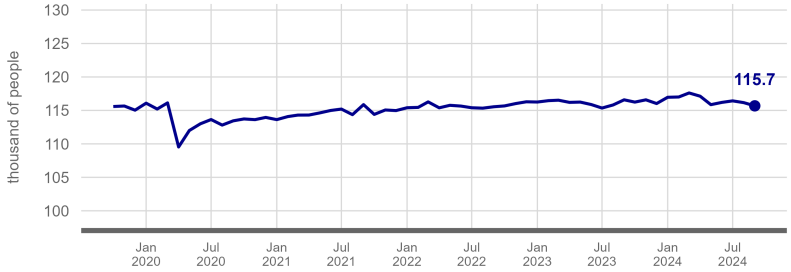
Source: Realtor.com.

Lafayette MSA: Additional Charts

Figure 13: Lafayette Metro Area: Additional Charts

Lafayette MSA Labor Force (Seasonally Adjusted)

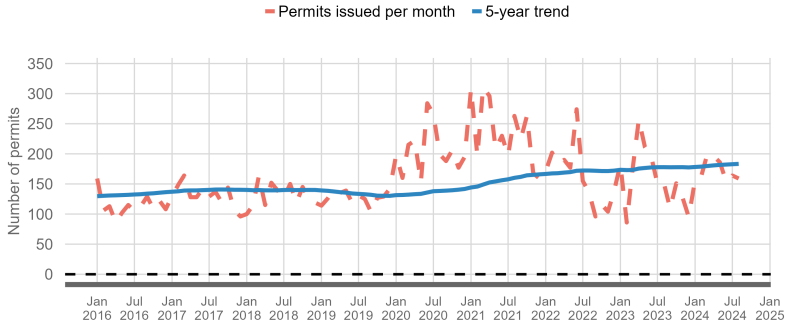
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Lafayette MSA: Single-Family Building Permits Issued

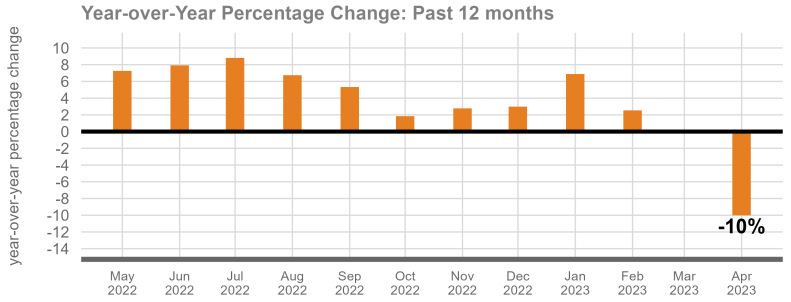
Jan 2016 to Aug 2024



Source: Census Bureau.

Lafayette MSA: Median Residential Home List Price

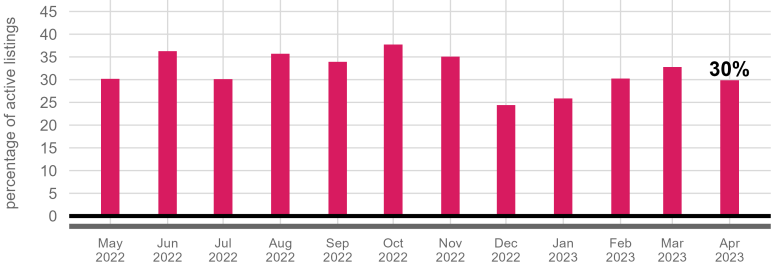
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Lafayette MSA: Share of Active Residential Listings Lowering Price

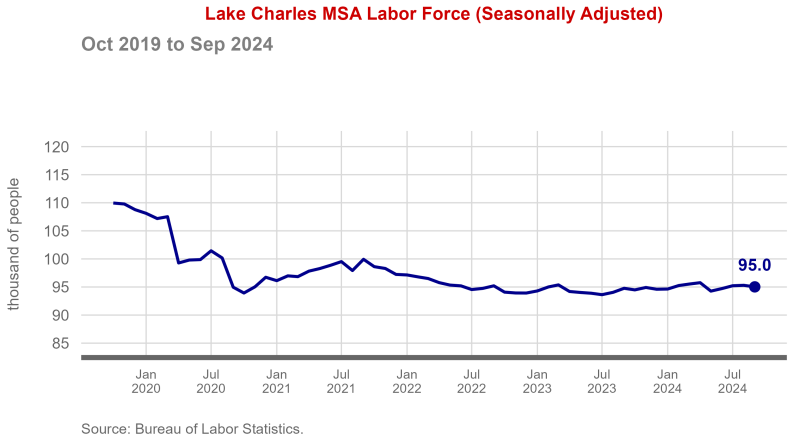
Past 12 months

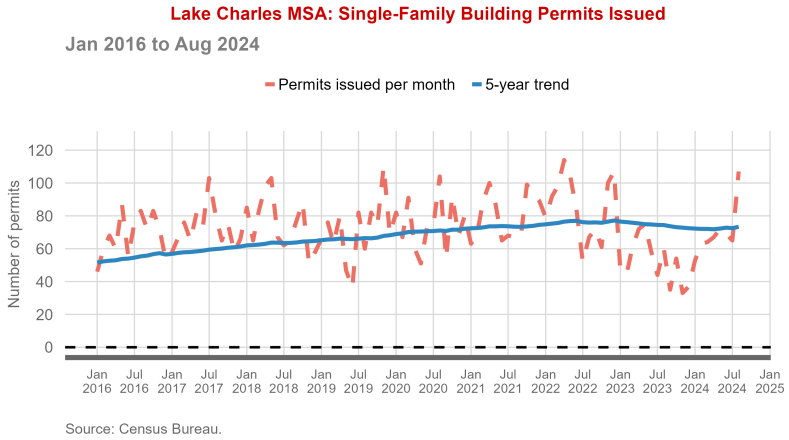


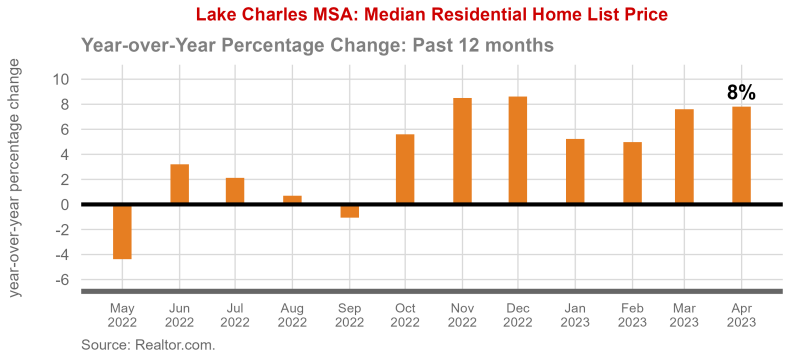
Source: Realtor.com.

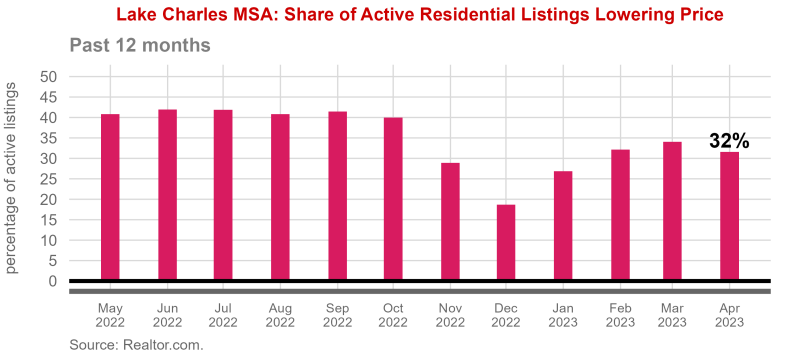
Lake Charles MSA: Additional Charts

Figure 14: Lake Charles Metro Area: Additional Charts



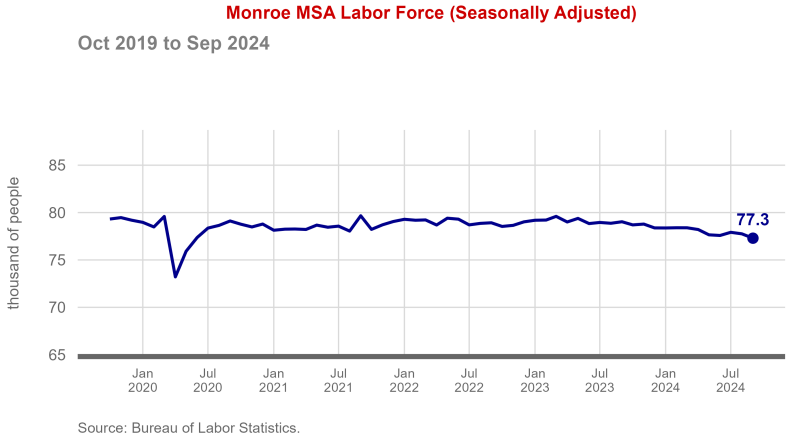


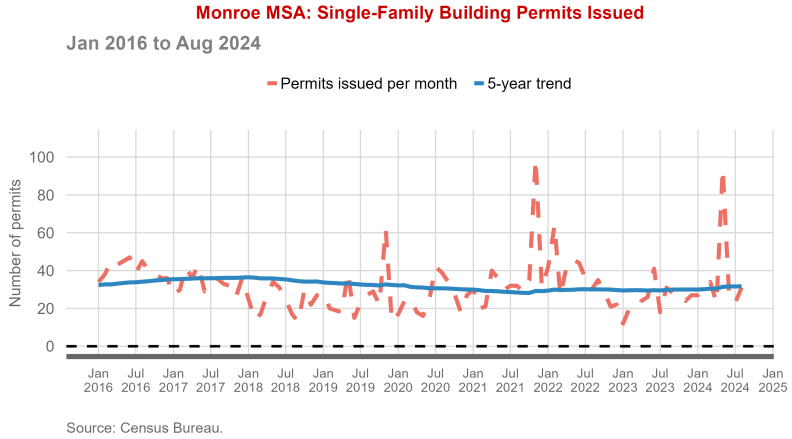


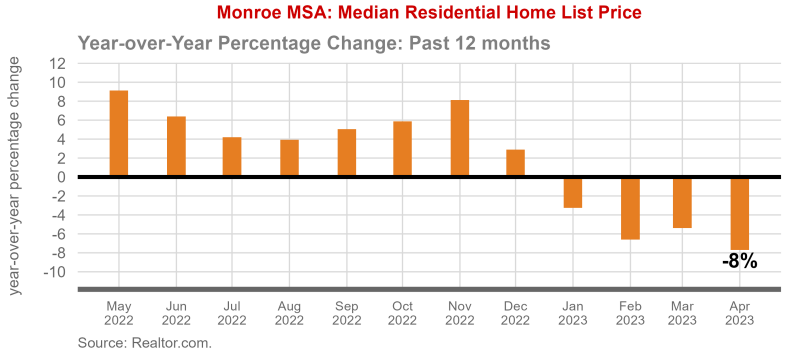


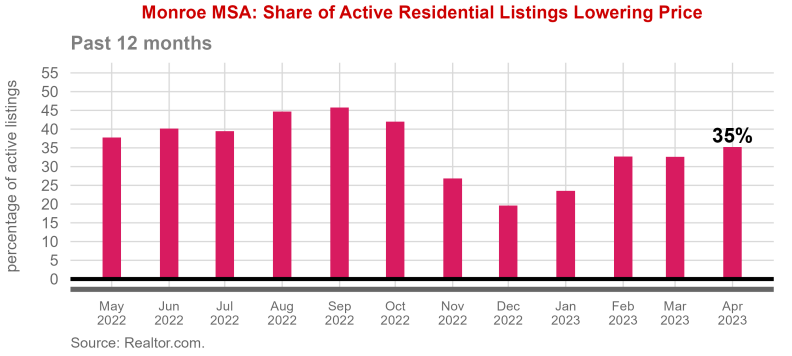
Monroe MSA: Additional Charts

Figure 15: Monroe Metro Area: Additional Charts







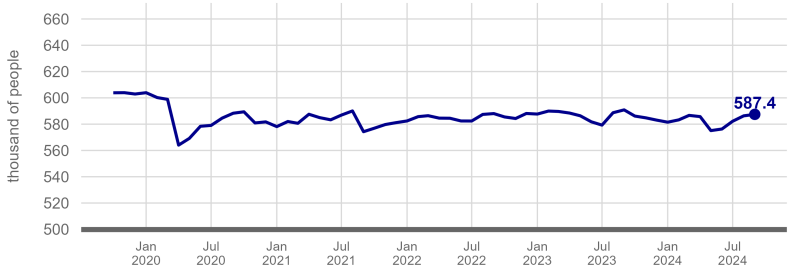


New Orleans MSA: Additional Charts

Figure 16: New Orleans Metro Area: Additional Charts

New Orleans MSA Labor Force (Seasonally Adjusted)

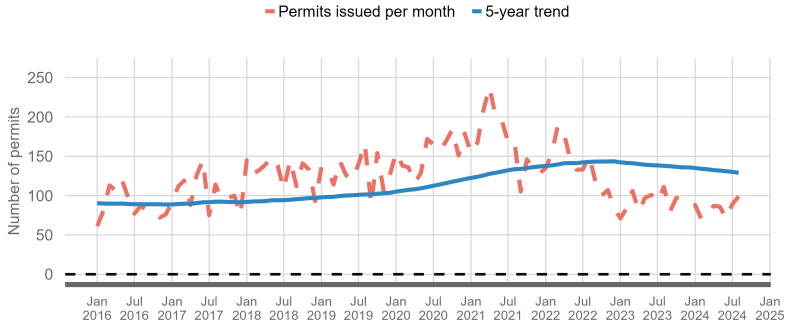
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

New Orleans MSA: Single-Family Building Permits Issued

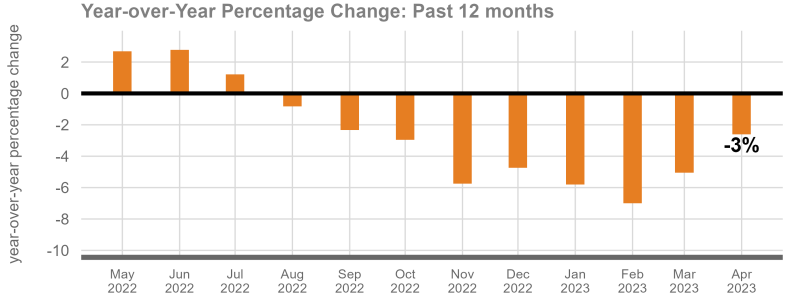
Jan 2016 to Aug 2024



Source: Census Bureau.

New Orleans MSA: Median Residential Home List Price

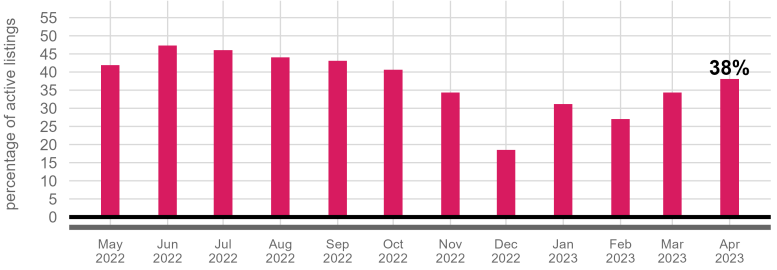
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

New Orleans MSA: Share of Active Residential Listings Lowering Price

Past 12 months



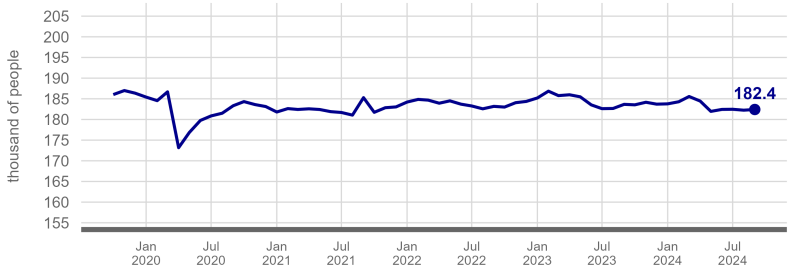
Source: Realtor.com.

Shreveport-Bossier MSA: Additional Charts

Figure 17: Shreveport-Bossier Metro Area: Additional Charts

Shreveport-Bossier MSA Labor Force (Seasonally Adjusted)

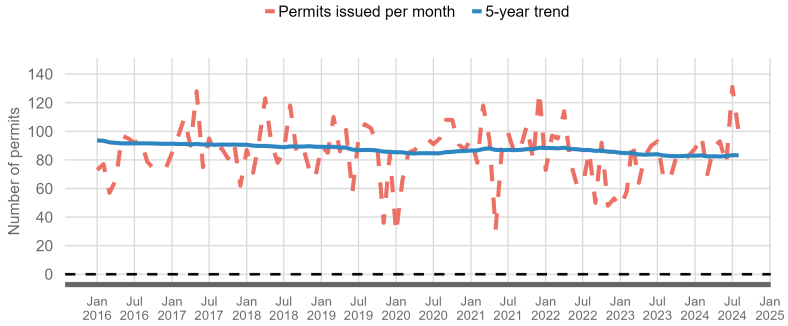
Oct 2019 to Sep 2024



Source: Bureau of Labor Statistics.

Shreveport-Bossier MSA: Single-Family Building Permits Issued

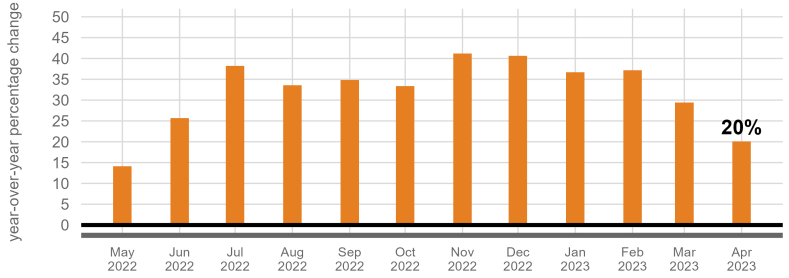
Jan 2016 to Aug 2024



Source: Census Bureau.

Shreveport-Bossier MSA: Median Residential Home List Price

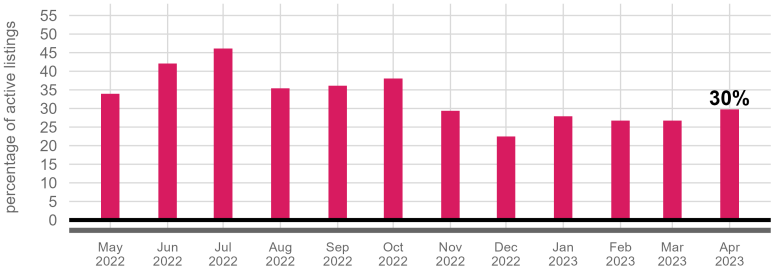
Year-over-Year Percentage Change: Past 12 months



Source: Realtor.com.

Shreveport-Bossier MSA: Share of Active Residential Listings Lowering Price

Past 12 months



Source: Realtor.com.

Projection Errors from Previous Louisiana Economic Activity Forecast

Table 2: One-Quarter Ahead Projection Errors: 2024:Q2 Projections for 2024:Q3

Variable	Baseline Projection	Actual Value	Absolute % Error
employment (statewide)	1957.40	1959.70	0.12
unemployment rate	4.40	3.90	12.82
GDP	244061.10	255731.10	4.56
FHFA home price index	368.60	366.90	0.46
Alexandria MSA employment	61.50	61.90	0.65
Baton Rouge MSA employment	423.80	420.70	0.74
Hammond MSA employment	49.50	49.90	0.80
Houma-Thibodaux MSA employment	85.50	86.10	0.70
Lafayette MSA employment	205.90	205.50	0.19
Lake Charles MSA employment	96.40	96.90	0.52
Monroe MSA employment	78.00	76.90	1.43
New Orleans MSA employment	566.30	564.60	0.30
Shreveport-Bossier MSA employment	177.20	177.00	0.11

Technical Appendix

The Louisiana Forecast Model (LFM) is based on a Vector Autoregression (VAR) system of equations. VAR models can be used to generate forecasts of the future values of multiple variables simultaneously (called endogenous variables) based on the past behavior of these variables and on the behavior of other variables whose values are taken as given (called exogenous variables). Endogenous variables (or the variables ones wishes to forecast) in the LFM include gross domestic product (or total production), non-farm payroll employment, unemployment rate, home prices, and state tax collections. Exogenous variables in the current version of the LFM include U.S. gross domestic product, U.S. unemployment rate, oil prices, the state's real trade-weighted exchange rate, and the global prices of soybeans and rice. Hence, the forecast or projection of each endogenous variable is based on the historical relationship with its own past values, the past values of every other endogenous variable, and the values of every exogenous variable. The Louisiana Regional Employment Model (LREM) is a nested Vector Autoregression (VAR) of total payroll employment in the state's nine MSAs. In addition to the exogenous variables used in the LFM, the Louisiana Regional Employment Model incorporates statewide employment projections and statewide GDP projections as additional external variables.

The VAR methodology is a widely-accepted approach for generating economic and business forecasts. Academic studies have repeatedly shown that small-scale VAR models perform well in terms of prediction errors relative to alternative forecasting models. VAR systems also model the underlying dynamics of economic relationships in the system without imposing behavioral assumptions about the relationships between the variables or how they evolve over time.

The model is estimated using quarterly data beginning in 1994:Q1. Quarterly average values are used for data series that are available at a weekly or monthly frequency. All variables enter the model in log difference form. Real quarterly Louisiana gross domestic product, which the Bureau of Economic Analysis did not begin reporting until 2005, is backcasted using the estimated relationship between the observable data on state GDP and real U.S. quarterly gross domestic product and real quarterly state personal income.

Future values of the exogenous variables are required to make projections for the endogenous variables. The future growth rate in real U.S. GDP and the future level of the U.S. unemployment rate are the median median projections from the Survey of Professional Forecasters. Future projections for oil prices are from the U.S. Energy Information Administration. Future trade-weighted exchange rates and the prices of soybeans and rice were estimated using an Akaike Information Criterion (AIC) weighted average of univariate autoregressive moving-average (ARMA) models that range from (0,0) to (4,4). The data appendices provide complete documentation for all underlying source data used in the model.

Data Appendix: Endogenous Variables

- **Employment (statewide)**
  Total seasonally adjusted non-farm payroll employment. Source: Bureau of Labor Statistics via the Federal Reserve Bank of St. Louis FRED database (mnemonic = LANA). Units: thousands of individuals.

- **Unemployment rate**
  Seasonally adjusted unemployment rate. Source: Bureau of Labor Statistics via the Federal Reserve Bank of St. Louis FRED database (mnemonic = LAUR). Units: percent.

- **Home prices**
  All-transactions home price index. Source: U.S. Federal Housing Finance Agency via the Federal Reserve Bank of St. Louis FRED database (mnemonic = LASTHPI). Units: 1980:Q1 = 100. Seasonally adjusted prior to estimation.

- **GDP**
  Total Real Gross Domestic Product for Louisiana (seasonally adjusted annual rate). Source: U.S. Bureau of Economic Analysis via the Federal Reserve Bank of St. Louis FRED database (mnemonic = LARQGSP). Units: Millions of chained 2012 dollars. Pre-2005 figures were backcasted following the approach described in the Technical Appendix.

- **Employment (metro area)**
  Total seasonally adjusted non-farm payroll employment. Source: Bureau of Labor Statistics via the Federal Reserve Bank of St. Louis FRED database. Units: thousands of individuals. Alexandria (ALEX722NA), Baton Rouge (BATO922NA), Hammond (SMU22252200000000001SA), Houma (HOUM322NA), Lafayette (LAFA122NA), Lake Charles (LAKE322NA), Monroe (MONR722NA), New Orleans (NEWO322NA), and Shreveport (SHRE322NA).

Data Appendix: Exogenous Variables

- **U.S. GDP**
  Total Real Gross Domestic Product for the U.S. (seasonally adjusted annual rate). Source: U.S. Bureau of Economic Analysis via the Federal Reserve Bank of St. Louis FRED database (mnemonic = GDPC1). Units: Millions of chained 2012 dollars. Future values are from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.

- **Oil prices**
  West Texas intermediate crude oil price. Source: U.S. Energy Information Administration via the Federal Reserve Bank of St. Louis FRED database (mnemonic = DCOILWTICO). Units: dollars per barrel. Future values are from the U.S. Energy Information Administration Short-Term Energy Outlook. Seasonally adjusted prior to estimation.

- **Trade-weighted exchange rate**
  Real trade-weighted exchange rate for Louisiana's major trading partners relative to the U.S. dollar. Source: Federal Reserve Bank of Dallas. Units: January 1988 = 100.

- **Price of rice**
  Global price of rice. Source: International Monetary Fund via the Federal Reserve Bank of St. Louis FRED database (mnemonic = PRICENPQUSDM). Units: U.S. dollars per metric ton. Seasonally adjusted prior to estimation.

- **Price of soybeans**
  Global price of soybeans. Source: International Monetary Fund via the Federal Reserve Bank of St. Louis FRED database (mnemonic = PSOYBUSDM). Units: U.S. dollars per metric ton. Seasonally adjusted prior to estimation.

- **Unemployment rate**
  U.S. unemployment rate (seasonally adjusted). Source: U.S. Bureau of Economic Analysis via the Federal Reserve Bank of St. Louis FRED database (mnemonic = UNRATE). Units: Percent. Future values are from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.

About the Author

Dr. Gary A. Wagner currently holds the Acadiana Business Economist/BORSF Eminent Scholar Endowed Chair in Economics at the University of Louisiana at Lafayette. In this role, he monitors the region's economic environment, conducts research and analysis, and engages with external stakeholders on behalf of the Moody College of Business and University.

His research interests range from regional economics to state and local public finance issues, with a particular focus on tax structures and economic development. He has authored or coauthored more than 60 professional articles and reports, and has delivered more than 400 presentations to public audiences on national and regional economic conditions. Dr. Wagner served on the Governor's Council of Economic Advisors in Arkansas from 2008-2011, and he is a quarterly participant in the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters projecting national economic conditions.

Dr. Wagner holds a Ph.D. in Economics from West Virginia University. His professional research has appeared in many leading economics journals including *Research Policy*, *Journal of Business Venturing*, *Journal of Urban Economics*, *The Journal of Law and Economics*, *Journal of Economic Behavior and Organization*, *National Tax Journal*, *Economics and Politics*, *Regional Science and Urban Economics*, and *Papers in Regional Science*. Prior to joining the University of Louisiana at Lafayette, he was Vice-President & Senior Regional Officer for the Federal Reserve Bank of Cleveland.

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