# Georgia Economic 2019 Outlook

Selig Center for Economic Growth
*Terry College of Business*
UNIVERSITY OF GEORGIA

# Georgia Economic Outlook 2019

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Selig Center for Economic Growth

Terry College of Business
The University of Georgia

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# C O N T E N T S

## The National Outlook

Our national forecast indicates that the economic upturn will continue. The 2.5 percent rate of 2019 GDP growth will be noticeably slower than in 2018 (3 percent), and below the 2.9 percent average of the last 50 years. Domestically, the main imbalances include too much leveraged lending to nonfinancial businesses, high asset prices, tight labor markets, and high federal budget deficits. Barring a major shock, or policy mistake, the U.S. economic expansion therefore is likely to continue. The main risks to U.S. GDP growth are a (1) full-blown trade war, (2) excessive risk taking in the form of leveraged lending and junk bonds, (3) overvalued U.S. equities, (3) overly restrictive monetary policy, and (5) contagion from financial/economic crises in one or more developing countries.

In 2019, consumer spending, gross private domestic investment, and industrial production will contribute to GDP growth. Indeed, investment spending by businesses is likely to grow faster in 2019 than in 2018. Government spending and the inventory swing also will be positive factors. On the contrary, the main reasons why GDP growth will be slower in 2019 are: higher interest rates; tariffs and trade tensions; smaller—or negative—wealth effects; and lower consumer confidence.

Barring large increases in housholds' net worth, the 2018 personal savings rate of 7 percent is slightly too low. Household wealth is unlikely to increase very much so the personal savings rate will rise to about 8 percent in 2019—a weak headwind for the consumer sector. Nonetheless, for this late in the business cycle, households' balance sheets are in surprisingly good shape.

Across all businesses, corporate balance sheets are not as strong as a few years ago, but should be manageable as long as interest rates do not increase very quickly. Even so, it is very worrisome that many highly leveraged corporations have taken on considerable debt and are vulnerable to interest rate shock. Small businesses' finances are in comparatively good shape, and small business lending should expand solidly. Altogether, the credit markets should support growth with credit increasing through 2019, but recent accelerated growth in lending to highly leveraged businesses is a serious risk to the expansion. A related risk is the size of the junk corporate bond market, which makes the U.S. economy increasingly vulnerable to recession.

The Federal Reserve's monetary policy stance will be restrictive as it raises short-term policy interest rates above the rate of inflation. For the first time since the recovery began, the inflation-adjusted federal fund rate target will be positive, and is expected to reach 3.5 percent in December 2019. Inflation will be 2.5 percent. An inversion of the yield curve is possible as creditors reduce lending because they can no longer make money by borrowing short and lending long. Any contraction in consumer credit reduces the prospects for economic growth, however. Meanwhile, the Federal Reserve will continue to reverse quantitative easing by further trimming its balance sheet. In short, monetary policy mistakes are increasingly likely.

Due to a stronger dollar, slower foreign economic growth, and trade tensions, exports will grow more slowly in 2019 than in recent years. Because imports will grow faster than exports, net exports will subtract from GDP growth.

With the economy operating beyond full employment, below-trend levels of immigration will limit GDP growth, too. Multi-family homebuilding starts will trend lower due to delivery of new units already in the pipeline, tighter credit for new apartment development, and more people opting for homeownership.

Sub-par productivity growth is another factor that will curb GDP and personal income growth. This is due to (1) the aging population, (2) low investment in business, (3) less immigration of highly skilled people to the U.S., (4) government regulations, (5) the repercussions of mediocre gains in educational achievement, and (6) tariffs and other restrictions on foreign trade.

**Consumer Spending**

Personal consumption expenditures will grow by about 2 percent in 2019, which is slower than in the past four years. Continuing job creation will ensure that the economy continues to operate past full employment, prompting faster wage and salary growth as well as gains in hours worked. The job gains—reinforced by higher pay and low interest rates—will bolster household balance sheets.

Improved labor and housing market conditions gives consumers the confidence to buy homes, but stock market volatility reduces their confidence in the economy. The net effect is lower confidence in 2019. Growth in disposable personal income will give consumers the wherewithal to spend, but less confident households will opt to save slightly more of their income. Credit will be available, but will be more expensive.

Strong labor market conditions insure that credit markets will to continue to grow. Traditional lenders will continue to loosen lending for home mortgages, but not for car loans due to rising default rates. Many households have already locked in historically low mortgage rates, which will discourage refinancing activity. Nonetheless, consumers will take on more home equity debt. Credit card debt will grow faster, too, as lenders pursue those with lower credit scores.

As of early 2018, on a nominal basis, households' net worth surpassed $100 trillion, exceeding its pre-recession peak by 49 percent. Thus, people became comfortable about taking on more debt, and so consumer credit outstanding will rise by 4 percent, with revolving credit increasing much faster than nonrevolving credit.

In 2019, turmoil in the stock market is likely to lower consumer confidence and/or reduce financial equity wealth, but real estate wealth should continue to increase modestly. This is important because real estate wealth tends to have a larger influence on overall consumer spending than equity-based wealth.

With the wealth effect on the sidelines, job creation—and the accompanying income growth —is vital for both consumer spending and the overall economy. The forecast anticipates that job growth will be adequate to support 2.5 percent GDP growth, but not to maintain a rate of GDP growth equal to—or above—its long-term average of 2.9 percent. More jobs, the number of hours worked per job, and compensation will support this income growth. Low productivity growth will prevent wages from rising very rapidly, however. In addition, the labor force participation rate will rise slightly.

Consumers' outlays will increase more slowly in 2019 than in 2018. Auto loan delinquencies are rising quickly, especially for subprime loans. Spending for durable goods will no longer increase significantly faster than spending for nondurable goods and services, but it will increase. Price increases and demographic factors insure that spending on drugs and other medical products will climb. Higher commodity prices and population growth will underpin spending on groceries, but intense competition among grocery stores will limit sales growth due to margin compression. Spending on luxury goods should expand in line with the overall economy, but such spending is sensitive to the performance of the stock market, and right now, the market appears to be moderately overvalued and vulnerable to correction.

**Labor Markets**

Job growth will continue. On an annual average basis, total nonfarm employment will increase by 1.3 percent in 2019, which is less than the 1.5 percent gain estimated for 2018. Manufacturing will lose jobs, however. Venture capital—which fuels job creation—will be available. The rate of job destruction in the private sector will be quite low; thus, 2.5 percent GDP growth will generate 1.3 percent job growth. In addition, GDP growth will outpace productivity growth, which will push firms to hire additional staff as end markets expand, and many of these jobs will be full-time.

With the unemployment rate well below 4 percent, it is a seller's market for labor. A tight labor market implies wage growth, but low productivity growth will prevent wages from rising too rapidly. Wages and benefits will rise by about 3.4 percent. Health insurance costs will be the primary force behind benefit cost increases. Unit labor costs will rise about 2.3 percent, which implies that the Federal Reserve does not need to raise short-term policy interest rates or reduce the size of its balance sheet too aggressively.

Although net hiring will expand, several factors will limit the gains. First, below-average GDP growth limits the impetus to hire. Second, a slight pickup in productivity will slow job growth. Third, higher unit labor costs will force employers to invest more in labor-saving equipment and processes. Fourth, the outsourcing of American jobs to developing countries will continue to spread from blue-collar occupations to white-collar ones. Finally, some of the new jobs that businesses must create will not match the skills of the unemployed, and this mismatch probably will get worse.

In the coming year, construction companies will see the fastest rate of job growth. Natural resources and mining will post the second fastest rate of employment growth, but this sector does not have many workers. Professional and business services firms will see the third fastest rate of job growth. Leisure, hospitality, education, and healthcare will see solid employment gains.

**Housing**

Despite fewer sales of existing homes, sales of new homes and homebuilding will be tailwinds for GDP growth in 2019. The number of single-family home starts for new construction will increase by about 7 percent. Existing home prices will rise moderately (about 3 percent). New limits on the federal tax deductibility of state and local taxes and mortgage interest will restrain or reverse home price increases in areas with expensive housing markets. In 2019, the remaining pockets of home price depreciation will be spotty, reflecting local imbalances rather than overall macroeconomic conditions.

The future performance of the housing market will depend primarily on the labor market, with changes in mortgage rates, and credit conditions playing secondary and tertiary roles. Employment and personal income will grow in 2019, so more people will have the wherewithal and the confidence to buy homes, sustaining the housing market's recovery.

Mortgage rates will remain a bargain, but will move higher and be a noticeable headwind. Home mortgages should be somewhat easier to obtain, but credit will be tight for riskier home loans. Although lending standards for new home construction and new residential developments will get a bit easier, credit lines and money to builders will be somewhat scarce, restricting the supply of new homes. The new federal tax laws are a negative for homeowners and for homebuilders: limits on the deductibility of state and local taxes as well as home mortgages will slow construction of expensive homes, especially in high-tax areas.

Strong foreign economies will sustain the number of foreign investors who are looking for residential properties in the U.S. Foreign buyers have played a major role in the recovery of housing markets in the urban core of many large cities, but the strong U.S. dollar makes homes more expensive for them.

### Nonresidential Construction

Spending for new nonresidential construction will increase more slowly in 2019 than in recent years. New business formation and expansion, employment gains, and population growth will generate gains in net occupancy. But there will be some negative trends: higher interest rates will be a headwind; credit conditions will not ease further for builders, and will be tight in markets with high vacancy rates; and the strong dollar will continue to dampen foreign investors' interest in American real estate.

Office and retail vacancy rates will continue to improve, but are still elevated in too many markets. Demand for new office space will increase the most in markets that have high tech and healthcare industries. Competition from online retailers limits the need to build more stores, but increases the need to build more distribution centers. Industrial development will benefit from growth in industrial production, especially in locations with logistical advantages. Spending for public buildings will increase, reversing the downtrend of recent years.

### Business Spending

Due to growth of end markets, tight labor markets, higher commodity prices, competitive pressures, high levels of corporate profits, new

**UNITED STATES BASELINE FORECAST, 2018-2019**

| United States | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Gross Domestic Product, Bil. of 2012$ | 16,899.8 | 17,386.7 | 17,659.2 | 18,050.7 | 18,592.2 | 19,057.0 |
| Percent change | 2.5 | 2.9 | 1.6 | 2.2 | 3.0 | 2.5 |
| Nonfarm Employment (Mil.) | 139.0 | 141.8 | 144.4 | 146.6 | 148.8 | 150.8 |
| Percent change | 1.9 | 2.1 | 1.8 | 1.6 | 1.5 | 1.3 |
| Personal Income, Bil. of 2012$ | 14,573.8 | 15,243.0 | 15,469.9 | 15,867.3 | 16,286.5 | 16,636.7 |
| Percent change | 4.2 | 4.6 | 1.5 | 2.6 | 2.6 | 2.2 |
| Personal Income, Bil. of $ | 14,991.8 | 15,719.5 | 16,125.1 | 16,830.9 | 17,655.6 | 18,450.1 |
| Percent change | 5.7 | 4.9 | 2.6 | 4.4 | 4.9 | 4.5 |
| Civilian Unemployment Rate (%) | 6.2 | 5.3 | 4.9 | 4.4 | 3.8 | 3.5 |
| CPI-U, Ann. % Chg. | 1.6 | 0.1 | 1.3 | 2.1 | 2.7 | 2.5 |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, October 2018.

business formation and expansion, and less regulation, business spending will be about 4 percent larger in 2019 than in 2018. That increase will be even higher if trade tensions loosen.

Nonresidential fixed investment therefore will be a tailwind to GDP growth. The need to improve productivity, good cash flows, and access to credit will support this spending. The ratio of liquid assets to short-term liabilities is about double its long-term average, which bodes well for investment spending by businesses. Significant downside risks include federal policy uncertainty, tariffs and trade tensions, inadequate public investment on infrastructure, lower stock prices, and possible turmoil in the financial markets.

Due to top line growth, better profits, and better access to credit, investment spending by small businesses should grow strongly in 2019. Home price appreciation is adding to home equity, which is a major source of collateral for many small business loans, so small business owners are optimistic.

By historical standards, businesses' capital spending has been very weak. Consequently, there is a need to increase spending on nonresidential fixed investment despite low levels of capacity utilization because the capital stock is getting quite old. Investments have been deferred for so long that replacement needs should raise capital spending in 2019. It helps that lending standards will not tighten appreciably. In addition, many companies will have adequate cash flows relative to the amount of funds they need for investment, lessening the impact of slightly higher interest rates.

In 2019, capacity utilization will be a tailwind for business spending for equipment and software. The economy is just reaching the point where GDP growth generates more GDP growth because inadequate capacity encourages more capital spending (the accelerator effect). Normally, the capital-spending accelerator would have kicked in much earlier in the economic cycle, but because it did not, it probably will be weak—or even short-circuited—by the Federal Reserve's shift to tighter money.

**Corporate Profits**

Already-high corporate profits are not expected to increase further in 2019 and may decline slightly. Tight labor markets will push up wage and benefit costs, which will be a strong headwind, as will tariffs and trade tensions. Higher interest rates also will limit profit growth, especially for debt-heavy and capital-intensive businesses. On the other hand, businesses are likely to see some regulatory relief, which could lower production costs and increase productivity. Financing should still be reasonably easy to obtain, but more expensive.

The recovery of housing markets and substantially more single-family homebuilding will boost profits for many home-related industries. Growth in spending for business equipment bodes well for profits earned by technology-oriented companies. In contrast, slightly lower oil prices will reduce the profits of energy-producing companies as well as businesses that cater to their needs.

The dollar will strengthen slightly in 2019, which will hurt profit growth based on overseas earnings. Tariffs, trade tension, and slower expansion of foreign GDP—especially in the EU and emerging markets —will limit sales prospects for many export-oriented companies. In addition, businesses' pricing power will not firm dramatically. Moreover, financial institutions' profit margins will be severely constrained by a much flatter yield curve.

**International Trade**

Uncertainty about U.S. trade policy and tariffs adds considerable risk to the forecast, which assumes that a full-blown trade war is avoided, but trade tensions will be high. In 2019, real exports and imports will grow faster than GDP, but imports will rise faster than exports. Because the trade gap will be larger than in 2018, net exports will be a negative factor in terms of GDP growth.

The main obstacles to faster U.S. export growth are the same as before: the strong dollar, trade tensions, and tariffs. In addition, foreign GDP growth will be slower in 2019 than in 2018. Imports will grow because consumers will have more money, but wealth-effect spending will be limited or absent.

In 2019, U.S. export growth will be broadly based. There will be increases for both merchandise and services, but exports of services will grow faster than exports of goods. Additional tariffs and trade tensions, however, increase the chances that export growth will stall or reverse, potentially pushing the U.S. economy into recession as soon as mid-2019.

**Inflation**

Consumer price inflation will increase by 2.5 percent in 2019, which is slightly lower than expected for 2018, but above the level that the Federal Reserve appears to be targeting. So, the Fed is very likely to increase policy interest rates steadily. In 2019, four 25-basis point increases in the federal funds rate target are expected. An even tighter job market, higher medical costs, and higher housing prices will justify those increases. Nonetheless, the extremely flat (or possibly inverted) 2019 yield curve might make the Federal Reserve slow the pace of rate increases.

Some of the usual drivers of inflation will be more intense and others will be less so, but there is no doubt that tariffs are inflationary. The pace of 2019 GDP growth will be 0.5 percent lower than in 2018, which reduces the prospects for higher inflation. In addition, consumer spending will grow more slowly. Capacity utilization will be higher in 2019, but there is still excess capacity in some sectors. The strong dollar will help keep inflation at bay, but the dollar will not appreciate much further.

The national unemployment rate is below 4 percent, which signifies that the nation's labor market is at full employment. Wage and benefit inflation will increase accordingly. In 2019, labor market conditions will continue to improve, but not enough to ignite rapidly accelerating inflation. Thus, the Federal Reserve needs to tighten monetary policy to prevent inflation from gaining too much traction, but it does not need to do so too aggressively.

Based on the forecast of sustained, moderating GDP growth, the Fed will continue to increase short-term policy interest rates to its targeted 3.5 percent by the end of 2019. At that point, short-term policy interest rates will be restrictive, but not overly so. In addition, the Federal Reserve will trim its balance sheet—unwinding quantitative easing.

**Crude Oil Markets**

Barring significant supply interruptions or additional price premiums due to increased political tensions, it is likely that oil prices will drop to about $65 per barrel. That is well above the approximate break-even price for U.S. shale oil production, which will prompt domestic drillers to ramp up production in 2019. Before Saudi Arabia, Iran, and Iraq decided to defend their market share by flooding the market, oil prices were about $100 per barrel.

Because oil markets are so volatile, a significant supply interruption would escalate prices, and plenty of potential negative supply shocks exist. Given current circumstances, this forecast assumes a moderate deceleration in the pace of global economic growth and no major disruptions in the oil supply.

**Forecast Risks**

The economy is operating at the late stage of the current economic cycle, and while that does not imply that a recession is imminent, excesses in both the financial and labor markets make the economy more vulnerable. In addition, federal tax reform is providing a modest late cycle fiscal stimulus, which raises the risk that the Federal Reserve will increase interest rates too aggressively, ending the current economic expansion prematurely.

The main risks to economic growth are (1) a full-blown trade war, (2) excessive risk in the form of leveraged lending to nonfinancial businesses, (3) financial panics and/or massive shifts in asset prices, (4) overly restrictive monetary policy, and (5) contagion from financial crises in developing economies. In addition, an inversion of the yield curve is possible. The probability of recession beginning sometime in the first half of 2019 is not high, but the risks increase in the second half of the year. If the yield curve inverts before mid-2019, a recession in summer or fall of 2020 is likely.

As always, energy prices are a wild card. Oil prices are expected to drop to about $65 per barrel, but the political situation in several major oil-producing regions is tenuous and oil supplies are much tighter than they were one year ago. Finally, informal executive branch communications and/or policy changes with the potential to destabilize markets are impossible to handicap with any degree of confidence, but add to the overall risk. ❖

## The Georgia Outlook

Barring a full-blown trade war, Georgia's economic outlook is good. The pace of GDP will slow, but new jobs will be plentiful. For the sixth-straight year, Georgia's diverse economy will grow faster than the nation's economy.

Because Georgia's economy is linked strongly to the national economy, the risk of a recession beginning sometime in the first half of 2019 is low, but it is higher in the second half of the year. The primary risks likely to trigger a new recession are external to Georgia: a trade war, financial panics and/or massive shifts in asset prices (e.g., equities and/or bonds), and a possible inversion of the yield curve. A full-blown trade war could shock the state's economy into a recession because Georgia is the nation's eleventh largest export state and the seventh largest in imports.

A possible inversion of the yield curve suggests a heightened risk of recession, but not before 2020. Tighter immigration rules and even stricter enforcement of existing immigration laws will not precipitate a recession, but would slow Georgia's growth due to greater scarcity of workers, less innovation, and less foreign investment. Extreme economic policy uncertainty, or extreme policy miscommunication at the federal level, also could put many business decisions on hold, and could prove quite disruptive to the financial markets, triggering a major stock market correction or a financial panic.

The forecast calls for Georgia's inflation-adjusted GDP to increase by 3 percent, which is smaller than the 3.5 percent growth estimated for 2018, but 0.5 percent higher than the 2.5 percent rate estimated for U.S. GDP growth. The positive differences reflect (1) many economic development projects underway, (2) more leverage from the housing recovery, (3) more supportive demographics, (4) faster expansion of Georgia's manufacturing industries, (5) more competitive economic development incentives, (6) more emphasis on customized workforce-training, (7) better prospects for Georgia military bases.

Nominal personal income will grow by 4.9 percent in 2019, which is slightly lower than the 5.4 percent gain estimated for 2018, but higher than the 4.5 percent gain expected for U.S. personal income. Georgia's nonfarm employment will rise by 1.5 percent, which exceeds the 1.3 percent gain estimated for the U.S.

As always, there are headwinds. The strong dollar will make it difficult for Georgia's exporters. Trade tensions are high, and tariffs and other barriers to international trade raise costs and disrupt established supply chains. The Federal Reserve will hike interest rates and trim its balance sheet, which will increase borrowing costs on the margin. Tight labor markets will temper job growth. Low productivity growth will limit increases in wages and salaries, which in turn will limit growth in consumer spending. Asset markets will be vulnerable to correction.

Georgia's unemployment rate for 2019 will average 3.7 percent, or about 0.4 percent lower than the 4.1 percent rate estimated for 2018. The unemployment rate will not drop much because of in-migration of workers from other states, increases in labor force participation, and the slowdown in job growth. In addition, the unemployment rate is already very low.

In general, the fastest job growth will occur in construction, followed by education and health services, leisure and hospitality, professional and business services, and mining and logging. Solid, but below-average job growth will occur in manufacturing, financial activities as well as trade, transportation and utilities. Positive, but slow job growth is projected for information and government. None of the major sectors will lose jobs.

### Services-Producing Industries

All major categories will expand, with the broader base of growth reflecting the upturn in housing markets, growing demand for information and high-tech services, and competitive economic development incentives.

Fintech, transactions processing, data processing, cyber security, and software and mobile apps development will power Georgia's economic growth. IT companies that announced major projects include Facebook, InComm, Pandora, OneTrust, Accenture, Assurant, CryusOne, Switch PRIME, Sysnet Global Solutions, Global Technology, GE Digital, Honeywell, NCR, VIX Global Solutions, ADP, Keysight Technologies, VIX Verify, and Merchant e-Solutions. Fintech will continue to become a major cluster in the Atlanta MSA.

Healthcare IT promises to create thousands of high-paying jobs in Georgia over the next decade. For example, Athenahealth will add 500 jobs over three years, doubling its workforce in the Atlanta area. Anthem, Inc. has announced that it will create 1,800 healthcare IT jobs at a services hub in midtown Atlanta in addition to the 450 new jobs in Columbus.

In 2019, the build-out of headquarters projects announced over the last several years will be an important economic force. Hartsfield-Jackson International Airport and Georgia's ideal geographic location makes it a good hub from which to serve operations in the Americas. Georgia has a very low risk for business disruption due to natural disasters, which is an important consideration for headquarters locations. Twenty-six companies headquartered in the Atlanta MSA rank among the Fortune 1000, placing Atlanta behind only New York City and Houston among U.S. metro areas in this select group.

Projects that brought, or will soon bring, job gains at headquarters operations include Inspire Brands, Thyssenkrupp, Groupe PSA, Pandora, Elastron, Lidl, Mercedes Benz USA, Honeywell, Jindal Films, Merchant e-Solutions, VIX Verify, Sage, mLevel, Comcast, Wells Lighting, CSM Bakery Solutions, Courion, and Osmose Utilities Services. In addition, Global Ministries, the philanthropic arm of the United Methodist Church, moved its headquarters from New York to Atlanta, creating 168 jobs.

The outlook for Georgia's healthcare providers is good, but not exuberant. It is generally agreed that Georgia's growing and aging population will demand more healthcare services, but intractable disagreement about who will pay the bills. Uncertainties about the long-term viability of the ACA as well as Georgia's nonparticipation in the expanded Medicaid program cloud the outlook for the rural hospitals. Nonetheless, this sector will be one of the better performers because the population of those with chronic health conditions that require ongoing care continues to grow despite the vicissitudes of the business cycle or healthcare policy.

Business services firms that provide necessities should do well. The recovery of housing and nonresidential real estate markets will boost money spent on legal fees. The outlook for consultants is positive due to continuing economic expansion, robust corporate profits, more business expansions and relocations, and higher revenue collections by state and local governments. The Boston Consulting Group's decision to create a new regional support center in Atlanta reflects the ease of using the area as a geographic hub from which to serve clients throughout the Southeast. Similarly, Accenture—one of the largest consulting firms—announced a major expansion of its operations in Atlanta. Georgia's staffing and temporary agencies should do well because the modest pace of economic growth coupled with the higher risk of recession should encourage many employers to be flexible. The state's low unemployment rate will restrain growth of the staffing industry, however.

Assuming a full-blown trade war is avoided, cyclical increases in domestic and foreign economic activity combined with Georgia's strong transportation and logistics infrastructure will ensure job growth in the logistics and distribution industry. Cargo volumes will outpace state and U.S. GDP growth in 2019. The opening of the Appalachian Regional Port will help the Port of Savannah tap into new markets and will help economic developers bring more projects to Georgia.

Many major distribution and logistics projects will be building out. Saddle Creek Logistics, which provides supply chain solutions to businesses, is expected to create 300 new jobs at a newly leased facility in the Coweta Industrial Park. Loloi, Inc. will create almost 200 jobs at a distribution facility in Cartersville. FiveBelow will create over 130 jobs at a new distribution center in Monroe County. Elk Group International will support about 100 jobs at a new distribution facility in Rabun Gap. KL Outdoor will create 100 manufacturing and distribution jobs in Stockbridge, and GE Appliances will create 100 jobs at a new distribution center in Commerce.

**GEORGIA'S BASELINE FORECAST, 2018-2019**

| Georgia | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Gross Domestic Product, Bil of 2012$ | 438.3 | 451.3 | 466.6 | 479.0 | 495.7 | 510.6 |
| Percent change | 3.3 | 3.0 | 3.4 | 2.7 | 3.5 | 3.0 |
| Nonfarm Employment (thousands) | 4,144.9 | 4,261.8 | 4,371.3 | 4,452.1 | 4,526.9 | 4,596.3 |
| Percent change | 2.8 | 2.8 | 2.6 | 1.8 | 1.7 | 1.5 |
| Personal Income, Bil of $ | 394.7 | 418.4 | 434.7 | 451.3 | 475.6 | 499.0 |
| Percent change | 6.3 | 6.0 | 3.9 | 3.8 | 5.4 | 4.9 |
| Housing Permits, Total | 39,423 | 45,549 | 51,675 | 51,240 | 57,225 | 60,901 |
| Percent change | 9.0 | 15.5 | 13.4 | -0.8 | 11.7 | 6.4 |
| Unemployment Rate (percent) | 7.1 | 6.0 | 5.4 | 4.7 | 4.1 | 3.7 |

Source: The Selig Center for Economic Growth, Terry College of Business, The University of Georgia, October 2018.

Generous incentives and the attainment of critical mass will ensure that Georgia's film industry makes a substantial contribution to economic growth in 2019. The industry ranks first globally in the production of the top grossing feature films, followed by the United Kingdom, Canada, California, Louisiana, and New York. In addition, the number of TV productions in Georgia is very impressive, and nearly all studio space is booked.

Improving economic and demographic trends will help Georgia's financial institutions. Rising asset values favor banks' top- and bottom-line growth. The prospects for deposit growth also are excellent. In 2019, an almost flat yield curve will limit financial institutions' ability to profit from borrowing short and lending long, but higher demand for most types of loans will support banks' rising profits. Higher consumer spending for expensive durables should ensure growth of non-revolving credit to households, but banks will tighten auto loans due to rising delinquencies. Fewer auto loans and less mortgage refinancing will challenge the bottom line, but regulatory relief will help.

The leisure and hospitality industry will continue to do well. Limited service properties that attract tourists and full-service properties popular with business travelers will post significant gains. The success of film and TV production will continue to generate spillover benefits for hotels. The number of new hotel rooms completed will exceed demand growth, however, so revenue per available room will grow more slowly. Nonetheless, modest increases in average daily room rates will add to the industry's overall profits.

Some headwinds and downside risks still exist, chief among is the possibility of a recession. The main political risks include more federal entry restrictions on foreign travelers and divisive state-level legislation such as "religious liberty" bills. In addition, occupancy rates in many markets are at, or near, inflection points. Occupancy rates are poised to decline slightly, especially for older properties in less than prime locations. There will be more pressure on wages and salaries, which will squeeze net margins. The buzz about a $15 national minimum wage is a small threat for now, but the shared economy is a major disruptor.

**Prospects for Manufacturing**

Manufacturing jobs are coming back in Georgia more rapidly than in the nation as a whole. Projects are bolstering growth in aircraft (Pratt & Whitney and Gulfstream), cars (Sentury Tire), flooring (Mannington Mills, Complete Flooring Supply Corp., and Mohawk Industries), and food processing (Purdue Farms, Star Snacks, Aviagen, Lake Foods, and Starbucks).

Cyclical economic recovery, effective economic development policies, low domestic natural gas prices, rising wages and production costs in China and other overseas locations are some of the factors behind recent and expected increases in Georgia's manufacturing activity.

**GEORGIA'S GROSS DOMESTIC PRODUCT, 2008-2019**
**(millions of dollars)**

| | | | Percentage Change from Previous Year | |
|---|---|---|---|---|
| Year | Current $ | Constant (2009) $ | Current $ | Constant (2009) $ |
| 2008 | 411,866 | 420,483 | -1.4 | -3.0 |
| 2009 | 404,575 | 404,575 | -1.8 | -3.8 |
| 2010 | 412,485 | 408,248 | 2.0 | 0.9 |
| 2011 | 424,126 | 413,457 | 2.8 | 1.3 |
| 2012 | 439,058 | 418,312 | 3.5 | 1.2 |
| 2013 | 454,238 | 424,360 | 3.5 | 1.4 |
| 2014 | 479,138 | 438,318 | 5.5 | 3.3 |
| 2015 | 505,693 | 451,287 | 5.5 | 3.0 |
| 2016 | 532,657 | 466,563 | 5.3 | 3.4 |
| 2017 | 554,269 | 478,966 | 4.1 | 2.7 |
| 2018 | 585,308 | 495,730 | 5.6 | 3.5 |
| 2019 | 618,671 | 510,602 | 5.7 | 3.0 |

Source: Data through 2017 obtained from the Bureau of Economic Analysis, U.S. Department of Commerce. Data for 2017-2019 are from the Selig Center for Economic Growth, Terry College of Business, University of Georgia, October 2018.

Concerns about product quality and management of the risks associated with increasingly complex and time-sensitive supply chains also make manufacturing in Georgia more attractive. Additional draws include a superior transportation, logistics, and distribution infrastructure, low costs of doing business, a favorable tax structure, excellent workforce training programs, and very competitive economic development incentives.

Manufacturers' contribution to Georgia's GDP will rise in 2019, but the incoming employment data imply that manufacturing jobs are not coming back too quickly. Manufacturing employment will rise by 3,200 jobs in 2019. Many of Georgia's manufacturing industries also provide relatively high paying jobs partially because many low-paying ones have either been offshored or displaced by machines. Another important factor is that R and D jobs often locate near clusters of specialized companies. Unfortunately, Georgia's relatively weak culture for innovation limits the prospects for innovation-based manufacturing job growth.

**Prospects for State and Local Government**

State government spending and hiring will be a positive, but relatively minor, factor in supporting Georgia's 2019 GDP growth. The biggest challenge for state government financing is uncertainty about federal funding for mandated programs, especially Medicaid. Mandatory spending on Medicaid is crowding out spending on education (K-12 through college) and infrastructure, areas essential to boosting Georgia's competitiveness, productivity, and culture for innovation.

The second biggest challenge is an antiquated tax structure that increasingly is misaligned with the state's shifting economic structure. Consequently, state taxes do not generate as much revenue as before. For instance, Georgia's sales and use tax depends very heavily on the sales of goods and exempts many services, and that is a problem because people now are buying more tax-exempt services instead. Pension liabilities and state retiree healthcare costs are the third and fourth biggest challenges that will exacerbate the effects of the next recession on the state's ability to sustain core deliverables ranging from public safety, to education, and infrastructure.

Local governments have a better fiscal situation, although they, too, will struggle with reductions in federal funding, pension liabilities, and retiree healthcare costs. Compared to state government, however, local governments depend very heavily on property taxes and fees for services and less heavily on sales taxes. Due to the recovery of the property markets, most local governments have fully reconciled their ability to generate revenue with their spending and staffing levels.

**NEW RESIDENTIAL BUILDING UNITS AUTHORIZED FOR GEORGIA, 2008-2019**

| Year | Total New Residential | Percent Change from Previous Period | New Single-Unit Residential | Percent Change from Previous Period | New Multi-Unit Residential | Percent Change from Previous Period |
|---|---|---|---|---|---|---|
| 2008 | 35,368 | -51.7 | 24,879 | -54.9 | 10,489 | -41.6 |
| 2009 | 18,228 | -48.5 | 14,674 | -41.0 | 3,554 | -66.1 |
| 2010 | 17,265 | -5.3 | 14,779 | 0.7 | 2,486 | -30.1 |
| 2011 | 18,493 | 7.1 | 13,817 | -6.5 | 4,676 | 88.1 |
| 2012 | 24,350 | 31.7 | 17,297 | 25.2 | 7,053 | 50.8 |
| 2013 | 36,174 | 48.6 | 24,810 | 43.4 | 11,364 | 61.1 |
| 2014 | 39,423 | 9.0 | 27,503 | 10.9 | 11,920 | 4.9 |
| 2015 | 45,549 | 15.5 | 32,621 | 18.6 | 12,928 | 8.5 |
| 2016 | 51,675 | 13.4 | 36,481 | 11.8 | 15,194 | 17.5 |
| 2017 | 51,240 | -0.8 | 40,311 | 10.5 | 10,929 | -28.1 |
| 2018 | 57,225 | 11.7 | 43,334 | 7.5 | 13,891 | 27.1 |
| 2019 | 60,901 | 6.4 | 47,191 | 8.9 | 13,710 | -1.3 |

Source: Data through 2017 obtained from the Construction Statistics Division, Bureau of the Census. Values forecast for 2018-2019 are from the Selig Center for Economic Growth, Terry College of Business, University of Georgia, October 2018.

**Economic Development**

Many of the projects announced over the last five years will continue to provide a substantial tailwind to Georgia's economic growth, although widespread shortages of construction workers have slowed down project completions. Some of the new projects announced in 2018 include: Thyssenkrupp Elevator Americas with over 650 jobs in its new headquarters and innovation center in Cobb County; Global Callcenter Solutions' 600 jobs in Columbus; Hanwha Q Cells Korea's 500 jobs at an advanced manufacturing facility in Dalton; Starbucks' 500 jobs in a new East Coast satellite office in Fulton County; and Saddle Creek Logistics Services' 300 jobs in Newnan.

Another reason Georgia is doing well is that the U.S. automobile manufacturing is increasingly centered in the Southeast. The state is in the sweet spot in the middle of the Southern Auto Corridor with proximity to major assembly plants, suppliers, interstates, ports, and rail. Major projects have included Kia's assembly plant in west Georgia and Mercedes' corporate headquarters in Atlanta. The new Volkswagen assembly plant just across the state line in Chattanooga and the recent announcement that Volvo will build an assembly plant in South Carolina make Georgia an even more attractive place to site auto parts suppliers.

Due to cost, logistics, and tax advantages, Georgia is very competitive with other states when it comes to landing economic development projects. Many companies move here to cut costs, but the state also should target industries that expand the economic base and have good potential for long-term growth.

**Housing Recovery**

Job growth, improving demographics, and the limited supply of older homes for sale will boost new home construction by 9 percent. Increased demand for housing will come mostly from job growth. Home price appreciation will continue through 2019, but home prices will rise more slowly than in past years.

The price of the average existing single-family home will rise by 4 percent in Georgia in 2019 as trade-up buyers and first-timers become more active. There is tremendous potential for even more active housing markets because many young adults are still living at home, or are doubled up with roommates. Improving economic and housing market conditions combined with soaring rents will unleash that potential. ❖

## GEORGIA'S BASELINE EMPLOYMENT FORECAST, 2018-2019

| Georgia | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Nonfarm Employment**[1] | 4,144.9 | 4,261.8 | 4,371.3 | 4,452.1 | 4,526.9 | 4,596.3 |
| | | | | | | |
| Total Private | 3,466.7 | 3,582.6 | 3,688.5 | 3,764.8 | 3,836.8 | 3,902.8 |
| Goods Producing | 533.8 | 554.6 | 575.1 | 591.0 | 613.0 | 627.6 |
| Mining and Logging | 9.0 | 9.0 | 9.4 | 9.4 | 9.7 | 9.9 |
| Construction | 156.8 | 166.5 | 176.6 | 184.0 | 199.8 | 211.0 |
| Manufacturing | 368.0 | 379.1 | 389.1 | 397.5 | 403.5 | 406.7 |
| | | | | | | |
| Services Providing | 3,11.1 | 3,707.2 | 3,796.2 | 3,861.2 | 3,913.9 | 3,968.7 |
| Trade, Trans., Utilities | 877.4 | 905.5 | 926.0 | 939.7 | 958.5 | 967.1 |
| Information | 107.8 | 111.5 | 112.0 | 116.2 | 110.7 | 111.5 |
| Financial Activities | 231.6 | 234.3 | 238.5 | 242.0 | 242.0 | 244.4 |
| Professional and Business Services | 611.4 | 633.1 | 653.9 | 668.6 | 672.6 | 685.4 |
| Education and Health Services | 523.1 | 539.9 | 559.5 | 570.2 | 586.2 | 600.8 |
| Leisure and Hospitality | 428.1 | 448.1 | 466.3 | 478.0 | 493.3 | 503.7 |
| Other Services | 153.6 | 155.5 | 157.1 | 159.1 | 160.5 | 162.3 |
| Government | 678.2 | 679.3 | 682.9 | 687.3 | 690.0 | 693.5 |
| | | | | | | |
| **Percent Change** | | | | | | |
| | | | | | | |
| Nonfarm Employment | 2.8 | 2.8 | 2.6 | 1.8 | 1.7 | 1.5 |
| | | | | | | |
| Total Private | 3.5 | 3.3 | 3.0 | 2.1 | 1.9 | 1.7 |
| Goods Producing | 4.1 | 3.9 | 3.7 | 2.8 | 3.7 | 2.4 |
| Mining and Logging | 1.1 | 0.0 | 4.4 | 0.0 | 3.2 | 1.8 |
| Construction | 7.5 | 6.2 | 6.1 | 4.2 | 8.6 | 5.6 |
| Manufacturing | 2.9 | 3.0 | 2.6 | 2.2 | 1.5 | 0.8 |
| | | | | | | |
| Services Providing | 2.6 | 2.7 | 2.4 | 1.7 | 1.4 | 1.4 |
| Trade, Trans., Utilities | 3.2 | 3.2 | 2.3 | 1.5 | 2.0 | 0.9 |
| Information | 5.5 | 3.4 | 0.4 | 3.8 | -4.7 | 0.7 |
| Financial Activities | 1.0 | 1.2 | 1.8 | 1.5 | 0.0 | 1.0 |
| Professional and Business Services | 5.1 | 3.5 | 3.3 | 2.2 | 0.6 | 1.9 |
| Education and Health Services | 2.6 | 3.2 | 3.6 | 1.9 | 2.8 | 2.5 |
| Leisure and Hospitality | 4.1 | 4.7 | 4.1 | 2.5 | 3.2 | 2.1 |
| Other Services | 0.3 | 1.2 | 1.0 | 1.3 | 0.9 | 1.1 |
| Government | -0.5 | 0.2 | 0.5 | 0.6 | 0.4 | 0.5 |

[1]Indicates thousands of workers.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, October 2018.

# Prospects for Selected MSAs

## ■ Atlanta ■

Business development, a revival of population growth, and the housing recovery will underpin Atlanta's robust economic expansion. In 2019, new jobs will be plentiful, but the pace of job growth will slow down due to the tighter labor market. In order, the Atlanta MSA's top ten employers are Emory University/ Emory Healthcare, Delta Air Lines, Walmart, Home Depot, WellStar Health System, AT&T, Northside Hospital, Piedmont Healthcare, Marriott International, and Publix Supermarkets. Atlanta is also the cultural center of the Southeast.

The MSA depends on two highly cyclical industries—distribution and construction—which should should be advantages in 2019. Exports account for about 8.6 percent of the area's GDP, so the MSA is not overly dependent on export markets. Its main weakness is an overburdened infrastructure.

The area's high concentration of college-educated workers, business partners, cyber security, high-tech companies, and research universities will continue to attract companies in life sciences, software development, R&D, healthcare IT, professional and business services, and advanced manufacturing. The CDC and nonprofits such as the national headquarters of the American Cancer Society and the Arthritis Foundation attracts life sciences companies. New high-tech companies in fintech, cyber security, software development, and mobile apps are booming as well.

Accenture plans to expand its operations at Tech Square, adding hundreds of tech-related jobs over the next few years. In partnership with Georgia Tech, Keysight Technologies is expanding its presence by opening a software design center in Midtown, creating over 200 software and engineering jobs. Kaiser Permanente is establishing an IT campus in Midtown that will support 900 jobs when fully developed. NCR is building its new global headquarters campus in Midtown, bringing over 1,800 jobs. In the new Delta Advanced Manufacturing Pilot Facility at Georgia Tech, Boeing recently opened a manufacturing research and development center. In addition, many small and startup companies are locating near Tech Square.

A few miles north of Tech Square, Buckhead is developing as a prominent high-tech cluster, with GE's first global digital operations center slated to locate there and create 250 jobs. Across the street is the Atlanta Tech Village, a co-working space for technology companies. High-tech development occurs outside city limits, too. For example, Thyssenkrupp Elevator will create more than 650 new jobs in Cobb County at a new headquarters and innovation complex which is scheduled for completion in 2022.

Compared to other large metropolitan areas with strong links to global markets, the costs of living and doing business in the Atlanta MSA are low. Access to workers, especially skilled labor, is vital to business success, and Atlanta has a large and diverse pool of available workers. In addition, the high concentration of colleges and universities ensures an abundant supply of experienced faculty, newly minted college graduates, and student interns. Less positively, stricter issuance of H-1B and H4 visas may limit Atlanta's ability to attract international talent.

On an annual average basis, the 29-county Atlanta MSA will add 47,100 jobs in 2019, a year-over-year increase of 1.7 percent. Atlanta therefore will account for 68 percent of the state's net job growth—down from 79 percent in 2014. Atlanta's high concentration of services- producing industries, IT companies, distribution companies, e-commerce fulfillment centers, institutions of higher education, health care providers, life sciences companies and headquarters operations will keep the job machine humming. The area's outsized information industry will benefit from expanding film and television production as well as surging demand for more sophisticated wireless services and high-volume mobile data applications.

Major improvements at Hartsfield-Jackson International Airport bode well for Atlanta's growth, especially the new international terminal. The airport is the world's busiest for passenger traffic and is rarely shut down by extreme weather, so Atlanta is ideal for corporate headquarters that need global access.

Production sites near the airport and/or near cold storage facilities appeal to manufacturers of perishable biomedical products that require cold storage and special shipping. Lightweight, highly perishable, or time-sensitive products are well suited to air transportation, and therefore many high-tech production companies consider the extensive air cargo facilities at Hartsfield-Jackson to be essential to their operations. The airport also makes Atlanta an excellent hub from which to manage operations or provide business services to a geographically disperse client base.

Due to its large meetings and convention industry, Atlanta is the sixth most-visited city in the U.S.—behind only Orlando in the South. The metro Atlanta market ranks seventh among U.S. cities in number of hotel rooms. Hotel occupancy rates are at or near record levels, but growth in the supply of new rooms will exceed increases in the demand for rooms, reversing the upward trend in occupancy rates that the industry has benefitted from for several years. New attractions such as Porsche Customer and Driver Experience Center, the Chick-Fil-A College Football Hall of Fame, and the Delta Flight Museum, however, will keep tourists attracted.

The Atlanta MSA is highly specialized in transportation, logistics, warehousing, and wholesale trade, with employment concentrated these inherently cyclical industries. Recent project announcements include Vanriet Material Handling Systems, KL Outdoor, Loloi Inc., Instacart, and Saddle Creek Logistics. UPS also is expanding rapidly. In addition, Atlanta continues to develop as an inland port for transportation, distribution, and warehousing products.

Given the federal budget situation, one major long-term plus is that the metro area is not very dependent on federal jobs. Only 2.9 percent of the Atlanta area's nonfarm earnings come from federal employment versus 5.4 percent for the state and 4.1 percent for the nation. The Atlanta area's only large federal employer is the CDC—about 9,200 employees. State and local government accounts for only 8.6 percent of earnings in metro Atlanta versus 11.1 percent for the state and 12.6 percent for the nation. Thus, public-sector restructuring should be less problematic for Atlanta's growth than for Georgia or the nation.

Due to above average growth in employment and population, the housing recovery is stronger in the Atlanta MSA than in most markets. As of mid-2018, Atlanta's home prices were 17 percent above their pre-recession peak, and prospects are good.

### ■ Albany ■

This MSA will continue to see a slower pace of economic growth than either the state or the nation, so Georgia-Pacific's announcement to build a lumber production facility in Albany was very good news. When completed, the state-of-the-art plant will support 130 direct jobs. Other top employers include Phoebe Putney Health Systems, the Marine Corps Logistics Base, Procter & Gamble, Albany State University, and Miller Brewing Company. The area's leading high-wage industries include the federal government and medical offices.

Compared to the state and the nation, Albany's economy is more dependent on government, retailing, and healthcare and less dependent on information, financial activities, manufacturing, and professional and business services. Increased spending on defense and on healthcare will help, but retail jobs will continue to decline. Within manufacturing, Albany is much more focused the production of nondurable goods, so that sector is relatively stable. Compared to the nation, Albany's economy depends more on domestic markets and not as much on export markets. Exports—mainly food products destined for Asia—account for only 5.1 percent of the area's GDP, therefore Albany faces some direct exposure to a trade war and a retreat from globalization, but compared to the nation as a whole the fallout should be manageable.

One economic stabilizer is that much of the area's remaining manufacturing base produces basic consumer staples, which households need and continue to buy. Proctor and Gamble, Miller Brewing, Mars, and Tyson Foods are good examples. Coats' decision to stay in Albany—after its distribution center was destroyed by a tornado in 2017 —helps, too.

Albany's strengths include low business and living costs, good productivity per worker, and low employment volatility. The MSA also is a regional transportation hub. The area's weaknesses include low educational attainment of the workforce, few high-tech jobs, low per capita incomes, and weak demographics.

As economic conditions continue to improve, Albany will capitalize on its assets, including a low cost of living and doing business, an excellent telecommunications infrastructure, good highway access, the Marine Corps Logistic Base, Albany State University, an excellent technical college, the new 4C Academy, and a reputation as a good place to raise a family. The area's economy is slowly transforming itself, moving away from traditional manufacturing and government to private-sector services-providing industries. The healthcare industry will receive a boost when the Lee County Medical Center opens in 2020.

Albany will continue to benefit from its traditional role as a support center for agriculture. Of course, this dependence exposes the regional economy to commodity market fluctuations, shifts in federal farm policies, and trade tensions.

Redevelopment along the Flint River adds to Albany's charm, and adds to the area's potential to benefit from tourism and retiree-based development. The leisure and hospitality industry should do well, too, helped by the Rails to Trails project and the new airport terminal.

A high proportion of government jobs makes Albany vulnerable to the restructuring of government, however. The presence of the Marine Corps Logistics Base—the area's top employer--means that Albany is especially dependent on federal jobs (8.9 percent of the Albany's nonfarm earnings come from federal employment versus 5.4 percent for the state and 4.1 percent for the nation). Because defense spending will probably increase in 2019, the immediate prospects for the MCLB are good. In addition, pay raises for troops are expected. Future problems with the federal budget are looming, however, which is a long-term risk for the area's economy.

Another problem is that the area's population and labor force have been declining for many years. In addition, compared to the Georgia average, Albany has relatively fewer people within the 25-to-49 age bracket, typically the most productive working years. Out-migration weighs very heavily on the area's prospects for economic growth, and the MSA has very few high-tech jobs.

Home prices are recovering much more slowly, reflecting both outmigration and a paucity of household formation. As of mid-2018, Albany's home prices were still 10 percent below their peak, but were up 2 percent on a year-over-year basis. Due to weak demographics, the prospects for Albany's homebuilders are modest.

### ■ Athens ■

Athens' economy tilts towards higher education and healthcare, and does not depend much manufacturing, construction, or transportation and logistics. The economy also is not very dependent on exports—3.3 percent of GDP—and therefore is not overly vulnerable to trade shocks. The presence of the University of Georgia also insures that economy does not overheat during the good times or tank when it's bad.

Economic stability, proximity to Atlanta, population growth, a highly educated workforce, and low business and living costs are Athens' major strengths. Weaknesses include the lack of interstate highways, a relatively narrow base of job growth, low per capita income, and a shrinking manufacturing industry. The area's largest employers are the University of Georgia, St. Mary's Hospital, Caterpillar, Pilgrim's Pride Corporation, and the Athens Regional Medical Center. The area's leading high-wage industries include offices of physicians and pharmaceutical and medicine manufacturing.

In 2019, employment in the MSA—which includes Clarke, Madison, Oconee, and Oglethorpe counties—will increase by 1.5 percent or about 1,500 jobs. Due to increasing revenue collections, state appropriations for higher education will increase in the coming fiscal year, which is good for UGA's and Athens' short-term economic prospects.

The outlook for health services is excellent. The acquisition of Athens Regional Medical Center (ARMC) by Piedmont Healthcare improves its balance sheet and enhances prospects for expansion. ARMC has five nationally ranked specialties. Recently, St. Mary's Hospital was designated Georgia's large hospital of the year. Athens will benefit from its role as the regional medical service center for northeast Georgia. The establishment of the UGA Health Sciences Campus in partnership with Augusta University will help the local healthcare industry extend its reach into rural and exurban areas.

UGA's College of Engineering advances the area's economic development through technology transfer, technical assistance, and research. It also helps Athens recruit high-tech companies and venture capital. Similarly, Athens potential for high-tech development is enhanced by the success of UGA's computer science department, home to one of the fastest growing majors on campus.

The growth of the hospitality industry also reflects Athens' success an affordable regional entertainment hub. The city is known for its vibrant music scene, college sports, and many cultural events and attractions. More exhibit space at the Classic Center helps Athens attract more and larger conventions and trade shows. Upgrades to the Georgia Center on campus makes it a more attractive place to host academic meetings and conferences.

As always, there are challenges to Athens' growth. The area's very low unemployment makes it difficult to fill open positions and can make it difficult to recruit new companies. Athens' role as a major regional hub for retail shopping will remain under assault, as more people shop online. Another concern is that the information, financial activities, and professional and business services industries are undersized relative to the overall size of the area's economy.

One short-term strength—but long-term concern—is that Athens is extremely dependent on state government jobs, which account for 21.4 percent of the MSA's total nonfarm earnings. This dependence mostly reflects the presence of the University of Georgia. In 2019, this is a plus because state revenue collections are climbing, but it makes Athens vulnerable to future efforts to downsize state government. Over time, increasing obligations for Medicaid and state government retirees' benefits will crowd out state spending for higher education. On the other hand, Athens' shares of federal and local government jobs are significantly below the state average. In addition, the MSA has almost no direct dependence on military spending.

The fast-growing single-family homebuilding industry's prospects look good for 2019. Single-family home prices will continue to rise, but at a slower rate than in 2018. Apartment construction also has been on the increase, but despite low vacancy rates for rental property, this trend is likely to decline. Because Athens is a college town, millennials and renters play an outsized role in the area's housing market, and ranks ninth highest among 409 U.S. metro areas in the percentage of renter-occupied housing units.

### ■ Augusta ■

In 2019, Augusta's employment will increase by 5,400 jobs. The 2.2 percent pace of job growth is the highest expected for any of Georgia's MSAs (tied with Gainesville) and compares very well to the 1.5 percent pace expected for the state. In addition, an increasing proportion of the jobs will be high-skilled, high-paying ones. The build-out of the U.S. Army Cyber Command, the 2018 opening of the Georgia Cyber Training and Innovation Center, the area's long-term focus on clinical healthcare, and the area's universities are major positives. The economy is not very dependent on exports (3.8 percent of GDP) and therefore is not overly vulnerable to trade shocks. Population growth and net migration will continue to be strong.

The regional economy will benefit from the continuation of the controversial construction of two nuclear power plants at Plant Vogtle. In addition, Augusta is a center for telecommunications services and call centers, and is a hub to the rapidly growing life sciences industry. The area's leading high wage industries include the federal government, waste treatment and disposal, and architectural and engineering firms. The MSA includes Burke, Columbia, Lincoln, McDuffie, and Richmond counties in Georgia and Aiken and Edgefield counties in South Carolina.

Fast-growing Fort Gordon adds to the area's supply of well-trained, skilled workers, and over the next few years, will tap into the expansion of federal defense spending. The U.S. Army's decision to focus its cyber-related operations, development, and training in Augusta has helped immensely. In addition to the direct creation of military and civilian jobs at the Cyber Command, the relocation of the Cyber Command makes Augusta a place where military contractors congregate.

The strong prospects for Augusta's economy also reflect many major private-sector projects that were announced over the last five years: Manus Bio, Starbucks, EdenCrete, Textron Specialized Vehicles, ADP, and Unisys. In mid-2018, the Sitel Group announced plans to hire 500 additional full-time employees at its Augusta call center. Once filled, the new hires will bring Sitel's total employment in August to 1,200. Manus Bio announced the creation of up to 50 jobs through the acquisition of a manufacturing facility in Richmond County. Starbucks announced that it would expand its roasting plant, creating 100 additional jobs. EdenCrete—which makes carbon nanotube-enriched concrete—will bring its global manufacturing headquarters to Augusta, creating over 250 jobs. Textron Specialized Vehicles will open a new manufacturing facility that will require about 400 additional workers; and Unisys will create up to 700 jobs (over five years) at a new service center in Richmond County.

Less positively, the 2018 closure of Hollander Sleep products manufacturing and distribution facility in Thomson cost the area 225 jobs, and Georgia-Pacific announced that it would lay off 55 workers in Richmond County. In addition, the 2017 closure of Fibrant—a chemical company that had operated in the area for over 50 years—cost the Augusta area 600 jobs.

The housing situation is good. In mid-2018, Augusta's home prices were 4 percent above their peak, and were up 9 percent on a year-over-year basis. Due to strong population and job growth, the pace of home price appreciation will not slow very much in 2019. Prospects are good for Augusta's homebuilders, and mortgage rates will still be affordable.

## ■ Brunswick ■

Brunswick's employment will rise by 1.2 percent, or 500 jobs. The leisure and hospitality industry, the Port of Brunswick, the housing recovery, and the in-migration of new residents will power economic expansion in 2019. The area's economy depends very heavily on one of the most cyclical industries – leisure and hospitality, which should do well in 2019. Due largely to the presence of the Port of Brunswick, however, Brunswick's economy is exposed to international trade and vulnerable to trade tensions and tariffs.

There is a significant aerospace cluster of companies in the Brunswick area: Gulfstream Aerospace Corporation, Jered LLC, Starnbaugh Aviation, Inc., Scoject Inc., Quaker State Plating, R.G. Grabber Inc., Palmetto Aviation Repair LLC, and Skycraft Aviation Specialties. Recent changes in the tax deductibility of corporate jet purchases should benefit the area's aerospace industry.

Top employers in the MSA—which includes Brantley, Glynn, and McIntosh counties—are the Southeast Georgia Health System, Sea Island Company, Brunswick Cellulose, eBay, Walmart, the College of Coastal Georgia, International Auto Processing, and the King & Prince Resort. The area's leading high-wage industries include the federal government and offices of physicians.

A high proportion of federal and local government jobs makes Brunswick vulnerable to government restructuring. Government accounts for 24.8 percent of the area's nonfarm earnings compared to 16.5 percent for the state and 16.6 percent for the nation. This is mostly because the MSA is especially dependent on federal government jobs, which account for 10.1 percent of the area's nonfarm earnings—more than twice the 5.4 percent reported for the state as a whole.

Recent major renovations and expansions at Sea Island, Jekyll Island, and Gulfstream contribute to the area's improving economic performance and its good prospects for 2019 and beyond. Incremental expansions by existing firms in leisure and hospitality, retailing, construction, and health services also are expected in 2019. The port should do well, benefitting the area's logistics and distribution industries. Because Brunswick is a small MSA, the actions for the better, or for the worse, by one major company can determine the area's actual economic performance, however.

Existing home prices are recovering, but as of mid-2018, home prices in the MSA were still 7 percent below their peak. It is encouraging, however, that the most recent year-over-year data show home prices rising by 9 percent. Very positive expectations for home price appreciation reflect solid population growth, including an influx of retirees and part-time residents. Net migration to the area will be substantial. The prospects for homebuilders look very good, too, especially for those who build flood-resistant houses.

## ■ Columbus ■

The 2019 economic forecast for Columbus is positive, with nonagricultural employment increasing by 1,000 jobs. Several developments will encourage economic expansion in the Columbus MSA: (1) growth at Fort Benning; (2) the area's economic structure; (3) announced expansions by several companies; (4) Columbus State University; (5) a sustainable upturn in homebuilding and home prices; and (7) more entrepreneurial activity. The economy is not very dependent on exports and so is not overly vulnerable to trade shocks. The cost of living is low and the quality of the workforce is improving. The MSA includes Chattahoochee, Harris, Marion, and Muscogee counties in Georgia and Russell County in Alabama.

Due to the presence of Fort Benning, government accounts for 35.6 percent of nonfarm earnings compared to only 16.5 percent and 16.6 percent for the state and nation, respectively. Base activity is an economic tailwind, and prospects for the fort are very good with no cuts on the horizon. The area's largest employers are Fort Benning, TSYS, Aflac, Columbus Regional Healthcare System, and St. Francis Hospital.

Columbus derives much larger than average shares of economic activity from financial activities and hospitality. Loan growth, rising asset values, the gradual unwinding of the Federal Reserve's unprecedented easing, recent wealth gains by many consumers, financial deregulation, and tax reform favor top-line growth for firms that provide financial activities in 2019. The area's hospitality industry also will do well, driven by more business and leisure travel.

Other positives for the area include Global Callcenter Solutions' new customer service center with 600 jobs; Gildan Yarns' expansion; Pratt & Whitney's expansion with over 500 jobs; and the Amos Cancer Center's expansion and renovation. In addition, Columbus State University is a major source of economic growth, supplying over 3,200 jobs. Less positively, there several significant layoffs were announced in 2018, including NCR, Denim North America LLC, and First Data Remitco.

The homebuilding industry will see very modest gains in 2019. As of mid-2018, single-family home prices in the MSA were still 8 percent below peak. The recent data is somewhat encouraging, however, with home prices and new home construction activity rising. Mortgage rates are still affordable, too.

**■ Gainesville ■**

With its outstanding economic performance, Gainesville will be the state's fastest growing metro area. Top employers include Northeast Georgia Health Systems, Fieldale Farms Inc., Pilgrims Pride Poultry Company, Victory Processing, and Kubota Manufacturing of America. This one-county MSA (Hall County) has undergone a manufacturing renaissance and enjoys spillover growth from neighboring metro Atlanta counties, especially Forsyth, North Fulton, and Gwinnett. It is an increasingly popular bedroom community for the Atlanta MSA. The cost of living and doing business are below average, migration trends are very favorable, and the housing market is strengthening. Weaknesses include low per capita incomes and the lack of high-wage jobs.

Recent company expansions outside of manufacturing include logistics/distribution firm Tatsumi Intermodal, risk management firm Lowers Risk Grou, and ProCare Rx (healthcare IT). The medical sector is thriving, too. The Northeast Georgia Medical Center ranks among the nation's best hospitals in nine procedures and conditions. (In Georgia, only Emory University Hospital and Emory-St. Joseph's Hospital ranked higher.) Moreover, the University of North Georgia, Brenau University, and Lanier Technical College annually add newly minted talent to the supply of workers that businesses need to expand.

Gainesville's housing market will continue to improve. In 2019, single-family homebuilding will increase, but apartment construction will decelerate. Optimism for the region's housing market reflects the 5,300 jobs expected in 2018-19, very strong population growth, and still affordable mortgage rates.

Although the outlook is sanguine, there are two policy-related area-specific worries. A trade war or a pullback from globalization could be very tough on Gainesville because of the area's dependence on international trade. Exports account for almost 7.3 percent of Gainesville-Hall County's GDP. The main export is poultry, most of which is shipped to Canada or Mexico, so the renegotiation of NAFTA is a downside risk. A second concern is that the stricter immigration laws—or stricter enforcement of existing ones—will hit much harder because illegal immigrants account for 10.1 percent of Gainesville's population.

**■ Macon ■**

On an annual average basis, Macon's total employment will rise by 0.6 percent in 2019, or by 600 jobs. The growth of the construction, healthcare, and financial services industries will account for much of the projected job growth. In addition, many of the economic development projects announced over the last few years will continue to build out. In 2018, Five Below announced new retail distribution center project for Monroe County that will create 130 jobs. The Nichiha Group announced an expansion of its fiber cement product manufacturing plant that will add 74 jobs. Star Snacks' peanut roasting and packaging facility will create 115 jobs, and Irving Consumer Products will bring over 200 jobs at a tissue manufacturing facility.

The top employers in the Macon MSA (which includes Bibb, Crawford, Jones, Monroe, and Twiggs counties) are GEICO, Navicent Health Medical Center, Coliseum Health Systems, Mercer University, and Georgia Farm Bureau Federation. GEICO, the MSA's largest employer, should benefit from increases in insurance for more expensive cars and from increases in residential property values.

Macon's economy will benefit from its focus on transportation and logistics, financial activities, higher education, healthcare, and professional and business services. The area's large and stable healthcare industry is a strength. The leading high-wage industries are doctors' offices and the federal government.

Government accounts for only 14.5 percent of nonfarm earnings, which is well below the respective national and statewide averages of 16.6 percent and 16.5 percent, so the MSA's direct exposure to future government restructuring is limited. Of course, Warner Robins' heavy dependence on federal spending creates large positive spillover effects in the Macon MSA. Fortunately, the 2019 outlook for the Robins Air Force Base is excellent. Macon's direct dependence on exports is also limited, so a retreat from globalization or a trade war would be manageable.

Macon's role as a center for transportation and logistics serves the area very well. Strategically located at the intersection of I-75 and I-16, Macon has two railroad lines, is home to the largest rail-switching center on the East Coast, and benefits from a good airport that is used by local residents as well as others from South Georgia. The Port of Savannah is accessible on relatively uncongested roads. In addition, it is a short drive to the air cargo and cold storage facilities at Atlanta's airport—factors that create a near perfect low-cost location for multimodal distribution.

The MSA's central location also makes it a good place to host statewide meetings or conventions. Given its close proximity to many beautifully preserved historic homes, the city's central business district is redeveloping in ways that should appeal to tourists, but it has yet to capitalize on this advantage. Nonetheless, the hospitality industry will be a very positive force for growth in 2019 and beyond.

Its role as a remote bedroom community for the southern portion of the Atlanta MSA will grow, further stimulating the economic development of Macon's northern suburbs. As Atlanta becomes more congested, sites in Macon will become very attractive to businesses and state government operations.

Some factors will limit the area's economic growth. Although outmigration has slowed, Macon's population will not grow very much in 2019. It is especially worrisome that too many adults in their prime working years are leaving, likely due to the relative shortage of high-tech jobs. As a consequence, homebuilding activity is very depressed, and recovery will be slow.

**■ Savannah ■**

This MSA—consisting of Bryan, Chatham, and Effingham counties—continues to be extraordinarily successful. In 2019, Savannah's employment will rise by 1.2 percent, or 2,200 jobs. Its multi-faceted personality: that of a major tourist attraction, an aerospace manufacturing center, a very busy deep-water port, and a regional hub for health and educational services has made Savannah an economic star.

Gulfstream is the area's largest employer, followed by Memorial Health University Medical Center, Fort Stewart/Hunter Army Airfield, and Walmart. Recent changes in the federal tax deductibility of corporate jet purchases —a full writeoff against earnings —bodes very well for Gulfstream. Savannah also will benefit from the expansion of the film industry. The leading high-wage industries are aerospace product and parts manufacturing, doctors' offices, and the federal government.

Last year, Gulfstream announced plans to build a new service center that will create about 200 jobs. The $2 billion expansion of the Elba Island LNG terminal will support at least 100 new jobs. Perdue Foods' regional distribution center in Rincon will bring over 150 jobs. Bryan County is doing very well in terms of attracting new companies, too. C&H Precision Weapons recently moved from Florida to Richmond Hill. In addition, Dorel Home Furnishings recently established its East Coast distribution center in the county.

It is worth noting that Savannah is somewhat exposed to government restructuring. Government accounts for 19.1 percent of nonfarm earnings compared to 16.6 percent for the state as a whole. The federal military exposure reflects the presence of Fort Stewart/Hunter Army Airfield. In the short term, defense spending will increase and the base is not in danger of closure or major cuts. The tilt towards government is a positive for now, but makes the area's long-term outlook less certain.

Savannah's growth prospects are good. Its unique ambiance and transportation infrastructure make it an attractive place to live and work. The thriving historic district and waterfront developments draw visitors. Data show that, in the U.S., Savannah is at the top of many people's dream destinations. Retirees will continue to be an important economic force, and net migration is very strong.

The Savannah and Brunswick ports make Georgia the nation's seventh largest importing and eleventh largest exporting state. Port operations support manufacturing and foster growth of Savannah's logistic, distribution, and warehousing industries. In the Savannah MSA, the port supports almost 36,000 jobs.

Savannah is a premier destination for national conventions, trade shows, and meetings. Tourism and convention business will continue to be one of the fastest growing sectors, reflecting substantial investments in the area's infrastructure, including a large number of new well-situated hotels as well as the Savannah International Trade and Convention Center on Hutchinson Island.

The area's housing recovery is strong, and the outlook for homebuilders is positive, but the proportion of employment related to housing is well below the national average. That will limit the push to the MSA's overall growth from the housing industry.

The overall outlook is good, but a retreat from globalization or a trade war could be very tough because the MSA depends on international trade. Exports account for almost 23 percent of the area's GDP.

**■ Valdosta ■**

In 2019, Valdosta's employment will increase by 1.3 percent, or 700 jobs. Moody Air Force Base, Valdosta State University, agriculture, logistics, and leisure and hospitality are the area's most dependable economic drivers, but healthcare is likely to be a new one.

Structurally, this metro area—which includes Brooks, Echols, Lanier, and Lowndes counties—is extremely dependent on government jobs. The leisure and hospitality industry also accounts for a substantially larger than average share of the area's nonfarm jobs. In contrast, professional and business services, financial activities, and wholesale trade account for relatively low shares of nonfarm employment. In addition, Valdosta is not overly depending on manufacturing jobs, with its share of manufacturing jobs slightly below both the national and Georgia averages. The area's top employers are Moody Air Force Base, South Georgia Medical Center, Fresh Beginnings, Valdosta State University, and Wild Adventures.

Because this MS is small, the actions by one major company can determine the area's actual economic performance. There have not been any major economic development projects announced in recent years, but a number of small ones will contribute to job growth in 2019. For example, Metal Benderz is relocating its existing manufacturing operations in Marietta to Valdosta, bringing about 50 jobs to Lowndes County. Georgia Beer Company broke ground on its first brewery in Valdosta; American Drill Busing is expanding its manufacturing facilities; and Hunt Industries plans to expand its operations. Less positively, Convergys and Rivulis Irrigation Inc. announced layoffs in 2018.

Government earnings account for 35.9 percent of the MSA's nonfarm earnings, is largely due to the presence of Moody Air Force Base, which is Valdosta's largest employer. The restructuring of the government sector therefore is a potential headwind. The Air Force has talked about retiring the A-10 plane, which is based at Moody, but a recent GAO report suggests that a cost-effective substitute is not ready. Nonetheless, the potential retirement of the A-10 must be acknowledged as a serious potential threat to the local economy.

In addition to a high dependence on federal military spending, Valdosta is extremely dependent on spending by state and local government. These earnings account for 21.5 percent of the area's nonfarm earnings compared to only 11.1 percent for the state and 12.6 percent for the nation. Local government accounts for 14.5 percent of nonfarm earnings, which is the highest reported for any of Georgia's metro areas, so fiscal austerity could be very tough on Valdosta.

The city is home to Valdosta State University, which provides an economic impact of $367 million and 4,594 jobs. The university's excellent reputation continues to attract many students from outside the region, adding to student spending and to the supply of newly minted graduates. In addition, Valdosta State raises the area's educational profile, which aids in recruiting new businesses.

Home prices have been very slow to recover, and as of mid-2018, were still 12 percent below peak. The outlook for builders calls for modest growth, reflecting job growth and positive net migration. ❖

## BASELINE EMPLOYMENT FORECAST FOR GEORGIA'S METROPOLITAN AREAS, 2018-2019

| Metro Area | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Nonfarm Employment**[1] | 4,144.9 | 4,261.8 | 4,371.3 | 4,452.1 | 4,526.9 | 4,596.3 |
| Albany | 61.1 | 61.1 | 62.0 | 63.0 | 63.1 | 63.3 |
| Athens | 89.1 | 91.3 | 93.9 | 96.8 | 99.2 | 100.7 |
| Atlanta | 2,503.3 | 2,582.1 | 2,663.9 | 2,723.7 | 2,772.7 | 2,819.9 |
| Augusta | 223.7 | 229.1 | 232.8 | 236.2 | 244.9 | 250.3 |
| Brunswick | 40.8 | 42.1 | 43.6 | 43.8 | 44.1 | 44.6 |
| Columbus | 121.8 | 120.9 | 120.4 | 121.1 | 122.3 | 123.3 |
| Dalton | 64.9 | 66.4 | 66.9 | 67.1 | 67.7 | 68.3 |
| Gainesville | 79.8 | 84.0 | 86.7 | 89.7 | 92.9 | 95.0 |
| Hinesville-Ft. Stewart | 19.6 | 19.7 | 19.8 | 20.3 | 20.4 | 20.5 |
| Macon | 100.2 | 101.1 | 102.4 | 102.8 | 103.4 | 104.0 |
| Rome | 39.7 | 40.2 | 40.6 | 41.0 | 41.7 | 42.2 |
| Savannah | 165.4 | 71.6 | 175.8 | 178.2 | 179.8 | 182.0 |
| Valdosta | 54.2 | 5.2 | 56.0 | 55.9 | 56.5 | 57.2 |
| Warner Robins | 70.2 | 70.8 | 72.6 | 73.6 | 74.8 | 75.7 |
| **Percent Change** | | | | | | |
| Albany | 0.2 | 0.0 | 1.5 | 1.6 | 0.2 | 0.2 |
| Athens | 1.0 | 2.5 | 2.8 | 3.1 | 2.5 | 1.5 |
| Atlanta | 3.7 | 3.1 | 3.2 | 2.2 | 1.8 | 1.7 |
| Augusta | 1.9 | 2.4 | 1.6 | 1.5 | 3.7 | 2.2 |
| Brunswick | 0.0 | 3.2 | 3.6 | 0.5 | 0.7 | 1.2 |
| Columbus | 0.4 | -0.7 | -0.4 | 0.6 | 1.0 | 0.8 |
| Dalton | 3.8 | 2.3 | 0.8 | 0.3 | 0.9 | 0.9 |
| Gainesville | 3.2 | 5.3 | 3.2 | 3.5 | 3.6 | 2.2 |
| Hinesville-Ft. Stewart | 0.0 | 0.5 | 0.5 | 2.5 | 0.5 | 0.7 |
| Macon | 2.0 | 0.9 | 1.3 | 0.4 | 0.6 | 0.6 |
| Rome | 2.3 | 1.3 | 1.0 | 1.0 | 1.6 | 1.3 |
| Savannah | 3.2 | 3.7 | 2.4 | 1.4 | 0.9 | 1.2 |
| Valdosta | 1.3 | 1.8 | 1.4 | -0.2 | 1.0 | 1.3 |
| Warner Robins | -0.6 | 0.9 | 2.5 | 1.4 | 1.6 | 1.2 |

[1]Indicates thousands of workers.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, October 2018.

**This sector's outlook is not entirely positive going into 2019.**

The mining and logging industries are growing while timber tract operations and forestry have experienced employment losses. Tariffs on Canadian timber may have stimulated the logging industry in the short term, but the industry does not exist in a vacuum. Higher timber prices stifle the construction industry, which is the primary industry driving demand.

**Forestry and Logging**

Georgia leads much of the nation in terms of total forest land area, surpassed only by Alaska and Oregon. Hardwood and softwood trees alike flourish in Georgia's warm and wet climate. Ninety-eight percent of Georgia's 24 million acres of forestland is classified as currently productive or potentially productive. Logging is relatively sustainable, with growth exceeding removal by 30 percent or more each year.

More than half of Georgia's forestland is privately owned by individuals, partnerships, or families; and 75 percent of these 450,000 private owners have parcels of fewer than ten acres. Some of them harvest timber, but many simply preserve their land for recreational purposes or family trusts. To safeguard their investment, private forest landowners have access to valuable financial and educational resources through the Georgia Forestry Commission (GFC), which provides assistance through tax incentives, cost-share programs, and conservation easements. The GFC also assists landowners through forest management plans, prescribed burning, and water quality monitoring.

Corporations own one quarter of the state's forestland, most of which belong to timberland Real Estate Investment Trusts (REITs) such as Weyerhaeuser, Rayonier, and Potlach. These publicly traded corporations allow shareholders to invest in forestland without buying their own individual plots. Obviously, shareholder profits go up when the price of timber is high.

With the abundance of forestland across the state, employment in forestry and logging is three times more concentrated than in the U.S. Nineteen counties, primarily in southeast and central Georgia, are densely wooded, and thus are heavily dependent on this subsector for employment. Over the past three years, however, employment in Georgia's forestry and logging subsector decreased by 2.6 percent, and fell by 5 percent in the U.S.

The three primary industries within Georgia's forestry and logging subsector are timber tract operations, forest nursery, and logging. The logging industry is a bright spot, with over 85 percent—or 4,200—of all of this industry's jobholders. Both the U.S and Georgia suffered significant employment losses in timber tract operations over the past three years. The U.S. shed 18 percent of these jobs, while employment in Georgia shrank by 34 percent. Employment in the forest nursery industry grew slightly (0.6 percent) in the U.S. but shrank by a significant 23 percent in Georgia.

| Sector Summary |
|---|
| **Direction: moderate increase**<br>**Performance: above average** |

Although Georgia's timber is grown and harvested by fewer than 5,000 workers, processing that timber into paper and wood products requires a much larger work force. The jobs of over 50,000 Georgians depend on forestry. Since Georgia has abundant timber, demand for forest products such as paper, cardboard, and lumber is the primary limiting factor.

The tech revolution has been bittersweet for paper products, especially traditional paper used for printing. Twenty years ago, e-commerce and other consumer-facing services did not exist. In 2018, consumers have access to all of their information online via their smartphones. Now books, newspapers, magazines, maps, coupons, tickets, brochures, and many other traditionally printed materials have been replaced with interactive apps and websites that allow consumers to reach their desired content at the click of a button. This trend will certainly continue, with consumers increasingly choosing the efficiency and convenience of online services over traditional printing and mailing.

At the same time, an increase in e-commerce has caused a boom in demand for cardboard. E-commerce sales have exploded over the past twenty years to over $500 billion in 2018. Sales of online retail giants such as Amazon show no signs of slowing down. E-commerce will soon overtake brick-and-mortar retail sales when it comes to most durable goods. Amazon alone ships 1.6 million packages per day, most of which are cardboard boxes. In Georgia, over 6,400 employees work in paperboard container manufacturing, where employment has increased by over 12 percent since 2014.

Demand for lumber, which is primarily influenced by the value of construction and the number of housing starts, should increase moderately next year. The housing market has now recovered to pre-recession levels across most of the U.S. The value of both residential and nonresidential construction exhibits moderate growth. Housing starts will grow slowly and steadily. Damage to homes and other buildings from Hurricane Florence will cause a temporary boom in restorative construction, spiking demand for lumber through the end of 2018 and possibly into early 2019. To keep up with this demand, employment in sawmills and wood preservation has been trending positively since 2014, cresting at 6,600 jobs last year.

Industry trends impacting demand for lumber and other forest products are not the only challenge faced by Georgia's forestry and logging subsector. Competition with other states and countries can also pose a threat. Canada is Georgia's main competitor when it comes to lumber sales. One year ago, 32 percent of lumber in the U.S. was imported from Canada, where lumber prices of are heavily subsidized by the government, which owns most of the forestland. Late last year, the Trump administration imposed duties of up to 24 percent on Canadian lumber in an effort to level the playing field for American lumber producers. As a result, imports of Canadian lumber to the U.S. have fallen by 15% percent. These tariffs, however, have had the unintended consequence of driving up prices of sawmill timber, negatively impacting the U.S. construction market.

Although employment and revenue in the forestry and logging subsector fluctuates according to supply, demand, and competition, forests also face natural threats such as droughts, wildfires, pest insects, and tree disease. Climate is the primary long-term threat to Georgia's forests. Average air temperature in the South is projected to increase by three to seven degrees by 2090 based on current climate models. Although heavy rain and flooding events will likely become more frequent, long-term droughts will plague the region. In addition, droughts will make wildfires more common and widespread, increasing annual losses of forestland in Georgia.

**Mining**

In 2017, kaolin was among the top ten exported products in Georgia, with more than eight million metric tons extracted each year. Most of Georgia's kaolin deposits are located along the fall line in the central part of the state, also known as the "white gold belt." The six Georgia counties with the highest concentration of mining operations include Talbot, Wilkinson, Jefferson, Oglethorpe, Elbert, and Washington. Just under 900 Georgia miners are specifically employed in kaolin and ball clay mining; however, since one of kaolin's primary uses is as a glossy white coating on magazines and other commercially printing products, demand has dropped as demand for printed products dwindles.

Other target materials for mining in Georgia include crushed stone, sand, gravel, fuller's earth, and metal ores such as bauxite. Over 4,600 Georgians were employed in the mining industry, where—between 2014 and 2017—employment grew by 4 percent while it shrank by 10 percent across the U.S.

Over 2,100 of Georgia's miners work in stone mining and quarrying, where annual average employment has increased by 16 percent over the past three years. Sixty percent of them worked in crushed granite mines to produce the raw materials to build roads and other infrastructure.❖

**Rising mortgage rates and the reduced tax deductibility of homeownership will retard the housing recovery.**

Despite higher mortgage rates, fewer tax benefits associated with owning a primary residence, and significant supply-side constraints, Georgia's homebuilding industry will grind higher 2019, but sales of existing homes will decline due to a shortage of inventory. Home price appreciation will exceed the rate of inflation, but the year-over-year percentage gain will be smaller than in 2018. Increases in demand for housing will be due primarily to the solid performance of the labor market, but investors will be active due to concerns about equity prices as well as low yields on safer asset classes. The increased price of existing homes as well as persistent low inventories of homes for sale will boost new single-family home construction, but construction of multi-family homes will decline.

The forecast for the U.S. and Georgia calls for continuing, but slower, job growth that is reinforced by gains in real wages. The new jobs and bigger paychecks will give more people the confidence and the wherewithal to buy homes, sustaining the upturn in homebuilding activity. Mortgage rates will be higher than last year, but will be low from an historical perspective. Indeed, the rare combination of affordable mortgage rates and a very low unemployment rate will support real estate markets in 2019.

Improvements in labor market conditions, more household formation, and more net migration to Georgia will increase the demand for owner-occupied housing, which in turn will accelerate homebuilding as well as renovation and repair activity. Another positive for homebuilders is that rents will be rising faster than either home prices or inflation. Rent-shock will induce people to buy a home rather than continue to rent.

First-time homebuyers will account for a slightly larger proportion of home sales, reversing their prolonged slump in market share. More active first-time homebuyers are critical because they are not just exchanging one house for another. First-time buyers therefore catalyze activity in new home construction more effectively than trade-up buyers do. In the Atlanta MSA, sales of existing homes will gradually shift from in town to the suburbs that generally have seen less home-price appreciation and are relatively more affordable. Affordable suburban locations with urban amenities will be a sweet spot.

**Sector Summary**

**Direction: large increase**
**Performance: above average**

**Home Prices**

On average, Georgia's existing home prices are 8 percent higher than their pre-recession peak, but the degree of home price recovery varies widely within the state. For example, on average, existing home prices in the Atlanta MSA are 14 percent higher than their pre-recession peak level. In contrast, the price of the average existing home in rural Georgia is 5 percent below its pre-recession peak value. Home price appreciation will continue through 2019, but home prices will rise more slowly than in recent years.

In a growing number of places across the state, home prices are reaching levels high enough to prompt more homeowners to sell their homes, but are not listed because prices are still below many homeowners' reservation price—the price at which they are willing or able to sell. This is particularly true in rural areas of the state and metro areas where home price recovery is seriously lagging – Albany, Brunswick, Columbus, Dalton, Hinesville, Macon, and Valdosta.

Home price appreciation will continue as Georgia's job growth becomes much more entrenched, wage growth accelerates, credit is available, mortgage defaults abate, and appraised values more accurately reflect actual market values. One major concern, however, is that an unusually large percentage of recent home sales in the Atlanta market were cash sales, suggesting that investors have played an outsized role in the recovery of the housing market.

**Demographic Forces**

Demographic trends constitute a very powerful set of demand-side drivers that provide increasing stimulus to Georgia's housing industry. Our forecast expects the state's total population to grow at a pace that is more than double the national average – 1.5 percent for Georgia versus 0.7 percent for the U.S. Population growth is good for homebuilders and housing prices. Household formation is even better.

Georgia will attract retirees in much greater numbers than before. In fact, in 2019, Georgia's population of persons 65 and older will increase almost three times faster than Georgia's total population. As housing markets continue to mend, retirees will begin to relocate to places that match their amenity preferences, and thus Georgia's mountains and coastal area will benefit.

Older Georgians will continue to be a mainstay in the housing market. Many of them own their homes, and have built up substantial equity and have relatively stable sources of income, making this part of the market less sensitive to extreme fluctuations in economic conditions, mortgage rates, and lending standards. Although older homeowners now absorb only a small percentage of the market, the fact that they are living longer and have more financial resources certainly will create a major impact.

**Negative Forces**

In 2019, supply-side constraints will limit housing sales. Supplies of new homes are constrained by years of underbuilding, a shortage of lots, and a scarcity of construction workers. In addition, there are fewer existing homes for sale, because 4.2 percent of Georgia's homeowners are underwater on their mortgages and are unlikely to put their homes on the market at current prices. In addition, many homeowners with substantial equity are unwilling to accept today's market prices. Also, lean inventories will discourage some people from listing their homes because they fear that it will be difficult to find a new one to buy.

In 2019, mortgage rates will continue to rise above their recent historic lows. The expectation is that the Federal Reserve with push up rates gradually. If so, then the rise in mortgage rates will not be large enough to stop – or reverse – Georgia's housing recovery, but it will be a strengthening headwind.

The combination of the mortgage industry's stricter lending standards and more pervasive federal regulations will limit the housing sector's recovery in 2019. Many will have to wait a little longer to accumulate a larger down payment or settle for a less expensive home. A high proportion of the new mortgage loans issued by banks will prove to be pristine and will have very low default rates; however, these benefits are coming at a cost in terms of homeownership and the overall economy.

High levels of student loan debt will continue to restrict lending, especially to millennials. The combination of high student loan debt and rapidly rising rents will keep many millennials from making the transition from renter to homeowner, slowing the housing recovery.

**Renovation and Repairs**

Employment growth will give people both the confidence and the means to spend more on home improvement projects. In Georgia, remodeling firms can count on retirees to spend more on aging-in place remodeling projects. (According to the AARP, 89 percent of persons 50 or older would like to remain in their homes for the foreseeable future.)

Although remodelers benefit from rising home prices due to increases in home equity, remodelers should remain cautious. In many neighborhoods, home prices are far from having recovered, which will limit cash-back refinancing of home mortgages. Historically, cash-back refinancing has been a major source of funds for home-improvement projects. Low appraisals could limit the availability of financing for large projects such as room additions or whole house remodeling, but the gap between appraisals and market values will narrow significantly in 2019. More positively, the increasing availability of fixed rate home equity lines of credit should help remodelers.

**Nonresidential Construction**

Private spending for new nonresidential construction increased in the past three years, and the upturn will continue through 2019. Georgia's above-average employment and population growth as well as many announced corporate relocations and expansions will generate gains in net occupancy. Office vacancy rates remain somewhat elevated overall, but should improve due to limited deliveries of new space and less sublease space coming onto the market. Tenants definitely will not have the upper hand in lease negotiations to the extent that they once did.

In 2019, fewer new office construction projects will be started, but a lot of new office space is already in development, so overall spending on new construction will decline slightly. The main problem is that one out of every six offices in the Atlanta metropolitan area is vacant, and in downtown Atlanta one out of five offices is empty. Given investors' aversion to risk, the high vacancy rate could be a barrier to new development in 2019. Some submarkets, such as Decatur and Marietta/Kennesaw, have very low vacancy rates, however.

High vacancy rates are the main reason to be circumspect about the immediate outlook for new office development. Higher interest rates also are a negative for this capital-intensive industry. In 2019, real estate investors' will become more discriminating in their risk taking, which does not favor new speculative office development projects, especially in markets saddled with high vacancy rates.

More positively, compared to many major metropolitan areas, office rents in Atlanta are a bargain and will remain so. While this is obviously a big problem for the owners, it represents a good opportunity for the state to recruit new businesses to the region.

Barring a full-blown trade war, warehousing, distribution, and manufacturing should do well in 2019, which implies that the prospects for Georgia's industrial property market are better than those for the office market. Demand for new industrial space—especially build-to-suit space--will rise in 2019, but so will rents.

The industrial properties with the best prospects are warehouse and distribution facilities that are positioned to take advantage of Georgia's growing role as a major distribution and logistics center. The superb performance of Georgia's ports eventually will ensure healthy demand for warehouse and distribution space in Savannah, Macon, and Atlanta, and other areas with high port dependence.

Due to high—but slowly declining—vacancy rates and the ongoing restructuring of retailing that favors online shopping, there will be limited construction of new retail space in 2019. Spending for the renovation of existing retail space will rise more significantly, underpinned by a variety of specialty stores.

Spending to expand online distribution channels and supply chains rather than spending on bricks-and-mortar stores will be a top priority for many web-based retailers. Indeed, adding supply chain capacity with the ultimate goal of providing next-day—or same-day—delivery will be a major focus, thus removing one of the main remaining advantages that traditional retailers have over online merchants. The upshot of these considerations is that outlays for new bricks and mortar retail stores—or new shopping centers—will increase only marginally, remaining at or near cyclical lows in 2019.

In many local jurisdictions, spending for public-funded buildings will increase, reversing the downtrend of recent years. Local governments' property tax bases gradually are becoming supportive of revenue collections and in turn public construction. In addition, heady population growth in some areas will provide an easy justification for higher construction outlays by local governments, and this is especially true for school construction. ❖

**In the coming year, industrial production will increase more slowly than GDP.**

Furniture sales are poised to outpace GDP as more new home sales, more home renovations, and home price appreciation drive demand. But a decrease in sales of existing homes and an abundant supply of good used furniture will temper the industry's recovery. Recent increases in the number of renters is also a negative. In addition, the outlook is less encouraging for sales of commercial and institutional furniture. The perennial problem, of course, is competition from overseas furniture manufacturers that produce inexpensive ready-to-assemble pieces.

### Manufacturing Equipment

Due to an improved outlook for sales, businesses' spending for capital equipment will be one of the forces that will contribute more to state and national GDP growth in 2019. Higher spending for manufacturing equipment reflects replacement needs, growth of markets for final products, and substitution of manufacturing equipment for labor as wage and salary pressures mount. The need to increase productivity will spur sales of manufacturing equipment.

Equipment producers will benefit from cyclical increases in domestic and global demand, because recent spending is too low to maintain, much less expand, the capital stock. Credit will be available to finance these purchases, and many companies will have the means to expand their orders for manufacturing equipment due to good corporate balance sheets. Slightly higher raw materials prices—at least in U.S. dollar terms—will increase cost pressures on the industry, but will also increase demand from industries that produce basic commodities.

Moderate increases in both short- and long-term interest rates do not bode well for manufacturing equipment sales, but from a historical perspective borrowing costs are still low. Easy credit conditions will encourage the purchase of more manufacturing equipment. More residential and commercial construction will generate new orders for construction equipment, but an abundance of existing construction equipment and machinery will limit the gains.

### Cars

Nationally, the forecast calls for unit sales of both new and used cars as well as SUVs and light trucks to decline slightly. Sales simply have reached levels that will be hard to sustain, especially as lenders tighten credit conditions for auto loans due to rising default rates. In addition, financing costs will rise in 2019. Nonetheless, larger gains in households' disposable personal income, more jobs, better fuel efficiency, and the aging vehicle fleet will prevent sales from declining very much. Manufacturers of fuel-efficient models also should do well.

Flat or slightly lower sales of new cars and light trucks will hurt manufactures of original equipment. In contrast, manufacturers of replacement parts will enjoy stronger markets due to the large number of older cars still on the road. Auto parts and tire manufacturers also will benefit from an expected increase in the number of miles driven. Tire manufacturers also will benefit from consumers' increased demand for high-performance and other specialty tires.

Rising transportation costs and political pressures will encourage foreign manufacturers to invest more

**Sector Summary**

**Direction: modest increase**
**Performance: below average**

in U.S. production facilities and to buy automotive parts from American manufacturers. More foreign companies now have assembly plants in neighboring states in the Southeast, fostering growth of auto parts manufacturers in Georgia.

**Aircraft**

Although the short-term prospects for the aerospace industry are good, the high—and rising—debt-to-GDP ratios in the U.S. and other developed economies are headwinds for aerospace manufacturers. Projected budget deficits may force the U.S. government to significantly scale back, or scrap, many major DOD weapons projects, but that will not happen in 2019 as manufacturers work their way through the backlog of government orders still on their books.

On the plus side, manufacturers of civilian aircraft stand to gain from airlines' pressing need to update their fleets. Replacement of existing aircraft to enhance productivity and lower costs rather than growth in the number of aircraft in operation will become the main driver of the industry's sales in developed economies. The early retirement of less fuel-efficient planes will reduce the life cycle of aircraft currently in use, which has negative implications for manufacturers that also provide maintenance and repair services. A second powerful tailwind for American manufacturers of civilian aircraft will be the rapid growth in air travel throughout Asia, India, and the Middle East, but new competitors in Russia and China will carve out huge slices of these rapidly growing markets.

Food Products

Accounting for about one fourth of Georgia's manufacturing gross state product, food product manufacturing is the state's largest manufacturing industry. Many of the economic development projects announced over the last several years were food processors, which implies that production will increase significantly in Georgia in 2019.

Nationally, the demand for food products will grow moderately. Food processing is highly competitive, faces very demanding consumers, and must adjust to volatile commodity prices, so firms will have limited flexibility in pricing and the industry's already thin profit margins probably will not widen. Sales growth will come from population gains and the development of niche products with higher value-added margins.

**Apparel and Textiles**

Georgia's apparel manufacturing industry will continue to contract as open world trade and cheaper foreign labor give a tremendous price advantage to many imported apparel items. Even as domestic demand increases, global competition will ensure that the domestic industry's sales and profit margins remain under severe pressure. Intense competition among retailers also will keep a lid on apparel prices. Apparel prices almost certainly will not keep pace with inflation, and the state's apparel manufacturing sector will continue its decline.

Two reasons why we expect the number of apparel jobs lost will be smaller than in recent years are the already much reduced size of the industry as well as the recent purging of most of the weaker firms. There is no doubt that Georgia has long since lost its comparative advantage because employee compensation in this labor-intensive industry is just too high compared to what it is in developing nations.

Some apparel manufacturers operating in niches that are suited to automation will survive for a while longer, but even they will find it increasingly difficult to compete with foreign competitors. One positive development is that production of the high-quality niche apparel products generally requires more highly skilled workers, which implies that average wages in this shrinking industry will be increasing rather than decreasing. Another positive development is that profit margins typically are higher on high-quality apparel, although changes in cotton prices will have an impact.

In 2019, Georgia's floor cover manufacturing industry will continue to benefit from increases in new home construction, more home renovations, and appreciating home values. Nonresidential usage also will increase, reflecting both renovation activity and new construction. Productivity gains and innovation in product development also will help Georgia's textile and carpet manufacturers survive.

The long-term outlook for carpet manufacturing is better than that for the apparel sector, but the industry's prospects are by no means sanguine. By investing heavily in plant and equipment, Georgia's carpet manufacturers have become excellent competitors, but state-of-the-art facilities increasingly will be built overseas.

**Pharmaceuticals and Medicines**

Favorable demographics and cost effectiveness enhance prospects for pharmaceutical and medical supply firms. Sales will boom, but profit margins probably will narrow partly because sales of low-margin generics will expand much faster than that of brand names. Pressures from the federal government and other large buyers to hold down prices also will intensify. In 2019, domestic demand will grow steadily. In addition, the industry continues to benefit from its new focus on marketing its products directly to the consumer. A number of new niche drugs in the development pipeline, better research and development techniques, faster FDA approval of new drugs, and the extended the patent life of many drugs, favor the industry's long run prospects. ❖

**This sector will grow faster than Georgia's overall economy.**

Tight capacity helps transportation providers, but a full-blown trade war is a major downside risk. Assuming that a trade war is avoided, more spending by consumers, increases in industrial production, the successful recruitment of manufacturers, the state's expanding role as a logistics and distribution center, and larger shipments via Georgia's ports indicate that total statewide cargo volumes will outpace state and national GDP growth in 2019.

Within manufacturing, the drivers will include lumber and wood products, furniture, food, chemicals, construction materials, electronics and household appliances. Increases in agricultural production bode well for truckers and the ports. In general, shipments of nondurable goods will expand much faster than shipments of durable goods, reflecting the gradual reduction of wealth-effect spending by households.

Carriers' profit margins will widen slightly, but still be low relative to other industries – the result of intense competition between the transportation industry's subsectors. Lower oil and fuel prices will support providers of transportation services.

Although the freight expansion will continue, global economic growth will not be exuberant. Simmering problems in the European Union, modest growth in many emerging markets, and an appreciated U.S. dollar suggest that the foreign sector is not strong enough to support strong gains in American exports. Shipments of most nondurable goods will increase, but shipments of coal, textiles, paper, printed materials, and tobacco will decline. In addition, bigger shipments of some durable goods, such as capital equipment, appliances, and furniture will drive demand for transportation. Rate competition will be less intense, reflecting higher freight volumes, a severe shortage of truck drivers, and the lagged impacts of capacity reductions that occurred during the recession.

**Truckers**

Growth in truck freight coupled with a severe shortage of drivers means even tighter capacity, which implies more intense competition for loads within in the trucking industry itself. Lower fuel prices will help long-haul truckers compete with the railroads, which are much more fuel efficient.  Competition from the railroads will not overly impact short-haul truckers, however. In general, trucking firms will be able to raise rates sufficiently to more than offset higher costs, and their pricing power should be quite strong, so net margins will widen.

Trucking firms will continue to benefit from businesses' outsourcing of their transportation and logistics needs, but tight capacity will prompt more companies to build or expand their in-house trucking capabilities. Supply chains will continue to become more complex, putting more emphasis on just-in-time inventory systems and global supply networks. The increased proportion of inputs and products from overseas will focus the trucking industry's growth on port cities, especially those with large port-focused distribution centers, such as Savannah.

Capacity reductions stemming from recent bankruptcies and volatile fuel prices will help to shore up truckers' net margins, but the ongoing consolidation of retailing will partially offset this favorable development. In addition, looser credit implies that more carriers will be able to add new trucks, but the driver shortage will severely limit fleet

**Sector Summary**

**Direction: moderate increase**
**Performance: average**

expansion. Strict emissions requirements will help to spur new truck purchases.

Meanwhile, several factors will push trucking companies to get bigger. First, more outsourcing of products from overseas favors carriers that can manage distribution both domestically and globally. Next, large retailers often prefer to deal with select trucking firms that offer the most services. Also, larger companies probably will find it easier to hire drivers.

Although a trade war is definitely a wild card for shippers in 2019, volatile fuel prices are almost always a given. Political instability in major oil-producing countries means that fuel costs could become a factor, but the more likely scenario is that fuel costs fall moderately from the highs experienced in 2018. In the future, the increased usage – and more timely imposition – of fuel surcharges will better shield margins from swings in diesel prices, but the long-term trend towards higher fuel prices is not a good sign for the trucking industry's profitability because it undermines long-haul truckers' ability to compete with the railroads.

**Railroads**

Business conditions for railroads have been difficult, but should improve in 2019 because demand growth will exceed capacity growth, and rates will climb. Overall profits will increase, too.

In 2019, domestic inter-modal shipping of consumer goods, construction materials, light industrial products, and agricultural products will grow. The railroads should not have any problem passing fuel costs onto shippers, since rail is an extremely fuel-efficient transportation mode. Increased highway congestion also favors the railroads.

Railroads are very fuel efficient, but coal shipments to utilities are a major source of their revenue. Environmental concerns plus low natural gas prices will encourage utilities to use more natural gas and less coal in 2019, which will be a very strong headwind for the railroads. The second headwind will be the strong U.S. dollar, which will limit American exports, but boost imports.

Coal is the rail industry's largest source of shipments and a major contributor to its profits. Restrictions on carbon emissions and low natural gas prices will encourage utilities to become much less dependent on coal to generate electricity, so coal's contribution to the rail industry's total revenues and profits will diminish as electric utilities switch to generating technologies with smaller carbon footprints. In some parts of the county, crude oil shipments are a major source of revenue for the railroads, but this is not the case in Georgia.

**Airlines**

Domestic air passenger travel will continue to rise. Higher demand coupled with better control of capacity – in part due to recent mergers – will help improve profit margins, which have widened quite a bit. (This forecast assumes that fuel costs fall in 2019.)

Trade tensions, strict visa requirements, new limits on carry-on items, and the strong value of the dollar do not bode well for international arrivals. The strong dollar will encourage U.S. residents to travel abroad, however, and Atlanta will rank as the top U.S. airport in passenger volume.

Despite recent mergers, competition within the airline industry will limit pricing power, curbing ticket prices even when costs rise. In 2019, ticket prices are expected to rise slightly faster than costs, which will benefit net margins. Low cost carriers will gain market share, however.

In 2019, airlines' security costs, debt service costs, and federal tax burdens will continue to rise, but fuel costs are likely to fall moderately. Nonetheless, the possibility of higher oil prices remains a perennial threat to airlines' profitability. Another major problem is that the tax bite is getting bigger. In addition, the pilot shortage is becoming a problem.

For most airlines, labor and fuel are the largest components of costs. Since 9/11, over 125,000 air transportation jobs have been cut nationwide. Despite air carriers' restructuring, only 1,700 air transportation jobs have been lost in Georgia, which reflects the fundamental strength of the customer base in Atlanta as well as the region's excellent air transportation infrastructure.

Although the industry's domestic capacity will remain tight, high domestic load factors and ancillary revenue streams will increase profitability in 2019. Industry deregulation will encourage more international travel. In addition, international shipments of air cargo will increase much faster than passenger traffic, thanks to shrinking product cycles, far-flung markets for raw materials and products, and a shift towards exporting smaller, more expensive goods. Of course, a trade war or stricter visa requirements could change everything.

**Ports**

Georgia's deepwater ports will outperform its peers by tapping directly into the growth that is taking place overseas and by taking market shares from other U.S. ports. Higher demand for consumer goods, increases in industrial production, and increases in agricultural production will increase shipments through Georgia's ports, too.

One headwind will be the strong U.S. dollar, which will be a problem for export shipments, but will continue to spur imports. Increased competition from ports in Mexico and Canada is unlikely to have a large impact on Georgia's ports, but will temper growth of overall port traffic for the nation as a whole. The main risk to Georgia ports is a full-blown trade war, which would severely reduce the volume of imports and exports.

The superb performance of Georgia's ports reflects strong comparative advantages that allow them to expand their share of regional and national waterborne cargo traffic. The Port of Savannah is the largest single container terminal in North Americas and is the fourth busiest U.S. container port, behind only Los Angeles, Long Beach, and New York/New Jersey. It is the second busiest for the export of American goods by tonnage. The Port of Brunswick specializes in non-containerized trade and is the second busiest port in the

U.S. for transporting new cars and heavy machinery.

Georgia's ports support over 439,000 full- and part-time jobs, which means that about one job out of eleven depends on them in some way. Ports' operations help to preserve Georgia's manufacturing base and foster growth of the state's massive logistics, distribution, warehousing, and agricultural industries. Containerized cargo accounts for 92 percent of the ports' economic impact. Deepening the port will assure that the larger Pana-Max ships can dock here.

In addition, the Ports Authority is expanding its inter-modal rail service to secure substantial additional traffic from across the Southeast and Midwest. The Savannah port's international multi-modal connector is a five-year project that will double rail capacity and increase velocity at the Garden City Terminal. When complete in late 2020, the $128 million terminal will allow the port to build 10,000-foot long unit trains on-site without disrupting highway traffic nearby. ❖

**Utilities will see their sales grow slightly slower than the expanding economy.**

Electric utilities costs will continue to rise, which will prompt additional rate increases, but despite this, electricity usage in all markets will expand moderately. Commercial and industrial electricity usage will rise due to more new business startups, expansions of existing businesses, more relocations, and fewer business closures. Electricity use in the industrial markets will also rise due to increases in manufacturing output.

Sales to residential customers will roughly track increases in household formation, which will increase in 2019. Greater use of energy-efficient appliances and more energy-efficient building codes suggest that the incremental push to electricity sales per newly formed household will decline, however. One very favorable and potentially powerful trend that will boost electricity sales and flatten loads in the residential markets will be the increased use of electricity for winter heating. One driver is an expected population boom in warmer parts of the state, such as Savannah and Brunswick, where heat pumps work extremely well.

As a whole, Georgia's electric utility industry is reasonably well positioned. The state's population growth will continue to grow much faster than that of the nation, providing a solid source of demand growth in both residential and commercial markets. The industry's operating costs are relatively low, and the long-term outlook for the regional economy calls for growth that exceeds the national average. But several concerns are obvious: substantial cost overruns and construction delays at Plant Vogtle units 3 and 4; uncertainty about deregulation; scant incentives to invest to ensure the adequacy of the grid; and the potentially disruptive impact of distributed solar power generation.

Oil and natural gas prices may move up slightly, but energy prices are notoriously volatile. Coal prices should rise by about 2 percent. Natural gas prices also will rise, but will still be quite low from an historical perspective. Utilities will face higher maintenance and insurance costs and over time will spend dramatically more to meet new carbon-emission standards. Long-term interest rates also will rise in 2019, and significantly affect this capital-intensive industry. Hence, higher borrowing costs are a negative for the industry.

Although demand for power will rise only moderately in 2019, Georgia's electric utilities are building two new nuclear facilities.

**Sector Summary**

**Direction: small increase**
**Performance: below average**

Utilities also will have to spend for transmission facilities that connect these large base-load plants to their major markets. Government regulations, industry restructuring, and a renewed emphasis on reliability also will contribute to the need to spend more on transmission.

Distributed power generation is emerging as a disruptor for traditional electric utilities. The rapidly falling costs associated with solar photovoltaic power generation, government programs to incentivize renewable energy technologies, and advances in meter and grid technologies increasingly make it economically viable for residential customers to generate their own power behind the meter. If technology makes it economically viable for customers to store solar photovoltaic power or to convert natural gas to electricity, they will begin to disconnect from the grid in significant numbers—an especially serious threat to an industry that recovers its costs over many decades.

**Natural Gas**

Given a normal winter, the outlook calls for slightly higher consumption of natural gas, and supplies appear to be plentiful. Natural gas prices will rise by about 8 percent in 2019. Higher manufacturing production, rising wholesale markets, and stronger consumer markets for many goods and services will boost commercial and industrial gas sales. Also, electric utilities will use more gas for power generation at both their existing plants and the new gas-fired plants under development. Residential gas use will rise due to population growth, an uptick in household formation, more single-family home construction, and more natural gas appliances. ❖

**This industry will contribute to Georgia's economic growth in the coming year.**

The information industry's shift from a persistent headwind into a tailwind is one reason why Georgia's economy outpaced the U.S. economy in recent years and is poised to do it again in 2019. Consumers' and businesses' purchases of high-volume mobile data services, innovative wireless services, internet services, and software will grow strongly.

Households' demand for smart phones and tablets along with businesses' growing desire for mobile- and cloud-computing will be among the information industry's primary drivers. Demand for machine-to-machine services also will grow rapidly, but its small base will limit this subsector's contribution to overall growth. There is considerable potential for equipment upgrades. Specialty streaming video and niche satellite services will usurp market share from cable operators. Demand for fixed broadband access and prepaid phones also will increase, but at a pace that is much more moderate than recently experienced. Demand for software is booming due to widespread adoption of mobile communications and increasing concerns about data security. For these reasons, spending on information services will grow faster than state GDP in 2019.

Industry-wide staffing levels are increasing due to surging demand for an increasing number of mobile devices and the rapid penetration of innovative wireless data services. Employment will expand in the wireless and data processing/hosting subsectors, but it will decline in the wired and printing subsectors.

Although the use of smart phones, tablets, and other wireless devices has soared, and wireless carriers will be hiring, the net gains will be very small because revenue growth in this extremely capital-intensive industry does not create that many new jobs.

The continued growth of the wireless subsector reflects higher penetration of wireless technologies into new areas such as automotive telematics, smart device communications, smart utility networks, and healthcare. It should be noted, however, that smart phones provide huge revenue boosts to wireless carriers, but this source of growth will wane in importance as the market fully saturates. Instead, revenue growth will come from higher charges to data-intensive users.

**Telecommunications**

Telecommunications is a debt heavy industry. In 2019, companies will expand and upgrade their networks and service offerings, incurring additional debt. Interest rates will rise moderately from recent historic lows, which is a significant headwind for this capital-intensive industry, but credit will be readily available.

| Sector Summary |
|---|
| **Direction: small increase**<br>**Performance: below average** |

In 2019, consumers and businesses will spend more on telecom services, but industry-wide revenue gains will not come as easily as they did a few years ago. That is primarily because penetration rates for many telecommunications services are already very high. In addition, voice-generated revenue is likely to decline very sharply, offsetting some of the growth in data traffic. Text-messaging revenue will drop as data takes over. Demand for high-speed mobile broadband connections will continue to grow strongly. Nonetheless, as the labor market improves, rising numbers of telecommuters will create growth opportunities for telecom companies that provide residences with secure broadband Internet access. Also, cloud computing will be an increasingly powerful driver of enterprise traffic.

Increasingly, consumers consider mobile internet access to be a necessity, so companies that develop and/or use smart apps that pack relevant information into small packages will prosper. In addition, mobile money – near field communications payments – via cellphone is poised to make significant contributions to revenue growth. Still, the roll-out of mobile money is proceeding more slowly than anticipated.

**Cable and Satellite TV**

This industry's outlook reflects renewed growth in the number of Georgia's households, customers' increasing willingness to pay more for faster connections, increases in advertising outlays, and growth in the demand for an expanding array of new high-margin digital cable products and other optional services.

In 2019, revenues from higher demand for broadband connections and premium services will more than offset the decline in demand for basic cable television. Top- and bottom-line growth therefore should be positive, but higher costs will prevent profit margins from widening. Price-based competition also will intensify further and will be a persistent threat to net margins. In general, the long-term outlook for cable providers is less optimistic due to both the increased penetration of mobile broadband access and the proliferation of over-the-top offerings.

As broadband and network capacities become more fully utilized, the need to invest more will increase significantly. Fortunately, cable and satellite TV providers will find that financing will remain very affordable and somewhat easier to obtain. Nonetheless, competition between the various telecommunications subsectors will intensify and spectrum will remain in short supply.

In Georgia, the increased penetration by satellite delivery systems and the growing array of new devices means that demand for basic cable TV services will decline and subscriber losses will mount. As Georgia's economy expands and disposable personal incomes rise, people will be more inclined to buy highly profitable premium services, however.

In the near future, the greatest challenge to providers of cable and satellite television is explosive growth in the quality and quantity of online and mobile video content. Specialty streaming video and niche satellite services will take market share from cable operators, who must contend with the increasing cost of content and even tighter profit margins.

**Internet Services**

The Internet economy will expand as easier and faster access will help to keep people online longer and encourage them to spend more. But not all the news is good. Spam, the proliferation of virulent viruses and fraud are major deterrents to the Internet economy, reducing productivity and impeding e-commerce. Cyber-crime continues to soar, reducing the appeal of using the Net for the transfer of personal or highly sensitive information, which is vital to the growth of most of the higher valued Internet applications.

Despite many challenges, expect to see rapid growth in the demand for bandwidth to support a growing array of audio and video services. The applications range from e-commerce to distance learning, mobile healthcare, video entertainment, online games, instant messaging, and mobile money. One problem, however, is the whether or not the Internet's backbone will become overwhelmed by the upsurge in traffic. Video traffic in particular is a heavy consumer of network capacity. Congestion on the net leads to deterioration in the quality of service and ensures that issues related to net neutrality will remain in the spotlight. Ultimately, some form of usage-based pricing will be implemented for broadband access. Tiered data packages will allow providers to increase revenue per subscriber, a timely development now that the number of subscribers is growing slowly.

**Printing**

Due primarily to competition from digital media, Georgia's printing industry will remain in secular decline, but cyclical factors will retard the rate of decline in 2019. Nonetheless, even sustained economic growth will not lessen these two challenges too much. Cyclical increases in commercial advertising will be a tailwind, but an increasing share of the advertising dollar will be digital rather than printed. Slowly rising levels of office-based employment and a limited uptick in new business formation also will increase demand for printed materials.

The widespread use of electronic publishing will ensure that the printing industry's revenues will grow much more slowly than Georgia's GDP. In addition, high quality machines suitable for small printing jobs will reduce organizations' economic incentive to outsource small runs. Productivity gains stemming from new technologies will lead to job losses in the printing industry, and total profits for many printers will decline.

Growth in hiring in many businesses and professional occupations will help to increase demand for technical, scientific, business, and training publications. Higher spending on adult/technical education will add to demand for printed publications. Foreign demand for English language products also will rise.

Rising levels of educational attainment and a growing population of college students should help, but the dual problems facing the industry are that people increasingly opt to read electronic documents instead of printed ones and lack the leisure time to devote to reading. So, retirees are likely to become an even more important market for printed materials.

**Magazines and Newspapers**

Although advertising spending will be on the upswing, the outlook is not good for newspapers and magazines. Circulation is shrinking. Even worse, the value of the remaining circulation is also declining as advertising shifts from printed media to web-based media where customer interfaces can be more targeted and more interactive. Paywalls do contribute to revenues, but the majority of readers who are likely to pay for additional access have already signed up, so revenue growth from paywalls will be very slow.

As readership and pricing power decline, the newspaper and magazine industry will continue to consolidate and cut costs, further diminishing its relevance to many readers. The best (or least bad) prospects are for small, local/regional newspapers that provide local content that is not replicated online. ❖

**Loan growth, higher interest rates, and rising asset values will help the industry.**

The Federal Reserve will raise short-term policy interest rates in 2019, continuing to unwind its unprecedented easing policies. In addition, it gradually will reduce the size of its balance sheet of Treasury and mortgage securities. These actions—and market forces—could push up short-term interest rates more than long-term ones. An inversion of the yield curve is quite possible. The flat yield curve will make difficult for banks to increase profits.

Fortunately, higher demand for many types of loans will support growth in banks' profits. Lower compliance costs due to the rollback of some of the new regulations established in the wake of the recession will help boost profits, which are vital to achieving bottom-line growth. It will offset a couple unfavorable developments: the flat yield curve and a dearth of mortgage refinancing. Banks also may need to cover losses in their bond portfolios should interest rates rise significantly faster than currently expected—an unlikely possibility.

Although the 2019 yield curve will be quite depressed, deposit growth should remain strong due to more uncertainty about economic growth, high stock market price earnings ratios, high bond valuations, and concerns about poor federal fiscal and tax policies. Higher CD yields will support deposit growth. Deposits probably will continue to migrate from smaller institutions to larger commercial banks and larger credit unions. Large banks and credit unions also are better positioned to absorb the costs of complying with many new regulations.

In addition, large banks are more capable of deploying the mobile-banking services that customers increasingly desire. Managing the risks associated with these new technologies will be challenging, however.

Loan growth will continue at a slower pace, and financial institutions will benefit from the up-cycle in residential real estate, declining mortgage default rates, and continuing modest home price appreciation. The use of home equity loans therefore will increase. Many banks will benefit from high levels of corporate profits. Opportunities to boost earnings derived from mergers and acquisitions and IPOs will sustain the banking industry.

The yield curve with respect to home mortgages also will be flatter in 2019, which will hurt banks that originate mortgages. Home purchase origination will increase, but refi-origination will decline significantly. Adjustable rate mortgages' share of total originations also will be quite low.

### Sector Summary

**Direction: moderate increase**
**Performance: average**

Improving housing markets and more mortgage origination to purchase a home will have the greatest beneficial impacts on community banks. Due to more rigorous lending standards and depreciated real estate values, new home loans originated in 2019 will generally prove to be good loans. The best home loans are typically made during the early to middle stages of an expansion whereas the worst loans typically made during the late, or boom, years. Although Georgia's economy is in the late stages of the current expansion, the housing market has not boomed. Existing home prices therefore are low after taking into account inflation or replacement costs. In 2019, non-revolving credit will grow more slowly than revolving credit. Nonetheless, higher consumer spending for durables should ensure growth of non-revolving loans to households, but banks will tighten lending for car loans because of rising delinquencies.

Georgia's financial institutions in particular will benefit from much improved demographic trends – including the state's above-average population growth and household formation – because the in-flow of new residents increases the demand for banking services, props up asset prices, and encourages new business formation. In 2019, Georgia's rate of population growth will still be low relative to the rates prevailing before the recession, but it will be much higher than in 2007-2011. Also, household formation rates will rise due to (1) Georgia's strong labor market; (2) improvements in the nation's housing markets; (3) more in-migration from other states; and (4) a resurgence of retiree-migration to Sunbelt states like Georgia.

The growth of customers' deposits will favor financial institutions' bottom lines. Deposit growth provides banks with their cheapest funds, but deposits will get more expensive to attract as banks raise yields on CDs to remain competitive. The lingering effects of the housing recession, the stock market's high valuations, high bond prices, and a general understanding that interest rates are gradually rising make it very likely that many households will continue to look for safe places to park their increasing savings, such as checking accounts, savings accounts, and short-term CDs. However, the fees earned on these burgeoning deposit accounts are low. In addition, credit unions—which often have even lower fees—will continue to usurp market share from banks.

Georgia's commercial banks will see more competition from large retailers, venture capital funds, microfinance, and other nonbanks that often are less heavily regulated than traditional banks or credit unions. Uneven regulation aside, many banks are vulnerable to tech savvy upstarts because they have been slow to utilize customer data or to fully embrace new technologies (such as mobile banking).

As the Federal Reserve raises short-term policy interest rates, the rates financial institutions pay depositors on CDs will increase, and thus reinforce growth of the deposit base. As a consequence, banks will become slightly less dependent on more expensive sources of loanable funds, such as wholesale markets or sales of equities. In addition, faster growth in loans to both households and businesses will increase the need for these costly funds. Competition among banks for the lowest risk loans will be keen, which could pressure margins on loans with the least amount of risk.

Due primarily to demographic trends, the long-term prospects for deposit growth also are excellent because aging baby boomers will gravitate towards safer and liquid assets. In addition, immigrants will accumulate more wealth and to remit smaller proportions of their gross incomes to relatives living abroad.

In Georgia, the quality of personal, corporate and business loans outstanding will be good, but not as good as in 2018. The proportion of non-current loans probably hit cyclical lows in 2018 and will rise slightly in 2019 before climbing more substantially in 2020.

One reason for this growth is that Georgia has done well in terms of landing major new economic development projects across many capital-intensive manufacturing and service industries. A second reason to expect loan growth is 2019's positive sales outlook for nearly every major industry.

Capacity utilization has nearly recovered to levels that stimulate investment in plant and equipment, which is a good sign for commercial and industrial lending. Businesses' confidence in the economic situation is relatively high as is their sales outlook. Consequently, the demand for commercial and industrial loans will almost certainly rise in 2019.

After-tax corporate profits will rise by about 5 percent, encouraging more companies to act on their plans to expand or otherwise invest. The Savannah harbor deepening project gives Georgia's logistics, transportation, and distribution firms the confidence to expand operations, generating demand for loans. So, barring an outright trade war, export markets will be a positive factor when it comes to commercial and industrial lending in 2019.

Improvements in housing market conditions will help to mitigate further damage to banks still saddled with large concentrations of loans made during the boom to homebuilders or real estate developers. Indeed, housing markets have already improved enough to stimulate the formation of new community banks.

Real estate secures most short-term lending to businesses, and while conditions in nonresidential real estate markets have improved tremendously, there is still a plethora of underutilized or vacant retail and office space in too many places. This reduces banks' willingness to make new loans—and often the quality of their old loans. But as conditions improve, financial institutions are more willing to make new commercial loans secured by real estate.

One major problem for financial institutions is regulation, and although the situation is better, substantial additional deregulation is not expected in 2019. The new capital requirements were intended to make the banking system safer, but they did not address several primary causes of the financial crisis: financial institutions' tendency to use of pro-cyclical loan to value ratios, the moral hazard of deposit insurance and the FDIC, and the pro-cyclical policies of Fannie Mae and Freddie Mac. Hence, the new regulations, which will reduce the efficiency and competitiveness of U.S.-based financial institutions may do very little to actually prevent future financial crises from developing.

For several years, the Federal Reserve has worked hard to keep both long- and short-term interest rates close to historically low levels. Consequently, the yield curve has been very flat. Net margin compression pushed many banks to purchase a greater proportion of assets with longer maturities, which means that many banks have assumed credit risks that could come back to haunt their balance sheets—and their mark-to-market value—should long-term interest rates rise substantially.

**Financial Planners**

The prospects for financial planners and stockbrokers are good. The financial planning industry's revenues will rise faster than GDP, reflecting growth in disposable personal income, increased employment, and the recent wealth gains realized by many high net worth individuals. Advisory fees will continue to benefit from increases in the value of assets under management.

Although the forecast for the financial planning industry is good, it is not exuberant. More people are entering their retirement years, which argues for asset allocations that give heavier weights to bonds rather than stocks – or at least towards income stocks rather than growth stocks. Of course, thoughts of real estate as an investment has darkened somewhat, which could tip the balance back towards stocks even as people become more comfortable with the overall state of the economy and their level of personal debt.

Increases in longevity, the increasing median age of the population, and concerns about the viability of Social Security and other public and private pensions favor stockbrokers and financial planners. People will take more responsibility for their own retirement incomes, and their growing investments will increase revenues derived from asset management and commissions. The relentless movement towards retirement plans based on defined contributions rather than defined benefits gives long-term support to the stock market and financial planners and stockbrokers. So, even modest increases in the average retirement age and/or labor force participation by persons over 65 will benefit financial planners and stockbrokers.

Major long-run challenges to financial planners as well as traditional stockbrokers will be more competition from banks, insurance companies, and online discount brokers that promote do-it-yourself financial planning, and alternative trading systems. The increasing use of alternative trading systems will make the industry focus more on retail investors and become more dependent on fees charged based on the value of assets under management rather than commissions. This ongoing shift towards fees and away from commissions will help stabilize industry-wide revenues – and profits. Fees are earned whether or not stocks are traded.

Due to both consolidation and a slowdown in the pace of entry by new companies into the financial planning market, industry concentration is increasing. Economies of scale created by new technologies will encourage further consolidation of the financial planning industry. Meanwhile, heightened competition will compress net margins. In addition, as consumers become more familiar with online and mobile banking they will be more apt to manage their own accounts.

As of mid-2018, it appears that equities are moderately overvalued. In addition, treasuries and bonds generally are overpriced – due primarily to risk aversion and the cumulative effects of prolonged and aggressive bond buying by the Federal Reserve. Assuming that the financial markets and the overall economy continue to grow, the outlook for equities is slightly negative, which implies that trading activity probably will neither rise nor fall significantly. Most companies will experience higher after-tax profits, which should mitigate any reversal in equity markets. Since current stock valuations are on the high side, barring a major economic trigger or shock, a great many stocks probably will be range bound in 2019.

Sustained economic recovery will support initial public offerings as well as mergers and acquisitions, which will help to support stock prices. In many industries, relentless competition and new regulations will spur merger and acquisitions activity related to ongoing consolidation or strategic positioning. In addition, hardship withdrawals from households' 401(k)-type assets will continue to diminish in 2019.

The Federal Reserve will raise short-term interest rates in 2019, with long-term market interest rates potentially rising less than short-term rates. The yield curve will be very flat and may invert. The increases in long-term interest rates will be due to increases in demand for loanable funds. Interest costs will not erode companies' net earnings very dramatically, however.

On the negative side, the dollar's high value discourages foreign investors from purchasing U.S. equities. In addition, growing recognition that U.S. residential real estate markets are on a sustainable upswing and are generally undervalued may prompt investors to put more money into real estate, and could temper gains for other asset classes, including equities.

**Property and Casualty Insurance**

Despite broadly based growth in the demand, market conditions will remain soft due to high levels of underwriting capacity and intense competition. With the notable exception of automobile insurers, insurers will have difficulty increasing premiums. Nonetheless, solid demand growth will allow insurers to maintain underwriting discipline, which will be essential to profitability given the low rates of return expected on low-risk types of financial assets. Property and casualty insurers are unlikely to earn significant underwriting profits on personal lines in 2019.

Overall demand for homeowners and automobile insurance will increase moderately. Except for auto insurance, insurance premiums will increase only slightly. Car insurance premiums in Georgia will rise substantially due to more frequent and more severe collisions. (Fatal automobile accidents are rising much faster in Georgia than in the nation as a whole.) The increase in the frequency and severity of auto insurance claims reflects more miles driven (due to job growth), higher speed limits, and increased traffic congestion. The increased use of sophisticated modular parts is also a factor driving up repair costs. Formerly inexpensive damage to lights, grills, and bumpers can easily cost thousands of dollars to repair.

Insurers should not count on large gains in investment income to reinforce their underwriting profits. Yields on relatively risk-free types of bonds will increase in 2019; however, yields will still be extremely depressed from an historical perspective.  Another factor depressing yields is that the average maturity of bonds held by insurers has declined significantly. Although rates on riskier categories of bonds are much higher than on treasuries and the prospects for real estate price appreciation are good, insurers profits will not benefit too much from these trends because they hold too many risky assets in their portfolios.

In 2019, there will be an increase in households' demand for property and casualty insurance, with homeowners leading automobile insurance. The number of new homes sold and home prices will rise in 2019, which means increases in insured amounts. In addition, the upturn in major home renovation and expansion activities will add to insured amounts.

As the economic expansion continues, demand for workers' compensation and liability insurance purchased by businesses will increase. Nonetheless, an abundance of underwriting capacity guarantees intense competition among insurers, which will prevent premiums from rising very much for most commercial lines. The recent increases in prices paid for commercial properties and new office, hotel, retail, and industrial development are among the factors that will support premium increases and demand growth. A slightly more optimistic attitude towards spending for new equipment and facilities will boost demand growth for property insurance in 2019.

**Life Insurance**

Improved fundamentals on the demand side will result in better rate increases (for those with the worst possible risks). Since premium hikes are expected, higher underwriting profits also are expected, but low returns on managed assets —especially fixed income securities—will limit gains in overall profitability. Cost reductions also are possible for insurers, which could boost profits.

Over time, the combination of longer life expectancies, later first marriages, fewer children, lower levels of household debt, and lower home ownership rates will tend to reduce the need for traditional life insurance. Nonetheless, there are some positive developments. Longer life expectancies imply lower mortality rates which potentially can increase insurers' or re-insurers' profit margins on term life insurance, especially margins on existing policies that were sold when life expectancies were shorter. In addition, the baby boomlet should stimulate demand for traditional life insurance policies. Meanwhile, the demand for retirement-oriented products should benefit from longer-life expectancies and less generous employer-paid pensions.

Annuities are the primary source of the industry's premiums, but low interest rates have restricted growth of this product. Now, as people are increasingly worried about outliving their assets in retirement, this concern will spur the purchase of annuities and other investment-oriented products. Annuity sales also will benefit from a trend towards retiring at an older average age.

**Residential Real Estate Firms**

In 2019, a decline in sales of existing homes will reduce commissions earned by Georgia's residential real estate brokerage firms, but an increase in sales of new homes will boost commissions as builders slowly ramp up production. Additional easing of credit standards, slightly more confidence in real estate as an investment, appreciating home prices, and the stronger job market are additional factors that bolster prospects for residential real estate firms. Georgia's real estate industry also is well positioned to benefit from the retirement of the baby boomers – a strong demographic trend that is virtually locked in until approximately 2028.

Stiff competition will encourage the ongoing consolidation of this highly fragmented industry. Demanding clients expect realtors to provide more services and greater expertise, which realtors working at the larger firms can achieve quite efficiently. Global corporate activities should favor commercial real estate firms with international experience, but small, highly specialized, relationship-based firms also should do well. ❖

# Retail Trade

**Consumer markets will be grow less vigorously than last year.**

Georgia's retail sales will rise by 5 percent in 2019, which will exceed the 4 percent gain expected for U.S. retail sales. Job growth, wage and salary increases, good availability of credit, stronger housing markets, above-average population growth, and a higher rate of household formation will be the primary drivers. Consumer confidence will remain high enough to favor retailers, but will be significantly lower than in 2018. Higher borrowing costs, a slight uptick in households' savings rate, less wealth-effect spending, more retail price inflation, and potentially more trade disputes are negative factors for retail sales growth.

Greater stock market volatility and a higher risk that stock prices may decline significantly also may cool retail sales. Perennial headwinds will include the ongoing secular shift of consumer spending from goods to services, the aging population, the unevenness of the home price recovery, and a pervasive lack of pricing power due to intense competition between traditional and online retailers. On balance, Georgia's retailers will enjoy moderate top-line growth, but higher operating costs and intense competition will result in much narrower margins. Some iconic brick-and-mortar stores will close, but hiring by online retailers means that the overall number of retail-related jobs in Georgia will be steady or drop very slightly.

Low-end and high-end retailers will continue to fare better than mid-market retailers. Multi-channel retailers that fully integrate web and physical stores will fare better than those that do not fully integrate their retail activities. In 2019, the bricks and mortar retailers with the best prospects include drug stores, off-price luxury stores, discounters, and a variety of specialized small-format grocery stores. The strongest malls will do well, but the majority of them will underperform. Some malls will be repurposed or demolished.

The brick-and-mortar retailers with the worst prospects are primarily those who face the most intense online competition: bookstores, electronics stores, video stores, shipping/postal stores, and stationery stores. Unionized grocery, office supply, sports and hobby, and mid-priced apparel/department stores will continue to struggle. The aging of the population will be especially challenging to clothing stores, liquor stores, and car dealers.

In 2019, retail sales growth will benefit from increases in the number of jobs, because more jobs will give more people the confidence and the wherewithal to spend more. The tight labor market will prompt wage and salary growth, and consumer confidence will be high.

| Sector Summary |
| --- |
| **Direction: moderate increase**<br>**Performance: average** |

The up-cycle in residential real estate markets will be another major force powering retail sales growth, especially of home-related items. The impact of improving housing markets on retailers will be greatest in geographic markets where population growth and home-price appreciation are strongest. The wealth effect generated via rising home prices also will provide a broad support for consumers overall spending on retail goods as well as many household services. In addition, the forecast anticipates continued recovery of new home construction and new home sales, which will raise demand for home-related retail goods.

Credit will be available to households, which will encourage retail sales growth. Personal bankruptcy and bankcard delinquency rates have both come down from their cyclical highs, reflecting easing of the distress households have endured. The savings rate will increase only slightly 2019, which will not slow retail sales growth too much.

Another favorable development for retailing will be continued increases in the number of tourists and business travelers who boost the prospects for retailers located near major tourist attractions, convention centers, or clusters of hotels along major interstate highways. Georgia's above-average population growth remains a long-term plus for in-state retailers. As the rate of household formation rises, so does the demand for household goods.

In 2019, the combination of sales growth plus shoppers' recent shift to private label brands—where prices are lower and profit margins typically are higher than those of premium national brands—should lessen the pressure on retailers' net margins. Margins also will benefit from a slight shift away from basic products towards high-margin discretionary ones. Intense competition among surviving retailers—especially online retailers—will keep the pressure on net profit margins, however.

Although liquidity has improved, many retailers—including those with high cash balances—will be cautious about capital expenditures. Moderately higher sales volumes coupled with stiff and increasing competition (and some recent high-profile retail bankruptcies) often encourages restructuring, but there is still a lot of vacant, or under-utilized, good quality space in most of Georgia's retail markets. Moreover, capital will not be readily available to finance retail projects.

Three themes will dominate the restructuring that does take place. First, large retailers will gain at the expense of smaller ones. Second, discount and luxury retailers will gain market share at the expense of mid-price retailers. Third, online retailing will boom. In general, supercenters and online sites will gain market share at the expense of traditional department stores, big-box stores, and mom-and-pop operations.

**The Bricks**

Georgia's largest regional malls, lifestyle centers, outlet or mixed-use centers will continue to outperform many smaller malls, older neighborhood shopping centers, and isolated stores. Neighborhood and strip centers that focus on food or service providers will fare better than other types of retailers, however. Some urban shopping districts will do very well, but many will see below-average sales growth. Small chains, independent specialty stores, and direct mail will remain an important part of the retail scene, but will claim a smaller share of total sales.

By focusing primarily on price, many types of discount stores and other value-oriented retailers will continue to prosper. In 2019, discounters' share of total retail sales will rise, but even they will face much more competition from online shopping as middle-income shoppers continue to pinch pennies.

**Walmart**

The company will experience average gains in year-over-year sales in 2019, which will maintain—but not enlarge—the company's already dominant share of total retail sales. The fact that it is now the nation's largest grocer validates both the supercenter format as well as the concept of neighborhood stores, but discount supermarket chains like Aldi increasingly will challenge Walmart's dominance in the discount grocery segment.

Walmart's extraordinary success across a broad spectrum of retail categories stems from its tremendous operating efficiencies, which are passed onto consumers in the form of everyday low prices. Price alone is often the deciding factor for many families, and luring online and in-store Walmart shoppers is vital.

**Click and Mortar Retailers**

In 2019, online sales will grow much faster than overall retail sales, further expanding electronic retailers' share of overall retail sales to over 10 percent. Research shows that most consumers who shop online are very satisfied in doing so, and encourage others to become e-shoppers. Most shoppers go online to save both money and time, two of the imperatives that are shaping the future of retailing in general. Websites also are becoming more functional, especially for mobile customers. Online shopping allows people to avoid the crowds and the traffic, to shop 24/7 and to shop comfortably from the sidelines, and save gas. Finally, electronic retailing is an extremely accessible alternative for increasing numbers of disabled, elderly shoppers, or shoppers who cannot drive.

The continued expansion of the number of products available online, competitive prices, and social commerce will help to fuel the growth of cyber shopping. Shoppers also are more comfortable with online payment systems. Delivery times for items ordered online will continue to shrink, and fulfillment is a relatively minor deterrent to many electronic purchases. Indeed, Amazon is already pushing hard to expand its supply chain to provide profitable next-day delivery. To expedite convenient delivery in some locales, specific retailers are even experimenting with secure locker pick-up of online purchases.

There are potential problems: Online competition is intense, and leads to margin compression. In addition, shipping costs continue to be a big reason why online shoppers kill a transaction. Meanwhile, electronic retailers must contend with customers' concerns about secure access and methods of payment, returning merchandise, spam email, and post-purchase services. Large, established retailers, with name recognition and a store in nearly every city, have been very successful at easing such concerns. Even the recent loss of web stores' online tax advantage did damage sales too much.❖

**Services-related business activity will lead the economic recovery.**

Although most of these businesses will expand, some will stagnate, and a few are expected to decline. In general, most will continue to experience above-average revenue growth. Larger household budgets for discretionary spending will increase demand for luxury and easily postponed services. Continued growth in corporate and government revenues will spur demand for many business services. Repair services will be less busy, however, because people will replace rather repair things when the economy is good.

### Staffing Services

Georgia's staffing and temp agencies should do very well because the modest pace of economic growth encourages many firms to remain flexible and responsive to any changes. A slower pace of overall job growth, however, implies that demand for these services will also grow more slowly than it did last year. In addition, the state's low unemployment rate will restrain growth of the staffing industry in two ways. First, workers will be less willing to accept temporary positions, since permanent jobs are more available. Second, the supply of suitable temporary workers will be more constrained that it was several years ago when the unemployment rate was higher.

The staffing industry will continue to benefit from its increased focus on professional and technical workers, whose prospects are less cyclical. After a decade of disappointing raises, widespread economic restructuring, and cutbacks in employer-provided healthcare benefits, these skilled workers will probably be more open to considering temporary positions, or at least put less of a premium on permanent positions.

One factor that will help staffing agencies is that employee turnover will increase in 2019 as people are more optimistic about finding a new job. Another plus for the industry is that many of Georgia's largest companies are thriving, and historically they are the ones that tend to rely most on staffing agencies to find new employees.

Temp agencies will find that some of the fastest growing niche markets include medical and technical staffing. Opportunities to provide staff to export-oriented companies, including those involved in logistics and distribution will improve only modestly. Prospects for firms that specialize in clerical, light-industrial, and financial services staffing also will not improve too much. In the long term, firms that specialize in providing temporary or contingent workers will do well because companies depend on temporary workers to fill in for absent staff, to buffer cyclical shifts in business activity, and to meet predictable seasonal swings in demand.

| Sector Summary |
|---|
| **Direction: large increase**<br>**Performance: above average** |

The increased use of domestic outsourcing is an important factor behind the growing number of skilled workers who work on temporary assignments, even though the jobs may last for a year or more. Increasingly, firms rely on temporary workers to complete special projects or as a way to screen their potential to become a permanent hire.

### Computer Services

Companies that facilitate the outsourcing of computer services will see the fastest growth. Some of the factors that encourage companies to hire outside experts or outsource their IT needs include: help with sophisticated equipment; adopting cloud computing; bolstering cyber security; and managing and maintaining their websites.

There are two powerful counter trends, which will restrain demand: (1) the increased outsourcing of computer and information services to providers located abroad; and (2) the increasing ability of clients to do the work themselves.

**Legal Services**

Law firms that provide services to businesses will benefit from increases in the number of business startups, expansions, and mergers and acquisitions. Businesses also typically devote more resources to litigation when corporate profits are high. Larger firms will find the best opportunities in metropolitan Atlanta, but independent lawyers probably will fare best in rapidly expanding small or medium- sized cities. National firms will continue to expand their presence in Atlanta, using it as a geographic hub from which to service clients located throughout the Southeast. The growth of Georgia's population of high income retirees will benefit lawyers that specialize in planning estates and drafting wills.

Looking beyond 2019, new laws and the increasing complexity of existing ones, particularly tax codes, will continue to generate business for law firms. Long-term demand also will increase because of growth in litigation of intellectual property, patent law, energy, healthcare, employee benefits, consumer safety, and environmental concerns.

Long-term potential problems for the industry include political pressures to contain litigation costs, including constraints on the right to sue, caps on judgments, and more costly penalties for frivolous lawsuits. The off-shore outsourcing of routine legal work as well as legal research will challenge the industry, particularly paralegals. The increasing use of do-it-yourself legal kits, mediation, and alternative dispute resolution methods will siphon away some legal business. Another trend that will limit future business opportunities for legal firms is the expansion of many corporations' in-house legal departments. Finally, non-lawyers will continue to invade the turf once held by the legal services industry, and this is especially likely in the provision of online legal services.

**Childcare**

The outlook for childcare firms is good, particularly for centers that expand their operations to offer round-the-clock care. As the economy generates new jobs, more parents will rely on childcare providers to care for their children. Providers should be able to raise rates at a pace that covers cost increases, but probably will not enlarge net margins too much.

The industry will prosper because more children will be enrolled in professional daycare centers. This reflects high labor force participation rates for women as well as more single-parent and nontraditional households. The trend towards delayed childbearing in order to establish careers will help the childcare industry, and this trend will be particularly beneficial to the high-priced luxury end of the industry. Parents' increased desire to control what children do after school hours also favors firms that specialize in after-school care.

Childcare centers that provide weekend care, extended hour care, and occasional overnight care will do well, especially in the metro Atlanta area, where long and unpredictable commutes due to intense traffic congestion favor centers that open early and stay open late. Centers that provide care for mildly ill or care to recuperating children also will have an advantage.

**Educational Services**

In Georgia, above-average population growth will increase demand for educational services. Long-term trends are very favorable, because current and future jobs will require significant investment in higher education. Widespread dissatisfaction with public K-12 education will encourage the growth of private schools. Also, Georgia students' low SAT scores will spur demand for supplemental educational services.❖

**This sector has the potential for enormous growth, but prices are becoming prohibitively high for some people.**

Of the three healthcare subsectors, ambulatory healthcare exhibits the strongest employment growth. Hospitals are not far behind. Employment growth in nursing and residential care was flat over the past year, but the aging population will drive up employment in this subsector over the next few decades.

**Healthcare in the U.S.**

Healthcare policy has been one of the most tumultuous aspects of American politics over the past decade. The Affordable Care Act (ACA) was the most significant policy change to healthcare since Medicaid and Medicare. One key aspect of the ACA, the individual insurance mandate, has now been repealed. Beginning in spring 2019, there will no longer be a fine imposed on those Americans choosing to forgo health insurance. Time will tell whether the repeal of the individual mandate negatively influences prices of healthcare premiums.

Over the past few years, additional legislation has been proposed that would drastically impact cost sharing of healthcare among federal and state governments, insurance companies, employers, and individual Americans. Little has been done at the national level to control skyrocketing prices of medical procedures, services, and drugs. Unfortunately, high prices are primarily hurting individual Americans who lack the bargaining power held by insurance companies. As of 2016, annual U.S. healthcare spending topped $10,000 per capita. Currently, Americans' combined healthcare spending is over 18 percent of GDP. By 2025, healthcare spending will likely reach 20 percent of GDP or more.

Total spending on healthcare is driven by two components: price and utilization. Utilization is how often individuals seek out healthcare services. In recent years, increases in spending were almost entirely attributable to increases in price, not utilization. Healthcare spending can be divided into four general categories: inpatient care, outpatient care, professional services, and prescription drugs.

Utilization of most categories of healthcare services fell between 2012 and 2016, with prescription drugs as the only exception. Even so, the increase in utilization of prescription drugs was minor, at 1.8 percent over a four-year period. Prices of prescription drugs, on the other hand, jumped almost 25 percent. Utilization of inpatient services experienced the largest decline (almost 13 percent) of any category. Nonetheless, average prices of inpatient care increased by 24 percent from 2012 to 2016. Prices of outpatient services grew by almost 18 percent despite a 0.5 percent decrease in utilization. Prices of professional healthcare services grew the least (14.6 percent) despite a 3 percent drop in utilization.

Employment in the healthcare sector is growing. Healthcare currently accounts for 13 percent of all U.S. occupations. The proportion is projected to rise to 14 percent by 2020. One in ten new positions created over the next decade will be in the healthcare field. In some areas, there is a greater demand for healthcare than can be fulfilled by the current number of doctors and nurses. As the population ages, treatment of chronic diseases and restorative procedures will drive medical spend-

**Sector Summary**

**Direction: large increase**
**Performance: above average**

ing. Currently, 15 percent of the American population is aged 65 or older. By 2035, that proportion will be over 20 percent.

## Healthcare in Georgia

Compared to most other states, Georgians have below-average health. In 2013, the United Health Care Foundation ranked Georgia 38 among 50 states in citizen health. Health among seniors ranked even lower, with Georgia ranked 40. Over 15 percent of Georgians under the age of 65 do not have health insurance; and due to the repeal of the individual mandate, this proportion may rise to over 20 percent. Over 30 percent of Georgians are overweight or obese and death rates from heart disease, cancer, and diabetes are above U.S. averages. Nineteen percent of Georgians smoke, significantly higher than the national smoking rate of 15 percent. Poor health across the state along with an aging population has caused demand for healthcare services to increase statewide. In 2014, it was estimated that less than 60 percent of the primary healthcare need in Georgia was being met. Based on this estimate, the state's healthcare sector has the potential for significant growth.

Privately-owned healthcare facilities employ 407,000 people or 12 percent of Georgia's workforce. In addition, more than 48,000 employees work in federal, state, and locally-owned facilities across the state. Based on employment growth rates in each subsector, Georgia's combined public and private healthcare workforce could grow to 470,000 employees by the end of 2019.

## Ambulatory Healthcare

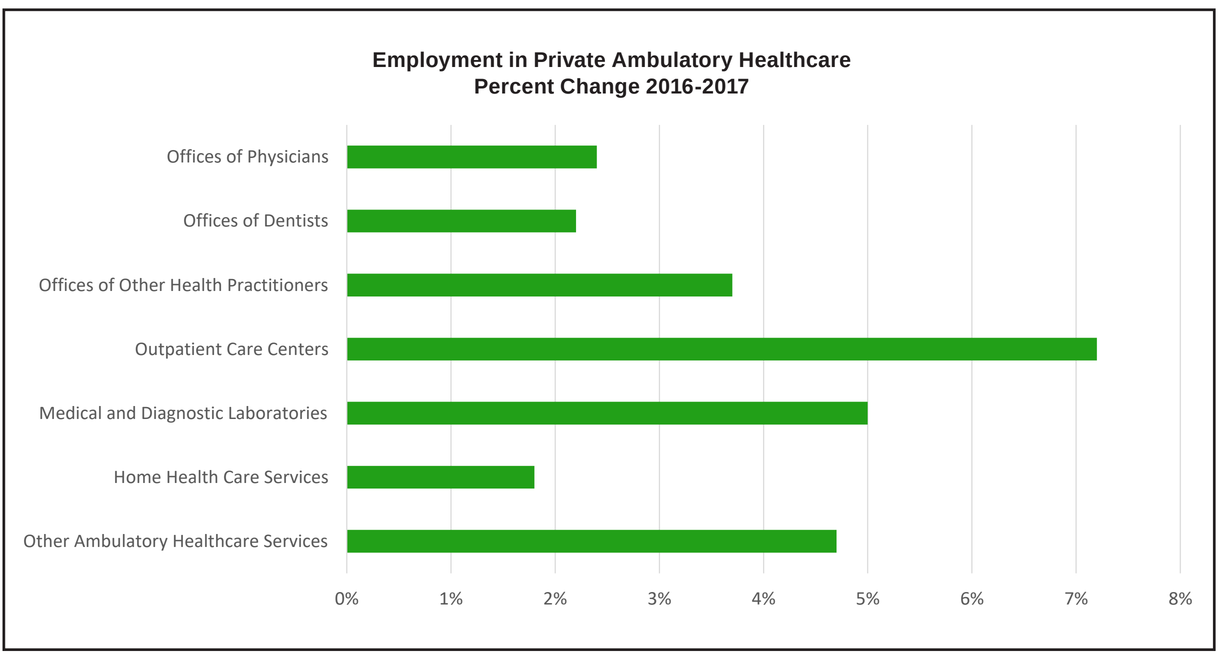
Ambulatory healthcare includes the offices of physicians, dentists, and all other health practitioners. The subsector also includes outpatient care centers, medical and diagnostic laboratories, home healthcare services, and others. Unlike hospitals, the facilities and equipment are usually not the most significant expense. Ambulatory healthcare has more room for specialization than hospitals; and as of 2018, has provided 203,000 jobs in Georgia, with over 9,000 jobs added since 2017.

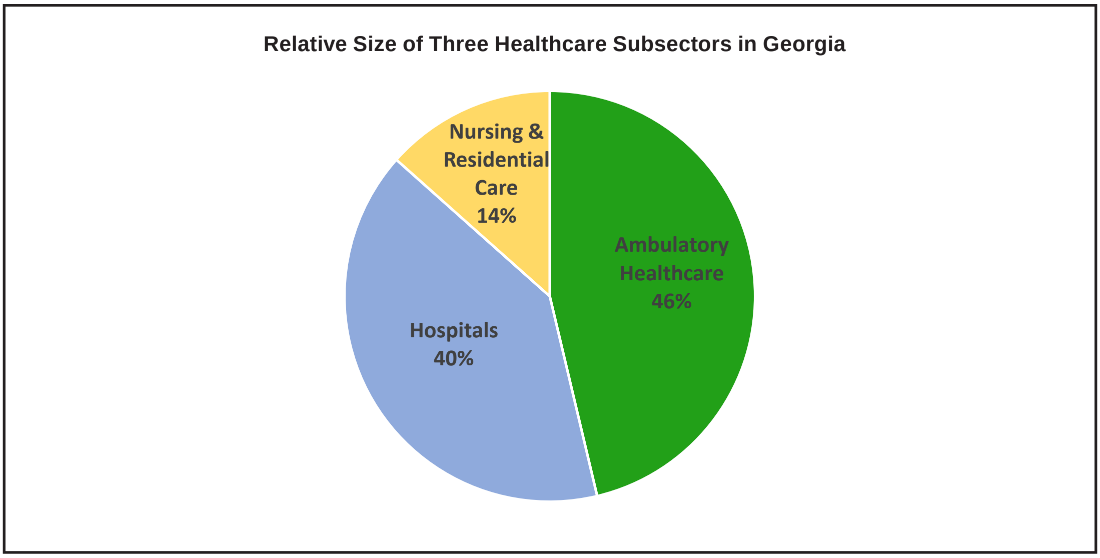
Doctors' offices are the largest segment in this subsector, employing 88,435 Georgians as of 2017. Dentists' offices are the second largest, employing 27,064 Georgians, followed by home healthcare services, with 25,581 employees. Offices of other health practitioners, which encompasses chiropractors, optometrists, mental health practitioners, and specialty therapists employed 23,456. Outpatient care centers employed 15,103. Other ambulatory health care services employed 9,050 in 2017. The smallest segment was medical and diagnostic laboratories, with 6,596 employees.

All high-level private ambulatory healthcare industries saw employment gains over the last year. Outpatient care centers grew the fastest, adding just over 1,000 jobs over a one-year period. All but two industries surpassed the statewide employment growth rate of 2.2 percent. Employment in home healthcare services grew slowly at 1.8 percent; offices of dentists matched the statewide employment growth rate. With over 60 percent of ambulatory healthcare professionals located in the Atlanta MSA, the subsector will continue to grow within the metro area as more people move to the city and the population ages. But there is plenty of room for employment growth elsewhere in Georgia.

## Hospitals

Industries in the hospitals subsector provide medical, diagnostic, treatment, and other health services to patients. Some hospitals also provide outpatient services. As of 2018, hospitals provided 177,000 jobs in Georgia, with over 6,300 jobs added since mid-year 2017. Fifty-eight per-






cent of Georgia's hospital jobs are in the Atlanta MSA, for a total of over 100,000 employees.

Private hospitals make up 90 percent of employment in Georgia's hospital subsector. General medical hospitals employed 143,927 Georgians in 2017, up by over 3,500 jobs (2.5 percent) from 2016. Psychiatric and substance abuse hospitals, which employed 3,729 Georgians in 2017, lost over 2 percent of their workforce since 2016, however. A larger proportion of Georgia hospitals are local- or state-owned when compared with ambulatory healthcare. Locally-owned hospitals employed 14,486 medical professionals in 2017, while state-owned hospitals employed 4,236 medical professionals.

Despite some losses in employment, the hospitals subsector should fare well in 2019. As outpatient surgeries become the norm, hospitals will likely increase their outpatient services. Unfortunately, the disparity in access to healthcare that many rural communities face is unlikely to be solved within the next few years. Many counties in Georgia lack hospitals, forcing residents to travel for up to several hours in search of medical care. Some rural counties depend solely on small, understaffed clinics for medical services. As poor health and old age cause demand to overwhelm smaller clinics, an increase in the number of hospitals in rural Georgia could significantly stimulate employment in the healthcare industry.

**Nursing and Residential Care**

This subsector comprises establishments that provide inpatient nursing care, rehabilitative services, and other care. Often, care is provided for an extended period. Many patients stay in nursing homes and residential care facilities for weeks, months, years, or even decades. As of 2018, nursing and residential care facilities provided over 59,000 jobs in Georgia, with flat employment growth since 2017. Forty-eight percent (or 28,000) of these jobs are in the Atlanta MSA.

Private skilled nursing facilities provide more than half of the jobs in Georgia's nursing and residential care subsector. As of 2017, there were 34,487 employees in skilled nursing facilities across Georgia, with 3.5 percent of jobs lost since 2016. Assisted living centers employed 18,367, and residential mental health facilities employed 4,012 Georgians in 2017. State-owned nursing and residential care facilities employed 2,914 Georgians in 2017, down by 6 percent over a one-year period.

Based on current employment trends, job growth in nursing and residential care will likely stay flat or grow very slightly in 2019. There will be ever-growing demand for assisted living and nursing homes as the U.S. population nears an average life expectancy of 80 years. As the need for round-the-clock medical assistance increases, employment in the nursing and residential care subsector has the potential for significant employment gains in Georgia over the next few decades.❖

Hospitality

**Consumers' spending on tourism and dining out will grow faster than their spending on goods.**

Hospitality will continue to outperform Georgia's overall economy in 2019, but by far less than in recent years. Nonetheless, both limited service properties that cater primarily to tourists and full-service properties that are popular with business travelers will post significant gains. In most areas, lodging demand will rise moderately from already elevated levels. In 2019, the number of new hotel rooms completed will exceed demand growth, an imbalance that will cause revenue per available room to grow more slowly, but total revenue will continue to grow faster than statewide GDP.

After attaining very high levels, occupancy rates are at, or near, inflection points in many areas. The growth in the number of new rooms will exceed increases in demand in many markets, reversing the upward trend in overall occupancy rates that boosted the industry for several years. Occupancy rates will decline slightly in 2019, especially for older properties in less than prime locations. The shift in the overall balance of supply and demand will limit further increases in average daily room rates, thereby restraining the growth of overall profits. Off-peak rates may even decline in places where home sharing companies have an ever-growing presence. Peak room rates at newer properties will set all-time record highs, however.

In addition, increased use of many hotel services will bolster revenue per available room. As always, curbing operating expenses will be important to profit generation, but higher wages and other cost pressures will stymie the industry's efforts to do so. Technology costs will increase significantly faster than revenues as hoteliers deploy digital customer services and make greater use of mobile marketing. Accelerating costs and slightly lower occupancy rates will squeeze profit margins in 2019.

The lodging industry's overall revenues will outpace gains in bookings with revenues from rooms growing at about the same pace as revenues from food and beverage operations. Demand for the most luxurious accommodations will strengthen as more vacationers and business travelers look for exclusive or customized experiences, but the price remains an issue for many guests. Revenues from spas, wellness services, special interest packages, and other customized experiences probably will increase significantly, but revenues from telecom services and video on demand will continue to decline.

**Sector Summary**

**Direction: large increase**
**Performance: above average**

Spending for high-end lodging will increase thanks to above-average income growth for the wealthy, and increases in corporate travel budgets. Upscale properties will benefit from recent increases in the state's meeting and convention activity.

An increase in occupancy—especially weekend bookings—on the shoulders of major events will help, too. In 2019, meeting and convention travel will grow slightly faster than leisure travel, which implies that demand for mid-priced or better properties will expand faster than demand for basic ones.

The prospects are very good for mid-priced properties, which corporate travel policies favor to control costs. The increased popularity of one-day or weekend trips should help in-state hotels and restaurants that are close to tourist attractions, and helps to distribute business across the calendar year. More travel by employees of state and local governments—who tend to stay at mid-priced properties—also bolsters prospects for this segment.

Although the baseline forecast for Georgia and the nation calls for a moderate expansion, there are some headwinds and downside risks for the lodging industry. The main economic risk for this consumer discretionary industry is the possibility of a recession. The main political risks include more entry restrictions on foreign travelers and divisive state-level legislation such as "religious liberty" or "bathroom" bills. Pandemics and major terrorist incidents are low-probability, but potentially high-impact downside risks.

Due to a tighter labor market, there will be more pressure on wages and salaries than in recent years, which will exert pressure on net margins. In addition, hotel property taxes will continue to rise. The $5 statewide hotel/motel fee is a negative factor. The increasing hassle associated with air travel and entry restrictions will continue to discourage domestic long-distance and inbound international travel, respectively. Insurance and security costs will rise, and the greatest impact of these particular cost increases will be on luxury and upscale properties. To some degree, process improvements such as online booking and mobile check-in will help to offset the cost pressures. Nonetheless, total expenses will rise faster than total revenues, and so overall profit margins will drop slightly in 2019.

The shared economy also is a major disruptor for the traditional lodging industry. Home sharing companies have tremendous advantages in terms of less regulation and lower overhead, and they often do not collect or pay local hotel/motel taxes. The promise of lower prices and the possibility of a more authentic experience attract travelers to platforms such as Airbnb, HomeAway, and TripAdvisor Vacation Rentals. One positive is that home sharing companies provide options in locations where traditional lodging is nonexistent, small, or inadequate to accommodate special events. The risks to lodgers in terms of security, cleanliness, and uncertainty are significant, and might prevent home sharing companies from becoming more than successful niche players.

**Business Travel**

Most of the fundamental drivers of business travel are good: Corporate profits will increase; markets for many goods and services will grow; businesses will expand and relocate; and staffing levels will rise. These positive developments insure that business spending for travel will grow; however, technologies that reduce the need to travel and cost containment policies are unlikely to loosen. Convention travel in particular may not benefit proportionally from improving business conditions. In contrast, corporate outlays for revenue-generating travel linked to business development such as meetings with new or existing clients will rise substantially.

**Leisure Travel**

Vacation and leisure travel is largely discretionary, and is even more cyclical than spending on business travel. Job growth will slow in 2019, but will remain high enough to spur households' spending for leisure travel. Personal income growth and consumer confidence will prompt more trips that are discretionary. A strong dollar will support more outbound international travel, but will discourage in-bound international travel. Demographic shifts in the age composition of the population, population growth, and the fast-paced growth of the African-American travel market bode well for Georgia's leisure travel industry.

Favorable demographic trends and travelers' increasing desire for more interesting experiences have combined to make historic and cultural travel one of the fastest growing segments of the travel market. As the economic expansion continues, its appeal will grow even stronger. This is excellent news for Georgia. Atlanta is one of the nation's most popular destinations for history/cultural travelers, but to reach its full potential Atlanta must connect its abundance of far-flung attractions together—either physically via visitor-friendly transportation (e.g., shuttles) and/or emotionally via effective marketing. The payoff from connecting the city's cultural and historical attractions will be substantial because these particular travelers spend far more than the average traveler, and their trips tend to be relatively long. In addition, meeting and convention planners increasingly will select future sites based on their cultural and historical appeal. For example, Atlanta already is a "must see" cultural destination for African-Americans. Consequently, Atlanta is the nation's premier destination for African-American meetings and conventions.

**International Travel**

In 2019, the prospects for U.S.-bound travel will improve, but are not great. The strong dollar will be a headwind, making travel to Georgia more expensive for vacationers from overseas. Leisure travel accounts for about four out of five nonresident visits to the US. Growth of the global economy will be a tailwind behind the growth of international tourist arrivals, but global economic growth will be slower in 2019 than in 2018. Airlines' focus on overseas flights will encourage more international travelers to visit Georgia, especially when direct flights to overseas destinations are added to airlines' schedules. Long waits for visas and strict entry requirements will be barriers to faster paced growth, however.

Based on the number of non-resident overseas arrivals, Georgia ranks 11 in the number of overseas visitors in the continental United States, and is behind only Florida and Texas in the South. In 2019, international visitation to Atlanta will grow faster than international visitation to the U.S. as a whole.

**Restaurants**

The restaurant industry will see its eleventh-straight year of sales growth. Quick-service sales growth will outpace table-service sales growth, with chef-driven fast-casual restaurants faring especially well. Bars and taverns will see very slow growth, however, and cafeterias and buffets will see sales decline. In 2019, there meal kits and home delivery will be popular; and food trucks and pop-up restaurants will continue to attract customers.

Finding qualified and motivated employees will be a challenge, however, because jobs outside of the industry pay better. Employee turnover, which has been relatively low, will increase. In addition to rising labor costs, rising rents in prime locations will squeeze operating margins. Restaurants also will spend more on technology and remodeling in an effort to boost sales.

A negative trend for some restaurants is that a fewer guests are ordering alcoholic drinks—which can be a very important profit center—with their meals. In addition, due to low commodity prices, the differential cost between buying groceries and dining out will remain wide, favoring grocers over restaurants. Moreover, grocers will devote more space to freshly prepared ready-to-eat foods that compete directly with restaurants for consumers' dollars. The shared economy also is venturing into this business, with platforms such as EatWith and Feastly.

According to the National Restaurant Association, menu trends include doughnuts with non-traditional fillings, ethnic-inspired kids' dishes, farm/estate-branded items, heritage-breed meats, and veggie-centric cuisine. Trends that are cooling down include artisan cheese, heirloom fruits and vegetables, house-made charcuterie, and meal kits. Fast food and inexpensive quick-casual restaurants will do better than either moderately priced or expensive full-service restaurants, because the latter depend heavily on business travelers with generous expense accounts. ❖

**The forecast calls for moderate growth, so state and local governments' budgets should improve.**

One in six employees in Georgia works in local, state, or the federal government. Over 30 percent of personal income arrives in the form of a government check, either as earnings, or as transfer payments. Thus, the level of government funding directly impacts consumer spending and, in turn, Georgia's economic performance.

Government services are paid for by a mix of federal, state, and local taxes and fees. Unless the tax code changes, the level of overall economic activity largely dictates the levels of government funding, which in turn affects both the quality and the availability of services. Strong population increases usually create more demand for government services, but also fill government coffers with more revenues.

The growing number of businesses also add to the state's tax base, as do increases in the wages those businesses pay. Striking a balance between tax collections and the quantity and quality of services provided by state and local government is an important determinant of the quality of life and the ease of doing business in the state. Because Georgia's economy is forecast to expand in 2019, revenue collections by state and local governments will grow, too, but government obligations (pensions, healthcare, and education) will continue to exert pressure on government finances.

**Government Employment**

Government employment is important for the economic health of Georgia's residents. According to the most recent data available, government employment accounts for 15.4 percent of nonfarm, civilian jobs in Georgia, (2.2 percent federal, and 13.2 percent state and local), and earnings from government jobs contribute 16.5 percent of non-farm earnings in Georgia, practically the same as the U.S. average of 16.6 percent. The federal government (military and civilian) accounts for 5.4 percent of Georgia's nonfarm earnings, which exceeds the U.S. average of 4.1 percent. State and local government account for 11.1 percent of Georgia's nonfarm earnings, lower than the 12.6 percent reported for the nation as a whole.

Historically, governments provided mid-level jobs to many nonfarm workers in Georgia. With the improving economy, the most recent data available show employment increases in all branches of government in Georgia, with possible softness in non-military federal government jobs. The number of government jobs will continue to rise (by a meagre 0.5 percent) in 2019, and local governments are expected to add the bulk of public sector jobs.

**Sector Summary**

**Direction: small increase**
**Performance: below average**

**State Government Revenues**

Individual income and sales taxes together comprise most of state revenue, with individual income taxes contributing over 46 percent, and sales taxes over 23 percent. With the continued, but slower statewide employment growth forecasted for 2019, individual income and sales tax collections should also rise. Together with rising incomes, the new law requiring taxes on internet sales will boost state revenue collections. Estimates of how much money the internet tax will add to state and local budgets range from $232 million to $480 million in the coming year.

During the pre-recession economic expansion (2004-2007), tax and fees collections increased at an average of 8.4 percent. Post-recession, the average revenue growth from these sources amounted to 6.7 percent. The estimated taxes and fees revenue growth for 2018-2019 is even lower.

Demographics and low inflation for retail goods will continue to exert pressure on revenue growth in the state. Historically, Georgia's population grew faster than the U.S. average, and this is expected to continue. However, both the U.S. and Georgia's population will grow at a much slower rate in the coming decade due to the aging of baby boomers and lower birth rates. The slower population growth, and the changing age distribution of state residents will affect the primary sources of state revenues: personal income and sales taxes.

Older households, some on fixed incomes, typically spend less on retail goods, so the consumer spending that does take place is not generating as much tax revenue as in the past. Persistently low inflation for consumer goods has also limited revenue growth. With more online shopping becoming subject to state sales tax, however, the state's budget will receive a substantial boost.

In 2019, new funds will be infused into important state budget items, especially education, foster care, and mental and substance abuse services. The overall state government spending will remain subdued, however.

Although Georgia's economy is growing, much of the revenue growth will be devoted to funding existing state obligations in education, healthcare, and retirement benefits rather than to starting new programs. Out of the state's 2019 budget, 53.8 percent will go toward education, and 21.8 percent to healthcare. Funding of state pensions will again absorb substantial additional funds out of the budget, despite strong growth in the stock market. So, rising expenses in the traditional areas of the budget will continue to curb government growth, even though demand for new services that could be provided by state government will grow.

**Local Governments**

Although Georgia's local governments and school districts are affected by the condition of state and federal finances, they depend on property taxes as a major source of revenue. In the wake of the recession, falling house prices created a challenge to local government finances, but home prices have been on the upswing for many years. In 2018, the statewide, purchase-only house price index stood at 14 percent above the 2007 pre-recession home price peak. Georgia's home prices have climbed 58 percent since the market bottomed-out in 2012. But the price recovery is uneven and proceeds more slowly in some areas of the state. In smaller towns and rural areas, home values are still below the pre-recession peak, with 95 percent of value recovered, on average, in 2018.

Rising property values should boost local government finances in the coming year, especially in Georgia's faster growing areas that register more home sales. Of Georgia's MSAs, existing home prices in Athens, Atlanta, Augusta, Gainesville, Rome, and Savannah have fully recovered and exceed the pre-recession peak. Warner Robins is close to full price recovery, and the remaining metropolitan areas have recovered close to 90 percent or more of pre-recession peak house prices. Home prices in Valdosta are lagging, however.

The uptick in new residential construction activity across the state will expand the property tax base. As of mid-2018, the number of building permits for single-family homes was up compared to last year in Albany, Athens, Atlanta, Brunswick, Columbus, and Macon.

Most of Georgia's counties increased millage rates post-recession, which helped to shore up their budgets. Combined with rising property values, higher millage rates should boost local government revenues. Long term, the aging population will slow the increases in the collection of property taxes, however, since older residents typically spent less on housing, and don't move as often. This demographic trend will especially challenge the finances of counties that grant tax relief to the elderly.

In addition, local governments receive revenues from several special purpose local option sales taxes. Local sales taxes applied to gasoline sales are calculated on gas prices not exceeding $3 per gallon, leaving any gasoline priced above the cap, untaxed. As of July 2018, 54 Georgia counties had opted for local sales tax designed to raise transportation revenue. With the 2015 legislation allowing local governments the flexibility to raise taxes for transportation projects, T-SPLOST (Transportation Special Purpose Local Option Sales Tax) will result in more local and regional spending dedicated to road and bridge projects, which, in turn, will spur additional economic activity across the state.

Most of the counties with growing taxable sales revenues are located in the northern part of the state. Non-metro counties in southern Georgia with slowly growing or shrinking populations and/or an increased proportion of older residents will find it increasingly difficult to raise revenues from sales. The new law requiring sales tax collection on internet purchases will help to counteract this trend, however.

**Federal Government**

Federal government operations account for the above-average share of earnings in Georgia. More specifically, federal employment supplies 3.2 percent of nonfarm jobs in Georgia and 5.4 percent of nonfarm earnings, compared to 2.6 percent of jobs and 4.1 percent of earnings in the U.S. on average. Federal government employment includes military and civilian personnel. Military earnings contribute 2 percent of the nonfarm earnings, compared to 1.2 percent of total nonfarm earnings at the national level. Locations with major military bases (e.g., Brunswick, Augusta, Valdosta, Columbus, Warner Robins, and Hinesville) derive from 10 percent to 67 percent of their nonfarm earnings from federal government jobs, including both civilian and military. Columbus, Albany, Brunswick, Hinesville, and Warner Robins derive between 6.4 percent and 30.6 percent of their earnings from the federal civilian budget.

Given the size of federal employment in Georgia, the current state of federal finances is of interest, especially to cities that are home to military bases. With the rise of international tensions, funding for the military will increase in the coming year, as will the number of military personnel. Against the pressure from Congress to cut the Pentagon's civilian workforce, the Defense Department has announced plans to hire more civilians and depend less on outside contractors. While the future trends in DOD civilian employment are still uncertain, the number of federal employees working for other agencies, about 57 percent of federal civilian employment in Georgia, probably will drop.

Government transfer payments—including retirement, Social Security, disability insurance, Medicare, Medicaid, unemployment insurance, food stamps, military medical insurance, and veterans' benefits—comprise over 17.4 percent of personal income in Georgia (same as the U.S. average). Transfer payments exceed the state average by as much as 8 percent or more in Albany, Rome, and Macon. Despite the improving economy, the portion of state income contributed by government transfer payments remains high, and the aging of the population assures that these sums will continue to rise, which has implications for government finances at all levels. ❖

Technology

**The technology sector will continue to be an important economic driver.**

Employing over 188,000 workers in Georgia, the core industries of the high-tech sector fall into two distinct groups: services and manufacturing. High-tech services, which include selected information and professional services (software publishing, data processing, computer systems design, engineering, R&D, telecommunications, and internet services) account for over 80 percent of these jobs in the state. High-tech manufacturing includes pharmaceuticals, computers, electronics, computer equipment, and aerospace products.

The sector as a whole increased employment by 3.4 percent in 2017, well above the statewide average job increase of 2.2 percent. (These numbers cover only private sector jobs.) After several years of losses, high-tech manufacturing is gaining jobs. In the first quarter of 2018, the new manufacturing jobs amounted to a 2.2 percent increase over the first quarter of 2017, compared to only 0.6 percent increase in high-tech services.

While strong growth continues in computer systems design, the largest of high-tech services industries in Georgia, other important industries saw some weakness in the first months of 2018. Architectural and engineering services, and software publishers both employed fewer people in 2018 (first quarter) than in 2017. The fourth largest industry, data processing and hosting, increased employment by 10.3 percent, however.

The growth in high-tech manufacturing is attributed to jobs added in the three largest tech manufacturing industries: aerospace, electronic instruments, and pharmaceuticals. The smaller sectors, especially communications equipment, and semiconductor manufacturing continued to lose jobs, however.

The underlying trends favor continued growth in the tech sector, but both high-tech services and manufacturing will face increased uncertainty in the coming year, related to possible changes to tariffs, and specialized worker visa programs.

**High-Tech Services**

For the most part, the services branch continues its strong growth trajectory. The largest of these—computer system design, architectural and engineering services, and software publishing—increased their employment by an average of 3.3 percent, well above the state average for private industries. Together, these industries employ over 128,000 people, and comprise the bulk of the high-tech services jobs in the state.

Employment growth remained above the 2017 levels in this sector as a whole in the first half of 2018, although the number of jobs increased only by 0.6 percent compared to the same period of 2017. Among the three largest industries, only computer systems design added jobs. Data processing and hosting was the fastest growing high-tech industry in Georgia in the first part of 2018, while internet publishing showed some weakness.

In terms of industry size relative to overall state employment, software publishing in Georgia ranks ninth in the country, and in terms of the numbers employed, fifth largest, behind California, Washington, Massachusetts, and Texas. Software publishing is concentrated in the Atlanta area, with Fulton County among the top 16 U.S. counties in terms of the relative size of that industry, and seventh in terms of total employment. Georgia also exceeds

**Sector Summary**

**Direction: large increase**
**Performance: better than most**

the national average in the relative size of the computer systems design industry, data processing, and parts of the telecommunication industry.

Although the structural factors underpinning the high-tech industry growth remain, several recent developments have created uncertainty about the conditions of growth. The increased scrutiny and uncertainty surrounding the skilled worker programs, regulation of foreign investment in technology sectors, and regulatory changes abroad will affect the operations of the U.S. technology companies both large and small. Access to foreign workers plays an important role in the high-tech industry growth in Georgia. Atlanta ranks 9 in total H1-B visa approvals, and 13 in the number of H1-B visa approved per 100 workers among 70 metropolitan areas with significant numbers of these visa holders in their workforces. Most of the foreign specialists work in high-tech services.

Uncertainty about regulatory changes may have already resulted in some softness in the previously thriving tech-services industries in Georgia. The most recent data show only a minimal 0.6 percent increase in high-tech services employment in the state, much lower than the annual 4 percent increase from 2016 to 2017. At the same time, these industries in the U.S. saw employment increases ranging from 8.9 percent (internet publishing) to 2.4 percent (architectural and engineering services).

Relative to the average salary in Georgia, tech services pay very well. Yet the three largest industries—software publishing, architectural and engineering services, and computer systems design—pay at least 9 percent less than the U.S. average. On the other hand, salaries in the fast-growing data processing and hosting, and related services exceeds the U.S. average, indicative of a particularly taut labor supply.

While the uncertainty about the availability of qualified foreign workers will create some instability in Georgia's high-tech industry employment, the future prospects for the sector are positive. Several recent announcements of new company locations and expansions, such as Pandora, InComm, Instacart in Atlanta, and Facebook in Stanton Springs, confirm the expectations for industry growth, with thousands of IT jobs about to be added to Georgia's economy over the next few years.

Adding to the growth in private industry, IT jobs also will be added to the government sector. Specifically, the U.S. Army Cyber Command is expected to finish its move to Augusta by 2020. Also in Augusta, the Georgia Cyber Innovation and Training Center adds a state-government dimension to the focus on cybersecurity. Both of these developments will spur additional private sector activity as companies position themselves for government contract work.

Although Georgia does not have an outsized number of technology startups, and the IT jobs here are well integrated into the existing industry base, metro Atlanta is rapidly climbing in the ranks of U.S. startup hubs. In fact, Georgia ranks third among states in the 2017 Kauffman Index of Growth Entrepreneurship—a vital measure of startup growth. Anchored by world-class universities, established tech firms, and global companies' IT and research operations, the tech scene in Atlanta is fertile ground for starting and growing a business. While the area is well recognized as a center of financial technology and health IT, its attractiveness to innovative startups is also bolstered by the growing presence of the film and music production industry, which depend on high-tech services and infrastructure.

Young technology startups often depend on venture capital for funding. Georgia's internet and software companies received a lion's share of the total venture capital invested in the state in the first half of 2018, but the investment level was lower than in 2017. In the second quarter of 2017, Georgia ranked 7 among the states in terms of the total amount of venture capital funding, and 8 in the number of deals. Since 2012, Georgia ranked 12, on average, in the amount of venture capital raised each quarter, but since 2014 made the top ten for two quarters every year. Although venture capital funding points to the growing strength of the tech industry in the state, venture capital-funded firms would be the ones most affected if market conditions suddenly take a turn for the worse.

Software publishing and computer systems design are expected to grow in 2019, as will internet publishing and data processing and hosting, all bolstered by the increasing use of the internet and online-based services by households and businesses. With the explosive growth in business applications and consumer electronics that collect, analyze, and transmit data, data processing and hosting will enjoy increasing demand, although some consolidation and competition from other industry players also will be a factor.

Although it is much smaller than before the recession, Georgia still has one of the highest concentrations of workers employed by telecommunications resellers, and therefore is vulnerable to industry-wide trends. Employment in this sector has been dropping recently. Although upgraded networks and rising numbers of consumers should assure this industry's long-term growth, the number of operators is likely to shrink due to industry consolidation.

Architectural and engineering services tend to mirror the overall economy, so this industry should grow in 2019. Increased demand can be expected from several newly announced industrial projects. Increases in corporate profits and rising consumer confidence should propel investment in industrial construction in the coming years. Engineering firms will continue to struggle with labor shortages, however, as the supply of highly specialized professionals is strained. While private demand will provide a tailwind, public demand—especially from local and state governments—will remain subdued. A relatively large portion of architectural and engineering services in Georgia is owned by the federal government, and thus is vulnerable to changes in federal spending, as funding for non-military federal government operations may be cut back in the future.

Georgia's scientific R&D

sector has a relatively low share of the state's private sector jobs, but, coming out of the recession, R&D employment has been rising. Even so, rankings in the key science and technology metrics haven't budged, and stubbornly place the state just slightly above the middle among states. Exceptions are the R&D coming out of universities (ranked 12 nationally), and the number of patents awarded to state residents (Georgia jumped from ranking in the low 20s in the pre-recession years to 17 in 2016). Business R&D spending has increased significantly in recent years, and Georgia's top rank in business innovation environment should attract more business for R&D firms.

Nationally, biotechnology emerged from post-recession employment stagnation with strong increases in 2016 and 2017. The industry is expected to grow in the coming years, with the continuing push for new technologies and discoveries. Biotech firms focusing on healthcare products will see increased demand as the population ages. Smaller firms will see more interest in their products coming from large pharmaceutical companies eager to replenish their product lines with innovative therapeutics. Investors' uncertainty will continue to be a challenge, however. Continued support and demand from federal government is important to this industry, and changes in R&D spending will have an impact.

**High-Tech Manufacturing**

Automation is transforming both manufacturing and nonmanufacturing sectors of the economy, and the U.S. is one of the top countries in the world in adopting robotics into business. The levels of transformation vary, however, as the adoption of robots is sometimes hindered by cost and the lack of operators with specialized skills. Today, larger companies are more likely to have robots, but as the cost drops, adoption is likely to become widespread.

Global orders for industrial robots are climbing steeply. As more robotic systems are employed, they are likely to displace some jobs and create others, many of them falling into the high-tech job category. The design, production, and maintenance of robots and the software that drives them is a new frontier for Georgia's high-tech industry. In fact, pioneering Georgia firm SoftWear bridges tradition and progress by creating robots for textile production, an innovation that may bring more textile manufacturing back to America in coming years. Another Atlanta company, Dematic Corporation, installs robotic systems used in large warehouse operations.

Among high-tech manufacturing industries, aerospace manufacturing plays more of a role in Georgia than in the average state. In fact, Georgia ranks first in PWC's aerospace attractiveness index. With the eighth largest number of employees in the country, aerospace manufacturing is important to the state's economy, as these jobs constitute a larger share of the economy than in the U.S. on average.

Aerospace manufacturing in Georgia saw a steep employment increase in 2018 (Q1), and the growth will continue with the announced expansion of Gulfstream's operations in Chatham County. With the rise in international tensions, military spending will grow domestically and internationally, assuring the funding and demand for defense aeronautics products. Civilian aircraft manufacturing can also count on increased demand, stemming from aging fleet replacements, and new product development. The rising number of budget airlines also will boost demand for new equipment, parts, and servicing. The Chinese government's recent decision to beef up that country's civil aviation is certain to spur demand for aircraft and aircraft parts manufacturing. But, since a large share of aerospace manufacturing products are exported, and since many components are manufactured overseas, the recent international trade disputes may undermine this industry's forecast.

Pharmaceutical manufacturing, the second largest high-tech manufacturing sector in Georgia, has been growing steadily post-recession, and exceeded the pre-recession peak in 2017. Favorable demographics will assure rising demand, but the industry will continue to face pricing pressure from consumers, insurers, and governments. The combination of increased demand and pressure to cut costs will likely result in stronger growth in generics but weakened growth in brand name medicine manufacturing.

Employment in electronic instrument manufacturing, the third largest of the high-tech manufacturing industries, added jobs in 2017, and the growth continued in the first quarter of 2018. The remaining high-tech manufacturing sectors, computers and peripherals, communications equipment, and semiconductor instrument manufacturing are relatively small in Georgia. Of this group, communications equipment manufacturing has been shrinking consistently over the last several years, but the advance of 5G networks means that some manufacturers will see increased demand from wireless communications carriers. Similarly, rapid innovation in network infrastructure, consumer electronics, and personal communication equipment will boost the demand for semiconductor manufacturing products. Although not immune to the effects of international competition and price declines, this sector—due to its high R&D component—is expected to continue to grow.

Price declines resulting from outsourcing and strong competition will continue to challenge high-tech manufacturing industries. As innovation in computing and communications creates more demand for data storage devices, servers, and communications equipment, much of this demand will be met by imports. The possibility of major changes in international trade may change that picture, however. Because so many tech manufacturing networks span national borders, the uncertainty about the final shape of international tariff agreements will be a factor in 2019. Manufacturers may have to switch to other component makers overseas, or here at home, and U.S. exports will become more expensive in some foreign markets. ❖

**Georgia's food and fiber industries contribute significantly to the state's economy.**

*Editor's Note: This analysis was completed before Hurricane Michael caused millions of dollars in crop losses in South Georgia in October.*

But agriculture will experience uncertain times in 2019 as the economy continues to expand, the labor market tightens, and trade policy issues are implemented. The tightening labor market will have a significant impact on both poultry and the pork industries. Continued growth in consumption of these two protein commodities is being addressed by the addition of new processing facilities in each industry. As these industries expand, so does their demand for labor. Given the tight labor market and the rise of upward wage pressure, the pork industry in particular will find it difficult to recruit employees.

Given all this uncertainty, agricultural exports are forecast to be a bright spot. With regard to trade, the 2019 Agricultural Trade Outlook forecasts agricultural exports to grow in Europe, Africa, and with NAFTA partners. U.S. agricultural exports are expected to increase in Asia even though China has implemented retaliatory tariffs on U.S. agricultural products. Exports to the Western Hemisphere are forecast to increase as a result of increased wheat and soybean exports. Exports to the E.U. and Africa are expected to grow, too, but those to the Middle East will fall due to trade tension in Turkey.

**Poultry**

Broiler production is Georgia's agricultural industry and contributes significantly to the state's overall economy. The poultry and egg industry employs over 92,000 people and contributes over $23.5 billion in economic activity across the state. The industry is continuing to expand in the state and nationally as per capita consumption of chicken continues to increase over time. Poultry production is estimated to increase by 2 percent in 2019.

U.S. per capita consumption of broilers is projected to continue to grow well into 2020. Consumption has steadily increased since the recession, and the projected growth in domestic and export demand will work to keep prices up in 2018 but stagnant in 2019. Increased feedstock production will help maintain favorable feed prices, however.

As a result, the industry faces significant headwinds going into 2019 partially attributable to labor issues. Producers are having a difficult time recruiting and retaining labor in processing facilities. Industry analyses have indicated that employee turnover at U.S. processing facilities has nearly doubled over the past couple of years, peaking at 220,000 working in February 2018. The labor concern is expected to continue in 2019 as the economy continues to expand and demand for workers continues to grow.

**Sector Summary**

**Direction: modest increase**
**Performance: average**

**Hogs**

Domestic pork consumption will hover around 50 pounds per capita annually. Pork production is expected to increase by 4 percent in 2018 and by an additional 4 percent in in 2019. The impact of tariffs from China will be felt in the market but exports of pork are expected to rise by over 5 percent in 2018 and increase again by a similar mark in 2019. International markets will help absorb the negative impact of the Chinese tariffs as Japan, Mexico, and the Philippine continue to import U.S. pork products.

The bright spot is that rising exports combined with stable domestic consumption will relieve some of the downward pressure on pork prices attributed to increased pork production, domestically and globally. As with the poultry industry, the tight labor market is making it difficult to recruit and retain workers

**Beef Cattle**

The U.S. has the largest cattle-fed beef production system and is the largest producer of beef globally, producing premium, high quality, and grain fed beef for domestic consumption and overseas markets. However, the domestic cattle herd had fallen by 718,000 head since 2008, with Georgia loosing 40,000 head over the same period.

Domestic per capita beef consumption has been declining steadily, but is expected to increase slightly in 2019. U.S. beef production is projected to increase by over 3 percent in 2018 and again by over 2 percent in 2019. The number of cattle and cattle on feed suggest that a year-over-year increase in all facets of the cattle industry.

Steer prices are projected to fall in 2018 by 5 percent but will rebound slightly in 2019. The combination of increased domestic consumption and exports will absorb the increase in beef production, but competition from less expensive chicken and pork will squeeze beef prices. U.S. beef exports are forecast up 6 percent in 2018, however, buoyed by strong demand from South Korea, Japan, Canada, and Mexico.

**Dairy**

Dairy farmers faced another year of very lackluster milk prices in 2018, as the modest price recovery of 2017 gave way to some of the lowest farm level milk prices in nearly a decade. Milk production was slower to decline in response to sluggish domestic sales of milk and dairy products and reduced exports during the first half of 2018, and this trend is likely to continue. Dairy cow numbers are projected to remain at or near the 2018 level of 9 million head throughout much of 2019. Cow productivity is likely to continue at its current growth rate of about 1.3 percent to 1.5 percent per year, which translates into about 1.4 percent milk production growth in 2019, which is below the industry's long-term trend. USDA forecasts the 2019 U.S. All Milk Price in a range of $16.45 to $17.45, reflecting the uncertainty inherent in forecasting long-range prices that are subject to fluctuations in supply and demand.

Georgia ranks second (behind Florida) in terms of milk production in the Southeast, and 23 in the nation. It is home to approximately 84,000 dairy cows that collectively produce about 1.8 billion pounds of milk each year.

Farm-level milk prices in Georgia fluctuate in step with U.S. prices, but Georgia's dairy farmers have historically received a farm-level milk price that is, on average, about $3 per hundred-weight higher than the U.S. All Milk Price. This price difference reflects the additional value that is typically placed on milk produced in the milk deficit regions of the deep South. The implication is that, based on USDA's current 2019 forecasts, Georgia's dairy farmers could realistically expect to see average farm-level milk prices in the range of $19.45 to $20.45.

**Vegetables, Fruits, and Nuts**

These crops contribute a combined $1.9 billion in the state's farm gate value. Vegetables alone generate slightly above $1 billion compared to $745 million for fruits and nuts. Nationally, total imports of vegetables are projected to increase by 1.3 percent between 2017 and 2018, although per capita consumption is expected to drop by almost 4 percent. In other words, Americans will eat fewer vegetables despite being aware of the advantages of healthy eating.

The fresh fruit industry started off 2018 with a grower's price increase that was exacerbated by higher prices for citrus, pears, and strawberries. Although Georgia is not a big player in the strawberry industry, those who are did well because supplies from Florida and Mexico were hit by bad weather, while California had a mild winter that took a toll on their production circle and market window. On the other hand, the consumer price for fresh fruits also climbed. These increases were triggered by higher prices for navel oranges, lemons, strawberries, and Thompson seedless grapes.

Watermelon production stood at 4 billion pounds in 2017 even though the industry experienced 4 percent decrease in harvested acreage, a 7 percent decrease in import supplies, and an 8 percent increase in grower's prices. Although the three top producing states—California, Florida, and Georgia—experienced increased production, the huge decline in production in other states like Texas, Arizona, Indiana, Maryland, and Missouri was strong enough to suppress the impact.

Blueberry production and per capita consumption have been rising for the past two decades. Florida blueberries are the first to hit the market as early as April to May, followed by Georgia's crop in late April to June. But according to the North American Blueberry Council report, Georgia suffered a 50 percent loss from last year's late spring freeze. The cumulative loss from Georgia and other producing states like Oregon, Washington, Michigan, and North Carolina resulted in a 12 percent decrease in total U.S. production.

Although pecans projected production of 277 million pounds in 2017/2018 is 3 percent above the previous crop season, the impact will not be felt until harvesting. The increase was triggered by higher production of the native varieties in Oklahoma and Louisiana. Three states—Georgia, New Mexico, and Texas—have established dominance in this industry, with Georgia at the top despite its 25 percent decrease in this year's production, partially blamed on Hurricane Irma in 2017. Export of shelled pecans to overseas markets like China, Canada, South Korea, Japan, and Spain fell 18 percent whereas shipments of in-shell nuts to China, Mexico, and Japan rose by 19 percent. With the current tariff war with China and NAFTA trade talks, this situation is bound to change.

## Peanuts, Corn, and Soybeans

Peanut production reached a record high in Georgia and in the U.S. in 2017, and resulted in a significant surplus of peanuts and ultimately lower contract prices for 2018. With lower prices, an increase in cotton prices, and the elimination of generic base acres, peanut producers in Georgia decreased planted acres by 17 percent. Throughout the U.S., total planted acres decreased by 20 percent. While some challenges existed with a rainy planting season, expectations at harvest time were for near record yields in Georgia.

Even though production levels have started to drop, there continues to be a surplus from the 2017 crop, and this will continue to hold prices down for 2019, unless opportunities surface to increase demand and move the excess supply. Food demand in recent years continues to edge up slightly; however, exports have dipped some in 2018. Overall, aggregate demand was flat for the past three years. The current state of trade negotiations and retaliatory tariffs have also created significant uncertainty in agriculture. In particular, trade relationships with Canada, Mexico, and China will be watched carefully as these are significant markets for U.S. peanuts. Without resolution on the trade front, it may be difficult to see prices increase much above current levels in 2019.

Corn production in Georgia is estimated to have increased 20 percent from 2017 to 2018, contributing to expectations for a record U.S. corn production. For Georgia, the increase in production is a result of a 24 percent increase in planted acres, as yields are estimated to have dropped by 6 bushels per acre from the year before. A total production in Georgia of 51.9 million bushels is expected for 2018, with about 14.8 billion bushels in the total U.S.

The price of corn continues to fluctuate between $3.20 and $3.70 per bushel, a level at which it has stayed for the past two years. Unfortunately, there is little evidence of any real rise in prices, and with a record production combined with uncertainty in trade, prices could drop to the lower end of this range or slightly below in late 2018.

The number of soybean acres harvested in Georgia reversed the downward trend of recent years, with an increase of about 27 percent in 2018. Yields in Georgia are expected to drop slightly, however, which is opposite from that of the U.S., where a record soybean yield is estimated to be almost 53 bushels per acre. In fact, total production of soybeans in the U.S. is estimated to reach a record 4.7 billion bushels in 2018 with Georgia production increasing 21 percent compared to 2017.

Soybean prices had been fluctuating around $9-$10 per bushel, with significant momentum to stay above $10 in 2018. That changed, however, when China retaliated with tariffs on soybeans that caused about a $2 drop in the futures market prices in mid-year. Trade issues with China are continuing with no resolution on the horizon, thus little expectation of an increase in soybean prices is expected at this time. Georgia prices have averaged 2.8 percent higher than national prices in recent marketing years, but with the recent decrease in prices and no increase expected, cost cutting might be necessary.

## Cotton

In 2018, Georgia's farmers planted 1.4 million acres of cotton, up 150,000 acres from 2017. The average cotton yield is forecast at 946 pounds per acre. Production is forecast at 2.8 million bales, which would be the second highest on record. There are two major contributing factors to the increase in cotton acres in Georgia. First, the relatively high cotton price in 2018, especially during planting season, makes cotton more competitive with other row crops. Second, the Bipartisan Budget Act of 2018 authorized seed cotton as a covered commodity and eliminated generic base and thus the eligibility for payments when planting other covered commodities on farms with generic base.

U.S. cotton planted acreage is 14 million, up 1.4 million from 2017, which is the highest planted acres since in 2011. The 2018 U.S. upland cotton is forecasted at 18.9 million bales, down 1.3 million bales from 2017, largely due to the severe drought in Texas. The forecasted production number might be further negatively impacted by Hurricane Florence on North and South Carolina.

World cotton use or demand has improved significantly in recent years and currently forecast at a record level. Even though U.S. cotton faces an additional 25 percent increase in tariffs on cotton exports to China due to the ongoing trade dispute between the U.S. and China, U.S. cotton exports are doing very well and are expected to continue to be strong for the 2018-2019 crop year. Exports are currently forecasted to be 15.7 million bales for the coming year, which would be the second highest on record.

The U.S. cotton industry has benefited from the growth in mill use in other countries. If U.S. sales to China (the world's largest user of cotton) decline as a result of a Chinese tariff, it is possible that sales to mills in other countries could increase to offset part of the decline. A Chinese tariff on U.S. raw cotton could continue to stimulate Chinese imports of duty-free yarn from Vietnam, Indonesia, and India. The demand for higher-quality U.S. cotton in those markets also could continue to expand; thus, the impact of a bilateral Chinese tariff on U.S. cotton may lead to a reshuffling or rerouting of—rather than a reduction in—U.S. cotton exports.

Futures prices for the 2018 crop are currently around 82 cents per pound. We have been seeing favorable cotton prices this year: the cash prices for the 2018 calendar year ranges from low of 74 cents to high of 94 cents per pound. USDA is forecasting the marketing year average price for the 2018 – 2019 crop year to range from 70 to 80 cents per pound, compared to the 2017 – 2018 crop year average of 68 cents per pound.

## Green Industry

The production, distribution, retailing, and services associated with ornamental plants; landscape and garden supplies; and nursery, greenhouse and sod growers is highly dependent on the overall and local economies. Georgia's green industry market demand and sales in 2018 tended to be good because the weather has been kind.

Economic indicators provide an idea of what 2019 will bring; however, there are mixed signals in the marketplace. Housing starts are a fairly good indicator of green industry growth, and housing starts in the South have increased by 7 percent from 2017 to through the first half of 2018. Perhaps the biggest driver of green industry product demand is the weather. National Weather Service projections for early 2019 indicate a warm yet wet winter for Georgia, which could help mitigate some input costs (i.e., heating costs) for producers while beginning the spring sales season earlier.

Given fairly optimistic projections, the green industry should experience growth in demand during 2019, and some products, like sod, may experience price increases to compensate for potentially lower supply levels. Volatility within the marketplace caused by the political environment could hamper growth, however. ❖

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