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In this Issue...

Dr. Brent Evans, *Editor*

I am pleased to present the latest edition of our biannual publication, "Business Analytics." According to Dr. Larry Johnson, Dean of the School of Business, "The economy in Northwest Georgia is healthier now than at any time over the past six years but some aspects of the economy may never return to the levels they once were, such as the region's workforce." He continues, "Matching worker skills to employer demand will be critical in the future for the region to prosper; we can only move forward once we understand what has changed and where we are today." Labor markets are a key topic of discussion in Northwest Georgia and earn our attention in this addition of Business Analytics.

Dr. Garen Evans provides the first article in this edition as he details the job growth in the region since the Great Recession, focusing on growth in the region's primary sectors. Additional labor data for the region are compiled and presented by Johnson. I provide the next article, which explores the labor market statistics. Finally, Mr. Travis Hayes and I present key economic data in the perpetually updated "Economic Dashboard."

For questions, comments, or to request additional copies please contact Dr. Brent Evans at baevans@daltonstate.edu or 703-272-4488. You can also access our content at www.daltonstate.edu/cere.



Regional Job Growth Since the Great Recession: Recovery in Northwest Georgia?

Dr. Garen Evans
Assistant Professor of Economics

The Bureau of Economic Analysis defines a recession as two or more consecutive quarterly declines in Real Gross Domestic Product (RGDP) (1), a broad measure of aggregate income and spending. It may surprise some readers that since the Great Depression (which was itself a severe and lasting recession), there have been 12 recessionary periods in the United States. While recessions are measured by negative growth in RGDP, the effects are felt across the economy and extend to corresponding declines in employment, household income, and consumer and investment spending. The hallmarks of any recession include higher rates of unemployment and more bankruptcies. The most recent, and perhaps one of the more defining economic downturns in recent history was the "Great Recession" that began in 2007.

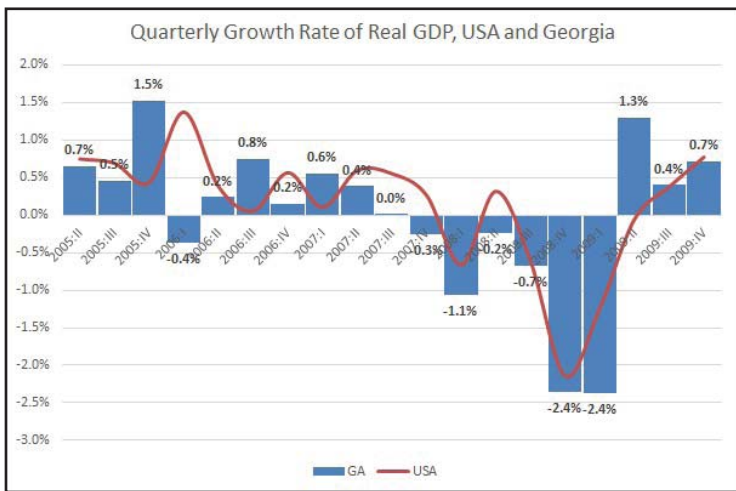
The provenance of the Great Recession of 2007-2009 was actually a severe crisis in the financial

see *RECESSION* page 2

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Recession

continued from page 1



RGDP in chained 2009 dollars.

sector. In short, when the housing bubble burst, many banks were overleveraged with subprime loans, collateralized debt obligations, and other risky assets. Uncertainty and mistrust in the financial sector, as well as insolvency in the banking system, led to the collapse of the financial sector. Reduced lending, which in turn led to reduced economic activity was magnified as consumer spending declined, and demand for capital goods fell.

In a sense, Georgia’s economy was a leading indicator for the Great Recession. New statistics from the Bureau of Economic Analysis (2) suggest that Georgia’s recessionary period began a full quarter prior to the US recession (Figure 1). From the third quarter of 2007 to the first quarter of 2009, Georgia’s annual economic output declined from \$427.7 million to \$398.6 million (3), almost a 7 percent real decline in less than two years.

In Georgia, some of the industries hardest hit by the recession represented the largest segments of the economy: manufacturing output fell 21.7 percent, wholesale trade fell

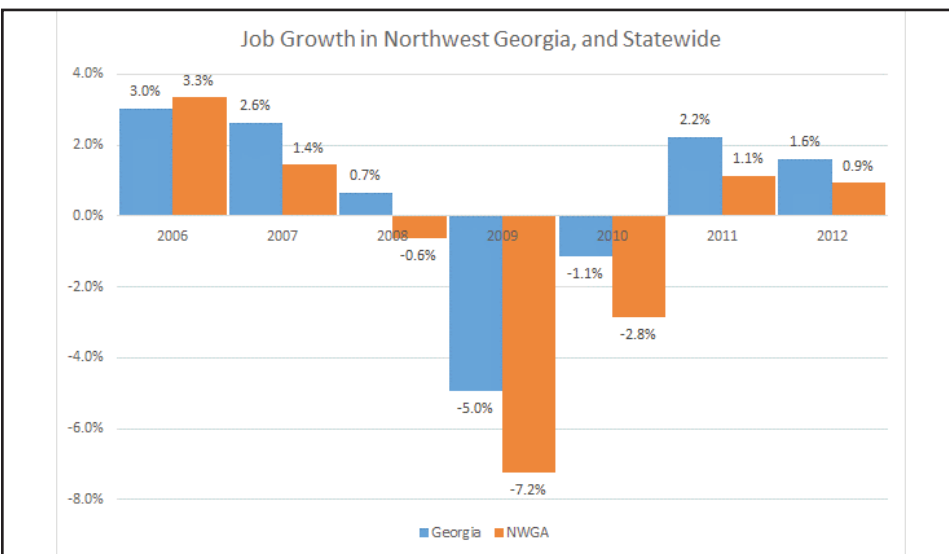
13.8 percent, and retail trade fell 8.6 percent. Construction, transportation,

warehousing, and management enterprises also experienced substantial declines. A few industries, though smaller, fared better: health care, professional services (4), and agricultural enterprises continued to grow.

Readers less inclined to stay abreast

declining annual growth from 2006 through 2007; negative growth from 2008 through 2010; and positive growth again in 2011 and 2012 (Figure 2). However, in every year during the period except 2006, regional job growth was lower than statewide job growth. For example: in 2009 the state experienced a 5 percent annual decline in the number of jobs, while the region experienced a 7.2 percent decline; in 2011 regional job growth was at 1.1 percent, fully half that of Georgia (2.2 percent).

One reason why regional job growth follows these trends may be due to manufacturing representing the largest proportion of total jobs in the re-



Place of Work Employment. Source: Woods & Poole CEDDS 2011, and US BEA CA-25.

Figure 2

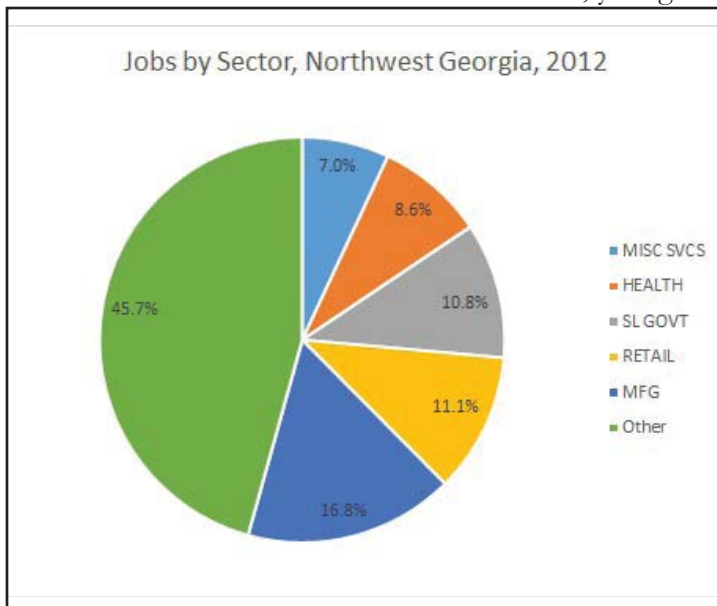
of the latest aggregate national indicators might come to the conclusion that economic recovery is incomplete. If the labor market is any measure, there may be some evidence to support that conclusion, but it depends on where you look.

In Northwest Georgia (5), job-growth from 2006 to 2012 mirrored that of the state as a whole. The region experienced positive, but

gion. In 2012, 6.9 percent of all jobs in Georgia were in the manufacturing sector, while manufacturing jobs in Northwest Georgia made up 16.8 percent of all jobs in the region (Figure 3). In 2006, there were 81,199 manufacturing jobs in Northwest Georgia. During the Great Recession, the region shed more than 16,000 of those jobs, most of which (9,878) were lost from 2008 to 2009. From 2007 to 2012, the

region's manufacturing place-of-work employment experienced only negative job growth each year. In 2012, jobs in the manufacturing sector fell to a 7-year low at 61,275 jobs, a 25 percent decline. In comparison, the two largest service sectors in the region, health and miscellaneous services, experienced only a single

in Northwest Georgia is relatively more sensitive to aggregate shocks than other sectors of the regional economy, as well as with the broader economy. Why is this? Recent findings support the notion that larger, older firms are relatively more sensitive to aggregate shocks than smaller, younger firms (6). This may



Place of Work Employment. Source: Woods & Poole CEDDS 2011, and US BEA CA-25.

Figure 3

year of negative job growth in aggregate during the same period, and averaged more than 3 percent growth year-over-year afterwards.

Like Georgia, much of the decline of manufacturing job growth in Northwest Georgia can be attributed to the Great Recession, yet there is ample evidence to suggest that the regional economy did not fare as well. After the recession, from 2010 to 2012, Georgia added 11,334 jobs to the manufacturing sector, a 3 percent increase over two years. During that same period Northwest Georgia continued to lose manufacturing jobs, though at a lower rate than in previous years. These data suggest that regional manufacturing

proportionately more to cyclical dynamics.

While the outlook is improving, and the diversity of the region is aiding the overall recovery, job growth is still lower than pre-recession rates. Fortunately, manufacturing may receive a boost from the U.S. Department of Commerce, which has chosen the region to be part of the Investing in Manufacturing Communities Partnership (IMCP) initiative. The initiative is designed to accelerate the resurgence of manufacturing in communities by supporting the development of long-term economic development strategies to help attract and expand private investment in the manufacturing sector, and increase international trade and exports.

NOTES:

(1) The National Bureau of Economic Research defines a recession as, "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales." http://www.nber.org/cycles/jan-08bcdc_memo.html

(2) www.bea.gov/newsreleases/regional/gdp_state/qgsp_newsrelease.htm

(3) 2009 chained dollars

(4) Includes technical and scientific services.

(5) Northwest Georgia Regional Commission defines the region as consisting of the following 15 counties: Bartow, Dade, Catoosa, Chattooga, Fannin, Floyd, Gilmer, Gordon, Haralson, Murray, Paulding, Pickens, Polk, Walker, and Whitfield.

(6) Pinto, E. 2011. Firm's Relative Sensitivity to Aggregate Shocks and the Dynamics of Gross Job Flows. *Labor Economics*, 18(1):111.

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Labor Statistics for Northwest Georgia

Compiled by Dr. Larry Johnson, *Dean*

Super Sectors in Northwest Georgia

	Establishments			Employment			Weekly Wage		
	2013	2014	% Change	2013	2014	% Change	2013	2014	% Change
	Construction	1,424	1,444	1.4%	6,909	7,362	6.6%	705	712
Education and Health Services	1,373	1,413	2.9%	27,144	28,639	5.5%	790	792	0.3%
Financial Activities	1,292	1,300	0.6%	6,636	6,755	1.8%	804	859	6.8%
Information	174	165	-5.2%	2,999	2,667	-11.1%	887	850	-4.2%
Leisure and Hospitality	1,357	1,410	3.9%	22,117	23,428	5.9%	262	263	0.4%
Manufacturing	1,113	1,107	-0.5%	59,125	60,854	2.9%	825	831	0.7%
Natural Resources, Mining, and Agriculture	134	139	3.7%	1,324	1,517	14.6%	889	800	-10.0%
Other Services	1,024	1,017	-0.7%	4,729	4,807	1.6%	541	554	2.4%
Professional and Business Services	2,011	2,063	2.6%	16,441	16,850	2.5%	770	837	8.7%
Trade, Transportation and Utilities	4,014	4,005	-0.2%	50,007	51,588	3.2%	636	639	0.5%
Unclassified	533	682	28.0%	405	752	85.7%	671	608	-9.4%
Government	794	778	-2.0%	40,220	39,409	-2.0%	664	678	2.1%
Total	15,243	15,523	1.8%	238,053	244,629	2.8%	689	698	1.3%

Note: All figures are 1st Quarter of 2013 and 2014.

Super Sectors in Georgia

SUPER SECTOR INDUSTRIES	Establishments			Employment			Weekly Wage		
	2013	2014	% Change	2013	2014	% Change	2013	2014	% Change
	Construction	20,822	20,930	0.5%	139,717	148,368	6.2%	905	928
Education and Health Services	25,482	26,163	2.7%	487,166	493,922	1.4%	857	869	1.4%
Financial Activities	25,605	26,102	1.9%	210,179	215,952	2.7%	1,657	1,753	5.8%
Information	4,750	4,856	2.2%	101,156	105,276	4.1%	1,911	2,100	9.9%
Leisure and Hospitality	21,872	22,297	1.9%	391,716	406,908	3.9%	356	350	-1.7%
Manufacturing	9,369	9,241	-1.4%	354,769	360,000	1.5%	1,089	1,101	1.1%
Natural Resource, Mining, and Agriculture	2,591	2,610	0.7%	26,559	27,116	2.1%	729	744	2.1%
Other Services	18,929	18,836	-0.5%	93,660	94,926	1.4%	602	611	1.5%
Professional and Business Services	52,960	53,924	1.8%	569,633	593,312	4.2%	1,152	1,218	5.7%
Trade, Transportation, and Utilities	62,815	63,295	0.8%	820,531	843,296	2.8%	904	918	1.5%
Unclassified	16,770	23,083	37.6%	12,417	21,768	75.3%	1,058	1,024	-3.2%
Government	8,881	8,755	-1.4%	647,723	635,391	-1.9%	811	837	3.2%
Total	270,846	280,092	3.4%	3,855,227	3,946,236	2.4%	940	972	3.4%

Note: first quarter of 2013, and 2014. 2014 data are preliminary estimates
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Sector Mix Northwest Georgia Versus Georgia

SUPER SECTOR INDUSTRIES	Northwest Georgia		Georgia	
	Employment	% of Employment	Employment	% of Employment
Construction	7,362	3%	148,368	4%
Education and Health Services	28,639	12%	493,922	13%
Financial Activities	6,755	3%	215,952	5%
Information	2,667	1%	105,276	3%
Leisure and Hospitality	23,428	10%	406,908	10%
Manufacturing	60,854	25%	360,000	9%
Natural Resource, Mining, and Agriculture	1,517	1%	27,116	1%
Other Services	4,807	2%	94,926	2%
Professional and Business Services	16,850	7%	593,312	15%
Trade, Transportation, and Utilities	51,588	21%	843,296	21%
Unclassified	752	0%	21,768	1%
Government	39,409	16%	635,391	16%
Total Employment	244,629		3,946,236	

Labor Force Activity

ANNUAL AVERAGES

	Labor Force			Employed			Unemployed			Rate	
	2012	2013	% Change	2012	2013	% Change	2012	2013	% Change	2012	2013
	Bartow	47,978	48,041	0.1%	43,533	44,115	1.3%	4,445	3,926	-11.7%	9.3%
Catoosa	34,406	34,108	-0.9%	32,145	32,029	-0.4%	2,261	2,079	-8.0%	6.6%	6.1%
Chattooga	10,449	10,454	0.0%	9,348	9,451	1.1%	1,101	1,003	-8.9%	10.5%	9.6%
Dade	8,052	7,985	-0.8%	7,448	7,422	-0.3%	604	563	-6.8%	7.5%	7.1%
Fannin	10,457	10,304	-1.5%	9,470	9,442	-0.3%	987	862	-12.7%	9.4%	8.4%
Floyd	48,169	47,437	-1.5%	43,392	43,244	-0.3%	4,777	4,193	-12.2%	9.9%	8.8%
Gilmer	12,364	12,219	-1.2%	11,119	11,153	0.3%	1,245	1,066	-14.4%	10.1%	8.7%
Gordon	25,769	25,640	-0.5%	23,207	23,300	0.4%	2,562	2,340	-8.7%	9.9%	9.1%
Haralson	12,353	12,401	0.4%	11,168	11,318	1.3%	1,185	1,083	-8.6%	9.6%	8.7%
Murray	16,984	16,582	-2.4%	14,924	14,808	-0.8%	2,060	1,774	-13.9%	12.1%	10.7%
Paulding	72,076	72,196	0.2%	65,975	66,857	1.3%	6,101	5,339	-12.5%	8.5%	7.4%
Pickens	14,061	14,120	0.4%	12,884	13,056	1.3%	1,177	1,064	-9.6%	8.4%	7.5%
Polk	20,412	20,341	-0.3%	18,604	18,727	0.7%	1,808	1,614	-10.7%	8.9%	7.9%
Walker	32,507	32,192	-1.0%	30,016	29,908	-0.4%	2,491	2,284	-8.3%	7.7%	7.1%
Whitfield	42,816	42,096	-1.7%	38,065	37,769	-0.8%	4,751	4,327	-8.9%	11.1%	10.3%
Northwest Georgia RC	408,853	406,116	-0.7%	371,298	372,599	0.4%	37,555	33,517	-10.8%	9.2%	8.3%
Georgia	4,772,173	4,767,323	-0.1%	4,342,275	4,378,029	0.8%	429,898	389,294	-9.4%	9.0%	8.2%
United States	154,975,000	155,389,000	0.3%	142,469,000	143,929,000	1.0%	12,506,000	11,460,000	-8.4%	8.1%	7.4%

Note: This series reflects the latest information available. Labor Force includes residents of the county who are employed or actively seeking employment.
 Source: Georgia Department of Labor; U.S. Bureau of Labor Statistics.

Education of the Labor Force

PERCENT DISTRIBUTION BY

AGE

	PERCENT OF TOTAL	AGE				
		18-24	25-34	35-44	45-64	65+
Elementary	8.4%	3.9%	6.0%	6.8%	7.2%	19.2%
Some High School	15.7%	23.2%	15.3%	12.8%	14.2%	17.8%
High School Grad/GED	35.6%	36.4%	32.6%	35.6%	37.4%	34.1%
Some College	20.9%	30.4%	23.3%	20.5%	19.6%	14.9%
College Grad 2 Yr	5.2%	2.9%	6.8%	6.4%	5.6%	2.7%
College Grad 4 Yr	9.4%	3.1%	11.9%	12.0%	9.9%	6.9%
Post Grad Studies	4.8%	0.2%	4.2%	5.9%	6.1%	4.4%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals are based on the portion of the labor force between ages 18 - 65+. Some College category represents the percentage total of workers with either Some College with no degree or an Associate degree.

Source: U.S. Census Bureau - 2010 ACS 5-year estimate.

ECONOMIC IMPACT ANALYSIS

Dalton State's Center for Economic Research and Entrepreneurship possesses the resources to conduct objective and meaningful research to assist business leaders, governmental agencies, and other organizations in order to enhance understanding of the changes that affect the region's economy.



For more information contact: Dr. Garen Evans at 706-272-2024, or e-mail gevans@daltonstate.edu

- Identify job growth associated with new businesses.
- Capture direct and indirect effects on total industry output.
- Measure changes to labor and proprietor income.
- Leverage interest in proposed expansions.
- Acquire knowledge concerning supporting industries and value-added components.

Understanding Labor Market Statistics

Dr. Brent Evans, Assistant Professor of Economics

While media pundits are quick to provide unemployment rates as evidence of job market performance, these statistics are inherently flawed. Unemployment rates tend to understate the adverse effects of a recession. In the follow sections, I layout the variables used in calculating unemployment rate, provide alternative statistics, and discuss job market conditions in the region.

Unemployment Rates

$$\text{Unemployment Rate} = \frac{\# \text{Unemployed}}{\text{Labor Force}} \times 100$$

The formula for unemployment rate is quite simple. However, the variables are not. While the general public may suspect that “unemployed” would equate to “without job,” the variable is more complex. To be categorized as “unemployed,” a person must be able to work, actively searching for a job, and working zero hours. The denominator in the equation, “labor force,” includes those who are unemployed and employed. The employment variable is simple — anyone working for pay is considered “employed.” To provide an example, consider a small town with a population of 5,000. Of those 5,000, 2,000 are employed and 500 are unemployed. Can you solve for the unemployment rate?

$$\text{Unemployment rate} = \frac{500}{2000 + 500} \times 100 = 20\%$$

A 20 percent unemployment rate indicates that 20 percent of those who are able and willing to work are unable to attain employment.

Does the Unemployment Rate Provide a Good Measure of the Health of Labor Markets?

While the unemployment rate is helpful in determining labor market characteristics, the statistic can be misleading. Imagine the following scenarios...

1. The Newly Unemployed:

Alice has been working full-time as a waitress, but was recently laid-off due to a decrease in restaurant revenue. Alice is now applying for jobs throughout the area.

Result: Alice will be transferred from “employed” to “unemployed,” leading to an increase in the unemployment rate. A rise in unemployment indicates a worsening labor market

2. The “Discouraged Worker:”

Following an economic collapse, Baxter has been feverishly applying for jobs. After six months, Baxter stops looking for a job.

Result: Baxter’s decision to stop looking for a job will take him out of the labor market. Thus, he is transferred from “unemployed” to “not in the labor market.” This causes the unemployment rate to decrease, despite a clear indication that labor market conditions have worsened.

3. The “Underemployed:”

Carl has a Master’s degree, but was laid-off by a university due to budget cuts. He takes a part-time job as a busboy, working five hours per week.

Result: Carl remains “employed.” Despite the fact that Carl’s employment standing is obviously worsened, the unemployment rate is

unchanged. Unemployment rates do not account for job quality.

In the examples provided, only *Scenario 1* correctly indicates the “direction” of the labor market. Because unemployment rates exclude “discouraged workers” and the “underemployed,” the unemployment rate tends to underestimate how poor labor market conditions are during a recession. This is exactly what happened during the “Great Recession.” Fortunately, the informed investigator can use additional information to gauge the health of the job sector. One simple statistic, “labor force participation rate,” is particularly effective.

Labor Force Participation Rate

$$\text{Labor Force Participation Rate (LFPR)} = \frac{\# \text{ in the Labor Force}}{\text{Eligible Population}} \times 100$$

In the above formula, “eligible population” consists of working age individuals who have the opportunity to work (i.e. are not in prison, military, or otherwise institutionalized). The LFPR is particularly useful when compared directly to the unemployment rate. For example, consider *Scenario 2*, the “discouraged worker.” While the unemployment rate decreases as a result of the discouraged worker, indicating improving conditions, LFPR also declines, which is typical of a declining job market. Analyzing unemployment rates and LFPR in tandem allows for improved analysis and more accurate conclusions.

Data Analysis, National

With an understanding of both the unemployment rate and LFPR, more conclusions can be made concerning labor market conditions. Consider **Image 1** and **Image 2**, which display national unemployment rates and LFPR during the last ten years. From 2004 to 2008, both variables were quite stable. However, a rapid climb in unemployment rates in 2008 is simultaneously met with plummeting LFPR — many Americans were unable to find employment and many had simply given up looking for a job. While unemployment rose from 5 percent to 10 percent, the total number of employed workers fell by more than 8 million. In other words, nearly 3 percent of all Americans stopped working during the Great Recession. As seen in **Image 3**, total employment did not regain these losses until 2014 — while unemployment rates have improved, the labor force participation rate continues to decline. Unfortunately, economists can only speculate what percentage of these individuals are voluntarily exiting the labor force and what percentage have simply “given up” looking for a job. Regardless of the reason, a decreasing LFPR is inevitable leading to lower production than the USA could potentially obtain.

Image 1: 10-Year Unemployment Rates (USA) [bls.gov]

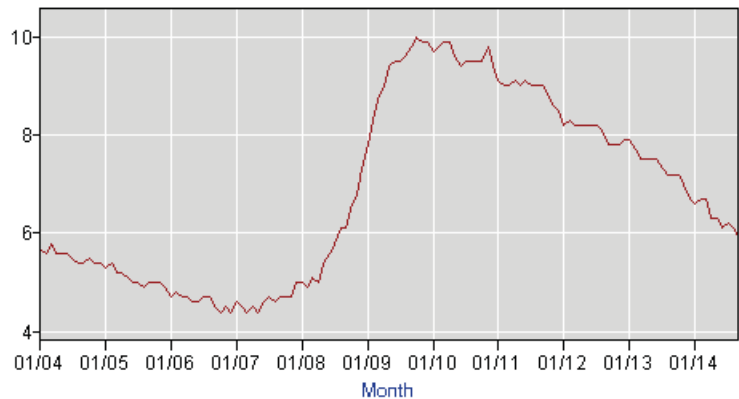


Image 2: 10-Year Labor Force Participation Rates (USA) [bls.gov]

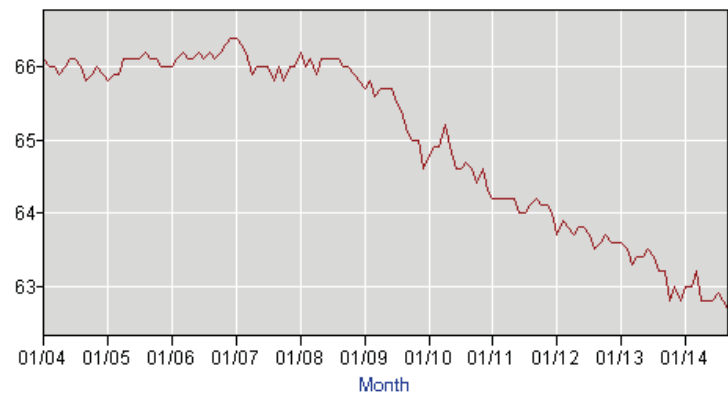
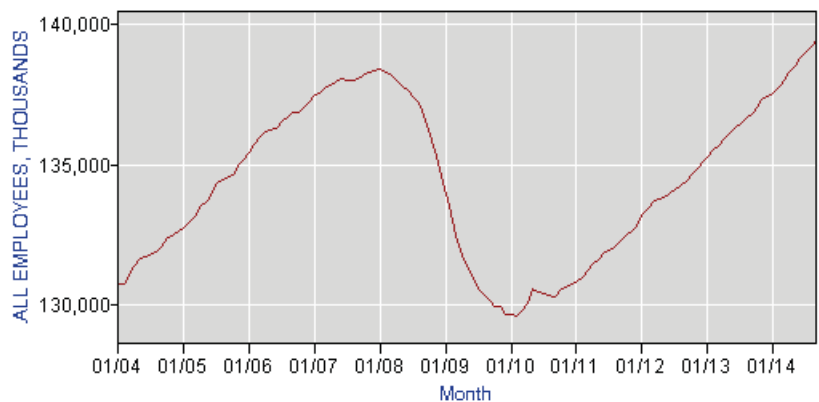


Image 3: 10 year total employment (USA) [bls.gov]



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Business Analytics Economic Dashboard Fall 2014

Compiled by Travis Hayes and Brent Evans

	Bartow Co	Catoosa County	Chattooga County	Dade County	Fannin County	Floyd County	Gilmer County	Gordon County	Walker County	Whitfield County	Region	State	National
Number Employed October 2014	44700	32,067	9,538	7,430	9,605	43,445	11,558	23,318	29,944	37,354	248,959	4,395,020	147,283,000
Number Employed September 2014	44440	31,989	9,503	7,412	9,518	43,077	11,473	23,453	29,870	37,508	248,243	4,383,628	146,600,000
Number Employed October 2013	44001	31,946	9,412	7,402	9,468	42,998	11,146	22,954	29,831	37,661	246,819	4,376,216	143,485,000
Number Unemployed October 2014	3282	1,802	838	479	762	3,363	872	1,893	1,941	3,475	18,707	364,659	8,995,000
Number Unemployed September 2014	3170	1,890	849	478	747	3,477	889	1,965	1,870	3,592	18,927	378,465	9,262,000
Number Unemployed October 2013	3584	2,077	932	511	811	3,964	985	2,171	2,284	4,083	21,402	370,803	11,140,000
Labor Force October 2014	47982	33869	10376	7909	10367	46808	12430	25211	31885	40829	267,666	4,759,679	156,278,000
Labor Force September 2014	47610	33879	10352	7890	10265	46554	12362	25418	31740	41100	267,170	4,762,093	155,862,000
Labor Force October 2013	47585	34023	10344	7913	10279	46962	12131	25125	32115	41744	268,221	4,747,019	154,625,000
Unemployment Rate October 2014	6.8%	5.3%	8.1%	6.1%	7.4%	7.2%	7.0%	7.5%	6.1%	8.5%	7.0%	7.7%	5.8%
Unemployment Rate September 2014	6.7%	5.6%	8.2%	6.1%	7.3%	7.5%	7.2%	7.7%	5.9%	8.7%	7.1%	7.9%	5.9%
Unemployment Rate October 2013	7.5%	6.1%	9.0%	6.5%	7.9%	8.4%	8.1%	8.6%	7.1%	9.8%	8.0%	7.8%	7.2%
Initial Unemployment Claims October 2014	370	150	44	18	60	372	78	289	239	905	2,525	32,899	281250*
Initial Unemployment Claims September 2014	271	132	41	24	50	262	72	274	286	724	2,136	30,199	295000*
Initial Unemployment Claims October 2013	312	159	65	21	54	483	47	298	174	661	2,274	40,132	317000*
Population	101,273	65,311	25,138	16,507	23,760	95,821	28,579	55,757	68,198	102,945	583,289	9,992,167	319,219,000

Sources:

Georgia Department of Labor, Workforce Statistical Economic Research

United States Bureau of Labor Statistics

United States Census Bureau

United States Department of Labor

Notes:

*Weekly average during month

The final national unemployment figures are from October 2013 instead of September 2013.



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 (1866 Southern Lane, Decatur, Georgia, 30049-4097, Telephone number: 404.679.4501)
 to award the Associate and Bachelor's degrees.