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Population, Employment, and Income Trends for Georgia and Atlanta

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#### I. Introduction

This report explores the growth in population, employment, and income over the previous 50 years or so in Georgia and Atlanta<sup>1</sup> in order to gain a better understanding of what Georgia's economic growth might be going forward. While the growth of population, employment, and income declined during the Great Recession, it appears that the population growth rate has recovered. However, we find that the growth rate of employment and income has been slowing for some time, a factor that does not appear to be directly attributable to the recent recession.

Part of the difficulty in assessing economic trends is that Georgia and Atlanta were hit hard by the Great Recession, which started December 2007 and ended June 2009 (NBER, 2013), and have not enjoyed a very robust recovery. Georgia's employment level began to fall in January 2008 while Atlanta' employment began to decline in February 2008. Through February 2010 (when the losses in employment stopped) Georgia's employment fell by 8.2 percent while Atlanta's employment fell by 8.3 percent. Since then Georgia's employment has increased by 4.7 percent, while Atlanta's employment increased by 6.2 percent (through May 2013). In January 2007, the unemployment rate was 4.5 percent in Georgia and 4.6 percent in Atlanta. By January 2010, the unemployment rates reached their highs of 10.5 percent in Georgia and 10.8 percent in Atlanta. Current (May 2013) unemployment rates are 8.3 percent for Georgia and 8.2 percent for Atlanta.

While Georgia and Atlanta have been slow to recover from the Great Recession, it is expected that as the U.S. economy continues to recover the Georgia and Atlanta economies will also improve. However, our analysis suggests that Georgia's economic growth was slowing prior to the Great Recession. The analysis raises the question of whether Georgia and Atlanta will return to the very robust economic growth that they experienced in the latter part of the 20<sup>th</sup> century.

<sup>1</sup> Atlanta refers to the metropolitan statistical area unless otherwise noted. We consider Atlanta since it accounts for about half of the state's economy.

<sup>&</sup>lt;sup>2</sup> Employment data and unemployment rates are from the Bureau of Labor Statistics (http://stats.bls. gov/sae, accessed August 14, 2013). The state unemployment rates are seasonally adjusted, but the Atlanta unemployment rates are not. The Georgia Department of Labor reports an unemployment rate of 8.9 percent for the 10-county ARC region as of June 2013 (http://www.dol.state.ga.us/pdf/pr/lf\_atlanta-reg.pdf, accessed August 14, 2013).

The following three sections explore the trends in population, employment, and income, respectively.

#### II. Population

Georgia's population growth has exceeded the national growth rate for each of the past five decades. Figure 1 shows the annual population growth rate for 1960 through 2012. As can be seen, Georgia's population growth was less than 1 percent in only two years, and has generally been above 1.5 percent. And in 20 of those years Georgia's population growth rate exceeded 2 percent. Table 1 provides a summary of population growth by decade, while Figure 2 provides a more detailed picture for the period since 2000.

3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%

FIGURE 1. GEORGIA'S ANNUAL POPULATION GROWTH RATE, 1960-2012

Source: Bureau of Economic Analysis.

TABLE 1. POPULATION GROWTH RATE FOR GEORGIA AND THE UNITED STATES, 1960-2010

	Georgia			Unite			
Period	Percentage Increase	Annual Growth Rate	Georgia's Rank	Percentage Increase	Annual Growth Rate	Georgia Less U.S. Percentage Increase	
1960-1970	16.4%	1.5%	18 <sup>th</sup>	13.4%	1.3%	3.0%	
1970-1980	19.1%	1.8%	$16^{th}$	11.4%	1.1%	7.7%	
1980-1990	18.6%	1.7%	$8^{th}$	9.8%	0.9%	8.8%	
1990-2000	26.4%	2.4%	$6^{ ext{th}}$	13.2%	1.2%	13.2%	
2000-2010	18.3%	1.7%	$7^{\mathrm{th}}$	9.7%	0.9%	8.6%	

Source: U.S. Statistical Abstract (various years) based on decennial censuses of population.

Table 1 shows the population growth rates for the past five decades for Georgia and the U.S., the difference between those two growth rates, and how Georgia's population growth rate ranks among states. Note that Georgia's population growth rate has been one of the highest in the U.S.; generally the states with higher growth rates than Georgia are smaller states in the southwest, which might be expected to have higher growth rates since they have a smaller base on which to build. For example, the three states with the fastest growth since 2000 are Arizona, Nevada, and Utah. Table 2 lists for each decade the states that had population growth rates that exceed Georgia's growth rate.

TABLE 2. STATES WITH POPULATION GROWTH RATES GREATER THAN GEORGIA'S

1960	)-1970	197	0-1980	198	0-1990	199	00-2000	2000	)-2010
	Growth		Growth		Growth		Growth		Growth
State	Rate	State	Rate	State	Rate	State	Rate	State	Rate
Nev.	71.6	Nev.	63.6	Nev.	50.1	Nev.	66.3	Nev.	35.2
Fl.	37.1	Ariz.	53.1	Alaska	36.9	Ariz.	40.0	Ariz.	24.6
Ariz.	36.3	Fl.	43.5	Ariz.	34.8	Colo.	30.6	Utah	23.8
Alaska	34.1	Wyo.	41.3	Fl.	32.7	Utah	29.6	Idaho	21.2
Calif.	27.1	Utah	37.9	Calif.	26.0	Idaho	28.5	Texas	20.6
Md.	26.5	Alaska	32.8	N.H.	20.5			N.C.	18.5
Colo.	26.0	Idaho	32.4	Texas	19.4				
Del.	22.9	Colo.	30.8						
Hawaii	21.6	Texas	29.1						
N.H.	21.6	N.Mex.	28.1						
Conn.	19.6	Oreg.	25.9						
Wash.	19.6	Hawaii	25.3						
Utah	18.9	Wash.	21.1						
Oreg.	18.3	S.C.	20.5						
N.J.	18.2	Calif.	18.5						
Va.	17.2								
Texas	16.9								

Source: U.S. Statistical Abstract (various years) based on decennial censuses of population.

Georgia's population growth rate was particularly high during the 1990s. One possible explanation for which is the 1996 Summer Olympics. However, if that was the case one would expect that Atlanta would have accounted for a large percentage of the state's population growth during that decade. However, Atlanta's shares of the state's population growth was actually higher in the 1980s and in the years following the Olympics.

Figure 2 shows for the period 2000-2012 the annual population growth rates for Georgia and the U.S. and Georgia's annual rank. Note that the growth rate was still high prior to the Great Recession, in fact the growth rate for 2005-06 was the highest for the entire 1960-2012 period. However, Georgia's rank has fallen for more recent years, but that slowdown seems to correspond to the recent recession.

3.0% 25 21 2.5% 20 2.0% **Growth Rate** 15 1.5% 10 10 1.0% 5 0.5% 0.0% ■ Rank-right hand scale Georgia

FIGURE 2. ANNUAL GEORGIA AND U.S. POPULATION GROWTH RATES, 2000-2012

Source: U.S. Bureau of the Census, Inter-Censual Estimates (as of July 1).

The annual population growth rate for Georgia fell below 1.5 percent during the Great Recession, and was about equal to the national growth rate for 2009-10, a year in which the state was ranked 22<sup>th</sup> in terms of its population growth rate. Except for two years, Georgia's population growth rate ranked 10th or higher since 2000. However, it does appear that Georgia's substantial population growth during the 1990s was something of an aberration and that population growth has returned to the levels seen in the 1970s and 1980s. During the 1990s, the population growth rate exceeded 2.25 percent for nine of the 10 years; there were only two other years during the 1960-2012 period when the growth rate exceeded 2.25 percent.

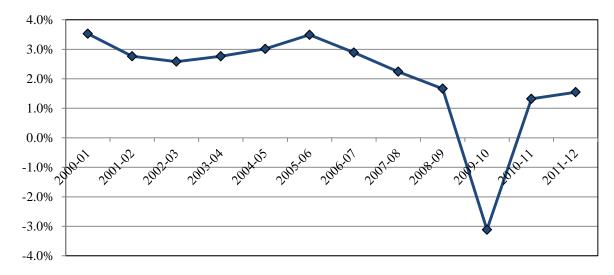
Table 3 shows the population growth for Atlanta. The Atlanta metropolitan area grew faster than Georgia and the growth rate ranks high among the 50 largest metropolitan areas. Figure 3 shows the annual percentage change in Atlanta's population since 2000. The growth rate begins to fall in 2007, and was -3.45 percent for 2009-10. The large decrease in population in 2010 is suspect and may reflect an understatement of the actual population in 2010 (there are claims to that effect) or an overstatement of the growth in population in previous years of that decade. Atlanta had the largest absolute and percentage decrease in reported population between 2009 and 2010 of the 68 MSAs with a population in excess of half a million, which suggests that either the 2009 reported population was overstated or the

TABLE 3. ATLANTA'S POPULATION GROWTH RATE AND RANK, 1970-2010

Period	Percentage Increase	Annual Growth Rate	Rank of Largest 50 MSAs
1970-1980	27.0%	2.4%	$12^{\rm th}$
1980-1990	32.5%	2.9%	$7^{\mathrm{th}}$
1990-2000	38.4%	3.3%	$4^{th}$
2000-2010	24.0%	2.2%	$10^{\rm th}$

Source: U.S. Statistical Abstract (various years); Decennial Census of Population.

FIGURE 3. ATLANTA'S ANNUAL POPULATION GROWTH RATES, 2000-2012



Source: U.S. Bureau of the Census; Decennial Census for 2000 and 2010 and Inter-Censual Estimates (as of July 1) for other years.

2010 reported population was understated. Similar to Georgia, Atlanta's population growth rate seems to have returned to a rate closer to that experienced in the 1970-1990 period.

Population growth comes from three sources: natural increases, i.e., births exceeding deaths, migration from other states, and immigration from outside the U.S. Of Georgia's population increase between 2000 and 2009, 41.7 percent was accounted for by natural increase, 34.5 percent by migration, and 17.2 percent by immigration. Georgia has a relatively young population; in 2008 Georgia ranked fourth in the percentage of the population under 18 years of age. Thus, Georgia's natural increase will likely be larger than most states. Georgia's future population growth rate will depend upon whether current U.S. residents continue to migrate to the South and to Georgia in particular, as well as upon Federal immigration policy. The state has developed population projections through 2030; the implied annual growth rate falls from 1.62 percent for 2013-14 to 1.44 percent for 2029-2030. These population growth rates are at the lower end of the range of growth rates for the period 1960-2012. Given the trends and the likely lower migration rates within the U.S., these projected growth rates seem reasonable.

#### III. Employment

Population growth is a reflection of the strength of the economy. However, growth in employment is key to a strong economy and continued population growth.

Figure 4 shows the annual employment growth rate for the period 1960-2012. There are several things to note. First, there is significant variation from year to year in the growth rates. Second, from 1960 to about the mid-1980s, the growth rate varied generally between 3 percent and 6 percent. Third, the years with decreases in employment correspond to economic recessions, with the 5.4 percent decrease during the Great Recession being the largest percentage decrease over the period. Fourth, there has been a general decrease in the annual growth rates, as seen by the trend line in Figure 4; the trend is still negative even if we exclude the years after 2007.

10.0%
8.0%
4.0%
2.0%
0.0%
-2.0%
4.0%
-4.0%
-6.0%
-8.0%

FIGURE 4. GEORGIA'S ANNUAL EMPLOYMENT GROWTH RATE, 1960-2012

Source: Bureau of Labor Statistics.

To account for changes due to economic conditions, we subtracted the annual growth rate for the U.S. from Georgia's growth rate. The results are shown in Figure 5. Georgia's employment growth rate has generally exceeded that for the U.S. Between 1960 and 2000, Georgia's employment growth rate exceeded the U.S. rate in 35 of the 40 years; the only years when Georgia's employment growth rate was less than the U.S. rate are years of

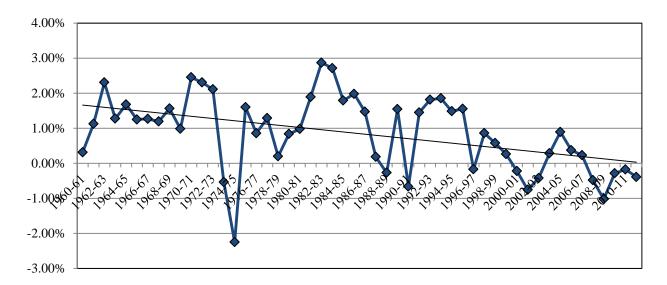


FIGURE 5. GEORGIA LESS U.S. GROWTH RATES, 1960-2012

Source: Bureau of Labor Statistics.

economic recession. However, for the past 12 years, Georgia's growth rate has been less than the U.S. rate eight times. Over the period 1960-2012, the extent to which Georgia's growth rate exceeded the U.S. growth rate has declined, as seen by the trend line. The trend line is negatively sloped even if we exclude the period 2007-2012 or 2000-2012, and thus the relative decrease in Georgia's job growth is not an outcome of the slower growth in the past decade. We also considered the percentage difference in growth rates and found the same pattern, which implies that it is not due to an overall decrease in the U.S. employment growth rate. Thus, it appears that Georgia's employment growth rate has been slowing and that it has been slowing relative to the U.S. employment growth rate.

One possible explanation for the trend in the difference in growth rates is that the interstate variation in employment growth has decreased, meaning there are fewer states with significantly larger or smaller growth rates relative to other states. We calculated the standard deviation of growth rates and the difference between the largest and smallest growth rates for each year 1970-2012. Both measures suggest that the variation in employment growth rates has gotten smaller.

Figure 6 shows Georgia employment as a percent of total U.S. employment from 1960 to 2012. The percentage increased nearly continuously until about 1995. Since then,

Georgia employment has been a pretty constant 3 percent of U.S. employment. Georgia's share of employment will increase if its employment growth rate exceeds the U.S. employment growth rate. That was the case until about 1995 at which point the two annual growth rates were the same and essentially remain that way since.

3.3%
3.1%
2.9%
2.7%
2.5%
2.3%
2.1%
1.9%
1.7%
1.5%

FIGURE 6. GEORGIA EMPLOYMENT AS A PERCENT OF U.S. EMPLOYMENT

Source: Bureau of Labor Statistics.

Table 4 provides a summary of employment growth for each of the past five decades, making it somewhat easier to see the patterns in Figures 4 and 5. Until this past decade Georgia's employment growth rate has been very robust, exceeding the U.S. growth rate, and for three of the five decades Georgia's employment growth rate ranked among the top ten states. This past decade, however, has seen a decrease in employment, which is unprecedented since the 1930s, and is the result of the two recessions during the decade (2000-2001 and 2007-2009) and Georgia's slow economic recovery from each recession. Table 4 reinforces what is seen in Figures 4 and 5, that is, that the rate of growth has declined for both Georgia and the U.S. and that the difference has gotten smaller.

TABLE 4. GEORGIA AND U.S. EMPLOYMENT GROWTH RATE AND RANK, 1960-2010

		Georgia		United	States	
Period	Percentage Increase	Annual Growth Rate	Georgia's Rank	Percentage Increase	Annual Growth Rate	Georgia Less U.S.
1960-1970	48.2%	4.0%	9 <sup>th</sup>	30.8%	2.7%	17.4%
1970-1980	38.7%	3.3%	$23^{\rm rd}$	27.5%	2.5%	11.2%
1980-1990	38.6%	3.3%	5 <sup>th</sup>	20.9%	1.9%	7.7%
1990-2000	32.0%	2.8%	$7^{\mathrm{th}}$	20.4%	1.9%	11.6%
2000-2010	-2.7%	-0.3%	$34^{th}$	-1.4%	-0.1%	-1.3%

Source: U.S. Bureau of Labor Statistics. Rank is among the 50 states plus D.C.

Table 5 shows the employment growth rate for the past four decades for the Atlanta metropolitan area. For the first three decades Atlanta's employment growth far exceeded the U.S. and Georgia's employment growth rate. The past decade however has seen a decrease in employment in Atlanta, but the percentage decrease was less than for the state of Georgia.

TABLE 5. ATLANTA'S EMPLOYMENT GROWTH RATE

	Percentage
Period	Decrease
1970-1980	41.9%
1980-1990	47.6%
1990-2000	42.4%
2000-2010	-0.8%

Source: 1970-80 and 1980-1990 are from the Bureau of Economic Analysis; 1990-2000 and 2000-2010 are from the U.S. Bureaus of Labor Statistics.

Figure 7 plots the annual growth rates for the U.S., Georgia, the largest 20 metropolitan areas, and Atlanta for the period 1990-2011. This figure provides more details for that 20-year period than Table 5, and reinforces what is seen in Table 5.

There are several potential explanations for Georgia's slowing employment growth rate, and we list many of the potential factors that might be a cause of the slower growth. However, we don't attempt to provide empirical analysis of these potential explanations.

▶ As a state's economy grows, it gets harder to maintain the same high growth rate. We constructed figures equivalent to Figures 4 and 5 for Florida and Texas. The figures look similar to those for Georgia, i.e., declining employment growth rates and declining growth rates relative to the U.S. growth rates.

4.0%
2.0%
0.0%
-2.0%
-2.0%
-4.0%
-6.0%
-8.0%

Georgia Atlanta National Average Top 20 Metro Area (except Atlanta)

**FIGURE 7. GROWTH RATES, 1990-2011** 

Source: Bureau of Labor Statistics.

- ► The growth rate in the southeast, relative to the national growth rate, has declined. Thus, Georgia could be suffering from a regional effect on employment growth. But, Georgia's growth rate is slowing relative to the growth rate for the southeast, so it is more than a regional effect that is causing the slower growth rate.
- At one time Georgia sold itself as a source of low wages and cheap land in order to attach industries such as textile plants. However, it may be that relative wages and other costs have increased, reducing the attractiveness of Georgia for firms seeking low cost operations. At the same time, Georgia's may not have expanded the workforce with the higher skill levels needed to attract other types of industries.
- ▶ It is possible that the relative low performance of the K-12 education system is slowing growth. The skill level required for most jobs has increased, which means an educated labor force has become increasingly important for attracting jobs. On lots of dimensions, Georgia's K-12 education system performs well below the national average. On the other hand, Georgia ranks 19th in terms of the percentage of the

population with at least a college degree, a factor frequently associated with economic growth.

- ▶ Job growth is the net difference between new jobs added and existing jobs that are lost, and it may be that Georgia has increased the rate at which it has lost jobs. If so, it would mean that Georgia would have to increase the number of new jobs in order to retain the same growth rate. The U.S. Bureau of Labor Statistics reports gross gains and gross losses of jobs. We calculated gross job losses relative to total employment for Georgia for 1993 and 2012 (the first and latest years these data are available); we find no indication that gross job losses as a share of total employment have increased. Nor has there been a change relative to the U.S.
- The loss of jobs due to global forces that shifted jobs to developing counties has been substantial, particularly for manufacturing. In Georgia, for example, the loss of textile jobs has been very substantial; since 1980 Georgia has lost 70 percent of its textile jobs. Between 1990 and 2012 Georgia lost 32.2 percent of its manufacturing jobs, but that is about equal to the 32.6 percent loss of manufacturing jobs for the U.S. The loss of manufacturing jobs over the 1990-2012 period as percentage of total 1990 nonfarm employment was 5.6 percent for Georgia, about the same as the 5.3 percent for the U.S. Thus, it does not appear that the relative slowdown in Georgia's employment growth was driven by global forces.
- ► Georgia may be pursuing the wrong economic development strategy, which currently seems to be focused on providing tax incentives. Perhaps a strategy that focused more on providing a better labor force, infrastructure, and amenities would result in greater net job growth.
- ▶ It has been suggested that the increasing traffic congestion, both in the metro area and on the interstate highways throughout the state, and the issue of water availability are factors slowing economic growth. However, while water supply for Georgia is an

issue, the concern about water has only recently received wide publicity, and thus is not likely the cause of the longer term job growth pattern.

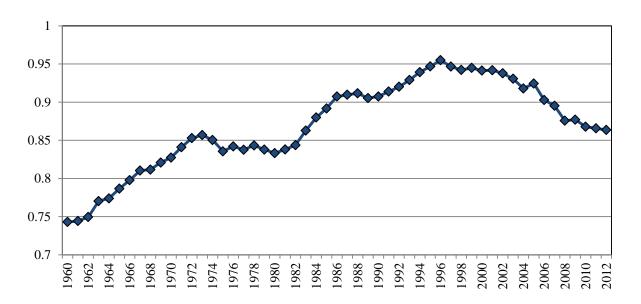
- The economics literature suggests that at the margin taxes do matter for economic growth, and thus a bad tax structure and high taxes on businesses will curtail growth. But Georgia's taxes are low (Georgia ranks 41<sup>st</sup> in state and local taxes a percent of personal income), have not increased over the past 30 years, as measured by taxes as a share of personal income. Total sales tax rate has increased with the adoption of additional local option sales tax, but other tax rates have not changed. Surrounding and competitor states have not significantly changed their tax systems such that Georgia has become less competitive (Buschman 2010).
- ► There are frequent reports that Georgia lacks the financial capital needed for new/expanding businesses. To the extent that such financial capital has become a more important asset in attracting and growing business, it may explain some of the slowdown in Georgia's employment growth rate.
- Perhaps there is a "leadership vacuum." There are fewer business leaders with strong ties to Georgia, either because they did not grow up here or moved here to temporarily take over running a business. And, the market for local businesses such as banks, utilities, accounting firms, law firms, etc. has become much more national and international. This suggests that business leaders may not be as invested in the economic success of Atlanta and Georgia. In addition, local government has become more fractionalized, particularly in the Atlanta metro area. For example, the City of Atlanta (both a political and economic center) dominated the region in the 1960s and 1970s. However, the growth of surrounding counties has meant that it is harder for the Atlanta region, and the state, to speak and act as one. So, perhaps Georgia and Atlanta have slowly lost some of its drive to push economic growth.

▶ It is also possible that Georgia and Atlanta have lost the perception that this is an exciting place. To the extent that businesses are attracted to places that are seen as successful and energetic, then a loss of that reputation could slow economic growth.

#### **IV.** Income Growth

While employment growth is one aspect of economic development, an increase in income is an even more important outcome of economic development since the goal of economic development should be to increase the standard of living for residents. Figure 8 shows the ratio of personal income per capita for Georgia to that for the U.S. for the period 1960 to 2012. As can be seen, until 1996 per capita income in Georgia increased nearly continuously relative to that for the U.S., although the trend was flat during much of the 1970s. This trend of increasing relative income can be traced back to well before WWII. In 1996, per capita income in Georgia relative to the U.S. average reached its peak of 95.5 percent. Since then relative income has been declining, and by 2012, the ratio had fallen to 86.4 percent. Had the ratio remained at 95 percent, per capita income in Georgia would have been \$3,689 greater, which is 10.0 percent of the 2012 per capita income.

FIGURE 8. RATIO OF GEORGIA INCOME PER CAPITA TO U.S. INCOME PER CAPITA, 1960-2012



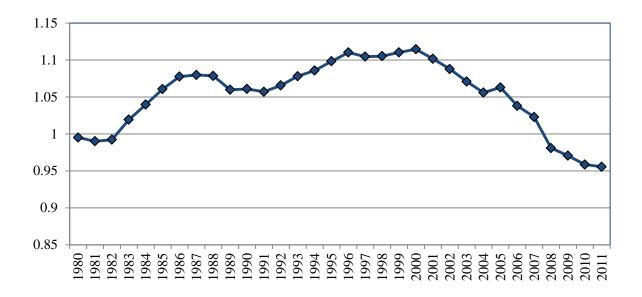
Source: Bureau of Economic Analysis.

The decrease of 9.1 percentage points between 1996 and 2012 in Georgia's per capita income relative to the U.S. was exceeded by only two states, Nevada and Michigan. There were only three other states that had larger decreases than Georgia from their peak ratio over

the period 1990 to 2012. Thus, while 20 states experienced a decrease in the ratio of state per capita income to that of the U.S., Georgia suffered a particularly large decrease.

A similar pattern can be seen for Atlanta in Figure 9, although relative per capita income in Atlanta reached a peak of 114 percent of the U.S. average in 2000, before the trend was reversed.

FIGURE 9. RATIO OF ATLANTA INCOME PER CAPITA TO U.S. INCOME PER CAPITA, 1980-2011



Source: Bureau of Economic Analysis.

Turner (2009) explored several possible explanations for the relative decline in income. One partial explanation is that the children comprised a significant component of the increase in population and since they add no income to the total the result in a reduction in the average relative to the U.S.

Another possible cause is an increase in the percentage of the adult population that does not work, for example, because of age, disability, or a personal decision. In 1995, 63.8 percent of Georgians over 16 years of age were employed, but by 2005, 64.0 percent were employed. Thus, there was essentially no change in Georgia, as was also the case for the U.S.

It is also possible that the relative decline is due to slower growth in wage rates. During the 1980s and 1990s, the growth in real earnings per employee in Georgia exceeded that for the U.S., as can be seen in Table 6.<sup>3</sup> However, since 2000, earnings per worker in real terms decreased in Georgia. Furthermore, the growth rate of Georgia's earning per worker has slowed relative to the U.S.

TABLE 6. GROWTH OF INFLATION ADJUSTED EARNINGS PER WORKER, GEORGIA

Period		Georgia Growth Rate Less U.S.		
	Georgia	Georgia Rank	U.S	<b>Growth Rate</b>
1980-1990	13.3%	9 <sup>th</sup>	5.4%	7.9%
1990-2000	18.9%	$8^{th}$	14.0%	4.9%
2000-2010	-5.7%	49 <sup>th</sup>	2.3%	-8.0%

Source: U.S. Bureau of Economic Analysis data and Consumer Price Index. Rank is among the 50 states plus D.C.

To further explore the relationship between the U.S. and Georgia's growth rate of earnings per worker consider Figure 10, which compares the growth rates for the period 1980-2010, and Figure 11, which plots the difference in the two growth rates. During the period 1980 to 2000, the growth in earnings per worker for Georgia generally exceeded that for the U.S.; in only three years was that not the case. However, since 2000 Georgia's growth rate of earnings per worker has been less than the U.S. growth rate in eight of the 10 years.

The result is that earnings per worker in Georgia relative to the U.S. increased from 87.7 percent in 1980 to 94.3 percent in 1990 and 98.8 percent in 2001 (Figure 11). However, by 2011, earnings per worker in Georgia had fallen to 90.1 percent of the U.S. average. Had the ratio remained at the 2001 level, earnings per worker in 2011 would have been \$3,058 greater. Since total employment in 2011 was about 54 percent of Georgia's population the additional \$3,058 earnings per worker is about \$1,651 per capita. While the trend in earnings per worker is an important factor in explaining the pattern of income per capita, it is clear there are other factors that have affected relative income per capita.

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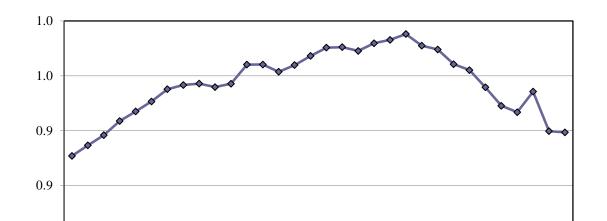
<sup>&</sup>lt;sup>3</sup> Earnings per worker were calculated as total earnings by place of work divided by total employment; data were from the U.S. Bureau of Economic Analysis.

4.0%
3.0%
2.0%
1.0%
-1.0%
-2.0%
-3.0%
-3.0%
-4.0%

Georgia US

FIGURE 10. GROWTH RATE OF EARNING PER WORKER, INFLATION ADJUSTED, 1980-2011

Source: Calculated from Bureau of Economic Analysis data on earnings and employment.



1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010

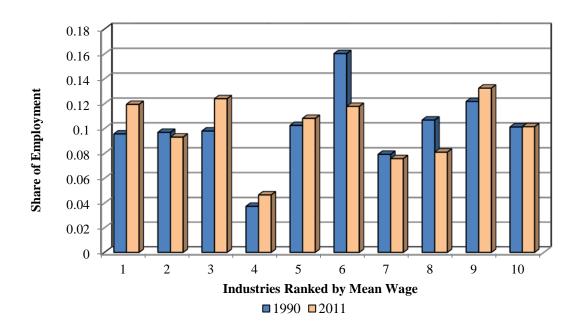
FIGURE 11. RATIO OF GEORGIA EARNINGS PER EMPLOYEE TO U.S. EARNINGS PER EMPLOYEE, 1980-2011

Source: Calculated from Bureau of Economic Analysis data on earnings and employment.

0.8

Obviously earnings per worker will fall if the state adds more jobs that pay low wages or loses jobs that pay higher wages. To explore this consider Figure 12, which shows how the change in the distribution of employment between 1990 and 2011 by industry has affected average wages. To construct Figure 12 we took the 56 industries identified in the employment data and ordered them by the average wage in the industry. We then combined the industries into 10 groups and calculated the percentage of total employment in each group. Thus, group 1 represents the 9.6 percent of jobs in industries with the lowest wages, while group 10 represents the 9.0 percent of jobs in industries with the highest wages. Using the same ordering, we calculated the percentage of 2011 employment in each of the 10 industry groupings. What we observe is that the share of employment in industries paying the lowest wages increased between 1990 and 2011 while the share of employment in higher wage industries decreased. In other words, Georgia has added more jobs in low wage industries than in high wage industries. An alternative, and perhaps better, approach would be to consider the change the distribution of employment by occupation. However, there is no consistent listing of occupations over the period 1990 to 2011.

FIGURE 12. DISTRIBUTION OF EMPLOYMENT, 1990 AND 2011



#### V. Summary

Over the past 50 years, Georgia has enjoyed remarkable growth of population, employment, and income. However, the growth rates of employment and income have slowed and have slowed relative to the growth rate for the U.S. This slowing has not been driven by the Great Recession. Several possible explanations for this pattern are presented, but we provide no analysis of the likelihood that any one of them in fact is a cause of the slowdown.

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#### Population, Employment, and Income Trends for Georgia and Atlanta

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