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Local Labor Markets: Post-Recession Job Outlook and Links to the National Economy

Introduction and Background

In the wake of the “Great Recession” of 2007-2009, KIRES Report No. 3 (<http://www.king.edu/resources/pdfs/business/LaborMarketsJobLoss2007-09National.pdf>) examined the effects of the recession on the Northeast Tennessee and Southwest Virginia areas. It also introduced the idea of examining the links between regional and national unemployment and forecasting future unemployment figures via regression. In this paper, we build on Report No. 3 by updating the figures to examine post-recession job outlook from 2009-2016 for the Northeast Tennessee area including Knoxville (henceforth NE TN).

For the purpose of this paper, we divide Northeast Tennessee (NE TN) into five geographic sub-regions. These sub-regions are the Kingsport-Bristol (TN) metro area, which consists of Hawkins and Sullivan counties; the Johnson City metro area, which consists of the counties of Carter, Unicoi, and Washington; Greene County; the Morristown metro area, which consists of the counties of Grainger, Hamblen, and Jefferson; and the Knoxville metro area, which consists of the counties of Anderson, Blount, Knox, Loudon, and Union. We chose to add the Knoxville metro area and exclude Southwest Virginia (SW VA) to focus primarily on East and Northeast Tennessee. We explore the number of jobs in each of these sub-regions as well as the jobs by sector to determine if there has been significant job growth/loss between the end of the recession in 2009 and 2016.

Data Sources

The source data for the preparation of Tables 1, 4, and 5 is the Quarterly Workforce Indicators (QWI) database published online by the US Census Bureau. The QWI are reported with about a one – year lag. The employment count in the QWI is a count of jobs, not the number of employed persons.

The QWI database and links to descriptive information about the QWI may be found at <https://lehd.did.census.gov/led/datatools/qwiapp.html>.

The source data for the preparation of Tables 2 and 3 is the Local Area Unemployment (LAU) database published online by the US Bureau of Labor Statistics. These statistics are reported monthly and track the number of persons in the labor force and the number who are unemployed and employed (www.bls.gov/lau/#data).

For a description of the 2 – digit NAICS sectors identified in Tables 4 and 5, please see the North American Industry Classification System at [www.bls.gov/iag/.Data Sources](http://www.bls.gov/iag/.Data%20Sources).

Implications

KIRES Report No. 3 was a situational report on the impact of the Great Recession¹ and reports on the region of NE TN and SW VA. Immediately following the recession, there were 42,479 fewer jobs in NE TN². Job losses varied greatly across the great state of Tennessee (TN) and within the NE TN region (see Table 1). When examining TN as whole (excluding NE TN), we found a 7.6 percent decline in employment. In NE TN, larger cities fared much better than their rural counterparts. For example, Kingsport-Bristol saw a 5.3 percent decline, below the state average, while Greene County experienced a decline twice that of the state average. In 2011, when KIRES Report No. 3 was written, the economy was experiencing sluggish growth and there were even talks of a “double dip recession” (Leonhardt).

<http://www.nytimes.com/2011/09/08/business/economy/american-economy-on-the-verge-of-a-double-dip-recession.html>

In this report, we pick up where we left off analyzing the situation from Q3: 2009 through Q3: 2016. To give an apples-to-apples³ comparison, we use the same QWI database to measure job losses⁴. Each region within NE TN saw employment gains over the past seven years, and, as a whole, there were 52,983 more jobs. Every region in our study saw large upticks in hiring, pushing 15 percent. However, if we go back and compare the employment situation in mid-2016 to levels prior to the recession, we see a much less favorable situation. NE TN only grew by 10,504 jobs (1.8%) which was driven entirely by Knoxville’s relatively large labor market. Knoxville was the only city in our study to have positive employment growth.

¹ The Great Recession started at the beginning of 2008 and ended in the middle of 2009. It is recognized as the worst economic crisis since the Great Depression of 1929-32.

² KIRES Report No. 3 reported 18,845 fewer jobs but did not include the Knoxville region. When we exclude the Knoxville region, we find a similar loss of jobs (i.e., 18,563). The difference can be attributed to regular data revisions by the U.S. Census.

³ As of the writing of this report, the most current QWI data is Q1:2017; however, since the purpose of this report is to compare the current employment situation prior to and after the recession, we feel it is important to use data from the same quarter because the QWI data does not control for seasonal variations.

⁴ QWI estimates that around 95% of private-sector jobs are covered by the database, for it does not count the self-employed and those employed by the federal government.

To explore the employment situation in more detail, we gathered regional data on the labor force and unemployment rate from the Bureau of Labor Statistics (BLS)⁵. Not only did the number of jobs fall in the NE TN, but, as can be seen in Table 2, the labor force did as well⁶. The labor force is comprised of two parts: (1) those who have a job and (2) those who do not but are actively searching. We can infer that people are either retiring faster than people are entering the labor force or that people have simply given up looking for work. The “graying of America” could explain why employment has fallen. If, for example, workers are retiring and employers do not see an immediate need to replace these workers (or cannot find qualified applicants), then it stands to reason that the region’s graying it will coincide with fewer jobs.

In Table 3, we add another piece of the puzzle, the unemployment rate. To be counted as unemployed a person must be jobless; however, they must also be looking for a job and available to work. The unemployment rate is well below the 2009 post recession levels and, on the whole, is approximately a percentage point higher than before the recession, which means that out-of-work individuals are continuing to look for gainful employment.

Table 1 tells us how many jobs are in the region, Table 2 tells us how many people are available to work, and Table 3 tells us how many people are out of work but actively searching. Knowing how many people are currently working or looking for work is vitally important because this information is so closely related to the business cycle. However, these data do not indicate workers’ type of industry or nature of jobs. For this, we turn to Table 4, in which we break up jobs into two broad classifications: manufacturing and nonmanufacturing. Manufacturing is important because it is considered by many to be the cornerstone of innovation driving domestic research, innovations, and investment. KIRES Report No. 12 explains that while manufacturing industries may not employ large numbers, their marginal impact is relatively large. Much of their product is “exported” outside of the region and attracts new money from outside the region. Unfortunately, the Great Recession hit the manufacturing industry particularly hard, especially in Greene County, Morristown, and Knoxville. These areas suffered job losses well above the state average of 19.3 percent. The Tri-Cities⁷ however, managed to avoid similar results, as they only dropped around 15 percent. In NE TN, the recession had a relatively smaller effect on nonmanufacturing jobs, as its job loss was more than three times lower than the manufacturing sector.

⁵ These data came from the Labor Area Unemployment Statistics and were revised on April 21, 2017. We avoid using preliminary data; hence, we have not included these data in our study.

⁶ While a full examination of the root causes of a shrinking labor force is outside the scope of this report, we are troubled by the lack of employment participation; however, it is consistent with what we are seeing nationally (<http://www.businessinsider.com/labor-force-participation-rate-march-2017-2017-4>). The clearest cause is the aging of the labor-force population. Baby boomers (those born between 1946-1964) are retiring and thus no longer part of the labor force. Meanwhile, millennials (those born between 1980-2000) are delaying entry into the labor market.

⁷ The Tri-Cities is the region comprising Kingsport-Bristol and Johnson City. Formerly this region was a single Metropolitan Statistical Area (MSA); however, in the early 2000s the Census revised their definitions of urban areas and they are now a Combined Statistical Areas (CSA) comprised of the two municipalities.

Lastly, in Table 5, we list each of the NAICS⁸ sectors with 10,000 or more jobs. These ten sectors account for 83 percent of the jobs in NE TN. Health Care and Social Assistance took over as the largest industry after the recession had eliminated many manufacturing jobs. The boundaries between health care and social assistance are often difficult to distinguish; therefore, the NAICS combines them into one sector. However, they share the commonality of being labor intensive, and many of the jobs in the industry require advanced training or degrees.

Retail Trade and Accommodation as well as Food Services are two large sectors with several similarities. They often have a fixed point-of-sale location designed to attract walk-in customers (e.g., a store, restaurant, or hotel). They typically sell their goods and services to the general public for the purposes of household consumption or lodging, and they are often found in close proximity to one another, as in the case of a mall, shopping center, or interstate-highway exit. KIRES Report No. 14 describes, in detail, why the establishment of new businesses in these sectors⁹ often provides little economic impact. Report No. 14 explains that when the primary customers are local residents, then competition among retailers tends to operate like a zero-sum-game, with the gains of one retailer often coming at the expense of another business. Thus, new businesses add little to the region's economic base.

The sector Administrative and Support and Waste Management and Remediation services grew at 30.9 percent, the fastest growing NAICS Sector over the course of the study. This sector consists of businesses that support the day-to-day operations of other organizations, including office administration, clerical work, headhunters, security, cleaning, and waste disposal.

We find that the Education sector grew at 1.7 percent, which is in line with historical trends in this industry. The figure for Q3:2009 education was atypical, so we made a statistical adjustment (see footnote 10¹⁰).

If we narrow the analysis to industry growth after the recession; that is, 09-16, we see that manufacturing is one of the largest growth areas in NE TN. Manufacturing consists of establishments that are engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Manufacturing plays an important role on economic growth because it has a high multiplier effect. For example, nationally for every dollar spent in manufacturing, another \$1.81 is added to the economy¹¹; therefore, manufacturing can have large and significant impacts on the local economy. Lastly, average earnings in

⁸ The North American Industry Classification System (NAICS) is the federal standard for codifying business establishments by their type of economic activity.

⁹ The scope of KIRES Report No. 14 is primarily the retail sector; however, we believe the conclusions should follow for Accommodations and Food Services sectors as well.

¹⁰ While there is variability in the number of jobs throughout the school year; for example, during the summer employment falls and at the beginning of the school year jobs rebound, there is much less variation year after year. Over the past ten years, the number of jobs in the third quarter range from 45,000 to 47,000; however, in 2007 the number decreased to 35,000¹⁰ and then next quarter returned to normal levels. The decrease was due to an unexplained and dubious fall of about 10,000 jobs reported for the Knoxville region.

¹¹ Source: NAM (National Association of Manufacturers) calculations using IMPLAN.

manufacturing are greater than any other of the other nine industries in Table 5. We will report earnings in an upcoming KIRES report shortly.

Conclusions

December 2017 marks the 10-year anniversary of arguably the greatest economic crisis that most of us can recall. It seems fitting that we look back and critically analyze our regional economy. Local employment statistics are an important indicator of the current state of affairs. In this report, our focus was on the economic condition of NE TN, primarily in relation to jobs.

Large numbers of job losses can be attributed to the Great Recession, and KIRES Report No. 3 explored the situation just two years after this recession ended. The situation in 2009 was grim; today, the economy is much more robust. However, a careful study shows there are areas of concern, including the fact that much of the job growth was in Knoxville, there was a sharp decrease in the labor force, and, although many of the manufacturing jobs are returning, the sector still peaked in 2007.

There is also much that merits congratulations. Unemployment is where it was before the recession. Since 2009, we have seen job gains in nine out of the ten major sectors/industries. We see education growing in job creation. While we have provided data pertaining to the NE TN labor market, there is still much that needs to be researched. Future reports will examine the situation in SW VA, earnings, and demographic differences.

KIRES Report No. 19 was prepared by Dr. Alexander Brumlik, assistant professor of Economics at King University, Dr. Sam Evans, associate professor of Finance and Economics at King University, and economic students Faber Bickerstaffe and Evan Harof.

Tables and Figures

Table 1	Number of Jobs					
	2007: Q3	2009: Q3	2016: Q3	07-09 Change; (%)	09-16 Change; (%)	07-16 Change; (%)
NE TN Total:	597,448	554,969	607,952	-42,479; (-7.1)	52,983; (9.5)	10,504; (1.8)
Kingsport-Bristol	81,848	77,540	78,424	-4,308; (-5.3)	884; (1.1)	-3,424 (-4.2)
Johnson City	74,701	70,193	74,703	-4,508; (-6.0)	4,510; (6.4)	2; (0.0)
Greene Co.	26,875	22,774	26,177	-4,101; (-15.3)	3,403; (14.9)	-698; (-2.6)
Morristown	44,372	38,726	43,492	-5,646; (-12.7)	4,766; (12.3)	-880; (-2.0)
Knoxville	369,652	345,736	385,156	-23,916; (-6.5)	39,420; (11.4)	15,504; (4.2)
TN, excl. NE TN	2,104,409	1,943,813	2,232,299	160,596; (-7.6)	288,486 (14.8)	127,890; (6.1)

Table 2	Labor Force			
	2007: Q3	2016: Q3	Net Change	Percent Change
NE TN Total:	755,666	734,078	-21,588	-2.9
Kingsport-Bristol	145,040	139,356	-5,684	-3.9
Johnson City	99,226	90,711	-8,515	-8.6
Greene Co.	31,362	31,594	232	0.1
Morristown	54,548	51,446	-3,102	-5.7
Knoxville	425,490	420,971	-4,519	-1.0
TN, excl. NE TN	2,316,224	2,427,353	111,129	4.8

Table 3	Unemployment Rate		
	2007: Q3	2009: Q3	2016: Q3
NE TN Total:	4.1	10.0	5.0
Kingsport-Bristol	4.2	9.6	5.3
Johnson City	4.4	9.6	5.4
Greene Co.	6.9	16.1	5.8
Morristown	4.7	12.7	5.3
Knoxville	3.7	9.4	4.7
TN, excl. NE TN	4.9	11.0	5.3

Table 4	Manufacturing Jobs					
	2007: Q3	2009: Q3	2016: Q3	07-09 Change; (%)	09-16 Change; (%)	07-16 Change; (%)
NE TN Total:	93,769	72,053	81,750	-21,716; (-23.2)	9,697; (13.5)	-12,019; (-12.8)
Kingsport-Bristol	18,178	15,800	16,241	-2,378; (-13.1)	441; (2.8)	-1,937; (-10.7)
Johnson City	10,349	8,744	7,835	-1,605; (-15.5)	-909; (-10.4)	-2,514; (-24.3)
Greene Co.	7,375	5,076	6,105	-2,299; (-31.2)	1,029; (20.3)	-1,270; (-17.2)
Morristown	13,878	10,553	11,374	-3,325; (-24.0)	821; (7.8)	-2,504; (-18.0)
Knoxville	43,989	31,880	40,195	-12,109; (-27.5)	8,315; (26.1)	-3,794; (-8.6)
TN, excl. NE TN	293,016	236,529	266,976	-56,487; (-19.3)	30,447; (12.9)	-26,040; (-8.9)

Table 4.1	Nonmanufacturing Jobs					
	2007: Q3	2009: Q3	2016: Q3	07-09 Change; (%)	09-16 Change; (%)	07-16 Change; (%)
NE TN Total:	503,679	482,916	526,202	-20,763; (-4.1)	43,286; (9.0)	22,523; (4.5)
Kingsport-Bristol	63,670	61,740	62,183	-1,930; (-3.0)	443; (0.7)	-1,487; (-2.3)
Johnson City	64,352	61,449	66,868	-2,903; (-4.5)	5,419; (8.8)	2,516; (3.9)
Greene Co.	19,500	17,698	20,072	-1,802; (-9.2)	2,374; (13.4)	572; (2.9)
Morristown	30,494	28,173	32,118	-2,321; (-7.6)	3,945; (14.0)	1,624; (5.3)
Knoxville	325,663	313,856	344,961	-11,807; (-3.6)	31,105; (9.9)	19,298; (5.9)
TN, excl. NE TN	1,811,393	1,707,284	1,965,323	-104,109; (-5.7)	258,039; (15.1)	153,930; (8.5)

Table 5	NE TN, Jobs by Sector					
NAICS Sector (Code):	2007:Q3	2009:Q3	2016:Q3	07-09 Change (%)	09-16 Change (%)	07-16 Change (%)
Construction (23)	34,130	28,208	29,048	-5,922 (-17.4)	840 (3.0)	-5,082 (-14.9)
Manufacturing (31-33)	93,769	72,053	81,750	-21,716 (-23.2)	9,697 (13.5)	-12,019 (-12.8)
Wholesale Trade (42)	28,789	24,829	24,981	-3,960 (-13.8)	152 (0.6)	-3,808 (-13.2)
Retail Trade (44-45)	80,862	74,157	79,606	-6,705 (-8.3)	5,449 (7.3)	-1,256 (-1.6)
Finance and Insurance (52)	21,177	21,296	20,211	119 (0.6)	-1,085 (-5.1)	-966 (-4.6)
Administrative and Support and Waste Management and Remediation Services (56)	34,180	30,302	44,732	-3,878 (-11.3)	14,430 (47.6)	10,552 (30.9)
Educational Services (61)	49,683	50,344	50,530	661 (1.3)	186 (0.4)	847 (1.7)
Health Care and Social Assistance (62)	82,019	85,906	90,507	3,887 (4.7)	4,601 (5.4)	8,488 (10.3)
Accommodation and Food Services (72)	55,383	52,213	60,259	-3,170 (-5.7)	8,046 (15.4)	4,876 (8.8)
Public Administration (92)	16,617	16,893	20,538	276 (1.7)	3,645 (21.6)	3,921 (23.6)
Total of Above	496,609	456,201	502,162	-40,408 (-8.1)	45,961 (10.1)	5,553 (1.1)