

# EMPLOYMENT IN KNOX COUNTY

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*This report is a portrait of Knox County's employment base, examining trends in civilian labor force growth, unemployment, and industry specializations.*

*Comparisons are made with national trends, revealing local economic strengths and weaknesses. Past and present conditions indicate where future economic development and labor recruitment efforts might be most successful.*

## Historical Employment Trends

In 1970, private industry held 80.3 percent of Knox County's total employment, the remainder in public sector (that is, government) jobs. The private sector share increased to 87.2 percent by 2006 (Table 1). The local public-private split was consistent with U.S. averages over the same time period.

Manufacturing employment saw greatest declines among all economic sectors, both nationally and locally, falling from the second-ranked spot (with 22.4 percent of total Knox County employment) in 1970 to a fifth-place rank in 2006 (holding a 7.0 percent share). Meanwhile the services sector recorded highest gains, growing its top-ranked 25 percent local employment share in 1970 to a 42.1 percent share in 2006. Both locally and across the U.S., many manufacturing jobs moved overseas during the past 35 years, marking a shift from a production based economy to one tied heavily to service industries.

Another noteworthy trend, employment in Knox County's retail trade sector grew 31.8 percent since 1970, while the U.S. average showed only 7.3 percent expansion in the sector. By 2006, nearly 26 percent of Knox County's workers were employed in retail trade, compared to a 20.6 percent share nationwide.

TABLE 1. HISTORICAL EMPLOYMENT, 1970-2006: KNOX COUNTY AND UNITED STATES INDUSTRY SHARES (%)

Industry	1970		1980		1990		2000		2006	
	Knox	U.S.	Knox	U.S.	Knox	U.S.	Knox	U.S.	Knox	U.S.
Private	80.3	81.6	77.9	83.0	83.5	84.4	86.1	86.0	87.2	86.3
Government	19.7	18.4	22.1	17.0	16.5	15.6	13.9	14.0	12.8	13.7
Agriculture/forestry/fishing	0.4	0.7	0.5	1.0	0.8	0.8	1.3	0.8	0.1	0.7
Mining	1.8	1.0	0.7	1.4	0.4	0.8	0.2	0.5	0.3	0.6
Construction	7.1	6.2	7.2	6.2	6.9	6.4	7.2	6.8	8.3	7.6
Manufacturing	22.4	27.6	19.3	22.7	14.2	15.8	9.8	12.7	7.0	9.7
Transportation/public utilities	6.4	6.8	5.6	6.2	5.4	4.4	6.3	4.3	(D)	4.2
Wholesale trade	10.6	5.9	8.8	6.3	8.4	5.0	6.9	4.5	5.8	4.3
Retail trade	19.5	19.2	22.5	19.5	23.7	21.3	22.9	20.7	25.7	20.6
Finance/insurance/real estate	6.7	8.6	8.6	9.6	7.0	11.0	8.2	10.8	10.6	11.9
Services	25.0	23.9	26.7	27.3	33.4	34.5	37.3	38.8	42.1	40.3

Note: (D) Data undisclosed.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 1969-2006.

# Civilian Labor Force and Unemployment

In 2007, Knox County's civilian labor force was comprised of 225,940 workers, accounting for 7.4 percent of Tennessee's total workforce. In turn, the state's 3,036,700 workers represented 2.0 percent of the U.S. total (Table 2). Between 2000 and 2007, Knox County's labor force increased 11.6 percent, or 23,530 additional workers, an average annual net gain of 3,361 workers. During the same period, U.S. and Tennessee labor markets grew 7.4 and 5.8 percent, respectively.

*The civilian labor force is comprised of the population aged 16 years and over who are employed or actively seeking employment (excludes military and institutional population).*

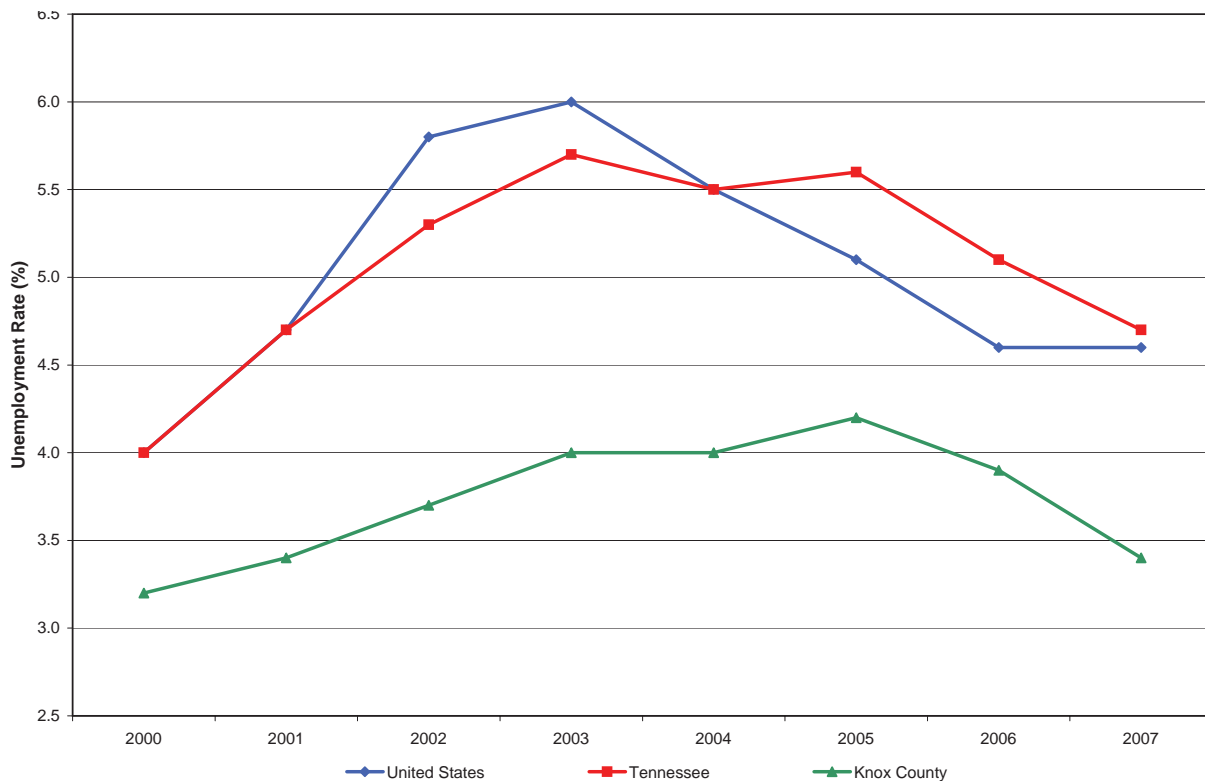
Unemployment rates in Knox County averaged 3.7 percent from 2000 to 2007, with a low of 3.2 percent in 2000 and a high of 4.2 percent in 2005 (Figure 1). Tennessee and U.S. unemployment rates averaged 5.1 and 5.0 percent, respectively, over the eight year span. Knox County's expanding labor force and low unemployment rates signaled a healthy labor market this decade, consistently outperforming state and national measures.

**TABLE 2. CIVILIAN LABOR FORCE, 2000-2007**

	2000	2001	2002	2003	2004	2005	2006	2007	Growth 2000-07
<b>United States</b>									
Civilian labor force	142,583,000	143,734,000	144,863,000	146,510,000	147,401,000	149,320,000	151,428,000	153,124,000	10,541,000
Annual change		0.8%	0.8%	1.1%	0.6%	1.3%	1.4%	1.1%	7.4%
<b>Tennessee</b>									
Civilian labor force	2,871,500	2,863,500	2,867,100	2,885,000	2,891,500	2,920,400	3,008,300	3,036,700	165,200
Annual change		-0.3%	0.1%	0.6%	0.2%	1.0%	3.0%	0.9%	5.8%
<b>Knox County</b>									
Civilian labor force	202,410	205,870	209,590	210,960	213,010	214,880	222,130	225,940	23,530
Annual change		1.7%	1.8%	0.7%	1.0%	0.9%	3.4%	1.7%	11.6%

Source: Tennessee Department of Labor and Workforce Development, 2007.

**FIGURE 1: ANNUAL UNEMPLOYMENT RATES, 2000-2007**



## Major Industries in Knox County

A closer look at the 2007 Knox County labor force picture revealed 40 percent of workers were employed in three sectors: retail trade, health care/social assistance, and accommodation/food services (Table 3). The retail trade industry accounted for the greatest share (14.7 percent, or 33,142 employees). Knox County's largest retail employer was Wal-Mart, with almost 4,600 workers (Table 4). Second and third were grocery chains Kroger and Food City, combining for over 6,000 workers, while fourth was merchandiser Goody's Family Clothing. These four companies accommodated 35 percent of all local retail employment.

The second largest employment sector in Knox County was health care/social assistance, reporting a 14.4 percent share of the areawide labor force, or 32,515 employees in 2007 (Table 3). Covenant Health, which employed nearly 5,300 workers, was the largest health care system in Knox County. Mercy Health Partners and The University of Tennessee Medical Center were second and third in size, while East Tennessee Children's Hospital rounded out the top four (Table 4). These health systems contributed 43 percent of workers in the health care/social assistance sector.

Knox County's accommodation/food services industry held a 10.5 percent share of total employment (Table 3). The industry is comprised of establishments providing lodging and/or preparing meals, snacks, and beverages for immediate consumption. McDonald's restaurants employed the greatest number of workers in this sector, with 8.0 percent (1,909 workers) of the total. Cracker Barrel Old Country Store, Shoney's Restaurant Company, Ruby Tuesday, and Wendy's International rounded out the top five (Table 4). Combined, these companies represented 28 percent of all local accommodation/food services employment.

**TABLE 3. KNOX COUNTY EMPLOYMENT BY INDUSTRY, 2007**

Industry	Employees	Share (%)	Rank
Agriculture/forestry	208	0.1	20
Mining	467	0.2	19
Utilities	1,294	0.6	18
Construction	13,071	5.8	8
Manufacturing	15,598	6.9	5
Wholesale trade	13,146	5.8	7
Retail trade	33,142	14.7	1
Transportation/warehousing	8,741	3.9	11
Information	4,703	2.1	14
Finance/insurance	8,980	4.0	10
Real estate/rental/leasing	3,488	1.5	15
Professional/scientific/technical	10,806	4.8	9
Management of companies	2,410	1.1	17
Administrative/support	15,232	6.8	6
Educational services	19,247	8.5	4
Health care/social assistance	32,515	14.4	2
Arts/entertainment/recreation	2,937	1.3	16
Accommodation/food services	23,732	10.5	3
Other services	7,712	3.4	12
Public administration	7,630	3.4	13
Unclassified	122	0.1	21
<b>Total</b>	<b>225,181</b>	<b>100.0</b>	

Source: Tennessee Department of Labor and Workforce Development, 2nd Quarter, 2007.

**TABLE 4. KNOX COUNTY'S THREE MAJOR EMPLOYMENT SECTORS, 2007**

Company	Employees	Description
<b>Retail Trade</b>		
Wal-Mart	4,575	Discount stores/wholesale clubs
Kroger	3,282	Grocery stores/pharmacies
Food City	2,833	Grocery stores/pharmacies
Goody's Family Clothing	910	Family clothing stores
Home Depot	888	Building supplies
Sears/Kmart	803	Department stores
Lowe's Home Improvement	814	Building supplies
Target	811	Discount stores
CVS	505	Drug stores/pharmaceutical distribution
Pilot Travel Centers	450	Service stations/convenience centers
<b>Health Care/Social Assistance</b>		
Covenant Health	5,269	Local health care system
Mercy Health Partners	4,000	Local health care system
University of Tennessee Medical Center	3,500	Local health care system
East Tennessee Children's Hospital	1,375	Regional specialty health care
Rural/Metro Corporation of Tennessee	645	Emergency ambulance/firefighting
Hillcrest Healthcare	625	Health care services for aging
Lakeshore Mental Health Institute	500	Local mental health hospital
Summit Medical Group	348	Local health care providers
<b>Accommodation/Food Services</b>		
McDonald's	1,909	Fast food restaurants
Cracker Barrel Old Country Store	1,459	Restaurants/general stores
Shoney's	1,389	Full-service restaurants
Ruby Tuesday	1,051	Full-service restaurants
Wendy's	834	Fast food restaurants
Copper Cellar	655	Full-service restaurants
Burger King	602	Fast food restaurants
Taco Bell	543	Fast food restaurants
Krystal	536	Fast food restaurants

Note: Corporate employees were not included for Pilot Travel Centers, Goody's Family Clothing, and Ruby Tuesday.  
Source: InfoUSA, 2007.

# Industry Employment Shares: Location Quotients

*Calculating a location quotient for a sector of the local economy:*

1. *Divide Knox County's selected industry-specific employment (for example, retail trade) by the county's total employment.*
2. *Divide the base area industry-specific employment (again, retail trade, for example) by the base area total.*
3. *Divide the Knox County industry-specific ratio by the base area ratio.*

Employment shares by industry provide a partial look at an area's economic standing. Further analysis is needed to see how a community is positioned relative to other places. A common measure is the location quotient, a ratio that compares local industry-specific employment shares to a base area, such as the U.S., a state, or a metropolitan area.

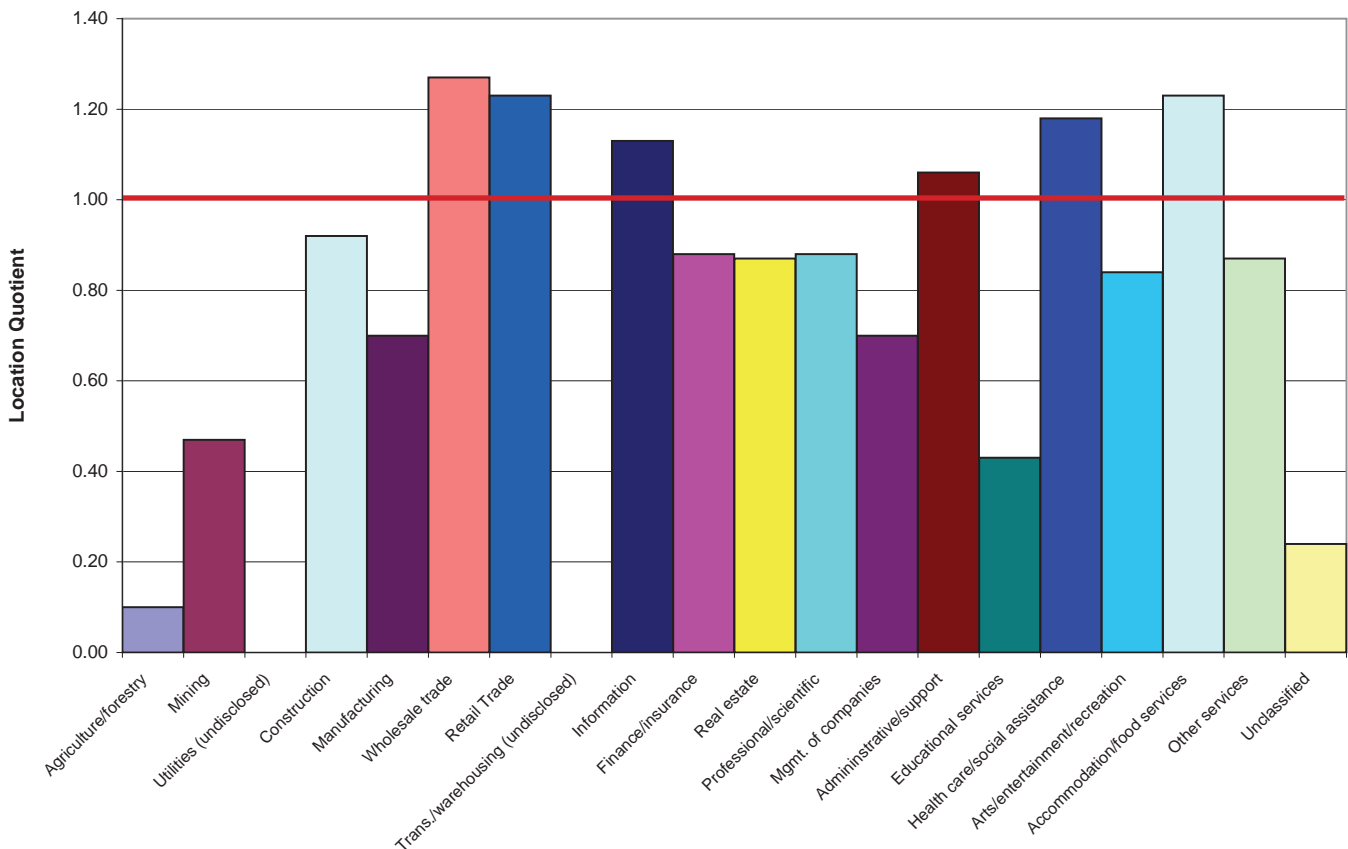
The U.S. Bureau of Labor Statistics has simplified this exercise by creating an on-line location quotient calculator for all states, counties, and metropolitan areas nationwide. Visit [www.bls.gov/cew/cewlq.htm](http://www.bls.gov/cew/cewlq.htm).

If the location quotient (ratio) equals 1.0 for a selected industry, the local employment share in that industry is the same as the share for the base area (for example, the U.S.). A location quotient greater than 1.0 indicates a local industry

with a larger share of its employment in that selected industry as compared to the base area, indicative of area specialization. A ratio less than 1.0 shows lower participation rates than base area averages.

Knox County economic specializations were identified by comparing local employment levels to U.S. figures. In 2006, Knox County's three largest employment sectors, retail trade, health care/social assistance, and accommodation/food services, reported location quotients of 1.23, 1.18, and 1.23 respectively, confirming that local shares were well-above national averages (Figure 2). Knox wholesale trade employment also outpaced U.S. rates, holding the highest location quotient of all sectors (1.27). Major local wholesalers included Goody's Family Clothing (merchandise distribution center), Stowers Industrial Power (heavy equipment), and Anderson News (distributor of magazines, books, videos, and music). Notably under-represented in Knox County were agriculture/forestry, mining, manufacturing, management of companies, and educational services, each with participation rates below U.S. averages.

**FIGURE 2: KNOX COUNTY LOCATION QUOTIENTS BY EMPLOYMENT SECTOR, 2006**



## Industry-Specific Growth and Decline: Shift-Share Analysis

Another measure of economic performance, shift-share analysis examines employment change and identifies local competitive position. This analytic tool is comprised of three elements: National growth is the share of local employment change attributable to national economic factors. If the national economy is experiencing growth or decline in total employment, it can be expected that effects will be felt locally also. Industrial mix compares national distribution (or, mix) of employment by industrial sector to the local mix and shows how national change affects local employment within each industry. Local share is a measure of competitive advantage, showing how unique local factors contribute to growth or decline of selected industries.

*Shift-share analysis is a descriptive tool that compares local employment growth to national measures to identify local advantages and pinpoint potential growth industries.*

Shift-share analysis requires comparison of job growth over a short time span, typically five years. Employment by industry was reported for the U.S. economy and for Knox County, from 2001 to 2006, with rates of change tabulated (Table 5). Among top gainers at the national level were real estate, educational services, and construction industries. These saw sizeable growth in Knox County also, as did finance/insurance and arts/entertainment/recreation. Knox County's mining sector showed a noteworthy 36.2 percent increase over the past five years, but total jobs in the sector increased only 186. Setting percentage change aside, Knox County's top job growth sectors were construction, retail trade, and health care/social assistance, each reporting more than 4,000 new workers since 2001. Substantial losses were recorded in the manufacturing sector, and small declines were felt in farming and management of companies.

A large portion of employment change in Knox County was attributed to U.S. economic events, measured by national growth share (Table 6). Between 2001 and 2006, the total increase in Knox jobs was 30,629, of which 18,470 were created due to national economic trends. If the Knox economy was identical to the U.S. economy, job gains would have stopped at 18,470. Instead, Knox added another 12,159 new jobs, suggesting that the local economy outperformed the nation as a whole. Construction, retail trade, finance/insurance, real estate, administrative/support, health care/social assistance, and accommodation/food services were the primary contributors

**TABLE 5. EMPLOYMENT BY INDUSTRY: UNITED STATES AND KNOX COUNTY, 2001-2006**

Industry	U.S.				Knox			
	Jobs 2001	Jobs 2006	Change in Jobs	Percent Change	Jobs 2001	Jobs 2006	Change in Jobs	Percent Change
Farm	3,056,000	2,868,000	-188,000	-6.2	1,577	1,449	-128	-8.1
Forestry/fishing	1,022,500	1,013,600	-8,900	-0.9	275	280	5	1.8
Mining	811,400	887,200	75,800	9.3	514	700	186	36.2
Utilities	618,800	572,700	-46,100	-7.4	14	15	1	7.1
Construction	9,846,700	11,580,000	1,733,300	17.6	16,667	21,017	4,350	26.1
Manufacturing	16,994,600	14,760,400	-2,234,200	-13.1	20,563	17,699	-2,864	-13.9
Wholesale trade	6,273,400	6,544,300	270,900	4.3	13,325	14,723	1,398	10.5
Retail trade	18,528,800	19,201,400	672,600	3.6	35,893	40,090	4,197	11.7
Transportation/warehousing	5,474,000	5,766,200	292,200	5.3	9,818	10,612	794	8.1
Information	4,053,800	3,607,300	-446,500	-11.0	6,117	7,087	970	15.9
Finance/insurance	7,839,600	8,470,300	630,700	8.0	10,590	13,031	2,441	23.1
Real estate/rental	5,551,400	7,707,000	2,155,600	38.8	8,853	11,542	2,689	30.4
Professional/technical services	10,575,800	11,701,000	1,125,200	10.6	17,951	19,634	1,683	9.4
Management of companies	1,779,300	1,890,700	111,400	6.3	2,339	2,253	-86	-3.7
Administrative/support	9,621,000	10,699,900	1,078,900	11.2	18,166	20,919	2,753	15.2
Educational services	3,058,300	3,699,300	641,000	21.0	2,632	3,583	951	36.1
Health care/social assistance	15,611,400	17,619,500	2,008,100	12.9	29,648	33,875	4,227	14.3
Arts/entertainment/recreation	3,243,100	3,617,400	374,300	11.5	4,421	5,405	984	22.3
Accommodation/food services	10,825,200	11,960,200	1,135,000	10.5	21,185	24,741	3,556	16.8
Other services	9,049,600	10,155,500	1,105,900	12.2	14,162	15,820	1,658	11.7
Government	23,180,000	24,011,000	831,000	3.6	37,846	38,710	864	2.3
<b>Total</b>	<b>167,014,700</b>	<b>178,332,900</b>	<b>11,318,200</b>	<b>6.8</b>	<b>272,556</b>	<b>303,185</b>	<b>30,629</b>	<b>11.2</b>

Note: Data undisclosed for Knox County's utilities and transportation sectors in 2006. Values shown are estimates based on 2001 figures.  
Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 1969-2006.

to Knox County's strong showing, with net job increases in excess of national growth shares. Five local industries (farm, forestry/fishing, manufacturing, management of companies, and government) underperformed expectations.

Industrial mix drove a small amount of Knox area job growth in excess of U.S. economic growth. Knox County gained 2,003 jobs because some of the local economy was weighted toward sectors that, at the national level, were growing faster than the total economy (Table 6). Industry mix top performers were construction, real estate, administrative/support, health care/social assistance, and accommodation/food services. Also demonstrating strength were professional/technical services and other services.

Nationally, 10 industries grew at rates slower than the overall economy, particularly manufacturing, information, utilities, forestry/fishing, and farming (Table 5). Also among the U.S. underperformers was retail trade, with a 3.6 percent job increase between 2001 and 2006, which was about half the 6.8 percent rate of total job growth. In Knox County, though, retail trade saw the third largest gain in employment. While local economic assets boosted retail employment, its industry mix value was negative, indicating that some of Knox County's job growth in the sector was held back by national economic constraints (Table 6).

Local share highlighted those industries in Knox County that were growing faster or slower than similar industries at the national level, as a result of local economic advantages. Those with a positive local share value grew faster than average and contributed to Knox County's relative competitive position, particularly construction, information, finance/insurance, and accommodation/food services (Table 6). Most notable, though, was the positive value for retail trade. Its strong performance reaffirmed the notion that, while struggling nationally, the retail employment base in Knox County remained healthy. Knox area real estate/rental and government sectors were less competitive than national sectors, marked by sizeable negative values. Overall, Knox County's relative competitive advantage contributed 10,155 additional jobs to the area's economy.

## Summary Remarks

Location quotients and shift-share analysis helped describe Knox County's economy, showing which industries were more competitive than national industries. The indicators did not, however, explain the sources behind Knox County's strengths. Reasons are likely tied to the quality of local labor, technological advantages, natural resources, wage rates, and other factors. More research, beyond the scope of this analysis, is necessary to root out the specifics. That said, the information reported here does allow summary characterizations:

- Knox County enjoyed higher rates of labor force growth and significantly lower rates of unemployment than the rest of Tennessee and the U.S. over the past several years.
- Knox County had low participation rates in industries such as agriculture, forestry, mining, utilities, and below-average shares in manufacturing, management of companies, and educational services. Manufacturing, in particular, saw sharp decline since the 1970s.
- Large shares of local employment were found in retail trade, health care/social assistance, and accommodation/food services. Employment levels exceeded U.S. averages. Local wholesale trade also outpaced the nation, but it represented a smaller portion of the total Knox employment picture.
- Knox County holds relative competitive advantage in construction, retail trade, information, finance/insurance, and accommodation/food services industries, with job growth outperforming national averages. Economic development efforts should focus on these area strengths.

**TABLE 6. KNOX COUNTY SHIFT-SHARE ANALYSIS**

Industry	Change in Jobs 2001-06	National Growth Share	Industry Mix Share	Local Share
Farm	-128	107	-204	-31
Forestry/fishing	5	19	-21	7
Mining	186	35	13	138
Utilities	1	1	-2	2
Construction	4,350	1,129	1,804	1,416
Manufacturing	-2,864	1,394	-4,097	-161
Wholesale trade	1,398	903	-328	823
Retail trade	4,197	2,432	-1,129	2,894
Transportation/warehousing	794	665	-141	270
Information	970	415	-1,088	1,644
Finance/insurance	2,441	718	134	1,589
Real estate/rental	2,689	600	2,838	-749
Professional/technical services	1,683	1,216	693	-227
Management of companies	-86	159	-12	-232
Administrative/support	2,753	1,231	806	716
Educational services	951	178	373	399
Health care/social assistance	4,227	2,009	1,804	413
Arts/entertainment/recreation	984	300	211	474
Accommodation/food services	3,556	1,436	786	1,335
Other services	1,658	960	771	-73
Government	864	2,565	-1,208	-493
<b>Total</b>	<b>30,629</b>	<b>18,470</b>	<b>2,003</b>	<b>10,155</b>

Notes:

National growth share = base year (2001) Knox industry employment x national average (total) growth rate.

Industry mix share = base year Knox industry employment x (national industry growth rate - national average (total) growth rate).

Local share = base year Knox industry employment x (local industry growth rate - national industry growth rate).