

## SECOND QUARTER

### SLOWER GROWTH

by David A. Penn

Overall economic activity increased during the second quarter but at a substantially slower pace. Nashville MSA seasonally adjusted nonfarm employment rose just 0.2 percent, for example, following a more robust 0.5 percent gain in the first quarter. By comparison, Tennessee nonfarm employment rose 0.2 percent, and U.S. nonfarm employment increased 0.5 percent.

Nashville manufacturing produced its poorest performance since the third quarter of 2003. After six consecutive quarterly increases, employment fell nearly one percent in the second quarter, compared with a much more modest 0.1 percent decline nationally. Compared with a year ago, however, manufacturing employment is up 0.6 percent (Table 1). The average number of hours worked in Nashville manufacturing remained unchanged but remains 2.8 percent lower than one year ago.

Looking forward, the Business and Economic Research Center's Nashville Leading Index (introduced inside) increased 1.2 percent from the first quarter, rising from 116.1 to 117.4 (Table 2). The leading index is intended to predict local economic conditions four to six months in advance. Housing construction contributed the most to the rise in the index, but initial unemployment claims and new orders for consumer goods also generated positive contributions.

The Nashville Coincident Index, which measures the current state of the local economy, is virtually unchanged, rising to 115.0 from 114.8 in the first quarter. The coincident index consists of two components, nonfarm employment and inflation-adjusted taxable sales. Though both components showed increases, the gains were very modest.

Housing construction produced very positive news in the second quarter, bouncing back from a relatively weak first quarter. Construction employment rose 1.3 percent year to year (0.5 percent from the first quarter), new building permits issued for single-family dwellings increased 10.9 percent, and total permits (single-family plus multi-family) increased 18.3 percent over the year.

Other sectors also produced gains from the first quarter: retail trade employment grew 0.6 percent (3.1 percent year to year), administrative and support services rose 1.6 percent (9.0 percent year to year), leisure and hospitality is

0.7 percent higher (2.1 percent year to year), and information gained 0.5 percent (but lost 1.5 percent year to year). It is interesting to note that the information sector has added jobs in two consecutive quarters; although year-to-year job gains for the information sector are still down from a year ago, we look forward to gains in the next few quarters.

The combination of falling total employment and rising unemployment caused the midstate unemployment rate to rise to 5.6 percent from 5.3 percent in the first quarter. Total employment differs from nonfarm employment in

continued inside

**Table 1.**  
**Nashville-Davidson-Murfreesboro MSA Nonfarm Employment Second Quarter 2004 and 2005 (thousands)**

Sector	2004	2005	% Change
<b>Total Nonfarm</b>	<b>710.9</b>	<b>723.2</b>	<b>1.7%</b>
<b>Total Private</b>	<b>616.0</b>	<b>627.9</b>	<b>1.9%</b>
<b>Natural Resources, Mining, and Construction</b>	<b>34.6</b>	<b>35.1</b>	<b>1.3%</b>
<b>Manufacturing</b>	<b>83.7</b>	<b>84.2</b>	<b>0.6%</b>
<b>Durable Goods</b>	<b>57.2</b>	<b>57.7</b>	<b>0.9%</b>
<b>Computer and Electronic Products</b>	<b>4.8</b>	<b>4.7</b>	<b>-2.1%</b>
<b>Electrical Equip., Appliance, Components</b>	<b>6.9</b>	<b>7.2</b>	<b>4.9%</b>
<b>Transportation Equipment</b>	<b>18.6</b>	<b>19.6</b>	<b>5.4%</b>
<b>Nondurable Goods</b>	<b>26.5</b>	<b>26.4</b>	<b>-0.1%</b>
<b>Wholesale Trade</b>	<b>34.4</b>	<b>34.6</b>	<b>0.4%</b>
<b>Retail Trade</b>	<b>81.7</b>	<b>84.1</b>	<b>3.0%</b>
<b>Transportation and Utilities</b>	<b>27.7</b>	<b>28.3</b>	<b>2.3%</b>
<b>Information</b>	<b>19.3</b>	<b>19.0</b>	<b>-1.6%</b>
<b>Financial Activities</b>	<b>44.3</b>	<b>44.6</b>	<b>0.8%</b>
<b>Professional and Business Services</b>	<b>90.5</b>	<b>95.3</b>	<b>5.3%</b>
<b>Educational and Health Services</b>	<b>98.0</b>	<b>99.2</b>	<b>1.2%</b>
<b>Educational Services</b>	<b>20.8</b>	<b>20.9</b>	<b>0.5%</b>
<b>Health Care and Social Assistance</b>	<b>77.2</b>	<b>78.2</b>	<b>1.3%</b>
<b>Leisure and Hospitality</b>	<b>72.5</b>	<b>74.0</b>	<b>2.0%</b>
<b>Arts, Entertainment, and Recreation</b>	<b>9.8</b>	<b>10.4</b>	<b>6.1%</b>
<b>Accommodation and Food Services</b>	<b>62.7</b>	<b>63.6</b>	<b>1.4%</b>
<b>Other Services</b>	<b>29.3</b>	<b>29.7</b>	<b>1.3%</b>
<b>Government</b>	<b>94.9</b>	<b>95.3</b>	<b>0.5%</b>
<b>State Government</b>	<b>28.4</b>	<b>28.5</b>	<b>0.4%</b>
<b>Local Government</b>	<b>55.0</b>	<b>55.2</b>	<b>0.4%</b>

Source: Bureau of Labor Statistics

# SECOND QUARTER

continued from front

that the former is based on a survey of households and the latter is estimated from a survey of employers. Most economists believe nonfarm employment is the more reliable indicator of labor market conditions.

In any event, total unemployment increased substantially over the year, up 16.5 percent from the second quarter of 2004. A review of the unemployment figures in Table 1 shows that much of the gain occurred in the first quarter in the form of a very abrupt increase of 5,200 from the fourth quarter. This sharp rise corresponds with a change in the method by which the Bureau of Labor Statistics calculates local unemployment rates. The rise in unemployment is difficult to rationalize since it conflicts with the modest gains for nonfarm employment.

Monthly initial claims for unemployment insurance are down 3.3 percent from the first quarter but substantially higher than a year ago. The drop in initial claims may signal a lower unemployment rate for the next quarter.

Hotel tax revenue for Davidson County and the number of airline passengers rose in the second quarter, evidence that travel to the Nashville area is on the upswing. Hotel tax collections rose 4.6 percent from the first quarter, and the number of airline passengers increased by 2.7 percent.

Taxable sales are up substantially from a year ago, but the increase from the first quarter is much less impressive. Seasonally adjusted sales for the Nashville MSA gained 1.4 percent from the first quarter and 7.1 percent year to

year, and the figures for all 41 midstate counties increased by 1.1 percent and 6.7 percent, respectively.

## New Measures of Local Economic Activity

This issue of *Midstate Economic Indicators (MEI)* introduces two new measures of local economic activity for the Nashville area: the Nashville Leading Index (NLI) and the Nashville Coincident Index (NCI).<sup>1</sup> The NCI measures the current condition of the Nashville economy (Figure 1), and the NLI tells us where the Nashville economy is going (Figure 2). The coincident index has two components: nonfarm employment and inflation-adjusted taxable sales. As mentioned earlier, nonfarm employment data are estimated from a survey of employers. Taxable sales are calculated by the Business and Economic Research Center using Tennessee Department of Revenue data. Sales tax collection figures from the Department of Revenue are divided by the state sales tax rate and adjusted for inflation using the Consumer Price Index for the South; the result is a measure of inflation-adjusted spending for sales-taxable items.<sup>2</sup>

The NLI provides information about where the Nashville economy is going one to two quarters in advance. It consists of two local variables and one national:

- Initial claims for unemployment insurance,
- Value of total housing units authorized by building permits, and
- New orders for consumer goods.

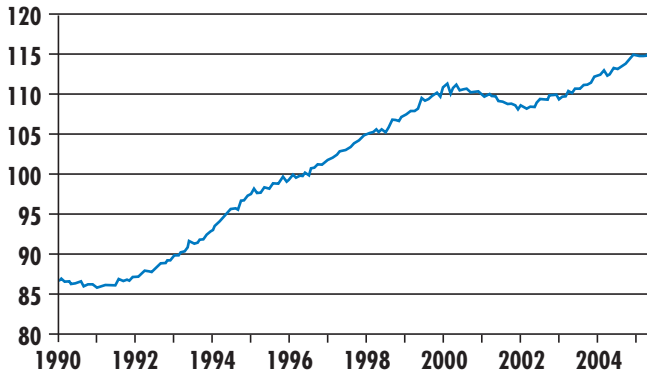
Initial unemployment claims are from the Tennessee Department of Labor and Workforce Development and pertain to middle Tennessee counties. Since initial claims

**Table 2. Economic Indicators for Middle Tennessee**

Series (seasonally adjusted)	Geographical Area	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	% Change 05Q1-05Q2	% Change 04Q2-05Q2
Nashville MSA Leading Index	Nashville MSA*	117.4	118.9	119.0	116.1	117.4	1.2%	0.1%
Nashville MSA Coincident Index	Nashville MSA	112.6	113.2	114.0	114.8	115.0	0.1%	2.1%
<b>LABOR FORCE AND EMPLOYMENT</b>								
Midstate Total Employment	Midstate**	1,074,001	1,076,100	1,072,333	1,063,872	1,060,868	-0.3%	-1.2%
Midstate Labor Force	Midstate	1,127,884	1,129,651	1,126,533	1,123,300	1,123,643	0.0%	-0.4%
Midstate Unemployed	Midstate	53,883	53,551	54,201	59,427	62,775	5.6%	16.5%
Midstate Unemployment Rate	Midstate	4.8%	4.7%	4.8%	5.3%	5.6%	—	—
Nashville MSA Nonfarm Employment	Nashville MSA	710,542	715,254	718,553	722,021	723,237	0.2%	1.8%
Average Hours Worked per Week in Manufacturing	Nashville MSA	40.5	39.8	40.3	39.4	39.4	-0.1%	-2.8%
Counties with Increased Employment (percent)	Midstate	48.8%	53.7%	24.4%	17.1%	46.3%	—	—
Counties with Increased Unemployment (percent)	Midstate	41.5%	53.7%	48.8%	90.2%	92.7%	—	—
Counties with Increased Labor Force (percent)	Midstate	48.8%	56.1%	29.3%	29.3%	56.1%	—	—
Initial Claims for Unemployment Compensation	Midstate	35,237	34,363	39,062	41,628	40,264	-3.3%	14.3%
<b>HOUSING CONSTRUCTION</b>								
New Residential Permits	Midstate							
Single-family		4,459	4,656	4,632	4,432	4,721	6.5%	5.9%
Total		4,971	5,484	5,967	5,435	5,604	3.1%	12.7%
Value of New Residential Units (million \$)	Midstate							
Single-family		599.4	642.9	621.9	613.1	701.7	14.5%	17.1%
Total		636.8	702.8	703.6	674.6	746.0	10.6%	17.2%
<b>TOURISM</b>								
Hotel Tax Revenue (million \$)	Davidson Co.	5.05	5.00	5.04	5.07	5.31	4.6%	5.1%
Total Air Passengers, Nashville International Airport	Davidson Co.	2,186,931	2,171,984	2,202,421	2,219,443	2,280,471	2.7%	4.3%
<b>TAXABLE SALES (estimates)</b>								
Nashville MSA (million \$)	Nashville MSA	6,145	6,149	6,295	6,490	6,583	1.4%	7.1%
Midstate (million \$)	Midstate	8,385	8,453	8,603	8,847	8,945	1.1%	6.7%

Notes: Seasonal adjustment with X11. \*Nashville MSA includes 13 counties. \*\*Midstate is a 41-county area. Sources: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Bureau of the Census; Davidson County Clerk's office; Metropolitan Nashville Airport Authority; U.S. Bankruptcy Court, Middle Tennessee District

**Figure 1. Nashville Coincident Index**



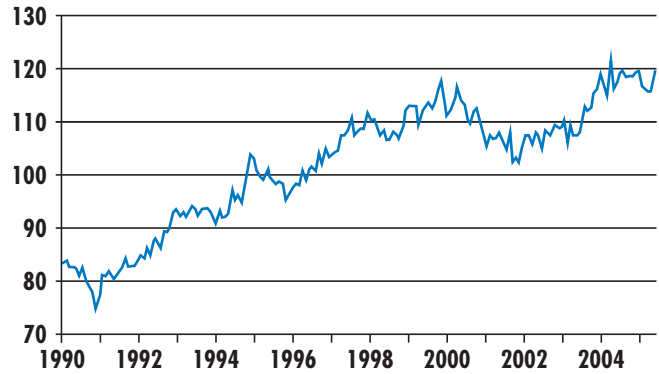
rise when the economy weakens and fall as the economy gains strength, they enter the leading index as an inverse measure.

Value of residential building permits data are from the U.S. Census Bureau for the Nashville MSA. The value data are adjusted for inflation using the producer price index for new residential construction. New orders for consumer goods are from the U.S. Census Bureau and cover the national economy. These figures are adjusted for inflation using the producer price index for manufacturing.

The two indexes are compiled using techniques initially developed by the U.S. Department of Commerce for the estimation of leading and coincident indicators for the U.S. economy.<sup>3</sup> The national indexes have been revised further by the Conference Board; we adapted the Conference Board's methods for our indexes.<sup>4</sup>

Ideally, leading and coincident indexes should identify and predict turning points for the economy. A coincident index in decline for several consecutive months offers

**Figure 2. Nashville Leading Index**



strong evidence of the beginning of a new recession, while a rising index suggests that the economy is expanding. A leading index should lead the coincident index; that is, the leading index should peak some months before the coincident index peaks, offering a warning signal of an economic slowdown in coming months. The leading index should also begin climbing out of a recession before the coincident index. The more consistently the leading index predicts these high and low turning points for the economy, the more useful and reliable the measure.

On this score the NLI performed reasonably well during the recent recession of 2001. The coincident index puts the beginning of the recession in the Nashville area at July 2000, about three months later than nationally as determined by the National Bureau of Economic Research (NBER). Economic activity declined until May 2002 when the coincident index reached bottom and began to climb

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**Table 3. Data and Net Contributions for Components of the Nashville Coincident and Leading Indexes**

Component (seasonally adjusted)	Jan	Feb	Mar	Apr	May	Jun
<b>Coincident Index Component Data</b>						
Taxable Sales (million 2000 dol.)	1,177.7	1,174.4	1,162.6	1,153.0	1,162.2	1,188.2
Nonfarm Employment (thousands)	721.8	721.6	722.6	723.2	722.9	723.7
COINCIDENT INDEX (1996 = 100)	114.9	114.8	114.8	114.7	114.8	115.3
Percent Change from Prior Month	—	-0.06	-0.03	-0.06	0.08	0.42
<b>Coincident Index Net Contributions</b>						
Taxable Sales	—	-0.04	-0.15	-0.12	0.12	0.33
Nonfarm Employment	—	-0.02	0.12	0.06	-0.04	0.10
<b>Leading Index Component Data</b>						
Initial Unemployment Claims	13,499.0	13,206.7	13,875.9	13,934.0	14,046.1	13,421.3
Value of Total Building Permits (million 2000 dol.)	200.1	206.8	183.9	193.3	208.3	239.2
Manufacturers' New orders, consumer goods, U.S. (million 2000 dol.)	132,751.2	130,694.7	133,006.9	132,386.2	134,168.8	133,796.7
LEADING INDEX (1996 = 100)	116.7	116.1	115.5	115.6	117.4	119.4
Percent Change from Prior Month	—	-0.53	-0.46	0.03	1.56	1.74
<b>Leading Index Net Contributions</b>						
Initial Unemployment Claims	—	0.34	-0.77	-0.07	-0.13	0.72
Value of Total Building Permits	—	0.29	-1.02	0.43	0.66	1.22
Manufacturers' New Orders, Consumer Goods, U.S.	—	-1.17	1.33	-0.35	1.02	-0.21

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 **SECOND QUARTER**  
*continued from inside*

steadily, indicating the beginning of a recovery phase for the Nashville economy. The Nashville Leading Index successfully anticipated the beginning of the recession for the Nashville area; the NLI peaked at 117.8 in December 1999, seven months before the beginning of the downturn in July 2000 (Figure 1). Subsequently, the NLI dropped until November 2001 and then began to rise, six months before the recession hit bottom in May 2002.

Two problems are apparent with the NLI: volatility and false negative signals. The month-to-month fluctuations in the index are due to the fact that indicators used in the index are relatively volatile, much more so than for the national leading index. This is because the national counterparts to these figures are aggregates that average out a considerable amount of choppiness. Since our concern is with the local economy, we must live with data that simply fluctuate more than the national figures.

Wrong signals (mostly negative) are also a concern. Although the NLI correctly signaled the beginning of the 1990 and 2000 recessions, the NLI also (wrongly) suggested the beginning of a recession in 1995, showing a steady decline from February 1995 to January 1996. Economic activity slowed considerably during this period, but there was no recession. Thus, although recessions are

signaled by a falling NLI, a falling NLI does not always accurately signal the beginning of a recession.

Given these caveats, we believe the NCI and the NLI will be helpful to readers who desire more information regarding current and anticipated economic conditions for the Nashville area economy. ■

1. The Nashville Leading Index replaces the Midstate Leading Index published in older issues of *MEI*.
2. More accurately, taxable sales include a mix of items such as retail, wholesale, services, and taxable sales from other industries such as manufacturing and construction.
3. See "Composite Indexes of Leading, Coincident, and Lagging Indicators," *Survey of Current Business*, November 1987, pp. 24-28.
4. See *Business Cycle Indicators Handbook*, the Conference Board, [www.conferenceboard.org](http://www.conferenceboard.org).



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