

Midstate Economic Indicators

Volume 8 No. 3 Fall 1998
Includes data from 2nd quarter 1998

by E. Anthon Eff

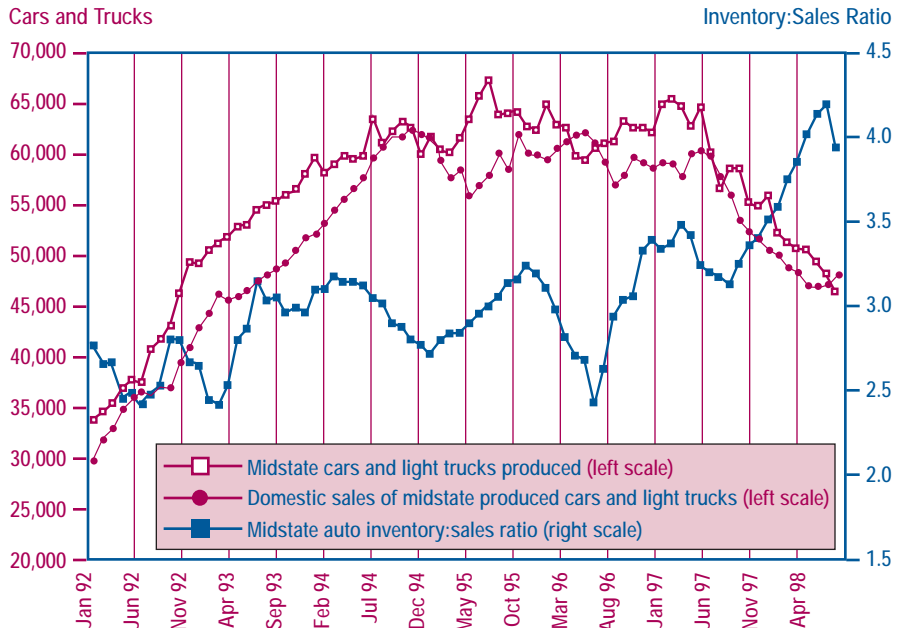
Labor market tightness continues to dominate the midstate economy. Employment in the 41-county region has now swollen to more than one million workers (Table 1). With an unemployment rate of 3.9%—shockingly low for a region with such a large rural population—firms are hard-pressed to fill new positions. Our forecasts show the unemployment rate should continue to decline and, as a result, the rate of job creation should choke back even further (Table 2).

Slowing growth is also indicated by the midstate leading index, which has drifted down throughout 1998. Two important sectors are showing some signs of weakness: tourism and auto manufacturing. Davidson County hotel revenue saw a sharp fall in the second quarter, which most observers attributed to the closing of the Opryland theme park. Employment at eating and drinking establishments appears to have slipped due to the decline in visitors (Table 3).

Auto production is down dramatically from previous levels, but there are several signs that a turnaround is on the way. Figure 1 shows production, sales, and the inventory to sales ratio of midstate produced cars and light trucks. Declining production has finally managed to push down the inventory-to-sales ratio, while sales have begun to pick up. The latest figures show that employment has increased in the transportation equipment manufacturing sector (Table 3).

Construction continued its robust pace—employment growing a hefty 2.2 percent during the second quarter (Table 3). About one-third of all construction jobs are typically in residential construction, which saw the value of building permits increase by over 6 percent (Table 1). However, the number of newly permitted units fell—an unambiguous sign that the average value per new housing unit is going up.

Figure 1: Midstate Auto Production and Inventory:Sales Ratio



Note: Sales figures include some Mexican-produced Nissan Sentras; all series five-period moving averages.

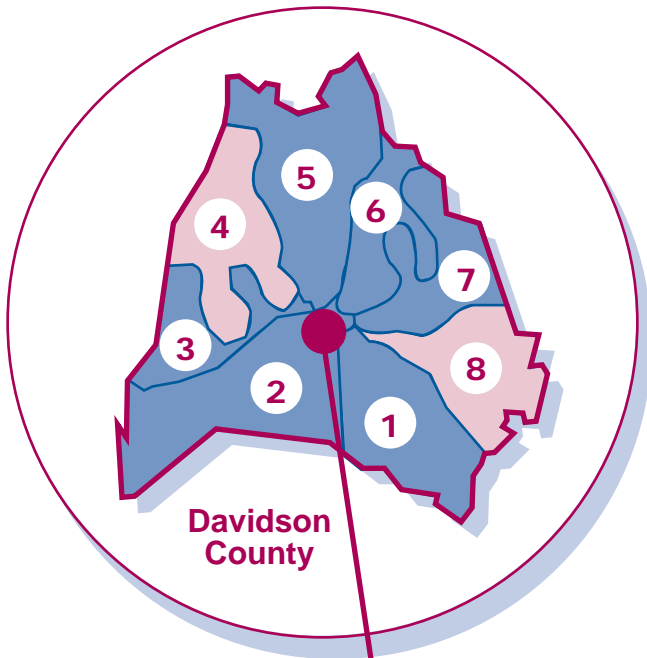
two important sectors are showing some signs of weakness: tourism and auto manufacturing.

Housing Price Index

It's clear that housing prices vary dramatically among midstate counties, but how much of this reflects differences in the quality of homes (more square footage, etc.), and how much a bidding up in prices due to heightened demand? Working with data supplied by the Tennessee Housing Development Agency, we compared 1996 housing prices across Tennessee counties, holding the quality of housing constant. Table 4 presents the resulting housing cost index for locations in Middle Tennessee.

It comes as no surprise to see Williamson County top the list, followed by Davidson. Within Davidson County, Area 2 prices exceed Williamson, while Area 4 falls below the midstate

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Housing Price Index

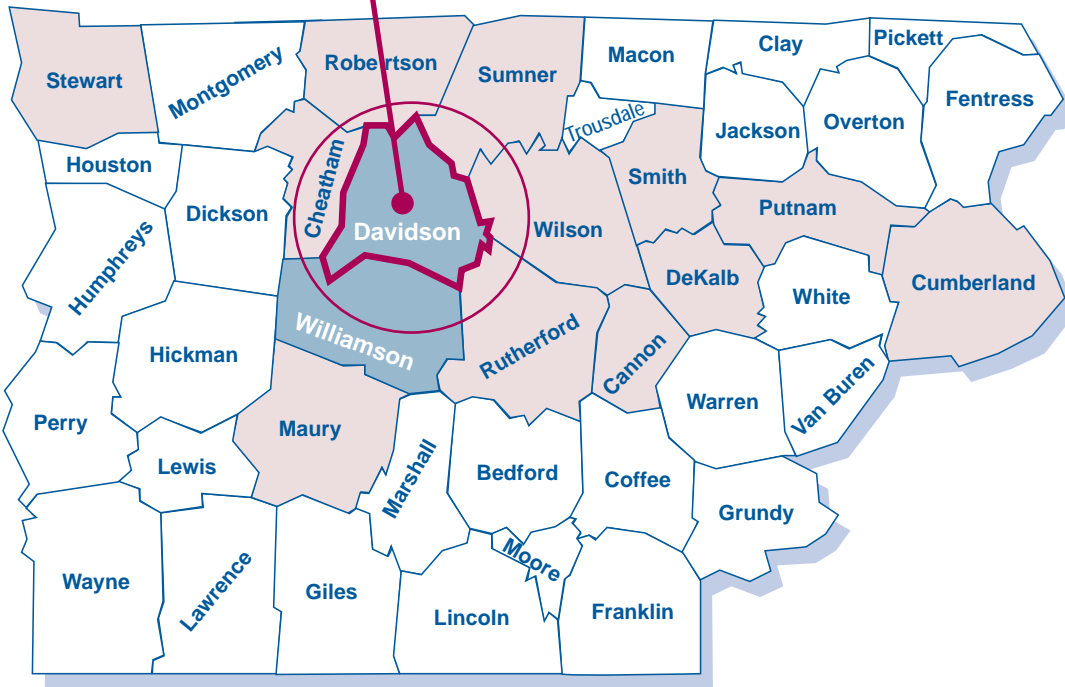
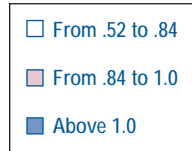


Table 4: Midstate Housing Cost Index*

County	Housing Cost Index
Williamson	1.23
Davidson	1.22
Area 2	1.53
Area 1	1.15
Area 7	1.09
Area 3	1.07
Area 6	1.07
Area 5	1.06
Area 8	0.99
Area 4	0.90
Wilson	0.99
Sumner	0.97
Cheatham	0.91
Robertson	0.90
Rutherford	0.87
Putnam	0.87
Maury	0.86
DeKalb	0.86
Stewart	0.86
Smith	0.86
Cannon	0.85
Cumberland	0.84
Franklin	0.84
Marshall	0.83
Dickson	0.83
Warren	0.79
Montgomery	0.79
Hickman	0.77
Coffee	0.77
Pickett	0.76
Overton	0.76
Houston	0.74
Humphreys	0.74
Bedford	0.73
Giles	0.73
White	0.72
Lewis	0.72
Trousdale	0.72
Lawrence	0.71
Moore	0.70
Lincoln	0.68
Macon	0.67
Jackson	0.61
Perry	0.61
Fentress	0.61
Wayne	0.60
Grundy	0.58
Clay	0.57
VanBuren	0.54

*Tennessee (average) 1.00

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It's clear housing prices vary dramatically among midstate counties, but how much reflects differences in quality, and how much is due to heightened demand? We compared housing prices holding quality constant.

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average. As one would expect, all counties within an hour's commute of Nashville appear in the top half of the list. Some rural counties have relatively high prices because they contain amenities which attract vacation home owners or retirees (DeKalb, Stewart, and Cumberland).

The following formula allows one to compare home prices across counties:

$$\text{home county price}^* \left(\frac{\text{destination county index}}{\text{home county index}} \right) = \text{destination county price}$$

Here's an example: suppose one has a \$100,000 home in Rutherford County and wishes to know the cost of a comparable home in Williamson. Plugging in the home county price and finding the relevant indices from Table 4, one obtains:

$$\$100,000 \left(\frac{1.23}{0.87} \right) = \$141,467$$

A few words of caution should be heeded before using this index. First, most of the smaller counties have a very narrow range of available homes, and one may not find any home equivalent to one's own. Second, the figures are based on data from 1996, and we just don't know how different they are from today's relative rankings. Third, there is considerable variation by locality within some counties—as one can see with the Multiple Listing Service areas shown for Davidson County. n

Table 2: Forecast Unemployment and Job Growth

	Actual				Forecast	
	1997Q3	1997Q4	1998Q1	1998Q2	1998Q3	1998Q4
Unemployment Rate						
Midstate	5.0%	4.7%	4.1%	3.9%	3.7%	3.8%
Tennessee	5.4%	5.1%	4.5%	4.3%	4.2%	4.3%
Job Growth						
Nashville MSA	3.3%	2.2%	3.0%	1.8%	1.8%	1.5%
Tennessee	2.0%	2.0%	2.5%	1.5%	1.4%	1.6%

Sources: Bureau of Labor Statistics; MTSU

Table 3: Change in Employment 1998Q1 to 1998Q2 (Eight-County Nashville MSA)

Sector	Nashville MSA 1998Q2	Nashville MSA Change	Nashville MSA % Change	USA % Change
Total	637,898	1,611	0.3%	0.4%
Construction and Mining	33,003	719	2.2%	0.2%
Manufacturing: Transportation Equipment	15,990	262	1.7%	0.3%
Manufacturing: Other Durable	41,505	413	1.0%	0.1%
Manufacturing: Printing and Publishing	14,166	-263	-1.8%	0.1%
Manufacturing: Other Nondurable	25,754	157	0.6%	-0.3%
Finance, Insurance, and Real Estate	39,594	45	0.1%	0.9%
Transportation, Communications, and Utilities	31,644	53	0.2%	0.5%
Wholesale: Total	37,835	154	0.4%	0.6%
Retail: Eating and Drinking	42,442	-219	-0.5%	-0.4%
Retail: Food	13,453	249	1.9%	0.3%
Retail: General	18,851	830	4.6%	0.2%
Retail: Other	44,731	2,789	6.6%	0.6%
Services: Education	14,790	54	0.4%	1.1%
Services: Health	52,888	390	0.7%	0.4%
Services: Hotel	10,765	86	0.8%	0.0%
Services: Other	124,324	3,408	2.8%	0.8%
Government: Total	82,783	109	0.1%	0.3%

Sources: U.S. Bureau of Labor Statistics; MTSU

Table 1. Data Bank for Middle Tennessee

Series (adjusted for seasonality and inflation)	Geographical Area	97Q2	98Q1	98Q2	98Q1-98Q2
COMPOSITE INDICES					
Midstate Leading Index	Midstate (41 Counties)	100.00	105.22	104.30	-0.9%
U.S. Leading Index	U.S.	100.00	101.25	101.45	0.2%
EMPLOYMENT					
Midstate Number of Employed Persons	Midstate (41 Counties)	955,804	1,005,085	1,011,531	0.6%
Midstate Unemployment Rate	Midstate (41 Counties)	5.0%	4.1%	3.9%	-5.1%
Percent of Sectors with Employment Increase for Month	Nashville MSA (8 Counties)	78%	44%	37%	-15.9%
Percent of Counties with Employment Increase for Month	Midstate (41 Counties)	32%	61%	80%	31.1%
Average Hours Worked per Week in Manufacturing	Nashville MSA (8 Counties)	40.87	41.49	41.44	-0.1%
Average Pay per Hour in Manufacturing	Nashville MSA (8 Counties)	12.75	13.03	12.84	-1.5%
INITIAL CLAIMS AND BANKRUPTCY					
Initial Claims for Unemployment Compensation	Midstate (41 Counties)	33,859	34,134	34,325	0.6%
Bankruptcy Case Filings	Midstate (41 Counties)	3,202	3,252	3,104	-4.5%
REAL ESTATE					
Occupancy Index	Davidson County	98.51%	98.30%	98.11%	-0.2%
New Residential Units (permits)	Midstate (41 Counties)	4,260	4,468	4,194	-6.1%
Value of New Residential Units (million \$)	Midstate (41 Counties)	368.4	360.2	382.9	6.3%
AUTOMOBILE PRODUCTION					
Autos Assembled in U.S.	U.S.	2,929,875	2,923,695	2,824,273	-3.4%
Autos Assembled in Midstate	Midstate (41 Counties)	167,423	151,357	130,334	-13.9%
Units Sold: Autos Assembled in Midstate	U.S.	162,995	134,622	149,075	10.7%
TOURISM					
Hotel Revenue	Davidson County	100,924,257	101,605,132	90,900,072	-10.5%
Air Passengers	Davidson County	1,874,265	2,006,573	1,988,676	-0.9%
INCOME, EARNINGS, AND RETAIL SALES					
Retail Sales (million \$ per quarter)	Midstate (41 Counties)	4,918	5,144	5,170 (est)	0.5%
Total Personal Income (annual billion \$)	Midstate (41 Counties)	46.8	49.3	49.4 (est)	0.1%
Earnings per Resident Worker (annual)	Midstate (41 Counties)	34,456	34,794	34,452 (est)	-1.0%

Notes: Seasonal adjustment with X11-ARIMA; dollars converted to 98Q2 prices with GDP implicit consumption deflator.

Sources: U.S. Department of Labor, Bureau of Labor Statistics; Tennessee Department of Employment Security; Nashville Electrical Service; U.S. Bureau of the Census; Automotive Weekly; Metropolitan Nashville Government; Nashville Airport Authority; Tennessee Department of Revenue; U.S. Bureau of Economic Analysis



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The Employment Equation

by Ransom Gustafson

The Department of Employment Security's forecasts predict an annual expansion of nearly 120,000 jobs in Tennessee between now and the year 2004. The department also issues forecasts for specific occupations, many of these requiring a college education. This raises the question: Is Tennessee training enough skilled workers to fill these new jobs?

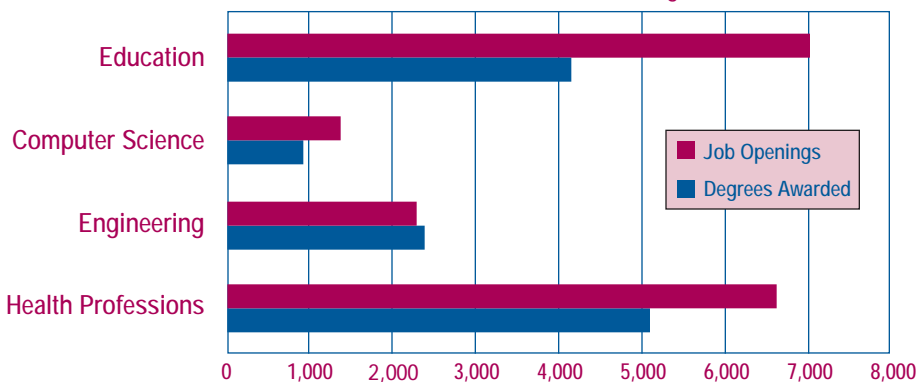
We estimate that about 37,000 persons per year will graduate from a Tennessee college or university over this same period. Most of these will earn degrees which are not geared to any one specific occupation—for

Is Tennessee training enough skilled workers to fill these new jobs? Projections show shortfalls of qualified applicants in the computer science, education, and health care professions.

For example, a general business degree qualifies the holder for positions in occupations ranging from management to sales to analysis. However, some occupations require very specific degree preparation. We picked four of these: the health professions, engineering, computer science, and education.

Figure 2 presents the results. These projections show shortfalls of qualified applicants in the computer science, education, and health care professions. However, the surplus of engineers may make up some of the shortfall in computer science, graduates of many disciplines may become teachers, and the health care industry may settle into a more predictable environment. In the end, the education-employment equation looks fairly well balanced. n

Figure 2: Annual Job Openings and Degrees Awarded in Tennessee Through 2004



Sources: Tennessee Department of Employment Security; National Center for Education Statistics; MTSU