

# Mid-State Economic Indicators

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Includes data from 3rd quarter 1997

An old Chinese curse runs, "May you live in exciting times." Many investors may now wish that they lived in less exciting times. The past months have seen wild stock market fluctuations, bank failures, and the devaluation of currencies, particularly in East Asia. Will these events have any effect on Middle Tennessee? Most likely. The affected Asian economies, ranging from Thailand and Indonesia to Korea, contain a vast manufacturing infrastructure. The financial crisis increases the need for these economies to export, and as their currencies devalue, their products become cheaper for U.S. consumers. This will certainly have some impact on the Mid-State economy, which tends to produce items (from autos to bicycles to apparel) competing with imports.

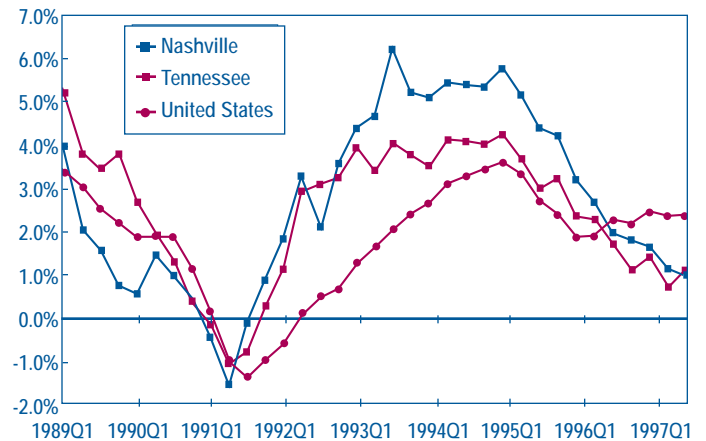
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The effect of the Asian crisis lies months in the future, though, and fails to explain the current cooling of Middle Tennessee's economy. The explanation for that cooling is relatively simple. The rest of the nation is doing so well that few people feel compelled to uproot and move to Middle Tennessee. Without a steady flow of in-migrants, businesses can no longer expand, since virtually every resident who wishes to work already has a job.

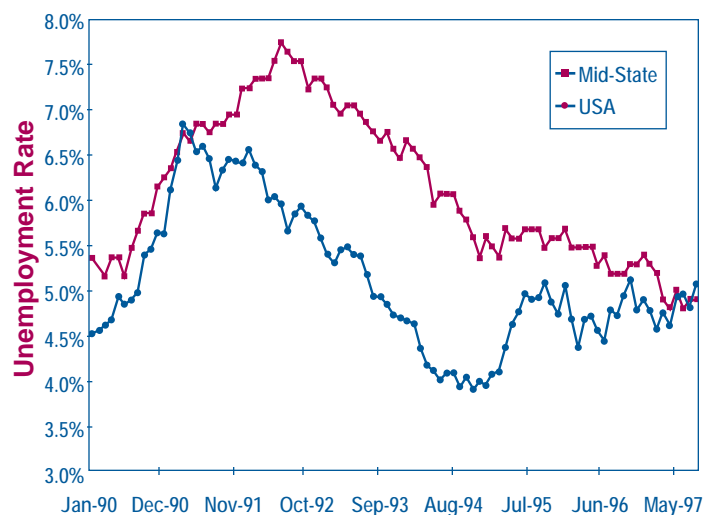
Figure 1 shows the rates of job creation in the eight-county Nashville Metropolitan Statistical Area (MSA), in the state, and in the nation. The Middle Tennessee population grows at about 0.5% per year through natural increase. Thus, any job growth rate above 0.5% implies that employers are dipping into the ranks of the non-working, or that new workers are migrating into the region. The very high job-growth rates of 1993 through 1995 were accomplished by hiring the unemployed, by accommodating work schedules to non-traditional workers such as students, homemakers, and retirees, and, perhaps most importantly, by a large influx of new workers into Middle Tennessee. Today, the Nashville job-growth rate has fallen well below the U.S. average, to just under 1%, a level still requiring some in-migration to sustain.

Figure 2 shows the U.S. and Mid-State unemployment rates. In the third quarter of 1997, for the first time since

**Figure 1. Annual Job-Growth Rates: Nashville MSA, Tennessee, and U.S.**



**Figure 2. U.S., Tennessee, and Mid-State Unemployment Rates**

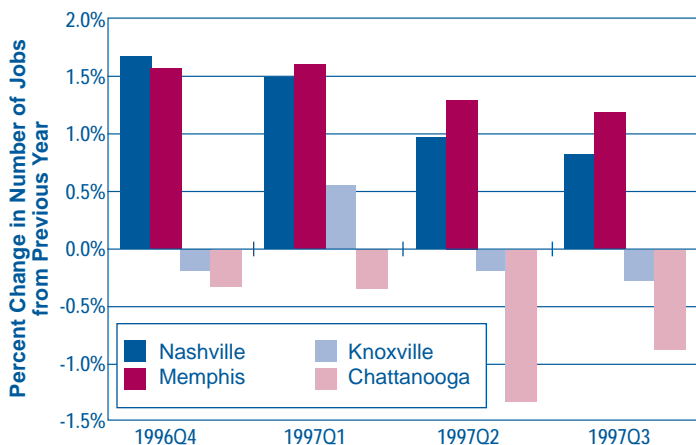


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**Figure 3. Annual Growth Rate in Number of Jobs: Large Tennessee Metropolitan Areas 1996Q4-1997Q3**



1991, the Mid-State unemployment rate exceeded that of the rest of the nation. This was not because our unemployment rate rose, but because the U.S. rate fell. We are not doing poorly; the nation is doing extraordinarily well. Nevertheless, this convergence in unemployment rates is causing Middle Tennessee's growth to slow, since workers no longer have an incentive to leave other parts of the country for jobs in our region.

Slowing growth is apparent in all of Tennessee's major MSAs (Figure 3). Chattanooga is particularly hard hit, though Knoxville also shows job losses over the past year. Memphis currently has the strongest economy in the state, though it, too, is cooling.

Detailed data for each MSA (Table 1) shows that this slowdown is far from a classic Tennessee business cycle, where a slump in durable goods manufacturing eventually pulls down other sectors. Instead, each MSA exhibits a distinct pattern, suggesting that overall labor market tightness and dampened in-migration explain much of the diminished growth. Chattanooga's pattern is particularly interesting: durable goods manufacturing growth has been fairly brisk, while substantial declines have occurred in sectors serving the local population, such as retail, services, and local government. In part, this has been caused by movement of retail, residences, and services across the border to Georgia. Knoxville, on the other hand, lost jobs in both manufacturing and services, while Memphis showed strength both in its critical distribution-related sectors (Transportation, Communications, and Public Utilities, or T.C.P.U., and wholesaling) and in the people-serving sectors of retail and local government.

Nashville has experienced massive job losses in durable-goods manufacturing. Part of the problem is a decline in the number of autos assembled at area auto plants (Table 2), though this explains only a small portion of the durable-goods job loss. There has been speculation that jobs are migrating out of the MSA into the rural counties of the Mid-State, as factories seek relief from the expensive land, labor, and air pollution regulations of the metropolitan counties. Unpublished data, however, show that manufacturing is

**Table 1: Change in employment 1996Q3 to 1997Q3**

Sector	Tennessee 1997Q3	Tennessee Change	Nashville Change	Chattanooga Change	Knoxville Change	Memphis Change
Total	2,549,680	23,314	4,763	-1,991	-920	6,230
Construction & Mining	126,975	6,022	329	131	600	191
Manufacturing: Total	513,708	-5,449	-2,939	602	-66	423
• Mfrg: Durable	283,502	-696	-2,731	501	-645	604
• Mfrg: Nondurable	230,206	-4,753	-208	101	579	-181
F.I.R.E. (Finance, Insurance, Real Estate)	120,593	2,242	1,238	496	38	714
T.C.P.U.	142,467	-985	583	149	-37	164
Wholesale: Total	141,623	1,578	315	-322	207	617
• Wholesale: Durable	81,691	1,212	137	-108	106	409
• Wholesale: Nondurable	59,932	365	177	-214	101	208
Retail: Total	464,188	9,308	2,190	-668	-257	3,281
• Retail: Eating, Drinking	162,727	1,162	875	-521	142	190
Services: Total	671,329	9,630	2,532	-597	-1,026	286
• Services: Health	194,216	1,658	77	-68	257	889
Gov't: Total	368,798	969	517	-1,782	-379	554
• Gov't: Federal	52,959	-1,811	-112	-233	-106	-790
• Gov't: State	89,054	-111	-1,227	-376	-246	256
• Gov't: Local	226,784	2,892	1,855	-1,173	-27	1,087

**Table 3. Migration-Induced Income Changes 1995-1996**

Area	Migration-Induced Percentage Change in Aggregate Income: 1995-96	Migration-Induced Percentage Change in Number of Households: 1995-96	Migration-Induced Percentage Change in Average Household Income: 1995-96	Average Household Income: 1996	Average Persons per Household: 1996
Mid-State (41-County Total)	1.7%	1.7%	0.0%	33,182	2.21
• Rural 31 Counties	1.7%	1.4%	0.3%	35,231	2.18
• Urbanized 10 Counties	1.7%	1.8%	-0.2%	28,617	2.28
Rutherford	5.7%	3.5%	2.1%	20,912	2.30
Williamson	4.4%	3.3%	1.1%	64,694	2.47
Cheatham	3.2%	2.1%	1.1%	34,659	2.35
Robertson	3.1%	2.8%	0.3%	33,187	2.34
Wilson	3.0%	2.5%	0.5%	38,809	2.31
Maury	2.6%	2.4%	0.2%	36,716	2.35
Montgomery	2.5%	3.1%	-0.6%	30,316	2.40
Dickson	2.1%	1.9%	0.2%	31,693	2.31
Sumner	1.6%	1.7%	-0.1%	39,075	2.32
Davidson	-0.5%	0.7%	-1.1%	33,765	1.97

Memphis currently has the strongest economy in the state, though it, too, is cooling.

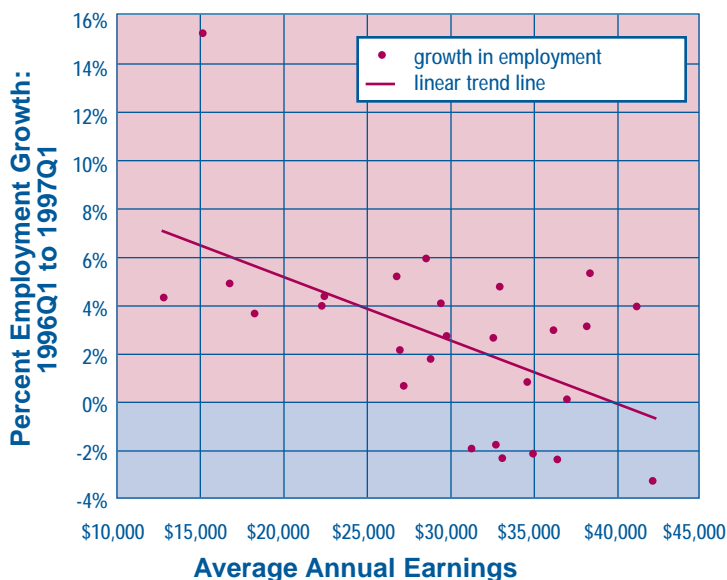
weak in rural Middle Tennessee, as well; the lost jobs are really lost, not simply reappearing in the countryside.

The travel-related sectors of hotels and restaurants continue to be strong, though hotel revenue has dropped a bit (Table 2). Hotels and restaurants are noteworthy for the low wages paid to employees, while durable-goods manufacturing pays above-average wages. This raises concerns that the region is gaining low-wage jobs and losing those with higher wages. Figure 4 plots each major employment sector in the Nashville MSA: the horizontal axis gives the average wage paid per worker, the vertical axis the percent change in number of jobs from the first quarter of 1996 to the first quarter of 1997. As the trend line shows, job growth was much higher for low-wage jobs.

The pattern of wage growth suggests that the influx of new workers to Middle Tennessee may have been primarily low-income individuals destined for low-wage sectors. New data from the Internal Revenue Service confirm that view. Comparing the locations where an individual files a return in 1995 and 1996, the IRS is able to generate income and population data for inter-county migration. Table 3 reports some results from the IRS data for Middle Tennessee, emphasizing the region's ten urbanized counties.

A county's aggregate income can grow in two ways: its number of households can increase, or the average income of each household can increase. Both of these are affected by migration, the first obviously, and the second because high- and low-income households have different propensities to migrate in or out of any given county. Davidson County provides a striking example. Out-migrants tend to have higher income than in-migrants, pushing the county's average household income down by 1.1%. At the same time, total in-migration is greater than out-migration, causing

**Figure 4. Sectoral Employment Growth as Function of Average Annual Earnings**



The influx of new workers to Middle Tennessee may have been primarily low-income individuals destined for low-wage jobs.

**Table 2.**

Series (adjusted for seasonality and inflation)	Geographical Area	96Q3	97Q2	97Q3	97Q2-97Q3
<b>COMPOSITE INDICES</b>					
Mid-State Leading Index	Mid-State (41 Counties)	98.89	101.41	103.80	2.4%
U.S. Leading Index	United States	101.84	109.91	113.61	3.4%
<b>EMPLOYMENT</b>					
Mid-State Employment	Mid-State (41 Counties)	980,874	986,594	986,422	0.0%
Mid-State Unemployment Rate	Mid-State (41 Counties)	4.8%	4.6%	4.8%	4.6%
Percent of Sectors with Employment Increase for Month	Nashville MSA (8 counties)	41%	59%	60%	1.7%
Percent of Counties with Employment Increase for Month	Mid-State (41 Counties)	42%	46%	66%	43.5%
Average Hours Worked per Week in Manufacturing	Nashville MSA (8 Counties)	40.58	39.84	41.34	3.8%
Average Pay per Hour in Manufacturing	Nashville MSA (8 Counties)	12.11	12.49	12.66	1.4%
<b>INITIAL CLAIMS AND BANKRUPTCY</b>					
Initial Claims for Unemployment Compensation	Mid-State (41 Counties)	37,683	34,761	32,479	-6.6%
Bankruptcy Case Filings	Mid-State (41 Counties)	3,076	3,145	3,122	-0.7%
<b>REAL ESTATE</b>					
Occupancy Index	Davidson County	97.88%	98.52%	98.58%	0.1%
New Residential Units (permits)	Mid-State (41 Counties)	4,847	4,219	4,333	2.7%
Value of New Residential Units (million \$)	Mid-State (41 Counties)	298.5	299.0	317.1	6.1%
<b>AUTOMOBILE PRODUCTION</b>					
Autos Assembled in United States	United States	3,031,324	2,931,749	2,992,958	2.1%
Autos Assembled in Mid-State	Mid-State (41 Counties)	187,028	159,699	182,226	14.1%
Units Sold: Autos Assembled in Mid-State	Mid-State (41 Counties)	218,103	193,050	176,425	-8.6%
<b>TOURISM</b>					
Hotel Revenue	Davidson County	93,094,149	99,337,431	95,303,024	-4.1%
Air Passengers	Davidson County	1,800,725	1,869,425	1,928,863	3.2%
<b>INCOME AND EARNINGS</b>					<b>96Q3-97Q2</b>
Total Retail Sales	Mid-State (41 Counties)	17.5	17.6		0.9%
Total Personal Income (annual billion \$)	Mid-State (41 Counties)	44.8	46.2		3.2%
Earnings per Resident Worker (annual)	Mid-State (41 Counties)	32,022	32,906		2.8%

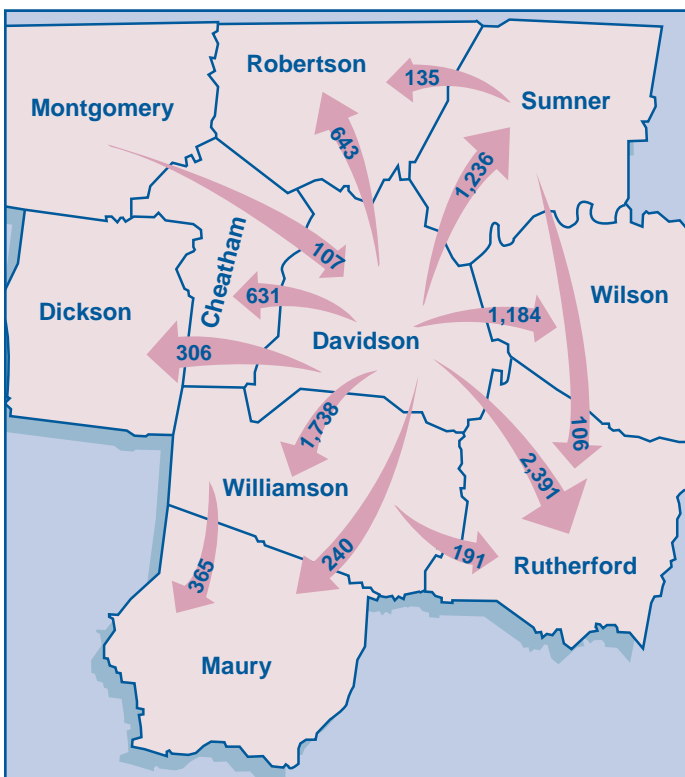


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**Figure 5. Net population movement among 10 urbanized Mid-State counties: 1995-96**



the number of households in Davidson County to rise by 0.7%. Even with this larger pool of households, however, total income in the county has fallen by 0.5%, since the average household has less income than before.

Migration caused average household income in the ten-county region to fall by 0.2%. Within the region, however, some counties saw average incomes rise, most notably Rutherford, Williamson, and Cheatham, all of which attract relatively high-income migrants from Davidson County. Figure 5 shows the net movements of population among the 10 urbanized counties. Only net flows of more than 100 persons are shown. The major feature is clearly an outflow of population from Davidson County, to the suburban ring.

These migration patterns could bode ill for the region, especially for Davidson County. As aggregate income falls, the total tax base declines. At the same time, an increase in the number of households escalates the need for government services. This fiscal trap typically plays out as a cycle of declining services, inferior schools, and an accelerating flight of the higher-income families to suburban enclaves. Recent efforts of local governments to work together, within a regional framework, show that public officials have not been slow to recognize the challenges.

Overall, we see a remarkable period of growth wind down in Middle Tennessee, growth fed by a large influx of new workers, and abating as workers find less incentive to relocate here. However, much of the growth was in low-wage jobs, and the in-migration was skewed toward low-income newcomers. Nevertheless, the relative income of in-migrants is less important than what happens to them after they arrive. Will they be able to get better jobs, attain higher incomes, and raise children who will lead productive lives? Or will they get stuck on the lowest rungs of the economy? Time will tell.

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