



# OKLAHOMA BUSINESS BULLETIN

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# ***OKLAHOMA BUSINESS BULLETIN***

**Volume 69, Number 2**

**April 2001**

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# ANNOUNCING

## *The Dikeman Honorarium*

In recognition of 40 years of service to the people of Oklahoma, the Center for Economic and Management Research in OU's Price College of Business is proud to announce the Neil J. Dikeman, Jr. Honorarium. The purpose of this honorarium is to stimulate research on the Oklahoma economy, inform citizens, and guide public policy. For each paper accepted for publication in the *Oklahoma Business Bulletin*, \$500 will be provided to the author or authors of the paper. Recipients have two options: personal or institutional payment. The authors may designate that the award be paid to an institution in support of the research missions. In the latter case, the award is non-taxable. Also an additional \$1000 will be awarded to the paper judged by the editors as the best paper published in an academic year. Student involvement and co-authorship in publications is encouraged.

CEMR is proud to announce that the first recipients of the Dikeman Honorarium are Robert Henry Cox and Christian Breunig for their fine paper entitled "How Global is the Oklahoma Economy?" This paper was published in the most recent issue of the *Bulletin*. The award is small recognition for a job well done.

A wide variety of economic subject areas will be considered for publication in the *Bulletin*. Articles should be related to economic and business activity or public policy in the State of Oklahoma, but can include regional comparisons. Example topics include:

- Labor force trends and workforce development issues
- Future education demands, potential patterns and opportunities
- Population change and migration patterns
- High technology growth in Oklahoma
- Transportation problems and priorities
- Intra- and inter-state economic trends and forecasts
- Poverty in Oklahoma, its changing character
- Fiscal trends in Oklahoma—How long will the good times last?
- Personal income growth deficiencies, causes and solutions
- Growth potentials for the nation and Oklahoma's prospects
- The advance of immigrant populations in Oklahoma
- The future of the petroleum industry in Oklahoma
- Deregulation of utilities—Oklahoma implications
- Economic development programs—The Oklahoma experience
- Workman's compensation insurance—An impediment to Oklahoma growth?
- The effectiveness of local development programs in stimulating regional growth
- Health care in Oklahoma—How well are workers and their families covered?

The above are meant to be simply illustrative of the variety of subject matter that is considered relevant to the goals of the Dikeman Honorarium. We encourage you to submit your research to the *Bulletin*, which is in its 72<sup>nd</sup> year of publication. Please send papers to:

Patricia Wickham  
Center for Economic and Management Research  
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Thank you.

**The Center for Economic and  
Management Research**

# Business Highlights

*by Robert C. Dauffenbach*

## Recession Evidence

There is little doubt that the US economy is suffering an economic slowdown. Evidence abounds on multiple fronts that this is the case: employment growth is down; unemployment rates are increasing; GDP growth is slowing; consumer confidence is dropping; and retail sales are falling. The manufacturing sector is notably weak, we are told. The state of the economy is often offered as the explanation for poor corporate earnings. About the only statistics on an uptick are layoff notices. Talk of recession frequently is heard on the national news. Indeed, we seem intent on talking ourselves into a recession.

What is the evidence that we are now in a recession? Examining the employment situation we see that jobs actually declined in March by 86,000. The declines were broadly based. Even the service-producing (services, trade, and government) sector is getting hit. In fact, March was one of the few months in the last ten years where employment in service-producing sector actually declined. The unemployment rate held steady at 4.3 percent, but has risen in recent months from 4.0 percent.

On the other hand, as economists are fond of saying, industrial production actually increased by 0.4 percent in March. This was the first increase since September. Year-over-year, industrial production shows a gain of 0.8 percent. The troubled manufacturing sector showed a gain 0.3 percent, recovering February's loss. Still the sector is experiencing difficulties: in the first quarter, manufacturing output fell at a 4.7 percent annual rate, the sharpest decline since the 1990-91 recession. The rate of capacity utilization stood at 79.4

percent in March, much below the level of 83 percent, which is considered a more normal rate of utilization. New orders for manufactured durable goods are closely followed for indications of recession. In February new orders decreased by 0.2 percent to \$199.2 Billion. But, excluding the volatile transportation component, new orders increased by 0.5 percent. From year earlier numbers, however, new orders are down by 6.0 percent.

The Purchasing Manager's Index is also closely followed for evidence of recession. This index stood at 43.1 percent, the eighth month in a row of a value less than 50, the neutral baseline. The Purchasing Manager's Association offers a series of indices in addition to its composite index. There were some positive developments in the recent report:

The manufacturing sector continued to contract in March. However, it is encouraging that prices are moderating and there is growth in new export orders. Other bright spots were Production and Backlog of Orders which, though still declining, slowed significantly in their rate of decline.

The Production Index rose 3.1 percent points to 42.8 in March. The New Orders Index rose 1.5 percent points. While this report shows that manufacturing activity still remains weak, there are at least a few signs that the worst may be behind us.

Consumer confidence is another variable that is closely followed for evidence of recession. The University of Michigan Consumer Confidence Survey and the Conference Board surveys have a wide following. The University of Michigan report is divided into two parts, consumer sentiment and

consumer expectations. In the March report, the consumer sentiment reading was 91.5, up from a level of 90.6 in February. Still this index was much below the 107.6 level recorded as recently as November 2000. The Index of Consumer Expectations, which is one component of the Index of Leading Economic Indicators, too, was up in March, rising to 83.9 from 80.8 in February. It is also much lower than its 101.6 reading in November. While these readings show some promise of a turnaround, the Conference Board's recent results just reported call such hope into question. After a rebound in March, their April results registered an eight-point decline. Their index now stands at 109.2. They report that consumers have turned gloomy about both current and future business conditions. Their expectations index fell from 83.1 to 78.2. These are not good signs.

Keeping the consumer "in play" will be absolutely necessary to avoid the ripple effects of temporary downturn. Policy makers, particularly the Federal Reserve Board of Governors, are concerned on this front. Consumer expenditures represent about 7/10<sup>th</sup> of the economic pie. Thus, statistics like retail sales and housing purchases are closely followed. A highlight of this economic downturn has been housing purchases, certainly a consequence of continuing favorable mortgage interest rates. Retail sales have not taken much of a hit, either. In March, they were only down 0.2 percent from the previous month. But retail sales are up 1.9 percent from year earlier figures. These numbers are not adjusted for inflation. So, in real terms, retail sales may have fallen a bit, year-over-year.

Fortunately, very fortunately, inflation has remained tame. The Consumer Price Index for All Urban Consumers (CPI-U, as it is called), increased only 0.2 percent, and only 0.1 percent seasonally-adjusted, in March. On a 12-month basis, CPI-U is up 2.9 percent. For the Fed to dramatically counter this economic downturn, which they are attacking headlong, we are fortunate indeed that inflation remains in check. The Fed's hands would certainly be securely tied if this were not the case. The Fed has lowered interest rates now four times since the

beginning of the year, a combined total of 200 basis points (2.0 percentage points). The Federal Funds rate, which the Fed attempts to closely control, now stands at only 4.5 percent.

So, are we in a recession or not? Clearly we are in slow times that could fester into recession. There is also evidence that the manufacturing sector is suffering. There is, in fact, a chorus of moans and crying about difficulties in the manufacturing sector. Whether these moans and cries have more to do with the value of stock options than they have to do with the real state of manufacturing activity is a subject deserving of additional research.

So, let's take the manufacturing sector and examine industrial production statistics closely for evidence of recession. In the last 30 years there have been four "official" recessions. Two of them, 1974-75, and 1981-82, were deep recessions. The 1980 and 1990-91 recessions were noticeable, but of short duration, although it took the Fed some time to notice the latter one (a mistake that the Fed today seems loathe to repeat, one could say, parenthetically). Industrial production indices compiled by the Fed divide into four principal categories: (1) consumer goods, (2) equipment, (3) intermediate goods, and (4) materials. Roughly speaking, these four components have weights of about 31, 19, 15, and 35 percent, respectively, in determination of the composite industrial production index. The behavior of the composite measure and each of the four components during recessions should provide us with consistent benchmarks for judging current conditions.

The strategy for comparisons consists of four parts. First, find the time of the peak level of production prior to a recessionary period. Second, find the trough level of production, the low point recorded during the recessionary period. Third, we measure the percentage decline in production by the various measures and the length of time from peak to trough. Fourth, we compare the current decline with these periods of "real" recessions for evidence of similarities. The results of this exercise are shown in the following table:

**Industrial Production in US Recessionary Episodes  
Percentage Decline from Peak and Peak-to-Trough Duration**

	IP	IPC	IPE	IPI	IPM
'74-'75 Nov-73	-14.8% 16 mos.	-12.7% 16 mos.	-10.3% 20 mos.	-16.2% 16 mos.	-19.3% 18 mos.
'80 Feb-80	-6.2% 6 mos.	-3.6% 5 mos.	-2.7% 5 mos.	-7.9% 6 mos.	-9.0% 6 mos.
'81-'82 Jul-81	-10.3% 17 mos.	-4.1% 17 mos.	-13.9% 19 mos.	-5.4% 17 mos.	-13.8% 17 mos.
'90-'91 Sep-90	-4.6% 7 mos.	-3.7% 7 mos.	-5.9% 12 mos.	-6.1% 7 mos.	-4.6% 7 mos.
'00-'01? Sep-00	-2.1% 5 mos.	-1.5% 5 mos.	-0.7% 5 mos.	-1.8% 6 mos.	-3.2% 5 mos.

In this table, IP stand for Industrial Production and suffixes C, E, I, and M stand for consumer goods, equipment, intermediate goods, and materials. The recession years are shown in the first column and the high watermark month/year for the IP index prior to the recessionary period is shown as well. We see, for example, that in the '74-'75 recession, the peak month of production occurred in November 1973. By the time that production had bottomed-out, manufacturing production was down 14.8 percent, and it took 16 months to reach that trough in production. Intermediate goods and materials suffered even larger declines. Note also that it took the equipment sector 20 months to reach its nadir. The 1980 recession was much shallower. The most sizable of the declines was in materials and its magnitude of decline was less than half of the 1974-75 decline. And, it was over in six months, making this about the shortest recession on record.

The 1981-82 recession followed close on the heels of the 1980 recession. Officially the National Bureau of Economic Research, a group of economists charged with timing peaks and troughs of recessions, has this recession beginning in November 1981. The actual prior peak in production

occurred in July 1981. Whatever its date of beginning, before it was over output was down 10 percent and the equipment and materials components were down nearly 14 percent. Interestingly, consumer goods fell by only 4 percent. It took almost a year and one-half to reach the low points. This contrasts greatly with the 1990-91 recession, where declines were scattered about the 4-6 percent range and, save for equipment, only slightly more than half a year was needed to get production on the upswing again.

These findings on the extent and duration of manufacturing production declines in past recessions contrast dramatically with the current US downturn. Despite the passage of a full five months since production peaks, total industrial production is down only 2.1 percent, less than half of the decline recorded in the mildest of the recessions in the past 30 years. Materials has suffered the largest percentage decline of 3.2 percent, still comfortably above the decline experienced in the 1990-91 recession in that component. With certainty, the US economy is in a slowdown. Yet, it is fair to say that from the perspective of manufacturing output, that sector of the economy that has, thus far, been hit the hardest, data available to date, through March 2001, indicates that

this downturn remains simply a slowdown, not a recession. Also, we are five months into this slowdown, a point from which recoveries from mild downturns and recessions frequently occur.

## Price College Indicators

As readers of this quarterly report are aware, the Price College Indicators, developed at the University of Oklahoma Center for Economic and Management Research, are designed to provide leading indicators of economic activity for the nation, the state, and the two major metropolitan areas of Oklahoma. The indicators have been scaled so that a value of 50 signifies continuation of present trends while values greater or lower than 50 are associated with rising or falling trend rates of growth. The indicators also serve as instruments for producing forecasts. They have successfully foreshadowed every major national recession in the last 35 years.

In data available through February this year, the PCI for national employment fell to 28 from 33 in January, a weak reading. Just one year ago, this PCI index was 57, indicating improvement upon the then current employment trend rate of growth. The PCI for the core rate of inflation was 55 in February 2000, indicating that the rate of inflation at that time was expected to increase. In February 2001, this index has fallen to 43, a good sign that the inflation rate, excluding food and energy, should fall from present rates. For Oklahoma employment, the PCI has fallen dramatically. It now registers only 22, having fallen from 28 the previous month. In February 2000, this index stood at 56. Oklahoma City's index has fallen to 31, from 36 in January. A year ago this index was 57. Tulsa's PCI for employment has fallen from 61 to 39 in one year's time. All of these indicators predict that rates of growth will continue to moderate.

## Forecasts

The PCI indices as used to drive forecasts for each of the various components. These forecasts are carried out through December 2002, presently. For 2001, only a 1.3 percent rate of growth is forecast for national employment. Such a growth rate, still,

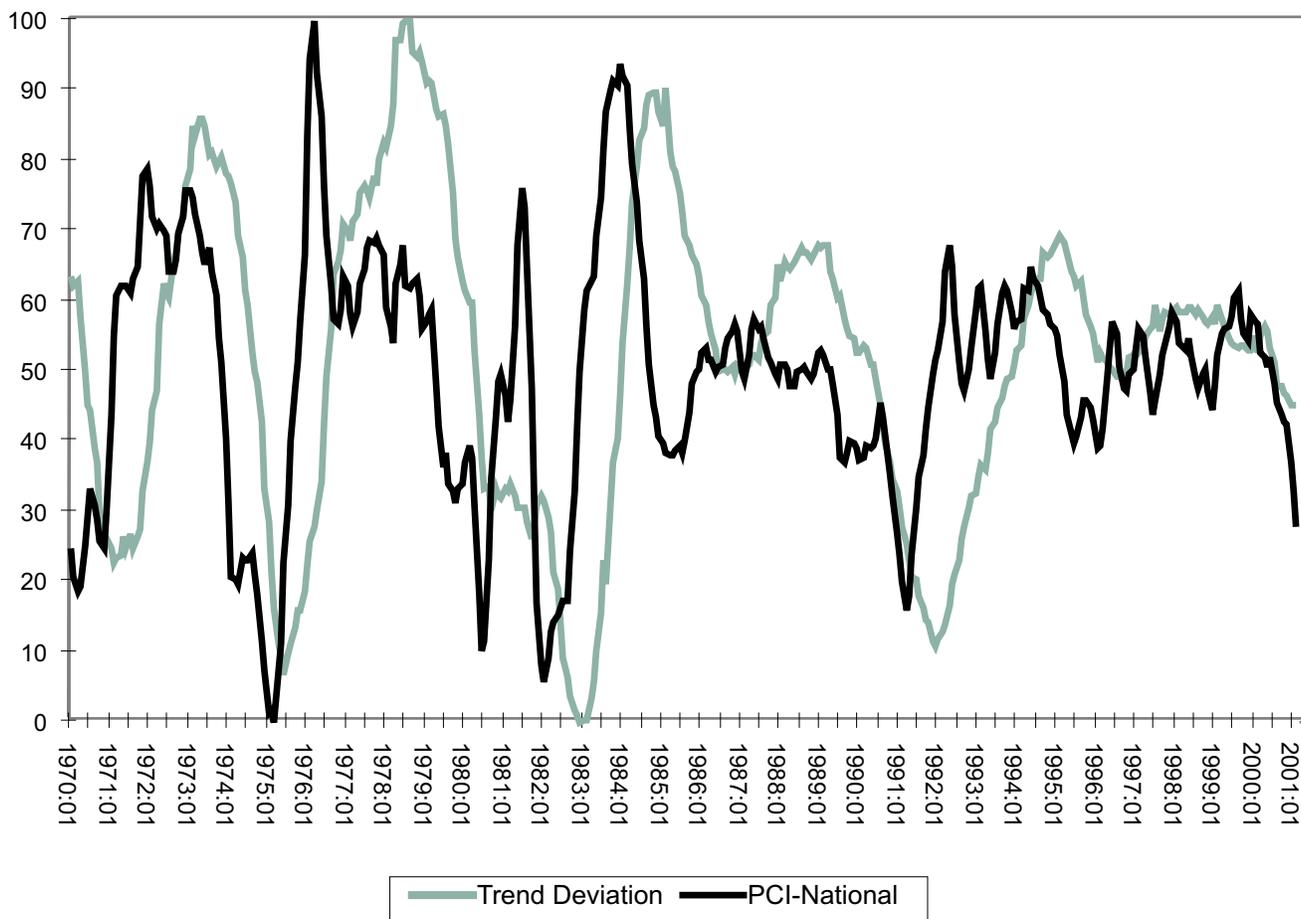
would yield a 1.7 million increase in jobs. The rate of growth is expected to rise marginally in 2002 where a 1.9 percent rate of growth is anticipated. This would yield 2.5 million net new jobs. Inflation is expected to moderate nationally to the 2.3 percent rate in 2001 and 1.9 percent rate in 2002.

Oklahoma's employment rates of growth have been holding fairly well in the forecasts. Wage and salary employment in nonagricultural firms in Oklahoma is expected to advance by 25,000 jobs in 2001 and another 27,000 in 2002. This implies growth rates of 1.7 and 1.9 percent. Oklahoma City should fare even better in percentage growth, at 2.3 and 2.1 percent for this year and next. Jobs should grow by 12,000 in each year. Tulsa is expected to average 7,000 net new jobs this year and next. Anticipated growth rates are 1.6 and 1.7 percent.

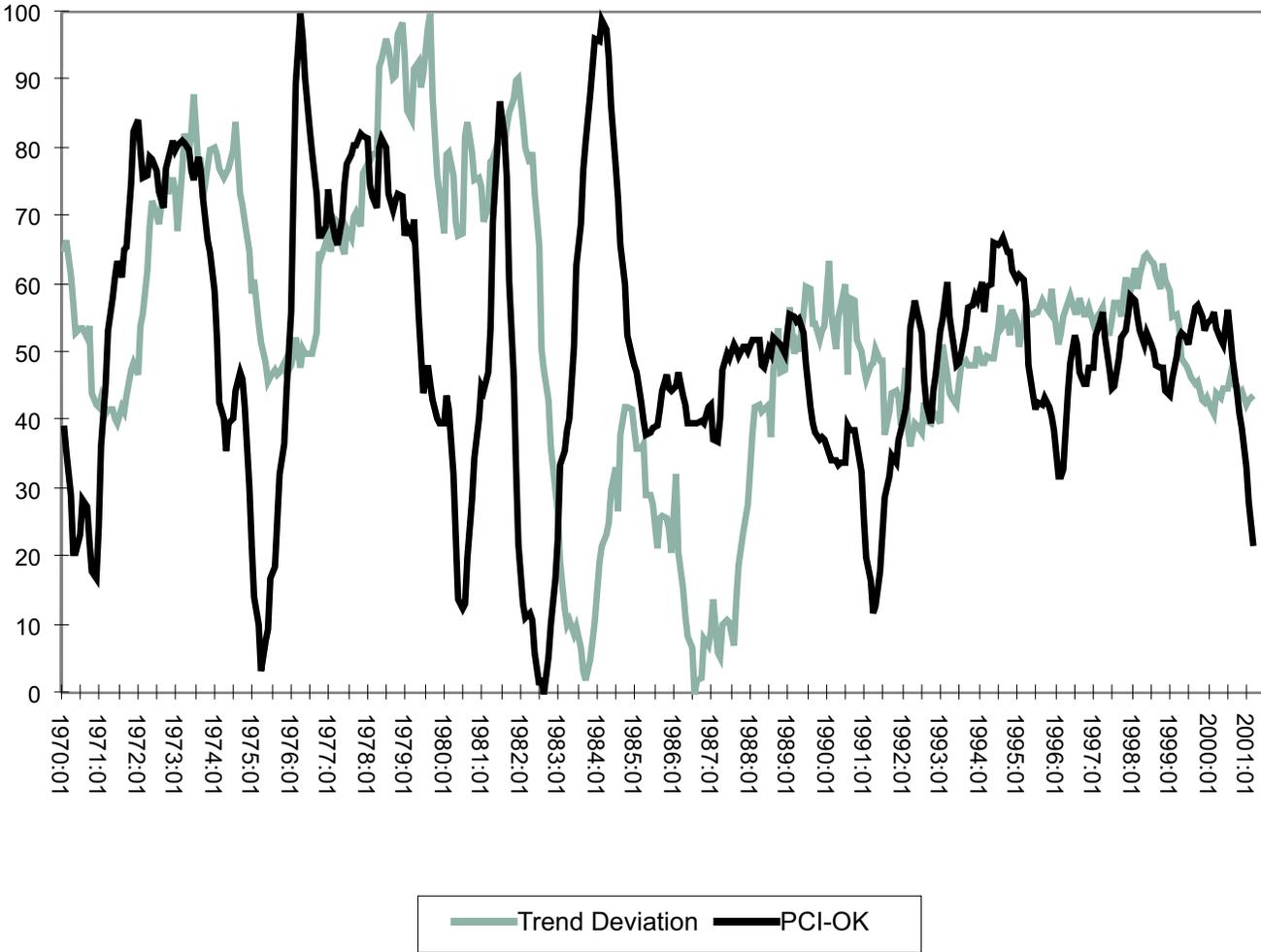
The PCI indicators strike a note of caution about the future. While it is clear that the national economy is in a distinct slowdown, the consequences of that slowdown do not at present appear to be mushrooming into a full-blown recession. That could happen. The 1974-75 recession started slowly and then accelerated. At present, however, the odds favor avoiding two consecutive quarters of declining real output for the economy as a whole. Manufacturing has certainly been hit, as we have observed repeatedly in this report. But, as the analysis shows, the extent of the decline in this sector does not measure up to previous recessionary periods. The Fed has been quick to act in combating this slowdown, much more quickly than they acted in the 1990-91 recession. Their 200 basis point reduction in interest rates since January 1, coupled with their injections of liquidity into the banking system, which they have been doing with a vengeance, should keep the US economy well afloat and keep it from slipping into recession. That should be the case. But, obviously this situation requires constant monitoring. That we will do.

*Robert C. Dauffenbach is Director for the Center for Economic and Management Research.*

## Price College Indicators National Employment



## Price College Indicators Oklahoma Employment



# Economic Impact of the Oklahoma Health Center

*by David A. Penn and Ron Dutton*

**T**he Oklahoma Health Center (OHC) is an important source of jobs and income for the Oklahoma City metropolitan area economy. In addition, more than 250,000 patients received treatment at the OHC institutions last year, more than 2,600 students were enrolled in health sciences curriculum at the OHC, and important medical research was conducted.

This study summarizes the economic contributions to the local economy of health care institutions and other tenant organizations located within the Oklahoma Health Center. The study was sponsored by the Oklahoma Health Center Foundation and the Greater Oklahoma City Chamber of Commerce. The study was accomplished by the Center for Economic and Management Research in cooperation with Hammer, Siler, George Associates. Economic contributions are calculated by applying a series of IMPLAN input-output multipliers to estimates of direct local spending for payroll, goods, and services. Results are specified in terms of annual output, employment and labor income. The analysis relies heavily on results of a survey of these establishments conducted in September and October of 2000. Survey responses were supplemented with other sources such as data obtained from the Governor's Budget for fiscal year (FY) 1999 and FY 1999 employment data obtained from data files provided by the Oklahoma Employment Security Commission (ES-202 files). In addition to the economic estimates, several other relevant indicators of the importance of the OHC are described, including the number of patients seen by OHC providers, student enrollment trends, revenue sources for OHC institutions, and exports of OHC health care services to the rest of the state.

## The Oklahoma Health Center

The Oklahoma Health Center is the state's largest health care, medical research and public health complex. It is located just south of the State Capitol complex and east of Oklahoma City's downtown. At present, more than 50 individual establishments are located within the boundaries of the Oklahoma Health Center. The list includes:

- Three clinics—Oklahoma City Clinic, Oklahoma Allergy Clinic, and the Dean McGee Eye Institute,
- Four hospitals—Presbyterian Hospital, University Hospital, Children's Hospital, and the Veterans Administration Medical Center,
- Eight not-for-profit and for-profit research and service organizations, including the Oklahoma Medical Research Foundation, Children's Medical Research Institute and Presbyterian Health Foundation,
- Five state government agencies, including the Department of Health and Department of Mental Health and Substance Abuse Services,
- The Oklahoma School of Science and Mathematics,
- The University of Oklahoma Health Sciences Center, and

- Twenty-nine smaller health care providers including the Care Select Heart Group, Oklahoma Cardiovascular Associates, Sports Medicine Specialists, and the Advance Physicians Group.

In addition, a number of The University of Oklahoma Health Sciences Center faculty offer health care services at clinics located outside the Oklahoma Health Center through the University Physicians Medical Group (UPMG).

### Direct Effects

According to the survey and secondary data sources, the Oklahoma Health Center employs 12,089 workers, down slightly from 12,138 workers in 1995<sup>1</sup>. More than 9,000 of the total are affiliated with the two education facilities and four hospitals. The five state agencies account for nearly 1,100 more of the total, with the remaining 40 establishments having a combined employment just under 2,000 workers (see Table 1).

Health care and the related establishments at the OHC are labor intensive. The annual payroll of their combined work forces, including employee earnings and the value of benefits, is \$537 million. Combin-

ing the employment and payroll yields average compensation of \$44,421 per employee across the entire OHC. This average is 51 percent higher than average compensation in the Oklahoma City Metropolitan Area (see Figure 1). With a total payroll of \$216.4 million, the four hospitals account for more than 40 percent of the total payroll.

Total operating outlays are used in this analysis as the measure of economic output at the Oklahoma Health Center. The 51 institutions at the OHC had total operating outlays of approximately \$1.0 billion last year. That total reflects the annual operating budgets of member institutions, excluding transfers among organizations within the OHC, transfer payments to households, and the portion of the budgets of state agencies associated with programs and operations conducted off-site.

Because of the labor intensity in health care, payroll accounts for more than half of the total \$1.0 billion in combined operating budgets of these institutions. In addition to labor costs, the total operating budgets include approximately \$200 million in goods and services purchased in the Oklahoma City Metropolitan Area. The remaining portion of industrial output largely consists of imports of goods and services from outside the Oklahoma City Metropolitan Area.

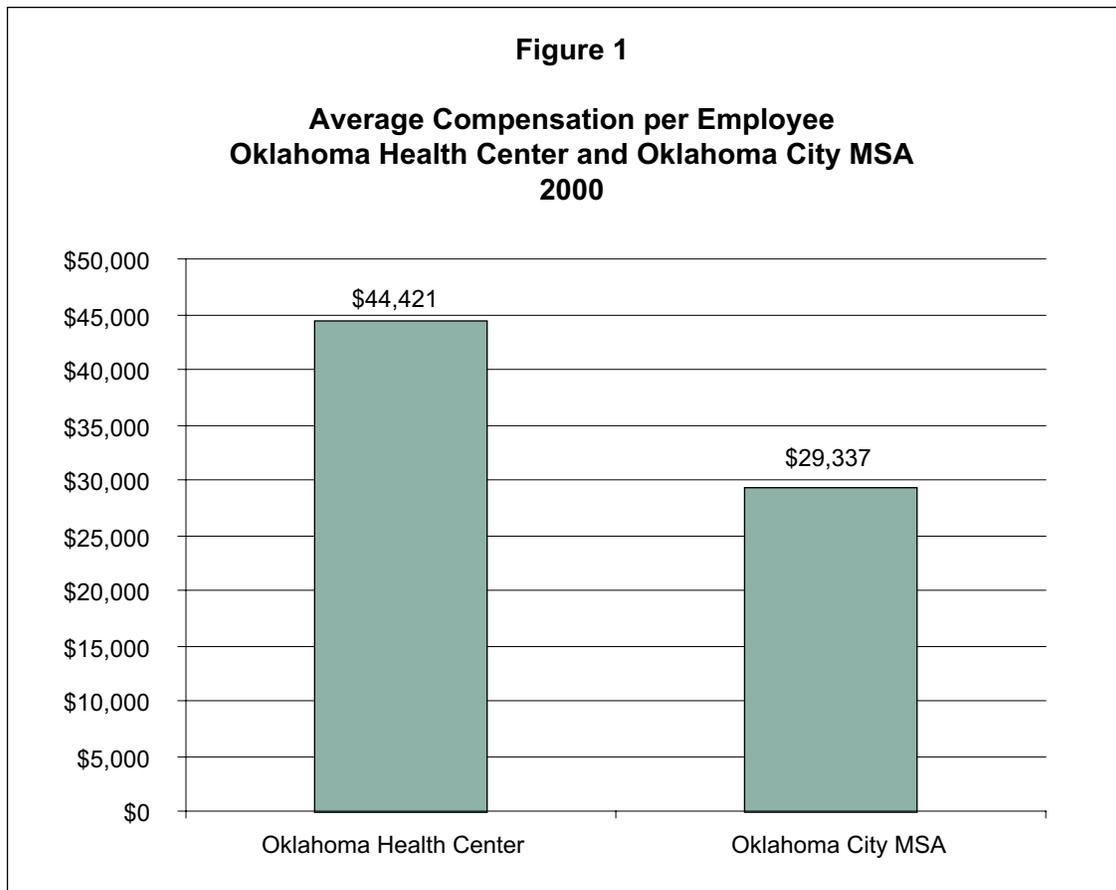
**Table 1**

### Economic Profile of the Oklahoma Health Center Fiscal Year 2000

<i>Establishment Type</i>	<i>Number of Establishments</i>	<i>Employees</i>	<i>Labor Income</i>	<i>Output</i>
Major Clinics	3	504	\$ 23.8	\$ 61.2
Hospitals	4	4,900	\$ 216.4	\$ 485.4
Education *	2	4,152	\$ 173.4	\$ 251.9
Non-profit and for-profit research	8	1,101	\$ 39.1	\$ 89.3
State Government	5	1,081	\$ 47.9	\$ 61.2
Other Health Care	<u>29</u>	<u>350</u>	<u>\$ 36.3</u>	<u>\$ 61.8</u>
Totals	51	12,089	\$ 537.0	\$1,010.8

Notes: Monetary amounts are annual totals in millions of dollars.

\*Includes the Oklahoma School of Science and Mathematics and the OU Health Sciences Center.



Imbedded within the operating budgets are expenditures for payroll, supplies, and equipment needed to sustain research critical for the development of knowledge, techniques, and drugs that help Oklahomans improve their health. Expenditures by the OHC to support medical and public health research were \$72.8 million in fiscal year 2000, compared with \$51.3 million in FY 1997.<sup>2</sup> About half (53 percent) was by not-for-profit organizations and private companies, with the remaining 47 percent by the Health Sciences Center (see Figure 2).

Major sources of revenue funding the operations of institutions at the Oklahoma Health Center include charges for medical services, appropriations by the state and federal government, grants and contracts, and endowment, tuition, gifts, and enterprise revenue (see Figure 3 on the following page).

As shown, charges for patient care delivered by the hospitals and other providers generate about 50 percent of total revenues. Included are payments from Medicaid, Medicare, HMOs and other health insurance companies, and private pay patients.

State and federal government appropriations are the second largest source of revenue, accounting for 28.3 percent of total revenue for the OHC. This amount includes federal appropriations for the Veterans Administration Medical Center and state appropriations for The University of Oklahoma Health Sciences Center, Oklahoma State Department of Health and other state agencies located at the OHC, and appropriations for indigent care by University Health Partners.

Grants and contracts were \$86.9 million in fiscal year 2000. About half of the dollar value of grants and contracts originated from the government sector, including \$39 million from the federal government.

Although located in Oklahoma City, the economic benefits of the OHC extend across the metropolitan area. In large part, this occurs because employees at the OHC reside throughout the larger community. Consequently, consumer spending is dispersed across the region as much of a household's spending for clothes, entertainment, food and other consumer items occur near home.

**Figure 2**

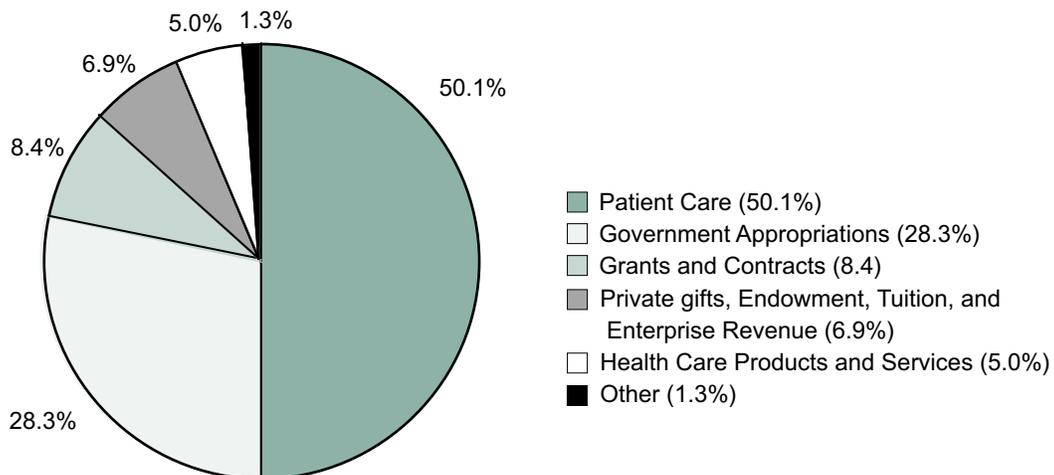
**Budgeted Expenditures of OHC Institutions to Support Research  
Fiscal Year 2000 (thousands)**



Note: Health Sciences Center is estimated from FY 99 data.

**Figure 3**

**Sources of OHC Operating Revenue**



**Table 2**

**Revenue from Grants and Contracts**

<b>Source</b>	<b>Amount (Thousands)</b>
Federal government	\$39,112
State and local government	\$3,984
Foundations, not-for-profits, and individuals	\$40,002
Other grants and contracts	\$3,778
<b>Total</b>	<b>\$86,876</b>

Residency patterns of OHC employees were determined from the survey (see Figure 4). Those results indicate approximately 70 percent of the OHC employees live in three communities: City of Oklahoma City (49 percent), Edmond (13.7 percent), and Norman (7.2 percent). Other communities with a relatively large number of employees living in them include Midwest City, Moore, Yukon and Del

City. Together these seven communities account for about 87 percent of all employees. The remaining employees live in more than 40 other communities and unincorporated areas.

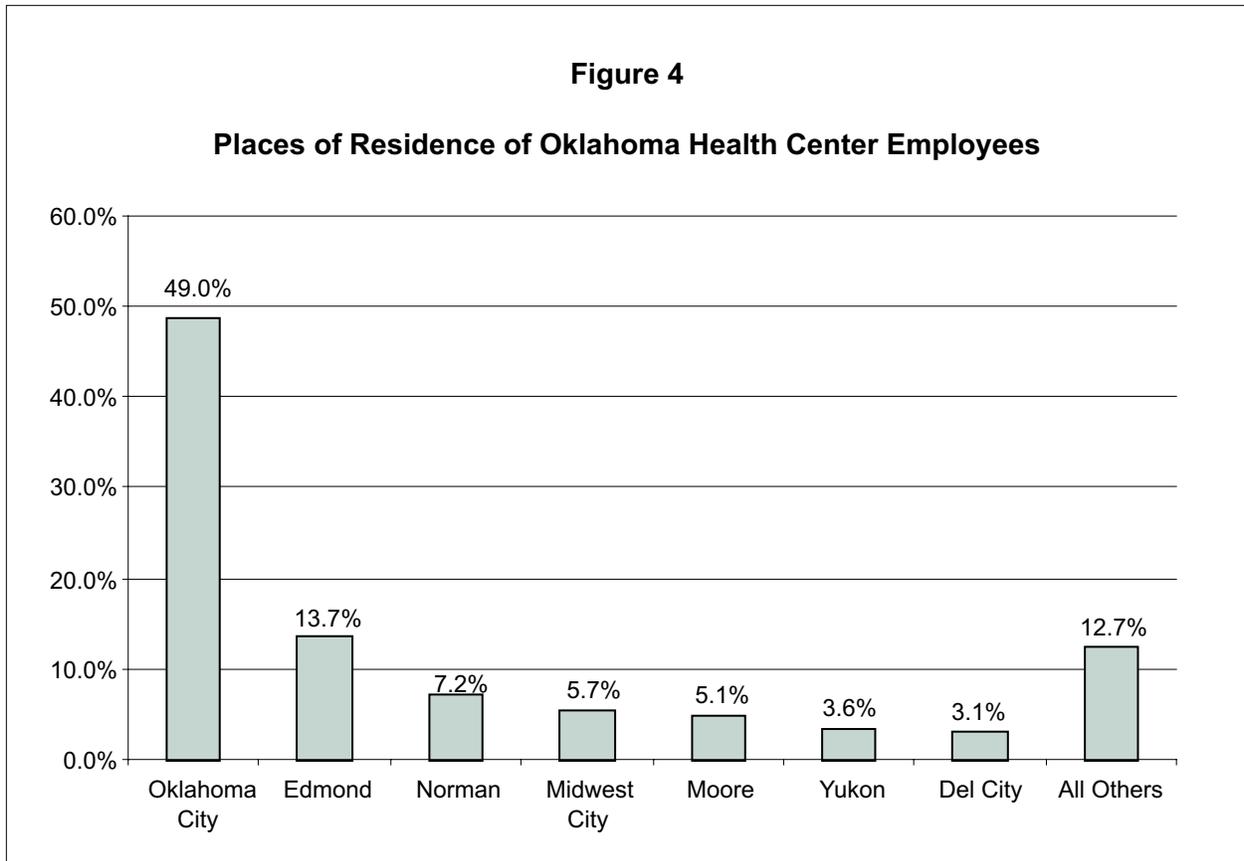
**Indirect and Induced Effects**

The overall economic contributions of the OHC extend beyond the direct effects described above. The added contributions arise due to the indirect and induced effects stimulated by the OHC. The *indirect effect* refers to the secondary impacts on area businesses that supply goods and services to the OHC while the *induced effect* refers to the secondary impacts related to consumer spending.

Local spending by the OHC for services, supplies, and materials initiates the *indirect effect*. Major items purchased locally by the OHC include electricity, natural gas, water and wastewater, landscaping and building maintenance, office supplies and furniture, equipment, and medical

**Figure 4**

**Places of Residence of Oklahoma Health Center Employees**



services from other area doctors' offices and hospitals. Area businesses that sell goods and services to the OHC hire workers and purchase needed materials and supplies, with a portion of the purchases occurring locally. Businesses that sell materials and supplies to the OHC suppliers also hire workers and purchase needed inputs. The ripple effect continues, with the impact of each successive round diminishing because of leakages from the spending stream in each round. IMPLAN estimates of the total indirect effects in the metropolitan area are:

#### ***Oklahoma City Metropolitan Area Indirect Impacts***

- \$258.6 million per year in industrial output,
- \$112.3 million per year in labor income, and
- 5,000 jobs.

Local spending by households for goods and services initiates the *induced effect*. Payroll expenditures by OHC employers (direct effect) and by employers that supply inputs to the OHC (indirect effect) are spent by households for items such as housing, electricity, natural gas, water and waste water, transportation, food, clothing, telephone, entertainment, and taxes. Spending for these goods and services creates revenue for businesses such as retailers, restaurants, grocery stores, gasoline stations, and movie theaters. These businesses support their own payrolls, resulting in household income and household expenditures.

Again, each successive round of spending diminishes in size due to leakages from the local economy. Leakage refers to goods and services that are imported into the area. Leakages occur at each round of the payroll-household spending cycle, causing the impact of each succeeding cycle to gradually diminish. Estimated by the IMPLAN model, induced effects attributable to the OHC are:

#### ***Oklahoma City Metropolitan Area Induced Impacts***

- \$485.3 million per year in industrial output,
- \$157.3 million per year in labor income,
- 6,757 jobs.

## **Total Economic Contribution**

The total economic contribution for the Oklahoma City Metropolitan Area is the sum of the direct, indirect, and induced effects. Total impacts of the Oklahoma Health Center are:

#### ***Oklahoma City Metropolitan Area***

- \$1,754.6 million per year in industrial output,
- \$806.6 million per year in labor income, and
- 23,846 jobs.

The impact of the OHC is felt across all sectors of the region's economy. One manner in which this impact manifests itself is in the number of jobs, labor income, and industrial output it supports. A breakdown of impacts across major industrial sectors is presented in the following table. As shown, more than half of the impact occurs in the Services sector including Health services, Medical research and nonprofits, and Other services. Several sectors, including Construction and Manufacturing, receive significant impacts amounting to 100 or more jobs in conjunction with the OHC. Construction sector impacts would be even larger if capital construction projects were taken into account. However, such construction is not included in this analysis as it varies from year to year.

Interestingly, the total economic impact of the OHC accounts for 3.7 percent of total industrial output in the Oklahoma City Metropolitan Area, 4.6 percent of labor income, and 3.7 percent of employment.

## **Economic Multipliers for the Oklahoma City Metropolitan Area**

The economic impacts of changes in future Oklahoma Health Center employment and output can be estimated with impact multipliers. The table shows both direct effect multipliers and output multipliers developed specifically for the mix of employers found at the Oklahoma Health Center. Direct effect multipliers show impacts per unit change in employment, labor income, or output.

**Table 3**

**Total Economic Impact of the Oklahoma Health Center  
on the Oklahoma City Metropolitan Area**

<b>Sector</b>	<b>Industrial Output (Millions)</b>	<b>Labor Income (Millions)</b>	<b>Full- and Part-time Jobs</b>
Agriculture and landscaping	\$3.7	\$1.0	112
Mining	4.6	1.0	28
Construction	14.4	6.2	218
Manufacturing	44.0	9.7	225
Transportation, communications, and public utilities	62.8	16.2	372
Wholesale trade	35.0	14.2	377
Retail trade	93.7	43.0	2,719
Finance, insurance, and real estate	128.6	17.2	719
Other Services	163.6	81.2	4,875
Health services	732.2	346.9	7,515
Medical research & nonprofits	94.2	41.0	1,210
Other government	14.9	6.8	131
NEC	1.0	1.0	111
Education	251.9	173.4	4,152
State government	61.2	47.9	1,081
Imported goods and services	48.9		
<b>Total Impact</b>	<b>\$1,754.6</b>	<b>\$806.6</b>	<b>23,846</b>

Output multipliers show the impact per \$1 million increase in output at the Oklahoma Health Center. For example, an increase of 100 jobs at the Oklahoma Health Center would create a total of 197 jobs in the Oklahoma City Metropolitan Area, including the direct, indirect, and induced effects. Using the output multipliers, an increase of industrial output of \$10 million at the Oklahoma Health Center would cause a total impact of 236 jobs, \$8.0 million in new labor income, and \$17.4 million in new industrial output in the Oklahoma City Metropolitan Area.

**Other Dimensions  
of OHC's Contributions**

While the focus of this study is on the economic contributions of the OHC to the metropolitan area economy, the study yielded insights into other dimensions of the OHC's importance.

**Statewide Economic Contributions**

The statewide impacts of the OHC's operations were assessed using a second version of the IMPLAN model. Again, the direct effects associated with the OHC were the key inputs. Results of this process include:

- \$1,783.7 million per year in industrial output,
- \$811.3 million per year in labor income, and
- 24,349 jobs.

These results apparently reveal relatively modest levels of additional indirect and induced impacts in the remainder of Oklahoma in association with the OHC. These impacts include about \$5 million in annual payroll and about 500 jobs. However, those increments are deceptive. First, they ignore the direct linkages between institutions and agencies housed at OHC and clinics and field offices throughout the state.

**Table 4**

**Oklahoma Health Center Impact Multipliers  
Oklahoma City Metropolitan Area**

<b>Direct Effect Multipliers*</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Employment	1.00	0.41	0.56	1.97
Labor income	1.00	0.21	0.29	1.50
Output	1.00	0.26	0.48	1.74

\*Impact per unit change at the OHC

<b>Output Multipliers**</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Employment	11.96	4.95	6.68	23.59
Labor income (Thousand)	\$531.29	\$111.14	\$155.62	\$798.05
Output (Thousand)	\$1,000.00	\$255.83	\$480.13	\$1,735.96

\*\*Impact per million dollars of OHC annual output

This occurs due to adjustments to the operating budgets of various OHC establishments explicitly to avoid over-estimating the local impact of the OHC. Second, input-output models tend to capture net economic flows, that is, the difference between flows between regions. Because Oklahoma City is the economic, financial and government services center of the state, there are significant flows from outlying areas into the metropolitan economy. Some of those flows involve health care services provided at the OHC. While the value of those flows is not estimated in this study, the additional indirect and induced impacts shown above can be interpreted as the net amount above and beyond whatever that sum is, and thus is a conservative estimate of the total statewide economic impact of the OHC.

**State Tax Revenue Impacts**

Several types of state tax revenues are affected by employment and the health care facilities located at the Oklahoma Health Center. Such revenues include individual and corporate income tax, franchise taxes, sales tax, and motor vehicle license fees. Revenues are generated both directly and as a result of the indirect and induced activity supported by the OHC. Estimates were determined for two of the state's primary tax revenue sources: individual

income tax and sales tax owing to household expenditures. (Note: Local government revenues, for example, Oklahoma City's sales tax receipts, are also supported by the OHC, but such impacts are not addressed in the current study.)

Most of the tax revenue impact results are in conjunction with the Oklahoma Health Center payroll. As described above, the OHC directly and indirectly supports more than \$673 million in annual wages and salaries. When non-wage income, such as rental income and household dividend and interest receipts, is added, the net impact on total personal income climbs \$811.3 million. Estimated annual state tax revenues generated by this level of total personal income include \$33.0 million in individual income tax and \$13.2 million in sales tax. These tax revenue estimates assume an average individual income tax rate of 4.0 percent of total personal income and a sales tax rate of 4.5 percent. The sales tax rate is applied to the share of total personal income assumed to represent taxable sales—35.5 percent in this case.

The combined state tax impact from just these two sources is nearly \$46 million per year. The total would climb if other types of state tax revenues generated by consumer and indirect and induced business enterprise activity were accounted for.

However, these other revenues are likely to be relatively limited in comparison to the two key sources. Furthermore, many of the health care providers are public entities and therefore exempt from most state taxes and fees.

### Non-resident Patients

Exports of goods and services are important sources of economic vitality for any local economy. Exports bring wealth into the economy, supporting a larger and more diverse economy. Traditionally, the term “exports” conjured up visions of manufactured goods such as automobiles and refrigerators. However, services provided to consumers and businesses located outside the local regional also are forms of exports.

This study finds that health services provided to non-residents are a vitally important source of revenues for the institutions located at the Oklahoma Health Center. According to the Oklahoma State Department of Health and the survey of OHC health care providers, 27 percent of patients at OHC hospitals and 19.7 percent of patients of OHC clinics do not live in the Oklahoma City Metropolitan Area. In addition, 3.8 percent of patients at OHC clinics do

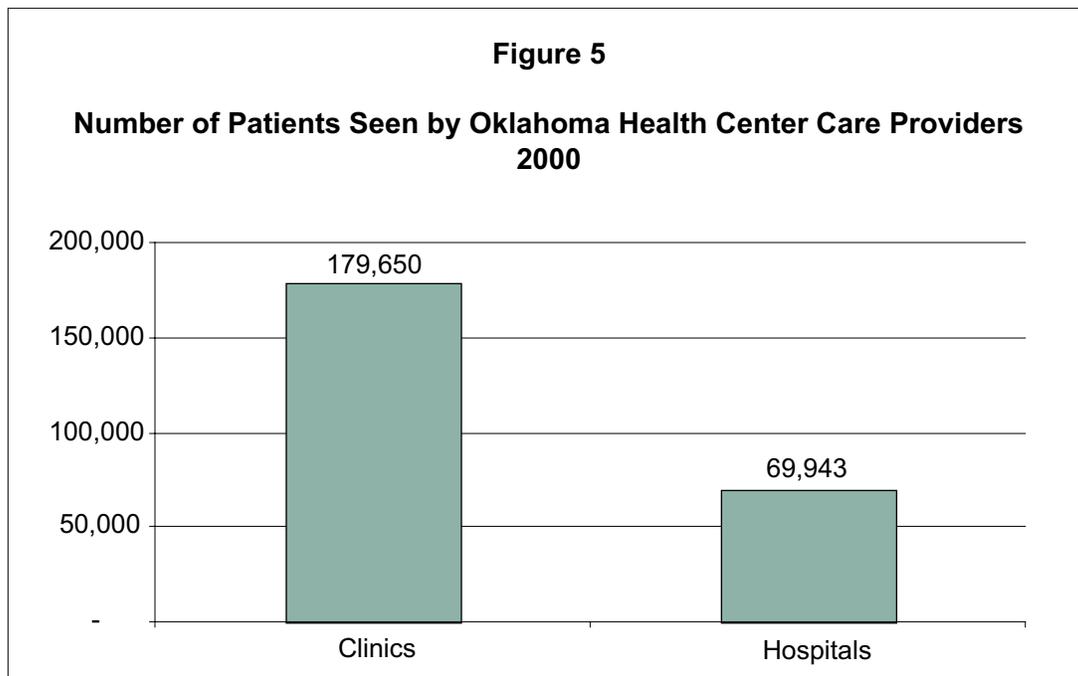
not live in Oklahoma. Thus, more than one-fourth of the health care services provided by the OHC is “exported” to residents outside the Oklahoma City Metropolitan Area.

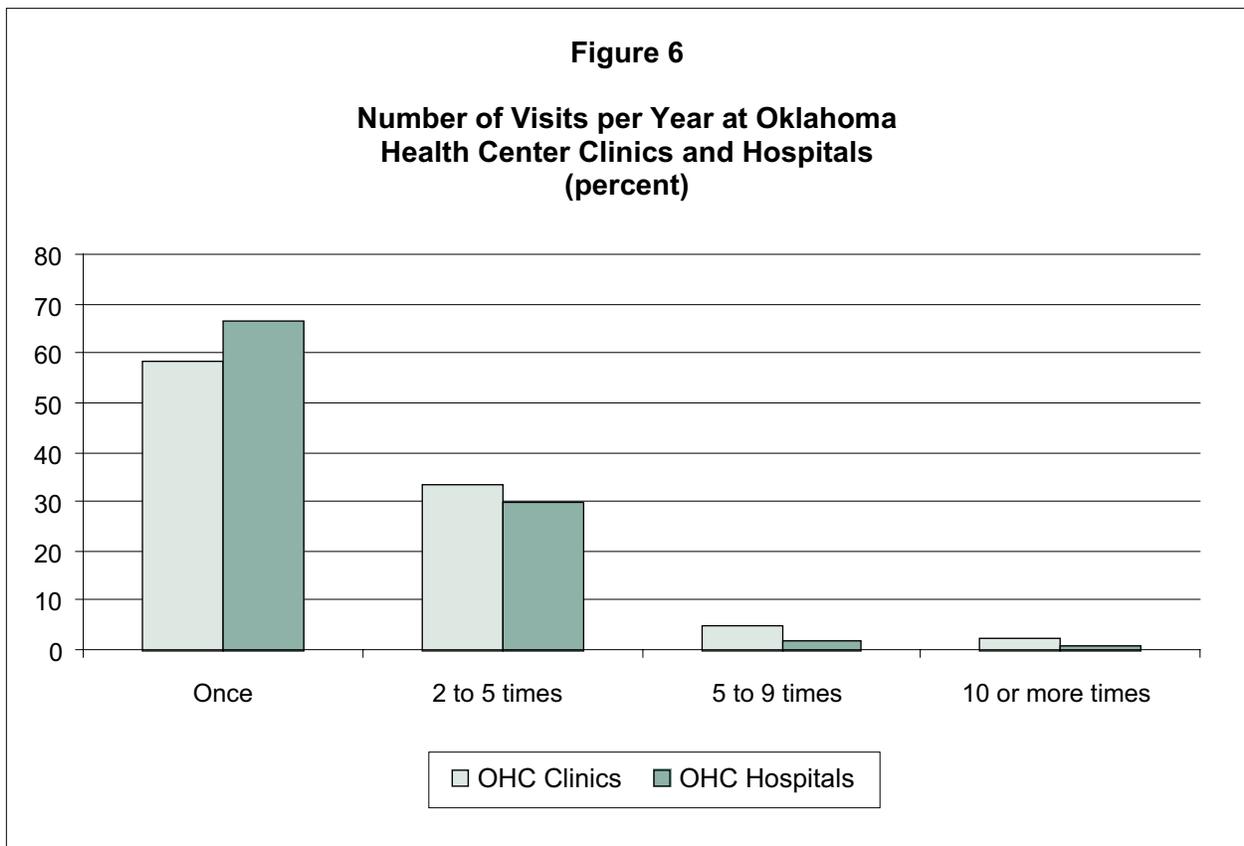
### Number of Patients Treated

The survey responses indicated that Oklahoma Health Center clinics and hospitals treated nearly 250,000 patients last year. This total includes 69,943 patients at hospitals and 179,600 at clinics, including patients seen by Health Sciences Center faculty through the UPMG.

Oklahoma Health Center hospitals treat about one-third of the hospital patients in the six-county Oklahoma City Metropolitan Area.

According to the survey of OHC institutions, most patients see their Oklahoma Health Center care provider just once each year: about 59 percent of clinic patients and 67 percent of hospital patients were seen just once. However, many patients visit a health care provider frequently: 33 percent of clinic patients and 30 percent of hospital patients were seen from two to five times last year, while 7.8 percent of clinic patients and 3 percent of hospital patients were seen more than five times.





### Oklahoma Health Sciences Center Enrollment Trends

The University of Oklahoma Health Sciences Center offers a wide variety of degree programs including medicine, dentistry, nursing, pharmacy, physical therapy, biostatistics, radiology, nutrition, occupational health, and health care management. Fall enrollment at The University of Oklahoma Health Sciences Center was 2,641, down from 2,785 in fall 1999.

Approximately 30 percent of Health Sciences Center students in fall 2000 were enrolled in the College of Medicine (see Figure 7). The next largest number was enrolled in the College of Nursing (488 students), followed by the College of Allied Health (439), College of Pharmacy (370), College of Dentistry (284), and College of Public Health (245).

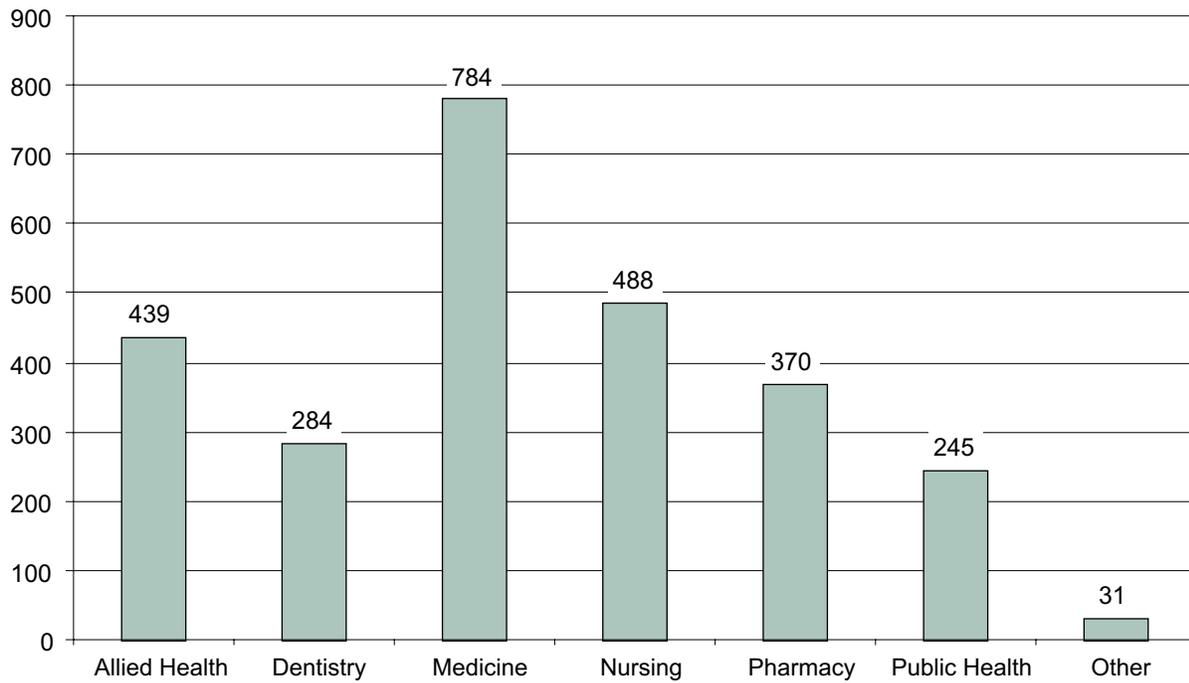
As shown in Figure 8, enrollment has fluctuated within the narrow range of 2,600 to 2,800 students since 1994.

### Health Care Access and Availability

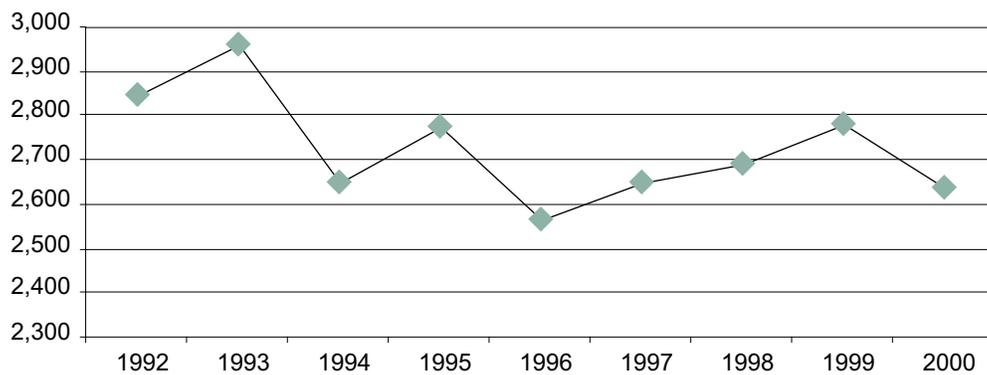
Yet another dimension of OHC's contributions are the extent to which benefit from access to specialized or a higher quality health care than may otherwise be available locally. Local providers who offer treatment that otherwise could only be obtained out-of-state help stem potential leakage of spending from the state's economy and generate imports from non-residents who obtain such services at OHC as opposed to other locations. This is called import substitution in the economic development literature, and is a means to bolster local economies.

According to the survey, nearly one-third of all patients receiving care at one or more of the specialized clinics located at the Oklahoma Health Center would find it necessary to travel out-of-state in order to receive comparable services (see Table 5). By contrast, the hospitals indicated that only about one percent of their patients receive health care services not offered at other hospitals in the metropolitan area and thus, would otherwise have to go out-of-state.

**Figure 7**  
**Fall 2000 Enrollment**  
**The University of Oklahoma Health Sciences Center**  
**by College**



**Figure 8**  
**Student Enrollment at the Health Sciences Center**  
**Fall 1992-2000**



In other words, fully 99 percent of hospital patients at OHC might be able to receive comparable care elsewhere. However, for many of these, the issue may be one of access, rather than availability in the metropolitan area. Oklahoma's indigent care program is administered by the hospitals of University Health Partners at the OHC. Indigent patients would not likely have access to comparable services at other area hospitals. Similarly, veterans who obtain health care services at the Veterans Administration Medical Center may also face more restrictive access, or have to travel to alternative facilities, if the VA Medical Center was not located at the OHC.

## Notes

<sup>1</sup> Employment in 1995 was compiled by the Center for Economic and Management Research from ES-202 data files provided by the Oklahoma Employment Security Commission.

<sup>2</sup>The FY1997 figure is from *The Economic Role of the Oklahoma Health Center*, Joseph T. Johnson, 1998.

*David A. Penn is Associate Director of the Center for Economic and Management Research. Ron Dutton is Vice President of Hammer, Siler, George Associates in the Denver, Colorado office.*

**Table 5**  
**Availability of Care**  
**for Oklahoma Health Center Patients**

<b>Location of Potential Care</b>	<b>Percent of Patients</b>	
	<b>Clinics</b>	<b>Hospitals</b>
➤ Could obtain care from another provider in Oklahoma City	65.9	99.0
➤ Could NOT obtain care from other providers in Oklahoma City, but could go elsewhere in Oklahoma.	3.5	0.0
➤ Could not obtain care elsewhere in Oklahoma and would have to leave the state to obtain care	30.6	1.0

## Appendices

### A. Data Sources

The following data sources were used to estimate the economic impact of the Oklahoma Health Center. Most of the information was used to calibrate the various economic parameters used in the modeling and is not specifically referenced in the body of the report.

Oklahoma County Assessor, Information on Property Taxes and *Tax Rates Certified November 1, 1999*, accessed via the agency's website, <http://www.oklahomacounty.org/assessor/>.

Oklahoma Department of Health. *1999 Patient Origin Report* (electronic version), 2000.

\_\_\_\_\_. *1999 Hospital Finance Report*, for Selected Oklahoma Hospitals (electronic version), 2000.

Oklahoma Employment Security Commission. *ES-202 Data, Calendar Year 1999* – Oklahoma City Metropolitan Area. Note: ES-202 information published in this report conforms to nondisclosure requirements established by the Oklahoma Employment Security Commission and the U.S. Bureau of Labor Statistics.

Oklahoma Finance Office, *Governor's FY 2001 Executive Budget – Historical Data*, accessed through the Oklahoma State website.

Oklahoma Medical Research Foundation, *1999 Report Card*, accessed via the foundation's website, <http://www.omrf.ouhsc.edu>.

Oklahoma Tax Commission, *Annual Report of the Oklahoma Tax Commission, Fiscal Year Ended June 30, 1999*, accessed via the agency's website, <http://www.oktax.state.ok.us/oktax>.

\_\_\_\_\_. *City & County Rates & Codes For Sales And Use Tax, July 1, 2000*, accessed via the

agency's website, <http://www.oktax.state.ok.us/oktax>.

\_\_\_\_\_. *Business Taxes & Registration – Taxes That Affect Your Business*, accessed via the agency's website, <http://www.oktax.state.ok.us/oktax>.

\_\_\_\_\_. *Oklahoma Individual Income Tax Rates*, accessed via the agency's website, <http://www.oktax.state.ok.us/oktax>.

U.S. Department of Commerce, Bureau of the Census, Economics and Statistics Administration. *Regional Economic Information System, 1969-98*. CD-ROM, RCN-0250, 2000.

U.S. Department of Veterans Affairs. *Facilities Directory and Oklahoma and the U.S. Department of Veterans Affairs* (Press release), accessed through the agency's website, <http://www.va.gov>.

\_\_\_\_\_. Jan Osland, Public Information Office, personal communications with David Penn.

University of Oklahoma Health Sciences Center, *Operating Budget Summaries Fiscal Year 2000, Norman Campus, Health Sciences Center*.

\_\_\_\_\_. *University of Oklahoma Admissions and Records, Fall Enrollment*, accessed through the agency's website, <http://www.admissions.ouhsc.edu>.

## B. OHC Survey Response Summary

The economic assessment of the OHC relies heavily on information regarding annual operating expenditures, the level of employment, and other economic characteristics of the institutions located at the OHC. A detailed, multi-part questionnaire was developed to solicit the desired. A copy of the questionnaire was mailed to each institution. Recipients were asked to provide as much detail as possible, given their time and data resource constraints. However, all were asked to respond to a subset of questions addressing the most critical variables, e.g., employment.

Questionnaires were mailed to 18 institutions in late September 2000. Unfortunately, delivery of the questionnaires experienced unexplained delays. As a result, recipients were given the impression that a response was being requested within a week's time, rather than the 2+ weeks that had been intended. It is unclear whether the delay adversely affected the response rate, but in any event, only 12 responses were received (see following list). Thus, it became necessary to supplement the survey data to establish basic economic parameters for the organizations not responding to the survey. Information from published budgets, the ES-202 and information found on the Internet was used for this purpose.

### **Organizations Submitting Responses to the Survey**

American Red Cross Oklahoma County  
Children's Medical Research Inc.  
Dean A McGee Eye Institute  
State Medical Examiner  
Medical Technology & Research  
Oklahoma Allergy Clinic Inc.  
Oklahoma City Clinic  
Oklahoma Medical Research Foundation  
Oklahoma School of Science & Mathematics  
Presbyterian Health Foundation  
The University of Oklahoma Health Sciences Center  
University Health Partners  
University Hospital Authority

### **Organizations That Did Not Respond to the Survey**

Oklahoma Department of Mental Health & Substance Abuse Services  
Oklahoma State Department Of Health  
Oklahoma Blood Institute  
Veterans Administration Hospital

## SELECTED INDICATORS

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
Crude Oil Production (000 bbl) <sup>a</sup>	15,645	17,614	17,839	-12.3	-11.2
Natural Gas Production (000 mcf) <sup>a</sup>	382,020	408,810	422,201	-9.5	-6.6
Rig Count	123	107	74	66.2	15.0
Initial Unemployment Claims	19,774	16,227	23,909	-17.3	21.9
<b>Permit-Authorized Construction</b>					
Residential Single Family					
Dollar Value (\$000)	182,953	239,484	232,583	-21.3	-23.6
Number of Units	1,469	1,991	1,975	-25.6	-26.2
Residential-Multi Family					
Dollar Value (\$000)	6,148	22,284	6,593	-6.7	-72.4
Number of Units	114	461	124	-8.1	-75.3
Total Construction (\$000)	189,101	261,768	239,176	-20.9	-27.8
<b>Employment</b>					
Total Labor Force (000) <sup>b</sup>	1,652.0	1,665.0	1,660.4	-0.5	-0.8
Total Employment (000)	1,605.5	1,616.5	1,609.1	-0.2	-0.7
Unemployment Rate (%)	2.8	2.9	3.1	—	—
Wage and Salary Employment (000)	1,501.1	1,488.9	1,480.6	1.4	0.8
Manufacturing	182,267	182,900	183,800	-0.8	-0.3
Mining	29,233	29,000	28,200	3.7	0.8
Government	293,567	279,267	289,100	1.5	5.1
Contract Construction	61,867	62,633	59,333	4.3	-1.2
Services	428,867	432,600	417,900	2.6	-0.9
Retail Trade	276,867	273,800	277,133	-0.1	1.1
<b>Average Weekly Hours (Per Worker)</b>					
Manufacturing	40.3	41.1	42.3	-4.7	-1.9
<b>Average Weekly Earnings (\$ Per Worker)</b>					
Manufacturing	545.77	545.00	538.99	1.3	0.1
Contract Construction	567.40	606.86	575.22	-1.4	-6.5

Note: Includes revisions in some previous months.

<sup>a</sup>Figures are for 4th and 3rd Qtr 2000. Crude oil includes condensate. Natural gas includes casinghead gas.

<sup>b</sup>Labor Force refer to place of residence, non-agricultural wage and salary employment refers to place of work.

NA = Not Available

## OKLAHOMA GENERAL BUSINESS INDEX

	Dec. '00	Preliminary Forecast		Percentage Change	
		Dec. '99	Dec. '98	'00/'99 Dec.	'00/'98 Dec.
State	133.0	132.3	129.8	0.5	2.5
Oklahoma City MSA	134.0	132.0	128.2	1.5	4.5
Tulsa MSA	137.9	136.3	134.5	1.2	2.5

## RETAIL TRADE IN METRO AREAS AND STATE (\$000 Seasonally Adjusted)

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
<b>OKLAHOMA CITY MSA</b>					
<b>Durable Goods</b>	558,115,540	539,725,886	585,154,425	-4.6	3.4
Lumber, Building Materials and Hardware	151,726,445	158,012,419	180,728,415	-16.0	-4.0
Auto Accessories and Repair	89,353,254	86,955,159	90,936,864	-1.7	2.8
Furniture	74,442,261	72,881,935	72,416,808	2.8	2.1
Computer, Electronics and Music Stores	102,520,288	82,762,316	102,816,942	-0.3	23.9
Miscellaneous Durables	120,749,463	121,931,437	117,741,972	2.6	-1.0
Used Merchandise	19,323,829	17,182,619	20,513,424	-5.8	12.5
<b>Nondurable Goods</b>	1,490,720,220	1,482,804,747	1,441,283,260	3.4	0.5
General Merchandise	500,053,940	478,970,144	426,952,525	17.1	4.4
Food Stores	292,562,950	304,436,754	335,567,690	-12.8	-3.9
Apparel	102,060,517	97,026,850	91,415,082	11.6	5.2
Eating and Drinking Places	250,362,824	275,094,361	285,655,961	-12.4	-9.0
Drug Stores	38,273,309	42,703,098	37,945,793	0.9	-10.4
Liquor Stores	18,285,916	18,093,232	17,551,888	4.2	1.1
Miscellaneous Nondurables	91,362,375	83,057,164	74,309,158	22.9	10.0
Gasoline	197,758,389	183,423,142	171,885,163	15.1	7.8
<b>Total Retail Trade</b>	2,048,835,760	2,022,530,633	2,026,437,685	1.1	1.3
<b>TULSA MSA</b>					
<b>Durable Goods</b>	456,151,287	449,523,843	447,349,172	2.0	1.5
Lumber, Building Materials and Hardware	119,055,680	124,080,761	128,001,407	-7.0	-4.0
Auto Accessories and Repair	62,221,705	61,954,653	60,367,991	3.1	0.4
Furniture	53,900,227	54,344,999	54,621,165	-1.3	-0.8
Computer, Electronics and Music Stores	100,654,960	94,075,106	102,465,178	-1.8	7.0
Miscellaneous Durables	105,096,835	101,255,019	86,600,659	21.4	3.8
Used Merchandise	15,221,881	13,813,306	15,292,772	-0.5	10.2
<b>Nondurable Goods</b>	1,110,883,374	1,109,803,462	1,094,697,904	1.5	0.1
General Merchandise	347,952,422	345,615,107	334,286,465	4.1	0.7
Food Stores	239,651,762	246,810,506	256,427,855	-6.5	-2.9
Apparel	74,058,872	74,826,834	74,775,500	-1.0	-1.0
Eating and Drinking Places	199,577,740	203,624,903	198,577,285	0.5	-2.0
Drug Stores	27,804,973	28,524,365	28,048,440	-0.9	-2.5
Liquor Stores	14,894,478	15,030,257	14,667,488	1.5	-0.9
Miscellaneous Nondurables	60,743,820	59,761,537	60,843,281	-0.2	1.6
Gasoline	146,199,308	135,609,952	127,071,590	15.1	7.8
<b>Total Retail Trade</b>	1,567,034,661	1,559,327,304	1,542,047,076	1.6	0.5
<b>ENID MSA</b>					
<b>Durable Goods</b>	24,180,687	23,102,311	23,850,272	1.4	4.7
Lumber, Building Materials and Hardware	7,486,891	7,578,521	8,316,463	-10.0	-1.2
Auto Accessories and Repair	5,704,616	5,357,684	4,706,897	21.2	6.5
Furniture	1,896,811	1,899,106	1,900,719	-0.2	-0.1
Computer, Electronics and Music Stores	2,744,946	2,124,514	2,389,691	14.9	29.2
Miscellaneous Durables	5,391,179	5,397,092	5,424,531	-0.6	-0.1
Used Merchandise	956,244	745,393	1,111,972	-14.0	28.3

## RETAIL TRADE IN METRO AREAS AND STATE (\$000 Seasonally Adjusted)

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
<b>ENID MSA (continued)</b>					
<b>Nondurable Goods</b>	83,039,932	81,755,371	80,087,709	3.7	1.6
General Merchandise	27,320,750	26,273,002	26,145,283	4.5	4.0
Food Stores	21,015,784	21,348,429	21,310,734	-1.4	-1.6
Apparel	4,501,821	4,579,557	3,387,917	32.9	-1.7
Eating and Drinking Places	11,750,610	11,944,849	12,757,696	-7.9	-1.6
Drug Stores	2,814,302	2,607,413	2,057,269	36.8	7.9
Liquor Stores	712,000	720,516	755,811	-5.8	-1.2
Miscellaneous Nondurables	4,084,636	4,226,930	4,251,308	-3.9	-3.4
Gasoline	10,840,029	10,054,675	9,421,691	15.1	7.8
<b>Total Retail Trade</b>	107,220,620	104,857,682	103,937,981	3.2	2.3
<b>LAWTON MSA</b>					
<b>Durable Goods</b>	29,685,502	30,179,298	32,136,008	-7.6	-1.6
Lumber, Building Materials and Hardware	7,639,135	8,239,663	9,472,905	-19.4	-7.3
Auto Accessories and Repair	5,799,585	5,770,677	5,943,402	-2.4	0.5
Furniture	3,032,330	3,057,450	4,270,450	-29.0	-0.8
Computer, Electronics and Music Stores	3,894,368	3,619,439	3,560,790	9.4	7.6
Miscellaneous Durables	8,416,334	8,624,663	8,199,511	2.6	-2.4
Used Merchandise	903,750	867,407	688,949	31.2	4.2
<b>Nondurable Goods</b>	125,823,491	124,538,821	123,381,633	2.0	1.0
General Merchandise	56,796,152	55,816,722	54,785,391	3.7	1.8
Food Stores	20,014,488	20,957,588	20,157,749	-0.7	-4.5
Apparel	5,796,588	5,851,055	5,766,202	0.5	-0.9
Eating and Drinking Places	21,408,940	21,637,616	22,578,634	-5.2	-1.1
Drug Stores	2,027,121	1,853,409	1,824,820	11.1	9.4
Liquor Stores	754,159	702,896	802,791	-6.1	7.3
Miscellaneous Nondurables	5,248,556	4,941,392	5,491,196	-4.4	6.2
Gasoline	13,777,487	12,778,143	11,974,848	15.1	7.8
<b>Total Retail Trade</b>	155,508,994	154,718,119	155,517,641	0.0	0.5
<b>OKLAHOMA</b>					
<b>Durable Goods</b>	1,510,757,438	1,501,590,442	1,548,516,313	-2.4	0.6
Lumber, Building Materials and Hardware	437,975,280	468,113,050	502,526,388	-12.8	-6.4
Auto Accessories and Repair	275,244,498	274,008,260	267,175,308	3.0	0.5
Furniture	168,346,500	171,201,301	173,017,334	-2.7	-1.7
Computer, Electronics and Music Stores	271,981,941	245,894,467	269,929,072	0.8	10.6
Miscellaneous Durables	308,407,098	297,387,402	284,136,128	8.5	3.7
Used Merchandise	48,802,120	44,985,962	51,732,083	-5.7	8.5
<b>Nondurable Goods</b>	4,469,869,526	4,422,509,165	4,317,510,451	3.5	1.1
General Merchandise	1,421,590,871	1,406,631,780	1,342,360,760	5.9	1.1
Food Stores	1,041,309,361	1,062,254,062	1,098,812,460	-5.2	-2.0
Apparel	239,923,733	236,245,089	220,863,640	8.6	1.6
Eating and Drinking Places	760,225,052	759,645,071	745,235,389	2.0	0.1
Drug Stores	91,378,808	92,187,227	91,837,661	-0.5	-0.9
Liquor Stores	46,844,462	47,764,197	46,353,006	1.1	-1.9
Miscellaneous Nondurables	227,815,826	223,431,903	215,100,453	5.9	2.0
Gasoline	640,781,413	594,349,834	556,947,081	15.1	7.8
<b>Total Retail Trade</b>	5,980,626,964	5,924,099,607	5,866,026,764	2.0	1.0

## RETAIL TRADE IN SELECTED CITIES

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
Ada	51,223,172	51,303,341	49,955,824	2.5	-0.2
Altus	40,984,447	40,977,763	41,679,305	-1.7	0.0
Alva	12,920,698	12,959,162	12,913,467	0.1	-0.3
Anadarko	13,356,452	13,524,692	13,339,207	0.1	-1.2
Ardmore	71,823,724	72,212,145	71,791,742	0.0	-0.5
Bartlesville	91,365,913	91,989,597	87,040,871	5.0	-0.7
Blackwell	10,223,409	10,286,140	9,918,718	3.1	-0.6
Broken Arrow	110,751,995	111,265,727	108,497,941	2.1	-0.5
Chickasha	34,391,408	34,466,615	33,261,360	3.4	-0.2
Clinton	17,965,317	19,015,093	18,008,901	-0.2	-5.5
Cushing	13,504,244	13,648,384	13,606,547	-0.8	-1.1
Del City	30,014,018	30,081,290	30,360,222	-1.1	-0.2
Duncan	44,919,030	43,021,270	41,260,508	8.9	4.4
Durant	33,397,259	34,217,489	33,875,752	-1.4	-2.4
Edmond	146,570,422	146,456,558	141,540,778	3.6	0.1
El Reno	26,743,828	26,278,250	25,946,868	3.1	1.8
Elk City	30,892,042	29,940,753	28,215,147	9.5	3.2
Enid	97,812,274	97,596,598	97,876,953	-0.1	0.2
Guthrie	18,248,372	18,602,094	18,599,607	-1.9	-1.9
Guymon	22,151,468	21,966,627	21,531,402	2.9	0.8
Henryetta	11,535,543	11,743,233	11,370,580	1.5	-1.8
Hobart	5,704,578	5,786,563	5,792,937	-1.5	-1.4
Holdenville	8,505,371	8,036,213	7,770,705	9.5	5.8
Hugo	13,138,888	13,340,090	13,538,277	-3.0	-1.5
Idabel	15,717,553	15,922,556	15,413,601	2.0	-1.3
Lawton	161,733,177	162,172,348	148,192,773	9.1	-0.3
McAlester	58,170,960	58,378,660	57,221,825	1.7	-0.4
Miami	26,407,464	26,746,959	27,117,284	-2.6	-1.3
Midwest City	126,007,419	127,409,961	128,855,517	-2.2	-1.1
Moore	59,713,749	59,895,561	61,369,636	-2.7	-0.3
Muskogee	102,945,275	104,775,849	100,385,495	2.5	-1.7
Norman	208,076,912	204,759,562	198,770,726	4.7	1.6
Oklahoma City	1,116,124,551	1,112,366,406	1,099,827,385	1.5	0.3
Okmulgee	30,411,378	30,853,107	30,633,145	-0.7	-1.4
Pauls Valley	19,008,836	19,348,162	19,358,629	-1.8	-1.8
Pawhuska	4,722,858	4,757,837	4,496,391	5.0	-0.7
Ponca City	62,630,607	62,933,317	62,105,113	0.8	-0.5
Poteau	29,091,020	29,513,084	29,186,525	-0.3	-1.4
Sand Springs	44,802,122	44,531,354	44,031,243	1.8	0.6
Sapulpa	46,479,389	45,558,716	45,077,152	3.1	2.0
Seminole	18,273,897	18,465,773	17,238,176	6.0	-1.0
Shawnee	83,085,425	83,034,815	80,710,185	2.9	0.1
Stillwater	99,650,512	99,181,056	94,492,790	5.5	0.5
Tahlequah	44,974,269	44,533,480	43,685,727	2.9	1.0
Tulsa	1,112,358,019	1,127,738,858	1,102,331,816	0.9	-1.4
Watonga	5,000,667	5,126,043	5,143,444	-2.8	-2.4
Weatherford	24,264,547	23,858,991	23,832,087	1.8	1.7
Wewoka	2,890,888	2,965,281	3,045,112	-5.1	-2.5
Woodward	39,742,279	38,749,345	37,353,091	6.4	2.6
<b>Total Selected Cities</b>	<b>4,500,427,645</b>	<b>4,512,292,770</b>	<b>4,417,568,485</b>	<b>1.9</b>	<b>-0.3</b>

## ENID AND LAWTON MSAs, MUSKOGEE MA

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
<b>ENID MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	26,203	27,017	27,127	-3.4	-3.0
Total Employment	25,570	26,290	26,337	-2.9	-2.7
Unemployment Rate (%)	2.4	2.7	2.9	—	—
Wage and Salary Employment	23,500	23,467	24,367	-3.6	0.1
Wholesale and Retail Trade	6,133	6,033	6,233	-1.6	1.7
Manufacturing	2,500	2,500	2,533	-1.3	0.0
<b>Permit-Authorized Construction</b>					
Residential-Single Family					
Dollar Value (\$000)	1,322	2,347	2,416	-45.3	-43.7
Number of Units	10	14	13	-23.1	-28.6
Residential-Multi Family					
Dollar Value (\$000)	0	0	0	—	—
Number of Units	0	0	0	—	—
Total Construction (\$000)	1,322	2,347	2,416	-45.3	-43.7
<b>LAWTON MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	40,820	41,630	41,853	-2.5	-1.9
Total Employment	39,583	40,340	40,390	-2.0	-1.9
Unemployment Rate (%)	3.0	3.1	3.5	—	—
Wage and Salary Employment	38,733	38,867	39,133	-1.0	-0.3
Wholesale and Retail Trade	8,967	8,967	9,367	-4.3	0.0
Manufacturing	3,800	3,800	3,800	0.0	0.0
<b>Permit-Authorized Construction</b>					
Residential-Single Family					
Dollar Value (\$000)	3,094	2,892	4,870	-36.5	7.0
Number of Units	26	24	46	-43.5	8.3
Residential-Multi Family					
Dollar Value (\$000)	0	64	0	—	—
Number of Units	0	2	0	—	—
Total Construction (\$000)	3,094	2,956	4,870	-36.5	4.7
<b>MUSKOGEE MA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	33,243	33,450	32,637	1.9	-0.6
Total Employment	32,060	32,027	31,390	2.1	0.1
Unemployment Rate (%)	3.6	3.7	3.8	—	—
<b>Water Transportation</b>					
Port of Muskogee					
Tons In	77,784	82,583	48,576	60.1	-5.8
Tons Out	22,382	14,939	45,890	-51.2	49.8

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.

E = Exceeds 600 percent.

## TULSA MSA

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
<b>TULSA MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	415,307	421,700	421,957	-1.6	-1.5
Total Employment	404,620	410,017	409,060	-1.1	-1.3
Unemployment Rate (%)	2.6	2.8	3.1	—	—
Wage and Salary Employment	407,500	406,800	399,600	2.0	0.2
Manufacturing	55,233	55,167	55,100	0.2	0.1
Mining	7,033	7,167	7,133	-1.4	-1.9
Government	46,567	45,500	44,433	4.8	2.3
Wholesale and Retail Trade	95,733	94,267	95,867	-0.1	1.6
<b>Average Weekly Earnings</b>					
Manufacturing (\$ Per Worker)	650.39	609.06	577.72	12.6	6.8
<b>Air Transportation</b>					
Passengers Enplaning (Number)	431,081	450,881	437,157	-1.4	-4.4
Passengers Deplaning (Number)	427,461	450,521	438,967	-2.6	-5.1
Freight (Tons)	13,331	12,940	13,441	-0.8	3.0
<b>Water Transportation</b>					
Tulsa Port of Catoosa					
Tons In	212,688	220,417	255,866	-16.9	-3.5
Tons Out	294,659	299,408	283,182	4.1	-1.6
<b>Permit-Authorized Construction</b>					
Residential-Single Family					
Dollar Value (\$000)	81,320	96,571	90,658	-10.3	-15.8
Number of Units	651	774	731	-10.9	-15.9
Residential-Multi Family					
Dollar Value (\$000)	293	12,217	17,906	-98.4	-97.6
Number of Units	7	248	371	-98.1	-97.2
Total Construction	81,613	108,788	108,564	-24.8	-25.0

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.

## OKLAHOMA CITY MSA

Category	4th Qtr '00	3rd Qtr '00	4th Qtr '99	Percentage Change	
				'00/'99 4th Qtr	4th Qtr '00 3rd Qtr '00
<b>OKLAHOMA CITY MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	561,463	563,893	558,873	0.5	-0.4
Total Employment	548,563	550,487	546,107	0.4	-0.3
Unemployment Rate (%)	2.3	2.3	2.3	—	—
Wage and Salary Employment	550,933	542,900	538,600	2.3	1.5
Manufacturing	54,933	55,067	56,367	-2.5	-0.2
Mining	6,800	6,467	6,167	10.3	5.1
Government	109,833	102,667	106,167	3.5	7.0
Wholesale and Retail Trade	129,033	128,167	127,267	1.4	0.7
<b>Average Weekly Earnings</b>					
Manufacturing (\$ Per Worker)	621.93	638.20	632.45	-1.7	-2.5
<b>Air Transportation</b>					
Passengers Enplaning (Number)	436,188	449,058	410,452	6.3	-2.9
Passengers Deplaning (Number)	424,849	455,306	419,427	1.3	-6.7
Freight Enplaned (Tons)	4,419	5,214	5,796	-23.8	-15.2
Freight Deplaned (Tons)	6,170	6,662	6,833	-9.7	-7.4
<b>Permit-Authorized Construction</b>					
Residential-Single Family					
Dollar Value (\$000)	84,602	120,983	119,664	-29.3	-30.1
Number of Units	666	1,029	1,035	-35.7	-35.3
Residential-Multi Family					
Dollar Value (\$000)	1,667	5,889	1,057	57.7	-71.7
Number of Units	32	112	20	60.0	-71.4
Total Construction (\$000)	86,269	126,872	120,721	-28.5	-32.0

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.

## SELECTED INDICATORS FOR OKLAHOMA

Category	2000	1999	Percentage Change '00/'99
Crude Oil Production (000 bbl) <sup>a</sup>	68,757	71,235	-3.5
Natural Gas Production (000 mcf) <sup>a</sup>	1,607,758	1,629,698	-1.3
Rig Count (Average)	91	62	46.8
Initial Unemployment Claims	80,869	99,544	-18.8
<b>Permit-Authorized Construction</b>			
Residential Single Family			
Dollar Value (\$000)	960,134	1,133,659	-15.3
Number of Units	7,797	9,592	-18.7
Residential-Multi Family			
Dollar Value (\$000)	94,384	130,786	-27.8
Number of Units	1,937	2,615	-25.9
Total Construction (\$000)	1,054,518	1,264,445	-16.6
<b>Employment</b>			
Total Labor Force (000) <sup>b</sup>	1,653.0	1,647.6	0.3
Total Employment (000)	1,602.7	1,590.9	0.7
Unemployment Rate (%)	3.0	3.4	—
Wage and Salary Employment (000)			
Manufacturing	182,208	183,800	-0.9
Mining	28,817	28,608	0.7
Government	288,075	282,583	1.9
Contract Construction	60,625	58,392	3.8
Services	424,733	416,292	2.0
Retail Trade	273,008	268,675	1.6
<b>Average Weekly Hours (Per Worker)</b>			
Manufacturing	40.9	41.3	-1.0
<b>Average Weekly Earnings (\$ Per Worker)</b>			
Manufacturing	538.84	524.45	2.7
Contract Construction	578.45	554.84	4.3

Note: Includes revisions in some previous months.

<sup>a</sup>Crude oil includes condensate. Natural gas includes casinghead gas. Includes eleven months of data for 1998 and 1997.

<sup>b</sup>Civilian Labor Force. Labor Force employment and unemployment rate refer to place of residence.

## ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE

Category	2000	1999	Percentage Change '00/'99
<b>OKLAHOMA CITY MSA</b>			
<b>Durable Goods</b>	2,226,486,602	2,195,745,200	1.4
Lumber, Bldg. Mat. & Hardware	656,722,559	696,427,808	-5.7
Auto Accessories and Repair	357,803,043	353,766,473	1.1
Furniture	297,116,715	272,912,660	8.9
Computer, Electronics and Music Stores	367,984,350	342,650,224	7.4
Miscellaneous Durables	478,791,431	444,397,869	7.7
Used Merchandise	68,068,506	85,590,166	-20.5
<b>Nondurable Goods</b>	5,934,461,341	5,556,694,103	6.8
General Merchandise	1,873,885,938	1,653,332,996	13.3
Food Stores	1,245,401,534	1,336,455,269	-6.8
Apparel	388,561,466	369,850,549	5.1
Eating and Drinking Places	1,104,908,893	1,101,697,078	0.3
Drug Stores	158,140,964	146,868,799	7.7
Liquor Stores	72,469,309	68,026,052	6.5
Miscellaneous Nondurables	329,609,640	290,491,522	13.5
Gasoline	761,483,597	589,971,838	29.1
<b>Total Retail Trade</b>	<b>8,160,947,943</b>	<b>7,752,439,303</b>	<b>5.3</b>
<b>TULSA MSA</b>			
<b>Durable Goods</b>	1,820,208,092	1,756,346,169	3.6
Lumber, Bldg. Mat. & Hardware	497,695,129	494,393,882	0.7
Auto Accessories and Repair	249,366,830	245,062,700	1.8
Furniture	214,040,128	205,893,046	4.0
Computer, Electronics and Music Stores	419,664,766	403,251,801	4.1
Miscellaneous Durables	386,193,654	340,975,799	13.3
Used Merchandise	53,247,585	66,768,941	-20.3
<b>Nondurable Goods</b>	4,454,535,120	4,235,112,615	5.2
General Merchandise	1,375,883,490	1,308,221,198	5.2
Food Stores	995,707,809	1,012,727,118	-1.7
Apparel	300,882,340	308,535,226	-2.5
Eating and Drinking Places	805,212,574	774,593,993	4.0
Drug Stores	113,267,354	105,909,083	6.9
Liquor Stores	59,746,065	56,906,690	5.0
Miscellaneous Nondurables	240,873,321	232,055,131	3.8
Gasoline	562,962,167	436,164,176	29.1
<b>Total Retail Trade</b>	<b>6,274,743,211</b>	<b>5,991,458,784</b>	<b>4.7</b>
<b>ENID MSA</b>			
<b>Durable Goods</b>	92,554,910	94,352,321	-1.9
Lumber, Bldg. Mat. & Hardware	30,771,488	32,977,064	-6.7
Auto Accessories and Repair	20,849,503	18,556,839	12.4
Furniture	7,595,368	7,895,444	-3.8
Computer, Electronics and Music Stores	8,677,056	9,381,622	-7.5
Miscellaneous Durables	21,668,498	19,683,543	10.1
Used Merchandise	2,992,996	5,857,810	-48.9

## ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE

Category	2000	1999	Percentage Change '00/'99
<b>ENID MSA (continued)</b>			
<b>Nondurable Goods</b>	326,035,981	311,547,420	4.7
General Merchandise	106,493,248	104,182,007	2.2
Food Stores	84,015,647	84,277,065	-0.3
Apparel	16,669,145	13,035,196	27.9
Eating and Drinking Places	47,796,452	50,605,301	-5.6
Drug Stores	9,726,532	8,359,035	16.4
Liquor Stores	2,905,527	2,723,078	6.7
Miscellaneous Nondurables	16,688,673	16,026,490	4.1
Gasoline	41,740,757	32,339,248	29.1
<b>Total Retail Trade</b>	<b>418,590,891</b>	<b>405,899,741</b>	<b>3.1</b>
<b>LAWTON MSA</b>			
<b>Durable Goods</b>	120,324,323	128,612,901	-6.4
Lumber, Bldg. Mat. & Hardware	33,027,274	40,015,801	-17.5
Auto Accessories and Repair	23,160,284	23,521,834	-1.5
Furniture	13,327,845	15,915,979	-16.3
Computer, Electronics and Music Stores	14,387,316	14,348,179	0.3
Miscellaneous Durables	33,099,461	28,803,508	14.9
Used Merchandise	3,322,144	6,007,599	-44.7
<b>Nondurable Goods</b>	499,743,836	483,778,066	3.3
General Merchandise	223,630,326	220,298,518	1.5
Food Stores	80,822,227	80,535,658	0.4
Apparel	22,937,099	22,851,805	0.4
Eating and Drinking Places	88,100,940	88,334,299	-0.3
Drug Stores	7,473,035	7,311,972	2.2
Liquor Stores	2,834,132	2,895,759	-2.1
Miscellaneous Nondurables	20,895,780	20,448,552	2.2
Gasoline	53,050,299	41,101,502	29.1
<b>Total Retail Trade</b>	<b>620,068,160</b>	<b>612,390,967</b>	<b>1.3</b>
<b>OKLAHOMA</b>			
<b>Durable Goods</b>	6,041,718,915	6,011,913,238	0.5
Lumber, Bldg. Mat. & Hardware	1,887,112,261	1,947,114,116	-3.1
Auto Accessories and Repair	1,081,567,662	1,048,789,357	3.1
Furniture	685,535,410	667,365,143	2.7
Computer, Electronics and Music Stores	1,027,880,935	1,044,998,696	-1.6
Miscellaneous Durables	1,184,119,457	1,077,358,771	9.9
Used Merchandise	175,503,191	226,287,156	-22.4
<b>Nondurable Goods</b>	17,779,755,717	16,938,215,487	5.0
General Merchandise	5,617,486,334	5,450,130,121	3.1
Food Stores	4,278,364,570	4,347,711,684	-1.6
Apparel	939,201,510	908,238,343	3.4
Eating and Drinking Places	3,030,342,208	2,946,731,480	2.8
Drug Stores	367,568,245	353,602,234	3.9
Liquor Stores	188,707,885	180,510,721	4.5
Miscellaneous Nondurables	890,683,612	839,630,163	6.1
Gasoline	2,467,401,354	1,911,660,741	29.1
<b>Total Retail Trade</b>	<b>23,821,474,632</b>	<b>22,950,128,725</b>	<b>3.8</b>

## ADJUSTED RETAIL TRADE IN SELECTED CITIES

Category	2000	1999	Percentage Change '00/'99
Ada	205,484,374	194,738,697	5.5
Altus	165,627,385	163,508,739	1.3
Alva	52,070,062	49,802,814	4.6
Anadarko	53,849,463	52,287,601	3.0
Ardmore	287,788,185	279,092,602	3.1
Bartlesville	361,668,831	350,107,293	3.3
Blackwell	41,025,187	40,458,030	1.4
Broken Arrow	445,428,257	415,336,264	7.2
Chickasha	137,018,309	127,325,355	7.6
Clinton	82,497,719	69,100,865	19.4
Cushing	54,452,740	53,645,965	1.5
Del City	118,781,283	115,164,775	3.1
Duncan	173,096,879	162,488,735	6.5
Durant	136,023,716	128,198,497	6.1
Edmond	580,633,913	543,245,071	6.9
El Reno	105,960,980	100,022,534	5.9
Elk City	119,216,426	109,320,158	9.1
Enid	388,780,698	383,804,832	1.3
Guthrie	74,877,807	71,869,849	4.2
Guymon	87,803,971	82,955,977	5.8
Henryetta	46,297,715	44,549,258	3.9
Hobart	23,167,922	22,388,129	3.5
Holdenville	32,480,166	30,944,101	5.0
Hugo	53,327,224	51,425,639	3.7
Idabel	62,267,550	60,586,644	2.8
Lawton	641,492,007	571,966,198	12.2
McAlester	233,251,528	220,384,687	5.8
Miami	107,759,108	105,530,832	2.1
Midwest City	512,400,828	511,274,819	0.2
Moore	242,045,497	247,367,162	-2.2
Muskogee	417,020,015	397,271,596	5.0
Norman	818,549,488	758,178,163	8.0
Oklahoma City	4,470,532,308	4,194,805,812	6.6
Okmulgee	123,018,357	119,933,272	2.6
Pauls Valley	77,103,823	75,220,955	2.5
Pawhuska	18,688,263	17,503,798	6.8
Ponca City	249,808,224	242,118,676	3.2
Poteau	117,504,107	115,920,477	1.4
Sand Springs	176,063,658	172,956,360	1.8
Sapulpa	181,469,911	169,798,914	6.9
Seminole	72,857,843	65,828,498	10.7
Shawnee	328,610,164	313,879,590	4.7
Stillwater	394,332,759	365,021,951	8.0
Tahlequah	178,173,411	165,330,915	7.8
Tulsa	4,528,324,720	4,283,309,555	5.7
Watonga	20,930,664	19,238,162	8.8
Weatherford	95,750,528	93,449,887	2.5
Wewoka	11,813,072	11,616,415	1.7
Woodward	155,001,764	145,811,650	6.3
<b>Total Selected Cities</b>	<b>18,480,774,672</b>	<b>17,086,086,768</b>	<b>8.2</b>

## SELECTED INDICATORS FOR ENID AND LAWTON MSAs, MUSKOGEE MA

Category	2000	1999	Percentage Change '00/'99
<b>ENID MSA</b>			
<b>Employment (Number)</b>			
Labor Force <sup>a</sup>	26,757	27,386	-2.3
Total Employment	26,015	26,650	-2.4
Unemployment Rate (%)	2.8	3.0	—
Wage and Salary Employment	23,717	24,000	-1.2
Wholesale and Retail Trade	6,133	6,242	-1.7
Manufacturing	2,500	2,450	2.0
<b>Permit-Authorized Construction</b>			
Residential-Single Family			
Dollar Value (\$000)	8,828	11,528	-23.4
Number of Units	48	62	-22.6
Residential-Multi Family			
Dollar Value (\$000)	132	388	-66.0
Number of Units	4	12	-66.7
Total Construction (\$000)	8,960	11,916	-24.8
<b>LAWTON MSA</b>			
<b>Employment (Number)</b>			
Labor Force <sup>a</sup>	41,168	41,119	0.1
Total Employment	39,847	39,630	0.5
Unemployment Rate (%)	3.2	3.6	—
Wage and Salary Employment	38,817	38,508	0.8
Wholesale and Retail Trade	8,908	9,017	-1.2
Manufacturing	3,775	3,792	-0.4
<b>Permit-Authorized Construction</b>			
Residential-Single Family			
Dollar Value (\$000)	15,972	17,802	-10.3
Number of Units	132	162	-18.5
Residential-Multi Family			
Dollar Value (\$000)	64	229	-72.1
Number of Units	2	9	-77.8
Total Construction (\$000)	16,036	18,031	-11.1
<b>MUSKOGEE MA</b>			
<b>Employment (Number)</b>			
Labor Force <sup>a</sup>	33,040	32,198	2.6
Total Employment	31,791	30,823	3.1
Unemployment Rate (%)	3.8	4.3	—
<b>Water Transportation</b>			
Port of Muskogee			
Tons In	343,361	322,660	6.4
Tons Out	110,607	128,956	-14.2

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.

E = Exceeds 600 percent.

## SELECTED INDICATORS FOR TULSA MSA

Category	2000	1999	Percentage Change '00/'99
<b>Employment (Number)</b>			
Labor Force <sup>a</sup>	417,235	418,853	-0.4
Total Employment	405,565	405,323	0.1
Unemployment Rate (%)	2.8	3.3	—
Wage and Salary Employment	402,942	395,183	2.0
Manufacturing	54,992	55,883	-1.6
Mining	7,125	7,408	-3.8
Government	45,658	43,025	6.1
Wholesale and Retail Trade	93,967	92,517	1.6
<b>Average Weekly Earnings</b>			
Manufacturing (\$ Per Worker)	612.39	565.73	8.2
<b>Air Transportation</b>			
Passengers Enplaning (Number)	1,744,940	1,707,578	2.2
Passengers Deplaning (Number)	1,737,874	1,708,424	1.7
Freight (Tons)	52,368	51,420	1.8
<b>Water Transportation</b>			
Tulsa Port of Catoosa			
Tons In	994,663	1,048,733	-5.2
Tons Out	1,215,668	1,193,117	1.9
<b>Permit-Authorized Construction</b>			
Residential-Single Family			
Dollar Value (\$000)	393,170	426,030	-7.7
Number of Units	3,152	3,492	-9.7
Residential-Multi Family			
Dollar Value (\$000)	14,028	90,638	-84.5
Number of Units	295	1,678	-82.4
Total Construction	407,198	516,668	-21.2

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.

E = Exceeds 600 percent.

## SELECTED INDICATORS FOR OKLAHOMA CITY MSA

Category	2000	1999	Percentage Change '00/'99
<b>Employment (Number)</b>			
Labor Force <sup>a</sup>	558,234	549,730	1.5
Total Employment	545,011	535,651	1.7
Unemployment Rate (%)	2.3	2.6	—
Wage and Salary Employment	541,275	528,650	2.4
Manufacturing	54,875	55,825	-1.7
Mining	6,458	6,250	3.3
Government	106,425	103,608	2.7
Wholesale and Retail Trade	127,008	123,842	2.6
<b>Average Weekly Earnings</b>			
Manufacturing (\$ Per Worker)	622.09	589.72	5.5
<b>Air Transportation</b>			
Passengers Enplaning (Number)	1,743,661	1,703,535	2.4
Passengers Deplaning (Number)	1,738,128	1,713,508	1.4
Freight Enplaned (Tons)	20,918	21,781	-4.0
Freight Deplaned (Tons)	26,257	25,860	1.5
<b>Permit-Authorized Construction</b>			
Residential-Single Family			
Dollar Value (\$000)	475,510	610,300	-22.1
Number of Units	3,861	5,205	-25.8
Residential-Multi Family			
Dollar Value (\$000)	62,495	30,755	103.2
Number of Units	1,218	744	63.7
Total Construction (\$000)	538,005	641,055	-16.1

Note: Includes revisions.

<sup>a</sup>Civilian Labor Force.