

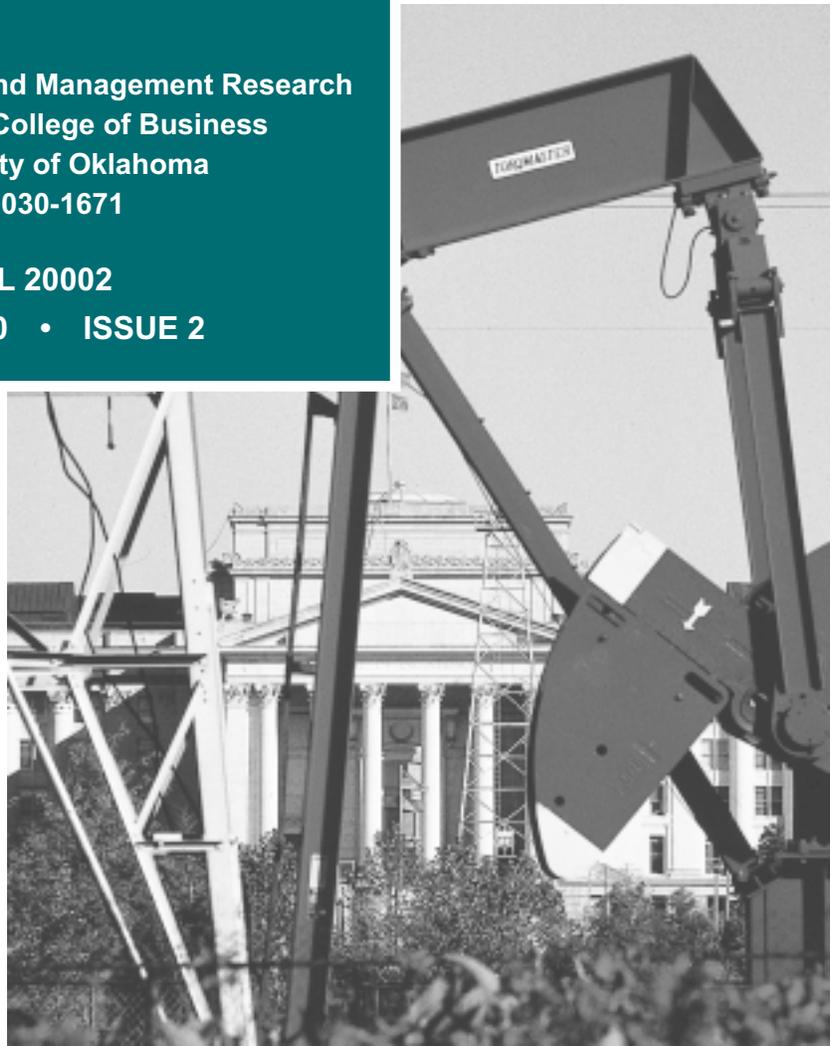


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Volume 70, Number 2

April 2002

Articles

Business Highlights	1
<i>Robert C. Dauffenbach</i>	
Increasing Oklahoma's Competitiveness in the New/Global Economy: An Assessment	7
<i>Larkin Warner and Robert C. Dauffenbach</i>	

Tables

Quarterly

Selected Indicators	21
General Business Index	21
Retail Trade in Metro Areas and State	22
Retail Trade in Selected Cities	24
Metropolitan Area Data	
Enid and Lawton MSAs, Muskogee MA	25
Tulsa	26
Oklahoma City	27

Annual

Selected Indicators	35
Retail Trade in Metro Areas and State	36
Retail Trade in Selected Cities	38
Metropolitan Area Data	
Enid and Lawton MSAs, Muskogee MA	39
Tulsa	40
Oklahoma City	41

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 April/July 2000 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 72nd year of publication. Please send papers to:

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Thank you.

**The Center for Economic and
Management Research**

Business Highlights

by Robert C. Dauffenbach

National Scene

Signs of a rebound in national economic activity abound on a variety of fronts: growth in real GDP, industrial production, employment, retail trade, consumer confidence, factory orders, inventories, housing and construction. Real Gross Domestic Product (GDP) increased at an annual rate of 1.7 percent in the final quarter of 2001. It had contracted by 1.3 percent in the third quarter of 2001. While the US economy is officially in recession, this may well prove to be one of the shortest recessions on record. Typically, but not necessarily, a recession involves two or more quarters of declining real output. The late 2001 experience certainly does not fit that mold. And, there is talk that the first quarter of 2002 may produce anywhere between 3.5 and 5.0 percent annualized real GDP growth.

Industrial production rose by 0.4 percent in February 2002. It also rose in January by 0.2 percent. These are the first back-to-back increases in industrial production since August and September 2000, a rather long dry spell. Still, there is a long way to go in that even with the recent increases, industrial production is still 4.1 percent below the February 2001 level and 6.5 percent below the peak recorded in June 2000.

The unemployment rate has been steady recently, varying between 5.5 and 5.7 percent. This stability is not a sign of continuing problems in the labor market. The closely watched industry payroll employment numbers rose by 58,000 in March, in marked contrast to declines averaging 144,000 per month over the March 2001 through

January 2002 period. While labor market conditions may have bottomed, the US economy is still 1.9 million jobs short of peak levels. Not that long ago many economists believed that a 6.0 percent rate of unemployment was the non-accelerating inflation rate of unemployment, or NAIRU. In other words, NAIRU is that rate of unemployment necessary to keep the rate of inflation from rising. At this juncture we may have traversed a recession without even surpassing the 6.0 percent rate.

Despite obvious weakness in the national economy, recent retail sales figures demonstrate that the consumer has remained quite active. Total sales were up 2.5 percent in February from year ago levels. Auto sales were up 2.6 percent and general merchandise sales were up about 7.0 percent. Keeping the consumer in the game has been a focal point of public policy, and this strategy appears to have worked well.

Consumer confidence vaulted upward in March, the University of Michigan reported, rising to 95.7 from 90.7 in February. This is the highest level recorded since December 2000. This increase was felt to be a consequence of consumers recognizing that the pace of economic growth would be sufficient to restore favorable job prospects.

New orders for durable goods, a closely watched indicator, increased by 2.7 billion, or 1.5 percent, to \$179.4 billion in February, the third consecutive increase. Still, durable goods orders were 4.6 percent below year ago levels. Inventories of durable goods are still trending downward, as they have for 13 months in a row. This is viewed as a good sign because manufacturers will soon have to start rebuilding these inventories to meet product

demand. Total business inventories to sales ratios, also an inverse indicator of economic conditions, fell dramatically from late 2001 levels, from 1.45 to 1.38. This is another sign in support of a need for businesses to soon begin restocking shelves.

On the construction front, building permits for privately-owned housing units recorded a one-month increase of 2.0 percent in February and were 5.0 percent higher than year ago levels. The adjusted annual rate of one and three-quarters million units is an astoundingly high number for an economy in recession. The demand for housing remains quite high and has been very instrumental in keeping the recession from worsening. Starts for single-family housing units are up a full 9.0 percentage points from high year ago levels. Low interest rates are undoubtedly a motivating factor. But, a rather mild winter may have been a factor, as well.

In this recession, such as it is, manufacturing has been a particularly troublesome sector. Certainly a hopeful sign has been the upturn in the Purchasing Managers Index or PMI. Now standing at 55.6 percent, this indicator has increased two months in a row. Values above 50 are evidence of economic expansion. This indicator is but one of many compiled by the Institute for Supply Management, formerly known as the Purchasing Managers Association. They also tabulate indices for new orders, supplier deliveries, employment, inventories, and imports and exports. Wall Street and public policymakers closely follow these indicators, especially the PMI. Indeed, it is one of the most closely followed indicators of economic activity. The Institute also produces a non-manufacturing (primarily Services) indicator, which, incidentally, rose to 57.3 percent in March. Readers are referred to the web site www.ism.ws for more information.

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 40 years. Many of the variables discussed above are examples of the types of variables that are included in the Price College Indicators.

In the July report of the *Oklahoma Business Bulletin*, we noted the following:

Presently, using the most recently available data through May, the PCI for the national economy is yielding anything but sanguine results. The index has continued to slip to the 26 level in April, but upticked slightly to 27 in May. By comparison, the lowest reading in the 1990-91 recession was 16. In the severe 1981-82 recession, a reading of only 6 was recorded. Consequently, the economy appears to be skirting recessionary readings at this time. Still, a reading of 27 is quite low by recent experience. This time last year, the reading was 50, indicating a continuation of present employment growth rates. From that time, the index has declined consistently to present levels.

Subsequent data revisions place the PCI for the national economy at 29 in April and May 2001. The PCI fell a little further to 25 in June, its low point, and a trough that is significantly higher than the low of 16 for the mild 1990-91 recession. From that juncture, and especially as a consequence of the September 11th attack on America, the nation is now known to have slipped into recession. Had it not been for that dastardly act, it is quite likely that the National Bureau of Economic Analysis, the final arbiter of recessions, would not have made their call.

Table I shows the PCI for national employment, the core rate of inflation, Oklahoma employment, and the two major Oklahoma Metropolitan Statistical Areas (MSAs) for the period 2000:1 – 2002:2.

Table I
Price College Indicators

Year:Mth	Natl. PCI	Inflation	OK PCI	OKC PCI	Tul PCI
2000:01	52	56	55	56	60
2000:02	54	56	57	58	62
2000:03	52	58	56	57	61
2000:04	51	59	54	57	62
2000:05	51	59	55	59	62
2000:06	53	58	59	62	65
2000:07	51	57	57	58	63
2000:08	50	56	54	53	61
2000:09	49	55	49	49	58
2000:10	49	53	46	48	56
2000:11	49	51	44	48	55
2000:12	45	49	38	43	49
2001:01	39	49	32	39	45
2001:02	32	47	25	33	39
2001:03	30	45	22	29	35
2001:04	29	41	21	26	32
2001:05	29	41	22	24	31
2001:06	25	38	17	19	27
2001:07	26	36	16	17	25
2001:08	28	34	14	15	22
2001:09	29	31	11	13	21
2001:10	28	28	11	13	20
2001:11	28	25	9	11	18
2001:12	32	24	16	15	19
2002:01	38	22	17	19	20
2002:02	42	22	21	22	23

If one is inclined to call current economic maladies a recession, then by the PCI for the national economy it appears that trouble for the national economy began in earnest in January 2001 when the indicator slipped 11 points off the neutral reading. By March, the date the National Bureau of Economic Research selected for the start of the recession, the PCI had slipped another nine points. This, of course, illustrates the predictive power of the PCIs in foreshadowing tough economic times.

The PCI for the national economy has clearly bottomed out and is showing distinct signs of

turning upward in the most recent data available. On the inflation front, the indicator continues to fall, providing even more evidence that inflation is not a problem for policy makers. It is good that it isn't. Otherwise, the Fed would not have been able to pursue its highly expansionary policies through high rates of growth in the money supply leading to low rates of interest.

Unfortunately, the PCIs for Oklahoma and its two major metro areas are only beginning to show signs of bottoming out. Furthermore, the Oklahoma indicators have reached levels significantly below

those of the national economy. Typically, the Oklahoma economy is somewhat of a laggard in relation to the national economy. That is, the Oklahoma economy tends to heat-up only after signs are prevalent that the national economy is in a strong expansionary period. In recession, the Oklahoma economy cools-down at a slower rate than the national economy. There is hope that that is what is happening now and that Oklahoma and its two major metro areas will soon experience a more substantial recovery.

Forecasts

The PCIs provide a mechanism for forecasts of the underlying variables. Table II provides some historical data and shows the forecasts for 2002 and 2003. The values are for the ending month, December, of each year.

As noted in Table II, employment gains nationally are forecast to end the year only slightly ahead of year ago levels. Only about a 205,000 increase in national payroll employment (Establishment Survey) is anticipated. Inflation, at the core level, which excludes energy and food, is expected to be mild in 2002, rising only 1.5 percent. Inflation is expected to rise at a somewhat higher rate in 2003, 2.3 percent. Oklahoma employment is expected to rise

by about 12,000 in 2002. Growth in jobs in 2003 should accelerate to a 35,000 gain, or 2.3 percent. Oklahoma City employment gains are minor in 2002, but in 2003 growth at 1.8 percent and 2.4 percent rates are anticipated. If evidence of an even faster pace of recovery nationally becomes apparent, these forecasts, particularly for this year, should prove to be on the conservative side.

Conclusion

With all of the signs of a rebound in the US economy, it is clear that it wasn't much of a recession. It would not surprise me if the economists at the National Bureau of Economic Research were not now busy studying the data for confirmation of the recession's end. With the US economy poised to show strong annualized growth in the first quarter of 2002, the pressures are mounting for them to call the recession's end. They are faced with a problem: They have to date the recession's trough sometime after September. As noted, without that month's events, it is unlikely that they would have called the downturn a recession. My guess is that it will eventually be said that the recession ended in November, possibly December. That would make the recession an eight- to nine-month affair, and within the range of nine to 15 months of the typical length of recessions.

Table II
PCI-based Forecasts of Employment and Inflation*

Year	National Employment	Core Rate Inflation	Oklahoma Employment	OKC Employment	Tulsa Employment
1998	127,286	175	1,455	523	397
1999	130,365	179	1,470	535	398
2000	132,367	183	1,501	543	407
2001	131,321	188	1,512	541	407
2002	131,526	191	1,524	543	408
2003	132,760	195	1,559	553	418

*Employment numbers are in thousands.

While the recession may be over, the problems with the economy are not. We are still faced with a stock market where corporate earnings dramatically need to catch-up with stock valuations. Because the stock market is now such an important factor in household wealth, any appreciable decline in the stock market could have negative consequences for consumer confidence. Any more Enrons would certainly be a problem. We are still faced with high levels of consumer debt and throughout this ordeal households have continued to rack up debt. Consumer credit expanded at a 5.0 percent annual rate in February. Debt loads have expanded by better than one-third since 1997. How long the consumer can remain in the game remains in question. Yet, all past concerns about consumer resilience have not proven valid, and this one probably won't either. We love to spend.

While the recession may be over, simply because the consumer has stayed in the game and construction spending has been so strong, the typical factors that rocket the economy out of recession are not to be relied upon this time. Watch business investment for signs that this recovery has strong or weak legs.

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

Increasing Oklahoma's Competitiveness in the New/Global Economy: An Assessment

by Larkin Warner and Robert C. Dauffenbach

HOW DOES OKLAHOMA STACK UP AS A "New Economy" state? The purpose of this section is to provide an introductory assessment based on a selection of frequently cited studies comparing U.S. states and metropolitan areas with respect to various characteristics related to high-technology driven economic growth.

Studies which rate and/or rank states and areas are of interest to Oklahoma policymakers for two basic reasons. First, frequently-cited studies help establish an image for the state which, whether fair and accurate or not, plays an important role in site-selection screening decisions of entrepreneurs otherwise unfamiliar with the state. In fact, state image is also important for existing business managers within Oklahoma who may determine that the grass is greener on the other side of the state line fence.

Second, comparative studies suggest actual strengths and weaknesses in the state's economic environment. This provides a basis for attempting to remedy deficiencies. It also facilitates development strategies to expand sectors with an established record of comparative advantage. A practical motto often heard today in Oklahoma was probably derived from hard working farm folk: "If it ain't broke, don't fix it." Unfortunately, sometimes this gets translated into acceptance of sub-par quality. "If it ain't broke, don't fix it up." While interstate comparisons of New Economy status may not lead to a conclusion that major elements are seriously "broke," our current status and trends during the 1990s indicate that some things really need fixing up.

The New Economy as a Paradigm Shift

As the period 1993-2000 developed there were an increasing number of observers who asserted that a paradigm shift was occurring involving the basic structure of American economic growth. The U.S. economy was growing almost half again as fast as it had during 1973-93. The 2001 *Economic Report of the President* (the last of the Clinton administration) pointed to rapid productivity growth, low inflation and unemployment, federal budget surpluses, and U.S. dominance among industrial economies as evidence of this paradigm shift.¹ This improved performance was expected to be sustainable because of major structural shifts including computer-based technological change, deregulation of domestic business, and liberalization of the international economy including the collapse of communism and hard-core socialism.²

There were, of course, dissenters who argued that what was being labeled a paradigm shift was nothing more than a burst of rapid development in a limited sphere of computer hardware, peripherals, and telecommunications.³ Developments during the early months of 2001 appeared to justify the proposition that there was excessive investment in these New Economy sectors. There is, however, a wide consensus that the slowdown of 2001 is only temporary and that there will be a return to the growth patterns characterizing the economy during 1993-2000. Acceptance of this consensus is implicit in the balance of this report.

The New Economy's Leading Industries

Given the reality of the New Economy paradigm, what can be said specifically about the industries that are leading forces in this development? These are generally referred to as "high-technology" industries, though there is certainly no uniformly accepted definition of high-tech, and some of the industries classified as high-tech are certainly not new. Moreover, the use of computers and information technology, which are viewed as the bellwether components of the New Economy, are virtually ubiquitous throughout the nation's economy. Even "Old Economy" industries such as retailing and oil and gas production are experiencing dramatic change due to computers and information technology.⁴

Bureau of Labor Statistics Approach

Given the difficulties of specification, it is nevertheless useful to try to identify the New Economy by starting with an attempt to specify high-technology industries. One of the more widely cited sources of a high-technology definition is the U.S. Department of Labor's Bureau of Labor Statistics (BLS).⁵ The core of high-tech is identified by the BLS as consisting of a set of 29 industries, classified by their three-digit Standard Industrial Classification (SIC) codes. These industries have relatively high total shares of employment of persons in occupations classified as scientific, technical, and engineering (STE). They also report relatively high proportions of employment involving STE personnel engaged in research and development. Industries are included if these two relative shares are at least twice the average share in all industries (Table 2-1). A subset includes 10 industries, labeled "high-technology intensive," which have STE employment shares at least five times the national average.

The BLS estimated that total direct employment in high-tech industries in the U.S. in 1996 was 9.3 million. Another 7.1 million workers were estimated to be found in industries supplying the high-tech industries and in technology-oriented occupa-

tions not in high-tech industries or their suppliers. At 16.4 million employees, this generalized high-tech component accounted for 13.8 percent of total national employment in 1996, but was expected to account for 32 percent of employment growth between 1996 and 2006.

Not only is the New Economy as specified by high-technology employment responsible for an increasing share of economic activity, high-technology jobs are also high-income jobs (Table 2-1). This reflects the productivity of high-technology workers and results indirectly from the extensive skill and educational levels of persons categorized as engineers; life and physical scientists; mathematical specialists; engineering and life sciences technicians; computer specialists; and engineering, scientific, and computer managers. The workforces of high-technology industries typically embody substantial investment in human capital.

Oklahoma's High Technology Employment

How does Oklahoma stack up as a high-technology state as defined by the SIC codes of Table 2-1? The County Business Patterns data prepared by the U.S. Census Bureau provides a source of detailed employment data for both the nation and for individual states.⁶ Using that data set for 1997, it is possible to identify the degree of technology intensiveness for Oklahoma and to specify the comparative extent of Oklahoma's participation in the various high-technology industries. Nationwide, 8.7 percent of total employment occurred directly in the high-technology industries identified by the SIC codes of Table 2-1; the share for Oklahoma was 7.1 percent. The gap between the national and the Oklahoma high-technology shares was almost entirely due to the fact that Oklahoma had relatively fewer jobs in the ten sectors identified by the BLS as "high technology intensive." Nationally, those ten sectors accounted for 4.2 percent of total employment, while they accounted for only 2.8 percent in Oklahoma. The state's share in the 19 "other high technology" sectors (4.4 percent) was virtually identical to their share nationally (4.5 percent).

Table 2-1

**High Technology Industries
Employment and Earnings
U.S., 1996-97**

<i>SIC Code</i>	<i>Industry</i>	<i>Nonfarm Employment 1996, (000)</i>	<i>Median Annual Wage in 1997 (\$)</i>
	Total nonfarm wage and salary employment	118,731	22,734
	Total, high-technology	16,366	
	High-technology industries	9,307	
	High-technology intensive industries	4,549	
281,6	Industrial chemicals	263	40,976
283	Drugs	259	31,886
357	Computer and office equipment	363	37,960
366	Communications equipment	269	29,494
367	Electronic components and accessories	610	26,187
372,6	Aerospace	550	38,292
381	Search and navigation equipment	161	42,661
382	Measuring and controlling devices	297	30,306
737	Computer and data processing services	1,208	40,602
873	Research, development, and testing services	569	34,882
	Other high-technology industries	4,758	
282	Plastic materials and synthetics	159	34,320
284	Soaps, cleaners, and toilet goods	154	26,998
285	Paint and allied products	53	28,350
287	Agricultural chemicals	52	31,824
289	Miscellaneous chemical products	93	29,661
291	Petroleum refining	100	43,202
348	Ordnance and accessories	48	27,248
351	Engines and turbines	84	32,885
353	Construction and related machinery	232	27,248
355	Special industrial machinery	177	30,472
356	General industrial machinery	257	28,392
361	Electric distribution equipment	82	24,315
362	Electrical industrial apparatus	156	23,941
365	Household audio and video equipment	83	23,546
371	Motor vehicles and equipment	963	36,878
384	Medical equipment, instruments	268	26,562
386	Photographic equipment and supplies	85	31,658
871	Engineering and architectural services	839	38,210
874	Management and public relations services	873	31,970
	Employment in non high-technology industries generated by purchases of high-technology industries	4,856	
	Employment in technology-oriented occupations, but not in high-tech industries or in generated employment	2,203	

Source: Daniel Hecker, "High-technology employment: a broader view," *Monthly Labor Review*, June 1999, p. 20.

Economists, planners, and geographers use the concept of *location quotient* to identify industries in a state that appear to be particularly strong and well-placed to export goods or provide services out of the region. Industries are identified with employment shares of total state employment that are above, equal to, or below the comparable national employment share. The *location quotient* is simply the industry's percentage share of employment within the state divided by the percentage share of that industry nationally. A quotient greater than one indicates an industry likely to be exporting out of the state; a quotient less than one suggests that the state may be needing to import the product or service of that SIC category. For example, in 1996, employment in communications equipment manufacturing (SIC 366) in Oklahoma accounted for 0.507 percent of total state employment, but only 0.249 percent nationally—resulting in a location quotient of 2.038. With nearly 5,000 employees in 1997, Lucent Technologies in Oklahoma City was a major reason for this high location quotient.⁷ Additional high-technology Oklahoma industries with location quotients greater than one in 1997 were:

Aerospace	1.004
Agricultural chemicals	1.633
Petroleum refining	2.313
Ordnance and accessories	2.406
Engines and turbines	1.632
Construction machinery	3.612
General industrial machinery	2.054
Household audio and video equipment	1.682
Motor vehicles & equipment	1.053
Photographic equipment and supplies	1.410

These may be viewed tentatively as Oklahoma high-technology sectors that have exhibited comparative advantage, i.e. the state appears to offer a favorable environment in which to locate the industries' facilities.

Eighteen of the Oklahoma high-technology industries listed in Table 2-1 had 1997 location quotients less than one--indicating (again tentatively) a lack of comparative advantage. The quotients were particularly low (less than 0.5) for the following "high-technology intensive" industries: industrial chemicals; drugs; electronics components

and accessories; search and navigation equipment; and research, development, and testing services, and for the following "other high-technology" industries: plastic materials and synthetics; soaps, cleaners, and toilet goods; miscellaneous chemical products; and medical equipment, instruments.

Oklahoma Per Capita Personal Income and the New Economy

In recent years, no single Oklahoma economic performance statistic has received as much emphasis as the state's relatively low per capita personal income (PCPI). Oklahoma's PCPI in 2000 was only 79 percent of the U.S. average and gave evidence of having slipped somewhat since 1993. One way of viewing this low PCPI is in the context of the New Economy paradigm. Although high-tech is not the only reason that a region may experience high income, the high-tech/high pay relation suggests a syllogism for Oklahoma.

A concentration of high-tech employment in a region will be associated with high PCPI.

Oklahoma has relatively low PCPI.

Therefore, Oklahoma's economic structure is not weighted heavily with high-tech activity.

In a 1998 study of the causes for Oklahoma's relatively low PCPI, researchers for Oklahoma 2000, Inc., compared the state with a set of 15 other states whose PCPIs were growing at least 5 percentage points more rapidly than the U.S. measure during 1980-95. Based on the BLS definition, 10 of these 15 states exhibited a higher relative share of direct high-tech employment than Oklahoma in 1996.⁸ Oklahoma's PCPI performance would have been better if the high-tech sector had been more important.

Conclusions about the role of the New Economy in state development must be treated very tentatively. Five of the 15 rapid PCPI growth states had relatively smaller high-tech employment shares under the BLS definition than Oklahoma. This is a

reminder that the three-digit SIC codes used to identify high-tech industries rely on average STE employment shares. Some state-level installations may fall into the appropriate high-tech SIC, but may involve production-only manufacturing or services which do not require many STE personnel at the site. Moreover, comparative analysis is sensitive to how high-tech is defined. Other systems of classification mean different sizes of state high-tech sectors.

Oklahoma's Place in the New Economy: Major Nationwide Assessments

Seven of the more widely cited nationwide and regional assessments of the status of states and metropolitan areas in the New Economy (high-tech) are reviewed. In each case, Oklahoma's most and least favorable attributes are indicated. The reports were prepared by the Office of Technology Policy, the Progressive Policy Institute, the American Electronics Association, the Center for Digital Government, the University of Minnesota's Hubert Humphrey Institute of Public Affairs, the Milken Institute, and the Southern Growth Policies Board.

Office of Technology Policy (U.S. Department of Commerce)⁹

In a study published in June 2000, the Office of Technology Policy provided information on state and regional technology infrastructure for the 50 states plus the District of Columbia and Puerto Rico. Researchers created rankings for 37 variables thought to measure important dimensions of technology infrastructure. The variables were classified as related to five major categories of funding in-flows, human resources, capital investment and business assistance, technology intensity of the business base, and outcome measures. For those variables requiring a specification of high-tech industry, the study used an earlier version of the BLS industry codes discussed above.

No overall index of ratings was prepared. However, Oklahoma's performance in this rating

system is indicated by noting the number of variables by rank quintile, with the highest rankings treated as the first quintile.

First quintile	2 variables
Second quintile	5 variables
Third quintile	12 variables
Fourth quintile	11 variables
Fifth quintile	6 variables

Although there is no way of weighting the variables, it is noted that Oklahoma was ranked in the bottom two quintiles for 17 variables, while it ranked in the top two quintiles for only seven variables. (Oklahoma received no ranking for one of the variables for which data were not available, i.e. for National Assessment of Educational Progress in science test scores.)

Oklahoma ranked in the top quintile of the 50 states plus DC and Puerto Rico for two variables related to business formation and early-stage development. These included:

- Average annual amount of initial public offering funds per \$1,000 of gross state product, 1997-99 (rank: 7)
- Number of business incubators per 10,000 business establishments, 1998 (rank: 6)

For the following six variables, Oklahoma ranked in the fifth or bottom quintile.

- Expenditures for university-performed R&D per \$1,000 of GSP, 1997 (rank: 41)
- Federal obligations for R&D per \$1,000 of GSP, 1997 (rank: 42)
- Average number of Small Business Technology Transfer Program awards per 10,000 business establishments, 1996-98 (rank: 44)
- Net formation of technology intensive establishments per 10,000 business establishments, 1996 (rank: 41)
- Average annual earnings per job, 1997 (rank: 43)
- Per capita personal income, 1998 (rank: 45)

At the request of the Oklahoma Center for the Advancement of Science and Technology (OCAST) and with support from the Noble Foundation and the

Presbyterian Health Foundation, the University of Oklahoma's Center for Economic and Management Research developed time series for most of the 1997 variables in the Office of Technology Policy study. Data were usually collected back to 1990 and forward to 1999 or 2000 for Oklahoma and the United States. This permitted an examination of comparative trends with emphasis on identifying whether Oklahoma has been gaining or losing relative to national norms. Some of the variables had to be modified slightly to fit available data. Here are selected observations for the five headings into which the Office of Technology Policy variables were placed. Financial information was adjusted to eliminate the effects of inflation.

Funding Inflows

- *Total research and development expenditures per capita*—Oklahoma began the decade at 64.4 percent of the national norm and was positioned in 1999 at 70.8 percent.
- *Federal academic R&D expenditures per capita*—This variable grew more rapidly for Oklahoma than for the nation during 1990-99. Even with this catching up, the Oklahoma value was 45 percent of the national average in 1999.
- *State and local government R&D expenditures per capita*—Nationwide, this variable remained relatively constant during the decade of the 1990s. Oklahoma was far behind the nation in 1990, but well ahead in 1999—indicating expanded technology development commitment by the state.

Human Resources

- *Percent of adults 25 and over completing high school*—In 1990, three out of four adults were high school graduates both in Oklahoma and nationally. By the end of the decade the national average high school graduate share was 84.1 percent, while Oklahoma's share was two percentage points higher.

- *Percent of adults 25 and over with bachelor's degree or higher*—In 2000, about one-quarter (25.6 percent) of U.S. adults had a bachelor's degree or higher. This represented a gain of 5.3 percentage points during the 1990s. The share of Oklahoma's adult population with bachelor's degrees or above rose from 17.8 percent in 1990 to 22.5 percent in 2000—a gain of 4.7 percentage points.
- *Associate degrees as a percent of 18-24 year-old population*—With its extensive system of two-year colleges, Oklahoma reported a share nearly matching the national ratio throughout the decade, with both shares growing modestly.
- *Graduate student enrollment in science and engineering as a percent of 18-24 year-old population*—Nationwide, there was a slight increase in this share during 1990-2000, while Oklahoma's share declined slightly—ending the decade at 1.3 percent compared to the national share of 1.9 percent.

Capital Investment and Business Assistance

- *Small Business Investment Company funds disbursed per 1,000 population*—In the SBIC program, the federal Small Business Administration invests funds in small start-up businesses to fill the gap between needs and available venture capital. Both nationally and for Oklahoma, this variable grew substantially during the '90s, with Oklahoma close to zero as late as 1993. Rising to a level of \$8,000 in 1999, this program experienced a marked decline to only about \$1000 in 2000. This figure compares poorly to the \$16,000 level recorded nationally.
- *Initial public offering (IPO) funds per 1,000 employment*—There was an upward trend in this highly erratic variable during 1994-2000 both for Oklahoma and the nation, with Oklahoma matching the national performance in 1999 and 2000.

Technology Intensity of the Business Base

- *Percent of private employment in high technology industries*—In both Oklahoma and the nation, this variable stood at nearly 10 percent at the beginning of the decade. Nationwide, there was a very slight decline during the decade, while in Oklahoma the share dropped about 2 percentage points. (In order to obtain recent data, it was necessary to use the U.S. Department of Labor's nonfarm payroll series which is only roughly comparable to the County Business Patterns data mentioned previously.)
- *Payroll in high technology industries*—At the national level there was significant growth in this inflation adjusted variable—especially between 1994 and 1999. Oklahoma payroll in this sector was virtually unchanged during the decade, although it has risen slightly from recent mid 1990's weakness.

Outcome Measures

- *Number of patents per 10,000 business establishments*—This measure of invention intensity was virtually identical for Oklahoma and the nation in 1990. Between 1990 and 1998, the national trend for this variable was upward by 52.2 percent, while the Oklahoma trend was downward 24.6 percent. In 2000, the figure for Oklahoma was 74 while the national figure was 139.
- *Ratio of Oklahoma to U.S. average annual earnings per job*—The trend for this variable, 1990-2000 was steadily downward—dropping from 86 to 77 percent and indicating a failure of Oklahoma earnings to rise as rapidly as the national average.
- *Labor force participation rate*—This is a measure of the share of the population 16 and over that is economically active, i.e. is either at work or looking for work. During the halcyon days of the energy boom (1981-86) the Oklahoma participation rate matched or

was above the nationwide average. With the collapse of the boom, Oklahoma's rate dropped below the U.S. and in 2000 stood at 63 percent compared to the nation's 67 percent.

- *Ratio of Oklahoma to U.S. per capita personal income*—During the first four years of the period 1990-2000, Oklahoma's variable hovered around 83 percent. From 1993 through 2000, the variable declined from 83.3 percent to 79.2 percent—a drop of 4.1 percentage points.

Arguably the most important of the trend variables is immediately above, i.e. *Ratio of Oklahoma to U.S. per capita personal income*. Oklahoma's relative per capita income position slipped 4.1 percentage points during 1993-2000, reflecting the fact that the state's per capita income (not inflation-adjusted) grew 30.0 percent and the U.S. figure grew a more rapid 36.6 percent. At the same time, Oklahoma's nonfarm wage and salary employment grew about 19 percent—almost exactly the same rate as the employment expansion nationally.

The other trend variables derived from the Office of Technology Assessment study need to be interpreted within the context of these comparative income and employment trends. Obviously, the employment expansion in Oklahoma was not generating as great an increase in income as was the case nationally. This is consistent with the observations concerning the unfavorable comparative behavior of the two critical variables, *Percent of private employment in high technology industries* and *Payroll in high technology industries*. It is also consistent with the state's relatively low R&D expenditures per capita, falling labor force participation rate, failure to keep pace in patents granted, and falling relative position with respect to earnings per job.

Oklahoma's most positive trend variables relate to educational achievement, i.e. the higher than average high school attainment, the favorable position with respect to the incidence of people with associate degrees, and the tentative conclusion of catching up to the nation in percent of adults with baccalaureate degrees and above. Also positive is

the state's apparent commitment to increased state government spending on R&D. This, no doubt, reflects the commitments from the Oklahoma Center for the Advancement of Science and Technology and the use of state resources for R&D within the state's system of higher education.

The State New Economy Index¹⁰

The purpose of this 1999 study is to identify key differences in the structural foundations of state economies as they relate to the degree of adaptation to the New Economy. The research was undertaken by the Progressive Policy Institute, a spin-off of the centrist Democratic Leadership Council. State scores and rankings were reported for 17 variables related to the New Economy classified under five main categories: knowledge jobs, globalization, economic dynamism and competition, the transformation to a digital economy, and technological innovation capacity.

Overall state rankings were developed on the basis of a system of weighting the values for the 17 variables. Oklahoma ranked 40th among the 50 states, while Massachusetts and California were at the top of the distribution, and Arkansas and Mississippi were at the bottom. Oklahoma ranked particularly high—third from the top—with respect to the value of initial public stock offerings as a share of gross state product in 1997.

For nine of the 17 variables, Oklahoma's rank was within the fourth quintile of the states. The two worst rankings for the state were the percentage of a state's workforce employed by foreign companies (43rd) and an index measuring the intensity of the use of technology in the classroom (50th).

In April 2001 the Progressive Policy Institute released another study using essentially the same methodology applicable to the nation's largest 50 Metropolitan Statistical Areas (MSAs). Oklahoma City was included in the analysis, but Tulsa did not make the cut. Oklahoma City's overall rank as a New Economy MSA placed it 39th from the top. MSAs in neighboring states with higher rankings included:

Austin	2
Denver	7

Dallas	12
Kansas City	24
St. Louis	27

Only San Antonio (49th) among the MSAs in surrounding states was ranked below Oklahoma City. The city exhibited favorable performance with respect to the incidence of managerial-professional-technical jobs, work force education, and the frequency of initial public offerings (IPOs). Particularly low was the city's comparative involvement in manufacturing exports.

Cyberstates: A State-by-State Overview of the High-Technology Industry¹²

This rating system was prepared by the American Electronics Association (AEA) in association with the Nasdaq Stock Market. The AEA is a trade association of electronics and information technology companies. Critical to the study is the specification of 45 4-digit SIC industry codes applicable only to the electronics and information technology sector. These are referred to as "high-tech."

The report combines the 45 industries into nine manufacturing categories, one communications services category, and three categories of "software and computer-related services." In terms of 1999 employment, Oklahoma ranked 37th among the 50 states and the District of Columbia in high-tech manufacturing, 23rd in communications services, and 33rd in software and computer-related services. In that year, Oklahoma ranked 29th in total nonfarm wage and salary employment. The state's high-tech sector employment rank was more favorable than its overall employment rank in five of the manufacturing categories: photonics (18), electromedical (24), computers and office equipment (26), consumer electronics (26), and defense electronics (26).

Thirty-six percent of the state's total high-tech manufacturing employment (7,680) was in the six SIC industries included in the computers and office equipment manufacturing category. High-tech employment levels in the largest states were vastly greater than in Oklahoma. For example, the top ten states in high-tech manufacturing employment averaged 127,171 employees—16 times Oklahoma's level. With 26,851 jobs in high-tech services, the

state was still well behind the average for the top ten states (184,420).

During the period 1994-2000, Oklahoma experienced a comparatively low rate of high-tech employment expansion. Its growth of 20 percent placed it 38th among the states and DC— below the expansion rates experienced in neighboring Kansas (76%), Colorado (72%), Texas (52%), New Mexico (43%), and Arkansas (21%). During 1994-2000, Oklahoma slipped in its relative position as a place of total high-tech employment. Here are the state's annual rankings among the 50 states and DC:

1994	28
1995	28
1996	28
1997	29
1998	29
1999	32
2000	33

The AEA report also ranked states using other variables indicative of high-tech intensity. Oklahoma's high-tech workers were among the lowest-paid high-tech workers, with annual average 1999 wages of \$41,873 placing the state's rank at 42nd. This low ranking was due to Oklahoma's relatively low overall wage level, but was also related to a lower-than-average differential between the high-tech wage level and overall wages.

At \$154 per capita in 1998, Oklahoma's R&D expenditure level placed it 45th among the states and DC. Ignoring DC because of its concentration of federal outlays, the average R&D per capita for the top ten states was \$1,740.

2000 Digital State Survey¹³

The purpose of this study is to measure the extent to which information technology is being used by state governments to achieve efficiency and to provide better services to the public. This was prepared by The Center for Digital Government along with the Progress & Freedom Foundation and *Government Technology* magazine. The study is limited to government and does not apply to private sector characteristics. In this ongoing rating system, states are surveyed in eight major areas of government function:

- electronic commerce
- taxation/revenue
- social services
- law enforcement and the courts
- digital democracy
- management/administration

Dimensions of information technology that are used to evaluate a state's performance include such features as ease with which citizens can use the internet to obtain information about state policies, regulations, laws, and statistics. It is important for a high rated state to provide downloadable forms and to provide the ability to file reports and requests for permits and licenses via the internet. Communication with personnel via the internet should be feasible. Also important is the degree to which agencies communicate easily with each other via information technology systems.

Oklahoma's overall rating as a digital state was relatively low (44th) in the 1999-2000 study. The state ranked within the fifth quintile or on the 4th-5th quintiles border in seven of the eight categories. Only for taxation/revenue did the state appear as a leader. For that category, Oklahoma achieved a ranking of 2 along with Alaska, New Jersey, Pennsylvania, Washington, and Wisconsin. The state's ranking of 46 for the use of information technology in K-12 education placed it ahead of only Alabama, with no rating at all for Rhode Island.

The Humphrey Institute of Public Affairs¹⁴

This study produced by the University of Minnesota's Humphrey Institute of Public Affairs focuses on a set of the nation's thirty metropolitan areas that experienced the largest absolute growth in nonfarm employment during 1991-99. Oklahoma's two large metropolitan areas are not big enough to be included in the analysis. Nevertheless, the Humphrey Institute study contains important insights about advanced technologies and the competitive position of metropolitan areas.

The thirty metropolitan areas are ranked in terms of the absolute number of jobs in "high-tech" industries using an approach similar to that of the Bureau of Labor Statistics described above. It also

analyzes the same MSAs with respect to employment in information technology or “I-tech” industries. Although there is a good deal of overlap, I-tech is not simply a subset of high-tech. For example, included in I-tech are industries providing financial and insurance services because of the intensity with which they hire workers classified in I-tech occupations.

Chicago and Washington, DC, top the list of MSAs in number of high-tech jobs. San Jose (silicone valley) and Boston (Route 128) are ranked third and fourth, while New York and Philadelphia are fifth and sixth. Thus three of the top six metropolitan areas are usually thought of as centering on old industrial (Old Economy) cities. In a review of the Humphrey Institute study, *Business Week* used the headline “Rust Belts? Try Tech Belts” (Aug. 13, 2001, p. 55).

The growth in MSA employment was not closely related to the number of high-tech jobs during the 1990s. In fact, several of the areas with relatively low concentrations of high-tech employment (e.g. Atlanta, Phoenix) had substantial employment expansion. This led to the conclusion that “low wage, non high-tech manufacturing jobs and low-tech service jobs may be driving aggregate job gains in many sunbelt cities, while some of the more northerly metros are successfully remaking themselves as high-tech economies.” Given the poor performance of Oklahoma’s per capita personal income during the 1990s, there is reason to suspect that this observation about low wage, low-tech development also applies to the Sooner State.

The Humphrey Institute notes several issues in high-tech development that need further research. Their research does not indicate the degree to which certain groups benefit disproportionately from high-tech development. Who benefits the most—white collar versus blue collar, non-hispanic whites versus minorities, men versus women? How does high-tech development affect the central city/suburban patterns of jobs and residential settlement within a metropolitan area? These distributional issues, often referred to as the emerging “digital divide,” are just as relevant in Oklahoma as elsewhere.

America’s High-Tech Economy (The Milken Institute Study)¹⁵

This reflects a substantial, theory-based research effort whose main purpose is determining the extent to which individual high-tech industries contribute differential rates of economic growth of metropolitan areas (MSAs). Also of interest is the contribution of high-tech industries to overall national economic growth and whether high-tech specialization involves increased economic instability. The 1999 Milken report takes the position that technological innovation is responsible for a significant share of the recent uptick in productivity growth. Although high-tech information technology, in the aggregate probably dampens the business cycle because of much more rapid inventory adjustment, the high-tech sectors themselves are quite volatile. Thus when an MSA concentrates in high-tech, it may face greater cyclical risk.

This study focuses only on 315 MSAs rather than on whole states because the bulk of high-tech related development is in these large urban areas. The report notes that geographic clustering or agglomeration characterizes the growth of high-tech industries. Several features are at work. Larger installations may achieve lower costs through plant-level economies of scale. In addition, similar enterprises locating in the same urban area experience externalities that also reduce unit costs. These externalities result from the existence of a large, specialized labor market; from supplier networks; and from firms acquiring technology information from each other through informal networks. This means the development of technology production centers or “Tech-Poles,” MSAs that “pull” high tech activities into their domains. In recent years, high-tech manufacturing has become less spatially concentrated, while high-tech services have become more concentrated.

In its identification of high-tech, the Milken Institute uses a process similar to that of the BLS. Fourteen three-digit SICs are specified as high-tech, ten of which are identical to those determined by the BLS to be “high-technology intensive” (Table 1). Two more Milken study industries, medical equipment (SIC 384) and engineering and architectural

services (SIC 871) are from the BLS list of “other high-technology industries.” Industrial chemicals (SIC 281, 286) are included in the BLS list of high-technology intensive SICs but excluded from the Milken list, while Milken includes, but the BLS excludes, telephone communications services (SIC 481) and motion picture production and allied services (SIC 781).

Using econometric techniques, the Milken study concludes that 65 percent of the output differential between MSAs during 1990-98 can be explained by initial high-tech density and relative growth in the high-tech sector. The San Jose MSA (Silicon Valley) is the nation’s most important Tech-Pole, while Dallas is rated second, Los Angeles third, and Boston fourth. There are several more Tech-Poles in states surrounding Oklahoma. These include Albuquerque, Denver, Austin-San Marcos, Houston, Boulder-Longmont, Kansas City, Lubbock, St. Louis, Wichita, Fort Worth-Arlington, Colorado Springs, and San Antonio. Oklahoma’s MSAs did not rate well in the Milken study. Tulsa and Oklahoma City were ranked 78 and 87, respectively, among the Growth Poles. The other three MSAs were scarcely in the running (Ft. Smith, 234; Lawton, 297; Enid: 313).

Also reported were the top ten MSAs in terms of degree of concentration in each of the 14 high-tech SICs. Although MSAs in neighboring states were mentioned a number of times, no Oklahoma MSA was included in this compilation.

In a February 2001 report entitled *Knowledge-Value Cities in the Digital Age*, the Milken Institute includes Tulsa as an “emerging technology city” with emphasis on the role of The Williams Company in fiber optics.¹⁶

The 1999 Milken Institute study also examines the cyclical sensitivity of individual high-tech industries—a topic that is of special interest in Oklahoma in 2001. One of the reasons economic development specialists have cited for attracting high-tech activity to a metropolitan area is that these sectors help insulate the local economy from the effects of the national business cycle. The Milken study’s statistical analyses indicate that this assumption is incorrect; these sectors are generally more volatile than the national economy. High-tech manufacturing output is purchased by a wide range

of businesses for capital investment purposes and by households for a variety of uses. These purchases are postponable and thus are inherently more unstable than many other goods and services.

This instability is affecting Oklahoma’s high-tech sectors. With the U.S. economy weakening in the early months of 2001, the large Lucent Technologies plant in Oklahoma City was facing declining demand for its digital switching equipment. The Williams Communications Group in Tulsa was subject to stress resulting from massive excess capacity in the nation’s fiber optic cable network and announced in June that as much as 10 percent of its work force might be cut. Moreover, the construction of a Corning, Inc., \$400 million fiber optic plant in Oklahoma City was put on hold with uncertainty as to the facility’s long-term status.

The Southern Growth Policies Board Invented Here¹⁸

Unlike the preceding five studies on the New Economy, this report has a distinctly regional focus. It is also more closely involved in a strategic planning process. The Southern Growth Policies Board (SGPB) 2001 report on the future of the South was released in June 2001 and deals with the creation of a knowledge-based economic development strategic plan for thirteen southern states and Puerto Rico. Oklahoma state government has been a member of the SGPB from its inception in the early 1970s. The report was developed by a committee of representatives from each of the states.

Throughout 88-pages, there is no specific use of the term “New Economy.” Nevertheless, the philosophy clearly reflects a paradigm shift in economic development. For example, the SGPB refers to “the next economy” in contrast to the traditional southern strategies of seeking to attract branch plants. This “next economy” is also the “knowledge economy” with innovation driven by technology.

Invented Here: Transforming the Southern Economy sets forth a vision for the area’s development:

All citizens of the South will experience an exemplary quality of life made possible by a dynamic, diversified, growing, sustainable, and competitive Southern economy.

The achievement of three goals is embodied in this vision for the South. The three goals and their subsidiary objectives are listed in Table 2-2. Goal One involves education and the development of cultural values committed to education. Goal Two encourages innovation and entrepreneurship to generate business and economic development. And Goal Three emphasizes the importance of quality of life.

The process by which the vision/goals are achieved is fleshed out with additional detailed objectives, together with specific quantitative measures or “benchmarks” that can be used to judge the degree to which individual objectives are achieved at any point in time and the degree to which an area is doing better (worse) over time. Goal One has six objectives and 33 benchmarks; Goal Two has four objectives and 23 benchmarks; and Goal Three has three objectives and 18 benchmarks. Benchmark data are reported for the latest available single year for each of the SGPB states and for the United States. Many of the benchmarks are similar to, and in some cases identical with, variables used in the five other studies reviewed above.

Table 2-2

**Southern Growth Policies Board Goals and Objectives
for a Strategic Plan for the South**

Goal One: Create a culture of learning throughout the South, in which the acquisition, creation and application of knowledge is viewed as central to our health, happiness and prosperity.

- Make P-12 education efficient and effective in educating our children.
- Make post-secondary education effective in continually raising the level of educational achievement in the South.
- Elevate the value placed on education and significantly increase the percentage of Southerners actively engaged in the process of lifelong learning.
- Overcome the skill shortages in the following fields: science, engineering, information technology (IT) and math.
- Educate those left behind in the knowledge economy, targeting minorities, immigrants and their children.
- Ensure basic competency in the tools of the information age.

Goal Two: Encourage and support innovation and entrepreneurship.

- Infuse an entrepreneurial culture throughout the South.
- Increase significantly public and private R&D in the South.
- Ensure access to capital and technical and management assistance at all stages of business development, paying particular attention to underserved groups.
- Take advantage of the growing commercial and intellectual potential in the global economy.

Goal Three: Create and sustain a quality of life that is attractive to globally competitive businesses and employees.

- Use Wise Growth principles to ensure that a high quality of life accompanies economic progress in the South.
- Build on the potential strengths inherent in our cultural diversity by overcoming our historic racial and cultural divisions.
- Increase the South's levels of civic engagement.

There is good data coverage for the benchmarks for Goals One and Two, while much of the data for the benchmarks of Goal Three remains to be developed through opinion surveys.

From an Oklahoma perspective, it is surprising that none of the benchmarks involve measurement of relative wage rates or relative per capita personal income—economic development issues of constant concern in the Sooner state. Instead, benchmarks emphasize education, employment, and quality of life achievement for all racial/ethnic groups in the South. In fact, life quality appears to be the “bottom line” in the SGPB’s planning process—as illustrated by the following: “It is an exemplary quality of life that is desired, not money itself, not possessions, but a quality of life.” Moreover, since quality of life is subjective, emphasis is placed on benchmarks derived from survey results of attitudes and opinions. Oklahomans would apparently argue that quality of life is directly related to income.

With a small amount of data manipulation, it is possible to compare the SGPB’s Oklahoma benchmarks with national benchmarks. Since the data are standardized for population scale, each Oklahoma benchmark can be calculated as a percent of the corresponding national benchmark. Comparable data are available for Goal One (education) for 25 benchmarks; Oklahoma surpasses the nation for 15 of those variables. There are 22 comparable benchmarks applicable to Goal Two (business and economic development), with Oklahoma ahead of the nation in only two instances. There is not enough data reported for Goal Three to make meaningful comparisons.

Thus the SGPB report contains both good news and bad news for Oklahoma’s position as a New Economy state. The state appears to be relatively well-positioned with respect to a significant number of benchmarks relating to educational performance and attainment. On the other hand, Oklahoma’s high-tech and R&D activity is sub-par.

It is anticipated that each state will develop its own set of ten-year targets for each of the SGPB’s benchmarks. The SGPB will then publish an annual report reviewing the region’s progress with respect to the benchmarks.

Concluding Assessment: Another Look at the “New Economy”

The interstate and inter-metropolitan ratings reviewed above have been undertaken because of the need to better understand geographic differences in participation in the paradigm shift known as the New Economy. At the outset, it was noted that there are skeptics who are not convinced that there has been a sea change in the structure of the U.S. economy. And there is nothing new about emphasis on high technology industry and economic development. Yet Oklahoma would be making a serious mistake to proceed as though the national economic growth patterns of the ‘70s and ‘80s will be replicated in the 21st Century.

Examination of the ranking studies indicates several dimensions in which Oklahoma appeared to be left behind during the 1990s. A boom and bust pattern driven by the “heritage industries,” oil and agriculture has meant very uneven patterns of economic development over time. Perhaps this instability has slowed the state down over the long haul. High technology economic development offers the promise of a more stable growth path based on intellectual capital rather than natural resources. And it is a path including many components; high technology development building on human capital can lead to a highly diversified economy. The following sections of this Oklahoma Academy report will flesh out Oklahoma’s high technology challenge and will suggest how the state’s current assets can be expanded and leveraged to participate more fully in the New Economy.

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SELECTED INDICATORS FOR OKLAHOMA

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00	3rd Qtr '01
				3rd Qtr	2nd Qtr '01
Crude Oil Production (000 bbl) ^a	16,300	16,470	18,076	-9.8	-1.0
Natural Gas Production (000 mcf) ^a	362,360	382,397	423,862	-14.5	-5.2
Rig Count	145	149	107	35.5	-2.7
Initial Unemployment Claims	20,970	19,043	16,227	29.2	10.1
Permit-Authorized Construction					
Residential Single Family					
Dollar Value (\$000)	283,143	366,210	239,484	18.2	-22.7
Number of Units	2,109	2,544	1,991	5.9	-17.1
Residential-Multi Family					
Dollar Value (\$000)	25,159	4,343	22,284	12.9	479.3
Number of Units	499	92	461	8.2	442.4
Total Construction (\$000)	308,302	370,553	261,768	17.8	-16.8
Employment					
Total Labor Force (000) ^b	1,671.70	1,655.50	1,658.40	0.8	1.0
Total Employment (000)	1,618.20	1,606.50	1,610.20	0.5	0.7
Unemployment Rate (%)	3.2	3.0	2.9	--	--
Wage and Salary Employment (000)	1,507.20	1,514.50	1,491.60	1.0	-0.5
Manufacturing	178,433	178,433	183,133	-2.6	0.0
Mining	32,000	31,467	29,733	7.6	1.7
Government	284,933	296,833	275,967	3.2	-4.0
Contract Construction	65,167	64,600	61,867	5.3	0.9
Services	442,700	439,533	435,300	1.7	0.7
Retail Trade	277,000	276,333	275,633	0.5	0.2
Average Weekly Hours (Per Worker)					
Manufacturing	38.5	38.6	41.1	-6.3	-0.3
Average Weekly Earnings (\$ Per Worker)					
Manufacturing	497.16	496.96	543.73	-8.6	0.0
Contract Construction	665.48	638.34	573.13	16.1	4.3

Note: Includes revisions in some previous months.

^aFigures are for 1st and 4th Qtr 2001. Crude oil includes condensate. Natural gas includes casinghead gas.

^bLabor Force refer to place of residence, non-agricultural wage and salary employment refers to place of work.

OKLAHOMA GENERAL BUSINESS INDEX

	Sep '01	Preliminary Forecast Sep '00	Sep '99	Percentage Change	
				01/'00	01/'99
				Sep	Sep
State	132.7	133.9	131.5	-0.9	0.9
Oklahoma City MSA	131.0	133.9	131.0	-2.2	0.0
Tulsa MSA	136.2	138.3	135.8	-1.5	0.3

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
OKLAHOMA CITY MSA					
Durable Goods	565,363,889	572,182,028	539,725,886	4.8	-1.2
Lumber, Building Materials and Hardware	175,416,667	186,858,865	158,012,419	11	-6.1
Auto Accessories and Repair	93,947,212	95,849,858	86,955,159	8.0	-2.0
Furniture	73,855,911	73,436,232	72,881,935	1.3	0.6
Computer, Electronics and Music Stores	82,477,506	77,854,877	82,762,316	-0.3	5.9
Miscellaneous Durables	123,110,062	123,414,798	121,931,437	1	-0.2
Used Merchandise	16,556,531	14,767,398	17,182,619	-3.6	12.1
Nondurable Goods	1,571,736,218	1,624,341,022	1,476,899,247	6.4	-3.2
General Merchandise	533,662,506	534,884,019	478,970,144	11.4	-0.2
Food Stores	298,065,928	309,118,456	304,436,754	-2.1	-3.6
Apparel	102,722,637	106,558,079	97,026,850	5.9	-3.6
Eating and Drinking Places	314,231,562	316,382,539	275,094,361	14.2	-0.7
Drug Stores	37,056,193	38,066,447	42,703,098	-13.2	-2.7
Liquor Stores	19,527,819	19,397,747	18,093,232	7.9	0.7
Miscellaneous Nondurables	86,205,756	82,819,017	77,151,665	11.7	4.1
Gasoline	180,263,817	217,114,718	183,423,142	-1.7	-17
Total Retail Trade	2,137,100,107	2,196,523,050	2,016,625,133	6.0	-2.7
TULSA MSA					
Durable Goods	440,856,684	452,516,658	449,523,843	-1.9	-2.6
Lumber, Building Materials and Hardware	124,143,704	132,394,665	124,080,761	0.1	-6.2
Auto Accessories and Repair	62,053,428	64,329,449	61,954,653	0.2	-3.5
Furniture	51,999,296	51,906,719	54,344,999	-4.3	0.2
Computer, Electronics and Music Stores	96,348,037	91,979,519	94,075,106	2.4	4.7
Miscellaneous Durables	92,641,584	99,572,163	101,255,019	-8.5	-7.0
Used Merchandise	13,670,635	12,334,145	13,813,306	-1.0	10.8
Nondurable Goods	1,169,762,294	1,210,755,781	1,109,803,462	5.4	-3.4
General Merchandise	390,684,403	387,494,438	345,615,107	13.0	0.8
Food Stores	253,352,137	262,846,043	246,810,506	2.7	-3.6
Apparel	72,122,406	75,526,569	74,826,834	-3.6	-4.5
Eating and Drinking Places	212,962,058	215,032,255	203,624,903	4.6	-1.0
Drug Stores	28,932,968	30,368,946	28,524,365	1.4	-4.7
Liquor Stores	16,159,796	15,906,824	15,030,257	7.5	1.6
Miscellaneous Nondurables	62,274,229	63,066,295	59,761,537	4.2	-1.3
Gasoline	133,274,296	160,514,410	135,609,952	-1.7	-17.0
Total Retail Trade	1,610,618,978	1,663,272,440	1,559,327,304	3.3	-3.2
ENID MSA					
Durable Goods	26,124,678	25,667,953	23,102,311	13.1	1.8
Lumber, Building Materials and Hardware	9,148,479	9,275,743	7,578,521	20.7	-1.4
Auto Accessories and Repair	5,960,186	5,823,989	5,357,684	11.2	2.3
Furniture	1,691,087	1,807,050	1,899,106	-11.0	-6.4
Computer, Electronics and Music Stores	2,527,583	2,363,380	2,124,514	19.0	6.9
Miscellaneous Durables	5,998,137	5,759,555	5,397,092	11.1	4.1
Used Merchandise	799,205	638,236	745,393	7.2	25.2

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
ENID MSA					
Nondurable Goods	90,076,426	94,038,320	81,755,371	10.2	-4.2
General Merchandise	29,715,917	30,714,772	26,273,002	13.1	-3.3
Food Stores	23,438,563	24,027,646	21,348,429	9.8	-2.5
Apparel	4,042,961	4,431,571	4,579,557	-11.7	-8.8
Eating and Drinking Places	14,053,159	14,255,879	11,944,849	17.7	-1.4
Drug Stores	2,991,702	3,057,066	2,607,413	14.7	-2.1
Liquor Stores	803,977	781,216	720,516	11.6	2.9
Miscellaneous Nondurables	5,148,659	4,869,236	4,226,930	21.8	5.7
Gasoline	9,881,488	11,900,934	10,054,675	-1.7	-17.0
Total Retail Trade	116,201,104	119,706,273	104,857,682	10.8	-2.9
LAWTON MSA					
Durable Goods	30,978,324	30,210,960	30,179,298	2.6	2.5
Lumber, Building Materials and Hardware	8,564,268	8,453,542	8,239,663	3.9	1.3
Auto Accessories and Repair	6,592,293	6,738,089	5,770,677	14.2	-2.2
Furniture	3,246,366	3,107,869	3,057,450	6.2	4.5
Computer, Electronics and Music Stores	3,536,813	3,346,170	3,619,439	-2.3	5.7
Miscellaneous Durables	8,138,265	7,619,398	8,624,663	-5.6	6.8
Used Merchandise	900,319	945,894	867,407	3.8	-4.8
Nondurable Goods	129,070,985	131,425,776	124,538,821	3.6	-1.8
General Merchandise	58,249,493	59,325,241	55,816,722	4.4	-1.8
Food Stores	19,995,994	19,839,937	20,957,588	-4.6	0.8
Apparel	6,423,277	6,525,760	5,851,055	9.8	-1.6
Eating and Drinking Places	23,763,824	22,762,772	21,637,616	9.8	4.4
Drug Stores	2,250,543	1,959,218	1,853,409	21.4	14.9
Liquor Stores	765,710	734,039	702,896	8.9	4.3
Miscellaneous Nondurables	5,064,111	5,153,634	4,941,392	2.5	-1.7
Gasoline	12,558,032	15,125,175	12,778,143	-1.7	-17.0
Total Retail Trade	160,049,309	161,636,736	154,718,119	3.4	-1.0
OKLAHOMA					
Durable Goods	1,537,946,884	1,523,673,862	1,512,388,086	1.7	0.9
Lumber, Building Materials and Hardware	510,360,476	513,442,035	459,999,257	10.9	-0.6
Auto Accessories and Repair	271,415,930	262,589,276	277,436,552	-2.2	3.4
Furniture	167,566,174	167,564,589	170,754,662	-1.9	0.0
Computer, Electronics and Music Stores	247,325,729	237,364,627	252,105,842	-1.9	4.2
Miscellaneous Durables	295,042,522	303,714,396	306,339,547	-3.7	-2.9
Used Merchandise	46,236,053	38,998,939	45,752,227	1.1	18.6
Nondurable Goods	4,549,577,806	4,739,393,554	4,427,286,247	2.8	-4.0
General Merchandise	1,528,198,951	1,558,798,731	1,412,233,906	8.2	-2.0
Food Stores	1,012,465,633	1,070,055,618	1,047,369,934	-3.3	-5.4
Apparel	233,903,166	245,441,889	236,829,631	-1.2	-4.7
Eating and Drinking Places	796,157,132	801,177,387	759,660,708	4.8	-0.6
Drug Stores	94,102,881	96,391,274	91,832,773	2.5	-2.4
Liquor Stores	51,214,770	49,817,035	47,337,322	8.2	2.8
Miscellaneous Nondurables	249,422,321	243,004,014	225,235,835	10.7	2.6
Gasoline	584,112,953	674,707,605	606,786,137	-3.7	-13.4
Total Retail Trade	6,087,524,690	6,263,067,415	5,939,674,333	2.5	-2.8

ADJUSTED RETAIL TRADE FOR SELECTED CITIES (\$000 Seasonally Adjusted)

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
Ada	52,923,050	53,816,446	51,303,341	3.2	-1.7
Altus	40,905,819	42,117,893	40,977,763	-0.2	-2.9
Alva	13,189,448	13,904,427	12,959,162	1.8	-5.1
Anadarko	13,883,700	14,518,026	13,524,692	2.7	-4.4
Ardmore	77,637,126	79,979,306	72,212,145	7.5	-2.9
Bartlesville	91,132,240	94,686,294	91,989,597	-0.9	-3.8
Blackwell	10,526,388	10,576,204	10,286,140	2.3	-0.5
Broken Arrow	117,671,795	121,383,884	111,265,727	5.8	-3.1
Chickasha	35,237,800	36,093,080	34,466,615	2.2	-2.4
Clinton	19,908,721	20,722,032	19,015,093	4.7	-3.9
Cushing	14,605,879	14,890,934	13,648,384	7.0	-1.9
Del City	28,945,390	29,384,790	30,081,290	-3.8	-1.5
Duncan	48,313,991	49,676,206	43,021,270	12.3	-2.7
Durant	34,654,103	35,074,605	34,217,489	1.3	-1.2
Edmond	149,318,429	154,291,339	146,456,558	2.0	-3.2
El Reno	27,692,403	29,424,141	26,278,250	5.4	-5.9
Elk City	32,208,083	33,275,243	29,940,753	7.6	-3.2
Enid	96,744,368	101,260,883	97,596,598	-0.9	-4.5
Guthrie	18,848,309	19,656,805	18,602,094	1.3	-4.1
Guymon	23,247,062	23,840,866	21,966,627	5.8	-2.5
Henryetta	11,992,541	12,380,989	11,743,233	2.1	-3.1
Hobart	5,957,522	6,106,350	5,786,563	3.0	-2.4
Holdenville	8,002,628	8,105,730	8,036,213	-0.4	-1.3
Hugo	16,575,444	17,655,134	13,340,090	24.3	-6.1
Idabel	16,001,201	16,409,062	15,922,556	0.5	-2.5
Lawton	169,702,306	174,385,406	162,172,348	4.6	-2.7
McAlester	62,146,093	64,014,792	58,378,660	6.5	-2.9
Miami	29,118,015	30,256,912	26,746,959	8.9	-3.8
Midwest City	130,277,683	136,060,711	127,409,961	2.3	-4.3
Moore	66,571,740	66,728,170	59,895,561	11.1	-0.2
Muskogee	107,976,089	110,613,967	104,775,849	3.1	-2.4
Norman	219,298,441	223,441,774	204,759,562	7.1	-1.9
Oklahoma City	1,189,632,645	1,227,048,729	1,112,366,406	6.9	-3.0
Okmulgee	35,401,392	33,947,430	30,853,107	14.7	4.3
Pauls Valley	20,088,403	21,006,227	19,348,162	3.8	-4.4
Pawhuska	5,198,070	4,974,807	4,757,837	9.3	4.5
Ponca City	67,707,769	68,878,674	62,933,317	7.6	-1.7
Poteau	30,660,154	31,529,537	29,513,084	3.9	-2.8
Sand Springs	45,713,581	47,211,234	44,531,354	2.7	-3.2
Sapulpa	48,081,879	49,798,864	45,558,716	5.5	-3.4
Seminole	19,308,479	19,577,037	18,465,773	4.6	-1.4
Shawnee	83,709,349	86,067,343	83,034,815	0.8	-2.7
Stillwater	100,904,707	102,929,405	99,181,056	1.7	-2.0
Tahlequah	45,825,992	47,364,503	44,533,480	2.9	-3.2
Tulsa	1,146,758,414	1,184,686,807	1,127,738,858	1.7	-3.2
Watonga	5,086,811	5,108,808	5,126,043	-0.8	-0.4
Weatherford	24,332,940	25,503,689	23,858,991	2.0	-4.6
Wewoka	3,021,628	3,080,306	2,965,281	1.9	-1.9
Woodward	41,705,488	44,025,878	38,749,345	7.6	-5.3
Total Selected Cities	4,704,351,509	4,847,471,677	4,512,292,770	4.3	-3.0

SELECTED INDICATORS FOR THE ENID AND LAWTON MSA'S AND MUSKOGEE MA

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
ENID MSA					
Employment (Number)					
Labor Force ^a	26,153	25,820	26,251	-0.4	1.3
Total Employment	25,583	25,187	25,535	0.2	1.6
Unemployment Rate (%)	2.2	2.5	2.7	-	-
Wage and Salary Employment	23,600	23,767	23,800	-0.8	-0.7
Wholesale and Retail Trade	6,167	6,233	6,200	-0.5	-1.1
Manufacturing	2,567	2,500	2,500	2.7	2.7
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	1,435	2,609	2,347	-38.9	-45.0
Number of Units	9	15	14	-35.7	-40.0
Residential-Multi Family					
Dollar Value (\$000)	4,099	0	0	-	-
Number of Units	102	0	0	-	-
Total Construction (\$000)	5,534	2,609	2,347	135.8	112.1
LAWTON MSA					
Employment (Number)					
Labor Force ^a	40,907	40,567	41,030	-0.3	0.8
Total Employment	39,830	39,487	39,750	0.2	0.9
Unemployment Rate (%)	2.6	2.7	3.1	-	-
Wage and Salary Employment	38,933	39,400	38,500	1.1	-1.2
Wholesale and Retail Trade	8,633	8,667	8,833	-2.3	-0.4
Manufacturing	3,800	3,733	3,833	-0.9	1.8
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	3,096	4,275	2,892	7.1	-27.6
Number of Units	26	36	24	8.3	-27.8
Residential-Multi Family					
Dollar Value (\$000)	25	0	64	-60.9	-
Number of Units	5	0	2	150.0	-
Total Construction (\$000)	3,121	4,275	2,956	5.6	-27.0
MUSKOGEE MA					
Employment (Number)					
Labor Force ^a	31,353	31,200	31,133	0.7	0.5
Total Employment	30,290	30,167	29,907	1.3	0.4
Unemployment Rate (%)	3.4	3.3	4.0	-	v
Water Transportation					
Port of Muskogee					
Tons In	123,971	148,733	82,583	50.1	-16.6
Tons Out	18,236	13,319	14,939	22.1	36.9

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR THE TULSA MSA

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
Employment (Number)					
Labor Force ^a	425,893	419,740	423,198	0.6	1.5
Total Employment	413,953	408,643	411,657	0.6	1.3
Unemployment Rate (%)	2.8	2.6	2.7	-	-
Wage and Salary Employment	407,767	408,533	405,733	0.5	-0.2
Manufacturing	56,567	56,300	55,733	1.5	0.5
Mining	6,133	6,000	7,300	-16.0	2.2
Government	42,200	44,567	42,233	-0.1	-5.3
Wholesale and Retail Trade	91,667	92,300	92,967	-1.4	-0.7
Average Weekly Earnings					
Manufacturing (\$ Per Worker)	645.90	628.99	607.11	6.4	2.7
Air Transportation					
Passengers Enplaning (Number)	413,384	458,762	450,881	-8.3	-9.9
Passengers Deplaning (Number)	415,922	457,332	450,521	-7.7	-9.1
Freight (Tons)	11,665	11,915	12,940	-9.9	-2.1
Water Transportation					
Tulsa Port of Catoosa					
Tons In	248,946	291,808	220,417	12.9	-14.7
Tons Out	314,528	231,350	299,408	5.0	36.0
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	108,445	138,657	96,571	12.3	-21.8
Number of Units	813	1,045	774	5.0	-22.2
Residential-Multi Family					
Dollar Value (\$000)	15,549	0	12,217	27.3	-
Number of Units	263	0	248	6.0	-
Total Construction	123,994	138,657	108,788	14.0	-10.6

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR OKLAHOMA CITY MSA

	3rd Qtr '01	2nd Qtr '01	3rd Qtr '00	Percentage Change	
				'01/'00 3rd Qtr	3rd Qtr '01 2nd Qtr '01
Employment (Number)					
Labor Force ^a	561,647	555,733	553,456	1.5	1.1
Total Employment	542,460	539,780	540,307	0.4	0.5
Unemployment Rate (%)	3.4	2.9	2.4	-	-
Wage and Salary Employment	540,033	545,767	540,400	-0.1	-1.1
Manufacturing	51,033	51,367	54,533	-6.4	-0.7
Mining	7,500	7,433	6,500	15.4	0.9
Government	100,233	106,733	101,233	-1.0	-6.1
Wholesale and Retail Trade	127,167	127,067	127,000	0.1	0.1
Average Weekly Earnings					
Manufacturing (\$ Per Worker)	552.02	511.65	637.05	-13.3	7.9
Air Transportation					
Passengers Enplaning (Number)	425,503	469,793	449,058	-5.2	-9.4
Passengers Deplaning (Number)	430,808	458,096	455,306	-5.4	-6.0
Freight Enplaned (Tons)	3,062	4,994	5,214	-41.3	-38.7
Freight Deplaned (Tons)	3,836	5,862	662	479.5	-34.6
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	152,931	168,892	120,983	26.4	-9.5
Number of Units	1,121	1,262	1,029	8.9	-11.2
Residential-Multi Family					
Dollar Value (\$000)	887	761	5,889	-84.9	16.6
Number of Units	14	12	112	-87.5	16.7
Total Construction (\$000)	153,818	169,653	126,872	21.2	-9.3

Note: Includes revisions.

^aCivilian Labor Force.

SELECTED INDICATORS FOR OKLAHOMA

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4th Qtr '01 3rd Qtr '01
Crude Oil Production (000 bbl) ^a	N/A	16,300	16,947	-	-
Natural Gas Production (000 mcf) ^a	N/A	362,360	442,542	-	-
Rig Count	93	145	123	-24.4	-35.9
Initial Unemployment Claims	29,844	20,970	19,774	50.9	42.3
Permit-Authorized Construction					
Residential Single Family					
Dollar Value (\$000)	254,947	283,143	182,953	39.4	-10.0
Number of Units	1,949	2,109	1,469	32.7	-7.6
Residential-Multi Family					
Dollar Value (\$000)	113,133	25,159	6,148	E	349.7
Number of Units	881	499	114	E	76.6
Total Construction (\$000)	368,080	308,302	189,101	94.6	19.4
Employment					
Total Labor Force (000) ^b	1,688.8	1,671.7	1,654.0	2.1	1.0
Total Employment (000)	1,621.4	1,618.2	1,608.4	0.8	0.2
Unemployment Rate (%)	4.0	3.2	2.8	--	--
Wage and Salary Employment (000)	1,524.9	1,507.2	1,514.2	0.7	1.2
Manufacturing	176,900	178,433	182,667	-3.2	-0.9
Mining	31,167	32,000	30,133	3.4	-2.6
Government	304,533	284,933	295,433	3.1	6.9
Contract Construction	64,667	65,167	61,033	6.0	-0.8
Services	439,367	442,700	433,300	1.4	-0.8
Retail Trade	282,033	277,000	281,633	0.1	1.8
Average Weekly Hours (Per Worker)					
Manufacturing	36.8	38.5	40.3	-8.7	-4.4
Average Weekly Earnings (\$ Per Worker)					
Manufacturing	485.79	497.16	545.33	-10.9	-2.3
Contract Construction	635.37	665.48	605.61	4.9	-4.5

Note: Includes revisions in some previous months.

^aFigures for 4th Qtr 2001 are not available.

^bLabor Force refer to place of residence, non-agricultural wage and salary employment refers to place of work.

OKLAHOMA GENERAL BUSINESS INDEX

	Dec '01	Preliminary Forecast		Percentage Change	
		Dec '00	Dec '99	01/'0 Dec	01/'99 Dec
State	132.8	134.0	132.2	-0.9	0.5
Oklahoma City MSA	131.2	133.5	132.0	-1.7	-0.6
Tulsa MSA	136.4	138.0	136.1	-1.2	0.2

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4thQtr '01 3rd Qtr '01
OKLAHOMA CITY MSA					
Durable Goods	576,289,292	565,363,889	558,115,540	3.3	1.9
Lumber, Building Materials and Hardware	179,172,879	175,416,667	151,726,445	18.1	2.1
Auto Accessories and Repair	92,193,693	93,947,212	89,353,254	3.2	-1.9
Furniture	73,252,264	73,855,911	74,442,261	-1.6	-0.8
Computer, Electronics and Music Stores	90,019,640	82,477,506	102,520,288	-12.2	9.1
Miscellaneous Durables	123,913,166	123,110,062	120,749,463	2.6	0.7
Used Merchandise	17,737,650	16,556,531	19,323,829	-8.2	7.1
Nondurable Goods	1,620,587,153	1,571,736,218	1,483,917,766	9.2	3.1
General Merchandise	561,898,773	533,662,506	500,053,940	12.4	5.3
Food Stores	312,489,236	298,065,928	292,562,950	6.8	4.8
Apparel	107,670,650	102,722,637	102,060,517	5.5	4.8
Eating and Drinking Places	334,187,890	314,231,562	250,362,824	33.5	6.4
Drug Stores	38,010,065	37,056,193	38,273,309	-0.7	2.6
Liquor Stores	19,513,423	19,527,819	18,285,916	6.7	-0.1
Miscellaneous Nondurables	87,890,012	86,205,756	84,559,922	3.9	2.0
Gasoline	158,927,104	180,263,817	197,758,389	-19.6	-11.8
Total Retail Trade	2,196,876,445	2,137,100,107	2,042,033,306	7.6	2.8
TULSA MSA					
Durable Goods	452,583,247	440,856,684	456,738,106	-0.9	2.7
Lumber, Building Materials and Hardware	125,459,702	124,143,704	117,567,554	6.7	1.1
Auto Accessories and Repair	61,172,355	62,053,428	61,875,220	-1.1	-1.4
Furniture	50,627,246	51,999,296	53,536,664	-5.4	-2.6
Computer, Electronics and Music Stores	108,997,948	96,348,037	108,562,269	0.4	13.1
Miscellaneous Durables	91,560,843	92,641,584	100,179,834	-8.6	-1.2
Used Merchandise	14,765,153	13,670,635	15,016,564	-1.7	8.0
Nondurable Goods	1,157,885,653	1,169,762,294	1,117,576,455	3.6	-1.0
General Merchandise	401,420,284	390,684,403	350,566,977	14.5	2.7
Food Stores	248,858,699	253,352,137	243,671,594	2.1	-1.8
Apparel	71,294,961	72,122,406	73,909,282	-3.5	-1.1
Eating and Drinking Places	213,180,159	212,962,058	199,319,089	7.0	0.1
Drug Stores	28,052,810	28,932,968	27,627,798	1.5	-3.0
Liquor Stores	16,233,509	16,159,796	14,967,134	8.5	0.5
Miscellaneous Nondurables	61,353,210	62,274,229	61,315,271	0.1	-1.5
Gasoline	117,492,022	133,274,296	146,199,308	-19.6	-11.8
Total Retail Trade	1,610,468,900	1,610,618,978	1,574,314,560	2.3	0.0
ENID MSA					
Durable Goods	26,616,973	26,124,678	24,342,003	9.3	1.9
Lumber, Building Materials and Hardware	9,574,797	9,148,479	7,571,812	26.5	4.7
Auto Accessories and Repair	5,967,446	5,960,186	5,637,833	5.8	0.1
Furniture	1,729,946	1,691,087	1,878,058	-7.9	2.3
Computer, Electronics and Music Stores	2,505,920	2,527,583	2,978,019	-15.9	-0.9
Miscellaneous Durables	5,994,367	5,998,137	5,294,941	13.2	-0.1
Used Merchandise	844,497	799,205	981,339	-13.9	5.7

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4thQtr '01 3rd Qtr '01
ENID MSA					
Nondurable Goods	89,851,607	90,076,426	82,795,994	8.5	-0.2
General Merchandise	30,046,751	29,715,917	27,542,246	9.1	1.1
Food Stores	23,171,048	23,438,563	20,926,233	10.7	-1.1
Apparel	3,894,928	4,042,961	4,202,436	-7.3	-3.7
Eating and Drinking Places	14,239,330	14,053,159	11,960,038	19.1	1.3
Drug Stores	3,140,690	2,991,702	2,745,966	14.4	5.0
Liquor Stores	807,388	803,977	714,194	13.0	0.4
Miscellaneous Nondurables	5,839,956	5,148,659	3,864,850	51.1	13.4
Gasoline	8,711,516	9,881,488	10,840,029	-19.6	-11.8
Total Retail Trade	116,468,579	116,201,104	107,137,997	8.7	0.2
LAWTON MSA					
Durable Goods	31,407,611	30,978,324	29,251,820	7.4	1.4
Lumber, Building Materials and Hardware	8,944,208	8,564,268	7,526,344	18.8	4.4
Auto Accessories and Repair	6,630,538	6,592,293	5,810,235	14.1	0.6
Furniture	2,938,987	3,246,366	3,186,872	-7.8	-9.5
Computer, Electronics and Music Stores	3,732,018	3,536,813	3,852,385	-3.1	5.5
Miscellaneous Durables	8,225,895	8,138,265	8,012,356	2.7	1.1
Used Merchandise	935,966	900,319	863,627	8.4	4.0
Nondurable Goods	126,823,697	129,070,985	125,844,312	0.8	-1.7
General Merchandise	56,972,412	58,249,493	57,003,816	-0.1	-2.2
Food Stores	19,974,151	19,995,994	19,570,800	2.1	-0.1
Apparel	6,835,971	6,423,277	5,645,324	21.1	6.4
Eating and Drinking Places	23,531,537	23,763,824	21,675,221	8.6	-1.0
Drug Stores	2,316,524	2,250,543	2,021,834	14.6	2.9
Liquor Stores	862,869	765,710	756,733	14.0	12.7
Miscellaneous Nondurables	5,258,053	5,064,111	5,393,098	-2.5	3.8
Gasoline	11,072,182	12,558,032	13,777,487	-19.6	-11.8
Total Retail Trade	158,231,309	160,049,309	155,096,132	2.0	-1.1
OKLAHOMA					
Durable Goods	1,572,787,747	1,537,946,884	1,512,315,131	4.0	2.3
Lumber, Building Materials and Hardware	515,761,728	510,360,476	435,482,461	18.4	1.1
Auto Accessories and Repair	275,229,347	271,415,930	270,761,117	1.7	1.4
Furniture	165,410,092	167,566,174	168,207,968	-1.7	-1.3
Computer, Electronics and Music Stores	271,569,550	247,325,729	286,534,105	-5.2	9.8
Miscellaneous Durables	295,201,882	295,042,522	302,662,881	-2.5	0.1
Used Merchandise	49,615,147	46,236,053	48,666,598	1.9	7.3
Nondurable Goods	4,464,012,783	4,549,577,806	4,490,005,829	-0.6	-1.9
General Merchandise	1,528,023,486	1,528,198,951	1,435,195,772	6.5	0.0
Food Stores	993,658,764	1,012,465,633	1,044,783,282	-4.9	-1.9
Apparel	222,883,685	233,903,166	241,118,133	-7.6	-4.7
Eating and Drinking Places	800,946,425	796,157,132	760,030,223	5.4	0.6
Drug Stores	92,212,569	94,102,881	91,501,159	0.8	-2.0
Liquor Stores	52,187,474	51,214,770	46,700,333	11.7	1.9
Miscellaneous Nondurables	259,141,041	249,422,321	229,895,513	12.7	3.9
Gasoline	514,959,340	584,112,953	640,781,413	-19.6	-11.8
Total Retail Trade	6,036,800,530	6,087,524,690	6,002,320,959	0.6	-0.8

ADJUSTED RETAIL TRADE FOR SELECTED CITIES (\$000 Seasonally Adjusted)

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4th Qtr '01 3rd Qtr '01
Ada	52,130,155	52,923,050	51,663,753	0.9	-1.5
Altus	41,081,071	40,905,819	41,089,491	0.0	0.4
Alva	13,264,456	13,189,448	12,926,830	2.6	0.6
Anadarko	13,722,728	13,883,700	13,386,957	2.5	-1.2
Ardmore	77,054,602	77,637,126	72,072,880	6.9	-0.8
Bartlesville	91,270,480	91,132,240	90,475,739	0.9	0.2
Blackwell	10,559,319	10,526,388	10,191,036	3.6	0.3
Broken Arrow	119,624,592	117,671,795	110,926,077	7.8	1.7
Chickasha	35,549,416	35,237,800	34,223,769	3.9	0.9
Clinton	19,676,631	19,908,721	18,856,200	4.4	-1.2
Cushing	14,808,141	14,605,879	13,544,247	9.3	1.4
Del City	28,509,166	28,945,390	29,652,991	-3.9	-1.5
Duncan	48,480,482	48,313,991	45,501,533	6.5	0.3
Durant	34,089,692	34,654,103	33,385,680	2.1	-1.6
Edmond	151,476,288	149,318,429	145,847,971	3.9	1.4
El Reno	27,191,446	27,692,403	26,910,711	1.0	-1.8
Elk City	31,989,078	32,208,083	31,054,246	3.0	-0.7
Enid	96,498,936	96,744,368	97,847,538	-1.4	-0.3
Guthrie	18,771,290	18,848,309	18,351,043	2.3	-0.4
Guymon	23,436,640	23,247,062	22,209,275	5.5	0.8
Henryetta	12,010,852	11,992,541	11,490,338	4.5	0.2
Hobart	5,971,483	5,957,522	5,710,280	4.6	0.2
Holdenville	8,154,954	8,002,628	8,369,551	-2.6	1.9
Hugo	16,696,384	16,575,444	13,199,652	26.5	0.7
Idabel	16,000,350	16,001,201	15,604,375	2.5	0.0
Lawton	169,058,338	169,702,306	162,078,851	4.3	-0.4
McAlester	62,490,121	62,146,093	58,187,090	7.4	0.6
Miami	29,482,478	29,118,015	26,436,568	11.5	1.3
Midwest City	130,661,848	130,277,683	126,571,816	3.2	0.3
Moore	69,561,609	66,571,740	60,423,171	15.1	4.5
Muskogee	107,084,655	107,976,089	103,153,648	3.8	-0.8
Norman	221,093,508	219,298,441	208,304,552	6.1	0.8
Oklahoma City	1,197,615,609	1,189,632,645	1,116,124,551	7.3	0.7
Okmulgee	36,337,402	35,401,392	30,389,890	19.6	2.6
Pauls Valley	20,016,106	20,088,403	19,039,581	5.1	-0.4
Pawhuska	5,364,923	5,198,070	4,732,099	13.4	3.2
Ponca City	68,617,609	67,707,769	62,642,788	9.5	1.3
Poteau	30,581,932	30,660,154	29,050,331	5.3	-0.3
Sand Springs	45,783,783	45,713,581	44,612,093	2.6	0.2
Sapulpa	48,495,824	48,081,879	46,721,093	3.8	0.9
Seminole	19,886,058	19,308,479	18,178,664	9.4	3.0
Shawnee	83,785,384	83,709,349	82,630,984	1.4	0.1
Stillwater	100,133,157	100,904,707	98,929,890	1.2	-0.8
Tahlequah	46,110,572	45,825,992	45,047,074	2.4	0.6
Tulsa	1,151,717,663	1,146,758,414	1,113,420,860	3.4	0.4
Watonga	5,078,995	5,086,811	5,055,913	0.5	-0.2
Weatherford	24,256,245	24,332,940	24,176,010	0.3	-0.3
Wewoka	2,998,669	3,021,628	2,877,923	4.2	-0.8
Woodward	41,224,774	41,705,488	39,994,934	3.1	-1.2
Total Selected Cities	4,725,455,895	4,704,351,509	4,503,272,534	4.9	0.4

SELECTED INDICATORS FOR THE ENID AND LAWTON MSA'S AND MUSKOGEE MA

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4th Qtr '01 3rd Qtr '01
ENID MSA					
Employment (Number)					
Labor Force ^a	25,970	26,153	25,939	0.1	-0.7
Total Employment	25,243	25,583	25,325	-0.3	-1.3
Unemployment Rate (%)	2.8	2.2	2.3	--	--
Wage and Salary Employment	23,567	23,600	23,700	-0.6	-0.1
Wholesale and Retail Trade	6,200	6,167	6,233	-0.5	0.5
Manufacturing	2,500	2,567	2,500	0.0	-2.6
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	1,896	1,435	1,322	43.4	32.1
Number of Units	11	9	10	10.0	22.2
Residential-Multi Family					
Dollar Value (\$000)	350	4,098	0	--	-91.5
Number of Units	4	102	0	--	-96.1
Total Construction (\$000)	2,246	5,533	1,322	69.9	-59.4
LAWTON MSA					
Employment (Number)					
Labor Force ^a	39,970	40,907	40,403	-1.1	-2.3
Total Employment	38,607	39,830	39,195	-1.5	-3.1
Unemployment Rate (%)	3.4	2.6	3.0	--	--
Wage and Salary Employment	39,233	38,933	38,967	0.7	0.8
Wholesale and Retail Trade	8,733	8,633	8,900	-1.9	1.2
Manufacturing	3,767	3,800	3,733	0.9	-0.9
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	3,424	3,096	3,094	10.7	10.6
Number of Units	29	26	26	11.5	11.5
Residential-Multi Family					
Dollar Value (\$000)	0	25	0	--	--
Number of Units	0	5	0	--	--
Total Construction (\$000)	3,424	3,121	3,094	10.7	9.7
MUSKOGEE MA					
Employment (Number)					
Labor Force ^a	31,530	31,353	30,619	3.0	0.6
Total Employment	30,123	30,290	29,482	2.2	-0.6
Unemployment Rate (%)	4.5	3.4	3.7	--	--
Water Transportation					
Port of Muskogee					
Tons In	92,461	123,971	77,784	18.9	-25.4
Tons Out	22,540	18,236	22,382	0.7	23.6

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR THE TULSA MSA

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4th Qtr '01 3rd Qtr '01
Employment (Number)					
Labor Force ^a	427,180	425,893	420,356	1.6	0.3
Total Employment	411,183	413,953	409,767	0.3	-0.7
Unemployment Rate (%)	3.7	2.8	2.5	--	--
Wage and Salary Employment	410,133	407,767	409,467	0.2	0.6
Manufacturing	56,700	56,567	55,900	1.4	0.2
Mining	6,100	6,133	7,100	-14.1	-0.5
Government	45,567	42,200	45,267	0.7	8.0
Wholesale and Retail Trade	92,333	91,667	95,033	-2.8	0.7
Average Weekly Earnings					
Manufacturing (\$ Per Worker)	649.91	645.90	651.05	-0.2	0.6
Air Transportation					
Passengers Enplaning (Number)	363,827	413,384	431,081	-15.6	-12.0
Passengers Deplaning (Number)	359,896	415,922	427,461	-15.8	-13.5
Freight (Tons)	11,674	11,665	13,331	-12.4	0.1
Water Transportation					
Tulsa Port of Catoosa					
Tons In	263,360	248,946	212,688	23.8	5.8
Tons Out	268,812	314,528	294,659	-8.8	-14.5
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	94,617	108,445	81,320	16.4	-12.8
Number of Units	753	813	651	15.7	-7.4
Residential-Multi Family					
Dollar Value (\$000)	5,172	15,549	293	E	-66.7
Number of Units	99	263	7	E	-62.4
Total Construction	99,789	123,994	81,613	22.3	-19.5

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR OKLAHOMA CITY MSA

	4th Qtr '01	3rd Qtr '01	4th Qtr '00	Percentage Change	
				'01/'00 4th Qtr	4th Qtr '01 3rd Qtr '01
Employment (Number)					
Labor Force^a	567,207	561,647	557,417	1.8	1.0
Total Employment	544,423	542,460	544,848	-0.1	0.4
Unemployment Rate (%)	4.0	3.4	2.2	--	--
Wage and Salary Employment	547,100	540,033	549,533	-0.4	1.3
Manufacturing	49,767	51,033	54,133	-8.1	-2.5
Mining	7,533	7,500	6,767	11.3	0.4
Government	106,967	100,233	108,700	-1.6	6.7
Wholesale and Retail Trade	128,800	127,167	129,300	-0.4	1.3
Average Weekly Earnings					
Manufacturing (\$ Per Worker)	517.52	552.02	622.39	-16.8	-6.2
Air Transportation					
Passengers Enplaning (Number)	376,303	425,503	436,188	-13.7	-11.6
Passengers Deplaning (Number)	367,955	430,808	424,849	-13.4	-14.6
Freight Enplaned (Tons)	3,830	3,062	4,419	-13.3	25.1
Freight Deplaned (Tons)	4,613	3,836	6,170	-25.2	20.3
Permit-Authorized Construction					
Residential-Single Family					
Dollar Value (\$000)	138,015	152,931	84,602	63.1	-9.8
Number of Units	1,011	1,121	666	51.8	-9.8
Residential-Multi Family					
Dollar Value (\$000)	101,995	887	1,667	E	E
Number of Units	640	14	32	E	E
Total Construction (\$000)	240,010	153,818	86,269	178	

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR OKLAHOMA

	2001	2000	Percentage Change 01/'00
Crude Oil Production (000 bbl)^a	71,181	71,642	-0.6
Natural Gas Production (000 mcf)^a	1,693,703	1,641,563	3.2
Rig Count (Average)	129	91	41.8
Initial Unemployment Claims	95,727	80,869	18.4
Permit-Authorized Construction			
Residential Single Family			
Dollar Value (\$000)	1,126,374	960,134	17.3
Number of Units	8,613	7,797	10.5
Residential-Multi Family			
Dollar Value (\$000)	178,422	94,384	89.0
Number of Units	2,172	1,937	12.1
Total Construction (\$000)	1,304,796	1,054,518	23.7
Employment			
Total Labor Force (000) ^b	1,663.0	1,648.0	0.9
Total Employment (000)	1,607.7	1,598.0	0.6
Unemployment Rate (%)	3.3	3.0	-
Wage and Salary Employment (000)	1,509.2	1,489.7	1.3
Manufacturing	178,492	182,400	-2.1
Mining	31,392	29,208	7.5
Government	295,608	287,717	2.7
Contract Construction	63,775	60,267	5.8
Services	436,967	427,392	2.2
Retail Trade	276,392	274,608	0.6
Average Weekly Hours (Per Worker)			
Manufacturing	38.3	40.9	-6.4
Average Weekly Earnings (\$ Per Worker)			
Manufacturing	495.70	538.20	-7.9
Contract Construction	630.63	577.70	9.2

Note: Includes revisions in some previous months.

^aCrude oil includes condensate. Natural gas includes casinghead gas. Includes eleven months of data for 2000 and 1999.

^bCivilian Labor Force. Labor Force employment and unemployment rate refer to place of residence, non-agricultural wage and salary employment refers to place of work.

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	2001	2000	Percentage Change '01/'00
OKLAHOMA CITY MSA			
Durable Goods	2,315,647,918	2,216,093,386	4.5
Lumber, Bldg. Mat. & Hardware	718,150,557	656,664,735	9.4
Auto Accessories and Repair	379,368,040	357,339,062	6.2
Furniture	299,192,399	296,886,710	0.8
Computer, Electronics and Music Stores	370,633,992	360,702,006	2.8
Miscellaneous Durables	483,208,086	477,997,633	1.1
Used Merchandise	65,094,844	66,503,241	-2.1
Nondurable Goods	6,409,632,440	5,917,210,979	8.3
General Merchandise	2,189,613,052	1,872,544,793	16.9
Food Stores	1,222,824,136	1,244,866,496	-1.8
Apparel	419,354,618	388,895,813	7.8
Eating and Drinking Places	1,259,252,691	1,104,246,151	14.0
Drug Stores	152,296,510	157,607,940	-3.4
Liquor Stores	76,825,999	72,464,107	6.0
Miscellaneous Nondurables	349,877,282	314,832,625	11.1
Gasoline	739,588,152	761,753,054	-2.9
Total Retail Trade	8,725,280,358	8,133,304,364	7.3
TULSA MSA			
Durable Goods	1,815,825,422	1,813,150,347	0.1
Lumber, Bldg. Mat. & Hardware	509,124,247	496,383,523	2.6
Auto Accessories and Repair	249,308,954	249,066,775	0.1
Furniture	209,380,632	213,522,126	-1.9
Computer, Electronics and Music Stores	419,926,281	420,735,806	-0.2
Miscellaneous Durables	375,263,962	381,765,689	-1.7
Used Merchandise	52,821,345	51,676,427	2.2
Nondurable Goods	4,761,030,389	4,459,399,584	6.8
General Merchandise	1,587,974,431	1,376,664,318	15.3
Food Stores	1,037,422,547	999,343,489	3.8
Apparel	296,068,356	300,524,310	-1.5
Eating and Drinking Places	854,647,232	805,200,742	6.1
Drug Stores	119,281,481	113,094,370	5.5
Liquor Stores	64,308,043	59,793,170	7.6
Miscellaneous Nondurables	254,552,102	241,617,090	5.4
Gasoline	546,776,198	563,162,094	-2.9
Total Retail Trade	6,576,855,810	6,272,549,931	4.9
ENID MSA			
Durable Goods	103,396,561	91,881,492	12.5
Lumber, Bldg. Mat. & Hardware	36,741,410	30,855,871	19.1
Auto Accessories and Repair	23,586,566	20,766,742	13.6
Furniture	7,204,393	7,569,379	-4.8
Computer, Electronics and Music Stores	10,634,478	8,361,013	27.2
Miscellaneous Durables	22,425,010	21,536,337	4.1
Used Merchandise	2,804,703	2,792,149	0.4

ADJUSTED RETAIL TRADE FOR METRO AREAS AND STATE (\$000 Seasonally Adjusted)

	2001	2000	Percentage Change '01/'00
ENID MSA			
Nondurable Goods	363,256,985	325,444,792	11.6
General Merchandise	122,898,843	106,473,941	15.4
Food Stores	93,655,445	83,933,107	11.6
Apparel	16,341,394	16,316,035	0.2
Eating and Drinking Places	56,116,166	48,016,318	16.9
Drug Stores	11,909,539	9,640,911	23.5
Liquor Stores	3,085,365	2,903,840	6.3
Miscellaneous Nondurables	18,419,727	16,405,095	12.3
Gasoline	40,830,506	41,755,546	-2.2
Total Retail Trade	466,653,546	417,326,284	11.8
LAWTON MSA			
Durable Goods	121,550,287	120,106,969	1.2
Lumber, Bldg. Mat. & Hardware	32,891,608	32,959,364	-0.2
Auto Accessories and Repair	25,984,026	23,193,549	12.0
Furniture	12,869,473	13,466,922	-4.4
Computer, Electronics and Music Stores	14,939,356	14,541,717	2.7
Miscellaneous Durables	31,083,801	32,584,232	-4.6
Used Merchandise	3,782,023	3,361,184	12.5
Nondurable Goods	519,823,159	499,383,466	4.1
General Merchandise	238,379,126	223,583,312	6.6
Food Stores	79,086,109	80,402,625	-1.6
Apparel	25,060,352	22,716,170	10.3
Eating and Drinking Places	92,959,850	88,390,351	5.2
Drug Stores	8,516,666	7,463,712	14.1
Liquor Stores	3,172,178	2,832,645	12.0
Miscellaneous Nondurables	21,124,137	20,925,644	0.9
Gasoline	51,524,741	53,069,006	-2.9
Total Retail Trade	641,373,446	619,490,435	3.5
OKLAHOMA			
Durable Goods	6,241,720,577	6,016,803,708	3.7
Lumber, Bldg. Mat. & Hardware	2,016,323,342	1,879,138,481	7.3
Auto Accessories and Repair	1,063,884,826	1,074,922,234	-1.0
Furniture	678,589,876	681,662,796	-0.5
Computer, Electronics and Music Stores	1,099,255,931	1,043,709,800	5.3
Miscellaneous Durables	1,206,135,484	1,162,084,611	3.8
Used Merchandise	177,531,119	175,285,786	1.3
Nondurable Goods	18,659,381,314	17,663,665,735	5.6
General Merchandise	6,382,904,777	5,541,788,727	15.2
Food Stores	4,180,000,779	4,269,761,955	-2.1
Apparel	979,839,637	921,870,993	6.3
Eating and Drinking Places	3,201,593,839	3,023,979,537	5.9
Drug Stores	384,252,560	365,130,941	5.2
Liquor Stores	201,913,821	186,278,902	8.4
Miscellaneous Nondurables	988,176,835	886,578,544	11.5
Gasoline	2,340,699,067	2,468,276,137	-5.2
Total Retail Trade	24,901,101,891	23,680,469,443	5.2

ADJUSTED RETAIL TRADE IN SELECTED CITIES (\$000 Seasonally Adjusted)

	2001	2000	Percentage Change '01/'00
Ada	214,955,853	205,893,695	4.4
Altus	168,785,766	165,725,709	1.8
Alva	54,241,221	52,060,767	4.2
Anadarko	57,327,469	53,899,358	6.4
Ardmore	313,169,392	287,798,432	8.8
Bartlesville	373,192,203	362,714,887	2.9
Blackwell	42,219,017	40,994,001	3.0
Broken Arrow	480,501,381	445,597,555	7.8
Chickasha	142,568,573	136,874,649	4.2
Clinton	80,024,788	82,742,013	-3.3
Cushing	59,255,697	54,468,660	8.8
Del City	114,864,946	118,364,171	-3.0
Duncan	196,713,696	173,683,727	13.3
Durant	139,399,544	135,844,498	2.6
Edmond	611,874,420	579,795,179	5.5
El Reno	113,030,682	106,154,196	6.5
Elk City	131,875,520	119,383,613	10.5
Enid	401,410,652	388,852,443	3.2
Guthrie	77,236,714	74,977,914	3.0
Guymon	94,500,163	87,876,215	7.5
Henryetta	48,488,309	46,173,437	5.0
Hobart	24,038,546	23,170,117	3.7
Holdenville	32,465,189	32,228,477	0.7
Hugo	66,494,274	53,449,574	24.4
Idabel	65,207,648	62,181,833	4.9
Lawton	686,714,066	641,606,371	7.0
McAlester	251,638,620	233,228,852	7.9
Miami	118,708,924	107,762,216	10.2
Midwest City	535,712,006	512,664,538	4.5
Moore	271,731,376	243,129,953	11.8
Muskogee	436,454,303	416,952,017	4.7
Norman	889,443,625	818,774,104	8.6
Oklahoma City	4,835,412,893	4,469,971,161	8.2
Okmulgee	138,373,143	122,993,486	12.5
Pauls Valley	81,147,375	77,181,159	5.1
Pawhuska	20,496,973	18,690,148	9.7
Ponca City	273,526,644	249,710,553	9.5
Poteau	124,271,695	117,420,633	5.8
Sand Springs	187,018,423	175,838,720	6.4
Sapulpa	198,345,763	181,769,423	9.1
Seminole	78,154,568	72,725,674	7.5
Shawnee	341,279,429	328,189,542	4.0
Stillwater	407,306,030	393,457,805	3.5
Tahlequah	189,783,561	178,270,917	6.5
Tulsa	4,668,246,315	4,527,265,670	3.1
Watonga	20,120,458	21,030,488	-4.3
Weatherford	99,806,216	95,720,545	4.3
Wewoka	11,983,953	11,804,966	1.5
Woodward	170,982,263	155,313,096	10.1
Total Selected Cities	19,140,500,282	18,062,377,158	6.0

SELECTED INDICATORS FOR THE ENID AND LAWTON MSAs AND MUSKOGEE COUNTY

	2001	2000	Percentage Change '01/'00
ENID MSA			
Employment (Number)			
Labor Force ^a	25,816	26,360	-2.1
Total Employment	25,173	25,605	-1.7
Unemployment Rate (%)	2.5	2.9	--
Wage and Salary Employment	23,575	23,858	-1.2
Wholesale and Retail Trade	6,167	6,200	-0.5
Manufacturing	2,517	2,500	0.7
Permit-Authorized Construction			
Residential-Single Family			
Dollar Value (\$000)	7,555	8,828	-14.4
Number of Units	43	49	-12.2
Residential-Multi Family			
Dollar Value (\$000)	4,449	132	E
Number of Units	106	4	E
Total Construction (\$000)	12,004	8,960	34.0
LAWTON MSA			
Employment (Number)			
Labor Force ^a	40,273	40,851	-1.4
Total Employment	39,099	39,505	-1.0
Unemployment Rate (%)	2.9	3.3	--
Wage and Salary Employment	38,975	38,800	0.5
Wholesale and Retail Trade	8,650	8,867	-2.4
Manufacturing	3,775	3,767	0.2
Permit-Authorized Construction			
Residential-Single Family			
Dollar Value (\$000)	14,571	15,792	-7.7
Number of Units	123	132	-6.8
Residential-Multi Family			
Dollar Value (\$000)	25	64	-60.9
Number of Units	5	2	150.0
Total Construction (\$000)	14,596	15,856	-7.9
MUSKOGEE MA			
Employment (Number)			
Labor Force ^a	31,165	30,971	0.6
Total Employment	30,010	29,715	1.0
Unemployment Rate (%)	3.7	4.1	--
Water Transportation			
Port of Muskogee			
Tons In	430,116	343,361	25.3

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR THE TULSA MSA

	2001	2000	Percentage Change '01/'00
Employment (Number)			
Labor Force ^a	421,727	419,446	0.5
Total Employment	409,295	407,457	0.5
Unemployment Rate (%)	2.9	2.9	--
Wage and Salary Employment	407,350	403,567	0.9
Manufacturing	56,350	55,317	1.9
Mining	6,158	7,192	-14.4
Government	44,208	44,517	-0.7
Wholesale and Retail Trade	91,933	93,350	-1.5
Average Weekly Earnings			
Manufacturing (\$ Per Worker)	639.25	611.95	4.5
Air Transportation			
Passengers Enplaning (Number)	1,622,670	1,744,940	-7.0
Passengers Deplaning (Number)	1,621,745	1,737,874	-6.7
Freight (Tons)	48,638	52,368	-7.1
Water Transportation			
Tulsa Port of Catoosa			
Tons In	1,049,594	994,663	5.5
Tons Out	993,098	1,215,668	-18.3
Permit-Authorized Construction			
Residential-Single Family			
Dollar Value (\$000)	441,188	393,170	12.2
Number of Units	3,398	3,152	7.8
Residential-Multi Family			
Dollar Value (\$000)	26,254	14,028	87.2
Number of Units	473	295	60.3
Total Construction	467,442	407,198	14.8

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR OKLAHOMA CITY MSA

	2001	2000	Percentage Change '01/'00
Employment (Number)			
Labor Force ^a	559,216	551,582	1.4
Total Employment	540,456	538,232	0.4
Unemployment Rate (%)	3.4	2.4	---
Wage and Salary Employment	542,867	540,367	0.5
Manufacturing	51,158	54,592	-6.3
Mining	7,400	6,450	14.7
Government	105,375	105,783	-0.4
Wholesale and Retail Trade	127,000	126,667	0.3
Average Weekly Earnings			
Manufacturing (\$ Per Worker)	523.29	621.81	-15.8
Air Transportation			
Passengers Enplaning (Number)	1,665,653	1,743,661	-4.5
Passengers Deplaning (Number)	1,656,542	1,738,128	-4.7
Freight Enplaned (Tons)	17,902	20,918	-14.4
Freight Deplaned (Tons)	20,520	26,257	-21.8
Permit-Authorized Construction			
Residential-Single Family			
Dollar Value (\$000)	589,720	475,510	24.0
Number of Units	4,418	3,861	14.4
Residential-Multi Family			
Dollar Value (\$000)	130,107	62,495	108.2
Number of Units	1,170	1,218	-3.9
Total Construction (\$000)	719,827	538,005	33.8

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.