



# OKLAHOMA BUSINESS BULLETIN

Center for Economic and Management Research  
Michael F. Price College of Business  
The University of Oklahoma  
ISSN 0030-1671

APRIL/JULY 2000 • VOLUME 68 • ISSUE 2



The *Oklahoma Business Bulletin* is published quarterly by the Center for Economic and Management Research, 307 West Brooks, Room 4, Norman, Oklahoma 73019-0450. April/June 2000, volume 68, number 2, ISSN 0030-1671. Second class postage paid at Norman, Oklahoma. Subscription price per year is \$10.00. Postmaster: Send address changes to the *Oklahoma Business Bulletin*, 307 W. Brooks, Room 4, Norman, Oklahoma 73069.

The Editorial Review Board welcomes original manuscripts, studies, and research reports from persons in both the public and private sector in any area of economics and business administration. The editorial policy of the *Bulletin* promotes a free exchange of ideas and analyses. Accordingly, the contents do not necessarily reflect the views of the editor or the publisher.

Manuscripts for consideration should be typed, double-spaced, and submitted in duplicate. Each submitted manuscript is reviewed by at least two members of the Editorial Review Board and a decision is usually reached in four to six weeks.

Address all manuscripts and correspondence to:

*Oklahoma Business Bulletin*  
Center for Economic and Management Research  
307 West Brooks, Room 4  
Norman, Oklahoma 73019-0450

The *Oklahoma Business Bulletin* is published by the Center for Economic and Management Research, Michael F. Price College of Business, The University of Oklahoma.

© 2000 by the Center for Economic and Management Research. Printed in the United States of America.

## Publications Staff

<i>Director</i>	Robert C. Dauffenbach
<i>Associate Director</i>	David A. Penn
<i>Information Specialist</i>	John McCraw
<i>Publications Specialist</i>	Patricia Wickham
<i>Copyreader</i>	Marilyn Cain

## Editorial Review Board

**CLYDE C. COLE** President, Tulsa Chamber of Commerce, Tulsa, Oklahoma.

**MICHAEL G. HARVEY** Professor of International Business Policy and Puterbaugh Chair in American Enterprise, University of Oklahoma, Norman, Oklahoma.

**GERALD LAGE** Professor of Economics, Oklahoma State University, Stillwater, Oklahoma.

**H.E. RAINBOLT** Chairman of the Board, BancFirst Corp., Oklahoma City, Oklahoma.

**STEPHEN SMITH** Professor, Business Division, Rose State College, Midwest City, Oklahoma.

**WILLIS J. WHEAT** T.K. Hendrick Professor of Marketing/Management, School of Management and Business Sciences, Oklahoma City University.

**DANIEL A. WREN** Professor of Management, University of Oklahoma, Norman, Oklahoma.

The University of Oklahoma is a doctoral degree-granting research university serving the educational, cultural, and economic needs of the state, region, and nation. Created by the Oklahoma Territorial Legislature in 1890, the University now has 18 colleges offering 134 bachelor's degrees, 82 master's degrees, 51 doctoral degrees, four graduate certificates, and one professional degree. OU enrolls more than 27,000 students on campuses in Norman, Oklahoma City, and Tulsa and has approximately 1,830 full-time faculty members. The University's annual operating budget is approximately \$797 million.

# OKLAHOMA BUSINESS BULLETIN

Volume 68, Number 2

April/June 2000

## Articles

Business Highlights .....	1
<i>Robert C. Dauffenbach</i>	
A Tribute to Neil Dikeman, Jr. ....	7
<i>Daniel A. Wren and Patricia Wickham</i>	
How Global is the Oklahoma Economy? .....	11
<i>Robert Henry Cox and Christian Breunig</i>	

## Tables

### Quarterly

Selected Indicators .....	26
Retail Trade in Metro Areas and State .....	27
Retail Trade in Selected Cities .....	29
Metropolitan Area Data	
Enid and Lawton MSAs, Muskogee MA .....	30
Tulsa .....	31
Oklahoma City .....	32

# Business Highlights

by Robert C. Dauffenbach

## National Scene

The Federal Reserve Open Market Committee (FOMC), the 12-member board that sets monetary policy, announced in June that it would leave unchanged the rate of interest it charges member banks. This rate of interest is known as the discount rate. That decision followed a somewhat surprising increase of one-half percent the previous month. The Fed's decision did not signal that its concerns that the economy is overheating have abated. Indeed, accompanying the Fed's announcement was a statement that "the risks continue to be weighted mainly toward conditions that may generate inflation pressures in the foreseeable future." Accelerating inflation still remains its principal concern and few analysts doubt that the Fed is on a course to significantly slow the economy.

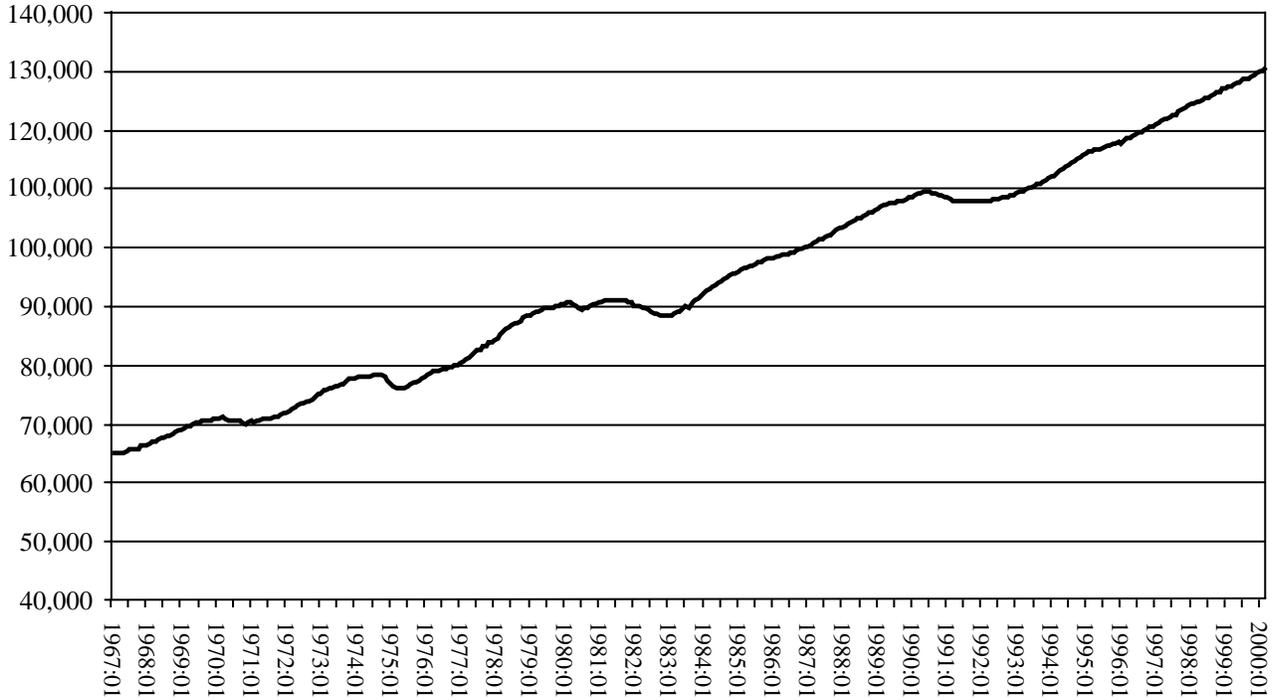
Are the Fed's actions justified? There are arguments on both sides, but a review of the historical evidence presents a compelling case that current tightening of the monetary reins is justified. We present that historical evidence by examining a number of important variables for the national economy in an attempt to see conditions more in the light of the Fed's eyes. Starting with employment, the 33 years of data presented in Figure A show that the US economy has gained in excess of 20 million jobs in the decade of the 1990s. Interesting, the gain in jobs in the 1980s was also about 20 million, which is, in turn, about equal to the growth in jobs in the 1970s. The US population is, however, growing less rapidly than in earlier years. Thus, pressure on the supply of labor is increas-

ing, as evidenced by the 4.0 percent unemployment rates we are presently experiencing.

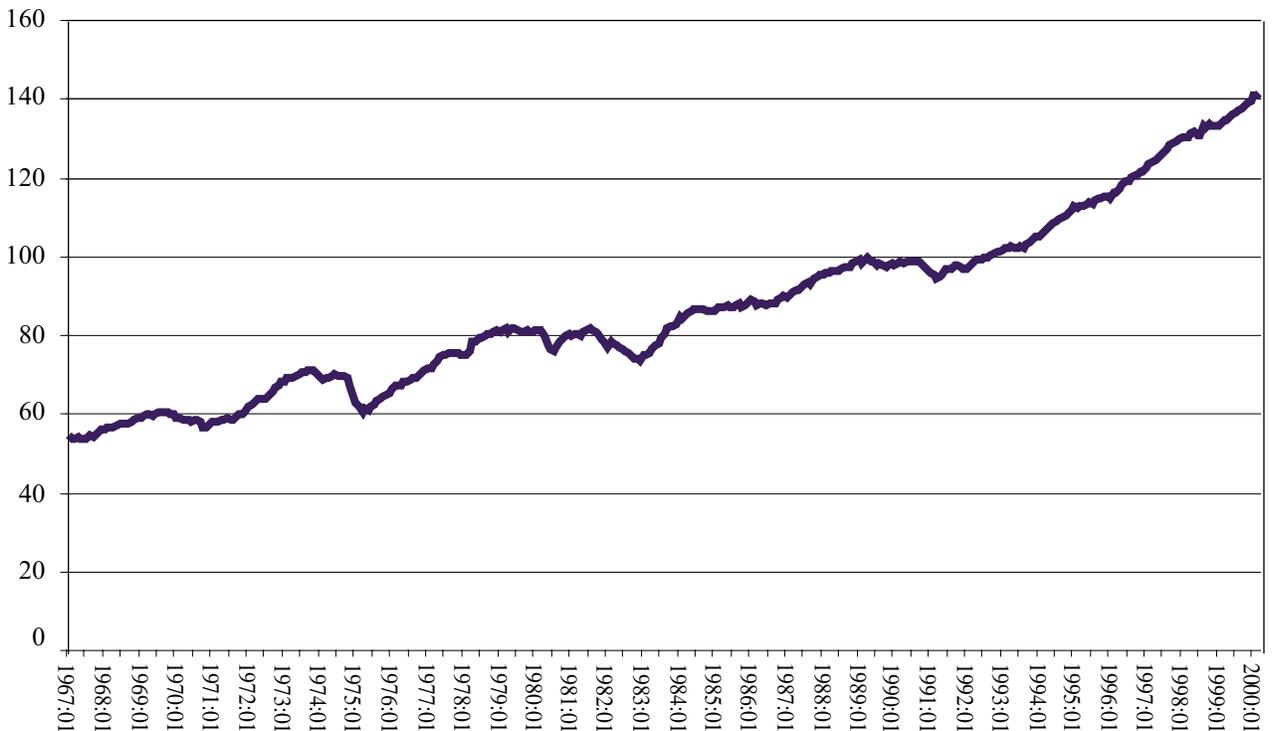
Figure B examines the index of industrial production, a measure of output from the nation's factories. Industrial production exploded upwards by 40 percent in the 1990s, in comparison to only about a 13 percent growth in the 1980s. Productivity gains are largely responsible for these gains. Indeed, manufacturing employment is little changed in the 1990s. Retail sales, adjusted for inflation, as shown in Figure C, have also mushroomed. Recent monthly sales, seasonally-adjusted, are almost \$100 billion higher than they were at the beginning of the 1990s. The consumer is clearly out in full force, and, as illustrated in Figure D, the consumer has significantly tapped into his and her credit lines. Consumer installment debt is up by \$600 billion, about a 75 percent increase from early 1990 levels.

As strong as growth has been, nothing else compares with to the growth in equity values over the course of the 1990s. As shown in Figure E, the S&P 500 index benchmark has risen by 330 percent since early 1990. Of course, the price level is higher today than it was then, but only about 40 percent higher. Thus, the real value of gains in equity values has been sizable. Some observers believe that these gains may indicate a stock market bubble, that when and if it bursts could have dire consequences on the economy. Some analysts believe, as well, that these higher stock market values have created a wealth effect. Households rightly feel wealthier in consequence of higher equity prices and spend more of their disposable income as a result. These actions add fuel to the inflationary fires.

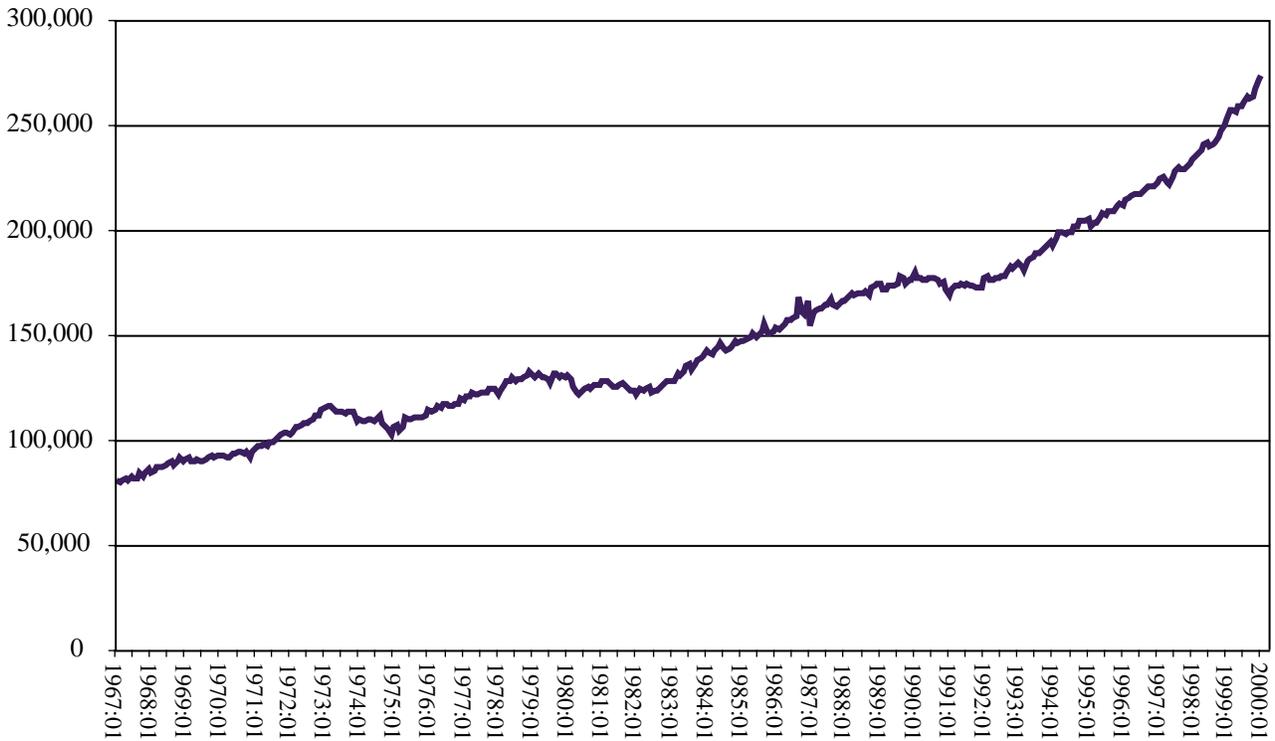
**Figure A**  
**US Wage & Salary Employment**  
**in thousands**



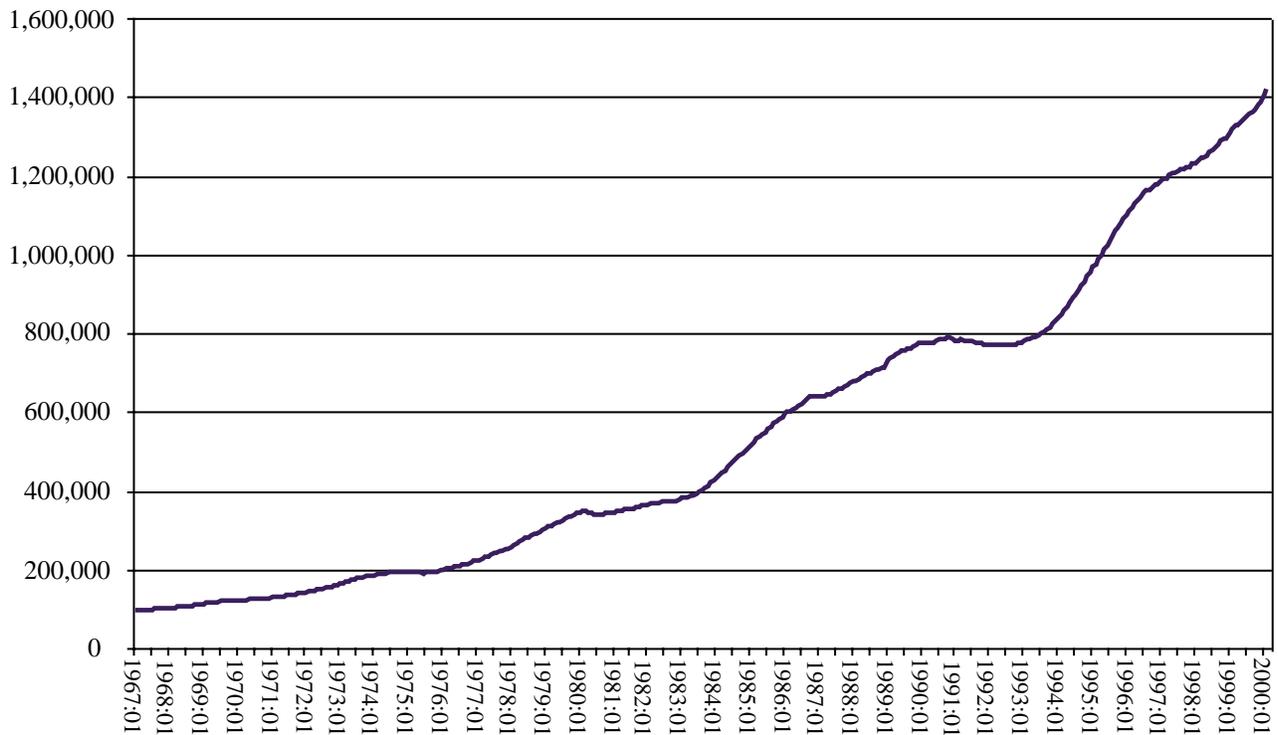
**Figure B**  
**Index of Industrial Production**



**Figure C**  
**Inflation-Adjusted Retail Sales**



**Figure D**  
**Consumer Installment Credit**



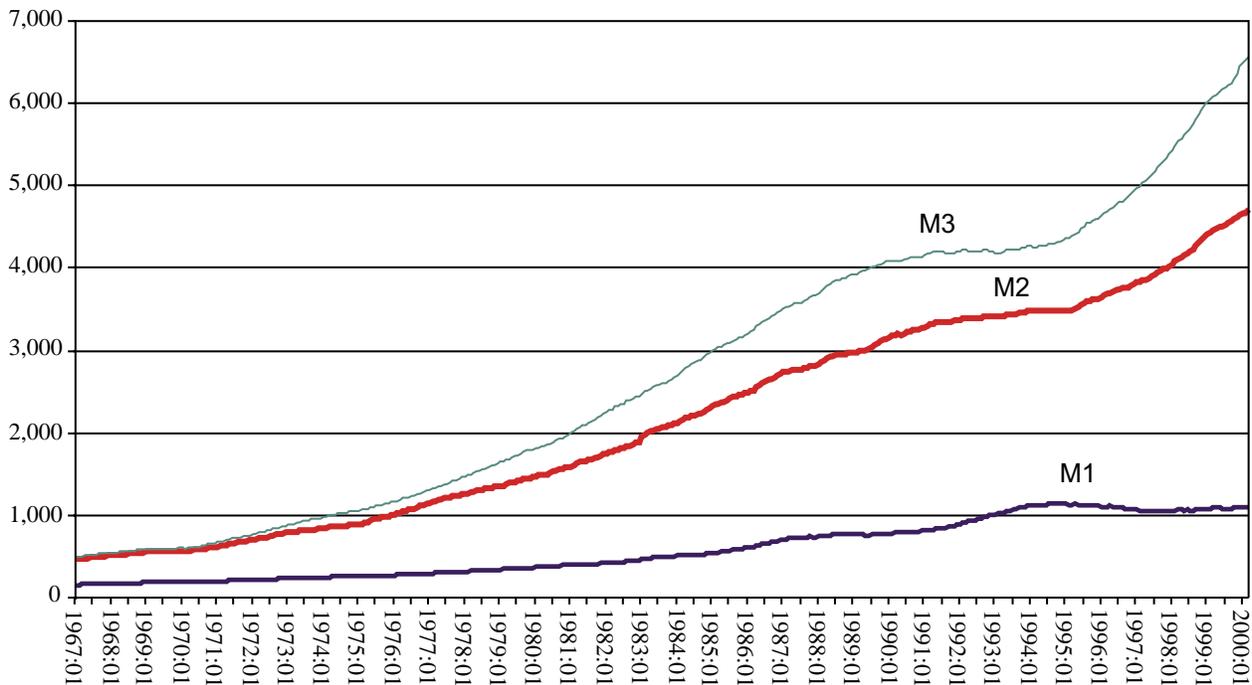
Growth in the supply of money is the final piece of evidence offered at this time. As is apparent in Figure F, there has been considerable growth in the money supply in the 1990s as measured by the M2 and M3 aggregates. Brief definitions are in order here. M1 is the narrowest definition of money, consisting of cash in the hand of the nonbank public, travelers checks, and checking accounts. This measure shows little growth. Frequent use of credit cards today may account for a lower need for cash and use of checks for daily purchases. The M2 money aggregate is M1 plus money market mutual funds, savings accounts, and small time deposits (certificates of deposit). M3 is M2 plus large time deposits. Interestingly, M2 and M3 growth was relatively low until early 1995. From that juncture, these money aggregates exploded upwards. In excess of \$1.2 trillion has been added to M2 in the latter half of the 1990s; M3 has expanded by \$2.2 trillion in those same five years, almost a 50 percent increase.

The evidence at hand makes a compelling case for monetary restraint. The US economy has experienced dramatic growth since the 1990-91 recession, as is apparent in this review. Productivity gains, often attributed to increased use of computers, have played a large role in keeping the inflationary consequences of this dramatic growth in check. Even the Fed believes that the growth potential of the US economy is higher as a result of the increased application of technology in the workplace. Whereas the Fed used to say that 2.5 percent real growth was achievable without exacerbating inflation, today they say that 3.5 percent growth is achievable. The US economy has been exceeding even that higher growth rate. Inflation is a lagging variable; it tends to accelerate late in the stages of economic cycles. The need to strike preemptively is paramount before higher rates of inflation take root in the economy. This review, all told, supports the Fed's attempts to slow the economy.

**Figure E**  
**Standard & Poor's Stock Index**



**Figure F**  
**Money Supply – M1, M2, M3**



### PCI and Forecasts

The Price College Indicators are leading indicators of economic activity developed at the Center for Economic and Management Research. These indicators also form the basis for conducting forecasts for national employment, the core rate of inflation, and state and major metro area employment. The indicator is normalized to range between zero and 100 with a value of 50 signifying continuation of present trends. In the most recent results the PCI-US employment stands at 50. Thus, presently favorable national employment trends should continue in the near future. The PCI-core rate of inflation measure has risen to 55, signifying that inflation trends should increase. The PCI-Oklahoma employment measure is slightly above the neutral level at 51. For Oklahoma City the PCI is 53 and for the Tulsa metro area, 57. These are favorable readings indicative of

continuing strength in employment gains. In summary, inflation is indicated to be more of a problem in the future by these PCI results and employment growth should remain favorable at least in the near-term.

As mentioned above, the PCI measures are used as a basis for forecasting future employment and inflation levels. The forecast for national employment, non-agricultural wage and salary basis, is an increase of 2.9 million jobs in 2000, a 2.3 percent gain. This is slightly higher than the 2.7 million gain in 1999, a 2.1 percent growth. Job growth is expected to drop to the 1.9 percent rate of growth in 2001 for a 2.6 million gain in employment. The core rate of inflation, which excludes volatile food and energy components, is expected to rise by 2.6 percent in 2000, up fairly sharply from the 1.9 percent rate of inflation in 1999. Further acceleration of inflation is not anticipated by the model in 2001. A 2.4 percent rate of inflation is the forecast for that year.

Oklahoma is expected to add 36,000 jobs in 2000, a 2.4 percent growth rate. The growth rate is anticipated to be not as robust in 2001, where only 25,000 new jobs are forecast, a 1.6 percent growth rate. The Oklahoma City metro area, a six-county region, is expected to add 14,000 jobs in 2000 and another 12,000 jobs in 2001. This yields a 2.7 percent growth rate for 2000 and a 2.1 percent rate for 2001. The Tulsa five-county metro area is expected to add 7,000 jobs in 2000 for a 1.8 percent growth rate and 9,000 jobs in 2001, a 2.2 percent growth rate. Recent revisions in Tulsa area employment by the Oklahoma Employment Security Commission have lowered the Tulsa growth profile.

Nevertheless, the Tulsa area has experienced considerable growth in the late 1990s. With its much higher concentration of private sector employment in comparison to Oklahoma City, Tulsa's economy continues to follow historic precedent of being more cyclically volatile.

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

# A Tribute to Neil Dikeman, Jr.

*Daniel A. Wren and Patricia Wickham*

Persons interested in economic activity in Oklahoma lost a long-time observer and reporter, Neil Dikeman, Jr., March 23, 2000. Born April 23, 1923 in Anadarko to Bernice and Neil Dikeman, Sr., Neil was educated in Anadarko and attended the University of Oklahoma where he attained his bachelors, masters, and Doctor of Business Administration in Economics degrees. He also served on active duty in the United States Air Force during World War II and the Korean War, and continued as an Air Force reservist, retiring as a full Colonel. He was preceded in death by his wife, Virginia Ann Turnbull Dikeman, and is survived by two daughters, one granddaughter, and one great-grandson.

Neil began as a student assistant in the Center for Economic and Management Research in September, 1947 and retired as its Director in 1990. During those forty-three years he was primarily responsible for gathering and reporting business economic data in the Statistical Abstract of Oklahoma, as well as the Oklahoma Business Index for the *Oklahoma Business Bulletin*.

He also taught marketing, statistics, and computer applications as well as writing special studies of the Oklahoma economy such as: "Retail Trade Areas of Oklahoma," "The Tourist Industry in Oklahoma," "A Procedure for Selecting Industrial Possibilities for a Commu-



nity," "The Quality of Life in Oklahoma," "Oklahoma's Perceptions of Their Image," "What a Marketing Research Program Can Mean to Bank Operations" and various other articles.

In his work he came into contact with numerous business leaders as well as others who were interested in the Oklahoma economy and its development. Larkin Warner, now Regents Professor of Economics Emeritus, Oklahoma State University, recalls:

"Neil and I worked on many projects over the years. Although he was a loyal supporter of OU, he also promoted cooperative work with OSU. He was a tremendous resource for those of us working on the Oklahoma economy, and I well recall his helping this young (but now-retired) faculty member back in the 1960s. Neil had a tremendous range of contacts in both the private and public sectors of Oklahoma. His knowledge of the state's business and economic history was an inspiration to those of us who worked with him. Libraries throughout the state are full of his legacy of information about Oklahoma's economy appearing in various

publications of the OU Bureau of Business Research/Center for Economic and Management Research. I especially remember his recollections of life as a banker's son in Anadarko during the worst days of the Great Depression. The last project we worked on together involved our contacting data users throughout the state to identify important variables to include in the ORIGINS database currently operated by CEMR. He always insisted that economic data needs to be useful; he did not collect and publish numbers for their own sake."

Neil's opinions on the economics of Oklahoma were sought by business leaders and the media. George W. England, Professor of Management Emeritus and a former Director of CEMR noted Neil's willingness to respond to numerous requests:

"I knew Neil for a little over 20 years and worked with him daily in CEMR for just over 10 years. I have never met anyone so helpful and competent as was Neil in responding to requests to CEMR for information or assistance. For me, Neil exemplified all the positive aspects of a long-time native Oklahoman who was totally dedicated to the University of Oklahoma and the state of Oklahoma. He was clearly the finest "old boy" that I ever knew. Neil will be missed by many of us because he did much more than could be expected. I am pleased to pay tribute to one of the best of the best."

Robert C. Dauffenbach, Professor of Management and present Director of CEMR comments:

"Neil Dikeman was my mentor, advisor and friend. This is a role he fulfilled for many others throughout his four decades of service to College of Business Administration, the University of Oklahoma, and citizens of this state. I came to know Neil while serving as director of the Office of Business and Economic Research at Oklahoma State University. As a new-on-the-scene, young, and brash researcher of Oklahoma's economy, I received nothing but encouragement and assistance from Neil. He was always helpful, never competitive. He was always very receptive to publishing studies in the *Oklahoma Business Bulletin* that I and other colleagues conducted at OSU. In probably our most significant joint undertaking, we collaborated with the newly formed Oklahoma Department of Commerce to extend the *Statistical Abstract of Oklahoma* and to



George W. England and Neil J. Dikeman, Jr.

create an on-line database of Oklahoma economic statistics, called ORIGINS. When he announced that he was retiring from his position as director, Center for Economic and Management Research, I received direct encouragement from him to apply for the job. Once I arrived at OU, it became quickly clear what a tremendous base of information and analysis Neil had established. More than that, he had hired the right people: Marilyn Cain, John McCraw, David Penn, Betty Rose, and Pat Wickham. These key personnel remain with CEMR almost a full ten years later. He visited the Center frequently after his retirement, always willing to listen to my travails and always offering useful advice. He was a kind and gentle man, an example to us all. Long live his legacy."

Neil served on the Board of Directors of the First State Bank of Anadarko and was a member of the Oklahoma Historical Society as well as other professional and business associations. Richard W. Poole, now Vice President Emeritus and Regents Distinguished Service Professor Emeritus, Oklahoma State University, drew from his long acquaintance with Neil:

"When Neil was a graduate assistant in the Bureau of Business Research he hired me in 1950 as a statistical clerk. I looked up to Neil with awe. He knew so much about the Oklahoma economy, and he demonstrated a strong managerial bent as he coordinated, motivated and directed a number of us in the production of statistical materials and indices for the *Oklahoma Business Bulletin*. He was a demanding yet sensitive "boss." He imbedded in my work ethic the need for accuracy, quality and integrity – principles that held me in good stead as I had the

opportunity to grow and develop my professional career. I am in his debt.

For me, Neil epitomized the following quote from the author Somerset Maugham.

'It is a funny thing about life. If you refuse to accept anything but the best you very often get it.'

Thank you, Neil!"

Mel Penn, MBA Corporate Relations Executive for the Michael F. Price College of Business, recalled working for Neil:

"I worked with Dr. Dikeman as a research assistant during my graduate school days of 1974-1976. We spent considerable time trying to develop metrics for measuring the return to the college of acquiring government contract grants. Neil, Marlene Chapman and myself also worked closely with the CEMR budget.

There was never a time when Neil could not make time for a question, an idea or even a good joke. He was always polite and never spoke in bad taste. I think of Neil Dikeman as a mentor, an educator and a friend."

Next, as a friend and colleague, B.G. Schumacher, Professor of Management Emeritus, commented:

"It is my pleasure to write a few words about my friend, Neil. I was privileged to have a wonderful relationship with him as a colleague and as a friend.

When we met casually, I usually addressed him with his German title–Herr Doktor Oberst Professor Dikeman. We shared this similar background. We were both somewhat late in academic achievement after our military duties.

We also shared similar youthful experiences as well—depression and drought including our background of small town upbringing. We often tested each other. One time I sang the first line of the theme song of a popular 1930s radio program. When Neil heard it, he sang the next line. We had a special rapport.

We were fellow parishoners at St. Michael's Episcopal Church worshipping at the same service. He was my compatriot, professional colleague, and brother in Christ. I miss him."

CEMR recognized Neil's long and valuable service by establishing the Neil J. Dikeman, Jr. Awards, given annually for the two most outstanding manuscripts published in the *Oklahoma Business Bulletin*. A fitting tribute to one who contributed generously to service and research in Oklahoma.

*Daniel Wren, David Ross Boyd Professor of Management Emeritus, The University of Oklahoma. Patricia Wickham, Design Publication for the Center of Economic and Management Research.*

# How Global Is The Oklahoma Economy?

Robert Henry Cox and Christian Breunig

## Abstract

To what degree does Oklahoma participate in the trends towards economic globalization? In this article, we explore this question by examining the presence of foreign business in the state. First, looking at foreign-owned business, we examine the number of workers they employ. Then, using foreign direct investment as a broader measure of globalization, we identify a stronger presence of foreign business. Finally, we examine this trend in regional perspective, contrasting Oklahoma with neighboring states. We find that European firms represent a strong majority of foreign business in Oklahoma and that they are concentrated in the manufacturing sector. The implications of these findings are discussed.

## Introduction

We live in an age of economic globalization. To compete successfully in this age states and nations need to encourage trade and provide a favorable environment for foreign business to locate within their borders. The ability to attract foreign business offers many advantages to a state; foreign firms create jobs, enhance the local tax base, and help to provide infrastructure.

In Oklahoma, the ability to attract foreign business is of especial importance as the state strives to diversify the economy and move away from primary dependence on the oil industry. This concern was driven home by Governor Frank Keating in September of 1999

when he embarked on a visit to France that was advertized as an effort to promote trade and foreign investment.

---

---

*“We find that there are more foreign firms in the state than many people might suspect, and they employ a considerable number of Oklahomans.”*

---

---

But, how global is the Oklahoma economy? As the state’s leaders set out to attract more foreign investment, it would be helpful to demonstrate and assess the existing presence of foreign firms. Determining what types of firms have located in Oklahoma, and what types of industries they represent would be useful to policy makers as they consider where to concentrate their efforts. In this article, we answer the major question in three parts. First, we examine data on foreign firms who have operations in the state. This data is available from the Oklahoma Department of Commerce. Then, we use a broader measure of foreign direct investment (FDI) which considers foreign ownership of Oklahoma firms, using data collected by the U.S. Department of Commerce. Finally, we compare the levels of FDI in Oklahoma with those in neighboring states.

We find that there are more foreign firms in the state than many people might suspect, and they employ a considerable number of Oklahomans. Moreover, when we consider the

broader measure of foreign direct investment, we determine that the presence of foreign firms is crucial to the state's economic health. An analysis of these firms reveals three important characteristics. First, a European presence is important to the state, as European firms comprise a majority of the total foreign investment. Second, the firms tend to concentrate in

---

---

*“With the exception of New Mexico, all neighboring states do a better job attracting foreign investment into activities that create jobs.”*

---

---

the manufacturing sector. This leads us to speculate that low wages and low levels of unionization are important considerations for foreign investors who seek low-skilled workers and are sensitive to labor costs. Finally, compared to neighboring states, we find that Oklahoma's level of integration into the global economy compares favorably. But, there are some caveats to this assessment. Compared to many of our neighbors, more of the investment in Oklahoma takes the form of asset holdings. With the exception of New Mexico, all neighboring states do a better job attracting foreign investment into activities that create jobs. These findings lead us to conclude that there is much room for improving Oklahoma's integration into the global economy, and that policy efforts should concentrate on attracting investments that will create jobs.

### **Foreign Firms in Oklahoma**

Using information compiled by the Oklahoma Department of Commerce, we assess the presence of foreign firms in the state. This data was provided in response to a direct request. It is compiled based on self-reporting by individual firms. The appendix provides a complete listing of these firms, including their foreign owner.

The information permits a number of observations about the trend in the state. First, the firms vary in size and types of activity. They range in size from a single sales representative (Kleckner Moeller and Hanil Industrial Corporation) to a tire plant with 2000 employees (Michelin). Foreign firms are present in all corners of the state, from Texhoma to Broken Bow, Miami to Frederick. Not surprisingly, the largest concentrations are located around Tulsa and Oklahoma City. In terms of their impact on employment, foreign firms are relatively small. They account for 15,506 jobs, which is around one percent of the state's total employment.

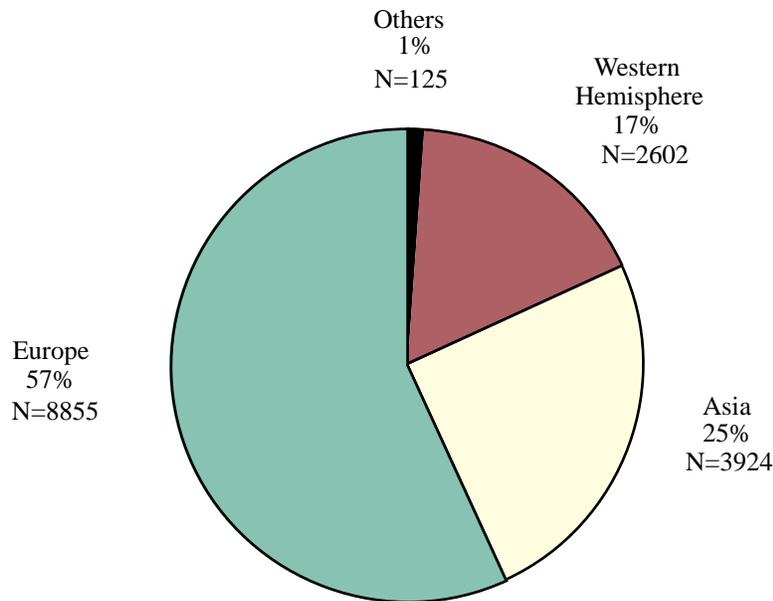
Dividing them according to world regions, we discovered an overwhelming presence of European firms. Of the eighty-two total firms, forty-eight are European (59%). This figure corresponds with the total level of employment provided by European firms. As Figure 1 demonstrates, European firms account for 57% of the jobs created by foreign firms.

Figure 1 displays the regional presence of foreign firms in Oklahoma, divided basically by continent. Though Europe includes the land mass from the North Sea to Ural Mountains, all of the European firms doing business in Oklahoma are from western European countries. Most of these are German, French, British and Swiss, but virtually all West European countries have a presence in Oklahoma (e.g. Belgium, Denmark, Finland, Italy, Liechtenstein, Netherlands, Spain and Sweden). Thirty-nine of the forty-eight firms are from countries that belong to the European Union (EU). Switzerland and Liechtenstein are not members of the EU. Thus, if the EU were taken as a single country, it would stand out as the most significant foreign presence in Oklahoma. EU firms comprise 48% of the total foreign firms in Oklahoma, and account for 42% of the people employed by foreign firms.

Asia is the second largest regional presence in Oklahoma, accounting for one quarter of the total employment. Most of these firms are from Japan and Korea. One Australian firm was left out of this measure, though arguably it could be included. Doing so would only raise the Asian level of employment by 25 people (0.5%).

**Figure 1**

**Jobs Created by Foreign Firms**



Source: Oklahoma Department of Commerce, 1999.

N=15506

Surprisingly, other countries in the western hemisphere are less significant investment partners for the state. In this category we included all of Central and South America, as well as Canada and Mexico. Canadian and Mexican firms, it should be noted, enjoy special status under the North American Free Trade Agreement (NAFTA). Setting aside firms from NAFTA partners, the only other Latin American firm operating in Oklahoma is Petroleos de Venezuela, which operates a refinery in Tulsa.

The category of Other includes one Israeli firm, and one Australian firm. There are no African businesses operating in Oklahoma.

We also attempted to characterize these foreign firms by their types of activities. The data provided by the Oklahoma Department of Commerce does not make such an assessment, but it does provide information on the products that these firms report as their major activity. We classified them according to five types of activities; Agriculture/Food, Natural Resources (oil, minerals), Light Manufacturing, High Technology, and Service/Transport. Distin-

guishing between high-tech and manufacturing is difficult because while computer and health care involve much high tech activity, some of the products such as disk drives or syringes could be classified as light manufacturing. In these borderline cases we were generous in classifying them as technology firms, therefore we may have overstated the importance of high tech industries. Likewise, there is a marginal dispute over how to classify firms that produce drilling equipment for the oil industry. Unless they claimed to handle oil, either as drillers or refiners, most are machine tool industries, which we classified as manufacturing. A further problem is that the category light manufacturing conflates firms that produce products in Oklahoma, and those that sell products produced elsewhere. This latter group should be classified as retail or wholesale trade. Unfortunately, the data collected by the Oklahoma Department of Commerce does not distinguish between firms that manufacture from those that simply sell their products in Oklahoma.

The result of this classification are represented in Figure 2. This figure presents the percentage of the total jobs created by each type of foreign activity. This is an important measure for assessing the impact of foreign firms on Oklahoma's economy. Jobs created by foreign firms strengthen the tax base, and produce multiplier effects – they create a number of other jobs and services that provide for the living needs of these employees. Despite the caveats about classification of marginal cases, one important trend is clear: manufacturing constitutes the vast majority of foreign firms in Oklahoma and comprises two-thirds of all foreign employment in the state.

Next we considered the regional representation of firms in each of these economic sectors, and produced the results in Figure 3. Again,

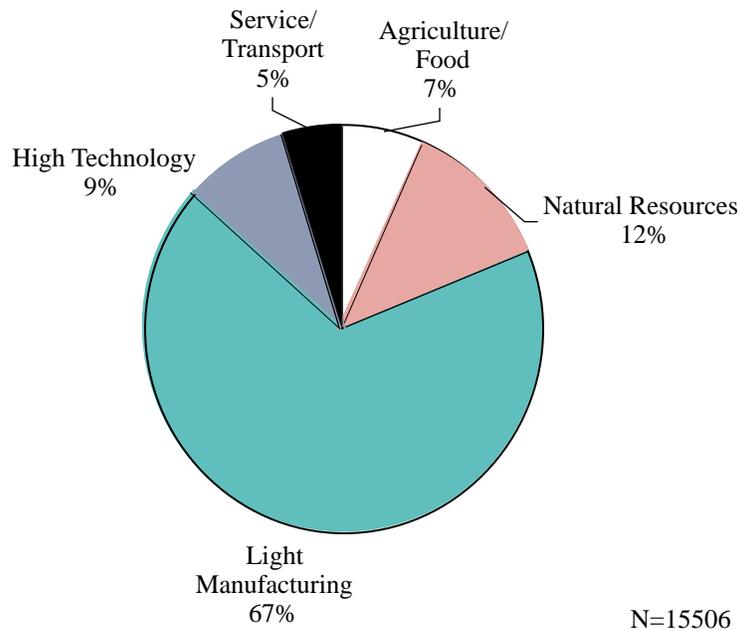
European firms dominate. In every sector except Natural Resources, European firms constitute a majority of the foreign activity in the sector. Indeed, even in Natural Resources, the European presence is strong considering that a single Venezuelan firm accounts for 1300 of the 1870 employees in this sector. Thus, across the board, European firms are important to Oklahoma's globalization effort.

### Foreign Direct Investment in Oklahoma

Foreign direct investment (FDI) is a broader measure of a state's level of economic globalization. This indicator measures not only foreign firms who operate in the state, but also Oklahoma affiliates of foreign firms.

**Figure 2**

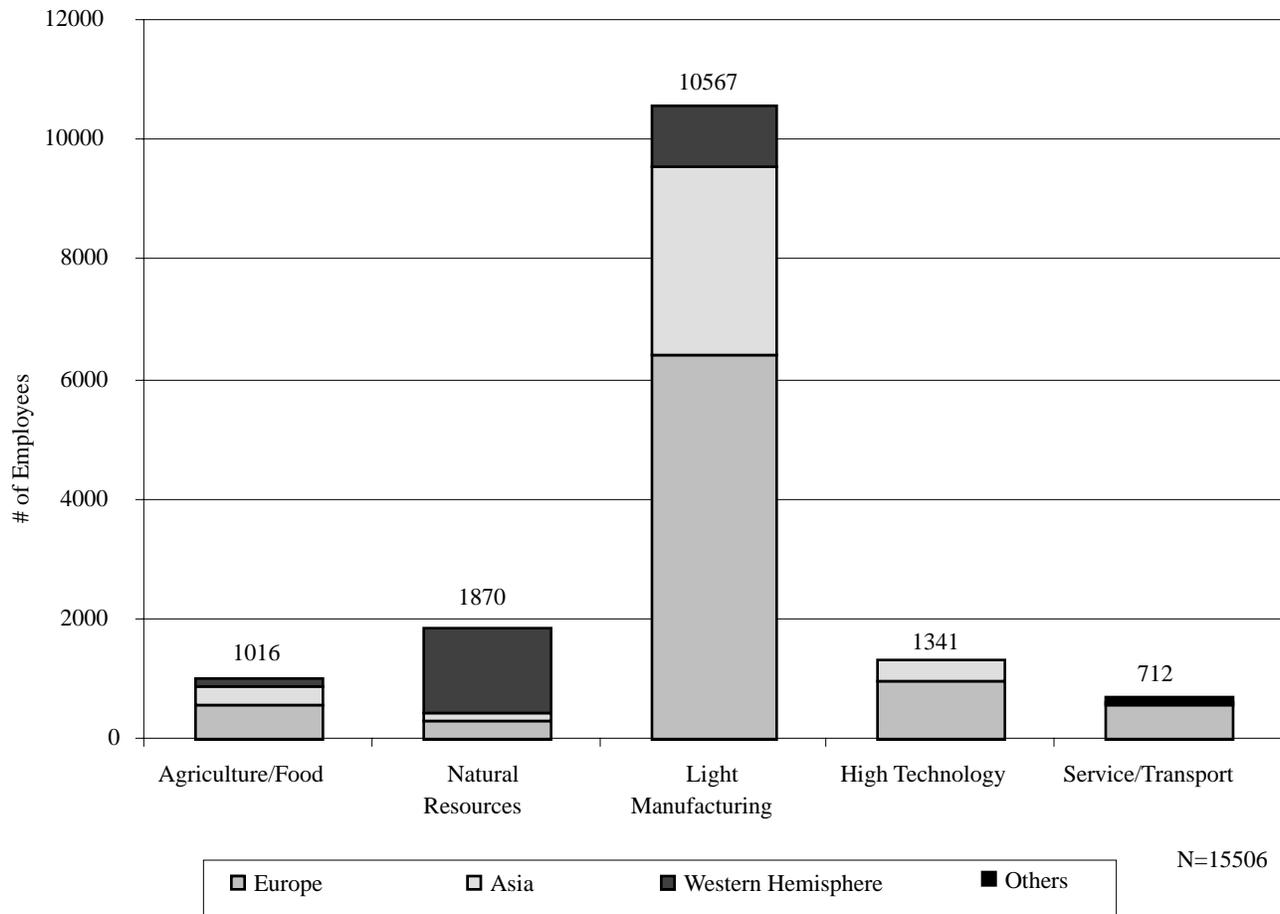
**Oklahoma Employees by Sector**



Source: Oklahoma Department of Commerce, 1999.

**Figure 3**

**Oklahoma Employees by Sector by World Region**



Source: Oklahoma Department of Commerce, 1999.

An affiliate is any enterprise in which a foreign individual or company controls ten percent or more of the voting securities of the company, or an equivalent interest if the company is unincorporated (USDC 1995: ix). Thus it includes a broader array of companies. And, FDI includes other forms of investments, such as property holdings. Information on foreign direct investment is not available from Oklahoma state agencies, but it is compiled by the United States Department of Commerce (USDC), which also calculates state level data. This information is a bit older, however, as 1995 is the most recent year for which data is available.

By this broader measure of FDI, the global economy has a stronger impact on Oklahoma's economy. As demonstrated in Table 1, the number of jobs that can be traced to FDI is almost triple the number that can be traced to the more narrow measure of foreign-owned firms. And, these jobs comprise almost five percent of the total workforce (4.86%). In terms of number of employees, these firms tend to be larger than the average domestic firm. Foreign firms are less than two percent of the total number of firms, yet they employ almost five percent of the workforce. Though the USDC data does not provide information about

individual firms, based on the data from the Oklahoma Department of Commerce, we can assume that a few very large foreign firms account for the greater proportion of employment in the state. The two tire plants owned by Bridgestone and Michelin, in particular, rank among the biggest foreign employers in the state. Indeed, in the sectors where these large firms operate, they have a substantial impact on the state's total employment in the sector. In mining (including oil), manufacturing and wholesale trade, the sectors where the largest firms are located, roughly one in ten Oklahoma employees owes his job to a foreign company. Of course, this is not surprising, given that these sectors tend to be labor intensive, whereas such sectors as financial services and retail trade require fewer workers. But the data does underscore the importance of foreign business to core areas of the state's employment base.

The USDC data divides the firms by sector and we were able to assess the percentage of jobs per sector that result from FDI (see Figure 4). This data presents a different image than we were able to gain from the Oklahoma Department of Commerce data. Unlike our assess-

ment of the Oklahoma data, the USDC data distinguishes wholesale and retail trade from manufacturing. This leads to a smaller proportion of jobs that can be traced to manufacturing (35% as opposed to 67%). Also, the USDC data does not distinguish agricultural or high tech products, as we did in our categorization of data from the state. Therefore compared with Figure 2, Figure 4 is less clear on the impact of foreign direct investment on high tech and agricultural activities.

Next we examined the data on FDI to determine the continent of origin. Figure 5 shows the value of Oklahoma property, plant and equipment that is owned by foreigners. Again, a familiar pattern appears. European investors account for over half the total foreign investment in the state, roughly 2.9 billion dollars of investment! Surprisingly, Africa and the Middle East, regions that have almost no other business activities in the state, constitute twenty percent of the total foreign investment. It is reasonable to assume that much of this investment comes from oil producing countries in the Middle East, whose investments are connected to Oklahoma's oil industry.

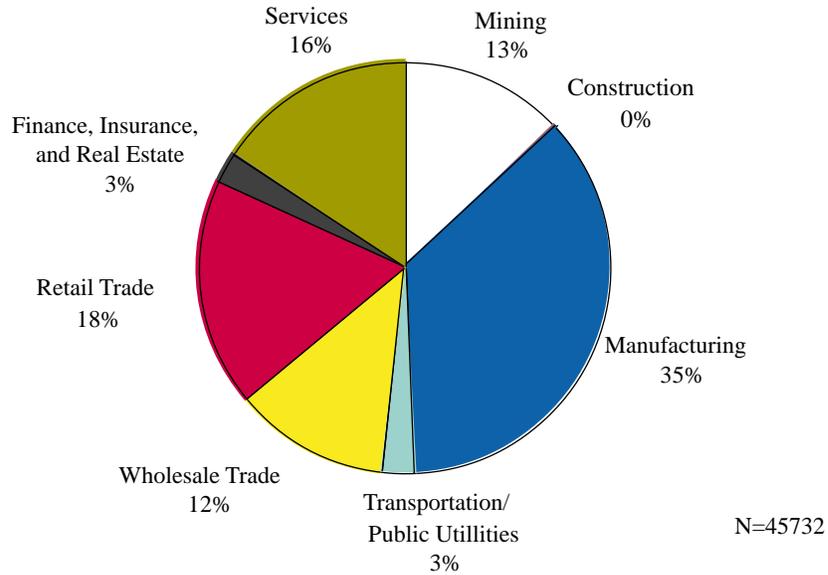
**Table 1**  
**Amount and Employment of Foreign-Owned Establishments in Oklahoma**

Industry	Foreign-owned Establishments		Foreign-owned Ests. as % of Total U.S. Ests.	
	# of Establishments	# of Employees	# of Establishments	# of Employees
All Industries	1,080	45,732	1.50%	5.10%
Mining	47	5,810	1.70%	13.10%
Construction	6	189	0.10%	0.40%
Manufacturing	109	16,494	2.70%	10.60%
Transportation/Public Utilities	49	1,317	1.50%	2.00%
Wholesale Trade	185	5,457	3.10%	8.70%
Retail Trade	497	8,157	2.50%	3.80%
Finance, Insurance, and Real Estate	43	1,172	0.60%	1.90%
Services	144	7,136	0.70%	3.50%

Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Establishment Data for 1992.

**Figure 4**

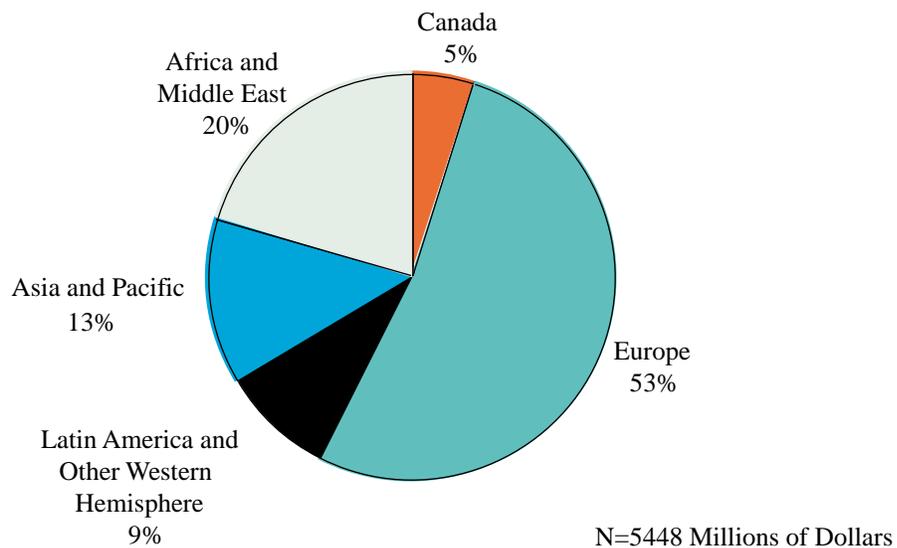
**Oklahoma Employees by Sector of Foreign Direct Investment**



Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Establishment Data for 1992.

**Figure 5**

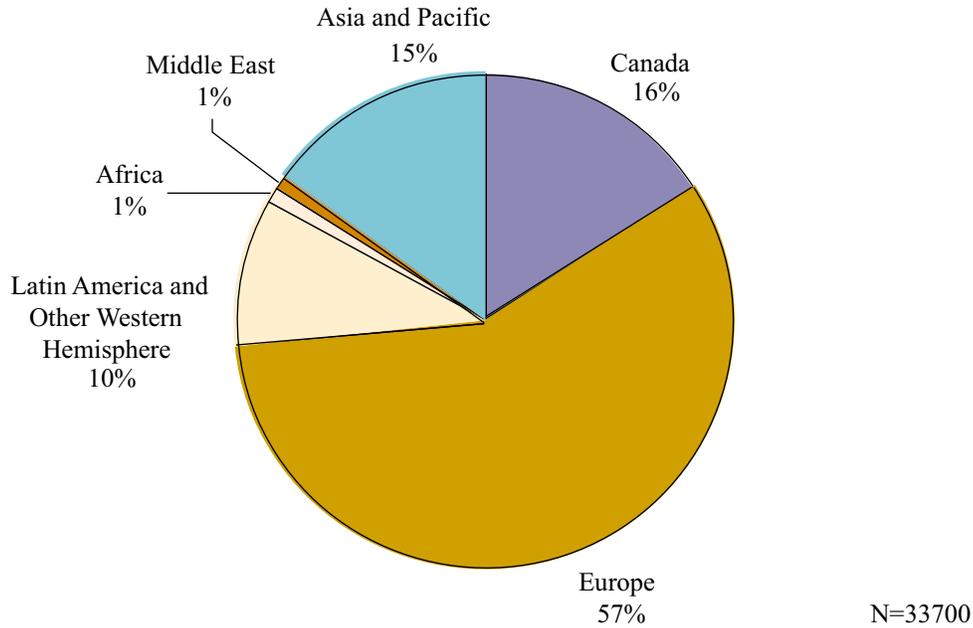
**Gross Property, Plant, and Equipment of U.S. Affiliates in Oklahoma**



Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Revised 1995 Estimates.

**Figure 6**

**Employment of U.S. Affiliates in Oklahoma by World**



Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Revised 1995 Estimates.

Not all of these investment activities result in direct employment. Some may take the form of property or other real investments. To gain a picture of how the broader measure of FDI affects employment in the state, we examined the level of Oklahoma employment that is produced by investments from different continents. The results of this examination are presented in Figure 6. Again, European investments account for the majority of total job creation, 57% of jobs created by FDI. The big difference, comparing Figures 2 and 6, is that the broader measure of FDI reports a greater proportion of job growth from Canadian and Latin American investors and a smaller proportion from Asian investors. This discrepancy may be due to differences between the two measures, or it may indicate that investments from other countries in the Western Hemisphere are more likely to create jobs in Okla-

homa than Asian investments. In other words, Asian investors create jobs when they locate firms in Oklahoma, but the other types of investments they make in the state do not create jobs. In addition, a similar statement can be made about African and Middle Eastern investors. Though they account for twenty percent of the total FDI in Oklahoma (Figure 5), that investment only produces a small amount of jobs (Figure 6).

In short, Foreign Direct Investment constitutes a broader measure of globalization of the economy than does the State's data on the number of foreign firms located in Oklahoma. Moreover, by examining the proportion by which investors from different world regions are active in Oklahoma against the jobs those investments create, we are able to estimate the types of investments that are made. According to this, European investors occupy the top

position both in total investment and total job creation. Because their share of job creation is the same using both measures, we can assume that Europeans are active both in job creating activities (e.g. manufacturing) and in the purchase of assets. We have seen that European investment in job-creating activities is distributed across sectors of the economy. Anecdotal speculation leads us to assert that the European interest in real assets might come from pension funds who buy commercial and undeveloped property. The data further suggest that Middle Eastern investors are important actors in Oklahoma though they are more likely to purchase real assets (land, mineral rights) than to engage in job producing activities, such as manufacturing. The opposite is true of investors from Latin America and North America, whose are more likely to invest in employment creating activities than to buy assets. Because the USDC data does not report data on individual firms, we cannot verify any of these assertions. They are merely tentative inferences based on the available aggregate data.

### Regional Comparisons

Because the USDC data is collected for all fifty states, it allows us to make comparisons with levels of FDI in neighboring states. These data are reported in aggregate terms, therefore they render some types of comparisons difficult. For example, Missouri has a higher level of FDI, but it is also a bigger state than Oklahoma, so we do not know whether the level of foreign investment is a bigger proportion of Missouri's economy than of Oklahoma's. In other words, we cannot say that the Missouri economy is more globalized. What we can do with these data is assess the character of that investment by looking at how it is distributed across sectors and examining which parts of the world foreign investment comes from.

Compared to our neighbors, Oklahoma can stand proud of the level of foreign investment in the state. Total FDI is greater than 5.4 billion dollars. This is above New Mexico's 4.3 billion,

and vastly exceeds the 3.6 and 3.2 billion Arkansas and Kansas (respectively) are able to attract.

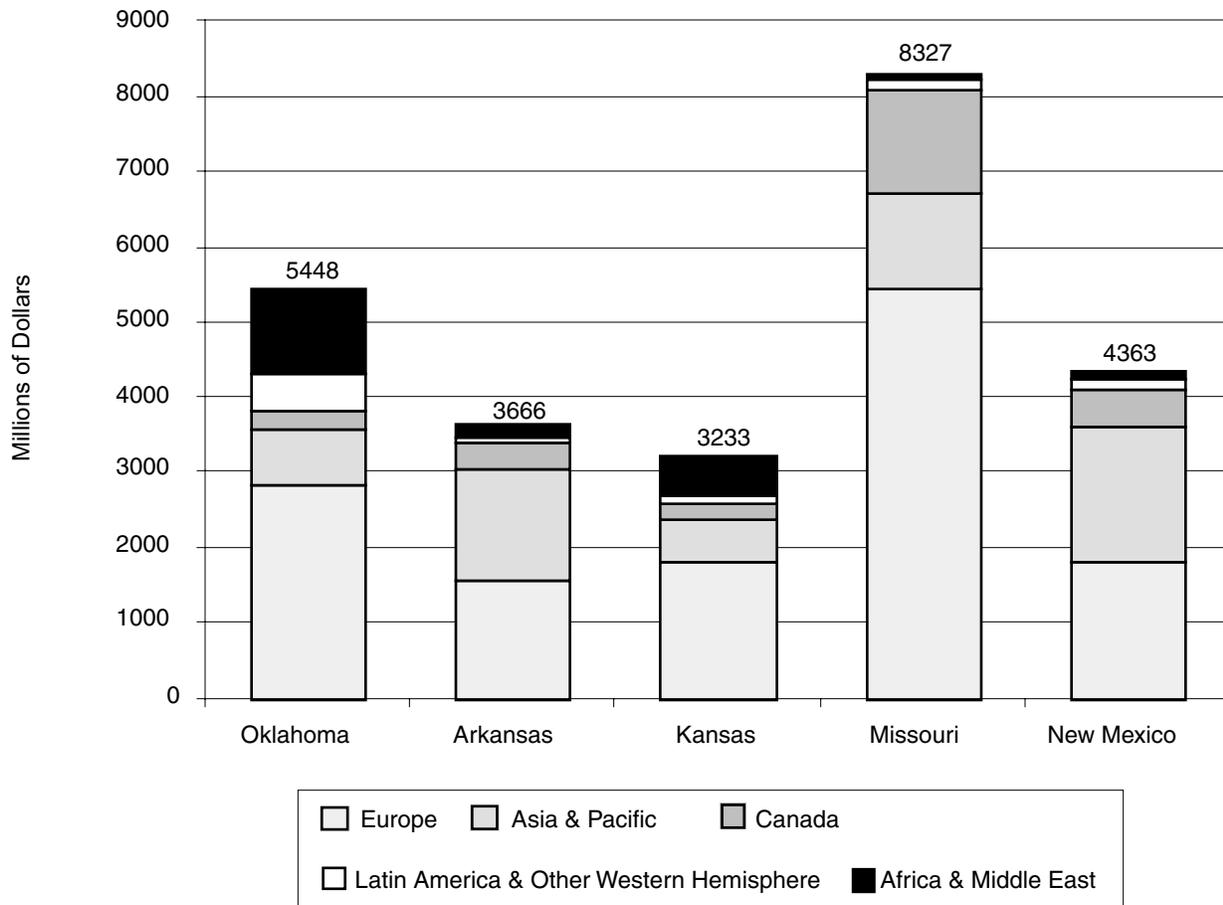
When the continent of origin is considered (see Figure 7), a few important traits are worthy of note. First, European investment is a large part of the total foreign investment in all our neighboring states, comprising more than half the total in Oklahoma, Kansas and Missouri. In New Mexico, Asians displace Europeans as the top investors in the state. Middle Eastern investors represent a significant proportion only in Oklahoma and Kansas, presumably due to the oil industries in those states. Elsewhere Middle Eastern investors are less active.

To group our neighbors roughly into families, Oklahoma and Kansas have similar profiles, where foreign investment is dominated by Europeans, but where Asians and Middle Easterners also have a sizable stake. Arkansas and New Mexico look alike as places where more Asian investors push Europeans into the second position and investments from other parts of the world are much smaller. Missouri stands apart as decidedly Euro-centric, with a moderate presence of Canadian and Asian investors.

If we examine foreign investment for the effect on employment in neighboring states, a more startling picture emerges. Despite Oklahoma's respectable showing in attracting aggregate foreign investment, this state is less successful using that investment to create jobs than are our neighbors. Indeed, job creation in Arkansas and Kansas is roughly as large as in Oklahoma, despite lower levels of foreign investment in those states. Missouri is similar to Arkansas and Kansas in its ability to attract foreign investment that creates jobs. New Mexico, like Oklahoma makes a relatively poor show in turning foreign investment into jobs. In assessing this information, there seem to be two patterns within our region. In Arkansas, Kansas and Missouri, foreign investment is a good vehicle for job creation. In Oklahoma and New Mexico, by contrast, foreign investors seem more interested in purchasing assets than in creating jobs.

**Figure 7**

**Gross, Property, Plant, and Equipment of U.S. Affiliates in the Region**



Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Revised 1995 Estimates.

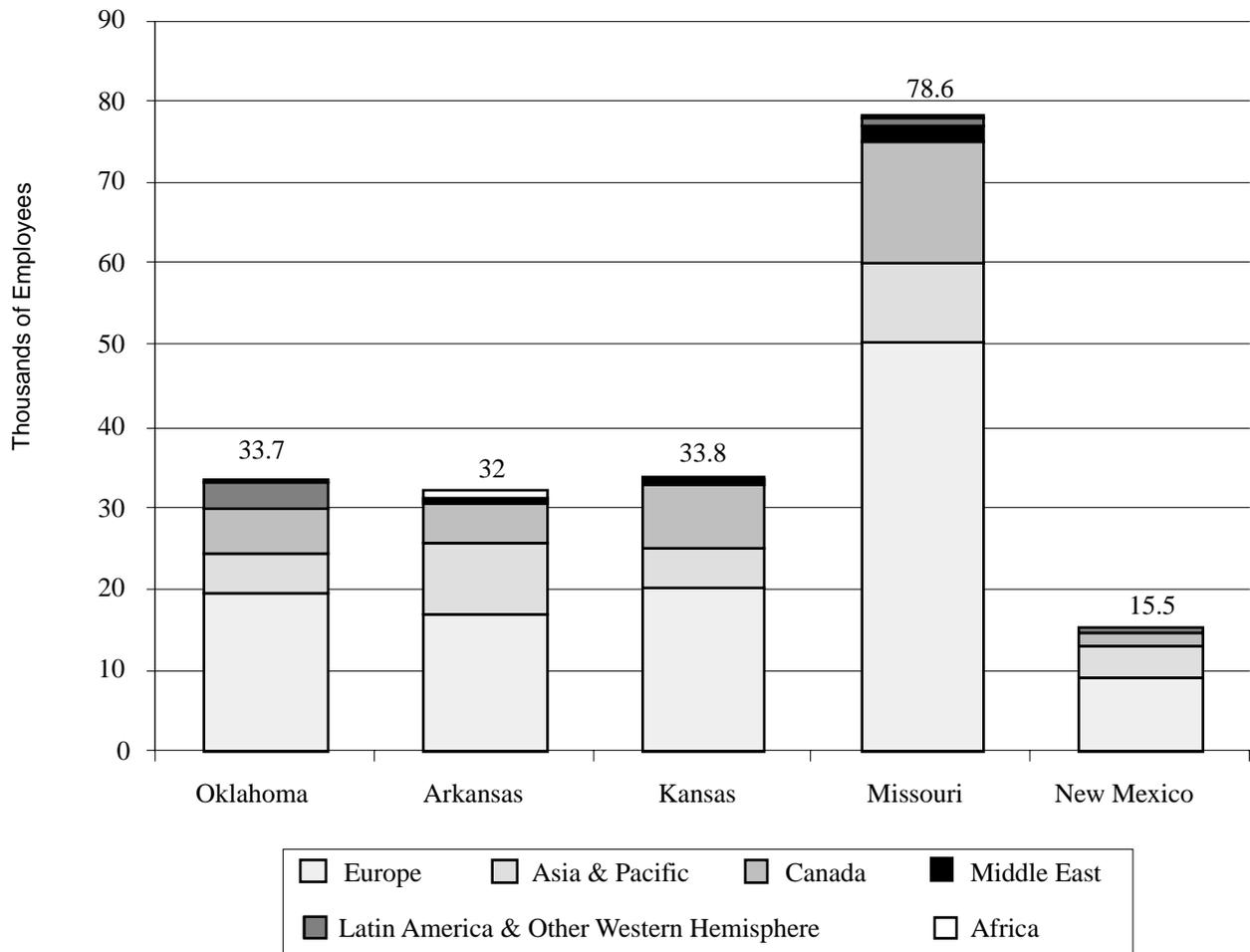
Two factors might contribute to explain these different patterns. First, Arkansas and Missouri begin with larger manufacturing sectors. In Arkansas, manufacturing jobs are 70% of the total workforce, compared to 45% of Oklahoma's. Missouri as the third largest auto manufacturer in the USA, also has an economy dominated by manufacturing. To the extent that states attract foreign investment that is proportionate to the economic activity already present in the state, it is not surprising that manufacturing lags in Oklahoma. Missouri also might be more attractive because of

St. Louis, with its ready access to transportation networks.

Another factor might be that Oklahoma is more attractive for rent-seekers than for risk-takers. Rent-seekers are risk-averse investors who seek investments that will appreciate in value without little effort. Relatively low land values in Oklahoma may be attractive to such investors who hope to realize strong appreciation in the value of those assets over time. Risk-takers, by contrast, are investors who will actively strive to turn assets into profits, for example, by producing or reselling goods.

**Figure 8**

**Employment of U.S. Affiliates**



Source: U.S. Department of Commerce, Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Revised 1995 Estimates

Such investors run a greater risk of losing their investment due to market forces or unexpected events. To minimize their exposure to risk, risk-takers will establish their activities in areas where the general climate is more favorable. Based on these assumptions about the behavior of investors, we can speculate that risk-takers find Oklahoma's neighbors more propitious climates for their activities.

**Conclusions**

The objective of this article was to survey the level of foreign investment in the state of

Oklahoma as one important aspect of the state's connection to the global economy. According to most observers of the trend, globalization is considered valuable and desirable to maintain a healthy economy. An ability to attract foreign investors can boost asset prices and create jobs that would not be created by domestic investors. Exposure to foreign investors also creates links that can help to open export markets, thereby increasing the market opportunities for domestic firms. In addition, international corporations bring economic and social diversity. Foreign firms bring new technologies and the management practices of their home countries. For example, European managers have a

history of positive relations with employees that result in better job benefits and labor peace. For all these reasons, Oklahoma should strive to enhance its integration into the global economy.

This survey suggests that European partners constitute the state's strongest link to the global economy. European investment accounts for a majority of total investment, a majority of the number of firms operating in the state, and a majority of the job creation that can be traced to foreign investment. Building on this strength, by nurturing relations with European investors and using these relationships to attract more investment, would be an efficient way to improve the state's record on foreign investment. This is especially important if job-creation is one of the goals of foreign investment.

---

---

***"...low levels of education in Oklahoma dissuade foreign investors, who find the skill levels of Oklahoma's work force inferior to those of neighboring states."***

---

---

If job-creation is a primary goal, targeting investors from other countries in the western hemisphere offers an effective means of creating jobs. Most of these investors have come from Canada and Mexico, and the record shows that when they invest in the state they tend to concentrate their investments in activities that produce jobs. Asian investors also produce jobs, though their total levels of investment are smaller.

Investors from Africa and the Middle East constitute a sizable group. They account for twenty percent of all foreign investment in the state. However, investors from these countries operate only one company in the state, and employ relatively few workers. Investors from

this region of the world appear to be more interested in holding assets in Oklahoma than in job-creating activities. Therefore, in a period of declining asset prices, it would be useful to appeal to investors from the Middle East as a strategy to keep asset prices from falling. Asian and European investors also seem to be interested in holding Oklahoma assets and may also be effective targets for such a strategy.

Compared to neighboring states, however, Oklahoma's record begs for improvement. It is difficult to compete with Texas, Missouri and Colorado, whose size and lead in attracting foreign investment place them beyond reach. There is less reason to dismiss the state's record when compared with Arkansas, Kansas and New Mexico. Compared to these states, Oklahoma ranks third in using foreign investment to create jobs. It is unlikely that the labor environment deters foreign investors. As a low-wage, poorly-unionized labor force, Oklahoma should be an attractive environment for light manufacturing activities that are sensitive to labor costs. The difference may be explained more by differences in the levels of corporate taxation, or business concessions. More likely, however, low levels of education in Oklahoma dissuade foreign investors, who find the skill levels of Oklahoma's work force inferior to those of neighboring states. The state's poor ranking in educational performance adds credence to this assertion.

Thus, we conclude with a policy recommendation. Assuming that globalization of Oklahoma's economy is important for the state's prosperity, we recommend that efforts be made to strengthen relationships with existing investors. Their investments are important to the economy, and many of the state's citizens owe their jobs to foreign investments. Keeping these businesses in the state, therefore is good business. In addition, existing relationships should be used to attract more foreign investment. More specifically, efforts should be made to attract semi-skilled manufacturing firms who will create jobs for Oklahomans. Because asset prices are beginning to

recover, selling assets to foreigners will only serve to export wealth out of the state. A strategy to attract job-creating investment should focus first on Europe, second on Canada and Mexico, and third on Asia as the three world regions with a strong record of job creation in the state.

### Bibliography

U.S. Department of Commerce, *Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Establishment Data 1992*, Washington D.C.: Government Printing Office, 1998.

U.S. Department of Commerce, *Foreign Direct Investment in the United States, Operations of U.S. Affiliates of Foreign Companies, Revised 1995 Estimates*, Washington D.C.: Government Printing Office, 1998.

Additional information provided by: Oklahoma Department of Commerce, *List of Foreign Firms Located in Oklahoma*, 1999.

*Robert Henry Cox is Associate Professor and Coordinator for European Studies at the University of Oklahoma. A specialist on welfare reform, he has published numerous articles in such journals as Politics and Society, The Journal of Social Policy, Governance, Comparative Political Studies and Publius. He is currently completing a book on welfare reform in Denmark, the Netherlands and Germany.*

*Christian Breunig is a graduate student in political science at the University of Oklahoma. He has an undergraduate degree from the University of Heidelberg, Germany.*

### Acknowledgements

*The authors would like to thank Mike Woods and Loren Gatch for advice on data sources and for encouragement in the preparation of this article. We also appreciated and benefitted from the comments of Gary Cohen and Ed Perkins.*

## Appendix

Parent Company	Parent Country	Company Name	Location
CSR America Corp.	Australia	CSR Hydro Conduit Corporation	Oklahoma City
AKZO	Belgium	Organon Teknika Corporation	Oklahoma City
Solvay SA-NV	Belgium	Solvay Fluorides, Inc.	Catoosa
Consumers Glass	Canada	Anchor Glass Container	Henryetta
CJ Nutron Manufacturing	Canada	C J Nutron Manufacturing	Oklahoma City
Imasco	Canada	Fast Food Merchandisers	Ardmore
Heinz	Canada	Heinz Bakery Products	Vinita
Bombardier, Inc	Canada	Lear Jet	Lawton
Mackie Automotive Systems	Canada	Mackie Automotive Systems, Inc.	Oklahoma City
The Tire Recycling Corporation of North America	Canada	Oklahoma TRC	Duncan
Rio Algom, Ltd.	Canada	Rio Algom Mining Corporation	Oklahoma City
Russell Metals Inc.	Canada	Total Distributors Supply Corporation	Sand Springs
WedTech, Inc.	Canada	WedTech USA, Inc.	Dewey
Rayco Technology Group	Canada	Wylie Systems, Inc.	Tulsa
Sophus Berendsen AS	Denmark	Berendsen Fluid Power	Tulsa
Uponer Group	Finland	Uponer Aldyl Company	Tulsa
Air Liquide	France	Air Liquide America Corporation	Oklahoma City
Pechiney	France	American National Can Company	Oklahoma City
Labinal	France	Cinch Connectors	Vinita
Services Petroliers Schlumberger	France	Dowell Schlumberger, Inc.	El Reno
Labinal Aero	France	Labinal Aero & Defense Systems	Pryor
S. A. Louis Dreyfus et Cie	France	Louis Dreyfus Natural Gas	Oklahoma City
Michelin	France	Michelin North America	Ardmore
Compagnie Francaise des Ferrailles	France	Oklahoma Metal Processing Co.	Oklahoma City
Compagnie Generale de Geophysique	France	Sercel-Opseis, Inc.	Tulsa
Esker S A	France	Teubner & Associates (Esker)	Stillwater
Thomson, S.A.	France	Thomson Training & Simulation	Tulsa
Bartec GmbH	Germany	Bartec GmbH	Tulsa
GEA Aktiengesellschaft	Germany	GEA Rainey Corporation	Catoosa
Hetronic Steuresysteme GmbH	Germany	Hetronics U.S.A. Inc.	Oklahoma City
Klockner Moeller Elektrizitats Bonn GmbH	Germany	Klockner Moeller	Nowata
Faehrmann Group	Germany	North Control	Broken Arrow
Siemens Vacuumschmelze GmbH	Germany	Vacuumschmelze Corporation (VAC)	Oklahoma City
Voigt & Schweitzer, Inc.	Germany	V&S Schuler Tubular Products	Muskogee
TAT	Israel	Limco Airepair, Inc.	Tulsa
Finn Mecanica	Italy	Applied Automation, Inc.	Bartlesville
Tomen Corporation	Japan	Clinton Cotton Oil Mill	Clinton
Bridgestone Tire Company	Japan	Dayton Tire Company	Oklahoma City
Tomen Corporation	Japan	Deepwater Chemicals, Inc.	Woodward
Fukuoka Package	Japan	F & H, U.S.A., Inc.	Oklahoma City
Hitachi, Ltd.	Japan	Hitachi Computer Products (America), Ltd.	Norman
Tomen Corporation	Japan	Iochem Corporation	Oklahoma City

## Appendix continued

Parent Company	Parent Country	Company Name	Location
Makita Electric Works, Ltd.	Japan	Makita U.S.A., Inc, Factory Service	Oklahoma City
JGI, Inc.	Japan	Mercury International Technology	Tulsa
Godoe, Inc. (50%); Mitsui & Company (50%)	Japan	North American Brine Resources	Oklahoma City
Lecien	Japan	O. K. Orchard, Inc.	Norman
Yamanouchi Group Holdings	Japan	Shaklee Corporation	Norman
TDK Corporation	Japan	TDK Ferrite	Shawnee
Ise Chemicals Corporation	Japan	Woodward Iodine Corporation	Woodward
Hanil Industrial Corporation of Oklahoma	Korea	Hanil Industrial Corporation	Oklahoma City
Young An Hat Company	Korea	Outdoor Cap Company, Inc.	Miami
Five Star, Ltd.	Korea	Two Seeds Company, Ltd.	Broken Arrow
Hilti AG	Liechtenstein	Hilti, Inc.	Tulsa
Gentor	Mexico	AGC Manufacturing Services	Tulsa
Zapata International	Mexico	Zapata Industries	Muskogee
HCI Chemicals Nederland N.V.	Netherlands	Advance Chemicals Distribution, Inc.	Sand Springs
Norit, N.V.	Netherlands	Norit Americas, Inc.	Pryor
Creative Technology	Singapore	Creative Labs, Inc.	Stillwater
Dominance Industries, Inc.	Singapore	Dominance Industries	
Vall Companys	Spain	Vall, Inc.	Texhoma
Gunnebo AB	Sweden	Gunnebo Johnson	Tulsa
Andreae Filtres SA	Switzerland	Andreae Filters, Inc.	Ardmore
George Fischer Disa Holding AG	Switzerland	Georg Fischer, Disa, Goff, Inc.	Seminole
Holderbank Financiere Glaris Ltd.	Switzerland	Holnam, Inc.	Ada
Keramik Holding AG	Switzerland	Laufen International	Tulsa
Sulzer Technology	Switzerland	Nutter Engineering	Tulsa
Panalpina Ltd. Welttransport (Holding) AG	Switzerland	Panalpina	Tulsa
Societe Generale de Surveillance SA	Switzerland	SGS U.S. Testing	Tulsa
Advanced Composites Group, Ltd.	United Kingdom	Advanced Composites Group, Inc.	Tulsa
Associated British Foods	United Kingdom	Bake Rite Foods, Inc.	Oklahoma City
Blue Circle Industries	United Kingdom	Blue Circle America, Inc.	Tulsa
Bodycote International Plc	United Kingdom	Bodycote Hinderliter Heat	Oklahoma City
Wireline Holdings Limited	United Kingdom	BPB Wireline Services	Oklahoma City
British Tire & Rubber Plc.	United Kingdom	BTR Sealing Systems	Frederick
John Wood Group	United Kingdom	Electric Submersible Pumps, Inc.	Oklahoma City
PIC Group	United Kingdom	Pig Improvement Company (PIC)	Hennessey
Tomkins PLC	United Kingdom	Schrader-Bridgeport Intl. Inc	Muskogee
Smith + Nephew, Inc.	United Kingdom	Smith + Nephew, Inc.	Oklahoma City
S.M.C. Electronics	United Kingdom	S.M.C. Electronics USA Limited, Co.	Oklahoma City
Unitherm Food Systems, Ltd.	United Kingdom	Unitherm Food Systems, Inc.	Ponca City
John Wood Group	United Kingdom	Wood Group Pressure Control	Shawnee
Petroleos de Venezuela S.A.	Venezuela	Citgo Petroleum Corporation	Tulsa

Source: Oklahoma Department of Commerce, 1999.

## SELECTED INDICATORS

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
Crude Oil Production (000 bbl) <sup>a</sup>	17,684	17,465	18,792	-5.9	1.3
Natural Gas Production (000 mcf) <sup>a</sup>	356,424	402,284	405,489	-12.1	-11.4
Rig Count	76	74	62	22.6	2.7
Initial Unemployment Claims	24,634	23,909	29,463	-16.4	3.0
<b>PERMIT-AUTHORIZED CONSTRUCTION</b>					
Residential Single Family					
Dollar Value (\$000)	262,000	232,583	279,775	-6.4	12.6
Number of Units	2,144	1,975	2,397	-10.6	8.6
Residential-Multi Family					
Dollar Value (\$000)	30,500	20,557	53,113	-42.6	48.4
Number of Units	594	422	950	-37.5	40.8
Total Construction (\$000)	292,500	253,140	332,888	-12.1	15.5
<b>EMPLOYMENT</b>					
Total Labor Force (000) <sup>b</sup>	1,639.4	1,674.4	1,634.8	0.3	-2.1
Total Employment (000)	1,585.5	1,623.4	1,561.7	1.5	-2.3
Unemployment Rate (%)	3.2	3.0	4.5	—	—
Wage and Salary Employment (000)	1,470.0	1,482.6	1,443.4	1.8	-0.8
Manufacturing	183,400	183,800	183,200	0.1	-0.2
Mining	27,500	27,400	29,900	-8.0	0.4
Government	288,400	289,600	283,200	1.8	-0.4
Contract Construction	57,900	59,000	55,600	4.1	-1.9
Services	419,600	421,700	409,600	2.4	-0.5
Retail Trade	267,800	274,900	260,200	2.9	-2.6
<b>Average Weekly Hours (Per Worker)</b>					
Manufacturing	40.1	42.3	40.7	-1.5	-5.2
<b>Average Weekly Earnings (\$ Per Worker)</b>					
Manufacturing	523.19	539.12	517.60	1.1	-3.0
Contract Construction	566.49	573.87	528.60	7.2	-1.3

Note: Includes revisions in some previous months.

<sup>a</sup>Figures are for 4th and 3rd Qtr 99. Crude oil includes condensate. Natural gas includes casinghead gas.

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

NA = Not Available

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

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
<b>OKLAHOMA CITY MSA</b>					
<b>Durable Goods</b>	546,969	549,055	522,350	4.7	-0.4
Lumber, Building Materials and Hardware	180,732	180,372	178,367	1.3	0.2
Auto Accessories and Repair	93,203	90,690	89,780	3.8	2.8
Furniture	71,792	71,265	67,363	6.6	0.7
Computer, Electronics and Music Stores	98,015	99,383	89,664	9.3	-1.4
Miscellaneous Durables	118,497	119,456	114,091	3.9	-0.8
Used Merchandise	18,881	20,700	23,699	-20.3	-8.8
<b>Nondurable Goods</b>	1,483,887	1,452,170	1,382,784	7.3	2.2
General Merchandise	435,192	426,112	406,811	7.0	2.1
Food Stores	343,225	344,746	346,848	-1.0	-0.4
Apparel	92,513	89,900	97,350	-5.0	2.9
Eating and Drinking Places	287,830	286,302	278,229	3.5	0.5
Drug Stores	37,481	38,297	37,719	-0.6	-2.1
Liquor Stores	17,796	17,677	17,051	4.4	0.7
Miscellaneous Nondurables	76,706	76,461	74,877	2.4	0.3
Gasoline	193,144	172,674	123,900	55.9	11.9
<b>Total Retail Trade</b>	<b>2,065,007</b>	<b>2,034,036</b>	<b>1,945,748</b>	<b>6.1</b>	<b>1.5</b>
<b>TULSA MSA</b>					
<b>Durable Goods</b>	471,843	440,951	441,815	6.8	7.0
Lumber, Building Materials and Hardware	134,358	129,511	121,916	10.2	3.7
Auto Accessories and Repair	66,588	61,729	63,314	5.2	7.9
Furniture	55,550	55,782	49,353	12.6	-0.4
Computer, Electronics and Music Stores	111,957	93,368	102,390	9.3	19.9
Miscellaneous Durables	90,633	87,526	87,844	3.2	3.6
Used Merchandise	12,757	13,035	16,999	-25.0	-2.1
<b>Nondurable Goods</b>	1,149,908	1,114,318	1,046,710	9.9	3.2
General Merchandise	350,742	341,560	322,429	8.8	2.7
Food Stores	265,818	262,854	257,662	3.2	1.1
Apparel	77,566	74,976	82,581	-6.1	3.5
Eating and Drinking Places	205,751	201,840	193,326	6.4	1.9
Drug Stores	29,031	28,759	25,521	13.8	0.9
Liquor Stores	14,930	14,807	13,967	6.9	0.8
Miscellaneous Nondurables	63,284	61,865	59,628	6.1	2.3
Gasoline	142,786	127,658	91,596	55.9	11.9
<b>Total Retail Trade</b>	<b>1,621,751</b>	<b>1,555,269</b>	<b>1,488,526</b>	<b>9.0</b>	<b>4.3</b>
<b>ENID MSA</b>					
<b>Durable Goods</b>	23,577	23,485	23,333	1.0	0.4
Lumber, Building Materials and Hardware	8,177	8,488	8,185	-0.1	-3.7
Auto Accessories and Repair	4,907	4,753	4,604	6.6	3.2
Furniture	1,960	1,897	2,132	-8.1	3.3
Computer, Electronics and Music Stores	1,946	2,019	2,136	-8.9	-3.7
Miscellaneous Durables	5,899	5,528	4,859	21.4	6.7
Used Merchandise	688	799	1,417	-51.4	-13.8

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

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
<b>ENID MSA (continued)</b>					
Nondurable Goods	81,056	80,690	75,443	7.4	0.5
General Merchandise	26,296	26,316	25,381	3.6	-0.1
Food Stores	20,709	21,616	20,763	-0.3	-4.2
Apparel	3,609	3,390	3,285	9.9	6.4
Eating and Drinking Places	12,821	12,822	12,848	-0.2	0.0
Drug Stores	2,044	2,086	2,091	-2.2	-2.0
Liquor Stores	795	765	689	15.3	3.9
Miscellaneous Nondurables	4,196	4,230	3,595	16.7	-0.8
Gasoline	10,587	9,465	6,791	55.9	11.9
Total Retail Trade	104,633	104,175	98,776	5.9	0.4
<b>LAWTON MSA</b>					
Durable Goods	32,094	32,852	32,676	-1.8	-2.3
Lumber, Building Materials and Hardware	9,130	9,449	10,279	-11.2	-3.4
Auto Accessories and Repair	6,109	6,006	5,806	5.2	1.7
Furniture	4,263	4,387	4,037	5.6	-2.8
Computer, Electronics and Music Stores	3,803	3,967	3,873	-1.8	-4.1
Miscellaneous Durables	8,242	8,247	6,645	24.0	-0.1
Used Merchandise	547	795	2,036	-73.1	-31.2
Nondurable Goods	125,261	123,648	116,521	7.5	1.3
General Merchandise	55,613	54,794	54,096	2.8	1.5
Food Stores	19,669	20,195	19,939	-1.4	-2.6
Apparel	5,939	5,790	5,639	5.3	2.6
Eating and Drinking Places	22,293	22,621	21,577	3.3	-1.5
Drug Stores	1,803	1,890	1,796	0.3	-4.6
Liquor Stores	705	803	690	2.1	-12.3
Miscellaneous Nondurables	5,782	5,524	4,151	39.3	4.7
Gasoline	13,456	12,029	8,632	55.9	11.9
Total Retail Trade	157,355	156,499	149,198	5.5	0.5
<b>STATE</b>					
Durable Goods	1,567,928	1,548,660	1,484,820	5.6	1.2
Lumber, Building Materials and Hardware	507,041	502,416	474,089	7.0	0.9
Auto Accessories and Repair	267,954	270,321	252,363	6.2	-0.9
Furniture	175,838	173,354	164,897	6.6	1.4
Computer, Electronics and Music Stores	277,338	267,692	269,909	2.8	3.6
Miscellaneous Durables	292,525	283,019	262,401	11.5	3.4
Used Merchandise	47,232	51,857	61,160	-22.8	-8.9
Nondurable Goods	4,469,635	4,303,496	4,098,018	9.1	3.9
General Merchandise	1,374,132	1,335,510	1,315,695	4.4	2.9
Food Stores	1,105,171	1,100,283	1,087,622	1.6	0.4
Apparel	217,898	219,288	226,340	-3.7	-0.6
Eating and Drinking Places	748,543	742,762	714,988	4.7	0.8
Drug Stores	92,745	91,729	85,693	8.2	1.1
Liquor Stores	46,606	46,375	43,731	6.6	0.5
Miscellaneous Nondurables	224,143	214,730	201,859	11.0	4.4
Gasoline	660,398	552,818	422,089	56.5	19.5
Total Retail Trade	2,942,059	2,884,170	2,800,515	5.1	2.0

## RETAIL TRADE IN SELECTED CITIES

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
Ada	51,698,834	49,845,493	47,566,421	8.7	3.7
Altus	41,986,600	41,684,697	38,801,537	8.2	0.7
Alva	13,161,871	12,822,819	12,005,631	9.6	2.6
Anadarko	13,567,792	13,330,050	12,814,225	5.9	1.8
Ardmore	72,888,732	72,025,442	68,306,022	6.7	1.2
Bartlesville	86,623,318	86,904,542	89,583,089	-3.3	-0.3
Blackwell	10,123,701	9,726,893	10,273,547	-1.5	4.1
Broken Arrow	113,697,435	108,280,309	99,942,747	13.8	5.0
Chickasha	34,427,545	33,174,568	30,758,802	11.9	3.8
Clinton	21,551,114	17,728,196	16,323,541	32.0	21.6
Cushing	13,826,393	13,641,145	13,172,864	5.0	1.4
Del City	31,322,098	30,423,303	27,685,419	13.1	3.0
Duncan	42,587,605	41,315,843	40,151,459	6.1	3.1
Durant	35,042,625	34,054,491	30,954,158	13.2	2.9
Edmond	144,893,035	141,591,655	131,544,554	10.1	2.3
El Reno	27,161,222	25,883,155	24,784,462	9.6	4.9
Elk City	29,022,617	28,245,680	26,894,568	7.9	2.8
Enid	100,640,094	94,059,078	88,681,129	13.5	7.0
Guthrie	19,140,704	18,614,572	17,302,399	10.6	2.8
Guymon	21,906,488	21,519,100	20,038,997	9.3	1.8
Henryetta	11,562,685	11,383,755	12,186,656	-5.1	1.6
Hobart	5,865,737	5,815,782	5,291,140	10.9	0.9
Holdenville	7,930,321	7,806,221	7,801,413	1.7	1.6
Hugo	13,762,542	13,638,425	12,545,023	9.7	0.9
Idabel	15,519,890	15,390,578	14,826,316	4.7	0.8
Lawton	154,583,306	147,106,286	137,951,052	12.1	5.1
McAlester	63,087,063	61,204,691	57,241,400	10.2	3.1
Miami	27,901,828	27,172,928	25,569,928	9.1	2.7
Midwest City	130,019,883	128,977,709	125,666,204	3.5	0.8
Moore	61,663,361	61,210,206	60,245,708	2.4	0.7
Muskogee	84,401,873	92,671,986	96,519,230	-12.6	-8.9
Norman	202,656,036	198,020,112	181,308,393	11.8	2.3
Oklahoma City	1,157,438,011	1,100,448,192	1,040,962,067	11.2	5.2
Okmulgee	31,365,311	30,669,118	29,239,790	7.3	2.3
Pauls Valley	19,808,260	19,333,881	18,444,975	7.4	2.5
Pawhuska	4,767,182	4,535,757	4,251,002	12.1	5.1
Ponca City	62,879,672	62,336,760	61,130,794	2.9	0.9
Poteau	29,614,797	29,123,760	28,487,997	4.0	1.7
Sand Springs	44,493,129	44,225,168	44,142,298	0.8	0.6
Sapulpa	46,825,959	45,408,348	39,654,878	18.1	3.1
Seminole	17,970,396	17,216,071	15,801,229	13.7	4.4
Shawnee	81,070,624	80,706,523	76,275,027	6.3	0.5
Stillwater	97,715,508	94,433,829	87,747,927	11.4	3.5
Tahlequah	45,495,252	43,773,976	39,484,907	15.2	3.9
Tulsa	1,154,571,308	1,098,994,474	1,068,882,056	8.0	5.1
Watonga	5,238,890	5,004,834	4,562,023	14.8	4.7
Weatherford	23,684,431	23,899,813	22,458,593	5.5	-0.9
Wewoka	3,022,202	3,032,154	2,873,614	5.2	-0.3
Woodward	38,648,757	37,691,466	34,729,657	11.3	2.5
Total Selected Cities	4,568,834,036	4,406,103,836	4,203,866,871	8.7	3.7

## ENID AND LAWTON MSAs, MUSKOGEE MA

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
<b>ENID MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	26,900	27,790	27,300	-1.5	-3.2
Total Employment	26,040	27,000	26,250	-0.8	-3.6
Unemployment Rate (%)	3.2	2.8	3.9	—	—
Wage and Salary Employment	24,100	24,230	24,430	-1.4	-0.5
Wholesale and Retail Trade	6,200	6,300	6,170	0.5	-1.6
Manufacturing	2,570	2,600	2,400	7.1	-1.2
<b>PERMIT-AUTHORIZED CONSTRUCTION</b>					
Residential-Single Family					
Dollar Value (\$000)	2,898	2,416	2,890	0.3	20.0
Number of Units	15	13	14	7.1	15.4
Residential-Multi Family					
Dollar Value (\$000)	0	0	108	—	—
Number of Units	0	0	4	—	—
Total Construction (\$000)	2,898	2,416	2,998	-3.3	20.0
<b>LAWTON MSA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	41,130	41,720	41,170	-0.1	-1.4
Total Employment	39,620	40,600	39,040	1.5	-2.4
Unemployment Rate (%)	3.7	3.4	5.1	—	—
Wage and Salary Employment	38,600	39,100	37,830	2.0	-1.3
Wholesale and Retail Trade	8,830	9,330	8,730	1.1	-5.4
Manufacturing	3,770	3,800	3,770	0.0	-0.8
<b>PERMIT-AUTHORIZED CONSTRUCTION</b>					
Residential-Single Family					
Dollar Value (\$000)	5,847	4,869	3,371	73.5	20.1
Number of Units	49	46	28	75.0	6.5
Residential-Multi Family					
Dollar Value (\$000)	0	0	229	—	—
Number of Units	0	0	9	—	—
Total Construction (\$000)	5,847	4,869	3,600	62.4	20.1
<b>MUSKOGEE MA</b>					
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	32,540	31,970	31,250	4.1	1.8
Total Employment	31,160	30,750	29,220	6.6	1.3
Unemployment Rate (%)	4.2	3.8	6.5	—	—
Port of Muskogee					
Tons In	78,954	48,756	77,686	1.6	61.9
Tons Out	28,453	45,890	28,300	0.5	-38.0

Note: Includes revisions.  
<sup>a</sup>Civilian Labor Force.  
 E = Exceeds 600 percent.

## TULSA MSA

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	414,630	435,670	418,630	-1.0	-4.8
Total Employment	401,770	422,840	404,650	-0.7	-5.0
Unemployment Rate (%)	3.1	3.0	3.3	—	—
Wage and Salary Employment	392,800	398,570	388,730	1.0	-1.4
Manufacturing	54,900	54,900	56,800	-3.3	0.0
Mining	7,100	7,100	7,700	-7.8	0.0
Government	43,400	44,200	42,900	1.2	-1.8
Wholesale and Retail Trade	90,400	93,500	89,300	1.2	-3.3
<b>Average Weekly Earnings</b>					
Manufacturing (\$ Per Worker)	589.09	577.44	571.60	3.1	2.0
<b>Air Transportation</b>					
Passengers Enplaning (Number)	398,864	437,157	376,403	6.0	-8.8
Passengers Deplaning (Number)	396,411	438,967	383,301	3.4	-9.7
Freight (Tons)	12,865	13,441	12,150	5.9	-4.3
<b>Water Transportation</b>					
Tulsa Port of Catoosa					
Tons In	306,987	255,866	289,928	5.9	20.0
Tons Out	342,560	283,182	369,527	-7.3	21.0
<b>PERMIT-AUTHORIZED CONSTRUCTION</b>					
Residential-Single Family					
Dollar Value (\$000)	95,469	90,658	109,714	-13.0	5.3
Number of Units	793	731	936	-15.3	8.5
Residential-Multi Family					
Dollar Value (\$000)	875	17,906	44,488	-98.0	-95.1
Number of Units	22	371	701	-96.9	-94.1
Total Construction	96,344	108,564	154,202	-37.5	-11.3

Note: Includes revisions.

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

## OKLAHOMA CITY MSA

Category	1st Qtr '00	4th Qtr '99	1st Qtr '99	Percentage Change	
				'00/'99 1stQtr	1st Qtr '00 4th Qtr '99
<b>Employment (Number)</b>					
Labor Force <sup>a</sup>	551,740	551,730	536,930	2.8	0.0
Total Employment	537,990	539,180	517,320	4.0	-0.2
Unemployment Rate (%)	2.5	2.3	3.7	—	—
Wage and Salary Employment	535,300	541,230	521,570	2.6	-1.1
Manufacturing	57,300	57,730	54,470	5.2	-0.7
Mining	5,900	5,930	6,700	-11.9	-0.5
Government	107,330	107,400	104,530	2.7	-0.1
Wholesale and Retail Trade	123,100	126,800	121,500	1.3	-2.9
<b>Average Weekly Earnings</b>					
Manufacturing (\$ Per Worker)	596.50	626.40	539.30	10.6	-4.8
<b>Air Transportation</b>					
Passengers Enplaning (Number)	400,019	410,452	381,207	4.9	-2.5
Passengers Deplaning (Number)	397,911	419,427	385,802	3.1	-5.1
Freight Enplaned (Tons)	5,509	5,796	4,977	10.7	-5.0
Freight Deplaned (Tons)	6,691	6,833	5,857	14.2	-2.1
<b>PERMIT-AUTHORIZED CONSTRUCTION</b>					
Residential-Single Family					
Dollar Value (\$000)	119,664	137,537	148,872	-19.6	-13.0
Number of Units	1,035	1,120	1,258	-17.7	-7.6
Residential-Multi Family					
Dollar Value (\$000)	25,515	1,057	5,649	351.7	E
Number of Units	513	20	178	188.2	E
Total Construction (\$000)	145,179	138,594	154,521	-6.0	4.8

Note: Includes revisions.

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