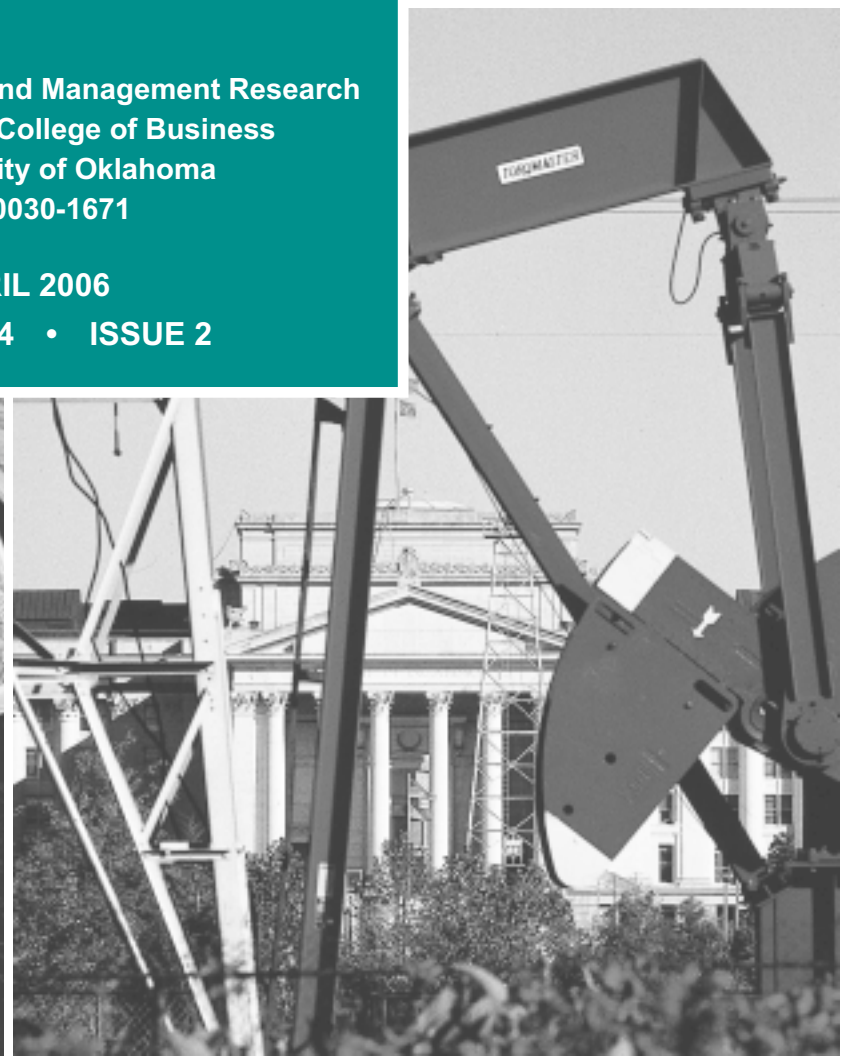




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OVERVIEW

Created by the Oklahoma Territorial Legislature in 1890, the University of Oklahoma is a doctoral degree-granting research university serving the educational, cultural, economic and health care needs of the state, region and nation. The Norman campus serves as home to all of the university's academic programs except health-related fields. Both the Norman and Health Sciences Center colleges offer programs at the Schusterman Center, the site of OU-Tulsa. The OU Health Sciences Center, which is located in Oklahoma City, is one of only four comprehensive academic health centers in the nation with seven professional colleges. OU enrolls more than 30,000 students, has more than 2,000 full-time faculty members, and has 19 colleges offering 153 majors at the baccalaureate level, 133 majors at the master's level, 75 majors at the doctoral level, 20 majors at the first professional level, and 18 graduate certificates. The university's annual operating budget is more than \$1 billion. The University of Oklahoma is an equal opportunity institution. (10/05)

OKLAHOMA BUSINESS BULLETIN

Volume 74, Number 2

April 2006

Articles

| | |
|--|---|
| Business Highlights | 1 |
| <i>Robert C. Dauffenbach</i> | |
| The Ascendancy of the Economy of the City of Norman | 9 |
| <i>Robert C. Dauffenbach</i> | |

Tables

Quarterly

| | |
|---|----|
| Selected Indicators | 26 |
| General Business Index | 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

Housing Market

There is a lot of talk about a housing price bubble, nationally. We hear about it constantly in the press. Selling almost as well as houses these days are books with titles like “*Sell Now*” and “*America’s Housing Bubble*.”¹ In this issue of the *Business Bulletin*, following a recently-established tradition of examination of current economic issues, we will review some statistical trends to detect whether there is evidence of a bubble, and, if so, what the likely ramifications will be.

The US government through its various statistical arms watches the construction industry closely. Construction activity, sensitive as it is to interest rates, has been a highly volatile component of the US economy. One set of statistics, building permits, has for decades been included in the US Leading Economic Indicators. Construction prices are also closely monitored. Historical behavior of various construction indices should help to inform us on the extent to which the housing industry has gotten “out-of-hand.”

Indeed, if it is a housing bubble, the US economy could be in for some rough times. The “tune” goes something like this: In the wake of the Nasdaq bubble bursting, Mr. Greenspan and company fought hard to keep the consumer in-the-game and flooded financial markets with liquidity. Interest rates fell, including longer-term mortgage rates, and an opportunity became available for many households (including my own) to refinance. Not only could households lower their monthly payments substantially, they could also take a little equity out for vacation trips and other consumer expenditures. People’s houses turned out to be quite efficient “teller machines.” Equity extraction in the US is estimated by none other than Mr. Greenspan and his co-author to have run in excess of \$700 billion per year in

recent years.² That’s big money that has, undoubtedly, assisted households in maintaining high levels of spending.

With interest rates now rising and an obviously diminishing pool of households who have not already taken advantage of refinancing opportunities, this source of consumer spending power is quickly drying up. In the tidal wave of impacts of low interest rates over a broad span of time, encouraging those who owned houses to extract equity or trade-up and those who formerly were renters to become first-time buyers, households have taken on appreciably more debt. Trillions of dollars, in fact. Sixty-seven percent of US households live in owner-occupied homes in 2004, the most recent national data.³ If there is a housing bubble, households could find themselves in a lot of trouble. If the economy were to fall into recession, many of such households would find it difficult to sustain payments on not only their mortgage debt, but also on their revolving consumer debt. An avalanche of home selling could result with an attendant decline in prices and household wealth.

We will proceed with an examination of trends in housing prices in the US. We will see that housing prices have, indeed, advanced substantially in the last 30 years. But, so have the characteristics of housing, such as square-footage and amenities. We will also see that while the number of homes being constructed is now quite high, these levels of home construction have also been high in the past. Furthermore, relative to population, we will see that building permits are actually, today, very much lower than they have been in the past. There is a definite regional context to building activity that is very germane to the question of price bubbles. In addition, there is very much in evidence a shift toward single-family life styles in America, as opposed, of course, to multi-family dwellings.

Price Statistics

The Office of Federal Housing Enterprise Oversight, the government's watchdog on Fannie Mae and Ginny Mac lending activities, maintains an index of housing prices called the Housing Price Index. This index is quite unique in that it applies to repeat sales of the same property. Table I shows the value of this index in the first quarter of 2006 divided by the value of the HPI in the first quarter of 1975, along with the corresponding annual rate of change.

There have been some extremely high rates of inflation in housing prices indicated by the HPI. California and the District of Columbia stand out. It now costs 15.2 times what it cost in 1975 to buy a house in Califor-

nia and 14.4 times in D.C. Nationally, the GDP Implicit Price Deflator has advanced at about a 3.0 percent rate compounded annually. In contrast, Oklahoma is among the low inflation states with a 3.5 times factor, not much higher than general inflation. In fact, only Mississippi and West Virginia have experienced lower price inflation than Oklahoma. Surrounding states Arkansas, Kansas and Texas are in the same price-advance neighborhood as Oklahoma, but Colorado, New Mexico, and Missouri have higher factors. Other price statistics reported by the Census are in general agreement with the rates of advance we see here, but it must be remembered that houses today are much more spacious and luxurious than were houses built in the past. Nevertheless, in that the HPI references only repeated sales of the same property, that feature should be somewhat, but imperfectly, accounted for.

Table I

OFHEO Housing Price Index Statistics

| State | Ratio 06/75 | AAPC | State | Ratio 06/75 | AAPC | State | Ratio 06/75 | AAPC |
|-----------|----------------|-------------|-----------|----------------|-------------|-----------|----------------|-------------|
| AK | 4.2 | 4.8% | KY | 4.1 | 4.6% | NY | 8.2 | 7.0% |
| AL | 3.9 | 4.5% | LA | 4.3 | 4.8% | OH | 4.3 | 4.8% |
| AR | 3.7 | 4.3% | MA | 10.6 | 7.9% | OK | 3.5 | 4.1% |
| AZ | 7.1 | 6.5% | MD | 8.3 | 7.1% | OR | 8.1 | 7.0% |
| CA | 15.2 | 9.2% | ME | 10.4 | 7.9% | PA | 5.5 | 5.7% |
| CO | 6.6 | 6.3% | MI | 5.4 | 5.6% | RI | 9.8 | 7.7% |
| CT | 7.6 | 6.8% | MN | 6.4 | 6.2% | SC | 4.4 | 4.9% |
| DC | 14.4 | 9.0% | MO | 4.4 | 4.9% | SD | 3.8 | 4.4% |
| DE | 6.3 | 6.1% | MS | 3.1 | 3.8% | TN | 4.1 | 4.7% |
| FL | 7.1 | 6.5% | MT | 5.9 | 5.9% | TX | 3.5 | 4.2% |
| GA | 4.3 | 4.8% | NC | 4.7 | 5.1% | UT | 5.8 | 5.8% |
| HI | 9.5 | 7.5% | ND | 3.6 | 4.2% | VA | 6.4 | 6.2% |
| IA | 4.2 | 4.8% | NE | 3.8 | 4.4% | VT | 5.6 | 5.7% |
| ID | 5.1 | 5.4% | NH | 8.5 | 7.2% | WA | 9.6 | 7.6% |
| IL | 5.3 | 5.6% | NJ | 8.7 | 7.2% | WI | 5.3 | 5.5% |
| IN | 3.9 | 4.5% | NM | 5.2 | 5.5% | WV | 3.3 | 3.9% |
| KS | 3.7 | 4.3% | NV | 7.9 | 6.9% | WY | 4.9 | 5.3% |

Ratio is defined as the ratio of the price index in the 1st of 2006 to the 1st quarter of 1975. AAPC is the average annual percentage change over the full period. Shown in bold are Oklahoma and surrounding states.

There, thus, appears to be ample evidence of a high degree of inflation in housing prices, particularly in specific regions of the country. In his book, *Sell Now!*, John Talbott provides a list of how much prices have advanced for various metropolitan areas relative to 1997, as an indication of what areas may be experiencing bubbles.⁴ The predominance of the 33 areas with 40 percent or higher price advances are in California (19) and Florida (7). There could well be a bubble in many of these areas. But, bubbles in particular areas hardly amount to a national bubble. Indeed, many of the metro areas in Talbott's analysis are not that far off of their 1997 price levels. In the Oklahoma City and Tulsa metro area, prices are up only about 14.5 percent since 1997.

Building Permits

Figure A presents annual building permit activity over the span of 46 years. Prior to the early 1990s, building permits were highly cyclically volatile. The total includes both single- and multi-family housing. Indeed, troughs in building permits foretold coming recessionary problems for the US economy as a whole. The only time a building-permit trough was not associated with a recessionary period was in 1967, a time of rising inflation that had a huge impact on mortgage interest rates. Rates at that time rose to a whopping seven percent. Noticeable in this chart is that the recession of 2001 had hardly any impact on building permits. Also shown in Figure A is the share of building permits that were for single-family dwellings. It is apparent that there was, over time, a definite shift in tastes and preferences for single-family housing, reaching a high point of about 85 percent in 1991.

Figure A

Residential Building Permits--Total and Percentage Share Single-Family: 1968-2006

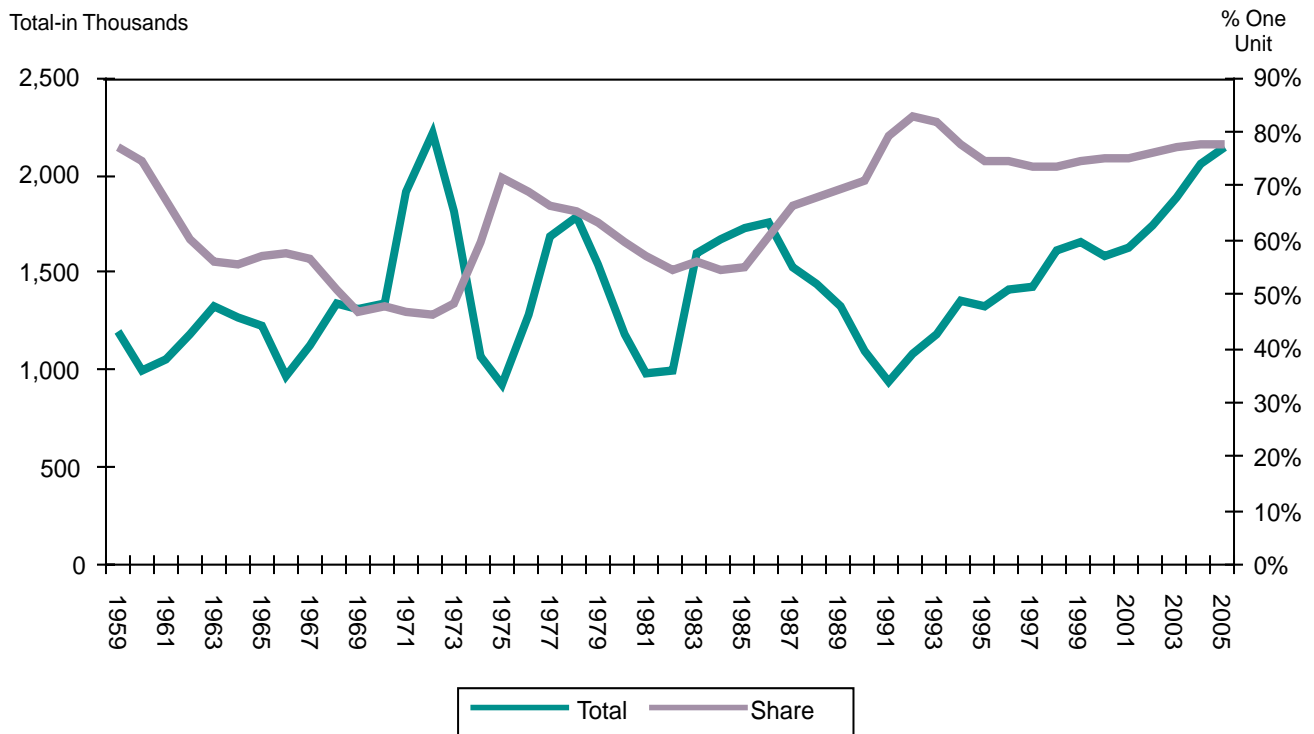


Figure B shows that building permit activity is very much concentrated in the south and west areas of the nation.⁵ The South, in particular, has been a vibrant area, as has the West. Since 1969, these two regions accounted for three-fifths or more of total housing building permits, and sometimes as much as three-fourths. In 2005, the share was 74 percent and the average since 1969 is 68 percent. Much of US population growth has been in these two regions. Of the 120 million gain in population in the US since 1959, 77.6 percent has occurred in the South and West. The South grew its population by 1.53 percent per annum while the West grew at a 1.98 percent rate. In contrast, the Northeast grew at only a 0.46 percent rate and the Midwest grew at a 0.57 percent rate over those 46 years. Given these differential population growth rates, it is not surprising that building permit activity has been highly concentrated in the South and West.

When we adjust permits for housing construction for population, we get a very different picture. These adjustments are portrayed in Figure C. The calculation is quite simple: building permits are simply divided by population in the region for that year. The peak annual rate of housing permits per 1,000 persons was in 1971 for the South and the West. That peak was about 14 plus a fraction number of permits per 1,000 people. Even the peak doesn't seem all that high. Furthermore, the peak is very much lower than what we see today at slightly over eight in the West and ten in the South. The Midwest and the Northeast are about one-half these levels. Relative to population, there doesn't seem to be an explosion of housing activity in the nation. Rapidly growing regions would be expected to have much higher levels of building activity, and that is just what we see.

Figure B
Annual Building Permits for Residential Construction
Major US Areas, 1959-2005

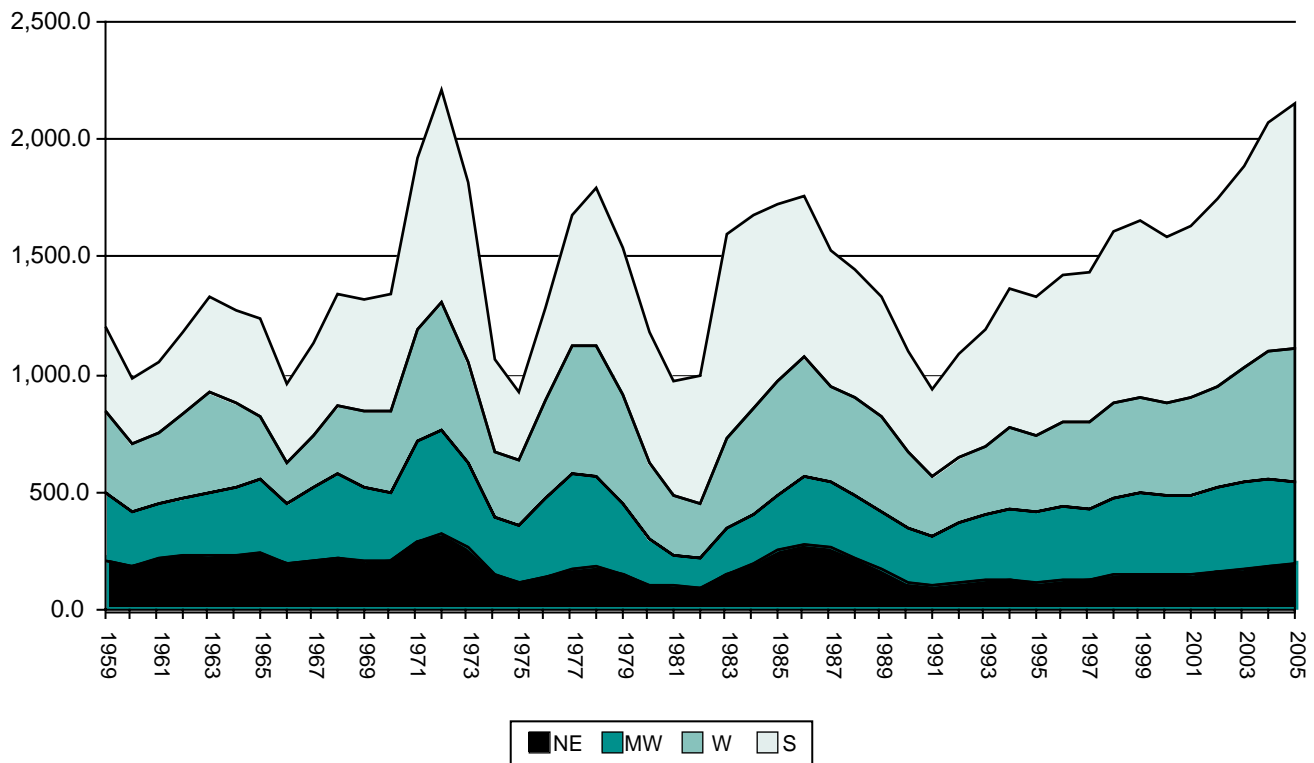


Figure C

Annual Residential Building Permits per 1,000 Population
1959-2005

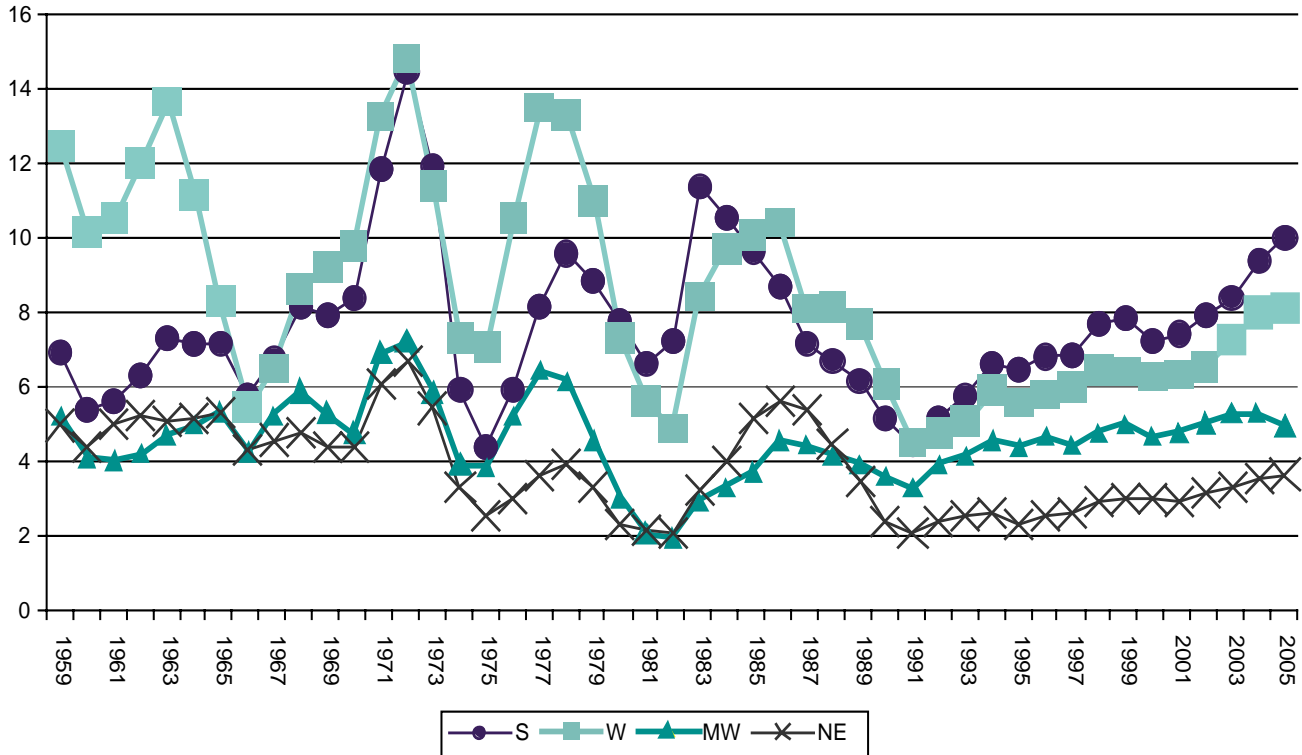


Figure D reports a six-month moving average of single-family housing starts. As noted above, there has been an apparent shift in tastes and preferences toward single-family housing. In the US we are certainly experiencing a trend toward high levels of single-family home construction. Importantly, there doesn't seem to be any relaxation, as yet, in the trend. There may well be a slowdown in housing construction as interest rates are now on the rise, but that slowdown is only beginning to be in evidence in monthly statistics if you look hard. A slowdown may well be anticipated given the torrid pace of construction, but a slowdown doesn't mean a crash.

Suffice it to say that there is evidence from price statistics that some areas have "gotten out-of-hand." Principally, those areas are in California and Florida. Some metro areas in Massachusetts, New Jersey, and New York may be impacted by price erosion. Any trouble could, of course, ripple through the economy. But, this is hardly a problem of national proportions. And, certainly, it doesn't seem to be a problem in Oklahoma and surrounding regions. Indeed, the low cost

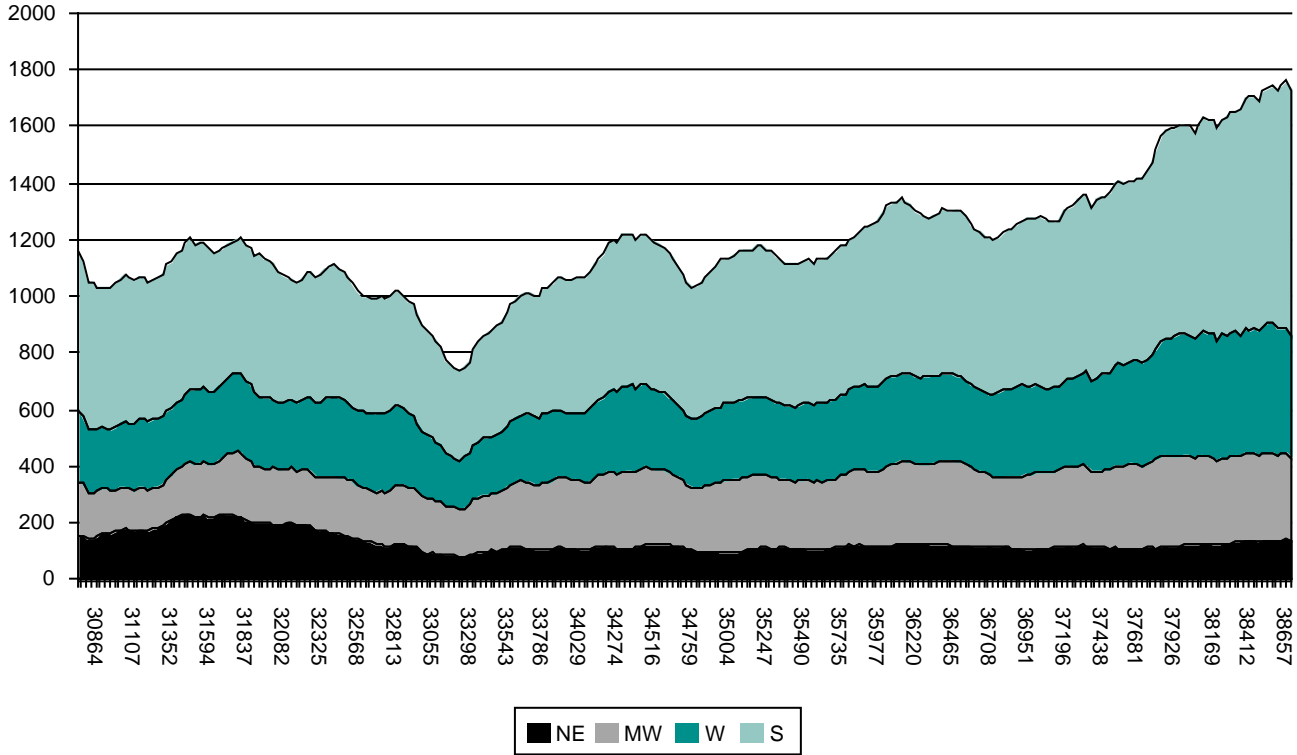
of housing could well prove to be an economic development attractor for the region.

Oklahoma and National Economy

The national economy has been performing about as to expectations. Employment growth has been somewhat slow as the preliminary estimated growth in nonagricultural employment in May was only 75,000. Growth was revised downward somewhat, as well, for the March and April numbers. Year-over-year growth in employment is now only 1.4 percent, slightly off recent highs of 1.6-1.7 percent as recently as August 2005. The talk is that the economy will slow to about a 2.5 percent growth rate in real GDP in the near future. Financial markets are watching the new Fed chairman closely for clues as to when the "tightening" cycle will end. Provided the higher energy prices we are now all paying don't make their way into a generally higher rate of advance in core inflation, it is likely that the Fed will be forced to back away from their 16 consecutive increases of one-quarter point in the Federal Funds target rate.

Figure D

Single-Family Housing Starts
Six-Month Moving Average: 1984-2005



As seen in Figure E. The Price College Indicators for US employment remains positive, although the employment indicator remains slightly below trend. There is not any evidence that a recession is about to unfold, at present, although it is clear that robust is not all that vibrant nationally.

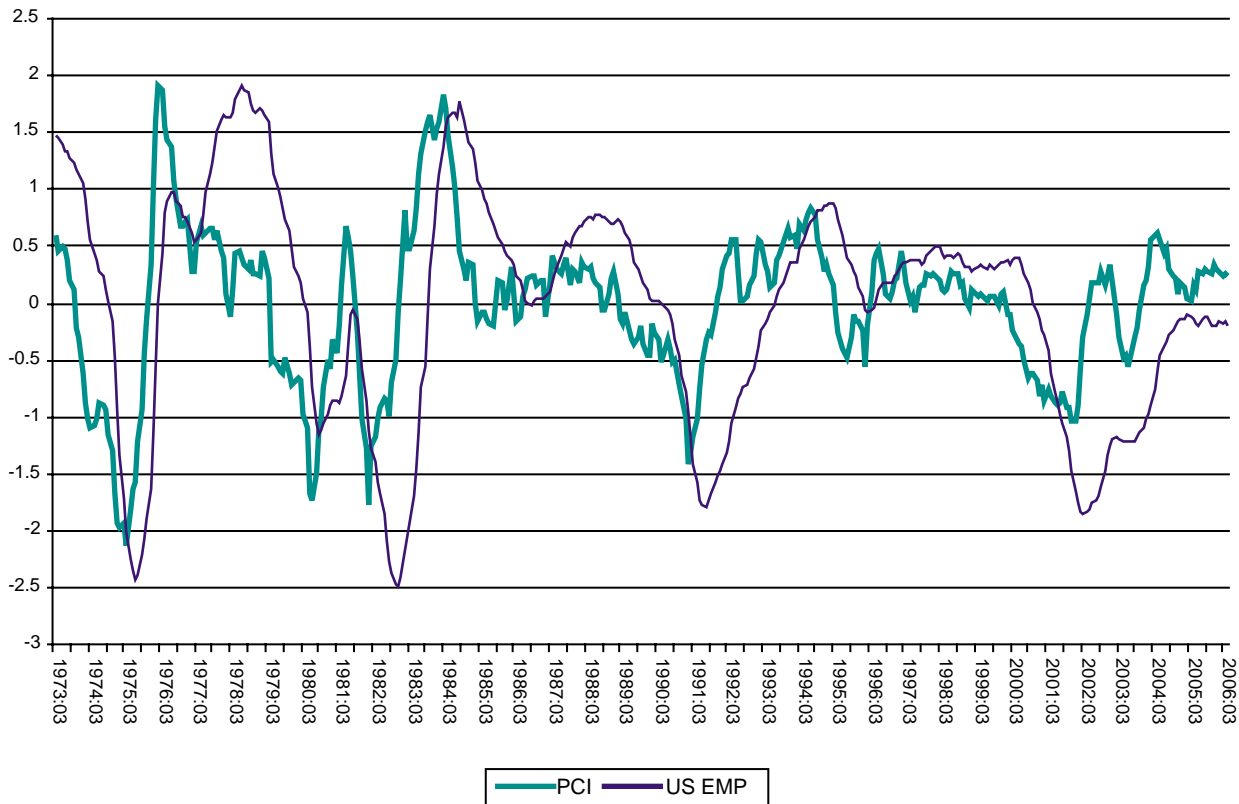
In Oklahoma, the economy is doing well. The most recent employment report shows that the state is generating job growth of about 2.2 percent, year-over-year. That is not far off of Oklahoma's long-term 46 year growth rate of 2.0 percent. Thus, the state is on-trend and with the energy situation, we can expect to do somewhat better than the nation in future months, even years.

Indeed, there is somewhat of a boom in state tax revenues at present. Gross tax collections through the month of April were up 14.5 percent from the same period in 2005. Individual income tax receipts were up

9.3 percent; sales tax collections were up 9.4 percent.

The big gain was in gross production taxes, up 38.7 percent. It is easy to get overconfident about the economy, and the state legislature seems to be doing just that. While the revenue scene is vibrant, we will do well to remember July 5th, 1982, the date of the failure of the Penn Square State Bank. We simply cannot count on oil and gas gross production taxes for growth revenue. While I believe that energy prices are more or less permanently on a higher plateau, that doesn't mean that they won't head south next year. Even if the energy prices don't go up, there will be no growth revenue from this source. We must remember, as the energy industry used to remind us, oil and gas is a depleting resource. In fact, oil production in Oklahoma is down appreciably from the halcyon days of the energy boom. Natural gas is even down from peak production. Let us enjoy the fruits of this higher price energy period to make rational choices about tax policy in the state.

Figure E
Price College Indicator for National Employment



Endnotes

¹John. R. Talbott, *Sell Now! The End of the Housing Bubble*, New York, St. Martin's Press, 2005. Clif Droke, *America's Housing Bubble: The Real Estate Outlook for 2006-2012*, Publishing Concepts, 2005.

²Alan Greenspan and James Kennedy, "Estimates of Home Mortgage Originations, Repayments, and Debt On One-to-Four-Family Residences," Finance and Economics Discussion Series, Federal Reserve Board, 2005-41.

³American Factfinder, online at factfinder.census.gov, 2004 mini-census.

⁴Talbott, pp. 147-148.

⁵The standard census geographic regions are used in these data from the Census. States contained in each region are as follows: Northeast — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania; Midwest — Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North

Dakota, South Dakota, Nebraska, and Kansas; South — Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas; West — Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

Robert C. Dauffenbach is Director of the Center for Economic and Management Research and Associate Dean for Research and Graduate Programs.

The Ascendancy of the Economy of the City of Norman

by Robert C. Dauffenbach

Introduction

Somewhat akin to the economy of Oklahoma being considered as dominated by energy and agriculture, the City of Norman's economy is considered by many observers as being dominated by the University of Oklahoma and bedroom community attachment to the Oklahoma City metropolitan area.¹ In truth, of course, these are two extremely important aspects of the Norman regional economy that are both growing in influence. But, these components are hardly the complete story. Norman is increasingly an important employment and retail hub, features that are commonly overlooked.

This paper seeks to document the ascendancy of the City of Norman as a contributor to the economy of Oklahoma through analysis of economic data. The contribution of the University of Oklahoma will be analyzed as will personal income, population, employment and taxable sales growth trends. The questions the paper addresses are:

- What have been the trends in growth in personal income, population, employment and taxable sales in the Norman region and how do these trends compare to the state's?
- What is the indicated share of Cleveland County economic activity that is attributable to the City of Norman?
- To what extent is it fair to characterize the Norman community as simply a university town with *bedroom* community service to the Oklahoma City metropolitan area?
- How has the share of state growth attributable to the Norman region varied over time, and what is implied about the direction of future shares in the various indicator variables?

The primary data sources for the analyses presented below are the US Bureau of the Census and the US Bureau of Economic Analysis (BEA). In particular, the work of the BEA in preparing detailed time series on the components of personal income is to be applauded. Without the Herculean efforts of that agency, much of what we know about regional economic performance would have never been calibrated. This is the agency that also prepares national income statistics. The reader is encouraged to visit the website of the BEA, www.bea.gov. Unfortunately, much of the data on personal income, population, employment and other facets of economic activity are available for counties, not cities. Yet, an attempt early on in the paper will be made to uncover the share of economic activity in the county that is attributable to the City of Norman. It will be shown that the share of economic activity attributable to the City of Norman in the County of Cleveland is in the neighborhood of two-thirds to three-quarters. Thus, statistics for Cleveland County are largely reflective of the City of Norman.

The principal findings of the paper are:

- The City of Norman dominates economic activity in Cleveland County. The statistical evidence is that in excess of 70 percent of economic activity in the county is associated with Norman. The University of Oklahoma plays a major role in the economic base of the City of Norman, without a doubt. Bedroom community service to the Oklahoma City metro area is also an undeniable feature of the Norman community. But, it is a grave overstatement to consider Norman simply as a university town with bedroom community facets. Statistics reveal that there is considerable private sector activity in the area and this growth feature is expanding.
- Real taxable sales have about doubled since 1980, with the Cleveland County share of total state taxable sales rising from 3.4 to 5.4 percent.

The City of Norman has maintained a fairly steady 73 percent of county level sales, a fact that further supports the dominance of the Norman economy within Cleveland County.

- Real personal income is expanding in Cleveland County at a 5.2 percent rate over a long time span dating back to 1969. This compares with an annual average rate of growth of 3.0 percent for the State of Oklahoma. The share of state total real personal income attributable to Cleveland County has more than doubled from 3.1 percent to 6.4 percent. Marginal analysis indicates that this share will continue to advance in future years at healthy rates.
- Population has expanded dramatically in Cleveland County and the City of Norman. The population growth rate has been 3.2 percent in comparison to 1.0 percent for the state, from 1969 to 2004.
- Employment in the Cleveland County region has also expanded at very healthy rates; 4.2 percent in comparison to 1.6 percent for the state. The share of wage and salary employment in Cleveland County has risen from 1.9 percent in 1969 to 4.6 percent in 2003. Marginal calculations indicate that this share is likely to continue to rise.
- Real per capita personal income has about doubled in Oklahoma and Cleveland County over the 1969 – 2003 time span. Cleveland County's RPCPI level has closely followed the state's pattern of growth.
- The high level of educational attainment within the City of Norman is likely to well serve future growth prospects in the region.

The paper will begin with a review of “quick facts” available from the US Bureau of the Census. While useful, it will be seen that these statistical snapshots in time are insufficient in assessing the ascendancy of a regional economy. The paper will then explore the University of Oklahoma's contribution to economic activity in the region. The economic base of the region will be examined further through use of 1997 and 2002 Economic Census data, which pertains to private sector employment in the region. At the heart of the paper is documentation of the ascendancy of Norman and Cleveland County economically through analysis of taxable sales, personal income, population, and employment

trends for the region, which clearly demonstrate that the region is growing in its share of state economic activity and is likely to continue to do so in the future.

Quick Facts

The US Bureau of the Census publishes a series of quick facts on the US and regional areas that provide some insights into various features, especially demographic, of these regions. Table I presents these statistics for Norman, Cleveland County, the State of Oklahoma and the nation. Clearly this table presents some important facts about the region in comparison to the state and nation. For example, Norman's population growth rate is estimated to be lower than the Cleveland County growth rate in the 2000-2004 time period, but is still substantially above Oklahoma's estimated growth rate, which is, in turn, substantially below the estimated growth rate for the nation. Between 1990 and 2000, Norman and Cleveland County's population grew by better than 19 percent. These two areas are comparatively younger than the state and the nation, as measured, inversely, by the share of the population who are 65 years and older. Norman and Cleveland County residents are comparatively more mobile geographically, as measured, again inversely by the share of persons living in the same house in 1995 and 2000. That result, of course, is somewhat to be expected because of the college-town facets of Norman.

In terms of educational attainment, Norman and Cleveland County stand out, both in share of the adult population who graduated from high school and who hold a bachelor's or higher degree. For Norman, at almost two out of every five persons aged 25 years and older having attained a bachelor's or higher degree, educational attainment is seen as particularly robust. Of course, faculty and graduate students on the Norman Campus of the University of Oklahoma bias this statistic upwards, but, in 2000 there were only 1,375 full- and part-time faculty on the Norman campus, while the total number of Norman residents with bachelor's and higher degrees is estimated by the author from statistics available in the 2000 Census to be 21,856. Even if one were to assume that all graduate students were at least 25 years old, which is certainly not the case, it is difficult to make a huge dent in these numbers. Thus, it is quite apparent that the Norman community is extremely high in college-degree educational attainment.

Table I

Quick Facts for Norman, Cleveland County, Oklahoma, and the US

| People QuickFacts | Norman | Cleveland | Oklahoma | USA |
|--|---------------|------------------|-----------------|---------------|
| Population, 2004 estimate | 99,197 | 222,074 | 3,523,553 | 293,655,404 |
| Population, percent change, April 1, 2000 to July 1, 2004 | 3.7% | 6.8% | 2.1% | 4.3% |
| Population, 2000 | 95,694 | 208,016 | 3,450,654 | 281,421,906 |
| Population, percent change, 1990 to 2000 | 19.2% | 19.4% | 9.7% | 13.1% |
| Persons under 5 years old, percent, 2000 | 5.9% | 6.3% | 6.8% | 6.8% |
| Persons under 18 years old, percent, 2000 | 21.2% | 24.5% | 25.9% | 25.7% |
| Persons 65 years old and over, percent, 2000 | 9.0% | 8.4% | 13.2% | 12.4% |
| Female persons, percent, 2000 | 49.8% | 49.8% | 50.9% | 50.9% |
| White persons, percent, 2000 ^a | 82.4% | 83.6% | 76.2% | 75.1% |
| Black or African American persons, percent, 2000 ^a | 4.3% | 3.6% | 7.6% | 12.3% |
| American Indian and Alaska Native persons, percent, 2000 ^a | 4.5% | 4.4% | 7.9% | 0.9% |
| Asian persons, percent, 2000 ^a | 3.5% | 2.8% | 1.4% | 3.6% |
| Native Hawaiian and Other Pacific Islander, percent, 2000 ^a | 0.1% | Z | 0.1% | 0.1% |
| Persons reporting some other race, percent, 2000 ^a | 1.4% | 1.4% | 2.4% | 5.5% |
| Persons reporting two or more races, percent, 2000 | 4.0% | 4.2% | 4.5% | 2.4% |
| White persons, not of Hispanic/Latino origin, percent, 2000 | | 81.5% | 74.1% | 69.1% |
| Persons of Hispanic or Latino origin, percent, 2000 ^b | 3.9% | 4.0% | 5.2% | 12.5% |
| Living in same house in 1995 and 2000, pct age 5+, 2000 | 39.6% | 45.9% | 51.3% | 54.1% |
| Foreign born persons, percent, 2000 | 6.0% | 4.4% | 3.8% | 11.1% |
| Language other than English spoken at home, pct age 5+, 2000 | 9.3% | 7.6% | 7.4% | 17.9% |
| High school graduates, percent of persons age 25+, 2000 | 90.3% | 88.1% | 80.6% | 80.4% |
| Bachelor's degree or higher, pct of persons age 25+, 2000 | 39.8% | 28.0% | 20.3% | 24.4% |
| Persons with a disability, age 5+, 2000 | | 30,687 | 676,098 | 49,746,248 |
| Mean travel time to work (minutes), workers age 16+, 2000 | 21 | 22.3 | 21.7 | 25.5 |
| Housing units, 2002 | 41,547 | 88,137 | 1,541,518 | 119,302,132 |
| Homeownership rate, 2000 | 55.2% | 67.0% | 68.4% | 66.2% |
| Housing units in multi-unit structures, percent, 2000 | | 21.0% | 15.2% | 26.4% |
| Median value of owner-occupied housing units, 2000 | \$95,400 | \$88,500 | \$70,700 | \$119,600 |
| Households, 2000 | 38,834 | 79,186 | 1,342,293 | 105,480,101 |
| Persons per household, 2000 | 2.31 | 2.51 | 2.49 | 2.59 |
| Median household income, 1999 | \$36,713 | \$41,846 | \$33,400 | \$41,994 |
| Per capita money income, 1999 | \$20,630 | \$20,114 | \$17,646 | \$21,587 |
| Persons below poverty, percent, 1999 | 15.0% | 10.6% | 14.7% | 12.4% |
| Business QuickFacts | Norman | Cleveland | Oklahoma | USA |
| Private nonfarm establishments with paid employees, 2001 | NA | 4,271 | 85,276 | 7,095,302 |
| Private nonfarm employment, 2001 | NA | 48,328 | 1,212,230 | 115,061,184 |
| Private nonfarm employment, percent change 2000-2001 | NA | 1.4% | 0.9% | 0.9% |
| Nonemployer establishments, 2000 | NA | 13,589 | 219,026 | 16,529,955 |
| Manufacturers shipments, 1997 (\$1000) | 679,616 | 902,324 | 37,453,197 | 3,842,061,405 |
| Retail sales, 1997 (\$1000) | 968,019 | 1,318,621 | 27,065,555 | 2,460,886,012 |
| Retail sales per capita, 1997 | \$10,531 | \$6,659 | \$8,166 | \$9,190 |
| Minority-owned firms, percent of total, 1997 | 8.1% | 8.4% | 10.2% | 14.6% |
| Women-owned firms, percent of total, 1997 | 26.7% | 25.2% | 24.0% | 26.0% |
| Housing units authorized by building permits, 2002 | | 1,053 | 12,979 | 1,747,678 |
| Federal funds and grants, 2002 (\$1000) | | 883,945 | 24,355,046 | 1,901,247,889 |
| Geography QuickFacts | Norman | Cleveland | Oklahoma | USA |
| Land area, 2000 (square miles) | 177 | 536 | 68,667 | 3,537,438 |
| Persons per square mile, 2000 | 540.6 | 388 | 50.3 | 79.6 |

Notes:

^aIncludes persons reporting only one race.^bHispanics may be of any race, so also are included in applicable race categories.

NA: Not available

Z: Value greater than zero but less than half unit of measure shown

Source: US Census Bureau State & County QuickFacts

Many other statistics are of interest in the table in our current quest, such as median household income, per capita money income, retail sales, and nonfarm employment, to name a few. However, some of these statistics are not available for the City of Norman. Furthermore, these snapshots in time tell us little about the trajectory of Norman and Cleveland County in relationship to the broader Oklahoma economy. For such analysis, it is necessary to examine time series data. As noted, unfortunately, the smallest regional units that such data are available for tend to be counties. Prior to presentation of that analysis, some investigation of the importance of the University of Oklahoma to economic activity in Cleveland County will be presented along with some statistical results from the 1997 and 2002 Economic Census. Together with an examination of taxable sales trends, the share of the Norman economy within Cleveland County can be bounded.

OU Norman Campus Economic Impacts

The Center for Economic and Management Research has recently completed an investigation of the economic impact of the Norman Campus on Cleveland County. The geographic basis of Cleveland County was used because counties are the smallest regional unit that can be employed in the Implan® modeling framework. Of course, the University of Oklahoma contributes to economic activity in the region in a variety of ways: employment of faculty and staff, research expenditures, construction spending, supplies, utilities and other operating expenditures, and, of course, the spending in the region by students and campus visitors. All of these sources of spending were estimated for deployment in the economic impact model to account for direct, indirect, and induced impacts on employment and labor income for Fiscal Year 2005.²

Before delving into the various impacts of the OU Norman campus, it is important to acknowledge the extent to which the enterprise of the University of Oklahoma has expanded in recent years. Total full- and part-time faculty rose to 1,508 in 2005 from 1,161 in 1996, a 30 percent gain. Graduate assistants expanded from 1,096 to 1,640, a 50 percent gain. Full-time staff rose by 1,318 to 3,831, a 52 percent gain, again from 1996 to 2005. Total part-time staff and students rose by 1,879 to 4,190, an 81 percent increase. All employment categories rose to 11,169, a gain of 4,088, or 58 percent since 1996. Total compensation rose from \$235 million in 2000 to \$319 million in 2005. Construction spending has averaged \$107 million in the last three fiscal years.

Research expenditures from grants and contracts are up from \$159 million in 2001 to \$222 million in 2005 and total almost one billion dollars (\$967 million to be precise) for these five years. Furthermore, in-roads are being made in business establishment simply to be near the presence of the university. An example is Weather News. Thus, the University of Oklahoma, Norman Campus, is an expanding enterprise, indeed.

The Implan economic impact model estimates that the University of Oklahoma contributed 25,219 jobs to the Cleveland County area, an employment multiplier of 2.26. That is, for every Norman Campus job, an additional 1.26 jobs, on average, are created in the county regional area. Labor income is \$628 million higher owing to the presence of the University of Oklahoma in Cleveland County, a multiplier of 1.97. That is, for every dollar in University of Oklahoma compensation expenditure, an additional 97 cents is generated in Cleveland County. These estimates are considered to be conservative from the standpoint that we are only beginning to understand and incorporate the presence of business activity in the area that has located here simply to be near faculty researchers at the University of Oklahoma. It is, nevertheless, apparent that not only does the University of Oklahoma have a strong economic impact on the surrounding community, but that impact has grown significantly in recent years.

Evidence from the Economic Census

Every five years, the US Bureau of the Census conducts an economic census of the US and regional areas and communities. This survey is dependent upon voluntary responses from private sector businesses and, thus, may be an incomplete representation of private sector business activity in a regional area. Nonetheless, this statistical base may provide data to further our understanding of private sector business activity in Norman as a proportion of Cleveland County. Review of Table II shows that the City of Norman represents about 64 percent of the number of establishments reporting, 66 percent of the number of employees, 69 percent of annual payroll, and 73 percent of shipments. Table III shows that Norman's shares are 65, 72, 77, and 77 percent of establishments, employees, annual payroll, and sales/shipments, respectively. The shares seem to be up somewhat in the 2002 survey. These statistics, then, demonstrate that the City of Norman dominates private sector activity in Cleveland County. Coupled with public sector activity, principally the University of Oklahoma, the share of total economic activity in Norman is clearly dominant.

Table II
1997 Economic Census Statistics for Cleveland County and the City of Norman

| NAICS Industry Code | Number of Establishments | Number of Employees | Annual Payroll (\$1,000) | Sales Shipments, Receipts, or Revenue (\$1,000) |
|---|---------------------------------|----------------------------|---------------------------------|--|
| A. Cleveland County | | | | |
| 31-33 Manufacturing | 151 | 4,287 | \$116,375 | \$ 902,324 |
| 42 Wholesale trade | 159 | 1,462 | 37,184 | 528,574 |
| 44-45 Retail trade | 616 | 7,679 | 115,230 | 1,318,621 |
| 53 Real estate & rental & leasing | 205 | 764 | 11,597 | 68,726 |
| 54 Professional, scientific, & technical services | 395 | 1,656 | 47,493 | 138,861 |
| 56 Administrative & support & waste management & remediation services | 176 | 2,296 | 31,006 | 80,099 |
| 61 Educational services | 34 | 252 | 3,819 | 11,498 |
| 62 Health care & social assistance | 361 | 3,856 | 91,092 | 203,443 |
| 71 Arts, entertainment, & recreation | 50 | 503 | 4,802 | 27,282 |
| 72 Accommodation & food services | 330 | 6,474 | 51,575 | 188,129 |
| 81 Other services (except public administration) | 198 | 1,123 | 16,741 | 60,715 |
| Total Reported | 2,675 | 30,352 | 526,914 | 3,528,272 |
| B. City of Norman | | | | |
| 31-33 Manufacturing | 83 | 2,442 | \$ 71,592 | \$ 679,616 |
| 42 Wholesale trade | 79 | 987 | 26,990 | 397,594 |
| 44-45 Retail trade | 399 | 5,268 | 82,526 | 968,019 |
| 53 Real estate & rental & leasing | 132 | 514 | 7,802 | 40,665 |
| 54 Professional, scientific, & technical services | 288 | 1,239 | 37,246 | 106,837 |
| 56 Administrative & support & waste management & remediation services | 111 | 1,302 | 15,569 | 45,423 |
| 61 Educational services | 22 | 187 | 2,543 | 7,933 |
| 62 Health care & social assistance | 236 | 2,426 | 66,745 | 148,111 |
| 71 Arts, entertainment, & recreation | 34 | 348 | 3,812 | 22,879 |
| 72 Accommodation & food services | 225 | 4,779 | 38,586 | 139,902 |
| 81 Other services (except public administration) | 112 | 679 | 9,738 | 32,289 |
| Total Reported | 1,721 | 20,171 | 363,149 | 2,589,268 |
| C. City of Norman Shares of Cleveland County | | | | |
| 31-33 Manufacturing | 55% | 57% | 62% | 75% |
| 42 Wholesale trade | 50% | 68% | 73% | 75% |
| 44-45 Retail trade | 65% | 69% | 72% | 73% |
| 53 Real estate & rental & leasing | 64% | 67% | 67% | 59% |
| 54 Professional, scientific, & technical services | 73% | 75% | 78% | 77% |
| 56 Administrative & support & waste management & remediation services | 63% | 57% | 50% | 57% |
| 61 Educational services | 65% | 74% | 67% | 69% |
| 62 Health care & social assistance | 65% | 63% | 73% | 73% |
| 71 Arts, entertainment, & recreation | 68% | 69% | 79% | 84% |
| 72 Accommodation & food services | 68% | 74% | 75% | 74% |
| 81 Other services (except public administration) | 57% | 60% | 58% | 53% |
| Total Reported | 64% | 66% | 69% | 73% |

Source: U.S. Bureau of the Census, 1997 Economic Census

Table III

2002 Economic Census Statistics for Cleveland County and the City of Norman

| NAICS Industry Code | | Number of Establishments | Number of Employees | Annual Payroll (\$1,000) | Sales Shipments, Receipts, or Revenue (\$1,000) |
|---|--|--------------------------|---------------------|--------------------------|---|
| A. Cleveland County | | | | | |
| 31-33 | Manufacturing | 144 | 3,360 | \$101,707 | \$ 726,988 |
| 44-45 | Retail trade | 685 | 9,417 | 120,984 | 1,326,871 |
| 51 | Information | 62 | 1,091 | 41,057 | NA |
| 54 | Professional, scientific, & technical services | 497 | 2,566 | 63,219 | 169,366 |
| 61 | Educational services | 48 | 357 | 4,350 | 14,409 |
| 62 | Health care & social assistance | 529 | 8,093 | 189,641 | 435,680 |
| 71 | Arts, entertainment, & recreation | 55 | 824 | 9,045 | 43,311 |
| 72 | Accommodation & food services | 350 | 7,651 | 56,222 | 188,552 |
| | Total Reported | 2,370 | 33,359 | 586,225 | 2,905,177 |
| B. City of Norman | | | | | |
| 31-33 | Manufacturing | 81 | 2,665 | \$101,707 | \$ 726,988 |
| 44-45 | Retail trade | 416 | 6,601 | 120,984 | 1,326,871 |
| 51 | Information | 38 | 971 | 41,057 | NA |
| 54 | Professional, scientific, & technical services | 349 | 1,802 | 63,219 | 169,366 |
| 61 | Educational services | 35 | 260 | 4,350 | 14,409 |
| 62 | Health care & social assistance | 354 | 5,658 | 189,641 | 435,680 |
| 71 | Arts, entertainment, & recreation | 31 | 486 | 9,045 | 43,311 |
| 72 | Accommodation & food services | 235 | 5,737 | 56,222 | 188,552 |
| | Total Reported | 1539 | 24,180 | 586,225 | 2,905,177 |
| C. City of Norman Shares of Cleveland County | | | | | |
| 31-33 | Manufacturing | 56% | 79% | 83% | 88% |
| 44-45 | Retail trade | 61% | 70% | 71% | 74% |
| 51 | Information | 61% | 89% | 90% | NA |
| 54 | Professional, scientific, & technical services | 70% | 70% | 70% | 70% |
| 61 | Educational services | 73% | 73% | 73% | 73% |
| 62 | Health care & social assistance | 67% | 70% | 77% | 75% |
| 71 | Arts, entertainment, & recreation | 56% | 59% | 76% | 74% |
| 72 | Accommodation & food services | 67% | 75% | 76% | 74% |
| | Total Reported | 65% | 72% | 77% | 77% |

Source: 2002 Economic Census
 NA = Not Available.

These calculations, deficient as they may be in providing a complete census of private sector activity, clearly dispel the notion that the City of Norman is solely a bedroom community and university town.

Inflation Adjustment

Now that it has been shown that Norman dominates economic activity in Cleveland County, we will now turn to examination of historic trends in taxable sales, personal income, population, and employment. As noted, many of these statistics are simply not available for Norman, per se. But, with at least two-thirds to three-fourths of economic activity in the county, it is certainly the case that what is happening in Cleveland County is illustrative of trends for the City of Norman. To speak in real terms, it is necessary to inflation-adjust some of the variables, such as taxable sales and personal income.

Brief mention is made of the choice of the inflation series used to adjust nominal dollar amounts into real dollars. Results can, of course, be sensitive to choice of the inflation index. The author uses the Personal Consumption Expenditures Deflator, a product of national income accounting. This measure is close to personal income from the standpoint that consumption is a major component in personal income. The Consumer Price Index (CPI) would have been an alternative. It is the most frequently cited measure of inflation in the popular press. But, it is widely regarded by economists to overstate inflation because of a number of known upward biases. These biases were thoroughly examined by what has come to be known as the Boskin Commission. The report of this group can be found on the web.³ Economist Michael Boskin and his team estimated the CPI overstated inflation by 1.3 percent per year. Whatever the actual extent of overstatement, it is clear that overstatement of inflation leads to understatement of real income gains. Thus, the BEA's chain-weighted Personal Consumption Expenditures Deflator, which is relatively free from the biases discovered by the Boskin Commission, is used in this analysis.

Trends in Taxable Sales

The Center for Economic and Management Research maintains monthly data from over 500 cities in Oklahoma on their sales tax collections. When collections are divided by the sales tax rate for the city, the result is the sales tax base. These results for cities can then be

combined into county totals and aggregated to form annual totals. The data extend back to 1980, providing a fairly lengthy series for studying taxable sales trends. Table IV shows the results for the State, Cleveland County, and the City of Norman. Table IV.A provides the annual totals in nominal dollars, including the first eight months of 2005. Table IV.B presents the inflation-adjusted values along with the Cleveland County share of the state and the Norman share of Cleveland County.

As is apparent from perusal of these tables, the nominal dollar value of taxable sales has increased dramatically since the 1980s. Taxable sales are up about two and one-half times since 1980 for the state and up almost four-fold for Cleveland County and Norman. However, consumer prices have roughly doubled between 1980 and 2000. Thus, it is necessary to inflation-adjust the values. These adjustments are made in Table IV.B. With these adjustments, we see that in real terms, taxable sales are up only about 21 percent for the state, while for the county they are up 88 percent and for Norman, 87 percent. We also note, examining the final two columns in Table IV.B that Cleveland County has increased its share of the state total from 3.5 percent to 5.4 percent from 1980 to 2004. The City of Norman has maintained a fairly constant ratio of county totals, around 73 percent. There was a period of time, 1991-1994 when Norman's share was in the neighborhood of 75 percent. But, the average level of 73 percent seems to be more common. This percentage share of taxable sales is supportive of the findings from analysis of Economic Census data, where it was shown that two-thirds to three-fourths of economic activity in Cleveland County appears to be in the City of Norman.

Personal Income

Economic welfare comparisons among regions, states, and counties in the U.S. are frequently based on personal income (PI), and for very good reason. From personal income, households pay taxes, save, and purchase goods and services. It might well be argued that disposable income, out of which households consume and save, would be a better measure. However, such a measure would have to involve computation of the tax bill of all households in a region, including tax incidence effects. Analysis of just how the burden of various forms of taxes impact households versus businesses is a quite complicated endeavor. Thus, the principal measures of economic welfare fall back a level to personal income.

Table IV

Sales Subject to Tax for the State of Oklahoma, Cleveland County, and City of Norman

| Year | A. Annual Taxable Sales (\$Millions) | | | B. Inflation-Adjusted Taxable Sales (\$Millions of Year 2000 Prices) | | | | | |
|----------------|--------------------------------------|-----------|---------|--|----------|-----------|---------|----------------------|-----------------------|
| | State | Cleveland | Norman | Year | State | Cleveland | Norman | Cleveland % of State | Norman % of Cleveland |
| 1980 | 13,062.4 | 455.7 | 332.4 | 1980 | 25,082.4 | 875.1 | 638.2 | 3.5% | 72.9% |
| 1981 | 15,786.2 | 550.7 | 386.8 | 1981 | 27,831.7 | 970.9 | 682.0 | 3.5% | 70.2% |
| 1982 | 16,778.7 | 611.7 | 434.7 | 1982 | 28,030.3 | 1,021.8 | 726.2 | 3.6% | 71.1% |
| 1983 | 16,988.4 | 648.9 | 472.9 | 1983 | 27,209.3 | 1,039.3 | 757.4 | 3.8% | 72.9% |
| 1984 | 18,235.9 | 698.8 | 507.0 | 1984 | 28,144.0 | 1,078.4 | 782.5 | 3.8% | 72.6% |
| 1985 | 18,167.8 | 686.5 | 499.7 | 1985 | 27,142.0 | 1,025.6 | 746.5 | 3.8% | 72.8% |
| 1986 | 17,404.2 | 684.8 | 490.2 | 1986 | 25,382.0 | 998.7 | 714.9 | 3.9% | 71.6% |
| 1987 | 17,058.0 | 679.5 | 480.8 | 1987 | 24,043.2 | 957.8 | 677.7 | 4.0% | 70.8% |
| 1988 | 17,515.8 | 699.2 | 502.4 | 1988 | 23,748.6 | 948.0 | 681.1 | 4.0% | 71.8% |
| 1989 | 18,005.8 | 715.5 | 528.5 | 1989 | 23,392.7 | 929.6 | 686.6 | 4.0% | 73.9% |
| 1990 | 19,273.8 | 758.6 | 558.5 | 1990 | 23,943.3 | 942.4 | 693.8 | 3.9% | 73.6% |
| 1991 | 19,755.2 | 799.0 | 599.5 | 1991 | 23,681.9 | 957.8 | 718.7 | 4.0% | 75.0% |
| 1992 | 20,890.8 | 818.6 | 612.6 | 1992 | 24,341.4 | 953.9 | 713.8 | 3.9% | 74.8% |
| 1993 | 21,852.3 | 871.6 | 655.2 | 1993 | 24,887.6 | 992.6 | 746.2 | 4.0% | 75.2% |
| 1994 | 22,805.4 | 921.6 | 691.6 | 1994 | 25,437.2 | 1,027.9 | 771.4 | 4.0% | 75.0% |
| 1995 | 23,723.5 | 1,003.7 | 747.2 | 1995 | 25,905.5 | 1,096.0 | 816.0 | 4.2% | 74.4% |
| 1996 | 24,924.3 | 1,085.4 | 787.6 | 1996 | 26,643.7 | 1,160.3 | 841.9 | 4.4% | 72.6% |
| 1997 | 25,793.6 | 1,162.6 | 849.3 | 1997 | 27,115.8 | 1,222.2 | 892.8 | 4.5% | 73.0% |
| 1998 | 27,302.6 | 1,253.0 | 906.5 | 1998 | 28,446.8 | 1,305.5 | 944.5 | 4.6% | 72.3% |
| 1999 | 28,420.6 | 1,366.8 | 1,002.7 | 1999 | 29,127.0 | 1,400.8 | 1,027.6 | 4.8% | 73.4% |
| 2000 | 29,528.6 | 1,406.8 | 1,044.6 | 2000 | 29,528.6 | 1,406.8 | 1,044.6 | 4.8% | 74.3% |
| 2001 | 31,327.8 | 1,539.4 | 1,130.2 | 2001 | 30,685.3 | 1,507.8 | 1,107.0 | 4.9% | 73.4% |
| 2002 | 30,866.5 | 1,597.3 | 1,172.0 | 2002 | 29,810.6 | 1,542.6 | 1,131.9 | 5.2% | 73.4% |
| 2003 | 31,602.4 | 1,685.3 | 1,226.8 | 2003 | 29,949.2 | 1,597.2 | 1,162.6 | 5.3% | 72.8% |
| 2004 | 32,799.3 | 1,783.4 | 1,292.9 | 2004 | 30,300.7 | 1,647.6 | 1,194.5 | 5.4% | 72.5% |
| 2005-8 months. | 22,358.2 | 1,224.3 | 887.9 | | | | | | |

Source: Center for Economic and Management Research, Price College of Business, OU.

Regions vary, of course, in the value of total personal income and the number of persons benefiting from that income. To normalize the data for comparison purposes, total personal income is typically divided by population to produce per capita personal income (PCPI). Such normalization provides the opportunity to compare regions cross-sectionally, i.e., at a given time. Comparisons across time, however, require adjustments for the rate of inflation enabling researchers to speak in terms of real per capita personal income (RPCPI). Such adjustments are necessary in order to compute meaningful growth rates in economic well-being. A national measure of inflation is applied to the data to standardize for price effects across time. Yet, we still have problems in making regional comparisons. One problem relates to choice of the inflation series and there are several to choose from, the consumer price index (CPI) and the Implicit Price Deflator (IPD) from the national income accounts being the two major contenders. For reasons noted above, we have chosen the Personal Consumption Expenditures deflator.

Figure A displays the trend in total real personal income for the State of Oklahoma, graphed on the left axis, and Cleveland County, graphed on the right axis. As is quite apparent in this graphic, there have been considerable gains in the inflation-adjusted levels of personal income for both regions since 1969. The state's total real personal income has advanced from \$32 Billion to \$89 Billion in 2003. The county's has advanced from \$1 Billion to \$5.7 Billion in the same time period. As is also apparent from the graphic and these statistics, the advance of Cleveland County has far outstripped the state's. For the entire 1969-2003 period, the average compounded annual rate of growth for the state was 3.0 percent. For Cleveland County, it was a 5.4 percent average compounded annual rate of growth. Figure B demonstrates quite clearly how Cleveland County's share of state personal income has increased over time. From 1969, Cleveland County's share has more than doubled from slightly over 3.0 percent to 6.4 percent in 2003. These are rather remarkable gains, which are largely attributable to growth in the economic contributions of the Norman economy.

Figure A

State of Oklahoma and Cleveland County Real Personal Income (\$Millions of Year 2000 Prices)

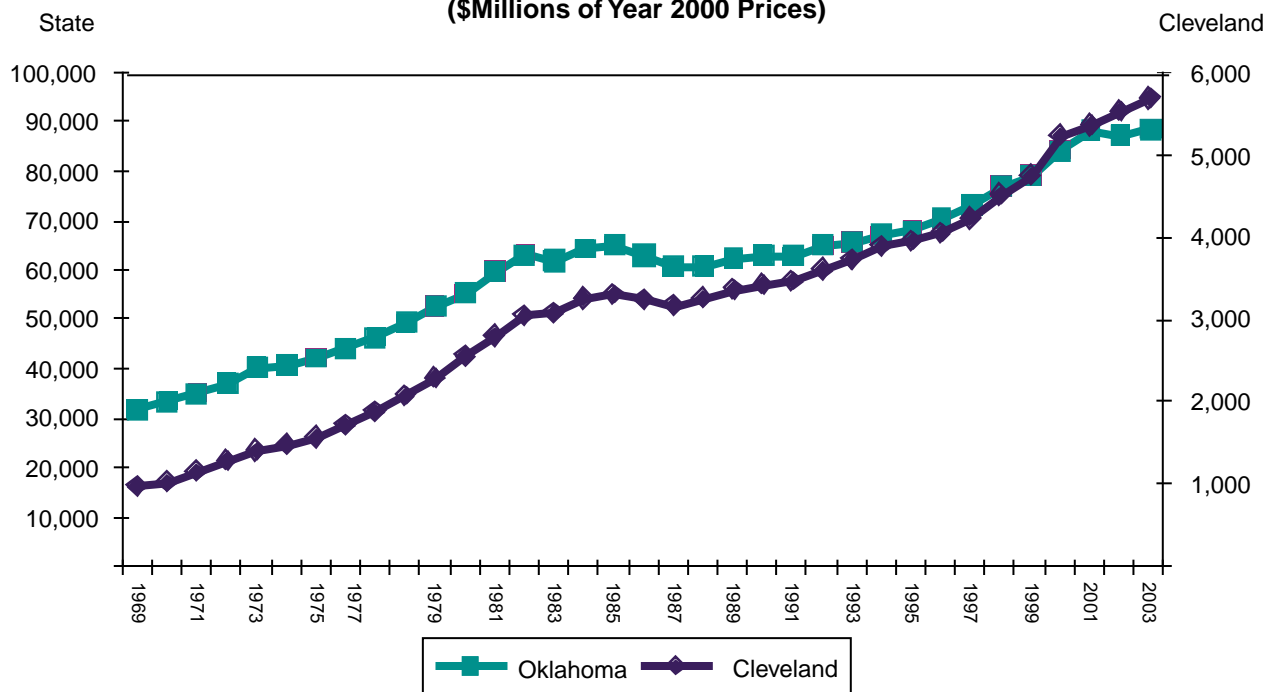
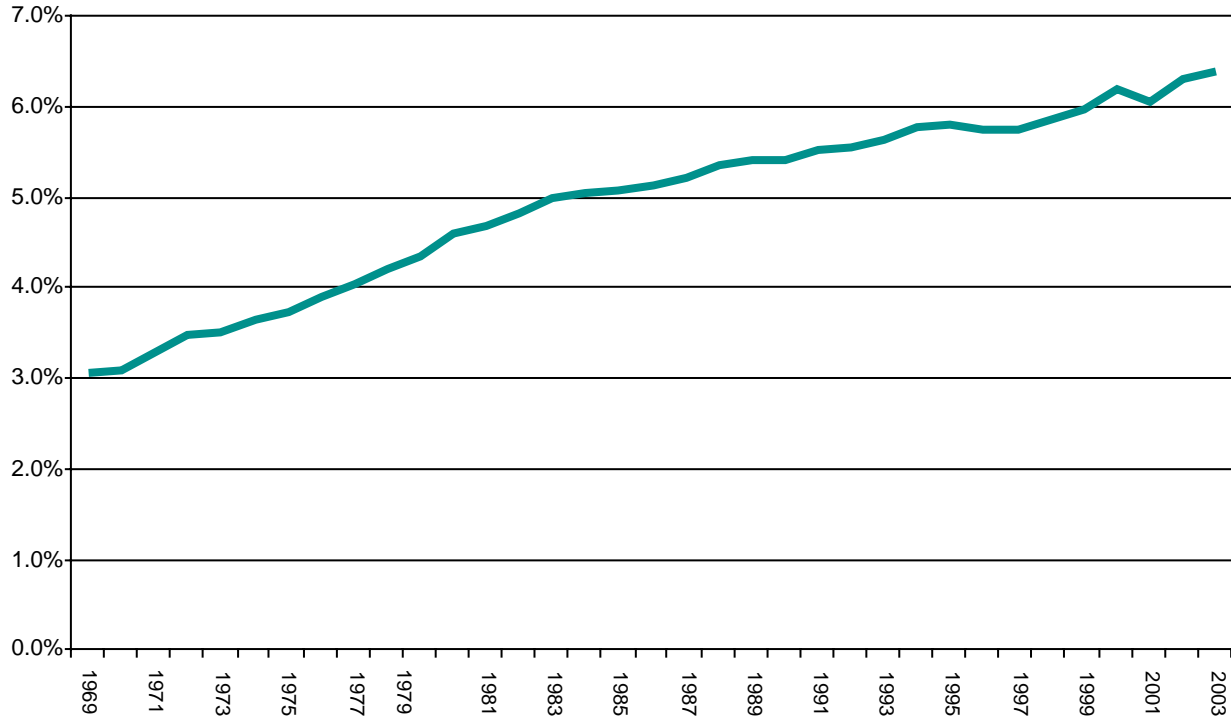


Figure B

**Cleveland County Share of the State of Oklahoma's Personal Income
1969-2003**



There is another way of examining rates of change that will further illuminate the importance of growth in the Norman region to the State of Oklahoma. Economists like to focus on marginal changes, and while such techniques are a little difficult to explain, these techniques are well worth the trouble. The reader is asked to consider a base year level of personal income, say, in 1969. For any given year after 1969, we can determine by just how much total real personal income has advanced for a given region such as for the state and for Cleveland County. The ratio of the change in real personal income for Cleveland County to the change in real personal income for the State of Oklahoma is called the *marginal contribution*. That is, the marginal contribution is the ratio of two rates of change. For example, if the ratio is 9.0 percent, this means that 9.0 percent of the gain in total personal income since the base year is attributable to Cleveland County. It is possible to examine marginal contributions for any specified base year. The interesting feature of marginal contributions is that if they remain intact in future years, eventually the average share will approach the marginal contribution.

Table V examines the marginal contributions relative to selected base years for years 1998 through 2003. As is apparent from examination of this table, the marginal contribution of Cleveland County to state real personal income growth has been in the neighborhood of 9.0 percent. The marginal change thus exceeds the average share in 2003 of 6.4 percent by a considerable amount. If this high level of marginal change persists in the future, we can expect the average share to advance and

Table V

Marginal Contributions of Cleveland County to State Real Personal Income Growth Relative to Selected Base Years for Years 1998 – 2003

| Base Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|-----------|------|------|------|------|------|------|
| 1969 Base | 7.9% | 8.0% | 8.1% | 7.8% | 8.2% | 8.3% |
| 1976 Base | 8.5% | 8.6% | 8.8% | 8.3% | 8.8% | 8.9% |
| 1983 Base | 9.4% | 9.5% | 9.6% | 8.6% | 9.6% | 9.7% |
| 1990 Base | 7.8% | 8.1% | 8.5% | 7.7% | 8.6% | 8.8% |
| 1997 Base | 7.5% | 8.5% | 9.1% | 7.6% | 9.2% | 9.4% |

eventually approach the marginal contribution. This is a mathematical certainty, provided the rate of marginal contribution continues to be in the 9.0 percent range. Obviously, the process of convergence can be rather slow given that total personal income at the state level is advancing only at about a 3.0 percent rate. Simulations can provide some indications of the rate of advance in the Cleveland County share. For example, with state personal income advancing at 3.0 percent real per annum with Cleveland County contributing 9.0 percent of the advance, by the year 2050 the Cleveland County share of state total real personal income would be 8.4 percent, about 2.0 percentage points higher than the present share. However, the marginal effects provide the upper limit of the ultimate average share. It is clear that if present trends, which show remarkable consistency, continue, the Cleveland County region will continue to represent an expanding share of state total real personal income.

Population

An analysis similar to the one performed on total real personal income can be used on population trends. Figure C

shows the advance of Oklahoma's and Cleveland County's population since 1969. Oklahoma has risen, essentially, from 2.5 million to 3.5 million during that time span while Cleveland County has grown from 75,000 to 222,000. Oklahoma's average annual growth rate has been about 1.0 percent while Cleveland County has advanced at an annual rate of 3.2 percent. Over that period, as illustrated in Figure D, Cleveland County has increased its share of Oklahoma's population in line with its share of Oklahoma total personal income, that is, by more than double its 1969 share. Examining the marginal contributions in Table VI, we see that these rates are quite high and lacking in some consistency, particularly for the 1983 base year. However, there does appear to be some consistency in the shares of growth for most of the base years, suggesting about a 14-15 percent marginal contribution. Obviously, these are very high marginal rates of contribution. It is doubtful that Cleveland County will maintain a rate of one person in seven in future population expansion in the state. Nevertheless, these high rates clearly show that Cleveland County is a population growth center in the state.

Figure C

Population of Oklahoma and Cleveland County
1969-2004

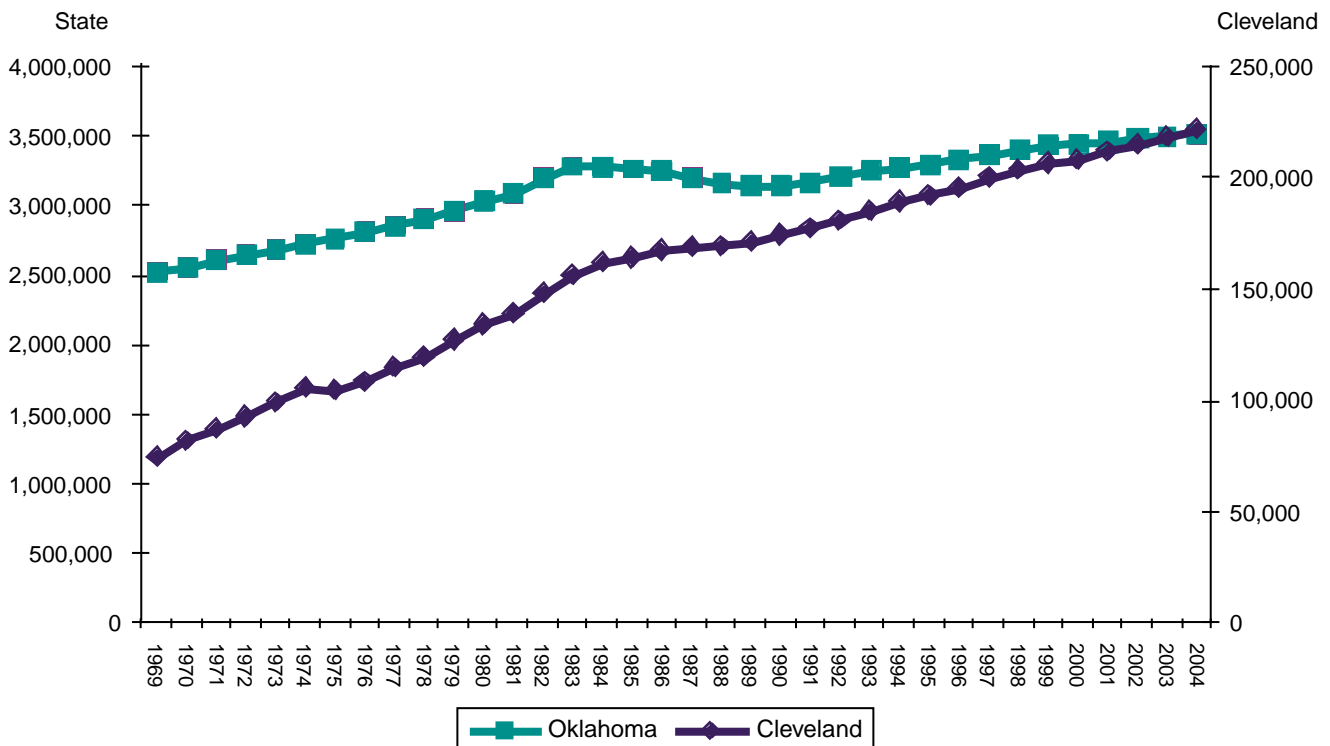


Figure D

**Cleveland County Share of Oklahoma's Population
1969 - 2004**

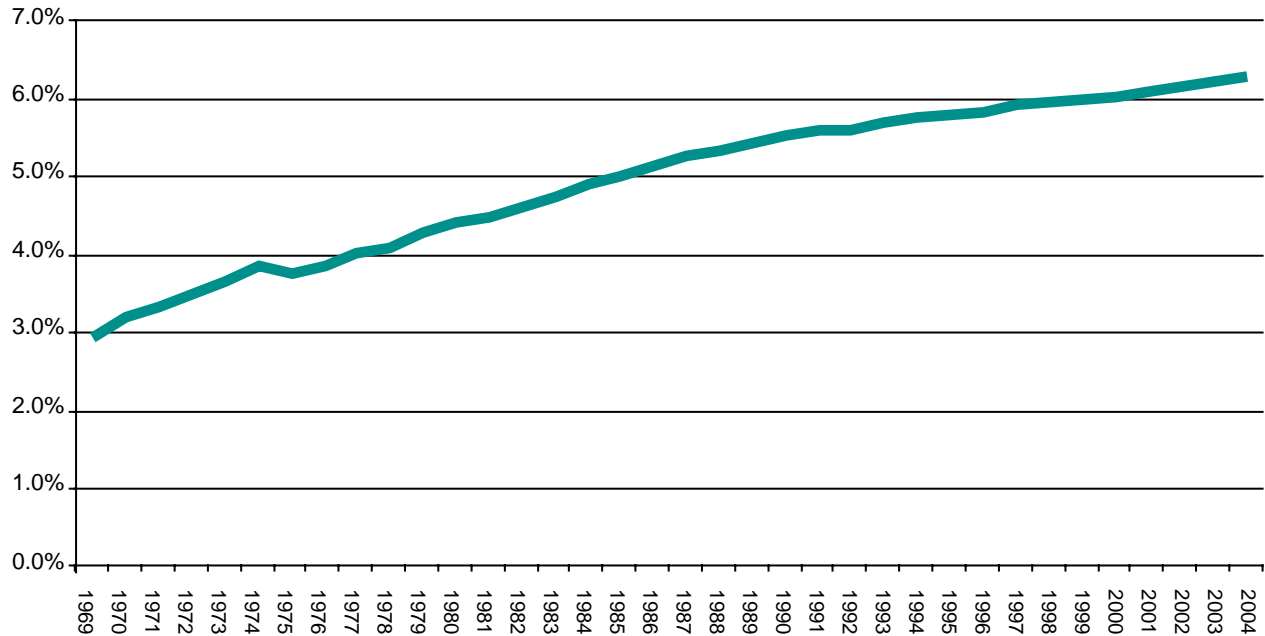


Table VI

**Marginal Contributions of Cleveland County to State Population Growth
Relative to Selected Base Years for Years 1998 – 2004**

| Base Years | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|------------|-------|-------|-------|-------|-------|-------|-------|
| 1969 Base | 14.8% | 14.6% | 14.5% | 14.7% | 14.7% | 14.8% | 14.9% |
| 1976 Base | 16.3% | 16.0% | 15.8% | 16.1% | 16.0% | 16.1% | 16.2% |
| 1983 Base | 41.0% | 34.2% | 31.5% | 31.6% | 29.6% | 28.8% | 28.1% |
| 1990 Base | 12.5% | 12.2% | 12.0% | 12.8% | 12.8% | 13.2% | 13.5% |
| 1997 Base | 10.0% | 9.9% | 9.6% | 12.5% | 12.7% | 13.7% | 14.3% |

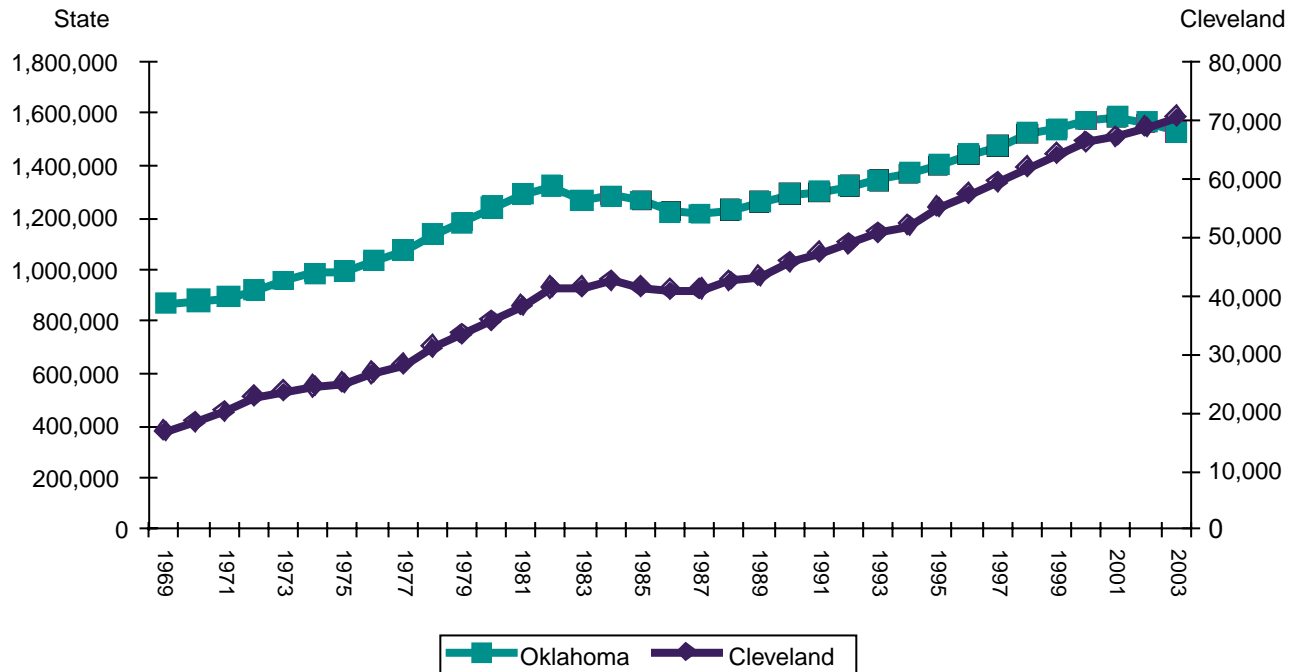
Employment

The US Bureau of Economic Analysis also posts nonfarm employment in addition to personal income and population statistics. Figure E provides a graphical representation of a statistic that is known by several names: nonfarm, establishment, and wage and salary employment. These data are based on unemployment insurance records and are called *establishment* in that they refer to job counts at business establishments. These data differ from survey-based methodologies, such

as those used to compute unemployment rates, because a person may hold more than one job. From Figure E we see that the rate of advance of employment in Cleveland County has been much higher than the state's. For the entire 1969-2003 period, the state's average annual rate of growth has been 1.6 percent while Cleveland County has grown at a compounded average annual rate of 4.2 percent. In consequence, wage and salary employment has more than tripled in Cleveland County. This statistic, possibly more than any other, shows the vibrancy of economy of Cleveland County, owing in large part to growth in the Norman region.

Figure E

State of Oklahoma and Cleveland County
Wage & Salary Employment
1969 - 2003



In terms of the share of state employment, however, we see in Figure F that while the Cleveland County share has more than doubled, this share in 2003 at 4.6 percent is very much lower than the share of state total personal income and population. This differential is characteristic of regions that have some “bedroom” community aspects. This is because personal income is allocated on a residential basis while employment is determined from the location of the establishments. Nevertheless, once again we see high marginal contributions of Cleveland County to overall state employment growth, as illustrated in Table VII. There is, once again, a notable lack in consistency in these marginal contributions. In particular, the 2003 contribution for the 1997 base is especially high. This is owing to the fact that the Bureau of Economic Analysis has employment down for the state in 2003, making the denominator of the computation smaller and the percentage share attributable to Cleveland County higher. Yet, from review of these values, there is some consistency in the neighborhood of 8–10 percent. Such levels of marginal contribution are significantly higher than the 2003 Cleveland County share of 4.6

percent. Consequently, we see, once again the vibrancy of the Cleveland County economy. Maintenance of 8-10 percent marginal contributions will continue to boost Cleveland County’s share of the state-wide employment base.

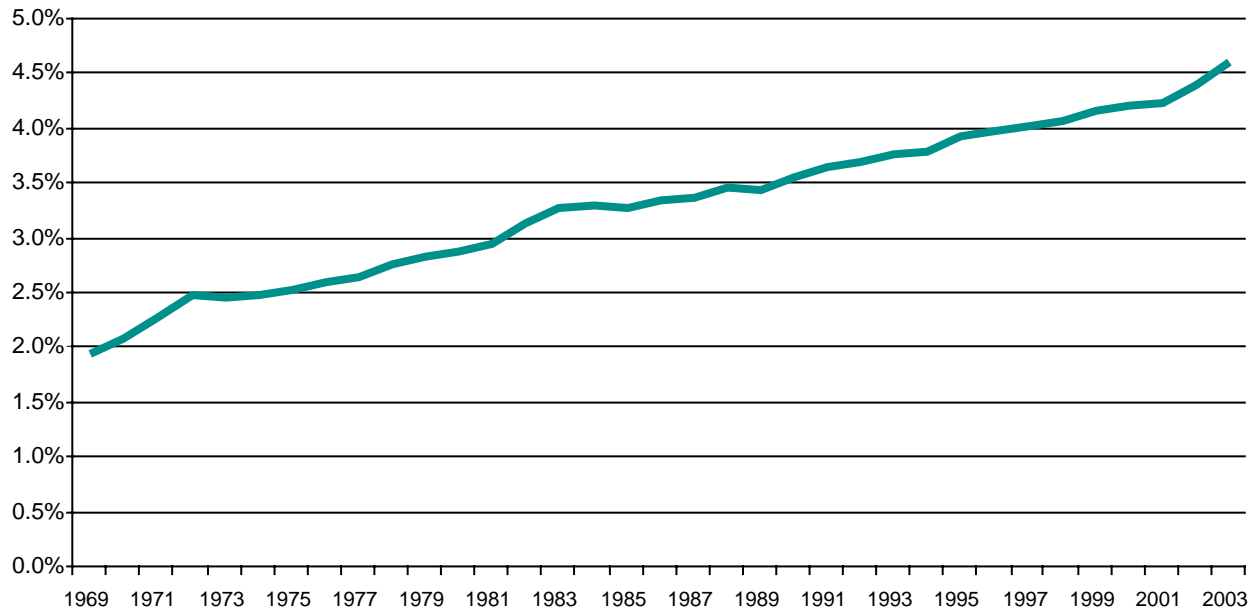
Table VII

Marginal Contributions of Cleveland County to State Employment Growth Relative to Selected Base Years for Years 1998 – 2003

| Base Years | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|------------|------|------|------|------|-------|-------|
| 1969 Base | 6.9% | 7.1% | 7.0% | 7.0% | 7.5% | 8.2% |
| 1976 Base | 7.1% | 7.3% | 7.3% | 7.3% | 7.9% | 8.8% |
| 1983 Base | 7.9% | 8.2% | 8.0% | 8.0% | 9.1% | 11.0% |
| 1990 Base | 7.1% | 7.4% | 7.3% | 7.3% | 8.4% | 10.2% |
| 1997 Base | 5.5% | 7.4% | 7.2% | 7.2% | 10.9% | 22.1% |

Figure F

**Cleveland County Share of State
Wage & Salary Employment
1969 - 2003**



Real Per Capita Personal Income

Dividing total real personal income by population yields real per capita personal income. This variable is frequently used as a measure of economic welfare. These statistics are graphed in Figure G for Oklahoma and Cleveland County. The trends are remarkably similar. At times, Cleveland County is slightly higher than the state level; at times, lower. Overall the trends are quite similar and indicate that over the 1969 – 2003 period, both regions have grown at a 2.0 percent average annual rate. Over the entire period, real per capita personal income (RPCPI) has about doubled in both regions.

There is a mathematical relationship that explains this result of comparative similarity in growth rates:

$$RPCPI_{gr} = RPI_{gr} - POP_{gr}$$

That is, the growth-rate of real per capita personal income (RPCPI) equals the growth rate in total real personal income minus the growth rate in population. Using this relationship, it is possible to decompose the growth rate of RPCPI into two components: personal income growth and population growth. For the State of Oklahoma, total real personal income has expanded at a 3.0 percent rate.

Minus the 1.0 percent rate of growth in population, this yields a 2.0 percent rate of growth in RPCPI. Cleveland County has grown its total real personal income at a 5.2 percent annual rate. But, its population has grown at a 3.2 percent annual rate. Subtracting the 3.2 percent population growth rate from the 5.2 percent rate of growth in total real personal income yields a growth rate in RPCPI of 2.0 percent. Of course, a growth rate in RPCPI of 2.0 percent is quite respectable and yields an approximate doubling in about 34 years.

Degreed Population

One final set of statistics that will be reported in this paper relates to the share of the adult population who have earned a bachelor's or higher degree. The high rates of educational attainment for Cleveland County and the City of Norman have already been noted. One fact of importance, especially in relation to the shifting structure of the US economy to brainpower and computer chips, is how highly concentrated higher educational attainment is in Oklahoma. As noted in

Tables VIII for 1990 and IX for year 2000, the top three counties in degreed population account for over 50 percent of all adult holders of bachelor's and higher degrees in Oklahoma. And, the top 15 counties account for about three-fourths of all adult degree holders in the state. This concentration in brainpower bodes well for Cleveland County and the City of Norman as the US economy works toward a more intensive usage of highly educated workers in this new world economy that we see unfolding almost with every passing day.

Conclusion

This paper has had as its major objective the debunking of the myth that the economy of the City of Norman is dominated by the University of Oklahoma and by its "bedroom" community service to the Oklahoma City metropolitan area. The important role and continuing growth of the University of Oklahoma has been documented through economic impact analysis. Norman will continue to benefit from the expanding role

that the University of Oklahoma plays in this community, both economically and culturally. But that is not the full story of Norman's ascendancy. The Economic Census statistics reveal that private sector employment has a strong base in Cleveland County. Furthermore, the statistics reveal that the Norman economy represents about 70 percent of the private sector activity in the Cleveland County region. A more complete appraisal of the ascendancy of the Norman economy is found in the statistical series on personal income, population, and employment provided by the US Bureau of Economic Analysis. These statistics not only show significantly rising shares of personal income, population, and employment in the Cleveland County region, but also high rates of marginal contributions to total growth in Oklahoma. In consequence, the analysis is predictive of continuing advances in Cleveland County and the City of Norman in the years ahead. Growth in the future is likely to be ever more associated with the brainpower endowments of the resident population. In this regard, the Norman community is very well situated, indeed.

Figure G

Real Per Capita Personal Income
in Oklahoma and Cleveland County
1969-2003 (in \$Thousands of Year 2000 Prices)



Table VIII**Top 15 Counties with Degreed Population in 1990**

| County | Degreed Population Age 25+ Years | Share of State Degreed Population | Cumulative Percentage |
|---------------|---|--|----------------------------------|
| Oklahoma | 86,492 | 24.4% | 24.4% |
| Tulsa | 76,438 | 21.5% | 45.9% |
| Cleveland | 26,661 | 7.5% | 53.4% |
| Comanche | 11,613 | 3.3% | 56.7% |
| Payne | 9,941 | 2.8% | 59.5% |
| Washington | 8,279 | 2.3% | 61.8% |
| Canadian | 7,745 | 2.2% | 64.0% |
| Garfield | 6,461 | 1.8% | 65.8% |
| Muskogee | 6,135 | 1.7% | 67.5% |
| Kay | 5,812 | 1.6% | 69.2% |
| Rogers | 4,525 | 1.3% | 70.5% |
| Pottawatomie | 4,467 | 1.3% | 71.7% |
| Cherokee | 4,357 | 1.2% | 72.9% |
| Stephens | 4,185 | 1.2% | 74.1% |
| Creek | 4,085 | 1.2% | 75.3% |

Table IX**Top 15 Counties with Degreed Population in 2000**

| County | Degreed Population Age 25+ Years | Share of State Degreed Population | Cumulative Percentage |
|---------------|---|--|----------------------------------|
| Oklahoma | 106,778 | 23.9% | 23.9% |
| Tulsa | 96,696 | 21.6% | 45.5% |
| Cleveland | 35,464 | 7.9% | 53.5% |
| Comanche | 12,846 | 2.9% | 56.4% |
| Payne | 12,733 | 2.9% | 59.2% |
| Canadian | 11,738 | 2.6% | 61.8% |
| Washington | 8,485 | 1.9% | 63.7% |
| Rogers | 7,641 | 1.7% | 65.4% |
| Garfield | 7,443 | 1.7% | 67.1% |
| Muskogee | 6,895 | 1.5% | 68.7% |
| Pottawatomie | 6,367 | 1.4% | 70.1% |
| Wagoner | 5,690 | 1.3% | 71.4% |
| Kay | 5,678 | 1.3% | 72.6% |
| Cherokee | 5,567 | 1.2% | 73.9% |
| Creek | 5,098 | 1.1% | 75.0% |

Notes

¹The myth of Oklahoma being dominated by energy and agriculture has been debunked in two papers by the author: “Growth of the Oklahoma Economy: The Roles of Wages and Jobs,” *State Policy and Economic Development in Oklahoma: 2002*, Oklahoma 21st Century, State Chamber of Commerce, 1-24, and “Oklahoma’s Occupational Structure and Implications for Income Growth,” *State Policy and Economic Development in Oklahoma: 2003*, Oklahoma 21st Century, State Chamber of Commerce, 59-79.

²An example of a direct impact is employment in the entity in question, such as OU. Direct employment includes faculty, staff, and students on the university’s payroll. Indirect employment are jobs created in supplier industries such as utilities, office equipment and supplies, and service providers. As a result of higher levels of direct and indirect employment, additional labor income is generated that, in turn, yields

induced spending and employment. The three components, direct, indirect and induced, are combined to yield total impacts. The ratio of the total impact to the direct impact is known as the multiplier, which pertain, in general, to employment or income multipliers.

³The website for the report is www.ssa.gov/history/reports/boskinrpt.html.

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SELECTED INDICATORS FOR OKLAHOMA

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|--|-------------|-------------|-------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| Crude Oil Production (000 bbl) ^a | 16,062 | 16,842 | 18,446 | -12.9 | -4.6 |
| Natural Gas Production (000 mcf) ^a | 397,497 | 411,713 | 410,425 | -3.1 | -3.5 |
| Rig Count | 154 | 152 | 170 | -9.4 | 1.3 |
| Initial Unemployment Claims | NA | NA | 23,152 | -- | -- |
| Permit-Authorized Construction | | | | | |
| Residential Single Family | | | | | |
| Dollar Value (\$000) | 600,929 | 583,619 | 511,451 | 17.5 | 3.0 |
| Number of Units | 3,897 | 3,858 | 3,463 | 12.5 | 1.0 |
| Residential-Multi Family | | | | | |
| Dollar Value (\$000) | 29,613 | 38,769 | 23,245 | 27.4 | -23.6 |
| Number of Units | 525 | 677 | 380 | 38.2 | -22.5 |
| Total Construction (\$000) | 630,542 | 622,388 | 534,696 | 17.9 | 1.3 |
| Employment | | | | | |
| Total Labor Force (000) ^b | 1,736.9 | 1,729.0 | 1,708.6 | 1.7 | 0.5 |
| Total Employment (000) | 1,663.8 | 1,652.9 | 1,632.9 | 1.9 | 0.7 |
| Unemployment Rate (%) | 4.3 | 4.4 | 4.4 | -- | -- |
| Wage and Salary Employment (000) | 1,494.3 | 1,501.4 | 1,467.3 | 1.8 | -0.5 |
| Manufacturing | 142,000 | 140,733 | 142,700 | -0.5 | 0.9 |
| Mining | 32,500 | 32,100 | 31,433 | 3.4 | 1.2 |
| Government | 301,733 | 312,267 | 293,000 | 3.0 | -3.4 |
| Construction | 64,867 | 63,367 | 63,733 | 1.8 | 2.4 |
| Retail Trade | 169,333 | 169,433 | 166,233 | 1.9 | -0.1 |
| Average Weekly Hours (Per Worker) | | | | | |
| Manufacturing | 40.0 | 39.9 | 41.4 | -3.4 | 0.3 |
| Average Weekly Earnings (\$ Per Worker) | | | | | |
| Manufacturing | 587.09 | 581.08 | 588.67 | -0.3 | 1.0 |

Note: Includes revisions in some previous months.

^aFigures are for 2nd Qtr 2005 and 1st Qtr 2004.

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

OKLAHOMA GENERAL BUSINESS INDEX

| | June '05 | Preliminary Forecast | | Percentage Change | |
|-------------------|----------|----------------------|----------|-------------------|-----------------|
| | | June '04 | June '03 | '05/'04 June | '05/'03 June |
| State | 137.3 | 133.8 | 130.2 | 2.6 | 5.5 |
| Oklahoma City MSA | 142.1 | 137.8 | 132.2 | 3.1 | 7.5 |
| Tulsa MSA | 137.6 | 135.4 | 131.2 | 1.6 | 4.9 |

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

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|---|---------------|---------------|---------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| OKLAHOMA CITY MSA | | | | | |
| Durable Goods | 687,305,606 | 691,677,924 | 654,628,773 | 5.0 | -0.6 |
| Lumber, Building Materials and Hardware | 258,961,987 | 256,397,307 | 243,024,126 | 6.6 | 1.0 |
| Auto Accessories and Repair | 94,133,767 | 94,026,184 | 92,853,835 | 1.4 | 0.1 |
| Furniture | 87,151,363 | 87,245,617 | 81,621,432 | 6.8 | -0.1 |
| Computer, Electronics and Music Stores | 84,096,583 | 88,090,778 | 82,416,464 | 2.0 | -4.5 |
| Miscellaneous Durables | 146,042,177 | 148,848,215 | 137,866,763 | 5.9 | -1.9 |
| Used Merchandise | 16,919,729 | 17,069,824 | 16,846,152 | 0.4 | -0.9 |
| Nondurable Goods | 1,859,749,312 | 1,757,731,895 | 1,718,625,573 | 8.2 | 5.8 |
| General Merchandise | 633,297,573 | 622,444,603 | 605,377,772 | 4.6 | 1.7 |
| Food Stores | 233,478,128 | 242,029,629 | 268,180,664 | -12.9 | -3.5 |
| Apparel | 112,092,601 | 114,364,636 | 104,814,312 | 6.9 | -2.0 |
| Eating and Drinking Places | 407,067,624 | 409,059,388 | 362,621,387 | 12.3 | -0.5 |
| Drug Stores | 39,642,788 | 38,848,017 | 38,821,375 | 2.1 | 2.0 |
| Liquor Stores | 24,848,860 | 25,267,629 | 22,410,794 | 10.9 | -1.7 |
| Miscellaneous Nondurables | 90,753,640 | 77,080,178 | 92,598,663 | -2.0 | 17.7 |
| Gasoline | 318,568,097 | 228,637,816 | 223,800,606 | 42.3 | 39.3 |
| Total Retail Trade | 2,547,054,918 | 2,449,409,820 | 2,373,254,346 | 7.3 | 4.0 |
| TULSA MSA | | | | | |
| Durable Goods | 478,287,816 | 472,626,386 | 446,564,798 | 7.1 | 1.2 |
| Lumber, Building Materials and Hardware | 164,742,614 | 167,825,475 | 155,820,449 | 5.7 | -1.8 |
| Auto Accessories and Repair | 61,216,105 | 60,768,601 | 59,483,663 | 2.9 | 0.7 |
| Furniture | 56,590,979 | 57,284,091 | 53,170,086 | 6.4 | -1.2 |
| Computer, Electronics and Music Stores | 77,362,142 | 78,084,866 | 73,896,421 | 4.7 | -0.9 |
| Miscellaneous Durables | 102,815,645 | 95,688,142 | 92,036,531 | 11.7 | 7.4 |
| Used Merchandise | 15,560,331 | 12,975,213 | 12,157,648 | 28.0 | 19.9 |
| Nondurable Goods | 1,406,502,645 | 1,318,519,069 | 1,327,784,126 | 5.9 | 6.7 |
| General Merchandise | 434,519,362 | 441,694,153 | 436,746,954 | -0.5 | -1.6 |
| Food Stores | 198,110,632 | 205,008,901 | 225,312,747 | -12.1 | -3.4 |
| Apparel | 81,823,411 | 82,099,418 | 76,813,799 | 6.5 | -0.3 |
| Eating and Drinking Places | 260,580,554 | 265,622,132 | 244,586,464 | 6.5 | -1.9 |
| Drug Stores | 32,067,351 | 31,621,331 | 30,397,805 | 5.5 | 1.4 |
| Liquor Stores | 20,535,072 | 19,489,473 | 18,781,873 | 9.3 | 5.4 |
| Miscellaneous Nondurables | 77,276,207 | 56,392,025 | 90,040,229 | -14.2 | 37.0 |
| Gasoline | 301,590,057 | 216,591,637 | 205,104,256 | 47.0 | 39.2 |
| Total Retail Trade | 1,884,790,461 | 1,791,145,456 | 1,774,348,924 | 6.2 | 5.2 |
| LAWTON MSA | | | | | |
| Durable Goods | 43,734,990 | 42,072,077 | 39,783,524 | 9.9 | 4.0 |
| Lumber, Building Materials and Hardware | 19,207,075 | 18,523,090 | 16,353,070 | 17.5 | 3.7 |
| Auto Accessories and Repair | 6,610,665 | 6,869,319 | 6,351,608 | 4.1 | -3.8 |
| Furniture | 4,947,492 | 3,780,316 | 3,918,011 | 26.3 | 30.9 |
| Computer, Electronics and Music Stores | 3,590,593 | 3,696,912 | 3,361,175 | 6.8 | -2.9 |
| Miscellaneous Durables | 7,972,065 | 7,883,636 | 8,299,738 | -3.9 | 1.1 |
| Used Merchandise | 1,407,101 | 1,318,806 | 1,499,921 | -6.2 | 6.7 |

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

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|---|---------------|---------------|---------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| LAWTON MSA | | | | | |
| Nondurable Goods | 155,637,299 | 147,619,751 | 147,330,966 | 5.6 | 5.4 |
| General Merchandise | 69,755,946 | 68,199,420 | 67,330,574 | 3.6 | 2.3 |
| Food Stores | 14,500,399 | 15,046,230 | 17,504,432 | -17.2 | -3.6 |
| Apparel | 9,190,659 | 8,908,351 | 8,384,088 | 9.6 | 3.2 |
| Eating and Drinking Places | 29,584,664 | 29,861,596 | 27,593,940 | 7.2 | -0.9 |
| Drug Stores | 2,232,732 | 2,118,109 | 2,133,770 | 4.6 | 5.4 |
| Liquor Stores | 1,518,680 | 1,547,206 | 989,756 | 53.4 | -1.8 |
| Miscellaneous Nondurables | 5,720,876 | 5,331,525 | 6,699,210 | -14.6 | 7.3 |
| Gasoline | 23,133,343 | 16,607,315 | 16,695,198 | 38.6 | 39.3 |
| Total Retail Trade | 199,372,289 | 189,691,829 | 187,114,490 | 6.6 | 5.1 |
| ENID MICROSA | | | | | |
| Durable Goods | 29,311,851 | 28,492,898 | 28,064,640 | 4.4 | 2.9 |
| Lumber, Building Materials and Hardware | 11,958,802 | 11,890,802 | 11,092,924 | 7.8 | 0.6 |
| Auto Accessories and Repair | 5,291,604 | 5,123,639 | 5,538,271 | -4.5 | 3.3 |
| Furniture | 2,584,626 | 2,605,250 | 2,565,839 | 0.7 | -0.8 |
| Computer, Electronics and Music Stores | 3,256,729 | 2,916,743 | 2,797,768 | 16.4 | 11.7 |
| Miscellaneous Durables | 5,524,364 | 5,393,947 | 5,299,308 | 4.2 | 2.4 |
| Used Merchandise | 695,725 | 562,518 | 770,529 | -9.7 | 23.7 |
| Nondurable Goods | 97,540,626 | 92,845,198 | 91,237,807 | 6.9 | 5.1 |
| General Merchandise | 34,404,690 | 34,830,623 | 33,805,790 | 1.8 | -1.2 |
| Food Stores | 15,410,469 | 15,603,627 | 17,962,103 | -14.2 | -1.2 |
| Apparel | 3,974,568 | 3,971,195 | 3,711,243 | 7.1 | 0.1 |
| Eating and Drinking Places | 16,764,384 | 16,904,677 | 14,327,696 | 17.0 | -0.8 |
| Drug Stores | 2,857,072 | 2,751,640 | 2,649,979 | 7.8 | 3.8 |
| Liquor Stores | 841,869 | 895,028 | 876,840 | -4.0 | -5.9 |
| Miscellaneous Nondurables | 4,610,772 | 4,390,806 | 4,431,088 | 4.1 | 5.0 |
| Gasoline | 18,676,803 | 13,497,602 | 13,473,068 | 38.6 | 38.4 |
| Total Retail Trade | 126,852,477 | 121,338,097 | 119,302,448 | 6.3 | 4.5 |
| OKLAHOMA | | | | | |
| Durable Goods | 1,723,261,319 | 1,680,535,924 | 1,683,568,398 | 2.4 | 2.5 |
| Lumber, Building Materials and Hardware | 682,450,868 | 653,176,538 | 627,785,182 | 8.7 | 4.5 |
| Auto Accessories and Repair | 267,075,893 | 266,950,869 | 267,205,295 | 0.0 | 0.0 |
| Furniture | 199,375,623 | 199,938,678 | 189,467,513 | 5.2 | -0.3 |
| Computer, Electronics and Music Stores | 212,690,243 | 203,380,917 | 215,502,551 | -1.3 | 4.6 |
| Miscellaneous Durables | 317,648,967 | 320,481,624 | 336,770,663 | -5.7 | -0.9 |
| Used Merchandise | 44,019,726 | 36,607,299 | 46,837,195 | -6.0 | 20.2 |
| Nondurable Goods | 5,400,859,236 | 5,029,752,841 | 5,038,391,426 | 7.2 | 7.4 |
| General Merchandise | 1,817,006,488 | 1,783,834,999 | 1,730,128,367 | 5.0 | 1.9 |
| Food Stores | 787,246,019 | 806,548,203 | 903,769,412 | -12.9 | -2.4 |
| Apparel | 262,806,407 | 262,170,897 | 249,199,461 | 5.5 | 0.2 |
| Eating and Drinking Places | 1,000,550,879 | 1,008,520,615 | 904,557,991 | 10.6 | -0.8 |
| Drug Stores | 99,482,359 | 99,444,346 | 103,656,404 | -4.0 | 0.0 |
| Liquor Stores | 56,535,245 | 55,902,612 | 54,934,884 | 2.9 | 1.1 |
| Miscellaneous Nondurables | 237,852,980 | 195,384,527 | 269,860,282 | -11.9 | 21.7 |
| Gasoline | 1,139,378,859 | 817,946,641 | 822,284,625 | 38.6 | 39.3 |
| Total Retail Trade | 7,124,120,555 | 6,710,288,765 | 6,721,959,824 | 6.0 | 6.2 |

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

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|------------------------------|----------------------|----------------------|----------------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| Ada | 66,585,232 | 62,200,676 | 59,866,711 | 11.2 | 7.0 |
| Altus | 45,903,086 | 44,568,148 | 45,057,146 | 1.9 | 3.0 |
| Alva | 14,690,705 | 14,231,688 | 14,184,367 | 3.6 | 3.2 |
| Anadarko | 16,574,921 | 15,972,015 | 15,689,093 | 5.6 | 3.8 |
| Ardmore | 88,754,481 | 86,776,452 | 82,681,825 | 7.3 | 2.3 |
| Bartlesville | 101,830,756 | 100,885,841 | 98,175,703 | 3.7 | 0.9 |
| Blackwell | 14,628,948 | 13,333,181 | 13,138,688 | 11.3 | 9.7 |
| Broken Arrow | 169,009,655 | 159,821,414 | 148,590,527 | 13.7 | 5.7 |
| Chickasha | 38,033,373 | 37,213,640 | 36,353,527 | 4.6 | 2.2 |
| Clinton | 20,759,563 | 19,834,337 | 19,240,618 | 7.9 | 4.7 |
| Cushing | 19,184,146 | 18,258,919 | 17,203,432 | 11.5 | 5.1 |
| Del City | 25,245,572 | 24,800,816 | 24,783,367 | 1.9 | 1.8 |
| Duncan | 58,308,110 | 56,058,282 | 55,081,514 | 5.9 | 4.0 |
| Durant | 49,409,712 | 47,288,549 | 46,788,551 | 5.6 | 4.5 |
| Edmond | 205,119,682 | 202,328,417 | 194,980,425 | 5.2 | 1.4 |
| El Reno | 30,874,943 | 28,674,398 | 28,437,339 | 8.6 | 7.7 |
| Elk City | 45,919,247 | 42,862,812 | 40,724,573 | 12.8 | 7.1 |
| Enid | 118,486,297 | 116,317,946 | 112,253,505 | 5.6 | 1.9 |
| Guthrie | 21,869,876 | 20,994,669 | 20,654,652 | 5.9 | 4.2 |
| Guymon | 29,228,593 | 25,988,865 | 24,923,730 | 17.3 | 12.5 |
| Henryetta | 14,675,177 | 13,262,834 | 11,954,763 | 22.8 | 10.6 |
| Hobart | 6,747,742 | 6,367,074 | 6,347,692 | 6.3 | 6.0 |
| Holdenville | 9,569,087 | 9,240,628 | 9,179,476 | 4.2 | 3.6 |
| Hugo | 17,553,482 | 16,839,283 | 16,782,055 | 4.6 | 4.2 |
| Idabel | 19,726,781 | 18,898,437 | 18,559,072 | 6.3 | 4.4 |
| Lawton | 177,823,006 | 175,242,345 | 171,064,196 | 4.0 | 1.5 |
| McAlester | 73,339,067 | 69,789,628 | 66,753,805 | 9.9 | 5.1 |
| Miami | 33,412,447 | 32,580,463 | 31,754,269 | 5.2 | 2.6 |
| Midwest City | 131,140,313 | 127,707,792 | 128,948,256 | 1.7 | 2.7 |
| Moore | 93,624,861 | 90,724,604 | 88,013,848 | 6.4 | 3.2 |
| Muskogee | 115,591,560 | 113,893,956 | 106,783,416 | 8.2 | 1.5 |
| Norman | 267,491,674 | 268,666,360 | 252,162,923 | 6.1 | -0.4 |
| Oklahoma City | 33,037,224 | 31,854,016 | 31,793,400 | 3.9 | 3.7 |
| Okmulgee | 33,037,224 | 31,854,016 | 31,793,400 | 3.9 | 3.7 |
| Pauls Valley | 21,758,631 | 20,274,596 | 20,109,792 | 8.2 | 7.3 |
| Pawhuska | 6,912,928 | 6,672,050 | 6,411,185 | 7.8 | 3.6 |
| Ponca City | 68,106,008 | 66,657,519 | 58,268,512 | 16.9 | 2.2 |
| Poteau | 35,504,070 | 34,005,465 | 32,972,160 | 7.7 | 4.4 |
| Sand Springs | 60,160,112 | 58,256,629 | 55,763,961 | 7.9 | 3.3 |
| Sapulpa | 53,455,030 | 50,468,692 | 49,218,281 | 8.6 | 5.9 |
| Seminole | 23,634,333 | 22,257,892 | 23,037,806 | 2.6 | 6.2 |
| Shawnee | 97,439,333 | 97,441,732 | 91,617,936 | 6.4 | 0.0 |
| Stillwater | 123,059,754 | 118,963,858 | 113,328,353 | 8.6 | 3.4 |
| Tahlequah | 60,699,491 | 58,178,925 | 57,371,741 | 5.8 | 4.3 |
| Tulsa | 1,194,582,330 | 1,182,024,463 | 1,165,278,623 | 2.5 | 1.1 |
| Watonga | 5,944,898 | 5,391,371 | 5,316,317 | 11.8 | 10.3 |
| Weatherford | 29,810,341 | 29,591,663 | 30,142,481 | -1.1 | 0.7 |
| Wewoka | 3,424,951 | 3,240,427 | 3,290,657 | 4.1 | 5.7 |
| Woodward | 47,704,817 | 45,862,748 | 44,287,321 | 7.7 | 4.0 |
| Total Selected Cities | 4,039,383,570 | 3,944,620,528 | 3,827,114,990 | 5.5 | 2.4 |

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

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|--------------------------------|-------------|-------------|-------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| ENID MSA | | | | | |
| Employment (Number) | | | | | |
| Labor Force ^a | 28,883 | 29,057 | 26,580 | 8.7 | -0.6 |
| Total Employment | 27,873 | 28,037 | 25,881 | 7.7 | -0.6 |
| Unemployment Rate (%) | 3.5 | 3.5 | 2.6 | -- | -- |
| LAWTON MSA | | | | | |
| Employment (Number) | | | | | |
| Labor Force ^a | 47,653 | 47,080 | 43,010 | 10.8 | 1.2 |
| Total Employment | 45,510 | 44,953 | 41,444 | 9.8 | 1.2 |
| Unemployment Rate (%) | 4.5 | 4.5 | 3.6 | -- | -- |
| Wage and Salary Employment | 40,833 | 41,100 | 40,167 | 1.7 | -0.6 |
| Wholesale and Retail Trade | 5,733 | 5,733 | 5,733 | 0.0 | 0.0 |
| Manufacturing | 3,900 | 3,867 | 3,900 | 0.0 | 0.9 |
| Permit-Authorized Construction | | | | | |
| Residential-Single Family | | | | | |
| Dollar Value (\$000) | 5,140 | 5,015 | 4,574 | 12.4 | 2.5 |
| Number of Units | 41 | 40 | 38 | 7.9 | 2.5 |
| Residential-Multi Family | | | | | |
| Dollar Value (\$000) | 0 | 0 | 0 | -- | -- |
| Number of Units | 0 | 0 | 0 | -- | -- |
| Total Construction (\$000) | 5,140 | 5,015 | 4,574 | 12.4 | 2.5 |
| MUSKOGEE MA | | | | | |
| Employment (Number) | | | | | |
| Labor Force ^a | 28,253 | 28,453 | 30,628 | -7.8 | -0.7 |
| Total Employment | 26,597 | 26,707 | 28,446 | -6.5 | -0.4 |
| Unemployment Rate (%) | 5.8 | 6.1 | 7.1 | -- | -- |
| Water Transportation | | | | | |
| Port of Muskogee | | | | | |
| Tons In | 180,017 | 136,623 | 156,469 | 15.0 | 31.8 |
| Tons Out | 36,607 | 54,419 | 35,127 | 4.2 | -32.7 |

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR THE TULSA MSA

| | 3rd Qtr '05 | 2nd Qtr '05 | 3rd Qtr '04 | Percentage Change | |
|--------------------------------|-------------|-------------|-------------|--------------------|----------------------------|
| | | | | '05/'04 3rd Qtr | 3rd Qtr '05 2nd Qtr '05 |
| Employment (Number) | | | | | |
| Labor Force ^a | 451,820 | 445,347 | 449,056 | 0.6 | 1.5 |
| Total Employment | 433,110 | 425,870 | 427,865 | 1.2 | 1.7 |
| Unemployment Rate (%) | 4.1 | 4.4 | 4.7 | -- | -- |
| Wage and Salary Employment | 402,900 | 401,900 | 397,600 | 1.3 | 0.2 |
| Manufacturing | 46,500 | 46,133 | 47,067 | -1.2 | 0.8 |
| Mining | 4,533 | 4,600 | 4,767 | -4.9 | -1.5 |
| Government | 48,300 | 51,000 | 48,267 | 0.1 | -5.3 |
| Wholesale and Retail Trade | 61,900 | 61,000 | 60,000 | 3.2 | 1.5 |
| Average Weekly Earnings | | | | | |
| Manufacturing (\$ Per Worker) | 718.21 | 721.97 | 684.97 | 4.9 | -0.5 |
| Air Transportation | | | | | |
| Passengers Enplaning (Number) | 410,990 | 420,840 | 383,466 | -100.0 | -100.0 |
| Passengers Deplaning (Number) | 418,230 | 416,194 | 385,660 | -100.0 | -100.0 |
| Freight (Tons) | 13,495 | 13,360 | 13,667 | -100.0 | -100.0 |
| Water Transportation | | | | | |
| Tulsa Port of Catoosa | | | | | |
| Tons In | 192,298 | 291,974 | 217,103 | -11.4 | -34.1 |
| Tons Out | 230,432 | 232,944 | 359,233 | -35.9 | -1.1 |
| Permit-Authorized Construction | | | | | |
| Residential-Single Family | | | | | |
| Dollar Value (\$000) | 198,076 | 188,386 | 157,606 | 25.7 | 5.1 |
| Number of Units | 1,330 | 1,268 | 1,113 | 19.5 | 4.9 |
| Residential-Multi Family | | | | | |
| Dollar Value (\$000) | 5,978 | 13,725 | 3,140 | 90.4 | -56.4 |
| Number of Units | 76 | 212 | 53 | 43.4 | -64.2 |
| Total Construction | 204,054 | 202,111 | 160,746 | 26.9 | 1.0 |

Note: Includes revisions.

^aCivilian Labor Force.

E = Exceeds 600 percent.

SELECTED INDICATORS FOR OKLAHOMA CITY MSA

| | 1st Qtr '05 | 4th Qtr '04 | 1st Qtr '04 | Percentage Change | |
|--|-------------|-------------|-------------|--------------------|----------------------------|
| | | | | '05/'04 1st Qtr | 1st Qtr '05 4th Qtr '04 |
| Employment (Number) | | | | | |
| Labor Force ^a | 591,827 | 587,080 | 592,186 | -0.1 | 0.8 |
| Total Employment | 568,227 | 562,290 | 569,104 | -0.2 | 1.1 |
| Unemployment Rate (%) | 4.0 | 4.2 | 4.0 | -- | -- |
| Wage and Salary Employment | 551,333 | 552,833 | 541,400 | 1.8 | -0.3 |
| Manufacturing | 38,167 | 37,533 | 39,233 | -2.7 | 1.7 |
| Mining | 8,733 | 8,633 | 8,400 | 4.0 | 1.2 |
| Government | 108,567 | 113,733 | 106,700 | 1.7 | -4.5 |
| Wholesale and Retail Trade | 21,600 | 21,433 | 21,000 | 2.9 | 0.8 |
| Average Weekly Earnings Manufacturing (\$ Per Worker) | 607.96 | 569.28 | 516.42 | 17.7 | 6.8 |
| Air Transportation | | | | | |
| Passengers Enplaning (Number) | 620,782 | 480,483 | 441,960 | 40.5 | 29.2 |
| Passengers Deplaning (Number) | 623,873 | 469,444 | 423,871 | 47.2 | 32.9 |
| Freight Enplaned (Tons) | 5,520 | 3,883 | 3,454 | 59.8 | 42.2 |
| Deplaned (Tons) | 6,276 | 4,632 | 4,662 | 34.6 | 35.5 |
| Permit-Authorized Construction | | | | | |
| Residential-Single Family | | | | | |
| Dollar Value (\$000) | 354,184 | 342,750 | 302,234 | 17.2 | 3.3 |
| Number of Units | 2,238 | 2,218 | 1,961 | 14.1 | 0.9 |
| Residential-Multi Family | | | | | |
| Dollar Value (\$000) | 8,981 | 14,328 | 8,197 | 9.6 | -37.3 |
| Number of Units | 216 | 251 | 134 | 61.2 | -13.9 |
| Total Construction (\$000) | 363,165 | 357,078 | 310,431 | 17.0 | 1.7 |

Note: Includes revisions.

^aCivilian Labor Force.