ARIZONA'S
ECONOMY

JULY 2006 • SUMMER ISSUE

High-Tech Powers Arizona's Economy

By William P. Patton and Marshall J. Vest

The high-tech sector is an important component of the Arizona economy. It is a major source of employment and income in Arizona, and is considered to be a vital component of the state's economic future. Research from the Milken Institute[1] shows Arizona to be a "second tier" state with a ranking of 17 among all states, and they note that "the new engine of regional economic prosperity is based on how successful a given location is in attracting and expanding technology and science assets and leveraging them for economic development."

INSIDE:

This article examines the role of the high-tech sector in the Arizona economy, using new data and a fresh definition of what constitutes high-tech activity. Specifically, it discusses: 1) the magnitude of Arizona's high-tech industry, 2) the definition of high-tech industries, 3) the wage structure of high-tech industries compared to that of the state's overall industries, 4) the fastest growing high-tech industries, 5) the high-tech industries with the largest employment concentration, and 6) the major companies which comprise the high-tech industries that have the highest employment concentration.

How important is high-tech in the Arizona economy?

In 2004, there were 14,140 high-tech establishments in Arizona. This represented 11% of the total number of establishments in Arizona. These include firms in service and information sectors as well as manufacturing. The state's 839 high-tech *manufacturing* firms accounted for only 1% of the total firms in Arizona, but they comprised 18% of the state's total manufacturing firms.

The high-tech sector provided 251,277 **jobs** in Arizona in 2004. 11% of all Arizona workers were employed in high-tech industries. The high-tech manufacturing sector employed 3% of all workers in Arizona, but it represented a substantial share of the state's total manufacturing sector. The proportion of Arizona manufacturing employment in high-tech industries was 44% of total manufacturing employment, even though high-tech firms accounted for only 18% of the total number of firms engaged in manufacturing. This situation is explained by the fact that that the average number of employees in high-tech manufacturing was 2.5 times the number in a typical manufacturing company.

Arizona's high-tech industries contribute a massive amount of **earnings** relative to other industries. In 2004, the Arizona high-tech sector generated over $16 billion in total wages or 19% of the State's total wages. This huge amount of earnings results from the fact that high-tech firms tend to be both larger than other firms and pay significantly higher wages than firms in other sectors. The total wages in the high-tech manufacturing sector represent a whopping 61% of all the wages paid in the Arizona manufacturing sector.

What is high-tech?

How does one determine which industries are high-tech? Various studies have used a number of methods to do so, and each method produces different lists of industries. Criteria commonly used include the intensity of technology-oriented workers; the proportion of R&D employment; whether "advanced-technology" products are produced; and the use of high-tech production methods and processes.

In 2004, there were 14,140 high-tech establishments employing 251,277 workers and paying over $16 billion in total wages.

In a study published last summer[2], the Bureau of Labor Statistics identified some 46 four-digit NAICS industries[3] as high tech, based on employment of technology-oriented workers. Included are occupations such as computer and mathematical scientists; engineers; drafters, engineering and mapping technicians; life scientists; physical scientists; life, physical and social science technicians; computer and information systems managers; engineering managers; and natural science managers. An industry is considered high-tech if "employment in technology-oriented occupations accounted for a proportion of that industry's total employment that is at least twice the 4.9 % average for all industries."

Within this definition, three levels are identified: Level I includes 14 industries with intensity at least 5 times the average; Level II includes 12 industries with intensity between 3.0 and 4.9 times; and Level III includes 20 industries with a proportion between 2.0 and 2.9 times the average.

See www.ebr.eller.arizona.edu and click on "High Tech 46" for a table listing all 46 industries.

Eller College of Management
The University of Arizona

The Arizona data used for this article come from annual data published by the Bureau of Labor Statistics[4]. These special tabulations of 4-digit NAICS employment are available annually from 2001-2004 aggregated to the state level. No sub-state data is tabulated.

Quoting from the Bureau of Labor Statistics study, "these high-tech industries are a heterogeneous group in terms of production processes and output, covering a broad range of industries. Level I includes the computer and electronic products, aerospace, and pharmaceutical and medicine manufacturing industries; the computer software, Internet, and data processing industries in the information sector; and three professional, scientific, and technical services industries. Levels I, II, and III combined cover all four-digit industries within computer and electronic products manufacturing (NAICS 334), as well as merchant wholesalers of professional and commercial equipment and supplies (a category that encompasses wholesalers of computers, software, and some electronic instruments). Levels I, II, and III combined also include all but one of the telecommunications industries within the information sector, four machinery-manufacturing industries, and all but one industry in chemical manufacturing. Finally (but not exhausting the list), included as well are (1) four industries within professional, scientific and technical services; (2) the Federal Government except the Postal Service; (3) all three pipeline industries in NAICS 486; and (4) management of companies and enterprises, a category with no equivalent in the SIC. Biotechnology and nanotechnology are not on the list of high-tech industries, because they are not identified as industries in the NAICS. Most biotech companies are located in scientific R&D services or pharmaceutical and medicine manufacturing industries, according to a recent Commerce Department survey. No similar information has been found regarding nanotechnology."

Many of the above "technology-oriented-occupation intensive industries" are also R&D intensive, and many are identified as producing high-tech products. BLS researchers note the lack of data for preventing incorporation of other input or output measures into the definition.

Exhibit 1
High Tech Industries With Highest Wages In Arizona

Industry	2004 Annual Wage
Computer and peripheral equipment manufacturing	$82,292
Semiconductor and other electronic component manufacturing	$80,057
Navigational, measuring, electro medical, and control instrument manufacturing	$76,147
Professional and commercial equipment and supplies, merchant wholesalers	$75,022
Electric power generation, transmission and distribution	$72,838
Pipeline transportation of natural gas	$71,099
Pipeline transportation of crude oil	$71,077
Aerospace product and parts manufacturing	$70,694

Source: Annual Employment and Wages Annual Averages, BLS Bulletin 2569

How do high-tech wages compare to other sectors?

The wage structure in the Arizona high-tech industries is significantly higher than that of most other sectors of the state's economy. The 2004 average annual wage in Arizona for all industries was $36,646. The average annual wage for high-tech industries was $63,687 or 74% higher than the state-wide average. The average annual wage for high-tech manufacturing was even higher. At $72,669, the Arizona high-tech manufacturing wage was almost double the average annual wage rate for Arizona. The average annual wage rate for high-tech industries and high-tech manufacturing industries grew 4% over the period 2001 to 2004. It is interesting to note that the annual wage rate continued to display solid growth even though employment fell over the same period.

The highest wage high-tech industries in Arizona are shown in Exhibit 1.

Which high-tech industries are growing the fastest?

Exhibit 2 shows the Arizona high-tech industries with the highest rate of employment growth over the period 2001 to 2004. Interestingly, communications-related industries were the fastest growing segments over the past several years. However, the top three fastest-growing industries together accounted for less than 500 jobs. Of the top 12 fastest growing high-tech industries, only Navigational Equipment with 12,083 employees and Management, Scientific, and Consulting Services with 16,839 employees had more than 1,000 total employees.

Ironically, Arizona's two largest high-tech industries– Aerospace and Semiconductors – declined at annual average rates of 4% and 13%, respectively, over the period 2001 to 2004.

Does Arizona have a high concentration in any high-tech sectors?

Arizona has employment concentrations that exceed the US average in several industries, as

Many of the "technology-oriented-occupation intensive industries" are also R&D intensive, and many are identified as producing high-tech products.

Exhibit 2
High Tech Employment Growth In Arizona

Industry	% change 2001-2004
Satellite telecommunications	25.8%
Internet publishing and broadcasting	14.9%
Other telecommunications	13.6%
Forest nursery and gathering forest product	10.5%
Other transportation equipment manufacturing	10.3%
Navigational, measuring, electro medical, and control instrument manufacturing	9.3%
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	6.3%
Other pipeline transportation	5.8%
Other chemical product and preparation manufacturing	5.6%
Electrical equipment manufacturing	5.2%
Other general- purpose machinery manufacturing	4.9%
Management, scientific, and technical consulting services	4.5%

Source: Annual Employment and Wages Annual Averages, BLS Bulletin 2569

Exhibit 3
High Tech Industries With Concentration In Arizona

Industry	2004 Location Quotient
Aerospace product and parts manufacturing	3.30
Semiconductor and other electronic component manufacturing	3.27
Navigational, measuring, electro medical, and control instrument manufacturing	1.65
Internet service providers and web search portals	1.50
Other pipeline transportation	1.43
Facilities support services	1.37
Management, scientific, and technical consulting services	1.23
Electric power generation, transmission and distribution	1.14
Electronic and precision equipment repair and maintenance	1.10
Wireless telecommunication carriers (except satellite)	1.09
Federal Government, excluding Postal Service	1.09
Wired telecommunication carriers	1.07
Data processing, hosting, and related services	1.06
Professional and commercial equipment and supplies, merchant wholesalers	1.05
Architectural, engineering, and related services	1.04

Source: Annual Employment and Wages Annual Averages, BLS Bulletin 2569

measured by location quotients. A location quotient is calculated for each industry by dividing the ratio of regional employment in that industry to total regional employment by the corresponding ratio for the US. If the location quotient is higher than one, then there is a higher than average concentration of that industry in the region than in the nation.

Exhibit 3 shows the high-tech industries that had location quotients greater than one in 2004. Only two industries, Aerospace and Semiconductors, have location quotients that indicate extremely highly concentrations in Arizona. Both industries have employment concentrations that are more than three times that for the nation as a whole. Two other industries, Instrument Manufacturing and Internet Services, had location quotients greater than 1.5.

What major companies comprise the Aerospace, Semiconductor, and Instruments manufacturing sectors?

The industries with the largest employment concentrations in Arizona include a number of well known and highly respected companies. The Aerospace industry includes such notable companies as Raytheon Missile Systems, Honeywell Aerospace, Bombardier Aerospace, Boeing, Northrop Grumman, Orbital Sciences, Sargent Controls & Aerospace, and Dunn Air. The Semiconductor industry includes Intel, Motorola, Texas Instruments, Freescale Semiconductor, Microchip Technology, and ON Semiconductor. The Instruments Manufacturing industry features Honeywell, General Dynamics, Medtronic Microelectronic Center, and Universal Avionics Systems.

A high regional concentration in one or two major industries can at times be either a blessing or a curse. When an industry is experiencing a strong market, it is a source of economic growth, employment, tax revenue, and wealth generation

The average annual wage for high-tech industries was $63,687 or 74% higher than the state-wide average.

for the region. However, when the market is weak, regional economic growth slows, unemployment rises, housing markets soften, etc. For example, the level of employment in the Arizona semiconductor industry declined from 40,605 in 2001 to 26,738 in 2004 in response to weakened world markets in semiconductors. This loss of semiconductor employment slowed the potential rate of growth in the Arizona economy during the early part of this decade.

Recent trends

Overinvestment in high technology in general and Internet related initiatives in particular during the late 1990s led to unprecedented declines during the first half of this decade. From 2001 to 2004, the number of Arizona high-tech **firms** grew at a modest 1% annual average rate. However, the number of Arizona high-tech manufacturing firms declined at a 2% annual average rate, slightly slower than the US sector as a whole.

Moreover, the number of Arizona **employees** in high-tech industries has been declining at a 2% average annual rate since 2001. The rate of decline has been even more pronounced in the high-tech manufacturing sector. Arizona's high-tech industries have declined at a 6% annual average rate versus a 4% rate for the state's overall manufacturing sector. The rate of decline in Arizona's manufacturing sector is similar to that of the United States, where total manufacturing and high-tech manufacturing employment have been falling at 5% and 6% annual average rates, respectively, over the period 2001 to 2004.

In a research report by Tom Rex[5], Arizona's high-tech employment rose 41% between 1990 and 2001, slightly faster than the 33% gain nationwide. During that period, high-tech's share of total employment declined from 9.1% in 1990 to 8.3% in 2001, while the nationwide share increased. The high-tech definition used by Rex was based on SIC codes and used County Business Pattern data, and therefore is not directly comparable to our NAICS-based analysis.

Overall **wages** in the high-tech sector grew at a modest 2% annual average rate between 2001 and 2004. US high-tech wages were flat over the same period. Wages in the Arizona high-tech manufacturing sector declined at a 2% average annual rate, identical to the decline in the US sector. However, the growth in the high-tech manufacturing sector held up rather well as compared to that of the US manufacturing sector in general, which declined at an average annual rate of 10% over the period 2001 to 2004.

High-tech really does power Arizona's economy

The Arizona economy has benefited greatly from the presence of high tech, particularly the Semiconductor and Aerospace industries. These industrial sectors have been major sources of employment, income, and wealth generation in Arizona. A vigorous high-tech industrial sector is a key to Arizona's economic development strategy.

At the present time, the continued health of the Arizona economy depends, in large part, on the strength of world markets for semiconductors, commercial aircraft, and defense. However, in the future, new high-tech industries such as bio-industries, pharmaceuticals, nanotechnologies, optics, telecommunications, software development, and unidentified industries of the future not yet incubated, will provide high incomes, jobs, wealth, and a more diversified economy that is less susceptible to industry-specific business cycles. ■

Co-author William P. Patton, Ph.D., is Chief Economist for Tucson Regional Economic Opportunities (TREO), a loaned executive from Tucson Electric Power Company.

1 DeVol, Ross and Rob Koepp, "State Technology and Science Index: Enduring Lessons for the Intangible Economy," Milken Institute, March 2004.

2 Hecker, Daniel E. "High-technology employment: a NAICS-based update," Monthly Labor Review, July 2005, p 57-72

3 NAICS is the North American Industrial Classification System adopted in the late 1990s to replace the SIC (Standard Industrial Classification) coding system.

4 Employment and Wages Annual Averages, BLS Bulletin 2569.

5 Rex, Tom, "High-Technology Activities in Arizona," Center for Business Research, L. William Seidman Research Institute, W.P. Carey School of Business, Arizona State University, July 14, 2003.

Overinvestment in high technology in general and Internet related initiatives in particular during the late 1990s led to unprecedented declines during the first half of this decade.

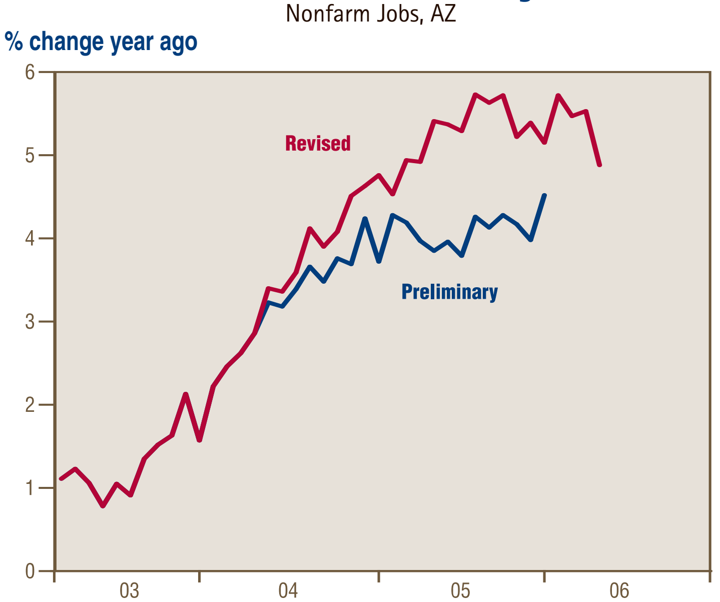
Only two industries, Aerospace and Semiconductors, have location quotients that indicate extremely highly concentrations in Arizona.

It's Time To Dust Off Those Contingency Plans

By Marshall J. Vest
Forecasting Project Director
June 1, 2006

Arizona's galloping economy was even stronger last year than originally reported, according to recent revisions to aggregate measures of personal income and employment. Moreover, there is little evidence of slowing as yet, but we continue to forecast slowing as the year progresses. Higher interest rates, a squeeze on consumer finances, and softening housing markets will soon slow the economy to a trot.

EXHIBIT 1
Job Growth Is Much Stronger
Nonfarm Jobs, AZ



The current crop of data shows that Arizona's population grew by 3.4% last year (roughly 200,000 net new residents) to push the total over six million. Arizona's economy created 130,000 new jobs (net). Retail sales (including food, gasoline, restaurant and bars, and the narrowly-defined retail category) surged by 13.5%! And, Arizona's homebuilding industry added nearly 86,000 new housing units – an all-time record high. With these outsized gains, 2005 goes into the record books as the largest surge of economic activity in Arizona history.

Personal income estimates for 2005 were recently boosted upward in one of the largest revisions in recent memory. Throughout the past year, the U.S. Bureau of Economic Analysis (BEA) was reporting income growth in the low 8% range. The new estimates show growth of 9.3% for the whole year, including an increase of over 10% (y/y) in last year's third quarter. Only Nevada, which is less than half the size of Arizona, reported stronger personal income growth during 2005.

Employment Revisions Largest in a Decade

As we expected, the Arizona Department of Economic Security recently revised employment estimates upward by a sizeable amount. As shown in Exhibit 1, job *growth* for 2005 was raised significantly and now shows a 5.3% gain (annual average for the whole year) compared to a little over 4% previously reported.

The revision was the largest in a decade – recorded during the mid-1990s boom. Over 35,000 additional jobs were found in the process. Estimates for 2005 may be revised upward again next year, just as 2004 was this time (another 7,700 jobs were found for 2004). Exhibit 2 shows a history of revisions back to 1983.

Just as we expected, most of the newly-found jobs were in the professional and business services category (18,600). Within this category, administrative and support, and waste services accounted for 16,000. Subcomponents employment services added 5,800 and business support services added 5,000. Professional and technical services jobs were boosted by 2,600.

2005 goes into the record books as the largest surge of economic activity in Arizona history.

Of significance was the upward revision of 5,100 jobs in the manufacturing sector. Subcategories computer and electronics, fabricated metals, and nondurables all received significant boosts. The revisions clearly show that manufacturing is on an upward trajectory and that more than 10,000 jobs have been added since bottoming in September of 2003.

The biggest mystery contained in the revisions is the reduction of some 5,000 government workers. Half of these are in local education (public K-12) and the other half in state education (universities and community colleges). In fact, the revised counts show that some 1,600 state education jobs vanished during 2005. This doesn't appear to be the result of a shift to private sector education, as that category also was revised downward by 1,400. It's hard to imagine that with the growing number of students, education jobs are disappearing. Rather, it suggests that DES is increasingly challenged to accurately count public sector employment.

This problem is especially acute in metro Tucson, where some 4,500 education jobs abruptly disappeared during 2005. These losses, coupled with downward revisions in some private sectors (likely resulting from companies' failure to provide workforce counts *by county*) dropped overall job growth in metro Tucson from near 4% in the preliminary estimates to less than 2%. This should be viewed as a discontinuity in the reported numbers, rather than a reflection of reality, especially since growth rates for the first quarter 2006 bounced back to over 4%.

Private Sector Education Surges in Arizona

Arizona is the undisputed national leader in alternative approaches to education. A little over a decade ago, in an effort to introduce competition into public education, Arizona enabled the formation of charter schools. Since then, employment in educational services (private-sector initiatives) has grown at double-digit annual rates, while state and local education (public schools) employment has grown by less than 2% – far slower than growth in Arizona's population. During this period, educational services employment as a percent of the total (private plus public) has grown from 9% in 1994 to over 18% today (Exhibit 3).

The educational services category was introduced with NAICS (North American Industry Classification System).

EXHIBIT 2

Revisions are the Largest in a Decade

History of Revisions to Nonfarm Job Estimates, AZ

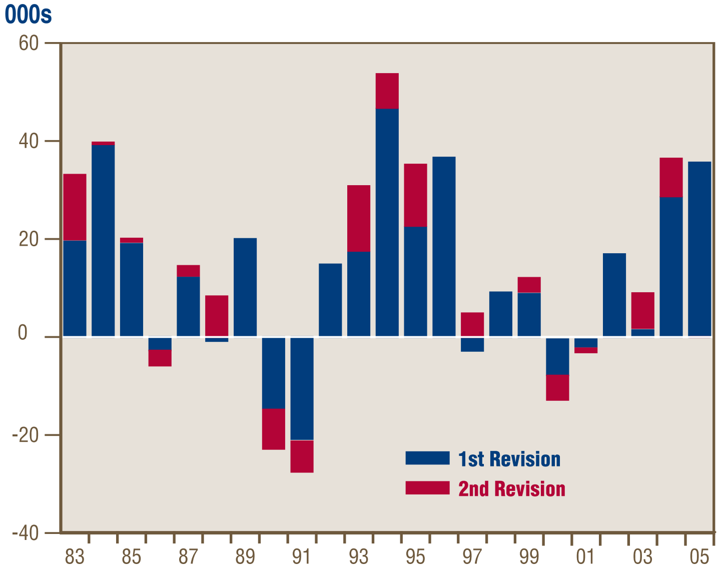
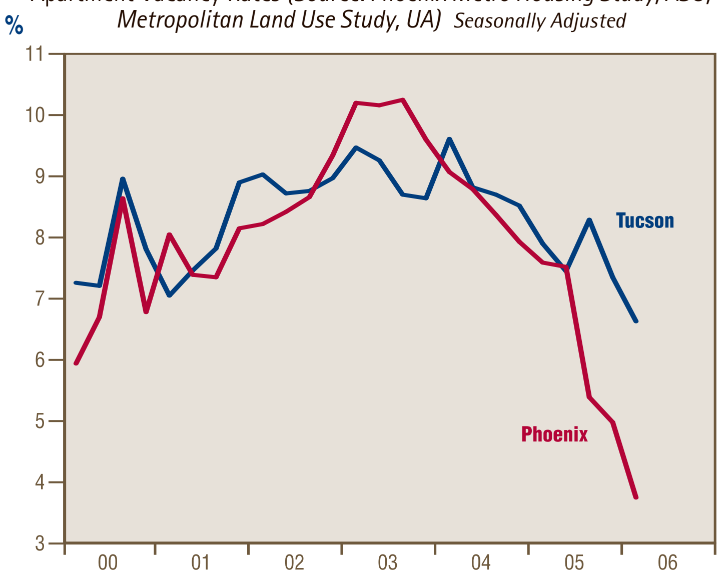


EXHIBIT 4

Apartment Vacancies Are Plunging

Apartment Vacancy Rates *(Source: Phoenix Metro Housing Study, ASU; Metropolitan Land Use Study, UA)* *Seasonally Adjusted*



Manufacturing is on an upward trajectory and more than 10,000 jobs have been added since bottoming in September of 2003.

EXHIBIT 3

Private Sector Education Has Grown Dramatically

Private Sector Share of Education Jobs, AZ

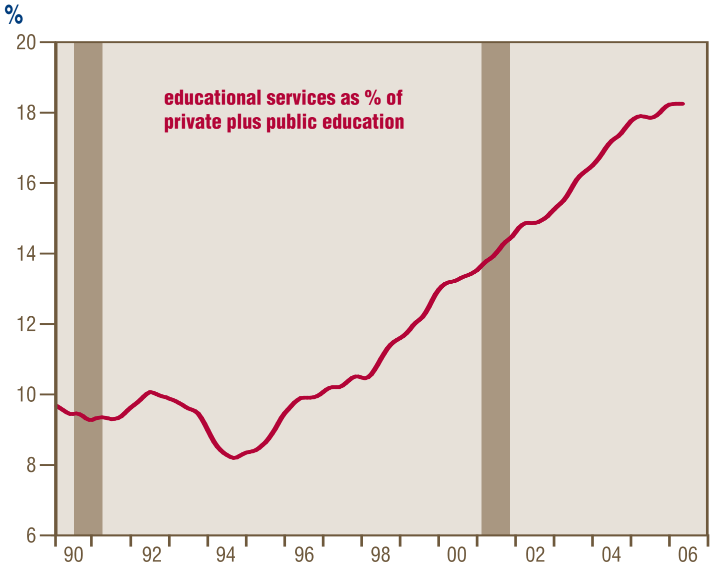
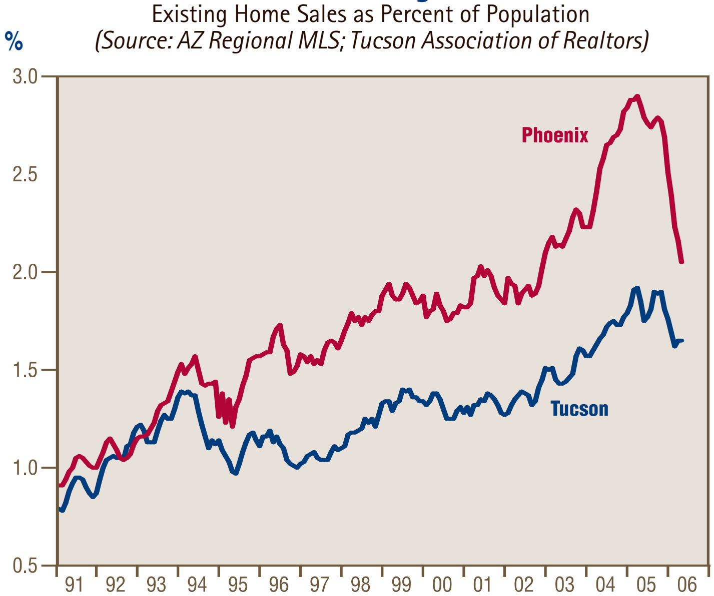


EXHIBIT 5

MLS Sales Returning To Normal

Existing Home Sales as Percent of Population

(Source: AZ Regional MLS; Tucson Association of Realtors)



It includes charter schools (which accounted for nearly 9% of K-12 enrollment in 2005) as well as private colleges, parochial schools, trade schools, learning centers, etc. State-assisted universities and community colleges are counted in the public education category.

Our approach to forecasting education jobs is to first model the total and then to model market shares. The total is successfully modeled using (a proxy for) the state's population age 5-21. Private sector's share is expected to continue to increase to nearly 25% during the next decade. This two-step approach is used in both state-wide and metro Phoenix models. Unfortunately, we are unable to do so in the metro Tucson model because the educational services category is not reported separately, but rather is included in the aggregate educational and health services category.

Real Estate Update

Housing markets continue to adjust to fundamentals, now that the manic behavior of the past couple years has evaporated. New construction, as measured by permit activity, is moving to lower levels, led by single family permits. Multi-family permitting by contrast is moving higher, reflecting increased demand for rental properties and plunging inventories due to conversions of apartments to condos. Apartment vacancy rates in the Phoenix area have plunged in recent months to less than 4%—the lowest in a decade. Two years ago, vacancies were running in the 9-10% range (Exhibit 4). This should quickly lead to higher rents, more apartment construction and some of the recently-turned-condo projects converting back to apartments.

The pace of resale housing on the Multiple Listing Service (MLS) has dropped off considerably and is running 30% lower than a year ago in the metro Phoenix area. A similar pullback is seen in metro Tucson. Although the declines are considerable, this simply reflects a return to normal from frenzied levels. As seen in Exhibit 5, when expressed as a percentage of population, sales are back to "trend line." Normally, MLS sales over a 12-month period as a percent of population range between 1.5% and 2.25%.

While residential markets are returning to normal, commercial markets are hot in both metro areas. Declining vacancy rates and increasing rents have spurred construction

Housing markets continue to adjust to fundamentals, now that the manic behavior of the past couple years has evaporated.

to the highest levels in several years. In the metro Phoenix area, 3.4 million square feet of office space, 6.9 million square feet of industrial, and nearly 6.0 million square feet of retail space was under construction during the first quarter, according to CB Richard Ellis. They note that "it is increasingly difficult . . . to find industrial space . . . due to the limited supply of product."

Commercial construction activity will help take up the slack as homebuilding "right-sizes" in the months ahead.

The Outlook

Economic activity remains robust, but inflation pressures are building. Commodity prices stand at decade-highs, oil prices are stuck near $70 per barrel, and higher energy prices are driving up prices throughout the economy. Monetary policy is likely to move from neutral to restrictive in coming months, and that will restrain debt-ridden households and send housing markets lower.

This current business cycle, which is in its fifth year of expansion, is due for a major slowdown. That doesn't mean recession, just a slower pace. The best bet is for a "growth recession" during the next two years. A growth recession is defined as an economy that continues to grow but not fast enough to prevent unemployment from rising.

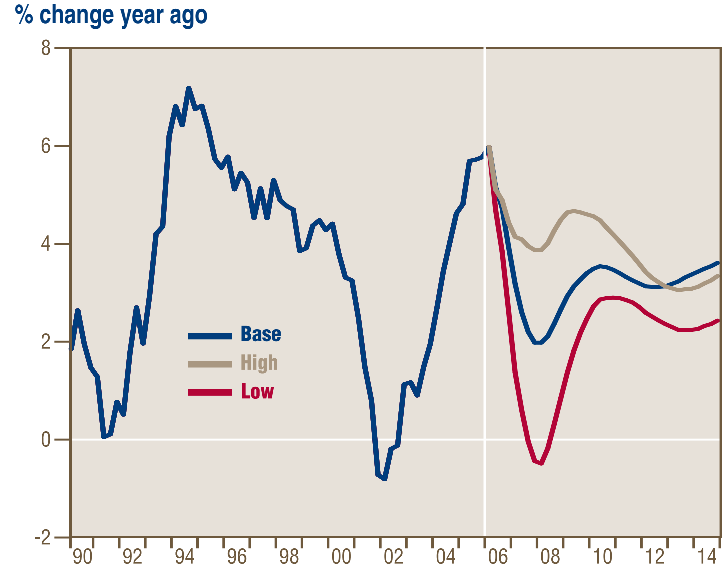
Consumer confidence statewide jumped during the first quarter and now stands at the highest readings in more than five years, prior to the start of the 2001 recession. So far, gasoline prices over $3.00 per gallon have had little effect on Arizonans' confidence, and they continue to spend, but that will change in coming months. We expect sales gains to drop back into the 7.5 to 8.5% range this year and as low as 5% in 2007. See forecast table page 9.

Job creation in Arizona will lose momentum rapidly in the second half but finish the year with an average gain of nearly 5%. Next year, job growth will be cut in half. Construction jobs, which accounted for one-fourth of total job growth in recent years, are expected to level off or decline modestly. In this base-case scenario, the unemployment rate will move upward to 5% by the end of next year.

EXHIBIT 6

Possible Outcomes For Job Growth

Nonfarm Employment, AZ



Population growth is expected to recede to under 3% and personal income will slow to a low-sixes percent gain. Residential permits will decline (a very modest) 6-7% both this year and next.

Alternatively, the slowdown could be worse and the economy could actually shrink for a quarter or two. This would result if inflation is worse, interest rates move even higher, and the soft landing in housing turns into a collapse. A recession similar to the 1990-91 or 2001 recessions would result. Both were mild and short and saw Arizona's job growth dip slightly below zero.

The economy could be better than in our base scenario. Stronger productivity growth, lower inflation, stronger homebuilding, and stronger business investment could keep job growth in the 4% to 5% range. This scenario compares to the late 1990s when it seemed that the good times would last forever. The alternative paths for job growth are shown in Exhibit 6.

In any case, the national and Arizona economies are due for a significant slowdown. It's time to dust off those contingency plans. ■

This current business cycle, which is in its fifth year of expansion, is due for a major slowdown.

Arizona	2005	2006	2007	2008	2009	2010	2011
Personal Income ($ mill)	180,002.5	196,990.4	209,146.8	221,717.1	238,263.8	257,344.6	277,081.6
percent change	9.4	9.4	6.2	6.0	7.5	8.0	7.7
Wage per Employee	40,067	41,887	43,474	45,110	47,007	49,037	51,107
percent change	5.2	4.5	3.8	3.8	4.2	4.3	4.2
Aggregate Retail Sales ($ mill)*	75,055.9	80,936.1	85,059.8	88,380.3	92,961.8	98,401.3	104,191.6
percent change	13.5	7.8	5.1	3.9	5.2	5.9	5.9
Population (000s, mid-year)	6,045.0	6,245.3	6,429.0	6,617.7	6,816.7	7,028.2	7,246.9
percent change	3.4	3.3	2.9	2.9	3.0	3.1	3.1
Residential Permits	85,809	80,356	74,804	76,070	80,228	85,165	88,069
percent change	0.2	-6.4	-6.9	1.7	5.5	6.2	3.4
Non Farm Employment (000s)	2,512.1	2,636.2	2,701.6	2,763.3	2,851.3	2,951.2	3,048.3
percent change	5.5	4.9	2.5	2.3	3.2	3.5	3.3
Goods-Producing	408.0	423.3	420.8	424.3	433.7	446.7	461.4
percent change	8.2	3.8	-0.6	0.8	2.2	3.0	3.3
Service-Providing	2,104.3	2,213.1	2,281.0	2,339.1	2,417.8	2,504.7	2,587.1
percent change	5.0	5.2	3.1	2.5	3.4	3.6	3.3
Trade, Trans., & Utilities	488.0	510.6	521.5	528.3	542.3	560.6	578.0
percent change	5.5	4.6	2.1	1.3	2.7	3.4	3.1
Prof. & Business Services	372.3	408.2	422.5	432.9	451.5	473.0	494.7
percent change	10.0	9.6	3.5	2.5	4.3	4.8	4.6
Leisure & Hospitality	252.7	263.3	268.6	273.6	281.4	289.9	297.3
percent change	4.5	4.2	2.0	1.9	2.9	3.0	2.5
Government	405.9	415.5	424.9	433.0	442.8	453.8	463.7
percent change	1.6	2.4	2.3	1.9	2.3	2.5	2.2
Phoenix-Mesa Metro Area							
Personal Income ($ mill)	126,475.9	138,301.1	149,113.5	160,429.8	173,833.0	188,747.3	203,561.1
percent change	9.4	9.3	7.8	7.6	8.4	8.6	7.8
Wage per Employee	46,126	48,246	50,421	52,674	55,077	57,572	60,084
percent change	4.5	4.6	4.5	4.5	4.6	4.5	4.4
Aggregate Retail Sales ($ mill)*	52,025.1	56,316.9	59,306.2	62,538.9	66,830.1	71,098.6	75,064.0
percent change	14.7	8.2	5.3	5.5	6.9	6.4	5.6
Population (000s, mid-year)	3,895.2	4,033.0	4,155.8	4,290.0	4,433.8	4,585.1	4,737.7
percent change	3.7	3.5	3.0	3.2	3.4	3.4	3.3
Residential Permits	63,629	59,077	54,611	51,870	55,550	58,464	58,972
percent change	16.0	-7.2	-7.6	-5.0	7.1	5.2	0.9
Non Farm Employment (000s)	1,780.6	1,871.3	1,930.4	1,986.8	2,058.3	2,138.9	2,213.3
percent change	5.8	5.1	3.2	2.9	3.6	3.9	3.5
Goods-Producing	294.1	303.1	298.5	300.4	306.3	316.0	325.0
percent change	6.7	3.1	-1.5	0.6	2.0	3.2	2.8
Service-Providing	1,486.7	1,568.2	1,631.9	1,686.4	1,752.1	1,823.0	1,888.4
percent change	5.6	5.5	4.1	3.3	3.9	4.0	3.6
Trade, Trans., & Utilities	359.5	375.6	387.3	398.1	411.2	426.1	440.0
percent change	5.5	4.5	3.1	2.8	3.3	3.6	3.3
Prof. & Business Services	297.9	325.6	343.6	351.9	365.1	381.2	398.6
percent change	8.8	9.3	5.5	2.4	3.7	4.4	4.6
Leisure & Hospitality	170.3	177.8	182.6	187.6	194.6	201.4	206.8
percent change	5.2	4.4	2.7	2.8	3.7	3.5	2.6
Government	226.0	231.7	238.7	245.7	253.9	263.1	271.5
percent change	2.4	2.5	3.1	2.9	3.3	3.7	3.2
Tucson Metro Area							
Personal Income ($ mill)	26,407.5	28,348.4	30,248.2	31,968.0	33,867.9	35,879.4	37,877.0
percent change	6.9	7.4	6.7	5.7	5.9	5.9	5.6
Wage per Employee	38,477	39,844	41,336	42,843	44,373	45,931	47,530
percent change	4.2	3.6	3.7	3.6	3.6	3.5	3.5
Aggregate Retail Sales ($ mill)*	10,984.9	11,749.3	12,253.8	12,734.9	13,228.5	13,751.2	14,262.9
percent change	10.9	7.0	4.3	3.9	3.9	4.0	3.7
Population (000s, mid-year)	957.6	986.2	1,013.0	1,037.5	1,062.0	1,086.5	1,110.5
percent change	2.8	3.0	2.7	2.4	2.4	2.3	2.2
Residential Permits	11,913	11,317	10,584	9,637	9,689	9,663	9,461
percent change	14.4	-5.0	-6.5	-8.9	0.5	-0.3	-2.1
Non Farm Employment (000s)	369.1	383.5	395.2	402.9	410.8	418.7	425.9
percent change	2.5	3.9	3.1	1.9	2.0	1.9	1.7
Goods-Producing	55.5	58.4	60.0	60.3	60.9	61.6	62.5
percent change	3.3	5.3	2.6	0.6	0.9	1.2	1.4
Service-Providing	313.6	325.0	335.3	342.6	349.9	357.1	363.3
percent change	2.4	3.7	3.1	2.2	2.1	2.1	1.8
Trade, Trans., & Utilities	59.2	60.3	61.7	62.5	63.5	64.5	65.2
percent change	2.2	1.9	2.3	1.3	1.6	1.5	1.1
Prof. & Business Services	45.9	49.3	53.2	55.2	56.7	58.1	59.7
percent change	5.7	7.5	7.9	3.7	2.8	2.4	2.8
Leisure & Hospitality	40.9	42.9	44.1	44.9	45.9	46.8	47.6
percent change	4.5	5.1	2.7	1.8	2.2	2.0	1.6
Government	78.9	80.0	81.2	82.3	83.5	84.8	85.6
percent change	-1.3	1.4	1.5	1.3	1.5	1.5	1.0

* Aggregate Retail Sales includes retail, food, restaurant & bars and gasoline sales.
Source: Economic and Business Research Center, Eller College of Management, The University of Arizona

Arizona's Export Base Industries

By Alberta Charney and Valorie Rice

Understanding the export base of a state or region is critical to understanding the economic forces that shape that area. Export base industries are those that drive the local economy. By definition, export base industries are those industries that sell their product outside the boundaries of the state or region. Non-export base industries exist to serve the export-base industry and the workers/population in the region.

To identify the export industries in a region, "location quotients" are often used. Location quotients are analytical tools that are used to determine which industries are concentrated in a region by comparing each industry's share of employment in the region to the same measure for the U.S. as a whole. Thus, the location quotient for Arizona for a particular industry, say manufacturing, is the ratio of the manufacturing share of total employment in Arizona to the manufacturing share of total employment in the U.S. If the ratio is greater than 1.0, the industry is of more importance in Arizona than in the U.S. as a whole and is, therefore, likely to be an exporting industry. The idea behind a location quotient is that if an industry share is larger in a region than in the U.S., then that industry is concentrated in the region and it must, at least in part, be producing for persons/businesses outside the region. While not a perfect method of identifying export-base industries, the location quotient is a useful tool.

Table 1 contains the location quotients for Arizona and Coconino, Maricopa, Pima, and Yuma counties. Data for Arizona's other counties is available from www.ebr.eller.arizona.edu/azeconomy/

Location Quotients and NAICS Detail

Location quotients can be computed at any level of industry detail. The sectors in Table 1 are the aggregated 2-digit industry groups, as defined in the North American Industry Classification System (NAICS). The table was assembled from the Bureau of Labor Statistics (BLS) website. It is important to note that the location quotients in Table 1, as calculated from BLS data, use only private sector employment statistics. Thus, "Educational services" only represents private education, not public education. Similarly, the location quotient for "Utilities" only compares private utility companies in an Arizona region with private utility companies in the U.S. as a whole. Publicly-owned utility companies (public water companies and the Salt River Project) are excluded. Not all 2-digit sectors presented in the table will be discussed.

The primary purpose of this article is to familiarize readers with location quotients and their interpretations. Most of the discussion in this short article relates to the 2-digit location quotients in Table 1, but some of the discussion is based on information obtained from location quotients calculated from 3-digit NAICS or highly detailed NAICS employment data. Sometimes a 2-digit industry has a location quotient less than 1, but examination of more detailed NAICS data reveal industry subcategories that are strongly concentrated.

There is insufficient room in this publication to publish the 3-digit location quotient table or the highly detailed table that contains location quotients for 4-, 5-, and sometimes 6-digit NAICS classifications. These tables are available on our website at www.ebr.eller.arizona.edu and provide location quotients for more detailed economic sectors. In addition to the location quotients, tables containing the industrial breakdown of employment, as a percentage of total employment, are also available on the website for the U.S., Arizona, and its counties.

Construction NAICS 23

Construction has location quotients higher than 1 for the state (1.52) and all counties, except for Graham, La Paz, and Santa Cruz. Construction is discussed first in this article because, although many of the location quotients are greater than 1, construction usually is not an export-base industry. Construction represents an addition to capital stock (homes, office buildings, commercial facilities, and roads) and a location greater than 1 is related to the strong growth in the state rather than it being an indicator of an exporting industry. Certain portions of construction can be considered exporting, such as when a construction project is marketed to attract out-of-area people, such as retirees. There is no way of telling from the BLS data what portion of construction in Arizona or it's counties is dedicated to that type of construction.

Agriculture, Forestry, Fishing and Hunting NAICS 11

Statewide, this classification has a location quotient of 1.38, indicating that the state is a net exporter. The concentration of agriculture is extremely high in Yuma and La Paz counties (location quotients of 28.9 and 18, respectively). Both of these counties are involved primarily in crop production (as opposed to animal production or forestry). Graham County and, to a lesser extent, Pinal and Cochise Counties are also crop product exporters (Note that although Graham County's value is ND in the aggregate NAICS 11 sector, a subgroup, crop production, has a location quotient of 27.56.) Animal production is important in Cochise, Gila, Mohave, Pinal, Yavapai and Yuma. Forestry and logging are concentrated in Apache and Navajo Counties. Agriculture and forestry support activities are very important in many of Arizona's counties, but especially strong in La Paz and Yuma Counties.

Tables available on our website at www.ebr.eller.arizona.edu/azeconomy/ provide location quotients for more detailed economic sectors.

Table 1
2004 Industry Location Quotients for Selected Counties

Industry (by NAICS code)	Arizona	Coconino	Maricopa	Pima	Yuma
Base Industry: Total, all industries	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
11 Agriculture, forestry, fishing & hunting	1.38	0.20	0.54	0.21	28.90
21 Mining	0.87	0.88	0.17	0.99	0.09
22 Utilities	1.11	0.44	1.04	1.34	0.69
23 Construction	1.52	1.18	1.54	1.37	1.37
31-33 Manufacturing	0.68	0.58	0.69	0.78	0.44
42 Wholesale trade	0.93	0.31	1.04	0.56	0.61
44-45 Retail trade	1.05	1.22	0.99	1.08	0.99
48-49 Transportation & warehousing	0.89	0.93	0.99	0.58	0.56
51 Information	0.85	0.39	0.86	0.96	0.78
52 Finance and insurance	1.12	0.38	1.34	0.66	0.28
53 Real estate & rental and leasing	1.20	1.05	1.25	1.29	0.71
54 Professional & technical services	0.88	0.49	0.95	0.90	0.31
55 Management of companies & enterprises	0.73	0.13	0.87	0.48	0.15
56 Administrative & waste services	1.44	0.69	1.60	1.29	0.63
61 Educational services	0.82	0.47	0.86	0.68	0.29
62 Health care & social assistance	0.87	1.19	0.78	1.21	0.84
71 Arts, entertainment, & recreation	0.89	2.19	0.85	1.11	0.26
72 Accommodation & food services	1.09	2.59	0.99	1.24	0.96
81 Other services, excl. public admin	0.83	0.84	0.80	1.03	0.57
99 Unclassified	0.94	0.33	0.76	0.59	0.65

Source: Assembled by Economic & Business Research Center from Bureau of Labor Statistics Quarterly Census of Employment & Wages, www.bls.gov/CEW

Mining NAICS 21

The state as a whole is not a net exporter of mining products. However, two counties, Navajo and Yavapai, have location quotients for mining substantially greater than 1 (that is, 9.48 and 5.04, respectively). In Navajo, the mining is primarily coal, with some sand and gravel excavation; in Yavapai, most of the mining is stone quarrying.

Utilities NAICS 22

This category includes power generation and supply, natural gas distribution, and water, sewage, and other systems. Apache County has a location quotient of 7 because of the electricity plant in Springerville. Apache, Gila, Mohave, Pima, and Pinal's location quotients are likely over 1 because of water and irrigation systems, rather than power generation.

Manufacturing NAICS 31-33

Unfortunately, manufacturing in Arizona and all its counties have location quotients that are substantially less than 1.0, indicating that Arizona's manufacturing base is substantially smaller, as a percent of total employment, than that in the U.S. Arizona's location quotient for manufacturing is only 0.68 and the highest manufacturing location quotient for any county is 0.80 for Pinal County.

Arizona's manufacturing base is substantially smaller than that in the U.S.

Despite the very low location quotients for manufacturing in the state, there is one subcategory of manufacturing that stands out. The subcategory Computer and Electronic Product Manufacturing (NAICS 334) has a location quotient of 1.84. This subcategory includes printed circuit boards, electronic connectors, and electronic instruments. Thus, while manufacturing is of less importance in Arizona than it is in the U.S. as a whole, there is strong concentration within this subcategory. Not surprising, this subcategory is mostly concentrated in Maricopa, Pinal, and Pima Counties.

There are a few other manufacturing sectors that are important in certain counties. Nonmetallic mineral product manufacturing (NAICS 327), which consists of primarily of cement, concrete products, tiles and brick production, has location quotients greater than 1 in Cochise, Graham, Mohave, Pinal, and Yavapai Counties. Wood product manufacturing (NAICS 321) is important in Mohave, Navajo, and Pinal Counties and to a lesser extent in Yuma County. Furniture and related product manufacturing (NAICS 337) is concentrated in Mohave, Pinal, and Yavapai.

Wholesale Trade NAICS 42

Statewide, wholesale trade is not more concentrated than in the U.S. However, it is highly concentrated in Santa Cruz County (3.21 location quotient) primarily because of large numbers of fruit and vegetable wholesalers of Mexican produce. There is some Maquiladora-related wholesaling in Santa Cruz County, as well. Wholesaling is slightly more concentrated in Maricopa County (1.04) than the U.S., primarily because Maricopa is the largest city in the state and serves as a distribution center for the rest of the state.

Transportation and Warehousing NAICS 48-49

Santa Cruz County has a location quotient of 2.86 for this category, which is directly related to the wholesale trade activity in that county.

Administrative and Waste Services NAICS 56

Private administrative and waste service employment is concentrated in the metropolitan areas of Maricopa, Pima, and Pinal Counties. It should be noted that these industries provide services for the local population and are not, therefore, export-base industries. Rather, administrative and waste services tend to be more concentrated in heavily populated areas and, in Arizona, these services are more likely to be privatized than in other parts of the U.S.

Education Services NAICS 61

Private educational services are not more concentrated in Arizona than the U.S. as a whole, given the location quotient of 0.82. However, education services are more concentrated in Apache County (location quotient of 4.68), Navajo County (1.99), and Yavapai County (1.7). In Yavapai County, the location quotient is believed to be due to a very large aeronautical school and substantially more charter schools than the rest of the state. Almost half of all elementary and secondary schools are charter schools in Yavapai County, compared to 30 percent statewide. Recall that the BLS figures used to calculate the location quotients only include employment in privately owned enterprises and charter schools are privately-owned publicly-funded schools. The higher location quotients for Apache and Navajo Counties are due to the relatively high portion of the population under the age of 18, rather than a strong presence of charter schools. In both of these counties, the portion of the population under 18 is over 35.4 percent, which is high when compared to 26.6% for Arizona as a whole. High location quotients for primary and secondary educational services do not represent an export-base activity because they support the local population. The aeronautical school in Yavapai County, however, does represent an export-base industry for that county.

Accommodation and Food Services NAICS 72

Arizona is a tourist destination, as indicated by the 1.09 location quotient for accommodation and food services. This activity is more concentrated in all Arizona counties than the U.S. as a whole, except in Maricopa and Yuma Counties. Not surprisingly, Coconino County has the highest location quotient (2.59) due to visitors to the Grand Canyon.

Arts, Entertainment, and Recreation NAICS 71

The location quotient for this category is also the highest for Coconino County (2.19), reflective of the tourism at the Grand Canyon. Pima County's location quotient (1.11) is due to relatively high levels of performing arts, museums, and golf courses. A combination of casinos (in Payson and Globe) and marinas near Roosevelt Lake account for Gila County's 1.63 location quotient.

Conclusions

The economic base of Arizona's counties varies substantially across counties. Location quotients, by industry, vary across counties and change with the level of NAICS detail used to calculate them. Location quotients are only a tool designed to assist in identifying export-base industries. Whether or not an industry with a location quotient over 1 is an export-base industry completely depends on for whom industry is producing. If it is producing for Arizona residents or businesses, it is not an export-base industry. ■

Arizona is a tourist destination. Coconino County has the highest location quotient (2.59) due to visitors to the Grand Canyon.

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
APACHE COUNTY							
Civilian Labor Force, ADES	19,350	19,250	19,825	19,500	19,625	-2.1	-1.9
Employment	17,225	16,900	17,575	17,450	17,600	-1.8	-1.8
Unemployment	2,125	2,350	2,250	2,050	2,025	-4.7	-2.5
Unemployment Rate (%)	11.0	12.2	11.3	10.5	10.3	-2.6	-0.5
Employees on Nonagricultural Payrolls, ADES							
Total	19,325	19,100	19,275	19,500	19,625	-1.5	-0.4
Total Private	6,525	6,475	6,475	6,575	6,625	-0.7	2.7
Goods-Producing	775	750	700	725	750	3.4	15.5
Service-Providing	18,550	18,350	18,575	18,775	18,875	-1.7	-0.9
Trade, Transportation, and Utilities	1,950	1,900	1,875	1,925	1,900	2.7	1.3
Other Private Service-Providing	3,800	3,825	3,900	3,925	3,975	-3.0	1.1
Government	12,800	12,625	12,800	12,925	13,000	-1.9	-1.9
Federal Government	3,150	3,050	3,075	3,100	3,125	0.8	0.9
State and Local Government	9,650	9,575	9,725	9,825	9,875	-2.7	-2.8
Sales ($000s) ADOR							
Gross Retail	13,326	12,255	11,568	12,645	...	8.9	19.0
Retail	7,007	6,127	6,025	5,990	...	10.4	23.0
Restaurants & Bars	849	543	857	713	...	-9.1	5.3
Gasoline, EBR	5,469	5,585	4,685	5,942	...	9.9	17.3
Gallons (000s) ADOT	2,533	2,439	2,033	2,479	...	-3.5	-3.2
Contracting	7,863	4,830	3,977	6,100	...	-11.1	18.4
Hotel/Motel	904	607	613	646	...	-34.5	4.8
New Housing Units Authorized, Census C-40							
Total Units			Note: As of Jan 2005, Apache County				
Single Family Units			no longer reports monthly permits.				
NAVAJO COUNTY							
Civilian Labor Force, ADES	36,625	36,300	37,050	36,425	36,700	-0.7	-0.5
Employment	33,675	32,950	33,875	33,575	33,975	-0.1	-0.3
Unemployment	2,950	3,350	3,175	2,850	2,725	-7.6	-2.7
Unemployment Rate (%)	8.1	9.2	8.6	7.8	7.4	-7.0	-2.3
Employees on Nonagricultural Payrolls, ADES							
Total	29,375	28,450	28,850	28,925	29,200	0.5	1.5
Total Private	18,900	18,425	18,500	18,600	19,000	3.1	4.9
Goods-Producing	3,350	3,275	3,300	3,350	3,425	-1.4	2.6
Mining and Construction	2,675	2,625	2,625	2,650	2,700	3.8	6.7
Manufacturing	675	650	675	700	725	-17.1	-9.6
Service-Providing	26,025	25,175	25,550	25,575	25,775	0.8	1.4
Trade, Transportation, and Utilities	5,675	5,500	5,475	5,425	5,450	0.0	2.7
Information	800	800	800	800	800	6.7	11.7
Financial Activities	550	550	575	575	550	-4.3	-8.9
Professional and Business Services	1,200	1,200	1,225	1,225	1,250	13.6	13.7
Educational and Health Services	3,600	3,575	3,625	3,650	3,650	9.8	11.5
Leisure and Hospitality	2,700	2,575	2,550	2,600	2,850	1.8	-1.1
Other Services	1,025	950	950	975	1,025	7.9	16.9
Government	10,475	10,025	10,350	10,325	10,200	-4.0	-4.1
Federal Government	1,650	1,500	1,550	1,600	1,600	3.2	0.5
State and Local Government	8,825	8,525	8,800	8,725	8,600	-5.2	-5.0
Sales ($000s) ADOR							
Gross Retail	87,371	69,825	73,071	80,823	...	14.7	11.6
Retail	69,752	53,528	56,367	62,859	...	20.0	11.0
Restaurants & Bars	6,649	5,324	7,923	6,759	...	17.8	15.5
Gasoline, EBR	10,969	10,973	8,780	11,205	...	-9.0	12.3
Gallons (000s) ADOT	5,081	4,793	3,809	4,674	...	-20.1	-7.3
Contracting	23,872	18,229	19,403	15,340	...	23.3	34.7
Hotel/Motel	2,150	1,256	2,215	1,782	...	-11.2	8.7
New Housing Units Authorized, Census C-40							
Total Units	29	50	39	57	35	-30.0	28.6
Single Family Units	27	46	39	55	35	-30.0	34.4

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book.*

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
GRAHAM COUNTY							
Civilian Labor Force, ADES	12,200	12,275	12,525	12,625	12,950	4.6	3.1
Employment	11,450	11,400	11,725	11,900	12,225	5.6	3.4
Unemployment	750	875	800	725	725	-9.4	-2.0
Unemployment Rate (%)	6.1	7.1	6.4	5.7	5.6	-13.4	-4.9
Employees on Nonagricultural Payrolls, ADES							
Total	7,550	7,425	7,600	7,825	7,950	6.0	4.2
Total Private	4,975	4,925	5,025	5,150	5,275	9.3	7.0
Goods-Producing	600	575	575	600	650	13.0	7.9
Service-Providing	6,950	6,850	7,025	7,225	7,300	5.4	3.9
Trade, Transportation, and Utilities	1,600	1,650	1,700	1,800	1,800	24.1	10.2
Other Private Service-Providing	2,775	2,700	2,750	2,750	2,825	0.9	5.0
Government	2,575	2,500	2,575	2,675	2,675	0.0	-0.8
Federal Government	325	325	325	325	325	0.0	3.9
State and Local Government	2,250	2,175	2,250	2,350	2,350	0.0	-1.5
Sales ($000s) ADOR							
Gross Retail	22,651	17,888	20,689	22,295	...	23.1	20.1
Retail	19,005	14,359	16,586	18,343	...	26.3	21.3
Restaurants & Bars	1,725	1,635	2,140	1,889	...	20.0	20.8
Gasoline, EBR	1,922	1,895	1,963	2,063	...	1.9	10.9
Gallons (000s) ADOT	890	827	851	861	...	-10.5	-8.3
Contracting	4,137	3,980	3,193	3,740	...	45.2	34.6

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	month	12-months
COCONINO COUNTY							
Civilian Labor Force, ADES	67,000	66,400	68,200	68,300	68,800	3.1	2.1
Employment	63,600	62,300	64,500	65,100	65,700	3.6	2.4
Unemployment	3,400	4,100	3,700	3,200	3,100	-6.1	-1.9
Unemployment Rate (%)	5.1	6.2	5.4	4.7	4.5	-8.9	-3.9
Employees on Nonagricultural Payrolls, ADES							
Total	63,100	61,600	62,500	63,700	64,500	4.9	4.4
Total Private	43,700	42,700	43,000	44,100	44,800	4.7	5.4
Goods-Producing	6,600	6,600	6,600	6,700	6,900	7.8	5.9
Mining and Construction	3,200	3,100	3,100	3,200	3,300	3.1	3.2
Manufacturing	3,400	3,500	3,500	3,500	3,600	12.5	8.7
Service-Providing	56,500	55,000	55,900	57,000	57,600	4.5	4.2
Trade, Transportation, and Utilities	9,400	9,100	9,100	9,300	9,200	-2.1	-0.7
Information	500	500	500	500	500	0.0	9.1
Financial Activities	1,700	1,700	1,700	1,700	1,700	0.0	1.5
Professional and Business Services	3,900	3,800	3,900	4,000	4,100	17.1	15.3
Educational and Health Services	7,400	7,300	7,300	7,400	7,400	5.7	5.9
Leisure and Hospitality	12,400	11,900	12,100	12,700	13,100	5.6	7.8
Other Services	1,800	1,800	1,800	1,800	1,900	0.0	1.4
Government	19,400	18,900	19,500	19,600	19,700	5.3	2.3
Federal Government	2,800	2,600	2,600	2,700	2,700	-6.9	-6.9
State and Local Government	16,600	16,300	16,900	16,900	17,000	7.6	4.1
Sales ($000s) ADOR							
Gross Retail	135,817	100,738	112,008	125,670	...	4.9	9.1
Retail	98,156	66,195	72,906	79,856	...	3.6	6.6
Restaurants & Bars	20,917	18,426	24,816	27,163	...	14.8	12.3
Gasoline, EBR	16,744	16,118	14,286	18,652	...	-2.3	16.3
Gallons (000s) ADOT	7,755	7,040	6,198	7,781	...	-14.2	-3.9
Contracting	35,868	27,146	28,923	25,853	...	13.5	23.9
Hotel/Motel	10,529	6,785	9,791	14,469	...	-2.4	7.4
New Housing Units Authorized, Census C-40							
Total Units	62	67	66	269	129	158.0	88.2
Single Family Units	62	67	66	77	65	35.4	20.4

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book*.

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
GREENLEE COUNTY							
Civilian Labor Force, ADES	3,475	3,500	3,575	3,575	3,700	5.0	3.2
Employment	3,300	3,300	3,375	3,425	3,525	6.0	3.6
Unemployment	175	200	200	150	175	-12.5	-3.2
Unemployment Rate (%)	5.0	5.7	5.6	4.2	4.7	-16.6	-6.1
Employees on Nonagricultural Payrolls, ADES							
Total	3,850	3,825	3,900	4,025	4,100	10.1	8.5
Total Private	3,350	3,375	3,425	3,550	3,625	12.4	11.1
Goods-Producing	2,725	2,775	2,825	2,950	3,000	14.3	12.5
Service-Providing	1,125	1,050	1,075	1,075	1,100	0.0	-0.6
Trade, Transportation, and Utilities	275	275	275	275	275	0.0	8.8
Other Private Service-Providing	350	325	325	325	350	7.7	1.9
Government	500	450	475	475	475	-5.0	-6.8
Federal Government	50	25	25	25	25	0.0	-5.0
State and Local Government	450	425	450	450	450	-5.3	-7.0
Sales ($000s) ADOR							
Gross Retail	8,552	8,941	9,140	10,856	...	17.6	9.8
Retail	7,821	8,044	8,265	9,909	...	17.9	7.8
Restaurants & Bars	212	254	235	260	...	9.9	17.1
Gasoline, EBR	518	643	640	687	...	16.1	39.6
Gallons (000s) ADOT	240	281	278	286	...	1.9	15.0
Contracting	3,172	2,423	2,602	4,746	...	N/A	N/A
Hotel/Motel*	477	372	1,096	515	...	114.6	44.5

* Includes Graham County data.

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	month	12-months
YAVAPAI COUNTY							
Civilian Labor Force, ADES	90,500	90,000	92,700	93,600	94,600	5.6	4.5
Employment	87,200	85,900	89,100	90,300	91,200	5.9	4.7
Unemployment	3,300	4,100	3,600	3,300	3,400	-2.9	0.9
Unemployment Rate (%)	3.6	4.6	3.9	3.5	3.6	-8.0	-3.4
Employees on Nonagricultural Payrolls, ADES							
Total	61,500	60,500	61,600	62,900	63,800	7.2	7.1
Total Private	50,300	49,500	50,000	51,200	51,900	7.2	7.7
Goods-Producing	12,000	11,800	12,100	12,500	12,800	11.3	10.7
Mining and Construction	8,300	8,200	8,400	8,700	9,000	13.9	13.4
Manufacturing	3,700	3,600	3,700	3,800	3,800	5.6	5.0
Service-Providing	49,500	48,700	49,500	50,400	51,000	6.3	6.3
Trade, Transportation, and Utilities	12,100	11,800	11,700	12,000	11,900	5.3	5.4
Information	600	600	600	600	600	0.0	-8.9
Financial Activities	2,300	2,300	2,300	2,300	2,300	9.5	12.6
Professional and Business Services	5,100	5,000	5,000	5,100	5,100	10.9	16.6
Educational and Health Services	8,600	8,500	8,700	8,900	9,000	4.7	5.4
Leisure and Hospitality	7,500	7,400	7,500	7,600	8,000	3.9	2.9
Other Services	2,100	2,100	2,100	2,200	2,200	10.0	13.0
Government	11,200	11,000	11,600	11,700	11,900	7.2	4.6
Federal Government	1,200	1,200	1,200	1,200	1,300	8.3	1.4
State and Local Government	10,000	9,800	10,400	10,500	10,600	7.1	5.0
Sales ($000s) ADOR							
Gross Retail	198,778	152,834	164,046	175,781	...	10.1	17.3
Retail	163,621	120,023	124,074	136,503	...	11.6	16.8
Restaurants & Bars	20,163	17,507	24,618	22,702	...	9.3	18.6
Gasoline, EBR	14,995	15,304	15,354	16,576	...	0.4	19.5
Gallons (000s) ADOT	6,945	6,684	6,661	6,915	...	-11.8	-1.2
Contracting	81,206	57,702	68,651	76,394	...	31.1	29.1
Hotel/Motel	6,074	4,751	7,601	9,451	...	6.3	18.9
New Housing Units Authorized, Census C-40							
Total Units	251	248	270	350	274	-11.0	10.2
Single Family Units	249	248	268	348	268	-11.8	15.9

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book.*

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
GILA COUNTY							
Civilian Labor Force, ADES	20,250	20,200	20,675	20,100	20,350	-0.6	0.5
Employment	19,050	18,800	19,400	18,950	19,225	-0.1	0.7
Unemployment	1,200	1,400	1,275	1,150	1,125	-8.2	-2.1
Unemployment Rate (%)	5.9	6.9	6.2	5.7	5.5	-7.6	-2.5
Employees on Nonagricultural Payrolls, ADES							
Total	14,225	13,950	14,175	13,950	14,150	0.4	1.9
Total Private	9,425	9,250	9,350	9,450	9,400	2.5	3.7
Goods-Producing	2,125	2,075	2,075	2,100	2,075	-1.2	-1.7
Service-Providing	12,100	11,875	12,100	11,850	12,075	0.6	2.5
Trade, Transportation, and Utilities	2,225	2,150	2,150	2,225	2,200	1.1	2.2
Other Private Service-Providing	5,075	5,025	5,125	5,125	5,125	4.6	6.7
Government	4,800	4,700	4,825	4,500	4,750	-3.6	-1.4
Federal Government	450	425	425	425	475	0.0	-2.4
State and Local Government	4,350	4,275	4,400	4,075	4,275	-3.9	-1.3
Sales ($000s) ADOR							
Gross Retail	39,402	30,587	31,800	35,868	...	14.4	18.3
Retail	29,253	21,175	22,676	25,125	...	19.3	19.0
Restaurants & Bars	4,188	3,746	4,247	4,737	...	15.5	10.5
Gasoline, EBR	5,962	5,666	4,877	6,007	...	-2.9	21.5
Gallons (000s) ADOT	2,761	2,475	2,116	2,506	...	-14.7	1.2
Contracting	9,681	7,234	7,779	8,232	...	42.1	-2.4
Hotel/Motel	891	675	1,052	1,088	...	19.5	21.4
MOHAVE COUNTY							
Civilian Labor Force, ADES	87,700	89,050	89,375	89,050	89,225	2.4	4.6
Employment	84,300	84,875	85,725	85,725	85,900	2.5	4.5
Unemployment	3,400	4,175	3,650	3,325	3,325	0.8	7.4
Unemployment Rate (%)	3.9	4.7	4.1	3.7	3.7	-1.6	2.7
Employees on Nonagricultural Payrolls, ADES							
Total	53,725	53,350	53,575	54,100	54,150	3.1	6.4
Total Private	45,850	45,475	45,600	46,050	46,275	3.6	6.7
Goods-Producing	10,700	10,725	10,625	10,800	10,800	-4.0	4.7
Mining and Construction	7,000	7,050	6,975	7,150	7,150	-1.7	6.4
Manufacturing	3,700	3,675	3,650	3,650	3,650	-8.2	1.6
Service-Providing	43,025	42,625	42,950	43,300	43,350	5.0	6.9
Trade, Transportation, and Utilities	12,050	11,825	11,900	12,000	11,925	6.5	7.0
Information	975	900	900	900	900	-2.7	-0.2
Financial Activities	2,200	2,125	2,175	2,150	2,225	4.7	8.5
Professional and Business Services	3,975	3,975	3,850	3,775	3,875	1.3	6.8
Educational and Health Services	6,900	6,950	7,025	7,000	7,050	8.0	6.9
Leisure and Hospitality	6,475	6,500	6,600	6,900	6,975	8.6	8.1
Other Services	2,575	2,475	2,525	2,525	2,525	5.2	11.9
Government	7,875	7,875	7,975	8,050	7,875	0.3	4.6
Federal Government	525	500	500	500	500	-4.8	1.6
State and Local Government	7,350	7,375	7,475	7,550	7,375	0.7	4.8
Sales ($000s) ADOR							
Gross Retail	181,896	158,109	160,993	182,538	...	8.9	17.2
Retail	143,744	118,769	130,039	138,381	...	9.9	16.9
Restaurants & Bars	15,895	16,599	11,388	18,351	...	2.4	8.1
Gasoline, EBR	22,257	22,741	19,567	25,806	...	8.5	26.0
Gallons (000s) ADOT	10,308	9,932	8,489	10,765	...	-4.8	4.5
Contracting	52,682	56,779	63,830	63,117	...	7.1	19.3
Hotel/Motel	2,896	2,801	3,946	4,306	...	-9.2	6.7
New Housing Units Authorized, Census C-40							
Total Units	234	265	196	272	335	-13.0	-8.6
Single Family Units	232	237	192	232	314	-15.4	-6.9

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book.*

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
LA PAZ COUNTY							
Civilian Labor Force, ADES	7,200	7,350	7,400	7,425	7,675	0.3	-1.1
Employment	6,725	6,800	6,925	6,975	7,225	1.0	-1.4
Unemployment	475	550	475	450	450	-10.0	3.4
Unemployment Rate (%)	6.6	7.5	6.4	6.1	5.9	-10.3	4.6
Employees on Nonagricultural Payrolls, ADES							
Total	5,225	5,250	5,275	5,425	5,525	0.5	-1.1
Total Private	3,075	3,100	3,125	3,300	3,375	8.9	3.0
Goods-Producing	475	475	475	550	575	9.5	7.0
Service-Providing	4,750	4,775	4,800	4,875	4,950	-0.5	-1.8
Trade, Transportation, and Utilities	1,325	1,300	1,300	1,350	1,350	1.9	0.8
Other Private Service-Providing	1,275	1,325	1,350	1,400	1,450	16.0	3.8
Government	2,150	2,150	2,150	2,125	2,150	-10.4	-6.2
Federal Government	225	225	225	225	225	0.0	2.9
State and Local Government	1,925	1,925	1,925	1,900	1,925	-11.5	-7.2
Sales ($000s) ADOR							
Gross Retail	18,543	23,364	22,667	20,395	...	-10.4	8.1
Retail	11,136	13,539	13,453	11,787	...	2.4	9.0
Restaurants & Bars	2,091	2,832	2,942	1,980	...	-54.7	-1.9
Gasoline, EBR	5,315	6,994	6,272	6,628	...	-3.7	10.5
Gallons (000s) ADOT	2,462	3,055	2,721	2,765	...	-15.5	-8.1
Contracting	3,830	2,431	3,118	3,218	...	162.0	54.8
Hotel/Motel	409	862	437	785	...	48.8	9.9
YUMA METROPOLITAN REGION							
Civilian Labor Force, ADES	75,800	75,700	76,400	76,700	77,000	3.6	4.6
Employment	66,400	66,900	68,700	69,000	66,900	6.2	4.4
Unemployment	9,400	8,800	7,700	7,700	10,100	-10.6	6.0
Unemployment Rate (%)	12.4	11.6	10.1	10.0	13.1	-13.8	1.3
Employees on Nonagricultural Payrolls, ADES							
Total	55,000	55,100	56,400	56,800	54,300	6.7	5.7
Total Private	40,800	40,900	41,600	41,800	39,600	7.0	6.3
Goods-Producing	8,700	8,800	9,000	9,100	8,900	17.1	7.6
Mining and Construction	5,000	5,000	5,100	5,200	5,300	10.4	11.8
Manufacturing	3,700	3,800	3,900	3,900	3,600	28.6	1.4
Service-Providing	46,300	46,300	47,400	47,700	45,400	4.8	5.4
Trade, Transportation, and Utilities	11,500	11,500	11,700	11,800	10,300	4.0	3.2
Information	1,100	1,100	1,100	1,100	1,100	0.0	0.0
Financial Activities	1,500	1,500	1,500	1,500	1,500	0.0	1.7
Professional and Business Services	3,800	3,700	3,800	3,700	3,500	0.0	7.7
Educational and Health Services	6,400	6,300	6,400	6,300	6,200	1.6	3.8
Leisure and Hospitality	6,200	6,400	6,500	6,700	6,600	15.8	18.1
Other Services	1,600	1,600	1,600	1,600	1,500	-6.3	-2.6
Government	14,200	14,200	14,800	15,000	14,700	5.8	4.3
Federal Government	3,300	3,300	3,300	3,300	3,300	13.8	8.9
State and Local Government	10,900	10,900	11,500	11,700	11,400	3.6	3.0
Sales ($000s) ADOR							
Gross Retail	185,478	151,071	155,131	166,588	...	4.9	13.7
Retail	149,264	113,190	117,845	125,168	...	3.3	11.7
Restaurants & Bars	17,099	17,016	19,073	19,104	...	15.1	16.4
Gasoline, EBR	19,115	20,864	18,213	22,316	...	5.8	23.0
Gallons (000s) ADOT	8,853	9,113	7,901	9,309	...	-7.1	1.7
Contracting	40,719	33,025	32,154	39,126	...	-0.1	13.1
Hotel/Motel	3,873	4,440	6,078	5,203	...	19.9	20.5
New Housing Units Authorized, Census C-40							
Total Units	168	142	142	159	117	-46.6	-10.0
Single Family Units	168	142	142	154	112	-47.7	-4.8

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book.*

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
SANTA CRUZ COUNTY							
Civilian Labor Force, ADES	16,450	16,275	16,725	16,500	16,625	5.9	4.3
Employment	15,225	15,025	15,575	15,500	15,650	7.2	5.1
Unemployment	1,225	1,250	1,150	1,000	975	-11.4	-3.0
Unemployment Rate (%)	7.4	7.7	6.9	6.1	5.9	-16.3	-6.9
Employees on Nonagricultural Payrolls, ADES							
Total	14,050	13,875	14,025	14,225	14,300	9.2	7.8
Total Private	10,775	10,550	10,675	10,875	10,925	12.9	11.2
Goods-Producing	825	800	800	825	850	-12.8	-6.8
Service-Providing	13,225	13,075	13,225	13,400	13,450	10.9	9.0
Trade, Transportation, and Utilities	6,100	5,925	5,925	5,975	6,025	12.6	12.7
Other Private Service-Providing	3,850	3,825	3,950	4,075	4,050	20.9	14.2
Government	3,275	3,325	3,350	3,350	3,375	-1.5	-1.6
Federal Government	1,250	1,250	1,250	1,250	1,275	8.5	6.1
State and Local Government	2,025	2,075	2,100	2,100	2,100	-6.7	-5.7
Sales ($000s) ADOR							
Gross Retail	58,602	33,067	39,812	43,102	...	7.7	14.2
Retail	47,891	23,732	30,503	33,243	...	9.6	15.7
Restaurants & Bars	4,543	3,862	4,004	4,163	...	14.1	13.5
Gasoline, EBR	6,167	5,473	5,305	5,695	...	-5.7	6.7
Gallons (000s) ADOT	2,857	2,390	2,301	2,376	...	-17.2	-11.1
Contracting	8,950	6,424	9,240	11,143	...	106.0	58.3
Hotel/Motel	1,327	1,150	1,423	1,712	...	22.6	8.0
New Housing Units Authorized, Census C-40							
Total Units	30	128	74	42	53	0.0	13.3
Single Family Units	30	128	74	39	51	2.0	14.7
COCHISE COUNTY							
Civilian Labor Force, ADES	55,900	56,500	57,650	56,775	56,900	3.5	3.6
Employment	53,300	53,350	54,775	54,175	54,225	3.5	3.5
Unemployment	2,600	3,150	2,875	2,600	2,675	1.9	5.9
Unemployment Rate (%)	4.7	5.6	5.0	4.6	4.7	-1.5	2.1
Employees on Nonagricultural Payrolls, ADES							
Total	38,025	37,875	38,250	38,225	38,275	4.6	5.7
Total Private	25,600	25,525	25,725	25,700	25,750	5.3	5.8
Goods-Producing	3,650	3,575	3,700	3,700	3,750	7.1	8.4
Mining and Construction	2,850	2,800	2,825	2,850	2,925	10.4	12.4
Manufacturing	800	775	875	850	825	-2.9	-3.1
Service-Providing	34,375	34,300	34,550	34,525	34,525	4.3	5.4
Trade, Transportation, and Utilities	6,825	6,650	6,625	6,675	6,625	6.0	2.2
Information	475	475	450	450	425	-10.5	-6.4
Financial Activities	1,000	975	975	1,000	1,000	5.3	5.5
Professional and Business Services	4,350	4,525	4,625	4,525	4,625	7.6	12.3
Educational and Health Services	4,000	4,025	3,975	3,950	3,950	0.0	3.5
Leisure and Hospitality	4,300	4,325	4,400	4,425	4,425	9.3	8.7
Other Services	1,000	975	975	975	950	-2.6	-2.0
Government	12,425	12,350	12,525	12,525	12,525	3.1	5.5
Federal Government	5,000	4,975	5,025	5,025	5,025	3.1	3.8
State and Local Government	7,425	7,375	7,500	7,500	7,500	3.1	6.7
Sales ($000) ADOR							
Gross Retail	99,292	72,345	83,885	87,842	...	2.6	8.9
Retail	78,775	52,072	63,383	63,961	...	-2.9	9.0
Restaurants & Bars	9,600	8,933	9,557	10,661	...	12.5	3.7
Gasoline, EBR	10,918	11,340	10,945	13,220	...	29.3	13.0
Gallons (000s) ADOT	5,057	4,953	4,748	5,515	...	13.5	-6.7
Contracting	22,817	21,982	22,551	23,568	...	21.0	21.4
Hotel/Motel	2,158	2,694	3,296	3,857	...	7.6	10.7
New Housing Units Authorized, Census C-40							
Total Units	50	60	113	70	63	-49.6	-16.5
Single Family Units	48	60	111	70	63	-49.6	-16.7

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book*.

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
TUCSON METROPOLITAN REGION (PIMA)							
Civilian Labor Force (000s) ADES	441.2	438.9	450.0	447.0	449.5	2.8	0.6
Employment	422.7	416.5	430.1	429.2	431.3	3.1	0.5
Unemployment	18.5	22.4	19.9	17.8	18.2	-4.2	2.3
Unemployment Rate, Seas. Adj. (%)	4.6	4.9	4.4	3.9	4.2	-8.7	1.5
Employees on Nonagricultural Payrolls (000s) ADES							
Total	378.6	370.9	376.8	379.4	383.4	4.2	2.5
Natural Resources and Mining	1.6	1.6	1.6	1.6	1.7	13.3	7.2
Construction	27.1	26.6	26.9	27.3	27.6	10.0	9.3
Manufacturing	28.6	28.6	28.9	28.6	28.7	2.9	0.5
Computer and Electronic Prod.	4.7	4.7	4.7	4.7	4.6	-4.2	-5.0
Aerospace Products and Parts	11.4	11.3	11.6	11.4	11.4	2.7	0.2
Wholesale Trade	8.6	8.4	8.4	8.6	8.6	3.6	2.7
Retail Trade	43.6	41.8	41.7	42.3	42.8	4.4	-0.3
Transp., Warehousing, and Utilities	9.4	8.7	8.7	8.8	8.9	0.0	4.6
Information	7.3	7.2	7.2	7.1	7.0	-2.8	-4.0
Financial Activities	17.4	17.1	17.3	17.4	17.5	9.4	7.3
Professional and Business Services	47.8	46.9	47.1	47.6	48.7	6.8	5.6
Educational and Health Services	51.6	51.6	52.1	52.3	52.6	4.8	5.0
Arts, Entertainment, and Recreation	5.6	5.7	5.9	6.4	6.8	21.4	10.4
Accommodation	8.0	8.1	8.4	8.5	8.6	6.2	0.9
Food Svcs and Drinking Places	28.1	27.9	28.4	28.7	29.4	5.8	5.2
Other Services	14.9	14.4	14.6	14.8	15.1	1.3	0.3
Federal Government	10.2	10.2	10.2	10.2	10.2	2.0	3.7
State and Local Government	68.8	66.1	69.4	69.2	69.2	-0.9	-3.1
State and Local Government Education	44.4	41.8	45.1	44.9	44.8	-0.7	-4.7
Sales ($000s) ADOR							
Aggregate Retail Sales	1,156,839	893,043	921,373	1,014,821	...	7.8	11.3
Retail	839,207	579,166	597,513	679,864	...	9.6	10.2
Food, EBR	134,566	131,550	132,683	133,419	...	7.8	11.6
Restaurants & Bars	116,830	112,254	124,668	128,121	...	7.2	12.1
Gasoline, EBR	66,237	70,074	66,509	73,417	...	-5.8	19.9
Contracting	207,330	164,219	182,004	218,339	...	27.8	17.0
Hotel/Motel	24,526	36,354	45,600	46,727	...	2.4	13.9
New Housing Units Authorized, Census C-40 adjusted by EBR							
Total Units	896	897	833	1,032	807	-24.2	5.7
Single Family Units	793	853	768	991	778	-15.8	8.1
2-5-plus Unit Structures	103	44	65	40	29	-99.2	-13.6
Housing Sales and Prices, TAR							
Total Sales ($000s)	331,014	258,363	290,895	423,942	406,193	10.6	24.9
Total Units	1,241	944	1,058	1,501	1,466	-1.5	2.2
Average Price ($)	266,731	273,690	274,948	282,439	277,076	12.3	22.3
Tucson International Airport, TAA							
Total Passengers	358,549	345,768	353,047	409,761	...	2.2	8.8
Total Aircraft Movements	25,337	24,344	22,204	24,771	...	0.9	19.2

TUCSON METROPOLITAN REGION (PIMA COUNTY) - QUARTERLY DATA	I 2005	II 2005	III 2005	IV 2005	I 2006	% change versus year ago for most recent: quarter	4-quarters
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	947.6	954.4	961.4	968.4	975.6	3.0	2.8
Natural Increase	1.3	1.3	1.3	1.3	1.3	-1.2	0.7
Births	3.2	3.2	3.2	3.2	3.3	0.8	0.1
Deaths	1.9	1.9	1.9	1.9	1.9	2.1	-0.2
Net Migration	5.1	5.5	5.7	5.7	5.8	13.0	19.5
Personal Income by Source ($mil, SAAR) EBR							
Total Personal Income	25,721	26,161	26,625	27,122	27,621	7.4	7.0
Earnings by Place of Work	17,893	18,196	18,522	18,882	19,244	7.5	7.0
Less: Contributions for Social Insurance	1,985	2,025	2,071	2,124	2,176	9.6	7.8
Plus: Adjustment for Residence	121	123	124	126	128	5.8	5.9
Plus: Dividends, Interest & Rents	4,854	4,928	5,002	5,074	5,144	6.0	6.1
Plus: Transfer Payments	4,838	4,940	5,048	5,164	5,280	9.1	8.5
Per Capita Personal Income ($, SAAR) EBR	27,144	27,412	27,695	28,006	28,313	4.3	4.1

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL)							
Civilian Labor Force (000s) ADES	1,952.9	1,948.7	1,983.3	1,972.2	1,986.4	4.0	4.0
Employment	1,880.5	1,861.2	1,905.5	1,902.6	1,915.3	4.4	4.3
Unemployment	72.4	87.5	77.8	69.6	71.1	-6.9	-0.9
Unemployment Rate, Seas. Adj. (%)	4.0	4.3	3.9	3.5	3.7	-11.9	-5.1
Employees on Nonagricultural Payrolls (000s) ADES							
Total	1,862.8	1,825.8	1,851.2	1,867.6	1,880.6	5.5	6.3
Natural Resources and Mining	2.6	2.6	2.6	2.7	2.6	13.0	5.4
Construction	175.3	172.7	175.3	178.7	182.4	14.6	15.7
Durable Goods	109.1	109.1	109.5	109.6	109.6	2.1	3.1
Fabricated Metal Products	14.7	14.5	14.6	14.6	14.7	5.0	5.4
Computer and Electronic Prod.	40.0	40.1	40.4	40.5	40.5	3.8	3.2
Aerospace Products and Parts	15.3	15.3	15.3	15.3	15.3	2.0	3.4
Non-Durable Goods	27.4	26.9	26.9	27.1	27.2	-0.7	0.2
Wholesale Trade	84.2	84.1	84.7	85.0	85.4	3.9	4.1
Retail Trade	235.0	227.9	227.8	229.7	230.2	7.7	8.4
Utilities	8.2	8.0	8.0	8.0	8.1	1.3	2.2
Transportation and Warehousing	55.1	54.1	54.0	53.9	53.9	1.3	2.0
Information	32.9	32.5	32.2	32.4	33.0	-2.7	-1.5
Finance and Insurance	112.0	110.7	111.5	111.6	112.2	3.5	5.1
Real Estate, Rental, and Leasing	38.9	38.2	38.4	38.7	39.4	5.3	6.6
Professional and Business Services	316.4	307.4	312.7	317.5	321.3	8.7	9.5
Educational Services	31.5	31.1	31.7	31.9	31.8	5.0	5.4
Health Care and Social Assistance	155.8	156.5	157.1	157.5	158.3	3.4	5.1
Arts, Entertainment, and Recreation	23.1	22.7	23.6	24.2	24.5	5.6	6.2
Accommodation	27.5	27.5	27.9	28.3	28.3	0.4	-1.1
Food Svcs and Drinking Places	124.6	122.9	125.5	128.0	129.1	5.5	6.6
Other Services	69.2	67.8	68.7	69.3	69.2	5.0	5.7
Federal Government	22.4	22.2	21.9	22.0	22.1	1.4	1.1
State and Local Government	211.6	200.9	211.2	211.5	212.0	1.4	1.5
State and Local Government Education	112.9	102.1	112.1	112.2	112.3	1.9	2.6
Sales ($000s) ADOR							
Aggregate Retail Sales	5,574,665	4,325,936	4,424,084	4,923,288	...	10.8	15.5
Retail	4,119,293	2,848,838	2,962,541	3,362,447	...	10.1	15.4
Food, EBR	592,673	606,495	611,718	615,114	...	12.8	13.8
Restaurants & Bars	553,719	548,249	560,055	607,689	...	15.8	14.0
Gasoline, EBR	308,980	322,354	289,770	338,038	...	6.6	22.3
Contracting	1,443,256	1,111,902	1,198,570	1,417,472	...	30.0	31.3
Hotel/Motel	102,327	143,899	167,365	193,120	...	-11.0	7.7
New Housing Units Authorized, Census C-40							
Total Units	4,703	4,915	3,662	4,658	4,373	-28.1	-8.0
Single Family Units	3,905	3,593	3,045	3,814	3,374	-27.3	-13.7
2-4 Unit Structures	176	257	225	258	126	186.4	47.9
5-plus Unit Structures	622	1,065	392	586	873	-37.2	31.9
Housing Sales and Prices, ARMLS							
Total Sales ($000s)	2,093,431	1,721,698	1,918,768	2,393,181	2,161,766	-16.6	24.3
Total Units	6,300	5,048	5,650	7,149	6,491	-28.9	-6.9
Average Price ($)	332,291	341,065	339,605	334,757	333,041	17.2	34.4
Phoenix Skyharbor International Airport, PSIA							
Total Passengers	3,433,127	3,310,363	3,146,086	3,810,342	...	0.3	3.7
Total Aircraft Movements	47,656	46,349	41,527	46,970	...	-1.2	0.9

SOURCES AND ABBREVIATIONS:

ADES: Arizona Department of Economic Security
ADHS: Arizona Department of Health Services
ADOR: Arizona Department of Revenue
ADOT: Arizona Department of Transportation
ARMLS: Arizona Regional Multiple Listing Service
ASPB: Arizona State Parks Board
BEA: Bureau of Economic Analysis, U.S. Department of Commerce
BLS: Bureau of Labor Statistics, U.S. Department of Labor
Census C-40: Bureau of the Census, U.S. Department of Commerce
EBR: Economic & Business Research Center, The University of Arizona
NPS: National Park Service, U.S. Department of the Interior
PSIA: Phoenix Skyharbor International Airport
SAAR: Seasonally adjusted at annual rates
TAA: Tucson Airport Authority
TAR: Tucson Association of Realtors
U.S. Bankruptcy Court: District of Arizona
USBCBP: U.S. Bureau of Customs and Border Protection, U.S. Department of Homeland Security

	I 2005	II 2005	III 2005	IV 2005	I 2006	% change versus year ago for most recent: quarter	4-quarters
PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL COUNTY) - QUARTERLY DATA							
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	3,843.1	3,877.6	3,912.2	3,946.8	3,981.3	3.6	3.7
Natural Increase	9.6	9.7	9.9	9.9	10.0	4.0	5.5
Births	16.0	16.1	16.3	16.4	16.5	3.6	4.0
Deaths	6.4	6.4	6.4	6.5	6.6	3.0	1.8
Net Migration	25.3	24.8	24.7	24.7	24.5	-3.0	-5.3
Personal Income by Source ($mil, SAAR) EBR							
Total Personal Income	122,113	124,983	127,911	130,896	133,867	9.6	9.5
Earnings by Place of Work	98,712	101,212	103,726	106,243	108,749	10.2	10.3
Less: Contributions for Social Insurance	10,638	10,919	11,228	11,570	11,909	12.0	10.2
Plus: Adjustment for Residence	-77	-76	-75	-75	-75	2.1	-2.6
Plus: Dividends, Interest & Rents	18,260	18,486	18,799	19,224	19,647	7.6	4.6
Plus: Transfer Payments	15,857	16,280	16,689	17,074	17,455	10.1	10.6
Per Capita Personal Income ($, SAAR) EBR	31,775	32,232	32,696	33,166	33,624	5.8	5.6
ARIZONA - QUARTERLY DATA							
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	5,970.1	6,020.0	6,070.4	6,120.7	6,170.8	3.4	3.4
Natural Increase	12.8	12.6	13.0	12.3	13.3	4.2	0.3
Births	23.5	24.2	24.2	23.9	24.4	3.8	3.4
Deaths	10.7	11.5	11.2	11.6	11.1	3.4	7.2
Net Migration	37.1	37.3	37.9	37.4	37.2	0.3	0.3
Personal Income Derivation ($mil, SAAR) BEA & EBR							
Total Personal Income	173,844	178,044	181,025	187,096	191,235	10.0	9.6
Earnings by Place of Work	134,277	137,618	141,188	145,002	148,735	10.8	11.3
Less: Contributions for Social Insurance	14,833	15,166	15,515	15,875	16,729	12.8	12.1
Plus: Adjustment for Residence	673	690	708	728	747	11.1	11.8
Plus: Dividends, Interest & Rents	26,733	27,386	26,085	28,630	28,990	8.4	2.9
Plus: Transfer Payments	26,994	27,521	28,563	28,616	29,494	9.3	9.7
Components of Earnings ($mil, SAAR) BEA & EBR							
Wages and Salaries	97,046	99,268	101,934	104,459	107,226	10.5	10.9
Other Labor Income EBR	21,794	22,400	23,162	23,807	24,360	11.8	13.3
Proprietor's Income	15,262	15,935	16,686	16,575	...	13.0	11.1
Farm	734	738	874	759	...	82.0	21.0
Nonfarm	14,528	15,197	15,812	15,816	...	11.0	10.7
Per Capita Personal Income ($, SAAR) EBR	29,119	29,575	29,821	30,568	30,990	6.4	6.0
Average Wage Per Employee, Annual Rate ($) EBR	38,918	39,185	40,085	40,419	...	5.6	5.9

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
TRAVEL AND TOURISM - MONTHLY DATA							
Visits to Parks & Other Recreational Areas, NPS & ASPB							
Northern Arizona	781,257	929,069	938,308	1,250,468	1,626,568	4.3	1.7
Historical	64,645	72,044	85,853	119,789	159,827	7.1	-3.0
Scenic	291,377	262,685	278,826	439,030	605,048	9.1	3.6
Water Based Recreation	425,235	594,340	573,629	691,649	861,693	0.7	1.3
Southern Arizona	208,809	280,409	351,007	392,192	320,134	-8.0	-6.2
Historical	35,400	43,049	57,016	64,426	44,237	-31.2	-7.5
Scenic	159,194	210,239	257,875	284,042	221,811	-10.5	-9.1
Water Based Recreation	14,215	27,121	36,116	43,724	54,086	50.8	10.3
International Border Crossings, USBCBP							
U.S. Citizens	705,441	631,041	609,614	643,444	...	-9.5	-2.7
Aliens	1,920,452	1,842,596	1,650,439	1,638,170	...	-11.7	-6.3
Vehicles	849,259	815,271	748,721	818,231	...	-11.3	-5.6
MEASURES OF INFLATION AND PRICES - MONTHLY DATA							
Consumer Price Index (1982-1984=100) BLS							
U.S. - All Urban	196.8	198.3	198.7	199.8	201.5	3.5	3.5
U.S. - Wage Earners	192.5	194.0	194.2	195.3	197.2	3.7	3.7

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book.*

	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	% change versus year ago for most recent: month	12-months
ARIZONA MONTHLY DATA							
Civilian Labor Force (000s) ADES	2,886.8	2,880.5	2,935.6	2,919.8	2,940.0	3.6	3.3
Employment	2,764.8	2,736.3	2,806.9	2,803.9	2,820.0	4.1	3.5
Unemployment	122.0	144.2	128.7	115.9	120.0	-6.4	0.5
Unemployment Rate, Seas. Adj. (%)	4.7	4.8	4.4	4.1	4.3	-8.5	-2.1
Employees on Nonagricultural Payrolls (000s) ADES							
Total	2,603.4	2,551.2	2,588.8	2,610.5	2,626.5	4.9	5.4
Natural Resources and Mining	9.6	9.6	9.8	10.0	10.1	11.0	6.4
Construction	231.1	227.5	230.7	234.8	239.6	12.5	13.9
Durable Goods Manufacturing	147.6	147.7	148.3	148.3	148.7	2.6	2.8
Fabricated Metal Products	18.9	18.5	18.6	18.7	18.9	4.4	5.1
Computer and Electronic Prod.	45.3	45.3	45.7	45.7	45.8	3.4	2.3
Aerospace Products and Parts	27.0	27.0	27.3	27.0	27.0	2.3	1.8
Non-Durable Goods Manufacturing	35.9	35.4	35.5	35.6	34.8	-0.3	0.3
Wholesale Trade	102.4	102.0	102.7	103.2	102.9	4.0	4.0
Retail Trade	327.9	317.5	317.0	320.6	320.4	5.8	6.1
Utilities	11.9	11.7	11.9	12.0	12.0	3.4	2.8
Transportation and Warehousing	70.6	69.3	69.2	69.1	68.8	1.2	2.5
Information	45.0	44.5	44.2	44.2	44.7	-2.4	-1.6
Finance and Insurance	128.3	126.7	127.8	127.9	128.8	4.3	5.2
Real Estate, Rental, and Leasing	51.1	50.2	50.6	51.0	51.9	6.6	7.2
Professional and Business Services	388.1	377.4	383.8	389.1	393.2	7.8	9.0
Educational Services	42.4	41.6	42.5	42.6	42.7	3.9	4.4
Health Care and Social Assistance	238.8	239.1	240.2	241.1	242.4	3.8	5.0
Arts, Entertainment, and Recreation	32.4	31.9	33.1	34.5	35.1	6.7	6.9
Accommodation	46.5	46.0	47.0	47.5	48.4	3.0	2.4
Food Svcs and Drinking Places	182.5	180.3	183.9	187.2	189.6	5.6	6.4
Other Services	95.8	93.8	94.9	95.9	96.2	5.0	5.3
Federal Government	52.2	51.5	51.3	51.7	51.8	1.2	1.6
State and Local Government	363.3	347.5	364.4	364.2	364.4	0.9	0.6
State and Local Government Education	198.4	182.5	199.1	198.7	198.4	1.5	0.9
Hours Worked Per Week, Manufacturing, ADES	40.5	39.9	40.5	40.8	40.3	-1.7	-1.0
Average Hourly Earnings ($) ADES							
Construction	16.12	16.17	16.28	16.34	16.29	4.6	4.4
Manufacturing	14.15	14.52	14.42	14.57	14.77	0.3	1.8
Trade, Transportation, Utilities	14.86	15.10	14.96	14.86	15.17	2.8	3.1
Retail Trade	12.01	12.37	12.38	12.27	12.45	2.6	3.4
Wholesale Trade	18.46	18.25	17.70	17.48	17.84	-4.9	-0.8
Sales ($000s) ADOR							
Aggregate Retail Sales	7,947,369	6,222,098	6,403,845	7,077,050	...	10.0	14.5
Retail	5,783,926	4,038,755	4,222,179	4,753,435	...	9.7	14.4
Food, EBR	893,395	910,138	917,976	923,073	...	12.3	12.0
Restaurants & Bars	774,478	757,181	796,523	854,290	...	13.4	13.5
Gasoline, EBR	495,569	516,023	467,167	546,252	...	4.0	20.7
Gallons (000s) ADOT	229,526	225,377	202,667	227,871	...	-8.7	-0.3
Utilities	630,229	588,874	519,115	543,414	...	16.0	11.1
Communications	260,600	241,001	301,088	279,549	...	10.2	10.3
Amusements	77,647	84,232	84,775	116,193	...	20.3	14.0
Rentals - Personal Property	298,120	297,422	285,522	356,712	...	19.0	9.6
Contracting	1,945,382	1,518,375	1,647,997	1,916,388	...	28.2	28.3
Mining - Metal, Oil & Gas	142,304	117,183	97,041	114,567	...	25.5	50.2
Hotel/Motel	158,540	206,646	250,512	283,661	...	-7.0	9.5
New Housing Units Authorized, Census C-40							
Total Units	6,452	6,675	5,367	6,907	6,163	-26.3	-4.8
Single Family Units	5,567	5,250	4,627	5,718	5,037	-26.2	-8.2
2-4 Unit Structures	207	312	262	303	164	100.0	30.4
5-plus Unit Structures	678	1,113	478	886	962	-34.0	31.3
Bankruptcy Filings, U.S. Bankruptcy Court							
Total	248	303	357	557	560	-83.6	-1.2
Chapter 7	166	212	273	445	444	-85.1	7.7
Chapter 11	6	8	8	20	16	14.3	-7.1
Chapter 13	76	83	76	92	100	-75.7	-44.8

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book*.

	I 2005	II 2005	III 2005	IV 2005	I 2006	% change versus year ago for most recent: quarter	4-quarters
MEASURES OF INFLATION AND PRICES -QUARTERLY DATA							
Consumer Price index (1982-84=100) BLS							
Western Region (U.S.)	195.8	198.5	200.0	201.3	202.7	3.6	3.3
U.S. - All Urban Consumers	191.9	194.5	196.9	197.6	198.9	3.6	3.5
U.S. - Urban Wage Earners	187.4	190.1	192.7	193.4	194.5	3.8	3.7
Price Indexes (1996=100) BEA							
Gross Domestic Product	111.0	111.7	112.6	113.1	114.0	2.7	2.7
Personal Consumption Expenditures	109.9	110.8	111.8	112.6	113.1	2.9	2.9

See sources and abbreviations at the bottom of page 20. • For additional detail and history, subscribe to *Arizona Economic Indicators Data Book*.

ARIZONA'S ECONOMY

To subscribe to Arizona's Economy or other Economic and Business Research Publications, visit:

www.ebr.eller.arizona.edu/subscribe/.

Arizona's Economy, published quarterly by the Economic and Business Research Center at the Eller College of Management, is provided as an educational service by The University of Arizona. Correspondence should be addressed to EBR Publications, McClelland Hall Room 103, PO Box 210108, Tucson, Arizona 85721-0108.

Arizona's Economy also is available online at: www.ebr.eller.arizona.edu/azeconomy/.

As part of The University of Arizona's public mission to improve quality of life for the people of Arizona and the nation, the Economic and Business Research Center is dedicated to providing Arizona citizens and decision makers with high quality economic data and objective forecasts and analyses.

Printing and mailing costs for Arizona's Economy are covered by private sponsorship and not at tax-payer expense.

Thank you to our partners for their ongoing sponsorship of Economic and Business Research Center programs.

Forecasting Project Sponsors:

Arizona Department of Commerce
Arizona Joint Legislative Budget Committee
Arizona Public Service Company
Bank of the West
CB Richard Ellis
Chase
City of Glendale
City of Mesa
City of Tempe
City of Tucson
Compass Bank
Elliott D. Pollack and Company
KB Home
Lippow Development Company
Maricopa Association of Governments
Pascua Yaqui Tribe
Pima Association of Governments
Pima County
Realty Executives Southern Arizona
Salt River Project
Tucson Electric Power Company
Tucson Newspapers
Tucson Regional Economic Opportunities, Inc.

Arizona's Economy Sponsor:

Compass Bank

Website Sponsor:

CHASE

ARIZONA'S
ECONOMY

How Confident is Arizona Business?

Covering six key financial measures, along with a topical issue each quarter, the **Arizona Business Leaders Confidence Index®** (BLCI) sums up the expectations of hundreds of the state's leading executive decision makers. The BLCI is a collaborative effort between Compass Bank and The University of Arizona's Eller College of Management to provide local and relevant information to Arizona's business leaders.

Please log on at **www.blci.com/arizona/** and register to become a BLCI panelist. It only takes a few minutes and you'll be notified by email when the next survey opens on September 1st.

With increased participation from business leaders like you, the BLCI will become a more valuable planning tool for the Arizona business community. Plus, when you participate, you receive an exclusive preview of survey results before they are released to the general public.

Join today!

Technology & Management 2006

The University of Arizona

TECHNOLOGY AND MANAGEMENT AWARDS LUNCHEON

Friday, October 27, 2006
12:00 p.m. – 1:30 p.m.

The Arizona Biltmore Resort in Phoenix, Arizona
Recognizing the contributions of outstanding executives

$75.00 per person; $750 per table of ten
To reserve your seat or table, please phone (520) 621-9954
or email rsvp@eller.arizona.edu

THE UNIVERSITY OF ARIZONA

Eller COLLEGE OF MANAGEMENT
THE UNIVERSITY OF ARIZONA

Economic and Business Research Center
Eller College of Management
McClelland Hall 103
PO Box 210108
Tucson, Arizona 85721-0108

CHANGE SERVICE REQUESTED

Change of address, please email: ebrpublications@eller.arizona.edu

PRSRT. STD.
U.S. POSTAGE
PAID
TUCSON, ARIZONA
PERMIT NO. 190