

ARIZONA'S ECONOMY

OCTOBER 2003

FALL ISSUE

BUDGET STABILIZATION FUND: CAP SIZE AND OTHER ISSUES

By Alberta H. Charney, Ph.D.
August 15, 2003

The Arizona Legislature established the Budget Stabilization Fund (BSF), commonly known as the "rainy day fund," in 1990. It was designed to smooth out the fluctuations in Arizona's revenue streams, calling for payments to be made to the fund during periods of rapid state income growth and for funds to be paid out during periods of slowdowns or downturns. Although a wonderful idea, as currently implemented it is woefully inadequate to serve the needs of the state for five reasons.

First, money coming into the fund was limited to seven percent of the General Fund revenue at the end of each fiscal year. But, revenue streams frequently fluctuate by

more than seven percent in a given year. Thus the limit of seven percent on a rainy day fund is too low to adequately cover one year of revenue fluctuations.

Second, the fund design does not account for slowdowns or downturns that cover more than one fiscal year. If a recession extends through two fiscal years, the rainy day fund will likely dry up during the first year, requiring severe cuts during the second (and often third) fiscal year of the recession.

Third, the funding formula, as altered in the mid-90s, can recommend \$0 fund payout, even in severe recessions.

Fourth, the funding formulas were designed to smooth out revenue streams, but the design does not account for the increased demand for services that occur during difficult times.

Fifth, the fund was raided by the Legislature for purposes unrelated to fluctuations in the business cycle.

BACKGROUND

The Budget Stabilization Fund (BSF), enacted in 1990 (A.R.S. § 35-144) and administered by the State Treasurer, is designed to set revenue aside during good times and to utilize this revenue during times of below-trend growth. The BSF could be an important tool for the fiscal management of the State of Arizona because a) states must maintain a balanced budget even during severe economic downturns, b) Arizona's revenue structure is extremely cyclical, partly because of its mix of revenue sources and partly because of the strong cyclicity of Arizona's economy, and c) the

health and welfare component of state expenditures are counter-cyclical, increasing during difficult economic times and decreasing during strong growth periods.

The Arizona BSF is relatively unique in that it is formula driven. While subject to legislative appropriations for deposits and withdrawals, the BSF formula provides both a signal and suggested dollar amount for deposits to the BSF in "above average" economic times and fund withdrawals during "below average" economic times.

Current key features of the BSF fund can be summarized as follows:

- The deposit into or withdrawal from the BSF for a given fiscal year is determined by comparing the annual growth rate of inflation adjusted Arizona Personal Income (AZPI) for the calendar year ending in the fiscal year to the trend growth rate of inflation adjusted AZPI for the most recent seven years.

- Adjusted personal income in the BSF formula is defined as total Arizona personal income less transfer payments, adjusted by the gross domestic product price deflator index.

- If the annual growth rate exceeds the trend growth rate, the excess multiplied by General Fund revenue of the prior fiscal year would equal the amount to be deposited into the BSF.

- If the annual growth rate is both less than 2% and less than the trend growth rate, the deficiency when multiplied by the General Fund revenue of the prior year would equal the amount to be withdrawn from the BSF.

- By a two-thirds majority, the Legislature, with the concurrence of the Governor, can decrease a deposit or increase a withdrawal.

- The BSF's total balance cannot be larger than 7.0% of the prior year's General Fund revenues.

- In addition to the fixed income investments available to the Treasurer, the 1998 Legislature allowed the Treasurer to invest up to 25% of the BSF in equity securities.

INSIDE

Economic Outlook Luncheon

See Page 5



OUTLOOK LUNCHEON5
NEW DATA, NEW MODELS.....6
FORECAST TABLES7
ECONOMIC INDICATORS9

DIVERSIONS FROM THE ORIGINAL 1990 DESIGN OF BSF

There are several points that should be discussed regarding the current key features. Currently, the balance of the BSF is limited in size to 7.0% of the prior year's General Fund revenues. Under the original 1990 statute, the balance in the rainy day fund could reach as much as 15% of the General Fund budget before the transfers were stopped. The 15% size of the cap had been determined by examining prior business cycles and revenue collections. The original 15% figure had been established as the amount necessary to smooth Arizona's revenue flows through a modest recession. Despite the original determination of a 15% ceiling, the Legislature reduced the size of the cap to 5% in 1995, then gradually increased it from 5% in FY1997 to 7% in FY 2000. Thus, at the start of the current major recession, the fund had a maximum balance that was well under half of what was intended in the original design.

Another change that was made in the mid-1990s was the condition that withdrawals from the BSF would only be made if the annual growth rate in deflated adjusted personal income in the prior calendar year be below the trend line AND be below 2%. Supposedly, the 2% floor was added to avoid withdrawing monies when economic growth is slowing but there is not a recession, usually defined by negative economic growth. This requirement results in the formula rarely, if ever, recommending payouts from the fund to be made. The growth rate of real adjusted personal income will rarely fall below 2% because even during major recessions, Arizona's population growth commonly exceeds 2%. For example, the population growth rates for FY2000 through FY2003 were 3.8%, 3.1%, 2.8%, and 2.8%, respectively. Thus it is likely that the formula may not have triggered any funds, let alone sufficient funds, even if monies were available.

Finally, the BSF was originally designed to be a management tool designed solely to smooth the fluctuations in the normal business cycles; it was not intended to be used as a contingency fund to cover legislated emergencies, such as the Alternative Fuels program, nor to finance needed capital expenditures, such as renovations to the Arizona State Hospital.

For FY2001 through FY2003, the BSF financed unplanned taxpayer refunds associ-

ated with Alternative Fuels of about \$114 million, according to Joint Legislative Budget Committee records. In Laws 2000, 7th Special Session, Chapter 1 required that alternative fuel related liabilities would be funded by the BSF up to \$200 million. The BSF was to be reimbursed by the General Fund at a rate of up to \$16 million annually. However, this reimbursement provision was repealed.

Also, in 1999, the legislature allowed the BSF to provide for the majority of funding, \$77.5 million, for major renovations to the Arizona State Hospital. This financing plan originally intended for the BSF to be reimbursed by Tobacco Tax Settlement funds. In fact, \$40 million was repaid from that source to the BSF in FY2000 and FY2001. However, an Attorney General opinion related to usage of the Tobacco Tax Settlement funds caused plans for further repayments to the BSF to be cancelled. The unintended net cost to the BSF of the Arizona State Hospital has been \$37.5 million to date.

As a result, the BSF has been used to finance a net \$151.5 million for emergencies and projects that were completely unrelated to the economic downturn. Thus the state had only half (approximately) of the 7% capped BSF balance at the end of FY2001 to use to ease the budgetary problems of FY2002 through FY2004.

CYCLICALITY OF REVENUES AND HEALTH AND WELFARE EXPENDITURES

The main purpose of this article is to discuss the optimal cap size for the BSF, but the previous discussion highlights additional concerns associated with the BSF. In this section, cyclicalities of revenues and health and welfare expenditures are discussed. Understanding the fluctuations of revenues and these "safety net" expenditure categories will shed light on the optimal cap size for the BSF.

REVENUE CYCLICALITY

In this section, the size of the fluctuations of three major revenue sources will be examined: sales tax, individual income tax and corporate income tax. These three revenues comprise 94% of all tax revenue to the general fund. Fluctuations in these three revenues will be discussed both "nominally," and in "real per capita" terms.

The term "nominal" used in front of a word, such as revenues or dollars, simply means that no attempt has been made to adjust for the effects of inflation. A "nominal" dollar is worth less today than it was last year because inflation has eroded part of its purchasing strength. "Real" is a term used to describe dollars or revenues that have been adjusted to remove the effects of inflation. A "real," or deflated dollar, by definition, has the same value today as it had last year. Thus, when discussing "real" revenues, the term means that the effect of inflation has been removed by adjusting with a price index (a Consumer Price Index, for example). When a percent change of "real" revenues is computed, it represents the change in purchasing power of those revenues.

"Real" revenues, divided by population, results in "real per capita" revenue figures. Economists frequently discuss "real per capita" revenues instead of "nominal" revenues because it makes it easier to identify business cycles, particularly in Arizona, where population growth can be strong even through recessions. In addition, it is important to recognize that the demands on the public sector grow with both inflation and population growth. When utilities, equipment, supplies and communication costs increase, it affects the cost of doing business for governments as well as for firms in the private sector. When population increases, so does the demand for public services. School enrollments increase, court and correction caseloads increase, and health and welfare caseloads increase, even in the absence of a recession. Both inflation and population growth are powerful influences on the cost of running the government. When revenue growth falls short of the combined inflation and population growth rates, then there will be, almost by definition, cuts in government services. Thus, "real per capita" revenues, or revenues net of inflation and controlled for population size, is a better indicator of the dollars governments have to work with.

SALES TAX REVENUE CYCLICALITY

To examine the cyclicalities of sales tax revenue, the tax base, i.e., taxable sales, was examined from FY1961 through FY2002. This long time-series is analyzed so that the economic downturns that occurred in the mid-70s, the early 1980s and the early

1990s can be examined, rather than just considering the most recent/current cycle.

The cyclicity of “taxable sales” was analyzed rather than actual collections because there were several tax rate changes throughout this period and taxable sales data are free of those changes. Taxable sales data are not free of changes made to the tax base, however. Sixteen taxable sales categories were added together to get “total” taxable sales for FY1981 through FY2002, for analysis purposes.

Taxable sales, like most measures of economic activity, are strongly affected by changes in prices (inflation) and population growth. Thus, when “nominal” taxable sales are examined over time, the figures rarely show an actual decline. In the data series developed for this study, taxable sales declined by 2.3% in 1968, 6.95% in 1981, and 1.68 in 1983. The larger decline of 6.95% must be ignored because it corresponds to the 1980 exemption of food, which substantially reduced taxable sales the following fiscal year. Thus, inflation and population growth in Arizona tend to offset the fall in per capita purchasing power associated with recessions, with the exceptions in FY1968 and FY1983, in which “nominal” taxable sales declined by approximately 2%. In the most recent recession, sales tax revenues barely grew at all in FY2002 (0.6%) and only grew by approximately 1.8% in FY2003. This slow growth occurred despite inflation increasing prices by 1.77% in FY2002 and 2.67% in FY2003 and population growing by 2.8% in both FY2002 and FY2003.

The cyclicity of taxable sales becomes much clearer when the figures are deflated and divided by population. When the resulting “real per capita” taxable sales are analyzed, very strong cycles are apparent. Total real per capita taxable sales can fall by as much as 12% (1975) or grow by as much as 18% (1969). During periods of recession, the declines may be smaller but last for several years. Thus, the declines in real per capita sales from FY1988 through FY1992 were 4.1%, 1.3%, 2.4%, 4.4%, and 2.0%. The decline in any given year was not double digit, but the declines lasted multiple years and totaled 14% over the multiple-year period. Unfortunately a similar calculation cannot be made for the recession of the early 80s because the food exemption masks any recession-induced decline in 1981. However, it is telling that real per capita tax-

able sales fell by 6.1% in 1982 and 7.88% in 1983, for a total 14% decline over just those two years.

During the current recession, “nominal” taxable sales were flat in FY2002 (0.6% growth), while the combined growth in population and inflation was 4.6%. Thus, the state’s ability to provide government services fell by 4%. In FY2003, sales tax revenues increased 1.8%, but the growth in prices and population growth was 4.9%.

INDIVIDUAL INCOME TAX REVENUE CYCLICALITY

In nominal dollars, the individual income tax has shown two significant declines. In FY1991, individual income tax revenues fell by 16%, a figure larger than the 9% decline of FY2002. It should be noted that nominal individual income tax collections showed almost no growth in FY2003.

When inflation and population are controlled for, numerous fiscal years showed declines in real per capita individual income tax collections. During the weakness in the mid-70s, real per capita individual income tax revenues fell by 3.8% in 1975 and 2.9% in 1976. During the early 1980s recession, real per capita revenues from this source were virtually flat, showing no growth in FY1980 and FY1981. In FY 1985, there was a weakness in this revenue source, with real per capita individual income tax collections falling by 7.6%, according to Department of Revenue data. In FY1991, part of the early 1990s recession, real per capita individual income tax collections fell by 22.2%.

During the most recent recession, real per capita individual income tax revenues fell by 13% in FY2002. Thus, the ability of these revenues to provide services fell by 13%.

CORPORATE INCOME TAX REVENUE CYCLICALITY

The corporate income tax is the most volatile of the three major Arizona revenue sources. Nominal revenues from this source fell by 36% in FY2002, and are estimated to have grown 12% in FY2003, recouping a fraction of the FY2002 loss. The declines during the early 1980s and early 1990s recessions were smaller, dropping only 9% during FY1982 and 11% during FY1990. However, this revenue source showed substantial weaknesses in the mid-1980s, dropping 17% in FY1986 and 25% in FY1988.

Again, the volatility of this tax is much

stronger when examined in real per capita figures. When inflation and the effects of population are removed, this revenue source fell by almost 15% in the mid-70s, by 3.4% in FY1981 and 18% in FY1982. The mid-80s weakness was much worse, with real per capita corporate income taxes falling by 5% in 1985, 22.8% in FY1986 and 31% in FY1988. During the early 90s recession, revenues fell by 17% in FY1990 and showed no growth in FY1991. During the most recent recession, real per capita corporate income tax revenues declined by 38.5% in FY2002.

REVENUE MIX AND CYCLICALITY

The mix of state revenues can affect the volatility of a state’s revenue structure. The mix of Arizona’s revenue structure has changed over the last two decades in a way that has modestly increased revenue volatility. The share of the General Fund revenues derived from sales taxes remained relatively constant over the past two decades, representing 45.5% of the GF in FY1980, 44.1% in FY1990, and 46.9% in FY2000. With the passage of Proposition 301, the share associated with sales tax has increased to 49.9% in FY2003.

In FY1980 and FY1990, property taxes (general property taxes and the vehicle license tax) represented between 5.5% and 7.5% of the General Fund. By FY2000, however, these two property tax categories represented less than 1.5% of the General Fund. Property taxes tend to be the most stable of all revenue sources because property values tend to hold even during a recession. At the same time, income taxes (personal and corporate combined) increased from 28.9% of the GF in FY1980 to 38.7% in FY1990, to 40.13% in FY2000. The loss of property tax revenue, the third leg of the traditional state tax structure, combined with the increase in the importance of the income tax, have increased the volatility of the tax structure over time.

SUMMARY OF REVENUE CYCLICALITY

Of the three most important revenue sources to Arizona, the sales tax is the least volatile, showing annual nominal declines of 0 to 2% in any given year during economic slowdowns or recessions. The corporate income tax is the most volatile, with nominal losses during recession years between 10

and 36%. The individual income tax, while still very volatile, is more stable than the corporate income tax, has shown declines of 10% to 16% in economic downturns.

These figures represent the ranges of revenue declines for one year, the worst year, of a recession. Recessions are often characterized by a substantial slowing of growth, followed by a year of declining (negative growth) revenues, followed by a year of flat (zero growth) revenues.

This characterization fits the current/recent recession fairly well. In 2001, sales tax revenues grew by 5.5%, individual income tax revenues grew by 0.5%, and the corporate income tax grew by 3.4%. The weighted average of these three major revenue sources grew by approximately 3.3% between FY2000 and FY2001. FY2002 suffered a 6.73% decrease in the big-three and revenue growth for FY2003 is expected to be approximately 2%. Revenues grew extremely slowly or declined between FY2000 and FY2003, despite the fact that population growth and inflation combined to increase 6.7% in FY2001, 4.6% in FY2002, and 5.6% in FY2003. Thus, for the past three fiscal years, revenues have severely fallen short of meeting the basic growth needs of the state.

CYCLICALITY OF HEALTH AND WELFARE EXPENDITURES

It is extremely difficult to tell how much health and welfare costs and caseloads increase during a recession because usually these programs suffer significant cuts just at the times when these benefits are most needed. Ideally, to truly understand how these costs increase during a recession, data requirements include: a) the natural increase in health/welfare enrollment due to population and demographics and b) the increase in health/welfare enrollment due to an increase in the number of families qualifying for these services due to job loss or reductions in household income caused by the recession. This type of detailed data was not available for this report, so more general, secondary data sources were utilized.

To make analysis of the increase in health/welfare enrollment and costs even more difficult, Arizonans passed Proposition 204 during FY2002, which expanded eligibility in the program.

According to the Report Highlights of the Financial Report of the Office of the Auditor

General of the State of Arizona, June 30, 2002, "Health and welfare expenditures increased \$955 million or 21 percent between FY2001 and FY2002. The largest increase occurred in programmatic costs for the Arizona Health Care Cost Containment System (AHCCCS). These expenditures increased approximately \$939 million, or 39 percent."

Continuing, this report stated: "A large increase in program membership and inflationary trends for health care cost has led to an increase in AHCCCS expenditures. . . . [T]he AHCCCS program membership increased by more than 172 thousand members, or 29 percent, during fiscal year 2002. The declining Arizona economy and increased enrollment due to the implementation of Proposition 204, a ballot initiative passed by voters on November 7, 2000 has led to this membership growth. The initiative expanded eligibility for the Title XXIX Medicaid program to 100 percent of the federal poverty level. Inflationary trends for healthcare costs are incorporated into the rate development process when determining capitation rates that the AHCCCS pays to healthcare providers. The capitation rate for the October 1, 2001, through September 30, 2002, contract year was adjusted upward by approximately 7 percent to account for inflationary growth."

From this information, it is very difficult to tell what portion of the 29% increase in caseloads was due to Prop 204 and what portion was due to the recession. For purposes of this discussion, it is assumed that recession-induced caseloads accounted for one-third of the increase, or 10%. When this figure is combined with the 7% increase in inflationary agreements with providers, the resulting estimate of a 17% increase associated with the recession is not too dissimilar to a 13% nation-wide estimate of increases in Medicaid costs reported by the Council of State Governments. Arizona's cost increase would be expected to be somewhat higher because of population effects and because Arizona already has most of its caseload in managed care, a shift other states are still making.

Since AHCCCS represents the bulk of the Health and Welfare portion of the General Fund and the Health and Welfare portion represents close to half of the General Fund expenditures, then we will assume that recession-induced demands on the general

funds increased expenditures by approximately 8%, in FY2002.

SUMMARY AND CONCLUSIONS

The BSF, as currently designed, has failed to adequately serve the needs of the state. The fund is limited to 7% of the General Fund, but the three major sources of revenue – sales, individual income, and corporate income taxes – can fall by as much as 2%, 15% and 30%, respectively per year, during economic downturns. The weighted average of these as they are represented in recent fiscal years, implies that the big-three revenue sources can fall between 9% and 10% in one year during a recession, in nominal dollars. Since these revenue sources comprise 94 percent of all tax revenues to the General Fund, the seven percent limit is too low to adequately cover the potential revenue loss of even one year of a recession.

A 10% reduction in nominal revenues represents a 14% to 16% reduction in the state's ability to provide services to the ever-growing population in an increasingly expensive environment.

To make matters worse, recessions typically impact more than one fiscal budget. Recessions typically impact revenues for three years, showing slow growth one year, negative growth the next, and flat or slow growth the third year. Revenue growth that is less than the combined population growth and inflation, represents an erosion in "real per capita" state government revenues. As soon as state revenues fall below the combined growth in population and increases in the costs of providing those services, cuts in government service levels are the logical result.

Assume a typical recession that starts with a year of slow revenue growth that just meets population growth and inflation. In the second year, the recession may cause nominal revenues to drop by 9% to 10%, representing a drop in purchasing power of 14% to 15% due to population growth and inflation. In the third year of the recession, revenue growth may be flat, representing a 4% to 6% decline in government purchasing power.

The funding formulas are designed only to smooth out revenue fluctuations, not to account for recession-induced increases in the number of families qualifying for public support and health care. As estimated above, health and welfare expenditures associated with the recession may increase

demands on the General Fund by 8%, including both increases in caseloads and increases in costs of services. This higher than normal expenditure level can last for multiple years. Increases in Arizona's healthcare and welfare caseloads typically are either voter mandated or formula driven.

The combination of volatile revenues, recessions that last more than one fiscal year, continued population growth and rising prices, and the burgeoning of families eligible for social services during a recession suggests that the Budget Stabilization Fund limit be increased to 30% to 35% of the General Fund. This range represents the sum of a one-year decline in nominal General Fund revenues of 9%, an extra 4% to 6% to account for population growth and inflation during that year, an additional 4% to 6% to account for population growth and inflation during the year that revenues are typically flat, and perhaps two years of significantly higher (8%) health and welfare expenditures.

It is important for voters, politicians and policy makers to understand that a fully-funded BSF will help not only the public/government sector during the next recession, but will help the entire state economy by acting as a strong counter-cyclical stimulus. The use of the BSF during a recession provides direct stimulus to the state by a) avoiding substantial reductions in the government sector at a time when other segments of the economy are weak and b) avoiding major cuts in health and welfare benefits that can have a federal to state match ranging from 1 to 1 up to 6 to 1. This federal flow of funds into Arizona can also act as a strong counter-cyclical force.

In addition to the current BSF fund cap being extremely low, there are other problems associated with the BSF. It appears that the transfer formulas are too conservative to provide for substantial payouts during downturns. Clearly the "less than 2% growth" requirement should be removed from the formula. It was not in the original design of the BSF nor does it make sense. Even during severe economic downturns, Arizona's population continues to grow by 2% or more, making this requirement almost impossible to meet. The calendar year prior to FY2002 showed growth in adjusted deflated personal income greater than 2% due to strong population growth; thus, the formula would have triggered \$0 in FY2002.

By deflating personal income to remove the effects of inflation in the formula, the resulting figures represent mostly population growth. Perhaps alternative formulas that compare per capita deflated personal income can be devised. The advantage of this type of alternative formula is that the resulting figures would pick up a recession faster. A major disadvantage of this type of formula is that accurate and timely population measures would be required.

While established to smooth fluctuations in state revenues, the BSF fund has been raided for unplanned expenditures not related to the business cycle. The state should establish a separate contingency fund that is designed to cover financial emergencies, such as the Alternative Fuels program or possibly major lawsuits that could significantly impact state expenditures. This contingency fund should be paid back in a promptly manner to assure it's availability in the next non-recession-induced crisis.

A BSF is, by far, the best way to provide sound financial management in a very cyclical state with highly volatile revenue sources. The BSF is an excellent tool for fiscal management. By smoothing revenue/expenditure flows during the business cycle, the BSF can not only reduce the havoc on government services created by severe economic downturns, but the BSF can act as a counter-cyclical force, both by maintaining state government spending levels during the recession and by attracting substantial federal dollars through its safety net programs. ■

Recommendations:

- Establish the BSF via an Amendment to the Arizona State Constitution. The BSF is a necessary fiscal management tool in a state that has a very cyclical economy, volatile revenue sources, and a super-majority requirement for raising taxes. The Amendment should provide guidelines for how the fund may be used.
- The BSF should be capped at 30-35% of the General Fund in order to avoid enormous cuts in public services during the next recession. This level allows for one year of slowdown, one year of recession, and one year of zero growth in revenues. In addition to preparing for recession-reduced revenues, this 30-35% level allows for the increase in formula-driven health and welfare expenditures that occur during a recession.
- The funding formula must be revised. At a minimum, the "less than 2%" requirement must be removed. The existing formula cannot trigger funding flows from the BSF that will adequately cover both the fall in revenues and the increase in expenditures associated with a recession.
- Establish a separate "contingency fund" for non-recession-related emergencies, such as the Alternative Fuels Program and major lawsuits. Monies used from this fund should be paid back in a prompt manner.



Economic Outlook Luncheon

Friday, December 5, 2003

Noon - 2:00 pm

Westin La Paloma, Tucson

Presentations by:

Marshall J. Vest, Economic and Business Research Program

Gerald J. Swanson, Economics Department

Mark Zupan, Dean, Eller College of Business and Public Administration

Reserve now and save:

\$65.00 per person; \$650 per table of 10*

After November 3: \$70.00 per person; \$700 per table of 10*

Reservations required. Call 621-9954 for information and reservations.

*Fee is not a charitable contribution.

The University of Arizona

Eller College of Business and Public Administration

NEW DATA, NEW MODELS

By Marshall J. Vest
Forecasting Project Director
August 31, 2003

Arrival of NAICS data (regional employment and income based on the new North American Industrial Classification System) required rebuilding of our regional models. We are pleased to report that this gargantuan task is complete. Our first forecasts with these new models look much like the forecasts from last quarter. We continue to expect solid improvement in the months ahead, setting the stage for "trend" growth in 2004 and beyond.

In March, the Arizona Department of Economic Security released its annual rebenchmarked estimates of employment, and in the process, provided analysts with their first look at industry employment using the new North American Industry Classification System (NAICS). Then in July, the Regional Economic Information System office of the U.S. Bureau of Economic Analysis released NAICS-based personal income estimates for states and metro areas.

NAICS provides 20 broad industrial sectors, up from 10 divisions under the old SIC system. The new system provides much more detail for services and less for goods producing industries. Many of the new sectors are recognizable from the old SIC system, others represent combinations of pieces from different SIC divisions, and

several are brand new industries recognized for the first time. A detailed description of NAICS is available at <http://www.census.gov/epcd/www/naics.html>.

The data is more comprehensive and descriptive of today's economic structure, but the time dimension is short. For employment, historical data only back to 1990 was provided. For personal income, only 2001-2002.

Using data archived in EBR's databases along with information posted on the U.S. Bureau of Labor Statistics (BLS) website showing correspondence between NAICS and SIC, we were able to reconstruct additional historical employment data for the published NAICS sectors. Statewide, we now have monthly estimates beginning in 1966 for most sectors. For the metro Phoenix and Tucson areas, the data mostly commonly begins in 1975, although some stretch back into the 1960s. The extra historical data allows us to incorporate three business cycles into employment equations for each published sector.

We are investigating the possibility of extending the personal income history. Without industry detail, we were forced to significantly restructure the personal income and wage rate blocks in our models, essentially eliminating industry detail. We were able to estimate private (the aggregate across industries) and government wage bills (individually for federal civilian, federal military, and state & local). Similar aggregation was used for wage rates.

The new Arizona model contains forecasts for 88 measures of economic activity. The metro Phoenix model numbers 84, while metro Tucson has 70. In addition to employment, wages and personal income, the models simultaneously determine population, migration flows, residential building activity, retail sales, unemployment and a number of other aggregate economic measures.

RECENT EVIDENCE

New employment data show that the recovery is over – and that we have entered the expansion phase of the new business cycle. Since bottoming in December 2001, nonfarm employment in Arizona has grown 1.4% (32,000 new jobs over 18 months). At 2,280,000 (seasonally adjusted), employment stands at an all-time record high. Job creation so far has been quite modest when compared to historical norms,

but the economy is creating jobs – a process that is expected to accelerate in coming months ([Exhibit 1](#)).

The shaded box in Exhibit 1 marks the officially recognized period of national recession. The National Bureau of Economic Research (NBER) recently declared that the 2001 recession ended in November of that year. Even though the recession ended nearly two years ago, nonfarm employment nationwide continues to slide. The Coincident Index, which is used in the business cycle dating process, is comprised of four components: nonfarm payrolls, personal income less transfers, industrial production, and manufacturing and trade sales. The other three components have turned upward, if ever so slightly, while employment shrinks.

Exhibit 1 suggests that the recession in Arizona started a couple of months earlier and lasted a couple of months longer. But, Arizona's nonfarm payrolls are in much better shape than nationwide and are at least headed in a positive direction. Moreover, the recession was very mild, much like the 1990-91 recession.

Recent results are quite uneven across Arizona's industries. Mining, manufacturing and information sectors are still declining, posting job losses over the past 12 months (ending in June) of 300, 9600 and 3200,

(continued on page 8)

S P O N S O R S

*Arizona Department of Commerce
Arizona Joint Legislative Budget Committee
Arizona Public Service Company
Bank One Arizona
CB Richard Ellis
City of Glendale
City of Mesa
City of Tucson
Compass Bank
Elliott D. Pollack and Company
KB Home
Merrill Lynch
Pascua Yaqui Tribe
Pima Association of Governments
Pima County
Salt River Project
Tucson Electric Power Company
Tucson Newspapers*

WE WERE ABLE TO
RECONSTRUCT ADDITIONAL
HISTORICAL EMPLOYMENT
DATA FOR THE PUBLISHED
NAICS SECTORS. STATEWIDE,
WE NOW HAVE MONTHLY
ESTIMATES BEGINNING IN 1966.

F O R E C A S T T A B L E S

Forecasts for Arizona	2002	2003	2004	2005	2006	2007	2008
Personal Income (\$ mill)	142486.2	148066.1	155988.5	166307.7	177917.8	191115.0	207323.6
percent change	3.8	3.9	5.4	6.6	7.0	7.4	8.5
Wage per Employee (Dollars)	35225	36146	37290	38587	39960	41468	43284
percent change	2.9	2.6	3.2	3.5	3.6	3.8	4.4
Aggregate Retail Sales (\$ mill)*	56154.5	58433.2	60319.4	64164.4	68189.4	72289.1	77075.7
percent change	1.3	4.1	3.2	6.4	6.3	6.0	6.6
Population (000s, mid-year)	5472.8	5631.3	5778.1	5936.2	6111.8	6287.4	6467.3
percent change	2.9	2.9	2.6	2.7	3.0	2.9	2.9
Residential Permits	63124	61044	53576	56480	57487	57815	60946
percent change	12.5	-3.3	-12.2	5.4	1.8	0.6	5.4
Non Farm Employment (000s)	2263.1	2292.4	2355.9	2446.6	2535.3	2627.3	2736.3
percent change	-0.1	1.3	2.8	3.8	3.6	3.6	4.2
Goods-Producing	366.5	365.6	376.4	386.7	388.3	391.6	397.0
percent change	-4.8	-0.2	3.0	2.7	0.4	0.8	1.4
Service-Providing	1896.7	1926.9	1979.6	2060.0	2147.1	2235.8	2339.4
percent change	0.9	1.6	2.7	4.1	4.2	4.1	4.6
Trade, Trans., & Utilities	441.9	449.2	462.4	481.3	501.4	520.8	541.9
percent change	0.3	1.7	2.9	4.1	4.2	3.9	4.0
Prof. & Business Services	312.2	315.8	326.7	348.8	373.3	396.6	421.8
percent change	-2.4	1.1	3.5	6.8	7.0	6.2	6.3
Leisure & Hospitality	229.2	231.7	236.4	247.0	256.5	265.5	278.4
percent change	-0.3	1.1	2.0	4.5	3.9	3.5	4.8
Government	387.5	390.3	393.1	399.7	407.5	415.8	424.2
percent change	2.6	0.7	0.7	1.7	1.9	2.0	2.0
Phoenix-Mesa Metro Area							
Personal Income (\$ mill)	98294.3	101574.5	107188.9	114470.0	123174.1	133148.1	144478.4
percent change	2.3	3.3	5.5	6.8	7.6	8.1	8.5
Earnings per Employee (Dollars)	36991	37875	39240	40713	42322	44101	46082
percent change	1.3	2.4	3.6	3.8	4.0	4.2	4.5
Aggregate Retail Sales (\$ mill)*	38114.2	40030.3	41321.3	44340.1	47598.5	50811.9	54312.4
percent change	0.6	5.0	3.2	7.3	7.3	6.8	6.9
Population (000s, mid-year)	3488.6	3593.9	3689.1	3800.8	3921.4	4043.0	4165.8
percent change	3.2	3.0	2.6	3.0	3.2	3.1	3.0
Residential Permits	47899	45480	37034	42839	44573	43015	41429
percent change	3.9	-5.0	-18.6	15.7	4.0	-3.5	-3.7
Non Farm Employment (000s)	1600.6	1622.4	1672.0	1741.3	1813.1	1886.8	1964.1
percent change	0.2	1.4	3.1	4.1	4.1	4.1	4.1
Goods-Producing	271.2	270.9	282.4	289.4	293.2	297.5	298.9
percent change	-4.4	-0.1	4.3	2.5	1.3	1.5	0.4
Service-Providing	1329.6	1351.6	1389.6	1451.9	1520.0	1589.3	1665.2
percent change	1.2	1.7	2.8	4.5	4.7	4.6	4.8
Trade, Trans., & Utilities	326.4	332.2	339.8	356.0	374.2	392.9	412.8
percent change	0.6	1.8	2.3	4.8	5.1	5.0	5.1
Prof. & Business Services	254.6	252.9	256.5	272.7	292.8	311.3	329.0
percent change	-1.8	-0.7	1.4	6.3	7.4	6.3	5.7
Leisure & Hospitality	150.6	153.7	163.9	173.1	181.0	188.0	195.7
percent change	-1.3	2.1	6.6	5.6	4.6	3.9	4.1
Government	211.6	215.0	217.4	221.7	226.3	230.9	235.2
percent change	4.0	1.6	1.1	2.0	2.1	2.0	1.8
Tucson Metro Area							
Personal Income (\$ mill)	22331.4	23146.3	24466.4	25921.6	27732.4	29916.8	32392.3
percent change	4.4	3.6	5.7	5.9	7.0	7.9	8.3
Earnings per Employee (Dollars)	30535	31326	32357	33428	34571	35831	37259
percent change	1.6	2.6	3.3	3.3	3.4	3.6	4.0
Aggregate Retail Sales (\$ mill)*	8707.2	8998.9	9335.9	9803.4	10352.4	11006.3	11738.8
percent change	0.6	3.4	3.7	5.0	5.6	6.3	6.7
Population (000s, mid-year)	890.5	906.8	925.9	946.6	968.1	991.6	1016.8
percent change	2.3	1.8	2.1	2.2	2.3	2.4	2.5
Residential Permits	7999	7954	7926	7214	7298	7603	7918
percent change	-1.9	-0.6	-0.4	-9.0	1.2	4.2	4.1
Non Farm Employment (000s)	347.7	353.1	366.2	380.0	395.1	412.5	430.8
percent change	0.1	1.5	3.7	3.8	4.0	4.4	4.4
Goods-Producing	56.3	55.6	57.3	58.8	60.5	63.3	65.5
percent change	-2.1	-1.2	3.0	2.6	3.0	4.5	3.6
Service-Providing	300.5	306.7	318.2	330.6	344.0	358.8	374.9
percent change	3.6	2.1	3.7	3.9	4.1	4.3	4.5
Trade, Trans., & Utilities	55.8	57.0	59.3	61.2	63.3	65.8	68.5
percent change	0.9	2.1	4.0	3.3	3.4	3.9	4.1
Prof. & Business Services	40.3	41.9	44.9	48.1	51.8	55.7	60.3
percent change	-2.5	4.0	7.1	7.2	7.7	7.6	8.2
Leisure & Hospitality	38.0	38.3	40.7	43.2	45.3	47.5	49.9
percent change	-0.5	0.7	6.3	6.1	5.0	4.7	5.2
Government	77.7	78.5	80.3	82.6	85.3	88.2	91.3
percent change	1.1	1.1	2.2	2.9	3.2	3.5	3.5

* Aggregate Retail Sales includes retail, food, restaurant & bars and gasoline sales.

Source: Economic and Business Research Program, Karl Eller Graduate School of Management, Eller College of Business and Public Administration, The University of Arizona

(continued from page 6)

respectively. Within manufacturing, computers and electronic products accounts for 4400 of the losses, aerospace 1300, fabricated metals 700, and nondurable goods 300. Today there are only 8,400 miners in Arizona, accounting for less than four-tenths of one percent.

Financial activities and professional & business services both are recovering, but job counts remain below their pre-recession peaks. Neither industry has shown much growth in the past six months. However, these sectors could see significant upward-revisions next winter when the estimates are revised in the annual "rebenchmarking" process.

All remaining sectors report employment at record levels. Education and health services, which accounts for 10.5% of all jobs, has created the largest number of new jobs during the past year, 13,800. (Educational services represents private companies such as the University of Phoenix, Sylvan Learning Center, Embry Riddle Aeronautical University, private schools and many other non tax-supported entities. Public education is a component of government.) The construction industry added 5600 jobs, and trade, transportation & utilities (TTU) added 3500. Government payrolls increased by only 1600 during the

past year and virtually none over the past six months, reflecting budget challenges at state and local levels. Other services accounts for 1300 and leisure & hospitality for 900 new jobs. The latter category, which reflects tourism activity, just recently regained all the jobs lost in the wake of terrorist attacks at WTC and Pentagon nearly two years ago and its pre-recession peak established in the first quarter of 2001.

THE OUTLOOK FOR ARIZONA

Educational and health services, construction, retail sectors related to homebuilding, the federal government and public education will lead the expansion going forward. Recent positive news for manufacturing means that a turnaround is near, and losses in the information sector also appear to be moderating. Both should contribute to job creation soon. Travel and tourism will continue to improve and business services will soon be growing robustly again. Population growth will continue at high levels and support residential construction, helping offset rising interest rates and declining affordability. Remaining sectors will strengthen so that by year end, the stage will be set for solid expansion.

For all of 2003, Arizona will create nearly 30,000 jobs. In 2004, look for 63,000 new

EDUCATIONAL AND HEALTH SERVICES, CONSTRUCTION, RETAIL SECTORS RELATED TO HOMEBUILDING, THE FEDERAL GOVERNMENT AND PUBLIC EDUCATION WILL LEAD THE EXPANSION GOING FORWARD.

jobs, and over 90,000 the following year. (Exhibit 2).

Personal income growth will improve from roughly four percent in 2003 to 5.4% next year and 6.6% in 2005. Corresponding growth for retail sales shows improvement from 2.2% to 3.7% to 6.8%. Residential construction will backtrack but remain at lofty levels compared to prior cycles. A pullback of 10-15% next year is expected.

Forecast for selected measures are shown in the table on page 7.

The nation's economists are increasingly agreeing that the economy will strengthen significantly in coming months. Our new models show that we can expect the same for Arizona. ■

EXHIBIT 1 The Expansion Phase Begins

Nonfarm Employment, AZ (seasonally adjusted)

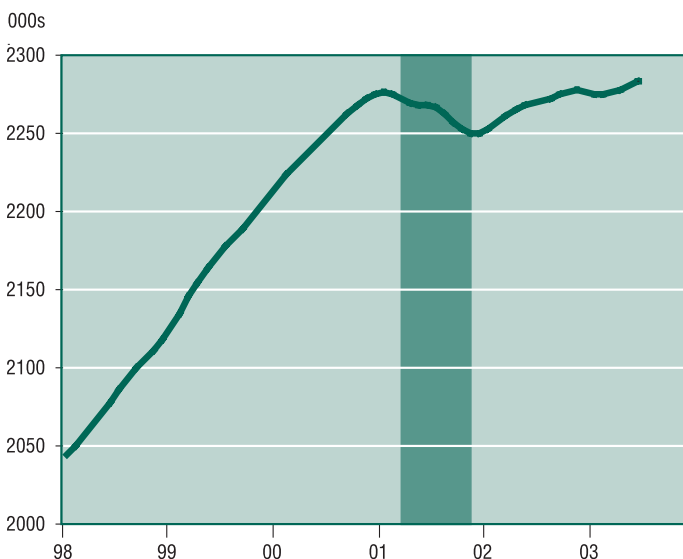
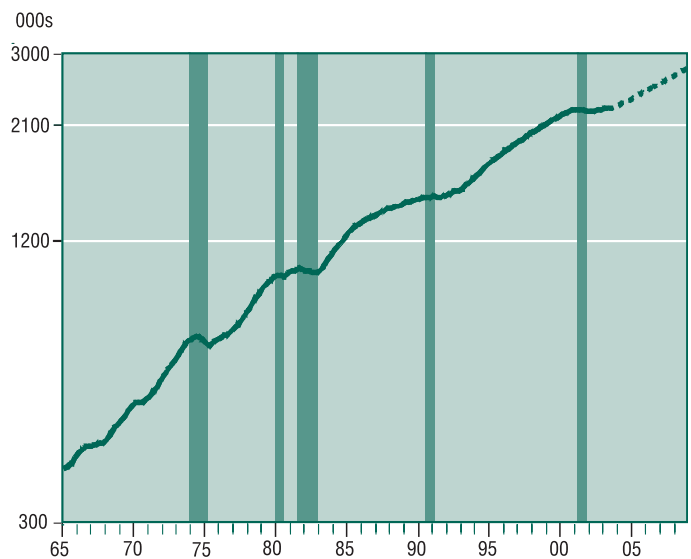


EXHIBIT 2 Trend-line Growth Expected

Nonfarm Employment, AZ (seasonally adjusted)



A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
APACHE COUNTY							
Civilian Labor Force, ADES							
Employment	21,200	21,275	21,450	22,375	21,975	-2.7	0.7
Unemployment	18,300	18,425	18,750	18,425	17,800	-3.4	-1.0
Unemployment Rate (%)	2,900	2,850	2,700	3,950	4,175	0.6	12.7
	13.7	13.4	12.6	17.7	19.0	3.3	12.2
Employees on Nonagricultural Payrolls, ADES							
Total	19,025	19,100	19,375	18,800	18,000	-2.3	-1.2
Total Private	6,125	6,225	6,400	6,425	6,300	-6.7	-3.3
Goods-Producing	725	725	750	750	750	-3.2	-1.7
Service-Providing	18,300	18,375	18,625	18,050	17,250	-2.3	-1.2
Trade, Transportation, and Utilities	1,425	1,425	1,450	1,500	1,500	-16.7	-3.7
Other Private Service-Providing	3,975	4,075	4,200	4,175	4,050	-3.0	-3.5
Government	12,900	12,875	12,975	12,375	11,700	0.2	-0.1
Federal Government	2,825	2,800	2,900	2,975	2,575	1.0	-0.7
State and Local Government	10,075	10,075	10,075	9,400	9,125	0.0	0.1
Sales (\$000s) ADOR							
Gross Retail	9,451	9,329	10,702	11,584	...	-0.9	6.6
Retail	4,337	4,130	4,899	6,042	...	-10.0	-1.7
Restaurants & Bars	631	620	861	966	...	-3.6	-2.3
Gasoline, EBR	4,483	4,579	4,942	4,576	...	15.3	20.4
Gallons (000s) ADOT	2,244	2,385	2,879	2,761	...	1.1	-0.1
Contracting	3,747	8,647	4,656	7,637	...	9.4	11.6
Hotel/Motel	731	731	1,118	1,230	...	9.9	4.0
New Housing Units Authorized, Census C-40							
Total Units	4	8	13	9	...	28.6	5.6
Single Family Units	4	8	13	9	...	28.6	5.6
NAVAJO COUNTY							
Civilian Labor Force, ADES							
Employment	34,350	34,225	34,525	35,725	35,700	-2.1	0.1
Unemployment	30,625	30,850	31,100	31,075	30,700	-1.5	-0.6
Unemployment Rate (%)	3,725	3,375	3,425	4,650	5,000	-5.7	6.3
	10.8	9.9	9.9	13.0	14.0	-3.6	6.4
Employees on Nonagricultural Payrolls, ADES							
Total	27,550	27,650	27,775	27,375	26,775	-0.5	-0.8
Total Private	16,500	16,675	17,050	17,125	17,100	0.6	0.5
Goods-Producing	3,125	3,175	3,225	3,325	3,325	-2.9	-3.6
Natural Resources and Mining	875	900	925	975	950	0.0	-6.7
Construction	1,425	1,450	1,475	1,500	1,525	-6.2	-4.1
Manufacturing	825	825	825	850	850	0.0	1.0
Service-Providing	24,425	24,475	24,550	24,050	23,450	-0.1	-0.5
Trade, Transportation, and Utilities	5,500	5,475	5,575	5,600	5,600	4.2	4.2
Information	550	575	550	575	600	14.3	4.0
Financial Activities	625	625	625	625	575	0.0	-4.5
Professional and Business Services	925	900	875	850	850	-2.9	9.7
Educational and Health Services	2,550	2,550	2,575	2,375	2,350	-5.1	-1.7
Leisure and Hospitality	2,425	2,625	2,850	3,000	3,025	3.4	-0.4
Other Services	800	750	775	775	775	-6.1	-3.1
Government	11,050	10,975	10,725	10,250	9,675	-2.3	-2.9
Federal Government	1,425	1,450	1,525	1,600	1,425	-12.3	-9.5
State and Local Government	9,625	9,525	9,200	8,650	8,250	-0.3	-1.8
Sales (\$000s) ADOR							
Gross Retail	54,964	59,580	67,393	70,639	...	16.2	9.9
Retail	41,797	44,972	50,080	53,617	...	13.5	7.9
Restaurants & Bars	4,991	5,085	6,256	6,845	...	-2.5	3.5
Gasoline, EBR	8,176	9,523	11,057	10,177	...	55.0	32.7
Gallons (000s) ADOT	4,093	4,961	6,443	6,140	...	35.9	9.3
Contracting	8,704	10,263	12,040	14,948	...	19.8	1.4
Hotel/Motel	2,064	2,064	2,553	3,045	...	11.9	-1.0
New Housing Units Authorized, Census C-40							
Total Units	22	39	28	40	...	-4.8	-9.4
Single Family Units	22	39	28	40	...	8.1	-7.2

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
GRAHAM COUNTY							
Civilian Labor Force, ADES							
Employment	10,150	10,050	10,050	10,100	9,900	-10.8	-6.9
Unemployment	9,375	9,350	9,325	9,300	9,025	-10.4	-7.4
Unemployment Rate (%)	775	700	725	800	875	-14.6	-1.0
Unemployment Rate (%)	7.6	7.0	7.2	7.9	8.8	-4.3	6.1
Employees on Nonagricultural Payrolls, ADES							
Total	6,475	6,475	6,450	6,300	6,025	-9.4	-8.6
Total Private	4,200	4,225	4,300	4,350	4,125	-6.3	-1.9
Goods-Producing	425	425	450	450	425	-10.5	-3.2
Service-Providing	6,050	6,050	6,000	5,850	5,600	-9.3	-9.0
Trade, Transportation, and Utilities	1,475	1,475	1,450	1,500	1,450	-1.7	1.3
Other Private Service-Providing	2,300	2,325	2,400	2,400	2,250	-8.2	-3.6
Government	2,275	2,250	2,150	1,950	1,900	-15.6	-19.4
Federal Government	325	325	325	375	400	0.0	4.3
State and Local Government	1,950	1,925	1,825	1,575	1,500	-18.9	-22.8
Sales (\$000s) ADOR							
Gross Retail	15,128	15,592	16,246	14,440	...	7.2	4.6
Retail	11,599	12,072	12,779	11,723	...	7.8	2.1
Restaurants & Bars	1,398	1,696	1,777	1,439	...	17.8	5.2
Gasoline, EBR	2,131	1,824	1,690	1,278	...	-7.5	27.4
Gallons (000s) ADOT	1,067	950	985	771	...	-18.9	4.7
Contracting	2,058	3,874	3,308	3,713	...	4.8	-13.7
COCONINO COUNTY							
Civilian Labor Force, ADES							
Employment	64,100	64,400	65,375	68,450	70,050	-2.9	-1.1
Unemployment	59,950	60,825	61,600	63,450	64,575	-4.3	-1.7
Unemployment Rate (%)	4,150	3,575	3,775	5,000	5,475	15.9	8.2
Unemployment Rate (%)	6.5	5.6	5.8	7.3	7.8	19.4	9.4
Employees on Nonagricultural Payrolls, ADES							
Total	56,800	57,275	57,200	58,175	58,675	-3.8	-1.8
Total Private	38,225	38,625	39,375	40,225	40,750	0.8	2.1
Goods-Producing	5,475	5,425	5,525	5,575	5,525	-5.6	-1.1
Natural Resources and Mining	125	125	125	125	125	0.0	-6.3
Construction	2,175	2,125	2,200	2,250	2,225	-16.8	-13.6
Manufacturing	3,175	3,175	3,200	3,200	3,175	4.1	10.9
Service-Providing	51,325	51,850	51,675	52,600	53,150	-3.6	-1.9
Trade, Transportation, and Utilities	9,500	9,575	9,600	9,725	9,850	0.3	5.5
Information	425	425	425	425	425	-10.5	-11.0
Financial Activities	1,400	1,375	1,400	1,425	1,425	-6.6	-1.7
Professional and Business Services	2,500	2,500	2,550	2,625	2,650	-5.4	-0.6
Educational and Health Services	6,525	6,550	6,625	6,675	6,775	8.0	2.4
Leisure and Hospitality	10,675	11,000	11,450	11,950	12,250	2.9	1.6
Other Services	1,725	1,775	1,800	1,825	1,850	4.2	8.2
Government	18,575	18,650	17,825	17,950	17,925	-12.8	-9.2
Federal Government	3,075	3,150	3,375	3,600	3,625	-5.2	-2.0
State and Local Government	15,500	15,500	14,450	14,350	14,300	-14.5	-10.7
Sales (\$000s) ADOR							
Gross Retail	103,164	106,206	116,644	125,362	...	-14.8	0.4
Retail	66,889	69,471	78,637	83,742	...	-17.5	-0.3
Restaurants & Bars	20,433	20,876	23,260	25,426	...	-1.4	0.7
Gasoline, EBR	15,842	15,859	14,747	16,194	...	-18.1	3.5
Gallons (000s) ADOT	7,930	8,261	8,593	9,771	...	-28.2	-12.8
Contracting	20,622	21,591	23,860	27,336	...	9.9	7.8
Hotel/Motel	12,119	12,119	16,515	20,539	...	4.1	0.4
New Housing Units Authorized, Census C-40							
Total Units	57	79	62	104	...	92.6	-8.1
Single Family Units	42	79	62	70	...	40.0	-14.3

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
GREENLEE COUNTY							
Civilian Labor Force, ADES							
Employment	3,775	3,800	3,800	3,900	3,925	-2.5	-5.0
Unemployment	3,500	3,525	3,525	3,600	3,600	-2.0	-3.1
Unemployment Rate (%)	275	275	275	300	325	-7.1	-22.9
Unemployment Rate (%)	7.3	7.2	7.2	7.7	8.3	-4.8	-18.8
Employees on Nonagricultural Payrolls, ADES							
Total	3,550	3,575	3,550	3,575	3,550	-0.7	-3.3
Total Private	3,025	3,025	3,000	3,050	3,025	-0.8	-3.8
Goods-Producing	2,375	2,375	2,375	2,400	2,375	0.0	-4.8
Service-Providing	1,175	1,200	1,175	1,175	1,175	-2.1	0.0
Trade, Transportation, and Utilities	275	275	275	275	275	0.0	-1.5
Other Private Service-Providing	375	375	350	375	375	-6.3	1.7
Government	525	550	550	525	525	0.0	-0.4
Federal Government	50	50	50	50	50	0.0	17.6
State and Local Government	475	500	500	475	475	0.0	-1.7
Sales (\$000s) ADOR							
Gross Retail	7,204	6,898	6,502	5,879	...	27.1	18.8
Retail	6,594	6,276	5,931	5,414	...	30.7	21.0
Restaurants & Bars	260	218	242	222	...	2.8	-9.7
Gasoline, EBR	350	404	329	243	...	-9.4	7.2
Gallons (000s) ADOT	175	210	192	146	...	-20.6	-11.8
Contracting	2,735	1,218	647	1,626	...	164.4	72.4
Hotel/Motel*	374	374	376	421	...	-25.5	-3.7
* Includes Graham County data.							
YAVAPAI COUNTY							
Civilian Labor Force, ADES							
Employment	81,050	82,275	83,050	82,575	82,800	1.2	4.3
Unemployment	78,325	79,575	80,375	79,800	79,875	1.4	4.4
Unemployment Rate (%)	2,725	2,700	2,675	2,775	2,925	-4.1	-0.4
Unemployment Rate (%)	3.4	3.3	3.2	3.4	3.5	-5.3	-4.4
Employees on Nonagricultural Payrolls, ADES							
Total	54,000	54,325	54,750	54,050	53,425	1.7	3.6
Total Private	43,350	43,625	43,900	44,150	44,200	2.1	4.3
Goods-Producing	9,450	9,475	9,550	9,675	9,775	-0.8	1.8
Natural Resources and Mining	850	850	850	875	875	-5.4	-10.5
Construction	5,400	5,425	5,525	5,600	5,675	0.0	3.6
Manufacturing	3,200	3,200	3,175	3,200	3,225	-0.8	2.4
Service-Providing	44,550	44,850	45,200	44,375	43,650	2.3	4.1
Trade, Transportation, and Utilities	10,250	10,375	10,400	10,225	10,275	1.2	2.8
Information	700	700	700	675	675	3.8	9.0
Financial Activities	1,800	1,825	1,825	1,850	1,900	5.6	4.8
Professional and Business Services	4,525	4,700	4,700	4,975	4,975	11.8	16.6
Educational and Health Services	7,600	7,625	7,625	7,550	7,475	0.3	3.4
Leisure and Hospitality	7,325	7,325	7,475	7,525	7,550	4.5	5.5
Other Services	1,700	1,600	1,625	1,675	1,575	-8.7	-5.5
Government	10,650	10,700	10,850	9,900	9,225	0.0	1.2
Federal Government	1,250	1,275	1,275	1,300	1,300	6.1	4.8
State and Local Government	9,400	9,425	9,575	8,600	7,925	-0.9	0.7
Sales (\$000s) ADOR							
Gross Retail	125,338	126,842	132,698	133,720	...	9.6	6.1
Retail	93,915	96,618	101,308	103,573	...	13.0	6.0
Restaurants & Bars	16,954	16,269	17,689	17,658	...	-13.5	-0.6
Gasoline, EBR	14,469	13,955	13,701	12,489	...	25.2	18.9
Gallons (000s) ADOT	7,243	7,269	7,983	7,535	...	9.8	-4.0
Contracting	33,761	41,260	39,654	44,656	...	12.2	6.3
Hotel/Motel	6,736	6,736	7,300	7,019	...	6.1	-1.9
New Housing Units Authorized, Census C-40							
Total Units	222	222	233	256	...	7.1	31.9
Single Family Units	202	188	217	238	...	12.3	16.3

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
GILA COUNTY							
Civilian Labor Force, ADES							
Employment	17,850	17,700	18,025	18,025	18,225	-6.5	-4.3
Unemployment	1,600	1,450	1,450	1,500	1,550	-7.5	7.1
Unemployment Rate (%)	9.0	8.2	8.0	8.3	8.5	-1.0	12.1
Employees on Nonagricultural Payrolls, ADES							
Total	13,125	13,050	13,300	13,125	13,075	-5.4	-5.4
Total Private	8,550	8,375	8,550	8,650	8,700	-5.7	-6.0
Goods-Producing	2,050	2,000	2,000	1,975	1,950	-16.1	-14.8
Service-Providing	11,075	11,050	11,300	11,150	11,125	-3.3	-3.4
Trade, Transportation, and Utilities	2,050	1,950	2,000	1,975	1,950	-11.4	-6.8
Other Private Service-Providing	4,450	4,425	4,550	4,700	4,800	2.1	-1.0
Government	4,575	4,675	4,750	4,475	4,375	-4.9	-4.3
Federal Government	450	475	525	550	550	-15.4	-14.1
State and Local Government	4,125	4,200	4,225	3,925	3,825	-3.2	-2.9
Sales (\$000s) ADOR							
Gross Retail	27,267	27,569	29,949	29,711	...	8.6	0.6
Retail	18,561	18,956	20,903	21,478	...	8.0	-1.6
Restaurants & Bars	3,616	3,366	4,363	4,348	...	-1.8	-2.7
Gasoline, EBR	5,090	5,247	4,683	3,885	...	27.5	19.8
Gallons (000s) ADOT	2,548	2,733	2,728	2,344	...	11.8	-2.9
Contracting	5,874	6,753	7,439	8,897	...	-12.0	0.8
Hotel/Motel	687	687	895	990	...	25.5	-10.4
MOHAVE COUNTY							
Civilian Labor Force, ADES							
Employment	73,850	74,250	74,950	75,775	76,525	0.5	1.8
Unemployment	3,625	3,400	3,425	3,800	4,075	-5.8	0.3
Unemployment Rate (%)	4.9	4.6	4.6	5.0	5.3	-6.2	-1.5
Employees on Nonagricultural Payrolls, ADES							
Total	45,450	45,725	45,900	45,300	44,925	3.4	2.8
Total Private	37,275	37,550	37,875	37,650	37,725	3.1	2.0
Goods-Producing	8,875	8,825	8,800	8,625	8,750	0.0	0.2
Natural Resources and Mining	75	75	75	75	75	-25.0	-14.0
Construction	5,800	5,725	5,675	5,475	5,525	-1.3	0.7
Manufacturing	3,000	3,025	3,050	3,075	3,150	3.3	-0.2
Service-Providing	36,575	36,900	37,100	36,675	36,175	4.3	3.4
Trade, Transportation, and Utilities	9,775	9,850	9,800	9,775	9,750	-1.5	-0.3
Information	925	900	900	925	900	0.0	0.2
Financial Activities	1,475	1,525	1,550	1,575	1,575	1.6	1.4
Professional and Business Services	3,350	3,375	3,525	3,550	3,525	8.5	7.3
Educational and Health Services	5,650	5,700	5,750	5,675	5,775	9.0	6.5
Leisure and Hospitality	4,975	5,150	5,325	5,275	5,225	7.7	0.3
Other Services	2,250	2,225	2,225	2,250	2,225	6.0	7.0
Government	8,175	8,175	8,025	7,650	7,200	5.1	6.5
Federal Government	500	500	475	500	500	-4.8	-4.0
State and Local Government	7,675	7,675	7,550	7,150	6,700	5.9	7.2
Sales (\$000s) ADOR							
Gross Retail	126,726	126,976	127,300	122,586	...	3.6	10.8
Retail	93,929	95,163	97,044	94,222	...	3.1	9.7
Restaurants & Bars	14,075	14,255	13,805	13,130	...	2.9	3.6
Gasoline, EBR	18,722	17,558	16,451	15,234	...	7.1	27.6
Gallons (000s) ADOT	9,372	9,146	9,586	9,191	...	-6.1	4.9
Contracting	29,433	35,539	8,600	34,539	...	11.2	2.3
Hotel/Motel	3,450	3,450	3,843	3,894	...	24.6	4.8
New Housing Units Authorized, Census C-40							
Total Units	318	272	304	338	...	47.6	26.7
Single Family Units	262	262	246	326	...	48.9	19.7

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
LA PAZ COUNTY							
Civilian Labor Force, ADES							
Employment	6,700	6,600	6,575	6,975	7,175	0.0	3.8
Unemployment	6,275	6,200	6,150	6,475	6,625	-1.9	3.0
Unemployment Rate (%)	425	400	425	500	550	29.4	17.3
	6.3	6.1	6.5	7.2	7.7	29.4	13.0
Employees on Nonagricultural Payrolls, ADES							
Total	4,925	4,900	4,875	4,975	5,000	-0.5	1.8
Total Private	2,550	2,550	2,525	2,600	2,525	-5.6	-3.0
Goods-Producing	300	325	325	350	325	-13.3	-6.6
Service-Providing	4,625	4,575	4,550	4,625	4,675	0.5	2.4
Trade, Transportation, and Utilities	1,250	1,275	1,250	1,250	1,200	-4.0	1.5
Other Private Service-Providing	1,000	950	950	1,000	1,000	-4.8	-7.2
Government	2,375	2,350	2,350	2,375	2,475	5.3	7.6
Federal Government	175	150	175	175	125	-16.7	6.9
State and Local Government	2,200	2,200	2,175	2,200	2,350	6.8	7.6
Sales (\$000s) ADOR							
Gross Retail	17,537	14,745	14,319	13,201	...	9.4	4.7
Retail	9,590	7,864	7,947	7,268	...	4.1	-1.0
Restaurants & Bars	2,274	1,700	1,808	1,849	...	16.8	-1.3
Gasoline, EBR	5,673	5,181	4,564	4,084	...	16.4	22.7
Gallons (000s) ADOT	2,840	2,699	2,659	2,464	...	2.1	-1.1
Contracting	1,637	2,146	2,552	714	...	-65.8	-25.5
Hotel/Motel	469	469	432	500	...		-1.4
YUMA METROPOLITAN REGION							
Civilian Labor Force, ADES							
Employment	66,175	68,575	75,025	75,975	77,675	-1.3	4.8
Unemployment	56,000	53,575	52,050	52,350	51,775	-2.5	3.2
Unemployment Rate (%)	10,175	15,000	22,975	23,625	25,900	1.3	10.3
	15.4	21.9	30.6	31.1	33.3	2.6	5.7
Employees on Nonagricultural Payrolls, ADES							
Total	46,000	44,175	42,725	41,500	40,550	-0.6	2.5
Total Private	32,750	30,675	29,250	29,000	28,925	-0.3	1.1
Goods-Producing	5,750	5,475	5,350	5,350	5,375	2.4	2.6
Natural Resources and Mining	25	25	25	25	25	0.0	0.0
Construction	3,600	3,600	3,600	3,625	3,725	8.8	11.2
Manufacturing	2,125	1,850	1,725	1,700	1,625	-9.7	-10.7
Service-Providing	40,250	38,700	37,375	36,150	35,175	-1.1	2.5
Trade, Transportation, and Utilities	9,775	8,250	7,375	7,400	7,400	-7.5	-2.9
Information	1,050	1,050	1,100	1,100	1,100	10.0	9.9
Financial Activities	1,400	1,375	1,350	1,350	1,325	3.9	4.7
Professional and Business Services	2,875	2,825	2,700	2,650	2,675	0.0	1.0
Educational and Health Services	5,650	5,525	5,400	5,400	5,400	5.9	8.6
Leisure and Hospitality	4,750	4,700	4,550	4,350	4,350	0.0	-2.5
Other Services	1,500	1,475	1,425	1,400	1,300	-3.7	-3.1
Government	13,250	13,500	13,475	12,500	11,625	-1.5	6.1
Federal Government	2,750	2,725	2,725	2,725	2,725	-0.9	2.2
State and Local Government	10,500	10,775	10,750	9,775	8,900	-1.7	7.2
Sales (\$000s) ADOR							
Gross Retail	123,118	105,128	89,870	94,080	...	1.4	7.7
Retail	92,015	80,968	66,891	72,390	...	0.1	5.8
Restaurants & Bars	13,883	10,208	10,527	10,388	...	7.6	5.1
Gasoline, EBR	17,220	13,952	12,452	11,302	...	4.2	24.8
Gallons (000s) ADOT	8,620	7,268	7,255	6,819	...	-8.6	1.4
Contracting	14,924	27,048	24,681	22,753	...	13.3	9.1
Hotel/Motel	3,366	3,366	2,487	1,618	...	-9.2	9.8
New Housing Units Authorized, Census C-40							
Total Units	134	162	179	181	...	63.1	35.1
Single Family Units	134	162	176	181	...	63.1	28.6

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
SANTA CRUZ COUNTY							
Civilian Labor Force, ADES							
Employment	13,950	13,975	13,925	14,475	14,525	-2.2	1.7
Unemployment	1,275	1,300	1,350	1,800	2,375	-7.8	-1.2
Unemployment Rate (%)	9.1	9.3	9.7	12.4	16.4	-5.7	-3.2
Employees on Nonagricultural Payrolls, ADES							
Total	12,600	12,550	12,425	12,275	11,650	0.4	1.8
Total Private	9,450	9,400	9,250	9,100	9,025	5.9	3.0
Goods-Producing	1,325	1,350	1,350	1,350	1,325	0.0	-0.8
Service-Providing	11,275	11,200	11,075	10,925	10,325	0.5	2.1
Trade, Transportation, and Utilities	5,275	5,225	5,125	4,975	4,900	12.0	7.3
Other Private Service-Providing	2,850	2,825	2,775	2,775	2,800	-0.9	-2.1
Government	3,150	3,150	3,175	3,175	2,625	-14.6	-1.6
Federal Government	1,075	1,100	1,125	1,100	1,175	0.0	0.4
State and Local Government	2,075	2,050	2,050	2,075	1,450	-23.7	-2.6
Sales (\$000s) ADOR							
Gross Retail	32,983	31,730	32,893	30,716	...	13.8	8.0
Retail	24,846	23,733	24,511	23,874	...	11.4	5.2
Restaurants & Bars	3,105	2,951	3,254	2,850	...	10.6	5.0
Gasoline, EBR	5,032	5,046	5,128	3,992	...	34.0	35.2
Gallons (000s) ADOT	2,519	2,628	2,988	2,408	...	17.5	8.5
Contracting	4,013	5,960	5,551	7,760	...	48.3	12.0
Hotel/Motel	1,091	1,091	835	666	...	-8.6	7.3
New Housing Units Authorized, Census C-40							
Total Units	51	54	41	38	...	2.7	12.7
Single Family Units	45	51	41	38	...	8.6	30.0
COCHISE COUNTY							
Civilian Labor Force, ADES							
Employment	46,125	46,325	46,675	46,250	46,025	-1.8	3.6
Unemployment	43,450	43,725	44,100	43,600	43,275	-2.0	3.3
Unemployment Rate (%)	2,675	2,600	2,575	2,650	2,750	0.9	7.3
Unemployment Rate (%)	5.8	5.6	5.5	5.7	6.0	2.8	3.8
Employees on Nonagricultural Payrolls, ADES							
Total	34,325	34,350	34,550	33,825	33,225	-0.9	2.8
Total Private	22,725	22,825	22,950	22,675	22,800	0.9	3.5
Goods-Producing	3,100	3,125	3,125	3,075	3,050	0.0	4.8
Natural Resources and Mining	25	25	25	50	50	100.0	16.7
Construction	2,125	2,125	2,125	2,100	2,075	-4.6	2.6
Manufacturing	950	975	975	925	925	8.8	10.0
Service-Providing	31,225	31,225	31,425	30,750	30,175	-1.0	2.6
Trade, Transportation, and Utilities	5,900	5,925	5,950	5,950	5,950	0.0	1.7
Information	500	500	500	500	500	5.3	1.7
Financial Activities	850	900	875	875	875	0.0	8.0
Professional and Business Services	3,500	3,500	3,600	3,450	3,575	-0.7	0.5
Educational and Health Services	3,575	3,600	3,600	3,600	3,650	0.0	1.8
Leisure and Hospitality	4,200	4,150	4,175	4,075	4,050	5.2	8.7
Other Services	1,100	1,125	1,125	1,150	1,150	0.0	4.4
Government	11,600	11,525	11,600	11,150	10,425	-4.6	1.4
Federal Government	4,500	4,500	4,525	4,600	4,625	1.6	2.6
State and Local Government	7,100	7,025	7,075	6,550	5,800	-9.0	0.6
Sales (\$000) ADOR							
Gross Retail	72,209	61,516	69,969	67,808	...	14.0	6.7
Retail	55,087	50,974	54,880	54,420	...	21.1	6.3
Restaurants & Bars	8,584	2,655	7,762	8,172	...	2.7	-3.8
Gasoline, EBR	8,538	7,887	7,327	5,216	...	-21.1	24.2
Gallons (000s) ADOT	4,274	4,108	4,269	3,147	...	-30.8	2.4
Contracting	13,442	22,162	14,994	17,043	...	33.1	18.6
Hotel/Motel	2,729	2,729	2,363	1,734	...	-14.2	1.8
New Housing Units Authorized, Census C-40							
Total Units	72	70	56	68	...	6.3	10.0
Single Family Units	72	70	56	68	...	6.3	9.6

See sources and abbreviations at the bottom of Page 16.

ARIZONA ECONOMIC INDICATORS

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent:	
						month	12-months
TUCSON METROPOLITAN REGION (PIMA)							
Civilian Labor Force (000s) ADES							
Employment	426.2	428.3	429.7	425.9	424.4	6.7	4.4
Unemployment	407.2	410.3	411.2	406.4	403.3	6.6	4.4
Unemployment Rate, Seas. Adj. (%)	19.0	18.0	18.5	19.5	21.1	9.3	6.4
	4.6	4.6	4.6	4.5	4.8	2.1	0.2
Employees on Nonagricultural Payrolls (000s) ADES							
Total	349.5	350.8	350.8	343.5	337.5	1.0	0.4
Natural Resources and Mining	1.4	1.4	1.4	1.4	1.4	-6.7	-13.1
Construction	22.9	22.9	23.5	24.0	23.7	5.8	2.3
Manufacturing	29.2	29.2	29.2	29.2	29.1	-4.9	-6.6
Computer and Electronic Prod.	5.6	5.6	5.5	5.6	5.5	-5.2	-5.6
Aerospace Products and Parts	12.0	12.0	11.9	11.9	11.9	-6.3	-8.2
Wholesale Trade	7.3	7.2	7.2	7.2	6.9	-4.2	-1.6
Retail Trade	40.2	40.1	40.3	40.7	40.6	3.8	3.3
Transp., Warehousing, and Utilities	7.7	7.7	7.8	7.8	7.7	1.3	-6.3
Information	7.5	7.4	7.3	7.3	7.3	-6.4	-3.9
Financial Activities	14.6	14.7	14.8	14.8	14.8	3.5	1.5
Professional and Business Services	40.2	40.3	40.0	40.1	39.8	-3.2	-0.4
Educational and Health Services	44.6	45.1	45.1	45.2	45.5	3.9	3.9
Arts, Entertainment, and Recreation	5.6	5.7	5.4	5.5	5.2	-3.7	0.9
Accommodation	7.7	7.6	7.6	7.4	7.3	-2.7	-4.0
Food Svcs and Drinking Places	25.5	26.0	25.5	24.7	24.3	1.7	1.7
Other Services	14.7	14.8	15.0	15.1	14.9	2.8	2.1
Federal Government	9.5	9.5	9.5	9.6	9.7	4.3	3.5
State and Local Government	70.9	71.2	71.2	63.5	59.3	2.2	0.3
State and Local Government Education	47.2	47.6	47.4	38.9	34.6	3.9	0.8
Sales (\$000s) ADOR							
Aggregate Retail Sales	789,495	766,697	768,370	741,660	...	-7.1	0.9
Retail	526,526	518,242	519,114	513,706	...	-10.7	-0.7
Food, EBR	100,436	102,078	100,366	98,228	...	5.8	1.6
Restaurants & Bars	95,343	85,822	93,390	79,127	...	-4.4	0.2
Gasoline, EBR	67,190	60,555	55,500	50,599	...	5.9	21.6
Contracting	131,565	138,444	139,913	137,597	...	5.1	3.7
Hotel/Motel	34,158	34,158	21,021	16,408	...	-10.9	3.3
New Housing Units Authorized, Census C-40 adjusted by EBR							
Total Units	651	869	515	786	...	29.7	2.2
Single Family Units	643	779	514	689	...	17.2	5.6
2-5-plus Unit Structures	8	90	1	98	...	425.0	-14.0
Housing Sales and Prices, TAR							
Total Sales (\$000s)	189,194	226,515	242,604	254,199	239,870	20.4	18.2
Total Units	1,102	1,249	1,336	1,299	1,300	11.5	10.4
Average Price (\$)	171,683	181,357	181,590	195,688	184,515	8.0	7.1
Tucson International Airport, TAA							
Total Passengers	345,308	305,450	303,438	281,737	286,022	2.7	3.3
Total Aircraft Movements	22,864	22,053	24,261	20,573	18,454	-15.0	3.3
TUCSON METROPOLITAN REGION (PIMA) - QUARTERLY DATA							
	II 2002	III 2002	IV 2002	I 2003	II 2003	% change versus year ago for most recent:	
						quarter	4-quarters
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	888.1	892.4	896.3	900.4	904.6	1.9	2.0
Natural Increase	1.1	1.1	1.2	1.2	1.2	6.7	-0.3
Births	3.0	3.1	3.1	3.1	3.2	3.5	1.7
Deaths	1.9	1.9	1.9	1.9	2.0	1.6	3.0
Net Migration	3.4	3.1	2.8	2.9	3.1	-8.3	-23.0
Personal Income by Source (\$mil, SAAR) EBR							
Total Personal Income	22,236	22,430	22,629	22,726	22,973	3.3	3.7
Earnings by Place of Work	13,514	13,642	13,798	13,813	14,025	3.8	2.8
Less: Contributions for Social Insurance	824	833	844	848	862	4.5	3.7
Plus: Adjustment for Residence	110	111	113	113	115	4.9	3.2
Plus: Dividends, Interest & Rents	5,342	5,339	5,335	5,313	5,318	-0.4	0.4
Plus: Transfer Payments	4,094	4,172	4,228	4,334	4,376	6.9	11.5
Per Capita Personal Income (\$, SAAR) EBR							
	25,036	25,135	25,247	25,240	25,395	1.4	1.7

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL)							
Civilian Labor Force (000s) ADES							
Employment	1,777.1	1,787.3	1,792.5	1,794.4	1,796.5	-0.4	0.9
Unemployment	1,685.8	1,695.7	1,699.9	1,699.3	1,696.1	-0.1	0.9
Unemployment Rate, Seas. Adj. (%)	91.3	91.6	92.6	95.1	100.4	-4.2	0.9
Unemployment Rate, Seas. Adj. (%)	5.4	5.5	5.4	5.2	5.5	-3.5	-0.2
Employees on Nonagricultural Payrolls (000s) ADES							
Total	1,606.6	1,610.9	1,610.9	1,594.6	1,576.6	0.8	0.6
Natural Resources and Mining	2.3	2.3	2.3	2.4	2.3	-4.2	-0.7
Construction	124.6	126.3	127.7	128.5	129.5	2.9	0.3
Durable Goods	103.6	103.4	102.5	102.6	102.7	-7.3	-8.4
Fabricated Metal Products	12.6	12.5	12.5	12.4	12.5	-3.8	-5.5
Computer and Electronic Prod.	39.2	39.1	38.5	38.5	38.3	-11.1	-12.0
Aerospace Products and Parts	15.2	15.3	15.3	15.4	15.3	-0.6	-1.8
Non-Durable Goods	27.3	27.4	27.2	27.3	27.2	-2.2	-2.3
Wholesale Trade	76.9	76.6	77.0	76.8	76.4	-1.7	-1.3
Retail Trade	189.5	189.2	189.1	188.7	187.9	0.8	1.9
Utilities	7.5	7.5	7.4	7.4	7.4	-6.3	-3.3
Transportation and Warehousing	52.0	51.9	51.9	52.4	52.5	2.3	3.0
Information	36.6	36.9	36.3	36.1	36.0	-6.3	-8.3
Finance and Insurance	95.9	95.9	95.6	95.8	95.8	-0.7	-1.7
Real Estate, Rental, and Leasing	34.1	34.2	34.2	34.5	34.8	2.7	2.0
Professional and Business Services	254.9	255.9	256.7	257.3	259.2	1.4	0.9
Educational Services	23.7	24.0	24.0	23.1	23.1	12.1	10.4
Health Care and Social Assistance	136.3	136.9	137.4	138.6	138.9	6.7	5.8
Arts, Entertainment, and Recreation	21.6	21.9	21.7	20.8	20.0	3.6	3.3
Accommodation	26.4	26.2	26.0	25.1	24.6	1.7	-1.1
Food Svcs and Drinking Places	111.5	112.2	111.8	110.1	106.8	0.8	1.5
Other Services	62.7	63.0	63.5	64.1	63.2	3.4	2.6
Federal Government	22.1	22.0	21.9	21.8	21.8	5.3	5.2
State and Local Government	197.1	197.2	196.7	181.2	166.5	-0.7	1.9
State and Local Government Education	103.0	102.4	101.7	84.8	70.2	0.0	3.5
Sales (\$000s) ADOR							
Aggregate Retail Sales	3,573,148	3,404,501	3,461,160	3,431,645	...	7.6	4.5
Retail	2,396,992	2,306,796	2,387,987	2,406,089	...	6.7	2.7
Food, EBR	429,011	436,026	428,712	419,580	...	9.3	4.4
Restaurants & Bars	471,915	402,955	410,773	391,629	...	5.3	4.6
Gasoline, EBR	275,230	258,723	233,688	214,347	...	20.8	29.7
Contracting	668,026	671,656	724,978	780,166	...	10.8	-3.1
Hotel/Motel	151,926	151,926	81,895	63,658	...	0.3	9.1
New Housing Units Authorized, Census C-40							
Total Units	3,885	4,078	4,384	5,633	...	13.9	16.0
Single Family Units	3,714	3,835	3,933	4,482	...	24.2	17.3
2-4 Unit Structures	23	64	17	47	...	51.6	-18.1
5-plus Unit Structures	148	179	434	1,104	...	-15.5	11.4
Housing Sales and Prices, ARMLS							
Total Sales (\$000s)	1,186,792	1,331,555	1,431,514	1,464,303	1,473,411	32.5	22.4
Total Units	6,167	6,960	7,073	7,134	7,341	26.0	14.7
Average Price (\$)	192,442	191,315	202,391	205,257	200,710	5.2	6.7
Phoenix Skyharbor International Airport, PSIA							
Total Passengers	3,430,332	3,129,194	3,218,378	3,299,320	...	4.1	7.1
Total Aircraft Movements	46,898	45,666	45,695	44,698	...	-2.6	2.9

See sources and abbreviations below.

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 Program, 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
 USBCBP: U.S. Bureau of Customs and Border Protection, U.S. Department of Homeland Security
 U.S. Bankruptcy Court, District of Arizona

ARIZONA ECONOMIC INDICATORS

	II 2002	III 2002	IV 2002	I 2003	II 2003	% change versus year ago for most recent: quarter 4-quarters	
PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL) - QUARTERLY DATA							
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	3,475.2	3,501.8	3,529.7	3,555.9	3,581.1	3.0	3.1
Natural Increase	8.3	8.2	8.2	8.0	8.0	-4.1	-3.4
Births	14.6	14.6	14.5	14.5	14.5	-0.6	-0.2
Deaths	6.2	6.3	6.4	6.4	6.5	4.1	4.1
Net Migration	18.8	18.3	19.7	18.2	17.2	-8.4	-3.4
Personal Income by Source (\$mil, SAAR) EBR							
Total Personal Income	97,864	98,619	99,488	99,691	100,836	3.0	2.7
Earnings by Place of Work	72,823	73,440	74,203	74,230	75,288	3.4	2.5
Less: Contributions for Social Insurance	4,616	4,662	4,715	4,731	4,799	4.0	3.3
Plus: Adjustment for Residence	-56	-55	-54	-53	-52	7.4	3.6
Plus: Dividends, Interest & Rents	17,298	17,194	17,091	16,941	16,860	-2.5	-2.0
Plus: Transfer Payments	12,414	12,701	12,963	13,305	13,539	9.1	11.0
Per Capita Personal Income (\$, SAAR) EBR	28,160	28,163	28,186	28,035	28,158	-0.0	-0.5

ARIZONA QUARTERLY DATA

Demographics & Vital Statistics (000s, seas adj) ADHS & EBR

Population	5,453.6	5,491.1	5,529.0	5,569.4	5,610.8	2.9	2.8
Natural Increase	11.2	11.5	11.8	12.5	12.0	6.8	9.3
Births	21.9	22.0	21.9	21.8	21.8	-0.2	1.7
Deaths	10.6	10.4	10.1	9.3	9.8	-7.5	-6.1
Net Migration	27.1	25.2	27.1	29.4	28.9	6.4	1.9

Personal Income Derivation (\$mil, SAAR) EBR

Total Personal Income	142,161	143,401	144,580	146,116	147,301	3.6	4.1
Earnings by Place of Work	99,242	100,236	101,151	102,418	103,200	4.0	3.7
Less: Contributions for Social Insurance	6,220	6,298	6,358	6,494	6,540	5.2	5.2
Plus: Adjustment for Residence	598	602	606	612	615	2.9	17.5
Plus: Dividends, Interest & Rents	27,369	27,326	27,178	27,084	26,989	-1.4	0.7
Plus: Transfer Payments	21,176	21,537	22,005	22,497	23,039	8.8	10.2

Components of Earnings (\$mil, SAAR) BEA

Wages and Salaries	79,824	80,381	80,884	81,821	82,243	3.0	2.6
Other Labor Income EBR	9,077	9,311	9,514	9,660	9,752	7.4	9.8
Proprietor's Income	10,339	10,609	10,964	11,023	...	1.3	5.1
Farm	286	446	607	506	...	-49.2	-9.9
Nonfarm	10,053	10,163	10,357	10,518	...	6.4	5.9

Per Capita Personal Income (\$, SAAR) EBR

Average Wage Per Employee, Annual Rate (\$) EBR	34,770	34,820	35,158	35,395	...	2.7	1.9
--	--------	--------	--------	--------	-----	-----	-----

TRAVEL AND TOURISM - MONTHLY DATA

	MAR 2002	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
Recreational Areas, NPS & ASPB							
Northern Arizona	1,186,004	1,525,639	1,935,798	2,196,131	2,332,444	3.1	-1.4
Historical	137,418	164,023	156,556	156,177	155,995	0.0	-1.6
Scenic	411,482	505,138	588,129	768,363	836,502	4.9	0.3
Water Based Recreation	637,104	856,478	1,191,113	1,271,591	1,339,947	2.4	-2.4
Southern Arizona	420,241	293,934	215,112	163,277	155,287	-13.4	-6.3
Historical	60,572	42,678	28,258	21,215	20,235	-16.8	-10.1
Scenic	314,280	206,294	145,076	96,026	99,009	-11.0	-3.7
Water Based Recreation	45,389	44,962	41,778	46,036	36,043	-17.7	-14.0
International Border Crossings, USBCBP							
U.S. Citizens	757,747	696,639	796,528	748,492	722,073	-15.9	4.1
Aliens	1,939,893	1,840,499	2,069,786	1,952,487	1,512,451	-33.7	2.0

MEASURES OF INFLATION AND PRICES - MONTHLY DATA

Consumer Price Index (1982-1984=100) BLS

U.S. - All Urban	184.2	183.8	183.5	183.7	183.9	2.1	2.3
U.S. - Wage Earners	180.3	179.8	179.4	179.6	179.6	2.0	2.2

See sources and abbreviations at the bottom of Page 16.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	% change versus year ago for most recent: month 12-months	
ARIZONA MONTHLY DATA							
Civilian Labor Force (000s) ADES							
Employment	2,642.7	2,659.1	2,675.6	2,680.9	2,685.3	-0.5	1.0
Unemployment	2,498.0	2,511.8	2,518.8	2,514.9	2,507.9	-0.3	0.9
Unemployment Rate, Seas. Adj. (%)	144.7	147.3	156.8	166.0	177.4	-2.7	2.4
	5.9	6.0	5.9	5.9	6.1	-3.2	1.1
Employees on Nonagricultural Payrolls (000s) ADES							
Total	2,286.7	2,292.1	2,291.5	2,263.1	2,234.8	0.6	0.7
Natural Resources and Mining	8.4	8.5	8.5	8.6	8.6	-4.4	-5.5
Construction	172.7	174.8	176.8	178.0	178.8	3.4	1.5
Durable Goods Manufacturing	140.1	140.1	139.3	139.5	139.6	-5.9	-7.4
Fabricated Metal Products	16.8	16.6	16.7	16.7	16.7	-1.8	-4.5
Computer and Electronic Prod.	45.6	45.5	45.0	44.9	44.7	-9.7	-10.8
Aerospace Products and Parts	27.3	27.3	27.3	27.4	27.4	-3.9	-5.9
Non-Durable Goods Manufacturing	35.8	35.8	35.5	35.7	35.7	-0.8	-1.8
Wholesale Trade	94.7	93.4	93.3	92.9	92.2	-1.4	-0.8
Retail Trade	274.3	273.4	273.7	273.5	272.0	0.9	2.3
Utilities	10.8	10.8	10.8	10.8	10.9	-3.5	-2.2
Transportation and Warehousing	65.9	65.6	65.7	66.2	66.1	1.7	2.3
Information	49.2	49.3	48.7	48.5	48.5	-5.1	-6.1
Finance and Insurance	109.3	109.0	108.9	109.1	108.9	-0.9	-1.5
Real Estate, Rental, and Leasing	44.4	44.6	44.7	44.9	45.2	1.3	0.8
Professional and Business Services	315.6	316.5	316.6	317.4	319.6	0.6	0.9
Educational Services	34.0	34.2	34.1	32.3	32.2	7.7	8.7
Health Care and Social Assistance	209.3	210.5	211.1	212.4	213.0	6.0	5.7
Arts, Entertainment, and Recreation	30.6	31.0	30.9	30.1	29.2	0.3	2.8
Accommodation	42.9	42.9	42.9	42.0	41.5	-0.5	-2.5
Food Svcs and Drinking Places	162.3	163.6	163.0	160.4	156.3	0.6	1.1
Other Services	87.6	88.0	88.5	89.4	87.9	2.3	1.0
Federal Government	49.9	50.2	50.8	51.4	51.0	3.2	3.0
State and Local Government	348.9	349.9	347.7	320.0	297.6	-0.8	0.9
State and Local Government Education	190.2	190.5	188.4	157.4	134.6	-0.3	1.7
	40.1	40.4	40.6	40.7	40.1	-0.5	-0.8
Hours Worked Per Week, Manufacturing, ADES							
Average Hourly Earnings (\$) ADES							
Construction	14.97	15.02	15.13	15.40	15.51	8.3	3.6
Manufacturing	14.28	14.23	14.32	14.33	14.57	2.8	1.6
Trade, Transportation, Utilities	13.50	13.31	13.43	13.49	13.47	2.9	1.9
Retail Trade	11.55	11.52	11.58	11.56	11.58	4.2	1.0
Wholesale Trade	16.48	16.32	16.65	17.15	16.99	2.5	6.8
Sales (\$000s) ADOR							
Aggregate Retail Sales	5,199,682	4,987,252	5,065,878	5,011,760	...	4.0	4.0
Retail	3,442,677	3,336,235	3,432,911	3,457,558	...	3.2	2.6
Food, EBR	651,396	662,048	650,942	637,076	...	4.0	2.4
Restaurants & Bars	657,462	568,676	595,767	563,509	...	2.6	3.3
Gasoline, EBR	448,148	420,293	386,258	353,616	...	14.6	26.1
Gallons (000s) ADOT	224,332	218,937	225,066	213,356	...	0.5	3.1
Utilities	406,576	407,651	439,315	602,471	...	9.0	1.4
Communications	249,942	216,830	210,719	323,569	...	13.6	-2.9
Amusements	86,019	67,650	65,125	62,836	...	-2.0	4.5
Rentals - Personal Property	300,696	270,281	256,637	283,796	...	-2.6	-7.1
Contracting	940,541	996,561	1,012,873	1,109,385	...	10.4	-0.7
Mining - Metal, Oil & Gas	26,573	20,316	26,230	32,526	...	17.5	53.4
Hotel/Motel	219,899	167,866	141,634	121,722	...	0.1	3.1
New Housing Units Authorized, Census C-40							
Total Units	5,260	5,642	5,702	7,263	...	17.0	15.0
Single Family Units	4,983	5,282	5,172	5,973	...	23.9	14.5
2-4 Unit Structures	67	105	80	133	...	129.3	4.1
5-plus Unit Structures	210	255	450	1,157	...	-12.9	20.5
Bankruptcy Filings, U.S. Bankruptcy Court							
Total	2,773	2,944	2,804	2,897	2,760	9.2	14.5
Chapter 7	2,202	2,336	2,302	2,344	2,268	9.7	15.1
Chapter 11	44	22	13	27	43	48.3	-10.1
Chapter 13	527	586	489	526	449	4.4	13.7

See sources and abbreviations at the bottom of Page 16.

	II 2002	III 2002	IV 2002	I 2003	II 2003	% 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.)	184.8	185.2	185.7	188.0	188.5	2.0	2.1
U.S. - All Urban Consumers	179.8	180.6	181.2	183.0	183.7	2.1	2.2
U.S. - Urban Wage Earners	175.8	176.6	177.2	179.1	179.6	2.1	2.2
Price Indexes (1996=100) BEA							
Gross Domestic Product	110.5	110.8	111.2	111.9	112.1	1.5	1.3
Personal Consumption Expenditures	110.9	111.4	111.9	112.6	112.7	1.7	1.8

CHANGE OF ADDRESS

Attach old label or fill in old address in shaded box below.

NEW Address:

Name: _____
 Organization: _____
 Title: _____
 Address: _____
 City: _____
 State: _____ Zip: _____
 Telephone: _____ E-mail: _____

Mail to: Economic and Business
 Research Publications
 McClelland Hall 103
 The University of Arizona
 PO Box 210108
 Tucson, Arizona 85721-0108

Name: _____
 Organization: _____
 Title: _____
 Address: _____
 City: _____
 State: _____ Zip: _____
 Telephone: _____

TO ORDER

10/03

Check the appropriate box below and include a check or money order, where applicable.

Arizona's Economy—now also available on-line!

- Electronic subscription (Please notify me via e-mail when each new quarterly issue is posted on your Web site. Do not send hard copy.)
- Printed subscription only, please:
 - free of charge in the United States \$12.00 (U.S.) international subscription
 - Both of the above

Arizona Economic Indicators

- \$19.00 in the U.S. (Fall 2003 and Spring 2004)
- \$25.00 (U.S.) international subscription (Fall 2003 and Spring 2004)
- \$10.00 single issue *U.S.* (specify issue) \$13.00 single issue *international* (specify issue)

2003 Arizona Statistical Abstract (prices include shipping and handling)

- \$54.95 in the U.S. \$70.00 international

1993 Arizona Statistical Abstract (prices include shipping and handling)

- \$27.95 in the U.S. \$36.00 international

Name: _____ E-mail: _____
 Title: _____ Organization: _____
 Address: _____
 City: _____ State: _____ Zip: _____ - _____
 Country: _____ Telephone: () _____ Fax: () _____

Total amount enclosed: \$ _____

Please make check or money order payable to: **Economic and Business Research**

Mail to: Economic and Business Research Publications, McClelland Hall 103,
 The University of Arizona, PO Box 210108, Tucson, Arizona 85721-0108



ARIZONA'S ECONOMY IS PUBLISHED QUARTERLY BY THE ELLER COLLEGE OF BUSINESS AND PUBLIC ADMINISTRATION, THE UNIVERSITY OF ARIZONA, TUCSON, ARIZONA 85721. 520-621-2155.

COPYRIGHT 2003 BY THE UNIVERSITY OF ARIZONA.

REQUESTS FOR COPIES, PERMISSION TO REPRINT AND CHANGE OF ADDRESS NOTICES SHOULD BE DIRECTED TO THE STAFF.

DEANMARK ZUPAN

DIRECTOR, ECONOMIC AND BUSINESS RESEARCHMARSHALL J. VEST

PUBLICATIONS COORDINATORMARSHA DEAN

ECONOMIC AND BUSINESS RESEARCH PROGRAMS
 520-621-2155

ECONOMIC IMPACT & FISCAL ANALYSISALBERTA CHARNEY
 621-2291

FORECASTING PROJECTMARSHALL J. VEST
 621-4075

STATE DATA CENTERPIA MONTOYA
 621-2523

DATA REFERENCEVALORIE RICE
 621-2109

EBR WEBMASTERMAILE NADELHOFFER
 621-4050

CLIP & MAIL

Visit our Web site! ebr.eller.arizona.edu

Made possible through the support of Bank One

ARIZONA'S ECONOMY

GOOD DECISIONS NEED
GOOD INFORMATION

Your Input Counts!

Printing and mailing
for this issue of
Arizona's Economy
made possible by



Don't guess when it comes to emerging economic trends. Register your views with the **Arizona Business Leaders Confidence Index®**, and you'll get a clearer picture of what's in store for the local economy and your business.

Go to www.blcindex.com and take a few minutes to register. You'll be notified by e-mail when the next survey opens (the last month of each quarter).

All information provided remains confidential. Your participation ensures access to survey results before they're made public. This enables you to base your business decisions on the most current information available. **Register today!**

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

PUBLICATIONS OFFICE
ELLER COLLEGE OF BUSINESS
AND PUBLIC ADMINISTRATION
McCLELLAND HALL 103
PO BOX 210108
TUCSON, ARIZONA 85721-0108

ADDRESS SERVICE REQUESTED

PRSR. STD.
U.S. POSTAGE
P A I D
TUCSON, ARIZONA
PERMIT NO. 190