

AZB ARIZONA BUSINESS

ARIZONA STATE UNIVERSITY'S MONTHLY NEWSLETTER ON THE ARIZONA ECONOMY

Economic growth remained strong in 2000

Economic growth began to slow during the latter part of 2000 nationally and in Arizona, but strong growth early in the year left annual average gains similar to those of preceding years. Arizona's overall advances in 2000 continued to exceed national averages, while measures of personal economic well-being and economic health continued to have a mixed performance in Arizona relative to the national average. Despite strong aggregate growth in the local economy for several straight years, per person and per employee measures expressed as a ratio to the national average remained below historical norms in 2000.

The U.S. Department of Commerce's Bureau of Economic Analysis (BEA) recently released revised state-level estimates of various economic measures for 2000 and earlier years. In this article, annual data are analyzed. The 2000 figures are compared to those in 1991, at the end of the last recession, and to those in 1988, a comparable year in the prior economic cycle. Economic performance in 2001 is summarized on page 10.

ECONOMIC INDICATORS

Total personal income, which totaled \$129.1 billion in Arizona in 2000, is a measure of total growth. In addition to earned income, it includes transfer payments, such as food stamps, and receipts of dividends, interest and rents. Inflation-adjusted increases in Arizona in 2000 were similar to annual gains between 1994 and 1999 in personal income and its earnings and wage and salary disbursements components. In contrast, employment growth rates continued gradually lower from the mid-1990s peak.

Nationally, personal income advances in 2000 remained a little higher than in the 1994 to 1998 period. Thus, as in 1999, Arizona's margin over the national average was narrower than that of most of the economic expansion. Over the entire 1988 to 2000 economic cycle, Arizona's real personal income rose 58 percent more than the national average.

Population also can be considered to be a measure of total growth. Using interim population estimates from the BEA that are tied to the 1990 and 2000 census counts, Arizona's numeric population increase in 2000 continued lower from the 1995

peak. The expanding population base contributed to the annual percent change in population slowing to 2.8 percent in 2000, the same as in 1991, during the last recession. The annual average increase of 3.2 percent over the economic cycle was more than 2.5 times as fast as the national average.

The broadest measure of economic growth is gross state product (GSP), but the latest data for this measure are for 1999. Earnings by place of work is the best substitute for GSP; it totaled \$93.3 billion in 2000 in Arizona. As in most of the expansion, its growth rate was higher in 2000 than that of personal income.

Wage and salary disbursements are the largest portion of earnings, totaling \$76.2 billion in Arizona in 2000. The gain in disbursements continued to be a little greater than that of earnings (see Table 1). Its annual average increase over the last 12 years was slightly greater than that of earnings, which was marginally higher than that of personal income.

Employment is a more limited gauge of economic growth than the dollar measures. The BEA produces an estimate of total employment (2.823 million in Arizona in 2000), which is more inclusive than the non-farm wage and salary employment estimate (2.248 million in 2000) reported monthly by the Arizona Department of Economic Security (DES). Arizona's total employment growth rate in 2000 was just half of the 1994 peak (6.6 percent).

In 2000, total employment advanced 90,000 according to the BEA, the same as in 1999. Gains exceeded 100,000 between 1994 and 1998, peaking at 135,000 in 1994. The BEA's estimate of wage and salary employment rose 76,000 in 2000, also the same as in 1999, but down from the 110,000 peak advance of 1995. In comparison, the non-farm wage and salary estimate from DES showed an increase of 85,000 in

Measures of well-being still below historical norms

INSIDE

Economic Review	1
Economic Profile	4
Home Sales and Affordability: Q4.....	8
Current Economic Conditions.....	10
Purchasing Managers Index: October	10
Leading Index: October.....	11
Arizona Economic Indicators.....	12

CENTER FOR
BUSINESS
RESEARCH



College of Business
ARIZONA STATE UNIVERSITY

2000, slightly less than in 1999. The peak jump was 108,000 in 1994.

The percentage growth differential in total employment in Arizona from the national average again narrowed in 2000, to 1.1 percentage points from a peak differential of 4.1 in 1994. Arizona's employment surge from 1988 to 2000 was twice as fast as the national average.

All of the measures of total growth and economic growth in Arizona indicate lesser percentage gains at the peak of the current cycle than in prior cycles. However, the period of strong advances lasted longer in the current cycle than in any prior cycle. Each measure also shows much faster growth than the national average. In contrast, measures of personal economic

well-being and economic health reveal Arizona's gains over the economic cycle to have been equal to or less than the national average. Slightly stronger gains in some measures over the last several years did not offset the inferior performance in the late 1980s and early 1990s. The per person and per employee measures nationally and in Arizona expanded strongly from 1998 through 2000 following moderate gains from 1994 through 1997.

Per capita personal income (PCPI) is the broadest measure of personal economic well-being; it was \$25,000 in Arizona in 2000. As a ratio to the national average, Arizona's PCPI in 2000 was 84.9 percent, below the 1994 cyclical peak of 86.5 and the lowest ratio since 1967. The ratio

throughout the 1990s economic expansion was considerably below that of prior expansionary periods (see Figure I).

The performance of the per capita earnings measure (\$18,100 in Arizona in 2000) has been similar to that of PCPI. This measure is more cyclical than PCPI. The 2000 ratio to the national average was below 84 percent, down from the 1998 cyclical peak, and well below historic norms.

Average wage per wage and salary job is a more restricted gauge of well-being. Arizona's 2000 figure was \$32,200. Except in 1999, Arizona's average wage has increased faster than the national average since 1994. Most of the gains, however, were only slightly greater than the national average, so that the ratio to the national

TABLE 1
ECONOMIC INDICATORS
Annual Real Percent Change

	Total Growth		Economic Growth			Personal Well-Being			Economic Health
	Pop	PI	Earn	W&S	Empl	PCPI	PC Earn	AWPJ	Earn PE
<i>Arizona</i>									
1992.....	3.4	3.6	4.4	3.8	1.2	0.2	1.0	1.7	3.1
1993.....	3.8	4.3	4.9	3.8	4.4	0.4	1.0	-0.9	0.5
1994.....	4.5	7.3	7.1	7.6	6.6	2.7	2.5	1.4	0.4
1995.....	4.4	6.1	7.0	7.6	5.5	1.6	2.4	1.5	1.4
1996.....	3.5	5.7	6.4	7.5	5.8	2.2	2.9	2.1	0.6
1997.....	3.3	6.2	6.3	7.1	4.6	2.8	2.9	2.9	1.5
1998.....	3.1	7.6	8.8	9.4	4.6	4.3	5.5	4.6	4.0
1999.....	3.0	4.2	6.2	6.3	3.4	1.2	3.2	2.8	2.7
2000.....	2.8	5.8	7.1	7.8	3.3	2.9	4.2	4.3	3.6
1988-2000 Average	3.2	4.7	5.0	5.2	3.6	1.4	1.7	1.5	1.4
<i>Difference from National Average</i>									
1992.....	2.0	0.0	0.0	0.5	0.7	-2.0	-1.9	-1.0	-0.8
1993.....	2.5	2.6	3.1	2.7	2.5	0.1	0.5	-0.2	0.6
1994.....	3.3	4.4	4.4	4.8	4.1	1.1	1.1	1.1	0.3
1995.....	3.2	3.0	4.5	4.0	2.9	-0.3	1.1	0.3	1.5
1996.....	2.3	2.1	2.9	3.6	3.6	-0.2	0.6	0.1	-0.7
1997.....	2.1	2.3	2.2	1.9	2.2	0.1	0.0	0.2	-0.2
1998.....	1.9	1.8	2.8	2.9	2.0	-0.2	0.7	0.8	0.6
1999.....	1.8	0.9	1.1	1.1	1.2	-0.9	-0.7	-0.2	-0.1
2000.....	1.6	1.2	1.9	2.1	1.1	-0.4	0.2	0.9	0.7
1988-2000 Average	2.0	1.5	1.8	1.9	1.8	-0.6	-0.3	-0.1	0.0
<i>Dollar Level Ratio to National Average</i>									
1988.....						91.4	86.8	93.5	90.7
1991.....						87.1	82.5	91.3	89.3
1992.....						85.5	81.0	90.4	88.6
1993.....						85.5	81.4	90.2	89.1
1994.....						86.5	82.3	91.3	89.4
1995.....						86.2	83.2	91.5	90.7
1996.....						86.0	83.7	91.6	90.1
1997.....						86.1	83.7	91.8	90.0
1998.....						85.9	84.3	92.5	90.5
1999.....						85.2	83.7	92.3	90.4
2000.....						84.9	83.8	93.1	91.1

Pop = Population

PI = personal income

Earn = earnings by place of work

W&S = wage and salary disbursements

Empl = total employment

PCPI = per capita personal income

PC Earn = per capita earnings

AWPJ = average wage per job

Earn PE = earnings per employee

Source: Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis.

average in 2000 was only a little more than 93 percent — lower than in all years prior to 1989 (see Figure II).

Earnings per employee, a measure of economic health, averaged \$33,100 in Arizona in 2000. Its ratio to the national average for 2000 finally regained the 1988 level, but remained below the peaks of prior economic cycles. Advances in Arizona over the last five years have been erratic relative to the national average.

OTHER MEASURES

Using the BEA total employment figures (which measure jobs rather than people employed), the employment-to-population ratio in Arizona rose for the eighth straight year in 2000. At a record 54.6, the ratio was above the last cyclical peak of 52.2 in 1988.

Personal income consists of three major components: earnings (by far the largest component); dividends, interest and rent (DIR); and transfer payments (such as retirement benefits and public welfare). In 2000, real earnings climbed 6 percent in Arizona, compared to gains of 4 percent for DIR and 2 percent for transfer payments. In the nine years since the end of the last recession, earnings expanded considerably more than DIR and transfer payments. Over the entire 12-year economic cycle, DIR rose much less than earnings, which in turn rose a little less than transfer payments.

Compared to the national average, earnings rose 2 percentage points faster in Arizona in 2000. DIR advanced a little more in Arizona but transfer payments climbed less than the national average. Arizona's cumulative gains since 1991 also were higher in all components, especially earnings. Between 1988 and 2000, Arizona's increase in DIR was only a little more than the national average.

The earnings category also consists of three major components: wage and salary disbursements (several times the size of the other components), other labor income (mostly employer contributions to private pension funds), and proprietors' income (income of single proprietorships, partnerships, and tax-exempt cooperatives). Over the economic cycle in Arizona, the gain in proprietors' income was about equal to that of wage and salary disbursements. Other labor income posted subpar growth. Nationally, proprietors' income posted a greater gain than wages.

COMPARISON TO OTHER STATES

Total personal income in Arizona climbed more than the national average in each year from 1993 through 2000. In 2000, Arizona's real gain of 5.8 percent ranked fifth among the states, behind Massachusetts, Colorado, California and New Hampshire. During the 1991 to 2000 period, the state's real growth of 64 percent was considerably higher than the national average of 38 percent and ranked third, behind only Nevada and Colorado. Other Western states — Utah, Texas, Idaho and Washington — also were among the leaders as Georgia was the only non-Western state among the top seven. Over the entire economic cycle from 1988 through 2000, Arizona's real growth of 73 percent exceeded the national average of 46 percent and ranked fourth, with Nevada, Colorado and Utah posting greater increases. Eight of the 10 Western states were among the nation's top 10, with only California not exceeding the national average.

Arizona's inflation-adjusted per capita personal income (using the BEA's interim

population estimates) advanced less in 2000 than the national average for the fifth time in the last six years. Between 1990 and 2000, it rose 17 percent, less than the national average of 22 percent. Arizona's advance over the decade ranked tied for 43rd nationally and ninth among the 10 Western states (exceeding only Nevada). Other than Florida, the other states with a lesser increase all had small populations. Arizona's 2000 PCPI ranked 38th in the nation and seventh in the West (ahead of Utah, Idaho and New Mexico). In 1990, the state had ranked 36th in the nation and seventh in the West.

Despite being 7 percent less than the national average, Arizona's average wage in 2000 was 21st highest in the nation (sixth in the West). The inflation-adjusted increase of 23 percent between 1990 and 2000 was slightly higher than the national average of 20 percent, ranking 16th among the states (sixth in the West).

— Tom R. Rex
Research Manager

FIGURE I
ARIZONA PER CAPITA PERSONAL INCOME
As a Percent of the National Average

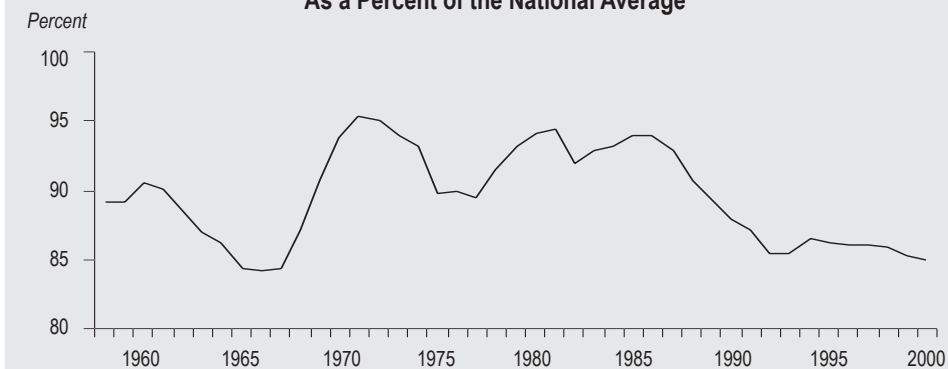
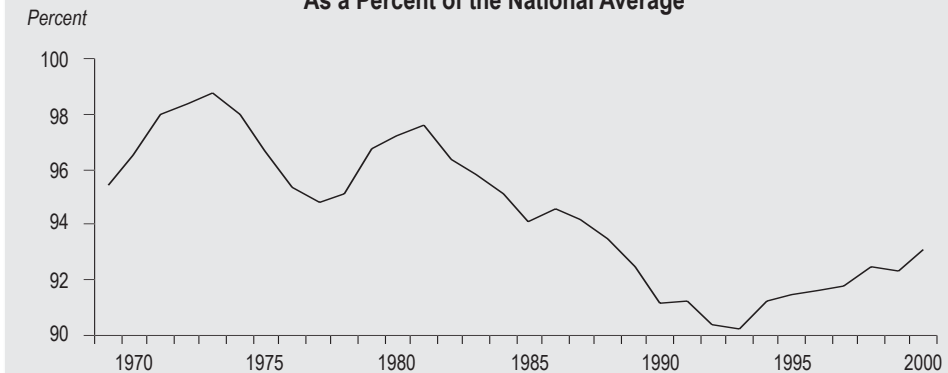


FIGURE II
ARIZONA AVERAGE WAGE
As a Percent of the National Average



Source (Figures I and II): Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis.

Arizona Economic Profile report has been updated

Business services created the greatest number of jobs in Arizona between the end of the last recession in 1991 and 2000. Industrial groups within the finance, insurance and real estate (FIRE) division posted the greatest percentage increase in earnings over the same period.

This article, along with this issue's cover article, present an overview of the Center for Business Research report *Arizona Economic Profile*, which is available from the CBR Web site at www.cob.asu.edu/seid/cbr. This report incorporates the latest economic data from a variety of sources, especially the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). Economic indicators such as earnings, employment and average wage are presented for each Arizona county for the 10 industrial divisions of the Standard Industrial Classification (SIC). In the SIC, industrial divisions are split into major groups, which are presented in the report at the state level.

The *Arizona Economic Profile* also includes data based on the new North American Industry Classification System (NAICS), which consists of 20 sectors divided into subsectors. The only data released so far under the NAICS are those from the 1997

Economic Census and the 1998 and 1999 versions of *County Business Patterns*.

LATEST SIC DATA

In autumn 2001, the BEA released industrially detailed data through 2000 by state for such measures as earnings and employment. Gross state product (GSP) was released earlier in the year, but only through 1999. Also released earlier in the year were industrial data by county (but with data only through 1999).

Arizona Industrial Divisions

BEA total employment data show nearly one-third of Arizona's jobs were in the services industrial division in 2000. Retail trade accounted for 17 percent of the total. Thus, just two of the 10 industrial divisions provided one-half of Arizona's total jobs. (Nationally, the share contributed by these two divisions was 48 percent.) Government was the only other division to have a sectoral share of more than 10 percent in Arizona. Manufacturing provided only 8 percent of Arizona's jobs while agriculture's share was less than 3 percent and mining's share was not even 1 percent. The goods-producing portion of the economy (including construction)

accounted for less than one of five jobs.

Earnings include wages paid to wage and salary workers, the income of proprietors, and other labor income, such as employer contributions to private pension funds, totaling \$93.3 billion in Arizona in 2000. Thus, it is a more comprehensive economic indicator than employment.

Because a substantial portion of its employment consists of low-paying, seasonal and part-time jobs, retail trade's sectoral share based on earnings was only 10 percent, compared to 17 percent based on employment. Services and agriculture also had lower shares based on earnings. Due to its status as a high-paying industry, manufacturing's sectoral share was higher based on earnings than on employment, with its 13 percent share greater than that of retail trade. Other divisions with a greater share based on earnings than on employment included TCPU (transportation, communications and public utilities), wholesale trade and government. Compared to its 18 percent share of employment, the goods-producing portion of the economy accounted for 23 percent of earnings.

Manufacturing remained relatively less important in Arizona than nationally, with its sectoral share in Arizona 3 percentage points lower on both the employment and earnings measures. TCPU and government had slightly smaller shares in Arizona. In contrast, construction, retail trade, services and FIRE had greater shares in Arizona.

Manufacturing's share fell during the 1990s in Arizona, reversing a long period of stability. Its 1999 and 2000 shares of earnings were the lowest since the late 1950s. Electronic and other electric equipment, such as semiconductors, was the exception, with its share of earnings in the 1990s comparable to that of the 1980s. Nationally, manufacturing's share continued to decline. Within manufacturing, the 2000 sectoral shares were the same or smaller in Arizona than the national average in all non-durable goods, and in most major groups of durable goods. The only exceptions were the electronics group and transportation equipment other than motor vehicles, particularly aerospace.

Construction's sectoral share in Arizona consistently has been above the national average due to the state's fast population and business growth. However, construction's share and its differential from the national

TABLE 1
ARIZONA'S 10 LARGEST MAJOR GROUPS
Ranked by 2000 Employment

	Industrial Division	Employment	Share
1. Business services.....	Services	266,430	9.4%
2. Local government (includes K-12 education)....	Government	201,391	7.1
3. Health services.....	Services	170,071	6.0
4. Eating and drinking places.....	Trade	162,819	5.8
5. Special trade contractors.....	Construction	146,998	5.2
6. Wholesale trade.....	Trade	122,478	4.3
7. Real estate.....	FIRE*	110,127	3.9
8. Engineering and management services.....	Services	97,816	3.5
9. Miscellaneous retail.....	Trade	93,286	3.3
10. State government.....	Government	80,582	2.9

Ranked by 2000 Earnings

	Industrial Division	Earnings**	Share
1. Business services.....	Services	\$8,249,640	8.8%
2. Local government (includes K-12 education)....	Government	7,132,802	7.6
3. Health services.....	Services	6,998,652	7.5
4. Wholesale trade.....	Trade	5,785,801	6.2
5. Special trade contractors.....	Construction	4,865,921	5.2
6. Electronic and other electric equipment.....	Manufacturing	3,803,800	4.1
7. Engineering and management services.....	Services	3,794,105	4.1
8. Real estate.....	FIRE*	3,067,884	3.3
9. Federal civilian government.....	Government	2,970,321	3.2
10. Depository and non-depository institutions.....	FIRE*	2,728,259	2.9

* Finance, Insurance and Real Estate

** By place of work, in thousands

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis, data.

average have dropped since the early 1970s, and especially during the 1990s.

Shares also continued to fall for Arizona's mining and agriculture industries, which no longer are more important to the state's economy than their counterparts are to the national economy. Farming's portion of the state's earnings slipped below 1 percent in 2000. Large declines continued in government's share; its 2000 earnings share of 15.1 percent was the lowest since 1948 and well below the 23.6 percent peak of 1975. Nationally, government's decrease in share has not been as great. Retail trade and TCPU continue to experience slight slippage in shares.

The share of earnings contributed by services continues to rise, though the rate of increase in the 1990s was less than in the 1980s. Most of the increase in share results from big gains in the share of business services, which includes companies providing contract and temporary workers who are employed in other industrial divisions. FIRE is the only other industrial division with a rising share, reaching approximately 10 percent of both employment and earnings in 1999 and 2000.

Major Groups in Arizona

The state's largest major groups in 2000 are shown in Table 1. Two retail trade groups are among the top 10 based on employment, but are not on the earnings list.

Wage levels in agriculture and retail trade each were nearly 40 percent below Arizona's overall average wage of \$32,200 in 2000. Services also was below average. Construction and government each had an average wage nearly equal to the overall figure, while the other five divisions had average wages of more than \$40,000 (more than 25 percent above the overall average).

Average wage levels varied widely by major group, from more than double the overall average to not even one-third of the average (see Table 2). The lowest-paid groups all were in services, retail trade and agriculture. No retail trade or agriculture group was on the highest-paid list, but manufacturing placed three on that list.

Arizona's average wage was 7 percent below the national average in 2000 in part because the industrial mix was slightly weighted to lower-wage industries. More importantly, the average wage in Arizona was less than the national average in eight of 10 industrial divisions, including a 26 percent differential in FIRE. Manufacturing

and retail trade each had an average wage above their national counterpart. However, most major groups in these two divisions had an average wage less than their national counterpart. In manufacturing, only three of 21 major groups had an average wage above the national counterpart, including electronics and aerospace.

Counties

Most county data are available only through 1999. (The exception is non-farm wage and salary employment estimates made by DES.) The BEA data through 1999 show significant differences in industrial structure across Arizona's counties. Even when the 13 less populous counties are aggregated, large differences remain between Maricopa County, Pima County, and the balance of the state.

In general, most economic activities in Arizona are concentrated in Maricopa County. This is particularly true of the FIRE, wholesale trade, and manufacturing divisions. Mining and agriculture are largely rural activities. Maricopa County does not dominate in government either, even though it is the site of the state capital and the largest of the three state universities.

Maricopa County's industrial structure was most like the state total, a reflection of

its dominance in the state's economy. The industrial structures in Mohave, Yavapai and Gila counties were not much more different from the state total than that of Pima County. In contrast, most of the less populous counties had industrial mixes much different than the state total, with the extreme being Greenlee — the least populous county and heavily dependent on mining.

Earnings per employee in 1999 were higher in Maricopa County than in Pima County, with the lowest figure in the balance of the state. This pattern held in most major divisions, but was reversed in mining. The earnings per employee figure in Maricopa County was especially higher than in the rest of the state in FIRE and wholesale trade. Other than Greenlee County, which had the highest earnings per employee because of the dominance of the high-paying mining division, each of the less populous counties had an earnings per employee figure at least 15 percent less than that of Maricopa County.

Change Over Time

Between 1991 and 2000, total employment in Arizona rose 47 percent. The increase in inflation-adjusted earnings was much greater at 76 percent, indicating substantial

TABLE 2
ARIZONA'S 10 HIGHEST- AND LOWEST-PAYING MAJOR GROUPS*
Ranked by 2000 Average Wage Per Job

<i>Highest-Paying Major Groups</i>	<i>Industrial Division</i>	<i>Average Wage In Thousands</i>
1. Security and commodity brokers	FIRE**	\$76.7
2. Electronic and other electric equipment	Manufacturing	73.1
3. Legal services.....	Services	62.3
4. Holding and other investment offices	FIRE**	60.0
5. Electric, gas and sanitary services	TCPU***	57.2
6. Other transportation equipment.....	Manufacturing	57.1
7. Instruments and related products	Manufacturing	56.7
8. Communications.....	TCPU***	47.9
9. Metal mining	Mining	47.8
10. Engineering and management services	Services	47.4
<i>Lowest-Paying Major Groups</i>		
1. Private households	Services	\$10.1
2. Eating and drinking places	Trade	12.6
3. Apparel and accessory stores	Trade	13.9
4. Motion pictures	Services	15.2
5. General merchandise stores	Trade	16.8
6. Social services.....	Services	17.7
7. Agricultural services.....	Agriculture	17.8
8. Personal services	Services	19.3
9. Hotels and other lodging places	Services	19.8
10. Food stores.....	Trade	21.2

* With at least 2,500 wage and salary employees in 2000

** Finance, Insurance and Real Estate

*** Transportation, Communications and Public Utilities

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis, data.

improvement in per employee earnings, a measure of economic and industrial health. However, the strength of these gains must be weighed against the weakness between 1986 and 1991.

Construction led the divisions in Arizona with a 95 percent increase in employment between 1991 and 2000; its 129 percent rise in earnings was exceeded only by FIRE's 147 percent. Construction is a very cyclical division, normally leading the growth from the cyclical trough through the peak of the cycle. Over the entire economic cycle from 1988 through 2000, construction's growth ranked third of 10 divisions on employment and fourth on earnings. FIRE still led on earnings but was down the list on employment.

The FIRE division registered a large increase in earnings relative to its gain in employment between 1991 and 2000. This can be traced especially to real estate, a major group in which earnings are not closely related to employment. Very strong advances in both employment and earnings were registered by security brokers and investment offices.

Services also experienced above average growth rates in employment and earnings in Arizona between 1991 and 2000. Within services, business services, amusement and recreation services, and engineering and management services posted particularly strong advances. Gains were subpar in legal services.

Wholesale trade posted a large increase in earnings, but its employment growth was average. The performances of retail trade and TCPU were a little below average on earnings and employment. The weakness in retail trade was particularly evident in the apparel stores and food stores groups while that in TCPU resulted from utilities.

Manufacturing posted substantially below average gains on each measure. Growth was especially weak in instruments, industrial machinery, and primary metals. The electronics group had above average earnings growth but below average gains in employment. Government experienced even slower growth on each measure. Gains were particularly weak at the federal government level, in both the civilian and military sectors. Below average increases were experienced in state and local government as well.

Agriculture ranked below government on earnings, but higher than government and manufacturing on employment growth. The farm group experienced almost

no increase while agricultural services expanded at an average rate. Mining's employment and earnings dropped from 1991 through 2000. Mining, government, agriculture and manufacturing also were at the bottom of the list of growth between 1988 and 2000.

Total employment rose 905,000 in Arizona between 1991 and 2000. Two-thirds of the employment gain occurred in services, retail trade and FIRE, each of which had a below average earnings per employee figure in 2000. (Agriculture was the only other division with a subpar earnings per employee figure.) Construction, with earnings per employee a little above average, was the only other division responsible for more than 10 percent of the increase in employment.

The major groups registering the greatest gains in employment and earnings between 1991 and 2000 are listed in Table 3. While the list of greatest numeric employment increase is closely correlated to the list of largest groups, only a few of the percent change growth leaders on earnings are among the largest groups: real estate, business services, special trade contractors, and engineering and management services. Major groups in the FIRE and construction divisions are disproportionately represented on these fast-growth lists.

Despite strong overall growth between 1991 and 2000, several sizable Arizona major groups experienced little increase, or even declines, in the employment and earnings measures. These include farming, metal mining, manufacturing of industrial machinery, instruments manufacturing, and military.

The average wage per job rose an inflation-adjusted 22 percent between 1991 and 2000 in Arizona. Most industrial divisions posted gains between 20 and 35 percent, with the greatest increases in wholesale trade, manufacturing, and FIRE. Mining had the smallest gain at 5 percent, followed by government. By major group, advances ranged from less than 5 percent in several cases to 74 percent in manufacturing of electronic and electric equipment.

Using the DES employment figures, Arizona employment climbed by 756,900 between 1991 and 2000. Maricopa County accounted for three-fourths of the advance, more than its 69 percent share of 2000 employment.

Between 1991 and 1999, earnings rose an inflation-adjusted 76 percent in Maricopa County, 48 percent in Pima County, and 34 percent in the balance of the state. FIRE led the gains in each region, with construction ranked second in each case.

TABLE 3
ARIZONA'S 10 FASTEST-GROWING MAJOR GROUPS
Ranked by 1991-2000 Numeric Change in Employment

	<i>Industrial Division</i>	<i>Numeric Change</i>
1. Business services.....	Services	143,519
2. Special trade contractors.....	Construction	73,585
3. Eating and drinking places.....	Trade	49,594
4. Health services.....	Services	47,988
5. Engineering and management services.....	Services	43,303
6. Real estate.....	FIRE**	42,555
7. Local government (includes K-12 education).....	Government	42,216
8. Wholesale trade.....	Trade	39,255
9. Amusement and recreation services.....	Services	31,012
10. Holding and other investment offices.....	FIRE**	29,376

Ranked by 1991-2000 Real (Inflation-Adjusted) Percent Change in Earnings*

	<i>Industrial Division</i>	<i>Real Percent Change</i>
1. Security and commodity brokers.....	FIRE**	306%
2. Holding and other investment offices.....	FIRE**	289
3. Real estate.....	FIRE**	266
4. Business services.....	Services	234
5. Amusement and recreation services.....	Services	166
6. Engineering and management services.....	Services	153
7. Motor vehicles and equipment.....	Manufacturing	150
8. Furniture and fixtures.....	Manufacturing	145
9. General building contractors.....	Construction	139
10. Special trade contractors.....	Construction	138

* With at least 2,500 employees in 2000

** Finance, Insurance and Real Estate

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis, data.

Earnings per employee climbed an inflation-adjusted 19 percent in Maricopa County between 1991 and 1999. Pima County's gain of 13 percent matched the national average, and the 3 percent increase in the balance of the state fell short of average. Across the state, FIRE posted among the largest advances, while agriculture's figure rose only a little in Maricopa and Pima counties and declined in the balance of the state.

LATEST NAICS DATA

According to the 1999 edition of *County Business Patterns* (which excludes the government sector and the farm portion of the agriculture sector), retail trade employed more workers than any other sector in Arizona. Other large employers (in size order) included accommodation and food services; health care and social assistance; manufacturing; administrative, support, waste management and remediation services; and construction. Based on payroll, the largest sectors were manufacturing; health care and social assistance; retail trade; construction; finance and insurance; and professional, scientific and technical services (PST).

Among these large sectors, only manufacturing and finance and insurance ranked among the sectors with the highest payroll per employee. The four highest-paying sectors all were small: utilities, auxiliaries and management of companies, mining, and information. Overall payroll per employee was 10 percent below the national average. It was slightly higher than the national sectoral average in five sectors, including retail trade, manufacturing, and health services and social assistance. In eight sectors, the Arizona figure was slightly below the national average. In the other five sectors, however, the Arizona figure was from 15 to 25 percent below average, including the construction, finance and insurance, and PST sectors.

The largest subsectors based on employment and payroll are shown in Table 4. Administrative and support services, with a payroll per employee 30 percent below the state average, easily was the largest subsector. The highest and lowest-paying subsectors are listed in Table 5.

Relative to the state as a whole, the Maricopa County economy is diverse and not substantially different in sectoral shares. Pima County is more reliant on health care and social assistance and manufacturing, with lower than average shares in

finance and insurance, wholesale trade, and transportation and warehousing. The 13 less populous counties as a whole are more dependent on mining, retail trade, health care and social assistance, and accommodation and food service. These

counties have relatively little finance and insurance, PST, and administrative and support services.

— Tom R. Rex
Research Manager

TABLE 4
ARIZONA'S 10 LARGEST SUBSECTORS
Ranked by 1999 Employment

	Employment	Share
1. Administrative and support services	183,099	10.0%
2. Food services and drinking places	150,186	8.2
3. Special trade contractors	111,395	6.1
4. Ambulatory health care services	71,146	3.9
5. Hospitals	63,522	3.5
6. Credit intermediation and related activities	60,202	3.3
7. Wholesale trade, durable goods	53,814	2.9
8. Food and beverage stores	49,063	2.7
9. Accommodation	44,925	2.4
10. Computer and electronic products	44,599	2.4

Ranked by 1999 Payroll (in Thousands)

	Payroll	Share
1. Administrative and support services	\$3,698,018	7.0%
2. Special trade contractors	3,024,971	5.7
3. Ambulatory health care services	2,885,340	5.4
4. Computer and electronic products	2,268,842	4.3
5. Wholesale trade, durable goods	2,228,500	4.2
6. Credit intermediation and related activities	1,991,999	3.8
7. Hospitals	1,989,321	3.8
8. Transportation equipment	1,775,301	3.4
9. Food services and drinking places	1,538,447	2.9
10. Insurance carriers and related activities	1,496,498	2.8

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of the Census, *County Business Patterns*.

TABLE 5
ARIZONA'S 10 HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked by 1999 Payroll Per Employee

Highest-Paying Subsectors	Payroll per Employee In Thousands
1. Securities, commodity contracts and like activity	\$70.6
2. Performing arts, spectator sports and related	58.7
3. Transportation equipment manufacturing	56.2
4. Computer and electronic products manufacturing	50.9
5. Information and data processing services	43.8
6. Publishing industries	43.3
7. Broadcasting and telecommunications	43.2
8. Insurance carriers and related activities	42.8
9. Paper manufacturing	42.2
10. Mining (except oil and gas)	41.8
Lowest-Paying Subsectors	
1. Food services and drinking places	\$10.2
2. Motion picture and sound recording	11.8
3. Sporting goods, hobby, book and music stores	14.0
4. Clothing and clothing accessories stores	14.2
5. Gasoline stations	15.3
6. Social assistance	15.4
7. Miscellaneous store retailers	15.5
8. General merchandise stores	15.9
9. Personal and laundry services	15.9
10. Amusement, gambling and recreation industries	16.0

* With at least 2,500 employees in 1999

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of the Census, *County Business Patterns*, 1999.

Phoenix housing market pace slows in third quarter

Following a fairly typical seasonal pattern, the Greater Phoenix housing market slowed in third quarter 2001, recording 27,460 sales — down from the second quarter record of 28,450 sales, but well ahead of last year's 24,635 sales.

The recorded sales in third quarter 2001 represent decisions made earlier this year, well before the terrorist attacks of Sept. 11. The impact of these events may not become evident for several months, probably not until early next year. Thus, the remainder of this year should continue on record pace due to the same conditions that have driven the market for most of 2001: relatively confident consumers who are taking advantage of increased equity in their homes and low interest rates to satisfy both family needs and investment security.

AFFORDABILITY

While the Federal Reserve Board has been aggressively lowering interest rates since the start of the year, the average 30-year mortgage interest rate has remained very stable at 6.7 percent. However, this is well below last year's 7.6 percent and comparable to rates of the 1998 (6.6 percent).

In the resale home market, the median home price continued at a record pace, rising to \$138,000, compared to the previous record of \$136,000 set in second quarter 2001. Last year, the median resale home price was \$130,000. For new homes, the median price fell from \$157,615 to \$156,500, with the highest median home price reported in first quarter 2001 (\$158,030). One reason for this pattern is the growing role of the West Valley in the new home market. In second quarter 1999, East Valley communities accounted for

44 percent of new home sales while West Valley communities stood at 19 percent. Currently, the respective shares are 31 percent for the East Valley and 30 percent for the West Valley. In the East Valley, the median new home price as exemplified by Gilbert increased from \$142,080 to \$178,400, while in the West Valley community of Avondale it rose from \$120,240 to \$132,635.

A slight decrease in the effective interest rate and improvement in the median income basically offset the strong increase in the median home price. Thus, the resale affordability index remained at 113, but was still better than last year's 108.

An index value of 100 means that the typical home buyer (based on the current median resale price and household income) would be able to afford a median-priced home at an effective interest rate of 8.2 percent.

Because the median new home price continued to decline, the new home affordability index value Valleywide improved from 98 to 100, much better than last year's 92. Since home prices and incomes vary throughout the Valley, so does the affordability index. For example, in the resale sector, the third quarter 2001 index ranged from 79 in Scottsdale to 127 in Glendale and 128 in Chandler.

RESALE SINGLE-FAMILY HOMES

While second quarter 2001 (17,555 recorded sales) was the strongest quarter in the history of the greater Phoenix housing market, the third quarter (16,415 recorded sales) was the second best quarter on record. This pace of activity brought the 2001 year-to-date total to 47,241 sales, well ahead of 42,240 sales in 2000 YTD and 43,625 sales for the YTD total of the previous

record year 1999. Monthly activity was fairly stable throughout the quarter, moving from 6,450 sales in July to 5,015 sales in August to 4,950 sales in September.

As the housing cycle ages, more expensive homes typically sell in greater proportion as move-up buyers become more numerous. In first quarter 1998 (when the median home price was \$110,000), 15 percent of resale homes sold for less than \$70,000 and only 13 percent for more than \$200,000. In third quarter 2001, only 4 percent of the recorded sales were for homes under \$70,000, while 23 percent were for homes over \$200,000.

The median resale home price varied greatly across the Valley, from a high of \$800,000 (110 sales) in Paradise Valley to \$79,650 (75 sales) in the Sky Harbor housing area. Active areas were Mesa with 2,090 sales (\$127,500 median price), Glendale with 1,585 sales (\$128,000), Deer Valley with 1,350 sales (\$149,500), North Scottsdale with 1,020 sales (\$315,000), Maryvale with 695 sales (\$91,000) and Mountain Park with 590 sales (\$188,750).

NEW SINGLE-FAMILY HOMES

Unlike the resale home market, the new home market is not breaking records, but it has continually improved from the 5,120 recorded sales of first quarter 2001 to 7,480 sales. However, the year-to-date total of 19,540 homes is still below the record level set in 2000 (20,680 sales).

The monthly activity was 2,820 sales in July, 2,220 sales in August and 2,440 sales in September. The highest median sales price was \$380,000 in North Scottsdale, where 260 homes were recorded sold; the lowest was \$106,900 in El Mirage, with 530 sales. Other active markets were: Deer

TABLE 1
HOUSING AFFORDABILITY INDEXES
Metropolitan Phoenix, Single-family Only

Quarter	Median Gross Monthly Income	Effective Interest Rate	Resale Homes			New Homes		
			Median Sales Price	Monthly Housing Payment	Affordability Index	Median Sales Price	Housing Payment	Monthly Affordability Index
Third Quarter 2000	\$3,600	7.8%	\$130,000	\$940	108	\$151,525	\$1,090	92
Fourth Quarter 2000	3,625	7.4	129,000	890	114	152,925	1,060	96
First Quarter 2001	3,625	6.9	132,500	870	117	158,030	1,040	98
Second Quarter 2001	3,550	7.0	136,000	905	113	157,615	1,050	98
Third Quarter 2001	3,680	6.9	138,000	910	113	156,500	1,030	100

Source: Arizona Real Estate Center, L. William Seidman Research Institute, College of Business, Arizona State University.



Valley with 1,350 sales (\$192,475 median price), Superstition Springs with 1,220 sales (\$159,025), Gilbert with 770 sales (\$178,400), and Avondale with 610 sales (\$132,650).

TOWNHOUSE/CONDOMINIUMS

With declining affordability in the single-family sector, the townhouse/condominium sector has received greater attention from owners and investors alike. The potential buyer also appreciates the low maintenance, recreational facilities and security offered by this housing style. Although this sector frequently is perceived as the source of low-priced housing, many of the recent new developments are in the high end of the market. For example, the median price of \$166,780 for new units actually exceeds the \$156,500 for new single-family homes. The primary reason for this is that more than 43 percent of the 375 recorded sales occurred in North Scottsdale, with a median sales price of \$234,530.

Other active areas were East Mesa (30 sales, \$138,115), Superstition Springs (20 sales, \$126,615), and North Mesa (35 sales, \$114,265).

The resale townhouse sector slowed from 3,580 recorded sales in second quarter 2001 to 3,190 sales, but is better than last year's 2,940 sales. The median price for resale units decreased from \$92,500 in second quarter 2001 to \$89,000, but is above last year's \$85,875. The median resale price was 64 percent of the median price for single-family homes. In the resale market, the median square footage was 1,145 (\$79 per square foot), compared to 1,630 (\$88 per square foot) in the single-family market.

The most active resale areas were North Scottsdale with 290 sales (\$152,000), South Scottsdale with 325 sales (\$106,625), Sun City/Peoria with 235 sales (\$70,000) and South Mesa with 270 sales (\$80,250).

NATIONAL HOUSING MARKET

Although both the new and resale home markets slowed in the latter part of the quarter, 2001 still has the potential of being one of the best housing years on record. However, the weakening economy, coupled with the Sept. 11 events and their aftermath, are expected to bring about a slowdown in the national housing market for the remainder of the year.

The national resale median home price posted a strong increase from \$147,100 in the second quarter to \$151,200 in the third quarter — well above last year's \$142,775. The lower interest rates were not enough to offset the higher median price, so the resale affordability index declined to 108 from 109, but was better than last year's 101. In the new home market, the median price decreased from \$176,630 to \$169,230, resulting in improvement in the national affordability index — from 91 to 97 — compared to last year's 85.

LOOKING AHEAD

Even before Sept. 11, the local and national economies were showing definite signs of slowing. The one bright light was the housing market, especially the resale home market. This strength was evident, not just in the Greater Phoenix area, but also throughout the country.

The housing market appeared to be driven by a complex set of forces. Even though

mortgage interest rates were low and declining, the primary stimulus was the confident home buyer who was willing and able to take advantage of the low interest rates. People were not only buying homes to improve their housing quality and comfort, but also for investment goals. While their stock investments may have been declining in value, their home value was increasing. This has allowed people to make use of the increased equity to buy more goods, pay debts, or make other investments.

The big question is: Will the events of Sept. 11, an economy in a recession, increased layoffs, the war on terrorism, the anthrax scare and heightened consumer uncertainty finally turn off the light in the housing market? The combination of events has dealt a severe blow to consumer confidence. In a slowing market, home values would be likely to stabilize or even decline. Thus, the rate of appreciation, which has become so important to people in their respective investment portfolios, probably will decrease in the coming year.

Because sales may be recorded several months after the purchasing decision, the actual impact of the changing economic environment will not become evident until late this year or early 2002. Even while the housing market continues to hold promise, the heightened uncertainty is likely to result in lower levels of recorded sales. While home buyers have held on to their confidence longer than have the economic mavens, they may well be catching up.

— Jay Q. Butler
Director

Arizona Real Estate Center

TABLE 2
METROPOLITAN PHOENIX HOME SALES

	Single-family			Townhouse/Condominium			Grand Total
	Resale	New	Total	Resale	New	Total	
<i>Median Sales Price</i>							
Third Quarter 2000	\$130,000	\$151,525	\$138,875	\$85,875	\$156,505	\$90,000	\$133,000
Fourth Quarter 2000	129,000	152,925	138,500	86,000	156,850	90,500	133,000
First Quarter 2001	132,500	158,030	139,990	91,000	165,930	94,000	134,000
Second Quarter 2001	136,000	157,615	142,145	92,500	155,000	95,950	136,900
Third Quarter 2001	138,000	156,500	144,000	89,000	166,780	94,500	138,900
<i>Number of Sales</i>							
Third Quarter 2000	14,075	7,230	21,305	2,940	390	3,330	24,635
Fourth Quarter 2000	13,130	7,555	20,685	2,890	440	3,330	24,015
First Quarter 2001	13,275	5,120	18,395	3,040	165	3,205	21,600
Second Quarter 2001	17,555	6,945	24,500	3,580	370	3,950	28,450
Third Quarter 2001	16,415	7,480	23,895	3,190	375	3,565	27,460

Source: Arizona Real Estate Center, L. William Seidman Research Institute, College of Business, Arizona State University.

Economic slump continues nationally and in Arizona

The Arizona and national economies experienced little growth during the first three quarters of 2001. In Arizona, employment dropped in all three quarters, as did real per capita retail sales. Real per capita personal income slipped in the first two quarters; third quarter results are not yet available.

Personal income and earnings by industry estimates — the broadest economic measures available on a reasonably timely basis — recently were released for second quarter 2001, with revisions back to 1998. These estimates show that the national economic expansion continued during the first half of 2001, but at the slowest rate since early 1995. Inflation-adjusted personal income rose 0.6 percent in the first quarter and only 0.3 percent in the second quarter; real per capita personal income was flat in the second quarter.

In Arizona, real personal income gains in the first two quarters of 2001 were identical to the national average after several quarters of increases only a little higher than the U.S. average. Until 2001, personal

income growth in Arizona had exceeded the national average since the end of the last recession in 1991. With population growth higher than the national average, real per capita personal income in Arizona fell in the first two quarters of 2001.

The economic weakness in Arizona in 2001 was most apparent in mining, services and the non-durable goods portion of manufacturing. In contrast, gains in durable goods manufacturing and construction remained strong. Nationally, non-durable goods manufacturing slumped, but mining and services led the expansion.

National employment estimates, available through September, indicate that economic performance in the third quarter was similar to that in the second quarter, when employment started to decrease. Preliminary figures for the third quarter show a continued net loss of jobs, averaging 90,000 per month. Employment in September 2001 barely was higher than in September 2000.

In Arizona, employment also continued to fall during the third quarter, the third

consecutive quarter of decreases. The net loss was about 2,000 jobs per month from January through September 2001, compared to gains averaging 7,000 or more monthly from 1993 until late 2000. In September 2001, employment was no higher than in September 2000. (These employment estimates are subject to potentially large revisions.)

Weakness in retail sales also continued through the third quarter. Between May and August, the year-over-year increase was less than 2 percent in Arizona. In September, retail sales fell 4 percent. On a real per capita basis, retail sales declined between November 2000 and September 2001 (the latest available data). Retail sales were especially weak in Maricopa County. In contrast, retail sales growth picked up in the rural part of the state from the low figures registered in the autumn and winter. Even in September, a gain was registered (before inflation adjustment).

— **Tom R. Rex**
Research Manager

Arizona Purchasing Managers Index rises in October

The seasonally adjusted Arizona Purchasing Managers Index rose to 40.0 in October from a revised 38.3 figure for the previous month. An index reading of over 50 indicates that the local economy is growing, while a reading below 50 suggests a slowdown in the overall level of economic activity in the near term.

ANALYSIS

The index has been fluctuating around 40 for the last few months amid the uncertainty of today's economy. Indicators had signaled upcoming recession conditions as early as January 2001. The aftermath of the terrorist attacks in September only served to add to the uncertainty.

Important components of the overall index have shown improvement, with the subindex for production leading the way with a rise of 7.2 points to reach 44.6. The purchasing subindex also rose significantly, from 35.7 last month to 42.3 in October. Both of these are positive signs for the local economy.

The delivery times subindex fell slightly in October to 51.7, reflecting the easing of

strain on the mail and freight system. The index had jumped to 53.5 in September when the FAA grounded general aviation for an extended period. Usually a high delivery times index reading is a hint that suppliers' inventory is being depleted quickly, but here it was simply a symptom of increased difficulty in getting goods from one place to another.

The Price Index rose slightly to 47.4 in October from 47.0 the previous month. While there is still no upward pressure on prices, a rising Price Index is a signal that supply is not outpacing demand.

— **Dawn McLaren**
Research Economist
Bank One Economic Outlook Center

FIGURE I
ARIZONA PURCHASING MANAGERS INDEX*



Arizona Leading Index rises again in October

The Bank One Arizona Index of Leading Economic Indicators rose in October to 112.2, which is 0.3 percent above the previous month's 111.9 and 1.5 percent above the October 2000 number of 110.5 (1987 = 100).

The inflation-adjusted value of the money supply M2, production, materials inventories and new orders were positive. The inflation-adjusted value of Maricopa County residential building permits, sensitive materials prices, employment from the Purchasing Managers Survey, hours worked in manufacturing and delivery times were negative.

It is too soon to tell whether this increase signals better times on the horizon for the second quarter of 2002. The National Bureau of Economic Research announced that the current expansion ended in March 2001, which means the national economy entered a recession at that time. The pronouncement of a national recession raises several questions: Would a recession have been declared in the absence of the Sept. 11 terrorist attacks? Is Arizona in a recession? How does a leading index perform in a situation where unexpected events take place?

NBER looks for more than negative GDP in declaring a recession. GDP growth for second quarter 2001 was positive by a very slim margin. Prior to Sept. 11, expectations were that the third quarter would be close to zero but on the negative side, and the fourth quarter would be positive. Since the attacks, there has been no doubt that the third quarter would be negative and the fourth quarter has been thrown into doubt.

The attacks also accelerated and exacerbated the layoff of large numbers of people. Airlines and tourism already had been facing tough times — layoffs were likely to happen, but they would not have been as severe or as sudden. The same applies to most of the companies where layoffs occurred in the wake of the attacks. Thus, it is possible that the economy might have avoided the call of an official recession in the absence of the tragic events of Sept. 11.

It is difficult to call a recession at a state level, but it is likely that Arizona followed the nation into recession. Based on current employment numbers, overall employment growth slipped below 1 percent in June and was negative in September and October. The primary job losses prior to Sept. 11 were in manufacturing, mining, communications, hotels/motels and business services —

the sectors most impacted by the decline in business spending. After the attacks, losses were recorded in construction and transportation, while the decline of hotels and business services accelerated. There is little doubt that the airlines, airports and the tourism industry are suffering due to the decline in travel — but the prospects for those sectors had been already dim.

The national index started to fall with the drop in the stock market, while the Arizona index went flat at the same time. (The S&P 500 is part of the national index but not the Arizona Index.) The overall reading in October was positive for both the national and local indexes. Non-economic events

— for example, the oil embargo of the '70s or the terrorist attacks — may sometimes overtake leading indicators. Early indications from the September and October information suggest that the economy could right itself by the beginning of the second quarter 2002, although the improvements may not be dramatic. Business and consumer spending are unlikely to rebound dramatically, and the stimulus at the federal level is likely to be blunted by cutbacks in spending at the state and local levels.

— Tracy Clark
Senior Economist
Bank One Economic Outlook Center

TABLE 1

NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

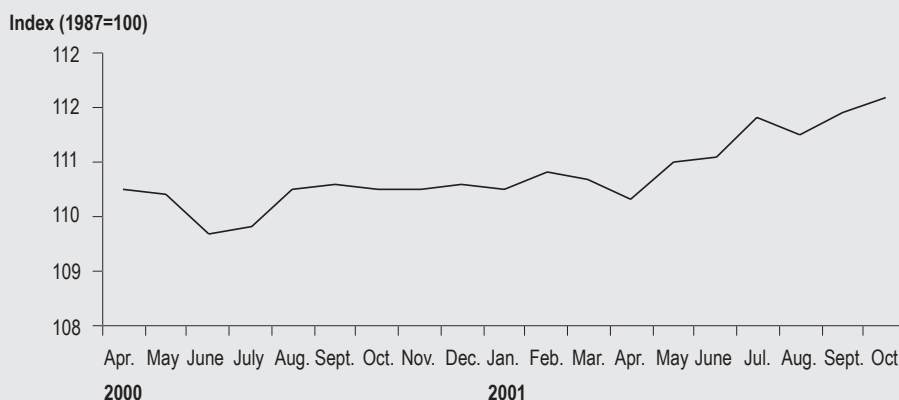
	Net Contribution*			
	July	August	September	October
Delivery Time*	0.11	0.00	0.20	-0.05
Inventory Levels*	0.10	-0.13	0.11	0.08
New Orders*	0.17	-0.02	-0.23	0.03
Production*	0.13	-0.24	-0.04	0.20
Employment*	0.11	-0.09	-0.27	-0.07
Residential Building Permits	-0.12	0.22	-0.03	-0.26
Average Workweek, Manufacturing	-0.04	-0.04	-0.07	-0.07
Money Supply	0.41	0.31	0.83	0.65
Change in Sensitive Materials Prices	-0.10	-0.20	-0.20	-0.21

* The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

* Based on indicators from the Purchasing Management Association of Arizona, Purchasing Management Association of Southern Arizona and the Northern Arizona Group.

FIGURE I

ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bank One Economic Outlook Center, L. William Seidman Research Institute, College of Business, Arizona State University.



College of Business

AZB/ARIZONA BUSINESS

Larry Edward Penley, Dean
Timothy D. Hogan, Center Director
Nancy A. Maneely, Editor

AZB/ARIZONA BUSINESS (ISSN 1079-4255) is published monthly by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University, PO Box 874011, Tempe, AZ 85287-4011; phone (480) 965-3961. Annual fee: \$18 per year to Arizona residents, \$24 per year out-of-state, \$30 per year foreign. Checks must be made payable to ASU Foundation, a separate non-profit organization which exists to support ASU. Your payment is not considered a charitable contribution. Fees will be applied to the printing and mailing of AZB/ARIZONA BUSINESS, which is not printed or mailed at state expense. Periodicals postage paid at Tempe, Arizona. POSTMASTER: Send change of address to AZB/ARIZONA BUSINESS, Center for Business Research, College of Business, Arizona State University, P.O. Box 874011, Tempe, AZ 85287-4011.

AZB/ARIZONA BUSINESS is also available online at:
www.cob.asu.edu/seid/cbr.

© 2001 Arizona Board of Regents for Arizona State University. Reprinting information contained in this publication requires the prior written permission of the Center for Business Research at the Seidman Research Institute, Arizona State University. Articles do not necessarily reflect the views of the Center, College, or University. Authors are solely responsible for the accuracy and content of their articles.

Arizona State University vigorously pursues affirmative action and equal opportunity in its employment activities and programs.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Current Value	Previous Value	Percent Change Previous Period	Percent Change from Year Ago	Year-to-Date Value	Percent Change from Year Ago
LEADING ECONOMIC INDEX (1987 = 100)							
Arizona	October	112.2	111.9	0.3	1.5	NA	NA
PURCHASING MANAGERS INDEX							
Arizona	October	40.0	38.3 r	4.5	-32.4	NA	NA
BUILDING PERMITS (Thousands of \$)							
Maricopa County	September	681,874	817,881	-16.6	2.4	7,535,797	13.0
Pima County	September	102,694	117,389	-12.5	-17.1	1,030,168	4.1
Balance of State	September	141,544	186,471	-24.1	8.1	1,414,924	5.8
Arizona	September	926,112	1,121,741	-17.4	0.5	9,980,889	10.9
TOTAL HOUSING UNITS AUTHORIZED							
Maricopa County	September	3,791	3,759	0.9	-5.5	36,138	2.8
Pima County	September	643	741	-13.2	3.4	6,452	2.0
Balance of State	September	1,150	1,412	-18.6	-0.9	11,786	4.0
Arizona	September	5,584	5,912	-5.5	-3.6	54,376	2.9
HOME SALES							
Maricopa County - Number	September	8,494	8,310	2.2	16.2	77,524	5.3
Maricopa County - Median Price(\$)	September	138,000	139,000	-0.7	3.8	136,875	4.9
HOUSING AFFORDABILITY INDEXES							
Metropolitan Phoenix - New Homes	3rd Quarter	100	98	2.0	8.7		NA NA
Metropolitan Phoenix - Resale Homes	3rd Quarter	113	113	0.0	4.6		NA NA
MORTGAGE RATES (30-year Fixed)							
Maricopa County	October	6.3	6.5	-3.1	-14.9	NA	NA
POPULATION ESTIMATES (Thousands)							
Maricopa County	<i>(The population estimates will be updated in January 2002.)</i>						
Arizona							
RETAIL SALES (Millions of \$)							
Maricopa County	September	2,361	2,379	-0.8	-4.9	22,411	1.6
Arizona	September	3,458	3,554	-2.7	-3.7	32,810	2.0

Note: The above figures reflect the latest data available as of date of publication and are subject to revision.

NA = Not Applicable r = Revised

Source: Center for Business Research, Arizona Real Estate Center, and Bank One Economic Outlook Center, affiliates of the L. William Seidman Research Institute, College of Business, Arizona State University. Retail sales data are from the Arizona Department of Revenue.