

ARIZONA'S ECONOMY

NOVEMBER 1996

FALL ISSUE

ARIZONA'S ECONOMY AT MID-YEAR: THE GOOD TIMES KEEP ROLLING ON

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September 24, 1996

The Arizona economy remained solid as it headed into the second half of 1996. Consumers are confident, housing is surprisingly resilient, jobs are plentiful and wages are increasing. However, several "late-cycle" phenomena are now present. Labor markets are very tight, companies are beginning to hoard labor, consumer loan problems are surging, prices are rising at a faster pace, and the prospects of higher interest rates has grown more probable. Recession is unlikely, but much slower growth is expected. Because the Metro Phoenix economy continues to perform at a high level, we've revised our Arizona and Phoenix area forecasts upward for 1996. The pace is unsustainable, however, and we continue to expect a slower economy in the second half of this year – and significantly slower in 1997.

This is the phase of the business cycle in which the economy gradually slows down. Sectors that were hard hit in the last recession (such as construction) have fully recovered their losses and are setting new record highs. Consumers have satisfied their pent up demand – and in the process,

acquired piles of debt that now need to be reduced. Labor shortages in certain occupations are limiting additional expansion. So, with the rapid-growth juvenile stage of the expansion long since past, the pace of expansion is now constrained by shortages and by government policies designed to keep the economy from overheating.

These are the good times! Jobs are plentiful, credit available, the environment more predictable. The economy now makes smaller adjustments to keep supply and demand in balance. In one quarter, we see a little faster growth; in the next, growth slows as inventories are adjusted.

The US economy nearly stopped growing in 1995. In Arizona's high-flying economy, the trajectory flattened. Growth then resumed in the first half of this year, boosted by lower interest rates, higher investment spending, and a restocking of inventories. The second half should bring a reversal once again – to slower growth. These short-term adjustments are happening within the context of a gradual slowdown. It remains to be seen whether the economy will attain a long-run equilibrium, or will be plunged into recession by some (unpredictable) shock factor or policy miscalculation. For economists and those who try to forecast economic conditions, the period ahead promises to be pretty boring, but for workers and business owners, this is a nice environment.

RECENT EVIDENCE & OUTLOOK

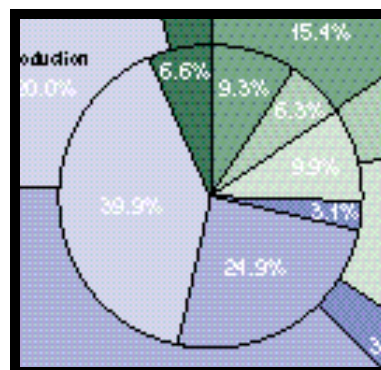
Arizona continues to rank among the fastest growing states in the nation and its economy remains healthy at mid-year. The pace is still too fast to sustain and we expect much slower growth to prevail next year. Highlights of where we are and where we're going follow (see forecast table on page 8).

Arizona's wage & salary (or nonag) job growth, after registering year-over-year increases of 3.8% in both 95q4 and 96q1, improved in the second quarter to 4.2%. That pace continued into the third quarter with gains of 4.4% in July and 4.7% in August. Roughly 83,000 jobs have been created during the past year.

With comparable figures for all states through June, Arizona was the fourth-fastest employment generator. Nevada, Utah, and Idaho were the top three states.

Employment should grow at a 3.5 - 4.5% rate during the remainder of this year, then recede to near three percent by the end of 1997. Help wanted advertising in Metro Phoenix remains at a high level, although not as high as last year (Exhibit 1). Since peaking in December at 112.5, the index fell to 92.0 in July. Even so, it is nearly ten points higher than the nation-wide index. As the demand for labor weakens next year, employment growth will average 3.3% and only 2.4% the following year.

INSIDE



ANNOUNCING THE 1997/98 OUTLOOK LUNCHEON	6
FORECAST TABLES	7
EMPLOYEE TRAINING IN ARIZONA	8
ARIZONA ECONOMIC INDICATORS	12

EXHIBIT 1
Index of Help Wanted Ads Drift Lower

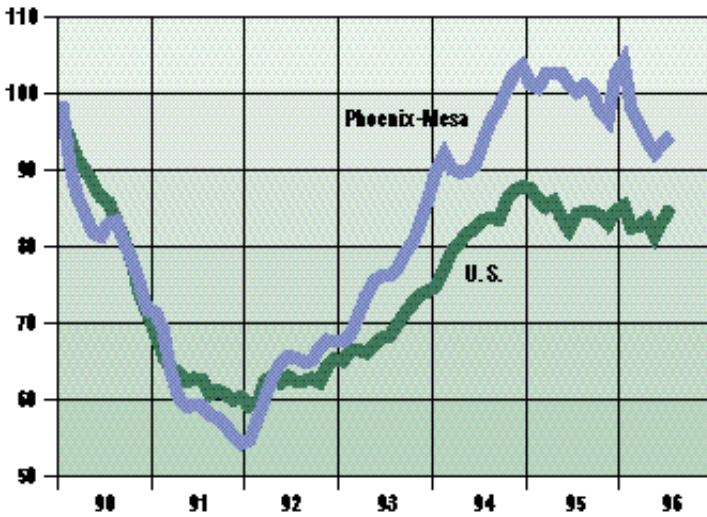
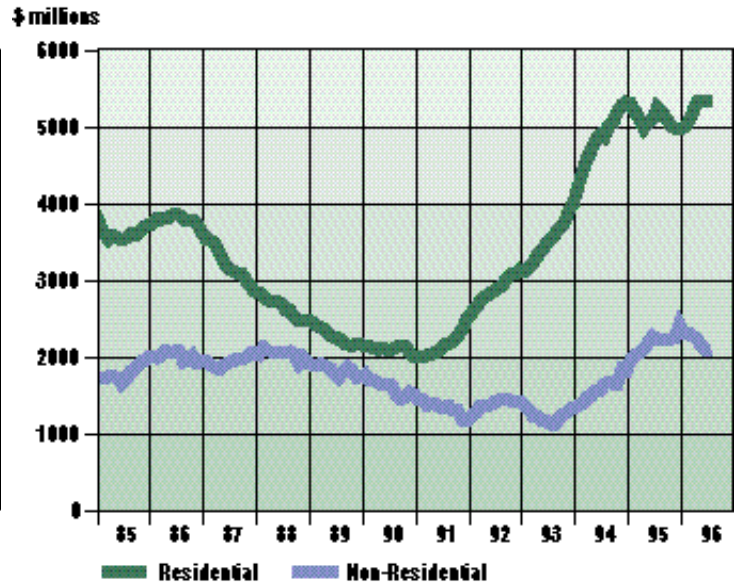


EXHIBIT 2
Arizona Construction Awards Near Peak?



Manpower Inc.'s quarterly Employment Outlook Survey, which measures employers' intentions to increase or decrease the permanent workforce, also remains positive in their current survey. Statewide, 33% of employers expect to increase their workforce in the fourth quarter, while only five percent plan to decrease staffing.

Employment is growing most rapidly in services (a 5.3% gain for the 12-month period ending in July), construction (5.2%), trade (5.0%) and government (5.0%). Manufacturing jobs have grown a modest 2.4%.

Back in 1994, when Arizona's job base exploded by 6.7%, manufacturing jobs increased 7.7% and construction by 21.6%. These two industries, which are the most volatile over the business cycle and propel the economy during boom periods, are now growing modestly.

Manufacturing jobs will receive a boost as a number of new semiconductor "fab" plants open in the Phoenix area during the next few years, but our forecast shows manufacturing growth remaining in the one to four percent range.

It's still a bit early to call with certainty (since the data will be revised next February), but construction jobs may have peaked. Residential building permits have moved lower in recent months – to a still high 55,000 unit annual rate; but that's down

from 60,000 earlier this year. New impact fees in the Metro Phoenix area may have led to some stockpiling to avoid the new fees, and that will depress permitting for several months. January of this year may turn out to be the peak for residential permits in this business cycle. For the entire year, we are forecasting a gain of less than five percent in total residential permits compared to last year. Next year should bring a decline in the range of 15-20%. Both single family and apartment permits will decline by similar amounts.

Although absorption of residential units in the Tucson area has improved markedly from the abysmal level of last year's fourth

quarter, supply and demand are still significantly out of balance. From a level of less than 3,500 units at an annual rate, absorption has improved to nearly 6,000 units. However, more than 8,000 new units have been brought to market during the past year, driving vacancy rates upward. Apartment vacancies are now a seasonally-adjusted 9.5%, up from 6.0% one year ago. These data are from the Drachman Institute and the Office of Economic Development at The University of Arizona. In Metro Phoenix, absorption of apartment units during the past year has tapered off to only a few hundred units. Even so, apartment vacancies remain under four percent.

Housing affordability in Phoenix and Tucson continues to rank below national averages. In the National Association of Home Builder's recent survey of some 181 cities, Tucson ranked 150th and Phoenix 92nd. Tucson's index of 55.0 means that a family earning the area's median income could afford to buy 55% of the homes sold. In Phoenix, 68.6% of the homes are within reach of the average income buyer. Although the average price of homes sold is nearly identical in the two areas (roughly \$124,000), incomes are much lower in the Tucson area. During the past year, home prices have increased in both areas by roughly five percent. Nationwide, the average price of homes sold, as reported by the National

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WHETHER THE ECONOMY WILL
ATTAIN A LONG-RUN EQUILIBRIUM,
OR WILL BE PLUNGED
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(UNPREDICTABLE) SHOCK FACTOR
OR POLICY MISCALCULATION.

EXHIBIT 3
Unemployment Rate
in Arizona Equals U.S. Rate

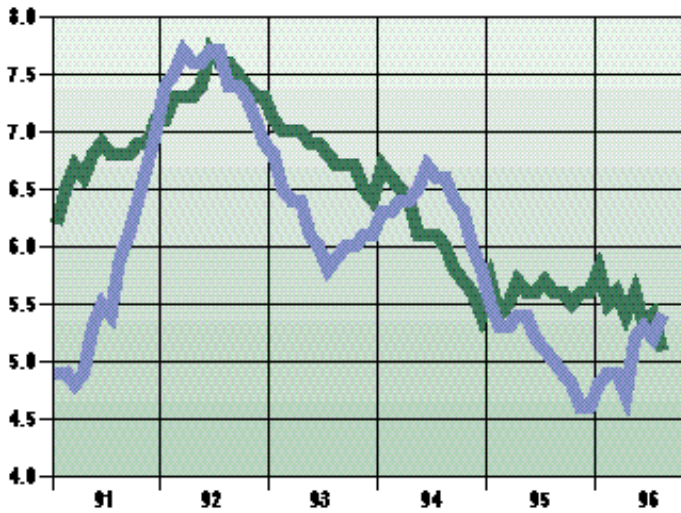
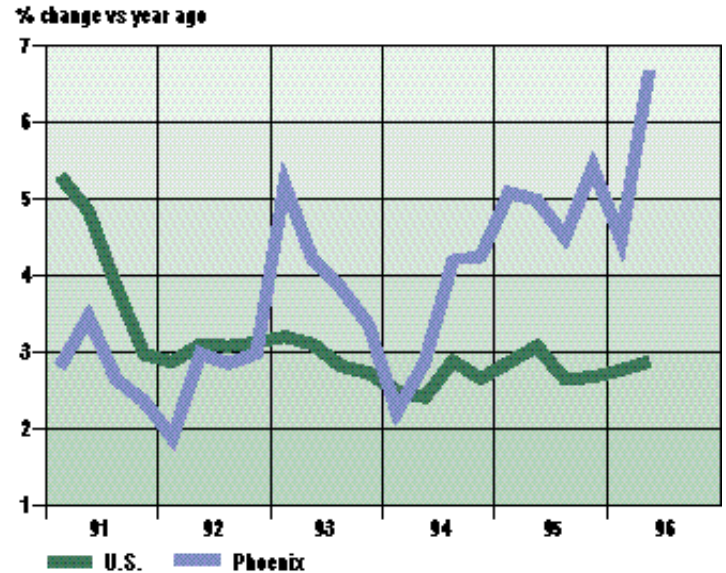


EXHIBIT 4
Consumer Price Inflation
in Metro Phoenix Surges



Association of Realtors, is up six percent during the past year to \$145,400.

Residential construction is not the only story, however. Commercial building activity, as measured by FW Dodge Construction Contract Awards, has strengthened recently to \$2.5 billion at an annual rate (Exhibit 2). Office vacancies in both Phoenix (10.4%) and Tucson (11.2%) are below the nation-wide average (13.1%), according to CB Commercial. New office buildings are under construction in Metro Phoenix for the first time this decade. Several new hotel projects are underway in both cities as well. And industrial space is in short supply. Commercial construction is out-of-sync with residential building in this cycle and new commercial projects will shore up the construction industry over the remainder of this decade. Awards data are not, as yet, reflecting a boom, but there is great promise for the near future.

Both communication & public utilities (CPU) and finance, insurance and real estate (FIRE) will continue to be weak as they adjust to deregulated environments. That leaves services and trade to create the lion's share of the jobs in coming months.

Labor markets remain tight. Arizona's August unemployment rate was 5.4%, three-tenths higher than the national rate (Exhibit 3). Unemployment in Phoenix and Tucson was even lower at 3.7% and

3.6%, respectively. During the past year, Arizona's labor force grew by 4.1% and the number of unemployed declined by 10%. Many businesses report that their major challenge today is finding skilled workers. In the electronic components and semiconductor industries, employers appear to be hoarding workers.

Labor shortages have yet to affect wages to a large degree, with the exception of wholesale trade, where average hourly earnings are up 7.9% for the 12-month period ending in July. Wages in retailing are up 4.0% and construction wages are 3.1% higher. Both mining and manufacturing have increased less than two percent and utilities less than

one percent. All but wholesale are lagging behind inflation locally.

Arizona and Nevada led the nation in personal income growth last year with a 9.4% gain. In per capita terms, Arizona's increase was a strong 5.7%, the largest in a decade. Personal income growth slowed in the first quarter to 8.1% on a year-over-year basis. Individual income tax withholding, a good proxy for wage and salary disbursements that comprises nearly two-thirds of total personal income, remains very robust, however. Recently, withholding moved to a higher level, registering increases near 15% for the 12-month period ending in July. These two measures are telling a very different story about how the economy is doing. There have been no recent changes in the tax law, so the upward surge in withholdings remains a mystery.

During the past year, consumer prices in the Phoenix metro area have increased by 6.6%, more than double the nationwide rate and the highest in 14 years (Exhibit 4). Transportation costs are up a whopping 10.4%, reflecting higher gasoline prices. Entertainment prices are up 7.8% followed by other goods & services (5.6%). Housing prices, which were running in excess of eight percent last year have settled to a more moderate 5.5%. Medical costs (4.2%), food & beverage (4.1%) and apparel (2.1%) are the other categories. Higher inflation in

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EXHIBIT 5
Total Bankruptcies in Arizona
Stand at Highest Level Since 1992

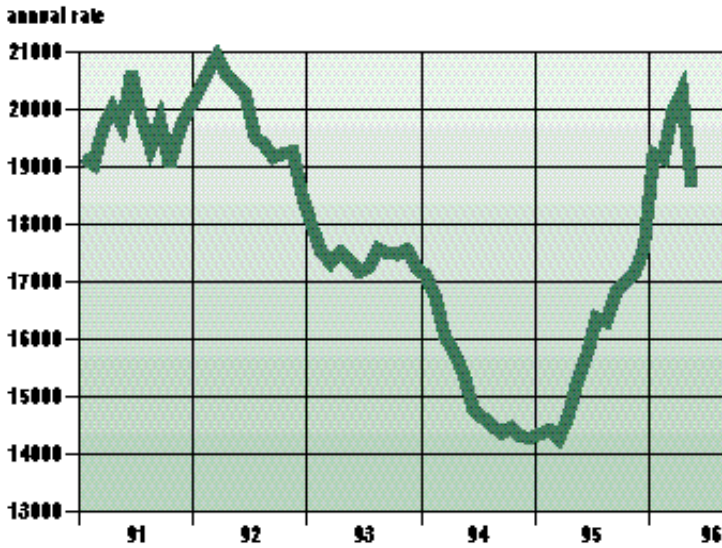


EXHIBIT 7
Alternative Scenarios -
Nonag Job Growth, Arizona

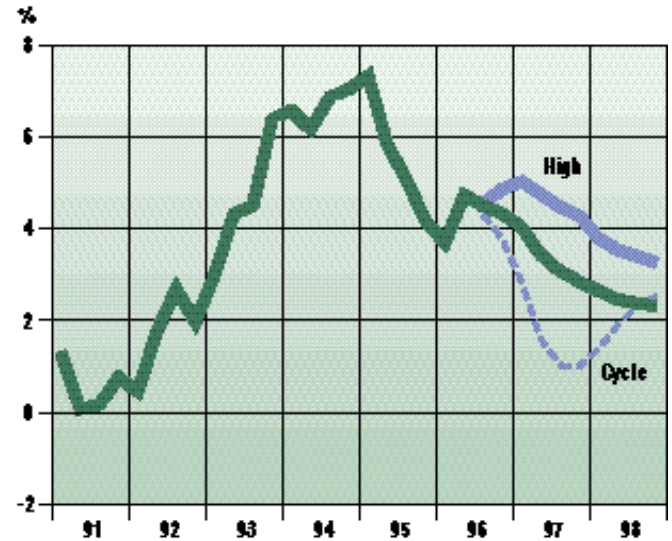


EXHIBIT 6
Retail Sales by Category, Arizona
 (\$000s and percent change from a year ago)

Current Month: June 96	\$000s	% chg current month	% chg past 12 months
Building Materials, Hardware, Garden Supply and Mobile Home Dealers	\$158,343	26.0	11.1
General Merchandise Stores	233,635	-10.5	3.2
Food Stores (no food sales)	177,791	-9.9	4.4
Motor Vehicle Dealers	392,619	7.3	11.4
Misc. Automotive, Motorcycle and Boat Stores	139,418	7.4	11.3
Apparel and Accessory Stores	135,208	-1.2	3.6
Furniture, Home Furnishings and Equipment Stores	121,948	3.1	6.4
Miscellaneous Retail Stores	157,492	9.6	7.0
Total Retail	\$2,315,561	4.4	7.5

Source: Arizona Department of Revenue and Economic and Business Research Program, The University of Arizona

Phoenix is to be expected, since it is among the fastest-growing metro areas in the country. However, inflation should moderate next year as the transitory effects of gasoline prices abate. Moreover, deregulation in the communications, utilities and financial services industries should lead to lower prices in those sectors and help moderate overall inflation for years to come. We expect a

return to the three to four percent range for inflation next year.

Restaurant & bar sales received a boost during the first quarter from several sporting events including the Super Bowl, the Fiesta Bowl where the national collegiate champion was determined, Tucson's Copper Bowl, and professional golf tournaments in both Phoenix and Tucson. First quarter sales

were up a strong 13.5% from the prior year. Second quarter sales receded to a more normal 7.2% gain. We expect a nine percent increase for all of 1996, followed by a gain of less than four percent next year.

Retail sales also received a boost in January (up 14.5%), but sales for the entire first quarter were a very modest 5.4%. The pace quickened in the second quarter, reaching 7.7%. That's about what we expect for all of 1996. Next year, however, consumers will tighten their belts considerably and a gain of less than four percent is expected. Autos are a major component here and although new car sales remain high, they are more likely to move lower rather than higher in this environment.

Nationwide, lenders are beginning to tighten consumer lending standards in reaction to increasing credit risk, and this will act as a brake on consumer spending. Consumer debt is at high levels and delinquencies are increasing. According to the American Bankers Association, consumer loan delinquencies for eight types of closed-end installment loans reached 2.32% in June, up from 1.95% 12 months earlier and the highest in three years. Delinquencies in Arizona are well below the nationwide rate at 1.43% in June. Even so, Bankruptcies in Arizona have been rising at a brisk 25% annual rate during the past year and are quickly approaching levels last seen at the

end of the 1990-91 recession (Exhibit 5). It has apparently become fashionable for people to file bankruptcy, even those who have never missed a payment and have the wherewithal to pay back their debt.

For their part, Arizona consumers remain quite optimistic. The index of consumer confidence measured by the Behavior Research Center remained near its peak for this business cycle. This measure has had a narrow range for the past one and a half years. Confidence in Phoenix is at its cycle peak, while in Tucson, the index has displayed unusual volatility from one quarter to the next.

Arizona recorded the second largest increase in population last year, according to the U.S. Department of Commerce. Its 3.5% increase trailed only Nevada's 5.0% gain. Idaho was a distant third with a 2.7% gain. As an indicator of population dynamics, residential electric customer growth in both the Tucson and Phoenix metro areas has moved to the highest level seen during this expansion. Some 48,000 new residential customers have been added during the past 12 months. Population is the wild card in the outlook. Continued high numbers of new residents could pump energy into the economy and keep growth high. New residents prop up retail sales, keep the housing market moving forward and provide a growing labor pool from which new job openings are filled. We are forecasting a 3.0%, or 125,000, gain in population this year, down from 3.4% and nearly 140,000 in 1995. Next year we project a 2.7% gain or 117,500 persons.

RETAIL SALES BY CATEGORY

For the month of June, retail sales state-wide increased 4.4% from June of last year (Exhibit 6). Sales of building materials (up 26.0%) and at miscellaneous retail stores (up 9.6%) registered the strongest increases. For the 12-month period that ended in June, motor vehicle dealers, the miscellaneous automotive group and building materials all recorded gains in excess of eleven percent. Total retail sales for the 12-month period gained 7.5%.

These figures are provided by the Arizona Department of Revenue (DOR). EBR's monthly survey of retail establishments, conducted in partnership with First Interstate Bank of Arizona, was recently discontinued. As EBR's survey data comes to an end,

analysts will be pleased to know that they can still gain valuable insights into spending trends using the DOR data. Technically, EBR's survey and Department of Revenue figures measure behavior of different groups, and are therefore not comparable. As a result, EBR's estimates should not be updated with the DOR data. Fortunately, DOR has been tabulating these data since mid-1987 and we have added these to our database. Also, data are available for all counties as well as state-wide aggregates.

METRO AREA UPDATE AND PROSPECTS

The sun continued to shine on the Phoenix-Mesa Metro Area's economy during the second quarter. Nonag jobs accelerated from the first quarter's 4.5% gain (compared to the year earlier) to 5.0% in the second. The trend continued into the third quarter with July's 5.3% gain. In the most recent

job rankings of all metro areas compiled by Arizona State University, Phoenix-Mesa was second only to Atlanta in the large-metro rankings (39 areas with more than 750,000 jobs), and 11th when compared to all metro areas, both large and small (nearly 300 metro areas). Second quarter retail sales were a strong 11.3% higher than a year earlier, resale home sales rested at a record-high 44,000 annual rate, and both building activity and population growth remained near peak levels for this expansion.

The pace is slowing in metro Phoenix, but not as fast as expected. Therefore, we've raised our forecasts for this year – job and personal income growth both by 0.7%, and sales by more than 2.5%. We continue to expect a significant slowing during the remainder of this year and next to rates of growth more in line with long-term averages. For example, job growth of under four percent next year and only 2.5% in 1998 is expected.

Metro Tucson's economy has already slowed to what might be considered "normal" levels. Employment growth over-the-year in recent months has been running in the 2.5-3.5% range, up from only 0.75% in the final quarter of last year. Retail sales registered a solid 7.2% gain in the first quarter, then a soft 1.5% gain during the second. Both building permits and awards have leveled off and resale home sales are steady after regaining lost ground in early 1995. Overall, Tucson is behaving about as one would expect for this stage of the business cycle.

For Tucson, our forecasts for 1996 remain largely unchanged from those found in last quarter's forecast, except for a small boost in retail sales. Tucson appears to have reached an equilibrium steady-state and is expected to continue growing throughout the next two years at a pace similar to that which exists today. Expect job growth of 2.5-3.0%, population gains averaging 2.1%, and retail sales increases in the neighborhood of five percent.

FORECAST RISKS

The biggest risks to the outlook at this point are net migration flows, which could remain high and keep the economy moving forward at above average rates. On the negative side are emerging problems with consumer credit, which could lead to lower consumer spending and higher interest rates. Additionally, the structure of the economy is changing quickly with deregulation of the

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communications, utilities and financial services industries. Our experience with deregulation of the transportation and telephone industries suggests that employment and prices should fall.

Although the U.S. economy appears to be in good shape at present, it is possible that the slowdown later this year could turn into recession in 1997. Inflation could take a turn for the worse, interest rates could spike along with Fed tightening, and a mild short-lived recession would follow. In this (CYCLE) scenario, Arizona's manufacturing employment falls, migration flows slow significantly, construction activity takes a dive, and Arizona's economy slows to a crawl in 1997. Job growth is only 1.6% in 1997, three full points below the BASE. Personal income, rather than increasing by 7.8% and 6.9%, manages gains of only 6.3% and 5.0% during 1997 and 1998.

Alternatively, the economy could turn out to be stronger as the bond market rallies, the Fed cuts interest rates, consumers continue spending, business investment surges, and exports grow rapidly as economies of our trading partners, including Mexico, improve. Arizona's manufacturing employment surges, a boom in commercial construction arrives in full force and migration flows remain much higher than assumed in the BASE. The results (our HIGH scenario) for 1997 shows population growth of 2.8%, job gains of 4.6% and personal income gains in the high-seven percent range.

We assign subjective probabilities of 20% to the CYCLE and 15% for the HIGH scenario. That leaves 65% for the BASE case (Exhibit 7). \$

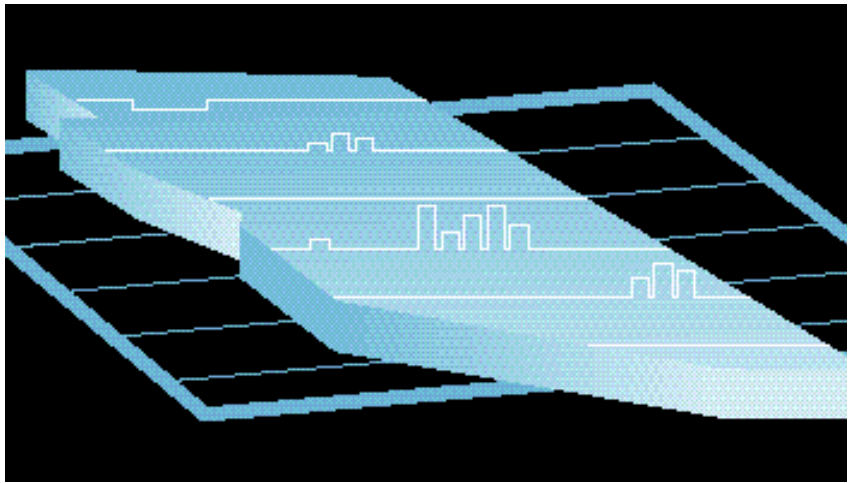
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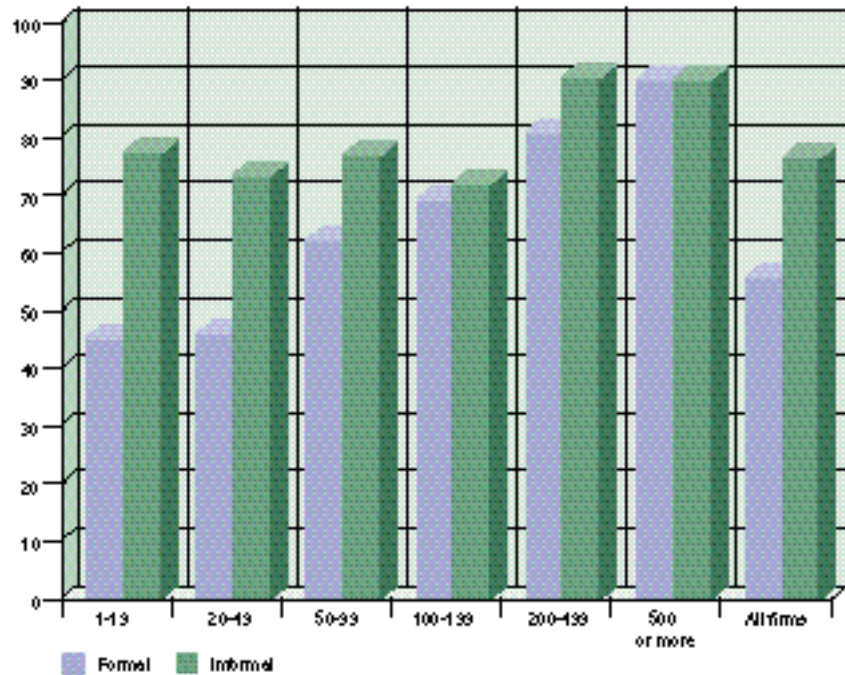
F O R E C A S T T A B L E S

	1994	1995	1996	1997	1998
Forecasts for Arizona					
Personal Income (\$ mill)	78,049.8	86,767.7	93,577.3	100,138.1	106,155.2
percent change	8.7	11.2	7.8	7.0	6.0
Per Capita Personal Income	19,136.6	20,571.1	21,547.2	22,450.6	23,229.8
percent change	5.2	7.5	4.7	4.2	3.5
Aggregate Retail Sales (\$ mill)*	34,969.9	37,765.4	40,993.1	42,615.4	44,294.4
percent change	10.7	8.0	8.5	4.0	3.9
Population (000s, mid-year)	4,078.6	4,217.9	4,342.9	4,460.4	4,569.8
percent change	3.4	3.4	3.0	2.7	2.5
Net Migration (000s)	100.3	98.5	82.0	78.5	68.0
Wage & Salary Employment (000s)	1,691.9	1,786.1	1,863.2	1,925.3	1,972.4
percent change	6.7	5.6	4.3	3.3	2.4
Goods-Producing	310.6	325.8	340.3	346.6	345.3
percent change	11.8	4.9	4.4	1.8	-0.4
Construction	108.5	120.0	126.7	127.0	123.8
percent change	21.6	10.6	5.6	0.2	-2.5
Manufacturing	190.1	193.8	201.0	206.7	208.7
percent change	7.7	2.0	3.7	2.9	0.9
Service-Providing	1,381.4	1,460.3	1,522.9	1,578.8	1,627.1
percent change	5.6	5.7	4.3	3.7	3.1
Trade (Wholesale & Retail)	416.4	447.7	458.8	470.3	479.4
percent change	6.9	7.5	2.5	2.5	1.9
Services	484.9	518.7	550.5	580.7	608.4
percent change	7.6	7.0	6.1	5.5	4.8
Forecasts for Phoenix-Mesa Metro Area					
Personal Income (\$ mill)	51,937.9	57,630.6	62,452.8	66,306.5	69,725.4
percent change	9.0	11.0	8.4	6.2	5.2
Per Capita Personal Income	20,986.7	22,480.5	23,533.3	24,221.9	24,810.8
percent change	5.4	7.1	4.7	2.9	2.4
Aggregate Retail Sales (\$ mill)*	22,892.6	24,961.2	27,196.6	28,513.7	29,764.5
percent change	12.5	9.0	9.0	4.8	4.4
Population (000s, mid-year)	2,474.8	2,563.6	2,653.8	2,737.5	2,810.3
percent change	3.5	3.6	3.5	3.2	2.7
Net Migration (000s)	60.1	64.1	64.2	56.9	45.3
Wage & Salary Employment (000s)	1,142.5	1,219.6	1,286.0	1,335.0	1,368.1
percent change	6.8	6.7	5.4	3.8	2.5
Goods-Producing	226.2	237.7	251.4	260.6	262.0
percent change	12.3	5.1	5.8	3.7	0.5
Construction	74.7	81.3	88.5	90.7	89.1
percent change	22.4	8.9	8.8	2.5	-1.7
Manufacturing	146.7	151.4	158.0	165.0	167.9
percent change	8.0	3.2	4.3	4.4	1.8
Service-Providing	916.4	981.9	1,034.6	1,074.3	1,106.1
percent change	5.6	7.2	5.4	3.8	3.0
Trade (Wholesale & Retail)	280.4	297.9	311.2	320.2	326.6
percent change	7.0	6.2	4.5	2.9	2.0
Services	336.0	362.3	388.6	410.7	429.8
percent change	8.7	7.8	7.2	5.7	4.6
Forecasts for Tucson Metro Area					
Personal Income (\$ mill)	13,587.9	14,480.3	15,183.5	15,969.9	16,747.2
percent change	9.8	6.6	4.9	5.2	4.9
Per Capita Personal Income	18,397.6	19,053.0	19,573.4	20,181.5	20,732.7
percent change	7.0	3.6	2.7	3.1	2.7
Aggregate Retail Sales (\$ mill)*	6,067.4	6,300.6	6,687.3	6,989.9	7,309.2
percent change	9.2	3.8	6.1	4.5	4.6
Population (000s, mid-year)	738.6	760.0	775.7	791.3	807.8
percent change	2.6	2.9	2.1	2.0	2.1
Net Migration (000s)	13.8	16.8	11.1	11.0	11.6
Wage & Salary Employment (000s)	294.5	302.4	308.4	317.1	324.8
percent change	7.0	2.7	2.0	2.8	2.4
Goods-Producing	47.4	50.0	48.5	48.5	48.4
percent change	13.2	5.5	-3.0	0.1	-0.4
Construction	18.9	19.9	20.1	20.1	20.2
percent change	21.0	4.9	1.0	0.1	0.4
Manufacturing	26.4	27.9	26.3	26.3	26.0
percent change	9.8	5.7	-6.0	-0.1	-1.0
Service-Providing	247.1	252.4	259.9	268.6	276.4
percent change	5.9	2.1	3.0	3.3	2.9
Trade (Wholesale & Retail)	67.8	68.5	69.5	70.9	72.4
percent change	6.7	1.1	1.5	1.9	2.1
Services	88.4	93.0	97.8	102.6	107.3
percent change	6.2	5.2	5.1	4.9	4.6

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

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

TABLE 1
Percent of firms providing formal or informal training, by firm size



This article is based upon the report by Arthur L. Silvers and Brian C. Catts, "Expenditures and Attributes of Employer-Based Workforce Training in Arizona," April, 1996 to the Governor's Division of Workforce Development, State of Arizona.

EMPLOYER-PROVIDED TRAINING IN ARIZONA

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Much is known about the activities of schools, colleges, and training centers in teaching skills to the workforce. Less is known about the role that employers play in actively teaching skills to their employees. The study described here was undertaken at The University of Arizona to identify the training activities of Arizona firms, their training expenditures and the types of employees that they train.

This study makes use of a survey of 380 firms in all counties of the state. Maricopa and Pima account for 70% of surveyed firms; the 30% share for the less populous counties is high relative to their share of Arizona employment. All economic sectors are included, but the service sector accounts for 39% of surveyed firms, which is high relative to their actual share. While all size classes are represented, the smallest size class (fewer than 20 employees) accounts for 24% of surveyed firms. This size class has

by far the largest proportion of Arizona's firms, and was undersampled to give the relatively small number of large firms a better chance for inclusion in the sample. Finally, both single- and multi-establishment firms were sampled; single-establishment firms account for 63% of the surveyed firms.

The survey questionnaire was mailed to those company officers who have responsibility for training activities and asked about training-related activities for the calendar year 1994.

After briefly describing the types of firms that provide training, the article shows how much firms spend on both formal and informal training; outlines the kinds and sources of formal training provided; and looks at the impact on employees receiving training.

TYPES OF FIRMS THAT PROVIDE TRAINING

Firms were asked whether or not they provide training for their employees, and to consider informal training separately from their formal activities. But nearly one-fifth (18.5%) of Arizona firms provide no training at all, and this percentage is the same whether the firm is located in a major metropolitan county or not. The three leading reasons cited for not offering training were:

- 1) workers don't need additional training;
- 2) labor turnover is too high to make training worthwhile; and
- 3) lack of funds for training.

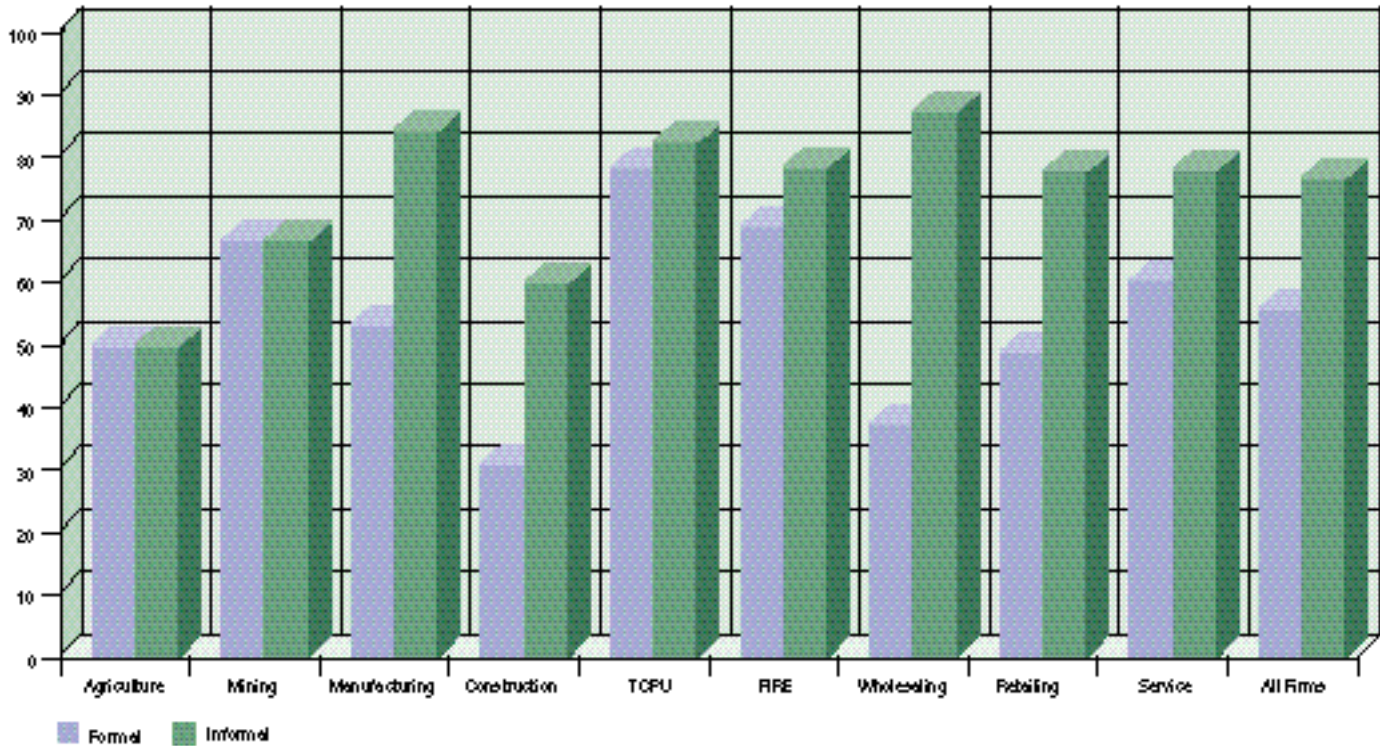
Formal training, given by a professional trainer or by a co-worker assigned to training responsibilities, often using instructional materials, is provided by 56% of the firms. Informal training – training given on-the-job on a one-on-one basis by a supervisor or a peer – is provided by 77% of the surveyed firms.

As would be expected, the larger firms are the most likely to provide formal training – 90% of the firms with 500 or more employees. But it shouldn't be presumed that the very small firms do not provide formal training. Nearly half – 45% – of all firms with fewer than 20 employees have formal training for their workers (Table 1). This proportion is about the same for firms with 20 to 49 employees.

In fact, 77.4% of the smallest size firms (under 20 employees) provide informal training and this is slightly higher, proportionately, than firms in the next three size classes (20 - 199) that provide informal training. However, the proportion jumps to 90% for firms with 200 or more employees.

TABLE 2

Percent of firms providing formal or informal training, by sector of firm



The sector in which a firm does business affects the likelihood that it provides formal training. The sectors most likely to provide formal training are mining, transportation, communications and public facilities (TCPU), and finance, insurance and real estate (FIRE). At least two-thirds of the firms in these sectors provide formal training (Table 2). The sectors in which firms are least likely to provide formal training are agriculture, construction, wholesaling and retailing sectors, in which no more than half of the firms provide formal training.

Again, agricultural and construction firms are the least likely and TCPU firms are among the most likely to offer informal or formal training while wholesalers and manufacturers are shown as the most likely to provide informal training.

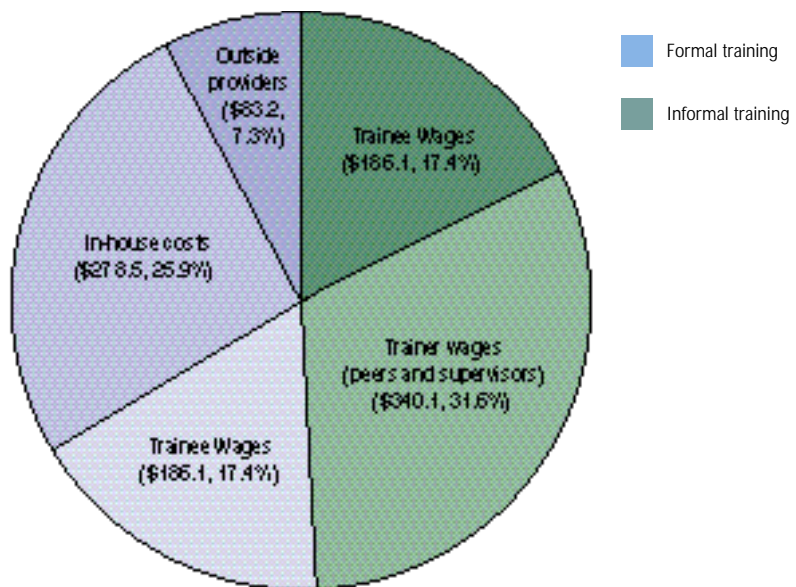
TRAINING EXPENDITURES OF ARIZONA FIRMS

Measures were obtained for four types of training expenditures:

- in-house training costs (training staff and materials);
- contracts with outside training providers;

FIGURE 1 Distribution of aggregate Arizona employer-provided training expenditures in millions of dollars, 1994

The total expenditures for both types of training is \$1,077.5 million dollars



When wage expenditures are included, Arizona's private sector spent virtually as much for informal training as for formal training (\$529.7 million versus \$547.8 million, respectively).

TABLE 3
Percent of firms offering types of formal training

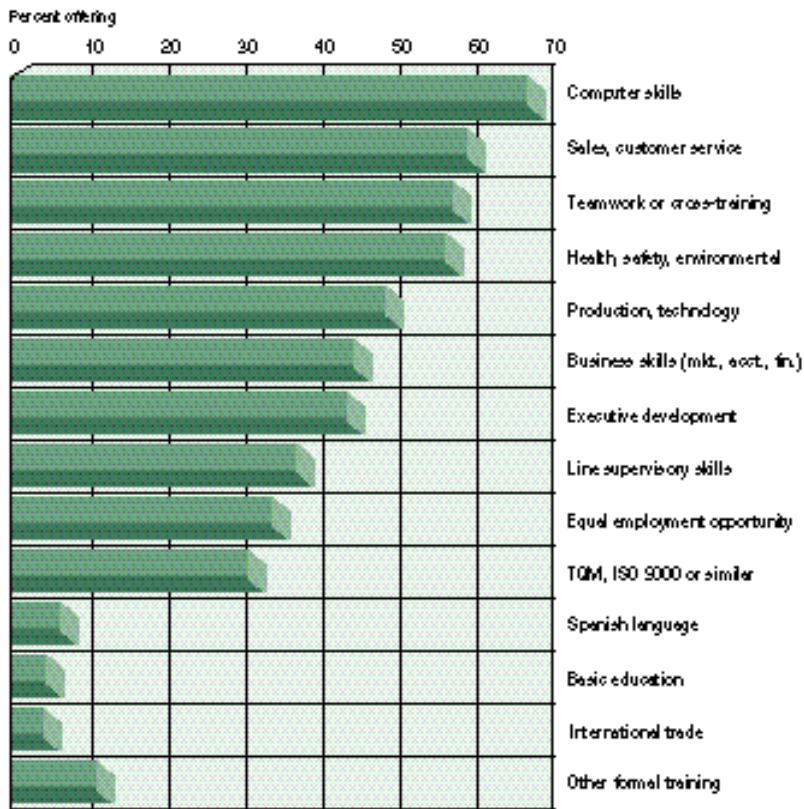
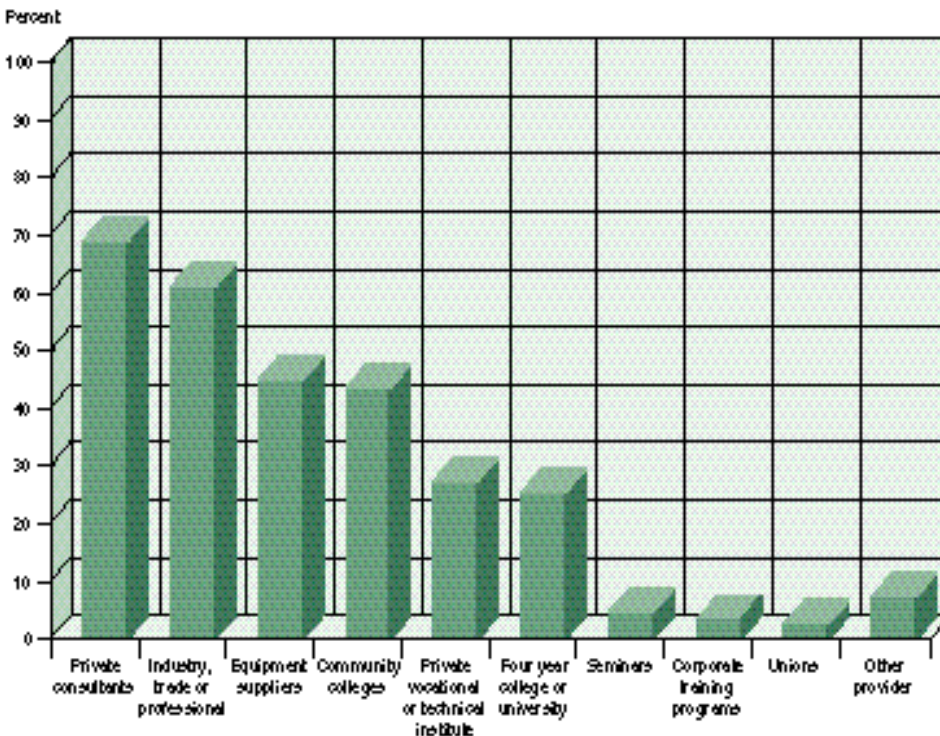


TABLE 4
Types of outside providers used for training



* The percents add to more than 100% because firms may cite more than one type of outside provider.

- wages paid to employees who receive formal or informal training during working hours;
- wages paid to peers and supervisors diverted from job duties to provide informal training.

Total firm expenditures for both in-house training costs and outside providers were provided by respondents, and both types of expenditures are for formal training. However, expenditures had to be estimated for wages paid 1) to employees during the time they spent receiving formal and informal training and 2) to supervisors and peer employees during the time they provide informal training to others.

The total firm wage expenditure estimates were obtained by asking respondents to

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indicate 1) the average number of formal and informal training hours per employee by occupation of employee; 2) the number of employees receiving formal and informal training or providing informal training by occupation of employee; and 3) average hourly wages by occupation of employee.

These three measures were multiplied together to yield the firm's estimated total wage expenditures for time spent while receiving or providing training.

The figures were then converted to expenditures per establishment and weighted by the total number of establishments in Arizona, all by size of establishment, to estimate Arizona's total private sector training expenditures.

In 1994, Arizona's private sector spent an estimated \$1.08 billion for all types of training. This comes to an average of \$636 per full-time employee, or \$2.35 for each \$100 spent for total employee wages and salaries.

Figure 1 shows 33% of the state-wide training expenditure total (\$464.6 million) was for direct in-house and outside provider expenditures for formal training. The majority of these expenditures (67%) were for the wages paid either to employees on company time while receiving training or to supervisors and peers while providing informal training.

When wage expenditures are included, Arizona's private sector spent virtually as much for informal training as for formal training (\$529.7 million versus \$547.8 million, respectively).

TYPES AND SOURCES OF FORMAL TRAINING PROVIDED

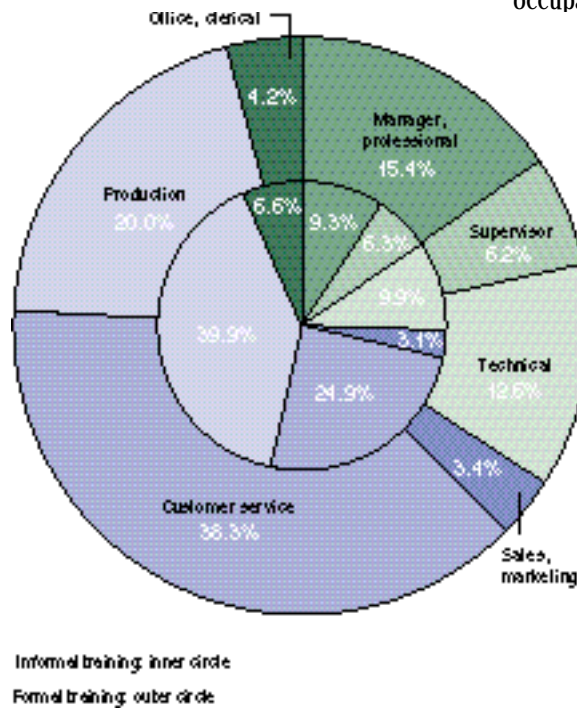
The types of formal training skills offered by the surveyed firms are shown in Table 3. The five most frequently taught are: computer skills, sales and customer service, teamwork or cross-training, health, safety and environmental, and production/technical skills, in that order. Among the least frequently taught skills are Spanish language, basic education and international trade. This raises questions about the breadth of interest Arizona businesses have in trade with Mexico.

Of the surveyed firms that provide formal training, one-third (32.9%) maintain a formal training department. However, staffing of formal training activities is not limited to formal training departments since employees in a variety of departments may have the expertise appropriate to train others. Four-fifths of the firms providing formal training (79.4%) indicated the use for training of in-house staff not assigned to a formal training department.

Firms also contract with outside providers for formal training, used by 71% of sampled firms that provide formal training. Of firms using outside training providers, the mean expenditure in 1994 was \$18,059.

The types of outside providers used are shown in Table 4. Most frequently used are private consultants (69.1%), followed by industry, trade or professional organizations (61.1%). But nearly half of these firms chose equipment suppliers and community colleges for their training needs.

FIGURE 2
Occupational distribution of total training hours (PCT)



tested this issue in our survey by estimating the mean number of hours of both formal and informal training received by each occupation during 1994.

Two wage-employee occupations, service and production, account for well over half of the total training hours (64% of informal and 58% of formal training hours). Office/clerical workers account for another small percentage (seven percent of informal and four percent of formal training hours). In contrast, the manager/professional occupations account for nine percent of total hours of informal training and 15% of formal training hours provided by employers (Figure 2).

These percentages can be given perspective by comparing them with Arizona's occupational distribution of employment. In 1990, 56% of Arizona's workforce was in the service, production or office/clerical occupations, while 27.5% was in managerial or professional occupations.

These comparisons suggest that employer-provided training benefits wage employees relatively more than the higher paid manager/professional occupations.

However, additional survey data shows that 25% of formal training expenditures for both in-house activities and outside providers were directed toward the manager/professional occupations; and only 37% of these expenditures were directed toward the three wage-employee groups – the customer service, production and office/clerical occupations. These are the direct expenditures and do not include the wages and salaries paid to employees during their training hours.

Apparently, the manager/professional occupations are provided with the more costly types of formal training that may yield relatively higher productivity impacts. But whether the manager/professionals who receive more costly training (but fewer training hours) benefit more than wage employees who receive the opposite configuration (less costly training but more training hours) is a question for further study. \$

IMPACTS UPON EMPLOYEES RECEIVING TRAINING

As cited earlier, some firms choose not to invest in upgrading the skills of their employees because they anticipate that many would quit to gain higher pay elsewhere. This issue was analyzed in this survey with the use of more advanced statistical methods (multiple regression analysis). Contrary to these expectations, it was found that increased training expenditures per employee are associated with significantly lower non-supervisory turnover rates. Likely explanations are that firms limit training to workers or to skills that are less likely to induce turnover, either selecting employees who have demonstrated loyalty to the firm, or selecting skills that are specific to the firm rather than to the general labor market.

Concern has been raised that although employer-provided training has the potential to raise the earnings of wage employees by raising their productivity, it may favor occupations with the highest earnings. A consequence, some have argued, is that it tends to worsen the earnings gap between the lower and higher paid occupations. We

ARIZONA ECONOMIC INDICATORS

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
YUMA METROPOLITAN REGION							
Civilian Labor Force, ADES	64,800	69,150	70,800	72,400	72,150	3.2	-1.9
Employment	44,875	45,800	44,350	45,100	45,950	-1.4	1.6
Unemployment	19,925	23,350	26,450	27,300	26,200	12.4	-10.0
Unemployment Rate (%)	30.7	33.8	37.4	37.7	36.3	9.0	-9.0
Employees on Nonagricultural Payrolls, ADES							
Total	35,600	35,100	34,200	34,800	35,800	0.6	2.0
Mining	0	0	0	0	0	...	...
Construction	1,500	1,500	1,600	1,500	1,600	0.0	-8.6
Manufacturing	1,300	1,300	1,300	1,300	1,300	-7.1	-8.5
Trans., Comm. & Publ. Util.	1,800	1,800	1,700	1,800	1,800	0.0	2.9
Trade	11,400	11,200	11,100	11,200	11,300	-3.4	-0.3
Finance, Ins. & Real Estate	1,100	1,100	1,100	1,200	1,200	0.0	-4.7
Services	9,100	9,200	9,100	9,100	9,100	8.3	9.6
Government	9,400	9,000	8,300	8,700	9,500	0.0	2.8
Sales (\$000s) ADOR							
Gross Retail	62,193	29,275	55,362	53,988	...	-6.0	1.0
Retail	47,980	16,108	42,667	42,736	...	-4.7	0.1
Restaurants & Bar	6,866	5,765	6,142	6,229	...	7.0	2.9
Gasoline, EBR	7,347	7,402	6,553	5,023	...	-26.1	5.9
Gallons (000s) ADOT	5,072	5,187	4,729	3,751	...	-33.3	0.6
Contracting	11,077	9,539	12,465	11,731	...	-3.7	9.5
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	9,841	14,915	11,656	15,077	13,046	-25.8	12.0
Residential Building	7,225	6,917	4,951	5,365	7,495	22.5	8.5
Non-Residential Building	1,048	4,918	3,430	5,159	4,366	-23.2	10.8
Non-Building	1,568	3,080	3,275	4,553	1,185	-79.5	21.8
Number of Dwelling Units Awarded, F.W. Dodge							
Total	89	78	61	77	97	26.0	11.2
One Family Houses	86	78	61	77	97	26.0	8.9
MOHAVE-LA PAZ REGION							
Civilian Labor Force, ADES	67,250	69,200	69,325	68,800	69,250	4.1	6.7
Employment	63,175	64,675	64,725	64,200	64,100	3.0	7.7
Unemployment	4,075	4,525	4,600	4,600	5,150	20.5	-5.1
Unemployment Rate (%)	6.1	6.5	6.6	6.7	7.4	15.7	-11.5
Employees on Nonagricultural Payrolls, ADES							
Total	37,900	38,000	38,200	37,900	38,100	-0.8	2.2
Mining	200	200	200	200	200	0.0	20.0
Construction	2,600	2,600	2,700	2,600	2,600	-3.7	-7.0
Manufacturing	3,500	3,500	3,600	3,600	3,700	-2.6	-1.4
Trans., Comm. & Publ. Util.	2,000	2,000	2,000	2,000	2,000	5.3	10.6
Trade	11,300	11,200	11,200	11,300	11,300	0.9	1.6
Finance, Ins. & Real Estate	1,500	1,500	1,500	1,500	1,500	0.0	-6.8
Services	9,300	9,400	9,400	9,200	9,200	-2.1	2.9
Government	7,500	7,600	7,600	7,500	7,600	-1.3	7.6
Sales (\$000s) ADOR							
Gross Retail	90,705	81,987	85,277	83,060	...	12.3	10.1
Retail	62,603	56,559	60,034	59,360	...	11.5	7.3
Restaurants & Bar	11,393	11,194	11,103	10,446	...	7.3	7.4
Gasoline, EBR	16,709	14,234	14,140	13,254	...	20.5	28.0
Gallons (000s) ADOT	11,535	9,974	10,203	9,899	...	8.8	20.1
Contracting	13,275	14,632	14,463	15,564	...	2.2	-5.6
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	29,121	15,645	22,368	18,542	18,435	3.7	-9.6
Residential Building	15,242	11,747	15,305	11,829	13,279	44.1	6.8
Non-Residential Building	5,487	1,480	284	3,123	3,774	76.7	-62.2
Non-Building	8,392	2,418	6,779	3,590	1,382	-78.5	26.3
Number of Dwelling Units Awarded, F.W. Dodge							
Total	171	140	189	130	164	36.7	5.3
One Family Houses	171	138	137	130	164	46.4	4.2

See notes at bottom of Arizona - Quarterly table.

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
COCHISE-SANTA CRUZ REGION							
Civilian Labor Force, ADES	56,525	59,125	59,075	59,175	59,675	2.1	2.6
Employment	50,775	51,450	51,100	50,975	50,550	0.5	2.8
Unemployment	5,750	7,675	7,975	8,200	9,125	11.6	0.8
Unemployment Rate (%)	10.2	13.0	13.5	13.9	15.3	9.4	-1.9
Employees on Nonagricultural Payrolls, ADES							
Total	42,200	41,600	41,500	41,400	41,700	2.5	3.2
Mining	0	0	0	0	0	-100.0	-75.0
Construction	2,000	1,900	1,900	1,900	2,000	0.0	3.5
Manufacturing	2,000	2,000	2,000	2,100	2,300	15.0	2.9
Trans., Comm. & Publ. Util.	2,300	2,400	2,400	2,300	2,200	0.0	3.8
Trade	11,200	10,900	10,800	10,700	10,700	-0.9	-3.4
Finance, Ins. & Real Estate	800	800	900	800	900	-10.0	-14.0
Services	9,300	9,300	9,500	9,300	9,200	3.4	7.4
Government	14,600	14,300	14,000	14,300	14,400	5.1	8.1
Sales (\$000s) ADOR							
Gross Retail	57,454	61,868	60,276	58,724	...	0.5	-1.4
Retail	42,977	46,214	46,424	45,604	...	1.5	-2.7
Restaurants & Bar	7,551	8,223	7,247	7,672	...	9.1	0.8
Gasoline, EBR	6,926	7,431	6,605	5,448	...	-16.0	5.2
Gallons (000s) ADOT	4,781	5,207	4,766	4,069	...	-24.2	-0.5
Contracting	11,880	12,763	14,546	11,055	...	-17.9	-5.2
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	11,933	11,690	13,241	20,976	23,035	206.4	14.1
Residential Building	6,668	6,815	6,090	9,229	6,466	57.8	61.7
Non-Residential Building	2,616	3,220	180	6,278	9,200	756.6	-31.0
Non-Building	2,649	1,655	6,971	5,469	7,369	213.8	-11.4
Number of Dwelling Units Awarded, F.W. Dodge							
Total	80	84	82	89	86	10.3	10.1
One Family Houses	80	84	82	87	86	10.3	13.9
GILA-GRAHAM-GREENLEE REGION							
Civilian Labor Force, ADES	35,250	36,175	35,400	34,900	35,050	-3.5	4.4
Employment	32,775	33,200	32,425	32,050	31,975	-4.6	4.8
Unemployment	2,475	2,975	2,975	2,850	3,075	9.8	-0.3
Unemployment Rate (%)	7.0	8.2	8.4	8.2	8.8	13.8	-4.8
Employees on Nonagricultural Payrolls, ADES							
Total	26,100	25,900	25,300	25,300	25,800	0.0	5.9
Mining	2,900	2,900	2,900	2,900	3,000	7.1	0.9
Construction	1,600	1,600	1,600	1,700	1,700	-5.6	-0.5
Manufacturing	2,100	2,100	2,100	2,100	2,100	10.5	10.0
Trans., Comm. & Publ. Util.	800	800	800	800	800	0.0	9.1
Trade	5,500	5,400	5,400	5,400	5,500	-3.5	-1.8
Finance, Ins. & Real Estate	600	600	600	600	600	20.0	1.5
Services	5,100	5,200	5,200	5,100	5,100	0.0	16.3
Government	7,500	7,300	6,700	6,700	7,000	-2.8	8.1
Sales (\$000s) ADOR							
Gross Retail	41,050	41,718	42,055	40,084	...	0.3	5.6
Retail	30,854	31,572	31,601	30,398	...	0.7	5.3
Restaurants & Bar	5,607	5,441	5,383	5,494	...	1.2	6.0
Gasoline, EBR	4,589	4,705	5,071	4,192	...	-3.3	7.4
Gallons (000s) ADOT	3,168	3,297	3,659	3,131	...	-12.7	1.2
Contracting	10,225	13,016	12,694	11,667	...	48.4	8.1
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	5,393	8,640	7,433	8,504	9,730	51.5	1.5
Residential Building	4,823	5,736	4,149	2,815	4,118	36.2	17.3
Non-Residential Building	205	1,781	419	1,409	5,040	...	-38.8
Non-Building	365	1,123	2,865	4,280	572	-83.2	20.5
Number of Dwelling Units Awarded, F.W. Dodge							
Total	53	57	43	35	38	-11.6	9.9
One Family Houses	53	51	43	33	38	31.0	28.2

See notes at bottom of Arizona - Quarterly table.

ARIZONA ECONOMIC INDICATORS

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for: most recent month	most recent 12-months
APACHE-NAVAJO REGION							
Civilian Labor Force, ADES	50,850	53,775	54,525	52,325	51,700	2.1	1.9
Employment	43,950	43,375	43,175	43,375	43,425	-0.4	2.3
Unemployment	6,900	10,400	11,350	8,950	8,275	17.8	-0.2
Unemployment Rate (%)	13.6	19.3	20.8	17.1	16.0	15.3	-2.0
Employees on Nonagricultural Payrolls, ADES							
Total	41,500	40,500	40,100	40,800	41,700	4.2	3.0
Mining	900	900	900	900	900	-10.0	-7.5
Construction	1,700	1,800	1,800	1,800	1,800	12.5	9.0
Manufacturing	1,700	1,700	1,700	1,800	1,800	5.9	-5.9
Trans., Comm. & Publ. Util.	2,800	2,900	2,900	2,900	2,900	0.0	0.0
Trade	7,100	7,100	7,300	7,200	7,100	1.4	1.2
Finance, Ins. & Real Estate	1,600	1,600	1,500	1,500	1,600	14.3	10.6
Services	11,000	11,200	11,100	11,000	11,000	1.9	3.3
Government	14,700	13,200	12,900	13,700	14,600	7.4	1.1
Sales (\$000s) ADOR							
Gross Retail	64,236	62,520	60,269	65,357	...	-1.8	-28.1
Retail	48,524	45,565	43,954	49,628	...	-2.4	-34.7
Restaurants & Bar	5,537	6,662	5,758	6,324	...	16.9	7.8
Gasoline, EBR	10,175	10,293	10,557	9,405	...	-8.5	5.1
Gallons (000s) ADOT	7,024	7,213	7,617	7,024	...	-17.4	-1.1
Contracting	9,797	9,845	10,574	11,054	...	17.2	30.4
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	11,856	19,192	9,910	19,982	6,007	-26.2	-8.6
Residential Building	8,949	5,377	6,164	12,935	4,159	14.2	28.9
Non-Residential Building	221	5,793	220	41	1,248	-48.7	-26.4
Non-Building	2,686	8,022	3,526	7,006	600	-71.0	-23.2
Number of Dwelling Units Awarded, F.W. Dodge							
Total	116	53	70	156	46	12.2	42.0
One Family Houses	116	53	70	156	46	12.2	43.9
COCONINO-YAVAPAI REGION							
Civilian Labor Force, ADES	118,400	121,800	122,300	120,350	120,225	-3.3	1.9
Employment	111,850	113,375	113,675	112,925	112,525	-4.0	2.4
Unemployment	6,550	8,425	8,625	7,425	7,700	7.7	-5.5
Unemployment Rate (%)	5.5	6.9	7.1	6.2	6.4	11.4	-7.4
Employees on Nonagricultural Payrolls, ADES							
Total	90,100	89,800	89,400	90,100	91,400	-0.3	2.8
Mining	900	900	900	1,000	900	0.0	5.8
Construction	6,400	6,500	6,400	6,400	6,400	4.9	5.7
Manufacturing	5,400	5,400	5,400	5,400	5,500	-1.8	-7.4
Trans., Comm. & Publ. Util.	2,900	3,000	2,900	2,900	2,900	-3.3	-1.1
Trade	24,100	24,600	24,700	24,600	24,600	-2.0	1.1
Finance, Ins. & Real Estate	2,400	2,400	2,300	2,400	2,400	0.0	-4.7
Services	23,300	23,900	23,900	24,100	23,800	0.4	2.4
Government	24,700	23,100	22,900	23,300	24,900	-0.0	8.4
Sales (\$000s) ADOR							
Gross Retail	169,364	175,103	175,297	175,036	...	5.6	7.7
Retail	119,573	122,872	121,872	124,082	...	6.0	7.4
Restaurants & Bar	29,460	32,297	32,578	31,725	...	0.9	7.8
Gasoline, EBR	20,331	19,934	20,847	19,229	...	10.8	9.4
Gallons (000s) ADOT	14,035	13,968	15,042	14,361	...	0.1	2.5
Contracting	35,960	42,249	42,445	46,365	...	32.2	31.2
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total	47,026	41,926	47,360	53,752	47,146	8.1	15.6
Residential Building	24,502	22,116	29,177	32,016	23,536	-27.7	-11.6
Non-Residential Building	4,887	9,782	10,423	8,606	15,033	89.7	39.2
Non-Building	17,637	10,028	7,760	13,130	8,577	173.8	127.6
Number of Dwelling Units Awarded, F.W. Dodge							
Total	249	223	426	469	228	-55.5	-4.8
One Family Houses	208	208	200	219	215	12.0	-0.9

See notes at bottom of Arizona - Quarterly table.

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL)							
Civilian Labor Force (000s) ADES	1,383.4	1,399.3	1,396.3	1,388.2	1,394.1	1.3	3.7
Employment	1,338.2	1,346.8	1,342.7	1,334.9	1,336.3	0.8	4.1
Unemployment	45.2	52.5	53.6	53.3	57.8	12.9	-5.9
Unemployment Rate, Seas. Adj. (%)	3.6	3.6	3.7	3.8	3.8	11.8	-8.9
Employees on Nonagricultural Payrolls (000s) ADES							
Total	1,275.6	1,261.7	1,254.7	1,263.5	1,284.7	5.0	4.9
Mining	5.1	5.1	5.2	5.1	5.1	-1.9	0.6
Construction	87.2	87.6	88.6	90.3	88.6	6.0	6.8
Manufacturing	154.6	155.7	155.8	156.2	156.9	4.8	4.0
Durable	117.5	118.9	119.2	119.4	120.0	6.6	5.3
Nondurable	37.1	36.8	36.6	36.8	36.9	-0.5	-0.1
Trans., Comm. & Publ. Util.	64.2	65.6	65.8	66.0	66.1	3.9	1.2
Trade	320.9	319.8	319.7	322.0	325.4	5.3	5.0
Wholesale	78.7	78.8	78.9	79.4	79.9	8.9	7.2
Retail	242.2	241.0	240.8	242.6	245.5	4.2	4.3
Finance, Ins. & Real Estate	88.9	89.2	89.4	89.9	90.0	3.4	1.4
Services	385.5	385.9	385.0	386.3	388.0	6.9	6.4
Government	169.2	152.8	145.2	147.7	164.6	1.5	4.7
Sales (\$000s) ADOR							
Aggregate Retail Sales	2,330,292	2,290,417	2,016,420	2,117,271	...	6.5	10.4
Retail	1,631,094	1,604,147	1,392,407	1,505,265	...	7.3	10.2
Food, EBR	292,951	287,266	275,618	275,898	...	4.8	8.1
Restaurants & Bars	266,868	256,386	216,349	225,703	...	8.2	10.1
Gasoline, EBR	139,379	142,618	132,046	110,406	...	-3.0	19.4
Contracting	436,511	482,341	454,764	459,484	...	10.2	24.3
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total Awards	519,552	664,260	565,389	642,023	746,751	56.6	10.7
Residential Building	392,973	435,096	402,001	372,426	436,626	29.8	12.1
Non-Residential Building	100,772	154,672	105,622	219,657	281,817	190.4	16.7
Non-Building	25,807	74,492	57,766	49,940	28,308	-35.1	-10.3
New Housing Units Authorized, Census C-40							
Total Units	3,350	3,040	3,350	2,487	...	-24.9	9.6
Single Family Units	2,834	2,635	2,715	2,397	...	-17.1	11.3
2-4 Unit Structures	10	10	38	32	...	-39.6	-25.6
5-plus Unit Structures	506	395	597	58	...	-84.3	6.6
Housing Sales and Prices, ARMLS							
Total Sales (\$000s)	560,125	506,278	488,548	508,908	356,513	-9.4	27.1
Total Units	4,458	4,039	3,824	3,856	2,808	-16.3	20.8
Average Price (\$)	125,645	125,347	127,758	131,978	126,963	8.2	5.4
Phoenix Skyharbor International Airport, PSIA							
Total Passengers	2,499,058	2,489,193	2,483,039	...	...	3.6	9.1
Total Aircraft Movements	35,112	33,478	34,534	...	...	4.8	-17.1

	PHOENIX-MESA METROPOLITAN REGION (MARICOPA AND PINAL) - QUARTERLY DATA					% change versus year ago for:	
	III 95	IV 95	I 96	II 96	III 96	most recent quarter	most recent 4-quarters
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	2,574.9	2,597.4	2,620.0	2,642.5	2,665.1	3.5	3.5
Natural Increase	6.2	6.3	6.4	6.5	6.5	5.2	5.6
Births	11.3	11.4	11.5	11.6	11.7	4.0	4.1
Deaths	5.1	5.1	5.1	5.2	5.2	2.5	2.2
Net Migration	16.2	16.2	16.2	16.1	16.0	-1.3	0.3
Personal Income by Source (\$mil, SAAR) EBR							
Total Personal Income	58,340	59,497	60,645	61,850	63,056	8.1	8.9
Earnings by Place of Work	42,399	43,275	44,148	45,047	45,945	8.4	9.0
Less: Contributions for Social Insurance	2,583	2,637	2,691	2,741	2,791	8.0	7.5
Plus: Adjustment for Residence	-32	-32	-32	-32	-32	-0.1	1.1
Plus: Dividends, Interest & Rents	9,603	9,764	9,922	10,102	10,282	7.1	8.5
Plus: Transfer Payments	8,954	9,127	9,298	9,475	9,652	7.8	8.3
Per Capita Personal Income (\$, SAAR) EBR	22,657	22,906	23,147	23,406	23,660	4.4	5.1

See notes at bottom of Arizona - Quarterly table

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
TUCSON METROPOLITAN REGION (PIMA)							
Civilian Labor Force (000s) ADES	373.2	372.8	367.8	367.6	371.9	-0.7	1.2
Employment	361.2	359.0	353.8	354.2	357.1	-1.2	1.2
Unemployment	12.0	13.8	14.0	13.4	14.8	13.0	-1.5
Unemployment Rate, Seas. Adj. (%)	3.6	3.6	3.8	3.7	3.8	18.7	-1.7
Employees on Nonagricultural Payrolls (000s) ADES							
Total	310.4	303.4	298.0	302.5	310.0	3.1	2.0
Mining	2.3	2.4	2.4	2.4	2.3	4.5	7.4
Construction	20.0	20.2	20.5	20.5	20.2	2.0	3.3
Manufacturing	27.7	27.8	27.6	27.7	28.0	1.4	1.1
Durable	22.6	22.7	22.6	22.7	22.9	2.7	2.0
Nondurable	5.1	5.1	5.0	5.0	5.1	-3.8	-2.7
Trans., Comm. & Publ. Util.	13.5	13.5	13.2	13.4	13.4	-0.7	1.6
Trade	70.2	69.5	69.2	68.7	69.1	1.6	1.3
Wholesale	10.5	10.5	10.7	10.4	10.4	6.1	4.1
Retail	59.7	59.0	58.5	58.3	58.7	0.9	0.8
Finance, Ins. & Real Estate	11.9	12.0	12.0	12.2	12.3	5.1	1.0
Services	93.6	93.0	92.7	92.9	93.4	2.5	1.3
Government	71.2	65.0	60.4	64.7	71.3	6.9	3.7
Sales (\$000s) ADOR							
Aggregate Retail Sales	560,407	540,875	501,870	509,382	...	0.5	4.6
Retail	378,957	362,527	335,625	351,294	...	1.4	3.9
Food, EBR	77,887	76,375	73,278	73,353	...	1.7	4.5
Restaurants & Bars	65,193	62,112	56,979	57,367	...	6.6	6.3
Gasoline, EBR	38,371	39,861	35,988	27,368	...	-20.9	10.1
Contracting	96,684	93,751	93,481	90,107	...	-1.1	9.6
Value of Construction Contract Awards (\$000s) F.W. Dodge							
Total Awards	128,375	73,126	97,680	70,146	73,157	-33.7	-9.7
Residential Building	93,184	43,911	46,753	40,848	48,510	-24.8	-13.6
Non-Residential Building	28,798	16,990	34,701	23,757	17,593	-7.8	0.2
Non-Building	6,393	12,225	16,226	5,541	7,054	-73.5	-10.1
New Housing Units Authorized, Census C-40							
Total Units	587	458	638	440	...	-51.9	-10.2
Single Family Units	495	400	425	416	...	-13.5	-8.6
2-4 Unit Structures	20	4	8	8	...	14.3	-53.8
5-plus Unit Structures	72	54	205	16	...	-96.2	-10.1
Housing Sales and Prices, TAR							
Total Sales (\$000s)	114,202	108,457	100,670	...	...	6.8	13.6
Total Units	880	803	757	...	...	-3.7	7.5
Average Price (\$)	129,775	135,065	132,985	...	...	10.9	5.8
Tucson International Airport, TAA							
Total Passengers	320,038	274,808	269,928	269,231	249,728	2.8	2.2
Total Aircraft Movements	22,166	19,087	18,359	19,588	17,995	-8.8	3.3

	TUCSON METROPOLITAN REGION (PIMA) - QUARTERLY DATA					% change versus year ago for:	
	III 95	IV 95	I 96	II 96	III 96	most recent quarter	most recent 4-quarters
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	761.9	765.9	769.8	773.7	777.7	2.1	2.2
Natural Increase	1.1	1.1	1.1	1.1	1.1	-0.3	-0.8
Births	2.8	2.8	2.8	2.8	2.9	2.2	1.5
Deaths	1.6	1.7	1.7	1.7	1.7	3.9	3.1
Net Migration	3.1	2.8	2.8	2.8	2.8	-11.0	-29.4
Personal Income by Source (\$mil, SAAR) EBR							
Total Personal Income	14,567	14,740	14,920	15,096	15,271	4.8	5.1
Earnings by Place of Work	9,174	9,278	9,390	9,492	9,593	4.6	4.6
Less: Contributions for Social Insurance	572	580	588	595	602	5.3	4.7
Plus: Adjustment for Residence	118	120	121	123	125	6.1	7.5
Plus: Dividends, Interest & Rents	2,926	2,949	2,972	2,999	3,026	3.4	4.3
Plus: Transfer Payments	2,921	2,973	3,025	3,077	3,129	7.1	7.4
Per Capita Personal Income (\$, SAAR) EBR	19,119	19,246	19,381	19,510	19,637	2.7	2.8

See notes at bottom of Arizona - Quarterly table

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
ARIZONA MONTHLY DATA							
Civilian Labor Force (000s) ADES	2,149.8	2,181.3	2,175.5	2,163.7	2,174.1	0.8	3.0
Employment	2,046.9	2,057.6	2,046.0	2,037.7	2,041.9	0.1	3.5
Unemployment	102.9	123.7	129.5	126.0	132.2	13.0	-5.1
Unemployment Rate, Seas. Adj. (%)	5.2	5.3	5.2	5.4	5.5	12.2	-8.1
Employees on Nonagricultural Payrolls (000s) ADES							
Total	1,858.3	1,834.4	1,819.5	1,838.4	1,868.8	4.2	4.1
Mining	12.4	12.6	12.6	12.6	12.5	0.8	1.5
Construction	122.3	123.2	124.5	126.6	124.8	4.8	5.2
Manufacturing	197.8	199.0	199.2	199.8	201.1	3.7	2.8
Durable	150.8	151.8	152.3	152.8	153.3	4.8	3.8
Nondurable	47.0	47.2	46.9	47.0	47.8	0.4	-0.3
Trans., Comm. & Publ. Util.	91.7	93.0	92.9	93.3	93.4	3.2	1.6
Transportation	54.8	55.4	55.4	55.6	55.8	3.3	2.4
Trade	461.4	459.9	458.6	461.2	463.7	3.3	3.6
Wholesale	97.7	97.6	96.8	97.2	97.7	4.9	4.5
Retail	363.7	362.3	361.8	364.0	366.0	2.9	3.4
Finance, Ins. & Real Estate	108.4	108.8	108.8	109.1	109.2	2.2	0.6
Services	545.6	547.1	545.8	547.4	550.3	5.8	5.3
Government	318.7	290.8	277.1	288.4	313.8	4.1	5.2
Federal	45.9	44.5	44.0	44.9	45.2	0.9	3.0
State & Local	272.8	246.3	233.1	243.5	268.6	4.6	5.6
Schools	166.6	137.7	123.8	134.8	160.0	4.0	6.0
Hours Worked Per Week, Manufacturing, ADES	42.8	43.1	42.3	42.7	42.9	1.9	1.5
Average Hourly Earnings (\$) ADES							
Copper Mining	16.48	16.24	16.58	17.01	17.53	5.3	2.0
Construction	12.59	12.57	12.63	12.69	13.04	5.0	3.3
Manufacturing	11.50	11.53	11.72	11.62	11.67	1.6	1.9
Utilities	16.96	16.95	18.29	18.02	18.00	7.0	2.0
Retail Trade	10.67	10.82	10.78	10.62	10.84	5.1	3.5
Wholesale Trade	12.98	12.95	12.79	13.19	12.86	8.0	8.9
Sales (\$000s) ADOR							
Aggregate Retail Sales	3,476,285	3,412,397	3,091,460	3,197,633	...	5.3	7.9
Retail	2,362,562	2,315,564	2,074,584	2,208,367	...	5.7	7.1
Food, EBR	471,421	462,274	443,529	443,979	...	6.9	8.4
Restaurants & Bars	398,475	388,080	341,539	350,960	...	7.3	8.8
Gasoline, EBR	243,827	246,480	231,807	194,326	...	-5.1	15.6
Gallons (000s) ADOT	168,319	172,714	167,261	145,128	...	-14.3	9.1
Utilities	428,391	379,603	490,668	513,023	...	1.3	5.5
Communications	124,412	132,363	123,341	131,221	...	6.7	11.1
Amusements	43,718	62,057	60,034	36,415	...	3.8	-11.2
Rentals - Real Property	259,746	284,217	272,866	323,587	...	-35.2	2.1
Rentals - Personal Property	207,405	185,563	193,868	202,207	...	9.8	5.7
Contracting	625,409	678,136	655,432	657,027	...	9.3	19.1
Mining - Metal, Oil & Gas	151,389	115,339	-55,000	98,386	...	-38.9	-14.0
Hotel/Motel	118,166	100,641	81,987	84,692	...	3.4	9.4
Value of Construction Contract Awards (\$000s)							
Total Awards	763,097	849,394	775,037	849,002	937,307	36.2	7.2
Residential Building	553,566	537,715	514,590	487,463	544,189	18.4	7.5
Non-Residential Building	144,034	198,636	155,279	268,030	338,071	149.7	10.2
Non-Building	65,497	113,043	105,168	93,509	55,047	-41.1	-0.4
New Housing Units Authorized, Census C-40							
Total Units	4,622	4,258	4,626	3,518	...	-31.0	6.2
Single Family Units	3,930	3,574	3,665	3,329	...	-17.1	6.8
2-4 Unit Structures	70	75	81	73	...	-45.9	-26.8
5-plus Unit Structures	622	609	880	116	...	-87.8	7.9
Bankruptcy Filings, U.S. Bankruptcy Court							
Total	1,721	1,646	...	...	...	11.6	23.7
Chapter 7	1,332	1,259	...	...	...	16.9	27.3
Chapter 11	28	26	...	...	...	4.0	-23.1
Chapter 13	361	361	...	...	...	-2.2	18.9

See notes at bottom of Arizona - Quarterly table.

	III 95	IV 95	I 96	II 96	III 96	% change versus year ago for:	
						most recent quarter	most recent 4-quarters
ARIZONA - QUARTERLY DATA							
Demographics & Vital Statistics (000s, seas adj) ADHS & EBR							
Population	4,234.7	4,267.5	4,298.7	4,328.3	4,357.5	2.9	3.1
Natural Increase	9.4	9.4	9.3	8.7	8.9	-5.7	-1.1
Births	18.6	18.4	18.4	17.7	17.8	-4.0	0.7
Deaths	9.2	9.0	9.1	9.0	9.0	-2.1	2.6
Net Migration	24.1	22.7	20.9	20.4	20.2	-16.2	-16.9
Personal Income Derivation (\$mil, SAAR) EBR							
Total Personal Income	88,259	88,948	90,682	92,914	94,547	7.1	8.3
Earnings by Place of Work	60,888	61,215	62,416	64,177	65,590	7.7	8.4
Less: Contributions for Social Insurance	3,782	3,781	3,871	3,957	4,026	6.5	6.3
Plus: Adjustment for Residence	285	286	291	297	303	6.1	6.6
Plus: Dividends, Interest & Rents	15,402	15,505	15,717	15,995	16,045	4.2	7.4
Plus: Transfer Payments	15,465	15,723	16,129	16,402	16,635	7.6	8.4
Components of Earnings (\$mil, SAAR) BEA							
Wages and Salaries	49,581	50,210	51,424	...	...	8.7	10.0
Other Labor Income	5,470	5,530	5,594	...	...	7.0	9.3
Proprietor's Income	5,902	6,007	6,170	...	...	6.8	10.7
Farm	681	739	811	...	...	21.8	66.9
Nonfarm	5,221	5,268	5,359	...	...	4.8	5.9
Per Capita Personal Income (\$, SAAR) EBR	20,842	20,843	21,095	21,466	21,698	4.1	5.0
Average Wage Per Employee, Annual Rate (\$) E	27,148	27,257	27,479	...	...	4.9	5.4
Measures of Financial Institutions							
Banks and S&Ls Combined (\$mil) ASBD							
Assets	36,463	38,527	39,505	39,810	...	9.1	8.8
Loans	22,340	23,303	23,735	24,161	...	8.0	8.3
Liabilities	33,490	35,558	36,640	36,140	...	7.6	8.3
Deposits	30,752	32,546	32,593	32,512	...	3.3	3.8
Equity Capital	2,974	2,969	2,865	3,670	...	27.5	13.8
Capital:Asset Ratio (%)	9.1	8.6	8.1	10.1	...	NA	NA

	III 95	IV 95	I 96	II 96	III 96	% change versus year ago for:	
						most recent quarter	most recent 4-quarters
MEASURES OF INFLATION AND PRICES							
Consumer Price Index (1982-84=100) ASU & BLS							
Metropolitan Phoenix	160.0	161.3	162.9	168.4	...	6.6	5.3
Western Region (U.S.)	154.1	154.3	156.4	157.5	158.6	2.9	2.5
U.S. - All Urban Consumers	152.9	153.6	155.0	156.5	...	2.8	2.7
U.S. - Urban Wage Earners	150.2	150.9	152.3	153.9	...	2.9	2.7
Price Indexes (1992=100) BEA							
Gross Domestic Product	107.9	108.4	109.0	109.6	110.3	2.2	2.2
Personal Consumption Expenditures	107.8	108.3	108.9	109.8	110.5	2.5	2.2

	MAY 96	JUN 96	JUL 96	AUG 96	SEP 96	% change versus year ago for:	
						most recent month	most recent 12-months
MEASURES OF INFLATION AND PRICES - MONTHLY DATA							
Consumer Price Index (1982-1984=100) BLS							
U.S. - All Urban	156.6	156.7	157.0	157.3	...	2.9	2.8
U.S. - Wage Earners	154.0	154.1	154.3	154.5	...	2.9	2.7

Sources and abbreviations:

ADHS: 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
 ASBD: Arizona State Banking Department
 ASPB: Arizona State Parks Board
 ASU: Arizona State University, College of Business, Research Centers

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
 F.W. Dodge, Division of McGraw Hill Information Systems Co. (proprietary data provided by special permission)
 NPS: National Park Service, U.S. Department of the Interior

NSCCC: Nogales-Santa Cruz Chamber of Commerce
 PSIA: Phoenix Skyharbor International Airport
 SAAR: Seasonally adjusted at annual rates
 TAA: Tucson Airport Authority
 TAR: Tucson Association of Realtors
 USINS: U.S. Immigration & Naturalization Service, U.S. Department of Justice
 U.S. Bankruptcy Court, District of Arizona
 USCS: U.S. Customs Service, U.S. Department of the Treasury

	APR 96	MAY 96	JUN 96	JUL 96	AUG 96	% change versus year ago for:	
						most recent month	most recent 12-months
TRAVEL AND TOURISM							
Visits to Parks & Other Recreational Areas, ADOT, NPS & ASPB							
Northern Arizona	1,910,668	2,015,206	2,512,026	2,793,180	2,543,342	-17.9	-3.8
Historical	239,208	202,727	210,415	211,403	209,966	-4.0	-1.2
Scenic	554,570	686,401	807,901	969,857	828,292	-24.0	-7.8
Water Based Recreation	1,116,890	1,126,078	1,493,710	1,611,920	1,505,084	-15.8	-2.1
Southern Arizona	366,298	238,392	167,712	177,363	149,024	-2.0	-8.4
Historical	63,224	40,641	34,189	41,886	26,061	-13.1	-5.4
Scenic	249,511	149,070	99,996	87,853	86,272	-2.9	-10.9
Water Based Recreation	53,563	48,681	33,527	47,624	36,691	10.4	-0.2
International Border Crossings, USINS & USCS							
U.S. Citizens	690,713	706,067	693,274	588,032	609,724	-6.8	-4.2
Aliens	1,900,204	1,933,417	1,890,113	1,548,887	1,497,677	-16.3	-1.5
Vehicles	734,980	780,917	714,819	-1.5	-7.2

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