

ARIZONA ECONOMIC PROFILE

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TABLE OF CONTENTS AND LIST OF TABLES

I. COMPARISON OF ECONOMIC INDICATORS	3
1. Population: United States, Arizona and Counties, 1990, 2000 and 2001	9
2. Employment Indicators: Arizona, 1986 through 2001	11
3. Personal Income and Gross Product Indicators: Arizona, 1986 through 2001	12
4. Per Capita Personal Income and Gross Product Indicators: Arizona, 1986 through 2001	13
5. Per Employee Personal Income and Gross Product Indicators: Arizona, 1986 through 2001	14
6. Unemployment Rate: United States, Arizona and Counties, 1986 through 2001	15
7. Total Employment: United States, Arizona and Counties, Annual Percent Change, 1986 through 2000	16
8. Earnings by Place of Work: United States, Arizona and Counties, Annual Percent Change, 1986 through 2000	17
9. Per Capita Personal Income: United States, Arizona and Counties, Annual Percent Change, 1986 through 2000	18
10. Average Wage Per Job: United States, Arizona and Counties, Annual Percent Change, 1986 through 2000	19
II. 2000-01 INDUSTRIAL COMPOSITION:	
STANDARD INDUSTRIAL CLASSIFICATION	20
11. Summary of Major Economic Indicators: Industrial Divisions, Arizona, 2001	24
12. Non-farm Wage and Salary Employment: Industrial Divisions, United States, Arizona and Counties, 2001	25
13. Total Employment: Industrial Divisions, United States, Arizona and Counties, 2000	27
14. Earnings by Place of Work: Industrial Divisions, United States, Arizona and Counties, 2000	29
15. Earnings Per Employee: Industrial Divisions, United States, Arizona and Counties, 2000	31
16. Rank Order of Industrial Divisions: United States, Arizona and Counties, 2000	32
17. Gross State Product and GSP Per Employee: Industrial Divisions and Major Groups, Arizona, 2000	33
18. Employment and Earnings: Industrial Divisions and Major Groups, Arizona, 2000	35
19. Arizona's 25 Largest Major Groups: Ranked by 2000 Employment and Earnings	38
20. Average Wage Per Job: Industrial Divisions and Major Groups, Arizona, 2000	40
21. Arizona's Highest- and Lowest-Paying Major Groups: Ranked by 2000 Average Wage per Job and 2000 Ratio of Average Wage to Average Wage of National Major Group	43

TABLE OF CONTENTS AND LIST OF TABLES (continued)

III. 2000-01 INDUSTRIAL COMPOSITION:	45
NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM	45
22. Economic Census: Sectors, Arizona, 1997	48
23. County Business Patterns: Sectors, Arizona, 2000	49
24. Employment and Payroll: Sectors and Subsectors, Arizona, 2000	50
25. Arizona's 25 Largest Subsectors, 2000: Ranked by Employment and Payroll	53
26. Payroll Per Employee: Sectors and Subsectors, Arizona, 2000	55
27. Arizona's Highest- and Lowest-Paying Subsectors: Ranked by 2000 Payroll per Employee	58
28. Employment: Sectors, Arizona and Counties, 2000	60
29. Payroll: Sectors, Arizona and Counties, 2000	64
30. Payroll per Employee: Sectors, Arizona and Counties, 2000	65
31. Employment and Earnings: Sectors and Subsectors, Arizona, 2001	66
32. Arizona's 25 Largest Subsectors: Ranked by 2001 Total Employment and Earnings	69
33. Earnings Per Employee and Average Wage: Sectors and Subsectors, Arizona, 2001	71
34. Arizona's Highest and Lowest Earnings per Employee and Average Wage: Ranked by 2001 Averages and Ratios to National Average	74
IV. INDUSTRIAL GROWTH OVER TIME	78
35. Summary of Change over Time in Major Economic Indicators: Industrial Divisions, Arizona, 1991-2001	80
36. Non-farm Wage and Salary Employment: Industrial Divisions, United States, Arizona and Counties, Percent Change and Numeric Change, 1991-2001	81
37. Total Employment: Industrial Divisions, Arizona and Counties, Numeric Change, 1991-2000	83
38. Earnings by Place of Work: Industrial Divisions, United States, Arizona and Counties, Real Percent Change, 1991-2000	84
39. Earnings Per Employee: Industrial Divisions, United States, Arizona and Counties, Real Percent Change, 1991-2000	85
40. Rank Order of Industrial Divisions: United States, Arizona and Counties, Change 1991-2000	86
41. Gross State Product and GSP Per Employee: Industrial Divisions and Major Groups, Arizona, Real Percent Change, 1991-2000	87
42. Employment and Earnings: Industrial Divisions and Major Groups, Arizona, Percent Change, 1991-2000	89
43. Arizona's 15 Fastest-Growing Major Groups: Ranked by 1991-2000 Percent Change in Employment, Numeric Change in Employment and Real Percent Change in Earnings	92
44. Average Wage Per Job: Industrial Divisions and Major Groups, Arizona, Real Percent Change, 1991-2000	95

TABLE OF CONTENTS AND LIST OF TABLES (continued)

45. Arizona's Major Groups with Greatest Change in Average Wage: Ranked by 1991-2000 Real Percent Change	97
APPENDIX I: HISTORICAL PERSPECTIVE AND TRENDS	98
A-1. The Decline of Agriculture and Mining in Arizona: Share of Arizona Earnings by Place of Work, 1929 through 2001	100
A-2. The Shift in Arizona's Industrial Structure: Share of Arizona Earnings by Place of Work, 1929 and 2001	101
APPENDIX II: MAP OF ARIZONA COUNTIES	102

I. COMPARISON OF ECONOMIC INDICATORS

Units of Measurement

Nationally, Gross Domestic Product (GDP) is the broadest economic indicator and also the most closely watched, being produced quarterly on a timely basis. The state counterpart to GDP – Gross State Product (GSP) – is produced only annually approximately 18 months after the end of each year, thus is not useful for measuring on-going economic performance. Instead, employment is the most used local economic indicator. However, it has considerable shortcomings as an economic indicator since it provides no indication of the wages paid, nor even to whether the job is full-time. Earnings and personal income are more comprehensive measures.

The wide use of employment as an economic indicator stems in part from its being updated monthly on a timely basis. In Arizona, the Arizona Department of Economic Security (DES), in conjunction with the U.S. Department of Labor, produces a monthly estimate of non-farm wage and salary employment based on a survey of employers (“790” series). Figures are available by county for major industries. Besides the fundamental shortcomings of this employment indicator, the “790” estimates are revised, sometimes substantially, in the annual benchmarking process done after the end of each year.

This benchmarking utilizes another employment series produced by DES. The “ES202” series reports the employment of all employers who are part of the unemployment insurance system, which includes the bulk of the workforce. Employment figures are tallied by county and major industry about six months after the end of each quarter. These employment estimates count the number of jobs without regard for the number of hours worked. An individual holding more than one job is multiply counted.

In contrast, DES estimates the number of people employed based on a household survey, with an estimate released monthly for counties in conjunction with unemployment estimates. This series in recent years shows divergent growth rates from those of other employment measures, even after revisions have been made. Similarly, the unemployment figures should be interpreted cautiously. Despite the wide use of these data, the survey from which they are determined was not designed to be reliable even at the state level on a monthly basis. Even after the annual benchmarking process is complete, and the annual average unemployment rate is used, a large margin of error remains.

Other employment series include annual figures released each September for the previous year by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), covering both wage and salary and total employment for each state for a large number of industrial sectors. County figures by major industry are released with an additional eight-month delay.

The personal income series is released quarterly by the BEA about four months after the end of each quarter. Estimates of earnings by place of work are provided for major industries by state. The initial estimates are largely based on the “790” employment figures and projections of other variables, thus are subject to significant revision. After the ES202 estimates are available, the quality of the personal income figures improves.

Personal income includes wage and salary disbursements associated with the employment estimates, other labor income (bonuses, employer contributions to health insurance, etc.), and proprietors’ income. Combined, these three components comprise earnings by place of work, which is available by industry. To this are added other sources of income, such as retirement benefits and interest income.

Annual state earnings estimates for a large number of industrial sectors are released in September with the employment figures. Though subject to some further revision, these annual figures provide a reasonably accurate picture of what happened economically in the prior year. County figures for major industries are released the following May, 16 months after the end of a year.

Gross product figures provide the most comprehensive measure of an economy. The BEA prepares gross state product estimates by year, but releases the figures approximately 18 months after the end of each year. GSP, the state counterpart to the nation's gross domestic product, is the gross market value of goods and services attributable to labor and property located within a state.

GSP is produced for approximately 60 industries. In each case, the gross product consists of three components: (1) compensation of employees; (2) property-type income, such as proprietors' income and capital charges, including profits; and (3) indirect business tax and non-tax liability. The first two components are roughly equivalent to the earnings by place of work component of personal income.

Other gauges of size, particularly those related to sales or value, sometimes have been used to rank industries, but severe inaccuracies result from such a comparison: the unit of measurement is not consistent among industries and indicators are not available for all industries. It is misleading and inaccurate to compare industries on such measures.

The best measures of economic health or well-being of the populace are obtained by dividing GSP and personal income series by total population or employment. These per capita and per employee measures can be used to compare geographic areas.

These economic measures are summarized and placed in order of importance into one of four categories on the next page. While attention in Arizona historically has been focused on the growth categories, it is the health and well-being categories that ultimately must be the focus.

Review of Tables

Table 1: Population. According to U.S. Census Bureau decennial census counts, Arizona's population expanded three times as fast as that of the nation between 1990 and 2000. Only in Apache and Greenlee counties did the population not rise faster than the national average of 13 percent. Maricopa County dominates the state, with 60 percent of the residents and nearly two-thirds of the increase during the 1990s. Mohave, Yavapai, Pinal and Yuma counties posted a higher percentage increase than Maricopa between 1990 and 2000. Estimates for 2001 vary by source, though all tie to the 2000 census counts.

Table 2: Employment. Employment growth substantially slowed in 2001 from the strong gains registered from 1993 through 2000. With population growth remaining strong in 2001, the employment-to-population ratio fell after eight consecutive annual gains.

Table 3: Personal Income and Gross Product. Personal income in Arizona reached \$137 billion in 2001; gross state product in the prior year was \$156 billion. The personal income, earnings and disbursements growth rates in 2001 slipped to the lowest figures since the end of the prior recession in 1991.

LIST OF ECONOMIC INDICATORS

	Geography	Frequency	Initial Release	Major Revisions	Industrial Detail	Source
Total Growth						
Personal Income	State	Quarterly	4 months	+3 months/in Sept.	NA	BEA
	County	Annual	16 months	+12 months	NA	BEA
Population	State/Maricopa	Quarterly	1 month	Census results	NA	CBR
	State/County	Annual	3 months	Census results	NA	CB
Economic/Industrial Growth						
Gross State Product	State	Annual	18 months	+12 months	Moderate	BEA
Earnings	State	Quarterly	4 months	+3 months/in Sept.	Divisions/detail in Sept.	BEA
	County	Annual	16 months	+12 months	Detail	BEA
Wage Disbursements	State	Quarterly	4 months	+3 months/in Sept.	Divisions/detail in Sept.	BEA
	County	Annual	16 months	+12 months	Detail	BEA
Employment	State	Annual	9 months	+12 months	Detail	BEA
Total	County	Annual	16 months	+12 months	Divisions	BEA
Wage and Salary	County	Annual	12 months	+12 months	None	BEA
ES202	State/County	Monthly	6 months	None	Divisions	DES
Non-farm W&S	State/County	Monthly	3 weeks	In February	Moderate	DES
Non-farm, Non-govt	State/County	Annual	18 months	None	Very	CB (County Busn Patterns)
Personal Economic Well-Being						
Per Capita Personal Income	State	Quarterly	4 months	+3 months/in Sept.	NA	Calculated from BEA/CBR
	State	Annual	4 months	+5 months	NA	BEA
	County	Annual	16 months	+12 months	NA	BEA
Average Wage Per Job	State	Annual	9 months	+12 months	Detail	Calculated from BEA
	County	Annual	12 months	+12 months	None	BEA
Payroll Per Employee	State/County	Annual	18 months	None	Very	Calculated from CB
Per Capita GSP	State	Annual	18 months	+12 months	NA	Calculated from BEA
Per Capita Earnings – see Per Capita Personal Income						
Economic/Industrial Health						
Per Employee GSP	State	Annual	18 months	+12 months	Moderate	Calculated from BEA
Per Employee Earnings	State	Annual	9 months	+12 months	Detail	Calculated from BEA
	County	Annual	16 months	+12 months	Divisions	Calculated from BEA
Unemployment Rate	State/County	Monthly	3 weeks	In February	NA	DES

Initial release: elapsed time after end of period; major revisions: additional time after initial release; NA = not applicable.

Sources: BEA: U.S. Department of Commerce, Bureau of Economic Analysis; CB: U.S. Department of Commerce, Bureau of the Census; CBR: Arizona State University, Center for Business Research; DES: Arizona Department of Economic Security.

Table 4: Per Person Measures. These are the best measures of the economic well-being of Arizona residents. Gains in well-being were measured in Arizona in each year from 1992 through 2000, but the per capita measures slipped in 2001 with the onset of the recession. The gains in the per capita measures in Arizona generally were greater than the national average in the early years of the 1990s economic expansion, but in recent years frequently have been slightly less than average. The ratios to the national average remained well below those of earlier expansionary periods. On each measure, Arizona's figure in 2000-01 was about 15 percent lower than the national average, well below historical levels. Thus, the record long period of aggregate growth from 1991 into 2001 did not translate into relative improvement in well-being of Arizona residents.

Table 5: Per Employee Measures. These are the best measures of the health of the Arizona economy. Gains were recorded for nearly every year of the 1990s in each measure, especially from 1998 through 2000, but advances were slight in 2001. The increases in Arizona were not always greater than the national average. As a ratio to the national average, the disbursements and earnings measures in 2000-01 reached the highest point of the economic cycle, but still were not quite equal to the levels of the mid-1980s and earlier economic expansions. Per employee GSP as a ratio to the national average peaked in 1995 but continued through the late 1990s at a level comparable to that in the mid-1980s.

Table 6: Unemployment Rate. Nationally and in Arizona, unemployment rates rose in 2001 from their cyclical lows in 2000, but the rate for Arizona's 13 less populous counties fell to the lowest level in many years. Despite this narrowing of the differences in unemployment rates between the two large urban counties and the others, the unemployment rate still varied widely across Arizona in 2001. Three counties still experienced rates above 10 percent. Maricopa, Pima, Cochise, Mohave and Yavapai counties had rates less than the national and state averages in 2001.

Table 7: Total Employment Growth. Employment growth in Arizona was well above the national average in each year from 1993 through 2000, but gains in the less populous counties as a whole were about the same as the national average from 1997 through 2000. Annual growth rates in individual counties typically are erratic. Over the 1991-to-2000 period, employment growth in Maricopa and Yavapai counties was more than twice the national average, but the gain in Santa Cruz County was less than the U.S. average and that in Pinal County barely exceeded the average.

Table 8: Earnings Growth. This is the broadest measure of industrial growth by county. Between 1994 and 2000, annual gains in Maricopa County were considerably higher than those in Pima County and in the balance of the state. Growth in Maricopa and Yavapai counties greatly outpaced the national average between 1991 and 2000, but in eight of the 13 less populous counties, advances were less than the U.S. average.

Table 9: Per Capita Personal Income Growth. On this most comprehensive measure of personal economic well-being, gains in the less populous counties as a whole were less than the national average in each year from 1992 through 2000. In Pima County, gains were less than average in each year from 1995 through 2000. In contrast, Maricopa County's annual gain generally was greater than the U.S. average from 1994 through 2000. Between 1991 and 2000, Coconino and Greenlee counties were the only ones to outpace overall growth in the national average; Maricopa County's advance matched the average. Per capita personal income fell over the nine years in three counties.

Table 10: Average Wage Per Job Growth. Strong gains in inflation-adjusted average wage were registered from 1997 through 2000. Between 1991 and 2000, Arizona's gain exceeded the national average, though only Maricopa and Santa Cruz counties posted above average figures. Advances were weak in most of the less populous counties, with the average wage unchanged in Cochise and Gila counties.

TABLE 1A
POPULATION
United States, Arizona and Counties, 1990 and 2000

	1990*	2000*	Change 1990-2000*	Percent Change 1990-2000	Share of State's Change	Share of 2000 Population
United States	248,709.9	281,421.9	32,712.0	13%		
Arizona	3,665.2	5,130.6	1,465.4	40	100.0%	100.0%
Maricopa	2,122.1	3,072.1	950.0	45	64.8	59.9
Pima	666.9	843.7	176.8	27	12.1	16.4
Balance of State	876.2	1,214.8	338.6	39	23.1	23.7
Apache	61.6	69.4	7.8	13	0.5	1.4
Cochise	97.6	117.8	20.2	21	1.4	2.3
Coconino	96.6	116.3	19.7	20	1.3	2.3
Gila	40.2	51.3	11.1	28	0.8	1.0
Graham	26.6	33.5	6.9	26	0.5	0.7
Greenlee	8.0	8.5	0.5	6	0.0	0.2
La Paz	13.8	19.7	5.9	43	0.4	0.4
Mohave	93.5	155.0	61.5	66	4.2	3.0
Navajo	77.7	97.5	19.8	25	1.4	1.9
Pinal	116.4	179.7	63.3	54	4.3	3.5
Santa Cruz	29.7	38.4	8.7	29	0.6	0.7
Yavapai	107.7	167.5	59.8	56	4.1	3.3
Yuma	106.9	160.0	53.1	50	3.6	3.1

* Number of residents in thousands

Source: U.S. Department of Commerce, Bureau of the Census: April 1 census counts.

TABLE 1B
POPULATION
United States, Arizona and Counties, 2001

	2001 Estimates*			2000-01 Percent Change		
	CB	DES	CBR	CB	DES	CBR
United States	284,796.9			1.2%		
Arizona	5,307.3	5,319.9	5,323.5	3.4	3.7%	3.8%
Maricopa	3,194.8	3,192.1	3,196.0	4.0	3.9	4.0
Pima	863.0	870.6	868.5	2.3	3.2	2.9
Balance of State	1,249.5	1,257.2	1,259.0	2.9	3.5	3.6
Apache	68.6	69.9		-1.2	0.7	
Cochise	119.3	121.4		1.3	3.1	
Coconino	117.9	122.8		1.4	5.6	
Gila	51.4	52.4		0.2	2.1	
Graham	33.4	34.1		-0.3	1.8	
Greenlee	8.3	8.6		-2.4	1.2	
La Paz	19.8	19.9		0.5	1.0	
Mohave	161.8	161.6		4.4	4.3	
Navajo	100.1	99.8		2.7	2.4	
Pinal	188.8	186.8		5.1	4.0	
Santa Cruz	39.6	39.3		3.1	2.3	
Yavapai	175.5	175.3		4.8	4.7	
Yuma	164.9	165.3		3.1	3.3	

* Number of residents in thousands

CB: U.S. Department of Commerce, Bureau of the Census.

DES: Arizona Department of Economic Security, Population Statistics.

CBR: Center for Business Research.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from the above sources.

TABLE 2
EMPLOYMENT INDICATORS
Arizona, 1986 through 2001

	Employment, Population (in Thousands)				Ratio	Annual Percent Change				
	A	B	C	D	E	A	B	C	D	E
1986	1,338	1,447	1,712	3,351	51.1%	4.6%	4.6%	4.9%	3.7%	1.1%
1987	1,386	1,502	1,778	3,466	51.3	3.6	3.8	3.9	3.4	0.4
1988	1,419	1,544	1,848	3,564	51.8	2.4	2.8	3.9	2.8	1.1
1989	1,455	1,580	1,881	3,656	51.5	2.5	2.4	1.8	2.6	-0.8
1990	1,483	1,608	1,910	3,747	51.0	1.9	1.8	1.6	2.5	-0.9
1991	1,491	1,602	1,918	3,847	49.9	0.5	-0.4	0.4	2.7	-2.2
1992	1,517	1,635	1,942	3,955	49.1	1.7	2.1	1.2	2.8	-1.5
1993	1,584	1,713	2,029	4,072	49.8	4.4	4.8	4.4	3.0	1.4
1994	1,692	1,817	2,163	4,214	51.3	6.8	6.1	6.6	3.5	3.0
1995	1,796	1,928	2,282	4,379	52.1	6.1	6.1	5.5	3.9	1.5
1996	1,892	2,030	2,414	4,545	53.1	5.3	5.3	5.8	3.8	1.9
1997	1,985	2,114	2,526	4,707	53.7	4.9	4.1	4.6	3.6	1.0
1998	2,075	2,210	2,643	4,864	54.3	4.5	4.5	4.6	3.3	1.2
1999	2,163	2,286	2,728	5,017	54.4	4.2	3.5	3.2	3.1	0.1
2000	2,243	2,362	2,826	5,169	54.7	3.7	3.3	3.6	3.0	0.5
2001	2,266	2,383	2,859	5,324	53.7	1.0	0.9	1.2	3.0	-1.8

	Annual Numeric Change (in Thousands)			
1986	59	64	80	121
1987	48	55	66	115
1988	33	42	70	98
1989	36	37	33	92
1990	28	28	29	91
1991	8	-7	8	100
1992	26	33	24	108
1993	67	78	86	117
1994	108	105	135	142
1995	104	110	119	165
1996	96	102	132	166
1997	93	84	112	162
1998	90	96	116	157
1999	88	76	86	153
2000	80	76	98	152
2001	23	21	33	155

A. Non-farm wage and salary employment from the monthly employer survey (790 series), Arizona Department of Economic Security.

B. Wage and salary employment, U.S. Department of Commerce, Bureau of Economic Analysis.

C. Total employment, U.S. Department of Commerce, Bureau of Economic Analysis.

D. Total population as of July 1, Center for Business Research.

E. Employment-to-population ratio, calculated using columns C and D.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from the above sources.

TABLE 3
PERSONAL INCOME AND GROSS PRODUCT INDICATORS
Arizona, 1986 through 2001

	Millions of Nominal Dollars*				GDP Deflator*	Millions of Real Dollars*			
	A	B	C	D		A	B	C	D
1986	\$26,882	\$33,232	\$47,848	\$54,646	0.6883	\$39,057	\$48,283	\$69,520	\$71,902
1987	28,997	36,052	52,003	59,055	0.7090	40,897	50,848	73,346	75,009
1988	31,063	38,781	55,837	63,401	0.7330	42,375	52,904	76,171	77,879
1989	32,539	40,496	60,011	66,005	0.7610	42,757	53,214	78,856	78,318
1990	34,181	42,618	63,319	68,852	0.7906	43,233	53,904	80,088	78,983
1991	35,396	44,521	66,077	71,876	0.8194	43,197	54,332	80,640	79,726
1992	37,636	47,612	70,120	79,000	0.8393	44,840	56,726	83,542	85,316
1993	40,007	51,170	74,900	85,483	0.8595	46,545	59,533	87,140	89,911
1994	43,960	55,942	82,014	95,747	0.8774	50,100	63,756	93,469	98,339
1995	48,333	61,136	88,870	104,586	0.8965	53,910	68,191	99,125	105,397
1996	52,962	66,330	95,787	112,882	0.9139	57,951	72,578	104,810	112,882
1997	57,843	71,851	103,704	122,273	0.9317	62,081	77,116	111,302	120,763
1998	64,055	79,129	112,910	132,897	0.9432	67,916	83,898	119,715	130,720
1999	69,052	85,535	120,257	144,440	0.9568	72,172	89,400	125,690	141,192
2000	76,123	93,517	130,982	156,303	0.9769	77,925	95,730	134,082	150,320
2001	78,736	97,060	137,314	NA	1.0000	78,736	97,060	137,314	NA
						Annual Real Percent Change			
1986						7.2%	6.5%	6.5%	NA%
1987						4.7	5.3	5.5	4.3
1988						3.6	4.0	3.9	3.8
1989						0.9	0.6	3.5	0.6
1990						1.1	1.3	1.6	0.8
1991						-0.1	0.8	0.7	0.9
1992						3.8	4.4	3.6	7.0
1993						3.8	4.9	4.3	5.4
1994						7.6	7.1	7.3	9.4
1995						7.6	7.0	6.1	7.2
1996						7.5	6.4	5.7	7.1
1997						7.1	6.3	6.2	7.0
1998						9.4	8.8	7.6	8.2
1999						6.3	6.6	5.0	8.0
2000						8.0	7.1	6.7	6.5
2001						1.0	1.4	2.4	NA

* Nominal dollars are not inflation adjusted. Real dollars are inflation adjusted using the gross domestic product (GDP) implicit price deflator, which has been rebased to 2001 = 1. Gross state product (column D) is deflated by its own implicit price deflator, with a base period of 1996 = 1.

NA: data not available

A. Wage and salary disbursements
 C. Personal income

B. Earnings by place of work
 D. Gross state product

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.

TABLE 4
PER CAPITA PERSONAL INCOME AND GROSS PRODUCT INDICATORS
Arizona, 1986 through 2001

	Per Capita – Nominal Dollars*			Ratio to National Average			A	B	C
	A	B	C	A	B	C			
1986	\$9,917	\$14,279	\$16,307	89.0%	92.7%	89.9%			
1987	10,402	15,004	17,038	87.6	92.1	88.1			
1988	10,881	15,667	17,789	85.5	90.0	85.4			
1989	11,077	16,414	18,054	82.8	88.4	82.3			
1990	11,374	16,899	18,375	80.9	86.3	80.4			
1991	11,573	17,176	18,684	81.2	85.8	80.2			
1992	12,038	17,729	19,975	80.1	84.6	82.5			
1993	12,566	18,394	20,993	81.3	85.4	83.8			
1994	13,275	19,462	22,721	82.9	87.1	86.3			
1995	13,961	20,295	23,884	84.3	87.3	87.0			
1996	14,594	21,075	24,837	84.5	86.8	86.7			
1997	15,265	22,032	25,977	84.3	86.7	86.1			
1998	16,268	23,213	27,323	84.7	86.3	86.1			
1999	17,049	23,970	28,790	84.1	86.0	86.6			
2000	18,092	25,340	30,239	83.8	85.1	85.8			
2001	18,231	25,791	NA	83.2	84.6	NA			

	Per Capita – Real Dollars*			Annual Percent Change			Difference from U.S. Percent Change		
	A	B	C	A	B	C	A	B	C
1986	\$14,409	\$20,746	\$21,457	2.7%	2.7%	NA%	0.1%	0.2%	NA%
1987	14,670	21,162	21,641	1.8	2.0	0.9	-1.6	-0.7	-2.6
1988	14,844	21,372	21,852	1.2	1.0	1.0	-2.5	-2.4	-3.2
1989	14,555	21,569	21,422	-1.9	0.9	-2.0	-3.2	-1.8	-3.4
1990	14,386	21,374	21,079	-1.2	-0.9	-1.6	-2.3	-2.4	-1.9
1991	14,123	20,962	20,724	-1.8	-1.9	-1.7	0.3	-0.6	-0.1
1992	14,343	21,123	21,572	1.6	0.8	4.1	-1.4	-1.4	3.1
1993	14,620	21,400	22,080	1.9	1.3	2.4	1.4	1.0	1.6
1994	15,129	22,181	23,336	3.5	3.6	5.7	2.1	2.0	2.8
1995	15,572	22,637	24,069	2.9	2.1	3.1	1.6	0.2	1.2
1996	15,969	23,061	24,837	2.5	1.9	3.2	0.3	-0.5	0.6
1997	16,383	23,646	25,656	2.6	2.5	3.3	-0.3	-0.2	-0.3
1998	17,249	24,612	26,875	5.3	4.1	4.8	0.5	-0.5	0.9
1999	17,819	25,053	28,143	3.3	1.8	4.7	-0.6	-0.4	1.1
2000	18,520	25,940	29,081	3.9	3.5	3.3	-0.4	-1.0	0.0
2001	18,231	25,791	NA	-1.6	-0.6	NA	-0.8	-0.6	NA

* Nominal dollars are not inflation adjusted. Real dollars are inflation adjusted using the gross domestic product (GDP) implicit price deflator, which has been rebased to 2001 = 1 (see Table 3). Gross state product (column C) is deflated by its own implicit price deflator, with a base period of 1996 = 1.

NA: data not available

A. Earnings by place of work

B. Personal income

C. Gross state product

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.

TABLE 5
PER EMPLOYEE PERSONAL INCOME AND GROSS PRODUCT INDICATORS
Arizona, 1986 through 2001

	Per Employee – Nominal Dollars*			Ratio to National Average			A	B	C
	A	B	C	A	B	C			
1986	\$18,572	\$19,413	\$31,923	94.6%	92.1%	93.1%			
1987	19,306	20,279	33,219	94.2	91.9	92.5			
1988	20,123	20,988	34,312	93.5	90.7	90.6			
1989	20,590	21,528	35,089	92.5	89.5	89.0			
1990	21,254	22,308	36,039	91.1	88.7	88.1			
1991	22,100	23,207	37,466	91.3	89.3	88.1			
1992	23,021	24,513	40,673	90.4	88.6	91.3			
1993	23,359	25,224	42,139	90.2	89.1	91.9			
1994	24,188	25,860	44,261	91.3	89.4	93.0			
1995	25,073	26,789	45,828	91.5	90.7	93.6			
1996	26,088	27,473	46,754	91.6	90.1	92.5			
1997	27,363	28,439	48,397	91.8	90.0	91.9			
1998	28,986	29,941	50,287	92.5	90.5	92.1			
1999	30,204	31,349	52,938	92.3	90.6	93.2			
2000	32,227	33,091	55,308	93.0	90.9	93.1			
2001	33,042	33,946	NA	92.9	91.1	NA			

	Per Employee – Real Dollars*			Annual Percent Change			Difference from U.S. Percent Change		
	A	B	C	A	B	C	A	B	C
1986	\$26,984	\$28,206	\$42,004	2.5%	1.6%	NA%	0.5	0.0	NA
1987	27,230	28,602	42,193	0.9	1.4	0.5	-0.5	-0.2	-1.2
1988	27,451	28,631	42,148	0.8	0.1	-0.1	-0.8	-1.3	-2.1
1989	27,056	28,289	41,635	-1.4	-1.2	-1.2	-1.0	-1.4	-1.5
1990	26,883	28,215	41,342	-0.6	-0.3	-0.7	-1.5	-0.9	-0.6
1991	26,971	28,321	41,558	0.3	0.4	0.5	0.1	0.7	0.3
1992	27,427	29,205	43,925	1.7	3.1	5.7	-1.0	-0.8	3.3
1993	27,177	29,347	44,322	-0.9	0.5	0.9	-0.2	0.6	0.4
1994	27,566	29,472	45,459	1.4	0.4	2.6	1.1	0.3	0.9
1995	27,966	29,880	46,183	1.5	1.4	1.6	0.3	1.5	1.0
1996	28,546	30,061	46,754	2.1	0.6	1.2	0.1	-0.7	-0.1
1997	29,368	30,523	47,799	2.9	1.5	2.2	0.2	-0.1	0.1
1998	30,733	31,746	49,463	4.6	4.0	3.5	0.8	0.6	1.0
1999	31,569	32,766	51,748	2.7	3.2	4.6	-0.2	0.1	2.1
2000	32,990	33,874	53,190	4.5	3.4	2.8	0.8	0.4	0.3
2001	33,042	33,946	NA	0.2	0.2	NA	-0.1	0.2	NA

* Nominal dollars are not inflation adjusted. Real dollars are inflation adjusted using the gross domestic product (GDP) implicit price deflator, which has been rebased to 2001 = 1 (see Table 3). Gross state product (column C) is deflated by its own implicit price deflator, with a base period of 1996 = 1.

NA: data not available

A. Wage and salary disbursements per wage and salary employee

B. Earnings by place of work per employee

C. Gross state product per employee

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.

TABLE 6
UNEMPLOYMENT RATE
United States, Arizona and Counties, 1986 through 2001

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
1986	6.9%	6.9%	5.6%	5.7%	12.6%	19.4%	8.6%	10.1%	15.2%
1987	6.1	6.2	5.2	5.1	10.9	16.3	9.0	8.6	12.4
1988	5.4	6.3	5.1	5.1	11.2	17.5	8.6	8.6	12.4
1989	5.2	5.2	4.3	4.5	9.0	13.9	6.3	6.8	9.2
1990	5.6	5.3	4.4	4.6	9.0	13.2	6.5	7.6	7.4
1991	6.8	5.6	4.9	4.1	9.3	12.8	7.2	7.1	7.5
1992	7.5	7.5	6.4	5.4	12.5	16.0	9.4	9.2	10.9
1993	6.9	6.2	5.0	4.4	11.0	15.3	8.8	8.4	8.8
1994	6.1	6.4	4.7	4.0	13.2	18.3	10.7	9.2	8.6
1995	5.6	5.1	3.4	3.3	11.7	16.8	9.3	7.8	8.1
1996	5.4	5.5	3.6	3.7	11.8	19.7	9.8	8.6	8.5
1997	4.9	4.6	3.0	3.3	11.0	17.5	8.3	8.4	7.9
1998	4.5	4.1	2.7	2.7	10.1	15.5	6.7	7.3	7.4
1999	4.2	4.4	3.0	3.1	10.2	14.0	5.7	6.7	7.1
2000	4.0	3.9	2.6	2.8	8.8	12.8	4.5	5.7	5.8
2001	4.8	4.7	3.9	3.5	8.3	12.0	4.6	5.4	5.9

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
1986	11.4%	11.1%	15.0%	9.6%	15.9%	12.5%	14.5%	7.0%	19.0%
1987	10.3	8.7	10.0	7.3	13.2	10.4	12.1	6.3	16.8
1988	10.5	10.9	8.2	6.6	13.1	9.3	14.6	6.3	19.4
1989	7.6	8.0	6.8	4.9	10.5	7.0	11.9	5.1	17.0
1990	7.1	6.5	6.9	4.9	11.0	6.3	13.7	4.6	20.9
1991	6.8	6.1	8.4	6.4	11.3	6.6	13.4	5.0	20.3
1992	10.0	10.0	13.7	9.3	15.1	8.5	17.3	7.0	26.3
1993	10.1	9.8	14.1	8.7	12.4	6.5	15.0	5.5	24.1
1994	9.8	9.5	13.9	8.7	15.3	5.7	21.5	5.4	32.1
1995	8.7	6.7	10.5	6.8	14.9	4.6	20.3	4.8	29.0
1996	10.0	7.9	11.8	7.1	15.9	5.9	25.9	4.8	31.0
1997	8.9	7.2	9.5	5.3	15.2	5.0	20.7	4.0	27.5
1998	8.5	8.1	8.3	4.3	13.6	4.2	18.0	3.3	28.2
1999	8.5	8.7	8.0	4.6	13.1	5.5	16.9	3.4	29.8
2000	6.6	5.4	7.4	4.2	11.4	4.2	13.9	2.8	27.4
2001	7.3	9.0	6.3	4.5	10.5	5.1	12.8	2.9	24.4

Note: The margin of error around these estimates is large: approximately +/- 0.7 percentage points at the state level for any given year and about +/- 1.2 percentage points at the state level for any year-to-year change. For example, the decline in the Arizona unemployment rate from 5.5% in 1996 to 4.6% in 1997 was not significant. Error margins are substantially larger by county.

Source: Arizona Department of Economic Security and U.S. Department of Labor.

TABLE 7
TOTAL EMPLOYMENT
United States, Arizona and Counties
Annual Percent Change, 1986 through 2000*

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
1986	2.0%	4.9%	5.1%	4.0%	4.9%	7.7%	3.2%	4.6%	-0.3%
1987	2.7	3.9	4.0	2.0	5.4	5.8	2.2	4.0	4.6
1988	3.1	3.9	4.2	3.3	3.5	-5.3	1.1	3.1	3.5
1989	2.0	1.8	1.9	0.0	3.2	2.1	1.7	1.2	1.5
1990	1.6	1.6	1.6	0.3	2.6	-3.1	1.0	3.0	4.6
1991	-0.5	0.4	-0.3	1.3	2.2	-0.7	-3.5	2.5	4.0
1992	0.5	1.2	0.7	1.5	2.8	4.5	4.8	3.8	0.0
1993	1.9	4.4	4.6	4.8	3.7	0.9	3.2	4.0	6.8
1994	2.5	6.6	6.7	6.8	6.3	4.9	5.0	5.1	6.8
1995	2.6	5.5	6.6	3.9	3.2	-1.1	0.8	4.3	1.0
1996	2.2	5.8	7.1	2.3	4.4	3.3	2.9	4.6	5.9
1997	2.4	4.6	5.6	2.6	2.9	-0.4	2.6	1.6	2.9
1998	2.6	4.6	5.4	3.8	2.4	9.9	0.3	4.2	1.6
1999	2.2	3.4	4.1	2.6	1.5	4.7	1.3	2.5	0.6
2000	2.2	3.3	3.5	3.2	2.4	0.4	3.9	4.8	1.4

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
1986	2.9%	-1.4%	3.5%	5.8%	0.2%	9.9%	6.9%	8.2%	3.8%
1987	2.3	-0.2	9.2	8.9	2.4	6.2	5.0	6.5	8.0
1988	6.1	0.7	7.8	7.1	-0.1	3.9	7.8	6.4	5.0
1989	-0.6	1.7	5.1	6.8	1.7	2.0	10.6	3.8	4.6
1990	5.0	6.2	-3.2	10.5	3.2	-0.5	0.8	4.6	0.8
1991	4.4	6.3	0.0	5.3	-2.0	1.6	1.0	4.6	5.4
1992	3.0	5.7	-2.3	0.8	0.6	1.1	1.0	5.5	2.8
1993	5.9	4.0	0.2	3.2	2.7	4.8	5.4	6.1	1.1
1994	5.9	2.9	9.5	7.0	6.4	7.5	0.9	12.7	3.1
1995	5.7	18.1	6.5	1.5	1.9	7.0	-0.8	3.5	3.7
1996	4.0	2.9	-1.0	4.8	3.6	4.2	-1.0	5.2	6.7
1997	2.5	2.2	7.9	3.9	4.1	1.8	5.5	6.6	0.7
1998	0.8	-4.0	1.0	3.0	2.4	-3.7	0.4	3.9	4.9
1999	2.9	-6.9	0.6	4.4	2.0	-1.3	2.2	1.8	-0.1
2000	0.9	10.6	3.7	4.1	1.8	-1.0	2.6	4.2	-0.6

* To be consistent with county figures, U.S. and Arizona figures do not reflect revisions made with the release of 2001 data and thus may not match figures shown in other tables.

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.

TABLE 8
EARNINGS BY PLACE OF WORK
United States, Arizona and Counties
Annual Real (Inflation-Adjusted) Percent Change, 1986 through 2000*

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
1986	3.6%	6.5%	7.1%	5.5%	5.2%	8.9%	2.5%	8.4%	-3.7%
1987	4.3	5.3	5.6	3.1	6.5	3.9	4.1	3.7	1.4
1988	4.6	4.0	4.1	2.0	5.7	-1.5	0.5	3.3	10.8
1989	2.2	0.6	1.3	-0.5	-1.2	3.5	-1.5	-2.5	-3.4
1990	2.3	1.3	1.7	-1.2	2.3	-3.6	2.6	4.2	3.9
1991	-0.9	0.8	-0.3	2.7	3.3	3.1	1.5	2.8	3.9
1992	4.4	4.4	4.6	4.0	3.9	4.1	5.7	6.6	4.9
1993	1.8	4.9	4.9	5.7	4.7	1.7	-1.1	2.5	5.7
1994	2.7	7.1	8.2	7.3	2.6	3.2	1.3	4.7	4.0
1995	2.5	7.0	8.3	3.5	4.7	-2.9	-1.3	3.4	-6.4
1996	3.5	6.4	8.1	3.1	2.4	5.6	2.8	4.9	7.1
1997	4.1	6.3	7.4	3.6	3.6	-1.0	2.4	3.6	0.8
1998	6.0	8.8	10.3	6.5	4.0	3.6	3.1	4.1	2.7
1999	5.1	6.2	6.8	6.2	3.0	9.0	0.3	3.6	0.7
2000	5.4	7.2	8.5	4.6	3.1	1.2	7.2	6.1	2.3

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
1986	6.4%	-2.8%	1.0%	7.1%	6.9%	10.9%	6.2%	8.3%	-1.0%
1987	5.0	-1.6	29.3	8.0	2.5	8.6	7.8	5.2	12.7
1988	9.2	1.8	14.8	6.1	-2.5	13.3	7.7	5.2	10.5
1989	0.0	-0.5	-6.5	9.1	-3.4	-3.0	5.4	3.3	-6.5
1990	2.0	7.8	2.9	14.5	0.2	-3.8	3.8	4.9	-0.6
1991	3.8	9.9	-4.1	1.4	-0.7	6.8	0.7	3.6	6.3
1992	2.5	10.5	-9.4	3.6	3.1	0.1	4.6	8.3	2.0
1993	4.3	1.4	16.4	3.9	2.4	6.9	6.0	7.8	8.7
1994	4.2	3.3	-6.5	6.1	2.3	1.2	1.1	11.8	-4.9
1995	-3.6	18.9	5.3	0.4	1.2	7.6	0.9	3.7	19.8
1996	14.4	5.0	0.6	3.8	5.1	6.9	2.6	4.4	-10.5
1997	5.3	1.2	9.3	8.0	2.5	-2.9	8.1	8.4	5.7
1998	0.8	-4.9	-0.7	5.9	4.7	-2.2	5.7	4.9	9.9
1999	2.7	-9.4	9.2	6.2	3.3	2.8	5.2	5.1	0.1
2000	-1.0	13.8	0.6	4.6	1.5	-4.2	4.2	6.6	0.8

* To be consistent with county figures, U.S. and Arizona figures do not reflect revisions made with the release of 2001 data and thus may not match figures shown in other tables.

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.

TABLE 9
PER CAPITA PERSONAL INCOME
United States, Arizona and Counties
Annual Real (Inflation-Adjusted) Percent Change, 1986 through 2000*

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
1986	2.5%	2.5%	2.6%	2.3%	2.1%	1.4%	0.3%	4.0%	-0.1%
1987	2.7	1.6	1.3	0.7	2.8	-1.7	1.6	0.8	1.8
1988	3.4	1.0	0.9	0.4	2.0	-0.6	2.1	0.2	6.1
1989	2.8	1.0	1.1	2.5	-0.5	5.4	-0.2	-0.7	0.2
1990	1.5	-0.1	0.1	-0.8	0.2	-0.4	2.0	3.4	1.9
1991	-1.3	-2.1	-3.3	0.1	0.2	4.6	1.2	0.1	0.3
1992	2.2	0.2	0.0	0.4	0.9	7.6	2.7	3.7	1.5
1993	0.3	0.5	0.1	2.6	0.0	-0.6	-2.1	-1.1	1.7
1994	1.6	2.7	3.2	2.5	1.1	1.0	-1.5	3.1	2.1
1995	1.9	1.6	2.2	0.6	-0.2	-4.3	-2.1	1.9	-3.5
1996	2.4	2.2	2.6	2.3	0.2	3.1	3.4	2.9	4.0
1997	2.7	2.8	3.6	1.2	1.3	-0.5	1.2	2.9	0.3
1998	4.5	4.3	4.5	4.4	3.0	5.0	3.0	4.8	2.3
1999	2.1	1.3	1.3	1.8	0.4	8.1	0.7	2.2	0.3
2000	3.7	3.0	4.0	1.1	0.8	1.2	3.9	3.3	1.3

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
1986	4.9%	4.9%	3.7%	2.3%	3.4%	4.5%	4.2%	0.7%	-1.4%
1987	0.7	0.7	16.0	4.7	1.1	4.6	0.3	0.0	7.9
1988	4.4	3.2	9.1	0.8	-1.9	4.1	-0.1	0.7	2.8
1989	1.0	5.5	-3.0	2.4	-1.4	0.3	-0.9	1.5	-8.5
1990	2.1	2.9	1.6	1.7	0.3	-3.7	0.3	-0.7	-3.4
1991	1.2	4.8	-5.0	-4.5	1.4	2.2	-1.8	-1.5	1.9
1992	3.5	4.3	-5.4	-2.1	2.9	-1.5	0.8	-0.1	-1.4
1993	0.4	-0.5	5.8	-0.9	-1.4	1.9	0.8	-0.6	1.6
1994	2.7	2.2	-6.1	2.5	2.0	-0.8	1.9	5.7	-4.3
1995	-3.1	9.0	0.8	-5.1	-0.5	-1.8	-0.9	-2.3	11.8
1996	5.0	5.2	-2.7	0.6	3.5	-0.2	3.7	1.0	-11.0
1997	1.6	0.9	2.0	3.2	0.0	-1.0	3.5	2.4	0.1
1998	-0.8	-1.9	-1.6	3.5	2.3	-0.5	4.4	3.2	5.2
1999	-0.2	-1.8	3.8	0.8	2.8	0.2	1.3	-1.0	-3.8
2000	0.4	6.6	0.0	0.9	-0.1	-2.0	1.1	1.2	-2.1

* To be consistent with county figures, U.S. and Arizona figures do not reflect revisions made with the release of 2001 data and thus may not match figures shown in other tables.

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.

TABLE 10
AVERAGE WAGE PER JOB
United States, Arizona and Counties
Annual Real (Inflation-Adjusted) Percent Change, 1986 through 2000*

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
1986	1.9%	2.5%	2.9%	2.0%	1.2%	2.5%	-0.7%	3.8%	-3.1%
1987	1.4	0.9	1.3	1.0	-0.7	0.6	2.5	0.1	-4.1
1988	1.6	0.8	0.8	-0.2	1.8	3.0	0.2	1.2	7.5
1989	-0.4	-1.4	-1.3	-0.5	-3.1	2.1	-1.6	-4.0	-4.2
1990	0.9	-0.6	-0.5	-2.5	0.6	-1.2	2.7	0.5	-0.4
1991	0.2	0.3	0.1	2.1	0.2	2.8	5.9	0.6	-1.7
1992	2.7	1.7	2.2	0.7	1.1	-1.2	0.0	2.7	3.2
1993	-0.7	-0.9	-0.8	-1.0	-1.5	0.3	-3.9	-2.0	-2.5
1994	0.3	1.4	1.5	1.7	0.5	1.4	-0.4	0.4	-0.6
1995	1.2	1.5	1.7	0.4	0.4	-0.2	-0.7	-0.3	-4.9
1996	1.9	2.1	1.9	2.4	1.4	4.4	-1.1	0.8	1.9
1997	2.7	2.9	3.4	1.4	0.7	-1.4	0.0	1.4	-1.4
1998	3.9	4.6	5.2	3.6	2.1	-1.0	4.5	4.2	3.8
1999	2.9	2.7	2.7	3.9	1.1	2.3	-1.1	0.7	-0.2
2000	3.7	4.5	5.7	1.3	1.3	1.1	3.1	1.1	1.1

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
1986	0.7%	-2.5%	-1.1%	0.8%	4.8%	0.6%	0.2%	-0.2%	2.3%
1987	1.8	-1.8	0.6	-1.0	1.0	-2.4	2.6	0.9	-4.0
1988	1.8	2.6	0.6	-0.3	0.6	7.9	2.2	0.6	0.0
1989	0.9	-1.5	-1.5	-0.6	-4.4	-7.1	-5.4	-1.1	-2.8
1990	-2.0	0.0	3.4	2.8	-3.1	2.1	3.8	-1.0	0.5
1991	-1.5	0.7	-2.3	-2.1	1.1	-0.2	-0.2	-0.6	-1.5
1992	-1.3	2.2	-2.2	2.8	1.1	1.8	0.8	0.0	0.3
1993	-2.3	-1.6	5.1	-2.6	-0.4	-2.4	0.1	-0.4	0.7
1994	2.5	0.8	1.6	1.5	-1.5	0.1	2.7	1.5	0.9
1995	-2.3	2.2	-1.2	1.3	1.3	2.6	3.1	0.6	-0.2
1996	0.7	1.5	0.1	1.0	0.8	8.0	4.7	1.0	-2.8
1997	2.9	1.1	0.5	1.5	1.1	-3.0	1.2	1.9	4.5
1998	2.9	-1.5	3.7	3.8	0.8	0.2	7.3	2.6	0.2
1999	-0.1	-0.8	1.0	1.4	0.3	2.1	2.4	2.8	1.5
2000	1.7	3.3	-0.9	0.7	-0.8	-1.9	1.2	2.4	3.4

* To be consistent with county figures, U.S. and Arizona figures do not reflect revisions made with the release of 2001 data and thus may not match figures shown in other tables.

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.

II. 2000-01 INDUSTRIAL COMPOSITION: STANDARD INDUSTRIAL CLASSIFICATION

Definition of Industries

The Standard Industrial Classification (SIC), developed by the federal government, is by far the most widely used system of categorizing industries. Hierarchical in nature, the SIC combines narrowly defined industries into industry groups and then major groups. Ten industrial divisions are the final result: agriculture; mining; construction; manufacturing; transportation, communications and public utilities (TCPU); wholesale trade; retail trade; finance, insurance and real estate (FIRE); services; and public administration (government).

These ten industrial divisions form the basis of much of this report, though a look at major groups is included. A shortcoming of the SIC is that tourism is not defined. Tourism consists of a portion of several SIC divisions, particularly trade, services and transportation. Because most businesses, such as restaurants, serve both tourists and residents, it is impossible to measure tourism using published information. Based on an annual report by the U.S. Travel Data Center, tourism accounts for 6 to 7 percent of the Arizona economy, a share above the national average, but not among the largest divisions in Arizona.

The SIC is being phased out in favor of the new North American Industry Classification System (NAICS), which provides more sectoral detail and updates the SIC for new or expanded industries. Limited data have been produced so far using the NAICS. These data are examined in Section III.

Review of Tables

Table 11: Summary of Major Economic Indicators. Perfect correspondence does not exist among the major economic measures concerning the relative size of industrial divisions. Divisional shares vary with factors such as level of wages, relative importance of labor versus capital, and profits. Services and retail trade are labor-intensive industries. Their employment numbers, as well as those of agriculture, include many seasonal and part-time workers. Salaries are relatively low. Thus, the shares of these three divisions are larger when quantified by employment than by either of the dollar measures. In contrast, manufacturing, mining, wholesale trade and TCPU are relatively high-paying divisions, not highly labor intensive. Their shares of employment are therefore smaller than their shares of GSP and earnings.

The following table ranks the SIC industrial divisions in Arizona on each measure:

<i>Employment</i>	<i>Earnings by Place of Work</i>	<i>Gross State Product</i>
1. Services	Services	Services
2. Retail Trade	Government	FIRE*
3. Government	Manufacturing	Manufacturing
4. FIRE*	Retail Trade	Government
5. Manufacturing	FIRE*	Retail Trade
6. Construction	Construction	TCPU**
7. TCPU**	Wholesale Trade	Wholesale Trade
8. Wholesale Trade	TCPU**	Construction
9. Agriculture	Agriculture	Agriculture
10. Mining	Mining	Mining

* Finance, Insurance and Real Estate

** Transportation, Communications, and Public Utilities

Services is the largest industrial division based on all three measures, accounting for around 30 percent of personal income and employment. The value added by real estate, through rental income and taxes paid, accounts for the comparatively large size of FIRE when measured by GSP.

The smallest of the divisions are the two original mainstays of the Arizona economy, mining and agriculture (see Appendix A). Tourism's estimated share of 6 or 7 percent places it in the middle of the divisions (with the tourism-related portion of their shares subtracted), not first or second as sometimes stated.

Table 12: Non-Farm Wage and Salary Employment. This table displays the annual average of the monthly 2001 employment estimates made by DES following their benchmarking after the end of the year. Further revisions will be made in spring 2003.

Table 13: Total Employment. This is the most comprehensive employment measure. Compared to the national industrial structure, Arizona had fewer manufacturing jobs in 2000, with the difference spread across the construction, retail trade, FIRE and services divisions. Compared to the metro areas, the balance of the state had proportionately fewer manufacturing, FIRE and services jobs and more agriculture, mining, retail trade and government. The industrial mix varies widely by individual county.

Table 14: Earnings. Earnings by place of work provide a different view of the relative importance by division. In particular, manufacturing ranked second by earnings but fourth by employment nationally, while retail trade ranked second on employment but fifth on earnings.

Considerable dependence on one or a few divisions can be gauged by the *coefficient of specialization*, which cumulates the difference in county divisional shares from Arizona shares. The higher the value, the higher the specialization:

Greenlee	145	Heavily dependent on mining, with construction also above average
Cochise	74	Highly dependent on government (largely because of Fort Huachuca); little manufacturing, services, wholesale trade or FIRE
Apache	68	Considerable government (and services); little manufacturing, trade or FIRE
Graham	66	Dependent on government; little manufacturing, services or FIRE
Yuma	66	Dependent on agriculture and government; little services, manufacturing or FIRE
Santa Cruz	66	Highly dependent on wholesale trade and government (and TCPU); little services, FIRE or manufacturing
Pinal	58	Dependent on government, agriculture and mining; little FIRE, manufacturing or services
Navajo	53	Dependent on government, mining and TCPU; little manufacturing, wholesale trade, FIRE or services
La Paz	50	Dependent on agriculture, retail trade and government; little FIRE or manufacturing
Coconino	43	Dependent on government; less FIRE and manufacturing
Gila	38	More government and mining; less FIRE
Yavapai	30	More construction; less manufacturing
Mohave	27	More retail trade
Pima	19	More government
Maricopa	10	—

The *coefficient of concentration* is a similar measure that reveals the geographic dispersion of divisions across Arizona. The higher the value the more concentrated a division is in a few geographic locations, in comparison to the state’s population distribution:

Mining	104	Greenlee and Pinal; Navajo, Gila and Yavapai to a lesser extent; not Maricopa
Agriculture	67	Yuma, Pinal; not Maricopa or Pima
FIRE	53	Maricopa; not Pima
Wholesale Trade	53	Maricopa; not Pima
Manufacturing	38	Maricopa
TCPU	36	Maricopa; not Pima
Services	29	Maricopa
All Industry TOTAL	26	Maricopa
Construction	25	Maricopa
Retail Trade	25	Maricopa
Government	19	Pima and Cochise; not Maricopa

Maricopa County was the only county whose share of earnings exceeded its share of population. Thus, even after adjusting for population, Maricopa County is Arizona’s economic center in all divisions except government, mining and agriculture.

Table 15: Earnings per Employee. Nationally, earnings per employee varies widely by industrial divisions, from well below the overall figure in agriculture and retail trade to well above in mining, TCPU, manufacturing and wholesale trade. In comparison to the U.S., Arizona’s figure was 9 percent lower overall in 2000: especially low in FIRE, mining and TCPU, but above average in agriculture, manufacturing and retail trade. In agriculture, earnings per employee were above the national average in 2000 in the majority of the counties, but only Maricopa and Pima counties were above average in manufacturing and only Maricopa in retail trade. Few other examples exist of an above average figure by county and industrial division.

Table 16: Rank Order of Industrial Divisions. In 2000, services was the largest of the industrial divisions, based both on total employment and earnings by place of work—nationally, in Arizona as a whole and in the large urban areas. In seven counties it, as well as government, generally ranked between first and third. Agriculture and mining were the smallest divisions statewide, though they were among the largest in certain counties, particularly agriculture in Yuma and mining in Greenlee. The largest change in rank in 2000 occurred in Pinal County, where mine closures lowered mining’s rank.

Table 17: Gross State Product. On a per employee basis, GSP in Arizona in 2000 was 7 percent less than the national average. Wide differences in GSP per employee occur by division and major group. The electronics and other electric equipment major group stands out with a very high GSP per employee of more than \$200,000 – double the national average – and a GSP share more than triple the national average.

Note: With the BEA transitioning to NAICS, SIC detail below the divisional level was not presented for 2001. Thus, tables 18 through 21 are based on 2000 data. Sectoral detail for 2001 by NAICS is displayed in section III.

Table 18: Total Employment and Earnings. This table displays the most detailed breakout of industrial divisions into major groups. Significant differences can be seen in the shares between Arizona and the nation: Manufacturing's share in Arizona was considerably lower than the national average, with lower shares in most major groups, including all non-durable goods groups. However, shares were higher in Arizona in electronic and other electric equipment and in transportation equipment other than motor vehicles. The state had higher than average shares in construction, retail trade, FIRE (mostly due to real estate), and services, particularly business services.

Table 19: Largest Major Groups. This table ranks the major groups by size. Business services, which includes personnel supply services as well as many other industry groups, was the largest employer in Arizona in 2000. Local government, which includes counties, cities, school districts and special districts, was the second largest employer.

Ten of the 16 services major groups were among the top 25 employers. Trade placed six of its nine major groups on the list. Fewer services and trade major groups were on the list of largest major groups based on earnings.

Table 20: Average Wage. Arizona's average wage in 2000 was 7 percent below the national average. Arizona's average wage was above the national average in manufacturing and retail trade but far below average in FIRE and mining. Agriculture and retail trade are low-paying divisions, while manufacturing, mining and wholesale trade pay high wages. By major group, the average wage varies widely, from more than double the overall average in a few to less than one-half the average in others.

Table 21: Highest and Lowest-Paying Major Groups. Arizona's highest-paying major groups in 2000 were disproportionately in manufacturing and FIRE. Almost all of the lowest-paying major groups were in services or trade. In contrast to this strong relationship, little correlation exists by division in which Arizona major groups pay comparatively higher or lower wages than their national counterparts.

TABLE 11
SUMMARY OF MAJOR ECONOMIC INDICATORS
Industrial Divisions, Arizona, 2001

	Total		Gross State	Total	Shares	Gross State
	Employment*	Earnings**	Product***	Employment	Earnings	Product
TOTAL	2,859.3	\$97,060	\$156,303	100.0%	100.0%	100.0%
Agriculture	68.1	1,631	2,246	2.4	1.7	1.4
Mining	12.5	554	1,136	0.4	0.6	0.7
Construction	206.6	7,651	9,292	7.2	7.9	5.9
Manufacturing	219.4	11,474	24,382	7.7	11.8	15.6
TCPU^	127.4	5,565	11,154	4.5	5.7	7.1
Wholesale Trade	120.5	5,962	10,124	4.2	6.1	6.5
Retail Trade	494.1	10,077	16,463	17.3	10.4	10.5
FIRE^^	294.7	9,681	28,714	10.3	10.0	18.4
Services	917.5	28,477	34,652	32.1	29.3	22.2
Government	398.6	15,989	18,140	13.9	16.5	11.6

* In thousands

** In millions of dollars

*** In 2000; in millions of dollars

^ Transportation, Communications and Public Utilities

^^ 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.

TABLE 12A
NON-FARM WAGE AND SALARY EMPLOYMENT
Industrial Divisions, Arizona and Counties, 2001
Number in Thousands

	Mining	Con- struction	Manu- facturing	TCPU*	Trade	FIRE**	Services	Gov- ernment	Total
Arizona	9.5	164.6	209.6	111.3	533.3	150.4	710.6	376.5	2,265.8
Maricopa	1.0	119.7	155.9	86.0	373.9	125.6	507.9	187.0	1,557.0
Pima	1.9	22.0	33.9	11.7	72.1	14.8	116.5	77.4	350.3
Balance of State	6.6	22.9	19.8	13.6	87.3	10.0	86.2	112.1	358.5
Apache	0.0	0.7	0.2	0.5	1.8	0.8	2.7	12.3	19.0
Cochise	0.0	2.2	1.0	1.3	7.9	0.7	9.0	11.1	33.2
Coconino	0.1	2.5	3.0	1.6	14.0	1.3	16.1	20.2	58.8
Gila	0.7	1.0	1.0	0.5	3.1	0.3	2.9	4.6	14.1
Graham	0.0	0.2	0.3	0.2	2.0	0.2	1.4	2.5	6.8
Greenlee	2.3	0.4	0.0	0.1	0.3	0.0	0.3	0.5	3.9
La Paz	0.0	0.1	0.3	0.1	1.6	0.1	0.6	2.2	5.0
Mohave	0.1	4.7	3.2	2.2	12.4	1.4	10.8	7.6	42.4
Navajo	0.9	1.5	1.0	2.0	5.9	0.6	4.6	11.0	27.5
Pinal	1.4	1.5	3.2	0.8	7.9	0.8	8.1	14.8	38.5
Santa Cruz	0.0	0.4	0.9	1.2	4.6	0.4	1.6	3.1	12.2
Yavapai	1.1	4.9	3.4	1.3	13.7	1.6	15.3	10.0	51.3
Yuma	0.0	2.8	2.3	1.5	11.6	1.3	10.1	12.0	41.6

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

Note: Industrial divisions may not add to total due to rounding. "Balance of State" does not equal the sum of the 13 less-populous counties because some employment is not allocated to any county.

Source: Arizona Department of Economic Security.

TABLE 12B
NON-FARM WAGE AND SALARY EMPLOYMENT
Industrial Divisions, United States, Arizona and Counties, 2001
Divisional Shares

	Mining	Con- struction	Manu- facturing	TCPU*	Trade	FIRE**	Services	Gov- ernment
United States	0.4%	5.1%	13.4%	5.4%	23.0%	5.8%	31.1%	15.9%
Arizona	0.4	7.3	9.3	4.9	23.5	6.6	31.4	16.6
Maricopa	0.1	7.7	10.0	5.5	24.0	8.1	32.6	12.0
Pima	0.5	6.3	9.7	3.3	20.6	4.2	33.3	22.1
Balance of State	1.8	6.4	5.5	3.8	24.4	2.8	24.0	31.3
Apache	0.0	3.7	1.1	2.6	9.5	4.2	14.2	64.7
Cochise	0.0	6.6	3.0	3.9	23.8	2.1	27.1	33.4
Coconino	0.2	4.3	5.1	2.7	23.8	2.2	27.4	34.4
Gila	5.0	7.1	7.1	3.5	22.0	2.1	20.6	32.6
Graham	0.0	2.9	4.4	2.9	29.4	2.9	20.6	36.8
Greenlee	59.0	10.3	0.0	2.6	7.7	0.0	7.7	12.8
La Paz	0.0	2.0	6.0	2.0	32.0	2.0	12.0	44.0
Mohave	0.2	11.1	7.5	5.2	29.2	3.3	25.5	17.9
Navajo	3.3	5.5	3.6	7.3	21.5	2.2	16.7	40.0
Pinal	3.6	3.9	8.3	2.1	20.5	2.1	21.0	38.4
Santa Cruz	0.0	3.3	7.4	9.8	37.7	3.3	13.1	25.4
Yavapai	2.1	9.6	6.6	2.5	26.7	3.1	29.8	19.5
Yuma	0.0	6.7	5.5	3.6	27.9	3.1	24.3	28.8

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

Note: Industrial divisions may not add to 100 percent due to rounding.

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

TABLE 13A
TOTAL EMPLOYMENT
Industrial Divisions, Arizona and Counties, 2000

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Gov- ernment	Total
Arizona	67,150	12,658	202,969	225,896	125,125	122,507	485,052	285,847	931,857	363,317	2,822,378
Maricopa	32,095	2,899	142,288	168,487	93,636	97,247	319,943	216,805	633,905	188,730	1,896,035
Pima	5,983	2,410	28,081	35,144	14,504	12,581	73,947	37,386	159,422	74,660	444,118
Balance of State	29,072	7,349	32,600	22,265	16,985	12,679	91,162	31,656	138,530	99,927	482,225
Apache	498E	43E	1,178	164	1,115	301E	2,634	1,454	8,935	6,738	23,060
Cochise	2,373	64	2,849	1,285	1,662	789	8,940	2,926	13,167	15,986	50,041
Coconino	810	153	4,690	2,919	2,012	1,337	15,353	4,726	23,500	15,157	70,657
Gila	458	721E	1,688E	1,150E	682	347	3,863	1,773	6,387	3,346	20,415
Graham	982	19	438	340	274	203	2,242	620	2,719	3,191	11,028
Greenlee	196E	2,497E	882	21	88	93	344	50E	541	616	5,328
La Paz	884	10E	249	403	315	140E	1,827	393	2,162	1,159	7,542
Mohave	956	149	4,891	3,503	2,434	1,460	13,097	4,596	16,164	6,767	54,017
Navajo	805	950E	2,194E	1,337E	1,968	595	6,658	2,192	9,988	7,176	33,863
Pinal	3,451	1,423	2,046	3,476	1,206	1,343	7,905	2,535	13,632	14,276	51,293
Santa Cruz	442	18	640	1,040	1,468	1,891	3,190	844	3,290	3,133	15,956
Yavapai	1,749	1,236	7,460	4,199	1,908	2,024	14,322	6,425	23,812	8,850	71,985
Yuma	15,468	66E	3,395	2,428	1,853	2,156	10,787	3,122E	14,233	13,532	67,040

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 13B
TOTAL EMPLOYMENT
Industrial Divisions, United States, Arizona and Counties, 2000
Divisional Shares

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Gov- ernment
United States	3.1%	0.5%	5.7%	11.4%	4.9%	4.5%	16.3%	8.1%	31.8%	13.6%
Arizona	2.4	0.4	7.2	8.0	4.4	4.3	17.2	10.1	33.0	12.9
Maricopa	1.7	0.2	7.5	8.9	4.9	5.1	16.9	11.4	33.4	10.0
Pima	1.3	0.5	6.3	7.9	3.3	2.8	16.7	8.4	35.9	16.8
Balance of State	6.0	1.5	6.8	4.6	3.5	2.6	18.9	6.6	28.7	20.7
Apache	2.2E	0.2E	5.1	0.7	4.8	1.3E	11.4	6.3	38.7	29.2
Cochise	4.7	0.1	5.7	2.6	3.3	1.6	17.9	5.8	26.3	31.9
Coconino	1.1	0.2	6.6	4.1	2.8	1.9	21.7	6.7	33.3	21.5
Gila	2.2	3.5E	8.3E	5.6E	3.3	1.7	18.9	8.7	31.3	16.4
Graham	8.9	0.2	4.0	3.1	2.5	1.8	20.3	5.6	24.7	28.9
Greenlee	3.7E	46.9E	16.6	0.4	1.7	1.7	6.5	0.9E	10.2	11.6
La Paz	11.7	0.1E	3.3	5.3	4.2	1.9E	24.2	5.2	28.7	15.4
Mohave	1.8	0.3	9.1	6.5	4.5	2.7	24.2	8.5	29.9	12.5
Navajo	2.4	2.8E	6.5E	3.9E	5.8	1.8	19.7	6.5	29.5	21.2
Pinal	6.7	2.8	4.0	6.8	2.4	2.6	15.4	4.9	26.6	27.8
Santa Cruz	2.8	0.1	4.0	6.5	9.2	11.9	20.0	5.3	20.6	19.6
Yavapai	2.4	1.7	10.4	5.8	2.7	2.8	19.9	8.9	33.1	12.3
Yuma	23.1	0.1E	5.1	3.6	2.8	3.2	16.1	4.7E	21.2	20.2

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 14A
EARNINGS BY PLACE OF WORK
Industrial Divisions, Arizona and Counties, 2000
Thousands of Dollars

	Agriculture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Gov- ernment	Total
Arizona	\$1,522,726	\$541,250	\$7,212,296	\$11,931,885	\$5,350,438	\$5,785,756	\$9,620,854	\$8,976,327	\$28,266,553	\$14,070,101	\$93,278,186
Maricopa	696,819	102,230	5,184,866	9,381,772	4,151,466	4,968,824	6,920,809	7,743,896	21,037,864	7,583,060	67,771,606
Pima	107,289	97,747	973,608	1,834,710	554,040	418,456	1,267,271	763,006	4,139,880	2,799,490	12,955,497
Balance	718,618	341,273	1,053,822	715,403	644,932	398,476	1,432,774	469,425	3,088,809	3,687,551	12,551,083
Apache	-1,131E	1,005E	24,089	4,892	46,230	2,514E	32,638	27,386	216,358	268,369	622,350
Cochise	44,814	2,063	88,728	31,037	70,202	18,341	124,664	34,769	292,732	722,663	1,430,013
Coconino	10,604	3,168	156,290	93,954	77,955	37,558	243,395	64,933	522,957	570,525	1,781,339
Gila	1,366	38,950E	53,127E	46,460E	21,319	9,883	55,287	22,224	127,266	107,573	483,455
Graham	6,558	438	15,057	8,034	10,838	4,415	34,615	5,239	52,227	102,936	240,357
Greenlee	529E	117,069E	40,356	534	3,146	4,485	4,059	867E	8,052	16,263	195,360
La Paz	29,363	500E	7,212	12,308	11,764	3,751E	28,752	5,972	50,499	38,824	188,945
Mohave	8,254	5,182	157,827	109,063	86,031	45,914	220,155	69,419	383,171	221,802	1,306,818
Navajo	4,189	51,046E	64,144E	50,019E	99,638	14,108	103,984	25,574	199,009	243,373	855,084
Pinal	160,430	73,420	60,622	121,468	43,656	47,017	130,958	36,294	346,448	443,144	1,463,457
Santa Cruz	3,383	299	16,430	35,068	45,003	78,980	55,681	18,454	60,203	137,674	451,175
Yavapai	30,893	45,644	241,294	126,152	57,973	60,925	218,377	98,294	474,823	295,859	1,650,234
Yuma	419,366	2,489E	128,646	76,414	71,177	70,585	180,209	60,000E	355,064	518,546	1,882,496

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University. (Farm earnings can be negative.)

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 14B
EARNINGS BY PLACE OF WORK
Industrial Divisions, United States, Arizona and Counties, 2000
Divisional Shares

	Agri- culture	Mining	Con- struction	Manu- factring	TCPU*	Whlsale Trade	Retail Trade	FIRE**	Services	Gov- ernment
United States	1.5%	0.8%	6.0%	15.8%	6.8%	6.2%	8.7%	9.5%	29.2%	15.5%
Arizona	1.6	0.6	7.7	12.8	5.7	6.2	10.3	9.6	30.3	15.1
Maricopa	1.0	0.2	7.7	13.8	6.1	7.3	10.2	11.4	31.0	11.2
Pima	0.8	0.8	7.5	14.2	4.3	3.2	9.8	5.9	32.0	21.6
Balance of State	5.7	2.7	8.4	5.7	5.1	3.2	11.4	3.7	24.6	29.4
Apache	-0.2E	0.2E	3.9	0.8	7.4	0.4E	5.2	4.4	34.8	43.1
Cochise	3.1	0.1	6.2	2.2	4.9	1.3	8.7	2.4	20.5	50.5
Coconino	0.6	0.2	8.8	5.3	4.4	2.1	13.7	3.6	29.4	32.0
Gila	0.3	8.1E	11.0E	9.6E	4.4	2.0	11.4	4.6	26.3	22.3
Graham	2.7	0.2	6.3	3.3	4.5	1.8	14.4	2.2	21.7	42.8
Greenlee	0.3E	59.9E	20.7	0.3	1.6	2.3	2.1	0.4E	4.1	8.3
La Paz	15.5	0.3E	3.8	6.5	6.2	2.0E	15.2	3.2	26.7	20.5
Mohave	0.6	0.4	12.1	8.3	6.6	3.5	16.8	5.3	29.3	17.0
Navajo	0.5	6.0E	7.5E	5.8E	11.7	1.6	12.2	3.0	23.3	28.5
Pinal	11.0	5.0	4.1	8.3	3.0	3.2	8.9	2.5	23.7	30.3
Santa Cruz	0.7	0.1	3.6	7.8	10.0	17.5	12.3	4.1	13.3	30.5
Yavapai	1.9	2.8	14.6	7.6	3.5	3.7	13.2	6.0	28.8	17.9
Yuma	22.3	0.1E	6.8	4.1	3.8	3.7	9.6	3.2E	18.9	27.5

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research. (Farm earnings can be negative.)

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.

TABLE 15
EARNINGS PER EMPLOYEE
Industrial Divisions, United States, Arizona and Counties, 2000

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Gov- ernment	Total
United States	\$17,195	\$64,853	\$37,846	\$50,161	\$50,161	\$49,721	\$19,357	\$42,743	\$33,327	\$41,557	\$36,316
Arizona	22,676	42,760	35,534	52,820	42,761	47,228	19,835	31,403	30,334	38,727	33,050
Maricopa	21,711	35,264	36,439	55,682	44,336	51,095	21,631	35,718	33,188	40,179	35,744
Pima	17,932	40,559	34,671	52,205	38,199	33,261	17,138	20,409	25,968	37,497	29,171
Balance of State	24,719	46,438	32,326	32,131	37,971	31,428	15,717	14,829	22,297	36,902	26,027
Apache	-2,271E	23,372E	20,449	29,829	41,462	8,352E	12,391	18,835	24,215	39,829	26,988
Cochise	18,885	32,234	31,144	24,153	42,239	23,246	13,945	11,883	22,232	45,206	28,577
Coconino	13,091	20,706	33,324	32,187	38,745	28,091	15,853	13,740	22,253	37,641	25,211
Gila	2,983	54,022E	31,473E	40,400E	31,260	28,481	14,312	12,535	19,926	32,150	23,681
Graham	6,678	23,053	34,377	23,629	39,555	21,749	15,439	8,450	19,208	32,258	21,795
Greenlee	2,699E	46,884E	45,755	25,429	35,750	48,226	11,799	17,340E	14,884	26,401	36,667
La Paz	33,216	50,000E	28,964	30,541	37,346	26,793E	15,737	15,196	23,358	33,498	25,052
Mohave	8,634	34,779	32,269	31,134	35,346	31,448	16,810	15,104	23,705	32,777	24,193
Navajo	5,204	53,733E	29,236E	37,411E	50,629	23,711	15,618	11,667	19,925	33,915	25,251
Pinal	46,488	51,595	29,630	34,945	36,199	35,009	16,566	14,317	25,414	31,041	28,531
Santa Cruz	7,654	16,611	25,672	33,719	30,656	41,766	17,455	21,865	18,299	43,943	28,276
Yavapai	17,663	36,929	32,345	30,043	30,384	30,101	15,248	15,299	19,940	33,430	22,925
Yuma	27,112	37,712E	37,893	31,472	38,412	32,739	16,706	19,218E	24,947	38,320	28,080

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research. (Farm earnings can be negative.)

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.

TABLE 16
RANK ORDER OF INDUSTRIAL DIVISIONS
United States, Arizona and Counties, 2000
By Total Employment/By Earnings by Place of Work

	Services	Gov- ernment	Retail Trade	Manu- factring	FIRE*	Con- struction	Whlsale Trade	TCPU**	Agri- culture	Mining
United States	1/1	3/3	2/5	4/2	5/4	6/8	8/7	7/6	9/9	10/10
Arizona	1/1	3/2	2/4	5/3	4/5	6/6	8/7	7/8	9/9	10/10
Maricopa	1/1	4/4	2/5	5/2	3/3	6/6	7/7	8/8	9/9	10/10
Pima	1/1	2/2	3/4	5/3	4/6	6/5	8/8	7/7	9/9	10/10
Balance of State	1/2	2/1	3/3	7/6	5/8	4/4	9/9	8/7	6/5	10/10
Apache	1/2	2/1	3/4	9/7	4/5	5/6	8/8	6/3	7/10	10/9
Cochise	2/2	1/1	3/3	8/8	4/7	5/4	9/9	7/5	6/6	10/10
Coconino	1/2	3/1	2/3	6/5	4/7	5/4	8/8	7/6	9/9	10/10
Gila	1/1	3/2	2/3	6/5	4/7	5/4	10/9	8/8	9/10	7/6
Graham	2/2	1/1	3/3	7/6	5/8	6/4	9/9	8/5	4/7	10/10
Greenlee	4/4	3/3	5/6	10/9	9/8	2/2	7/5	8/7	6/10	1/1
La Paz	1/1	3/2	2/4	5/5	6/8	8/7	9/9	7/6	4/3	10/10
Mohave	1/1	3/2	2/3	6/5	5/7	4/4	8/8	7/6	9/9	10/10
Navajo	1/2	2/1	3/3	7/7	5/8	4/5	10/9	6/4	9/10	8/6
Pinal	2/2	1/1	3/4	4/5	6/10	7/7	9/8	10/9	5/3	8/6
Santa Cruz	1/3	3/1	2/4	6/6	7/7	8/8	4/2	5/5	9/9	10/10
Yavapai	1/1	3/2	2/4	6/5	5/6	4/3	7/7	8/8	9/10	10/9
Yuma	2/3	3/1	4/4	7/6	6/9	5/5	8/8	9/7	1/2	10/10

* 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.

TABLE 17
GROSS STATE PRODUCT AND GSP PER EMPLOYEE
Industrial Divisions and Major Groups, Arizona, 2000

	Gross State Product			GSP Per Employee	
	Millions of Dollars	Arizona Share	U.S. Share	Thousands of Dollars	Ratio to U.S.
Total	\$156,303	100.0%	100.0%	\$55.3	93.1%
Agriculture	2,246	1.4	1.4	33.4	129.2
Farms	1,075	0.7	0.8	54.3	213.7
Agricultural services, forestry, fishing and other	1,171	0.7	0.6	24.7	93.2
Mining	1,136	0.7	1.3	90.2	55.5
Metal mining	908	0.6	0.0	118.5	108.7
Coal mining	116	0.1	0.1	134.1E	107.2
Oil and gas extraction	15	0.0	1.0	6.4E	3.4
Non-metallic minerals, except fuels	98	0.1	0.1	56.8	54.9
Construction	9,292	5.9	4.7	45.9	94.4
Manufacturing	24,382	15.6	15.8	107.9	131.6
Durable goods	20,474	13.1	9.1	117.5	150.2
Lumber and wood products	448	0.3	0.4	39.7	82.9
Furniture and fixtures	263	0.2	0.3	39.3	88.5
Stone, clay and glass products	720	0.5	0.4	71.9	100.1
Primary metal products	576	0.4	0.5	86.5	115.4
Fabricated metal products	740	0.5	1.1	44.3	64.9
Industrial machinery and equipment	1,082	0.7	1.7	68.0	87.1
Electronic and other electric equipment	10,119	6.5	1.8	211.9	204.0
Motor vehicles and equipment	563	0.4	1.2	109.6	93.0
Other transportation equipment	4,239	2.7	0.6	125.0	168.6
Instruments and related products	1,348	0.9	0.6	104.4	137.0
Miscellaneous manufacturing industries	376	0.2	0.3	51.8	87.1
Non-durable goods	3,908	2.5	6.7	75.5	86.1
Food and kindred products	814	0.5	1.4	74.7	94.3
Tobacco products	1	0.0	0.2	333.3	53.4
Textile mill products	58	0.0	0.2	50.8	111.4
Apparel and other textile products	65	0.0	0.2	22.3	64.6
Paper and allied products	195	0.1	0.6	74.2	81.8
Printing and publishing	1,327	0.8	1.1	67.7	106.2
Chemicals and allied products	1,059	0.7	1.9	171.4	94.6
Petroleum and coal products	27	0.0	0.4	117.4	41.0
Rubber and plastics products	347	0.2	0.6	45.0	76.1
Leather and leather products	15	0.0	0.0	33.5	61.8

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TABLE 17 (continued)
GROSS STATE PRODUCT AND GSP PER EMPLOYEE
Industrial Divisions and Major Groups, Arizona, 2000

	Gross State Product			GSP Per Employee	
	Millions of Dollars	Arizona Share	U.S. Share	Thousands of Dollars	Ratio to U.S.
Transportation, Communications and Utilities	\$11,154	7.1%	8.3%	\$88.6	88.8%
Transportation	4,715	3.0	3.2	55.8	100.0
Railroad transportation	355	0.2	0.2	141.7	131.3
Local and interurban passenger transit	253	0.2	0.2	30.2	106.1
Trucking and warehousing	1,654	1.1	1.3	51.5	107.1
Water transportation	17	0.0	0.1	35.6	48.4
Transportation by air	2,085	1.3	0.9	67.1	95.1
Pipelines, except natural gas	30	0.0	0.1	232.6	49.0
Transportation services	321	0.2	0.3	32.6	60.8
Communications	3,200	2.0	2.8	118.7	74.2
Electric, gas, and sanitary services	3,240	2.1	2.3	225.8	86.2
Wholesale Trade	10,124	6.5	6.8	82.6	92.9
Retail Trade	16,463	10.5	9.0	33.8	103.5
Finance, Insurance and Real Estate	28,714	18.4	19.5	101.8	69.4
Depository institutions	5,183	3.3	3.7	NA	
Non-depository institutions	1,628	1.0	4.2	NA	
Security and commodity brokers	892	0.6	1.5	69.3	45.9
Insurance carriers	2,197	1.4	1.7	97.5	92.2
Insurance agents, brokers and services	1,006	0.6	0.7	43.8	87.9
Real estate	17,648	11.3	11.2	150.7	64.9
Holding and other investment offices	160	0.1	0.2	3.9	43.1
Services	34,652	22.2	21.8	37.0	91.3
Hotels and other lodging places	1,982	1.3	0.9	37.9	93.0
Personal services	995	0.6	0.6	20.2	97.6
Business services	10,124	6.5	5.8	37.6	81.3
Auto repair, services and parking	1,795	1.1	0.9	49.8	95.4
Miscellaneous repair services	502	0.3	0.3	33.5	100.2
Motion pictures	178	0.1	0.4	21.3	43.1
Amusement and recreation services	1,568	1.0	0.8	26.0	105.2
Health services	8,284	5.3	5.5	48.5	102.2
Legal services	1,531	1.0	1.3	75.5	90.2
Educational services	782	0.5	0.8	23.6	93.7
Social services	973	0.6	0.7	21.1	93.6
Private households	183	0.1	0.1	10.2	91.1
Membership organizations	1,089	0.7	0.6	25.2	102.7
Other services	4,665	3.0	3.1	40.7	85.5
Government	18,140	11.6	11.6	49.9	98.2
Federal civilian	3,612	2.3	2.3	75.3	95.1
Military	1,600	1.0	1.0	48.1	103.7
State and local	12,929	8.3	8.3	45.8	98.1

E: Employment data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 18
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona, 2000

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Total	2,826,069	100.0%	100.0%	\$93,516,710	100.0%	100.0%
Agriculture	67,219	2.4	3.1	1,432,579	1.5	1.4
Farm	19,801	0.7	1.9	573,087	0.6	0.7
Agricultural services, forestry, fishing	47,418	1.7	1.3	859,492	0.9	0.7
Agricultural services	46,428	1.6	1.1	851,859	0.9	0.6
Forestry, fishing and other	990	0.0	0.1	7,633	0.0	0.1
Mining	12,592	0.4	0.5	565,850	0.6	0.8
Metal mining	7,663	0.3	0.0	400,660	0.4	0.0
Coal mining	863E	0.0	0.0	50,333E	0.1	0.1
Oil and gas extraction	2,340E	0.1	0.3	44,000E	0.0	0.6
Non-metallic minerals, except fuels	1,726	0.1	0.1	70,857	0.1	0.1
Construction	202,288	7.2	5.7	7,257,224	7.8	6.0
General building contractors	36,526	1.3	1.2	1,639,683	1.8	1.4
Heavy construction contractors	19,680	0.7	0.6	750,137	0.8	0.7
Special trade contractors	146,082	5.2	3.9	4,867,404	5.2	3.9
Manufacturing	225,978	8.0	11.4	11,949,267	12.8	15.9
Durable goods	174,208	6.2	6.9	9,882,125	10.6	10.0
Lumber and wood products	11,289	0.4	0.6	333,164	0.4	0.5
Furniture and fixtures	6,685	0.2	0.4	178,231	0.2	0.3
Stone, clay and glass products	10,012	0.4	0.4	412,591	0.4	0.5
Primary metal industries	6,659	0.2	0.4	281,742	0.3	0.6
Fabricated metal products	16,696	0.6	1.0	600,698	0.6	1.1
Industrial machinery and equipment	15,911	0.6	1.3	796,593	0.9	2.1
Electronic and other electric equipment	47,750	1.7	1.0	3,817,468	4.1	1.8
Motor vehicles and equipment	5,136	0.2	0.6	257,425	0.3	1.1
Other transportation equipment	33,902	1.2	0.5	2,192,519	2.3	0.8
Instruments and related products	12,915	0.5	0.5	799,199	0.9	0.9
Miscellaneous manufacturing industries	7,253	0.3	0.3	212,495	0.2	0.3
Non-durable goods	51,770	1.8	4.5	2,067,142	2.2	5.9
Food and kindred products	10,901	0.4	1.0	354,443	0.4	1.1
Tobacco products	3	0.0	0.0	181	0.0	0.0
Textile mill products	1,142	0.0	0.3	35,337	0.0	0.3
Apparel and other textile products	2,918	0.1	0.4	58,619	0.1	0.3
Paper and allied products	2,628	0.1	0.4	107,815	0.1	0.5
Printing and publishing	19,605	0.7	1.0	869,294	0.9	1.2
Chemicals and allied products	6,178	0.2	0.6	350,782	0.4	1.6
Petroleum and coal products	230	0.0	0.1	10,621	0.0	0.2
Rubber and plastics products	7,717	0.3	0.6	268,828	0.3	0.7
Leather and leather products	448	0.0	0.0	11,222	0.0	0.0

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TABLE 18 (continued)
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona, 2000

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Transportation, Communications and Public Utilities	125,847	4.5%	4.9%	\$5,366,321	5.7%	6.9%
Transportation	84,551	3.0	3.4	3,022,404	3.2	3.5
Railroad transportation	2,506	0.1	0.1	180,982	0.2	0.2
Trucking and warehousing	32,128	1.1	1.6	1,038,598	1.1	1.4
Water transportation	478	0.0	0.1	9,968	0.0	0.2
Local and interurban passenger transit	8,388	0.3	0.4	174,413	0.2	0.2
Transportation by air	31,068	1.1	0.8	1,326,410	1.4	1.0
Pipelines, except natural gas	129	0.0	0.0	8,377	0.0	0.0
Transportation services	9,854	0.3	0.4	283,656	0.3	0.5
Communications	26,949	1.0	1.0	1,396,766	1.5	2.2
Electric, gas and sanitary services	14,347	0.5	0.5	947,151	1.0	1.2
Wholesale Trade	122,550	4.3	4.5	5,834,261	6.2	6.2
Retail Trade	487,214	17.2	16.4	9,623,421	10.3	8.7
Building materials and garden equipment	17,807	0.6	0.7	475,454	0.5	0.5
General merchandise stores	50,422	1.8	1.8	895,284	1.0	0.9
Food stores	64,185	2.3	2.2	1,465,514	1.6	1.2
Automotive dealers and service stations	55,012	1.9	1.6	1,997,853	2.1	1.5
Apparel and accessory stores	16,207	0.6	0.8	243,888	0.3	0.4
Home furniture and furnishings stores	26,086	0.9	0.8	725,995	0.8	0.6
Eating and drinking places	162,592	5.8	5.2	2,207,194	2.4	2.0
Miscellaneous retail	94,903	3.4	3.2	1,612,239	1.7	1.5
Finance, Insurance and Real Estate	282,132	10.0	7.9	8,917,147	9.5	9.4
Depository and non-depository institutions	65,599	2.3	1.7	2,725,761	2.9	2.2
Security and commodity brokers	12,880	0.5	0.6	882,060	0.9	2.4
Insurance carriers	22,528	0.8	0.9	1,075,917	1.2	1.5
Insurance agents, brokers and services	22,970	0.8	0.8	747,383	0.8	0.8
Real estate	117,090	4.1	2.9	3,033,364	3.2	1.8
Holding and other investment offices	41,065	1.5	1.0	452,662	0.5	0.7

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TABLE 18 (continued)
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona, 2000

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Services	936,593	33.1%	31.9%	\$28,431,083	30.4%	29.2%
Hotels and other lodging places	52,339	1.9	1.3	1,178,281	1.3	0.9
Personal services	49,172	1.7	1.7	782,874	0.8	0.8
Private households	17,874	0.6	0.7	180,622	0.2	0.2
Business services	269,352	9.5	7.4	8,422,468	9.0	7.7
Auto repair, services and parking	36,016	1.3	1.1	1,001,532	1.1	0.8
Miscellaneous repair services	14,979	0.5	0.5	407,370	0.4	0.3
Amusement and recreation services	60,378	2.1	2.0	1,176,553	1.3	1.0
Motion pictures	8,338	0.3	0.4	136,788	0.1	0.5
Health services	170,652	6.0	6.9	7,038,901	7.5	7.6
Legal services	20,290	0.7	1.0	1,384,143	1.5	2.0
Educational services	33,149	1.2	1.9	717,931	0.8	1.2
Social services	46,065	1.6	1.8	877,657	0.9	1.0
Museums, botanical, zoological gardens	1,480	0.1	0.1	36,549	0.0	0.0
Membership organizations	43,248	1.5	1.5	980,655	1.0	0.9
Engineering and management services	98,178	3.5	3.2	3,817,557	4.1	4.0
Miscellaneous services	15,083	0.5	0.6	291,202	0.3	0.4
Government	363,656	12.9	13.6	14,139,557	15.1	15.5
Federal civilian	47,997	1.7	1.7	2,960,027	3.2	3.1
Military	33,258	1.2	1.2	1,263,003	1.4	1.2
State and local	282,401	10.0	10.6	9,916,527	10.6	11.1
State	81,039	2.9	3.0	2,733,387	2.9	3.2
Local	201,362	7.1	7.7	7,183,140	7.7	7.9

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 19A
ARIZONA'S 25 LARGEST MAJOR GROUPS
Ranked by 2000 Employment

	Industrial Division	Employment	Share
1 Business services	Services	269,352	9.5%
2 Local government (includes school districts)	Government	201,362	7.1
3 Health services	Services	170,652	6.0
4 Eating and drinking places	Trade	162,592	5.8
5 Special trade contractors	Construction	146,082	5.2
6 Wholesale trade	Trade	122,550	4.3
7 Real estate	FIRE*	117,090	4.1
8 Engineering and management services	Services	98,178	3.5
9 Miscellaneous retail	Trade	94,903	3.4
10 State government	Government	81,039	2.9
11 Depository and non-depository institutions	FIRE*	65,599	2.3
12 Food stores	Trade	64,185	2.3
13 Amusement and recreation services	Services	60,378	2.1
14 Automotive dealers and service stations	Trade	55,012	1.9
15 Hotels and other lodging places	Services	52,339	1.9
16 General merchandise stores	Trade	50,422	1.8
17 Personal services	Services	49,172	1.7
18 Federal civilian government	Government	47,997	1.7
19 Electronic and other electric equipment	Manufacturing	47,750	1.7
20 Agricultural services	Agriculture	47,418	1.7
21 Social services	Services	46,065	1.6
22 Membership organizations	Services	43,248	1.5
23 Holding and other investment offices	FIRE*	41,065	1.5
24 General building contractors	Construction	36,526	1.3
25 Auto repair, services and parking	Services	36,016	1.3

* 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.

TABLE 19B
ARIZONA'S 25 LARGEST MAJOR GROUPS
Ranked by 2000 Earnings

	Industrial Division	Earnings in Thousands	Share
1 Business services	Services	\$8,422,468	9.0%
2 Local government (includes school districts)	Government	7,183,140	7.7
3 Health services	Services	7,038,901	7.5
4 Wholesale trade	Trade	5,834,261	6.2
5 Special trade contractors	Construction	4,867,404	5.2
6 Engineering and management services	Services	3,817,557	4.1
7 Electronic and other electric equipment	Manufacturing	3,817,468	4.1
8 Real estate	FIRE*	3,033,364	3.2
9 Federal civilian	Government	2,960,027	3.2
10 State government	Government	2,733,387	2.9
11 Depository and non-depository institutions	FIRE*	2,725,761	2.9
12 Eating and drinking places	Trade	2,207,194	2.4
13 Other transportation equipment	Manufacturing	2,192,519	2.3
14 Automotive dealers and service stations	Trade	1,997,853	2.1
15 General building contractors	Construction	1,639,683	1.8
16 Miscellaneous retail	Trade	1,612,239	1.7
17 Food stores	Trade	1,465,514	1.6
18 Communications	TCPU**	1,396,766	1.5
19 Legal services	Services	1,384,143	1.5
20 Transportation by air	TCPU**	1,326,410	1.4
21 Military	Government	1,263,003	1.4
22 Hotels and other lodging places	Services	1,178,281	1.3
23 Amusement and recreation services	Services	1,176,553	1.3
24 Insurance carriers	FIRE*	1,075,917	1.2
25 Trucking and warehousing	TCPU**	1,038,598	1.1

* 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.

TABLE 20
AVERAGE WAGE PER JOB
Industrial Divisions and Major Groups, Arizona, 2000

	In Thousands	Ratio to Arizona Total	Ratio to U.S.
Total	\$32.2	100%	93%
Agriculture	20.3	63	98
Farm	26.1	81	140
Agricultural services, forestry, fishing and other	18.4	57	84
Agricultural services	18.4	57	90
Forestry, fishing and other	22.8	71	41
Mining	46.2	143	80
Metal mining	47.7	148	88
Coal mining	58.8E	182	113
Oil and gas extraction	57.3E	178	87
Non-metallic minerals, except fuels	31.5	98	75
Construction	32.5	101	89
General building contractors	40.4	125	105
Heavy construction contractors	36.0	112	88
Special trade contractors	29.9	93	85
Manufacturing	48.5	150	109
Durable goods	52.0	161	110
Lumber and wood products	26.5	82	91
Furniture and fixtures	25.2	78	84
Stone, clay and glass products	37.8	117	95
Primary metal industries	37.4	116	83
Fabricated metal products	31.8	99	84
Industrial machinery and equipment	46.3	144	86
Electronic and other electric equipment	73.1	227	129
Motor vehicles and equipment	39.5	123	72
Other transportation equipment	57.1	177	111
Instruments and related products	56.7	176	97
Miscellaneous manufacturing industries	33.6	104	101
Non-durable goods	36.2	112	89
Food and kindred products	30.4	94	86
Textile mill products	30.2	94	104
Apparel and other textile products	22.7	71	96
Paper and allied products	37.8	117	82
Printing and publishing	41.0	127	102
Chemicals and allied products	44.5	138	66
Petroleum and coal products	42.7	132	67
Rubber and plastics products	31.6	98	90
Leather and leather products	25.4	79	87

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TABLE 20 (continued)
AVERAGE WAGE PER JOB
Industrial Divisions and Major Groups, Arizona, 2000

	In	Ratio to	Ratio to
	Thousands	Arizona Total	U.S.
Transportation, Communications and Public Utilities	\$40.4	125%	92%
Transportation	34.5	107	97
Railroad transportation	64.9	201	111
Trucking and warehousing	31.8	99	97
Water transportation	18.5	57	44
Local and interurban passenger transit	22.7	70	105
Transportation by air	38.2	118	94
Pipelines, except natural gas	58.8	182	88
Transportation services	29.1	90	82
Communications	47.9	149	83
Electric, gas and sanitary services	57.2	178	93
Wholesale Trade	45.4	141	97
Retail Trade	19.5	61	104
Building materials and garden equipment	24.6	76	98
General merchandise stores	16.8	52	95
Food stores	21.2	66	120
Automotive dealers and service stations	33.8	105	110
Apparel and accessory stores	13.9	43	80
Home furniture and furnishings stores	27.2	84	96
Eating and drinking places	12.6	39	98
Miscellaneous retail	22.9	71	105
Finance, Insurance and Real Estate	41.1	127	73
Depository and non-depository institutions	38.3	119	87
Security and commodity brokers	76.4	237	50
Insurance carriers	43.1	134	85
Insurance agents, brokers and services	41.4	129	93
Real estate	32.8	102	97
Holding and other investment offices	60.1	186	64

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TABLE 20 (continued)
AVERAGE WAGE PER JOB
Industrial Divisions and Major Groups, Arizona, 2000

	In Thousands	Ratio to Arizona Total	Ratio to U.S.
Services	\$30.5	95%	94%
Hotels and other lodging places	19.9	62	91
Personal services	19.2	60	100
Private households	10.1	31	92
Business services	30.0	93	83
Auto repair, services and parking	25.0	77	97
Miscellaneous repair services	32.9	102	102
Amusement and recreation services	26.8	83	110
Motion pictures	15.2	47	44
Health services	37.5	116	107
Legal services	62.3	193	104
Educational services	28.2	87	109
Social services	17.8	55	94
Museums, botanical, zoological gardens	23.0	71	99
Membership organizations	21.4	67	104
Engineering and management services	47.4	147	86
Miscellaneous services	52.4	163	82
Government	32.0	99	96
Federal civilian	43.5	135	94
Military	25.7	80	104
State and local	30.8	96	96
State	29.0	90	88
Local	31.6	98	99

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 21A
ARIZONA'S HIGHEST- AND LOWEST-PAYING MAJOR GROUPS*
Ranked By 2000 Average Wage Per Job

Highest-Paying Major Groups		Industrial Division	Average Wage In Thousands
1	Security and commodity brokers	FIRE**	\$76.4
2	Electronic and other electric equipment	Manufacturing	73.1
3	Railroad transportation	TCPU***	64.9
4	Legal services	Services	62.3
5	Holding and other investment offices	FIRE**	60.1
6	Electric, gas and sanitary services	TCPU***	57.2
7	Other transportation equipment	Manufacturing	57.1
8	Instruments and related products	Manufacturing	56.7
9	Communications	TCPU***	47.9
10	Metal mining	Mining	47.7
11	Engineering and management services	Services	47.4
12	Industrial machinery and equipment	Manufacturing	46.3
13	Wholesale Trade	Trade	45.4
14	Chemicals and allied products	Manufacturing	44.5
15	Federal civilian	Government	43.5
Lowest-Paying Major Groups			
15	Auto repair, services and parking	Services	25.0
14	Building materials and garden equipment	Trade	24.6
13	Miscellaneous retail	Trade	22.9
12	Local and interurban passenger transit	TCPU***	22.7
11	Membership organizations	Services	21.4
10	Food stores	Trade	21.2
9	Hotels and other lodging places	Services	19.9
8	Personal services	Services	19.2
7	Agricultural services	Agriculture	18.4
6	Social services	Services	17.8
5	General merchandise stores	Trade	16.8
4	Motion pictures	Services	15.2
3	Apparel and accessory stores	Trade	13.9
2	Eating and drinking places	Trade	12.6
1	Private households	Services	10.1

* 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.

TABLE 21B
ARIZONA'S HIGHEST- AND LOWEST-PAYING MAJOR GROUPS*
Ranked By 2000 Ratio of Average Wage to Average Wage of National Major Group

Highest Ratios		Industrial Division	Ratio
1	Farm	Agriculture	140%
2	Electronic and other electric equipment	Manufacturing	129
3	Food stores	Trade	120
4	Other transportation equipment	Manufacturing	111
5	Railroad transportation	TCPU***	111
6	Amusement and recreation services	Services	110
7	Automotive dealers and service stations	Trade	110
8	Educational services	Services	109
9	Health services	Services	107
10	Miscellaneous retail	Trade	105
11	General building contractors	Construction	105
12	Local and interurban passenger transit	TCPU***	105
13	Military	Government	104
14	Membership organizations	Services	104
15	Legal services	Services	104
Lowest Ratios			
15	Special trade contractors	Construction	85
14	Fabricated metal products	Manufacturing	84
13	Furniture and fixtures	Manufacturing	84
12	Agricultural services	Agriculture	84
11	Primary metal industries	Manufacturing	83
10	Business services	Services	83
9	Communications	TCPU***	83
8	Paper and allied products	Manufacturing	82
7	Transportation services	TCPU***	82
6	Apparel and accessory stores	Trade	80
5	Motor vehicles and equipment	Manufacturing	72
4	Chemicals and allied products	Manufacturing	66
3	Holding and other investment offices	FIRE**	64
2	Security and commodity brokers	FIRE**	50
1	Motion pictures	Services	44

* 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.

III. 2000-01 INDUSTRIAL COMPOSITION: NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM

Definition of Industries

The North American Industry Classification System (NAICS) is replacing the Standard Industrial Classification (SIC). The NAICS provides more sectoral detail and updates the SIC for new or expanded industries. Hierarchical in nature, the NAICS combines narrowly defined industries into industry groups and then subsectors. Twenty sectors are the final result. As in the SIC, tourism is not identifiable in the NAICS.

Review of Tables

Table 22: Economic Census. The Economic Census, conducted every five years, is the only source of sales-type measures by sector for local areas. The measure varies by sector, however, such that sectors cannot be directly compared.

The retail trade sector in 1997 had the greatest number of establishments and the greatest number of employees of any of the 18 sectors included in the Economic Census. Its payroll per employee was below average, however, such that the payroll of both manufacturing and health care and social assistance was larger.

Table 23: County Business Patterns. The annual *County Business Patterns* report includes number of establishments, employment and payroll. It excludes the government sector and the farm portion of the agriculture sector. Ranks based on various measures are shown below:

	Payroll	Employment	Number of Establishments	Payroll/ Employee	Employment/ Establishment
Manufacturing	1	3	11	4	3
Health Care and Social Assistance	2	5	4	10	11
Retail Trade	3	1	1	15	12
Construction	4	6	2	11	14
Professional, Scientific, Technical Services	5	7	3	7	16
Finance and Insurance	6	8	7	8	13
Administrative, Support, Waste Mgmt	7	4	8	17	5
Wholesale Trade	8	9	9	5	15
Auxiliaries, Management of Companies	9	12	16	2	1
Accommodation and Food Services	10	2	6	19	9
Transportation and Warehousing	11	11	12	9	6
Information	12	13	13	3	7
Other Services (exc public administration)	13	10	5	18	18
Real Estate and Rental and Leasing	14	14	10	12	19
Arts, Entertainment and Recreation	15	15	14	13	8
Utilities	16	18	17	1	4
Educational Services	17	16	15	14	10
Mining	18	17	19	6	2
Forestry, Fishing, Agriculture Support	19	19	18	16	17

Table 24: Employment and Payroll. Considering both payroll and employment, the construction, administrative and support services, accommodation and food services, and retail trade sectors all had sectoral shares in Arizona in 2000 at least one percentage point greater than the national average. Manufacturing, health care and social assistance, and information were small relative to the national average.

Table 25: Largest Subsectors. Administrative and support services easily was Arizona's largest subsector in 1999, based on both employment and payroll. For many subsectors, the rankings differed considerably between the two measures, a reflection of large differences across subsectors in the average wage. Other sizable subsectors on both measures included special trade contractors, ambulatory health care services, and computer and electronics products manufacturing.

Table 26: Payroll Per Employee. Overall payroll per employee was 11 percent less than the national average in Arizona in 2000. In 10 of the 18 sectors, the Arizona figure was from 2 percent above to 9 percent below the national average for that sector. In two sectors – retail trade and manufacturing – the Arizona figure was 10 percent higher than the national sectoral average. In six sectors, however, the Arizona figure was from 13 to 32 percent below average: mining; construction; auxiliaries and management of companies; professional, scientific and technical services; information; and finance and insurance.

Table 27: Highest and Lowest-Paying Subsectors. In two subsectors, payroll per employee in 1998 was at least twice the overall figure of \$30,300. In another five subsectors, the figure was at least 50 percent higher than the overall. In contrast, payroll per employee was less than one-half the overall figure in two subsectors. Manufacturing, wholesale trade, and finance and insurance are disproportionately represented among the high-paying subsectors while retail trade, accommodation and food service, and “other services” are over-represented among the low-paying subsectors. Compared to the U.S. average payroll by subsector, more than half of Arizona's top 15 (all with wages higher than the national average for the subsector) are retail trade subsectors, while information and construction subsectors are over-represented among those with the lowest wages (all with wages at least 10 percent less than the U.S. average).

Table 28: Employment. Greenlee County by far has a sectoral mix most different from the state average, followed by Apache County. Of the 13 less populous counties, Mohave, Pinal, Yavapai and Yuma have industrial structures closest to the state average, though not nearly as close as Maricopa and Pima counties. The most geographically concentrated sectors are mining and agriculture support, followed by management of companies, finance and insurance, and transportation and warehousing. The most geographically dispersed sectors are retail trade, accommodation and food services, health care and social assistance, and utilities.

Table 29: Payroll. The small size of several sectors in most Arizona counties, combined with strict rules to prevent disclosure of data on individual establishments, precludes presenting sectoral *County Business Patterns* payroll data for all Arizona counties. Sectoral shares vary more between Maricopa County, Pima County, and the balance of Arizona based on payroll than on employment. The coefficient of specialization is shown below:

Balance of State	45	Considerable retail trade, health care and social assistance, mining, and accommodation and food service. Relatively little manufacturing; finance and insurance; auxiliaries/management of companies; and professional, scientific and technical services.
Pima	23	Considerable health care and social services and manufacturing. Relatively little finance and insurance, wholesale trade, and transportation and warehousing.
Maricopa	9	—

Table 30: Payroll Per Employee. The overall payroll per employee in 2000 was 4 percent less than the national average in Maricopa County. Compared to Maricopa County, Pima County’s figure was 18 percent lower and the average for the balance of the state was 32 percent less. In most sectors, payroll per employee was highest in Maricopa County and lowest in the balance of the state.

Table 31: Total Employment and Earnings. This table displays the same type of sectoral detail as in Table 24, but for the BEA total employment and earnings measures (which include farming and government). The state’s sectoral shares are much above the national average in the administrative and waste services and construction sectors and somewhat higher in real estate and leasing, accommodation and food services, and retail trade. Arizona’s shares in manufacturing are much below the U.S. average; the state also has relatively small professional, scientific and technical services and information sectors.

Table 32: Largest Subsectors. Particularly well represented among the largest subsectors are the construction, finance and insurance, health services and social assistance, accommodation and food services, and government sectors. Among the top five on both employment and earnings are local government (counties, cities, school districts, and special districts), administrative and support services, and special trade contractors. Among the top 10 on each measure are ambulatory health care services, food services, credit intermediation, state government, and computer and electronics manufacturing.

Table 33: Earnings Per Employee and Average Wage. Arizona’s average wage in 2001 was 7 percent less than the national average; earnings per employee was 9 percent less. Several of the sectors with the highest figures were far below the national sectoral averages. In the moderate-to-low-paying sectors, Arizona’s figures were fairly close to the national sectoral average. Three of Arizona’s largest sectors – retail trade, administrative and waste services, and accommodation and food services – are among those with the lowest earnings per employee and average wage, while manufacturing is only large sector near the top of the lists.

Table 34: Highest- and Lowest-Paying Subsectors. The information sector has four subsectors among the top 15 based on both earnings per employee and average wage, but none employ many people. The only subsectors among the top 15 that also are among the top 15 based on size (employment and earnings) are computer and electronics products manufacturing, federal civilian government, and ambulatory health care services. Transportation equipment manufacturing and construction of buildings are moderately large subsectors.

TABLE 22
ECONOMIC CENSUS
Sectors, Arizona, 1997

	Number		Dollar		Type of	Employ/	Payroll per	Sales per
	Estblshmnts	Employment	Payroll^	Value^*	Dollar Measure	Establish	Employee^**	Employee^*
Retail Trade	16,283	232,050	\$4,223,879	\$43,960,933	Sales	14.3	\$18.2	\$189.4
Manufacturing	4,917	193,616	6,753,601	43,030,348	Value of Shipments	39.4	34.9	222.2
Administrative and Support	5,528	191,729	3,178,420	5,775,337	Receipts	34.7	16.6	30.1
Health Care and Social Assistance	10,521	186,232	5,263,953	12,841,177	Receipts/Revenue***	17.7	28.3	69.0
Accommodation and Food Services	9,089	184,323	1,823,208	6,632,981	Sales	20.3	9.9	36.0
Construction	11,058	131,871	3,621,170	12,761,962	Net Construction Value	11.9	27.5	96.8
Finance and Insurance	6,568	84,970	3,007,884	11,905,397	Revenue	12.9	35.4	140.1
Wholesale Trade	6,689	80,155	2,748,880	45,763,926	Sales	12.0	34.3	570.9
Professional, Scientific, Technical Services	10,256	77,074	2,768,281	6,765,057	Receipts/Revenue***	7.5	35.9	87.8
Other Services (except public admin.)	7,743	53,050	1,010,410	3,764,907	Receipts/Revenue***	6.9	19.0	71.0
Transportation and Warehousing	2,257	45,233	1,107,245	4,086,230	Revenue	20.0	24.5	90.3
Auxiliaries and Management of Companies	920	44,376	2,046,878	163,574	Sales	48.2	46.1	3.7
Information	1,731	42,238	1,487,117	7,209,401	Receipts	24.4	35.2	170.7
Real Estate and Rental and Leasing	5,450	32,529	747,355	4,110,143	Revenue	6.0	23.0	126.4
Arts, Entertainment and Recreation	1,336	31,087	569,112	2,294,422	Receipts/Revenue***	23.3	18.3	73.8
Mining	206	12,889	510,000	3,068,897	Value of Shipments	62.6	39.6	238.1
Utilities	235	10,546	595,361	5,840,283	Revenue	44.9	56.5	553.8
Educational Services	708	6,301	141,260	407,624	Receipts/Revenue***	8.9	22.4	64.7
SUM OF 18 SECTORS	101,495	1,640,269	41,604,014	220,382,599		16.2	25.4	134.4

Note: The Economic Census does not provide similar data for the agriculture and government sectors. Certain subsectors are excluded from the 18 sectors reported above.

^ All dollar values expressed in thousands

* The dollar measure varies by sector, thus is not directly comparable across sectors.

** Payroll and sales or other dollar measures report the calendar year total, but employment is that during the week of March 12.

*** Receipts for establishments subject to federal income tax/ revenue for establishments exempt from the tax

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, *1997 Economic Census*.

TABLE 23
COUNTY BUSINESS PATTERNS
Sectors, Arizona, 2000

	Number of Establishments	Employment	Payroll*	Employment/ Establishment	Payroll per Employee*
Total	114,804	1,919,353	\$58,235,779	16.7	\$30.3
Retail Trade	16,911	255,001	5,693,725	15.1	22.3
Accommodation and Food Services	9,283	202,756	2,477,076	21.8	12.2
Manufacturing	4,901	200,859	8,621,913	41.0	42.9
Administrative, Support, Waste Management, Remediation Services	6,859	200,421	4,294,632	29.2	21.4
Health Care and Social Assistance	10,993	199,894	6,244,480	18.2	31.2
Construction	12,652	167,401	5,214,799	13.2	31.2
Professional, Scientific and Technical Services	12,259	113,687	4,565,970	9.3	40.2
Finance and Insurance	7,472	111,928	4,412,417	15.0	39.4
Wholesale Trade	6,731	86,222	3,627,345	12.8	42.1
Other Services (except public administration)	10,115	78,730	1,587,101	7.8	20.2
Transportation and Warehousing	2,583	70,337	2,359,445	27.2	33.5
Information	1,954	47,411	2,083,955	24.3	44.0
Management of Companies and Enterprises	762	45,452	2,750,088	59.6	60.5
Real Estate and Rental and Leasing	6,056	41,265	1,144,956	6.8	27.7
Arts, Entertainment and Recreation	1,421	34,394	847,448	24.2	24.6
Educational Services	1,231	24,486	563,771	19.9	23.0
Auxiliaries (except corporate, subsidiary and regional management)	256	14,541	614,918	56.8	42.3
Mining	190	9,956	418,504	52.4	42.0
Utilities	261	9,923	605,794	38.0	61.0
Unclassified Establishments	1,695	2,758	65,783	1.6	23.9
Forestry, Fishing, Hunting, and Agriculture Support	219	1,931	41,659	8.8	21.6

Note: *County Business Patterns* does not include the government sector or farm subsector.

* Dollar values in thousands. Payroll represents the calendar year total, but employment is that during the week of March 12.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 24
EMPLOYMENT AND PAYROLL
Sectors and Subsectors, Arizona, 2000

	Employment			Payroll		
	Number	Share	U.S. Share	Thousands	Share	U.S. Share
Total	1,919,353	100.0%	100.0%	\$58,235,779	100.0%	100.0%
Forestry, Fishing, and Agriculture Support	1,931	0.1	0.2	41,659	0.1	0.1
Forestry and logging	169	0.0	0.1	NA		0.1
Fishing, hunting and trapping	58	0.0	0.0	NA		0.0
Agriculture and forestry support activities	1,704	0.1	0.1	36,684	0.1	0.1
Mining	9,956	0.5	0.4	418,504	0.7	0.6
Oil and gas extraction	77	0.0	0.1	2,884	0.0	0.1
Mining (except oil and gas)	9,536	0.5	0.2	404,680	0.7	0.2
Mining support activities	343	0.0	0.1	10,940	0.0	0.2
Utilities	9,923	0.5	0.6	605,794	1.0	1.0
Construction	167,401	8.7	5.8	5,214,799	9.0	6.2
Building, developing and general contracting	32,630	1.7	1.4	1,237,391	2.1	1.6
Heavy construction	20,218	1.1	0.8	691,650	1.2	1.0
Special trade contractors	114,553	6.0	3.6	3,285,758	5.6	3.6
Manufacturing	200,859	10.5	14.4	8,621,913	14.8	16.6
Food	8,552	0.4	1.3	228,629	0.4	1.1
Beverage and tobacco products	1,848	0.1	0.1	55,625	0.1	0.2
Textile mills	702	0.0	0.3	10,369	0.0	0.2
Textile product mills	1,035	0.1	0.2	22,045	0.0	0.1
Apparel	1,131	0.1	0.4	22,143	0.0	0.3
Leather and allied products	172	0.0	0.1	3,364	0.0	0.0
Wood products	9,623	0.5	0.5	237,220	0.4	0.4
Paper	3,008	0.2	0.5	115,979	0.2	0.6
Printing and related support activities	8,367	0.4	0.7	253,089	0.4	0.7
Petroleum and coal products	243	0.0	0.1	13,363	0.0	0.2
Chemicals	6,568	0.3	0.8	220,520	0.4	1.2
Plastics and rubber products	9,142	0.5	0.9	277,241	0.5	0.9
Non-metallic mineral products	7,326	0.4	0.5	239,503	0.4	0.5
Primary metals	5,076	0.3	0.5	181,326	0.3	0.7
Fabricated metal products	22,226	1.2	1.6	749,152	1.3	1.7
Machinery	9,056	0.5	1.2	384,583	0.7	1.5
Computer and electronic products	53,116	2.8	1.4	3,170,404	5.4	2.3
Electrical equipment, appliances and components	4,035	0.2	0.5	148,241	0.3	0.6
Transportation equipment	31,722	1.7	1.6	1,751,551	3.0	2.3
Furniture and related products	8,927	0.5	0.6	210,152	0.4	0.5
Miscellaneous manufacturing	8,984	0.5	0.6	327,414	0.6	0.7

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TABLE 24 (continued)
EMPLOYMENT AND PAYROLL
Sectors and Subsectors, Arizona, 2000

	Employment			Payroll		
	Number	Share	U.S. Share	Thousands	Share	U.S. Share
Wholesale Trade	86,222	4.5%	5.4%	\$3,627,345	6.2%	7.0%
Durable goods	52,834	2.8	3.2	2,353,308	4.0	4.4
Non-durable goods	33,388	1.7	2.2	1,274,037	2.2	2.5
Retail Trade	255,001	13.3	13.0	5,693,725	9.8	7.8
Motor vehicle and parts dealers	39,889	2.1	1.6	1,466,256	2.5	1.6
Furniture and home furnishing stores	10,360	0.5	0.5	266,522	0.5	0.3
Electronics and appliance stores	7,635	0.4	0.4	197,063	0.3	0.3
Building material and garden equipment and supply	19,807	1.0	1.1	508,366	0.9	0.8
Food and beverage stores	48,233	2.5	2.6	945,037	1.6	1.2
Health and personal care stores	13,331	0.7	0.8	289,304	0.5	0.5
Gasoline stations	17,454	0.9	0.8	276,612	0.5	0.3
Clothing and clothing accessories stores	19,864	1.0	1.2	310,731	0.5	0.5
Sporting goods, hobby, book and music stores	11,001	0.6	0.5	157,093	0.3	0.2
General merchandise stores	40,782	2.1	2.2	707,382	1.2	1.0
Miscellaneous store retailers	18,123	0.9	0.7	287,148	0.5	0.4
Non-store retailers	8,522	0.4	0.5	282,211	0.5	0.5
Transportation and Warehousing	70,337	3.7	3.3	2,359,445	4.1	3.2
Air transportation	17,341	0.9	0.5	765,126	1.3	0.7
Water transportation	12	0.0	0.1	NA		0.1
Truck transportation	26,604	1.4	1.2	826,765	1.4	1.2
Transit and ground passenger transportation	5,987	0.3	0.3	123,433	0.2	0.2
Pipeline transportation	276	0.0	0.0	19,625	0.0	0.1
Scenic and sightseeing transportation	681	0.0	0.0	NA		0.0
Transportation support activities	7,483	0.4	0.4	258,622	0.4	0.4
Couriers and messengers	10,985	0.6	0.5	325,353	0.6	0.4
Warehousing and storage	968	0.1	0.1	26,628	0.0	0.1
Information	47,411	2.5	3.1	2,083,955	3.6	5.4
Publishing industries	14,849	0.8	0.9	702,372	1.2	1.9
Motion picture and sound recording	4,118	0.2	0.3	63,037	0.1	0.3
Broadcasting and telecommunications	21,516	1.1	1.4	996,343	1.7	2.3
Information and data processing services	6,928	0.4	0.5	322,203	0.6	0.9
Finance and Insurance	111,928	5.8	5.2	4,412,417	7.6	8.9
Credit intermediation and related activities	67,109	3.5	2.4	2,137,423	3.7	3.0
Securities, commodity contracts and like activity	10,025	0.5	0.8	702,275	1.2	3.1
Insurance carriers and related activities	34,344	1.8	2.0	1,551,117	2.7	2.8
Funds, trusts, and other financial vehicles	450	0.0	0.0	21,602	0.0	0.1
Real Estate and Rental and Leasing	41,265	2.1	1.7	1,144,956	2.0	1.5
Real estate	27,487	1.4	1.1	805,717	1.4	1.0
Rental and leasing services	13,441	0.7	0.6	325,678	0.6	0.4
Lessors of non-financial intangible assets	337	0.0	0.0	13,561	0.0	0.0

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TABLE 24 (continued)
EMPLOYMENT AND PAYROLL
Sectors and Subsectors, Arizona, 2000

	Employment			Payroll		
	Number	Share	U.S. Share	Thousands	Share	U.S. Share
Professional, Scientific and Technical Services	113,687	5.9%	6.0%	\$4,565,970	7.8%	9.3%
Management of Companies and Enterprises	45,452	2.4	2.5	2,750,088	4.7	5.4
Administrative and Support, Waste Management	200,421	10.4	8.0	4,294,632	7.4	5.4
Administrative and support services	197,118	10.3	7.8	4,182,547	7.2	5.1
Waste management and remediation services	3,303	0.2	0.3	112,085	0.2	0.3
Educational Services	24,486	1.3	2.2	563,771	1.0	1.6
Health Care and Social Assistance	199,894	10.4	12.4	6,244,480	10.7	11.1
Ambulatory health care services	73,946	3.9	4.0	3,110,380	5.3	4.6
Hospitals	65,415	3.4	4.4	2,078,787	3.6	4.4
Nursing and residential care facilities	31,468	1.6	2.3	605,159	1.0	1.3
Social assistance	29,065	1.5	1.7	450,154	0.8	0.8
Arts, Entertainment and Recreation	34,394	1.8	1.5	847,448	1.5	1.1
Performing arts, spectator sports, and related industries	6,221	0.3	0.3	376,952	0.6	0.5
Museums, historical sites and like institutions	1,568	0.1	0.1	32,937	0.1	0.1
Amusement, gambling and recreation industries	26,605	1.4	1.1	437,559	0.8	0.6
Accommodation and Food Services	202,756	10.6	8.7	2,477,076	4.3	3.2
Accommodation	46,009	2.4	1.5	812,071	1.4	0.9
Food services and drinking places	156,747	8.2	7.1	1,665,005	2.9	2.3
Other Services (except public administration)	78,730	4.1	4.6	1,587,101	2.7	2.8
Repair and maintenance	26,558	1.4	1.2	679,224	1.2	1.0
Personal and laundry services	21,085	1.1	1.1	352,942	0.6	0.6
Religious, grantmaking, civic, professional, similar	31,087	1.6	2.3	554,935	1.0	1.3
Auxiliaries (except corporate, subsidiary and regional management)	14,541	0.8	0.9	614,918	1.1	1.4
Unclassified Establishments	2,758	0.1	0.1	65,783	0.1	0.1

Note: *County Business Patterns* does not include the government sector or farm subsector. Payroll represents the calendar year total, but employment is that during the week of March 12.

NA: Payroll data not available; employment estimated for this subsector.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 25A
ARIZONA'S 25 LARGEST SUBSECTORS, 2000
Ranked by 2000 Employment

	Sector	Employment	Share
1 Administrative and support services	Administrative and waste services	197,118	10.3%
2 Food services and drinking places	Accommodation and food services	156,747	8.2
3 Special trade contractors	Construction	114,553	6.0
4 Ambulatory health care services	Health care and social assistance	73,946	3.9
5 Credit intermediation and related activities	Finance and insurance	67,109	3.5
6 Hospitals	Health care and social assistance	65,415	3.4
7 Computer and electronic products manufacturing	Manufacturing	53,116	2.8
8 Durable goods wholesaling	Wholesale trade	52,834	2.8
9 Food and beverage stores	Retail trade	48,233	2.5
10 Accommodation	Accommodation and food services	46,009	2.4
11 General merchandise stores	Retail trade	40,782	2.1
12 Motor vehicle and parts dealers	Retail trade	39,889	2.1
13 Insurance carriers and related activities	Finance and insurance	34,344	1.8
14 Non-durable goods wholesaling	Wholesale trade	33,388	1.7
15 Building, developing and general contracting	Construction	32,630	1.7
16 Transportation equipment manufacturing	Manufacturing	31,722	1.7
17 Nursing and residential care facilities	Health care and social assistance	31,468	1.6
18 Religious, grantmaking, civic, professional	Other services	31,087	1.6
19 Social assistance	Health care and social assistance	29,065	1.5
20 Real estate	Real estate and rental and leasing	27,487	1.4
21 Amusement, gambling and recreation industries	Arts, entertainment and recreation	26,605	1.4
22 Truck transportation	Transportation and warehousing	26,604	1.4
23 Repair and maintenance	Other services	26,558	1.4
24 Fabricated metal products manufacturing	Manufacturing	22,226	1.2
25 Broadcasting and telecommunications	Information	21,516	1.1

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 25B
ARIZONA'S 25 LARGEST SUBSECTORS, 2000
Ranked by 2000 Payroll

	Sector	Payroll in Thousands	Share
1 Administrative and support services	Administrative and waste services	\$4,182,547	7.2%
2 Special trade contractors	Construction	3,285,758	5.6
3 Computer and electronic products manufacturing	Manufacturing	3,170,404	5.4
4 Ambulatory health care services	Health care and social assistance	3,110,380	5.3
5 Durable goods wholesaling	Wholesale trade	2,353,308	4.0
6 Credit intermediation and related activities	Finance and insurance	2,137,423	3.7
7 Hospitals	Health care and social assistance	2,078,787	3.6
8 Transportation equipment manufacturing	Manufacturing	1,751,551	3.0
9 Food services and drinking places	Retail trade	1,665,005	2.9
10 Insurance carriers and related activities	Finance and insurance	1,551,117	2.7
11 Motor vehicle and parts dealers	Retail trade	1,466,256	2.5
12 Non-durable goods wholesaling	Wholesale trade	1,274,037	2.2
13 Building, developing and general contracting	Construction	1,237,391	2.1
14 Broadcasting and telecommunications	Information	996,343	1.7
15 Food and beverage stores	Retail trade	945,037	1.6
16 Truck transportation	Transportation and warehousing	826,765	1.4
17 Accommodation	Accommodation and food services	812,071	1.4
18 Real estate	Real estate and rental and leasing	805,717	1.4
19 Air transportation	Transportation and warehousing	765,126	1.3
20 Fabricated metal products manufacturing	Manufacturing	749,152	1.3
21 General merchandise stores	Retail trade	707,382	1.2
22 Publishing industries	Information	702,372	1.2
23 Securities, commodity contracts and like activity	Finance and insurance	702,275	1.2
24 Heavy construction	Construction	691,650	1.2
25 Repair and maintenance	Other services	679,224	1.2

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 26
PAYROLL PER EMPLOYEE
Sectors and Subsectors, Arizona, 2000

	Thousands	Ratio to Arizona Total	Ratio to U.S.
Total	\$30.3	100%	89%
Forestry, Fishing, Hunting, and Agriculture Support	21.6	71	85
Forestry and logging	NA		
Fishing, hunting and trapping	NA		
Agriculture and forestry support activities	21.5	71	93
Mining	42.0	139	87
Oil and gas extraction	37.5	123	58
Mining (except oil and gas)	42.4	140	93
Mining support activities	31.9	105	73
Utilities	61.0	201	98
Construction	31.2	103	85
Building, developing and general contracting	37.9	125	100
Heavy construction	34.2	113	80
Special trade contractors	28.7	95	83
Manufacturing	42.9	141	110
Food	26.7	88	90
Beverage and tobacco products	30.1	99	70
Textile mills	14.8	49	53
Textile product mills	21.3	70	86
Apparel	19.6	65	96
Leather and allied products	19.6	64	78
Wood products	24.7	81	89
Paper	38.6	127	92
Printing and related support activities	30.2	100	87
Petroleum and coal products	55.0	181	94
Chemicals	33.6	111	65
Plastics and rubber products	30.3	100	94
Non-metallic mineral products	32.7	108	90
Primary metals	35.7	118	84
Fabricated metal products	33.7	111	94
Machinery	42.5	140	100
Computer and electronic products	59.7	197	103
Electrical equipment, appliances and components	36.7	121	99
Transportation equipment	55.2	182	117
Furniture and related products	23.5	78	84
Miscellaneous manufacturing	36.4	120	105

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TABLE 26 (continued)
PAYROLL PER EMPLOYEE
Sectors and Subsectors, Arizona, 2000

	Thousands	Ratio to Arizona Total	Ratio to U.S.
Wholesale Trade	\$42.1	139%	95%
Durable goods	44.5	147	94
Non-durable goods	38.2	126	96
Retail Trade	22.3	74	110
Motor vehicle and parts dealers	36.8	121	107
Furniture and home furnishing stores	25.7	85	106
Electronics and appliance stores	25.8	85	94
Building material and garden equipment and supply	25.7	85	98
Food and beverage stores	19.6	65	122
Health and personal care stores	21.7	72	103
Gasoline stations	15.8	52	111
Clothing and clothing accessories stores	15.6	52	106
Sporting goods, hobby, book and music stores	14.3	47	100
General merchandise stores	17.3	57	110
Miscellaneous store retailers	15.8	52	97
Non-store retailers	33.1	109	104
Transportation and Warehousing	33.5	111	101
Air transportation	44.1	145	102
Water transportation	NA		
Truck transportation	31.1	102	95
Transit and ground passenger transportation	20.6	68	111
Pipeline transportation	71.1	234	98
Scenic and sightseeing transportation	NA		
Transportation support activities	34.6	114	99
Couriers and messengers	29.6	98	105
Warehousing and storage	27.5	91	93
Information	44.0	145	74
Publishing industries	47.3	156	68
Motion picture and sound recording	15.3	50	40
Broadcasting and telecommunications	46.3	153	85
Information and data processing services	46.5	153	73
Finance and Insurance	39.4	130	68
Credit intermediation and related activities	31.9	105	76
Securities, commodity contracts and like activity	70.1	231	51
Insurance carriers and related activities	45.2	149	96
Funds, trusts, and other financial vehicles	48.0	158	74
Real Estate and Rental and Leasing	27.7	91	91
Real estate	29.3	97	93
Rental and leasing services	24.2	80	90
Lessors of non-financial intangible assets	40.2	133	66

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TABLE 26 (continued)
PAYROLL PER EMPLOYEE
Sectors and Subsectors, Arizona, 2000

	Thousands	Ratio to Arizona Total	Ratio to U.S.
Professional, Scientific and Technical Services	\$40.2	132%	76%
Management of Companies and Enterprises	60.5	199	82
Administrative, Support, Waste Management, Remediation Services	21.4	71	93
Administrative and support services	21.2	70	94
Waste management and remediation services	33.9	112	94
Educational Services	23.0	76	94
Health Care and Social Assistance	31.2	103	102
Ambulatory health care services	42.1	139	107
Hospitals	31.8	105	94
Nursing and residential care facilities	19.2	63	99
Social assistance	15.5	51	96
Arts, Entertainment and Recreation	24.6	81	99
Performing arts, spectator sports, and related industries	60.6	200	112
Museums, historical sites and like institutions	21.0	69	91
Amusement, gambling and recreation industries	16.4	54	98
Accommodation and Food Services	12.2	40	96
Accommodation	17.7	58	90
Food services and drinking places	10.6	35	95
Other Services (except public administration)	20.2	66	97
Repair and maintenance	25.6	84	92
Personal and laundry services	16.7	55	95
Religious, grantmaking, civic, professional and similar organizations	17.9	59	96
Auxiliaries (except corporate, subsidiary and regional management)	42.3	139	77
Unclassified Establishments	23.9	79	87

Note: *County Business Patterns* does not include the government sector or farm subsector. Payroll represents the calendar year total, but employment is that during the week of March 12.

NA: data not available

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 27A
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked By 2000 Payroll Per Employee
In Thousands

Highest-Paying Subsectors		Sector	Payroll Per Employee
1	Securities, commodity contracts and like activity	Finance and insurance	\$70.1
2	Performing arts, spectator sports, and related industries	Arts, entertainment and recreation	60.6
3	Computer and electronic products manufacturing	Manufacturing	59.7
4	Transportation equipment manufacturing	Manufacturing	55.2
5	Publishing industries	Information	47.3
6	Information and data processing services	Information	46.5
7	Broadcasting and telecommunications	Information	46.3
8	Insurance carriers and related activities	Finance and insurance	45.2
9	Durable goods wholesaling	Wholesale trade	44.5
10	Air transportation	Transportation and warehousing	44.1
11	Machinery manufacturing	Manufacturing	42.5
12	Mining (except oil and gas)	Mining	42.4
13	Ambulatory health care services	Health care and social assistance	42.1
14	Paper manufacturing	Manufacturing	38.6
15	Non-durable goods wholesaling	Wholesale trade	38.2
Lowest-Paying Subsectors			
15	Transit and ground passenger transportation	Transportation and warehousing	20.6
14	Food and beverage stores	Retail trade	19.6
13	Nursing and residential care facilities	Health care and social assistance	19.2
12	Religious, grantmaking, civic, professional	Other services	17.9
11	Accommodation	Accommodation and food services	17.7
10	General merchandise stores	Retail trade	17.3
9	Personal and laundry services	Other services	16.7
8	Amusement, gambling and recreation industries	Arts, entertainment and recreation	16.4
7	Gasoline stations	Retail trade	15.8
6	Miscellaneous store retailers	Retail trade	15.8
5	Clothing and clothing accessories stores	Retail trade	15.6
4	Social assistance	Health care and social assistance	15.5
3	Motion picture and sound recording	Information	15.3
2	Sporting goods, hobby, book and music stores	Retail trade	14.3
1	Food services and drinking places	Accommodation and food services	10.6

* With at least 2,500 employees in 2000

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 27B
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked By 2000 Ratio of Payroll Per Employee to Payroll Per Employee of National Subsector

Highest Ratios		Sector	Ratio
1	Food and beverage stores	Retail trade	122%
2	Transportation equipment manufacturing	Manufacturing	117
3	Performing arts, spectator sports, and related industries	Arts, entertainment and recreation	112
4	Gasoline stations	Retail trade	111
5	Transit and ground passenger transportation	Transportation and warehousing	111
6	General merchandise stores	Retail trade	110
7	Motor vehicle and parts dealers	Retail trade	107
8	Ambulatory health care services	Health care and social assistance	107
9	Clothing and clothing accessories stores	Retail trade	106
10	Furniture and home furnishing stores	Retail trade	106
11	Couriers and messengers	Transportation and warehousing	105
12	Miscellaneous manufacturing	Manufacturing	105
13	Non-store retailers	Retail trade	104
14	Health and personal care stores	Retail trade	103
15	Computer and electronic products manufacturing	Manufacturing	103
Lowest Ratios			
15	Rental and leasing services	Real estate and rental and leasing	90
14	Non-metallic mineral products manufacturing	Manufacturing	90
13	Wood products manufacturing	Manufacturing	89
12	Printing and related support activities	Manufacturing	87
11	Broadcasting and telecommunications	Information	85
10	Primary metals manufacturing	Manufacturing	84
9	Furniture and related products manufacturing	Manufacturing	84
8	Special trade contractors	Construction	83
7	Heavy construction	Construction	80
6	Credit intermediation and related activities	Finance and insurance	76
5	Information and data processing services	Information	73
4	Publishing industries	Information	68
3	Chemicals manufacturing	Manufacturing	65
2	Securities, commodity contracts and like activity	Finance and insurance	51
1	Motion picture and sound recording	Information	40

* With at least 2,500 employees in 2000

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 28A
EMPLOYMENT
Sectors, Arizona and Counties, 2000

	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
Total	1,919,353	1,354,249	293,382	271,722	6,514	22,681	38,917	12,952
Forestry, Fishing, Hunting and Agriculture Support	1,931	559	139E	1,233E	19E	45E	12E	98
Mining	9,956	1,451	1,741	6,764	36	68E	117	1,400
Utilities	9,923	5,548	1,809	2,566	37	542	234	98
Construction	167,401	119,712	24,780	22,909	174	1,695	2,557	1,036
Manufacturing	200,859	148,528	31,925	20,406	218E	747	2,345	1,267
Wholesale Trade	86,222	68,602	8,458	9,162	60	399	1,029	191
Retail Trade	255,001	161,149	42,326	51,526	1,137	5,305	7,408	2,273
Transportation and Warehousing	70,337	58,680	5,194	6,463	129	401	1,605	271
Information	47,411	35,569	7,533	4,309	163E	515	595	161
Finance and Insurance	111,928	96,680	8,487	6,761	115	519	777	254
Real Estate and Rental and Leasing	41,265	28,688	6,816	5,761	38E	370	1,019	149
Professional, Scientific and Technical Services	113,687	90,027	15,553	8,107	154	2,150	1,005	256
Management of Companies and Enterprises	45,452	40,159	4,082	1,211	14E	53	402	40E
Administrative, Support, Waste Mgt, Remediation Services	200,421	144,574	31,235	24,612	114	1,253	1,376	415
Educational Services	24,486	16,058	4,017	4,411	403	249	581	138
Health Care and Social Assistance	199,894	123,486	41,034	35,374	1,715	3,742	4,975	2,017
Arts, Entertainment and Recreation	34,394	22,147	6,385	5,862	19E	285	1,167	836
Accommodation and Food Services	202,756	127,646	34,059	41,051	1,636	3,265	9,454	1,597
Other Services (except public administration)	78,730	52,852	14,479	11,399	200	954	1,691	438
Auxiliaries (except corporate, subsidiary and regional mgt)	14,541	10,738	2,899	904	13E	52	446	6E
Unclassified Establishments	2,758	1,396	431E	931E	120	72	122E	11E

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TABLE 28A (continued)
EMPLOYMENT
Sectors, Arizona and Counties, 2000

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
Total	4,939	3,236	3,935	34,845	16,690	25,131	10,080	46,063	31,233
Forestry, Fishing, Hunting and Agriculture Support	5	0	17E	19E	72E	193	45	40E	668
Mining	29E	2,428E	7E	84E	869E	566E	4E	833E	145E
Utilities	31E	37E	31E	309	462	238E	63E	290	194E
Construction	349	54E	155E	3,782	1,615	1,395	521	5,182	2,888
Manufacturing	256	9E	438E	3,672	1,078	3,747	888	3,420	2,321
Wholesale Trade	203	48	72	919	338	656	1,839	1,711	1,626
Retail Trade	1,355	142	825	7,801	4,094	4,607	2,233	7,665	6,681
Transportation and Warehousing	62E	38E	20E	1,041	324	348	899	677	648
Information	90	45E	46E	786	228	311	54	846	469
Finance and Insurance	112	10E	63E	1,150	422	671	193	1,517	951
Real Estate and Rental and Leasing	62	11E	52	579	332	464	166	2,021	498
Professional, Scientific and Technical Services	116E	16E	21E	777	318	715	238	1,507	804
Management of Companies and Enterprises	7	49E	0	186	70E	98	97E	16E	179
Administrative, Support, Waste Mgt, Remediation Services	126	40E	71E	1,596	274	2,354	131	2,149	2,000
Educational Services	42E	12E	150	264	508	134	214	1,549	167
Health Care and Social Assistance	970	104E	438	4,822	2,060	2,886	591	6,532	4,521
Arts, Entertainment and Recreation	19E	19E	201E	542	192	652	214	1,138	578
Accommodation and Food Services	681	128	1,178	4,715	2,575	3,774	1,305	6,504	4,239
Other Services (except public administration)	414	34	134	1,664	767	1,198	253	2,134	1,518
Auxiliaries (except corporate, subsidiary and regional mgt)	9E	0	4E	19E	33E	74E	103	31E	114
Unclassified Establishments	1	12E	12E	118E	59E	50E	29E	301	24E

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

Note: County figures do not sum to the state total because some establishments are classified as "statewide."

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 28B
EMPLOYMENT
Sectors, United States, Arizona and Counties, 2000
Sectoral Shares

	United States	Arizona	Maricopa	Pima	Balance of State	Apache	Cochise	Coconino	Gila
Forestry, Fishing, Hunting and Agriculture Support	0.2%	0.1%	0.0%	0.0E%	0.5E%	0.3E%	0.2E%	0.0E%	0.8%
Mining	0.4	0.5	0.1	0.6	2.5	0.6E	0.3E	0.3	10.8
Utilities	0.6	0.5	0.4	0.6	0.9	0.6E	2.4	0.6	0.8
Construction	5.8	8.7	8.8	8.4	8.4	2.7	7.5	6.6	8.0
Manufacturing	14.4	10.5	11.0	10.9	7.5	3.3E	3.3	6.0	9.8
Wholesale Trade	5.4	4.5	5.1	2.9	3.4	0.9	1.8	2.6	1.5
Retail Trade	13.0	13.3	11.9	14.4	19.0	17.5	23.4	19.0	17.5
Transportation and Warehousing	3.3	3.7	4.3	1.8	2.4	2.0	1.8	4.1	2.1
Information	3.1	2.5	2.6	2.6	1.6	2.5E	2.3	1.5	1.2
Finance and Insurance	5.2	5.8	7.1	2.9	2.5	1.8	2.3	2.0	2.0
Real Estate and Rental and Leasing	1.7	2.1	2.1	2.3	2.1	0.6E	1.6	2.6	1.2
Professional, Scientific and Technical Services	6.0	5.9	6.6	5.3	3.0	2.4	9.5	2.6	2.0
Management of Companies and Enterprises	2.5	2.4	3.0	1.4	0.4	0.2E	0.2	1.0	0.3E
Administrative, Support, Waste Mgt, Remediation Services	8.0	10.4	10.7	10.6	9.1	1.8	5.5	3.5	3.2
Educational Services	2.2	1.3	1.2	1.4	1.6	6.2	1.1	1.5	1.1
Health Care and Social Assistance	12.4	10.4	9.1	14.0	13.0	26.3	16.5	12.8	15.6
Arts, Entertainment and Recreation	1.5	1.8	1.6	2.2	2.2	0.3E	1.3	3.0	6.5
Accommodation and Food Services	8.7	10.6	9.4	11.6	15.1	25.1	14.4	24.3	12.3
Other Services (except public administration)	4.6	4.1	3.9	4.9	4.2	3.1	4.2	4.3	3.4
Auxiliaries (except corporate, subsidiary and regional mgt)	0.9	0.8	0.8	1.0	0.3	0.2E	0.2	1.1	0.0E
Unclassified Establishments	0.1	0.1	0.1	0.1E	0.3E	1.8	0.3	0.3E	0.1E

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TABLE 28B (continued)
EMPLOYMENT
Sectors, United States, Arizona and Counties, 2000
Sectoral Shares

	Graham	Greenlee	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
Forestry, Fishing, Hunting and Agriculture Support	0.1%	0.0%	0.4E%	0.1E%	0.4E%	0.8%	0.4%	0.1E%	2.1%
Mining	0.6E	75.0E	0.2E	0.2E	5.2E	2.3E	0.0E	1.8E	0.5E
Utilities	0.6E	1.1E	0.8E	0.9	2.8	0.9E	0.6E	0.6	0.6E
Construction	7.1	1.7E	3.9E	10.9	9.7	5.6	5.2	11.2	9.2
Manufacturing	5.2	0.3E	11.1E	10.5	6.5	14.9	8.8	7.4	7.4
Wholesale Trade	4.1	1.5	1.8	2.6	2.0	2.6	18.2	3.7	5.2
Retail Trade	27.4	4.4	21.0	22.4	24.5	18.3	22.2	16.6	21.4
Transportation and Warehousing	1.3E	1.2E	0.5E	3.0	1.9	1.4	8.9	1.5	2.1
Information	1.8	1.4E	1.2E	2.3	1.4	1.2	0.5	1.8	1.5
Finance and Insurance	2.3	0.3E	1.6E	3.3	2.5	2.7	1.9	3.3	3.0
Real Estate and Rental and Leasing	1.3	0.3E	1.3E	1.7	2.0	1.8	1.6	4.4	1.6
Professional, Scientific and Technical Services	2.3E	0.5E	0.5E	2.2	1.9	2.8	2.4	3.3	2.6
Management of Companies and Enterprises	0.1E	1.5E	0.0	0.5	0.4E	0.4	1.0E	0.0E	0.6
Administrative, Support, Waste Mgt, Remediation Services	2.6	1.2E	1.8E	4.6	1.6	9.4	1.3	4.7	6.4
Educational Services	0.9E	0.4E	3.8	0.8	3.0	0.5	2.1	3.4	0.5
Health Care and Social Assistance	19.6	3.2E	11.1	13.8	12.3	11.5	5.9	14.2	14.5
Arts, Entertainment and Recreation	0.4E	0.6E	5.1E	1.6	1.2	2.6	2.1	2.5	1.9
Accommodation and Food Services	13.8	4.0	29.9	13.5	15.4	15.0	12.9	14.1	13.6
Other Services (except public administration)	8.4	1.1	3.4	4.8	4.6	4.8	2.5	4.6	4.9
Auxiliaries (except corporate, subsidiary and regional mgt)	0.2E	0.0	0.1E	0.1E	0.2E	0.3E	1.0	0.1E	0.4
Unclassified Establishments	0.0	0.4E	0.3E	0.3E	0.4E	0.2E	0.3E	0.7	0.1E

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

Note: County figures do not sum to the state total because some establishments are classified as "statewide."

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 29
PAYROLL
Sectors, Arizona and Counties, 2000

	Payroll in Thousands				Share			
	Arizona	Maricopa	Pima	Balance	Arizona	Maricopa	Pima	Balance
Total	\$58,235,779	\$44,315,326	\$7,903,687	\$6,016,766	100.0%	100.0%	100.0%	100.0%
Forestry, Fishing, Hunting and Agriculture Support	41,659	12,322	NA	NA	0.1	0.0	NA	NA
Mining	418,504	56,880	71,299	290,325	0.7	0.1	0.9	4.8
Utilities	605,794	374,790	98,208	132,796	1.0	0.8	1.2	2.2
Construction	5,214,799	3,990,304	705,815	518,680	9.0	9.0	8.9	8.6
Manufacturing	8,621,913	6,571,092	1,456,066	594,755	14.8	14.8	18.4	9.9
Wholesale Trade	3,627,345	3,064,219	295,557	267,569	6.2	6.9	3.7	4.4
Retail Trade	5,693,725	3,857,984	894,726	941,015	9.8	8.7	11.3	15.6
Transportation and Warehousing	2,359,445	2,055,731	143,217	160,497	4.1	4.6	1.8	2.7
Information	2,083,955	1,670,464	287,154	126,337	3.6	3.8	3.6	2.1
Finance and Insurance	4,412,417	3,908,871	320,096	183,450	7.6	8.8	4.0	3.0
Real Estate and Rental and Leasing	1,144,956	871,790	161,477	111,689	2.0	2.0	2.0	1.9
Professional, Scientific and Technical Services	4,565,970	3,751,443	567,146	247,381	7.8	8.5	7.2	4.1
Management of Companies and Enterprises	2,750,088	2,466,157	233,695	50,236	4.7	5.6	3.0	0.8
Administrative, Support, Waste Management, Remediation	4,294,632	3,229,589	528,465	536,578	7.4	7.3	6.7	8.9
Educational Services	563,771	394,579	81,538	87,654	1.0	0.9	1.0	1.5
Health Care and Social Assistance	6,244,480	4,063,015	1,210,886	970,579	10.7	9.2	15.3	16.1
Arts, Entertainment and Recreation	847,448	641,757	107,809	97,882	1.5	1.4	1.4	1.6
Accommodation and Food Services	2,477,076	1,647,421	380,614	449,041	4.3	3.7	4.8	7.5
Other Services (except public administration)	1,587,101	1,145,672	260,390	181,039	2.7	2.6	3.3	3.0
Auxiliaries (except corporate, subsidiary and regional mgt)	614,918	497,647	85,680	31,591	1.1	1.1	1.1	0.5
Unclassified Establishments	65,783	43,599	NA	NA	0.1	0.1	NA	NA

NA: Payroll data withheld due to disclosure laws.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 30
PAYROLL PER EMPLOYEE
Sectors, Arizona and Counties, 2000

	Payroll Per Employee in Thousands*			
	Arizona	Maricopa	Pima	Balance
Total	\$30.3	\$32.7	\$26.9	\$22.1
Forestry, Fishing, Hunting and Agriculture Support	21.6	22.0	NA	NA
Mining	42.0	39.2	41.0	42.9
Utilities	61.0	67.6	54.3	51.8
Construction	31.2	33.3	28.5	22.6
Manufacturing	42.9	44.2	45.6	29.1
Wholesale Trade	42.1	44.7	34.9	29.2
Retail Trade	22.3	23.9	21.1	18.3
Transportation and Warehousing	33.5	35.0	27.6	24.8
Information	44.0	47.0	38.1	29.3
Finance and Insurance	39.4	40.4	37.7	27.1
Real Estate and Rental and Leasing	27.7	30.4	23.7	19.4
Professional, Scientific and Technical Services	40.2	41.7	36.5	30.5
Management of Companies and Enterprises	60.5	61.4	57.3	41.5
Administrative, Support, Waste Management, Remediation Services	21.4	22.3	16.9	21.8
Educational Services	23.0	24.6	20.3	19.9
Health Care and Social Assistance	31.2	32.9	29.5	27.4
Arts, Entertainment and Recreation	24.6	29.0	16.9	16.7
Accommodation and Food Services	12.2	12.9	11.2	10.9
Other Services (except public administration)	20.2	21.7	18.0	15.9
Auxiliaries (except corporate, subsidiary and regional management)	42.3	46.3	29.6	34.9
Unclassified Establishments	23.9	31.2	NA	NA

* Payroll represents the calendar year total, but employment is that during the week of March 12.

NA: Payroll data withheld due to disclosure laws.

Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from *County Business Patterns Arizona 2000*, U.S. Department of Commerce, Bureau of the Census.

TABLE 31
EMPLOYMENT AND EARNINGS
Sectors and Subsectors, Arizona, 2001

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Total	2,859,256	100.0%	100.0%	\$97,060,040	100.0%	100.0%
Agriculture	38,722	1.4	2.4	999,677	1.0	0.9
Farm	19,429	0.7	1.8	711,872	0.7	0.6
Agriculture support, forestry, fishing, hunting	19,293	0.7	0.5	287,805	0.3	0.3
Mining	12,573	0.4	0.5	620,532	0.6	0.8
Oil and gas extraction	1,892	0.1	0.2	20,440	0.0	0.4
Mining (except oil and gas)	10,197	0.4	0.1	586,367	0.6	0.2
Support activities for mining	484	0.0	0.1	13,725	0.0	0.2
Utilities	11,384	0.4	0.4	831,540	0.9	1.1
Construction	215,790	7.5	5.9	8,293,665	8.5	6.3
Construction of buildings	41,342	1.4	1.4	2,423,790	2.5	1.9
Heavy and civil engineering construction	28,823	1.0	0.6	1,226,695	1.3	0.9
Specialty trade contractors	145,625	5.1	3.9	4,643,180	4.8	3.5
Manufacturing	212,648	7.4	10.2	11,022,464	11.4	13.3
Durable goods manufacturing	171,822	6.0	6.4	9,508,534	9.8	8.6
Wood product manufacturing	8,625	0.3	0.4	239,822	0.2	0.3
Non-metallic mineral product manufacturing	9,081	0.3	0.3	375,597	0.4	0.4
Primary metal manufacturing	5,875	0.2	0.3	249,227	0.3	0.5
Fabricated metal product manufacturing	20,475	0.7	1.0	813,448	0.8	1.1
Machinery manufacturing	9,675	0.3	0.8	405,756	0.4	1.1
Computer and electronic product manufacturing	57,378	2.0	1.1	4,329,462	4.5	2.1
Electrical equipment and appliance mftg	3,172	0.1	0.3	126,737	0.1	0.4
Motor vehicle manufacturing	5,694	0.2	0.7	250,759	0.3	1.1
Transportation equipment except motor vehicles	31,231	1.1	0.4	2,087,887	2.2	0.7
Furniture and related product manufacturing	10,110	0.4	0.4	263,579	0.3	0.3
Miscellaneous manufacturing	10,506	0.4	0.5	366,260	0.4	0.5
Non-durable goods manufacturing	40,826	1.4	3.8	1,513,930	1.6	4.7
Food manufacturing	8,727	0.3	1.0	275,055	0.3	0.9
Beverage and tobacco product manufacturing	3,772	0.1	0.1	139,345	0.1	0.2
Textile mills	806	0.0	0.2	30,434	0.0	0.2
Textile product mills	1,271	0.0	0.1	32,673	0.0	0.1
Apparel manufacturing	1,013	0.0	0.3	17,187	0.0	0.2
Leather and allied product manufacturing	370	0.0	0.0	10,362	0.0	0.0
Paper manufacturing	2,781	0.1	0.3	122,738	0.1	0.5
Printing and related support activities	9,375	0.3	0.5	306,873	0.3	0.5
Petroleum and coal products manufacturing	244	0.0	0.1	75,471	0.1	0.3
Chemical manufacturing	4,771	0.2	0.6	243,885	0.3	1.1
Plastics and rubber products manufacturing	7,696	0.3	0.6	259,907	0.3	0.6

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TABLE 31 (continued)
EMPLOYMENT AND EARNINGS
Sectors and Subsectors, Arizona, 2001

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Wholesale trade	106,584	3.7%	3.8%	\$5,356,155	5.5%	5.3%
Retail trade	329,371	11.5	11.1	7,881,576	8.1	6.8
Motor vehicle and parts dealers	45,887	1.6	1.2	2,011,418	2.1	1.4
Furniture and home furnishings stores	12,551	0.4	0.4	371,979	0.4	0.3
Electronics and appliance stores	11,375	0.4	0.4	421,509	0.4	0.4
Building material and garden supply stores	20,391	0.7	0.7	568,017	0.6	0.6
Food and beverage stores	51,802	1.8	1.9	1,296,369	1.3	1.1
Health and personal care stores	17,770	0.6	0.7	430,914	0.4	0.4
Gasoline stations	18,904	0.7	0.6	399,093	0.4	0.3
Clothing and clothing accessories stores	20,043	0.7	0.9	336,758	0.3	0.4
Sporting goods, hobby, book and music stores	15,024	0.5	0.5	213,974	0.2	0.2
General merchandise stores	51,643	1.8	1.8	956,089	1.0	0.9
Miscellaneous store retailers	30,829	1.1	0.9	556,213	0.6	0.4
Non-store retailers	33,152	1.2	1.1	319,243	0.3	0.4
Transportation and warehousing	81,726	2.9	3.3	2,971,304	3.1	3.3
Air transportation	16,810	0.6	0.4	854,585	0.9	0.6
Rail transportation	2,373	0.1	0.1	168,955	0.2	0.2
Water transportation	NA		0.0	NA		0.1
Truck transportation	20,663	0.7	1.0	769,908	0.8	1.0
Transit and ground passenger transportation	11,064	0.4	0.5	228,852	0.2	0.3
Pipeline transportation	280	0.0	0.0	36,154	0.0	0.1
Scenic and sightseeing transportation	1,077	0.0	0.0	15,820	0.0	0.0
Support activities for transportation	9,283	0.3	0.4	328,502	0.3	0.4
Couriers and messengers	NA		0.5	NA		0.4
Warehousing and storage	6,361	0.2	0.3	251,356	0.3	0.3
Information	61,811	2.2	2.4	2,939,210	3.0	4.5
Publishing industries, except Internet	15,573	0.5	0.7	807,902	0.8	1.3
Motion picture and sound recording industries	4,408	0.2	0.3	82,069	0.1	0.4
Broadcasting, except Internet	5,149	0.2	0.2	246,354	0.3	0.4
Internet publishing and broadcasting	290	0.0	0.0	18,305	0.0	0.1
Telecommunications	24,396	0.9	0.9	1,226,975	1.3	1.6
ISPs, search portals, and data processing	11,312	0.4	0.3	534,268	0.6	0.7
Other information services	683	0.0	0.0	23,337	0.0	0.0
Finance and insurance	156,849	5.5	4.9	6,420,921	6.6	7.4
Monetary authorities - central bank	NA		0.0	NA		0.0
Credit intermediation and related activities	66,153	2.3	1.6	3,105,954	3.2	2.2
Securities, commodity contracts, investments	41,119	1.4	1.4	1,368,336	1.4	2.9
Insurance carriers and related activities	43,728	1.5	1.6	1,870,892	1.9	2.2
Funds, trusts, and other financial vehicles	NA		0.2	NA		0.1

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TABLE 31 (continued)
EMPLOYMENT AND EARNINGS
Sectors and Subsectors, Arizona, 2001

	Total Employment			Earnings by Place of Work		
	Number	Arizona Share	U.S. Share	Thousands of Dollars	Arizona Share	U.S. Share
Real estate and rental and leasing	134,204	4.7%	3.3%	\$2,495,929	2.6%	1.8%
Real estate	114,492	4.0	2.8	1,857,279	1.9	1.3
Rental and leasing services	17,847	0.6	0.5	543,541	0.6	0.4
Lessors of non-financial intangible assets	1,865	0.1	0.0	95,109	0.1	0.0
Professional and technical services	167,040	5.8	6.3	7,233,919	7.5	9.2
Management of companies and enterprises	22,351	0.8	1.1	1,285,911	1.3	2.2
Administrative and waste services	235,956	8.3	5.9	5,634,012	5.8	3.8
Administrative and support services	232,089	8.1	5.7	5,407,873	5.6	3.6
Waste management and remediation services	3,867	0.1	0.2	226,139	0.2	0.3
Educational services	30,842	1.1	1.8	822,679	0.8	1.2
Health care and social assistance	233,025	8.1	9.3	8,330,342	8.6	8.8
Ambulatory health care services	95,753	3.3	3.3	4,613,533	4.8	4.2
Hospitals	60,185	2.1	2.6	2,318,301	2.4	2.8
Nursing and residential care facilities	34,800	1.2	1.7	822,691	0.8	1.1
Social assistance	42,287	1.5	1.7	575,817	0.6	0.7
Arts, entertainment, and recreation	55,608	1.9	2.0	1,297,046	1.3	1.2
Performing arts and spectator sports	27,470	1.0	0.9	672,074	0.7	0.5
Museums, historical sites, zoos, and parks	1,750	0.1	0.1	44,722	0.0	0.0
Amusement, gambling, and recreation	26,388	0.9	0.9	580,250	0.6	0.6
Accommodation and food services	217,932	7.6	6.6	4,012,354	4.1	3.2
Accommodation	50,200	1.8	1.2	1,187,856	1.2	0.8
Food services and drinking places	167,732	5.9	5.4	2,824,498	2.9	2.4
Other services, except public administration	136,257	4.8	5.3	2,621,622	2.7	2.8
Repair and maintenance	42,472	1.5	1.3	1,131,847	1.2	0.9
Personal and laundry services	30,554	1.1	1.2	530,465	0.5	0.6
Membership associations and organizations	33,650	1.2	1.8	690,446	0.7	1.1
Private households	29,581	1.0	1.1	268,864	0.3	0.3
Government and government enterprises	398,583	13.9	13.8	15,989,182	16.5	15.9
Federal, civilian	46,967	1.6	1.6	3,100,425	3.2	3.0
Military	33,485	1.2	1.3	1,318,663	1.4	1.3
State and local	318,131	11.1	10.9	11,570,094	11.9	11.6
State government	82,195	2.9	3.0	2,966,825	3.1	3.3
Local government	235,936	8.3	7.9	8,603,269	8.9	8.3

NA: Data withheld due to disclosure laws.

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.

TABLE 32A
ARIZONA'S 25 LARGEST SUBSECTORS
Ranked by 2001 Total Employment

	Sector	Employment	Share
1 Local government (including school districts)	Government	235,936	8.3%
2 Administrative and support services	Administrative and waste services	232,089	8.1
3 Food services and drinking places	Accommodation and food services	167,732	5.9
4 Specialty trade contractors	Construction	145,625	5.1
5 Real estate	Real estate and rental and leasing	114,492	4.0
6 Ambulatory health care services	Health care and social assistance	95,753	3.3
7 State government	Government	82,195	2.9
8 Credit intermediation and related activities	Finance and insurance	66,153	2.3
9 Hospitals	Health care and social assistance	60,185	2.1
10 Computer and electronic product manufacturing	Manufacturing	57,378	2.0
11 Food and beverage stores	Retail trade	51,802	1.8
12 General merchandise stores	Retail trade	51,643	1.8
13 Accommodation	Accommodation and food services	50,200	1.8
14 Federal, civilian	Government	46,967	1.6
15 Motor vehicle and parts dealers	Retail trade	45,887	1.6
16 Insurance carriers and related activities	Finance and insurance	43,728	1.5
17 Repair and maintenance	Other services	42,472	1.5
18 Social assistance	Health care and social assistance	42,287	1.5
19 Construction of buildings	Construction	41,342	1.4
20 Securities, commodity contracts, investments	Finance and insurance	41,119	1.4
21 Nursing and residential care facilities	Health care and social assistance	34,800	1.2
22 Membership associations and organizations	Other services	33,650	1.2
23 Military	Government	33,485	1.2
24 Non-store retailers	Retail trade	33,152	1.2
25 Transportation equipment except motor vehicles	Manufacturing	31,231	1.1

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.

TABLE 32B
ARIZONA'S 25 LARGEST SUBSECTORS
Ranked by 2001 Earnings

	Sector	Earnings in Thousands	Share
1 Local government (including school districts)	Government	\$8,603,269	8.9%
2 Administrative and support services	Administrative and waste services	5,407,873	5.6
3 Specialty trade contractors	Construction	4,643,180	4.8
4 Ambulatory health care services	Health care and social assistance	4,613,533	4.8
5 Computer and electronic product manufacturing	Manufacturing	4,329,462	4.5
6 Credit intermediation and related activities	Finance and insurance	3,105,954	3.2
7 Federal, civilian	Government	3,100,425	3.2
8 State government	Government	2,966,825	3.1
9 Food services and drinking places	Accommodation and food services	2,824,498	2.9
10 Construction of buildings	Construction	2,423,790	2.5
11 Hospitals	Health care and social assistance	2,318,301	2.4
12 Transportation equipment except motor vehicles	Manufacturing	2,087,887	2.2
13 Motor vehicle and parts dealers	Retail trade	2,011,418	2.1
14 Insurance carriers and related activities	Finance and insurance	1,870,892	1.9
15 Real estate	Real estate and rental and leasing	1,857,279	1.9
16 Securities, commodity contracts, investments	Finance and insurance	1,368,336	1.4
17 Military	Government	1,318,663	1.4
18 Food and beverage stores	Retail trade	1,296,369	1.3
19 Telecommunications	Information	1,226,975	1.3
20 Heavy and civil engineering construction	Construction	1,226,695	1.3
21 Accommodation	Accommodation and food services	1,187,856	1.2
22 Repair and maintenance	Other services	1,131,847	1.2
23 General merchandise stores	Retail trade	956,089	1.0
24 Air transportation	Transportation and warehousing	854,585	0.9
25 Nursing and residential care facilities	Health care and social assistance	822,691	0.8

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 Economic Analysis, data.

TABLE 33
EARNINGS PER EMPLOYEE AND AVERAGE WAGE
Sectors and Subsectors, Arizona, 2001

	Earnings Per Employee			Average Wage		
	In Thousands	Ratio to AZ Total	Ratio to U.S.	In Thousands	Ratio to AZ Total	Ratio to U.S.
Total	\$33.9	100.0%	91.1%	\$33.0	100.0%	92.9%
Agriculture	25.8	76.1	174.4	19.9	60.2	93.1
Farm	36.6	107.9	281.2	27.3	82.8	129.3
Agriculture support, forestry, fishing, hunting	14.9	43.9	71.7	14.4	43.6	66.4
Mining	49.4	145.4	73.7	47.6	144.1	79.4
Oil and gas extraction	10.8	31.8	13.6	59.0	178.6	63.2
Mining (except oil and gas)	57.5	169.4	94.5	47.6	144.1	97.6
Support activities for mining	28.4	83.5	52.0	46.8	141.6	91.1
Utilities	73.0	215.2	68.4	64.7	195.9	98.5
Construction	38.4	113.2	96.5	34.1	103.2	88.5
Construction of buildings	58.6	172.7	111.4	42.2	127.7	102.1
Heavy and civil engineering construction	42.6	125.4	83.9	38.5	116.4	89.0
Specialty trade contractors	31.9	93.9	95.0	30.8	93.3	84.6
Manufacturing	51.8	152.7	106.3	48.1	145.5	111.8
Durable goods manufacturing	55.3	163.0	109.8	51.5	155.9	113.5
Wood product manufacturing	27.8	81.9	87.5	27.5	83.1	91.9
Non-metallic mineral product manufacturing	41.4	121.8	96.5	38.2	115.5	99.2
Primary metal manufacturing	42.4	125.0	78.5	37.5	113.4	83.1
Fabricated metal product manufacturing	39.7	117.0	95.9	37.1	112.3	98.9
Machinery manufacturing	41.9	123.5	84.6	39.9	120.6	87.9
Computer and electronic product manufacturing	75.5	222.3	104.5	68.9	208.7	106.4
Electrical equipment and appliance manufacturing	40.0	117.7	87.8	38.3	116.0	94.7
Motor vehicle manufacturing	44.0	129.7	77.1	37.9	114.6	78.3
Transportation equipment except motor vehicles	66.9	196.9	106.0	59.6	180.4	108.6
Furniture and related product manufacturing	26.1	76.8	87.4	27.0	81.6	92.4
Miscellaneous manufacturing	34.9	102.7	85.6	35.5	107.3	92.5
Non-durable goods manufacturing	37.1	109.2	80.7	33.2	100.4	85.1
Food manufacturing	31.5	92.8	86.5	29.1	88.2	91.4
Beverage and tobacco product manufacturing	36.9	108.8	64.9	32.0	96.8	69.0
Textile mills	37.8	111.2	113.8	33.8	102.2	112.5
Textile product mills	25.7	75.7	84.5	23.2	70.1	86.9
Apparel manufacturing	17.0	50.0	67.6	21.8	66.0	94.7
Leather and allied product manufacturing	28.0	82.5	89.3	28.2	85.2	99.4
Paper manufacturing	44.1	130.0	86.8	38.8	117.5	84.7
Printing and related support activities	32.7	96.4	86.5	33.5	101.3	91.6
Petroleum and coal products manufacturing	309.3	911.2	192.8	47.6	144.0	73.0
Chemical manufacturing	51.1	150.6	69.3	42.0	127.1	69.3
Plastics and rubber products manufacturing	33.8	99.5	85.8	33.0	99.8	92.9

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TABLE 33 (continued)
EARNINGS PER EMPLOYEE AND AVERAGE WAGE
Sectors and Subsectors, Arizona, 2001

	Earnings Per Employee			Average Wage		
	In Thousands	Ratio to AZ Total	Ratio to U.S.	In Thousands	Ratio to AZ Total	Ratio to U.S.
Wholesale trade	\$50.3	148.0%	97.0%	\$48.8	147.8%	99.9%
Retail Trade	23.9	70.5	105.8	24.5	74.0	107.7
Motor vehicle and parts dealers	43.8	129.1	107.9	38.6	117.0	104.6
Furniture and home furnishings stores	29.6	87.3	107.1	29.0	87.8	105.5
Electronics and appliance stores	37.1	109.2	84.9	32.1	97.0	86.4
Building material and garden supply stores	27.9	82.1	99.3	26.8	81.0	99.6
Food and beverage stores	25.0	73.7	119.6	22.9	69.3	123.3
Health and personal care stores	24.2	71.4	99.9	26.5	80.1	105.0
Gasoline stations	21.1	62.2	102.4	17.5	52.9	111.2
Clothing and clothing accessories stores	16.8	49.5	90.9	16.3	49.5	92.7
Sporting goods, hobby, book and music stores	14.2	42.0	92.5	15.5	46.9	92.6
General merchandise stores	18.5	54.5	102.2	17.5	53.0	103.8
Miscellaneous store retailers	18.0	53.1	113.0	20.7	62.7	103.5
Non-store retailers	9.6	28.4	77.2	33.8	102.2	106.8
Transportation and warehousing	36.4	107.1	96.0	36.8	111.2	98.3
Air transportation	50.8	149.8	87.0	44.5	134.7	85.6
Rail transportation	71.2	209.7	113.9	69.3	209.6	113.5
Water transportation	NA			NA		
Truck transportation	37.3	109.8	103.4	35.4	107.0	102.9
Transit and ground passenger transportation	20.7	60.9	112.9	24.2	73.3	110.4
Pipeline transportation	129.1	380.4	63.8	75.7	229.2	79.9
Scenic and sightseeing transportation	14.7	43.3	79.2	20.6	62.4	93.7
Support activities for transportation	35.4	104.2	84.4	32.5	98.4	88.7
Couriers and messengers	NA			NA		
Warehousing and storage	39.5	116.4	109.2	35.7	108.1	111.2
Information	47.6	140.1	68.5	43.6	131.8	76.0
Publishing industries, except Internet	51.9	152.8	72.9	44.7	135.2	74.7
Motion picture and sound recording industries	18.6	54.8	32.0	15.5	46.8	33.0
Broadcasting, except Internet	47.8	140.9	72.5	45.9	139.0	86.8
Internet publishing and broadcasting	63.1	185.9	76.0	53.3	161.2	74.0
Telecommunications	50.3	148.2	71.9	47.6	143.9	84.1
ISPs, search portals, and data processing	47.2	139.1	61.9	43.7	132.2	66.7
Other information services	34.2	100.7	70.5	28.6	86.5	78.9
Finance and insurance	40.9	120.6	71.8	46.5	140.6	72.6
Monetary authorities - central bank	NA			NA		
Credit intermediation and related activities	47.0	138.3	92.2	43.1	130.3	91.6
Securities, commodity contracts, investments	33.3	98.0	43.9	68.2	206.5	46.0
Insurance carriers and related activities	42.8	126.0	85.6	44.7	135.3	88.0
Funds, trusts, and other financial vehicles	NA			NA		

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TABLE 33 (continued)
EARNINGS PER EMPLOYEE AND AVERAGE WAGE
Sectors and Subsectors, Arizona, 2001

	Earnings Per Employee			Average Wage		
	In Thousands	Ratio to AZ Total	Ratio to U.S.	In Thousands	Ratio to AZ Total	Ratio to U.S.
Real estate and rental and leasing	\$18.6	54.8%	95.0%	\$30.8	93.3%	93.6%
Real estate	16.2	47.8	93.5	31.3	94.8	91.0
Rental and leasing services	30.5	89.7	102.3	27.9	84.3	98.0
Lessors of non-financial intangible assets	51.0	150.2	70.4	47.9	144.9	66.4
Professional and technical services	43.3	127.6	79.0	49.3	149.1	84.1
Management of companies and enterprises	57.5	169.5	75.8	53.2	161.1	77.1
Administrative and waste services	23.9	70.3	97.6	23.6	71.6	96.1
Administrative and support services	23.3	68.6	99.1	23.4	70.8	97.7
Waste management and remediation services	58.5	172.3	116.7	38.0	115.0	94.1
Educational services	26.7	78.6	101.8	30.0	90.7	111.1
Health care and social assistance	35.7	105.3	100.7	34.8	105.3	105.2
Ambulatory health care services	48.2	141.9	103.2	46.3	140.1	107.4
Hospitals	38.5	113.5	93.6	35.1	106.2	96.2
Nursing and residential care facilities	23.6	69.6	94.7	21.2	64.1	100.0
Social assistance	13.6	40.1	90.2	17.6	53.1	95.7
Arts, entertainment, and recreation	23.3	68.7	105.7	31.1	94.0	122.2
Performing arts and spectator sports	24.5	72.1	115.8	81.2	245.7	148.0
Museums, historical sites, zoos, and parks	25.6	75.3	98.3	23.3	70.5	97.3
Amusement, gambling, and recreation	22.0	64.8	96.7	16.8	50.7	98.8
Accommodation and food services	18.4	54.2	100.9	13.6	41.1	99.0
Accommodation	23.7	69.7	93.8	18.5	56.0	90.8
Food services and drinking places	16.8	49.6	101.2	12.1	36.7	99.2
Other services, except public administration	19.2	56.7	97.0	20.6	62.3	97.9
Repair and maintenance	26.6	78.5	97.8	27.8	84.3	97.9
Personal and laundry services	17.4	51.1	97.2	18.5	56.1	96.3
Membership associations and organizations	20.5	60.4	92.6	21.3	64.5	94.1
Private households	9.1	26.8	94.1	9.5	28.8	92.2
Government and government enterprises	40.1	118.2	93.4	33.0	99.8	95.5
Federal, civilian	66.0	194.5	94.7	45.8	138.6	94.2
Military	39.4	116.0	103.8	26.8	81.0	103.8
State and local	36.4	107.1	92.0	31.7	96.0	94.9
State government	36.1	106.3	88.3	31.1	94.0	90.6
Local government	36.5	107.4	93.5	32.0	96.7	96.5

NA: Data withheld due to disclosure laws.

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.

TABLE 34A
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked by 2001 Earnings per Employee

Highest-Earning Subsectors		
	Sector	Thousands
1	Computer and electronic product manufacturing	\$75.5
2	Transportation equipment except motor vehicles	66.9
3	Federal, civilian	66.0
4	Construction of buildings	58.6
5	Waste management and remediation services	58.5
6	Mining (except oil and gas)	57.5
7	Publishing industries, except Internet	51.9
8	Chemical manufacturing	51.1
9	Air transportation	50.8
10	Telecommunications	50.3
11	Ambulatory health care services	48.2
12	Broadcasting, except Internet	47.8
13	ISPs, search portals, and data processing	47.2
14	Credit intermediation and related activities	47.0
15	Paper manufacturing	44.1
Lowest-Earning Subsectors		
15	Gasoline stations	21.1
14	Transit and ground passenger transportation	20.7
13	Membership associations and organizations	20.5
12	Motion picture and sound recording industries	18.6
11	General merchandise stores	18.5
10	Miscellaneous store retailers	18.0
9	Personal and laundry services	17.4
8	Food services and drinking places	16.8
7	Clothing and clothing accessories stores	16.8
6	Real estate	16.2
5	Agriculture support, forestry, fishing, hunting	14.9
4	Sporting goods, hobby, book and music stores	14.2
3	Social assistance	13.6
2	Non-store retailers	9.6
1	Private households	9.1

*With at least 2,500 employees in 2001

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.

TABLE 34B
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked By 2001 Ratio of Earnings Per Employee to Earnings Per Employee of National Subsector

Highest Ratios			
	Sector	Ratio	
1	Farm	Agriculture	281%
2	Food and beverage stores	Retail trade	120
3	Waste management and remediation services	Administrative and waste services	117
4	Performing arts and spectator sports	Arts, entertainment, and recreation	116
5	Miscellaneous store retailers	Retail trade	113
6	Transit and ground passenger transportation	Transportation and warehousing	113
7	Construction of buildings	Construction	111
8	Warehousing and storage	Transportation and warehousing	109
9	Motor vehicle and parts dealers	Retail trade	107
10	Furniture and home furnishings stores	Retail trade	107
11	Transportation equipment except motor vehicles	Manufacturing	106
12	Computer and electronic product manufacturing	Manufacturing	105
13	Military	Government	104
14	Truck transportation	Transportation and warehousing	103
15	Ambulatory health care services	Health care and social assistance	103
Lowest Ratios			
15	Machinery manufacturing	Manufacturing	85
14	Support activities for transportation	Transportation and warehousing	84
13	Heavy and civil engineering construction	Construction	84
12	Primary metal manufacturing	Manufacturing	79
11	Non-store retailers	Retail trade	77
10	Motor vehicle manufacturing	Manufacturing	77
9	Publishing industries, except Internet	Information	73
8	Broadcasting, except Internet	Information	73
7	Telecommunications	Information	72
6	Agriculture support, forestry, fishing, hunting	Agriculture	72
5	Chemical manufacturing	Manufacturing	69
4	Beverage and tobacco product manufacturing	Manufacturing	65
3	ISPs, search portals, and data processing	Information	62
2	Securities, commodity contracts, investments	Finance and insurance	44
1	Motion picture and sound recording industries	Information	32

*With at least 2,500 employees in 2001

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.

TABLE 34C
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS*
Ranked by 2001 Average Wage

Highest-Paying Subsectors			
	Sector	Thousands	
1	Performing arts and spectator sports	Arts, entertainment, and recreation	\$81.2
2	Computer and electronic product manufacturing	Manufacturing	68.9
3	Securities, commodity contracts, investments	Finance and insurance	68.2
4	Transportation equipment except motor vehicles	Manufacturing	59.6
5	Mining (except oil and gas)	Mining	47.6
6	Telecommunications	Information	47.6
7	Ambulatory health care services	Health care and social assistance	46.3
8	Broadcasting, except Internet	Information	45.9
9	Federal, civilian	Government	45.8
10	Insurance carriers and related activities	Finance and insurance	44.7
11	Publishing industries, except Internet	Information	44.7
12	Air transportation	Transportation and warehousing	44.5
13	ISPs, search portals, and data processing	Information	43.7
14	Credit intermediation and related activities	Finance and insurance	43.1
15	Construction of buildings	Construction	42.2
Lowest-Paying Subsectors			
15	Membership associations and organizations	Other services	21.3
14	Nursing and residential care facilities	Health care and social assistance	21.2
13	Miscellaneous store retailers	Retail trade	20.7
12	Personal and laundry services	Other services	18.5
11	Accommodation	Accommodation and food services	18.5
10	Social assistance	Health care and social assistance	17.6
9	General merchandise stores	Retail trade	17.5
8	Gasoline stations	Retail trade	17.5
7	Amusement, gambling, and recreation	Arts, entertainment, and recreation	16.8
6	Clothing and clothing accessories stores	Retail trade	16.3
5	Sporting goods, hobby, book and music stores	Retail trade	15.5
4	Motion picture and sound recording industries	Information	15.5
3	Agriculture support, forestry, fishing, hunting	Agriculture	14.4
2	Food services and drinking places	Accommodation and food services	12.1
1	Private households	Other services	9.5

*With at least 2,500 employees in 2001

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.

TABLE 34D
ARIZONA'S HIGHEST- AND LOWEST-PAYING SUBSECTORS
Ranked By 2001 Ratio of Average Wage to Average Wage of National Subsector

Highest Ratios			
	Sector	Ratio	
1	Performing arts and spectator sports	Arts, entertainment, and recreation	148%
2	Farm	Agriculture	129
3	Food and beverage stores	Retail trade	123
4	Warehousing and storage	Transportation and warehousing	111
5	Gasoline stations	Retail trade	111
6	Transit and ground passenger transportation	Transportation and warehousing	110
7	Transportation equipment except motor vehicles	Manufacturing	109
8	Ambulatory health care services	Health care and social assistance	107
9	Non-store retailers	Retail trade	107
10	Computer and electronic product manufacturing	Manufacturing	106
11	Furniture and home furnishings stores	Retail trade	106
12	Health and personal care stores	Retail trade	105
13	Motor vehicle and parts dealers	Retail trade	105
14	Military	Government	104
15	General merchandise stores	Retail trade	104
Lowest Ratios			
15	Broadcasting, except Internet	Information	87
14	Electronics and appliance stores	Retail trade	86
13	Air transportation	Transportation and warehousing	86
12	Paper manufacturing	Manufacturing	85
11	Specialty trade contractors	Construction	85
10	Telecommunications	Information	84
9	Primary metal manufacturing	Manufacturing	83
8	Motor vehicle manufacturing	Manufacturing	78
7	Publishing industries, except Internet	Information	75
6	Chemical manufacturing	Manufacturing	69
5	Beverage and tobacco product manufacturing	Manufacturing	69
4	ISPs, search portals, and data processing	Information	67
3	Agriculture support, forestry, fishing, hunting	Agriculture	66
2	Securities, commodity contracts, investments	Finance and insurance	46
1	Motion picture and sound recording industries	Information	33

*With at least 2,500 employees in 2001

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.

IV. INDUSTRIAL GROWTH OVER TIME

Review of Tables

Table 35: Summary of Change Over Time in Major Industrial Indicators. Between the end of the prior recession in 1991 and the onset of the recession in 2001, FIRE and construction led the state's economic growth based on the earnings and employment measures. However, manufacturing and wholesale trade posted the greatest gains in GSP. Government, agriculture, and mining were among the slowest growing on all measures.

The growth rankings, based on percent change between 1991 and 2001 (2000 for GSP) are summarized below:

<i>Employment</i>	<i>Earnings by place of work</i>	<i>Gross State Product</i>
1. Construction	FIRE	Manufacturing
2. FIRE	Construction	Wholesale trade
3. Services	Wholesale trade	Retail trade
4. TCPU	Services	TCPU
5. Wholesale trade	Retail trade	Construction
6. Retail trade	TCPU	Services
7. Agriculture	Government	FIRE
8. Government	Manufacturing	Agriculture
9. Manufacturing	Agriculture	Mining
10. Mining	Mining	Government

Table 36: Wage and Salary Employment. In Maricopa and Pima counties and the balance of the state, the services industrial division dominated the numeric change in employment and was second or third to construction in percent change.

Table 37: Total Employment. Nearly three-fourths of the state's employment gain between 1991 and 2000 occurred in Maricopa County. Agriculture and government were the only divisions in which Maricopa's share was less than 72 percent. Pima County's share was only 13 percent, but it exceeded 20 percent in government and manufacturing. The share in the balance of the state also was only 13 percent, but in agriculture and government, the shares were from 25 to 30 percent.

Table 38: Earnings. Services, FIRE and construction experienced greater growth in earnings from 1991 to 2000 than the overall growth rate in Maricopa County, Pima County and the balance of the state (and in most of the less populous counties as well). Other relatively fast-growing sectors included manufacturing in Pima County, wholesale trade in Maricopa County, and retail trade in the balance of the state.

Table 39: Earnings per Employee. Adjusting for inflation, earnings per employee rose between 1991 and 2000 in every industrial division except agriculture in Arizona. Total earnings per employee dropped in six counties and exceeded the national average only in Santa Cruz and Maricopa counties. Gains in FIRE and services were above the overall figure in each region of the state. Other divisions with strong gains included wholesale trade in Maricopa County, construction and manufacturing in Pima County, and construction in the balance of the state.

Table 40: Rank Order. Services employment numerically expanded the most of the industrial divisions between 1991 and 2000 in the nation, Arizona, Maricopa County, Pima County, and the balance of the state (and most of the less populous counties). FIRE, however, experienced the greatest percentage gain in earnings in each case, followed by construction.

Table 41: – Gross State Product. Real GSP advanced significantly after the last recession, with annual gains averaging more than 7 percent between 1991 and 2000. Per employee growth was close to 3 percent per year. Manufacturing experienced a huge advance in both real GSP and real GSP per employee. In contrast, government's real GSP rose little and real GSP per employee was flat. Other divisions with little change in real GSP per employee included agriculture, construction, FIRE, and services. Extremely large advances occurred in the major groups of electronics and other electric equipment, security and commodity brokers, and holding and other investment offices. In contrast, four major groups had a gain in real GSP of less than 5 percent and 14 had a decrease in real GSP per employee.

Table 42: Total Employment and Earnings. Of the 10 industrial divisions, construction and FIRE experienced the fastest growth rates on both employment and earnings between 1991 and 2000. Other than mining, which declined on each measure, the least employment growth occurred in government and manufacturing while the least earnings gains were in agriculture and government.

Table 43: Fastest Growing Major Groups. FIRE and construction placed a disproportionately large number of major groups on the lists of fastest percent growth in employment and earnings. Several industrial groups were among the top 15 on each of these measures and on the list of greatest numeric employment increase: business services; holding and other investment offices; special trade contractors; amusement and recreation services; engineering, accounting and management services; general building contractors; real estate; and depository and non-depository financial institutions.

Table 44: Average Wage. The average wage per job rose more than 2 percent per year after inflation adjustment between 1991 and 2000. Each of the major divisions had cumulative gains of between 16 and 35 percent except for lesser increases in mining and government.

Table 45: Major Groups with the Greatest Gain in Average Wage. With an increase more than triple the overall figure, electronic and other electric equipment led the major groups in the 1991 to 2000 increase. Large industry groups on the list included business services, real estate, and amusement and recreation services.

TABLE 35
SUMMARY OF CHANGE OVER TIME IN MAJOR ECONOMIC INDICATORS
Industrial Divisions, Arizona, 1991-2001

	Percent Change			Numeric Change
	Total Employment	Earnings	Gross State Product*	Total Employment**
TOTAL	49%	79%	89%	941
Agriculture	38	20	43	19
Mining	-21	-19	43	-3
Construction	103	137	85	99
Manufacturing	18	45	246	34
TCPU [^]	48	68	92	41
Wholesale Trade	45	98	131	37
Retail Trade	41	74	100	144
FIRE ^{^^}	79	161	68	130
Services	59	96	69	339
Government	33	48	22	98

* Change from 1991 to 2000

** In thousands

[^] Transportation, Communications and Public Utilities

^{^^} 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.

TABLE 36A
NON-FARM WAGE AND SALARY EMPLOYMENT
Industrial Divisions, United States, Arizona and Counties
Percent Change, 1991-2001

	Mining	Con- struction	Manu- facturing	TCPU*	Trade	FIRE**	Services	Gov- ernment	Total
United States	-18%	44%	-4%	23%	19%	16%	45%	14%	22%
Arizona	-29	113	19	38	44	62	73	39	52
Maricopa	43	138	18	50	52	71	82	33	59
Pima	-17	56	35	18	18	28	54	32	36
Balance of State	-36	82	4	1	37	35	54	56	41
Apache	-100	133	-60	-71	13	60	-46	141	28
Cochise	-100	120	-23	-7	44	0	80	-1	27
Coconino	0	67	-6	-36	27	63	59	66	42
Gila	-42	43	-33	0	24	0	32	53	18
Graham	NC	0	50	100	33	100	56	14	31
Greenlee	21	-20	NC	-50	0	NC	50	0	8
La Paz	-100	-50	50	-50	33	0	20	144	47
Mohave	NC	81	14	69	46	8	61	65	53
Navajo	-18	88	-33	33	40	0	-6	86	34
Pinal	-70	67	14	-20	39	33	69	51	27
Santa Cruz	NC	33	0	71	-4	33	-6	55	14
Yavapai	10	123	42	18	73	60	113	61	77
Yuma	NC	100	21	15	29	18	49	46	40

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

NC: Not calculated; 1991 employment was zero.

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

TABLE 36B
NON-FARM WAGE AND SALARY EMPLOYMENT
Industrial Divisions, Arizona and Counties
Numeric Change in Thousands, 1991-2001

	Mining	Con- struction	Manu- facturing	TCPU*	Trade	FIRE**	Services	Gov- ernment	Total
Arizona	-3.8	87.5	33.5	30.4	163.0	57.8	300.6	105.4	774.4
Maricopa	0.3	69.3	24.0	28.5	128.4	52.0	229.5	46.4	578.4
Pima	-0.4	7.9	8.8	1.8	11.0	3.2	40.9	18.7	91.9
Balance of State	-3.7	10.3	0.7	0.1	23.6	2.6	30.2	40.3	104.1
Apache	-0.1	0.4	-0.3	-1.2	0.2	0.3	-2.3	7.2	4.2
Cochise	-0.1	1.2	-0.3	-0.1	2.4	0.0	4.0	-0.1	7.0
Coconino	0.0	1.0	-0.2	-0.9	3.0	0.5	6.0	8.0	17.4
Gila	-0.5	0.3	-0.5	0.0	0.6	0.0	0.7	1.6	2.2
Graham	0.0	0.0	0.1	0.1	0.5	0.1	0.5	0.3	1.6
Greenlee	0.4	-0.1	0.0	-0.1	0.0	0.0	0.1	0.0	0.3
La Paz	-0.1	-0.1	0.1	-0.1	0.4	0.0	0.1	1.3	1.6
Mohave	0.1	2.1	0.4	0.9	3.9	0.1	4.1	3.0	14.6
Navajo	-0.2	0.7	-0.5	0.5	1.7	0.0	-0.3	5.1	7.0
Pinal	-3.3	0.6	0.4	-0.2	2.2	0.2	3.3	5.0	8.2
Santa Cruz	0.0	0.1	0.0	0.5	-0.2	0.1	-0.1	1.1	1.5
Yavapai	0.1	2.7	1.0	0.2	5.8	0.6	8.1	3.8	22.3
Yuma	0.0	1.4	0.4	0.2	2.6	0.2	3.3	3.8	11.9

* Transportation, Communications and Public Utilities

** 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 Arizona Department of Economic Security data.

TABLE 37
TOTAL EMPLOYMENT
Industrial Divisions, Arizona and Counties
Numeric Change, 1991-2000

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Gov- ernment	Total
Arizona	17,654	-3,059	99,012	40,568	39,251	39,284	134,728	120,752	352,897	62,870	903,957
Maricopa	10,751	304	76,402	31,602	33,530	33,219	100,524	93,607	253,345	30,971	664,255
Pima	1,610	-472	9,159	8,505	3,559	2,810	12,442	13,277	50,759	16,316	117,965
Balance of State	5,293	-2,891	13,451	461	2,162	3,255	21,762	13,868	48,793	15,583	121,737
Apache	0E	-13E	449E	-387	-39	209E	624	851	2,632	970	5,296
Cochise	358E	-60	1,487E	-181	-13	76	2,636	1,309	4,810	398	10,820
Coconino	264	-65	2,372	-573	23	377	3,780	2,682	8,137	3,445	20,442
Gila	157	-629E	854E	-476E	139	167	705	1,059	2,454	266	4,696
Graham	248	4	142	147	46	26	592	345	872	511	2,933
Greenlee	-7E	747E	527E	-3	34	60	-60	8E	138	48	1,492
La Paz	-33E	-89E	-128	171	103	55E	363	110	938	176	1,666
Mohave	173	43	900	523	757	402	3,502	1,380	5,349	1,757	14,786
Navajo	225	-165E	875E	-399E	3	106	1,558	1,127	2,833	1,347	7,510
Pinal	141	-2,675	621	-153	-106	479	1,719	905	5,528	2,705	9,164
Santa Cruz	91	-13	226	19	623	289	-752	210	551	1,082	2,326
Yavapai	577	59	3,668	1,321	376	1,006	4,893	3,059	10,393	2,119	27,471
Yuma	3,099	-35E	1,458	452	216	3	2,202	823E	4,158	759	13,135

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data for 1991 and/or 2000 withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 38
EARNINGS BY PLACE OF WORK
Industrial Divisions, United States, Arizona and Counties
Real (Inflation-Adjusted) Percent Change, 1991-2000

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Whlsal Trade	Retail Trade	FIRE**	Services	Government	Total
United States	22%	21%	57%	20%	45%	41%	35%	90%	60%	19%	41%
Arizona	14	-19	129	54	65	97	70	147	100	33	76
Maricopa	28	62	146	58	81	108	86	157	111	38	91
Pima	31	-18	87	63	38	44	34	95	70	34	54
Balance of State	2	-29	100	5	18	53	44	111	77	23	37
Apache	-111E	-1E	12E	-60	1	86E	17	154	57	21	27
Cochise	45E	-44	190E	-15	10	9	54	65	82	-1	22
Coconino	59	-65	147	-7	6	41	48	160	68	32	47
Gila	-53	-42E	137E	-36E	17	108	30	215	91	24	23
Graham	-59	1370	113	43	46	15	44	41	76	23	33
Greenlee	-87E	32E	227E	-80	26	262	-4	1E	101	6	44
La Paz	-30E	-87E	-38	105	110	76E	32	103	93	30	24
Mohave	-49	126	23	30	45	86	53	90	72	52	51
Navajo	-63	-18E	113E	-13E	-1	26	56	106	57	33	29
Pinal	-30	-62	61	-6	-5	76	33	75	147	33	17
Santa Cruz	-14	26	125	31	97	30	-10	106	26	97	45
Yavapai	93	-4	152	63	31	165	67	151	98	45	80
Yuma	34	34E	114	8	22	22	38	80E	51	13	32

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data for 1991 and/or 2000 withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 39
EARNINGS PER EMPLOYEE
Industrial Divisions, United States, Arizona and Counties
Real (Inflation-Adjusted) Percent Change, 1991-2000

	Agri- culture	Mining	Con- struction	Manu- facturing	TCPU*	Wholesale Trade	Retail Trade	FIRE**	Services	Government	Total
United States	7%	55%	11%	19%	16%	23%	13%	48%	19%	11%	17%
Arizona	-16	1	17	27	13	34	23	43	24	10	19
Maricopa	-15	45	14	29	16	37	28	46	27	16	24
Pima	-5	-2	26	23	4	12	11	26	16	5	13
Balance of State	-17	-1	17	3	3	14	9	18	14	4	2
Apache	-111E	29E	-30E	34	4	-43E	-10	5	11	3	-2
Cochise	23E	8	38E	-3	11	-1	9	-9	15	-3	-4
Coconino	7	-50	22	11	5	2	12	12	10	2	5
Gila	-69	8E	17E	-10E	-7	8	6	27	17	14	-5
Graham	-69	1060	44	-19	21	0	6	-38	20	3	-3
Greenlee	-87E	-8E	31E	-77	-22	28	13	-15E	49	-2	3
La Paz	-27E	34E	-7	18	41	7E	6	46	9	10	-3
Mohave	-58	61	1	10	0	35	12	33	15	13	10
Navajo	-73	-4E	28E	13E	-1	3	19	0	13	8	1
Pinal	-33	9	12	-2	4	13	4	12	47	8	-4
Santa Cruz	-32	117	45	28	13	10	11	55	5	29	24
Yavapai	29	-8	28	12	5	33	10	31	11	10	11
Yuma	7	105E	22	-12	8	22	10	32E	7	6	7

* Transportation, Communications and Public Utilities

** Finance, Insurance and Real Estate

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 40
RANK ORDER OF INDUSTRIAL DIVISIONS
United States, Arizona and Counties
Change, 1991-2000

By Total Employment (Numeric Change)/Earnings by Place of Work (Percent Change)

	Services	FIRE*	Con- struction	Retail Trade	Whlsale Trade	Manu- factring	Gov- ernment	TCPU**	Agri- culture	Mining
United States	1/2	3/1	4/3	2/6	7/5	9/9	6/10	5/4	8/7	10/8
Arizona	1/3	3/1	4/2	2/5	7/4	6/7	5/8	8/6	9/9	10/10
Maricopa	1/3	3/1	4/2	2/5	6/4	7/8	8/9	5/6	9/10	10/7
Pima	1/3	3/1	5/2	4/7	8/5	6/4	2/8	7/6	9/9	10/10
Balance of State	1/3	4/1	5/2	2/5	7/4	9/8	3/6	8/7	6/9	10/10
Apache	1/3	3/1	5/6	4/5	6/2	10/9	2/4	9/7	7/10	8/8
Cochise	1/2	4/3	3/1	2/4	7/7	10/9	5/8	8/6	6/5	9/10
Coconino	1/3	4/1	5/2	2/5	6/6	10/9	3/7	8/8	7/4	9/10
Gila	1/4	2/1	3/2	4/5	6/3	9/8	5/6	8/7	7/10	10/9
Graham	1/3	4/7	7/2	2/5	9/9	6/6	3/8	8/4	5/10	10/1
Greenlee	3/3	7/7	2/2	10/8	4/1	8/9	5/6	6/5	9/10	1/4
La Paz	1/4	5/3	10/9	2/6	7/5	4/2	3/7	6/1	8/8	9/10
Mohave	1/4	4/2	5/9	2/5	8/3	7/8	3/6	6/7	9/10	10/1
Navajo	1/3	4/2	5/1	2/4	7/6	10/8	3/5	8/7	6/10	9/9
Pinal	1/1	4/3	5/4	3/5	6/2	9/8	2/6	8/7	7/9	10/10
Santa Cruz	3/7	6/2	5/1	10/9	4/6	8/5	1/3	2/4	7/10	9/8
Yavapai	1/4	4/3	3/2	2/6	7/1	6/7	5/8	9/9	8/5	10/10
Yuma	1/3	5/2	4/1	3/4	9/7	7/10	6/9	8/8	2/5	10/5

* 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.

TABLE 41
GROSS STATE PRODUCT AND GSP PER EMPLOYEE
Industrial Divisions and Major Groups, Arizona
Real (Inflation-Adjusted) Percent Change, 1991-2000

	Gross State Product	GSP Per Employee
Total	89%	28%
Agriculture	43	5
Farm	39	34
Agricultural services, forestry, fishing and other	55	-1
Mining	43	78
Metal mining	32	91
Coal mining	96	141E
Oil and gas extraction	350	399E
Non-metallic minerals, except fuels	118	22
Construction	85	-5
Manufacturing	246	184
Durable goods	319	232
Lumber and wood products	30	-18
Furniture and fixtures	159	42
Stone, clay and glass products	216	103
Primary metal products	64	60
Fabricated metal products	78	-2
Industrial machinery and equipment	112	131
Electronic and other electric equipment	1033	825
Motor vehicles and equipment	345	111
Other transportation equipment	111	70
Instruments and related products	2	12
Miscellaneous manufacturing industries	64	11
Non-durable goods	50	37
Food and kindred products	26	15
Tobacco products	-109	-111
Textile mill products	115	56
Apparel and other textile products	-31	15
Paper and allied products	46	3
Printing and publishing	13	3
Chemicals and allied products	167	117
Petroleum and coal products	171	42
Rubber and plastics products	76	39
Leather and leather products	-17	-5

- more -

TABLE 41 (continued)
GROSS STATE PRODUCT AND GSP PER EMPLOYEE
Industrial Divisions and Major Groups, Arizona
Real (Inflation-Adjusted) Percent Change, 1991-2000

	Gross State Product	GSP Per Employee
Transportation, Communications and Public Utilities	92%	31%
Transportation	75	15
Railroad transportation	-9	-19
Local and interurban passenger transit	40	-5
Trucking and warehousing	61	2
Water transportation	86	-1
Transportation by air	142	58
Pipelines, except natural gas	24	22
Transportation services	59	6
Communications	80	17
Electric, gas, and sanitary services	158	130
Wholesale Trade	131	57
Retail Trade	100	44
Finance, Insurance and Real Estate	68	-2
Depository institutions	62	NA
Non-depository institutions	499	NA
Security and commodity brokers	852	214
Insurance carriers	16	-9
Insurance agents, brokers and services	16	-10
Real estate	57	-10
Holding and other investment offices	600	255
Services	69	5
Hotels and other lodging places	28	8
Personal services	35	8
Business services	175	26
Auto repair, services and parking	68	22
Miscellaneous repair services	21	-20
Motion pictures	75	23
Amusement and recreation services	122	8
Health services	26	-10
Legal services	5	-7
Educational services	80	20
Social services	45	-11
Private households	34	23
Membership organizations	42	-9
Other services	114	25
Government	22	0
Federal civilian	18	9
Military	2	11
State and local	26	-2

E: Employment data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 42
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona
Percent Change, 1991-2000

	Total Employment	Real (inflation-adjusted) Earnings by Place of Work
Total	32%	76%
Agriculture	26	8
Farm	4	-34
Agricultural services, forestry, fishing and other	36	85
Agricultural services	36	86
Forestry, fishing and other	47	38
Mining	-25	-15
Metal mining	-45	-29
Coal mining	-23E	-26E
Oil and gas extraction	-11E	388E
Non-metallic minerals, except fuels	44	170
Construction	49	130
General building contractors	48	145
Heavy construction contractors	41	71
Special trade contractors	50	138
Manufacturing	18	55
Durable goods	21	59
Lumber and wood products	37	90
Furniture and fixtures	45	126
Stone, clay and glass products	36	103
Primary metal industries	3	2
Fabricated metal products	45	86
Industrial machinery and equipment	-9	-2
Electronic and other electric equipment	18	103
Motor vehicles and equipment	53	155
Other transportation equipment	20	44
Instruments and related products	-10	15
Miscellaneous manufacturing industries	32	64
Non-durable goods	9	35
Food and kindred products	9	17
Tobacco products	67	77
Textile mill products	27	94
Apparel and other textile products	-67	-34
Paper and allied products	29	38
Printing and publishing	8	38
Chemicals and allied products	19	61
Petroleum and coal products	48	125
Rubber and plastics products	21	44
Leather and leather products	-14	3

- more -

TABLE 42 (continued)
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona
Percent Change, 1991-2000

	Total	Real (inflation-adjusted)
	Employment	Earnings by Place of Work
Transportation, Communications and Public Utilities	32%	66%
Transportation	34	76
Railroad transportation	10	25
Trucking and warehousing	36	79
Water transportation	47	92
Local and interurban passenger transit	32	35
Transportation by air	35	86
Pipelines, except natural gas	2	9
Transportation services	33	99
Communications	35	82
Electric, gas and sanitary services	11	26
Wholesale Trade	32	98
Retail Trade	28	70
Building materials and garden equipment	44	109
General merchandise stores	24	50
Food stores	17	40
Automotive dealers and service stations	31	95
Apparel and accessory stores	8	13
Home furniture and furnishings stores	43	99
Eating and drinking places	30	71
Miscellaneous retail	28	79
Finance, Insurance and Real Estate	41	146
Depository and non-depository institutions	43	110
Security and commodity brokers	67	308
Insurance carriers	22	57
Insurance agents, brokers and services	22	60
Real estate	42	263
Holding and other investment offices	49	268

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TABLE 42 (continued)
EMPLOYMENT AND EARNINGS
Industrial Divisions and Major Groups, Arizona
Percent Change, 1991-2000

	Total	Real (inflation-adjusted)
	Employment	Earnings by Place of Work
Services	38%	101%
Hotels and other lodging places	15	49
Personal services	20	47
Private households	8	47
Business services	54	241
Auto repair, services and parking	27	77
Miscellaneous repair services	34	93
Amusement and recreation services	51	161
Motion pictures	30	68
Health services	28	48
Legal services	12	24
Educational services	33	127
Social services	39	76
Museums, botanical, zoological gardens	39	78
Membership organizations	36	75
Engineering and management services	44	155
Miscellaneous services	22	81
Government	17	34
Federal civilian	7	27
Military	-9	3
State and local	22	42
State	25	43
Local	21	41

E: Data withheld due to disclosure laws. Estimates made by Center for Business Research.

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.

TABLE 43A
ARIZONA'S 15 FASTEST-GROWING MAJOR GROUPS*
Ranked by 1991-2000 Percent Change in Employment

	Industrial Division	Percent Change
1 Security and commodity brokers	FIRE**	203%
2 Business services	Services	119
3 Motor vehicles and equipment	Manufacturing	111
4 Amusement and recreation services	Services	106
5 Special trade contractors	Construction	99
6 Holding and other investment offices	FIRE**	97
7 General building contractors	Construction	94
8 Furniture and fixtures	Manufacturing	82
9 Fabricated metal products	Manufacturing	81
10 Engineering and management services	Services	80
11 Building materials and garden equipment	Trade	79
12 Depository and non-depository institutions	FIRE**	77
13 Home furniture and furnishings stores	Trade	77
14 Real estate	FIRE**	73
15 Heavy construction contractors	Construction	68

* 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.

TABLE 43B
ARIZONA'S 15 MAJOR GROUPS WITH THE GREATEST EMPLOYMENT GAINS
Ranked by 1991-2000 Numeric Change in Employment

	Industrial Division	Numeric Change
1 Business services	Services	146,441
2 Special trade contractors	Construction	72,669
3 Real estate	FIRE*	49,518
4 Eating and drinking places	Trade	49,367
5 Health services	Services	48,569
6 Engineering and management services	Services	43,665
7 Local government (including teachers)	Government	42,187
8 Wholesale trade	Trade	39,327
9 Amusement and recreation services	Services	31,071
10 Depository and non-depository institutions	FIRE*	28,508
11 Miscellaneous retail	Trade	26,834
12 State government	Government	20,537
13 Holding and other investment offices	FIRE*	20,262
14 Social services	Services	17,937
15 General building contractors	Construction	17,664

* 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.

TABLE 43C
ARIZONA'S 15 FASTEST-GROWING MAJOR GROUPS*
Ranked by 1991-2000 Real (Inflation-Adjusted) Percent Change in Earnings

	Industrial Division	Real Percent Change
1 Security and commodity brokers	FIRE**	308%
2 Holding and other investment offices	FIRE**	268
3 Real estate	FIRE**	263
4 Business services	Services	241
5 Amusement and recreation services	Services	161
6 Motor vehicles and equipment	Manufacturing	155
7 Engineering and management services	Services	155
8 General building contractors	Construction	145
9 Special trade contractors	Construction	138
10 Educational services	Services	127
11 Furniture and fixtures	Manufacturing	126
12 Depository and non-depository institutions	FIRE**	110
13 Building materials and garden equipment	Trade	109
14 Electronic and other electric equipment	Manufacturing	103
15 Stone, clay and glass products	Manufacturing	103

* With at least 2,500 wage and salary 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.

TABLE 44
AVERAGE WAGE PER JOB
Industrial Divisions and Major Groups, Arizona
Real (Inflation-Adjusted) Percent Change, 1991-2000

Total	22%	Transportation, Communications and Public Utilities	16%
Agriculture	30	Transportation	18
Farm	56	Railroad transportation	14
Agricultural services, forestry, fishing and other	23	Trucking and warehousing	16
Agricultural services	23	Water transportation	-7
Forestry, fishing and other	32	Local and interurban passenger transit	7
Mining	5	Transportation by air	21
Metal mining	7	Pipelines, except natural gas	9
Oil and gas extraction	14	Transportation services	32
Construction	84	Communications	24
General building contractors	6	Electric, gas and sanitary services	14
Heavy construction contractors	20	Wholesale Trade	35
Special trade contractors	28	Retail Trade	24
Manufacturing	5	Building materials and garden equipment	20
Durable goods	22	General merchandise stores	17
Lumber and wood products	33	Food stores	18
Stone, clay and glass products	31	Automotive dealers and service stations	34
Primary metal industries	18	Apparel and accessory stores	8
Fabricated metal products	28	Home furniture and furnishings stores	19
Industrial machinery and equipment	29	Eating and drinking places	20
Electronic and other electric equipment	3	Miscellaneous retail	32
Other transportation equipment	12	Finance, Insurance and Real Estate	32
Instruments and related products	10	Depository and non-depository institutions	21
Miscellaneous manufacturing industries	74	Security and commodity brokers	21
Non-durable goods	13	Insurance carriers	24
Food and kindred products	20	Insurance agents, brokers and services	29
Textile mill products	47	Real estate	46
Apparel and other textile products	32	Holding and other investment offices	4
Paper and allied products	2		
Printing and publishing	48		
Chemicals and allied products	26		
	35		
Rubber and plastics products	18		
Leather and leather products	27		

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TABLE 44 (continued)
AVERAGE WAGE PER JOB
Industrial Divisions and Major Groups, Arizona
Real (Inflation-Adjusted) Percent Change, 1991-2000

Services	26%
Hotels and other lodging places	24
Personal services	23
Private households	36
Business services	52
Auto repair, services and parking	26
Miscellaneous repair services	36
Amusement and recreation services	50
Motion pictures	41
Health services	10
Legal services	18
Educational services	41
Social services	11
Museums, botanical, zoological gardens	11
Membership organizations	15
Engineering and management services	31
Miscellaneous services	-10
Government	10
Federal civilian	16
Military	12
State and local	9
State	4
Local	10

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.

TABLE 45
ARIZONA'S MAJOR GROUPS WITH GREATEST CHANGE IN AVERAGE WAGE*
Ranked By 1991-2000 Real (Inflation-Adjusted) Percent Change in Average Wage Per Job

	Industrial Division	Real Percent Change
1 Electronic and other electric equipment	Manufacturing	74%
2 Farm	Agriculture	56
3 Business services	Services	52
4 Amusement and recreation services	Services	50
5 Printing and publishing	Manufacturing	48
6 Real estate	FIRE**	46
7 Motion pictures	Services	41
8 Educational services	Services	41
9 Miscellaneous repair services	Services	36
10 Private households	Services	36
11 Wholesale trade	Trade	35
12 Automotive dealers and service stations	Trade	34
13 Instruments and related products	Manufacturing	33
14 Miscellaneous retail	Trade	32
15 Transportation services	TCPU***	32

* 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.

APPENDIX I: HISTORICAL PERSPECTIVE AND TRENDS

Historically, the Arizona economy was described as the “four Cs”: copper, cattle, cotton and citrus. None of these economic activities are very important today. To analyze changes in Arizona’s industrial structure, earnings by place of work, the most comprehensive series other than Gross State Product (GSP), is analyzed; it is available back to 1929 from the U.S. Department of Commerce.

The Arizona Economy in 1929

The four Cs characterization of the Arizona economy was relatively accurate in 1929, according to the earnings data. The agriculture and mining industries together contributed one-third of the state’s earnings. Even then, however, the earnings derived from the services and trade industries was nearly as much as that from agriculture and mining.

In comparison to the 1929 national economy, in which manufacturing was the most important industry, mining and agriculture were much more significant to the Arizona economy. The services and trade industries, however, were no more important to the Arizona economy than to the national economy. Thus, the four Cs fairly described the Arizona economy in 1929, particularly in comparison to the national economy.

The Decline of Mining and Agriculture

The Arizona mining industry has declined in significance since 1929 (see Table A–1). Through 1957, mining’s share of Arizona earnings was between 5.5 and 6.5 percent in most years, though the shares exceeded 8 percent through 1931 and again from 1936 through 1942. Since 1957, mining’s share gradually has declined to less than 1 percent since 1998. The mining industry since 1998 has been less important to the Arizona economy than the national mining industry is to the national economy.

The Arizona agriculture industry contributed between 14 and 18 percent of Arizona’s earnings in most years through 1954. Its peak was from 1948 through 1952, with shares in excess of 20 percent in 1951 and 1952. A sharp down trend occurred after 1952, with agriculture’s share falling to less than 8 percent by 1958. The 2001 share was just 1.7 percent. Agriculture in 2001 was barely more important to the Arizona economy than the national agriculture industry was to the national economy.

With the rapid growth of the state’s economy, a declining share does not necessarily mean decreasing earnings on an inflation-adjusted basis. Real agricultural earnings set a record in 1999, though the 2001 value was a little lower and only a little higher than in 1952. The overall agriculture figure, however, masks the changing relationship between farming and agricultural services, the division’s two major groups. Real farm earnings fluctuate annually but have not shown a trend since the late 1950s. Real earnings from agricultural services continue to steadily rise.

Mining’s real earnings peaked in 1981. More generally, no year since 1982 has matched the real earnings from mining that was reported in each year from 1971 through 1982. The 2001 value was the second lowest since 1960.

In some parts of rural Arizona, mining and/or agriculture remains the dominant force of the local economy. For these local areas, such as portions of Graham, Greenlee, La Paz, Pinal and Yuma counties, a slump in mining or agriculture can be devastating. Because the population

of these communities is small, however, problems in the mining or agriculture industries barely affect the state as a whole.

The Growth Industries

The agriculture and mining industries' combined share of Arizona earnings declined from 34 percent in 1929 to less than 3 percent since 1997. Through World War II, government was the only sector to experience an increase in share to offset declines in agriculture and mining. Increases in government were stimulated first by the Great Depression of the 1930s, then by World War II. Government's share of earnings rose from 10 percent in 1929 to more than 20 percent in 1932. During World War II, when military operations expanded in Arizona, government's share of earnings briefly exceeded 33 percent. After the war, government's share dropped sharply, to 14 percent in 1947 and 1948.

After the war, the increasing urbanization occurring within Arizona began to be seen in the state's industrial mix. Between the late 1940s and late 1950s, shares of construction, manufacturing, FIRE (finance, insurance and real estate), government and services all began to increase.

Construction's share rose first, from the 4 to 6 percent common through the war years to more than 11 percent at its peak in the early 1970s. Since then, but especially since the late 1980s, construction's share has slipped. Throughout the economic expansion of the 1990s, construction's share remained less than 8 percent, compared to more than 10 percent in the four prior expansions. While Arizona continues to grow rapidly, requiring substantial new construction, percentage growth rates have slowed as the population and economic base have grown steadily larger. Compared to the national average, construction remains relatively important to the Arizona economy.

Until 1952, manufacturing usually had accounted for less than 7 percent of Arizona earnings, while the national manufacturing industry contributed more than 25 percent of U.S. earnings. By 1960, the earnings derived from manufacturing was nearly 14 percent of the state's total, and by the late 1960s, the industry had achieved a 17 percent share of earnings, still not as large as the national share. This expansion in manufacturing's share ended in 1969. Manufacturing's share of Arizona earnings began to drop during the 1980s; it was less than 12 percent in 2001, its lowest share since 1955. The national share fell more, but still was nearly 15 percent in 2001. The differential in manufacturing share between the nation and Arizona was the least on record in 2001.

FIRE's share of earnings had been about 2.5 to 3.5 percent until the mid-1950s. It has steadily grown since then to 10 percent in 2001. The Arizona share has been marginally larger than the national average since the early 1990s.

Government's share of earnings also began to rise in the 1950s, a result of the growing size of state and local governments. From the late 1950s into the 1980s, government contributed the largest share of earnings of any of the industrial divisions. However, the increasing share of government ceased in the mid-1970s, when it exceeded 23 percent. The share has declined since then. In 2001, the share was less than 17 percent, similar to the national average.

The share of Arizona earnings contributed by the services industry did not begin to rise until the late 1950s and until the early 1980s the upward trend was modest – the share rose from 13 to 18 percent. Then the share soared until 2000, reaching 30 percent, but it fell back in 2001, when it was similar to the national average.

When taking into account changes in the national industrial structure since 1929, the growth of only the manufacturing industry in Arizona has been well beyond the growth of its national counterparts. While services' share of earnings increased considerably in Arizona, similar advances were occurring nationwide.

The Arizona Economy Today

Arizona now has a diversified economy, one much different than in 1929 (see Table A-2). These changes in the Arizona economy did not occur recently. By the mid-1960s, the economy's structure already closely resembled that of today.

Services, government, manufacturing, retail trade and FIRE each contributed at least 10 percent of Arizona earnings in 2001. The Arizona industrial structure is much like the national average, except that manufacturing is less important in Arizona while several sectors – particularly construction and retail trade – are slightly more significant.

Agriculture and mining seem certain to continue their relative decline, though neither can fall much further since each contributes less than 2 percent of Arizona earnings. Their shares of employment and Gross State Product are similarly small.

TABLE A-1
THE DECLINE OF AGRICULTURE AND MINING IN ARIZONA
Shares of Earnings by Place of Work, 1929 through 2000

	Agriculture	Mining
1929	17.7%	16.4%
1934	16.9	5.0
1939	14.9	10.0
1944	14.0	5.5
1949	18.9	6.5
1954	16.0	6.0
1959	6.9	4.5
1964	5.2	4.7
1969	5.3	4.1
1974	5.2	4.6
1979	3.2	3.6
1984	2.7	1.7
1989	2.5	1.2
1994	1.8	1.0
1999	1.9	0.8
2000	1.5	0.6
2001	1.7	0.6

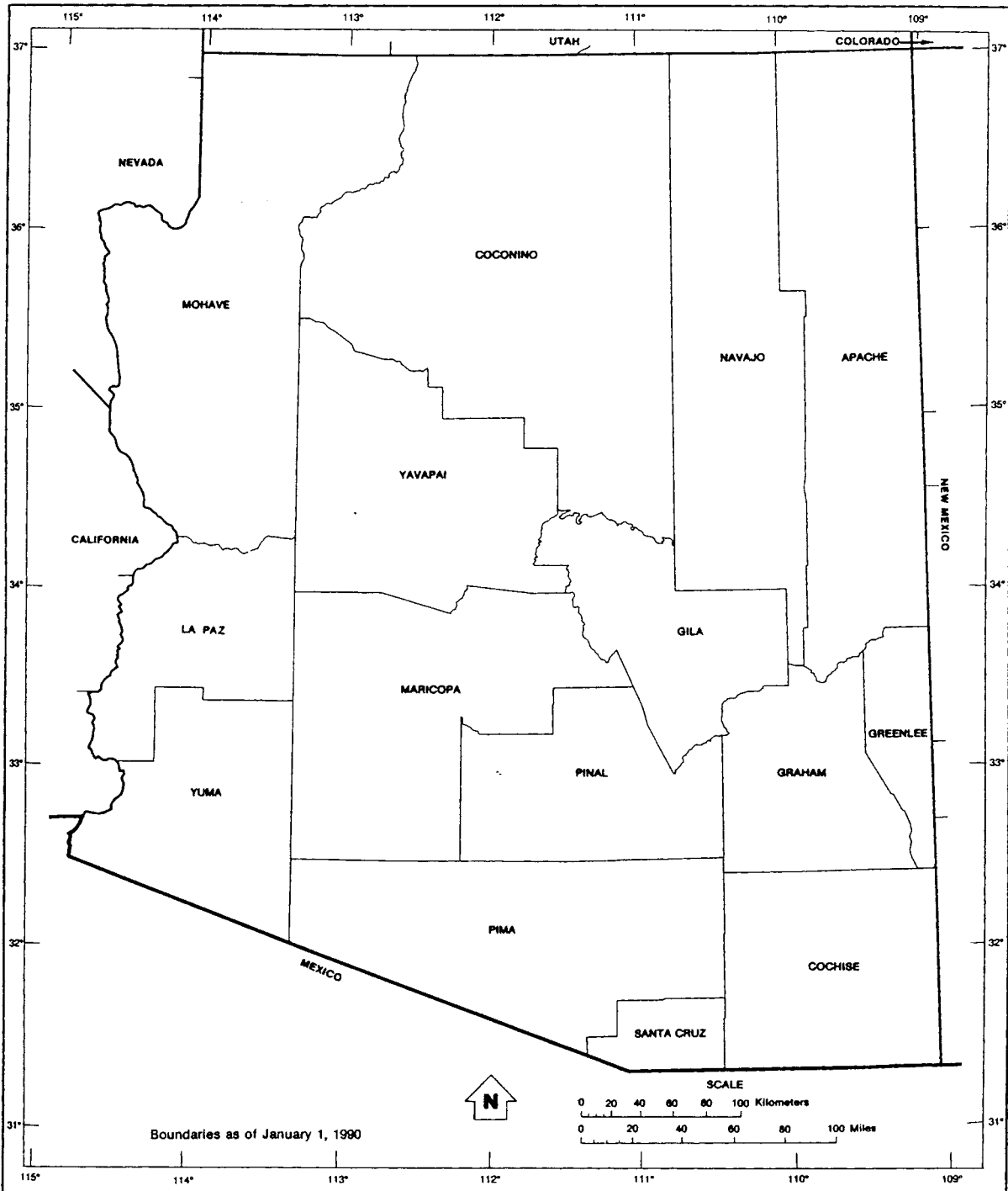
Source: Calculated by the Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University from U.S. Department of Commerce, Bureau of Economic Analysis, data.

TABLE A-2
THE SHIFT IN ARIZONA'S INDUSTRIAL STRUCTURE
Shares of Earnings by Place of Work, 1929 and 2000

	1929	2001	Change
Agriculture	17.7%	1.7%	-16.0
Mining	16.4	0.6	-15.8
Construction	4.5	7.9	3.4
Manufacturing	7.9	11.8	3.9
Transportation, Communications and Public Utilities	9.0	5.7	-3.3
Trade	18.3	16.5	-1.8
Finance, Insurance and Real Estate	3.5	10.0	6.5
Services	12.7	29.3	16.6
Government	10.1	16.5	6.4

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.

APPENDIX II: MAP OF ARIZONA COUNTIES



U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration Bureau of the Census