

# COCONINO

**EMPLOYMENT GROWTH**  
2001-03

**1.6**

2001-06

**2.4**

**STANFORD 9**  
2002

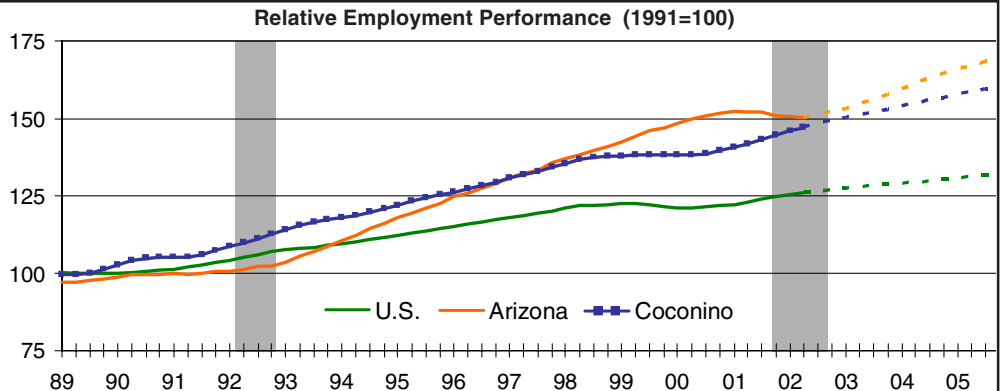
Language **44**  
Math **64**  
Reading **45**

**EDUCATIONAL ATTAINMENT 2000**

**29.9%**

**POVERTY RATE**

**18.2%**



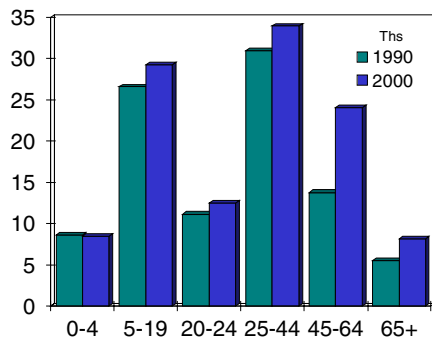
1995	1996	1997	1998	1999	2000	2001	Indicators	2002	2003	2004	2005	2006
2.17	2.26	2.29	2.36	2.45	2.50	2.55	<b>Gross Product, C\$B</b>	2.60	2.70	2.82	2.92	3.04
3.7	4.1	1.5	2.9	3.8	2.1	2.1	<b>% Change</b>	1.8	3.9	4.3	3.7	4.0
45.5	46.8	48.5	50.2	52.0	53.7	54.2	<b>Total Employment (000)</b>	54.3	55.9	58.0	59.6	61.2
4.8	3.0	3.7	3.3	3.6	3.3	1.0	<b>% Change</b>	0.1	3.0	3.8	2.7	2.6
7.8	8.7	8.4	7.3	6.7	5.7	5.4	<b>Unemployment Rate</b>	5.4	5.1	5.0	5.0	4.8
6.3	6.6	6.6	7.1	4.2	7.0	4.8	<b>Personal Income Growth</b>	3.3	6.5	7.8	6.7	6.6
111.0	112.7	114.4	114.9	115.3	116.6	117.9	<b>Population (000)</b>	119.2	121.5	124.7	127.7	130.5
645	644	589	567	672	581	851	<b>Single-Family Permits</b>	575	631	633	628	630
687	715	127	153	277	102	26	<b>Multifamily Permits</b>	45	103	115	127	128
110.4	116.6	121.4	128.5	137.4	147.4	160.3	<b>Existing Home Price (\$Ths)</b>	166.0	173.3	184.1	189.8	199.5
432	520	562	973	816	697	1,328	<b>Mortgage Originations (\$Mil)</b>	969	813	878	897	991
0.9	0.4	0.3	-1.0	-1.0	-0.6	-0.1	<b>Net Migration (000)</b>	-0.4	-0.3	0.0	0.1	0.1
178	270	315	325	272	304	337	<b>Personal Bankruptcies</b>	314	309	297	309	309

## INDUSTRY OPPORTUNITIES

Opportunities for economic development include:

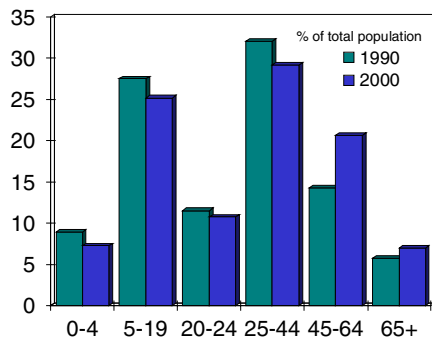
- Software
- Healthcare/Biotech
- Forest products
- Engineering, research and testing
- Tourism

## POPULATION BY COHORT



Source: Census Bureau

## POPULATION DISTRIBUTION



Source: Census Bureau

## ANALYSIS

**Recent Performance.** The Coconino County economy is still weak, although the worst has passed. Job growth is slowly picking up, particularly in retail and financial service industries. The government is also adding jobs. Manufacturing and service industries are still contracting, however, dampening the recovery. Household balance sheets remain stable, as indicated by below-average personal bankruptcy filings.

**Tourism.** Proximity to six national parks and monuments has led to COC's emergence as a tourism-led economy. The current downturn, however, is taking its toll on the local economy. Grand Canyon visitation was down in 2001, but better than initially expected following the 9/11 attacks. While room occupancy is growing at a steady clip, prices have been weak. In general, however, demand seems to be holding steady for COC tourism; park visitation in the entire state is up from last year.

The outlook for tourism is positive in COC. Tourism is expected to rebound sharply from previous lows due to considerable pent-up demand. Already, conditions in the local lodging and retail industries are firming, and constant marketing efforts by the local tourism chamber appear to be successful.

**Senior industries.** Over the past decade, COC's population growth outpaced the nation, but was sub-par compared to the rest of Arizona. The county did attract more new residents aged over 65 years than most other regions of the state. Still, COC currently has an extremely low share of senior citizens in its populace, one of the lowest in the nation. Closing this retiree gap could prove beneficial to the county by providing a stable spending base to complement the more cyclical college student population.

Suitable climate conditions, the presence of a large university and low living costs are all working in COC's favor in closing the retiree gap in the metro area. Growth in this population cohort will prove beneficial to the region's

health services industry, which is currently fairly small due to subdued demand. Similarly, other retail and services industries that cater to the senior populace will benefit from this continuing demographic shift.

**Real estate.** After a year of robust housing development in 2001, housing activity has slowed in 2002. Permit issuance decelerated from the near-record high of 2001. However, home sales in COC reached a new record, thanks to low interest rates. Prices appreciation has been strong—a benefit for homeowners—but this further limits housing affordability for new homebuyers, a persistent problem in and around the vicinity of Flagstaff.

Moderating population growth and expanding housing supply makes the current slowdown in COC residential construction prudent. Higher interest rates and moderating demand will contribute to a slower season for both housing construction and sales in the near term, although limited supply will continue to place upward pressure on house prices. Housing activity will pick up in earnest in COC in 2003, as the economy improves and the real estate market absorbs existing excess capacity.

**The worst of Coconino County's recession has passed, and economic activity will accelerate in the near term. Tourism and retail trade will continue to expand, although they will remain low-paying industries. Longer term, positive migration trends and increased university-led activity will help COC post above average growth. The expansion of trade with Mexico and growth in other Arizona metros will also increase business interest in COC, given its relatively low cost of doing business. However, the absence of high value-added manufacturing will constrain potential long-term growth. Overall, COC will be among the better performing metros in the nation over the forecast horizon.**

Rakesh Shankar  
December 2002

## EMPLOYMENT & INDUSTRY

### TOP EMPLOYERS

Flagstaff Medical Center, Inc.	1,000-4,999
Northern Arizona University	1,000-4,999
W L Gore & Associates, Inc.	500-999
Sam's Club/Walmart	350-750
Coconino Community College	250-499
Grand Canyon Railway, Inc.	250-499
Little America Gift Shop	250-499
Arizona Snowbowl	250-499
Fry's Food & Drug Center	250-499
Ralston Purina Co.	100-249
New England Business Service	100-249
Safeway, Inc.	100-249
Arizona Daily Sun	100-249
Walgreen Distribution Center	100-249
Arizona Raft Adventures	100-249
JC Penny Company, Inc.	100-249
Albertson's	100-249
Kmart	100-249
Bashas	100-249
Arizona Public Service	100-249

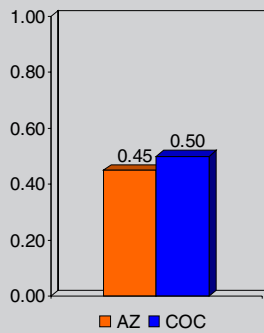
Source: Flagstaff Chamber of Commerce, July 2001

### Public

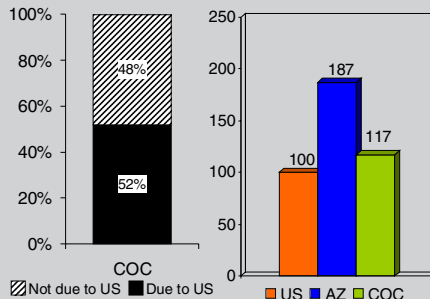
Federal	2,885
State	3,355
Local	8,090

2001

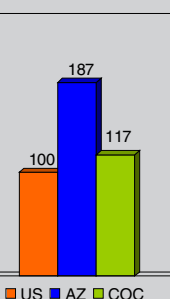
### INDUSTRIAL DIVERSITY



### EMPLOYMENT VOLATILITY DUE TO U.S. FLUCTUATIONS



### RELATIVE TO U.S.

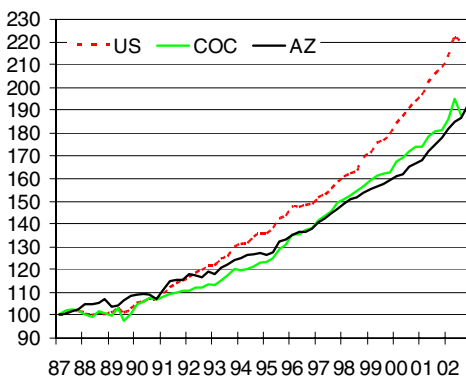


## COMPARATIVE EMPLOYMENT AND INCOME

Sector	% of Total Employment			Average Annual Earnings		
	COC	AZ	US	COC	AZ	US
Mining	0.1%	0.4%	0.4%	\$26,113	\$42,760	\$64,853
Construction	6.0%	7.3%	5.1%	\$31,280	\$35,534	\$37,846
Manufacturing	5.8%	9.3%	13.4%	\$31,356	\$52,820	\$50,161
Durable	68.9%	77.2%	60.1%	\$31,643	\$56,574	\$52,419
Nondurable	31.1%	22.8%	39.9%	\$30,714	\$40,158	\$46,703
Transport/Utilities	4.1%	4.9%	5.4%	\$25,961	\$42,761	\$50,161
Wholesale Trade	2.7%	4.9%	5.1%	\$21,060	\$47,228	\$49,721
Retail Trade	27.5%	18.6%	17.8%	\$13,670	\$19,835	\$19,357
Finance, Ins., Real Estate	2.2%	6.6%	5.8%	\$26,305	\$31,403	\$42,743
Services	25.1%	31.3%	31.1%	\$29,398	\$30,334	\$33,327
Memo: Health Services	5.6%	6.8%	7.9%	\$53,735	\$41,149	\$40,060
Government	26.4%	16.6%	15.9%	\$31,319	\$38,727	\$41,557

Source: Percent of total employment - BLS, 2001; Avg annual earnings - BEA, 2000; Economy.com

## HOUSE PRICES



Source: NAR, Economy.com, 1987Q1 = 100, NSA

## LEADING INDUSTRIES

SIC	Industry	Employees (000)
GVSL	Total state and local government	11.4
581	Eating & drinking places	6.5
701	Hotels and motels	3.6
GVF	Total federal government - civilian	2.9
531	Department stores	1.5
541	Grocery stores	1.4
384	Medical instruments and supplies	1.2
594	Miscellaneous shopping goods stores	1.2
874	Management and public relations	1.1
150	Res & nonres building construction	1.1
599	Retail stores, nec	0.8
171	Plumbing, heating, air-conditioning	0.5
554	Gasoline service stations	0.5
472	Arrangement of passenger transport	0.4
571	Furniture and home furnishings stores	0.4
Total leading industry employment		41.1
High-tech employment		1.2
As % of total employment, all industries		2.2

Source: BLS, Economy.com, 2001

## MIGRATION FLOWS

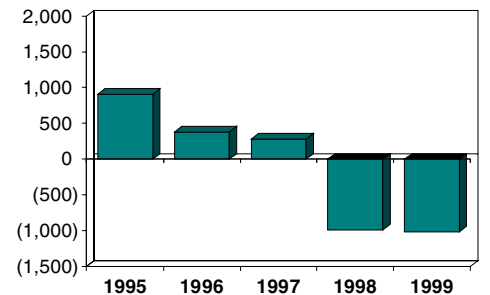
Into Coconino County	Number of Migrants	Median Income
Maricopa County	2,162	17,986
Yavapai County	603	18,136
Navajo County	533	16,120
Apache County	399	16,573
Pima County	348	15,416
Mohave County	225	14,721
Las Vegas (NV part only)	182	21,175
San Diego	172	16,562
Los Angeles	147	26,666
Riverside	133	24,571
Total Immigration	10,270	18,399

### From Coconino County

Maricopa County	2,480	18,482
Yavapai County	822	23,040
Navajo County	644	15,869
Pima County	450	17,170
Apache County	298	14,999
Las Vegas (NV part only)	250	21,388
Mohave County	190	14,317
Denver	147	20,113
San Diego	141	16,249
Portland	132	20,376
Total Outmigration	10,352	18,385

Net Migration	-82	14
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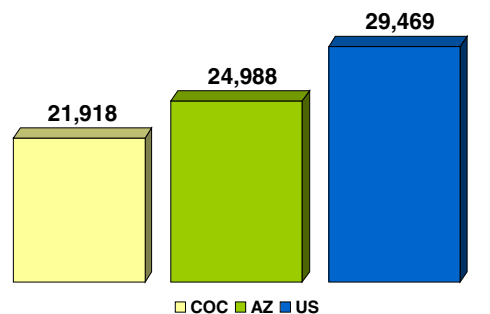
### Net Migration, COC



	Domestic	Foreign	Total
1995	820	92	912
1996	268	110	378
1997	165	118	283
1998	-1097	104	-993
1999	-1,110	95	-1,015

Source: IRS (top), 2001; Census Bureau, 1999

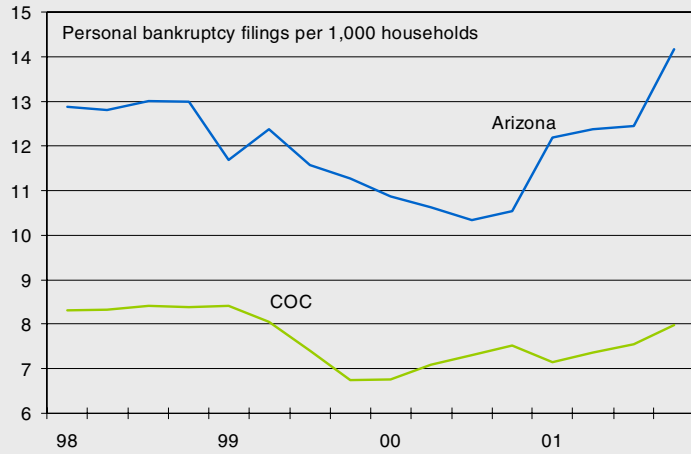
## PER CAPITA INCOME



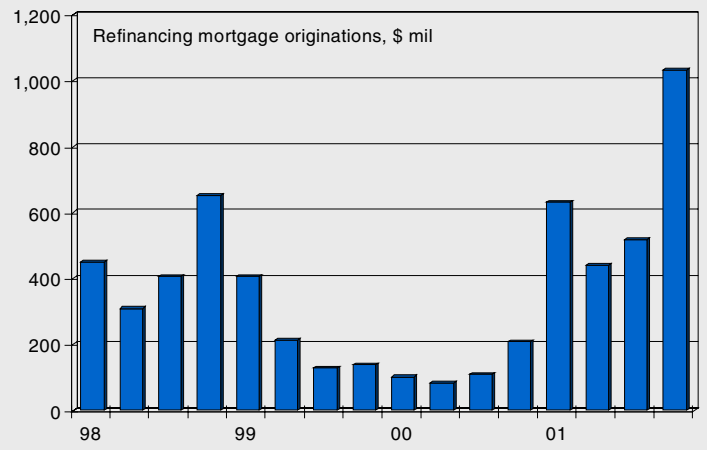
Source: Bureau of Economic Analysis, 2000

# Coconino

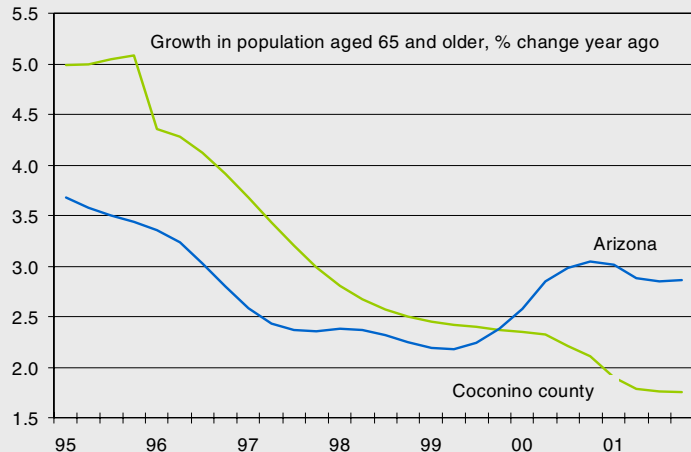
## Stable Household Credit Conditions in COC...



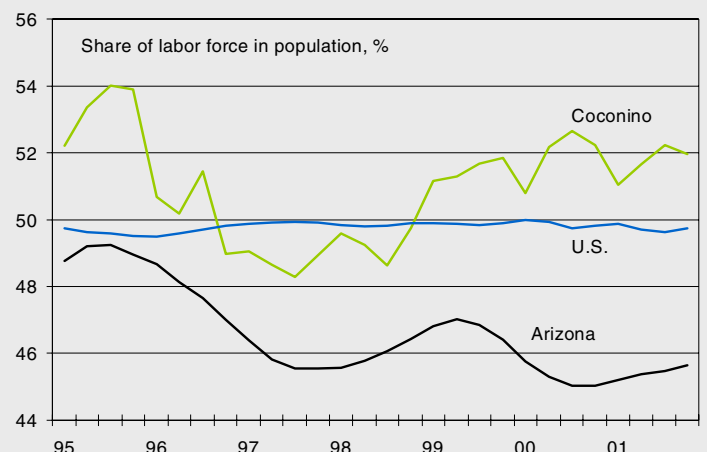
## ...Thanks in Part to Robust Refinancing Activity



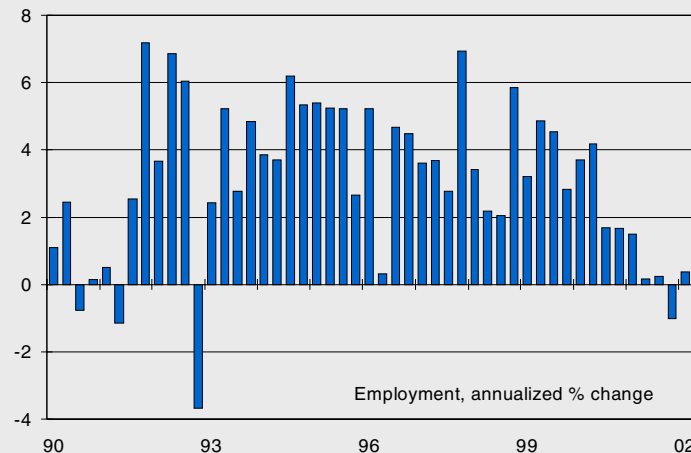
## In-Migration of Retirees Slows Down in COC



## COC Has the Highest Labor Force Participation Rate in the State



## A Shallow Slowdown in COC



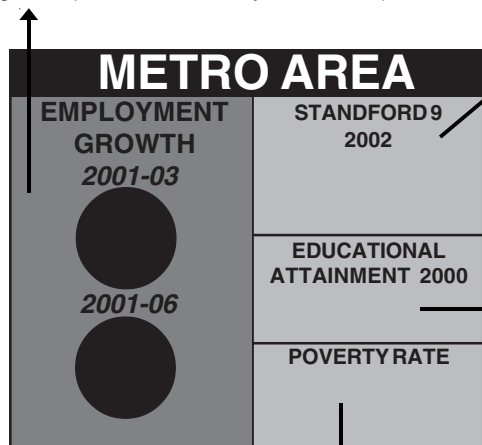
## Current Slowdown Buttressed by Healthy Income Growth



# USER'S GUIDE

## Educational Growth

These numbers represent the county's annualized employment growth rate in its short-term (over the next two years, top) and its long-term growth (over the next five years, bottom).



## Poverty Rate

This data point reflects the share of total population in the county that lives below the Federal Poverty Line. This is 1999 data, released by the Census bureau based on the Decennial Census 2000 surveys. The Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level."

## Standford 9

The data represent percentile ranks for the county's 9th grade students, released in Spring 2002. Stanford 9 tests are a commonly used measure of educational attainment for K-12 students. The test is a standardized one that compares individual students' performance in each of the subject areas with a representative sample of national public school students.

## Educational Attainment

This value represents the share of the county's residents aged 25 and over who have attained a bachelor's degree or higher. This is taken from data released by the Census Bureau based on the Decennial Census 2000 surveys.

## Industry Opportunities

Future opportunities for economic development include a mix of those industries that already drive the state's economy, and others in which their roles may be enhanced. A three-step process led to the creation of priority economic opportunities. First, Economy.com's forecasts of industry employment over the coming ten years was used to provide a rank of growth rates across all two-digit industries as defined by SIC codes.

Second, Economy.com conducted econometric analysis of the comparative advantages that contribute to the determination of industry location, using this to calculate the estimated growth potential by industry in Arizona. This was then compared with actual industry performance over the past ten years, and the difference provided a ranking of industries in which full potential is not yet realized given current measures of comparative advantage.

The rankings emerging from this analysis were then combined with the ranking of industries according to the national outlook by industry, weighting these two factors equally. Finally, from the ranking of industries that emerged from these criteria, industries were selected that had qualities fundamental to the assumptions of the changing macro and international economic environment.

## Population by cohort and population distribution

These two charts use population data for 1990 and 2000 released by the Census Bureau as part of its Decennial Census surveys. The first chart contrasts the actual number, in thousands, of residents in the county by age cohort, while the second chart details the share of residents in each age cohort.

Indicator	Units	Source	Note
Gross Product	Chain-weighted dollars	Economy.com	GCP is the sum of all income produced in a county, including corporate profits. Thus, it does not necessarily track employment growth.
Total Employment	Thousands	BLS 790 employment series; for NECMAs series estimated by Economy.com	Defined as sum of mining, construction, manufacturing, transportation/public utilities, wholesale/retail trade, finance/real estate, services, and government.
Unemployment Rate	Percent	Household employment series	
Personal Income Growth	% change previous year	Bureau of Economic Analysis	Measures income received by households from employment (including self), investments, and transfer payments.
Population	Thousands	Bureau of Census	
Single-Family Permits	Number of units	Bureau of Census	
Multifamily Permits	Number of units	Bureau of Census	
Existing Home Price	Thousands dollars	Nat'l Assoc Realtors	Index is affected by mix of homes sold.
Mortgage Originations	Millions dollars	Federal Financial Institutions Council	
Net Migration	Thousands	Bureau of Census	Calculated as number of domestic and international people moving into a state minus those leaving.
Personal Bankruptcies	Number of household filings	Admin. Office U.S. Courts	

# USER'S GUIDE

## EMPLOYMENT AND INDUSTRY STRUCTURE

### INDUSTRIAL DIVERSITY

Industrial diversity is defined as the extent to which a county's industrial structure approximates the U.S. industrial structure.

Diversity is derived using the following formula:  
 $Diversity = 1/\sqrt{\sum (EMP_{ij}/EMP_{USj}) * EMP_{ij}}$

Where EMP = share of employment in three-digit SIC industry j during period 2000-01; i = COUNTY; US = U.S. The Diversity measure is bounded between 0 and 1. 1 means the county has the same industrial structure as the U.S.; 0 means it has a totally different industrial structure than the U.S.

Formula derived from Hachman index, Bureau of Business and Economic Research, Univ. of Utah, December 1994.

### EMPLOYMENT VOLATILITY

**Employment volatility** is defined as the standard deviation in a county's monthly year-over-year percentage nonagricultural employment growth relative to the standard deviation in U.S. year-over-year percentage nonagricultural employment growth over the 1992 to 2001 period. Volatility of 100 means that employment volatility in a county is equal to employment volatility in the nation. Counties tend to be inherently more volatile than states.

### EMPLOYMENT VOLATILITY DUE TO U.S. FLUCTUATIONS

**Volatility due to U.S. fluctuations** (also known as "systematic volatility") is defined as:  
 $SYSVOL = (Ri2)/1/2$

where SYSVOL = systematic volatility; R2 = is the proportion of total variance in county i's growth rate that is associated with contemporaneous fluctuations in national growth.

**Volatility not due to U.S. fluctuations** (also known as "nonsystematic volatility") is defined as:  
 $NONSYS = 1 - (Ri2)/1/2$

where NONSYS = nonsystematic volatility in county i; R2 is the proportion of total variance in county i's growth rate that is associated with contemporaneous fluctuations in national growth.

Formulas modified from "Assessing Regional Economic Stability: A Portfolio Approach," Economic Review (Federal Reserve Bank of San Francisco), Winter 1990.

## MIGRATION FLOWS

**IRS data.** When a taxpayer notifies the IRS of a change in address, the IRS records the household's current county of residence, the county to which the household is moving, the number of household members, and household income. Economy.com aggregates this data by metro area into gross migration. The data are then sorted to show the ten counties providing the largest number of new residents and the ten counties to where the largest number of current residents move. Subtracting the gross out-migration flows from the gross in-migration flows gives net out-migration.

The IRS migration data have several advantages. One advantage of the IRS data is that it is the only migration data set to show where out-migrants are moving to and where in-migrants are coming from. Another advantage is that the average income levels can be associated with both in-migrants and out-migrants. The disadvantages of the IRS migration data are that it only covers households that have filed income-tax returns and thus is not a complete record of all migration; and that it lags by two to two-and-one half years.

**Census data.** The Census measure of net migration attempts to capture all migration to and from counties. Economy.com aggregates this data to metro areas and to states. The Census measure of net migration differs from the IRS measure in several ways. First, Census measures only net migration; gross in and out flows are not available. Second, Census data cover all migrants, including international migrants, not just those who file income tax returns. Census data lack accompanying income data. Numbers differ from migration series data in indicator tables, which are estimated on Census 2000 data. New migration data from the Census will be available in 2002.

## HOUSE PRICES

The house price index presents relative growth in the median price for existing single family homes, indexed to the first quarter of 1987. The median home price data comes from the National Association of Realtors, and is estimated at the county level by Economy.com. Each month the NAR Research Division receives data on existing single-family home sales from over 650 Boards/Associations of Realtors and multiple listing systems across the country. In 1994, data on over 1,500,000 existing single-family homes were received and processed.

## LEADING INDUSTRIES

Leading industries are defined as the largest industries with location quotients greater than 1.1. A location quotient greater than 1 indicates an industry that serves more than the local market. Location quotients are calculated according to the formula:  $LC_{im} = (E_{im}/E_{tm}) / (E_{iUS}/E_{tUS})$  where LC = location quotient in county m for industry i; E = employment in industry i for county m or the U.S.; and t = total employment for county m or the U.S.

Economy.com defines high-tech employment as the sum of employment in the following industries:

SIC	Industry
283	Pharmaceuticals
357	Computer & Office Equipment
366	Communications Equipment
367	Electronic Components & Accessories
381	Search & Navigation Equipment
382	Measuring & Controlling Devices
384	Medical Instruments & Supplies
385	Ophthalmic Goods
489	Communications Services, NEC
737	Computer & Data Processing Services
873	Research & Testing Services

Prepared for the Arizona Department of Commerce  
Office of Economic Information and Research  
December 2002