

COCHISE

EMPLOYMENT GROWTH
2001-03

1.5

2001-06

1.5

STANFORD 9
2002

Language **43**
Math **59**
Reading **43**

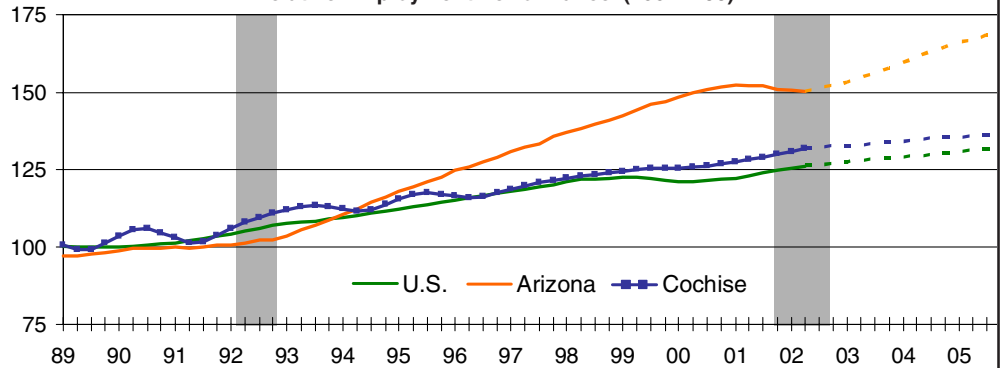
EDUCATIONAL ATTAINMENT 2000

18.8%

POVERTY RATE

17.7%

Relative Employment Performance (1991=100)



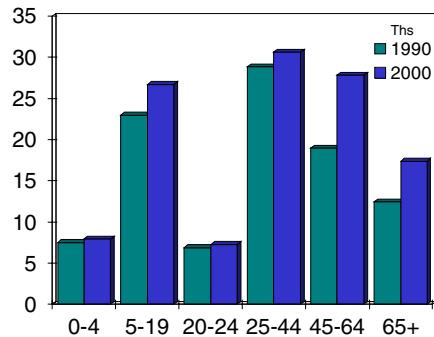
1995	1996	1997	1998	1999	2000	2001	Indicators	2002	2003	2004	2005	2006
1.79	1.79	1.86	1.87	1.90	1.96	2.01	Gross Product, C\$B	2.07	2.08	2.10	2.10	2.12
-2.5	-0.2	3.9	0.4	1.9	2.9	2.7	% Change	3.0	0.6	0.6	0.0	1.3
27.5	27.4	28.4	28.4	29.2	30.0	30.4	Total Employment (000)	30.7	31.5	32.2	32.5	32.9
4.0	-0.4	3.8	-0.2	3.1	2.5	1.6	% Change	1.1	2.4	2.3	1.0	1.2
9.2	9.7	8.4	6.7	5.7	4.5	4.6	Unemployment Rate	4.8	4.4	4.0	4.0	4.1
2.9	5.8	5.0	5.3	2.6	7.5	6.3	Personal Income Growth	5.1	3.9	4.8	4.3	4.6
112.5	112.9	114.9	116.1	116.5	118.1	119.3	Population (000)	120.6	120.8	121.2	121.6	122.3
561	580	544	563	624	686	613	Single-Family Permits	595	581	561	537	525
35	51	71	24	36	0	6	Multifamily Permits	5	7	7	7	6
81.0	84.2	87.2	90.9	95.8	103.1	111.6	Existing Home Price (\$Ths)	117.3	122.0	128.4	132.2	138.2
415	495	531	917	770	657	1,250	Mortgage Originations (\$Mil)	909	761	822	840	931
1.6	-0.8	0.7	0.0	-0.3	0.2	0.7	Net Migration (000)	0.2	-1.0	-0.8	-0.7	-0.3
244	414	495	491	401	449	459	Personal Bankruptcies	456	393	343	337	327

INDUSTRY OPPORTUNITIES

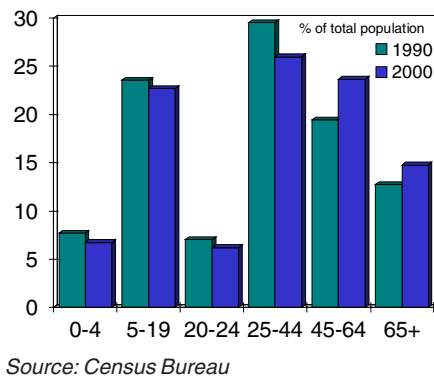
Opportunities for economic development include:

- Industrial machinery
- Transportation/logistics
- Agriculture/Food processing/Agriculture technology
- Defense/aerospace/avionics
- Tourism

POPULATION BY COHORT



POPULATION DISTRIBUTION



ANALYSIS

Recent Performance. The Cochise County economy is currently contracting after holding up well through much of the national and state recession. The high share of government and military employment, coupled with a small manufacturing base, helped buffer the county from the downturn. Services and government payrolls are still rising, while manufacturing languishes from over two years of shrinking jobs. Yet, the unemployment rate remains below state and national levels, indicating still-tight labor markets.

Fort Huachuca. The military base in COH is the focus of economic activity in the county. The base is headquarters for the United States Army Information Systems Command, the United States Army Intelligence Center and School, and many other military operations. The base employs over 11,000 people, and brought over \$489 million to the county in 2001, including defense procurement contracts valued at \$146 million.

Fort Huachuca's importance to the Defense Department and the political influence that Arizona wields in Congress under Sen. McCain's watchful eye assures that the base will be largely excluded from future base closures. Furthermore, the renewed security imperative and the increase in federal outlays for defense spending will bring increased expenditures and personnel to the base, which will in turn stimulate retail trade and construction in the county.

Construction. Construction activity has picked up in recent months. After a poor performance in 2001, permitting in COH has been rising steadily, especially in single-family housing, even though permitting in the near-term is expected to moderate. Much of the population growth in the county is fed by steady immigration from south of the border, as well from retirees in search of low cost areas with amenable living conditions. On the upside, the military base is expanding and may see an increase in the size of

its operations with the increase in federal defense spending. This will benefit the COH construction industry in the near term.

Immigrants. Although COH's official share of international immigrants is below the state average, the county is one of the major thoroughfares for illegal immigrants on the southwestern border of the U.S. Ever since U.S. Patrol forces were fortified in California, the inflow of migrants across the sparsely populated border area in Cochise has increased substantially. Illegal immigrants typically enter the United States here, but then move on to large metro areas where migrant work opportunities abound. The massive exodus of pedestrian immigrants from the Mexican border town of Agua Prieta has raised security concerns in border towns.

Illegal immigration is a detriment to the quality of life in COH. Better control might serve to encourage further retiree migration into the county. Per capita income in COH is well below the state and national average, largely due to low wages and an abundant labor supply. The county could leverage its low wages and strong labor force growth to attract new companies. New border patrols will provide a healthy boost to government payrolls in COH.

Cochise County will be a below average performer in the near term. The county is heavily reliant on government funding and the military for employment. Military spending thus determines much of the growth in the region. The stable presence of base personnel and a high share of retirees in COH provide a stable spending base for the economy. The weak industrial structure, low educational attainment and lack of other growth drivers ensure that the COH economy will grow at a steady, albeit sub-par pace. The county economy will grow at a slower pace than the state and the nation in the long term.

*Shruti Haldea
December 2002*

EMPLOYMENT & INDUSTRY

TOP EMPLOYERS

U.S. Army Fort Huachuca	6,645
U.S. Border Patrol	850
Cochise College	825
AEGIS Communications Group, Inc.	822
Arizona State Prison	700
Sierra Vista Regional Health Center	608
Wal-Mart Stores, Inc.	535
Safeway Stores, Inc.	518
Ilex Systems	402
TRW	306
KE&G	304
Arizona Electric Power Cooperative	295
Southeastern Arizona Behavioral Health	208
Arizona Family Care Associates	190
Basha's	174
Life Care	173
Cochise County Health Alliance	171
SAIC	152
Kmart Corporation	152
Cabaco, Inc.	152

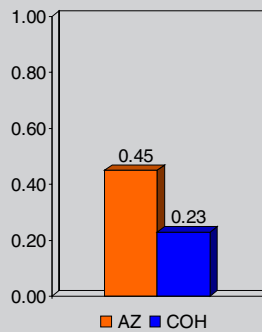
Source: Cochise College's Center for Economic Research, November, 2001

Public

Federal	3,847
State	2,503
Local	6,836

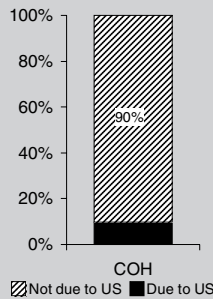
2001

INDUSTRIAL DIVERSITY

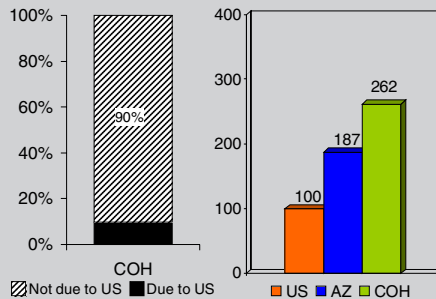


EMPLOYMENT VOLATILITY

DUE TO U.S. FLUCTUATIONS



RELATIVE TO U.S.

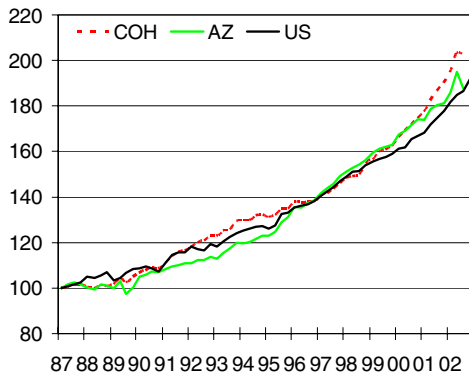


COMPARATIVE EMPLOYMENT AND INCOME

Sector	% of Total Employment			Average Annual Earnings		
	COH	AZ	US	COH	AZ	US
Mining	0.2%	0.4%	0.4%	\$6,024	\$42,760	\$64,853
Construction	5.4%	7.3%	5.1%	\$39,767	\$35,534	\$37,846
Manufacturing	4.0%	9.3%	13.4%	\$27,082	\$52,820	\$50,161
Durable	42.6%	77.2%	60.1%	\$42,536	\$56,574	\$52,419
Nondurable	57.4%	22.8%	39.9%	\$15,175	\$40,158	\$46,703
Transport/Utilities	4.6%	4.9%	5.4%	\$42,873	\$42,761	\$50,161
Wholesale Trade	2.3%	4.9%	5.1%	\$22,565	\$47,228	\$49,721
Retail Trade	19.1%	18.6%	17.8%	\$18,055	\$19,835	\$19,357
Finance, Ins., Real Estate	2.9%	6.6%	5.8%	\$22,022	\$31,403	\$42,743
Services	18.2%	31.3%	31.1%	\$42,954	\$30,334	\$33,327
Memo: Health Services	9.9%	6.8%	7.9%	\$24,002	\$41,149	\$40,060
Government	43.3%	16.6%	15.9%	\$24,773	\$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	9.2
ML	Military personnel	7.1
GVF	Total federal government - civilian	3.9
806	Hospitals	1.7
531	Department stores	1.1
541	Grocery stores	0.9
738	Misc business services	0.8
491	Electric services	0.7
150	Res & nonres building construction	0.7
701	Hotels and motels	0.6
174	Masonry, stonework, and plastering	0.3
235	Hats, caps, & millinery	0.3
655	Land subdividers & developers	0.3
384	Medical instruments and supplies	0.3
606	Credit unions	0.2
	Total leading industry employment	30.3
	High-tech employment	0.7
	As % of total employment, all industries	1.8

Source: BLS, Economy.com, 2001

MIGRATION FLOWS

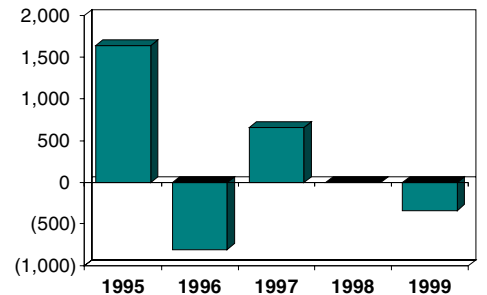
Into Cochise County	Number of Migrants	Median Income
Pima County	1,172	20,132
Maricopa County	642	21,381
Honolulu	267	32,812
Killeen	233	29,345
San Diego	214	27,777
Fayetteville	175	29,166
Augusta	155	30,166
Riverside	148	26,422
El Paso	146	24,999
Graham County	144	23,570
Total Immigration	10,830	22,748

From Cochise County

Pima County	1,436	18,406
Maricopa County	837	19,099
Fayetteville	239	21,963
Killeen	219	19,293
Baltimore	182	21,249
Tacoma	179	19,999
Honolulu	170	21,153
Augusta	167	24,953
Washington	149	38,176
Riverside	138	23,356
Total Outmigration	10,682	21,118

Net Migration	148	1,630
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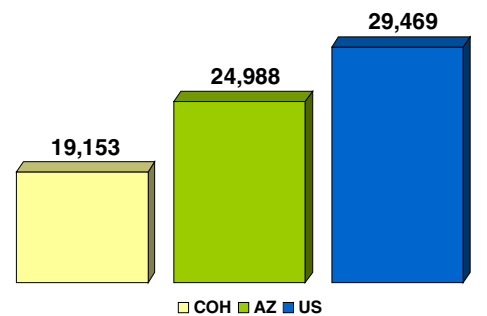
Net Migration, COH



	Domestic	Foreign	Total
1995	1,288	352	1,640
1996	-1,148	343	-805
1997	257	402	659
1998	-408	404	-4
1999	-722	385	-337

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

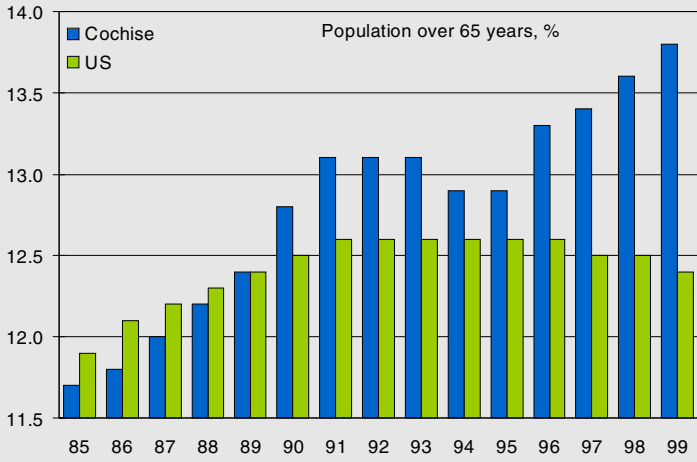
PER CAPITA INCOME



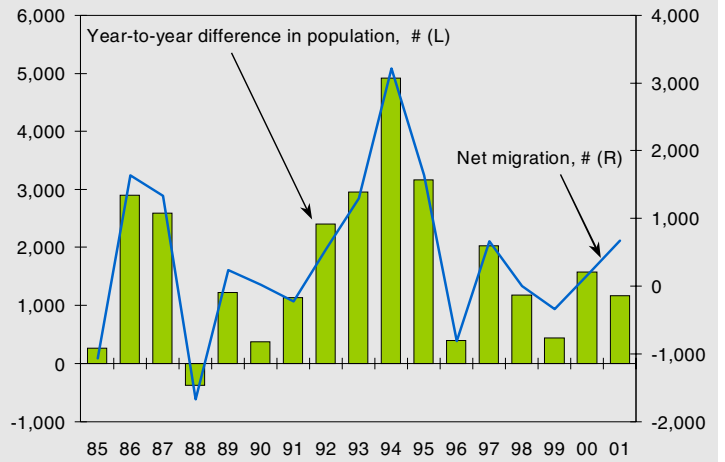
Source: Bureau of Economic Analysis, 2000

Cochise

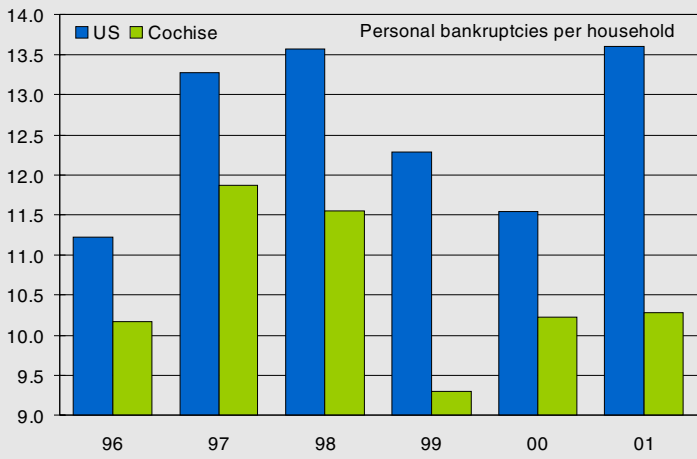
Cochise County's Share of Senior Citizens Surpasses U.S.'s



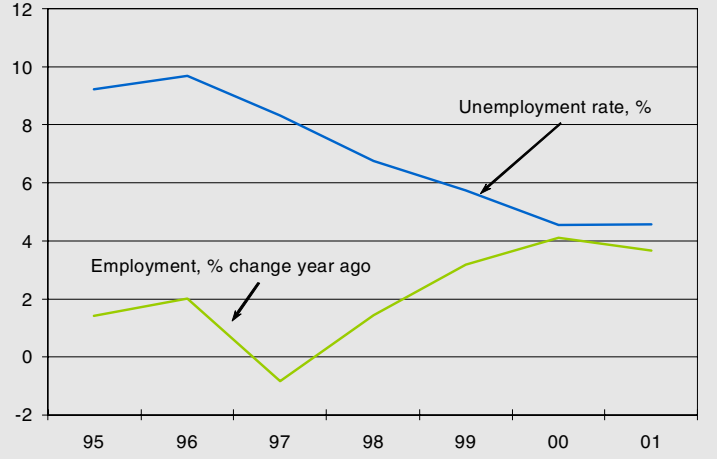
Population Growth Follows Migration Trends Closely



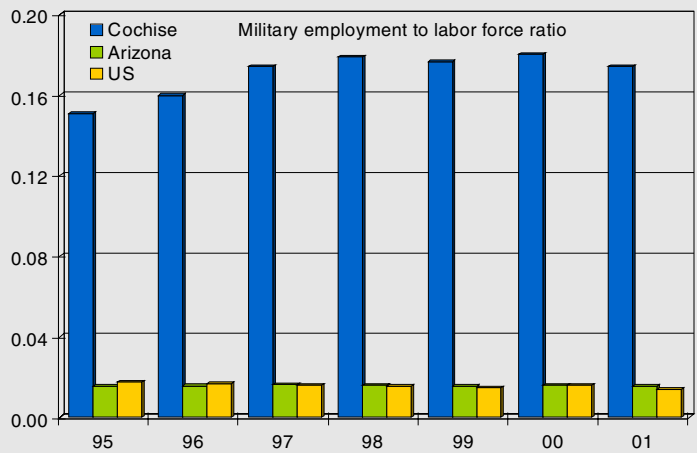
Stable Household Credit Conditions in Cochise



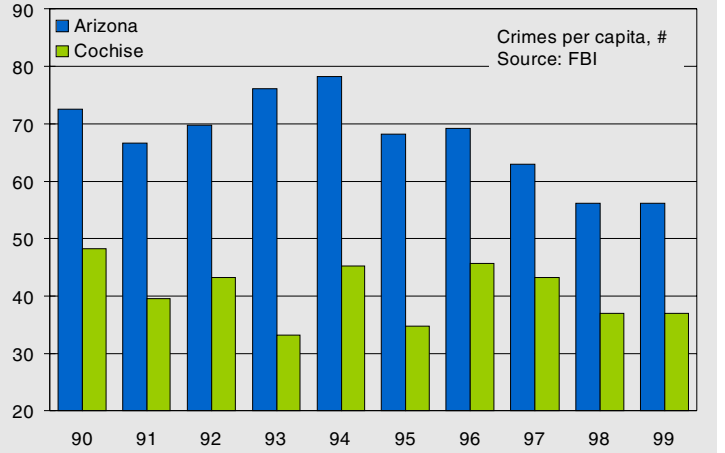
Healthy Growth Erodes Joblessness in Cochise



Military Is the Dominant Force in the Cochise Economy



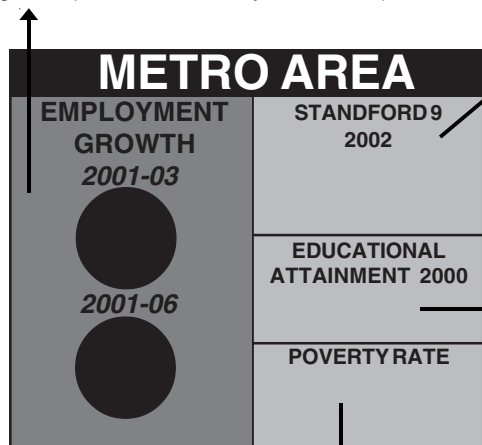
Cochise Is a Safe Haven in AZ



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