THE UNIVERSITY OF ARIZONA.
July, 2013 | Summer Issue
Eller COLLEGE OF MANAGEMENT

ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

What a Drag: Fiscal Policy Weighs on Growth

By George W. Hammond, Ph.D., EBR Associate Director and Research Professor — June 1, 2013

The Arizona economy continues to grow and improve in early 2013, but the pace overall is slow compared to historical standards. The outlook calls for the state to gather speed during the next two years, but only after another year of sluggish gains.

It is much the same story for the U.S. economy and for similar reasons. The federal sequester will begin to bite harder in the second quarter of the year and that, combined with the expiration of the temporary payroll tax cut, will be enough to keep real GDP growth in the 2.0% range this year.

Growth accelerates during 2014 and 2015, both for the state and the nation, as the impact of the federal fiscal drag fades and as the housing recovery really finds its feet.

U.S. Real GDP Growth: Don't Drink the Kool-Aid

Real GDP growth accelerated significantly in the first quarter of 2013, after little growth in the last quarter of 2012, according to advance estimates. At 2.5%, real GDP growth in the first quarter far outpaced the 0.4% growth rate in the fourth quarter of 2012. However, even with that acceleration, the growth rate was still below the long-run average of about 3.0%.

It is important not to get too wrapped up in one quarter of data at this point, because the gains in the first quarter seem likely to peter out a bit. For instance, real consumption spending surged in the first quarter, but that was powered by a rapid decline in personal saving, not by income growth. Further, inventory investment also rose rapidly in the first quarter, an increase that does not seem made to last either. Government spending (especially defense) continues to drag down growth and net exports contributed to slower gains as well. Overall, we are looking at an uneven start to 2013.

The nation's job growth continues to grind along, with nonfarm payroll jobs rising by 165,000 (1.5% annual rate) in April on a seasonally adjusted basis. The slow and steady job growth is contributing to improvement in the unemployment rate, but it is slow going. Indeed, the seasonally adjusted U.S. unemployment rate hit 7.5% in April, which is well below the peak of 10.0% in October2009, but it remains well above acceptable levels.

U.S. Growth Gathers Steam, After a Mediocre 2013

The U.S. outlook calls for uneven real GDP growth in the first half of 2013 to give way to stronger gains in the second half of the year. Overall, real GDP growth in 2013 is forecast to hit just 2.0% in 2013, then accelerate to 2.8% and 3.2% in 2014 and 2015. In other words, growth does not get close to trend rates until 2014-2015.

Part of the reason for modest growth in 2013 is the fiscal drag created by the expiration of the temporary payroll tax cut in January and the spending cuts associated with the sequester, which began in March. The increase in the payroll tax is expected to reduce 2013 real GDP growth by 0.4% and the sequester cuts are expected to cut another 0.4% off growth during the calendar year. The combined effects are sufficient to push growth well below trend.

The sequester impact is based on the assumption that the cuts will only last through September 30 of this year. Then they are expected to be replaced by a combination of tax increases and

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"Slow and steady job growth contributes to improvement in the unemployment rate, but still slow going."

spending cuts (focused on entitlements) that are phased in beginning in 2014. As Exhibit 1 shows, the forecast calls for both federal, as well as state and local, spending to decline in 2013. Real federal nondefense spending is forecast to fall by 4.3% in 2013, while real defense spending falls by 5.8%.

The U.S. economy continues to grow in 2013, even with the fiscal drag restraining growth. Real consumer spending growth remains positive, if less than spectacular. Consumers continue to deal with headwinds (high debt levels, low house prices, and slow job growth), but we are seeing some improvement in debt loads and house prices.

In addition, the housing market continues to recover, with declining foreclosures, rising house prices and housing starts, and increased household formation. Overall, residential investment is now contributing to growth, instead of holding it back.

While fiscal policy is hitting the brakes, monetary policy remains aggressively expansionary. The forecast assumes that the Federal Reserve will keep the target federal funds rate at current levels through 2015, as the unemployment rate remains above 6.5%, inflation remains tame, and inflation expectations remain well anchored.

Finally, export growth decelerates in 2013, as the world economy slows. As global growth recovers in 2014-15, so does U.S. export performance.

Arizona Employment Expands

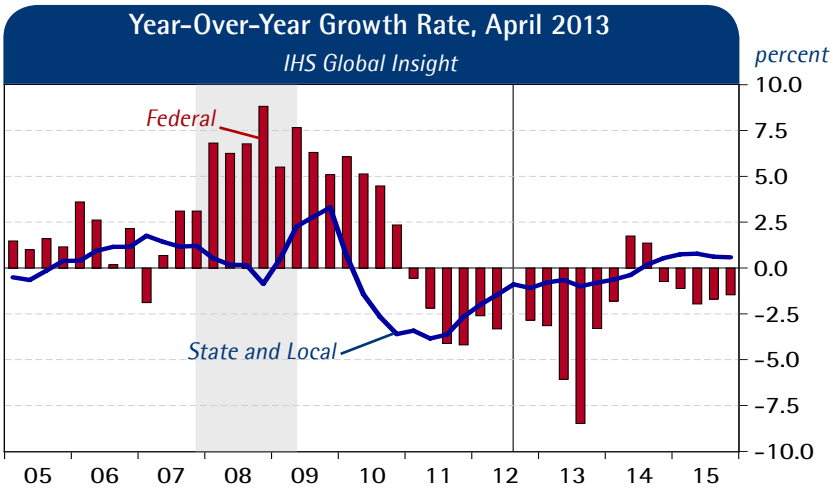
Arizona job growth continued in the first quarter of 2013, with seasonally adjusted state payrolls rising by 1.7% over the fourth quarter of 2012. On a year-over-year basis, the state added 46,100 jobs (1.9%) in the first quarter. That was faster than U.S. growth, which hit 1.5% in the first quarter on a year-over-year basis.

Job gains during the past four quarters have been strongest in leisure and hospitality (particularly eating and drinking places); construction; financial activities (especially finance and insurance); health care; wholesale trade; professional and business services; and state and local government (education).

Arizona job growth has outpaced the U.S. since hitting bottom in the fall of 2010, but even so, the state still has a long way to go to replace the jobs lost during the downturn. Indeed, as of April 2013, Arizona has replaced 39.2% of the jobs lost during the Great Recession, compared to 70.4% for the U.S. The Phoenix MSA has replaced 43.6% of the jobs lost, while the Tucson MSA has replaced 36.1%.

The state unemployment rate continued to gradually improve in the first quarter, hitting 7.9% on a seasonally adjusted basis. That is well down from 8.5% during the first quarter of 2012 and similar to the national rate of 7.7%. The Phoenix MSA

Exhibit 1: What a Drag: Government Spending Declines in 2013



unemployment has fallen by 0.8 percentage points during the past year, while the Tucson MSA rate has declined by 0.6 percentage points. Both metropolitan areas posted unemployment rates one percentage point below the state average in the first quarter.

Arizona Personal Income Growth Surged

Arizona personal income growth surged in the fourth quarter of 2012, hitting 8.5% at an annual rate. The fourth quarter data is the most recent available as of this writing. That was slightly above the national growth rate of 8.1%. Much of the strong fourth quarter growth is explained by a huge increase in income from dividends, interest, and rent. This reflected decisions by companies to accelerate dividends payouts in anticipation of tax law changes. Indeed, Arizona income from dividends, interest, and rent rose by nearly one-third at an annual rate in the fourth quarter. Excluding income from dividends, interest, and rent, state personal income rose by 4.3% in the final quarter of the year. The preliminary data suggest that state personal income rose by 3.7% in 2012, down from 4.9% growth in 2011 and close to national growth.

Arizona Outlook: Gaining Momentum

The forecast calls for Arizona to continue to expand in 2013, with more jobs, income, and residents. However, growth will continue to seem slow by historical standards, as the intensifying federal fiscal drag holds back stronger state gains. Growth accelerates in 2014 and again in 2015.

Rising job growth means more progress in driving down the unemployment rate, which hits 6.8% in 2015, close to the expected national rate. However, the employment-to-population ratio only reaches 43.8% by 2015, well below pre-recession levels.

The housing recovery remains a key part of the forecast for accelerating growth during 2014-2015. We are seeing signs of rebound in Arizona, with declining foreclosures, rising house prices and permit activity, and declining rental and homeowner vacancy rates. This is good news, but the market is not back to normal yet. Indeed, state housing permits rose by just over 60% in 2012, with gains in both single and multi-family activity. Even so, there were just 21,726 permits issued in Arizona, according to final estimates from the Census Bureau, which is lower than anything we have seen in the state since the 1970s.

The forecast calls for housing activity to gradually pick up steam through 2015, with rising net migration driving gains in housing permits and construction activity. Rising net migration, combined with positive natural increase, translates into faster population gains in Arizona as well.

Accelerating job growth during the next two years means rising income growth as well. These gains translate into a rising standard of living for state residents, as they are faster than the expected rate of inflation and population growth. In addition, per capita income growth is expected to exceed the national rate, which means a slowly declining income gap.

Faster income growth translates into faster sales growth, with real retail sales growth forecast to hit 3.5% in 2015, after averaging 2.6% per year during the 2012-2014 period.

"Arizona income from dividends, interest, and rent rose by nearly one-third in the fourth quarter."

"Arizona will continue to expand in 2013 with more jobs, income, and residents. Growth accelerates in 2014 and 2015."

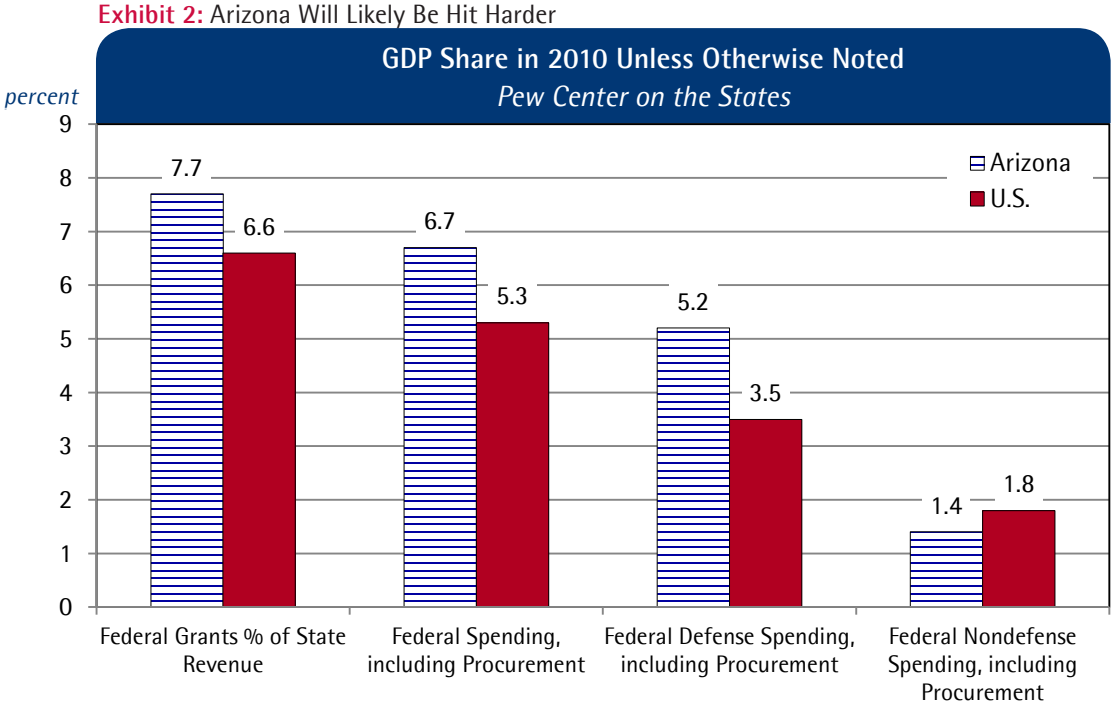
Sequester Risks

As Exhibit 2 suggests, Arizona is more exposed to federal spending cuts than the average state. According to the Pew Center on the States, federal grants in 2010 were 7.7% of state revenue, compared to 6.6% for the nation. That ranked Arizona 6th in the nation. In addition, federal spending (including procurement) was 6.7% of state GDP in 2010, compared to 5.3% for the nation. That ranked Arizona 13th in the nation. The baseline outlook assumes that the federal sequester ends this fall. If it lasts longer than expected, then its impact will increase and Arizona will be hit relatively hard.

Keep in mind that the sequester cuts will affect federal procurement spending, as well as direct federal expenditures. Associated job losses will show up in the private sector as well, particularly in manufacturing and professional and business services. These two sectors will be early barometers of the employment impact of the sequester in Arizona. ■

"Manufacturing and Professional and Business Services sectors will be early barometers for employment impacts from the federal sequester in Arizona."

Exhibit 2: Arizona Will Likely Be Hit Harder



Arizona Ranks Well in Technology and Science

by Marshall J. Vest

In its latest update of a bi-annual report focused on state-by-state technology and science, the Milken Institute provides a "benchmark for states to assess their science and technology capabilities as well as the broader ecosystem that contributes to job and wealth creation.[i]"

Western states ranked very well with four in the top 10: California (3rd), Colorado (4th), Washington (5th), and Utah (7th). Second tier states include Arizona (16th) and Texas (19th), with Oregon (20th) and New Mexico (22nd) closely following. Idaho (34th) and Nevada (47th) round out the states that Arizona traditionally competes with for business. See Exhibit 1.

The overall rankings for individual Western states have been mostly stable over the past decade, with the exception of New Mexico, which has lost ground each update, falling from 14th to 22nd in the latest report. Idaho and Nevada have slipped four spots as well. Texas registered the largest improvement, rising by four.

Relative scores for all states are shown in Exhibit 2.

The overall index is constructed from five component indexes, which in turn are comprised of dozens of measures. This constitutes a rich detailed data set for benchmarking state-by state performance.

Arizona ranks very well nationally in four of the five components. Just as with the overall index, several of Arizona's competitors in the West score better.

Technology Concentration and Dynamism is designed to assess how effectively policymakers and other stakeholders have been at parlaying regional assets into regional prosperity. Measures include concentration and growth in high-tech industries. Arizona ranks 11th, behind five of its competitors (Utah, Washington, Colorado, California, and Texas). While Washington, California, Colorado and Texas have moved higher, Arizona, along with New Mexico, Idaho and Nevada, have dropped in the rankings. In 2008, Arizona had concentrations in seven high-tech sectors but only four in 2012. 6.6% of Arizona's employment is in high-tech sectors, ranking it 13th.

The Technology and Science Work Force index measures the sufficiency and depth of high end technical talent as measured by the share of aggregate employment in 18 occupation categories covering computer and information sciences, life and physical sciences, and engineering. Arizona ranks 11th, trailing four Western states (Washington, California, Texas, and Colorado). Arizona moved up from 22nd in 2008. The upward move is due to jumps in biomedical engineers, going from 32nd in 2010 to 6th two years later, computer systems analysts (up 10 spots to 15th), database and network administrators (up 13 spots to 11th), and medical scientists (up 9 spots to 25th). Arizona also ranks very highly at 6th for computer hardware engineers, 5th for electrical engineers, 4th for electronics engineers, and 7th for software engineers and systems software.

Arizona also ranks highly at 12th nationwide, in the Risk Capital and Entrepreneurial Infrastructure component, which measures the success rate of commercializing research. Several measures are used covering venture capital activity as well as entrepreneurial pursuits, including patenting activity, business formations, and initial public offerings. Four states (California, Colorado, Washington, and Utah) rank higher. Western states were badly hurt by the Great Recession and plummeted in the ranking from top tier to bottom tier for number of business starts per capita. In 2008, eight of the states were among the top 10; in 2012, five were in the bottom quintile. Only Washington and Texas remain in the top 10. Arizona ranks 14th on venture capital investment as a percent of GSP.

The Research and Development Inputs component measures funding for industrial, academic, and federal R&D, and awards for small business research and technology transfer programs. Arizona ranks 14th nationwide, behind

Exhibit 1: Western States Rank Well in Science and Technology.

State Rankings:	2012	2010	2008	2004
Massachusetts	1	1	1	1
Maryland	2	2	2	4
California	3	4	4	2
Colorado	4	3	3	3
Washington	5	6	5	6
Utah	7	5	8	9
Arizona	**16**	**15**	**17**	**17**
Texas	19	19	20	23
Oregon	20	21	23	19
New Mexico	22	18	16	14
Idaho	34	27	27	30
Nevada	47	46	45	43

Source: Milken Institute, February 2013

Colorado, California, Washington, and New Mexico. Among the measures, Arizona saw its ranking jump to 16th from 28th over the past four years for industry R&D dollars per capita.

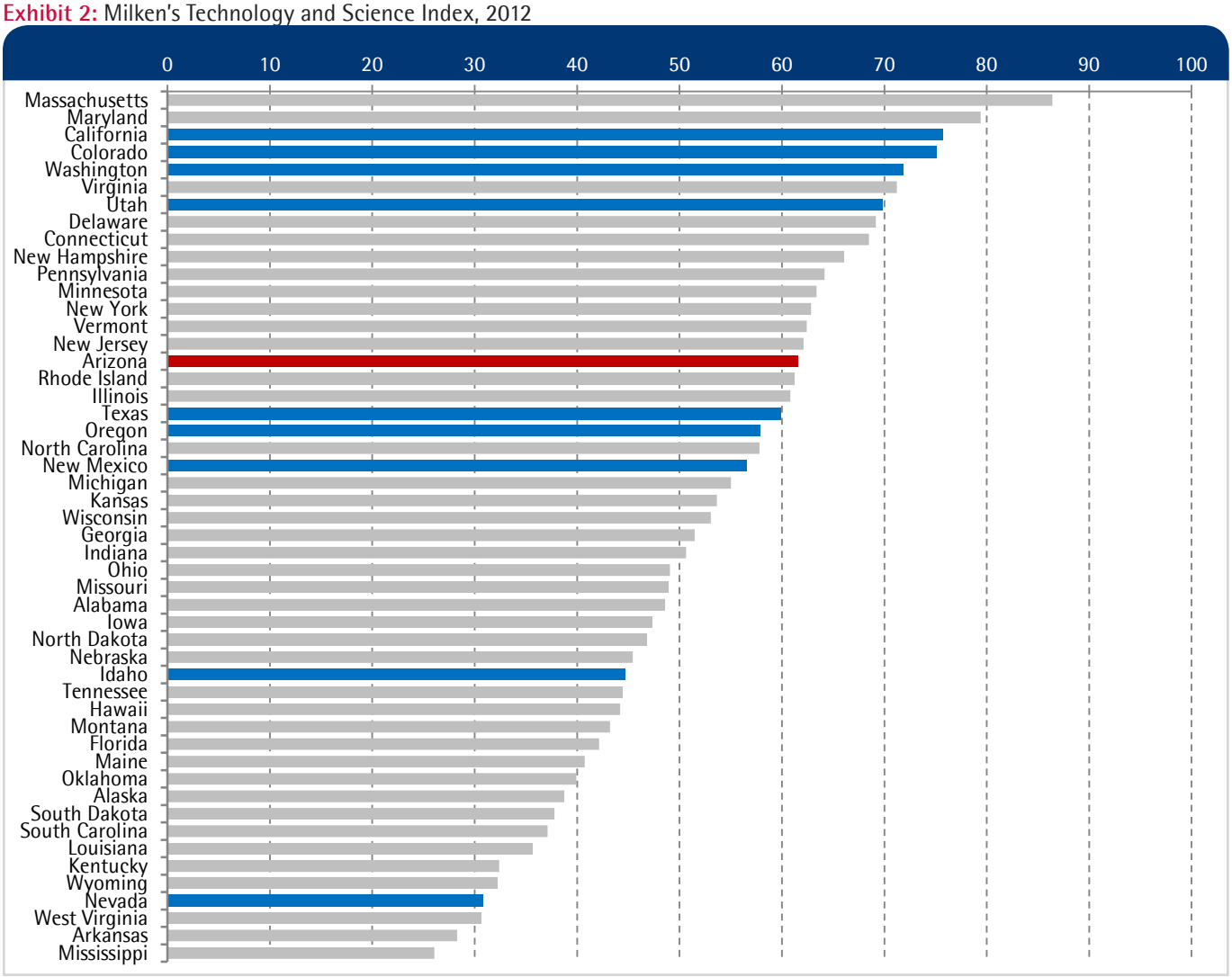
Arizona's Achilles heel is the Human Capital Investment component, where it ranks 30th. This index measures the skill levels of the current and future workforce, as measured by the number of bachelor's, master's and doctorate degrees relative to a state's population, and measures specific to science, engineering and technology degrees. Colorado, Utah, California, Washington, New Mexico, and Oregon are ranked higher. All Western states except for one have dropped in the rankings since 2004. Arizona dropped 5 places. Colorado dropped 4 places. California lost 3, Washington (down 13), New Mexico (down 12), and Oregon dropped 9 spots. Utah was the only state to improve, moving up 3 spots to an 8th ranking nationally. Arizona's high school students are average based on SAT scores, where they currently rank 28th on math and 30th on verbal. That is a pretty good result given Arizona's poor showing for state spending on student aid per capita (49th). Also ranking poorly is state appropriations for higher education per capita (47th and falling).

One might ask why Arizona ranks in the bottom half for human capital investment while it ranks highly at 11th on the technology and science work force index. The most plausible explanation is that Arizona has traditionally been able to attract talent from other states, which reduces the need to "educate our own." It's also possible that Arizona does a good job producing students with job-related tech skills even though funding is below average.

The Technology and Science index clearly shows that Arizona is indeed a player. It also shows that competition is stiff from other Western states with whom Arizona competes. From a policy standpoint, Arizona could improve its rankings the most by investing in education and thereby developing an even better workforce. ■

[i] *"State Technology and Science Index 2012: Enduring Lessons for the Intangible Economy," Milken Institute, April 10, 2013, http://statetechandscience.org/. Reports were issued covering 2012, 2010, 2008, and 2004.*

Exhibit 2: Milken's Technology and Science Index, 2012



Milken Institute's 2012 Best-Performing Cities Report Released

by Valorie Rice

The Milken Institute *Best-Performing Cities 2012: Where America's Jobs Are Created and Sustained* was released January 2013. The Institute has released the report annually since 1999 using an index they created that is derived from outcome-based measures such as employment and high-tech growth to track economic vitality of metropolitan areas. The 379 metropolitan areas it tracks are divided into two different lists – one has the 200 largest metropolitan areas, which for Arizona includes Phoenix and Tucson, and another for the 179 smaller metro areas, which contains the rest of Arizona metros included in the report.

Components of Index

The index uses outcome-based measures to rank cities, such as indicators for employment growth, wages and salaries, and growth in technology to show where jobs are being created and maintained. There are nine indicators used relating to job growth and high tech concentration, for which job growth receives the higher weight. The measures include growth in jobs, wages and salaries, and technology output (high-tech GDP) over a one year span, as well as a five year span to adjust for business cycles. It also looks at the latest 12-month job growth to account for recent vitality in the area. The final measures are comprised of high-tech location quotients. It does not look at any input factors such as housing, business costs or quality of life measures.

Arizona

Phoenix was the only metro area in Arizona to show improvement in rankings this year, moving to 122 in the list from 136 in 2011. This was buoyed by recent job growth. Despite ranking relatively well overall in terms of recent high-tech growth and concentration, Tucson moved down 38 places from a year ago to 150 thanks to anemic wages and job growth overall that has plagued most of the state in recent years. The three Arizona metropolitan areas that are included in the list of 179 small metros were all lower in the rankings this year compared to last. Flagstaff moved down the furthest, going from 57 to 123 while Yuma moved from 88 to 139 in the rankings. Prescott had the smallest change, going down just 17 places to 162.

Table 1 (A & B) shows the total ranking for Arizona metros as well as how they rank within each component of the index. All states were affected by the recent recession, but Arizona experienced exceptionally slow growth in employment

> *"Buoyed by recent job growth, Phoenix MSA moved up in the rankings to 122 in 2012 from 136 in 2011."*

Table 1A: Arizona's Metros Ranked According to Job Growth

2012 Rank	Overall	5-yr job growth 2006-2011	1-yr job growth 2010-2011	5-yr wages/salaries growth 2005-2010	1-yr wages/salaries growth 2009-2010	Short-term job growth (5/2011-5/2012)
OUT of 200						
Phoenix-Mesa-Glendale	122	176	57	152	180	45
Tucson	150	152	163	109	188	123
OUT of 179						
Flagstaff	123	116	126	49	105	174
Yuma	139	136	161	51	136	139
Prescott	162	177	157	147	175	98

Source: Milken Institute, January 2013.

"Metros with strong information technology and software clusters do well in 2012 survey. Metros reliant on service sectors fare the worst."

and wages, which is certainly a factor in the lower overall rankings. There are, however, some bright spots in the index. Job growth may not look good altogether, but every metro in the state ranked well for recent high-tech growth. Phoenix and Tucson also do well with high-tech GDP concentration (as compared to the national average) and with the number of high-tech companies relative to the nation. The recently released *State Technology and Science Index 2012**, also by the Milken Institute, shows that Arizona continues to do well with technology industries. We are 16th among all states overall (moving down one place from 2010) and rank near the top of all but one of the five components of the study. The state was among the biggest gainers in the technology and science workforce component of the index, which is seen in the metro rankings and bods well for Arizona looking forward.

Overall Rankings

San Jose rates as the best-performing city among large metros for 2012. This is the first time since 2001 that the San Jose metro area was at the top of the list. It had moved up from 51 last year while the leader for 2011, San Antonio, dropped to 22. Texas held four of the five top spots last year, but Austin is the only lone star metro to retain its top five ranking from one year to the next. The top five metros for 2012 are San Jose, Austin, Raleigh, Houston and Washington D.C. Logan, UT-ID was the top small metro for the second year in a row. Metros that have strong information technology and software clusters did well in this year's survey, rising to the top (or staying there); however, the metros that made the most significant gains were in primarily traditional manufacturing centers. Case in point is the metro area with the largest gain over the year: Holland-Grand Haven, Michigan went from 148 in 2011 to 40 in 2012. Areas reliant on service sectors tended to be among those that faired the worst. ■

To see the entire rankings and full report, go to: http://bestcities.milkeninstitute.org/.

**See "State Technology and Science Index 2012." Milken Institute. http://statetechandscience.org.*

Table 1B: Arizona's Metros Ranked According to High-tech GDP Growth

2012 Rank	Overall	5 -yr relative High-tech GDP growth 2006-2011	1-yr relative High-tech GDP growth 2010-2011	High-tech GDP concentration 2011	Number of high-tech industries (LQ>1) 2011
Out of 200					
Phoenix-Mesa-Glendale	122	124	54	56	84
Tucson	150	165	19	51	36
Out of 179					
Flagstaff	123	12	57	128	109
Yuma	139	2	35	145	148
Prescott	162	101	16	108	37

Source: Milken Institute, January 2013.

2011 County Business Patterns Report Released

by Valorie Rice

The Census Bureau released 2011 County Business Patterns data in April. County Business Patterns provides annual statistics on businesses in the U.S. with paid employees. It includes data on the number of establishments*, employment, and payroll by NAICS code. County Business Patterns also shows the number of establishments by employment-size classes, such as the number of establishments with one to four employees, or more than 1,000 employees. The strength of this series is that one can track industry-level data for state and sub-state areas over time. It covers most industries with the notable exclusions of government and businesses without employees (the Census has a separate report on Nonemployer Statistics). County Business Patterns has been produced consistently since 1964, using SIC until 1997 and switching to NAICS in 1998.

Total employment from all U.S. business sectors increased in 2011 to 113.4 million from 112 million in 2010, though the number of establishments decreased slightly for the fourth year in a row, now standing at 7.4 million. North Dakota gained the most employees in the nation followed by Nebraska, District of Columbia, Michigan, Texas and Arizona. Arizona was similar to the nation, in that there was an increase in employment, up 2.1 percent to 2,108,561, while the number of establishments decreased by 1.2 percent to 130,305.

The number of establishments in Arizona has decreased steadily since the peak in 2007 (see graph).Arizona has 127,160 business locations with less than 100 employees, which account for over 97 percent of all establishments in the state. As would be expected, Maricopa County has the largest share of establishments with 1,000 or more employees (table 1). All counties in Arizona had a decrease in the total number of establishments from 2010 to

** An establishment is a single physical location at which business is conducted or services or industrial operations are performed and is not necessarily identical with a company or enterprise, which may consist of one or more establishments. When two or more activities are carried on at a single location under a single ownership, the entire establishment is classified on the basis of its major activity and all data are included in that classification.*

Table 1: All Sectors Total Employees and Establishments by County

	Paid employees for pay period including March 12 (number)	Total Establishments	Number of establishments by employment-size class								
			1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000 or more
Arizona	2,108,561	130,305	71,154	24,052	16,683	11,392	3,879	2,180	630	206	129
Apache	7,219	467	232	102	68	41	14	6	3	1	0
Cochise	28,909	2,315	1,193	522	318	185	60	25	9	2	1
Coconino	44,547	3,529	1,952	652	475	316	81	44	4	3	2
Gila	11,413	1,017	596	199	140	51	11	13	6	1	0
Graham	8,633	512	253	120	71	50	10	3	3	1	1
Greenlee	2,170	75	42	17	10	1	4	-	0	0	1
La Paz	3,983	342	173	78	58	21	5	6	1	0	0
Maricopa	1,449,079	83,468	45,815	14,714	10,417	7,520	2,693	1,605	471	143	90
Mohave	39,743	3,600	1,931	758	491	299	77	31	9	3	1
Navajo	16,982	1,742	991	365	223	125	24	7	6	1	0
Pima	300,956	20,059	10,484	3,978	2,756	1,807	627	297	65	30	15
Pinal	44,197	3,199	1,793	612	419	244	74	26	22	7	2
Santa Cruz	10,588	1,128	636	242	136	83	19	10	2	0	0
Yavapai	50,662	5,495	3,403	1,004	616	323	86	48	9	5	1
Yuma	39,826	2,897	1,403	634	451	286	72	38	8	3	2
Statewide, AZ*	49,654	460	257	55	34	40	22	21	12	6	13

*Those employers without a fixed location within a state (or of unknown county location) are included under a "statewide" classification at the end of the county tables.

"Employment in Education posted a 33.4% increase, the largest of all sectors."

2011 with one exception. Greenlee County had an increase of 2 establishments over the year, bringing the number to 75. Even so, it is still the county with the smallest number of establishments as well as employees. Maricopa County accounts for over 68 percent of employees in the state with 1,449,079.

The Arizona industry that saw the largest growth in employment between 2010 and 2011 was educational services, which posted a 33.4 percent increase, due primarily to gains in Maricopa County (table 2). The second largest gain in employment for Arizona was the sector that grew the largest nation-wide. The mining, quarrying, and oil and gas extraction industry had a 7.2 percent increase in Arizona and a 12 percent increase in the U.S. overall. Arizona industries that shed the most employees over the year were real estate, rental and leasing (-6.7 percent) and arts, entertainment, and recreation (-5.1 percent). Utilities gained the most establishments over the year, with a 4.9 percent increase in the number of physical locations, while construction lost the most establishments (-5.4 percent). Gaging the increase in employment for utilities is difficult as the exact employment figures were suppressed for 2010. This is done to prevent the disclosure of the operations of any individual employer. A downfall with using the County Business Patterns for Arizona is that detailed data for the smaller counties may often be suppressed for the same reason.

To access County Business Patterns data, go to http://www.census.gov/econ/cbp/. Data for 1998 to 2011 are available online for the US, states, counties and ZIP Codes. Older reports are available under the 'Historical Data' tab on the link above. ■

Graph 1: The Number of Establishments Has Declined Since 2007

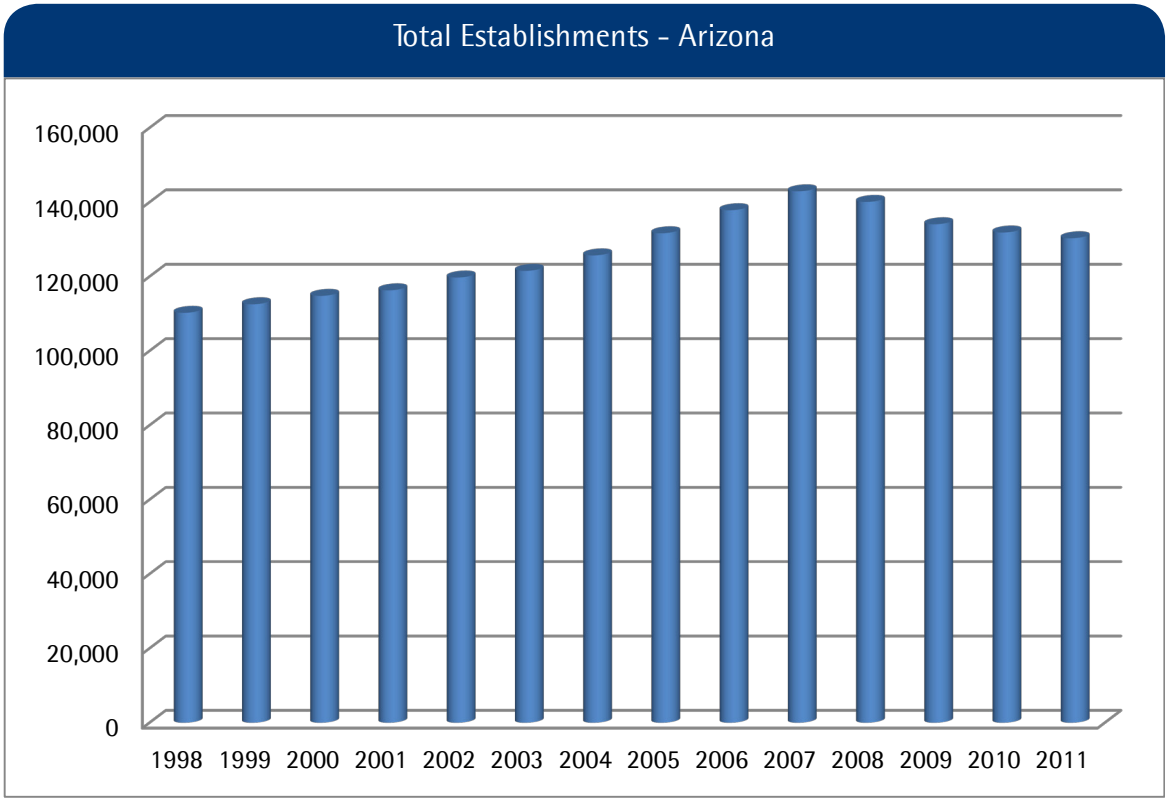


Table 2: 2011 County Business Patterns: Total for All Sectors

ARIZONA		2011 County Business Patterns		2010 County Business Patterns		Percent change 2010-2011	
NAICS code	NAICS code description	Paid employees for paid period including March 12 (number)	Total establishments	Paid employees for paid period including March 12 (number)	Total establishments	Paid employees for paid period including March 12 (number)	Total establishments
-----	Total for all sectors	2,108,561	130,305	2,065,224	131,849	2.10	-1.17
11---	Agriculture, forestry, fishing and hunting	1,359	189	1,285	188	5.76	0.53
21---	Mining, quarrying, and oil and gas extraction	11,160	254	10,414	243	7.16	4.53
22---	Utilities	12,498	278	j	265		4.91
23---	Construction	116,992	11,438	120,663	12,091	-3.04	-5.40
31---	Manufacturing	137,532	4,267	137,296	4,356	0.17	-2.04
42---	Wholesale trade	91,256	6,474	89,887	6,504	1.52	-0.46
44---	Retail trade	306,972	17,794	304,179	17,993	0.92	-1.11
48---	Transportation and warehousing	75,115	3,108	70,110	3,065	7.14	1.40
51---	Information	50,521	2,044	51,567	2,060	-2.03	-0.78
52---	Finance and insurance	129,576	9,036	125,436	9,452	3.30	-4.40
53---	Real estate and rental and leasing	39,171	7,857	41,992	7,953	-6.72	-1.21
54---	Professional, scientific, and technical services	128,576	16,173	126,771	16,263	1.42	-0.55
55---	Management of companies and enterprises	41,237	856	42,895	892	-3.87	-4.04
56---	Administrative and support and waste management & remediation services	208,372	8,011	206,078	8,219	1.11	-2.53
61---	Educational services	75,040	1,972	56,233	1,907	33.44	3.41
62---	Health care and social assistance	314,612	16,395	308,087	16,400	2.12	-0.03
71---	Arts, entertainment, and recreation	40,407	1,734	42,571	1,695	-5.08	2.30
72---	Accommodation and food services	246,722	11,555	235,702	11,438	4.68	1.02
81---	Other services (except public administration)	81,243	10,672	81,205	10,661	0.05	0.10
99---	Industries not classified	c	198	c	204		-2.94

c=100-249 employees, j=1,000-24,999 employees

Forecast and Indicator Tables

Contents

>>Keeping Current

Arizona's Economy is published quarterly by the Economic and Business Research Center in the Eller College of Management. For continuous updates of Arizona's economic indicators, check out our website's *Indicators* page:

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There you can browse indicators by geography or topic, graph each series by clicking on the series title, and download the latest data from tables into .CSV or text files by clicking an icon at bottom of each table.

TABLES: SOURCES AND ABBREVIATIONS

ADHS: Arizona Department of Health Services
ADOA: Arizona Department of Administration, Office of Employment and Population Statistics
ADOR: Arizona Department of Revenue
ADOT: Arizona Department of Transportation
ARMLS: Arizona Regional Multiple Listing Service
ASPB: Arizona State Parks Board
BEA: Bureau of Economic Analysis, U.S. Department of Commerce
BLS: Bureau of Labor Statistics, U.S. Department of Labor
Census C-40: U.S. Census Bureau, U.S. Department of Commerce
Micropolitan SA: Micropolitan Statistical Area must have at least one urban cluster of at least 10,000, but less than 50,000 inhabitants.
EBR: The Economic and Business Research Center, The University of Arizona.
MSA: Metropolitan Statistical Area must have at least one core urbanized area of 50,000 or more inhabitants.
PSHIA: Phoenix Sky Harbor International Airport
SAAR: Seasonally adjusted at annual rates
TAR: Tucson Association of Realtors
U.S. Bankruptcy Court: District of Arizona
USCBP: U.S. Customs and Border Protection, U.S. Department of Homeland Security

* All Aggregate Retail Sales figures reported by EBR include retail, food, restaurant & bars and gasoline sales.
Source: Economic and Business Research Center, Eller College of Management, The University of Arizona.

Forecast Tables

Arizona	2012	2013	2014	2015	2016	2017
Personal Income ($mill)	235,781	245,432	260,027	275,844	293,336	312,347
% change	3.7%	4.1%	6.0%	6.1%	6.3%	6.5%
Retail Sales ($mill)	81,092	84,247	87,655	92,238	97,679	102,983
% change	4.8%	3.9%	4.1%	5.2%	5.9%	5.4%
Non Farm Employment (000s)	2,460.3	2,513.7	2,584.4	2,677.0	2,776.1	2,869.2
% change	2.0%	2.2%	2.8%	3.6%	3.7%	3.4%
Population (000s)	6,498.6	6,566.7	6,661.0	6,778.0	6,907.0	7,038.0
% change	0.9%	1.1%	1.4%	1.8%	1.9%	1.9%
Residential Permits (units)	21,842	23,754	35,310	47,256	53,088	54,184
% change	63.0%	8.8%	48.7%	33.8%	12.3%	2.1%

Phoenix-Mesa-Glendale MSA	2012	2013	2014	2015	2016	2017
Personal Income ($mill)	163,579	170,549	181,503	193,085	206,256	221,795
% change	4.2%	4.3%	6.4%	6.4%	6.8%	7.5%
Retail Sales ($mill)	55,686	57,952	60,948	64,570	68,898	73,760
% change	4.4%	4.1%	5.2%	5.9%	6.7%	7.1%
Non Farm Employment (000s)	1,757.1	1,800.9	1,860.9	1,932.2	2,011.9	2,099.9
% change	2.4%	2.5%	3.3%	3.8%	4.1%	4.4%
Population (000s)	4,273.9	4,328.3	4,393.8	4,472.1	4,569.2	4,683.4
% change	1.1%	1.3%	1.5%	1.8%	2.2%	2.5%
Residential Permits (units)	15,881	18,681	24,895	33,753	40,125	45,932
% change	74.9%	17.6%	33.3%	35.6%	18.9%	14.5%

Tucson MSA	2012	2013	2014	2015	2016	2017
Personal Income ($mill)	35,800	37,031	38,908	40,985	43,428	46,230
% change	3.5%	3.4%	5.1%	5.3%	6.0%	6.5%
Retail Sales ($mill)	12,034	12,440	12,782	13,196	13,810	14,453
% change	5.1%	3.4%	2.8%	3.2%	4.7%	4.7%
Non Farm Employment (000s)	360.8	365.0	371.8	380.1	390.1	399.9
% change	1.5%	1.2%	1.9%	2.2%	2.6%	2.5%
Population (000s)	990.4	996.8	1,006.8	1,019.9	1,036.4	1,053.6
% change	0.4%	0.7%	1.0%	1.3%	1.6%	1.7%
Residential Permits (units)	2,828	3,432	4,448	5,319	6,237	6,405
% change	26.1%	21.4%	29.6%	19.6%	17.3%	2.7%

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Arizona Economic Indicators

Arizona Summary (monthly data)	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force (seas. adj.), BLS	3,038,346	3,038,872	3,031,362	3,024,444	
Unemployment Rate (seas. adj.), BLS	8.0	7.9	7.9	7.9	
Total Nonfarm Employment (000s, Seas. Adj.), BLS	2,488.8	2,489.3	2,495.9	2,494.6	2,498.8
Private	2,061.2	2,067.9	2,084.6	2,088.7	2,098.5
Government	413.1	426.6	425.6	426.5	416.5
Average Hourly Earnings - Total Private, BLS	22.74	22.73	22.57	22.85	22.85
Aggregate Retail Sales ($000), EBR	6,668,052.5	6,872,796.6	7,757,900.9	7,049,983.9	
New Residential Permits (units), Census C-40	1,780	1,635	1,832	2,428	
Arizona Summary - (quarterly data)	**2012 Q1**	**2012 Q2**	**2012 Q3**	**2012 Q4**	**2013 Q1**
Population* (seas. adj,), ADOA & EBR	6,475,922	6,491,020	6,507,675	6,524,794	
% Chg from Year Ago	0.8%	0.9%	1.0%	1.0%	
Natural Increase, ADHS/EBR	8,098	8,144	11,342	9,218	
Birth Rate (per 1,000), ADHS & EBR	12.9	12.4	13.8	13.1	
Net Migration, ADHS & EBR	7,000	6,954	6,871	6,808	
Total Personal Income ($, SAAR), BEA	232,100	235,559	235,304	240,160	
% Chg from Year Ago	2.9%	3.8%	3.5%	4.8%	
Per Capita Pers. Inc. ($ mil, SAAR), BEA & EBR	35,840	36,290	36,158	36,807	
Civilian Nonag Wage Rate, ($, SAAR), BEA	47,911	48,207	48,126	48,336	
All Transactions House Price Index, FHFA	237.6	241.0	250.5	258.2	263.7
% Chg from Year Ago	-2.3%	4.1%	6.9%	8.1%	11.0%

*Population numbers are based on ADOA annual estimates through July 2011, EBR then makes quarterly middle of quarter estimates and projections.
SAAR: seasonally adjusted annual rate

Inflation and Prices	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
U.S. Consumer Price Indices (seas. adj.), BLS					
All Urban Consumers: All Items	231.2	232.8	232.3	231.5	231.8
% Chg from Year Ago	1.6%	2.0%	1.5%	1.1%	1.4%
Western States - All Urban Consumers: All items	232.8	234.6	235.5	235.5	236.0
% Chg from Year Ago	1.7%	2.0%	1.5%	1.3%	1.3%
U.S. Producer Price Index: All Commodities (seas. adj.), BLS	202.5	204.3	204.1	203.6	204.2
% Chg from Year Ago	0.9%	1.3%	-0.1%	-0.1%	1.1%

Arizona Economic Indicators - MSAs

Phoenix-Mesa-Glendale, MSA, Summary - Monthly	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013
Civilian Labor Force, BLS	2,042,749	2,054,739	2,045,764	2,038,155	2,028,980
Unemployment Rate, BLS	6.8	7.2	6.7	6.7	6.6
Total Nonfarm Employment (000s), BLS	1,803.6	1,774.5	1,785.4	1,799.3	1,801.7
Private	1,562.9	1,538.5	1,543.5	1,558.1	1,560.0
Government	240.7	236.0	241.9	241.2	241.7
Average Hourly Earnings, Total Private, $, BLS	23.49	23.46	23.46	23.24	23.42
Aggregate Retail Sales ($000s), EBR & ADOR	5,661,952	4,617,900	4,764,967	5,377,737	4,841,695
Total New Residential Permits (units), Census C-40	1,959	1,297	1,176	1,302	1,887
Phoenix-Mesa-Glendale MSA, Summary - Annual	**2008**	**2009**	**2010**	**2011**	**2012**
Population, ADOA*	4,167,019	4,186,131	4,200,427	4,227,601	4,273,897
% Chg from Year Ago	2.0%	0.5%	0.3%	0.7%	1.1%
Total Personal Income ($000), BEA	156,755,410	146,163,794	149,093,883	157,026,115	
% Chg from Year Ago	2.4%	-6.8%	2.0%	5.3%	
Average Wage per Job, $, BEA	45,455	45,753	46,311	47,599	
% Chg from Year Ago	1.7%	0.7%	1.2%	2.8%	
Consumer Price Index (Phx-Mesa-Glndle MSA) All Urban Consumers: All items, BLS	119.264	117.568	118.227	121.483	124.197
% Chg from Year Ago	3.5%	-1.4%	0.6%	2.8%	2.2%

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Tucson MSA, Summary - Monthly	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013
Civilian Labor Force, BLS	461,445	461,755	461,128	456,716	457,665
Unemployment Rate	6.8	7.3	6.7	6.8	6.7
Total Nonfarm Employment (000s), BLS	369.4	362.0	365.7	366.1	368.4
Private	287.7	283.9	284.0	284.5	286.7
Government	81.7	78.1	81.7	81.6	81.7
Average Hourly Earnings, Total Private, $, BLS	22.49	22.23	22.22	22.30	22.48
Aggregate Retail Sales ($000), EBR & ADOR	1,193,200	949,392	998,856	1,120,701	1,030,845
Total New Residential Permits (units), Census C-40	228	291	319	327	301
Tucson MSA, Summary - Annual	**2008**	**2009**	**2010**	**2011**	**2012**
Population, ADOA*	984,032	984,274	981,168	986,081	990,380
% Chg from Year Ago	0.7%	0.0%	-0.3%	0.5%	0.4%
Total Personal Income ($000), BEA	35,067,808	32,977,680	33,277,952	34,596,360	
% Chg from Year Ago	6.0%	-6.0%	0.9%	4.0%	
Average Wage per Job, $, BEA	40,646	40,748	41,304	42,398	
% Chg from Year Ago	3.5%	0.3%	1.4%	2.7%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Arizona Economic Indicators - MSAs

Flagstaff MSA (Coconino County) Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	71,245	71,357	70,906	71,448	70,904
Unemployment Rate	8.7	8.0	8.1	7.7	7.1
Total Nonfarm Employment (000s), ADOA	60.9	61.8	62.3	63.2	63.2
Private	41.5	41.6	42.0	42.9	43.9
Government	19.4	20.2	20.3	20.3	19.3
Average Hourly Earnings, Total Private, $, BLS	17.32	17.16	16.80	16.85	
Total New Residential Permits (units), Census C-40	20	13	22	28	
Gross Retail Sales ($000), EBR & ADOR	151,007	156,155	190,509	183,259	

Flagstaff MSA (Coconino County) Summary - Annual Data	2008	2009	2010	2011	2012
Population, ADOA*	132,864	133,626	134,679	134,162	134,313
% Chg from Year Ago	0.27%	0.57%	0.79%	-0.38%	0.11%
Total Personal Income ($000), BEA	4,539,992	4,448,866	4,446,722	4,620,811	
% Chg from Year Ago	7.14%	-2.01%	-0.05%	3.91%	
Average Wage per Job, $, BEA	35,866	36,512	37,186	37,927	
% Chg from Year Ago	1.63%	1.8%	1.85%	1.99%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Lake Havasu City - Kingman MSA (Mohave County) Summary - Monthly	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	84,336	84,203	83,701	83,789	82,579
Unemployment Rate	10.4	9.6	9.6	9.5	8.9
Total Nonfarm Employment, (000s), ADOA	44.0	44.7	45.0	45.3	44.8
Private	36.3	36.6	36.8	37.2	37.2
Government	7.7	8.1	8.2	8.1	7.6
Average Hourly Earnings, Total Private, $, BLS	17.16	16.93	17.14	17.52	
Gross Taxable Sales ($000), EBR & ADOR	185,859	185,668	211,292	202,785	
Total New Residential Permits (units), Census C-40	23	35	32	33	

Lake Havasu City - Kingman MSA (Mohave County) Summary - Annual	2008	2009	2010	2011	2012
Population, ADOA*	200,063	200,235	200,099	200,417	203,072
% Chg from Year Ago	0.49%	0.09%	-0.07%	0.16%	1.32%
Total Personal Income ($000), BEA	5,301,938	4,987,333	5,072,506	5,290,530	
% Chg from Year Ago	4.61%	-5.93%	1.71%	4.3%	
Average Wage per Job, $, BEA	33,337	32,809	33,621	34,342	
% Chg from Year Ago	3.3%	-1.58%	2.47%	2.14%	

Arizona Economic Indicators - MSAs

Prescott MSA (Yavapai County) Summary - Monthly	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	91,089	90,862	89,826	90,129	89,386
Unemployment Rate	9.2	8.4	8.3	8.2	7.6
Total Nonfarm Employment (000s), ADOA	54,900	55,700	55,900	56,100	56,200
Private	44.7	44.9	45.2	45.3	45.8
Government	10.2	10.8	10.7	10.8	10.4
Average Hourly Earnings, Total Private, $, BLS	16.40	16.93	17.15	17.17	
Gross Taxable Sales ($000), EBR & ADOR	227,415	220,768	252,540	250,241	
Total New Residential Permits (units), Census C-40	66	50	77	50	

Yuma MSA (Yuma County) Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, BLS	91,747	90,346	88,719	91,315	
Unemployment Rate	26.5	25.6	25.9	30.3	
Total Nonfarm Employment (000s), ADOA	51.6	52.4	52.3	51.0	49.8
Private	36.8	37.0	36.9	35.7	34.6
Government	14.8	15.4	15.4	15.3	15.2
Average Hourly Earnings, Total Private, $, BLS	21.07	21.74	21.17	20.76	
Gross Taxable Sales ($000s), EBR & ADOR	201,218	200,312	229,844	186,776	
New Residential Permits (units), Census C-40	59	28	36	58	

Arizona Economic Indicators - Counties

Apache County Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	21,501	21,177	20,918	21,073	20,976
Unemployment Rate	20.3	19.3	19.3	19.3	18.0
Total Nonfarm Employment (000s), ADOA	18,075	18,150	18,175	18,400	18,550
Total Private	7,275	7,225	7,300	7,425	7,575
Government	10,800	10,925	10,875	10,975	10,975
Gross Taxable Sales ($000s), EBR & ADOR	19,458	24,537	22,034	20,764	

Cochise County (Sierra Vista - Douglas Micropolitan SA) Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Total Civilian Labor Force, ADOA	57,798	57,686	57,125	57,160	57,188
Unemployment Rate	8.8	8.1	8.3	8.3	7.8
Total Nonfarm Employment, ADOA	35,350	35,875	36,000	36,100	36,125
Total Private	23,375	23,500	23,725	23,825	23,950
Government	11,975	12,375	12,275	12,275	12,175
Gross Taxable Sales ($000), EBR & ADOR	165,599	181,754	161,139	164,572	

Gila County (Payson Micropolitan SA) Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	22,564	22,290	22,107	22,327	22,373
Unemployment Rate	9.8	9.1	9.2	9.1	8.3
Total Nonfarm Employment, ADOA	14,450	14,500	14,575	14,775	14,900
Private	9,400	9,425	9,475	9,600	9,600
Government	5,050	5,075	5,100	5,175	5,300
Gross Taxable Sales, ($000), EBR & ADOR	44,958	47,416	21,183	47,102	

Graham County Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Total Civilian Labor Force, ADOA	14,441	14,496	14,368	14,384	14,248
Unemployment Rate	8.7	8.1	8.0	8.1	7.5
Total Nonfarm Employment, ADOA	8,550	8,825	8,875	8,900	8,800
Total Private	5,725	5,775	5,825	5,850	5,825
Government	2,825	3,050	3,050	3,050	2,975
Gross Retail Sales ($000), EBR & ADOR	25,788	27,405	29,651	28,291	

Greenlee County Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Total Civilian Labor Force, ADOA	4,164	4,177	4,143	4,131	4,102
Unemployment Rate	7.0	6.3	6.3	6.0	5.6
Total Nonfarm Employment, ADOA	3,850	3,900	3,925	3,950	3,925
Total Private	3,325	3,325	3,350	3,375	3,375
Government	525	575	575	575	550
Gross Taxable Sales ($000), EBR & ADOR	41,233	43,952	37,234	54,390	

Arizona Economic Indicators - Counties

La Paz County Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Civilian Labor Force, ADOA	7,498	7,489	7,334	7,412	7,476
Unemployment Rate	10.4	9.3	9.5	9.2	8.3
Total Nonfarm Employment, ADOA	4,850	5,050	5,075	5,200	5,150
Total Private	2,650	2,675	2,800	2,825	2,800
Government	2,200	2,375	2,275	2,375	2,350
Gross Taxable Sales (000$), EBR & ADOR	27,464	20,850	23,407	18,271	

Navajo County (Show Low Micropolitan SA) Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Total Civilian Labor Force, ADOA	39,409	39,188	38,798	39,126	38,963
Unemployment Rate	15.9	15.2	15.2	15.0	13.7
Total Nonfarm Employment, ADOA	27,100	27,400	27,475	27,875	28,100
Total Private	17,225	17,225	17,300	17,775	18,075
Government	9,875	10,175	10,175	10,100	10,025
Gross Taxable Sales ($000), EBR & ADOR	99,040	90,843	102,828	104,529	

Santa Cruz County Summary - Monthly Data	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013
Total Civilian Labor Force, ADOA	17,772	17,570	17,352	17,401	17,296
Unemployment Rate	17.5	16.7	16.7	16.6	15.5
Total Nonfarm Employment, ADOA	12,700	12,825	12,800	12,875	12,925
Private	8,725	8,800	8,775	8,850	8,875
Government	3,975	4,025	4,025	4,025	4,050
Gross Taxable Sales ($000), EBR & ADOR	42,142	46,453	54,752	32,843	

THE UNIVERSITY OF ARIZONA.
July, 2013 | Summer Issue
Eller COLLEGE OF MANAGEMENT

ARIZONA'S ECONOMY

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