THE UNIVERSITY OF ARIZONA
October, 2014 | Fall Issue
Eller COLLEGE OF MANAGEMENT

ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

A Long and Winding Road: The Arizona 30-Year Outlook

By George W. Hammond, Ph.D., EBR Director and Research Professor

September 1, 2014

Arizona's economic growth slowed during the spring of 2014, with job growth falling back to the U.S. average. Nonetheless, the state economy continues to expand and growth is likely to continue as long as the nation avoids recession. Indeed, the forecast calls for Arizona's growth to pick up speed during the 2015-2017 period, with gains across most indicators far exceeding national results.

The near-term acceleration is eventually replaced by long-term deceleration, as the aging of the baby boom generation weighs down gains. Again, it is important to keep in mind that Arizona is likely to continue to outpace the nation. The long-term projections call for the state's population to rise by 3.9 million during the next 30 years, accompanied by an additional 1.8 million jobs.

Arizona Recent Developments

Arizona's year-over-year job growth softened in the spring of 2014, falling from 2.4% in the first quarter to 1.9% in the second. Statewide job growth in the second quarter fell back to the national rate, something we have not seen since early 2012 (Exhibit 1).

The slowdown in the second quarter was driven by slower over-the-year job gains across most of the service-providing sectors combined with a sharp drop in government jobs and a modest decline in construction employment. The decline in government jobs reflected a large drop in the state and local sector (particularly in education), as well as fewer federal employees.

The recent weakness in construction job growth is a continuation of a trend that emerged during the second half of 2013 and reflects slowing growth in residential construction activity. Housing permits in Arizona increased by 57.5% between the second half of 2011 and the second half of 2012. However, by the second half of 2013 that growth rate had dropped to -2.5%. This was driven by a decline in multi-family permits, although single-family permit growth slowed as well.

There is some hopeful news in the housing permit data in the first half of 2014,

Exhibit 1: Arizona's Job Growth Decelerated in the Spring

IN THIS ISSUE

Exhibit 2: Arizona Long-Run Forecast Summary

	2004	2014	2024	2034	2044
Population (000s)	5,726	6,669	7,975	9,254	10,515
Nonfarm Jobs (000s)	2,385	2,570	3,302	3,871	4,382
Personal Income ($Bil)	171	254	446	738	1,210
Retail Sales ($Bil)	66	89	138	207	313

"Personal income increases in the next 30 years reflecting a rising standard of living."

with a rebound in the volatile multi-family sector. This primarily reflects increased activity in the Phoenix MSA. In contrast, single family permits have continued to weaken statewide. Overall, the recovery in housing permit activity during the first half of 2014 suggests that related construction employment should recover modestly as building activity begins on permitted projects.

Arizona Outlook in the Long Run

The long-run forecast, which extends to 2044, calls for the state to add jobs and residents at a faster pace than the nation. As **Exhibit 2** shows, Arizona's population is forecast to rise by 3.9 million during the next 30 years, to 10.5 million residents. That translates into an increase of 57.7% during the 30-year period. Similarly, state jobs rise by 1.8 million, reaching 4.4 million in 2044. Personal income also increases during the next 30 years, reflecting both the impact of inflation and a rising standard of living. By 2044, nominal personal income is expected to exceed $1.2 trillion dollars. Rising income translates into rising retail sales, which reach $313 billion by the end of the forecast period.

Exhibit 3 shows the outlook for job growth in Arizona, compared to the nation. As the exhibit shows, Arizona's job growth accelerates in the near term. However, after peaking in 2017, job growth gradually decelerates during the remaining years of the forecast. This reflects the aging of the baby-boom generation, which will reduce growth across a range of indicators in coming years. Indeed, the forecast calls for job growth to average 1.8% per year from 2014-2044, which is less than half the state's average growth rate during the 30 years before the Great Recession (4.1% per

Exhibit 3: Arizona Outpaces U.S. Job Growth in the Long Run

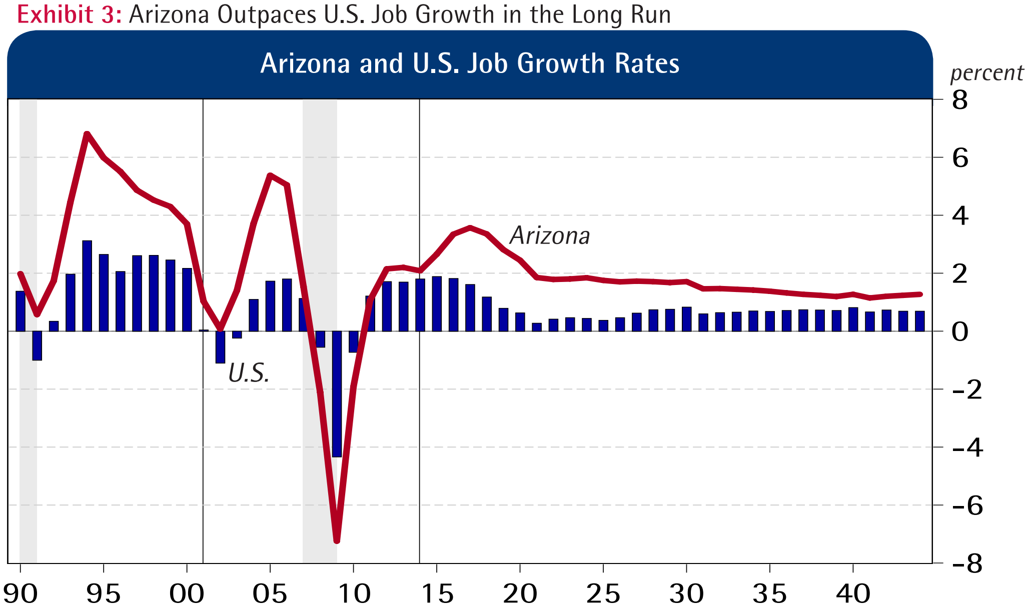
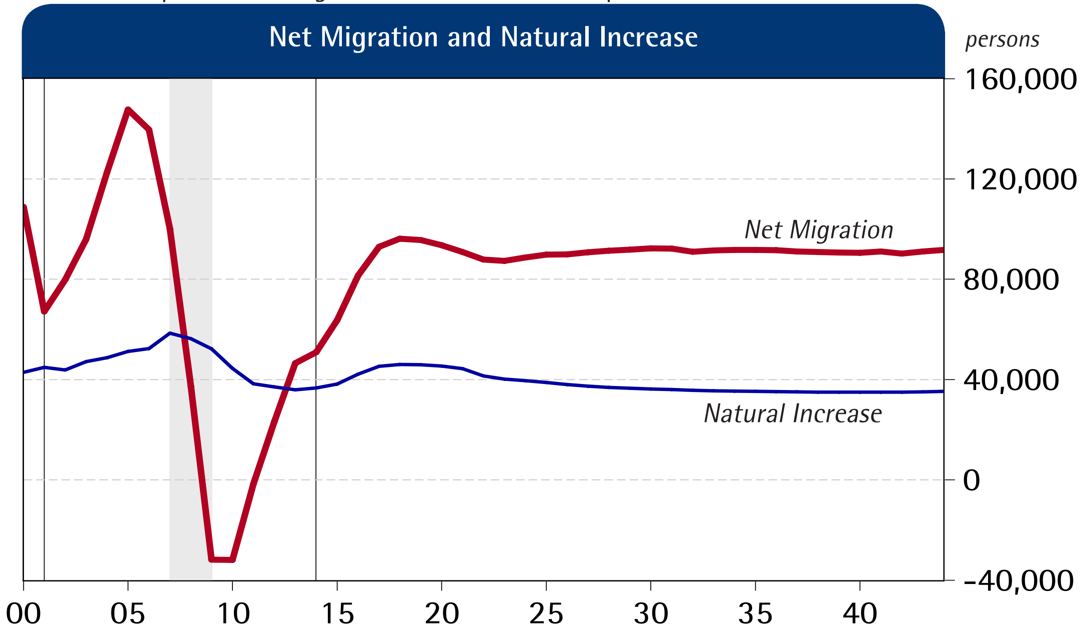


Exhibit 4: Improved Net Migration Boosts Arizona's Population Growth



year). Nonetheless, Arizona's job growth is expected to outpace the national average by a substantial margin.

Steady job gains will contribute to personal income growth by generating gains in wages and fringe benefits. The state's income growth will also receive a boost from increased asset income (dividends, interest, and rent) as well as transfer payments. The forecast calls for transfer payments, which include Social Security, Medicare, Medicaid, and other welfare transfers, to account for 30.9% of personal income by 2044, up from 20.4% in 20.3% in 2014.

The forecast calls for Arizona's population to rise at an average rate of 1.5% per year during the next 30 years. Growth is stronger in the near term, as accelerating net migration and a modest improvement in natural increase (births minus deaths) both contribute to growth (Exhibit 4). However, after 2018 net migration plateaus and natural increase loses steam, pulling Arizona's population growth down with it. Declining natural increase reflects the coming demographic aging, which drags down births and boosts deaths. Even with slowing growth during the long-run, Arizona will continue to outpace national population growth.

Arizona's population growth accelerates in the near term. This reflects faster national growth and rising house prices, which boosts residential mobility across the U.S., and net migration into the state. Rising population growth drives up residential construction activity, with housing permits increasing to 55,000 by 2018, from the 28.000 range in 2014.

(For more forecast data please turn to page 11.......)

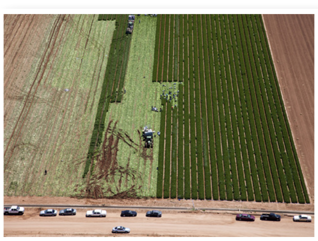
> *"Arizona's population growth accelerates. Faster national growth and rising house prices boost residential mobility across the U.S. and net migration into the state. Rising population growth drives up residential construction activity, with housing permits increasing to 55,000 by 2018."*

The Changing Face of Agriculture in Arizona

By Valorie H. Rice, Senior Business Information Specialist

"The number of acres being farmed in Arizona has remained essentially unchanged but both the number of farmers and the number farms in Arizona grew by a startling 28% between 2007 and 2012."

The U.S. Department of Agriculture released the 2012 Census of Agriculture in May. Much like the economic census conducted by the Census Bureau, the U.S. Department of Agriculture (USDA) produces an agricultural census every five years (those ending in 2 or 7), allowing us a look at the demographics, economics, and production practices of our nation's farms. The Census Bureau conducted the Census of Agriculture from 1840 to 1996 at which time the responsibility was transferred to the National Agricultural Statistics Service within the USDA.



Highlights

There were 33,613 farmers in Arizona operating 20,005 farms on 26.2 million acres in 2012. While the number of acres being farmed in Arizona has remained essentially unchanged during this time frame, both the number of farmers and the number farms in Arizona grew by a startling 28% between 2007 and 2012 while the total number of farmers in the U.S. actually declined by 3% and the number of farms decreased 4%. This interesting result is driven by the fact that average farm size in Arizona has been shrinking. The average farm in Arizona was 3,645 acres in 2002, and by 2012 this figure had declined by 64% to 1,312 acres. Farms and ranches in most western states are typically much larger when compared to the nation. The average farm size in the U.S. in 2012 was 424 acres. Thus, when compared to the nation, farm size in Arizona is still relatively large, in fact, Arizona is 6th in terms of average farm size, behind only Wyoming, Montana, New Mexico, Nevada and South Dakota.

The demographics of farm ownership in Arizona also differ remarkably from national trends. Nearly 40% of farms in Arizona now have a principal operator who is female compared to 14% nationally. Also, the percentage of farms in Arizona headed by American Indian or Alaska Natives is vastly larger than the national figure - while only 2% of farms in the U.S. have a principal operator who is American Indian, this group comprises 56% of farm operators in Arizona.

Apache County has the largest number of farms in the state with 5,591 farms, followed by Navajo (3,846), Maricopa (2,479), and Coconino (2,239). Taken together, the counties of Apache, Navajo and Coconino make up just over half of the number of farms in the state and consist primarily of small farms. Indeed, more than 90% of the farms in Coconino and Navajo counties are less than 50 acres. Statewide, the number of farms with 1 to 9 acres and 10 to 49 acres increased considerably between 2002 and 2012, growing 411% and 115%, respectively. The counties with the highest percentage of farms or ranches over 1,000 acres are Cochise and La Paz. Land in farms includes cropland, pasture, grazing, woodland and other (table 1).

Economics: Production, Sales and Workforce

Cattle, cotton and citrus have traditionally been important products for Arizona, making up three of the "Five C's" of Arizona's economy. They are still important, but now so are cantaloupe and cauliflower. The vegetables, melons, potatoes and sweet potatoes category of products rank highest in the state based on market value of agricultural products sold for 2012. Rounding out the top five products for the state: 2) milk from cows, 3) cattle and calves, 4) other crops and hay, and 5) nursery, greenhouse, floriculture, and sod. The top five commodities for the U.S. by market value are 1) grains, oilseeds, dry bean, and dry peas, 2) cattle and calves, 3) poultry and eggs, 4) milk from cows, and 5) fruits, tree nuts, and berries (**table 2**).

The county in Arizona with the highest total market value of agricultural products sold in the state is Maricopa followed closely by Yuma and Pinal. These three counties together comprise 78% of the $3,732,113,000 total value of agricultural products sold in the state. Milk from cows is the top commodity group for Maricopa by value of sales while for Pinal it is cattle and calves. Yuma County has the largest value of sales for vegetables as well as the most acreage in vegetable crops. In fact, Yuma ranks fourth out of all U.S. counties producing vegetable crops and second for lettuce crops when comparing both acreage and value of sales (**table 3**).

Of the $3,732,113,000 in farm sales for Arizona in 2012, 56% is from crop sales and 44% from livestock. While the market value of products sold increased for the state as a whole by 15% between 2007 and 2012, the average per farm declined from $206,852 in 2007 to $186,559 in 2012. Once production expenses are factored in, the average net cash income per farm is $30,012 in Arizona, down from $37,344 in 2007.

Farm workers make up a miniscule percentage of all U.S. employment and are not counted in most employment reports. Farm labor comprises total hired farm workers, including paid family members. Employment data are broken out by the number of days worked. There were 2,736,417 hired farm workers in the U.S. in 2012, the majority of which were found in California, Washington, and Texas. Arizona

"The vegetables, melons, potatoes and sweet potatoes category of products rank highest in the state based on market value of agricultural products sold for 2012."

Table 1: Arizona Farms by Size

	Total farms	1 to 9 acres	10 to 49 acres	50 to 179 acres	180 to 499 acres	500 to 999 acres	1,000 or more acres
Arizona	20,005	11,911	4,082	1,517	882	513	1,100
chg from 2002	12711	9580	2182	403	218	66	262
% chg from 2002	174.3	411.0	114.8	36.2	32.8	14.8	31.3
Apache	5,591	3,531	1,257	372	196	55	180
Cochise	1,093	182	297	232	137	56	189
Coconino	2,239	1,803	257	72	22	16	69
Gila	195	73	55	33	8	7	19
Graham	412	162	91	57	37	24	41
Greenlee	159	22	62	30	21	17	7
La Paz	125	17	27	35	10	11	25
Maricopa	2,479	1,495	601	147	94	66	76
Mohave	335	130	68	35	22	30	50
Navajo	3,846	3,094	416	124	81	42	89
Pima	855	431	248	66	30	26	54
Pinal	938	348	182	105	89	95	119
Santa Cruz	236	41	84	42	23	8	38
Yavapai	940	399	258	115	45	33	90
Yuma	562	183	179	52	67	27	54

Table 2: Market Value of Agricultural Products Sold for Arizona, Ranked by Sales

Item	Farms	Sales ($1,000)	Rank by Sales	Percent of Total Sales
Total Sales	20,005	3,732,113		100.0
Vegetables, melons, potatoes, and sweet potatoes	1,750	765,062	1	20.5
Milk from cows	104	762,957	2	20.4
Cattle and calves	3,364	700,307	3	18.8
Other crops and hay	1,287	425,203	4	11.4
Nursery, greenhouse, floriculture, and sod	453	315,548	5	8.5
Grains, oilseeds, dry beans and dry peas	2,015	(D)	6	(D)
Cotton and cottonseed	388	224,486	7	6.0
Fruits, tree nuts, and berries	966	(D)	8	(D)
Poultry and eggs	922	(D)	9	(D)
Hogs and pigs	354	(D)	10	(D)
Horses, ponies, mules, burros, and donkeys	1,954	31,801	11	0.9
Sheep, goats, wool, mohair, and milk	4,250	11,276	12	0.3

Table 3: Arizona Farms by County – Acreage and Sales

	Number of Farms	Total Acres	Sales ($1,000)
Arizona	20,005	26,249,195	3,732,114
Apache	5,591	5,597,672	24,194
Cochise	1,093	916,672	149,998
Coconino	2,239	5,815,557	25,812
Gila	195	1,189,016	3,752
Graham	412	1,251,228	170,885
Greenlee	159	52,358	9,737
La Paz	125	(D)	183,243
Maricopa	2,479	475,898	1,003,475
Mohave	335	1,244,343	30,184
Navajo	3,846	4,323,178	64,515
Pima	855	(D)	97,287
Pinal	938	1,174,727	927,737
Santa Cruz	236	214,930	14,658
Yavapai	940	824,506	41,628
Yuma	562	214,675	985,009

has 29,245 hired farm workers, 45% of which work fewer than 150 days in the year.

Demographics: Who are the Farmers?

The number of farmers declined by 3% nationally between 2007 and 2012, while in Arizona the number grew by 28% in the same time frame. This result is most likely driven by the rising number of smaller farms. Along with the rise in the number of farmers, the demographics of farm operators in Arizona differs from the nation as a whole. The average age of the principal operator on farms in Arizona is 61, three years older than the U.S. average of 58 and they have been in the farming business an average of 27 years compared to 25 years nationally. Aside from being more experienced, farmers in Arizona are more likely to be female and American Indian. Nearly 40% of farms in Arizona have a principal operator who was female compared to 14% nationally. The percentage of farms in Arizona headed by American Indian or Alaska Natives is vastly larger than the nation – while only

2% of farms in the U.S. have a principal operator who are American Indian, 56% of farms in Arizona have operators from this demographic. The number of Hispanics as principal operators of farms in Arizona is 4%, similar to the 3% found nationally (table 4).

Arizona followed the same pattern as the nation where farming is now a primary occupation for the person chiefly responsible for the operation of a farm or ranch business. Interestingly, the number of farm operators listing farming as their primary occupation, meaning the number of primary operators who spend 50% or more of their work time farming or ranching, rose between 2007 and 2012 for both Arizona and the U.S. The percent of operators who report having no days of work off the farm for Arizona went from 43% in 2007 to 46% in 2012. Many times, farms do not produce enough income for households to depend solely on earnings from farm operation, so fewer farmers and ranchers having to work off the farm may speak to an increased ability on the part of operators to make a living at farming.

Trends and Practices

The 2012 Census of Agriculture examines many varied aspects of farming and ranching. Here are a few of the interesting trends and practices which emerged. The use of renewable energy producing systems in 2012 is up by 144% nationally compared to 2007. Arizona has 794 farms with

"In 2012, nearly 40% of Arizona's farms had a female principal operator compared to 14% nationally, while 56% had principle operators who were American Indian compared to 2% nationally."

Table 4: Arizona Farms by Operator Demographic

	Total farm operations	Farms with female principal operators	Farms with male principal operators	Percent female principal operators	Percent Hispanic principal operators	Percent American Indian principal operators	Average years in farming business
US	2,109,303	288,264	1,821,039	13.7	3.2	1.8	25.0
Arizona	20,005	7,835	12,170	39.2	3.6	55.9	26.5
Apache	5,591	2,806	2,785	50.2	0.5	95.5	29.6
Cochise	1,093	251	842	23.0	9.9	0.8	20.4
Coconino	2,239	1,127	1,112	50.3	0.5	89.2	29.9
Gila	195	46	149	23.6	5.1	19.0	27.6
Graham	412	49	363	11.9	4.1	14.3	25.3
Greenlee	159	17	142	10.7	8.2	–	23.9
La Paz	125	12	113	9.6	26.4	32.0	20.6
Maricopa	2,479	747	1,732	30.1	6.8	2.8	22.9
Mohave	335	99	236	29.6	3.6	12.8	22.1
Navajo	3,846	1,791	2,055	46.6	0.7	90.0	29.1
Pima	855	307	548	35.9	7.5	6.0	22.2
Pinal	938	208	730	22.2	8.6	6.7	21.5
Santa Cruz	236	58	178	24.6	14.4	0.4	18.7
Yavapai	940	262	678	27.9	2.2	1.7	22.3
Yuma	562	55	507	9.8	16.0	0.7	24.2
Average age of principal operator:		U.S.	Arizona				
		58.3	61.1				

"The use of renewable energy producing systems in 2012 is up by 144% nationally compared to 2007. Arizona has 794 farms with renewable energy producing systems, 739 of which report having solar panels."

renewable energy producing systems, 739 of which report having solar panels. Other renewable energy systems Arizona farmers report using are wind turbines (135), biodiesel (17), and other (38).

When it comes to computer use by farmers and ranchers, Arizona is the least wired state. Only 45% of farms in the state have internet access compared to 70% nationwide. Alaska has the smallest number of farms but the highest percentage of internet access at 85%, a full 40 percentage points higher than Arizona. Of the Arizona farms which have internet, most use DSL or satellite services.

In 2012, 6% of farms in Arizona sold products directly to individuals for human consumption, by means of farmers markets and pick-your-own sites and the like. Two percent marketed products directly to retailers. The number of farms producing and selling value-added products (such as fruit jams, cider, and wine) increased by 32% rising from 326 in 2007 to 429 in 2012.

The availability of organic produce has become increasingly important to the consumer in recent years. In 2012, Arizona had 75 farms producing commodities in accordance with the USDA's National Organic Program; most of these farms are found in Pima and Maricopa counties. These farms had total organic product sales of $54,503,000 in 2012, accounting for almost 2% of total farm sales for the state. California is the state with the largest number of organic farms, with 3,008, out of the U.S. total of 14,326. The state with the highest percentage of total sales coming from certified or exempt organically produced commodities is New Hampshire, with 8%. California is seventh with 3% and Arizona is in ninth place. Organically grown commodities account for less than one percent of agricultural commodities nationally. Unfortunately, the methodology for reporting organic commodity production in 2012 is different than it was in 2007, and so the results are not directly comparable. This makes it difficult to estimate growth in this market since the 2007 Census of Agriculture.

"Between 2007 and 2012, the number of farmers declined by 3% nationally while in Arizona the number grew by 28% as the number of smaller farms rose. The demographics of Arizona's farm operators shows an average age of 61 compared to the national age of 58, with 27 years of experiece compared to the national average of 25. Forty percent of Arizona's principle operators are women, and 56% are American Indian compared to the national average of 14% and 2% respectively. Arizona's farmers are turning to renewalble energy and getting wired. Organic produce now accounts for over $54 million in sales."

MAP: Making Action Possible for Southern Arizona

By Jennifer Pullen, Research Economist

The MAP Dashboard, set to come online this December, aims to measurably improve Southern Arizona through data driven collective civic action and education. MAP provides users with indicators on our region's progress, as well as access to the latest information and research.

Specifically, MAP measures how Southern Arizona is performing across six key areas of interest: Economy, Education, Health & Social Well-Being, Infrastructure, Quality of Place, and Workforce & Demographics. Southern Arizona's performance in these areas is then compared to trends in key cities and states across the Western region. MAP will measure progress and inspire action by putting reliable local and regional data at your fingertips, even more it is powered by the University of Arizona's Economic and Business Research Center.

2014 Annual Economic Outlook Luncheon Friday, December 12, 2014

Save the date for the Annual Economic Outlook Luncheon at the Westin La Paloma in Tucson! Join us for lunch as EBRC Director George W. Hammond and Chase Chief Economist Anthony Chan serve up the latest forecast for Arizona and the nation for 2015 and beyond... Registration and details coming soon.

New University of Arizona App

Real-time Economic Data for Arizona in a New UA App!

Search on "Arizona's Economy" in the iTunes App Store or Google Play and download the new *Arizona's Economy* mobile app for your iphone, ipad, or android phone today.

>>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:

http://azeconomy.eller.arizona.edu/az_indicators/

There you can browse indicators by geography or topic and graph each series by clicking on the series title.

If you wish to be notified each quarter when a new issue of *Arizona's Economy* becomes available, please send an email to *EBRPublications.eller.arizona.edu* with your name and contact information. Please put "subscribe" in the header line. We do not share our mailing list.

Forecast Tables

Arizona	2012	2013	2014	2015	2016	2017
Personal Income ($ mil)	237,513	244,004	253,833	266,487	281,910	301,327
% Chg from Year Ago	3.6%	2.7%	4.0%	5.0%	5.8%	6.9%
Retail Sales ($ mil)	81,339	85,918	88,954	92,418	96,986	102,230
% Chg from Year Ago	4.7%	5.6%	3.5%	3.9%	4.9%	5.4%
Total Nonfarm Employment (000s)	2,463.4	2,517.4	2,569.7	2,637.8	2,726.0	2,823.1
% Chg from Year Ago	2.1%	2.2%	2.1%	2.7%	3.3%	3.6%
Population, July 1st estimates	6,498,569.0	6,581,054.0	6,668,530.0	6,770,467.0	6,894,100.0	7,032,308.0
% Chg from Year Ago	0.9%	1.3%	1.3%	1.5%	1.8%	2.0%
Residential Housing (units)	21,726	25,209	27,819	35,267	47,178	53,327
% Chg from Year Ago	67.0%	16.0%	10.4%	26.8%	33.8%	13.0%

Phoenix-Mesa-Scottsdale MSA	2012	2013	2014	2015	2016	2017
Personal Income ($mil)	164,547	170,343	178,737	188,569	199,994	214,245
% Chg from Year Ago	4.1%	3.5%	4.9%	5.5%	6.1%	7.1%
Retail Sales ($mil)	55,825	59,769	62,495	65,460	69,197	72,998
% Chg from Year Ago	4.5%	7.1%	4.6%	4.7%	5.7%	5.5%
Total Nonfarm Employment (000s)	1,762.9	1,813.1	1,863.4	1,917.6	1,984.4	2,060.7
% Chg from Year Ago	2.6%	2.8%	2.8%	2.9%	3.5%	3.8%
Population (000s),July 1st estimates	4,273.9	4,338.7	4,405.9	4,481.1	4,565.6	4,673.7
% Chg from Year Ago	1.1%	1.5%	1.6%	1.7%	1.9%	2.4%
Residential Permits (units)	15,967	18,737	21,806	28,531	39,739	42,829
% Chg from Year Ago	75.8%	17.3%	16.4%	30.8%	39.3%	7.8%

Tucson MSA	2012	2013	2014	2015	2016	2017
Personal Income ($ mil)	36,059	36,626	37,867	39,469	41,549	44,115
% Chg from Year Ago	3.2%	1.6%	3.4%	4.2%	5.3%	6.2%
Retail Sales ($ mil)	12,069	12,389	12,624	12,887	13,392	14,025
% Chg from Year Ago	5.2%	2.7%	1.9%	2.1%	3.9%	4.7%
Total Nonfarm Employment (000s)	358.8	361.4	365.0	370.9	378.8	388.8
% Chg from Year Ago	1.5%	0.7%	1.0%	1.6%	2.1%	2.6%
Population (000s), July 1st estimates	990.4	996.0	1,002.7	1,012.3	1,024.2	1,039.7
% Chg from Year Ago	0.4%	0.6%	0.7%	1.0%	1.2%	1.5%
Residential Permits (units)	2,841	3,491	3,362	4,027	5,214	5,768
% Chg from Year Ago	26.7%	22.9%	-3.7%	19.8%	29.5%	10.6%

>>Need More?

Do you need more detailed and comprehensive forecast data and analysis? Learn about the benefits of becoming a Forecasting Project sponsor. Forecasting Project sponsorship allows your company or organization to access an in-depth menu of economic forecasting and consulting services, as well as, quarterly forecast update meetings. Contact Marshall Vest at mvest@eller.arizona.edu or call 520.621.4075.

The Forecasting Project is a community-sponsored research unit within the Economic and Business Research Center producing quarterly economic forecasts for Arizona and its metro areas. These forecasts are recognized as among the most accurate in the Western states.

Arizona Economic Indicators

Arizona Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force (seas. adj.), BLS	3,034,709	3,038,256	3,039,788	3,039,099	3,033,385
Unemployment Rate (seas. adj.), BLS	6.9	6.8	6.9	7.0	7.1
Total Nonfarm Employment (000s, Seas. Adj.), BLS	2,550	2,540	2,559	2,575	2,570
Private	2,147.9	2,146.5	2,143.9	2,145.3	2,155.4
Government	421.2	406.7	374.3	365.0	394.4
Average Hourly Earnings - Total Private, BLS	22.98	22.87	22.90	22.86	22.78
Gross Taxable Sales ($, accrual)*	8,668,287,481	8,424,048,384	8,689,987,151		
New Residential Permits (units), Census C-40	2,687	2,474	2,484	2,324	

*This figure does not include food or gasoline sales. Previous to this issue, EBRC published "Aggregate Retail Sales," a figure which did include EBRC's estimate of food sales and added in gasoline sales. "Gross Taxable Sales" covers all categories included in Arizona's "Transaction Privilege Tax."

Arizona Summary – Quarterly	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
Population*(seas. adj.), ADOA & EBR	6,550,122	6,570,743	6,592,820	6,616,005	6,637,695
% Chg from Year Ago	1.2%	1.2%	1.3%	1.3%	1.3%
Natural Increase, ADHS & EBR	6,714	8,041	10,914	10,171	7,652
Resident Birth Rate (per 1,000), ADHS & EBR	12.6	12.2	13.5	12.8	12.2
Net Migration, ADHS & EBR	13,906	12,572	12,618	12,666	12,891
Total Personal Income ($ mil, SAAR), BEA & EBR	239,549	244,378	245,280	246,811	249,027
% Chg from Year Ago	2.5%	3.1%	4.0%	1.3%	4.0%
Per Capita Pers. Income ($, SAAR), BEA & EBR	36,572	37,192	37,204	37,305	37,517.10
% Chg from Year Ago	1.4%	1.8%	2.7%	0.0%	2.6%
Civilian Nonag Wage Rate ($, SAAR)	48,380	49,045	48,774	48,745	48,914.50
% Chg from Year Ago	1.0%	1.7%	1.8%	-0.1%	1.1%
Arizona All Transactions House Price Index, FHFA	263.7	275.8	285.2	294.1	301.2
% Chg from Year Ago	11.4%	15.0%	14.4%	14.3%	14.2%

*Population numbers are based on ADOA annual estimates through July 2012 EBR then makes quarterly middle of quarter estimates and projections.
**EBR uses BEA income estimates combined with population numbers from ADOA to calculate per capita personal income.
Note: this differs from per capita personal income as calculated by BEA which uses Census population counts.
SAAR: seasonally adjusted annual rate

Inflation and Prices	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
U.S. Consumer Price Indices (seas. adj.), BLS					
All Urban Consumers: All Items	236.25	237.08	237.69	237.91	237.43
% Chg from Year Ago	2.0%	2.1%	2.1%	2.0%	1.7%
Western States - All Urban Consumers: All items	239.81	241.35	241.62	241.85	241.66
% Chg from Year Ago	1.8%	2.3%	2.3%	2.3%	2.1%
U.S. Producer Price Index: All Commodities (seas. adj.), BLS	208.30	208.00	208.30	208.00	206.80
% Chg from Year Ago	2.4%	1.9%	2.0%	1.8%	1.3%

Arizona Economic Indicators - MSAs

Phoenix-Mesa-Glendale MSA Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	2,061,391	2,065,225	2,072,333	2,076,841	
Unemployment Rate, ADOA	6.1	6.0	6.0	6.0	
Total Nonfarm Employment (000s), BLS	1,852.7	1,839.7	1,819.8	1,810.5	1,844.5
Private	1,612.8	1,612.3	1,612.8	1,611.4	1,621.2
Government	239.9	227.4	207.0	199.1	223.3
Average Hourly Earnings, Total Private, $, BLS	23.73	23.70	23.76	23.61	23.59
Gross Taxable Sales ($, accrual)*	6,143,644,660	6,138,183,577	6,116,822,168		
Total New Residential Permits (units), Census C-40	2,090	1,860	1,627	1,744	

*This figure does not include food or gasoline sales. Previous to this issue, EBRC published "Aggregate Retail Sales," a figure which did include EBRC's estimate of food sales and added in gasoline sales. "Gross Taxable Sales" covers all categories included in Arizona's "Transaction Privilege Tax."

Phoenix-Mesa-Glendale MSA Summary - Annual	2009	2010	2011	2012	2013
Population, ADOA*	4,186,131	4,200,427	4,227,601	4,273,897	4,338,672
% Chg from Year Ago	0.5%	0.3%	0.7%	1.1%	1.5%
Total Personal Income ($000), BEA	147,270,150	148,944,337	158,053,527	164,546,658	
% Chg from Year Ago	-4.8%	1.1%	6.1%	4.1%	
Per Capita Personal Income ($)**	35,456	35,384	37,171	38,006	
% Chg from Year Ago	-5.9%	-0.2%	5.1%	2.3%	
Consumer Price Index (Phx-Mesa-Glndle MSA) All Urban Consumers: All items, BLS	117.57	118.23	121.48	124.20	125.78
% Chg from Year Ago	-1.4%	0.6%	2.8%	2.2%	1.3%

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Tucson MSA (Pima County) Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force	452,530	453,403	450,940	452,676	447,600
Unemployment Rate	5.4	5.8	6.9	6.6	6.6
Total Nonfarm Employment (000s), BLS	368.1	367.0	357.1	357.5	360.5
Private	288.4	288.3	286.4	287.4	289.5
Government	79.7	78.7	70.7	70.1	71.0
Average Hourly Earnings, Total Private, $, BLS	22.05	21.76	21.67	21.71	21.50
Gross Taxable Sales ($, accrual)*	1,182,443,270	1,193,049,016	1,172,430,908		
Total New Residential Permits (units), Census C-40	313	294	344	309	

*This figure does not include food or gasoline sales. Previous to this issue, EBRC published "Aggregate Retail Sales," a figure which did include EBRC's estimate of food sales and added in gasoline sales. "Gross Taxable Sales" covers all categories included in Arizona's "Transaction Privilege Tax."

Tucson MSA (Pima County) Summary - Annual	2009	2010	2011	2012	2013
Population, ADOA*	984,274	981,168	986,081	990,380	996,046
% Chg from Year Ago	0.0%	-0.3%	0.5%	0.4%	0.6%
Total Personal Income ($000), BEA	33,573,864	33,766,590	34,931,620	36,058,871	
% Chg from Year Ago	-4.8%	0.6%	3.5%	3.2%	
Per Capita Personal Income ($), BEA**	34,414	34,389	35,371	36,335	
% Chg from Year Ago	-5.5%	-0.1%	2.9%	2.7%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Arizona Economic Indicators – MSAs

Flagstaff MSA (Coconino County) Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	71,030	70,651	73,035	73,086	71,828
Unemployment Rate	6.2	6.5	7.6	7.5	7.1
Total Nonfarm Employment (000s), ADOA	63.6	63.0	63.6	63.4	63.8
Private	43.5	44.2	44.9	45.1	45.1
Government	20.1	18.8	18.7	18.3	18.7
Average Hourly Earnings, Total Private, $, BLS	16.34	16.10	15.90	16.57	17.23
Gross Taxable Sales ($, accrual)	208,121,048	226,976,122	252,030,268		
Total New Residential Permits (units), Census C-40	22	19	255	63	
Flagstaff MSA (Coconino County) Summary – Annual	**2009**	**2010**	**2011**	**2012**	**2013**
Population, ADOA*	133,626	134,679	134,162	134,313	135,695
% Chg from Year Ago	0.6%	0.8%	-0.4%	0.1%	1.0%
Total Personal Income ($000), BEA	4,514,396	4,523,918	4,617,232	4,735,934	
% Chg from Year Ago	-1.7%	0.2%	2.1%	2.6%	
Per Capita Personal Income ($), BEA**	33,822	33,607	34,430	34,820	
% Chg from Year Ago	-2.84%	-0.6%	2.5%	1.1%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Lake Havasu City – Kingman MSA (Mohave County) Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	83,459	83,906	85,042	85,270	84,170
Unemployment Rate	7.6	7.6	8.6	8.3	8.2
Total Nonfarm Employment, (000s), BLS	45.4	45.5	45.3	45.7	46.0
Private	37.7	37.6	37.3	37.2	37.4
Government	8.2	8.2	7.9	8.1	8.5
Average Hourly Earnings, Total Private, $, BLS	19.74	19.62	19.09	19.62	19.66
Gross Taxable Sales ($, accrual)	213,389,121	219,447,916	212,662,027		
Total New Residential Permits (units), Census C-40	32	59	41	55	
Lake Havasu City-Kingman MSA (Mohave County)	**2009**	**2010**	**2011**	**2012**	**2013**
Population, ADOA*	200,235	200,099	200,417	203,072	203,592
% Chg from Year Ago	0.09%	-0.07%	0.16%	1.32%	0.26%
Total Personal Income ($000)	5,135,030	5,210,338	5,373,492	5,534,671	
% Chg from Year Ago	-3.08%	1.47%	3.13%	3%	
Per Capita Personal Income ($)**	25,714	26,002	26,524	27,220	
% Chg from Year Ago	-2.89%	1.12%	2.01%	2.62%	
Average Wage per Job ($)	32,700	33,605	34,334	35,501	
% Chg from Year Ago	-1.55%	2.77%	2.17%	3.4%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Arizona Economic Indicators - MSAs

Prescott MSA (Yavapai County) Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	91,700	91,289	91,611	91,468	91,332
Unemployment Rate	5.9	6.0	7.1	6.8	6.7
Total Nonfarm Employment (000s), ADOA	58.5	58.1	57.1	56.7	57.9
Private	47.5	47.5	47.1	47.0	47.3
Government	11.0	10.6	10.0	9.7	10.6
Average Hourly Earnings, Total Private, $, BLS	18.32	17.68	17.86	17.92	17.46
Gross Taxable Sales ($, accrual)	264,895,137	271,532,066	277,988,493		
Total New Residential Permits (units), Census C-40	74	70	78	62	
Prescott MSA (Yavapai County) Summary - Annual	**2009**	**2010**	**2011**	**2012**	**2013**
Population, ADOA*	211,917	210,899	211,247	211,583	213,294
% Chg from Year Ago	-0.3%	-0.5%	0.2%	0.2%	0.8%
Total Personal Income ($000), BEA	6,247,299	6,223,793	6,448,529	6,722,907	
% Chg from Year Ago	-5.0%	-0.4%	3.6%	4.3%	
Per Capita Personal Income ($)**	29,584	29,602	30,543	31,617	
% Chg from Year Ago	-5.0%	0.1%	3.2%	3.5%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Yuma MSA (Yuma County) Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	85,217	87,960	87,674	89,005	87,847
Unemployment Rate	24.0	26.6	27.0	29.3	28.0
Total Nonfarm Employment (000s), BLS	51.8	51.0	49.4	48.3	49.4
Private	36.6	36.0	35.1	34.8	34.9
Government	15.2	15.0	14.3	13.5	14.5
Average Hourly Earnings, Total Private, $, BLS	20.91	20.73	21.27	20.88	20.72
Gross Taxable Sales ($, accrual), ADOR	190,424,699	183,957,685	162,280,513		
New Residential Permits (units), Census C-40	55	60	45	43	
Yuma MSA (Yuma County) Summary - Annual	**2009**	**2010**	**2011**	**2012**	**2013**
Population, ADOA*	194,737	196,160	200,431	205,174	209,323
% Chg from Year Ago	0.5%	0.7%	2.2%	2.4%	2.0%
Total Personal Income ($000)	5,143,493	5,272,263	5,487,179	5,399,670	
% Chg from Year Ago	2.6%	2.5%	4.1%	-1.6%	
Per Capita Personal Income ($)**	26,552	26,792	27,385	26,995	
% Chg from Year Ago	1.3%	0.9%	2.2%	-1.4%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates. EBR considers the ADOA counts to be the most accurate.
** BEA per capita personal income is calculated using Census Bureau population counts.

Arizona Economic Indicators - Counties

Apache County Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	19,919	20,321	20,863	20,750	20,410
Unemployment Rate	15.9	16.1	17.8	17.7	16.5
Total Nonfarm Employment (000s), ADOA	18,025	18,350	18,250	18,125	18,425
Total Private	7,450	7,575	7,700	7,750	7,850
Government	10,575	10,775	10,550	10,375	10,575
Gross Taxable Sales ($ accrual), ADOR	19,701,897	23,156,176	26,808,626		

Cochise County (Sierra Vista – Douglas Micropolitan SA) Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	54,324	54,491	54,771	54,463	54,227
Unemployment Rate	7.5	7.9	8.9	8.7	8.3
Total Nonfarm Employment, ADOA	34,300	34,225	33,625	33,275	33,925
Total Private	22,400	22,325	22,175	22,175	22,275
Government	11,900	11,900	11,450	11,100	11,650
Gross Taxable Sales ($ accrual), ADOR	147,787,012	149,443,477	154,258,769		
New Residential Permits (units), Census C-40	17	8	12	4	

Gila County (Payson Micropolitan SA) Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Civilian Labor Force, ADOA	21,592	21,827	22,264	22,499	22,127
Unemployment Rate	7.5	7.7	8.6	8.3	8.2
Total Nonfarm Employment, ADOA	14,400	14,575	14,600	14,675	14,700
Private	9,225	9,275	9,450	9,475	9,425
Government	5,175	5,300	5,150	5,200	5,275
Gross Taxable Sales ($ accrual), ADOR	50,889,970	56,151,501	52,973,022		
New Residential Permits (units), Census C-40	6	8	5	2	

Graham County Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	16,348	16,366	16,430	16,453	16,265
Unemployment Rate	5.6	6.2	7.5	7.7	7.8
Total Nonfarm Employment, ADOA	8,800	8,700	8,525	8,400	8,625
Total Private	5,800	5,775	5,800	5,750	5,775
Government	3,000	2,925	2,725	2,650	2,850
Gross Taxable Sales ($ accrual), ADOR	31,373,060	31,731,145	27,983,434		

Greenlee County Summary – Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	4,864	4,874	4,876	4,878	4,800
Unemployment Rate	5.3	6.0	7.1	7.2	6.8
Total Nonfarm Employment, ADOA	6,425	6,400	6,200	6,225	6,075
Total Private	5,850	5,850	5,750	5,750	5,525
Government	575	550	450	475	550
Gross Taxable Sales ($ accrual), ADOR	37,777,407	40,314,743	46,773,870		

Arizona Economic Indicators - Counties

La Paz County Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	4,864	4,874	4,876	4,878	4,800
Unemployment Rate	5.3	6.0	7.1	7.2	6.8
Total Nonfarm Employment, ADOA	6,425	6,400	6,200	6,225	6,075
Total Private	5,850	5,850	5,750	5,750	5,525
Government	575	550	450	475	550
Gross Taxable Sales ($ accrual), ADOR	37,777,407	40,314,743	46,773,870		

Navajo County (Show Low Micropolitan SA) Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	37,043	37,634	38,190	37,670	37,653
Unemployment Rate	11.8	11.9	13.1	13.3	12.2
Total Nonfarm Employment, ADOA	27,325	27,650	27,275	26,725	27,550
Total Private	17,550	17,775	17,950	17,875	17,950
Government	9,775	9,875	9,325	8,850	9,600
Gross Taxable Sales ($ accrual), ADOR	110,854,266	126,228,236	132,703,040		
New Residential Permits (units), Census C-40	0	0	1	0	

Santa Cruz County Summary - Monthly	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014
Total Civilian Labor Force, ADOA	17,201	17,154	17,328	17,065	16,800
Unemployment Rate	13.1	13.3	15.2	17.5	17.5
Total Nonfarm Employment, ADOA	13,275	13,225	12,900	12,200	12,200
Private	9,350	9,275	9,075	8,500	8,325
Government	3,925	3,950	3,825	3,700	3,875
Gross Taxable Sales ($ accrual), ADOR	48,081,247	44,909,275	34,837,499		
New Residential Permits (units), Census C-40	1	0	5	3	

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.

ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

McClelland Hall, Room 103
P.O. Box 210108
1130 E. Helen Street
Tucson, AZ, 85721-0108

Phone: 520-621-2155
Fax: 520-621-2150
E-mail: ebrpublications@eller.arizona.edu

George W. Hammond, Ph. D.
Director
(520) 626-1679
ghammond@eller.arizona.edu

Alberta Charney, Ph.D.
Senior Research Economist
(520) 621-2291
acharney@eller.arizona.edu

Alan Hoogasian
Research Economist
(520) 626-6439
ahoogasi@eller.arizona.edu

Daniel Kinnear
Specialist, Business Research
(520) 626-1673
dkinnear@eller.arizona.edu

Pia Montoya
Database Specialist
(520) 621-2523
pmontoya@eller.arizona.edu

Maile L. Nadelhoffer
Research Economist & Webmaster
(520) 621-4050
mln@eller.arizona.edu

Vera Pavlakovich-Kochi, Ph.D.
Senior Regional Scientist & Associate Professor of Geography
(520) 626-0520
vkp@eller.arizona.edu

Heather Peterson
Technical Consultant
(520) 621-4050
thpeterson@comcast.net

Jennifer Pullen
Research Economist
(520) 626-4795
jkanipe@email.arizona.edu

Valorie Rice
Senior Specialist, Business Information
(520) 621-2109
vrice@eller.arizona.edu

To subscribe to Arizona's Economy or other Economic and Business Research Publications, visit: ebr.eller.arizona.edu/subscribe/

Arizona's Economy, published quarterly by the Economic and Business Research Center at the Eller College of Management, is provided as an educational service by The University of Arizona. Correspondence should be addressed to EBR Publications, McClelland Hall Room 103, PO Box 210108, Tucson, Arizona 85721-0108.

Arizona's Economy is available online at: azeconomy.eller.arizona.edu
As part of The University of Arizona's public mission to improve quality of life for the people of Arizona and the nation, the Economic and Business Research Center is dedicated to providing Arizona citizens and decision makers with high quality economic data and objective forecasts and analyses.

>> Visit us online at ebr.eller.arizona.edu!

Thank you to our community sponsors for their ongoing support of Economic and Business Research Center programs.

Arizona Department of Transportation
Arizona Joint Legislative Budget Committee
Arizona Public Service Company
BBVA Compass
CBRE
City of Mesa
City of Phoenix
City of Tempe
City of Tucson
Cox Communications
Elliott D. Pollack and Company
JPMorgan Chase & Co.
Maricopa Association of Governments
Maricopa County
Pima Association of Governments
Pima County
Salt River Project
Tucson Electric Power Company

Special thanks to JPMORGAN CHASE & CO. for its ongoing support of the Economic and Business Research Center website!

ebr.eller.arizona.edu