

# ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

## Still in a Hole, But Making Progress: Fourth Quarter Forecast Update

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

December 1, 2013



**A**rizona is still working its way out of the hole created by the Great Recession, but we are making progress. The state is generating growth in jobs, income, retail sales, and population. But we are not out of the hole just yet. For instance, while state jobs are growing at a faster pace than nationally, we have replaced just 49% of the jobs lost during the downturn.

The forecast calls for Arizona to continue growing, and to outpace national growth for most indicators. In particular, the forecast implies that the state will replace all of the jobs lost during the Great Recession by 2015. If that turns out to be the case, it will have taken eight years for the state to get back on even terms. That is a testament to the severity of the downturn and the painful recovery.

### Recent Developments

U.S. real GDP rose by 2.8% in the third quarter of 2013, according to the advance estimate from the U.S. Bureau of Economic Analysis. That was faster than the 2.5% growth rate in the second quarter and the 1.1% growth rate in the first quarter. However, third quarter growth was still below the average growth rate during the 1929–2012 period of 3.3% per year. Overall, we have seen steady improvement in real GDP growth through 2013.

Of the 2.8% increase in real GDP in the third quarter, 1.04 percentage points came from consumption spending with most of that spending originating in the goods sector (both durables and nondurables) (**Exhibit 1**). Growth in consumer services was modest in the third quarter.

Investment spending contributed 1.45 percentage points to the third quarter growth rate, with particular strength in inventory accumulation. Removing inventory accumulation, real final sales of domestic product rose by 2.0% in the third quarter, slightly below the second quarter increase of 2.1%.

Residential investment continued its upward trajectory in the third quarter and nonresidential investment contributed as well, although to a lesser extent.

Net exports contributed 0.31 percentage points to growth, with gains in exports

helped along by a drop in imports during the quarter.

Finally, government spending was flat in the third quarter, with the (fourth consecutive) decline in federal spending roughly offset by an increase in state and local government expenditures.

### Arizona Job Growth Beats Nation

Arizona's year-over-year job growth continued to outpace the nation through August 2013, which is the most recent data available due to the federal shutdown. According to the latest EBR benchmark of employment estimates (to the March 2013 ES202 data) Arizona's year-over-year job growth has been at or above 2.0% each month this year. In contrast, national job growth has been between 1.5% and 1.7% on a year-over-year basis.

The state seasonally adjusted unemployment rate hit 8.3% in August 2013, up slightly from 8.0% in June and July. Arizona's unemployment rate was slightly above the national average of 7.3% in August.

### Housing Activity on the Mend

National housing activity slowed during the summer and Arizona followed suit. Total seasonally adjusted housing permits for the nation increased by 14.1% during

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“Arizona will continue growing and by 2015 will replace all the jobs lost during the great recession.”

the June–August period of 2013, compared to the summer of 2012. That was roughly one-half the percentage increase in 2012. In Arizona, total seasonally-adjusted housing permits during the June–August period of 2013 were up 7.2% on a year-over-year basis. That was far slower than the year-over-year increase in 2012 of 47.4%. The slowdown in Arizona was concentrated in single-family permits, although multi-family permit growth slowed during the summer as well. This slowdown may be related in part to labor shortages in construction and to high land prices in desirable areas. Housing permit activity in Phoenix and Tucson also decelerated during the summer of 2013, with the slowdown particularly evident for Phoenix.

Both building activity and house prices have increased at rapid rates recently. However, both remain well below peak levels. Indeed, state total housing permits in 2012 totaled 21,726, according to the Census Bureau. That was a 67.0% increase over 2011 and a 75.6% increase over 2010. Even so, housing

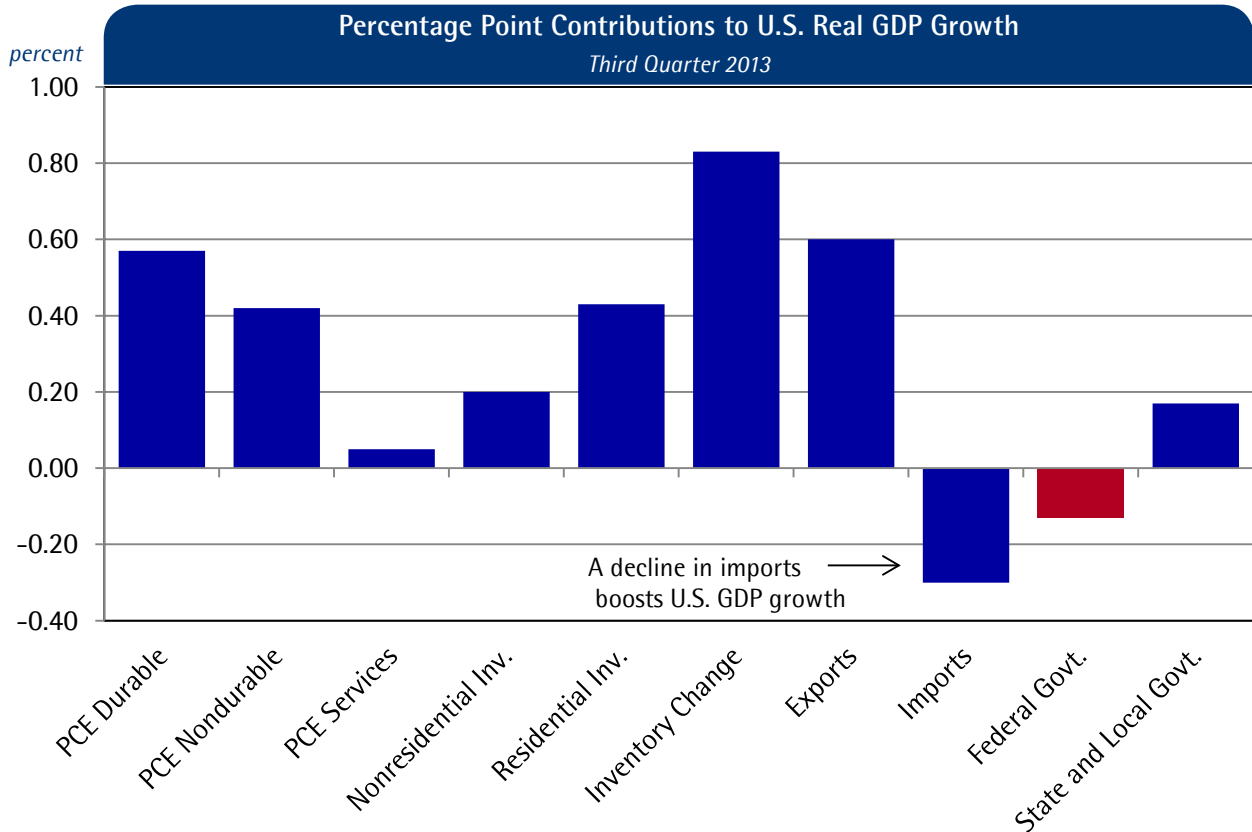
permits are at a very low level. Indeed, the last time Arizona housing permits were in the 22,000 range was the mid-1970s. Likewise, Phoenix house prices, measured by the Case-Shiller index, are up 41.2% from their bottom in September 2011. Even so, they are still 37.8% below the peak hit in June 2006.

### Outlook: The Nation Has Room to Grow

The national economy is expected to limp out of 2013, with weak real GDP growth in the fourth quarter of 1.6% at a seasonally adjusted annual rate. Slower growth in the fourth quarter is driven by the impact of the federal government shutdown and uncertainty about fiscal policy in general. Growth accelerates in 2014 and 2015 as the federal fiscal drag diminishes, nonresidential fixed investment (business equipment and structures) rebounds, the housing recovery continues, and world growth picks up momentum.



Exhibit 1: Inventory Accumulation Made a Big Contribution in the Third Quarter



Federal fiscal drag is expected to dissipate in 2014, although a portion of federal spending is expected to be sequestered again during FY2014 and emergency unemployment insurance benefits are assumed to be phased out beginning in 2014. Thus, federal spending is expected to be less of a drag, but will not contribute to growth.

The housing market is expected to continue its rebound, with national housing starts rising from 914,000 in 2013 to 1.6 million by 2016. Even so, that leaves starts 22.3% below their 2005 peak. The recovery in housing activity is driven by improvement in household growth, low interest rates, and gradually improving credit conditions. House prices continue to rise as well, although the rate of appreciation slows during the forecast.

Finally, the outlook for the world economy calls for gradually improving growth through 2015, as the Eurozone picks up steam and other important trading partners (like China, Brazil, Russia, and India) follow suit. This generates improved export performance through 2015, with is roughly

matched by growth in U.S. imports, driven by faster domestic income growth.

### Arizona Bounce on the Horizon

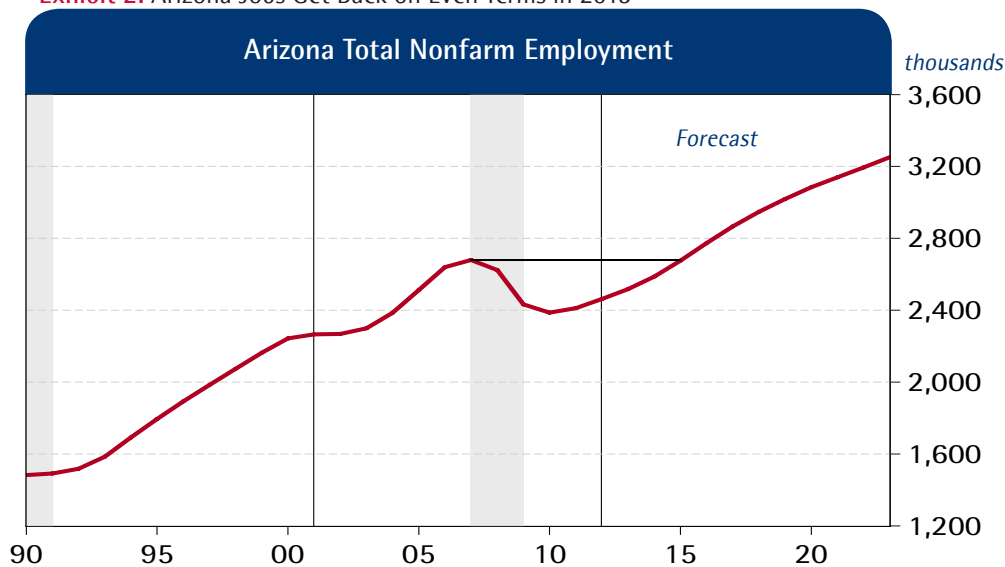
The outlook for Arizona is positive. The state is well positioned to grow and for growth to accelerate. This forecast hinges on reduced fiscal drag in 2014-2015, continuing improvement in the housing market that is tied to increased residential mobility, and stronger U.S. and world growth.

As **Exhibit 2** shows, Arizona is forecast to regain its previous employment peak in 2015. Since that previous high was achieved in 2007, the forecast implies that it will take eight years for the state to get back to even terms after the Great Recession. The national economy is currently forecast to replace all of the jobs lost during the Great Recession by 2014, one year earlier than Arizona. The national economy reaches its previous high before Arizona primarily because the national downturn was less severe. Indeed, from peak to trough during the Great Recession, Arizona jobs declined by 11.8%, compared to 6.3% for the nation. Thus, it takes Arizona longer to dig out of

“The outlook for Arizona is positive. The state is well positioned to grow and for growth to accelerate.”



**Exhibit 2:** Arizona Jobs Get Back on Even Terms in 2015





the Great Recession because the state fell into a deeper hole.

Personal income growth bounces back in 2014 after a weak 2013, reflecting less fiscal drag and stronger job growth. State personal income growth is forecast to rise from 3.2% in 2013, to 5.2%, and to 5.9% by 2015. That acceleration reflects stronger growth in earnings by place of work; dividends, interest, and rent, as well as transfer payments.

Retail sales growth follows the same pattern, but with a lag, so growth in 2014 slows but then accelerates in 2015 as faster income gains translate into additional consumption. Overall, retail sales growth is expected to be less than income growth during the forecast, which implies

continued erosion of the sales tax base relative to income.

Population growth also accelerates during the forecast, as residential mobility is assumed to rebound. This boosts net migration to the state and drives population growth up to 1.9% per year during the 2016–2017 period. That is much faster than the 1.2% growth rate forecast for 2013, but it is far below the average growth rate during the 1976–2012 period of 2.9% per year.

As population growth builds momentum in the near term, so does housing activity. Housing permits are forecast to rise from 24,362 in 2013 to 46,312 by 2015, and to 52,839 by 2016. This reflects growth in both single and multi-family permits.

*“Personal income growth will bounce back in 2014 with retail sales growth accelerating in 2015 as income gains translate into additional consumption. Population growth will accelerate as residential mobility rebounds, boosting net migration into the state and driving an increase in housing activity.”*

# Cluster Presence: How Does Metro Tucson Compare?

by Marshall J. Vest, EBR Director (Retired)

Metro Tucson has a significant presence in 11 nationally identified "traded" sub-clusters. Clusters are "geographically concentrated groups of interconnected companies, universities, and related institutions that arise out of linkages or

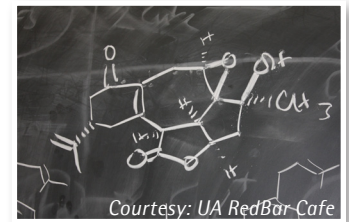
externalities across industries ." "Traded" clusters, which account nationwide for only about one-third of employment but register much higher wages, are industries that compete across regions. Porter<sup>1</sup> originally identified 41 traded clusters and recently added three more. The number of sub-clusters is several times larger.

Metro Tucson accounts for nearly 5.5% of all employees nationwide in the "missiles and space vehicles" sub-cluster. With some 17,500 employees, Tucson ranks number 1 in the nation for this activity. Other sub-clusters with significant activity (In order of number of employees) include hospitality and tourism; professional organizations and services; transportation and logistics; entertainment venues; engineering services; research organizations; medical equipment; software; search and navigation equipment; and optical instruments. With the exception of the latter, all have at least 1,000 employees and an above-average share of employment in that cluster.

Metro Tucson's list of cluster activities is noticeably short compared to the ten other peer metros identified as competitors by local economic developers. The ten

<sup>1</sup>Porter, Michael. "Cluster Mapping: A Primer." *Cluster Mapping; Powerful Tools for Economic Development*. Institute for Strategy and Competitiveness. Web. 25 Nov 2013. <[http://clustermapping.us/methodology/cluster-mapping-a-primer/?d-set=db\\_mode:close](http://clustermapping.us/methodology/cluster-mapping-a-primer/?d-set=db_mode:close)>.

“Clusters are “geographically concentrated groups of interconnected companies, universities, and related institutions that arise out of linkages or externalities across industries .” ”



Phoenix: Important Traded Clusters
computer programming
educational institutions
accommodations and related services
merchandise wholesaling
depository institutions
air transportation
security dealers and brokers
computer services
entertainment venues
search and navigation equipment
aircraft engines
catalog and mail order
research organizations
insurance products
electronic components and assembly
tourism related services
entertainment and related services
aircraft
facilities support services
baked packaged foods
ground transportation
automotive parts
plastic products
electronic components
process equipment sub-systems and components
missiles and space vehicles
furniture and fittings
furniture
irrigation systems
electrical and electronic components
packaged chemical products
biopharmaceutical products

Tucson: Important Traded Clusters
missiles and space vehicles
hospitality and tourism
professional organizations and services
transportation and logistics
entertainment venues
engineering services
research organizations
medical equipment
software
search and navigation equipment
optical instruments

**Albuquerque: Important Traded Clusters**

accommodations and related services  
 professional organizations and services  
 research organizations  
 engineering services  
 communications services  
 entertainment venues  
 electronic components and assemblies  
 final construction  
 depository institutions  
 search and navigation equipment  
 tourism related services  
 facilities support services  
 jewelry and precious metals products  
 surgical instruments and supplies

**Austin: Important Traded Clusters**

merchandise wholesaling  
 computer programming  
 engineering services  
 accommodations and related services  
 depository institutions  
 computer services  
 software  
 electronic components  
 catalog and mail order  
 electronic components and assemblies  
 entertainment venues  
 communications equipment  
 biopharmaceutical products  
 process instruments  
 surgical instruments and supplies  
 entertainment related services  
 marketing related services  
 primary construction materials  
 tourism related services  
 jewelry and precious metals products  
 mobile homes

**Dallas: Important Traded Clusters**

computer programming  
 merchandise wholesaling  
 depository institutions  
 aircraft  
 management consulting  
 computer services  
 tourism and related services  
 search and navigation equipment  
 communications services  
 plastic products  
 electronic components and assemblies  
 hydrocarbons  
 entertainment related services  
 wood cabinets, fixtures and other products  
 specialty foods and ingredients  
 tourism attractions  
 process machinery  
 motor vehicles  
 paper containers and boxes  
 jewelry and precious metals products  
 transportation vehicle and equipment distribution  
 furniture and fittings  
 other processed chemicals  
 educational facilities  
 refrigeration and heating equipment  
 video production and distribution  
 oil and gas machinery  
 milk and frozen desserts  
 packaged chemical products  
 ophthalmic goods  
 health and beauty products  
 mobile homes  
 pumps  
 paint and coating  
 wire and springs

**Dallas: Clusters continued...**

plumbing products  
 aircraft engines  
 precision metal products  
 prefabricated wood products  
 metal processing  
 flour

**Denver: Important Traded Clusters**

computer programming  
 professional organizations and services  
 engineering services  
 merchandise wholesaling  
 accommodations and related services  
 air transportation  
 securities brokers, dealers and exchanges  
 final construction  
 computer services  
 missiles and space vehicles  
 entertainment related services  
 entertainment venues  
 publishing  
 communications services  
 software  
 medical equipment  
 hydrocarbons  
 tourism related services  
 process equipment sub-systems and components  
 education facilities  
 malt beverages  
 plastic products  
 communications equipment  
 equipment distribution and wholesaling

metro areas in addition to Tucson are Phoenix, San Diego, Denver, Las Vegas, Albuquerque, Portland, Austin, Dallas, San Antonio, and Salt Lake City. Most of these peers are considerably larger than Tucson – many are twice the size – so it's understandable why Tucson's list is short. But it's also often argued that Tucson's economy is underdeveloped. Albuquerque for example, is roughly the same size, but has a presence in clusters that is 20% longer.

Metro Phoenix, with four times Tucson's population, has three times the number of significant sub-clusters than Tucson has. The list, headed by computer programming, includes some 32 categories. Educational institutions, accommodations, and merchandise wholesaling also are near the top of the list.

The metro Dallas complex, the largest peer, with a population over 6.7 million,

**Las Vegas: Important Traded Clusters**

- professional organizations and services
- ground transportation
- entertainment venues
- depository institutions
- engineering services
- final construction
- catalog and mail-order
- air transportation
- entertainment related services
- airports
- management consulting
- leather and related products
- plastic products
- equipment distribution and wholesaling
- baked packaged foods
- communications services
- signs and advertising specialties

has a presence in some 41 categories, led by computer programming, merchandise wholesaling, depository institutions, and aircraft. San Antonio's list includes 26 while Austin has 21.

San Diego, with a population exceeding 3.1 million, lists 32 categories. Research organizations heads the list and biopharmaceutical products enters the list at 17th. Denver has 24 clusters and Salt Lake City has 22. Portland has 26, Las Vegas 17, and Albuquerque has 14.

**Portland: Important Traded Clusters**

- merchandise wholesaling
- educational institutions
- management consulting
- accommodations and related services
- electronic components and assemblies
- securities brokers, dealers and exchanges
- insurance products
- baked packaged foods
- plastic products
- tourism related services
- laboratory instruments
- primary construction materials
- specialty foods and ingredients
- marketing related services
- food products wholesaling
- peripherals
- saw blades and handsaws
- dental instruments and supplies
- computers
- wood cabinets, fixtures and other products
- aircraft
- paper containers and boxes
- milk and frozen desserts
- farm management and related services
- electrical parts
- railroad equipment and rental

Clusters provide insights into what drives the economy at the national, state, and local levels. Cluster composition has been found to be an important factor in explaining growth potential, wage levels, and competitiveness. Understanding a region's cluster composition informs local economic developers' efforts to promote their economy.

**Salt Lake City: Important Traded Clusters**

- professional organizations and services
- merchandise warehousing
- depository institutions
- entertainment venues
- computer services
- tourism related services
- catalog and mail order
- securities brokers, dealers and exchanges
- engineering services
- search and navigation equipment
- medical equipment
- software
- communications services
- process equipment sub-systems and components
- plastic products
- biopharmaceutical products
- packaged chemical products
- dental instruments and supplies
- jewelry and precious metals products
- wood cabinets, fixtures and other products
- equipment distribution and wholesaling
- baked packaged foods

“Clusters provide insights into what drives the economy at the national, state, and local levels and can be an important factor in explaining growth potential, wage levels, and competitiveness. An understanding of a region's cluster composition can enhance local economic developers' efforts to promote their economy.”

San Diego: Important Traded Clusters
research organizations
merchandise wholesaling
professional organizations and services
computer programming
engineering services
software
securities brokers, dealers and exchanges
entertainment venues
aircraft
computer services
transportation arrangement and warehousing
tourism attractions
peripherals
electronic components
turbines and turbine generators
facilities support services
biopharmaceutical products
catalog and mail order
publishing
communications equipment
sporting and athletic goods
educational facilities
diagnostic substances
plastic products
printing services
baked packaged foods
process equipment sub-systems and components
specialty foods and ingredients
laboratory instruments
airports
plumbing products
metal manufacturing

San Antonio: Important Traded Clusters
final construction
professional organizations and services
depository institutions
transportation arrangement and warehousing
engineering services
tourism attractions
research organizations
management consulting
insurance products
computer services
airports
automotive parts
aircraft
communications services
baked packaged foods
wood cabinets, fixtures and other products
motor vehicles
footwear
facilities support services
entertainment related services
meat and related products and services
entertainment venues
plastic products
wood products wholesaling
educational facilities
refrigeration and heating equipment

# The Fresh Produce Industry in Nogales, Arizona: Economic Impacts and Challenges

by Vera Pavlakovich-Kochi, Ph.D.\* and Gary D. Thompson, Ph.D.\*\*



## An Industry with a Long Tradition

In a recent study funded by the Nogales - Santa Cruz County Economic Development Corporation,<sup>1</sup> the impact of the importation of fresh produce from Mexico was evaluated in the context of the local economy of Nogales and Santa Cruz County. The import of Mexican fresh produce through Nogales, Arizona's largest border port of entry, has a long tradition. For more than a century Nogales has served as the main gateway to North American markets for Sinaloa- and Sonora-grown tomatoes, squash, cucumbers, peppers, and other, mostly winter-harvested, vegetables. Annually, about 120,000 trucks cross the border bringing about \$2.5 billion worth of Mexican fresh produce (3-year average). Over time, a true cross-border industry cluster has developed based on intricate business linkages between growers in Sinaloa and Sonora, and distributors/shippers in Arizona.<sup>2</sup> In Nogales and Santa Cruz County a number of economic activities have developed around the importation of fresh produce, including customs brokerage services, warehousing and repackaging, shipping/distribution and sale brokerage, and freight forwarding. Whereas the commission fees collected for shipping/distribution and sale brokerage services are the major source of County income associated with the fresh produce imports, about 70 warehouses concentrated along I-19 give the physical landscape a distinctive character.

## Industry Definition and Sources of Economic Impacts

In this report, the fresh produce "industry" is defined as encompassing a number of "primary" and "associated" activities. Primary activities are directly involved in importation, warehousing and distribution of Mexican fresh produce to North American and Canadian markets, and in terms of the North American Industry Classification System include: fresh fruit & vegetable merchant wholesale (NAICS 424); agents and brokers engaged in wholesaling (NAICS 425), truck transportation (NAICS 484), support activities for transportation including freight forwarders and custom brokers (NAICS 488), and warehousing and storage (NAICS 493). Associated activities bring additional money to the local economy from outside, such as payroll and operational expenses of the federal employees employed with the Customs and Border Protection (CBP), collection of truck crossing fees by the Arizona Department of Transportation (ADOT), and sale of diesel fuel for transportation from Nogales' warehouses to final destinations. By combining several research methods,<sup>3</sup> it is estimated that the primary activities generate \$281.5 million, while associated activities generate additional \$21.8 million in Santa Cruz County, or a combined \$303.4 million annually, after adjusting for leakage.<sup>4</sup> A direct job impact is 2,644 jobs, of which 1,739 are in shipping/distribution/sale brokerage sector followed by 293 in warehousing and storage, 209 at gas stations, about 160 providing custom brokerage/freight forwarding services and truck transportation services from the border to warehousing. The direct wage impact is \$146.4 million (Table 1).

## Total Impact on County Jobs, Wages and Output

Through ripple effects, the fresh produce industry generates an additional 1,376 jobs and \$43.6 million in wages in Santa Cruz County. Combining direct and secondary (indirect and induced) impacts, the industry supports more than 4,000 jobs, generates \$190.1 million in wages and produces a total monetary impact of \$437.7 million (including wages and taxes) in Santa Cruz County (Table 2).

\*Eller College of Management, Economic & Business Research Center and School of Geography and Development

\*\*Department of Agricultural & Resource Economics

“Fully one third of Santa Cruz County's output depends on the fresh produce industry.”



**Table 1:** Direct economic contribution of fresh produce industry in Santa Cruz Co.

Activity	Direct output (adjusted for leakage)	Direct jobs	Direct wages
Primary activities	\$ million		\$ million
Shipping/distribution/sale brokerage	225.9	1,739	110.3
Custom brokerage/freight forwarding	14.0	165	5.7
Truck transportation to warehouses	16.8	167	7.2
Warehousing & storage	24.8	293	12.8
Total primary activities	281.5	2,364	136.1
Associated activities/income sources	\$ million		\$ million
Gas stations	15.0	209	4.3
Truck permits (Local government)	3.0	44	2.6
Border inspection (CBP)	3.8	27	3.4
Total associated activities	21.8	280	10.3
Fresh produce direct impact	303.4	2,644	146.4

Source: Estimates of “output” are based on a combination of information from interviews with industry representatives and data from an IMPLAN model of Santa Cruz County; “Adjusted direct output” based on % leakage, “direct jobs” and “direct wages” from IMPLAN model.<sup>5</sup>

The importance of the fresh produce industry for the economy of Santa Cruz County is reflected in the following numbers: 22.3 percent of all County jobs and 24.8 percent of all wages directly or indirectly depend on the import of Mexican fresh produce; a full one third of the County's output depends on the fresh produce industry (Figure 1).

In other words, as expressed in the form of multipliers, the fresh produce industry impacts the County's economy in the following way:<sup>6</sup>

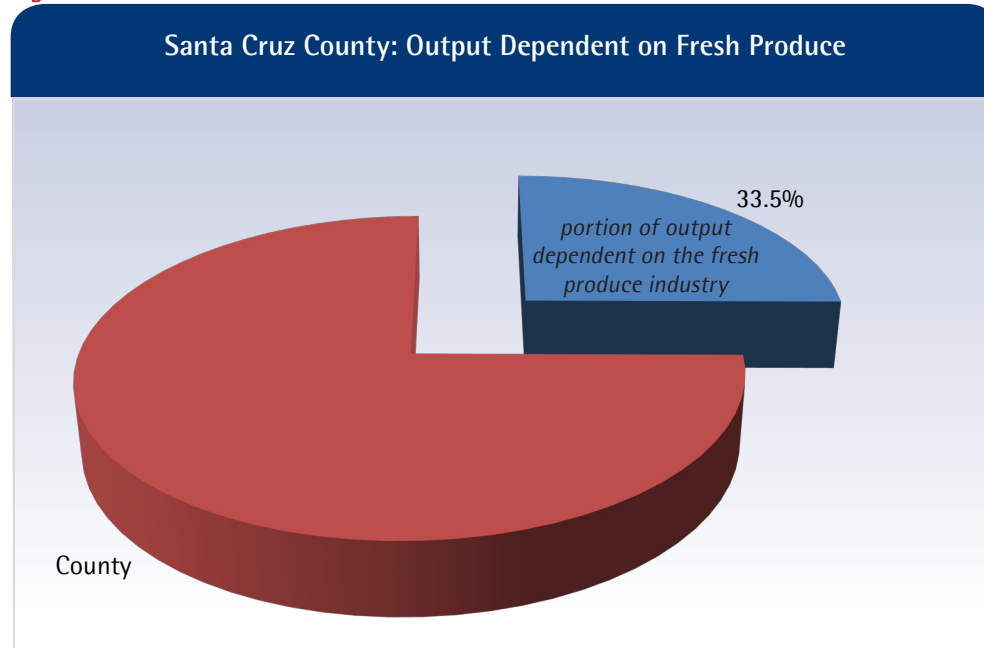
- Every 100 direct jobs in the fresh produce industry generate an additional 52 jobs elsewhere in the County (job multiplier of 1.520);
- Every \$1 in wages to direct employees in the fresh produce industry generates an additional 29 cents in wages in other sectors (wage multiplier of 1.298);
- Every \$1 in direct output in the fresh produce industry generates an additional 44 cents in other economic sectors in Santa Cruz County (output multiplier of 1.443).

**Table 2:** Fresh produce industry: direct and secondary impacts in Santa Cruz County

Impact	Jobs	Wages	Output
	\$ million		\$ million
Direct impact	2,644	146.4	303.4
Secondary impact*	1,376	43.6	134.3
Total impact	4,020	190.1	437.7
Share of Santa Cruz County total	22.3%	24.8%	33.5%
Composite multipliers	1.520	1.298	1.443

\*Combined indirect and induced impacts.  
Source: IMPLAN model of Santa Cruz County.

Figure 1



“More than 120 local businesses (sectors) directly benefit from the fresh produce industry through purchases of goods and services.”

### Linkages with Local Businesses

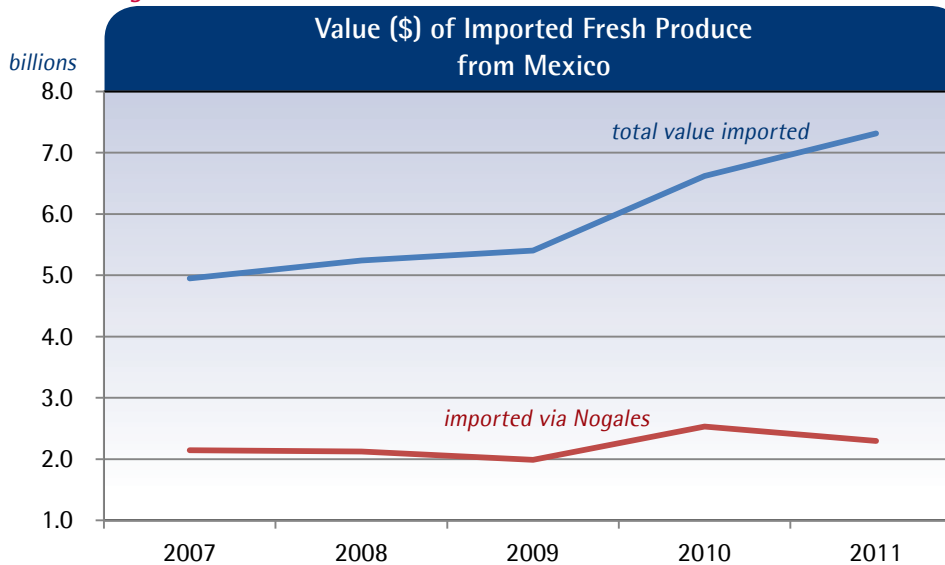
According to the IMPLAN model, more than 120 local businesses (sectors) directly benefit from the fresh produce industry through purchases of goods and services. The industry spends \$30.6 million<sup>7</sup> locally on inputs of various services such as warehousing and storage, carriers and messenger services, business support services, legal services, and automotive equipment rental. Major manufacturing inputs – forklifts and packaging materials

– are not produced in the County, but imported from manufacturers in Phoenix and Yuma through their retail representatives in Nogales. Close to \$47 million leaks out of the County for purchases of goods and services not available locally.

### Industry Needs and Challenges

An on-line survey of members of the Fresh Produce Association of the Americas provided a glimpse into industry needs and

Figure 2



Source: BTS RITA, Commodity by BPOE.

challenges. The three top needs are related to workforce improvement, including increased demand for higher education, better computer skills and better technical skills. This reflects the fact that warehousing, packaging and distribution technology has changed involving more automatization and computerization than it did in the past. On the other hand, one of the unchanged characteristics of the fresh produce industry -- as it relates to the workforce -- is its seasonal character. Although the season for some vegetables has expanded thanks to greenhouse use, the importation and distribution of fresh produce is still concentrated in winter months from October through May, which creates traditionally high unemployment during summer months.

Although the value of imported Mexican agricultural products through Nogales doubled between 2002 and 2011 from \$1.26 billion in 2002 to \$2.53 billion in 2011, the import of Mexican fresh produce through Arizona BPOE was lagging behind a general trend. The value of all U.S. imports of agricultural products from Mexico increased 110% compared to a 38% increase through Nogales in the same period 2004-2011 (Figure 2).

There are several possible reasons for this trend and challenges facing the Nogales fresh produce industry. Texas BPOE, most notably Hidalgo (with adjacent McAllen and the expanding Pharr border crossing) have been increasing their share of Mexican fresh produce partly due

to growing agricultural production in central Mexico and partly due to border port infrastructure, including inspection services and crossing wait times. Geography also plays a role in shipments destined for U.S. east coast markets as Texas BPOE offer the shortest distance.

There is also a continuing competition with Florida tomato growers. Tomatoes comprise about 23 percent of total fresh produce imports through Nogales and thus any continuing dispute with Florida tomato growers potentially affects the volume and shipping price of the Nogales fresh produce industry.<sup>8</sup>

## Notes

<sup>1</sup>Vera Pavlakovich-Kochi and Gary D. Thompson, "Bi-national Business Linkages Associated with Fresh Produce and Production-Sharing: Foundations and Opportunities for Nogales and Santa Cruz County," June 2013, prepared for the Nogales - Santa Cruz County Economic Development Corporation by the University of Arizona Eller College and Department of Agricultural and Resources Economics. Funded by EDA Grant 2012, the study constitutes Phase One of the Nogales Innovation Partnership Project (NIPP). Available at <http://ebr.eller.arizona.edu> and [www.nogalescdc.com](http://www.nogalescdc.com).

<sup>2</sup>V. Pavlakovich-kochi, A.H. Charney, A.C. Vias and A. Weister, Fresh Produce Industry in Nogales, Arizona: Impacts of a Transborder Production Complex on the Economy of Arizona, An Economic and Revenue Impact Analysis. The University of Arizona: Office of Economic Development. Prepared for The City of Nogales, Arizona, 1997. Available at <http://ebr.eller.arizona.edu>.

<sup>3</sup>Combination of an analysis of data on import value of fresh produce, interviews with industry representatives regarding commissions, and data contained in the IMPLAN input-output model of Santa Cruz County.

<sup>4</sup>Adjusted for "leakage" from the local economy through purchases of goods and services that are not produced locally.

<sup>5</sup>IMPLAN (Impact M for Planning) is a widely used modeling system originally developed by USDA Forest Service, now operated by the Minnesota IMPLAN Group (MIG). It is based on input-output methodology that traces how economic sectors in a regional (state or county) economy are interconnected through purchases and sales of products and services. Based on these relationships, the model traces how any change in one part of the economy ripples across the entire economy.

<sup>6</sup>A multiplier is obtained by dividing the total impact by direct impact.

<sup>7</sup>These are estimates of indirect impacts (i.e., inter-business purchases of goods and services) obtained via IMPLAN model for Santa Cruz County.

<sup>8</sup>See for example Arizona State University's Tim Richards' analysis; also T. Karts, "Florida, FPA exchange salvos in tomato dispute," *The Packer*, 1/24/2013.

## New UA App Offers Users Real-time Economic Data for Arizona

*Eller College's Economic and Business Research Center launches Arizona's Economy app for iPhone and Android.*

The new Arizona's Economy Mobile App, developed by the Economic and Business Research Center, offers users access to real-time economic data from the state of Arizona, its counties, Phoenix, Tucson, and the U.S for free on iPhone, iPad, and Android.

Mobile device users can compare Arizona and its communities with the nation as a whole. Compiling datasets from multiple government sources, the app provides an intuitive interface for users to quickly evaluate short-term and long-term trends in data including employment, unemployment, retail sales, personal income, population, and more. In addition to the latest real-time data, the graphs also display historical trends. With one click users can calculate percentage change, moving average, and other standard conversions. Users can also share data through their social media accounts or download for further analysis to a PC.

The Economic and Business Research Center at the Eller College of Management has a 65+ year history of providing Arizona's citizens and decision-makers with award-winning economic forecasts, applied economic research, the Arizona Statistical Abstract, and analysis of the latest economic, demographic and business trends in Arizona.

"The Arizona's Economy app puts essential information at users' fingertips," said senior research economist Maile Nadelhoffer, who led the project along with EBR's business research specialist Daniel Kinnear. "Users can access the most recent statistics, select the time-frame that interests them, and set up favorite searches to track important statistics over time."

The app uses dataZoa, a real-time data collection tool developed by Leading Market Technologies (LMT) of Boston and beta tested by the Economic and Business Research Center. LMT gifted UA with software licenses valued at \$600,000 in recognition of its contribution to this technology.

This free app is now available in the iTunes App Store and Google Play, just search on "Arizona's Economy."

“New economics app focuses on Arizona and allows users to compare Arizona to the nation using the latest real-time data.”

As an Arizona business man, I need the latest data to keep ahead! You quote old data! I can't use your analyses!

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# Forecast and Indicator Tables



## 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/](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](mailto: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 (\$ mill)	237,513	245,023	257,693	272,803	289,936	308,278
%Chg from Year Ago	4.5%	3.2%	5.2%	5.9%	6.3%	6.3%
Retail Sales (\$ mill)	81,271	85,157	88,718	93,095	97,899	102,796
%Chg from Year Ago	5.0%	4.8%	4.2%	4.9%	5.2%	5.0%
Nonfarm Employment (000s)	2,462.1	2,517.8	2,587.0	2,675.8	2,772.3	2,866.6
%Chg from Prior	2.1%	2.3%	2.8%	3.4%	3.6%	3.4%
Population (000s)	6,498.6	6,574.7	6,668.1	6,785.1	6,913.7	7,031.3
%Chg from Year Ago	0.9%	1.2%	1.4%	1.8%	1.9%	1.7%
Residential Permits (units)	21,726	24,362	33,828	46,312	52,839	55,133
%Chg from Year Ago	67.0%	12.1%	38.9%	36.9%	14.1%	4.3%

Phoenix-Mesa-Scottsdale MSA	2012	2013	2014	2015	2016	2017
Personal Income (\$ mill)	165,046	171,556	182,074	193,254	206,501	221,825
% Chg from Year Ago	5.1%	3.9%	6.1%	6.1%	6.9%	7.4%
Retail Sales (\$ mill)	55,812	58,917	62,171	65,880	70,285	74,835
% Chg from Year Ago	4.5%	5.6%	5.5%	6.0%	6.7%	6.5%
Nonfarm Employment (000s)	1,758.1	1,805.3	1,866.6	1,935.4	2,013.1	2,096.2
% Chg from Year Ago	2.5%	2.7%	3.4%	3.7%	4.0%	4.1%
Population (000s)	4,273.9	4,340.2	4,412.1	4,488.3	4,579.7	4,689.9
% Chg from Year Ago	1.1%	1.6%	1.7%	1.7%	2.0%	2.4%
Residential Permits (units)	15,967	19,187	26,090	33,053	40,182	44,566
% Chg from Year Ago	75.8%	20.2%	36.0%	26.7%	21.6%	10.9%

Tucson MSA	2012	2013	2014	2015	2016	2017
Personal Income (\$ mill)	35,814	36,649	38,606	40,716	43,178	45,971
% Chg from Year Ago	3.5%	2.3%	5.3%	5.5%	6.1%	6.5%
Retail Sales (\$ mill)	12,048	12,466	12,930	13,375	13,876	14,461
% Chg from Year Ago	5.3%	3.5%	3.7%	3.4%	3.8%	4.2%
Nonfarm Employment (000s)	361.1	366.5	373.7	382.4	392.2	402.0
% Chg from Year Ago	1.6%	1.5%	2.0%	2.3%	2.6%	2.5%
Population (000s)	990.4	996.8	1,006.8	1,019.9	1,036.4	1,053.6
% Chg from Year Ago	0.4%	0.7%	1.0%	1.3%	1.6%	1.7%
Residential Housing Permits (units)	2,841	3,879	4,478	5,267	6,387	6,533
% Chg from Year Ago	26.7%	36.5%	15.4%	17.6%	21.3%	2.3%

## >>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 Vést at [mvest@eller.arizona.edu](mailto: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	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force (seas. adj.), BLS	3,006,551	3,004,259	3,003,780	2,996,108	2,990,522
Unemployment Rate (seas. adj.), BLS	8.0	8.3	8.3	8.2	7.8
Total Nonfarm Employment (000s, Seas. Adj.), BLS	2,520	2,514	2,515	2,520	2,535
Private	2,087.9	2,099.5	2,098.6	2,111.7	2,137.2
Government	365.7	395.3	420.7	424.2	424.6
Average Hourly Earnings – Total Private, BLS	23.01	23.17	23.45	23.08	23.13
Aggregate Retail Sales (\$000, accrual)*	6,600,504	6,823,761	6,668,660		
New Residential Permits (units), Census C-40	2,290	1,783	1,421	1,671	1,174

\* Figure includes total taxable retail sales, plus restaurant & bar, gasoline, and food sales (not taxed and estimated by EBR).

Arizona Summary – Quarterly	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3
Population* (seas. adj.), ADOA & EBR	6,509,024	6,529,475	6,547,941	6,565,541	6,585,968
% Chg from Year Ago	1.0%	1.1%	1.1%	1.2%	1.2%
Natural Increase, ADHS/EBR	11,280	9,903	6,761	8,196	11,148
Birth Rate (per 1,000), ADHS & EBR	14.0	13.2	12.9	12.7	14.0
Net Migration, ADHS & EBR	9,630	11,088	10,179	10,063	11,446
Total Personal Income (\$ mil, SAAR) BEA & EBR	235,748	243,579	239,461	243,142	247,769
% Chg from Year Ago	3.7%	6.3%	3.2%	3.4%	5.1%
Per Capita Pers. Inc. (\$ mil, SAAR), BEA & EBR**	36,218	37,305	36,570	37,033	37,621
% Chg from Year Ago	2.7%	5.2%	2.0%	2.1%	3.9%
Civilian Nonag Wage Rate, (\$, SAAR), BEA & EBR	48,020	48,760	48,345	48,546	49,355
% Chg from Year Ago	1.5%	2.3%	0.9%	0.7%	2.8%
All Transactions House Price Index, FHFA	250.0	257.9	263.9	275.7	284.6
% Chg from Year Ago	7.1%	8.3%	11.4%	14.7%	13.9%

\*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	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013
U.S. Consumer Price Indices (seas. adj.), BLS					
All Urban Consumers: All Items	233.53	233.95	233.81	233.89	234.58
% Chg from Year Ago	1.5%	1.2%	0.9%	1.2%	1.5%
Western States – All Urban Consumers: All items	236.59	237.15	237.00	236.15	236.10
% Chg from Year Ago	1.5%	1.3%	0.9%	1.3%	1.8%
U.S. Producer Price Index: All Commodities (seas. adj.), BLS	204.20	204.00	202.50	201.00	201.80
% Chg from Year Ago	2.2%	0.8%	-0.2%	-0.5%	-0.4%

# Arizona Economic Indicators - MSAs

<b>Phoenix-Mesa-Glendale MSA Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Civilian Labor Force, ADOA	2,038,289	2,040,053	2,037,794	2,030,653	2,026,374
Unemployment Rate, ADOA	6.7	6.8	6.9	6.9	6.7
Total Nonfarm Employment (000s), BLS	1,760.1	1,790.4	1,805.7	1,819.1	1,842.4
Private	1,557.9	1,567.3	1,566.9	1,577.5	1,600.9
Government	202.2	223.1	238.8	241.6	241.5
Average Hourly Earnings, Total Private, \$, BLS	23.76	23.98	24.18	23.79	23.90
Aggregate Retail Sales (\$000, accrual)*	4,487,145	4,720,475	4,625,390	4,828,021	
Total New Residential Permits (units), Census C-40	1,737	1,255	941	1,151	706

\* Figure includes total taxable retail sales, plus restaurant & bar, gasoline, and food sales (not taxed and estimated by EBR).

<b>Phoenix-Mesa-Glendale MSA Summary - Annual</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
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	
% Chg from Year Ago	-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. EBR considers the ADOA counts to be the most accurate.

\*\* BEA per capita personal income is calculated using Census Bureau population counts.

<b>Tucson MSA (Pima County) Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Civilian Labor Force	451,428	449,476	454,005	450,582	449,684
Unemployment Rate	7.2	7.6	7.2	6.9	6.2
Total Nonfarm Employment (000s), BLS	352.3	357.4	364.6	366.7	368.3
Private	283.6	284.5	284.8	285.8	287.1
Government	68.7	72.9	79.8	80.9	81.2
Average Hourly Earnings, Total Private, \$, BLS	22.46	22.20	22.64	22.45	22.23
Aggregate Retail Sales (\$000), EBR & ADOR*	980,898	1,003,930	970,084	928,382	
Total New Residential Permits (units), Census C-40	309	308	217	279	251

\* Figure includes total taxable retail sales, plus restaurant & bar, gasoline, and food sales (not taxed and estimated by EBR).

<b>Tucson MSA (Pima County) Summary - Annual</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
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

<b>Flagstaff MSA (Coconino County) Summary - Monthly</b>					
	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force, ADOA	75,229	74,021	75,215	74,572	73,743
Unemployment Rate	8.0	8.1	7.7	7.8	7.2
Total Nonfarm Employment (000s), ADOA	64.4	65.0	67.0	67.2	66.6
Private	44.8	45.1	45.1	45.1	44.5
Government	19.6	19.9	21.9	22.1	22.1
Average Hourly Earnings, Total Private, \$, BLS	15.95	16.48	16.12	16.12	16.10
Gross Taxable Sales (\$000 accrual)	244,008	247,200	229,693	199,685	
Total New Residential Permits (units), Census C-40	32	26	18	25	21
<b>Flagstaff MSA (Coconino County) Summary - Annual</b>					
	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	-2.8%	-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.

<b>Lake Havasu City - Kingman MSA (Mohave County) Summary - Monthly</b>					
	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force, ADOA	83,893	83,029	82,589	82,122	81,219
Unemployment Rate	9.7	10.2	9.8	9.7	8.7
Total Nonfarm Employment, (000s), ADOA	44.1	44.3	44.4	44.5	44.6
Private	36.7	36.5	36.3	36.4	36.5
Government	7.4	7.8	8.1	8.1	8.1
Average Hourly Earnings, Total Private, \$, BLS	18.70	19.38	20.32	20.45	20.32
Gross Taxable Sales (\$000 accrual)	235,779	220,477	208,017	200,937	
Total New Residential Permits (units), Census C-40	50	33	39	42	51
<b>Lake Havasu City-Kingman MSA (Mohave County) Summary - Annual</b>					
	2009	2010	2011	2012	2013
Population, ADOA*	200,235	200,099	200,417	203,072	203,592
% Chg from Year Ago	0.1%	-0.1%	0.2%	1.3%	0.3%
Total Personal Income (\$000)	5,135,030	5,210,338	5,373,492	5,534,671	
% Chg from Year Ago	-3.1%	1.5%	3.1%	2.1%	
Per Capita Personal Income (\$)**	25,714	26,002	26,524	27,220	
% Chg from Year Ago	-2.9%	1.1%	2.0%	2.6%	

\*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

<b>Prescott MSA (Yavapai County) Summary - Monthly</b>					
	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force, ADOA	90,240	90,273	89,841	88,952	88,923
Unemployment Rate	8.2	8.5	8.1	7.7	6.9
Total Nonfarm Employment (000s), ADOA	54.1	55.4	56.2	56.6	56.9
Private	45.1	45.4	45.6	45.9	46.1
Government	9.0	10.0	10.6	10.7	10.8
Average Hourly Earnings, Total Private, \$, BLS	16.97	17.65	17.87	18.11	17.63
Gross Taxable Sales (\$000 accrual)	257,060	259,891	248,573	255,843	
Total New Residential Permits (units), Census C-40	69	58	73	66	66
<b>Prescott MSA (Yavapai County) Summary - Annual</b>					
	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.

<b>Yuma MSA (Yuma County) Summary - Monthly</b>					
	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force, ADOA	94,769	93,667	90,409	90,812	88,504
Unemployment Rate	33.2	32.8	32.4	32.0	28.2
Total Nonfarm Employment (000s), ADOA	47.6	48.7	49.1	49.8	51.1
Private	33.6	33.8	34.1	34.5	35.7
Government	14.0	14.9	15.0	15.3	15.4
Average Hourly Earnings, Total Private, \$, BLS	20.20	20.35	20.22	20.28	20.99
Gross Taxable Sales (\$000s), EBR & ADOR	176,054	174,518	184,742	195,048	
New Residential Permits (units), Census C-40	46	58	43	34	42
<b>Yuma MSA (Yuma County) Summary - Annual</b>					
	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

<b>Apache County Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Civilian Labor Force, ADOA	21,587	21,605	21,091	20,667	20,155
Unemployment Rate	20.4	19.6	19.3	20.0	18.7
Total Nonfarm Employment (000s), ADOA	17,975	18,700	18,425	17,975	17,750
Total Private	7,575	7,725	7,700	7,700	7,625
Government	10,400	10,975	10,725	10,275	10,125
Gross Taxable Sales (\$000s), EBR & ADOR	23,449	28,486	26,287	27,978	

<b>Cochise County (Sierra Vista - Douglas Metropolitan SA) Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Total Civilian Labor Force, ADOA	58,552	58,351	57,426	56,626	56,797
Unemployment Rate	8.6	8.9	8.8	8.8	7.9
Total Nonfarm Employment, ADOA	35,575	36,275	36,250	36,000	36,375
Total Private	24,225	24,325	24,175	24,000	24,325
Government	11,350	11,950	12,075	12,000	12,050
Gross Taxable Sales (\$000s), EBR & ADOR	140,511	179,059	166,851	151,116	

<b>Gila County (Payson Metropolitan SA) Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Civilian Labor Force, ADOA	23,292	22,967	22,428	22,066	21,882
Unemployment Rate	8.9	9.4	9.3	9.1	8.4
Total Nonfarm Employment, ADOA	15,000	15,075	14,850	14,775	14,700
Private	9,800	9,775	9,650	9,625	9,625
Government	5,200	5,300	5,200	5,150	5,075
Gross Taxable Sales (\$000s), EBR & ADOR	55,390	51,119	48,403	49,393	

<b>Graham County Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Total Civilian Labor Force, ADOA	14,463	14,456	14,420	14,144	14,361
Unemployment Rate	8.4	8.6	8.4	8.2	7.1
Total Nonfarm Employment, ADOA	8,525	8,725	8,925	9,000	9,000
Total Private	5,825	5,875	5,800	5,850	5,850
Government	2,700	2,850	3,125	3,150	3,150
Gross Taxable Sales (\$000s), EBR & ADOR	29,274	28,157	28,609	28,186	

<b>Greenlee County Summary - Monthly</b>	<b>Jul 2013</b>	<b>Aug 2013</b>	<b>Sep 2013</b>	<b>Oct 2013</b>	<b>Nov 2013</b>
Total Civilian Labor Force, ADOA	4,182	4,217	4,176	4,089	4,202
Unemployment Rate	6.9	7.9	7.1	6.7	6.8
Total Nonfarm Employment, ADOA	3,850	3,950	3,975	3,775	4,100
Total Private	3,375	3,400	3,375	3,225	3,525
Government	475	550	600	550	575
Gross Taxable Sales (\$000s), EBR & ADOR	50,987	50,345	40,692	41,419	

# Arizona Economic Indicators - Counties

La Paz County Summary – Monthly	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Civilian Labor Force, ADOA	7,779	7,621	7,281	7,251	7,130
Unemployment Rate	9.1	9.8	9.8	9.6	8.8
Total Nonfarm Employment, ADOA	5,125	5,075	5,050	5,025	4,950
Total Private	2,775	2,725	2,700	2,700	2,625
Government	2,350	2,350	2,350	2,325	2,325
Gross Taxable Sales (\$000s), EBR & ADOR	24,508	22,625	21,911	24,227	

Navajo County (Show Low Micropolitan SA) Summary – Monthly	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Total Civilian Labor Force, ADOA	40,014	39,897	39,347	38,797	38,257
Unemployment Rate	15.3	14.7	14.5	14.7	13.5
Total Nonfarm Employment, ADOA	27,475	28,300	28,350	28,125	28,050
Total Private	18,300	18,500	18,325	18,200	18,075
Government	9,175	9,800	10,025	9,925	9,975
Gross Taxable Sales (\$000s), EBR & ADOR	81,587	75,263	77,083	75,184	

Santa Cruz County Summary – Monthly	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013
Total Civilian Labor Force, ADOA	17,818	17,555	17,447	17,467	17,409
Unemployment Rate	19.5	20.3	20.6	20.5	17.5
Total Nonfarm Employment, ADOA	12,275	12,275	12,325	12,525	12,925
Private	8,550	8,350	8,350	8,550	8,950
Government	3,725	3,925	3,975	3,975	3,975
Gross Taxable Sales (\$000s), EBR & ADOR	44,869	43,104	41,130	42,108	

## 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.

\* 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.

**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

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