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ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

Still Looking for a Higher Gear

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

March 1, 2014

According to the latest preliminary data, the Arizona economy weakened during the second half of 2013, with decelerating job growth and housing activity. Overall, the state added 50,900 jobs in 2013, which translates into a growth rate of 2.1%, the same as in 2012. The forecast calls for state growth to overcome recent weakness and accelerate during the next three years, as the federal fiscal drag diminishes, residential construction picks up speed, and world growth strengthens.

U.S. Real GDP: Steady Gains End the Year

U.S. real GDP growth remained solid in the fourth quarter of 2013, at 2.4%, after strong third quarter growth of 4.1%. Growth in the fourth quarter was driven primarily by consumption spending, net exports, and investment spending. Real government spending declined during the fourth quarter, driven by the sequester and the federal government shutdown. Real residential investment spending declined in the fourth quarter for the first time since the third quarter of 2010.

Last year marked another modest labor market improvement for the nation. Total nonfarm employment rose 1.7%, equal to the growth rate for 2012. The national unemployment rate declined for the third consecutive year in 2013, to 7.4%. However, this improvement was accompanied by a steady decline in labor force participation, which is down from 64.7% in 2010 to 63.2% in 2013. Part of this decline in labor force participation is being driven by baby boom retirements. However, we have also seen declining labor force participation in the prime working age group (age 25-54), which suggests that the labor market has still not fully recovered.

Arizona: A Slow Exit From 2013

The Arizona economy ended 2013 with slow job growth and a drop in the state unemployment rate reflecting a declining labor force, according to preliminary estimates. Arizona's seasonally-adjusted job growth from the third quarter of 2013 to the fourth quarter was just 1.0% at an annualized rate. This is well below the 1.8% rate posted in the third quarter and below national job growth of 1.7% in the fourth quarter.

Sluggish state gains in the final quarter of 2013 were driven by job declines in (in order of importance) professional and business services; leisure and hospitality; manufacturing; construction; information; and mining and logging. These quarter-to-quarter employment declines were more than offset by growth in (in order of importance) financial activities; trade, transportation and utilities; education and health care; government; and other services.

Overall, 2013 was another year of modest job growth in Arizona. On average, the state added 50,900 jobs, which translated into a growth rate of 2.1%. That was the same growth rate the state posted in 2012, but Arizona again outpaced the national rate (of 1.7%).

Disappearing Labor Force

Arizona's seasonally adjusted unemployment rate declined to 7.9% in the fourth quarter of 2013, down from 8.2% in the third quarter. On average for 2013, that puts the state rate at 8.0%, down slightly from 8.3% on average in 2012 and well down from the 10.4% average in 2010. However, as Exhibit 1 shows, the state's labor force has also declined since 2010. Thus, Arizona's declining unemployment rate reflects, in part, residents dropping out of the state's labor force. Demographics are also

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contributing to this trend, as baby boomers begin to retire in larger numbers. Thus, job growth remains sluggish and well below the average growth rate experienced during the 31 years preceding the Great Recession (4.2% per year).

Construction Stumbles

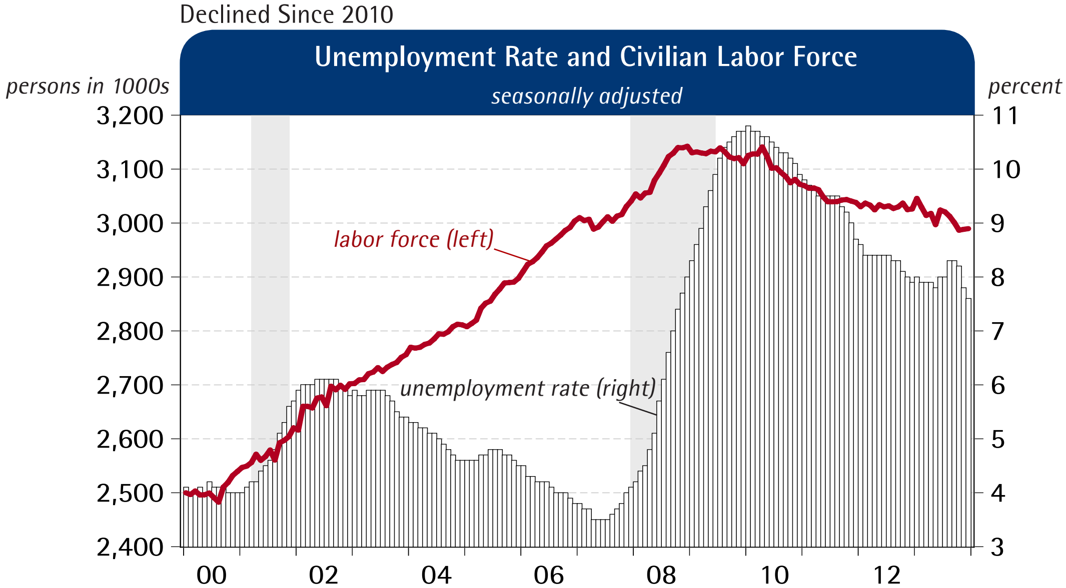
State construction activity softened during the second half of 2013, with construction jobs, housing permits, and house price increases weakening. Seasonally adjusted construction employment declined during both the third and fourth quarters of 2013. Likewise, total housing permits declined in the second half of 2013, driven by lower multi-family activity. House price appreciation peaked near the end of 2012 and gradually decelerated during most of 2013, although growth remained rapid in Phoenix. Slowing housing activity was likely related to a variety of factors, including reduced demand from owner-occupiers and investors, as well as supply-side constraints (high lot prices in desirable areas and labor shortages in construction).

Population Gains Accelerate

The Arizona Department of Administration recently released its mid-year population estimates for 2013. These estimates suggest that the state added 82,485 residents between July 1, 2012 and July 1, 2013, translating into a growth rate of 1.3% for the year, nearly double the national growth rate of 0.7%. As **Exhibit 2** shows, Arizona's population growth has now accelerated for three consecutive years. The exhibit also makes clear that state population growth remains well below the average rate during the previous decade (2.4%). Further, state growth is also below the average rate posted during the 1976-2007 period (the 31 years before the Great Recession) of 3.2% per year.

The exhibit also shows a similar pattern of acceleration in population growth for the Phoenix MSA, which is estimated to have added 64,775 net new residents from mid-2012 to mid-2013. That implies a growth rate of 1.5%, more than double the national rate. The Tucson MSA also added residents during the same period, with an increase of 5,666 (or 0.6%).

Exhibit 1: Arizona's Unemployment Rate and Labor Force Have Both Declined Since 2010



Arizona Outlook: A Little Better This Year

The state economy is forecast to gradually gain momentum during the next three years. This acceleration in growth is driven by reduced federal fiscal drag, increased residential mobility nationally (which means more migration to Arizona), and stronger U.S. and world growth.

Slightly stronger job growth in 2014 is also forecast for Arizona's economy, with the rate accelerating from 2.1% in 2013 to 2.5% in 2014. Job growth is expected to continue to rise in 2015 and 2016, to 3.4% and 3.6%, respectively. Even so, growth remains well below average gains that the state posted during the 31 years before the Great Recession (4.2% per year).

Income growth also accelerates during the next three years, reflecting improved job growth, as well as continued gains in capital income (dividends, interest, and rent) and transfer payments (Social Security, Medicare, Medicaid, and welfare payments).

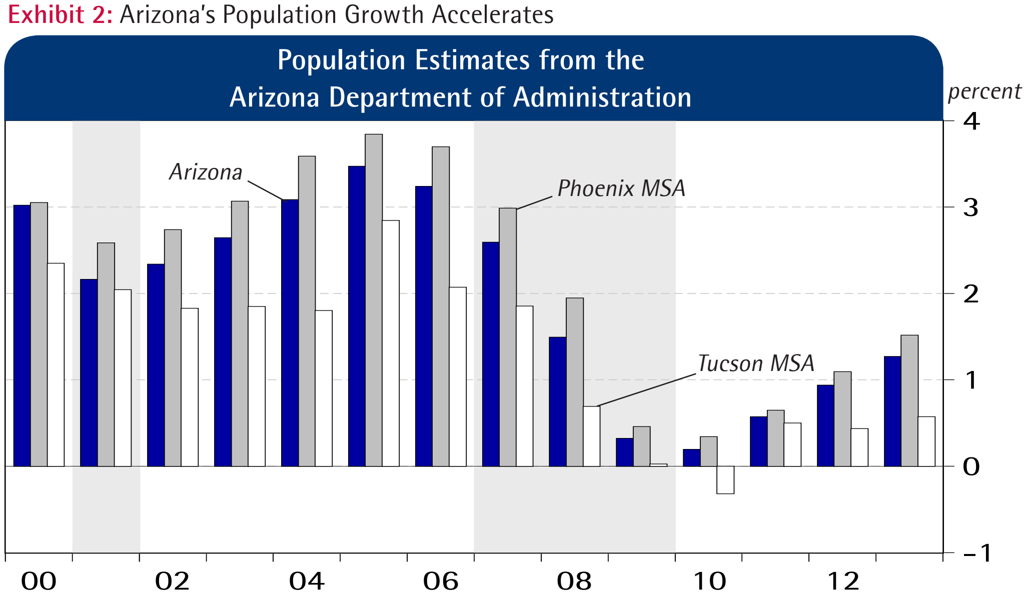
Population growth also bounces back during the next three years, but remains well below average growth posted before the Great Recession (3.2% per year). This reflects accelerating net migration into the state, as U.S. residential mobility improves.

Rising population growth drives gains in housing activity, with housing permits expected to exceed 50,000 units by 2015. Both single-family and multi-family are expected to improve in the near term.

Both the Phoenix and Tucson MSAs are expected to post improved economic growth during the next three years, but the gains are forecast to be most rapid in Phoenix. The pattern of job growth across industries is expected to be similar for both Phoenix and Tucson, with service-providing sectors dominating job gains.

"Rising population growth drives gains in housing activity, with housing permits expected to exceed 50,000 units by 2015."

Exhibit 2: Arizona's Population Growth Accelerates



Arizona Has a New Metropolitan Area: Sierra Vista-Douglas

By Valorie H. Rice, Business Information Specialist, and George W. Hammond, Ph.D., EBR Director and Research Professor

Arizona has a new metropolitan area, bringing the state total to seven. The Office of Management and Budget (OMB) released the most recent list of Metropolitan and Micropolitan Statistical Areas in February 2013 and it revealed a few changes for Arizona. The title for the Phoenix metropolitan area reverted back to Phoenix-Mesa-Scottsdale (it had been called Phoenix-Mesa-Glendale for four years), the Safford Micropolitan Area now encompasses only Graham County (Greenlee County is no longer included). The most significant change was that Sierra Vista-Douglas has been reclassified from a micropolitan area to a metropolitan area, making it the seventh in the state. Metropolitan and micropolitan areas reflect labor markets, as far as that is possible, using counties as the basic geographic building blocks.

"Research suggests that the metropolitan designation may spur additional employment growth, at least in the short run."

According to the OMB, the purpose of the metropolitan (and micropolitan) designation is to provide a nationally consistent set of delineations for collecting, tabulating, and publishing Federal statistics for geographic areas. Their release often generates interest from policymakers and economic developers, particularly for newly designated metropolitan areas. The interest is grounded in the common belief that the designation of a region as a new metropolitan area will spur its subsequent growth. Arguments supporting this view typically point to three ways in which the metropolitan designation may spur growth: (1) the newly designated metropolitan area may be better positioned to draw down federal funds, (2) the metropolitan designation may increase the amount and detail of economic information provided by federal and state statistical agencies on the region, and (3) the metropolitan designation may raise the marketing profile of the region, particularly with respect to national or multi-state site selection searches.

Research suggests that there may be something to these views, at least in the short run. Hammond and Osoba (2008) show that the metropolitan designation may spur additional employment growth, at least in the short run, although they do not find evidence of any impact on per capita personal income.

Delineating Micropolitan areas and Metropolitan areas

The current standards for defining metropolitan and micropolitan areas were updated in 2010. These standards state that each metropolitan statistical area must have at least one urbanized area of 50,000 or more inhabitants and each micropolitan area at least one urban cluster with a population of 10,000 but less than 50,000. Counties, or the equivalent, are the geographic unit used to define metropolitan and micropolitan areas. Metropolitan and micropolitan areas are made up of a core county (or counties), which contains the urbanized area. Contiguous counties may also be included if they have a high degree of social and economic integration with the core county (or counties). This integration is often measured by commuting flows. Within Arizona, only the Phoenix-Mesa-Scottsdale metropolitan area contains more than one county, with both Maricopa and Pinal.

If you are thinking that Sierra Vista does not seem to be large enough to be considered a metropolitan area, your instincts are good. With the 2010 Census population being

43,888, the city of Sierra Vista does not quite reach the magic figure of 50,000. However, an urbanized area need not stop at a city border. Urbanized areas are defined by the Census Bureau after each decennial census primarily based on residential population density at the census tract and block levels. The Sierra Vista Urbanized Area, which also includes an area south of the city referred to as Sierra Vista Southeast, was designated in March 2012 with total population listed as 52,745. This paved the way for Sierra Vista-Douglas to be considered a metropolitan area when the list of metropolitan and micropolitan areas was released in February 2013.

References

Hammond, George W. and Brian J. Osoba. 2008. "The Growth Impact of the Metropolitan Statistical Area Designation," *Annals of Regional Science*, 42, 307-319.

Arizona's Micro and Metro Areas Socio-Economic Snapshot of the Sierra Vista-Douglas Metropolitan Area

Population, 2012:	130,752
Nonfarm employment, 2012:	36,050 (does not include military...)
Percent with high school degree, 2011:	85
Percent with bachelors or higher, 2011:	21.9
Per capita personal income, 2011:	$45,906

Sources: US Census Bureau, American Community Survey and Arizona, Office of Employment and Population Statistics, US Bureau of Economic Analysis

Arizona Metropolitan Areas	Component County
Flagstaff	Coconino County
Lake Havasu City-Kingman	Mohave County
Phoenix-Mesa-Scottsdale	Maricopa and Pinal Counties
Prescott	Yavapai County
Sierra Vista-Douglas	Cochise County
Tucson	Pima County
Yuma	Yuma County
Arizona Micropolitan Areas	Component County
Nogales	Santa Cruz County
Payson	Gila County
Safford	Graham County
Show Low	Navajo County
	Non-Metro Counties
	Apache County
	Greenlee County
	La Paz County

The Maquiladora Related Economy of Nogales and Santa Cruz County

by Vera Pavlakovich-Kochi, Ph.D.

A recent study, *Bi-National Business Linkages Associated with Fresh Produce and Production Sharing*,[1] has investigated foundations and opportunities for Nogales and Santa Cruz County related to the importation of Mexican fresh produce and import/export trade associated with the maquiladora sector. The preceding issue of *Arizona's Economy* summarized the regional economic impacts of the importation and distribution of fresh produce; this article focuses on the maquiladora sector south of the border and its impacts on the regional economy of Nogales and Santa Cruz County in Arizona.

The Maquiladora Sector in Nogales, Sonora

Since its inception in the mid-1960s, the maquiladora sector has become the major engine of economic development in Nogales, Sonora. Although significant industry growth has taken place in other cities in Sonora (Hemosillo, Empalme, Guaymas and Ciudad Obregon), the border city of Nogales is still the leading location with the largest number of maquiladora employees in the state. The development of the so-called second- and third-tier maquiladoras reflected the expansion and transformation of the maquiladora sector from simple assembly to more complex production operations. Increasing demand for on-time delivery, together with more stringent border crossing procedures after the 9/11/2001 terrorist attack that affected cross-border wait times, also encouraged location and relocation of suppliers closer to maquiladoras. The majority of these newer maquiladoras and maquiladora-related businesses are a mix of foreign-owned and locally-owned operations.

At present, the maquiladora sector in Nogales, Sonora is about 34,000 jobs strong and has more than 100 plants.[2] Three industry sectors account for more than 50% of all employment: computer and electronic product manufacturing (23.0%), apparel manufacturing (15.0%), and transportation equipment manufacturing including components and parts for aerospace industry (14.1%). When electrical equipment and components manufacturing (13.7%), and miscellaneous manufacturing (10.2%) are added, these five industry sectors account for 76% of the maquiladora sector (Table 1).[3] Other sectors represented include fabricated metal product manufacturing, machinery manufacturing, repair of equipment, plastics and rubber products manufacturing, chemical manufacturing, and paper products manufacturing. An additional ten sectors are represented with employment of less than 1% of the total.

It is interesting to note that the apparel industry, which employs more than 5,000 workers and ranks second in terms of its share of total employment (15%), is related principally to manufacturing production of various textile (mostly disposable) garments and other accessories used in hospitals. The third ranking transportation equipment manufacturing with more than 4,800 workers (14.1% of total) encompasses the manufacturing of various components for the auto industry (from harnesses, wiring components, and cables, to brakes and radios), and a growing production and assembly of various products for the aerospace industry. Most of the remaining sectors have a long tradition in Nogales, Sonora, such as fabricated metal products, machinery manufacturing, plastic and rubber products, leather and allied products, and other. Administrative and support services, and management and technical consulting are a natural outgrowth of the industry's needs.

Maquiladora sector related employment in Ambos Nogales

A comparison of the maquiladora sector in Nogales, Sonora and matching industry sectors in Nogales, Arizona (commonly referred to as Ambos Nogales, i.e., two Nogaleses) has revealed that the Nogales, Arizona, industrial structure has been influenced by maquiladora activity south of the border. For example, the following three sectors - computer and electronic product manufacturing, transportation equipment manufacturing, and electrical equipment and components manufacturing – are obviously related to the maquiladora sector south of the border.

However, as Figure 1 clearly shows, Santa Cruz County's industrial structure is far from a true "twin plant," "co-production," or "cross-border industry cluster" model. There are some objective reasons and challenges, such as the proximity to the large metro areas of both Tucson and Phoenix. Another important factor is that decisions about input of components and services are still vested in the parent company. About 35 percent of Nogales, Sonora, maquiladoras are owned and operated by out-of-Arizona parent companies (including those in California); about 11 percent of these maquiladoras have a parent company in Phoenix or Tucson, while only 20 percent have a parent company (or an outpost of the parent company) in Nogales and Santa Cruz County.

Table 1:

Maquiladora Sector in Nogales, Sonora: Employment by Industry

Description	Number of Employees	% Share
Computer & electronic product mfg	7,843	23.0
Apparel manufacturing	5,100	15.0
Transportation equipment manufacturing	4,802	14.1
Electrical equipment, appliance & components mfg	4,675	13.7
Miscellaneous manufacturing	3,463	10.2
Fabricated metal product manufacturing	2,269	6.7
Machinery manufacturing	1,699	5.0
Repair & maintenance	1,565	4.6
Plastics & rubber products manufacturing	583	1.7
Chemical manufacturing	565	1.7
Paper manufacturing	423	1.2
Administrative & support services	261	0.8
Support activities for agriculture & forestry	185	0.5
Leather & allied product manufacturing	175	0.5
Data processing, hosting & related services	175	0.5
Furniture & related product manufacturing	138	0.4
Professional, scientific & technical manufacturing	111	0.3
Other	46	0.1
TOTAL	34,078	100.0

Source: NAICS codes assigned by author based on Index Nogales. Asociación de Maquiladoras de Sonora, A.C. Included are both members and non-members; employment figures are averages of minimum and maximum employment levels.

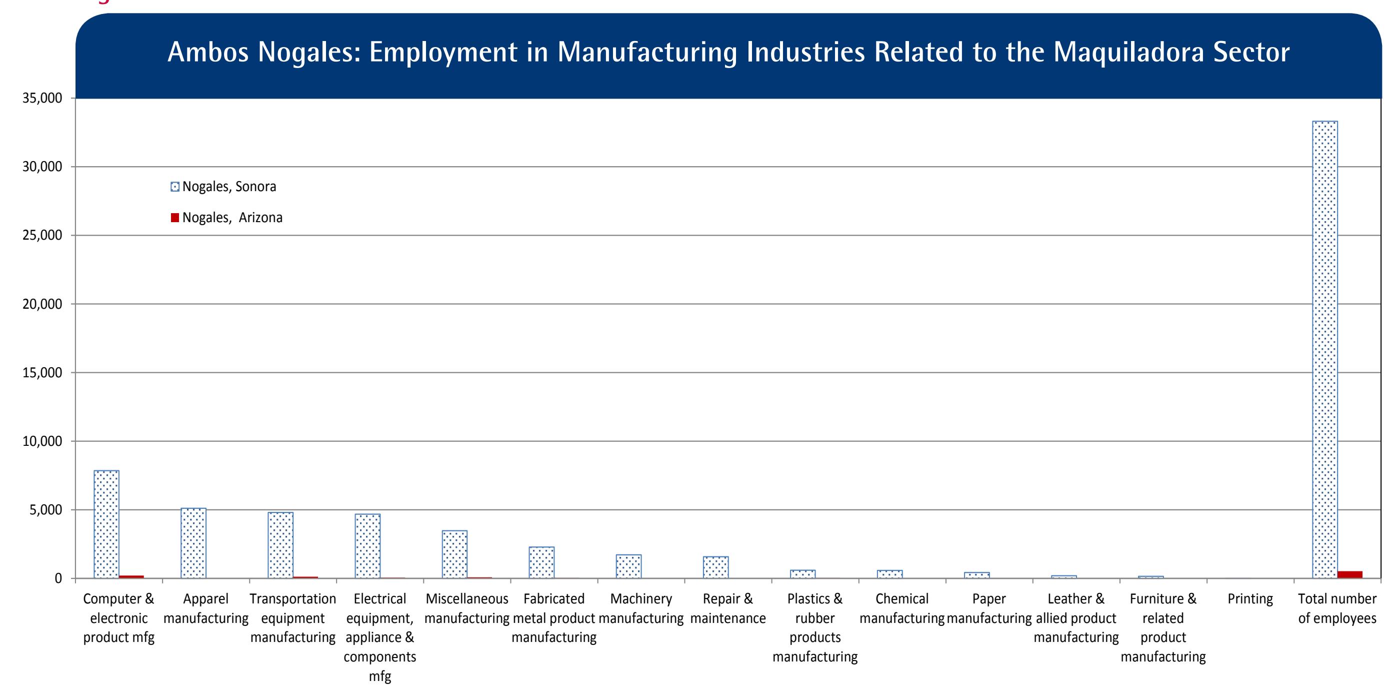
In terms of services, Nogales, Arizona shows comparative advantages in the Ambos Nogales region, especially in the area of professional services (Figure 2).

Economic Impact of Maquiladora-Related Manufacturing and Service Industries in Santa Cruz County

Using information contained in the IMPLAN model, about 15 manufacturing industries and 20 service industries in the Santa Cruz County economy were identified as having a direct connection with the maquiladora sector in Sonora.[4] Manufacturing includes the following activities: Totalizing fluid meters and counting devices manufacturing; Other aircraft parts and auxiliary equipment manufacturing; All other miscellaneous electrical equipment and component manufacturing; Sporting and athletic goods manufacturing; Unlaminated plastics profile shape manufacturing; Surgical appliance and supplies manufacturing; Other electronic component manufacturing; Turned product and screw, nut, and bolt manufacturing; Machine shops; Motor vehicle parts manufacturing; Musical instrument manufacturing; Sign manufacturing; Crown and closure manufacturing and metal stamping; Other fabricated metal manufacturing, and Wood kitchen cabinet and countertop manufacturing.

The following services were identified as being related to trade with the maquiladora sector: Transportation support services; Transport by truck; Retail stores - gasoline stations (diesel fuel); Automotive equipment rental and leasing; Warehousing and storage; Securities, commodity contracts, investments, and related activities; Nondepository credit intermediation and related activities; Legal services; Monetary authorities and depository credit intermediation activities; Management of companies and enterprises; Architectural, engineering, and related services; Facilities support services; Management, scientific, and technical consulting services; Scientific research and development services;

Figure 1:



Source: Index Nogales, Asociación de Maquiladoras de Sonora, A.C. (included are both members and non-members); for Nogales, Arizona employment from IMPLAN model of Santa Cruz County.

Table 2:

Direct Contribution of Maquiladora-Related Export Activities				
Export activity	% Export Related	Jobs	Wages $ millions	Output $ millions
Manufacturing	100.0	499.0	21.3	141.5
Services	11.3	641.0	25.1	65.3
Total		1,140.0	46.4	206.8
% of Santa Cruz County		6.30%	6.10%	10.50%

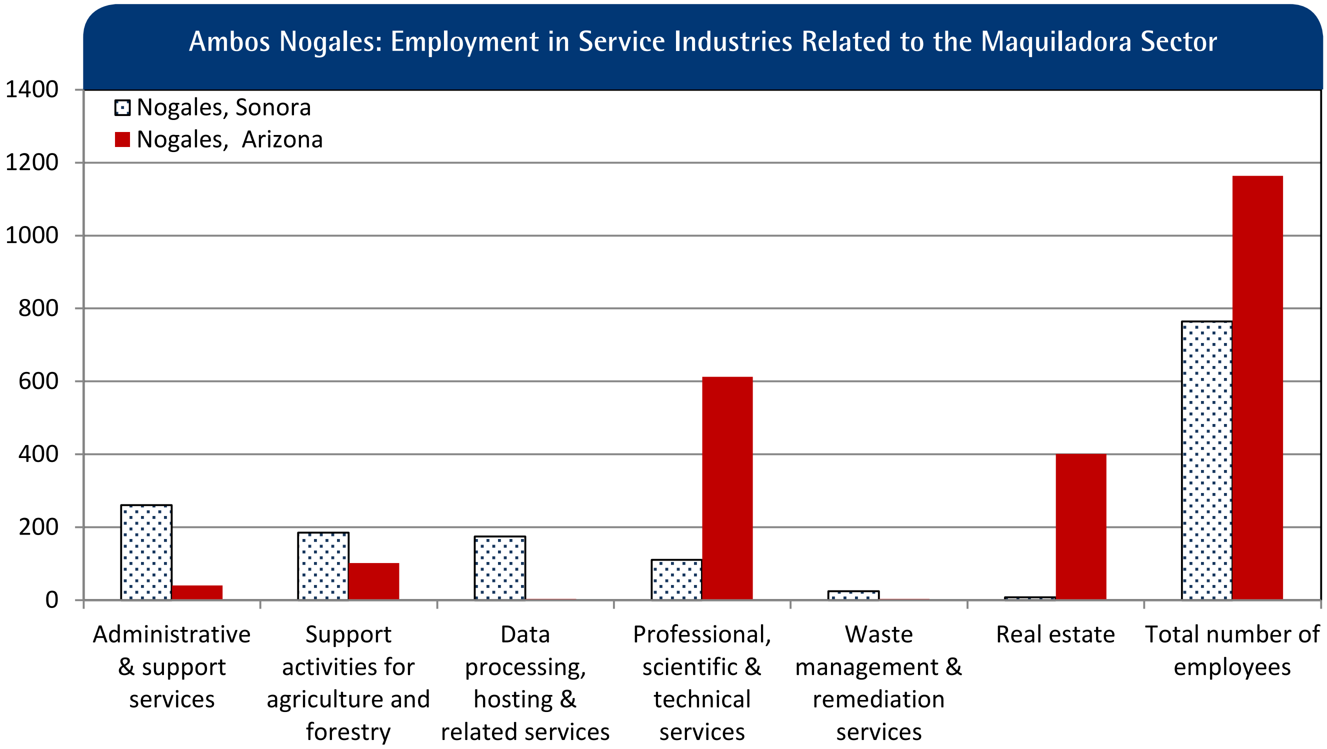
Source: IMPLAN model of Santa Cruz County.

Commercial and industrial machinery and equipment rental and leasing; Accounting, tax preparation, bookkeeping, and payroll services; Data processing, hosting, ISP, web search portals and related services; Insurance carriers; Environmental and other technical consulting services, and Waste management and remediation services.

Table 2 presents estimated direct impacts of maquiladora related trade on jobs, wages and output in Santa Cruz County: maquiladora-related exports generate directly 1,140 jobs, $46.4 million in wages and a direct output of $206.8 million in Santa Cruz County.

Secondary economic impacts are generated as businesses purchase goods and services from other local businesses and thus support additional jobs and generate additional wages and output in the local economy. Additional secondary impacts are generated as employees spend direct and indirect wages locally. Through these ripple effects, maquiladora-related exports generate an additional 636 jobs, $22.1 million in secondary wages, and $98.1 million in additional output (Table 3).

Figure 2:



Source: Index Nogales, Asociación de Maquiladoras de Sonora, A.C. (included are both members and non-members); for Nogales, Arizona employment from IMPLAN model of Santa Cruz County.

Table 3:

Total Economic Impact of Maquiladora-Related Export Activities in Santa Cruz County

	Jobs	Wages in $ millions	Output in $ millions
Direct	1,140	46.4	206.8
Secondary (Indirect & induced)	636	22.1	98.1
Total	1,776	68.5	304.9
% of Santa Cruz County	9.8%	8.9%	15.6%
Composite multipliers	1.558	1.477	1.474

Source: IMPLAN model of Santa Cruz County.

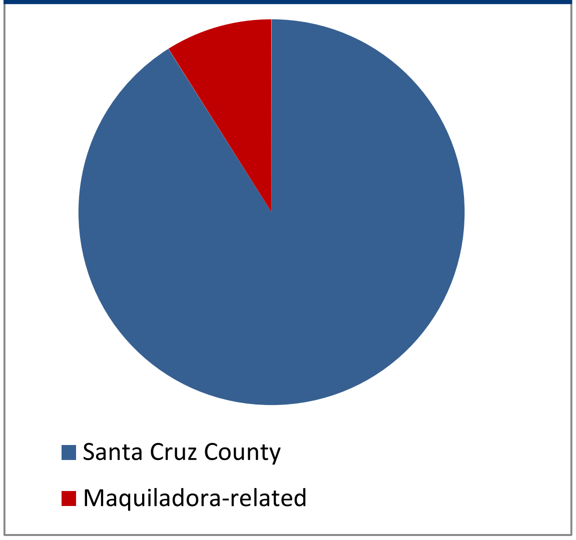
Combining direct and secondary impacts, the maquiladora-related exports generate 1,776 jobs with $68.6 million in wages. The total dollar impact is $304.9 million (Table 3). This impact accounts for 9.8% of the County's jobs, 8.9% of total wages, and 15.6% of total output in Santa Cruz County (Figure 3). The maquiladora-related economic activities generate an estimated $8.7 million annually in tax revenues to state and local governments (included in the output figure).

Summary: Foundations and Opportunities

The concentration of about 100 maquiladora plants in Nogales, Sonora, with an average of 34,000 employees, impacts the economy of Santa Cruz County in several ways. The Nogales BPOE facilitates import-export trade between U.S. based companies and assembly/production facilities south of the border including supplies shipped from Arizona companies. In addition, a number of businesses in Nogales and Santa Cruz County export manufacturing products and services to maquiladoras. The economic impact of the maquiladora related

Figure 3:

Maquiladora-Related Job Impact as Share of the County's Total Employment



Source: IMPLAN model of Santa Cruz County.

activities is 1,140 direct jobs and 636 secondary jobs with a total wage impact of $68.6 million. The total monetary impact, which includes wages and $8.7 million in tax revenues to state and local governments, is $304.9 million. This represents 9.8% of the County's jobs, 8.9% of total wages and 15.6% of total output. For every 100 jobs in the maquiladora export-related sector, an additional 56 jobs are generated in the local economy through ripple effects; every one dollar in direct wages earned in export-related activities and spent locally generates an additional $0.48 in wages, while every one dollar in output (sales) generates an additional $0.47 in output in the local economy.

The report concluded that in relation to the maquiladora sector in Nogales, Sonora, the economy of Santa Cruz County has not realized the full potential of its proximity to 100 or so maquiladora operations. In part this is a function of the mere size of the Santa Cruz County population, and partly an effect of the proximity to a much larger and economically stronger Tucson metro area, which serves as the location of parent companies and a supplier of manufacturing components and services. However, for a number of key services, the border location matters and Nogales and Santa Cruz County should be able to use its competitive advantage.

Notes

[1]The report was prepared for the Nogales Community Development by the University of Arizona's Pavlakovich-Kochi, V. and G.D. Thompson under EDA 2012 grant within NIPP project. Available at http://ebr.eller.arizona.edu

[2]Source: *Index Nogales*. Associación de Maquiladoras de Sonora, A.C. Includes both members and non-members.

[3]Based on the description of the product, as reported in *Index Nogales*, Asociación de Maquiladoras de Sonora, A.C., each maquiladora was assigned a NAICS code, according to author's best knowledge.

[4]These are sectors contained in the IMPLAN model of Santa Cruz County. They were identified based on the analysis of maquiladora sector in Nogales, Sonora (as described earlier) in combination with export data by sector in the IMPLAN model.

Forecast and Indicator Tables

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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)	164,046	171,556	182,074	193,254	206,501	221,825
% Chg from Year Ago	4.5%	4.6%	6.1%	6.1%	6.9%	7.4%
Retail Sales ($ mill)	53,128	55,122	57,121	59,491	62,255	65,052
% Chg from Year Ago	-90.0%	3.8%	3.6%	4.2%	4.7%	4.5%
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	18.3%	2.7%	3.4%	3.7%	4.0%	4.1%
Population (000s)	4,273.9	4,340.2	4,412.1	4,488.3	4,689.9	4,685.1
% Chg from Year Ago	1.1%	1.6%	1.7%	1.7%	4.5%	-0.1%
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	2013	2014	2015	2016	2017	2018
Personal Income ($ mill)	36,838	38,742	40,768	43,191	45,908	48,561
% Chg from Year Ago	2.9%	5.2%	5.2%	5.9%	6.3%	5.8%
Retail Sales ($ mill)	12,428	12,736	13,178	13,796	14,495	15,157
% Chg from Year Ago	3.3%	2.5%	3.5%	4.7%	5.1%	4.6%
Nonfarm Employment (000s)	365.3	372.3	380.8	390.6	400.2	409.0
% Chg from Year Ago	1.3%	1.9%	2.3%	2.6%	2.5%	2.2%
Population (000s)	996.7	1,006.3	1,018.4	1,034.5	1,050.8	1,067.2
% Chg from Year Ago	0.6%	1.0%	1.2%	1.6%	1.6%	1.6%
Residential Housing Permits (units)	3,992	4,533	5,291	6,415	6,515	6,505
% Chg from Year Ago	40.5%	13.6%	16.7%	21.2%	1.6%	-0.2%

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Arizona Economic Indicators

Arizona Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force (seas. adj.), BLS	3,001,366	3,000,308	2,998,445	3,004,343	3,006,225
Unemployment Rate (seas. adj.), BLS	7.8	7.8	7.6	7.5	7.3
Total Nonfarm Employment (000s, Seas. Adj.), BLS	2,526	2,534	2,542	2,553	2,548
Private	2,119.9	2,144.3	2,157.2	2,125.6	2,131.5
Government	422.7	423.2	419.4	410.5	421.9
Average Hourly Earnings – Total Private, BLS	23.08	23.21	23.29	23.24	23.18
Aggregate Retail Sales ($000, accrual)*	6,907,211	7,355,707	9,162,922	6,911,856	
New Residential Permits (units), Census C-40	1,671	1,174	2,804	1,735	2,497

* 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	6,508,880	6,529,501	6,550,122	6,570,743	6,592,791
% Chg from Year Ago	1.0%	1.1%	1.2%	1.2%	1.3%
Natural Increase, ADHS/EBR	11,280	9,903	6,715	8,049	10,927
Birth Rate (per 1,000), ADHS & EBR	14.0	13.4	12.6	12.2	13.1
Net Migration, ADHS & EBR	9,341	10,718	13,906	12,572	12,546
Total Personal Income ($ mil, SAAR) BEA & EBR	235,748	243,580	239,501	244,219	246,461
% Chg from Year Ago	2.0%	5.5%	2.5%	3.0%	4.5%
Per Capita Pers. Inc. ($ mil, SAAR), BEA & EBR**	36,220	37,305	36,564	37,168	37,383
% Chg from Year Ago	1.0%	4.3%	1.3%	1.8%	3.2%
Civilian Nonag Wage Rate, ($, SAAR), BEA & EBR	48,016	48,761	48,329	49,042	49,245
% Chg from Year Ago	0.9%	2.9%	0.8%	1.7%	2.6%
All Transactions House Price Index, FHFA	250.0	258.0	264.0	276.1	285.2
% Chg from Year Ago	7.1%	8.3%	11.4%	14.9%	14.1%

*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	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
U.S. Consumer Price Indices (seas. adj.), BLS					
All Urban Consumers: All Items	233.78	234.03	234.59	234.93	235.17
% Chg from Year Ago	0.9%	1.2%	1.5%	1.6%	1.1%
Western States – All Urban Consumers: All items	237.00	236.15	236.10	236.71	237.61
% Chg from Year Ago	0.9%	1.3%	1.8%	1.7%	1.3%
U.S. Producer Price Index: All Commodities (seas. adj.), BLS	202.50	201.00	201.80	203.50	206.00
% Chg from Year Ago	-0.5%	-0.4%	0.2%	0.5%	0.8%

Arizona Economic Indicators - MSAs

Phoenix-Mesa-Glendale MSA Summary - Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	2,027,198	2,030,517	2,033,400	2,045,898	
Unemployment Rate, ADOA	6.7	6.0	6.2	6.7	
Total Nonfarm Employment (000s), BLS	1,833.0	1,854.8	1,862.7	1,830.2	1,844.6
Private	1,592.0	1,613.8	1,624.7	1,597.4	1,604.4
Government	241.0	241.0	238.0	232.8	240.2
Average Hourly Earnings, Total Private, $, BLS	23.79	23.93	24.05	23.95	23.88
Aggregate Retail Sales ($000, accrual)*	4,829,152	5,105,969	6,553,856	4,764,410	
Total New Residential Permits (units), Census C-40	1,151	706	2,280	1,260	1,962

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

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	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force	447,477	447,270	445,451	451,003	447,538
Unemployment Rate	6.9	6.4	6.4	6.9	6.3
Total Nonfarm Employment (000s), BLS	364.6	366.8	367.9	364.4	364.5
Private	284.5	286.4	287.8	285.7	284.9
Government	80.1	80.4	80.1	78.7	79.6
Average Hourly Earnings, Total Private, $, BLS	22.45	22.29	22.24	22.15	22.25
Aggregate Retail Sales ($000), EBR & ADOR*	930,449	1,061,457	1,270,463	969,513	
Total New Residential Permits (units), Census C-40	279	251	258	233	243

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

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	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	72,798	71,316	70,378	70,159	70,073
Unemployment Rate	8.1	7.8	7.9	8.5	7.6
Total Nonfarm Employment (000s), ADOA	65.2	63.9	63.5	61.7	62.4
Private	44.8	43.7	43.6	42.2	42.4
Government	20.4	20.2	19.9	19.5	20.0
Average Hourly Earnings, Total Private, $, BLS	16.12	16.11	16.04	17.07	17.04
Gross Taxable Sales ($000 accrual)	199,685	177,206	203,080	159,603	
Total New Residential Permits (units), Census C-40	25	21	20	48	53
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	-2.8%	-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.

Lake Havasu City – Kingman MSA (Mohave County) Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	83,376	82,975	82,448	82,398	82,008
Unemployment Rate	9.6	8.9	8.9	9.4	8.5
Total Nonfarm Employment, (000s), ADOA	45.6	45.8	45.6	45.3	45.2
Private	37.4	37.6	37.5	36.8	37.0
Government	8.1	8.2	8.1	7.8	8.0
Average Hourly Earnings, Total Private, $, BLS	20.45	20.39	20.11	20.15	20.28
Gross Taxable Sales ($000 accrual)	200,937	197,188	219,809	208,812	
Total New Residential Permits (units), Census C-40	42	51	30	31	45
Lake Havasu City-Kingman MSA (Mohave County) Summary – Annual	**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

Prescott MSA (Yavapai County) Summary - Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	90,506	90,579	88,816	90,606	90,932
Unemployment Rate	7.6	7.0	7.2	7.8	6.9
Total Nonfarm Employment (000s), ADOA	57.9	58.3	57.4	56.9	57.9
Private	47.0	47.3	46.8	46.5	46.8
Government	10.9	11.0	10.6	10.4	11.1
Average Hourly Earnings, Total Private, $, BLS	18.11	17.63	17.74	17.76	17.69
Gross Taxable Sales ($000 accrual)	255,843	245,487	278,623	240,015	
Total New Residential Permits (units), Census C-40	66	66	53	70	60

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	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	90,561	89,550	88,716	87,564	85,126
Unemployment Rate	30.2	27.3	25.6	25.4	22.9
Total Nonfarm Employment (000s), ADOA	51.1	52.4	53.0	52.0	52.9
Private	35.8	37.0	37.7	37.3	37.6
Government	15.3	15.4	15.3	14.7	15.3
Average Hourly Earnings, Total Private, $, BLS	20.28	20.79	20.60	21.32	21.23
Gross Taxable Sales ($000s), EBR & ADOR	195,048	220,555	226,736	203,417	
New Residential Permits (units), Census C-40	34	42	32	30	35

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	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	20,614	20,190	20,358	20,499	20,006
Unemployment Rate	20.3	19.5	19.5	20.2	18.5
Total Nonfarm Employment (000s), ADOA	17,975	17,700	18,025	17,675	17,725
Total Private	7,625	7,500	7,500	7,275	7,225
Government	10,350	10,200	10,525	10,400	10,500
Gross Taxable Sales ($000s), EBR & ADOR	27,978	26,029	29,602	20,309	

Cochise County (Sierra Vista – Douglas Micropolitan SA) Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Total Civilian Labor Force, ADOA	54,654	54,775	54,507	54,767	54,455
Unemployment Rate	9.1	8.5	8.7	9.2	8.4
Total Nonfarm Employment, ADOA	34,625	34,850	34,850	34,175	34,500
Total Private	22,550	22,725	22,750	22,375	22,450
Government	12,075	12,125	12,100	11,800	12,050
Gross Taxable Sales ($000s), EBR & ADOR	151,116	161,811	183,239	147,687	

Gila County (Payson Micropolitan SA) Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	21,638	21,463	21,331	21,692	21,414
Unemployment Rate	9.3	8.9	8.9	9.7	8.9
Total Nonfarm Employment, ADOA	14,450	14,375	14,375	14,250	14,225
Private	9,250	9,225	9,275	9,075	9,075
Government	5,200	5,150	5,100	5,175	5,150
Gross Taxable Sales ($000s), EBR & ADOR	49,393	51,984	47,544	48,909	

Graham County Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Total Civilian Labor Force, ADOA	15,419	15,947	16,058	16,234	16,255
Unemployment Rate	7.5	6.6	6.6	6.9	6.3
Total Nonfarm Employment, ADOA	8,775	8,800	8,750	8,600	8,750
Total Private	5,725	5,725	5,725	5,750	5,725
Government	3,050	3,075	3,025	2,850	3,025
Gross Taxable Sales ($000s), EBR & ADOR	28,186	30,274	32,945	28,725	

Greenlee County Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Total Civilian Labor Force, ADOA	4,534	4,743	4,762	4,834	4,822
Unemployment Rate	6.2	6.3	6.1	6.8	5.8
Total Nonfarm Employment, ADOA	5,450	6,125	6,350	6,350	6,400
Total Private	4,900	5,575	5,800	5,800	5,825
Government	550	550	550	550	575
Gross Taxable Sales ($000s), EBR & ADOR	41,419	37,054	45,867	50,323	

Arizona Economic Indicators - Counties

La Paz County Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Civilian Labor Force, ADOA	7,219	7,182	7,141	7,232	7,067
Unemployment Rate	9.5	9.0	9.1	10.3	9.2
Total Nonfarm Employment, ADOA	5,025	5,025	4,950	4,925	4,950
Total Private	2,700	2,675	2,650	2,625	2,650
Government	2,325	2,350	2,300	2,300	2,300
Gross Taxable Sales ($000s), EBR & ADOR	24,227	19,645	21,673	29,745	

Navajo County (Show Low Micropolitan SA) Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Total Civilian Labor Force, ADOA	37,823	37,332	37,103	37,346	36,900
Unemployment Rate	15.1	14.4	14.5	15.5	13.9
Total Nonfarm Employment, ADOA	27,275	27,125	27,075	26,450	26,825
Total Private	17,600	17,350	17,275	16,975	17,100
Government	9,675	9,775	9,800	9,475	9,725
Gross Taxable Sales ($000s), EBR & ADOR	75,184	71,577	77,105	64,803	

Santa Cruz County Summary – Monthly	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014
Total Civilian Labor Force, ADOA	17,464	17,513	17,515	17,721	17,373
Unemployment Rate	20.6	18.0	17.3	17.1	15.4
Total Nonfarm Employment, ADOA	12,525	12,950	13,175	13,100	13,200
Private	8,625	9,050	9,250	9,175	9,275
Government	3,900	3,900	3,925	3,925	3,925
Gross Taxable Sales ($000s), EBR & ADOR	42,108	49,146	59,924	40,295	

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.

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