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# ARIZONA'S Economy

## Arizona's Economy Passes Through Summer Showers

By George W. Hammond, Ph.D., EBR Director and Research Professor  
December 1, 2016



The Arizona economy slowed during the summer, with job growth falling back to the national rate. Further, new personal income estimates suggest slower growth early in the year. While Arizona continues to expand at a solid pace, 2016 no longer appears to be the breakout year. Nonetheless, the odds still favor continued growth in the U.S. and Arizona economies this year and next.

The outlook for Arizona calls for solid gains in jobs, income, and population. While growth rates are expected to far exceed the nation, they are not headed back to historical averages. Job gains will likely be concentrated in

service-providing industries, like professional and business services; education and health services; trade, transportation, and utilities; and leisure and hospitality.

Arizona's two largest metropolitan areas have also experienced a summer lull, but are expected to rebound later this year and in 2017. As usual, the Phoenix MSA is forecast to expand at a rapid pace. The Tucson MSA is expected to capitalize on recent announcements of new jobs in the aerospace sector to generate improved gains during the forecast.

### Arizona Recent Developments

The Arizona economy continued to add jobs during the summer, although the pace slowed. Over the year, Arizona added 44,400 jobs for a 1.7% growth rate. That matched the national rate, but fell short of the pace set in the second quarter of 2.1%. Using monthly data, **Exhibit 1** shows that state job growth dipped slightly below the national pace in September. The employment data referenced here result from EBR's benchmark and differ from those

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**Exhibit 1:** Arizona and U.S. Job Gains Slowed During the Summer



*"On average during September, one U.S. dollar bought 19.24 pesos, which was 48.1% higher than in June 2014. "*

currently published by the U.S. Bureau of Labor Statistics (BLS).

One key indicator to track these days is growth in wages per worker. The preliminary data for the first quarter of 2016 suggested the beginning of a stronger recovery in wages. However, the subsequent downward revision to first quarter wages and salaries now indicates that we may still be waiting. Over the year growth in wages per worker was below 2.0% for both the first and second quarters of this year. Keep in mind that annual growth in wages per worker was in the 4.5% per year range during the 2004-2007 period.

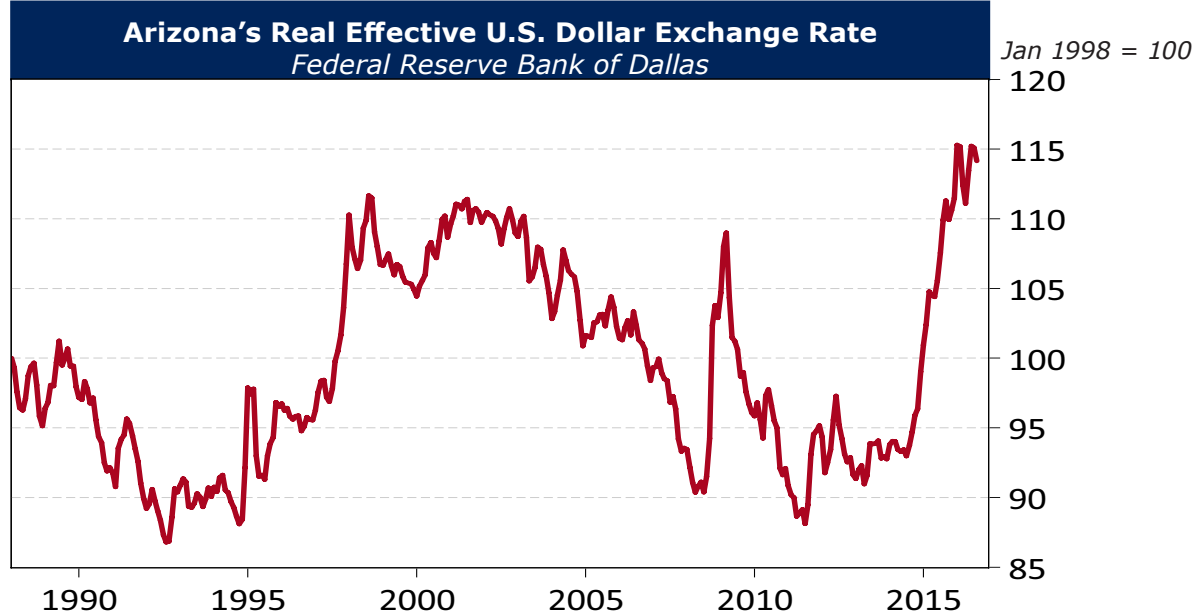
The U.S. dollar has risen substantially against most currencies since mid-2014. We can get a sense of what this might mean for Arizona's exports using a real effective exchange rate for Arizona that is published by the Federal Reserve Bank of Dallas. This exchange rate weights changes in U.S. dollar bilateral exchange rates using state-specific merchandise export shares, adjusted for relative inflation

rates. This is the exchange rate that really matters for Arizona's exports to the world (**Exhibit 2**).

Note that Arizona's real effective exchange rate is at an all-time high (at least since 1988). Further, it has risen 22.2% since mid-2014. A rising dollar tends to put downward pressure on exports (and upward pressure on imports), other things the same.

After weakening briefly during the spring, the U.S. dollar is again hitting new highs against the Mexican peso. On average during September, one U.S. dollar bought 19.24 pesos, which was 48.1% higher than in June 2014. The U.S. dollar is also up significantly against the Canadian dollar, having risen by 21.0% since mid-2014. Mexico and Canada are Arizona's two largest merchandise export destinations.

The strength of the dollar is beginning to weigh on Arizona's merchandise export performance. Through July 2016, Arizona's exports to Mexico have fallen 13.2%, compared to the same period last year. The bulk of

**Exhibit 2:** Arizona's Real Effective Exchange Rate is at an All-Time High

the decline originated in non-manufacturing goods, primarily minerals and ores. Exports of commodities tend to be especially volatile and mineral and ore exports are coming off a very strong performance in 2014-2015. Manufacturing exports are also down so far this year, but by a modest amount.

The strong dollar may also be affecting Mexican visitors to the state. Legal northbound border crossings from Mexico through Arizona's border ports of entry have slowed since mid-2014 for personal vehicles, personal vehicle passengers, and buses. Interestingly, pedestrian crossings have accelerated recently.

## Arizona Outlook

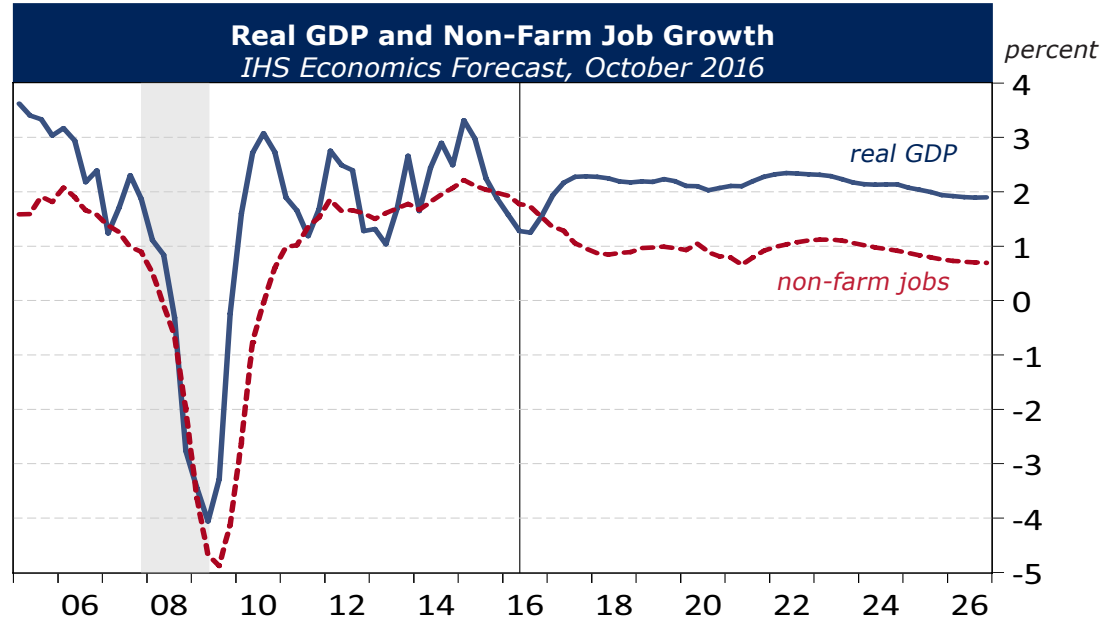
The Arizona outlook depends in part on the national economy. IHS Economics projects that U.S. real GDP growth will hit just 1.4% in 2016, down from 2.6% last year. Gains accelerate next year to 2.2% and hold steady at that rate through 2019. Sluggish growth in 2016 reflects an inventory draw down, slower consumption

spending, weak nonresidential fixed investment (especially in the energy sector), slower gains in residential investment (housing), and weak export performance. Slightly stronger gains are expected in 2017, as rising oil prices spur renewed investment in the energy sector and a gradually falling dollar spurs stronger export gains.

As **Exhibit 3** shows, accelerating real GDP growth is expected to be accompanied by slower job growth. The ongoing retirement of the baby boom generation is expected to weigh on job gains during the forecast period. During the past five years, real GDP and job gains have been unusually similar, which reflects the very slow productivity growth the U.S. has experienced since the end of the Great Recession. This is a shift from the typical pattern, in which real GDP gains outpace job growth by a substantial margin. As the exhibit shows, the forecast assumes that the normal pattern re-emerges. This is a crucial assumption.

*"Gains accelerate next year to 2.2% and hold steady at that rate through 2019."*

**Exhibit 3:** U.S. Real GDP Growth Accelerates Modestly, While Job Gains Slow



*"The strong increase in retail sales in 2015 was driven in part by a change in tax law."*

Continued global and national growth sets the stage for Arizona to continue to add jobs and residents, and experience further gains in inflation-adjusted income. As **Exhibit 4** shows, the forecast calls for job growth to decelerate slightly this year, before picking up steam again in 2017 and 2018. After a brief acceleration in the near term, job growth in the state gradually softens as the retirement of the baby boom generation increasingly impacts economic growth. Nonetheless, Arizona's job growth is expected

to outpace the national rate during the next 10 years.

Arizona's income growth accelerates as job growth gains momentum. Wages rise more rapidly in the near term, as the state unemployment rate continues to fall. This sets the stage for continued gains in household spending, including spending on taxable goods. The strong increase in retail sales in 2015 was driven in part by a change in tax law that shifted some revenues from contracting into retail sales.

**Exhibit 4:** Arizona Outlook Summary

	Actual		Forecast	
	2015	2016	2017	2018
<i>Growth Rate</i>				
Nonfarm Jobs	2.5	2.2	2.7	2.7
Personal Income	4.5	4.3	5.2	6.0
Retail Sales Less Food	9.2	4.2	4.6	4.2
Population	1.4	1.4	1.6	1.7
<i>Level</i>				
Unempl. Rate	6.1	5.6	5.2	5.1
Housing Permits	28,910	34,346	37,372	41,686

Population rises during the forecast, driven primarily by net migration, as U.S. residential mobility improves during the forecast. Faster population growth, in turn, boosts housing permits and construction employment.

Overall, Arizona's growth is on track for solid performance: above the national rate in most cases, but slower than our historical averages.

*"Arizona's job growth is expected to outpace the national rate during the next 10 years."*

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# FORECAST TABLES

Arizona	2015	2016	2017	2018	2019	2020
Personal Income (\$ mil)	267,361	278,795	293,408	311,015	330,090	349,909
% Chg from Year Ago	4.5%	4.3%	5.2%	6.0%	6.1%	6.0%
Retail Sales (\$mil)	92,647	95,287	99,748	104,469	110,007	115,513
% Chg from Year Ago	4.7%	2.8%	4.7%	4.7%	5.3%	5.0%
Total Nonfarm Employment (000s)	2,634.6	2,691.9	2,763.4	2,838.5	2,918.5	2,998.1
% Chg from Year Ago	2.5%	2.2%	2.7%	2.7%	2.8%	2.7%
Population (000s), July 1st estimates	6,758.3	6,855.5	6,967.3	7,089.2	7,216.0	7,344.9
% Chg from Year Ago	1.4%	1.4%	1.6%	1.7%	1.8%	1.8%
Residential Building Permits (units)	28,910	34,346	37,372	41,686	43,733	44,722
% Chg from Year Ago	7.1%	18.8%	8.8%	11.5%	4.9%	2.3%

Phoenix-Mesa-Glendale MSA	2015	2016	2017	2018	2019	2020
Personal Income (\$ mil)	189,740	200,664	213,147	228,113	243,808	259,625
% Chg from Year Ago	6.1%	5.8%	6.2%	7.0%	6.9%	6.5%
Retail Sales (\$ mil)	65,240	68,102	71,984	76,293	81,110	85,573
% Chg from Prior	5.3%	4.4%	5.7%	6.0%	6.3%	5.5%
Total Nonfarm Employment (000s)	1,912.7	1,971.8	2,034.6	2,102.8	2,170.6	2,232.1
% Chg from Year Ago	3.2%	3.1%	3.2%	3.4%	3.2%	2.8%
Population (000s), July 1st estimates	4,482.9	4,565.9	4,662.0	4,760.0	4,857.3	4,954.8
% Chg from Year Ago	1.8%	1.9%	2.1%	2.1%	2.0%	2.0%
Residential Building Permits (units)	22,402	28,307	32,878	35,018	34,786	34,839
% Chg from Prior	10.1%	26.4%	16.1%	6.5%	-0.7%	0.2%

Tucson MSA	2015	2016	2017	2018	2019	2020
Personal Income (\$ mil)	38,606	40,347	42,303	44,557	46,987	49,463
% Chg from Year Ago	3.8%	4.5%	4.8%	5.3%	5.5%	5.3%
Retail Sales (\$ mil)	12,933	13,279	13,767	14,295	15,031	15,668
% Chg from Year Ago	3.3%	2.7%	3.7%	3.8%	5.1%	4.2%
Total Nonfarm Employment (000s)	367.4	372.8	379.8	387.5	395.5	403.5
% Chg from Year Ago	0.6%	1.4%	1.9%	2.0%	2.1%	2.0%
Population (000s), July 1st estimates	1,009.4	1,015.4	1,025.0	1,035.8	1,046.9	1,058.3
% Chg from Year Ago	0.2%	0.6%	0.9%	1.1%	1.1%	1.1%
Residential Permits (units)	2,428	2,706	3,741	3,967	4,128	4,179
% Chg from Year Ago	-25.3%	11.5%	38.2%	6.1%	4.1%	1.2%

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# ARIZONA ECONOMIC INDICATORS

Arizona - Labor Force and Employment, SA	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
<i>Persons (000s, seasonally adjusted), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force	3,223.8	3,213.5	3,222.0	3,235.9	3,252.4
% Chg from Year Ago	2.6%	2.2%	2.2%	2.5%	2.8%
Employment	3,031.6	3,026.6	3,043.2	3,066.6	3,090.6
Unemployment	192.2	187.0	178.7	169.4	161.8
Unemployment Rate	6.0	5.8	5.5	5.2	5.0
<i>Employees on Nonagricultural Payrolls (000s, seasonally adjusted), Current Employment Statistics, BLS</i>					
Total	2,704.5	2,702.7	2,708.4	2,714.4	2,707.2
% Chg from Year Ago	2.6%	2.2%	2.2%	1.9%	1.1%
Total Private	2,300.9	2,297.3	2,301.9	2,307.2	2,299.9
% Chg from Year Ago	3.2%	2.7%	2.8%	2.2%	1.4%
Goods Producing	309.4	307.1	309.8	308.9	305.8
Mining and Logging	11.5	12.0	12.0	12.0	12.0
Construction	138.4	136.8	139.7	139.4	135.7
Manufacturing	159.5	158.3	158.1	157.5	158.1
Durable Goods	120.3	119.5	119.5	119.4	120.1
Non-Durable Goods	39.2	38.8	38.6	38.1	38.0
Service Providing	2,395.1	2,395.6	2,398.6	2,405.5	2,401.4
Private Service Providing	1,991.5	1,990.2	1,992.1	1,998.3	1,994.1
Wholesale Trade	97.1	96.8	95.6	95.1	95.4
Retail Trade	330.1	329.2	329.6	331.1	326.5
Transportation and Utilities	91.8	92.9	92.7	93.4	93.8
Information	47.1	46.9	47.3	48.7	47.4
Finance and Insurance	154.9	153.8	154.4	154.6	154.0
Real Estate and Rental and Leasing	51.2	51.3	50.0	50.5	50.2
Professional and Business Services	409.8	408.3	408.0	407.5	409.2
Professional, Scientific, and Technical Services	130.5	132.3	130.9	129.9	130.8
Management of Companies and Enterprises	31.8	32.1	32.4	32.8	32.8
Administrative and Support Waste Management and Remediation Services	247.5	243.9	244.7	244.8	245.6
Educational Services	63.8	63.9	66.4	65.8	64.3
Health Care and Social Assistance	351.7	351.2	352.0	353.1	353.1
Arts, Entertainment, and Recreation	40.5	40.9	40.1	40.7	41.5
Accommodation and Food Services	266.5	268.3	269.2	270.5	273.3
Other Services	87.0	86.7	86.8	87.3	85.4
Government	403.6	405.4	406.5	407.2	407.3
% Chg from Year Ago	-0.7%	-0.9%	-0.8%	0.0%	-0.5%
Federal Government	54.5	54.5	53.9	55.4	54.9
State Government	84.0	83.9	86.2	86.1	86.7
Local Government	265.1	267.0	266.4	265.7	265.7



# ARIZONA ECONOMIC INDICATORS

Arizona - Earnings, Sales, Housing, Bankruptcy	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
<i>Average Hourly Earnings by Industry (\$, not seasonally adjusted), BLS</i>					
Total Private	23.77	23.74	24.24	24.21	24.50
% Chg from Year Ago	3.6%	3.1%	3.8%	4.1%	5.1%
Construction	24.73	25.10	25.65	25.55	25.24
Manufacturing	24.42	24.22	23.87	24.02	24.12
Financial Activities	27.03	27.35	28.57	28.17	28.93
Professional and Business Services	25.67	26.01	26.15	26.32	26.61
Trade, Transportation, and Utilities	22.82	22.04	22.77	22.86	23.55
Education and Health Services	25.24	25.21	25.23	25.52	25.56
Leisure and Hospitality	14.13	14.13	14.07	14.09	14.25
<i>Sales (\$000s, accrual), ADOR</i>					
Aggregate Retail Sales, EBRC*	7,818,670.3	7,545,590.4	7,483,573.9	7,570,867.0	
% Chg from Year Ago	3.5%	1.8%	1.4%	1.8%	
Retail Sales	5,210,887.8	5,013,005.5	4,961,568.8	5,024,135.4	
Food, EBRC**	1,063,546.7	1,012,971.6	1,007,827.8	1,018,742.6	
Restaurants & Bars	1,024,992.8	1,030,523.8	998,743.6	1,030,888.8	
Gasoline, EBRC***	519,243.0	489,089.4	515,433.6	497,100.2	
Gallons, ADOT	235,484.4	243,449.2	248,881.5	237,619.6	
Utilities	933,792.4	1,161,600.6	1,179,526.6	1,039,128.4	
Communications	166,155.1	167,421.1	169,486.8	166,489.2	
Amusements	118,096.8	89,815.2	92,679.5	80,381.1	
Rentals Personal Property	309,884.2	334,065.8	343,422.1	341,352.9	
Contracting	865,089.6	851,325.7	787,599.8	851,996.3	
Hotel/Motel	198,181.2	183,280.1	177,556.2	214,568.7	
Mining, Oil, & Gas Production	11,200.5	11,181.3	14,810.9	10,385.0	
Mining Severance	41,937.6	58,532.0	52,265.0	51,683.6	
Printing	17,923.4	16,509.4	20,063.0	20,881.1	
Publishing	6,432.0	7,990.8	6,560.8	6,506.6	
Use Tax	517,947.5	412,036.9	454,810.2	593,756.9	
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	4,711	2,440	2,629	3,514	2,174
% Chg from Year Ago	51.2%	-21.6%	-17.0%	40.4%	-16.9%
Single Family Units	2,570	1,820	2,132	1,917	1,899
% Chg from Year Ago	14.5%	-15.9%	3.2%	-1.4%	2.0%
2-4 Unit Structures	67	37	54	58	27
5-plus Unit Structures	2,074	583	443	1,539	248
<i>Bankruptcy Filings, U.S. Bankruptcy Court - Arizona District</i>					
Total	1,314	1,252	1,335	1,182	1,247
% Chg from Year Ago	-10.7%	-16.0%	-7.5%	-17.5%	-12.6%
Chapter 7	1,103	1,028	1,103	956	1,011
Chapter 11	11	16	11	18	10
Chapter 13	200	208	221	208	225

\*EBRC estimates Aggregate Retail Sales by summing Retail Sales (ADOR), Food Sales estimated by EBRC (food is not taxable in Arizona), Restaurant and Bar Sales (ADOR), and Gasoline Sales estimated by EBRC using number of gallons sold in Arizona (ADOT) and current tax rate on gasoline (ADOR).

\*\*estimated by EBRC.

\*\*\*estimated by EBRC using gallons sold (ADOT) and tax rate (ADOR).

# ARIZONA ECONOMIC INDICATORS

## Arizona - Demographics and Vital Statistics

	2011	2012	2013	2014	2015
<i>Demographics and Vital Statistics (July 1st Estimates, 000s), ADHS, ADOA &amp; EBRC</i>					
Population, ADOA*	6,438.2	6,498.6	6,581.1	6,667.2	6,758.3
% Chg from Year Ago	0.6%	0.9%	1.3%	1.3%	1.4%
Resident Births, ADHS	85.2	85.7	85.0	86.6	85.0
Birth Rate	13.2	13.2	12.9	13.0	13.1
Residents Deaths, ADHS	47.5	48.5	49.9	51.1	54.2
Net Migration, EBRC	10.9	34.2	48.5	53.0	65.4

\*This population figure is from the Arizona Dept. of Administration, rather than the official Census population count. EBRC feels this figure is more accurate.

\*\*Birth rate and net migration are both calculated by EBRC using data from the Arizona Dept. of Health Services.

## Arizona - Personal Income and Earnings

	2011	2012	2013	2014	2015
Per Capita Personal Income (\$), EBRC*	35,078.1	36,349.6	36,799.8	38,356.5	39,560.7
% Chg from Year Ago	4.4%	3.6%	1.2%	4.2%	3.1%
Average Earnings per Job (\$), BEA**	46,794	48,170	49,070	50,083	51,002
% Chg from Year Ago	2.3%	2.9%	1.9%	2.1%	1.8%

*Personal Income Derivation (\$ millions), BEA\*\*\**

Total Personal Income	225,838.9	236,220.3	242,181.5	255,731.8	267,361.1
% Chg from Year Ago	5.0%	4.6%	2.5%	5.6%	4.5%
Earnings by place of work	151,754.7	158,853.5	165,510.0	172,673.2	180,699.2
Less: Contributions for government social insurance	15,992.4	16,540.0	19,323.9	19,999.4	20,974.3
Plus: Adjustment for residence	1,243.5	1,334.4	1,288.8	1,376.4	1,539.2
Equals: Net earnings by place of residence	137,005.9	143,647.9	147,475.0	154,050.2	161,264.1
Plus: Dividends, interest, and rent	40,510.1	44,501.6	44,902.3	48,316.7	49,793.4
Plus: Personal current transfer receipts	48,322.9	48,070.8	49,804.2	53,365.0	56,303.6

*Components of Earnings (\$ millions), BEA\*\*\**

Total Wages and salaries	113,662.6	119,041.4	122,681.9	127,830.5	134,025.2
% Chg from Year Ago	4.0%	4.7%	3.1%	4.2%	4.8%
Supplements to wages and salaries	26,527.3	26,873.8	27,727.5	28,678.1	29,112.2
Proprietors' income	11,564.8	12,938.2	15,100.6	16,164.7	17,561.8
Farm	542.8	318.6	738.5	623.8	808.2
Nonfarm	11,022.0	12,619.6	14,362.1	15,540.9	16,753.6

\*EBRC calculates per capita personal income using total personal income from BEA divided by population estimates from ADOA. ADOA counts differ from official Census counts, but EBRC considers them more accurate.

\*\*Average earnings per job is total earnings divided by total full-time and part-time employment. Earnings is the sum of three components of personal income--wages and salaries, supplements to wages and salaries, and proprietors' income.

\*\*\*for detailed definitions, see BEA table SA4 "Personal Income and Employment by Major Component"

## Inflation and Prices - United States

	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
<i>U.S. Consumer Price Indices (seasonally adjusted), BLS</i>					
All Urban Consumers: All Items	239.81	240.30	241.00	241.86	242.35
% Chg from Year Ago	0.9%	1.1%	1.5%	1.6%	1.7%
Western States - All Urban Consumers: All items	248.38	248.50	249.23	249.90	249.45
% Chg from Year Ago	1.4%	1.5%	2.0%	2.3%	2.3%
U.S. Producer Price Index for All Commodities (seas. adj.), BLS	187.70	186.20	187.00	186.80	186.40
% Chg from Year Ago	-3.2%	-3.0%	-1.1%	-0.4%	0.4%

# ARIZONA ECONOMIC INDICATORS

Arizona - Travel and Tourism	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
<i>Employment (000s, 12-month moving averages*), BLS</i>					
Leisure and Hospitality	303.6	304.5	305.2	305.9	306.8
% Chg from Year Ago	3.3%	3.2%	3.1%	2.9%	2.9%
Accommodation	45.1	45.0	45.0	44.9	44.9
% Chg from Year Ago	0.4%	0.0%	-0.4%	-0.7%	-0.7%
<i>Sales (\$000s, accrual, 12-month moving average*), ADOR</i>					
Hotel/Motel	237,138.8	238,115.8	239,808.7		
% Chg from Year Ago	5.0%	5.1%	5.2%		
<i>Phoenix Sky Harbor International Airport (12-month moving averages*)</i>					
Total Passengers	3,661,539.0	3,636,405.2	3,630,435.6		
% Chg from Year Ago	1.6%	0.4%	-0.3%		
<i>Tucson International Airport (12-month moving averages*)</i>					
Total Passengers	267,511.3	267,830.2	269,032.4	270,358.8	
% Chg from Year Ago	0.3%	0.9%	1.5%	2.2%	

\*These data series are all quite volatile, thus the 12-month moving average yields more accurate information on trend.

Arizona - Travel and Tourism, cont.	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016
<i>International Border Crossings, Bureau of Transportation Statistics</i>					
Pedestrians	633,204	678,557	573,293	555,998	624,005
% Chg from Year Ago	11.0%	1.1%	1.2%	3.5%	6.7%
Personal Vehicle Passengers	1,424,872	1,488,943	1,407,065	1,275,178	1,470,138
% Chg from Year Ago	2.0%	1.4%	-0.2%	1.9%	-1.2%
Personal Vehicles	759,039	743,115	714,514	691,701	758,838
% Chg from Year Ago	6.6%	1.2%	-2.1%	1.4%	-3.2%
Trains	58	59	60	65	68
% Chg from Year Ago	-13.4%	-4.8%	-4.8%	-8.5%	-16.1%
Trucks	29,870	32,873	36,668	39,382	41,357
% Chg from Year Ago	1.7%	-2.5%	-6.5%	5.0%	3.6%
Buses	1,060	1,066	1,103	956	1,295
% Chg from Year Ago	6.3%	-7.9%	-0.5%	4.4%	14.0%
Bus Passengers	15,395	15,675	18,223	16,000	19,411
% Chg from Year Ago	-0.3%	-17.4%	10.1%	45.5%	15.7%

\*Figures are totals of all Arizona border ports of entry (Nogales District): Douglas, Lukeville, Naco, Nogales, San Luis. Crossings are from Mexico into the United States.

Park Visits, Arizona	2011	2012	2013	2014	2015
<i>Visits (000s) Arizona State and National Parks, NPS &amp; ASPB</i>					
Total Arizona	19,339.1	19,030.6	19,221.3	20,703.7	22,427.9
% Chg from Year Ago	-3.7%	-1.6%	1.0%	7.7%	8.3%
Northern Arizona	16,856.6	16,552.4	16,626.2	18,027.4	19,531.4
% Chg from Year Ago	-2.7%	-1.8%	0.4%	8.4%	8.3%
Historical	1,327.8	1,147.4	1,070.3	1,114.5	1,177.8
Scenic	6,190.5	6,369.7	6,521.0	6,933.8	7,670.8
Water-based	9,338.3	9,035.3	9,034.9	9,979.1	10,682.8
Southern Arizona	2,482.5	2,478.2	2,595.1	2,676.3	2,896.5
% Chg from Year Ago	-9.8%	-0.2%	4.7%	3.1%	8.2%
Historical	438.1	382.2	359.4	384.8	425.4
Scenic	1,726.3	1,729.7	1,869.3	1,903.1	2,059.9
Water-based	318.1	366.3	366.4	388.4	411.2

# ARIZONA ECONOMIC INDICATORS - MSAs

Phoenix-Mesa-Glendale MSA - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
<i>Persons (000s), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force (000s), BLS	2,216.8	2,208.5	2,237.7	2,248.2	
Unemployment Rate	5.4	5.0	4.8	4.5	
<i>Employees on Nonagricultural Payrolls (000s), Current Employment Statistics, BLS*</i>					
Total Nonfarm Employment	1,926.2	1,947.8	1,967.4	1,987.8	2,000.5
Mining and Logging	3.2	3.3	3.3	3.3	3.3
Construction	110.0	106.9	109.4	109.6	107.7
Manufacturing	120.2	119.4	118.5	118.4	119.0
Trade, Transportation, & Utilities	383.8	383.9	383.7	389.7	397.6
Information	38.4	37.7	37.5	38.3	38.0
Financial Activities	175.4	174.5	174.0	175.4	175.1
Professional & Business Services	331.4	329.2	328.1	331.9	336.3
Education and Health Services	288.6	292.8	297.0	299.2	299.0
Leisure and Hospitality	208.2	212.4	212.5	215.9	219.4
Other Services	64.9	64.2	64.2	64.3	62.6
Government	202.1	223.5	239.2	241.8	242.5
Average Hourly Earnings, Private, \$, BLS	24.87	25.39	25.45	25.83	25.78
<i>Sales (\$ accrual), ADOR</i>					
Aggregate Retail Sales, EBRC	5,335,593,471	5,232,512,668	5,388,626,129		
Retail Sales	3,598,845,384	3,484,146,893	3,604,117,771		
Food	732	735	737		
Restaurants and Bars	703,219,707	685,729,589	731,146,697		
Gasoline, EBRC	301,484,304	328,081,945	316,214,963		
Amusements	64,410,573	72,815,751	59,840,156		
Hotel/Motel	79,898,132	83,218,275	116,071,506		
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	1,439	2,011	3,793	1,986	
Single Family Units	1,228	1,634	1,559	1,591	
<i>Housing Sales and Prices, ARMLS</i>					
Units Sold	7,775	7,975	7,421	7,102	
Average Price (\$)	272,386	275,995	281,481	284,339	

\*Go to [www.azecconomy.org](http://www.azecconomy.org) for a more detailed breakout of employment categories.

Phoenix-Mesa-Glendale MSA - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	4,227,601	4,273,897	4,338,672	4,404,888	4,482,906
% Chg from Year Ago	0.7%	1.1%	1.5%	1.5%	1.8%
Total Personal Income (\$000), BEA	154,596,814	163,407,229	167,760,664	178,064,720	186,693,084
% Chg from Year Ago	5.4%	5.7%	2.7%	6.1%	4.9%
Per Capita Personal Income (\$), EBRC**	36,568	38,234	38,666	40,424	41,646
% Chg from Year Ago	4.8%	4.6%	1.1%	4.6%	3.0%

# ARIZONA ECONOMIC INDICATORS - MSAs

Tucson MSA (Pima Co.)- Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
<i>Persons (000s), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force (000s), BLS	469,829.0	467,511.0	477,724.0	479,043.0	
Unemployment Rate	5.8	5.4	5.2	4.8	
<i>Employees on Nonagricultural Payrolls (000s), Current Employment Statistics, BLS*</i>					
Total Nonfarm Employment	366.2	369.6	376.5	380.6	385.0
Mining and Logging	2.2	2.2	2.1	2.2	2.2
Construction	14.5	14.4	14.3	14.3	14.3
Manufacturing	24.1	24.0	23.5	23.5	23.9
Trade, Transportation, and Utilities	60.5	60.9	60.7	60.9	62.5
Information	5.0	5.0	4.9	5.0	5.0
Financial Activities	19.8	19.7	19.3	19.4	19.3
Professional and Business Services	52.1	52.1	52.1	52.5	53.0
Education and Health Services	65.7	65.8	65.5	66.5	66.8
Leisure and Hospitality	42.9	42.8	42.5	43.6	45.0
Other Services	12.6	12.4	12.4	12.4	12.4
Government	66.8	70.3	79.2	80.3	80.6
<i>Sales (\$ accrual), ADOR</i>					
Aggregate Retail , EBRC	1,028,025,550	1,082,050,254	1,040,975,093		
Retail	668,927,706	715,448,158	672,223,168		
Food, EBRC	156,750,515	157,122,242	157,509,431		
Restaurants & Bars	135,636,708	138,372,169	142,703,501		
Gasoline, EBRC	66,710,621	71,107,686	68,538,993		
Amusements	7,900,117	6,290,039	6,505,477		
Hotel/Motel	19,594,577	19,236,480	21,058,593		
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	165	185	194	200	
Single Family	151	168	171	178	
<i>Housing Sales and Prices, TAR</i>					
Units Sold	1,395	1,413	1,331	1,259	
Average Price (\$)	218,986	220,774	220,538	216,902	

\*Go to <https://www.azeconomy.org/> for a more detailed breakout of employment categories.

Tucson MSA (Pima Co.) - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	986,081	990,380	996,046	1,007,162	1,009,371
% Chg from Year Ago	0.5%	0.4%	0.6%	1.1%	0.2%
Total Personal income	34,737,686	35,985,709	36,453,218	37,893,093	38,922,402
% Chg from Year Ago	4.1%	3.6%	1.3%	4.0%	2.7%
Per Capita Personal Income (\$), EBRC**	35,228	36,335	36,598	37,624	38,561
% Chg from Year Ago	3.6%	3.1%	0.7%	2.8%	2.5%

# ARIZONA ECONOMIC INDICATORS - MSAs

Flagstaff MSA (Coconino County) - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Civilian Labor Force (000s), BLS	74.5	73.7	75.8	75.6	
Unemployment Rate	7.1	6.4	5.8	5.7	
Total Nonfarm Employment (000s), BLS	65.2	65.7	68.1	68.0	66.9
Private	48.3	48.2	48.1	47.9	47.0
Government	14.3	14.8	17.3	17.5	17.5
Average Hourly Earnings, Total Private, \$, BLS	0.00	0.00	0.00	0.00	0.00
Retail Sales (\$, accrual), ADOR*	110,269,531	121,801,523	112,357,640		
Total New Residential Permits (units), Census C-40	232	39	18	64	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Flagstaff MSA (Coconino County) - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	134,162	134,313	135,695	139,372	141,602
% Chg from Year Ago	-0.4%	0.1%	1.0%	2.7%	1.6%
Total Personal Income (\$000), BEA	4,917,525	4,939,175	5,130,228	5,449,838	5,705,476
% Chg from Year Ago	7.8%	0.4%	3.9%	6.2%	4.7%
Per Capita Personal Income (\$), EBRC**	36,653.6	36,773.6	37,807.1	39,102.8	40,292.3
% Chg from Year Ago	8.2%	0.3%	2.8%	3.4%	3.0%

\*Population counts as of July 1st. ADOA population estimates differ from official Census Bureau estimates. EBRC considers ADOA counts to be the most accurate.

\*\*BEA total personal income divided by ADOA population estimates.

Lake Havasu City - Kingman MSA (Mohave County) - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Civilian Labor Force (000s), BLS	80.5	79.9	79.8	79.9	
Unemployment Rate	7.4	7.0	6.8	6.3	
Total Nonfarm Employment (000s), BLS	47.5	47.8	47.3	47.8	48.1
Private	40.3	40.1	39.7	40.1	40.3
Government	7.2	7.7	7.6	7.7	7.8
Average Hourly Earnings, Total Private, \$, BLS	0.00	0.00	0.00	0.00	0.00
Retail Sales (\$, accrual), ADOR*	129,567,012	124,732,291	119,964,162		
Total New Residential Permits (units), Census C-40	50	48	71	53	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Lake Havasu City-Kingman MSA (Mohave County) - Annual Data	2011	2012	2013	2014	2015
Population, July 1st estimate, ADOA	75,840	77,683	77,900	77,922	78,269
% Chg from Year Ago	0.8%	2.4%	0.3%	0.0%	0.5%
Total Personal Income (\$000), BEA	5,170,760	5,291,048	5,422,848	5,743,703	6,040,669
% Chg from Year Ago	0.7%	2.3%	2.5%	5.9%	5.2%
Per Capita Personal Income, EBRC	25,800	26,055	26,636	28,155	29,364
% Chg from Year Ago	0.5%	1.0%	2.2%	5.7%	4.3%

\*EBRC considers the ADOA population estimates more accurate than official Census population estimates.

\*\*BEA "total personal income" divided by ADOA population estimate.

# ARIZONA ECONOMIC INDICATORS - MSAs

Prescott MSA (Yavapai County) - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Civilian Labor Force (000s), BLS	100.6	102.4	103.1	103.4	
Unemployment Rate	5.2	4.6	5.0	4.6	
Total Nonfarm Employment (000s), BLS	62.7	65.1	65.3	65.8	65.5
Private	52.9	54.5	54.2	54.7	54.3
Government	9.8	10.6	11.1	11.1	11.2
Average Hourly Earnings, Total Private (\$), BLS	0.00	0.00	0.00	0.00	0.00
Retail Sales (\$, accrual), ADOR*	144,190,443	151,304,696	145,174,344		
Total New Residential Permits (units), Census C-40	86	95	86	91	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Prescott MSA (Yavapai County) - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	211,247	211,583	213,294	215,357	217,778
% Chg from Year Ago	0.2%	0.2%	0.8%	1.0%	1.1%
Total Personal Income (\$000), BEA	6,387,827	6,623,513	6,936,360	7,491,508	7,900,004
% Chg from Year Ago	4.0%	3.7%	4.7%	8.0%	5.5%
Per Capita Personal Income (\$), EBRC**	30,239	31,305	32,520	34,786	36,275
% Chg from Year Ago	3.9%	3.5%	3.9%	7.0%	4.3%

\*Population counts as of July 1st. ADOA population estimates differ from official Census Bureau estimates. EBRC considers ADOA counts to be the most accurate.

\*\*BEA total personal income divided by ADOA population estimates.

Sierra Vista - Douglas MSA (Cochise County) - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Civilian Labor Force (000s), BLS	50.8	49.9	50.1	50.0	
Unemployment Rate	7.0	6.5	6.3	5.9	
Total Nonfarm Employment (000s), BLS	33.9	34.2	34.1	34.2	34.1
Private	23.0	22.7	22.5	22.5	22.4
Government	10.9	11.5	11.6	11.7	11.7
Average Hourly Earnings, Total Private (\$), BLS	0.00	0.00	0.00	0.00	0.00
Retail Sales (\$, accrual), ADOR*	63,450,482	64,889,436	64,268,419		
Total New Residential Permits (units), Census C-40	50	48	71	53	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Sierra Vista - Douglas MSA (Cochise County) - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	50,893	50,908	51,269	51,104	50,914
% Chg from Year Ago	-0.9%	0.0%	0.7%	-0.3%	-0.4%
Total Personal Income (\$000)	4,752,173	4,648,859	4,591,143	4,677,975	4,821,097
% Chg from Year Ago	3.2%	-2.2%	-1.2%	1.9%	3.1%
Per Capita Personal Income (\$)**	36,405	35,555	35,072	36,088	37,340
% Chg from Year Ago	3.9%	-2.3%	-1.4%	2.9%	3.5%

\*Population counts as of July 1st. ADOA population estimates differ from official Census Bureau estimates. EBRC considers ADOA counts to be the most accurate.

\*\*BEA total personal income divided by ADOA population estimates.

# ARIZONA ECONOMIC INDICATORS - MSAs

Yuma MSA (Yuma County) - Monthly Data	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Civilian Labor Force (000s), BLS	99.0	98.1	94.2	94.9	
Unemployment Rate	24.5	24.4	20.9	19.4	
Total Nonfarm Employment (000s), BLS	51.4	52.7	53.2	54.2	54.6
Private	37.9	38.0	38.3	39.0	39.3
Government	13.5	14.7	14.9	15.2	15.3
Average Hourly Earnings, Total Private (\$), BLS	0.00	0.00	0.00	0.00	0.00
Retail Sales (\$, accrual), ADOR*	106,564,246	105,206,032	115,712,215		
Total New Residential Permits (units), Census C-40	62	89	76	72	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Yuma MSA (Yuma County) - Annual Data	2011	2012	2013	2014	2015
Population, ADOA*	60,522	61,500	63,007	63,718	64,180
% Chg from Year Ago	0.8%	1.6%	2.5%	1.1%	0.7%
Total Personal Income (\$000)	5,644,042	5,593,053	5,926,507	5,954,316	6,449,702
% Chg from Year Ago	5.9%	-0.9%	6.0%	0.5%	8.3%
Per Capita Personal Income (\$)***	28,160	27,260	28,313	28,085	30,000
% Chg from Year Ago	3.6%	-3.2%	3.9%	-0.8%	6.8%

\*Population counts as of July 1st. ADOA population estimates differ from official Census Bureau estimates. EBRC considers ADOA counts to be the most accurate.

\*\*BEA total personal income divided by ADOA population estimates.

## 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.

**Co.:** County  
**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  
**BTS:** Bureau of Transportation Statistics, U.S. Department of Transportation  
**NPS:** National Parks Service



# ARIZONA ECONOMIC INDICATORS - COUNTIES

Apache County Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	20.7	20.6	21.0	20.9	20.4
Unemployment Rate	12.7	13.1	11.8	11.1	11.0
Total Nonfarm Employment (000s), ADOA	17.9	17.7	18.7	18.6	18.2
Private	7.6	7.7	7.7	7.8	7.8
Government	10.2	10.0	11.0	10.8	10.4
Retail Sales (\$, accrual), ADOR*	11,618,813	5,932,429	15,116,666	11,689,439	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Gila County (Payson Micropolitan SA) Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	21.6	21.5	21.2	21.0	20.8
Unemployment Rate	8.1	8.1	7.6	7.3	7.1
Total Nonfarm Employment (000s), ADOA	14.8	14.7	14.9	14.6	14.6
Private	9.6	9.7	9.6	9.5	9.5
Government	5.2	5.0	5.3	5.2	5.1
Retail Sales (\$, accrual), ADOR*	27,749,690	27,597,500	23,901,588	25,693,008	
New Residential Permits (units), Census C-40	11	9	7		

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Graham County Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	14.5	14.3	14.3	14.8	14.9
Unemployment Rate	7.8	7.8	7.3	6.5	6.2
Total Nonfarm Employment (000s), ADOA	8.5	8.4	8.6	8.9	9.0
Private	5.8	5.7	5.8	5.7	5.7
Government	2.7	2.7	2.8	3.2	3.3
Retail Sales (\$, accrual), ADOR*	17,976,059	18,207,247	18,241,924	16,042,047	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Greenlee County Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	4.0	4.0	3.9	3.9	3.8
Unemployment Rate	8.7	8.6	7.7	7.4	6.7
Total Nonfarm Employment (000s), ADOA	4.3	4.3	4.4	4.3	4.3
Private	3.8	3.8	3.8	3.7	3.7
Government	0.5	0.5	0.6	0.6	0.6
Retail Sales (\$, accrual), ADOR*	-3,859,644	8,507,159	9,204,091	10,071,645	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

## ARIZONA ECONOMIC INDICATORS - COUNTIES

La Paz County Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	8.8	8.6	8.1	8.1	8.3
Unemployment Rate	6.8	6.7	6.6	6.3	5.6
Total Nonfarm Employment (000s), ADOA	5.2	5.2	5.1	5.1	5.3
Private	3.0	2.9	2.8	2.8	3.0
Government	2.3	2.3	2.3	2.3	2.3
Retail Sales (\$, accrual), ADOR*	9,990,513	9,290,042	9,060,123	8,983,332	

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Navajo County (Show Low Micropolitan SA) Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	42.0	41.6	41.9	41.9	41.6
Unemployment Rate	9.4	9.6	8.5	7.8	7.7
Total Nonfarm Employment (000s), ADOA	27.7	27.4	28.4	28.6	28.4
Private	18.8	18.9	19.0	19.0	18.8
Government	8.9	8.5	9.4	9.5	9.5
Retail Sales (\$, accrual), ADOR*	77,044,125	78,657,489	82,137,602	79,927,761	
New Residential Permits (units), Census C-40	16	15	17		

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

Santa Cruz County Summary - Monthly	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016
Civilian Labor Force (000s), BLS	19.8	19.3	19.1	19.1	19.3
Unemployment Rate	10.1	13.1	13.0	12.5	11.8
Total Nonfarm Employment (000s), ADOA	13.2	12.4	12.4	12.4	12.6
Private	9.6	8.8	8.7	8.7	8.9
Government	3.6	3.6	3.7	3.7	3.7
Retail Sales (\$, accrual), ADOR*	26,221,086	26,668,116	23,970,385	24,588,811	
New Residential Permits (units), Census C-40	11	7	2		

\*This retail sales figure does not include food, restaurant and bar, or gasoline sales.

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