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Modest Nonfarm Employment Growth in 2015; Mild Acceleration in 2016

Introduction

The Office of Employment and Population Statistics (EPS) within the Arizona Department of Administration (ADOA) is forecasting gradual gains in Nonfarm employment in Arizona for the 2015-2016 projections time period. An over-the-year gain of 56,600 Nonfarm jobs is expected in 2015 and 63,100 in 2016. The previous forecast in May 2014 was for a 60,400 job gain in 2015. In the current forecast, the rate of growth projected for total Nonfarm employment is 2.2 percent in 2015 and 2.4 percent in 2016. A total of 119,700 Nonfarm jobs are forecast to be gained over the projected years (2015 & 2016) (Table 1).

The overall employment situation in Arizona continues to improve. This is consistent with improvement seen in many economic indicators including population growth. Population grew faster in 2014 at 1.31 percent compared to 2013, based on EPS ADOA population estimate numbers. Population is projected to grow at 1.65 percent in 2015 and 1.99 percent in 2016.

Arizona's year-over-year average Nonfarm employment growth rate exceeded the national average in both 2013 and 2014. The US averaged Nonfarm employment growth rate of 1.7 percent in 2013 and 1.9 percent in 2014. In comparison, Nonfarm employment growth rate in Arizona has stagnated at 2.1 percent in 2012, 2013 and 2014. While the US has recovered all the jobs shed since the prerecession peak, Arizona has recovered approximately 73.9% of jobs shed as of December 2014. We expect the recovery to continue in Arizona. Nonfarm employment is expected to grow at the rate of 2.2 percent in 2015 and 2.4 percent in 2016. All eleven major sectors are expected to grow in 2015 and 2016. Arizona has historically (1993-1999, 5.2 % per year; 2004-2006, 4.7 % per year) seen stronger Nonfarm employment growth rate than what has been observed in recent years. Although, Nonfarm employment has grown in both absolute and relative

Table 1

Total Nonfarm Employment Annual Average Growth Rate

	2014 ^(a)	2015 ^(b)	2016 ^(b)
Arizona	2.1%	2.2%	2.4%
Phoenix MSA ¹	2.4%	2.5%	2.6%
Tucson MSA ²	1.4%	1.6%	1.8%
Balance of State ³	1.4%	1.6%	1.9%

1) Maricopa and Pinal counties

2) Pima County

3) Arizona less Maricopa, Pinal and Pima counties

a) Historical

b) Forecast

Table 1 shows the average annual growth rate in Total Nonfarm employment for Arizona, Phoenix MSA, Tucson MSA, and Balance of State. In 2015, all regions are forecast to have positive annual over-the-year growth rates in Nonfarm employment. Arizona is forecast to grow at 2.2% in 2015. Phoenix is expected to grow faster than the state at 2.5%. However, the projected growth rates for Tucson (1.6%) and the Balance of State (1.6%) are slower than the statewide and Phoenix MSA rates. The expected Nonfarm job gains in 2015 for the Phoenix MSA are 45,500 jobs, Tucson MSA are 5,700 jobs, and the Balance of State are 5,400 jobs.

Nonfarm employment growth rate for Arizona in 2016 is expected to be 2.4 %. Phoenix is forecast to continue growing at a faster pace (2.6%) than Tucson (1.8%), and Balance of State (1.9%). For 2016 the job gains forecast for Phoenix MSA are 49,900 jobs, Tucson MSA are 6,600 jobs, and Balance of State are 6,600 jobs. (See tables starting on page 8)

terms since the recession, this recovery seems weak when examined in the historic context.¹

Although Arizona economy continues to have some after effects of various policies that were enacted post-recession (Sequestration cuts-2011, payroll tax increase-2013), the major impacts of these policies are behind us and Federal Government does not appear to be a strong drag on the economy. Compared to prior recessions, the weak employment recovery is in large part due to lack of new construction.² However, the economic fundamentals continue to improve. Both, the US and Arizona's unemployment rate continue to decline. Two economic changes worth noting are the lower oil prices and the rising dollar. The US and Arizona households are expected to receive the benefits of a higher disposable income resulting from lower oil prices. On the negative side, rising dollar could hurt exports. On the positive side, it is expected to make imports cheaper and help control inflation. A higher dollar effectively transfers demand from the US economy to economies around the world. Economies such as Japan, emerging Asia and Europe could benefit with a boost to their exports. In the long run this should lead to a healthier and more balance global economy.³

Arizona continues to operate under conditions of reduced civilian and military program funding. Various economic sectors have felt the trickledown effect of the state's dependence on defense related industries.⁴ Both federal government military and civilian real expenditures continued to decrease in 2014.⁵

Factors supporting Arizona's economic growth:

- Continued improvement in real Gross Domestic Product (GDP), real personal income, employment, and retail sales at the state and national levels.⁶
- Continued private sector employment gains, increasing private domestic investment, increases in the index of industrial production and rate of capacity utilization, high levels of corporate profit, and a gradual resurgence in private residential construction permits.⁷ In 2015, the increase in domestic investment spending is anticipated to begin reducing the amounts of accumulated corporate cash holdings.⁸

¹ See (a) Finance Advisory Committee. Meeting Book. Meeting Agendas. Joint Legislative Budget Committee. State of Arizona Legislature. January 22, 2015. At the web site: <http://www.azleg.gov/jlbc/facag012215.pdf>.

(b) Productivity and Prosperity Project (P3). Aggregate Economic Growth in Arizona Since 2007. Tom Rex, MBA. January 2015. Office of the University Economist. WP Carey School of Business. Arizona State University. At the website: <https://wpcarey.asu.edu/sites/default/files/uploads/center-competitiveness-and-prosperity-research/economicgrowth01-15.pdf>

² See Finance Advisory Committee. Meeting Book. Meeting Agendas. Joint Legislative Budget Committee. State of Arizona Legislature. January 22, 2015. At the web site: <http://www.azleg.gov/jlbc/facag012215.pdf>.

³ See: (a) IHS Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

(b) Wells Fargo Economics Group. Monthly Outlook. February 11, 2015. At the website: www.wellsfargo.com/research/economic.

(c) Wells Fargo Economics Group. Global Chartbook: December 2014. Eugenio J. Aleman. Zachary Griffiths. December 12, 2014. At the website: www.wellsfargo.com/com/research/economic.

⁴ See: (a) Wells Fargo Economics Group. Special Commentary. Arizona Economic Outlook: January 2015. Mark Vitner and Michael T. Wolf. January 21, 2015. At the website: www.wellsfargo.com/com/research/economic.

(b) IHS Global Insight. US Markets State Economies. Arizona. Jim Duffley. Summer 2014. At the website: <http://www.ihs.com/products/global-insight>.

(c) IHS Global Insight. Economics and Country Risk. State Analysis - Arizona. February 4, 2015. At the website: <http://www.ihs.com/products/global-insight>.

⁵ See FRED graphs and data for the variables: real government consumption expenditures and gross investment:Federal:National defense(A824RX1A020NBEA); and real government consumption expenditures and gross investment:Federal:Nondefense(A825RX1A020NBEA) At the website: <http://research.stlouisfed.org/fred2/>.

⁶ See FRED graphs and data for the variables: real gross domestic product, 1 decimal (GDPC1); real personal income (RPI); real disposable personal income (DSPIC96); total personal income in Arizona (AZOTOT); per capital personal income in Arizona (AZPCPI); and real retail and food services sales (RRSFS). At the website: <http://research.stlouisfed.org/fred2/>.

⁷ See FRED graphs and data for the variables: real gross private domestic investment, 3 decimal (GPDIC96); industrial production index (INDPRO); capacity utilization (TCU); capacity utilization – manufacturing (MCUMFN); corporate profits after tax (CP); new private housing units authorized by building permits - in structures with 1 unit (PERMIT1); privately owned housing starts authorized by building permits, 1-unit structures for Arizona (AZBP1FH); and new private housing units authorized by building permit for Arizona (AZBPPRIV) . At the website: <http://research.stlouisfed.org/fred2/>.

⁸ See the Association for Finance Professionals (AFP) Corporate Cash Indicators for January 2015 at the website: <http://www.afponline.org/CCI/>.

- Household net worth and U.S. exports continue to increase.⁹
- Residential real estate market in Arizona and Phoenix metropolitan area has shown improvement. Home prices have improved but are still way off peak¹⁰. Increase in the construction of primarily apartments, office buildings, and limited single family homes have been observed.¹¹ Commercial real estate is gradually improving with lower vacancy rates, higher rental rates and lower rates of default and delinquency in mortgage loans.¹²
- Growth in non-revolving consumer credit levels have been serving as an impetus to expanding economic activity. Consumer sentiment and consumer spending have improved.¹³ Banks are gradually loosening up their lending requirements. Mortgage rates are low. Bank delinquency and default rates on consumer credit are declining.¹⁴

Some factors that could further dampen the growth of the local economy are given below. However, the positive factors listed above outweigh the uncertainties in the sections described below in support of our forecast:

- Despite some increase in disposable income from lower gas prices, constrained budgets persist for a large majority of households.¹⁵ Real median household income in US and AZ is below the peak level prior to the 2007 recession.¹⁶

⁹See FRED graphs and data for the variables: total net worth - balance sheet of households and nonprofit organizations (TNWBSHNO); total assets - balance sheet of households and nonprofit organizations (TABSHNO); owners' equity in household real estate - net worth - balance sheet of households and nonprofit organizations (OEHRENWBSHNO); total liabilities - balance sheet of households and nonprofit organizations (TLBSHNO); home mortgages - liabilities - balance sheet of households and nonprofit organizations (HMLBSHNO); debt outstanding domestic nonfinancial sectors - household, consumer credit sector (HCCSDODNS); debt outstanding domestic nonfinancial sectors - household, home mortgage sector (HHMSDODNS); household debt service payments as a percent of disposable personal income (TDSP); and real exports of goods & services, 1 decimal (EXPGS1). At the website: <http://research.stlouisfed.org/fred2/>.

¹⁰See FRED graphs and data for the variables: all-transactions house price index for the United States (USSTHPI); all-transactions house price index for Arizona (AZSTHPI); home price index for Phoenix, Arizona (PHXRNSA); new private housing units authorized by building permit for Phoenix-Mesa-Scottsdale, AZ (MSA) (PHOE004BPPRIV); privately owned housing starts authorized by building permits: 1-unit structures for Phoenix-Mesa-Scottsdale, AZ (MSA) (PHOE004BP1FHSA); privately owned housing starts, authorized by building permits, 1-unit structures for Tucson, AZ, MSA, (TUCS004BPPRIV); privately owned housing starts authorized by building permits, 1-unit structures for Arizona (AZBP1FH); and new private housing units authorized by building permit for Arizona (AZBPPRIV); total private construction spending: residential (PRRESCONS); private residential fixed investment (PRFI); and real private residential fixed investment, 3 decimal (PRFIC96). At the website: <http://research.stlouisfed.org/fred2/>.

¹¹ See (a) FRED graphs and data for the variable: new private housing units authorized by building permits for Arizona (AZBPPRIV); privately owned housing starts authorized by building permits: 1-unit structures for arizona (AZBP1FH); housing starts: total: new privately owned housing units started (HOUST); privately owned housing starts: 1-unit structures (HOUST1F); new privately-owned housing units authorized by building permits: total (PERMITNSA); and new private housing units authorized by building permits - in structures with 1 unit (PERMIT1). At the website: <http://research.stlouisfed.org/fred2/>.

(b) Wells Fargo Economics Group. Special Commentary. Housing Data Wrap-Up: January 2015. Mark Vitner. Anika R. Kahn. January 9, 2015. At the website: www.wellsfargo.com/com/research/economics.

(c) Wells Fargo Economics Group. Special Commentary. Housing Chartbook: February 2015. Mark Vitner. Anika R. Kahn. Alex V. Moehring. February 13, 2015. At the website: www.wellsfargo.com/com/research/economics.

(d) IHS Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

¹² See (a) Wells Fargo Economics Group. Special Commentary. Commercial Real Estate Chartbook:Q4. Mark Vitner. Anika R. Kahn. February 17, 2015. At the website: www.wellsfargo.com/com/research/economics.

(b) IHS Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

¹³See FRED graphs and data for the variables: total revolving credit owned and securitized, outstanding (REVOLSL); total nonrevolving credit owned and securitized, outstanding (NONREVSL); University of Michigan: consumer sentiment (UMCSENT); and real personal consumption expenditures (PCECC96). At the website: <http://research.stlouisfed.org/fred2/>.

¹⁴ See FRED graphs and data for the variables: net percentage of domestic respondents reporting increased willingness to make consumer installment loans (DRIWCIL); net percentage of domestic banks tightening standards on consumer loans, credit cards (DRTSCLCC); net percentage of domestic banks tightening standards for consumer loans excluding credit card and auto loans (STDSOTHCONS); delinquency rate on consumer loans, all commercial banks (DRCLACBS); delinquency rate on commercial real estate loans (excluding farmland), booked in domestic offices, all commercial banks (DRCRELEXFACBS); delinquency rate on single-family residential mortgages, booked in domestic offices, all commercial banks (DRSFRMACBS); and delinquency rate on business loans, all commercial banks (DRBLACBS). At the website: <http://research.stlouisfed.org/fred2/>.

¹⁵See (a) Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

(b) Wells Fargo Economics Group. Behind the Headlines: Part-Time Employment. Mark Vitner. Sarah Watt House. Alex V. Moehrin. November 18, 2014. At the website: www.wellsfargo.com/com/research/economics.

¹⁶ See FRED graphs and data for the variables: real median household income in the United States (MEHOINUSA672N); and real median household income in Arizona (MEHOINUSAZA672N). At the website: <http://research.stlouisfed.org/fred2/>.

- Population growth in the state (1.3% in 2014) has been below the growth rate observed historically, limiting the additional demand for goods and services. Arizona's annualized population growth rate for the decade of 1980 was 3.0 percent. This rate increased to 3.4 percent for the decade of the 1990's and then decreased to 2.2 percent for the first decade of the 21st century. In-migration, both domestic and international to the state has declined over time.¹⁷
- Although there has been some improvement in the residential real estate market, up to 20% of potential buyers are unable to enter the housing market because of negative or low home equity. Reduction in FHA loan limit, higher FICO score requirement, prior home foreclosure or short sales, millennials living at home has further inhibited potential buyers from entering the housing market.¹⁸
- Although real business investment continues to grow, the rate of growth has slowed as a consequence of demand uncertainty. However, the rate of growth of business investment is expected to increase in 2015 and 2016.¹⁹
- In the public sector, cuts in the federal, state and local budgets would require spending cuts, tax increases, or a mixture of the two which could slow the growth in aggregate demand in the U.S. and Arizona economy, thus limiting employment growth.²⁰
- Arizona is vulnerable to federal government expenditure changes due to a larger share of military spending in the state's economy. Real federal civilian and military expenditures continued to decline in 2014.²¹ Operating at a lower level of federal government expenditures is projected to impact some industry sectors more than others: Manufacturing; Retail Trade; Professional and Business Services; and Government.²²

Factors for limited optimism and concern on the international front:

- Although Arizona exports could have a slight stimulating effect with a gradual improvement in the overall world economy, a rising dollar could negatively hurt exports.²³
- China's deceleration in growth could impact other regions. China's national economy grew an annual 7.4 per cent in 2014, slowest since 1990. It is unclear as to how China will extricate itself from its debt induced housing bubble and industrial capacity glut.²⁴

¹⁷ See population estimates of the State Demographer's Office of the Employment and Population Statistics (EPS) Office of the Arizona Department of Administration (ADOA) at the website: <https://population.az.gov/>.

¹⁸ See Finance Advisory Committee. Meeting Book. Meeting Agendas. Joint Legislative Budget Committee. State of Arizona Legislature. January 22, 2015. At the web site: <http://www.azleg.gov/jlbc/facag012215.pdf>.

¹⁹ See (a) See FRED graphs and data for the variable: real gross private domestic investment, 3 decimal (GPDIC96). At the website: <http://research.stlouisfed.org/fred2/>.

(b) Wells Fargo Economics Group. Monthly Outlook. February 11, 2015. At the website: www.wellsfargo.com/com/research/economic.

(c) IHS Global Insight. U.S. Economic Outlook for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

²⁰ See (a) Global Insight U.S. Forecast for February 2015. at the website www.ihs.com/products/global-insight/index.aspx.

²¹ See FRED graphs and data for the variables: real government consumption expenditures and gross investment:Federal:National defense(A824RX1A020NBEA); and real government consumption expenditures and gross investment:Federal:Nondefense(A825RX1A020NBEA) At the website: <http://research.stlouisfed.org/fred2/>.

²² See: (a) Wells Fargo Economics Group. Special Commentary. Arizona Economic Outlook: January 2015. Mark Vitner and Michael T. Wolf November 4, 2013. At the website: www.wellsfargo.com/com/research/economic.

(b) IHS Global Insight. Economics and Country Risk. State Analysis - Arizona. February 4, 2015. At the website:

<http://www.ihs.com/products/global-insight>.

(c) IHS Global Insight. US Markets State Economies. Arizona. Jim Diffley. Summer 2014. At the website: <http://www.ihs.com/products/global-insight>.

²³ See (a) IHS Global Insight. U.S. Economic Outlook for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

(b) IHS Global Insight. Economics and Country Risk. State Analysis - Arizona. February 4, 2015. At the website:

<http://www.ihs.com/products/global-insight>.

(c) Arizona Indicators. Arizona is Lagging Behind on International Exports. Tom Rex. July 2014. Indicator Insight. Volume 4. Issue 2. At the website: arizonaindicators.org.

²⁴ See: (a) IHS Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

(b) Wells Fargo Economics Group. Monthly Outlook. February 11, 2015. At the website: www.wellsfargo.com/com/research/economic.

- The global economy continues to be in low gear, and hope that the tailwinds of lower oil prices and international monetary stimulus would provide a modest boost to growth this year.²⁵

Arizona Industry Employment Projections (2014 – 2016)

The average over-the-year employment percentage change for each sector is presented in **Table 2** for 2014, 2015, and 2016. The last full year of employment data (or base year) is 2014. The 2014 employment data used for these projections are prior to benchmark or revisions. Forecast years are 2015 and 2016. All major sectors of the Arizona economy are projected to gain jobs during the forecast period. Total Nonfarm employment is expected to grow at a modest rate in 2015, picking up in 2016.

Projected employment gains across the major sector in Arizona from 2014 to 2016 are displayed in **Figure 1**. Gains are expected in all eleven major sectors over the two-year period.

Figure 2 shows the projected percentage change in employment for all major sectors.

For the 2014 to 2016 forecast time period, the major sectors with the largest projected employment gains are: Educational and Health Services (29,900 jobs), Leisure and Hospitality (23,300 jobs), Trade, Transportation and Utilities (21,100 jobs), Professional and Business Services (18,500 jobs), and Financial Activities (12,400 jobs). Smaller gains are forecast in these sectors: Manufacturing (4,500 jobs), Other Services (3,300 jobs), Government (2,800 jobs), Construction (2,800 jobs), Information 800 jobs), and Natural Resources and Mining (400 jobs).

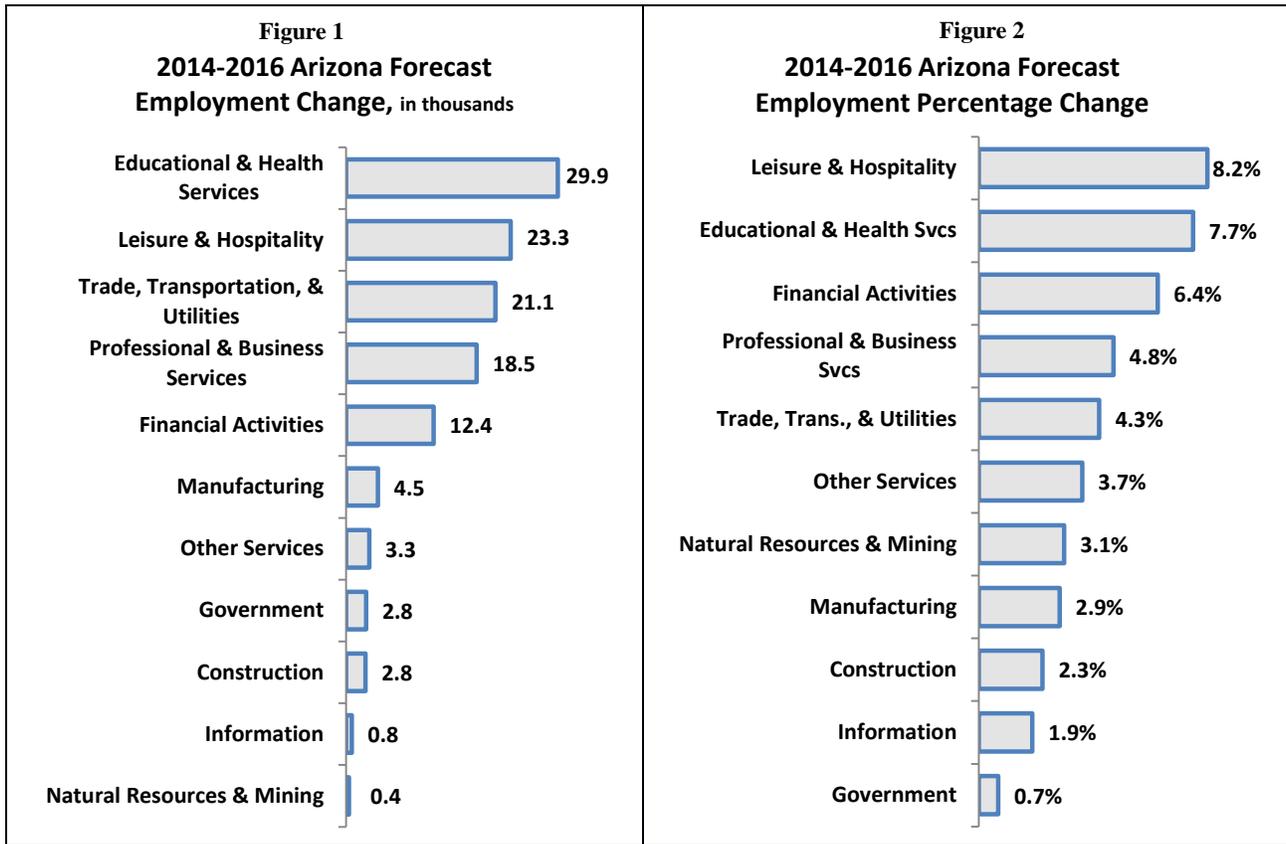
During the two-year forecast time period, four sectors are projected to grow at a faster rate than the overall Nonfarm employment rate of 4.7%, and seven sectors are expected to grow at a slower rate. The major sectors with higher expected growth rate are Leisure and Hospitality (8.2%), Education and Health Services (7.7%), Financial Activities (6.4%), and Professional and Business Services (4.8%). The major sectors expected to grow at a slower rate than Nonfarm employment are Trade, Transportation, and Utilities (4.3%), Other Services (3.7%), Natural Resources and Mining (3.1%), Manufacturing (2.9%), Construction (2.3%), Information (1.9%), and Government (0.7%).

	2014(a)	2015(b)	2016(b)
Total Nonfarm	2.1%	2.2%	2.4%
Construction	-1.5%	0.5%	1.8%
Natural Resources & Mining	1.5%	1.3%	1.8%
Profess & Business Svcs	2.9%	2.5%	2.3%
Financial Activities	4.3%	3.3%	3.0%
Information	0.2%	0.9%	1.0%
Leisure & Hospitality	3.5%	3.9%	4.1%
Educational & Health Svcs	4.3%	3.5%	4.0%
Government	0.0%	0.3%	0.4%
Trade, Trans. & Utilities	1.7%	2.1%	2.2%
Manufacturing	-0.1%	1.1%	1.8%
Other Services	1.7%	1.8%	1.9%

a) Historical (BLS Current Employment Statistics)
b) Forecast

(c) Wells Fargo Economics Group. Global Chartbook: December 2014. Eugenio J. Aleman. Zachary Griffiths. December 12, 2014. At the website: www.wellsfargo.com/com/research/economic.

²⁵ Ibid



Educational and Health Services (EHS): The EHS sector is forecast to gain 13,800 jobs (3.5%) in 2015 and 16,100 jobs (4.0%) in 2016 for a total of 29,900 jobs over two years. Increases are expected in all subsectors of Health Care and Social Assistance with the largest projected employment increase in Ambulatory Health Care Services. With the Affordable Care Act (ACA) expansion, both Medicaid and Medicare enrollment has increased.²⁶ Population growth coupled with state and federal spending associated with the ACA is likely to increase employment growth in these subsectors.²⁷ Private Educational Services are expected to slow as the economy improves and people re-enter the workforce foregoing higher education and the accumulation of student debt.²⁸

Leisure and Hospitality (L&H): L&H is projected to gain 11,100 jobs (3.9%) in 2015 and 12,100 jobs (4.1%) in 2016 for a total of 23,300 jobs over two years. The largest projected job gain is expected in the Food Services and Drinking Places sub-sector. Fewer gains are forecast in the sub-sectors of

²⁶See (a) The Henry J. Kaiser Family Foundation. Implementing the ACA: Medicaid Spending & Enrollment Growth for FY 2014 and FY 2015. Robin Rudowitz, Laura Snyder, Vernon K. Smith, Kathleen Gifford, and Eileen Ellis. <http://kff.org/medicaid/issue-brief/implementing-the-aca-medicaid-spending-enrollment-growth-for-fy-2014-and-fy-2015/>.

(b) The Henry J. Kaiser Family Foundation. Medicare Advantage 2014 Spotlight: Enrollment Market Update. Marsha Gold, Gretchen Jacobson, Anthony Damico, and Tricia Neuman. <http://kff.org/medicare/issue-brief/medicare-advantage-2014-spotlight-enrollment-market-update/>

²⁷See (a) Center on Budget and Policy Priorities. CBO Finds Health Reform's Medicaid Expansion Is an Even Better Deal for States. Edwin Park. April 22, 2014. At the website: <http://www.cbpp.org/cms/index.cfm?fa=view&id=4131>.

²⁸See (a) See FRED graphs and data for the variable, FGCCSAQ027S, the asset level of federal government student loan consumer credit. At the website: <http://research.stlouisfed.org/fred2/>.

(b) IHS Global Insight U.S. Forecast for February 2015. At the website: www.ihs.com/products/global-insight/index.aspx.

Accommodations and Arts, Entertainment, and Recreation. An improving economy, tourism, and population increases are expected to bolster employment in the Leisure and Hospitality sector.

Trade, Transportation and Utilities (TTU): The TTU sector is forecast to gain 10,000 jobs (2.1%) in 2015 and 11,100 jobs (2.2%) in 2016 for a total of 21,100 jobs over two years. Retail Trade is expected to have the most employment gains with all subsectors forecasting gains. Fewer gains are forecast in Wholesale Trade and Transportation, Warehousing and Utilities. Utilities is expected to remain flat over the two-year period and Transportation and Warehousing is forecast to gain jobs as a result of overall economic growth.

Professional and Business Services (PBS): The sector is projected to have an increase of 9,600 jobs (2.5%) in 2015 and 8,900 jobs (2.3%) in 2016 for a total of 18,500 jobs over two years. The Administrative and Waste Services sub-sectors are expected to have the largest job gains over the projection period which includes Employment Services, Business Support Services, and Services to Buildings and Dwellings. Employment Services growth is expected to slow over the two-year period as firms move away from lower-cost contingent labor to more stable hires with an improving economy. Job gains are forecast in the sub-sectors of Professional, Scientific, and Technical Services and Management of Companies and Enterprises.

Financial Activities (FA): Projected employment growth in Financial Activities over the two-year period is expected to slow to an increase of 6,400 jobs (3.3%) in 2015 and 5,900 jobs (3.0%) in 2016 for a total of 12,400 jobs over two years. Gradual rise in interest rates and slow growing construction sector could hinder employment growth in this sector.²⁹ Securities, Commodities Contracts, and Investments, Credit Intermediation and Monetary Authorities, Real Estate, Rental and Leasing, are forecast to gain jobs with the largest gains projected in Insurance, Funds and Trusts.

Manufacturing: This sector is projected to have an employment increase of 1,600 jobs (1.1%) in 2015 and 2,900 jobs (1.8 percent) in 2016 for a total of 4,500 jobs over two years. Growth is forecast in both Durable Goods and Nondurable Goods. Gains in Durable Goods are expected from Fabricated Metal Products and other unreported sectors; Aerospace Products and Parts and Computer and Electronic Products are forecast to shed jobs. The US production index has expanded for eleven consecutive months.³⁰ New orders index also indicates forward momentum in the economy. However, with Arizona's dependence on defense related industries, reduced civilian and military funding, and the after effects of sequestration staffing levels for defense related manufacturing industries in Arizona are expected to decline.

Other Services (OS): OS is forecast to gain 1,600 jobs (1.8%) in 2015 and 1,700 jobs (1.9%) in 2016 for a total of 3,300 jobs over two years. An improving economy with gradually rising levels of business and consumer spending is forecast to bolster the demand and employment for the services provided by this sector.

Government: Government is forecast to have a small gain of 1,300 jobs (0.3%) in 2015 and 1,500 jobs (0.4%) in 2016 for a total of 2,800 jobs over two years. All subsectors (Federal, State, and Local Government) are expected to have gains over the two-year period. All gains in State and Local Government are expected in education related subsectors.

Construction: This sector is forecast to gain 600 jobs (0.5%) in 2015 and 2,200 jobs (1.8%) in 2016 for a total of 2,800 jobs over the two years. Heavy Construction is expected to have the largest employment gain.

²⁹(a) IHS Global Insight. U.S. Economic Outlook for April 2014. At the website: www.ihsglobal.com/products/global-insight/index.aspx.

(b) Phoenix Business Journal. Foreclosures Skyrocket, Jump 100 Percent in Phoenix, Arizona. February 11, 2015.

³⁰(a) See FRED graphs and data for the variable: industrial production index (INDPRO). At the website: <http://research.stlouisfed.org/fred2/>.

(b) Wells Fargo Economics Group. Durables and Nondurables: A Tale of Two Recoveries. John E. Silvia and Erik Nelson. February 19, 2015. At the website: www.wellsfargo.com/com/research/economic.

(c) Wells Fargo Economics Group. Factory Orders Fell for Fourth Straight Month in November. Tim Quinlan and Zachary Griffiths. January 06, 2015. At the website: www.wellsfargo.com/com/research/economic.

Specialty Trade is expected to increase but could be dampened till housing overall makes a meaningful recovery. Multi-family private residence construction has grown in the state. Home repair and maintenance activities and population growth are factors that support some growth in this sector. Building construction is the only Construction sub-sector with projected job losses from 2014 to 2016.

Information: This sector is projected to have a gain in employment of 400 jobs in both 2015 (0.9%) and 2016 (1.0%) for a total of 800 jobs over two years. Job gains are forecast in the telecommunications and non-telecommunications sub-sectors of Information.

Natural Resources and Mining (NRM): The NRM sector is forecast to gain 200 jobs (1.3%) in 2015 and 200 jobs (1.8%) in 2016 for a total of 400 jobs over two years.

Conclusion

Arizona is projected to gain 119,700 Nonfarm jobs over the two projected years (2015 & 2016). This represents a growth rate of 4.7 percent over the two projected years. An over-the-year gain of 56,600 jobs (2.2%) is projected in 2015 and 63,100 jobs (2.4%) in 2016. Arizona's Nonfarm employment is forecast to grow at a modest rate in 2015 and gain additional momentum in 2016. This is consistent with improvement seen in other economic indicators.

As of December 2014, Arizona has recovered approximately 73.9% of jobs shed from the prerecession peak. Many economic fundamentals in Arizona continue to improve. All of the eleven major sectors are expected to grow over the two forecast years. Home prices continue to increase but are still well below prerecession peak levels. Population is expected to grow gradually through 2016.

All major sectors of the Arizona economy are projected to gain jobs during the 2014-2016 forecast time period. Educational and Health Services is projected to add 29,900 jobs, the most jobs of any sector. Other sectors with large projected gains include Leisure and Hospitality (23,300 jobs), Trade, Transportation and Utilities (21,100 jobs), Professional and Business Services (18,500 jobs), and Financial Activities (12,400 jobs). Smaller gains are forecast in Manufacturing (4,500 jobs), Other Services (3,300 jobs), Government (2,800 jobs), Construction (2,800 jobs), Information 800 jobs) and Natural Resources and Mining (400 jobs).

Some sectors are forecast to have a higher employment growth rate while others have a lower rate when compared to the overall Nonfarm employment growth rate of 4.7 percent. The growth rate over the 2014-2016 forecast period for the four sectors projected to grow at a faster rate than the overall Nonfarm employment rate in descending order of magnitude are Leisure and Hospitality (8.2%), Education and Health Services (7.7%), Financial Activities (6.4%), and Professional and Business Services (4.8%). The remaining seven sectors forecast to grow at a slower rate than Nonfarm employment are Trade, Transportation, and Utilities (4.3%), Other Services (3.7%), Natural Resources and Mining (3.1%), Manufacturing (2.9%), Construction (2.3%), Information (1.9%), and Government (0.7%).

Although Arizona economy continues to feel some after effects of policies that were enacted post-recession, the major impacts of these policies are behind us and Federal Government does not appear to be a strong drag on the economy. Compared to prior recessions, the weak employment recovery is in large part due to lack of new construction. However, the economic fundamentals continue to improve.

There are many positive indicators suggesting improvement in the overall economy. Economic indicators such as: GDP, employment, industrial production, wholesale and retail sales, capacity utilization rate, household net worth, income levels, consumer spending, residential real estate markets, private domestic investment are showing an improvement since the recession. Despite some job growth and lowering in the

unemployment rate, many consumers both in the U.S. and Arizona continue to face employment insecurity, lower wages and high debt. Constrained budgets persist for a large majority of households inhibiting their spending ability. The lower gas prices are expected to provide some relief and increase the disposable household income.

The federal, state, and local governments face headwinds with regards to budget uncertainty. Uncertainty causes challenges in investment as assessment of effective demand in the economy become difficult. Although the US exports are growing, a rising dollar poses concern. On the negative side, rising dollar could hurt exports. On the positive side, it is expected to make imports cheaper and help control inflation. China's national economy grew an annual 7.4 per cent in 2014, slowest since 1990. This deceleration in China's economy could impact its trading partners. The global economy continues to be in low gear, and hope that the tailwinds of lower oil prices and international monetary stimulus would provide a modest boost to growth. There are also risks associated with uncertainties as mentioned above. However, we believe the positive factors listed above outweigh the uncertainties in support of our forecast.

Arizona Employment Forecast

(In Thousands)

	Historical			Forecast	
	2012	2013	2014	2015	2016
Total Nonfarm Employment	2463.5	2515.2	2568.2	2624.8	2687.9
<i>Numerical Change</i>	51.4	51.7	53.0	56.6	63.1
<i>Percent Change</i>	2.1%	2.1%	2.1%	2.2%	2.4%
Manufacturing	155.1	155.2	155.1	156.7	159.6
<i>Numerical Change</i>	4.6	0.1	-0.1	1.6	2.9
<i>Percent Change</i>	3.1%	0.1%	-0.1%	1.1%	1.8%
Natural Resources & Mining	12.7	13.3	13.5	13.7	13.9
<i>Numerical Change</i>	1.1	0.6	0.2	0.2	0.2
<i>Percent Change</i>	9.5%	4.7%	1.5%	1.3%	1.8%
Construction	116.0	122.9	121.0	121.6	123.8
<i>Numerical Change</i>	5.1	6.9	-1.9	0.6	2.2
<i>Percent Change</i>	4.6%	5.9%	-1.5%	0.5%	1.8%
Trade, Transportation, & Utilities	476.4	480.9	489.3	499.3	510.4
<i>Numerical Change</i>	3.5	4.5	8.4	10.0	11.1
<i>Percent Change</i>	0.7%	0.9%	1.7%	2.1%	2.2%
Information	39.6	41.5	41.6	42.0	42.4
<i>Numerical Change</i>	2.5	1.9	0.1	0.4	0.4
<i>Percent Change</i>	6.7%	4.8%	0.2%	0.9%	1.0%
Financial Activities	176.7	185.0	192.9	199.3	205.3
<i>Numerical Change</i>	5.4	8.3	7.9	6.4	5.9
<i>Percent Change</i>	3.2%	4.7%	4.3%	3.3%	3.0%
Professional & Business Services	357.7	371.9	382.8	392.4	401.3
<i>Numerical Change</i>	10.6	14.2	10.9	9.6	8.9
<i>Percent Change</i>	3.1%	4.0%	2.9%	2.5%	2.3%
Educational & Health Services	366.3	373.7	389.9	403.7	419.8
<i>Numerical Change</i>	10.9	7.4	16.2	13.8	16.1
<i>Percent Change</i>	3.1%	2.0%	4.3%	3.5%	4.0%
Leisure & Hospitality	266.8	274.5	284.1	295.2	307.4
<i>Numerical Change</i>	7.5	7.7	9.6	11.1	12.1
<i>Percent Change</i>	2.9%	2.9%	3.5%	3.9%	4.1%
Other Services	86.2	87.1	88.6	90.2	91.9
<i>Numerical Change</i>	-1.7	0.9	1.5	1.6	1.7
<i>Percent Change</i>	-1.9%	1.0%	1.7%	1.8%	1.9%
Government	409.9	409.4	409.4	410.7	412.2
<i>Numerical Change</i>	1.8	-0.5	0.0	1.3	1.5
<i>Percent Change</i>	0.4%	-0.1%	0.0%	0.3%	0.4%

Note - All figures are annual averages rounded to the nearest tenth for percentage change or the nearest hundred for employment. Numerical change and percent change are based on the difference from the previous year's annual average employment.

Phoenix-Mesa-Glendale* MSA Employment Forecast

(In Thousands)

	Historical			Forecast	
	2012	2013	2014	2015	2016
Total Nonfarm Employment	1762.9	1811.4	1854.8	1900.3	1950.2
<i>Numerical Change</i>	43.9	48.5	43.4	45.5	49.9
<i>Percent Change</i>	2.6%	2.8%	2.4%	2.5%	2.6%
Manufacturing	116.8	116.9	116.6	117.7	119.7
<i>Numerical Change</i>	4.0	0.1	-0.3	1.1	2.0
<i>Percent Change</i>	3.5%	0.1%	-0.3%	0.9%	1.7%
Natural Resources & Mining	3.7	4.1	4.0	4.0	4.0
<i>Numerical Change</i>	0.4	0.4	-0.1	0.0	0.0
<i>Percent Change</i>	12.1%	10.8%	-2.4%	0.0%	0.5%
Construction	88.2	92.9	91.4	92.1	93.8
<i>Numerical Change</i>	5.1	4.7	-1.5	0.7	1.8
<i>Percent Change</i>	6.1%	5.3%	-1.6%	0.8%	1.9%
Trade, Transportation, & Utilities	353.7	356.8	363.8	371.6	380.1
<i>Numerical Change</i>	3.8	3.1	7.0	7.8	8.5
<i>Percent Change</i>	1.1%	0.9%	2.0%	2.1%	2.3%
Information	31.2	33.1	34.1	34.4	34.8
<i>Numerical Change</i>	2.7	1.9	1.0	0.3	0.4
<i>Percent Change</i>	9.5%	6.1%	3.0%	1.0%	1.1%
Financial Activities	150.4	158.9	165.5	171.5	176.9
<i>Numerical Change</i>	5.1	8.5	6.6	6.0	5.4
<i>Percent Change</i>	3.5%	5.7%	4.2%	3.6%	3.2%
Professional & Business Services	286.8	300.1	310.1	318.2	325.6
<i>Numerical Change</i>	9.2	13.3	10.0	8.1	7.4
<i>Percent Change</i>	3.3%	4.6%	3.3%	2.6%	2.3%
Educational & Health Services	255.8	262.3	274.0	284.8	297.3
<i>Numerical Change</i>	8.2	6.5	11.7	10.8	12.5
<i>Percent Change</i>	3.3%	2.5%	4.5%	3.9%	4.4%
Leisure & Hospitality	183.4	190.7	198.8	207.9	217.6
<i>Numerical Change</i>	5.6	7.3	8.1	9.1	9.7
<i>Percent Change</i>	3.1%	4.0%	4.2%	4.6%	4.7%
Other Services	62.5	64.0	64.8	65.8	67.0
<i>Numerical Change</i>	-1.4	1.5	0.8	1.0	1.2
<i>Percent Change</i>	-2.2%	2.4%	1.3%	1.6%	1.8%
Government	230.6	231.7	231.7	232.3	233.2
<i>Numerical Change</i>	1.4	1.1	0.0	0.6	0.9
<i>Percent Change</i>	0.6%	0.5%	0.0%	0.3%	0.4%

Note - All calculations are based on actual figures and then rounded to the nearest tenth for percentage change or the nearest hundred for employment.

*Phoenix-Mesa-Glendale MSA includes all of Maricopa and Pinal Counties

Tucson MSA Employment Forecast

(In Thousands)

	Historical			Forecast	
	2012	2013	2014	2015	2016
Total Nonfarm Employment	358.8	361.2	366.1	371.8	378.4
<i>Numerical Change</i>	5.3	2.4	4.9	5.7	6.6
<i>Percent Change</i>	1.5%	0.7%	1.4%	1.6%	1.8%
Manufacturing	23.4	23.2	23.1	23.2	23.4
<i>Numerical Change</i>	0.0	-0.2	-0.1	0.1	0.2
<i>Percent Change</i>	0.0%	-0.9%	-0.4%	0.4%	0.9%
Natural Resources & Mining	2.1	2.3	2.4	2.5	2.5
<i>Numerical Change</i>	0.2	0.2	0.1	0.1	0.1
<i>Percent Change</i>	10.5%	9.5%	4.3%	3.0%	3.0%
Construction	14.4	15.3	15.1	15.1	15.2
<i>Numerical Change</i>	-0.1	0.9	-0.2	0.0	0.1
<i>Percent Change</i>	-0.7%	6.3%	-1.3%	0.2%	0.7%
Trade, Transportation, & Utilities	57.8	58.8	59.1	59.6	60.3
<i>Numerical Change</i>	0.1	1.0	0.3	0.5	0.7
<i>Percent Change</i>	0.2%	1.7%	0.5%	0.9%	1.1%
Information	4.2	4.3	4.3	4.3	4.4
<i>Numerical Change</i>	0.0	0.1	0.0	0.0	0.0
<i>Percent Change</i>	0.0%	2.4%	0.0%	0.5%	0.7%
Financial Activities	16.8	17.0	17.3	17.6	18.0
<i>Numerical Change</i>	0.0	0.2	0.3	0.3	0.4
<i>Percent Change</i>	0.0%	1.2%	1.8%	1.9%	2.0%
Professional & Business Services	48.4	49.2	50.2	51.4	52.5
<i>Numerical Change</i>	1.7	0.8	1.0	1.2	1.1
<i>Percent Change</i>	3.6%	1.7%	2.0%	2.3%	2.2%
Educational & Health Services	60.9	61.2	63.9	65.8	68.0
<i>Numerical Change</i>	1.1	0.3	2.7	1.9	2.2
<i>Percent Change</i>	1.8%	0.5%	4.4%	2.9%	3.4%
Leisure & Hospitality	40.3	39.8	41.3	42.5	43.7
<i>Numerical Change</i>	1.2	-0.5	1.5	1.2	1.2
<i>Percent Change</i>	3.1%	-1.2%	3.8%	2.9%	2.9%
Other Services	12.8	12.7	12.5	12.6	12.7
<i>Numerical Change</i>	0.3	-0.1	-0.2	0.1	0.1
<i>Percent Change</i>	2.4%	-0.8%	-1.6%	0.6%	1.2%
Government	77.7	77.3	76.9	77.2	77.7
<i>Numerical Change</i>	0.9	-0.4	-0.4	0.3	0.4
<i>Percent Change</i>	1.2%	-0.5%	-0.5%	0.5%	0.5%

Note - All calculations are based on actual figures and then rounded to the nearest tenth for percentage change or the nearest hundred for employment.

*Tucson MSA includes all of Pima County

Balance of State* Employment Forecast

(In Thousands)

	Historical			Forecast	
	2012	2013	2014	2015	2016
Total Nonfarm Employment	341.8	342.6	347.3	352.7	359.3
<i>Numerical Change</i>	2.2	0.8	4.7	5.4	6.6
<i>Percent Change</i>	0.6%	0.2%	1.4%	1.6%	1.9%
Manufacturing	14.9	15.1	15.4	15.9	16.5
<i>Numerical Change</i>	0.6	0.2	0.3	0.5	0.6
<i>Percent Change</i>	4.2%	1.3%	2.0%	3.0%	3.9%
Natural Resources & Mining	6.9	6.9	7.1	7.2	7.3
<i>Numerical Change</i>	0.5	0.0	0.2	0.1	0.1
<i>Percent Change</i>	7.8%	0.0%	2.9%	1.4%	2.0%
Construction	13.4	14.7	14.5	14.4	14.7
<i>Numerical Change</i>	0.1	1.3	-0.2	-0.1	0.3
<i>Percent Change</i>	0.8%	9.7%	-1.4%	-0.8%	2.0%
Trade, Transportation, & Utilities	64.9	65.3	66.4	68.2	70.1
<i>Numerical Change</i>	-0.4	0.4	1.1	1.8	1.9
<i>Percent Change</i>	-0.6%	0.6%	1.7%	2.7%	2.8%
Information	4.2	4.1	3.2	3.2	3.2
<i>Numerical Change</i>	-0.2	-0.1	-0.9	0.0	0.0
<i>Percent Change</i>	-4.5%	-2.4%	-22.0%	0.1%	1.2%
Financial Activities	9.5	9.1	10.1	10.2	10.3
<i>Numerical Change</i>	0.3	-0.4	1.0	0.1	0.1
<i>Percent Change</i>	3.3%	-4.2%	11.0%	1.1%	1.3%
Professional & Business Services	22.5	22.6	22.5	22.8	23.1
<i>Numerical Change</i>	-0.3	0.1	-0.1	0.3	0.3
<i>Percent Change</i>	-1.3%	0.4%	-0.4%	1.3%	1.5%
Educational & Health Services	49.6	50.2	52.0	53.1	54.5
<i>Numerical Change</i>	1.6	0.6	1.8	1.1	1.4
<i>Percent Change</i>	3.3%	1.2%	3.6%	2.2%	2.6%
Leisure & Hospitality	43.1	44.0	44.0	44.9	46.0
<i>Numerical Change</i>	0.7	0.9	0.0	0.9	1.2
<i>Percent Change</i>	1.7%	2.1%	0.0%	2.0%	2.6%
Other Services	10.9	10.4	11.3	11.7	12.1
<i>Numerical Change</i>	-0.6	-0.5	0.9	0.4	0.4
<i>Percent Change</i>	-5.2%	-4.6%	8.7%	3.9%	3.4%
Government	101.6	100.4	100.8	101.1	101.3
<i>Numerical Change</i>	-0.5	-1.2	0.4	0.3	0.2
<i>Percent Change</i>	-0.5%	-1.2%	0.4%	0.3%	0.2%

Note - All calculations are based on actual figures and then rounded to the nearest tenth for percentage change or the nearest hundred for employment.

*Balance of state includes all areas in Arizona outside of the Phoenix and Tucson Metro areas (MSAs)

Figure 3

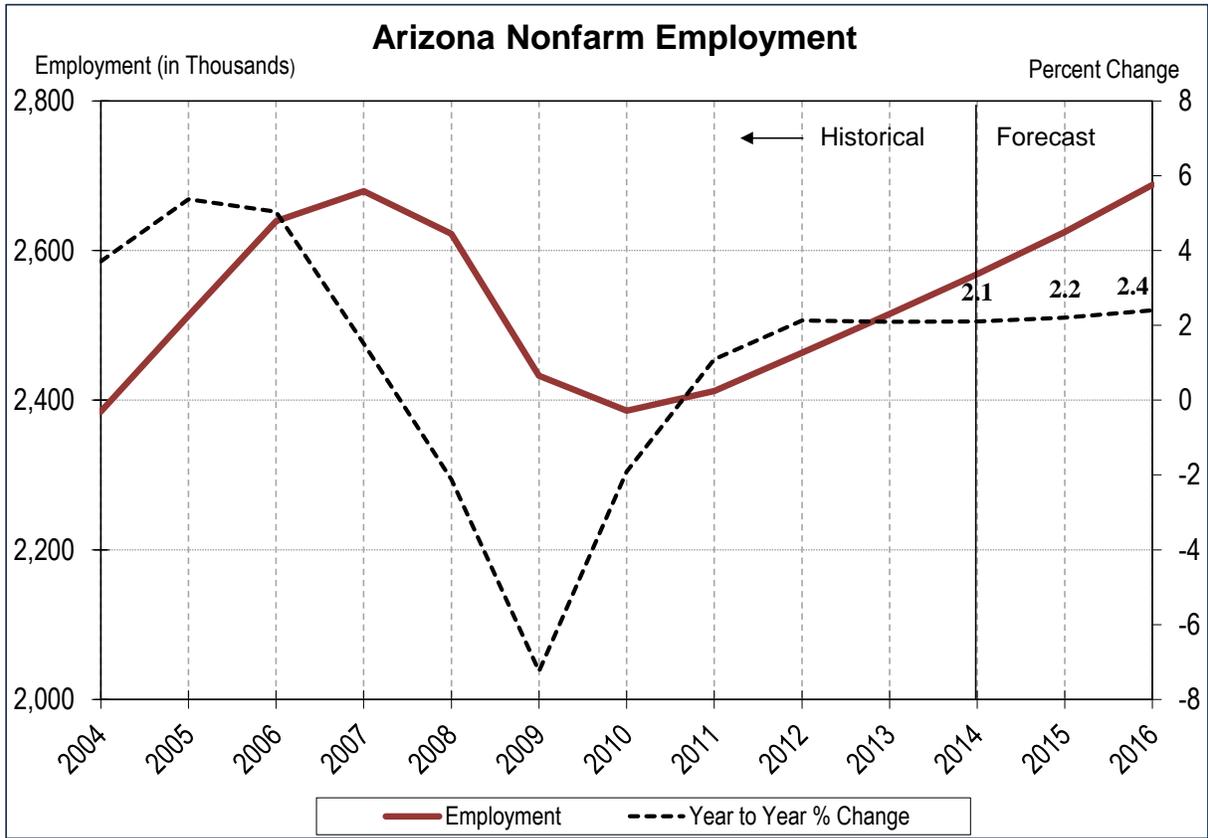


Figure 4



Figure 5

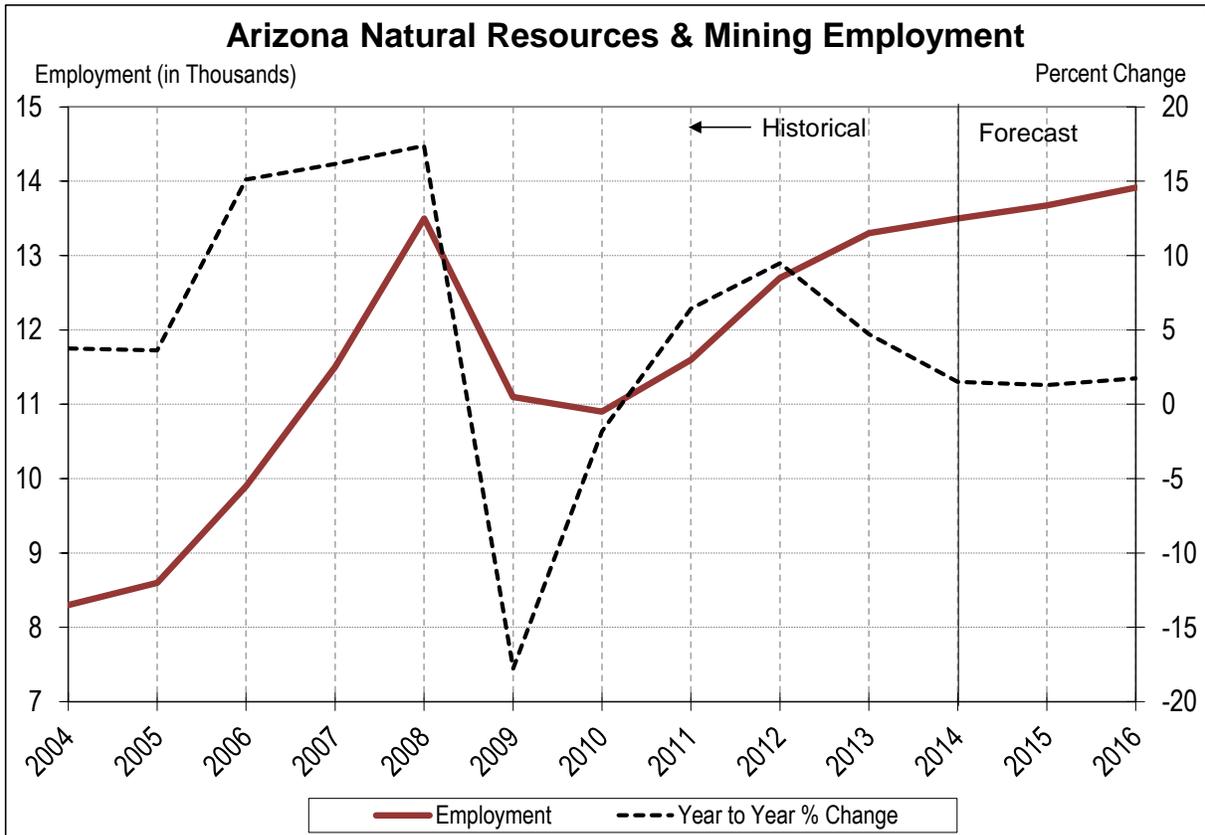


Figure 6

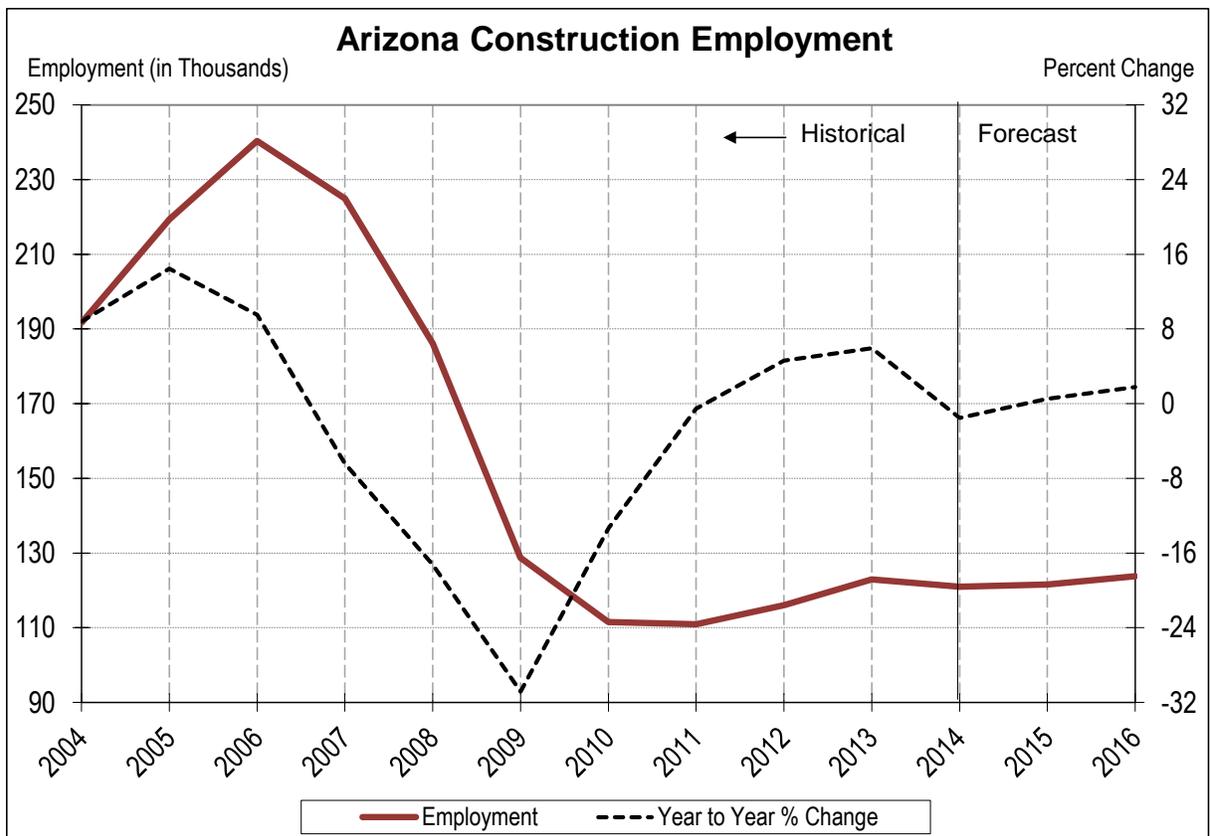


Figure 7

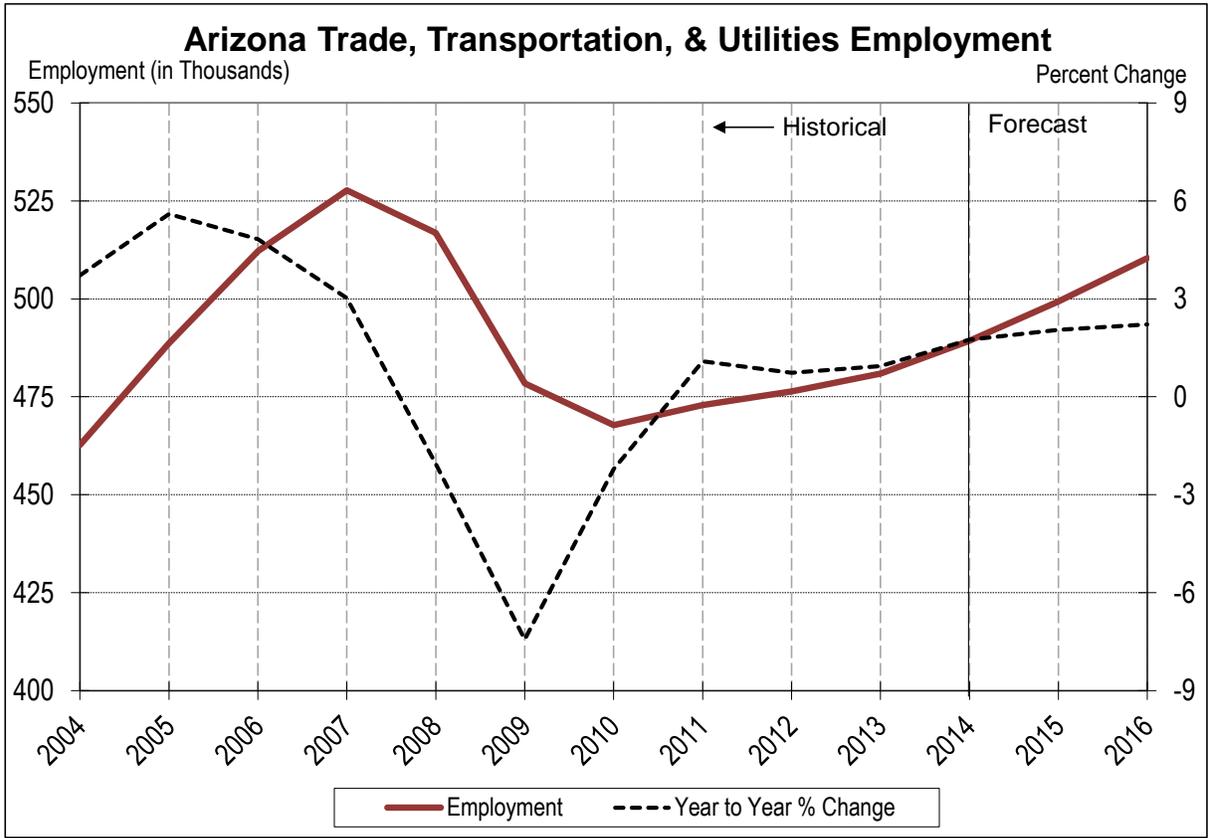


Figure 8

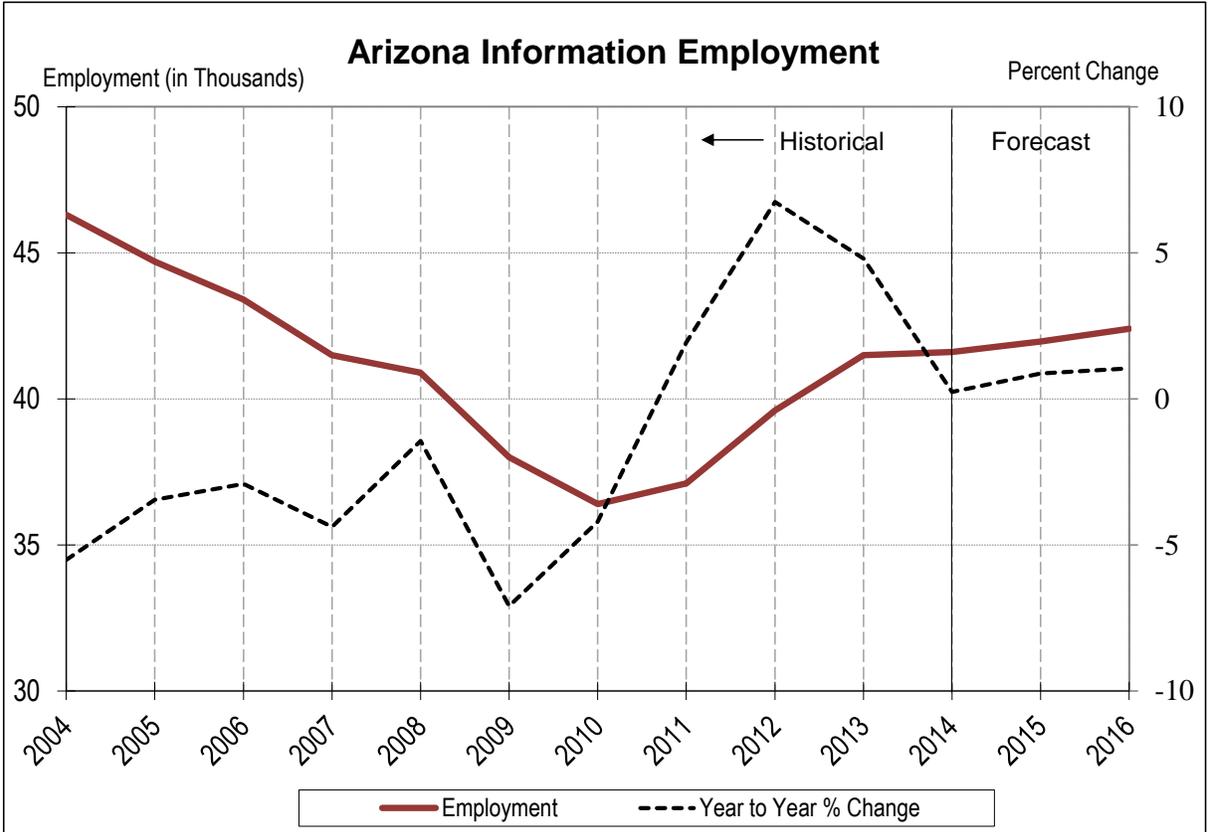


Figure 9

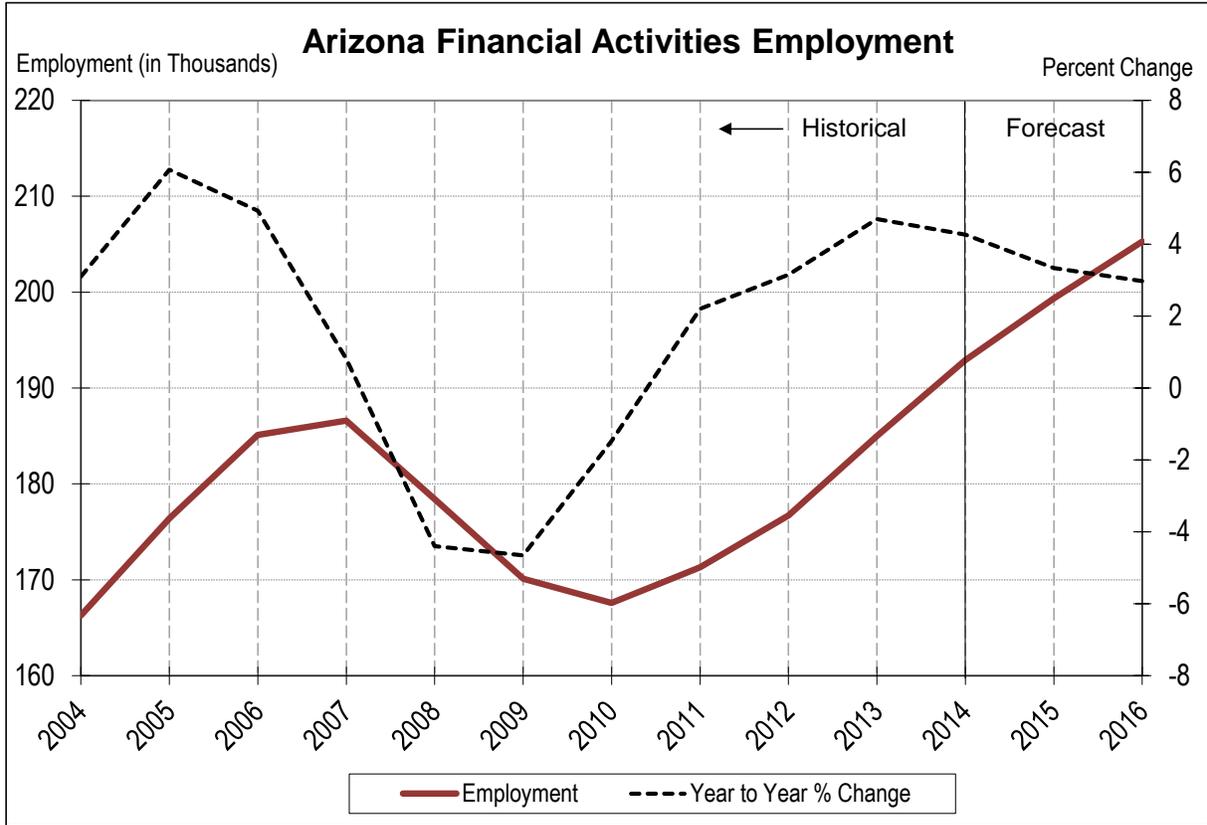


Figure 10

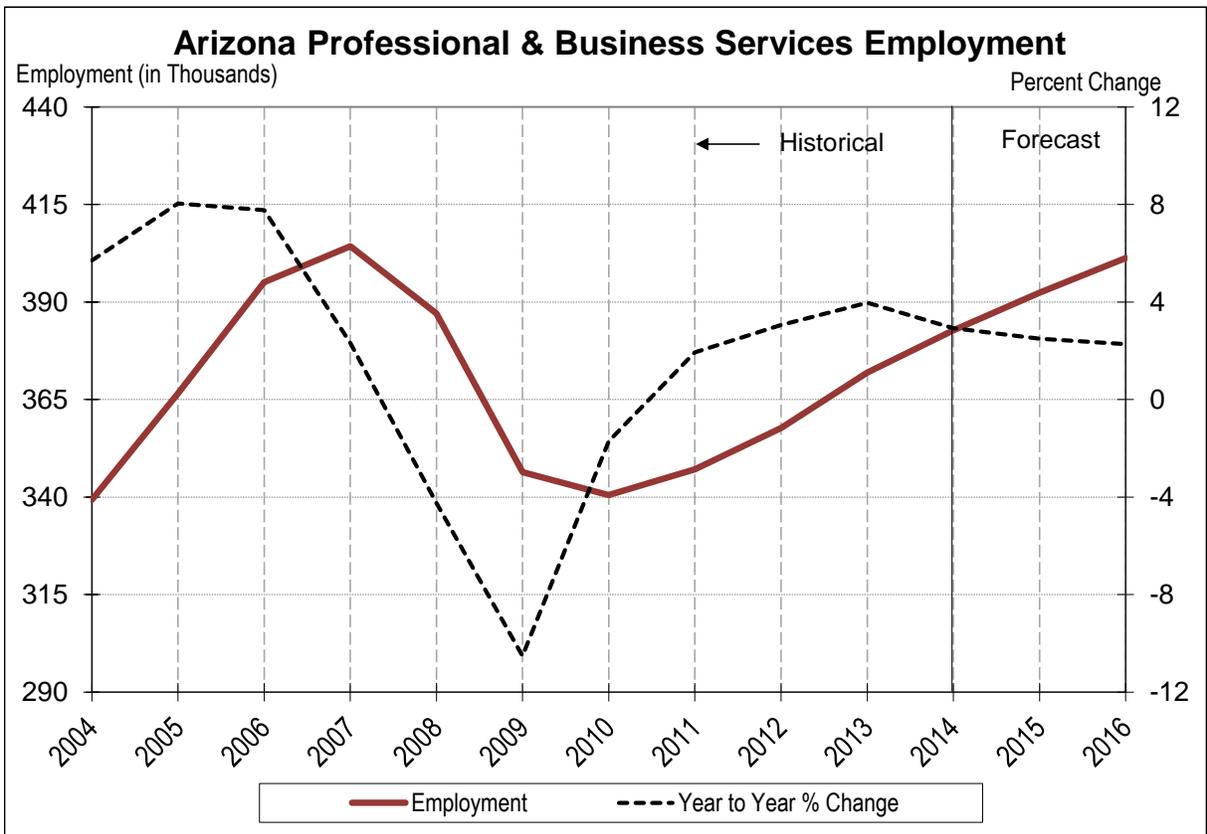


Figure 11

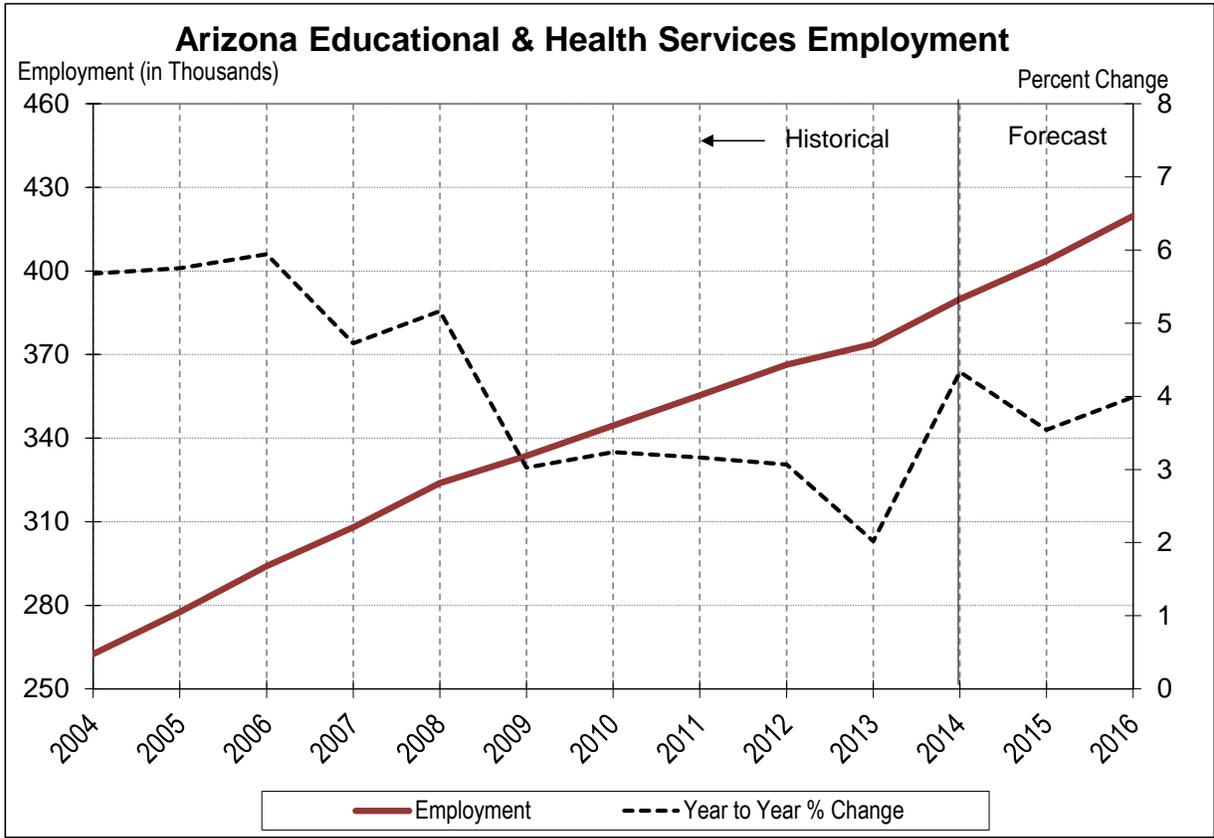


Figure 12

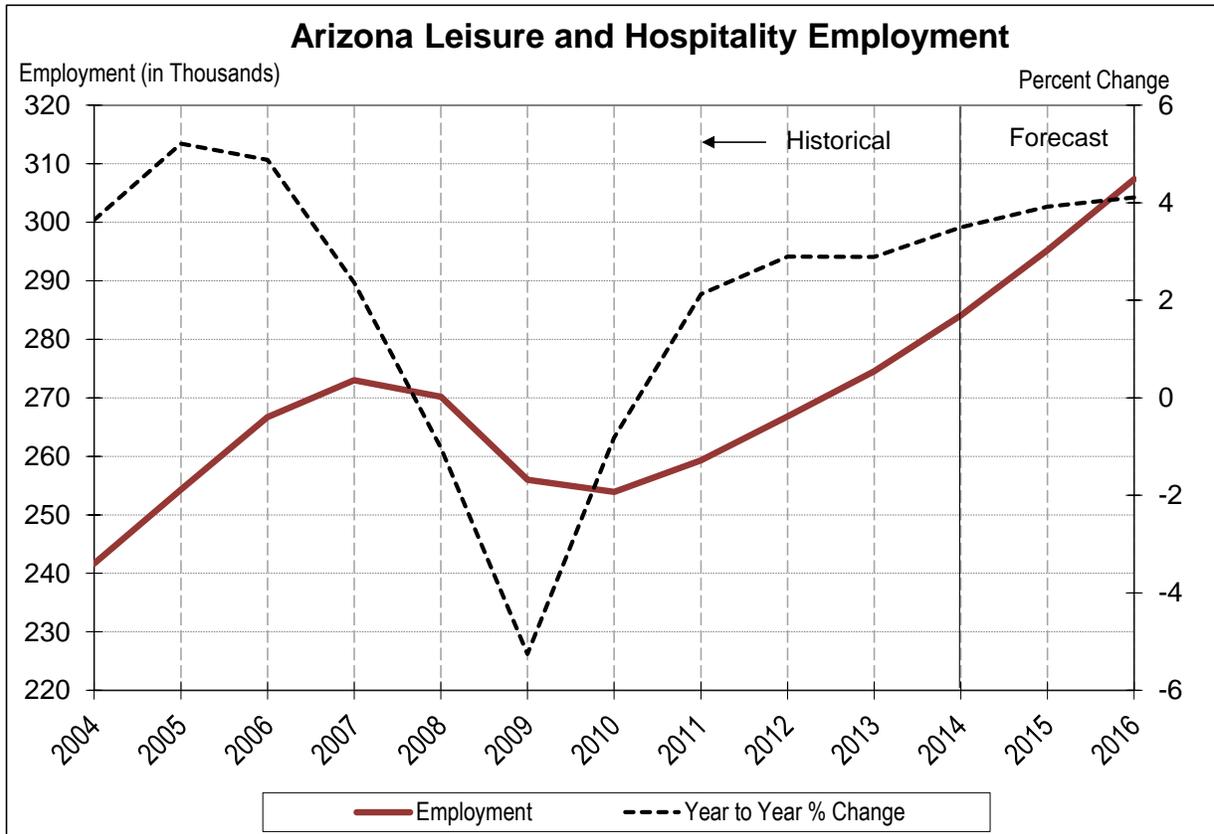


Figure 13

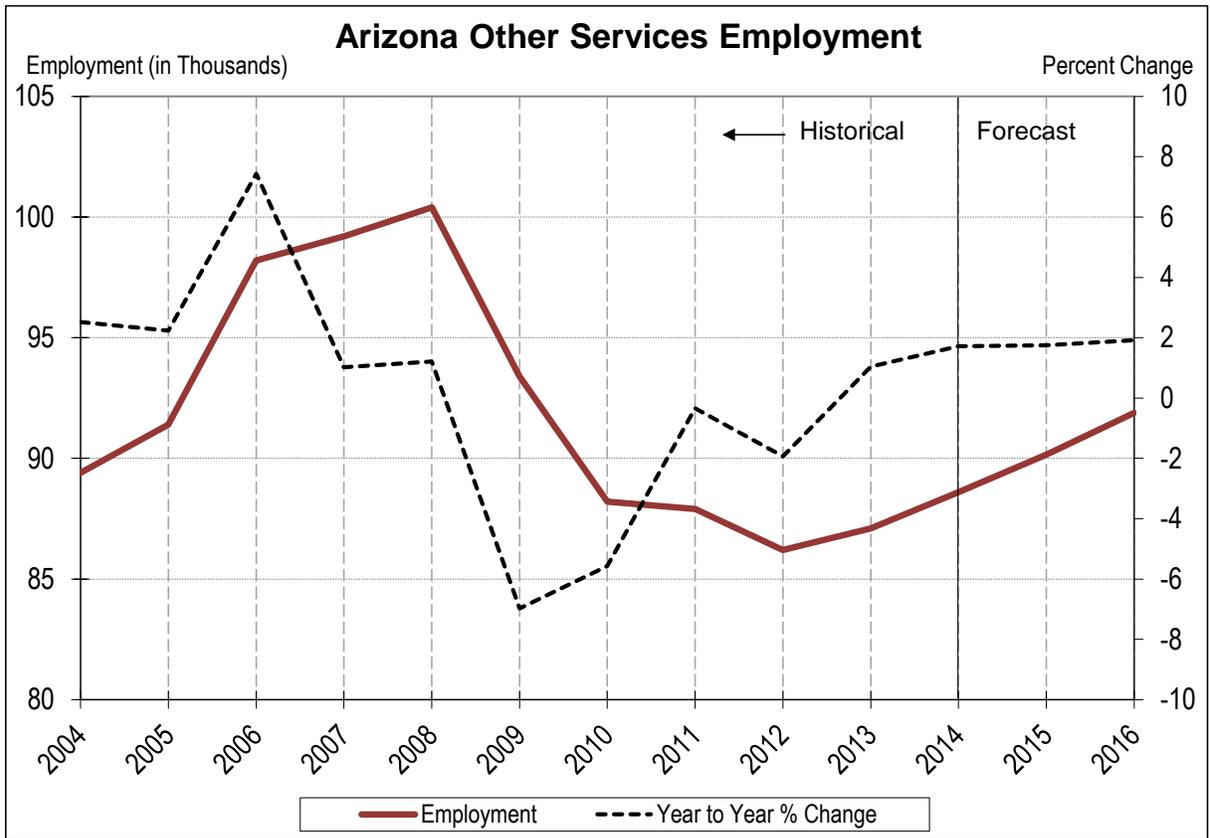
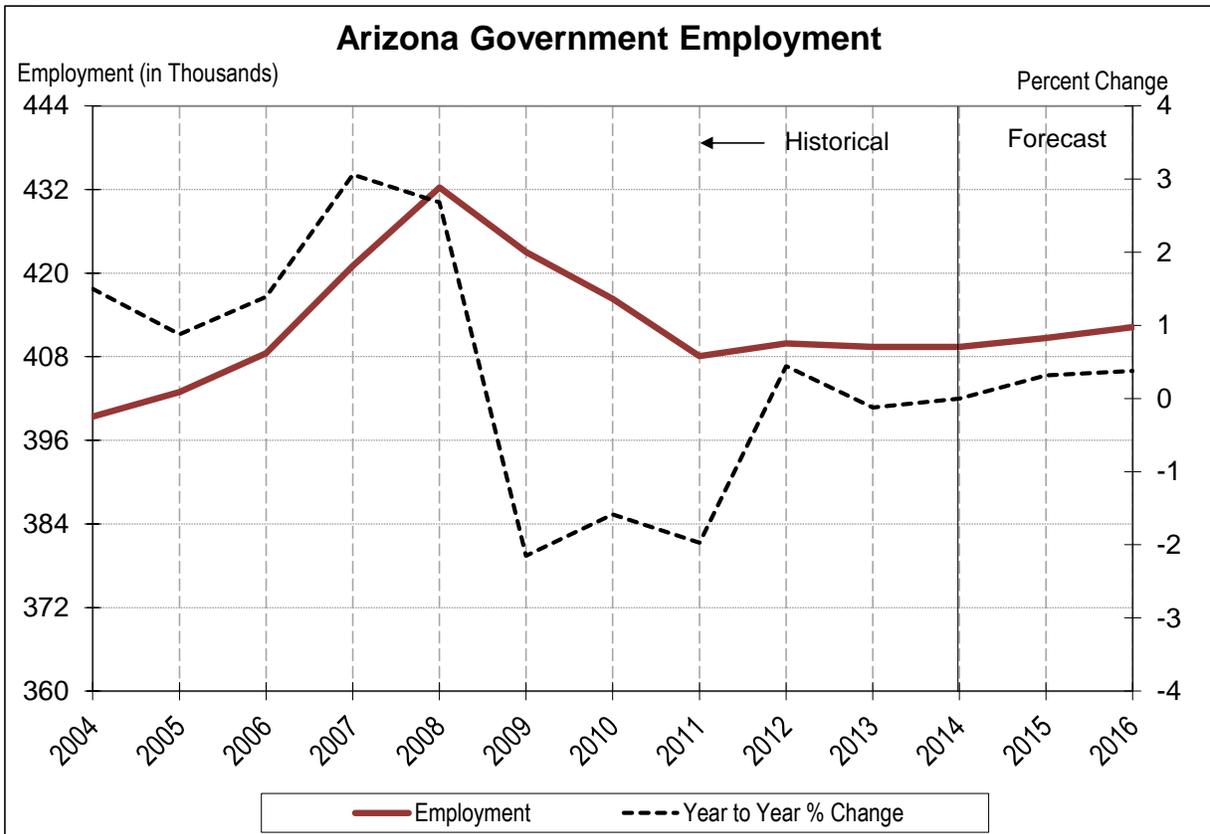


Figure 14



About This Publication

Arizona's Workforce is published 14 times a year by the State of Arizona Office of Employment and Population Statistics (EPS) — 12 times as the monthly Employment Report and twice a year as a two-year Forecast Report. EPS is the state agency responsible for labor market information and demographic data for the state of Arizona.

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