INDICATOR INSIGHT

ECONOMICS < > AN EXPERT'S INSIGHT ON THE ISSUE IN ARIZONA

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Economic Growth in Arizona Remains Below Historical Norm

For decades, Arizona was one of the national leaders in aggregate economic growth, as measured by the percent change in measures such as gross product and employment. However, its growth rate always has been highly cyclical. During expansionary periods, Arizona always has been among the top states on the rate of growth. During recessions, the Arizona economy generally slumped at a rate similar to the national average, but would experience a rapid recovery. This pattern continued through the economic expansion of the mid-2000s. After that, Arizona experienced one of the longest and deepest recessions of any state, at a time when the national recession was the most severe since the Great Depression of the 1930s. The recessionary period has been followed by an economic recovery only matching the national average.

Employment

Seasonally adjusted monthly estimates of nonfarm wage and salary employment, produced by the U.S. Department of Labor's Bureau of Labor Statistics (BLS), are analyzed in this section. These are the most timely economic data, with figures for March 2014 released in April. Estimates for 2012 and 2013 were recently revised.

During the economic expansion of the mid-2000s, Arizona's employment growth was nearly 20 percent, three times higher than the national average. Only Nevada and Wyoming had a faster rate of growth. Employment began to decline in November 2007, three months before the national average, and did not reach bottom until September 2010, seven months after the national average. Only New Jersey bottomed out after Arizona; neighboring Nevada and New Mexico hit their low point in the same month as Arizona. Only four states had a longer period of employment decline: Michigan, Ohio, Nevada, and New Jersey. Nationally, 6.3 percent of the employment at the peak

of the cycle was lost during the recession, but Arizona lost 11.6 percent of its jobs. Only Nevada and Michigan had a larger percentage decrease.

Measured from the recessionary low point, employment in Arizona in March 2014 was 7.4 percent higher. While Arizona's growth rate was 12th highest in the nation, it was only a little higher than the national average of 6.4 percent. Six other western states posted greater gains. Moreover, this pace pales in comparison to prior cycles. For example, the number of jobs

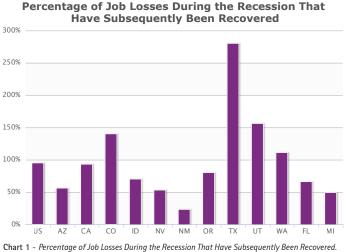


Chart 1 - Percentage of Job Losses During the Recession That Have Subsequently Been Recovered Source: U.S. Department of Labor, Bureau of Labor Statistics.

created in Arizona so far in this recovery is only 40 percent of the jobs that were added during the prior expansion. Nationally, the figure is 101 percent — the current period of job growth is only a few months shorter than the entire period of growth in the last expansion. Only four states have experienced relatively lower growth this cycle compared to the prior cycle than Arizona.



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Arizona Indicators is an online information resource and analysis tool that centralizes data about the state and its communities. Arizona Indicators presents interactive visualizations, clear data descriptions, and public opinion data in a broad range of content areas.

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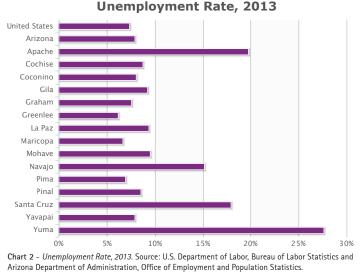
Another way of looking at the employment situation is to compare the number of jobs created since the low point to the number of jobs lost during the recession. Arizona's recovery rate of 56 percent as of March 2014 was considerably below the national average of 95 percent. Ten states had a lower percentage of lost jobs recovered. The recovery rate for selected states is shown in Chart 1.

Seasonally adjusted employment data are available for metropolitan areas. During the economic expansion of the mid-2000s, employment in Arizona rose the most in the Lake Havasu City, Prescott, and Yuma metro areas, with gains of 31-to-33 percent. Growth was slowest in the Tucson area and in the nonmetro portion of the state at 13-to-14 percent. The length of the period of job gains varied, from 58 months in Tucson to 84 months in Yuma. The length of the employment recession also varied widely by metro area, from 18 months in Yuma to 72 months in Lake Havasu City. The percentage decline was greatest in Lake Havasu City and least in Flagstaff and Tucson. During the current recovery, employment growth has been weak across most of the state. The Phoenix metro area has had the largest gain at 9.1 percent. Though leading the state's recovery, the gains in the Phoenix area have been substantially below the historical norm.

Unemployment

Unemployment is another labor market indicator. However, there are significant limitations to this measure. Conceptually, it understates total unemployment in that it requires an individual to be actively seeking work to be counted as unemployed. An individual who would like to work but is so discouraged after a period of seeking work that they are no longer actively looking are counted as not being part of the labor force. In practice, the household survey on which the unemployment rate is based is inadequate to provide reasonable estimates at a subnational level. While the survey data are bolstered by other information, the reported unemployment rates by state, metro area, and county are subject to considerable error. Using the annual average unemployment rate reduces the degree of error in the estimate, but it is still substantial.

The unemployment rate is highly cyclical, with Arizona's rate more cyclical than the national average. Historically, Arizona has had a lower-than-average unemployment rate during economic expansions, but a rate equal to or higher than the national average during recessions and early stages of economic recoveries. In 2002, just after the end of a recession, Arizona's unemployment rate was 6.0 percent, a little higher than the national average. The state's ranking – with the state with the lowest unemployment rate being ranked first - was 39th among the 51 "states" (including the District of Columbia) and sixth among 10 western states. At the peak of the economic cycle in 2007, the unemployment rate in Arizona had fallen to 3.7 percent, 0.9 percentage points less than the national average. Arizona ranked 15th in the nation and fourth in the West. In 2010, just after the end of the last recession, the unemployment rate in Arizona reached 10.4 percent, 0.8 percentage points higher than the national average. Its rank was 41st nationally and seventh in the West.



Arizona's relatively poor performance on the unemployment rate continued through 2013. Though the rate had fallen to 8.0 percent, it was 0.6 percentage points higher than the national average and ranked 39th nationally and eighth among the western states. After some improvement relative to the national average and other states in 2011 and 2012, Arizona lost ground

The unemployment rate in Arizona reported by the BLS varies widely by county, as seen in Chart 2. In most counties, the unemployment rate is consistently either higher or lower than the state's figure. Maricopa and Pima, the two most-populous counties, usually have the lowest rates.

Other Economic Measures

in 2013.

Arizona's poor economic performance is not limited to the job market. For example, as of February 2014, only 40 percent of the inflation-adjusted decrease in retail sales that occurred during the recession had been recovered.

The broadest economic measure is gross product, but 2013 data are not yet available for states or substate areas and only annual estimates are produced. The closest substitute for gross product is earnings by place of work, the largest component

of personal income. It is available quarterly on a seasonally adjusted basis for states, with estimates through 2013. Only annual estimates of earnings are available for substate areas; data are not yet available for 2013.

Earnings consist of proprietors' income, wages and salaries, and supplements to wages and salaries. The supplements consist of employer contributions for employee pension and insurance funds and for government social insurance, such as Social Security.

Relative to the national average and to other states, the performance of Arizona's economy based on the inflationadjusted earnings measure is similar to employment. The recession in real earnings was longer than Arizona's 12 quarters in only three states: Florida, Michigan, and Nevada. The recessionary decline was worse than Arizona's 11.2 percent only in these three states and in Oklahoma. Since the end of the recession in earnings, Arizona's real gain of 8.8 percent ranks in the middle of the states, but is less than the national average of 10.2 percent. By the end of 2013, only Florida, Michigan, and Nevada had recovered a lower share of the recessionary losses in real earnings.

The atypical nature of the current cycle is clearly displayed in Chart 3. The decline in earnings in the last recession was longer and deeper than in the preceding six cycles. The rate of growth since the end of the recession has been much more modest.

Construction and Real Estate

The local economy is driven by companies that sell their goods and services to customers outside the local area. These are referred to as export, base, or tradable activities. These

activities import money into the local economy that would not otherwise be present and are responsible for the growth and prosperity of a local area. Construction and real estate are largely not export activities. However, these sectors temporarily can function as driving activities. This occurred during the real estate boom in the mid-2000s, when spending by investors fueled overbuilding and large increases in real estate values, which in turn contributed to the economic growth realized during the expansion. When the construction-real estate boom inevitably turned to bust, it was a strong negative factor on the economy. Most of the states that experienced the longest and deepest recession, including Arizona, Florida, and Nevada, were states that had had the most extreme boom periods.

The Case-Shiller index of home prices is one means of measuring the boom and bust in real estate. It measures the changes in housing market prices after controlling for changes in quality (for example size of a house). This index is available for the nation and for 20 large metro areas, including Phoenix. Nationally, home prices rose from early 1991 through mid-2006. The increase over these 15+ years was 159 percent, compared to an inflation rate over this period of 38 percent, as measured by the gross domestic product implicit price deflator. Most of the 20 large metro areas had an increase larger than the national average. Phoenix ranked third with a gain of 253 percent. Los Angeles, San Diego, and Miami also had very large increases.

From the peak in mid-2006, home prices fell 35 percent nationally, bottoming out in early 2012. Inflation was 10 percent during this period. With a drop of 56 percent, Phoenix had the second largest decline in price to Las Vegas. Miami, Tampa, and Detroit had losses nearly as large.

From the trough in early 2012, home prices nationally had climbed 21 percent by January 2014. Inflation over this period was only 3 percent. Phoenix posted the fourth-largest increase at 44 percent, behind San Francisco, Detroit, and Las Vegas. As seen in Chart 4, home prices in the Phoenix area relative to the national average rose much more from 2004 to 2006, fell much more in 2008 and 2009, and increased more in 2013. The level of home prices at the end of 2013 was about the same as in mid-2004, nationally and in Phoenix.

Entire Economic Cycle, as Dated by Arizona Earnings 100% 80% 60% 40% 20% -20% 21 25 29 33 41 13 37 49 Number of Ouarters Since the Peak of the Cycle - 1970-74 **—** 1974-80 **—** 1980-81 **—** 1981-88 - 1988-2001 - 2001-07 - 2007-

Cumulative Percent Change in Earnings in Arizona Over an

Chart 3 - Cumulative Percent Change in Earnings in Arizona Over an Entire Economic Cycle, as Dated by Arizona Earnings. Source: U.S. Department of Commerce, Bureau of Economic Analysis.

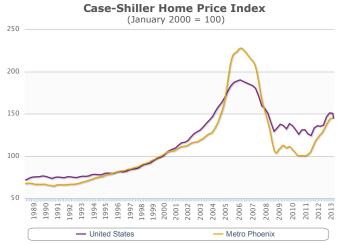


Chart 4 - Case-Shiller Home Price Index (January 2000 = 100). Source: S&P Dow Jones Indices.