

ARIZONA'S ECONOMY

ECONOMIC AND BUSINESS RESEARCH CENTER

The Long and the Short of It: Arizona 30 Year Forecast Update

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The Arizona economy is still generating solid economic growth, with job gains above the national rate but well below the long-run state average. The housing market is improving, although the level of building activity remains low. Overall, the state is on pace to generate job, income, population, and retail sales gains in 2013, with faster growth expected during the next two years.

The national economy is also growing at a modest pace that is expected to accelerate beginning in the second half of the year. By 2015, the U.S. is expected to reach trend growth, as the housing market gets back to normal, the impact of the sequester cuts fade, and as world growth accelerates.

The long-run outlook calls for the state to outpace national growth for many

indicators. However, it also calls for slower growth during the next 30 years than during the past 30 years. That reflects in large part the aging of the baby boom generation, which slows labor force growth and ultimately gains in potential output. Nonetheless, the economy expands during the 30 year period due to continued innovation and capital investment.

U.S. Recent Developments

U.S. real GDP increased by 1.7% in the second quarter of the year, according to the advance estimate, which was faster than the 1.1% growth rate in the first quarter. The second quarter increase was driven by fairly broad-based gains in consumption and investment spending, including inventory investment. Net exports and federal government spending were a drag on growth in the second quarter.

The second quarter GDP release reflected a comprehensive revision of the National Income and Product Accounts that included both definitional and statistical changes. One of the most important changes was a shift in the way that research and development expenditures are treated. This spending is now considered to be fixed investment and this allows data users to better measure the effects of innovation and intangible assets. In addition, GDP now

includes expenditures for the creation of entertainment, literary and artistic originals as fixed investment. These changes increase the level of GDP but do not change general trends or business-cycle patterns. Annual real GDP growth from 1929 to 2012 has been revised up slightly, from 3.2% per year to 3.3% per year in the revised data.

As a result of the revision, the U.S. Bureau of Economic Analysis (BEA) has created a line item tracking fixed investment spending on "intellectual property products", which includes research and development; entertainment, literary, and artistic originals; and software. In addition, BEA has updated the base year for real GDP to 2009.

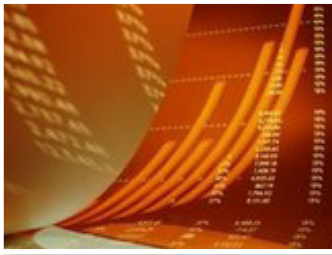
U.S. jobs also continue to expand at a modest pace. Seasonally adjusted nonfarm payroll jobs rose by 162,000 in July, which translated into a year over year growth rate of 1.7%. Further, job growth in May and June were revised down a combined 26,000 jobs. Year-over-year job growth in May and June are now estimated to be 1.6% and 1.7%, respectively.

Retail trade; professional and business services; and leisure and hospitality accounted for nearly two-thirds of job growth from June to July. Construction jobs were down, while manufacturing jobs increased.

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“US Real GDP growth accelerates during the second half of 2013 and reaches 3.5% by 2015.”

U.S. Outlook: Short-Run Rebound

The U.S. forecast calls for real GDP growth to accelerate during the second half of 2013 and into 2014. However, after a sluggish start to the year, that leaves real GDP growth at just 1.6% in 2013. The forecast calls for stronger growth in 2014 (at 2.7%) and 2015 (3.5%). The acceleration next year arises from stronger growth in consumption spending (especially nondurables and services), nonresidential fixed investment (both structures and equipment), residential investment, rebounding export growth, and less fiscal drag (at both the federal and state and local level).

Residential construction is expected to contribute to faster growth next year, as the housing recovery continues to gain momentum. Continued growth in U.S. households gives rise to another increase in housing starts, which increase by 27.0% in 2014. Rebounding demand also contributes to rising house prices in 2014.

U.S. Outlook: Long-Run Growth

The long-term outlook extends the projections through 2043. It assumes that the economy encounters no major mishaps during the forecast period. Further, actual

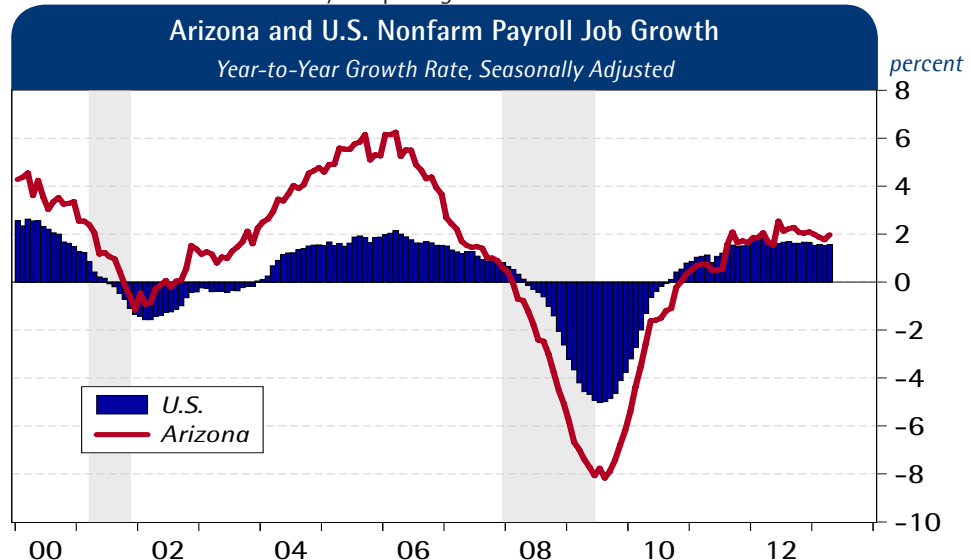
growth is expected to closely follow potential growth, once the economy gets back on track.

The forecast calls for U.S. real GDP to average 2.5% per year from 2012-2043. That is 0.4% percent per year slower than average growth during the previous 30 years. U.S. real GDP growth decelerates during the 2012-2043 period as baby boomers retire, which slows labor force growth. Even so, output continues to expand due to increased business fixed investment. In addition, productivity growth averages 1.9% per year during the forecast period, compared with 2.0% during the past 50 years.

Assumptions about productivity growth are crucial and always somewhat controversial. Some researchers, particularly Professor Robert Gordon of Northwestern University, take a more pessimistic view of future productivity growth, arguing that innovations in the future will be “evolutionary” compared to the “revolutionary” innovations of the past 100 years.

U.S. population growth is assumed to decelerate from the 1.0% per year range to 0.7% per year during the forecast. Population growth in the older age groups accelerates as the baby boomers age. Indeed, the share of the population age

Exhibit 1: Arizona is Currently Outpacing U.S. Job Growth



65-and-older is forecast to rise from 13.8% in 2012 to hit 20.8% by 2043. This pushes up outlays for Social Security, Medicare, and Medicaid.

Arizona Recent Developments

Arizona continues to add jobs at a faster pace than the U.S., as **Exhibit 1** shows. Indeed, from the second quarter of 2012 to the same quarter in 2013, Arizona added 49,900 jobs, which translated into a growth rate of 2.0%. That was faster than the national rate of 1.6% during the same period.

During the past year, leisure and hospitality and construction added the most jobs, with each increasing by just over 10,000 jobs. Professional and business services; financial activities; and education and health services rounded out the top five. These five sectors accounted for nearly 85% of job gains during the past year. Job gains were small in government (with a decline in federal government); natural resources and mining; manufacturing (with a decline in computer and electronic products); and information. Other services (repair, religious, grantmaking, and personal services, like laundry and dating services) was the only super-sector to produce year over year job losses.

The Phoenix MSA also continues to add jobs, with growth during the past year (at 2.6%) exceeding both the state and national rates. Preliminary data suggests that job growth in the Tucson MSA is coming at a slower pace (0.8% during the past year) and is decelerating.

Construction job gains reflect in part increasing housing activity in Arizona. Seasonally adjusted housing permits were up by 35.7% in the second quarter, compared to the year-ago level. That reflected gains in both single and multi-family permits. In addition, both Phoenix and Tucson contributed to the statewide gains. However, it is important to keep in mind that housing permits are still running at relatively low levels.

House prices continue to rise, with Phoenix MSA prices (Case-Shiller measure) up 20.6%

in May 2013, compared to the same month in 2012. Strong house price increases reflect reviving demand and tight inventories. In addition, according to Census data, both homeowner and rental vacancy rates declined in the second quarter, compared to year-ago levels. Overall, the housing sector in the state continues to gradually recover, but there remains room for improvement.

The Arizona seasonally adjusted unemployment rate was steady in the second quarter of 2013 at 7.9%, 0.4 percentage points above the national average of 7.5%. The state rate in the second quarter was 0.5 percentage points below its year-ago level and 1.6 percentage points below the second quarter of 2011. Job growth is contributing to lower unemployment rates. Unfortunately, the state has also posted labor force declines during the period. This suggests that the falling unemployment rate reflects in part unemployed residents dropping out of the labor force.

U.S. and Arizona personal income declined rapidly in the first quarter of 2013, after a large surge in the final quarter of 2012. The decline in the first quarter reflected a decline in dividends, interest, and rental income, which fell off after a surge in the fourth quarter related to accelerated payments in anticipation of end-of-year tax changes. First quarter income growth was also restrained due to the expiry of the temporary payroll tax holiday. We expect income growth to rebound to more normal levels in the second quarter.

Arizona Outlook in the Short Run

The forecast calls for the state to grow modestly in 2013, then accelerate in 2014 and 2015. Arizona job growth is expected to accelerate from 2.1% in 2013 to 2.8% in 2014 and again to 3.5% in 2015, with state job growth also beating the national average.

The forecast calls for continued recovery in the housing sector for the state, Phoenix, and Tucson, with growth in housing permits driven by rising net migration. Statewide

“Arizona continues to add jobs at a faster pace than the U.S.”



“Nearly 85% of Arizona’s job gains during the past year occurred in leisure & hospitality, construction, professional & business services, financial activities and education & health care.”

“Job gains drive income growth up in Arizona, with personal income growth rising by 3.9% in 2013, then accelerating to 5.5% in 2014 and 5.7% in 2015.”



housing permits are forecast to hit 47,200 in 2015, compared to 21,700 in 2012. Population growth drives the recovery in housing activity, with net population change hitting 116,500 in 2015, compared to 60,000 in 2012.

Job gains drive income growth up in Arizona, with personal income growth rising by 3.9% in 2013, then accelerating to 5.5% in 2014 and 5.7% in 2015. Rising income growth supports retail sales, broadly defined, which is forecast to increase by 4.1% in 2014 and 4.9% in 2015.

Arizona Outlook in the Long Run

Exhibit 2 summarizes the state long-run forecast, which we update annually. Population is expected to hit 10.4 million by 2043, which translates into an average annualized growth rate of 1.5%. That is slower than average growth during the previous 30 years (2.7%) but above the national average (0.7%). Nonfarm payroll jobs reach 4.3 million by 2043, an annual growth rate of 1.8%, below the previous 30 year average (2.9%) but above the national rate (0.8%).

Job growth in the state is forecast to be concentrated in the service-providing sectors, which account for 91.0% of jobs in 2043, compared to 88.3% in 2013. The manufacturing employment share declines during the forecast, falling from 6.2% in 2013 to 4.2% in 2043. Employment shares also fall in mining and logging; construction; leisure and hospitality; other services; and government, which declines from 16.4% in 2013 to 13.7% by 2043.

Education and health services and professional and business services post the largest increases in employment shares. By 2043, education and health

services accounts for 18.1% of state jobs, up from 14.9% in 2013. Most of that increase comes from gains in health care and social assistance. Professional and business services jobs account for 16.9% of employment in 2043, up from 14.5%.

Arizona's growth slows in the long-run as the baby boomer's age and retire. This will affect the state's jobs-to-population ratio (measured using nonfarm payroll jobs), which never regains its pre-recession peak. Instead, the ratio plateaus in the 42.0% range, which is well above its post-recession low of 37.3% in 2010, but well below its high of 43.3% in 2000 and well below the national rate (44-46%).

Job growth during the forecast will drive gains in per capita personal income, even after adjusting for inflation. The forecast calls for state per capita income growth to average 3.7% during the next 30 years, equal to the national rate. State gains are expected to exceed the national average initially, but then fall behind as the forecast progresses. Overall, the state makes no progress in closing the income gap with the U.S.

Continued income growth contributes to gains in retail sales, but the ratio of retail sales to income continues to fall during the forecast. This likely reflects in part an aging population that spends more on services, especially health care, and less on taxable goods.

Both the Phoenix and Tucson MSAs expand during the forecast, but growth is faster in Phoenix. By 2043, Phoenix accounts for 75.4% of state jobs, up from 71.7% in 2013, and 70.2% of state residents, up from 65.9% in 2013. The Tucson MSA is forecast to account for 12.9% of state jobs in 2043, down from 14.5% in 2013, and 14.0% of state residents, down from 15.2% in 2013.

Exhibit 2: Arizona Projections to 2043

	2003	2013	2023	2033	2043
Population (000s)	5,554	6,564	7,805	9,085	10,372
Nonfarm Jobs (000s)	2,299	2,512	3,253	3,798	4,345
Personal Income (\$Bil)	156	246	427	706	1,130
Retail Sales (\$Bil)	60	84	132	200	302

Troubling Trends in Arizona's College Attainment Rates

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

Education is a crucial determinant of long-run income growth. This assertion seems obviously true for individuals, where increases in education lead to higher salaries over time. However, something similar is also true for nations, states, counties, metropolitan areas, and nonmetropolitan areas.¹ High concentrations of highly educated residents in a region, particularly those with a Bachelor's degree or better, leads to stronger income growth in the region in the long run. Further, it is not just highly educated workers that benefit. Less educated workers also earn more in cities with high concentrations of the highly educated.

Thus, the college attainment rate is one critical determinant of Arizona's economic success. Unfortunately, while the state rate has risen rapidly during the past 70 years, its growth has not kept pace with the

nation. In fact, Arizona's college attainment rate was below the national level in 2011.

This article provides *Arizona's Economy* readers with a short summary of results from a new EBR study titled "Troubling Trends in Arizona College Attainment." The longer study presents detailed evidence on Arizona's college attainment trends during the past 70 years, including trends for counties and metropolitan areas.

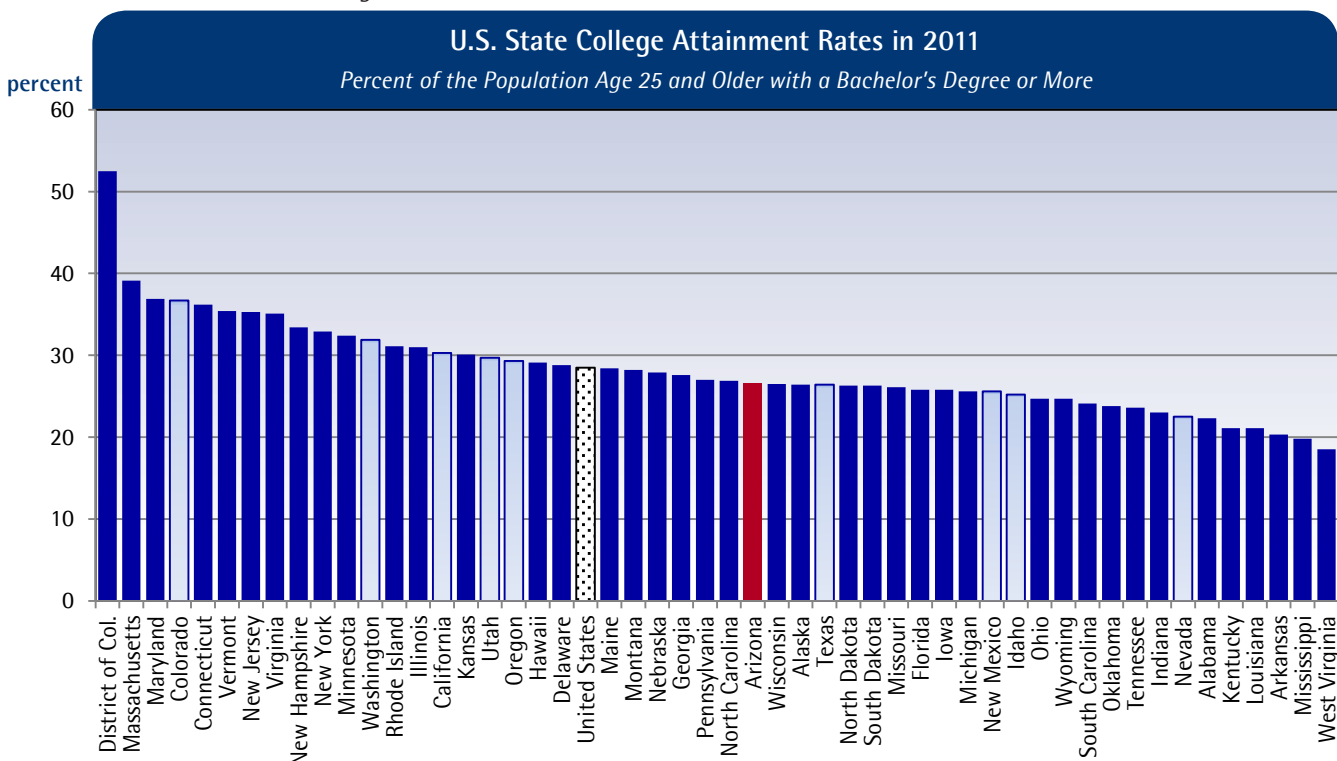
The U.S. Census Bureau estimated that there were 1,119,198 Arizona residents age 25 and older with a bachelor's degree or better in 2011. That translated into a college attainment rate of 26.6%, which was 1.9 percentage points below the national average of 28.5%, and ranked the state 27th in the nation. Arizona's college attainment rate was well below that of several western states, including Colorado,



“The college attainment rate is one critical determinant of Arizona's economic success.”

¹ For examples: see Barro and Sala-i-Martin (1999) for nations; Bauer, Schweitzer, and Shane (2012) for states; Higgins, Levy, and Young (2006) for counties; Glaeser and Saiz (2004) for metropolitan areas; and Hammond and Thompson (2008) for nonmetropolitan areas.

Exhibit 1: Arizona's College Attainment Rate Ranks Well Below 5 Other Western States and 27th in Nation





“It is important that Arizona not fall behind in the race to build human capital.”

Washington, California, Utah, and Oregon. Nevada, Idaho, New Mexico, and Texas posted lower college attainment rates than Arizona in 2011 (Exhibit 1).

The state has gradually lost ground to the nation during the past 70 years. Arizona's lead gradually declined during the five decades from 1940 to 1990 when the state and national rates were equal at 20.3% (Exhibit 2). During the next 20 years, the state gradually fell further behind the nation. In 2010, the national college attainment rate hit 28.2%, compared to 25.9% for Arizona, which ranked the state ranked 32nd in the U.S. To sum up, during the 70 year period beginning in 1940, Arizona's college attainment rank fell from 4th in the nation to 32nd. Arizona has lost ground on a crucial competitive dimension.

The Arizona college attainment rate grew less rapidly than the nation from 1980 to 2010, at 48.7% compared to 73.7% for the U.S. In part, this was related to strong growth in the Hispanic population in Arizona, whose population share (age 25 and older) rose from 12.4% in 1980 to 23.3% in 2010. The national Hispanic population share (age 25 and older) also

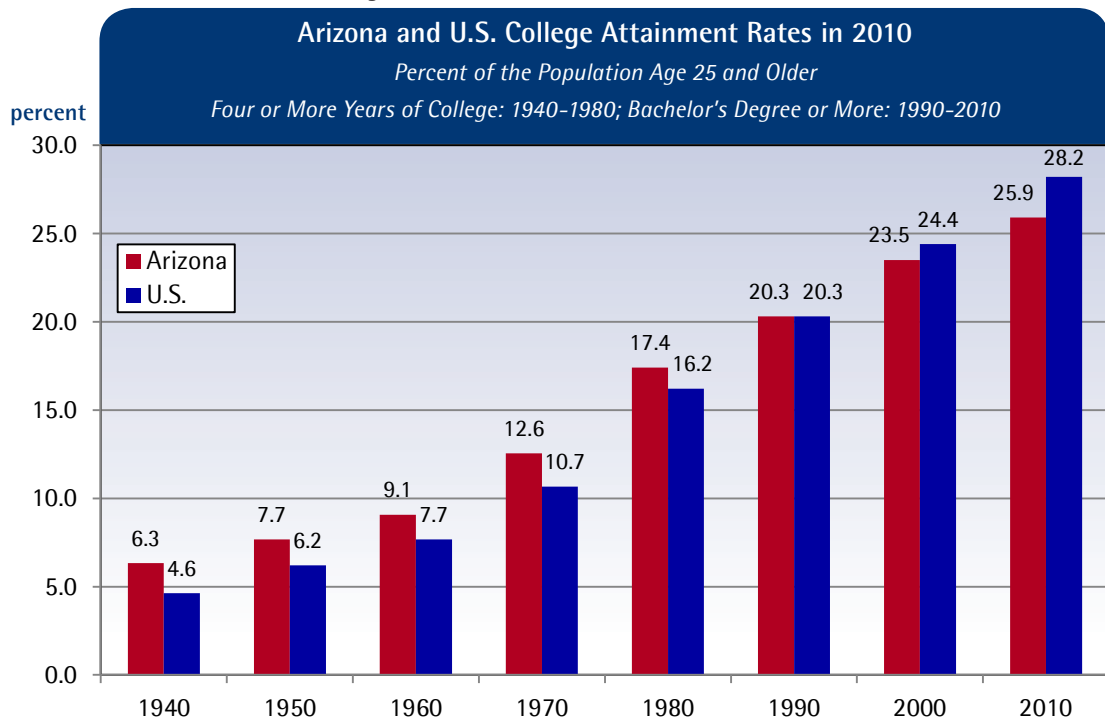
rose rapidly, from 5.1% to 13.4% during the same period. Exhibit 3 shows college attainment rates for both Hispanic and Non-Hispanic residents from 1980 to 2010. Growth in the Hispanic population share tended to slow gains in college attainment because the Hispanic college attainment rate was lower than the rate for Non-Hispanics, both nationally and in the state, and because the Hispanic college attainment rate in Arizona was lower than the nation.²

Another factor contributing to slow growth in Arizona's college attainment was the relatively slow growth in the Non-Hispanic college attainment rate. Indeed, if in 2010 Arizona had exactly the same Hispanic population share and Hispanic college attainment rate as the nation, the state rate would be essentially equal to the national rate.

It is important that Arizona not fall behind in the race to build human capital. There is evidence that metropolitan areas that began with higher levels of college attainment were able to attract more college graduates during the ensuing decades than were regions that started with

²See Hart and Hager (2012) for an in-depth analysis of these issues.

Exhibit 2: Arizona's College Attainment Rate Falls from 4th to 32nd in the Nation (1940-2010)



fewer college graduates. This sets the stage for increasing geographic inequality in human capital and ultimately in income.³

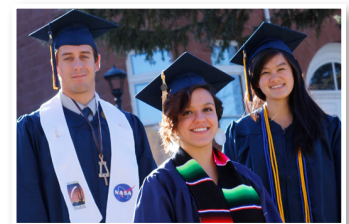
Raising Arizona's college attainment rate will contribute to more rapid income growth. For instance, the Milkin Institute (DeVol, Shen, Bedroussian and Zhang, 2013) has recently estimated that adding one extra year to the average years of schooling of the employed in a metropolitan area can increase real GDP per capita by 10.5% and real wages per worker by 8.4%. Further, Hoffman and Rex (2012) concluded that increasing the state's educational attainment, particularly for younger workers, would have significant positive impacts on state income.

However, increasing Arizona's college attainment rate will not be straight forward. There is no silver bullet solution to the problem. More research is needed to determine which approaches might yield the best results. This research should focus on policies that will strengthen both the supply of and demand for college graduates. On the supply side, the state needs to improve education outcomes and strive to improve

access to higher education. Strengthening PK-12 education will increase the overall quality of the workforce and improve the performance of local students enrolling in college. Then the higher education system can focus on generating high quality college graduates and world-class research, as well as service to the state. The multifaceted contribution of the universities and colleges is a key part of their role in an ecosystem that generates job growth for college-educated workers.⁴

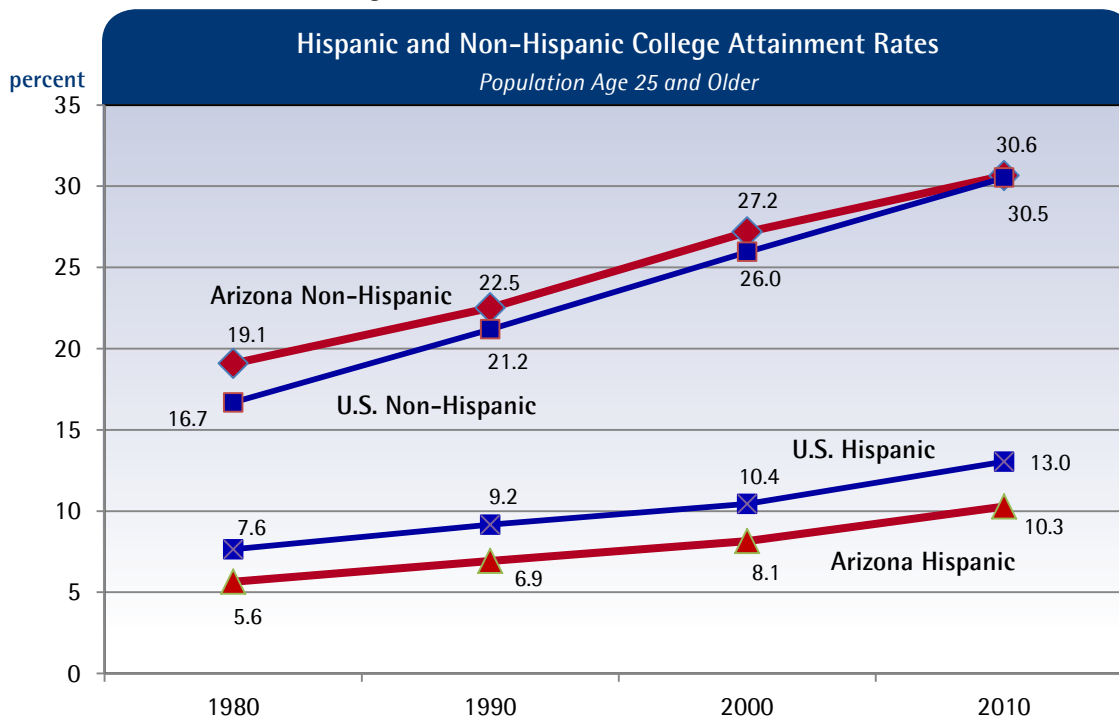
But this cannot be the only response, since education also increases worker mobility. Thus, college graduates will leave the state if there are not enough job opportunities locally. State policymakers need to focus on building a diversified industry and employment mix that generates ample employment opportunities for Arizona college graduates, as well as those with lower levels of attainment. No state has this completely figured out yet, but local leaders around the country are increasingly aware that whoever wins the battle to attract college graduates will also win the battle for improved income growth and standards of living.

“Raising Arizona's college attainment rate will contribute to more rapid income growth and have significant positive impacts on state income.”



³For more on this point see Glaeser and Berry (2005), Hammond and Thompson (2010), and Moretti (2012).
⁴For more on these issues, see Goldin and Katz (2008).

Exhibit 3: Arizona's College Attainment Rate Falls Behind the Nation's



“Whoever wins the battle to attract college graduates will also win the battle for improved income growth and standards of living.”

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Arizona's General Fund Operating Expenditures, 1979 - 2013

by Alberta H. Charney, Ph.D.

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Introduction

Priorities, attitudes, politics and available public funding all influence both the level of state spending and the mix of those expenditures. This article provides a historical view of Arizona's expenditures by major spending category. Long-term trends in both the mix of spending and the level of spending, adjusted for population and inflation, will be presented.

Money spent by the state of Arizona can be categorized roughly into three types: appropriated general fund money (mostly taxes), non-general fund appropriated money, and non-appropriated funds. The focus of this article is the trend and mix of general fund appropriations, though it is difficult and somewhat meaningless to discuss only general fund money without reference to state expenditures from other sources.

Appropriated general fund money is derived primarily from the state's income and sales taxes and deposited into the general fund. Portions of both the state income and sales tax are distributed to cities and/or counties, so the general fund includes only those revenues made after those distributions are made. The legislature has the most control over general fund money and this category is the focus of this article. It is important to understand, however, that this is only a portion of total money expended by state agencies.

Appropriated non-general fund money can come from a variety of sources and, although it does not pass through the general fund, it is still subject to the appropriation process. This is money that can be spent only in certain ways, but is still "appropriated." Two major examples of this non-general fund, or "other" appropriated, money are transportation funds and tuition at higher education institutions.

Although tuition is paid directly by students and their families, rather than being derived from a general tax, and is not part of the general fund, a portion of it still falls under the appropriations process.

All highway-related taxes and fees are "earmarked" for spending on transportation. That is, the highway taxes and fees (e.g., gasoline tax, use fuel taxes which are primarily paid on diesel fuel, license fees, weight fees) cannot be spent for any other purpose, as outlined in the Arizona State Constitution. These dollars are collected, portions are shared with cities and/or counties for transportation purposes and the rest is spent by the state on road construction and maintenance. Although this money must be spent on roads, it still involves the appropriation process. Of course, federal transportation dollars, given to the state for the purpose of maintaining the federal highway system in the state, are typically considered non-appropriated funds.

“Priorities, attitudes, politics and available public funding all influence both the level of state spending and the mix of those expenditures.”



“The legislature has most control over the level and mix of general fund expenditures and these choices reflect both legislative priorities and ongoing economic conditions.”

Non-appropriated funds are derived mainly from non-state sources. Examples of non-appropriated funds are federal dollars that come into the state to fund a wide variety of programs. For example, federal dollars that pay healthcare costs for low-income individuals via the Arizona Health Care Cost Containment System, or AHCCCS (Arizona’s version of Medicaid) enter and are expended from state coffers, but the money’s intended use is pre-determined and it is not included in the legislative appropriation process.

The legislative process is not independent of the amount of money that is received from the federal government for this purpose, however, because there is a required match for each major category of healthcare funds (e.g., for every federal dollar that is spent on Arizona health care, the state must also contribute a certain amount, sometimes 10% or less).

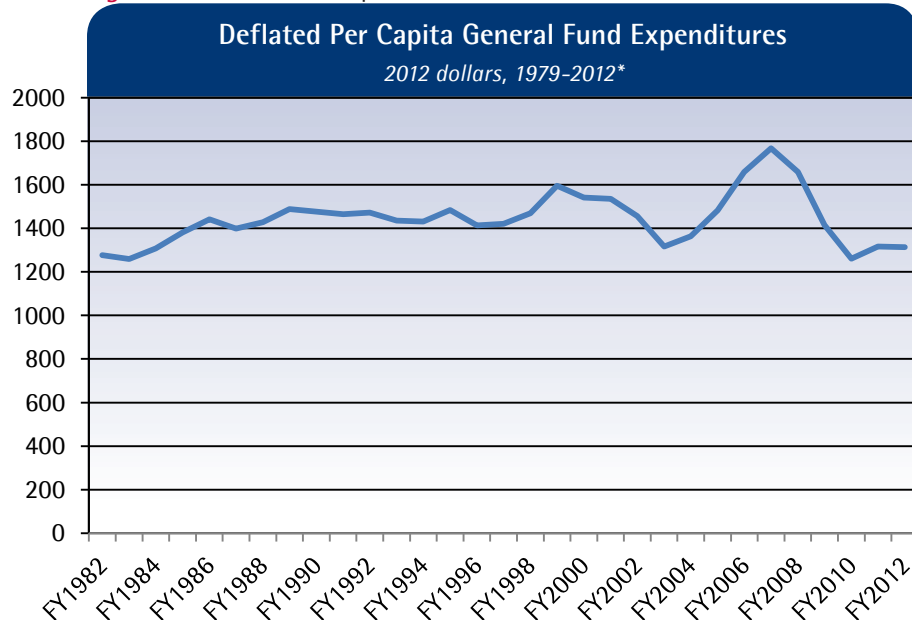
Other examples of non-appropriated funds are grants and contract dollars received by universities. This money is required to be spent on the research/project that is being funded by those dollars and to pay the associated university overhead costs (e.g., administration, ongoing research lab costs), so this money falls outside of the appropriations process.

There are other state expenditures that don’t fit into any of these three categories. An important one is the State Retirement System. Although funded by a combination of general taxes (state employee-related expenses) and employee contributions (deductions from wages), it is a pot of money designated to provide payouts to retirees and is, therefore, completely outside the appropriations process.

In addition to state-related money that funds the major state functions that will be discussed below, local governments also either help to pay for some of the services provided or they directly provide similar services at the state level. More about this will be said within the discussions of each major spending category.

The rest of this article focuses on the level and mix of the expenditures from the general fund of the state of Arizona. The legislature has the most control over this money and therefore the level and mix of the general fund revenues reflects both the priorities of the legislature and the realities of the ongoing economic conditions.

Figure 1: General fund expenditures in FY2012 were \$37 more than in FY1982.



*1979-2011 are actual expenditures; 2012 is appropriations. Deflated dollars were computed using the CPI for the Western Region, with the base adjusted so that 2012 CPIWEST = 1.

Total General Fund Expenditures

Six major expenditure categories were tracked over time.¹ Three of them fall under the broad category of Health and Welfare: AHCCCS (Arizona's version of Medicaid), the Department of Health, and the Department of Economic Security. Two of the remaining three categories are for education: K-12 Education (combined spending of the Department of Education and spending on Charter Schools and School Facilities) and Higher Education (the combined expenditures for Community Colleges and the University System). The sixth category is for Corrections, which includes spending on both adult and juvenile correction. The Other category represents the residual between total general fund expenditures and the six categories just listed.

Total general fund expenditures have increased over the 31-year period from FY1982 through FY2012 by an annual average compound rate of 5.9 percent. While that seems high, it must be remembered that Arizona's population grew by an annual compound rate of 2.7 percent over the same period and the cost of living (as measured by the Consumer Price Index for the Western Region) increased by 2.9 percent, compounded per annum. Therefore, total general fund expenditures may or may not have kept up with population growth and the cost of providing government services.

Figure 1 shows total general fund expenditures, divided by Arizona population, and adjusted for inflation by dividing by the CPI for the Western Region (adjusted so that the base is equal to 1 in 2012). The resulting graph depicts per capita deflated general fund

expenditures in 2012 dollars. Per capita deflated expenditures were \$1,277 in FY1982. At this time, the economy was just exiting the recession that occurred between August 1981 and November 1982. Deflated per capita expenditures were rather constant between FY1985 and FY1997, \$1,441 in \$2012. There was a small increase in FY1998 and FY1999 and a decline from FY2000 through FY2002. The decline was likely due to the recession that began and ended in 2001.

The substantial increase in deflated per capita expenditures from FY2003 through FY2006 reflects the overall growth in the economy, which was driven by construction and what is now recognized as the housing bubble. The housing crises and recession that began in late 2007 reduced per capita government expenditures from a high of \$1,768 (\$2012) in FY2007 to a low

Table 1: K-12 education spending has dropped from 48.9% in FY1982 to 42.7% in FY 2012.

General Fund Operating Budget Expenditures, by Major Expenditure Category (\$)									
	FY1982		FY1987		FY1992		FY1997		
	\$	%	\$	%	\$	%	\$	%	
AHCCCS	-	-	127,822,300	5.5	420,450,500	12.0	463,557,800	9.9	
Health Services, Dept. of	69,978,000	4.6	88,706,400	3.8	179,271,500	5.1	206,302,500	4.4	
Economic Security, Dept. of	151,771,100	9.9	212,708,300	9.1	343,152,100	9.8	352,061,800	7.5	
K-12 Education	750,780,600	48.9	991,862,500	42.3	1,312,581,700	37.5	1,966,014,600	42.1	
Higher Education	304,902,700	19.9	454,809,100	19.4	607,437,400	17.4	745,573,100	16.0	
Corrections	88,733,500	5.8	183,493,600	7.8	277,841,100	7.9	457,471,400	9.8	
Other	168,988,500	11.0	283,799,398	12.1	360,045,500	10.3	478,541,700	10.2	
TOTAL General Fund Expenditures	1,535,154,400	100.0	2,343,201,598	100.0	3,500,779,800	100.0	4,669,522,900	100.0	
	FY2002		FY2007		FY2012				
	\$	%	\$	%	\$	%			
AHCCCS	500,273,500	8.0	1,132,444,300	11.2	1,476,449,400	17.3			
Health Services, Dept. of	279,068,700	4.4	537,062,200	5.3	509,332,400	6.0			
Economic Security, Dept. of	434,567,000	6.9	695,080,900	6.9	591,125,000	6.9			
K-12 Education	2,986,053,500	47.6	4,374,272,600	43.4	3,645,643,500	42.7			
Higher Education	903,034,400	14.4	1,113,808,000	11.1	757,236,200	8.9			
Corrections	604,042,300	9.6	894,513,800	8.9	995,694,400	11.7			
Other	564,293,900	9.0	1,326,069,800	13.2	560,834,200	6.6			
TOTAL General Fund Expenditures	6,271,333,300	100.0	10,073,251,600	100.0	8,536,315,100	100.0			

“Per capita expenditures from the general fund were \$37 more in 2012 than they were in 1982 and 9% or about \$133 per person below the historical (1982-2011) average (2012 dollars).”

“Arizona per capita income has declined relative to the nation and a larger share of Arizonans have become eligible for ACCCHS.”

of \$1,260 in FY2010. Since then, there has been a small increase to \$1,314 in FY2012. Per capita deflated expenditures from the general fund in FY2012 were \$37 more than they were in FY1982. FY2012 expenditures were approximately \$133 per person below the 1982-2011 average of the deflated per capita expenditures of \$1,447, or 9% below the historical average. The range of deflated per capita expenditures around the FY1982-FY2011 average was from \$188 below average in FY1983 to \$321 above average in FY2007.

Expenditure Mix of the General Fund

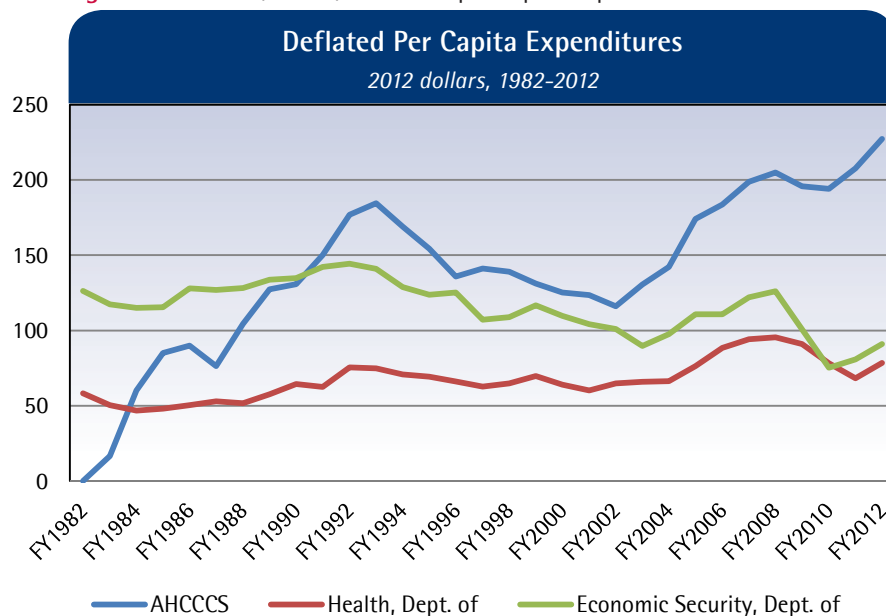
The mix of expenditures from the general fund has changed dramatically over time. **Table 1** gives expenditures from the general fund, disaggregated into the six categories described above, at five-year intervals from FY1982 through FY2012 and the percent distribution. The largest change has been the spending on the Arizona Health Cost Containment System (AHCCCS) from 0% of the general fund in FY1982 to 17.3% in FY2012. Prior to the creation of AHCCCS, all indigent health care was provided by counties in Arizona. In 1965, the US Congress passed Medicaid and by 1972, all states were receiving federal Medicaid funds except Arizona. The counties

appealed to the Arizona Legislature for relief from the health care burden and the legislature established AHCCCS. Medicaid is funded as a fee-for-service while AHCCCS set up a system to pay health care providers on a per patient basis. AHCCCS began as a demonstration project for the Medicaid system and has become a model project for providing quality health care at a low cost. By qualifying as an approved alternative to Medicaid, the state was eligible to receive federal money for healthcare.ⁱⁱ

Arizona Health Care Cost Containment Services

The share of total general fund expenditures devoted to healthcare has increased for several reasons. Since the goal of AHCCCS was to both improve healthcare for low-income individuals and to reduce the healthcare burden of the counties, additional state expenditures were obviously required. Over time, the per capita income of Arizonans has declined relative to the rest of the nation over the 31-year time period, with the result that a larger share of Arizona residents have become eligible to participate in the program. Recessions strongly affect AHCCCS rolls. When the economy weakens and suffers job losses, people lose their employer-based health care, incomes fall and more individuals and families become

Figure 2: AHCCCS, ADHS, and ADES per capita expenditures over time.



eligible for participation in AHCCCS. Over time, the scope of services provided by AHCCCS has also expanded, such as the addition of long-term care and mental and behavioral health coverage. In addition, changes in the income requirements (income relative to the U.S. poverty level) have resulted in more Arizonans becoming eligible for AHCCCS programs. Deflated per capita expenditures on AHCCCS climbed steeply after the program began to \$184 in FY1993, declined to a low of \$116 in FY2002 and continued to climb to \$227 in FY2012 (Figure 2). Because AHCCCS is an approved Medicaid program, substantial federal dollars support the state's health care program. Total AHCCCS spending from all sources, as reported in the State of Arizona Appropriations Report for 2012 (AR2012),ⁱⁱⁱ was just under \$6 billion dollars. Of that, less than 23 percent was to be paid from the general fund. The Federal Medicaid Authority paid approximately 66 percent of the total and a variety of other sources, including county funds and the tobacco litigation settlement fund, accounted for the small remainder.

Arizona Department of Health Services

The portion of general fund expenditures devoted to another health-related state expenditure category, the ADHS, has also grown slightly from 4.6% to 6% of total general fund expenditures (Table 1). According to the ADHS website, they operate a wide variety of programs that includes disease prevention and control, health promotion, community public health, environmental health, behavioral health, maternal and child health, emergency preparedness and regulation of childcare and assisted living centers, nursing homes, hospitals, other health care providers and emergency services.^{iv} In deflated per capita terms, expenditures by the ADHS have also increased slightly, from approximately \$50 during the FY1984-FY1986 period to \$68 - \$78 in recent years. Substantial federal funds also contribute to the services provided by the ADHS, with the result that the amounts shown in Table 1 represent only 28% of the almost \$1.8 billion in expenditures made by this agency (AR2012).

Arizona Department of Economic Security

Also within the Health and Welfare category of services is the ADES. ADES provides a wide variety of services and administers a substantial amount of federal funds that support many of their functions. Their programs are numerous and include those for the aging, the homeless, domestic violence, children and youth support services, foster care placement, adoption services, programs for the developmentally disabled and work-related programs such as day care subsidies, rehabilitative services and unemployment insurance. ADES expenditures fell as a share of total general fund expenditures from 9.9 percent in FY1982 to 6.9 percent in FY2012. In addition to ADES' share of general fund expenditures declining, deflated per capita expenditures also fell from approximately \$144 per person in FY1992 down to between \$75 to \$91 in recent years (Figure 2). Many of the programs provided by ADES receive substantial federal funding. Total spending by ADES from all sources was over \$2.7 billion dollars (AR2012). Of this, only 22 percent would be paid for from the general fund. The remainder was mostly federal dollars, although some smaller funds also contributed to total expenditures.

K-12 Education Spending

The largest portion of state general fund expenditures is for K-12 spending. Most of this is through the Arizona Department of Education (ADE), although state funds for Charter Schools and for school facilities were included in this series to maintain a consistent K-12 spending category. As a share of total general fund expenditures, K-12 spending ranged from 37.5 percent in the early 1990s, which was substantially down from the share high of 48.9 percent in FY1982 (Table 1). On a deflated per capita basis, spending fell from \$624 in FY1982 to a low in the FY1990-FY1993 time period of approximately \$550 (Figure 3). After FY1997, K-12 expenditures became extremely volatile, increasing to \$712 then falling back to \$585 as a result of the 2001 recession. This was followed by another rapid growth period associated with the

“When the economy weakens and jobs are lost, people lose their employer-based health care and families become eligible for participation in AHCCCS.”



“AHCCCS and Dept. of Health spending have substantially grown, necessitated by need as employer-provided health insurance has declined and per capita income growth has fallen behind the rest of the nation.”

construction-driven expansion to reach a peak of \$768 in FY2007 and crashing to the lowest level of the entire period in FY2010 (\$533). The level of per capita deflated K-12 spending has increased slightly since then.

Although there are some federal dollars flowing into Arizona for K-12 expenditures, almost 70 percent of the total state expenditures from all sources is derived from the state general fund (computed from AR2012).

It is important to note that the total spending by ADE of \$4.9 billion shown in the AR2012 does not represent total spending in the state on K-12. It only represents the portion spent by the state. Each school district raises additional funds locally through local property taxes. Comparing total state and local expenditures on Elementary and Secondary School in FY2011 from the Census Bureau's State and Local Government Finance 2010-2011 (SLGF2011)^v to the agency total in the State of Arizona Appropriations Report for 2011 (AR2011), suggests that local property taxes contribute an additional amount equal to approximately 60%

of the figure reported in AR2011^{vi}. Thus, of the total funding for K-12 education shown in the appropriations report, \$0.70 of every \$1 comes from the general fund, with \$0.30 paid from other sources, including federal sources. Not shown in the appropriations report is an additional \$0.60 per \$1.00 reported, collected via property taxes by local governments (school districts) for K-12 education.

These figures should be viewed as very rough approximations because a) the data reported in the Census Bureau publications are not perfectly consistent with state publications due to differences in definitions, b) the figures used in this article for 2012 are based on appropriations, not actual spending, and c) the figures in appropriations books differ from final appropriations because of revisions.

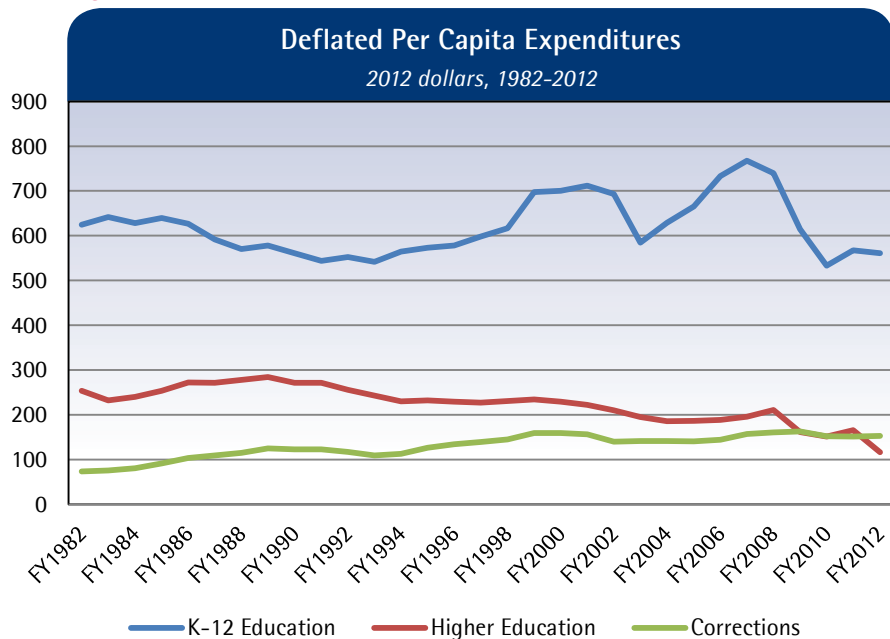
Higher Education

This category includes spending on both Universities and Community Colleges. The share of general fund spending on higher education has fallen from almost 20 percent in FY1982 to less than 9 percent in FY2012 (Table 1).

Deflated per capita expenditures in this category averaged approximately \$275 annually during the FY1986-FY1991 period, which was the highest level in the 31-year period shown. Since then, there has been a steady decline, reaching \$116 in FY2012. Deflated per capita higher education spending has declined by almost 60 percent since the FY1986-FY1991 period (Figure 3). Community colleges, like K-12 school districts, can impose property taxes to cover some of the reductions from state government. Of course, like all local governments, community colleges are limited in how much additional funding they can raise because of strict state-imposed levy limits. In addition, community colleges receive tuition payments and fees from students.

Universities have no local taxing authority. To cover reductions in expenditures from the general fund, they raise tuition paid by students to attend. In 1982, the total “appropriated receipts,” i.e., tuition, were approximately 23 percent of total appropriated funds, which included both general fund and tuition (State of Arizona Appropriations Report for

Figure 3: Educational spending has declined while corrections spending has increased.



“Higher education spending has declined and corrections spending has increased over the last 30 years. In 2012, the state spent more out of the general fund on incarcerating people than it did on higher education.”

1982). In FY2012 tuition and fees (collections fund) was almost 54 percent of total appropriated funds (computed from AR2012). Therefore, over the last 30 years, the share of total university appropriated funds (tuition, fees and general fund money) paid by students in the form of tuition and fees has more than doubled. But this comparison underestimates the total tuition and fees paid currently by students and their families because not all tuition and fees are allocated to the Collections Fund so they are not appropriated. Rather, a substantial portion of tuition and fees are deposited into local funds of the universities. The Collections Fund figures used in these calculations was approximately 60% of the total tuition and fees collected in FY2012, computed by comparing AR2012 with the Arizona Board of Regent's Annual Research Report for 2012 (ABOR2012).^{vii}

Universities have other substantial sources of funding (as shown in AR2012). The general fund contributes approximately 17 percent of the total sum passing through the universities. Tuition, part of which is appropriated and part of which is not, forms a significant portion, more than \$1 billion. In addition, there is more than a billion dollars in research-related money (including indirect costs) brought into the state (ABOR2012). Most of that money is restricted because it must be used to conduct the research agreed to in the research contracts. The rest of the non-appropriated funds are mainly

auxiliary funds that are associated with enterprise activities on campuses, e.g., book stores and food sales.

Corrections

Corrections expenditure (adult and juvenile) is the last of the six largest categories of spending from the general fund. Corrections expenditures grew almost twice as fast as the overall general fund so its share increased from 5.8% in 1982 to 11.7% in 2012. Deflated per capita corrections expenditures more than doubled from \$74 in FY1982 to \$153 in FY2012 (Figure 3). Unlike AHCCCS and the Department of Health Services, which receives substantial federal funding to help provide services, 89 percent of all state corrections spending is from the general fund. Of course, the state pays only for state correctional facilities. There are also correctional facilities owned and operated by local governments throughout Arizona. In SLGF2011, state spending on corrections was \$856.6 million and local government spending was \$598.5 million (total \$1,646.2 million).

Conclusion

This article provides an overview of the level and mix of general fund expenditures over a 31-year period. Total expenditures from the general fund have been volatile at times, reflecting the booms and busts of the Arizona economy, particularly over the last 15 years. In FY2012, deflated per capita expenditures from the general fund were similar to what they were

during the 1981/82 recession. The volatility of total deflated per capita general fund expenditures most closely resembles the ups and downs in K-12 expenditures. The amount of volatility shown in K-12 expenditures creates uncertainty and continuity issues, making it more difficult for K-12 administrators to plan and utilize resources effectively. As the largest spending category, K-12 Education is all too often the one that is affected the most when downturns occur. The two healthcare categories, AHCCCS and the Department of Health, have substantially grown over this period, both as a share of the total general fund and as deflated per capita expenditures. Much of this growth is necessitated by need as employer-provided health insurance has declined and Arizona's per capita income has not grown as fast as it has in the rest of the nation. In addition, the scope of Arizona's AHCCCS services has expanded over the years and changes in eligibility have allowed additional families to qualify. The two categories showing the least volatility are expenditures on higher education and corrections. Higher education expenditures, on a per capita deflated basis, have shown a steady decline over most of the 30-year period and expenditures on corrections has shown a steady increase. In FY2012, the state spent more out of the general fund on incarcerating people than it did on the higher education system.

ⁱAll expenditure data were obtained from the Joint Legislative Budget Committee's website: <http://www.azleg.gov/jlbc/GF10yearweb.pdf>, accessed August 2013.

ⁱⁱA somewhat longer history of AHCCCS is available: <http://www.azahcccs.gov/Careers/History.aspx>, accessed August 2013.

ⁱⁱⁱ<http://www.azleg.gov/jlbc/12app/FY2012AppropRpt.pdf>, accessed August 2013

^{iv}<http://www.azahcccs.gov/Careers/History.aspx>, accessed August 2013

^v*State and Local Government Finances 2010-2011* can be found at: <http://www.census.gov/govs/local/>

^{vi}The 2011 Appropriations Report is at: <http://www.azleg.gov/jlbc/11app/FY2011AppropRpt.pdf>

^{vii}Arizona Board of Regents, 2012 Annual Research Report, found at <http://azregents.asu.edu/ABOR%20Reports/2012-Annual-Research-Report.pdf>, accessed August 2013.



Arizona General Fund Tax Revenues: An Historical Perspective

by Alberta H. Charney, Ph.D.

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Introduction

In the previous article, the patterns of general fund expenditures were examined from FY1982 through FY2012. That article examined priorities within the economic conditions surrounding state spending decisions. This article examines the sources of the money deposited into the general fund. After initial examination, it was determined that this article would have to be limited only to general fund tax revenues; non-tax revenues would not be considered.

There were several reasons why non-tax revenues were excluded. The main reason is the extreme volatility of those revenues. That volatility did not stem from economic conditions that made the non-tax revenues grow and shrink as do tax revenues. All too often it was associated with definitional/ accounting changes where sometimes items were included in non-tax revenue and sometimes they were not. For example, at one time, university tuition was deposited into the general fund as part of non-tax revenue, as were medical payments made to the University of Arizona hospital. These were removed completely from the general fund.

Currently, a portion of university tuition and fees enter the appropriations process as non-general fund revenue and what was once the University of Arizona Hospital is now a separate entity, the University Medical Center. For a time, lottery money, which is non-tax revenue since participation is voluntary, was included in the general fund but then it was removed and allocated separately. In FY2012, \$165 million from state lotteries were allocated to economic development, education, environment and health and public welfare funds without ever being deposited into the general fund.

Non-tax revenues also include one-time or short-term transfers into the general fund from other funds. This typically occurs during downturns. For example, \$1.3 billion in FY2009 and more than \$2 billion in FY2010 was entered into the general fund as a "net revenue enhancement/one-time adjustment." Some of this was the federal stimulus money sent to states so they could maintain reasonable levels of operation and a substantial amount was from within-state budget transfers.

For all these reasons, the non-tax portion of the general fund is extremely volatile over

time. As a percentage of total tax revenue deposited into the general fund, non-tax revenues vary from as little as 2.6 percent in FY1990 to 37.3 percent in FY2010. In addition to the volatility, the aggregation of various components changed over time, so in some years more detail was reported than in other years. This made it extremely difficult to form consistent series for the subcategories of non-tax revenues. Because of the inconsistencies over time in the data, the inability to consistently identify certain components over the time period, and the lumpy transfers from other state and federal sources, non-tax revenues of the general fund will not be discussed further in this article.

The Data

General fund revenue data from FY1997 through FY2012 were obtained from the Joint Legislative Budget Committee website [1]. Data from FY1982 through FY1996 were obtained from corresponding State of Arizona Annual Financial Reports (not available on-line). Revenue categories were defined consistently throughout this period, with only a few exceptions, and those inconsistencies were easily reconciled.

For FY1993 and FY1994, data for four tax categories (luxury, insurance premiums, parimutual and estate taxes) had to be estimated because the Annual Financial

Reports for those years aggregated them into "other" tax revenue. Since this is intended to be an examination of long-term trends rather than a look at specific years, the revenues for those four categories for those two years were estimated using a simple interpolation between the FY1992 and FY1994 values.

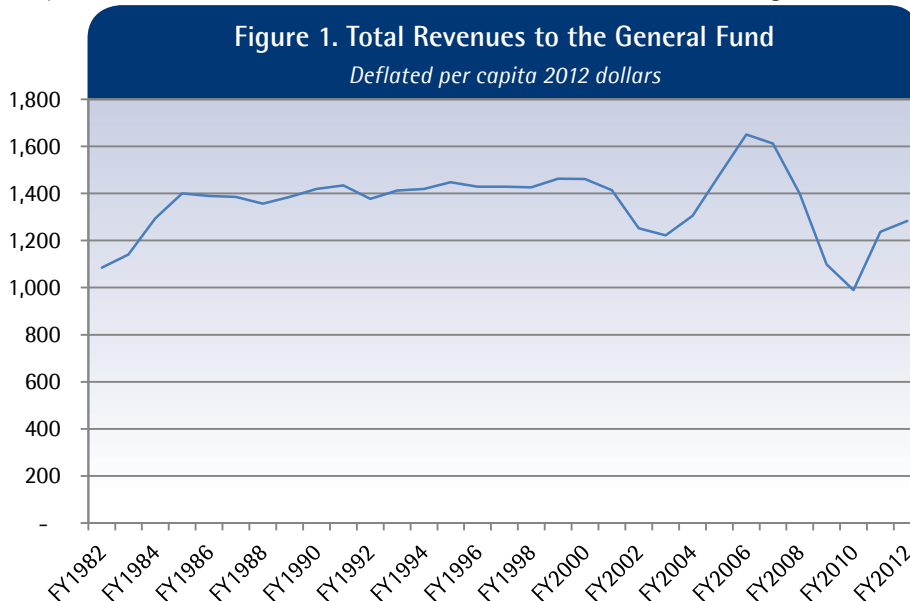
Total General Fund Tax Revenue

Figure 1 presents the graph of total general fund tax revenues. In FY1982, Arizonans paid just under \$1,084 per person in 2012 constant dollars (\$2012). That figure jumped to approximately \$1,400 by FY1985, and remained steady through FY2001. After FY2001, total tax revenues became extremely volatile. The relatively short recession that began and ended in 2001 drove general fund tax revenues down to an average of \$1,237 in FY2002 - FY2003, a substantial decrease. The rapid expansion in Arizona's economy from FY2004 through FY2007 associated with the housing bubble drove total general fund tax revenues up to over \$1,650 per person (in \$2012). The economic and fiscal crises that followed drove per capita general fund revenues down to \$989, by far the lowest point during the entire 31-year period. Since then, per capita revenues have rebounded



“In fiscal year 2012, per capita constant general fund tax revenues were \$76 below the 31-year average of \$1,360 and more than \$130 below the \$1,414 average of the stable 1985 - 2001 (FY) period.”

Figure 1: By 2012, tax revenues were more than \$130 below 1985 - 2001 average of \$1,414.



somewhat, returning to \$1,284 in FY2012. In FY2012, per capita constant general fund tax revenues were \$76 below the FY1982-FY2011 average of \$1,360 and more than \$130 below the \$1,414 average of the stable FY1985 - FY2001 period. The rest of this article examines each of the taxes in the general fund to determine which contribute the most and to identify changes that have occurred over time.

The Disappearance of General Fund Revenue Sources

Table 1 presents tax revenues to the general fund, by category, in 5-year intervals from FY1982 through FY2012, along with the percent contribution of each tax. Because FY2012 includes the 1 percent temporary sales tax, which ended in mid-2013, the percent contributions are computed both

Table 1: Six tax revenue sources have all but disappeared.

General Fund Tax Revenues								
<i>thousands of dollars and percent share</i>								
	FY1982		FY1987		FY1992		FY1997	
	000s\$	% sh	000s\$	% sh	000s\$	% sh	000s\$	% sh
1 Sales and Use Taxes	581,145	44.6	1,199,560	51.7	1,499,516	45.8	2,211,159	47.1
2 Temporary 1% Sales & Use Tax	-	-	-	-	-	-	-	-
3 Income Taxes	487,977	37.4	835,501	36.0	1,272,392	38.9	2,010,937	42.8
4 Insurance Premiums	25,625	2.0	70,476	3.0	100,544	3.1	120,516	2.6
5 Property Taxes	88,393	6.8	61,843	2.7	170,644	5.2	51,194	1.1
6 Motor Vehicle License Tax	32,173	2.5	44,890	1.9	99,850	3.1	167,649	3.6
7 Luxury	64,107	4.9	69,569	3.0	72,258	2.2	67,341	1.4
8 Parimutual	7,668	0.6	6,718	0.3	4,932	0.2	-	-
9 Estate Tax	11,960	0.9	25,693	1.1	25,652	0.8	65,432	1.4
10 Other	4,432	0.3	5,827	0.3	26,446	0.8	2,309	0.0
Total Tax Collections	1,303,480	100.0	2,320,076	100.0	3,272,234	100.0	4,696,537	100.0
Sum of sources 5 - 10		16.0		9.2		12.2		7.5
	FY2002		FY2007		FY2012		W/O Temp. Tax	
	000s\$	% sh	000s\$	% sh	000s\$	% sh	Included: sh	%*
1 Sales and Use Taxes	3,000,432	55.7	4,512,831	49.1	3,652,166	43.8		49.2
2 Temporary 1% Sales & Use Tax	-	-	-	-	915,836	11.0		na
3 Income Taxes	2,011,053	37.3	4,182,326	45.5	3,305,486	39.6		44.5
4 Insurance Premiums	195,333	3.6	399,817	4.4	393,991	4.7		5.3
5 Property Taxes	35,682	0.7	24,486	0.3	15,888	0.2		0.2
6 Motor Vehicle License Tax	-	-	-	-	-	-		-
7 Luxury	66,070	1.2	65,809	0.7	56,357	0.7		0.8
8 Parimutual	-	-	-	-	-	-		-
9 Estate Tax	80,552	1.5	(551)	(0.0)	201	0.0		0.0
10 Other	2,224	0.0	1,329	0.0	1,783	0.0		0.0
Total Tax Collections	5,391,344	100.0	9,186,046	100.0	8,341,706	100.0		100.0
Sum of sources 5 - 10		3.4		1.0		0.9		1.0

Sources: General fund revenue data from FY1997 through FY2012 were obtained from the Joint Legislative Budget Committee website. Data from FY1982 through FY1996 were obtained from corresponding State of Arizona Annual Financial Reports (not available on-line). * percent share without temporary tax included.

with and without the temporary tax for that year.

A cursory examination of tax sources to the general fund shows that five of the tax sources (six if "other" is counted) have all but disappeared. Those revenue sources – property, motor vehicle license, luxury, parimutual, estate and "other" taxes – contributed 16 percent of all general fund tax revenue in FY1982. In FY2012, these same revenue sources represented just 1 percent of the general fund. On a per capita basis in \$2012, general fund revenues from these six tax sources went from \$174 in FY1982 to \$11 in FY2012 (Figure 2). Two of the taxes – state property taxes and estate taxes – were repealed and the others have largely been reallocated away from the general fund and earmarked for specific purposes.

Estate Tax

The estate tax was imposed on the transfer of wealth when an estate owner dies. The amount of Arizona's estate tax was set equal to the maximum allowable federal tax credit for state death taxes under the Internal Revenue Code [2]. When the federal government repealed the federal tax credit for state death taxes in 2004, Arizona's tax effectively ended on that date and, rather than rewrite the statute to impose the tax using a different base, the

state statute was repealed in 2006. The tiny amounts of estate taxes still appearing are from estate settlements pre-dating the 2006 repeal.

Property Taxes

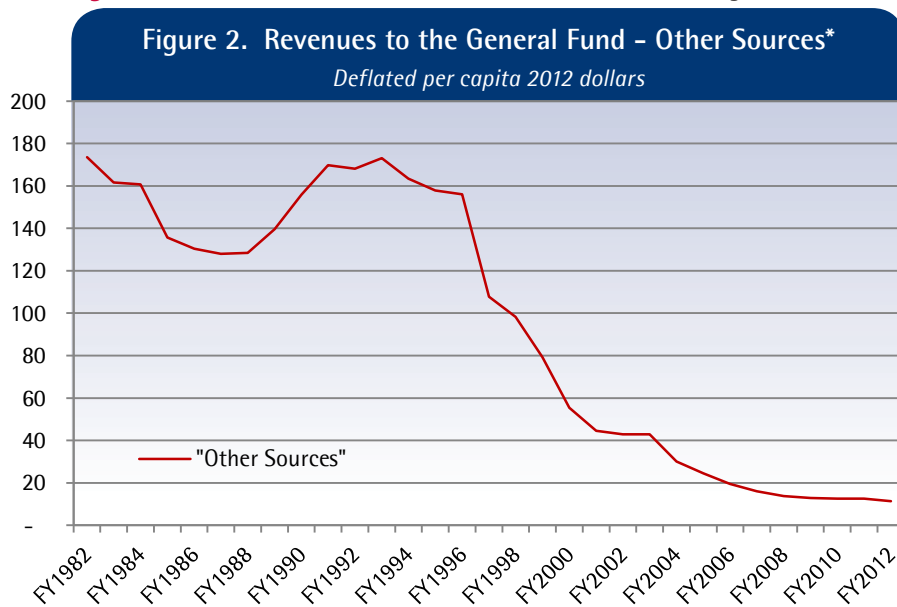
Counties, cities, school districts and a wide variety of special districts, e.g., lighting districts, flood districts, all rely on property taxes. At one time, Arizona also had a state-wide property tax that was deposited into the general fund. The state property tax was repealed in 1996 [2]. However, small amounts of property taxes continue to be deposited into the general fund. These are state taxes imposed on properties that are not located within any school district or on property in certain school districts that are ineligible for state aid. Essentially, when the school portion of a property's tax is extremely low, the state imposes a type of minimum property tax. In addition, there is a state-mandated county equalization tax, imposed by counties. The result of the 1996 state property tax repeal was to reduce the property tax contribution to the general fund from 6.8 percent in FY1982 to 0.2 percent in FY2012.

Motor Vehicle License Tax

The motor vehicle license tax is imposed on the value of a car and, as such, the tax imposed on any given car diminishes

“Between 1982 and 2012, six tax revenue sources have dropped from 16% to 1% of the general fund. This is from \$174 per capita to \$11 per capita.”

Figure 2: Six tax revenue sources fall from 16% to 1% of the general fund.



*Other sources includes property, motor vehicle license, luxury, parimutual, estate and "other" taxes.

“The transfer of motor vehicle license tax revenue from the general fund is an unnecessary erosion.”

each year as it depreciates. Currently, the legislated depreciation rate is 16.25 percent each year. In FY1982, revenues from the motor vehicle license tax comprised about 2.5 percent of total general fund revenues. In 2012, this tax comprised 0 percent. Unlike the state property tax and estate tax, which were repealed, the motor vehicle license tax continues to be imposed but none of it is currently deposited into the general fund.

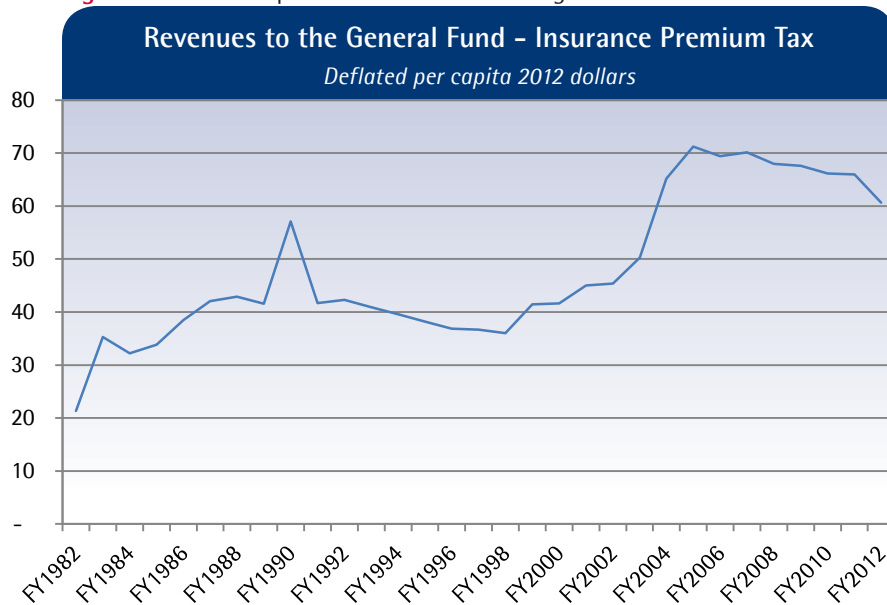
The motor vehicle license tax has always been shared with counties and incorporated cities and towns. In the early 1980s, 45 percent of this tax was deposited into the general fund, partly for general purposes and partly for school financial assistance. In addition, 25 percent was distributed to county general funds, 25 percent to incorporated cities and towns' general funds and an additional 5 percent to county assessors to reimburse them for registration and titling expenses. Currently none is deposited into the general fund. The 45 percent that used to be deposited into Arizona's general fund is now deposited into the Highway User Revenue Fund. It's unclear why the revenues of this tax were transferred out of the general fund. The Arizona Constitution requires that all highway-related taxes be earmarked for transportation purposes, specifically

gasoline taxes, use fuel taxes (paid primarily on diesel fuel used by trucks in the state), licenses, and weight fees. The motor vehicle license tax, however, is based on the value of the car and, as such, it is a personal property tax and the level of the tax is unrelated to highway usage. In the Arizona Constitution, the motor vehicle license tax is explicitly excluded from the list of highway-related taxes that must be earmarked for transportation. Therefore, the transfer of the revenues from this tax to the Highway User Revenue Fund is an unnecessary erosion of the general fund.

Parimutual Tax

The parimutual tax is imposed on the total amount bet at horse and dog tracks as well as at any simulcast in the state. Rates vary by sport and by the population of the counties where the tracks are located. This tax does not apply to Indian gaming because that is not a parimutual type of activity. The parimutual tax rates were reduced during the mid-90s but the change that most impacted the collections going to the general fund were changes to how the parimutual revenues are distributed. In the early 1980s, 67.5 percent of all parimutual revenues were deposited into the general fund and the remainder were earmarked for a variety of other funds and purposes, with the two largest (receiving

Figure 3: Insurance premium tax revenue has grown from a 2% to a 5.3% share.



24 percent of revenue) being the Arizona County Fair Racing and Breeders' Award Fund and the County Fairs Livestock and Agriculture Promotion Fund. In the mid-1990s, the distribution formulas changed so that all parimutual tax revenue were distributed among different racing funds. The exception to this was during the recent fiscal crises. During FY2010, FY2011, and FY2012, parimutual tax revenues were deposited into the general fund. They are not shown as paramutual taxes in the general fund revenue summary because they were short-term fund transfers that were shown under "non-tax" revenues. In FY2013, no parimutual taxes were deposited into the general fund. Instead all proceeds were distributed to the Racing Regulation Fund.

Luxury Taxes

Luxury taxes represented almost 5 percent of the state general fund revenues in FY1982, but in FY2012 it was below 1 percent. Luxury taxes are imposed on the quantity of tobacco or alcohol consumed. The current luxury tax on cigarettes, for example is \$2.00 per pack of 20 cigarettes. The current luxury tax on spiritous liquor (e.g., whiskey) is \$3.00 per gallon, on wine with less than 24 percent alcohol content the tax is \$0.84 per gallon, and on malt liquor (e.g., beer) the tax is \$0.16 per gallon.

There are two reasons why luxury taxes currently represent a small share of the general fund. First, revenues do not keep up with inflation because the taxes are imposed on a per unit basis (e.g., per pack, per gallon), rather than as a percent of sales. In order for this type of tax to keep up with inflation, the tax rates have to be indexed or constantly adjusted. Luxury tax rates have been increased since FY1982, but the increases for most categories have not kept up with inflation. In FY1982, cigarette taxes were \$0.13 per pack of 20, spiritous liquor was \$2.50 per gallon, wine was \$0.42 per gallon and malt liquor was \$0.08 per gallon. The percent changes in the tax rates were 1,538 percent for cigarettes, 120 percent for spiritous liquor, 200 percent for wine, and 200 percent for beer. The Consumer Price Index for the Western

Region (CPIW) over the same period grew by 240 percent. Therefore, none of the liquor/alcohol-related tax rates have kept up with inflation except for the tax on cigarettes (as well as other tobacco products), which has been dramatically increased. Even though the liquor-related luxury tax rates were not increased enough to keep up with inflation, the revenue erosion associated with this does not begin to explain why luxury taxes currently contribute so little to the general fund.

Again the answer lies in changes to how the revenues from luxury taxes are distributed. Back in FY1982, all luxury tax revenues were deposited into the general fund. Currently, there is an extremely complex distribution formula where luxury tax revenues from tobacco are distributed to the general fund, corrections fund, state school aid, tobacco tax and healthcare fund, and the tobacco products tax fund. In FY2012, of the \$319 million collected from the luxury tax on tobacco products, less than \$25 million (or 7.8 percent) was deposited into the general fund. The distribution formulas for the luxury tax on liquor products is not quite as complex, but the revenues are distributed among the general fund, state school aid, corrections fund, corrections revolving fund, wine promotional fund, and the drug treatment and education fund. In FY2012, of the \$68 million collected in liquor taxes, just over \$34 million (or 50 percent) was deposited into the general fund.

Current Sources of Tax Revenue to the General Fund

There are currently three important sources of tax revenues to the general fund -- sales and use tax, income tax, and the insurance premium tax. When the temporary 1 percent sales tax is included, the insurance premium tax accounted for 4.7 percent of the general fund in FY2012, income taxes 39.6 percent and sales and use taxes accounted for 54.8 percent. Without the temporary tax, the shares adjust accordingly ([Table 1](#)).

“The parimutual tax is no longer deposited in the general fund. In 1982, all luxury tax revenues were directed to the general fund but this had fallen to 7.8% by 2012.”

“Currently, most of the insurance premium tax is deposited into the general fund.”

Insurance Premium Tax

This tax is imposed on the net insurance premiums received by insurance companies. Insurance premiums from all types of insurance are taxed -- live, accident, health, dental, fire, vehicle, legal, home and commercial property, medical malpractice, surety and fidelity insurance. The revenues from this tax have grown over time, both as a share of total general fund revenues, from 2.0 percent in FY1982 to 5.3 percent in FY2012 (when the temporary tax is excluded), and in terms of deflated per capita, from \$21 in FY1982 to \$61 in FY2012 (Figure 3).

Currently, most of the insurance premium tax is deposited into the general fund. A portion of the tax on fire insurance is transferred to cities and towns and legally organized fire districts. An additional tax paid on insurance carried on vehicles is used to assist the pension plan for highway patrol personnel.

Of the total amount of insurance premium taxes collected in FY2012 (\$422 million), 93 percent is deposited into the general fund. Most of this tax has always been deposited into the general fund.

Between FY1982 and FY1990, the basic tax rate doubled from 1 percent to 2

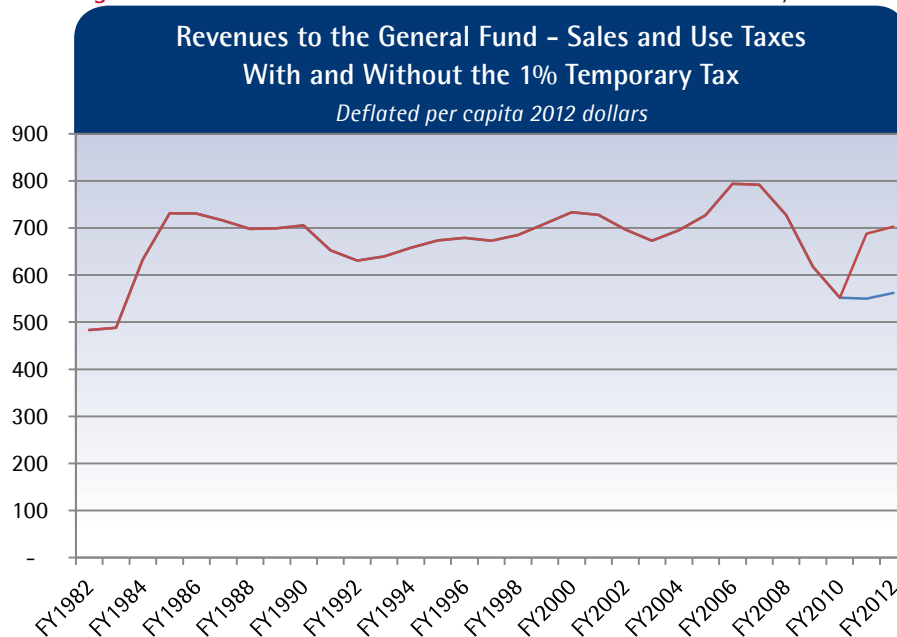
percent, but this is an over-simplification. In FY1982, the state imposed higher rates on insurance carriers that did not maintain home offices in the state. This disparity is no longer there, but the state does retain the ability to impose retaliatory rates on carriers based in states that tax Arizona carriers differentially.

The big swell and decline in insurance premium tax revenues from the late 1990s through FY2012 again corresponded with the boom and bust of the housing bubble. Insurance premium tax revenues did not fall as much as some other revenue sources following FY2007, however. Even if a bank took over ownership of a house or commercial building, insurance on that property still had to be purchased.

Sales and Use Taxes

The term sales and use refers to two different taxes. Sales taxes are imposed on purchases made in Arizona. Use taxes, in contrast, are taxes paid on items purchased outside of Arizona and imported into the state for use. Historically, the use tax has applied mainly to large consumer purchases, e.g., automobiles, boats, and to business purchases, e.g., certain kinds of equipment, furnishings, etc. Since both sales and use taxes are imposed on the basis of sales, they

Figure 4: Revenue share from sales and use taxes rises to 49.2% by 2012.



are often combined for presentation.

The sales tax and the use tax are imposed at the same rate. However, if a purchase is made outside of Arizona and the buyer has to pay a sales tax rate elsewhere, Arizona's use-tax rate for that item is reduced to account for the amount already paid.

For the three years prior to June of this year the state sales tax rate was 6.6 percent, which included the 3-year temporary 1 percent sales tax rate. Currently the state sales tax rate is 5.6 percent. The entire 1 percent temporary tax was deposited in the general fund so the general fund has lost all revenues associated with that tax. Not all revenues collected from the remaining 5.6 percent are deposited into the general fund. The 0.6 percent that was approved by voters (Proposition 301) is designated for public education, health, human services and public safety, so none of it is in the general fund. The remaining 5 percent state sales tax rate is shared with counties and incorporated cities and towns according to complex formulas.

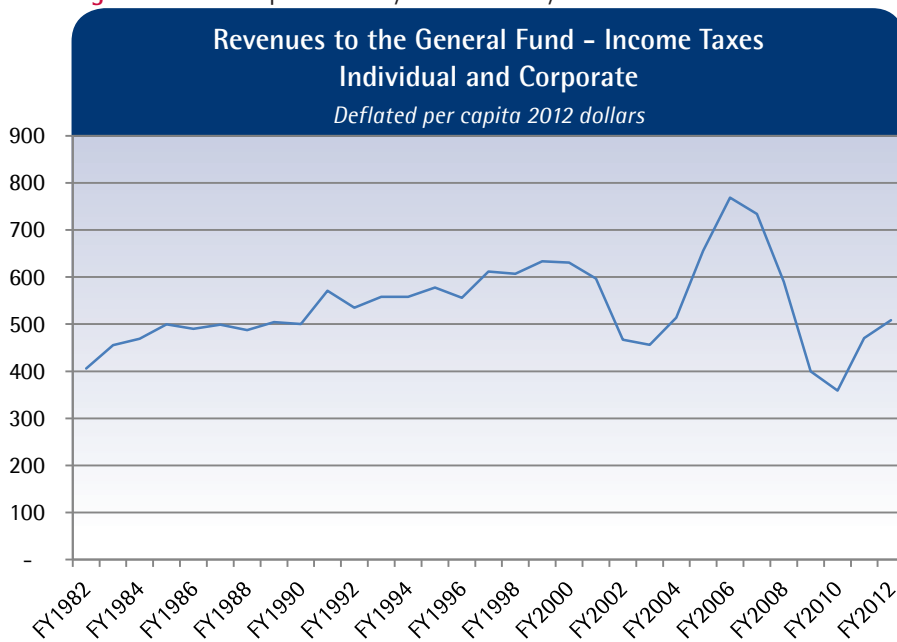
There are approximately 15 categories of sales taxes in the state. The most familiar ones, representing the largest proportions of taxable sales, are: retail, utilities, telecommunications, publications,

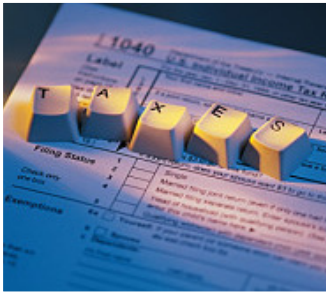
printing, transient lodging, personal property, amusements, and restaurant and bars. A different portion of each of these categories is deposited into the "distribution base," which is shared. For example, revenues from 2 percent of the 5 percent tax rate on retailing, personal property rental, amusements and restaurants and bars are put in the distribution base but only 1 percent of the 5 percent tax rate on the remaining listed categories is available for distribution. All use tax revenues are deposited into the general fund except for 20 percent of the use tax revenue collections from the sale of electricity which is deposited into the distribution base.

Monies in the distribution base are distributed as follows: 25 percent is paid to incorporated cities according to the last census, 40.51 percent is paid to counties according to yet another formula based on county population and the level of sales in the county, and the remaining 34.49 percent is deposited into the general fund. So the general fund receives almost all use tax revenues, 34.49 percent of the distribution base, and all the sales tax revenue not allocated to the distribution base.

“In 1982, sales and use taxes provided 44.5% of the generally fund. By 2012, this proportion had risen to 54.8%.”

Figure 5: Tax cuts permanently reduced the yield of the individual income tax.





“Seven tax cuts since 1990 have permanently reduced the yield of the individual income tax. In 2010, income tax revenues hit a 30-year low of \$359 per capita (2012\$).”

In 2012, of the \$6,139 million in sales tax collections (not including use tax revenues), \$3,652 million (59.5 percent) was distributed to the general fund, cities and counties received \$1,028 million (16.7 percent), Proposition 301 collections were \$542 million (8.8 percent of all sales tax collections) and the temporary tax collections were \$916 million (14.9 percent). The money paid to cities and counties and the Proposition 301 money is not included in general fund money. The temporary tax money is, however, in the general fund. In addition, there are approximately \$264 million of use tax collections shown under sales and use tax revenues in the general fund.

In FY1982, the portion of the general fund derived from sales and use taxes was 44.5 percent (Table 1). After fluctuating some, the share reached the peak of 55.7 percent in FY2002. In FY2012, 49.2 percent of the general fund was derived from sales and use, excluding the temporary tax. Including the temporary tax, 54.8 percent of the general fund was sales and use tax revenues in FY2012.

Per capita sales and use tax revenues in \$2012 are shown in Figure 4. The jump between FY1982 and FY1983 was due to an increase in the overall sales tax rate for the categories listed above from 4 percent to 5 percent, and that increase is

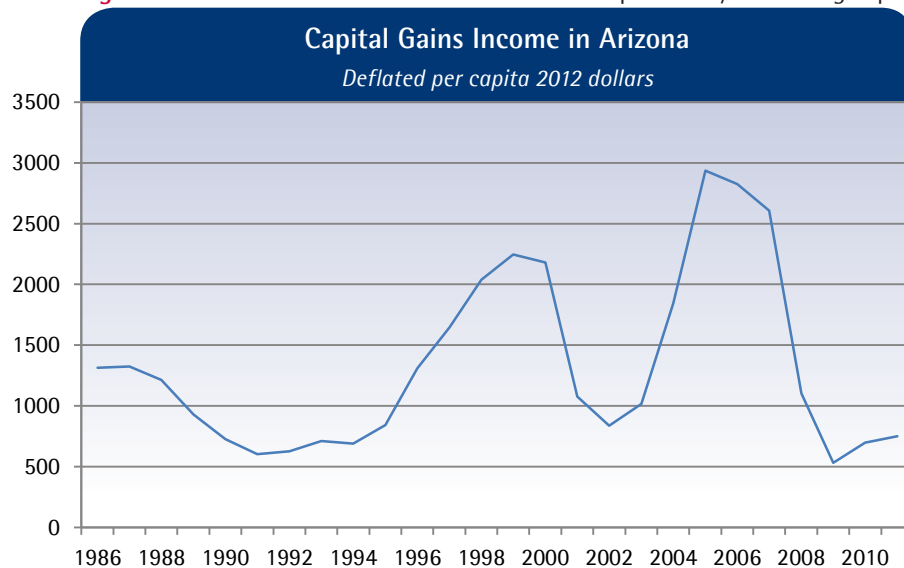
evident in the graph. From FY1985 through FY2005, the per capita constant sales and use tax revenues stayed between \$630 and \$730, averaging \$692. Within this period, however, the effect of the 1990/1991 recession is clearly visible.

Sales and use tax revenues grew and, like most economic measures in the state, peaked in FY2006 and FY2007 at \$793. The decline in sales and use tax revenues was severe, with per capita deflated revenues reaching a low of \$550 in FY2011. Excluding the FY1982 figure because it is based on a lower tax rate than existed throughout the rest of the period, the FY2011 revenue figure is by far the lowest and reflects an extremely low per capita \$2012 spending on taxable sales. Time will tell how well revenues will respond to growth, but the extreme decline between FY2007 and FY2011 may be due to other causes not fully understood at this time. Numerous factors may have affected that decline, e.g., on-line sales for which use taxes were never paid, loss of wealth associated with the housing crises, consumers paying down debt, the aging of the population, and the changing income distribution.

Income Taxes

Income taxes include both the tax on individuals and corporations. The amount deposited into the general fund excludes

Figure 6: Income tax collections variations best explained by examining capital gains.



“Over the past 30 years, general fund tax sources have substantially changed with six tax revenues sources being repealed or allocated out of the general fund. Currently only three tax revenue sources account for the bulk of the general fund.”

a portion shared with incorporated cities and towns via the Urban Revenue Sharing formulas. Currently, 15.0 percent of income tax collections (individual and corporations) collected two fiscal years prior to the current one are shared among incorporated cities and towns according to population. There has been some variation over the years in the percentage of income tax collections placed in the Urban Revenue Sharing fund, ranging from 12.8 - 15 percent. Throughout most of the period shown, the percentage was 14.8 or 15 percent, except for the FY1993 - FY1997 period when it was as low as 12.8 percent.

It is clear from looking at **Figure 5**, however, that the slightly changing percentages deposited in the Urban Revenue Sharing Fund are not the cause of the extreme fluctuations seen in income tax revenues.

The variations in income tax collections can be best explained by examining capital gains, the income in Arizona derived from the appreciation and sale of real or financial assets. Per capita deflated \$2012 capital gains from 1986 through 2011 is shown in **Figure 6**. Two booms and busts are evident in the capital gains series. The first, in the late 1990s, relates to the dot-com boom and, later the bust. This period of time is sometimes referred to as the information technology bubble. It was a time of extreme speculation in internet and technology stocks followed by a collapse in value in 2000-2001. The second “bubble” was fueled

by speculation in the housing market and related industries that peaked in late 2007, followed by an 82 percent decline in deflated per capita capital gains between FY2006 and FY2009.

The pattern of income tax collections closely resembles the pattern of capital gains except for the 1990s. In the 1990s, income tax revenues were growing, largely as a result of capital gains, but the pattern does not show the same “bubble” as capital gains. To dampen the growth of government spending, Arizona legislators passed 5 income tax cuts between 1990 and 2000 (1994, 1995, 1997, 1998, and 1999). The result is that the growth of income tax revenues grew at a much slower rate than the growth in capital gains between 1992 and 1999. There were additional tax cuts in 2006 and 2007 to reduce the strong growth in income tax revenues associated with capital gains. These tax cuts were essentially permanent because Arizona requires a 2/3 majority to raise tax rates but only a simple majority to cut them. Unfortunately, the high taxable capital gains were only temporary.

The seven tax cuts since 1990 have permanently reduced the yield of the individual income tax. In FY2010, the per capita deflated income tax revenues were at a 30-year low of \$359. Although income tax revenues have started to rise again, it is unlikely that they will ever yield the historical averages of \$548 (computed FY1982 - FY2009) without the occurrence of another undesirable bubble.



Conclusion

General fund tax sources have changed substantially over the past 30 years. Half a dozen tax revenues sources have either been repealed or have been allocated out of the general fund. Currently only three tax revenue sources make up the bulk of the general fund: sales and use taxes, income taxes and insurance premium taxes. Their shares of the general fund have all increased slightly over time simply due to the removal of approximately 15 percent of other revenue sources since FY1982.

General fund revenues have become more volatile in recent years. Some of that volatility is due to the removal of some stable revenue sources, specifically, statewide property taxes, the motor vehicle license tax, and luxury taxes. Most of the volatility in general fund revenues, however, was due to fluctuations in income tax revenue associated with the booms and busts of capital gains. These fluctuations were more volatile than most other economic measures, so if the US economy can avoid further speculative bubbles, the general fund should follow a more stable growth pattern. Although it will always be vulnerable to recessions, the swings should not be as wide.

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Forecast Tables

Arizona	2013	2014	2015	2016	2017	2018
Personal Income (\$mill)	246,286	259,882	274,569	291,394	309,510	328,131
% change	3.9%	5.5%	5.7%	6.1%	6.2%	6.0%
Retail Sales (\$mill)	84,403	87,904	92,242	97,114	102,107	107,293
% change	4.1%	4.2%	4.9%	5.3%	5.1%	5.1%
Non Farm Employment (000s)	2,511.6	2,582.8	2,672.8	2,767.9	2,859.3	2,940.7
% change	2.1%	2.8%	3.5%	3.6%	3.3%	2.9%
Population (000s)	6,563.9	6,655.8	6,772.3	6,900.2	7,031.3	7,162.7
% change	1.0%	1.4%	1.8%	1.9%	1.9%	1.9%
Residential Permits (units)	25,145	36,291	47,219	52,637	54,508	54,759
% change	15.7%	44.3%	30.1%	11.5%	3.6%	0.5%

Phoenix-Mesa-Glendale MSA	2013	2014	2015	2016	2017	2018
Personal Income (\$mill)	164,769	171,927	182,533	193,877	206,892	221,994
% change	4.93%	4.34%	6.17%	6.21%	6.71%	7.30%
Retail Sales (\$mill)	557,186	584,264	614,136	654,231	699,310	748,005
% change	4.5%	4.9%	5.1%	6.5%	6.9%	7.0%
Non Farm Employment (000s)	1,526.2	1,568.2	1,627.1	1,695.8	1,770.2	1,850.0
% change	2.7%	2.8%	3.8%	4.2%	4.4%	4.5%
Population (000s)	4,273.9	4,328.5	4,395.0	4,472.3	4,569.9	4,685.1
% change	1.1%	1.3%	1.5%	1.8%	2.2%	2.5%
Residential Permits (units)	15,967	20,744	25,764	33,394	40,296	46,246
% change	75.8%	29.9%	24.2%	29.6%	20.7%	14.8%

Tucson MSA	2013	2014	2015	2016	2017	2018
Personal Income (\$mill)	36,838	38,742	40,768	43,191	45,908	48,561
% change	2.9%	5.2%	5.2%	5.9%	6.3%	5.8%
Retail Sales (\$mill)	12,428	12,736	13,178	13,796	14,495	15,157
% change	3.3%	2.5%	3.5%	4.7%	5.1%	4.6%
Non Farm Employment (000s)	365.3	372.3	380.8	390.6	400.2	409.0
% change	1.3%	1.9%	2.3%	2.6%	2.5%	2.2%
Population (000s)	996.7	1,006.3	1,018.4	1,034.5	1,050.8	1,067.2
% change	0.6%	1.0%	1.2%	1.6%	1.6%	1.6%
Residential Permits (units)	3,992	4,533	5,291	6,415	6,515	6,505
% change	40.5%	13.6%	16.7%	21.2%	1.6%	-0.2%

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Arizona Economic Indicators

Arizona Summary (monthly data)	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force (seas. adj.), BLS	3,024,459	3,012,795	3,011,230	3,006,551	3,004,427
Unemployment Rate (seas. adj.), BLS	7.9	7.8	8.0	8.0	8.3
Total Nonfarm Employment (000s, Seas. Adj.), BLS	2,494.6	2,498.0	2,506.6	2,520.0	2,512.1
Private	2,088.7	2,097.6	2,093.8	2,087.9	2,095.7
Government	426.5	416.7	375.2	365.7	397.7
Average Hourly Earnings - Total Private, BLS	22.85	22.79	23.05	23.01	23.25
Aggregate Retail Sales (\$000), EBR	7,049,984	7,208,705	7,084,059	6,600,504	
New Residential Permits (units), Census C-40	2,428	2,721	2,083	2,290	
Arizona Summary - (quarterly data)	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2
Population* (seas. adj.), ADOA & EBR	6,491,020	6,507,675	6,524,794	6,541,028	6,555,934
% Chg from Year Ago	0.9%	1.0%	1.0%	1.0%	1.0%
Natural Increase, ADHS/EBR	8,144	11,342	9,218	6,761	7,973
Birth Rate (per 1,000), ADHS & EBR	12.4	13.8	13.1	12.5	12.5
Net Migration, ADHS & EBR	6,954	6,871	6,808	7,047	8,032
Total Personal Income (\$, SAAR), BEA	235,390	235,347	241,694	237,979	
% Chg from Year Ago	3.7%	3.5%	5.5%	2.6%	
Per Capita Pers. Inc. (\$ mil, SAAR), BEA & EBR	36,290	36,158	36,807	36,492	37,434
Civilian Nonag Wage Rate, (\$, SAAR), BEA	48,207	48,126	48,336	48,285	49,482
All Transactions House Price Index, FHFA	240.7	250.2	258.0	264.1	275.0
% Chg from Year Ago	4.1%	7.0%	8.2%	11.3%	14.3%

*Population numbers are based on ADOA annual estimates through July 2011, EBR then makes quarterly middle of quarter estimates and projections.
SAAR: seasonally adjusted annual rate

Inflation and Prices	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
U.S. Consumer Price Indices (seas. adj.), BLS					
All Urban Consumers: All Items	231.5	231.8	232.9	233.3	233.5
% Chg from Year Ago	1.1%	1.4%	1.8%	2.0%	1.5%
Western States - All Urban Consumers: All items	235.5	236.0	236.2	236.3	236.6
% Chg from Year Ago	1.3%	1.3%	1.5%	1.9%	1.5%
U.S. Producer Price Index: All Commodities (seas. adj.), BLS	203.5	204.2	204.7	204.6	204.3
% Chg from Year Ago	-0.1%	1.1%	2.5%	2.3%	0.8%

Arizona Economic Indicators - MSAs

Phoenix-Mesa-Glendale, MSA, Summary - Monthly	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, BLS	2,029,847	2,020,549	2,049,603	2,031,903	
Unemployment Rate, BLS	6.6	6.2	7.2	6.9	
Total Nonfarm Employment (000s), BLS	1,801.7	1,802.5	1,772.7	1,760.1	1,790.2
Private	1,559.8	1,568.0	1,563.9	1,557.9	1,564.5
Government	241.9	234.5	208.8	202.2	225.7
Average Hourly Earnings, Total Private, \$, BLS	23.51	23.46	23.71	23.76	24.05
Aggregate Retail Sales (\$000s), EBR & ADOR	4,841,695	4,965,166	4,860,402	4,487,145	
Total New Residential Permits (units), Census C-40	1,887	2,094	1,311	1,737	
Phoenix-Mesa-Glendale MSA, Summary - Annual	2008	2009	2010	2011	2012
Population, ADOA*	4,167,019	4,186,131	4,200,427	4,227,601	4,273,897
% Chg from Year Ago	2.0%	0.5%	0.3%	0.7%	1.1%
Total Personal Income (\$000), BEA	156,755,410	146,163,794	149,093,883	157,026,115	
% Chg from Year Ago	2.4%	-6.8%	2.0%	5.3%	
Average Wage per Job, \$, BEA	45,455	45,753	46,311	47,599	
% Chg from Year Ago	1.7%	0.7%	1.2%	2.8%	
Consumer Price Index (Phx-Mesa-Glndle MSA) All Urban Consumers: All items, BLS	119.3	117.6	118.2	121.5	124.2
% Chg from Year Ago	3.5%	-1.4%	0.6%	2.8%	2.2%

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Tucson MSA, Summary - Monthly	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, BLS	456,666	451,714	453,168	451,428	449,097
Unemployment Rate	6.7	6.3	7.6	7.2	7.7
Total Nonfarm Employment (000s), BLS	367.5	365.9	354.1	352.3	357.1
Private	285.9	284.8	284.8	283.6	284.2
Government	81.6	81.1	69.3	68.7	72.9
Average Hourly Earnings, Total Private, \$, BLS	22.48	22.36	22.74	22.46	22.32
Aggregate Retail Sales (\$000), EBR & ADOR	1,030,845	1,051,608	1,023,405	980,898	
Total New Residential Permits (units), Census C-40	301	299	444	309	
Tucson MSA, Summary - Annual	2008	2009	2010	2011	2012
Population, ADOA*	984,032	984,274	981,168	986,081	990,380
% Chg from Year Ago	0.7%	0.0%	-0.3%	0.5%	0.4%
Total Personal Income (\$000), BEA	35,067,808	32,977,680	33,277,952	34,596,360	
% Chg from Year Ago	6.0%	-6.0%	0.9%	4.0%	
Average Wage per Job, \$, BEA	40,646	40,748	41,304	42,398	
% Chg from Year Ago	3.5%	0.3%	1.4%	2.7%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Arizona Economic Indicators - MSAs

Flagstaff MSA (Coconino County), Summary - Monthly Data					
	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	71,449	70,829	75,088	75,229	73,883
Unemployment Rate	7.7	7.1	8.0	8.0	8.1
Total Nonfarm Employment (000s), ADOA	63.2	63.0	64.8	64.4	64.8
Private	42.9	43.8	44.6	44.8	45.1
Government	20.3	19.2	20.2	19.6	19.7
Average Hourly Earnings, Total Private, \$, BLS	16.90	16.67	16.62	15.95	16.53
Total New Residential Permits (units), Census C-40	28	69	37	32	
Gross Retail Sales (\$000), EBR & ADOR	183,259.4	212,533.3	245,966.3	244,008.2	
Flagstaff MSA (Coconino County) Summary - Annual Data					
	2008	2009	2010	2011	2012
Population, ADOA*	132,864	133,626	134,679	134,162	134,313
% Chg from Year Ago	0.27%	0.57%	0.79%	-0.38%	0.11%
Total Personal Income (\$000), BEA	4,539,992	4,448,866	4,446,722	4,620,811	
% Chg from Year Ago	7.1%	-2.0%	-0.1%	3.9%	
Average Wage per Job, \$, BEA	35,866	36,512	37,186	37,927	
% Chg from Year Ago	1.6%	1.8%	1.9%	2.0%	

*Population counts as of July 1st of each year. ADOA population estimates differ from the official Census Bureau estimates.

Lake Havasu City - Kingman MSA (Mohave County) Summary - Monthly Data					
	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	83,790	82,673	84,639	83,893	82,818
Unemployment Rate	9.5	8.9	10.1	9.7	10.2
Total Nonfarm Employment, (000s), ADOA	45.3	44.8	44.2	44.1	44
Private	37.2	37.2	36.7	36.7	36.2
Government	8.1	7.6	7.5	7.4	7.8
Average Hourly Earnings, Total Private, \$, BLS	17.99	17.79	18.55	18.7	19.28
Gross Taxable Sales (\$000), EBR & ADOR	202,785.40	194,766.60	222,882.40	235,779.40	
Total New Residential Permits (units), Census C-40	33	62	35	50	
Lake Havasu City-Kingman MSA (Mohave County) Summary - Annual Data					
	2008	2009	2010	2011	2012
Population, ADOA*	200063	200235	200099	200417	203072
% Chg from Year Ago	0.5%	0.1%	-0.1%	0.2%	1.3%
Total Personal Income (\$000), BEA	5,301,938	4,987,333	5,072,506	5,290,530	
% Chg from Year Ago	4.6%	-5.9%	1.7%	4.3%	
Average Wage per Job, \$, BEA	33,337	32,809	33,621	34,342	
% Chg from Year Ago	3.3%	-1.6%	2.5%	2.1%	

Arizona Economic Indicators - MSAs

Prescott MSA (Yavapai County), Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	90,129	89,382	90,627	90,240	90,091
Unemployment Rate	8.2	7.6	8.7	8.2	8.5
Total Nonfarm Employment (000s), ADOA	56,100	56,200	54,500	54,100	55,400
Private	45.3	45.7	45.2	45.1	45.5
Government	10.8	10.5	9.3	9.0	9.9
Average Hourly Earnings, Total Private, \$, BLS	16.38	17.05	17.20	16.97	17.59
Gross Taxable Sales (\$000), EBR & ADOR	250,241.2	262,806.5	255,027.0	257,059.6	
Total New Residential Permits (units), Census C-40	50	81	59	69	

Yuma MSA (Yuma County) Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	91,473	92,541	93,223	94,769	93,992
Unemployment Rate	30.4	30.7	31.9	33.2	32.6
Total Nonfarm Employment (000s), ADOA	51.0	49.9	48.4	47.6	49.0
Private	35.7	34.7	34.0	33.6	33.9
Government	15.3	15.2	14.4	14.0	15.1
Average Hourly Earnings, Total Private, \$, BLS	20.74	20.62	20.35	20.20	20.31
Gross Taxable Sales (\$000s), EBR & ADOR	186,776.2	175,934.6	185,643.1	176,054.4	
New Residential Permits (units), Census C-40	58	49	74	46	

Arizona Economic Indicators - Counties

Apache County, Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	21,073	20,926	21,537	21,587	21,702
Unemployment Rate	19.3	18.1	20.5	20.4	19.5
Total Nonfarm Employment (000s), ADOA	18,400	18,450	17,975	17,975	18,850
Total Private	7,425	7,475	7,525	7,575	7,750
Government	10,975	10,975	10,450	10,400	11,100
Gross Taxable Sales (\$000s), EBR & ADOR	20,764	25,404	25,002	234,449	

Cochise County (Sierra Vista - Douglas Micropolitan SA) Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Total Civilian Labor Force, ADOA	57,160	57,180	58,614	58,552	58,560
Unemployment Rate	8.3	7.8	8.9	8.6	8.9
Total Nonfarm Employment, ADOA	36,100	36,125	35,800	35,575	36,400
Total Private	23,825	23,950	24,125	24,225	24,375
Government	12,275	12,175	11,675	11,350	12,025
Gross Taxable Sales (\$000), EBR & ADOR	164,572	167,943	152,934	140,511	

Gila County (Payson Micropolitan SA) Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	22,327	22,370	23,171	23,292	22,933
Unemployment Rate	9.1	8.3	9.3	8.9	9.4
Total Nonfarm Employment, ADOA	14,775	14,900	14,925	15,000	15,025
Private	9,600	9,600	9,725	9,800	9,750
Government	5,175	5,300	5,200	5,200	5,275
Gross Taxable Sales, (\$000), EBR & ADOR	47,102	47,068	52,991	55,390	

Graham County Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Total Civilian Labor Force, ADOA	14,384	14,269	14,534	14,463	14,378
Unemployment Rate	8.1	7.4	8.8	8.4	8.7
Total Nonfarm Employment, ADOA	8,900	8,850	8,600	8,525	8,675
Total Private	5,850	5,875	5,850	5,825	5,850
Government	3,050	2,975	2,750	2,700	2,825
Gross Retail Sales (\$000), EBR & ADOR	28,291	31,170	30,043	29,274	

Greenlee County Summary - Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Total Civilian Labor Force, ADOA	4,131	4,105	4,177	4,182	4,194
Unemployment Rate	6.0	5.5	6.8	6.9	8.0
Total Nonfarm Employment, ADOA	3,950	3,925	3,850	3,850	3,900
Total Private	3,375	3,375	3,400	3,375	3,400
Government	575	550	450	475	500
Gross Taxable Sales (\$000), EBR & ADOR	54,390	50,900	55,229	50,987	

Arizona Economic Indicators - Counties

La Paz County Summary – Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Civilian Labor Force, ADOA	7,413	7,489	7,689	7,779	7,582
Unemployment Rate	9.2	8.4	9.9	9.1	9.9
Total Nonfarm Employment, ADOA	5,200	5,150	5,125	5,125	5,025
Total Private	2,825	2,800	2,775	2,775	2,675
Government	2,375	2,350	2,350	2,350	2,350
Gross Taxable Sales (000\$), EBR & ADOR	18,271	20,542	21,638	24,508	

Navajo County (Show Low Micropolitan SA) Summary – Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Total Civilian Labor Force, ADOA	39,125	39,052	40,428	40,014	39,759
Unemployment Rate	15	13.6	15.1	15.3	14.8
Total Nonfarm Employment, ADOA	27,875	28,175	28,025	27,475	28,150
Total Private	17,775	18,150	18,350	18,300	18,450
Government	10,100	10,025	9,675	9,175	9,700
Gross Taxable Sales (\$000), EBR & ADOR	104,529	117,604	124,375	130,161	

Santa Cruz County, Summary – Monthly Data	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Total Civilian Labor Force, ADOA	17,401	17,299	17,917	17,818	17,540
Unemployment Rate	16.6	15.4	17.3	19.5	20.4
Total Nonfarm Employment, ADOA	12,875	12,975	12,850	12,275	12,225
Private	8,850	8,925	8,950	8,550	8,300
Government	4,025	4,050	3,900	3,725	3,925
Gross Taxable Sales (\$000), EBR & ADOR	32,843	49,391	49,945	44,869	

TABLES: SOURCES AND ABBREVIATIONS

ADHS: Arizona Department of Health Services

ADOA: Arizona Department of Administration, Office of Employment and Population Statistics

ADOR: Arizona Department of Revenue

ADOT: Arizona Department of Transportation

ARMLS: Arizona Regional Multiple Listing Service

ASPB: Arizona State Parks Board

BEA: Bureau of Economic Analysis, U.S. Department of Commerce

BLS: Bureau of Labor Statistics, U.S. Department of Labor

Census C-40: U.S. Census Bureau, U.S. Department of Commerce

Micropolitan SA: Micropolitan Statistical Area must have at least one urban cluster of at least 10,000, but less than 50,000 inhabitants.

* All Aggregate Retail Sales figures reported by EBR include retail, food, restaurant & bars and gasoline sales.

Source: Economic and Business Research Center, Eller College of Management, The University of Arizona.

EBR: The Economic and Business Research Center, The University of Arizona.

MSA: Metropolitan Statistical Area must have at least one core urbanized area of 50,000 or more inhabitants.

PSHIA: Phoenix Sky Harbor International Airport

SAAR: Seasonally adjusted at annual rates

TAR: Tucson Association of Realtors

U.S. Bankruptcy Court: District of Arizona

USCBP: U.S. Customs and Border Protection, U.S. Department of Homeland Security

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