



ARIZONA'S Economy

Growth on the Horizon: Arizona's 30-Year Outlook

By George W. Hammond, Ph.D., EBRC Director and Research Professor
September 1, 2017



Arizona continues to add jobs, income, and residents at a faster pace than the nation. However, gains are coming at a slow pace compared to the state's own history. Demographics (aging of the baby boom generation) is likely playing a role here, and this will continue to be an issue in the long run.

The 30-year forecast calls for Arizona to outpace the national rate of job growth. However, that is not likely to be true for the state's growth in per capita income. This is expected to remain positive and outpace inflation, but the state is not expected to beat the national rate. That means Arizona is forecast

to lose ground to the nation on a key measure of prosperity.

During the past 40 years, Arizona has gradually fallen further and further behind in per capita income, with slow wage growth contributing to the divergence. One key factor driving this has been the trend in four year college attainment, which has drifted from well above the national average in the 1940s to significantly below average today. If Arizona's college attainment rate continues to lag behind the national average, it will be very difficult to close the income gap.

Arizona Recent Developments

Arizona's job growth continued at a moderate pace in the second quarter of 2017. Over the year, the state added 54,200 jobs, which translated into 2.0% growth. That was slightly slower than the 2.1% rate posted in the first quarter, but above the national rate of 1.5%. The Phoenix metropolitan statistical area (MSA) added 50,300 jobs over the year in the second quarter, for 2.6% growth. The Tucson MSA added just

In This Issue



- Growth on the Horizon: Arizona's 30-Year Outlook.....1
- Ranking Arizona: Income and the Quality of Life.....6
- Arizona, Mexico, NAFTA: Long Courtship, Marriage of Convenience, and Now Looming Separation?9
- Forecast Tables.....15
- Arizona Economic Indicators: State16
- Arizona Economic Indicators: Metro Areas.....20
- Arizona Economic Indicators: Counties.....25

"The 30-year forecast calls for Arizona to outpace the national rate of growth."

"While job growth performance has not been particularly rapid so far this year, the buzz related to employment change has been unusually strong."

700 jobs over the year, for 0.2% growth.

While job growth performance has not been particularly rapid so far this year, the buzz related to employment change has been unusually strong. The Economic and Business Research Center has been tracking firm announcements related to employment change since 1999. **Exhibit 1** shows monthly announcements by firms related to both employment increase and employment decrease. This particular dataset tracks the number of announcements, not the number of jobs associated with the announcements. These announcements appeared in the major news outlets around the state, including the Arizona Republic and the Arizona Daily Star, among many others. Most of the announcements related to future expected employment changes at firms.

While these announcements are related to future changes in published job data, the connection is loose. Nonetheless, our analysis

suggests that there is currently a lot more buzz about employment increase so far this year than in the past.

According to preliminary data, Arizona's personal income rose by 3.8% over the year in the first quarter of 2017, a bit above the national growth rate of 3.1%. Gains in the first quarter reflected increases in net earnings from work (up 3.9%); dividends, interest, and rent (up 3.8%); and transfers (up 3.3%). The increase in net earnings from work was a bit disappointing, given that the state's minimum wage increased substantially in January. Indeed, average wages per worker (calculated as total wage and salary disbursements divided by total nonfarm jobs) rose just 1.8% over the year. Keep in mind, however, that the preliminary wage and salary data are estimated based on nonfarm job growth and an econometrically-estimated "scale factor." The revised data, available in September, will provide a better indication of the impact of

Exhibit 1: The Buzz About Arizona Employment Is Strong

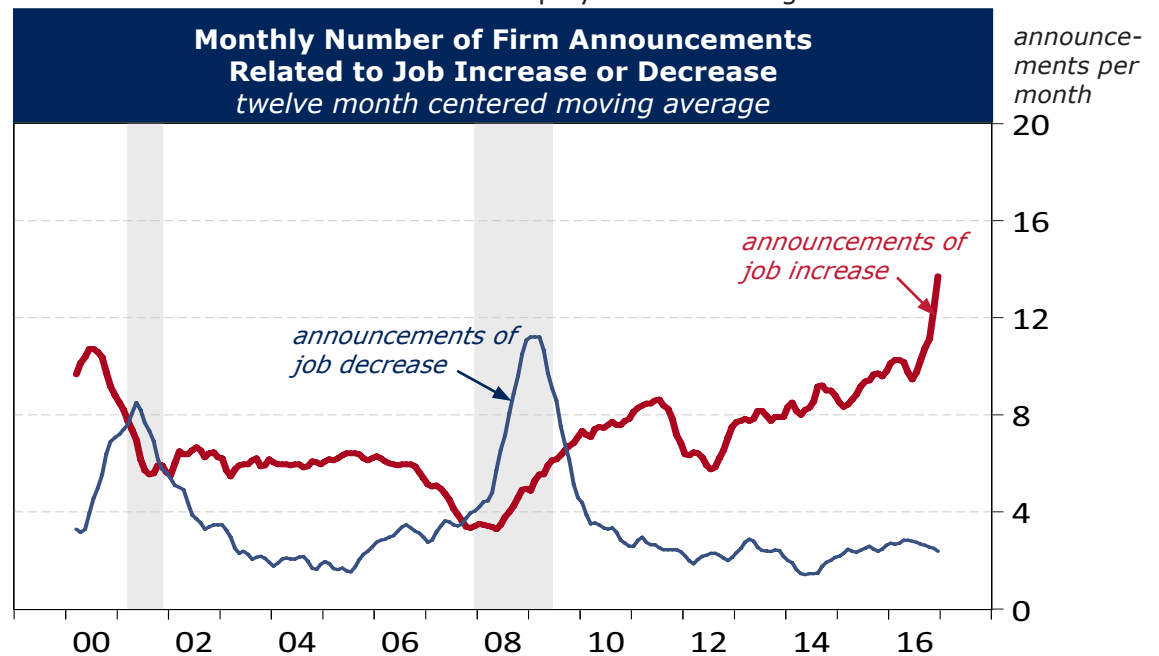
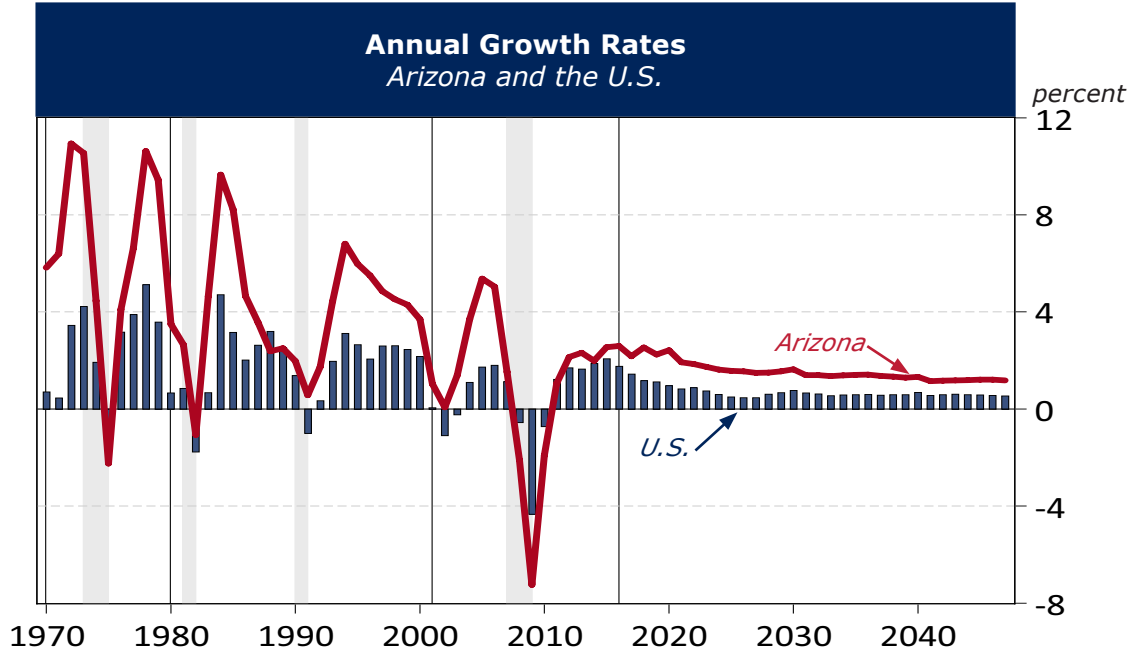


Exhibit 2: Job Growth Slows in the Long-Run for Both Arizona and the U.S.



the minimum wage increase on income, since wage and salary disbursements in that release will be based primarily on the Quarterly Census of Employment and Wages.

Arizona Outlook in the Long Run

Exhibit 2 shows the long-run history and forecast for Arizona and U.S. job growth. The forecast calls for Arizona to add 1.6 million jobs during the 2017 to 2047 period, which translates into annual growth of 1.5% per year. That is well below the state's average growth rate during the 30 years before the Great Recession and below the state's average growth rate during the previous 30 years (1986-2016) of 2.4% per year. However, Arizona is forecast to far outpace the national average rate of 0.7% per year. Slower growth for both Arizona and the U.S. is driven by a major demographic transition, as baby boomers retire in large numbers.

Service-providing sectors account for most of Arizona's job growth during the forecast. Indeed, education and health services; trade, transportation, and utilities; and professional and business services together account for 60.7% of total job gains during the next 30 years. The remaining service-providing industries together account for 35.3% of state job growth. Which leaves 4.0% for the goods-producing industries (mining, construction, manufacturing).

With solid, but slowing job growth during the next 30 years, Arizona's population is projected to increase as well. The state is forecast to add 3.2 million new residents during the 2017-2047 period, for annual growth of 1.3% per year. That is a bit more than double the national rate of 0.6% per year. That growth is increasingly driven by net migration, as natural increase (the annual difference between births and deaths) decelerates due to the aging of the population.

"Education and health services; trade, transportation, and utilities; and professional and business services together account for 60.7% of total job gains during the next 30 years."

Steady job gains translate into continued income growth, which is forecast to average 2.6% per year during the next 30 years, after adjustment for inflation. That outpaces the U.S., which is forecast to generate income growth averaging 2.0% per year after adjustment for inflation. Arizona's income growth reflects gains across all three major sources: net earnings from work; dividends, interest, and rent; and transfers.

Both the Phoenix and Tucson MSAs are forecast to add jobs, population, residents, and income during the forecast. However, growth is expected to be much more rapid in Phoenix than in Tucson. **Exhibit 3** shows population growth for Phoenix and Tucson during the next thirty years. Phoenix is expected to add 2.6 million new residents during the period, which translates into 1.5% growth per year. Tucson is forecast to add 227,000 residents, which translates into growth of 0.7% per year on average. Thus, growth in Phoenix is just over

double the national pace, while Tucson's growth is just slightly above the nation.

Risks to the Outlook

In the long-run, the risks to the outlook revolve around the major drivers of economic development: labor force growth, productivity and innovation, investment in the physical capital stock, and human capital development.

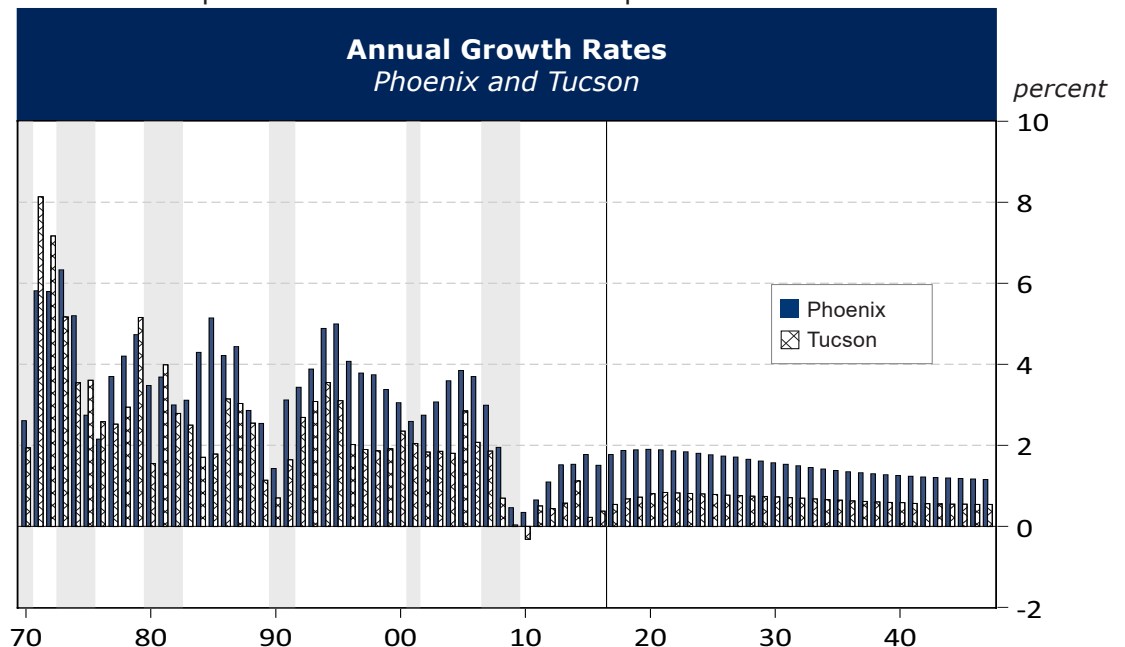
Slowing labor force growth, driven by retirement of baby boomers, is already built into the baseline forecast. If growth turns out to be even slower, that will reduce state growth as well.

The national baseline forecast assumes that productivity growth rebounds from the weak performance of recent years. If that fails to materialize, look for slower than expected gains nationally and in Arizona.

Investment in the private physical capital stock is expected to slow during the forecast, but if growth turns out to slow more

"Phoenix is expected to add 2.6 million new residents during the period, which translates into 1.5% growth per year."

Exhibit 3: Population Growth in Phoenix Outpaces Tucson



than expected, it will reduce overall economic performance. In addition, remember that infrastructure (highways, roads, water, sewer, airports, border ports, rail, telecommunications) matters as well.

Human capital (typically measured by educational attainment) will continue to matter. For Arizona, this is particularly important, because the state already lags well behind the nation. If Arizona's education gap rises during the

next 30 years, it will set the stage for ever larger per capita income gaps with the U.S.

Finally, water remains a concern for the long run. Shortages in the West have the potential to drive up residential and business costs and restrict growth.

"Human capital (typically measured by educational attainment) will continue to matter. For Arizona, this is particularly important, because the state already lags well behind the nation. If Arizona's education gap rises during the next 30 years, it will set the stage for ever larger income gaps with the U.S."

Ranking Arizona: Income and the Quality of Life

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

"Arizona's cost of living was roughly in the middle of the pack, ranking 26th in the nation."

While Arizona is a rapidly growing state, it does not fare so well in terms of monetary measures of its standard of living. As **Exhibit 1** shows, the state's per capita personal income, after adjustment for inflation and the cost of living, ranked 47th in the nation in 2015. That was 14.5% below the U.S. average. It was also well below most western states, with the exceptions of Utah and New Mexico. This analysis uses the Arizona Office of Economic Opportunity population estimate for Arizona, in contrast to the Census population estimate used by the U.S. Bureau of Economic Analysis (BEA), which publishes the data.

Arizona's per capita income ranked low in large part because

wages tend to be low in Arizona. It was also related to the state's relatively low employment-population ratio (driven by demographics), income from dividends, interest, and rent, and transfer income.

The cost of living, as estimated by the BEA, covers all the main costs faced by households: housing, food, transportation, as well as many other goods and services. The 2015 data are the latest available from the BEA, because there are long data lags in the estimation of housing costs. **Exhibit 2** shows that Arizona's cost of living was roughly in the middle of the pack, ranking 26th in the nation at 3.8% below the national average. The state's cost of living was well below that of

Exhibit 1: Arizona Per Person Income Ranked Low In 2015

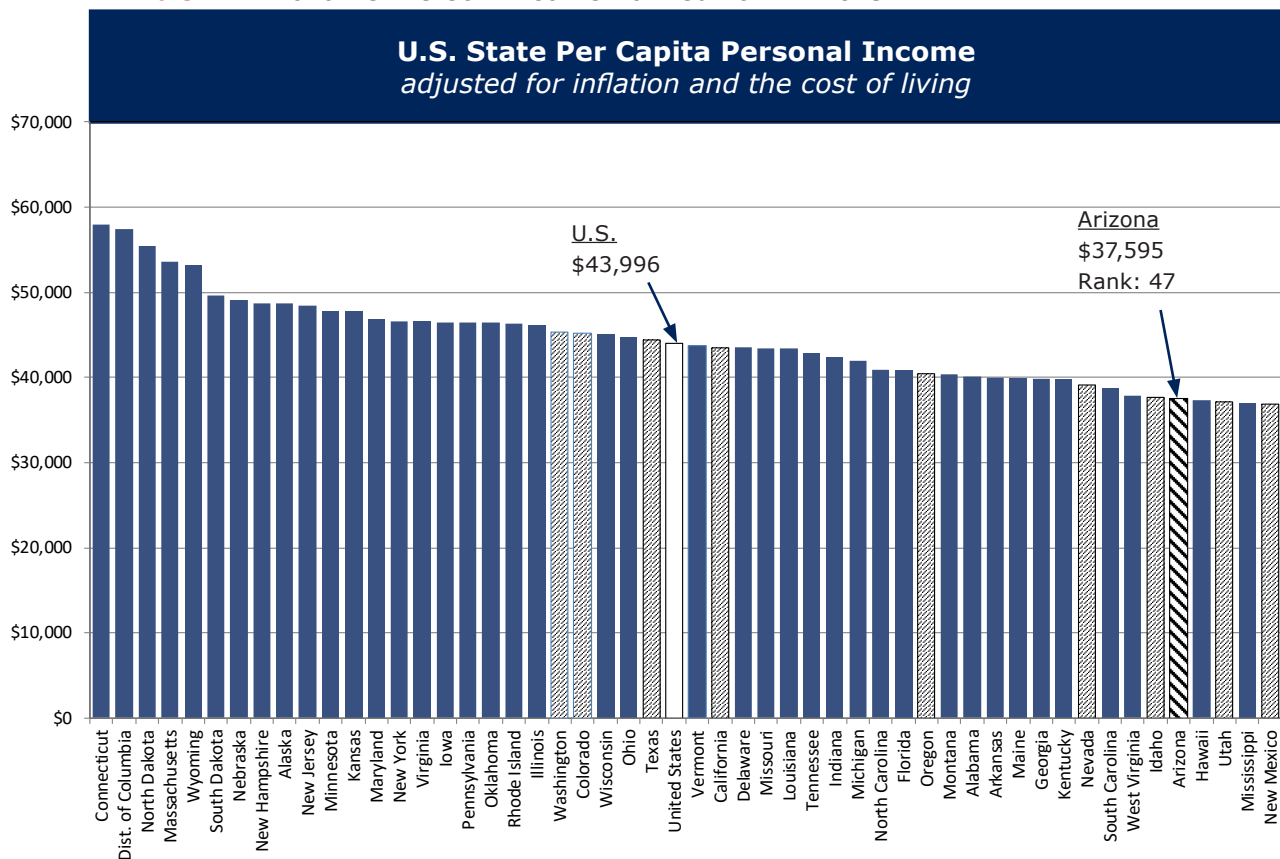
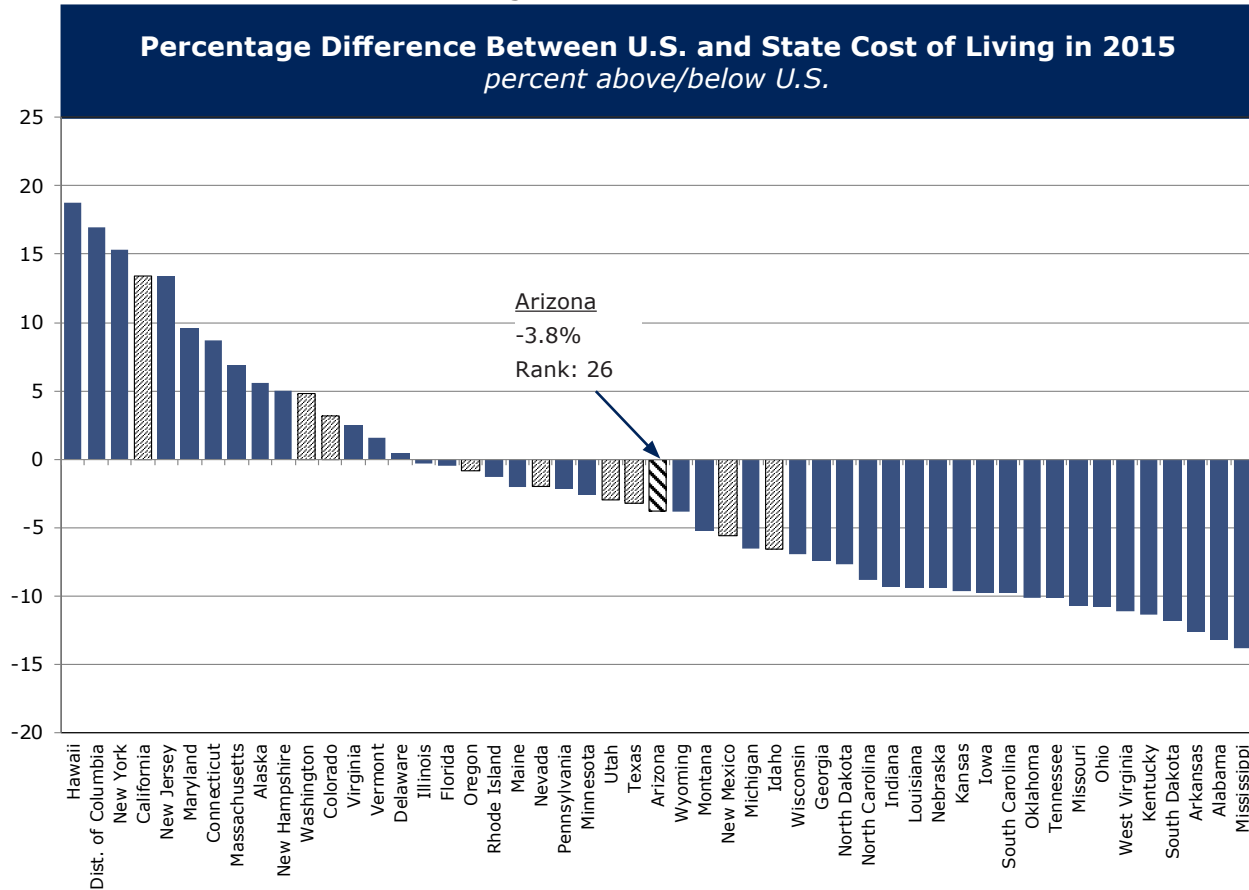


Exhibit 2: Arizona's Cost of Living Was in the Middle of the Pack



most western states, particularly California. It was slightly above the levels estimated for New Mexico and Idaho, and very close to Texas.

While Arizona ranks low on pecuniary measures of the standard of living, it is important to remember that money is just one dimension of a state's quality of life. Other measures might include climate, crime, pollution, and myriad other factors. The problem for economists boils down to how to combine all of these dimensions down into one indicator or ranking. One method that has been proposed in the economic literature is a "voting with your feet" ranking, which exploits domestic migration flows across states. The idea is that the number of people moving to/from a state tells us something important about the overall

standard of living available to residents of that state. I use PUMS ACS Five-Year (2011-2015) domestic migration estimates from the Census Bureau.

The method is based on competition: each state is pitted against the other in the competition for migrants. If state A attracts more residents from state B than it loses to state B, then state A wins and we put a +1 in state A's win/loss column. If state A loses more residents to state B than it attracts, then state A loses and we put a -1 in its win/loss column. Then we sum the wins/losses for state A, which gives us state A's win/loss record. We do this for all states versus all states and then rank states by their win/loss records.

Exhibit 3 shows the results from one such analysis. States that

"If Arizona's college attainment rate continues to lag behind the national average, it will be very difficult to close the income gap in the future."

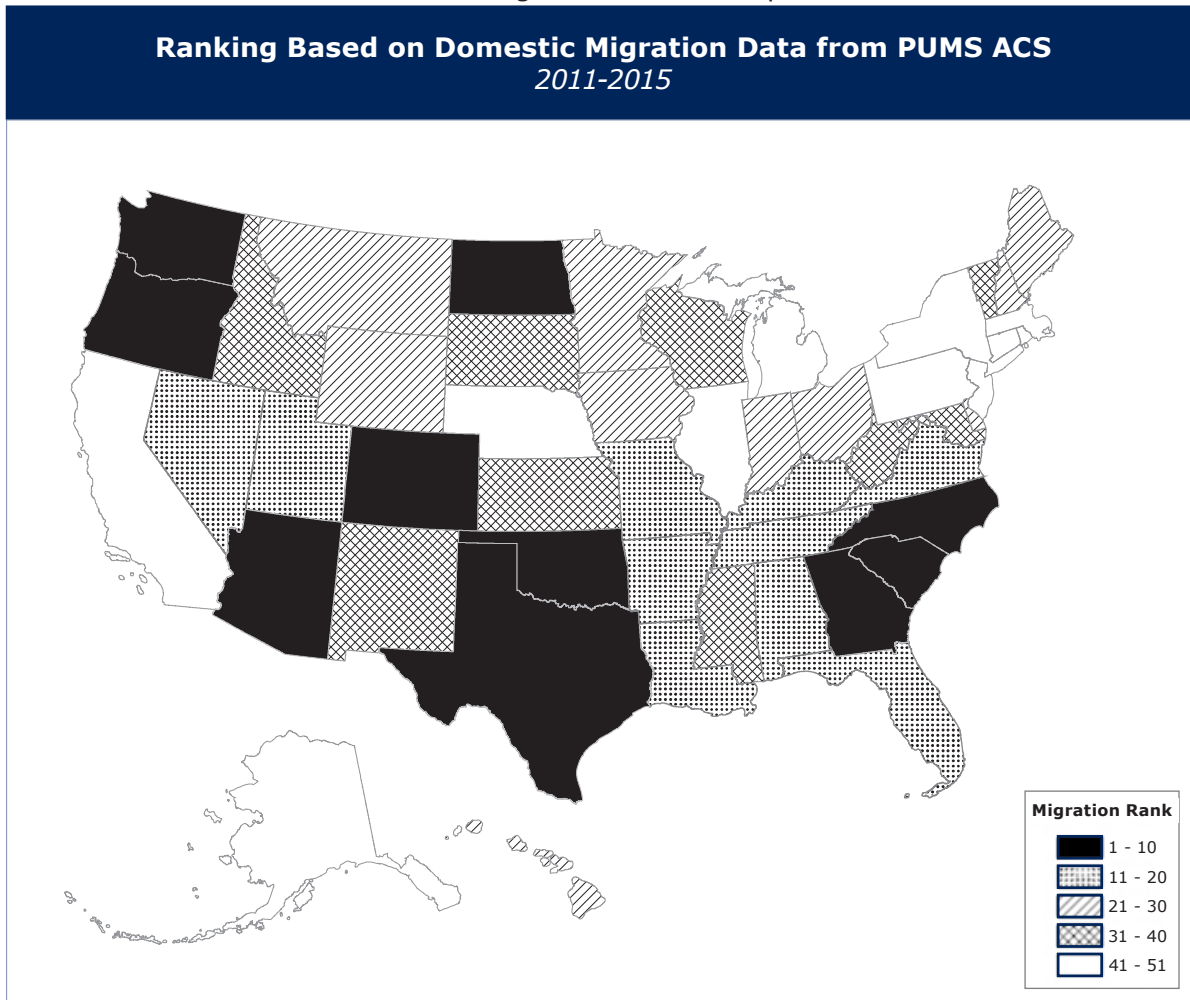
rank high are shaded darker rank higher than states shaded lighter. Note that states in the Southeast, South, and West tended to rank highest. States in the Northeast and Midwest tended to rank lowest. Arizona ranked in the top 10, which is quite a contrast with its per capita income rank. This reflects the fact that Arizona's climate is a powerful draw and a significant part of its attractive standard of living.

One issue to keep in mind, however, is that the analysis so far reflects the decisions of all migrants, including retirees. If we restrict the analysis to migrants under the age of 65, then Arizona drops out of the top 10 and into the middle quintile. Thus, while

Arizona is an attractive migration destination, it is not quite as attractive to those individuals most likely to move to improve their economic prospects.

During the past 40 years, Arizona has gradually fallen further and further behind the nation in per capita income, with slow wage growth contributing to the divergence. One key factor driving this has been the trend in Arizona's four-year college attainment, which has drifted from well above the national average in the 1940s to significantly below average today. If Arizona's college attainment rate continues to lag behind the national average, it will be very difficult to close the income gap in the future.

Exhibit 3: Arizona's Standard of Living Ranked in the Top 10



Arizona, Mexico, NAFTA: Long Courtship, Marriage of Convenience, and Now Looming Separation?

By Vera Pavlakovich-Kochi, Ph.D., Senior Regional Scientist and Associate Professor of Geography

Life in the U.S.-Mexico borderlands has traditionally been, in words of the University of Arizona historian Oscar Martinez, one of conflict and accommodation [1]. It has always been influenced by decisions, or lack of them, in the respective capitals, Washington and Mexico City. In the early days a major complaint of "borderlanders" was that national decision-makers were not only far away, but more importantly, disinterested in the region's remoteness, above-average poverty, and other obstacles that the international boundary presented to residents of the border region. In the absence of national-level interest, borderlanders developed their own coping strategies to deal with scarcities of goods, uneven distribution of job opportunities, and long established familial ties on both sides of the border. One of the geographically most pronounced expressions of regionally specific developments was the emergence of border twin cities, which in more or less informal ways established crossborder exchanges of goods and people, and over time wove a deep interdependence into their economic and social fabrics.

Beginnings of a Formal Framework

One of the first national-level "interventions" in the economies of the border region was the Bracero program. Faced with a shortage of agricultural labor during WWII, the U.S. government enacted a guest worker program

allowing temporary immigration of Mexican residents to work in fields in California, Arizona, Texas, and about twenty other states. As the need for migrant labor diminished over time, the program was abolished in 1964 leaving a large number of Mexicans without jobs, mostly in border states. The resulting high unemployment in Mexican border states was one, although not the main, reason for the next bi-national economic intervention known as the Maquiladora program introduced in 1965.

The Maquiladora program was specifically "Mexican" in name only, but otherwise known as "production-sharing" or "off-shore production," a widespread practice of (mostly) U.S. manufacturing companies, through which low cost labor in less developed countries was used for assembly procedures contributing to overall lower production costs of final products. Taiwan, South Korea, and Singapore were among first to allow foreign capital investments into assembly plants for the purpose of exporting the assembled products back to the parent company in a foreign country. In a simplified production-sharing model, the parent company was a clear beneficiary; the low-wage regions praised the new way of globalizing production-sharing practices for job creation, whereas the more or less gradual loss of manufacturing production jobs in the U.S. was assumed to be offset by new jobs in more skill demanding final manufacturing processes,

including design, marketing, and logistics of delivering final products to markets.

In the early Maquiladora program, the Mexican government allowed U.S. companies to invest in the establishment of assembly plants in a narrow border zone with specific provisions under which U.S. components were imported duty free, but after being assembled had to be exported back to the U.S. Aside from the initial investment, the parent company was obliged to pay only for value added in Mexico, which basically consisted of wages, utilities, and other operation-related services. On the U.S. side, the arrangement was matched by specific provisions in the Harmonized Tariff System allowing for duty free re-import of U.S. manufactured components assembled in Mexico.

During three decades from the time the first maquila plants were opened up in Nogales, Sonora, and Ciudad Juarez, Chihuahua, in 1965 to the signing of NAFTA at the end of 1993, the maquiladora sector in Mexico not only mushroomed in all border states, but eventually spread across the entire country. Measured in number of manufacturing jobs the employment in maquiladora plants contributed significantly to the industrialization of Mexico's economy, especially in border states. Increases in U.S.-Mexico trade in electronics, electric appliances, transportation and medical products was largely attributed to a growing crossborder integration in North American manufacturing sector within the maquiladora framework.

The Dawn of NAFTA

Writing at the dawn of the North American Free Trade Agreement (NAFTA) with deepest understanding of economic,

political, and cultural complexities of U.S.-Mexico relationships, economist and foreign service officer Sidney Weintraub concluded that a free trade agreement was not only imminent, but at the time, the best of available solutions. In his seminal book, *Marriage of Convenience*, he presented the intellectual foundations for NAFTA arguing that the economies of the U.S. and Mexico were already highly integrated and that a policy of "managed integration" would allow each nation to extract maximum advantages from the integration[2].

As a trade agreement, NAFTA was designed to manage all aspects of doing business within North America involving crossborder exchanges of goods, money, and services, but not people. The six basic rules included elimination of tariffs on manufactured and agricultural products, removal of non-tariff barriers, safeguards for crossborder investments, intellectual property provisions, rules of origin, and government procurement. Under NAFTA the benefits enjoyed by the maquiladora establishments would eventually be granted to all export-oriented manufacturers in Mexico, including export-oriented services[3]. Unlike early maquiladoras, the production-sharing operations under NAFTA were granted considerable access to the Mexican market. Outside of the maquiladora framework, the removal of import tariffs especially benefited U.S. manufacturers of heavy equipment and exporters of agricultural products to Mexican markets.

Early on, the implementation of NAFTA coincided with a forty percent devaluation of Mexican peso, thus making Mexican labor even cheaper, which many economists, such as Jesus Cañas and Roberto Coronado of the Federal Reserve

Bank of Dallas, considered the main reason for a big boost in maquiladora employment through the 1990s[4]. As a border state, and with an economy based on less traditional manufacturing than the “rust belt,” Arizona benefited from the expansion of maquiladora sector, and approached NAFTA with positive expectations. After all, NAFTA appeared to basically sanction economic relationships that the state had already developed with Mexico, and especially with the neighboring Mexican state of Sonora. Arizona was already home to a number of parent companies with maquiladoras south of the border, but did not suffer from “job exportation” to Mexico as did, for example, manufacturing industries in Ohio, Pennsylvania, or Michigan. Aside from increased exports to Mexico, Arizona anticipated additional benefits from marketing its proximity to Mexico to companies interested in establishing or suppling maquila plants across the border.

Moreover, Arizona and Sonora already had in place a formal institution — sister organizations Arizona-Mexico Commission and Comisión Sonora-Arizona — with binational committees that met twice a year to formally discuss matters of trade, manufacturing and maquiladoras, agribusiness, finance, border ports infrastructure, tourism, education, and cultural cooperation. Under the auspices of the two Commissions and in partnership with Arizona universities and the (then) Thunderbird School of Management, for the first time in history a series of truly binational reports was produced examining existing state of crossborder economic integration with recommendations for further improvements within the NAFTA framework. A prevailing atmosphere in Arizona in favor

of NAFTA was based on long traditional economic relationships, and was also vividly influenced by ideas about borderless economies advocated by popular Japanese organizational theorist Kenichi Ohmae[5].

Major Challenges to the NAFTA Framework

Not fully a decade in place, the NAFTA framework was challenged by two major events: China’s entrance into World Trade Organization (WTO) and the 9/11 terrorist attacks on the U.S. soil in 2001. The first caused shock waves which hit the maquiladora sector in Mexico hard almost eliminating the textile sector and seriously affecting all other manufacturing sectors by offering even lower labor costs. The maquiladora sector eventually recovered partially due to Mexico’s decisive shift towards building higher labor skills in its workforce through a multitude of government-supported technological institutes that focused on technical and engineering degrees, commonly in collaboration with industry representatives to match specific maquiladora needs. At the same time, many U.S. companies re-evaluated the importance of physical proximity of Mexico’s locations versus trans-Pacific ones. The concept of “near-shoring” encompasses return of Mexico as the most favorable location inciting some companies to relocate their Asia-based operations back to Mexico. As efforts to safeguard national borders became a national priority in the post-9/11 era, it became clear that not only the vision of economic borderlessness was killed, but that crossborder trade flows were profoundly affected by new and more stringent border crossing regulations. It was soon

realized that the more complex border crossing procedures and increased wait times encouraged maquiladora suppliers, for whom just-in-time delivery was crucial, to locate in Mexico in proximity of maquiladoras thus creating multilayer supply chain complexes surrounding the maquiladoras.

With increasing availability of technical and engineering skills in Mexico, comparable manufacturing jobs in Arizona's parent companies for the first time have faced direct competition from Mexico. Yet the trade data show Arizona's growing exports to Mexico suggesting that eventual losses in some segments are being compensated in gains in other areas. One such bright spot is the automotive industry; although Arizona lies outside the North American "auto-alley," exports in automotive parts to Mexico have significantly increased in the last several years, thanks mainly to the Ford Company in Sonora.

Arizona and Sonora as a Transborder Mega-Region Concept Revivified

Numerous studies, including university prepared background reports for several Arizona Town Halls, emphasized the importance of Arizona's trade with Mexico, and especially the high degree of economic interdependence between the economies of Arizona and Sonora[6]. The newly revived concept of Arizona and Sonora as a transborder mega-region is based on the realization that both states benefit through collaboration in sharing physical assets, production, and labor skills[7]. So far, evidence suggests that Weintraub's idea of "a marriage of convenience" has worked well for Arizona.

However, as internal and external circumstances change, continuous adjustments are necessary to make the system more efficient and more beneficial for both sides. It is also true that since NAFTA was first implemented myriad of developments, some dramatic, have transformed the border region. Yet, it is also clear that in a highly complex and interdependent economic relationship any drastic change on either side would certainly cause significant shocks and disruption throughout the entire system. A sudden divorce proposed (again) by a faraway power center, and based on unsubstantiated allegations of betrayal and unfairness, should sensibly be out of question even if there may not be much love in the relationship.

References

[1] Martinez, Oscar J., Troublesome Border. University of Arizona Press, 2006. (Revised Edition)

[2] Weintraub, Sidney, A Marriage of Convenience: Relations between Mexico and the United States. A Twentieth Century Fund Report. Oxford University Press, 1990.

[3] In 2006, maquiladora industry was combined with car assembly plants and other export-oriented manufacturers and services in the IMMEX Program (Industria Manufacturera, Maquiladora y Servicios de Exportación).

[4] Cañas, Jesus and Roberto Coronado, "Maquiladora industry: past, present and future," Business Frontier, Federal Reserve Bank of Dallas, 2002.

[5] Ohmae, Kenichi, The Borderless World: Power and Strategy in the International Economy. Harper Business, 1990.

[6] "Arizona and Mexico," 2016; "Arizona as a Border State: Competing in the Global Economy," 2005. Arizona Town Hall.

[7] Gibson, Lay J. et al. "Sun Corridor' as a Transborder Mega-Region: Revivifying Economic Development in the Arizona-Sonora Region," Studies in Regional Science, Vol.46, No.1, 2016.

Measuring Economic Performance: Growth, Prosperity, and Inclusion

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

"How do Arizona's two largest metro areas stack-up in the Brookings Institution rankings of economic inclusion?"

Benchmarking economic performance across metropolitan areas requires us to think about activities across many different dimensions. Certainly, overall job, population, and income growth matters, but growth rates alone do not tell us much about prosperity. On that dimension, economists generally resort to measures like per capita income, per worker Gross Domestic Product (an indicator of productivity), and per worker wages. However, these standard measures of prosperity also have limitations. In particular, they do not tell us anything about how equally income is shared across a metropolitan area's residents.

To address this dimension of economic performance, we need indicators of economic inclusion. The Brookings Institution recently constructed rankings of economic inclusion for the 100 largest metropolitan areas in the U.S. How do Arizona's two largest metro areas stack-up?

Brookings provides rankings for three overlapping timeframes: 2005-2015 covering the Great Recession; 2010-2015, the post-recessionary recovery period; and 2014-2015, the latest year for which there are data to calculate these measures (**Figure 1**).

Figure 1: Brookings Economic Inclusion Rankings for Select Western Metros among the 100 Largest Metropolitan Areas

	Growth			Prosperity			Inclusion		
	2005 - 15	2010 - 15	2014 - 15	2005 - 15	2010 - 15	2014 - 15	2005 - 15	2010 - 15	2014 - 15
El Paso	17	60	88	10	33	91	2	1	2
Austin	1	2	8	18	12	80	10	12	4
Portland	14	30	14	4	76	8	50	29	15
San Antonio	4	8	27	14	10	64	26	60	26
Colorado Springs	50	47	13	80	92	97	81	45	29
Phoenix	58	39	37	88	82	95	58	61	32
Albuquerque	63	97	80	89	97	98	31	99	38
Salt lake City	12	13	17	13	61	50	15	9	48
Denver	11	10	6	32	36	17	35	18	66
Las Vegas	80	29	20	99	94	63	86	84	83
San Diego	33	38	35	25	39	55	47	73	90
Tucson	87	94	93	83	85	100	87	89	92

*Scores are from the Brookings Institution's Metro Monitor 2017 Dashboard database.

FORECAST TABLES

Arizona	2016	2017	2018	2019	2020	2021
Personal Income (\$ mil)	277,982	292,790	309,739	327,630	347,935	367,322
% Chg from Year Ago	4.0%	5.3%	5.8%	5.8%	6.2%	5.6%
Retail Sales (\$mil)	94,804	99,614	103,705	108,988	115,575	120,993
% Chg from Year Ago	2.3%	5.1%	4.1%	5.1%	6.0%	4.7%
Total Nonfarm Employment (000s)	2,704.0	2,762.7	2,832.6	2,896.0	2,966.2	3,023.2
% Chg from Year Ago	2.6%	2.2%	2.5%	2.2%	2.4%	1.9%
Population (000s), July 1st estimates	6,835.5	6,935.4	7,051.8	7,170.0	7,286.9	7,403.9
% Chg from Year Ago	1.1%	1.5%	1.7%	1.7%	1.6%	1.6%
Residential Building Permits (units)	35,578	38,284	44,997	45,852	45,449	45,403
% Chg from Year Ago	23.1%	7.6%	17.5%	1.9%	-0.9%	-0.1%

Phoenix-Mesa-Glendale MSA	2016	2017	2018	2019	2020	2021
Personal Income (\$ mil)	195,966	208,367	221,739	236,518	252,407	268,002
% Chg from Year Ago	5.0%	6.3%	6.4%	6.7%	6.7%	6.2%
Retail Sales (\$ mil)	67,256	71,035	73,656	78,192	83,290	87,740
% Chg from Prior	3.3%	5.6%	3.7%	6.2%	6.5%	5.3%
Total Nonfarm Employment (000s)	1,972.9	2,030.6	2,092.1	2,151.7	2,207.5	2,259.9
% Chg from Year Ago	3.1%	2.9%	3.0%	2.9%	2.6%	2.4%
Population (000s), July 1st estimates	4,550.4	4,631.0	4,717.4	4,806.5	4,897.7	4,990.2
% Chg from Year Ago	1.5%	1.8%	1.9%	1.9%	1.9%	1.9%
Residential Building Permits (units)	28,583	30,738	32,248	33,669	34,428	34,560
% Chg from Prior	27.6%	7.5%	4.9%	4.4%	2.3%	0.4%

Tucson MSA	2016	2017	2018	2019	2020	2021
Personal Income (\$ mil)	39,963	41,350	43,151	45,251	47,526	49,660
% Chg from Year Ago	2.7%	3.5%	4.4%	4.9%	5.0%	4.5%
Retail Sales (\$ mil)	13,060	13,563	13,819	14,371	14,999	15,466
% Chg from Year Ago	0.9%	3.8%	1.9%	4.0%	4.4%	3.1%
Total Nonfarm Employment (000s)	373.4	376.8	382.1	387.5	393.1	397.0
% Chg from Year Ago	1.3%	0.9%	1.4%	1.4%	1.4%	1.0%
Population (000s), July 1st estimates	1,013.1	1,018.6	1,025.4	1,032.8	1,041.0	1,049.7
% Chg from Year Ago	0.4%	0.5%	0.7%	0.7%	0.8%	0.8%
Residential Permits (units)	2,466	2,633	3,054	3,236	3,571	3,684
% Chg from Year Ago	1.6%	6.8%	16.0%	5.9%	10.4%	3.2%

NEED MORE?

Do you need more detailed and comprehensive forecast data and analysis? Learn about the benefits of becoming a Forecasting Project sponsor. Forecasting Project sponsorship allows your company or organization to access an in-depth menu of economic forecasting and consulting services, as well as quarterly forecast update meetings.

Contact George Hammond: ghammond@eller.arizona.edu, 520.626.1679

The Forecasting Project is a community-sponsored research unit within the Economic and Business Research Center producing quarterly economic forecasts for Arizona and its metro areas. These forecasts are recognized as among the most accurate in the Western states.

ARIZONA ECONOMIC INDICATORS

Arizona - Labor Force and Employment, SA	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>Persons (000s, seasonally adjusted), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force	3,324.0	3,331.2	3,327.4	3,317.2	3,308.30
% Chg from Year Ago	3.3%	3.4%	3.2%	2.7%	2.20%
Employment	3,157.1	3,165.9	3,159.1	3,148.7	3,138.80
Unemployment	166.9	165.2	168.3	168.5	169.5
Unemployment Rate	5.0	5.0	5.1	5.1	5.1
<i>Employees on Nonagricultural Payrolls (000s, seasonally adjusted), Current Employment Statistics, BLS</i>					
Total	2,736.1	2,742.6	2,745.2	2,751.1	2,745.30
% Chg from Year Ago	1.9%	1.9%	1.9%	2.0%	1.20%
Total Private	2,327.2	2,333.5	2,334.1	2,334.8	2,330.30
% Chg from Year Ago	2.3%	2.2%	2.1%	2.2%	1.30%
Goods Producing	310.4	314.2	311.7	311.7	311.7
Mining and Logging	11.6	11.4	11.4	11.3	11.2
Construction	137.2	140.0	138.3	137.0	137.7
Manufacturing	161.6	162.8	162.0	163.4	162.8
Durable Goods	122.5	123.1	122.9	123.3	123.7
Non-Durable Goods					
Service Providing	2,425.7	2,428.4	2,433.5	2,439.4	2,433.60
Private Service Providing	2,016.8	2,019.3	2,022.4	2,023.1	2,018.60
Wholesale Trade	95.5	94.7	94.0	94.5	94
Retail Trade	327.2	327.5	327.9	328.1	329.9
Transportation and Utilities	95.6	95.8	96.4	97.2	98.4
Information	44.8	45.5	45.2	43.8	42.9
Finance and Insurance	158.2	159.1	159.8	159.5	158.9
Real Estate and Rental and Leasing	51.1	50.5	50.3	49.9	49.3
Professional and Business Services	416.5	414.0	416.2	417.0	414.6
Professional, Scientific, and Technical Services	142.3	140.8	141.3	142.2	142.1
Management of Companies and Enterprises	32.1	32.2	31.8	31.8	31.9
Administrative and Support Waste Management and Remediation Services	242.1	241.0	243.1	243.0	240.6
Educational Services	59.0	60.4	59.8	58.8	59.1
Health Care and Social Assistance	359.9	361.3	361.6	363.1	360.9
Arts, Entertainment, and Recreation	39.9	41.0	40.1	40.3	41.9
Accommodation and Food Services	283.1	283.3	284.6	284.5	282.2
Other Services	86.0	86.2	86.5	86.4	86.5
Government	408.9	409.1	411.1	416.3	415
% Chg from Year Ago	-0.4%	-0.3%	0.3%	1.2%	0.90%
Federal Government	55.3	55.0	55.4	55.2	55.5
State Government	86.7	87.1	85.6	86.8	88
Local Government	266.9	267.0	270.1	274.3	271.5

ARIZONA ECONOMIC INDICATORS

Arizona - Earnings, Sales, Housing, Bankruptcy	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>Average Hourly Earnings by Industry (\$, not seasonally adjusted), BLS</i>					
Total Private	24.69	25.26	25.00	24.74	25.37
% Chg from Year Ago	4.1%	5.6%	3.4%	4.1%	6.9%
Construction	25.82	25.46	25.27	25.60	25.81
Manufacturing	24.03	24.24	24.38	24.06	24.46
Financial Activities	28.25	29.07	28.68	28.37	29.02
Professional and Business Services	26.87	27.45	27.12	27.08	27.55
Trade, Transportation, and Utilities	23.77	24.78	24.07	23.72	24.92
Education and Health Services	26.18	26.25	26.27	26.22	26.89
Leisure and Hospitality	14.94	15.00	15.13	14.82	14.61
<i>Sales (\$000s, accrual), ADOR</i>					
Aggregate Retail Sales, EBRC*	8,766,762.9	8,339,754.0	8,456,200.1	8,257,519.6	
% Chg from Year Ago	5.1%	5.7%	6.5%	5.6%	
Retail Sales	5,714,988.3	5,376,042.3	5,557,814.2	5,524,978.8	
Food, EBRC**	1,118,173.7	1,121,062.2	1,113,861.2	1,100,486.6	
Restaurants & Bars	1,339,856.0	1,284,859.4	1,212,867.2	1,082,639.2	
Gasoline, EBRC***	593,745.0	557,790.1	571,657.5	549,415.0	542,584.9
Gallons, ADOT	266,134.0	250,018.0	253,731.7	241,820.0	245,958.7
Utilities	642,521.3	646,347.8	743,000.0	925,694.5	
Communications	168,479.7	164,596.5	162,837.0	177,089.4	
Amusements	148,883.6	141,506.2	107,411.7	148,858.8	
Rentals Personal Property	412,912.5	341,328.4	328,085.8	334,086.4	
Contracting	920,632.0	845,084.3	972,238.1	996,662.0	
Hotel/Motel	385,423.4	343,354.0	259,788.7	223,774.3	
Mining, Oil, & Gas Production	11,037.4	13,555.1	12,532.6	13,732.3	
Mining Severance	71,741.2	72,577.9	81,174.6	41,145.0	
Printing	20,052.6	19,668.3	23,036.2	18,178.5	
Publishing	7,267.5	8,898.1	6,445.4	6,176.6	
Use Tax	511,216.0	484,446.2	484,097.0	553,418.5	
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	3,595	3,255	3,716	3,399	2,487
% Chg from Year Ago	40.8%	26.3%	6.1%	-27.9%	1.9%
Single Family Units	2,627	2,382	2,703	2,532	2,377
% Chg from Year Ago	12.6%	6.8%	25.4%	-1.5%	30.6%
2-4 Unit Structures	40	32	49	60	33
5-plus Unit Structures	928	841	964	807	77
<i>Bankruptcy Filings, U.S. Bankruptcy Court - Arizona District</i>					
Total	1,493	1,445	1,360	1,440	1,286
% Chg from Year Ago	-2.0%	2.6%	-3.4%	9.6%	2.7%
Chapter 7	1,225	1,205	1,113	1,225	1,056
Chapter 11	4	10	14	10	9
Chapter 13	263	230	232	204	221

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

**estimated by EBRC.

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

ARIZONA ECONOMIC INDICATORS

Arizona - Demographics and Vital Statistics	2012	2013	2014	2015	2016
<i>Demographics and Vital Statistics (July 1st Estimates, 000s), ADHS, ADOA & EBRC</i>					
Population*	6,498.6	6,581.1	6,667.2	6,758.3	6,835.5
% Chg from Year Ago	0.9%	1.3%	1.3%	1.4%	1.1%
Resident Births	85.7	85.0	86.6	85.0	84.4
Birth Rate**	13.2	12.9	13.0	12.6	12.8
Residents Deaths	48.5	49.9	51.1	54.2	56.5
Net Migration**	34.2	49.3	53.0	53.3	61.5

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

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

Arizona - Personal Income and Earnings	2012	2013	2014	2015	2016
Per Capita Personal Income (\$), EBRC*	36,349.6	36,799.8	38,356.5	39,560.7	40,805.2
% Chg from Year Ago	3.6%	1.2%	4.2%	3.1%	3.1%
Average Earnings per Job (\$), BEA**	48,170	49,070	50,083	51,002	
% Chg from Year Ago	2.9%	1.9%	2.1%	1.8%	

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

Total Personal Income	236,220.3	242,181.5	255,731.8	267,361.1	278,924.9
% Chg from Year Ago	4.6%	2.5%	5.6%	4.5%	4.3%
Earnings by place of work	158,853.5	165,510.0	172,673.2	180,699.2	190,186.0
Less: Contributions for government social insurance	16,540.0	19,323.9	19,999.4	20,974.3	22,008.6
Plus: Adjustment for residence	1,334.4	1,288.8	1,376.4	1,539.2	1,617.9
Equals: Net earnings by place of residence	143,647.9	147,475.0	154,050.2	161,264.1	169,795.3
Plus: Dividends, interest, and rent	44,501.6	44,902.3	48,316.7	49,793.4	50,819.4
Plus: Personal current transfer receipts	48,070.8	49,804.2	53,365.0	56,303.6	58,310.2

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

Total Wages and salaries	119,041.4	122,681.9	127,830.5	134,025.2	141,253.8
% Chg from Year Ago	4.7%	3.1%	4.2%	4.8%	5.4%
Supplements to wages and salaries	26,873.8	27,727.5	28,678.1	29,112.2	30,511.2
Proprietors' income	12,938.2	15,100.6	16,164.7	17,561.8	18,420.9
Farm	318.6	738.5	623.8	808.2	908.0
Nonfarm	12,619.6	14,362.1	15,540.9	16,753.6	17,512.9

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

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

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

Inflation and Prices - United States	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>U.S. Consumer Price Indices (seasonally adjusted), BLS</i>					
All Urban Consumers: All Items	243.75	244.16	243.85	243.79	244.05
% Chg from Year Ago	2.4%	2.2%	1.9%	1.7%	1.7%
Western States - All Urban Consumers: All items	252.95	253.81	254.38	254.47	254.71
% Chg from Year Ago	3.1%	2.9%	2.6%	2.5%	2.6%
U.S. Producer Price Index for All Commodities (seas. adj.), BLS	191.50	193.00	192.90	193.70	193.40
% Chg from Year Ago	5.2%	5.4%	4.1%	3.3%	3.0%

ARIZONA ECONOMIC INDICATORS

Arizona - Travel and Tourism	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>Employment (000s, 12-month moving averages*), BLS</i>					
Leisure and Hospitality	314.0	315.3	316.7	318.2	319.6
% Chg from Year Ago	4.2%	4.4%	4.6%	4.8%	5.0%
Accommodation	46.0	46.2	46.2	46.2	46.2
% Chg from Year Ago	1.7%	1.9%	1.9%	1.8%	1.8%
<i>Sales (\$000s, accrual, 12-month moving average*), ADOR</i>					
Hotel/Motel	245,771.2	250,747.3	252,432.0	254,564.8	
% Chg from Year Ago	5.7%	7.1%	7.5%	7.6%	
<i>Phoenix Sky Harbor International Airport (12-month moving averages*)</i>					
Total Passengers	3,610,569	3,619,066	3,624,968	3,627,744	3,630,238
% Chg from Year Ago	-2.0%	-1.7%	-1.6%	-1.4%	-0.9%
<i>Tucson International Airport (12-month moving averages*)</i>					
Total Passengers	277,303	279,926	280,503	281,359	282,224
% Chg from Year Ago	3.9%	5.2%	5.4%	5.4%	5.5%

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

Arizona - Travel and Tourism, cont.	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016
<i>International Border Crossings (Northbound) - Nogales District, Bureau of Transportation Statistics</i>					
Pedestrians	571,170	567,787	550,338	645,141	663,625
% Chg from Year Ago	8.7%	14.7%	-5.1%	1.9%	-2.2%
Personal Vehicles	733,927	707,492	764,669	751,761	770,281
% Chg from Year Ago	1.4%	1.9%	2.2%	-1.0%	3.7%
Personal Vehicle Passengers	1,396,210	1,307,610	1,425,482	1,399,858	1,504,678
% Chg from Year Ago	-1.6%	0.4%	1.9%	-1.8%	1.1%
Buses	1,122	1,009	1,092	1,133	1,217
% Chg from Year Ago	-6.6%	-0.8%	-2.8%	6.9%	14.2%
Bus Passengers	19,232	13,878	14,419	16,047	19,434
% Chg from Year Ago	1.8%	7.3%	3.9%	4.2%	24.0%
Trucks	22,039	22,053	28,585	33,205	35,421
% Chg from Year Ago	12.9%	4.2%	5.6%	11.2%	7.8%
Trains	62	59	50	57	63
% Chg from Year Ago	-7.5%	-3.3%	-23.1%	-1.7%	6.8%

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

Arizona - Travel and Tourism, cont.	2012	2013	2014	2015	2016
<i>Visits (000s) Arizona State and National Parks, NPS & ASPB</i>					
Total Arizona	19,030.6	19,221.3	20,703.7	22,427.9	23,438.1
% Chg from Year Ago	-1.6%	1.0%	7.7%	8.3%	4.5%
Northern Arizona	16,552.4	16,626.2	18,027.4	19,531.4	20,419.6
% Chg from Year Ago	-1.8%	0.4%	8.4%	8.3%	4.5%
Historical	1,147.4	1,070.3	1,114.5	1,177.8	1,158.9
Scenic	6,369.7	6,521.0	6,933.8	7,670.8	7,838.9
Water-based	9,035.3	9,034.9	9,979.1	10,682.8	11,421.8
Southern Arizona	2,478.2	2,595.1	2,676.3	2,896.5	3,018.5
% Chg from Year Ago	-0.2%	4.7%	3.1%	8.2%	4.2%
Historical	382.2	359.4	384.8	425.4	434.1
Scenic	1,729.7	1,869.3	1,903.1	2,059.9	2,160.9
Water-based	366.3	366.4	388.4	411.2	423.4

ARIZONA ECONOMIC INDICATORS - MSAs

Phoenix-Mesa-Glendale MSA - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>Persons (000s), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force (000s), BLS	2,307.1	2,294.0	2,284.0	2,301.4	2,299.0
Unemployment Rate	4.1	3.9	4.3	4.5	4.6
<i>Employees on Nonagricultural Payrolls (000s), Current Employment Statistics, BLS*</i>					
Total Nonfarm Employment	2,017.3	2,020.9	2,009.9	1,982.7	1,968.9
Mining and Logging	3.2	3.2	3.2	3.2	3.2
Construction	107.2	109.5	109.0	109.0	111.1
Manufacturing	121.0	121.7	121.6	123.3	123.5
Trade, Transportation, & Utilities	387.9	386.1	386.9	387.0	388.1
Information	35.9	36.4	36.4	35.3	34.8
Financial Activities	181.6	181.6	181.7	181.2	180.6
Professional & Business Services	341.6	340.8	340.2	340.9	340.4
Education and Health Services	299.3	300.5	300.1	297.2	294.5
Leisure and Hospitality	232.0	232.8	230.3	226.3	222.5
Other Services	61.9	61.5	61.8	61.3	61.4
Government	245.7	246.8	238.7	218.0	208.8
Average Hourly Earnings, Private, \$, BLS	25.97	26.56	26.37	26.07	26.75
<i>Sales (\$ accrual), ADOR</i>					
Aggregate Retail Sales, EBRC	6,212,646,606	5,965,824,676	5,984,080,762	5,819,307,942	
Retail Sales	4,115,176,817	3,941,041,843	4,008,286,025	NA	
Food	732	735	738	740	
Restaurants and Bars	984,071,019	931,329,516	875,276,370	762,286,119	
Gasoline, EBRC	381,025,063	358,446,879	362,876,151	342,227,938	336,410,937
Amusements	116,087,499	108,855,815	83,262,667	121,430,909	
Hotel/Motel	287,522,409	224,620,826	144,175,048	102,915,151	
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	2,432	2,338	2,304	2,300	1,883
Single Family Units	1,713	1,577	1,712	1,500	1,615
<i>Housing Sales and Prices, ARMLS</i>					
Units Sold	9,304	8,819	9,830	9,571	8,010
Average Price (\$)	289,417	292,124	300,589	304,870	296,283

*Go to www.azeconomy.org for a more detailed breakout of employment categories.

Phoenix-Mesa-Glendale MSA - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	4,273,897	4,338,672	4,404,888	4,482,906	4,550,388
% Chg from Year Ago	1.1%	1.5%	1.5%	1.8%	1.5%
Total Personal Income (\$000), BEA	163,407,229	167,760,664	178,064,720	186,693,084	
% Chg from Year Ago	5.7%	2.7%	6.1%	4.9%	
Per Capita Personal Income (\$), EBRC**	38,234	38,666	40,424	41,646	
% Chg from Year Ago	4.6%	1.1%	4.6%	3.0%	

ARIZONA ECONOMIC INDICATORS - MSAs

Tucson MSA (Pima Co.)- Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
<i>Persons (000s), Local Area Unemployment Statistics, BLS</i>					
Civilian Labor Force (000s), BLS	481,256.0	476,968.0	475,920.0	473,360.0	472,584.0
Unemployment Rate	4.4	4.2	4.6	4.9	4.9
<i>Employees on Nonagricultural Payrolls (000s), Current Employment Statistics, BLS*</i>					
Total Nonfarm Employment	378.2	377.3	375.2	364.7	362.2
Mining and Logging	1.6	1.6	1.6	1.6	1.6
Construction	14.9	15.0	15.0	14.9	14.8
Manufacturing	23.5	23.5	23.5	23.7	23.3
Trade, Transportation, and Utilities	59.1	59.1	59.2	58.9	58.7
Information	5.0	5.0	5.0	4.9	4.9
Financial Activities	17.5	17.7	18.0	18.0	17.8
Professional and Business Services	49.1	48.7	47.6	48.7	48.7
Education and Health Services	65.6	65.5	65.3	65.5	65.4
Leisure and Hospitality	47.4	46.8	46.9	45.2	43.8
Other Services	15.3	15.3	15.4	15.4	15.4
Government	79.2	79.1	77.7	67.9	67.8
<i>Sales (\$ accrual), ADOR</i>					
Aggregate Retail , EBRC	1,188,356,417	1,148,968,172	1,143,503,471	1,116,831,738	
Retail	772,271,268	737,174,793	744,223,556	NA	
Food, EBRC	160,029,796	160,423,260	160,810,804	161,192,428	
Restaurants & Bars	176,927,677	177,057,229	161,648,489	144,238,659	
Gasoline, EBRC	79,127,676	74,312,890	76,820,622	74,490,762	72,429,148
Amusements	14,220,471	14,036,355	8,699,501	8,916,132	
Hotel/Motel	47,077,969	33,848,853	28,507,799	24,352,020	
<i>New Housing Units Authorized, Census C-40</i>					
Total Units	276	223	271	277	227
Single Family	224	218	266	272	222
<i>Housing Sales and Prices, TAR</i>					
Units Sold	1,619	1,445	1,607	1,675	1,406
Average Price (\$)	224,815	232,988	240,250	238,246	226,827

*Go to www.azeconomy.org for a more detailed breakout of employment categories.

Tucson MSA (Pima Co.) - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	990,380	996,046	1,007,162	1,009,371	1,013,103
% Chg from Year Ago	0.4%	0.6%	1.1%	0.2%	0.4%
Total Personal income	35,985,709	36,453,218	37,893,093	38,922,402	
% Chg from Year Ago	3.6%	1.3%	4.0%	2.7%	
Per Capita Personal Income (\$), EBRC**	36,335	36,598	37,624	38,561	
% Chg from Year Ago	3.1%	0.7%	2.8%	2.5%	

ARIZONA ECONOMIC INDICATORS - MSAs

Flagstaff MSA (Coconino County) - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	75.0	75.2	75.5	76.1	76.6
Unemployment Rate	5.6	4.9	5.2	5.8	5.8
Total Nonfarm Employment (000s), BLS	65.8	67.0	67.4	66.3	66.5
Private	46.0	47.1	48.1	48.4	48.7
Government	17.3	17.3	16.4	14.9	14.9
Average Hourly Earnings, Total Private, \$, BLS	18.69	18.45	18.39	17.91	17.54
Retail Sales (\$, accrual), ADOR*	106,698,097	107,015,467	115,493,068	128,881,583	
Total New Residential Permits (units), Census C-40	33	56	57	55	40

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

Flagstaff MSA (Coconino County) - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	134,313	135,695	139,372	141,602	142,560
% Chg from Year Ago	0.1%	1.0%	2.7%	1.6%	0.7%
Total Personal Income (\$000), BEA	4,939,175	5,130,228	5,449,838	5,705,476	
% Chg from Year Ago	0.4%	3.9%	6.2%	4.7%	
Per Capita Personal Income (\$), EBRC**	36,773.6	37,807.1	39,102.8	40,292.3	
% Chg from Year Ago	0.3%	2.8%	3.4%	3.0%	

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

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

Lake Havasu City - Kingman MSA (Mohave County) - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	81.8	81.7	81.9	82.6	83.2
Unemployment Rate	5.7	5.5	5.9	6.1	6.1
Total Nonfarm Employment (000s), BLS	48.6	48.9	49.1	48.3	48.6
Private	40.9	41.2	41.3	41.1	41.4
Government	7.7	7.7	7.8	7.2	7.2
Average Hourly Earnings, Total Private, \$, BLS	21.88	22.16	21.44	21.51	22.33
Retail Sales (\$, accrual), ADOR*	150,108,520	62,489,553	145,058,779	145,057,153	
Total New Residential Permits (units), Census C-40	87	72	88	64	69

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

Lake Havasu City-Kingman MSA (Mohave County) - Annual Data	2012	2013	2014	2015	2016
Population, July 1st estimate, ADOA	77,683	77,900	77,922	78,269	78,135
% Chg from Year Ago	2.4%	0.3%	0.0%	0.5%	-0.2%
Total Personal Income (\$000), BEA	5,291,048	5,422,848	5,743,703	6,040,669	
% Chg from Year Ago	2.3%	2.5%	5.9%	5.2%	
Per Capita Personal Income, EBRC	26,055	26,636	28,155	29,364	
% Chg from Year Ago	1.0%	2.2%	5.7%	4.3%	

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

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

ARIZONA ECONOMIC INDICATORS - MSAs

Prescott MSA (Yavapai County) - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	102.4	102.5	102.2	101.8	101.8
Unemployment Rate	4.5	4.4	4.8	4.5	4.4
Total Nonfarm Employment (000s), BLS	63.3	64.4	63.6	62.7	62.0
Private	52.0	53.0	52.7	52.2	51.7
Government	11.3	11.4	10.9	10.5	10.3
Average Hourly Earnings, Total Private (\$), BLS	20.48	20.30	20.20	19.71	20.01
Retail Sales (\$, accrual), ADOR*	161,113,659	159,133,122	158,034,308	162,947,046	
Total New Residential Permits (units), Census C-40	121	81	312	118	84

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

Prescott MSA (Yavapai County) - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	211,583	213,294	215,357	217,778	220,189
% Chg from Year Ago	0.2%	0.8%	1.0%	1.1%	1.1%
Total Personal Income (\$000), BEA	6,623,513	6,936,360	7,491,508	7,900,004	
% Chg from Year Ago	3.7%	4.7%	8.0%	5.5%	
Per Capita Personal Income (\$), EBRC**	31,305	32,520	34,786	36,275	
% Chg from Year Ago	3.5%	3.9%	7.0%	4.3%	

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

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

Sierra Vista - Douglas MSA (Cochise County) - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	51.3	50.8	50.7	51.0	49.8
Unemployment Rate	5.3	5.2	5.5	5.7	5.9
Total Nonfarm Employment (000s), BLS	34.4	34.4	34.3	33.9	32.8
Private	23.0	23.0	22.9	23.2	22.8
Government	11.4	11.4	11.4	10.7	10.0
Average Hourly Earnings, Total Private (\$), BLS	18.95	19.24	18.83	18.42	19.35
Retail Sales (\$, accrual), ADOR*	70,833,641	67,887,173	70,900,212	75,751,411	
Total New Residential Permits (units), Census C-40	87	72	88	64	69

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

Sierra Vista - Douglas MSA (Cochise County) - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	50,908	51,269	51,104	50,914	50,705
% Chg from Year Ago	0.0%	0.7%	-0.3%	-0.4%	-0.4%
Total Personal Income (\$000)	4,648,859	4,591,143	4,677,975	4,821,097	
% Chg from Year Ago	-2.2%	-1.2%	1.9%	3.1%	
Per Capita Personal Income (\$)**	35,555	35,072	36,088	37,340	
% Chg from Year Ago	-2.3%	-1.4%	2.9%	3.5%	

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

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

ARIZONA ECONOMIC INDICATORS - MSAs

Yuma MSA (Yuma County) - Monthly Data	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	96.2	96.9	99.5	99.4	102.4
Unemployment Rate	12.8	16.2	19.0	20.5	23.8
Total Nonfarm Employment (000s), BLS	56.5	55.9	55.5	54.1	53.3
Private	41.8	41.1	40.5	40.2	40.0
Government	14.7	14.8	15.0	13.9	13.3
Average Hourly Earnings, Total Private (\$), BLS	19.34	19.23	19.16	18.93	19.12
Retail Sales (\$, accrual), ADOR*	152,512,685	126,391,524	121,937,227	114,036,764	
Total New Residential Permits (units), Census C-40	92	79	112	152	70

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

Yuma MSA (Yuma County) - Annual Data	2012	2013	2014	2015	2016
Population, ADOA*	61,500	63,007	63,718	64,180	64,018
% Chg from Year Ago	1.6%	2.5%	1.1%	0.7%	-0.3%
Total Personal Income (\$000)	5,593,053	5,926,507	5,954,316	6,449,702	
% Chg from Year Ago	-0.9%	6.0%	0.5%	8.3%	
Per Capita Personal Income (\$)***	27,260	28,313	28,085	30,000	
% Chg from Year Ago	-3.2%	3.9%	-0.8%	6.8%	

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

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

TABLES: SOURCES AND ABBREVIATIONS



ADHS: Arizona Department of Health Services
ADOA: Arizona Department of Administration, Office of Employment and Population Statistics
ADOR: Arizona Department of Revenue
ADOT: Arizona Department of Transportation
ARMLS: Arizona Regional Multiple Listing Service
ASPB: Arizona State Parks Board
BEA: Bureau of Economic Analysis, U.S. Department of Commerce
BLS: Bureau of Labor Statistics, U.S. Department of Labor
Census C-40: U.S. Census Bureau, U.S. Department of Commerce
Micropolitan SA: Micropolitan Statistical Area must have at least one urban cluster of at least 10,000, but less than 50,000 inhabitants.

Co.: County
EBR: The Economic and Business Research Center, The University of Arizona.
MSA: Metropolitan Statistical Area must have at least one core urbanized area of 50,000 or more inhabitants.
PSHIA: Phoenix Sky Harbor International Airport
SAAR: Seasonally adjusted at annual rates
TAR: Tucson Association of Realtors
U.S. Bankruptcy Court: District of Arizona
USCBP: U.S. Customs and Border Protection, U.S. Department of Homeland Security
BTS: Bureau of Transportation Statistics, U.S. Department of Transportation
NPS: National Parks Service

ARIZONA ECONOMIC INDICATORS - COUNTIES

Apache County Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	20.1	19.8	20.0	20.0	19.6
Unemployment Rate	10.5	9.6	10.1	11.4	12.1
Total Nonfarm Employment (000s), ADOA	17.5	17.6	17.7	17.2	16.6
Private	7.1	7.3	7.5	7.5	7.1
Government	10.4	10.2	10.2	9.7	9.4
Retail Sales (\$, accrual), ADOR*	8,976,061	8,487,188	9,936,640	7,975,462	

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

Gila County (Payson Micropolitan SA) Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	21.1	21.0	21.2	21.4	21.3
Unemployment Rate	6.1	5.8	6.1	6.1	6.3
Total Nonfarm Employment (000s), ADOA	14.5	14.7	14.8	14.7	14.5
Private	9.4	9.5	9.6	9.6	9.6
Government	5.1	5.2	5.2	5.2	5.0
Retail Sales (\$, accrual), ADOR*	26,201,754	27,574,687	29,531,055	28,581,909	
New Residential Permits (units), Census C-40	19	12	18	12	11

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

Graham County Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	14.7	14.6	14.4	14.2	14.2
Unemployment Rate	5.8	5.4	5.9	6.2	6.3
Total Nonfarm Employment (000s), ADOA	8.7	8.8	8.6	8.4	8.2
Private	5.5	5.5	5.5	5.5	5.4
Government	3.2	3.2	3.1	2.9	2.8
Retail Sales (\$, accrual), ADOR*	21,974,603	20,094,060	22,665,681	20,077,323	

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

Greenlee County Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	3.8	3.8	3.8	3.8	3.8
Unemployment Rate	5.7	5.2	5.7	6.0	6.0
Total Nonfarm Employment (000s), ADOA	4.2	4.2	4.2	4.2	4.2
Private	3.7	3.7	3.7	3.7	3.7
Government	0.5	0.6	0.6	0.4	0.4
Retail Sales (\$, accrual), ADOR*	9,487,750	9,027,642	10,659,063	9,039,053	

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

ARIZONA ECONOMIC INDICATORS - COUNTIES

La Paz County Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	9.2	8.9	8.8	8.6	8.5
Unemployment Rate	4.8	4.8	5.3	5.8	5.9
Total Nonfarm Employment (000s), ADOA	5.4	5.4	5.4	5.2	5.1
Private	3.3	3.2	3.2	3.1	3.1
Government	2.2	2.2	2.2	2.0	2.0
Retail Sales (\$, accrual), ADOR*	12,415,487	11,578,550	11,054,152	11,183,230	

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

Navajo County (Show Low Micropolitan SA) Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	41.9	42.3	42.9	43.3	42.7
Unemployment Rate	7.4	6.7	7.0	7.6	7.9
Total Nonfarm Employment (000s), ADOA	27.9	28.7	29.1	28.7	28.1
Private	18.6	19.2	19.5	19.9	19.5
Government	9.2	9.5	9.6	8.8	8.6
Retail Sales (\$, accrual), ADOR*	73,043,472	69,739,191	82,923,438	78,246,727	
New Residential Permits (units), Census C-40	24	21	31	39	16

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

Santa Cruz County Summary - Monthly	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Civilian Labor Force (000s), BLS	19.5	19.2	19.3	19.3	19.0
Unemployment Rate	7.8	7.2	7.6	9.4	12.4
Total Nonfarm Employment (000s), ADOA	13.2	13.2	13.2	12.6	11.9
Private	9.5	9.4	9.4	9.2	8.5
Government	3.7	3.8	3.7	3.5	3.4
Retail Sales (\$, accrual), ADOR*	29,830,415	28,407,489	27,110,981	29,986,805	
New Residential Permits (units), Census C-40	9	8	7	3	7

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

▶ KEEPING CURRENT

Arizona's Economy is published quarterly by the Economic and Business Research Center in the Eller College of Management. For continuous updates of Arizona's economic indicators, check out our website's Indicators page: www.azeeconomy.org/data/economic-indicators/

There you can browse indicators by geography or topic and graph each series by clicking on the series title.

▶ SUBSCRIBE

If you wish to be notified each quarter when a new issue of Arizona's Economy is posted online, go to: www.azeeconomy.org/subscribe/

We do not share our mailing list.

▶ FOLLOW US

 facebook.com/Eller.EBRC  [@Eller_EBRC](https://twitter.com/Eller_EBRC)

▶ ARIZONA ECONOMIC DATA AT YOUR FINGERTIPS

Download the free AZ Economy App!

Search on "Arizona's Economy" in the iTunes App Store or on Google Play and download the Arizona's Economy mobile app 2.0 for your iPhone, iPad, or Android phone today.



Subscribe to Arizona's Economy at:
<https://www.azeconomy.org/subscribe/>.

Arizona's Economy, published quarterly by the Economic and Business Research Center (EBRC) at the Eller College of Management, is provided as an educational service by The University of Arizona. Correspondence should be addressed to EBRC Publications, McClelland Hall Room 103, PO Box 210108, Tucson, Arizona 85721-0108.

Arizona's Economy is available online at: azeconomy.eller.arizona.edu
As part of The University of Arizona's public mission to improve quality of life for the people of Arizona and the nation, EBRC is dedicated to providing Arizona citizens and decision makers with high quality economic forecasts and analysis.

Copyright © 2016 by The University of Arizona. Information contained in this publication may be copied or reprinted with credit to the **Eller College of Management at The University of Arizona.**

George W. Hammond, Ph. D.
Director and Research Professor
(520) 626-1679
ghammond@eller.arizona.edu

Alberta Charney, Ph.D.
Senior Research Economist
(520) 621-2291
acharney@eller.arizona.edu

Alan Hoogasian
Research Economist
(520) 626-6439
ahoogasi@eller.arizona.edu

Daniel Kinnear
Specialist, Business Research
(520) 626-1673
dkinnear@eller.arizona.edu

Pia Montoya
Database Specialist
(520) 621-2523
pmontoya@eller.arizona.edu

Maile L. Nadelhoffer
Research Economist & Webmaster
(520) 621-4050
mln@eller.arizona.edu

Vera Pavlakovich-Kochi, Ph.D.
Senior Regional Scientist & Associate Professor of Geography
(520) 626-0520
vkp@eller.arizona.edu

Heather Peterson
Technical Consultant
(520) 621-4050
thpeterson@comcast.net

Jennifer Pullen
Research Economist
(520) 626-4795
jkanipe@email.arizona.edu

Valorie Rice
Senior Specialist, Business Information
(520) 621-2109
vrice@eller.arizona.edu

Thank you to our community sponsors for their ongoing support of Economic and Business Research Center programs.



Arizona Department of Transportation

Arizona Joint Legislative Budget Committee

Arizona Public Service Company

BBVA Compass

CBRE

Central Arizona Project

City of Mesa

City of Phoenix

City of Tempe

City of Tucson

Elliott D. Pollack and Company

JPMorgan Chase & Co.

Maricopa Association of Governments

Maricopa County

Pima Association of Governments

Pima County

Salt River Project

Tucson Electric Power Company

Special thanks to JPMORGAN CHASE & CO. for its ongoing support of the Economic and Business Research Center website!

ebr.eller.arizona.edu



ARIZONA'S ECONOMY

McClelland Hall 103

P.O. Box 210108

Tucson, AZ 85721-0108

Phone: 520.621.2155

Fax: 520.621.2150

E-mail: ebrpublications@eller.arizona.edu