### MARICOPA COUNTY TRANSPORTATION EXCISE TAX Forecasting Process & Results FY 2015-2026







Financial Management Services September 2014

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#### MARICOPA COUNTY TRANSPORTATION EXCISE TAX OFFICIAL FORECAST UPDATE RISK ANALYSIS OF EXPECTED VALUES

#### Introduction

In 1985, the voters of Maricopa County approved Proposition 300 to establish a ½ cent transportation excise (sales) tax for construction of a regional freeway system within the county. The ½ cent sales tax was approved for a period of 20 years and ended on December 31, 2005.

On November 2, 2004, Maricopa County's voters approved Proposition 400 which extended the ½ cent sales tax for another 20 years through December 31, 2025. The sales tax extension is used for construction of new freeways, widening of existing freeways and highways, improvements to the arterial street system, regional bus service and other special transportation services, and high capacity transit services such as light rail, bus rapid transit and express buses.

This document contains the official forecast of expected values for the Maricopa County Transportation Excise Tax for the period FY 2015–2026 as developed by the Arizona Department of Transportation (the Department) in cooperation with the Maricopa Association of Governments and Valley Metro.

#### **Background**

Since 1986, the Arizona Department of Transportation (the Department) has used a comprehensive regression-based econometric model to estimate Transportation Excise Tax revenues for Maricopa County. These revenues, which flow into the Regional Area Road Fund (RARF), are the major funding source for the Maricopa County Freeway Program.

The revenue forecast is highly dependent on estimates of independent variables. In order to deal with variability between estimated and actual values, the Department introduced the Risk Analysis Process (RAP) in 1992. The RAP relies on probability analysis and the independent evaluation of the model's variables by an expert panel of economists. The process results in a series of forecasts, with specified probabilities of occurrence, rather than a single or "best guess" estimate.

Enhanced forecasting accuracy was achieved in July 1996, when Hickling Lewis Brod Inc. (HLB) working in conjunction with Dr. Dennis Hoffman of Arizona State University, incorporated economic data and independent variables which were not included in the 1986 model.

In September 2005, the Department had HDR Decision Economics re-examine the structure of the RARF model and re-evaluate the set of explanatory variables used in the production of the RARF revenue forecasts. Three new variables (U. S. Housing Starts, Sky Harbor Passenger Traffic and Maricopa County Total Non-Farm Employment Growth) were added to the existing list of variables used in the RARF regression equations. The September 2010 panel members requested the Maricopa County per capita personal income variable to be in nominal dollars instead of real dollars. In September 2011, the prime interest rate variable was replaced by the 30 year mortgage rate variable and the U.S. housing starts variable was removed from the model. In September 2014, Phoenix-Mesa Gateway Passenger Traffic was combined with Phoenix Sky Harbor Passenger Traffic to form a Phoenix Sky Harbor/Gateway airports passenger traffic variable.

The independent variables contained in the current model are:

- 1. Maricopa County nominal personal income growth
- 2. Maricopa County population growth
- 3. Maricopa County construction employment growth
- 4. Phoenix consumer price index (CPI)
- 5. Phoenix Sky Harbor/Gateway airports passenger traffic growth
- 6. Maricopa County total non-farm employment growth
- 7. 30 year mortgage rate

#### <u>Risk Analysis Panel</u>

The Risk Analysis Process (RAP) relies heavily on the judgments of an expert panel of economists to provide information critical to the forecasting process. In August 2014, a panel of eleven economic and financial experts representing public, private, and academic sectors submitted their individual estimates of the model's independent variables and comments on the future economic outlook. The information gathered from the panelists was input into the forecasting model to produce a series of forecasts with associated probabilities of occurrence. The panelists' inputs are reflected in the attached tables in this report.

#### Model Results

This year's panel inputs produced a mean forecast of \$5,639.3 million for the period FY 2015-2026 with a compound growth rate (CGR) of 4.9 percent. The Department's Official Forecast for FY 2015-2026 totals \$5,646.4 million with a compound growth rate of 4.5 percent. This year's official forecast is \$120.3 million lower than last year's official forecast.

The Official Forecast result incorporates the 50 percent confidence interval growth rate amount for each year of the forecast except for FY 2015. The FY 2015 forecast of \$378.4 million was developed by ADOT staff independently of the econometric model using time series techniques and historical and projected growth rates from the model.

	FY 2015 Official I (Dollars in		
Fiscal	Mean	Official	Confidence
Year	Forecast	<b>Forecast</b>	Level
2015	\$366.8	\$378.4	
2016	394.0	402.0	50%
2017	416.0	421.0	50%
2018	438.2	441.8	50%
2019	459.0	460.1	50%
2020	480.0	479.1	50%
2021	498.5	498.3	50%
2022	520.7	519.2	50%
2023	542.6	540.4	50%
2024	568.4	563.0	50%
2025	593.4	586.6	50%
2026/1	<u>361.7</u>	<u>356.5</u>	50%
Total	\$5,639.3	\$5,646.4	
Average CGR	4.9%	4.5%	

Note: /1. Relects the end of the one-half cent transportation excise tax extension on December 31, 2025 For comparison purposes, the November 2013 and September 2014 Official Forecasts are shown below:

	FY 2015-2026 Compa (Dollars in M		
	Nov. 13	Sep. 14	
Fiscal	Official	Official	
Year	<u>Forecast</u>	<u>Forecast</u>	<u>Difference</u>
2015	\$383.4	\$378.4	(\$5.0)
2016	405.1	402.0	(3.1)
2017	426.7	421.0	(5.7)
2018	448.2	441.8	(6.4)
2019	469.3	460.1	(9.2)
2020	488.8	479.1	(9.7)
2021	510.7	498.3	(12.4)
2022	533.5	519.2	(14.3)
2023	555.0	540.4	(14.6)
2024	578.0	563.0	(15.0)
2025	602.2	586.6	(15.6)
2026/1	<u>365.8</u>	<u>356.5</u>	<u>(9.3)</u>
Total	\$5,766.7	\$5,646.4	(\$120.3)
Average CGR	4.6%	4.5%	

Note: /1 Reflects the end of the one-half cent transportation excise tax extension on December 31, 2025

#### <u>Summary</u>

The Department's Official Forecast for FY 2015-2026 totals \$5,646.4 million, which is \$120.3 million less than the November 2013 Official Forecast. The RAP results reflect the panel members' continued pessimism regarding Maricopa County's population and job growth with concern that the growth rates may not return to the levels experienced prior to the Great Recession. Compared to last year, the panel inputs for Construction Employment, Non-Farm Employment, Phoenix CPI, and the 30 Year Mortgage Rate were lower in the first few years and then came in higher for the remainder of the forecast period. This year's panel inputs for Phoenix Sky Harbor/Gateway Airports Traffic were lower than last year's panel inputs for Phoenix Sky Harbor Traffic for all years in the forecast period except for FY 2018. Maricopa County Population Growth and Nominal Personal Income Growth both saw lower expected growth rates through the entire forecast period compared to last year's panel inputs.

#### **Supplementary Information**

The remainder of this report presents supplementary information on the detailed results of the RAP model and Risk Analysis Process. While the Official Forecast period is FY 2015-2026, panel inputs were requested for FY 2015-2019, 2024 and 2026. Data displayed for other than the requested years has been extrapolated.

## RARF Official Revenue Forecast With Category Detail and Confidence Interval by Fiscal Year (Current Dollars in Millions)

Fiscal Year Percentile	2014 Actual	2015 50%	2016 50%	2017 50%	2018 50%	2019 50%	2020 50%	2021 50%	2022 50%	2023 50%	2024 50%	2025 50%	2026 50%
Retail Sales	\$186.4	\$195.7	\$218.6	\$228.6	\$239.9	\$250.2	\$260.0	\$271.1	\$282.3	\$294.4	\$306.6	\$318.9	\$194.2
Contracting	37.2	38.9	32.8	35.2	37.5	39.1	41.1	42.9	44.6	46.0	47.8	49.8	30.0
Utilties	31.3	31.6	32.7	33.6	34.7	35.4	36.4	37.2	38.2	39.4	40.8	42.1	25.4
Restaurant and Bar	38.5	41.2	43.5	45.8	48.1	50.5	53.1	55.3	57.9	60.1	63.2	66.4	40.3
Rental of Real Property	38.6	39.8	41.6	43.6	45.7	47.3	49.1	50.7	53.1	55.6	57.6	60.2	36.5
Rental of Personal Property	12.1	12.2	12.9	13.5	14.1	15.0	15.8	16.5	17.3	18.0	18.8	19.6	12.0
Other	21.5	19.0	19.9	20.7	21.8	22.6	23.6	24.6	25.8	26.9	28.2	29.6	18.1
Total	\$365.6	\$378.4	\$402.0	\$421.0	\$441.8	\$460.1	\$479.1	\$498.3	\$519.2	\$540.4	\$563.0	\$586.6	\$356.5

Note: /1 FY 2026 totals reflect the transporttion excise tax extension expires on December 31, 2025

# **RARF TOTAL TAX REVENUE RISK ANALYSIS RESULTS**

(Current Dollars in Millions)

Fiscal										
Year	Mean	10%	20%	30%	40%	50%	60%	70%	80%	90%
2015	\$366.8	\$451.4	\$415.9	\$399.0	\$387.9	\$378.4	\$341.5	\$327.4	\$311.2	\$290.3
2016	394.0	510.5	458.9	428.7	415.0	402.0	358.8	338.2	316.6	289.0
2017	416.0	559.8	494.2	456.1	436.2	421.0	371.4	348.3	322.0	289.9
2018	438.2	603.3	526.8	485.3	459.1	441.8	387.2	358.9	329.1	294.2
2019	459.0	643.3	557.5	509.7	483.2	460.1	401.3	371.6	337.8	298.5
2020	480.0	681.0	586.2	533.4	504.7	479.1	416.7	385.0	349.6	306.0
2021	498.5	711.6	611.7	553.7	524.3	498.3	431.4	396.5	360.2	311.1
2022	520.7	747.3	643.4	580.5	546.7	519.2	450.6	413.1	373.5	322.1
2023	542.6	780.4	671.5	606.6	572.2	540.4	467.5	428.3	387.9	333.6
2024	568.4	827.4	704.4	637.0	587.9	563.0	485.4	448.3	400.7	344.2
2025	593.4	867.2	736.8	664.4	614.3	586.6	507.4	465.5	416.8	358.6
2026/1	361.7	531.2	451.3	404.7	372.3	356.5	307.9	282.0	253.3	217.4
Total	\$5,639.3	\$7,914.4	\$6,858.6	\$6,259.1	\$5,903.8	\$5,646.4	\$4,927.1	\$4,563.1	\$4,158.7	\$3,654.9
/1 Totals ret	/1 Totals reflect the fiscal year ending lune 30, 2026, but the transnortation excise tax expires December 31, 2025.	l vear endin	ø lune 30, 20	26. hut the tr	ansportation	i excise tax e	xnires Decer	nher 31 202	5	

/1 I OTALS FETECT THE TISCAL YEAR ENDING JUNE 30, 2026, DUT THE TRANSPORTATION EXCISE TAX EXPIRES DECEMDER 31, 2025.

#### RARF OFFICIAL REVENUE FORECAST DISTRIBUTION (Current Dollars in Millions)

	Regional Area F	Road Fund (RARF) /1	Public Transportation	
Fiscal	Freeways	Arterial Streets	Fund	
Year	(56.2%)	(10.5 %)	(33.3%)	Total
2015	\$212.7	\$39.7	\$126.0	\$378.4
2016	225.9	42.2	133.9	402.0
2017	236.6	44.2	140.2	421.0
2018	248.3	46.4	147.1	441.8
2019	258.6	48.3	153.2	460.1
2020	269.3	50.3	159.5	479.1
2021	280.1	52.3	165.9	498.3
2022	291.8	54.5	172.9	519.2
2023	303.7	56.7	180.0	540.4
2024	316.4	59.1	187.5	563.0
2025	329.7	61.6	195.3	586.6
2026 /2	200.4	37.4	118.7	356.5
TOTALS	\$3,173.5	\$592.7	\$1,880.2	\$5 <i>,</i> 646.4

Note: 1/ The Regional Public Transportation Authority received a portion of the excise tax funds for transit cost which is adjusted annually by the GDP price deflator. Beginning July 1, 2005, this transfer from RARF is divided equally between MAG and the Public Transportation Fund for planning and administering the regional transportation plan. 2/ Reflects the end of the one-half cent transportation excise tax extension on December 31, 2025. Totals may not add due to rounding.

#### **Distribution**

Per Laws 2004, Chapter 2 (HB 2456), the sales tax extension will be distributed as follows:

- 1. 56.2 percent to the Regional Area Road (RARF) fund for freeways and other routes in the state highway systems, including capital expense and maintenance.
- 2. 10.5 percent to the RARF fund for major arterial streets and intersection improvements, including capital expenses and implementation studies.
- 3. 33.3 percent to the Public Transportation Fund for:
  - (a) Capital costs, maintenance and operation of public transportation classifications.
  - (b) Capital costs and utility relocation costs associated with a light rail public transit system.

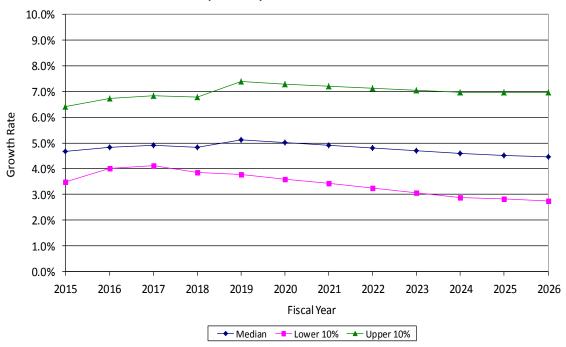
#### PANELIST DATA VALUES

		Nominal		Construction	30 Year		Sky Harbor/Gateway	Total Non-Farm
		Pers. Inc.	Population	Employment	Mortgage	Phoenix CPI	Passenger	Employment
		Growth /1	Growth /1	Growth /1	Rate	Growth/1	Traffic Growth	Growth /1
FY 2015		****						
	Median	4.66%	1.82%	4.84%	4.49%	1.86%	1.86%	2.48%
	Lower 10%	3.47%	1.21%	1.02%	3.86%	1.08%	0.79%	1.57%
	Upper 10%	6.42%	2.26%	8.07%	5.07%	2.63%	2.99%	3.40%
FY 2016		****				****		
	Median	4.83%	2.01%	7.19%	5.02%	1.79%	1.94%	2.64%
	Lower 10%	4.01%	1.27%	2.27%	4.30%	1.02%	0.79%	1.80%
	Upper 10%	6.74%	2.53%	11.46%	5.76%	2.65%	3.16%	3.80%
FY 2017								
	Median	4.90%	2.11%	6.98%	5.64%	2.10%	2.06%	2.55%
	Lower 10%	4.11%	1.36%	0.50%	4.83%	1.30%	0.91%	1.61%
	Upper 10%	6.85%	2.70%	11.37%	6.55%	3.00%	3.30%	4.28%
FY 2018								
	Median	4.83%	2.13%	6.34%	5.87%	2.39%	2.26%	2.53%
	Lower 10%	3.86%	1.36%	0.26%	5.08%	1.52%	0.98%	1.38%
	Upper 10%	6.79%	2.80%	10.92%	6.73%	3.30%	3.47%	4.43%
FY 2019								
	Median	5.13%	2.04%	5.78%	6.02%	2.49%	1.68%	2.85%
	Lower 10%	3.77%	1.21%	0.25%	4.95%	1.58%	0.27%	1.45%
	Upper 10%	7.39%	2.75%	11.13%	7.00%	3.58%	3.04%	4.43%
FY 2024								
	Median	4.58%	1.70%	3.67%	6.06%	2.34%	1.77%	2.69%
	Lower 10%	2.88%	0.82%	-3.06%	4.81%	1.24%	-0.06%	1.02%
	Upper 10%	6.98%	2.58%	10.13%	7.30%	3.56%	3.68%	4.31%
FY 2026			****	****	****		****	****
	Median	4.45%	1.59%	3.58%	6.03%	2.20%	1.72%	2.54%
	Lower 10%	2.74%	0.67%	-3.43%	4.61%	0.94%	-0.43%	0.78%
	Upper 10%	6.98%	2.55%	10.21%	7.43%	3.58%	3.97%	4.25%

All data in the above table are percentage growth rates except 30 year mortgage rate.

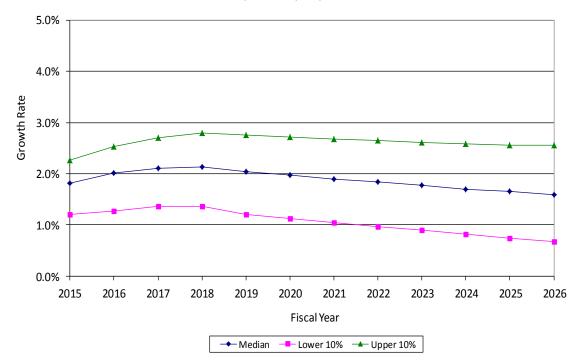
Personal income and 30 year mortage rate are nominal rates.

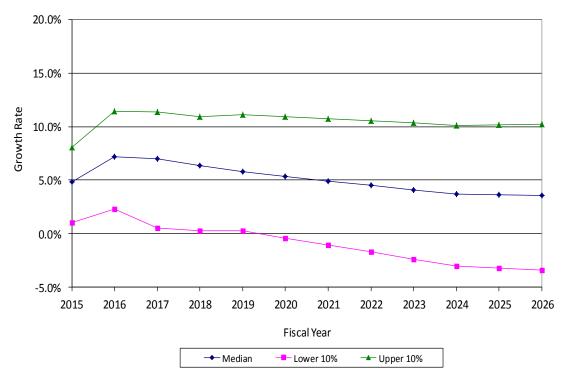
/1 Data for Maricopa County



Maricopa County Nominal Personal Income Growth

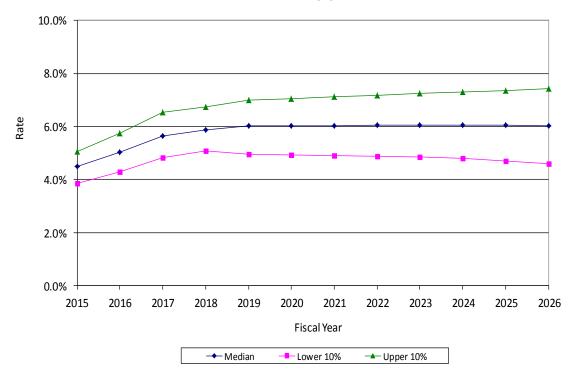
Maricopa County Population Growth

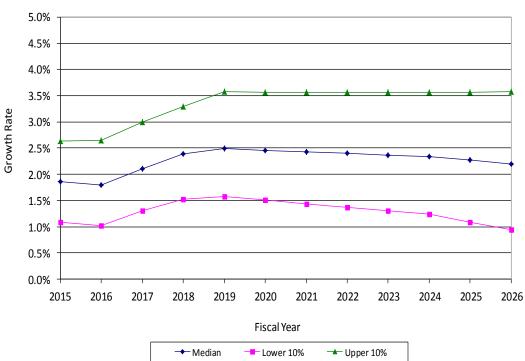




Maricopa County Construction Employment Growth

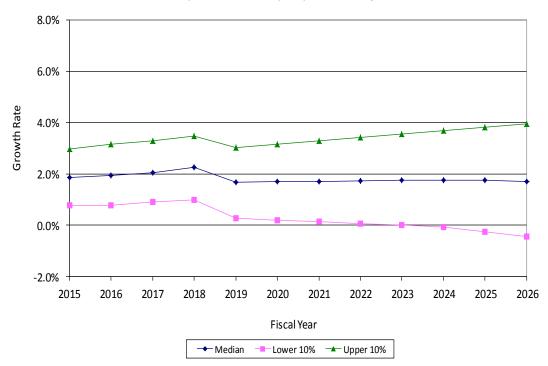
30 Year Mortgage Rate

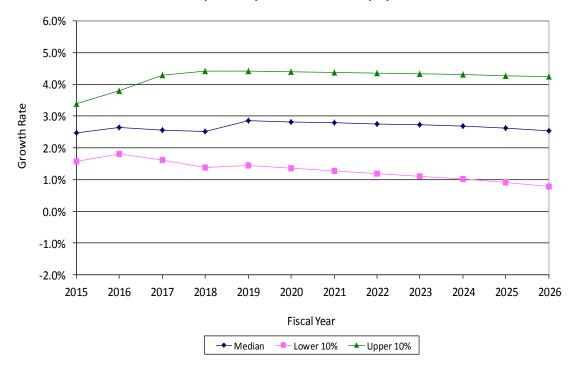




**Phoenix CPI Growth** 

Phoenix Sky Harbor/Gateway Airports Passenger Traffic Growth





#### Maricopa County Total Non-Farm Employment Growth

#### Maricopa County Nominal Personal Income Growth

	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	5.2%	5.1%	5.2%	5.9%	6.4%	5.2%	5.2%
Lower 10%	4.3%	4.5%	4.6%	4.5%	4.3%	2.9%	2.7%
Upper 10%	7.6%	7.5%	7.4%	7.8%	8.6%	7.5%	7.7%
Panelist 2							
Median	5.0%	5.5%	6.0%	6.0%	6.2%	5.3%	5.2%
Lower 10%	4.0%	4.2%	4.5%	4.5%	4.5%	4.0%	4.0%
Upper 10%	6.0%	6.5%	6.5%	6.8%	7.0%	6.0%	6.0%
Panelist 3							
Median	5.2%	5.7%	6.4%	6.0%	5.8%	5.3%	5.3%
Lower 10%	3.2%	3.7%	4.4%	4.0%	2.3%	1.8%	1.8%
Upper 10%	7.2%	7.7%	8.4%	8.0%	9.3%	8.8%	8.8%
Panelist 4	7.270	7.770	0.470	0.070	5.570	0.070	0.070
Median	5.0%	5.2%	5.5%	6.0%	6.1%	5.2%	5.0%
Lower 10%	4.3%	4.9%	4.5%	4.3%	3.8%	2.3%	1.7%
Upper 10%	6.3%	4. <i>9</i> % 6.6%	6.8%	4.3 <i>%</i> 7.0%	3.8 <i>%</i> 8.5%	2.5% 8.5%	8.5%
Panelist 5	0.5%	0.076	0.070	7.070	0.370	0.370	0.370
Median	···· / 1 0/···	1 1 0/	···· ຈ' ၄ ø/ · · ·	3.1%		4.1%	4.0%
Lower 10%	3.6%	3.6%	3.1%	2.6%	3.6%	3.6%	3.5%
Upper 10%	6.2%	6.2%	5.7%	5.2%	6.2%	6.2%	6.1%
Panelist 6		4 4 6/		2.40/			4.00/
Median	4.1%	4.1%	3.6%		4.1%		4.0%
Lower 10%	3.6%	3.6%	3.1%	2.6%	3.6%	3.6%	3.5%
Upper 10%	6.2%	6.2%	5.7%	5.2%	6.2%	6.2%	6.1%
Panelist 7							
Median	5.5%	6.0%		*****	6.2%		*********
Lower 10%	3.5%	4.5%	5.0%	5.0%	4.5%	2.5%	2.5%
Upper 10%	6.5%	7.0%	7.5%	7.5%	7.5%	7.5%	7.5%
Panelist 8							
Median				2.4%			
Lower 10%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Upper 10%	6.1%	6.2%	6.3%	6.4%	6.4%	6.2%	6.2%
Panelist 9							
Median	5.0%	5.5%	6.0%	6.0%	6.0%	5.5%	5.2%
Lower 10%	3.4%	4.3%	5.1%	5.0%	4.3%	2.9%	2.7%
Upper 10%	6.5%	7.5%	8.3%	8.5%	8.6%	7.5%	7.7%
Panelist 10							
Median	4.1%	4.1%	3.6%	3.1%	4.1%	4.1%	4.0%
Lower 10%	3.6%	3.6%	3.1%	2.6%	3.6%	3.6%	3.5%
Upper 10%	6.2%	6.2%	5.7%	5.2%	6.2%	6.2%	6.1%
Panelist 11							
Median	4.0%	4.6%	5.2%	5.1%	5.0%	3.9%	3.8%
Lower 10%	2.4%	3.1%	3.7%	3.5%	3.2%	1.7%	1.6%
Upper 10%	5.8%	6.5%	7.1%	7.1%	6.8%	6.1%	6.0%
All data in the at						0.170	0.070

#### Maricopa County Population Growth

	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	1.9%	2.2%	2.5%	2.6%	2.1%	1.8%	1.7%
Lower 10%	1.0%	1.2%	1.3%	1.5%	1.3%	0.8%	0.6%
Upper 10%	2.3%	2.8%	3.2%	3.4%	2.8%	2.7%	2.8%
Panelist 2							
Median	2.0%	2.2%	2.4%	2.5%	2.4%	2.0%	1.9%
Lower 10%	1.5%	1.5%	1.6%	1.6%	1.4%	1.2%	1.0%
Upper 10%	2.5%	2.8%	2.8%	2.7%	2.6%	2.5%	2.4%
Panelist 3							
Median	1.8%	2.0%	2.2%	2.2%	2.1%	1.9%	1.7%
Lower 10%	1.0%	0.8%	0.9%	0.9%	0.8%	0.3%	0.1%
Upper 10%	2.6%	3.2%	3.5%	3.5%	3.4%	3.6%	3.4%
Panelist 4							
Median	1.9%	2.0%	2.1%	2.2%	2.2%	1.9%	1.7%
Lower 10%	0.9%	1.3%	1.6%	1.6%	1.6%	0.9%	0.6%
Upper 10%	2.3%	2.5%	2.6%	2.8%	2.8%	2.9%	2.8%
Panelist 5	21070	2.070	,	2.070	2.070	21070	,
Median	1.6%	1.8%	1.8%	1.8%	1.8%	1.2%	1.1%
Lower 10%	1.2%	1.2%	1.2%	1.2%	1.0%	0.6%	0.5%
Upper 10%	1.8%	2.0%	2.2%	2.4%	2.5%	2.0%	2.0%
Panelist 6	1.070	2.070	2.270	2.470	2.370	2.070	2.070
Median	1.6%	1.8%	1.8%	1.8%	1.8%	1.2%	1.1%
Lower 10%	1.2%	1.2%	1.2%	1.2%	1.0%	0.6%	0.5%
Upper 10%	1.2%	2.0%	2.2%	2.4%	2.5%	2.0%	2.0%
Panelist 7	1.070	2.070	2.270	2.470	2.570	2.070	2.070
Median	1.7%	1.9%	2.0%	2.1%	2.0%	1.8%	1.6%
Lower 10%	1.5%	1.5%	1.6%	1.7%	1.5%	1.0%	0.8%
	2.0%	2.3%	2.5%	2.6%	2.6%	2.5%	2.5%
Upper 10%	2.0%	2.3%	2.5%	2.0%	2.0%	2.5%	2.5%
Panelist 8	3 20/	2.2%	2 20%	3 30/	3 4 07	2 2 2 2	2.2%
Median	2.3%		•••••••••		• • • • • • • • • • • • •	• • • • • • • • • • • • •	
Lower 10%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Upper 10%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Panelist 9	1 A BAZ						
Median	1.8%	2.1%				1.8%	
Lower 10%	1.4%	1.7%	1.8%	1.6%	1.3%	0.8%	0.6%
Upper 10%	2.3%	2.5%	2.6%	2.7%	2.8%	2.7%	2.8%
Panelist 10							
Median	1.6%	1,8%	1.8%	1.8%	1.8%	1.2%	1.1%
Lower 10%	1.2%	1.2%	1.2%	1.2%	1.0%	0.6%	0.5%
Upper 10%	1.8%	2.0%	2.2%	2.4%	2.5%	2.0%	2.0%
Panelist 11							
Median	1.8%		2.2%			1.8%	
Lower 10%	1.4%	1.6%	1.7%	1.6%	1.5%	1.3%	1.3%
Upper 10%	2.2%	2.5%	2.6%	2.6%	2.5%	2.1%	2.1%

#### Maricopa County Construction Employment Growth

	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	4,4%	9.7%	10.8%	7.9%	7.3%	2.8%	2.7%
Lower 10%	2.0%	4.5%	4.5%	3.9%	3.5%	-5.5%	-6.5%
Upper 10%	9.5%	12.9%	13.4%	10.5%	12.3%	11.0%	12.0%
Panelist 2							
Median	4,9%	9.5%	9.5%	9.0%	8.5%	4.0%	4.0%
Lower 10%	0.0%	4.0%	5.0%	5.0%	5.0%	2.0%	2.0%
Upper 10%	8.0%	15.0%	15.0%	13.0%	12.0%	6.0%	6.0%
Panelist 3							
Median	5.0%	8.0%	9.0%	8.0%	6.0%	3.0%	3.0%
Lower 10%	0.0%	3.0%	4.0%	3.0%	-0.5%	-12.0%	-12.0%
Upper 10%	10.0%	13.0%	14.0%	13.0%	12.5%	18.0%	18.0%
Panelist 4	10.070	10.070	11.070	10.070	12.570	10.070	10.070
Median	6.0%	7.0%	4.5%	4.5%	4.5%	4.5%	3.5%
Lower 10%	4.0%	5.5%	3.2%	2.5%	-5.0%	-7.3%	-8.0%
Upper 10%	10.0%	12.0%	12.0%	13.0%	14.0%	11.0%	10.0%
Panelist 5	10.070	12.070	12.070	13.070	14.070	11.070	10.070
Median	4.0%	6.0%	5.0%	4.0%	4.0%	4.0%	4.0%
Lower 10%	0.0%	0.0%	-5.0%	-5.0%	0.0%	0.0%	0.0%
Upper 10%	0.0% 6.0%	10.0%	-3.0% 10.0%	-3.0% 10.0%	0.0% 10.0%	10.0%	10.0%
••	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Panelist 6	4.004			4.00/		1 00/:::	4.00%
Median		6.0%			4.0%		4.0%
Lower 10%	0.0%	0.0%	-5.0%	-5.0%	0.0%	0.0%	0.0%
Upper 10%	6.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Panelist 7					· · · 🗠 (a 197 · 1 ·		
Median	5.0%	7.5%	9.0%	9.0%	7.0%	2.5%	2.5%
Lower 10%	3.0%	5.0%	5.0%	4.5%	0.0%	-5.0%	-7.0%
Upper 10%	9.0%	12.0%	12.0%	12.0%	12.0%	10.0%	10.0%
Panelist 8							
Median	5,2%	3.7%		· : · : · : · : · : · : ·	2.5%	3.2%	3.2%
Lower 10%	-0.8%	-2.3%	-4.7%	-4.3%	-3.5%	-2.8%	-2.8%
Upper 10%	6.2%	4.7%	2.3%	2.7%	3.5%	4.2%	4.2%
Panelist 9							
Median	5.0%	10.0%	12.0%	12.0%	10.0%	2.8%	2.7%
Lower 10%	2.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%
Upper 10%	10.0%	15.0%	15.0%	15.0%	15.0%	11.0%	12.0%
Panelist 10							
Median	4.0%	6.0%	5.0%	4.0%	4.0%	4.0%	4.0%
Lower 10%	0.0%	0.0%	-5.0%	-5.0%	0.0%	0.0%	0.0%
Upper 10%	6.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Panelist 11							
Median	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%
Lower 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Upper 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All data in the at	ove tabl	e are in	percent	age gro	wth rate	s.	

#### 30 Year Mortgage

	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	4.1%	4.8%	5.1%	5.1%	5.3%	5.4%	5.3%
Lower 10%	3.7%	4.2%	4.3%	4.4%	4.2%	4.2%	3.9%
Upper 10%	4.7%	5.8%	6.4%	6.6%	6.8%	6.8%	7.3%
Panelist 2							
Median	4.5%	4.6%	5.0%	5.0%	5.5%	5.5%	5.5%
Lower 10%	4.0%	4.2%	4.3%	4.5%	4.5%	4.5%	4.5%
Upper 10%	5.0%	5.5%	5.7%	6.0%	6.0%	6.5%	6.5%
Panelist 3			•				
Median	4.6%	5.3%	6.5%	6.6%	6.6%	6.7%	6.5%
Lower 10%	3.6%	3.8%	5.0%	5.6%	5.1%	4.7%	4.5%
Upper 10%	5.6%	6.8%	8.5%	8.1%	8.1%	8.7%	8.5%
Panelist 4	5.070	0.070	0.570	0.170	0.170	0.770	0.570
Median	4.2%	4.5%	4.8%	5.0%	6.0%	6.0%	6.0%
Lower 10%	3.3%	3.9%	4.0%	4.5%	4.5%	4.5%	4.0%
Upper 10%	5.5% 4.2%	5.9% 4.8%	4.0% 5.5%	4.5% 5.5%	4.5% 7.5%	4.5% 8.0%	4.0% 8.0%
	4.2%	4.8%	5.5%	5.5%	1.5%	8.0%	8.0%
Panelist 5			······································	· · · · · · · · · · · · · · · · · · ·		·	· · · · · · · · · · · · · · · · · · ·
Median	4.8%	5.4%	6.1%	6.6%	6.7%	6.6%	6.6%
Lower 10%	4.4%	5.0%	5.6%	6.0%	5.9%	5.6%	5.3%
Upper 10%	5.2%	5.8%	6.7%	7.2%	7.4%	7.7%	7.9%
Panelist 6						· . · . · . · . · . · .	
Median							
Lower 10%	4.4%	5.0%	5.6%	6.0%	5.9%	5.6%	5.3%
Upper 10%	5.2%	5.8%	6.7%	7.2%	7.4%	7.7%	7.9%
Panelist 7							
Median	4.8%	5.3%	6.0%	6.2%	6.2%	6.2%	6.2%
Lower 10%	4.4%	4.7%	5.2%	5.4%	5.4%	5.4%	5.2%
Upper 10%	5.2%	5.9%	6.5%	6.5%	6.7%	7.0%	7.0%
Panelist 8							
Median	4.1%	4.3%	4.0%	3.8%	3.5%	3.5%	3.5%
Lower 10%	2.9%	3.1%	2.8%	2.6%	2.3%	2.3%	2.3%
Upper 10%	5.3%	5.5%	5.2%	5.0%	4.7%	4.7%	4.7%
Panelist 9							
Median	4.0%	5.0%	6.0%	6.5%	6.5%	7.0%	7.0%
Lower 10%	3.0%	3.5%	5.0%	5.0%	5.0%	5.0%	5.0%
Upper 10%	5.0%	6.0%	7.5%	7.5%	7.5%	8.0%	8.0%
Panelist 10							
Median	4.8%	5.4%	6.1%	6.6%	6.7%	6.6%	6.6%
Lower 10%	4.4%	5.0%	5.6%	6.0%	5.9%	5.6%	5.3%
Upper 10%	5.2%	5.8%	5.0 <i>%</i> 6.7%	7.2%	5.5% 7.4%	7.7%	5.5 <i>%</i> 7.9%
Panelist 11	J.270	5.070	0.770	1.2/0	7+70	1.1/0	1.370
Median	4.8%	5.4%	6.1%	6.6%	6.7%	6.5%	6.5%
Lower 10%	4.4%	5.0%	5.6%	6.0%	5.9%	5.6%	5.3%
Upper 10%	5.2%	5.8%	6.7%	7.2%	7.4%	7.7%	7.9%

All data in the above table are in nominal rates.

#### Phoenix CPI Growth

	2015	2016	2017	2018	2019	2024	2026
Panelist 1			-			-	
Median	2.0%	2.1%	2.3%	2.6%	2.8%	2.5%	2.3%
Lower 10%	0.9%	0.8%	1.1%	1.2%	1.8%	1.3%	1.0%
Upper 10%	3.2%	3.4%	3.4%	3.2%	3.8%	3.7%	3.7%
Panelist 2	0.2/0	011/0	011/0	0.270	0.070	01770	01770
Median	1.8%	1.6%	2.2%	2.7%	2.8%	2.5%	2.3%
Lower 10%	1.0%	0.8%	1.4%	1.6%	1.8%	1.5%	1.5%
Upper 10%	2.3%	2.3%	2.8%	3.3%	3.5%	3.5%	3.5%
Panelist 3	2.370	2.370	2.070	5.570	3.370	5.570	3.370
Median	1.6%	1.8%	1.9%	2.1%	2,5%	2.6%	2.2%
Lower 10%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.5%
Upper 10%	2.2%	2.6%	2.8%	3.2%	4.0%	4.2%	3.9%
Panelist 4	2.270	2.070	2.070	5.270	4.070	4.270	3.970
Median	2.0%	2.1%	2.5%	2.5%	2.6%	2.6%	2.6%
Lower 10%	1.2%	1.7%	1.5%	1.2%	1.4%	1.4%	0.6%
	2.8%	3.2%	1.5% 3.6%	1.2% 3.7%	1.4% 3.9%	1.4% 4.0%	0.6% 4.5%
Upper 10%	2.8%	3.2%	3.0%	3.7%	3.9%	4.0%	4.5%
Panelist 5	4.007			····		CONTRACT:	····
Median	1.8%	1.6%	2.2%	***********		2.5%	***********
Lower 10%	1.0%	0.8%	1.4%	1.9%	1.9%	1.3%	1.0%
Upper 10%	2.6%	2.4%	3.0%	3.5%	3.8%	3.7%	3.7%
Panelist 6				· · · · · · · · · · · · · · · · · · ·		· · · • · - • • · · ·	· · · · · · · · · · · · · · · · · · ·
Median	1.8%		2.2%		0.0.0.0.0.0.0.0.0	2.5%	
Lower 10%	1.0%	0.8%	1.4%	1.9%	1.9%	1.3%	1.0%
Upper 10%	2.6%	2.4%	3.0%	3.5%	3.8%	3.7%	3.7%
Panelist 7							
Median	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.5%	1.5%	1.5%	1.5%	1.3%	1.1%	1.0%
Upper 10%	2.5%	2.7%	3.0%	3.0%	3.0%	3.0%	3.0%
Panelist 8							
Median	1.8%	1.6%	1.5%	1.6%	1.5%	1.5%	1.5%
Lower 10%	1.2%	1.0%	1.0%	1.1%	1.0%	1.0%	1.0%
Upper 10%	2.8%	2.6%	2.5%	2.6%	2.5%	2.5%	2.5%
Panelist 9							
Median	1.8%	2.0%	2.2%	2.7%	2.8%	2.5%	2.3%
Lower 10%	1.0%	1.0%	1.4%	1.9%	1.9%	1.3%	1.0%
Upper 10%	2.6%	2.5%	3.0%	3.5%	3.8%	3.7%	3.7%
Panelist 10							
Median	1.8%	1.6%	2.2%	2.7%	2.8%	2.5%	2.3%
Lower 10%	1.0%	0.8%	1.4%	1.9%	1.9%	1.3%	1.0%
Upper 10%	2.6%	2.4%	3.0%	3.5%	3.8%	3.7%	3.7%
Panelist 11							
Median	1.9%	1.7%	2.0%	2.0%	2.0%	2.1%	2.0%
Lower 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Upper 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Obbei 10/8	0.070	0.070	0.070	0.070	0.070	0.070	0.070

#### Sky Harbor/Gateway Airports Passenger Traffic Growth

	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	1.2%	1.5%	2.0%	2.7%	1.8%	2.0%	2.0%
Lower 10%	0.0%	0.3%	0.8%	0.8%	0.2%	0.0%	-0.6%
Upper 10%	3.0%	3.2%	3.6%	3.9%	3.3%	4.1%	4.6%
Panelist 2							
Median	1.3%	1.4%	1.5%	2.0%	2.2%	1.8%	1.5%
Lower 10%	0.5%	0.5%	0.8%	1.3%	1.5%	1.3%	1.0%
Upper 10%	2.0%	2.2%	2.3%	2.5%	2.5%	2.5%	2.5%
Panelist 3							
Median	2.1%	2.3%	2.4%	2.6%	1.8%	1.7%	1.7%
Lower 10%	0.6%	0.8%	0.9%	1.1%	0.3%	-0.3%	-0.3%
Upper 10%	3.6%	3.8%	3.9%	4.1%	3.3%	3.7%	3.7%
Panelist 4							
Median	2.3%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.3%	0.5%	0.4%	-0.1%	-0.1%	-1.2%	-1.6%
Upper 10%	3.3%	3.5%	3.6%	4.0%	4.0%	6.0%	6.5%
Panelist 5	0.070	01070	0.070			01070	01070
Median	2.3%	2.4%	2.6%	2.7%	1.8%	2.0%	2.0%
Lower 10%	1.0%	1.1%	1.3%	1.4%	0.2%	0.0%	-0.6%
Upper 10%	3.6%	3.7%	3.8%	4.0%	3.3%	4.1%	4.6%
Panelist 6	5.070	5.770	5.070	4.070	5.570	4.170	4.070
Median	2.3%	2.4%	2.6%	2.7%	1.8%	2.0%	2.0%
Lower 10%	1.0%	1.1%	1.3%	1.4%	0.2%	0.0%	-0.6%
Upper 10%	3.6%	3.7%	3.8%	4.0%	3.3%	4.1%	4.6%
Panelist 7	5.070	5.770	5.070	4.070	5.570	4.170	4.070
Median	2.3%	2.4%	2.5%	2.5%	2.0%	2.0%	2.0%
Lower 10%	1.3%	1.2%	1.2%	1.2%	0.0%	-0.3%	-0.5%
Upper 10%	3.5%	4.0%	4.2%	4.2%	4.0%	-0.3 <i>%</i> 4.0%	4.0%
Panelist 8	5.570	4.070	4.270	4.270	4.070	4.070	4.070
Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Lower 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Upper 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Panelist 9	0.076	0.076	0.076	0.076	0.076	0.076	0.076
Median	2.3%	2.4%	2.6%	2.7%	1.8%	2.0%	2.0%
Lower 10%	1.0% 3.6%	1.1% 3.7%	1.3% 3.8%	1.4% 4.0%	0.2% 3.3%	0.0% 4.1%	-0.6% 4.6%
Upper 10% Panelist 10	5.0%	5.7%	5.0%	4.0%	5.5%	4.1%	4.0%
Median	2.3%	2.4%	2.6%	2.7%	1.8%	2.0%	2.0%
Lower 10%		1.1%	1.3%	1.4%			
	1.0% 3.6%	1.1% 3.7%	3.8%		0.2% 3.3%	0.0% 4.1%	-0.6%
Upper 10%	5.0%	5./%	5.8%	4.0%	5.3%	4.1%	4.6%
Panelist 11	0.004	0.00/	0.04/	0.00/	0.007		0.00/
Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Lower 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Upper 10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

#### Maricopa County Total Non-Farm Employment Growth

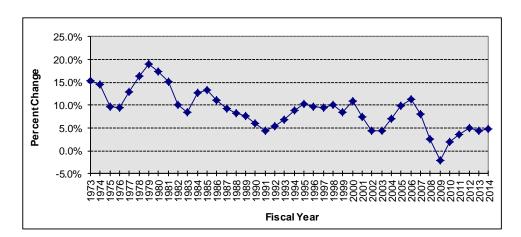
	2015	2016	2017	2018	2019	2024	2026
Panelist 1							
Median	2,3%	2.5%	2.5%	3.1%	3.6%	2.8%	2.7%
Lower 10%	1.3%	1.5%	1.7%	1.7%	1.5%	0.3%	-0.1%
Upper 10%	3.7%	4.2%	5.3%	5.9%	5.7%	5.3%	5.5%
Panelist 2							
Median	2.5%	2.9%	3.1%	3.1%	3.1%	2.7%	2.5%
Lower 10%	1.7%	1.7%	1.9%	2.0%	2.0%	2.0%	1.8%
Upper 10%	3.0%	3.5%	3.5%	3.5%	3.5%	3.2%	3.0%
Panelist 3							
Median	2.4%	2.5%	2.8%	2.6%	3.1%	2.8%	2.7%
Lower 10%	0.9%	1.0%	1.3%	1.1%	1.6%	0.3%	0.2%
Upper 10%	3.9%	4.0%	4.3%	4.1%	4.6%	5.3%	4.2%
Panelist 4	5.570	1.070	1.370		1.070	5.570	1.270
Median	2.4%	2.6%	2.7%	3.0%	3.3%	3.3%	3.3%
Lower 10%	1.4%	2.0%	1.8%	2.1%	1.9%	-0.1%	-0.7%
Upper 10%	3.4%	2.0 <i>%</i> 4.0%	5.5%	5.5%	5.6%	-0.1 <i>%</i> 5.6%	-0.7 <i>%</i> 6.0%
Panelist 5	5.470	4.0%	3.3%	5.5%	5.0%	5.0%	0.0%
Median	2.5%	2.8%	2.2%	1 70/	2.5%	7 00/	2.7%
			1 • 1 • 1 • 1 • 1 • 1 • 1	* 1 * 1 * 1 * 1 * 1 * 1		C • C • C • C • C • C • C	2.2%
Lower 10%	2.3%	2.5%	1.9%	1.3%	2.0%	2.3%	
Upper 10%	2.7%	3.1%	3.5%	3.5%	3.5%	3.3%	3.2%
Panelist 6				· : · k := k / · :			
Median	2.5%						2.7%
Lower 10%	2.3%	2.5%	1.9%	1.3%	2.0%	2.3%	2.2%
Upper 10%	2.7%	3.1%	3.5%	3.5%	3.5%	3.3%	3.2%
Panelist 7							
Median	2.8%	2.9%	3.0%	3.0%	3.0%		2.0%
Lower 10%	1.7%	1.7%	1.7%	1.5%	0.0%	0.0%	-0.5%
Upper 10%	3.2%	3.5%	4.0%	4.5%	4.0%	4.0%	4.0%
Panelist 8							
Median	2.2%	1.7%	1.4%	1.6%	1.8%	2.1%	2.1%
Lower 10%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Upper 10%	5.5%	5.0%	4.2%	4.4%	4.6%	4.9%	4.9%
Panelist 9							
Median	2.5%	3.0%	3.5%	3.8%	3.5%	2.5%	2.0%
Lower 10%	1.5%	2.0%	1.0%	0.0%	1.0%	1.0%	1.0%
Upper 10%	3.0%	4.2%	4.2%	4.5%	4.5%	4.0%	4.0%
Panelist 10							
Median	2.5%	2.8%	2.2%	1.7%	2.5%	2.8%	2.7%
Lower 10%	2.3%	2.5%	1.9%	1.3%	2.0%	2.3%	2.2%
Upper 10%	2.7%	3.1%	3.5%	3.5%	3.5%	3.3%	3.2%
Panelist 11	2., ,0	3.1/3	5.575	5.575	0.070	0.070	5.270
Median	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Lower 10%	1.4%	1.9%	2.0%	2.4%	1.5%	0.3%	-0.1%
	3.6%	4.1%	2.0% 5.6%	2.4% 5.9%	1.5% 5.7%	0.3 <i>%</i> 5.3%	-0.1% 5.5%
Upper 10%	5.0%	4.170	5.0%	5.9%	5.770	5.5%	5.5%

#### HISTORICAL DATA MARICOPA COUNTY NOMINAL PERSONAL INCOME GROWTH (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	15.1%	1991	4.5%	2001	7.4%	2011	3.6%
1972		1982	10.1%	1992	5.4%	2002	4.3%	2012	5.1%
1973	15.4%	1983	8.5%	1993	6.9%	2003	4.4%	2013*	4.5%
1974	14.6%	1984	12.7%	1994	8.9%	2004	7.0%	2014*	4.7%
1975	9.7%	1985	13.3%	1995	10.2%	2005	10.0%	2015	
1976	9.5%	1986	11.1%	1996	9.7%	2006	11.3%	2016	
1977	12.9%	1987	9.3%	1997	9.5%	2007	8.1%	2017	
1978	16.4%	1988	8.2%	1998	10.0%	2008	2.6%	2018	
1979	19.1%	1989	7.7%	1999	8.5%	2009	-2.2%	2019	
1980	17.3%	1990	6.0%	2000	10.8%	2010	2.0%	2020	

FY 1973-2012 data from BEA; FY 2013\*-2015 data from Phoenix Blue Chip. FY 2016-2026, ADOT staff estimates.



#### **HISTORICAL DATA - GRAPHED**

	Histo	orical		Std.	80% F	lange
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	2.0%	5.1%	4.0%	1.2%	2.7%	4.9%
10 Years	-2.2%	11.3%	5.0%	4.0%	1.6%	10.1%
Full Period	-2.2%	19.1%	8.9%	4.4%	4.3%	15.0%

#### HISTORICAL DATA MARICOPA COUNTY POPULATION GROWTH (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	5.7%	1981 3.0%	1991	3.1%	2001 2.6%	2011	0.5%
1972	5.9%	1982 2.9%	1992	3.4%	2002 2.8%	2012	1.1%
1973	6.4%	1983 3.2%	1993	3.8%	2003 2.8%	2013	1.5%
1974	5.2%	1984 4.4%	1994	4.9%	2004 3.4%	2014*	1.1%
1975	3.0%	1985 5.3%	1995	5.0%	2005 3.2%	2015	
1976	2.1%	1986 4.2%	1996	4.0%	2006 2.4%	2016	
1977	3.9%	1987 4.5%	1997	3.8%	2007 2.4%	2017	
1978	4.4%	1988 2.9%	1998	3.7%	2008 1.5%	2018	
1979	4.9%	1989 2.6%	1999	3.3%	2009 0.3%	2019	
1980	4.4%	1990 1.4%	2000	2.9%	2010 0.1%	2020	

FY 1999 and prior: from U. S. Census Bureau. FY 2000-2013 ADOA Office of Employment and Population Statistics (EPS) estimates. \*FY 2014 and after ADOA EPS projections Medium Series.

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#### **HISTORICAL DATA - GRAPHED**

	Histo	orical		Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	0.1%	1.5%	0.9%	0.6%	0.2%	1.4%
10 Years	0.1%	3.2%	1.4%	1.0%	0.3%	2.5%
Full Period	0.1%	6.4%	3.3%	1.5%	1.2%	5.2%

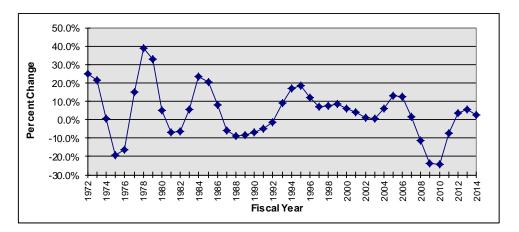
#### HISTORICAL DATA MARICOPA COUNTY CONSTRUCTION EMPLOYMENT GROWTH (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	-6.7%	1991	-4.8%	2001	4.1%	2011	-7.2%
1972	24.9%	1982	-6.5%	1992	-1.5%	2002	1.1%	2012	3.5%
1973	21.3%	1983	5.4%	1993	9.0%	2003	0.4%	2013	5.7%
1974	0.4%	1984	23.4%	1994	16.8%	2004	6.1%	2014*	2.6%
1975	-19.3%	1985	20.3%	1995	18.2%	2005	12.8%	2015	
1976	-16.5%	1986	7.9%	1996	12.2%	2006	12.6%	2016	
1977	14.8%	1987	-5.8%	1997	6.9%	2007	1.6%	2017	
1978	38.9%	1988	-9.0%	1998	7.5%	2008	-11.6%	2018	
1979	32.7%	1989	-8.4%	1999	8.4%	2009	-23.8%	2019	
1980	5.2%	1990	-6.7%	2000	5.8%	2010	-24.2%	2020	

FY 1989 and prior BLS SIC not seas adj, 1990-2013 BLS NAICS not seas adj. \*FY 2014 ADOT staff estimate.

FY 2015 from Phx Blue Chip forecast (1st qtr 2014). FY 2016 and beyond based on ADOT staff estimates.



#### **HISTORICAL DATA - GRAPHED**

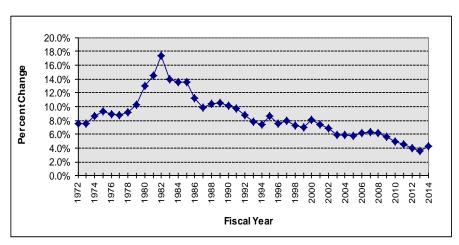
	Histo	rical		Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	-24.2%	5.7%	-3.9%	12.4%	-17.4%	4.8%
10 Years	-24.2%	12.8%	-2.8%	13.5%	-23.8%	12.6%
Full Period	-24.2%	38.9%	4.2%	13.8%	-11.1%	21.1%

#### HISTORICAL DATA 30 YEAR MORTGAGE RATE

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	14.6%	1991	9.8%	2001	7.5%	2011	4.6%
1972	7.5%	1982	17.3%	1992	8.8%	2002	6.9%	2012	4.0%
1973	7.5%	1983	14.0%	1993	7.9%	2003	5.9%	2013	3.5%
1974	8.6%	1984	13.6%	1994	7.5%	2004	5.9%	2014*	4.3%
1975	9.4%	1985	13.5%	1995	8.6%	2005	5.8%	2015	
1976	8.9%	1986	11.2%	1996	7.6%	2006	6.2%	2016	
1977	8.8%	1987	9.8%	1997	7.9%	2007	6.3%	2017	
1978	9.1%	1988	10.5%	1998	7.2%	2008	6.2%	2018	
1979	10.3%	1989	10.6%	1999	6.9%	2009	5.6%	2019	
1980	12.9%	1990	10.1%	2000	8.1%	2010	4.9%	2020	

FY 1972-2013 data from Federal Reserve. FY 2014\*-2026 based on Global Insight, 1st Quarter 2014, Trend Forecast.





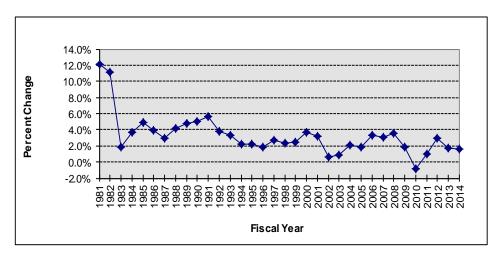
	Hist	orical		Std.	80%	Range
Period	Min,	Max	Mean	Dev.	Lower	Upper
5 Years	3.5%	4.9%	4.3%	0.5%	3.7%	4.8%
10 Years	3.5%	6.3%	5.1%	1.0%	4.0%	6.2%
Full Period	3.5%	17.3%	8.5%	3.0%	5.1%	13.4%

#### HISTORICAL DATA PHOENIX CPI GROWTH RATE (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	1981	12.1%	1991	5.6%	2001	3.2%	2011	1.0%
1972	1982	11.1%	1992	3.8%	2002	0.6%	2012	2.9%
1973	1983	1.9%	1993	3.3%	2003	0.8%	2013	1.8%
1974	1984	3.7%	1994	2.2%	2004	2.1%	2014*	1.6%
1975	1985	4.8%	1995	2.2%	2005	1.8%	2015	
1976	1986	3.9%	1996	1.9%	2006	3.3%	2016	
1977	1987	3.0%	1997	2.7%	2007	3.1%	2017	
1978	1988	4.2%	1998	2.3%	2008	3.5%	2018	
1979	1989	4.8%	1999	2.5%	2009	1.9%	2019	
1980	1990	5.0%	2000	3.7%	2010	-0.8%	2020	

FY 1981-2013 from BLS. FY 2014-2026 from Moody's Analytics. \*FY 2014 is an estimate.



#### **HISTORICAL DATA - GRAPHED**

	Histo	orical		Std.	80%	Range
Period	Min.	Мах.	Mean	Dev.	Lower	Upper
5 Years	-0.8%	2.9%	1.3%	1.4%	-0.1%	2.5%
10 Years	-0.8%	3.5%	2.0%	1.3%	0.8%	3.3%
Full Period	-0.8%	12.1%	3.3%	2.5%	1.2%	5.0%

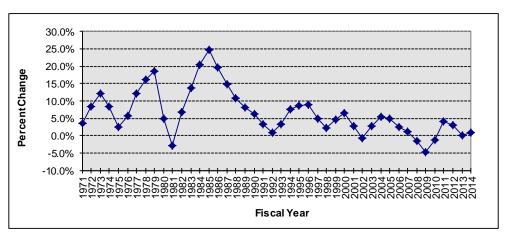
#### HISTORICAL DATA PHOENIX SKY HARBOR/GATEWAY AIRPORTS PASSENGER TRAFFIC GROWTH (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	3.6%	1981	-2.8%	1991	3.4%	2001	2.7%	2011	4.0%
1972	8.4%	1982	6.8%	1992	0.9%	2002	-0.7%	2012	3.1%
1973	12.2%	1983	13.9%	1993	3.3%	2003	2.8%	2013	0.2%
1974	8.4%	1984	20.6%	1994	7.7%	2004	5.4%	2014*	1.0%
1975	2.4%	1985	24.8%	1995	8.6%	2005	4.9%	2015	
1976	5.7%	1986	19.6%	1996	8.9%	2006	2.4%	2016	
1977	12.2%	1987	14.8%	1997	4.8%	2007	1.3%	2017	
1978	16.1%	1988	10.9%	1998	2.2%	2008	-1.4%	2018	
1979	18.7%	1989	8.1%	1999	4.6%	2009	-4.7%	2019	
1980	5.0%	1990	6.4%	2000	6.5%	2010	-1.1%	2020	

FY 1971-2013 data obtained from Phoenix Sky Harbor International Airport and combined with data obtained from

Gateway Airport (FY 2004-2013). FY 2014\*-2026 estimates are from Phoenix Sky Harbor Airport staff as well as Gateway Airport staff.



#### **HISTORICAL DATA - GRAPHED**

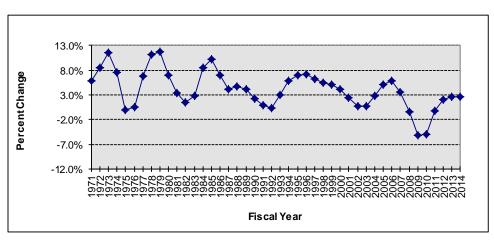
	Histo	orical		Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	-1.1%	4.0%	1.4%	2.1%	-0.6%	3.6%
10 Years	-4.7%	4.9%	1.0%	2.9%	-1.7%	4.1%
Full Period	-4.7%	24.8%	6.5%	6.5%	-0.4%	15.8%

#### HISTORICAL DATA MARICOPA COUNTY TOTAL NON-FARM EMPLOYMENT GROWTH (Annual Percent Change)

#### HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

		<del> </del>	· · · · · · · · · · · · · · · ·			····	<del> </del>		
1971	5.8%	1981	3.4%	1991	0.9%	2001	2.4%	2011	-0.2%
1972	8.5%	1982	1.5%	1992	0.4%	2002	0.6%	2012	2.0%
1973	11.6%	1983	2.9%	1993	3.0%	2003	0.8%	2013	2.7%
1974	7.6%	1984	8.6%	1994	5.8%	2004	2.7%	2014*	2.6%
1975	0.0%	1985	10.2%	1995	6.9%	2005	5.1%	2015	
1976	0.5%	1986	6.9%	1996	7.2%	2006	5.8%	2016	
1977	6.9%	1987	4.1%	1997	6.3%	2007	3.5%	2017	
1978	11.1%	1988	4.7%	1998	5.4%	2008	-0.4%	2018	
1979	11.8%	1989	4.1%	1999	5.0%	2009	-5.1%	2019	
1980	6.9%	1990	2.3%	2000	4.1%	2010	-5.0%	2020	

FY 1971-1989 Bureau of Labor Statistics (BLS) SIC not seas adj , FY 1990-2013 seas adj data from BLS (NAICS). \*FY 2014-2015 from ADOA EPS forecast May 2014. FY 2016-2026 ADOT staff estimates.



#### **HISTORICAL DATA - GRAPHED**

	Histo	orical		Std.	80% Range		
Period	Min.	Max.	Mean	Dev.	Lower	Upper	
5 Years	-5.0%	2.7%	0.4%	3.2%	-3.1%	2.7%	
10 Years	-5.1%	5.8%	1.1%	3.8%	-5.0%	5.2%	
Full Period	-5.1%	11.8%	4.1%	3.8%	0.1%	8.6%	