

*Arizona Department of Transportation*

**MARICOPA COUNTY TRANSPORTATION EXCISE TAX  
Forecasting Process & Results  
FY 2003-2006**



**Financial Management Services**

**November 2002**

**MARICOPA COUNTY TRANSPORTATION EXCISE TAX  
OFFICIAL FORECAST UPDATE  
RISK ANALYSIS OF EXPECTED VALUES  
as of November 2002**

**Introduction**

This document contains the Arizona Department of Transportation's (the Department) forecast of expected values for the Maricopa County Transportation Excise Tax for the period FY 2003-2006.

**Background**

Since 1986, 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 2000, HLB reviewed the model and updated the equations. The independent variables contained in the updated model include:

- Maricopa County real income growth per capita
- Maricopa County population growth
- Maricopa County construction employment growth
- Phoenix Consumer Price Index (CPI)
- Prime interest rate.

### **Risk Analysis Panel**

The Risk Analysis Process relies heavily on the judgments of an expert panel of economists to provide information critical to the forecasting process. In September 2002, an expert panel of eleven economists, representing public, private, and academic sectors provided 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 updated model to produce a series of forecasts with associated probabilities of occurrence. The data are detailed in the tables at the back of this report.

### **Model Results**

The model results from the panelists inputs produced a mean forecast of \$1,064.9 million for the period FY 2003-2006 with a compound growth rate of 5.8 percent.

The Department's Official Forecast for FY 2003-2006 totals \$1,064.0 million with a compound growth rate of 5.8 percent. The FY 2003 forecast of \$275.6 million was developed independently of the econometric model using time series techniques and historic and projected growth rates from the model. This forecast assumed little growth through the first six-months and modest growth through the second six-months.

The FY 2003-2006 forecast utilizes the 50% confidence interval to account for less uncertainty in the future due to the expiration of the excise tax in three years. The Mean Forecast and the Department's Official Forecast are detailed below.

<b>FY 2003 Official Forecast</b>			
<b>(Dollars in Millions)</b>			
<b><u>Fiscal Year</u></b>	<b><u>Mean Forecast</u></b>	<b><u>Official Forecast</u></b>	<b><u>Confidence Level</u></b>
<b>2003</b>	<b>\$275.7</b>	<b>\$275.6</b>	<b>N/A</b>
<b>2004</b>	<b>\$290.8</b>	<b>\$290.4</b>	<b>50%</b>
<b>2005</b>	<b>\$308.0</b>	<b>\$307.5</b>	<b>50%</b>
<b>2006</b>	<b>\$190.4</b>	<b>\$190.5</b>	<b>50%</b>
<b>Total</b>	<b>\$1,064.9</b>	<b>\$1,064.0</b>	
<b>Ave. CGR</b>	<b>5.8%</b>	<b>5.8%</b>	

For comparison purposes, the December 2001 Official Forecast and the November 2002 Official Forecast are shown below:

<b>FY 2003 Comparative Forecast</b>			
<b>(Dollars in Millions)</b>			
<b>Fiscal Year</b>	<b>Dec. 01 Official Forecast</b>	<b>Nov. 02 Official Forecast</b>	<b>Difference</b>
<b>2003</b>	<b>\$284.8</b>	<b>\$275.6</b>	<b>(\$9.2)</b>
<b>2004</b>	<b>\$302.7</b>	<b>\$290.4</b>	<b>(\$12.3)</b>
<b>2005</b>	<b>\$323.9</b>	<b>\$307.5</b>	<b>(\$16.4)</b>
<b>2006</b>	<b>\$202.2</b>	<b>\$190.5</b>	<b>(\$11.7)</b>
<b>Total</b>	<b>\$1,113.6</b>	<b>\$1,064.0</b>	<b>(\$49.6)</b>
<b>Avg. CGR</b>	<b>6.8%</b>	<b>5.8%</b>	

**Summary**

For FY 2003-2006, the Department’s Official Forecast totals \$1.06 billion which reflects the remaining three and a half years of the Maricopa County Transportation Excise Tax. Compared to last year’s forecast, the November 2002 forecast was reduced by \$49.6 million to reflect the continued economic slowdown in Maricopa County that began approximately 18 months ago. Although the low interest rates have encouraged the purchase of new motor vehicles and homes, there continues to be an underlying weakness in the economy due to the job losses and the stock market uncertainty. On the bright side, the economy is predicted to pickup steam in FY 2004, however, the robust growth seen in the mid-to-late 1990’s is not expected to be repeated.

**Supplementary Information**

The remainder of this report presents supplementary information on the Department’s model, the values of the independent variables forecast by the expert panel, and detailed results of the Risk Analysis Process.

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

<b>Fiscal Year Percentile</b>	<b>2002 Actual</b>	<b>2003 N/A</b>	<b>2004 50%</b>	<b>2005 50%</b>	<b>2006 50%</b>
<b>Retail Sales</b>	\$131.4	\$135.6	\$143.5	\$152.8	\$95.0
<b>Contracting</b>	41.2	42.1	43.1	44.3	26.9
<b>Utilities</b>	18.4	19.0	20.0	21.0	13.0
<b>Restaurant / Bar</b>	21.7	22.6	23.7	25.2	15.7
<b>Rental - Real Property</b>	24.5	25.5	27.2	28.9	17.9
<b>Rental - Personal Prop.</b>	13.9	14.2	15.1	16.0	9.9
<b>Other</b>	16.3	16.6	17.8	19.3	12.1
<b>Total</b>	<b>\$267.6</b>	<b>\$275.6</b>	<b>\$290.4</b>	<b>\$307.5</b>	<b>\$190.5</b>

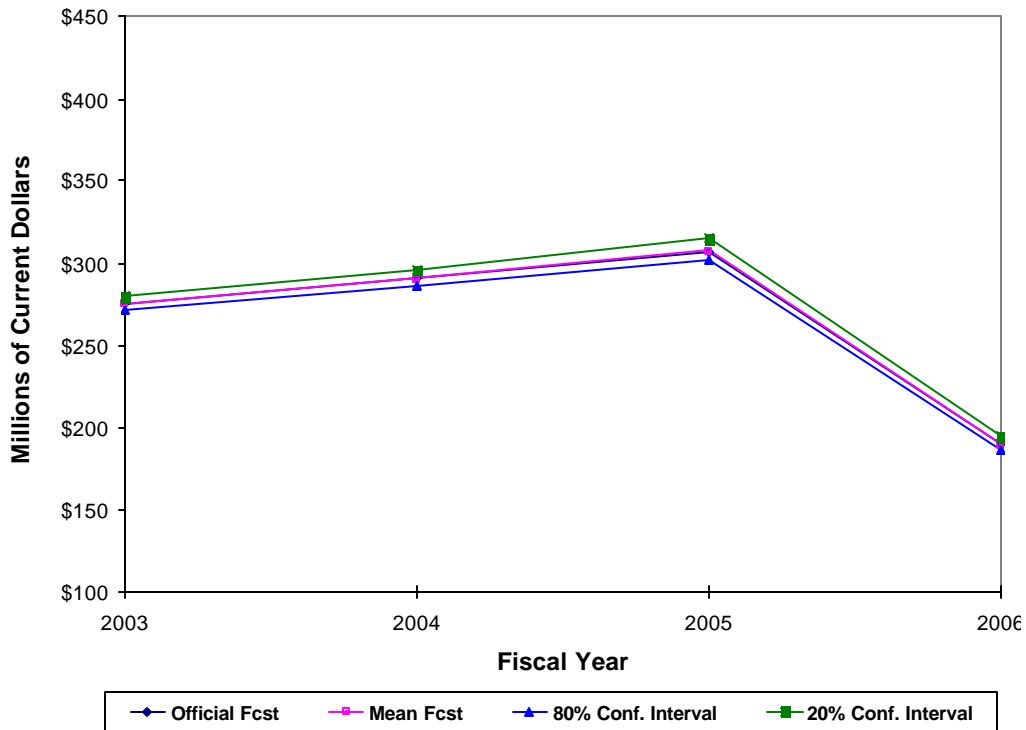
**RARF TOTAL TAX REVENUE RISK ANALYSIS RESULTS**  
**(Current Dollars in Millions)**

<b>Fiscal Year</b>	<b>Mean</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>
<b>2003</b>	<b>\$275.7</b>	<b>\$282.1</b>	<b>\$279.8</b>	<b>\$278.4</b>	<b>\$277.0</b>	<b>\$275.6</b>	<b>\$274.3</b>	<b>\$273.1</b>	<b>\$271.2</b>	<b>\$269.5</b>
<b>2004</b>	<b>290.8</b>	<b>299.3</b>	<b>295.9</b>	<b>293.9</b>	<b>292.1</b>	<b>290.4</b>	<b>288.9</b>	<b>287.5</b>	<b>285.6</b>	<b>282.4</b>
<b>2005</b>	<b>308.0</b>	<b>317.7</b>	<b>314.7</b>	<b>312.5</b>	<b>309.7</b>	<b>307.5</b>	<b>305.8</b>	<b>303.8</b>	<b>301.4</b>	<b>298.7</b>
<b>2006</b>	<b>190.4</b>	<b>197.7</b>	<b>195.0</b>	<b>193.1</b>	<b>191.8</b>	<b>190.5</b>	<b>189.0</b>	<b>187.2</b>	<b>186.0</b>	<b>183.7</b>

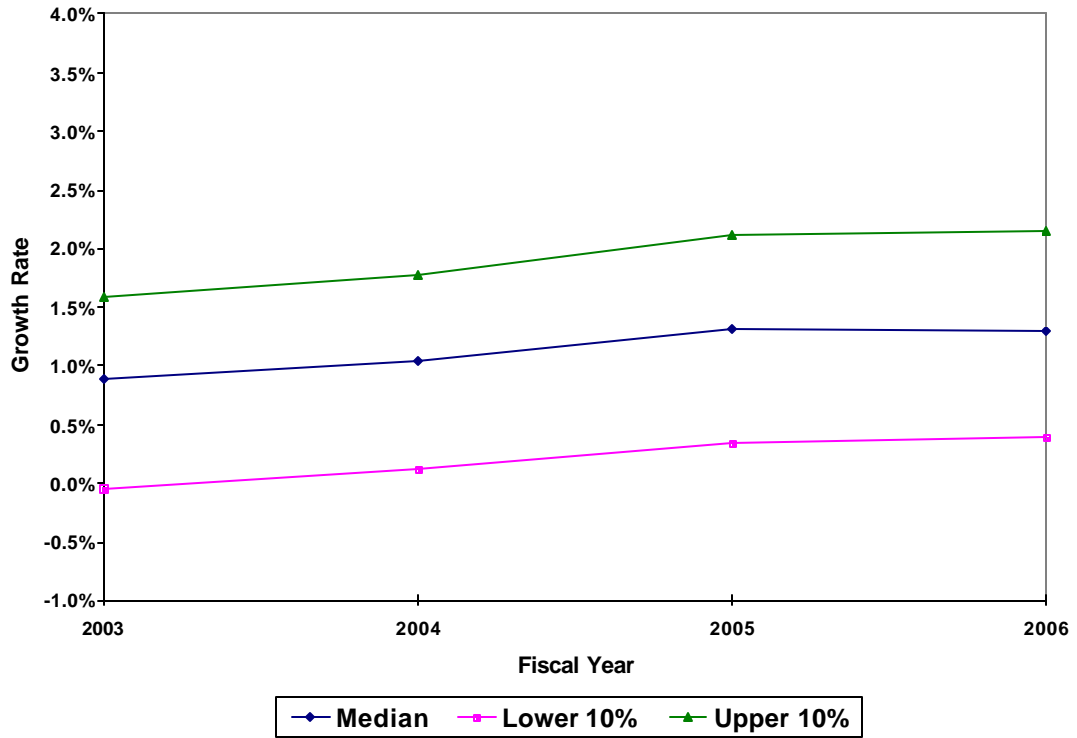
# Official Forecast Results

## (Current Dollars in Millions)

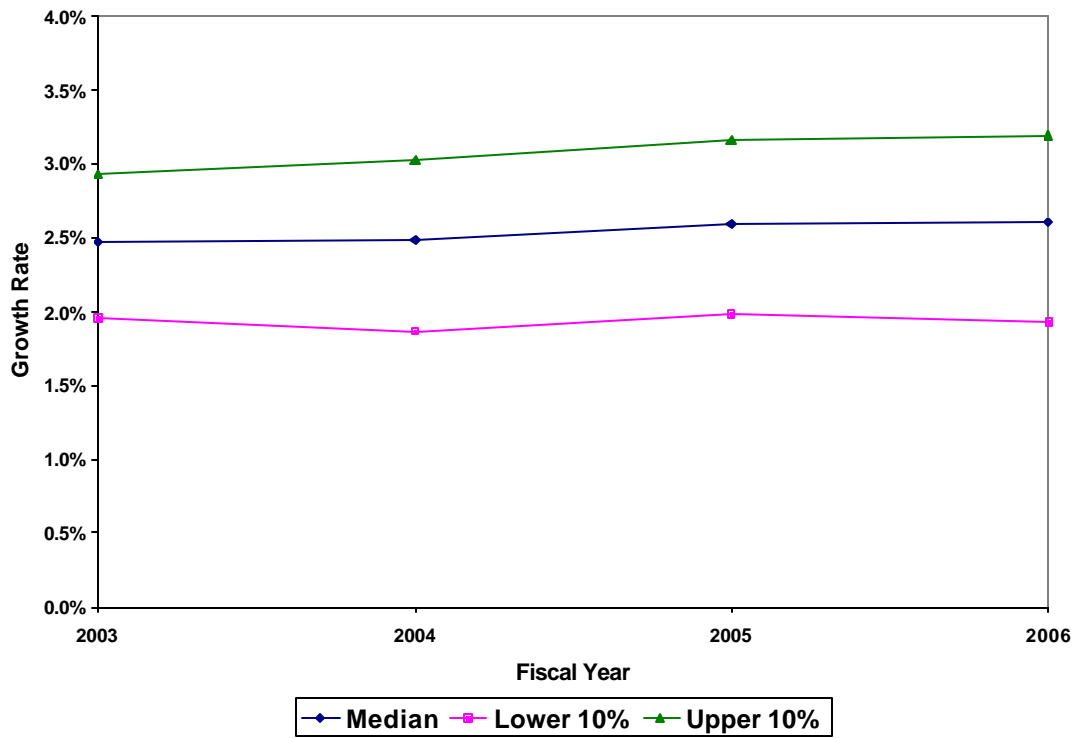
Fiscal Year	Official Forecast	Mean Forecast	80% Conf. Interval	20% Conf. Interval
2003	\$275.6	\$275.7	\$271.2	\$279.8
2004	290.4	290.8	285.6	295.9
2005	307.5	308.0	301.4	314.7
2006	190.5	190.4	186.0	195.0
<b>Total</b>	<b>\$1,064.0</b>	<b>\$1,064.9</b>	<b>\$1,044.2</b>	<b>\$1,085.4</b>



### Maricopa County Real Income Per Capita

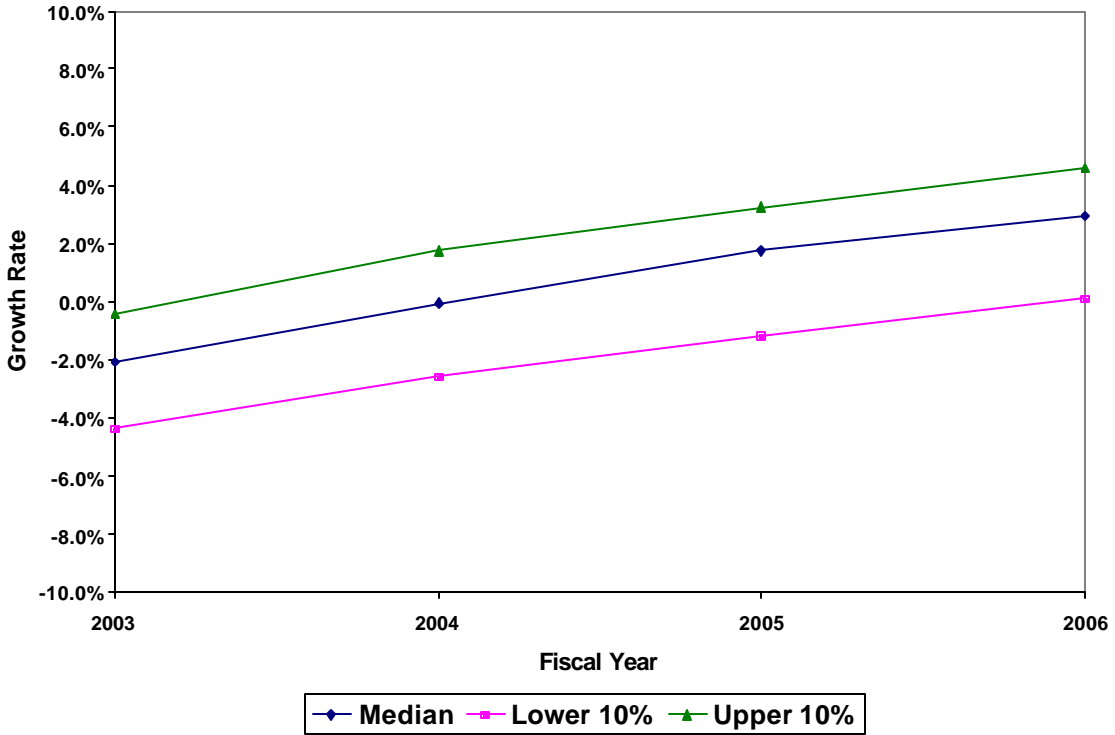


### Maricopa County Population

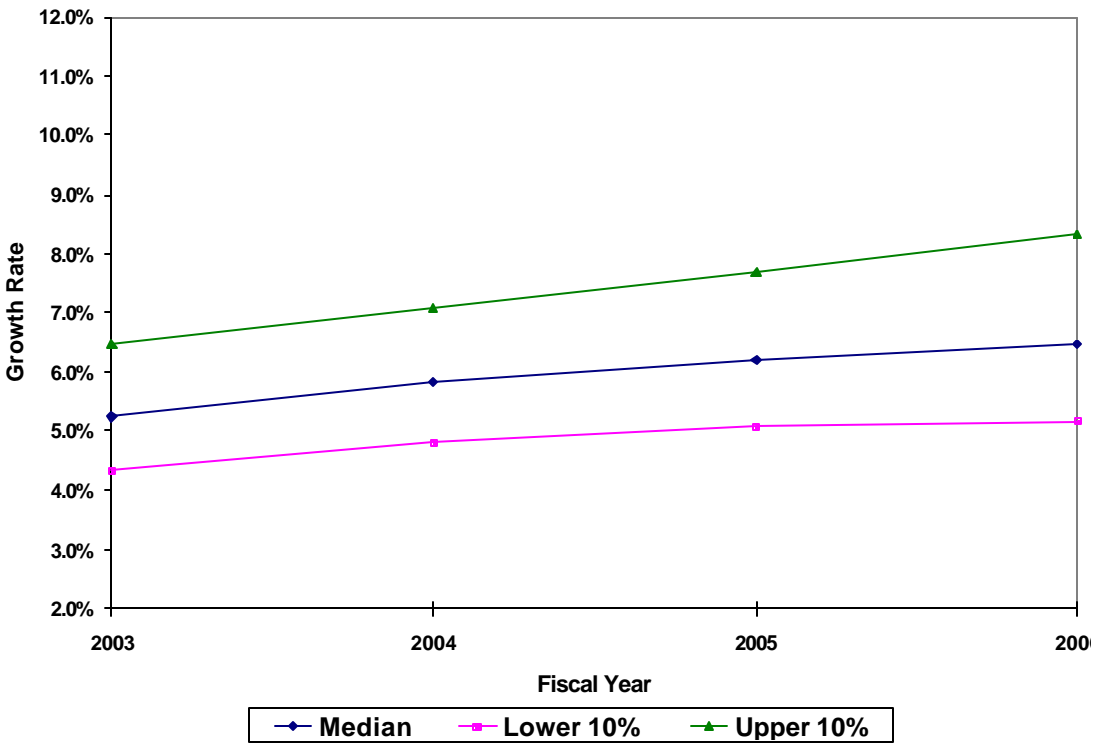




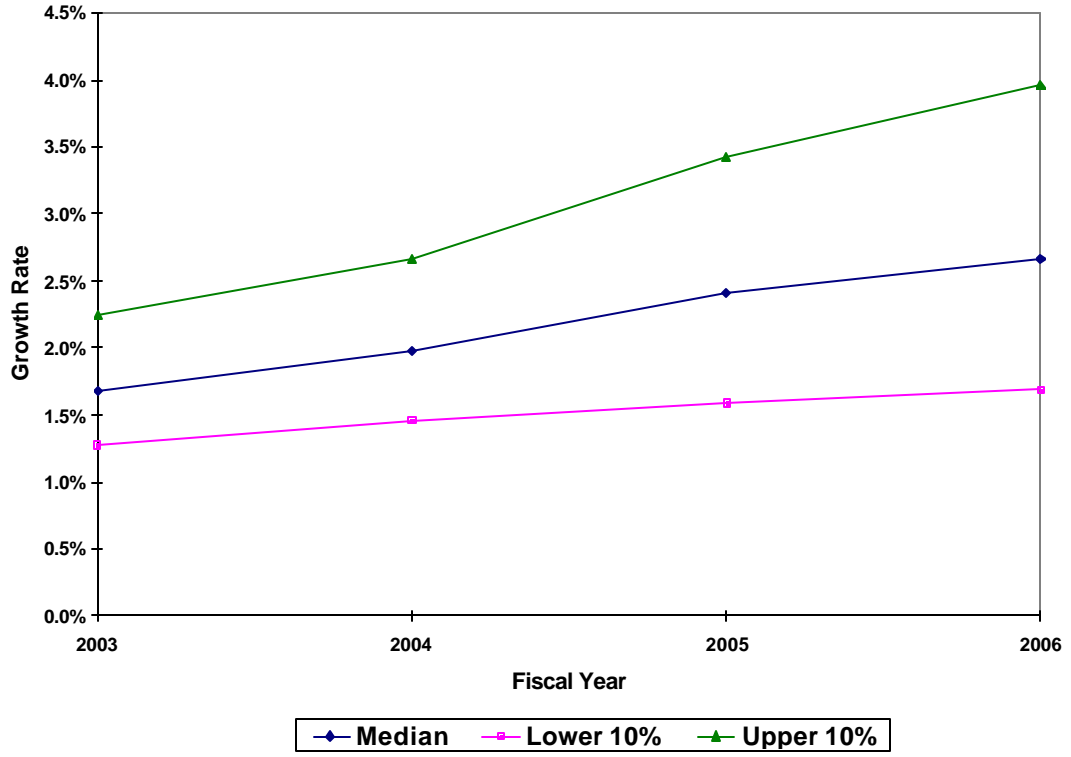
### Maricopa County Construction Employment Growth Rate



### Prime Interest Rate



### Phoenix CPI



## Mean Panelist Data Values

	<b>Income Growth</b>	<b>Population Growth</b>	<b>Construction Employment</b>	<b>Prime Rate</b>	<b>Phoenix CPI Growth</b>
<b>FY 2003</b>					
<b>Upper 10%</b>	1.59	2.93	-0.45	6.47	2.25
<b>Lower 10%</b>	-0.05	1.96	-4.36	4.33	1.28
<b>Median</b>	0.88	2.47	-2.08	5.23	1.68
<b>FY 2004</b>					
<b>Upper 10%</b>	1.77	3.03	1.75	7.06	2.66
<b>Lower 10%</b>	0.11	1.87	-2.57	4.79	1.46
<b>Median</b>	1.03	2.48	-0.06	5.83	1.97
<b>FY 2005</b>					
<b>Upper 10%</b>	2.12	3.16	3.27	7.69	3.42
<b>Lower 10%</b>	0.33	1.99	-1.16	5.08	1.59
<b>Median</b>	1.31	2.59	1.73	6.22	2.42
<b>FY 2006</b>					
<b>Upper 10%</b>	2.15	3.19	4.62	8.33	3.97
<b>Lower 10%</b>	0.39	1.93	0.08	5.18	1.69
<b>Median</b>	1.29	2.60	2.95	6.47	2.67

All data in the above table are percentage growth rates with the exception of the Prime Rate column which are nominal percentage values.

<b>Per Capita Income Growth Rate</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Panelist 1</b>					
	<b>Upper 10%</b>	2.00	2.50	2.90	3.50
	<b>Lower 10%</b>	-0.50	-0.60	-0.70	-0.80
	<b>Median</b>	0.30	0.70	1.00	1.50
<b>Panelist 2</b>					
	<b>Upper 10%</b>	1.25	2.25	2.50	2.25
	<b>Lower 10%</b>	-1.00	0.00	0.25	0.50
	<b>Median</b>	0.75	1.25	2.00	1.50
<b>Panelist 3</b>					
	<b>Upper 10%</b>	1.90	2.10	2.40	2.60
	<b>Lower 10%</b>	-1.50	-1.20	-1.30	-0.90
	<b>Median</b>	1.30	1.70	1.50	1.00
<b>Panelist 4</b>					
	<b>Upper 10%</b>	1.50	1.70	1.70	1.80
	<b>Lower 10%</b>	0.90	1.10	1.10	1.20
	<b>Median</b>	1.30	1.50	1.50	1.60
<b>Panelist 5</b>					
	<b>Upper 10%</b>	1.70	1.90	2.00	2.10
	<b>Lower 10%</b>	0.80	0.90	0.70	0.70
	<b>Median</b>	1.30	1.50	1.50	1.40
<b>Panelist 6</b>					
	<b>Upper 10%</b>	1.00	1.00	1.50	1.80
	<b>Lower 10%</b>	-1.00	-1.00	-0.50	0.00
	<b>Median</b>	0.00	0.00	0.50	1.00
<b>Panelist 7</b>					
	<b>Upper 10%</b>	2.30	1.80	3.40	2.80
	<b>Lower 10%</b>	0.00	-0.50	1.10	0.50
	<b>Median</b>	0.50	0.30	1.50	1.30
<b>Panelist 8</b>					
	<b>Upper 10%</b>	1.00	1.30	1.60	1.40
	<b>Lower 10%</b>	-0.20	0.20	0.40	0.50
	<b>Median</b>	0.50	1.00	1.20	1.00
<b>Panelist 9</b>					
	<b>Upper 10%</b>	1.60	1.70	1.50	1.30
	<b>Lower 10%</b>	1.00	1.10	0.80	0.80
	<b>Median</b>	1.30	1.40	1.10	1.00
<b>Panelist 10</b>					
	<b>Upper 10%</b>	2.20	2.00	1.80	1.60
	<b>Lower 10%</b>	1.40	1.20	1.00	0.80
	<b>Median</b>	1.70	1.70	1.60	1.40
<b>Panelist 11</b>					
	<b>Upper 10%</b>	1.00	1.25	2.00	2.50
	<b>Lower 10%</b>	-0.50	0.00	0.75	1.00
	<b>Median</b>	0.75	0.25	1.00	1.50

All data in the above table are percentage growth rates.

<b>Maricopa County Population Growth Rate</b>				
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Panelist 1</b>				
Upper 10%	3.60	3.80	4.20	4.40
Lower 10%	1.90	1.90	2.00	1.90
Median	2.40	2.30	2.70	2.90
<b>Panelist 2</b>				
Upper 10%	2.50	2.90	3.20	3.40
Lower 10%	1.80	2.00	2.40	2.40
Median	2.30	2.60	2.90	3.00
<b>Panelist 3</b>				
Upper 10%	2.60	2.80	2.90	3.00
Lower 10%	1.70	0.50	0.50	0.50
Median	2.30	2.40	2.40	2.50
<b>Panelist 4</b>				
Upper 10%	2.60	2.50	2.50	2.40
Lower 10%	2.20	2.10	2.10	2.00
Median	2.50	2.40	2.40	2.30
<b>Panelist 5</b>				
Upper 10%	2.60	2.70	2.70	2.90
Lower 10%	2.10	1.90	1.80	1.50
Median	2.40	2.30	2.30	2.20
<b>Panelist 6</b>				
Upper 10%	3.50	3.40	3.30	3.00
Lower 10%	2.00	2.00	2.00	1.90
Median	2.70	2.70	2.60	2.50
<b>Panelist 7</b>				
Upper 10%	4.00	4.10	4.70	4.70
Lower 10%	2.20	2.20	2.70	2.70
Median	3.10	3.00	3.50	3.50
<b>Panelist 8</b>				
Upper 10%	2.50	2.60	2.80	3.00
Lower 10%	1.80	1.90	2.10	2.20
Median	2.20	2.30	2.50	2.80
<b>Panelist 9</b>				
Upper 10%	2.40	2.60	2.50	2.50
Lower 10%	1.70	1.90	2.00	2.00
Median	2.00	2.20	2.30	2.20
<b>Panelist 10</b>				
Upper 10%	3.20	3.00	3.00	2.80
Lower 10%	2.40	2.20	2.20	2.00
Median	2.80	2.70	2.60	2.50
<b>Panelist 11</b>				
Upper 10%	2.75	2.90	2.95	3.00
Lower 10%	1.75	2.00	2.10	2.10
Median	2.50	2.40	2.30	2.20

All data in the above table are percentage growth rates.

<b>Maricopa Construction Employment Growth Rate</b>					
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Panelist 1</b>					
	<b>Upper 10%</b>	1.00	2.00	4.00	5.00
	<b>Lower 10%</b>	-2.50	-2.00	-1.00	0.00
	<b>Median</b>	-1.50	-0.20	1.50	3.00
<b>Panelist 2</b>					
	<b>Upper 10%</b>	-1.00	0.00	3.00	7.00
	<b>Lower 10%</b>	-5.00	-3.00	-2.00	1.00
	<b>Median</b>	-2.50	-2.00	2.00	5.00
<b>Panelist 3</b>					
	<b>Upper 10%</b>	-2.50	1.50	3.00	4.00
	<b>Lower 10%</b>	-10.00	-5.50	-10.00	-5.00
	<b>Median</b>	-5.00	0.00	2.00	2.00
<b>Panelist 4</b>					
	<b>Upper 10%</b>	-1.00	2.00	3.00	4.00
	<b>Lower 10%</b>	-3.00	-2.00	-1.00	0.00
	<b>Median</b>	-1.10	-2.00	0.00	1.00
<b>Panelist 5</b>					
	<b>Upper 10%</b>	1.00	2.60	2.80	2.90
	<b>Lower 10%</b>	-2.00	1.00	1.00	0.90
	<b>Median</b>	-1.50	2.00	2.00	2.50
<b>Panelist 6</b>					
	<b>Upper 10%</b>	-2.00	2.00	2.00	2.00
	<b>Lower 10%</b>	-10.00	-10.00	-5.00	-5.00
	<b>Median</b>	-5.00	-1.00	0.00	1.00
<b>Panelist 7</b>					
	<b>Upper 10%</b>	2.00	4.70	6.00	9.00
	<b>Lower 10%</b>	-7.00	-4.30	0.00	0.00
	<b>Median</b>	0.00	2.00	3.00	5.00
<b>Panelist 8</b>					
	<b>Upper 10%</b>	-1.00	0.00	2.00	4.50
	<b>Lower 10%</b>	-2.20	-1.50	0.00	1.50
	<b>Median</b>	-1.80	-1.00	1.00	3.00
<b>Panelist 9</b>					
	<b>Upper 10%</b>	-1.50	1.00	1.30	1.50
	<b>Lower 10%</b>	-3.50	-1.00	0.00	0.50
	<b>Median</b>	-2.50	0.00	0.50	1.00
<b>Panelist 10</b>					
	<b>Upper 10%</b>	-1.00	1.00	2.90	3.40
	<b>Lower 10%</b>	-2.00	-1.00	1.00	1.00
	<b>Median</b>	-1.50	0.00	2.00	2.00
<b>Panelist 11</b>					
	<b>Upper 10%</b>	1.00	2.50	6.00	7.50
	<b>Lower 10%</b>	-0.75	1.00	4.25	6.00
	<b>Median</b>	-0.50	1.50	5.00	7.00

All data in the above table are percentage growth rates.

<b>Prime Interest Rate</b>					
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Panelist 1</b>					
	<b>Upper 10%</b>				
	<b>Lower 10%</b>				
	<b>Median</b>				
<b>Panelist 2</b>					
	<b>Upper 10%</b>	7.00	7.50	8.50	9.00
	<b>Lower 10%</b>	5.00	6.00	6.00	6.00
	<b>Median</b>	5.50	6.50	7.00	7.50
<b>Panelist 3</b>					
	<b>Upper 10%</b>	6.00	7.50	8.50	8.50
	<b>Lower 10%</b>	4.00	4.50	4.00	4.00
	<b>Median</b>	4.50	4.50	4.50	4.75
<b>Panelist 4</b>					
	<b>Upper 10%</b>	6.50	7.00	7.00	8.00
	<b>Lower 10%</b>	4.50	5.00	5.00	6.00
	<b>Median</b>	5.50	6.00	6.00	7.00
<b>Panelist 5</b>					
	<b>Upper 10%</b>	4.75	5.00	6.75	7.50
	<b>Lower 10%</b>	3.75	3.50	4.00	3.75
	<b>Median</b>	4.25	4.50	5.25	6.00
<b>Panelist 6</b>					
	<b>Upper 10%</b>	6.00	7.00	7.00	8.00
	<b>Lower 10%</b>	3.00	3.00	3.50	4.00
	<b>Median</b>	5.00	5.50	5.50	5.70
<b>Panelist 7</b>					
	<b>Upper 10%</b>	7.70	8.50	9.50	9.00
	<b>Lower 10%</b>	4.70	5.50	6.50	5.00
	<b>Median</b>	6.20	7.00	8.00	6.50
<b>Panelist 8</b>					
	<b>Upper 10%</b>	5.80	6.00	6.30	6.60
	<b>Lower 10%</b>	5.20	5.30	5.60	5.70
	<b>Median</b>	5.40	5.60	6.00	6.30
<b>Panelist 9</b>					
	<b>Upper 10%</b>				
	<b>Lower 10%</b>				
	<b>Median</b>				
<b>Panelist 10</b>					
	<b>Upper 10%</b>	8.00	8.00	8.00	10.00
	<b>Lower 10%</b>	4.50	5.50	6.00	7.00
	<b>Median</b>	5.50	7.00	7.50	8.00
<b>Panelist 11</b>					
	<b>Upper 10%</b>				
	<b>Lower 10%</b>				
	<b>Median</b>				

All data in the above table are nominal percentage values.

<b>Phoenix CPI Growth Rate</b>				
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Panelist 1</b>				
Upper 10%	2.50	3.50	4.70	5.30
Lower 10%	1.00	1.70	1.90	2.20
Median	1.50	2.20	3.00	3.50
<b>Panelist 2</b>				
Upper 10%			4.50	5.00
Lower 10%	1.50	2.00	2.50	2.50
Median	2.00	2.50	3.00	3.00
<b>Panelist 3</b>				
Upper 10%	2.10	2.70	4.00	6.00
Lower 10%	1.20	1.00	0.90	1.00
Median	1.70	2.00	2.50	2.50
<b>Panelist 4*</b>				
Upper 10%	2.00	2.30	2.60	2.60
Lower 10%	1.50	1.80	2.00	2.00
Median	1.70	2.00	2.20	2.20
<b>Panelist 5</b>				
Upper 10%	1.90	2.20	2.60	3.00
Lower 10%	1.30	1.30	1.20	1.10
Median	1.60	1.70	1.80	2.00
<b>Panelist 6</b>				
Upper 10%	3.00	3.00	3.00	3.20
Lower 10%	1.30	1.50	1.50	1.50
Median	1.70	2.00	2.00	2.20
<b>Panelist 7</b>				
Upper 10%	2.60	2.50	3.50	4.00
Lower 10%	0.80	0.80	0.80	0.80
Median	1.50	1.40	2.50	3.00
<b>Panelist 8</b>				
Upper 10%	1.90	2.30	2.70	3.00
Lower 10%	1.50	1.60	1.90	2.10
Median	1.70	1.90	2.30	2.60
<b>Panelist 9</b>				
Upper 10%				
Lower 10%				
Median				
<b>Panelist 10</b>				
Upper 10%	2.00	2.80	3.20	3.60
Lower 10%	1.40	1.40	1.60	2.00
Median	1.70	2.00	2.50	3.00
<b>Panelist 11</b>				
Upper 10%				
Lower 10%				
Median				

All data in the above table are percentage growth rates.



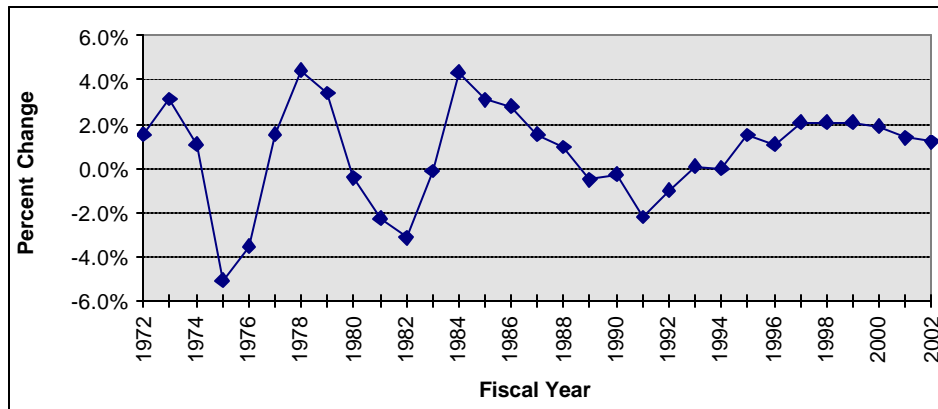
**HISTORICAL DATA  
GROWTH IN REAL INCOME PER CAPITA  
Using Phoenix CPI to Measure Inflation  
(Annual Percent Change)**

**HISTORIC DATA BY FISCAL YEAR (July 1 through June 30)**

1960	1970	1980	-0.4%	1990	-0.3%	2000	1.9%
1961	1971	1981	-2.3%	1991	-2.2%	2001	1.4%
1962	1972	1982	-3.1%	1992	-1.0%	2002 *	1.2%
1963	1973	1983	-0.1%	1993	0.1%	2003	
1964	1974	1984	4.3%	1994	0.0%	2004	
1965	1975	1985	3.1%	1995	1.5%	2005	
1966	1976	1986	2.8%	1996	1.1%	2006	
1967	1977	1987	1.5%	1997	2.1%	2007	
1968	1978	1988	1.0%	1998	2.1%	2008	
1969	1979	1989	-0.5%	1999	2.1%	2009	

\*Estimate

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	1.20%	2.10%	1.74%	0.42%	1.28%	2.10%
10 Years	0.00%	2.10%	1.35%	0.78%	0.09%	2.10%
Full Period	-5.09%	4.43%	0.74%	2.26%	-2.25%	3.15%

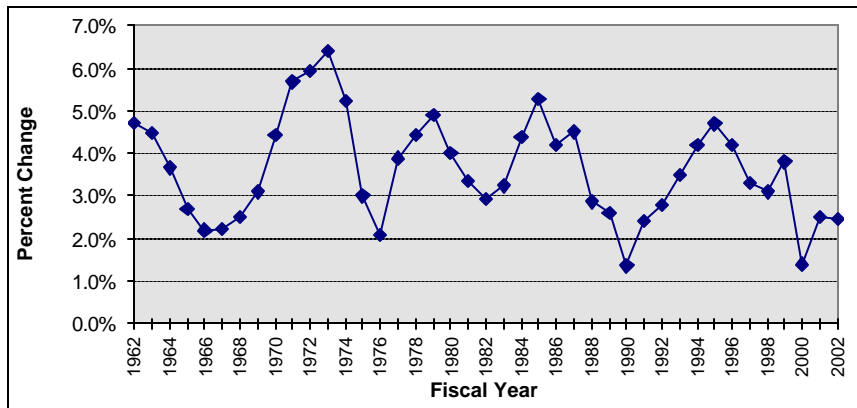
**HISTORICAL DATA  
MARICOPA COUNTY POPULATION GROWTH  
(Annual Percent Change)**

**HISTORIC DATA BY FISCAL YEAR (July 1 through June 30)**

1960		1970 4.4%	1980 4.0%	1990 1.4%	2000 1.4%
1961		1971 5.7%	1981 3.4%	1991 2.4%	2001 2.5%
1962 4.7%		1972 5.9%	1982 2.9%	1992 2.8%	2002 2.5%
1963 4.5%		1973 6.4%	1983 3.2%	1993 3.5%	2003
1964 3.7%		1974 5.2%	1984 4.4%	1994 4.2%	2004
1965 2.7%		1975 3.0%	1985 5.3%	1995 4.7%	2005
1966 2.2%		1976 2.1%	1986 4.2%	1996 4.2%	2006
1967 2.2%		1977 3.9%	1987 4.5%	1997 3.3%	2007
1968 2.5%		1978 4.4%	1988 2.9%	1998 3.1%	2008
1969 3.1%		1979 4.9%	1989 2.6%	1999 3.8%	2009

DES smoothed out the 1991 to 1995 figures. 1996-1999 data from October 2000 approved DES estimates and 2000-2002 from February 1997 approved DES projections.

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	1.40%	3.80%	2.65%	0.89%	1.83%	3.52%
10 Years	1.40%	4.70%	3.32%	0.99%	2.37%	4.25%
Full Period	1.36%	6.39%	3.63%	1.20%	2.21%	5.25%

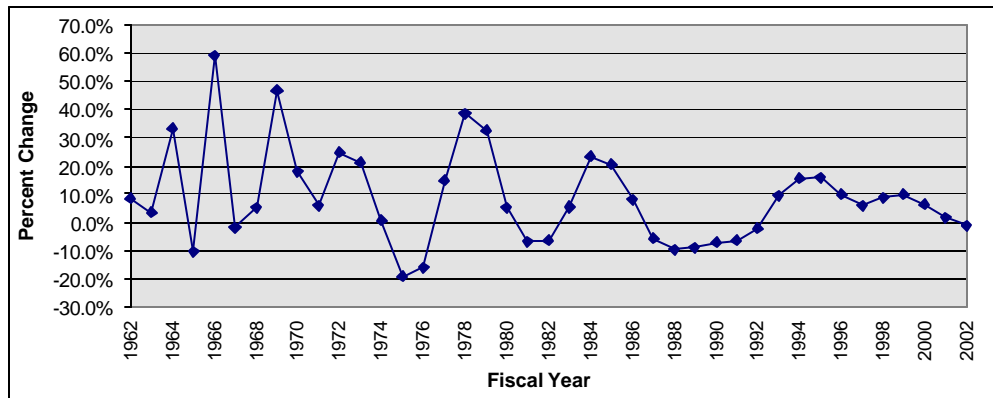
**HISTORICAL DATA  
MARICOPA COUNTY GROWTH IN CONSTRUCTION EMPLOYMENT  
(Annual Percent Change)**

**HISTORIC DATA BY FISCAL YEAR (July 1 through June 30)**

1960		1970 18.2%	1980 5.2%	1990 -7.2%	2000 6.2%
1961		1971 5.9%	1981 -6.7%	1991 -6.5%	2001 3.1%
1962 8.3%		1972 24.9%	1982 -6.5%	1992 -2.4%	2002 * -1.1%
1963 3.6%		1973 21.3%	1983 5.4%	1993 9.5%	2003
1964 33.3%		1974 0.4%	1984 23.4%	1994 15.4%	2004
1965 -10.5%		1975 -19.3%	1985 20.3%	1995 15.8%	2005
1966 59.2%		1976 -16.3%	1986 7.9%	1996 9.7%	2006
1967 -1.9%		1977 14.7%	1987 -5.8%	1997 5.8%	2007
1968 5.2%		1978 38.7%	1988 -9.8%	1998 8.7%	2008
1969 46.9%		1979 32.7%	1989 -9.1%	1999 9.7%	2009

\*Estimate

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

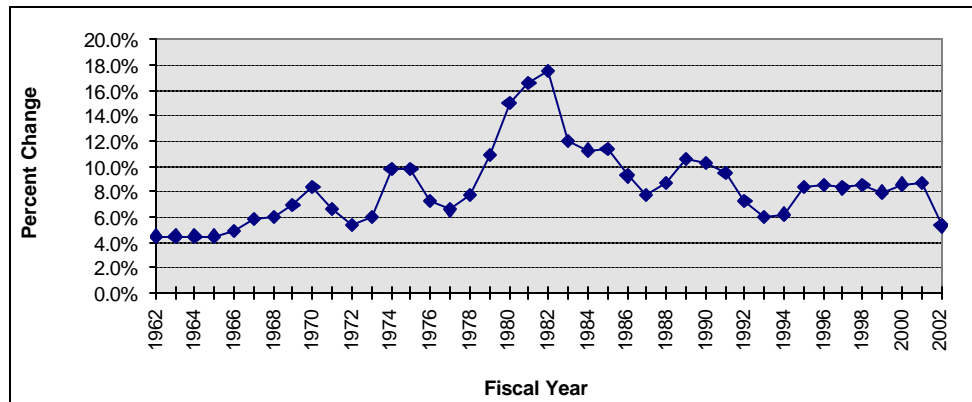
Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	-1.10%	9.66%	5.05%	4.61%	0.03%	9.29%
10 Years	-1.10%	15.79%	8.14%	5.31%	1.45%	15.42%
Full Period	-19.33%	59.23%	8.66%	16.75%	-9.10%	32.72%

**HISTORICAL DATA  
PRIME INTEREST RATE**

**HISTORIC DATA BY FISCAL YEAR (July 1 through June 30)**

1960		1970	8.37%	1980	14.98%	1990	10.30%	2000	8.60%
1961	4.57%	1971	6.62%	1981	16.62%	1991	9.46%	2001	8.74%
1962	4.50%	1972	5.38%	1982	17.53%	1992	7.25%	2002	5.31%
1963	4.50%	1973	6.06%	1983	12.01%	1993	6.00%	2003	
1964	4.50%	1974	9.79%	1984	11.29%	1994	6.23%	2004	
1965	4.50%	1975	9.82%	1985	11.38%	1995	8.37%	2005	
1966	4.94%	1976	7.22%	1986	9.24%	1996	8.52%	2006	
1967	5.80%	1977	6.59%	1987	7.73%	1997	8.32%	2007	
1968	5.96%	1978	7.71%	1988	8.66%	1998	8.50%	2008	
1969	6.91%	1979	10.85%	1989	10.56%	1999	7.98%	2009	

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	5.31%	8.74%	7.83%	1.44%	6.38%	8.68%
10 Years	5.31%	8.74%	7.66%	1.28%	5.93%	8.61%
Full Period	4.50%	17.53%	8.29%	3.09%	4.61%	11.37%

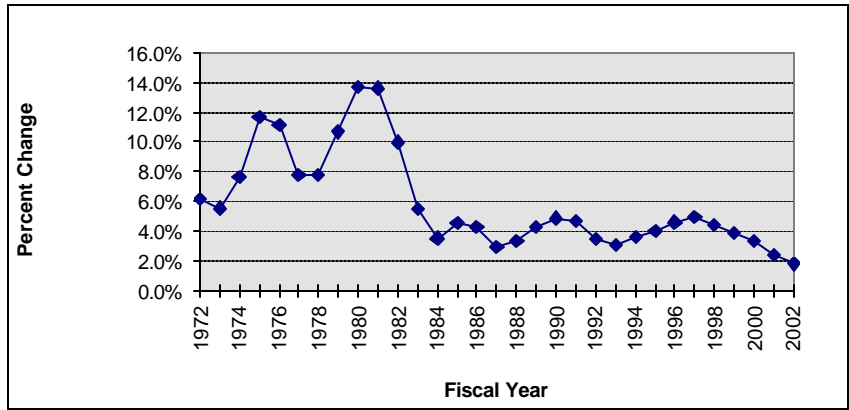
**HISTORICAL DATA  
PHOENIX CPI GROWTH RATE  
(Annual Percent Change)**

**HISTORIC DATA BY FISCAL YEAR (July 1 through June 30)**

1960	1970	1980	13.7%	1990	4.9%	2000	3.4%
1961	1971	1981	13.6%	1991	4.7%	2001	2.4%
1962	1972	1982	10.0%	1992	3.4%	2002*	1.8%
1963	1973	1983	5.5%	1993	3.1%	2003	
1964	1974	1984	3.5%	1994	3.6%	2004	
1965	1975	1985	4.6%	1995	4.0%	2005	
1966	1976	1986	4.2%	1996	4.6%	2006	
1967	1977	1987	2.9%	1997	4.9%	2007	
1968	1978	1988	3.4%	1998	4.4%	2008	
1969	1979	1989	4.3%	1999	3.9%	2009	

\* Estimate

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	1.80%	4.39%	3.16%	1.06%	2.04%	4.18%
10 Years	1.80%	4.91%	3.60%	0.98%	2.34%	4.64%
Full Period	1.80%	13.70%	5.90%	3.31%	3.09%	11.10%