

*Arizona Department of Transportation*

**ARIZONA HIGHWAY USER REVENUE FUND**

**Forecasting Process & Results**

**FY 2005-2014**



**Financial Management Services**

**November 2004**

**ARIZONA HIGHWAY USER REVENUE FUND  
OFFICIAL FORECAST UPDATE  
RISK ANALYSIS OF EXPECTED VALUES  
as of November 2004**

**Introduction**

This document presents the Arizona Department of Transportation's (Department) forecast of expected values for the Arizona Highway User Revenue Fund for the period FY 2005-2014.

**Background**

The State of Arizona taxes motor fuels and collects a variety of fees relating to the registration and operation of motor vehicles in the state. These collections include gasoline and use fuel taxes, motor carrier fees, vehicle license taxes, motor vehicle registration fees, and other miscellaneous fees. These revenues are deposited in the Arizona Highway User Revenue Fund (HURF) and are then distributed to the cities, towns and counties of the State and to the State Highway Fund, which is administered by the Department. These taxes and fees represent the primary source of revenues available to the state for highway construction, improvements and other related expenses.

Since 1986, the Department has estimated Highway Revenues for the State using a comprehensive regression-based econometric model. In 1989, the model was updated by Dr. Alberta Charney of the University of Arizona. The model relied on the estimates of certain "independent variables" to predict future tax revenues. The model's revenue forecast was highly dependent on estimates of the independent variables. Any variability between estimated and actual values could lead to variances in the tax forecast. In order to deal with this variability, the Department introduced the Risk Analysis Process (RAP) in 1992. The RAP relies upon probability analysis and the independent evaluation of the model's variables by an expert panel of economists. This results in a series of forecasts with specified probabilities of occurrence, rather than a single or "best guess" estimate.

In 1997, Hickling Lewis Brod Inc. (HLB), working in conjunction with Dr. Dennis Hoffman of Arizona State University, developed a new forecasting model to incorporate certain economic data generated over the past ten years and evaluate the inclusion of independent variables absent from the 1989 model, to enhance the model's forecasting accuracy. HLB also eliminated independent variables that were either not significant to the model or were not readily available.

The new model also took into consideration 1997 legislation (SB 1144 and SB 1398) which eliminated the weight distance tax on motor carriers, increased weight and use fees for use class vehicles, and changed the point of taxation on fuel. In September 2000 and 2003, HLB reviewed the model and updated the equations. The independent variables contained in the updated model include:

- Arizona real income growth per capita
- Arizona population growth
- Arizona wage & salary employment growth

- Arizona fleet fuel efficiency

### Risk Analysis Panel

The Risk Analysis Process relies heavily on the judgments of an expert panel of economic and financial participants to provide information critical to the forecasting process. In September 2004, a panel of eleven economic and finance 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 updated model to produce a series of forecasts with associated probabilities of occurrence. The panelists' inputs are reflected in the attached tables at the back of this report.

### Model Results

Based on the panel's inputs, the model produced a mean forecast of \$15,521.6 million for the period FY 2005-2014 with a compound growth rate of 4.8 percent.

The Department's Official Forecast for FY 2005-2014 totals \$15,466.6 million with a compound growth rate of 4.8 percent. The Official Forecast incorporates the 50 percent confidence interval for each year of the forecast. The FY 2005 forecast of \$1,228.9 million was developed independently of the econometric model using time-series techniques, historical and projected growth rates from the model, and recent legislative changes.

<b>FY 2005 Official Forecast</b>			
<b>(Dollars in Millions)</b>			
<b>Fiscal</b>	<b>Mean</b>	<b>Official</b>	<b>Confidence</b>
<b><u>Year</u></b>	<b><u>Forecast</u></b>	<b><u>Forecast</u></b>	<b><u>Level</u></b>
<b>2005</b>	\$1,231.8	\$1,228.9	N/A
<b>2006</b>	\$1,308.0	\$1,303.1	50%
<b>2007</b>	\$1,379.7	\$1,378.1	50%
<b>2008</b>	\$1,447.8	\$1,443.4	50%
<b>2009</b>	\$1,515.5	\$1,511.8	50%
<b>2010</b>	\$1,582.9	\$1,574.4	50%
<b>2011</b>	\$1,652.5	\$1,645.5	50%
<b>2012</b>	\$1,724.4	\$1,715.4	50%
<b>2013</b>	\$1,799.9	\$1,794.3	50%
<b>2014</b>	<u>\$1,879.1</u>	<u>\$1,871.7</u>	50%
<b>Total</b>	<b>\$15,521.6</b>	<b>\$15,466.6</b>	
<b>Ave. CGR</b>	<b>4.8%</b>	<b>4.8%</b>	

For comparison purposes, the November 2003 Official Forecast and the November 2004 Official Forecast are shown below:

<b>FY 2005 Comparative Forecast</b>			
<b>(Dollars in Millions)</b>			
<b>Fiscal</b>	<b>Nov. 03</b>	<b>Nov. 04</b>	
<b>Year</b>	<b>Official</b>	<b>Official</b>	
	<b>Forecast</b>	<b>Forecast</b>	<b>Difference</b>
<b>2005</b>	\$1,200.5	\$1,228.9	\$28.4
<b>2006</b>	\$1,256.0	\$1,303.1	\$47.1
<b>2007</b>	\$1,318.2	\$1,378.1	\$59.9
<b>2008</b>	\$1,377.5	\$1,443.4	\$65.9
<b>2009</b>	\$1,440.0	\$1,511.8	\$71.8
<b>2010</b>	\$1,512.5	\$1,574.4	\$61.9
<b>2011</b>	\$1,585.2	\$1,645.5	\$60.3
<b>2012</b>	\$1,659.6	\$1,715.4	\$55.8
<b>2013</b>	\$1,738.7	\$1,794.3	\$55.6
<b>2014</b>	<u>\$1,826.6</u>	<u>\$1,871.7</u>	<u>\$45.1</u>
<b>Total</b>	<b>\$14,914.8</b>	<b>\$15,466.6</b>	<b>\$551.8</b>
<b>Ave. CGR</b>	<b>4.8%</b>	<b>4.8%</b>	

### Summary

The Department's Official Forecast for FY 2005-2014 totals \$15,466.6 million, an increase of \$551.8 million. This reflects the panel members' optimistic view of Arizona's long term economic picture. The Risk Analysis Process panel members forecasted higher growth in Arizona population along with wage and salary employment for FY 2005-2010 compared to their September 2003 inputs. The panel members were mostly consistent with last year's inputs for Arizona's real per capita income growth for FY 2005-2006, but were somewhat less optimistic for the FY 2007-2014 period.

### Supplementary Information

The remaining pages of this report present supplementary information on the detailed results of the Risk Analysis Process, the Department's model and the values of the independent variables forecast by the expert panel. While the Official Forecast period is FY 2005-2014, panel inputs were requested for FY 2005-2009, 2011, 2016, 2021 and 2026. Data displayed for other than the requested years, has been extrapolated.

**HURF OFFICIAL REVENUE FORECAST**  
**With Category Detail and Confidence Interval By Fiscal Year**  
**(Current Dollars in Millions)**

<b>Fiscal Year Percentile</b>	<b>2004 Actual</b>	<b>2005 50%</b>	<b>2006 50%</b>	<b>2007 50%</b>	<b>2008 50%</b>	<b>2009 50%</b>	<b>2010 50%</b>	<b>2011 50%</b>	<b>2012 50%</b>	<b>2013 50%</b>	<b>2014 50%</b>
<b>Gasoline Tax</b>	\$463.5	\$476.9	\$498.6	\$521.5	\$540.5	\$559.4	\$573.9	\$591.6	\$607.4	\$627.0	\$642.8
<b>Use Fuel Tax</b>	179.0	185.6	198.7	210.1	215.7	220.2	226.5	233.7	240.5	247.9	254.8
<b>Motor Carrier Fee</b>	34.6	35.8	38.8	41.6	40.8	38.5	41.1	43.8	46.6	49.5	52.6
<b>Vehicle License Tax</b>	312.3	334.2	363.0	393.3	424.2	463.2	494.9	529.4	566.2	606.1	648.7
<b>Registration</b>	146.6	151.0	156.2	161.3	169.6	175.2	180.3	186.3	191.2	197.1	202.9
<b>Other</b>	43.5	45.4	47.8	50.3	52.6	55.3	57.7	60.7	63.5	66.7	69.9
<b>Total</b>	\$1,179.6	\$1,228.9	\$1,303.1	\$1,378.1	\$1,443.4	\$1,511.8	\$1,574.4	\$1,645.5	\$1,715.4	\$1,794.3	\$1,871.7

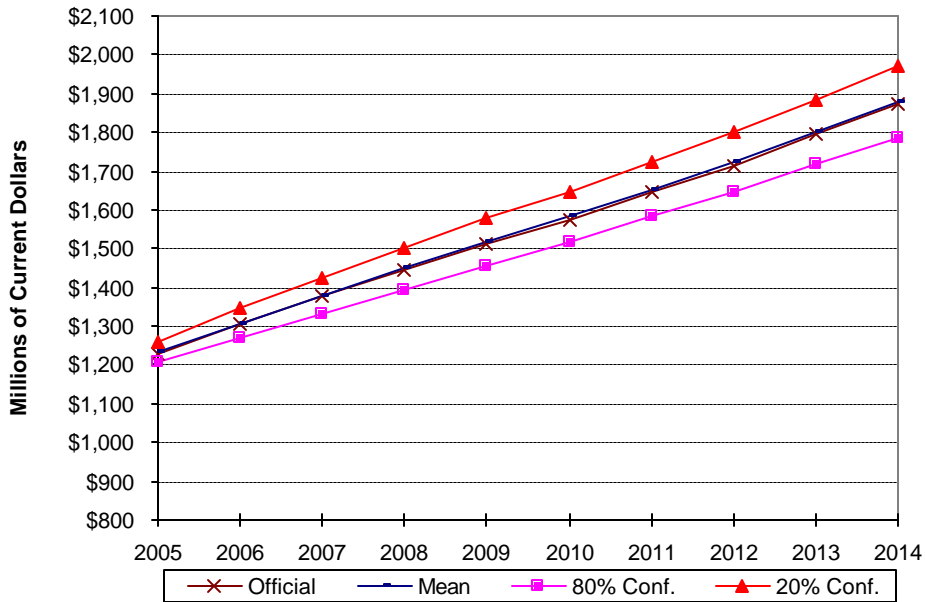
**HURF TOTAL TAX REVENUE RISK ANALYSIS RESULTS**  
**(Current Dollars in Millions)**

<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>2005</b>	\$1,231.8	\$1,271.8	\$1,257.4	\$1,246.8	\$1,237.8	\$1,230.1	\$1,222.7	\$1,214.2	\$1,205.9	\$1,194.8
<b>2006</b>	1,308.0	1,367.5	1,345.2	1,329.4	1,319.0	1,303.1	1,294.4	1,282.0	1,268.9	1,251.9
<b>2007</b>	1,379.7	1,453.6	1,426.0	1,408.4	1,392.0	1,378.1	1,360.4	1,347.8	1,330.1	1,310.9
<b>2008</b>	1,447.8	1,535.0	1,501.1	1,480.7	1,462.3	1,443.4	1,426.1	1,410.1	1,392.4	1,370.5
<b>2009</b>	1,515.5	1,612.3	1,577.4	1,552.8	1,531.7	1,511.8	1,489.5	1,472.2	1,456.9	1,428.1
<b>2010</b>	1,582.9	1,684.1	1,648.5	1,623.3	1,601.8	1,574.4	1,556.1	1,535.8	1,518.3	1,489.3
<b>2011</b>	1,652.5	1,762.2	1,722.6	1,693.3	1,671.4	1,645.5	1,626.5	1,602.7	1,583.5	1,551.3
<b>2012</b>	1,724.4	1,840.9	1,800.1	1,770.2	1,744.1	1,715.4	1,696.4	1,668.6	1,646.6	1,619.4
<b>2013</b>	1,799.9	1,925.2	1,882.1	1,848.9	1,820.1	1,794.3	1,768.5	1,741.0	1,715.8	1,684.0
<b>2014</b>	1,879.1	2,012.9	1,970.8	1,930.7	1,896.8	1,871.7	1,850.7	1,820.5	1,787.7	1,748.9

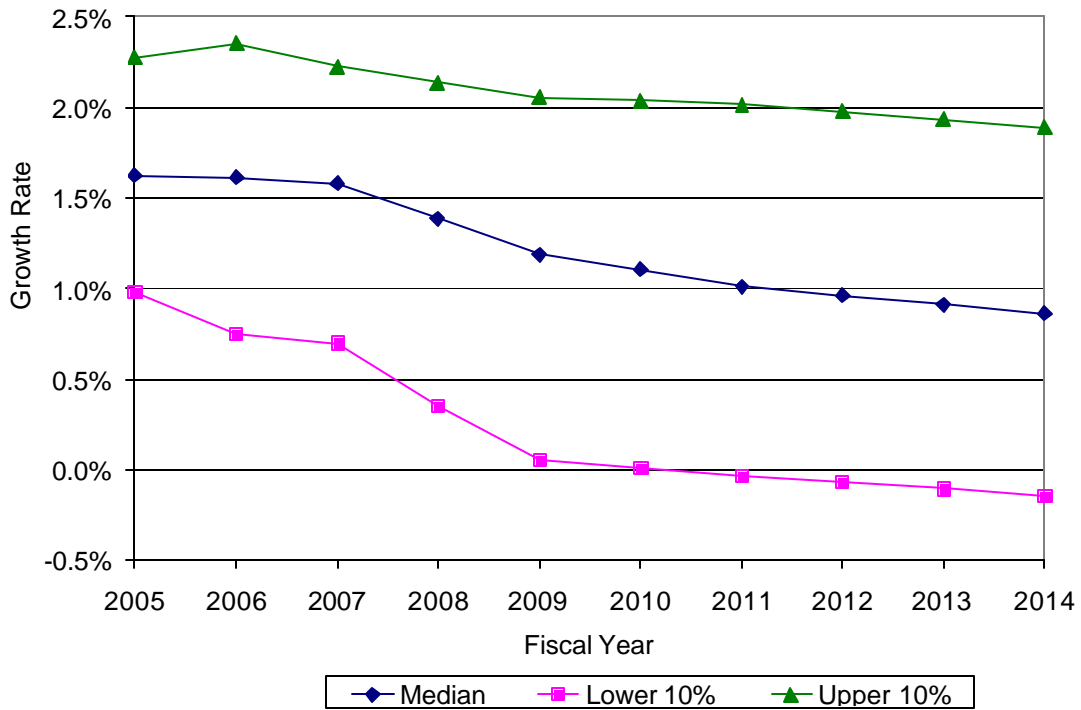
# OFFICIAL FORECAST RESULTS

(Current Dollars in Millions)

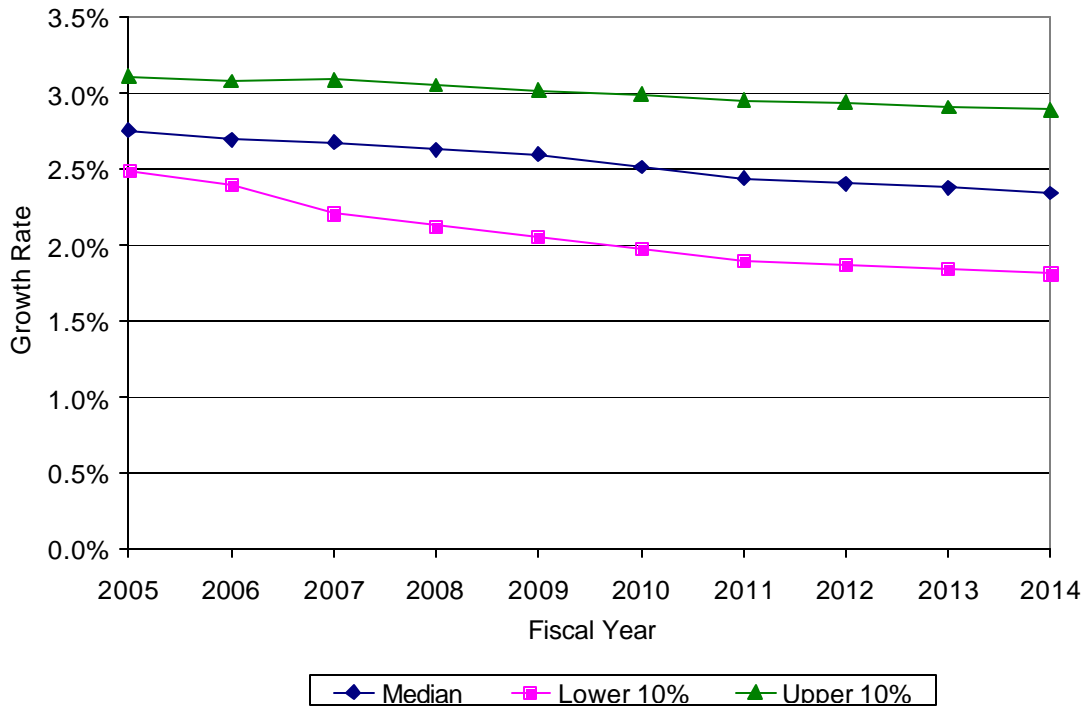
Fiscal Year	Official Forecast	Mean Forecast	80% Conf. Interval	20% Conf. Interval
2005	\$1,228.9	\$1,231.8	\$1,205.9	\$1,257.4
2006	1,303.1	1,308.0	1,268.9	1,345.2
2007	1,378.1	1,379.7	1,330.1	1,426.0
2008	1,443.4	1,447.8	1,392.4	1,501.1
2009	1,511.8	1,515.5	1,456.9	1,577.4
2010	1,574.4	1,582.9	1,518.3	1,648.5
2011	1,645.5	1,652.5	1,583.5	1,722.6
2012	1,715.4	1,724.4	1,646.6	1,800.1
2013	1,794.3	1,799.9	1,715.8	1,882.1
2014	1,871.7	1,879.1	1,787.7	1,970.8
<b>Total</b>	<b>\$15,466.6</b>	<b>\$15,521.6</b>	<b>\$14,906.1</b>	<b>\$16,131.2</b>



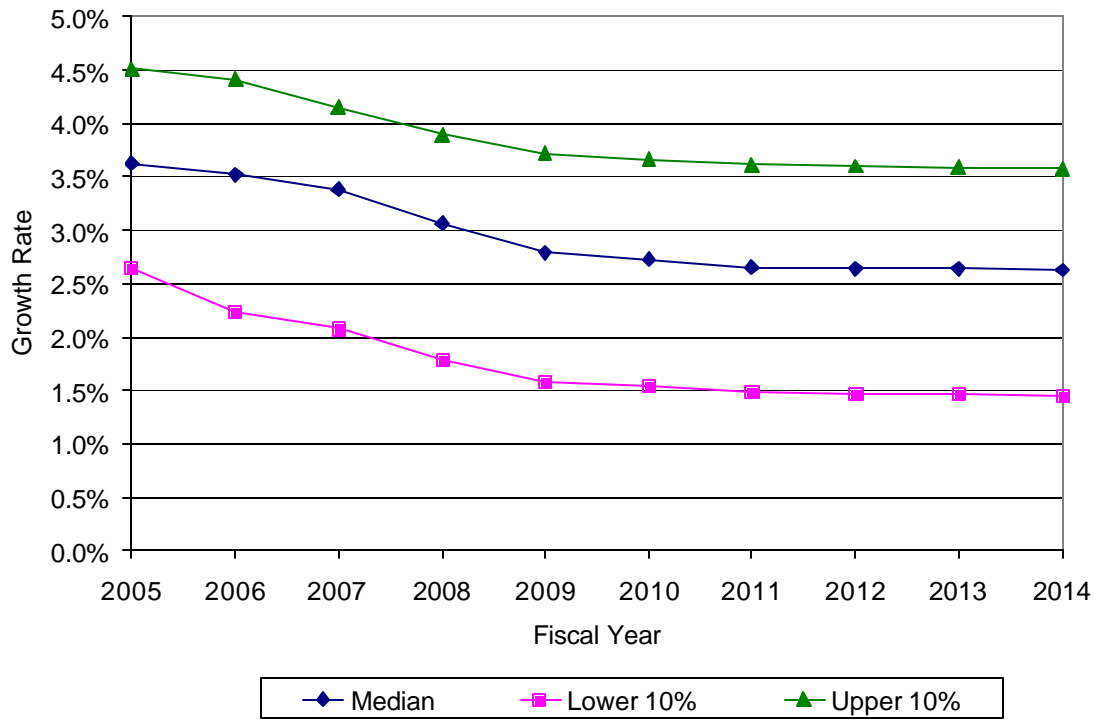
## ARIZONA REAL INCOME PER CAPITA



## ARIZONA POPULATION GROWTH



## ARIZONA WAGE & SALARY EMPLOYMENT



## PANELIST MEAN DATA VALUES

	Income Growth	Population Growth	Wage & Salary Employment
<b>FY 2005</b>			
Upper 10%	2.28	3.10	4.52
Lower 10%	0.98	2.48	2.65
Median	1.63	2.75	3.63
<b>FY 2006</b>			
Upper 10%	2.35	3.08	4.41
Lower 10%	0.75	2.39	2.25
Median	1.61	2.69	3.53
<b>FY 2007</b>			
Upper 10%	2.23	3.09	4.15
Lower 10%	0.70	2.21	2.08
Median	1.58	2.67	3.39
<b>FY 2008</b>			
Upper 10%	2.14	3.05	3.90
Lower 10%	0.35	2.12	1.80
Median	1.39	2.63	3.06
<b>FY 2009</b>			
Upper 10%	2.05	3.06	3.72
Lower 10%	0.05	2.05	1.58
Median	1.19	2.59	2.80
<b>FY 2011</b>			
Upper 10%	2.02	2.95	3.61
Lower 10%	-0.04	1.90	1.49
Median	1.01	2.44	2.65
<b>FY 2016</b>			
Upper 10%	1.80	2.85	3.56
Lower 10%	-0.22	1.75	1.42
Median	0.76	2.27	2.61
<b>FY 2021</b>			
Upper 10%	1.83	2.79	3.55
Lower 10%	-0.18	1.65	1.34
Median	0.83	2.17	2.54
<b>FY 2026</b>			
Upper 10%	1.89	2.75	3.61
Lower 10%	-0.32	1.54	1.29
Median	0.79	2.09	2.49

All data in the above table are percentage growth rates.

## ARIZONA REAL PER CAPITA INCOME GROWTH

	2005	2006	2007	2008	2009	2011	2016	2021	2026
<b>Panelist 1</b>									
Upper 10%	1.50	2.00	2.50	2.00	1.30	1.00	1.00	1.50	1.50
Lower 10%	0.40	0.40	0.60	0.30	-1.50	-1.80	-1.00	0.20	0.20
Median	0.90	1.10	1.80	1.10	0.10	-0.50	-0.10	0.80	0.80
<b>Panelist 2</b>									
Upper 10%	2.20	2.20	2.20	2.10	2.00	2.00	1.50	1.25	1.25
Lower 10%	1.25	0.75	0.75	0.70	0.60	0.50	0.40	0.00	0.00
Median	2.00	1.70	1.70	1.50	1.50	1.50	1.00	0.75	0.75
<b>Panelist 3</b>									
Upper 10%	2.30	2.40	2.50	2.60	2.80	3.00	2.90	2.70	2.70
Lower 10%	0.70	0.40	0.40	0.30	0.10	-0.20	-1.00	-1.20	-1.50
Median	1.60	1.60	1.60	1.50	1.50	1.40	1.30	1.20	1.00
<b>Panelist 4</b>									
Upper 10%	3.00	3.20	3.20	3.30	3.30	3.20	3.10	3.00	3.00
Lower 10%	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Median	2.00	2.00	2.00	2.10	2.10	2.00	1.90	1.90	1.80
<b>Panelist 5</b>									
Upper 10%	2.80	3.80	3.00	2.50	2.60	2.90	2.80	2.90	3.00
Lower 10%	0.00	0.00	-0.50	-0.50	-0.40	0.00	0.00	0.00	0.00
Median	1.30	2.30	2.00	1.80	1.50	1.40	1.30	1.40	1.50
<b>Panelist 6</b>									
Upper 10%	2.30	2.30	2.10	1.90	1.50	1.20	1.00	0.90	1.00
Lower 10%	1.30	1.30	1.00	0.50	0.50	0.00	-0.50	-0.50	-1.10
Median	1.80	1.80	1.60	1.30	1.00	0.50	0.00	-0.30	-0.50
<b>Panelist 7</b>									
Upper 10%	2.30	2.00	1.90	1.90	1.90	1.70	1.30	1.20	1.10
Lower 10%	1.40	1.10	1.10	1.00	0.90	0.80	0.30	0.10	0.00
Median	2.10	1.70	1.70	1.60	1.70	1.40	1.00	0.90	0.80
<b>Panelist 8</b>									
Upper 10%	2.50	1.50	1.20	1.00	1.00	1.20	0.70	0.70	0.70
Lower 10%	1.70	1.00	0.80	0.60	0.60	0.80	0.30	0.30	0.30
Median	1.90	1.20	1.00	0.80	0.80	1.00	0.50	0.50	0.50
<b>Panelist 9</b>									
Upper 10%	1.50	1.50	1.00	1.00	1.00	1.50	1.50	1.50	2.00
Lower 10%	0.80	0.50	0.00	-0.50	-1.00	-1.00	-1.50	-1.50	-2.00
Median	1.00	1.00	0.50	0.50	0.00	0.00	0.00	0.00	0.00
<b>Panelist 10</b>									
Upper 10%	2.40	2.50	2.60	2.70	2.50	2.00	0.50	0.50	0.50
Lower 10%	1.20	1.30	1.40	0.90	0.30	0.00	-1.50	-1.50	-1.50
Median	1.80	1.90	2.00	1.70	1.50	1.00	-0.50	-0.50	-0.50
<b>Panelist 11</b>									
Upper 10%	2.25	2.50	2.30	2.50	2.70	2.50	3.50	4.00	4.00
Lower 10%	1.00	0.50	1.10	-0.40	-0.50	-0.50	1.20	1.20	1.20
Median	1.50	1.40	1.50	1.40	1.40	1.40	2.00	2.50	2.50

All data in the above table are percentage growth rates.

## ARIZONA POPULATION GROWTH

	2005	2006	2007	2008	2009	2011	2016	2021	2026
<b>Panelist 1</b>									
Upper 10%	3.10	3.00	3.00	2.90	2.90	2.80	2.80	2.70	2.60
Lower 10%	2.50	2.40	2.30	2.00	1.80	1.40	1.40	1.40	1.40
Median	2.80	2.40	2.70	2.60	2.60	2.40	2.10	2.00	2.00
<b>Panelist 2</b>									
Upper 10%	3.20	3.20	3.10	3.00	3.00	2.90	2.90	2.80	2.80
Lower 10%	2.50	2.50	2.40	2.30	2.20	2.20	2.10	1.90	1.80
Median	2.90	2.80	2.80	2.75	2.70	2.60	2.50	2.40	2.30
<b>Panelist 3</b>									
Upper 10%	3.00	3.00	3.10	3.10	3.10	3.00	3.10	3.10	3.00
Lower 10%	2.20	2.00	1.80	1.80	1.70	1.70	1.60	1.50	1.40
Median	2.80	2.50	2.40	2.40	2.30	2.30	2.20	2.00	2.00
<b>Panelist 4</b>									
Upper 10%	3.20	3.20	3.20	3.10	3.00	2.80	2.80	2.50	2.50
Lower 10%	2.50	2.50	2.50	2.40	2.30	2.00	2.00	1.80	1.60
Median	2.51	2.80	2.80	2.70	2.70	2.50	2.30	2.10	2.00
<b>Panelist 5</b>									
Upper 10%	3.50	3.40	3.70	3.60	3.50	3.40	3.40	3.40	3.40
Lower 10%	2.80	2.40	1.70	1.60	1.50	1.40	1.40	1.40	1.40
Median	3.00	3.00	3.00	2.80	2.50	2.40	2.40	2.40	2.40
<b>Panelist 6</b>									
Upper 10%	3.00	3.00	2.90	2.90	2.80	2.60	2.30	2.30	2.30
Lower 10%	2.60	2.60	2.40	2.40	2.20	2.10	1.90	1.60	1.40
Median	2.80	2.80	2.70	2.70	2.60	2.40	2.20	2.00	1.80
<b>Panelist 7</b>									
Upper 10%	3.60	3.60	3.40	3.20	3.20	3.20	2.80	2.70	2.50
Lower 10%	2.60	2.60	2.50	2.50	2.30	2.30	2.20	2.10	1.80
Median	2.90	2.90	2.80	2.80	2.70	2.70	2.50	2.40	2.20
<b>Panelist 8</b>									
Upper 10%	3.20	3.10	3.00	3.00	2.90	2.80	2.40	2.40	2.40
Lower 10%	2.60	2.50	2.50	2.40	2.30	2.00	1.70	1.70	1.70
Median	2.90	2.80	2.70	2.60	2.50	2.20	2.00	2.00	2.00
<b>Panelist 9</b>									
Upper 10%	2.90	2.90	2.90	2.70	2.60	2.50	2.50	2.50	2.50
Lower 10%	2.50	2.40	2.00	1.70	1.60	1.50	1.00	1.00	1.00
Median	2.70	2.60	2.50	2.40	2.30	2.00	1.70	1.70	1.70
<b>Panelist 10</b>									
Upper 10%	3.00	3.00	3.00	3.20	3.40	3.20	3.20	3.20	3.20
Lower 10%	2.80	2.80	2.90	2.80	2.80	2.60	2.40	2.20	2.00
Median	2.70	2.70	3.00	3.00	3.10	2.90	2.80	2.70	2.60
<b>Panelist 11</b>									
Upper 10%	3.11	3.18	3.20	3.21	3.21	3.25	3.15	3.10	3.08
Lower 10%	1.89	1.84	1.84	1.80	1.81	1.70	1.60	1.58	1.40
Median	2.50	2.50	2.50	2.50	2.50	2.40	2.30	2.20	2.00

All data in the above table are percentage growth rates.

## ARIZONA WAGE & SALARY EMPLOYMENT GROWTH

	2005	2006	2007	2008	2009	2011	2016	2021	2026
<b>Panelist 1</b>									
Upper 10%	4.10	4.90	5.30	5.50	4.00	4.50	5.00	5.50	6.00
Lower 10%	2.20	2.40	3.00	2.80	1.00	1.50	2.00	2.50	2.50
Median	3.40	4.20	5.20	4.60	2.00	2.50	3.50	4.50	4.50
<b>Panelist 2</b>									
Upper 10%	4.50	4.75	4.50	4.25	3.50	3.00	3.00	3.00	2.75
Lower 10%	2.50	2.50	1.50	1.50	1.00	1.50	1.50	1.50	1.00
Median	3.80	4.00	3.80	3.50	3.00	2.70	2.50	2.40	2.20
<b>Panelist 3</b>									
Upper 10%	4.80	4.50	4.30	4.40	4.50	4.40	4.50	4.60	4.50
Lower 10%	3.00	1.70	1.60	1.30	1.20	1.10	1.00	0.90	0.70
Median	4.00	3.30	3.10	2.80	2.80	2.70	2.50	2.30	2.30
<b>Panelist 4</b>									
Upper 10%	5.50	5.50	5.30	5.00	5.00	4.50	4.00	4.00	4.00
Lower 10%	2.80	2.50	2.50	2.50	2.50	2.30	2.10	2.00	2.00
Median	3.70	3.80	3.90	3.90	4.00	3.80	3.60	3.20	3.00
<b>Panelist 5</b>									
Upper 10%	6.00	5.20	5.00	4.60	3.80	3.70	4.00	4.00	4.00
Lower 10%	2.50	2.70	2.50	2.10	1.30	1.20	1.50	1.50	1.50
Median	4.00	4.20	4.00	3.60	2.80	2.70	3.00	3.00	3.00
<b>Panelist 6</b>									
Upper 10%	3.60	3.60	3.40	3.50	3.30	3.30	3.30	3.30	3.30
Lower 10%	2.00	2.00	1.80	2.00	1.80	1.60	1.60	1.60	1.60
Median	2.80	2.80	2.60	2.60	2.60	2.50	2.50	2.50	2.50
<b>Panelist 7</b>									
Upper 10%	4.80	4.60	4.50	4.30	4.00	3.80	3.60	3.50	3.40
Lower 10%	3.00	1.50	2.70	2.30	2.00	1.80	1.60	1.60	1.40
Median	4.00	3.30	3.20	3.10	3.00	2.90	2.80	2.60	2.40
<b>Panelist 8</b>									
Upper 10%	5.00	5.50	4.50	3.50	3.00	3.00	3.00	3.00	3.00
Lower 10%	4.00	4.50	3.50	2.50	2.00	2.00	2.00	2.00	2.00
Median	4.50	5.00	4.00	3.00	2.50	2.50	2.50	2.50	2.50
<b>Panelist 9</b>									
Upper 10%	4.50	4.30	4.00	3.80	3.80	3.50	3.30	3.20	3.00
Lower 10%	3.00	2.80	2.70	2.50	2.50	2.00	1.50	1.00	1.00
Median	4.00	3.80	3.60	3.50	3.50	3.00	2.50	2.30	2.00
<b>Panelist 10</b>									
Upper 10%	4.50	4.30	4.10	3.30	3.10	3.00	3.00	3.00	3.00
Lower 10%	3.00	2.80	2.60	1.80	1.60	1.50	1.50	1.50	1.50
Median	4.00	3.80	3.60	2.80	2.60	2.50	2.50	2.50	2.50
<b>Panelist 11</b>									
Upper 10%	2.40	3.00	3.50	3.50	3.50	4.10	4.10	4.20	4.40
Lower 10%	1.20	1.00	1.25	1.25	1.00	1.00	1.00	0.80	0.60
Median	1.70	2.25	3.00	3.00	2.50	2.50	2.50	2.30	2.10

All data in the above table are percentage growth rates.

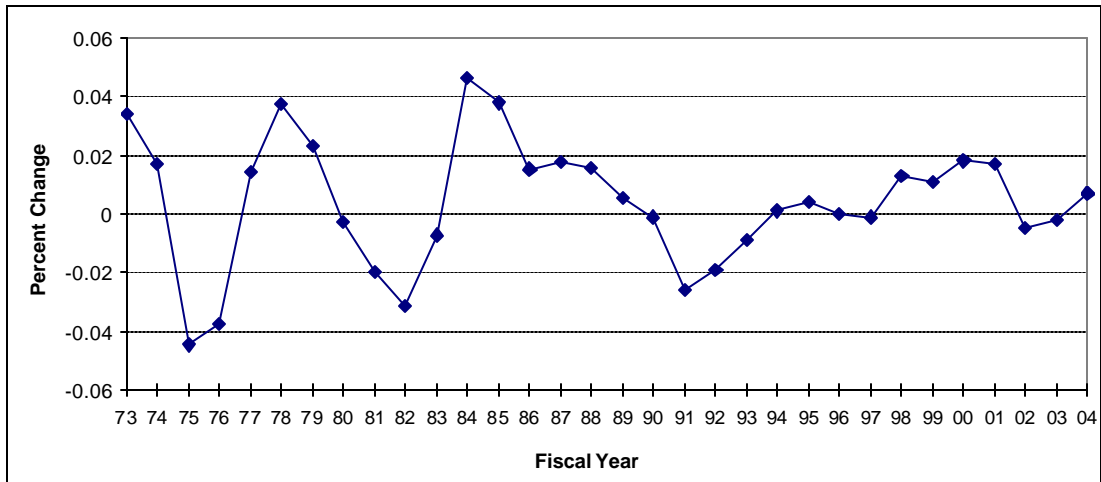
**HISTORICAL DATA**  
**ARIZONA REAL PER CAPITA INCOME GROWTH**  
 Using Phoenix CPI to Measure Inflation  
 (Annual Percent Change)

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

1960	1970	1980	-0.3%	1990	-0.1%	2000	1.8%
1961	1971	1981	-2.0%	1991	-2.6%	2001	1.7%
1962	1972	1982	-3.1%	1992	-1.9%	2002	-0.5%
1963	1973	1983	-0.7%	1993	-0.9%	2003	-0.2%
1964	1974	1984	4.6%	1994	0.1%	2004*	0.7%
1965	1975	1985	3.8%	1995	0.4%	2005	
1966	1976	1986	1.5%	1996	0.0%	2006	
1967	1977	1987	1.7%	1997	-0.1%	2007	
1968	1978	1988	1.6%	1998	1.3%	2008	
1969	1979	1989	0.5%	1999	1.1%	2009	

\* Estimate

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	-0.5%	1.8%	0.7%	1.1%	-0.4%	1.8%
10 Years	-0.5%	1.8%	0.6%	0.8%	-0.2%	1.7%
Full Period	-4.5%	4.6%	0.4%	2.2%	-2.5%	3.3%

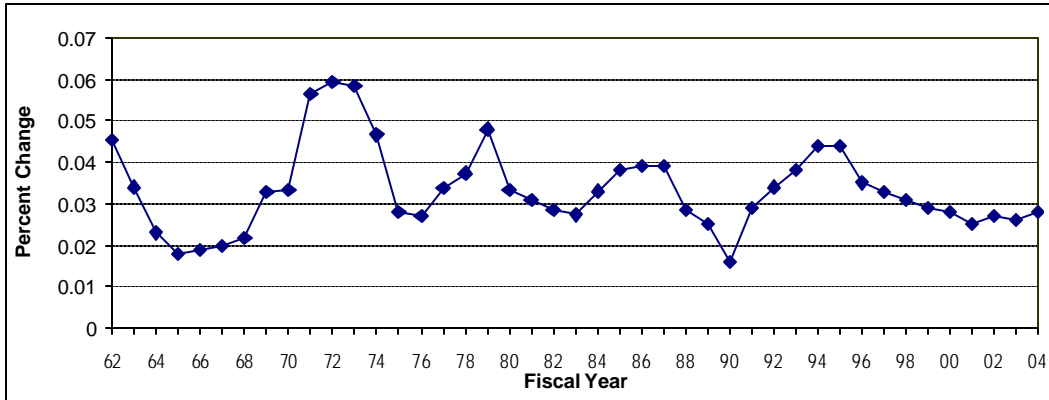
**Historical Data**  
**ARIZONA POPULATION GROWTH**  
**(Annual Percent Change)**

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

1960		1970 3.3%	1980 3.3%	1990 1.6%	2000 2.8%
1961		1971 5.6%	1981 3.1%	1991 2.9%	2001 2.5%
1962 4.5%		1972 5.9%	1982 2.8%	1992 3.4%	2002 2.7%
1963 3.4%		1973 5.8%	1983 2.7%	1993 3.8%	2003 2.6%
1964 2.3%		1974 4.7%	1984 3.3%	1994 4.4%	2004 2.8%
1965 1.8%		1975 2.8%	1985 3.8%	1995 4.4%	2005
1966 1.9%		1976 2.7%	1986 3.9%	1996 3.5%	2006
1967 2.0%		1977 3.4%	1987 3.9%	1997 3.3%	2007
1968 2.2%		1978 3.7%	1988 2.9%	1998 3.1%	2008
1969 3.3%		1979 4.8%	1989 2.5%	1999 2.9%	2009

DES smoothed out the 1991 to 2003. FY 2004-2020 based on annual growth rates in ASU Population Estimates and Projections report dated December 2001. FY 2021-2026 based on trend average.

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	2.5%	2.8%	2.7%	0.1%	2.5%	2.9%
10 Years	2.5%	4.4%	3.1%	0.6%	2.6%	3.6%
Full Period	1.6%	5.9%	3.3%	1.0%	2.2%	4.6%

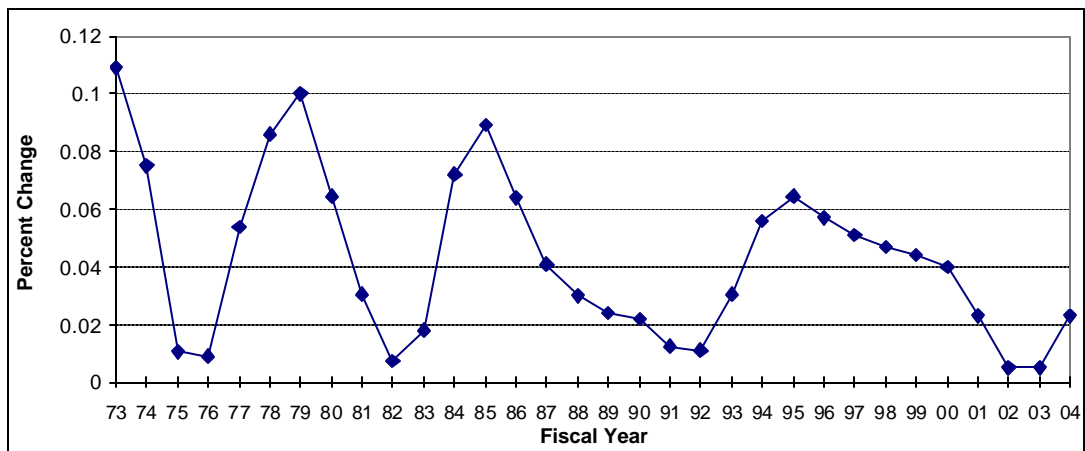
**HISTORICAL DATA  
ARIZONA WAGE & SALARY EMPLOYMENT GROWTH  
(Annual Percent Change)**

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

1960	1970	1980	6.5%	1990	2.2%	2000	4.0%
1961	1971	1981	3.1%	1991	1.3%	2001	2.3%
1962	1972	1982	0.8%	1992	1.1%	2002	0.5%
1963	1973	1983	1.8%	1993	3.1%	2003	0.5%
1964	1974	1984	7.2%	1994	5.6%	2004 *	2.3%
1965	1975	1985	8.9%	1995	6.5%	2005	
1966	1976	1986	6.4%	1996	5.7%	2006	
1967	1977	1987	4.1%	1997	5.1%	2007	
1968	1978	1988	3.0%	1998	4.7%	2008	
1969	1979	1989	2.4%	1999	4.4%	2009	

\* Estimate

**HISTORICAL DATA - GRAPHED**



**HISTORICAL DATA - ANALYSIS**

Period	Historical		Mean	Std. Dev.	80% Range	
	Min.	Max.			Lower	Upper
5 Years	0.5%	4.0%	1.9%	1.5%	0.5%	3.3%
10 Years	0.5%	6.5%	3.6%	2.1%	0.5%	5.8%
Full Period	0.5%	10.9%	4.3%	2.9%	0.9%	8.5%