

TAX REDUCTIONS, THE ECONOMY AND THE DEFICIT IN THE ARIZONA STATE GOVERNMENT GENERAL FUND

A Report from the Office of the University Economist

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SUMMARY

The state government general fund shortfall in the current fiscal year is projected to be near \$1 billion — even after transfers of monies from the rainy-day fund and other funds. This is in addition to a shortfall of more than \$1 billion in the last fiscal year. At current trends, the budget may ultimately grow beyond a billion dollars in the current year and an even larger deficit is projected for the next fiscal year.

While the current economic recession is significantly worsening the size of the budget deficit, the real problem is a structural deficit caused by substantial tax cuts not offset by equivalent spending decreases, and by not putting enough money into the rainy-day fund. The state faces the prospect of budget deficits every time economic growth slows.

Numerous and substantial tax reductions passed by the Legislature over the last 15 years have not stimulated the Arizona economy or caused a surge in government revenues. Relative to the size of the Arizona economy, state government general fund revenue has fallen significantly since 1995, likely reaching a historical low in the near term. Expenditures also have declined relative to the size of the economy. Spending increases beyond the needs of a growing state are not a cause of the current deficit or the long-term structural deficit.

State and local government revenues and expenditures in Arizona also are historically low compared to the rest of the nation. For example, the Tax Foundation ranks the Arizona tax burden, defined as per capita taxes as a share of per capita income, as 41st in the nation in 2008, the lowest on record.

Much of the structural deficit results from the tax cuts of the last 15 years. These revenue cuts were not matched by spending cuts of a commensurate size because of the increasing population-driven demands for public services and infrastructure, such as education and public safety. The structural deficit also results from an outdated tax code that creates large cyclical swings in revenue and causes revenue to grow more slowly than the pace of the overall economy. Many of the changes to the tax code during the last 15 years exacerbated these problems.

Other actions also have contributed to the near-term dilemma. For example, the Legislature weakened the provisions of the original legislation setting up the budget stabilization fund. The result is less monies available for transfer from the rainy-day fund to the general fund, and a greater need for spending reductions or revenue enhancements to balance the budget, during a recession.

A deficit of \$1 billion represents 10 percent of the state's general fund appropriations. However, since 45 percent of the general fund is protected from budget cuts, the remainder of the general fund is facing a deficit equal to 18 percent of its budget.

The current state government general fund deficit will need to be closed through spending cuts and/or revenue enhancements. All of the “easy” budget fixes were used to balance last year's budget. Further, only limited monies remain in the rainy-day fund. The mix of expenditure reductions and revenue enhancements used to balance the budget should be carefully considered for several reasons.

First, unlike much of the private sector, demand does not decline for most public-sector services during a recession. In some government programs, demand rises. Thus, imposed decreases in public spending during recessions come at the same time that demand for public services is stable or rising, resulting in a reduction in the quantity and/or quality of government services. For the most disadvantaged of those consuming public services, real hardship can ensue.

Second, spending reductions by governments during recessions worsen economic conditions. Less spending for goods and services by governments will result in reduced demand for private-sector goods and services. If spending reductions are accomplished by employee layoffs, then private-sector businesses are affected further as laid-off workers either leave the state or cut back substantially on their purchases. It is not realistic to expect that many laid-off government employees will find jobs in Arizona until the recession has ended.

The result of state spending cuts of \$1 billion would be to very significantly worsen and lengthen the economic recession. A total of approximately 20,000 workers (8,000 state government and university workers and 12,000 others) might lose their jobs.

Third, cutting the public-sector workforce causes public-sector revenues to decline as the laid-off workers spend less and experience losses in income. Further, the savings to state government of not paying the former workers' salaries and benefits are partially offset by rising payments to the ex-workers for unemployment insurance and other public health and welfare programs.

Fourth, the negative economic effect of a tax increase would be no larger than that of a government spending decrease. In fact, it should be less. Some of the tax payments would come from personal savings. A portion of a tax increase would be exported to nonresidents and to the federal government (since state taxes are federally deductible).

The negative effect of a tax increase would be spread across the state, with individual households and businesses suffering only slightly. In contrast, a spending reduction would have substantial negative effects on a relatively small number of businesses — those selling directly to state government and to laid-off government workers. A relatively small number of individuals also would bear the brunt of a government spending reduction: laid-off government employees and workers at hard-hit businesses.

Fifth, the size of a tax increase would be relatively small. Even in the extreme example of a tax increase of \$1 billion that affected individuals only and was not exported, the increase would equate to only about \$150 per Arizona resident, or \$400 per household. A tax increase of this magnitude would offset only about a third of the state tax cuts implemented between 1993 and 2008 and would be considerably less than the federal tax rebates distributed in May. Arizona still would rank as a low-tax state at 37th, just lower than Mississippi, according to Tax Foundation data (assuming no other states increased taxes).

Sixth, without enhancing revenues, the state will be unable to adequately support a growing population. In particular, Arizona faces substantial infrastructure needs over the next quarter century.

TAX LAW CHANGES

Changes to Arizona's tax laws have been numerous since 1989¹, following a period of limited changes during the mid-1980s. Initially (from 1989 through 1992), the changes resulted in substantial increases in tax collections. Since then, the changes have resulted in reductions in tax collections in all but two years, as Arizona policymakers have taken many opportunities to reduce tax burdens, primarily for individuals. Substantial reductions were implemented in each year from 1995 through 2001, and again in 2007 and 2008.

As estimated by the Joint Legislative Budget Committee, the nominal dollar effects of the tax law changes are shown in Table 1. The cumulative effect of these annual changes sums to a revenue loss of about \$1.18 billion. Adjusting for inflation, the cumulative loss is somewhat greater at \$1.29 billion. Adjusting for population growth as well as inflation places the loss at \$1.38 billion. The limited effects from the adjustments for inflation and population growth result from tax increases, not decreases, in the earliest years of the time series. Tax law changes since 1993 cumulate to a decline in general fund revenues of about \$1.63 billion on a nominal basis and \$2.58 billion after adjusting for inflation and population growth.

Expressed as a percentage of general fund expenditures, the effects of the tax law changes were large from 1989 through 1991, raising revenues at least 3.6 percent in each of the three years. Between 1995 and 2001, the decreases in revenues ranged from 1.8 to 6.5 percent of the size of the general fund. In 2007 and 2008, the tax cuts amounted to about 2 percent of the size of the general fund. The tax increases of 1989 through 1992 were reversed by 1996 on a nominal basis, by 1997 on a real basis, and by 1998 on a real per capita basis. Tax decreases since then have lowered general fund revenues to considerably below the historical norm, after adjustments for economic and population growth.

Tax Changes and the Economy

The relationship between tax law changes and economic performance was examined using quarterly earnings data from the U.S. Bureau of Economic Analysis. The quarterly data allow the economic figures to be aligned with the fiscal year general fund data. While gross domestic product by state is the broadest measure of the economy, inflation-adjusted data go back only to 1990 and the data are only available annually. Thus, the next-broadest economic measure — earnings — is used. The data were adjusted for inflation using the quarterly GDP implicit price deflator.

Changes in general fund revenues resulting from tax law changes in Arizona have been inversely related to real earnings growth. The highest correlation of $-.64$ occurs when the percent change in economic growth leads by one year the tax change as a share of general fund expenditures. The second highest correlation of $-.58$ occurs when economic growth and the magnitude of the tax change in the same year are compared. Thus, the change in economic performance precedes the change in taxes. When the economy is strong, surpluses in the general fund are realized, allowing taxes to be cut while still balancing the budget as required by the Arizona Constitution. When the economy is weak, budget deficits occur, precluding tax cuts and sometimes resulting in tax increases.

¹ All years in this paper refer to the July 1 to June 30 fiscal year used by the State of Arizona. Measures of economic growth and inflation were converted to a fiscal year basis.

The effects of the tax law changes expressed as a percentage of general fund expenditures are shown in Chart 1 compared to inflation-adjusted earnings growth. As seen in the chart, the Arizona economy is highly cyclical, with the growth rate of inflation-adjusted earnings ranging from about 0 to 10 percent over the last 25 years. While real growth in this measure has not been more than marginally negative during recessions, this is due to the state's rapid population growth. Real per capita earnings fell from 1989 through 1992, from 2002 through 2003, and from 2007 through 2008.

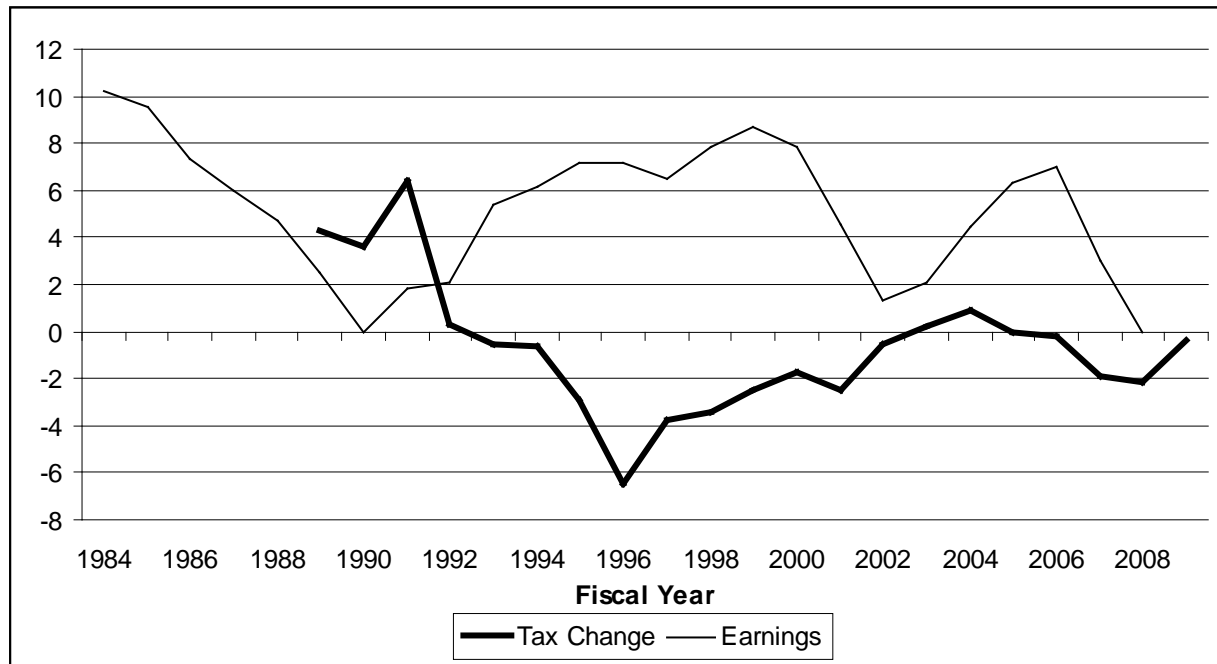
**TABLE 1
ARIZONA GENERAL FUND TAX CHANGES**

Fiscal Year	Nominal Incremental Tax Change*	GDP Implicit Price Deflator	Arizona Population	Real Incremental Tax Change*	Real Per Capita Incremental Tax Change
1989	\$121,700,000	0.6377	3,535,183	\$190,828,369	\$53.98
1990	109,300,000	0.6609	3,622,184	165,368,553	45.65
1991	208,376,000	0.6867	3,684,097	303,435,939	82.36
1992	9,707,500	0.7062	3,788,576	13,746,880	3.63
1993	-19,343,100	0.7219	3,915,740	-26,794,189	-6.84
1994	-25,452,500	0.7377	4,065,440	-34,503,339	-8.49
1995	-120,693,000	0.7537	4,245,089	-160,144,456	-37.72
1996	-284,668,400	0.7684	4,432,499	-370,471,655	-83.58
1997	-174,537,300	0.7821	4,586,940	-223,155,116	-48.65
1998	-172,380,000	0.7926	4,736,990	-217,492,295	-45.91
1999	-141,790,900	0.8025	4,883,342	-176,679,543	-36.18
2000	-104,614,100	0.8169	5,023,823	-128,057,559	-25.49
2001	-157,803,100	0.8358	5,167,260	-188,799,044	-36.54
2002	-33,171,300	0.8538	5,301,097	-38,849,963	-7.33
2003	12,381,000	0.8696	5,444,881	14,237,087	2.61
2004	57,418,100	0.8906	5,579,307	64,474,142	11.56
2005	-4,942,000	0.9183	5,744,367	-5,381,779	-0.94
2006	-18,050,000	0.9498	5,952,083	-19,003,599	-3.19
2007	-193,758,600	0.9777	6,165,689	-198,177,015	-32.14
2008	-217,510,000	1.0000	6,338,755	-217,510,000	-34.31
2009	-34,550,000	1.0250	6,475,000	-33,707,317	-5.21
Cumulative	-1,184,381,700			-1,286,635,898	-212.73
Cumulative Real Per Capita Multiplied by 2009 Population >>>>>>>					-1,377,424,565

* Each yearly amount represents the incremental dollar value of tax law changes relative to the prior year.

Sources: The nominal incremental tax change is from the Arizona Joint Legislative Budget Committee, published in the State of Arizona 2008 Tax Handbook. The GDP Deflator is from the U.S. Department of Commerce, Bureau of Economic Analysis; it is the fiscal year average, with the base being FY 2008. The Arizona population estimate is from the U.S. Department of Commerce, Census Bureau; it is the figure at the beginning of the fiscal year. The GDP deflator and population for FY 2009 were projected.

**CHART 1
INCREMENTAL TAX CHANGE AS A SHARE OF GENERAL FUND EXPENDITURES
AND PERCENT CHANGE IN INFLATION-ADJUSTED EARNINGS**



Sources: Arizona Joint Legislative Budget Committee and U.S. Department of Commerce, Bureau of Economic Analysis.

A close examination of Chart 1 reveals that economic performance leads the changes in tax policy. Economic growth during the 1980s peaked at around 10 percent in 1984 and 1985 and was down to 4.7 percent in 1988, the year preceding the first year of tax increases. Economic gains continued to slow, bottoming at no change in 1990. After the recession that ended in 1991, economic growth in Arizona began to accelerate despite the state’s relatively high tax burden. Real economic growth reached 5 percent in 1993 and rose further to 6 percent in 1994 and 7 percent in 1995. The first tax cut did not occur until 1993 and was minimal; it was not until 1995 that the first sizable tax decrease occurred, considerably after economic growth had strengthened. Economic gains remained at 7 to 8 percent through 2000, even though the state’s tax burden fell from above to considerably below the historic norm during this period.

Despite historically low tax burdens, the state’s economic growth rate fell sharply during 2001 and 2002, ending the long period of tax cuts. Following the 2001 calendar year recession, economic growth again rose. Despite a historically low tax burden, economic growth rates during the expansion were less than those of either of the two prior expansions. Using general fund surpluses that largely can be traced to the real estate boom, another round of substantial tax cuts were implemented in 2007 and 2008, with smaller reductions in 2006 and 2009. Despite these tax reductions, economic growth fell sharply from 2006 to 2008, with no gain registered in 2008.

Thus, the level of state tax collections in Arizona has had no impact on the state's economic growth over the last 25 years. However, the possibility that economic growth in Arizona relative to the national average has been affected by tax levels needs to be examined.

Based on the Tax Foundation's measure of state and local government tax burden — defined as per capita taxes as a share of per capita income — Arizona's tax burden from 1977 (the first year available) through 1980 was about equal to the national average, with the state's rank a little above the median state (between 17th and 21st). Since 1981, Arizona's tax burden according to the Tax Foundation has always been lower than the U.S. average, though it approached the national average in 1991 when Arizona ranked 25th among the states. Since 1991, Arizona's tax burden has declined from 9.7 percent of per capita income to 8.5 percent in 2008. The national average tax burden barely dropped during this period and was 9.7 percent in 2008. Arizona's tax burden ranked 41st in the nation, the lowest on record, in 2008.

The Census Bureau's government finance data go back to 1964, but the figures for 2006 are the most recent. Relative to personal income, the state and local government tax burden in Arizona historically was usually higher than the national average, typically by several percent and in some years by more than 10 percent. Only in the early 1980s was it lower. Since 1997, however, it has been lower than the national average in each year. In 2006, the Arizona figure matched the lowest on record at 6 percent less than the national average. On a per capita basis, state and local government taxes in Arizona were 19 percent less than the national average in 2006, also the lowest figure on record.

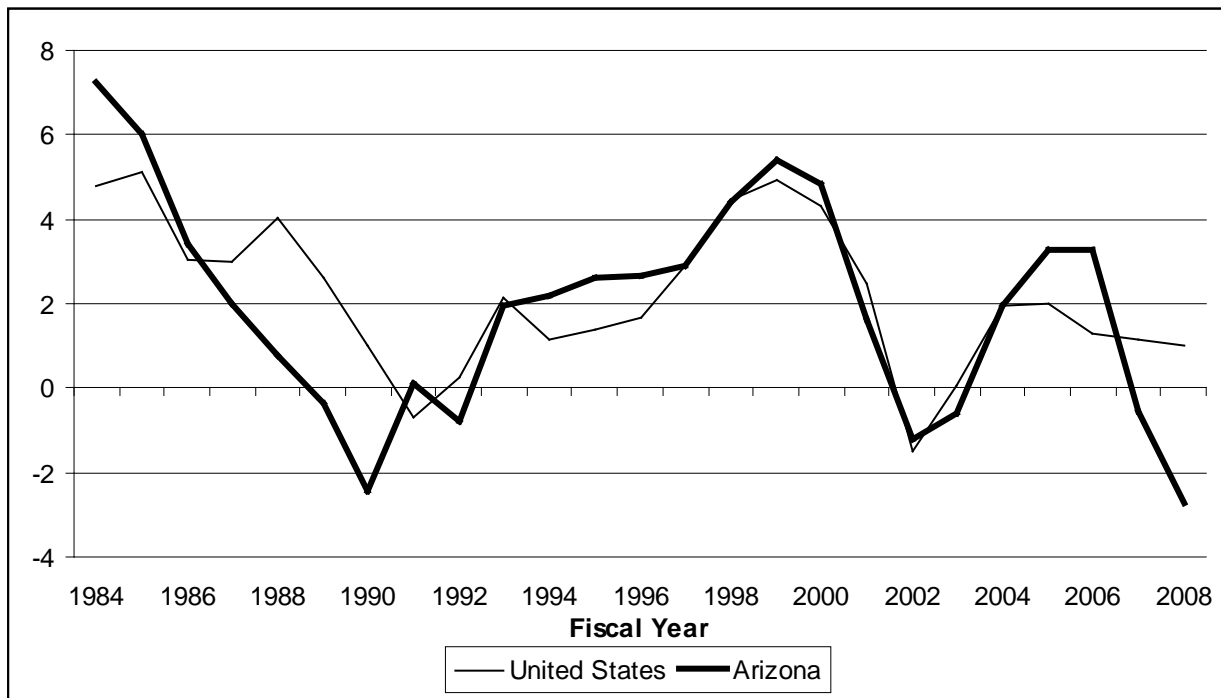
Despite the significant decline in Arizona's tax burden relative to other states since the mid-1990s, economic growth in Arizona relative to the nation in recent years has been no different than the historical relationship. Real per capita earnings growth in Arizona has fluctuated throughout the last 25 years from higher than the national average to lower, with the differential small in most years (see Chart 2). An extended period of substantially inferior growth in Arizona from 1987 through 1990 began long before the substantial tax increases of 1989 through 1991. Despite the state's low tax burden in recent years, which included sizable tax cuts in 2007 and 2008, Arizona's economic growth during 2007 and 2008 dropped considerably, to substantially below the national average. Arizona's decline in real per capita earnings and the negative differential between the state and national growth rate in 2008 each was the largest in the last quarter century.

That the changes in taxes in Arizona — both increases and decreases — have not had a noticeable empirical impact on the state's economic growth should not come as a surprise. A conceptual basis for such an effect is lacking, as discussed in the "Taxes and Economic Growth" section.

Tax Changes and the Deficit

In contrast, the state's general fund has been substantially affected by these tax cuts. The general fund was significantly in deficit during the last recession and is experiencing a more severe shortfall in the current recession. While the economic recession contributes to the budget deficit, the severity of the current deficit results from many years of significant tax cuts not accompanied by an equivalent amount of spending cuts. These revenue reductions were not matched by

CHART 2
ANNUAL PERCENT CHANGE IN INFLATION-ADJUSTED PER CAPITA EARNINGS



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

spending cuts of a commensurate size because of the increasing population-driven demands for public services and infrastructure, such as education and public safety.

The tax reductions of the last 15 years have been the main cause of the structural deficit, which also is the result of an outdated tax code that creates large cyclical swings in revenue and that causes revenue to grow more slowly than the pace of the overall economy. Many of the changes to the tax code during the last 15 years exacerbated these problems.

While reductions in expenditures have not matched the cuts in revenues, expenditures by state and local governments in Arizona also have fallen significantly relative to the national average. Using the Census Bureau data, per capita expenditures in 2006 were 18 percent less than the national average. As recently as 1990, the per capita figure exceeded the U.S. average. Similarly, expenditures relative to personal income were 5 percent less in Arizona than the national average in 2006. They were above average as recently as 1994 and as much as 21 percent above average in 1990.

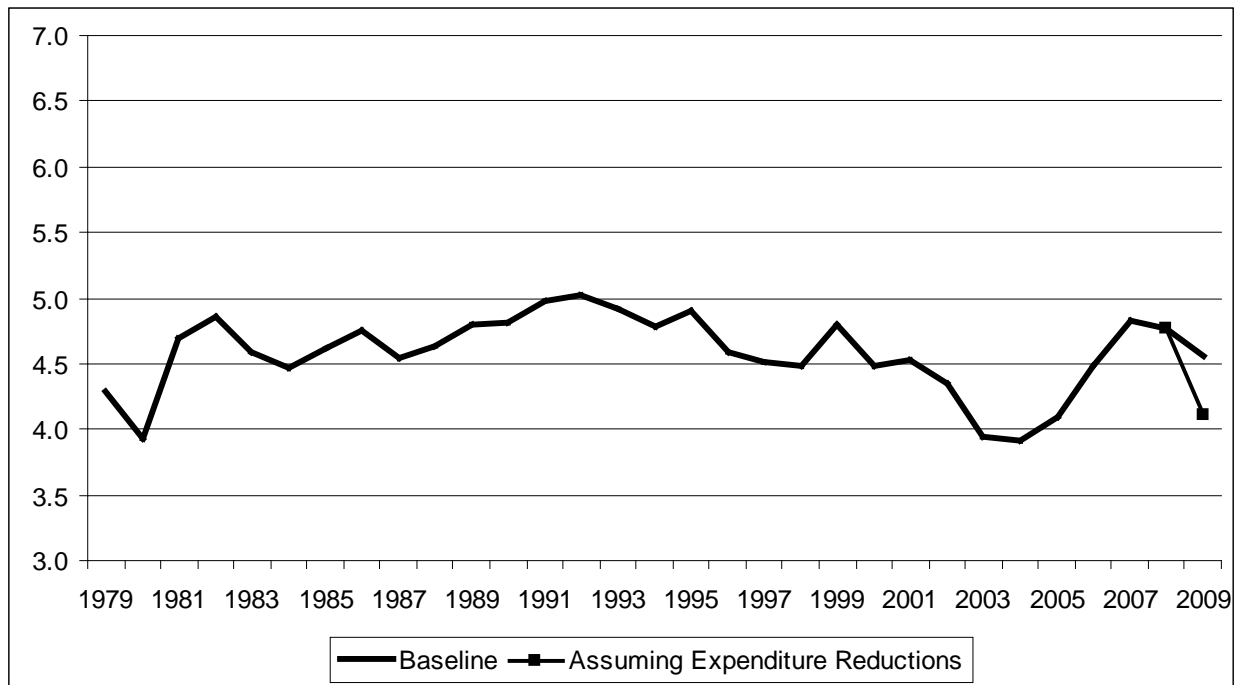
Looking specifically at state government general fund expenditures as reported by the JLBC, expenditures have remained between 4 and 5 percent since 1979, considerably below the 7 percent expenditure limit specified in the Arizona Constitution. As seen in Chart 3, after dipping below 4 percent in 2003 and 2004, actual expenditures as a share of personal income rose, reaching 4.8 percent in 2007 — still less than the shares in the early 1990s. Using projections of personal income for 2008 and 2009, the expenditure ratio begins to fall. The baseline shown in

the chart for 2009 uses appropriated expenditures, but spending cuts to narrow or close the current deficit almost certainly will lower the actual expenditures considerably. Instead of the 4.56 percent for 2009 in the baseline, the share likely will be closer to 4.1 percent — one of the lowest in the 30-year history.

Thus, the existing state general fund budget deficit as well as the underlying structural deficit cannot be blamed on excessive spending. Instead, very aggressive tax cuts are the primary cause, with other shortcomings in the revenue system — increasingly cyclical revenues and revenue growth not keeping pace with economic growth — also contributing to the deficit.

Other actions also have contributed to the near-term dilemma. For example, the Legislature weakened the provisions of the original legislation setting up the budget stabilization fund. During the 1990s, the original 15 percent cap was reduced to 5 percent, though it was subsequently raised to 7 percent. Withdrawals from the rainy-day fund also were restricted to years of economic growth of less than 2 percent. Further, the formula-recommended transfers have not been adopted consistently by the Legislature, and the rainy-day fund has been used to fund expenditures unrelated to cyclical fluctuations in revenues. The result is less monies available for transfer from the rainy-day fund to the general fund, and a greater need for spending reductions or revenue enhancements to balance the budget, during a recession.

**CHART 3
STATE GOVERNMENT GENERAL FUND EXPENDITURES
AS A PERCENTAGE OF PERSONAL INCOME**



Note: The constitutional expenditure limitation is 7 percent.

Sources: Arizona Joint Legislative Budget Committee and U.S. Department of Commerce, Bureau of Economic Analysis.

TAXES AND ECONOMIC GROWTH

Nearly any position on the relationship between taxes and economic performance is supported in the published literature. However, the bulk of the modern literature indicates that taxes have only a small effect on economic growth. For example, one study suggests that a 10 percent reduction in *all* state and local taxes would increase employment growth over the course of 20 years by 2.5 percentage points over and above the growth that would have occurred without the tax reduction. In a fast-growing state like Arizona, where the 20-year increase in employment from 1987 to 2007 was 98 percent, such an increase is inconsequential.

Generally, tax burdens must be far out of line with competitor regions before much of an effect on the economy can be measured. For a state, a tax cut will have little effect on the economy unless the tax burden is comparatively quite high (especially versus competing states) and the tax reduction is very large. In general, tax policy is an inefficient way to stimulate the economy. Investment in infrastructure and education has been shown to have a greater effect on economic growth.

Taxes as a Business Expense

Despite the attention given to taxes, state and local tax payments are a small expense for most businesses, averaging less than 2 percent of operating income. Therefore, the difference in state and local tax rates between states would have to be very large to have a noticeable effect on a company's profits. The compensation of company officers is a larger expense than state and local taxes.

Taxes receive attention because many state and local governments grant tax incentives, tax credits and tax exemptions to businesses. A rational profit-seeking business will avail itself of such opportunities. In site location decisions, such tax breaks can be a deciding factor only if two or more locations are viewed equally on all other factors.

The Laffer Curve and Supply-Side Economics

Supply-side economics is based on the concept that tax reductions stimulate economic growth, with the stimulus so great that government revenues rise despite the lower tax rates. The "Laffer Curve" popularized this theory.

The economist Arthur Laffer brought the relationship between taxes and economic performance into the popular literature in the 1970s. However, the analytical foundations of his Laffer Curve were established centuries ago. Moreover, the curve is a mathematical relationship (Rolle's Theorem).

The concept is simple. A single tax rate produces the greatest government revenue: the revenue-maximizing rate (RMR). Setting rates below the RMR leaves governments with less than maximum revenue but setting rates higher than the RMR stifles the economy — resulting in lower tax collections despite the higher rate. The relationship between tax rates and revenues follows a curve. The exact shape of the curve can vary by specific circumstances, but the end points always are the same: No tax results in no public revenue while a 100 percent tax rate would cause all legal economic activity to cease. The difficulties in real-world application of this

relationship are to identify the tax rate that constitutes the RMR, and to describe the exact shape of the curve.

The simple concept of the Laffer curve has been lost in some applications. Proponents of limited government erroneously argue that tax rates are always above the RMR and reduced taxation is always better.

Laffer originally discussed the relationship between tax rates and tax revenues in the context of national tax rates, particularly the federal income tax, which was quite high in the 1970s. The concept also is valid at a regional level such as a state. However, state tax rates are low relative to the federal income tax rate. Thus, a decrease in a state tax rate is less likely to have a supply-side effect and any effect likely is small.

On the other hand, a state tax by definition is narrower than a national tax and thus is more likely to have a RMR that is being exceeded in reality. This is because states compete for economic activity, most of which is mobile (not tied to a particular place as in the case of a mine). Capital and labor can move easily throughout the country.

While tax rates may influence capital and labor mobility across the states and give rise to Laffer-type effects, capital and labor move for a host of reasons. The amount and quality of public infrastructure (such as airports, roads, and schools) available in a region — amenities supported by state and local government tax revenues — is among the factors influencing economic growth. So the RMR in a state or region will be the rate that allows sufficient investment in public amenities that foster economic growth without imposing tax burdens that stifle growth.

For a tax cut to result in a positive effect on economic growth and government revenue, the existing tax rate must be higher than the RMR. For much of a positive effect to result, the tax rate must be very high and be lowered to near the RMR. Such a situation is most likely in the case of a narrow tax. In addition, a greater economic impact is likely from a reduction in a business tax with a rate above the RMR than in a personal tax with a high tax rate since one business decision (for example, in site selection) can affect many workers.

The Situation in Arizona

Most of the taxes cut in Arizona since the early 1990s have been broad-based taxes applied to individuals. In particular, decreases in the individual income tax have accounted for five-eighths of the cumulative \$1.18 billion nominal overall decrease since 1989. Even in the early 1990s, the individual income tax rate was less than the average of the states. Thus, the lack of evidence that actual tax cuts (or increases) in Arizona had an effect on economic performance fits this Laffer Curve analysis.

For a *net* positive effect to accrue on government finance from a state tax cut, the state must have underutilized resources. For example, if a state with higher-than-optimal tax rates also has high unemployment and high commercial and industrial vacancy rates, then a reduction in taxes to near the optimal point might stimulate economic growth, putting more residents to work and more highly utilizing existing facilities. Since labor to support the faster economic growth would not have to be imported to the state, population growth would not accelerate. Thus, the increase

in government revenues would not be offset by the need to increase public spending to support new residents.

Except during recessions, Arizona has had neither high unemployment rates nor high commercial/industrial vacancy rates. The majority of jobs created in Arizona are filled by labor imported into the state from other states and other countries. (Arizona would not have strong net migration and population growth if this were not the case.) Thus, even assuming that tax cuts in Arizona did have an effect on economic growth, the requirement of excess capacity is not met. If lowered taxes stimulated the Arizona economy further, then even more labor would have to be imported into the state, both for the construction of the facilities needed to house these economic activities and for the permanent employment created. Thus, while public revenues would increase, the need for public spending also would rise. Unless the incomes of the imported workers were above the existing average (considerably so if the worker had or would have school-age children), taxes paid by new residents would not cover the costs of providing them with public services.

One example exists in Arizona of a tax reduction that might have a net positive effect on economic growth and public-sector finance. The business property tax, a narrow tax, is demonstrably high relative to other places. (Some reduction in the business property tax currently is being phased in.) It is a tax that disproportionately affects some businesses, particularly manufacturers who use considerable equipment in their operation. High-tech manufacturers, such as semiconductor plants, are among those with considerable equipment. These companies pay high wages. Lower business property taxes might encourage companies to expand facilities in Arizona. Although most of the labor force needed for an expansion would be imported, the high wages of these new workers could result in a net positive effect even on public-sector finance.

Value of Public Services

Over time, some supply-side enthusiasts have moved to a position that any tax cut is good for the economy and enhances public revenues — which violates the Laffer Curve. The idea that lower taxes always are better ignores the purpose of taxation.

Taxes merely are the price paid for a service that is publicly provided. Particularly at the state and local level, many government services directly impact the lives of all: education of children, water provision and sewer services, collection of trash, building and maintaining roads, police and fire protection, the judicial system, the correctional system, etc. Many public services, such as education (kindergarten through graduate school) and provision and maintenance of physical infrastructure, are of key importance to businesses, particularly high-tech and other “new-economy” companies. For these types of companies, the quality of public goods is more important than the level of taxes. Thus, business climate benefits from investment in various public programs.

Empirical evidence exists that public infrastructure plays a role in increasing business investment, job creation and economic growth. Similarly, tax reductions financed by cutting education, infrastructure spending, and other services valued by businesses likely will have a negative effect on economic performance.

The idea that taxes remove money from the economy is false. Tax revenues are spent in much the same way as private-sector revenues: paying employees, purchasing materials from the private sector, etc. On average, a higher portion of public-sector spending is for wages and salaries while private-sector firms spend a higher portion of their revenues on raw materials and manufactured goods.

At most, it might be argued that the in-state multiplier effect of government spending is less than that of private-sector expenditures. However, this is unlikely. A public-sector worker is no different than a private-sector employee in how they spend money. To the extent that private-sector businesses spend a higher proportion of their revenues on goods than the public sector and to the extent that most of these goods are manufactured out of state (manufacturing in Arizona is limited except in a few high-tech subsectors), the multiplier likely is higher for public-sector spending than for private-sector spending.

RESOLVING THE CURRENT DEFICIT

Arizona's economy currently is in recession, in large part due to the real-estate bust. The economic downturn in the state likely will be prolonged and worsened by what appears to be increasing evidence of a deepening national and even global downturn.

During a recession, the demand for goods and services provided by many private-sector companies declines, as consumers experience job losses, wage reductions, investment losses, or simply become more cautious in their spending. As a result, companies need fewer employees and employment in the private sector falls.

Unlike much of the private sector, the demand for most public-sector services does not decline during a recession. For example, children continue to attend school, workers continue to use roads and highways, households continue to produce trash and wastewater, and needs for fire protection do not abate. In some government functions, the demand for public services is countercyclical, rising during an economic recession. The demand for public safety rises since crime tends to increase during hard economic times. The demand for unemployment benefits, food stamps, and other public assistance is higher during recessions due to increases in the number of unemployed and to reductions in income among those still working.

To appreciate the severity of the current economic downturn, following a significant budget deficit in the prior fiscal year, projections of the state government's general fund budget deficit in the current fiscal year exceed \$1 billion. Some of this deficit will be made up by monies currently in other funds. In addition to the \$120 million balance in the rainy-day fund, the Governor's budget management plan released on October 1, 2008 assumes that \$50 million is available to transfer from other funds, and at least \$75 million is available from revenue enhancements. Considering these funds, the general fund shortfall is projected to be near \$1 billion. This is in addition to a shortfall of more than \$1 billion in the last fiscal year. At current trends, a larger deficit is projected for the next fiscal year.

A deficit of \$1 billion represents 10 percent of the state's general fund appropriations for the current fiscal year. The general fund budget for fiscal year 2009 is just short of \$10 billion. However, since 45 percent of the general fund is protected from budget cuts, the remainder of the general fund is facing a deficit equal to 18 percent of its budget.

The shortfall will need to be eliminated through spending cuts and/or revenue enhancements. All of the "easy" budget fixes were used to balance last year's budget. The Legislature has demonstrated a preference for spending cuts. However, imposed decreases in public spending during recessions come at the same time that demand for public services is stable or rising, resulting in a reduction in the quantity and/or quality of government services. For the most disadvantaged of those consuming public services, real hardship can ensue.

Spending reductions by governments during recessions not only negatively affect those being served, but also worsen economic conditions. The spending cuts take the form of reductions in government employment and in government purchases of goods and services from the private sector. The latter obviously has a detrimental effect on those private-sector companies selling

directly to the public sector. Governor Napolitano's directive of October 8, 2008 to freeze contracts in excess of \$50,000 is the first step in this process.

Government workers laid off during a recession have little hope of finding another job in Arizona in the near term. If unemployed workers leave Arizona to seek employment opportunities in a state less hard hit by the recession, then all of the expenditures that the former workers made at private-sector companies will be lost to the Arizona economy, as will the sales taxes and other public-sector taxes and fees paid by the former workers.

If unemployed government workers remain in Arizona, their spending will decline, negatively affecting the companies at which the former workers shop, and also adversely affecting the collection of sales taxes, on which Arizona's governments are disproportionately dependent. Thus, in addition to reducing demand for private-sector goods and services, cutting the public-sector workforce will cause public-sector revenues to decline.

Further, laid-off government employees will be eligible for unemployment insurance payments and may qualify for other public welfare, such as food stamps. Thus, the savings to state government of not paying the former workers' salaries and benefits will be partially offset by rising payments to the ex-workers for unemployment insurance and other public welfare programs.

The result of state spending cuts of \$1 billion would be to very significantly worsen and lengthen the economic recession. A total of approximately 20,000 workers (8,000 state government and university workers and 12,000 others) might lose their jobs.

The reduction of government spending during a recession has the effect of trying to balance the public budget on the backs of a relatively small share of the state's residents and businesses — primarily the laid-off workers, and secondarily the private-sector companies (and their employees) at which the laid-off workers shop.

Spending Reductions Compared to Revenue Increases

Spending reductions are not the only way to balance the budget. The Governor's Budget Management Plan released on October 1, 2008 includes nontax revenue enhancements, though no details are presented in the plan. In any case, nontax revenue enhancements will not be adequate to close most of the likely shortfall (after fund transfers) in the state government general fund.

Additional funding also would be available by increasing tax rates. An increase in taxes was one of the methods used to balance the budget during the lengthy economic decline of the late 1980s and early 1990s, another economic downturn disproportionately caused by the boom-bust cycle in real estate.

The overall tax burden in Arizona currently is well below the national average. The relative tax burden on individuals is even lower, given that some taxes on businesses are high relative to other states. Assuming that little of any tax increase would be levied on businesses, the negative economic effect of a tax increase would be no larger than that of a government spending

decrease. In fact, it should be less. Some of the tax payments would come from personal savings. A portion of a tax increase would be exported to nonresidents and to the federal government (since state taxes are federally deductible).

In order to reduce the effect on lower-income individuals, any tax increase could be made to be highly progressive. The primary negative effect of a tax increase that largely spares lower-income households would be that middle- and upper-income households would have less money to spend in the private sector. But the effect would be spread throughout the state. Individual households and businesses would suffer slightly, in contrast to the substantial negative effects on a relatively small number of individuals and businesses that would result from a government spending reduction. Further, individuals — whether state government employees or the disadvantaged who are highly dependent on public assistance — would not be devastated in the tax increase option.

For perspective, a tax increase of \$1 billion that affected individuals only and was not exported (for example, to tourists) still would equate to only about \$150 per Arizona resident, or \$400 per household. A tax increase of this magnitude would offset only approximately one-third of the state tax cuts implemented between 1993 and 2008. Such a tax increase would be considerably less than the rebate in federal taxes that most Arizonans received in May. Further, any increase in Arizona taxes would be deductible from the federal income tax, lowering the after-tax impact on disposable incomes. According to the Tax Foundation rankings for 2008, even with an increase of this magnitude Arizona still would retain its low-tax status. Assuming no changes in the tax burdens of other states, Arizona's rank would be 37th, one spot lower than Mississippi.

Without enhancing revenues, state government will be unable to adequately support a growing population. In particular, Arizona faces substantial infrastructure needs over the next quarter century.