

# **PUBLIC FINANCE IN ARIZONA**

**January 2003**

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## **PREFACE**

An objective review of government finance in Arizona is presented in this report. While partially prompted by state government's current budget deficit, the report largely consists of updated analyses previously made by the Center for Business Research, grouped together into one document. Projected state government deficits for the current and succeeding fiscal years reflect the spending cuts implemented through the beginning of fiscal year 2003 but do not include the actions taken in the special session of the Legislature on November 25, 2002.

Included in the report are analyses of Arizona state government finance and the combined finances of all state and local governments within Arizona. A historical perspective is provided. For combined state and local governments, comparisons also are made to other states and the national average.

Utilizing the findings from this fact-based approach, specific options to the short-term budget deficit are offered. In addition, desirable longer-term changes to Arizona's system of public finance are presented.

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## **SUMMARY**

Arizona's state government budget deficit projected for the current and succeeding fiscal years is among the largest in the country as a percentage of the general fund. While the deficit results in part from the weak economy, tax cuts much greater than spending reductions implemented between fiscal years 1993 and 2002 largely are responsible. The state's tax cuts (primarily from fiscal year 1995 through fiscal year 2001) were far more aggressive than in the average state. Those states that passed the largest tax cuts currently are facing the largest deficits.

Arizona's projected deficit for the next fiscal year is about one-seventh of the general fund. However, more than 60 percent of general fund spending is "mandatory:" statutorily required. The projected deficit thus is about 40 percent of "discretionary" spending, which largely funds higher education and corrections.

The state's large tax reductions have caused the state's tax burden relative to the size of its economy to be the lowest during the period of available data (fiscal year 1971 through fiscal year 2003). The combined state and local government tax burden in Arizona currently is well below the national average — by 11 to 17 percent on most measures of tax burden. Historically (into the early 1990s), the tax burden in Arizona was near the national average.

Total inflation-adjusted per person government spending in Arizona also is considerably below the national average and the historical level. Fast population growth causes capital outlays to be above the national average; spending on current operations is among the lowest in the nation.

If the limit on the size of the state's rainy day fund had not been lowered in 1995 from 15 to 5 percent of the general fund, much of the funds used for tax reductions would not have been available, given the requirement for a balanced budget. Thus, not only would the current deficit be much lower, the balance in the rainy day fund would be greater. The state would be faced with little deficit beyond that covered by transfers from the rainy day fund.

## **STATE GOVERNMENT**

Arizona hardly is alone in experiencing fiscal problems, but has among the most serious imbalances in the nation. State government tax cuts in Arizona between 1994 and 2001 were much greater than the average tax reduction across all 50 states.

Arizona state government is faced with a general fund budget deficit estimated at close to \$500 million in the current fiscal year (FY2003 runs from July 1, 2002 through June 30, 2003) despite spending reductions and other budgetary measures implemented prior to the beginning of the fiscal year. The projected deficit for the next fiscal year is between \$800 million and \$1 billion.

At all levels of government, the continued weak economy is resulting in reduced public revenues while higher unemployment rates and lower household incomes create a greater demand for public services. For state government, however, the largest portion of the deficit results from a structural deficit caused by tax reductions during the 1990s larger in magnitude than spending decreases. For several consecutive years, public revenues were unusually and unsustainably high largely due to strong growth in capital gains resulting from the stock market boom. Despite the temporary nature of these revenue flows, permanent tax cuts were implemented.

Tax reductions that began to a limited degree in fiscal year 1993 and continued annually through FY2002 cumulated to more than \$1.2 billion per year by FY2002. However, the first \$400+ million in cuts offset tax increases that had been implemented between FY1989 and FY1991. Thus, the net reduction in revenues is about \$800 million per year. As a result, inflation-adjusted per person (real per capita) tax collections fell 3 percent between FY1991 and FY2003, compared to a projected increase in real per capita economic growth of 21 percent between 1991 and 2003. As a percentage of personal income, revenues in the current fiscal year are the lowest since records began in FY1971.

Tax reductions between FY1993 and FY2002 were greatest in the individual income tax, the real estate property tax, and the vehicle license tax, with the contributions to the state general fund from the last two taxes eliminated. The result is a revenue system highly dependent on the sales and use tax, with little revenue from the property tax, various lesser taxes, and nontax sources.

Real per capita spending on current operations (excluding capital projects such as building roads and schools) rose 3 percent between FY1991 and FY2003, far less than economic growth. Most state programs were appropriated fewer monies on a real per capita basis in FY2003 than in FY1991 (or FY1986, a time of stable tax policy). The major exceptions were the Department of Corrections and the Arizona Health Care Cost Containment System.

Most general fund spending (62 percent of the total) is categorized as “mandatory:” the spending is specified in permanent statute or is determined by a statutory funding formula. If the resolution of the projected deficit for the next fiscal year were to consist entirely of spending reductions in discretionary programs, the necessary cut would be between 34 percent (for a \$800 million deficit) and 43 percent (for a \$1 billion shortfall). The Department of Corrections and higher education receive more than 60 percent of the discretionary funds.

Had the original 1990 statute creating the Budget Stabilization Fund (BSF) not been altered by lowering the maximum amount permissible in the fund from 15 to 5 percent of the general fund, some \$500 million in funds used for tax cuts would not have been available and the state would be faced with little of a structural deficit. In this scenario, smaller deficits mostly caused by the weak economy largely would have been offset by transfers of about \$300 million per year from the BSF to the general fund in the prior and current fiscal years. The BSF still would have had a positive balance after a smaller transfer to the general fund projected for FY2004.

## **STATE AND LOCAL GOVERNMENT**

To compare Arizona to other states, state and local government finance must be combined, since the level of government levying taxes and having responsibility for funding programs varies from state to state. The combined tax burden in Arizona is below the national average on each of several measures, with the difference on most measures between 11 and 17 percent.

Many measures look at total tax collections regardless of whether paid by businesses or households. Other studies indicate that the tax burden on businesses in Arizona is greater than the national average, with the personal property tax applied to business equipment quite high and sales taxes paid by businesses above the norm. In contrast, the personal tax burden in Arizona is

low. Arizona's residential property tax burden is low and the individual income tax burden is very low. However, the general sales tax burden is one of the highest in the country.

Not only is Arizona's overall tax burden much less than the national average, but the state's receipts from nontax sources of income (primarily federal funding and user fees) also are well below average. With revenues from all sources so low, spending also is quite low at 15 percent below the national per capita average. Per capita spending is slightly above average for transportation and public safety, but is far below average for social services and also is considerably below average for education.

However, for the state to maintain service levels equal to the national norm, spending needs to be greater than the national average. The state's rapid population growth causes above average capital spending needs (building roads, schools and other infrastructure). Demographic factors, such as the state's above average poverty rates and higher than average school-age percentage of the population, also place above average demands on the public sector.

Per capita expenditures for capital outlays are above average in Arizona. In contrast, per capita spending on current operations was the fifth lowest in the nation in FY2000 at 19 percent below average. Noncapital spending relative to the national average is far lower than in the past, when Arizona's figures generally were quite close to the national average.

### **SUPPLY-SIDE EFFECTS**

The "Laffer Curve" is the basis for supply-side economics. This mathematical relationship shows that an optimal tax rate exists in terms of maximizing government tax collections; both higher and lower tax rates collect less revenues. The difficulty is in identifying the optimal rate and knowing the shape of the curve.

Empirical and theoretical evidence indicate that the optimal point for national tax rates likely is higher than commonly assumed. At the state level, the stimulus to the economy and thus to tax revenues resulting from lowering an above-optimal tax rate usually is quite small. Changes to tax rates have a limited impact because state and local taxes amount to less than 2 percent of the typical business's operating income (less than officers' compensation). In general, a supply-side effect is more likely with a narrowly defined tax and with a tax directly paid by businesses. The most likely candidate for a supply-side effect in Arizona is the business personal property tax, but this tax rate remains high despite a decade of tax cuts.

In addition to the cuts of the last decade, taxes in Arizona were reduced substantially around 1980 and were raised significantly around 1990. Thus, empirical evidence of the effect of these changes should exist if supply-side effects were present. Yet no perceptible effect on economic performance (either growth rates or measures of quality) can be found. The effect on government revenues is as expected: a tax increase raises revenues and a tax cut reduces revenues. This empirical evidence fits the Laffer Curve in that Arizona tax rates in general never have been higher than optimum.

The more generalized idea that all tax cuts have a positive effect on government revenues has no conceptual or empirical basis. In fact, this notion violates the Laffer Curve. Tax monies are not

removed from the economy, but are spent by government, likely with a higher in-state multiplier effect than if spent by the private sector.

### **TAX AND SPENDING MYTHS**

The data and analysis included in this report suggest that several popular fiscal conceptions should be re-examined:

1. *The tax burden in Arizona is high.* Historically, the combined state and local government tax burden in Arizona ranged from a little above the national average during recessions to a little below average at other times. Over the last decade, however, the tax burden has fallen considerably to well below average. State government revenues relative to the size of the Arizona economy are the lowest on record.
2. *Government spending in Arizona is high.* Relative to other states, Arizona's state and local government spending is considerably below the national per person average. Because of its population growth and demographic profile, Arizona's spending needs to be above average to provide a service level equal to the national average. State government expenditures relative to the size of the Arizona economy are nearly the lowest on record.
3. *Government taxing and spending continues to rise in Arizona.* After adjusting for inflation and population increases, state and local government revenues and expenditures have continued to rise, but at a pace much less than the state's economic growth and much less than the national average. On an inflation-adjusted per person basis, state government revenues in the current fiscal year are not higher than in FY1991.
4. *The rainy day fund has not worked, so it should be abolished.* The fund has not served its purpose of providing revenues during a downturn because of inadequate funding during the strong growth years of the 1990s and because the fund was used for other purposes. If the rainy day fund had been fully funded based on the original 1990 statute, state government would be faced with little, if any, deficit beyond that covered by transfers from the rainy day fund.
5. *Tax cuts in Arizona have increased economic growth and government revenues.* Empirical evidence to support this statement has not been found. Strong government revenues during the late 1990s resulted from stock market capital gains that enhanced revenues throughout the nation. The state's current economic slump (just as deep and long as the national average) and the large decline in government revenues over the last two years suggest that tax cuts had little if any effect.
6. *Taxes are a major business expense.* State and local government taxes are less than 2 percent of operating income for the typical business — less than officers' compensation.
7. *Taxes remove money from the economy.* Tax revenues are spent in much the same way as private-sector revenues, such as to pay employee wages and to purchase materials from the private sector. The in-state multiplier effect likely is larger for public-sector spending.
8. *All tax cuts are good for the economy.* Taxes are the price paid for government services, many of which are valued by the private sector, and need to be evaluated relative to the public programs they fund.
9. *All tax cuts are good for government revenues.* The idea that every tax cut will result in greater government revenues is a distortion of supply-side economics, which was popularized by the Laffer Curve. According to the Laffer Curve, any cuts in tax rates that are below the optimum rate will result in lesser government revenues.

10. *The size of government should shrink during recessions.* Businesses experience a decline in demand for their products or services during a recession, resulting in general reductions in private-sector business activity, including job losses. However, the public sector does not experience lowered demand for its services. Most government programs serve residents, who continue to increase in number. Demand for public welfare, such as unemployment benefits, is countercyclical, rising during recessions.
11. *Taxes should not be increased during a recession.* A tax increase is no more harmful than public spending cuts, which damage the economy by reducing government purchases from the private sector and by diminishing consumer expenditures due to losses in spending by laid-off government workers.

# ARIZONA STATE GOVERNMENT

The focus of this report is the general fund, the fund currently receiving attention because of its large projected deficits. Most of the data used in the discussion of state government finance comes from the Joint Legislative Budget Committee (JLBC).

## REVENUES

In the current fiscal year (FY2003 runs from July 1, 2002 to June 30, 2003), the JLBC as of October 22, 2002 was forecasting general fund revenues to be nearly \$6.2 billion. The bulk of the revenues come from tax collections.

### History of Tax Law Changes

Significant changes to the Arizona tax code have been implemented over the last 25 years. Tax collections were reduced significantly between FY1979 and FY1981. Decreases in property tax rates caused collections to drop in FY1979 and FY1980, and the sales tax on food to be consumed at home was eliminated in FY1981. At the same time that substantial reductions in revenue resulted from these changes, an economic slump and declines in federal revenue sharing also lowered public-sector revenues. The result was a significant imbalance between revenues and expenditures that was solved by a combination of spending reductions and a temporary increase in the sales tax rate. Even with a strong economic recovery that began in 1983, the budget could not be balanced without maintaining the higher general sales tax rate. Thus, this higher rate was made permanent in 1984. Despite this rate increase, the overall tax burden remained below that of the late 1970s (tax burdens are discussed in detail in a later section).

In the mid-1980s, few changes were made to the tax code. After 1986, the state economy weakened substantially, lowering revenues. At the same time, spending for the Arizona Health Care Cost Containment System (AHCCCS, the state's alternative to Medicaid) skyrocketed. (Prior to the mid-1980s, spending on indigent health care was a county, not state, responsibility.)

In order to balance the general fund — which is required by the Arizona Constitution — tax increases were enacted from 1988 through 1990 (implemented from FY1989 through FY1992, though almost entirely by FY1991) and were accompanied by spending reductions that resulted in substantial layoffs of state government workers. Collections were increased from various taxes, most notably the individual income tax; the overall tax burden rose. The JLBC estimates that the effect of these tax increases was to raise state government revenues by nearly \$450 million per year in the early 1990s.

After 1991, the Arizona economy began to strengthen, raising revenues. This enabled a series of tax cuts to be passed. Implemented from FY1993 to FY2002, these tax reductions began slowly, as seen in Chart 1. The magnitude of the cuts were small and/or the reductions were phased in due to a still weak economy and continued spending increases for AHCCCS through FY1993 [see Chart 2]. The Arizona economy strengthened further during 1993, with growth rates reaching boom conditions by 1994. The surge in revenues that resulted allowed subsequent tax reductions to be much larger. The cumulative tax cuts that took effect in FY1996 completely offset the tax increases made several years earlier. Continued reductions in taxes cumulated to an estimated effect of a reduction in annual revenues of about \$800 million by FY 2002.

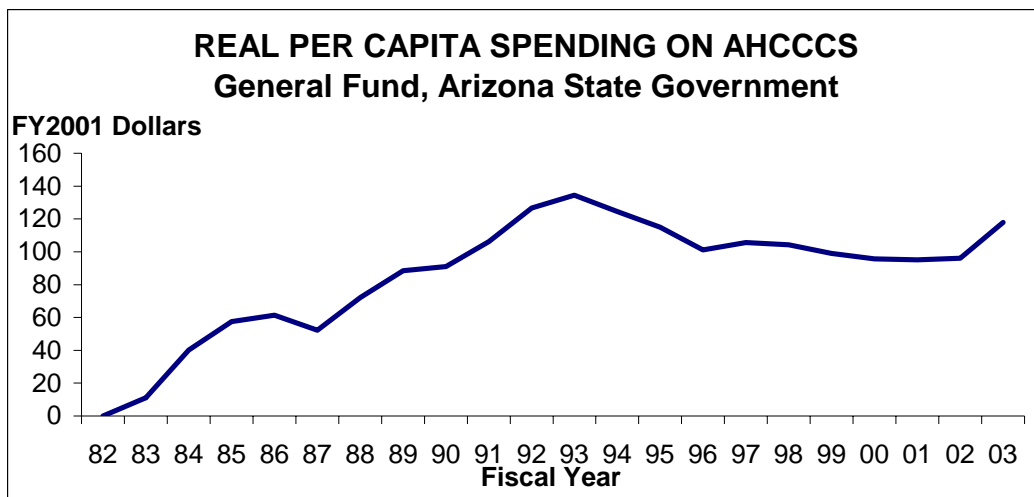
**CHART 1**  
**ESTIMATED DOLLAR VALUE OF TAX CHANGES**  
**General Fund, Arizona State Government**

Fiscal Year	Dollars in Millions	
	Annual	Cumulative
1989	\$122	\$122
1990	109	231
1991	208	439
1992	10	449
1993	-19	430
1994	-25	405
1995	-121	284
1996	-285	-1
1997	-175	-176
1998	-172	-348
1999	-143	-491
2000	-105	-596
2001	-159	-755
2002	-38	-794
2003	17	-777
2004	-27	-804

Note: The Proposition 301 increase in the sales tax for educational purposes is not included in this chart. In addition, the analysis is “static” in that it does not include possible stimulation in revenue collections from the tax reductions. This topic is explored in a later section.

Source: Joint Legislative Budget Committee, “Fiscal Impact of Statutory Tax Relief Provisions,” internal memo, September 19, 2002.

**CHART 2**



Source: Joint Legislative Budget Committee, “General Fund Operating Budget Spending” spreadsheet.

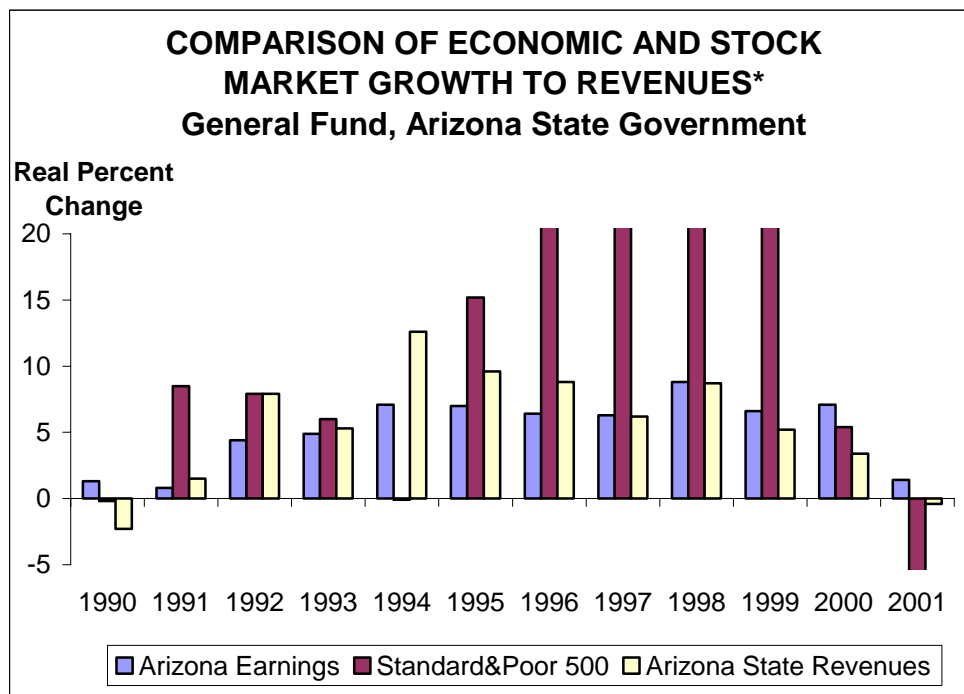
The relationship between economic growth, stock market gains, and state revenues (adjusted to exclude the impacts of the tax increases and tax cuts shown in Chart 1) is shown in Chart 3. After a 15 percent rise in 1996 in the inflation-adjusted value of the stock market (as measured by the Standard and Poor's 500 Index), increases exceeded 20 percent for four consecutive years. In 2001, the stock market fell 18 percent, with a similar loss occurring in 2002. Similar, though less extreme, cyclicity of Arizona economic growth also is seen.

For several consecutive years, public revenues were unusually and unsustainably high largely due to strong growth in capital gains resulting from the stock market boom. Nationally, as a percentage of gross domestic product, capital gains were above the long-term average from 1996 through 2000, with the last four of those years having the highest percentages on record. Despite the temporary nature of these strong revenue flows, permanent tax cuts were implemented.

### Revenue Changes and Economic Growth

In order to evaluate changes over time in aggregate public-sector revenues (or public spending), adjustments must be made for inflation, population growth, and economic growth. Because of

**CHART 3**



\* Tax increases and tax cuts were adjusted out of the revenue figures. Revenues are for the fiscal year ending within the calendar year shown.

Note: Stock market gains exceeded 20 percent from 1996 through 1999; the loss in 2000 was 18 percent.

Source: Joint Legislative Budget Committee, "Fiscal Impact of Statutory Tax Relief Provisions," internal memo, September 19, 2002, and "Historical General Fund Revenue Collections" spreadsheet; U.S. Department of Commerce, Bureau of Economic Analysis; and Standard and Poor's composite price index of 500 stocks.

productivity growth, even inflation-adjusted per person (real per capita) economic measures exhibit an upward trend. With household and business incomes rising more than inflation, taxpayers are able to pay more in real taxes without experiencing an increase in their tax burden (tax payments as a percentage of income).

Moreover, a growing and changing economy creates additional costs and additional demand for public services, requiring public revenues to keep pace with economic growth. For example, schools have expended substantial monies to acquire computer hardware and software to keep pace with the economic changes. In addition, as incomes rise, the public demands additional and/or improved public services, such as roadways.

Between FY1991 and FY2003, real per capita general fund taxes and revenues fell slightly (a 1 percent drop for revenues and 3 percent for taxes). Real per capita economic growth, as measured by per capita personal income (PCPI), is projected to be 21 percent during this period. (FY1991 is used as a comparison because it marked the end of an economic recession, is comparable to FY2003 in terms of the economic cycle, and was the last year of sizable tax increases.)

Since FY1991 marks a high point in real taxes and revenues collected per person, it is not representative of Arizona's historical record. For this reason, FY1986 (in the midst of a period of stability in fiscal policy) is presented as another comparison point. Small real per capita increases in taxes (4 percent) and revenues (8 percent) from FY1986 through FY2003 are considerably less than the projected economic growth rate based on real PCPI (23 percent). Gains in real per capita gross state product (GSP, a broader measure of economic performance) were even larger. Between 1986 and 2000 (the latest year available), real per capita GSP rose 34 percent; the gain was 38 percent between 1991 and 2000. Thus, the overall tax burden in Arizona has dropped substantially, not only from the 1991 peak but also from typical historical levels.

Real per capita state government revenues increased in many years from FY1989 through FY2000. Gains first were due to the tax increases that came into effect beginning in FY1989. Despite the tax reductions that began to have a substantial impact in FY1995, real per capita revenues continued to rise in four of the next six years. Strong economic growth was responsible, with revenues up particularly due to capital gains resulting from the huge increases in the stock market from 1995 through 1999 and to a lesser extent in 2000. The economic and stock market slumps that began in 2001 have had a significant downward impact on government revenues, with the estimated figure for the current fiscal year 10 percent less than the FY2000 peak.

From FY1989 through FY1991, real per capita personal income declined. Thus, the real per capita revenue gains during this period equated to an increase in the tax burden. However, real per capita economic growth from FY1992 through FY2000 was greater than the rise in real per capita revenue. Thus, the tax burden dropped. It continued to fall after FY2000, despite the weak economy.

State law limits appropriations to 7 percent of personal income. Comparing general fund revenues to personal income, the peak came in FY1991 at 5.06 percent. Revenues still were 5.00 percent of personal income in FY1995, but since then the figure has fallen, to a projected 4.14

percent in the current fiscal year [see Chart 4]. This figure is the lowest since the JLBC time series began in 1971.

### Revenue Sources

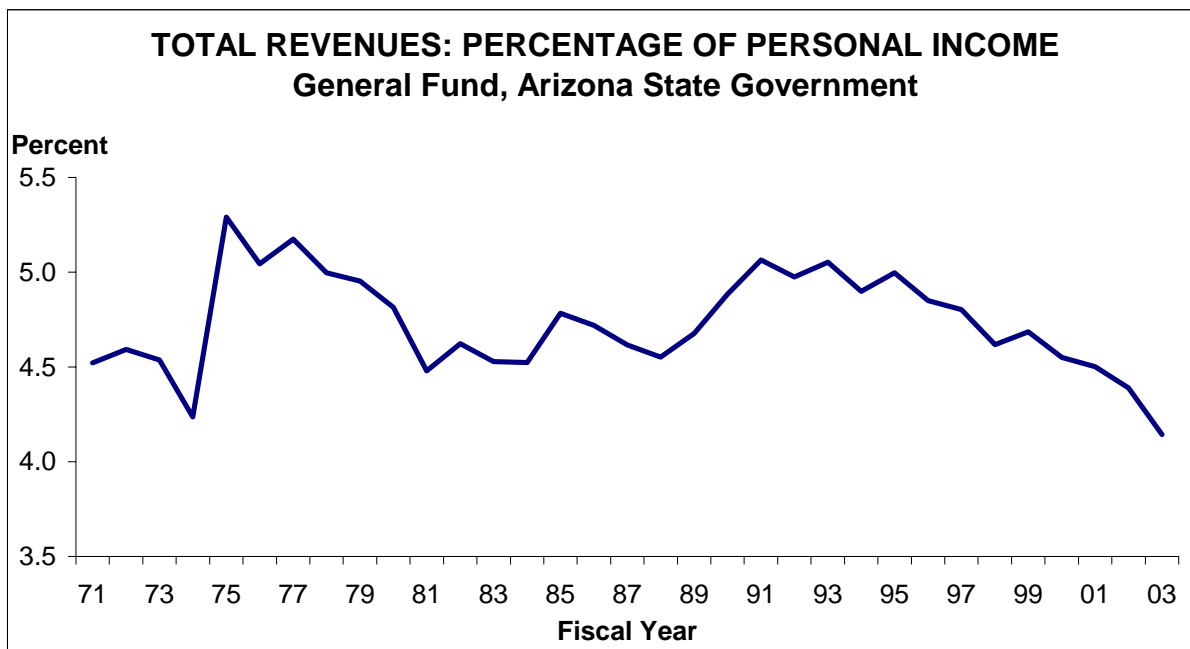
State government collects revenues from a number of tax and nontax sources. However, just two taxes — the sales and use tax and the individual income tax — currently provide about 87 percent of the revenues, compared to 65 percent in FY1971 [see Chart 5].

### Sales and Use Tax

State government’s primary revenue source is sales and use taxes, accounting for half of the general fund revenues. (The sales tax actually is a “transaction privilege tax” in which the seller is responsible for remitting the entire amount of the tax due to the state.) In FY2003, sales and use tax collections are projected to be \$3.082 billion. A variety of taxes comprise this category.

The following information on the detailed categories is based on actual data for FY2001, reported in the JLBC report “2002 Tax Handbook,” when sales and use collections totaled \$2.984 billion. By far the largest component of the sales and use category is the sales tax, accounting for 93 percent (\$2.788 billion) of the total. The retail portion of the sales tax accounts for about half of the collections, with the contracting tax’s share around 15 percent, and the utilities and restaurant and bar subcategories each contributing 8 percent. A variety of other sales taxes make up nearly 20 percent of sales tax collections. Of the 16 transaction privilege tax classifications, a 5.6 percent tax rate is applied to all but mining, while four distribution formulas allocate revenues to the state general fund and to other government funds.

CHART 4

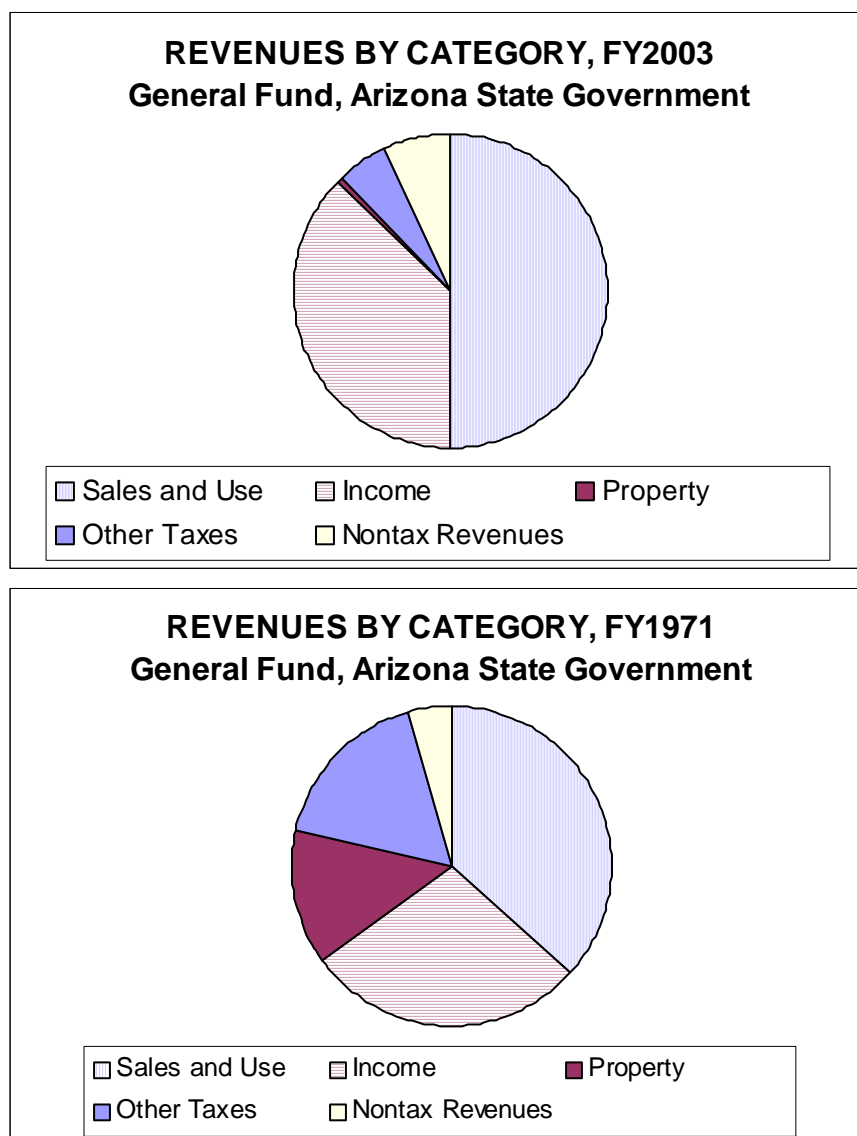


Source: Joint Legislative Budget Committee, “Historical General Fund Revenue Collections” spreadsheet.

The use tax collected \$196 million in FY2001. This tax is applied to retail purchases of personal property by Arizona businesses (and individuals, except that enforcement of this provision is limited) in states that levy a sales tax of less than 5.6 percent. The jet fuel excise tax collected \$4 million, while other revenue sources — severance tax on timber and metal mining, rental occupancy tax, and jet fuel use tax — provided less than \$1 million.

The reductions in the sales tax collections since FY1991 [detailed in Chart 6] did not result from a reduction in the general sales tax rate. The largest cause was a phased-in reduction in the commercial lease rate from FY1994 through FY1998. A variety of new exemptions to the sales tax also lowered revenues. Of the \$800 million net reduction in overall revenues, 20 percent came from the sales and use tax.

**CHART 5**



Source: Joint Legislative Budget Committee, "Historical General Fund Revenue Collections" spreadsheet.

Despite these reductions, real per capita collections rose nearly 15 percent from FY1991 through FY2003 largely because consumer spending was so low in FY1991. Even this gain, however, was less than overall real per capita economic growth. Compared to FY1986, real per capita sale and use tax collections rose only 6 percent, again much less than economic growth.

As a percentage of personal income, sales and use tax collections have been nearly steady at 2.1 to 2.2 percent since 1988. The percentage had been less than 1.8 percent prior to 1975 and was 1.8 percent from 1981 through 1983. The sales and use tax increased from less than 40 percent of total tax collections in the early 1970s to more than 50 percent since FY2000, the highest shares since the time series began in FY1971.

### Income Tax

The individual income tax is the other primary source of general fund revenues, accounting for about 37 percent of the total (\$2.325 billion) in FY2003. A series of tax law changes enacted from 1988 through 1990 (particularly an increase in rates passed in 1990 that took effect in FY1991) boosted income tax collections. After that, a succession of tax cuts was passed. Rate reductions passed in 1994 totaled more than \$100 million; the 1995 cut amounted to \$200

**CHART 6**  
**ESTIMATED DOLLAR VALUE OF TAX CHANGES BY TYPE OF TAX**  
**General Fund, Arizona State Government**

Fiscal Year	Sales	Individual Income	Corporate Income	Property	Other
<b>Annual Change (Dollars in Millions)</b>					
1989	\$23	\$35	\$29	\$28	\$6
1990	7	64	0	23	16
1991	-4	119	31	50	14
1992	-0	9	0	0	0
1993	-8	-14	0	-1	3
1994	-12	-11	0	-1	-1
1995	-21	-103	4	-1	0
1996	-46	-202	-18	-18	0
1997	-23	-1	-0	-150	0
1998	-60	-115	3	0	-0
1999	-4	-51	-9	0	-80
2000	-8	-27	-14	-0	-55
2001	-5	-83	-46	-0	-25
2002	-2	6	-41	-2	0
2003	-0	14	23	-2	-19
2004	0	0	0	-8	-19
<b>Cumulative Change</b>					
2004	-164	-359	-38	-83	-160

Source: Joint Legislative Budget Committee, "Fiscal Impact of Statutory Tax Relief Provisions," internal memo, September 19, 2002.

million; the 1997 reduction was about \$110 million in magnitude; the 1998 change lowered revenues by \$50 million; and a variety of other changes cumulated to tens of millions of additional dollars. By FY1996, the income tax reductions had more than offset the tax increases passed from 1988 through 1990. The net reduction in the individual income tax of nearly \$360 million accounted for 45 percent of the total \$800 million net reduction in revenues.

The corporate income tax collects substantially less revenue than the individual income tax. Collections were more than \$500 million in FY2001 but the slow economy lowered the figure to an estimated \$400 million in FY2003. The corporate income tax also was increased from 1988 through 1990. Little reduction in corporate taxes occurred until bills were passed in 1998 and 1999. These decreases were not fully phased in until FY2002 and the cumulative decrease did not offset the tax increases passed from 1988 to 1990 until FY2001. Only 5 percent of the overall \$800 million in revenue reductions came from the corporate income tax.

The effect of the reductions in the income tax rates since FY1993 are obvious in the real per capita tax collections, which fell 2.7 percent between FY1991 and FY2003. Between FY1986 and FY2003, real per capita income tax collections rose 18 percent, a little less than economic growth.

Individual income tax collections as a percentage of personal income rose from about 1 percent in the early 1970s to a peak of 1.7 to 1.8 percent in the early 1990s. Since then, the proportion has been 1.6 to 1.7 percent. In part due to the economic slump, corporate tax collections have been less than 0.3 percent of personal income since FY2002, compared to the peak of 0.5 percent. The individual income tax's share of total revenues has increased substantially, from less than 25 percent before FY1979 to nearly 40 percent in recent years. The corporate income tax's share has fluctuated between 6 and 11 percent, with the current figure about 7 percent.

### **Property Tax**

In the 1970s, the property tax was the third largest source of state general fund revenues, but the tax now has been all but eliminated at the state level, contributing only \$35 million in FY2003. (Property taxes still are collected by local governments and are a major source of revenues for school districts.) Several categories of property tax exist, each with a different tax rate. For example, the business property tax has been assessed at 25 percent, compared to a residential rate of 10 percent. Taxes are applied both to real property (real estate: land and buildings) and to personal property, such as business equipment not permanently attached to the real estate.

Increases in property taxes were passed from 1988 through 1990. Some small reductions were put in place between 1992 and 1995, but the big change was passed in 1996: elimination of the state government portion of the residential property tax, a loss of \$150 million in general fund revenues. Property tax cuts account for 10 percent of the overall \$800 million in revenue loss.

The elimination of the property tax had a substantial real per capita effect, with state general fund collections from the property tax falling 89 percent between FY1991 and FY2003. The decrease between FY1986 and FY1991 was 75 percent.

As a source of state government revenues, the property tax exhibits the greatest change over time, going from 0.5 to 0.6 percent of personal income during the 1970s to nearly zero since FY1997. The property tax accounted for 11 to 14 percent of total tax collections through FY1978, but since then the proportion has dropped, to less than 1 percent since FY1997.

**Other Taxes**

A variety of other taxes combine to contribute about 5 percent of the state’s general fund revenues, as seen in Chart 7. The largest of these is the insurance premium tax. Estate taxes have provided the second largest collections of these taxes, but the November 2002 voter-approved increase in tax rates on tobacco will push luxury tax revenues above those of the estate tax. The luxury tax also applies to liquor. Collections from additional taxes such as the motor vehicle license tax are inconsequential, largely due to tax reductions during the 1990s that accounted for 20 percent of the overall \$800 million in tax cuts. The primary decrease in this category was the vehicle license tax reductions passed in 1998 and 1999, amounting to about \$160 million.

**CHART 7  
REVENUES BY SOURCE  
General Fund, Arizona State Government**

	FY2003	Share of Total	Real Per Capita % Change	
			FY1986 – FY2003	FY1991 – FY2003
<b>Taxes:</b>				
Sales and Use	\$3,081,574,000	49.91%	6.0%	14.6%
Total Income	2,295,255,600	37.18	17.7	-2.7
Individual	2,325,553,500	37.67	31.0	0.6
Corporation	400,267,000	6.48	-6.2	12.3
Urban Revenue Sharing	-430,564,900			
Property	34,900,000	0.57	-75.2	-88.9
Luxury	66,691,000	1.08	-62.0	-49.1
Insurance Premium	193,684,600	3.14	26.3	12.6
Motor Vehicle License	0	0.00	-100.0	-100.0
Pari-mutuel	0	0.00	-100.0	-100.0
Estate	67,170,000	1.09	101.7	24.6
Other Taxes	2,262,800	0.04	-81.0	-27.4
<b>TOTAL TAXES</b>	<b>5,741,538,000</b>	<b>93.00</b>	<b>3.9</b>	<b>-2.6</b>
<b>Non-Tax Revenues:</b>				
Lottery	25,000,000	0.40	-29.4	-68.6
Licenses, Fees and Permits	106,795,200	1.73	63.8	-31.8
Interest	45,000,000	0.73	-15.2	1.5
Other	255,525,600	4.14	793.8	547.1
<b>TOTAL NONTAX REVENUES</b>	<b>432,320,800</b>	<b>7.00</b>	<b>132.6</b>	<b>32.2</b>
<b>TOTAL GENERAL FUND</b>	<b>6,173,858,800</b>	<b>100.00</b>	<b>8.1</b>	<b>-0.8</b>

Source: Joint Legislative Budget Committee, “Historical General Fund Revenue Collections” spreadsheet.

The luxury tax contributed 8 to 9 percent of general fund revenues in the early-to-mid-1970s, but currently is responsible for just more than 1 percent. Shares from the motor vehicle license tax, the pari-mutuel tax, and miscellaneous other taxes have dropped to near zero from a combined figure of around 4 percent. Not showing a trend are the insurance premium tax, which has been between 2.4 and 3.4 percent of total tax collections since 1971, and the estate tax, which has been around 1 to 1.5 percent.

### **Nontax Revenues**

Various other sources of revenue contribute only 7 percent of the total. Licenses, fees and permits amount to just more than \$100 million, with the real per capita amount down from FY1991 but up from FY1986. The state lottery adds only about \$25 million, with real per capita collections much lower than in the FY1989-to-FY1991 period.

### **BUDGET STABILIZATION FUND**

In 1990, the Arizona Legislature created the Budget Stabilization Fund (BSF), also known as the “rainy day fund.” The BSF is designed to set aside revenue during times of strong economic growth to be spent during periods of weak growth or recession. Public revenue collection is quite cyclical, more so than average in Arizona because of the severe cyclicity of its economy.

In the private sector, an economic slump reduces demand for goods and services. The drop off in sales leads to a general reduction in business activity, frequently resulting in layoffs of personnel no longer needed. In the public sector, demand for some services falls off, such as inspections of buildings under construction. However, most public functions experience only a small reduction in the *rate of increase* in demand during recessions. Most government functions are tied to the population, which continues to grow (though less rapidly) during an economic slump. For example, the number of students to educate does not decline, nor does the need for police, fire and correctional services. Moreover, some public-sector functions are countercyclical. For example, the demand for unemployment insurance benefits rises during recessions, as does the number of people eligible for public welfare. Enrollment in community colleges and universities frequently increase during slumps because of limited employment opportunities.

Thus, unlike the private sector, an economic slump does not lead to a decline in the demand for public services. Therefore, it is especially important for the public sector to have funds set aside to offset revenue decreases during an economic decline. Continued public spending helps mitigate the impact of a recession. When the economy is strong, use of a rainy day fund helps control public expenditures by setting aside, rather than spending, excess revenues.

The annual transfer between the BSF and the general fund is determined by a formula that compares the inflation-adjusted percent change in Arizona personal income minus transfer payments for the latest calendar year to its average growth rate over the last seven years. The difference in growth rate is multiplied by the general fund revenues of the prior fiscal year. When growth is above trend, monies are transferred from the general fund to the BSF. When growth is below trend, the transfer is from the BSF to the general fund.

Under the 1990 statute, the balance in the rainy day fund could reach 15 percent of the general fund budget before further transfers to the BSF were blocked. The size of the cap had been

determined from an analysis of prior economic cycles that showed that a rainy day balance of this size was necessary to prevent the BSF from dropping to zero before the economy recovered from a recession. However, the Legislature reduced the cap to 5 percent in 1995. Subsequently, the limit gradually was raised from 5 percent in FY1997 to 7 percent in FY2000.

The first payment into the BSF was made in FY1994. By the next fiscal year (the one in which the limit was dropped to 5 percent), the cap already was reached, so the full transfer indicated by the formula was not made. In the next two years, the formula called for a transfer to the BSF, but no deposit was made to the fund because of the 5 percent limit. While the dollar limit of the BSF rose gradually each year because of the increasing size of the general fund (before adjustment for inflation or population growth), the fund's interest earnings kept the balance at the limit. In FY1998 and FY1999, the gradual increase in the percentage limit allowed some deposit to the fund, though less than that indicated by the formula. Over the five years through FY1999, a total of about \$430 million called for by the formula was not transferred to the BSF because of the reduction in the original 15 percent limit — nearly half the amount of tax cuts passed by the Legislature during these years.

Based on the formula, only small transfers to or from the BSF were recommended in FY2000 and FY2001. A large transfer of nearly \$300 million from the BSF to the general fund was called for in FY2002 and a similar transfer likely will be recommended for FY2003. (The exact figure will be determined in spring 2003 when calendar year 2002 personal income is released by the federal government.) However, the Legislature has been using the fund for other purposes, most notably to pay the cost of the alternative fuels legislation. More generally, the Legislature in recent years has made a number of ad hoc changes to the fund and has not followed the formula. As a result of the lowered cap and other uses, the BSF has been depleted. Thus, the large transfer from the BSF to the general fund called for in spring 2002 could not be made and BSF funds will not be available to mitigate the large projected deficits for FY2003 and FY2004.

A simulation was run under the assumption that the original 1990 BSF statute was not modified (the limit remained at 15 percent of the general fund) and that the fund was not used for other purposes. Under these conditions, the BSF balance would have reached about \$865 million (14 percent of the general fund) at the end of FY2001. Thus, despite transfers to the general fund of close to \$300 million in FY2002 and again in FY2003, the BSF still would have a balance of more than \$300 million [see Chart 8]. Projections of economic growth in 2003 suggest that a smaller transfer from the BSF to the general fund would be likely during FY2004.

A similar simulation was run with the lowered percentage limits, but without the ad hoc changes made to the BSF. The difference in the BSF balance between the original law and the revised statute would have exceeded \$530 million in FY2002: the \$430 million not transferred to the BSF due to the lower limit, and interest earnings that could not be placed in the fund because of the limit and that did not accrue because of the lower balance in the BSF.

The projected general fund deficit for the current fiscal year is greater than the formula-recommended transfers from the BSF to the general fund. The recommended transfers reflect the severity of the economic cycle. The larger projected deficits, then, are a measure of the magnitude of tax cuts implemented between FY1993 and FY2002 in excess of reductions in

expenditures and offsets to the earlier tax increases. This has been termed a “structural deficit,” an imbalance unrelated to the economic cycle. Because of spending cuts implemented before the start of the current fiscal year, the difference between the projected deficit and the formula-driven transfer from the BSF to the general fund is only about \$200 million.

This difference is projected to be much larger in FY2004. The overall deficit for FY2004 (which begins July 1, 2003) currently is projected at between \$800 million and \$1 billion, with the unknown strength of an economic recovery causing the lack of precision in the forecast. The projected formula-driven (i.e. reflecting the economic cycle) transfer from the BSF to the general fund would be a little more than \$100 million.

### **EXPENDITURES**

Of the nearly \$6.2 billion general fund operating budget appropriation in FY2003, 62 percent (\$3.8 billion) is classified as “mandatory:” spending specified in permanent statute or determined by a statutory funding formula. If the projected deficit of \$800 million to \$1 billion in the next fiscal year were to be made up strictly from spending reductions in “discretionary” programs, 34 to 43 percent of the total discretionary spending of \$2.3 billion would have to be cut. Even if

### **CHART 8 BUDGET STABILIZATION FUND SIMULATIONS Arizona State Government (Dollars in Millions)**

Fiscal Year	Based on 1990 Statute		Based on Revised Statutes*		Difference	
	Transfer	Ending Balance	Transfer	Ending Balance	Transfer	Ending Balance
1994	\$58	\$58	\$58	\$58	\$0	\$0
1995	189	251	160	222	-29	-29
1996	137	401	-1	232	-138	-169
1997	108	531	4	249	-104	-282
1998	102	658	31	294	-71	-364
1999	135	824	48	357	-87	-467
2000	-71	801	-71	307	0	-494
2001	33	865	33	354	0	-511
2002	-292	607	-292	76	0	-531
2003	-282	348	-76	0	206	-348
2004	-118	244	0	0	118	-244

\* Regarding the maximum allowed in the fund; it does not reflect one-time changes made by the Legislature.

Note: The simulations are based on revised data as of November 2002, with calendar year 2002 personal income growth projected from actual figures for the first two quarters of the year. Data for FY2004 are projected.

Source: Center for Business Research, L. William Seidman Research Institute, College of Business, Arizona State University.

spending reductions were applied to the entire \$6.2 billion budget, the cut would have to be 13 to 16 percent (about one-seventh) of the general fund budget. This would be on top of the spending reductions implemented earlier. Spending cuts helped to make up a FY2002 shortfall of nearly \$700 million and a FY2003 gap of more than \$900 million.

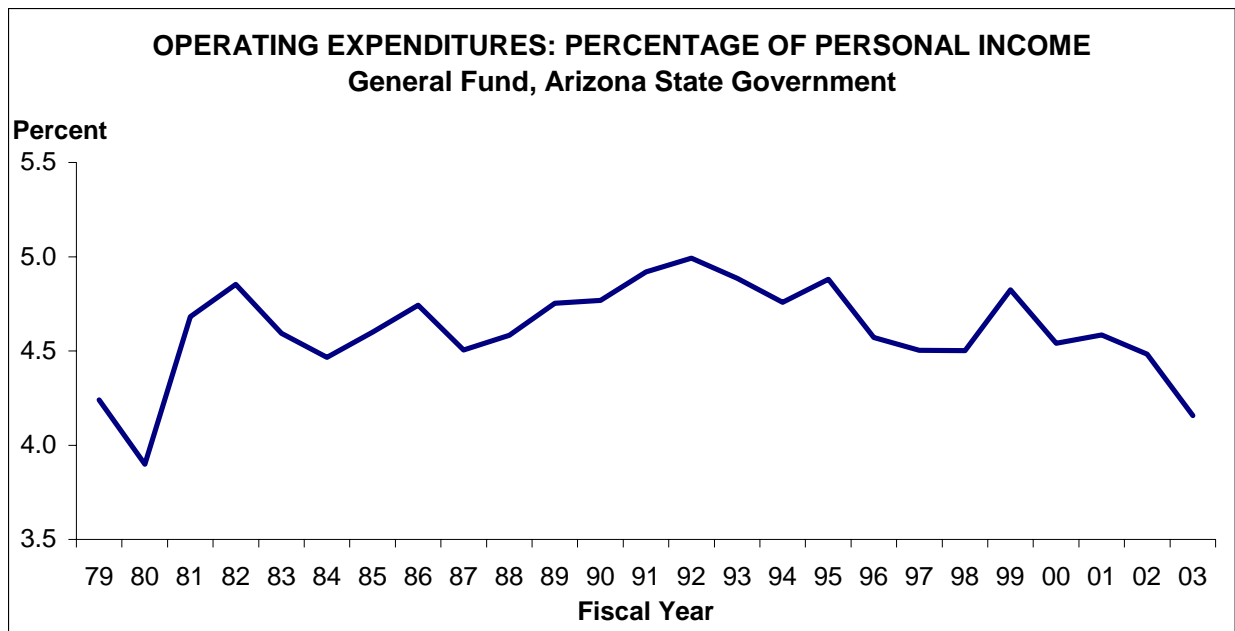
Higher education (universities and community colleges) and the Department of Corrections receive more than 60 percent of the discretionary funds. The entire appropriation for higher education is only a little more than \$800 million, roughly the size of the deficit projected for FY2004, and the appropriation for corrections is a little less than \$600 million. Thus, to balance the budget strictly through discretionary spending reductions would necessitate large reductions in these two programs. Elementary and secondary education receives two-thirds of the mandatory spending; AHCCCS is the only other major recipient. Thus, even if spending cuts were applied to mandatory as well as discretionary spending, education appropriations would have to be lowered significantly.

### Expenditure Changes and Economic Growth

Real per capita state government expenditures increased in each year from FY1992 through FY1999. However, the percent change has been negative since then, with the projected figure for the current fiscal year 12 percent less than the FY1999 peak. Compared to FY1991, real per capita spending in the current fiscal year is less than 3 percent higher; the gain since FY1986 is just 8 percent, a third of the economic growth rate.

Thus, expenditures as a percentage of personal income have dropped [see Chart 9]. The percentage fell considerably in FY2002 and FY2003, reaching the lowest level since FY1980. In

**CHART 9**



Source: Joint Legislative Budget Committee, "General Fund Operating Budget Spending" spreadsheet.

part by not allowing inflation adjustments to agency budgets, state spending was restrained during the 1990s before dropping sharply in FY2002 and FY2003.

State law limits appropriations to 7 percent of personal income. The general fund operating appropriations are only 4.16 percent of projected personal income in FY2003; the comparable figure in FY2001 (the last year of actual personal income data) was 4.58 percent. The figure had topped out at 5 percent in FY1992.

### **Expenditures by Category**

The JLBC groups expenditures into the major categories of education (58 percent of total FY2003 general fund appropriations), health and welfare (23 percent), protection and safety (11 percent), general government (5 percent), natural resources (1 percent), inspection and regulation (less than 1 percent), and transportation (less than 0.1 percent). Compared to FY1979, the first year of the JLBC annual expenditure series (updated on October 7, 2002), the share of expenditures going to education has declined, while the proportions received by health and welfare and protection and safety have increased [see Chart 10].

### **Education**

Nearly all of the \$2.6 billion in general fund monies being spent in the current fiscal year on the kindergarten through 12th grade educational system is mandatory spending. K-12 education is receiving 42 percent of the current fiscal year's general fund spending. Elementary and secondary education's proportion of general fund spending has varied over time. Before FY1985 it exceeded 45 percent, but since FY1987 it has ranged from 37 to 42 percent, with the lowest figures in the early 1990s. While the share has been lower during the last 17 years, spending in real per capita dollars increased, reaching a peak in FY2000. The current year's figure is down 5 percent from the peak.

The increase in real per capita spending between FY1991 and FY2003 is 16 percent [see the "Department of Education" line in Chart 11], less than the 21 percent gain in real per capita personal income. The increase between FY1986 and FY2003 is only 5 percent, far less than economic growth of 23 percent. As a percentage of personal income, elementary and secondary funding has decreased since the early 1980s, with the current fiscal year's figure (1.75 percent) the lowest over the course of the JLBC data series.

About 13 percent of the general fund budget for FY2003 is going to the universities (including the Board of Regents), with virtually all of the \$789 million classified as discretionary. The university share of general fund expenditures was as high as 19 percent in FY1979 and FY1980, but has been less than 13 percent since FY1999. Since FY1979, only in FY1983 was real per capita spending on the universities less than in the current year. Real per capita spending is down 21 percent from the FY1989 peak. The FY1991-to-FY2003 decline is 19 percent, while the FY1986-to-FY2003 decrease is 17 percent. Compared to real per capita economic growth in excess of 20 percent, these large spending decreases represent a very large reduction in the investment that could have been made in higher education. State general fund spending on universities is just 0.5 percent of personal income.

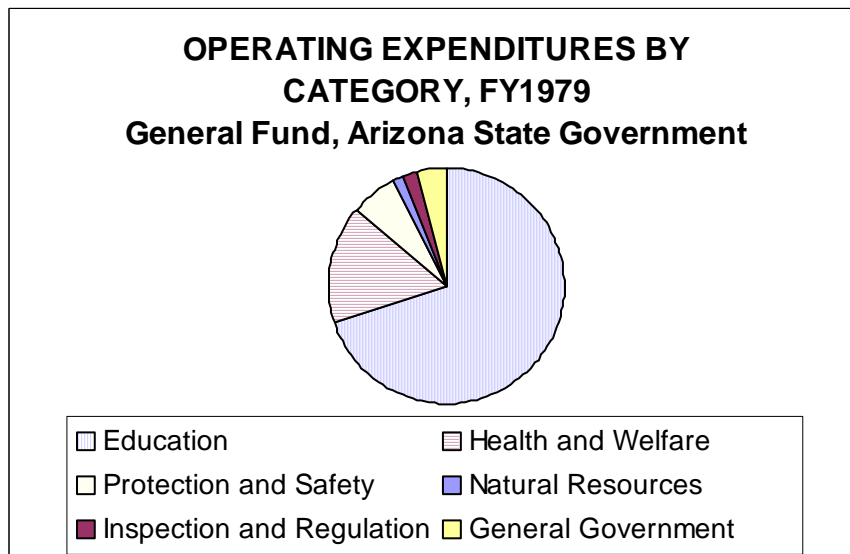
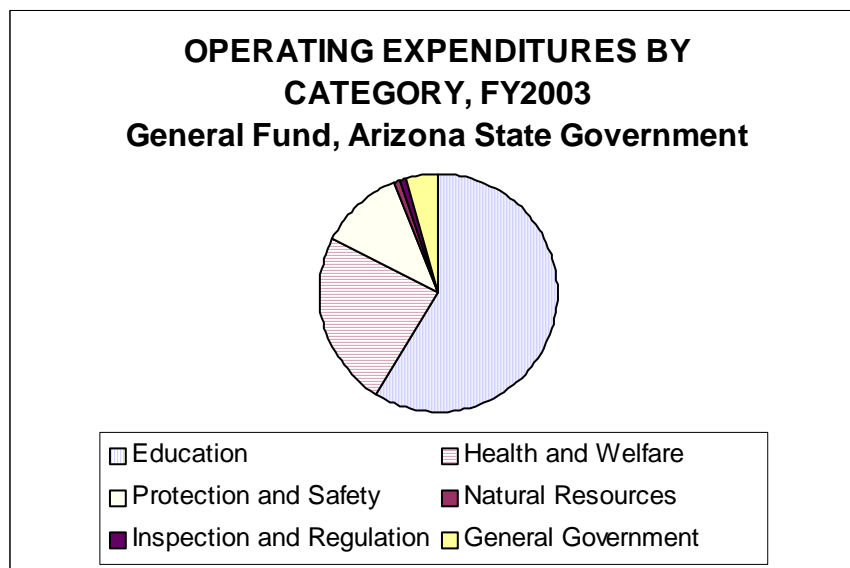
Real per capita spending on other education categories also has fallen, with significant drops in funding for community colleges and the Arizona School for the Deaf and Blind. The first year

that maintaining schools was a general fund responsibility was FY1998. The shift to the general fund — more than \$300 million per year in spending from FY1999 through FY2002 (nearly \$500 million in FY2001) — occurred without any enhancement made to general fund revenues. The appropriation to the School Facilities Board in FY2003 is about a tenth of the expenditures in FY2002.

**Health and Welfare**

AHCCCS receives nearly half of the spending in this category, with the Departments of Economic Security and Health Services accounting for nearly all of the remainder. State spending for Arizona’s alternative to Medicaid began with a small expenditure in FY1983. By FY1993, it accounted for 13 percent of general fund spending. The percentage then dropped

**CHART 10**



Source: Joint Legislative Budget Committee, “General Fund Operating Budget Spending” spreadsheet.

**CHART 11**  
**OPERATING EXPENDITURES BY CATEGORY AND SUBCATEGORY**  
**General Fund, Arizona State Government**

	FY2003	Share of Total	Real Per Capita % Change	
			FY86 – FY03	FY91 – FY03
Administration, Department of	\$25,347,900	0.41%	-56.2%	-53.7%
Attorney General	25,725,200	0.42	-28.3	-22.2
Commerce, Department of	4,358,000	0.07	-35.9	-39.4
Courts	143,153,900	2.31	200.0	15.3
Governor, Office of the	5,987,800	0.10	53.1	-9.9
Legislature	46,664,000	0.75	-10.4	-10.7
Revenue, Department of	59,172,800	0.96	-16.1	-27.3
Secretary of State	5,851,800	0.09	30.0	-52.3
Tourism, Office of	10,018,400	0.16	45.0	2.3
Treasurer	5,056,800	0.08	-55.6	-54.9
Other	6,159,400	0.10	231.8	57.5
<b>TOTAL GENERAL GOVERNMENT</b>	<b>337,496,000</b>	<b>5.45</b>	<b>12.7</b>	<b>-14.9</b>
Arizona Health Care Cost Containment System	687,434,200	11.10	92.1	11.0
Economic Security, Department of	437,127,900	7.06	-14.3	-25.6
Environmental Quality, Department of	25,872,400	0.42	161.1	38.6
Health Services, Department of	294,780,000	4.76	47.1	14.0
Other	2,854,600	0.05	-66.4	-61.6
<b>TOTAL HEALTH AND WELFARE</b>	<b>1,448,069,100</b>	<b>23.38</b>	<b>33.3</b>	<b>-2.9</b>
Agriculture, Department of	11,633,600	0.19	-9.1	-22.6
Corporation Commission	5,273,200	0.09	-54.6	-41.0
Insurance, Department of	6,094,400	0.10	19.6	10.3
Other	18,968,000	0.31	-58.6	-54.4
<b>TOTAL INSPECTION AND REGULATION</b>	<b>41,969,200</b>	<b>0.68</b>	<b>-44.3</b>	<b>-40.9</b>
Community Colleges, Arizona	134,285,200	2.17	-0.2	-11.0
Deaf and the Blind, School for the	16,122,300	0.26	-29.0	-25.8
Education, Department of	2,612,701,100	42.18	4.7	16.4
School Facilities Board	39,946,400	0.64	NA	NA
Universities/Regents	789,188,100	12.74	-16.9	-18.7
Other	9,954,900	0.16	28.9	3.4
<b>TOTAL EDUCATION</b>	<b>3,602,198,000</b>	<b>58.15</b>	<b>-0.2</b>	<b>6.0</b>
Corrections, Department of	579,765,400	9.36	40.4	29.7
Emergency and Military Affairs, Dept of	11,625,700	0.19	11.8	58.9
Juvenile Corrections, Department of	63,943,500	1.03	NA	4.1
Public Safety, Department of	44,547,300	0.72	-73.1	-61.9
Other	2,639,800	0.04	-27.2	-49.7
<b>TOTAL PROTECTION AND SAFETY</b>	<b>702,521,700</b>	<b>11.34</b>	<b>18.5</b>	<b>10.1</b>
<b>TOTAL TRANSPORTATION</b>	<b>63,500</b>	<b>0.00</b>	<b>-60.9</b>	<b>-54.8</b>
Land Department	18,215,400	0.29	31.3	24.1
Parks Board	26,865,500	0.43	136.1	124.8
Water Resources, Department of	15,152,400	0.24	-67.2	-29.0
Other	1,767,000	0.03	-19.7	-20.5
<b>TOTAL NATURAL RESOURCES</b>	<b>62,000,300</b>	<b>1.00</b>	<b>-15.8</b>	<b>23.6</b>
<b>TOTAL GENERAL FUND</b>	<b>6,194,317,800</b>	<b>100.00</b>	<b>8.0</b>	<b>2.5</b>

NA: Not available; this department was created subsequent to the initial date of comparison.

Source: Joint Legislative Budget Committee, "General Fund Operating Budget Spending" spreadsheet.

through FY2001, but has climbed since to 11 percent in the current fiscal year. About 90 percent of the spending is mandatory. Spending in real per capita dollars peaked in FY1993, dropped off nearly 30 percent, but rose 23 percent in FY2003. Since FY1991, the real per capita increase has been only 11 percent, half the rate of economic growth. Compared to FY1986, however, FY2003 spending is 92 percent higher.

The Department of Economic Security (DES) is receiving 7 percent of the general fund appropriations in the current fiscal year, a similar percentage to the preceding few years. The share had been around 10 percent in the early 1980s and early 1990s (many of the agency's programs are countercyclical, thus the DES share is higher during recessions). Around half of the Department's appropriation is mandatory. Real per capita spending in the current year is the lowest of the time series, 28 percent less than the peak in FY1992. Since FY1991, the decline has been 26 percent; the drop since FY1986 has been 14 percent. These large declines compare to real per capita economic growth in excess of 20 percent.

The Department of Health Services (DHS) has received 4 to 5 percent of the budget throughout the time series. Nearly 40 percent of the appropriation is mandatory. Real per capita spending since FY1992 has been higher than in earlier years. The real per capita increase from FY1991 to FY2003 is less than economic growth, but the FY1986-to-FY2003 rise is double economic growth. Spending on the Department of Environmental Quality has increased more than this on a percentage basis, but its budget is less than a tenth that of DHS.

### **Protection and Safety**

More than 80 percent of this category's current fiscal year appropriation goes to the Department of Corrections, which is receiving 9 percent of the total general fund budget, the highest percentage on record. None of the spending is mandatory. Including the Department of Juvenile Corrections, which was split out from Corrections in FY1990, the FY2003 share is more than 10 percent. Corrections' share had been less than 5 percent of the total before FY1982. In real per capita dollars, the combined budget has more than tripled since FY1979. The increase from FY1991 to FY2003 is 27 percent while the FY1986-to-FY2003 advance is 56 percent, more than twice economic growth. The FY2003 appropriation amounts to more than \$100 from every person in the state.

In contrast to Corrections, the Department of Public Safety's budget share has fallen, from more than 2 percent of the general fund in the mid-to-late 1980s to less than 1 percent in the last two fiscal years. On a real per capita basis, spending in the current year is at the lowest level on record, nearly three-fourths less than the FY1988 peak.

### **General Government**

Various programs are included in this category, including the court system (2 percent of the total budget in the current fiscal year) and the Department of Revenue (1 percent). Other than the Legislature, the other programs all have considerably less than a 1 percent share, including the Department of Administration, the Attorney General's office, the Department of Commerce, and the Office of Tourism.

Taken together, the category's 5.4 percent share of the FY2003 budget is the lowest share since FY1986. Spending on a real per capita basis peaked in fiscal year 1999 and is 20 percent lower in the current fiscal year. In the Departments of Administration and Commerce, the FY2003 real per capita budget is the lowest on record. Real per capita spending in the category has fallen 15 percent from FY1991 to FY2003; the 13 percent rise from FY1986 through FY2003 is less than economic growth. Most of the subcategories have experienced a real per capita decline in spending since FY1991, with half also posting a FY1986-to-FY2003 drop.

### **Natural Resources**

This category is receiving just 1 percent of the general fund appropriations in the current fiscal year. The share was higher in the early 1980s, but has ranged from 0.7 to 1.0 percent since FY1987. Real per capita spending in recent years has been about the same as during the early 1980s peak. An increase in real per capita spending has occurred since FY1991, but the FY2003 figure is considerably less than that of FY1986. The largest units in this category are the Parks Board, Land Department, and Department of Water Resources.

### **NATIONAL PERSPECTIVE**

Arizona hardly is alone in experiencing fiscal problems, but has among the most serious imbalances in the nation. The state's initial budget gap for FY2003 was nearly 15 percent of the general fund, the sixth highest percentage in the nation and the second largest among 10 western states. Recently, the gap has been estimated at 8 percent, the fifth largest in the nation and the third biggest in the West.

For the current fiscal year, two-thirds of the states report revenues below projections and nearly as many report budget gaps. Arizona was one of only seven states to budget for a revenue decline in FY2003, yet revenues so far this year are well below this conservative forecast. Since these figures are not adjusted for population growth, Arizona's per capita declines are comparatively larger.

These problems follow similar difficulties in FY2002, when nearly all states lost revenue and used rainy day funds, spending reductions and tax increases to balance the budget. Taxes were raised by more than 1 percent in 18 states. Only 15 states had a greater spending decrease in FY2002 than Arizona.

The current state government fiscal crisis across the nation results from cyclical revenue declines due to the economic slump, most notably from the fall in the stock market, and from large tax cuts during the 1990s. *Permanent* tax cuts of at least 1 percent were enacted in 43 states between 1994 and 2001 when revenue growth was *temporarily* high. The average tax cut across all 50 states as a percentage of total taxes was 8 percent.

In Arizona, the more than \$1.2 billion in tax cuts from FY1993 through FY2002 amounted to more than one-third of total taxes collected in FY1992. Even using the \$800 million in net tax cuts from FY1989 through FY2002 amounted to one-third of FY1988 taxes.

The 10 states (including Arizona) that passed the largest tax cuts from 1994 through 2001 had reductions that averaged 16 percent of total taxes. These states faced an average general fund

budget deficit of 9 percent in FY2002, compared to a 5 percent deficit in the 10 states that enacted the least tax cuts. For FY2003, the 10 states with the largest reductions face an average deficit of 13 percent of the general fund, compared to just 1 percent in the 10 states with the least tax reductions.

As a percentage of personal income, spending by the 50 states climbed only slightly between 1989 and 1999 — a smaller advance than in each of the four previous decades. Moreover, this small rise in state-level spending occurred despite significant increases in demand for state services:

- Some federal responsibilities were shifted to states (and local governments) during the decade; federal spending as a percentage of gross domestic product fell. Despite the small increase in state and local funding, total government spending dropped relative to economic growth.
- Some local government functions shifted to states, particularly to equalize education spending among localities.
- Education funding rose in response to school-age population growth greater than total population growth and public pressure to lower class sizes, pay teachers more, and generally improve the quality of education.
- Medicaid (AHCCCS in Arizona) costs have jumped in FY2002 and FY2003.

[This national perspective came from reports of the Center on Budget and Policy Priorities, the National Conference of State Legislatures, the National Governors Association, and the National Association of Budget Officers. See the references at the end of this paper.]

## **COMBINED STATE AND LOCAL GOVERNMENTS**

The level of government levying taxes and having responsibility for funding programs varies from state to state. Thus, state government finance data cannot be accurately compared across states. Instead, state government finance data must be combined with local government finance data (including counties, cities, school districts and special districts). In addition to comparing Arizona to the national average in this section, it is compared to nine other western states (California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington).

A drawback to comparing dollar measures across states is that the cost of living varies by state. Research has shown that a meld of unadjusted and cost-of-living-adjusted data provides the best comparison across states. However, a state-level index of living costs is not regularly produced. Various efforts to produce cost of living indexes have shown Arizona's living costs to be quite close to the national average. Thus, adjusting for the cost of living has little impact on Arizona's comparison to the national average, but the ranking among states can be different after adjusting for living costs.

The U.S. Department of Commerce's Bureau of the Census produces combined state and local government finance data annually using a consistent system of accounting. Every five years, the data come from the Census of Governments and are a complete census of all governments. In the other years, the Census Bureau produces estimates of total government finance by collecting state government data from all states and a sample of local government data by state. The combined state and local government data are slow to be produced, with data for FY2000 not released until December 2002.

### **REVENUES**

In the Census Bureau dataset, revenue received from the federal government is shown separately from revenue collected by state and local governments. State and local government ("own source") revenues are divided into tax and nontax categories, with several subcategories provided for each. The analysis that follows is limited to the Census Bureau definition of general fund.

#### **Revenue Sources**

In FY2000, total revenues available to state and local governments in Arizona totaled nearly \$23 billion. Nearly \$4.5 billion came from the federal government, while state and local taxes were the source of \$13.3 billion. The balance came from current charges (user fees), interest earned, and miscellaneous other sources [see Chart 12].

Total Arizona government revenue in FY2000 was 19 percent less than the national per capita average, third lowest to Arkansas and Tennessee among all states (including the District of Columbia). Arizona's revenue from the federal government was 16 percent less than the national per capita average, eighth lowest in the nation and third lowest in the West. The state also compared quite low on revenue raised directly by Arizona governments: 20 percent below average, fifth lowest in the nation and least in the West. Since Arizona does not use nontax sources of revenue, such as user fees, nearly as much as the national average, the burden of state and local taxes was not as low: 14th lowest in the nation and third lowest in the West, 17 percent

below the national per capita average. Since FY1996, per capita taxes in Arizona as a ratio to the national average have been lower than in any prior year (the Census Bureau time series began in FY1964).

**CHART 12**  
**REVENUES BY SOURCE, FY2000**  
**General Fund, Arizona State And Local Governments**

	Dollars*	Share of Total	Per Capita	
			Dollars**	Ratio to US
Total Revenue	\$22,863	100.0%	\$4,609	81%
From Federal Government	4,475	19.6	902	84
Total Own Source	18,388	80.4	3,707	80
Taxes	13,334	58.3	2,688	83
Property	3,906	17.1	787	86
Sales and Gross Receipts	6,070	26.6	1,224	107
General Sales	4,853	21.2	978	123
Selective Sales	1,217	5.3	245	71
Motor Fuels	593	2.6	119	105
Alcoholic Beverages	51	0.2	10	63
Tobacco Products	163	0.7	33	104
Public Utilities	163	0.7	33	50
Other	248	1.1	50	42
Individual Income	2,292	10.0	462	59
Corporate Income	523	2.3	105	79
Motor Vehicle License	153	0.7	31	51
Other	389	1.7	78	43
Nontax Sources	5,054	22.1	1,019	73
Current Charges	2,618	11.5	528	64
Education	1,063	4.7	214	89
Higher Education	889	3.9	179	88
School Lunch Sales	85	0.4	17	85
Other	89	0.4	18	101
Hospitals	219	1.0	44	22
Highways	8	0.0	2	6
Airports	259	1.1	52	127
Parking Facilities	6	0.0	1	24
Natural Resources	52	0.2	10	96
Parks and Recreation	88	0.4	18	76
Housing and Community Development	21	0.1	4	28
Sewerage	294	1.3	59	66
Solid Waste Management	215	0.9	43	115
Other	392	1.7	79	65
Miscellaneous Revenue	2,436	10.7	491	87
Interest Earned	1,161	5.1	234	90
Special Assessments	62	0.3	12	88
Sale of Property	93	0.4	19	251
Other	1,121	4.9	226	79

\* In millions.

\*\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

A discussion of various measures of tax burden follows this section. The per capita calculation divides the public finance data by population [included in Chart 12] and is a common means to compare states. Another is to divide finance figures by a measure of income. Using the 2000 census aggregate income figures, Arizona's comparison to other states and the national average is similar to that of the per capita measure. Relative to income, total revenues in FY2000 were 13 percent below the national average, fourth lowest in the nation and second lowest in the West to Nevada. Own-source revenues per dollar of income were 14 percent below the national average, third lowest in the country and least in the West. State and local taxes per dollar of income were 11 percent below average, ninth lowest nationally and third lowest in the West.

To analyze the change in Arizona's fiscal position over time, comparisons to the FY1986 and FY1991 base periods are shown in Chart 13. Inflation-adjusted per capita total revenues have climbed over time, though the increases in each period were substantially less than the national average. From FY1986 to FY2000, Arizona's 25 percent increase compared to 44 percent

**CHART 13**  
**CHANGE IN REVENUES BY SOURCE**  
**General Fund, Arizona State And Local Governments**

	Change, Fiscal Year 1986 to 2000				Change, Fiscal Year 1991 to 2000			
	Share of	Per Capita			Share of	Per Capita		
		Total	Dollars*	Percent		Ratio to US	Total	Dollars*
Total Revenue	0.0%	\$911	25%	-13%	0.0%	\$553	14%	-10%
From Federal Government	7.1	441	96	17	5.0	310	52	6
Total Own Source	-7.1	470	15	-19	-5.0	242	7	-14
Taxes	-0.8	501	23	-12	-2.6	215	9	-12
Property	0.2	163	26	-5	-3.0	-28	-3	-13
Sales/Gross Receipts	-1.5	186	18	-18	0.4	163	15	-9
General Sales	0.1	197	25	-17	1.4	174	22	-7
Selective Sales	-1.6	-11	-4	-24	-1.0	-11	-4	-16
Motor Fuels	-0.5	4	4	-25	-0.3	0	0	-9
Other	-1.1	-16	-11	-23	-0.6	-11	-8	-18
Income	1.8	178	46	-5	0.6	94	20	-11
Motor Vehicle License	-1.4	-46	-60	-88	-1.1	-39	-56	-70
Other	0.1	21	36	2	0.4	25	46	4
Nontax Sources	-6.3	-31	-3	-37	-2.3	27	3	-17
Current Charges	0.3	114	28	-20	-0.1	61	13	-12
Education	-0.1	38	21	-32	-0.2	18	9	-23
Hospitals	-0.4	-5	-9	-13	-0.2	-1	-2	-5
Other	0.7	81	43	-20	0.3	43	19	-11
Miscellaneous Revenue	-6.6	-145	-23	-51	-2.3	-33	-6	-22
Interest Earned	-1.1	6	3	-13	-2.1	-57	-20	-11
Other	-5.5	-151	-37	-86	-0.2	24	10	-38

\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

nationally. The only states with lesser gains were Alaska and Wyoming, which collect considerable revenue from cyclical natural resources. Between FY1986 and FY2000, the total revenue increase in Arizona slightly exceeded the real per capita economic growth rate as measured by personal income, but was less than the gain in gross state product. The increase from FY1991 to FY2000 was less than economic growth.

Per capita taxes rose at the pace of per capita personal income over the longer period but at less than half the rate during the shorter period, well below the national average. The 23 percent increase in Arizona from FY1986 to FY2000 was less than the national average of 40 percent, with the state ranking fourth lowest in the nation. Real per capita collections from nontax sources dropped over the longer period and barely rose over the shorter period, while use of these nontax sources expanded considerably nationally.

Over both periods, large gains in federal funding were realized in Arizona, with the federal share of total revenues up to nearly 20 percent in FY2000. Arizona's 96 percent per person gain was far above the national average of 55 percent; only three states, including Oregon, had larger advances. Yet per capita federal spending in Arizona as a ratio to the national average climbed to only 84 percent, the eighth lowest ratio in the nation and third lowest among 10 western states (Nevada and Colorado received less federal revenues per capita).

### **Sales and Gross Receipts Tax**

More than 70 percent of Arizona's directly raised revenues came from state and local taxes in FY2000. The general sales tax was the largest single source of state and local government tax revenue in Arizona in FY2000, accounting for 36 percent of total taxes and 21 percent of total revenues. Real per person collections from this tax rose considerably less than the national average between FY1986 and FY2000 and also gained less from FY1991 to FY2000. However, the ratio to the national average in FY2000 still was high at 123 percent. Only nine states nationally, including three in the West (Nevada, New Mexico and Washington), had higher per capita collections.

Including selective sales taxes as well as the general sales tax, the sales and gross receipts tax accounted for 46 percent of the tax collections in Arizona. Thirteen states had a higher per capita figure, including four in the West. In contrast to the general sales tax, Arizona's use of selective sales taxes is among the lowest in the nation, with only three states (none in the West) having lower per capita collections. Real per capita selective sales tax collections in Arizona fell slightly from FY1986 to FY2000 as well as from FY1991 to FY2000, while moderate increases occurred nationally.

While Arizona's tax on motor fuels brought in 5 percent more than the national per capita average in FY2000, only 15 states had a lower figure, with only California lower among the western states. Real per capita collections from this tax hardly changed in Arizona over both periods while moderate increases occurred nationally over both time periods. Per capita collections from the tobacco tax also were a little above average and ranked in the middle of the states.

In contrast, per capita collections from the tax on alcoholic beverages were 37 percent less in Arizona than the national per capita average. Five western states and 13 other states had lower collections. Per capita collections from the tax on public utilities was just half the national average,

though Arizona ranked near the middle of the states. Arizona utilized other selective sales taxes far less than other states, with per capita collections 58 percent below the national average and only seven states (including Oregon) having a lower figure. Over both periods, real per capita collections fell in Arizona but increased nationally.

### **Property Tax**

Property taxes, consisting of various business and household taxes, were the second largest category of revenue in Arizona in FY2000, accounting for 17 percent of all revenues and 29 percent of tax collections. Property tax collections rose at close to the national average pace between FY1986 and FY2000, but fell on a real per capita basis between FY1991 and FY2000 while the national average rose moderately. Per capita collections in FY2000 were 14 percent less than the national average. Eighteen states, including Idaho, Nevada, New Mexico and Utah, had lower per capita collections.

### **Income Tax**

The individual income tax was responsible for 10 percent of Arizona state and local government revenue in FY2000, and 17 percent of tax collections. With per capita collections of only \$462 per person, this tax was highly underutilized relative to the national average (41 percent below average). Nationally, nine states do not levy a personal income tax; only three other states had lower per capita collections than Arizona.

Per capita collections from the Arizona corporate income tax were 21 percent below the national average in FY2000 but were third highest in the West and ranked 23rd highest nationally. Only 2 percent of Arizona's state and local government revenues (and 4 percent of taxes) come from the corporate income tax. The combined personal and corporate income tax rose more substantially on a per capita basis than most revenue sources between FY1986 and FY2000, at nearly the same pace as the national average. The gain from FY1991 to FY2000 was equal to that of personal income and not as great as the national average. Throughout the country, collections from the income tax rose substantially over these periods because of very large increases in capital gains from 1996 through 2000.

### **Other Taxes**

Per capita collections from the motor vehicle license tax were barely more than half the national average in FY2000, fifth lowest in the nation and least among the western states. Real per capita collections fell between 56 and 60 percent over the two comparison periods, while moderate increases occurred nationally.

Collections from miscellaneous other taxes also were far less than the national per capita average and ranked last in the West and third lowest nationally. However, this was the only category of own-source revenue to experience a per capita gain (over both periods) in Arizona greater than the national average.

### **Nontax Sources**

Other than taxes, state and local governments receive revenues from current charges (user fees), interest earned, and various other sources. In FY2000, the per person level of each was below the national average, as was the change over both time periods. Per capita interest earnings were 10

percent less than the national average, second lowest in the West and 16th lowest nationally. Other than interest and current charges, Arizona's nontax revenues were among the least in the nation.

Per capita collections from current charges were 36 percent less than the national average in Arizona in FY2000, the lowest in the West and third lowest nationally. Education was the source of 41 percent of Arizona's current charges, with a per capita level 11 percent below the national average. Per capita revenues from education charges rose in Arizona over both periods, but at less than half the rate of the national average. Current charges in higher education were 12 percent less than the national average, with only Nevada and 11 other states having lower per capita figures. Among the other larger sources of current charges, Arizona ranked among the lowest states in the hospitals and sewerage categories, but was above average for solid waste management and airports.

### **Business v. Personal Taxes**

With the exception of income tax data, the Census Bureau revenue data do not distinguish between taxes and fees paid by businesses and those paid by individuals. Research by Kent Hill reveals that while personal tax burdens are below average in Arizona, business tax burdens are somewhat higher than average. Businesses pay a high portion of the total government revenue collected in Arizona (43 percent in the mid-1990s compared to 38.5 percent in the median state, ranking Arizona 14th highest nationally and third highest in the West).

Much of the high business tax burden results from the personal property tax levied particularly on equipment owned by businesses. Various studies conducted in the mid-to-late 1990s indicate that the overall business property tax in Arizona is one of the highest in the West. Sales taxes paid by businesses also are above average. Assessments of Arizona's corporate income tax ranges by study from relatively low to relatively high; collections from this source vary considerably over time.

### **MEASURES OF TAX BURDEN**

Taxes can be compared across states by several methods. Arizona's tax burden is less than the national average by each method, by between 11 and 17 percent on most measures. Arizona's tax burden relative to other states has dropped considerably since the early 1990s according to each method. Further, each method indicates that the sales tax burden is well above average, but that the burdens imposed by the other major taxes (income and property) are below average.

#### **Per Capita**

Dividing tax receipts by population is the simplest measure of tax burden. The main drawback to the per capita calculation is that geographic differences in the ability to pay (essentially variations in income levels) are not considered. Applied to the Census Bureau data, this method produces the lowest measure of Arizona's tax burden relative to the national average.

When this method is applied to the government finance data collected by the Census Bureau, taxes paid by businesses cannot be separated from those paid by individuals (except for the income tax). Similarly, taxes paid by tourists, business travelers, and seasonal residents cannot be isolated. Thus, the per capita calculation substantially overstates the direct taxes paid by the average resident.

The overall tax burden from state and local taxes in FY2000 was 17 percent less than the national per capita average, ranking Arizona 14th lowest in the nation and third lowest among 10 western states. In both FY1986 and FY1991, Arizona's figure was only 5 percent less than the national average.

Per capita tax collections from the general sales tax were 23 percent higher than the national average in FY2000, but collections from all other major taxes were below average, ranging from 14 percent lower on property taxes to 57 percent lower for "other" taxes. Relative to the national average, the tax burden fell substantially from FY1986 to FY2000 and from FY1991 to FY2000 in the motor vehicle license tax and selective sales tax. The decline was more modest in the property, income, and general sales taxes.

### **Relative to Income**

Comparing tax collections to a measure of income is an attempt to incorporate interstate differences in ability to pay. Applied to the Census Bureau data, this method has the same shortcomings as the per capita method in not being able to differentiate taxes paid by businesses from those paid by individuals or by residents from nonresidents.

From one perspective, acknowledging differences in income levels (the ability to pay) across states is important and makes this a more useful measure than the per capita tax burden. From another perspective, however, states with low incomes have greater demands for their public services. Limiting tax collections (and therefore expenditures) to the average ability to pay could compromise the capacity of the state to address income and related issues, helping to perpetuate those problems. A highly progressive tax system can collect above average revenues without unduly burdening those with low incomes.

The income measure usually compared to tax collections is personal income, produced by the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). This series has the advantage of being released annually (actually, quarterly) and is used in Arizona statutes such as those related to the expenditure limitation and budget stabilization fund. While personal income is a reasonable measure of economic growth, it is a poor indicator of ability to pay. Personal income is defined broadly and includes nonmonetary income, such as the imputed rent received by homeowners, and income received by entities other than individuals (such as nonprofit organizations). Since these other sources of income are not available to households to apply to tax payments, personal income produces a distorted indicator of ability to pay. Moreover, a lack of state-level data forces the allocation of the national figure to states by simplistic means for several of these nonmonetary sources of income.

Household or individual income, which measure only money income, are much better measures of ability to pay, but reliable data are available only every 10 years from the decennial census. In Arizona, the difference between the personal income and census income measures is substantial. Per capita income in 1999 from the decennial census was 6 percent less than the national average, while per capita personal income was 15 percent less than the national average. The difference between these two measures is greater in Arizona than in any other state. Regardless of the reason for Arizona's large difference between measures — the BEA's estimate of personal income in Arizona could be too low or (less likely) Arizona really could receive very low

amounts of nonmonetary income — personal income is a particularly unsuitable measure of the ability to pay in Arizona.

In fiscal year 2000, per capita taxes in Arizona were 17 percent less than the national average, but taxes per \$1,000 of personal income were only 2 percent less than average. Per \$1,000 of aggregate income reported in the decennial census, taxes were 11 percent lower than the national average.

(These calculations use FY2000 tax data, the population at the end of the fiscal year [July 1, 2000], average personal income of calendar years 1999 and 2000, and the census income data, which are for calendar year 1999. Subsequent comparisons involving the census income figure use FY1999 tax data, the July 1, 1999 population, and the average of 1998 and 1999 personal income, as well as similar data for FY1989 and FY1979.)

Regardless of the measure used, the ratio to the national average was down substantially between FY1989 and FY1999, ranging from 10 percentage points on the personal income measure to 14 points using the census income measure [see Chart 14.] The decline from FY1979 to FY1999 was even greater, from 15 percentage points based on personal income to 20 percentage points on a per capita basis.

**CHART 14**  
**COMPARISON OF MEASURES OF REVENUES AND EXPENDITURES**  
**General Fund, Arizona State And Local Governments**

	<b>Ratio to National Average</b>	
	<b>FY1999</b>	<b>10-Year Change</b>
<b>TAXES:</b>		
Per Capita	82%	-13
Per \$ of Census Income	88	-14
Per \$ of Personal Income	97	-10
<b>OWN SOURCE REVENUES:</b>		
Per Capita	80	-15
Per \$ of Census Income	85	-17
Per \$ of Personal Income	95	-13
<b>CAPITAL EXPENDITURES:</b>		
Per Capita	117	-75
Per \$ of Census Income	125	-81
Per \$ of Personal Income	138	-78
<b>CURRENT OPERATIONS:</b>		
Per Capita	74	-19
Per \$ of Census Income	79	-21
Per \$ of Personal Income	88	-18

Source: U.S. Department of Commerce, Bureaus of the Census and Economic Analysis.

Based on the census income data, the tax burden in Arizona was above the national average in 1979, slightly higher in 1989, but lower in 1999 [see Chart 15]. The decline between 1989 and 1999 was greater based on census income than on personal income.

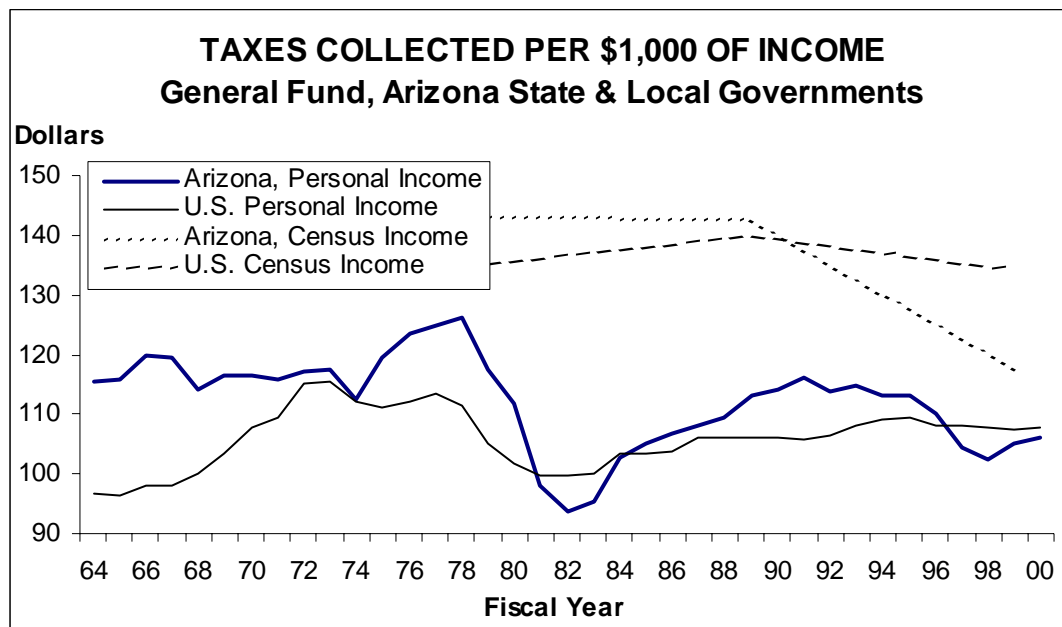
Looking at total revenue collected within the state (combining taxes with user fees and other nontax sources) or all revenue received by a state (adding federal funds to the previous measure), the situation in Arizona is similar to that of taxes alone. The state’s collections are a little further below the national average than based on taxes alone, with substantial declines over time in the ratios to the national average.

### Tax Capacity and Tax Effort

For various years from the 1960s through FY1991, the Advisory Commission on Intergovernmental Relations (an organization that no longer exists) used a representative tax system approach to measure tax capacity and tax effort. Since then, the Federal Reserve Bank of Boston has updated these measures for selected years, the latest being FY1997. These measures provide a much better gauge than personal income of the ability to pay, in part by recognizing that Arizona’s above average numbers of tourists and seasonal residents pay taxes that otherwise are assumed to be paid by residents. Nonresidents have the most impact on sales taxes, but many seasonal residents also pay property taxes.

Tax capacity is defined as the revenue each state would raise if it applied national average tax rates to commonly used tax bases. Overall tax capacity in Arizona was below average from the mid-1970s into the early 1980s, was near the national average during the mid-1980s, again was below average in the early 1990s (by about 6 percent), but returned to the national average by FY1997, when it ranked 21st in the nation and sixth among 10 western states.

CHART 15



Source: U.S. Department of Commerce, Bureaus of the Census and Economic Analysis.

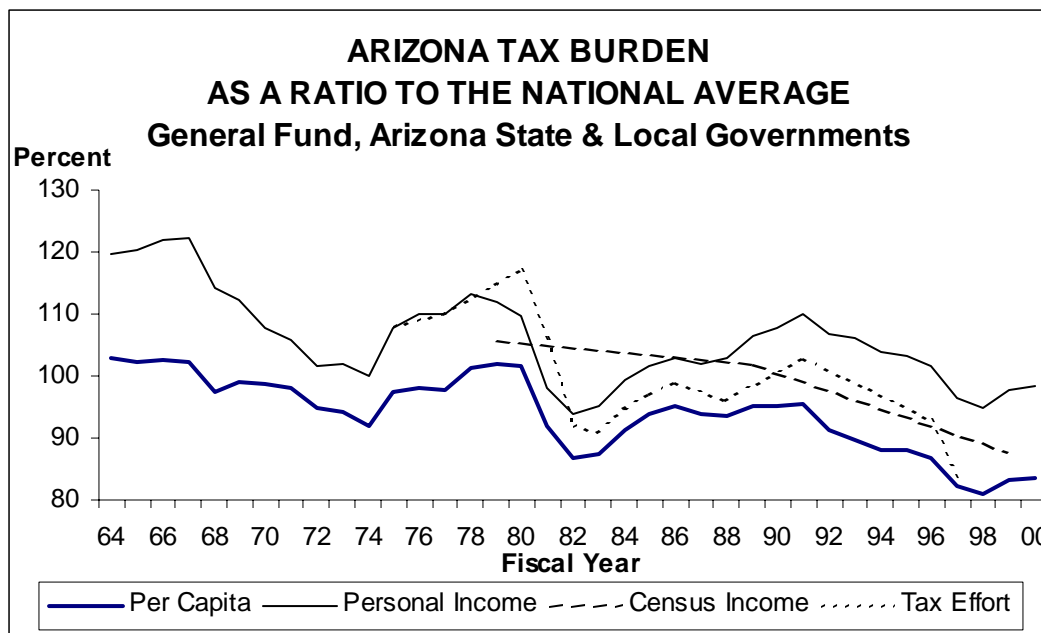
Tax effort is calculated as the ratio of a state's actual tax collections to its tax capacity. It was well above average in Arizona from the mid-1970s through FY1980. The tax cuts of the FY1979-to-FY1981 period caused tax effort to drop sharply through FY1982. During the rest of the 1980s, tax effort was several percent less than the national average. The tax increases from FY1989 through FY1991 caused tax effort to rise to slightly above the national average in FY1991. Tax effort fell significantly during the 1990s in response to the tax reductions. By FY1997, Arizona's tax effort was 16 percent less than the national average and ranked as seventh lowest of the states (third lowest in the West). Around \$600 million of tax cuts took effect after FY1997, likely lowering Arizona's tax effort ratio even further.

Because of Arizona's highly cyclical economy, the tax capacity index (relative to the national average) fluctuates with the economic cycle. During recessions, Arizona's lowered tax capacity raises tax effort (assuming no change in tax laws). Tax effort is compared to other measures of tax burden in Chart 16. As a ratio to the national average, Arizona's tax effort since the early 1980s has been from a little higher than the per capita measure to midway between the per capita and personal income measures. For each of the three years for which it is available, the census income measure has been roughly midway between the per capita and personal income measures.

### Hypothetical Household

Another approach to comparing tax burdens across geographic areas is to select a hypothetical household based on household composition, income and other factors. The tax burden for this household is calculated using the actual tax code in every state. These studies typically limit the analysis to major taxes paid directly by households and often select just one hypothetical

CHART 16



Source: U.S. Department of Commerce, Bureaus of the Census and Economic Analysis; Advisory Commission on Intergovernmental Relations; and Federal Reserve Bank of Boston.

household, typically of upper-middle income. Because the property tax varies by place within a state, these studies usually pick one city in each state to compare. Since these studies actually work through the tax code in each state, they result in an accurate portrayal of geographic variations in tax burden for the selected household.

### **Family of Four**

A study conducted by the District of Columbia calculates the tax bill for a family of four with two school-age children who own their home, at five widely different income levels ranging from \$25,000 to \$150,000. Among the specific assumptions is that wage and salary income is split 70-30 percent between two adults in the household, with the rest of the income divided 50-50.

The 2002 study used the 2001 tax code for four tax categories: individual income tax, residential property tax, general sales and use tax, and automobile taxes (including gasoline tax, registration fees, excise tax, and personal property tax). It includes the largest city in each state and the District of Columbia.

The results for Arizona (Phoenix) indicate that the overall tax burden ranks between 14th and 19th lowest at each income level, with the tax bill ranging from 5 to 17 percent less than the average of the 51 places [see Chart 17]. The majority of Arizona households (80 percent according to the 2000 census) have incomes of \$75,000 or less, income groups for which the tax burden in Arizona ranges from 11 to 17 percent lower than average.

States with the lowest taxes generally are in the West or South. Wyoming (Cheyenne) and Alaska (Anchorage), states with considerable revenues from severance taxes, have the lowest household tax burdens. Florida (Jacksonville), Nevada (Las Vegas), Colorado (Denver) and South Dakota (Sioux Falls) are among the bottom 10 at each income level. States with comparatively low taxes except in the low-income group include Tennessee (Memphis), Texas (Houston), and Washington (Seattle).

At all income levels, Connecticut (Bridgeport) has the highest taxes. Other northeastern states rank next highest: New Jersey (Newark), Rhode Island (Providence), and Pennsylvania (Philadelphia). Maine (Portland) and New York (New York City) also are near the top, along with Iowa (Des Moines), Michigan (Detroit), and Minnesota (Minneapolis). Massachusetts (Boston), which once had a very high tax burden, now ranks in the middle of the states.

Among the 10 western states, the tax burden in Arizona was fifth or sixth lowest in each income group. Except in the low-income group, Nevada has the lowest tax burden in the West. Colorado, Texas and Washington generally have lower burdens than Arizona. At the two highest income levels, California (Los Angeles) has the highest tax burdens in the West, with Oregon (Portland) the highest at the other income levels. Utah (Salt Lake City) also consistently has a higher tax burden than Arizona.

Among the four types of taxes measured, the tax burden in Arizona is comparatively the lowest on the income tax. Except in the lowest income group (which pays very little in income tax), Arizona's tax burden ranks between 11th and 15th lowest. By income category, the tax bill

ranges from 36 to 39 percent less than the national average. The individual income tax is highly progressive in Arizona, with its percentage of gross income rising from 0.7 percent at the lowest income level to 2.5 percent for the highest income group.

For most Arizona households, the property tax is below average, by between 12 and 24 percent. At the higher income levels, however, the burden is near to higher than the national average. The property tax in Arizona is somewhat progressive, with the tax payment increasing from 3.2 percent of gross income at the lowest income level to 4.0 percent at the highest income level.

The incidence of the automobile-related taxes and fees in Arizona varies more substantially by income level in relation to other places. At the lowest income level, Arizona ranks third lowest at 39 percent less than the national average. At the highest income level, Arizona ranks 21st highest at 5 percent lower than the national average. These taxes are neither progressive nor regressive, as tax payments as a percentage of gross income are near 0.5 percent at each income level.

**CHART 17**  
**DISTRICT OF COLUMBIA TAX BURDEN STUDY, 2001**  
**City of Phoenix, Family of Four with Two School-Age Children**

	<b>Gross Household Income</b>				
	<b>\$25,000</b>	<b>\$50,000</b>	<b>\$75,000</b>	<b>\$100,000</b>	<b>\$150,000</b>
<b>TOTAL</b>	\$1,656	\$3,837	\$5,775	\$8,690	\$13,757
Rank*	17	18	14	19	18
Ratio**	89%	89%	83%	91%	95%
<b>Income Tax</b>	\$172	\$864	\$1,530	\$2,256	\$3,823
Rank*	24	15	12	12	11
Ratio**	64%	64%	63%	62%	61%
<b>Property Tax</b>	\$804	\$1,705	\$2,230	\$3,690	\$5,954
Rank*	27	28	24	32	36
Ratio**	85%	88%	76%	97%	109%
<b>Sales Tax</b>	\$558	\$1,116	\$1,674	\$2,232	\$3,349
Rank*	50	50	50	50	50
Ratio**	152%	155%	152%	152%	152%
<b>Auto Taxes</b>	\$122	\$151	\$341	\$512	\$632
Rank*	3	6	21	33	31
Ratio**	61%	62%	83%	98%	95%

\* Among the largest city in each of the 50 states and District of Columbia; 1 = lowest taxes.

\*\* Phoenix figure as a percentage of the average of all 51 places.

Source: Government of the District of Columbia.

In contrast to these generally low taxes, Arizona has the second highest sales tax burden at all income levels, about 52 percent above the national average. The sales tax consumes 2.2 percent of gross income at each income level.

The overall tax incidence in Arizona is progressive across income levels, with the tax bill equal to 6.6 percent of gross income at the \$25,000 level and gradually rising to 9.2 percent at the \$150,000 level. Similarly, the tax bill at the \$25,000 level is 11 percent below the national average, with the margin only 5 percent at the \$150,000 level.

*Money Magazine* did several similar studies in the early-to-mid-1990s for a high-income family of four. Between 1990 and 1994, Arizona ranked between 19th and 27th among the states, indicating an average-to-slightly low tax burden even after the tax increases passed between 1988 and 1990 took effect and before the tax cuts of the 1990s began to any degree. The 1996 study already showed the effect of the tax cuts, with the state ranking 14th lowest.

Another study, by *Kiplinger's Magazine*, measured the tax burden for a family of four earning \$75,000 that lived in a house valued at \$250,000. Based on 1998 data, this measure came at a time before all of the Arizona tax reductions were implemented. Still, of 101 cities (two per state plus the District of Columbia), Phoenix's tax burden was 14th lowest and that in Tucson was 18th lowest. Nearly all cities with a lower tax burden were in the South or West. Of 20 western cities, only Reno, Las Vegas, Seattle and Spokane had a lower tax burden than Phoenix. A similar study done two years earlier also ranked Phoenix and Tucson among the 15 lowest of 106 cities on tax burden.

Considering all of these studies for a family of four, Arizona's tax burden has fallen from average in the early 1990s to among the 15 or so lowest in the nation currently.

### **Retired Couple**

Another recent study appears in *Kiplinger's Retirement Planning 2002*. The hypothetical household in this case is an affluent retired couple. Both individuals are 65; they own a 2,000 square foot home free and clear that is valued at the local median for homes of this size. Their household income is a high \$60,000 derived from \$24,000 from Social Security, \$21,000 from private pensions, \$10,000 from IRAs, and \$5,000 from interest and dividends. They spend \$20,000 on taxable items, \$10,000 on insurance, and donate 7 percent of their gross income. The study measures income, property and sales taxes in the capital city of each state and in the District of Columbia based on 2001 tax rules.

The tax burden in Arizona (Phoenix) ranks 17th lowest among the 51 places at \$2,922 (4.9 percent of gross income), 17 percent below average. In 34 of the 51 places, the bill is between \$2,000 and \$4,000. Only four have a lower burden than \$2,000: Delaware (Dover), Alaska (Juneau), Kentucky (Frankfort), and South Carolina (Columbia). Other places with low taxes are spread across the country. In 13 states, the tax payment is higher than \$4,000. The highest burdens are in Pennsylvania (Harrisburg), New Jersey (Trenton), Wisconsin (Madison), and Vermont (Montpelier). Four of the five next highest tax bills are in northeastern states. Arizona ranks fifth lowest in the West, with a tax burden barely higher than in California (Sacramento) and barely less than in Oregon (Salem).

Among the three taxes, the retiree household pays the most in the property tax, nationally and in Arizona. The property tax in Arizona of \$1,309 is 34 percent less than the average of the 51 places, ranking 17th lowest in the country and third lowest in the West. The value of the home in Arizona is in the middle of the 51 places (but second lowest in the West) so the tax rate (less than 1 percent of the value of the home) is the cause of Arizona's low tax bill.

Nationally, the retiree household pays less than half the amount of the property tax in sales tax. In Arizona, however, the sales tax is not much less than the property tax [see Chart 18]. The sales tax of \$1,134 in Arizona is 20 percent higher than the average and 12th highest. It is fourth highest among the 10 western states.

Income taxes are low for retiree households nationally and in Arizona. The tax bill of \$479 in Arizona is 18 percent below the average of the 51 places, but ranks as 22nd highest. It is fourth highest in the West.

An earlier study conducted by *Kiplinger's* on the tax burden of a retired couple ranked Arizona 20th lowest in 1995. A 1993 study on taxes paid by retirees published in *Medical Economics* placed Arizona as 22nd lowest among the states. These three studies suggest that the tax burden on retirees in Arizona relative to other states has gradually fallen over the last decade.

**CHART 18**  
**KIPLINGER'S TAX BURDEN STUDY, 2001**  
**City of Phoenix, Retired Couple with an Income of \$60,000**

	<b>Tax</b>	<b>Rank*</b>	<b>Ratio**</b>
TOTAL	\$2,922	17	83%
Income Tax	479	29	82
Property Tax	1,309	17	66
Sales Tax	1,134	39	120

\* Among the capital city in each of the 50 states and District of Columbia; 1 = lowest taxes.

\*\* Phoenix figure as a percentage of the average of all 51 places.

Source: *Kiplinger's Retirement Planning 2002*.

### Summary of Measures

All of the measures of tax burden show Arizona to be below the national average [see Chart 19]. The personal income measure is the outlier; the others show the tax burden in Arizona to be between 11 and 17 percent less than the national average (except for high-income households in the District of Columbia study). More than 30 states have a higher tax burden than Arizona; on the tax effort and census income measures, Arizona ranks among the bottom 10.

**CHART 19  
COMPARISON OF MEASURES OF TAX BURDEN IN ARIZONA**

<b>Measure</b>	<b>Difference from U.S. Average</b>	<b>U.S. Rank*</b>	<b>Western Rank**</b>	<b>Latest Year</b>
Per Capita	-17%	14	3	FY2000
Per \$ of Census Income	-11	9	3	FY2000
Per \$ of Personal Income	-2	23	6	FY2000
Tax Effort	-16	8	3	FY1997
Hypothetical Family of Four with Income of:				
\$25,000	-11	18	6	2001
\$50,000	-11	19	6	2001
\$75,000	-17	15	5	2001
\$100,000	-9	20	5	2001
\$150,000	-5	19	5	2001
Hypothetical Retired Couple	-17	18	3	2001

\* Among 50 states and the District of Columbia; the state with the lowest tax burden is ranked 1.

\*\* Among 10 western states.

Source: U.S. Department of Commerce, Bureaus of the Census and Economic Analysis; Federal Reserve Bank of Boston; Government of the District of Columbia; *Kiplinger's Retirement Planning 2002*.

**EXPENDITURES**

The Census Bureau data on state and local government finances provide expenditures for a number of functions. Overall, and for some categories, capital outlays — spending on infrastructure, such as new schools and new roads, and equipment and land — are shown separately. This allows spending on current operations — compensation, supplies, materials, operating leases and contractual services — to be calculated.

As a percentage of the national average, per capita total expenditures and per capita spending on current operations fell during the 1990s in Arizona to the lowest ratios on record, as seen in Chart 20. Per capita spending on current operations has been less than the national average since the late 1960s, but per person capital outlays have been above average throughout the time series, by substantial amounts in most years. However, the ratio of per person capital outlays to the national average has been lower since the early 1990s than in most earlier years.

**Expenditures by Category**

Arizona state and local government expenditures totaled more than \$23 billion in FY2000. In per capita terms, Arizona's expenditures were 15 percent less than the national average and ranked second lowest in the West (Idaho was lower); four nonwestern states also had lower figures. Relative to census income, spending in Arizona was 10 percent less than the national average, third lowest in the West (Colorado and Nevada were lower) and 11th lowest nationally. Real per capita spending in Arizona rose slightly more than personal income between FY1986 and FY2000, but considerably less than the national average (25 percent v. the national average of 49 percent). Only three states had a smaller increase. Between FY1991 and FY2000, the increase was only half that of both the national average and Arizona per capita personal income.

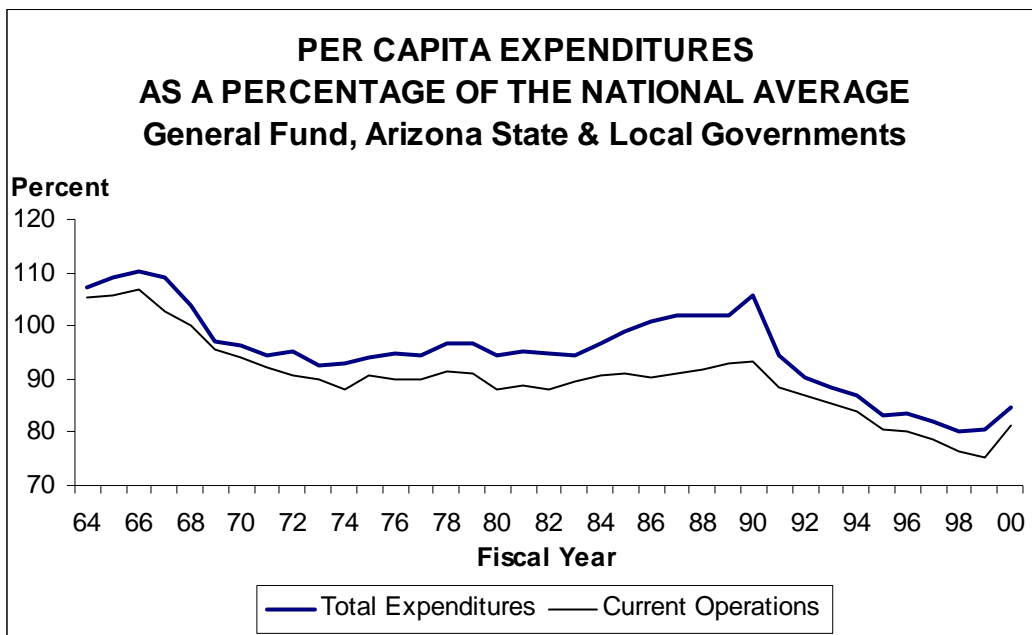
Arizona's rapid population growth is responsible for its capital outlays being above the national average. In FY2000, capital outlays in Arizona were 6 percent more than the national average on a per capita basis and 13 percent higher on the census income measure. Arizona ranked 21st in the nation and sixth among the western states on the per capita measure, with ranks on the census income measure nearly the same. Per person capital outlays as a ratio to the national average have been among the lowest on record in recent years despite Arizona continuing to have the second-fastest rate of population growth among the states. Between FY1986 and FY2000, real per capita spending on capita outlays dropped in Arizona by 8 percent while rising 54 percent nationally. Only three states had a greater decline. Capital outlays also fell from FY1991 through FY2000 in Arizona, compared to a national increase.

Arizona government spending on current operations was 19 percent less than the national per capita average in FY2000, lowest in the West and fifth lowest in the nation. Relative to census income, Arizona's spending on current operations was 13 percent below the national average, eighth lowest nationally and third lowest in the West. Per person spending rose less than the national average between FY1986 and FY2000 (33 v. 48 percent). Four states, including Nevada, had smaller gains. Between FY1991 and FY2000, the increase in Arizona was less than economic growth and less than the national average.

**Education**

One-third of total state and local government expenditures in FY2000 went to education. Arizona ranked second to last in the West (to Nevada) and fourth lowest in the nation in per capita education spending in FY2000 at 18 percent less than the national average. Capital spending was at the national per capita average while education spending on current operations was 20 percent below average.

**CHART 20**



Source: U.S. Department of Commerce, Bureau of the Census.

As seen in Chart 21, elementary and secondary (K-12) education received two-thirds of Arizona's education spending in FY2000, but this was 24 percent less per capita than the national average. Only Arkansas, Hawaii and Kentucky spent less. Per capita spending for K-12 current operations was 26 percent below average [see Chart 22]. In the 1980s, the differential was 5 to 10 percent; prior to 1980, Arizona generally spent more per capita than the national average.

Spending on higher education (community colleges and universities) was near the national per capita average for both total expenditures and current operations in FY2000. Until the mid-1980s, Arizona's per capita current spending on higher education had been at least 40 percent above average.

Education provides a good example of why neither the per capita nor income measures are ideal means to compare states. A better measure for education is per pupil spending. Since children represent an above average share of Arizona's population, per pupil spending on elementary and secondary education is further below average than the per capita measure indicates. Similarly, a high proportion of Arizona's residents are enrolled in the state's universities and community colleges, because young adults make up an above average share of the Arizona population and due to a limited number of private institutions. Thus, per pupil spending on higher education also is well below the national average.

Spending on education in Arizona rose by modest amounts on a real per capita basis between FY1986 and FY2000 and between FY1991 and FY2000, compared to sizable gains nationally. The small increases were well below the totals of all spending in Arizona, causing education's share of total spending to decline. Both higher education and the K-12 system experienced modest rises [see Chart 23]. Elementary and secondary current operations spending rose a little more substantially over both periods, though less than the national average and less than economic growth. In contrast, higher education expenditures for current operations were flat from FY1986 to FY2000 and down slightly from FY1991 to FY2000, each far less than the national increases [see Chart 24].

### **Social Services**

Social services is the next largest category of government spending, accounting for 19 percent of the Arizona total in FY2000. At 34 percent below the national average, Arizona's per capita spending on social services was even further below average than education. Only three states, including Nevada, had lower per capita spending. Public welfare is the largest subcategory, with per capita spending 31 percent less than the national average, fifth lowest nationally. Two-thirds of the public welfare spending was in the category of "vendor payments," which was 31 percent below the national per capita average. Almost all of this category represents spending by AHCCCS. Spending on hospitals also was far below average (sixth lowest nationally), but other health expenditures were near average.

Arizona's substantial increase in social services spending between FY1986 and FY2000 was greater than the national average; the increase between FY1991 and FY2000 also was a little higher than average. Other than hospitals, each of the subcategories experienced sizable advances.

**CHART 21**  
**TOTAL EXPENDITURES BY CATEGORY AND SUBCATEGORY, FY2000**  
**General Fund, Arizona State And Local Governments**

	Dollars*	Share of Total	Per Capita	
			Dollars**	Ratio to US
Total Expenditures	\$23,262	100.0%	\$4,690	85%
Education Services	7,987	34.3	1,610	83
Education	7,871	33.8	1,587	82
Higher Education	2,469	10.6	498	100
Elementary and Secondary	5,114	22.0	1,031	76
Other	288	1.2	58	71
Libraries	116	0.5	23	89
Social Services	4,427	19.0	892	66
Public Welfare	2,945	12.7	594	69
Cash Assistance Payments	421	1.8	85	111
Vendor Payments	1,974	8.5	398	69
Other Public Welfare	550	2.4	111	54
Hospitals	451	1.9	91	32
Health	923	4.0	186	98
Social Insurance Administration	94	0.4	19	124
Veterans' Services	12	0.1	2	189
Transportation	2,341	10.1	472	107
Highways	1,959	8.4	395	106
Air	379	1.6	76	157
Other	3	0.0	1	19
Public Safety	2,897	12.5	584	115
Police	1,096	4.7	221	105
Fire	682	2.9	137	161
Correction	955	4.1	193	107
Inspection and Regulation	164	0.7	33	98
Environment And Housing	1,838	7.9	371	86
Natural Resources	358	1.5	72	97
Parks And Recreation	469	2.0	95	102
Housing and Community Development	354	1.5	71	73
Sewerage	389	1.7	79	76
Solid Waste	269	1.2	54	85
Government Administration	1,522	6.5	307	102
Financial	438	1.9	88	82
Judicial and Legal	611	2.6	123	123
General Public Buildings	110	0.5	22	64
Other	363	1.6	73	124
Interest On General Debt	1,026	4.4	207	80
Not Elsewhere Classified	1,224	5.3	247	80

\* In millions.

\*\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

## Public Safety

Public safety was the next largest category of expenditures. Arizona's spending was 15 percent above the national per capita average in FY2000, the ninth highest figure in the nation, with California, Nevada and Oregon having higher figures in the West. Arizona's spending was above average in three of the category's components: police, fire, and corrections.

The increase in per capita public safety expenditures was greater than economic growth, but less than the national average, over both periods. Other than the fire subcategory, spending increases were moderate.

**CHART 22**  
**CAPITAL OUTLAYS AND CURRENT OPERATIONS BY CATEGORY, FY2000**  
**General Fund, Arizona State And Local Government**

	Dollars*	Share of Total	Per Capita	
			Dollars**	Ratio to US
<b>Capital Outlays</b>				
Total General Fund	\$3,716	16.0%	\$749	106%
Education	1,108	4.8	223	99
Higher	336	1.4	68	120
Elementary and Secondary	768	3.3	155	93
Other	4	0.0	1	41
Hospitals	1	0.0	0	2
Highways	1,149	4.9	232	111
Correction	64	0.3	13	92
Natural Resources	86	0.4	17	108
Parks And Recreation	139	0.6	28	110
Sewerage	190	0.8	38	103
Solid Waste	31	0.1	6	112
Other	948	4.1	191	117
<b>Current Operations</b>				
Total General Fund	19,546	84.0	3,941	81
Education	6,763	29.1	1,363	80
Higher	2,133	9.2	430	98
Elementary and Secondary	4,346	18.7	876	74
Other	284	1.2	57	72
Hospitals	450	1.9	91	34
Highways	809	3.5	163	98
Correction	891	3.8	180	108
Natural Resources	272	1.2	55	93
Parks And Recreation	330	1.4	66	99
Sewerage	200	0.9	40	61
Solid Waste	237	1.0	48	83
Other	9,594	41.2	1,556	68

\* In millions.

\*\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

**CHART 23**  
**CHANGE IN TOTAL EXPENDITURES BY CATEGORY AND SUBCATEGORY**  
**General Fund, Arizona State And Local Governments**

	Change, Fiscal Year 1986 to 2000				Change, Fiscal Year 1991 to 2000			
	Share of	Per Capita			Share of	Per Capita		
		Total	Dollars*	Percent Ratio to US		Total	Dollars*	Percent Ratio to US
Total Expenditures	0.0%	\$924	25%	-16%	0.0%	\$464	11%	-10%
Education Services	-5.1	127	9	-30	-2.1	69	4	-17
Education	-5.0	124	8	-30	-2.1	69	5	-17
Higher Education	-2.1	18	4	-37	-1.0	7	1	-26
Elementary/Secondary	-3.0	92	10	-29	-1.3	48	5	-15
Other	0.1	14	32	-7	0.2	13	30	1
Libraries	0.0	3	14	-25	-0.1	0	-1	-20
Social Services	6.8	431	93	10	3.5	237	36	4
Public Welfare	5.5	323	119	12	2.5	163	38	2
Cash Assistance	0.8	47	127	79	0.3	23	37	61
Vendor Payments	4.2	237	147	-2	1.4	98	33	-15
Other Public Welfare	0.5	39	54	-2	0.7	42	61	11
Hospitals	-0.9	-17	-16	-14	-0.3	-4	-5	-3
Health	2.0	111	147	19	1.1	66	55	7
Social Insurance	0.2	12	181	83	0.2	10	112	67
Veterans' Services	0.0	2	364	118	0.0	2	298	108
Transportation	-2.2	10	2	-26	-1.0	6	1	-18
Highways	-2.4	-13	-3	-29	-1.3	-17	-4	-23
Air	0.4	30	66	-19	0.4	24	46	11
Other	-0.2	-7	-92	-167	0.0	-1	-57	-18
Public Safety	1.9	187	47	-11	1.7	129	28	-1
Police	0.2	51	30	-16	0.1	25	13	-16
Fire	1.3	76	123	57	1.3	70	105	63
Correction	0.4	51	36	-46	0.3	30	19	-13
Inspection/Regulation	0.1	9	36	2	0.0	3	10	-3
Environment And Housing	-1.5	17	5	-30	-0.9	0	0	-13
Natural Resources	-0.8	-17	-19	-62	-1.6	-60	-45	-116
Parks And Recreation	-0.1	16	21	-23	0.1	15	19	1
Housing/Community	0.4	28	66	11	0.4	25	56	17
Sewerage	-1.1	-25	-24	-50	0.1	13	19	8
Solid Waste	0.1	14	34	-27	0.0	6	13	-1
Government Administration	0.5	78	34	-15	0.1	35	13	-12
Financial	-0.4	3	3	-35	-0.4	-8	-8	-33
Judicial And Legal	0.7	50	68	-4	0.2	22	22	-10
General Public Buildings	-0.2	-2	-8	-31	0.0	2	9	-4
Other	0.4	28	61	10	0.3	18	33	13
Interest On General Debt	-2.7	-61	-23	-37	-3.2	-116	-36	-45
Not Elsewhere Classified	2.3	135	120	26	1.9	106	75	20

\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

## Transportation

Most transportation spending is for highways, and most highway spending is for capital outlays (nearly 60 percent of the total in Arizona in FY2000). Capital spending on highways in Arizona was above the national per capita average, while spending on current operations was near average. Overall per capita spending on highways (and on the overall transportation category) was a little above the national average, but placed in the middle of the states.

Transportation spending hardly rose on a per capita basis in Arizona, both between FY1986 and FY2000 and from FY1991 through FY2000, compared to moderate increases nationally. Spending on highways dropped slightly. The overall decline resulted from a big drop in capital outlays; spending on current operations rose faster than the national average.

**CHART 24**  
**CHANGE IN CAPITAL OUTLAYS AND CURRENT OPERATIONS BY CATEGORY**  
**General Fund, Arizona State And Local Government**

	Change, Fiscal Year 1986 to 2000				Change, Fiscal Year 1991 to 2000			
	Share of Total	Dollars*	Per Capita Percent	Ratio to US	Share of Total	Dollars*	Per Capita Percent	Ratio to US
<b>Capital Outlays</b>								
Total General Fund	-5.6%	\$-64	-8%	-70%	-2.3%	\$-22	-3%	-31%
Education	-1.3	-5	-2	-140	-0.4	3	2	-64
Higher	0.1	16	30	-42	0.4	24	54	-6
Elementary/Secondary	-1.3	-19	-11	-190	-0.8	-20	-11	-86
Other	0.0	-1	-51	-66	0.0	0	-36	-40
Hospitals	0.0	-1	-86	-10	0.0	-1	-87	-9
Highways	-2.7	-58	-20	-64	-1.9	-55	-19	-49
Natural Resources, Parks	-0.7	-17	-27	-14	-0.7	-27	-37	13
Sewerage	-1.2	-38	-50	-90	0.0	5	14	28
Solid Waste	-0.1	-1	-13	-12	-0.1	-5	-46	-34
Other	0.4	55	37	80	0.9	59	41	111
<b>Current Operations</b>								
Total General Fund	5.6	989	33	-9	2.3	486	14	-7
Education	-3.7	129	10	-23	-1.6	66	5	-13
Higher	-2.2	3	1	-37	-1.4	-17	-4	-28
Elementary/Secondary	-1.6	111	15	-18	-0.4	68	8	-9
Other	0.1	15	35	-5	0.2	14	32	2
Hospitals	-0.9	-16	-15	-14	-0.3	-3	-3	-3
Highways	0.3	45	38	13	0.5	38	30	9
Natural Resources, Parks	-0.2	16	16	78	-0.7	-17	-13	61
Sewerage	0.2	14	51	-2	0.1	8	25	-1
Solid Waste	0.1	15	45	-27	0.2	12	32	7
Other	9.8	407	31	90	4.1	5	0	86

\* In fiscal year 2002 dollars.

Source: U.S. Department of Commerce, Bureau of the Census, adjusted by population and GDP Implicit Price Deflator from U.S. Department of Commerce, Bureau of Economic Analysis.

### **Environment and Housing**

Arizona's per capita spending was 14 percent below the national average in FY2000 in the environment and housing category; only two western states (Texas and Utah) and 15 states in total had lower spending. Per person spending was below average for housing and community development, sewerage, and solid waste disposal, and average for natural resources and parks and recreation. Arizona ranked near the middle of the states, but relatively low among western states, in each subcategory.

Except for housing and community development, the FY1986-to-FY2000 real per capita spending change was far less than the national average in each subcategory, but the FY1991-to-FY2000 changes were near or above average except in natural resources. Overall, spending in Arizona on environment and housing barely increased from FY1986 to FY2000 and was flat between FY1991 and FY2000, compared to moderately higher expenditures nationally.

### **Government Administration and Other Expenditures**

Spending on government administration — which includes the judicial and legal systems, financial administration, public buildings and various other programs — was slightly above the national per capita average in FY2000. Arizona ranked in the middle of the states overall, but its spending was among the highest in the nation in the judicial and legal subcategory and was lower than average in the financial and buildings subcategories. The overall spending increase (and that of each subcategory except “other”) was less than the national average over both periods.

Arizona's per capita payments for interest expense were 20 percent less than the national average in FY2000 after falling considerably over both time periods. Miscellaneous spending also was 20 percent below average, but had increased substantially over time.

### **Fiscal Need and Fiscal Comfort**

To complement its measures of tax capacity and tax effort, the Advisory Commission on Intergovernmental Relations used a representative expenditure approach to measure fiscal need using data for FY1987. The Federal Reserve Bank of Boston has updated this measure using FY1994, FY1996 and FY1997 data.

Calculation of fiscal need begins with per capita spending figures from the Census Bureau. For categories of spending influenced by factors other than population, these figures are adjusted for interstate differences in “workload” factors. For example, spending on higher education is adjusted by the number of college-age residents and public welfare spending is adjusted by the percentage of residents living below the poverty level.

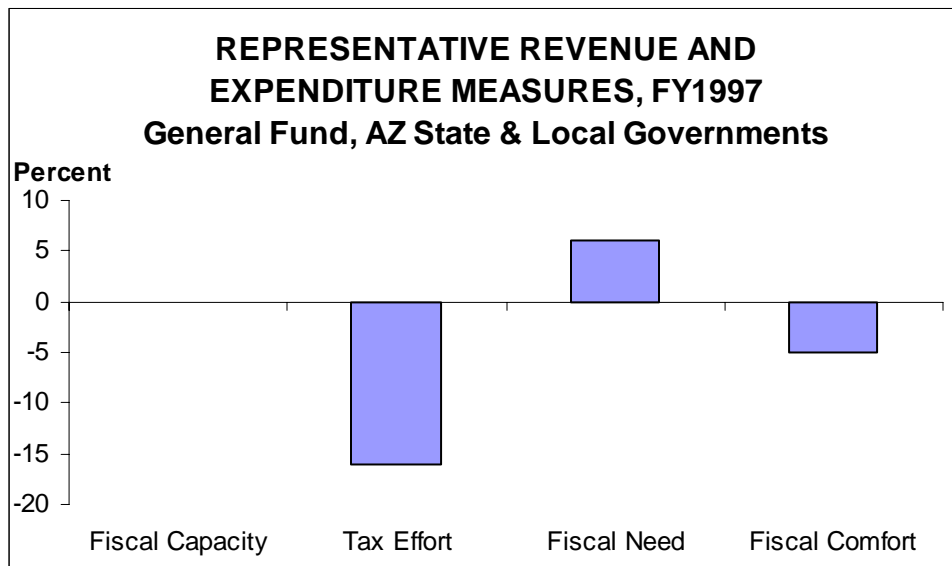
Arizona's higher than average percentage of school-age children and college-age young adults, its high poverty rates, and high usage of roads and highways are contributors to its fiscal need being above the U.S. average. To provide the national average level of services in FY1997, Arizona governments needed to spend an estimated 6 percent more than the national per capita average. The state's need ranked ninth highest nationally and fourth highest in the West. In comparison, the state's tax effort was 16 percent below average, seventh lowest nationally and third lowest in the West.

In addition, the state’s rapid population growth adds a considerable strain on the public sector as schools, roads, sewer systems and other infrastructure continually must be expanded. Considering these capital outlays as well as current service provision, the state’s needs are even further above the national average.

Fiscal comfort is calculated by dividing the tax capacity index by the fiscal need index. Fiscal comfort in Arizona is 5 percent less than the national average, ranking 15th lowest nationally and fourth lowest in the West. The state’s needs are 6 percent above average but its tax capacity only matches the national average.

The various measures from the representative revenues and representative expenditures approaches are shown in Chart 25. Arizona’s 22 percentage-point differential between the index of fiscal need and the tax effort index is exceeded only by Wyoming. The tax effort index is higher than the fiscal need index in nearly all of the states in the northeastern quadrant of the country, indicating that these states are providing public services at a level above the national average. Tax effort is lower than fiscal need in most of the South and West.

**CHART 25**



Note: Fiscal capacity is equal to the national average.

Source: Federal Reserve Bank of Boston.

## **ISSUES**

Arizona is faced with two broad issues. The first problem is to balance the budget in FY2003 and FY2004. The second issue is the need to modernize and balance the existing revenue system, which will require a substantial overhaul. To provide a broad background to these issues, this section explores various topics.

## **REVENUES**

In addressing both issues, nontax sources of revenues as well as the tax system should be examined. Enhancing revenues should be considered as a partial or primary solution to the problems.

### **The Tax System**

Like all states, Arizona's tax system is dated, largely having been put into place decades ago. At that time, a high proportion of consumer spending was for goods, not services. Mining and agriculture were major economic activities. An efficient tax code for the early 20th century is an outmoded system for the 21st century.

Moreover, changes in Arizona's tax system over the last two decades, especially during the 1990s, have made it less relevant to the contemporary economy and less stable. The state had a reasonably balanced system of tax collections as recently as the early 1990s, with tax revenues coming from multiple broad-based taxes as well as more narrow tax sources.

For the most stability in tax revenues, multiple tax sources should be used. In any economic cycle, different sources of tax revenues do not perform equally. For example, in the slump of the late 1980s and early 1990s, property tax collections suffered due to the crash in the real estate market, but income tax collections held up reasonably well. In the current slump, real estate values continue to rise, while income tax collections have dropped considerably. Yet state government no longer benefits from using a real estate property tax, thus does not have a counterbalance to the slump in income tax revenues (and sales tax revenues to a lesser degree). This lesser balance among major taxes is complicated by reductions in revenues from other sources. State government no longer receives general fund revenues from the vehicle license tax, a stable source over the economic cycle. Severance tax collections from mining and timber have dropped to near zero.

The state is more reliant than ever on the sales tax, which applies only to goods. This growing dependence results both from increases in the sales tax rate (at both the state and local levels) and decreases in rates of other taxes. As consumer spending shifts to more services, and to the purchase of goods on-line (currently not taxed), growth in sales tax revenues can be expected to continue to lag behind the gains of the general economy. Between 1981 and 2001, real per capita retail sales (a combination of the retail and restaurant and bar categories) rose 29 percent in Arizona, compared to a 41 percent increase in real per capita personal income.

Like the other tax sources, collections from the sales tax are highly cyclical, another reason not to place too much dependence on this source of revenue. Highway construction in Maricopa County in the late 1980s and early 1990s suffered from this cyclicity as the economy slumped

shortly after the 1985 public vote to increase the sales tax to build a freeway system. Another drawback to the sales tax is that it is not progressive like the property or income taxes, with more of the tax burden falling onto the less affluent.

A further complication to sound tax policy is the requirement that two-thirds of the Legislature vote for a tax increase while a simple majority can approve a tax reduction. In a situation like that currently faced by state government — a structural deficit that resulted from significant tax cuts and less significant spending reductions — a minority of legislators can dictate fiscal policy, reducing the number of options politically available to resolve the deficit.

### **Nontax Sources of Revenues**

Federal funding and user fees are nontax sources of public revenues. Arizona's differential from the national average in per capita revenues from user fees is particularly wide, and has increased over time. Higher tuitions, as being discussed by the Board of Regents, are one example of increasing collections from user fees. However, per capita collections from most other categories of current charges are further below the national average than in the higher education category [see Chart 12].

Arizona historically has received per capita federal funding far below the national average, as discussed earlier in the section on the Census Bureau's government finance data, but the differential has narrowed over time. More recent data from the U.S. Office of Management and Budget indicate that the per capita federal funding differential continues to narrow. Arizona's share of the nation's population was 1.86 percent in mid-2001. In FY2001, Arizona received only 1.58 percent of the federal funding that went to states. In FY2002, however, the percentage jumped to 1.71 percent and the estimate for FY2003 is 1.77 percent.

## **TAXES AND ECONOMIC GROWTH**

Conceptual and empirical evidence of the connection between taxes and the economy are examined in this section. The relationship between tax rates and public revenues also is analyzed.

### **The Effect of Tax Changes on 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. [See, for example, reports by the Economic Policy Institute and the Pennsylvania Economy League.]

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 1980 to 2000 was 120 percent, such an increase is inconsequential. 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.

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.

### **Taxes as a Business Expense**

Despite the attention given to taxes, tax payments are a small expense for most businesses. Taxes typically are only about 2 percent of operating income, as seen in Chart 26. Taxes included in this figure are state and local taxes; social security and payroll taxes; unemployment insurance taxes; excise taxes; import and tariff duties; business license and privilege taxes; and the environmental tax. The federal income tax is not included. Thus, state and local taxes are 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

**CHART 26**  
**TAXES AND OFFICERS' COMPENSATION**  
**AS A PERCENTAGE OF OPERATING INCOME**  
**National Data Ranked by Number of Arizona Establishments**

<b>Sector</b>	<b>Share of Es- tablishments*</b>	<b>Number of Subsectors**</b>	<b>Taxes***</b>	<b>Median Percentage of Operating Income Officers' Com- pensation</b>
Retail Trade	15.2%	17	1.7%	2.0%
Construction	11.3	6	2.3	3.7
Professional, Scientific, Technical Services	11.0	9	3.4	8.6
Health Services	9.8	6	3.4	10.9
Other Services	9.1	4	3.3	6.0
Accommodation and Food Services	8.3	2	4.4	2.0
Finance and Insurance	6.7	20	1.4	1.2
Administrative Support	6.1	4	3.7	2.7
Wholesale Trade	6.0	17	1.1	1.5
Real Estate	5.4	8	2.8	3.2
Manufacturing	4.4	65	1.9	1.3
Transportation and Warehousing	2.3	8	3.2	2.0
Information	1.8	10	3.1	2.8
Arts, Entertainment and Recreation	1.3	2	5.4	7.8
Management of Companies	0.7	2	10.2	12.2
Utilities	0.2	4	5.6	0.4
Agriculture	0.2 <sup>^</sup>	3	2.3	2.8
Mining	0.2	5	2.8	1.7
<b>TOTAL</b>	<b>100.0</b>	<b>192</b>	<b>2.1</b>	<b>1.9</b>

\* The number of establishments — physical locations at which business is conducted — is used as a proxy for the number of companies, which are not available. A company may consist of one or more establishments.

\*\* The number of subsectors on which the medians were calculated.

\*\*\* Taxes include more than state and local taxes, but do not include the federal income tax.

<sup>^</sup> Farms and ranches are not included in the count of establishments.

Sources: The numbers of establishments are from *County Business Patterns 2000*, U.S. Department of Commerce, Bureau of the Census. The other data are from the *Almanac of Business and Industrial Financial Ratios*, 33rd annual edition, 2002.

compensation of company officers is nearly as large an expense as taxes overall and 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. Equity becomes an issue if certain businesses or industries receive such tax breaks. Others may take the initiative to receive similar breaks.

### **Empirical Evidence in Arizona**

The effect of tax rate reductions and increases on economic performance and government tax collections can be examined empirically in Arizona. In the last 25 years, the state has had two periods of tax reductions and one period of tax increases.

From FY1979 to FY1981, taxes were substantially reduced (property taxes were lowered and the sales tax on food to be consumed at home was eliminated). A sharp drop in the tax burden relative to other states and relative to Arizona personal income was measured. These cuts did not prevent the Arizona economy from dropping into a recession just as deep as the national average in 1981-82. Despite a strong economic recovery in 1983 (matching the historical norm relative to the national average), tax revenues remained below the historical norm. With the tax cuts not matched by an equivalent amount of spending reductions, the Legislature increased the general sales tax rate in order to offset some of the tax reductions and balance the budget. Thus, the tax cuts did not have a perceptible positive effect on either economic growth or government revenues.

Economic growth in Arizona began to slow notably in 1987, while national economic growth remained steady. The state was hard hit by cutbacks in federal defense spending and by substantial overbuilding in commercial real estate in the early-to-mid-1980s, which led to a crash in the construction and real estate markets beginning in 1987. Government revenues fell as a result of this economic slump. To balance the budget, a variety of tax rates were increased by the Legislature between 1988 and 1990 and spending was reduced. These tax increases led to enhanced revenue flow to governments as well as to an increase in tax burden relative to other states and relative to personal income.

Despite the higher taxes, the recession in 1990-91 was only as deep in Arizona as the national average and economic growth began to accelerate sharply in 1993. By the beginning of 1994, the Arizona economy was booming. The first of Arizona's tax cuts took effect in FY1993, but the reduction was only \$19 million, leaving tax revenues \$430 million higher than before the tax increases of 1988 through 1990. The first substantial tax reductions did not come into effect until FY1995, after the economy had recovered. Even then, the tax burden was higher than it had been during the 1980s. Relative to the national average, the strength and timing of Arizona's economic expansion matched the historical record. Thus, the tax increases did not have a perceptible negative effect on either economic growth or government revenues.

The large tax reductions that began to take effect in FY1995 continued through FY2001, enabled by the strong economy, the powerful stock market performance, and the lowered cap on the rainy day fund. By FY1997, Arizona tax burdens were the lowest on record relative both to other states and to personal income (except for FY1982 on some measures). Despite these large reductions, Arizona's economic growth slowed from the mid-1990s peak.

Many factors affect economic growth and it is a challenge to accurately measure the impact of any one factor. The tax increases and reductions of the last 25 years have not had any obvious effect on the economy. In Chart 27, average annual growth by economic cycle is shown for several measures. Gains in the 1991-to-2001 cycle, the last several years of which were notable for historically low tax burdens, were a little greater than those in the 1980s cycle, but lower than those in the late 1970s cycle. The same cyclical relationship holds when comparing Arizona's growth to the national average.

The annual record for the last economic cycle is displayed in Chart 28. Relative to national growth, Arizona's expansion fit the historical norm, with growth rates accelerating well past the national average early in the cycle then slowing more than the national average. Sharp acceleration in economic growth (overall and relative to the national average) occurred in Arizona in 1993, with peak rates reached in 1994. Yet hardly any tax cuts had been implemented by this time and tax rates remained much higher than those of the 1980s. Moreover, like changes in interest rates, changes in tax rates take a minimum of several months before any effect can be measured in economic growth. Thus, the tax cuts of the 1990s did not result in any noticeable effect in Arizona's economic growth.

Measures of aggregate economic growth such as employment or earnings are not the only or best indicators of economic performance. The economic well being of the population is best measured through indicators such as per capita personal income and average wage. As seen in Charts 29 and 30, despite the longest economic expansion on record and one notable for low taxes in the second half of the expansion, Arizona compared unfavorably on both measures relative to its historical record and to the national average. (Because of Arizona's highly cyclical economy, each measure relative to the national average drops during recessions and rises during expansions.)

In the late 1990s, government revenue collections in Arizona remained strong despite the tax reductions. A surge in revenues resulting from capital gains tied to the record-setting stock market occurred across the country, regardless of a state's tax policy. The substantial drop off in revenues that began in FY2001, as capital gains turned into capital losses and the economy fell into recession, is further evidence that Arizona's tax cuts did not have a positive effect on revenues. As noted earlier in the budget stabilization fund calculations, Arizona's budget deficit is far larger than the deficit that would have occurred due to the economic slump alone.

Despite the low tax burden that had been present since FY1997, the Arizona economy entered recession in 2001. The timing and depth of the recession again matched the national average. Little recovery has occurred in 2002, either nationally or in Arizona.

**CHART 27**  
**ECONOMIC GROWTH BY ECONOMIC CYCLE**  
**Annual Average Change (Inflation-Adjusted), Arizona and United States**

	1975-82	1982-91	1991-2001
<b>Arizona:</b>			
Employment	5.9%	5.0%	4.9%
Personal Income	6.1	4.9	5.5
Personal Income less Transfer Payments	6.2	4.7	5.5
Earnings	5.1	4.7	6.0
<b>United States:</b>			
Employment	2.3	2.3	2.1
Personal Income	3.3	3.5	3.4
Personal Income less Transfer Payments	3.3	3.4	3.4
Earnings	2.4	3.3	3.6
<b>Difference, Arizona less United States:</b>			
Employment	3.6	2.7	2.8
Personal Income	2.8	1.4	2.1
Personal Income less Transfer Payments	2.9	1.3	2.1
Earnings	2.7	1.4	2.4

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

**CHART 28**  
**ANNUAL GROWTH RATES IN ARIZONA AND UNITED STATES**  
**COMPARED TO TAX CHANGES IN ARIZONA**

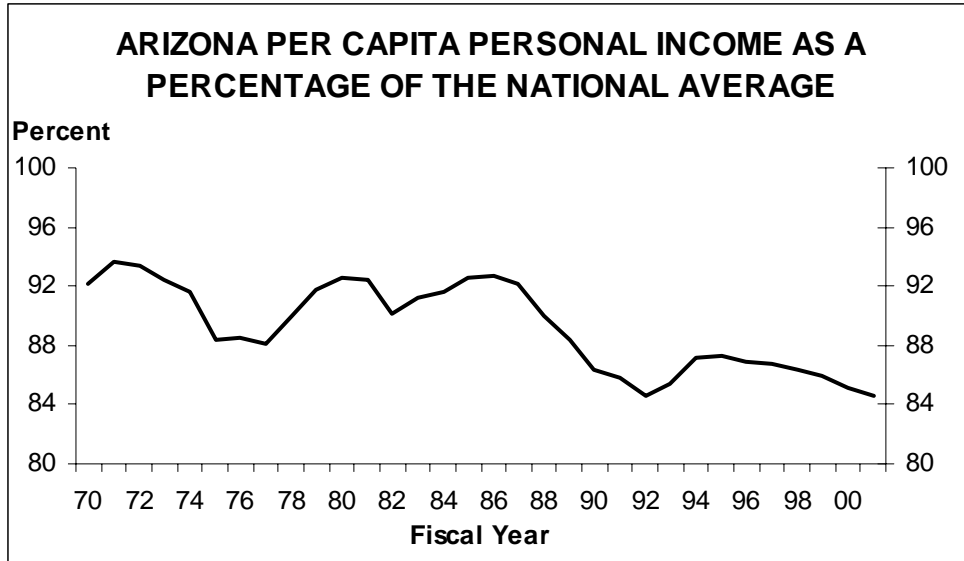
Cal Year	Employment			Real Earnings			Tax Change*
	Arizona	U.S.	Difference	Arizona	U.S.	Difference	
1991	0.4%	-0.5%	0.9	0.8%	-0.9%	1.7	\$208
1992	1.2	0.5	0.7	4.4	4.4	0.0	10
1993	4.4	1.9	2.5	4.9	1.8	3.1	-19
1994	6.6	2.5	4.1	7.1	2.7	4.4	-25
1995	5.5	2.6	2.9	7.0	2.5	4.5	-121
1996	5.8	2.2	3.6	6.4	3.5	2.9	-285
1997	4.6	2.4	2.2	6.3	4.1	2.2	-175
1998	4.6	2.6	2.0	8.8	6.0	2.8	-172
1999	3.2	1.9	1.3	6.6	5.1	1.5	-143
2000	3.6	2.4	1.2	7.1	5.5	1.6	-105
2001	1.2	0.2	1.0	1.4	0.2	1.2	-159

\* In millions, for fiscal year ending during the calendar year.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, and Joint Legislative Budget Committee, "Fiscal Impact of Statutory Tax Relief Provisions," internal memo, September 19, 2002.

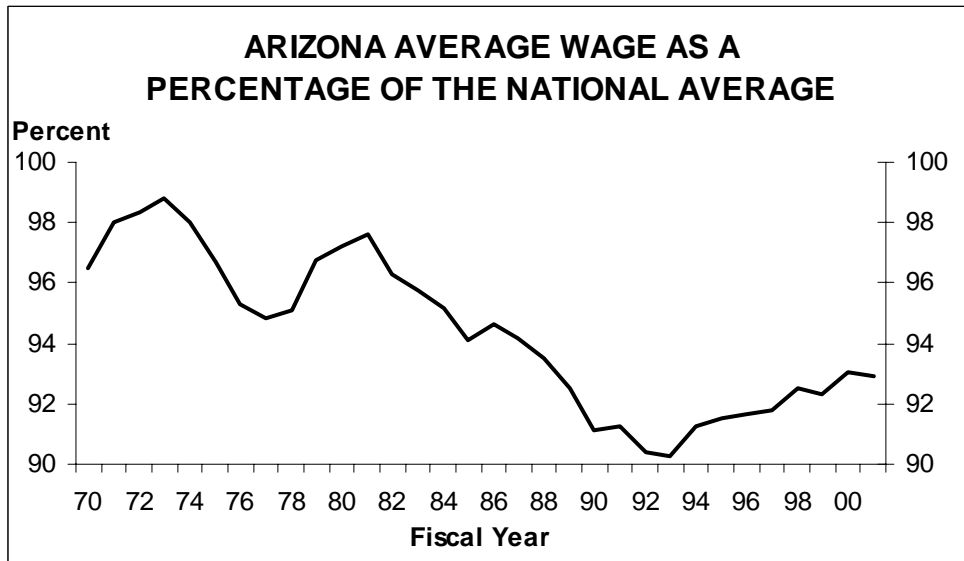
Thus, the empirical evidence is that neither tax increases nor tax decreases in Arizona have had a perceptible effect on the economy. The effect on government revenues has been as expected: Tax increases raise revenues and tax cuts reduce revenues. The next section addresses these issues in more conceptual detail, showing that these empirical observations fit economic theory.

**CHART 29**



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

**CHART 30**



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

## **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.

### **Laffer Curve**

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: An optimal level of tax rates produces the greatest government revenue; lower tax rates than optimal result in lower revenues, while higher-than-optimal tax rates reduce public revenues by discouraging economic activity. This relationship follows a curve, as illustrated in Chart 31. 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 (in most cases) 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 optimal point, and to describe the exact shape of the curve.

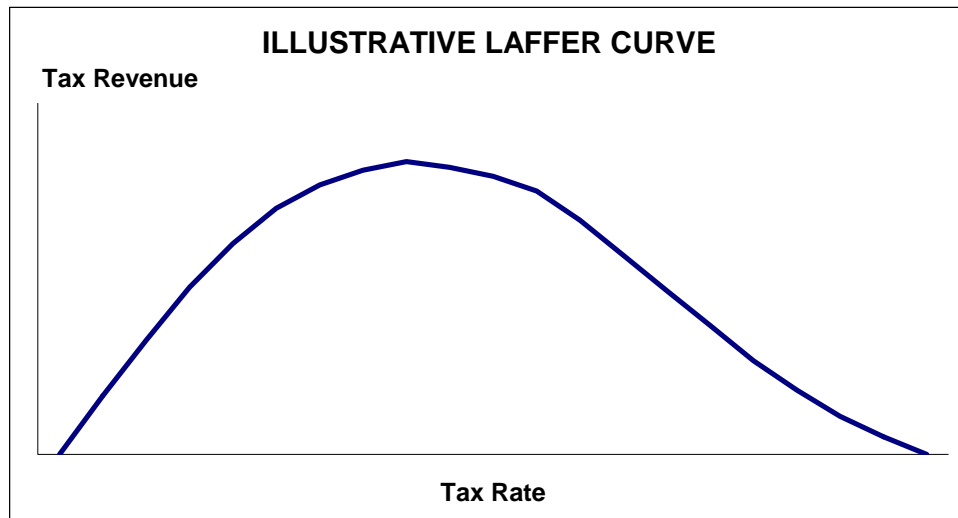
Elasticity is defined in economics as the responsiveness, or sensitivity, of consumers to a change in price. Elasticities apply to fiscal policy because tax rates are a price. Economic theory indicates that unless elasticities are quite high, the peak of the Laffer Curve (the optimal tax rate) for a broad tax (such as the personal income tax) is higher than commonly assumed, so high that such a rate would not be considered realistic. High elasticities are more possible in the case of narrowly defined taxes, raising the possibility that a tax rate on a narrow tax might be higher than optimal. [For more detail, see the article by Alan S. Blinder.]

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 an optimal point 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. Thus, at the state level, the optimal point on the Laffer Curve may be the average tax burden of all states. Alternatively, for any given state, the optimal point may be the average only of its most competitive states.

It might be argued that the optimal tax rate is not either of these averages, but rather is a tax level higher or lower than this. For example, some may argue that tax burdens in all states are either higher or lower than optimal. Not only is this argument not easily proved, but one or a few states that aggressively raise or lower taxes based on such an argument still would be bound by the

CHART 31



Source: Alan S. Blinder, "Thoughts on the Laffer Curve," *The Federal Reserve Bank of St. Louis Review*, May 1981.

existing Laffer Curve. If tax policy in these states strayed too far from the norm in either direction, diminishing government revenues would result.

This is just what has happened over the last decade. While state government tax cuts were the norm across the nation from 1994 through 2001, some states — notably Arizona — enacted very large tax cuts. Those states now are faced with very large budget deficits, while the states that did not decrease taxes, or did so by a modest amount, are faced with only small deficits.

Thus, for a tax cut to result in a positive effect on economic growth and government revenue, the existing tax rate must be higher than optimum. For much of a positive effect to result, the tax rate must be far above the norm and be lowered to near the optimal point. 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 higher-than-optimal business tax than in a higher-than-optimal personal tax since one business decision (for example, in site selection) can affect many workers.

Another requirement for a *net* positive effect to accrue on government finance from a state tax cut is that 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.

### **The Situation in Arizona**

Most of the taxes cut in Arizona in the early 1980s and during the 1990s were broad-based taxes. None of the tax rates were demonstrably much higher than the optimal tax rate, defined as the

average of all states (or the average of western states). Individual income taxes and residential property taxes (which account for more than half of the tax revenues cut in the 1990s) did not have rates even close to the average of the states. Thus, the lack of evidence that actual tax cuts (or increases) in Arizona had an effect on economic performance or government revenues fits this Laffer Curve analysis.

Except during recessions, Arizona has had neither high unemployment rates nor high commercial/industrial vacancy rates. The vast 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. (This situation has not changed despite the decade of cutting taxes.) 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 corrections 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.

## **OPTIONS**

Public spending in Arizona already is significantly lower than in the past and below that of most states. Further reductions in government expenditures carry a high risk of damaging economic development if the public services that businesses value are eliminated or cut too deeply. Therefore, revenue enhancement may be the best option to close most of the structural deficit in the state's general fund. Rates on certain taxes can be increased substantially without harming the economy since the personal tax burden is low in Arizona.

In general, tax increases are no more damaging to the macro economy than spending reductions. Tax increases focused on progressive taxes so that the burden falls particularly on high-income households are the least harmful way to balance the budget in the short term.

### **SHORT-TERM OPTIONS**

In the next several months, the current fiscal year's revenues and expenditures of state government must be balanced, and a balanced budget must be created for the next fiscal year. With the current fiscal year half over, revenue enhancements alone are unlikely to be able to balance the budget. (While the elimination of sales tax exemptions and credits or increasing the sales tax rate — if passed quickly by the Legislature with an emergency clause — rapidly would enhance revenues, few other changes to tax policy would result in much revenue gain in the current fiscal year.) Thus a combination of other strategies also will need to be employed. The following are among the possibilities:

- Borrow (issue bonds) for school repair and construction.
- Shift monies between funds (only for the duration of the current fiscal year).
- Reduce spending further, with reductions to extend only through the end of the current fiscal year. An example is to furlough rather than to lay off workers. Targeted spending cuts are preferable to across-the-board reductions.

Among the options to enhance revenues in the current and succeeding fiscal years are the following:

- Eliminate many tax exemptions and credits passed in recent years. The increase in revenues will not be substantial.
- Increase individual income tax rates. Revenues from this progressive source could be increased considerably without adversely affecting the state's competitive position since current tax rates in Arizona are relatively low.
- Reinstate a state-level residential property tax. Revenues from this source could be increased moderately, even if the first \$50,000 or so of property value were exempted to make the tax more progressive.

These revenue enhancements ideally would be large enough to balance the FY2004 budget.

### **LONGER-TERM STRATEGIES**

Once the short-term deficit is resolved, a broad review of fiscal policy would be desirable. Several actions should be considered:

- Overhaul the tax code. This step should be undertaken not just because of current problems, but because the tax code largely was created decades ago when the economy functioned quite differently than the 21st century economy. The following actions should be considered:
  - Broaden the sales tax to include food, services, and Internet sales; limit exemptions; but lower the tax rate. Because the state is so dependent on the sales tax, the resulting sales tax collections should at most be equal to current collections, but ideally would be revenue negative to reduce the state's dependence on sales taxes.
  - Reduce currently high business property taxes.
  - Raise individual income taxes.
  - Increase residential property taxes.
  - Collect more from vehicle taxes, which are quite low from a national perspective.
  - Pass new taxes, such as a real estate transfer tax, and increase other tax rates. Arizona collects little from various tax sources, such as the sales tax on alcoholic beverages, compared to the national average.
  - Simplify the tax code, limiting exemptions and credits, and creating more consistency across taxpayer categories.
- Expand the use of nontax revenues. Qualify for more federal funding and increase user fees.
- Change the operation of the Budget Stabilization Fund. Make the operation of the fund purely formula driven, with deposits to the fund not limited until its balance reaches approximately 15 percent of general fund revenues. Place the functioning of the BSF in the Arizona Constitution.
- Finance school construction and maintenance by a means other than the general fund. Alternatively, increase general fund revenues and dedicate a funding stream to this purpose.
- Rebate any general fund surplus remaining after the formula transfer to the BSF is made. Alternatively, spend the surplus on a one-time basis, or place it into a second rainy day fund that is at the discretion of the Legislature. Do not permanently reduce tax rates or increase spending on an ongoing program.
- Match any desired increase in ongoing spending levels to an equivalent increase in revenues. Similarly, tie tax rate reductions to equivalent reductions in expenditures.
- Make the size of the majority needed for a tax increase and a tax decrease equivalent.

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