

ARIZONA'S INCOME TAXES: A COMPARISON WITH OTHER STATES AND A POLICY DISCUSSION OF POTENTIAL TAX REFORMS

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EXECUTIVE SUMMARY

Individual and corporate income tax rates have both been lowered several times in Arizona since the early 1990s, and various other modifications made to the income taxes — such as the creation of new tax credits — also have reduced the revenue received by state government from these taxes. As a result, the individual and corporate income tax burdens in Arizona both are considerably below the average of those states that levy income taxes.

Proponents of the income tax reductions in Arizona have contended that income taxes inhibit economic growth. Yet there is no empirical evidence that the changes to Arizona's income taxes since the early 1990s have resulted in stronger economic performance in Arizona. Indeed, aggregate growth in Arizona was considerably faster prior to the income tax modifications than it has been in recent years. More broadly, the evidence is at best mixed whether reductions in state and local government income taxes in the United States have had an economic benefit. Several states have recently enacted large income tax cuts. None have experienced a boost in economic growth that can be attributed to the tax cut, and each has had to raise other taxes and/or reduce spending in order to balance the state budget.

Conceptually, reductions to income taxes and other taxes can have a beneficial economic result — but only under certain conditions. Those conditions were not in place when the substantial reductions to the individual income tax were implemented during the 1990s and 2000s in Arizona. Moreover, even if the conditions are present for a tax reduction to enhance economic performance, the impact will be much greater from reducing business taxes than individual taxes. Arizona was slow to reduce the corporate income tax; the reductions are still being phased in. These corporate income tax reductions may have a beneficial impact on economic growth, but any such effect likely will be small. Even if the benefits are larger than expected, the subsequent increase in government revenue from greater economic activity will hardly begin to offset the initial loss of revenue resulting from the tax reductions.

As a result of the tax reductions passed since the early 1990s, the majority of which have been to income taxes, the annual revenue collected for Arizona state government's general fund is about \$4 billion lower than it otherwise would have been. This has necessitated substantial spending reductions from the general fund, amounting to more than 30 percent relative to personal income. Since education makes up about 50 percent of the general fund budget, funding for education has necessarily been cut. Arizona's per student funding for elementary and secondary education is nearly the lowest in the nation and per student funding for higher education also is considerably below average.

Although Arizona's income tax burden is low and has been declining over time, additional modifications to Arizona's income taxes have been discussed, including switching the individual income tax to a flat rate from its current graduated-rate structure, further rate reductions, and elimination of the taxes. Switching to a single individual income tax rate in a revenue-neutral scenario cannot be done without some taxpayers experiencing an increase in their individual income tax burden. Since the income taxes in fiscal year 2015 still accounted for \$4.4 billion — close to half — of general fund revenue, eliminating the income taxes — even if phased out over several years — would require either a very large compensating increase in general fund revenue from other sources and/or substantial further reductions in general fund expenditures.

A corporate income tax is used by 44 states; four other states levy a gross receipts tax on businesses. Arizona and 28 other states use a single tax rate. While Arizona's corporate income tax burden already is considerably below the national average, property taxes and sales taxes paid by businesses are above average. Thus, these taxes are better targets if the goal is to stimulate economic growth.

Seven states do not levy an individual income tax and two states tax only dividend and investment income. Of the remaining 41 states, eight apply a flat tax rate and 34 levy graduated rates in which the tax rate increases with income. The graduated-rate income tax is the primary example of a progressive tax. Most taxes are regressive — lower-income individuals and households pay a higher share of their income in taxes than those with higher incomes. Thus, the use of a graduated income tax helps to offset the other regressive taxes. Even with its graduated individual income tax, Arizona's tax structure has been rated as the eighth-most regressive in the nation. Another advantage of the income tax is its responsiveness — tax collections keep pace with the growth of the economy. On the other hand, the disadvantages to the income tax include its complexity and the cyclicity of revenue collections.

All of the states with a flat individual income tax allow some exemptions, deductions, and credits, leaving the tax with a somewhat progressive structure. Only three of these eight states converted from graduated tax rates to a flat tax: North Carolina in 2014, Utah in 2008, and Colorado in 1987. Relative to its performance before the switch, Colorado's economic performance after the adoption of the flat tax was mixed, with stronger gains on some indicators but lesser gains on other indicators. In Utah, economic gains were lower after the conversion to a flat tax was made.

Several of the states without an income tax have a revenue source not available to most states. For example, Nevada has gaming and strong tourism, and Alaska, Texas, and Wyoming have high severance taxes related to natural resources. Most of the states without an individual income tax have never levied the tax. South Dakota eliminated the tax more than 70 years ago and Alaska abolished the tax in 1980 when the completion of the Trans-Alaska pipeline provided a major new revenue source. Thus, no recent precedence exists for a state to eliminate its income tax without the development of another large revenue source.

In order to examine economic and other conditions that may be related to the nature of the individual income tax, this report groups the states into three categories: nine states without a broad income tax, eight states with a flat tax, and 33 states with graduated tax rates. Alaska often is excluded from the list of no-tax states in analyses because of its unusual revenue system (highly tied to crude oil) and high government spending. The other no-tax states are disproportionately in the South and West regions of the country — states in these regions are growing rapidly regardless of the nature of their income tax. Moreover, Texas and Florida are much more populous than the other no-tax states and thus distort the average of all no-tax states. States without an individual income tax on average have experienced greater aggregate economic growth, but not all of the no-tax states experience fast growth. No causal relationship has been established between the absence of an income tax and economic performance. Moreover, the level of prosperity, and the improvement in prosperity, is no greater in no-tax states than in other states. States with a flat tax have not performed better than states with a progressive rate structure.

Relative to other states, those states without an income tax, on average, rely more heavily on other sources of revenue, including business taxes, and delegate more governmental responsibilities to local governments, which therefore have higher-than-average tax burdens. However, on average after excluding Alaska, no-tax states have a lower state and local government tax burden than states with an individual income tax. No-tax states have the most regressive tax structures and states with a graduated income tax have the least regressivity. Arizona's income tax collections are so low that the state is more comparable to no-tax states than states with a graduated rate structure.

The absence of an income tax does not guarantee that a state will rate highly on measures of the best places to do business or the best places to live, with some of the no-tax states ranking quite low on such measures. Similarly, the rankings are diverse among those states that levy a flat income tax. Arizona ranks in the middle of the states on best places to do business but compares more favorably on studies of the best places to live.

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SUMMARY

Most states, including Arizona, levy income taxes. Forty-three states and many localities in the United States impose an income tax on individuals. Forty-four states and many localities impose a tax on the income of corporations.

Seven states do not levy an individual income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming. Two states — New Hampshire and Tennessee — tax only dividend and investment income. Eight states currently levy an individual income tax with a flat rate: Colorado, Illinois, Indiana, Massachusetts, Michigan, North Carolina, Pennsylvania, and Utah.

This report provides a broad look at Arizona's income taxes. It describes both the individual income tax and the corporate income tax and compares both with the income tax systems in the other states. After discussing some conceptual issues relating to income taxes, particularly the effects of income taxes on state economies, the report turns to an analysis of the two types of tax reform that are currently under discussion in Arizona:

- The elimination of the state individual income tax and/or the state corporate income tax.
- A shift of the individual income tax from a graduated-rate structure to a flat-rate system.

Primary Data Sources

Two primary sources of public finance data for the state of Arizona are used in this paper. The Arizona Joint Legislative Budget Committee (JLBC) provides considerable up-to-date detail for Arizona; the latest revenue data are for fiscal year (FY) 2015. The U.S. Census Bureau, through its government finance program, provides much less detail and the latest data are for FY 2013, but the various accounting systems used across the states are standardized by the Census Bureau so that the Arizona data can be compared to other states.

Arizona Income Taxes

The state of Arizona levies both an individual and a corporate income tax. There are no local income taxes in Arizona. According to the JLBC, the individual income tax accounted for 39 percent of the state government's general fund revenue in FY 2015; the corporate income tax was responsible for 7 percent.

The U.S. Census Bureau data provide a broader view of state revenue, going beyond the general fund to include other funds and not-appropriated revenue. These data show that intergovernmental transfers (primarily from the federal government) made up more than one-third of the state's general revenue. Taxes accounted for close to three-fourths of own-source revenue. The individual income tax provided 18 percent, and the corporate income tax contributed about 4 percent, of the state's own-source general revenue.

Arizona's Individual Income Tax

The Arizona state individual income tax was enacted in 1933. From the beginning, the Arizona individual income tax incorporated a set of graduated (or progressive) rates: higher tax rates are levied as the income level increases. The current levels range from 2.59 percent to a maximum of 4.54 percent.

Residents, part-time residents, and nonresidents who derive income from Arizona sources must pay individual Arizona income taxes. Fiduciaries of estates and trusts are subject to the individual income tax. Unincorporated businesses are also subject to the individual income tax.

The Arizona individual income tax is levied each taxable year on “Arizona taxable income.” The starting point for calculating Arizona taxable income is “federal adjusted gross income” (FAGI) as defined by federal individual income tax regulations. Arizona’s taxable income is determined after making Arizona-specific adjustment to FAGI and then subtracting exemptions and deductions from the Arizona adjusted gross income figure.

Historically, capital gains from the sale of assets were not treated differently from other types of income in Arizona. Starting with the 2013 tax year, the tax rate was lowered for long-term capital gains (defined as gains from assets held longer than one year) on assets acquired after 2011.

The Arizona income tax code also allows a variety of tax credits in order to encourage certain types of behavior or aid taxpayers in certain categories.

The progressive nature of the individual income tax rates combined with exemptions, deductions, and credits results in a small percentage of Arizona taxpayers paying the bulk of the state individual income tax. Those with FAGI of at least \$100,000 accounted for 14.5 percent of the tax filers for tax year (TY) 2014, but their tax liability was two-thirds of the total. In contrast, those with limited incomes paid little in individual income tax. More than 38 percent of the tax filers reported FAGI of less than \$25,000; their tax liability accounted for only 2.4 percent of the total.

The burden of Arizona’s individual state income tax is low and has been declining over time. Based on the Census Bureau’s revenue data for FY 2013, Arizona’s individual income tax burden on a per capita (per person) basis was only 48 percent of the national average. Per \$1,000 of personal income, Arizona’s burden was 58 percent of the national average. Among the 41 states with a broad-based individual income tax, Arizona ranked 41st on both the per capita and per \$1,000 of personal income measurements.

Arizona’s Corporate Income Tax

Arizona’s corporate income tax came into being in 1933. Like the state’s individual income tax, the Arizona corporate income tax initially had a graduated rate structure. In 1990, the state corporate income tax was changed to a flat tax with a single tax rate levied on corporations’ net taxable income. The single rate is 5.5 percent in TY 2016, falling to 4.9 percent in TY 2017.

Arizona’s corporate income tax is levied on all corporations, excluding certain exempt organizations, which engage in business in Arizona. Exempt organizations include those exempt from federal income tax under IRS section 501 (generally not-for-profit organizations), plus a list specified in state statutes.

The tax base for the state’s corporate income tax is defined as Arizona taxable income, which is equal to federal taxable income, adjusted by a set of Arizona-specific additions and subtractions

specified by the state corporate income tax code. Multistate corporations are required to allocate a portion of their income to Arizona.

Forty-four of the 50 states levy corporate income taxes, but they typically account for a relatively small portion of the states' total tax revenue. Among the 44 states with a corporate income tax, 29 have a flat tax structure, with a single tax rate applied to all taxable income. The other 15 states have graduated tax structures.

In FY 2013, Arizona's corporate income tax burden was 77 percent of the national average measured in terms of tax per \$1,000 of state gross domestic product (GDP). Arizona ranked 33rd lowest among the 44 states that levy a corporate income tax.

Conceptual Issues

Governments levy taxes, charge fees, and collect other types of revenue to pay for the cost of the public services they provide. In some cases, it is possible to fund public services by directly charging user fees, but for many types of governmental activities, such as police protection, this approach is not feasible and so taxes — which are not directly tied to the use of public services — are used to pay for the cost of providing those government services.

There are two fundamental economic philosophies underlying the approach used by governments to pay for the services they provide. One, the benefits-received approach, is based on the notion that if a public service provides a benefit to an individual, household, or business, that individual, household, or business should pay for that benefit. The ability-to-pay approach, on the other hand, rests on the concept that those who are most able to bear the burden of the tax should pay — that is, individuals or businesses with larger incomes, profits, or wealth should pay more taxes.

Economic Criteria for Evaluating Taxes

The revenue structures of the 50 states vary widely, but the majority of states rely most heavily on a combination of sales taxes and individual income taxes, with corporate income taxes and property taxes playing a lesser role. Each type of tax has its advantages and disadvantages. Economists have developed a set of guiding principles to evaluate the pros and cons of the different types of taxes. The following six criteria are generally accepted as fundamental characteristics on which to judge a tax:

Stability: Does the tax provide a stable source of revenue or is it subject to wide fluctuations from year to year or over the business cycle? Between FY 2007 and FY 2010, controlling for tax code changes and changes in personal income, corporate income tax collections fell 41 percent in Arizona. Individual income tax revenues did not decline as sharply at 22 percent. Sales tax collections are generally regarded as a more stable revenue source, but general sales tax collections dropped 23 percent during the last recession. Hardly any decline occurred in the other tax sources used for the general fund, but these sources accounted for only 6 percent of general fund revenue in FY 2015.

Responsiveness: Does the tax produce a revenue stream that keeps pace with growth and changes in the state's economy? Between FYs 1995 and 2015, controlling for tax code changes

and changes in personal income, the individual income tax collections increased 19 percent, but decreases occurred in each of the other tax sources. In particular, collections from the general sales tax dropped 21 percent. Arizona's sales tax is largely limited to goods purchased in stores, while consumer spending continues to shift to goods purchased via the Internet and to nontaxed services. Thus, the responsiveness of the sales tax is especially poor.

Simplicity: Is the tax easily understood by taxpayers and does it minimize compliance and administrative costs? Of the four major taxes in terms of complexity, cost of compliance for taxpayers, and cost of collection for the state (in some cases also for the business sector), the sales tax would probably rank above the other three — it is relatively easy for taxpayers with minimal compliance costs, and its collection costs are probably smaller than for the other tax types. Although the property tax is very complex, costs for taxpayers are less than for the income tax, and the administrative and collection costs for the state are probably also less than the income tax. Individual and the corporate income taxes suffer the same problems — both are complex, impose significant compliance costs on taxpayers, and involve major administrative and collection costs.

Equity: Is the burden of the tax distributed fairly? There are two primary aspects to the concept of tax equity: Horizontal equity refers to the idea that taxpayers with similar characteristics should pay similar amounts; vertical equity is based on the concept that taxpayers with a greater ability to pay taxes should pay larger amounts.

In concept, an individual income tax might be expected to treat taxpayers with similar incomes equally, but in reality, state income taxes have myriad deductions, exemptions, and credits that benefit specific groups of taxpayers or specific activities that lead to unequal treatment of taxpayers with similar incomes. The general sales tax in Arizona (and many other states) is levied on only a subset of consumer purchases, producing horizontal equity issues. Similarly, the property tax as structured in Arizona has different assessment ratios for different types of property, provides a homeowners' rebate, and has other complexities that result in taxpayers with similar incomes not being treated the same.

Relating to vertical equity, a tax is conventionally classified as regressive if it takes a smaller share of income as income increases, as proportional if it takes the same proportion at all income levels, and progressive if it takes a bigger share as income increases.

Arizona's individual income tax is progressive, but the state's property tax and sales tax are regressive. It is difficult to evaluate how the corporate income tax affects taxpayers, but it is probably progressive relative to the business sector.

Neutrality: To what extent does the tax impact economic behavior? The term "excess burden" is often used to define the costs associated with the economic distortions caused by taxation. Economists generally identify sales taxes as causing the least excess burden, followed by property taxes. Individual income taxes are considered to cause more distortions than sales or residential property taxes and the corporate income tax is disparaged as causing by far the largest excess burden. In general, however, the magnitude of the excess burden of state taxes is very small.

Exportability: Is the tax paid by nonresidents who benefit from public services provided by the state? In general, the individual income tax ranks lowest in terms of its ability to be shifted to nonresidents. States have been able to shift more of the other major taxes — with corporate income taxes having the largest share.

From the discussion of the six characteristics, it is obvious that they conflict with each other in many instances. For example, sales taxes are regressive and so are ranked low in terms of vertical equity but rate highly for simplicity. There are also strong differences of opinion as to which of these six characteristics are the most important. Business interests and conservatives emphasize neutrality and the impact of taxes on interstate competition. Consumer advocates and progressives rate tax equity as the highest priority. For these and other reasons, there is continuing controversy about which is the “best” tax.

Income Taxes and Economic Growth

The effect of a state’s tax policy on its economy remains a controversial and unsettled issue even though academic researchers, think tanks, advocacy organizations, and public agencies have produced a large body of literature relating to the issue.

Studies of state fiscal policies vary greatly in their approaches and methodologies. The ways in which the researchers have addressed (or ignored) methodological issues contribute to the conflicting findings.

Academic research focusing specifically on the effects of state income taxes on state economic performance is not as voluminous, but there is a body of literature dealing specifically with income taxes, and the results have been inconclusive. The results of recent studies employing more sophisticated econometric techniques to counter methodological issues in earlier analyses are mixed but generally do not provide strong support for the contention that cutting or eliminating state income taxes will spur economic growth.

Although in theory income taxes are disincentives to work and invest, there is not compelling empirical evidence that state income taxes have significant negative impacts on states’ economic performance. Similarly, the empirical evidence from the few studies that speak to the issue does not offer much support for the argument that progressive state income tax structures hinder economic growth.

Discussions of the adverse effects of income taxes on economic growth often present comparisons of rates of growth measured by various economic variables over various time periods for no-income-tax states vis-à-vis states with income taxes. Similar comparisons can also be made between the states with a flat income tax structure versus states with progressive income taxes to evaluate the theoretically superior economic growth potential of a flat tax versus a progressive income tax

While aggregate economic growth tends to be faster in states without an individual income tax, the results are not consistent across the no-income-tax states. Instead, the faster growth is associated with geographic location in the faster-growing South and West regions of the country. Further, the no-income-tax states have not had greater gains in prosperity, nor is the level of

prosperity any higher, than in the other states. Similarly, states with a flat individual income tax rate have not performed better than states with progressive rate structures.

Tax Changes and Economic Growth in Arizona

Analyses of the tax changes and fluctuations in Arizona's economic growth from the late 1980s through 2009 found that swings in state revenues associated with the business cycle had led to tax increases and decreases, rather than the tax reductions resulting in stronger economic growth. Decreases in state tax rates and other reductions in tax burden in Arizona have generally coincided with times of strong economic growth and budget surpluses, permitting tax cuts while still allowing the state budget to remain in balance in the near term. Conversely, tax increases have occurred to forestall budget deficits during periods of economic recessions.

Differences Between States Without an Individual Income Tax, States Using a Flat Tax Rate, and States with a Graduated Tax Rate

Differences in Revenue Structures

On average, the group of nine no-income-tax states relies more heavily on intergovernmental transfers and less on own-source revenues to fund state government expenditures.

The no-income-tax states have substituted higher sales taxes and various other taxes as replacements for the individual income tax. They also have somewhat more reliance on fees and miscellaneous revenue sources. On average, the revenue structures among the flat-income-tax states is not that much different than the states with a graduated income tax.

Arizona's state revenue structure relies very heavily on the general sales tax and much less on income taxes than is typical for the 41 states with a broad-based individual income tax.

Overall Tax Burden

In per capita terms, the average burden for the nine no-income-tax states is higher than the national average, but the high average per capita burden for the group of nine no-income-tax states results from the inclusion of Alaska and its extremely atypical government finances. Excluding Alaska, the average per capita burden is the same as the average burden for the flat-tax states and lower than for the graduated-tax states, and the GDP-based measure of overall tax burden is substantially lower than that for the other states.

Arizona's overall tax burden measured in per capita terms is far below the average of the no-income-tax states and even further below that of the average of states that levy a broad-based individual income tax. When measured in terms of GDP, Arizona's overall tax burden is very similar to the average of the no-income-tax states and lower than that of the typical income-tax state.

Differences in Tax Burden by Income Level and in the Regressivity of State and Local Tax Structures

As a group, the no-income-tax states have the most regressive tax systems, with the group of states with a graduated income tax the least regressive, and the group of flat-income-tax states in between.

Arizona's tax system ranked as the eighth-most regressive among the 50 states, although not as regressive as the group of eight no-income-tax states (excluding Alaska).

Differences in Business Tax Burdens

The states that do not levy a broad individual income tax also rely more heavily on business taxes to fund their government activities. Arizona's business tax burden is slightly below the average for states with a graduated income tax structure and well below that of the no-income-tax states.

Differences in State and Local Spending

With Alaska's per capita state and local expenditures nearly twice the national average, the average spending level in per capita terms for the nine no-tax states is higher than for the other states. But after excluding Alaska, the average spending in per capita terms for the other eight no-income-tax states is the same as the average for the flat-tax states and lower than the average for the graduated-tax states. For the GDP-based measure, the average overall burden is lower for the group of eight no-income-tax states versus the group of flat-tax states and substantially lower than the average for the graduated-tax states.

Arizona's overall spending level measured in per capita terms is far below the average of the eight no-income-tax states and even further below that of the other states that levy a broad-based individual income tax. When measured in terms of GDP, Arizona's overall spending level is higher than the average of the eight no-income-tax states but lower than average for states with either a flat or a graduated income tax.

Best Places for Business and Best Places to Live Rankings

Those in favor of abolishing state income taxes emphasize the negative impact of state income taxes on both business location/investment decisions and individuals' decisions on where to live. However, based on the rankings by three recent studies (Beacon Hill, Forbes, and CNBC), the absence of an income tax does not guarantee a high ranking on measures of the best states for business. Similarly, the rankings are diverse among the group of states that levy a flat individual income tax — some are ranked highly but others rank near the bottom. Despite its low taxes, Arizona did not rank highly in any of these three studies.

Two recent academic studies that used more sophisticated methodologies than typical best places to live reports also produced very mixed results — with one or two of the no-income-tax states ranked near the top but others ranked near the bottom. The presence of a flat tax rate also had no correlation to the quality-of-life rankings. Arizona ranked considerably higher on the quality-of-life studies than on the studies of the best states for business.

Policy Options for Arizona's Income Taxes

Over the past 22 years, there have been seven decreases in Arizona's individual income tax rates, the last taking effect for tax year 2007, but its basic graduated rate structure has remained intact. Arizona's corporate income tax was changed to a flat tax structure in 1990, and its rate has been lowered periodically over the last 22 years with further decreases scheduled to occur through TY 2017.

Recently, however, there has been serious discussion of major changes to, or elimination of, Arizona's income taxes.

Flat Tax

In 2013, the Arizona Legislature established the Joint Task Force on Income Tax Reform. Its final report proposed actions for 2014 to index tax brackets for inflation and to reduce the number of income brackets from five to three, though keeping the same range of rates. The Task Force also recommended more comprehensive longer-term changes that included switching from the current progressive tax rate structure to a flat rate system.

The Task Force's short-term recommendations relating to changes in the tax brackets were not enacted in 2014, but inflation indexing of the income brackets was made permanent in 2015. A bill was introduced in the 2016 legislative session that would establish an optional individual flat income tax, but it was not passed into law.

Eliminating Arizona's State Income Taxes

The elimination of Arizona's state income taxes was one of the major issues during the 2014 gubernatorial race, and after his election, Governor Ducey has continued to avow a mission to bring income tax rates "as close to zero as possible" with the goal of eliminating the taxes altogether.

Impact on the State General Fund Budget of Eliminating Arizona Income Taxes

The state's current fiscal structure is heavily dependent on the revenue collected by its income taxes. In FY 2015, income tax collections accounted for 43 percent of total general fund revenues (46 percent before subtracting urban revenue sharing). Results of a simulation of what would happen to the state's general fund budget if the state personal and corporate income taxes were eliminated shows that even with a conservative forecast of expenditure growth and extremely generous assumptions regarding revenue growth, the elimination of the income taxes — regardless of the number of years over which the taxes are phased out — would result in a significant budget deficit continuing far into the future.

Other States' Experiences with Income Tax Reform

Income Tax Cuts. Four of the five states that had enacted large income tax cuts since 2010 (Kansas, Maine, North Carolina, Ohio, and Wisconsin), actually experienced slower job growth than the nation as a whole. Only North Carolina, the last state in which the income tax cut took effect (in January 2014), had job growth that exceeded the national average through 2015. The income tax cuts also have not produced offsetting state revenues generated by a surge in economic growth that was supposed to result from the tax cuts.

Shifting from a Graduated to a Flat-Tax Structure. Three states have shifted from a graduated tax rate system to a flat tax: Colorado in 1987, Utah in 2008, and North Carolina in 2014. None of the states with single-rate income taxes has a true flat tax. All of their individual income tax systems incorporate various exemptions, deductions, and credits. The evidence is mixed as to whether the switch from graduated rates to a single rate income tax structure led to stronger economic growth for these states. With North Carolina's new structure in effect only since 2014, sufficient data to examine the economic effects of the switch are not yet available.

Comparing growth rates in employment and per capita income, Colorado experienced mixed results after the switch, and Utah had lesser gains.

Observations Regarding Policy Options

With the stated objective of stimulating their states' economies, a number of states, including Arizona, have had serious discussions about cutting individual and/or corporate income taxes as part of a long-term strategy to eliminate state income taxes.

First, it may be worthwhile to consider the current competitive situation of Arizona versus the other 49 states with respect to its tax climate. Arizona qualifies as a low-tax state in terms of its overall tax burden. The state ranked 49th lowest in FY 2013 measured in terms of total state and local own-source general revenues per capita and 48th lowest if only state government own-source general revenue is included.

Arizona does not do as well in terms of the tax burden of businesses. In terms of business taxes, Arizona ranked tied for 18th highest as a percentage of private-sector GDP in FY 2014. While unincorporated businesses pay individual income taxes, the biggest share of the business tax burden in Arizona comes from sales taxes and property taxes, not from corporate or individual income taxes. Further, Arizona's business tax burden is above average for these two taxes, while the income tax burden is far below average.

Any idea that eliminating or lowering state income taxes will pay for itself should be forgotten. As demonstrated by the results of the simulation discussed earlier and by the real-world example of what happened in Kansas, such policies will come nowhere close to paying for themselves. So the key issue in lowering or eliminating state income taxes is whether such changes are undertaken as revenue-neutral tax reform or as a strategy to lower taxes and reduce the size of state government.

Arizona's state income taxes are very important sources of revenue to the Arizona state government, with the combination of individual and corporate income taxes providing nearly one half of the total. So, eliminating both income taxes or the individual income tax alone or even lowering tax rates will necessitate equally major increases in other revenue sources or major cuts to the state budget.

If a move to lower income tax rates or to eliminate income taxes is to be undertaken as a revenue-neutral reform, ways to replace the lost income tax revenues would have to be found. A move toward a pure flat tax by reducing or eliminating many of the numerous deductions, exemptions, and credits would be one credible option. It would reduce the distortions, inefficiencies, and complexity of the current system while generating offsetting revenue. However, it is not possible to design a revenue-neutral flat tax that will not cause some taxpayers to pay higher taxes. In addition, it might be difficult politically to create such a tax due to the probable lobbying by special interest groups to preserve their "pet" deductions and credits.

The most likely source of additional revenue to offset revenue lost due to reducing income tax rates or abolishing the income tax would be to increase the state's general sales tax but potentially also certain selective sales taxes. This would make the state's revenue system

dependent on sales tax collections for about 90 percent of the general fund revenue, more regressive, and somewhat less volatile but also less able to keep pace with the state's growth. A better option to replace some of the lost revenue would be to reinstitute the state's property tax, but a high tax rate would be required to offset all of the lost revenue.

Lowering or eliminating Arizona's income taxes without replacing them with other revenue sources would mean shrinking the state budget relative to the size of the Arizona economy. A large share of cuts would have to be borne by decreases in state spending on education, which make up more than half of general fund appropriations.

Historically, the Legislature has pursued a policy of cutting taxes in good economic times when revenues were plentiful and then cutting expenditures during bad times to close the budget deficit. If this pattern of tax reductions during periods of strong economic growth is continued and particularly applied to income tax cuts, with a long-term objective of eliminating the state income taxes, the relative size of the state budget would shrink more gradually over time than if the income taxes were abolished in either one year or over a several-year phase in. Still, over the long term, the scope of the operations and services provided by Arizona state government would be substantially smaller than today.

Although proponents argue that revenue-neutral tax reform, lowering and ultimately eliminating Arizona state income taxes, would produce big benefits for the state's economy, there is no clear evidence that such a change to the state's fiscal structure would significantly spur economic growth. Based on Arizona's past experience, income tax reform based on tax cuts and spending reductions would be the more likely approach, but there is also no compelling empirical evidence that the combination of income tax cuts teamed with equivalent cuts in state government spending would have significant positive impacts on economic growth.

Further, based on the fiscal structures of the states without a broad-based individual income tax and the experience in other states that have recently cut income taxes, it is likely that moves to reduce Arizona state income taxes would result in a shift of more responsibility for providing and funding public services to Arizona's local governments, with the result that taxpayers would see increases in local taxes at least partially offsetting cuts in state income taxes.

INTRODUCTION

This report provides a broad look at Arizona's income taxes. Following a brief overview of income taxes nationally and of the primary data sources used for this report, six main topics are examined.

First, the primary features of the state's income taxes are described, with comparisons to other state income tax systems — looking first at the individual income tax and then proceeding to a similar examination of Arizona's corporate income tax. Second, conceptual issues relating to state government finance, in particular the “pros and cons” of income taxes versus other taxes are discussed. Third, the ongoing issue of whether income taxes hinder states' economic growth is analyzed. Following this discussion of whether states without income taxes or with flat income taxes do better economically, other differences in state fiscal structures, competitiveness, and quality of life among the states are examined depending on whether they have no individual income tax, a flat income tax, or a graduated income tax. Fifth, the discussion switches to policy issues of potential changes to Arizona's income tax system — either moving to eliminate the individual and/or the corporate income tax or a shift of the individual income tax from its current graduated rate structure to a flat rate tax. Finally, the implications of such tax reforms for state government and for the citizens of Arizona are examined.

INCOME TAXES IN THE UNITED STATES

Income taxes are important sources of revenue for the federal government, most state governments, and some local jurisdictions in the United States. These taxes are levied on the incomes of individuals (or families), estates and trusts, and businesses. The individual income tax is based on income received and generally applies to both earned income (wages, salaries and commissions) and unearned income (dividends, interest and rents, and capital gains). Unincorporated businesses (single proprietorships and partnerships), and Subchapter S corporations (which pass income to shareholders) are subject to the individual income tax. The corporate income tax is based on net profits, computed as the excess of receipts over allowable costs.

For the federal government, the individual income tax is the most important revenue source. It contributed 47 percent of total revenue in fiscal year (FY) 2015; the corporate income tax produced 11 percent.

Most states levy income taxes. In addition, some local governments impose an income tax, often based on state income tax calculations. Forty-three states and many localities in the United States impose an income tax on individuals. The individual income tax contributed 18 percent of total state general revenue, but only 2 percent of total local government general revenue, across the nation in FY 2013. Forty-four states and many localities impose a tax on the income of corporations.¹ The corporate income tax made up 3 percent of total state general revenue and less than 0.1 percent of total local government general revenue nationally in FY 2013.

States Without an Individual Income Tax

Seven states do not levy an individual income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming. Two states — New Hampshire and Tennessee — tax only dividend and investment income. In some of these states, use of an individual income tax is either prohibited or restricted by the state's constitution.

Alaska, Texas, and Wyoming are rich in natural resources and receive considerable revenue from severance taxes. Legalized gambling in Nevada provides a revenue source not available to most states. Florida benefits from tourism and the in-migration of retirees. Thus, the majority of the states without a broad individual income tax are able to do without the tax due to special conditions that provide other revenue sources.

Most of the states without a broad individual income tax never have levied the tax. South Dakota eliminated its individual income tax in 1943. Alaska abolished its individual income tax in 1980 when the completion of the Trans-Alaska pipeline created a new revenue source. Thus, there really is not a modern precedent for a state without an unusual source of revenue to eliminate its income tax.

The states without a broad individual income tax are not randomly distributed across the country. Instead, most are in the South or West, the regions of the country that have experienced rapid growth in recent decades, regardless of the presence and nature of an individual income tax. Moreover, the population size of the states without a broad individual income tax are diverse.

¹ Four other states levy a gross receipts tax instead of a corporate income tax.

Florida and Texas combined account for 70 percent of the total population of the nine states. Thus, the results of analyses that aggregate the nine states may largely be reflecting conditions in just Texas and/or Florida.

Given the atypical nature of Alaska, in many cases excluding Alaska provides a more reasonable characterization of the no-income-tax states. Thus, the discussion in this paper will at times focus on these eight states.

States That Apply a Flat-Rate Individual Income Tax

Eight states currently levy an individual income tax with a flat rate: Colorado, Illinois, Indiana, Massachusetts, Michigan, North Carolina, Pennsylvania, and Utah. Five of these states have applied a single rate since the tax was initially created. In three of these five states, the income tax was not created until the late 1960s or early 1970s. In several of the states with a flat rate, the state's constitution prohibits the use of graduated rates.

Three states have shifted from a graduated tax rate system to a flat tax: Colorado in 1987, Utah in 2008, and North Carolina in 2014. Because of the recent conversion in North Carolina, it generally is not included as a flat rate state in the analyses presented later in this paper.

None of the states with single-rate income taxes has a true flat tax. All of their individual income tax systems incorporate various exemptions, deductions, and credits so that the actual incidence of the tax is not strictly proportional to income level.

Unlike the states without a broad individual income tax, the states that use a single rate are reasonably homogenous in population size and are fairly well dispersed across the country. Thus, the results of analyses that aggregate these states should be representative of the group as a whole.

PRIMARY DATA SOURCES

Two primary sources of public finance data for the state of Arizona are used in this paper. The Arizona Joint Legislative Budget Committee (JLBC) provides considerable up-to-date detail for Arizona; the latest revenue data are for FY 2015. The U.S. Census Bureau, through its government finance program, provides much less detail and the latest data are for FY 2013, but the various accounting systems used across the states are standardized by the Census Bureau so that the Arizona data can be compared to other states.

The JLBC's accounting system includes multiple funds, the largest of which is the general fund. Revenue data for the general fund by source are available for FYs 1971 through 2015. Appropriations data for the general fund by state agency are available for FYs 1979 through 2016; appropriations figures by state agency for other funds run from FY 1989 through FY 2016. In addition to appropriations, the JLBC accounts for other authorized but not-appropriated expenditures by state agency, such as federal funding, with these data also available for FYs 1989 through 2016.

In addition to state government finance data, the Census Bureau also reports local government finance by state. Since revenue and spending authority varies by state between state and local governments, comparisons across states need to be made using combined state and local government finance data.

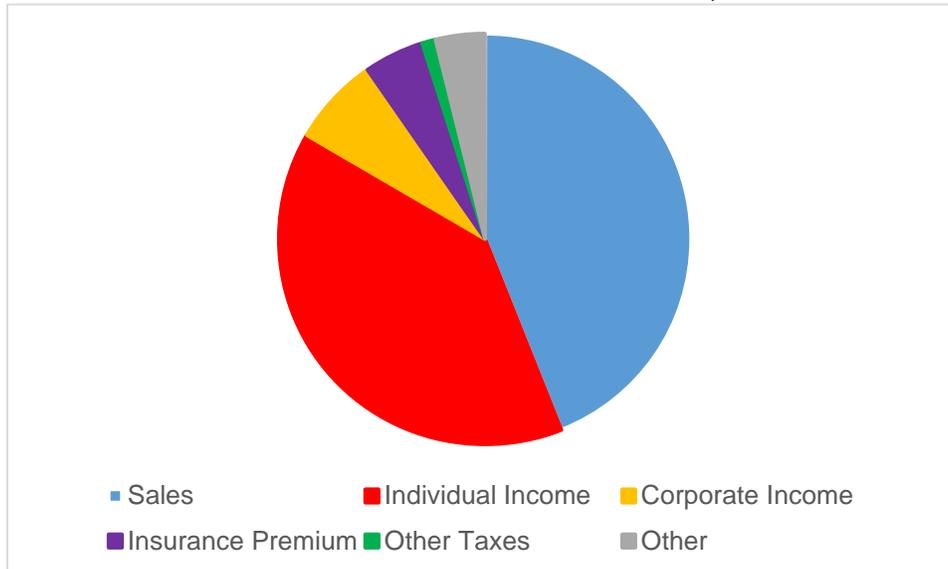
The Census Bureau does not distinguish between appropriated and not-appropriated expenditures, nor does it distinguish between funds, except for separating liquor stores, insurance trusts, and utilities from the rest of government finance. It labels the balance of government finance as "general revenue" and "general expenditure," which are *not* synonymous with the JLBC's general fund. The accounting system used by the Census Bureau differs in a number of ways from that used by the JLBC. For example, the JLBC's property tax category includes only real estate, while the Census Bureau uses a broader definition, including vehicle taxes based on the value of the vehicle.

ARIZONA INCOME TAXES

The state of Arizona levies both an individual and a corporate income tax. There are no local income taxes in Arizona.² According to the JLBC, the individual income tax accounted for 39 percent of general fund revenue in FY 2015; the corporate income tax was responsible for 7 percent. The sales tax was the largest source (44 percent). Chart 1 displays the revenue shares specific to the general fund.

The data compiled by the U.S. Census Bureau provide a broader view of state revenue, going beyond the general fund to include other funds and not-appropriated revenue. The relative importance of the different revenue sources for the state of Arizona in FY 2013 is displayed in Table 1, with shares shown three ways. Intergovernmental transfers (primarily from the federal government) made up more than one-third of the state's general revenue. Taxes accounted for close to three-fourths of own-source revenue. The individual income tax provided 18 percent, and the corporate income tax contributed about 4 percent, of the state's own-source general revenue.

**CHART 1
RELATIVE IMPORTANCE OF REVENUE SOURCES,
ARIZONA STATE GOVERNMENT GENERAL FUND, FISCAL YEAR 2015**



Source: Arizona Joint Legislative Budget Committee, <http://www.azleg.gov/jlbc/fiscal.htm>.

² A statewide voter initiative established an urban revenue sharing fund in 1972 that distributes a portion of state income tax collections to Arizona's cities and towns, with the stipulation that political subdivisions of the state are prohibited from levying an income tax. In FY 2015, urban revenue sharing distributed \$609 million, which constituted 15 percent of net collections from the individual and corporate income taxes two years earlier.

TABLE 1
RELATIVE IMPORTANCE OF REVENUE SOURCES,
ARIZONA STATE GOVERNMENT, FISCAL YEAR 2013

	Share of General Revenue	Share of Own- Source Revenue	Share of Total Taxes
General Revenue	100.0%		
Intergovernmental Transfers	36.3		
Own-Source Revenue	63.7	100.0%	
Total Taxes	46.2	72.4	100.0%
General Sales	22.2	34.8	48.0
Selective Sales*	5.9	9.3	12.9
Individual Income	11.6	18.3	25.2
Corporate Income	2.3	3.6	4.9
Property	2.6	4.1	5.7
Other	1.5	2.4	3.3
Nontax Revenue	17.6	27.6	
Current Charges**	11.6	18.2	
Miscellaneous***	6.0	9.4	

* Includes taxes on products such as motor fuels, alcoholic beverages, and tobacco.

** User fees such as university tuition.

*** Such as interest earned and sale of property.

Source: U.S. Department of Commerce, Census Bureau, State Government Finances,
<http://www.census.gov/govs/state/>.

Arizona's Individual Income Tax

The Arizona Legislature enacted laws establishing the state individual income tax in 1933 in response to the sharp decline in revenue from the existing tax system due to the collapse of the state's economy during the Depression. From the beginning, the Arizona individual income tax incorporated a set of graduated (or progressive) rates: higher tax rates are levied as the income level increases, with the rates initially ranging from 1-to-4.5 percent. There were three rate increases over the 1933-to-1967 period. The rates reached their highest levels with the 1967 changes: a range of 2-to-8 percent. A reversal of this trend began in 1990, when tax brackets were restructured; the rate ranged from 3.8-to-7.0 percent. Periodic decreases in the rate structure have occurred since then. The current levels range from 2.59 percent to a maximum of 4.54 percent. Thus, while the current maximum rate is similar to the maximum that was set in 1933, the minimum rate is higher than in 1933 — currently, the individual income tax is not as progressive as originally designed.

In 1954, the existing Arizona income tax structure was repealed and replaced with a new state income tax closely patterned after the federal income tax, including establishing a withholding payment system. The approach of conforming the state income tax structure to the federal income tax has continued since that time, with periodic modifications to the Arizona income tax to conform with changes to the U.S. Internal Revenue Service (IRS) code. The most comprehensive change occurred in 1978, when a new state income tax code was enacted in which the computation of Arizona taxable income was directly linked to the federal adjusted gross income measure.

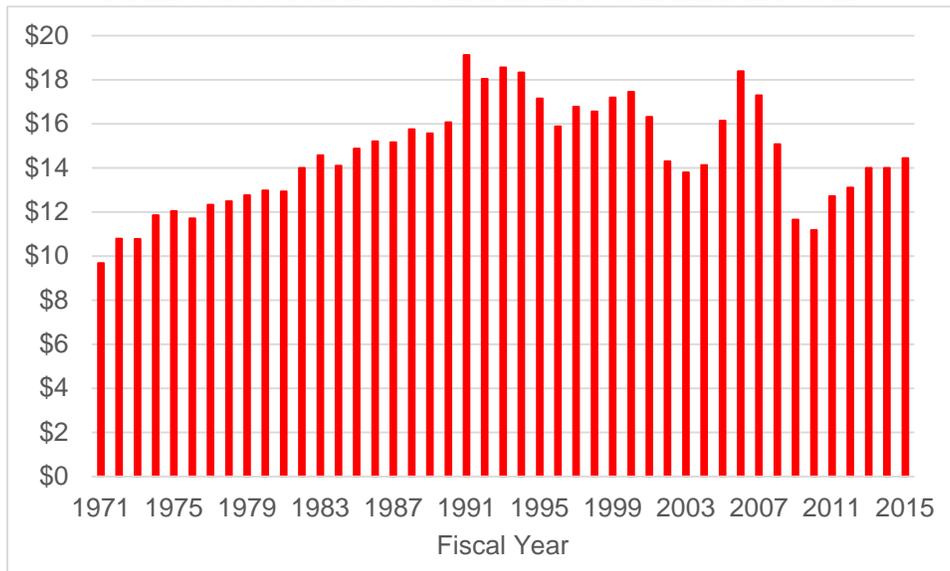
Revenue from Arizona’s individual income tax has increased over time with the growth of the state’s economy and increases in household and business incomes — growing from less than \$65 million in FY 1970 (\$325 million in terms of current dollars) to \$3.76 billion (net of refunds and charge offs) in FY 2015. Collections from the individual income tax are cyclical, however, and closely linked to the state’s business cycle. The clearest example of this cyclicality was the recent drastic swing over the FY 2007-to-FY 2015 period. Collections peaked at \$3.75 billion in FY 2007, then dropped to \$2.42 billion in FY 2010, and did not regain a level equivalent to the FY 2007 peak until FY 2015.

Adjusting the revenue data by personal income controls for the changes over time in inflation, the state’s population, and real per person economic growth. As seen in Chart 2, individual income tax revenue per \$1,000 of personal income in FY 2015 still was considerably less (by 21 percent) than at the peak in FY 2006. Economic conditions in FY 2015 were weaker than in FY 2006, but changes to the tax code, including reductions in tax rates, are the primary explanation for the lower collections in FY 2015 than in FY 2006.

Incidence of the Tax

Residents, part-time residents, and nonresidents who derive income from Arizona sources must pay individual Arizona income taxes. Any person who spends more than nine months of a taxable year in Arizona is presumed a resident unless it can be shown that the individual is in the state for a temporary or transient purpose. Any resident who moved in or out of Arizona with the intent to establish or relinquish residency is also considered a part-time resident for the year of

**CHART 2
INDIVIDUAL INCOME TAX REVENUE PER \$1,000 OF PERSONAL INCOME,
ARIZONA STATE GOVERNMENT GENERAL FUND**



Sources: Arizona Joint Legislative Budget Committee, <http://www.azleg.gov/jlbc/fiscal.htm> (revenue) and U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov/regional/index.htm>, (personal income).

the move. The tax liability for part-time residents is prorated by the portion of the taxable year spent in the state.

Fiduciaries of estates and trusts are subject to the individual income tax. Unincorporated businesses are also subject to the individual income tax.³ The owners or members of the business are subject to the individual income tax on their pro rata share of the net income of the business. The income of Indian tribal members is not subject to income tax if he or she is living and working on the reservation and deriving income from reservation sources only. Income of a nonaffiliated tribal member or income of a non-Indian derived from reservation sources is subject to the income tax.

The Revenue Base

The Arizona individual income tax is levied each taxable year on the concept of “taxable income.” The starting point for calculating Arizona taxable income is “federal adjusted gross income” (FAGI) as defined by federal individual income tax regulations. Since calculation of Arizona’s individual income tax liability uses FAGI as its starting point, the subtractions from gross income built into the federal tax code to arrive at FAGI are taken into account. In addition, the state tax code includes Arizona-specific additions and subtractions to FAGI to arrive at Arizona adjusted gross income. The most common addition is interest income from non-Arizona municipal bonds. The most common subtractions relate to Social Security and other federal pensions and to Arizona state and local pension benefits.⁴

Arizona’s taxable income is determined after subtracting exemptions and deductions from the Arizona adjusted gross income figure. The Arizona individual income tax calculations provide for personal exemptions from income (higher for those over 65 years of age and/or blind) plus additional exemptions for dependents. For 2015, the personal exemption was \$2,100 for a single individual, \$4,200 for a single head of household or for a married couple with no dependents, and \$6,300 for a married couple with at least one dependent. The additional exemption for blindness was \$1,500 (\$2,100 for those over 65). The exemption for each dependent was \$2,300 (\$10,000 for each qualifying dependent parent or grandparent).

The Arizona individual income tax calculations also include either standard or itemized deductions. Arizona itemized deductions are based on the deduction claimed for federal income taxes with certain modifications.⁵ For those taxpayers not choosing to itemize deductions, the standard deduction for 2015 was \$5,091 for single filing status and \$10,173 for a head of household or a married couple filing jointly. The amount of the standard deduction is automatically indexed for inflation.

³ Unincorporated businesses include sole proprietorships, partnerships, limited liability companies, or Subchapter S corporations. For these types of businesses, it is assumed that its income flows through the business to the individual owners or members of the business, and this income is then subject to individual income tax.

⁴ See the instructions for Arizona Form 140, Individual Income Tax Return, for a complete listing of the additions and subtractions to income, <https://www.azdor.gov/Forms/Individual.aspx>.

⁵ See the instructions for Arizona Form 140, Individual Income Tax Return, for a complete listing of the Arizona-specific adjustments to federal itemized deductions.

Capital Gains

Prior to the 2013 tax year, capital gains from the sale of assets such as stocks, bonds, and real estate were not treated differently from other types of income in Arizona as they were by the federal tax system and the systems of some other state and local governments. They were included as part of taxpayers' Arizona adjusted gross income and subject to the same tax rates as other income. Starting with the 2013 tax year, the tax rate was lowered for long-term capital gains (defined as gains from assets held longer than one year) on assets acquired after 2011. The reduction in rates has been phased in with a 10 percent reduction for tax year (TY) 2013, 20 percent for TY 2014, and 25 percent for TY 2015 and thereafter. In addition, beginning in TY 2014, capital gains derived from investments in small businesses (defined as those with assets of less than \$10 million) are exempt from individual taxes.

Tax Rates

The rates and income brackets for the 2015 tax year are presented in Table 2. Starting with TY 2015, the individual income tax brackets are adjusted for inflation as measured by the Consumer Price Index for Metropolitan Phoenix.⁶

Exemptions, Deductions, and Credits

As discussed in "The Revenue Base" subsection, the Arizona income tax code allows various exemptions, deductions, exclusions, and other adjustments in the calculation of Arizona taxable income. In addition, a variety of tax credits are allowed in order to encourage certain types of behavior or aid taxpayers in certain categories. These tax credits directly reduce individuals' income tax liability rather than acting as a subtraction from taxable income.

After calculation of the tax liability based on Arizona taxable income, taxpayers are allowed to claim credits from a variety of programs that are subtracted from their individual income taxes owed. For the 2015 tax year, there are 37 categories of tax credits. Based on figures from the latest tax year for which data were available (variously TY 2011-to-TY 2013), the sum of such

**TABLE 2
INDIVIDUAL INCOME TAX INCOME BRACKETS AND TAX RATES,
ARIZONA, TAX YEAR 2015**

Income Bracket		Tax Rate
Single and Married Filing Separately	Married Filing Jointly and Head of Household	
\$0 to \$10,163	\$0 to \$20,325	2.59%
\$10,164 to \$25,406	\$20,326 to \$50,812	2.88
\$25,407 to \$50,812	\$50,813 to \$101,623	3.36
\$50,813 to \$152,434	\$101,624 to \$304,868	4.24
\$152,435 and Over	\$304,869 and Over	4.54

Source: Arizona Department of Revenue, 2015 Arizona Tax Tables X and Y for Form 140, <https://www.azdor.gov/Forms/Individual.aspx>.

⁶ The CPI for the Phoenix area is produced twice a year by the U.S. Department of Labor, Bureau of Labor Statistics, <http://stats.bls.gov/cpi/>. The income tax brackets are not changed if the CPI registers a decrease.

tax credits claimed by taxpayers against their Arizona individual income tax liabilities totaled \$275 million.⁷

Tax Liability by Income

The progressive nature of Arizona’s individual income tax rates combined with allowances for exemptions, deductions, and credits results in a small percentage of taxpayers paying the bulk of the individual income tax collected by the state. As seen in Table 3, those with FAGI of at least \$100,000 accounted for 14.5 percent of the tax filers for TY 2014. The income of these tax filers accounted for 52.9 percent of the total reported, but the tax liability was two-thirds of the total. The 4,905 tax filers reporting FAGI of at least \$1 million — just 0.2 percent of all tax filers — paid 16 percent of the total individual income tax.

In contrast, those with limited incomes paid little in individual income tax. More than 38 percent of the tax filers reported FAGI of less than \$25,000; their incomes accounted for 5.1 percent of the total while their tax liability was only 2.4 percent.

Comparison of Arizona and Other States’ Individual Income Tax Structures

Forty-three of the 50 states levy individual income taxes, and these taxes accounted for 27 percent of state own-source general revenue in FY 2013. Among the 41 states with a broad individual income tax, eight apply a single tax rate to all taxable income. The other 33 states have graduated tax structures with higher tax rates for successively higher income brackets.

The number of brackets and the tax rates that apply to each bracket vary by state. The number of brackets range from two states having only two brackets to three states with ten or more. The income ranges between brackets also vary widely. In some states the maximum rates are reached at a relatively low income level, like Alabama’s structure where the maximum rate applies to income above \$3,000 for single filers and \$6,000 for joint filers, so in practice these states’

**TABLE 3
INDIVIDUAL INCOME TAX COLLECTED BY INCOME BRACKET,
ARIZONA, TAX YEAR 2014**

Federal Adjusted Gross Income Bracket	Tax Filers	Share of Total Federal Adjusted Gross Income	Tax Liability
Less Than \$10,000	14.2%	-1.9%	0.1%
Less Than \$25,000	38.3	5.1	2.4
Less Than \$50,000	63.6	20.6	12.3
\$50,000 to \$74,999	13.4	14.0	10.6
\$75,000 to \$99,999	8.6	12.6	10.6
\$100,000 and Over	14.5	52.9	66.6
\$1 Million and Over	0.2	9.3	16.0

Source: Arizona Department of Revenue, Tax Abstract.

⁷ Arizona Joint Legislative Budget Committee, *2015 Tax Handbook*, <http://www.azleg.gov/jlbc/15taxbook/15taxbk.pdf>.

structures almost have a flat rate structure for most taxpayers. Other states have much wider income brackets, with the extreme being California where the top bracket applies to incomes of over \$1 million. The top marginal rates vary from 3.07 percent in Pennsylvania to 13.3 percent in California. Among the states with graduated income tax structures, Arizona's five income brackets is less than the national average number, and its top marginal rate of 4.54 percent is the 13th lowest among all states levying an individual income tax. Among the eight states with a flat tax, the single rate in four of the states is higher than Arizona's top marginal rate.

Other dimensions of the individual income tax structures vary among states as well. Some states, like Arizona, tie their structures to the federal tax code, while others have developed their own. Similarly, some states, like Arizona, index tax brackets, exemption amounts, etc. for inflation, but many others do not.

Relative Burden of Arizona's Individual Income Tax

Using the Census Bureau's revenue data for FY 2013, Arizona's individual income tax burden on a per capita (per person) basis was only 48 percent of the national average: \$516 versus \$1,075. Per \$1,000 of personal income, Arizona's burden was 58 percent of the national average: \$13.99 versus \$24.14. Among all 43 states that levy an individual income tax, and the 41 states with a broad-based individual income tax, Arizona ranked 41st on both the per capita and per \$1,000 of personal income measurements.⁸

The individual income tax burden can be measured in other ways. A study by the government of the District of Columbia compares tax burdens at five income levels in the largest city in each state (and the District of Columbia).⁹ In 2014 at income levels of \$50,000 and higher, the individual income tax burden in Phoenix ranked 38th or 39th and was less than half of the median of the 51 cities.

Another study calculates the tax burden by state at nine income levels.¹⁰ At income levels of \$50,000 and higher, Arizona ranks between 36th and 41st, with a tax liability ranging from 30-to-45 percent less than the national average. However, at lower income levels, Arizona ranks in the middle of the states that levy an income tax.

Individual income tax collections have increased in Arizona as the state has grown and household income levels have risen over time, but the relative burden of the state's individual income tax on taxpayers has declined over time. Given the volatility of income tax collections from year to year, the following analysis focuses on averages by decade (see Table 4).

After adjusting for inflation, Arizona individual income tax collections per capita averaged \$237 during the 1970s and trended upwards over the next three decades reaching an average of around \$550 per capita in the first part of the 2000-to-2009 decade. But collections dropped sharply at

⁸ These calculations are on a combined state and local government basis, including local government income taxes.

⁹ Government of the District of Columbia, *Tax Rates and Tax Burdens in the District of Columbia — A Nationwide Comparison, 2014*, December 2015, <http://cfo.dc.gov/node/215912>.

¹⁰ Minnesota Center for Fiscal Excellence, *Comparison of Individual Income Tax Burdens by State, 2015 Edition*, October 2015, <https://www.fiscalexcellence.org/our-studies/income-tax-burden-study-2015edition-final.pdf>.

TABLE 4
INDIVIDUAL INCOME TAX COLLECTIONS, ARIZONA AND THE UNITED STATES,
FISCAL YEAR AVERAGE BY DECADE

	Per Capita, Adjusted for Inflation			Per \$1,000 of Personal Income		
	United States	Arizona	Arizona Ratio to Nation	United States	Arizona	Arizona Ratio to Nation
1970 to 1979	\$302	\$222	74%	\$14.38	\$11.32	79%
1980 to 1989	469	342	73	18.40	14.36	78
1990 to 1999	642	467	73	20.74	17.33	84
2000 to 2009	837	518	62	21.64	15.24	70
2010 to 2013	838	435	52	20.58	12.74	62

Sources: U.S. Department of Commerce, Census Bureau, State Government Finances, <http://www.census.gov/govs/state/> (tax collections and population) and U.S. Department of Commerce, Bureau of Economic Analysis (inflation and personal income).

the end of the decade due to the long and deep recession; per capita collections fell to \$376 in FY 2010 and averaged \$435 over the FY 2010-to-FY 2013 period. Comparing these figures to the national average shows that the relative burden of Arizona’s individual income tax historically was substantially below the national average and has trended even lower over the last 20 years. In per capita terms, Arizona’s relative burden averaged 73-to-74 percent of the overall national figure from the 1970s through the 1990s. However, in the last half of the 1990s, the ratio of Arizona’s per capita collections versus the national average began to decline. The average was down to 62 percent during the 2000s. The downtrend continued in the most recent period with the ratio of Arizona to the national average only 52 percent over the FY 2010-to-FY 2013 period.

The same downward trend is evident if relative burdens are measured in terms of tax collections per \$1,000 of personal income. The ratio fell from about 80 percent from the 1970s through 1990s to only 62 percent during the FY 2010-to-FY 2013 period.

Arizona’s Corporate Income Tax

Arizona’s corporate income tax came into being in 1933. Like the state’s individual income tax, the Arizona corporate income tax initially had a graduated rate structure, with the rates initially ranging from 1-to-5 percent. There were three rate increases over the 1933-to-1974 period. The rates reached their highest levels with the 1974 changes – a range of 2.5-to-10.5 percent. In 1990, the state corporate income tax was changed to a flat tax with a single tax rate levied on corporations’ net taxable income. Initially in the 1990 tax year, the single rate was set at 9.3 percent. The rate has been gradually reduced over time; it was 6.0 percent in TY 2015, with further decreases currently scheduled to take effect through TY 2017.

As with the individual income tax, the existing corporate tax code was repealed and replaced in 1954 with a new state corporate income tax closely patterned after the federal corporate income tax. The approach of conforming the state corporate income tax structure to federal tax code has continued since that time, with periodic modifications to conform with changes to the U.S code.

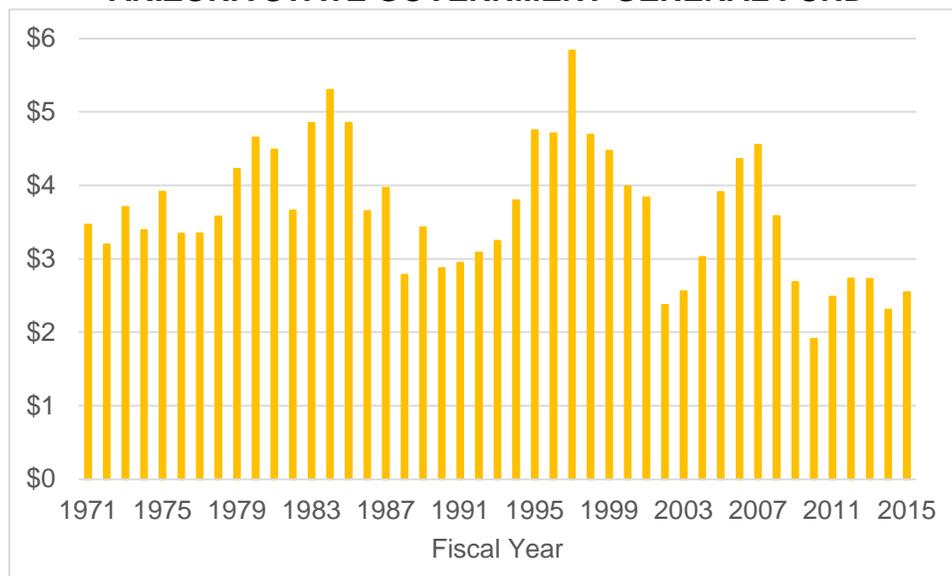
Collections from Arizona’s corporate income tax have increased over time with the growth of the state’s economy and of business incomes — from \$21 million (equivalent to \$109 million in current dollars) in FY 1970 to \$663 million in FY 2015. Corporate income tax collections are closely linked to the state’s business cycle and are even more volatile than the individual income tax. An extreme example of this volatility was the drastic swing over the FY 2007-to-FY 2015 period. After a peak of \$986 million in FY 2007, corporate income tax revenues fell to \$413 million in FY 2010, and only recovered to \$663 million by FY 2015.

Per \$1,000 of personal income, corporate income tax collections fell 44 percent between fiscal years 2007 and 2015 (see Chart 3). Reductions in the tax rate and other changes to the tax code are responsible for most of this decline.

Incidence of the Tax

Arizona’s corporate income tax is levied on all corporations, excluding certain exempt organizations that engage in business in Arizona. Exempt organizations include those exempt from federal income tax under IRS section 501 (generally not-for-profit organizations), plus a list specified in state statutes. These include corporations owned by an Indian tribe or tribal member when the income is derived from businesses located on a reservation, Chapter S corporations, insurance companies subject to the insurance premium tax, and certain other corporations tied to not-for-profit organizations.

**CHART 3
CORPORATE INCOME TAX REVENUE PER \$1,000 OF PERSONAL INCOME,
ARIZONA STATE GOVERNMENT GENERAL FUND**



Sources: Arizona Joint Legislative Budget Committee, <http://www.azleg.gov/jlbc/fiscal.htm> (revenue) and U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov/regional/index.htm>, (personal income).

The Revenue Base

The tax base for the state’s corporate income tax is defined as “Arizona taxable income,” which is equal to federal taxable income, adjusted by a set of Arizona-specific additions and subtractions specified by the state corporate income tax code.

Multistate corporations are required to allocate a portion of their income to Arizona. The allocation method depends on whether the income is classified as “business” or “nonbusiness” income. “Business income” is defined as income from the corporations’ regular business operations. “Nonbusiness income” is defined to include all income other than business income — typically from rents and royalties, capital gains, interest, and dividends.

Multistate corporations are allowed to allocate business income based on two different schemes. Both allocate a corporation’s business income based on the proportion of its property, payroll, and sales in Arizona. An apportionment ratio — the share of the corporation’s total business income considered as Arizona business income — is calculated as a weighted average of these three factors. Under the “standard apportionment formula,” the sales ratio is assigned a 50 percent weighting, with the payroll and property ratios each given a 25 percent weighting. The alternative scheme, designated the “enhanced apportionment formula,” was established in 2005 and increased the weighting of the sales ratio in stages, starting at 60 percent for TY 2007 and raising it to 100 percent in TY 2017 and thereafter. For TY 2015, the weighting for the sales ratio was 90 percent.

Nonbusiness income is generally allocated to Arizona to the extent that the property is located or utilized in the state or if the corporation’s commercial location is in Arizona.

A corporation is allowed to deduct prior years’ net operating losses from its current Arizona income. A net operating loss occurs when a corporation’s allowable deductions exceed its taxable income within the same tax year. Under current law, such net operating losses can be carried forward for 20 years.

Tax Rate

Under current law, the Arizona corporate income tax is basically a flat tax with a single tax rate of 5.5 percent for TY 2016 on all taxable income (with a slight modification imposing a \$50 minimum tax). In 2011, the Legislature moved to reduce the corporate rate from the then current rate of 6.968 percent to 4.9 percent over four years starting in tax year 2014.

Tax Credits

After calculation of the tax liability based on Arizona taxable income, corporations are allowed to claim credits from a variety of programs; these credits are subtracted from the income tax owed. Based on current law, there are 24 categories of tax credits available to corporations. Some of these tax credits also apply to the individual income tax so that unincorporated businesses can also take advantage of them. Based on figures from the latest tax year for which data were available (variously TY 2011-to-TY 2013), the sum of such tax credits claimed by corporations against their Arizona income tax liabilities totaled \$149 million.¹¹

¹¹ Arizona Joint Legislative Budget Committee, *2015 Tax Handbook*, <http://www.azleg.gov/jlbc/15taxbook/15taxbk.pdf>.

Comparison of Arizona and Other States' Corporate Income Tax Structures

Forty-four of the 50 states levy corporate income taxes, but they typically account for a relatively small portion of the states' total tax revenue. Nationwide, corporate income tax collections averaged 3.9 percent of own-source revenue in FY 2013, somewhat more than the 3.6 percent share in Arizona.

Among the 44 states with a corporate income tax, 29 including Arizona have a flat tax structure, with a single tax rate applied to all taxable income. The other 15 states have graduated tax structures with higher tax rates for successively higher income brackets. The number of brackets and the tax rates that apply to each bracket vary by state. The number of brackets range from three states having only two brackets to Alaska with ten. The top marginal rates (or only rate for the 29 states with a single rate) vary from 4.53 percent (North Dakota) to 12 percent (Iowa). Arizona's 6.0 percent rate in TY 2015 was less than the national median of 7 percent, ranking it 13th lowest among the 44 states with a corporate income tax.

Relative Burden of Arizona's Corporate Income Tax

In FY 2013, Arizona's corporate income tax burden was 77 percent of the national average measured in terms of tax per \$1,000 of state gross domestic product (GDP).¹² At \$2.44 versus the national average of \$3.17, Arizona ranked 33rd lowest among the 44 states that levy a corporate income tax.

Measured in terms of corporate income tax collections per \$1,000 of GDP, the burden of Arizona's corporate income tax relative to the national average has varied widely over the past four-plus decades — from a low of 53 percent in FY 1988 to a high of 127 percent in FY 1997. Given the extreme volatility of corporate income tax collections from year to year, the following analysis focuses on the average burden per decade over the past four-plus decades (See Table 5).

Arizona's corporate income tax collections averaged less than \$3 per \$1,000 of GDP during the 1970s but rose to an average of \$3.52 for the 1980s; the average was \$3.32 during the 1990s. With a shift to a flat rate beginning in 1990 and a declining tax rate over time, Arizona's corporate tax burden has generally trended downward since the late 1990s and averaged \$2.20 per \$1,000 of GDP over the FY 2010-to-FY 2013 period. At the same time, however, state corporate income tax burdens were declining nationwide so that the relative burden of Arizona's corporate income tax was actually higher in recent years (averaging 82 percent of the national average for the FY 2010-to-FY 2013 period) than it was in the 1970s when it averaged 71 percent of the national average.

The business income tax burden can be measured in other ways. A study by Ernst & Young placed the business income tax burden in Arizona — including the corporate income tax and the individual income tax paid by unincorporated businesses — at only 56 percent of the national

¹² When examining business taxes, gross domestic product is sometimes used rather than personal income to standardize the figures over time and across states.

TABLE 5
CORPORATE INCOME TAX COLLECTIONS, ARIZONA AND THE UNITED STATES,
FISCAL YEAR AVERAGE BY DECADE

	Per \$1,000 of Gross Domestic Product		
	United States	Arizona	Arizona Ratio to Nation
1970 to 1979	\$4.17	\$2.91	71%
1980 to 1989	4.37	3.52	81
1990 to 1999	3.64	3.32	91
2000 to 2009	3.04	2.93	96
2010 to 2013	2.68	2.20	82

Sources: U.S. Department of Commerce, Census Bureau, State Government Finances, <http://www.census.gov/govs/state/> (tax collections) and U.S. Department of Commerce, Bureau of Economic Analysis (gross domestic product).

average in FY 2014, measured as taxes paid as a share of private-sector GDP.¹³ Arizona ranked 42th among the 47 states that levy corporate and/or individual income taxes.

Gross Receipts Taxes

Among the six states that do not levy a corporate income tax, Ohio, Nevada, Texas, and Washington impose a gross receipts tax on businesses. South Dakota and Wyoming impose neither a corporate income nor a gross receipts tax. Delaware levies both a corporate income tax and a gross receipts tax.

A gross receipts tax is imposed on gross business receipts with few or no deductions for expenses. Advocates of gross receipts taxes argue that they are simpler to administer and apply to a broader and more stable tax base — all business receipts not just corporate profits. However, economists criticize the gross receipts tax because of the serious economic distortions caused by the fact that the tax is levied on each stage of production, producing much higher effective tax rates and leading to arbitrary differences in tax rates among products depending on the number of stages of production.¹⁴

Among the four states with a gross receipts tax rather than a corporate income tax, it is most important as a revenue source for Washington, contributing 9.2 percent of total state general revenue in FY 2013. Texas applies a “margin tax;” this version of the gross receipts tax produced 4.2 percent of the state’s total general revenue. Ohio’s “commercial activities tax” supplied 2.6 percent of total state general revenue. Nevada’s version of a gross receipts tax was enacted in 2015 and is projected to contribute about 3 percent of total state general fund revenue during the 2015-to-2017 biennium.

¹³ Ernst & Young, produced for the Council on State Taxation, *Total State and Local Business Taxes: State-by-State Estimates for Fiscal Year 2014*, October 2015, <http://www.cost.org/WorkArea/DownloadAsset.aspx?id=91531>. The business tax figures include both state and local taxes.

¹⁴ See, for example, Ronald Fisher, *State and Local Public Finance*, Routledge, 2015.

CONCEPTUAL ISSUES

Governments levy taxes, charge fees, and collect other types of revenue to pay for the cost of the public services they provide. In some cases, it is possible to fund services provided by the public sector by directly charging user fees, but for many types of governmental activities, such as police protection, this approach is not feasible and so the revenues collected through taxes — which are not directly tied to the use of public services — are used to pay for the cost of providing those government services.

Two Alternative Rationales for Taxation

There are two fundamental and opposing economic philosophies underlying the public decision on how to pay for government and the services it provides. One, the *benefits-received approach*, is based on the notion that if a public service provides a benefit to an individual, household, or business that individual, household, or business should pay for that benefit. For example, if an individual goes to a public swimming pool, he or she should pay an entrance fee. Just as with any private good or service, the individual evaluates the benefits received versus the cost and makes a private decision whether to “purchase” that public service. Some taxes are based on this philosophical approach that individuals or businesses should be taxed for the public services they consume. For example, a tax charged on the purchase of gasoline or other motor fuel where the proceeds are earmarked for road construction and/or maintenance is a common example of the application of the benefits-received approach to taxation. Although there is not a direct charge for using the road system, those individuals who purchase motor fuel pay for the roads they drive on, and individuals who do not drive on the roads (and so do not purchase motor fuel) are not taxed for something they do not use. Note that the user fee or tax paid has nothing to do with the individual’s income or wealth.

The *ability-to-pay approach*, the other fundamental principle of taxation, on the other hand, rests on the concept that those who are most able to bear the burden of the tax should pay — that is, individuals or businesses with larger incomes, profits, or wealth should pay more taxes. This approach often is interpreted to mean that higher-income individuals or larger businesses should pay not only a larger absolute amount but a larger share of their income in taxes than those with smaller incomes.

The income tax is a good example of this approach. The burden of the tax is not directly related to benefits received. Some may argue that the consumption of governmental services are at least indirectly associated with income level, in that higher-income households have more property to protect and so get more benefit from police and fire protection, etc., but any tax burden-benefits received link is certainly a loose one. With a flat-rate income tax, the tax burden is proportional to income (or as often is the case, there may be some exemption from the tax for low levels of income so that the relative burden of the tax would rise with income). With a progressive income tax, a high-income individual pays a larger percentage of their taxable income than a low- or moderate-income taxpayer since tax rates increase as income levels rise.

In many cases, a tax cannot be easily classified in terms of these two alternative philosophies. Take the property tax; some see it in the context of payment for public services (police, fire protection, roads, etc.) provided to residential and business property owners. Others would classify it as a tax on wealth and tie it to the ability-to-pay principle of taxation.

Economic Criteria for Evaluating Taxes

Recognizing that user fees cannot be utilized to fund many types of government services, each state has developed a system of taxes to generate the revenues needed to fund the services provided by state government. The revenue structures of the 50 states vary widely, with many different types of tax and nontax revenue sources used in many different combinations to fund their state governments, but the majority of states rely most heavily on a combination of sales taxes and individual income taxes, with corporate income taxes and property taxes playing a lesser role. Each type of tax has its advantages and disadvantages. Economists have developed a set of guiding principles that can be used to evaluate the pros and cons of the different types of taxes. The following six criteria are generally accepted as fundamental characteristics on which to judge a tax:¹⁵

1. Stability: Does the tax provide a stable source of revenue or is it subject to wide fluctuations from year to year or over the business cycle?
2. Responsiveness: Does the tax produce a revenue stream that keeps pace with growth and changes in the state's economy?
3. Simplicity: This trait has two aspects:
 - A. Is the tax easily understood by taxpayers and does it minimize their compliance costs?
 - B. Does the tax minimize administrative costs?
4. Equity: Is the burden of the tax distributed fairly? There are two primary aspects to the concept of tax equity:
 - A. Horizontal equity is the idea that taxpayers with similar characteristics should pay similar amounts.
 - B. Vertical equity reflects the concept that taxpayers with a greater ability to pay taxes should pay larger amounts.
5. Neutrality: To what extent does the tax impact economic behavior?
6. Exportability: Is the tax paid by nonresidents who benefit from public services provided by the state?

In the following subsections, individual and corporate income taxes are evaluated relative to each of these criteria, compared to sales and property taxes.

Stability

To minimize state budgetary problems over the business cycle, a tax structure that provides a relatively stable stream of revenue is desirable. Unfortunately, almost all of the revenue sources available to state governments are subject to some degree of volatility. Based on the experience of the 50 states over the 1988-to-2009 period, the least volatile state taxes are the selective sales taxes on alcoholic beverages and on motor fuels, but these types of taxes are not primary sources of revenue for state governments. Among the four major taxes, the property tax (which is the least important for most state governments) is the most stable. The general sales tax exhibits somewhat less volatility than the individual income tax, but both taxes are much less stable than property taxes. The corporate income tax is by far the most volatile.¹⁶

¹⁵ Some sources identify additional guiding principles or define the principles differently.

¹⁶ See Gary Cornia and Ray Nelson, "State Tax Revenue and Volatility," *Regional Economic Development*, Vol. 6 (1), 2010.

In the case of Arizona's tax system, judgments regarding the stability of the different taxes must be in relative terms — none of the state's main revenue sources really provide a stable flow of funds. For example, during the Great Recession, which lasted from the end of 2007 into 2010 in Arizona, state general fund tax collections as reported by the JLBC dropped 31 percent from a peak in FY 2007 to a low in FY 2010, compared to no change in Arizona personal income over that same period. However, this percent change in tax collections reflects changes in the tax code, particularly reductions in tax rates, as well as the effect of a weak economy. Controlling for these tax code changes, the overall decrease in tax collections relative to personal income was 22 percent.¹⁷

Income taxes are usually identified as the most volatile among the primary taxes used by state governments. Between FY 2007 and FY 2010, controlling for tax code changes and changes in personal income, corporate income tax collections fell 41 percent in Arizona. Individual income tax revenues did not decline as sharply at 22 percent. Much of the fluctuation in the individual income tax is due to the volatility of investment income and unincorporated business income, which is taxed as individual income. Sales tax collections are generally regarded as a more stable revenue source, but general sales tax collections dropped 23 percent during the last recession. There was hardly any decline in the other tax sources used for the general fund, but these sources accounted for only 6 percent of general fund revenue in FY 2015.

Responsiveness

Because of the many changes to tax laws that have occurred over time in Arizona and in other states, the primary data sources cannot be used to investigate the responsiveness of the various tax sources over an extended period of time. Instead, as above, Arizona general fund tax collections after controlling for tax law changes are used. Between FYs 1995 and 2015 — similar years in regards to the economic cycle — total tax collections for the general fund per \$1,000 of personal income dropped from \$52.59 to \$49.61, a 6 percent decline. The individual income tax experienced an increase of 19 percent, but decreases occurred in each of the other tax sources. The corporate income tax decline was 5 percent, but the percent change is sensitive to the years selected given the erratic year-to-year pattern of collections.

In particular, collections from the general sales tax dropped 21 percent between FYs 1995 and 2015 per \$1,000 of personal income after controlling for tax law changes. As currently structured, Arizona's sales tax is largely limited to goods purchased in stores, while consumer spending continues to shift to goods purchased via the Internet and to nontaxed services. Thus, the responsiveness of the sales tax is especially poor.¹⁸

Simplicity

From the point of view of a taxpayer, the sales tax is clearly the easiest to understand and has minimal compliance costs. In most cases, the tax is added to the purchase price at the time of sale

¹⁷ The JLBC estimates the effect on revenue of each of the changes to the tax code. These estimates are available from the last appendix of the annual *Tax Handbook*, <http://www.azleg.gov/jlbc/15taxbook/15taxbk.pdf>. For this analysis, the initial estimates from the JLBC are adjusted for inflation, population growth, and real per person economic growth in order to provide the effect of previous tax changes in subsequent years.

¹⁸ For more information, see Alberta Charney, "Arizona's Eroding Sales Tax Base," *Arizona's Economy*, June 2014, <https://www.azeconomy.org/2014/06/>.

and the amount of tax paid is shown on the bill or receipt, with the only points of confusion coming with regard to different tax rates for some types of goods and services and which goods and services are actually subject to the tax.¹⁹

The other taxes get poor ratings for simplicity. In most states, individual income tax codes and regulations are complex and take substantial taxpayer effort and/or professional help to understand. The individual income tax also imposes high compliance costs for taxpayers by giving them responsibility of calculation and payment of the tax liability. The same criticisms apply to the corporate income tax, with corporations often incurring significant additional nonproductive efforts (from a macroeconomic perspective) trying to minimize the tax liability. In general, the property tax apparatus in most states (and certainly in Arizona) also is complex. While taxpayers typically receive a detailed tax bill and a notice of taxable property values on which the tax is based, deciphering these bills may be difficult for many taxpayers and challenging the government's calculations typically involves significant cost and effort, raising the overall compliance costs.

All of the major tax types involve significant administrative costs for the states and also involve administrative costs for the business sector as well. States need a substantial administrative apparatus to process and collect individual income taxes, including tracking and collecting withholding by employers and other businesses, processing income tax forms and payments from taxpayers, and dealing with appeals, underpayment/nonpayment, fraud, and other issues. Businesses also have costs associated with reporting income payments to employees and others and with collecting withholding from wages and salaries and other types of income. A similar administrative apparatus is needed on a smaller scale to process and collect corporate income taxes. For the state, the administrative costs of the property tax include the costs associated with the valuation of taxable real and other property in order to establish tax liability and the billing and collection of the taxes. While sales taxes are relatively simple from the consumers' point of view, they involve significant administrative costs for both the business sector and the state, since the seller is responsible for collecting the tax and the state government has to monitor and collect the sales tax revenues from the businesses.

In summary, an evaluation of the four major taxes in terms of complexity, cost of compliance for taxpayers, and cost of collection for the state (and in some cases also for the business sector), the sales tax would probably rank above the other three — it is relatively easy for taxpayers with minimal compliance costs and although it involves substantial collection costs on both the business sector and the state, these are probably smaller than for the other tax types. Although the workings of the property tax are very complex, costs for taxpayers are less than for the income tax, and the administrative and collection costs for the state are probably similar to, if not less than, the income tax. The individual and the corporate income taxes suffer the same problems — both are complex, impose significant compliance costs on taxpayers, and involve major administrative and collection costs. Even though the corporate income tax is more complex, since its overall scale is much smaller — dealing with thousands of corporations versus hundreds of thousands or millions of individual taxpayers — it probably rates marginally better than the individual income tax.

¹⁹ In Arizona, there are added complications associated with local sales taxes, but the focus of this paper is state taxes.

Exportability

Tax exportation is the process through which a tax levied by one jurisdiction is “shifted” to taxpayers in another jurisdiction. There are two economic rationales for tax exportation. The first is based on the fact that public services provided by one state are consumed by individuals or businesses from other states, and the taxes paid by nonresidents pay for a share of the public services they benefit from while visiting or doing business with firms in another state. Without tax exporting, residents would pay for the public services provided to nonresidents. The second rationale is based on the principle of shifting part of the state’s tax burden to nonresidents in order to lower the burden of state taxes on its own residents.

There are three ways that taxes are exported:

1. Directly by taxes levied on purchased goods and services, income earned, or property owned by nonresidents.
2. Indirectly through business taxes that are passed on to nonresidents.
3. Indirectly through what is known as “the federal offset.” For taxpayers who itemize deductions on the federal income tax form, each dollar deducted for state taxes paid (currently income, property, and in some cases sales taxes) indirectly shifts part of the tax burden to the federal tax system. That is, the net amount of deductible state taxes are reduced by lower federal taxes paid as a result of the deduction. (Note that the tax burden does not disappear. It is shifted from state taxpayers to the federal government and either paid by federal taxpayers or added to the federal deficit.)

The most obvious examples of tax systems structured to take advantage of the ability to shift the tax burden to nonresidents are states like Alaska and Wyoming that levy severance taxes on oil and other resource outputs and states that are major tourism destinations like Florida and Nevada. The extent to which states are able to engage in tax exporting depends upon specific characteristics of their economies, but all states are able to export a portion of their taxes.

Comparing the four major types of taxes used by state governments in terms of exportability, there are clear differences among them in the share of total collections that states have been able to shift to nonresidents. The individual income tax ranks lowest in terms of its ability to be shifted to nonresidents. While a few states are able to collect substantial income taxes from nonresidents, in most cases this is a very small share of the total revenue from the individual income tax. The predominant mechanism for exporting individual income taxes is through the federal offset. Based on FY 2007 national data, the average state was able to export about 8 percent of individual income taxes through this mechanism. States have been able to shift a larger share of the other three major taxes to nonresidents. On average across all of the states imposing that tax type, the share paid by nonresidents has been estimated at about 18 percent for property taxes, 21 percent for general sales taxes, and 48 percent for corporate income taxes.²⁰

²⁰ The estimated “export rates” listed come from a 1967 study (Charles McLure, “The Interstate Exporting of State and Local Taxes: Estimates for 1962,” *National Tax Journal*, Vol. 20, March 1967), and so should not be taken as necessarily accurate estimates of current rates, since economic conditions, state tax structures, etc. have changed since that time, but rather as illustrative of the relative ranking of the tax types with respect to this characteristic.

Equity

In the context of taxes, the concept of equity relates to fairness. There are different views as to what is meant by a tax treating taxpayers fairly. Economists generally make a distinction between two different concepts of equity: horizontal equity and vertical equity.

In general terms, horizontal equity is defined as equal treatment of taxpayers in similar circumstances, but often the evaluation focuses on income — are taxpayers at the same income level paying the same amount of tax?

In concept, an individual income tax might be expected to treat taxpayers with similar incomes equally, but in reality, state income taxes have myriad deductions, exemptions, and credits that benefit specific groups of taxpayers or specific activities that lead to unequal treatment of taxpayers with similar incomes. The general sales tax in Arizona (and many other states) is levied on only a subset of consumer purchases (typically excluding most services, food, and medicines), producing horizontal equity issues. Similarly, the property tax as structured in Arizona has different assessment ratios for different types of property, provides a homeowners' rebate, and has other complexities that result in taxpayers in a similar income group not being treated the same.

Vertical equity is also usually defined in terms of income — are taxpayers at different income levels treated fairly? Exactly what constitutes “fairness” in this context has different interpretations. The most common approach to evaluate vertical equity is based on the ability-to-pay principle of taxation (that is, those with higher incomes should pay higher taxes than taxpayers with lower incomes). Critics of this concept of vertical equity characterize it as punishing success and as an indirect method of redistributing wealth. They often emphasize horizontal equity in their definition of fairness, or even focus on other characteristics, often neutrality or simplicity, rather than vertical equity.

Relating to vertical equity, taxes are conventionally classified as being regressive, proportional, or progressive:

- A tax is regressive if it takes a smaller proportion of income as income increases, or in other words, the average tax rate declines as income increases.
- A tax is proportional if it takes the same proportion of income as income increases.
- A tax is progressive if it taxes a bigger proportion of income as income increases.

Arizona's individual income tax has a progressive rate structure, and a 2015 analysis of tax structures of all 50 states by the Institute on Taxation and Economic Policy (ITEP) found that in practice it is a progressive tax with lower-income families paying a smaller share of their income than higher-income families.²¹ The results of this report for Arizona and the U.S. as a whole are

²¹ Institute on Taxation and Economic Policy, *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*, 5th Edition, January 2015, <http://www.itep.org/whopays/>. The report estimated the impact of permanent tax laws on nonelderly taxpayers including the impact of changes enacted through December 2014. The results are reported in terms of the tax burdens of state and local taxes paid by families in different income groups as a share of family income. While the estimates are based on state and local tax collections, not just state taxes, most of the income tax collections result from state income taxes, the majority of general sales taxes are state-level taxes in most states and usually most local sales taxes

presented in Table 6. These data show that Arizona families in the lowest quintile of the income distribution on average paid only 0.3 percent of their income in income taxes, while families in the highest quintile paid 2.3 percent.

On the other hand, the ITEP analysis shows state property taxes and particularly state sales taxes to be regressive. In Arizona, families in the lowest income quintile pay 3.8 percent of their income in general sales taxes versus 1.4 percent for families in the highest income quintile. Property taxes in Arizona are also regressive with families in the lowest income quintile paying 4.1 percent of income versus 2.2 percent of income paid by families in the highest income quintile.

Table 6 includes both Arizona and U.S. figures. To facilitate comparison between the Arizona and U.S. data, the table provides index values comparing the shares of income paid by each of the five income groups relative to the average share paid by all families. In comparison to the average for all states with an individual income tax, Arizona's individual income tax is

TABLE 6
STATE AND LOCAL GOVERNMENT TAX BURDENS BY INCOME QUINTILE AS A PERCENTAGE OF FAMILY INCOME, ARIZONA AND THE UNITED STATES

	All Families*	Income Quintile				
		Lowest 20%	Second 20%	Middle 20%	Fourth 20%	Highest 20%
ARIZONA						
Sales	2.7	3.8	3.4	2.8	2.2	1.5
Index**		138	124	102	80	56
Property	2.9	4.1	3.3	2.5	2.6	2.2
Index**		139	112	84	88	76
Individual Income	1.4	0.3	1.2	1.4	1.8	2.3
Index**		21	85	100	128	166
Total	9.5	12.5	11.2	9.2	8.2	6.6
Index**		131	117	97	86	68
UNITED STATES						
Sales	2.4	3.2	2.9	2.4	2.0	1.35
Index**		135	122	101	84	57
Property	3.0	3.7	2.7	2.8	2.9	2.8
Index**		124	91	94	97	93
Individual Income	2.0	0.2	1.4	2.2	2.7	3.3
Index**		10	72	113	138	167
Total	9.3	10.9	9.9	9.4	8.7	7.4
Index**		118	107	101	94	80

* Nonelderly only.

** Burden in income quintile relative to that of all families (all families = 100).

Source: Institute on Taxation and Economic Policy, *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*, 5th Edition, January 2015, <http://www.itep.org/whopays/>.

where they exist are collected on a relatively similar tax base. The ITEP property tax calculations are based on all property taxes levied — of which the state share is a minor part in Arizona.

somewhat less progressive than average. The comparative data also show that Arizona's property tax and sales tax each is slightly more regressive than the U.S. average.

Neutrality

All taxes affect economic behavior to some degree since they take funds that taxpayers could use for other purposes, but most types of taxes exert more than this minimal impact on the economic decisions of individuals and businesses.

The individual income tax affects economic behavior by reducing the incentive to make the effort to earn additional income. It thus tends to reduce hours worked, labor force participation rates, entrepreneurial activity, and financial investments. It also directly affects the amount of saving as all earnings are taxed, leaving less funds available to be saved. Most state income tax systems add further distortions with various deductions, exemptions, and credits targeting certain types of behavior or specific subgroups of taxpayers.

Corporate income taxes distort economic decisions on several levels. First, they influence businesses' decisions whether to operate as a corporation versus another form of business not subject to corporate income taxes. They also reduce funds available to corporations for investment, dividends, etc. by reducing corporate profits. Third, the taxes encourage debt versus equity financing by corporations since interest costs are tax deductible while dividend payments are not. Corporations are also encouraged to allocate resources to accountants and lawyers to reduce tax payments rather than to investments that would make them more productive.

As opposed to the individual income tax, a tax on consumption, such as a general sales tax, provides an incentive to reduce spending and thereby save a larger share of income. This would tend to promote economic growth to the extent that the additional saving results in additional productive investment spending. Rather than a broad-based tax on all consumption, however, most state sales taxes generally exempt purchases of some types of goods and services. Such exemptions discourage the purchase of taxed items, thereby affecting the economic behavior of consumers and favoring the sectors of the economy involved in the production and sale of untaxed goods and services and penalizing the taxed sectors.

Property taxes also distort the economic decisions of both households and businesses. By increasing the cost of owning and renting, residential property taxes tend to reduce households' consumption of housing. Similarly, property taxes increase the cost of ownership and leasing of business property, which tends to reduce investment in business property. In the case of states like Arizona that levy property taxes on business equipment, they also discourage investment in equipment.

The term "excess burden" is often used to define the costs associated with the economic distortions caused by taxation. Economists generally identify sales taxes as causing the least excess burden, followed by property taxes. Individual income taxes are considered to cause more distortions than sales or residential property taxes and the corporate income tax is disparaged as causing by far the largest excess burden.

There is another whole dimension of neutrality that has not been mentioned but is considered by many in the anti-tax crowd to be the most important influence of state taxes on individual and business behavior — that is, the impact of taxes on the competition among states with respect to the location decisions of both existing and/or potential new residents and businesses. Much of this discussion is in terms of low-tax versus high-tax states in general, but progressive individual income taxes are often singled out as having the most impact on individuals' migration decisions. For businesses, individual income taxes (since they apply to unincorporated businesses), corporate income taxes, and business property taxes are all identified as anti-competitive. (The following section takes up this dimension of the influence of taxes on economic behavior in more detail in the context of discussing the impact of taxes on economic growth.)

The magnitude of the excess burden caused by state taxes is actually quite small. For example, the total per capita cost — including collection, enforcement, and excess burden — of state and local taxes averages about 0.3 percent of median income.²² The separate cost of the excess burden of state taxes alone would be even smaller.

From the discussion of each of the six characteristics, it is obvious that they conflict with each other in many instances. For example, sales taxes are regressive and so are ranked low in terms of vertical equity but may rate highly for simplicity. There are also strong differences of opinion as which of these six characteristics are the most important. Business interests and conservatives tend to emphasize neutrality and the impact of taxes on interstate competition. Consumer advocates and progressives typically rate tax equity as the highest priority. For these and other reasons, there is continuing controversy among those interested in state tax policy about which is the “best” tax.

²² Fred Thompson, Ken Beatty, and Jon Thompson, “Ranking State Tax Systems: Progressivity, Adequacy, and Efficiency,” *State Tax Notes*, vol. 141 (7), 2013.

INCOME TAXES AND ECONOMIC GROWTH

The effects of a state's tax policy on its economy remain a controversial and unsettled issue even though academic researchers, think tanks, advocacy organizations, and public agencies have produced a large body of literature relating to the issue. Much of the controversy and the research have focused on the impact of taxes on economic growth. The lack of consensus on the tax-economic growth link in academia is summarized by the authors of a recent study: "Major recent studies reach almost every conceivable finding: tax cuts raise, reduce, do not affect, or have no clear effect on growth."²³

This ambivalence is not shared, however, by researchers associated with advocacy groups and think tanks that espouse opposing views on the issue. Recent reviews of the literature published by two such organizations illustrate these conflicting views. In a Tax Foundation publication, William McBride claims that "nearly every empirical study of taxes and economic growth published in a peer-reviewed academic journal finds that tax increases harm economic growth."²⁴ On the other hand, Michael Mazerov, after presumably looking at the same literature, writes in a Center on Budget and Policy Priorities publication, "there is simply no consensus whatsoever that cutting taxes is a good strategy to boost economic growth and create jobs."²⁵

Studies of state fiscal policies vary greatly in their approaches and methodologies. The ways in which the researchers addressed (or ignored) methodological issues — in particular, accounting for other relevant factors, specification of the fiscal policy variables, accounting for time lags between policy changes and outcomes, and dealing with endogeneity of tax changes — contribute to the conflicting findings.²⁶

Most recent studies have correctly incorporated variables relating to public spending and services along with other location-specific variables in their statistical model to control for factors other than taxes that affect the economic performance of states. Alberta Charney points out a critical mistake in the interpretation of the results of many of the empirical analyses of the tax-growth relationship.²⁷ She argues that the correct interpretation of a negative regression coefficient on a tax variable is "higher taxes decrease growth, holding public services (and other factors in the model) constant." In the context of the debate on the economic effects of cutting or abolishing income taxes, this implies that lower income taxes may spur growth if not offset by higher levels of other taxes and/or lower levels of public services. However, given that nearly all states have a requirement to balance the budget, it is difficult to lower income taxes without increases in other taxes or spending cuts.

²³ William Gale, Aaron Krupkin, and Kim Rueben, "The Relationship Between Taxes and Growth at the State Level: New Evidence," *National Tax Journal*, Vol. 68(4), December 2015.

²⁴ William McBride, "What is the Evidence on Taxes and Growth?" Tax Foundation Special Report, No. 207, December 18, 2012.

²⁵ Michael Mazerov, "Academic Research Lacks Consensus on the Impact of State Tax Cuts on Economic Growth," Center for Budget and Policy Priorities, June 17, 2013.

²⁶ Endogeneity is the correlation between explanatory variables and the error term. It can result from various conditions, including measurement error and omitted variables.

²⁷ Alberta Charney, "Public Services Positively Impact Growth: A Review of Tax and Growth Literature," *Arizona's Economy*, May 2010.

Brief Review of Recent Academic Literature Specific to Income Taxes

Academic research focusing specifically on the effects of state income taxes on state economic performance is not as voluminous, but there is a body of literature dealing specifically with income taxes, and again the results have been inconclusive. The results of the most recent studies employing more sophisticated econometric techniques to counter methodological issues in earlier analyses are mixed but generally do not provide strong support for the contention that cutting or eliminating state income taxes will spur economic growth.

Alm and Rogers studied annual growth of per capita income in the lower 48 states over the 1974-to-1997 period using a great many alternative model specifications with various combinations of 130+ explanatory variables.²⁸ They found their results were very sensitive to specification but that the impacts of both corporate and personal income taxes on income growth were either insignificant or in fact positive when statistically significant effects were indicated.

Since Texas often serves as the model state for advocates of cutting or abolishing income taxes, Rickman compared the economic performance of Texas with his home state of Oklahoma and other adjacent states.²⁹ His analysis was based on both state- and county-level data from the 1990-to-2010 period and produced inconsistent results: Texas had faster employment and population growth but not greater gains in real per capita income.

Gale and his coauthors used three alternative economic growth measures in their analysis of the income tax-growth debate — growth of real personal income per capita, firm formation, and employment growth — using data for the lower 48 states over the 1977-to-2011 period.³⁰ They included separate variables for five tax categories (individual income, corporate income, sales, property, and other), and their results indicated no significant negative impacts of income taxes on income or employment growth and “statistically significant but economically small effects on the rate of firm formation.”

A few recent studies of the impact of income taxes on economic growth have specifically incorporated individual and/or corporate tax rates as explanatory variables in their analyses. These provide indirect evidence of the relative impact of progressive income taxes versus flat taxes. Based on data for the 50 states over the 1963-to-2004 period, Poulson and Kaplan found a statistically significant negative relationship between a marginal tax rate measure they constructed (not actual tax rates) and the rate of growth of GDP.³¹ To control for nontax factors, they included the initial level of personal income and binary variables for regions in their models. They did not incorporate variables relating to public expenditures and services, and so their analysis is subject to Charney’s criticism discussed previously.

²⁸ James Alm and Janet Rogers, “Do State Fiscal Policies Affect State Economic Growth?” Working Paper 1107, Economics Department, Tulane University, April 2011.

²⁹ Dan Rickman, “Should Oklahoma Be More Like Texas? A Taxing Decision,” *Review of Regional Studies*, Vol. 43, 2013.

³⁰ William Gale, Aaron Krupkin, and Kim Rueben, “The Relationship Between Taxes and Growth at the State Level: New Evidence,” *National Tax Journal*, Vol. 68(4), December 2015.

³¹ Barry Poulson and Jules Kaplan, “State Income Taxes and Economic Growth,” *Cato Journal*, Vol. 28 (1), Winter 2008.

Looking at the income tax-growth relationship during the 2000-to-2007 period, Goetz and his coauthors found the natural-amenity attractiveness of the state to be the most significant factor associated with state employment growth and did not find any statistical association with either individual or corporate income tax rates.³² In addition to the array of other tax variables in their analysis, Gale, et. al. also incorporated the top individual income tax rate as a separate explanatory variable and found no evidence of a negative effect on either per capita income growth or employment growth; evidence was mixed with respect to their firm formation variable.

Poulson and Kaplan also included a separate binary variable identifying those states without an individual income tax and found a statistically significant negative relationship between that variable and GDP growth — the only empirical evidence that focused directly on the issue of whether states without income taxes grow faster than states that levy income taxes. Unfortunately, the econometric flaws in their analysis render their results open to question.

In summary, although in theory income taxes are disincentives to work and invest, there is not compelling empirical evidence that state income taxes have significant negative impacts on states' economic performance. As pointed out by Charney, findings of a negative relationship between income taxes and economic growth are likely to have been the result of tax cuts or increases not offset by corresponding changes in other revenue sources and/or government expenditures — not a revenue-neutral change in the level of income taxes. Similarly, the empirical evidence from the few studies that speak to the issue does not offer much support for the argument that progressive state income tax structures hinder economic growth.

The Laffer Curve and Supply-Side Economics

The Laffer Curve and supply-side economics are discussed in a Grand Canyon Institute report.³³ The following is taken from the summary of this report:

“Reductions in effective tax rates *under certain conditions* can result in gains in economic activity and increased government revenue. In practice, however, many supporters of ‘supply-side’ economics ignore or misrepresent the ‘under certain conditions’ clause and erroneously argue that all or most tax reductions will have a net beneficial impact.

Several limitations apply to supply-side economics, especially at a subnational level:

- Most prominently, the ‘Laffer Curve’ indicates that the benefits will occur only if the tax reduction is made to a tax rate that is higher than optimal. Reductions to lower-than-optimal tax rates will reduce government revenue.
- The relationship between taxes and economic growth and government revenue is much stronger for business taxes than for individual taxes.
- The reduction in one tax may not have much effect if the overall tax burden remains higher than optimal.

³² Stephan Goetz, Mark Partridge, Dan Rickman, and Shibalee Majumdar, “Sharing the Gains of Local Economic Growth: Race to the Top Versus Race to the Bottom Economic Development Policies,” *Environment and Planning C*, Vol. 29, 2011.

³³ Tom Rex, “The Effects of Tax Reductions in Arizona: Significantly Reduced Government Revenue and No Apparent Impact on Economic Growth,” Grand Canyon Institute, February 2013, <http://grandcanyoninstitute.org/the-effects-of-tax-reductions-in-arizona/>.

- State and local government taxes are a relatively small expense to businesses, and only the minority of businesses engaged in traded-sector activities can boost a region's economic growth. Thus, only a small supply-side effect should be expected even if higher-than-optimal state and local government taxes are reduced to the optimal point.
- Even if all of the other conditions are met, if a state already is at full employment and has low commercial real estate vacancy rates when the tax reduction goes into effect, a *net* benefit to government finance will not be realized. In this case, labor will need to be imported to accommodate the faster economic growth, meaning that government expenditures must rise to serve the new residents.”

Thus, it is no surprise that academic studies that do not differentiate between these factors have inconclusive results.

Growth Rates in States With and Without Income Taxes

Discussions of the adverse effects of income taxes on economic growth often present comparisons of rates of growth measured by various economic variables over various time periods for no-income-tax states vis-à-vis states with income taxes.³⁴ For example, Arthur Laffer and his coauthors compared the growth of the nine states without a broad income tax with the nine states with the highest state income taxes over the 2002-to-2012 period and found that the no-income-tax states did grow faster.³⁵

While these comparisons of growth rates between the two groups of states do show greater aggregate growth rates on average for the no-income-tax states, this evidence does not necessarily imply any causative relationship between not having a state income tax and the rate of economic growth. Many factors determine the pace of a state's growth, and other factors besides tax considerations may explain much, if not all, of the observed differences in the growth rates of states' economies. As noted earlier, states without an individual income tax are disproportionately located in the fast-growing South and West regions of the country and the results for this group of states are heavily skewed by populous Texas and Florida.

Growth rates over the 2002-to-2012 period were examined for four measures of aggregate growth — population, total employment, real personal income, and real GDP — and two measures of per capita growth: real per capita GDP and real per capita personal income. The goal of economic development is to improve prosperity, which is measured on a per capita basis, not to increase the aggregate growth rate. There is no correlation between aggregate growth and gains in prosperity across the states.

Over the 2002-to-2012 period, the nine states without a broad individual income tax did indeed experience greater increases in aggregate measures. However, there were exceptions, with New Hampshire lagging behind on each of the four aggregate growth measures and other states below

³⁴ While many argue that the corporate income tax has greater adverse economic effects than the individual income tax, at the state level most of the discussion of anti-tax advocates relating to income taxes has been aimed the individual income tax.

³⁵ Arthur B. Laffer, Stephen Moore, Rex A. Sinquefield, and Travis H. Brown, *An Inquiry into the Nature and Causes of the Wealth of States*, Wiley, 2014.

average on one or more of the measures. In fact, after excluding Texas, the differentials from the national average were considerably smaller, with the gain in real GDP marginally below average. In sharp contrast to the aggregate measures, the no-income-tax states experienced gains in the per capita measures similar to the national average — a little lower based on per capita GDP and a little higher based on per capita personal income. Excluding Texas, this group was considerably below average on each of the per capita measures.

Looking at a different time period — from the end of the recession in 2009 through 2014 — does not change the basic conclusions, though the performance of some of the no-income-tax states was quite a bit different in this period compared to Laffer's 2002-to-2012 period. In particular, Alaska, Nevada, and Wyoming dropped considerably in the rankings on at least some of the aggregate measures. As a group, the no-income-tax states again experienced much faster-than-average aggregate growth and also had somewhat greater-than-average growth on the per capita measures. However, this superior performance was almost entirely due to Texas, the most-populous of these states. Excluding Texas, the group of no-income-tax states had below-average gains on the per capita measures, and ranged from above-to-below average on the aggregate measures.

On the level of prosperity in 2014, as measured by per capita GDP and per capita personal income after adjustment for living costs, the no-income-tax states were marginally below the national average. The negative differential was greater after excluding Texas.

Similar comparisons can also be made between the group of states with a flat income tax structure versus the group of states with progressive income taxes to evaluate the theoretically superior economic growth potential of a flat tax versus a progressive income tax.³⁶ Over the 2002-to-2012 period, the group of seven flat-tax states grew considerably less rapidly than the graduated-tax states on each of the measures of aggregate economic growth. Gains in the per capita measures also were decidedly less in the flat-tax states than in the graduated-tax states. Over the 2009-to-2014 period, gains in the aggregate economic growth measures in the flat-tax states ranged from slightly faster to a little less than in the 34 states with progressive income taxes. Compared to the states with a graduated tax rate, the flat-tax states posted greater growth in real per capita GDP and similar growth in real per capita personal income; the prosperity level in 2014 was marginally higher in the flat-tax states.

Thus, this comparison of growth rates does not support the thesis that the absence of an individual income tax results in faster economic growth. While aggregate economic growth tends to be faster in states without an individual income tax, the results are not consistent across the no-income-tax states. Instead, the faster growth is associated with geographic location in the faster-growing South and West regions of the country. The no-income-tax states have not had greater gains in prosperity, nor is the level of prosperity any higher, than in the other states. Similarly, states with a flat individual income tax rate have not performed better than states with a progressive rate structure.

³⁶ The seven flat-tax states used in the comparison were Colorado, Illinois, Indiana, Massachusetts, Michigan, Pennsylvania, and Utah. North Carolina shifted to a flat income tax in 2014 and so is not included in the group for these comparisons.

Tax Changes and Economic Growth in Arizona

Since FY 1989, the Arizona Joint Legislative Budget Committee has estimated the impact of state government tax law changes on general fund revenues.³⁷ These data show that following a period of tax increases from FY 1989 through FY 1992, tax changes resulting in revenue decreases have occurred in all but three years since FY 1993, with substantial decreases from FY 1995-to-FY 2001 and again in FYs 2007 and 2008. Decreases in the individual income tax accounted for the majority of the cuts.

Two analyses of the tax changes and fluctuations in Arizona's economic growth from the late 1980s through 2009 found that swings in state revenues associated with the business cycle had led to tax increases and decreases, rather than the tax reductions resulting in stronger economic growth.³⁸ Decreases in state taxes in Arizona have generally coincided with times of strong economic growth and budget surpluses, which permit tax cuts while still allowing the state budget to remain in balance in the near term, as required by the Arizona Constitution. Conversely, tax increases have occurred to forestall budget deficits during periods of economic recessions. Comparing the annual time series of tax changes from the JLBC versus annual growth rates of Arizona real GDP over the 1987-to-2009 period show that the idea that tax cuts have stimulated economic growth is not borne out by the data, but rather that tax changes have been in response to economic growth.

A subsequent analysis found no evidence that economic growth in Arizona has been faster since the tax reductions and explains conceptually why growth has not accelerated.³⁹ In an unpublished report from October 2015, the same author updated and expanded the analysis. He found that relative to the national average, aggregate economic growth rates in Arizona have been slower in the 21st century than in the last 30 years of the 20th century. Growth in prosperity and productivity measures also appear to have slowed, but are not much different from in the earlier period.

More recently, business taxes, particularly the corporate income tax, have been reduced. Conceptually, such tax reductions could have some effect on economic growth, but these reductions are still being phased in. It likely will be years before any impact from these tax changes can be measured.

³⁷ The estimates since 1989 are available from the last appendix of the annual *Tax Handbook*, <http://www.azleg.gov/jlbc/15taxbook/15taxbk.pdf>.

³⁸ Dennis Hoffman and Tom Rex, "Tax Law Changes in Arizona Since 1989 and the Impact on Government Revenues and Economic Growth," Office of the University Economist, Arizona State University, June 2008; and Alberta Charney, "Growth Precedes Tax Cuts," *Arizona's Economy*, February 2009.

³⁹ Tom Rex, "The Effects of Tax Reductions in Arizona: Significantly Reduced Government Revenue and No Apparent Impact on Economic Growth," Grand Canyon Institute, February 2013, <http://grandcanyoninstitute.org/the-effects-of-tax-reductions-in-arizona/>.

DIFFERENCES BETWEEN STATES WITHOUT AN INDIVIDUAL INCOME TAX, STATES USING A FLAT TAX RATE, AND OTHER STATES

This section first addresses the issue of the differences in the tax structures and public spending patterns among the group of states without a broad individual income tax, the group of states that levy a flat-rate individual income tax, and the group of states with graduated individual income tax rates. It then examines differences among the three groups of states in a broader context — looking at how they compare in terms of more general measures of competitiveness, quality of life, and economic welfare.

Differences in Revenue Structures

An obvious question relating to the public finances of the states that do not levy a broad individual income tax is where do they get the revenues to pay for state government without an income tax?

Table 7 compares the relative importance of each of the major types of tax and other revenue sources between the nine no-income-tax states and the two categories of states that levy an individual income tax. These calculations are based on the most current data (FY 2013) from the U.S. Census Bureau’s State Government Finances program.

On average, the group of nine no-income-tax states rely more heavily on intergovernmental transfers and less on own-source revenues to fund state government expenditures. On average,

**TABLE 7
STATE GOVERNMENT GENERAL REVENUE BY SOURCE, WITH STATES
CATEGORIZED BY THE NATURE OF THE INDIVIDUAL INCOME TAX,
FISCAL YEAR 2013**

	No Income Tax		Flat Tax		Graduated Tax	
	Share of General Revenue	Share of Own- Source Revenue	Share of General Revenue	Share of Own- Source Revenue	Share of General Revenue	Share of Own- Source Revenue
General Revenue	100%		100%		100%	
Intergovernmental Transfers	36		30		32	
Own-Source Revenue	64	100%	70	100%	68	100%
Taxes		67		71		71
Individual Income		0		29		27
Corporate Income		4		5		4
General Sales		28		20		19
Selective Sales		15		12		12
Property		3		1		2
Motor Vehicle		2		2		2
Other		15		3		6
Other Revenue		33		29		29

Source: U.S. Department of Commerce, Census Bureau, State Government Finances, <http://www.census.gov/govs/state/>.

the no-income-tax states received 36 percent of total general revenues from intergovernmental transfers and 64 percent from own-source revenues, while the seven flat-tax states received only 30 percent from intergovernmental transfers and the 34 graduated-income-tax states averaged 32 percent.

In Arizona, intergovernmental transfers provide a greater share of funding for state government, and own-source revenue sources a smaller share, compared to the average for states that levy a broad individual income tax. In fact the ratio is identical to that of the group of no-income-tax states — 36 percent transfers versus 64 percent own-source revenues.

The relative shares of total own-source revenue derived from each of major types of taxes and other revenue sources differ for the states not levying a broad individual income tax compared with states with an individual income tax. The “no-income-tax” states have for the most part substituted higher sales taxes and various other taxes that are grouped into an “other” category (including severance and death and gift taxes) as replacements for the individual income tax. They also have somewhat more reliance on state property taxes, charges, and miscellaneous revenue sources than other 41 states. On average, the revenue structure among the flat-income-tax states is not that much different than the states with a graduated income tax. As a group, the flat-tax states actually rely slightly more on the individual income tax, corporate income tax, and the general sales tax and less on miscellaneous taxes than the states with a graduated income tax.

Arizona’s state revenue structure relies very heavily on the general sales tax and much less on income taxes than is typical for the 41 states with a broad-based individual income tax. The general sales tax supplies 35 percent of the state’s total own-source revenues, even more than the average for the no-income-tax states.

Overall Tax Burden

Another obvious question relating to the public finances of the no-income-tax states is whether they have lower-than-average tax burdens or just have substituted higher sales taxes or other revenue sources to make up for not having an income tax?

In the decentralized system of government in the United States, the responsibility to raise revenue and/or to provide a particular public function may be assigned to state government in one state, to local government in another state, or to a combination of state and local jurisdictions in others. For this reason, comprehensive comparisons between U.S. states of tax burdens and/or spending levels should proceed in terms of combined state and local government revenues and/or combined state and local expenditures. This analysis is based on the most current data (FY 2013) from U.S. Census Bureau’s State and Local Government Finances program. For some comparisons, separate state-level and local government data from this same source are also used to show specific differences in tax structures and/or spending patterns between the three groups of states.

Table 8 presents two widely used measures of the tax burden to compare the overall tax burden between the three groups of states for combined state and local government. Both have been computed based on total state and local government own-source revenues collected in each state (that is, all revenue collected by both the state government and all local governments in the state

TABLE 8
OVERALL TAX BURDEN AS A PERCENTAGE OF THE NATIONAL AVERAGE,
WITH STATES CATEGORIZED BY THE NATURE OF THE INDIVIDUAL INCOME
TAX, FISCAL YEAR 2013

	No Income Tax		Flat Tax		Graduated Tax	
	Per Capita	Per \$1,000 of Gross Product	Per Capita	Per \$1,000 of Gross Product	Per Capita	Per \$1,000 of Gross Product
Combined State and Local	108%	97%				
Excluding Alaska	96	91	96%	96%	102%	103%
State Government	105	92				
Excluding Alaska	85	80	94	93	105	106
Local Government	113	105				
Excluding Alaska	112	107	101	100	97	98
State Share of Own-Source Revenue	55					
Excluding Alaska	53		58		61	

Notes:

Figures for “flat” and “graduated” tax states are calculated relative to the 49-state average excluding Alaska.

Per capita figures are adjusted for the cost of living.

Source: U.S. Department of Commerce, Census Bureau, State and Local Government Finances, <http://www.census.gov/govs/local/> (taxes and population) and U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov/regional/index.htm> (gross product and cost of living).

but excluding any intergovernmental transfers from outside the state). The first measures burden in terms of total cost-of-living-adjusted own-source revenues per capita and the second is calculated in terms of revenues per \$1,000 of gross domestic product.⁴⁰ To facilitate comparison, the burden measures are reported as indexes with the 50-state average value equal to 100.

The two alternative measures produce different results. In per capita terms, the average burden for the nine no-income-tax states is 108 percent of the national average, but for the GDP-based measure, the average overall burden for the no-income-tax states is 97 percent of the 50-state average. The high average per capita burden for the group of nine no-tax states results from the inclusion of Alaska with its extremely atypical government finance structure. If Alaska is excluded, the average per capita burden measure falls to 96 percent — the same as the average burden for the eight flat-tax states and lower than for the graduated-tax states. For the GDP-based measure of overall state and local government tax burden, the index value based on the eight no-tax states falls to 91 percent if Alaska is excluded — substantially lower than the burden in the other states.

Thus, the two alternative measures of overall tax burden provide two different pictures of whether the states without a broad individual income tax tend to have a lower overall tax burden

⁴⁰ The cost of living figures — called regional price parities — come from the U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov/regional/index.htm>.

than other states — “not really” based on the per person measure but “yes” based on the GDP-based measure.

Even when Alaska is excluded from the calculations, Arizona’s total overall tax burden, measured in terms of total cost-of-living-adjusted state and local government own-source revenues per capita (76 percent of the 49-state average) is far below the average of the eight no-income-tax states and even further below that of the average of states that levy a broad-based individual income tax. When measured in terms of GDP, Arizona’s overall tax burden (92 percent of the national average) is very similar to the average of the eight no-income-tax states and lower than that of the typical income-tax state.

To examine this issue of tax burden further, Table 8 also presents the same two measures of tax burden separately for state own-source revenues and local government own-source revenues. The contrast between the two sets of statistics is very telling. (As in the previous paragraphs, the comparisons discussed below are on the basis of the eight no-tax states excluding Alaska.)

The difference in overall burdens imposed in the eight no-income-tax states compared with the other group of states is even more pronounced when only state-level revenue sources are considered, but comparisons of the burden measures with respect to local government revenues show the relative burden of local taxes in the no-income-tax states is significantly higher than in the rest of the nation. Thus, one common strategy among states that do not levy a broad income tax has been to shift more of the responsibility for funding government functions to local governments. Another way of seeing that this is the case is to compare the state’s share of total state and local government own-source revenues between the three groups of states (the last set of figures in Table 8). On average, state government’s share of total state and local own-source revenue is substantially lower for the no-income-tax states (53 percent for the eight states or 55 percent for the group of nine) versus an average share of 58 percent for the flat-tax states and 61 percent for the graduated-tax states. Interestingly, on average, the figures for the flat-tax states fall between those of the no-income-tax states and the graduated-income-tax states — a relative shift towards more reliance on local governments but not to the extent seen in the no-income-tax states.

For Arizona, the state government’s share is 56 percent of total state and local own-source revenue — higher than the average for the no-income-tax states but lower than typical for states that levy a broad individual income tax.

Differences in Tax Burden by Income Level and in the Regressivity of State and Local Government Tax Structures

The differences in tax structures and rates among the 50 states discussed previously results in variations not only in the overall tax burdens across states but also variations in tax burdens for different income groups.

As part of their annual study of the tax systems in the 50 states, the Institute on Taxation and Economic Policy estimates the combined state and local government tax burdens for several different income groups. Their data show that the state and local tax structures across all 50 states are regressive — that is, lower-income households pay a larger share of their incomes in

state and local taxes than higher-income families. Table 9 presents calculations based on data from the 2015 ITEP study showing the tax burdens as a percentage of family income for three different income groups: the lowest 20 percent of families, the middle 60 percent, and the top 20 percent; the top 1 percent also is displayed.⁴¹ The figures for the average tax burdens by income group across all 50 states demonstrate a typical pattern of regressivity — the lowest income group pays over 10 percent of its income in state and local government taxes, the middle income group pays slightly less than 9 percent, the top 20 percent of households pay 7 percent, and the wealthiest households (top 1 percent) pay only 5 percent.

While the state and local government tax structures of all states are regressive, the degree of the regressivity varies widely among the 50 states. As a single summary statistic for the relative degree of regressivity for each state's tax structure, the ITEP has developed what it terms the "Tax Inequality Index." This index compares the before-tax (state and local) income distribution in each state with its after-tax income distribution. The index is computed so that a negative value indicates a regressive tax system, and the absolute magnitude of the index is representative of the relative degree of regressivity. The values for this index range from -12.6 percent for Washington, the state with the most regressive state and local tax structure according to this statistic, to -0.5 percent for Delaware.

According to the ITEP analysis, the four states with the most regressive tax structures — Washington, Florida, Texas, and South Dakota — are all states that do not levy an individual income tax; Tennessee, which does not have a broad-based individual income tax, also is among the top 10 at seventh. Table 9 compares the average values of the tax burdens by income group and of the tax inequality index for the group of no-income-tax states and average values for the two groups of states levying an income tax. As a group, the no-income-tax states have the most regressive tax systems, with the group of states with a graduated income tax the least regressive, and the group of flat-income-tax states in between. The difference is especially striking for the wealthiest taxpayers — the top 1 percent in the no-income-tax states paid 2.2 percent of their incomes in state and local taxes versus 4.8 for the flat-income tax states and 5.7 percent in states with a graduated income tax.

Based on ITEP's 2015 tax inequality index of -7.1, Arizona's state and local government tax system ranked as the eighth-most regressive among the 50 states, although its index value was still less than the average of -8.0 for the group of eight no-tax states (excluding Alaska). According to ITEP figures, the state's wealthiest taxpayers (the top 1 percent) paid a larger share of their incomes in state and local taxes (4.6 percent) than on average in the no-income-tax states but less than the typical share for states with a broad individual income tax.

⁴¹ The ITEP study reports the tax burden estimates for seven income groups of nonelderly taxpayers. The first four are for the lowest four quintiles of families; the last quintile is divided into three groups: the wealthiest 1 percent, the next wealthiest 4 percent, and the remaining 15 percent. The ITEP uses these particular categories because, "the wealthiest quintile receives 60 percent of all income and that income is distributed unequally within the top quintile." For this table, an estimate of the burden for the top 20 percent has been computed from the ITEP figures for their top three income groups, to allow a symmetric comparison of the lowest 20 percent, versus the middle 60 percent.

TABLE 9
OVERALL TAX BURDEN, WITH STATES CATEGORIZED BY THE NATURE OF THE
INDIVIDUAL INCOME TAX

	State and Local Government Burden as a Percentage of Family Income				Tax Inequality Index
	Lowest 20 Percent	Middle 60 Percent	Top 20 Percent	Top 1 Percent	
50-State Average	10.1%	8.9%	7.0%	5.0%	-4.8
States Without an Income Tax	10.7	7.4	4.7	2.2	-7.5
Excluding Alaska	11.2	7.8	4.9	2.2	-8.0
States With a Flat Income Tax	10.5	9.5	7.4	4.8	-5.6
States With a Graduated Income Tax	9.8	9.2	7.6	5.7	-4.0

Source: Institute on Taxation and Economic Policy, *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*, 5th Edition, January 2015, <http://www.itep.org/whopays/>.

Differences in Business Tax Burdens

The states that do not levy a broad individual income tax also rely more heavily on business taxes to fund their government activities. Based on state-by-state estimates of state and local business taxes produced by Ernst & Young for fiscal year 2014,⁴² Table 10 compares the overall burden of state and local government business taxes, calculated in the Ernst & Young analysis as a percentage of private-sector GDP, between the three groups of states. The burden on businesses is higher in the no-income-tax states than in the rest of the nation: 5.9 percent (nine states)/5.1 percent (eight states excluding Alaska) versus 4.8 percent for the other 41 states (4.2 percent for the flat-income-tax states and 5.0 percent for the group of states with a graduated income tax).

Comparison of the business sector's share of total state and local taxes between the three groups of states also shows a greater reliance on business taxes among the no-income-tax states — 61 percent (nine states)/58 percent (eight states excluding Alaska) of state and local taxes paid by businesses versus 45 percent on average for the rest of the nation (41 percent for the group of flat-income-tax states and 46 percent for the rest of the states with a graduated individual income tax).

Arizona's business tax burden at 4.9 percent of private-sector GDP is slightly below the average for states with a graduated income tax structure and well below that of the no-income-tax states.

Differences in State and Local Spending

The level of public spending and the pattern of those expenditures in the states without a broad individual income tax also differ from those typical in the rest of the nation. For comparisons among states, the aggregate spending data must be normalized to adjust for differences in size of the states, similar to the calculation of the states' relative tax burdens. Table 11 compares total combined state and local government expenditure levels in terms of spending per capita adjusted

⁴² The Ernst & Young analysis estimates all taxes paid by the business sector — its share of property taxes, sales taxes, motor vehicle fees, etc. — not just taxes and fees levied specifically on businesses.

**TABLE 10
BUSINESS TAX BURDEN, WITH STATES CATEGORIZED BY THE NATURE OF
THE INDIVIDUAL INCOME TAX, FISCAL YEAR 2014**

	No Income Tax	Flat Tax	Graduated Tax
State and Local Business Taxes as a Share of Gross Product*	5.9%	4.2%	5.0%
Excluding Alaska	5.1		
State and Local Business Taxes as a Percentage of Total Taxes	60	41	46
Excluding Alaska	57		
State Business Taxes as a Percentage of Total State Taxes	62	38	40
Excluding Alaska	59		
Local Business Taxes as a Percentage of Total State Taxes	56	50	55
Excluding Alaska	56		

*GDP is measured as private-sector GDP.

Source: Ernst & Young, produced for the Council on State Taxation, *Total State and Local Business Taxes: State-by-State Estimates for Fiscal Year 2014*, October 2015, <http://www.cost.org/WorkArea/DownloadAsset.aspx?id=91531>.

**TABLE 11
GOVERNMENT EXPENDITURES AS A PERCENTAGE OF THE NATIONAL
AVERAGE, WITH STATES CATEGORIZED BY THE NATURE OF THE INDIVIDUAL
INCOME TAX, FISCAL YEAR 2013**

	No Income Tax		Flat Tax		Graduated Tax	
	Per Capita	Per \$1,000 of Gross Product	Per Capita	Per \$1,000 of Gross Product	Per Capita	Per \$1,000 of Gross Product
Combined State and Local	106%	95%				
Excluding Alaska	97	91	97%	96%	101%	103%
State Government	100	88				
Excluding Alaska	87	81	94	93	104	106
Local Government	112	104				
Excluding Alaska	109	104	101	100	98	99
State Share of Expenditures	62					
Excluding Alaska	60		65		69	

Notes:

Figures for "flat" and "graduated" tax states are calculated relative to the 49-state average excluding Alaska.

Per capita figures are adjusted for the cost of living.

Source: U.S. Department of Commerce, Census Bureau, State and Local Government Finances, <http://www.census.gov/govs/local/> (expenditures and population) and U.S. Department of Commerce, Bureau of Economic Analysis (gross product and cost of living).

for cost-of-living differences, and spending per dollar of GDP. To facilitate comparison, the spending measures are reported as indexes with the 50-state average value equal to 100.

With Alaska's per capita state and local government expenditures nearly twice the national average, the average spending level in per capita terms for the nine no-tax states is higher than for the other states. But after excluding Alaska, the average spending in per capita terms for the other eight no-income-tax states is 97 percent of the national average — the same as the average for the flat-tax states and lower than the average of 101 percent for the graduated-tax states. For the GDP-based measure, average overall spending is lower for the group of eight no-income-tax states (91-versus-96 percent) versus the group of seven flat-tax states and substantially lower than the average of 103 percent for the graduated-tax states.

Even with Alaska excluded from the calculations, Arizona's total overall spending level, measured in terms of total cost-of-living-adjusted state and local expenditures (79 percent of the 49-state average) is far below the average of the eight no-income-tax states and even further below that of the other states that levy a broad-based individual income tax. When measured in terms of GDP, Arizona's overall spending level (95 percent) is higher than the average of the eight no-income-tax states but lower than average for states with either a flat or a graduated income tax.

To examine this issue of spending levels further, Table 11 also presents the same two overall spending measures separately for state government expenditures and for local government expenditures. As was the case with tax burdens, the contrast between the two sets of statistics is very telling. (As in the previous paragraphs, the comparisons are on the basis of the eight no-income-tax states excluding Alaska.) When only state-level expenditures are considered, spending levels in the no-income-tax states are much lower compared with the rest of the states, while local government expenditures are higher in the no-income-tax states than in the rest of the nation. Thus, it seems that states that do not levy a broad income tax shift more of the responsibility for providing government services to local governments in their states. Another way to see that this is the case is to compare the state's share of total state and local government expenditures between the two groups of states (the last set of figures in Table 11). On average, the state government's share of total state and local spending was substantially lower for the no-income-tax states (60 percent for the eight states or 62 percent for the group of nine) versus an average share of 65 percent for group of flat-tax states and 69 percent for the other states with a graduated income tax. Again, the spending measures for the group of flat-tax states fall in the middle between the group of no-tax states and the group of states with graduated income tax structures.

Separating the overall figures for Arizona into separate measures for state and for local governments reveals that per capita state expenditures (79 percent of the 49-state average) are substantially lower than the average for the eight no-income-tax states and far below the average for states with a broad individual income tax. Local government spending levels in Arizona, on the other hand are higher measured on a per capita basis, but they are still below the national average (89 percent). However measured in terms of GDP, spending by local governments in Arizona is above average (108 percent). Like the no-income-tax states, Arizona's state government has shifted more of the responsibility for government services to the local level,

which is also shown by the fact that the state's share of total state and local spending (62 percent) is less than typical for income-tax states.

Other Differences

This subsection looks at how the three groups of states compare with respect to more general economic and quality-of-life measures.

Best Places for Business Rankings

Those in favor of abolishing Arizona's state income taxes emphasize the negative impact of state income taxes on both business location/investment decisions and individuals' decisions on where to live. While taxes may be one of the issues affecting business and individual choice, it is only one of many factors that likely go into such decisions. One way to evaluate the relative importance of whether a state has an income tax on such decisions is to see where the nine no-income-tax states rate in "best states for business" and "best places to live" rankings.

Looking first at the best states for business rankings, Table 12 lists the top 10 states in the most recent rankings issued by three studies: Beacon Hill Institute, Forbes magazine, and CNBC.⁴³ A correlation of the rankings of the three studies shows substantial agreement — the Beacon Hill study's correlation was about 0.6 with each of the other studies, while the correlation between Forbes and CNBC was a high 0.85. In the Beacon Hill study, four of the states without an individual income tax were among the top 10, but four ranked 32nd or lower. The median of the nine states was a rank of 21st. The median rank in the Forbes study was similar at 20th, with three of the no-income-tax states in the top 10, but three ranked 34th or lower. In the CNBC rankings, the median rank was 17th; only two states without an individual income tax were among the top 10, but four were among the second 10. Still, two ranked near the bottom of the states. Thus, the absence of an income tax does not guarantee a high ranking on measures of the best states for business.

Similarly, the rankings are diverse among the group of states that levy a flat individual income tax. In the Beacon Hill study, two of the eight states ranked among the top four, but three ranked 35th or lower; the median rank was 22nd. In the Forbes study, four were among the top eight and the median was 14th, yet two ranked 36th or lower. In the CNBC study, three were in the top 10 and the median was 16th, but Pennsylvania ranked 40th.

Despite its low taxes, Arizona did not rank highly in any of these three studies. The ranks were 27th in the Beacon Hill study, 23rd according to Forbes, and 34th in the CNBC study.

Even more specific evidence of the secondary importance of income taxes comes from one of the component ratings that went into the calculation by both Forbes and CNBC of their overall best states for business rankings. Both surveys include a separate ranking of the states in terms of the "cost of doing business," in which taxes were one of the major components. In the Forbes study,

⁴³ These and other such studies were examined in the Seidman Institute report "Overview of Economic Competitiveness: Business and Individual Location Factors, With a Focus on Arizona" (<https://wpcarey.asu.edu/sites/default/files/uploads/center-competitiveness-and-prosperity-research/competitiveness11-14.pdf>). The reliability of the CNBC study was lower than the other two studies.

TABLE 12
“BEST STATES FOR BUSINESS” RANKINGS, WITH STATES CATEGORIZED BY
THE NATURE OF THE INDIVIDUAL INCOME TAX

Beacon Hill Institute	Rank	Forbes	Rank	CNBC	Rank
Top 10*					
<i>Massachusetts</i>	1	<i>Utah</i>	1	Minnesota	1
North Dakota	2	<i>North Carolina</i>	2	Texas	2
Iowa	3	Nebraska	3	<i>Utah</i>	3
<i>Colorado</i>	4	North Dakota	4	<i>Colorado</i>	4
Minnesota	5	<i>Colorado</i>	5	Georgia	5
New Hampshire	6	Texas	6	North Dakota	6
Nebraska	7	Virginia	7	Nebraska	7
South Dakota	8	<i>Indiana</i>	8	Washington	8
Texas	9	South Dakota	9	<i>North Carolina</i>	9
Washington	10	Washington	10	Iowa	10
Other States Without a Broad Income Tax					
Florida	21	Tennessee	19	South Dakota	11
Alaska	32	Florida	20	Florida	16
Tennessee	33	Wyoming	27	Tennessee	17
Wyoming	34	Nevada	34	Wyoming	18
Nevada	45	New Hampshire	37	New Hampshire	30
		Alaska	44	Nevada	45
				Alaska	47
Other States With a Flat Income Tax					
North Carolina	13	Massachusetts	18	Indiana	13
Utah	16	Michigan	30	Illinois	19
Michigan	28	Pennsylvania	36	Massachusetts	20
Pennsylvania	35	Illinois	38	Michigan	22
Illinois	37			Pennsylvania	40
Indiana	38				

* States without a broad income tax are shown in **bold**; states with a flat income tax are shown in *italics*.

Sources: Beacon Hill Institute, 14th Annual State Competitiveness Report (2014), <http://www.beaconhill.org/Compete14/Compete14.pdf>; Forbes, Best States for Business (October 2015), <http://www.forbes.com/best-states-for-business/>; and CNBC, America’s Top States for Business 2015, www.cnbc.com/americas-top-states-for-business/.

only four of the top 10 states overall ranked in the top 10 on business costs; in the CNBC study, just one state was in the top 10 on both lists.

Table 13 lists the rankings of the states for business costs from both studies. In the Forbes study, two of the states that do not levy an individual income tax ranked in the top 10 on business costs, but three ranked 38th or lower. The median rank was 19th. The median rank for the no-income-tax states on the CNBC study was 24th, with just one state ranking among the top 10. These results seem to indicate that other factors are more important to businesses than the income tax issue.

TABLE 13
COST OF DOING BUSINESS RANKINGS, WITH STATES CATEGORIZED BY THE
NATURE OF THE INDIVIDUAL INCOME TAX

Forbes	Rank	Top 10*	CNBC	Rank
South Dakota	1		<i>Indiana</i>	<i>1</i>
Louisiana	2		Kentucky	2
Arkansas	3		Mississippi	2
Oklahoma	4		Arkansas	4
<i>Utah</i>	<i>5</i>		South Dakota	5
<i>North Carolina</i>	<i>6</i>		Idaho	6
Delaware	7		West Virginia	7
Oregon	8		Iowa	8
Nebraska	9		Oklahoma	9
Texas	10		Louisiana	10
Other States Without a Broad Income Tax				
Nevada	16		Tennessee	12
Washington	17		Texas	20
Wyoming	19		Wyoming	20
Tennessee	25		Nevada	24
Florida	38		Washington	28
Alaska	44		Florida	31
New Hampshire	47		New Hampshire	38
			Alaska	41
Other States With a Flat Income Tax				
Indiana	12		Utah	13
Illinois	29		Michigan	17
Pennsylvania	30		North Carolina	17
Michigan	37		Illinois	29
Colorado	39		Pennsylvania	33
Massachusetts	50		Colorado	36
			Massachusetts	46

* States without a broad income tax are shown in **bold**; states with a flat income tax are shown in *italics*.

Sources: Forbes, Best States for Business (October 2015), <http://www.forbes.com/best-states-for-business/>; and CNBC, America's Top States for Business 2015, www.cnbc.com/americas-top-states-for-business/.

Among the states levying a flat-rate individual income tax, two ranked among the top 10 on business costs according to Forbes, but the median rank was 29th, with three states ranking 37th or lower. In the CNBC study, only one state ranked in the top 10; the median was 23rd.

Arizona also does not compare favorably on business costs despite its low taxes. Forbes placed Arizona 26th; the CNBC rank was 40th.

Quality of Life Rankings

Traditional best places to live and quality-of-life studies employ an accounting process using numerous attributes of each area to develop the relative rankings of the locations. By construction, such rankings cannot really inform discussion of whether the fact that a state has an

individual income tax has a significant impact on individuals' rating of that state as a desirable place to live. In most of the studies, it is not even one of the attributes included in the calculations or if an income tax variable is included, it has only a small importance weight in the overall ranking process.

Fortunately, alternative methods to estimate best places to live/quality-of-life rankings have been developed based on what economists term a "revealed preference" approach. The method is based on the idea that individuals are willing to accept lower wages relative to an area's cost of living to live in a desirable place. Based on this assumption, observed differences in wages and/or living costs among different locations are used to statistically estimate the differences in the relative desirability of living between the locations, and best places to live/quality-of-life rankings can be produced based on the estimates. Two recent studies have used this revealed preference approach to develop livability/quality of life rankings for the fifty states.⁴⁴

Table 14 lists the top 10 ranked states from both studies along with the ranks of the no-income-tax states and the flat-tax states not among the top 10. The David Albouy study ranked two of the group of nine no-income-tax states, Washington and New Hampshire, in the lower range of the top 10, with five others ranking among the upper half of states, but one, Texas, was ranked 48th. The median rank was 17th. The nine no-income-tax states did worse in the Granger and Price study. Only one, Washington, ranked in the top 10, three others ranked in the top half, and five ranked in the bottom half, with Texas and South Dakota near the bottom. The median rank was 26th. Thus both the best places for business and best places to live studies seem to indicate that other factors are more important to businesses and individuals than whether a state has an income tax or not.

The presence of a flat tax rate also had no correlation to the quality-of-life rankings. The median rank was 26th in the Albouy study, with two states in the top 10 but three in the bottom 10. In the Granger and Price study, three states ranked in the top 10 but two were among the bottom 10; the median rank was 32nd.

Arizona ranked considerably higher on the quality-of-life studies than on the studies of the best states for business. It was ranked 13th by Albouy and seventh by Granger and Price.

Differences in Household Incomes

After adjusting for cost-of-living differentials, statewide median household income levels vary widely among the 50 states, with a difference of nearly 50 percent between the highest and lowest states, according to the latest figures from the American Community Survey for 2014. In Table 15, median household income and the rank among the 50 states is shown for each of the states without an individual income tax and for those states with a flat rate.

⁴⁴ David Albouy, "Are Big Cities Bad Place to Live? Estimating Quality of Life across Metropolitan Areas," NBER Working Paper 14472, May 2012; and Maury Granger and Gregory Price, "Are States with Larger than Average Black Populations Really the Worst Places to Live? A Spatial Equilibrium Approach to Ranking Quality of Life," *Journal of Public Management and Policy*, Vol. 20 (2), January 2015.

TABLE 14
QUALITY OF LIFE RANKINGS, WITH STATES CATEGORIZED BY THE NATURE
OF THE INDIVIDUAL INCOME TAX

Albouy	Rank	Top 10*	Granger and Price	Rank
Hawaii	1		Hawaii	1
California	2		California	2
Vermont	3		Washington	3
<i>Colorado</i>	4		Oregon	4
Oregon	5		<i>Massachusetts</i>	5
Montana	6		<i>Colorado</i>	6
Washington	7		Arizona	7
New Hampshire	8		Rhode Island	8
<i>Massachusetts</i>	9		<i>Utah</i>	9
New Mexico	10		New Mexico	10
Other States Without a Broad Income Tax				
Florida	14		Nevada	14
Alaska	16		Florida	19
Wyoming	17		Tennessee	20
South Dakota	21		Wyoming	26
Nevada	25		New Hampshire	31
Tennessee	36		Alaska	35
Texas	48		Texas	46
			South Dakota	48
Other States With a Flat Income Tax**				
Utah	12		Pennsylvania	32
Illinois	26		Michigan	36
Indiana	41		Indiana	41
Pennsylvania	42		Illinois	45
Michigan	49			

* States without a broad income tax are shown in **bold**; states with a flat income tax are shown in *italics*.

** Since North Carolina did not adopt a flat tax until 2014, it is not included in this table.

Sources: David Albouy, "Are Big Cities Bad Place to Live? Estimating Quality of Life Across Metropolitan Areas," NBER Working Paper 14472, May 2012; and Maury Granger and Gregory Price, "Are States with Larger than Average Black Populations Really the Worst Places to Live? A Spatial Equilibrium Approach to Ranking Quality of Life," *Journal of Public Management and Policy*, Vol. 20 (2), January 2015.

Compared to the national average, six of the no-tax states had a higher figure; the median rank of these nine states was 18th. However, two of the states ranked among the bottom 10. Among the states with a flat tax rate, six of the seven had a median income greater than the U.S. average, but the median rank among these states was only 20th. Arizona's median ranked 36th.

Differences in Wage Levels

Table 16 compares cost-of-living adjusted average annual wage levels for the three groups of states, calculated by dividing total wages by wage and salary employment, with each series coming from the U.S. Bureau of Economic Analysis. While median household income levels are slightly higher on average in the nine no-income-tax states, this is not the case for wage rates. The median state ranked 26th in 2014, but the figures in Table 16 show large differences among

TABLE 15
MEDIAN HOUSEHOLD INCOME ADJUSTED FOR COST OF LIVING AND RANK
AMONG THE 50 STATES, WITH STATES CATEGORIZED BY THE NATURE OF THE
INDIVIDUAL INCOME TAX, 2014

	Median	Rank		Median	Rank
United States	\$53,657				
States Without a Broad Income Tax			States With a Flat Income Tax*		
Alaska	67,531	1	Massachusetts	\$64,455	5
New Hampshire	62,825	8	Utah	62,677	10
Wyoming	59,556	13	Colorado	59,983	11
Washington	59,463	15	Illinois	56,875	20
South Dakota	58,159	18	Indiana	54,098	27
Texas	54,845	25	Pennsylvania	53,990	29
Nevada	52,393	33	Michigan	52,916	31
Tennessee	48,964	42			
Florida	48,039	46			

* Since North Carolina did not adopt a flat tax until 2014, it is not included in this table.

Source: U.S. Department of Commerce, Census Bureau, American Community Survey, <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> (income) and U.S. Department of Commerce, Bureau of Economic Analysis, <http://www.bea.gov/regional/index.htm> (cost of living).

the nine no-income-tax states, with three states ranking in the top 10 but three ranking 36th or lower. Among the states with a flat tax rate, the median rank was 18th. Two states were among the top 10 but one was among the bottom 10. Arizona's average wage ranked 27th.

Income Inequality

The income gap between the rich and the low- and middle-income groups has been growing since the 1970s, and this trend has accelerated during the post-Great Recession period since 2009. The degree of inequality varies widely by state. The comparisons are based on the state-level Gini Coefficient, the most widely used measure of inequality in the distribution of income. The Gini Coefficient has a range of 0-to-1, with a value of 0 indicating perfect equality and a value of 1 indicating perfect inequality.

Based on IRS household income data from 2013, Table 17 presents the Gini Coefficient for each of the no-income-tax states and the states with a flat tax rate. Seven of the no-income-tax states ranked 30th or lower; the median rank was 35th. These data indicate that on average, the states without a broad individual income tax have a higher degree of income inequality than the rest of the nation. The median rank of the seven states with a flat tax was 34th. Arizona ranked 35th.

TABLE 16
AVERAGE WAGE ADJUSTED FOR COST OF LIVING AND RANK AMONG THE 50 STATES, WITH STATES CATEGORIZED BY THE NATURE OF THE INDIVIDUAL INCOME TAX, 2014

	Median	Rank		Median	Rank
United States	\$51,552				
States Without a Broad Income Tax			States With a Flat Income Tax*		
Texas	54,422	5	Massachusetts	\$58,349	1
Washington	53,709	7	Illinois	54,590	4
Alaska	53,126	9	Colorado	52,251	13
Wyoming	49,437	25	Michigan	50,887	18
Tennessee	49,262	26	Pennsylvania	50,179	22
New Hampshire	47,554	32	Indiana	49,370	33
Nevada	46,862	36	Utah	45,119	43
Florida	46,790	37			
South Dakota	43,660	45			

* Since North Carolina did not adopt a flat tax until 2014, it is not included in this table.

Source: U.S. Department of Commerce, Bureau of Economic Analysis,
<http://www.bea.gov/regional/index.htm>.

TABLE 17
INCOME INEQUALITY AND RANK AMONG THE 50 STATES, WITH STATES CATEGORIZED BY THE NATURE OF THE INDIVIDUAL INCOME TAX, 2014

	Gini	Rank		Gini	Rank
United States	0.632				
States Without a Broad Income Tax			States With a Flat Income Tax*		
Alaska	0.559	4	Indiana	0.574	9
New Hampshire	0.581	12	Utah	0.595	25
Tennessee	0.599	30	Pennsylvania	0.596	26
Washington	0.600	31	Michigan	0.609	34
South Dakota	0.612	35	Colorado	0.614	36
Texas	0.648	44	Illinois	0.627	41
Wyoming	0.666	45	Massachusetts	0.639	43
Nevada	0.686	48			
Florida	0.693	49			

* Since North Carolina did not adopt a flat tax until 2014, it is not included in this table.

Source: Mark Frank, U. S. State Level Income Inequality Data,
http://www.shsu.edu/eco_mwf/inequality.html.

POLICY OPTIONS FOR ARIZONA'S INCOME TAXES

Over the past 22 years, there have been seven decreases in Arizona's individual income tax rates, the last taking effect for tax year 2007, but the basic progressive rate structure incorporated into the Arizona state individual income tax when it was established in 1933 is still in place.

Arizona's corporate income tax was changed to a flat tax structure in 1990, and its rate has been lowered periodically over the last 22 years with further decreases scheduled to occur through TY 2017. Recently, however, there has been serious discussion of major changes to, or elimination of, Arizona's income taxes.

Flat Tax

In 2013, the Arizona Legislature established the Joint Task Force on Income Tax Reform with the charge of studying "ways of reforming Arizona's existing personal income tax system in order to create a simple, predictable, and transparent system." Based on inputs from legislative staff, outside experts, and a series of public hearings, the Task Force issued a final report in December 2013 with several recommendations for improving the state's individual income tax system. These included proposed actions for 2014 to index tax brackets for inflation and to reduce the number of income brackets from five to three, though keeping the same range of rates from 2.59 to 4.54 percent. The Task Force also recommended more comprehensive longer-term changes that included switching from the current progressive tax rate structure to a flat rate system.

The Task Force's short-term recommendations relating to changes in the tax brackets were not enacted in 2014, but inflation indexing of the income brackets was made permanent in 2015. A bill was introduced in the 2016 legislative session that would establish an optional individual flat income tax with a rate of 1 percent for individuals with an Arizona gross income of \$25,000 or less, but this was not passed into law.

Elimination of Arizona's State Income Taxes

The elimination of Arizona's state income taxes was one of the major issues during the 2014 gubernatorial race, and after his election, Governor Ducey has continued to avow a mission to bring income tax rates "as close to zero as possible" with the goal of eliminating the taxes altogether. He has also pledged to reduce taxes every year of his administration, starting in the first year with the indexing of the income brackets, which he claimed as a tax cut since it would reduce higher tax payments that otherwise occur with inflation.⁴⁵

Two studies by Stephen Slivinski advocating the elimination of Arizona's income taxes have been published in the last four years. The first, released by the Goldwater Institute in 2012, proposed eliminating both the individual and corporate income taxes and replacing the lost revenue by broadening the sales tax base to include all final goods and services.⁴⁶ Based on the argument that the state's income taxes penalize investment and saving and create "an

⁴⁵ Various other tax law changes also were passed in 2015, which will effectively reduce revenue by nearly \$60 million when fully implemented. As part of the 2016 legislative session, a tax package that will reduce revenue by \$26 million was passed.

⁴⁶ Stephen Slivinski, "A New Tax Plan for a New Economy: How Eliminating the Income Tax Can Create Jobs," Policy Report No. 250, Goldwater Institute, September 20, 2012, <http://goldwaterinstitute.org/en/work/topics/free-enterprise/taxes-and-spending/a-new-tax-plan-for-a-new-economy-how-eliminating-t/>

uncompetitive business environment,” the policy report presented projections from an econometric model of the additional jobs that would be created by the proposed tax reform in the first five years after its implementation. An examination of these job figures do not in fact provide much evidence of the purported benefits claimed by advocates of eliminating Arizona’s state income taxes. After five years, private-sector employment would be less than 1 percent higher (about 17,000 jobs on an employment base of more than 2 million) than without the proposed tax reform. The report also did not provide a projection for revenues that would be produced by its revised tax structure or address whether they would be sufficient to meet the budgetary needs of the state in the future.

A 2015 report by the same author again advocated the elimination of Arizona’s state income taxes and offered multiple scenarios to accomplish this goal.⁴⁷ These ranged from completely eliminating them in one year without replacing the lost revenue from another source to other options that would phase out the income taxes over a multiyear period and replace the lost revenue with higher state sales tax revenues produced by raising the rate and/or broadening the tax base. The report acknowledges that the first scenario of immediate elimination with no substitute revenues “would require very large spending adjustments.” (The personal income tax provided \$3.8 billion and the corporate income tax contributed \$663 million of the total ongoing general fund revenues of \$8.9 billion in FY 2015.) The author implies that the other scenarios would supply sufficient revenues if general fund expenditure growth were limited to 2.3 percent per year. Unlike the 2012 report, no numeric projections of the economic benefits of eliminating the income taxes were presented.

Impact on the State General Fund Budget of Eliminating Arizona Income Taxes

The state’s current fiscal structure is heavily dependent on the revenue collected by its income taxes. In FY 2015, income tax collections accounted for 43 percent of total general fund revenues (46 percent before subtracting urban revenue sharing). Table 18 summarizes the results of a simulation of what would happen to the state’s general fund budget if the state personal and corporate income taxes had been eliminated in FY 2016. The table presents projections of general fund expenditures, three measures of general fund revenues — total general fund ongoing revenues (which exclude one-time fixes intended to balance the budget), income taxes, and general fund ongoing revenues minus income taxes — and the resulting general fund deficit (defined in terms of ongoing revenues and expenditures). The figures for FY 2015 come from the latest Arizona Joint Legislative Budget Committee general fund expenditure and revenue reports. The expenditure and revenue projections are based upon the following assumptions:

⁴⁷ Stephen Slivinski, “Paths to Reform: A Policy Roadmap to Elimination of the Arizona Income Tax,” Policy Report, No. 2015-01, Center for the Study of Economic Liberty, Arizona State University, May 12, 2015, <http://research.wpcarey.asu.edu/economic-liberty/wp-content/uploads/2015/03/CSEL-Policy-Report-2015-01-Income-Tax.pdf>.

TABLE 18
SIMULATION OF THE EFFECTS ON THE ARIZONA STATE GOVERNMENT GENERAL FUND OF THE ELIMINATION
OF CORPORATE AND PERSONAL INCOME TAXES IN FISCAL YEAR 2016

	Fiscal Year (Dollars in Millions)										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Expenditures	9,179	9,055	9,421	9,802	10,199	10,611	11,040	11,487	11,951	12,435	12,938
Option 1: Elimination of Corporate and Personal Income Taxes in FY 2016											
Income Tax Collections*	3,815	0	0	0	0	0	0	0	0	0	0
Ongoing Revenue Less Income Taxes*	5,111	5,418	5,889	6,402	6,912	7,442	7,970	8,581	9,220	9,871	10,533
Total Ongoing Revenue*	8,926	5,418	5,889	6,402	6,912	7,442	7,790	8,581	9,220	9,871	10,533
Deficit**	-253	-3,637	-3,532	-3,400	-3,287	3,169	-3,070	-2,906	2,731	-2,564	-2,405
Option 2: Elimination of Corporate and Personal Income Taxes Over Seven Years, Beginning in FY 2016											
Income Tax Collections*	3,815	3,502	3,214	2,829	3,314	1,676	904	0	0	0	0
Ongoing Revenue Less Income Taxes*	5,111	5,418	5,889	6,402	6,912	7,442	7,970	8,581	9,220	9,871	10,533
Total Ongoing Revenue*	8,926	8,920	9,103	9,231	9,226	9,118	8,874	8,581	9,220	9,871	10,533
Deficit**	-253	-135	-318	-571	-973	-1,493	-2,166	-2,906	2,731	-2,564	-2,405

* After subtracting urban revenue sharing.

** General fund expenditures less general fund ongoing revenue.

Source: Author.

1. General fund expenditures are projected to grow at the combined rate of population growth and inflation.⁴⁸ This formula has been popularized by fiscal conservatives as a mechanism to limit the growth of government spending. It provides a conservative approach for projecting a baseline budget with only indirect effects from potential future economic cycles.
2. The projected revenue figures are based on projected growth in Arizona GDP and the historical relationship between tax collections and GDP growth.⁴⁹ Based on the historical evidence relating to GDP growth for the nine states without a broad individual income tax versus the other 41 states (growth an average of 20.3 percent faster over the 1997-to-2014 period), the simulation has been based on the assumption that GDP growth would accelerate by 20 percent above the long-term baseline projection based on the state's current structure.

The 20 percent increase in real GDP growth is an extremely generous assumption:

- The faster growth in the no-income-tax states has not been proven to result from the absence of an income tax and more likely results from a disproportionate share of the no-income-tax states being located in the South and West.
- Excluding Texas, the differential in the growth rate is only 6 percent.
- The income tax cuts implemented so far in Arizona have had no perceptible impact on economic growth.

Table 18 presents two versions of the simulation. The first shows what happens to general fund ongoing revenues and the resulting deficit if the state's income taxes had been eliminated in FY 2016. In this case, total general fund ongoing revenues drop from \$8.9 billion in FY 2015 to \$5.4 billion in FY 2016, and the general fund ongoing deficit is projected to rise from \$253 million in FY 2015 to \$3.6 billion in FY 2016. Thereafter the simulation results indicate that revenue gains from faster economic growth would not come close to closing the gap — even in the long run — as the general fund ongoing budget deficit would only decline to \$3.2 billion after five years and would still be \$2.4 billion after 10 years.

The second version of the simulation is based on a phased-in approach to eliminating the state's income taxes that occurs over a seven-year period, as suggested in one of Slivinski's scenarios. In this version, the growth of the economy is still assumed to accelerate by 20 percent starting in FY 2016 — an even more generous assumption as the full impacts of the tax change would only be felt after several years. In this case, total general fund ongoing revenues are forecast to drop very slightly in FY 2016, with the general fund ongoing deficit projected to rise from \$253 million in FY 2014 to \$368 million in FY 2016. Thereafter the simulation results indicate that revenue gains from faster economic growth would not replace revenues lost from the phasing out of the income taxes, so that total general fund ongoing revenues would continue to drop until

⁴⁸ The future annual growth rate in population used in the simulation was based on the latest population projections (Medium Series) prepared by the Arizona Office of Economic and Population Statistics for the Arizona population over the 2015-2025 period (<https://population.az.gov/population-projections>). The future annual inflation rate used in the simulation was based on IHS Global Insight Regional Forecast data for the 2015-2025 period.

⁴⁹ The projected Arizona GDP figures were from the June 2016 IHS Global Insight Regional forecast for Arizona.

they declined to \$7.4 billion in FY 2020 before beginning to grow again. With the phase out, the general fund ongoing deficit would continue to grow over the FY 2016-to-FY 2020 period, reaching \$3.2 billion in FY 2020 and then would start to decline but would still be \$2.4 billion after 10 years.

So, even with a conservative forecast of expenditure growth and extremely generous assumptions regarding revenue growth, the elimination of the income taxes — regardless of the number of years over which the taxes are phased out — would result in a significant budget deficit even 10 years out.

Other States' Experiences with Income Tax Reform

Income Tax Cuts

In recent years, several states have enacted legislation that reduced the state individual and/or corporate income tax rates, and in some cases the states also raised sales and use tax rates and/or broadened the sales and use tax base to replace at least some of the lost revenue. A recent study examined whether these tax cuts have produced stronger economic growth.⁵⁰ Looking at the five states that had enacted large income tax cuts since 2010 (Kansas, Maine, North Carolina, Ohio, and Wisconsin), the analysis found that four of the five states had slower job growth than the nation as a whole. Only North Carolina, the last state in which the income tax cut took effect (in January 2014), had job growth that exceeded the national average through 2015.

The income tax cuts also have not produced offsetting state revenues generated by a surge in economic growth that was supposed to result from the tax cuts. As a result, Kansas has had to cut spending, raise sales and cigarette taxes, and cancel future income tax rate cuts to forestall state budget deficits. Maine instituted a temporary sales tax increase and shifted cost to municipalities and property tax payers. Ohio's income tax cut in 2013 caused the state's total tax collections to decline by \$881 million in FY 2014 (income tax collections dropped \$1.4 billion) resulting in cuts in state spending on both K-12 and higher education and reductions in the state's local government fund that shares sales tax revenues with local governments. As a result, Ohio cities and towns are raising local taxes, imposing new or higher fees, and cutting services. Wisconsin has depleted its budget surplus, made cuts in state spending, and deferred or restructured debt payments. In North Carolina, which expanded its sales tax base to offset the income tax cuts, growth in overall state revenues has resumed after a decline in FY 2014.

Shifting from a Graduated to a Flat-Tax Structure

Three states have shifted from a graduated tax rate system to a flat tax: Colorado in 1987, Utah in 2008, and North Carolina in 2014. None of the states with single-rate income taxes has a true flat tax. All of their individual income tax systems incorporate various exemptions, deductions, and credits so that the actual incidence of the tax is not strictly proportional to income level.

⁵⁰ Michael Leachman and Michael Mazerov, "State Personal Income Tax Cuts: Still a Poor Strategy for Economic Growth," Center on Budget and Policy Priorities, May 14, 2015, <http://www.cbpp.org/research/state-budget-and-tax/state-personal-income-tax-cuts-still-a-poor-strategy-for-economic>.

Colorado's individual income tax remains fairly progressive since it is tied to the progressive federal tax code and also incorporates its own set of exemptions, deductions, and credits. Income earners who make less than \$20,000 per year pay 0.7 percent of their income in individual income taxes while the top 1 percent of Colorado earners (those making \$480,000 or more) pay an average of 3.2 percent. Those making more than \$100,000 annually pay 60 percent of total taxes in the state and only make up about 16 percent of all taxpayers.⁵¹

Utah replaced a graduated tax structure that had a top rate of 6.98 percent with a flat tax with a single rate of 5 percent. It eliminated some tax deductions, and replaced other tax deductions with tax credits that phase out as income increases. The new income tax remains progressive, being tied to the federal tax code and through its system of tax credits. Analysis of the actual tax year 2008 tax returns filed show that 97 percent of tax returns paid either the same amount or less in tax year 2008 than would have been paid under the tax system in place in 2005.⁵²

North Carolina shifted from a graduated personal income tax system with three brackets that had a top rate of 7.75 percent to a flat tax structure with a tax rate of 5.8 percent (lowered to 5.75 percent for 2015). The new tax system eliminated personal exemptions and some tax breaks but increased the standard deduction and kept many of the existing deductions and credits. To at least partially offset reduced income tax collections, the overall tax reform package also included some broadening of the sales tax base and certain other changes to enhance sales tax collections. The ITEP information on the individual income tax burdens for nonelderly households in North Carolina from before and after the tax does not provide a definite answer for the question of whether North Carolina's shift to a flat income tax actually made the state income tax more regressive or more progressive. Comparison of the 2013 versus 2015 data indicate that low-income taxpayers paid a substantially smaller share and wealthy taxpayers paid a slightly smaller share of their income in personal income tax after the state's shift to a flat tax, while middle and upper-middle income taxpayers paid a larger share.⁵³

Whether the switch from graduated rates to a single rate income tax structure had any effect on economic performance in these states is difficult to ascertain, since so many factors influence performance. It is possible to control for some of the factors by comparing periods that are similar in terms of the economic cycle before and after the change in the income tax. For this analysis, a measure of aggregate growth (employment) and a measure of prosperity (real per capita personal income) were examined, focusing on the difference in the annual average growth rates relative to the national average in the periods before and after the change in the tax code.

With its new tax structure in effect only since 2014, sufficient data to examine the economic effects of the switch are not yet available for North Carolina. In Colorado, a comparison of the 1978-through-1986 period to the 1987-to-1997 period shows that relative to the national average, gains in real per capita personal income were slightly higher in the latter period but that growth

⁵¹ Colorado Fiscal Institute, *Colorado Tax Basics 2015*, <http://www.coloradofiscal.org/wp-content/uploads/2015/01/Colorado-State-Tax-Basics-2015.pdf>.

⁵² Utah State Tax Commission, *History of the Utah Tax Structure*, December 2015, <http://tax.utah.gov/esu/history/history.pdf>.

⁵³ Institute on Taxation and Economic Policy, *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States*, 4th edition, January 2013 and 5th Edition, January 2015, <http://www.itep.org/whopays/>.

in employment was a little lower in the latter period. The conclusion is the same using slightly different time periods. A slump in the natural resources sector of the Colorado economy in the mid-1980s complicates the interpretation of these data.

In Utah, the flat tax was implemented in 2008, the first year of a recession. The 2001-through-2007 period (2001 also was a recessionary year) is comparable to the 2008-through-2014/2015 period in terms of the economic cycle. Both employment and per capita personal income has experienced markedly lesser growth relative to the national average in the period since the state's shift to a flat income tax than it did before the change.

Options and Implications

Although the recommendations by the Legislature's 2013 Joint Task Force on Income Tax Reform were aimed at shifting the state's individual income tax to a single-rate or flat tax system (the state corporate income tax is already a flat tax), much of recent discussion has focused on eliminating the Arizona income tax altogether.

Eliminating the Income Tax

Any move by Arizona to eliminate the state income tax would involve several possible options:

- Whether to eliminate the individual income tax or the corporate income tax or both.
- Whether the taxes would be eliminated in one step or be phased out over time.
- Whether the loss in income tax revenue would be offset and what alternative sources of revenue would be used.

Most of the recent discussion nationally and in Arizona concerning cutting or eliminating income taxes has focused on individual income taxes. The individual income tax directly affects many more of the state's residents and many more of its businesses than the corporate income tax. However, corporations account for the majority of the economic activity in the traded portion of the economy, which drives the overall economy.

The individual income tax currently makes up close to 40 percent of total general fund revenues; its elimination would make a big hole in the state budget and/or necessitate large increases in other state taxes. The corporate income tax is a much smaller and more volatile source of state revenues. Many economists would argue that its elimination would have more effect on making Arizona more competitive for attracting and retaining businesses than an equivalent dollar-size cut in individual income taxes. Elimination of both individual and corporate income taxes would mean the state would have to cut spending and/or increase other taxes and fees by \$4 billion to offset the revenue currently generated by the two taxes.

Advocates of eliminating Arizona income taxes have proposed a phased approach in which the tax rates would be reduced over a multiple-year period as a way to mitigate the effects on the state budget. The results of the simulation presented earlier show that such a phase-in process would still produce immediate (but smaller) budget deficits and that these deficits would persist even after the phase-in period — unless spending cuts and/or offsetting revenue increases occurred. Any recession — and one is likely to occur within the next few years — would cause state revenues to fall below those projected in the simulation.

Unless Arizona policymakers and residents are willing to accept very large cuts in state spending, other sources of revenue would have to be tapped to offset the lost income tax collections. As shown by moves in other states that have cut income taxes in recent years, the most likely option would be to increase so-called consumption taxes — primarily increases in the general sales tax (the transaction privilege tax in Arizona) but also potentially increases in certain selective sales taxes. As suggested by Slivinski in his 2015 policy report, such an increase in sales taxes could involve some combination of raising the tax rate and/or broadening the sales tax base — the most obvious target being to begin to tax more services. Based on FY 2015 budget figures, the state sales tax rate would have to increase from the current 5.6 percent to 10.8 percent (including local sales taxes, a combined rate of 12.8-to-16.1 percent depending on locality) if the tax base were not broadened, or to 6.4 percent (a combined rate of 8.4-to-11.7 percent including local sales taxes depending on locality) with a broader tax base.⁵⁴

Proponents of eliminating Arizona’s income taxes believe that such a move would stimulate state economic growth, even if done in a revenue-neutral way by replacing lost income tax collections with more revenues from higher consumption taxes. However, empirical evidence has not shown that faster economic growth would result. Further, this major shift in the state’s tax structure would have other implications as well. It would result in the state’s revenue system for the general fund being almost completely dependent on sales tax collections — the sales tax would account for nearly 90 percent of the ongoing total based on FY 2015 JLBC figures. It would remove the only significant component of the current Arizona tax system based on the “ability-to-pay” approach of funding government services.

Thus, elimination of state income taxes would have four major effects on Arizona’s fiscal structure:

- It would make the state’s tax system much more regressive. Arizona’s state and local tax system is already the eighth most regressive among all 50 states according to ITEP, and eliminating state income taxes would remove the only significant nonregressive component of the revenue structure.
- Currently, state income tax collections are shared with Arizona municipalities through the urban revenue sharing program. In FY 2015, funds provided by this program totaled \$609 million. If eliminating state income taxes were to be revenue neutral not only for the state but for its cities and towns, an alternative source of funding would also have to be found to replace the shared income tax revenues.
- The income taxes are the state’s only major revenue source that typically keeps up with economic growth, so their elimination would exacerbate the state’s continuing problem of a gap between baseline spending and ongoing revenue growth.
- The corporate income tax is the most volatile sources of revenue for the state, so its elimination would make state tax collections more stable over the business cycle.

⁵⁴ The increases in sales tax rates were estimated by author based on FY 2015 budget figures. The broader tax base used in the calculations was based on estimates provided in the first Slivinski analysis (2012). The broader base excludes business-to business transactions, and the exemption on prescription drugs and food sales is continued. The estimate including local sales taxes assumes localities conform to the modified tax base.

Of the other types of taxes and fees that the state currently levies, only the reinstatement of a statewide property tax is good candidate to provide substantial additional revenue to offset the elimination of state income taxes. The state property tax was repealed in 1996, but a statewide apparatus involving the Arizona Department of Revenue and assessors' offices in the 15 counties remains in place to assess properties and collect annual property taxes on all taxable properties in the state. A statewide property tax could be added to existing tax bills based on the current assessment and billing structure to take advantage of the property tax system already in place. Potential advantages of using a property tax would include the fact that the overall sales tax burden when local sales taxes are included is already relatively high in Arizona compared with other states; reliance on a different and stable tax base would broaden the state tax base and make it less volatile. Arizona's current property tax system is regressive according to ITEP, but less so than its sales taxes. While Arizona's residential property taxes are relatively low, the current system imposes higher taxes on business properties, and current levels of business property taxes are already considered a disincentive for business to relocate or expand operations in the state.

If elimination of state income taxes was not done on a revenue-neutral basis, it could necessitate shrinking the state general fund budget by 40+ percent, depending on whether or not some partial revenue offsets were put in place. General fund appropriations per \$1,000 of personal income in FY 2016 already were more than 30 percent lower than the average over FYs 1979 through 1992.

If a phased approach were used, the magnitude of cuts necessary would be reduced. Projected figures from the budget simulation discussed earlier (see Table 18) suggest that a phased process based on a seven-year schedule and without any revenue offsets would necessitate a less than two percent spending cut in the first year but would ultimately lead to a general fund budget that would be approximately 25 percent smaller at the end of the seven-year period than it would have been if the state continued to levy income taxes. This 25 percent decrease is based on extremely optimistic revenue projections.

If the elimination of state income taxes were not revenue neutral, it also would likely be accompanied by cuts in services provided by local government and/or increases in local taxes to make up for reduced state funding of elementary and secondary education and other local government services. This has been the experience in other states that have cut income taxes and in turn have seen cutbacks in state funding of local government programs as state revenues have been reduced by the income tax cuts. For Arizona's municipal governments in particular, the elimination of state income taxes would end the source of funding for the urban revenue sharing program that historically has provided a major source of funds to city governments (\$609 million in FY 2015).

Shifting to a Flat Tax

The analysis and recommendations by the Legislature's Joint Task Force on Income Tax Reform focused on shifting the state's individual income tax to a single-rate or flat tax system. As with elimination of the income tax, any move by Arizona to shift to a flat income tax would involve several possible options:

- Whether to adopt a pure flat tax or a modified flat tax system with a single tax rate but still allowing some deductions, exemptions, and/or credits.
- Whether the change would occur in one step or be a phased process.
- Whether the shift to the new income tax structure would be revenue-neutral.
- Whether any loss in income tax revenue would be offset and what alternative sources of revenue would be used.

A pure flat tax structure would make all Arizona taxpayers subject to the same single tax rate on all income. Most so-called flat income tax systems are in fact what should be termed a “single-rate” tax system in which all taxpayers pay the same single tax rate but also includes certain deductions, exemptions, and/or credits that modify the calculation of taxable income and tax liability.

The major theoretical advantages of a flat income tax system versus a progressive income tax system (particularly one that includes large numbers of deductions, exemptions, and credits) include simplicity, efficiency, greater horizontal equity, and less drag on productive economic activity. A pure flat tax system would maximize the potential gains with respect to each of these issues. Elimination of all the complications associated with deductions, exemptions, and credits would make the calculation of tax liability very easy and greatly reduce the resources now spent on unproductive activities related to the income tax. At the same time, the broader tax base would allow for a lower tax rate that would reduce disincentives to work, save, and invest — potentially stimulating the state’s economic growth.

Practically, the major disadvantage of a pure flat tax system is a shift in the tax burden. In a revenue-neutral situation, a minority of taxpayers with high incomes would pay less in taxes while the majority of taxpayers with lower incomes would experience a tax increase. To mitigate this tax shift, most states that use a single rate allow some deductions, exemptions, and/or credits. Some degree of progressivity can remain under such a system. However, a shift to a single-rate income tax structure that would retain some of the current deductions, exemptions, and/or credits would reduce some of its potential advantages. In particular, the more of them that were retained would require a higher tax rate than a pure flat tax system and limit the economic gains from simplicity, reducing the economic benefits from tax reform.

The final report of the 2013 Joint Task Force on Income Tax Reform included the results of several simulations for possible alternate flat income tax systems for Arizona for TY 2014. The first alternative was the closest to a pure flat tax structure. It eliminated all deductions, exemptions, and credits but kept federally required adjustments. Simulating a virtually revenue-neutral shift resulted in a flat tax rate of 2.13 percent and an increase in tax liability for taxpayers with incomes less than \$100,000 and a reduction for taxpayers with incomes of \$100,000 or more. As a less radical option, the report also included a single-rate tax structure that provides personal and dependent exemptions based on the federal poverty level, retained only the mortgage interest, medical, and charitable deductions, and kept the Social Security and federally required adjustments. Again simulating a nearly revenue-neutral reform resulted in a single tax rate of 4.13 percent and a reduction in liability for all taxpayers except those with negative income and those with incomes between \$100,000 and \$1 million.

Another policy decision associated with a move to a single-rate system would be how to move from the current structure to a single rate. The Joint Task Force on Income Tax Reform recommended the state begin to move toward a single-rate tax structure by first reducing the number of tax brackets from the current five to three – implying the adoption of a phased approach to the shift. The recommendation was not adopted, and the five-bracket structure remains in place. Two states have recently shifted from a progressive to a single-rate structure. Utah transitioned to their new structure over a three-year period, with modifications to the tax brackets and a slight reduction in rates the first year, offering an option of the progressive tax or a single rate in the second year, and a full move to a single rate in the third year. North Carolina made the full shift to a single rate in one year.

If the move to a single-rate tax structure for the Arizona individual income tax were not done on a revenue-neutral basis, the state would either have to raise additional revenue from an alternative source or reduce spending levels. The discussion relating to the policy options associated with alternative revenue sources and/or spending cuts if the income tax were eliminated also apply in this case.

The Joint Task Force on Income Tax Reform final report also included illustrative simulations of single-rate tax systems that would not be revenue neutral. Both retained the same collection of exemptions and deductions allowed in the Task Force's second simulation described above. The first was designed to produce an overall cut in individual income tax collections of approximately \$100 million (2.7 percent). This simulation resulted in a tax rate of 4.02 percent and a reduction in liability for all taxpayers except those with negative income and those with incomes between \$100,000 and \$500,000. The second option was designed to produce an overall cut in individual income tax collections of approximately \$250 million (6.6 percent). This simulation resulted in a tax rate of 3.86 percent and a reduction in liability for all taxpayers except those with negative income and those with incomes between \$100,000 and \$200,000.

Summary and Observations Regarding Policy Options

With the stated objective of stimulating their states' economies, a number of states, including Arizona, have had serious discussions about cutting individual and/or corporate income taxes as part of a long-term strategy to eliminate state income taxes. Some states have already taken first steps by instituting income tax cuts. In most cases, the focus has been on individual income taxes, which affects many more taxpayers.

First, it may be worthwhile to consider the current competitive situation of Arizona versus the other 49 states with respect to its tax climate. Nine states do not levy a broad-based individual income tax, but among the states that do so, the burden of Arizona's individual income tax, measured in either per capita terms or per \$1,000 of personal income is either the lowest or near the lowest of the 41 states. The relative burden of Arizona's individual income tax has historically been substantially below average and has been falling over time. In recent years it has been only about one-half of the national average.

Forty-four states levy a corporate income tax, and among the six states that do not, four have some form of business gross receipts tax. Among the 44 states that have a corporate income tax,

the tax burden in Arizona was 33rd among the 44 states based on FY 2013 figures. Since then, the corporate tax rate has been reduced significantly.

Arizona qualifies as a low-tax state in terms of its overall tax burden. The state ranked 49th lowest in FY 2013 measured in terms of total state and local own-source general revenues per capita, and 48th lowest if only state government own-source general revenue is included. Arizona does not do as well in terms of the tax burden of businesses. In terms of business taxes, Arizona ranked tied for 18th highest as a percentage of private-sector GDP in FY 2014.

While unincorporated businesses pay individual income taxes, detailed data in the Ernst & Young business tax study indicate that the biggest share of the business tax burden in Arizona comes from sales taxes and property taxes, not from corporate or individual income taxes. Further, Arizona's business tax burden is above average on these two taxes, while the income tax burden is far below average. These data imply that Arizona might want to look at those two taxes if it wants to improve its business tax climate.

While the group of nine states that do not levy a broad-based individual income tax have grown more rapidly than the other states, this largely results from the disproportionate share of these states being located in the South and West, with Texas largely responsible for the faster growth of the group. Arizona and other states that levy individual income taxes have grown faster than most of the no-income-tax states. Obviously, many other factors besides income taxes influence the rate of growth. Moreover, the no-income-tax states have not experienced superior performance on the economic measures of prosperity.

Before proceeding further, any idea that eliminating or lowering state income taxes will pay for itself should be forgotten. As demonstrated by the results of the simulation presented earlier and by the real-world example of what happened in Kansas, such policies will come nowhere close to paying for themselves. So the key issue in lowering or eliminating state income taxes is whether such changes are undertaken as revenue-neutral tax reform or as a strategy to lower taxes and reduce the size of state government.

Arizona's state income taxes are very important sources of revenue to the Arizona state government, with the individual income tax alone contributing about 40 percent of general fund revenue and in combination with the corporate income tax providing nearly one half of the total. So, eliminating both income taxes or the individual income tax alone or even lowering tax rates will necessitate equally major increases in other revenue sources or major cuts to the state budget.

If a move to lower income tax rates or to eliminate income taxes is to be undertaken as a revenue-neutral reform, ways to replace the lost income tax revenues would have to be found. In the case of lowering income tax rates, a move toward a pure flat tax by reducing or eliminating many of the numerous deductions, exemptions, and credits would be one credible option. It would reduce the distortions, inefficiencies, and complexity of the current system while generating offsetting revenue. However, it is not possible to design a revenue-neutral flat tax that will not cause some taxpayers to pay higher taxes. In addition, it might be difficult politically to

create such a tax due to the probable lobbying by special interest groups to preserve their “pet” deductions and credits.

The most likely source of additional revenue to offset revenue lost due to reducing income tax rates or abolishing the income tax would be to increase the state’s consumption taxes — primarily the general sales tax but potentially also certain selective sales taxes. This would make the state’s revenue system (1) dependent on sales tax collections for about 90 percent of the general fund revenue; (2) more regressive; and (3) somewhat less volatile but less able to keep pace with the state’s growth. A better option to replace some of the lost revenue would be to reinstitute the state’s property tax; an extremely high tax rate would be required to offset all of the lost revenue.

Lowering or eliminating Arizona’s income taxes without replacing them with other revenue sources would mean shrinking the state budget relative to the size of the Arizona economy. To eliminate Arizona’s individual income tax immediately, the general fund budget would have to be cut by around 40 percent — politically an improbably large cut in one year, particularly since much of the reduction in expenditures would have to be borne by education. Elementary and secondary education accounted for 43 percent of general fund appropriations in FY 2016; adding in higher education, the share exceeds 50 percent. Any further cuts to education and to other state programs would be on top of the 30+ percent overall reduction that already has occurred since the early 1990s.

Historically, the Legislature has pursued a policy of cutting taxes in good economic times when revenues were plentiful and then cutting expenditures during bad times to close the budget deficit. Spending reductions during a recession intensifies the recession and affects those losing (or experiencing a reduction in) state services at a time when they can least overcome the loss. If this pattern of tax reductions during periods of strong economic growth is continued and particularly applied to income tax cuts, with a long-term objective of eliminating the state income taxes, the relative size of the state budget would shrink more gradually over time than if the income taxes were abolished in either one year or over a several-year phase in. Still, over the long term, the scope of the operations and services provided by Arizona state government would be substantially smaller than today. Again, to accomplish this would necessitate reductions in funding for elementary and secondary education, which already is near the bottom of the states on a per pupil basis.

Although proponents argue that revenue-neutral tax reform, lowering and ultimately eliminating Arizona state income taxes, would produce big benefits for the state’s economy, there is no clear evidence that such a change to the state’s fiscal structure would significantly spur economic growth. Based on Arizona’s past experience, income tax reform based on tax cuts and spending reductions would be the more likely approach, but there is also no compelling empirical evidence that the combination of income tax cuts teamed with equivalent cuts in state government spending would have significant positive impacts on economic growth. As seen in the Grand Canyon Institute analysis, no perceptible increase in economic growth can be measured in Arizona despite \$4 billion in tax reductions since the early 1990s. An economic analysis by Slivinski, an advocate of elimination, did not suggest that even a nonrevenue-neutral phase-out of the state’s income taxes would produce any economic miracles. His results indicated that only

about 20,000 jobs (on an employment base of more than 2 million) would be added after five years.

Governments collect taxes to fund their operations and to pay for the public services they provide. The shrinkage of the state budget that would be necessitated by nonrevenue-neutral income tax reform that steadily lowered and ultimately eliminated state income taxes would result in major cuts to state spending on education, infrastructure and other programs and services that are significant components of economic competitiveness.

Further, based on the fiscal structures of the states without a broad-based individual income tax and the experience in other states that have recently cut income taxes, it is likely that moves to reduce Arizona state income taxes would shift more responsibility for providing and funding public services to Arizona's local governments, with the result that taxpayers would see increases in local taxes at least partially offsetting cuts in state income taxes.

Once again, this issue of income tax reform is another aspect of the ongoing conflict between two opposing ideological views that continue to compete to be the guiding principles of Arizona public policy. These two very different views can be summarized as:

- The key to economic success is to provide more economic freedom and put more money in people's pockets by lowering taxes, minimizing economic regulation, and reducing the size of government.
- The state needs to move to a more sustainable growth path, transition away from a growth-driven economy to a knowledge-based economy in which science- and technology-based jobs will be the key drivers, and to invest in education, infrastructure, and other areas that will make the transition possible and improve the quality of life.

Governments levy taxes to fund their operations and to pay for the services they provide. Arizonans need to weigh the potential gains to them and their fellow residents from lower or no income taxes versus their potential losses from the cuts to education, infrastructure, and other public programs that they value.