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A PRIMER ON STATE AND LOCAL TAX POLICY Trade-Offs among Tax Instruments

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ABSTRACT

THIS PRIMER PROVIDES an overview of the different types of general revenue taxes used in American state and local governments. The intended audience includes policymakers, their advisors, and other citizens interested in the trade-offs involved in setting tax policy. The primer begins with a short discussion of criteria for evaluating tax revenue options (i.e., economic efficiency, equity, transparency, collectability, and revenue production). It proceeds to an overview of the different types of taxes employed at various levels of government and an evaluation of each tax against these criteria. The tax categories included here are individual income taxes, consumption taxes, real property taxes, and corporate income taxes.

JEL codes: H2, H7

Keywords: state and local public finance, tax assignment, tax administration, tax instruments

I. CRITERIA FOR EVALUATING TAX POLICIES FOR STATE AND LOCAL GOVERNMENTS

THIS PRIMER PROVIDES a survey of trade-offs among the types of taxes that are commonly used by state and local governments around the United States. Taxing powers are employed to shift the control of resources between groups of people in order to achieve a particular goal. The specific goals of taxation are a subject of great debate among a wide range of ideologies and normative theories, but there is a set of criteria for tax policy evaluation that is generally accepted by economists:¹

1. Economic efficiency
2. Equity
3. Transparency
4. Collectability
5. Revenue production

Using this framework, policymakers can consider a particular tax's trade-offs among the criteria in isolation or against an alternative tax with a different set of trade-offs. Before proceeding to the analysis of individual tax instruments, it is worthwhile to review the meaning of key taxation terms.

Tax Policy Criterion 1: Economic Efficiency

Economic efficiency can be a loaded term in economics generally, but its use in tax policy analysis starts from the premise that households and firms choose their purchases in a manner that is intended to optimize their well-being. A tax that causes

1. The nomenclature of the five criteria differs slightly across textbooks in public finance, but conceptually they are consistent. For a discussion of the criteria, see chapter 17 in Joseph E. Stiglitz, *Economics of the Public Sector*, 3rd ed. (New York: W. W. Norton, 2000). This paper borrows the terms from chapter 7 of the popular fiscal administration textbook, *Fiscal Administration: Analysis and Applications for the Public Sector*, 8th ed., by John L. Mikesell (Wadsworth Cengage Learning, 2011).

KEY TERMS IN TAX POLICY

Tax base or tax coverage: The taxable value of items, services, or assets within a jurisdiction that may be subject to taxation.

Tax incidence: The distribution of the burden of the tax across groups. Statutory tax incidence refers to the legal burden for paying the tax to the government. Economic tax incidence refers to the effect of a tax on groups after market prices have been adjusted to reflect the introduction of the tax. For instance, putting a tax on rental properties may cause landlords to pass on some of the burden to renters by raising rents.

Tax rate: The amount of a tax per unit of a good or service, or as a percentage of the dollar amount of the tax base.

- **Average tax rate:** The ratio of the total taxes paid to the amount of the tax base.
- **Marginal tax rate:** The tax rate that applies to a given unit of currency in the tax base. Alternatively, it is the rate at which the tax obligation changes as the tax base changes.

Tax liability: The total amount of tax that an entity is legally obligated to pay the government after applying the tax rate to the entity's tax base.

Tax brackets: The ranges in dollar amounts of a tax base to which specific tax rules, such as the tax rate, apply.

Tax structure: The combination of defined tax rules, tax base, tax rates, and tax brackets. Often used in reference to the entire collection of taxes employed by a government, but sometimes used to describe a single type of tax.

them to make different choices from those they would prefer must reduce their well-being. The most economically efficient taxes are ones that least distort the choices made by households and firms. A tax can potentially affect choices in pricing, timing, location, product quality, etc. The most important factors affecting economic efficiency include the coverage of the tax (i.e., determining what is taxable) and the tendency of the market actors to change their behavior in response to the tax.

The tendency of market actors to respond to a tax is the “elasticity” of their response. The most famous example of such elasticity is the price elasticity of demand, which indicates the change in consumption arising from a change in price. Taxing products for which the demand varies little in response to price changes (i.e., is relatively inelastic) is generally more efficient than taxing products for which demand is relatively elastic, meaning that fewer buyers will stop buying the taxed item even when the price rises. Taxing an addictive product such as cigarettes, for instance, would likely induce less of a response in consumption habits than taxing a cola beverage and therefore would result in lower efficiency losses. Equally important is the price elasticity of supply, or the degree to which suppliers change their production in response to a tax. Taxing dental services, for example, might induce less of a price response than taxing cigarette sales because it is generally easier for retailers to put

alternative inventory on their shelves than it is for dentists to change occupations. Factors that render it easier for producers and consumers to change their behavior determine their elasticity. For consumers, such factors would be the necessity of the good, the availability of substitutes, and the percentage of their income that the product's price represents. Suppliers' behavior is more dependent on the nature of competition and the difficulty of production in their particular industry.

The coverage of the tax is perhaps the most significant policy aspect of designing a tax. In very simple terms, a city sales tax on Pepsi may distort consumers' choices about where they buy their Pepsi, their proclivity to choose Coca-Cola instead of

Pepsi, and the quantity purchased. If the same city decides to extend the tax to include Coca-Cola, then efficiency is improved by reducing the distortion of consumer choice between Pepsi and Coke and by allowing a comparable amount of revenue to be raised with lower tax rates.

Tax Policy Criterion 2: Equity

Economists typically think about tax equity in two dimensions: horizontal and vertical. A tax is said to lack horizontal equity when two or more taxpayers are equivalent but confronted with different tax obligations. For example, if two taxpayers purchased the same amount of goods and services and paid exactly the same amount in sales tax, the sales tax would be in perfect horizontal equity. Horizontal inequities usually arise from problematic structures of the tax or in difficulties of tax administration. For example, differences in which types of goods and services are taxable could result in two households with equal consumption paying differing amounts of sales taxes, hence producing horizontal inequity.

Vertical equity refers to whether the amount of the tax changes with the ability of the taxpayer to pay the tax. If the tax bill faced by the taxpayer rises as the ability to pay increases, then it is described as a progressive tax, whereas a regressive tax is one where the total tax burden (often measured as the amount of tax as a percentage of income) rises as ability to pay declines. If a high-income tax earner must pay an income tax that, in percentage terms, is higher than that of an otherwise similar taxpayer with lower income, then the tax system is progressive.

Although the equity of the tax system is directly concerned with the question of who is burdened by the tax, it is important to note that the burden of the tax is often identified in terms of both statutory incidence and economic incidence. Although the government has the ability to legally define who is to collect and remit the tax payment to the government, the economic incidence of the tax describes who actually bears the burden of the tax after market prices have adjusted to the tax. If a tax of \$1 per gallon were levied on gasoline and, as a result, producers found they could charge \$0.90 more per gallon, then 90 percent of the economic incidence of the tax would fall on the consumer even though the statutory incidence was directed at the gas retailer.

Tax Policy Criterion 3: Transparency

The concept of tax transparency is a broad one that ultimately rests on the symmetry of information between tax authorities and taxpayers.² Tax authorities may have a different level of comprehension of the tax rules, for reasons ranging from

2. W. Bartley Hildreth, "Tax Transparency," in *The Encyclopedia of Taxation & Tax Policy*, ed. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, 2nd ed. (Washington, DC: Urban Institute Press, 2005): 429–30.

the complexity of the design of the tax to the consistency in which the tax rules are applied by the government. For transparency purposes, a tax should be clear in defining how it is calculated and in estimating the amount of revenue it should produce. This should be true in advance of the tax liability, so that taxpayers can predict the tax implications of any choice they make. A transparent tax design should be clear to third-party observers as well so that the tax policy can retain democratic principles. In order to reduce opportunities for public corruption, tax burdens should not be based on negotiation between a tax administrator and a taxpayer in the way a marketplace transaction might occur.³ Transparency might result in direct conflicts with other criteria, such as economic efficiency, but holding other factors constant, transparency in taxation promotes good and fair government.

Tax Policy Criterion 4: Collectability

Tax administration requires resources to collect and enforce a tax. This is not limited to revenue departments and publicly employed tax collectors; it includes private-sector actors who are required to act as proxy collectors for the government. These private-sector actors include merchants collecting sales taxes from customers, employers withholding payroll taxes from employees, and households preparing their annual income tax returns. The private sector is critical in American tax policy because most tax policies rely considerably upon voluntary compliance. In particular, some taxes are “taxpayer active,” meaning that the collection responsibility and the supply of relevant information for computing the tax base and tax rate fall on the taxpayers themselves. The sales tax, for example, is taxpayer active in that it requires the seller to determine whether a sale is taxable and the rate at which it should be taxed. Other taxes are “taxpayer passive” because they are entirely the responsibility of government agencies. In the United States, property taxes on real estate are taxpayer passive, as the government on a semi-regular basis perform an assessment of properties to determine their taxable value and the resulting tax bill.

Highly collectible taxes may run afoul of equity or economic efficiency considerations, but within these constraints, lower collection costs are preferred. The more complex the tax, perhaps as a means to satisfy some equity objective, the greater the collection costs are likely to be.

Tax Policy Criterion 5: Revenue Production

Raising revenue incurs significant costs, and as raising revenue is the primary purpose of most taxes, it is worth considering whether the revenue potential offered by a tax justifies its undertaking. Of course, raising revenue is not the only consideration.

3. International Monetary Fund, *Manual on Fiscal Transparency* (Washington, DC: International Monetary Fund, 2001).

Taxes may have other purposes, perhaps to modify behavior or serve as a symbolic ideological commitment (e.g., special taxes on violent video games, fatty foods, cigarettes, etc.). Nevertheless, examining the revenue potential of a tax will require an examination of (1) the socially acceptable tax rate, (2) the size of the taxable base, and (3) the responsiveness of the tax base to the amount of the rate. These are all important considerations for state and local governments making fiscally sustainable, multi-year spending commitments.

The most famous relationship between rates and revenue is the Laffer Curve, popularly attributed to Arthur Laffer.⁴ The Laffer Curve applies the elasticity of government revenue to the rate of taxation. Revenue will increase at tax rates for which the tax base is inelastic, but decrease where it is elastic because more people will stop engaging in the activity that is being taxed. Raising rates beyond their revenue-maximizing point is counterproductive to the purpose of most taxes because higher tax rates may raise less revenue.

Disclaimers and Scope of Analysis

This study targets the tax instruments that are most important to state and local revenues. For local government revenues, the property tax is the most important, all other taxes being relatively minor contributors. States, in contrast, generally depend on consumption taxes and income taxes on both individuals and corporations but very little on property taxation. The figures and table in Appendix A show the distribution of state tax collections by tax type. It is worth noting that this analysis only considers the revenue-raising aspect of taxation and ignores how the revenue from the tax is spent. In any analysis of a specific public policy, the expenditure aspect would undoubtedly be an important component. For instance, if the revenue from a regressive tax is spent progressively, the tax may be neutral with respect to overall equity effects. Similarly, to the extent that raised revenue is spent in a manner that is consistent with the preferences of the taxpayers, there might be very little efficiency cost to the policy. Since these details would vary from policy to policy and need not be tied directly to the tax instrument, such considerations are better left to a separate analysis of expenditure programs.

This study also does not discuss user charges and fees. According to the 2011 Census of Government State and Local Finances, about 22 percent of the revenues that states raised themselves were derived from charges.⁵ These charges most closely resemble direct exchanges between the government as a producer of a

4. Arthur Laffer, "The Laffer Curve: Past, Present, and Future" (Backgrounder No. 1765, Heritage Foundation, Washington, DC, June 1, 2004), <http://www.heritage.org/research/reports/2004/06/the-laffer-curve-past-present-and-future>.

5. Charges as a percentage of general revenue from own sources reported in Jeffrey L. Barnett and Phillip M. Vidal, "State and Local Government Finances Summary: 2011," US Census Bureau Governments Division Briefs G11-ALFIN (July 2013).

service and a consumer demanding the service. Tuition for higher education, park entry fees, public golf course memberships, and a plethora of other business-type activities are examples of user charges and fees. Although important for funding public services, their analysis is more appropriately tied to the specific projects with which they are associated.

Finally, various empirical studies are referenced throughout the primer, but it should be understood that rarely are there any definitive conclusions. Even to the extent that empirical literature has generally arrived at similar conclusions and achieved what may be called a consensus, the difficulty inherent in tax systems means that every effort has significant limitations. This primer attempts to accurately summarize the best state of knowledge, while acknowledging that much uncertainty continues to exist.

II. INDIVIDUAL INCOME TAXES

STATE TAXATION OF individual income is an important revenue source, with 41 states levying such a tax in the 2013 tax year.⁶ The table in Appendix B summarizes some key structural characteristics of individual income taxes across states for 2013. Many states also allow some type of income tax levy by their local governments or special districts.⁷ In Ohio, for instance, both school districts and municipalities are permitted, with voter approval, to set their own income tax rates. See map 1 in Appendix C for a visual display of the average per capita income tax collection in each state. The variation over how income taxes are administered is considerable, and much of the discussion here will revolve around various trade-offs in policy choice over structure. Before diving into the trade-offs on the previously outlined criteria, important structural issues need to be outlined.

Most states tie their own income tax to that of the federal government by using common definitions of transactions that produce income; some states start with federal adjusted gross income before defining their own taxable base of income. Local governments tend to base the tax liability on state taxable income or some other very simple measure of income.⁸ Most tax policy experts consider the Haig-Simons

6. An additional two states, Tennessee and New Hampshire, tax income on dividends and interest income only. See “State Individual Income Taxes,” Federation of Tax Administrators, February 2014, http://www.taxadmin.org/fta/rate/ind_inc.pdf.

7. The discussion here is limited to taxes based on income, not employment. Some local governments require employer withholdings of a fixed amount for each employee per week, regardless of the employee’s total compensation.

8. More rarely, local governments can levy an income surtax, which is a tax rate applied to the state income tax bill, causing the tax to mimic the progressivity of the state’s tax code. The most significant example of local income surtaxes is found among school districts in Iowa. At the state level, North Carolina levied such a tax on certain high-income groups in tax years 2009 and 2010. See “Income Tax Surtax,” North Carolina Department of Revenue, accessed July 14, 2013, <http://www.dornrc.com/taxes/individual/surtax.html>.

concept of income (HSI) to be the gold standard by which income definitions should be judged.⁹ The HSI essentially tries to capture the annual change in the consumption power of taxpayers, which can be measured as their acquisition of consumer goods and services plus the change in the net worth of their assets. The appeal of this approach is that, in theory, strictly adhering to the HSI represents a full accounting of the taxpayer's ability to pay, and is widely accepted as the most accurate basis for judging the horizontal and vertical equity of a proposed structure of income taxation.

The more controversial aspect of defining income is usually over the inclusion of earned or unearned income sources. Earned income typically includes wages, salaries, tips, and other forms of compensation from employers. Sources of unearned income include transfer payments such as welfare, social security, gifts, insurance payments, dividends, interest, and rent.¹⁰

Taxpayers whose employment requires them to perform work in multiple states have additional responsibilities to remain fully compliant with state taxes, particularly with respect to determining the share of their income that is attributable to each state. This can be challenging for states as well, for taxpayers with homes in multiple states can choose their primary residency for tax purposes, with the burden of proving otherwise left to the states.¹¹ Local governments are more likely to limit the eligible set of taxpayers to those who are employed and/or residing within their borders. Employed nonresidents might only be subject to the income tax if the locality of their residence does not also levy an income tax.¹²

Economic Efficiency

The economic inefficiencies generated by the income tax depend on both the structure of the tax and its rate. For a given income tax rate, economic efficiency declines as the definition of taxable income deviates from the HSI criteria and as the number of deductions and itemizations increases. This is the consequence of distorting the choice of how taxpayers should collect their income. The income of a taxpayer

9. Jonathan Gruber, *Public Finance and Public Policy*, 2nd ed. (New York: Worth Publishers, 2007).

10. The definition of earned income can be found at <http://www.irs.gov/Individuals/What-is-Earned-Income%3F>. A commonly referenced list of unearned income sources is found in "What Is 'Unearned Income'?", *Social Security Handbook*, last modified February 24, 2009, http://www.ssa.gov/OP_Home/handbook/handbook.21/handbook-2136.html.

11. Members of certain high-income occupations, most famously professional athletes, have considerably less discretion in identifying their tax residency. See David K. Hoffman and Scott A. Hodge, "Nonresident State and Local Income Taxes in the United States: The Continuing Spread of 'Jock Taxes'" (Special Report No. 130, Tax Foundation, Washington, DC, July 2004), <http://taxfoundation.org/article/non-resident-state-and-local-income-taxes-united-states-continuing-spread-jock-taxes>.

12. This policy is a means by which states have encouraged the local adoption of income taxes. Residents who are already paying income tax to another jurisdiction in which they work may not experience any increase in taxes paid where they live, but the collected taxes will go to the jurisdiction where they live instead of the one where they work.

should generally be taxed at the same rate, regardless of how the income came into the taxpayer's possession. The exception to this principle is income from public assistance programs (e.g., welfare), as it obviously makes little sense for the government to distribute funds from these programs and then take it away via taxation.

The effect of taxing labor income also distorts the choice of how much to work. By reducing the amount of disposable income, the tax on labor can result in households seeking additional work. At the same time, like any other tax designed to discourage an activity, a tax on income reduces the payoff to labor supply and may cause people to work less. Regardless of the net effect on the amount of employment, these distortions are undesirable side effects of raising public revenue through income taxation.

The inefficiency of income taxation also increases with the mobility of both employers and employees. If all state and local governments universally adopted an income tax at the same rate, the efficiency costs would be lower than if income taxes were adopted in isolation because there would be fewer options for taxpayers to change their location in response to the tax increase.

Finally, the use of tax brackets in income taxation is another potential source of efficiency concerns. Many states create differing tax rates across income tax brackets. For example, the first \$10,000 of income may be taxed at a rate of 1 percent, while income between \$10,001 and \$20,000 is taxed at 2 percent. In this example, the dollar amount where the tax brackets separate (\$10,000) is considered a "kink point" in the income tax. Relative to a constant flat tax rate with no brackets, these kink points incentivize taxpayers to modify their behavior in order to avoid reaching the higher tax bracket. This distortion is typically tested in the empirical literature by searching for evidence of abnormal spikes in the number of households reporting incomes just below the kink point in the income threshold for the tax bracket. Researchers typically refer to this as searching for "clustering" or "bunching" around kink points.

Current empirical literature would seem to suggest that clustering behavior around kink points is not especially prevalent, but it does arise in specific cases. Berkeley economist Emmanuel Saez finds evidence of bunching at the cut-off point for the Earned Income Tax Credit among its recipients, particularly among those who are self-employed.¹³ Likewise, working social security recipients subjected to the earnings test have been found to cluster at the kink point.¹⁴ Raj Chetty and his colleagues find substantial bunching at large kink points around the top rate in the Danish income tax schedule.¹⁵ The theme from the empirical literature is that

13. Emmanuel Saez, "Do Taxpayers Bunch at Kink Points?" *American Economic Journal: Economic Policy* 2 (August 2010): 180–212.

14. Leora Friedberg, "The Labor Supply Effects of the Social Security Earnings Test," *Review of Economics and Statistics* 81, no. 4 (2000): 48–63.

15. Raj Chetty et al., "Adjustment Costs, Firm Responses, and Labor Supply Elasticities: Evidence from Danish Tax Records" (National Bureau of Economic Research Working Paper 15617, 2009).

bunching around the kink points is most likely to have significant efficiency costs when the size of the jump from one tax bracket to another increases.

Equity

In structure, the income tax offers substantial flexibility in both vertical and horizontal equity. Adjustments can be made to definitions of income, deductions, exemptions, rates, and the structure of brackets. Vertical equity issues can generally be addressed by modifying the marginal tax rates and the range of tax brackets to which they apply. Most of the states with income taxes have a progressive tax schedule, and even among the states with flat rates, there are personal exemptions that cause average tax rates to rise with income.¹⁶ Most local governments refrain from progressive tax structures, but some (e.g., Iowa school districts) adopt income surtaxes. Income surtaxes apply a tax against another tax levy, in these cases the state income tax. Local surtax rates can appear to be flat, but since they are applied to the taxpayers' state tax bill, they mimic the progressivity of the state's tax structure.

The economic incidence of the income tax, unlike the legal obligation, is the result of the relative bargaining power between employees and their potential employers, and is therefore beyond the direct control of policymakers. Thus the ability of states to engage in progressive taxation that meaningfully reduces income inequality is a topic of much empirical analysis. Recent research, using a variety of alternative methods and data, has found that total incomes paid to households is not affected by the progressivity of a state's income tax structure.¹⁷ In other words, the ability of states to engage in progressive taxation to affect income inequality appears to be nonexistent. High-income households in particular tend to be paid more to compensate for a state's higher tax burden, suggesting that the burden of the tax is shifted back to employers, whereas lower-income groups would be more likely to experience the larger share of the tax burden.¹⁸

Horizontal equity issues tend to arise through various deductions and credits. A cohabitating couple with a single worker will often receive a smaller personal exemption than a married couple with a single worker.¹⁹ Taxpayers who finance

16. "State Individual Income Taxes," Federation of Tax Administrators, January 2013, http://www.taxadmin.org/fta/rate/ind_inc.pdf.

17. For recent estimates and a literature review, see Andrew Leigh, "Do Redistributive State Taxes Reduce Inequality?" *National Tax Journal* 61, no. 1 (2008): 81–104.

18. Direct examples of research on this topic can be found in Martin Feldstein and Marian Valliant Wrobel, "Can State Taxes Redistribute Income?," *Journal of Public Economics* 68, no. 3 (1998): 369–96; and Justin M. Ross and Robert R. Dunn, "Income Tax Responsiveness of the Rich: Evidence from Free Agent MLB All-Stars," *Contemporary Economic Policy* 25, no. 4 (2007): 639–48.

19. Jason J. Fichtner and Jacob Feldman, "Taxing Marriage: Microeconomic Behavioral Responses to the Marriage Penalty and Reforms for the 21st Century" (Mercatus Working Paper No. 12-24, Mercatus Center at George Mason University, Arlington, VA, 2012), <http://mercatus.org/publication/taxing-marriage-microeconomic-behavioral-responses-marriage-penalty-and-reforms-21st>.

their housing with mortgages are likely to find themselves in a better tax position than those who finance their housing from savings.²⁰ The manner in which an employee is compensated (e.g., vacation days, health plans, etc.) also affects tax liability. Inevitably, some of these tensions arise from determining when two households are truly comparable in terms of tax capacity, but for the most part, they apply a different level of taxes to individuals who are essentially in the same position.

Transparency

The federal individual income tax is famous for its complexity, and to some extent, the state and local governments that build from federal code adopt some of this complexity. Surveys of tax professionals asked to compute tax liabilities for the same hypothetical families have reliably produced unique estimates each time.²¹ The IRS has received criticism for incorrectly answering tax law questions as often as 29 percent of the time.²² State and local governments are far less likely to receive attention comparable to that paid to the IRS, but that does not mean that their taxes are any less complex. For example, in 2013 the Minnesota Department of Revenue kept a list of known tax preparation software problems, with each software having its own set of problems.²³ Such errors arise partly from itemizations, deductions, exemptions, and credits, which differ tremendously across the states and the federal government. Taxpayers who are nonresidents, part-year residents, or work in states with reciprocal agreements face additional complexity issues.

Collectability

The three types of enforcement problems related to collecting income taxes are nonfiling, underreporting, and underpaying. Nonfilers are taxpayers who should file but may remain unknown to the tax system. Underreporters are known, but

20. It is unclear whether paying off the house represents a better tax position than taking a deduction, since paying off the house results in less taxable income from interest payments. For an extended discussion of taxation and housing, see Jeremy Horpedahl and Harrison Searles, “The Home Mortgage Interest Deduction” (Mercatus on Policy, Mercatus Center at George Mason University, Arlington, VA, January 8, 2013), <http://mercatus.org/publication/home-mortgage-interest-deduction>.

21. The most famous are a 2007 survey by *USA Today* and a 1996 survey from *Money Magazine*. Teresa Tritch, “Why Your Tax Return Could Cost You a Bundle: We Asked 45 Tax Preparers to Fill Out One Hypothetical Family’s Tax Return—and We Got 45 Different Answers. Here’s What You Can Learn from the Pros’ Many Mistakes,” *CNNMoney*, March 1, 1997, http://money.cnn.com/magazines/moneymag/moneymag_archive/1997/03/01/222962/. Sandra Block, “A Taxing Challenge: Even Experts Can’t Agree When Preparing a Sample Tax Return,” *USA Today*, March 26, 2007, http://usatoday30.usatoday.com/money/perfi/taxes/2007-03-25-tax-preparers-hypothetical_n.htm.

22. Treasury Inspector General for Tax Administration, “Management Advisory Report: Taxpayers Continue to Receive Incorrect Answers to Some Tax Law Questions,” 2002-40-086 (April 2002).

23. “Minnesota Department of Revenue Provides Update and Details on Issues with Intuit Products in Minnesota,” Communications Division, Minnesota Department of Revenue (March 11, 2013).

either their incomes are difficult to observe or enforcement significantly relies on voluntary self-reporting. Underpayers are those for whom there is a known tax bill that has not yet been paid. At the federal level in tax year 2006, the IRS estimated that compliance was 85.5 percent of the true tax liability.²⁴ There is little doubt among experts that this high level of compliance is partly driven by employer withholdings and that enforcement among the self-employed has much lower levels of compliance.²⁵

By and large, state and local governments are able to free ride on federal enforcement efforts because data from audits are shared. For common data, such as federal adjusted gross income or certain deductions, differences between state and federal forms represent automatic red flags for further targeting. The empirical literature also seems to indicate that increases in tax rates have very modest effects on taxable income.²⁶ As such, the income tax can be considered a highly collectible tax in that it does not add considerably to the difficulties of enforcement. The biggest challenges to state and local governments lie with inaccurate reporting from the self-employed and with wealthy taxpayers who have multiple residences—challenging residency claims is likely to be difficult. Collection costs also rise if localities decide to administer and enforce the tax separately from the state.

Revenue Production

The ability of the income tax to produce revenue as the tax rate increases is limited by the collectability challenges (nonfiling, underreporting, and nonpaying), as well as efficiency distortions (the responsiveness of workers and employers to the tax). Collectively, the measure of how taxpayers respond to a change in the income tax rate is known in the empirical literature as the “elasticity of taxable income” (ETI). An ETI of zero would imply that the amount of revenue increase from an increase in the income tax rate would be proportional to the income tax base, while an ETI greater than one would be revenue-reducing. Generally, the literature consistently finds the ETI to be less than one.²⁷ Although it is typically not a policy goal to set rates that maximize revenue, the ETI provides important

24. Internal Revenue Service, “IRS Releases New Tax Gap Estimates; Compliance Rates Remain Statistically Unchanged from Previous Study,” IR-2012-4, January 6, 2012, <http://www.irs.gov/uac/IRS-Releases-New-Tax-Gap-Estimates;-Compliance-Rates-Remain-Statistically-Unchanged-From-Previous-Study>.

25. For a review of the literature on the measurement of evasion and evidence of its magnitude, see James Alm, “Tax Evasion,” in *The Encyclopedia of Taxation & Tax Policy*, ed. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, 2nd ed. (Urban Institute Press, 2005), 401–4.

26. For a recent review of literature, see Philipp Dorrenberg and Denvil Duncan, “Experimental Evidence on the Relationship between Tax Evasion Opportunities and Labor Supply” (IZA Discussion Paper No. 6914, 2012), <ftp.iza.org/dp6914.pdf>.

27. Jon Gruber and Emmanuel Saez, “The Elasticity of Taxable Income: Evidence and Implications,” *Journal of Public Economics* 84, no. 1 (2002): 1–32.

information regarding the revenue consequences for changes in the tax rates. Of course, this aggregate result for the ETI hides variations among taxpayers, which is important when considering changes in tax rates targeted at narrower groups. The ETI is largest among high-income individuals and the self-employed, so the larger these groups are among the taxpayers of a state, the less revenue potential exists when considering higher tax rates.

At any level of government, the mobility of taxpayers serves as a constraint on the revenue productivity of the income tax rate. States are therefore more constrained than the federal government in the ability to produce revenue, and local governments are even more constrained than states. It should also be understood that, as with other taxes, local government revenue from income taxes only produces net revenue to the state insofar as the income taxes are not used to offset the property tax, as is commonly required by law in many states.²⁸

III. CONSUMPTION TAXES

CONSUMPTION TAXES ARE levied against spending on goods and services.²⁹ Consumption taxes represent an appealing alternative for those who are wary of tax systems that punish savings, investment, and earnings. In state and local governments, the general consumption tax is often one of three types: value-added tax (VAT), retail sales tax (RST), or gross receipts tax (GRT). The VAT and RST both apply, at least in their ideal structure if not actual practice, only to purchases made by households. The difference between the VAT and the RST is that the RST is collected at a single stage whereas the VAT has a multistage collection process. In following a product through various stages of production to the final purchase by a household, the RST only applies on the full value of the final transaction with the household, whereas the VAT applies to every stage that involves a transaction on the value-added amount (the exchange price less the acquisition cost). When summing across all stages of production, the VAT is arithmetically equivalent to the RST in revenue and economic effects. Gross receipts taxes include business-to-business transactions along with purchases of household final goods, a practice that encourages firms to consolidate or produce a good or service in-house rather than purchasing it from outside the organization. The distinction between the VAT and the RST lies in the administrative approach, whereas the GRT differs in the

28. Formally, local governments determine spending, then use the property tax to make up any difference between the spending commitment and revenues from other sources. For a discussion of this rule, see Justin M. Ross and Wenli Yan, "Fiscal Illusion from Property Reassessment? An Empirical Test of the Residual View," *National Tax Journal* 66, no. 1 (2013): 7–32. For a review of state laws on the use of local income taxes for property tax relief, see Justin M. Ross and Phuong H. Nguyen, "School District Income Taxes: New Revenue or a Property Tax Substitute?," *Public Budgeting & Finance* 33, no. 2 (2013): 19–40.

29. This section is largely limited to considering general consumption taxes, as opposed to special or selective taxes.

additional types of transactions to which it applies. For purchases made by in-state residents from out-of-state vendors, the consumption tax is designated as a “use tax.” See map 2 in Appendix C for a visual display of the average per capita sales tax collection in each state.

Among the states, New Hampshire is the only state to currently levy a VAT (although it is called a “business enterprise tax”).³⁰ The VAT has been discussed at various times by tax study commissions in West Virginia, the District of Columbia, Minnesota, and Texas.³¹ In 2013, all states except four (Delaware, Montana, New Hampshire, and Oregon) had an RST or a GRT at either the state or local level.³² In practice, no state can be said to have implemented either a perfect RST or a perfect GRT.

Economic Efficiency

Economic efficiency in consumption taxes is related once again to mobility and the definition of the taxable base. One potential distortion is that a consumption tax by one state or local government distorts the choice of where consumers buy their goods by encouraging cross-border shopping. In theory, the incentive to cross borders for shopping can be offset by the application of a use tax, in which the state tax rate is applied to any out-of-state purchases. However, the reality is that the difficulty in enforcing the use tax means it is unlikely to deter tax shopping across borders.

When defining the appropriate base, economists stress the importance of taxing only the final consumption of goods and services, while excluding business consumption of inputs. The intuition for excluding business inputs can be understood by studying the GRT, which is the worst offender for this type of distortion. With the GRT, as the good is being produced through a supply chain of resources being passed from one business to the next, the revenues from these business-to-business exchanges are subject to the GRT. In each of these business-to-business sales, the tax paid gets added into the price for the next stage of production before finally being taxed again at the consumer level.³³ As a result, the GRT creates an incentive to distort the decisions on how to produce and sell the good at every

30. Until recently, Michigan also levied the VAT-style Single Business Tax. An excellent summary of this tax is found at <http://www.michigan.gov/taxes/0,1607,7-238-43533-154440--,00.html>.

31. Gene Steuerle, “Will the Single Business Tax Catch On?,” *State Tax Notes* 15 (December 21, 1998): 1619.

32. Alaska has no general sales tax at the state level, but it does have local taxes and selective state excise taxes. Nick Kasprak, “Weekly Map: State and Local Sales Tax Rates, 2013,” Tax Foundation, March 5, 2013, <http://taxfoundation.org/blog/weekly-map-state-and-local-sales-tax-rates-2013>.

33. These taxes-upon-taxes from the GRT are more popularly known as “tax pyramiding.” Patrick Fleenor and Andrew Chamberlain, “Tax Pyramiding: The Economic Consequences of Gross Receipts Taxes” (Tax Foundation Special Report No. 147, 2006), <http://taxfoundation.org/article/tax-pyramiding-economic-consequences-gross-receipts-taxes>.

point in the production process. Furthermore, for a given tax rate, the GRT creates the highest (albeit partially hidden) burden of taxes paid among any of the consumption taxes.

The VAT and RST are theoretically identical on efficiency grounds, but the administration of the VAT more accurately avoids the taxation of business inputs and the inclusion of services. In the ideal structure of the VAT, registered businesses are described as tax collectors rather than taxpayers, and they are offered rebates for taxes paid on sales. Only the final household consumer does not receive the rebate, so the final tax burden is arithmetically identical to an RST. Research connecting the theory and practice of the efficiency gains has been sparse because it requires a comparison of countries that have adopted either the VAT or the RST. The many differences between countries make such research difficult, but generally, empirical research has been supportive of the VAT over the RST in terms of encouraging business investment.³⁴

Equity

Consumption as a percentage of annual household income generally declines with income. By this metric, consumption taxes are regressive. This can be amended somewhat by selective exemptions that disproportionately benefit low-income households, a common motivation for food exemptions. However, annual incomes represent snapshots throughout the life of a household, and their taxable income is limited to what is reported and verified by the government. Since consumption expenditures reflect the household's own revealed evaluation of its ability to pay, consumption taxes may be considered more equitable than income taxes. A young college student expecting a high income in the future may greatly outspend a high school dropout of the same age and same current-year income, in which case a lifetime perspective would view the consumption tax as more progressive than a tax on income.

When defining the tax base, consumption taxes also lend themselves to horizontal equity concerns, sometimes as a consequence of improving the vertical equity of the tax. For instance, exempting food and drink from the sales tax is a common policy, justified by a concern that it would be a disproportionate burden on poor households. However, this form of exemption raises difficult questions about what constitute taxable purchases, the answers to which often depend on the type of establishment where the food and drink are purchased. For example, Ohio imposes a tax on the sale of prepared food when the food is eaten on the premises where it

34. The positive effect on business investment is the most empirically testable hypothesis that emerges from the potential efficiency gains of the VAT over the RST. For recent evidence and literature, see Richard M. Bird and Michael Smart, "The Impact on Investment of Replacing a Retail Sales Tax with a Value-Added Tax: Evidence from Canadian Experience," *National Tax Journal* 62 (December 2009): 591–609.

is sold. A household that purchases the ingredients for a hamburger from a grocery store, prepares the meal, and consumes it at home will go untaxed. A household that purchases and consumes a hamburger at McDonald's will be taxed. Another household purchasing the same McDonald's hamburger, but ordering it "to go," will not be subject to the tax. All these distinctions violate horizontal equity.

Among the consumption taxes, the GRT's inefficiencies also raise horizontal equity concerns. Since the GRT taxes business-to-business sales, the tax favors firms that are vertically integrated. In other words, firms can lower their GRT costs by internalizing the production of inputs, rather than buying them from firms that specialize in that input. As a result, under the GRT firms with a vertical structure are at a competitive advantage relative to those with a more horizontal structure.

Transparency

Like all other taxes, the use of exemptions and the difficulty of clearly identifying eligible exemptions reduce the transparency of consumption taxes. An additional issue that is often raised is the visibility of the rates to the taxpayers paying them. The GRT is the least transparent in this regard because it is applied to each transaction in the production process, causing tax pyramiding that renders it difficult for tax collecting businesses to inform the taxpayer what share of the price is due to taxes. The VAT and the RST, by comparison, allow a straightforward report from the collector to the taxpayer, and there is no substantive reason to distinguish between these alternative designs. Nations around the world differ in reporting requirements, some requiring that the posted consumer prices include taxes and others requiring tax itemization at the point of purchase. This is ultimately a policy choice concerning transparency, however, and not a defining feature of the VAT or the RST.

Collectability

Collection costs for consumption taxes fall mostly on the tax collector, which for most public revenue collected under these instruments will be registered vendors. Typically, the vendor bears the burden and expense of determining whether transactions are exempt and then applying the appropriate rate. For purchases made from a local storefront, the business selling the goods or services is required to register with the state as a tax collector. Businesses that are not local, but have a physical presence in the state, must also register as tax collectors for purchases made in the state. For the cases in which the purchaser obtains the goods or services from an out-of-state producer with no physical presence in the state (a remote vendor), the responsibility for collection of use taxes falls on the buyer. Since the use tax involves a small amount owed on a large number of transactions

for individuals to record, historically states have viewed the use tax as too impractical to enforce.³⁵

Most of the government costs in administration go toward enforcing the tax, particularly in identifying unregistered vendors or inappropriate claims for exemption. Since the responsibility for vendor registration becomes most ambiguous and difficult to observe with interstate transactions, the collectability of the tax declines with interstate activity. Vendors engaging in interstate trade have to deal with a myriad of rules to identify the taxability of their goods. The only way for a state to avoid contributing to this difficulty is to avoid taxing consumption altogether.

Adding to the difficulty and the cost of collection are local equivalents of these taxes. Arguably this is the biggest challenge to collecting use taxes. Retailers with local storefronts have comparably little difficulty determining the rate to apply to in-store purchases, but online sales are a different matter altogether because they require knowledge of the tax code in the state of the buyer's residence. The large number of potential local tax jurisdictions and potentially differing rules create substantial barriers to the enforcement and collection of use taxes.

Of the alternative consumption tax designs, the VAT is widely recognized to have the greatest set of incentives for self-enforcement. In terms of paperwork costs to the vendor, there is no significant difference, but the ability to earn a rebate for their input purchases when calculating their own value-added tax creates an incentive for vendors to accurately levy and collect the tax.

Revenue Production

On average, state governments collect approximately 30 percent of their own tax revenues from a general consumption tax, usually less than the amount they raise from income taxes. However, in 2011 there were 17 states in which sales tax collections exceeded collections of income taxes.³⁶ At the local level, consumption taxes account for about 16 percent of tax revenue, making them the second largest source of revenue.³⁷ States have also generally observed a greater return of revenue on increases in their tax rates on sales, owing to consumption taxes' less elastic tax base.³⁸ Although it is not universally true, consumption taxes also tend to be less volatile than income taxes, parroting the tendency of consumers to adjust borrowing and savings to smooth their consumption across income

35. Nina Manzi, "Use Tax Collection on Income Tax Returns in Other States" (Minnesota House of Representatives' Research Department Policy Brief, April 2012), <http://www.house.leg.state.mn.us/hrd/pubs/usetax.pdf>.

36. 2011 is the most recent available year of data. See John L. Mikesell, "State Retail Sales Taxes in 2011," *State Tax Notes* 66, no. 13 (2012): 961–65.

37. Barnett and Vidal, "State and Local Government Finances Summary."

38. Mikesell, "State Retail Sales Taxes."

fluctuations.³⁹ By most accounts, states have been narrowing the bases of their consumption taxes over the last several decades, which will likely have the consequence of increasing the taxes' volatility and lowering their productivity.⁴⁰

IV. REAL PROPERTY TAXES

OTHER MAJOR TAXES, such as those on consumption or income, represent tax bases that are flows of exchanges. Property taxes, by contrast, represent taxes levied against stocks of assets. Generally, property is classified as real property (land and immovable structures), tangible personal property, and intangible property. The first of these three, real property, is the subject of this section, as few states continue to levy taxes on personal or intangible property.⁴¹ Overwhelmingly, the authority to levy and collect real property taxes is delegated to local governmental bodies, making the real property tax substantially different from the other types of taxes. This distinction is important to understanding the tax when judging it against the tax policy criteria. While most property taxes are levied at the local level, some states levy their own property tax. Map 3 in Appendix C shows average per capita property taxes paid to state governments.

Any given parcel of property will likely not be sold with the same frequency as labor or groceries. Furthermore, it is durable and used continuously, rather than consumed in a single serving. As a result, real property must undergo an assessment process that determines its taxable value. Historically, this taxable value was often tied to the cost of construction, but most states have moved to market value assessment for both land and its attached structures. The most common approach to assessment is for local governments to periodically compare recent market sales of nearby properties with similar features and then infer an appropriate comparable sale price. The taxable value follows after the local government subtracts any relevant deductions from the assessed value.

To calculate the tax rate on real property, a local governmental unit (city, school district, library district, etc.) formally determines the amount of revenue it wishes to raise from property taxation, which is commonly referred to as “the levy.” Within the jurisdictional bounds of the government, it sums together the taxable value of all the parcels, and divides this sum into the levy, which results in the property tax rate. This last step to determine the rate is a constant source of confusion for the public, as explained by Ronald Fisher:

39. Donald Bruce, William F. Fox, and M. H. Tuttle, “Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics,” *Southern Economic Journal* 73, no. 2 (2006): 315–41.

40. Raymond J. Ring Jr, “Consumer’s Share and Producer’s Share of the General Sales Tax,” *National Tax Journal* 52 (1999): 79–90; Mikesell, “State Retail Sales Taxes.”

41. Joyce Errecart, Ed Gerrish, and Scott Drenkard, “States Moving Away from Taxes on Tangible Personal Property” (Background Paper No. 63, Tax Foundation, Washington, DC, 2012).

In other words, a general rise in property values allows local governments to increase property tax collections without increasing tax rates. Not surprisingly, some individuals are led to conclude that the [property value] increase caused the tax increase. This view is not correct because each local government with property tax authority controls and selects, either explicitly or implicitly, the amount of property tax revenue to levy.⁴²

After calculating tax rates, the local tax collector applies the rate to individual properties to calculate the property tax bill for each owner. Legally speaking, however, the bill is held against the property rather than the person. An individual who refuses to pay or flees the area would find the property seized by tax foreclosure and sold, with the proceeds first going to the government to pay the liability.

Economic Efficiency

Economists' understanding of the property tax's efficiency is, as William Fischel and his colleagues put it, "in a sad state."⁴³ This situation is due, not to a lack of effort, but to the complexity of property markets that cause the analysis to depend on a set of assumptions that are difficult to empirically test.

For the purpose of this primer, the property tax may be more appropriately considered a user fee for public services. If it is a user fee, then the efficiency concerns of taxation are not directly relevant. If the property tax is a tax, it would seem to be a fairly distortive tax, going beyond consumed residential housing to include business inputs, much in the same way the gross receipts tax was discussed. To the extent that the property tax rate is the same across all areas, it represents a tax on profits that lowers the overall return on business investment. Differences in property tax rates between areas also distort the subsequent choice of where businesses choose to invest.

Equity

Property taxation raises equity concerns about both the tax liability and the assessment process. The success of uniformly assessing property at market value varies considerably across governments, and as a result, the assessment process itself is often heavy in both vertical and horizontal inequities. In an area where everyone

42. Ronald Fisher, *State & Local Public Finance*, 3rd ed. (Mason, Ohio: Thomson South-Western, 2007), 323.

43. William Fischel, Wallace Oates, and Joan Youngman, "Are Local Property Taxes Regressive, Progressive, or What?" Unpublished conference paper (2011), https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IIPF67&paper_id=28. This article presents a summary of the debate over the property tax for those interested in a mildly technical overview.

is proportionally under- (or over)assessed relative to the true market value of the property, the property tax could be said to be equitable, as owners of similar properties would receive similar assessments. However, disparate assessment-to-sale price ratios across properties generate horizontal inequities. Furthermore, these disparities often arise with a regressive nature, with high-value properties receiving proportionally smaller assessments than low-value properties. The reasons for this systematic bias are unclear, but two likely factors are the lack of comparable sales and a greater proclivity for high-end homeowners to monitor and appeal assessments.

The economic incidence of the tax similarly remains elusive. As a percentage of household income, which at least is informative of the statutory incidence of the tax, the property tax burden generally declines. According to 2009 public use microdata from the American Community Survey, households between \$20,000 and \$30,000 in family income had an average tax bill of \$2,469, whereas families between \$75,000 and \$100,000 on average only paid about \$900 more.⁴⁴ When the property tax is compared to the owners' self-estimate of the market value of their property, the tax is roughly proportional at about 1 percent.

Transparency

The property tax is widely regarded as a high salience tax, which likely contributes somewhat to its unpopularity with taxpayers.⁴⁵ States have a variety of checks on the assessment process that include an appeals process, in which a taxpayer can challenge the accuracy of their valuations. Property taxpayers usually receive a bill that itemizes how their property tax bill is split between the different taxing units. Nevertheless, the relationship between property values and the property tax rate is often misunderstood. Since governments first set the levy, increases in aggregate property values should only result in a decrease of the property tax rate, unlike other taxes where it would result in revenue growth. Many critics have suggested that local politicians take advantage of these property value increases to simultaneously cut rates and increase spending.⁴⁶ As a result, various states have "Truth in Taxation" laws that attempt to clarify the relationship between property values, tax rates, and spending.

As with other taxes, various exemptions and abatements exist that reduce transparency.⁴⁷ Some of these are supported on equity grounds, such as exemptions for

44. Author's calculations, available upon request. US Census Bureau 2009 American Community Survey, <http://www.census.gov/acs>.

45. For a discussion of the unique salience of the property tax and voter disapproval, see Marika Cabral and Caroline Hoxby, "The Hated Property Tax: Salience, Tax Rates, and Tax Revolts" (National Bureau of Economic Research Working Paper No. 18514, 2013).

46. For further discussion on this topic, see Ross and Yan, "Fiscal Illusion from Property Reassessment?"

47. Katrina D. Connolly and Michael E. Bell, "The Need for a Property Tax Expenditure Budget" (Lincoln Institute of Land Policy Working Paper, 2011).

senior citizens, homesteads, or nonprofit organizations. Others are undertaken for economic development purposes as a tax incentive to attract or keep a business. Even though exemptions are similar to a government expenditure, from a local budgeting perspective they appear off the books and are nontransparent to the local citizenry.⁴⁸

Collectability

It is not particularly surprising when a local government collects 100 percent of a property tax within the first year. Since the property tax is levied against the property rather than the person, it is very difficult to avoid the tax without abandoning the property to the government. Delinquency on property taxes generally results in bonus revenues via interest and penalties that accrue until the tax is finally collected. Decades of well-defined property rights, land titling, and various land-use planning departments have identified all the parcels within a jurisdiction. In theory, as long as the economic value of the property exceeds the tax owed, the government should be able to collect the full tax.

In practice, however, there are some other deviations that might result in less than perfect collections. A local government that does not actively pursue tax seizures upon unpaid liabilities risks losing tax payments forever. The legal process for collecting long overdue property taxes quickly becomes expensive for local authorities to pursue, which further weakens the incentive for property owners to become current on the tax bill and also reduces the incentive for neighboring property owners to comply.⁴⁹ The city of Philadelphia provides an example of how the property tax base can erode when property tax delinquency is permitted to continue.⁵⁰

Revenue Production

The real property tax is the largest source of local tax revenue in the United States. In the classic design of the property tax as it is described in the beginning of this section, revenue production from the property tax is largely a product of the local democratic process. Since the property tax is based on a valuation assigned at a particular date and assessed values in the aggregate only determine the distribution of the tax levy's burden, there is no supply-side response that subsequently

48. Daphne Kenyon, "Rethinking Property Tax Incentives for Business," Lincoln Institute of Land Policy Focus Report Code PF030 (2012).

49. Justin M. Ross, "Local Government Property Tax Amnesty Programs: Structures and Themes," *Public Finance and Management* 12, no. 2 (2012): 146–73.

50. For background, see "A Brief History of Property Tax Delinquency in Philadelphia" by the Taxpayer Fairness Initiative, March 19, 2013, <http://www.taxpayerfairness.com/blog/9-the-freshman/41-a-brief-history-of-property-tax-delinquency-in-the-news-in-philadelphia>.

diminishes revenue collections. Any volatility in aggregate property tax collections largely results from the collective choices over the appropriate level of property taxation, not from cyclical economic fluctuations per se. Public confusion over this point may be due to the recent housing crisis, which resulted in fiscal stress because many forms of revenue declined. Numerous studies, however, have pointed out that buried within the aggregate data, the revenues from property taxation have been remarkably stable.⁵¹

However, most states impose limitations on local governments' ability to raise revenue from the property tax, abandoning the classic design to varying extents. The diversity of these limitations among states is substantial. Proposition 2½ in Massachusetts limits total property tax revenue to 2.5 percent of assessed values, and the levy cannot increase by more than 2.5 percent from the previous year. California's Proposition 13 restricts property taxes to 1 percent of the full cash value and limits assessment increases so long as the property owners do not change.

Another limit is the growth of nonprofit organizations. These organizations receive their status from the state government upon incorporation. Their potential exemption from property tax can have local consequences,⁵² which include increasing the share of the property tax levy that will be paid by all other taxpayers and substantively affecting the level of property tax revenue. Nonprofit hospitals or universities also generate significant demand for public services. Nonprofit property tax exemptions can also introduce an element of cyclicality to the property tax burden, as recessionary periods draw nonprofit organizations to low-income areas and further erode the property tax base.

V. CORPORATE INCOME TAXES

WHEN A TAX applies to the net income earnings, or profits, of an incorporated business entity, the tax is generally considered to be a corporate income tax (CIT). In essence, the implicit concept of the CIT is that the corporation represents a distinct entity with distinct tax obligations from those of its shareholders. For this reason, income to individuals is oftentimes said to be subject to double taxation, first at the corporate level as profits then at the individual's level as income. Appendix B lists

51. Examples of such studies include John L. Mikesell and Cheol Liu, "Property Tax Stability: A Tax System Model of Base and Revenue Dynamics through the Great Recession and Beyond," *Public Finance and Management* (forthcoming); James Alm, Robert D. Buschman, and David L. Sjoquist, "Rethinking Local Government Reliance on the Property Tax," *Regional Science and Urban Economics* 41 (2011): 320–31; William M. Doerner and Keith R. Ihlanfeldt, "House Prices and City Revenues," *Regional Science and Urban Economics* 41 (2011): 332–42; and Justin M. Ross, Wenli Yan, and Craig L. Johnson, "The Public Financing of America's Largest Cities: An Autopsy of City Financial Records in the Wake of the Great Recession" (Research Paper No. 2013-03-01, Indiana University, Bloomington School of Public and Environmental Affairs, 2013).

52. A nonprofit's eligibility for exemption from the property tax depends on the particular language of a state's constitution.

rates and structures among the states, and it also demonstrates that the only states without a corporate income tax (under some name) are Nevada, South Dakota, Washington, and Wyoming.⁵³ It shows that the tax rates in 32 states have a flat structure, while the remainder progressively increase, with rates ranging between 1 and 10 percent. Local governments, particularly those in large cities, are known to sometimes levy a corporate income tax as well. As with the individual income tax, states typically adopt the federal definitions for net income before applying their own array of modifications.

At the state level, the rules concerning the apportionment of corporate income are one of the more salient issues of debate. Since corporations operate in numerous states simultaneously, states independently determine what share of a corporation's net income should be subject to their own tax rates through an apportionment formula. This apportionment formula is defined by the presence of a corporation's property, employees, and/or sales in the state. Across states, the weight of importance for each factor (property, employment, or sales) differs. States have generally weighted the formulas toward sales so as to avoid directly taxing workers and property investment in the state. Map 4 in Appendix C shows each state's average per capita corporate income tax.

Economic Efficiency

There are several efficiency costs to corporate income taxation. As it is applied to the net income on an investment, it is often argued that it acts as a tax on capital. Since capital is an input to the production process, it carries additional distortions by causing the misallocation of inputs before distorting output prices. The corporate income tax is particularly narrow in this sense because it applies to a particular set of organizational forms (corporations) rather than to business activity broadly. This can cause business organizations to change their organizational structure if they are near critical tax thresholds. It also encourages shifts in investments toward the noncorporate sector.

The second efficiency cost of the corporate income tax is that it encourages firms to finance their assets with debt rather than the issuance of stock. Interest payments on debt are deductible as business expenses, whereas the income earned on dividends is subject to double taxation via the corporate income tax. Not only does this discourage capital formation through savings and investment, it also reduces new business formation, as new ventures that raise start-up funds with equity are at a tax disadvantage relative to established firms that can issue debt.

53. Although Texas does not technically have a corporate income tax, it has a gross margin tax that some tax professionals consider to be similar. Ohio likewise has a commercial activity tax on gross receipts.

Equity

Many object to the concept that a corporation is a tax-paying entity distinct from its owners, especially considering that the economic incidence of the tax causes the burden to fall on flesh-and-blood people.⁵⁴ The extent to which the CIT is borne by consumers of corporate products, the laborers employed in the corporate sector, or the owners of the capital largely remains an open empirical inquiry. Numerous theoretical models have produced every conceivable result, demonstrating that the outcome is sensitive to the underlying theoretical assumptions.⁵⁵ Empirical work is plagued by the difficulties of real-world policy and inadequate data needed for causal evidence. The economic incidence of the tax is determined by the extent to which businesses lower wages on workers and/or raise prices on consumers. Ignoring these effects inclines some to view the CIT as a progressive tax since ownership of stock generally rises with income and wealth.

The taxation of earnings in the corporate sector also raises horizontal equity concerns. On the firm side, corporations that are otherwise similar in size and industry may receive different tax treatments if they have different corporate charters. At the household level, two households with identical gross incomes would be subject to different tax treatments to the extent that they receive shares of corporate profits, due to double taxation. Likewise, the apportionment rules among the states translate into different tax burdens based on the types of inputs and on the location of those inputs.

Transparency

As with the personal income tax, exemptions and deductions diminish the transparency of the corporate income tax. These are favored tools of some policymakers, as they can be designed to selectively target a single firm for preferential treatment. Additionally, the concept of income for tax purposes differs from many accounting concepts used to report the profitability of corporations, and this difference is a constant source of confusion for the general public as to why a firm may be very profitable in one year but have no tax burden (or vice versa). Further ambiguity is generated by the differing rules on the depreciation of assets for tax purposes and the ability to carry back or carry forward losses.

54. For a classic argument, see Milton Friedman, "The Social Responsibility of Business Is to Increase Its Profits," *New York Times Magazine*, September 13, 1970, <http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html>.

55. A recent symposium on the incidence of the corporate income tax appears in the March 2013 issue of the *National Tax Journal*. In particular, for a review of the theoretical and empirical challenges, see Kimberly A. Clausing, "Who Pays the Corporate Tax in a Global Economy?," *National Tax Journal* 66, no. 1 (2013): 151–84.

Finally, owing to the Uniform Division of Income for Tax Purposes Act, most income apportionment formulas appear simple in design and standardized across states. However, state agencies have adopted aggressive interpretations of section 18 of the act, which permits alternative apportionment formulas for “unusual cases,” to adjust taxpayer income. This allows state agencies to make arbitrary taxable income adjustments without guidance from the taxpayer.⁵⁶

Collectability

One of the strongest objections to state and local corporate income taxes is that they generate significant collection costs for the amount of revenue they deliver. The same complexities that reduce these taxes’ efficiency and transparency also require substantial efforts from tax administrators to monitor compliance. A 1993 study of surveyed firms by Joel Slemrod and Marsha Blumenthal indicated that per-company compliance costs averaged \$1.57 million, of which state and local compliance costs represented 30 percent.⁵⁷ This same study showed that the cost-to-revenue ratio for the federal government was half that of state and local governments.⁵⁸

Revenue Production

The federal government draws nearly 10 percent of its total tax revenue from corporate income taxes. In contrast, the share of state revenues is smaller, usually less than 5 percent in a given year. (New Hampshire and Alaska are exceptions: each collected about 14 percent of its total tax revenue from corporate income taxes in 2010.)⁵⁹ The long-term trend of the past several decades, moreover, has been downward. The reason for this decline is partly state and local tax design and partly the increasing sophistication of the corporate sector in creating pass-through entities.⁶⁰

56. Cara Griffith, “Because I Said So: Uncertainties with Apportionment,” *State Tax Notes* (May 20, 2013): 595.

57. This was based on a sample of 365 companies that responded to an IRS survey of big businesses, known as the Coordinated Examination Program. Joel Slemrod and Marsha Blumenthal, “The Income Tax Compliance Cost of Big Business,” *The Tax Foundation* (1993), <http://taxfoundation.org/sites/taxfoundation.org/files/docs/a3a792509ccb161d00a8895e31cb90ba.pdf>.

58. *Ibid.*, 5–6.

59. Barnett and Vidal, “State and Local Government Finances Summary.”

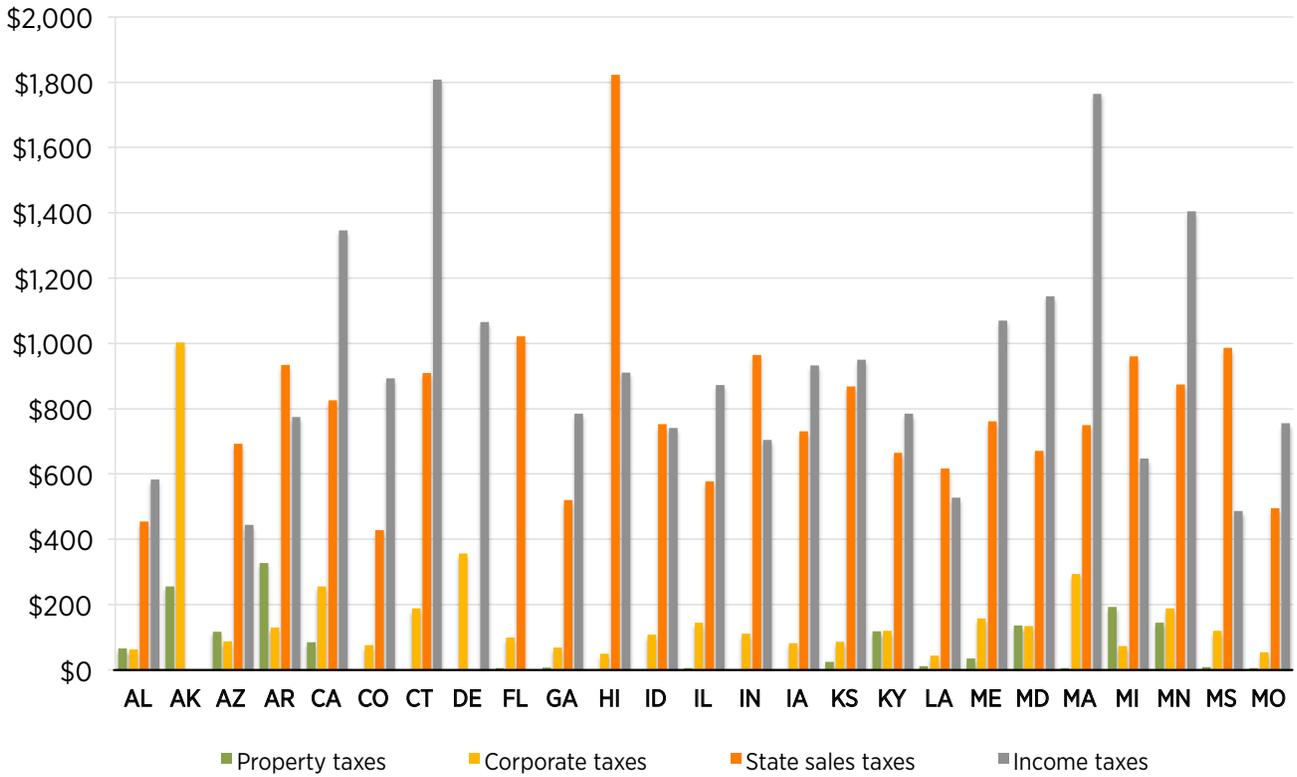
60. For an extended discussion on the decline of state corporate income taxes, see David Brunori and Joseph J. Cordes, “The State Corporate Income Tax: Recent Trends for a Troubled Tax,” *American Institute of Tax Policy* (August 15, 2005), http://www.americantaxpolicyinstitute.org/pdf/StateCorpTax%208-15-05%20_2_.pdf.

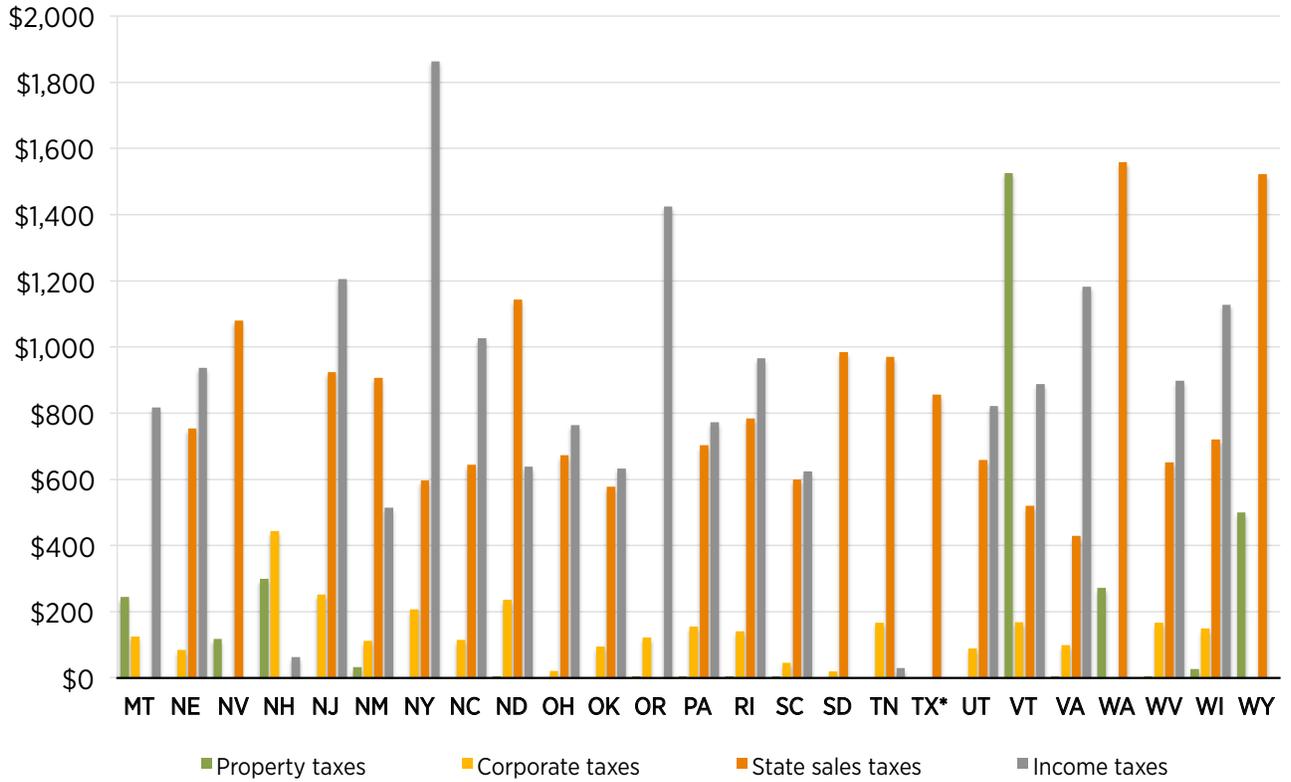
VI. SUMMARY CONCLUSIONS

EVERY TAX INSTRUMENT employed by a state or local government changes the overall design of the tax administration system in several distinct ways. This primer considers several of the most popular tax instruments of state and local governments, reviewing how each can contribute to the public revenue system in terms of economic efficiency, equity, transparency, collectability, and revenue production. One recurring theme throughout each of these instruments is that there is no perfect tax that is unambiguously desirable because the criteria often conflict with one another. A second theme is that every tax instrument can be made worse through poor design. Policy advocates following good tax principles should have little trouble continuously finding areas of improvement in their own environment. Hopefully, they will find this primer to be of assistance in this regard.

APPENDIX A: STATE TAX COLLECTIONS PER CAPITA

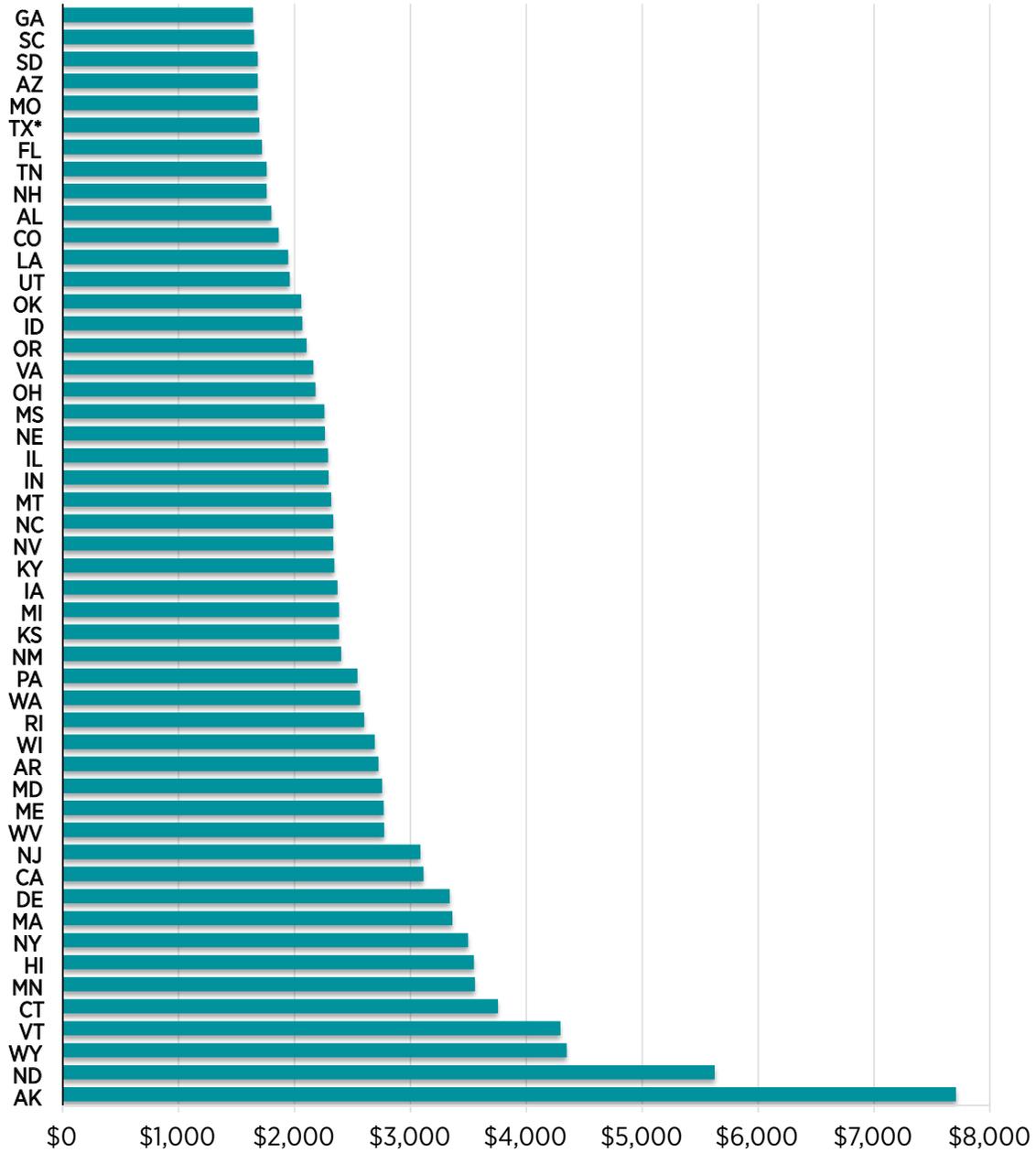
State Tax Collections per Capita by Category, 2011





Source: US Census Bureau, 2011 reports.
 * The US Census Bureau does not classify revenue from Texas's margin tax as corporate income tax revenue.

Total State Tax Collections per Capita, 2011



Source: US Census Bureau, 2011 reports.

* The US Census Bureau does not classify revenue from Texas's margin tax as corporate income tax revenue.

State Tax Collections per Capita by Category, 2011

State	State corporate income tax collections	State individual income tax collections	State general sales tax collections	State property tax collections	State total tax collections
Alabama	\$63	\$583	\$454	\$66	\$1,801
Alaska	\$1,003	\$0	\$0	\$255	\$7,708
Arizona	\$87	\$444	\$692	\$117	\$1,682
Arkansas	\$129	\$775	\$934	\$327	\$2,722
California	\$256	\$1,346	\$826	\$85	\$3,111
Colorado	\$75	\$893	\$428	\$0	\$1,863
Connecticut	\$188	\$1,808	\$909	\$0	\$3,754
Delaware	\$357	\$1,065	\$0	\$0	\$3,340
Florida	\$99	\$0	\$1,021	\$0	\$1,718
Georgia	\$69	\$784	\$520	\$7	\$1,639
Hawaii	\$50	\$911	\$1,823	\$0	\$3,548
Idaho	\$108	\$741	\$752	\$0	\$2,067
Illinois	\$144	\$873	\$577	\$5	\$2,290
Indiana	\$110	\$705	\$964	\$0	\$2,292
Iowa	\$82	\$933	\$730	\$0	\$2,368
Kansas	\$86	\$950	\$868	\$25	\$2,383
Kentucky	\$119	\$784	\$665	\$118	\$2,341
Louisiana	\$43	\$527	\$617	\$11	\$1,944
Maine	\$157	\$1,070	\$761	\$34	\$2,768
Maryland	\$134	\$1,144	\$671	\$136	\$2,756
Massachusetts	\$294	\$1,765	\$749	\$1	\$3,361
Michigan	\$73	\$647	\$960	\$192	\$2,383
Minnesota	\$188	\$1,404	\$874	\$145	\$3,557
Mississippi	\$119	\$487	\$986	\$8	\$2,257
Missouri	\$54	\$755	\$495	\$5	\$1,684
Montana	\$125	\$817	\$0	\$244	\$2,316
Nebraska	\$84	\$937	\$754	\$0	\$2,262
Nevada	\$0	\$0	\$1,080	\$118	\$2,333
New Hampshire	\$443	\$63	\$0	\$299	\$1,761
New Jersey	\$252	\$1,205	\$924	\$0	\$3,085
New Mexico	\$111	\$514	\$907	\$32	\$2,401
New York	\$207	\$1,864	\$596	\$0	\$3,497
North Carolina	\$114	\$1,027	\$644	\$0	\$2,332
North Dakota	\$236	\$638	\$1,143	\$3	\$5,627
Ohio	\$21	\$764	\$673	\$0	\$2,181
Oklahoma	\$94	\$632	\$577	\$0	\$2,057
Oregon	\$122	\$1,425	\$0	\$5	\$2,104
Pennsylvania	\$155	\$772	\$703	\$4	\$2,541
Rhode Island	\$141	\$966	\$784	\$2	\$2,603
South Carolina	\$46	\$624	\$600	\$2	\$1,650
South Dakota	\$19	\$0	\$985	\$0	\$1,682
Tennessee	\$167	\$30	\$970	\$0	\$1,761
Texas*	\$0	\$0	\$856	\$0	\$1,696
Utah	\$89	\$822	\$659	\$0	\$1,958
Vermont	\$168	\$888	\$520	\$1,525	\$4,293
Virginia	\$99	\$1,182	\$429	\$5	\$2,160
Washington	\$0	\$0	\$1,559	\$272	\$2,566
West Virginia	\$166	\$898	\$652	\$3	\$2,773
Wisconsin	\$149	\$1,128	\$721	\$26	\$2,692
Wyoming	\$0	\$0	\$1,523	\$500	\$4,347

Source: US Census Bureau, 2011 reports.

* The US Census Bureau does not classify revenue from Texas's margin tax as corporate income tax revenue.

Note: "\$0" means no tax was collected or the amount was too insignificant to count.

APPENDIX B: DETAILS ON STATE INDIVIDUAL AND CORPORATE INCOME TAX RATES

STATE INDIVIDUAL INCOME TAX RATES (Rates for tax year 2013—as of January 1, 2013)					STATE CORPORATE INCOME TAX RATES (Rates for tax year 2013—as of January 1, 2013)					
Tax rate range (by percentage)		Income brackets		Number of brackets	STATE	Number of brackets	Tax brackets		Tax rate range (by percentage)	
Low	High	Low	High				Low	High	Low	High
2	5	500	3,001	3	ALABAMA	1	Flat rate		6.5	
No individual income tax					ALASKA	10	9,999	90,000	1	9.4
2.59	4.54	10,000	150,001	5	ARIZONA	1	Flat rate		6.968	
1	7	4,099	34,000	6	ARKANSAS	6	3,000	100,001	1	6.5
1	12.3	7,455	500,000	9	CALIFORNIA	1	Flat rate		8.84	
4.63		Flat tax rate		1	COLORADO	1	Flat rate		4.63	
3	6.7	10,000	250,000	6	CONNECTICUT	1	Flat rate		7.5	
2.2	6.75	5,000	60,001	6	DELAWARE	1	Flat rate		8.7	
No individual income tax					FLORIDA	1	Flat rate		5.5	
1	6	750	7,001	6	GEORGIA	1	Flat rate		6	
1.4	11	2,400	250,000	12	HAWAII	3	25,000	100,001	4.4	6.4
1.6	7.4	1,380	10,350	7	IDAHO	1	Flat rate		7.4	
5		Flat rate		1	ILLINOIS	1	Flat rate		9.5	
3.4		Flat rate		1	INDIANA	1	Flat rate		8	
0.36	8.98	1,494	67,230	9	IOWA	4	25,000	250,000	6	12
3.0	4.90	15,000		2	KANSAS	1	Flat rate		4	
2.0	6.0	3,000	75,001	6	KENTUCKY	3	50,000	100,001	4	6
2.0	6.0	12,500	50,001	3	LOUISIANA	5	25,000	200,001	4	8
0.0	8.0	5,200	20,900	3	MAINE	4	25,000	250,000	3.5	8.93
2.0	5.75	1,000	250,000	8	MARYLAND	1	Flat rate		8.25	
5.25		Flat rate		1	MASSACHUSETTS	1	Flat rate		8	
4.25		Flat rate		1	MICHIGAN	1	Flat rate		6	
5.35	7.85	24,270	79,730	3	MINNESOTA	1	Flat rate		9.8	

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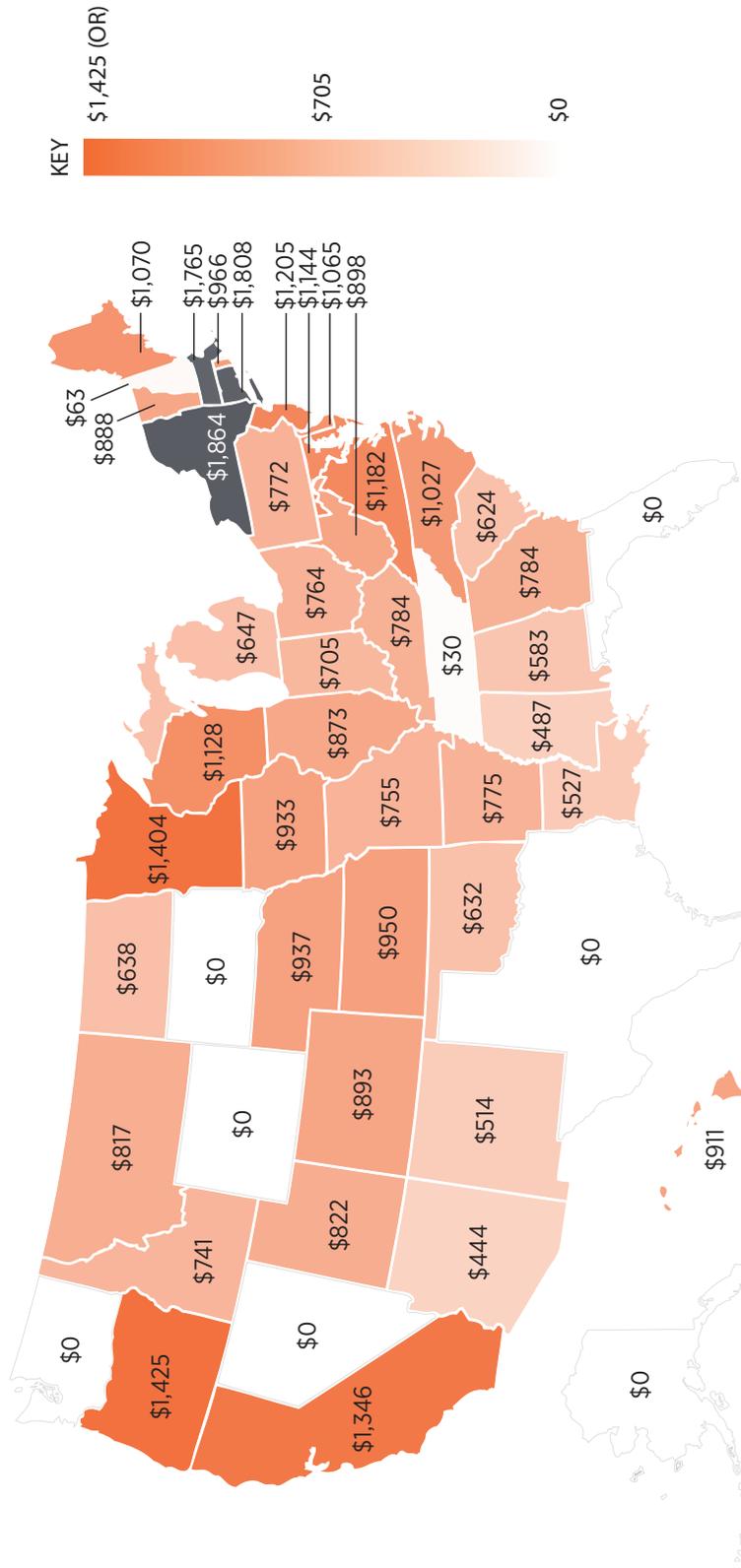
3.0	5.0	5,000	10,001	3	MISSISSIPPI	3	5,000	10,001	3	5
1.5	6.0	1,000	9,001	10	MISSOURI	1	Flat rate		6.25	
1.0	6.9	2,700	16,400	7	MONTANA	1	Flat rate		6.75	
2.46	6.84	2,400	27,001	4	NEBRASKA	2	100,000		5.58	7.81
No individual income tax					NEVADA	No corporate income tax				
Income tax of 5% on dividends and interest income only					NEW HAMPSHIRE	1	Flat rate		8.5	
1.4	8.97	20,000	500,000	6	NEW JERSEY	1	Flat Rate		9	
1.7	4.9	5,500	16,001	4	NEW MEXICO	3	500,000	1 million	4.8	7.6
4.0	8.82	8,200	1,029,250	8	NEW YORK	1	Flat rate		7.1	
6.0	7.75	12,750	60,000	3	NORTH CAROLINA	1	Flat rate		6.9	
1.51	3.99	36,250	398,350	5	NORTH DAKOTA	3	25,000	50,001	1.68	5.15
0.587	5.925	5,200	208,500	9	OHIO	Commercial activity tax on gross receipts				
0.5	5.25	1,000	8,701	7	OKLAHOMA	1	Flat rate		6	
5.0	9.9	3,250	125,000	4	OREGON	2	10 million		6.6	7.6
3.07		Flat rate		1	PENNSYLVANIA	1	Flat rate		9.99	
3.75	5.99	58,600	133,250	3	RHODE ISLAND	1	Flat rate		9	
0.0	7.0	2,850	14,250	6	SOUTH CAROLINA	1	Flat rate		5	
No individual income tax					SOUTH DAKOTA	No corporate income tax				
Income tax of 6% on dividends and interest income only					TENNESSEE	1	Flat rate		6.5	
No individual income tax					TEXAS	Gross margin tax*				
5.0		Flat rate		1	UTAH	1	Flat rate		5	
3.55	8.95	35,350	388,350	5	VERMONT	3	10,000	25,000	6	8.5
2.0	5.75	3,000	17,001	4	VIRGINIA	1	Flat rate		6	
No individual income tax					WASHINGTON	No corporate income tax				
3.0	6.5	10,000	60,000	5	WEST VIRGINIA	1	Flat rate		7	
4.6	7.75	10,750	236,600	5	WISCONSIN	1	Flat rate		7.9	
No individual income tax					WYOMING	No corporate income tax				

Source: "Range of State Corporate Income Tax Rates," Federation of Tax Administrators, January 2013, http://www.taxadmin.org/fta/rate/corp_inc.pdf.

* The US Census Bureau does not classify revenue from Texas's margin tax as corporate income tax revenue.

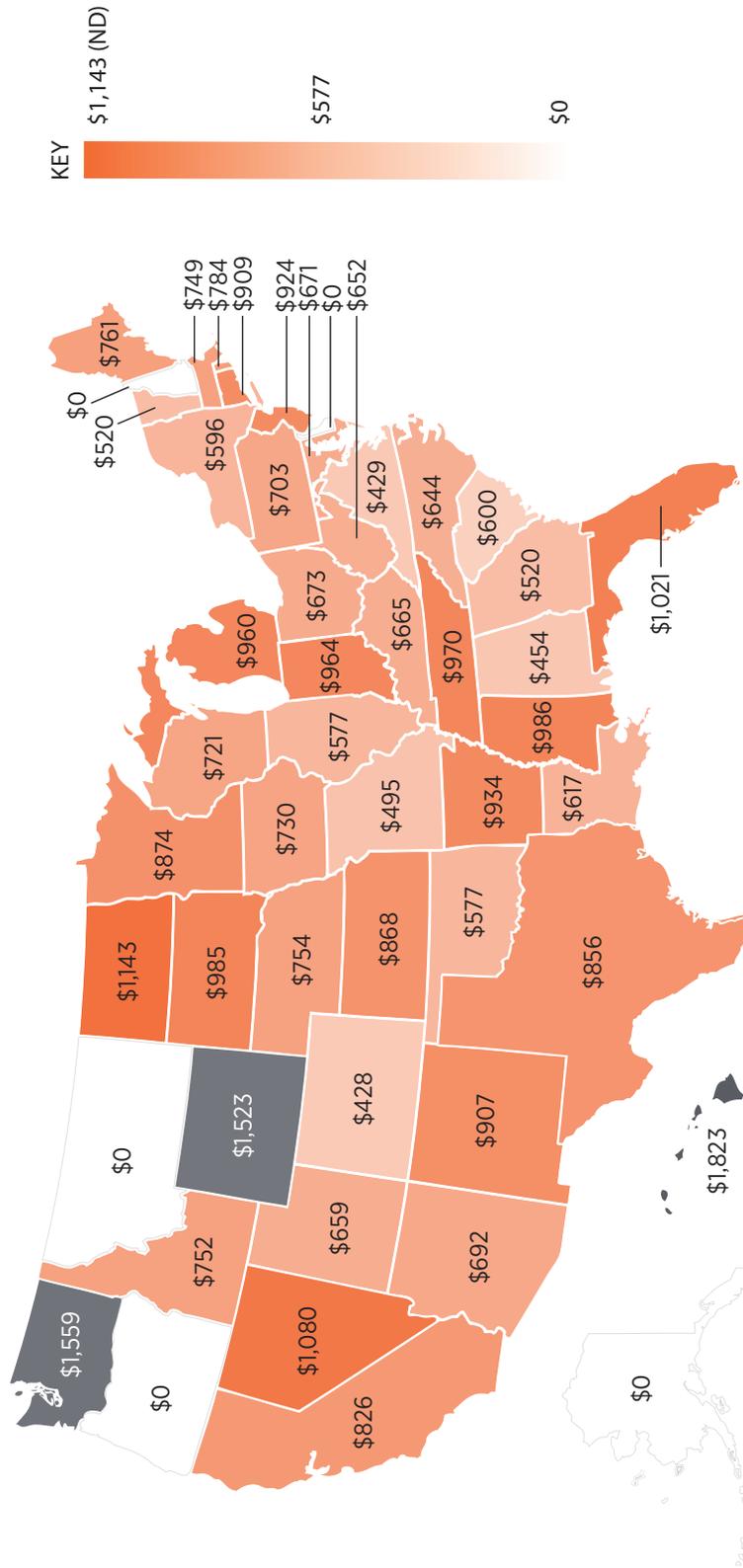
APPENDIX C: MAPS OF STATE TAX COLLECTIONS PER CAPITA

Map 1. State Individual Income Tax Collections per Capita, 2011



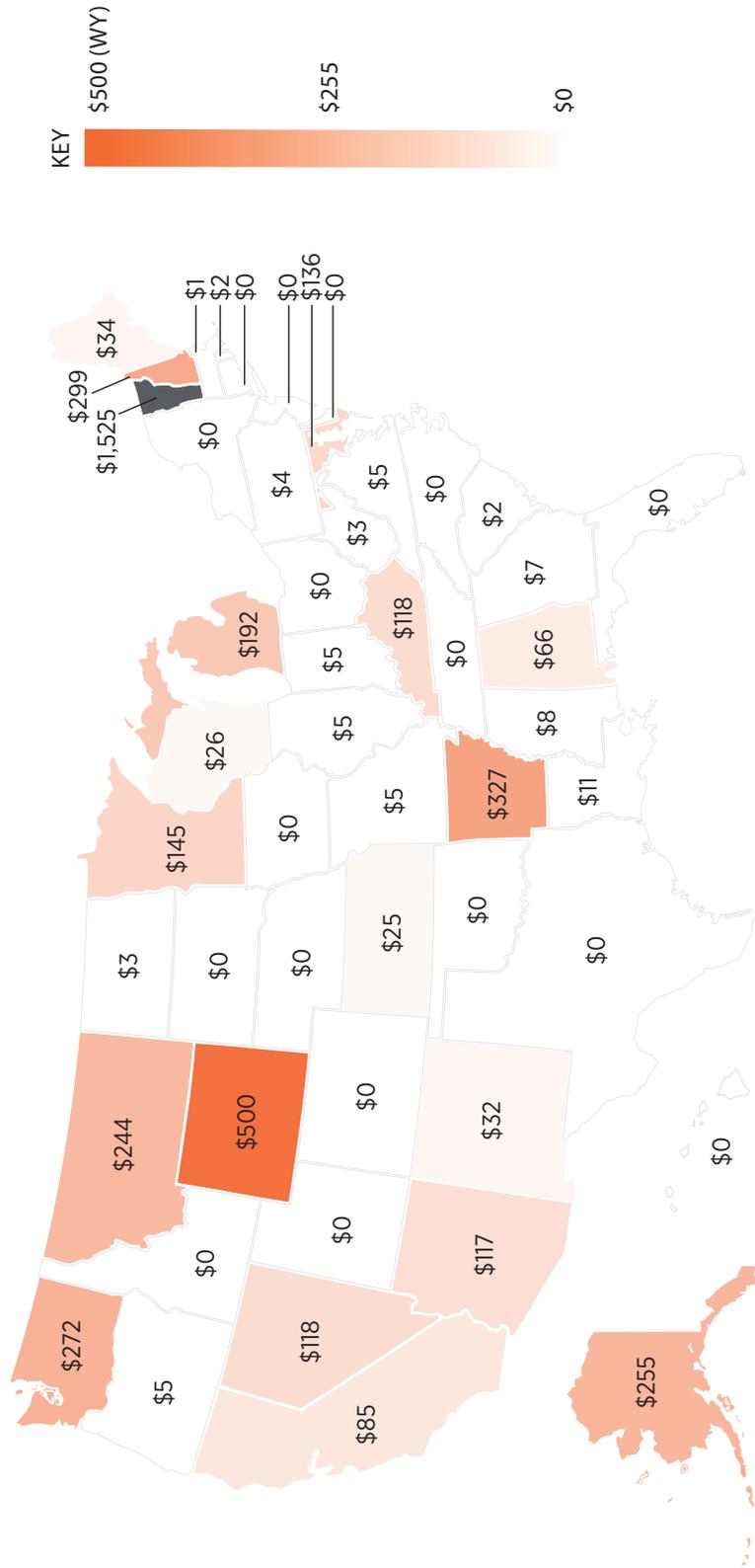
Source: US Census Bureau, 2011 reports.
 Notes: "\$0" means no tax was collected or the amount was too insignificant to count. For emphasis, New York, Connecticut, and Massachusetts—this map's outliers—are colored in shades of gray.

Map 2. State General Sales Tax Collections per Capita, 2011



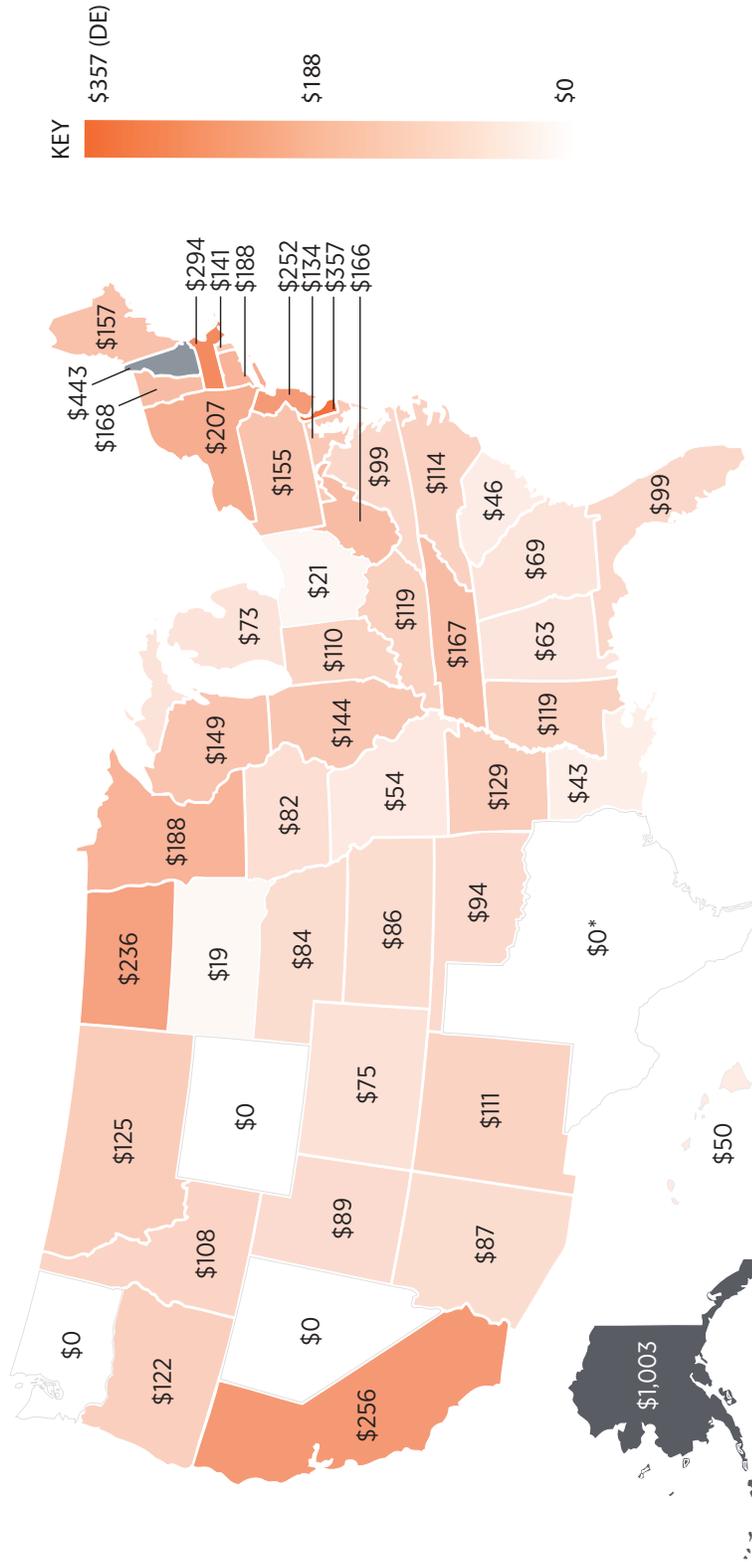
Source: US Census Bureau, 2011 reports.
 Notes: "\$0" means no tax was collected or the amount was too insignificant to count. For emphasis, Hawaii, Washington, and Wyoming—this map's outliers—are colored in shades of gray.

Map 3. State Property Tax Collections per Capita, 2011



Source: US Census Bureau, 2011 reports.
 Notes: This map reflects only property taxes levied at the state level for comparability with the other primary types of state taxes. "\$0" means no tax was collected or the amount was too insignificant to count. For emphasis, Vermont—this map's outlier—is colored gray.

Map 4. State Corporate Income Tax Collections per Capita, 2011



Source: US Census Bureau, 2011 reports.
 *The Census Bureau does not classify revenue from Texas's margin tax as corporate income tax revenue.
 Notes: "\$0" means no tax was collected or the amount was too insignificant to count. For emphasis, Alaska and New Hampshire—this map's outliers—are colored in shades of gray.