STRI

STATE TAX RESEARCH INSTITUTE

Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates

PREPARED BY PRICEWATERHOUSECOOPERS LLP

OCTOBER 2017

ABOUT STRI

The State Tax Research Institute (STRI) is a 501(c)(3) organization established in 2014 to provide educational programs and conduct research designed to enhance public dialogue relating to state and local tax policy. STRI is affiliated with the Council On State Taxation (COST). For more information on STRI, please contact Douglas L. Lindholm at dlindholm@cost.org.

ABOUT THE AUTHORS

Dr. Andrew Lyon is a Principal at PwC and leads its National Economics and Statistics practice in the PwC Washington National Tax Services office. He previously served as deputy assistant secretary for tax analysis with the Department of Treasury. Dr. Lyon has also served on the staff of the President's Council of Economic Advisers and the staff of the Joint Committee on Taxation. In addition to his prior government service, Dr. Lyon was a member of the faculty of the University of Maryland economics department. He was a co-winner of the National Tax Association dissertation award. He has been a faculty research fellow at the National Bureau of Economic Research and was a visiting fellow at the Brookings Institution.

Dr. William McBride is a Manager in PwC's National Economics and Statistics group, with more than ten years of experience analyzing a variety of economic and policy issues. Dr. McBride previously was the chief economist at the Tax Foundation.

Linden Smith is a Managing Director in PwC's National Economics and Statistics practice and leads the Statistics and Tax Sampling group. Prior to joining PwC, Lin worked for the Statistics of Income Division of the IRS, served as a Financial Economist in the Office of Tax Analysis at the US Treasury Department, and was an economist with the Congressional Joint Committee on Taxation. Lin's tax policy work includes working with clients to estimate the budgetary impact of proposed legislation. His statistical tax sampling work supports the filing of current and amended tax returns, as allowed by IRS and state tax agencies.

MESSAGE FROM THE PRESIDENT

The Council On State Taxation (COST) and our research affiliate, The State Tax Research Institute (STRI), have long been committed to increasing the body of knowledge and enhancing public dialogue relating to the state and local taxation of business entities. We are pleased to present our latest contribution to that effort *"Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates,"* by PwC's National Economics and Statistics group.

As an increasing number of businesses choose to operate as pass-through entities (thereby paying tax on business income under state *personal* income tax statutes), the issue of comparative tax burdens on business income based on *choice of entity* (C corporation or pass-through entity) becomes more critical to the public policy debate about the consistency, uniformity, and fairness of state and local taxation of multistate and multinational businesses. This Study is the first ever to quantify the differences in *state* effective tax rates on business income earned by C corporations versus pass-through entities (partnerships, S corporations and sole proprietorships).

As the federal debate over tax reform enters a pivotal stage, several divergent proposals seek to transform the income taxation of C corporations and pass-through entities at the federal level. These include "corporate integration" proposals that would essentially eliminate the double tax on business income earned by C corporations, and proposals for a maximum tax rate on pass-through entity income that is lower than the maximum rate for other taxpayers under the personal income tax. These proposals may affect choice-of-entity decisions between C corporations and pass-through entities. A differentiated pass-through individual tax rate would also create two separate classes of personal income taxpayers (pass-through entities vs. salary and wage earners) for the first time since enactment of the federal income tax in 1913.

At the state level, the ongoing debate over state tax reform and/or conformity to potential federal level tax reform will be complex and difficult—states have little room for error when balancing their annual or biennial budgets. This Study will help state policymakers address several issues at the state level, including the misperception that large companies pay less in income taxes than small businesses, the debate over Kansas-type experiments that reduce or eliminate taxes on pass-through entities, and the revenue implications of the increasing amount of business income that is taxed under state personal income tax statutes.

The Study's primary finding is that the aggregate state-level effective business income tax rate for corporations (6.1%) is **30 percent higher** than the aggregate rate for pass-through businesses (4.7%). This finding and the detailed analysis in the Study should be increasingly valuable to state policymakers as they struggle to maintain consistency and fairness in state tax structures while balancing current budgets and considering conformity to potential federal tax reform.

Douglas L. Lindholm
President, State Tax Research Institute

www.pwc.com/us/nes

Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates

October 2017

Prepared for:

State Tax Research Institute

Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates

Table of Contents

Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates

Executive Summary

Business income of corporations is taxed at the entity level and taxed again at the shareholder level as dividends are paid. Pass-through businesses (e.g., partnerships, S corporations, and sole proprietorships), unlike corporations, are typically not taxed at the entity level, but instead the owners are taxed on their allocable share of the business income as earned.[1] Pass-through businesses represent 95 percent of business entities as of 2013, a share that has grown steadily for more than three decades.[2] In 1980, pass-through businesses comprised 83 percent of business entities. This trend has implications for both tax policy and tax revenue at the national and state levels, depending in part on the amounts and shares of business income attributable to corporations and to pass-through businesses and the tax rates on this income.

A number of studies have noted the increasing share of business income earned by pass-through businesses over time.[3] These studies have generally focused on a federal tax definition of business income. The State Tax Research Institute (STRI) asked PwC to examine the share of corporate and pass-through business income using state tax definitions and to compare the state-level effective tax rates (ETRs) of both types of businesses taking into consideration taxes paid at the entity level and by their individual owners. This report is the first to undertake these measures and comparisons at the state level.

This report finds that the corporate share of aggregate state-level business income has declined from 53 percent in 1993 to 42 percent in 2013. This is consistent with other studies that find the federal-level corporate share of business income has declined over this time period.[4]

This report estimates the aggregate state-level ETRs on the business income of corporations and pass-through entities for 2013, the most recent year for which all required data are available. The numerator of the ETR is all state taxes levied on business income at the entity and owner level for each form of business, while the denominator is pre-tax aggregate state-level corporate or pass-through business income. The aggregate state-level ETR is estimated to be 6.1 percent for corporations (including shareholder taxes) and 4.7 percent for pass-through businesses in 2013.

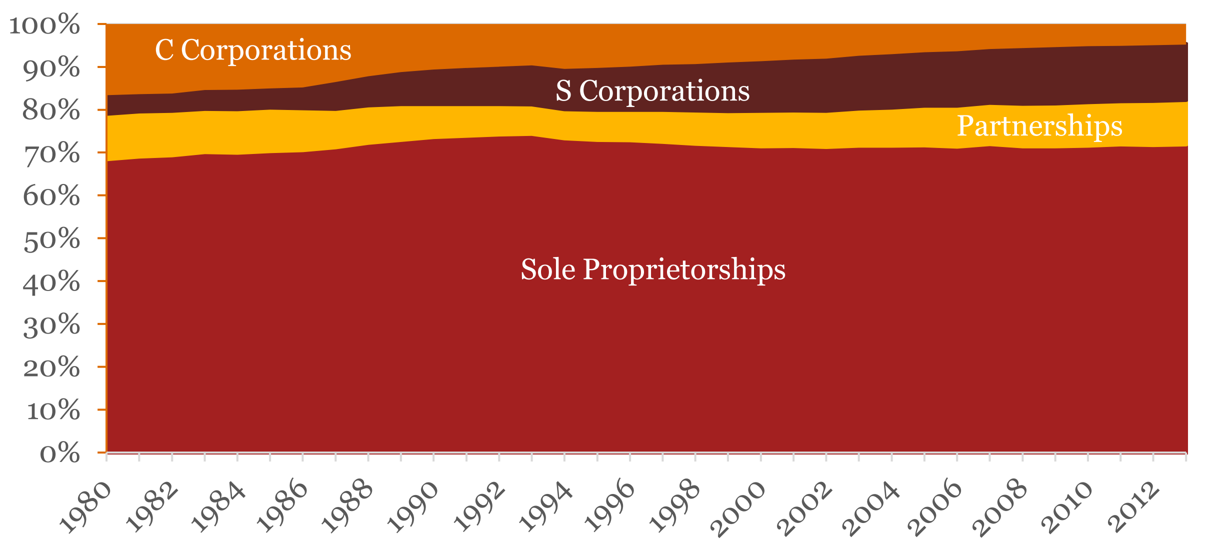
[1] Unless otherwise specified, "corporation" refers to a C corporation that is subject to entity-level federal income tax. Corporations used for passive investments, i.e., regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs), are excluded from the analysis.
[2] Internal Revenue Service Statistics of Income (SOI), "Integrated Business Data," available at https://www.irs.gov/uac/soi-tax-stats-integrated-business-data. We have extended the series to 2013 using more recently available SOI data.
[3] See, for example, Jason DeBacker and Richard Prisinzano, "The Rise of Partnerships," *Tax Notes*, June 29, 2015; Michael Cooper, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick, "Business in the United States: Who Owns It and How Much Tax Do They Pay?," US Treasury Department, Office of Tax Analysis Working Paper 104, October 2015; and Conor Clarke and Wojciech Kopczuk, "Business Income and Business Taxation in the United States since the 1950s," National Bureau of Economic Research, working paper 22778, October 2016.
[4] Clarke and Kopczuk. See Table A.2, which is based on the SOI Integrated Business Data.

Corporate and Pass-Through Business State Income Tax Burdens: Comparing State-Level Income and Effective Tax Rates

I. Introduction

Business income of corporations is taxed at the entity level and taxed again at the shareholder level as dividends are paid. Pass-through businesses (e.g., partnerships, S corporations, and sole proprietorships), unlike corporations, are typically not taxed at the entity level, but instead the owners are taxed on their allocable share of the business income as earned.[5] Pass-through businesses represent 95 percent of business entities as of 2013, a share that has grown steadily for more than three decades.[6] In 1980, pass-through businesses comprised 83 percent of business entities (see **Figure 1**). This trend has implications for both tax policy and tax revenue at the national and state levels, depending in part on the amounts and shares of business income attributable to corporations and to pass-through businesses and the tax rates on this income.

Figure 1. Corporate and Pass-Through Shares of Business Entities, 1980-2013



Source: Internal Revenue Service Statistics of Income.
Note: Regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs) are excluded.

---

5 Unless otherwise specified, "corporation" refers to a C corporation that is subject to entity-level federal income tax. Corporations used for passive investments, i.e., regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs), are excluded from the analysis.
6 Internal Revenue Service Statistics of Income (SOI), "Integrated Business Data," available at https://www.irs.gov/uac/soi-tax-stats-integrated-business-data. We have extended the series to 2013 using more recently available SOI data.

A number of studies have noted the increasing share of business income earned by pass-through businesses over time.[7] These studies have generally focused on a federal tax definition of business income. The State Tax Research Institute (STRI) asked PwC to examine the share of corporate and pass-through business income using state tax definitions and to compare the state-level effective tax rates (ETRs) of both types of businesses taking into consideration taxes paid at the entity level and by their owners.

The following section of this report estimates the aggregate state-level shares of business income earned by corporations and pass-through businesses. The third section calculates the aggregate state-level effective tax rate (ETR) on the business income of corporations and pass-through entities for 2013, the most recent year for which all data are available. An overview of the methodology is provided in the appendix.

[7] See, for example, Jason DeBacker and Richard Prisinzano, "The Rise of Partnerships," *Tax Notes*, June 29, 2015; Michael Cooper, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick, "Business in the United States: Who Owns It and How Much Tax Do They Pay?," US Treasury Department, Office of Tax Analysis Working Paper 104, October 2015; and Conor Clarke and Wojciech Kopczuk, "Business Income and Business Taxation in the United States since the 1950s," National Bureau of Economic Research, working paper 22778, October 2016.

II. Business Income Shares

This section describes our estimates of the aggregate state-level business income tax base of corporations and pass-through entities. The measure of income is intended to represent the economic activity of corporations and pass-through entities that is potentially subject to state taxation. Corporations used for passive investments, i.e., regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs), are excluded from the analysis.

We start with a measure of business income for each business form consistent with federal tax data.

For federal tax purposes, US Treasury Department staff have developed a comprehensive and consistent measure of business income by business form, covering the period 1993 to 2012, using federal tax data published by the Internal Revenue Service Statistics of Income (SOI).[8] For each business form, business income includes active and passive income net of business-related deductions as reported on corporate, partnership, and individual tax returns. The Treasury methodology is intended to eliminate double counting resulting from the tiered ownership of partnerships by corporations and other partnerships.

The Treasury methodology makes certain adjustments to SOI tabulated income and deductions. For example, it includes tax-exempt interest income in business income and measures income without regard to the deduction for domestic production (IRC sec. 199) or net operating loss deductions to better approximate current economic activity. It excludes Subpart F income (deemed dividends from foreign affiliates) but otherwise includes foreign source income that is includible for federal tax purposes.

Using the most recently published SOI data, we extended the Treasury measure of business income to 2013.

Next we adjusted the Treasury measure of corporate business income to make it more comparable to taxable state business income, i.e., to account for state treatment of foreign source income. To maintain consistency between the measures of business income for corporations and pass-through businesses, adjustments are not made for other differences between state and federal business income taxation.[9]

This analysis finds that aggregate state-level business income in 2013 amounted to $2.217 trillion, of which $934 billion, or 42 percent, was earned by corporations and $1.283 trillion, or 58 percent, was earned by pass-through businesses. In 1993, aggregate state-level business income was $624 billion, of which $330 billion, or 53 percent, was earned by corporations and $294 billion, or 47 percent, was earned by pass-through businesses. Until 1998, corporations earned a majority of aggregate state-level business income. Over the 1998-2013 period,

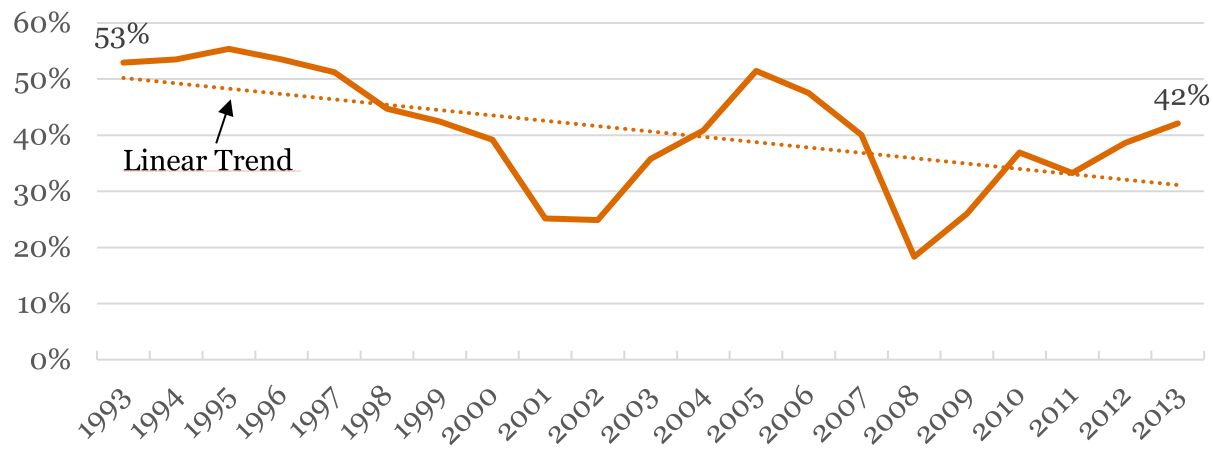
[8] James Pearce, "Measuring Aggregate Business Income with Tax Data," *National Tax Journal*, December 2015, 68 (4), 1025-1046.

[9] Most states do not allow the deduction for domestic production. California does not conform to the general system of depreciation used for federal tax purposes (MACRS). Bonus depreciation is another provision for which many states do not conform to federal law. Bonus depreciation affects the timing of depreciation deductions but not the aggregate deduction received by a business. As a result, the net effect of bonus depreciation on taxable income in any year is difficult to determine without evaluating the entire history of deductions claimed on property still being depreciated.

however, corporations on average accounted for only 37 percent of aggregate state-level business income (see **Figure 2** and **Table 1**).

The corporate share of aggregate state-level business income has fluctuated from a high of 55 percent in 1995 to a low of 18 percent in 2008 during the financial crisis. The corporate share of business income is influenced by business cycles as corporations are more heavily concentrated in cyclical industries, including financial services. A simple linear time regression (intended to smooth out cyclical fluctuations) indicates that the corporate share of aggregate state-level business income is trending down by approximately one percentage point per year over the 1993-2013 period.[10] This is consistent with studies that find the federal-level corporate share of business income has been declining over this period.[11]

Figure 2. Corporate Share of Aggregate State-Level Business Income, 1993-2013



Source: SOI, PwC calculations.
Note: To avoid double counting, regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs) are excluded.

[10] Removing the recession years of 2008 and 2009 slightly reduces the slope of the linear trend, with the corporate share of aggregate state-level business income dropping from 50 percent in 1993 to 36 percent in 2013.
[11] For example, unadjusted IRS data indicates that the federal-level corporate share of business income declined 35 percentage points (78 percent to 43 percent) over the 34 year period from 1980 to 2013. See footnote 7.

Table 1. Aggregate State-Level Business Income, 1993-2013
(Dollar Amounts in Billions)

Year	Total	Corporations		Pass-through Business	
		Share of Total	Amount	Share of Total	Amount
1993	$624	53%	$330	47%	$294
1994	$718	53%	$384	47%	$334
1995	$832	55%	$461	45%	$371
1996	$936	54%	$501	46%	$435
1997	$1,033	51%	$529	49%	$504
1998	$1,035	45%	$463	55%	$572
1999	$1,071	42%	$455	58%	$617
2000	$1,065	39%	$417	61%	$648
2001	$752	25%	$189	75%	$563
2002	$723	25%	$180	75%	$543
2003	$978	36%	$350	64%	$628
2004	$1,420	41%	$580	59%	$840
2005	$2,272	51%	$1,169	49%	$1,103
2006	$2,271	48%	$1,079	52%	$1,192
2007	$2,169	40%	$868	60%	$1,301
2008	$999	18%	$183	82%	$816
2009	$878	26%	$229	74%	$650
2010	$1,517	37%	$560	63%	$957
2011	$1,610	33%	$536	67%	$1,074
2012	$2,198	39%	$849	61%	$1,349
2013	$2,217	42%	$934	58%	$1,283

Source: SOI, PwC calculations.
Note: Totals may not sum due to rounding. To avoid double counting, regulated investment companies (RICs or mutual funds) and real estate investment trusts (REITs) are excluded. Aggregate state-level business income is before federal tax. Because we have not estimated the entity-level state corporate tax for all years (in the next section of this report we estimate it for 2013 only), aggregate state-level corporate income is after state corporate tax (and all other taxes that are deductible at the federal level).

III. Effective Tax Rates

This section describes the estimated aggregate state-level effective tax rates (ETRs) paid by corporations and pass-through entities in 2013, including all state taxes levied on business income at the entity and individual level.

Corporations

For corporations, most of the state tax burden on business income results from entity-level rather than owner-level income taxes. According to the US Census Bureau's 2014 Annual Survey of State and Local Government Finance, 45 states and the District of Columbia collected corporate income tax revenue amounting to $47 billion in fiscal year 2014, which largely corresponds to corporate income earned in calendar year 2013.[12] Additionally, in 2013, two states (Ohio and Washington) levied gross receipts taxes in lieu of corporate income taxes, while Texas levied a margins tax on revenues less certain deductions.[13] Together these corporate tax collections amounted to $53 billion in 2013.

Dividing corporate tax collections by pre-tax aggregate state-level corporate income produces an entity-level aggregate state corporate ETR of 5.4 percent in 2013 (see **Table 2**).[14]

Table 2. Aggregate State-Level Corporate Entity Effective Tax Rate, 2013
(Dollar Amounts in Billions)

Aggregate state-level corporate tax	**$53**
State corporate income tax collections	$47
Adjustments for gross receipts and other business taxes	$6
Aggregate state-level corporate income (before state tax)	**$987**
Aggregate state-level corporate income (after state tax)	$934
Aggregate state-level corporate tax	$53
Aggregate state-level corporate ETR (Tax / Income)	**5.4%**

Source: PwC calculations based on data from SOI, US Census Bureau, and state revenue agencies.

[12] The Census measure includes New Hampshire's Business Enterprise Tax and Business Profits Tax, which are levied on all businesses. We removed the portion of these New Hampshire tax collections attributable to pass-through businesses, using state-level payroll data from the US Census Bureau's 2014 County Business Patterns, and accounted for small business exemptions by excluding businesses with fewer than 5 employees.

[13] We used tax collections data published by each state's revenue agency. We estimated the corporate share of collections using state-level payroll data from the US Census Bureau's 2014 County Business Patterns, and accounted for small business exemptions by excluding businesses with fewer than 10 employees. Nevada also has a gross receipts tax, which is not included in this analysis as it was enacted after 2013.

[14] The denominator of the ETR is pre-tax aggregate state-level corporate income, which equals aggregate state-level corporate income plus state corporate tax collections, since state corporate taxes are deductible from federal corporate income.

State-level taxes on corporate business income also are collected at the individual level on corporate dividend distributions and shareholder gains from the sale of corporate stock.[15] In 2013, 43 states and the District of Columbia levied dividend taxes on corporate income distributed to shareholders, and 41 of those states and the District of Columbia also levied shareholder capital gains taxes.

To estimate the ETRs on individual income, we used a state-specific microsimulation model based on a population of individual tax units constructed from the Census Bureau's Current Population Survey, SOI data, and other sources. The weighted average state-level individual ETR is estimated to be 4.2 percent for both capital gains and for qualified dividend income. For dividends, we applied this ETR to the state taxable portion of qualified dividends distributed to shareholders of domestically issued corporate stock.[16] For capital gains, we applied this ETR to the state taxable portion of realized capital gains from sale of domestically issued corporate stock.[17]

Combining the entity-level and individual-level taxes results in a total of $60 billion in state taxes on corporate income 2013. Dividing total state corporate income tax by pre-tax aggregate state-level corporate income produces a combined entity plus shareholder state-level ETR on corporate income of 6.1 percent in 2013 (see **Table 3**).

Table 3. Aggregate State-Level Combined Corporate Effective Tax Rate, 2013
(Dollar Amounts in Billions)

Aggregate state-level tax	**$60**
Entity-level corporate taxes	$53
Individual-level dividends taxes	$4
Individual-level capital gains taxes	$3
Aggregate state-level corporate income (before state tax)	**$987**
Aggregate state-level combined corporate ETR (Tax / Income)	**6.1%**

Source: PwC calculations based on data from SOI, US Census Bureau, state revenue agencies, CBO, Federal Reserve and other sources.

[15] Dividends and capital gains in the current year may arise from both current year and prior year business income. We do not adjust dividends and capital gains for the portion arising from current year business income as any undistributed current year earnings will give rise to future year dividends and capital gains.
[16] According to SOI data, qualified dividends reported on individual income tax returns in 2013 amounted to $158 billion. Based on the Federal Reserve's Flow of Funds data for 2013, 81 percent of this amount was from domestically issued corporate stock. Based on the analysis in the previous section regarding state taxation of foreign income, 76 percent of worldwide corporate income was included in the state corporate income tax base in 2013. Making these adjustments results in $98 billion in qualified dividends from the state taxable portion of domestically issued corporate stock.
[17] According to the Congressional Budget Office (CBO), capital gains realizations in calendar year 2013 amounted to $511 billion. See CBO, data supplement to "The Budget and Economic Outlook: 2017 to 2027," January 2017. Of the $511 billion, we estimate that 25 percent was from sale of corporate stock, based on the most recent data from SOI (tax year 2012). As with dividends, we reduced capital gains by the portion from (i) foreign issued corporate stock and (ii) foreign income of domestic corporations that is exempt from state tax, leaving $79 billion in capital gains.

Pass-Through Businesses

For pass-through entities, we used the state-specific microsimulation model to estimate the ETR on pass-through income. We estimate that the weighted state-average ETR for partnership and S corporation income received by individuals is 5.3 percent and for sole proprietorship income is 2.7 percent in 2013.[18] However, this does not account for the portion of partnership income that is distributed to foreign partners and to tax-exempt organizations, and thus not subject to state tax (ETR of zero).[19]

We applied these ETRs (including the zero ETR on exempt partnership income) to the respective 2013 pass-through business income state tax bases developed in the prior section of this report. To these taxes we added capital gains taxes on sales of pass-through interests.[20] Finally, we added the pass-through business portions of state gross receipts taxes and of New Hampshire's business taxes. The sum of these taxes on pass-through business income is $60 billion in 2013, roughly equal to the total of state taxes levied on corporate income. Dividing total state pass-through business income tax by total state pass-through business income produces a pass-through business state ETR of 4.7 percent in 2013 (see **Table 4**).

Table 4. Aggregate State-Level Pass-through Business Effective Tax Rate, 2013
(Dollar Amounts in Billions)

Aggregate state-level tax	**$60**
Partnership income taxes	$25
S corporation income taxes	$22
Sole proprietorship income taxes	$8
Personal capital gains taxes on sale of pass-through interests	$2
Gross receipts and other business taxes	$3
Aggregate state-level pass-through business income	**$1,283**
Aggregate state-level pass-through business ETR (Tax / Income)	**4.7%**

Source: PwC calculations based on data from SOI, US Census Bureau, state revenue agencies, CBO, Federal Reserve and other sources.

[18] Taxpayers with S corporation and partnership income tend to have higher income overall, relative to taxpayers with sole proprietorship income. In many states, the individual income tax rates are graduated, so that higher income taxpayers are subject to higher marginal tax rates.
[19] SOI data indicate that US partnership income distributed to foreign partners, adjusted for tiered partnership flows to corporations and other partnerships, amounted to $4 billion in 2013, which may be subject to withholding tax in some states. SOI data indicate that US partnership income distributed to tax-exempt organizations amounted to $93 billion in 2013, a portion of which is taxable at the federal level and in most states as unrelated business taxable income (UBTI) and reported on IRS Form 990-T along with other types of UBTI including S corporation income, capital gains, and rent income. SOI data indicate that UBTI amounted to $2 billion in 2013. The reported results in Table 4 do not change if instead we assume, at the extreme, that the partnership ETR of 5.3 percent applies to all $4 billion of partnership income distributed to foreign partners and to all $2 billion of UBTI.
[20] SOI data indicate that 8 percent of capital gains in 2012 was from sale of pass-through business interests, amounting to $38 billion in capital gains realizations in 2013, based on CBO data. To this amount, we applied the capital gains ETR from the microsimulation model (the results do not change significantly if instead we use the microsimulation ETR for partnership and S corporation income).

Appendix: Methodology

State Business Income

To measure business income for state tax purposes, we relied primarily on an approach developed by staff at the US Treasury Department, which uses federal tax data published by the Internal Revenue Service Statistics of Income (SOI).[21] The Treasury Department analysis constructs consistent income statements for C corporations, S corporations, partnerships, and sole proprietors for the period 1993 to 2012.

For corporations, the Treasury Department develops an income statement based on the receipts and deductions reported on IRS Form 1120 (corporate tax return), before net operating losses and special deductions (which includes Subpart F income). The measure also excludes the Section 199 domestic production activities deduction, since it effectively operates as a tax rate reduction rather than accounting for a business expense. Most states do not allow the Section 199 deduction. The measure also includes tax-exempt interest income and all other passive and active income less deductions.

For partnerships, the Treasury Department uses SOI data from Form 1065 and the accompanying Schedule K, which contains certain passive income and deductions not reported on the face of Form 1065. Most importantly, the Treasury Department methodology adjusts for the overstatement of partnership income in SOI data (SOI's integrated business income series) that results from the tiered ownership of partnerships by corporations and other partnerships. In 2012, for example, 24 percent of partnership income flowed to corporations and 33 percent flowed to other partnerships, according to SOI tabulations of Schedule K of the Form 1065.

For S corporations, the Treasury Department uses SOI data from Form 1120S and the accompanying Schedule K, which contains certain passive income and deductions not reported on the face of Form 1120S.

For sole proprietorships, the Treasury Department uses SOI data from Form 1040, Schedule C.[22] The Treasury Department measure of pass-through income excludes farm income (Form 1040, Schedule F) and rental real estate and royalty income (Form 1040, Schedule E), as do we.[23]

Using more recently published SOI data, we extended the Treasury Department time series (for 1993 to 2012) to 2013.[24] Using the Treasury Department methodology we calculate that

[21] James Pearce, "Measuring Aggregate Business Income with Tax Data," *National Tax Journal*, December 2015, 68 (4), 1025-1046.
[22] Sole proprietorship income includes only Schedule C income, and excludes personal investment income (e.g., interest income reported on Form 1040, Schedule B).
[23] As noted above, for partnership and S corporation income we use SOI data from Forms 1065 and 1120S, and the accompanying Schedule Ks.
[24] SOI does not publish the necessary data to extend the series to years earlier than 1993.

corporate income in 2013 is $1.070 trillion.[25] Similarly, we calculate pass-through business income in 2013 is $1.283 trillion.[26]

To adjust the Treasury approach for state income tax purposes based on state tax rules, for corporations we estimated and removed foreign source income that is exempt from state tax. In the 29 states that require combined reporting, the water's edge rule is either required or electable, meaning that no state requires that all income of foreign affiliates be included in the reported income base. However, certain types of foreign source income are taxable in certain states.

Many states begin with federal taxable income as the starting point for computing state taxable income. Federal taxable income includes repatriated foreign income, including dividends received from foreign corporations, Section 78 dividend "gross-up" income (reflecting foreign taxes deemed paid), Subpart F income (deemed dividends), interest, royalties, rents, license fees, branch income, non-branch service income, and non-branch other income.

Most states exclude dividends received from foreign corporations as a subtraction modification from federal income, while other states deem this income as non-apportionable and exclude it as "non-business" income. However, certain states, such as California and New Hampshire, do not allow a full dividend received deduction for foreign dividends. Because states do not allow the use of foreign tax credits, most states allow the subtraction of Section 78 gross-up income. One exception is Massachusetts, which allows the subtraction of 95 percent of Section 78 gross-up income.

Subpart F income is subject to tax in several states, including California, New Hampshire, Vermont, and West Virginia. In California, a controlled foreign corporation (CFC) with Subpart F income is included in the water's edge combined report based on the ratio of Subpart F income to earnings and profits for the current taxable year.[27] Interest income (other than from the active conduct of a financial business) is treated as Subpart F income at the federal level and states generally conform.

Foreign royalties, rents, license fees, and branch income generally are subject to state tax, with apportionment relief, in all states with a corporate income tax. Non-branch service income (e.g., financial, engineering, and professional services income) and other income generally is not subject to tax, due to the water's edge filing standard, except to the extent certain states assert tax on foreign corporations that have nexus in the state. Tax haven rules have developed in certain states (Alaska, the District of Columbia, Montana, Oregon, and West Virginia), which require the inclusion of a CFC in the combined return if the CFC is incorporated in a tax haven.

---

[25] This compares to $1.161 trillion in SOI's integrated business income series, i.e., "net income (less deficit)." Most of the difference is because SOI's net income (less deficit) includes Subpart F income.

[26] This compares to $1.517 trillion in SOI's integrated business income series. Most of the difference is because SOI's net income (less deficit) includes partnership income that flows to corporations and other partnerships.

[27] California Franchise Tax Board, "Internal Procedures Manual: Water's-Edge Manual," Chapter 2, September 2006, available at https://www.ftb.ca.gov/aboutFTB/manuals/audit/water/ch2.pdf.

Accordingly, starting with Treasury-defined corporate income (which excludes Subpart F income but includes all other foreign source income), we made the following adjustments for foreign income as reported on IRS Form 1118 for 2013[28]:

1. Added back 14 percent of Subpart F income and interest income, based on the 2013 share of gross domestic product (GDP) attributable to California, New Hampshire, Vermont, and West Virginia (according to the Bureau of Economic Analysis).

2. Removed essentially all (99.9 percent) of Section 78 gross-up income, based on the partial exclusion in Massachusetts and that state's 2013 share of GDP (according to the Bureau of Economic Analysis).

3. Removed 95 percent of dividends received from foreign corporations, based on the degree to which states exclude this income and the 2013 share of GDP attributable to those states with partial exclusions (according to the Bureau of Economic Analysis).

4. Removed 10 percent of royalties, rents, license fees, and branch income, representing estimated apportionment relief.

5. Removed all other income.

In total, these adjustments amount to an aggregate state tax exclusion of 62 percent of foreign income, or $285 billion of the $461 billion in foreign income reported on IRS Form 1118 for 2013. We applied the same 62 percent state tax exclusion to Form 1118 foreign income for all years (1993 to 2013), yielding the aggregate state-level corporate income shown in Table 1.[29]

Microsimulation Model Effective Tax Rates

To estimate the ETRs on individual income, we used a state-specific microsimulation model based on a population of individual tax units (representing taxpayers) constructed from the Census Bureau's Current Population Survey, the SOI Public Use File, SOI tabulations of individual income by state, the Federal Reserve Board's Survey of Consumer Finances, and other sources. The model contains 51 tax calculators, representing the tax codes of the 50 states and the District of Columbia that were in effect in 2013. For each tax unit, the model calculates an average ETR for all income, defined as total state tax divided by federal adjusted gross income. For each tax unit, this ETR is applied to each of four types of income to get the state tax on each type of income:

1. Schedule C income (sole proprietors)
2. Schedule E income (partnerships and S corporations)
3. Capital gains
4. Qualified dividends

[28] IRS Form 1118 is used by corporations to compute their foreign tax credit for certain taxes paid or accrued to foreign countries or US possessions. As such, it provides a measure of foreign sources of income that are subject to US corporate tax.

[29] This is a simplifying assumption, since states have changed their treatment of foreign income over this period.

For each type of income the model calculates an average state ETR, weighted by income for all tax units in all 50 states and the District of Columbia.

ETRs on Schedule C income, Schedule E income, and capital gains on the sale of pass-through business interests are used in the calculation of the pass-through business state ETR.[30] ETRs on qualified dividends and shareholder capital gains are used in the calculation of the integrated corporate state ETR.

[30] We treated all partnership and S corporation income, including ordinary business income and passive income, as subject to the ETR on Schedule E income as computed by the microsimulation model. Several states tax capital gains income at preferential rates, but this was not taken into account in the ETR calculation of partnership and S corporation income.

STRI

STATE TAX RESEARCH INSTITUTE

Council On State Taxation

122 C Street, NW | Suite 330

Washington, DC 20001 | (202) 484-5222