RESEARCH IN FOCUS

The Center for Growth and Opportunity at Utah State University

What Business Tax Reforms Would Be Best for Tennessee?

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Research in Focus

1. Introduction

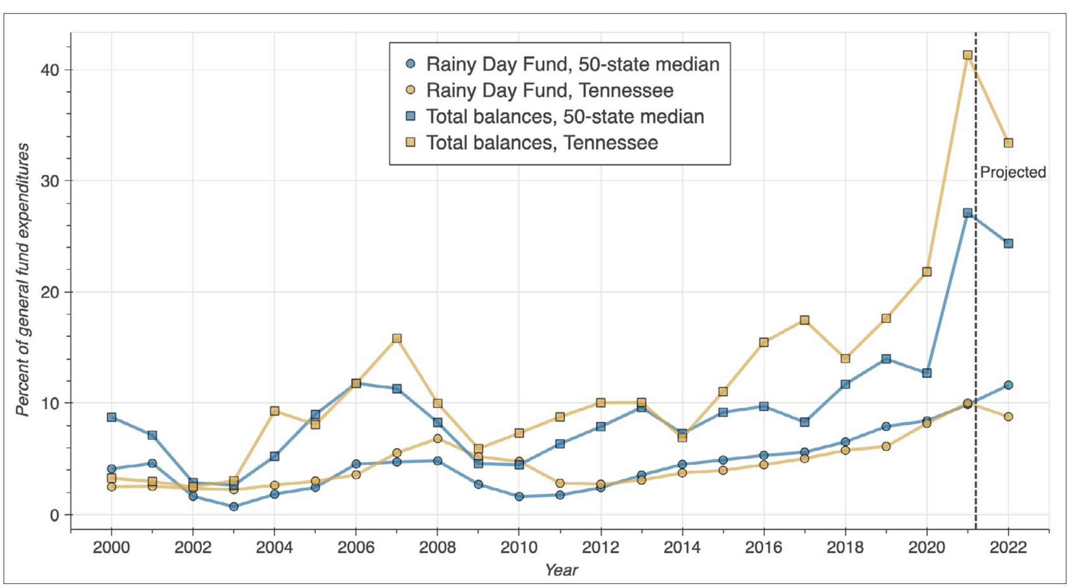
With state budget surpluses and record-high state reserve account balances, Tennessee lawmakers are considering policy reforms that continue to support the state's growth while leaving some reserves available for a potential economic downturn in the future. One way to reduce the reserve balances while strengthening businesses is to reform elements of the Tennessee business tax law.

In this article, we use an open source model of business investment incentives to quantify and compare the effects of three potential Tennessee business tax reforms on both the investment incentives faced by businesses in the state and also on state revenues. Because all of our modeling structure is open source, we provide all of our code and source data in a way that is easy to replicate and customize.[1]

Budget surpluses, tax revenues, and rainy day funds are projected to be at 20-year highs in most states for year-end 2022, thanks to a surprisingly resilient US economy.[2] Tennessee is no exception, with a projected record-high rainy day fund balance of $1.55 billion at the end of 2022.[3] Figure 1 shows the time series from 2000 to 2022 of the rainy day fund balance and the total reserves and balances as a percentage of general-fund expenditures for both the State of Tennessee and the 50-state median values.

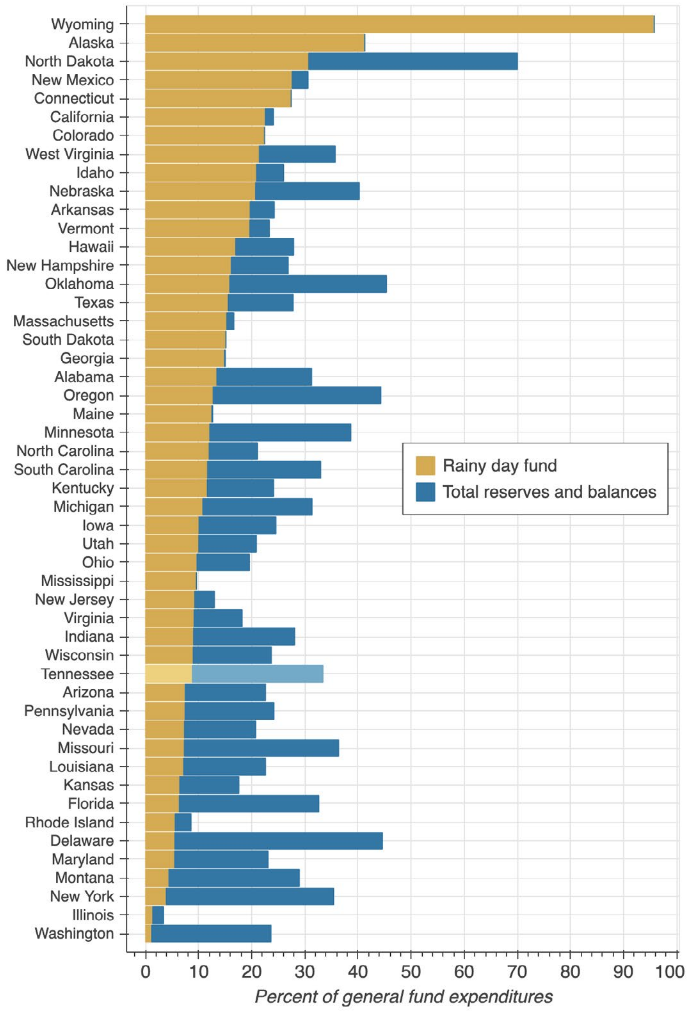
Figure 2 shows the estimated 2022 rainy day fund balances and total reserves and balances as percentages of general-fund expenditures for each state, ranked in descending order by rainy day fund balances. Despite Tennessee's estimated record 2022 rainy day fund balance of $1.55 billion, Tennessee's balance ranks 36th among US states. If we rank states in descending order by the broader measure of total balances and receipts as a percentage of general-fund expenditures, Tennessee has the 12th-highest balance among US states.

Figure 1. Rainy Day Fund and Total Reserves as Percentages of General-Fund Expenditures, Tennessee and 50-State Median: 2000–2022



Source: Pew Charitable Trusts, "Fiscal 50: State Trends and Analysis," December 16, 2022, accessed December 31, 2022.

Figure 2. Estimated 2022 Rainy Day Fund Balances and Total Reserves and Balances as Percentages of General-Fund Expenditures



Source: Pew Charitable Trusts, "Fiscal 50: State Trends and Analysis," December 16, 2022, accessed December 31, 2022.

Note: For states in which the blue bar is not visible for total balances and reserves, the value equals the rainy day fund balance percentage.

Table 1 shows the number of states that had record highs in either of these two reserve categories in either 2021 or 2022. For rainy day fund balances, 36 states had record highs in 2022, and 29 states had record highs in 2021. Tennessee had record-high rainy day fund balances in both 2021 and 2022. For total balances and reserves, 26 states had record highs in 2022, and 42 states had record highs in 2021. Tennessee had a record high in its total balances and reserves in 2021, with 2022 values being slightly lower.

Tempering the optimism from the current surpluses and reserve balances are the continuing risks in 2023 of high interest rates, inflation, and potential economic slowdown. As many state legislatures come into session in January and February 2023, policymakers are balancing the opportunity to draw down these reserves with the risk of needing the rainy day funds in a downturn.

In this vein, we simulate the effect of changing three different areas of Tennessee's business tax law, including a repeal of the state's business tax. As we show in section 2, the Tennessee business tax is a small fraction of state tax revenue and repealing it would result in a moderate reduction in state reserve balances. In section 3, we use the open source Cost of Capital Calculator model to simulate the effects of three potential reforms on business incentives for investment.[4]

Our simulations in section 3 show that repealing the Tennessee business tax not only results in a moderate decline in tax revenue but also causes only a moderate decline in marginal effective tax rates for businesses and therefore a small increase in the incentive to invest. For this reason, we simulate two additional reforms, one related to the Tennessee franchise tax and one related to the excise tax. We simulate the effect of repealing the Tennessee franchise tax, which causes a large decrease in marginal effective tax rates on businesses and a big increase in investment incentives. But it would also result in a large decline in state tax revenue.

We also simulate a change to the Tennessee excise tax to include federal bonus depreciation. This policy results in the biggest decrease in marginal effective tax rates on businesses and the biggest increase in investment incentives. Furthermore, this policy changes the timing of state tax revenues more than the amount of state revenues over the next few years. As such, updating the Tennessee excise tax to include federal bonus depreciation might be a suitable substitute for or addition to the proposed repeal of the Tennessee business tax. It has a large positive effect on Tennessee business investment incentives, and its effect on Tennessee state tax revenue is small over the next few years.

Table 1. Number of States for Which Estimated 2022 Amounts Represent 23-Year High for Select Categories of Rainy Day Fund and Total-Balances-and-Reserves Statistics: 2000–2022

Category	Number of states for which 2021 was 22-year high	Number of states for which estimated 2022 is 23-year high	Tennessee 2021 was 22-year high	Tennessee 2022 is 23-year high
Rainy day fund balance	29	36	Yes	Yes
Rainy day fund balance as percentage of general-fund expenditures	26	20	Yes	No
Total balances and reserves	42	26	Yes	No
Total balances and reserves as percentage of general-fund expenditures	32	20	Yes	No

Source: Pew Charitable Trusts, "Fiscal 50: State Trends and Analysis," December 16, 2022, accessed December 31, 2022.

2. Tennessee Business Tax Landscape

Tennessee imposes four different taxes on business income and assets. We describe each of these taxes in more detail later. Table 2 shows the total revenue from each of the four tax categories and the percentage of total state revenue in fiscal years (FY) 2021 and 2022 (sorted in descending order by percentage of total state revenue).

2.1. Excise Tax

The Tennessee excise tax is a tax on business net earnings or income. It is like the federal corporate income tax.[5] The Tennessee excise tax rate is currently 6.5 percent of Tennessee taxable income. Depreciation is handled the same way as with the federal corporate income tax except that the Tennessee excise tax does not allow bonus depreciation. In contrast to Tennessee, 18 states follow the federal corporate income tax's bonus-depreciation policy by allowing full bonus depreciation.[6] A number of business types are exempt from both excise and franchise taxes.[7] Tennessee's excise tax was 13.95 and 14.43 percent of gross state revenue in FY 2021 and 2022, respectively.[8]

2.2. Franchise Tax

The Tennessee franchise tax is a tax on the value of assets used in Tennessee. It is like a wealth tax on businesses. The Tennessee franchise tax rate is 0.25 percent of the greater of net worth or real and tangible property in Tennessee.[9] With this basis, businesses are subject to tax even if they are not profitable. As with the excise tax earlier, a number of business types are exempt from both franchise and excise taxes. Tennessee's franchise tax was 7.52 and 7.26 percent of gross state revenue in FY 2021 and 2022, respectively.[10]

2.3. Gross Receipts Tax

Although both the Tennessee gross receipts tax and the business tax are imposed on qualifying gross receipts of businesses, the two terms are differentiated and have separate meanings. The Tennessee gross receipts tax is a tax on the gross receipts of utilities (including the Tennessee Valley Authority), soft drink bottlers, vending machines, and mixing bars.[11] The gross receipts tax rate on bottlers is 1.9 percent, on vending machines 1.5 percent, and on mixing bars 15 percent. The gross receipts tax rate on utilities whose revenues derive from intrastate business is 3 percent, and on manufactured gas or natural gas it is 1.5 percent.[12] The Tennessee gross receipts taxes were 2.04 and 1.73 percent of gross state revenue in FY 2021 and 2022, respectively.[13]

2.4. Business Tax

In addition to Tennessee's state business tax, the state also has city and county business taxes. But we focus solely on the state business tax in this article. As mentioned in the previous section, Tennessee's state business tax is a tax on qualifying gross receipts of businesses, similar to the gross receipts tax. As such, it imposes higher effective tax rates on low-margin businesses, which have high revenues (which are subject to the tax) but also high costs (which are not deductible against the tax). The fact that there is more revenue than profits is one attractive feature of a business gross receipts tax. The base is large, and therefore low rates can generate significant revenue. As shown in table 1, the Tennessee business tax is the smallest category in percentage terms of state business taxes, accounting for 1.43 and 1.35 percent of gross state revenue in FY 2021 and 2022, respectively.

Tennessee state business tax rates vary across industries and by retailer-versus-wholesaler status. The state business tax rates range between 0.02 percent (two-hundredths of a percent) and 0.3 percent (three-tenths of a percent).[14] In addition to the rate's wide variation across industries and classifications, the Tennessee state business tax code includes a large number of deductions, exemptions, and credits, further magnifying the tax rates faced by businesses in the state.[15]

The low Tennessee state business tax rates understate the true burden of the tax on the state's businesses because business-to-business transactions are not exempted. Therefore, the tax on a given intermediate good is compounded as it is sold by one business and used to generate sales from another. This happens unless the supply chain is fully contained within the same business, which means that the Tennessee business tax incentivizes vertical integration. Vertical integration can have negative impacts on industry consolidation, leading to more monopolistic behavior.

Table 2. Tennessee Business Taxes: Dollars and Percentage of Total Tax Revenue

Tax Category	FY 2021 $ millions	FY 2021 % total state revenue	FY 2022 $ millions	FY 2022 % total state revenue
Excise tax	$2,564.3	13.95%	$3,016.3	14.43%
Franchise tax	$1,381.8	7.52%	$1,518.2	7.26%
Gross receipts tax	$374.5	2.04%	$368.5	1.76%
Business tax	$263.6	1.43%	$282.7	1.35%

Source: Tennessee Department of Revenue, "Monthly Collections Spreadsheet: June 2022," accessed December 29, 2022.

3. Investment Incentives

In this section, we compare the effects of three potential reforms to Tennessee's business tax structure. Table 3 shows a summary of the policy reforms and their corresponding effect on businesses' incentives to invest and their effect on state revenues. We simulate these reforms using the open source Cost of Capital Calculator model.[16]

The model calculates the marginal effective tax rate (METR) on new investments, given the policy and economic characteristics of the average business.[17] The model calculates the METR on machinery and equipment, buildings, and intangible assets, but we focus here on investment in machinery and equipment that is financed with retained earnings by a corporate business entity.[18] The METR is a forward-looking measure and takes into account tax rates as well as deductions, such as the depreciation of a capital asset. The METR therefore will vary according to not just tax rates but the availability of investment tax credits, the ability to deduct interest costs, and the rates of capital-cost recovery, among other features of a tax system.

Under current federal and Tennessee law, state and federal taxes combine for an effective marginal tax rate on new investments in machinery and equipment for Tennessee businesses of 7.2 percent as shown in the "Current law" row in table 3. Under current law, Tennessee businesses pay the federal corporate income tax, are allowed to deduct 80 percent of bonus depreciation from their taxable income, and pay the Tennessee business tax, excise tax (which does not allow bonus depreciation), and franchise tax.

We find that the first reform, repealing the Tennessee business tax, strikes a safe balance of moderately reducing marginal effective tax rates on Tennessee businesses while only drawing down a fraction of the rainy day fund through lost tax revenues. Another possible policy is updating the Tennessee excise tax to include federal bonus-depreciation rules. This policy results in a more significant reduction in the METR. And any loss in tax revenue is primarily confined to the first year and is recovered in the following years. The third reform—repealing the Tennessee franchise tax—results in the largest reduction in the METR, but the loss in annual tax revenue is permanent and large.

3.1. Repealing the Tennessee Business Tax

The first reform in table 3 is repealing the Tennessee business tax described in section 2.4. This reform would moderately reduce the METR faced by Tennessee businesses to 6.5 percent, down from the 7.2 percent rate under current law. Assuming that tax collections for 2023 will be the same as in 2022, repealing the Tennessee business tax would reduce state revenues by $282.7 million. This reform would provide a moderate boost to business investment incentives while only reducing a fraction of the estimated 2022 rainy day fund balance of $1.55 billion and leaving some resources in reserve for a potential economic downturn.

3.2. Integrating Federal Bonus Depreciation into the Tennessee Excise Tax

The second reform in table 3 is updating the current Tennessee excise tax to include the 2023 federal bonus-depreciation rule allowing 80 percent of eligible assets to be deducted from taxable income. The model shows that integrating the 2023 federal bonus-depreciation rule into the Tennessee excise tax law would result in a substantial reduction of the METR on qualifying investments, falling from the current 7.2 percent to 3.9 percent. This is a nearly 50 percent cut in the METR.

We could not calculate the loss of tax revenue from this policy because we do not have data on the Tennessee distribution of industries and their tax classification and asset composition. Table 2 shows that the Tennessee excise tax is the largest business tax category, generating $3.016 billion in revenue in FY 2022 and representing 14.4 percent of total state tax revenues.

Although we cannot calculate the short-run revenue impact of this reform, it is true that any reduction in revenues from businesses' expensing most of their assets in 2023 would be recovered in 2024 tax revenues and beyond because of a lack of deductible expenses in those years. Changing capital-cost-recovery rules in this way just shifts the timing of the deductions, with a switch to accelerating the deductions toward the present, a time when Tennessee has a large rainy day fund. This property of significantly reducing METRs on new investment and restricting reductions in state tax revenues to the immediate future makes this reform attractive in the current environment.

Table 3. Effects of Tennessee Business Tax Reforms in 2023 on Business Incentives to Invest (METR on machines) and on State Tax Revenue, Compared against Current Law

Reform	Marginal effective tax rate (METR) faced by average business[a]	Change in 2023 state tax revenue ($ millions)[b]
Current law	7.2%	$0.0
Repeal the TN business tax	6.5%	-$282.7
Implement federal bonus depreciation in the TN excise tax	3.9%	unknown
Repeal the TN franchise tax	3.3%	-$1,518.2

a The marginal effective tax rates in the first column of table 3 are calculated using the open source Cost of Capital Calculator model and calculating the METR on machines for the average business. All code for these calculations is available in the Jupyter notebook TN_BusinessTax.ipynb in the public repository for this article and in the corresponding Google Colab notebook that performs the computations from your browser in the cloud.

b The changes in 2023 state revenue in the second column of table 3 assume that the losses equal the amounts of revenue from those policies from FY 2022 in table 2.

3.3. Repealing the Tennessee Franchise Tax

The third reform in table 3 is to repeal the franchise tax. This reform results in the largest decrease in the METR on investment, falling from the current 7.2 percent to 3.3 percent. The large drop in the METR comes because the franchise tax is a burden on investment regardless of what return it earns. However, the franchise tax represents a substantial source of revenue for the state at $1.5 billion in FY 2022. Although repealing the franchise tax would have the largest positive effect on Tennessee business investment incentives, the revenue loss would nearly completely draw down the expected $1.55 billion rainy day fund.

4. Conclusion

In this article, we describe the current situation of record-high balances in state rainy day balances and in total reserves and balances across the US and in Tennessee. We describe the four main components of Tennessee business tax policy, and we simulate the effects of three pro-growth reforms that reduce marginal effective tax rates (METRs) on business investment and also result in reductions in state tax revenues.

We find that the first reform, repealing the Tennessee business tax, strikes a safe balance of moderately reducing METRs on Tennessee businesses while only drawing down a fraction of the rainy day fund by reducing tax revenues. Another possible policy is updating the Tennessee excise tax to include federal bonus-depreciation rules. This policy results in a more significant reduction in the METR. And any loss in tax revenue is primarily confined to the first year and is recovered in the following years. The third reform—repealing the Tennessee franchise tax—results in the biggest reduction in METR, but the loss in annual tax revenue is permanent and large.

Another option that could be added to any of the reforms discussed earlier, which we did not analyze in this article, is gradually phasing in any of the three reforms. Policymakers could also include revenue and reserve-fund-balance triggers in implementing these policies.

The current record surpluses put Tennessee policymakers in the position of being able to achieve two seemingly contradictory goals. They can enact pro-growth policies that perpetuate Tennessee's track record of being an inviting place to live and work. At the same time, they can conserve state financial reserves against potential economic downturn. Repealing the business tax is a very safe option that balances those two incentives. And including federal bonus depreciation in the specification of Tennessee's excise tax provides an even bigger boost to businesses without costing the state much more in revenue over the next few years.

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Richard Evans *is a senior research fellow and director of open policy at the Center for Growth and Opportunity. He is leading a new project to build a 50-state microsimulation model of individual tax and benefit policy in which all of the project will be open source and open-access.*

Endnotes

1 All data, analyses, and images in this article can be reproduced using the resources in the GitHub repository for this article at https://github.com/TheCGO/TN-BusinessTax. The code for replicating the analyses and creating the images can be run locally on your machine using the Jupyter notebook TN_BusinessTax.ipynb or can be run from your browser using resources in the cloud from this Google Colab notebook: https://colab.research.google.com/drive/1vHYcdRqXN9wM2waako2xn3y1oQuy9BP2?usp=sharing.

2 To account for accumulated state surpluses, we use two accounting concepts that are common across states. Total reserves and balances are states' intentional savings as well as dollars left over in the general fund. See Justin Theal and Joe Fleming, "Budget Surpluses Push States' Financial Reserves to All-Time Highs," Pew Charitable Trusts, May 10, 2022, https://www.pewtrusts.org/en/research-and-analysis/articles/2022/05/10/budget-surpluses-push-states-financial-reserves-to-all-time-highs. Rainy day funds, also called reserve funds or stabilization accounts, are a subset of total reserves and balances. See "What Are State Rainy Day Funds, and How Do They Work?" Tax Policy Center, Urban Institute and Brookings Institution, accessed December 30, 2022, https://www.taxpolicycenter.org/briefing-book/what-are-state-rainy-day-funds-and-how-do-they-work. Rainy day funds are accounts to which state budget surpluses are automatically transferred, subject to varying rules across states.

3 See Pew Charitable Trusts, "Fiscal 50: State Trends and Analysis," December 16, 2022, accessed December 31, 2022, https://www.pewtrusts.org/en/research-and-analysis/data-visualizations/2014/fiscal-50#ind5. See also TN Transparent Tennessee, "Rainy Day Fund," accessed January 10, 2023, https://www.tn.gov/transparenttn/state-financial-overview/interactive-budget/. The TVA is more complicated in that their gross revenues are split according to property in the eight states in which it operates and is called PILOT. See State of Tennessee, "The Budget: Fiscal Year 2022–2023," February 2022, https://www.tn.gov/content/dam/tn/finance/budget/documents/2023BudgetDocumentVol1.pdf. See also page 41 of Tennessee Advisory Commission on Intergovernmental Relations, "Tennessee Valley Authority's Payments in Lieu of Taxes," Annual Report to the Tennessee General Assembly, January 2022, https://www.tn.gov/content/dam/tn/tacir/2022publications/2022_TVAupdate.pdf.

4 The open source Cost of Capital Calculator model (https://ccc.pslmodels.org/) simulates the effect of tax policy on the investment incentives of corporate and noncorporate businesses. The Cost of Capital Calculator model's documentation is available at https://ccc.pslmodels.org/, and its source code is available at https://github.com/PSLmodels/Cost-of-Capital-Calculator.

5 See Tennessee Department of Revenue, "Franchise and Excise Tax," accessed December 29, 2022, https://www.tn.gov/revenue/taxes/franchise---excise-tax.html.

6 See Jean Murray, "Depreciation Deductions for State Taxes," The Balance, September 19, 2022, https://www.thebalancemoney.com/depreciation-deductions-for-state-taxes-398930. This Bloomberg web page includes a web application that allows you to check which states conform to federal bonus-depreciation rules and what their law is exactly (https://pro.bloombergtax.com/state-conformity-with-federal-depreciation-rules/). It is also worth noting that full federal bonus-depreciation deductibility on federal income tax is reduced to 80 percent in 2023. See Cody Dougherty, "Bonus Depreciation 168(k): Changes Coming in 2023," Global Tax Management, November 29, 2022, https://gtmtax.com/tax-insights/articles/bonus-depreciation-168k-changes-coming-in-2023/.

7 See "Exemptions and Credits" section of Tennessee Department of Revenue, "Franchise and Excise Tax," accessed December 29, 2022, https://www.tn.gov/revenue/taxes/franchise---excise-tax/exemptions.html.

8 See Tennessee Department of Revenue, "Monthly Collections Spreadsheet: June 2022," accessed December 29, 2022, https://www.tn.gov/revenue/tax-resources/statistics-and-collections/monthly-collections-spreadsheets.html. Our calculation takes excise tax revenues for the fiscal year plus the proportion of franchise and excise tax revenue from the excise tax multiplied by "F&E estimated payments." See Jupyter notebook TN_BusinessTax.ipynb for this paper for analysis of calculation.

9 See Tennessee Department of Revenue, "Franchise and Excise Tax," accessed December 29, 2022, https://www.tn.gov/revenue/taxes/franchise---excise-tax.html.

10 See Tennessee Department of Revenue, "Monthly Collections Spreadsheet: June 2022," accessed December 29, 2022, https://www.tn.gov/revenue/tax-resources/statistics-and-collections/monthly-collections-spreadsheets.html. Our calculation takes franchise tax revenues for the fiscal year plus the proportion of franchise and excise tax revenue from the franchise tax multiplied by "F&E estimated payments." See Jupyter notebook TN_BusinessTax.ipynb for this paper for analysis of calculation.

11 Tennessee Department of Revenue, "Gross Receipts Taxes," accessed December 30, 2022, https://www.tn.gov/revenue/taxes/gross-receipts-taxes.html. The gross receipts tax on mixing bars is a tax on the qualifying income of mixing bars, which are establishments that do not sell alcohol but provide drink-mixing ingredients to patrons who bring their own alcohol, otherwise known as "brown bagging" or "bring your own bottle" businesses. See Tennessee Department of Revenue, "Mixing Bar Tax," accessed January 4, 2023, https://www.tn.gov/revenue/tax-resources/legal-resources/important-notices/mixing-bar-tax.html.

12 See "Due Dates and Tax Rates" section of Tennessee Department of Revenue, "Gross Receipts Taxes," accessed December 30, 2022, https://www.tn.gov/revenue/taxes/gross-receipts-taxes/due-dates-and-tax-rates.html.

13 Tennessee Department of Revenue, "Monthly Collections Spreadsheet: June 2022," accessed December 29, 2022, https://www.tn.gov/content/dam/tn/revenue/documents/statistics/2022/Main202206.xlsx.

14 See "Due Dates and Tax Rates" section of Tennessee Department of Revenue, "Business Tax," accessed January 3, 2023, https://www.tn.gov/revenue/taxes/business-tax/due-dates-and-tax-rates.html.

15 See "Deductions, Exemptions and Credits" section of Tennessee Department of Revenue, "Business Tax," accessed January 3, 2023, https://www.tn.gov/revenue/taxes/business-tax/deductions--exemptions-and-credits.html.

16 All data, analyses, and images in this article can be reproduced using the resources in the GitHub repository for this article at https://github.com/TheCGO/TN-BusinessTax. All data and analyses of the simulation of Tennessee business tax reforms in the first column of table 3 were performed using the open source Cost of Capital Calculator (https://ccc.pslmodels.org/), which simulates the effect of tax policy on the investment incentives of corporate and noncorporate businesses. The code for these experiments can be replicated by running the Jupyter notebook TN_BusinessTax.ipynb locally on your machine or can be run from your browser using resources in the cloud from this Google Colab notebook: https://colab.research.google.com/drive/1vHYcdRqXN9wM2waako2xn3y1oQuy9BP2?usp=sharing.

17 These parameters and economic characteristics include the cost of capital, nominal discount rate, inflation rate, investment tax credit, statutory federal corporate income tax rate, statutory state corporate income tax rate, net present value of federal depreciation deduction, net present value of state depreciation deduction, property tax rate, and business tax rate. The Cost of Capital Calculator methodology follows closely Larry Ozanne and Paul Burnham, "Computing Effective Tax Rates on Capital Income," Congressional Budget Office, December 2006, https://www.cbo.gov/publication/18259.

18 More specifically, we assume a piece of equipment with a seven-year depreciable life and a rate of physical depreciation of 10.3 percent per year, similar to special industrial machinery (BEA Code EI40). More details and code to reproduce the results here are available in the Jupyter notebook for these analyses TN_BusinessTax.ipynb or the Google Colab Notebook: https://colab.research.google.com/drive/1vHYcdRqXN9wM2waako2xn3y1oQuy9BP2?usp=sharing.