

# *The Beacon Hill Institute*



## *Moving Toward a Georgia Flat Tax*

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## Executive Summary

House Bill (H.B.) 949, passed by the Georgia House of Representatives in March of 2020, would reduce the top Georgia income tax rate from 5.75 percent to a flat rate of 5.375 percent.<sup>1</sup> H.B. 949 serves as the basis for this study's analysis of the fiscal and economic effects of reducing the top income tax rate while implementing a flat income tax across all income groups. Moreover, this study offers potential revenue offsets to a reduction in the income tax, such as broadening the sales tax base, increasing the sales tax rate, or removing/reducing the film tax credit.

The Beacon Hill Institute (BHI) used its Georgia State Tax Analysis Modeling Program (GA-STAMP) to determine the economic effects of reducing the top income tax rate to a flat income tax. Table E-1 displays the economic results of reducing the Georgia income tax from 5.75 percent to a flat income tax of 5 percent while removing all tax brackets (Model 1.). To offset losses in revenue, the model broadens the sales tax base to include exempted construction services.

GA-STAMP shows that in total, net employment would increase by 21,134 jobs in 2023 and 22,931 in 2027. Investment would increase by \$461 million in 2023 and by \$499 million in 2027. Real (inflation-adjusted) disposable income would increase by \$2.104 billion in 2023 and by \$2.507 billion in 2027. State real GDP would increase by \$1.02 billion in 2023 and by \$1.226 billion in 2027.

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<sup>1</sup> Georgia General Assembly, 2019-2020 Session, H.B. 949, <https://www.legis.ga.gov/legislation/57473>

**Table E-1: The Fiscal and Economic Effects of Reducing the Top Income Tax Rate to 5%**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	21,134	22,931
Investment (\$, millions)	461	499
Real disposable income (\$, billions)	2.104	2.507
State Real Gross Domestic Product (\$, billions)	1.021	1.226
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(1,840.20)	(2,111.20)
Corporate Income Tax	(0.99)	(0.89)
Sales and Use Tax	1,970.52	2,276.48
Other Taxes	9.17	9.70
Total State Tax Change	138.50	174.09
Local Property Taxes	24.55	28.92
Other Taxes and Fees	24.54	25.55
Total Local Tax Change	49.09	54.47
<b>Total State and Local Tax Change</b>	<b>187.59</b>	<b>228.56</b>

Total state tax revenues would increase by \$138.50 million in 2023 and by \$174.09 million in 2027. Local tax revenues would increase by \$49.09 million in 2023 and by \$54.47 million in 2027. Overall, tax revenues in Georgia would increase by \$187.59 million in 2023 and by \$228.56 million in 2027.

Our analysis finds that because of the reduction of the state's top income tax rate and the elimination of tax brackets, the reward for increased work and saving would rise, motivating investment and economic growth. All leading economic indicators (real GDP, investment, real disposable income, and employment) would increase under the tax change. The increase in economic activity sparked by the tax cut, combined with the broadening of the sales tax base, would boost state and local tax revenue collections. Moreover, the reduction in the top income tax rate will come as a benefit to many taxpayers as Georgia's income tax system currently functions similarly to a flat tax (the top tax rate applies to income over \$7,000.)

## Introduction

### The Georgia Personal Income Tax

Most states impose individual income taxes. States without them — Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming — rely on other sources for revenue.<sup>2</sup> Six states have no corporate income tax: Nevada, Ohio, South Dakota, Texas, Washington, and Wyoming. Table 1 displays the personal income tax regimes for all 50 states.

**Table 1: Personal Income Tax Regimes in the Fifty States**

No Tax (8)	Flat Tax (10)	Graduated Tax (33)	
Alaska	Colorado 4.55	Alabama	Montana
Florida	Illinois 4.95	Arizona	Nebraska
Nevada	Indiana 3.23	Arkansas	New Jersey
South Dakota	Kentucky 5.0	California	New Mexico
Tennessee	Massachusetts 5.0	Connecticut	New York
Texas	Michigan 4.25	Delaware	North Dakota
Washington	*New Hampshire 5.0	Georgia	Ohio
Wyoming	North Carolina 5.25	Hawaii	Oklahoma
	Pennsylvania 3.07	Idaho	Oregon
	Utah 4.95	Iowa	Rhode Island
		Kansas	South Carolina
		Louisiana	Vermont
		Maine	Virginia
		Maryland	West Virginia
		Minnesota	Wisconsin
		Mississippi	District of Columbia
		Missouri	

\*New Hampshire imposes a flat state tax only on interest and dividend income.

Georgia imposes a progressive income tax on all income. The top income tax rate is 5.75 percent. Georgia's tax code is a factor in The Tax Foundation's State Business Tax Climate Index, which places the state's ranking at 36<sup>th</sup>.<sup>3</sup>

<sup>2</sup> Tax Foundation, Fiscal Fact Sheet of State Individual Income Tax Rates and Brackets for 2021. Retrieved October 1, 2021, from <https://taxfoundation.org/publications/state-individual-income-tax-rates-and-brackets/>

<sup>3</sup> Tax Foundation, "2021 State Business Tax Climate Index." Retrieved October 1, 2021, from <https://taxfoundation.org/publications/state-business-tax-climate-index/>

Georgia collects state income taxes using a 6-bracket system in which tax rates increase with income.<sup>4</sup> Table 2 displays the brackets.

**Table 2: Georgia Income Tax Brackets 2021**

Single Taxpayer		Married Filing Jointly Taxpayer	
Tax Bracket	Tax Rate	Tax Bracket	Tax Rate
\$0.00+	1.0%	\$0.00+	1.0%
\$750.00+	2.0%	\$1,000.00+	2.0%
\$2,250.00+	3.0%	\$3,000.00+	3.0%
\$3,750.00+	4.0%	\$5,000.00+	4.0%
\$5,250.00+	5.0%	\$7,000.00+	5.0%
\$7,000.00+	5.75%	\$10,000.00+	5.75%

For taxpayers filing as single and unmarried, Georgia's tax rates range from a low of 1.0 percent for the first \$750 in taxable income to 5.75 percent for income exceeding \$7,000. For married individuals filing joint returns, Georgia's tax rates range from a low of 1.0 percent for the first \$1,000 in taxable income to 5.75 percent for income exceeding \$10,000.

### The Economics of Taxing Personal Income

In most states, income taxes are a major source of revenue. Supporters of income taxes suggest that income taxes are more closely aligned with the ability to pay, a longstanding objective of tax policy. Yet income taxes, both individual and corporate, distort decisions to work, save and invest and therefore threaten a state's ability to compete for residents and businesses. By penalizing saving and diminishing incentives to work, the income tax shrinks employment, investment, production, productivity, and future well-being.

The portion of the income tax raised from capital gains fluctuates with the stock market, which makes such collections less predictable. And in practice, taxpayer exemptions and deductions erode the tax base. Compliance costs (the time to complete tax forms) and the double taxation of saving are among the reasons income taxes are less efficient than taxes on consumption.

<sup>4</sup> Georgia Department of Revenue, Income Tax Tables, Retrieved October 1, 2021, from <https://dor.georgia.gov/georgia-income-tax-tables>

The income tax, in sum, negatively impacts net compensation for companies and individuals producing products and services. The income tax takes a portion of the profits made from business investment, leaves less money in the pockets of workers, and decreases the ability and incentive for state residents to work and save. The decrease in total disposable income, in turn, impacts businesses and consumers through reduced demand for goods and services.

### **Fiscal & Economic Effects of Reducing the Georgia Income Tax**

To determine the effects of the reduction of the state personal income tax and the elimination of income tax brackets, BHI used its State Tax Analysis Modeling Program (STAMP) for Georgia.<sup>5</sup> The Georgia STAMP (GA-STAMP) model is a five-year dynamic Computable General Equilibrium (CGE) model that simulates the economic effects resulting from changes in taxes, environmental laws (general and sector-specific), and other "exogenous" changes. As such, it provides a mathematical description of the economic relationships between producers, households, governments, and the rest of the world.

GA-STAMP is general in the sense that it takes all the relevant markets, such as the capital and labor markets, and flows into account. It is an equilibrium model because it assumes that demand equals supply in every market (goods and services, labor, and capital). This equilibrium is achieved by allowing prices to adjust within the model until markets clear. It is computable because it can be used to generate numeric solutions to tax policy changes.

GA-STAMP also allows us to calculate the dynamic (as opposed to static) revenue effects of the tax change. Static estimates assume that there is no change in underlying economic activity in response to a change in tax law. For example, a static estimate of a cut in a PIT (personal income tax), say from 10 percent to 5 percent, would cause revenues to fall by 50 percent ( $= 10 - 5/10$ ). A dynamic estimate would show a smaller drop in revenue because it would capture the positive effect on the tax base of the cut in the PIT (personal income tax).

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<sup>5</sup> For a description of the STAMP model see [http://www.beaconhill.org/STAMP\\_Web\\_Brochure/STAMP\\_HowSTAMPworks.html](http://www.beaconhill.org/STAMP_Web_Brochure/STAMP_HowSTAMPworks.html).

According to economic theory, a cut in the income tax can be expected to increase work effort and, therefore, payrolls. A tax cut that is levied on personal income causes workers to receive higher (after-tax) wages and increases their standard of living. To the employer, the tax cut makes labor less costly and causes employers to demand more labor. With more workers employed, the base upon which the income tax is levied expands, resulting in a "dynamic" increase in tax revenue.

The increase in work effort expands payrolls. In addition to new payrolls, the expansion leads to a dynamic increase in revenues as workers earn and spend more money. This dynamic effect offsets the loss in revenues from the tax rate cut and diminishes the overall revenue loss. One of the principal purposes of STAMP is to capture such dynamic effects.

There is no change in the tax base when a static analysis is used to estimate the outcome of a tax change. A static analysis overestimates the amount of revenue that would be lost from a tax cut.

We present the results of running four alternative income tax changes through GA-STAMP. These are labeled as Model 1, Model 2, Model 3, and Model 4. BHI assumed, in all four scenarios, that a reduction of the top Georgia personal income tax rate to a flat income tax rate would be fully implemented in the calendar year 2023. We report the effects for 2023 and 2027, five years after implementation.

### Model 1

Table 3 displays the economic and fiscal effects of reducing the top income tax bracket in Georgia to 5 percent while eliminating all tax brackets (Model 1.) Model 1 includes broadening the sales tax base to include construction services currently exempt to offset revenue losses.

GA-STAMP shows that in total, net employment would increase by 21,134 jobs in 2023 and 22,931 in 2027. Investment would increase by \$461 million in 2023 and by \$499 million in 2027. Real (inflation-adjusted) disposable income would increase by \$2.104 billion in 2023 and by \$2.507

billion in 2027. State real GDP would increase by \$1.02 billion in 2023 and by \$1.226 billion in 2027.

**Table 3: The Fiscal and Economic Effects of Model 1**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	21,134	22,931
Investment (\$, millions)	461	499
Real disposable income (\$, billions)	2.104	2.507
State Real Gross Domestic Product (\$, billions)	1.021	1.226
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(1,840.20)	(2,111.20)
Corporate Income Tax	(0.99)	(0.89)
Sales and Use Tax	1,970.52	2,276.48
Other Taxes	9.17	9.70
<b>Total State Tax Change</b>	<b>138.50</b>	<b>174.09</b>
Local Property Taxes	24.55	28.92
Other Taxes and Fees	24.54	25.55
<b>Total Local Tax Change</b>	<b>49.09</b>	<b>54.47</b>
<b>Total State and Local Tax Change</b>	<b>187.59</b>	<b>228.56</b>

Total state tax revenues would increase by \$138.50 million in 2023 and by \$174.09 million in 2027. Local tax revenues would increase by \$49.09 million in 2023 and by \$54.47 million in 2027. Overall, tax revenues in Georgia would increase by \$187.59 million in 2023 and by \$228.56 million in 2027.

### Model 2

Table 4 displays the economic and fiscal effects of reducing the top income tax bracket in Georgia to 4 percent while eliminating all tax brackets (Model 2.) Model 2 includes broadening the sales tax base to include construction services and professional, scientific, and technical services. In total, reducing the top income tax bracket in Georgia to 4 percent while eliminating all tax brackets would create 32,527 jobs in 2023 and 35,280 in 2027. Investment would increase by \$632 million in 2023 and by \$697 million in 2027. Real disposable income would increase by \$4.622 billion by 2023 and \$5.489 billion by 2027. State real GDP would increase by \$1.787 billion in 2023 and by \$2.215 billion in 2027.

**Table 4: The Fiscal and Economic Effects of Model 2**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	32,527	35,280
Investment (\$, millions)	632	697
Real disposable income (\$, billions)	4.622	5.489
State Real Gross Domestic Product (\$, billions)	1.787	2.215
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(4,424.70)	(5,076.70)
Corporate Income Tax	(4.68)	(4.83)
Sales and Use Tax	4,453.66	5,183.40
Other Taxes	18.45	19.53
<b>Total State Tax Change</b>	<b>42.73</b>	<b>121.40</b>
Local Property Taxes	59.61	69.98
Other Taxes and Fees	38.85	40.74
<b>Total Local Tax Change</b>	<b>98.46</b>	<b>110.72</b>
<b>Total State and Local Tax Change</b>	<b>141.19</b>	<b>232.12</b>

Total state tax revenues would increase by \$42.73 million in 2023 and by \$121.40 million in 2027.

Local tax revenues would increase by \$98.46 million in 2023 and by \$110.72 million in 2027.

Overall, tax revenues in Georgia would increase by \$141.19 million in 2023 and by \$232.12 million in 2027.

### Model 3

Table 5 displays the economic and fiscal effects of reducing the top income tax bracket in Georgia to 3 percent while eliminating all tax brackets (Model 3.) Model 3 includes broadening the sales tax base to include the following sales tax exemptions (see the appendix for a breakdown of fiscal impacts by service):

- Construction;
- Motor Vehicle and Parts Dealers;
- Investment and Financial Advisers;
- Real Estate Services;
- Professional, Scientific and Technical Services;
- Administrative and Support Services;
- Waste Management and Remediation Services;
- Promoters of Events; Agents and Managers;

- Repair and Maintenance; and
- Personal and Laundry Services.

Net employment would increase by 43,693 jobs in 2023 and 46,867 in 2027. Investment would increase by \$693 million in 2023 and \$754 million in 2027; Real disposable income by \$6.545 billion in 2023 and by \$7.709 billion in 2027. State real GDP would increase by \$1.951 billion in 2023 and by \$2.432 billion in 2027.

**Table 5: The Fiscal and Economic Effects of Model 3**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	43,693	46,867
Investment (\$, millions)	693	754
Real disposable income (\$, billions)	6.545	7.709
State Real Gross Domestic Product (\$, billions)	1.951	2.432
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(6,689.10)	(7,678.00)
Corporate Income Tax	(7.94)	(8.74)
Sales and Use Tax	6,602.80	7,719.50
Other Taxes	27.01	28.16
<b>Total State Tax Change</b>	<b>(68.23)</b>	<b>60.92</b>
Local Property Taxes	89.04	103.93
Other Taxes and Fees	56.49	56.71
<b>Total Local Tax Change</b>	<b>145.53</b>	<b>160.64</b>
<b>Total State and Local Tax Change</b>	<b>77.30</b>	<b>221.56</b>

Total state tax revenues would decrease by \$68.23 million in 2023 and increase by \$60.92 million in 2027. Local tax revenues would increase by \$145.53 million in 2023 and by \$160.64 million in 2027. Overall, tax revenues in Georgia would increase by \$77.30 million in 2023 and by \$221.56 million in 2027.

Model 4

Table 6 displays the economic and fiscal effects of reducing the top income tax rate in Georgia to 5.0 percent in 2023, 4.75 percent in 2024, 4.50 percent in 2025, 4.25 percent in 2026, and 4.0 percent in 2027 (Model 4.) Model 4 eliminates all tax brackets but does not include any revenue offsets. GA-STAMP shows that employment would increase by 21,848 in 2023 and by 34,116 in 2027.

Investment would increase by \$488 million by 2023 and by \$709 million in 2027. Real disposable income would increase by \$2.174 billion in 2023 and by \$5.704 billion in 2027. State real GDP would increase by \$1.206 billion in 2023 and by \$2.008 billion in 2027.

**Table 6: The Fiscal and Economic Effects of Model 4**

<b>Economic Effects</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Net employment (jobs)	21,848	24,656	27,932	31,300	34,116
Investment (\$, millions)	488	552	618	673	709
Real disposable income (\$, billions)	2.174	2.962	3.808	4.719	5.704
State Real Gross Domestic Product (\$, billions)	1.206	1.529	1.870	1.931	2.008
<b>Fiscal Effects (\$ millions)</b>					
Personal Income Tax	(1,827.60)	(2,520.70)	(3,259.20)	(4,045.30)	(4,881.30)
Corporate Income Tax	1.13	1.56	2.05	2.61	3.23
Sales and Use Tax	29.30	38.86	48.88	59.38	70.42
Other Taxes	11.27	14.89	18.57	22.31	26.13
<b>Total State Tax Change</b>	<b>(1,785.90)</b>	<b>(2,465.39)</b>	<b>(3,189.70)</b>	<b>(3,961.00)</b>	<b>(4,781.52)</b>
Local Property Taxes	26.51	36.66	47.64	59.52	72.40
Other Taxes and Fees	34.12	44.83	55.74	66.89	78.33
<b>Total Local Tax Change</b>	<b>60.63</b>	<b>81.49</b>	<b>103.38</b>	<b>126.41</b>	<b>150.73</b>
<b>Total State and Local Tax Change</b>	<b>(1,725.27)</b>	<b>(2,383.90)</b>	<b>(3,086.32)</b>	<b>(3,834.59)</b>	<b>(4,630.79)</b>

Total state tax revenues would decrease by \$1.786 billion in 2023 and by \$4.781 billion in 2027.

Local tax revenues would increase by \$60.63 million in 2023 and by \$150.73 million in 2027.

Overall, tax revenues in Georgia would decrease by \$1.725 billion in 2023 and by \$4.631 billion in 2027.

### **Fiscal Effects & Economic Effects of Revenue Offsets**

The reduction in the top Georgia income tax rate and elimination of tax brackets will come at a revenue cost. However, using its GA-STAMP model, BHI has evaluated various ways in which these revenues losses can be offset. The revenue offsets in this section are separate from the ones used in Models 1 through 3. The appendix contains itemized detail on broadening the sales tax

base to include the services currently exempt under the state tax code used in Models 1 through 3.

Including Groceries in the Sales Tax Base

Table 7 displays the fiscal and economic effects of imposing a 1 percent sales tax on groceries currently exempt from the Georgia sales tax base.

**Table 7: The Fiscal and Economic Effects of a 1% Sales Tax on Groceries**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	(798)	(502)
Investment (\$, millions)	(8)	(8)
Real disposable income (\$, millions)	(302)	(336)
State Real Gross Domestic Product (\$, millions)	(198)	(256)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(2.10)	(1.80)
Corporate Income Tax	(.47)	(.52)
Sales and Use Tax	357.24	432.30
Other Taxes	(.98)	(.92)
<b>Total State Tax Change</b>	<b>353.69</b>	<b>429.06</b>
Local Property Taxes	(.77)	(.92)
Other Taxes and Fees	(4.17)	(4.01)
<b>Total Local Tax Change</b>	<b>(4.94)</b>	<b>(4.82)</b>
<b>Total State and Local Tax Change</b>	<b>348.75</b>	<b>424.24</b>

Net employment would decrease by 798 in 2023 and by 502 in 2027. Investment would decrease by \$8 million by 2023 and by \$8 million in 2027. Real disposable income would decrease by \$302 million in 2023 and by \$336 million in 2027. State real GDP would decrease by \$198 million in 2023 and by \$256 million in 2027.

Total state tax revenues would increase by \$353.69 million in 2023 and by \$429.06 million in 2027. Local tax revenues would decrease by \$4.94 million in 2023 and by \$4.82 million in 2027.

Overall, tax revenues in Georgia would increase by \$348.75 million in 2023 and by \$424.24 million in 2027.

Table 8 displays the fiscal and economic effects of imposing a 2 percent sales tax on groceries currently exempt from the Georgia sales tax base.

**Table 8: The Fiscal and Economic Effects of a 2% Sales Tax on Groceries**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	(1,587)	(997)
Investment (\$, millions)	(16)	(17)
Real disposable income (\$, millions)	(599)	(625)
State Real Gross Domestic Product (\$, millions)	(265)	(289)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(4.20)	(3.60)
Corporate Income Tax	(.93)	(1.04)
Sales and Use Tax	710.88	860.06
Other Taxes	(1.94)	(1.80)
<b>Total State Tax Change</b>	<b>703.81</b>	<b>853.62</b>
Local Property Taxes	(1.54)	(1.60)
Other Taxes and Fees	(8.28)	(7.99)
<b>Total Local Tax Change</b>	<b>(9.82)</b>	<b>(9.59)</b>
<b>Total State and Local Tax Change</b>	<b>693.99</b>	<b>844.03</b>

Net employment would decrease by 1,587 in 2023 and by 997 in 2027. Investment would decrease by \$16 million by 2023 and by \$17 million in 2027. Real disposable income would decrease by \$599 million in 2023 and by \$625 million in 2027. State real GDP would decrease by \$265 million in 2023 and by \$289 million in 2027.

Total state tax revenues would increase by \$703.81 million in 2023 and by \$853.62 million in 2027. Local tax revenues would decrease by \$9.82 million in 2023 and by \$9.59 million in 2027.

Overall, tax revenues in Georgia would increase by \$693.99 million in 2023 and by \$844.03 million in 2027.

Table 9 displays the fiscal and economic effects of imposing a 3 percent sales tax on groceries currently exempt from the Georgia sales tax base.

**Table 9: The Fiscal and Economic Effects of a 3% Sales Tax on Groceries**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	(2,367)	(1,486)
Investment (\$, millions)	(24)	(26)
Real disposable income (\$, millions)	(860)	(939)
State Real Gross Domestic Product (\$, millions)	(365)	(372)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(6.30)	(5.40)
Corporate Income Tax	(1.38)	(1.55)
Sales and Use Tax	1,061.00	1,283.34
Other Taxes	(2.90)	(2.68)
<b>Total State Tax Change</b>	<b>1,050.42</b>	<b>1,273.71</b>
Local Property Taxes	(2.29)	(2.39)
Other Taxes and Fees	(12.36)	(11.90)
<b>Total Local Tax Change</b>	<b>(14.65)</b>	<b>(14.29)</b>
<b>Total State and Local Tax Change</b>	<b>1,035.77</b>	<b>1,259.42</b>

Net employment would decrease by 2,367 in 2023 and by 1,486 in 2027. Investment would decrease by \$24 million by 2023 and by \$26 million in 2027. Real disposable income would decrease by \$860 million in 2023 and by \$939 million in 2027. State real GDP would decrease by \$365 million in 2023 and by \$372 million in 2027.

Total state tax revenues would increase by \$1.050 billion in 2023 and by \$1.274 billion in 2027.

Local tax revenues would decrease by \$14.65 million in 2023 and by \$14.29 million in 2027.

Overall, tax revenues in Georgia would increase by \$1.036 billion in 2023 and by \$1.259 billion in 2027.

Table 10 displays the fiscal and economic effects of imposing a 4 percent sales tax on groceries currently exempt from the Georgia sales tax base.

**Table 10: The Fiscal and Economic Effects of a 4% Sales Tax on Groceries**

<b>Economic Effects</b>	<b>2023</b>	<b>2027</b>
Net employment (jobs)	(3,140)	(1,969)
Investment (\$, millions)	(32)	(35)
Real disposable income (\$, millions)	(1,106)	(1,310)
State Real Gross Domestic Product (\$, millions)	(502)	(578)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(8.40)	(7.20)
Corporate Income Tax	(1.83)	(2.06)
Sales and Use Tax	1,407.64	1,702.16
Other Taxes	(3.85)	(3.56)
<b>Total State Tax Change</b>	<b>1,393.56</b>	<b>1,689.34</b>
Local Property Taxes	(3.04)	(3.17)
Other Taxes and Fees	(16.39)	(15.79)
<b>Total Local Tax Change</b>	<b>(19.43)</b>	<b>(18.96)</b>
<b>Total State and Local Tax Change</b>	<b>1,374.13</b>	<b>1,670.38</b>

Net employment would decrease by 3,140 in 2023 and by 1,969 in 2027. Investment would decrease by \$32 million by 2023 and by \$35 million in 2027. Real disposable income would decrease by \$1.106 billion in 2023 and by \$1.310 billion in 2027. State real GDP would decrease by \$502 million in 2023 and by \$578 million in 2027.

Total state tax revenues would increase by \$1.394 billion in 2023 and by \$1.689 billion in 2027.

Local tax revenues would decrease by \$19.43 million in 2023 and by \$18.96 million in 2027.

Overall, tax revenues in Georgia would increase by \$1.374 billion in 2023 and by \$1.670 billion in 2027.

### Capping the Film Tax Credit

Table 11 displays the fiscal and economic effects of capping the Film Tax Credit. We set caps for the Film Tax Credit at \$400 million in 2023, \$300 million in 2024, \$200 million in 2025, \$100 million in 2026, while eliminating the Credit entirely in 2027. Net employment would decrease by 312 in 2023 and by 989 in 2027. Investment would decrease by \$56 million by 2023 and by \$182 million

in 2027. Real disposable income would decrease by \$19 million in 2023 and by \$71 million in 2027. State real GDP would decrease by \$109 million in 2023 and by \$370 million in 2027.

**Table 11: The Fiscal and Economic Effects of Capping the Film Tax Credit**

<b>Economic Effects</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Net employment (jobs)	(312)	(502)	(670)	(832)	(989)
Investment (\$, millions)	(56)	(89)	(121)	(152)	(182)
Real disposable income (\$, millions)	(19)	(31)	(44)	(57)	(71)
State Real Gross Domestic Product (\$, millions)	(109)	(175)	(240)	(305)	(370)
<b>Fiscal Effects (\$ millions)</b>					
Personal Income Tax	140.10	229.70	321.00	414.10	509.30
Corporate Income Tax	80.00	131.08	183.14	236.17	290.29
Sales and Use Tax	(2.98)	(4.76)	(6.54)	(8.32)	(10.08)
Other Taxes	(1.04)	(1.62)	(2.20)	(2.73)	(3.26)
<b>Total State Tax Change</b>	<b>216.08</b>	<b>354.40</b>	<b>495.40</b>	<b>639.22</b>	<b>786.25</b>
Local Property Taxes	(2.16)	(3.53)	(4.93)	(6.37)	(7.85)
Other Taxes and Fees	(6.28)	(10.03)	(13.73)	(17.37)	(20.96)
<b>Total Local Tax Change</b>	<b>(8.44)</b>	<b>(13.56)</b>	<b>(18.66)</b>	<b>(23.74)</b>	<b>(28.81)</b>
<b>Total State and Local Tax Change</b>	<b>207.64</b>	<b>340.84</b>	<b>476.74</b>	<b>615.48</b>	<b>757.44</b>

Total state tax revenues would increase by \$216.08 million in 2023 and by \$786.25 million in 2027. Local tax revenues would decrease by \$8.44 million in 2023 and by \$28.81 million in 2027. Overall, tax revenues in Georgia would increase by \$207.64 million in 2023 and by \$757.44 million in 2027.

Reducing the Film Tax Credit

Table 12 displays the fiscal and economic effects of reducing the Film Tax Credit by 50 percent. Net employment would decrease by 431 in 2023 and by 542 in 2027. Investment would decrease by \$77 million by 2023 and by \$98 million in 2027. Real disposable income would decrease by \$29 million in 2023 and by \$39 million in 2027. State real GDP would decrease by \$162 million in 2023 and by \$186 million in 2027.

**Table 12: The Fiscal and Economic Effects of Reducing the Film Tax Credit by 50%**

Economic Effects	2023	2027
Net employment (jobs)	(431)	(542)
Investment (\$, millions)	(77)	(98)
Real disposable income (\$, millions)	(29)	(39)
State Real Gross Domestic Product (\$, millions)	(162)	(186)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	197.30	254.70
Corporate Income Tax	112.62	145.31
Sales and Use Tax	(4.20)	(4.96)
Other Taxes	(1.45)	(1.62)
<b>Total State Tax Change</b>	<b>304.27</b>	<b>393.43</b>
Local Property Taxes	(3.04)	(3.91)
Other Taxes and Fees	(8.83)	(10.42)
<b>Total Local Tax Change</b>	<b>(11.87)</b>	<b>(14.33)</b>
<b>Total State and Local Tax Change</b>	<b>292.40</b>	<b>379.10</b>

Total state tax revenues would increase by \$304.27 million in 2023 and by \$393.43 million in 2027. Local tax revenues would decrease by \$11.87 million in 2023 and by \$14.33 million in 2027. Overall, tax revenues in Georgia would increase by \$292.40 million in 2023 and by \$379.10 million in 2027.

#### Increasing the Sales Tax Rate

Table 13 displays the fiscal and economic effects of increasing the sales tax rate to 5 percent. Net employment would decrease by 8,849 in 2023 and by 5,740 in 2027. Investment would decrease by \$131 million by 2023 and by \$130 million in 2027. Real disposable income would decrease by \$1.387 billion in 2023 and by \$1.351 billion in 2027. State real GDP would decrease by \$485 million in 2023 and by \$372 million in 2027.

**Table 13: The Fiscal and Economic Effects of Increasing the Sales Tax Rate to 5%**

Economic Effects	2023	2027
Net employment (jobs)	(8,849)	(5,740)
Investment (\$, millions)	(131)	(130)
Real disposable income (\$, billions)	(1.387)	(1.351)
State Real Gross Domestic Product (\$, millions)	(485)	(372)
<b>Fiscal Effects (\$ millions)</b>		
Personal Income Tax	(40.00)	(40.60)
Corporate Income Tax	(6.32)	(7.01)
Sales and Use Tax	1,638.81	1,804.68
Other Taxes	(9.71)	(8.54)
<b>Total State Tax Change</b>	<b>1,582.78</b>	<b>1,748.53</b>
Local Property Taxes	(9.88)	(10.20)
Other Taxes and Fees	(40.04)	(37.49)
<b>Total Local Tax Change</b>	<b>(49.92)</b>	<b>(47.69)</b>
<b>Total State and Local Tax Change</b>	<b>1,532.86</b>	<b>1,700.84</b>

Total state tax revenues would increase by \$1.583 billion in 2023 and by \$1.749 billion in 2027.

Local tax revenues would decrease by \$49.92 million in 2023 and by \$47.69 million in 2027.

Overall, tax revenues in Georgia would increase by \$1.533 billion in 2023 and by \$1.701 billion in 2027.

## Conclusion

Tax policies matter significantly to a state's ability to provide an environment conducive to economic growth.<sup>6</sup>

Georgia's top income tax rate of 5.75 percent applies to all income over \$7,000 for single filers and \$10,000 for married couples. As a result, most Georgia taxpayers fall under the top rate (even with the standard deduction and personal exemption.) Therefore, Georgia's individual income tax already functions similarly to a flat tax. The benefits of removing all tax rates and reducing the top rate would be widespread across most income groups.

<sup>6</sup> Pavel A. Yakovlev, *State Economic Prosperity and Taxation*, Working Paper 14-19, Mercatus Center, George Mason University, (July 2014), <http://mercatus.org/sites/default/files/Yakovlev-State-Economic-Prosperity.pdf>.

Any concerns about the regressivity of the income tax can be diminished by either increasing the standard deduction and personal exemption or the creation of an income tax credit. However, it is important to note that an increase in the standard deduction or personal exemption would mean less money for the state treasury. An income tax credit could be designed to better target lower-income groups who would be subject to a higher tax rate because of eliminating marginal income tax brackets.

While the reduction of Georgia's top income tax will result in a revenue loss, that loss could be reduced by broadening the sales tax base, increasing the sales tax rate, or eliminating/reducing the Film Tax Credit. Furthermore, this analysis shows that these potential offsets are trivial when you compare their economic consequences to the economic benefits of reducing the state income tax.

Reducing the top income tax rate would make Georgia more competitive with other states while providing job creation and growth. By doing so, the policy would boost jobs, investment, incomes, and local tax revenues. The policy would provide a net positive impact on the Georgia economy.

## Appendix

To identify the economic effects of the tax changes and understand how they operate through a state's economy, BHI utilized its STAMP (State Tax Analysis Modeling Program) model. STAMP is a five-year dynamic CGE (computable general equilibrium) model that has been programmed to simulate changes in taxes, costs (general and sector-specific), and other economic inputs. As such, it provides a mathematical description of the economic relationships among producers, households, governments, and the rest of the world.<sup>7</sup>

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<sup>7</sup> For a clear introduction to CGE tax models, see John B. Shoven and John Whalley, "Applied General-Equilibrium Models of Taxation and International Trade: An Introduction and Survey," *Journal of Economic Literature* 22 (September 1984): 1008. Shoven and Whalley have also written a useful book on

A CGE tax model is a computerized method of accounting for the economic effects of tax policy changes. The model is specified in terms of supply and demand for each economic variable included in the model, where the quantity supplied or demanded of each variable depends on the price of each variable. Tax policy changes are shown to affect economic activity through their effects on the prices of outputs and of the factors of production (principally, labor and capital) that enter those outputs.

A CGE model is in "equilibrium" in the sense that supply is assumed to equal demand for the individual markets in the model. For this to be true, prices are allowed to adjust within the model (i.e., they are "endogenous"). For instance, if the demand for labor rises while the supply remains unchanged, then the wage rate must rise to bring the labor market into equilibrium. A CGE model quantifies this effect.

Finally, a CGE model is numerically specified ("computable"), which is to say it incorporates parameters that are believed to be descriptive of the actual relationships between quantities and prices. It produces estimates of changes in quantities (such as employment, the capital stock, gross state product, and personal consumption expenditures) that result from changes in prices (such as the price of labor or the cost of capital) that result from changes in tax policy (such as the substitution of an income tax for a sales tax).

Because it consists of many interrelated equations, a CGE model ordinarily requires the application of a nonlinear computational algorithm, typically some variation on Newton's method. STAMP requires and utilizes the development and use of a sophisticated computer program for the solution of its equations.

BHI used the Revised Fiscal Note House Bill (L.C. 43 1978) as a reference to model the fiscal and economic effects of various services exempt from the sales tax.<sup>8</sup> Table A-1 lists the services

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the practice of CGE modeling entitled *Applying General Equilibrium* (Cambridge: Cambridge University Press, 1992). See also Roberta Piermartini and Robert The *Demystifying Modeling Methods for Trade Policy* (Geneva, Switzerland: World Trade Organization, 2005)

[http://www.wto.org/english/res\\_e/booksp\\_e/discussion\\_papers10\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/discussion_papers10_e.pdf) (accessed October 1, 2021).

<sup>8</sup> Governor's Office of Planning and Budget, 2021 - 2022 Regular Session Fiscal Notes, LC 43 1978, <https://opb.georgia.gov/budget-information/fiscal-notes/2021-2022-regular-session>

used in models 1 through 3 and their North American Industry Classification System (NAICS) codes.

**Table A-1: NAICS Codes of Exempted Services Used in Models 1-3**

<b>Sales Tax Exemption (\$, millions)</b>	<b>NAICS Code</b>
Construction	23
Motor Vehicle & Parts Dealers	441
Investment & Financial Advisers	52392-99
Real Estate	5312-13
Professional, Scientific, & Technical	54
Administrative & Support	561
Waste Management & Remediation	562
Promoters; Agents & Managers	7113-14
Repair & Maintenance	811
Personal & Laundry	812

We use the services exempted from the current Georgia sales tax base to offset the revenue losses from reducing the top income tax rate. For example, Model 1 (shown in Table 3) broadens the sales tax base to include construction services. Model 2 (shown in Table 4) includes both construction services and professional, scientific, and technical services. Finally, Model 3 (shown in Table 5) includes all services from the industries listed above.

Table A-2 displays the itemized dynamic (total state and local tax change) fiscal impacts of broadening the sales tax base by each service. For example, GA-STAMP estimates that professional, scientific, and technical services will increase overall state and local tax revenues by \$2.355 billion in 2023 and by \$2.782 billion in 2027. In total, we estimate that all services in Table A-3 would increase overall state and local revenues in Georgia by \$6.294 billion in 2023 and by \$7.413 billion in 2027.

**Table A-2: The Dynamic Fiscal Impacts of Broadening the Sales Tax Base by Exempted Services (Total State & Local Revenue Change)**

<b>Sales Tax Exemption (\$, millions)</b>	<b>2023</b>	<b>2027</b>
Construction	1,910.53	2,221.49
Motor Vehicle & Parts Dealers	107.49	128.55
Investment & Financial Advisers	421.57	502.74
Real Estate	289.58	338.07
Professional, Scientific, & Technical	2,355.22	2,782.17
Administrative & Support	817.68	974.51
Waste Management & Remediation	143.75	167.99
Promoters; Agents & Managers	10.41	16.38
Repair & Maintenance	105.44	120.83
Personal & Laundry	132.04	160.15
<b>Total State and Local Tax Change</b>	<b>6,293.71</b>	<b>7,412.88</b>

Table A-3 displays the itemized impact on net employment from broadening the sales tax base by each service. For example, GA-STAMP estimates that professional, scientific, and technical services will decrease employment by 2,963 in 2023 and by 1,306 in 2027. In total, we estimate that all services in Table A-3 would decrease net employment by 9,589 in 2023 and by 5,254 in 2027.

**Table A-3: The Impact on Employment of Broadening the Sales Tax Base by Exempted Services**

<b>Sales Tax Exemption (jobs)</b>	<b>2023</b>	<b>2027</b>
Construction	(1,694)	(524)
Motor Vehicle & Parts Dealers	(130)	(101)
Investment & Financial Advisers	(1,391)	(1,141)
Real Estate	(986)	(752)
Professional, Scientific, & Technical	(2,963)	(1,306)
Administrative & Support	(1,444)	(783)
Waste Management & Remediation	(421)	(314)
Promoters; Agents & Managers	(44)	(39)
Repair & Maintenance	(257)	(160)
Personal & Laundry	(259)	(134)
<b>Total Employment Loss</b>	<b>(9,589)</b>	<b>(5,254)</b>

## About the Authors

- **William F. Burke**, BSBA, Suffolk University, is the director of research at BHI. He manages the Institute's research projects, including the State Tax Analysis Modeling Program (STAMP) model, and conducts research for other projects at BHI. He has co-authored research papers on state and national tax policy, state labor policy and annually produces the Institute's state revenue forecasts for Massachusetts and presents them to the state legislature. He also serves as the designee for the Massachusetts House Minority Leader on the Massachusetts State Tax Expenditure Review Commission.
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