

# **Tax Incentive Evaluation**

# **Georgia Tax Exemption on the Sale of Lottery Tickets**

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Tax Incentive Evaluation: Georgia Tax Exemption on the Sale of Lottery Tickets

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## **Executive Summary**

This study, conducted in accordance with the Tax Credit Return on Investment Act of 2021, also known as Senate Bill 6 (SB6), reviews the financial impact of Georgia's sales tax exemption on lottery tickets (O.C.G.A. § 48-8- 3(55)). The study estimates forgone sales tax revenue due to the exemption, the reduction in lottery sales if tickets were taxed, the economic and fiscal impacts of "with tax" and "without tax" scenarios, and the return on investment (ROI) of the exemption.

Forgone state revenue is estimated at \$229.79 million in 2024, increasing to \$304.8 million in 2033 (Table A). Similar results for forgone local revenue are displayed in Table 7 on page 15. Over the 10-year period from 2024 to 2033, total forgone state revenue amounts to \$2.67 billion. The difference in projected ticket sales with and without tax ranges from \$475.21 million in 2024 to \$630.32 million in 2033. Over the 10-year period (2024 to 2033), the research team projects that collecting state and local sales tax would reduce lottery ticket sales by \$5.53 billion. The sales tax exemption on lottery tickets results in higher ticket sales —increasing education funding by an estimated \$1.44 billion from 2024 to 2033.

Since lottery tickets have never been taxed in Georgia, the research team compared the ROI of the exemption to the following counterfactual scenario: what if Georgia collected sales tax on lottery tickets? The projected ROI of Georgia's sales tax exemption on lottery tickets ranges from -0.13 to -0.14 from 2024 to 2033 (Table A). For every \$1 in state sales tax exempted from lottery ticket sales, \$0.87 in value-added impact accrues to the state's economy. In the case of the alternate use of forgone revenue, for every \$1 in sales tax on lottery tickets collected and spent by the state, \$1.33 in value-added impact accrues to the state's economy.

In addition to ROI, it is useful to compare the employment effects of the current (without sales tax) and alternate use (with sales tax) scenarios. For each \$1 million in direct output, the lottery's operations support 12 direct jobs, two indirect jobs, and 3.8 induced jobs (IMPLAN 2021). Under the alternate use scenario, each \$1 million in revenue collected and spent by the state yields 20 direct (state) jobs, two indirect jobs, and five induced jobs. In terms of employment impact, the alternate use scenario creates more jobs per dollar.

YEAR	2024	2025	2026	2027	2028
Forgone State Revenue	\$229,791,548	\$238,125,479	\$246,459,410	\$254,793,342	\$263,127,273
Exemption Value-Added	\$199,133,401	\$206,222,699	\$213,305,179	\$220,381,068	\$227,450,590
<b>ROI of Exemption</b>	-0.13	-0.13	-0.13	-0.14	-0.14
State Alternate Use	\$306,700,313	\$317,823,522	\$328,946,731	\$340,069,939	\$351,193,148
Impact					
ROI of Alternate Use	0.33	0.33	0.33	0.33	0.33
YEAR	2029	2030	2031	2032	2033
Forgone State Revenue	2029 \$271,461,204	2030 \$279,795,135	2031 \$288,129,067	2032 \$296,462,998	2033 \$304,796,929
YEAR Forgone State Revenue Exemption Value-Added	<b>2029</b> <b>\$271,461,204</b> \$234,513,965	<b>2030</b> <b>\$279,795,135</b> \$241,571,412	<b>2031</b> <b>\$288,129,067</b> \$248,605,686	<b>2032</b> <b>\$296,462,998</b> \$255,631,854	<b>2033</b> <b>\$304,796,929</b> \$262,650,013
Forgone State Revenue Exemption Value-Added ROI of Exemption	2029 \$271,461,204 \$234,513,965 -0.14	2030 \$279,795,135 \$241,571,412 -0.14	2031 \$288,129,067 \$248,605,686 -0.14	2032 \$296,462,998 \$255,631,854 -0.14	2033 \$304,796,929 \$262,650,013 -0.14
YEAR Forgone State Revenue Exemption Value-Added ROI of Exemption State Alternate Use	2029 \$271,461,204 \$234,513,965 -0.14 \$362,316,357	2030 \$279,795,135 \$241,571,412 -0.14 \$373,439,565	2031 \$288,129,067 \$248,605,686 -0.14 \$384,562,774	2032 \$296,462,998 \$255,631,854 -0.14 \$395,685,982	2033 \$304,796,929 \$262,650,013 -0.14 \$406,809,191
YEAR Forgone State Revenue Exemption Value-Added ROI of Exemption State Alternate Use Impact	2029 \$271,461,204 \$234,513,965 -0.14 \$362,316,357	2030 \$279,795,135 \$241,571,412 -0.14 \$373,439,565	2031 \$288,129,067 \$248,605,686 -0.14 \$384,562,774	2032 \$296,462,998 \$255,631,854 -0.14 \$395,685,982	2033 \$304,796,929 \$262,650,013 -0.14 \$406,809,191

Table A. ROI of the state sales tax exemption on lottery tickets and alternate use of forgone revenue, 2024-2033.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

# Background

This study, conducted in accordance with the Tax Credit Return on Investment Act of 2021, also known as Senate Bill 6 (SB6), reviews the financial impact of Georgia's sales tax exemption on lottery tickets (O.C.G.A. § 48-8-3(55)). SB6, passed during the 2021 legislative session, requires evaluation of Georgia tax credits and exemptions on a rolling five-year basis. SB6 evaluations estimate 1) the net change in state revenues and expenses resulting from the exemption (also known as the fiscal impact) and 2) the net change in economic activity (also known as the economic impact) and net public benefit due to the exemption. The research team also calculated the return on investment (ROI) of the exemption and the alternate use scenario. This report is one of three tax incentive evaluations produced under contract with the Georgia Department of Audits and Accounts by the University of Georgia's Carl Vinson Institute of Government.

#### **HISTORY & PURPOSE**

In 1992, the Lottery for Education Act established the Georgia lottery as a means of increasing state funding for education.<sup>1</sup> The Georgia Lottery Corporation (GLC) was created to oversee and operate the lottery.<sup>2</sup> On June 29, 1993, the GLC commenced ticket sales; it ended its first full year in operation with \$1.1 billion in total sales, returning \$362 million to the state to fund education. In 2022, sales totaled \$5.8 billion, returning \$1.47 billion in education funding. Since its inception, lottery sales have totaled approximately \$100 billion, with \$26 billion in state education funding. Lottery tickets have never been taxed in Georgia, so this report estimates forgone revenue by studying a counterfactual scenario: what if Georgia collected sales tax on lottery tickets?

#### **GEORGIA LOTTERY DATA**

Georgia has seen growing lottery sales since the inception of the lottery in 1993. In 2022, Georgia ranked seventh in the U.S. in terms of gross lottery sales.<sup>3</sup> In the last decade, the Georgia Lottery Corporation saw gross sales of \$53.53 billion and a cumulative increase of 57%, from \$3.91 billion in 2013 to \$6.14 billion in 2023, with average annual growth of 4.79%. The greatest year-over-year increase occurred from 2020 to 2021, when total sales jumped by 21.3%, from \$4.98 billion to \$6.03 billion.

<sup>&</sup>lt;sup>1</sup> Georgia Lottery History. https://www.galottery.com/en-us/about-us/history.html

<sup>&</sup>lt;sup>2</sup> O.C.G.A. § 50-27-1 (2020) https://d1gszp1bmamha.cloudfront.net/content/dam/portal/pdfs/georgia-benefits/20201015\_Lottery%20for%20Education%20Act2020.pdf

<sup>&</sup>lt;sup>3</sup> NASPL. "Sales of lotteries in the United States in 2022 (in million U.S. dollars), by state." Chart. December 15, 2022. https://www.statista.com/statistics/388238/sales-of-lotteries-by-state-us/

The main categories of lottery tickets are scratchers, online (draw), and Diggi (or digital, appbased) tickets. Scratchers, or instant win tickets, make up the greatest proportion of Georgia lottery sales, averaging 67% of total sales from 2013 to 2023 (Figure 1). Online or draw lottery tickets, like the Powerball, make up 31% of sales on average. Diggi lottery games, though not introduced in Georgia until 2015, have gained traction in the past few years. As of 2023, \$581.6 million in Diggi sales represented 9.5% of total Georgia lottery sales.



Figure 1. Georgia lottery ticket sales by type, 2013-2023.

Source: Georgia Lottery Corporation 2013-2023 Ticket Sales Data.

To project future GLC budgets, institute researchers utilized the Georgia Lottery Corporation's annual financial reports. Expenses were divided into four categories: prizes, retailer commissions, operating expenses, and education. Prizes, the bulk of the lottery's annual budget, are directly tied to ticket sales and represent the lottery's "product" in the eyes of the consumer. Prize payouts account for 65% of the GLC's budget (Figure 2). Retailer commissions and bonuses, paid to convenience store owners based on the number of tickets sold, make up 6% of the GLC's budget. As with any industry, a proportion of the lottery's budget is dedicated to operating expenses, including marketing, fees, equipment, and salaries of lottery employees. These expenses account for 1% of GLC's annual budget. Education funding, set by statute, represents 26% of GLC's budget.





■ Prizes ■ Retailer Commissions & Bonuses ■ All Other Operating Expenses ■ Education Funding

Source: Georgia Lottery Corporation 2013-2022 Financial Data.

#### **OTHER STATES**

All U.S. states except for Alabama, Alaska, Hawaii, Nevada, and Utah operate lotteries. New Hampshire offered the first, in 1964. Over the next six decades, state lotteries spread geographically, as each state sought to capture lottery revenue. If a state loses tax revenue because its residents are purchasing lottery tickets from neighboring states, this increases the likelihood of that state adding its own lottery. This phenomenon, known as "tax exporting," occurs when states earn tax revenues from constituents of other states, or, conversely, lose revenues to other states. Previous studies found statistically significant evidence of tax exporting between bordering states with and without lotteries.<sup>4</sup>

Georgia benefits from tax exporting, since Alabama does not offer a lottery. Many counties along the Georgia-Alabama border see inflated per capita lottery sales due to large numbers of purchases from Alabama residents. For example, Quitman, Early, Clay, Troup, and Haralson Counties have the highest per-capita lottery sales, due to their location along the Georgia-Alabama border and proximity to major interstate highways. Quitman County, which sits

<sup>&</sup>lt;sup>4</sup> Davis, Filer and Moak, 1992; Alm, McKee and Skidmore, 1993; Jackson, Saurman and Shughart, 1994; Ghent and Grant, 2007

adjacent to the intersection of U.S. Routes 82 and 431, was an outlier; its per capita lottery sales (over \$7,000 in 2021) were skewed by the county's very small population (2,243 in 2021).

Lottery sales in the U.S. spiked after the pandemic. In 2010, annual state lottery sales in the U.S. hovered around \$60 billion, and this number increased by an average of \$3 billion per year until the post-pandemic era. Nationwide sales jumped by 17.5% from 2020 (\$90 billion) to 2021 (\$105 billion).<sup>5</sup> This jump in lottery sales is, in part, explained by pent-up demand; consumers reduced discretionary spending at the beginning of the pandemic, then increased discretionary spending above pre-pandemic levels starting in 2021. The trend continued in 2022, another record year for state lotteries, with \$108 billion in sales across the U.S. According to the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey, mean spending on lotteries increased by 26% over this period, from \$47.04 in 2020 to \$59.25 in 2022.<sup>6</sup>

Lottery tickets are exempt from sales tax in almost all states: law designates that consumers are buying a chance to win and not purchasing physical property. No states in the southeast currently collect sales tax on lottery tickets. Most states use some proportion of proceeds from the lottery to fund education. With the exception of Alabama, which has no lottery, all Georgia border states allocate a portion of their lottery proceeds to education funding.

<sup>&</sup>lt;sup>5</sup> NASPL. "Sales of state lotteries in the United States from 2009 to 2022 (in billion U.S. dollars)." Chart. December 15, 2022. https://www.statista.com/statistics/215265/sales-of-us-state-and-provincial-lotteries/ <sup>6</sup> US Bureau of Labor Statistics Consumer Expenditure Survey

# **Economic Impact**

This section presents the economic activity attributed to Georgia's sales tax exemption on lottery tickets. The analysis begins with projected estimates of gross economic activity generated by the sales tax exemption on lottery tickets from 2024 to 2033. Next, this section presents calculations of net value-added economic activity generated by the sales tax exemption and calculates the return on investment for the exemption. These calculations allow for a direct comparison between the return on investment for the sales tax exemption on lottery tickets and the value-added economic activity generated by an alternate-use, hypothetical situation in which the exemption does not exist and the state collects and spends the respective revenue as it would any other.

#### **METHODOLOGY**

Institute researchers utilized IMPLAN, a widely-used and accepted county-level economic model of the United States, to estimate the economic impact of the sales tax exemption on lottery tickets.<sup>7</sup> For more detailed information on methodology and IMPLAN, see Appendix A. One critical element of the analysis is the price elasticity of demand, a measure of the change in demand for goods in response to a change in price. Institute researchers utilized -1, or unit elasticity, for the price elasticity of demand for lottery tickets, based on a review of academic literature on the economics of the lottery industry. Elasticity may be less than or greater than -1 in practice, but calculating the price elasticity of demand for Georgia lottery tickets was beyond the scope of this report. For more detailed information on elasticity and "but for," see Appendices B and C.

Removing the sales tax exemption on lottery tickets would have the effect of imposing both state and local sales taxes totaling 7.64% (the sum of a 4% state sales tax rate and an average 3.64% local tax rate).<sup>8</sup> Figure 3 visualizes the model utilized by the research team, which assumes that taxing lottery tickets by 7.64% leads to a 7.64% reduction in demand for tickets, which proportionally decreases the amount available for the four components of lottery operations (prizes, education funding, retailer commissions, and operating expenses).

<sup>&</sup>lt;sup>7</sup> IMPLAN® model, 2021 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com <sup>8</sup> Straight (unweighted) average tax rate based on DOR Georgia Sales and Use Tax Rate Chart, October 1 2023.



#### Figure 3. Model of lottery budget with and without tax.

Source: Georgia Lottery Corporation 2013-2022 Financial Data, Institute of Government Model.

#### **GROSS ECONOMIC ACTIVITY**

Institute researchers projected lottery ticket sales under the current (without sales tax) scenario based on the linear trend in ticket sales from 2013-2023 (Figure 4). As discussed previously, lottery ticket sales under the counterfactual scenario (with sales tax) were reduced by 7.64%, to account for reduced demand due to the addition of state and local sales tax. This reduction in ticket sales due to the hypothetical addition of a sales tax to lottery tickets can be thought of as the "but for" reduction, that is; "but for" the sales tax exemption, lottery sales would have been 7.64% lower.





Source: Georgia Lottery Corporation 2013-2023 Data, Institute of Government Projections based on GLC Data.

Under the current scenario, in which lottery tickets are not taxed, ticket sales were projected to grow from \$6.22 billion in 2024 to \$8.25 billion in 2033 (Table 1). Under the counterfactual scenario, in which lottery tickets are taxed, ticket sales are projected to grow from \$5.74 billion in 2024 to \$7.62 billion in 2033. The difference in projected ticket sales with and without tax ranges from \$475.21 million in 2024 to \$630.32 million in 2033. Over the 10-year period (2024 to 2033), the research team projects that collecting state and local sales tax would reduce lottery ticket sales by \$5.53 billion, due to price elasticity of demand.

YEAR	2024	2025	2026	2027	2028
WITHOUT TAX	\$6,219,996,424	\$6,445,579,233	\$6,671,162,041	\$6,896,744,849	\$7,122,327,657
WITH TAX	\$5,744,788,698	\$5,953,136,979	\$6,161,485,261	\$6,369,833,542	\$6,578,181,824
DIFFERENCE	\$475,207,727	\$492,442,253	\$509,676,780	\$526,911,306	\$544,145,833
YEAR	2029	2030	2031	2032	2033
WITHOUT TAX	\$7,347,910,465	\$7,573,493,273	\$7,799,076,082	\$8,024,658,890	\$8,250,241,698
WITH TAX	\$6,786,530,106	\$6,994,878,387	\$7,203,226,669	\$7,411,574,951	\$7,619,923,232
DIFFERENCE	\$561,380,360	\$578,614,886	\$595,849,413	\$613,083,939	\$630,318,466

Table 1. Projected lottery ticket sales with and without tax, 2024-2033.

Source: Institute of Government Projections based on GLC Data.

The research team used IMPLAN to model the value-added impact of the lottery, also known as its contribution to state GDP, with and without taxes, from 2024 to 2033. Table 2 displays the combined, value-added economic impact of lottery operations, retailer commissions, and

funding for education. Under the current scenario, in which lottery tickets are not taxed, the value-added economic impact of the lottery is estimated to grow from \$2.61 billion in 2024 to \$3.44 billion in 2033. Under the counterfactual scenario, in which lottery tickets are taxed by the state and county, the value-added economic impact of the lottery is estimated to grow from \$2.41 billion in 2024 to \$3.18 billion in 2033. The difference in value-added impact with and without sales tax on lottery tickets ranges from \$199.13 million in 2024 to \$262.65 million in 2033.

YEAR	2024	2025	2026	2027	2028
WITHOUT TAX	\$2,606,458,140	\$2,699,250,007	\$2,791,952,622	\$2,884,568,954	\$2,977,101,941
WITH TAX	\$2,407,324,739	\$2,493,027,308	\$2,578,647,443	\$2,664,187,886	\$2,749,651,351
DIFFERENCE	\$199,133,401	\$206,222,699	\$213,305,179	\$220,381,068	\$227,450,590
YEAR	2029	2030	2031	2032	2033
WITHOUT TAX	\$3,069,554,491	\$3,161,929,480	\$3,254,001,124	\$3,345,966,683	\$3,437,827,386
WITH TAX	\$2,835,040,526	\$2,920,358,068	\$3,005,395,438	\$3,090,334,829	\$3,175,177,373

Table 2. Value-added economic impact of the lottery with and without tax, 2024-2033.9

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

This analysis modeled three primary components of lottery operations that impact Georgia's economy: retailer commissions, GLC operations, and funding for education. Prizes were assumed to have no additional economic impact since they represent a redistribution of existing dollars within the state's economy. Each of the three components modeled represents a different industry—retailer commissions were attributed to the convenience store industry (IMPLAN code 408), GLC operations to the gambling industry (IMPLAN code 503), and funding for education to the education industry (IMPLAN code 481)—and each component industry has different multipliers for employment, labor income, and value-added impacts.

In IMPLAN, direct impacts are the result of spending by the primary industry being modeled. Indirect impacts represent "upstream" spending, such as spending by advertisers and suppliers of scratch-off tickets and other goods and services purchased by the GLC. Induced impacts are the result of personal spending by employees of "upstream" industries. For instance, in the gambling industry, IMPLAN estimates that each \$1 million in direct output creates 10 direct jobs, four indirect jobs, and three induced jobs. In the convenience store industry, IMPLAN estimates that each \$1 million in direct output creates 7.7 direct jobs, 4.2 indirect jobs, and 2.7 induced jobs. In the education industry, IMPLAN estimates that each \$1 million in direct output creates 13 direct jobs, 1.4 indirect jobs, and four induced jobs. When combining the three

<sup>9</sup> Assumes 7.64% combined state and local sales tax rate.

component industries, for each \$1 million in direct output, IMPLAN estimates that 12 direct jobs, two indirect jobs, and 3.8 induced jobs are created.<sup>10</sup>

Table 3 displays the four economic indicators—employment, labor income, value-added, and total output—modeled by IMPLAN. The research team calculated that an additional \$475.2 million in lottery sales due to the sales tax exemption on lottery tickets would create \$156.82 million in direct output after prizes were excluded. The direct output of \$156.82 million was apportioned to the three component industries (convenience stores, gambling, and education). Retailer commissions and bonuses were attributed to the convenience store industry (IMPLAN code 408) at \$28.51 million in direct output. Operating expenses of the GLC were attributed to the gambling industry (IMPLAN code 503) at \$4.75 million in direct output. Finally, funding for education was attributed to the post-secondary education industry (IMPLAN code 481). For \$156.82 million in direct output, a direct employment impact of 1,869 jobs would be created. An additional 312 indirect and 593 induced jobs would be created, for a total employment impact of 2,775 jobs. IMPLAN calculated direct labor income at \$103.23 million, for an average salary of \$55,233 across the three component industries.

IMPACT	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
DIRECT	1,869	\$103,230,611	\$107,523,636	\$156,818,550
INDIRECT	312	\$16,521,214	\$29,677,664	\$59,043,960
INDUCED	593	\$33,351,283	\$61,932,101	\$105,514,175
TOTAL	2,775	\$153,103,108	\$199,133,402	\$321,376,685

Table 3. Economic impact of additional lottery sales due to the exemption, 2024.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

#### ALTERNATE USE OF FORGONE REVENUE

Since the Georgia lottery's inception in 1993, lottery tickets have been exempted from sales tax. To compare the ROI of the counterfactual scenario to the current scenario, the research team modeled the economic impact of the alternate use of forgone revenue, which assumes that the state and all 159 counties in Georgia collect taxes on lottery tickets and spend that revenue on goods and services that they typically provide to taxpayers. Forgone revenue is modeled in IMPLAN as the direct output of state or county spending. Under the counterfactual scenario, the state would collect a 4% sales tax on lottery tickets and local governments would collect an average of 3.64%.

Forgone state revenue is estimated at \$229.79 million in 2024, increasing to \$304.8 million in 2033 (Table 4). Over the 10-year period from 2024 to 2033, total forgone state revenue amounts to \$2.67 billion. Table 4 also displays the value-added economic impact (GDP) of the state

<sup>&</sup>lt;sup>10</sup> IMPLAN employment impacts are estimates and impacts for component industries do not sum.

collecting and spending taxes on lottery tickets from 2024 to 2033. The value-added impact of the alternate use of forgone state revenue grows from \$306.7 million in 2024 to \$406.8 million in 2033. Over the 10-year period from 2024 to 2033, total value-added economic impact of the alternate use of forgone revenue amounts to \$3.57 billion.

Forgone county revenue is estimated at \$209.11 million in 2024, increasing to \$277.37 million in 2033 (Table 4). Over the 10-year period from 2024 to 2033, total forgone county revenue amounts to \$2.43 billion. Table 4 also displays the value-added economic impact (GDP) of counties collecting and spending taxes on lottery tickets from 2024 to 2033. The value-added impact of the alternate use of forgone county revenue grows from \$279.1 million in 2024 to \$370.2 million in 2033. Over the 10-year period from 2024 to 2033, total value-added economic impact of the alternate use of forgone revenue amounts to \$3.25 billion.

	FORGONE STATE	STATE ALTERNATE	FORGONE COUNTY	COUNTY ALTERNATE
YEAR	REVENUE	USE IMPACT	REVENUE	USE IMPACT
2024	\$229,791,548	\$306,700,313	\$209,110,309	\$279,097,285
2025	\$238,125,479	\$317,823,522	\$216,694,186	\$289,219,405
2026	\$246,459,410	\$328,946,731	\$224,278,063	\$299,341,525
2027	\$254,793,342	\$340,069,939	\$231,861,941	\$309,463,645
2028	\$263,127,273	\$351,193,148	\$239,445,818	\$319,585,765
2029	\$271,461,204	\$362,316,357	\$247,029,696	\$329,707,884
2030	\$279,795,135	\$373,439,565	\$254,613,573	\$339,830,004
2031	\$288,129,067	\$384,562,774	\$262,197,451	\$349,952,124
2032	\$296,462,998	\$395,685,982	\$269,781,328	\$360,074,244
2033	\$304,796,929	\$406,809,191	\$277,365,206	\$370,196,364

Table 4. Forgone revenue due to the exemption and accompanying alternate-use economic impacts,2024-2033.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

\$3,567,547,522

TOTAL

\$2,672,942,386

Table 5 displays the economic impact of the state collecting and spending \$229.8 million in taxes on lottery tickets for the example year 2024. According to IMPLAN estimates, \$229.8 million in lottery sales tax collections would support 4,595 state jobs, 429 indirect jobs, and 1,151 induced jobs, for a total of 6,147 jobs. Each additional \$1 million in state spending creates 20 state jobs and supports two indirect and five induced jobs. Based on IMPLAN estimates, \$229.8 million in state spending would add \$306.7 million to Georgia's GDP.

\$2,432,377,571

\$3,246,468,245

IMPACT	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
DIRECT	4,594	\$175,417,435	\$163,755,928	\$229,791,548
INDIRECT	429	\$22,109,895	\$37,631,061	\$72,763,507
INDUCED	1,151	\$55,399,111	\$105,313,324	\$180,304,534
TOTAL	6,174	\$252,926,442	\$306,700,313	\$482,859,587

Table 5. Economic impact of the alternate use of forgone revenue, 2024.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

#### NET ECONOMIC ACTIVITY

The research team calculated the ROI (the gain from the investment—i.e., the value added by the sales tax exemption—minus the cost of the investment—i.e., forgone state revenue—divided by the cost of the investment) of Georgia's sales tax exemption on lottery tickets and the alternate-use scenario. Over the study period, the ROI of Georgia's sales tax exemption on lottery tickets ranges from -0.13 to -0.14 (Table 6). For every \$1 in sales tax exempted from lottery tickets, \$0.87 in value-added impact accrues to the state's economy. For example, in 2024, while \$229.79 million in state revenue is forgone, the sales tax exemption on lottery tickets generates \$199.13 million in value-added impact.

In the case of the alternate use of state forgone revenue, for \$229.79 million in state spending, \$306.7 million in value-added impact would accrue to the state of Georgia (Table 6). Thus, the ROI of the alternate-use scenario is 0.33. For every \$1 in sales tax on lottery tickets collected and spent by the state, \$1.33 in value-added impact accrues to the state's economy. Similar results for the local tax exemption are shown in Table 7.

YEAR	2024	2025	2026	2027	2028
Forgone State Revenue	\$229,791,548	\$238,125,479	\$246,459,410	\$254,793,342	\$263,127,273
Exemption Value-Added	\$199,133,401	\$206,222,699	\$213,305,179	\$220,381,068	\$227,450,590
<b>ROI of Exemption</b>	-0.13	-0.13	-0.13	-0.14	-0.14
State Alternate Use	\$306,700,313	\$317,823,522	\$328,946,731	\$340,069,939	\$351,193,148
Impact					
ROI of Alternate Use	0.33	0.33	0.33	0.33	0.33
YEAR	2029	2030	2031	2032	2033
Forgone State Revenue	\$271,461,204	\$279,795,135	\$288,129,067	\$296,462,998	\$304,796,929
Exemption Value-Added	\$234,513,965	\$241,571,412	\$248,605,686	\$255,631,854	\$262,650,013
<b>ROI of Exemption</b>	-0.14	-0.14	-0.14	-0.14	-0.14
State Alternate Use	\$362,316,357	\$373,439,565	\$384,562,774	\$395,685,982	\$406,809,191
Impact ROI of Alternate Use	0.33	0.33	0.33	0.33	0.33

 Table 6. ROI of the state sales tax exemption on lottery tickets and alternate use of forgone revenue, 2024-2033.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

YEAR	2024	2025	2026	2027	2028
Forgone County Revenue	\$209,110,309	\$216,694,186	\$224,278,063	\$231,861,941	\$239,445,818
Exemption Value-Added	\$199,133,401	\$206,222,699	\$213,305,179	\$220,381,068	\$227,450,590
<b>ROI of Exemption</b>	-0.13	-0.13	-0.13	-0.14	-0.14
County Alternate Use Impact	\$279,097,285	\$289,219,405	\$299,341,525	\$309,463,645	\$319,585,765
<b>ROI of Alternate Use</b>	0.33	0.33	0.33	0.33	0.33
YEAR	2029	2030	2031	2032	2033
YEAR Forgone County Revenue	2029 \$247,029,696	2030 \$254,613,573	2031 \$262,197,451	2032 \$269,781,328	2033 \$277,365,206
YEAR Forgone County Revenue Exemption Value-Added	<b>2029</b> <b>\$247,029,696</b> \$234,513,965	<b>2030</b> <b>\$254,613,573</b> \$241,571,412	<b>2031</b> <b>\$262,197,451</b> \$248,605,686	<b>2032</b> <b>\$269,781,328</b> \$255,631,854	<b>2033</b> <b>\$277,365,206</b> \$262,650,013
YEAR Forgone County Revenue Exemption Value-Added ROI of Exemption	<b>2029</b> <b>\$247,029,696</b> \$234,513,965 -0.14	<b>2030</b> <b>\$254,613,573</b> \$241,571,412 -0.14	<b>2031</b> <b>\$262,197,451</b> \$248,605,686 -0.14	2032 \$269,781,328 \$255,631,854 -0.14	2033 \$277,365,206 \$262,650,013 -0.14
YEAR Forgone County Revenue Exemption Value-Added ROI of Exemption County Alternate Use Impact	2029 \$247,029,696 \$234,513,965 -0.14 \$329,707,884	2030 \$254,613,573 \$241,571,412 -0.14 \$339,830,004	<b>2031</b> <b>\$262,197,451</b> \$248,605,686 -0.14 \$349,952,124	<b>2032</b> <b>\$269,781,328</b> \$255,631,854 -0.14 \$360,074,244	2033 \$277,365,206 \$262,650,013 -0.14 \$370,196,364

Table 7. ROI of the local sales tax exemption on lottery tickets and alternate use of forgone revenue, 2024-2033.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

# **Fiscal Impact**

SB6 requires tax incentive evaluations to calculate the fiscal impact of credits and exemptions as well as the economic impact. The fiscal impact of a tax exemption is the net total of forgone state revenue, increased state tax collections, and any cost to the state of administering the exemption. Forgone state revenue was calculated as 4% of ticket sales and forgone local revenue was calculated as 3.64% of ticket sales under the counterfactual scenario, reducing demand for tickets by a combined 7.64% (assuming unitary price elasticity of demand). The research team modeled the impact of additional state revenue generated by the sales tax exemption on lottery tickets using IMPLAN. Institute researchers determined that, in this case, there is minimal cost to the state in administering the exemption. The research team also projected the difference in education funds based on the assumption that, if taxes were collected on lottery tickets, ticket sales and resulting funding for education would decrease by 7.64%.

Table 8 presents forgone state revenue, increased state tax collections due to the exemption, increased education funds, and total fiscal impact. Increased state tax collections due to the exemption range from \$7.65 million in 2024 to \$10.18 million in 2033, for a total increase of \$89.09 million over the 10-year period. For more information on tax impacts, see Appendix D. Increased education funds due to the exemption range from \$123.55 million in 2024 to \$163.88 million in 2033. When forgone revenue, increased state tax collections, and increased education funds are summed, the fiscal impact of Georgia's sales tax exemption on lottery tickets ranges from -\$98.59 million in 2024 to -\$130.74 million in 2033. Total fiscal impact of the exemption, over the 10-year period from 2024 to 2033, sums to -\$1.15 billion in state revenue.

	FORGONE STATE	INCREASED	INCREASED	TOTAL FISCAL	ALTERNATE	
YEAR	REVENUE	STATE TAX	EDUCATION	IMPACT	USE FISCAL	
		COLLECTIONS	FUNDS		IMPACT	
2024	\$(229,791,548)	\$7,645,033	\$123,554,009	\$(98,592,506)	\$243,203,647	
2025	\$(238,125,479)	\$7,925,224	\$128,034,986	\$(102,165,269)	\$252,024,000	
2026	\$(246,459,410)	\$8,205,633	\$132,515,963	\$(105,737,815)	\$260,844,352	
2027	\$(254,793,342)	\$8,486,261	\$136,996,940	\$(109,310,141)	\$269,664,705	
2028	\$(263,127,273)	\$8,767,110	\$141,477,917	\$(112,882,246)	\$278,485,058	
2029	\$(271,461,204)	\$9,048,181	\$145,958,893	\$(116,454,130)	\$287,305,410	
2030	\$(279,795,135)	\$9,329,475	\$150,439,870	\$(120,025,790)	\$296,125,762	
2031	\$(288,129,067)	\$9,612,317	\$154,920,847	\$(123,595,902)	\$304,946,116	
2032	\$(296,462,998)	\$9,895,461	\$159,401,824	\$(127,165,713)	\$313,766,468	
2033	\$(304,796,929)	\$10,178,907	\$163,882,801	\$(130,735,221)	\$322,586,820	
TOTAL	\$(2,672,942,386)	\$89,093,603	\$1,437,184,050	\$(1,146,664,732)	\$2,828,952,338	

Table 8. Forgone state revenue, increased state tax collections, increased education funds, and total fiscal impact of the sales tax exemption on lottery tickets, 2024-2033.

Source: Institute of Government Projections based on GLC Data & IMPLAN 2021.

# **Public Benefit**

Unlike most other tax incentives in Georgia, undertaken to create jobs or bolster a key industry, the sales tax exemption on lottery tickets was created specifically to fund education— specifically the HOPE scholarship and pre-K slots. The sales tax exemption on lottery tickets results in higher ticket sales—increasing education funding by an estimated \$1.44 billion from 2024 to 2033. Since state law views lottery tickets as the purchase of a chance to win—not property—sales tax was never imposed on them. While the research team projects that adding sales tax to lottery tickets would reduce demand for tickets by some proportion, based on the price elasticity of demand (Appendix B), in practice, that elasticity may be larger or smaller than -1.

The research team also posits that, since almost all lottery tickets are purchased with cash, and adding sales tax would impose the additional burden of paying with change, ticket sales may drop. The extent to which this 'inconvenience factor' would increase or decrease the price elasticity of demand is unknown. Retailers might remediate the inconvenience factor of paying sales tax by allowing lottery ticket purchases using debit cards, but few retailers currently offer this option—though permitted by statute—to avoid card transaction fees.

Another public benefit of the sales tax exemption on lottery tickets is that sales taxes are inherently regressive. Consumers with lower incomes, who dedicate a greater portion of their budget to retail purchases, spend a higher proportion of their incomes on sales taxes than consumers with higher incomes.<sup>11</sup> If two consumers pay 7.64 cents in sales tax on a \$1 lottery ticket, but one makes \$40,000 a year and the other makes \$400,000 a year, the lower-income consumer is paying a 10x higher proportion of their income, relatively speaking. Since research shows that lower-income consumers are significantly more likely to purchase lottery tickets (Welte et al., 2002), adding sales tax to the expenditure could be considered doubly regressive from a tax and income standpoint.

<sup>&</sup>lt;sup>11</sup> Tax Policy Center, "Who bears the burden of a national retail sales tax?"

https://www.taxpolicycenter.org/briefing-book/who-bears-burden-national-retail-sales-

tax#:~:text=Because%20lower%2Dincome%20households%20spend,sharply%20as%20household%20income%20rises.

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# Appendix

#### A. METHODOLOGY

Economic impact modeling is a technique used to estimate how a new firm, facility, or policy change will affect a specific economy, such as a county, region, or state. Such estimates are often produced using an input-output model that first calculates a baseline forecast of economic activity for a geographic region and then estimates how shocks (inputs) to the economy alter economic activity (output). For this report, Institute of Government researchers estimated the economic impacts of the Georgia tax exemption on the sale of lottery tickets.

Institute researchers use IMPLAN, a widely used and accepted county-level economic model of the United States, to estimate the economic impacts of projects and changes to public policy. This model produces a baseline economic forecast using data from the U.S. Census Bureau, the North American Industry Classification System (NAICS), the Bureau of Economic Analysis, and the Bureau of Labor Statistics, as well as other data from the U.S. Department of Commerce.

In IMPLAN, adding an input, or change to the economy (e.g., new jobs, labor income, increased demand for goods and services, or a policy change such as a tax credit) allows for estimations of the overall increase or decrease in economic activity resulting from the change. The economic measures reported by the model include the number of jobs supported, the labor income associated with those jobs, the value added (or lost) to the economy in the particular geographic study region, and the total economic output added (or lost) as a result of the change.

IMPLAN provides estimates of the direct, indirect, and induced effects of an economic event in this case, the additional revenue collected by the state of Georgia if the tax exemption on the sale of lottery tickets did not exist—on employment, labor income, value-added impact, and total output impact. Direct effects, one or more production changes or expenditures made by producers/consumers following an activity or policy,<sup>12</sup> can be positive or negative. For example, the direct effect of taxing lottery tickets would be reduced funding for the Georgia Lottery Corporation. By applying the initial change to the multipliers in IMPLAN, it is possible to project a given region's economic response. Indirect effects are business-to-business purchases in the supply chain resulting from the initial industry input purchases. An example of an indirect effect of taxing lottery tickets might be reduced spending by the Georgia Lottery Corporation on advertising. Induced effects, or values from household spending of labor income after subtracting taxes, savings, and commuter income, are generated by employees' spending within the business' supply chain. An example of an induced effect of taxing lottery

<sup>12</sup> Understanding IMPLAN: Direct, Indirect, and Induced Effects

tickets might be reduced spending by the aforementioned advertising employees in the economy.

To estimate the gross economic activity attributed to the tax exemption on the sale of lottery tickets in Georgia, institute researchers separated IMPLAN inputs into four categories: prizes, retailer commissions, operating expenses, and education funding. According to IMPLAN, lottery prizes, as recycled dollars, have no economic impact. Many people contribute a few dollars, in the form of ticket sales, and those dollars are redistributed as prizes to a few people. Lottery prizes generate no new dollars in the economy. Retailer commissions are paid out to owners of convenience stores based on the number of tickets sold. Institute researchers used IMPLAN code 408 (convenience stores) to estimate the economic impact of retailer commissions. Operating expenses were attributed to IMPLAN code 503 (gambling) to estimate the economic impact of Georgia Lottery Corporation operations. Education funding from the lottery was attributed to IMPLAN code 481 (education) to estimate the economic impact of the HOPE scholarship and other education funding the lottery provides.

Institute researchers used real figures from GLC's annual financial reports to specify the gross economic impact of the lottery for 2013 through 2022. For each year from 2023-2033, the research team projected ticket sales based on previous trends, assuming that 65% of sales would be distributed as prizes (no economic impact), 6% would be paid out as retailer commissions (IMPLAN code 408 - convenience stores), 1% would be consumed by GLC operating expenses (IMPLAN code 503 – gambling), and 26% would be used by the state to fund education (IMPLAN code 481 – education).

#### **B. PRICE ELASTICITY OF DEMAND**

Most sales tax exemption studies hinge on the "but for" question. "But for" the sales tax exemption, how would taxpayers behave, and how would these behaviors differently affect resultant tax collections? Since the sale of lottery tickets has never been taxed in Georgia (nor in any other states that researchers were able to identify), scholars must answer the "but for" question by posing a counterfactual scenario: how might the addition of a sales tax on lottery tickets change its fiscal impact?

In the parlance of economics, this amounts to estimating the price elasticity of demand for lottery tickets, or the percentage change in the quantity demanded given a 1% change in its price. If the price of a lottery ticket was to rise by 7% (4% state tax plus 3% local tax) in the presence of an imposed sales tax, demand could logically be expected to either fall or stay the same, depending on buyer sensitivity to price (i.e. elasticity). If the demand for lottery tickets were to fall in response to rising prices, the demand for lottery tickets would be termed elastic, and if it were to stay the same, it would be termed inelastic. In short, answering the question of "but for" is synonymous with estimating the price elasticity of demand.

Two primary difficulties exist in estimating a price elasticity of demand for lottery tickets. The first is a lack of individual purchase data. Since data on individual lottery sales is unavailable, estimates must rely on aggregate location (i.e., state or county) data. While, importantly, any estimate of price elasticity obtained from aggregate data is conceptually different from its textbook definition, which centers individual preferences and utility maximization, it is nonetheless useful for estimating the response of regional sales with respect to changing prices.

Secondly, there is a lack of pricing variation across individual categories of lottery tickets. Generally speaking, prices of goods must vary to some degree in order to measure a demand response to changes in prices (i.e., price elasticity). Since the price of a \$1 lottery ticket is always \$1, the price of a \$5 ticket is always \$5, and so on, traditional econometric methods cannot capture the direct variation in prices necessary to estimate price elasticity.

An examination of relative prices across time and geography can help estimate price elasticity in such a situation. Garrett and Kolesnikova (2015) demonstrate the importance of including a measure of the local price level in estimating the income elasticity of demand for lottery sales, which can capture differences in purchasing power across locations. While they apply this measure in a national model to account for differences in nominal prices across the U.S., we adapt the approach to county-level price elasticities in Georgia.

A number of studies have sought to estimate the price elasticity of lotteries, as well as the priceinduced substitution between lotteries and casino gambling. Fleisseg (2021) estimates price elasticities and elasticities of substitution for "sin goods" (alcohol, tobacco, and gambling), and concludes that imposing a tax on a "sin" good typically reduces expenditure on that good, partially measured by the own-price elasticity of substitution. In addition, a tax on a "sin" good can induce substitution away from the taxed commodity to another "sin" good, measured by the cross-price elasticity of substitution, as well as a potential decrease in expenditure for any "sin" goods that are complements in use.

Walker (1998) and Forest, Gulley, and Simmons (2000) found the own-price elasticity for lotteries to be close to negative one; other studies found it to be possibly even more elastic (Farrell and Walker, 1999; Farrell, Morgenworth and Walker, 1999). Heinz, Romanczuk-Seiferth, and Potenza (2019) find that most lottery proceeds are attributed to the relatively addictive nature of instant, or scratch-off, ticket lotteries. Over the past two decades, as lotteries have become more popular, variability in own-price elasticity has increased, with estimates ranging from -0.116 to -1.310. Lotteries became less inelastic during the 2001 recession, and grew more elastic just towards the end of the Great recession through 2004 (Fleissig, 2021). Fleissig also concludes that all "sin" goods except lotteries have inelastic demands and that complementarity between lotteries and both beer and tobacco is inelastic, that is, the sale of lottery tickets, while being price sensitive, do not cannibalize purchases of the other "sin" goods.

In a study of the UK National Lottery, Farrell, Morgenroth, and Walker (1999) find the shortrun price elasticity for lotteries to be -1.04, with a corresponding long-run elasticity estimated to be between -1.05 and -1.55. Forrest, Gulley, and Simmons (2000) estimate a long-run elasticity of -1.03, compared with a short-run elasticity of -.66. Gulley and Scott (1993) show that lottery proceeds, and thus the amount of money available for payout to "good causes," in Georgia's case the Hope Scholarship and Pre-K funding, is typically maximized at a price elasticity near -1.0. It is not surprising, then, that an analysis of the price elasticity of demand for lottery tickets would tend to return a result around this number. In fact, several researchers use empirical analysis to check for optimal operational benefit by testing whether or not the calculated price elasticity of players is in the neighborhood of -1.0. This estimation typically represents the difference in the actual cost of the ticket (which is invariably fixed at a set amount) less the expected payout of the lottery (Forrest et al., 2000). Levi, Perez, and Forrest (2010) show that in the case of multiple online or lotto type games, if the games are complimentary, price elasticity may be less than -1.0 for individual games.

While aggregated state level data could be used, this analysis follows Garrett and Kolesnikova (2015), in line with most academic literature on lottery demand, and uses data at the most disaggregated unit of observation that is available, in our case, counties.

Both the Bureau of Labor Statistics Consumer Price Index and the American Chamber of Commerce Research Association Cost of Living Index measure relative price levels of consumer goods and services, and have been used by a number of researchers to capture price variation across locations. Unfortunately, these series are only available at the MSA level, which excludes a large geographic portion of Georgia. The research team constructed a similar series of the annual ratio of per capita household income in each county in Georgia, relative to the state as a whole, using U.S. Census data. Percentage changes in this ratio over time capture the increase (or decrease) in purchasing power in an individual county relative to the state. Thus, while the price of a \$1 (or other amount) lottery ticket is always constant, changes in the buying power of the \$1 required for purchase is measured across both geography (counties) and time (2013-2023). To examine corresponding changes in lottery sales, we calculate the annual, year-on-year percentage change in lottery sales for each corresponding county, based on data obtained from the Georgia Lottery Corporation. Garrett and Kolesnikova (2015) demonstrate that local prices play an important role in explaining geographic differences in lottery demand and that a failure to account for local differences in purchasing power may end up understating actual income elasticities. This result would also suggest a tendency to understate actual price elasticities of demand. Our calculations result in a long-run estimated price elasticity of demand for lottery sales in Georgia of -.07. Although this estimate falls comfortably within the range of those in previous findings, the limitations of the estimation method necessitated by limited data makes it is impossible to say with certainty that this estimate is significantly different from -1.0. Consequently, the evaluation used an elasticity measure of -1.0, since it represents a consensus of most prior academic research.

#### C. "BUT FOR" CALCULATION

If state and local sales tax on lottery tickets were collected, 7.64% fewer tickets would be sold, assuming unitary price elasticity of demand, causing a 7.64% contraction in the lottery's budget, and, in turn, decreasing retailer commissions, operating costs, and education funding, proportionally, by -7.64% each. Tables A and B below display the economic impact of the lottery. The direct output figure in Table A (with tax) is 7.64% less than the direct output in Table B (without tax). The summed effect of the three budgetary components—retailer commissions, GLC operations, and funding for education—appears under "direct output."

Again, this analysis modeled three primary components of lottery operations that impact Georgia's economy: retailer commissions, GLC operations, and funding for education. Each of these components represents a different industry—retailer commissions were attributed to the convenience store industry (IMPLAN code 408), GLC operations to the gambling industry (IMPLAN code 503), and funding for education to the education industry (IMPLAN code 481) and each component industry has different multipliers for employment, labor income, and value-added impacts.

For instance, in the gambling industry, IMPLAN estimates that each \$1 million in direct output creates 10 direct jobs, four indirect jobs, and three induced jobs. In the convenience store industry, IMPLAN estimates that each \$1 million in direct output creates 7.7 direct jobs, 4.2 indirect jobs, and 2.7 induced jobs. In the education industry, IMPLAN estimates that each \$1 million in direct output creates that each \$1 million in direct jobs, and four induced jobs. When the three component industries are combined, for each \$1 million in direct output, IMPLAN estimates that 12 direct jobs, two indirect jobs, and 3.8 induced jobs are created.

Tables A and B display the economic indicators modeled by IMPLAN under two scenarios (with and without sales tax on lottery tickets), respectively. Comparing IMPLAN results for a single year allows us to examine the differences in employment, labor income, value added, and total output between the two scenarios. If lottery tickets were taxed, the decrease in demand for lottery tickets would reduce total employment by 2,775 jobs. Total labor income would shrink by \$153.1 million. Value-added impact, or the associated contribution to state GDP, would fall by just under \$200 million. Total economic output would shrink by \$321.4 million.

Table A. Econo	omic impact of th	24.		
IMPACT	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
DIRECT	22,599	\$1,247,955,398	\$1,299,853,800	\$1,895,780,270
INDIRECT	3,776	\$199,725,045	\$358,773,441	\$713,782,746
INDUCED	7,173	\$403,183,832	\$748,697,498	\$1,275,561,416
TOTAL	33,549	\$1,850,864,275	\$2,407,324,739	\$3,885,124,432

Table A. Economic impact of the lottery with tax, 2024.

Table B. Economic impact of the lottery without tax, 2024.

 IMPACT	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
DIRECT	24,469	\$1,351,186,009	\$1,407,377,436	\$2,052,598,819
INDIRECT	4,089	\$216,246,259	\$388,451,105	\$772,826,706
INDUCED	7,767	\$436,535,115	\$810,629,599	\$1,381,075,590
 TOTAL	36,324	\$2,003,967,383	\$2,606,458,140	\$4,206,501,115

#### **D. TAX IMPACTS**

This study evaluates the impact of a tax incentive created to generate education funding, which distinguishes it from most tax incentive studies. Unlike with tax exemptions on an existing industry, the state of Georgia collects revenue whether or not lottery tickets are taxed. For this reason, the research team projected state revenue with and without sales tax collected on the lottery tickets, then calculated the difference between the two scenarios.

Under the current scenario, future ticket sales are projected based on sales trends from 2013 to 2022. The state collects revenue in the form of direct, indirect, and induced effects of lottery operations. An example of the direct effect of the lottery on state revenue collections would be income taxes paid by staff employed at the GLC. An example of the indirect effect of the lottery on state revenues would be income taxes paid by staff of an advertising company that provides services to the GLC. Finally, an example of induced effect of the lottery on state revenues would be sales tax paid by those advertising staff on purchases as they spend their salary in the economy. Total impacts sum direct, indirect, and induced effects.

Tax revenue generated by lottery operations in 2024 under the current scenario (without sales tax on tickets) is displayed in Table C. Assuming \$6.22 billion in lottery ticket sales—with 6% paid out as retailer commissions, 1% operating costs of GLC, and 26% funding education—total state tax collections would be \$100.06 million. Total county tax collections would be \$35.15 million.

	SUB COUNTY	SUB COUNTY				
IMPACT	GENERAL	SPECIAL DISTRICT	COUNTY	STATE	FEDERAL	TOTAL
DIRECT	\$7,469,989.82	\$21,877,939.87	\$16,988,005.71	\$54,778,260.00	\$247,762,882.19	\$348,877,077.59
INDIRECT	\$1,765,598.77	\$5,159,616.85	\$4,013,756.04	\$11,929,160.51	\$43,599,559.22	\$66,467,691.39
INDUCED	\$6,224,717.06	\$18,154,580.23	\$14,146,821.94	\$33,358,457.14	\$83,166,946.52	\$155,051,522.88
TOTAL	\$15,460,305.65	\$45,192,136.94	\$35,148,583.69	\$100,065,877.65	\$374,529,387.93	\$570,396,291.87

Table C. Revenue impacts of the lottery under current scenario (no sales tax on tickets), 2024.

Under the hypothetical, counterfactual scenario in which the state and county collect taxes on the sale of lottery tickets, the research team reduced future ticket sales by 7.64%, assuming unitary price elasticity of demand. The research team used IMPLAN to model the revenue impacts of \$5.74 billion in lottery ticket sales – again, with 6% paid out as retailer commissions, 1% as GLC operating costs, and 26% funding education. Table D presents results for tax revenue generated by lottery operations in 2024 under the hypothetical counterfactual scenario (with sales tax on tickets). State tax collections would be slightly lower than the without-tax scenario at \$92.42 million. County tax collections would also be lower than the without-tax scenario at \$32.46 million. It is important to note that the results shown in Table D do not include the sales tax that would be collected on tickets. The amount of state and county sales tax that would be collected on tickets. The amount of state and county sales tax that would be collected on tickets.

Table D. Revenue impacts of the lottery under counterfactual scenario (state and county sales tax on tickets), 2024.

	SUB COUNTY	SUB COUNTY				
IMPACT	GENERAL	SPECIAL DISTRICT	COUNTY	STATE	FEDERAL	TOTAL
DIRECT	\$6,899,282.61	\$20,206,465.30	\$15,690,122.10	\$50,593,200.98	\$228,833,798.01	\$322,222,869.00
INDIRECT	\$1,630,707.03	\$4,765,422.12	\$3,707,105.08	\$11,017,772.66	\$40,268,552.94	\$61,389,559.82
INDUCED	\$5,749,148.68	\$16,767,570.30	\$13,066,004.74	\$30,809,871.02	\$76,812,991.83	\$143,205,586.58
TOTAL	\$14,279,138.32	\$41,739,457.72	\$32,463,231.93	\$92,420,844.66	\$345,915,342.78	\$526,818,015.40

Table E. Forgone state and county revenue due to the sales tax exemption on lottery tickets, 2024-2033.

	FORGONE STATE	FORGONE COUNTY
YEAR	REVENUE	REVENUE
2024	\$229,791,548	\$209,110,309
2025	\$238,125,479	\$216,694,186
2026	\$246,459,410	\$224,278,063
2027	\$254,793,342	\$231,861,941
2028	\$263,127,273	\$239,445,818
2029	\$271,461,204	\$247,029,696
2030	\$279,795,135	\$254,613,573
2031	\$288,129,067	\$262,197,451
2032	\$296,462,998	\$269,781,328
2033	\$304,796,929	\$277,365,206
TOTAL	\$2,672,942,386	\$2,432,377,571