

# SKILL GAMES AND VIRGINIA



Prepared for

**Virginians Against  
Neighborhood  
Slot Machines**

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Cover art: Zach Smith, 18, plays an electronic skill game at a 7-Eleven in Henrico County in 2022.  
LUCA POWELL, Times-Dispatch

## Executive Summary

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In this report, we provide an explanation of what skill games are, the experience other states have had with skill games, and what we know about the impact skill games have had on Virginia.

The primary findings are:

### 1) The issue:

- The most common skill game found in Virginia is the *Queen of Virginia* game produced by Pace-O-Matic, a company based in Georgia. Skill games machines are sometimes referred to as gray machines because they exist within a “gray area” of the law, where they are neither permitted nor prohibited.
- Skill games machines rapidly proliferated in Virginia after the Virginia Alcoholic Beverage Control Authority (ABC) made a 2017 determination that the machines made by one particular manufacturer did not violate the state’s prohibition on illegal gambling and could be placed in ABC-licensed establishments. Unlike other forms of gambling, skill games entered the state without receiving authorization from the General Assembly.
- Following concerns that unregulated and unlicensed skill game machines did not provide sufficient consumer protection against under-age gambling and were siphoning off a substantial and growing share of revenues from the Virginia Lottery, the 2020 General Assembly passed legislation that placed a ban on skill games in Virginia.
- In an attempt to not further burden small businesses already hard-hit by the Covid-19 pandemic, that ban was temporarily lifted, but reimposed on July 1, 2021. Shortly after, the ban was challenged in court and tied up in litigation. Then in late 2023, the issue was finally resolved when the Virginia Supreme Court ruled that the General Assembly’s 2020 skill game ban was indeed lawful, and the ban went back into effect.
- Subsequently, in the 2024 General Assembly session, Senate Bill (SB) 212 was introduced. SB 212 would have placed authority for regulating skill games with the Virginia Lottery Board and established a general regulatory framework governing the registration, operation, and taxation of skill games in Virginia. However, SB 212 was ultimately vetoed by Governor Youngkin.

### 2) Experience of other states:

- In other states, skill games have been shown to divert revenue from state lotteries (*e.g.*, Pennsylvania) and casinos (*e.g.*, Illinois), negatively impacting the state revenue obtained from those sources.
- They have also been shown to be more highly concentrated in disadvantaged communities with below average household incomes (*e.g.*, Illinois).

- In addition, skill games are part of a trend where opportunities for gambling have increased exponentially in recent years. And there are concerns that skill games, when combined with the expansion of legalized casino gambling, sports betting, and other electronic gaming devices, could exacerbate problem gambling and thereby increase the need for addiction treatment and other social services.

### 3) Impact of skill games on Virginia:

- During the window of time between 2020 and 2021 when skill games were allowed to operate legally in Virginia, the Virginia Alcoholic Beverage Control Authority (ABC) created a database that included, among other characteristics, the location, number of machines, total wagers, and total awards for skill machines licensed to operate in Virginia. We have taken advantage of those data to address questions about the impact that skill games could have on Virginia.
- One of the primary findings from that analysis is that skill games do indeed tend to be concentrated in disadvantaged communities.
- At a state level:
  - The median income for communities with skill games was below that of the state of Virginia in 2021 (\$70,517 as compared to \$80,615).
  - The percentage of the population below the poverty level in communities with skill game machines was higher than that of the state of Virginia in 2021 (12.5 percent as compared to 10.2 percent).
  - The percentage of the population that was Black or Hispanic in communities with skill game machines was higher than that of the state of Virginia in 2021 (37.2 percent as compared to 28.6 percent).
  - The percentage of renter-occupied housing units in communities with skill game machines was higher than that of the state of Virginia in 2021 (37.2 percent as compared to 33.3 percent).
  - The percentage of the population without a high school degree in communities with skill game machines was higher than that of the state of Virginia in 2021 (11.4 percent as compared to 9.2 percent).
- At a local level:
  - The locality with the largest amount of skill game wagers in the ABC data was the City of Virginia Beach, where wagers totaled \$154.6 million or 6.9 percent of the total wagers made in Virginia. Within the City of Virginia Beach, the zip-code with the largest amount of skill game wagers was 23462.

In 2021, zip-code 23462 had the: 1) lowest median household income, 2) second highest poverty rate, 3) highest percentage of Black population, 4) fourth highest

percentage of Hispanic population, 5) second highest percentage of renter-occupied housing units, and 6) highest percentage of population without a high school degree of any zip-code in the City of Virginia Beach.

By way of contrast, zip-code 23451 (the zip-code that includes Virginia Beach's oceanfront and is the City's primary tourist area), only ranked sixth out of the eight ZIP codes in the City where skill game wagers were made.

- The locality with the second largest amount of skill game wagers in the ABC data was the City of Richmond, where wagers totaled \$139.4 million or 6.2 percent of the total wagers made in Virginia. Within the City of Richmond, the two zip-codes with the largest amount of skill game wagers were 23223 and 23224.

Zip-code 23223 covers the area immediately east of the City's downtown. In 2021, this zip-code had the: 1) third lowest median household income, 2) fifth highest poverty rate, 3) second highest percentage of Black population, 4) fifth highest percentage of renter-occupied housing units, and 5) fourth highest percentage of population without a high school degree of any zip-code in the City of Richmond.

Zip-code 23224 covers the Route 1 corridor immediately south of the City's downtown area. In 2021, this zip-code had the: 1) lowest median household income, 2) second highest poverty rate, 3) third highest percentage of Black population, 4) second highest percentage of Hispanic population, 5) third highest percentage of renter-occupied housing units, and 6) second highest percentage of population without a high school degree of any zip-code in the City of Richmond.

- The locality with the third largest amount of skill game wagers in the ABC data was Fairfax County, where wagers totaled \$123.5 million or 5.5 percent of the total wagers made in Virginia. Within Fairfax County, the zip-code with the largest amount of skill game wagers was 22041.

In 2021, zip-code 22041 had the: 1) third lowest median household income, 2) highest poverty rate, 3) third highest percentage of Hispanic population, and 4) highest percentage of population without a high school degree of any zip-code in Fairfax County.

- Another significant finding from that analysis is that skill games have a high opportunity cost.
  - One of the more useful concepts in economics is the concept of opportunity cost – basically, what you could have done if you did not do what you did.
  - According to the ABC data, between August 2020 and July 2021 \$2.2 billion was wagered in skill game machines in Virginia. Of that \$2.2 billion, \$1.7 billion was paid out in winnings and \$506.7 million were lost wagers. Which means that, on net, skill game players lost \$506.7 million that could have been spent elsewhere in Virginia's economy.

- Our analysis shows that, had that \$506.7 million in lost wagers been spent elsewhere in Virginia's economy, it could have supported as much as 9,214 direct jobs, \$208.6 million in labor income, and \$506.6 million in overall economic output in Virginia.
- Finally, to the extent that the \$2.2 billion wagered in skill game machines in Virginia between August 2020 and July 2021 diverted revenue away from the Virginia Lottery, it is important to note that the two types of games have different beneficiaries:
  1. With the Virginia Lottery, \$72.60 of every \$100 in gross receipts (revenue generated from gaming less winnings paid out to players) from ticket sales would have been dedicated to educational funding, whereas with skill games (based on the tax regime specified in SB 212), only \$18.75 of every \$100 in gross receipts would have been dedicated to educational funding.
  2. With the Virginia Lottery, retailers who host Lottery ticket sales would have received \$11.50 out of every \$100 in gross receipts (revenue generated from gaming less winnings paid out to players), whereas with skill games (based on the tax regime specified in SB 212) the operators and enterprises that license and host the games would have received \$75.00 out of every \$100 in gross receipts.

## Introduction

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In this report, we provide an explanation of what skill games are, the experience other states have had with skill games, and what we know about the impact they have had on Virginia. This report was commissioned by Virginians Against Neighborhood Slot Machines and produced by Mangum Economics.

## The Issue

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### WHAT ARE SKILL GAMES?

The most common skill game found in Virginia is the *Queen of Virginia* game produced by Pace-O-Matic, a company based in Georgia. In that game, a player is presented with a tic-tac-toe-like grid of symbols and wins by manipulating the symbols to achieve a three-in-a-row string of matches. Skill games are most often found in convenience stores, truck stops, and bars. Skill games machines are sometimes referred to as gray machines because they exist within a “gray area” of the law, where they are neither permitted nor prohibited.

Proponents of legalizing skill games in Virginia generally emphasize: 1) the role that skill games play in sustaining the financial viability of small businesses such as convenience stores and restaurants, 2) the fact that those small businesses are often owned by recent immigrants to the United States, and 3) the government tax revenue that skill games can generate at both the state and local level.

While opponents of legalizing skills games in Virginia generally emphasize: 1) the difficulty of enforcing age restrictions and other consumer protections in the relatively open environment characteristic of convenience stores and bars as compared to the much more restricted environment characteristic of casinos, 2) that skill games are often concentrated in disadvantaged neighborhoods where household incomes and education levels tend to be lower, and 3) the experience of other states where skill games were shown to have siphoned off revenues from the existing state lotteries and casinos.

### BACKGROUND ON SKILL GAMES IN VIRGINIA

Skill games machines rapidly proliferated in Virginia after the Virginia Alcoholic Beverage Control Authority (ABC) made a 2017 determination that the machines made by one particular manufacturer did not violate the state’s prohibition on illegal gambling and could be placed in ABC-licensed establishments.<sup>1</sup> Unlike other forms of gambling, skill games entered the state without receiving authorization from the General Assembly.

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<sup>1</sup> Data Source: *Gaming in the Commonwealth*, Joint Legislative Audit and Review Commission, November 25, 2019.



In a September 2019 briefing to the House Appropriations and Senate Finance Committees, the Virginia Lottery estimated that the number skill game machines in Lottery retailer locations alone grew from just over 500 in January 2019 to just under 4,500 in August 2019 and a subsequent report by the Joint Legislative Audit and Review Commission estimated that the total number could be as high as 9,000.<sup>2</sup>

In its September 2019 briefing, the Virginia Lottery also expressed concerns that these unregulated and unlicensed machines did not provide sufficient consumer protection against under-age gambling and were siphoning off a substantial and growing share of revenues from the Virginia Lottery. Further complicating the issue, after additional guidance from the Office of the Attorney General, in 2019 ABC issued a new policy that deferred determination of the legality of skill games to local commonwealth's attorneys, which meant there was no state-wide guidance on the legal status of the machines.

In response to these growing issues, in its 2020 session the Virginia General Assembly passed legislation that placed a ban on skill games in Virginia, effective July 1, 2020. However, in an attempt to not further burden small businesses already hard-hit by the Covid-19 pandemic, then Governor Northam proposed, and the General Assembly agreed to, delaying implementation of the ban until July 1, 2021. Then, shortly after the ban was reinstated on July 1, 2021, it was challenged in court and a County Circuit Court issued an injunction to stay enforcement of the ban until the matter was settled.

A subsequent 2022 report by Virginia's Joint Legislative Audit and Review Commission (JLARC) found that, "while it is unclear whether the state can ban gray machines, leaving the machines unregulated clearly creates risks for players and businesses."<sup>3</sup> According to the JLARC report, "Commonwealth's attorneys from multiple localities reported that crimes such as assault and robbery have increased at establishments with gray machines."<sup>4</sup> In addition, the JLARC report stated that, "gray machines likely compete with legal gambling and therefore reduce state tax revenue from authorized gaming ... and also funding for the public purposes legal forms of gaming support."<sup>5</sup>

Then in late 2023 the legal status of skill game machines in Virginia was finally resolved when the Virginia Supreme Court ruled that the General Assembly's 2020 skill game ban was indeed lawful and the ban went back into effect.

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<sup>2</sup> Data Source: *Briefing for House Appropriations and Senate Finance Committees*, Virginia Lottery, Executive Director, Kevin Hall, September 16-17, 2019; and *Gaming in the Commonwealth*, Joint Legislative Audit and Review Commission, November 25, 2019.

<sup>3</sup> Data Source: *Oversight and Administration of Gaming in the Commonwealth*, Joint Legislative Audit and Review Commission, p.50, October 17, 2022.

<sup>4</sup> Data Source: *Oversight and Administration of Gaming in the Commonwealth*, Joint Legislative Audit and Review Commission, p.50, October 17, 2022.

<sup>5</sup> Data Source: *Oversight and Administration of Gaming in the Commonwealth*, Joint Legislative Audit and Review Commission, p.51, October 17, 2022.

## LEGISLATION FROM THE 2024 GENERAL ASSEMBLY SESSION

In the 2024 session of the Virginia General Assembly, bills were introduced in both the House and Senate that would lift the ban on skill games in Virginia and create a regulatory framework to govern their ongoing operation. Of those bills, Senate Bill (SB) 212 was the only bill to pass both chambers and be sent to the Governor. SB 212 would have placed authority for regulating skill games with the Virginia Lottery Board and established a general regulatory framework governing the registration, operation, and taxation of skill games in Virginia. However, SB 212 was ultimately vetoed by Governor Youngkin.

Among other provisions, SB 212 would have stipulated that a monthly tax of 25 percent of gross receipts (revenue generated from the play of skill games less winnings paid out to players) would be paid to the Virginia Department of Taxation and allocated as follows: 1) 18.75 percent to the PreK-12 Priority Fund for public education, 2) 3.75 percent to localities, 3) 1.5 percent to the Virginia Department of Taxation for administrative expenses, 4) 0.5 percent to the Problem Gambling Treatment and Support Fund, and 5) 0.25 percent each to local law enforcement agencies and the Department of State Police.

The remaining 75 percent of gross receipts would be divided between the establishment in which the skill game was located and the operator who was registered with the Virginia Lottery Board to operate skill games in Virginia in accordance with a use agreement established between the two.

The Virginia Department of Planning and Budget prepared an estimate of SB 212's fiscal impact during the 2024 session. According to that estimate, on the revenue side some 10,500 skill game machines would generate \$506.7 million in gross receipts annually and the state would receive approximately \$126.0 million of that total in tax revenue. On the expenditure side, the Virginia Lottery would require \$15.0 million annually in additional funding to implement the provisions of the bill and the Virginia Department of Taxation would require approximately \$100,000 in additional funding annually to implement the provisions of the bill after initial setup costs.

At the time this report was published, several bills relating to skills games had again been introduced in the 2025 session of the Virginia General Assembly. However, the final disposition, or even the final wording, of that proposed legislation was at that time still unknown.

## Experience of other States

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### IMPACT ON OTHER STATE REVENUE SOURCES

#### State Lottery Revenue

In part because skill games are often located in establishments such as convenience stores that also sell state lottery tickets, skill games can divert revenue away from state lotteries. However, one of the problems with assessing the impact of skill games on lottery revenue is that, because the games are often not regulated or licensed, data on them can be hard to find.

The Pennsylvania Lottery solved that problem by tasking their District Sales Representatives with collecting data on the presence of skill game machines in lottery retail locations starting in 2017. Those data were then combined with lottery ticket sales data collected by Scientific Games, the Pennsylvania Lottery's primary systems vendor, to estimate the impact of skill games on lottery revenues.<sup>6</sup>

That analysis yielded two major findings. First, the number of skill games machines in lottery retail locations had increased 17-fold between 2017 and 2022 and rapidly expanded to encompass every county in the state. Second, skill games also negatively impacted state lottery sales by an estimated \$650 million over that same period.

## Casinos

In addition to diverting lottery sales, video gaming machines such as skill games have also been found to divert revenue from another source of state tax revenue – casinos. Perhaps one of the best documented examples of this occurred in Illinois. In 2009, Illinois enacted the Video Gaming Act with broad bipartisan support, legalizing video gambling in the state. Revenue projections at the time estimated that video gaming machines would generate approximately \$300 million in additional state revenue annually. However, in reality, that threshold was not reached until 2017, eight years later.<sup>7</sup>

Moreover, the increase in state revenue from video gaming machines was unexpectedly associated with a decrease in state tax revenue from casinos. Between 2013 and 2017, while state revenue from video gaming machines increased from \$30 million to \$300 million, state revenue from casinos declined from \$462 million to \$393 million. Because casinos in Illinois were taxed at a progressive rate (as they are in Virginia) while video gaming machines were taxed at a fixed rate (as proposed in Virginia SB 212), that shift contributed to a 22 percent decline in funding for Illinois' Education Assistance Fund between 2013 and 2017.<sup>8</sup>

## IMPACT ON LOW-INCOME COMMUNITIES

Another issue with skill games, and one that will be explored in greater detail in the *Impact of Skill Games on Virginia* portion of this report, is that they often appear to be concentrated in communities with below average household incomes. A 2019 study by ProPublica Illinois combined U.S. Census data for Illinois with Illinois Gaming Board data to assess the relationship between the location of video gambling and household income. Using econometric modeling that controlled for other potential causal factors such as population size, that study found that there was "a significant negative correlation between the number of video gambling machines and the average household income of a city and a

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<sup>6</sup> Data Source: *Pennsylvania "Skill Machines" and Lottery Revenue*, a study commissioned by the Pennsylvania Lottery and produced by Scientific Games, 2022.

<sup>7</sup> Data Source: *How Illinois Bet on Video Gambling and Lost*, by Jason Grotto and Sandhya Kambhampati (ProPublica Illinois), and Dan Mihalopoulos (WBEZ Chicago), January 16, 2019.

<sup>8</sup> Data Source: *How Illinois Bet on Video Gambling and Lost*, by Jason Grotto and Sandhya Kambhampati (ProPublica Illinois), and Dan Mihalopoulos (WBEZ Chicago), January 16, 2019.

county.”<sup>9</sup> In other words, the lower the household income, the higher the concentration of video gambling machines.

## IMPACT OF GAMBLING GENERALLY

Setting aside the chance versus skill issue, in a skill game, just as in roulette or poker, one places a wager, and depending on the outcome of the game, either loses the wager or wins a payout that could exceed the wager. Arguably, from a strictly behavioral perspective it is difficult not to see that as a form of gambling.

In the United States in general, and in Virginia specifically, available opportunities for gambling have increased exponentially in recent years. Where not long ago there were only a handful of states with casinos, in 2023, 27 states (including Virginia) had land-based casinos and 29 states had tribal casinos.<sup>10</sup> Prior to a landmark decision by the United States Supreme Court in 2018,<sup>11</sup> sports betting was only legal in Delaware, Montana, Nevada, and Oregon, now it is legal in 39 states (including Virginia) and the District of Columbia.<sup>12</sup> And in the latest installment, electronic gaming devices (*e.g.*, video gaming terminals, video lottery terminals, instant racing, or poker machines) located in non-casino commercial establishments are now legal in 11 states (including Virginia).<sup>13</sup>

As with any potentially addictive and previously prohibited activity, there are benefits and costs associated with the expanded legalization of gambling. On the one hand, legalization brings the activity out of the shadows, can provide a regulatory framework to govern it, facilitates taxation, and may better enable addicted individuals to receive treatment. But on the other hand, legalization also increases access, normalizes the activity, increases the attendant harms for which the activity was previously proscribed, and likely increases the need for addiction treatment and other social services.<sup>14</sup>

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<sup>9</sup> Data Source: *How We Analyzed Video Gambling in Illinois*, ProPublica Illinois, January 16, 2019.

<sup>10</sup> Data Source: *State of the States 2024*, American Gaming Association, May 2024.

<sup>11</sup> *Murphy v. National Collegiate Athletic Association*, No. 16-476, 584 U.S. 453 (2018) [138 S. Ct. 1461].

<sup>12</sup> Data Source: Wikipedia and American Gaming Association.

<sup>13</sup> Data Source: *State of the States 2024*, American Gaming Association, May 2024.

<sup>14</sup> Data Source: *Online Gambling Policy Effects on Tax Revenue and Irresponsible Gambling*, by Wayne J. Taylor, Daniel M. McCarthy, and Kenneth C. Wilbur, report commissioned by New York Council on Problem Gambling, June 18, 2024.

Problem gambling is not a trivial problem in the United States. The top three findings from a 2021 nationwide survey commissioned by the National Council on Problem Gambling<sup>15</sup> were:

- 1) The number of people displaying risky gambling behavior increased from 7 percent in 2018 to 11 percent in 2021.
- 2) One of the greatest predictors or risk identified in the study was participation in many different gambling activities.
- 3) Young adults were at greatest risk of gambling problems, with one quarter of those under 35 frequently experiencing at least one of the four problematic gambling behaviors assessed in the study, as compared to just three percent of those 55 or older.

In addition, studies have also found that problem gambling has a disproportionate impact on minority communities. Based on an extensive literature review and in-depth interviews with study participants, a 2023 United Kingdom report by the Commission on Crime and Gambling Related Harms<sup>16</sup> found that:

- 1) “Research suggests that while people from ethnic minority communities may be less likely to gamble, those that do gamble may be disproportionately affected by gambling-related harms.”
- 2) “Gambling can generate many harms relating to finances, relationships, psychological well-being, physical health, employment, education, and criminal activity.”
- 3) “Many [interview] participants drew attention to the accessibility of gambling within ethnic minority communities.”
- 4) “Faith plays a key role in the lives of many people from ethnic minority communities, and while this can be a source of support, it may also serve as a barrier to accessing support.”

## Recent Trends in the Convenience Store Industry

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Because convenience stores are one of the larger venues for skill games in Virginia, in this portion of the report we touch on some of the recent trends in that industry nationally and in Virginia.

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<sup>15</sup> Data Source: *National Survey on Gambling Attitudes and Gambling Experiences 2.0*, National Council on Problem Gambling, 2023.

<sup>16</sup> Data Source: *Lived Experiences of gambling-related harms, and crime within ethnic communities*, Commission on Crime and Gambling Related Harms, April 2023.



# NATIONAL

## Sales Revenue

Figure 1 depicts the trend in total sales, inside sales, and fuel sales in convenience stores nationwide between 2019 and 2023. Total sales dipped to a low of \$548.2 billion in 2020 due to lockdowns imposed in response to the Covid-19 pandemic, recovered and exceeded their pre-pandemic level the next year in 2021, peaked at \$906.1 billion in 2022, and then dipped to \$859.8 billion in 2023. Overall, total sales rose from \$647.8 billion in 2019 (the last year before the pandemic) to \$859.8 billion in 2023 (the last year for which data are available) – an increase of 32.7 percent. As the other data in Figure 1 indicate, most of that rise in total sales was driven by fuel sales, which increased by 34.4 percent over the period.

Figure 1: Nationwide Convenience Store Industry Sales (in billions of current dollars) – 2019 to 2023<sup>17</sup>

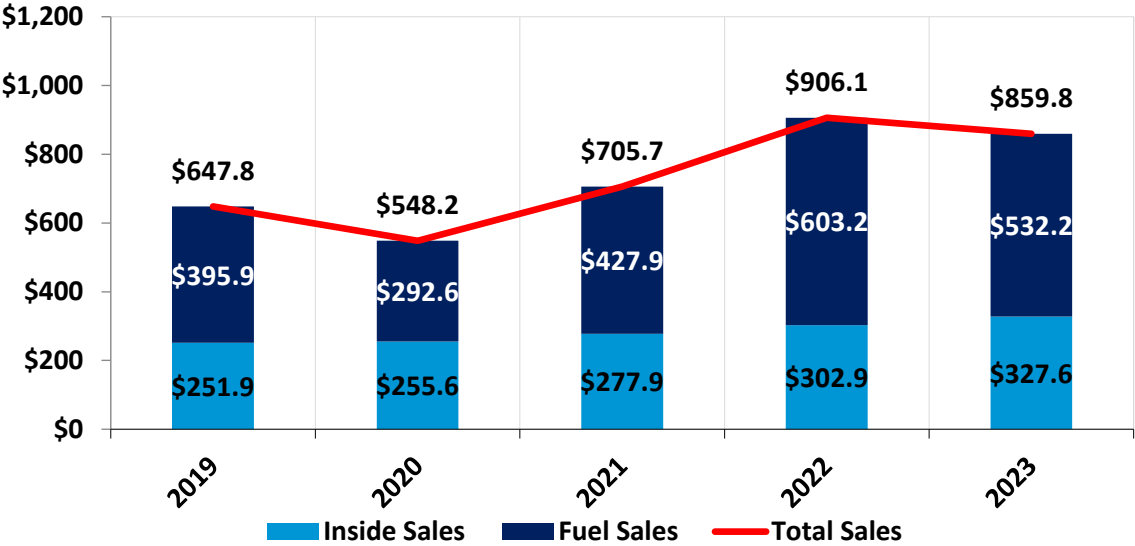


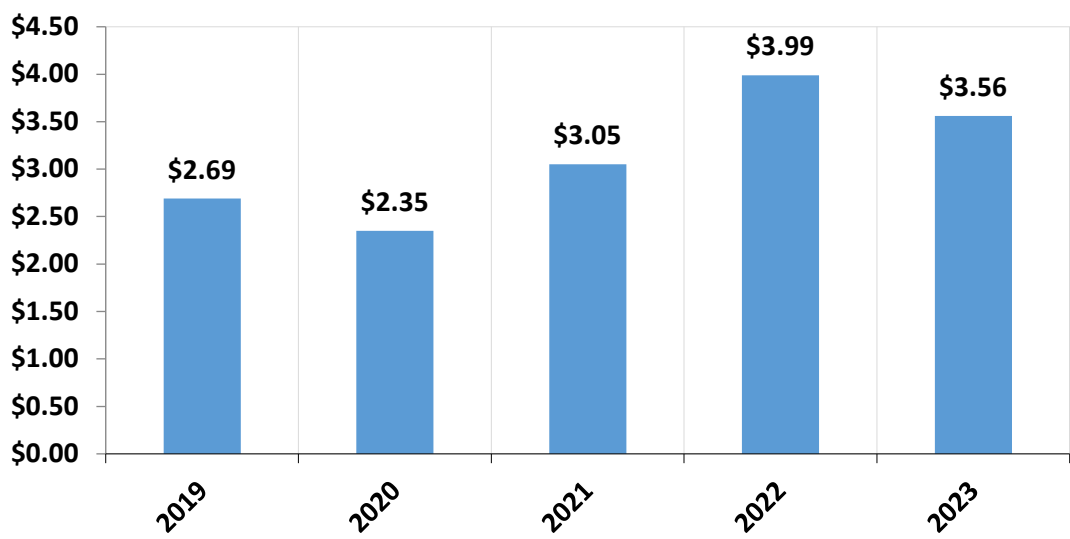
Figure 2 provides some background on why the dollar value of total sales of fuel by convenience stores rose so significantly between 2020 and 2022. It was primarily due to the price of gasoline rising significantly, going from \$2.35 per gallon in 2020 to \$3.99 per gallon in 2022, before dropping slightly to \$3.56 per gallon in 2023. These increases are consistent with trends in the overall price of energy over the period as captured by the energy component of the consumer price index, which went from a year-over-year change of minus 7.0 percent in December 2020 to a year-over-year change of plus 41.6 percent in June 2022.<sup>18</sup>

<sup>17</sup> Data Source: *State of the Industry Report of 2023 Data*, National Association of Convenience Stores, 2024.

<sup>18</sup> Data Source: U.S. Bureau of Labor Statistics.



Figure 2: Retail Price of Gas per Gallon (in current dollars) – 2019 to 2023<sup>19</sup>



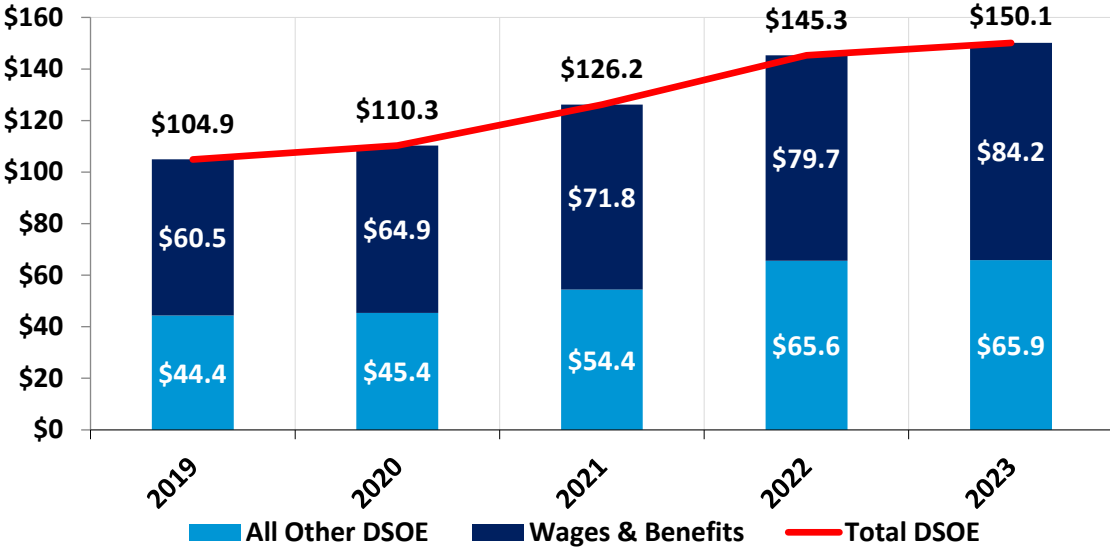
### Direct Store Operating Expenditures

Figure 3 depicts the trend in total direct store operating expenditures (DSOE), wages and benefits, and all other DSOE in convenience stores nationwide between 2019 and 2023. Total DSOE rose from \$104.9 billion in 2019 to \$150.1 billion in 2023, an increase of 43.1 percent over the period. In this case, the largest contributor to that increase was wages and benefits, which increased by \$23.7 billion between 2019 and 2022.

<sup>19</sup> Data Source: *State of the Industry Report of 2023 Data*, National Association of Convenience Stores, 2024.



Figure 3: Nationwide Convenience Store Industry Direct Store Operating Expenses (in billions of current dollars) – 2019 to 2023<sup>20</sup>



There are at least three factors that contributed to the \$23.7 billion increase in convenience store wages and benefits between 2019 and 2022:

- 1) The significant labor shortage created by the Covid-19 pandemic and its aftermath: One of the key measures that labor economists use to measure tightness in the labor market is the ratio of unemployed persons to job openings, where a ratio below one means there are more job openings than there are unemployed people to fill them. Nationwide that ratio fell below one in mid-2021 as lockdown restrictions were generally lifted, bottomed out in 2022 at two job openings for every unemployed person, and as of November 2024 still had not risen above one.<sup>21</sup>
- 2) Inflation: The Consumer Price Index escalated rapidly over the period from 2021 through 2023, rising from 1.4 percent year-over-year in January 2021 to a peak of 9.1 percent in June 2022, before falling to 3.4 percent in December 2023. Cumulatively, average prices rose 21.9 percent over the period from 2019 through 2023.<sup>22</sup>
- 3) Minimum Wage Hikes: Each year between 2019 and 2023, 23 to 25 states raised their minimum wage and in many instances, those increases exceeded the average full time hourly wage at convenience stores nationally. In 2020 in particular, 23 states raised their minimum wage and eight of those 23 raised their minimum above the \$11.89 average full time hourly wage at

<sup>20</sup> Data Source: *State of the Industry Report of 2023 Data*, National Association of Convenience Stores, 2024.

<sup>21</sup> Data Source: U.S. Bureau of Labor Statistics.

<sup>22</sup> Data Source: U.S. Bureau of Labor Statistics.



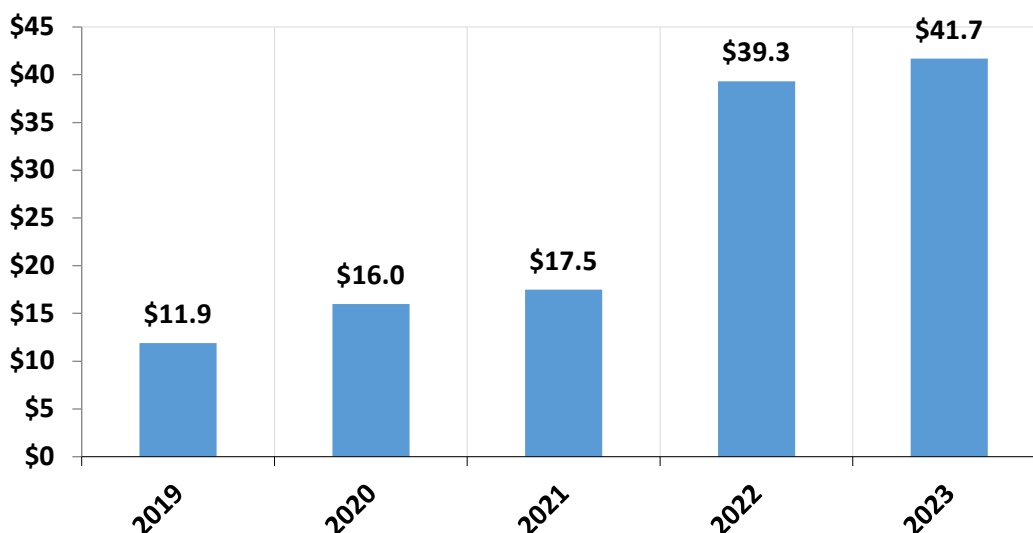


convenience stores that year.<sup>23</sup> That next year, in 2021, full time hourly wages at convenience stores increased to \$13.14, a 10.5 percent jump and the largest year-over-year increase during the entire period from 2019 through 2023.

### Pre-Tax Profits

Figure 4 depicts the trend in total pre-tax profits in convenience stores nationwide between 2019 and 2023. As these data show, pre-tax profits rose from \$17.5 billion in 2021 to \$39.3 billion in 2022, a year-over-year increase of 124.6 percent; and then from 39.3 billion in 2022 to \$41.7 billion in 2023, a year-over-year increase of 6.1 percent.

Figure 4: Nationwide Convenience Store Pre-Tax Profits (in billions of current dollars) – 2019 to 2023<sup>24</sup>



### VIRGINIA

Turning to Virginia, Figure 5 details the change in employment and average annual wages in the convenience store industry over the period from 2019 through 2023.<sup>25</sup> As these data show, total employment in the industry (light blue columns aligned with the right vertical axis) fell during the Covid-19 pandemic, bottoming out at 24,337 jobs in 2021. Employment subsequently rose and hit 25,584 jobs in 2023, surpassing the pre-pandemic employment of 25,534 jobs in 2019. Overall, between 2019 and 2023 employment in Virginia’s convenience store industry increased by 50 jobs or 0.2 percent.

<sup>23</sup> Data Source: Data on minimum wage increases are from the Federal Reserve Bank of St. Louis and data on the average full time hourly wage at convenience stores nationally are from *State of the Industry Report of 2023 Data*, National Association of Convenience Stores, 2024.

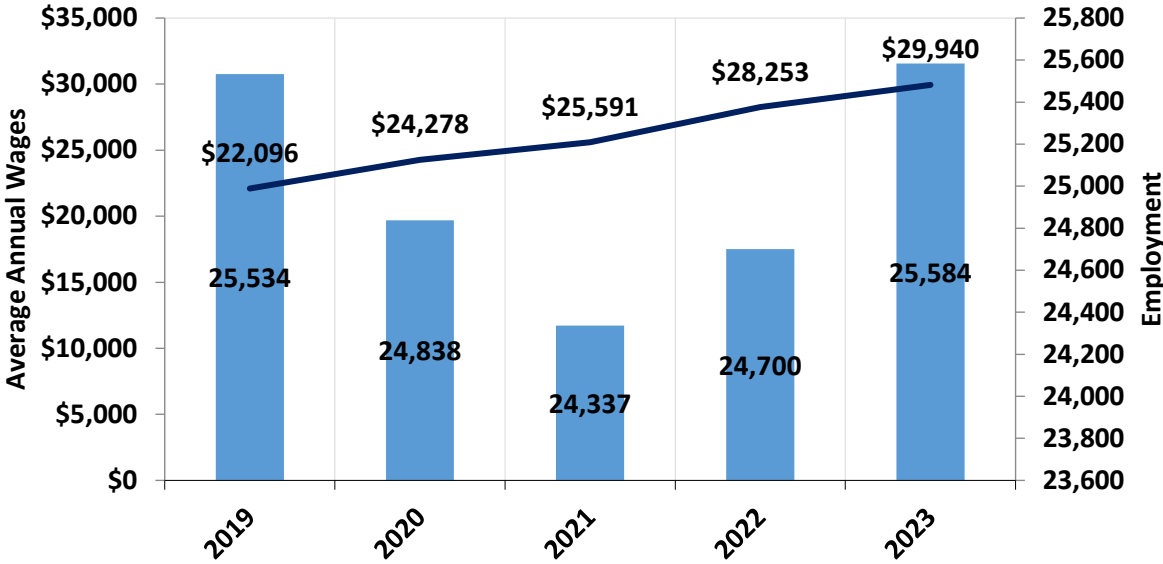
<sup>24</sup> Data Source: *State of the Industry Report of 2023 Data*, National Association of Convenience Stores, 2024.

<sup>25</sup> Data Source: U.S. Bureau of Labor Statistics. Employment and wages shown are for Gasoline Stations with Convenience Stores (NAICS 447110).



Figure 5 also depicts the change in average annual wages in Virginia’s convenience store industry over the period from 2019 through 2023. In this case, average annual wages (dark blue line aligned with the left vertical axis) demonstrated consistent growth over the period, rising from \$22,096 in 2019 to \$29,940 in 2023, a nominal increase of \$7,844 or 35.5 percent, even as employment dipped during the pandemic.

Figure 5: Virginia Convenience Store Industry Employment and Average Annual Wages – 2019 to 2023<sup>26</sup>



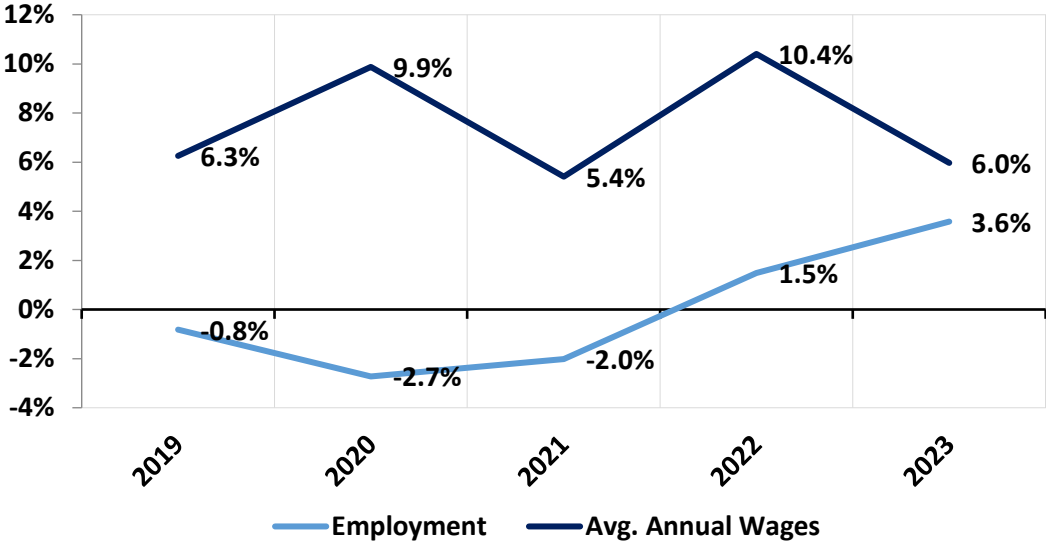
<sup>26</sup> Data Source: U.S. Bureau of Labor Statistics. Employment and wages shown are for Gasoline Stations with Convenience Stores (NAICS 447110).



Figure 6 provides some additional context on these trends by detailing the year-over-year change in employment and average annual wages in Virginia’s convenience store industry over the period from 2019 through 2023. There are two particularly revealing features of these data:

- 1) As employment (light blue line) bottomed out in 2020 at the beginning of the pandemic, average annual wages (dark blue line) experienced a significant 9.9 percent uptick in year-over-year growth. Presumably that increase was a risk premium necessary to induce employees to come to work during the worst of the pandemic.
- 2) As employment (light blue line) started to rise again in 2022 and exhibited 1.5 percent year-over-year growth, average annual wages (dark blue line) showed a significant 10.4 percent year-over-year uptick, which presumably reflects the need to offer higher wages to induce additional workers to come off the sidelines and rejoin the workforce.

Figure 6: Year-Over-Year Change in Virginia Convenience Store Industry Employment and Average Annual Wages – 2019 to 2023<sup>27</sup>



## Impact of Skill Games on Virginia

In this section of the report, we take advantage of detailed data collected by the Virginia Alcoholic Beverage Control Authority (ABC) during the window of time between 2020 and 2021 when skill games were allowed to operate legally in Virginia, to address questions about the impact that skill games have on the state.

<sup>27</sup> Data Source: U.S. Bureau of Labor Statistics. Employment and wages shown are for Gasoline Stations with Convenience Stores (NAICS 447110).

## DEMOGRAPHICS OF SKILL GAME LOCATIONS

One of the frequently voiced concerns about skill games is that they tend to be concentrated in disadvantaged communities. In this portion of the section, we employ the data collected by ABC to test that hypothesis.

### Method

In this analysis, we rely on location-specific data collected by ABC on the total wagers associated with skill game machines in specific zip-codes. More specifically, these data cover the period from August 2020 through July 2021 and, among other characteristics, include the location, number of machines, total wagers, and total awards for skill machines licensed to operate in Virginia during that period. In total, ABC data identify 526 Virginia zip codes over the data collection period in which there were licensed skill game machines.

We then combine those data with demographic data from the U.S. Census Bureau's 2021, American Community Survey, five-year estimates, for each zip-code. The demographic metrics included are: 1) median household income, 2) share of the population below the poverty level, 3) share of the population that is black or Hispanic, 4) share of households in rental housing, and 5) share of population with less than a high school degree.

For the state-level analysis specifically, we weight each zip-code's demographic metrics by the percentage of total wagers statewide accounted for by the total wagers in that zip-code. We then sum the weighted metrics to generate a weighted average for each metric across the 526 zip-codes included in the ABC data. This process allows us to capture not only the presence of skill game machines in a zip-code, but also to take into account the concentration of skill game machines in a specific zip-code. As a result, the weighted average provides a more accurate picture of the degree to which skill game machines are concentrated in disadvantaged communities. Finally, we compare the weighted averages for demographic metrics in zip-codes with skill game machines to the same demographic metrics for Virginia overall in 2021.

### State Level Results

The results of our state level findings are presented in Figures 7 and 8. As shown in Figure 7, the average household income in communities with skill game machines was below that of the state of Virginia in 2021 (\$70,517 as compared to \$80,615). This result is consistent with similar findings from other analyses, such as the 2019 study by ProPublica Illinois, that have shown that skill game machines tend to be concentrated in communities with relatively lower household income.



Figure 7: Comparison between Communities with Skill Games Machines and Virginia Statewide – Median Household Income.<sup>28</sup>

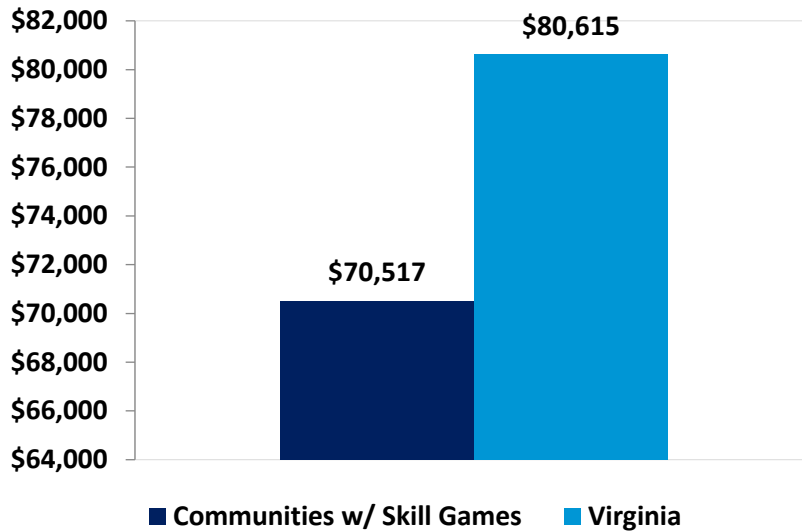


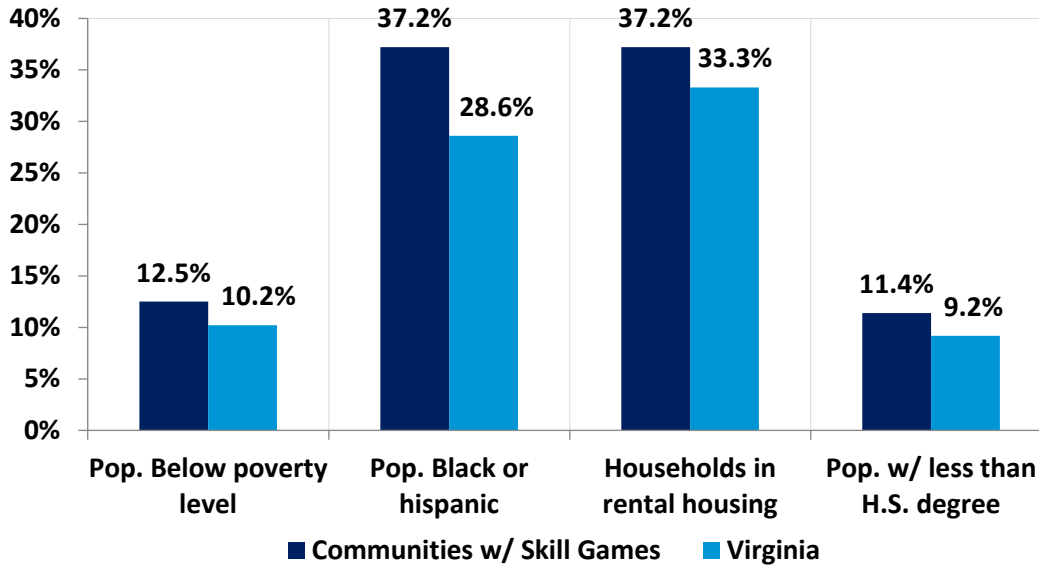
Figure 8 extends this analysis to provide a similar comparison for the other key demographic metrics we evaluated (*i.e.*, share of the population below the poverty level, share of the population that is Black or Hispanic, share of households in rental housing, and share of population with less than a high school degree). In all instances, these comparisons again support the hypothesis that skill game machines tend to be concentrated in disadvantaged communities.

As these data show:

- The percentage of the population below the poverty level in communities with skill game machines was higher than that of the state of Virginia in 2021 (12.5 percent as compared to 10.2 percent).
- The percentage of the population that was Black or Hispanic in communities with skill game machines was higher than that of the state of Virginia in 2021 (37.2 percent as compared to 28.6 percent).
- The percentage of renter-occupied housing units in communities with skill game machines was higher than that of the state of Virginia in 2021 (37.2 percent as compared to 33.3 percent).
- The percentage of the population without a high school degree in communities with skill game machines was higher than that of the state of Virginia in 2021 (11.4 percent as compared to 9.2 percent).

<sup>28</sup> Data Source: U.S. Census Bureau and Virginia Alcoholic Beverage Control Authority (ABC).

Figure 8: Comparison between Communities with Skill Games Machines and Virginia Statewide – Other Key Demographic Metrics<sup>29</sup>



### Local Level Results

While the state level findings are persuasive, averages can sometimes wash away important and revealing information. As a result, in the following pages we present a more detailed look at selected localities.

#### City of Virginia Beach

The locality that had the largest amount of skill game wagers in the ABC data was the City of Virginia Beach, where wagers totaled \$154.6 million or 6.9 percent of the total wagers made in Virginia.

Within the City of Virginia Beach, the zip-code with the largest amount of skill game wagers was 23462, at \$33.2 million in wagers or 21.5 percent of the total wagers placed in the City. In 2021, zip-code 23462 had the: 1) lowest median household income, 2) second highest poverty rate, 3) highest percentage of Black population, 4) fourth highest percentage of Hispanic population, 5) second highest percentage of renter-occupied housing units, and 6) highest percentage of population without a high school degree of any zip-code in the City of Virginia Beach.

By way of contrast, it is also interesting to note that with \$13.8 million in wagers, zip-code 23451 (the zip-code that includes Virginia Beach’s oceanfront and is the City’s primary tourist area), only ranked sixth out of the eight ZIP codes in the City where skill game wagers were made.

<sup>29</sup> Data Source: U.S. Census Bureau and Virginia Alcoholic Beverage Control Authority (ABC).

### *City of Richmond*

The locality that had the second largest amount of skill game wagers in the ABC data was the City of Richmond, where wagers totaled \$139.4 million or 6.2 percent of the total wagers made in Virginia.

Within the City of Richmond, the two zip-codes with the largest amount of skill game wagers were 23223, at \$46.2 million in wagers, and 23224, at \$42.0 million in wagers. In combination, these two zip-codes accounted for 63.3 percent of the total wagers placed in the City.

- Zip-code 23223 covers the area immediately east of the City's downtown. In 2021, this zip-code had the: 1) third lowest median household income, 2) fifth highest poverty rate, 3) second highest percentage of Black population, 4) fifth highest percentage of renter-occupied housing units, and 5) fourth highest percentage of population without a high school degree of any zip-code in the City of Richmond.
- Zip-code 23224 covers the Route 1 corridor immediately south of the City's downtown area. In 2021, this zip-code had the: 1) lowest median household income, 2) second highest poverty rate, 3) third highest percentage of Black population, 4) second highest percentage of Hispanic population, 5) third highest percentage of renter-occupied housing units, and 6) second highest percentage of population without a high school degree of any zip-code in the City of Richmond.

### *Fairfax County*

The locality that had the third largest amount of skill game wagers in the ABC data was Fairfax County, where wagers totaled \$123.5 million or 5.5 percent of the total wagers made in Virginia.

Within Fairfax County, the zip-code with the largest amount of skill game wagers was 22041, at \$19.1 million in wagers or 15.5 percent of the total wagers placed in the County. In 2021, zip-code 22041 had the: 1) third lowest median household income, 2) highest poverty rate, 3) third highest percentage of Hispanic population, and 4) highest percentage of population without a high school degree of any zip-code in Fairfax County.

### *Henrico County*

The locality that had the fourth largest amount of skill game wagers in the ABC data was Henrico County, where wagers totaled \$118.2 million or 5.3 percent of the total wagers made in Virginia.

Within Henrico County, the two zip-codes with the largest amount of skill game wagers were 23231, at \$21.4 million in wagers, and 23223, at \$20.0 million in wagers. In combination, these two zip-codes accounted for 35.0 percent of the total wagers placed in the County.

- Zip-code 23231 covers Montrose and Varina in the eastern portion of the County. In 2021, this zip-code had the: 1) fourth highest poverty rate, and 2) fourth highest percentage of Black population of any zip-code in Henrico County.

- Zip-code 23223 covers the central portion of the County between Richmond and Mechanicsville. In 2021, this zip-code had the: 1) second lowest median household income, 2) second highest poverty rate, 3) second highest percentage of Black population, 4) third highest percentage of renter-occupied housing units, and 5) second highest percentage of population without a high school degree of any zip-code in Henrico County.

### *Chesterfield County*

The locality that had the fifth largest amount of skill game wagers in the ABC data was Chesterfield County, where wagers totaled \$110.0 million or 4.9 percent of the total wagers made in Virginia.

Within Chesterfield County, the zip-code with the largest amount of skill game wagers was 23234, which covers northeast Chesterfield and includes the Route 1 corridor. That zip-code had \$23.1 million in wagers or 21.0 percent of the total wagers placed in the County. In 2021, zip-code 23234 had the: 1) third lowest median household income, 2) third highest poverty rate, 3) third highest percentage of Black population, 4) highest percentage of Hispanic population, 5) fourth highest percentage of renter-occupied housing units, and 6) highest percentage of population without a high school degree of any zip-code in Chesterfield County.

### *City of Falls Church*

The greatest disparity in the ABC data between a locality's overall median household income and that of the zip-code within the locality with the largest amount of skill game wagers was in the City of Falls Church.

Within the City of Falls Church, the zip-code with the largest amount of skill game wagers was 22044, which includes the Seven Corners area. That zip-code had \$783,092 in wagers or 88.0 percent of the total wagers placed in the City. In 2021, zip-code 22044 had a median household income of \$83,968 compared to the City's median household income of \$155,071, a difference of minus \$71,103.

The greatest disparity in the ABC data between a locality's overall percentage of population without a high school degree and that of the zip-code within the locality with the largest amount of skill game wagers was also in the City of Falls Church, where the population without a high school degree in zip-code 22044 was 16.7 percent as compared to the City's percentage of 2.5 percent, a difference of plus 14.0 percent.

### *Nelson County*

The greatest disparity in the ABC data between a locality's overall poverty rate and that of the zip-code within the locality with the largest amount of skill game wagers was in Nelson County.

Within Nelson County, the zip-code with the largest amount of skill game wagers was 22949, which includes the Lovingson and Woods Mill areas. That zip-code had \$1.7 million in wagers or 44.0 percent



of the total wagers placed in the County. In 2021, zip-code 22949 had a poverty rate of 45.2 percent as compared to the County rate of 12.5 percent, a difference of plus 32.7 percent.

The greatest disparity in the ABC data between a locality's overall percentage of renter-occupied housing units and that of the zip-code within the locality with the largest amount of skill game wagers was also in Nelson County, where the percentage of renter-occupied housing units in zip-code 22949 was 52.3 percent as compared to the County's percentage of 23.2 percent, a difference of plus 29.1 percent.

## OPPORTUNITY COST

One of the more valuable concepts in economics is the concept of opportunity cost – basically, what you could have done if you did not do what you did.

### Impact of Lost Wagers on Household Expenditures

According to the ABC data, between August 2020 and July 2021 \$2.2 billion was wagered in skill game machines in Virginia. Of that \$2.2 billion, \$1.7 billion was paid out in winnings and \$506.7 million were lost wagers. Which means that, on net, skill game players lost \$506.7 million that could have been spent elsewhere in Virginia's economy. So, the question is – what was the opportunity cost of that \$506.7 million in lost household spending?

#### *Method*

To answer that question, we employ a regional economic impact model called IMPLAN.<sup>30</sup> The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S. and is commonly employed by universities, state agencies, and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, if the wagers lost playing skill games were instead spent elsewhere in Virginia's economy they would have provided revenue to other Virginia businesses. A portion of that revenue would then in turn be spent by the employees of those businesses on household expenditures and a portion would be spent by the businesses with suppliers, thereby becoming revenue for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of revenue. The mathematical relationship between the initial expenditure and the total revenue generated is the economic multiplier.

In the analysis that follows, we use the IMPLAN model to quantify what the economic impact on Virginia would have been if the \$506.7 million in lost wagers had instead been spent elsewhere in Virginia's economy. Those impact estimates are divided into three categories. First round direct impact measures

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<sup>30</sup> IMPLAN is produced by IMPLAN Group, LLC.

the direct economic impact on the Virginia businesses where the \$506.7 million is spent. Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of household (employee) to business and business to business (suppliers) transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

### Results – Alternatives to Skill Games

To more accurately capture the true opportunity cost of the lost wagers, instead of assuming they would be used for household expenditures generally, we focus our analysis on four industries that could reasonably be considered potential substitutes for recreational gambling: 1) amusement parks and arcades, 2) other amusements and recreation, 3) fitness centers and recreational sports, and 4) limited service restaurants. Since there is no way to know with certainty exactly how the lost wagers would have otherwise been spent, these estimates should be considered as illustrative examples.

#### Amusement Parks and Arcades

Table 1 provides an estimate of what the impact on Virginia’s economy would have been in 2021 if the \$506.7 million in lost wagers had been spent on amusement parks and arcades, instead of playing skill games. As these data show, had the lost wagers been spent on amusement parks and arcades they would have directly supported approximately: 1) 9,214 jobs, 2) \$208.6 million in wages and benefits, and 3) \$506.6 million in economic output in Virginia (in 2021 dollars).

Taking into account the economic ripple effects that direct impact would likely generate, the total estimated annual impact on Virginia would have been approximately: 1) 10,821 jobs, 2) \$309.5 million in wages and benefits, 3) \$827.1 million in economic output, and 4) \$116.8 million in state and local tax revenue (in 2021 dollars).

**Table 1: Estimated Annual Impact on Virginia in 2021 from \$506.7 million in Expenditures on Amusement Parks and Arcades (in millions of 2021 \$)**

Economic Impact	Employment	Labor Income	Output
<b>Direct Economic Activity</b>	9,214	\$208.6	\$506.6
<b>Indirect Economic Activity</b>	629	\$45.7	\$144.2
<b>Induced Economic Activity</b>	978	\$55.1	\$176.3
<b>Total Economic Activity<sup>31</sup></b>	<b>10,821</b>	<b>\$309.5</b>	<b>\$827.1</b>
Fiscal Impact	State	Local	State and Local
<b>Tax Revenue</b>	<b>\$50.4</b>	<b>\$66.4</b>	<b>\$116.8</b>

<sup>31</sup> Totals may not sum due to rounding.

### Other Amusements and Recreation

Table 2 provides an estimate of what the impact on Virginia’s economy would have been in 2021 if the \$506.7 million in lost wagers had been spent on other amusements and recreation, instead of playing skill games. As these data show, had the lost wagers been spent on other amusements and recreation they would have directly supported approximately: 1) 9,002 jobs, 2) \$236.6 million in wages and benefits, and 3) \$506.6 million in economic output in Virginia (in 2021 dollars).

Taking into account the economic ripple effects that direct impact would likely generate, the total estimated annual impact on Virginia would have been approximately: 1) 11,441 jobs, 2) \$382.6 million in wages and benefits, 3) \$982.5 million in economic output, and 4) \$71.2 million in state and local tax revenue (in 2021 dollars).

**Table 2: Estimated Annual Impact on Virginia in 2021 from \$506.7 million in Expenditures on Other Amusements and Recreation (in millions of 2021 \$)**

<b>Economic Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Economic Activity</b>	9,002	\$236.6	\$506.6
<b>Indirect Economic Activity</b>	1,229	\$77.8	\$257.9
<b>Induced Economic Activity</b>	1,210	\$68.2	\$218.0
<b>Total Economic Activity<sup>32</sup></b>	<b>11,441</b>	<b>\$382.6</b>	<b>\$982.5</b>
<b>Fiscal Impact</b>	<b>State</b>	<b>Local</b>	<b>State and Local</b>
<b>Tax Revenue</b>	<b>\$33.7</b>	<b>\$37.5</b>	<b>\$71.2</b>

### Fitness Centers and Recreational Sports

Table 3 provides an estimate of what the impact on Virginia’s economy would have been in 2021 if the \$506.7 million in lost wagers had been spent on fitness centers and recreational sports, instead of playing skill games. As these data show, had the lost wagers been spent on fitness centers and recreational sports they would have directly supported approximately: 1) 8,931 jobs, 2) \$152.0 million in wages and benefits, and 3) \$506.6 million in economic output in Virginia (in 2021 dollars).

Taking into account the economic ripple effects that direct impact would likely generate, the total estimated annual impact on Virginia would have been approximately: 1) 11,257 jobs, 2) \$289.7 million in wages and benefits, 3) \$981.3 million in economic output, and 4) \$68.0 million in state and local tax revenue (in 2021 dollars).

<sup>32</sup> Totals may not sum due to rounding.

**Table 3: Estimated Annual Impact on Virginia in 2021 from \$506.7 million in Expenditures on Fitness Centers and Recreational Sports (in millions of 2021 \$)**

Economic Impact	Employment	Labor Income	Output
<b>Direct Economic Activity</b>	8,931	\$152.0	\$506.6
<b>Indirect Economic Activity</b>	1,409	\$86.0	\$309.4
<b>Induced Economic Activity</b>	917	\$51.7	\$165.3
<b>Total Economic Activity<sup>33</sup></b>	<b>11,257</b>	<b>\$289.7</b>	<b>\$981.3</b>
Fiscal Impact	State	Local	State and Local
<b>Tax Revenue</b>	<b>\$31.5</b>	<b>\$36.5</b>	<b>\$68.0</b>

### Limited Service Restaurants

Table 4 provides an estimate of what the impact on Virginia’s economy would have been in 2021 if the \$506.7 million in lost wagers had been spent on limited service restaurants, instead of playing skill games. As these data show, had the lost wagers been spent on limited service restaurants they would have directly supported approximately: 1) 4,976 jobs, 2) \$127.2 million in wages and benefits, and 3) \$506.6 million in economic output in Virginia (in 2021 dollars).

Taking into account the economic ripple effects that direct impact would likely generate, the total estimated annual impact on Virginia would have been approximately: 1) 7,024 jobs, 2) \$258.9 million in wages and benefits, 3) \$930.4 million in economic output, and 4) \$41.6 million in state and local tax revenue (in 2021 dollars).

**Table 4: Estimated Annual Impact on Virginia in 2021 from \$506.7 million in Expenditures on Limited Service Restaurants (in millions of 2021 \$)**

Economic Impact	Employment	Labor Income	Output
<b>Direct Economic Activity</b>	4,976	\$127.2	\$506.6
<b>Indirect Economic Activity</b>	1,225	\$85.4	\$275.6
<b>Induced Economic Activity</b>	823	\$46.3	\$148.1
<b>Total Economic Activity<sup>34</sup></b>	<b>7,024</b>	<b>\$258.9</b>	<b>\$930.4</b>
Fiscal Impact	State	Local	State and Local
<b>Tax Revenue</b>	<b>\$20.9</b>	<b>\$20.7</b>	<b>\$41.6</b>

<sup>33</sup> Totals may not sum due to rounding.

<sup>34</sup> Totals may not sum due to rounding.

### Results – Convenience Stores

As opposed to quantifying what the economic impact on Virginia would have been if the \$506.7 million in lost wagers had been spent elsewhere in Virginia’s economy instead of playing skill games, in this portion of the section we focus on what the economic impact on Virginia would have been because the \$506.7 million in lost wagers was spent in convenience stores.

Recall from the earlier *LEGISLATION FROM THE 2024 GENERAL ASSEMBLY* section that SB 212 would have reserved 75 percent of gross receipts (revenue generated from the play of skill games less winnings paid out to players) to be divided between the establishment in which the skill game was located and the operator who was registered with the Virginia Lottery Board to operate skill games in Virginia. If we assume that 75 percent would be split 50/50, that would mean that the establishment in which the skill game is located would receive 37.5 percent of gross receipts – 37.5 percent of the \$506.7 million in lost wagers or \$190.0 million.

Table 5 provides an estimate of what the impact on Virginia’s economy would have been in 2021 if convenience stores had received that \$190.0 million as revenue. As these data show, that additional revenue would have directly supported approximately: 1) 309 jobs, 2) \$12.4 million in wages and benefits, and 3) \$49.0 million in economic output in Virginia convenience stores (in 2021 dollars).

Taking into account the economic ripple effects that direct impact would likely generate, the total estimated annual impact on Virginia would have been approximately: 1) 529 jobs, 2) \$25.6 million in wages and benefits, 3) \$89.4 million in economic output, and 4) \$2.2 million in state and local tax revenue (in 2021 dollars).

**Table 5: Estimated Annual Impact on Virginia in 2021 from \$506.7 million in Additional Revenue for Convenience Stores (in millions of current \$)**

Economic Impact	Employment	Labor Income	Output
<b>Direct Economic Activity</b>	309	\$12.4	\$49.0
<b>Indirect Economic Activity</b>	138	\$8.6	\$25.7
<b>Induced Economic Activity</b>	82	\$4.6	\$14.7
<b>Total Economic Activity<sup>35</sup></b>	<b>529</b>	<b>\$25.6</b>	<b>\$89.4</b>
Fiscal Impact	State	Local	State and Local
<b>Tax Revenue</b>	<b>\$1.1</b>	<b>\$1.1</b>	<b>\$2.2</b>

<sup>35</sup> Totals may not sum due to rounding.

## Impact of Shifting Player Wagers from the Virginia Lottery to Skill Games

As discussed earlier in the *The Issue* and *Experience of Other States* sections of the report, and as the Virginia Lottery expressly stated in its 2019 briefing to the House Appropriations and Senate Finance Committees, another concern with skill games is that they divert revenue from state lotteries. Which means that part of the opportunity cost of skill games is likely to be that some portion of player wagers would be shifted from the Virginia State Lottery to skill games. That diversion can have significant consequences if the financial beneficiaries of the two games are significantly different.

Based on the Virginia Lottery's 2023 Annual Comprehensive Financial Report and the tax regime outlined in SB 212, Figure 9 details how gross receipts (revenue generated from wagers less winnings paid out to players) are/would be divided with the Virginia State Lottery compared to skill games. As these data show, the two biggest differences are the amount of gross receipts dedicated to education and the amount of gross receipts received by retail operators/establishments that host the games:

- With the Virginia Lottery, \$72.60 of every \$100 in gross receipts from ticket sales is dedicated to educational funding,<sup>36</sup> whereas with skill games \$18.75 of every \$100 in gross receipts would be dedicated to educational funding.<sup>37</sup>
- With the Virginia Lottery, the retailers who host Lottery ticket sales receive approximately \$11.50 out of every \$100 in gross receipts from gaming, whereas with skill games the operators and enterprises that license and host the games would receive \$75.00 out of every \$100 in gross receipts.

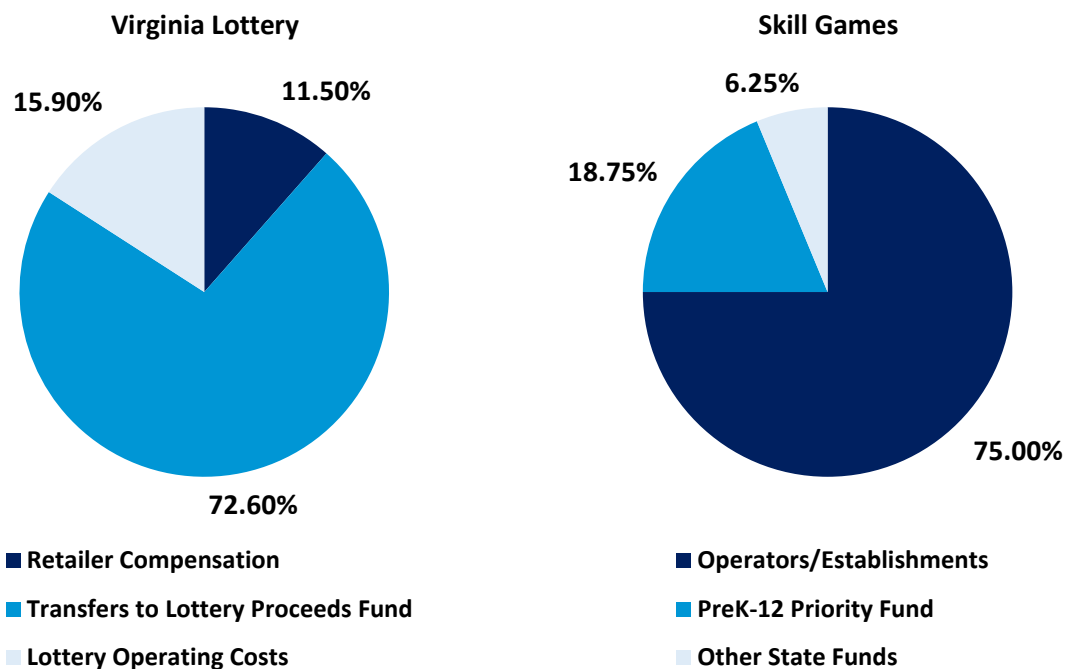
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<sup>36</sup> By constitutional amendment, 100 percent of the Lottery Proceeds Fund is dedicated to educational purposes.

<sup>37</sup> SB 212 would have established the PreK Priority Fund and required that "the Fund shall be used solely for public education purposes in the Commonwealth."



Figure 9: Division of Gross Receipts – Virginia Lottery vs. Skill Games<sup>38</sup>



<sup>38</sup> Data Source: 2023 Virginia Lottery Annual Comprehensive Financial Report for fiscal year ended June 30, 2023, Virginia Lottery, January 3, 2024, and Text of SB 212, 2024 Session of the Virginia General Assembly, as passed by both houses.