

Building Tennessee's Lottery: Considerations for Policymakers



**John G. Morgan
Comptroller of the Treasury
Office of Research
February 2003**



STATE OF TENNESSEE

COMPTROLLER OF THE TREASURY

John G. Morgan

Comptroller

STATE CAPITOL

NASHVILLE, TENNESSEE 37243-0264

PHONE (615) 741-2501

February 24, 2003

The Honorable John S. Wilder
Speaker of the Senate
The Honorable Jimmy Naifeh
Speaker of the House of Representatives
And
Members of the General Assembly
State Capitol
Nashville, Tennessee 37243

Ladies and Gentlemen:

Transmitted herewith is a report prepared by the Office of Research concerning the implementation of a lottery in Tennessee. The report provides information and recommendations that may be useful to policymakers in creating a lottery that operates efficiently and meets goals set forth by the General Assembly.

Sincerely,

A handwritten signature in cursive script that reads "John G. Morgan".

John G. Morgan
Comptroller of the Treasury

Building Tennessee's Lottery: Considerations for Policymakers



Richard Gurley
Associate Legislative Research Analyst

Ethel R. Detch, Director
Douglas Wright, Assistant Director
Office of Research

505 Deaderick Street, Suite 1700
Nashville, TN 37243-0268
615/401-7911
www.comptroller.state.tn.us/orea/reports

John G. Morgan
Comptroller of the Treasury

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Executive Summary

Since 1964, 38 states and the District of Columbia have established lotteries that have raised over \$163 billion for state government purposes.¹ However, lotteries have experienced numerous, though relatively minor, instances of fraud, waste, and inefficiency. On November 5, 2002, Tennessee citizens voted to remove the state constitutional prohibition of a state lottery, thereby granting the General Assembly the authority to create one. This report:

- Provides a brief description of state lotteries in the United States;
- Analyzes the fiscal and economic impact of state lotteries;
- Examines factors influencing the profile of typical lottery players;
- Reviews statutory guidelines governing state lotteries;
- Evaluates the administrative structures and procedures in place in existing state lotteries;
- Evaluates oversight roles for existing state lotteries;
- Proposes lottery models based on goals established by the General Assembly; and
- Recommends statutory and administrative provisions to increase the efficiency of a potential state lottery and reduce the likelihood of fraud and abuse.

Though most lotteries provide essentially the same services of instant and online games, the structure of lottery organizations varies considerably. The majority of state lotteries are stand-alone state agencies or divisions of other agencies, but many operate under independent commissions or as quasi-public corporations under boards of directors. Lotteries also differ in which services are performed by lottery employees and which are performed through vendor contracts.

This report concludes:

A mature Tennessee lottery is likely to produce substantial profits that can be used for state purposes. Lottery revenues are difficult to predict. However, the Tennessee Advisory Commission on Intergovernmental Relations estimated profits for a Tennessee lottery of \$282 million in fiscal year 2002 based on the experience of mature lotteries in other states.² This money would be available to fund college scholarships, pre-K and after-school programs, and school construction. (See page 6.)

Lottery sales may diminish economic growth and can reduce other state tax revenues. Some researchers have concluded that state lotteries discourage business investment and therefore slow economic growth. Furthermore, one study concluded that lotteries decrease retail consumption taxes. The Texas Comptroller's Office estimates that every \$1 increase in lottery sales results in a \$0.75 reduction in sales of taxable items. (See pages 6-7.)

The natural life cycle of a state lottery appears to include an initial period of rapid growth followed by years of stagnant or declining revenue. Most state lotteries

¹ La Fleur's, *La Fleur's 2002 World Lottery Almanac*, Section 1: Lottery Fast Facts, p. 6.

² Tennessee Advisory Commission on Intergovernmental Relations, "Estimates of Tennessee Lottery Sales and Proceeds," handout to the Information and Recommendations Committee, November 26, 2002.

experience rapid sales (and profits) growth over their first few years. After this period, sales growth flattens out. In some cases, sales have declined approximately five years after lottery implementation as the novelty faded and players gained a better understanding of the lottery's odds.³ According to interviewees, frequent innovations in lottery game offerings, aggressive marketing, and continually growing jackpots are needed to stave off this decline. (See pages 7-8.)

Lottery revenues are highly volatile. Many state lotteries have had both years of extraordinary sales growth and years when sales declined significantly with no discernable pattern. After reviewing lottery data, one study concluded, "with few exceptions...the variability of lottery revenues within each state is enormous."⁴ As a result, many states have had difficulty projecting funding from lottery profits for state programs. (See page 8.)

Limits on prize payouts or marketing (and minimum profit percentages to be returned to the state) may lower the net earnings generated for state purposes rather than increasing net earnings. Many states directly limit the percentage of lottery revenues going to advertising or prize payouts. Others impose indirect limits by requiring a certain percentage of revenues be returned to the state as profits. Both types of limits may actually lower profits because they can prevent spending on areas that tend to increase sales and therefore profits. (See pages 12-14 and 17.)

Many states have chosen to limit lottery advertising content or spending on ethical grounds, even at the expense of lottery profits. Federal laws do not govern the content of lottery advertisements. Many industry observers have concluded that lottery advertisements often give citizens an exaggerated view of their chances of winning and encourage them to "waste" their money on lottery tickets. Seventeen states impose content restrictions on lottery advertising, and 10 states limit spending on lottery ads. Research suggests reducing lottery marketing expenditures reduces lottery profits, but policymakers may find limits desirable to further other goals. (See pages 14-17.)

State lotteries have implemented a number of strategies to minimize underage play. All states with lotteries have established legal playing age minimums. These range from 18 to 21.⁵ Despite prohibitions, many minors still buy lottery tickets. States have imposed criminal penalties for retailers that sell tickets to or cash winning tickets for minors. Some states have also chosen to place restrictions on the use of instant ticket vending machines to limit lottery play by minors. (See pages 18-19.)

Though there is no evidence of large-scale fraud and abuse in the lottery industry, inadequate internal controls in some lotteries have allowed fraud and abuse to occur. Audits of state lotteries have revealed numerous instances where lax internal controls allowed certain lottery or vendor employees improper access to sensitive information. Audits have also revealed lottery employees who activated and stole instant tickets and employees who improperly referred customers to lottery retailers, possibly for

³ Ellen Perlman, "Losing Numbers," *Governing*, September 2001, p. 47.

⁴ Andrew Szakmary and Carol Szakmary, "State Lotteries as a Source of Revenue: A Re-Examination," *Southern Economic Journal*, April 1995, p. 1179.

⁵ North American Association of State and Provincial Lotteries, *NASPL 2002 Lottery Resource Handbook*, Volume III, p. 206.

kickbacks. Furthermore, some lottery administrators have not established proper procedures for tracking and distributing perks such as tickets to sporting events and have funneled purchases through advertising contracts to conceal their nature and extent. However, there have been no public reports of large-scale theft in state lotteries, and most audits revealed only evidence of small-scale theft and abuse or the *potential* for theft or abuse because of lax controls. Money lost through publicized accounts of lottery fraud constitutes far less than one percent of lottery sales and profits. (See pages 21-22 and 26-27.)

Tennessee civil service laws and rules may inhibit the efficient operation of a state lottery. Some interviewees have suggested exempting lottery employees from civil service laws, and many states exempt some or all lottery employees from them. Tennessee Code Annotated, Title 8, Chapter 30, Part 2 provides the framework for Tennessee’s rules for the Department of Personnel. Though these rules are not overly restrictive, exempting a state lottery from them could facilitate strategies used to maximize lottery profits. These include:

- Paying sales representatives on a commission basis for contracting with new retail agents;
- Paying bonuses to top management positions for meeting performance goals established by a board of directors or commission; and
- Terminating ineffective employees in a timely manner.

However, some interviewees have noted that exempting lottery employees from civil service laws could provide opportunities for corruption if a strong accountability model is not in place to oversee management decisions. (See pages 20-21.)

State of Tennessee procurement practices may not be cost-effective for a lottery. Many states have concluded that restrictive procurement laws can prevent lotteries from “operating like a business” and have exempted lotteries from some or all of them. Tennessee Code Annotated, Title 12, Chapter 3 governs state procurement, including competitive bids, sole-source contracts, cooperative purchasing agreements, negotiations with vendors, and protests. It is likely that some of its features could affect a Tennessee lottery’s capacity to act quickly in a competitive market, particularly for small purchases. (See pages 22-23.)

Failure to conduct market research and analyses can reduce lottery efficiency. Effective private companies conduct ongoing analyses to determine whether or not corporate strategies are producing the maximum financial return on investments. State lotteries have frequently failed to assess the value of new games and accompanying promotions, marketing strategies, and retailer sales incentives. Without such assessments, it is impossible to determine whether or not lottery strategies are cost-effective. (See pages 20, 21, and 24-25.)

Adequate retailer background checks can prevent waste and increase public confidence in state lotteries. All lotteries examined by the Office of Research conduct both credit checks and criminal background checks on retailers applying to sell lottery tickets. Retailers with poor credit may fail to pay the state lottery for tickets sold; credit checks can reduce the risk of nonpayment. Criminal background checks can reduce the

likelihood that lotteries will contract with retailers who would engage in criminal activity. (See page 25.)

Insufficient lottery databases may increase the likelihood of tax evasion, nonpayment of child support, and welfare fraud. Lottery winnings constitute one form of income, and many lottery winners have a financial interest in concealing this income. Players who win multiple prizes in one year are especially likely to try to conceal income. A computer system that accounts for multiple winnings in a single year at the time of payment would allow a Tennessee lottery to reduce the likelihood of tax evasion, nonpayment of child support, and welfare fraud. (See pages 25-26.)

A strong and independent Commission or Board of Directors can provide appropriate oversight for lottery administrators while insulating them from political influences. Oversight of lottery administrators can decrease the potential for fraud, waste, and abuse. Many states have chosen to place direct oversight responsibilities for state lotteries in independent commissions or boards of directors. In both cases, members are political appointees but do not report to any political body. (See page 27.)

To serve effectively as an oversight agent, a commission or board of directors must include qualified members and have a meaningful oversight role. Several interviewees have noted the need for a strong board of directors to oversee lottery operations. Some of their recommendations include:

- Reimburse members for expenses but do not pay salaries to ensure board members are performing their function as a civic duty. Interviewees expressed concern that paying salaries to board members creates an incentive for unqualified candidates to push for appointments and take a more active role than is appropriate;
- Seek out members who already serve on boards of private corporations;
- Include at least one board member with knowledge of and background in security issues; and
- Provide sources of information for board members on lottery operations from at least one source outside lottery administration. (See page 28.)

The Department of Audit will likely require additional positions or approval authority for contracted audit firms to provide effective oversight of a state lottery. Interviewees repeatedly stressed the need for independent oversight of state lotteries to ensure public confidence in lottery operations. Because state lotteries resemble private corporations in many ways, several interviewees recommended hiring audit firms to conduct audits, either in tandem with or under the authority of state auditors. Most states use some combination of state and contracted auditors to conduct compliance, financial, and performance audits. (See page 28.)

Appropriate lottery policies and procedures depend largely on alternative goals defined by the General Assembly. The General Assembly could set numerous goals for a Tennessee lottery, including maximizing profits, meeting existing demand, and reducing lottery regressivity, compulsive gambling, and underage playing. Many of these goals are mutually exclusive. That is, policy choices that facilitate reaching one goal will likely impede reaching another. Appropriate lottery policy decisions depend on how the General Assembly prioritizes these and other goals. (See pages 29-30.)

Legislative Alternatives

- The General Assembly may wish to establish in statute its goals for a state lottery.
- If legislators establish a goal of maximizing lottery profits for state programs, they may wish to avoid establishing a statutory minimum percentage of lottery revenues returned to the state or statutory limits on prize payouts, administrative expenses, or marketing expenses.
- If legislators choose to impose limits on lottery marketing expenditures, they may wish to include the value of lottery tickets or coupons distributed in marketing efforts.
- The General Assembly may wish to exempt lottery administrators from some or all portions of state contract laws in TCA Title 12, Chapter 3.
- If legislators exempt lottery administrators from some or all portions of TCA Title 12, Chapter 3, they may wish to require lottery administrators to establish alternate contracting procedures approved by the Department of Finance and Administration and/or the Office of the Comptroller.
- The General Assembly may wish to exempt lottery administrators from some or all portions of personnel laws in TCA Title 8, Chapter 30, Part 2.
- The General Assembly may wish to establish penalties for retailers who sell or cash lottery tickets without requiring customers to present valid identification.
- The General Assembly may wish to require lottery administrators to check lottery winners for delinquent child support payments prior to prize distribution.

Administrative Recommendations

- A board of directors or commission responsible for overseeing a Tennessee lottery should establish and enforce uniform ethics policies to govern relationships between lottery administrators, oversight agents, and vendors.
- Those responsible for appointing lottery administrators should strive to promote management continuity.
- A board of directors or governing commission and lottery administrators should adopt compensation strategies that reflect goals established by the General Assembly.
- Lottery administrators should:
 - conduct ongoing research to assess the cost-effectiveness of marketing strategies, game mix, and incentive programs for retail sales agents;
 - implement specific procedures to identify and catalog lottery winners;
 - maintain computer records of individual winnings to facilitate appropriate tax withholdings and prevent both welfare fraud and nonpayment of child support;
 - conduct background checks on all retailers applying to sell lottery tickets;
 - set and enforce minimum sales standards for the lottery's retail network;
 - segregate employee duties to prevent potential fraud and abuse; and
 - establish clear procedures for using unclaimed prize money.

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Introduction

Since 1964, 38 states and the District of Columbia have begun operating state lotteries. These lotteries have raised over \$163 billion for state government purposes over their histories.¹ However, there have been numerous, though relatively minor, instances of fraud, waste, and inefficiency in state lotteries. On November 5, 2002, Tennessee citizens voted to remove the state constitutional prohibition of a state lottery, thereby granting the General Assembly the authority to create one. This report:

- Provides a brief description of state lotteries in the United States;
- Analyzes the fiscal and economic impact of state lotteries;
- Examines factors influencing the profile of typical lottery players;
- Reviews statutory guidelines governing state lotteries in other states;
- Evaluates the administrative structures and procedures in place in existing state lotteries;
- Evaluates oversight roles for existing state lotteries;
- Proposes lottery models based on goals established by the General Assembly; and
- Recommends statutory and administrative provisions to increase the efficiency of a potential state lottery and reduce the likelihood of fraud and abuse.

Methodology

The conclusions reached and recommendations made in this report are based on:

- A review of peer-reviewed research on the management and impact of state lotteries;
- Analysis of data from currently operating state lotteries;
- A review of state laws and regulations governing state lotteries in other states;
- A survey of active state lotteries (Survey included as Appendix B; results included as Appendix C.);
- A review of audits of active state lotteries;
- Interviews of lottery administrators and auditors in other states.

Background

The New Hampshire Lottery began operations on March 12, 1964, ushering in the era of the modern lottery. From 1964 to 2001, 38 states began operating state lotteries.² (See Exhibit 1.) These lotteries have raised over \$163 billion for state government purposes,³ and in fiscal year 2002, U.S. lottery sales exceeded \$42 billion.⁴

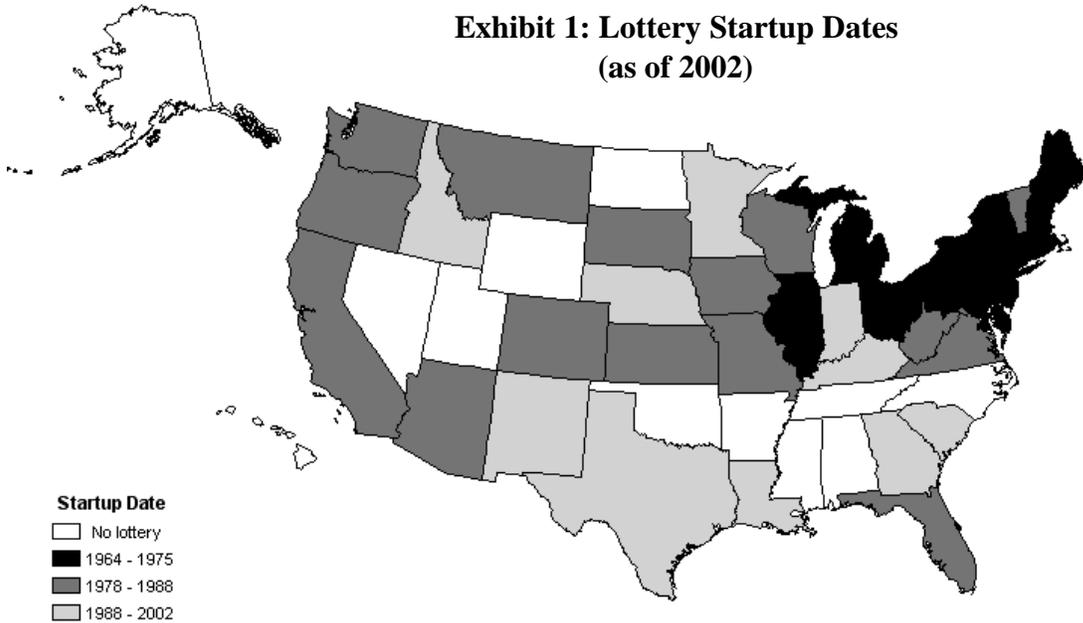
¹ La Fleur's, *La Fleur's 2002 World Lottery Almanac*, Section 1: Lottery Fast Facts, p. 6.

² La Fleur's, *La Fleur's 2002 World Lottery Almanac*, Section 1: Lottery Fast Facts, p. 4.

³ La Fleur's, *La Fleur's 2002 World Lottery Almanac*, Section 1: Lottery Fast Facts, p. 6.

⁴ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales By Product.

Exhibit 1: Lottery Startup Dates (as of 2002)



Source: La Fleur's, *La Fleur's 2002 World Lottery Almanac*, Section 1: Lottery Fast Facts, p. 4.

Lottery Structure

In most cases, the lottery is run essentially as a monopoly on gambling by the state. The state's monopoly power allows it to achieve sizable "profit" margins, where profits are viewed as total revenues from lottery sales minus lottery expenditures (administration, marketing, prize payouts, and payments to retailers). States then use these profits for state purposes such as education, economic development, and senior citizen programs.

States have generally created state lotteries according to one of three organizational models: as a state agency or within a state agency, under an independent commission, or as a quasi-public corporation. However, it is difficult to distinguish how many states operate under each model because many states have borrowed from multiple models in creating their lottery administration framework.

State Agency

Twelve states operate lotteries as state agencies. Eleven others and the District of Columbia operate lotteries as divisions within other agencies.⁵ States that place lotteries in existing agencies place them under the equivalent of Tennessee's Department of Finance and Administration. According to advocates of these approaches, placing lotteries within the executive branch provides a greater degree of administrative oversight because elected officials (state governors in this case) are highly responsive to public criticisms. According to critics, placing lotteries in the executive branch subjects them to a level of political influence not conducive to running lotteries like a private business. State personnel and contract laws generally govern lotteries operating as state agencies, though many states have exempted them from some provisions.

⁵ Office of Research, State Lottery Administration Survey, February 3, 2003.

Independent Commission

Eight states have created independent commissions to provide direct oversight of lottery administrators, removing that capacity from the executive branch.⁶ Commissioners are usually appointed by state governors for fixed terms and possess a high degree of autonomy. This can potentially reduce improper political influence on lottery administrative decisions but may also reduce appropriate oversight by elected officials. As with state agencies, lotteries run as independent commissions vary in the extent to which they must follow personnel and contracting policies that govern state executive branch departments.

Quasi-Public Corporation

Seven states have chosen to create state lotteries as quasi-public corporations.⁷ The Georgia Lottery, widely viewed as the most successful state lottery, is one example. Creating a quasi-public corporation frees a state lottery from personnel requirements and contracting provisions of state government. Most interviewees have stated that the quasi-public corporation model is the most effective in generating profits for state programs because it is better able to “operate like a business.” Under the quasi-public corporation model, the governor and, at times, other state officials appoint a board of directors. This board operates much like the board of a private company: establishing general policies for the state lottery, selecting the chief executive officer for the lottery, determining compensation packages for upper management, and providing direct oversight of lottery management.

Role of Lottery Vendors

Though lottery administrators perform many functions in-house, they also contract with private firms to provide many products and services. All lotteries contract with vendors to provide both instant and online games. The vast majority contract with firms to coordinate marketing and advertising contracts and maintain lottery sales agents. Almost half of state lotteries also contract with vendors to deliver lottery tickets to retail outlets and develop new games. Many others share these responsibilities with vendors.⁸

Game Types

State lotteries typically provide a wide array of games in an effort to appeal to various consumer markets and maximize profits. Every state with a lottery has both instant and online games, and most games fall under these two broad categories. Instant games allow a player to determine immediately whether or not his ticket is a winner. The most common type of instant game is a scratch-off game, where the player literally scratches off a coating on the card to reveal whether or not the ticket is a winner. Other types of instant games are pull-tab and break-open games. Sales of instant games in the U.S. were over \$18.5 billion in fiscal year 2002, making them the most popular game type.⁹

⁶ Office of Research, State Lottery Administration Survey, February 3, 2003.

⁷ Office of Research, State Lottery Administration Survey, February 3, 2003.

⁸ Office of Research, State Lottery Administration Survey, February 3, 2003.

⁹ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales By Product.

players to play poker, blackjack, keno, bingo, and other games. Some VLTs simulate slot machines or roulette wheels.¹⁴

Tennessee Lottery

On November 5, 2002, Tennessee citizens voted to remove the state constitutional prohibition on lotteries, granting the General Assembly the authority to create a state lottery and the authority to approve annual events to benefit nonprofit 501(c)(3) organizations. However, the constitutional amendment places several limits on a state lottery. The General Assembly may use lottery profits only to fund college loans and scholarships, capital outlay projects for K-12 education facilities, and early learning and after school programs.¹⁵ Multiple interviewees have praised Tennessee for choosing to dedicate revenues to specific new initiatives. One interviewee noted that, when lotteries fund existing programs, funding becomes a “shell game” where lottery funds simply replace general fund revenues previously devoted to existing programs.

The constitutional amendment may also limit the types of games included in a Tennessee lottery. The amendment authorizes “a lottery of the type such as is in operation in Georgia, Kentucky, and Virginia in 1999.” Because those three lotteries do not offer video lottery terminals (VLTs), they may not be permissible in a Tennessee lottery.

¹⁴ Florida Joint Legislative Management Committee, Division of Economic and Demographic Research, Memorandum, “RE: Alternatives for Enhancing Lottery Earnings,” February 17, 1998, pp. 8-9.

¹⁵ Constitution of the State of Tennessee, Article XI, Section 5.

Analysis and Conclusions

Fiscal and Economic Impact

A mature Tennessee lottery is likely to produce substantial profits that can be used for state purposes. Lottery revenues are highly dependent on many factors, including demographic characteristics of a state, game mix, advertising, and economic conditions. Even when these variables are known, it is difficult to predict lottery revenues and profits with a high degree of accuracy. Despite this uncertainty, a Tennessee lottery will likely produce significant profits. The Tennessee Advisory Commission on Intergovernmental Relations estimated sales and profits for a Tennessee lottery based on the experience of mature lotteries in other states. Their model projected profits of over \$282 million for a Tennessee lottery in fiscal year 2002, money that would be available to fund college scholarships, pre-K and after-school programs, and school construction.¹⁶ However, profits in a Tennessee lottery's first few years would likely be somewhat lower.

The recent amendment to the Tennessee Constitution authorizing a state lottery requires that the lottery fund only scholarships and loans for higher education tuition, pre-kindergarten and after-school programs, and school construction. Some of these uses, especially scholarships and loans for higher education, may place pressure on the state budget in other areas. For example, tuition at Tennessee higher education institutions covered only 33 percent of the cost of education in fiscal year 2002. State appropriations accounted for 54 percent.¹⁷ If a Tennessee lottery leads to enrollment increases, the state will likely have to devote more general fund revenue to maintain the current level of educational services. However, scholarships and loans do not necessarily lead to enrollment increases. Georgia officials noted that the state did not experience significant enrollment growth following the implementation of the HOPE scholarship program. Other concurrent changes in the state, such as a semester conversion, may have produced enrollment declines that offset enrollment increases caused by HOPE scholarships.¹⁸ Georgia higher education institutions have also grown more selective, rejecting many applicants from larger applicant pools. From 1992 to 1998, average SAT scores for freshmen at Georgia colleges and universities grew much more rapidly than those of seniors at both Georgia high schools and U.S. high schools. The University of Georgia moved from "competitive" for most of the 1980s to "highly competitive" in 1997 in Barron's *Profiles of American Colleges*. This is a jump from the fourth of six categories to the second.¹⁹

Lottery sales can reduce other state tax revenues. Very little research exists that examines the impact of state lotteries on other sources of state revenue. However, the presence of state lotteries does appear to reduce revenue from some state taxes. One

¹⁶ Tennessee Advisory Commission on Intergovernmental Relations, "Estimates of Tennessee Lottery Sales and Proceeds," handout to the Information and Recommendations Committee, November 26, 2002.

¹⁷ Tennessee Higher Education Commission, *Statistical Abstract of Tennessee Higher Education, 2001-2002*, Figure 9.

¹⁸ Telephone interview with Terry Gandy, Education Division Director, Georgia Office of Planning and Budget, January 22, 2003.

¹⁹ Christopher Cornwell, David Mustard, and Deepa Sridhar, *The Enrollment Effects of Merit-Based Financial Aid: Evidence from Georgia's HOPE Scholarship*, Department of Economics, Terry College of Business, University of Georgia, January 14, 2002, p. 26.

study that analyzed the impact of lottery sales in 22 states and the District of Columbia in 1987 concluded:

Specifically, those states without state income taxes but high sales and excise tax rates lose considerably more nonlottery revenue as a result of instituting a lottery. Although these revenue losses are generally less than 15 cents of each dollar of revenue gained from the lottery, some states may be forfeiting as much as 23 cents per dollar of their lottery proceeds through the impact of the lottery on other sources of state revenue.²⁰

Because Tennessee's current sales and excise tax rates are higher than rates in the studied areas in 1987, the impact of a Tennessee lottery on other state revenues could potentially be even higher. If Tennessee lottery profits were \$282 million and resulting sales and excise tax losses were 23 percent of that, the net reduction in general fund revenues would be over \$60 million annually.

The Texas Comptroller's Office estimates that every \$1 increase in lottery sales results in a \$.75 reduction in sales of taxable items. Because Texas has a 6.5 percent sales tax, this decrease results in roughly a five cent reduction in general fund revenues.²¹ However, officials in Louisiana and New Mexico stated they found no measurable impact of lottery sales on state tax revenues, possibly because of significant broader economic changes concurrent with their lottery startups.²²

Lottery sales may diminish overall economic growth. The impact of lotteries on economic growth is not well understood. Lottery proponents have argued that, since lotteries generally result in consumers substituting one product (lottery tickets) for another (candy bars, etc.), lotteries do not affect economic growth. However, some researchers have concluded just the opposite. Lotteries are low overhead businesses that produce few jobs. Moving consumer purchases to lotteries from other areas can, therefore, reduce economic growth. One study noted, "to the extent that lottery ticket purchases supplant purchases from the private business sector, investment expenditures motivated by sales growth will be stifled. Because business investment is at the heart of economic growth, this too is likely to suffer."²³

The natural life cycle of a state lottery appears to include an initial period of rapid growth followed by years of stagnant or declining revenue. Most state lotteries experience rapid sales (and profits) growth over their first few years. After this period, sales growth flattens out. In many cases, sales begin to decline approximately five years after lottery implementation.²⁴ An audit of the Wisconsin lottery noted, "Because lottery tickets are entertainment products purchased largely on impulse, their purchase is a

²⁰ Mary Borg, Paul Mason, and Stephen Shapiro, "The Cross Effects of Lottery Taxes on Alternative State Tax Revenue," *Public Finance Quarterly*, April 1993, p. 139.

²¹ Telephone interview with Scott Dudley, Texas Legislative Budget Board, Revenue Analyst, January 28, 2003.

²² Telephone interview with David Hoppenstedt, Louisiana Office of Planning and Budget, Director, January 29, 2003; telephone interview with Michael Benze, New Mexico Department of Finance and Administration, State Budget Division, Senior Fiscal Economist, January 29, 2003.

²³ Mary Borg, Paul Mason, and Stephen Shapiro, "The Cross Effects of Lottery Taxes on Alternative State Tax Revenue," *Public Finance Quarterly*, April 1993, p. 139.

²⁴ Ellen Perlman, "Losing Numbers," *Governing*, September 2001, p. 47.

discretionary consumer decision vulnerable to diminishing interest as novelty fades. Legal gambling is also susceptible to increasing consumer resistance as personal experience gives consumers a realistic perception of the odds of winning.”²⁵

Increased marketing and continuous innovation in game types can produce growth despite this life cycle. Audits of state lotteries frequently cite “stale” game offerings and low advertising expenditures as explanations for declining lottery revenues. According to interviewees, frequent innovations in lottery game offerings, aggressive marketing, and continually growing jackpots are the only ways to stave off this decline. States appear to be experiencing success with these strategies. U.S. lottery sales grew an average of 9.1 percent from fiscal year 2001 to fiscal year 2002, and only the District of Columbia, Puerto Rico, and Washington experienced declines.²⁶

Lottery revenues are highly volatile. Sales growth for state lotteries in fiscal year 2002 was far from uniform. West Virginia led sales growth at 42.2 percent while sales in Washington actually shrank 9.4 percent.²⁷ Many state lotteries have had years of extraordinary sales growth and years in which sales declined significantly with no discernable pattern. After reviewing lottery data, one study concluded, “with few exceptions...the variability of lottery revenues within each state is enormous.”²⁸

Typical Lottery Player Profile

Policy choices can influence the demographic characteristics of lottery players.

Lottery tickets, like all products, appeal to some demographic groups more than others. As such, the demographic makeup of lottery players usually differs slightly from the demographic makeup of the population as a whole. Lottery marketing expenditures and strategies, game mix, and other policy choices can influence the composition of lottery customers. However, these policy choices generally only modify established trends for state lotteries.

Income

Several studies have found that wealthier individuals are more likely to play the lottery at least once a year.²⁹ However, most research has concluded that lottery expenditures are fairly constant across income groups. As a result, the lottery is a regressive source of state revenue.³⁰ For example, Exhibit 3 shows the estimated average lottery expenditures in

²⁵ Wisconsin Legislative Audit Bureau, *An Evaluation: Wisconsin Lottery*, Department of Revenue, 97-2, March 1997, p. 4.

²⁶ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales-Profit Report.

²⁷ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales-Profit Report.

²⁸ Andrew Szakmary and Carol Szakmary, “State Lotteries as a Source of Revenue: A Re-Examination,” *Southern Economic Journal*, April 1995, p. 1179.

²⁹ Maureen Pirog-Good and John Mikesell, “Longitudinal Evidence of the Changing Socio-Economic Profile of a State Lottery Market,” *Policy Studies Journal*, Fall 1995.

³⁰ Maureen Pirog-Good and John Mikesell, “Longitudinal Evidence of the Changing Socio-Economic Profile of a State Lottery Market,” *Policy Studies Journal*, Fall 1995; Harriet Stranahan and Mary O’Mally Borg, “Horizontal Equity Implications of the Lottery Tax,” *National Tax Journal*, March 1998, p. 76; Ross Rubenstein and Benjamin Scafidi, “Who Pays and Who Benefits? Examining the Distributional Consequences of the Georgia Lottery for Education,” *National Tax Journal*, June 2002, p. 234; Ann Hansen, Anthony Miyazaki, and David Sprott, “The Tax Incidence of Lotteries: Evidence from Five

three states during 1991 according to one study.³¹ The actual amounts are fairly constant across all income ranges. However, the lottery is clearly regressive because the dollar amount represents a larger share of total income at the lower income levels. In fact, most research has concluded the implicit tax of a lottery is significantly more regressive than the sales tax.

Exhibit 3: Estimated Lottery Spending at Various Income Levels

Income Level	Annual Lottery Spending	Spending as Percent of Income
Less than \$10,000	\$139	1.51%
\$10,000 to \$19,999	\$168	0.84%
\$20,000 to \$49,999	\$144	0.42%
\$50,000 to \$69,999	\$127	0.24%
Over \$70,000	\$139	0.18%

Source: Mary Herring and Timothy Bledsoe, "A Model of Lottery Participation: Demographics, Context, and Attitudes," *Policy Studies Journal*, Summer 1994, Table 1.

Education

Some studies have found that educational attainment has no effect on an individual's likelihood of playing the lottery³² or that individuals with more formal education are more likely to have played the lottery at least once.³³ However, one study found that the less educated are consistently more likely to believe the lottery is a means of enjoyment and escape as well as a good way to take care of some bills.³⁴ A large body of research has concluded that individuals with fewer years of formal education generally spend more money on lottery tickets,³⁵ though a few studies have found mixed results when examining the effect of educational attainment on lottery spending.³⁶ Taken as a whole, the research suggests that people with college degrees are the most likely to be occasional

States," *The Journal of Consumer Affairs*, Winter 2000, p.196; Charles Clotfelter, Duke University, Sanford Institute of Public Policy, "Do Lotteries Hurt the Poor? Well, Yes and No," A Summary of Testimony Given to the House Select Committee on a State Lottery, April 19, 2000, April 28, 2000, Table 10.

³¹ Colorado, Florida, and Virginia.

³² Harriet Stranahan and Mary O'Mally Borg, "Horizontal Equity Implications of the Lottery Tax," *National Tax Journal*, March 1998, p. 76.

³³ Mary Herring and Timothy Bledsoe, "A Model of Lottery Participation: Demographics, Context, and Attitudes," *Policy Studies Journal*, Summer 1994; Harriet Stranahan and Mary O'Mally Borg, "Separating the Decisions of Lottery Expenditures and Participation: A Truncated Tobit Approach," *Public Finance Review*, March 1998, Table 2.

³⁴ Mary Herring and Timothy Bledsoe, "A Model of Lottery Participation: Demographics, Context, and Attitudes," *Policy Studies Journal*, Summer 1994.

³⁵ Mary Herring and Timothy Bledsoe, "A Model of Lottery Participation: Demographics, Context, and Attitudes," *Policy Studies Journal*, Summer 1994; Harriet Stranahan and Mary O'Mally Borg, "Horizontal Equity Implications of the Lottery Tax," *National Tax Journal*, March 1998, p. 76; Harriet Stranahan and Mary Borg, "Separating the Decisions of Lottery Expenditures and Participation: A Truncated Tobit Approach," *Public Finance Review*, March 1998, p. 108; Raymond Jackson, "Demand for Lottery Products in Massachusetts," *The Journal of Consumer Affairs*, Winter 1994, p. 318; Charles Clotfelter, Duke University, Sanford Institute of Public Policy, "Do Lotteries Hurt the Poor? Well, Yes and No," A Summary of Testimony Given to the House Select Committee on a State Lottery, April 19, 2000, April 28, 2000, Table 10.

³⁶ Ross Rubenstein and Benjamin Scafidi, "Who Pays and Who Benefits? Examining the Distributional Consequences of the Georgia Lottery for Education," *National Tax Journal*, June 2002, p. 234.

lottery players, but people without a high school diploma—if they play the lottery at all—are more likely to play habitually and spend a significant portion of their income on lottery games.

Age

Several studies suggest that senior citizens are more frequent lottery players than other individuals.³⁷

Heavy Players

While averages can reveal trends in lottery expenditures, they also conceal important trends. Though players in general may have a pessimistic view of lottery odds, less educated individuals are much more likely to believe a lottery is profitable.³⁸ Frequent players may overestimate their chances of winning. Lottery critics contend that this means frequent lottery players are “wasting” their money, thinking they are buying something (a good chance of winning) that they are not.

A 1998 survey by the National Opinion Research Corporation found just over half of Americans play the lottery in a given year. Using this data, Duke researchers estimated that of those who played, the top five percent of players (2.5 percent of total population) accounted for 54 percent of total sales, and the top 20 percent of players (10 percent of total population) accounted for 82 percent of total sales. Thus, it is a relatively small group of heavy players who drive “averages.”³⁹ The “average” (median) lottery player spends \$40 a year on lottery games, far below the \$1,040 a year spent by the top five percent of players who are responsible for most lottery sales. The heaviest lottery players (top 20 percent) are nearly twice as likely to lack a high school diploma and have a household income below \$10,000 as the population as whole. They are also generally older and more likely to be male than the population as a whole.⁴⁰ Exhibit 4 compares demographic characteristics of the highest 20 percent of lottery players to national averages.

Exhibit 4: Characteristics of Frequent Lottery Players

Demographic Group	% of Heavy Lottery Players	% of US Adults
Male	61.4%	48.5%
High School Dropouts	20.3%	12.3%
HH Income below \$10,000	9.7%	5.0%
Median Age	47.5	43.0

Source: Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, Table 12.

³⁷ Harriet Stranahan and Mary O’Mally Borg, “Horizontal Equity Implications of the Lottery Tax,” *National Tax Journal*, March 1998, Table 3; Raymond Jackson, “Demand for Lottery Products in Massachusetts,” *The Journal of Consumer Affairs*, Winter 1994, p. 319.

³⁸ Mary Herring and Timothy Bledsoe, “A Model of Lottery Participation: Demographics, Context, and Attitudes,” *Policy Studies Journal*, Summer 1994, p. 255.

³⁹ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p. 12.

⁴⁰ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, Table 12.

Impact of Game Types

Though all lottery games appear to be regressive, a number of factors can influence the degree of regressivity. Instant games appear to be more regressive than online games.⁴¹ Less educated players are also much more likely to play instant games.⁴² These trends drive the impact of lotteries as a whole since instant games experience higher sales than other games. In contrast, lotto games are generally the least regressive lottery games.⁴³ Multistate games in particular, with their large jackpots, tend to draw higher proportions of middle- and upper-class players. One study found college graduates tend to spend more on lotto games than those without college degrees.⁴⁴

Research has also shown that video lottery terminal (VLT) players are more likely to experience gambling problems than gamblers in general. Many experts regard VLTs as highly addictive, and some have called them the “crack cocaine of gambling.”⁴⁵ Only five state lotteries operated VLTs in 2002.⁴⁶

Impact of Advertising

State lotteries spent almost \$400 million on advertising in fiscal year 2002, roughly one percent of sales.⁴⁷ One study found that lottery players who saw lottery ads on television or in stores tended to spend more on lottery tickets than players who were not aware of the ads.⁴⁸ Though some lottery critics have asserted that advertising has a particularly strong effect on the less educated, one study concluded that the impact of advertising does not vary with education level.⁴⁹ Generally, ads that convey both the benefits of winning the lottery and the idea that winning is possible and even probable are the most successful in increasing sales.

Cautionary Notes

State lotteries do not fit neatly into the categories of state taxes or consumer purchases. This reality complicates the ethical analysis of state lotteries. Many lottery opponents have criticized them for the patterns described above. In their view, the significant regressivity of state lotteries makes them an unfit source of state revenues. However, many consumer products are regressive in nature. The relationship between lottery ticket purchases and income does not differ significantly from the relationships between

⁴¹ Ann Hansen, “The Tax Incidence of the Colorado State Lottery Instant Game,” *Public Finance Quarterly*, July 1995, p. 396; Donald Price and E. Shawn Novak, “The Income Redistribution Effects of Texas State Lottery Games,” *Public Finance Review*, January 2000, p. 88; Raymond Jackson, “Demand for Lottery Products in Massachusetts,” *The Journal of Consumer Affairs*, Winter 1994, pp. 319-320.

⁴² Harriet Stranahan and Mary Borg, “Separating the Decisions of Lottery Expenditures and Participation: A Truncated Tobit Approach,” *Public Finance Review*, March 1998, p. 108.

⁴³ Donald Price and E. Shawn Novak, “The Income Redistribution Effects of Texas State Lottery Games,” *Public Finance Review*, January 2000, p. 88.

⁴⁴ Donald Price and E. Shawn Novak, “The Income Redistribution Effects of Texas State Lottery Games,” *Public Finance Review*, January 2000, p. 88.

⁴⁵ Jason Doiron and Donald Mazer, “Gambling with Video Lottery Terminals,” *Qualitative Health Research*, September 2001, p. 631.

⁴⁶ Delaware, Oregon, Rhode Island, South Dakota, and West Virginia.

⁴⁷ La Fleur’s, *La Fleur’s World Lottery Almanac 2002*.

⁴⁸ Harriet Stranahan and Mary O’Mally Borg, “Horizontal Equity Implications of the Lottery Tax,” *National Tax Journal*, March 1998, p. 77.

⁴⁹ Harriet Stranahan and Mary O’Mally Borg, “Horizontal Equity Implications of the Lottery Tax,” *National Tax Journal*, March 1998, p. 78.

purchases of products such as fried chicken and income.⁵⁰ Thus, if a state lottery is viewed as a tax, it would be the most regressive tax used by Tennessee. If viewed as consumer products, lottery tickets are similar to a wide array of accepted consumer products in that poorer individuals spend a larger percentage of their income on them than wealthier individuals. Lotteries are also similar to many consumer products in that certain demographic groups on average purchase more of them than other groups. Critics may charge that low-income, less educated people “waste” their money on lottery tickets. However, realistically this “waste” does not differ from purchases of items such as soft drinks and candy bars.

Research has shown that most lottery players actually underestimate their chance of winning. Lottery payout rates are the percentages of lottery ticket sales that are paid back to players in prizes. One survey found 63 percent of lottery players thought the lottery payout rate was “25 cents or less” on the dollar. The actual average payout rate for state lotteries in the U.S. is 55 percent.⁵¹ Furthermore, the majority of lottery players do not expect to profit from playing the lottery.⁵² For them, lottery tickets are a form of entertainment and are not inherently more wasteful than video games, candy bars, or tickets to a hockey game.⁵³ Some lottery administrators have also noted that people are more willing to spend money on a lottery with the knowledge that the proceeds “go to a good cause.” From these perspectives, lottery players are simultaneously purchasing entertainment products and making donations to what they view as worthy causes.

Statutory Guidelines

Revenue Distribution

Many states statutorily limit the percentage of total revenues state lotteries can spend on prize payouts and/or marketing. Alternately, many states require lotteries to return a certain minimum percentage of total revenues to the state for state purposes. These “profits” benefit programs designated by the state. In Tennessee, profits from the state lottery must be used for college scholarships, pre-kindergarten programs, and school construction.⁵⁴

Limits on prize payouts or marketing (and minimum profit percentages to be returned to the state) may lower the net earnings generated for state purposes rather than increasing net earnings. Intuitively, it seems that limiting the percentage of lottery revenues used for prize payouts and marketing would increase the amount of net earnings generated for state purposes. However, spending in those areas generates increases in overall sales, which in turn generates greater earnings. Thus, *decreasing* the share of the pie going toward net earnings can *increase* net earnings because it can

⁵⁰ Charles Clotfelter, Duke University, Sanford Institute of Public Policy, “Do Lotteries Hurt the Poor? Well, Yes and No,” A Summary of Testimony Given to the House Select Committee on a State Lottery, April 19, 2000, April 28, 2000, p. 2.

⁵¹ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p. 13.

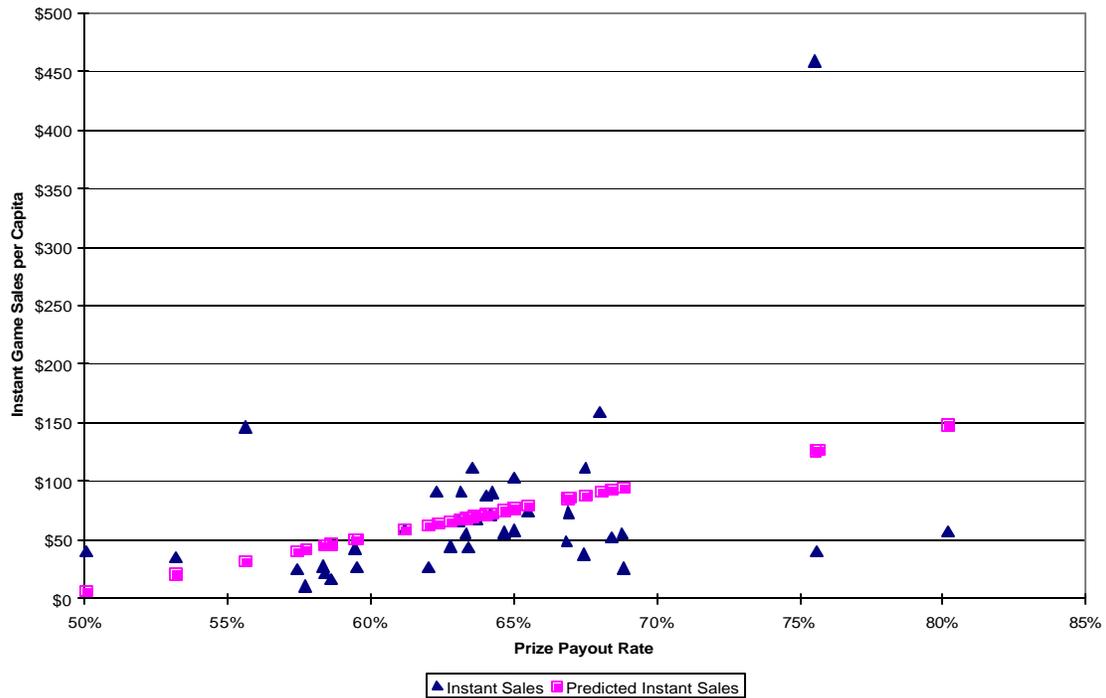
⁵² Mary Herring and Timothy Bledsoe, “A Model of Lottery Participation: Demographics, Context, and Attitudes,” *Policy Studies Journal*, Summer 1994, pp. 254-255.

⁵³ Charles Clotfelter, Duke University, Sanford Institute of Public Policy, “Do Lotteries Hurt the Poor? Well, Yes and No,” A Summary of Testimony Given to the House Select Committee on a State Lottery, April 19, 2000, April 28, 2000, p. 4.

⁵⁴ Constitution of the State of Tennessee, Article XI, Section 5.

increase the size of the whole pie. Colorado, Kentucky, and Massachusetts, have all found that sales increases following increases in prize payouts for scratch-off games resulted in increases in the dollar value of net profits even while the percentage of sales as profits decreased.⁵⁵ Exhibits 5 and 6 show fiscal year 2002 instant game sales and estimated profits from those games for states with lotteries. (See Appendix D for methodology.) Exhibit 5 shows that per capita sales are generally higher in states with higher prize payout rates. However, because increasing prize payouts reduces the percentage of revenues remaining as profits, at some point increasing the prize payouts will decrease the amount of money going to the state. Exhibit 6 shows the predicted payout rate that will create the highest per capita profits is 68.2 percent.

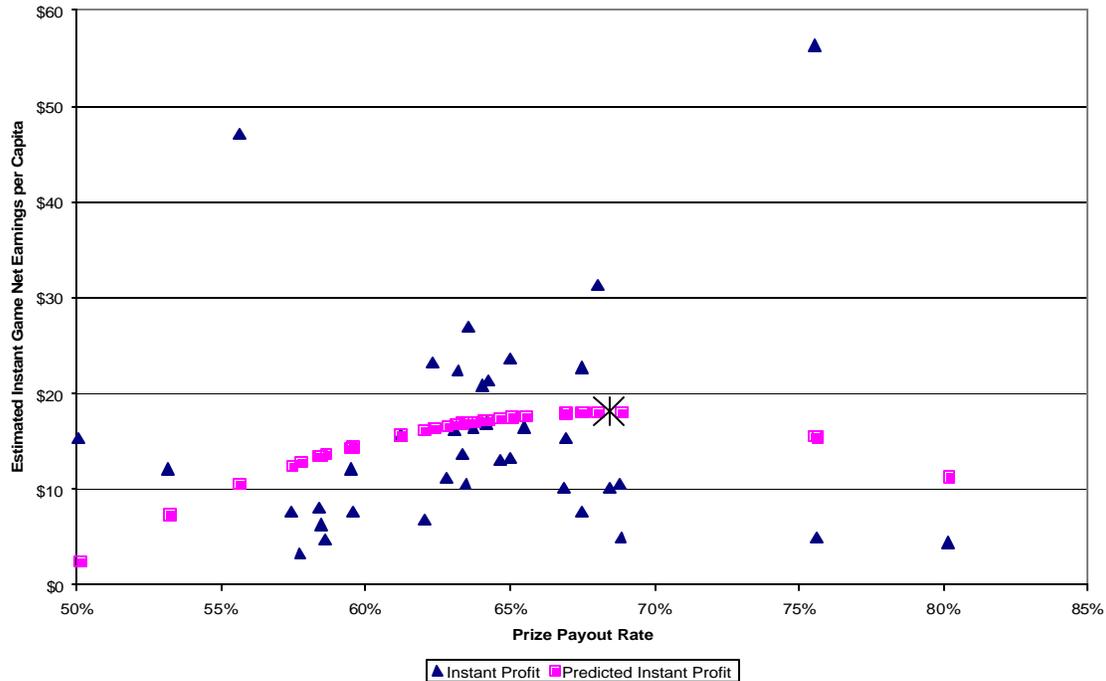
Exhibit 5: FY02 Instant Game Sales per Capita



Source: Office of Research Analysis of Census Bureau and North American Association of State and Provincial Lotteries data for 2002.

⁵⁵ Florida Joint Legislative Management Committee, Division of Economic and Demographic Research, Memorandum, “RE: Alternatives for Enhancing Lottery Earnings,” February 17, 1998, p. 13.

Exhibit 6: FY02 Estimated Instant Game Net Earnings per Capita



Source: Office of Research Analysis of Census Bureau and North American Association of State and Provincial Lotteries data for 2002.

Exhibits 5 and 6 clearly show that many states do not fit neatly in predicted models. Each state's individual characteristics determine how payout rates affect sales and what payout rate will create the greatest profits. For example, Florida has the nation's lowest payout rate at 50.1 percent, but 10 states have lower per capita sales, probably because Florida has a larger percentage of its population above the legal playing age and because of extra sales from tourists. Thus, Florida's profit-maximizing payout rate is probably lower than the 68.2 percent predicted by this model.

Marketing

State lotteries spent almost \$400 million on advertising in fiscal year 2002, roughly one percent of sales.⁵⁶ Lotteries can base ad campaigns on any of a number of themes. An analysis by Duke researchers of lottery marketing plans from 1998 found the most prominent themes were:

- Size of the prize or jackpot;
- Fun and excitement of playing the lottery;
- Winner awareness;
- Benefits to state of lottery dollars; and
- Sports themes.⁵⁷

⁵⁶ La Fleur's, *La Fleur's World Lottery Almanac 2002*.

⁵⁷ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, Table 13.

Relatively few marketing plans focused on the benefits and emotions of winning or instant gratification, themes lottery critics have accused of improperly manipulating potential lottery players.⁵⁸ However, ads generally included very little information on the odds of winning prizes, and in many cases the information presented was misleading.⁵⁹

Many lottery critics have charged that state lotteries promote themselves as a way out of poverty. Certainly some lottery players view them in that light. One lottery player in a poor neighborhood on Chicago's West Side commented, "I've dug so many holes for myself over the years that, realistically, winning the lottery may be my only ticket out."⁶⁰ Lottery ads that display the size of the largest jackpot and the odds of winning *any* prize rather than the odds of winning the jackpot, for example, may reinforce such perceptions. The Federal Trade Commission (FTC) requires commercial sweepstakes games to publicize the probability of winning various prizes in a game, but the FTC's regulatory authority does not include state lotteries.⁶¹ Thus, it is left to states to regulate lottery marketing tactics, and some critics have charged that the states' financial interest in state lotteries has discouraged them from implementing strict controls. One lottery administrator noted:

[Some state lottery advertisements] are so far-fetched and so fanciful that they would not stand up to the same 'truth-in-advertising' standards to which advertising conducted by private industry is held. Add to that the fact that our advertising is often relentless in its frequency, and lottery critics and even supporters are left wondering what public purpose is served when a state's primary message to its constituents is a frequent and enticing appeal to the gambling instinct. The answer is none. No legitimate public purpose justifies the excesses to which some lottery advertising has resorted.⁶²

Seventeen states have chosen to limit lottery advertising content or spending on ethical grounds. In response to criticisms, many states have chosen to curtail lottery marketing. Seventeen states limit the content of lottery advertisements, either through statutory provisions or through lottery control board reviews. (See Exhibit 7.) State law in Virginia and Wisconsin prohibits all but informational advertising.⁶³ Indiana has established an advertising creative code of conduct. It states:

- Commercials will treat the talent, players and customers with class and dignity.
- No children will be used in advertising nor will advertising be directed toward them.

⁵⁸ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, Table 13.

⁵⁹ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, pp. 16-17.

⁶⁰ Meir Statman, "Lottery Players/Stock Traders," *Financial Analysts Journal*, January/February 2002, p.16.

⁶¹ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p. 8.

⁶² Jeff Perlee, New York Lottery director, "Should Lotteries Advertise?" paper delivered to the North American Association of State and Provincial Lotteries Directors' Conference, Wilmington, DE, May 1997.

⁶³ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p.22.

Some state lotteries have used suspect accounting procedures to circumvent legislative limits on marketing. Though 10 states impose limits on lottery marketing expenditures, some state lotteries have used suspect financial arrangements to circumvent these limits. A 1996 audit of the Massachusetts State Lottery Commission (MSLC) cited in a later audit found MSLC had used extensive corporate sponsorships to circumvent legislative limits on advertising. The state legislature imposed advertising limits of \$2.8 million in fiscal year 1995 and \$400,000 in fiscal year 1996. However, the audit found that MSLC distributed as much as \$100 million in free lottery coupons to corporate sponsors who in turn paid for advertising services.⁶⁵

Vendor Relations

Close relationships between lottery administrators and lottery vendors can create an appearance of impropriety and result in additional contract costs to the state. A 1997 audit of the Texas Lottery Commission found numerous instances of a “less than arms’ length relationship” between the commission and its contractors. These included:

- Lucrative consulting contracts between vendors and individuals with close ties to the commission’s executive director for little or no work;
- Meals and entertainment provided by vendors for commission employees and reimbursed by the commission months or years after the fact;
- Failure by the commission to obtain financial data on lottery vendors necessary to make informed decisions concerning operating the Texas lottery.

In 1996, the Texas Lottery Commission renewed contracts with its vendors for both instant and online games without competitive bids. A subsequent rebid of the instant games contract resulted in an estimated \$4 million in annual savings to the state. Though the decision not to rebid these contracts in 1996 may have been appropriate, it appears such conflicts of interest exerted an undue influence on the decision-making process.⁶⁶

Underage Players

State lotteries have implemented a number of strategies to minimize underage play. All states with lotteries have established legal playing age minimums. These range from 18 to 21.⁶⁷ Despite prohibitions, many minors still buy lottery tickets. Interviewees have stated that minors have little incentive to try to purchase lottery tickets illegally since state laws also require them to present valid identification to cash winning tickets. However, minors still purchase lottery tickets and then sell winning tickets to legal players in a black market. Many state lotteries conduct ongoing training of lottery retailers, reminding them to check identification of lottery ticket purchasers. Some lottery critics have suggested that instant tickets vending machines (ITVMs) provide minors

⁶⁵ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor’s Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, “Status of Prior Audit Results,” p. 65-66.

⁶⁶ Texas Office of the State Auditor, *An Audit Report on Management Controls at the Texas Lottery Commission*, August 1997, pp. 3-9.

⁶⁷ North American Association of State and Provincial Lotteries, *NASPL 2002 Lottery Resource Handbook*, Volume III, p. 206.

with access to lottery tickets. Twelve states have no ITVMs.⁶⁸ Those that do generally require the machines be placed in locations where retail staff can easily observe customer activity. ITVMs also frequently include an auto-shutoff switch at the retail counter that staff can use if they suspect a purchaser at the machine to be a minor.

Game Types

Restrictions on game types can decrease lottery regressivity and the incidence of compulsive gambling but will also limit lottery revenues and profits. All state lotteries offer both online and instant games. However, many states have chosen not to offer keno and video lottery terminals (VLTs), for example. These games have high “play value,” and thus are more likely to contribute to compulsive gambling. However, they are also significant revenue generators. States with quick keno sold an average of \$33 dollars per capita in those games in fiscal year 2002, and states with VLTs sold an average of over \$400 per capita in those games in fiscal year 2002.⁶⁹ The recent amendment of the Tennessee Constitution may not allow VLTs in Tennessee.

Use of Unclaimed Prize Money

Approximately 2.5 percent of lottery prizes are unclaimed. In fiscal year 2002, state lotteries had over \$540 million in unclaimed prizes.⁷⁰ State lotteries establish statutes of limitations on these prizes. If not claimed after a certain period (usually six months or one year), lotteries may use these funds for other purposes. Some state legislatures have allowed lotteries to use these funds for additional prize payouts beyond statutory limitations.⁷¹

Administrative Issues

Management Positions

Competent staff and low turnover in upper management positions are essential for lottery success. As with private corporations, strategic planning is a key element of successful lotteries. High rates of turnover in upper management can undermine the strategic planning process. In the early 1990s, the Arizona State Lottery operated under five different executive directors in four years. During that time, the lottery experienced turnover in all four division director positions as well. Auditors concluded this turnover “prevented long-term planning and had an adverse impact on Lottery sales.” Specific problems included:

- Declining sales of “stale” games that were not updated;
- Excessive sales runs of unpopular instant games (the lottery printed and later destroyed \$51 million in unsold tickets);

⁶⁸ North American Association of State and Provincial Lotteries, *NASPL 2003 Lottery Resource Handbook*, Volume IV, p.208.

⁶⁹ Office of Research Analysis of Census Bureau and North American Association of State and Provincial Lotteries data.

⁷⁰ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales by Product.

⁷¹ Florida Office of Program Policy Analysis and Government Accountability, *Justification Review: Sales of Lottery Products Program*, Department of Lottery, Report No. 02-11, February 2002, p. 39.

- Sales representatives spending only 10 percent of their time in direct sales (in contrast, sales representatives spent 45 percent of their time delivering tickets and also spent time inspecting retailers for compliance with the Americans with Disabilities Act).

These problems appear to have persisted because of a lack of management continuity.⁷² Interviewees have repeatedly stressed the need for competent staff to fill upper management positions and continuity within those positions. One interviewee noted, “If you develop a plan and hire the best people, your lottery will be successful.”

Product Selection

Failure to conduct market research can result in poor lottery product selection.

Effective private companies conduct analyses prior to bringing new products to market to determine whether or not those products are likely to achieve goals set by the company. Furthermore, they will seek to find the least expensive means of bringing those products to market. In fiscal year 1999, the New Hampshire Office of Legislative Budget Assistant found the commission implemented new games that included secondary drawings for Harley Davidson motorcycles and Polaris snowmobiles in an effort to tap new players. However, a subsequent audit noted that the commission did not conduct analyses to determine if it could obtain more favorable contract provisions from those company’s competitors or to see if its initiatives were successful in helping the lottery reach new players.⁷³ Such analyses are essential for an enterprise seeking to maximize profits.

Personnel Code/Civil Service Laws

Tennessee civil service laws and rules may inhibit the efficient operation of a state lottery.

Ten of 38 lotteries responding to an Office of Research survey are not bound by civil service laws. For fourteen other lotteries, only some civil service laws apply to the lottery, or certain lottery employees are exempt from the laws.⁷⁴ Some interviewees have suggested that exempting lottery employees from these laws promotes efficiency. TCA Title 8, Chapter 30, Part 2 provides the framework for Tennessee’s rules for the Department of Personnel. Though these rules are not overly restrictive, exempting a state lottery from them could facilitate strategies used to maximize lottery profits. These include:

- Paying sales representatives on a commission basis for contracting with new retail agents;
- Paying bonuses to top management positions for meeting performance goals established by a board of directors or commission; and
- Terminating ineffective employees in a timely manner.

However, some interviewees have noted that exempting lottery employees from civil service laws could provide opportunities for corruption if a strong accountability model is

⁷² Arizona Office of the Auditor General, *Performance Audit—Arizona State Lottery Commission*, October 1997, Report # 97-15, pp. 9-11.

⁷³ New Hampshire Office of Legislative Budget Assistant, *State of New Hampshire Sweepstakes Commission—Management Letter for the Year Ended June 30, 1999*, November 24, 1999, p.9.

⁷⁴ Office of Research, State Lottery Administration Survey, February 3, 2003.

not in place to oversee management decisions. This accountability model should provide incentives for managers to hire and retain the most competent employees.

Employee Duties

Segregating employee duties can decrease the likelihood of fraud and abuse. A 1999 audit of the Massachusetts State Lottery Commission (MSLC) found it distributed almost \$2.2 million in prizes to people with apparently fraudulent social security numbers. The audit concluded MSLC's practice of allowing the same employee to verify a claimant's identification and process the prize claim increased the likelihood of fraud.⁷⁵

Similarly, a 2002 audit of the Maryland State Lottery Agency found an employee apparently improperly activated \$232,000 in instant tickets and cashed \$112,000 in winnings from them. Claimants cannot collect winnings from instant tickets that have not been activated. The audit recommended that employees who have access to instant tickets not be allowed to activate them.⁷⁶

Purchasing Procedures

Lottery administrators in several other states have failed to evaluate the effectiveness of marketing expenditures in a comprehensive manner. U.S. lotteries spent roughly \$370 million on advertising in fiscal year 2002, just under one percent of total lottery sales.⁷⁷ However, as stated earlier, because some lottery marketing expenditures are not budgeted as such, the actual number is probably somewhat higher. Marketing proponents contend that advertising campaigns can significantly increase lottery sales, more than offsetting their costs. Empirical evidence supports that proposition in a general sense (See Exhibit 9 on page 17.) However, individual marketing efforts and ad campaigns may not be cost-effective. Lotteries in Arizona, Missouri, and Pennsylvania have failed to conduct formal assessments of the returns on marketing expenditures.⁷⁸ Without such assessments, it is impossible to determine whether or not these expenditures produced significant increases in sales.

State lotteries frequently fail to assess the value of sponsorships, and at least two lotteries have not maintained adequate controls over perks associated with sponsorships. State lotteries, like many private sector companies, sponsor sporting events, community festivals, concerts, and other special events as part of a larger marketing strategy. As with other marketing expenditures, lottery administrators frequently fail to conduct a formal analysis to determine the effectiveness of these strategies. Furthermore, some lottery auditors have found administrators lack appropriate procedures for managing these sponsorships. In some cases, multiple individuals were

⁷⁵ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor's Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, pp. 16, 22.

⁷⁶ Maryland Department of Legislative Services, Office of Legislative Audits, *Audit Report: State Lottery Agency*, December 2002, pp. 13-15.

⁷⁷ Office of Research Analysis of North American Association of State and Provincial Lotteries and La Fleur's data.

⁷⁸ Missouri Office of the State Auditor, *Audit Report: State Lottery Commission—Three Years Ended June 30, 2001*, Report No. 2002-05, January 15, 2002, pp. 8-9; Pennsylvania Department of the Auditor General, *Lottery Audit*, July 2000, Finding No. 4b; Arizona Office of the Auditor General, *Performance Audit—Arizona State Lottery Commission*, October 1997, Report # 97-15, p.25.

responsible for various sponsorships, and lottery employees distributed tickets to events without documenting those distributions.⁷⁹ In 2000, the Pennsylvania Auditor General also concluded that the Pennsylvania Lottery failed to account for thousands of dollars in tickets to sporting events given to it.⁸⁰

Poor planning may result in purchasing advertising materials that are never used.

In a worst-case scenario, lottery advertisements may never reach consumers. New York auditors visited a sample of 109 retail agents to determine whether or not lottery advertising materials were displayed. The auditors found that retailers displayed less than half of the materials they received, often because the retailers lacked space to display all the materials or because the materials violated corporate policies or local sign ordinances.⁸¹

Contract Arrangements

State of Tennessee procurement practices may not be cost-effective for a lottery. All states have procurement requirements in place for state government purchases to ensure those purchases are cost-effective and free from corruption. However, these practices can be time consuming. Virtually all interviewees recommended state lotteries follow different procurement procedures than other state agencies, at least for some purchases. Though major lottery contracts for online games, instant games, and marketing services are almost always competitively bid, lotteries also purchase products and services not typically bought by other state agencies. For example, a lottery might produce an instant game where one prize would be a sports car. Requiring lottery administrators to issue an RFP for this purchase could produce an unacceptable delay in the purchase. Alternate procedures allow lotteries to respond more quickly to market dynamics and operate more nimbly in the entertainment market. Furthermore, well crafted procedures may allow lottery administrators to avoid costly bid protests. Twenty of 38 lotteries responding to an Office of Research survey must follow state contract provisions and competitive bidding laws. Some of those laws apply to lotteries in 12 states, and five states are exempt from all of the laws.⁸² Lotteries not governed by state contract laws must develop their own standards and practices to prevent fraud and waste in contracts.

A 2001 audit of the New York State Division of the Lottery found the division's full-service advertising contractor frequently failed to follow state RFP requirements. Officials with the division and with the contractor stated that the RFP requirements were time-consuming and that, had the contractor followed them, it would have been unable to meet deadlines.⁸³ Though not required to do so by law, the Florida Lottery has followed procurement practices established for the rest of state government. A February 2002 report by Florida's Office of Program Policy Analysis and Government Accountability

⁷⁹ Missouri Office of the State Auditor, *Audit Report: State Lottery Commission—Three Years Ended June 30, 2001*, Report No. 2002-05, January 15, 2002, pp. 5-7; Pennsylvania Department of the Auditor General, *Lottery Audit*, July 2000, Finding No. 4a.

⁸⁰ Robert Casey, Pennsylvania Auditor General, audit of the Pennsylvania Lottery, May 18, 2000, Finding No. 4c.

⁸¹ New York State Comptroller, Division of Management Audit and Financial Services, *Division of the Lottery—Advertising Program Controls*, 2000-S-26, August 20, 2001, pp. 15-18.

⁸² Office of Research, State Lottery Administration Survey, February 3, 2003.

⁸³ New York State Comptroller, Division of Management Audit and Financial Services, *Division of the Lottery—Advertising Program Controls*, 2000-S-26, August 20, 2001, pp. 6-7.

found bid protests cost the Florida Lottery millions of dollars in lost revenues, legal fees, and other administrative expenses.⁸⁴

TCA Title 12, Chapter 3 governs procurement practices for Tennessee state entities, including competitive bids, sole-source contracts, cooperative purchasing agreements, negotiations with vendors, and protests. Its requirements do not differ in any significant way from purchasing laws in other states. As such, some of its features could undermine a Tennessee lottery's capacity to act quickly in a competitive market in some cases, particularly for smaller contracts.

Current state contract requirements and potential joint contracts with other entities in state government may reduce the cost-effectiveness of lottery administration.

Bundling lottery contracts with contracts for similar services needed by other state agencies would appear to be a way to achieve economies of scale and reduce state costs. However, this is not always the case. A 1995 audit of the New York Division of the Lottery found the lottery's telecommunications costs for online lottery games were more than twice as high as costs in other states.⁸⁵ However, the Division could not pursue more cost-effective purchasing arrangements because its purchases were part of a multiyear contract for a multiagency network.⁸⁶

Consulting with potential vendors and multiple advisors can increase the cost-effectiveness of state contracts. Though existing state contracting guidelines may not be cost-effective for a state lottery, poorly crafted alternative guidelines may result in mismanagement of funds or noncompetitive bids. The California State Lottery issued an RFP on January 27, 1993, for an online game system. Based on the advice of a consultant, the lottery's RFP included a restrictive implementation schedule, which effectively limited the competition to a single vendor. A subsequent audit revealed that lottery administrators had failed to consult with other potential vendors regarding the implementation schedule.⁸⁷

Some state lottery administrators have funneled purchases through advertising agencies either to avoid disclosure or to circumvent state competitive bidding practices. State lotteries may wish to conceal certain purchases that might appear frivolous. Funneling such purchases through an advertising contract provides one method of concealing these purchases. For example, a 1996 audit of the Massachusetts State Lottery Commission (MSLC) found MSLC was using a "Donut Fund" to avoid disclosure of various expenses. MSLC redirected expenses for sponsorships, golf tournaments, catering of MSLC meetings, and the Executive Director's Christmas party to its advertising firm. The firm then coded these expenses as "miscellaneous"

⁸⁴ Florida Office of Program Policy Analysis and Government Accountability, *Justification Review—Sale of Lottery Products Program*, Department of the Lottery, Report No. 02-11, February 2002, pp.50-52.

⁸⁵ New York State Comptroller, Division of Management Audit, *Division of the Lottery: Study Comparing the Telecommunications Costs for New York State's On-Line Lottery Games to Such Costs in Other Selected States*, Report 95-D-26, July 21, 1995, p. 4-5.

⁸⁶ *Ibid.*, Appendix C, Response from Peter Lynch, Director of New York State Lottery, June 20, 1995.

⁸⁷ California State Auditor, *California State Lottery Commission—Restrictive Implementation Schedules Effectively Limited Competition for the California State Lottery's New On-Line Gaming System*, July 18, 1994, No. 93119.

unidentified charges to receive reimbursement by MSLC. In this way, MSLC was able to conceal the original providers of services and the extent of costs.⁸⁸

State lotteries may also funnel purchases through advertising contracts to avoid state contract provisions. An audit of the Pennsylvania Lottery found it funneled \$886,824 through contracts with its advertising firm from March 1997 to October 1999, apparently to circumvent state competitive bidding laws.⁸⁹ Though lottery administrators could make a legitimate case that the process established by those laws is too time consuming for lottery purchases, funneling contracts through advertising budgets creates the appearance of impropriety.

Retail Networks

Minimum sales standards for retailers can ensure profits generated by retailers justify administrative expenditures associated with those retailers. State lotteries incur significant administrative expenses with each retail agent, including a phone line, sales staff time, promotional products, and actual tickets. Virtually all states with lotteries have minimum sales standards for their retail networks to ensure these expenses are justified. If retailers fail to meet these standards, lotteries can remove them from the retail network. Some states, like Michigan, require retailers that fail to meet sales standards to pay fees to the state lottery and then remove a retailer only if it fails to pay the fee.⁹⁰ However, some state lotteries have not been diligent in enforcing these requirements.⁹¹

Some financial incentives for retailers may fail to increase lottery profits. All state lotteries pay retailers a commission for lottery tickets they sell. These commissions range from 5.0 to 8.2 percent of sales.⁹² Because commissions increase in direct proportion to a retailer's sales, this provides an incentive for retailers to sell more lottery tickets. Twenty-eight lotteries also pay a bonus to retailers for cashing winning tickets.⁹³ Some states provide incentive payments to retailers for meeting certain sales goals. Arizona, for example, provides an additional commission of 0.5 percent to retailers who exceed the previous year's sales by more than five percent.⁹⁴ Some states pay bonuses to retailers who sell winning tickets. The Illinois Lottery pays a bonus of one percent of the prize value to retail agents who sell winning tickets worth more than \$1,000. When a player in Illinois won a \$180 million jackpot recently, the retailer who sold the winning ticket

⁸⁸ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor's Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, executive summary, "Status of Prior Audit Results," p. 64-65.

⁸⁹ Pennsylvania Department of the Auditor General, *Lottery Audit*, July 2000, Finding No. 3.

⁹⁰ Michigan Office of the Auditor General, *Performance Audit of the Bureau of State Lottery, Department of the Treasury*, November 1998, 27-410-97, pp. 24-25.

⁹¹ Arizona Office of the Auditor General, *Performance Audit—Arizona State Lottery Commission*, October 1997, Report # 97-15, pp. 19-20; Michigan Office of the Auditor General, *Performance Audit of the Bureau of State Lottery, Department of the Treasury*, November 1998, 27-410-97, p. 25.

⁹² Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Commissions.

⁹³ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Commissions.

⁹⁴ Arizona Office of the Auditor General, *Performance Audit—Arizona State Lottery Commission*, June 2002, Report No. 02-02, pp. 22-23.

received a \$1.8 million bonus.⁹⁵ Finally, some states conduct promotions and contests among retailers to increase lottery sales.

Though retailer incentives are standard practice for state lotteries, the Office of Research has not encountered any empirical evidence that these strategies significantly increase sales. Many state lotteries conduct focus groups to determine what types of incentives to use, and most report improved relations with retail agents following implementation of new incentive programs. However, academic research has not examined the effectiveness of these strategies. In some cases, they may undermine the long-term profitability of a state lottery. One interviewee suggested incentive payments have a “ratchet effect”—once put in place, they cannot be removed without reducing sales to levels below those before the payments were implemented. Thus, lotteries may be unable to discontinue these payments even if they find the payments reduce profit margins without increasing sales.

Adequate retailer background checks can prevent waste and increase public confidence in state lotteries. All lotteries examined by the Office of Research conduct credit checks on retailers applying to sell lottery tickets. Retailers with poor credit may fail to pay the state lottery for tickets sold, and credit checks can reduce the risk of nonpayment. Some lotteries conduct periodic credit checks of all members of their retail network to further reduce the risk of nonpayment.

State lotteries also contract with investigation agencies to conduct criminal background checks. Though there is little opportunity for a retailer to successfully commit fraud, some retailers commit illegal activities. For example, some retailers have attempted to cash winning instant tickets they reported as stolen. Thorough criminal background checks can reduce the likelihood of such activities.

Distribution of Winnings

Insufficient lottery databases may increase the likelihood of tax evasion, nonpayment of child support, and welfare fraud. Lottery winnings constitute one form of income, and many lottery winners have a financial incentive to conceal this income. A 1999 audit of the Massachusetts State Lottery Commission found “little or no consistent effort to minimize the potential for tax evasion, nonpayment of child support, welfare fraud, or identify theft.” As a result, the lottery distributed almost \$2.2 million in prizes to people with apparently fraudulent social security numbers.⁹⁶ In one case, an “individual” won the lottery 319 times for a total prize of \$412,482 in a single year, yet avoided having any income tax withheld.⁹⁷

In another example, a 2002 audit of the Massachusetts State Lottery Commission (MSLC) found that one individual won 321 games over a period of 24 months. However, because MSLC withholds taxes only on prizes over \$5,000, MSLC withheld only \$8,375

⁹⁵ Telephone interview with Dave Mizeur, Deputy Director of Finance, Illinois Lottery, January 14, 2003.

⁹⁶ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor’s Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, executive summary.

⁹⁷ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor’s Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, p. 17.

in federal taxes and \$1,500 in state taxes on winnings of \$520,650. A computer system that accounted for multiple winnings in a single year at the time of payment would have allowed MLSC to withhold the appropriate amount of taxes in such cases.⁹⁸

Security Issues

There is no evidence of large-scale fraud and abuse in the lottery industry. Modern state lotteries have been in place since 1964. Initially, many people expressed concern that states would be unable to ensure the fairness of the games and/or that organized crime would exert influence over state lotteries. These concerns appear to be unfounded. Audits of state lotteries have revealed numerous instances where lax internal controls allowed certain lottery or vendor employees improper access to sensitive information. However, there have been no public reports of large-scale theft based on these breaches, and most audits revealed only the *potential* for theft or abuse because of lax controls. Money lost through publicized accounts of lottery fraud constitutes far less than one percent of lottery sales and profits.

Inadequate internal controls can lead to potential physical security breaches. A 2002 audit of the Colorado Lottery found an employee of a contractor still had physical access to the contractor's data center after his employment had been terminated. The audit also found that a group of Colorado Lottery employees responsible for testing the systems had access to the data center even after the testing was complete.⁹⁹ Though there is no evidence that these oversights led to security breaches, they did create the potential for such violations.

An inadequate settlement process can lead to "theft" of lottery proceeds by delinquent sales agents. Because retailers act as agents of the lottery, when they collect money through ticket sales, that money is legally the property of the state lottery. Failure to turn that money over to the lottery constitutes theft. A 1997 audit found that retailers in Arizona owed the state lottery over \$800,000 for tickets sold.¹⁰⁰ A 1999 audit of the Massachusetts State Lottery Commission (MSLC) revealed that its sales agents had failed to transfer over \$15 million in cash receipts to the lottery. Almost \$14 million of this revenue was more than 90 days overdue. Auditors found MSLC lacked the authority to sweep sales agents' bank accounts to collect revenue and lacked controls to prohibit agents from selling tickets after their sales authority had been revoked. Auditors also concluded MSLC's settlement process was too long to ensure timely collection.¹⁰¹

State lotteries have implemented several strategies to address this problem, including halting ticket distribution to delinquent retailers, suspending or revoking retailers' lottery sales licenses, turning delinquent retailers over to private collection agencies, and intercepting tax refunds from State Departments of Revenue. Some states also conduct

⁹⁸ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor's Interim Report on Certain Activities of the Massachusetts State Lottery Commission*, No. 2002-0089-3S, p. 6-11.

⁹⁹ Colorado Office of the State Auditor, *Colorado Lottery—Financial and Compliance Audit for the Fiscal Year Ended June 30, 2002*, September 19, 2002, p. 11.

¹⁰⁰ Arizona Office of the Auditor General, *Performance Audit—Arizona State Lottery Commission*, October 1997, Report # 97-15, p. 17.

¹⁰¹ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor's Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, p. 23-33.

credit checks on all retailers applying to sell lottery tickets to prevent contracting with retailers with a high risk of nonpayment.

Allowing retail agents to cash large winning lottery tickets may result in fraud and/or decreased lottery profits. The Maryland Lottery Agency implemented an “Agent Plus” program in 1997 that allowed certain lottery retailers to cash winning lottery tickets up to \$5,000 rather than the \$600 limit placed on other agents. Agents received a three percent commission on each winning ticket they cashed. A 2002 audit found that some retailers had avoided income tax reporting requirements and that certain Agency claims personnel directed winners to cash their tickets at Agent Plus participants, resulting in additional commissions that would not have been paid had the tickets been cashed at the Agency.¹⁰²

Oversight Roles

The nature of the lottery may induce administrators to downplay the potential for fraud and waste within a lottery. The success of a state lottery hinges on high sales. Based on interviews, many lottery administrators feel that news of fraud and waste will reduce public confidence in the fairness of lotteries and therefore reduce sales. As a result, when confronted with problems, lottery administrators may work to conceal them rather than openly address them. A 1999 audit of the Massachusetts State Lottery Commission (MSLC) concluded: “There appears to have been a view within MSLC that any weakness or problem that becomes evident within the lottery system must not be made public. Moreover, there is an obvious belief within MSLC that any public disclosure of these issues [instances of poor management, lax internal controls, and potential fraud] will reduce public confidence.”¹⁰³ Though there have been no publicized instances of large-scale fraud and waste in the history of state lotteries, there have been numerous smaller incidents. Some lottery administrators interviewed attempted to minimize these.

Commission/Board of Directors

A strong and independent Commission or Board of Directors can provide appropriate oversight for lottery administrators while insulating them from political influences. Oversight of lottery administrators can decrease the potential for fraud, waste, and abuse. Though some states have incorporated lotteries into existing administrative structures within the executive branch, many have chosen to place lottery administrators outside the executive branch. In these cases, states have generally given an independent commission of political appointees responsibility for overseeing the lottery. Independent commissions often perform some oversight functions even for state lotteries operating as state agencies. Alternately, states choosing to operate lotteries as quasi-public corporations have chosen to have a board of directors responsible for oversight. These hire chief executives for state lotteries. They also approve annual budgets for the lotteries and are responsible for setting all non-statutory policies.

¹⁰² Department of Legislative Services, Office of Legislative Audits, *Audit Report: State Lottery Agency*, December 2002, pp. 16-17.

¹⁰³ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor’s Interim Transition Report on certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, executive summary.

To serve effectively as an oversight agent, a commission or board of directors must include qualified members and have a meaningful oversight role. A 1999 audit of the Texas lottery concluded that members of the Texas Lottery Commission needed greater oversight and involvement in the procurement of goods and services for the Texas lottery. At that time, state law allowed the commission's executive director to exercise sole discretion over contractors' selection.¹⁰⁴ Several interviewees have noted the need for a strong board of directors to oversee lottery operations. According to them, oversight agents should evaluate the overall performance of lotteries and ensure that appropriate management practices are in place but should avoid involvement in the day-to-day operations of lotteries. Some of their recommendations included:

- Reimbursing members for expenses but not paying salaries to ensure board members are performing their function as a civic duty. Interviewees expressed concern that paying salaries to board members creates an incentive for unqualified candidates to push for appointments and take a more active role than is appropriate;
- Seeking out members who already serve on boards of private corporations;
- Including at least one board member with knowledge of and background in security issues; and
- Providing sources of information for board members on lottery operations from at least one source outside lottery administration.

Audits

The Department of Audit will likely require additional positions or approval authority for contracted private audit firms to provide effective oversight of a state lottery. One lottery administrator referred to the lottery as “the most audited entity in state government.” Several interviewees stressed the need for frequent performance and financial audits to ensure public confidence that lottery administrators are operating state lotteries ethically and cost-effectively. Auditors who are not directly accountable to lottery administrators or to a commission or board responsible for lottery oversight should perform audits.

Because state lotteries resemble private corporations in many ways, several interviewees recommended hiring private audit firms to conduct audits, either in tandem with or under the authority of state auditors. State auditors conduct performance audits of lotteries in 22 of 37 states responding to an Office of Research Survey. Private firms conduct performance audits for 10 other lotteries, either alone or in tandem with state auditors.¹⁰⁵ Virtually all lotteries are subject to annual financial audits as well. State auditors conduct these audits for 14 lotteries and private firms for 20. State auditors and private firms share responsibility for financial audits in three states.¹⁰⁶ Many lotteries also maintain an internal audit division that reports to a board, commission, and/or chief executive as another tool of effective management.

¹⁰⁴ Texas State Auditor's Office, *A Report on Procurement Practices at the Texas Lottery Commission*, August 30, 1999, Report No. 99-050.

¹⁰⁵ Office of Research, State Lottery Administration Survey, February 3, 2003.

¹⁰⁶ Office of Research, State Lottery Administration Survey, February 3, 2003.

Legislative Alternatives

The General Assembly may wish to establish in statute its goals for a state lottery.

Though states implement lotteries as a source of funding for state programs, they also generally establish other goals as well. There are numerous goals the General Assembly could set for a Tennessee lottery. Listed below are some of the more prominent goals and policy choices that would facilitate reaching these goals. Importantly, many of these goals are mutually exclusive. That is, policy choices that facilitate reaching one goal will likely impede reaching another. Defining goals for a Tennessee lottery in statute could serve as a guide for a lottery's organizational framework and other statutory provisions and would provide clear direction for lottery administrators.

Profit Maximization

The most common goal of most state lotteries is to maximize "profits" that they then turn over to state governments to fund state programs. This model is sometimes referred to as the Revenue Lottery.¹⁰⁷ True Revenue Lotteries offer all game types. Prize payout rates are relatively high to stimulate demand for lottery products. Furthermore, Revenue Lotteries spend a significant portion of their revenues on marketing and advertising, again to stimulate demand. Finally, Revenue Lotteries will strive to use delivery systems that encourage sales and minimize overhead costs. As a result Revenue Lotteries will likely provide financial incentives to retailers for high sales and maintain vending machines to distribute tickets because of their low maintenance costs.

Meeting Existing Demand

Though the most common lottery model is the Revenue Lottery, an alternative model is the Sumptuary Lottery, a lottery designed to accommodate interest in betting without fostering that interest. Many proponents of a Tennessee lottery noted that Tennesseans already purchase a large number of lottery tickets in adjacent states. A Sumptuary Lottery would address this dynamic and unmet demand for a lottery in interior counties without using aggressive marketing tactics to stimulate demand. A Sumptuary Lottery might also limit the number of retail outlets. Finally, a Sumptuary Lottery would probably not include some games such as video lottery terminals (VLTs) that appear to foster compulsive gambling.¹⁰⁸

Reducing Lottery Regressivity

Some analysts have criticized lotteries as a regressive source of state revenues. Though all lottery games are regressive, the degree of regressivity varies across game types. Instant games are generally significantly more regressive than online games. Among online games, regressivity decreases as the top prize increases. Multistate games such as Powerball and The Big Game are the least regressive lottery games as they draw more middle-class and upper-class players with their large jackpots.

¹⁰⁷ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p.21.

¹⁰⁸ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, pp. 21-22.

Minimizing Compulsive Gambling

Nationwide, five percent of lottery players account for over half of lottery revenues.¹⁰⁹ Thus, though spending on lotteries may be a relatively minor drain on income for most households, for some households lottery purchases are a major expenditure. Research has shown a correlation between games with high “play value,” such as video lottery terminals (VLTs) and quick-draw keno, and problem gambling.¹¹⁰ A lottery with a purpose of minimizing compulsive gambling might not offer games with high play value. The lottery might also set aside some portion of revenues for treatment programs to treat compulsive gambling.

Minimizing Underage Playing

All states with lotteries have established legal playing age minimums. These range from 18 to 21.¹¹¹ Despite prohibitions, many minors still buy lottery tickets. Interviewees have noted that minors have little incentive to purchase lottery tickets since state laws and rules require them to present valid identification to cash winning tickets. However, minors could still purchase lottery tickets and then sell winning tickets to legal players in a black market. States can pursue strategies to minimize underage play, such as continuous training of lottery retailers reminding them to check identification of lottery ticket purchasers and reducing reliance on instant tickets vending machines or placing the machines in locations where retail staff can easily observe customer activity.

If legislators establish a goal of maximizing lottery profits for state programs, they may wish to avoid establishing a statutory minimum percentage of lottery revenues returned to the state or statutory limits on prize payouts, administrative expenses, or marketing expenses. Effective lotteries, like effective private sector businesses, conduct quantitative analyses to determine how to spend revenues to maximize profits. Placing floors and ceilings on specific areas in statute will likely prevent the lottery from maximizing profits returned to the state and may fail to further any other state interest. Statutory directives on expenditures also will likely impair the ability of lottery administrators to respond to changing market dynamics.

If legislators choose to impose limits on lottery marketing expenditures, they may wish to include the value of lottery tickets or coupons distributed in marketing efforts. Many state legislatures have chosen to limit lottery marketing expenditures. In some cases, lottery administrators have circumvented these limits by distributing coupons for lottery tickets to corporate sponsors who in turn fund promotional efforts. Marketing expenditure limits that do not include limits on the distribution of complimentary lottery tickets or coupons may prove ineffective.

The General Assembly may wish to exempt lottery administrators from some or all portions of state contract laws in TCA Title 12, Chapter 3. Lotteries compete for consumer entertainment dollars. To prosper, they must respond quickly to market shifts.

¹⁰⁹ Charles Clotfelter, et. al., *State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission*, Duke University, Sanford Institute for Public Policy, June 1, 1999, p. 12.

¹¹⁰ Rachel Volberg, *When the Chips are Down: Problem Gambling in America*, New York: The Century Foundation Press, 2001, p. 60.

¹¹¹ North American Association of State and Provincial Lotteries, *NASPL 2002 Lottery Resource Handbook*, Volume III, p. 206.

Some aspects of existing state law, if applied to a Tennessee lottery, could prevent that. The Florida Lottery, for example, has incurred millions of dollars in foregone revenues and additional expenditures as the result of lax bid protest requirements. The General Assembly may wish to free lottery administrators from existing state purchasing practices to contract with:

- Vendors of online and instant games;
- Marketing agencies;
- Security firms;
- Private accounting firms; and/or
- Other firms that may participate as partners in specific lottery events and/or promotions.

If legislators exempt lottery administrators from some or all portions of TCA Title 12, Chapter 3, they may wish to require lottery administrators to establish alternate contracting procedures approved by the Department of Finance and Administration and/or the Office of the Comptroller. Many interviewees have suggested that existing state contract procedures may limit the ability of lottery administrators to respond quickly to market changes. However, some audits have revealed that failure to adhere to procedures with appropriate checks in place can produce fraud and waste. Requiring approval from another entity in state government could provide balance between freedom to craft reasonable procedures and accountability to ensure appropriate use of state funds.

The General Assembly may wish to exempt lottery administrators from some or all portions of personnel laws in TCA Title 8, Chapter 30, Part 2. TCA Title 8, Chapter 30, Part 2 provides the framework for Tennessee's rules for the Department of Personnel. Though these rules are not overly restrictive, exempting a state lottery from them could facilitate strategies used to maximize lottery profits. These include:

- Paying sales representatives on a commission basis for contracting with new retail agents;
- Paying bonuses to top management positions for meeting performance goals established by a board of directors or commission; and
- Terminating ineffective employees in a timely manner.

The General Assembly may wish to pass legislation allowing a Tennessee lottery to participate in multi-jurisdiction games. Multi-jurisdiction lottery games have become very popular in the U.S. Though Powerball and The Big Game are the most well known, several others exist, and all are significant profit sources for state lotteries. Furthermore, multi-jurisdiction games are among the least regressive lottery games, broadening their appeal. Many industry analysts predict the arrival of international games in the next few years. Legislation specifically authorizing a Tennessee lottery to participate in multi-jurisdiction games with other states and sovereigns would facilitate Tennessee's inclusion in these games.

The General Assembly may wish to establish penalties for retailers who sell tickets or cash winning lottery tickets without requiring customers to present valid identification. Though minors purchase lottery tickets in every state with a lottery, the extent of the phenomenon is not clear. States can take steps to discourage the purchase of

lottery tickets by minors. One step is to require customers to present a valid form of identification when purchasing or cashing tickets. The state would need to penalize retailers who violate this requirement in order to make this requirement effective. Some states have also chosen to place restrictions on the use of instant ticket vending machines to limit lottery play by minors.

The General Assembly may wish to require lottery administrators to check lottery winners for delinquent child support payments prior to prize distribution. Lottery winnings represent a source of income over which the state has direct control. It is relatively simple to establish a computer system that uses common forms of identification to determine if lottery winners owe back child support payments. Many states have implemented such systems to facilitate the payment of child support payments in arrears.

Administrative Recommendations

A board of directors or commission responsible for overseeing a Tennessee lottery should establish and enforce uniform ethics policies to govern relationships between lottery administrators, oversight agents, vendors, and other contract partners.

Auditors in other states have found behaviors that appear to indicate improper relationships between lottery administrators and lottery vendors. These relationships may have influenced decisions regarding lottery contracts. Other state lotteries have engaged in cross-promotions with private groups that produced no clear, measurable benefits for the lottery. Failure to establish and enforce ethics policies in Tennessee could result in similar instances, undermining public confidence in the lottery and potentially reducing the state's capacity to negotiate competitive contracts with lottery vendors.

Those responsible for appointing lottery administrators should strive to promote management continuity. Some state lotteries have experienced high turnover rates in upper management positions. These turnover rates appear to have impeded innovations and contributed to inefficient use of staff time, ultimately leading to declining profits. Selecting competent upper management willing to make a long-term commitment to a Tennessee lottery could help prevent those problems.

A board of directors or governing commission and lottery administrators should adopt compensation strategies that reflect goals established by the General Assembly. All state lotteries use commissions to encourage retail agents to sell lottery tickets. Many use additional incentives as well. Lotteries also frequently use bonuses and commissions tied to specific goals to compensate lottery sales forces and upper management. These strategies can encourage higher lottery sales.

Lottery administrators should conduct ongoing research to assess the cost-effectiveness of marketing strategies, game mix, and incentive programs for retail sales agents. Successful private enterprises conduct quantitative assessments to project the fiscal impact of new initiatives and constantly evaluate the effectiveness of current strategies. These techniques are essential elements in maintaining and increasing profits. If trends from other states hold, a Tennessee lottery will likely spend \$10 million on marketing each year.¹¹² Since the primary objective of a Tennessee state lottery will be to maximize profits to be turned over to the state for state programs within parameters set by the General Assembly, lottery administrators should conduct analyses like those conducted by private enterprises.

If the General Assembly chooses to allow video lottery terminals (VLTs) in a Tennessee lottery, lottery administrators should seek an opinion from the Office of the Attorney General regarding their constitutionality. Video lottery terminals are a significant revenue generator for the five states that offer them. However, the recent amendment to the Tennessee Constitution authorizes "a lottery of the type such as is in operation in Georgia, Kentucky, and Virginia in 1999." Because those three lotteries do not offer video lottery terminals (VLTs), they may not be permissible in a Tennessee lottery.

¹¹² Office of Research analysis of Tennessee Advisory Commission on Intergovernmental Relations and La Fleur's data.

Lottery administrators should implement specific procedures to identify and catalog lottery winners. Some state lotteries have suffered from lax controls over lottery winnings, increasing the likelihood of tax evasion, nonpayment of child support, welfare fraud, and identity theft. Specific steps lottery administrators could take to reduce the risk of these occurrences include:

- Using commercially available people identification information services;
- Entering into an interagency cooperation agreement with the Department of Safety for online access to driver license and other identification data;
- Reviewing stored W2-G tax information for potential irregularities; and/or
- Separating employee responsibilities so that the same individual does not both verify a claimant's identification and process the claimant's prize.

Lottery administrators should maintain computer records of individual winnings to facilitate appropriate tax withholdings and prevent both welfare fraud and nonpayment of child support. Some states have chosen to withhold taxes only on prizes above certain amounts. However, this allows "professional cashers" who cash hundreds of prizes in a given year to avoid virtually all tax withholding. Providing prize payment agents access to a database of each year's prize winnings would allow the state to facilitate the appropriate withholding of federal income taxes and, if applicable, state privilege taxes. This income data could be used to detect welfare fraud. It could also be used to obtain appropriate child support payments.

Lottery administrators should conduct background checks on all retailers applying to sell lottery tickets. Retailers with poor credit may fail to pay the state lottery for tickets sold. Conducting a credit check prior to granting a lottery sales license to a retailer can reduce the risk of nonpayment. Background checks should probably include criminal background checks as well. Lottery administrators may wish to conduct periodic credit checks of all members of their retail network to further reduce the risk of nonpayment.

Lottery administrators should set and enforce minimum sales standards for the lottery's retail network. Minimum sales standards are a common tool of state lotteries to ensure that retailers included in a retail network are cost effective for the state. Ideally, these standards are based on an estimate of sales necessary to generate net profits equal to the administrative costs associated with a retailer. For such standards to have their intended effect, lottery administrators must enforce them.

Lottery administrators should segregate employee duties to prevent potential fraud and abuse. A 1999 audit of the Massachusetts State Lottery Commission (MSLC) concluded MSLC's practice of allowing the same employee to verify a claimant's identification and process the prize claim contributed to the distribution of \$2.2 million in prizes to people with apparently fraudulent social security numbers.¹¹³ Similarly, a 2002 audit of the Maryland State Lottery Agency found an employee apparently improperly activated \$232,000 in instant tickets and cashed \$112,000 in winnings from them. The audit recommended that employees who have access to instant tickets not be allowed to

¹¹³ Auditor of the Commonwealth of Massachusetts, *Independent State Auditor's Interim Transition Report on Certain Activities of the Massachusetts State Lottery Commission*, as of January 20, 1999, No. 99-0089-3, pp. 16, 22.

activate them.¹¹⁴ Properly segregating employee duties can prevent such instances in a Tennessee lottery.

Lottery administrators should establish clear procedures for using unclaimed prize money. In fiscal year 2002, state lotteries had over \$540 million in unclaimed prizes, approximately 2.5 percent of total prizes.¹¹⁵ After a certain period (usually six months or one year), lotteries may use these funds for other uses. Some state legislatures have specifically authorized these funds for additional prize payouts or advertising beyond legislatively established caps. Whatever use the General Assembly lottery administrators choose for these funds, lottery administrators should make clear how this money is being spent.

¹¹⁴ Maryland Department of Legislative Services, Office of Legislative Audits, *Audit Report: State Lottery Agency*, December 2002, pp. 13-15.

¹¹⁵ Tom Tulloch, North American Association of State and Provincial Lotteries (NASPL), Chart 03—Sales by Product.

Appendices

Appendix A: Organizations/Persons Interviewed

Executive Office of the Pennsylvania Lottery Commission
Bill Powell

Florida Office of Program Policy Analysis and Government Accountability
John Hughes, Policy Analyst

Georgia Lottery Corporation
Carrie Mackesey, Director of Public and Governmental Relations

Georgia Office of Planning and Budget
Terry Gandy, Education Division Director

Illinois Lottery
Dave Mizeur, Deputy Director of Finance

Illinois Office of the Auditor General
Paul Usherwood, Audit Manager

Iowa Lottery
Ken Brickman, Executive Vice President and Chief Operating Officer

Kentucky Lottery Corporation
Larry Newby, Director of Research

Louisiana Lottery Corporation
Bill Cox, Vice President of Security

Louisiana Office of Planning and Budget
David Hoppenstedt, Director

Massachusetts Office of the Auditor General
Ken Marchurs, Deputy Director
Jay Mofenson, Legislative Liaison

Missouri Office of the State Auditor
John Blattle, Audit Manager

Nebraska Lottery
Brian Rockey, Associate Marketing Administrator

New Mexico Department of Finance and Administration, State Budget Division
Michael Benze, Senior Fiscal Economist

New Mexico Lottery Authority
Lance Ross, Communications Manager

North American Association of State and Provincial Lotteries
Tom Tulloch, Director of Administration

South Carolina Education Lottery
Ernie Passailaigue, Executive Director

Tennessee Comptroller of the Treasury, Office of Management Services
Charles Bilbrey, Assistant Director
Mary Anne Queen, Contract Review Administrator
Karen Hale, Contract Review Administrator

Tennessee Department of Personnel
Nat Johnson, Assistant Commissioner

Texas Legislative Budget Board
Scott Dudley, Revenue Analyst

Texas Lottery Commission
Colin Haza, Government Affairs Liaison

Virginia Lottery
John Hagerty, Public Affairs Manager

Appendix B: State Lottery Administration Survey

STATE LOTTERY ADMINISTRATION SURVEY

1. What state lottery do you represent?

2. What is the governing framework for your lottery?
 - a. Stand-alone agency
 - b. Part of another state agency
 - c. Independent commission
 - d. Quasi-public corporation
 - e. Private corporation
3. Who has primary responsibility for performance audits of your lottery?
 - a. State employees
 - b. Contractors/private audit firms
 - c. Joint responsibility
4. How often are performance audits conducted?

5. Who has primary responsibility for financial audits of your lottery?
 - a. State employees
 - b. Contractors/private audit firms
 - c. Joint responsibility
6. How often are financial audits performed?

7. Do your state's civil service laws apply to lottery employees?
 - a. All
 - b. Some
 - c. None
8. Do your state's contract provisions and competitive bidding laws apply to lottery purchases?
 - a. All
 - b. Some
 - c. None

For questions 9-12, choose one of the following for who has **primary** responsibility for the functions in question:

- a. Lottery administrators
- b. Lottery vendors
- c. Joint responsibility

9. Coordinating marketing and advertising contracts.

- a. Lottery administrators
- b. Lottery vendors
- c. Joint responsibility

10. Lottery sales force.

- a. Lottery administrators
- b. Lottery vendors
- c. Joint responsibility

11. Delivery of lottery tickets to retail outlets.

- a. Lottery administrators
- b. Lottery vendors
- c. Joint responsibility

12. New game development.

- a. Lottery administrators
- b. Lottery vendors
- c. Joint responsibility

Appendix C: Office of Research February 2003 Lottery Survey Results

State	2. Governing Framework	3-4. Performance Audits		5-6. Financial Audits		7. Civil Service Laws
		Frequency	Conducted by	Frequency	Conducted by	
Arizona	Stand-alone agency	Other	State employees	Every year	Private firms	Some
California	Independent commission	No response	No response	No response	No response	No response
Colorado	Part of another state agency	Every five years	State employees	Every year	State employees	All
Connecticut	Quasi-public corporation	Every year	Private firms	Every year	Private firms	All
Delaware	Part of another state agency	Every year	Private firms	Every year	Private firms	All
DC	Part of another district agency	Every year	District employees	Every year	District employees	All
Florida	Stand-alone agency	Irregular	State employees	Every year	Private firms	None
Georgia	Quasi-public corporation	No response	No response	No response	No response	No response
Idaho	Stand-alone agency	N/A	N/A	Every year	Private firms	Some
Illinois	Stand-alone agency	Every year	Private firms	Every year	Private firms	Some
Indiana	Quasi-public corporation	Ongoing	State employees	Every year	Private firms	None
Iowa	Part of another state agency	N/A	N/A	Quarterly	State employees	Some
Kansas	Stand-alone agency	Irregular	Joint responsibility	Every year	Private firms	Some
Kentucky	Quasi-public corporation	Irregular	State employees	Every year	Private firms	None
Louisiana	Quasi-public corporation	Irregular	State employees	Every year	State employees	None
Maine	Part of another state agency	Every year	Private firms	Every year	Joint responsibility	All
Maryland	Stand-alone agency	Other	State employees	Every year	Private firms	Some
Massachusetts	Part of another state agency	Every two years	Joint responsibility	Every two years	State employees	Some
Michigan	Part of another state agency	Every year	State employees	Twice a year	Private firms	All

State	2. Governing Framework	3-4. Performance Audits			5-6. Financial Audits			7. Civil Service Laws Apply?
		Frequency	Conducted by	Frequency	Conducted by	Frequency	Conducted by	
Minnesota	Stand-alone agency	Every year	Joint responsibility	Twice a year	Private firms	Some		
Missouri	Independent commission	Every two years	State employees	Every year	Private firms	None		
Montana	Independent commission	Every two years	State employees	Every year	Joint responsibility	All		
Nebraska	Part of another state agency	Ongoing	State employees	Every year	State employees	All		
New Hampshire	Independent commission	Every year	State employees	Every year	Joint responsibility	All		
New Jersey	Part of another state agency	Every year	Joint responsibility	Every year	Private firms	Some		
New Mexico	Quasi-public corporation	Irregular	Private firms	Quarterly	Private firms	None		
New York	Part of another state agency	Every year	State employees	Every year	Private firms	All		
Ohio	Stand-alone agency	Ongoing	State employees	Every year	State employees	Some		
Oregon	Stand-alone agency	Irregular	State employees	Every year	State employees	None		
Pennsylvania	Part of another state agency	Other	State employees	Other	State employees	Some		
Rhode Island	Quasi-public corporation	N/A	N/A	Twice a year	State employees	All		
South Carolina	Independent commission	Every year	State employees	Every year	Private firms	None		
South Dakota	Stand-alone agency	N/A	N/A	Every year	State employees	All		
Texas	Stand-alone agency	Irregular	State employees	Every year	Private firms	None		
Vermont	Independent commission	N/A	N/A	Every year	Private firms	All		
Virginia	Independent commission	Every year	State employees	Every year	State employees	Some		
Washington	Independent commission	Every year	Private firms	Every year	State employees	Some		
West Virginia	Stand-alone agency	Irregular	State employees	Every year	Private firms	Some		
Wisconsin	Part of another state agency	Every two years	State employees	Every year	State employees	All		

State	8. State Contract Practices Apply?	9. – 12. Primary Responsibility for:			
		Marketing	Sales Force	Ticket Delivery	Game Development
Arizona	All	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators
California	No response	No response	No response	No response	No response
Colorado	All	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Connecticut	None	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
Delaware	All	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
DC	All	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Florida	All	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
Georgia	No response	No response	No response	No response	No response
Idaho	None	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Illinois	Some	Administrators/vendors	Lottery administrators	Lottery vendors	Administrators/vendors
Indiana	Some	Administrators/vendors	Lottery administrators	Lottery vendors	Administrators/vendors
Iowa	All	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Kansas	None	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Kentucky	Some	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators
Louisiana	None	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
Maine	All	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
Maryland	Some	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
Massachusetts	Some	N/A	Lottery administrators	Administrators/vendors	Lottery administrators
Michigan	All	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors

9. – 12. Primary Responsibility for:

State	8. State Contract Practices Apply?	Marketing	Sales Force	Ticket Delivery	Game Development
Minnesota	Some	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
Missouri	All	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators
Montana	All	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
Nebraska	Some	Lottery administrators	Lottery vendors	Lottery vendors	Administrators/vendors
New Hampshire	All	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
New Jersey	All	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators
New Mexico	Some	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
New York	All	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
Ohio	All	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
Oregon	Some	Lottery administrators	Lottery administrators	Administrators/vendors	Administrators/vendors
Pennsylvania	All	Administrators/vendors	Lottery administrators	Administrators/vendors	Administrators/vendors
Rhode Island	Some	Lottery administrators	Lottery administrators	Lottery administrators	Administrators/vendors
South Carolina	All	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
South Dakota	All	Administrators/vendors	Lottery administrators	Lottery administrators	Administrators/vendors
Texas	Some	Lottery administrators	Lottery vendors	Lottery vendors	Administrators/vendors
Vermont	All	Lottery administrators	Lottery administrators	Lottery administrators	Lottery administrators
Virginia	None	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators
Washington	Some	Lottery administrators	Lottery administrators	Lottery vendors	Administrators/vendors
West Virginia	All	Lottery administrators	Lottery vendors	Lottery vendors	Lottery administrators
Wisconsin	All	Lottery administrators	Lottery administrators	Lottery vendors	Lottery administrators

Appendix D: Methodology for Computing Returns to Payout Rate

Office of Research staff obtained fiscal year 2002 data for average instant game payout rates and total instant game sales for 38 states and the District of Columbia from the North American Association of State and Provincial Lotteries. July 1, 2001 population estimates were obtained from the U.S. Census Bureau. Total sales were divided by population estimates to obtain per capita instant sales. Office staff then used a simple linear regression model to plot the impact of payout rates on sales. The equation for this regression is:

$$s = -229.738 + 472.045p$$

where “s” is per capita sales and “p” is the average instant game prize payout rate. Actual data and predicted values for instant game prize payout rates and per capita instant sales are shown in Exhibit 5.

Office staff then calculated estimated per capita profits derived from instant games through the equation:

$$p = s(1-p-a)$$

where “p” is per capita instant profits, “s” is per capita instant sales, “p” is the average instant game prize payout rate, and “a” is the average percent of revenue devoted to administrative expenses (operating expenses and retailer payments). According to La Fleur’s World Lottery Almanac for 2002, state lotteries paid an average of 12.2 percent of revenues in operating expenses and retailer payments. The full profit equation would be:

$$p = (-229.738 + 472.045p)(1-p-.122)$$

This can also be expressed as:

$$p = -472.045p^2 + 644.194p + 201.710$$

In order to find the profit-maximizing payout rate, Office staff took the derivative of p with respect to p and set it equal to 0.

$$p' = -944.09p + 644.194 = 0$$

$$p_{\max}: p = .682$$

Therefore, according to this model, the profit-maximizing instant game prize payout rate is 68.2 percent.

Offices of Research and Education Accountability Staff

Director

◆ Ethel Detch

Assistant Director (Research)

◆ Douglas Wright

Assistant Director (Education Accountability)

Jason Walton

Principal Legislative Research Analysts

Phil Doss

◆ Kim Potts

Senior Legislative Research Analysts

Denise Denton

Margaret Rose

Greg Spradley

Emily Wilson

Associate Legislative Research Analysts

Bonnie Adamson

Brian Doss

◆ Richard Gurley

Russell Moore

◆ Alisa Palmisano

Melissa Jo Smith

Karen Tolbert

Legislative Research Interns

Bintou Njie

◆ Holly Pressley

◆ Jennifer Hause

Executive Secretary

◆ Sherrill Murrell

◆ indicates staff who assisted with this project