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AGENCY REVIEW

DEPARTMENT OF REVENUE LOTTERY

AUDIT OVERVIEW

The Lottery Should Re-evaluate Its Advertising Budget in Light of Evidence That Suggests Advertising Is High and Does Not Correlate With Traditional Lottery Sales

Statistical Evidence Suggests That West Virginia's Instant Ticket Prize Payout Rate Is Above the Optimal Level and Should Be Lowered a Few Percentage Points to Maximize Net Revenue to the State

Although the Lottery Promotes Accountability by Providing a Large Volume of Information on Its Operations, There Are Important Areas in Which Accountability Can Be Improved

Although the Lottery Has Established Goals and Good Performance Measures as Stated in the Operating Details of the State Budget, There Are Other Important Performance Measures That Should Be Listed



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EXECUTIVE SUMMARY

This report represents the Agency Review of the West Virginia Lottery, as authorized by West Virginia Code §4-10-8(b)(3). The Legislative Auditor conducted an expenditure analysis, and examined the Lottery's performance measures and transparency. Overall, the Legislative Auditor finds that the Lottery is prudent in its financial responsibilities; however advertising and instant prize payout expenditures can be reduced to maximize revenue to the State and modest improvements in transparency can be made.

Report Highlights:

Overview:

- Overall, the Lottery promotes financial responsibility, accountability, and transparency.

Issue 1: The Lottery Should Re-evaluate Its Advertising Budget in Light of Evidence That Suggests Advertising Is High and Does Not Correlate With Traditional Lottery Sales.

- The Lottery's advertising budget has been reduced over the last few years, but it is still significantly higher than comparably sized lottery states.
- The Lottery's advertising is over \$4 million higher than similar sized lottery states.
- According to the Lottery, the cost structure (hourly rate) of its advertising contract is the primary reason for higher advertising costs. The Lottery will be going to a percentage-based contract next year that should reduce advertising costs.

Issue 2: Statistical Evidence Suggests That West Virginia's Instant Ticket Prize Payout Rate Is Above the Optimal Level and Should Be Lowered a Few Percentage Points to Maximize Net Revenue to the State.

- The Lottery has stimulated instant ticket sales by gradually raising the prize payout rate over the last 20 years.
- Statistically, the instant prize payout rate near 68 percent is beyond the optimal percentage by a few percentage points.

- Gradually lowering the instant prize payout to around 65 percent would increase revenue to the State by a few million annually.

Issue 3: Although the Lottery Promotes Accountability by Providing a Large Volume of Information on Its Operations, There Are Important Areas in Which Accountability Can Be Improved.

- With the Lottery now administering several different types of lotteries, it should provide more disaggregated data by lottery type, including actual administrative expenses, allowable administrative costs, and gross profit after actual administrative expenses.

Issue 4: Although the Lottery Has Established Goals and Good Performance Measures as Stated in the Operating Details of the State Budget, There Are Other Important Performance Measures That Should Be Listed.

- The Lottery should add to its listed performance measures the amounts for total gross lottery profit after administrative expenses, and the total amount distributed to the State.
- Performance measures should also be developed for each major lottery type.

Recommendations

- 1. The Lottery should re-evaluate its current level of advertising to determine if it is at an appropriate level. This should include determining if there are any indicators that would justify its current advertising levels compared to similar size lottery states.*
- 2. The Lottery's evaluation of its advertising should also include an assessment of the advertising contract and the decisions of the advertising agency.*
- 3. The Lottery should consider developing a formal study of the effectiveness and rate of return on its advertising.*

4. *Consideration should be given by the Lottery to gradual reductions in its advertising expenditures while assessing if any adverse effects are identified through proper sales benchmarking.*
5. *The Lottery should examine its monthly advertising data set to determine if it contains inconsistencies that preclude it from explaining monthly traditional lottery sales.*
6. *The Lottery should develop a consistent and uniform reporting of advertising, marketing and promotional expenditures under the same category for an accurate report of all advertising expenses.*
7. *The Lottery should consider a gradual reduction of the instant prize payout rate to a level of 64 to 65 percentage points.*
8. *Reductions in the instant prize payout rate should be monitored and evaluated statistically as to the effects on net revenue to the State.*
9. *The Lottery should enhance its disaggregation of data by lottery type, including but not limited to actual administrative expenses, allowable administrative costs, and gross profit after actual administrative expenses.*
10. *The Lottery should regularly and prominently report all relevant distributions of lottery revenue, including statutorily required and discretionary distributions such as expenditures made from excess allowable administrative costs.*
11. *The Lottery should add to its performance measures listed in the Operating Details of the State Executive Budget the amounts for total gross lottery profit after administrative expenses, and the total amount distributed to the State.*
12. *The Lottery should consider other goals such as maintaining gross profit after administrative expenses above 40 percent, or maintaining administrative expenses within a certain percentage of total operating expenses.*
13. *Performance measures should also be developed for each major lottery type.*

Overview

Although the Lottery Promotes Financial Responsibility, Accountability, and Transparency, These Areas Can Be Improved by Providing a More Complete Report of Its Performance and Developing an Understanding of Whether Advertising and Instant Ticket Prize Payouts Are at Optimal Levels.

Summary

The Lottery is one of the largest revenue providers for the State, generating over \$600 million annually. Given the large amount of revenue generated, the Legislative Auditor conducted an expenditure review of the Lottery to determine if the agency is performing in a fiscally sound manner and being accountable and transparent. **The agency does not exhibit practices of excess expenditures, with the possible exception of advertising.** The agency does not provide any supplement or assistance towards the State's health insurance plans. Lottery employees are members of the Public Employee Retirement System with no additional retirement benefits offered by the agency. Salaries are in line with similar state positions, and the Lottery does not provide employees with incentives or bonuses based on job performance. The Lottery follows state purchasing regulations and Division of Personnel policies regarding annual leave and sick leave.

Overall, the Lottery promotes accountability and transparency through reporting various sources of information. However, the agency often uses aggregated data to display performance, which hides the individual performances of each of the major lotteries that it administers. The Lottery can enhance its reporting by showing disaggregated revenue and expense data for each major lottery. In addition, some of the agency's goals and performance measures do not directly represent the agency's performance in generating revenue to the State. The primary concern the Legislative Auditor has is that the Lottery does not know if its advertising and instant prize payout rates are at optimal levels. **This review suggests that the agency's advertising budget is at an excessive level and its instant prize payout rate is too high, both of which are counter-productive in maximizing revenue to the State.**

Overall, the Lottery promotes accountability and transparency through reporting various sources of information.

This review suggests that the agency's advertising budget is at an excessive level and its instant prize payout rate is too high, both of which are counter-productive in maximizing revenue to the State.

Lottery Sales Growth Has Slowed Over the Last Three Years

The Lottery has expanded over the years to now consist of five major lotteries, which are: 1) Traditional games (instant and online games), 2) Racetrack Video Lottery, 3) Limited Video Lottery, 4) Table Games and 5) the Historic Resort. As a result of this expansion, lottery revenues and distributions to the State have increased substantially. However, over the last three fiscal years (2008-2010), lottery sales growth has decreased. This has been primarily the result of slow economic conditions and competition from other states' racetrack video lotteries. Economic conditions have slowed nationwide resulting in many state lotteries experiencing lower or negative sales growth.

Lottery revenues and net income to the State have increased substantially. However, over the last three fiscal years (2008-2010), lottery sales growth has decreased.

Table 1 Total Lottery Revenue & Income to the State FY 2006 - FY 2010 (in thousands)					
Lotteries	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Traditional Games	\$218,083	\$192,650	\$198,039	\$198,095	\$181,224
Racetrack Video Lottery	\$942,250	\$972,592	\$897,953	\$848,233	\$746,208
Limited Video Lottery	\$362,181	\$397,017	\$411,587	\$412,489	\$397,287
Table Games	--	--	\$15,877	\$34,219	\$31,726
Historic Resort	--	--	--	--	\$1,649
Total Sales	\$1,522,514	\$1,562,259	\$1,523,456	\$1,493,036	\$1,358,094
Net Income	\$651,761	\$683,612	\$667,707	\$656,675	\$589,025

Source: West Virginia Lottery Comprehensive Annual Financial Report, for fiscal years 2006-2010.

The Lottery Follows State Purchasing Regulations

The Legislative Auditor requested from the Lottery all contracts that were awarded between fiscal years 2008-2010 to determine if the agency had gone through state purchasing regulations. The contracts were for a variety of services such as ticket printing, advertising, auditing and consulting services. One contract was sole-sourced but the others went through the appropriate bid-process. The only sole-source contract was for services rendered by the Multi-State Lottery Association. The Purchasing Division of the Department of Administration had record of all contracts that were awarded by the Lottery for fiscal years 2008 through 2010.

Salaries for Lottery Employees Are Comparable to Other State Agencies

The Legislative Auditor compared the Lottery to other state agencies within the Department of Revenue in terms of personal services to determine if salaries and benefits were not at excessive levels. The Lottery made the following statement concerning its personal services.

The Lottery follows the same policies regarding annual leave, sick leave, employees' health insurance and retirement premiums as other state agencies. The Lottery does not provide employees with additional benefits..., nor incentives or bonuses based on job performance.

Table 2 shows that average wages and salaries for the Lottery for FY 2009 was \$35,937. Employee benefits are around 24 percent of total personal services and benefits. Average wages and salaries places the Lottery close to the middle of the listed Department of Revenue agencies.

The Lottery follows state purchasing regulations, in addition to policies for annual leave, sick leave, employees' health insurance and retirement.

**Table 2
West Virginia Department of Revenue
Personal Services Expenses – FY 2009**

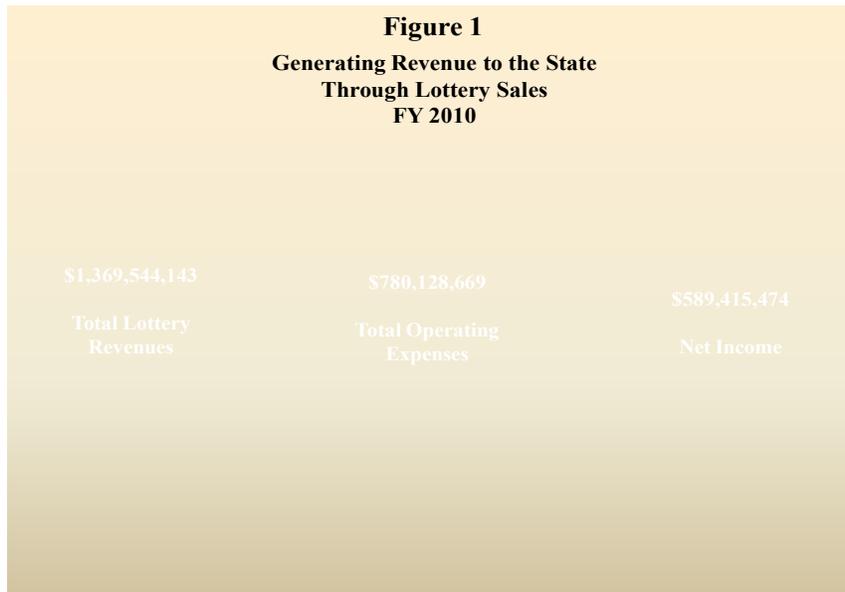
	Tax Division	Insurance Commissioner	Lottery	ABCA	Racing Commission	Division of Banking
Total Personal Services	\$13,714,258	\$13,928,426	\$6,720,333	\$3,382,786	\$1,564,979	\$1,481,929
Employee Benefits	\$4,897,480	\$4,497,176	\$2,129,121	\$1,140,550	\$467,185	\$444,491
Total Personal Services and Benefits	\$18,611,738	\$18,425,602	\$8,849,454	\$4,523,336	\$2,032,164	\$1,926,420
Total FTE	480.00	401.00	187.00	92.00	38.00	28.50
Benefits as % of Total Personal Expenses	26.31%	24.41%	24.06%	25.21%	22.99%	23.07%
Avg. Wages & Salaries	\$28,571	\$34,734	\$35,937	\$36,769	\$41,183	\$51,997
Avg. Total Personnel Costs	\$38,774	\$45,949	\$47,323	\$49,167	\$53,478	\$67,594

Source: West Virginia 2011 Executive Budget Book

The Lottery Does Not Have Adequate Knowledge If Its Advertising and Instant Prize Payout Rates Are at Optimal Levels.

The purpose of the Lottery is to maximize revenue to the State. The Lottery can fulfill this mandate in two ways: increase revenue and minimize expenses. Figure 1 below illustrates a simplified version of how revenue is generated to the State through the sale of lottery products using FY 2010 data. This diagram shows that net income is the residual of over \$1.3 billion in total lottery revenue minus over \$780 million in total operating expenses. The net income generated in FY 2010 for distribution to state and local governments was over \$589.4 million, of which the State received \$568.9 million.

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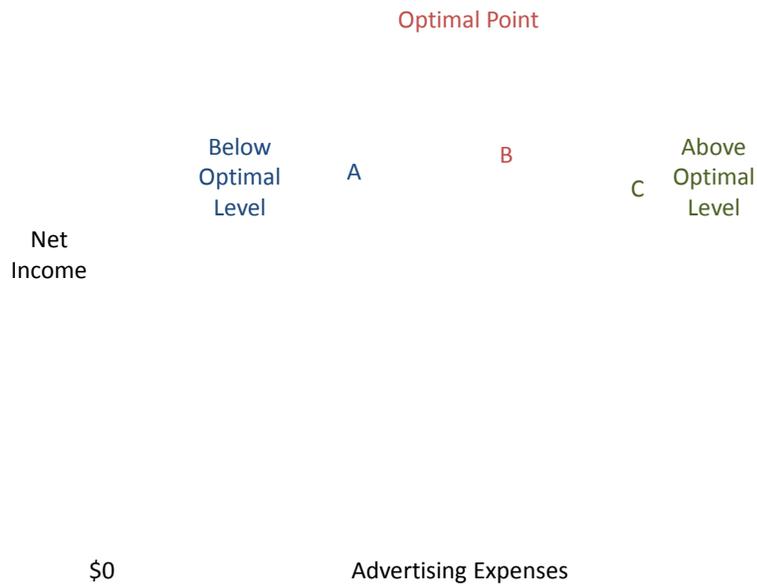
Although the equation in Figure 1 represents a straightforward method for determining net income from lottery sales, it does not explain if the net income has been maximized. Figure 2 shows that both revenue and expenses are affected by management decisions and the equation in Figure 1 does not account for these complications. More specifically, the management’s decision to increase or decrease advertising expenses or the prize payout rate can cause lottery sales to increase or decrease. The expenses for advertising and the instant prize payout rate can reduce net income, if they are not at the optimal level. However, if the expenses are optimized, they will increase the amount of revenue that is generated for the State. The agency’s remaining operating expenses influence net income, but do not affect the revenue.

Figure 2
Operating Expenses as
They Affect Revenue and
Net Income

How net income is affected by changes in advertising or the instant prize payout rate will depend on whether the change affects revenue more or less than the expenses that are incurred. In other words, there is an optimal level for advertising and the instant prize payout rate. This is illustrated in Figures 3 and 4. Figure 3 shows the relationship between advertising and net income. Advertising that is below the optimal level indicates that increases in advertising will grow revenue by an amount that is greater than the advertising expenses incurred; thus resulting in higher net income. Advertising that is beyond the optimal level indicates that the growth in revenue is less than the advertising costs incurred, which results in lower net income.

The Lottery needs to determine optimal levels for advertising expenditures and prize payout rates so that the maximum net revenue is returned to the State.

Figure 3
Advertising and Optimal Net Income



In a similar way, Figure 4 shows how the instant prize payout rate relates to net income. A prize payout rate that is below the optimal level indicates that a higher payout rate would raise revenue by more than the increase in prize expenses, resulting in higher net income. However, a prize payout rate in excess of the optimal point indicates that the increase in revenue is less than the increase in prize payout expenses, which results in lower net income.

Figure 4
Instant Prize Payout Rate and Optimal Net Income



This discussion highlights the complexity in maximizing lottery income to the State from the traditional lottery operations. **A primary concern the Legislative Auditor has is that the Lottery does not know if its advertising and instant prize payout rate are at optimal levels.** The agency’s advertising budget is relatively high compared to other state lotteries. Furthermore, a statistical analysis shows no correlation between total advertising expenditures and lottery sales. Furthermore, a statistical analysis indicates that the instant prize payout rate is too high. The Legislative Auditor finds that the Lottery should actively monitor and research the effectiveness of its advertising and instant prize payout rate. **This review recommends reductions in advertising expenditures and the instant prize payout rate.** These issues are discussed in greater detail in Issues 1 and 2.

The Legislative Auditor finds that the Lottery should actively monitor and research the effectiveness of its advertising and instant prize payout rate.

Issue 1

The Lottery Should Re-evaluate Its Advertising Budget in Light of Evidence That Suggests Advertising Is High and Does Not Correlate With Traditional Lottery Sales.

Issue Summary

The Legislative Auditor's Office evaluated the West Virginia Lottery's advertising budget and concludes that it is disproportionately high in comparison to states of similar size and population. **West Virginia's lottery advertising was \$4 million to \$4.5 million above the average of comparable lottery states in fiscal years 2009 and 2010.** There are no apparent demographic indicators that justify this level of lottery advertising for West Virginia. Moreover, regression analysis shows no correlation between the agency's monthly advertising and traditional lottery sales data. This lack of correlation may be the result of the agency's advertising data being unreliable or inconsistent for statistical analysis; however, it may also suggest that the Lottery's advertising is redundant to a significant extent. The Legislative Auditor recognizes that advertising for a lottery is necessary to achieve the agency's mission of maximizing revenue to the State, but an excessive amount is counterproductive. The Lottery has reduced advertising expenditures \$1.69 million since FY 2007 and is planning further gradual reductions.

The Legislative Auditor's Office evaluated the West Virginia Lottery's advertising budget and concludes that it is disproportionately high in comparison to states of similar size and population.

There Is Confusion Concerning How Much the Lottery Spends on Advertising and Promotion

The Lottery conducts a wide range of advertising and promotions to stimulate lottery sales, maintain consumer interest and promote the benefits to the state from lottery revenues. The Lottery makes a distinction between advertising and promotions in the following statement:

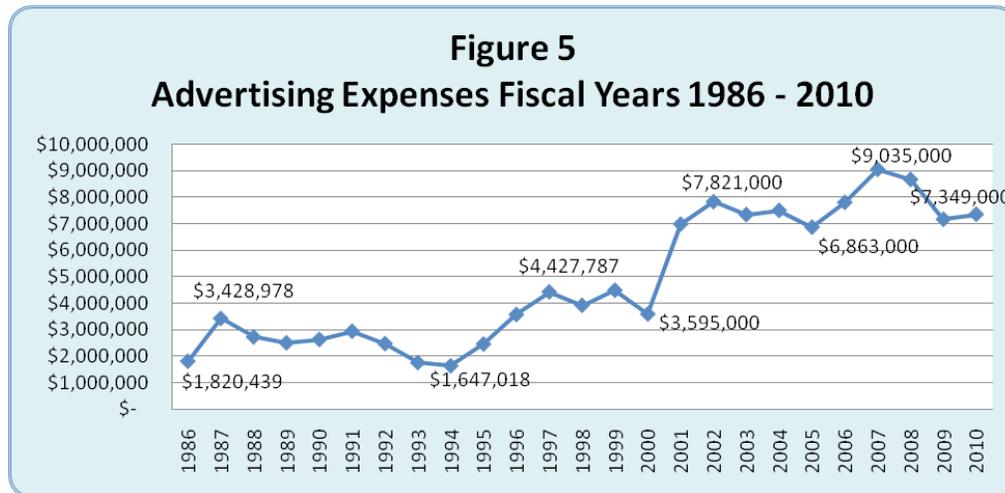
In terms of day to day operations, the West Virginia Lottery differentiates "advertising" or the process of inducing the public into gaming or sales generation from the "promotional" activities such as public awareness of the state funded benefits provided to its citizens.

Table 3 provides a list of major categories of advertising and promotions. For the purposes of this report, the term “advertising” will include promotional activities unless they are otherwise excluded. A majority (over \$5 million) of the Lottery’s advertising expenditures were to advertise traditional lottery games through various mediums, such as radio, television, newspapers and outdoor ads. Nearly \$600,000 was spent to inform the public of the benefits that result from lottery revenue. The Lottery also spent nearly \$700,000 in sponsorships for West Virginia University, Marshall University, Public Broadcasting and other organizations and events.

In fiscal year 2009, the Lottery spent \$7.6 million advertising with nearly \$600,000 used to inform the public of the benefits resulting from Lottery.

Table 3 Lottery Advertising & Promotion Expenditures FY 2009	
Advertising Categories	Expenditures
Account Services	\$143,313
Agency Markup (7%)	\$455,840
Winner Awareness/Jackpot Winner Press Conference	\$138,377
Sponsorships	\$677,060
Radio	\$872,734
Television	\$2,146,915
Newspaper	\$1,114,289
Outdoor Ads	\$271,197
Studio/Admix Production	\$279,538
Marketing Supplies & Promotions	\$815,165
Production	\$202,451
Other Advertising Expenses	\$531,353
Total Advertising Spending	\$7,648,232

Figure 5 shows the total amount of expenditures the Lottery lists as advertisement from FY 1986 through FY 2010. The graph indicates that advertising expenditures had a major upward shift beginning in FY 2001 in which advertising nearly doubled over the previous year and has remained at this higher level since then.



When the Legislative Auditor’s Office requested an explanation for the structural upward shift in advertising, the Lottery indicated that the historical data in the advertising account are misleading. **The Lottery provided information that suggests that advertising expenditures have not increased but remained relatively constant.** The Lottery indicated that prior to FY 2001 contracts with gaming system vendors also included advertising services. For financial reporting, these expenditures were partially recorded in the advertising account with the remaining majority of expenses credited to vendor fees and costs.¹ Vendor fees and costs also include equipment, distribution, field services, and other non-advertising related expenditures. **Therefore, according to the Lottery, up to FY 2001 the advertising line item understated the actual amount of spending on advertising.**

The Lottery’s advertising expenses have steadily increased. In FY2001, expenses nearly doubled due to a new gaming system vendor contract which did not include advertising services as previously provided.

During FY 2001, the Lottery entered into a new gaming system vendor contract that did not include advertising services as previously provided. This change in the gaming vendor contract terms caused the Lottery to contract with an advertising agency for advertising services. The Lottery indicates that because advertising is provided strictly through an advertising agency since FY 2001, the advertising line-item has increased while the amount recorded for vendor fees and costs decreased. When totaling these two categories, the Lottery contends that advertising expenditures may have remained fairly constant for the history of the Lottery. Although it is unclear as to the amount spent on advertising

¹ For the State’s accounting system the gaming vendor advertising services were included in the Contractual and Professional line item.

prior to FY 2001, since that time expenditures as reported under advertising have been relatively flat.

Additional confusion exists in terms of what the Lottery considers and reports as advertising and marketing expenditures. For example, Table 3 shows four different figures the agency reported for FY 2009 advertising expenses. For the highest advertising expenditure amount reported, marketing expenditures comprise \$1,950,349 and advertising expenditures consist of \$6,403,259, for a total of \$8,353,608. The second highest advertising figure makes a distinction between direct advertising expenses (\$840,887) incurred by the Lottery and expenses (\$6,807,346) sub-contracted by the advertising agency Charles Ryan Associates. The lowest advertising and promotion figure (\$7,160,000) in Table 4 was reported in the CAFR, which simply list the expenditure amount. Obviously, each item listed as advertising in Table 4 is adding or excluding certain expenditures that involve some type of advertising or marketing. **The Lottery should develop a consistent approach to account for advertising, marketing and promotions under the same category in order to have an accurate reflection of how much is spent in total.**

Confusion exists in terms of what the Lottery considers and reports as advertising and marketing expenditures. For FY 2009, the Lottery has four different figures reported.

Table 4 Different Advertising Expenditure Figures Reported for FY 2009			
Title of Lottery Document			
Comprehensive Annual Financial Report FY 2009	Lottery Expenditure Schedule FY 2009	Analysis of Advertising Operating Expenses Total FY 2009	West Virginia Lottery Fiscal 2008-2009 Advertising Spending
\$7,160,000	\$7,593,517	\$7,648,232	\$8,353,608
<i>Source: Documents provided by the Lottery to the Legislative Auditor's Office for the current review.</i>			

The Lottery's Advertising Budget Is Larger Than Comparable State Lotteries

For FY 2010, seven states did not allow state sponsored lottery gaming. These states are Alabama, Alaska, Hawaii, Mississippi, Nevada, Utah and Wyoming. Arkansas' Legislature established a state

lottery in FY 2009 and began selling tickets in FY 2010. Some states allow a combination of gaming including instant tickets, on-line games, racetracks, video lottery, gambling riverboats and casinos. Oftentimes casinos are part of tribal gaming and not subject to state regulations. Also, in Colorado, table games are regulated separately under its Division of Gaming, not within the lottery agency. West Virginia is one of a few states that allow its lottery agency to oversee both video lottery terminals and table games. However, 37 of the 43 lottery states only allow traditional (instant and online) lottery gaming through their lottery agency.

Table 5 shows FY 2010 advertising expenditures, state population and traditional lottery revenue for 40 lottery states.² These state lottery data are listed in descending order of lottery sales total. While West Virginia allows race track video lottery and table games, advertising for such games is not conducted directly by the Lottery. Therefore, comparing West Virginia's advertising expenditures with traditional gaming states is appropriate. The same can be said for the other video lottery states (Delaware, New York, Oregon, Rhode Island and South Dakota).

As Table 5 shows, West Virginia, as a traditional lottery, is relatively small, with traditional sales of \$181.2 million in FY 2010. The average traditional lottery sales amount for the 40 states was a little more than \$1.2 billion and the median amount was \$500 million. West Virginia's advertising expenses were 4.06 percent of total traditional revenue during FY 2010. This was the highest advertising-to-sales ratio of the 40 states. West Virginia also had the highest advertising-to-sales ratio in FY 2009, at 3.61 percent (see Appendix C for FY 2009 data). **These ratios were more than double the average and median of the 40 lotteries in fiscal years 2009 and 2010. As an absolute dollar amount, these ratio differentials (2.0 and 2.5 percent points respectively) translate into \$4 million to \$4.5 million higher advertising expenses based on West Virginia lottery sales.**

Compared to other states' traditional lottery statistics, West Virginia spends \$4 million to \$4.5 million more on advertising expenses than other states.

² *Illinois, Ohio and Wisconsin were excluded because of incomplete data.*

Table 5
Comparison of State Traditional Lottery Statistics
FY 2010

State	FY 2010 Total Traditional Lottery Sales*	FY 2010 Advertising	Advertising as a Percent of Total Sales	2010 State Population
New York	\$6,781,000,000	\$75,431,000	1.11%	19,378,102
Massachusetts	\$4,414,293,000	\$2,000,000	0.05%	6,547,629
Florida	\$3,899,000,000	\$33,199,988	0.85%	18,801,310
Texas	\$3,738,369,487	\$31,718,602	0.85%	25,145,561
Georgia	\$3,645,397,000	\$25,233,000	0.69%	9,687,653
Pennsylvania	\$3,065,717,410	\$41,229,465	1.34%	12,702,379
California	\$3,040,959,866	\$41,692,161	1.37%	37,253,956
New Jersey	\$2,605,104,142	\$7,038,893	0.27%	8,791,894
Michigan	\$2,359,228,000	\$28,986,000	1.23%	9,883,640
Maryland	\$1,706,572,575	\$13,767,713	0.81%	5,773,552
Virginia	\$1,435,127,915	\$25,048,236	1.75%	8,001,024
North Carolina	\$1,421,313,000	\$14,031,000	0.99%	9,535,483
Tennessee	\$1,138,390,000	\$9,400,000	0.83%	6,346,105
South Carolina	\$1,007,163,524	\$8,659,566	0.86%	4,625,364
Connecticut	\$1,000,112,838	\$9,508,611	0.95%	3,574,097
Missouri	\$971,864,485	\$1,850,163	0.19%	5,988,927
Kentucky	\$740,339,473	\$11,074,138	1.50%	6,483,802
Indiana	\$772,497,000	\$8,629,000	1.12%	4,339,367
Arizona	\$551,491,701	\$14,454,016	2.62%	6,392,017
Colorado	\$501,197,409	\$14,849,003	2.96%	5,029,196
Minnesota	\$498,968,721	\$8,607,492	1.73%	5,303,925
Washington	\$491,021,486	\$12,315,924	2.51%	6,724,540
Arkansas	\$383,698,455	\$4,352,303	1.13%	2,915,918
Louisiana	\$372,386,406	\$7,032,833	1.89%	4,533,372
Oregon	\$320,699,849	\$8,475,107	2.64%	3,831,074
Iowa	\$256,255,637	\$7,535,084	2.94%	3,046,355
Kansas	\$235,414,168	\$2,935,830	1.25%	2,853,118
Rhode Island	\$234,624,874	\$2,441,014	1.04%	1,052,567
New Hampshire	\$233,773,613	\$3,281,000	1.40%	1,316,470
Maine	\$217,032,573	\$1,060,687	0.49%	1,328,361
Oklahoma	\$199,747,294	\$3,956,565	1.98%	3,751,351
West Virginia	\$181,224,000	\$7,349,000	4.06%	1,852,994
Idaho	\$147,234,076	\$3,367,179	2.29%	1,567,582

**Table 5
Comparison of State Traditional Lottery Statistics
FY 2010**

State	FY 2010 Total Traditional Lottery Sales*	FY 2010 Advertising	Advertising as a Percent of Total Sales	2010 State Population
New Mexico	\$146,456,740	\$2,160,112	1.47%	2,059,179
Nebraska	\$134,284,050	\$4,765,251	3.55%	1,826,341
Delaware	\$122,943,197	\$2,493,750	2.03%	897,934
Vermont	\$97,477,784	\$725,709	0.74%	625,741
Montana	\$46,852,798	\$1,047,316	2.24%	989,415
South Dakota	\$45,543,898	\$532,256	1.17%	814,180
North Dakota	\$24,422,716	\$575,696	2.36%	672,591
Average	\$1,229,630,029	\$12,570,267	1.53%	6,556,102
Median	\$500,083,065	\$8,005,096	1.30%	4,579,368

**Excludes video lottery sales for states (Delaware, New York, Oregon, Rhode Island, South Dakota, West Virginia) with video lottery and other non-traditional lottery games.
Sources: FY 2010 Comprehensive Annual Financial Reports for each state, U.S. Census population data.*

Advertising expenditures have a strong, positive correlation (0.823 correlation coefficient) with lottery sales and a state’s population (0.785 correlation coefficient). These high positive correlations indicate that generally the larger a lottery state’s sales and population, the larger the amount spent on lottery advertising. There are, of course, other variables that explain the variation in lottery advertising from one state to another, such as economic conditions, inflation or policy. For example, the state of Massachusetts had the second largest volume of lottery sales, but its advertising expenses for FY 2010 were among the smallest. A primary reason for this disparity is that the Massachusetts Legislature determines how much will be appropriated each fiscal year for advertising, not the state lottery agency. Also, the state of Minnesota statutorily limits lottery advertising to 2.75 percent of total sales. Although there are several variables that differentiate a lottery state’s advertising budget from another state, the size of the state’s population and sales are major determining factors.

Advertising expenditures are strongly correlated to lottery sales and a state’s population.

In order to illustrate statistically how West Virginia’s advertising amount for FY 2010 compares to other lottery states, the data for all lottery states were divided into three distinct groups according to the

sales volume being less than \$300 million, from \$300 million to less than \$1 billion, and sales above \$1 billion. This is necessary because the data set that represents the 40 lotteries has a wide range and as a whole it is not normally distributed. Placing the data in three separate groups establishes normally distributed data sets with significantly less variation around the central measures. Table 6 shows the means and medians for the three groups. As this table reiterates in a clearer format, advertising expenditures tend to be larger for states with larger lottery sales and populations. West Virginia is in the category for lottery sales under \$300 million. The average advertising amount for this group is \$2.9 million and the median is \$2.5 million. **West Virginia’s advertising amount of \$7.3 million is more than twice these measures and it is at a level that corresponds with sales of \$400 million to \$500 million and a population of 5 million.**

West Virginia is in a category for lottery sales under \$300 million. However, West Virginia’s advertising amount corresponds with sales of \$400 million to \$500 million and a population of 5 million.

Table 6 State Traditional Lottery Statistics States Grouped by Total Lottery Sales FY 2010			
	Lotteries Under \$300 Million in Sales (15 States)	Lotteries Between \$300 Million and \$1 Billion in Sales (10 States)	Lotteries Over \$1 Billion in Sales (15 States)
Sales			
Average	\$154.9 million	\$550.6 million	\$2.8 billion
Median	\$147.2 million	\$500.1 million	\$2.6 billion
Advertising Costs			
Average	\$2.9 million	\$9.0 million	\$24.5 million
Median	\$2.5 million	\$8.6 million	\$25.0 million
Advertising as a Percent of Sales			
Average	1.93%	1.81%	0.93%
Median	1.98%	1.70%	0.86%
Population			
Average	1.6 million	5.2 million	12.4 million
Median	1.3 million	5.2 million	9.5 million
<i>Source: Analysis by the Legislative Auditor’s Office using lottery data from state lottery Comprehensive Annual Financial Reports.</i>			

In order to give a better perspective of West Virginia’s lottery advertising in comparison to lotteries under \$300 million in sales, Table 7 shows the percentiles of West Virginia’s total sales, population, advertising, and advertising-to-sales ratio to these states. **West Virginia’s advertising expenses and its advertising-to-sales ratios are at the 98th percentile. These measures are significantly disproportionate when West Virginia’s sales and population are compared to this group, which are around the 60th percentile.**

Table 7 West Virginia versus Lottery States With Sales Under \$300 Million FY 2010			
	West Virginia	Averages for Lotteries Under \$300 Million	Percentile for West Virginia
Traditional Lottery Sales	\$181,224,000	\$154,885,800	63
State Population (2010)	1,852,994	1,644,463	59
Advertising Expenses	\$7,349,000	\$2,948,430	98
Advertising as a Percent of Sales	4.06%	1.93%	98

Source: Analysis by the Legislative Auditor’s Office

Even if the comparison is expanded to consist of all states under \$400 million in lottery sales, West Virginia still shows a disproportionate amount of advertising expenditures of over \$3.7 million (see Table 8). It should also be noted that the advertising expenditures used for West Virginia in this comparison is from the agency’s CAFR, which records a lower advertising amount than other documents issued by the Lottery. Consequently, the disparity may be larger for West Virginia if the larger advertising figures are accurate. However, it is possible that other lottery states also understate their actual advertising in their respective CAFRs because of the difference in recording expenses on either a cash or accrual basis.

If the comparison is expanded to consist of all states under \$400 million in lottery sales, West Virginia still shows a disproportionate amount of advertising expenditures of over \$3.7 million.

Table 8 West Virginia versus Lottery States With Sales Under \$400 Million FY 2010			
	West Virginia	Averages for Lotteries Under \$400 Million	Percentile for West Virginia
Traditional Lottery Sales	\$181,224,000	\$188,892,900	47
State Population (2010)	1,852,994	1,997,073	45
Advertising Expenses	\$7,349,000	\$3,560,372	93
Advertising as a Percent of Sales	4.06%	1.93%	99

Source: Analysis by the Legislative Auditor's Office

The Lottery Has Been Assessing Its Advertising Levels

An analysis that compares data from other state lotteries has the obvious limitation of not being able to account for many of the variables that influence lottery advertising. **However, given the strong correlation between lottery sales, population and advertising, the comparison with other state lotteries raises some legitimate concerns.** The disproportionate amount of West Virginia advertising could be as much as \$4 million compared to lottery states of similar sales volume and population. The Legislative Auditor could not determine any factors that would warrant the disparity in West Virginia Lottery advertising. However, the Lottery has been assessing its advertising expenditures and it has made significant reductions since FY 2007, which has seen advertising expenditures go from over \$9 million to \$7.3 million in FY 2010. In addition, the Lottery stated it will be changing the structure of future advertising contracts as stated below:

The Lottery has been assessing its advertising expenditures and it has made significant reductions since FY 2007.

During the course of our existing contract agreement, we have worked to monitor and evaluate both cost and service and have worked with other jurisdictions to acquire their RFPs and cost structures in hopes that we may end up with a more favorable cost structure than we currently operate under. As a result of our evaluation and research, we will be moving to a percentage-based cost structure under a new RFQ (versus a RFP) in early 2012, upon contract expiration. Therefore, we expect to see a reduction in overall advertising expenses with a more

controlled approach to doing business with an outside agency.

The Legislative Auditor commends the Lottery for making these assessments and identifying ways that will further reduce advertising in the near future.

Regression Analysis Shows no Correlation Between the State's Lottery Sales and Advertising

The Legislative Auditor's Office attempted to determine the effectiveness of West Virginia's lottery advertising using regression analysis. One procedure used data on monthly traditional lottery sales as the dependent variable. The independent variables are the monthly sum of Powerball Jackpots, data lagged one month for the instant prize payout rate, the state's unemployment rate, and advertising expenditures. The data set represents the months of July 2005 through March 2011, for a total of 69 observations. The results of the regression analysis are shown in Table 9. The independent variables explain close to 60 percent of the variation of monthly lottery sales. Although the advertising variable shows a rate of return of less than one dollar (\$0.57) for each dollar of advertising, the coefficient is negative and is not statistically significant. This suggests that the data set for monthly advertising has a large amount of randomness or inconsistency. It may be that the data set has many cases in which advertising expenditures that were intended to influence a month's sales were recorded in different months, or alternatively, there is a large amount of redundant and ineffective advertising. **The Lottery should examine its monthly advertising expenditure data to see if it can create a data set that reflects advertising expenditures for the months they were intended to influence. If the current data set is consistent, then the agency needs to consider that a significant amount of its advertising is unproductive.**

The other independent variables are significant at the 95 percent confidence interval. The total Powerball Jackpots for the month has a strong influence on lottery sales. Monthly lottery sales increase nearly \$5,000 for every million of the total jackpot amount. For example, if all Powerball Jackpots for a month equaled \$500 million, the incremental sales for that month from the influence of the jackpots would be estimated at nearly \$2.5 million ($\$4,981 \times 500$). The regression also estimates that

a monthly reduction of sales of over \$255,000 occurs for every percent of the unemployment rate. Therefore, a state unemployment rate of 5 percent for a month would have the effect of reducing sales for that month by nearly \$1.3 million (\$255,000 x 5). In addition, every one percent (0.01) of the instant ticket prize payout rate represents \$174,248 (\$17,424,850 x .01) in sales for the month. Currently, the instant ticket prize payout rate is around 67 percent. Therefore, the regression analysis indicates that the total prize payout rate contributes approximately \$11.7 million per month in sales revenue.

**Table 9
Results From Regression Analysis**

Independent Variables	Coefficient	T-Value	Statistical Significance (95% Confidence Interval)
Monthly Sum of Powerball Jackpots	\$4,981	8.696	Significant
Previous Month's State Unemployment Rate	-\$255,320	-2.962	Significant
Previous Month's Instant Ticket Payout Rate	\$17,424,850	2.565	Significant
Previous Month's Advertising Expenditures	-\$0.566	-0.865	Insignificant
R-Squared	0.5934		

Source: Regression analysis performed by the Legislative Auditor's Office.

Although it is clear from the regression analysis that the size of the Powerball Jackpots is a strong factor in sales, along with economic conditions and the instant prize payout rate, these variables only account for 60 percent of the variation in monthly lottery sales. **The fact that the regression analysis shows no correlation between the State's monthly advertising expenditures and lottery sales does not indicate that lottery advertising has no influence on sales.** The Legislative Auditor acknowledges the importance of advertising in the successful operation of a lottery. However, it is also important that the Lottery develop an understanding of the effectiveness and appropriate level of advertising.

The Legislative Auditor acknowledges the importance of advertising in the successful operation of a lottery. However, it is also important that the Lottery develop an understanding of the effectiveness and appropriate level of advertising.

The Lottery has stated that it keeps advertising expenditures between \$6 million and \$7 million with considerations for special events. The Lottery was asked to explain the methodology for determining its advertising budget. The Lottery provided the following response:

The yearly budget for Marketing is generally \$6 million to \$7 million, depending on upcoming events or special promotions. Each year requires player communication such as advertising jackpots, promotional items for fairs and festivals, and retailer supplies such as dispensers. The remainder of the budget is allocated to promote special games, promotions or drawings, and any changes made to games. Primary changes include game redesign or additions from the Multi-State Lottery group. Recently, Mega Millions was added to the product mix and required changes to all jackpot signage and communications with the additional jackpot.

The Legislative Auditor also inquired if the Lottery had conducted any studies regarding the effects of advertising on revenues. The Lottery verified that no formal studies have been conducted. The Lottery stated that it has attempted to control advertising and promotions expenditures. In FY 2009, the Lottery evaluated all marketing efforts. Each area within the marketing department was reviewed to reduce costs and increase impact. Advertising expenses were decreased by

- purchasing media buys instead of individual advertisements,
- paying for advertising through contracts or agreements by the Lottery instead of through the advertising agency which reduced commissions that were paid to the contracted advertising agency, and
- developing more creative yet cost-effective advertisement methods such as bus wraps and gas pump signage.

The Legislative Auditor is aware that the Lottery is somewhat limited in the activities that it is able to conduct. The marketing staff of the Lottery consists of seven full-time employees. The majority of work is to operate and control traditional gaming through a contracted gaming vendor, and to report and control information used by the Lottery for public relations. Each employee plays a different role in the day-to-day operation of advertising and promotions, with the exception of a secretary who assists all marketing staff. There are instances where advertising staff need to conduct specific tasks but are unable to because the task requires specialized talents. Due to both the limited number of staff and the need for specialized services, the Lottery has contracted with an outside

The Lottery has attempted to control advertising and promotions expenditures by reducing commissions paid to contracted advertising agency, and developing more creative cost effective methods.

agency to provide advertising services. Even though the marketing staff is limited and the Lottery has contracted with an advertising agency to assist in advertising, **the Lottery has been proactive in determining the effectiveness of the advertising agency's decisions.**

Conclusion

The strong correlation between a lottery state's advertising, population and sales volume cannot be ignored when state lotteries are compared. West Virginia's lottery advertising expenditures are disproportionate compared to states of similar sales volume and population. There are no apparent indicators that justify the wide variance in West Virginia's lottery advertising. Although the Lottery has reduced advertising expenditures by over \$1.6 million since FY 2007, this review suggests that advertising is still relatively high. The Lottery has indicated that it continues to evaluate its advertising budget and has identified structural changes in contracting for advertising that should lead to further reductions in future advertising expenses. These cost-cutting efforts on the part of the Lottery are in line with the Legislative Auditor's recommendation that advertising expenses be further reduced.

The Lottery has indicated that it continues to evaluate its advertising budget and has identified structural changes in contracting for advertising that should lead to further reductions in future advertising expenses.

Recommendations

1. *The Lottery should re-evaluate its current level of advertising to determine if it is at an appropriate level. This should include determining if there are any indicators that would justify its current advertising levels compared to similar size lottery states.*
2. *The Lottery's evaluation of its advertising should also include an assessment of the advertising contract and the decisions of the advertising agency.*
3. *The Lottery should consider developing a formal study of the effectiveness and rate of return on its advertising.*
4. *Consideration should be given by the Lottery to gradual reductions in its advertising expenditures while assessing if any adverse effects are identified through proper sales benchmarking.*
5. *The Lottery should examine its monthly advertising data set to*

determine if it contains inconsistencies that preclude it from explaining monthly traditional lottery sales.

6. *The Lottery should develop a consistent and uniform reporting of advertising, marketing and promotional expenditures under the same category for an accurate report of all advertising expenses.*

Issue 2

Statistical Evidence Suggests That West Virginia’s Instant Ticket Prize Payout Rate Is Above the Optimal Level and Should Be Lowered a Few Percentage Points to Maximize Net Revenue to the State.

Issue Summary

For the past 10 years the Lottery has consistently maintained a prize payout rate of close to 67 percent for the instant ticket lottery game. This is a significant increase compared to instant prize payout rates of 50 to 62 percent during the 1990s. In 2009, instant prize payout rates for other states ranged from 47.8 percent to 75.7 percent. Statistical analysis shows that increasing the prize payout rate can stimulate instant lottery sales; however, it simultaneously increases prize expenses. In order to maximize net revenue, it is necessary to determine a state’s optimal prize payout rate at which the marginal change in prize expenses is equal to the marginal change in sales. A statistical analysis conducted by the Legislative Auditor’s Office suggests that while there is the possibility that the current payout rate is optimal, it is more likely that the payout rate is a few percentage points higher than optimal and consequently net revenue to the State has been negatively affected. Although the optimal payout rate cannot be determined precisely, it may be closer to 64 or 65 percent. Gradually lowering the prize payout rate a few percentage points could increase net revenue to the State by an average amount of \$1.5 million per percentage point decrease.

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Although the optimal payout rate cannot be determined precisely, it may be closer to 64 or 65 percent.

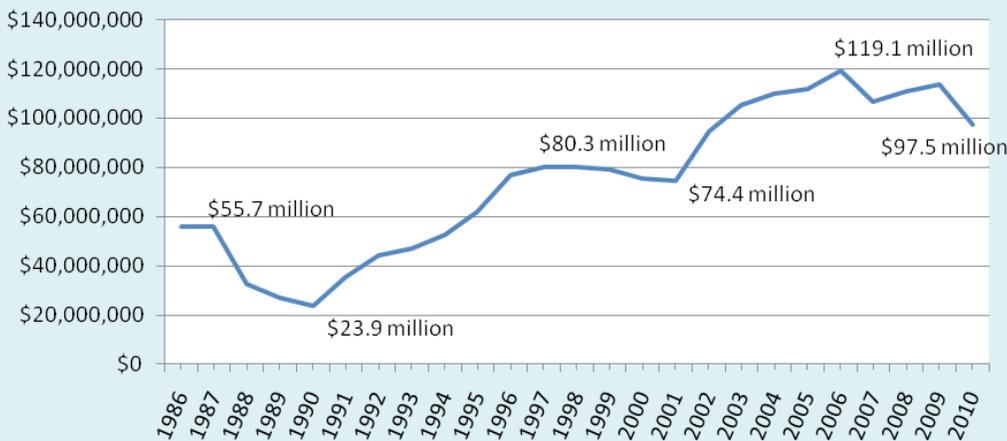
Instant Ticket Sales Have Had a Steady Upward Trend

Since the inception of the state lottery in 1986, instant lottery sales have had an upward trend of \$3.7 million per year. Figure 6 shows that following the initial novelty of the instant lottery when sales were above \$55 million, sales declined to \$23.9 million in FY 1990. This drop may have been attributed primarily to the introduction of online games. However, it is likely that maintaining an instant prize payout rate less than 50 percent for each of the first five years of the lottery (1986-1990) did not contribute to sales growth. Since 1991 instant lottery sales have steadily grown. Marketing and improvements in game designs have likely played a part in this growth, along with a growing economy. In addition, a statistical analysis indicates that the Lottery’s decision to

gradually raise the instant prize payout rate above 50 percent beginning in 1991 was another factor in instant sales growth. Instant sales peaked in FY 2006 at \$119.1 million, but have declined recently to a level of \$97.5 million in FY 2010. This is the result of slow economic conditions at the state and national levels. West Virginia’s unemployment rate increased from 4.2 percent in 2008 to 7.7 percent in 2009 and further increased to 9.1 percent in 2010. Lottery sales in many states experienced slow growth.

Instant sales peaked in FY 2006 at \$119.1 million, but have declined recently to a level of \$97.5 million in FY 2010.

Figure 6
Instant Ticket Sales

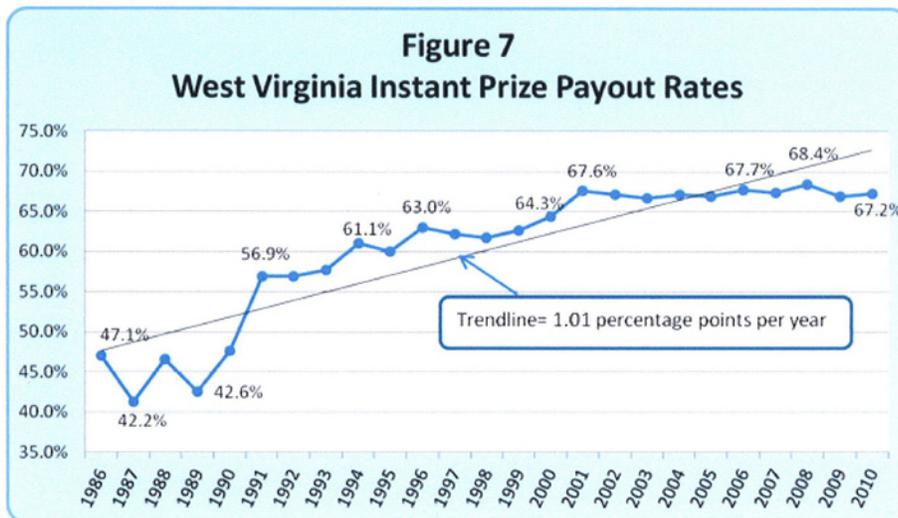


The Instant Prize Payout Rate Has Been Near 67 Percent for the Past 10 Years

Lottery games can be structured to some extent to payout prizes at intended rates of total sales. Structuring the prize payout rate for online games such as number games and games with periodic drawings has the least amount of control because players’ luck in selecting the winning numbers and the luck of the draw is a large factor in winning. The prize payout rate for online games in West Virginia has been consistently near 50 percent of total online lottery sales. However, the prize payout rate for instant ticket games can be predetermined to a great extent by printing a predetermined number and value of winning tickets. Statutorily, the Lottery is required to allocate as prizes on average at least 45 percent

Statutorily, the Lottery is required to allocate as prizes on average at least 45 percent of annual gross lottery sales.

of annual gross lottery sales (WVC §29-22-18(c)). Figure 7 shows the entire history of the instant prize payout rate. During the initial years of the Lottery’s inception the instant prize payout rate was less than 50 percent. The payout rate was gradually increased above 50 and by 1994 it was raised to 61 percent. From 2001 through 2010, the instant prize payout rate has been consistently near 67 percent of total instant ticket sales. The trend of the instant prize payout rate for the 1986-2010 period has been an average increase of one percentage point per year.³



Changes in the Prize Payout Rate Can Have a Significant Impact on Net Revenue to the State

Increasing the prize payout rate can increase player interest that results in higher instant lottery sales. However, higher instant payout rates also increase prize expenses, which lower net revenue to the State. A change in the prize payout rate of a few percentage points can have a significant effect in terms of absolute monetary amounts. For example, Table 10 shows hypothetically the difference in prize expenses for FY 2010 at different instant prize payout rates, assuming player interest and other factors remained constant. Based on 2010 data, if the instant prize payout rate was 65 percent (instead of 67 percent), prize expenses would have been lower by over \$2 million. A prize payout rate of 60 percent

Increasing the prize payout rate can increase player interest that results in higher instant lottery sales. However, higher instant payout rates also increase prize expenses, which lower net revenue to the State.

³ The trend is calculated by a straight-line trend equation using standard least squares techniques. The pseudo R-squared value is 0.803.

would have resulted in lower prize expenses of over \$7 million compared to the current rate of 67 percent. With other expenses held constant, lower prize expenses would proportionately increase revenue to the State.

Table 10 Hypothetical Instant Prize Payout Rates & Prize Expenses Compared to FY 2010			
	Instant Prize Payout Rate	Prize Payout Expenses for the Instant Ticket Game	Difference in Prize Expenses between Current Payout Rate and Hypothetical Payout Rates
FY 2010	67.2%	\$65,502,444	---
	65.0%	\$63,363,680	\$2,138,764
	60.0%	\$58,489,550	\$7,012,894
	55.0%	\$53,615,421	\$11,887,023
	50.0%	\$48,741,292	\$16,761,152

Source: Analysis by the Legislative Auditor's Office based on Lottery data contained in its FY 2010 Comprehensive Annual Financial Report.

West Virginia's Instant Prize Payout Rate Was Higher Than the Average for Many States in 2009

Sales revenues and prize payout rates were examined for states that allowed traditional lottery gaming for fiscal year 2009. This information was obtained through the individual states' annual reports or CAFRs (see Table 11). For instant games, states' prize payout rates ranged from 47.8 percent (for Arizona) to 75.7 percent (for Massachusetts) with an average of 64.5 percent. West Virginia had the eighth highest instant game prize payout rate of the 32 states that listed their instant prize payout rates, and it was three percentage points above the average. A correlation analysis by the Legislative Auditor on state lottery data shows that there is a positive relationship between state per capita instant sales and the instant prize payout rate. This indicates that to some extent the instant prize payout rate influences instant sales.

Sales revenues and prize payout rates were examined for states that allowed traditional lottery gaming for fiscal year 2009. For instant games, states' prize payout rates ranged from 47.8 percent to 75.7 percent with an average of 64.5 percent.

However, increasing the instant payout rate also increases prize expenses. A corresponding factor with high instant prize payout rates is a relatively low percentage of net revenue to the State. In 2009, West Virginia had the third lowest percentage (22.7 percent) of traditional sales going to the State. However, it must be kept in mind that the principle behind having a high instant payout rate is to generate higher instant sales. If higher instant sales are generated by higher prize payout rates, then revenue to the State will be higher than at lower payout rates despite having a lower percentage of sales going to the State. If, on the other hand, the instant prize payout rate generates less revenue than the prize expenses incurred, then revenue to the State suffers. Consequently, the optimal point is where the marginal increase in sales is equal to the marginal increase in prize expenses. If the payout rate is below the optimal point this would warrant a higher prize payout rate, and if it is above the optimal point then the prize payout rate should be reduced. (See the Overview section of this report for a more detailed discussion of revenue optimization.)

Table 11
Instant Games Prize Payout Rates and Net Profit
Fiscal Year 2009

State	Instant Prize Payout Rate	Net Profit Rate For Traditional Sales
Massachusetts	75.68%	19.47%
South Carolina	71.25%	25.99%
Maryland	70.35%	28.83%
Missouri	69.50%	26.69%
Idaho	69.20%	24.93%
Pennsylvania	68.68%	29.48%
Ohio	68.33%	30.12%
West Virginia	67.63%	22.70%
Washington	67.62%	22.31%
Colorado	67.51%	24.70%
Connecticut	67.41%	28.59%
Indiana	67.33%	24.42%
Vermont	67.28%	22.12%
Michigan	67.16%	29.78%
New York*	67.09%	n/a
Maine	66.99%	24.01%
Minnesota	66.98%	18.07%
Illinois	66.38%	30.73%
Tennessee	66.00%	25.74%
Virginia	67.32%	31.51%
New Jersey	65.23%	34.89%
New Hampshire	63.47%	28.53%
Georgia	63.36%	23.95%
Iowa	60.44%	24.37%
Montana	60.11%	23.11%
Kentucky	60.06%	24.88%
North Carolina	59.36%	32.09%
New Mexico	57.14%	28.36%
California	55.25%	34.17%
Oklahoma	54.39%	36.99%
Louisiana	52.55%	35.78%
Arizona	47.81%	26.42%
Minimum	47.81%	18.07%
Average	64.53%	27.22%
Maximum	75.68%	36.99%

**New York's CAFR did not distinguish its operating expenses between traditional games and video lottery.*

Source: States' Annual Report or Comprehensive Annual Financial Report.

Statistical Analysis Suggests West Virginia's Instant Prize Payout Rate Is Too High

The Legislative Auditor asked the Lottery how the instant prize payout rate was determined and if the Commission has determined if it was the optimal rate with respect to net profit. The Lottery responded:

The West Virginia Lottery first increased payouts to over sixty percent for games in fiscal year 1991 in order to stay competitive with contiguous states. Since that time, the Commission has carefully experimented over time with select games to determine the maximum return to the State versus player acceptance and buy-in. Also, in order to comply with the use of Unclaimed Prize Funds, select game payouts are boosted by the Fund and have a much higher payout.

The West Virginia Lottery first increased payouts to over sixty percent for games in fiscal year 1991 in order to stay competitive with contiguous states.

The Lottery's explanation of trying to be competitive with surrounding states is consistent in that the surrounding states except Kentucky have instant prize payout rates well above 60 percent. However, the Lottery provided no market analysis that measures the revenue impact and degree of competition with its surrounding states. While the Lottery provides reasonable explanations for raising the instant prize payout rate and indicated that careful experimentation of games has taken place, it did not provide the results of these game experimentations, any other formal study or statistical analysis.

The Legislative Auditor's Office conducted a statistical analysis on instant ticket revenues and instant prize expenses to determine if the Lottery's prize payout rate is at the optimal level for maximizing revenue to the State. Figure 8 shows the annual amount of prize expenses for instant ticket games from the inception of the Lottery in 1986 to fiscal year 2010. During the first five years of the Lottery the instant prize payout rates were under 50 percent, which is reflected in the low amount of instant prize expenses. Since 1991 the Lottery began to gradually increase the instant prize payout rate to over 60 percent. Consequently, instant prize expenses have increased by an annual average of over \$2.9 million, as seen in the trendline for the 1986-2010 period.⁴

⁴ The straight-line trend equation for instant prize expenses has a pseudo R-squared value of 0.889.

Figure 8
Instant Prize Expenses
FY 1986-2010



However, a regression analysis of instant sales revenue for the same time period indicates that the amount of revenue generated from the instant payout rate has been less than the amount paid out in prize expenses. This is shown in Table 12. The regression analysis shows that nearly 90 percent (R-squared= 0.897) of the variation in instant ticket sales is explained by personal income, the instant ticket prize payout rate and the number of retailers. These variables are statistically significant at the 95 percent confidence interval. On average, nearly \$1.6 million in instant ticket sales are generated per \$1 billion in personal income. An additional lottery retailer increases instant ticket sales by an average of \$34,345. The instant prize payout rate influences additional instant sales by nearly \$1.5 million per 1 additional percentage point.

The instant prize payout rate influences additional instant sales by nearly \$1.5 million per 1 additional percentage point.

The point of interest in the regression analysis is that on average the influence on instant ticket sales (\$1.47 million) from a 1 percentage point increment of the prize payout rate has been less than the annual trend in instant prize payout expenses (\$2.9 million). **This suggests that at some point the Lottery has likely exceeded the optimal instant prize payout rate. Since then, raising the instant prize payout rate has done more to increase prize expenses than instant sales.**

**Table 12
Regression Analysis of Instant Sales Revenue
1986-2010**

Independent Variables	Coefficient	T-Value	Statistical Significance (95% Confidence Interval)
Intercept	-134,875,800	-4.471	Significant
Instant Ticket Payout Rate	\$1,472,000	2.853	Significant
Total Number of Retailers	\$34,345	4.096	Significant
West Virginia Personal Income (in thousands)	\$1.596	4.684	Significant
R-Squared	0.897		

Source: Regression analysis performed by the Legislative Auditor's Office.

The regression coefficients and the trendline for prize expenses represent averages along the regression line. The standard errors for these variables are \$515,921 for the instant payout rate and \$215,227 for the trend of instant prize expenses. Given the standard errors, a 95 percent confidence interval was constructed for each variable. The confidence interval represents the range of values in which there is a 95 percent certainty that the interval contains the actual trend or slope of the variable. Table 13 shows the confidence intervals for sales growth and prize expenses due to a one percentage point increase of the instant prize payout rate. These two intervals overlap on the extreme ends of the intervals (on the high end of sales growth and the low end of prize expenses). This suggests that there is the possibility that instant prize expenses are at or below the sales growth that is stimulated by the prize payout rate (suggesting an optimal payout rate). However, there are significantly more occurrences of the prize expenses exceeding sales growth during the increments of the instant prize payout rate. In some cases the possibility of prize expenses exceeding sales growth is as high as \$3 million. On average, the statistical analysis indicates that prize expenses have exceeded sales growth by nearly \$1.5 million per incremental increase of the prize payout rate.

Table 13
Estimated Trends for Sales Growth & Prize Expenses
From a Percentage Point Increase in Instant Prize Payout Rate

95% Confidence Intervals

\$399,085 <= Sales Growth from Percentage Point Increase <= \$2,544,916
of Instant Prize Payout Rate

\$2,478,363 <= Prize Expense Growth from Percentage Point <= \$3,368,823
Increase of Instant Prize Payout Rate

Conclusion

Although it is understood that instant lottery sales and the prize payout rate are positively related, there are limits to how much the payout rate can be increased because of the simultaneous increase in prize expenses and the limited effect it has on sales. The Lottery's decision to gradually raise the instant payout rate was necessary. Statistical evidence suggests that on average incremental increases in the payout rate have reached a point where prize expenses are increasing more than the increase in sales. However, there is a relatively small overlap of the estimated confidence intervals for prize expenses and sales growth due to changes in the payout rate. This suggests that the instant prize payout rate, at 67 to 68 percent, is above the optimal level, but not by much. While the optimal point cannot be determined precisely, the West Virginia Lottery should consider lowering the instant prize payout rate to a level of 64 to 65 percentage points. This should be done gradually with proper monitoring of the results on net revenue to the State using statistical analysis. Although there will be a drop in sales, the evidence suggests that the drop in prize expenses will be greater. Lowering the payout rate by a few percentage points could increase net revenue to the State by an average of \$1.5 million per percentage point drop.

While the optimal point cannot be determined precisely, the West Virginia Lottery should consider lowering the instant prize payout rate to a level of 64 to 65 percentage points.

Recommendations

7. *The Lottery should consider a gradual reduction of the instant prize payout rate to a level of 64 to 65 percentage points.*
8. *Reductions in the instant prize payout rate should be monitored and evaluated statistically as to the effects on net revenue to the State.*

Issue 3

Although the Lottery Promotes Accountability by Providing a Large Volume of Information on Its Operations, There Are Important Areas in Which Accountability Can Be Improved.

Issue Summary

The Legislative Auditor finds that the Lottery promotes accountability of its operations through the release of important information. Although the Lottery provides an extensive amount of information, there are some informational gaps that should be addressed in order to enhance the agency's accountability. The primary informational gaps that should be addressed are the following annual data for each of the five major lottery types:

- allowable administrative expense allotment,
- actual administrative expenses,
- gross profit (after actual administrative expenses),
- actual administrative expenses as a percent of lottery revenue,
- the monetary and percentage differences between what is statutorily allotted for administrative expenses and actual administrative expenses, and
- a statement of how the excess revenue of allotted administrative expenses less actual administrative expenses were distributed.

This information would provide insight into several areas of the agency's operation of its traditional lottery, video lottery, limited video lottery, table games and the historic resort. The benefits of such information would be to: 1) distinguish the individual performance of each lottery in terms of gross profit, 2) show the composition of profit to the State by lottery type, 3) isolate administrative expenses by lottery type, 4) show how much revenue is in excess of actual administrative expenses, and 5) give an account of how the excess revenues were used. The Lottery can develop this information; however, it currently is not readily identifiable to the public or to the Legislature.

The Lottery Promotes Accountability

An essential quality needed to promote accountability is good management information. The Legislative Auditor finds that the Lottery

Although the Lottery provides an extensive amount of information, there are some informational gaps that should be addressed in order to enhance the agency's accountability.

has sufficient management information to account for its performance. Moreover, the level of detail is sufficient to show the performance of each major lottery that the Lottery manages, as well as to provide a breakdown of revenues and expenditures. An important development towards improving management information was the agency's implementation of a cost-allocation system in 2006. Since the Lottery oversees five major lotteries, a cost-allocation system is necessary to properly account for the respective costs and performance of each major lottery.

The Lottery has several publications that display useful information to the Legislature and citizens of the state. The agency's Comprehensive Annual Financial Report (CAFR) has a wealth of current and historic data that give some representation of the performance of each lottery and the financial condition of the Lottery. The CAFRs of the past 10 years are an improvement of the CAFRs of the early 1990s. As a result, the Lottery received the *Certificate of Achievement for Excellence in Financial Reporting* for its 2009 CAFR from the Government Finance Officers Association of the United States and Canada. This certificate is awarded in recognition of producing a CAFR that has the highest standards in government accounting and financial reporting. The 2009 award marked the 13th straight year in which the Lottery has received this distinguished award.

The Lottery recently published a *2010 Progress Report* for the Legislature and the public that describes lottery products, lottery revenues and mandatory distributions. Another recent publication by the Lottery is referred to as the "bucket" report. This publication graphically shows the statutorily required transfers and appropriations made for various programs in the form of revenues flowing from one bucket to another. Currently, the Lottery is required to present monthly reports to the Joint Committee on Government and Finance of the Legislature, as well as annual reports to the Legislature, Legislative Auditor, Governor and State Treasurer. In addition, the Lottery provides a host of information to the public through its website.

There Are Some Omissions in Lottery Information

Despite the volume of information that the Lottery makes available, there are some important lottery statistics that are not regularly provided. The West Virginia Lottery has become a large revenue-raising agency as it has gone from administering one type of lottery (instant tickets) to now administering five major lotteries, including traditional lotteries (instant

An important development towards improving management information was the agency's implementation of a cost-allocation system in 2006.

Despite the volume of information that the Lottery makes available, there are some important lottery statistics that are not regularly provided.

tickets and online games), video lottery, limited video lottery, table games and the Historic Resort. Furthermore, the Legislature has statutorily stipulated that expenses associated with administering these lotteries be no greater than certain percentages. These percentage limits are shown below in Table 14. The Lottery is allowed to receive the maximum amount for administrative expenses for each lottery. However, if actual administrative expenses are lower than the maximum amount received, then the excess becomes net profit to the State.

The Legislature has statutorily allowed the Lottery to receive certain percentages of lottery sales with the stipulation that any funds not used must be returned to the State.

Lottery Type	Code	Maximum Percentage Allowed
Traditional (Instant and Online games)	§29-22-18(d)	15%
Racetrack Video Lottery	§29-22A-10(b)	4%*
Limited Video Lottery	§29-22B-1408(a)(1)	2%
Table Games	§29-22C-27(e)	3%
Historic Resort (Gaming facility)	§29-25-22(b)	15%

*Legislative benchmarks exist so that a maximum amount of gross income used as administrative expenses is \$17,523,621. This figure is based on fiscal year 2001 gross terminal income.

Source: West Virginia Code

During this review, the Legislative Auditor’s staff noticed a lack of reporting by the Lottery on how much it had received for administrative expenses for each lottery type and what were actual administrative expenses. This made it difficult for the Legislative Auditor’s staff to determine if the Lottery was operating within its statutory limits in regards to administrative expenses. Such information would also allow the Lottery to show how each lottery is performing in terms of gross profit, and how much each lottery contributes to net profit to the State. Moreover, information was not readily reported on how the excess administrative expenses were distributed.

During this review, the Legislative Auditor’s staff noticed a lack of reporting by the Lottery on how much it had received for administrative expenses for each lottery type and what were actual administrative expenses.

We asked the Lottery to provide disaggregated expense data by each major lottery for fiscal years 2009 and 2010. This information was used to estimate gross profit by lottery type and to compare actual and allowable administrative expenses. Table 15 shows that the Lottery receives a relatively large amount in allowable administrative costs

compared to actual costs. For the past five years the allowable expenses received are greater than actual expenses incurred by an average of \$23 million. Given the relative size of excess allowable administrative costs, it is important for the Lottery to clearly and routinely report for each lottery the actual and allowable administrative costs, the amounts of the excesses, and how the excess amount was used. The Lottery has the management information upon request, but the agency does not routinely report it.

Given the relative size of excess allowable administrative costs, it is important for the Lottery to clearly and routinely report for each lottery the actual and allowable administrative costs, the amounts of the excesses, and how the excess amount was used.

	Actual Administrative Expenses	Pct.	Allowable Administrative Costs Received	Maximum Allowance Pct.	Estimated Excess Administrative Costs
Traditional Games					
2009	\$19,800,500	10.7	\$29,465,557	15.0	\$9,665,057
2010	\$20,410,984	12.1	\$25,282,651	15.0	\$4,871,667
Racetrack Video Lottery*					
2009	\$5,615,367	0.66	\$17,523,621	4.0	\$11,908,254
2010	\$6,336,192	0.85	\$17,523,621	4.0	\$11,187,429
Limited Video Lottery					
2009	\$4,853,862	1.2	\$8,249,779	2.0	\$3,395,917
2010	\$5,751,826	1.4	\$7,945,750	2.0	\$2,193,924
Table Games					
2009	\$4,945,524	5.1	\$2,933,066	3.0	\$-2,012,458
2010	\$3,719,862	4.1	\$2,719,341	3.0	\$-1,000,521
Historic Resort					
2010	\$274,315	32.3	\$127,580	15.0	\$-146,735

**By statute (WVC 29-22A-10(b)), allowable administrative costs received for video lottery cannot exceed four percent of the gross terminal income received in FY 2001. Therefore allowable administrative costs have been constant since then at \$17,523,621.*

Source: PERD analysis of Lottery data.

Table 16 shows the total difference between allowable and actual administrative costs for FY 2006 through FY 2010, and how the excess allowable administrative costs were distributed. The Lottery has some discretion in how the excess allowable costs are used; however, in other cases distributions of excess costs may be directed by the Legislature. Most of the excess costs over the past five years were distributed to the

Revenue Center Construction Fund pursuant to WVC §29-22A-10(b). Because of the economic downturn in 2008 and 2009, some excess costs were used to make up for shortfalls in state programs that are supported by lottery revenue (Lottery Fund Deficit). The remaining distributions were used at the discretion of the Lottery to purchase equipment and property as the agency deemed necessary for its operation. Any excess allowable administrative costs that are not needed for mandated or discretionary purposes are transferred to the State.

The Lottery has some discretion in how the excess allowable costs are used; however, in other cases distributions of excess costs may be directed by the Legislature.

Table 16						
Distribution of Excess Administrative Costs						
FY 2006 – 2010						
(in millions)						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total
Admin. Allowance	\$56.2	\$53.1	\$59.7	\$59.5	\$54.8	\$283.2
Actual Admin. Expenses	31.3	30.9	33.5	35.2	36.5	167.4
Difference (Excess Costs)	24.9	22.2	26.2	24.2	18.3	115.8
Distribution of Excess						
Lottery Fund Deficit			6.3	4.4		10.7
AEGIS Asset Purchase			3.6			3.6
AEGIS Contract Payment				0.5	0.5	1.0
Document Imaging				1.0		1.0
Hotsite Generator		0.4				0.4
Building Project		1.8		7.5	2.5	11.8
RCC Fund *	20.0	20.0	16.3	10.8		67.1
Total Distribution	\$20.0	\$22.2	\$26.2	\$24.2	\$3.0	\$95.6
Surplus to the State	\$4.9				\$15.3	\$20.2

**Pursuant to WVC §29-22A-10(b), the Lottery was required to transfer no more than \$20 million in any year between 2006-2011 towards the Revenue Center Construction (RCC) Fund.*

Source: The West Virginia Lottery

Since the Lottery advertises the various state programs that are funded by lottery revenues, it is important to include all uses of lottery funds. The use of excess allowable administrative costs is often not

disclosed in a formal manner similar to how the Lottery reports statutorily required distributions to state programs. The amount of excess allowable costs is relatively large. Therefore, for accountability and transparency, the Lottery should routinely report all distributions and uses of lottery revenues, including the amount that is allocated at the discretion of Lottery to the Compulsive Gambling Treatment Fund (WVC §29-22A-19).

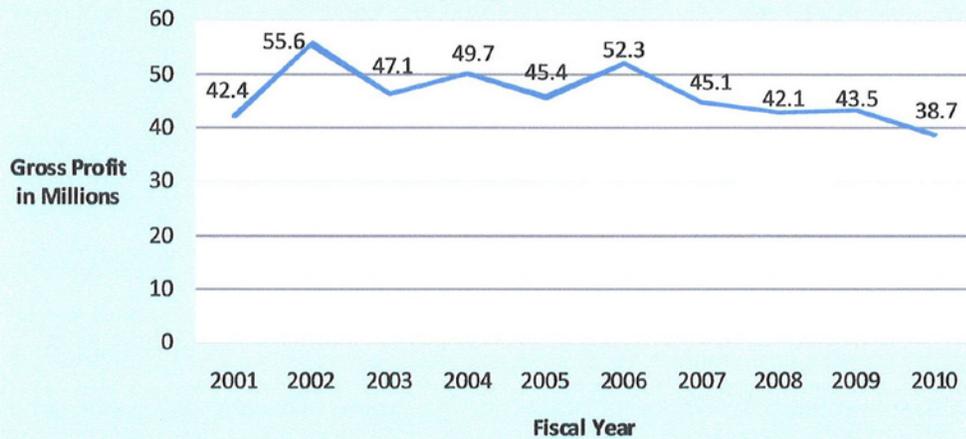
The Performance of Each Lottery Should Be Reported

Since the number of lotteries administered by the Lottery has grown over the years and total revenues are near \$1.5 billion, it is important to distinguish the performance of each lottery. The Lottery does this in many respects, but it does not routinely report gross profit after administrative expenses for each lottery.⁵ Therefore, individual lottery performances are often hidden within the aggregate amount for all lotteries. For example, Figure 9 shows estimated gross profits of traditional lottery games for the past 10 years. Gross profits are estimated (except 2009 and 2010) because the Lottery does not regularly provide administrative expenses broken down by lottery. As can be seen, gross profit for the traditional lottery has been relatively flat, and has been on a steady decline since 2006. For 2010 gross profit was the lowest in the past 10 years. It was not possible to show gross profit for years prior to 2001 because certain expense data were not disaggregated for each lottery. Similarly, gross profit (after all expenses) for each of the other lotteries cannot be determined because expense data are not disaggregated.

The Lottery does not routinely report gross profit after administrative expenses for each lottery. Therefore, individual lottery performances are often hidden within the aggregate amount for all lotteries.

⁵ *The Lottery reports in its CAFR gross profit for each lottery but administrative expenses are not deducted.*

Figure 9
Traditional Lottery Games
Estimated Gross Profit After Administrative Expenses
2001 - 2010*



Source: PERD analysis of Lottery data contained in the 2010 Comprehensive Annual Financial Report, with the assumption that the traditional lottery is 60% of total administrative expenses.

Conclusion

The Lottery encourages accountability and transparency through providing the Legislature and the public with relevant information on its operations and its overall accomplishments. However, important information is often reported in the aggregate, which conceals the performance of individual lotteries and does not fully disclose the distribution of lottery revenue. The Legislative Auditor acknowledges that the Lottery has done well in developing good management information. Some of the information should be routinely disaggregated by lottery type and all distributions should be fully disclosed on a prominent basis. This would enhance accountability and transparency of the Lottery’s operations.

The Legislative Auditor acknowledges that the Lottery has done well in developing good management information. Some of the information should be routinely disaggregated by lottery type and all distributions should be fully disclosed on a prominent basis.

Recommendations

9. *The Lottery should enhance its disaggregation of data by lottery type, including but not limited to actual administrative expenses, allowable administrative costs, and gross profit after actual administrative expenses.*

10. *The Lottery should regularly and prominently report all relevant distributions of lottery revenue, including statutorily required and discretionary distributions such as expenditures made from excess allowable administrative costs.*

Issue 4

Although the Lottery Has Established Goals and Good Performance Measures as Stated in the Operating Details of the State Budget, There Are Other Important Performance Measures That Should Be Listed.

Issue Summary

The State's budget process requires state agencies to submit performance goals and measures for its operations. This process is intended to encourage accountability and gauge how well an agency is performing in achieving its mandated mission. Although the Lottery lists relevant performance goals and measures within the Operating Details of the State Executive Budget, it omits others that are equally relevant. In particular, the Lottery does not list important performance measures such as gross profit after administrative expenses or the total amount distributed to the State. In addition, other performance measures that should be listed are total revenue and gross profit for each lottery type. A performance goal that the Lottery should consider is maintaining gross profits above 40 percent of total revenue.

The Lottery lists relevant performance goals and measures within the Operating Details of the State Executive Budget.

Performance Goals and Measures of the State Executive Budget

As part of the appropriation request process, the Legislature requires that state agencies submit division-level performance measures for the *Operating Details* of the State's Executive Budget. Other information reported includes the agency's mission statement, performance goals and objectives. Although legislative appropriations are not based on the performance measures submitted by state agencies, performance goals and measures are required in order to promote accountability before the Legislature and the public, and to encourage agencies to become result-oriented in their operations.

The Legislative Auditor has observed that many state agencies have not provided adequate performance goals or measures in the State's Executive Budget.

The Legislative Auditor has observed that many state agencies have not provided adequate performance goals or measures in the State's Executive Budget. In some cases, the performance measures are not strongly tied to the agency's overall mission, while in other cases the list of performance measures is incomplete. In addition, state agencies oftentimes do not provide goals or benchmarks for their performance measures. Without a benchmark or goal, a performance measure does

not indicate whether performance is good or needs improvement. The Legislative Auditor has taken on the task of assessing the performance measures that state agencies list in the Executive Budget in order to facilitate the purpose of having them reported.

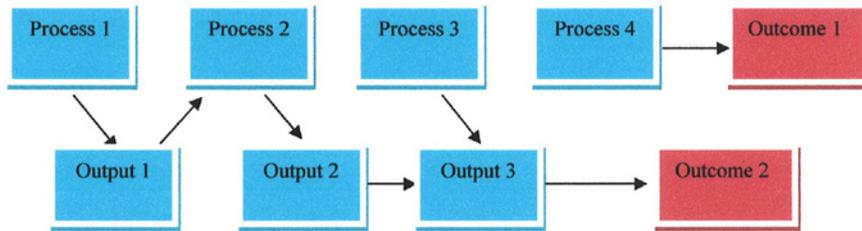
Good Performance Measures Are Strongly Correlated to the Agency's Mission

A basic management task for state agencies is to develop performance goals and measures of its operations. Performance goals represent desired performance, and performance measures represent actual performance. When properly developed and used, performance measures create management controls by which the agency can identify areas in need of improvement and make informed decisions. In addition, performance measures facilitate accountability before the Legislature, the general public, and against the agency's stated goals.

When properly developed and used, performance measures create management controls by which the agency can identify areas in need of improvement and make informed decisions.

In order to develop good performance measures, the agency must identify its outcome or outcomes. An agency's outcome is what it is required to accomplish overall, which generally is expressed by the agency's statutory mandate. An agency will accomplish its mandate by creating one or more processes. Generally, each process will have measurable results or outputs that directly or indirectly affect the achievement of the overall outcome. This is illustrated in Figure 10, which shows an agency that has two outcomes. Some output measures, such as Output 1, are remotely connected to an outcome because they are measures of an internal process. Other output measures, such as Output 2 and Output 3, combine to serve as indirect measures of achieving Outcome 2. The output of Process 4 is a direct measure of the achievement of Outcome 1. In this scenario, the output for Process 4 and the outputs for processes 2 and 3 are reasonable and relevant performance measures.

Figure 10: Processes and Outputs as They Relate to Outcomes



In order for performance measures to be useful, they need to be *relevant* and *reliable*. A reliable performance measure is reasonably accurate and a relevant performance measure is closely related to the desired outcome of the agency. **The stronger the correlation between an output measure and the outcome, the more relevant the output measure is as a performance measure.**

The Lottery Lists Relevant Performance Measures and Goals But Others Should Be Included

According to WV Code §29-22-9(a), the Lottery’s purpose is stated as such:

The lottery shall be initiated and shall continue to be operated so as to produce the maximum amount of net revenues to benefit the public purpose described in this article consonant with the public good.

The Lottery has listed seven performance measures in the Operating Detail of the State of West Virginia Executive Budget for fiscal year 2012. These are:

1. *The West Virginia Lottery has earned the Certificate of Achievement for Excellence in Financial Reporting from the GFOA for thirteen consecutive years (FY 1997 through FY 2009).*
2. *Purchased for the West Virginia Lottery headquarters a building at 900 Pennsylvania Avenue in Charleston.*

3. *Celebrated the grand opening of table games and video lottery at the Greenbrier Hotel in White Sulphur Springs.*
4. *Increase the number of licensed traditional lottery retailers by one percent each year, and evaluate the number of licensed limited video lottery retailers in FY 2011.*
5. *Regulate the opening and operation of the four authorized racetrack casinos and The Greenbrier Hotel by the end of FY 2011.*
6. *Maintain integrity at racetracks and limited lottery retailers by inspecting locations and keeping noncompliance findings to less than two percent at racetracks and less than five percent at limited lottery retailers.*
7. *Continue to maintain sales at approximately \$1.4 billion during FY 2011 and FY 2012 by offering an array of customer oriented promotions and events.*

While some of these performance measures are clearly relevant to achieving the mission of maximizing revenue to the State, some are less relevant and the list can include other more important performance measures. Increasing retailers and opening new gaming facilities are strongly correlated to increasing revenue. However, achieving the GFOA award and purchasing new headquarters are commendable, but they are less relevant as performance measures than the others listed.

Also, the Lottery has amended some of its goals for the 2012 budget compared to previous budgets. The agency lowered the goal of maintaining total sales from \$1.5 billion to \$1.4 billion. This appears to be in response to a declining trend in sales due to the recent decline in the economy and competition from surrounding states. The downward revision of the Lottery's performance goal for total sales is understandable because goals are only meaningful if they are achievable. Realistically, the Lottery is in a different environment compared to previous years when it did not have as much competition.

The agency also increased the goal of achieving new traditional lottery retailers. In previous years the goal was to increase retailers by five each year. For the 2012 budget the goal is to increase traditional lottery retailers by 1 percent annually, which is equivalent to approximately 16 new retailers annually. This increased goal appears to be inconsistent with the lower goal for sales, and it appears unrealistic given the difficulty the agency has had in achieving five retailers per year. In addition, the agency has no stated goal for increasing limited video retailers.

While the Lottery has listed some performance measures that are relevant, the list could include more important measures related to the Lottery's mission.

Table 17 shows the output data used for the Lottery’s performance measures. These measures are compiled from the last four budget submissions. It is clear that performance in the number of retailers and in total sales has been in decline. While slow economic conditions have contributed to the decline in sales, competition from other states has also been a factor.

Table 17					
Lottery Performance Measures					
FY 2006 – FY 2010					
Performance Measures	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Increase Retailers					
Traditional Lottery Retailers	1,674	1,590	1,574	1,555	
Limited Video Retailers	1,727	1,659	1,645	1,618	1,626
Regulate Gaming Facilities					
Racetrack Casinos	n/a	n/a	2	3	3
Greenbrier Hotel Casino	n/a	n/a	n/a	n/a	1
Maintain Integrity					
Racetrack Noncompliance Findings	0.61%	0.00%	0.00%	0.00%	0.00%
Limited lottery Noncompliance Findings	5.29%	4.00%	2.71%	3.17%	2.84%
Maintain Sales at \$1.4 billion					
Total Sales (in millions)	\$1,523	\$1,562	\$1,523	\$1,493	\$1,418
<i>Source: West Virginia Executive Budget, Operating Details FY2008-2012</i>					

However, there are obvious outputs not listed in Table 17, such as gross lottery profit and the total amount distributed to the State. These types of outputs directly represent the bottom line or overall outcome for the Lottery since maximizing revenue to the State is its mission. Additionally, the Lottery can maximize revenue to the State by minimizing expenses. Therefore, appropriate goals and performance measures could be: 1) maintain total operating expenses below 60 percent of total revenue (which would conversely maintain gross profit above 40 percent of total revenue), and 2) maintain administrative expenses below 5 percent of total operating expenses.

Outputs such as gross lottery profit and the total amount distributed to the State should be included in the Executive Budget.

Table 18 below shows performance measures that the Lottery should consider including in the Executive Budget, and goals that should be considered for maintaining expenses.

Table 18					
Performance Measures That Should Be Reported in the Operating Details of the State Budget FY 2006 – FY 2010					
Performance Measures	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010*
Distribution to the State (in millions)	\$610.0	\$639.2	\$631.2	\$616.6	\$568.9
Gross profit after administrative expenses (in millions)	\$651.8	\$683.6	\$667.7	\$656.7	\$589.0
Possible Goals					
Maintain gross profit (after all expenses) above 40 percent of total revenue	42.8%	43.8%	43.8%	44.0%	43.4%
Maintain administrative expenses below 5 percent of total operating expenses**	3.6%	3.5%	3.9%	4.2%	4.7%
*Distributions to the State for FY 2010 does not include special distributions from restricted and unrestricted net assets.					
**Administrative expenses include ticket cost and vendor fees.					
Source: West Virginia Lottery, FY2006-2010 Comprehensive Annual Financial Reports.					

Performance Measures Should Be Developed for Each Major Lottery Type

The Lottery does well in providing both aggregate and disaggregate data on its performance. The exceptions are with respect to administrative expenses and gross profit by lottery type. Reporting lottery operations in the aggregate hides the individual performances of each lottery. Consequently, it cannot be determined if profits and distributions to the State are down for all lottery categories, or if some lotteries are performing well while others are not. The Lottery should develop disaggregated performance measures for each lottery category in order to provide a full understanding of the agency’s performance. Most expenses are reported by lottery categories except administrative expenses. Developing disaggregated administrative expenses would allow the agency to report gross profit (after all expenses) for each lottery

The Lottery should develop disaggregated performance measures for each lottery category in order to provide a full understanding of the agency’s performance.

category. Currently the Lottery reports gross profit for each lottery, but the gross profit figures do not account for administrative expenses by lottery type. Reporting administrative expenses by lottery would also allow for a complete understanding of how much each lottery contributes to the amount distributed to the State. Moreover, specific goals in maintaining administrative expenses can be developed for each lottery.

Conclusion

The Lottery should reevaluate the performance measures and goals that are listed in the Executive Budget. Performance measures should be highly correlated to the overall outcome of the agency, which in this case is to maximize revenue to the State. Overall, the Lottery has listed good performance measures, but the lack of total distributions to the State or gross profit are glaring omissions because they directly represent the agency's mandated outcome. Performance measures and goals should also be developed for each lottery category to provide a complete and transparent picture of the agency's overall performance.

The Lottery should reevaluate the performance measures and goals that are listed in the Executive Budget. Performance measures should be highly correlated to the overall outcome of the agency, which in this case is to maximize revenue to the State.

Recommendations

11. *The Lottery should add to its performance measures listed in the Operating Details of the State Executive Budget the amounts for total gross lottery profit after administrative expenses, and the total amount distributed to the State.*
12. *The Lottery should consider other goals such as maintaining gross profit after administrative expenses above 40 percent, or maintaining administrative expenses within a certain percentage of total operating expenses.*
13. *Performance measures should also be developed for each major lottery type.*

Appendix A: Transmittal Letter

WEST VIRGINIA LEGISLATURE *Performance Evaluation and Research Division*

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John Sylvia
Director

August 16, 2011

John C. Musgrave, Director
West Virginia Lottery Commission
312 MacCorkle Ave, SE
PO Box 2067
Charleston, WV 25327

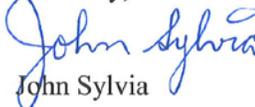
Dear Mr. Musgrave:

This is to transmit a draft copy of the Performance Review of the West Virginia Lottery Commission. This report is scheduled to be presented during the September 12-14, 2011 interim meetings of the Joint Committee on Government Operations, and Joint Committee on Government Organizations. We will inform you of the exact time and location once the information becomes available. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committees may have.

We need to schedule an exit conference to discuss any concerns you may have with the report. We would like to have the meeting on August 26, 2011. Please notify us to schedule an exact time. In addition, we need your written response by noon on September 2, 2011 in order for it to be included in the final report. If your agency intends to distribute additional material to committee members at the meeting, please contact the House Government Organization staff at 340-3192 by Thursday, September 8, 2011 to make arrangements.

We request that your personnel not disclose the report to anyone not affiliated with your agency. Thank you for your cooperation.

Sincerely,


John Sylvia

Enclosure

JS/tlc

Joint Committee on Government and Finance

Appendix B: Objective, Scope and Methodology

Objective

This report on the West Virginia Lottery Commission is part of the Agency Review of the West Virginia Department of Revenue pursuant to West Virginia Code §4-10-8. The objective of this review was to perform an expenditure analysis, and to evaluate the Lottery's accountability and transparency.

Scope

The scope of this review consisted primarily on traditional lottery games (instant and online games), various types of expenditures, and agency performance measures. The timeframe in some cases covered the entire history of the agency. Agency performance measures were evaluated from FY 2006 to FY 2011. Advertising data covered FY 2000 through FY 2010.

Methodology

A large amount of information compiled for this report was acquired directly from the West Virginia Lottery. Statistical analyses used information collected from the Lottery and the Multi-State Lottery Association (MUSL) for FY 1986 through FY 2010. For state-to-state comparisons, information was gathered from Comprehensive Annual Financial Reports or other financial statements representing fiscal years 2009 and 2010. Information was also obtained from the *West Virginia Code*, communication with staff of various lottery states, and other states' performance reviews of their lottery agency. The Legislative Auditor's staff performed correlation and regression analyses on a host of data, including traditional lottery sales, prize and advertising expenses, unemployment rates, and population statistics. Every aspect of this review complied with Generally Accepted Government Auditing Standards (GAGAS) as set forth by the United States Comptroller General.

Appendix C: FY 2009 State Traditional Lottery Statistics

Table 19 Comparison of State Traditional Lotteries FY 2009				
State	Traditional Lottery Revenue*	Advertisement & Promotion Expenditures	Advertising as a Percentage of Total Sales	Estimated 2009 Population
New York	\$6,695,071,000	\$67,434,000	1.01%	19,541,453
Massachusetts	\$4,429,157,000	\$10,000,000	0.23%	6,593,587
Florida	\$3,938,037,000	\$34,353,000	0.87%	18,537,969
Texas	\$3,720,113,711	\$36,002,696	0.97%	24,782,302
Georgia	\$3,395,643,000	\$15,976,000	0.47%	9,829,211
Pennsylvania	\$3,088,162,243	\$32,000,000	1.04%	12,604,767
California	\$2,954,839,094	\$56,248,897	1.90%	36,961,664
New Jersey	\$2,503,266,384	\$10,230,662	0.41%	8,707,739
Michigan	\$2,377,437,183	\$27,000,000	1.14%	9,969,727
Illinois	\$2,077,165,601	\$30,999,129	1.49%	12,910,409
Maryland	\$1,698,074,056	\$19,036,583	1.12%	5,699,478
Virginia	\$1,365,605,149	\$26,359,790	1.93%	7,882,590
North Carolina	\$1,293,020,000	\$12,923,000	1.00%	9,380,884
Tennessee	\$1,087,389,000	\$10,483,000	0.96%	6,296,254
South Carolina	\$1,005,106,684	\$8,285,021	0.82%	4,561,242
Connecticut	\$991,303,043	\$10,786,336	1.09%	3,518,288
Missouri	\$968,451,895	\$1,236,819	0.13%	5,987,580
Kentucky	\$810,544,000	\$8,435,000	1.04%	4,314,113
Indiana	\$732,656,870	\$11,252,281	1.54%	6,423,113
Colorado	\$493,364,094	\$11,914,439	2.41%	5,024,748
Washington	\$487,718,679	\$12,161,926	2.49%	6,664,195
Arizona	\$484,486,104	\$15,687,024	3.24%	6,595,778
Minnesota	\$481,245,133	\$7,982,294	1.66%	5,266,214
Louisiana	\$378,523,753	\$7,054,108	1.86%	4,492,076
Oregon	\$313,777,591	\$11,313,552	3.61%	3,825,657
Iowa	\$243,337,101	\$6,995,166	2.87%	3,007,856
New Hampshire	\$239,932,110	\$3,583,933	1.49%	1,324,575
Rhode Island	\$238,478,232	\$2,203,027	0.92%	1,053,209
Kansas	\$224,454,770	\$3,317,511	1.48%	2,818,747
Maine	\$210,670,171	\$671,607	0.32%	1,318,301
West Virginia	\$198,095,000	\$7,160,000	3.61%	1,819,777
Oklahoma	\$193,164,684	\$4,133,573	2.14%	3,687,050
New Mexico	\$143,933,662	\$2,467,074	1.71%	2,009,671
Idaho	\$139,649,181	\$2,986,810	2.14%	1,545,801

**Table 19
Comparison of State Traditional Lotteries
FY 2009**

State	Traditional Lottery Revenue*	Advertisement & Promotion Expenditures	Advertising as a Percentage of Total Sales	Estimated 2009 Population
Nebraska	\$126,801,727	\$4,454,810	3.51%	1,796,619
Delaware	\$123,170,990	\$2,339,603	1.90%	885,122
Vermont	\$95,975,537	\$494,319	0.52%	621,760
Montana	\$43,826,879	\$1,070,418	2.44%	974,989
South Dakota	\$41,045,522	\$653,886	1.59%	812,383
North Dakota	\$21,724,891	\$645,552	2.97%	646,844
Averages	\$1,251,360,468	\$13,458,321	1.60%	6,767,344
Medians	\$490,541,387	\$9,217,500	1.49%	4,792,995

**Exclude video lottery sales for states (Delaware, New York, Oregon, Rhode Island, South Dakota, West Virginia) with video lottery and other non-traditional lottery games.
Sources: FY2009 and FY2010 Comprehensive Annual Financial Reports for each state, U.S.Census population data.*

Table 20 Traditional State Lottery Statistics States Grouped by Total Lottery Sales FY 2009			
	Lotteries Under \$300 Million in Sales (15 States)	Lotteries Between \$300 Million and \$1 Billion in Sales (10 States)	Lotteries Over \$1 Billion in Sales (15 States)
Sales			
Average	\$152.2 million	\$614.3 million	\$2.8 billion
Median	\$143.9 million	\$490.5 million	\$2.5 billion
Advertising Costs			
Average	\$2.9 million	\$9.8 million	\$26.9 million
Median	\$2.5 million	\$11.0 million	\$26.4 million
Advertising as a Percent of Sales			
Average	1.97%	1.91%	1.03%
Median	1.90%	1.76%	1.00%
Population			
Average	1.6 million	5.2 million	13.0 million
Median	1.3 million	5.1 million	9.8 million
<i>Source: Analysis by the Legislative Auditor's Office using lottery data from state lottery Comprehensive Annual Financial Reports.</i>			

**Table 21
West Virginia versus Lottery States With Sales Under \$300 Million
FY 2009**

	West Virginia	Averages for Lotteries Under \$300 Million	Percentile for West Virginia
Traditional Lottery Sales	\$198.1 million	\$152.2 million	73
State Population (est. 2009)	1,819,777	1,621,514	58
Advertising Expenses	\$7,159,853	\$2,878,476	98
Advertising as a Percent of Sales	3.61%	1.97%	96

Source: Analysis by the Legislative Auditor's Office

**Table 22
West Virginia versus Lottery States With Sales Under \$400 Million
FY 2009**

	West Virginia	Averages for Lotteries Under \$400 Million	Percentile for West Virginia
Traditional Lottery Sales	\$198.1 million	\$175.0 million	59
State Population (est. 2009)	1,819,777	1,920,026	47
Advertising Expenses	\$7,159,853	\$3,620,283	88
Advertising as a Percent of Sales	3.61%	2.06%	94

Source: Analysis by the Legislative Auditor's Office

Appendix D: Agency Response



P.O. BOX 2067
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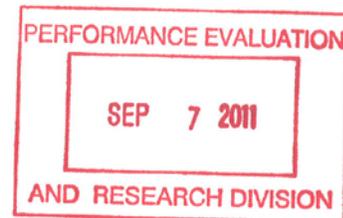
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Earl Ray Tomblin
Governor

John C. Musgrave
Director

September 6, 2011

Mr. John Sylvia, Director
Legislative Auditor's Office
Performance Evaluation and Research Division
Building 1, Room W314, State Capitol
Charleston, WV 25305



RE: West Virginia Lottery Response to Legislative Auditor's Final Report

Dear Mr. Sylvia,

Please accept this letter as an official response to the West Virginia Lottery's Legislative Auditor's Final Report dated August 26, 2011. We have reviewed the report in its entirety and concur with the advertising and financial recommendations. We are currently working to improve our contractual and cost agreement as it relates to advertising expenditures through a different cost structure.

I would also like to thank you for the acknowledgement of more than \$1.6 million reduction in advertising spending over the past two years as we have worked hard to implement cost-saving efforts in all aspects of our spending.

As it relates to financial recommendations, we have already started working on many of the recommendations made in the report and will continue to provide a more detailed breakdown of our costs through the development of a new cost allocation system. Upon completion of this system, we are confident that your recommendations will be implemented.

In closing, we would like to thank you and your staff for the research and time put into this audit in order to provide a more accurate reflection of the measures the Lottery has taken to be transparent, and provide the State of West Virginia with a very important source of revenue.

Sincerely,

A handwritten signature in black ink, appearing to read "John C. Musgrave".

John C. Musgrave
Director

www.wvlottery.com



WEST VIRGINIA LEGISLATIVE AUDITOR

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