

STATE OF WEST VIRGINIA

**Update of the
PRELIMINARY PERFORMANCE REVIEW OF THE
West Virginia Lottery**

**The West Virginia Lottery Has
Adequate Controls to Assure the
Payout Rate From Video Lottery
Games Is Within the Rate
Required by Statute**

**OFFICE OF LEGISLATIVE AUDITOR
Performance Evaluation and Research Division
Building 1, Room W-314
State Capitol Complex**

**CHARLESTON, WEST VIRGINIA 25305
(304) 347-4890**

December 2000

PE-00-33-191

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Performance Evaluation and Research Division

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December 2000

WEST VIRGINIA LEGISLATURE
Performance Evaluation and Research Division

Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610
(304) 347-4890
(304) 347-4939 FAX



John Sylvia
Director

December 3, 2000

The Honorable Edwin J. Bowman
State Senate
129 West Circle Drive
Weirton, West Virginia 26062

The Honorable Vicki V. Douglas
House of Delegates
Building 1, Room E-213
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0470

Dear Chairs:

Pursuant to the West Virginia Sunset Law, we are transmitting an *Update of the Preliminary Performance Review of the West Virginia Lottery*, which will be presented to the Joint Committee on Government Operations on Sunday, December 3, 2000. The issue covered herein is "*The West Virginia Lottery Has Adequate Controls to Assure the Payout Rate From Video Lottery Games Is Within the Rate Required by Statute.*"

We conducted an exit conference on November 21, 2000 with the Lottery Commission. We received the agency response on November 22, 2000.

Let me know if you have any questions.

Sincerely,

Handwritten signature of John Sylvia in cursive script.
John Sylvia

JS/wsc

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Review Objective, Scope and Methodology

The West Virginia Lottery was created on April 13, 1985 by passage of the state Lottery Act. Since its inception, it has contributed over \$638 million to the state funds. The director of the state lottery office is appointed by the Governor and *holds broad authority to administer the system in a manner which will provide the state with a highly efficient operation.* A seven member Lottery Commission is also appointed by the governor, with the advice and consent of the Senate. The Director and the Commission together provide oversight and management.

A Preliminary Performance Review of the West Virginia Lottery was presented to the Joint Committee in December 1997. That review compared the West Virginia Lottery's revenues with other states' lotteries. The report concluded that West Virginia Lottery revenues compare favorably with that of other states. The Legislative Auditor made no recommendations in the 1997 report.

This is a Further Inquiry Update, authorized and required by WVC §4-10-5a(2). WVC §4-10-11a requires the Joint Committee on Government Operations to conduct compliance monitoring and allows it to direct a further inquiry update of any agency scheduled for termination under article ten, section five-a of the Sunset Law. This further inquiry was conducted to determine if the Lottery has controls in place to assure that the payout rate for video lottery gaming at four West Virginia racetracks is within the range set by statute. The Legislative Auditor interviewed Lottery officials, conducted a site inspection of Lottery headquarters, including the secure computer center; and reviewed annual reports, meeting minutes, accounting procedures and financial documents. The time period of this further inquiry includes fiscal years 1999 and 2000.

Issue Area 1: The West Virginia Lottery Has Adequate Controls to Assure the Payout Rate From Video Lottery Games Is Within the Rate Required by Statute.

This further inquiry of the West Virginia Lottery Commission examines if video lottery games have a payout rate of 80% to 95% of the amount wagered as required by (WVC §29-22A-6(14)(c)(1)). In addition, the inquiry examines the Lottery's internal controls to determine if it can monitor the payout rates of video games. The findings of this report are that for the most part, **video games pay out at the appropriate rate, and monitoring controls are in place by which the Lottery can identify games that do not pay out at the appropriate rate.** Table 1 illustrates the payout rates for each race track for the last two years. The standard lottery industry theory behind offering a high payout rate is that the higher the payout rate, the more consumers will play. This has the potential to increase a facility's net profit. The Lottery has monitoring capability which allow it to address games that are significantly outside the required payout rate.

**Table 1
Video Lottery Payout Rates Per Track**

Racetrack	FY 1999			FY 2000		
	Amount Played	Amount Won	Payout Rate	Amount Played	Amount Won	Payout Rate
Mountaineer Park	1,007,104,067	924,967,767	92%	1,418,139,869	1,299,959,008	92%
Wheeling Downs	457,389,441	418,452,205	91%	635,354,688	581,051,816	91%
Tri-State Greyhound Park	295,732,542	272,427,600	92%	391,340,398	359,856,141	92%
Charles Town Races	565,260,175	519,078,733	92%	936,008,758	856,791,054	92%
Totals	2,325,486,225	2,134,926,305	92%	3,380,843,713	3,097,658,019	92%

The Legislature passed the Racetrack Video Lottery Act in 1994, making video lottery terminals available in the state's four racetracks, subject to the passage of local referendums. In 1994, three racetracks opened with 1,200 video lottery machines. The fourth racetrack began video gaming in 1997. As of 1999, there were 4,655 video lottery machines approved for play at the racetracks. Video lottery sales were 48.5% of the total 1999 sales.

Video lottery is a self-activated video version of lottery games. The keyboard operated games allow a player to place bets for the chance to be awarded credits which can either be redeemed for cash or replayed as additional bets. The coin operated games allow a player to use coins or tokens to place bets for the chance to receive either coin or token awards or replay. Whether the

player obtains credits for cash or receives coins or tokens, it is referred to as a “payout.” The payout rate is the total winnings of the game divided by the total money played. The Legislature determined the payout rate for video lottery games between eighty and ninety-five percent.

The Lottery Commission set the rate of payout between eighty and ninety-three percent. Payout rates average between 88 and 93 percent, except blackjack which the Commission has allowed to pay out as high as 95 percent. In order to increase the payout rate above 95% or decrease it to below 80%, legislation is required. The Lottery Commission may only adjust the payout rate, within the parameters set by statute, by a majority vote.

In order to determine whether payout rates are consistent with statute, the Legislative Auditor requested payout rate data from the Lottery for the 1999 and 2000 fiscal years. The agency provided general data by racetrack for the full fiscal years. As shown in Table 1, payout rates at each racetrack during this period were either 91 or 92%, falling within the rate as set by the Lottery Commission and the West Virginia Code. The total payout rate for the combined racetracks was 92% over the last two fiscal years.

Lottery Oversight of Payout Rates

The West Virginia Lottery’s oversight process of payout rates begins before the video lottery terminals are installed at the racetracks. Management at the individual racetracks select the games they wish to offer to the public. The machines are bought or leased from manufacturers who hold permits issued annually by the Lottery Commission. Currently, there are six manufacturers of video lottery machines approved by the Lottery Commission.

The manufacturer is responsible for programming the game chip or EPROM (Erasable Programmable Read Only Memory) to set the payout rate. The Lottery’s Security Division receives the EPROMs from the manufacturer. They are then tested by Gaming Laboratories International, Inc. (GLI) an independent contractor. GLI certifies that the EPROM will assure that the video lottery game will have a payout rate consistent with the statute over the life of the game. Under the supervision of lottery security, the approved chips are installed in 30 to 50 video lottery terminals for a seven-day test period. Only after successful completion of the test period are all of the remaining terminals connected.

If the Lottery Commission wants to change the payout rate of a game, the EPROM chip must be physically removed from the video terminal. A new chip would have to be placed in the game with the new payout rate. The payout rate is set solely by the game chip. A chip is only removed if it is determined to be defective or the track requests a new set of games. Only Lottery Security have the keys to access the part of the machine - the logic area - that houses the chip. See Appendix B for the Lottery’s complete EPROM change procedure. The Lottery is notified via its computer system when the logic area is accessed.

The Lottery is able to generate reports that show payout totals for each game operated at the four licensed racetracks by day, week or month. A sample from one of these reports is shown in

Appendix C. The Legislative Auditor requested a ten-month payout rate report from September 1, 1999 through June 30, 2000. These detailed reports show that the Lottery game machines, or individual terminals, are providing payout rates in the percentage range required by state law. The data show that some games fall below or above the 80 - 95% payout range. Of 292 game models, which are made by a specific manufacturer, seven or 2% fell out of the range. Two of the game models were below the statutory rate, and the remaining five were paying a higher payout rate than 95%. The following table shows the seven game model types and the number of terminals that were not paying game players within the statutory range.

Table 2
Game Models Not Within the Statutory 80 - 95% range
September 1, 1999 - June 30, 2000

Game Model	Number of Terminals with Game Model	Percentage Payout
Diamond Tens	4	71.44
Keno*	136	79.10
Cats N Dogs	7	97.81
Black Tie	1	95.50
Wild 5 Times Pay	10	96.61
Keno*	30	96.49
Dbl Blackjack	4	104.6
* Keno is listed two times because each model type is made by a different manufacturer and has a different credit denomination.		

The Legislative Auditor recognizes that the West Virginia Code states that the payout rate must fall within the statutory range **within the expected lifetime of the terminal**, which according to Lottery officials is approximately six or seven years. With the changeover to coin drop machines in 1999, many of the older machines were replaced before the estimated six-year life span. In addition, the game chip can be changed within a machine, thus a terminal could hypothetically last seven years, but have had the game chip changed several times. It is the Legislative Auditor's opinion that this two-year sample from fiscal years 1999 and 2000, along with the detailed ten month detailed data, are satisfactory evidence that video lottery games are paying out the required rates.

Conclusion

The West Virginia Lottery ensures the appropriate payout rate required by statute is achieved for video lottery games. The Lottery Commission also has adequate controls to monitor payout rates and identify games that are not paying out at an appropriate rate. Video lottery games are controlled by the EPROM computer game chip that is tested by GLI, an independent consultant who certifies that the game is in compliance with the appropriate payout rate. In addition, the Lottery has security measures in place which prevent access to the game chip area without assistance by Lottery security. Payout rate data provided by the West Virginia Lottery show a 92% payout rate from fiscal years 1999 and 2000. In addition, a detailed analysis of payout rates by game model type also shows that the individual game types are following the trend of falling within the required statutory rate.

APPENDIX A

Transmittal Letter to Agency

WEST VIRGINIA LEGISLATURE
Performance Evaluation and Research Division

Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610
(304) 347-4890
(304) 347-4939 FAX



John Sylvia
Director

November 17, 2000

Joe Palmer, Cabinet Secretary
Department of Tax and Revenue
Building 1, Room W-300
1900 Kanawha Boulevard, East
Charleston, WV 25305

Dear Mr. Palmer:

Attached is a draft copy of a Further Inquiry Review of the West Virginia Lottery which will be reported to the Joint Committee on Government Operations during the December 3, 2000 interim. We will contact you as to the time and location of the meeting as soon as we are notified. In addition, an exit conference is scheduled for 10 a.m. on Tuesday, November 21, 2000 to discuss the contents of the report with the Lottery Commission. A written response will be included in the final draft to be distributed to committee members. The Lottery Commission has agreed to deliver such response by noon on November 27, 2000.

Should you have any questions, please feel free to contact me. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "John Sylvia".

John Sylvia

Joint Committee on Government and Finance

APPENDIX B

Video Terminal EPROM Change Procedure

West Virginia Lottery Video Terminal EPROM Change Procedure

Security Division Procedures

Prior to Arriving at the Track

- Written approval of software is received from an independent testing lab, Gaming Laboratories, Inc.
- Security Division receives approved EPROM's from the manufacturer. Example: IGT, VLC, Autotote, etc.
- The approved EPROM's are tested for the correct signature using a Kobetron. The Kobetron is an instrument used to verify the signature of an EPROM. Gaming Laboratories, Inc provides the signature for the EPROM to the Security Division.

At the Track

Under the supervision of lottery security, the approved EPROM's are installed in 30-50 video lottery terminals at a designated racetrack for a 7-day test period (Policy Statement 97-01). After the test period, all of the remaining terminals will be completed.

- Lottery security will check with lottery computer room personnel to make sure they have obtained the proper reports and the terminals have been disabled.
- The main door on the video lottery terminal is opened and a audit door ticket from each terminal is obtained. This door ticket is stapled to the seal change form. The coins out terminals do not have door tickets.
- The terminal is powered down.
- Lottery security personnel will fill out the Machine Entry Log Books located inside the terminal.
- Lottery security personnel will cut the security seal attached to the logic area.
- Lottery Security personnel will unlock the logic board or door.
- The licensed technician will change the EPROM's on the logic board and clear chip (zero the soft meters) the terminal. The clear chip is controlled and maintained by lottery security personnel.
- Lottery security personnel will complete the seal change form.
- After the EPROM's are changed, lottery security personnel will close and lock the logic area.
- Lottery security personnel will attach security seal to the logic area.
- Lottery security personnel will notify the computer room personnel the chip change is complete. Computer room personnel will enable the terminal or terminals.

October 19, 1999

- Security personnel will verify the terminal is in gaming and appears to be functioning properly.
- The EPROM's, which were removed, are secured by lottery security and returned to the appropriate manufacturer.

Data Processing Procedures

- Upload EPROM signature into the central computer. Upload can occur from either the EPROM itself or a file on tape. EPROMs and/or tape will be shipped directly from GLI.
- Set up terminal configuration associated with the new EPROM into the appropriate central computer system database.
- Load EPROMs into test terminals located in the Lottery computer room.
- Bring terminals up and verify that signatures calculate to value received from GLI.
- Play games and verify that terminal is communicating and that financial data received by the central computer is correct.
- When notified by security personnel, terminals that will receive new EPROMs are disabled.
- Change records in the central system database to reflect the file associated with new EPROMs.
- After notified by security personnel that EPROMs have been changed, enable the terminals and verify that they are communicating with the central computer system.

October 19, 1999

APPENDIX C

Sample Video Lottery Performance Report

IGT SECURITY ACCOUNTING MANAGEMENT SYSTEM
 Performance Report by Manufacturer
 Business Days: 09/01/99 to 06/30/00

Report Date: 11/01/00
 Report Time: 15:32:29

Mfr # 000002 - International Game Technology

Model: Vision Slot-Coin

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 Page: 2

Game	VGM Count	Games Played	Games Won	Amount Played	Amount Won	Prog Contrib	Revenue	Net Ret	Pct Ret
Red, White Blue .50	2	157,277	14,860	163,014.00	147,261.00	0.00	15,753.00	7,876.50	90.34
Triple Bonanza .25	31	18,413,249	1,547,587	4,416,463.00	9,344,623.00	0.00	1,071,840.00	34,575.48	89.71
Dbl Dollars .25	12	7,664,549	672,405	4,203,500.50	3,795,794.00	0.00	407,706.50	33,975.54	90.30
Dbl Diamond .50	2	1,731,126	146,609	1,917,385.00	1,742,968.50	0.00	174,416.50	87,208.25	90.90
D Spin 5 T Pay .25	48	24,338,781	2,007,925	13,800,142.50	12,392,444.75	0.00	1,407,697.75	29,327.04	89.80
Wild Cherry .25	38	23,561,246	2,611,714	14,804,350.00	13,265,986.25	0.00	1,538,363.75	40,483.26	89.61
Cartoon W Cherry .25	4	4,833,821	578,721	2,797,994.00	2,512,823.25	0.00	285,170.75	71,292.69	89.81
Dbl Wild Cherry .25	20	9,526,723	924,499	5,417,430.00	4,863,875.00	0.00	553,555.00	27,677.75	89.78
Tri Dbl Diamond .25	19	11,435,660	854,435	6,677,681.25	6,032,546.75	0.00	645,134.50	33,954.45	90.34
Triple Double .50	6	3,741,287	256,128	4,184,377.50	3,793,368.00	0.00	391,009.50	65,168.25	90.66
Sizzling 7's .25	40	17,661,713	1,331,760	11,072,123.00	10,000,312.50	0.00	1,071,810.50	26,795.26	90.32
Black Tie .25	15	19,128,461	2,090,770	8,605,377.50	7,826,698.50	0.00	778,679.00	19,911.93	90.95
Wild Star .25	17	980,777	113,499	451,944.25	409,696.00	0.00	42,248.25	6,035.46	90.65
Blackjack .25	11	5,488,638	546,089	2,403,229.50	2,175,923.25	0.00	227,306.25	20,664.20	90.54
Dbl Black Tie .25	4	4,330,848	477,969	1,942,574.25	1,770,988.00	0.00	178,586.25	44,646.56	90.84
Triple Cash .25	43	23,092,820	2,513,731	13,315,453.00	11,980,648.50	0.00	1,334,804.50	31,041.97	89.98
Triple Dollars .25	25	12,731,035	1,020,312	7,413,618.25	6,664,170.50	0.00	749,447.75	29,977.81	89.89
Triple Diamond .25	45	17,331,879	1,219,416	9,760,385.75	8,799,293.70	0.00	961,092.05	21,357.60	89.82
Triple Dollars .50	4	3,452,931	266,934	3,905,991.00	3,504,621.00	0.00	402,370.00	26,824.33	89.92
Red White & Blue .25	49	22,824,478	2,123,748	13,041,243.25	11,725,851.25	0.00	1,314,392.00	26,824.33	89.92
Dbl Diamond .25	64	33,890,922	2,701,475	19,262,720.25	17,377,581.00	0.00	1,885,139.25	29,455.30	90.21
Dbl Diamond .50	11	6,670,472	541,380	7,193,969.50	6,450,720.50	0.00	743,249.00	67,568.09	89.67
5 Times Pay .25	73	40,567,400	3,608,904	21,894,348.25	21,475,503.00	0.00	2,418,845.25	33,134.87	89.88
Ten Times Pay .25	117	67,156,976	5,796,398	37,555,406.00	33,752,803.75	0.00	3,802,602.25	32,500.87	89.40
Ten Times Pay .50	11	5,394,006	479,649	5,961,832.00	5,329,966.50	0.00	631,865.50	57,442.32	89.87
Dbl Diam Deluxe .25	70	49,062,185	4,069,258	27,829,727.00	25,107,769.50	0.00	2,721,957.50	38,885.11	90.22
Dbl Diam Deluxe .50	10	4,034,812	342,816	4,351,284.50	3,921,708.50	0.00	429,576.00	42,957.60	90.13
Red White & Blue .25	26	16,091,144	1,440,049	18,341,342.00	16,558,402.25	0.00	1,782,939.75	68,574.61	90.28
Dbl Diamond .25	30	10,032,985	2,602,088	10,982,750.25	9,834,212.50	0.00	1,148,537.75	38,284.59	89.54
Dbl Diamond .50	27	17,574,018	1,883,871	11,709,925.50	10,483,993.75	0.00	1,225,931.75	45,404.88	89.53
Hot Peppers .25	3	3,196,806	363,463	2,037,611.75	1,811,764.50	0.00	225,847.25	75,282.42	88.92
Dbl Blackjack .25	10	8,032,012	919,261	4,606,137.50	4,141,705.75	0.00	464,431.75	46,443.18	89.92
Hot Peppers .50	12	7,626,932	673,314	4,226,269.75	3,821,355.00	0.00	404,914.75	69,123.50	88.69
Dbl Dollar .25	12	1,910,651	167,454	2,127,506.00	1,923,003.50	0.00	204,502.50	33,742.90	90.42
Haywire .25	24	11,135,703	968,461	7,152,311.50	6,077,230.25	0.00	1,075,081.25	44,795.05	84.97
Dbl Hearts .25	4	3,764,485	282,871	1,855,208.50	1,654,358.25	0.00	200,850.25	50,212.56	89.17
Hot Peppers .25	20	14,037,329	1,577,210	6,138,000.00	5,502,087.00	0.00	629,913.00	44,354.18	89.86
D Red White & Blue .25	14	14,059,233	1,642,490	6,204,655.50	5,575,297.00	0.00	629,358.50	30,629.86	90.48
Red White & Blue .50	14	5,251,897	480,273	4,503,513.50	4,074,695.50	0.00	428,818.00	69,762.50	91.09
5 Times Pay .25	8	7,231,138	648,851	4,260,567.50	5,702,867.50	0.00	558,100.00	61,924.55	91.62
Wild Star .25	20	9,462,872	907,288	16,271,941.00	14,908,090.00	0.00	1,363,851.00	63,192.89	92.70
Double Diamond 1.00	36	19,237,662	1,573,398	13,430,813.00	29,136,717.00	0.00	1,294,906.00	47,577.80	89.90
Triple Play .25	29	14,767,712	1,662,287	8,652,887.85	12,282,531.75	0.00	1,379,756.10	52,969.57	89.58
Triple Diamond .25	23	12,207,880	2,861,559	11,695,333.05	10,477,033.05	0.00	1,218,300.00	26,533.45	90.19
Black Tie .25	38	17,769,272	1,991,516	10,272,815.50	9,264,544.25	0.00	1,008,271.25	29,439.00	90.31
4th of July .25	11	7,450,428	628,755	3,309,082.00	2,988,553.00	0.00	320,529.00	29,439.00	90.31

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Report Date: 11/01/00
 Report Time: 15:32:29

IGT SECURITY ACCOUNTING MANAGEMENT SYSTEM
 Performance Report by Manufacturer
 Business Days: 09/01/99 to 06/30/00

aperform
 Page: 3

Mfr # 000002 - International Game Technology Model: Vision Slot-Coin

Game	VGM Count	Games Played	Games Won	Amount Played	Amount Won	Prog Contrib	Net Revenue	Pct Ret	Net/VGM
Spin Til You Win	.25	2	1,878,528	831,787.50	736,793.25	0.00	84,994.25	89.66	42,497.13
Wild Cherry	.25	27	16,874,142	9,527,235.00	8,566,139.25	0.00	963,095.75	89.91	35,596.14
Wild Star	.25	15	5,647,287	3,447,815.75	2,828,497.75	0.00	319,318.00	89.86	21,287.87
Lucky Sevens	.25	31	15,343,319	8,733,551.50	7,865,036.00	0.00	869,515.50	90.06	28,016.63
Satellite	.25	17	8,607,480	3,767,612.75	3,393,542.50	0.00	384,070.25	89.81	22,592.37
Double Jackpot	.50	2	1,226,766	1,218,261.50	1,695,845.50	0.00	222,416.50	88.41	111,208.25
Ten Times Pay	1.00	66	33,020,435	55,884,792.00	51,360,573.00	0.00	4,524,219.00	91.90	68,548.77
Sizzling 7's	1.00	16	10,704,435	19,746,950.00	18,215,936.00	0.00	1,531,014.00	92.25	42,528.17
Double Dollar	1.00	13	3,082,305	4,967,517.00	4,593,675.00	0.00	383,842.00	92.27	29,526.31
D \$ Style D Jp	1.00	2	745,323	1,218,170.00	1,117,402.00	0.00	100,768.00	91.73	50,384.00
Triple Jackpot	1.00	20	5,821,365	9,354,079.00	8,659,696.00	0.00	694,383.00	92.58	34,719.15
Triple Diamond	1.00	54	19,857,007	32,794,727.00	30,488,014.00	0.00	2,306,713.00	92.97	42,716.91
Triple Dollars	1.00	36	12,815,674	21,106,615.00	19,497,169.00	0.00	1,609,446.00	92.32	44,706.83
Hot Peppers	1.00	30	9,442,139	15,938,849.00	14,699,390.00	0.00	1,239,459.00	92.22	41,315.30
Wild Cherry	1.00	44	18,685,666	30,390,809.25	28,113,858.00	0.00	2,236,951.25	92.53	50,839.80
Double Dollar	.25	10	4,900,399	3,229,226.75	2,897,494.25	0.00	333,732.50	89.73	33,173.25
D \$ Style D Jpot	.25	2	2,001,280	1,154,004.00	1,034,424.25	0.00	119,579.75	89.64	59,789.88
Wild Diamonds	.25	6	6,422,151	2,828,060.75	2,533,495.25	0.00	294,565.50	89.58	49,094.25
Triple Diamond	.50	12	5,298,165	4,114,628.75	3,705,432.50	0.00	409,196.25	90.06	34,099.69
Double Dollar	.50	6	2,070,397	1,746,457.50	1,557,621.00	0.00	188,836.50	89.19	31,472.75
Double Hearts	.25	14	7,480,218	3,504,820.75	3,174,499.75	0.00	370,321.00	89.43	37,032.10
T Triple Diamond	.25	20	10,439,463	5,842,675.75	5,279,119.00	0.00	563,556.75	90.35	28,177.84
T Diamond Deluxe	.25	11	9,190,051	4,011,946.75	3,619,060.50	0.00	392,886.25	90.21	35,716.93
Triple Cash	1.00	22	9,052,689	10,736,172.00	9,936,210.00	0.00	799,962.00	92.55	57,140.14
Black Cherry	1.00	14	6,544,064	720,450.00	651,968.00	0.00	68,482.00	90.49	3,241.00
Wild Star Delu	1.00	2	1,630,804	1,062,278	1,516,272.00	0.00	953,223.00	92.36	36,662.42
Sierra Silver	.25	26	7,496,175	729,768	4,113,693.50	0.00	478,239.25	89.59	36,787.63
Dbl Wild Cherr	1.00	13	8,016,061	642,062	4,591,932.75	0.00	729,734.25	90.00	45,608.39
4th of July	.25	13	12,689,368	1,078,688	7,997,623.75	0.00	310,253.00	92.33	39,704.64
Haywire	.25	16	10,230,056	1,920,685	1,703,613.00	0.00	1,310,253.00	89.80	67,165.88
Red White & Blu	1.00	33	2,649,569	2,478,193.75	2,225,530.25	0.00	252,663.50	89.90	47,099.67
Home Run	.50	9	7,182,370	4,196,336.25	3,772,439.25	0.00	423,897.00	89.90	47,099.67
Cats N Dogs	.25	20	8,111,704	3,362,567.00	12,274,556.00	0.00	1,439,198.25	91.86	54,400.55
Dbl Spin 5 T P	1.00	24	8,935,106	4,321,052.75	4,421,854.50	0.00	439,198.25	91.09	18,299.93
Triple Jackpot	4.25	6	1,683,267	1,864,492.50	1,717,050.50	0.00	147,442.00	92.09	24,573.67
Black Tie	.50	17	5,624,918	9,045,293.75	8,380,711.00	0.00	664,582.75	92.65	39,093.10
Dbl. Black Tie	1.00	10	2,515,087	4,204,572.00	3,890,495.00	0.00	314,077.00	92.53	31,407.70
D Red Wht Blue	1.00	9	1,833,622	3,091,936.00	2,890,660.00	0.00	241,276.00	92.20	26,808.44
Triple Play 1.1	.25	7	3,353,259	1,766,236.00	1,727,509.00	0.00	38,727.00	92.20	5,532.43
Cats N Dogs	.25	4	2,714,182	1,818,569.00	1,639,670.75	0.00	178,898.25	92.20	44,724.56
Home Run	.25	8	1,103,881	1,939,297.00	1,816,807.00	0.00	102,490.00	93.05	12,811.25
D Spin D Diamond	.50	31	14,912,544	24,391,638.00	22,886,320.00	0.00	1,502,318.00	89.09	54,687.68
5 Times Pay 1.1	1.00	13	3,215,049	5,211,143.00	4,842,628.00	0.00	368,515.00	92.93	28,347.31
Haywire	1.00	19	2,363,402	166,722	3,580,560.00	0.00	264,276.00	93.13	29,364.00
Double Hearts	1.00	9	2,569,300	2,640,533.25	2,338,539.50	0.00	271,993.75	89.58	38,856.25
Triple Jackpot	.25	7	4,569,300	1,623,678.50	1,436,466.00	0.00	173,212.50	89.37	43,303.13
Triple Diamond	.25	4	3,662,904	300,795	300,795	0.00	0.00	0.00	0.00

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APPENDIX D
Agency Response



P.O. BOX 2067
CHARLESTON, WV 25327

PHONE: 304-558-0500
FAX: 304-558-3321

Cecil H. Underwood
Governor

John C. Musgrave
Director

November 21, 2000

John Sylvia, Director
Performance Evaluation and Research Division
Office of the Legislative Auditor
Building 1, Room W-314
Charleston, West Virginia 25305

Subject: UPDATE OF THE PRELIMINARY PERFORMANCE REVIEW
OF THE WEST VIRGINIA LOTTERY

Dear Mr. Sylvia:

My staff and I have completed a review of your Division's draft Update document. We have met recently with Senior Research Analyst Denny Rhodes and Research Analyst Shannon Riley to discuss the draft. At the meeting, I told your staff that the West Virginia Lottery has no objections to the draft report as written. We believe it fairly represents the subject matter being studied by your Division.

Operating of a state lottery, especially one with video lottery games, is a very technology-intense enterprise. Your staff is to be commended for understanding the methodology and machine capabilities at an early stage of their review. I was especially pleased they appreciate that the statistical confidence levels of payout percentages increase with the number of games played and that games played 100,000 times or a million times are the truer indicators of an accurate payout percentage than are games that have been played only five-or-ten thousand times.

I hope that members of the Joint Committee on Government Operations agree with your report's conclusion that the Lottery properly monitors video lottery game payout percentages. I also hope that the members of the committee would sponsor a continuation bill to grant the West Virginia Lottery the maximum six years before our next sunset date.

Sincerely,

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

John C. Musgrave
Director

