



Lottery Sales Forecast Performance

Fiscal Year 2005

Office of Economic Analysis

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This report examines the performance of the June 2004 forecast for lottery game sales for fiscal year 2005¹. Table 1 presents average weekly sales and the average weekly difference between sales and the forecast, by game. The standard deviation of the weekly forecast errors is included to provide a sense of the volatility of weekly sales. Finally, the relative contribution of each game's average forecast error to the overall forecast error is presented.

Roughly half of the total forecast error is attributable to the set of traditional lottery products. Of these, Megabucks accounted for a large share of the forecast error with an average deviation of 61.2 percent². The reason for large errors in Megabucks is that sales are extremely sensitive to the size of the jackpot³, and the largest jackpot in the game's history was hit on November 15, 2004. Conversely, jackpots for Powerball were somewhat lower than normal, causing sales to fall 8.7 percent short of forecast on average.

While the forecasts for Scratch tickets and Keno sales were fairly close to actual sales in percentage terms compared to other games, the larger magnitude of these games results in sizable contributions to overall error. Scratch tickets and Keno accounted for 9.0 percent and 9.9 percent of total error, respectively. No other traditional game contributes more than a couple percentage points to the average overall forecast deviation.

Video sales exceeded forecast by an average 4.8 percent a week during fiscal year 2005. This accounts for nearly half of the \$1.0 million in unanticipated sales per week. Video sales growth in fiscal year 2005 was 9.1 percent, well above expectations. Some of the surge in video sales occurred in May and June as the Oregon State Lottery began adding slot games to video terminals. As of the June 2004 forecast, the addition of slot games had yet to be authorized by the Lottery Commission⁴ and thus were not accounted for in the forecast.

¹ Given that weekly sales are the basis for the forecast, the period in question is actually July 4, 2004 through July 2, 2005. The sales week used by the Oregon State Lottery for business purposes is Sunday to Saturday.

² In other words, on average for the 52 weeks in question, Megabucks sales exceeded the forecast by \$351,964, or 61.2 percent over the average weekly sales projection.

³ Since the pattern of jackpot levels – i.e., when the jackpot will be hit and the interval since the last hit – cannot be known in advance, the forecast is based on average jackpot and sales levels. Due to the probabilistic nature of the game, actual jackpot patterns will differ greatly from these assumption.

⁴ Revenues from slot games were included in the Governor's 2005-07 Balanced Budget. The Lottery Commission directed the Oregon State Lottery to implement slot games in its January 2005 meeting.

Table 1: Comparison of Actual Sales and June 2004 Forecast for FY 2005

	Average Weekly Sales	Weekly Error Rate¹	Percent	Standard Deviation¹	Contribution²
Instant Scratch-its	\$2,555,896	\$92,958	3.8%	\$182,686	9.0%
Breakopens	\$41,793	-\$2,230	-5.1%	\$17,825	-0.2%
Megabucks	\$926,963	\$351,964	61.2%	\$462,996	34.2%
Pick Four	\$26,633	\$5,399	25.4%	\$1,493	0.5%
Powerball	\$671,741	-\$63,665	-8.7%	\$396,271	-6.2%
Sports Action	\$352,904	\$22,200	11.4%	\$71,542	2.2%
Scoreboard	\$24,931	-\$2,266	-10.3%	\$14,672	-0.2%
Win For Life	\$106,857	\$10,345	10.7%	\$9,629	1.0%
Keno	\$2,343,354	\$101,381	4.5%	\$165,594	9.9%
Traditional Games	\$7,051,070	\$516,086	8.1%	\$970,266	50.2%
Video Poker	\$11,130,232	\$511,752	4.8%	\$580,114	49.8%
Total	\$18,181,302	\$1,027,838	18.5%	\$883,173	100.0%

1. Positive numbers denote actual sales in excess of the forecast.

2. Standard deviation of the weekly errors. Approximately 70% of the errors will be within one standard deviation of the average.

3. Share of the total weekly error average - \$1,422,326 - attributable to each game.

The Office of Economic Analysis (OEA) resides in the Director's Office of the Department of Administrative Services. OEA produces and publishes the Oregon Economic and Revenue Forecast on a quarterly basis.

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