NORTH CAROLINA GENERAL ASSEMBLY
Legislative Services Office

George R. Hall, Legislative Services Officer

Fiscal Research Division
300 N. Salisbury Street, Suite 619
Raleigh, NC 27603-5925
Tel. 919-733-4910 Fax 919-715-3589

Mark Trogdon, Director

June 20, 2014

MEMORANDUM

TO: Rep. Paul Stam

FROM: Barry Boardman, Ph.D.
Fiscal Research Division

SUBJECT: Proposed policy changes to advertising by the North Carolina Education Lottery

There have been a couple of proposed policy changes considered by the General Assembly that would impact the way the North Carolina Education Lottery (NCEL) can advertise their products. The first policy change would allow NCEL to expand the amount spent on advertising. Currently, advertising is restricted to no more than one percent of total sales. For this memorandum, we examine the potential increase in education funds to the State when advertising increases to two percent of sales.

The second policy change would amend G.S. 18C-114 by requiring the North Carolina State Lottery Commission to ensure that (1) advertising that displays a total amount of payments to be paid over a period of time must also indicate the present value[1] of the lump sum prize mount in current dollars, (2) advertising that states probability of winning a prize cannot omit the value of the lowest prize to be won, (3) advertising that states the odds of winning must at least disclose the odds of winning the prize with the largest value, and (4) no advertising or sponsorship can take place in connection with any high school or collegiate sport or sporting event.

Increase in Advertising Spending – No Restrictions

Fiscal Research, in order to estimate the effect of expanding lottery advertising, reviewed several research reports[2] that attempted to measure this effect. These reports concluded that advertising would increase sales, but varied in the amount of increase that could be expected.

[1] Present Value – the current capital value of a future income or outlay or a series of such incomes or outlays. It is computed by the process of discounting at a predetermined rate of interest. Source: *Dictionary.com*

[2] The two most recent reports are the "Impact of Advertising on Lottery sales in the State of Texas" prepared for the Texas Lottery Commission by the Dr. Ramkumar Janakiraman, Texas A&M University, March 2014; and the report "Lottery Jackpots, Retailer Density, and Advertising Drive Transfers to Education" by the Office of Program Policy Analysis & Government Accountability (Florida), January 2010, Report No, 10-17.

A recent Texas study found that an increase in advertising spending of 30% (approximately equal to an increase in advertising of 1.25% of sales) would return $5.40 in lottery funds per dollar increase in advertising spending. A Florida study on the other hand concluded that the return would only be an estimated $1.57 in lottery funds per dollar increase in advertising spending. The authors of the Florida study noted that "the three years we examined [2006-2009] include the worst economic downturn in recent Florida history, our return on investment may understate future returns on advertising spending."

FRD took the results of these studies and estimated returns on advertising spending for the State. Two considerations helped inform our estimates: economic uncertainty warrants caution given the Florida results; and, for each additional dollar of advertising there is a diminishing return on the spending. We looked at three scenarios where advertising would increase by 1.25 percent, 1.5 percent, and 2 percent. The increases represent a 25, 50, and 100 percent increase in lottery advertising spending. Table 1 shows the potential impact on the net lottery funds returned to the State from increasing lottery advertising.

Table 1: Return on Increase Advertising Spending

Increase in Advertising	No change	1.25%	1.50%	2.00%
Return to State per Advertising Dollar Increase	N/A	$4.25	$3.80	$2.95
Additional Lottery Funds		20,187,500	36,100,000	56,500,000
Net Return to the State[3]	$520,615,000	$540,802,500	$556,715,000	$577,115,000

Proposed Restrictions on Advertising

Senate bill 744v7, in Section 5.2 proposed placing restrictions on advertising by the lottery. The lottery Commission released to FRD an estimate of what the impacts might be from those restrictions. Two assumptions the Commission made that influence the impact of these restrictions are: the cost associated with implementing the changes to advertising will supplant advertising expenditures; and, the impact of supplanting advertising is $6.03 loss in lottery funds per dollar of restricted advertising. Table 2 summarizes the reduction in education funds based on the Commission's

Table 2: Proposed Advertising Restrictions – NCEL estimates

Change in Advertising	Change in Education Funds
Retail Signage	($16,884,000)
Retrofit Billboards	($3,570,966)
Sales Lost to Dual Number Boards	($15,192,716)
Collegiate Advertising	($11,155,500)
TOTAL	**($46,803,182)**

[3] Starting point for net returns to the State based on the June 2014 consensus forecast.

FRD reviewed these assumptions and determined that an equally valid set of assumptions will lower the reduction in education funds as estimated by NCEL. For one, rather than supplant advertising, the Commission could validly choose to increase their administrative cost. This would still reduce the net return to the State, but by a smaller amount. Therefore, restrictions on Retail Signage and Retrofit Billboards would represent one-time administrative cost, and are non-recurring advertising restrictions.

We also think that the assumption that there will be a $6.03 loss in lottery funds per dollar of restricted advertising overstates the impact of restricted or reduced advertising spending. Using the same information that helped determine the effect of increasing advertising, we estimate the impact would be closer to a $4.25 loss in lottery funds per dollar of restricted advertising.

FRD reviewed the assumptions from the loss of sales due to "dual number boards', and find those assumptions to be reasonable. The key assumption is that these new billboards would lead to confusion and suppress sales. Whether the lottery chooses to post both the jackpot number and the net present value annuity amount on the billboard or only the annuity amount (which is all they are required to do), this would result in substantial confusion to consumers. Since, total lottery sales have proven to be sensitive to the size of advertised jackpots, the initial falloff in sales seems to be a reasonable assumption. This would represent a recurring restriction on advertising; however, we do think the negative impact on sales will be reduced over time as consumers become accustomed to the "dual number boards".

FRD agrees that eliminating NCEL's ability to buy local air time during college athletic events would reduce the exposure of lottery advertisements. It would be difficult to find similarly situated advertising slots that bring as many viewers as these events do. They can spend those same advertising dollars elsewhere, but they would be less effective in driving sales. NCEL estimates that the offset would be equivalent to reducing advertising by $1.85 million. This seems to be a reasonable estimate, but we have not been able to verify this impact with outside advertising consultants or reports. This would represent a recurring restriction on advertising.

Table 3 presents summarizes FRD's estimates from the proposed restriction to advertising as enumerated in Senate bill 744v7. The table assumes the Commission increases administrative cost rather than cuts advertising, and where college sports advertising are restricted, the impact is a loss of $4.25 in lottery funds per dollar of restricted advertising.

Table 3: Proposed Advertising Restrictions – FRD estimates

Change in Advertising	**Change in Education Funds**
Retail Signs	($2,800,000)
Retrofit Billboards	($592,200)
Sales Lost to Dual Number Boards	($15,193,000)
Collegiate Advertising	($8,325,000)
TOTAL	**($26,910,200)**

As a final note, the proposed restrictions on advertising inSB744v7 Sec. 5.2 makes no allowance for practical, operational timelines to implement these changes. Presumably, many of the advertising changes would require considerable time to implement such as removing old signage, ordering and replacing new signage, developing and implementing a means to present annuity values on jackpots, and placing the hardware on billboards necessary to have “dual number boards”. As such the estimates in Table 2 and Table 3 do not represent fiscal impacts for the upcoming fiscal year. Additionally**,** the bill directs the Lottery Commission to display the present value of any lottery prizes that are paid to the winner over time. As the language is currently read, the Lottery Commission would be responsible for determining assumptions to use for present value analysis of the prizes. This primarily would include determining the discount rate and the time period.