

Gambling Revenues

A Working Paper
Prepared as Support for
“Can New York Get an A
in School Finance Reform?”
A Report by
the Citizens Budget
Commission
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FOREWORD

Founded in 1932, the Citizens Budget Commission (CBC) is a nonprofit, nonpartisan civic organization devoted to influencing constructive change in the finances and services of New York State and New York City governments.

This Working Paper was prepared under the auspices of CBC's Education Finance Committee, which we co-chair. The other members of the Committee are: Paul R. Alter, Richard H. Bagger, Stephen Berger, Deborah A. Buresh, Lawrence B. Bittenwieser, Evan A. Davis, Stephen F. DeGroat, Kenneth D. Gibbs, Bud H. Gibbs, H. Dale Hemmerdinger, Bill Lambert, James L. Lipscomb, Stanley Litow, Robinson Markel, Joel H. Moser, David I. Moskowitz, Lester Pollack, Hector P. Prud'homme, Alfredo S. Quintero, Edward L. Sadowsky, William G. Salter, and Howard Wilson.

The CBC created this ad hoc Committee in the wake of the 2003 New York State Court of Appeals decision in the Campaign for Fiscal equity case. Initially, we believed that the scope of the Committee's work would be confined to helping public officials identify the most economically effective sources of revenue to fund the Court's decision. However, as the Committee explored the issues, and as the Governor and State Legislature failed to reach an agreement on the amount required, we broadened the scope of our work. The Committee recognized that in order for the goal of the Court's ruling to be achieved - for students to obtain a sound basic education - changes were needed beyond the allocation of more money.

The Committee prepared its final report, *Can New York Get An "A" In School Finance Reform*, with two goals in mind. The first is to provide the responsible public officials – judges, legislators and others – with sound advice on how to craft a remedy that will be effective and efficient. But the CBC also recognizes that shaping policy affecting so many lives, and costing so many billions of dollars, should involve an informed citizenry who support the eventual outcome. Accordingly, the CBC seeks also to use the Committee's final report, and a companion conference scheduled for December 2-3, 2004, to stimulate informed debate about the options available to New Yorkers for providing their children a sound basic education.

In order to prepare the final report, the Committee met nine times between January and November of 2004. Its meetings were focused on research conducted by the staff and expert consultants. This background research has been organized into six working papers, of which this is one. This working paper was prepared by Marcia Van Wagner, Deputy Research Director and Chief Economist at the Citizens Budget Commission, and Dwight Denison, Associate Professor at New York University's Robert F. Wagner Graduate School of Public Service. All six working papers and the final report are available at the Commission's website, www.cbcny.org.

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GAMBLING REVENUES

In the fiscal year 2005 Executive Budget, Governor George Pataki proposed to dedicate receipts from video lottery terminals to finance sound basic education initiatives. The Executive Budget projects receipts of \$204 million in fiscal year 2005, growing to \$2 billion annually in five years. The proposed eventual \$2 billion annually is in addition to approximately \$1.9 billion annually the State already collects from other types of gambling.

The proposal raises two questions:

- Can gambling activities realistically be expected to yield an additional \$2 billion or more in State revenues in coming years?
- If gambling *can* yield substantial additional revenues, *should* this source be given priority as a way to raise money for education?

Current New York State Gambling Spending and Receipts

The opportunities for legal gambling in New York State are the New York State Lottery, betting on horse races at tracks and through betting parlors operated by a public benefit corporation known as the Off Track Betting Corporation (OTB), and American Indian casinos currently located in Northern and Western New York. New Yorkers also travel to other states to gamble: to American Indian reservation casinos in Connecticut, to commercial casinos in Atlantic City, and to Las Vegas, among others.

In 2003, lottery ticket sales were \$5.4 billion, while the “handle”—pooled wagers from racetrack and OTB wagering—was about \$2.7 billion.¹ In addition, New Yorkers spend an estimated \$700 million gambling at casinos in and out of state.² Thus, spending on legal gambling in New York State combined with casino gambling by New Yorkers is about \$9 billion annually.

Racing receipts

The State derives revenues from its residents’ gambling in different ways. It has taxed pari-mutuel wagering since 1940, and currently collects revenues from regulatory fees and tax rates that vary depending on types of races. The horses also generate revenue through OTB parlors, whose commissions are taxed.

As shown in Table 1, revenue from both track wagering and OTB combined declined from \$87 million in 1990 to \$28 million in 2003. The decline of pari-mutuel revenues is generally attributed to a reduced “handle” caused by competition from the wider availability of

¹ New York Lottery, *Financial Summary: Statements of Revenues and Expenses, Years ended March 31 2003 and 2002*, <http://www.nylottery.org/ny/nyStore/cgi-bin/ProdSubEV_Cat_333663_NavRoot_304.htm>; State of New York Division of the Budget, New York State 2004-05 Executive Budget, Appendix II; CBC calculations.

² Harrah’s Entertainment, Inc., *Profile of the American Casino Gambler Harrah’s Survey 2003*, <http://www.harrah.com/about_us/survey/030948_Survey.pdf>; CBC calculations.

other gambling activities. The State has responded by reducing taxes on wagering in an effort to stimulate the industry. Declining pari-mutuel betting has been experienced by other states as well. Attempts to revive the industry typically involve coupling racetracks with other gaming opportunities, such as video lottery terminals. This will be discussed further below.

Table 1

Gambling Revenues, State of New York, Fiscal Years 1990 - 2003 (dollars in millions)

<u>Fiscal Year</u>	<u>Pari-Mutuel Taxes and Fees</u>	<u>Off-Track Betting</u>	<u>Lottery Receipts</u>	<u>Total</u>
1990	\$ 51,240,392	\$ 35,872,504	\$ 940,012,000	\$ 1,027,124,896
1991	52,169,497	35,320,067	844,058,000	931,547,564
1992	50,034,696	34,710,859	961,000,000	1,045,745,555
1993	46,665,065 *	32,488,731	1,054,000,000	1,133,153,796
1994	43,672,756	30,832,507	1,161,850,000	1,236,355,263
1995	39,441,649	24,931,090	1,441,300,000	1,505,672,739
1996	27,149,313	25,426,667	1,533,200,000	1,585,775,980
1997	23,463,470	25,493,000	1,533,900,000	1,582,856,470
1998	22,381,265	24,306,669	1,442,400,000	1,489,087,934
1999	21,323,912	23,000,263	1,345,000,000	1,389,324,175
2000	19,842,096	24,356,609	1,393,000,000	1,437,198,705
2001	16,809,667	20,621,340	1,561,500,000	1,598,931,007
2002	13,523,999	24,509,973	1,826,200,000	1,864,233,972
2003	13,579,232	24,543,658	1,835,100,000	1,873,222,890

*Adjusted for \$47.9 million land sale

Sources: Pari-Mutuel and OTB receipts are from New York State Department of Taxation and Finance; Lottery receipts are estimates from New York State Executive Budget, Appendix II, annual editions

The lottery

The State authorized a lottery in 1966 with its revenue earmarked for education aid. Of the \$5.4 billion in lottery sales in 2003, about 57 percent was paid in prizes, 10 percent supported other operating expenses, and the remainder was transferred to the State for aid to education.³

Lottery receipts for education increased from about \$1.0 billion in 1990 to \$1.8 billion in 2003, but the growth was not steady. The games must be varied over time to maintain consumer interest. Ticket sales of older games tend to decline, and overall sales are bolstered by the introduction of new games. Since 2000, lottery receipts have grown more than 8 percent per year primarily because of the popularity of the relatively new “instant games” and New York’s participation in the multi-jurisdictional Mega Millions game. The success of these games is due in part to their relatively high payouts.

Casinos

Two additional sources of gambling revenues—video lottery terminals (VLTs) and revenues from American Indian casinos—are being developed. New York does not have a commercial casino industry because the State Constitution prohibits it. Past attempts to introduce a Constitutional Amendment to allow commercial gambling failed. There are American Indian-run casinos in New York State because federal law requires states, under certain circumstances,

³ New York Lottery, *op. cit.*

to allow American Indian tribes to sponsor gambling. States cannot tax the revenues from these facilities because American Indian tribes are sovereign nations. Furthermore, federal law limits the uses of net revenues from tribal gaming primarily to purposes pertaining to tribal welfare, although charitable contributions and funding of local government operations are allowed. Initial tribal-State gambling compacts negotiated in the wake of the passage of federal legislation in the late 1980s made no provision for revenues to flow to State or local government. Consequently, the existing American Indian casinos in New York do not provide the State with revenue, although in some cases tribes have funded some local government activities.

In addition to the American Indian casinos now in operation, tribes have been granted licenses or are seeking them for several more, including three in the Catskills. For new facilities, the State has granted exclusive slot machine franchises in exchange for a share of slot machine revenue. The revenue potential of this arrangement is still untested.

Video lottery terminals

In 2001, the State Legislature enacted legislation allowing the State Lottery Division to license VLTs at selected racetracks. VLTs are a video-based version of the traditional slot machine. In 2003, additional legislation set the disbursement of net machine income, which will total 8 percent of the total amount wagered, with the remainder going to prizes. Of that 8 percent, 10 percent is retained by the Lottery Division for administration, 29 percent is disbursed to racetracks (with specified amounts going to purses, commissions, etc), and 61 percent is earmarked for education. VLT facilities have begun operation in three locations, and two are under construction.

The legislation proposed by the Governor in 2004 would authorize eight additional VLT licenses in order to fund “sound basic education” initiatives. While these facilities would not be located at racetracks, the legislation limits the number of licenses that can be granted in Brooklyn, Staten Island, and Manhattan south of 59th Street to five, and stipulates that no facilities will be permitted in Westchester, Putnam, or Rockland counties or in any place within 15 miles of an existing racetrack VLT facility.

In the summer of 2004, the Appellate Division of the state Supreme Court struck down the 2004 VLT legislation because it dedicated some of the revenue to racetracks, while the State Constitution mandates that net proceeds from lottery games be dedicated to education. Furthermore, the State Legislature did not act on the Governor’s proposal to create additional VLT licenses. The Court decision is likely to be appealed by the Governor. Thus, there is uncertainty as to the status of VLTs in the State.

The Potential for Additional Gambling Revenues

Could the State significantly increase gambling revenues from existing or new sources? One way to assess the potential is to compare New York’s current gambling revenues with those in other states. As shown in Table 2, New York ranks 17th in gross revenue from gambling activity per \$1,000 of personal income, suggesting that there is potential for additional spending

on gambling in the state.⁴ This additional spending could come through increased spending on the lottery, casinos, or new types of gambling venues such as VLTs.

The lottery

Could New York generate additional revenues from its lottery? Although the state ranked 17th in total gambling revenues, lottery income per \$1,000 of personal income in New York State is 7th in the nation. The lottery income for four of the states with higher rankings is boosted considerably by the presence of VLTs. However, Massachusetts and Georgia outrank New York and do not have VLTs.

New York could seek the level of relative lottery revenues achieved in Massachusetts. If New York's lottery proceeds per \$1,000 of personal income were to mirror Massachusetts', the state would generate nearly double the current \$1.8 billion in revenues. The successful Massachusetts lottery games have a higher payout than most of New York's games. As a percent of sales, Massachusetts returns over 71 percent to customers in prizes, while New York returns about 61 percent on average.⁵ If New York's lottery netted \$4.49 per \$1,000 personal income at the Massachusetts average payout rate, lottery spending would have to reach \$12 billion per year, more than double current spending of \$5.7 billion.

Such a large increase in spending is possible, but would be difficult to achieve. For some games, increasing payouts may increase ticket sales enough to result in a net increase in revenues, but for others this may not be the case. The New York Lottery's instant games, which are relatively new, have a higher payout than older games and receipts have grown about 18 percent per year since fiscal year 2000. A concerted effort by the Lottery Division to introduce new games with high payout rates could move New York closer to Massachusetts in net income per \$1,000 personal income.

⁴ The data also include "amusement taxes," which can be applied to a number of entertainment venues in addition to casinos.

⁵ U.S. Census Bureau, 2002 Survey of Government Finances, March 2004, <<http://www.census.gov/govs/state/02lottery.html>> (April 29, 2004)

Table 2

Gambling Revenue by State, 2000

State	Revenue per \$1,000 Personal Income	Revenue per capita
United States	\$4.63	\$138.19
1 Rhode Island	\$24.40	\$712.88
2 Massachusetts	\$14.59	\$550.92
3 Oregon	\$13.95	\$392.05
4 Delaware	\$13.55	\$418.36
5 Nevada	\$11.53	\$350.82
6 Georgia	\$8.94	\$250.30
7 Connecticut	\$8.27	\$343.23
8 Ohio	\$6.78	\$191.14
9 Louisiana	\$6.60	\$152.38
10 West Virginia	\$6.59	\$144.41
11 Maryland	\$6.51	\$223.10
12 New Jersey	\$6.43	\$246.56
13 South Dakota	\$6.33	\$162.77
14 Kentucky	\$6.03	\$147.21
15 Indiana	\$5.95	\$161.37
16 Michigan	\$5.72	\$169.05
17 New York	\$5.06	\$176.45
18 New Hampshire	\$4.80	\$160.42
19 Florida	\$4.77	\$135.91
20 Illinois	\$4.70	\$151.22
21 Texas	\$4.54	\$128.45
22 Maine	\$4.46	\$115.87
23 Vermont	\$4.44	\$122.96
24 Virginia	\$4.44	\$138.07
25 Pennsylvania	\$4.43	\$131.46
26 Iowa	\$4.35	\$115.42
27 Missouri	\$4.31	\$117.37
28 Montana	\$3.38	\$77.49
29 New Mexico	\$3.25	\$71.92
30 Mississippi	\$2.96	\$62.14
31 Colorado	\$2.94	\$98.22
32 Idaho	\$2.78	\$66.94
33 Minnesota	\$2.75	\$87.97
34 Wisconsin	\$2.49	\$71.27
35 Kansas	\$2.43	\$67.22
36 Washington	\$2.42	\$76.97
37 California	\$2.23	\$72.50
38 Arizona	\$2.08	\$53.43
39 Nebraska	\$1.61	\$44.36
40 North Dakota	\$0.81	\$20.28
41 South Carolina	\$0.39	\$9.45
42 Oklahoma	\$0.14	\$3.47
43 Arkansas	\$0.12	\$2.61
44 Alaska	\$0.11	\$3.19
45 North Carolina	\$0.05	\$1.36
46 Alabama	\$0.04	\$0.90
47 Hawaii	-	-
48 Tennessee	-	-
49 Utah	-	-
50 Wyoming	-	-

Sources: U.S. Census Bureau, *Statistical Abstract of the United States 2003*, <<http://www.census.gov/prod/2004pubs/03statab/stlocgov.pdf>> (April 29, 2004); Personal Income and Population data from U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts, Annual State Personal Income, <<http://www.bea.gov/bea/regional/spi/>> (April 29, 2004).

VLTs

VLT facilities are conceived as similar to casinos - large venues with extensive amenities. Since there are few studies of VLT facilities, data generated from casino gambling is typically used as a proxy to understand their potential.

Data generated by the casino industry suggest that the proportion of New York State's population that gambles at casinos is below the national average, as is the number of trips to casinos that New York's gamblers make. Since proximity to gaming facilities is one determinant of whether people gamble, it is reasonable to assume that the number of New Yorkers who gamble and the frequency with which they gamble would increase with more gambling opportunities.⁶

The Governor anticipates that VLT operations will yield \$2 billion. Because there is no history of VLT gambling in New York, the projections are based on the experience of other states and other modes of gambling. The State Division of Budget has developed a model to forecast VLT revenues. While incorporating assumptions that are necessarily speculative because of the lack of historical or comparative data, the model is a reasonably sophisticated effort to capture the various factors influencing gambling activity. The Division of Budget projects that net income from VLTs will reach \$3.3 billion in 5 years. This revenue will not be drawn entirely from new spending however. Some of it will represent reduced spending elsewhere, especially on other gaming activities.

How much spending can one expect to be redirected from other activities? The most likely source of existing spending is other gaming activities. A study of potential revenues from VLT gambling in New York State by The Innovation Group estimated that about 40 percent of spending on VLTs in New York State could come from spending that currently occurs in neighboring states or at untaxed American Indian Casinos.⁷ If this is true, then about \$1.3 billion of the \$3.3 billion in VLT spending will come from these sources.

If there were no other source of redirected spending, then reaching the Governor's VLT spending target would require \$2 billion of new spending (an amount not currently being spent on any form of gambling) in five years. This is achievable, if increased availability of casino-like VLT gaming facilities increases the share of gambling New Yorkers to levels similar to states with many gaming opportunities, and leads them to gamble with more frequency. If New York's gambling participation rate rose from 26 percent (27th in the nation) to 40 percent (4th nationally, and similar to California, Arizona, and Connecticut) and the frequency of trips rose from 34th in the nation to 2nd, an average expenditure of \$50 per visit would yield \$2 billion in new spending, after netting out the spending redirected from other gambling.⁸

Another way to evaluate whether this increase in spending is reasonable is to examine general trends in gambling spending. New Yorkers currently spend a little less than \$9 billion per

⁶ Harrah's Entertainment, Inc., *Profile of the American Casino Gambler Harrah's Survey 2003*, <http://www.harrah.com/about_us/survey/030948_Survey.pdf>.

⁷ The Innovation Group, "Video Lottery Terminals at New York Race Tracks: An Economic Study," prepared for the Coalition to Preserve and Promote Horseracing and Breeding in New York State, June 2001.

⁸ Harrah's, op. cit; CBC estimates.

year on the State Lottery, pari-mutuel betting, and casinos. An increase of \$2 billion over 5 years would represent an increase of 23 percent, or more than 4 percent per year. Nationally, total spending on gaming (casinos, pari-mutuel wagering, and lotteries) has grown at an annual rate of 6.8 percent since 1998.⁹ If overall growth is similar in New York State, then the additional VLT spending is possible.

A third means of evaluating the potential for VLT revenue is to consider the lottery proceeds per \$1,000 of personal income in the states with VLTs that rank higher than New York on this measure. The four states (Delaware, West Virginia, Rhode Island, and South Dakota) average about \$7.90 in proceeds per \$1,000 personal income. This level of proceeds would represent a \$4 billion increase in New York's lottery revenues.

On a cautionary note, The Innovation Group projected much lower VLT revenues than the Division of the Budget, although over a different time horizon and with a somewhat different configuration of VLT terminals. In its 2001 study, gross income was estimated to reach about \$1.8 billion for a "mature" VLT industry in 2005, about half of DOB's estimate for 2010. The assumed level of activity in that study was higher than would be generated by the proposed legislation. The Innovation Group would therefore expect the revenues from the Governor's legislation to be lower than projected in their report.¹⁰ The study also documents the distribution of VLT income in other states, where it is more heavily tilted toward racetracks with less revenue to states. Proceeds to the state as a percent of net VLT revenue are 30 percent in West Virginia, 35 percent in Delaware, and 25 percent in New Mexico, compared to 61 percent for New York State in the Governor's proposal.

In this context, it should be noted that installing VLTs at racetracks is a strategy to revitalize the horseracing industry. Horseracing has suffered a decline nationwide as other gaming activities have become available. Because the attractiveness of attending horse races rests in part on potential winnings from gambling, attendance and on-track wagering have experienced a downward spiral. In New York State, taxes on pari-mutuel activity have been cut several times in attempts to spur more activity.¹¹ Several other states have used VLT or similar "racinos" to subsidize the purses and capital improvements at racetracks, and to raise their overall profitability.¹² Because of the cross-subsidy to racetracks, the amount available to the State from VLTs may be lower than if the VLT facilities were operated independently of racetracks. An independent VLT operator would be entitled to some percentage of the gross revenues, but perhaps not as much as would be offered to the racetrack owners under the VLT proposal.

Casinos

New York State will be hard-pressed to generate additional revenues from casino gambling beyond the potential revenues from its recent agreements with American Indian tribes. A Constitutional Amendment must be approved by two successive legislatures before being put

⁹ U.S. Department of Commerce, Bureau of Economic Analysis, Personal Consumption Expenditures series, underlying detail tables.

¹⁰ E-mail from Paul Girvan, Managing Director, The Innovation Group, April 17, 2004.

¹¹ State of New York, *New York State 2004-05 Executive Budget: Appendix II*, pp. 302-304.

¹² The use of VLTs to subsidize racetrack activities is extensively documented in the Innovation Group's report.

before the voters. In addition, if a Constitutional Amendment were to pass, it is likely that a number of constraints would be placed on the location and operation of casinos.

Even if the State were successful in establishing a commercial casino industry, revenues would not be likely to be substantial relative to the stated spending needs for education. In 2002, Nevada's gaming tax revenue totaled about \$720 million, while revenues in New Jersey, with the second-largest casino industry, just exceeded \$400 million. Nationally, tax revenues from casinos totaled \$4 billion in 2002.¹³

Summary

Aggressive management of New York's lottery games and expansion of VLT locations appear to have a significant revenue potential. Over five years, it seems feasible to raise between \$2 billion and \$3 billion annually by expanding gambling opportunities and taxing them heavily.

¹³ American Gaming Association, State Statistics, <http://www.americangaming.org/assets/files/state_statistics.pdf> accessed May 11, 2004.

The Desirability of Additional Gambling Revenue

While significant new revenue from gambling may be feasible, this does not necessarily make it good policy. Three important concerns have been raised about the desirability of relying more heavily on gambling revenues to finance education - the revenues may not be sustainable over the long run; the money would come disproportionately from low income residents creating, in effect, a highly regressive tax; expanded gambling activity will impose new social costs in the form of increased "problem" gambling.

Sustainability and competition

Three characteristics of gambling affect potential revenues. First, lottery participation dissipates with time.¹⁴ Lowering payouts and introducing new games is partly a response to this problem. Payouts clearly cannot be reduced indefinitely, so it will become more and more difficult to sustain the lottery revenue stream.

Second, different modes of gambling compete for customer dollars. For example, increased competition from other gaming services reduces lottery participation and revenue collections. The magnitude of the effect of competing games on lottery revenues varies from study to study and by state. Two studies of single states find that lottery sales or revenue declines by 2 percent to 4 percent for every 10 percent increase in spending at casinos.¹⁵ A multi-state study finds that a dollar increase on riverboat casinos reduces gross state lottery revenue by \$1.38.¹⁶ In addition, VLTs and lotteries reduce pari-mutuel wagering, although revenues from VLT and pari-mutuel wagering increased overall at a West Virginia racetrack compared to revenue from pari-mutuel betting alone.¹⁷ Not all gambling activities compete, however. One study found that while casinos compete with lottery instant games, they do not compete with traditional lotto.¹⁸ Nonetheless, efforts to increase gambling revenues through simultaneous increases in casinos, VLTs, and introduction of new lottery games could result in less incremental spending and revenue than one would initially expect.

¹⁴ John L. Mikesell, "The Effect of Maturity and Competition on State Lottery Markets," *Journal of Policy Analysis and Management*, vol. 6, no. 2, pp 251-253, 1987; Charles T. Clotfelter and Philip J. Cook, "Implicit Taxation in Lottery Finance," *National Tax Journal*, vol. 40 no. 4, pp. 533-546, 1987; John L. Mikesell and C. Kurt Zorn, "State Lottery Sales: Separating the Influence of Markets and Game Structure," *Growth and Change*, vol 18, pp 10-19, 1987; O. David Gulley and Frank A. Scott, Jr., "The Demand for Wagering on State-Operated Lotto Games," *National Tax Journal*, vol 46., no. 1, pp. 13-22, 1993.

¹⁵ Donald Siegel and Gary Anders, "The Impact of Indian Casinos on State Lotteries: A Case Study of Arizona," *Public Finance Review*, vol 29, no. 2, pp 139-147, 2001; Donald Steinnes, "Have Indian Casinos Diminished Other Gambling in Minnesota?" Mimeo, 1998, cited in Siegel and Anders, 2001.

¹⁶ Donald S. Elliott and John C. Navin, "Has Riverboat Gambling Reduced State Lottery Revenue?" *Public Finance Review*, vol 30, no 3, pp 235-247, 2002.

¹⁷ O. David Gulley and Frank A. Scott, Jr., "Lottery Effects on Pari-Mutuel Tax Revenues," *National Tax Journal*, vol 42, March, pp. 89-93, 1989; Richard Thalheimer, "Parimutuel Wagering and Video Gaming: A Racetrack Portfolio," *Applied Economics*, vol 30, pp 531-544, 1998.

¹⁸ R.A. McGowan, "Evaluating a state's gambling strategy: The relationship between lottery sales and casino gambling," in R. Tannenwald, ed., *Casino Development: How would casinos affect New England's Economy? Proceedings, Special Report No. 2*, pp. 91-104, Boston: Federal Reserve Bank of Boston, 1995.

Third, gambling competes with other spending that may also generate revenue for the State. Since household resources are fixed in the short run, and entertainment budgets are limited, a dollar spent wagering is likely a dollar not spent on another good or service.

These constraints will affect the amount of revenue available from additional gambling in New York State. This can be illustrated by considering their impacts on VLT revenue estimates. The Division of the Budget assumes a negative impact on lottery spending in the first three years of VLT operations, but no impact on lottery spending after that. The research suggests that negative impacts are more persistent than is assumed by DOB. Furthermore, to the extent that other spending is subject to sales tax, sales tax revenues will be reduced. If the entire \$2 billion in incremental gambling spending implied by the governor's VLT proposal would have been spent on other taxable goods and services, State sales tax revenues would be reduced by about \$80 million per year. Localities will also experience decreased sales tax collections. Therefore, increased State VLT revenues could be partially offset by about \$100 million in reduced collections from other State revenue sources plus losses in local sales tax revenue.

Regressive incidence

The incidence of gambling revenues can be analyzed in a manner analogous to the incidence of a tax. The amount paid is referred to as gambling "involvement" and is the absolute amount an individual wins or loses. This amount is a function of the frequency with which an individual gambles and the average amount won or lost each time the individual gambles.

A study in 2000 found that 37 percent of the general population gambled at a casino or track in the previous year. The same study estimated that such gambling "involvement" averaged \$1,253 per year among those gambling. Involvement varied by race: gambling involvement for blacks was nearly double (\$2,335) the national average.¹⁹ However, involvement varied little by economic status, with the exception of those at the very lowest and the very highest rungs of the ladder, whose involvement was about one-third less than the rest of the population.

Many studies have examined the incidence of state lotteries, but none specifically examine the incidence of the newer VLT revenues. A common finding is that lottery participation is greater among low income and minority populations in central cities.²⁰ The national 2000 study cited above found that 64 percent of the population participated in a lottery or keno game in the past year, with an average involvement among those participating of \$363 annually.

Estimating the incidence of gambling for New York State is difficult because of the lack of complete information, which would include for each income bracket the amount spent on each

¹⁹ The data on casino and track gambling participation are from table 3 of John W. Welte et al., "Gambling Participation in the U.S.—Results from a National Survey" *Journal of Gambling Studies*, vol 18 no 4, p 329, 2002.

²⁰ John L. Mikesell op. cit. 1987; Clotfelter and Cook op. cit. 1987, Mikesell and Zorn op cit 1987; Ross Rubenstein and Benjamin Scafidi, "Who Pays and Who Benefits? Examining the Distributional Consequences of the Georgia Lottery for Education," *National Tax Journal*, vol 55, June, pp 223-238, 2002; Harriet Stranahan and Mary O'Malley Borg, "Horizontal Equity Implications of the Lottery Tax," *National Tax Journal*, vol 51, March, pp. 71-82, 1998; Donald I. Price and Shawn Novak, "The Tax Incidence of Three Texas Lottery Games: Regressivity, Race, and Education," *National Tax Journal*, vol 2, December, pp 741-752, 1999.

type of gambling each year. However, based on unpublished data made available by the author of the 2000 study, estimates can be made with the aid of some plausible assumptions.

Table 3 presents estimates of the incidence of two types of gambling in New York State - lottery and casino. Data are not available to estimate the incidence of VLT gambling, but it likely falls between lotteries and casinos, particularly when the location of VLTs is restricted to casino-like settings.

The columns in Table 3 labeled “involvement” are the product of the frequency with which gamblers in that income bracket gambled in a year and the average amount won or lost on that type of gambling for all gamblers. For lottery gambling, the win/loss amount is based on the national average lottery win/loss. For casino gambling, the win/loss amount is based on the average win/loss for all gambling in the Mid-Atlantic region. The win/loss amount is assumed the same for all income brackets since the 2000 study showed that win/loss per visit varies little by income. Consequently, total annual involvement is driven largely by the number of times a person gambles.

For the lottery, involvement is lowest (\$175 annually) among those in the highest income group, and greatest (\$278) among those in the \$40,000 to \$70,000 income range. For casinos, involvement is lowest (\$29) among the lowest income group, more than four times greater (\$122) among the highest income group, and highest (\$140) among the \$25,000 to \$40,000 group.

The columns in Table 3 labeled “effective tax” should be viewed as a proxy for the taxes paid by gamblers relative to their incomes. Ideally, to calculate incidence we would have data on net gambling spending by income level, but that data is unavailable. Given that the likelihood of losing should be the same for gamblers in all income brackets, involvement provides the next best measure on which to base incidence. The effective tax rate is calculated as involvement divided by the top income in each bracket. Because involvement is the absolute value of both wins and losses, this rate does not demonstrate the percentage of income lost to gambling or the taxes levied on gambling, and should not be interpreted as such. Instead, this measure provides the basis for gauging the *relative* impact of gambling for each income bracket.

The columns labeled “incidence index,” measure the “effective tax” paid by gamblers in each income bracket divided by the effective tax for gamblers in the lowest bracket. An index that increases with income shows progressivity, while a decreasing index reflects regressivity. This measure tells us that the lottery is extremely regressive, with the effective tax rate for those in the lowest group nearly 18 times greater than for the highest group. Casino gambling is also generally regressive, with the effective tax rate for the lowest income group about four times that of the highest income group. For casino gambling, the effective tax rate is highest for the \$25,000 to \$40,000 group, for whom the tax rate is more than seven times that for the highest income group. Other evidence suggests that for those who live near casinos, lower-income gamblers spend even more on gambling as a percent of their income than do high-income gamblers.²¹

²¹ Paul Mason, Stephen Shapiro and Mary Borg, “Gaming Tax Incidence for Three Groups of Las Vegas Gamblers,” *Applied Economics*, vol. 21, no. 9, September 1989, pp. 1267-1277.

Table 3

Incidence of Lottery and Casino Gambling in New York State

Family Income	Lottery			Casinos		
	Average Involvement	Effective Tax*	Incidence Index	Average Involvement	Effective Tax*	Incidence Index
\$0-15,000	\$188	1.25	1.00	\$29	0.19	1.00
\$15,000-25,000	\$272	1.09	0.87	\$68	0.27	1.43
\$25,000-\$40,000	\$255	0.64	0.51	\$140	0.35	1.83
\$40,000-\$70,000	\$278	0.40	0.32	\$94	0.13	0.70
\$70,000-\$100,000	\$262	0.26	0.21	\$122	0.12	0.64
\$100,000-\$150,000	\$177	0.12	0.09	\$97	0.06	0.34
\$150,000 +	\$175	0.07	0.06	\$122	0.05	0.26
Average Incidence			0.44			0.88

Source: Published and unpublished data from John W Welte, Grace M. Barnes, William F. Wiecaorek, Marie-Cecile Tidwell, and John Parker, "Gambling Participation in the U.S.--Results from a National Survey," *Journal of Gambling Studies*, Vol., 18, No. 4, Winter 2002, pp 313-337; CBC estimates based on national average lottery win/loss figures and mid-Atlantic win/loss for all gambling. * - Effective tax calculation based on upper income in the bracket and 250,000 in the top bracket.

Social Costs

Expanding the opportunities for gambling is likely to increase the number of New Yorkers who become pathological or “problem” gamblers. These conditions will impose social costs on others and should be a policy concern.

The vast majority of participants gamble for entertainment and to “win.” However, some gamble excessively “because they are inexorably motivated to find relief from boredom, to dissociate and to escape from negative life circumstances, or to modulate negative mood states.”²² The American Psychiatric Association classifies pathological gambling as an impulse control disorder that is diagnosed on three dimensions: damage or disruption, loss of control, and dependence. Level I diagnosis is the severe form of pathological gambling in which the person engages in destructive behaviors to the community, family, and self. Level II or “problem gambling” does not meet the enumerated criteria for Level I, but exhibits the same range of adverse consequences.²³

The range of destructive behaviors associated with problem gambling includes crime, absenteeism, job loss, bankruptcy, suicide, substance abuse, spousal abuse, and family dissolution. Furthermore, pathological gamblers are more likely to suffer health problems. Several studies estimate that 2 to 7 percent of the population could be classified as “lifetime” problem or pathological gamblers, but the most comprehensive study, commissioned by the National Gambling Impact Study Commission (NGISC), estimates that portion at less than 3 percent.²⁴ In any given year, the portion of the population exhibiting problem or pathological

²² Blaszczynski, Alex. Pathways to Pathological Gambling: Identifying Typologies. <http://www.camh.net/egambling/issue1/feature/> [6/23/2002 11:42:11]

²³ National Research Council, *Pathological Gambling: A Critical Review*, Washington, D.C.: National Academy Press, 1999, Chapter 2.

²⁴ National Gambling Impact Study Commission Report pg 4-5 <http://govinfo.library.unt.edu/ngisc/reports/fullrpt.html>.

gambling behavior totals about 1.3 percent. The NGISC also reports that about 8 percent of the general population is at risk of becoming problem or pathological gamblers. Furthermore, nearly 18 percent of the gambling population is estimated to be at-risk for developing severe gambling disorders. Nevertheless, not every at-risk gambler will develop a gambling disorder and may even gamble recreationally throughout his life without developing a serious gambling problem.

A study in New York State in 1996 identified 2.2 percent of the respondents as current problem gamblers and 1.4 percent as current pathological gamblers.²⁵ These are higher than one would expect based on the national findings. However, the prevalence of problem and pathological gambling is found to double within 50 miles of gambling venues such as casinos and horseracing tracks.²⁶ Since a large portion of New York's population lives within the proximity of Atlantic City or horseracing tracks, these numbers may not be far out of line with those expected from research findings.

A number of studies have attempted to quantify the costs imposed on society by increased crime, lost productivity, higher unemployment, illness, increased use of social services, and other negative outcomes associated with gambling. Combining results from nine studies provided an estimate of the annual cost to society of a problem gambler as \$2,945 and of a pathological gambler as \$10,330.²⁷ One-third of the costs related to pathological gambling stem from crime. It should be noted that not all these social costs are paid by State expenditures; most are borne privately by families and firms.

What is the existing social cost of gambling in New York State? Assuming that problem and pathological gambling in New York State as a whole mirrors the national prevalence rates (rather than the higher rates found in the 1996 study), the social costs of gambling are \$1.1 billion per year.

When gambling already exists in a region, what does the addition of gambling venues do to the prevalence of problem and pathological gambling? There is not enough clear evidence to provide a definitive answer to this question. However, a study in Iowa is suggestive. Iowa allowed dog racing and horseracing before allowing casino gambling. To gauge the impact of the introduction of casinos, the state sponsored a study measuring the change in pathological and problem gambling. The study found that the prevalence of each roughly doubled in a 6-year period.²⁸ It is difficult to gauge the comparability of expanded gambling in Iowa with the proposed expansion in New York State, but it is safe to conclude that social costs would rise with expanded gambling opportunities.

The negative social problems of gambling can be mitigated in part by implementing regulations that address the risk factors. Regulations in addition to controlling the location of the gambling venues may include:

²⁵ Rachel Volberg, *Gambling and Problem Gambling in New York: A 10-year Replication Survey, 1986 to 1996*, Report to the New York Council on Problem Gambling, Roaring Spring, PA: Gemini Research.

²⁶ NGISC, op. cit. p. 4-4; Gerstein, et. al, *Gambling Impact and Behavior Study: Report to the National Gambling Impact Study Commission*, National Opinion Research Center at the University of Chicago, April 1, 1999, p. 28.

²⁷ Earl L. Grinols, *Gambling in America: Costs and Benefits*, Cambridge, MA: Cambridge University Press, 2004.

²⁸ Rachel Volberg, *Gambling and Problem Gambling in Iowa: A Replication Study*, Report to the Iowa Department of Human Services, July 28, cited in Grinols, op. cit.

- Age restrictions for participation
- Exclusion of individuals from gambling venues
- Limitation on the dollar amount of bills that machines will accept
- Pay out winnings over a certain amount by check
- Limitations on the number, location, and maximum withdrawals of ATMs.

Conclusion

While ample demand for gambling suggests that expanded gambling in the state could raise a significant amount of revenue, other aspects of gambling make it problematic. First, the long-run sustainability of gambling revenues is questionable, especially given the proliferation of gambling venues regionally and nationally. In the case of VLTs, whose revenues the Governor is proposing to earmark for education purposes, revenue projections rest on a number of assumptions that may not in fact materialize, suggesting that at best VLTs could be a source of only partial funding for education initiatives.

Second, the incidence of gambling is regressive. The extent to which this is so varies by type of gambling. Casino gambling is less regressive than the lottery; VLTs likely are more regressive than casinos, but less regressive than the lottery.

Third, gambling carries with it social costs. Problem and pathological gambling increases as gambling opportunities are expanded. These increases bring higher crime rates, illness, and social pathology, all of which impose a cost on society. These costs already reach \$1.1 billion per year in New York State. They could rise with expanded VLT and casino gambling opportunities, although regulatory actions can be taken to mitigate some social costs.