

Ends and Means in State Lotteries: The Importance of a Good Cause¹

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1. Introduction

Lottery gambling is a problematic activity: those opposed to gambling on moral grounds object to government sponsorship in this form; revenues raised from them have distributional patterns similar to regressive taxes; and, like other forms of widely available commercial gambling, they create economic and personal difficulties for the small portion of the population who are problem gamblers. Yet lotteries are nonetheless sponsored by 43 U.S. states and over 100 countries. The deal that typically has been struck in the U.S. is that the lottery revenue will be dedicated to good public causes. This virtuous end thus serves to justify the dubious means. Almost never are state lotteries seen as a public service. The closest that proponents might come to justifying lotteries in this way is the argument that people will gamble anyway, so government might as well take advantage of this predilection by making money on it.

It is striking how different is the government's accommodation to lotteries, as summarized in this deal, from the ways that government has dealt with other problematic activities. For example, the states that have monopolies over the distribution of liquor run that business primarily as a public service rather than as a revenue source. Another example is other forms of commercial gambling, where some states license certain operations and collect revenue without worrying too much about the virtuous uses to which such collections will be used. Still another set of problematic activities have

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generally not been legalized – among them, marijuana, prostitution, cockfighting – although states could raise money for good causes by legalizing and heavily taxing them.

What are the limits when it comes to public provision of “soft-core” vices?

It is second nature in the utilitarian realm of normative economics to think about tradeoffs, such as in these cases, between the costs associated with legalizing and perhaps operating problematic activities and the benefits to be derived from the revenue their taxation would make possible. This realm is a natural setting for debating the classic ends-versus-means question, given that it arises with such force in the particular context of problematic activities. In the case of lotteries, the ends-and-means tension extends beyond the question of legalization. Once a lottery is in place, the amount of revenue it generates depends largely on how it is marketed. Do the “ends” of more revenue justify aggressive or deceptive marketing efforts? Do they justify advertising that emphasizes the virtuous use of the funds (if indeed it can be honestly argued that the funds will be used in this way)? And why have the states – up to now – created lotteries as public agencies, rather than license one or more private providers? Would privatization ease the moral liability of the state government?

In this paper we seek to address these questions with particular attention to alternative theories of the public interest and proper role of government, with an eye toward historical precedents and current methods of lottery operation, including a close examination of the themes used in advertising campaigns. The next section of the paper provides background for viewing the operation of contemporary state lotteries, the third section examines how good causes influence the adoption and operation of state lotteries, and the final section concludes briefly.

2. Background

Arising out of the ashes of 19th century disrepute and universal prohibition, state lotteries reemerged in the last third of the 20th century to become an unremarkable fixture in the architecture of American state government. State lotteries made their 20th century debut in 1964, when New Hampshire introduced its game. The number of states with lotteries grew to seven by 1973, 38 by 1997, and 43 in 2007. Public acceptance, measured by successful referenda and growing sales, has increased as well. Per capita purchases of lottery tickets grew more than four-fold in inflation-adjusted dollars between 1973 and 2006, to \$184 (Clotfelter et al. 1999, Table 1; Table 1 below).

Table 1 about here

Although remarkable for its speed, this growth can be better judged when viewed in a longer historical lens and in the context of similar developments in other spheres and countries. In all of these applications one can discern two motivating forces behind the growth and a third pushing the other way. The first motivating force is the search for financial backing for civic needs (public goods in the terminology of economics) and other “good causes.” The second is the widespread impulse of people to gamble, which rather naturally leads to the realization that operating such games can be a remunerative undertaking. These two motivating forces for lotteries contend against a variable but ever-present base of opposition, often growing out of moral objections to gambling of all forms.

Before turning to a more formal consideration of the role of good causes in state lotteries, we briefly review the history and context of American lotteries. We draw

particular attention to the uses of lotteries in financing early public projects and contemporary charitable organizations, note two kinds of European lotteries, and present a brief overview of structural aspects and policy questions applying to today's state lotteries in the United States.

American Lotteries through the 19th Century

Lotteries came to America with its first European settlers. They became a fixture in the Colonial period, being used to finance such prominent projects as the Jamestown settlement, the Continental Army, and buildings at Harvard, Yale and Columbia. Lottery supporters counted among them such revered figures as Benjamin Franklin, George Washington and Thomas Jefferson. Before and after independence, state legislatures authorized lotteries for a host of projects, including bridges, wharfs, churches and schools, but the early decades of the 19th century saw the orientation of lotteries gradually shift from civic to commercial aims and then come under the influence of increasingly shady operators. This descent into disrepute reached its nadir with the infamous Louisiana Lottery, which combined questionable commercial practices with rampant political corruption. By 1894 no state permitted lotteries, and 35 states had explicit prohibitions in their constitutions against them. Congress banned all interstate lottery commerce in 1895.

But if we return to the more noble decades of lottery operation in our early history, we can observe the forces operating both for and against lotteries as a means of raising money. In the several decades before and after independence, it was typical for colonial or state legislatures to authorize a limited number of lotteries for capital projects while strictly forbidding all other lotteries. According to the most authoritative count, the

13 colonies authorized 164 different lotteries in the three decades between 1744 and 1774. Another 82 were authorized by states shortly after the Revolution, between 1782 and 1789 (Ezell 1960, Table 1, pp. 55-59; Table 4, pp. 71-72). Although it may seem jarring to today's sensibilities, it was quite common in the country's early years to have state legislatures authorizing lotteries to finance the building or repairing of churches and parsonages. Between 1727 and 1824, for example, almost half of all authorized lotteries in New Jersey were devoted to church projects.² These ecclesiastical construction projects represented the essence of the "good cause." How much so is admirably illustrated in the announcement of a lottery authorized by the New Jersey legislature in 1758 (as published in the *New-York Mercury*):

Whereas the Dutch and English of said Society, have laboured under great Difficulties, for want of a House to worship God in; and at Length have raised a Sum of Money by Way of Subscription; but is found insufficient for finishing said Church. It is therefore thought proper to raise the Sum of Fifteen Hundred Dollars, by Way of Lottery, for finishing said Church. It is therefore hoped that all Well-wishers for promoting the Gospel, will adventure largely, in order to forward said Building. The Lottery consists of 5,000 Tickets, at Two Dollars each; 1,234 of which are to be fortunate, and 15 per Cent. will be deducted from the Prizes after the Drawing is finished, for the Use above-mentioned." (Weiss p. 85, quoting the September 25, 1758 edition).

Consistent with the high-minded purposes of the project, the organizers had chosen as inspectors for the lottery justices from Somerset County, New Jersey, and as managers local reputable citizens (Weiss p. 86).

² Not all denominations benefited from lottery finance. In particular, the Quakers, who opposed all forms of gambling, did not use this funding method. Among church lotteries in New Jersey in the 18th and 19th centuries whose beneficiary could be determined, Episcopal and Presbyterian churches were most numerous, with none recorded for Quaker meetings. The distribution of church membership in 1765, however, showed Presbyterians, Quakers, and Episcopalians, in that order, as most numerous. Weiss p. 67.

A second example illustrates a more secular type of “good cause,” one less charitable than civic, but nonetheless one contributing clearly to the public good. This was one of the dozen lotteries authorized by the Connecticut legislature between 1775 and 1789, and the object was a structure still recognized today, the Long Wharf in New Haven. Owing to the advantageous features of its natural harbor, New Haven became a port of considerable importance in the late 18th century, but it needed a wharf to harness its natural advantages for commercial success. Beginning in the early 1700s the town of New Haven had funded the construction of a wharf in the harbor, and its upkeep and improvement was sustained through fees paid by shippers to the wharf’s commercial operators. By the 1760s, however, these arrangements were evidently insufficient to keep the wharf from deteriorating, so the owners appealed to the state legislature for the right to raise money through a lottery. In 1772 the legislature agreed, authorizing one or more lotteries, but setting four conditions: a minimum of 10% of sales to be used for the project, excess profits to be appropriated to Yale College, refunds in the event lottery sales could not sustain the promised prizes, and a short list of prominent citizens as approved lottery overseers (Dasgupta 2006).

These two examples illustrate two important aspects of early American lotteries. First, in an age of rudimentary capital markets and tiny tax bases, lotteries represented one of the few fiscal institutions capable of raising the kind of money required for large capital projects such as bridges, college buildings, and wharfs. Second, as signified by their authorization by state legislatures and the routine participation of prominent and respected citizens in their management, these lotteries were infused with civic

justification. The “good cause” was every bit as much at their core as the lack of alternative avenues of finance.

Two more aspects of these early lotteries are less obvious but equally ever-present: widespread popularity and concentrated opposition. Lotteries could not have been a viable means of finance without a fairly robust demand for this kind of gambling. Although some lotteries failed to meet their intended sales target, that may have been more because of the excessive proliferation of lotteries than any lack of demand (Dasgupta 2006). At the same time, lotteries inspired denunciation by a few religious traditions, most notably the Quakers. The moral objections to lotteries are well summarized in a letter to the editor of the *Connecticut Evangelical Magazine and Religious Intelligencer* in 1811. Besides being a waste of time, a diversion from worthwhile pursuits, and an inducement to covetousness, wrote the letter writer, they led to the exploitation of the uninformed common people by the rich and sophisticated. Yet this particular writer displays a very modern ethical orientation, and allows the ultimate desirability of the lottery to be based on a weighing of the benefits of the project against the costs of giving expression “to the corrupt propensities of the heart.” In a dictum worthy of a 21st century school of public policy, the writer concludes that lotteries may be justified when they enable beneficial, non-recurring expenditures:

The result of the whole is, that the legislature is justified in granting lotteries for the attainment of objects important to the welfare of church or state, not constantly occurring, and permanent in their effects, when the state of things will not suffer them to have recourse to better means (Priscus 1811, p.104).

Charity Raffles and Other Gambling

A second demonstration of the close connection between lotteries and good causes is the contemporary use of gambling to raise money for charitable organizations.

The use of raffles, bazaars, and bingo for fundraising by churches and other nonprofits is commonplace, uncontroversial, and legal in most U.S. states. State laws are typically written to provide an exception for charitable organizations in their laws otherwise forbidding nongovernmental lotteries and other games of chance (Tsai 2007). For example, Massachusetts law states, “No raffle or bazaar shall be promoted, operated or conducted by any person or organization, unless the same is sponsored and conducted exclusively by” a nonprofit organization. The law imposes the following extra conditions on the organization: it must have operated in the state for at least two years, the game must be operated exclusively by members of the organization, none of whom can receive remuneration by virtue of the game, and earnings from the game must be used exclusively for the organization’s charitable purposes. The state requires organizations to obtain permits for such games and to pay a 5% tax on gross proceeds (Massachusetts General Laws 2005). Similarly, North Carolina law states an explicit allowance for raffles operated by any recognized nonprofit organization, provided as in the case of Massachusetts that no one receives remuneration. In addition, the law limits organizations to two games a year, sets a maximum prize amount, and requires that 90% of the net revenues after prizes be used for the charitable purpose (North Carolina Laws 2007).

Albeit on a much smaller relative scale than were the lotteries of early America, this charitable use of lotteries shares a similar explanation to those early examples: a worthy cause and the absence of good alternative means of finance it. To be sure, churches and other nonprofits can solicit donations, but these forms of gambling have established themselves as secondary or tertiary sources of funding. To illustrate the

relative magnitudes in one state, charity raffles accounted for about \$20 million in ticket sales in Massachusetts in fiscal year 2005, or about \$3 per capita. This total was swamped by bingo and other forms of charity games, though, which was almost five times that amount. And both of these categories of charity gaming fade into insignificance when compared to the state's lottery sales of \$4.5 billion, or about \$700 per capita (Massachusetts State Lottery 2005).

It is worth noting that not all of what goes under the heading today of "charity" raffles appears to be intimately associated with an obvious charitable cause. A cursory Google search on "charity raffles" uncovers some drawings that are explicitly linked to charitable causes and organization and some for which any charitable link is obscure at best. In the first group was a raffle sponsored by the Child Life Activity Center for young patients in the Arizona Cancer Center and an on-line raffles sponsored by the American Cancer Fund and Paws4people. For other raffles, no charitable purpose could easily be discerned on the web page. A telling statistic based on one day's search revealed among the web addresses of the sponsoring organizations more ending in ".com" than ".org."³

European Lotteries

Lotteries have a long history in Europe and operate at the national level under the sponsorship of both charities and national governments. Under either authority, they feature good causes as a prominent part of their operation and public image. European lotteries make explicit appeal to the socially beneficial byproducts of their operation.

³ Google search on "charity raffles," August 17, 2007. In the first five pages of hits, there were 25 addresses ending in .com, 15 in .org, and 5 with other endings.

Two good examples of the prominence of good causes are the UK National Lottery and the publicly authorized but charitably operated Dutch Postal Code Lottery.

Britain was late in adopting a national lottery, although betting was permitted in sports pools, charity sweepstakes, and race tracks before the lottery's adoption in 1993. Operated by a private company rather than by a government agency, the UK lottery pays 12% of its revenues to the government in the form of a tax and devotes another 28% to a fund, out of which is distributed numerous grants. The organizations and mechanisms established to do this distribution appear to have been designed to maximize transparency, visibility, easy participation, and wide distribution. Grants are made to organizations devoted to arts, recreation, historical preservation, education, and health; they include both large and small amounts; they touch all corners of the United Kingdom; and they are trumpeted widely. Not only does the lottery describe these grants in detail, it has created an annual contest in which citizens vote for the most deserving beneficiaries, thus raising awareness through competition. Among the 2006 winners in this contest was a recreational trail linking the east and west coasts of England's Midlands, a charity offering groceries and meals to persons with HIV/AIDS, a pipe band for a Scottish town, and an arts project for visually impaired youth in Wales.⁴

A second example of European lotteries is the Dutch postal code lottery. A charitable lottery, as distinguished from the country's official national lottery, the postal code lottery is noteworthy on at least two counts. First, it utilizes a unique tie-in to neighborhoods. A person's postal code makes up part of his or her ticket number for each drawing, and the winning number in each drawing is a postal code. All those in the postal

⁴ UK National Lottery webpages: <http://www.lotteryfunding.org.uk/uk/lottery-funders-uk/lottery-funders-listing.htm>; <http://www.lotterygoodcauses.org.uk/>, accessed 8/31/07.

code who bought a ticket receive a sizable prize (12,500 Euros per ticket), and one lucky player in the code wins a BMW. Thus all the winners in a drawing occupy the same neighborhood, insuring a geographical focal point for stories about winners. The second noteworthy feature of the postal code lottery is the lottery's efforts to draw attention to prominent international good causes in addition to charitable organizations within the Netherlands. Among the international organizations this charitable lottery has supported are Oxfam, Doctors without Borders, Greenpeace, and Amnesty International. To publicize the drawings and recipients, the lottery enlists the voluntary services of luminaries from sports and business as well as internationally known leaders, among the latter Nelson Mandela and Mikhail Gorbachev.⁵

Contemporary American State Lotteries

Since New Hampshire legalized the first 20th century state lottery in 1964, lotteries have been adopted by one state after another so that now over 90 percent of the United States population lives in a lottery state. By 1973 seven states (all but one in the Northeast) had adopted lotteries, and another 15 plus the District of Columbia had joined in by 1987. In 2007, 42 states in all parts of the country plus D.C. now have lotteries.⁶

Average spending on lottery products exceeds \$180 per capita (in 2006 dollars) in states with lotteries. Contemporary lotteries offer six types of games, as shown in Table 2.

⁵ Source: <http://www.novamedia.nl/web/show/id=55340>, and <http://www.snm.nl/page.php?extraItemID=2037>, accessed 5/11/07.

Kapteyn et al (2007) suggests that the structure of the postal lottery may accentuate the force of "regret" as a spur to purchases. "Regret" at not having made an investment or purchase is a factor thought to be important in motivating people to gamble, and the use of postal codes in this game puts a particular local imprint on regret. One strategy in game theory is to minimize the maximum regret, where regret is the difference between an actual payoff and the payoff if the correct strategy had been followed. (Pearce 1992, pp. 278-9).

Another European lottery that devotes proceeds to good causes is the French National Lottery, which devotes funds for "humanitarian and social causes," including sporting causes. <http://www.ambafrance-us.org/atoz/lottery.asp>, accessed 6/29/07.

⁶ See Table 4 for adoption dates of U.S. lotteries.

These games differ in some important ways, so much so that one of them (video lottery terminals) is often not counted alongside the others. Perhaps the simplest of all lottery games is the raffle, wherein pre-numbered tickets are sold, after which a drawing is held to determine the winning ticket numbers. These few elements constituted the core of the early American lotteries as well as the first modern lotteries in the 1960s. After nearly falling out of use among the games used by state lotteries, these passive games have recently made something of a comeback, with some of them being sold in denominations of \$5 and \$10 (and more). The second type of game, which is also the biggest selling one, is the instant, or scratch-off, game, accounting for almost half of total lottery sales in 2004. Sold usually for prices ranging from \$1 to \$5, these brightly colored tickets bear phrases and pictures depicting some theme. On them are latex coverings that, when scratched with a coin or other hard object, reveal symbols or numbers that immediately indicate whether the ticket holder is a winner.

Table 2 here

The remaining lottery games require a degree of player involvement that goes beyond the purchase and scratch. Lotto, the game of large jackpots and occasional frenzies of popular attention, is a computer-based game wherein players choose a series of numbers (typically six) out of a much larger field of possible numbers. The most distinctive aspect of this game is a winner's jackpot that grows until some player correctly picks all the numbers produced in a drawing. Drawings typically occur twice a week. The fourth game is a daily drawing closely parallel to the long-established illegal numbers game. Players pick 3- or 4-digit numbers and receive payouts for various types of bets on those numbers. The fifth game, keno, is similar to lotto, except that drawings

can occur as frequently as every few minutes. Developed in casinos, this game requires a setting with networked computers, such as a tavern. The last type of game, played on video lottery terminals, takes the frequency of betting to its logical maximum, allowing players to place bets as fast as they can manipulate the controls on a machine. In most respects, these games are much more akin to slot machines than to the raffles of yore. Because these VLT games offer so many opportunities per hour to place bets, the total amount bet on them (the “handle”) is not very comparable to the sales of most other lottery games and so they are often presented separately in statistical compilations. In addition, these games are considered to have a greater potential for addiction than other lottery games.

The basics of lottery finance can be discerned by examining how the revenue from a dollar of sales is spent by lottery agencies. As shown in Table 3, the average state lottery returns 60.3 cents in prizes for every dollar of ticket purchases. Of the remainder, an average of 10.7 cents goes for commissions paid to retailers and other operating expenses, leaving 29.5 cents to be used by the state as public revenue. This breakdown is comparable to an excise tax of 29.5 cents imposed on a product that costs 71.5 cents, for a percentage rate of 41% ($29.5/71.5$). Such a high percentage rate is virtually unheard-of among real-world excise taxes. Furthermore, lottery prizes are considered taxable income in the United States. The high rate of implicit taxation and use of advertising to increase sales suggest that the state lotteries are all built around the goal of generating revenue for the state. For obvious reasons we have dubbed this model the “Revenue Lottery” (Clotfelter and Cook 1989).

Table 3 here

3. Why are Modern State Lotteries All the Same?

The modern state lotteries have revenue generation as their *raison d'etre*, and in almost all states the revenues are earmarked to specific causes. What explains this uniformity? We note that the ubiquitous emphasis on public revenue is not intrinsic to the operation of lotteries. A seemingly natural alternative is for the state to orient its lottery to simply servicing or accommodating the public demand for reliable lottery products. The argument for such a lottery is simple: more than half the adult public enjoys playing the lottery. This Consumer Lottery would best serve this interest with a high payout rate – much higher than the 60% rate that is typical, and closer to the 90% that would allow the average lottery to just cover operating costs. Of course, an alternative would be to legalize private lotteries (perhaps with some licensing scheme), but that may be harder to regulate effectively.

Note that there is a close analog here to liquor. Like the lottery, liquor is problematic in that consumption generates social costs. Rather than prohibit sales, states attempt to limit abuse through restrictions on marketing, and in the case of 18 states, a monopoly on wholesale distribution (Cook 2007). While the states do collect taxes on liquor sales, the revenue is not the central reason for the state's role in this market is not revenue, but rather servicing the consumers' demand for liquor. In the case of the lottery, that approach has received little attention in the public debate, and there have been no takers. Before speculating about this rather strange lacuna, we first develop the public interest analysis.

The Public Interest in Lottery Adoption and Design

Using the conventional framework of public finance, we can discuss the public interest in lottery design in terms of costs and benefits, both considered from the perspective of society as a whole. On the cost side of the ledger is of course the operating expense, but also any negative societal consequences of lottery marketing and consumer participation. The benefit side of the ledger includes the net revenues going to finance public goods such as education, as well as the value to consumers of having an opportunity to play. The public debate about lottery adoption and design has pretty much ignored this last item. For that reason we begin by limiting our discussion to the conventional perspective, and then bring in consumer value as a consideration.

The conventional public-interest analysis is summarized in Figure 1, which requires some explanation. In this figure the variable on the x-axis is the takeout rate t , which is just equal to one minus the payout rate. This takeout rate logically ranges from zero (in which case sales would be maximized but the lottery, since it is paying out all revenues in the form of prizes, could not cover operating costs)⁷ up to 100%. At the latter extreme, there is nothing left over for prizes, so the purchase of a lottery ticket becomes a pure charitable contribution to the state, and would be unlikely to have many takers! Net revenues generated from the takeout go to cover operating costs and provide the government with money to finance public purposes. The relationship between the takeout rate and net revenue to the state is depicted by the hump-shaped curve (akin to the famous Laffer Curve), which rises as t rises from a breakeven point to a maximum,

⁷ The assumption that sales would be maximized when the takeout rate was zero is just that, an assumption. It is logically possible that consumers would spend less on a lottery with zero takeout than one with a 10% takeout (just as they tend to reduce expenditures in response to an reduction in price for necessities). Still, our intuition and some evidence indicates that the takeout rate is inversely related to expenditures, at least over the range of takeout rates ordinarily used.

and then declines as further increases in t depress sales toward zero. The second curve describes the social costs of the lottery (other than operating costs), which may be both fixed and variable. We do not attempt to specify these costs in any detail, since we are only attempting to provide a schematic characterization of the dilemmas associated with lottery adoption and design. Briefly, the fixed costs could stem from the deleterious consequences of the message communicated when the government adopted a lottery in the first place, namely that the state does not view gambling as a problematic activity, at least in this form; the variable costs could stem from the family and community problems that tend to increase with gambling expenditures. Commentators have suggested a varied menu of such costs: increased selfishness; reduced commitment to frugality, investment, and work; neglect of family financial responsibilities; increased bankruptcy and property crime associated with an upsurge in compulsive gambling (Kindt 1994; “Thirteen ways... 2000).

Figure 1 here

In this analysis (which ignores any benefits that might be enjoyed by players) the public interest is best served when the gap between net revenue and social cost is maximized, and in principle that would determine the takeout rate. Several cases help anchor the full list of possibilities:

- If the social costs are above net revenue for every value of t , then it would be a mistake to have a lottery – precisely the view of many critics.
- If variable social costs are negligible, the social cost curve would be a horizontal line, and the optimum value of t is that which maximizes net revenues (assuming

that the fixed costs are not so high as to preclude any worthwhile lottery). In this case, the best t is t^* , as shown in Figure 1.

- If variable social costs do increase with lottery expenditures (and hence are inversely related to t), then the analysis dictates a higher optimum takeout rate than would be implied by a goal of net revenue maximization alone. The optimum, as shown in the Figure, is t^{**} , where the lens between revenue and cost is widest.

Figure 1 does not include the value of lottery play to the consumers, of course. If we view the lottery as a commodity, then the value consumers place on the opportunity to play – the “consumers surplus” -- should be considered part of the public benefit (Clotfelter and Cook 1989, pp. 219-221; Walker 1998). That value diminishes as the takeout rate increases, assuming that their primary motivation is to win prizes (rather than contribute to the state treasury).⁸ From the lottery players’ perspective, the lower the takeout rate, the better, because a lower takeout means more money for prizes.

If we incorporate the consumers’ valuation, the takeout rate that best accords with the public interest is equal to marginal costs, including both operating costs (about 10%) and social costs.⁹ The case for a low takeout rate is further strengthened if consideration is given to the distribution of lottery play. Because lottery play consumes a much higher percentage of income for those at the bottom of the income and education distribution than for those at the middle or top (Clotfelter and Cook 1989, pp. 221-227; Clotfelter et al. 1999), a reduction in the takeout rate is unambiguously pro-poor. Of course it is the

⁸ Some players may enjoy the process of playing the lottery and having a stake in the drawings. That value should be included in the consumers’ surplus, but it will not vary much with the takeout rate.

⁹ That conclusion may have to be modified if at that takeout rate the fixed social costs exceed the net revenue to the state. Covering those fixed costs may require a higher takeout rate.

lower income households that are also most vulnerable to the financial problems created by excessive lottery play, and it could be argued that a high takeout rate is a useful deterrent, but it is very clear that the high takeout rate of contemporaneous state lotteries is not motivated by a desire to discourage excess play.¹⁰ The proof is in the fact that one common feature of the Revenue Lottery is marketing – advertising and product development – intended to encourage the public to play more than they otherwise would.

The Politics of Adoption

In seeking an explanation for the universal embrace of the Revenue Lottery, it is useful to distinguish between *politics* and *marketing*. We consider these two processes from the point of view those we might call the “lottery promoters” – individuals and interest groups who lead the effort to overcome political resistance to lottery adoption, and then to sustain or expand the scope of the lottery once it is in place. The list of lottery promoters includes lobbyists representing the private industry that supplies lottery products (led by Scientific Games and GTech), together with a handful of leading politicians in the state who for whatever reason support a lottery. Specific groups that stand to benefit from earmarked lottery revenues may also serve as important advocates.

Some lottery promoters are motivated solely by private concerns – profit and power -- but others support the lottery due to their belief that it serves the public interest. The profit motive is clear enough for the industry, which seeks to expand the market for its products by lobbying for adoption and then expansion of lotteries. Politicians may embrace this cause in a quest for support of this industry in their reelection campaigns,

¹⁰ In our book (Clotfelter and Cook 1989) we introduce the possibility of a Sumptuary Lottery that couples a high takeout rate with low-key marketing in an effort to accommodate but not encourage play. Like the Consumer Lottery, the Sumptuary Lottery has generated little interest among policymakers.

and for the greater personal power that may come with expansion of government. But there is no reason to believe that more high-minded motivations are absent from the mix.

The key political task for lottery promoters is to mobilize sufficient support first for the adoption and then for the successful operation of the lottery. We begin with the adoption effort, noting that the important design decisions (including the embrace of the Revenue Lottery) have already been made at that point. To some extent the politics of adoption is concerned with selling the lottery proposal to the public, and in most states, the adoption process has included a direct referendum. Among the politicians, advocates, and voters who will become involved in making the decision, we identify three clusters of political actors:

- Lottery lovers, who simply want the chance to play and are largely indifferent to the public revenue prospect. For them, a Consumer Lottery would be better than a Revenue Lottery, but a Revenue Lottery is better than No Lottery.
- Lottery haters, who strongly object to gambling or at least to state sponsorship of gambling in this form. For them, No Lottery dominates both the Revenue Lottery and the Consumer Lottery. This group represents a minority position in every state, but if well organized can be effective.
- Lottery pragmatists, who are willing to consider a lottery only if it conveys the potential benefit of expanded government programming or reduced taxes. (They may also be influenced by a concern for competing with the illegal lotteries that flourish in the absence of a state game.) For them, a Revenue Lottery is preferable to a Consumer Lottery, and may be preferable to No Lottery depending

on the details of lottery design. These views can be summarized by the following simple table.

	Consumer lottery	Revenue lottery
Lovers	Yes	Yes
Haters	No	No
Pragmatists	No	Maybe

We do not suppose that all these political actors are concerned with the public interest, but each of these views can be justified within the public-interest analysis. Lottery lovers would be those who believe the social costs of the lottery are low and that consumer sovereignty should reign. Lottery haters would be those who view the lottery's social cost as exceeding the benefit for every imaginable design. The pragmatists are a bit harder to characterize in this public-interest framework, but their position can be justified. They could believe that the social costs of lottery play outweigh the direct benefit to players, but are willing to accept this cost for the sake of the revenue. Often the public rhetoric surrounding lottery adoption contests suggests that the revenue from the lottery is of special value in that it can be used to support vital programs that otherwise would not exist, or expand important programs by more than would be possible from the usual sources of revenues. In this view, a dollar of public spending is worth more than a dollar of private spending – a view that has been espoused most notably by John Kenneth Galbraith (Galbraith 1958), and which has some support in public finance theory.¹¹

¹¹ Ordinarily public expenditures are financed by involuntary transfers from households to government in the form of taxes. These transfers are not free – they cause a loss in economic efficiency by distorting incentives. For that reason, government planners should limit government programs to those where the

While it is thus logically possible for all three groups of political actors to be motivated by the public interest, a more cynical view may be warranted. For the lottery industry in particular, the goal is to sell lottery products for profit. The industry appears to be a natural ally to the majority of the public (the lottery lovers) who we suspect would favor the Consumer Lottery, since it would result in the largest possible sales. Yet only the Revenue Lottery has proven politically viable in overcoming the minority opposition from the Lottery Haters. We know that a minority can have great power in a democracy if it is well organized around a particular issue (Wilson 1995), and lottery opponents have indeed had effective political voice through faith-based organizations that advocate family values and progressives concerned about the economic burden of gambling on poor households. The potential beneficiaries – those who would like to be able to play the lottery – have not been organized. The campaigns for adoption of state lotteries have thus focused on selling the swing group of Pragmatists on the importance of this new source of state revenue. As shown in Table 4, most states go one step further and earmark lottery revenues for specific uses, most commonly some aspect of education. Harnessing the lottery to a popular state program can mobilize concerted support by the groups that stand to benefit directly. The personal priorities of key political leaders can also influence the process.¹² The attractions of earmarking are sufficiently compelling

benefit exceeds the dollar outlay at the margin by at least as much as the marginal cost of transferring dollars from private to public.

¹² In this regard it is interesting to track the sequence of lottery bills submitted in the large state that held out the longest, North Carolina. Of the 44 bills filed between 1989 and 2005, only a handful did not include earmark provisions. Most of these were for aspects of primary and secondary education, although several would have provided capital for infrastructure projects (harkening back to the Colonial era), and in others the list included higher education. After 2000 the bills started including preschool education in the mix, reflecting a priority of the governor (who has been a lottery supporter). The lottery bill that was finally adopted in 2005 divided net revenues among four education-related activities.

that a number of states actually operated their lotteries initially without earmarking, and then switched over, as Table 4 shows.

Table 4 here

In the modern history of state lotteries there has been little challenge to the existence of state lotteries once they are in place. But every lottery faces a series of marketing and organizational challenges that are played out in the political arena. The key issue becomes just how far the pragmatists are willing to go in the tradeoff between increased state revenues and the possible social costs stemming from aggressive marketing practices. Thus the close link between the lottery and good causes plays a continuing political role beyond the adoption decision.

Sales

While the “good cause” appears vital to lottery promoters in the political arena, its effect on sales is a separate matter. The question is whether some consumers are moved to buy more lottery tickets because the proceeds are used to support public purposes than they would if it were a private, for-profit enterprise.

To develop this mechanism a bit, we can view a lottery ticket as a bundle of two goods – a chance to win a prize, and a contribution to a good cause. Suppose that a lottery ticket costs \$1 and conveys a chance p of winning prize J . The expected value of the prize, which is just the payout rate, is then pJ . The remainder goes to operating costs c and to the government: the expected contribution to the government is then $1-c-pJ$.

Someone deciding on a lottery purchase will then consider the sum of benefits derived from the prize and the contribution. He or she will purchase the ticket if this sum is greater than the cost, \$1:

$$U(p, J) + V(1-c-pJ) > 1$$

Here U represents the subjective dollar value to the consumer of entering a lottery with a probability p of winning J, while V represents the subjective dollar value of making a contribution of the specified amount.¹³

In most cases of commercial gambling, we can safely assume that V =0, which is to say that the player cares nothing about making a contribution to the operator’s bottom line. (If the operator is an organized criminal group, then it’s possible that V < 0.) But if the contribution goes to support an education program or other good cause, then it is possible that V > 0; the overall value of the ticket is enhanced from the potential buyer’s perspective, increasing the chance that she will make the purchase (or increase the number of tickets she chooses to purchase). The result will be increased sales for a given payout rate. In short, buying a ticket to the “North Carolina Education Lottery” may be more attractive than buying a ticket to the “Walmart Winabunch Lottery.”

It is also possible that this charitable motivation not only shifts demand (for given payout rate) but also reduces the elasticity of demand with respect to the payout rate. Consider the following two payout structures for a lottery where the operating costs are 10 cents on the dollar:

	Prize payout rate	Contribution to government net revenues
Game 1	.50	.40
Game 2	.60	.30

¹³ We note that Lange, List and Price (2007) have taken a similar approach in analyzing the effect of including a prize drawing as part of a charitable fundraising effort. They demonstrate that under some circumstances the drawing can enhance net revenues compared with a straight request for charitable donations.

If players valued the contribution just as much as the prize payout, they would be indifferent between these two games, and the elasticity with respect to payout rate would be zero.

As far as we know there is no reliable econometric evidence on the effect of earmarking on sales.¹⁴ On the other hand, there is considerable evidence that consumers increase their purchases in response to an increase in the expected value of the prizes (Clotfelter and Cook 1989; Cook and Clotfelter 1993; Walker 1998). It is not surprising then that in the face of disappointing revenues from the North Carolina lottery's first year, the governor has proposed a substantial increase in the payout rate. He and his advisors believe that more prize money would increase sales by so much that net revenues would increase despite the lower "take" per ticket.

Another bit of evidence on the importance of a good cause in selling lottery tickets is the choices lottery agencies make (presumably based on market research) concerning how to advertise the lottery. To investigate this matter, we obtained 325 recent television ads, including all TV ads entered in the Batchy Award competition in 2005 and 2006. Research assistants screened these ads and coded them according to the primary theme, and also whether they even mentioned the public benefits created by lottery revenues. The results are shown in Table 5. Overall, just 13% of the ads focused on public benefit, and a handful of others mentioned it briefly (for a total of 17% with

¹⁴ Landry and Price (2007) provide an econometric estimate of this effect based on a comparison of states that changed their earmark provisions during the 1990s with states that did not. In particular they claim that six state lotteries that had originally directed net revenues to the general fund changed their provisions during the 1990s, earmarking revenues for education. They estimate the effect of switching to an education earmark as a jump in sales averaging 39% compared with other state lotteries. But we are dubious of this result because the authors appear to have misclassified two of the states (Montana and Oregon), and it is not clear whether other relevant changes were controlled for in this analysis. The same study found that sales were very responsive to changes in the payout rate – a one percentage point increase in the payout rate resulted in a 4 percent increase in sales by their estimate.

some mention). When we divided the ads according to whether they were from states that earmark revenues and states that do not, there was some evidence that the earmarked-revenue states place greater emphasis on public benefit: 20% of earmark-state ads mentioned the public benefit, compared to just 6% of the ads from general-fund states.

Table 5 about here

Ads in which the primary theme is public benefit focus on a specific use of the money. Here are several examples:

Texas: The ad shows children having fun with their parents and thanks people who help raise money for schools, especially lottery players, for helping to contribute more than \$9 million to education in Texas.

Virginia: The ad shows students from across the state and the announcer speaks about how you never know when or how a student can be affected by his education. The lottery has raised \$408 million for public schools. The ad ends with a picture of a two crossed fingers and the announcer says, “The Virginia Lottery, helping Virginia’s schools.”

Washington: The ad shows various people working on construction projects, even though they are doing a poor job. The announcer then says, “Every year millions of Washington lottery players help with school construction across the state, thankfully their contribution is purely financial.” Across the screen it says, “Washington Lottery. It’s good to play.”

West Virginia: The ad shows a home for senior citizens and then shows a couple who donated their land for the nursing home. Across the bottom of the screen it says that “the West Virginia Lottery has provided more than \$300 million to Senior Citizens in WV since 1986.” The ad ends saying “Good things happen when you play.”

Arizona: The ad shows various state parks, and then the announcer mentions that thanks to the Heritage Fund of the Arizona Lottery, “We’ll be enjoying them well into the future. The Arizona Lottery. It’s not just a game.”

Massachusetts: The ad shows scenes from the over 350 towns and communities and the announcer mentions that they all share the desire to make life better for its

citizens. The ad says the Massachusetts Lottery gave over \$700 million to the schools and communities in the last year.

Michigan: The ad shows local teachers and explains how money from the Michigan Lottery is given back to Michigan schools, paying for more than 11,000 teachers. Across the screen it says, “Play for the Fun. Play for the Future.”

These messages encourage customers to play for the sake of the good cause to which the lottery is dedicated, and perhaps they have some effect. It is also possible the lottery agencies include such ads in the mix primarily for political reasons, to sustain support for the lottery. But, to repeat, ads such as these are distinctly in the minority. The great majority of all lottery ads appeal to self-interest by emphasizing the enjoyment of the prospect of financial gain available from playing.

Conclusion

So why have all the states adopted a particular version of the lottery that focuses on generating public revenues? The first answer is that overcoming the political opposition of the “lottery haters” requires the backing of those who are not enthusiastic about a state lottery per se, but are willing to support it on the condition that it serves the purpose of financing public causes. Earmarking may further strengthen the political alliance in support of adoption and subsequent expansion of the lottery.

We are less inclined to believe that the “good cause” has much direct effect on sales once a lottery is instituted, although we may be wrong. In any event, there is no doubt that sales tend to increase in response to an increased payout rate, implying that players place lower value on dollars available for education than dollars available to increase the prize pool.

4. Policy Choices

Like the lotteries of early America, the nearly ubiquitous state lotteries of the contemporary scene find themselves operating between two dueling force fields: on the one side the worthy uses to which their proceeds are put and on the other side a collection of problematic social aspects that insure a constant supply of potential critics. No longer the leading edge in the growth of commercial gambling – that role was taken over by casinos a decade ago – lotteries continue to evolve. With that evolution will come policy choices that will invite action or inaction. We foresee six major issues.

Certainly one issue will be how much of the money states collect from the sale of tickets that will be returned to players in the form of prizes. (This “payout rate” is the obverse of the takeout rate discussed above.) Spurred by the belief that higher payout rates will stimulate more sales and the increased competition, states have gradually increased their payout rates over time. In 1989 the average rate was just 51 cents (Clotfelter and Cook 1990). By 2006 the average rate had climbed to 60 cents, as shown in Table 3. To be sure, the current rate remains far below those in many of the early American lotteries, many of which boasted payout rates of 80 to 90%. Although today’s higher payout rates probably do stimulate sales, they can be offered to players only by reducing the rate of implicit tax. Since total revenue to the state is the product of sales and the implicit tax rate, the takeout rate that maximizes revenue is neither very low nor very high.

A second trend in addition to the rise in payout rates is the tendency of states to earmark their revenues for specific good causes if they have not already done so, as documented in the previous section. Education is the most popular beneficiary,

particularly college scholarships in the mold of the Georgia Hope scholarship. At least four other states have followed Georgia's lead, and in Arkansas the lieutenant governor has recently proposed a lottery for his state with proceeds likewise to be used for college scholarships.¹⁵ By earmarking funds for a new program, such an approach minimizes the danger that the impact of earmarking will be undone by future appropriations that take as a given these lottery revenues. But the use of lottery funds to finance college scholarships has its own set of problems, as noted below.

A third and more general issue is whether lotteries, because of their appeal or because of the way they are marketed, "prey upon the poor." Study after study confirms that expenditures on lotteries represent a larger share of the incomes of low-income households than those further up the income distribution, insuring that the implicit tax on lotteries is regressive. Considerable controversy has been generated by the assertion by some that lottery agencies direct their marketing at the poor, an assertion that generally does not hold up to scrutiny. But the regressivity charge sticks because the evidence to support it is overwhelming. One might argue that the high tax is simply the price of legalizing an activity that low income citizens enjoy disproportionately. Yet as long as the possibility remains to raise the payout rate and thus reduce the high implicit tax rate, the regressive impact of lottery finance will be a decision taken, not an unavoidable feature of lotteries themselves. And the states that earmark their lottery revenues for merit

¹⁵ The four states are North Carolina, Tennessee, New Mexico, and South Carolina. See also DeMillo (2007).

scholarships will add to this regressivity by taking funds raised at the lower end of the income scale and passing them to families near the top.¹⁶

A fourth issue is and will continue to be what games to legalize. The starkest choice is whether to add video lotteries to the array of games. In a nod to their potential harm, states that use them typically wall them off in some way, such as by restricting them to bars and hotels. But the possibilities will surely not end there. Not only do many states not yet have keno, a game with almost as much potential for habitual play as video lotteries, there will no doubt be opportunities to bet through computers and cell phones that are as yet just ideas on the desks of electrical engineers. States will have to decide whether the good that can be derived from the use of new games will outweigh their costs.

A fifth recurring policy issue concerns advertising – how much and what kind. That legislators believe that some advertising can be undesirable is implicit in the number of provisions of state lottery laws restricting the amount that can be spent on ads, the location of ads, or the content of ads. Occasionally this issue rises to the level of headlines, such as that brought on in Illinois by charges that lottery ads targeted poor and minority neighborhoods or the attacks on advertising that caused Massachusetts to ban all lottery ads for a period.¹⁷

A final policy issue concerns who should operate a state's lottery. A recent proposal discussed in at least three states is for a private firm or investment group to purchase the right to operate a state's lottery for a number of years into the future. In

¹⁶ This point has not been lost on critics of the new Arkansas proposal. One spokesman said, “your’re taking money out of the pockets of the poorest people in the state [and you’re] asking them to fund wealthier people going to college” (DeMillo 2007).

¹⁷ For a discussion of the Illinois debate, see Clotfelter and Cook (1989, p. 190) and Behr (2006).

return the state would receive both a lump sum payment up front and a guaranteed annual payment in future years. Such a scheme raises questions of intergenerational equity and governance. If the up-front bonanza that comes from such a sale is used to fund expenditures for the current generation, it is not hard to see how it could be made to look like robbing the kiddies' piggy bank. But the governance issue has more potential for mischief. If selling the rights to run the lottery means ceding control over advertising and the choice of what games to offer, the state could lose effective control of what is one of its most prominent activities. The example of the UK National Lottery, however, shows the private operation by itself does not have to lead to this kind of surrender.¹⁸

¹⁸ The UK National Lottery is operated by a for-profit company, Camelot LTD, in return for 5% of lottery sales. Camelot Social Report 2005, <http://www.camelotgroup.co.uk/socialreport2005/camelot-and-national-lottery.htm>, accessed 9/20/07.

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Figure 1. The Revenue and Social Costs Generated by a State Lottery

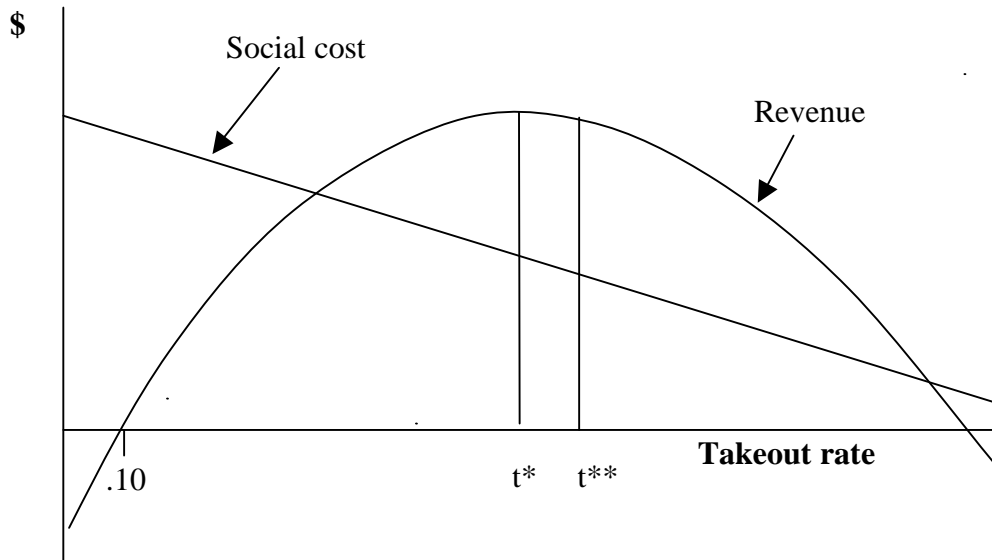


Table 1. U.S. State Lotteries: Number and Per Capita Sales, Selected Years

Year	Number of state lotteries	Per capita sales (FY 2006 dollars)
1973	7	43
1987	23	157
1997	38	186
2006	43	184

Sources: Clotfelter, Cook, Edell, and Moore (1999, Table 1); *International Gaming and Wagering Business*, April 2007, p. 27.

Note: Per capita sales utilize the total population (all ages) of residents of states with a lottery. Sales exclude video lottery terminal games.

Table 2. Lottery Sales by Type of Game, fiscal year 2004

Game	Sales (\$ billions)
Instant	23.0
Daily numbers	8.6
Lotto	10.5
Video lottery terminals (a)	3.2
Other (b)	2.4
Total	47.7

Notes:

- a. Estimated, based on proportion of traditional sales plus net machine income from gaming device operations, fiscal year 2006 . In FY 2006, cash and credits played revenue for gaming devices was \$14.5 billion, and net machine income was \$3.7 billion.
- b. Includes break-open tickets, spiel, and keno.

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States: 2006*, Table 446, p. 302; *International Gaming and Wagering Business*, April 2007, pp. 27-28.

Table 3. U.S. State Lotteries, FY 2006: Sales, Prizes, Operating Expenses, and Net Revenue

State	Total sales (\$millions)	Per capita (\$)	% Prizes	Op. expenses	Net revenue
Arizona	\$468.7	76	55.3%	14.8%	29.9%
California	3,585.0	98	53.9%	11.5%	34.6%
Colorado	468.8	99	60.1%	13.9%	26.0%
Connecticut	970.3	277	60.5%	10.1%	29.4%
Delaware	124.5	146	52.1%	15.1%	32.8%
District of Columbia	266.4	458	55.1%	17.7%	27.2%
Florida	3,929.0	217	59.6%	9.5%	31.0%
Georgia	3,177.6	339	64.1%	10.4%	25.5%
Idaho	131.1	89	58.5%	16.0%	25.6%
Illinois	1,964.3	153	59.0%	10.2%	30.8%
Indiana	816.4	129	60.4%	12.8%	26.8%
Iowa	218.1	73	56.1%	19.7%	24.3%
Kansas	236.0	85	55.5%	15.5%	29.0%
Kentucky	742.3	176	59.9%	12.8%	27.3%
Louisiana	332.1	77	50.7%	14.0%	35.3%
Maine	229.7	174	62.8%	15.3%	21.9%
Maryland	1,560.9	278	57.9%	10.1%	32.0%
Massachusetts	4,501.2	699	71.9%	7.5%	20.6%
Michigan	2,212.4	219	58.7%	11.9%	29.4%
Minnesota	449.7	87	59.5%	14.3%	26.2%
Missouri	913.5	156	62.7%	10.2%	27.1%
Montana	39.9	42	51.9%	25.8%	22.3%
Nebraska	113.1	64	56.3%	17.4%	26.2%
New Hampshire	262.7	200	58.0%	11.8%	30.2%
New Jersey	2,405.9	276	57.4%	9.2%	33.4%
New Mexico	154.6	79	57.7%	18.8%	23.5%
New York	6,487.1	336	59.4%	9.8%	30.8%
North Carolina	229.5	26	58.0%	14.7%	27.3%
North Dakota	22.3	35	49.5%	20.5%	30.0%
Ohio	2,220.9	193	59.0%	11.2%	29.7%
Oklahoma	204.8	57	53.5%	12.7%	33.7%

Oregon	363.1	98	65.2%	16.0%	18.8%
Pennsylvania	3,070.3	247	58.8%	10.5%	30.7%
Rhode Island	261.1	245	60.5%	15.6%	23.9%
South Carolina	1,144.6	265	61.4%	11.2%	27.5%
South Dakota	39.4	50	56.7%	21.2%	22.0%
Tennessee	995.8	165	62.3%	11.8%	25.9%
Texas	3,774.7	161	61.2%	10.0%	28.8%
Vermont	104.9	168	63.4%	15.1%	21.5%
Virginia	1,365.3	179	56.7%	10.7%	32.7%
Washington	477.9	75	61.1%	13.6%	25.3%
West Virginia	218.1	120	60.5%	10.0%	29.5%
Wisconsin	509.1	92	57.7%	12.7%	29.6%
Total	\$51,763.4	184	60.3%	10.7%	29.0%

Source: *International Gaming and Wagering Business*, April 2007, p. 27.

Table 4. State Lotteries. Adoption Date and Designation of Funds

<u>State</u>	<u>Adoption year</u>	<u>Adoption method</u>	<u>Designated use of funds</u>
New Hampshire	1964	Legislation	Education
New York	1967	Referendum	K-12 Education
New Jersey	1970	Referendum	Public Education (K-12), Community College and 4-year State Colleges, State Homes for Disabled Veterans
Connecticut	1972	Legislation	General Fund
Massachusetts	1972	Legislation	Cities and Towns
Michigan	1972	Referendum	Michigan School Aid Fund (K-12 public schools)
Pennsylvania	1972	Legislation	Senior Citizens Programs
Maryland	1973	Referendum	General Fund
Illinois	1974	Legislation	Common School Fund (K-12 public schools)(*)
Maine	1974	Referendum	General Fund
Ohio	1974	Legislation	Education
Rhode Island	1974	Referendum	Distressed cities and towns, General Fund
Delaware	1975	Legislation	General Fund
Vermont	1978	Referendum	Education(*)
Arizona	1981	Initiative	Mass Transit, General Fund, County Assistance, Economic Development, Heritage Fund, Local Transportation Assistance Fund
District of Columbia	1982	Initiative	General Fund
Washington	1982	Legislation	Education construction, stadium debt reduction, economic development, General Fund(*)
Colorado	1983	Initiative	Parks and Recreation
California	1985	Initiative	K-12 Education
Iowa	1985	Legislation	General Fund
Oregon	1985	Initiative	Economic Development, Job Creation & Education (K-12 public schools)
Missouri	1986	Referendum	Education(*)
West Virginia	1986	Referendum	Education, Senior Citizens, Tourism
Kansas	1987	Referendum	Economic development (85%); Prisons (15%)
Montana	1987	Referendum	General Fund
South Dakota	1987	Referendum	General Fund, Capital Construction Fund, Property Tax Reduction Fund
Florida	1988	Referendum	Educational Enhancement Trust Fund
Wisconsin	1988	Referendum	Property Tax Relief
Idaho	1989	Referendum	Public Schools & State Permanent Building Fund
Indiana	1989	Referendum	Replacement of motor vehicle tax revenue, capital projects
Kentucky	1989	Referendum	General Fund
Minnesota	1990	Referendum	General Fund and Environmental Trust Fund
Louisiana	1991	Referendum	State's Lottery Proceeds Fund (appropriated by legislature annually)

Texas	1992	Referendum	Foundation School Fund(*)
Georgia	1993	Referendum	Education (Hope Scholarship program, voluntary pre-kindergarten program)
Nebraska	1993	Referendum	Trust Funds for Education, the Environment and Compulsive Gamblers Assistance
New Mexico	1996	Legislation	Education (60% Capital Improvements; 40% Scholarship Program)
Virginia	1998	Referendum	Education(*)
South Carolina	2002	Referendum	Education (K-12 and college scholarships)
North Dakota	2004	Referendum	General Fund
Tennessee	2004	Referendum	Education (Hope Scholarship program)
Oklahoma	2005	Referendum	Education
North Carolina	2006	Legislation	Education

Source: Adoption method and date found in Coughlin, Cletus C., "The Geography, Economics, and Politics of Lottery Adoption" *Federal Reserve Bank of St. Louis Review*, May/June 2006, 88(3), 88(3), pp. 165-80 (167), accessed on 7/5/07; LaFleur's Lottery World, www.lafleurs.com; state lottery Websites, as noted below.

*Original lottery legislation designated revenues for state's General Fund.

Detailed sources, accessed 9/8/07: official state lottery websites: Washington: <http://64.233.169.104/search?q=cache:7vn4MJww15MJ:www.walottery.com/sections/Education/+Use+of+lottery+revenues+Washington+State&hl=en&ct=clnk&cd=2&gl=us>; Missouri: <http://64.233.169.104/search?q=cache:InLWVZkguJ:www.molottery.com/learnaboutus/mediacenter/3billion.shtm+Use+of+lottery+revenues+Missouri&hl=en&ct=clnk&cd=5&gl=us>; West Virginia: <http://207.97.205.154/asp/faq.aspx>; Kansas: <http://www.kslottery.com/LotteryInfo/FAQ.htm>; South Dakota: <http://64.233.169.104/search?q=cache:H3Ecmdur9LgJ:www.sdlottery.org/WhereMoneyGoes.asp+Use+of+lottery+revenues+South+Dakota&hl=en&ct=clnk&cd=2&gl=us>; Wisconsin: <http://www.wilottery.com/wiswins.asp>; Illinois: <http://www.illinoislottery.com/subsections/news01.htm>; Oklahoma: <http://www.lottery.ok.gov/>.
 Accessed 9/11/07: official state lottery websites:
 Vermont: <http://www.vtlottery.com/faqs/faqs.asp#q1>;
 Montana: <http://www.montanalottery.com/faq.xsp#faq4>;
 Virginia: <http://www.valottery.com/money>.
 State laws, accessed 9/8/07:
 Indiana: <http://www.in.gov/legislative/ic/code/title4/ar30/ch17.pdf>;
 North Carolina: <http://www.nc-educationlottery.org/uploads/fulllotterybill.pdf> ;
 Texas: TX LEGIS 107 (1993), State Lottery Act, Sec. 466.355.

Table 5. Primary Themes in 325 Television Ads for U.S. State Lotteries

Primary theme	<u>Number of ads, by earmarking of lottery revenue</u>			
	Earmarked	General fund*	All	(%)
<i>Informational</i>				
Direct sales appeal	82	16	98	30.2
How to play	35	3	38	11.7
Previous winners	16	3	19	5.8
Public benefits	40	3	43	13.2
<i>Thematic</i>				
Fun, excitement of playing	48	21	69	21.2
You could win	31	2	33	10.2
Wealth, elegance	6	0	6	1.8
Jackpot growing	13	6	19	5.8
Total	271	54	325	100.0
Were public benefits mentioned?	53	3	56	

*Lotteries whose revenues went exclusively to the state's general fund were: Connecticut, Maryland, Maine, Delaware, District of Columbia, Iowa, Montana, Kentucky, and North Dakota.

Source: television ads gathered from various lottery agencies and the North American Association of State and Provincial Lotteries produced in the years 2005 and 2006, including all TV ads entered in the Batsky Award competition in 2005 and 2006. Ads were classified according to their primary theme and whether or not they mentioned public benefits at all. For more explanation of themes, see Clotfelter and Cook (1989, ch. 10).