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

Charles T. Clotfelter and Philip J. Cook
Duke University
September 20, 2007

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

1

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

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

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

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

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

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 (fof)7.(it)7.(5)Taemb)2.(1)7.(2)8.8() fi

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 fo of20(to)r20(t1to)rell-10.1(olue cr)-21 that notTay8gTay8.pv

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

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

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

3. Why are Modern State Lotteries All the Same?

The modern state lotteries have revenue generation as their raison d'etre, and in

 $-\,mucth@1906(\,\,high(er)7641(\,\,tano1906(\,\,th\,\,60o1906(\%r)7641(er)7641a)) \textbf{\textit{T}\,\textbf{9}}0.6\,\,0\,\,\textbf{\textit{T}\,\textbf{10}}028\,\,\text{Tc}.0029\,\,\text{Tw}(he)\textbf{\textit{6}}66(t)7961h^{2}(he)\text{\textit{1}}641(he)\text{\textit{1}}641(he)\text{\textit{2}}641(h$

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 re

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:

•

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. 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

10

18

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:

- <u>Lottery lovers</u>, 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.
- <u>Lottery haters</u>, 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

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.

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

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

23

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 reliabl

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 mor TDm3k vm8ho-. Interplace of the screen it says that "the West Virginia Lottery has provided mor TDm3k vm8ho-.

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

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

References

- Behr, Katie 2006. What advertising strategy should the North Carolina Education Lottery employ? Unpublished MPP project. Terry Sanford Institute of Public Policy, Duke University, Durham, NC.
- Clotfelter, Charles T., Philip J. Cook, "On the Economics of State Lotteries," *Journal of Economic Perspectives* 4 (Fall 1990), 105-119.
- Clotfelter, Charles T., Philip J. Cook, Selling Hope: State Lotteries in America

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

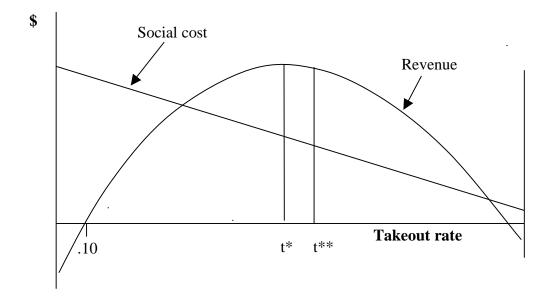


Table 2. Lottery Sales by Type of Game, fiscal year 2004

Game	Sales (\$ billions)
Instant Daily numbers	23.0 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 th8.6.2(u)-(2)28(.63 55.86 TD.0nnak-)-7uak-

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%
Vincinio	1 265 2	179	56.7%	10.7%	32.7%
Virginia	1,365.3				
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%

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

		_	and Designation of Funds
<u>State</u>	Adoption	Adoption method	Designated use of funds
Now Homoshira	<u>year</u> 1964	Legislation	Education
New Hampshire New York	190 4 1967	Referendum	K-12 Education
New Jersey	1907	Referendum	Public Education (K-12), Community College and
New Jersey	1970	Referendum	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	1982	Initiative	General Fund
Columbia			
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.

Detailed sources, accessed 9/8/07: official state lottery websites: Washington:

<u>lottery+revenues+Washington+State&hl=en&ct=clnk&cd=2&gl=us;</u> Missouri:

http://64.233.169.104/search?q=cache:InLWVZkguhcJ:www.molottery.com/learnamteylryhery.gt37 Tc-t32vn5(a)16.9(rna)1.5(m

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

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

Number of a	ds, by earmarking or	f lottery rev	<u>enue</u>	
Earmarked	General fund*	All	(%)	
82	16	98	30.2	
35	3	38	11.7	
16	3	19	5.8	
40	3	43	13.2	
48	21	69	21.2	
31	2	33	10.2	
6	0	6	1.8	
13	6	19	5.8	
271	54	325	100.0	
53	3	56		
	82 35 16 40 48 31 6 13	Earmarked General fund* 82 16 35 3 16 3 40 3 48 21 31 2 6 0 13 6 271 54	Earmarked General fund* All 82 16 98 35 3 38 16 3 19 40 3 43 48 21 69 31 2 33 6 0 6 13 6 19 271 54 325	82 16 98 30.2 35 3 38 11.7 16 3 19 5.8 40 3 43 13.2 48 21 69 21.2 31 2 33 10.2 6 0 6 1.8 13 6 19 5.8 271 54 325 100.0

^{*}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 Batchy 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).