Making the Most of the Lottery

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When Jefferson introduced the state lottery to the United States, he hailed it as a voluntary tax that could entertain consumers while raising money for the government. However, by the late eighteen hundreds, the lottery was banned partly due to its reputation as a seedy, corrupt, and immoral system. Since being first reinstated by New Hampshire in 1954, the lottery has grown significantly, being run in 42 states as of 2005. With its growth has returned its old controversy. There are arguments both in support of and against the continuation of the lottery system. Whether the lottery should be removed is still being debated; however, reconstructing the state lottery systems could increase their effectiveness and guide them away from adversely affecting those with low income.

Lottery Criticisms

There is debate over almost every aspect of how the lottery is run. Most common is the theme that lotteries overtax the poor, while not yielding significant or productively used revenue. In 1999 the National Gambling Impact Study Commission (NGISC) made a statement stressing how over 15 million Americans had lost control of their finances due to gambling and cannot afford to be gambling in general.

Thomas Donlan of Barron’s National Business and Financial Weekly argues that the government should be working to help these problematic gamblers, rather than to take advantage of them. Also, contrary to the belief that lotteries act as a substitute for illegal gambling, the establishment of lotteries has been shown to correlate with increased illegal gambling activity, acting instead as a complementary good. Regardless of how productively lottery revenue is used, many academics agree that lotteries charge too much to those who can least afford it.

Types of Lotteries

There is clear evidence that lotteries disproportionately cater to minorities and low income groups, those who can least afford to play. One study, funded by the NGISC in 1998 and carried out by the National Opinion Research Council (NORC), showed that although all demographics participate in the lottery, black customers spent much more on state lotteries than white or Hispanic customers. Individuals with less education were shown to spend relatively higher amounts on lottery tickets as well. Finally, the study estimated that low income individuals tended to spend more on the lottery than mid level or high income individuals, characterizing the lottery as a regressive form of taxation (see Figure 1). These trends all demonstrate how minorities and low income groups are the primary source of sales for American state lotteries.

Minorities and low income consumers tend to purchase “instant win” lottery tickets, where the lottery system is most regressive. These tickets, which do not require the buyer to wait to see if he or she has won, were first introduced by Massachusetts in 1974. Results from the NORC study indicate 38% of low income consumers’ last lottery purchase was an instant win ticket, whereas this was only 27% in mid level income consumers, and 19% in high income consumers. Low income buyers also most commonly describe the instant win tickets as their favorite form of the lottery. In contrast, the highest income buyers report on average that they favor high stakes jackpots. Among the buyers with the highest income levels, 56% said the last ticket they bought was a large jackpot ticket, while this percentage dropped to 49% in the middle-class group, and 39% among low income buyers. These results support the trend that lower jackpot lotteries specifically draw those who can least afford to be taxed and should not be throwing money into the lottery, making such lotteries more regressive than those with larger payoffs. One explanation for this could be that instant win tickets are more addicting due to their immediate results, while the large jackpots attract more wealthy customers whose lives would not significantly change from the small payouts of instant win tickets.

Similar results were found in a study conducted throughout 195 of Texas’ 254 counties in the year 2000, in which instant win lottery ticket purchases were shown to be most correlated with low income groups. The study also showed a strong positive correlation between counties with large black populations and increased sales of instant win lottery tickets. Education was shown to be a factor as well. Those citizens who had received a higher level of education, such as those with college degrees, were shown to buy less instant win tickets and more jackpot tickets in which winners were revealed by a weekly lottery. The opposite effect was found in citizens with little or no formal education. This evidence supports the claim that instant win lottery tickets are the most regressive, disproportionately targeting minorities and low income groups with little education.

The merit of different types of lotteries can also be analyzed by looking at the motives of their respective consumers. The speed with which the consumer learns the results of his or her bet is what may constitute its addicting nature. The odds of the buyer winning are low in instant win games, but significantly greater than those of mega-jackpots, making it more likely that buyers participate with gaining wealth as their pri-
Not only are the odds of winning state lotteries tiny, but also some of the prizes are in reality less valuable than advertised. This comes partly from taxes withheld from winnings, and partly from diminishing real value of winnings paid out over time due to inflation. Currently for the New York State Lottery, a 25% Federal Tax as well as a 6.85% state tax is withheld from winnings over $5,000 -- smaller regional taxes also

Education Uninformed and Irrational Players

For those who do not view it as an investment, but rather understand it as fun expenditure, the lottery can be a positive experience. A study of lottery games from 1981 through 1998 concluded that lottery buyers were at least partially informed, believing they were buying a thrill, not a realistic chance of winning money. Lloyd Cohen, a professor of Law at George Mason University, believes that consumers see the money they spend on the lottery as dispensable income, giving them an entertaining fantasy. However, behavior of lottery buyers can frequently become irrational, as they misunderstand their chances of winning and the methods they should or should not employ to win.

Many forms of irrational behavior have been revealed in studies of state lotteries, making it seem that buyers do not fully understand that into which they are getting themselves. One of these is known as gambler’s fallacy, in which the gambler believes that if a number has not appeared for a while, it is “due” to appear, or if it has just appeared, it will not appear again for a while. Analysis of numbers chosen by participants of the Maryland and New Jersey state lotteries shows that after a certain number has been drawn, consumer choices of that number fall significantly, rising again as the time since the number has been drawn increases. In reality however, this pattern of consumer behavior has no logical backing. If a number is chosen, the likelihood that it will be chosen again soon does not change at all. This example of gambler’s fallacy demonstrates one aspect of irrational and misled lottery buyers.

Another example of irrational behavior is the idea of “lucky vendors.” Data from 2000 to 2002 in zip codes all across Texas indicates that the week after a vendor sold a winning ticket, its sales increased by approximately 12-38% (see Figure 2). Buyers believe strongly enough that stores who have sold winning tickets are more likely to again sell winning tickets, that some break their usual routines to attend these stores. Although these stores are also no less likely to sell winning tickets, this consumer behavior demonstrates superstition and uninformed logical decision making. Furthermore, this effect was more prevalent in zip codes with higher proportions of high school dropouts, elderly, or people receiving government financial assistance. For example, in a zip code with the average level of high school drop-outs, 26.2%, the rise in sales would be approximately 47%. Meanwhile in a zip code with a 90% proportion of high school drop-out, the rise in sales at winning store would be approximately 100%. These misinformed participants of the lottery are not only present, but also tend to be at lower education and income levels.

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<table>
<thead>
<tr>
<th>Demographic/Socioeconomic Characteristic</th>
<th>Participation Rate</th>
<th>Average Annual Per Capita Expenditures (Participating Lottery Players Only)</th>
<th>Average Annual Per Capita Expenditures (Overall Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>22.00%</td>
<td>$210</td>
<td>$109</td>
</tr>
<tr>
<td>Black</td>
<td>48.20%</td>
<td>$95</td>
<td>$48</td>
</tr>
<tr>
<td>Hispanic</td>
<td>52.60%</td>
<td>$209</td>
<td>$155</td>
</tr>
<tr>
<td>Other</td>
<td>49.10%</td>
<td>$205</td>
<td>$147</td>
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<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>High School Dropout</td>
<td>47.00%</td>
<td>$750</td>
<td>$534</td>
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<tr>
<td>High School Graduate</td>
<td>52.40%</td>
<td>$499</td>
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<tr>
<td>Nurse College</td>
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<tr>
<td>College Graduate</td>
<td>48.00%</td>
<td>$174</td>
<td>$86</td>
</tr>
<tr>
<td><strong>Income</strong></td>
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<tr>
<td>Under $10,000</td>
<td>48.20%</td>
<td>$259</td>
<td>$289</td>
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<td>$10,000-24,999</td>
<td>46.50%</td>
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<td>$326</td>
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<td>$25,000-49,999</td>
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<td>61.20%</td>
<td>$225</td>
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<td>Over $100,000</td>
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<td>$142</td>
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<tr>
<td>Don’t Know/Refused</td>
<td>43.00%</td>
<td>$136</td>
<td>$84</td>
</tr>
</tbody>
</table>

**Figure 1:** For different demographic or socioeconomic groups shown in the first column, the second column shows the lottery participation rate, while the column third shows the average level of expenditures for individuals who participate in the lottery, and the fourth column shows the average spending of all individuals in the socioeconomics or demographic group, including those who do not participate in the lottery. Although participation rates were fairly constant, black individuals, as well as low income and low education individuals tend to have had much higher lottery expenditures. Data Source: Clotfelter C. T., Cook P. J., Edell J. A., & Moore, M. (1999).
apply, but only for residents of Yonkers or New York City. In addition, in order to receive the full advertised nominal value of the Lotto, Lotto Extra, and certain Mega Millions games, the winnings must be received in annual payments for up to 26 years (New York Lottery, 2003). These extended payments continuously lessen in real value due to the effects of inflation (see Figure 3). Combined, the effects of taxation and inflation can make lottery jackpots approximately half of their advertised value.

Misleading consumers of any government run program is an ethical problem, but in the case of the lottery it can be avoided. In 1997, $400 million was allocated to advertising the lottery.6 States should include in their ads information regarding why many common misconceptions of the lottery are incorrect. Similar information could also be present where lottery tickets are sold or on the packaging of lottery tickets. Ideally, programs such as these would inevitably reduce revenue from the lottery, but would prevent it from taking advantage of misled citizens while leaving those who understand it to enjoy the lottery for the simple thrill it is.10

Privatizing the Lottery

State governments now have a monopoly on legalized accessible gambling. In any case such as this, a monopoly can choose prices and products that give the most benefit to the producer, in this case the government, and the least benefit to the consumer. However, because governments see gambling as a highly negative enterprise, they provide it only when strongly taxed and regulated. The result is a contradicting “muddle” with little benefit to buyers that is not as efficient as a competitive industry could potentially be.17

Privatizing the lottery and replacing the government monopoly with competing firms could increase the benefit to consumers. Payout in the current government lottery system is only 50% of what buyers put in, whereas in competing casinos, it is as high as 90% and often above.3 Competition has also been shown to drive higher payouts in state lotteries. Data from 1967 through 2000 shows a state’s lottery payout will rise 5% in response to a neighboring state’s lottery payout rising by 10%.5 These reactions to competition demonstrate that when there are multiple providers of gambling, they each must present the buyer with more benefit in order to compete with each other. Overall, breaking up lotteries into smaller more numerous firms would be beneficial to consumers and increase net social benefit.

This being said, the industry would still need to be highly regulated and taxed. Precautions would need to be taken to prevent chronic gamblers from making decisions detrimental to themselves or to loved ones. Consumers should be informed and be above a certain age to participate, in order to encourage somewhat rational gambling. If these regulations could be enforced, a competitive lottery industry would achieve a higher level of equity between the providers and users of the lottery, as no one firm or government body would have complete control over the market.

Earmarking Lottery Revenue

The lottery, like any government fundraising program, can only be as productive as the use of its revenue. In order to assure that lottery revenue helps achieve specific government goals, is it often reserved for one fund, most commonly education. This restriction of spending is known as earmarking lottery revenue. A major flaw in this system is the idea of fungibility, in which money put towards a department such as education does not raise the overall budget of the department because it merely replaces money now being diverted to other areas. Despite this, the many of studies have found earmarking to be a productive way of managing lottery spending.

In a 2002 study, data from sixteen states was examined to see if switching to earmarking funds for education increased the educational budget. The study also analyzed states where earmarking was already in place, to see if increased lottery sales correlated with rising educational spending. The results showed that in earmarked states, education spending increased by 60-80% of lottery revenue, relative to only 40-50% in states not earmarking revenue, and 30% in states who earmarked lottery revenue for other causes.3 This study indicates how earmarking lottery funds can make significant progress towards raising the budget of a certain department.

Earmarking, however, is not perfect and has sometimes been shown to be ineffective such as in cases when politicians have high obligations to major contributors. One study in Illinois detailed how lottery funds partially earmarked for education caused no net rise in the educational budget. Instead, the 1973 initiation of the lottery corresponded with a $171 million increase in the funding of the then struggling Regional Transport Authority (RTA), which drew $80 million from general state revenue. Furthermore, the Chicago area, which received the benefit of this $171 million program, was projected to have contributed only $50-60 million of the lottery revenue. Other areas that purchased lottery tickets were neither serviced by the lottery revenue, nor did they have representation on the RTA’s executive board. Lottery revenue in this case did not significantly increase educational spending.
or general state revenue, and the state of Illinois continued to fall in debt after the lottery was instated, possibly because lottery revenues released pressure on officials to run programs efficiently. Although this demonstrates an ineffective example of earmarked lottery funds, the state government in this case was already weak, and the earmarking restrictions were fairly lax. Strong restrictions and a government not already weighed down with serious fiscal problems could have yielded more positive results from earmarked lottery funds.

If nothing else, earmarking funds has focused significant sums of lottery revenue towards education in numerous states. As of 2002, New York had raised $21 billion through the lottery for education since 1967, Michigan had gathered over $10 billion for education since 1972, and California’s lottery had raised approximately $14 billion for education since 1985. All of these states completely earmark lottery revenue for education. It is possible that money gleaned from lottery revenue may have only replaced funds previously being put towards education. These states however, still illustrate the strong financial influence of earmarked lottery funds.

Another 2003 study done across all fifty states illustrated that on average, lottery revenues increased per capita spending on education from 1977 through 1997. Specifically, Georgia’s lottery revenue, which is earmarked towards education, provided the means for high increases in educational spending. From 1993 to 2005, Georgia’s lottery generated $6 billion towards college funds and other educational programs. Furthermore, the fungibility of funds is often due to federal withdrawal of educational funding. This leaves little accountability at the state level.

As long as the government can enforce earmarking strategies, they can be very positive in achieving specific goals and gaining popularity with the public. At the state level, earmarking shows promise for increasing funds in a desired department, whether education, environmental conservation or any other. Earmarking can help lotteries build education programs at least more effectively than the simple deferring of revenue towards general state budget. However if being put towards education, it should be made sure that the money is being diverted to schools that need it most, as well as proportionally distributed among areas based on how much people in those areas spend on lotteries. This will help reconstruct the low income areas that tend to bet on lotteries the most.

Conclusions

It is clear that state lotteries are riddled with major flaws. However, many states have come to depend on their lotteries for revenue. Simply banning them in favor of general tax increases might not necessarily improve economic or social conditions in the United States. However, there are several changes that can be made which might reduce how regressive the tax is, and increase its productivity. Changing the types of tickets sold and educating buyers would go a long way to help steer the lottery away from taxing those with the least disposable income. Replacing the monopoly controlled by the government with regulated competition would yield much higher odds and more benefit for consumers. Finally, earmarking revenue would help lotteries to achieve specific goals, and would make the idea of them more marketable to the public. If state lotteries are to remain in place, reform must be seriously considered to assure that society reaps the most benefit it can from them.

Footnotes


ii. When someone wins a lottery prize, a sum less than the advertised amount is set aside for payment. The portion of this sum not yet issued to the winner earns interest, which eventually accounts for the remaining part of the total advertised jackpot payout. Alternatively, in the Lotto and Lotto Extra games, the winner may immediately receive this original sum as a lump sum payment, not including the value that would be gained by interest. In other words, the winner could immediately receive the estimated present cash value of the series of payments.

iii. This plan may not have a large effect on consumer behavior; however more extensive education plans such as a focus on statistics in schools would have high administration costs and still would not reach all consumers.

iv. Like several other articles that argued either for or against the validity of state lotteries, Gribbin and Bean tend to use history to demonize the other side. Although never expressively stating a passionate moral opinion, they quote several politicians who do. I have tried to take from this only objective information, but the analysis of raw data not done by myself may not be completely unbiased especially in this case.

References


