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Opposing the Lottery in the U.S.: The Forces Behind Individual Attitudes towards Legalization in 1975¹

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ABSTRACT In the 1970s opposition to the lottery started to fracture in the US. This study examines the historical changes leading up to the 1970s, the factors that contributed to an individual's attitude towards legalization, and the causes of the fracture. The Survey of American Gambling Attitudes and Behaviours (1975) indicates that opponents held to the traditional arguments against the lottery – negative economic effect, costs to others, and increased crime. Unlike the past, there was weak religious institutional opposition to the lottery in lottery states; only individuals with a strong commitment to their religious affiliation were more resistant to pro-lottery arguments, but in most cases could be convinced to support the lottery. The pre-WWII generation remained steadfast against the lottery, but time was on the lottery proponent's side as there was relatively greater support among post-WWII generation. The logit model was used to predict future adoptions of large sample states. As expected, the attitudes of 1975 showed states with low opposition were likely to adopt earlier than high opposition states.

Introduction

Public policy issues relating to personal behaviour have produced heated debates. Central to these debates is the question of the government's role in shaping the behaviour of its citizens for the "public good". There is no formal definition of the "public good", but its ethos is institutionally defined by the policy actions of the legislature and the courts. These decisions are influenced by a complex set of factors and there pronouncements, as Robert Wuthnow argues, represent the "implicit and explicit claims about the character of the nation itself, the propriety of its actions, and the nature of its place in history and in the world." (Wuthnow 242) One public policy issue that has gone through a dramatic shift in the last forty years in the U.S. and has shaped the character of the nation has been the issue of state-sponsored gambling. Although the shift has been a recent phenomenon, American history reveals the gambling industry has already experienced both the extremes of prohibition and freedom.

Coltfleter & Cook (1990), Filer, Moak and Uze, (1988), Martin and Yandle (1990), Berry and Berry (1990), Erkeson, Platt, Whistler, and Ziegert (1999) and Pierce and Miller

(2001) have examined the factors influencing state adoption of lotteries using panel data of state-level economic and demographic characteristics. This study, however, will examine the issue of legalization by focusing on the attitudes of the constituents to see if there was a breakdown in the attitudes opposing gambling. In order to analyse the shift in attitudes a review of the historical underpinnings of the debate is given in the next section. This brief review focuses on the issues that have shaped public opinion. In the third section, a simple behavioural model is presented that examines the decision making calculus of the individual. Data from the National Commission on Gambling (1975) is used to determine the factors that drove attitudes about the lottery. The legalization model is then validated by predicting which states were ready for lottery adoption.

Historical Overview of the Opposition to Gambling in the U.S.

During the 19th century, gambling opponents were very effective in limiting the public in gambling opportunities. Fogel (2000) and Blakely (1977) argue that much of their success was due to a strong and organised voice from the extremes in the Christian community. The conservatives argued that gambling would corrupt the moral and productive character of the gambler as well as those who enforced the program. The liberals argued that gambling would lead to economic ruin for many and would be a regressive form of taxation. When the coalitions need to be extended beyond core followers opposition leaders linked gambling to the economic conduct of their employees and to the cultural values of their social class. As one reformer argued "gambling affect(s) good families and result(s) in pilfering by employees...children will be left unfit to be leaders of business and society – squandering fortunes."(Beisel, 1990, p. 51) These arguments broaden the antigambling appeal by linking it to issues supported by the non-religious middle and upper class.

The opposition to gambling continued throughout the 19th and early part of the 20th centuries until 1930s when the economic tolls of the depression pressed community groups to find alternative sources of revenue. To meet the financial needs of the organizations, state legislatures allowed churches, primarily Catholic, and charitable non-profit organizations to offered bingo to their members and the community. The Catholic Church found no problem with the promotion of bingo; it was considered neither a sin nor was it harmful to society. The editor of a Catholic magazine echoed the sentiments of many in the Catholic Church when he said "...that the playing of a game for a prize is not evil but often engrossing and refreshing recreation... (Although) a game of chance...can

be abused, the mere possibility of abuse does not make the game itself wrong". (Commonweal, 1960, p 282) If bingo was not legalised in a state by 1950, it was effectively de facto legal for religious organizations in many non-gambling states.²

In addition to bingo, several other gambling activities during this period were placed before the legislature. The second most successful game was pari-mutuel betting; six states legalizing betting on horses in the 1930s and by 1950 twenty-five states had legalised pari-mutuel betting.³ Culturally, horse racing was considered a "sport" and the enforcement of illegal wagering was nonexistent in many states. During the 1930s states were in need of revenue, and by codifying the game the states were able to take a share of the stakes. Although state-run lottery legislation was proposed in several legislatures during the 1930s, none were approved.⁴ Its failure to gain support could have been due to the nature of the kind of gambling activity. Whereas bingo was seen as a recreational activity that cost very little to participate, the lottery was viewed as a "pure chance" game.

After World War II, the religious opposition continued to fracture. Conservatives shifted their concerns to the moral condition of individuals and less interested in political solutions. Leading this shift was Billy Graham. Liberals, as Fogel (2000, p.172) observed, followed a new paradigm in which "moral vices became illnesses (addictions) better treated by secular therapists than by legal prohibition or moral suasion." This shift to the secular, to the social scientist, is consistent with what Wuthnow observed in the American Church. Wuthnow (1988) argues that this shift was due, in part, to the divergence in the education level of the members of many of the main line denominations. In the late 1950s and early 1960s, those that held a liberal theology were more likely to have a college education and were also less likely to have a common core set of beliefs. Individualism was taking hold in the liberal church and although the leadership of the liberal side was willing to continue to fight for gambling prohibition, they were not able to marshal the membership to fight for the cause.

New Hampshire Lottery - The Leak in the Dam

The first breakthrough came in New Hampshire. After 27 years of lottery proposals the pure chance lottery finally gained enough support in the legislature and the governor's office to become law in 1963. The most prominent advocate for the lottery was Governor King. The Governor addressed the moral arguments against the lottery and highlighted the economic realities of taxation. On the moral issue King argued that "you can not legislate morals... the 'little people' have more common sense than to overindulge in the

sweepstakes against overwhelming odds."⁵ On the issue of taxation, King argued that the state should receive and control the revenue, not the criminals and with the "increasing demands for school facilities, at a time when our people are already carrying a cross of taxation unequalled in American history, it (is) our duty to initiate programs which will relieve this heavy burden on the people."⁶

Although there were several prominent groups opposing the law - the Protestant Christian Civic League, educators, businessman, and economists - their arguments did not resonated with the public.⁷ The religious groups gave the same arguments that were used in the 19th century; it would corrupt the morals of the individual and of the politicians. Speaking for the educators, the Concord Superintendent of Schools stated "he knows no NH educator who favours the bill and that it is vigorously opposed publicly by most." The educator's concern was not gambling per se but that education would be supported by an unsound method of financing.⁸ While the economists argued against the lottery because it would not meet the long-term financial needs of the state and that a new source of tax revenues was needed.⁹

By 1974, eleven more states had enacted state-sponsored lotteries: seven of those states earmarked revenues for general use, three state earmarked revenues for education and one of the states earmarked revenue for senior citizens. The growth and acceptance of state lotteries eventually gave way to easing the prohibition on casino gambling. As history showed the public shed its cultural history and began a new era of public policy. *Taxation and Enactment*

The historical overview suggests that economic pressures exerted at the right point in time were enough to weaken the resolve of opponents and opened the door for state sanctioned gambling. Most researchers have used some measure of tax burden as a proxy for economic pressure on the legislature. In New Hampshire it appears that Governor King was referring to the burden of property taxes. New Hampshire, unlike most states, had neither an income tax nor a sales tax and most of the State and Local Revenues came from property taxes and excise taxes. Compared to other states, see Table 1, New Hampshire relied heavily on property taxes as a source of revenue. However, New Hampshire's total taxes collected as a percent of personal income (the average tax rate) was below more than half the states.

The high property tax burden of the citizenship also appears to be the case with those states that passed lottery legislation prior to 1975. The average property tax burden of lottery states was close to 51% as compared to a property tax burden of 39% in non-lottery states, while the average tax rate of lottery states was slightly below the average tax rate of states that relied on an income tax. Although it appears that the type of tax may have been crucial in the passage of lottery legislation, the evidence is not convincing. There were eleven states in 1963 that did not enact a lottery by 1975 that had property tax burdens above 50% and had an average tax rate above the national average. If the tax burden was critical to the calculus of the public's consent then we would have expected those states to be among the first to enact a lottery. Thus, the tax burden alone may not provide a clear picture on what reduced the opposition in these lottery states. A model of opposition must also include cultural and perceptional attitudes of the public.

Modelling the Opposition to the Lottery

After 25 years of lottery history, several researchers, Filer, et al. (1988), Berry and Berry (1990) Martin and Yandle (1990) and Erekson, et al. (1999), have examined the factors that influenced the adoption of lottery legislation from various approaches. The core theoretical framework of these studies is to examine factors that will lead the legislator to maximize their support. Unlike previous studies, this study will examine the motivations of individuals at a time in lottery legislative history when the debate for legalization was at critical point. Understanding the factors that motivated an individual's political position will allow us to predict which states will succeed in passing lottery legislation and which states will continue to be the future battlegrounds.

As the historical review above reveals the decision to oppose legalization is based on the cultural and economic background of the individual. The decision calculus of the individual to support or opposed the lottery is based on the individual's net expected value of a policy change. In this case it is assumed that the policy change is a liberalization of the lottery prohibition. Let

$$E[L_j] = \{\alpha E[NDB_j + NIB_j] \} x \omega_a$$

Be the net expect value of liberalization where α is the subjective probability of the success of enacting gambling policy j, NDB_j is the *perceived* net direct benefit – the difference between perceived direct benefits and direct costs - and NIB_j is the *perceived* net indirect benefit - the difference between perceived indirect benefits and costs - of gambling policy

j for individual a. Each expected value is weighted by ω_a which represented the individual's personal interest in the public policy. ω_a takes on a value between zero and one with a zero indicating no interest and a one indicating extremely important issue. The benefit and cost assessments with each category are subjective and the individual's evaluation may overestimate or underestimate the "true" values. When the Expected Total Net Benefit (E[NB_j]) > 0, the individual places net value on policy liberalization j. When $E[NB_j] < 0$, the individual places a net cost on policy liberalization j. Thus, the expected value of liberalization is positively correlated with the attitude toward the policy; the larger (smaller) the expected net benefit, the greater the support (opposition) to the legislation.

Direct benefits and costs are defined as those that the individual believes will directly impact their personal wealth from the liberalization of gambling. 11 (See Table 2 panel A for a summary.) There are several direct private benefits from gambling liberalization. First, there are the benefits that are received by those who are the providers and associates of gambling services. This would include firms and their employees involved in gambling activities, firms that supply inputs to the gambling industry, employees of the government agency directly benefiting from gambling revenues, and firms in complimentary industries. Second, there is the perceived reduction in the tax burden from the new revenue source. Supporters of liberalization, as echoed above by Governor King, argue that the legalization will provide tax relief. Gambling revenues will come for three potential sources: new players from within the state, current in-state players who have gone out-of-state, and out-of-state players who will come into the state to play. Individuals in the highest tax brackets are most likely to perceive the greatest advantage, especially in states that have a progressive income tax. Third, there is a direct private benefit for those who will receive subsidised government services from the gambling revenues. Fourth, liberalization will lead to lower transaction costs for gamblers. Liberalization typically implies increased access to gambling services which will lower the transaction costs. Finally, there are direct non-pecuniary benefits to individuals who may have a reduction in emotional stress from the legalization. These individuals could be gambling illegally, face the potential of being arrested for their activities, and gaining relief from legalization.

INSERT TABLE 2

There are also direct costs from liberalization. Firms and individuals who compete with the gambling industry would face direct costs from lost sales and employment.

Indirect private costs also occur when the individual gambler exceeds the expected budget outlay for their gambling activity. If the deficit is credit financed, then the unanticipated interest expense would result in an opportunity cost; representing the reduction of future purchases of other commodities.¹² In the extreme some would file for bankruptcy and would result in non-pecuniary hardships for the family.

Indirect costs and benefits are those that are perceived by the individual that spill over into society from the enactment of the policy which could ultimately impact their own personal wealth or the wealth of others. (See Table 2 panel B for summary.) These benefits and costs can be viewed in monetary terms where imputed values are calculated or in nonpecuniary terms where values are incalculable other than through the revealed preference towards legalization. One indirect perceived benefit is the benefit that others gain from the government services resulting from gambling. If the gambling revenues are earmarked for health care or education, non-recipients of these benefits may place value on these services to others. They may also place value on the indirect (or spill over) benefits that may occur from a healthier populace or more educated society. A second indirect benefit is perceived when gambling revenues are expected to revitalize a particular region even though they do not live in the region and the individual expects to gain indirect benefits in the future from a reduce tax burden. A third benefit, some have argued is that individuals will gain an indirect benefit from legalization when crime prevention and adjudicated resources are freed-up and can be reallocated to other areas. This will ultimately reduce crime in other areas and benefit neighbourhoods. Finally, some individuals will place value on the new opportunities given to others. Some may value new opportunities given to individuals who could advance in society from the winnings, or as some have put it, the lottery could increase hope to individuals. These values represent non-pecuniary benefits gained from legalization.

The perceived indirect cost of liberalization includes the decline in productivity, increased criminal activity, and increased welfare costs. Historically, many have argued that gambling will impact an individual's conduct at work. The "get rich quick" attitude among gamblers will produce shirking at the workplace and reduce productivity. This belief has lead some to perceive an economic loss to society. In addition to loss productivity, many have argued that legalization will increase crime. Addicted gamblers will need to support their deficits through theft and other illegal activities; thus requiring an increase in crime prevention resources. Third, individuals may perceive that there will be indirect welfare costs to society including an increase in social services costs to treat the

increase in problem and pathologically addicted gamblers, an opportunity cost for reallocating revenues to this new problem, and an increase in welfare costs due to the financial losses of low-income gamblers. In addition to potential measurable indirect costs, there are some that are immeasurable. Individuals will place a value on the social consequences of the policy. For these individuals the consequences of gambling will include the perceived decline in morals, the increase struggle for low-income families or families with addicted loved-ones.

The value an individual places on a policy is weighted (ω_a) by their personal interest in the policy and the cultural context in which they live. This interest can be motivated by a number of different factors. One factor can be the individual's own experience with gambling. Increased exposure or participation enables an individual to form their own personal feelings towards the activity. Another factor that will motivate individuals would be their "moral" conviction about gambling. Strong moral convictions can be motivated by religious teachings or by political philosophy; conservative Christians may have just as strong an interest in the policy as libertarians. Where the Christian is likely to strongly oppose liberalization, the libertarian is likely to strongly support liberalization. A third factor that motivates individuals is the degree to which the individual is directly a recipient of a benefit or cost. Direct recipients will be more interested in the policy and place a higher weight on the value of the policy. A final factor is the individual's exposure to the range of viewpoints. Meier (1994) argues an individual who experiences a wider variety of viewpoints or a few viewpoints is more likely to have a stronger interest in the policy than an individual who has some experiences but not enough to become interested in the policy. An individual who been exposed to a wide variety of viewpoints may develop a tolerance and may argue for tolerance in social issues. An individual who has little exposure will want to maintain the status quo and therefore resist any change in policy.

Data and Empirical Model

In 1975 national survey individuals were asked their opinions about the legal status of the various gambling activities. For those individuals who lived in a state that allowed a lottery, they were asked if they would vote to abolish it. For those individuals who lived in a state that prohibited the lottery, they were asked if they would continue its current status. In either case a one was assign to the individual (A_i) who believed that gambling should be illegal and zero otherwise. From the theory above a logit model is used to assess the factors

that influence an individual's attitude towards legalization. (See Table 3 for the labels for the variables and expected signs.):

$$\begin{split} A_i = & \ \alpha_0 + \alpha_1 \ TB_i + \alpha_2 PMB_i + \alpha_3 \% NEIG_i + \alpha_4 IGAM_i + \alpha_5 \ ECON_i + \alpha_6 OTHERS_i + \\ & \ \alpha_7 CRIME_i + \alpha_8 NGS_i + \alpha_9 AGE_i + \alpha_{10} AGE_i^2 + \alpha_{11} URBAN_i + \alpha_{12} PP_i + \alpha_{13} ED_i + \alpha_{14-19} REL_i + \alpha_{20} RC_i + \sum \delta_{1-18} \left(LOTTERY x \ X_{1-18} \right) + \gamma_i \end{split}$$

Expected Hypotheses - Net Direct Benefit

Several variables were included to capture net direct benefits: tax burden (TB), percent of neighbouring states having the lottery (%NEIGH), competing industry (PMB), and illegal gambler (IGAN). Two measures of tax burden were used in separate models: the percent of tax revenues that comes from property taxes, and the average tax rate of the state. We would expect that higher tax burden states will show less opposition than low tax burden states. To capture the potential revenue leaving the state due to neighbouring states having the lottery, the percent of contiguous states with state lotteries was used. The higher the percentage the more likely individuals would show less opposition. A dummy variable for states that only had pari-mutuel betting was used as a proxy to indicate the cost to competing industries. Individuals would perceive the lottery as a competitor to the parimutuel industry and we would expect more opposition to the lottery. Finally, we would individuals who place an illegal bet in 1974 are less willing to oppose legalization. These individuals have a strong interest in reducing the risk associated with their illegal participation.

INSERT TABLE 3

Expected Hypotheses - Net Indirect Benefits

Three variables are used to account for the individual's calculus on the perceived net indirect benefits: the net economic benefits, the impact on others, and the impact on crime. To measure the perception of net economic benefits (ECON) an index was created from three questions posed to the respondents:

- 1. Will the lottery raise more money to run the government?
- 2. Will the lottery provide more jobs?
- 3. Will the lottery cause individuals to be less productive?

An index value of 0 indicates that the lottery will have no economic benefits to society (the individual disagreed with one and two and agreed with three) while an index value of 1 indicates that the lottery will produce economic benefits for society. It is expected that the higher the index the lower the opposition to the legalization of the lottery.

A second index was created to reflect the individual's perceive impact of gambling's on other individuals (OTHERS). Two questions were asked:

- 1. Will gambling cause individuals to spend more than they can afford?
- 2. Will more children be influenced by gambling?

If the respondent affirmed both statements the index would have a value of one. If the respondent disagreed with the statements the index would be zero. We would expect a positive relationship between the index and the level of opposition. The final indirect variable is a dummy variable on the individuals perception of gambling's impact on crime. CRIME is a value of one when the respondent believes that legalization will increase organised crime, while a zero if legalization will not increase organise crime. We would expect a positive relationship between CRIME and opposition.

Expected Hypothesis on Cultural and Individual Factors Influencing the Policy Weight

In the area of cultural exposure, we include several variables that provide cultural proxies
for the individual. The first is a dummy variable for individuals who live in a state that
permitted no gambling (NGS), including a prohibition on bingo. The public policy of the
state would be a proxy for the cultural attitudes within the state. The individual will be
more likely to oppose legalization if they lived in a state that had no gambling. We would
expect less opposition by individuals who are exposed to gambling. Age (AGE) was
included in the model to account for the cultural up-bringing and economic interest in
legalization. AGE and AGE² are included since we would expect that the younger
generations would be more supportive of gambling than senior citizens who were brought
up prior to WWII. Younger generations are more likely to go against the status quo while
older generations were raised with the attitude that gambling is a destructive behaviour.
We would also expect that the opposition will be stronger the older one gets as the
individuals belief system solidifies with little chance of wavering.

The final cultural exposure variable – URBAN - is the residency of the individual. Meier (1994) has argued that individuals living in urban centres are exposed to a greater diversity of backgrounds and lifestyles and are therefore more tolerant of gambling behaviour. These individuals would have a lower estimate of social costs, and higher estimate of social benefits. Therefore, urban dwellers are more likely to support lottery legislation.

Six variables are used to capture the personal attitudes toward gambling policy: political philosophy (PP), education (ED), religious affiliation (REL), and religious

commitment (RC). An individual who holds to a libertarian political philosophy is likely to support legalization. A libertarian index, ranging from zero to one, was developed from the responses to three questions dealing with the legalization of illegal activities: marijuana, prostitution, and pornography. An individual who would say yes to the legalization to all three would be given a value of one and if they said no to all three, a value of zero. The educational attainment of the individual may also impact how they view the legalization of gambling. Two dummy variables were created to designate the level of education. For individuals who at least hold a high school degree (HSDGREE) were given a value of one and zero otherwise. If the individual receive a college degree or received post graduate education, a value of one was given to COLLEGE, and zero otherwise. As Wuthnow (172) noted, education had changed the individual's attitude toward religious doctrine from a strict adherence to greater acceptance of other ideas. Thus, the higher the education the individuals will show greater openness to legalization and would be less likely to oppose legalization.

Finally, the religious orientation of the individual will also influence their attitudes towards legalization. Two variables were used to identify religious orientation: religious affiliation (REL) and religious commitment (RC). Six dummy variables were used to categorise the individual's religious (or non-religious) affiliation: Catholic, Main Line Protestant, Methodist, Baptist, Fundamental, and Atheist/Agnostic. The more conservative the denomination the more likely the denomination would advocate opposition to legalization. We would expect Catholic (the most liberal towards gambling) to be least likely to oppose while Fundamentalist (most conservative toward gambling) most likely to oppose. As noted above social advocates of Main Line Protestants churches opposed gambling in New Hampshire. However, these denominations also contained a growing segment of educated members who were more tolerant of gambling. Thus, it is uncertain as to the expected sign. At this time Methodists were considered slightly more conservative than Main Line, but more liberal that Baptists while Baptists were slightly more liberal than Fundamentalists. There is no basis to determine the sign on the Atheist. However, Economopoulos (2005) has shown that Atheists during the 1970s were not likely to participate as gamblers, and if they applied their practice to their policy they would oppose legalization, holding all other factors constant. In addition to religious affiliation a measure of religious conviction was also included. Commitment was measured by how often the individual attended church related functions. Respondents were asked how often they attended religious services with responses ranging from not at all to more than once a

week. An individual who attended more often was more likely to hold to the tenants of their faith and more likely to oppose legalization.

The last set of variables is a group of interaction variables to account for the potential differences in how individuals in lottery states respond differently than individuals in non-lottery states to the explanatory factors. Each of the explanatory variables (explained above and labelled X_i) are multiplied by a dummy variable (LOTTERY) where an individual who is living in a lottery state is designated as a one, and in a non-lottery state is designated zero. If individuals in lottery states are more accepting of the lottery, the expected sign of the interaction variable is expected to be the opposite of the theoretical sign argued above. ¹³

Results

The maximum likelihood estimates and the marginal probabilities of the main model variables and significant interaction variables are given in Table 4 and 4b¹⁴. Comparing both Tax Models it is clear that the type of tax burden variable used in the model does not change any of the signs nor change the size of the other coefficients significantly. All the coefficients that were statistically significant in the Property Tax model remain statistically significant and have the expected signs in the State-Tax model. Surprisingly, there very few interaction variables were significant suggesting that individuals in lottery states reacted no differently than individuals in non-lottery states.

The evidence on the net direct benefit variables indicates that two of the variables – parimutuel and illegal gambler - were statistically significant at least at the 5% level. An individual who lives in a pari-mutuel state is 12.5%-12.8% more likely to oppose the lottery than an individual on a non-pari-mutuel state. As expected individuals who gamble illegally are 23.1%-23.6% less likely to oppose the lottery. Although the signs on the tax burden variables are as expected they

INSERT TABLE 4

are statistically insignificant. As Table 1 suggested above, the evidence of the average tax burden provides no clear signal on a state's willingness to adopt the lottery.¹⁵ It appears that Governor King's the tax burden argument may not have been the critical factor for the general public in approving the lottery at this point in time of lottery history. Likewise, the lottery policy of neighbouring states had no impact on an individual's opposition to the lottery.

All three perceived indirect benefits determined the level of opposition to the lottery. As expected the individuals who believed the lottery will hurt others and will increase crime will be 7.4%-7.7% and 6.6%-6.7% more likely to oppose the lottery, both variables significant at least at the 5% level. Individuals who believe that the lottery will provide economic benefits to the state and believe that the lottery will not reduce productivity are 8.9%-9.5% less likely to oppose the lottery. Thus, individual's perception of indirect impacts on society could potentially shift the level of opposition as much as 24%.

All but one non-religious cultural or personal characteristic was statistically significant and had the expected signs. The only characteristic that was not statistically significant was Urban. It appears that urban centres do not appear to promote a spirit of diversity as Meier suggested, and there level of opposition was not different than an individual living in the country. Individuals in non-gambling states were 11.5%-12.5% more likely to oppose the lottery, holding all other factors constant. Thus, there is a strong level of opposition to retain the status quo. The coefficients on the age variable do suggest that there were generational differences in their level of opposition. Younger individuals are more likely to support prohibition, but as they grow older this attitude declines during their middle ages and then rises as a senior. (See Figure 1.) The data suggests young adults (18-25) were just as likely to oppose the lottery as were their pre-retirement elders (55-62). Middle-aged adults were least likely to oppose the lottery, but the turning point for this cohort was for those who were born prior to 1934. Seniors retirees were more likely to oppose the lottery than any age group.

INSERT FIGURE 1.

As expected, those who hold a libertarian political philosophy were 7.6%-7.7% less likely to oppose legalization. The education level does determine an individual's level of opposition but it differs significantly in the state the individual lives. An individual in non-lottery states with no high school degree are more likely to oppose the lottery than an individual who holds a degree. Individuals with at least a college degree will be 12.6% less likely to oppose than non-degree individuals, but they are not as adamant as individuals with at least a high school degree. High school degree holders are 19.4%-19.9% less likely to oppose the lottery. The stronger preference among high school degree holders could be from a longing to advancement to the next economic-social level.

If these degree holders live in lottery states, the attitude towards opposition changes. (See Table 4b.) Adding the marginal probabilities of the High School coefficients provides the level of opposition by a high school degree holder in a lottery state. The evidence indicates that high school degree holders are no different in their opposition than non-degree holders with a coefficient close to zero. Likewise college degree holders are not only less likely to oppose, but show a greater willingness to oppose the lottery in their state – between 13.5% and 13.9% level of opposition. This significant swing suggests that these individual may be observing something that has created concern.

The religious affiliation variables confirm the notion that conservative denominations were willing to oppose the lottery. Both Baptists and Fundamentalists are the only groups that showed significant levels of opposition towards the lottery: Baptists are 16.3% and Fundamentalists were about 28% more likely to oppose the lottery. Surprisingly atheists in lottery states were very much opposed to the lottery; they were 42%-44% more likely to oppose gambling. For supporters of the lottery, the opposition of atheist should not be a concern since they made up less than 2% of the population. The signs on Catholics and Main Line Protestant do show less opposition as expected but they were not significant. However, holding religious affiliation constant, individual's attendance to religious services more often are more likely to oppose the lottery. Those who attend religious service on a weekly basis (52 times per year) have a 5.2%-5.3% higher probability to oppose the lottery than a causal attendee (30 times per year). These results suggest that religious opposition should not be solely identified by an individual's denomination, but also by a broader designation.

In summary, the evidence does give a clear picture of the opposition. Opposition was primarily from individuals who have a deep religious commitment and who perceived the lottery's negative consequences on society. However, a comparison of the marginal probabilities between the religious influences and the indirect perception influences on opposition indicates that advocacy groups can mitigate the religious influence by changing their perception. Opposition is even greater where there was some gambling industry already established and a demographic with an older population.

Religious Opposition in Lottery States

The small number of significant interaction variables suggests that there was very little distinction between individuals in lottery and non-lottery states. However, the inclusion of interaction variables could have created significant multicollinearity among the variables.

To determine if multicollinearity is present, two alternative models are presents: one model includes all non-religious interaction variables and the other only religious interaction variables and the education variables. The education variables were included with religious for the purpose of controlling the liberalization of religious attitudes within religious communities.

The results of the two alternative models are presented in Table 5. The model of only non-religious interaction variables continues to support the original model; none of the interaction variables were statistically significant, expect for the education variables. The size of the coefficients on the significant variables did not change significantly from the original model suggesting that the elimination of the dummies did not introduce any bias and would not change any of the earlier implications. Thus, individuals in lottery states responded no differently to these influences than non-lottery state individuals.

INSERT TABLE 5

The religious interaction model, however, yielded very different results. The coefficients on the main set of variables for both the property tax and state tax models remain statistically significant and were close to the size of the original model. ¹⁶ The influence of denominational affiliation, however, had change significantly, and provides a clearer picture of the religious opposition. For those who live in non-lottery states Catholic and Main Line Protestants were no different than the benchmark faith, they neither showed more or less opposition. The coefficient on the Methodist variable is now statistically significant, compared to the original model, and shows that Methodists were more likely to oppose the lottery in non-lottery states. Baptists and Fundamentalists continue to oppose the lottery. What the alternative model also reveals is that there is a significant and dramatic difference between the non-lottery-state individuals and lottery-state individuals in these religious denominations. All of the lottery-state religious denomination interaction variables – except the Fundamentalists - are all negative, statistically significant, and are of a size that indicates less opposition to the lottery. The sign of the Fundamentalists even shows less opposition in lottery state; the size of which indicates that Fundamentalists almost shows little opposition to the lottery. The coefficient, however, is barely statistically insignificant. Finally, the religious attendance interaction coefficient in both models is statistically insignificant suggesting that religious conviction shows consistent opposition among the faithful.

Since the survey of attitudes had occurred after the adoptions, these results suggest that the religious coalitions had either lost there determination prior to their adoption or they became more tolerant of the lottery and a part of the cultural institution. This outcome can not be attributed to the liberalization of these religious denominations vis-avia the educational level of congregants since this was held constant. The near statistical acceptance of the Fundamentalists in lottery states, however, does suggests that the lottery became more culturally accepted within these states.

Opposition, Economic Persuasion, and Religious Commitment

Since an individual's perception about the lottery can be influenced by advertising campaigns, policy groups may be effective by changing a small element of an individual's attitude in one of the key perception areas. As noted earlier, a change in one of the net indirect benefits could potentially increase or decrease the opposition as much as 24%. Depending on the level of public opinion this change could potentially switch the outcome of a state referendum. Thus, it is critical to understand how resistant individuals were in changing their perceptions are. To what level do we find individuals who have a deep commitment change their level of opposition when they are given new information about perceived benefits and costs?

Two additional models are examined to determine the degree of resistance that an individual's religious commitment or religious affiliation has on the level of opposition from net indirect influences. Interaction variables are included in the Property-Tax Religious-Lottery Interaction Model where the pari-mutuel betting state variable, and the net indirect perception variables are multiplied by a dummy variable (DR) designating a "religious" individual. A religious individual is defined as one who attends religious services more than once a week or is classified as Baptist or Fundamentalist. Thus,

```
\begin{aligned} \mathbf{A_i} &= \ \beta \ _0 + \beta \ _1 \ \mathbf{TB_i} + \beta \ _2 \mathbf{PMB_i} + \beta \ _2 \mathbf{bPMB_i} \ \mathbf{x} \ \mathbf{DRC_i} + \beta \ _3 \% \mathbf{NEIG_i} + \beta \ _4 \mathbf{IGAM_i} + \beta \ _5 \ \mathbf{ECON_i} \\ &+ \beta \ _{5b} \ \mathbf{Econ_i} \ \mathbf{x} \ \mathbf{DRC_i} + \beta \ _{6b} \mathbf{OTHERS_i} \ \mathbf{x} \ \mathbf{DRC_i} + \beta \ _{7} \mathbf{CRIME_i} \\ &+ \beta \ _{7b} \ \mathbf{CRIME_i} \ \mathbf{x} \ \mathbf{DRC_i} + \beta \ _{8} \mathbf{NGS_i} + \beta \ _{9} \mathbf{AGE_i} + \beta \ _{10} \mathbf{AGE^2_i} + \beta \ _{11} \mathbf{URBAN_i} + \beta \ _{12} \mathbf{PP_i} \\ &+ \beta \ _{13} \mathbf{ED_i} + \beta \ _{14-19} \mathbf{REL_i} + \beta \ _{20} \mathbf{RC_i} + \sum \theta_{1+20} \left( \mathbf{LOTTERY} \ \mathbf{x} \ \mathbf{REL} \ \& \ \mathbf{ED} \ \mathbf{VAR} \ _{14-20} \right) \\ &+ \epsilon \ _{i} \end{aligned}
```

If a religious individual's opposition is solely based on a moral opposition, whether it is a moral bad or a moral injustice to others, we would expect that they would not be influenced by or more resistant to these economic considerations. Thus, we would expect

that $\beta_{2b} > 0$ and $\beta_{5b} > 0$ such that we would expect little or small response based on these factors. For those perception variables that impact others and increase crime, we would expect that they would have greater response to these perceptions. Thus, it is expected that $\beta_{6b} < 0$, and $\beta_{7b} < 0$. The results of the interaction variables, given in Table δ^{17} , indicate that individuals with high religious attendance are no different than non-religious individuals in all of the areas examined except for the lottery's impact on others; religious individuals will have a stronger level of opposition than less-religious individuals. Baptists and Fundamentalists responded differently than the general public with respect to two of the interaction variables: hurting others and economic benefits. The size and the sign on the Economic Benefits' coefficient are as expected, it is statistically significant.

INSERT TABLE 6

at the 5% level. These denominations were less persuaded by the economic benefits arguments suggesting stronger resistant. The coefficient on hurting others is unexpected; it is negative and significant. Like the economic benefits argument, Baptists and Fundamentalists are less responsive to the perception that gambling impacts others. Given the results of Tables 5 & 6, it appears that some of the staunchest opponents to the lottery are not likely to change their opposition and for those who have deep religious convictions are likely to respond significantly to the lottery's impact on others.

Predicting Lottery Acceptance

Given our understanding of those who oppose the lottery we can use the model to examine the likelihood that a non-lottery state as of 1974 would adopt the lottery some time in the future. The Property-Tax Religious-Education Interaction Model is used to calculate individual probabilities of opposition within each state with a sample over 24 and the median and mean opposition probabilities are calculated. The results are provided in Table 7. The model does have some merit in predicting lottery adoption, suggesting that the individuals of the survey may have been a reasonable sample for the legislative attitudes of the populace of the states. In general states with the lowest opposition adopted a state-run lottery sooner than those states with high opposition. A ranking score of 92% indicates that the model can place a state's adoption very close to the expected time relative to the other states. However, the evidence raises additional questions as to why it took so long for some of the states to adopt lotteries where there appears to be strong support for a lottery and what changes occurred in Kentucky and Texas that lead to adoption when the

state showed significant opposition. Further study on the legislative process within these states may explain the delay of implementation.

INSERT TABLE 7

Conclusion

The arguments used in the past still held significance in determining an individual's attitude towards the lottery. Economic benefits were just as persuasive in impacting an individual's attitude as the perceived cost to society. Religious opposition continued to be strong in non-lottery states, but was significantly less in lottery states. Thus, the earlier coalitions of protestant denominations were either losing their influence in lottery states leading to their adoption, or the lottery experience lead many individuals with a history of opposition to change their attitude about the lottery. An individual's religious commitment, however, holding affiliation constant, was the more important factor in determining opposition. These strong opponents, however, were just as open to the arguments as the general public and a change in their perception could shift their attitudes considerably depending upon their background. Finally, it appears that some opposition came within states that already had an established gambling sector - pari-mutuel betting.

The age demographic and the gambling culture of the states were key factors that foretold the future of the lottery. Individuals born during the depression strongly opposed the lottery, but those born after WWII were less likely to oppose. Within a half a generation, the opposition was going to lose a large cohort. States that had other kinds of gambling activities were more receptive to the lottery, and provided cases in which other individuals were able to evaluate the net private benefits and costs. As the impact of gambling became evident, the public became more open to its adoption. Although the adoptions were not immediate, states appear to be on track for its adoption. It was a matter of time as the generations changed, and public-interest groups and industry-related groups identified the key touch-points of the individual's calculus, that society was ready for the lottery.

¹ This research was funded, in part, by a grant from the Carnegie Mellon Foundation.

² In Chicago, the Catholic Church issued a letter requesting parishes to discontinue bingo nights when it was found in violation of the law. (Commonweal, 1960) In NYC, the Deputy Chief Inspector was embroiled in a controversy when he started to close down bingo nights at local churches. (N.Y Times, 1954).

³ See Weinstein and Deitch (1974) pages 13-14.

⁴ See Brenner and Brenner for the list of states. They also noted that the marketers of the 1930s found ways to take advantage of the increase willingness to participate in a game of chance. It became a widespread practice for companies to run "contests". Since it was not a "pure chance" game, the customer received something for their purchase, contests were not considered a lottery.

⁵ Weinstein and Deitch, p15.

⁶ Found in L. Starkey. (1964), pp.76-77.

⁷ J. Gould of the New York Times Magazine (1963) reviews the coalitions opposing and supporting the lottery.

⁸ *ibid*, p. 104.

⁹ See, D. Ford in The Reporter, p. 33.

¹⁰ Property taxes are considered one of the most onerous taxes by the general public and senior citizens. McManus (1995)

¹¹ Walker and Barnett (1999) give a thought provoking critique of how researchers have defined the social costs of gambling. They define social costs on an aggregate level and argue that a transfer of wealth from one individual to another should not constitute a social cost. However, since this model focuses on the individual's perception of benefits and costs, an individual's decisions may not reflect the true benefit or cost to themselves or society. They assess the policy in terms of the benefits or costs they directly expect to realize, and the benefits and costs that may be realized through third party activity. Thus, we divide the analysis into direct and indirect benefits and costs. In the literature indirect benefits and costs have been called social, spillover or external benefits and costs.

¹² If the individual ahs a spouse who engages in gambling, they may perceive a direct cost if the spouse spends more than financially budgeted.

¹³ Two variables are not interacted with the lottery – Parimutuel and Non-Gambling Sate – since neither state type of states allowed the lottery.

¹⁴ Insignificant interaction variables are not included in the table. The complete results are available upon request. Marginal probabilities are estimated by examining a unit change in the independent variable, holding all other variables constant at assumed values. Continuous variables were assumed at there mean value, and dummy variables were assumed to be for the following characteristics: state characteristics -a parimutuel, non-gambling, and rural; individual characteristics – illegal gambler, high school degree, and Jewish religious affiliation. For continuous variables the unit change is 10% from the mean. For indexes the unit change is in terms of the actual discreet change in the variable.

¹⁵ A model was run to examine if the individual's income given their state's tax burden would influence their opposition. All test of tax burden variables are insignificant and doe not change the signs and significance of the other variables in the model.

¹⁶ The level of significance also increase suggesting that the non-religious variables were creating some measure of multicollinearity.

¹⁷ Only the interaction variables and the religious commitment variable are provided in the table. All other coefficients had the same sign, within the same size, and had the same level of statistical significance as the original model.

¹⁸ This result is likely due to the presence of multicollinearity in the model. When the Fundamentalist dummy is dropped from the model, the property tax interaction variable is statistically significant. The same result held true for the religious attendance model.

¹⁹ The score was calculated by taking the difference squared in actual rank from the expected rank, divided by 240 (the score if the model predicted the completely wrong ranking), and subtracting this percentage from one.

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Table 1. Tax Burden of States in 1963

		Average Prop	Average
	Number	Tax as % of	Tax
	of States	Total Taxes	Rate
No Income Tax States	16	49.80%	9.20%
Income Tax States	34	39%	9.60%
New Hampshire		63.30%	8.90%
Lottery States by 1974	11	50.7%	9.2%
High Non-Lottery States	11	56.5%	10.0%

Source: U.S. Statistical Abstract 1964

Table 2. Summary of Benefits and Costs From Liberalization

	Panel A	
	Benefits	Costs
Direct	Profits to Firms	Losses to Competing Firms
	Profits to Associated Firms	Bankruptcy Costs
	Tax Relief	Non-pecuniary costs
	Government Services Recipient	
` .	Lower Transaction Costs	
	Non-pecuniary benefits	
	Panel B	
Indirect	Spill over Benefits	Productivity Loss
	Economic Development	Increase Welfare Costs
	Freeing-up Resources	Increase Criminal/Corruption
	Non-Pecuniary Benefits	Non-Pecuniary Costs

Table 3. Factors Influencing Gambling Attitudes toward Opposition of the Lottery

Independent Variables Used in Analysis

ndependent vari	ables Useu II	i Alialysis	
Type	Variable	Label	Expected
			Sign*
Net Direct	TB	Tax Burden	_
Benefits	PMB	Pari-Mutuel Betting State	+
Benefits	%NEIG	% Neighbouring States having Lottery	- "
×.	IGAM	Gambled Illegally in 1974	-
Net Indirect	ECON	Positive Economic Development	-
Benefits:	OTHERS	Gambling Hurts Others	+
bonones.	CRIME	Gambling will Increase Crime	+
Cultural/	NGS	Non-Gambling State	+
Personal	AGE	Age of the Individual	-
Attitudes	AGE SQ	Age squared	+
Attitudes	URBAN	Urban Resident	-
	PP	Political Philosophy	-
	ED	Educational Level	-
	REL	Religious Denomination	?
	RC	Religious Commitment	+

^{*}Factors that identify individuals who oppose legalization are expected to have a positive coefficient and those that support legalization (or less opposition) are expected to have a negative coefficient.

State Tax Burden Property Tax Model Marginal Probabilities Coeff Marginal Probabilities Coeff Marginal	Table 4. Logistic Model of those Opposing the Lottery (Main Model)				
MILE		State Tax Burden		Property 1	Tax Model
Intercept		MLF		Coeff	Marginal
Net Direct Benefits Property Tax Burden -0.012 -0.010 (1.23)	Intercept		1 Tobabilities		Margina
Property Tax Burden					
Average State Tax					
Average State Tax	Property Tax Burden				-0.010
Country Coun	Average State Tax	-0.034	-0.008	(1.23)	
Parimutuel State	Therage State Tax		0.000		
%Neighboring State- Lottery (0.662) 0.003 (0.669) -0.003 (0.669) -0.003 (0.669) Illegal Gambler -1.761 (-3.96)*** -0.231 (-3.748) -0.236 (3.94)**** Net Indirect Benefits 1.403 (0.074 (3.86)*** 1.440 (3.98)**** 0.077 (3.86)*** Increases Crime 0.652 (2.40)*** 0.067 (2.36)*** 0.636 (3.51)**** Economic Benefit -1.267 (-3.46)*** -0.095 (-1.286 (-0.089) (3.51)**** Cultural/Personal 0.633 (1.15 (1.96)** (1.96)** 0.686 (0.125 (1.96)*** Non-Gambling State 0.633 (1.79)* (2.35)** (2.35)** 0.001 (2.35)** Age -0.083 (2.47)** (2.35)** 0.001 (2.35)** Urban -0.295 (-0.65) (1.40) -0.030 (1.40) Political Philosophy -2.036 (-0.077 (-1.974) (-0.076) -0.076 (5.33)*** H.S. Degree -0.844 (-0.199 (-0.84) (-0.83)** -0.194 (-0.83)** Catholic -0.184 (-0.037 (-0.144) (-0.015) Catholic -0.184 (-0.037 (-0.144) (-0.015) (-0.487) (-0.201) (0.061) (0.061) Main Line Protestant -0.085 (-0.20) (-0.06) -0.005 (-0.005) (-0.201) (0.061) (0.661) (0.661) Mathodist 0.538 (0.123) (0.695 (0	Parimutuel State	0.708	0.125		0.128
Illegal Gambler					
Net Indirect Benefits	%Neighboring State- Lottery		0.003		-0.003
Net Indirect Benefits	Magal Cambles		0.001		0.000
Net Indirect Benefits	lliegal Galfiblei		-0.231		-0.230
Hurts Others	Net Indirect Benefits	(-0.30)		(0.34)	
Increases Crime		1.403	0.074	1.440	0.077
Cultural/Personal		(3.86)***			
Economic Benefit -1.267 (-3.46)*** -0.095 (-3.46)*** -1.286 (3.51)*** -0.089 (3.51)*** Cultural/Personal Non-Gambling State 0.633 (1.79)* 0.115 (1.96)** 0.686 (1.96)** 0.125 (1.96)** Age -0.083 (-2.47)** -0.002 (-2.47)** -0.075 (2.58)** -0.001 (2.58)** Urban -0.295 (-0.065) -0.065 (-0.065) -0.304 (-0.33) -0.030 (-0.065) Political Philosophy -2.036 (-0.065) -0.077 (-5.53)*** -1.974 (-0.814 (-0.84) -0.076 (-0.814 (-0.84) H.S. Degree -0.844 (-3.33)*** -0.199 (-0.814 (-0.202) -0.194 (-0.896 (-0.126 (-0.201) Calholic -0.712 (-0.487) -0.126 (-0.487) -0.015 (-0.384) Main Line Protestant -0.085 (-0.201) -0.018 (-0.201) -0.026 (-0.005) -0.005 (-0.064) Methodist 0.538 (1.29) 0.123 (1.29) 0.549 (1.83)* 0.064 (1.83)* Fundamentalist 1.165 (2.59)** 0.279 (2.67)*** 1.184 (2.67)**** 0.285 (2.67)**** Atheist -0.075 (-0.005) -0.016 (-0.002) -0.003 (-0.001) -0.0027 (-0.003)	Increases Crime		0.067		0.066
Cultural/Personal Non-Gambling State 0.633 (1.79)* (1.96)** Age -0.083 -0.002 (-2.47)** (2.35)** Age² 0.001 (2.67)*** (2.58)** Urban -0.295 -0.065 (1.40) Political Philosophy -2.036 -0.077 (-1.974 -0.076 (5.38)*** H.S. Degree -0.844 -0.199 (-3.33)*** (3.20)*** College Degree -0.712 -0.126 (-2.02) (1.97)** Catholic -0.184 -0.037 (-0.487) (0.384) Main Line Protestant -0.085 -0.018 (0.061) (0.061) Methodist 0.538 (1.29) (1.33) Baptist 0.701 (0.163 (0.695 (1.83)*) (1.83)* Fundamentalist 1.165 (0.279 (2.67)*** Atheist -0.075 -0.016 -0.027 (-0.003	Farmania Barrett		0.005		0.000
Cultural/Personal Non-Gambling State 0.633	Economic Benefit		-0.095		-0.089
Non-Gambling State 0.633 (1.79)* 0.686 (1.96)** Age -0.083 -0.002 (-0.075 -0.001 (2.47)** -0.001 (2.58)** Age² 0.001 (2.67)*** (2.58)** Urban -0.295 -0.065 (-0.065) (1.40) -0.304 -0.030 (1.40) Political Philosophy -2.036 -0.077 (-1.974 -0.076 (5.53)*** H.S. Degree -0.844 -0.199 (-5.53)*** -0.814 -0.194 (3.20)*** College Degree -0.712 -0.126 (-2.02) (1.97)** -0.696 -0.126 (1.97)** Catholic -0.184 -0.037 (-0.144 -0.015 (0.384)) Main Line Protestant -0.085 -0.018 (0.061) (0.061) Methodist 0.538 (1.29) (1.33) 0.549 (0.064 (1.29) (1.33)) Baptist 0.701 (0.163 (0.695 0.163 (1.83))* Fundamentalist 1.165 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003		(-3.46)		(3.51)	
(1.79)*				,	
Age -0.083	Non-Gambling State		0.115		0.125
Age² 0.001 (2.67)*** (2.35)** Urban -0.295 -0.065 (1.40) -0.304 -0.030 (1.40) Political Philosophy -2.036 -0.077 (5.58)*** -1.974 -0.076 (5.38)*** H.S. Degree -0.844 -0.199 (-3.33)*** (3.20)*** -0.814 -0.194 (3.20)*** College Degree -0.712 -0.126 (-0.696 -0.126 (1.97)** -0.126 (1.97)** Catholic -0.184 -0.037 (0.384) -0.144 -0.015 (0.384) Main Line Protestant -0.085 -0.018 (0.061) (0.061) -0.026 -0.005 (1.33) Methodist 0.538 0.123 (0.549 0.064 (1.29) (1.33) Baptist 0.701 0.163 (0.695 0.163 (1.79)* 0.695 0.163 (1.83)* Fundamentalist 1.165 0.279 (2.59)** 1.184 0.285 (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Age		0.002		0.001
Age² 0.001 0.001 (2.67)**** (2.58)*** Urban -0.295 -0.065 -0.304 -0.030 (-0.065) (1.40) -0.076 Political Philosophy -2.036 -0.077 -1.974 -0.076 (-5.53)**** (5.38)**** (5.38)**** H.S. Degree -0.844 -0.199 -0.814 -0.194 (-3.33)**** (3.20)**** (3.20)**** College Degree -0.712 -0.126 -0.696 -0.126 (-2.02) (1.97)*** (0.384) Main Line Protestant -0.085 -0.018 -0.026 -0.005 (-0.201) (0.061) (0.061) Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) Baptist 0.701 0.163 0.695 0.163 Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Age		-0.002		-0.001
Urban -0.295 -0.065 -0.304 -0.030 Political Philosophy -2.036 -0.077 -1.974 -0.076 (-5.53)*** (5.38)*** H.S. Degree -0.844 -0.199 -0.814 -0.194 (-3.33)*** (3.20)*** College Degree -0.712 -0.126 -0.696 -0.126 (-2.02) (1.97)** Catholic -0.184 -0.037 -0.144 -0.015 (-0.487) (0.384) Main Line Protestant -0.085 -0.018 -0.026 -0.005 (-0.201) (0.061) Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)*** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Aae ²				
College Degree					
Political Philosophy -2.036 (-5.53)*** -0.077 -1.974 (-0.076) H.S. Degree -0.844 (-3.33)*** -0.199 (3.20)*** -0.814 (3.20)*** College Degree -0.712 (-2.02) -0.126 (1.97)** -0.126 (1.97)** Catholic -0.184 (-0.037 (0.384)) -0.144 (0.384) -0.015 (0.384) Main Line Protestant -0.085 (-0.018 (0.061)) -0.026 (0.005) Methodist 0.538 (1.23 (0.549 (1.33)) 0.549 (1.33) Baptist 0.701 (0.163 (0.695 (1.83)*) 0.163 (1.79)* Fundamentalist 1.165 (0.279 (2.67)*** 1.184 (0.285 (2.67)*** Atheist -0.075 (0.016 (0.027 (0.003))	Urban		-0.065		-0.030
H.S. Degree -0.844 -0.199 -0.814 -0.194 (3.20)*** College Degree -0.712 -0.126 -0.696 -0.126 (1.97)** Catholic -0.184 -0.037 -0.144 -0.015 (0.384) Main Line Protestant -0.085 -0.018 -0.026 -0.005 (0.061) Methodist 0.538 0.123 0.549 (1.33) Baptist 0.701 0.163 0.695 (1.33)* Fundamentalist 1.165 0.279 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	D 1111 - 1 D1 11				
H.S. Degree -0.844 (-3.33)*** -0.199 -0.814 (-0.194) College Degree -0.712 (-2.02) -0.126 (1.97)** Catholic -0.184 (-2.02) -0.037 (0.384) Main Line Protestant -0.085 (-0.018 (0.384)) Methodist 0.538 (1.23 (0.549 (1.33)) Baptist 0.701 (1.29) (1.33) Baptist 0.701 (1.79)* (1.83)* Fundamentalist 1.165 (2.59)** (2.67)*** Atheist -0.075 (-0.016) (-0.027 (-0.003)	Political Philosophy		-0.077		-0.076
College Degree	H.S. Degree	. ,	-0.100		-0.104
College Degree -0.712	11.5. Degree		-0.199		-0.194
Catholic (-2.02) (1.97)** Catholic -0.184 -0.037 -0.144 -0.015 (-0.487) (0.384) (0.384) Main Line Protestant -0.085 -0.018 -0.026 -0.005 (-0.201) (0.061) Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) (1.33) Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	College Degree		-0.126		-0.126
Main Line Protestant (-0.487) (0.384) Main Line Protestant -0.085 -0.018 -0.026 -0.005 (-0.201) (0.061) (0.061) Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) (1.33) Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003					
Main Line Protestant -0.085 (-0.201) -0.018 (0.061) Methodist 0.538 (1.29) 0.123 (0.549 (1.33)) Baptist 0.701 (1.79)* (1.83)* Fundamentalist 1.165 (2.59)** (2.67)*** Atheist -0.075 (-0.016)	Catholic		-0.037	-0.144	-0.015
Methodist (-0.201) (0.061) Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Min I in Design		0.040		
Methodist 0.538 0.123 0.549 0.064 (1.29) (1.33) (1.33) Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Main Line Protestant		-0.018		-0.005
(1.29) (1.33) Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Methodist		0 123		0.064
Baptist 0.701 0.163 0.695 0.163 (1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Welliodist		0.123		0.004
(1.79)* (1.83)* Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003	Baptist		0.163		0.163
Fundamentalist 1.165 0.279 1.184 0.285 (2.59)** (2.67)*** Atheist -0.075 -0.016 -0.027 -0.003					
Atheist -0.075 -0.016 -0.027 -0.003	Fundamentalist	1.165	0.279	1.184	0.285
	44		0.040		
() 101)	Atneist		-0.016		-0.003
(-0.131) (-0.047) Religious Attendance 0.012 0.052 0.012 0.053	Religious Attendance		0.052		0.053
(3.87)*** (3.87)***	rengious Alleridarice		0.002		0.000

Dependent: Opposition to	State	Marginal Probabilities	Property	Marginal Probabilities
Lottery State/Property Tax x Lottery	Tax -0.088	-0.008	Tax -0.004	-0.002
State/1 Toperty Tax x Lottery	(-0.779)	-0.000	(-0.232)	-0.002
Neighbor x Lottery	0.008	0.009	0.009	0.007
. reignizer in zenery	(1.20)		(1.34)	5.557
Illegal Gambler x Lottery	0.746	0.148	0.691	0.031
g ,	(1.10)		(1.02)	
Hurt Others x Lottery	-0.420	-0.029	-0.518	0.036
	(0.69)		(-0.882)	
Increase Crime x Lottery	Ò.552	0.041	Ò.560 [°]	0.043
•	(1.27)		(1.30)	
Economic Benefit x Lottery	0.142	0.012	0.222	0.018
	(0.245)		(0.386)	
Age x Lottery	-0.013	-0.006	-0.035	0.033
-	(-0.252)		(-0.836)	
Age x Lottery	0.000		0.000	-0.005
	(0.132)		(0.608)	
Urban x Lottery	0.387	0.076	0.354	0.041
-	(1.09)		(0.989)	
Pol Philosophy x Lottery	0.684	0.024	0.590	0.022
	(1.11)		(0.962)	
HS x Lottery	0.851	0.200	0.784	0.190
	(2.09)**		(1.94)*	
College x Lottery	1.296	0.261	1.293	0.265
	(2.32)**		(2.32)**	
Catholic x Lottery	-0.377	-0.066	-0.465	-0.041
	(-0.663)		(-0.833)	
Main Line x Lottery	-0.273	-0.017	-0.375	0.034
	(-0.420)		(-0.584)	
Methodist x Lottery	-0.925	-0.094	-0.989	-0.106
	(-1.36)		(1.47)	
Baptist x Lottery	-0.474	-0.185	-0.476	-0.058
	(-0.773)		(-0.788)	
Fundamentalist x Lottery	-0.524	-0.131	-0.451	-0.056
	(-0.618)		(-0.529)	
Atheist x Lottery	1.907	0.444	1.814	0.424
	(2.09)**		(2.00)**	
Religious Attend x Lottery	0.004	0.020	0.004	0.017
	(0.822)		(0.728)	
Concordant	88.7%		88.7%	
Mc Fadden's R²	37.8%		37.9%	
Sample Size	1433		1433	

T-Statistics in (). ***, **, * significant at the 1%,5%, 10% levels.

Figure 1

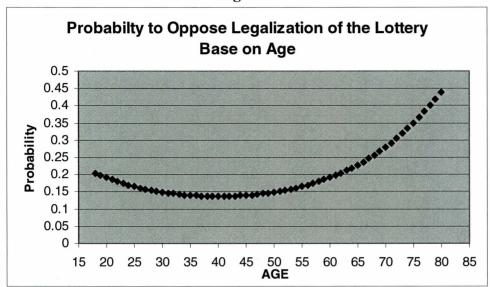


Table 5. Logistic Model				
	Non-Re		Religious &	
	Interaction	•	Interaction	•
	State Tax	Property	State Tax	Property
	MLE	MLE	MLE	MLE
	0.026	-0.176	-0.161	-0.267
Intercept	(0.024)	(-0.205)	(-0.148)	(-0.315)
Net Direct Benefits				
Property Tax Burden		-0.013		-0.013
		(-1.34)		(-1.52)
Property Tax x Lottery		-0.003		
		(-0.195)		
Average State Tax	-0.035		-0.054	
Olata Tarrada II	(-0.503)		(-0.810)	
State Tax x Lottery	-0.090			
Desired A Olete	(-0.827)		4 000	4 000
Parimutuel State	0.663	0.658	1.028	1.002
	(2.13)**	(2.125)**	(3.65)***	(3.58)***
Net Indirect Benefits			*	
%Neighboring State- Lottery	-0.004	-0.004	0.000	0.000
	(-0.726)	(-0.738)	(0.057)	(0.110)
Neighbor x Lottery	0.007	0.008		
Warral Carrellan	(1.16)	(1.298)	4 400	4 400
Illegal Gambler	-1.695	-1.683	-1.493	-1.499
Wanal Carablan	(-3.82)***	(-3.803)***	(-4.39)***	(-4.42)***
Illegal Gambler x Lottery	0.687	0.633		
Liverto Othore	(1.02)	(0.942)	4 040	4.040
Hurts Others	1.424	1.466	1.210	1.213
Livet Others v. Letter.	(3.92)***	(4.061)***	(4.11)***	(4.13)***
Hurt Others x Lottery	-0.430	-0.546		
Increases Crime	(-0.716)	(-0.950)	0.000	0.075
Increases Crime	0.640 (2.36)**	0.625 (2.317)**	0.883 (4.26)***	0.875 (4.23)***
Increase Crime x Lottery	0.456	0.474	(4.20)	(4.23)
increase Crime x Lottery	(1.08)	(1.123)		
Economic Benefit	-1.246	-1.271	-1.275	-1.280
Economic Benefit	(-3.43)***	(-3.49)***	-1.275 (-4.49)***	(-4.51)***
Economic Benefit x Lottery	0.060	0.160	(-4.43)	(-4.51)
Lectionine Benefit & Lottery	(0.104)	(0.282)		
Non-Gambling State	0.627	0.675	0.925	0.966
Camping Clate	(1.79)*	(1.94)*	(2.86)***	(3.00)***
Cultural/Personal	(5)	()	(=.55)	(3.00)
Age	-0.081	-0.071	-0.089	-0.089
, ig-	-0.061 (-2.44)**	-0.071 (-2.28)**	-0.069 (-3.30)***	-0.069 (-3.29)***
Age x Lottery	-0.014	-0.040	(-0.00)	(-0.23)
<i>3</i>	(-0.298)	1.04		
Age ²	0.001	0.001	0.001	0.001
-	(2.67)***	(2.55)**	(3.49)***	(3.50)***
Age ² x Lottery	0.000	0.000		
	(0.132)	(0.719)		
Urban	-0.276	-0.285	-0.177	-0.204
Urban v Lattoni	(-1.29)	(-1.33)	(1.05)	(1.20)
Urban x Lottery	0.355	0.318		
Political Philosophy	(1.02) -1.989	(0.918) -1.929	-1.825	-1.801
- Chiloai i Thiosophy	-1.969 (-5.48)***	-1.929 (-5.33)	-1.025 (-6.11)***	-1.601 (-6.04)***
Pol Philosophy x Lottery	0.599	0.517	(-0.11)	(-0.04)
	(0.990)	(0.857)		

Table 5. Logistic Model of those Opposing the Lottery (Alternative Models) (Continue)				
(Continue)	Non-Religious Interactions		Religious & Interac	
	State Tax MLE	Property MLE	State Tax MLE	Property MLE
H.S. Degree	-0.818	-0.777	-0.778	-0.760
HS x Lottery	(-3.26)*** 0.751	(-3.08)*** 0.668	(-3.25)*** 0.679	(-3.16)*** 0.663
College Degree	(1.90)* -0.691 (-1.99)**	(1.71)* -0.660 1.89*	(1.92)* -0.658 (-1.92)*	(1.89)* -0.650 (-1.90)*
College x Lottery	1.213 (2.25)**	1.189 (2.21)**	1.017 (2.02)**	1.042 (2.07)**
Catholic	-0.344 (-1.19)	-0.347 (-1.21)	0.103 (0.303)	0.121 (0.355)
Catholic x Lottery		, ,	-1.036 (-2.36)**	-1.035 (-2.35)**
Main Line Protestant	-0.198 (-0.608)	-0.182 (-0.561)	0.309 (0.811)	0.337 (0.887)
Main Line x Lottery	0.005	0.404	-1.130 (-2.14)**	-1.147 (-2.17)**
Methodist Methodist x Lottery	0.205 (0.619)	0.184 (0.563)	0.879 (2.33)** -1.725	0.871 (2.32)** -1.710
Baptist	0.523	0.505	(-3.00)*** 0.982	(-2.97)*** 0.966
Baptist x Lottery	(1.69)*	(1.67)*	(2.85)*** -1.095	(2.87)*** -1.034
Fundamentalist	1.024	1.043	(-2.30)** 1.467	(-2.17)** 1.459
Fundamentalist x Lottery	(2.73)	(2.80)***	(3.62)*** -1.243	(3.62)***
Atheist	0.589	0.615	(-1.62) 0.246	(-1.47) 0.282
Atheist x Lottery	(1.27)	(1.33)	(0.450) 1.036 (1.28)	(0.516) 1.031 (1.28)
Religious Attendance	0.014 (5.69)	0.014 (5.63)***	0.014 (4.50)***	0.014 (4.49)***
Religious Attend x Lottery	(/	(/	0.000 (0.095)	-0.001 (-0.116)
Concordant	88.4%	88.6%	88.5%	88.6%
McFadden's R ² Sample Size	37.0% 1433	37.2% 1433	37.1% 1433	37.2% 1433

T-Statistics in (). ***,**,* significant at the 1%,5%, 10% levels.

Table 6. Perception and the Religious on the Level of Opposition				
(Selective Coefficients from the Property Model)				
	Model 1 Religious	Model 2		
	Commitment MLE	Fundamentalists MLE		
Pari-Mutuel State	0.912 (3.13)***	1.21 (3.85)***		
Par-Mutuel x Religious D	0.100 (0.155)	-0.591 (1.37)		
Hurts Others	1.04 (3.49)***	1.72 (4.56)***		
Hurts Others x Religious D	1.60 (2.63)***	-1.44 (-2.32)**		
Increase Crime	0.862 (3.89)***	0.835 (3.21)***		
Increase Crime x Religious D	0.573 (0.943)	0.162 (0.360)		
Economic Benefit	-1.25 (-4.19)***	-1.86 (-5.33)***		
Economic Benefit x Religious D	-0.259 (-0.290)	1.79 (2.95)***		
Religious Commitment	0.003 (0.678)	0.014 (4.56)***		
Concordant	88.9%	88.7%		
Mc Fadden's R ²	38.2%	37.9%		
Sample	1433	1433		

T-Statistics in (). ***, **, * significant at the 1%,5%, 10% levels.

Table 7. Predicted Opposition to Lotteries From 1974 Attitudes

States	Year Adopted	Mean /Median Probability
		(n)
Arizona	1981	32% / 24%
		(23)
Washington	1983	44% / 46%
		(25)
California	1985	29% / 19%
		(184)
Iowa	1985	36% / 28%
-		(31)
Missouri	1986	50% / 55%
	4000	(42)
Florida	1988	38% / 45%
	1000	(29)
Kentucky	1989	56% / 66%
T	1001	(30)
Texas	1991	53% / 58%
4 1	N	(39)
Arkansas	None	65% / 72%
	·	(32)