Utilizing Logistic Regression For Explaining Lottery Adoption In The Volunteer State

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Abstract

Objective: The purpose of this research is to explain the adoption of lottery policies among counties in Tennessee. Methodology: Various socio-demographic variables were measured through the use of logistic regression analysis for determining lottery adoption among all the counties in Tennessee. Results: The results of the logistic regression model suggest that the most significant variables contributing to the adoption of the state lottery in Tennessee are party affiliation of voters and the region of the state in which voters reside. Limitations: Since the findings of this manuscript are concerned only with the state of Tennessee, one should proceed with caution when trying to generalize these results to other states that have recently adopted a state lottery. Conclusion: The contributions of this research suggest that political and regional indicators are the best predictors in understanding lottery adoption among counties in Tennessee. These findings are consistent with results that have attempted to explain lottery and casino adoption across the American states. In addition, this study contributes to the current literature by suggesting that intercultural political difference may have contributed significantly to the adoption of a state lottery in Tennessee.
Introduction

Issues related to the adoption of state supported lotteries among the American states has recently gained much attention from academic scholars. Although research pertaining state supported gaming has permeated the literature for thirty-five years (Mikesell, 2001), only recently have attempts been made in explaining why some governmental entities have chosen to adopt games of chance while others have chosen to by-pass this revenue generating device. This work will trace the development of attempts in explaining morality policies such as state supported lotteries and lottery gaming in an effort to identify a gap in the current literature regarding the issue. Numerous attempts are found in the literature explaining policy adoption variation across the American states in both state-sponsored lotteries and state supported lottery gaming. The literature fails to address intra state variations in policy adoption among local counties in states adopting lottery gaming. This research fills the current literature gap by explaining lottery adoption among counties in Tennessee. This work utilizes logistic regression analysis as the preferred statistical procedure for measuring the data in this research project.

LITERATURE REVIEW

Legalized Gambling

In this current era of devolution in government, state and local governments are examining and implementing various alternative methods and referendums to increase their revenues. Many as a means to increase the government’s treasury without having to raise taxes and unduly burden the lower class have legalized gambling in the form of riverboats, and lotteries. The utilization of legalized gambling for this purpose has been
debated by researchers, scholars, legislators, and citizens. Legalized gambling is less efficient than taxes on labor income (Rodgers and Stuart, 1998), and low income interest groups either bear more of the tax burden or they receive fewer benefits from their implementation than citizens in other income groups (Borg, Mason, and Shapiro, 1971; Livernois, 1997; Herring and Bledsoe, 1982). Also, governments and citizens may experience unwanted problems and consequences of legalized gambling including increased unemployment, decreased retail competition, increased public debt, and increased crime (Goodman, 1995; Pable, 1996; Jinkner and Lloyd, 1996; Gross, 1998).

Legalized gambling, however, has provided benefits to state and local residents that may not have been realized through any other means. Lottery profits in Georgia, Florida, and Kentucky have been earmarked for education allowing younger residents in these states to attend state universities or colleges in full or partial scholarships (Barry, 1995; Florida Trend, 1997; Kentucky Lottery Department, 1998). Also, the educational systems of these states have utilized profits from lotteries to enhance the support network of computers, satellite dishes, and media technology in state schools. However, debate still arises as to whether or not legalized gambling is an appropriate answer for raising revenues for state and local governments.

Many residents can realize the benefits of using profits from lottery sales and lottery action as supplements to state funded programs. However, if these profits are utilized to replace original funding from the states, citizens may not reap any benefits, and their present circumstances may actually worsen. In many states, lottery profits are earmarked for education, economic development, distressed cities and towns, or senior citizen programs. In others, these profits fall into the general fund and may be directed to
various programs as prescribed by the state legislature. However, any benefit derived from legalized gambling require current and future programs to provide more to the state’s citizens than what they currently receive.

Despite the appeal of state operated lotteries as a supplemental revenue source for social programs, some states have repeatedly rejected legislation that would have brought gaming to their respective state. For instance, in 1999 the state of Alabama, in a referendum brought to the people, rejected lottery gaming almost 2 to 1. In 1990 Tennessee, although endorsed lottery gaming, also rejected a state operated lottery (National Gambling Impact Study, 2000). Why do some states choose to operate state lotteries while others consistently oppose any legislation that supports state supported gaming? One reason for this discrepancy in regards to gaming policy is a states political culture.

Numerous studies have attempted to explain the differences seen among states’ public policies. Many have evaluated the conditions and characteristics that propel certain states to adopt specific expenditures or innovations regarding education, welfare, and transportation. Researchers have found that political party competition, interest groups, gubernatorial power, public opinion, and political culture may help explain many of the dissimilarities seen in state government policies.

One of the most noted essays concerning state political systems is the analysis of Southern politics presented by V. O. Key. Key (1949) points out that the nature of the South’s political system has been shaped by this region’s problems with racial relations, its agrarian economy, and the tending of its residents to remain non-participatory in political matters. He also notes that “custom, the organization of the economic system,
and now and then, private violence have a role in determining who govern and who gets what” (Key, 1949, p.4).

Daniel Elazar (1984) also describes the influence of political culture on state political systems and the legislation these systems promote. He identifies three major subcultures existing across the United States, which were brought to this country by the early American settlers. Elazar (1984) notes that these tendencies are often found among politicians and the general public, and they serve to shape each individual’s understanding of government and ultimately its purposes and outcomes.

This author points out that the individualistic subculture emphasizes the market place and a limited role of government (Elazar, 1982). The moralistic subculture promotes the commonwealth and expects government to advance the interest of the public (Elazar, 1984). The third subculture identified by Elazar is the traditionalistic political culture. Traditionalists expect government to maintain the existing social and economic hierarchy and governance remains an obligation of the elite rather than the ordinary citizen (Elazar, 1984). Elazar (1984) utilizes the early American settlement patterns to identify the dominant political subcultures existing in each of the fifty American states. States in the extreme north, the northeast, and those located on the pacific coast are dominated by the moralistic subculture. States across the mid-section of the United States are classified as individualistic, and those states in the south are generally seen as traditionalistic.

Ira Sharkansky (1969) utilizes Elazar’s classifications to create a nine point linear scale which allows for comparative state analysis in empirical terms. The creation of these nine points allows for both the primary and secondary cultures that may exist in a
state. Sharkansky (1969) hypothesizes that certain political traits should be associated with each type of culture. Each of the fifty states is given a political culture score, and these scores are correlated with twenty-three variables reflecting political participation, government size, government prerequisites, and government program implementation. Sharkansky (1969) notes that two thirds of these dependent variables demonstrate the expected relationship with Elazar’s scale of political cultures. He concludes that political culture can be related to several state traits regarding politics and public service.

Other authors in the political field have been critical of Elazar’s topography due to its lack of empirical evidence. Clynch (1972) argues that the interval scale developed by Sharkansky does not exhibit the same relationships with the dependent variables when regionalism is included. He notes that the impact of political culture can be seen intra-regionally rather than nationally. Schiltz and Rainey (1978) conduct a secondary analysis of data from thirteen states in 1968 originally conducted by the Comparative State Elections Project in order to determine whether or not Elazar’s assumptions of the existing political subcultures in the fifty states are statistically substantiated. These two authors conclude that very little statistical evidence exists to support Elazar’s classifications.

Robert Savage (1981) however, points out several flaws in the research analysis conducted by Schiltz and Rainey. He notes that these two authors fail to address several ambiguities found in the survey. He also argues that they form hypotheses, which are loosely construed from Elazar’s work. Savage questions their statistical analyses and the “rummage sale approach” that Schiltz and Rainey utilize in their political culture study (Savage, 1981, p. 331). He argues that Elazar’s theory has been proven valuable to
political research. Savage (1981) points out that this normative scale is “the one political measure that compares favorably with traditional socioeconomic indicators in explaining policy variations among the states” (Savage, 1981, p. 336).

Nardulli (1990) utilizes data from a 1986 telephone survey to also examine the utility of Elazar’s typology. The intent of this analysis is to determine whether or not Elazar’s assumptions concerning citizens and politics are correct. Also, Nardulli questions whether the citizens categorized in Elazar’s political subcultures exhibit the characteristics required in these classifications. This author finds that many individuals in the survey did not adhere to the belief systems in each subculture identified by Elazar (Nardulli, 1990). Nardulli concludes that failure of Elazar to operationalize his scheme for categorizing geographic locales “makes it difficult to rebut the implication that his classifications measure little more than sectional differences” (Nardulli, 1990, p. 304).

Other research concerning political culture and policy adoption has focused on social class, regional diffusion, and economic disparity. Black and Black (1987) note that even when power and influence within the South shifted as the population of a new middle class Southerners composed of professional, technical, managerial, clerical workers began to outnumber the agrarian middle class, the political agenda of these states remained virtually unchanged because most members of this new middle class shared the same agrarian beliefs, values, and interests. Both the traditionalistic and entrepreneurial individualistic cultures that emerged placed great importance on financial self-reliance and minimal government intervention (Black and Black, 1987, p.60). The authors point out that the transformation of social order within the South from 1940-1980 has not resulted in a political culture shift. A majority of white residents in this region still
believe in individual as opposed to governmental responsibility for economic well being and the policies adopted in these states reflect these fundamental values.

Virginia Gray (1973) examines the adoptions of particular education, welfare, and civil rights policies by states from a “have – have not” perspective. She points out that the differences exhibited in state policy innovations in these areas are often explained by political differences and economic disparities. Innovative states tend to be wealthier and exhibit greater political party competitiveness than the less innovative states (Gray, 1973, p. 1182). Also, states with higher mean percentages of Progressive party strength (prior to 1913) are more innovative in adopting particular legislation examined by Gray (Gray, 1973, p. 1183). Gray (1973) confirms that both political and economic explanations can be successfully utilized to explain state policy innovations.

Berry and Berry (1990) demonstrate that regional diffusion, as well as, political, economic, and social characteristics serve as plausible explanations of state government policy innovations. These two authors examine state lottery adoptions utilizing cross-sectional time series analysis to reveal that the internal political and economic characteristics of a state will influence the probability that the state adopts a lottery. Previous adoption of the lottery by neighboring states is directly related to the utilization of this innovation. Also, states with declining fiscal health exhibit a higher probability of adopting the lottery. Berry and Berry (1990) note that the probability of lottery adoption by a state increases with the number of neighboring states that have adopted lotteries. Lottery adoption is most likely to occur during an election year, and least likely to occur in the years immediately following the election (Berry and Berry, 1990). In addition, states with lower per capita incomes and states with higher percentages of religious
fundamentalists are least likely to adopt lotteries. Berry and Berry (1990) conclude that regional diffusion and internal determinants are valid explanations of state lottery adoptions.

Pierce and Miller (1999) explain the variations in the diffusion of state lottery adoptions. The authors, through the use of historical analysis (measuring lottery adoptions across space and time), argue that the politics of lottery adoptions varies with the purposes for which the lottery’s revenue will be used. According to the authors education and general fund politics are the issues being used to sell lottery adoption in the states. Lowi (1973) posited that. Pierce and Miller’s work coincides with Lowi’s (1973) argument that different policies generate different politics. They found that states adopting lotteries for curing the education “crisis” in America, instead of generating revenue for general fund “needs,” met less opposition from fundamentalist because the symbol that their children’s education was at stake is a symbol they were not willing to risk (p. 698). Therefore, somewhere between dedicating lottery proceeds for education, instead of the general fund, state operated lotteries became less sinful. Pierce and Miller indicate that measuring the amount of fundamentalism in morality policy issues such as gaming will assist scholars in understanding policy adoption trends in America. The authors found that anti-gaming sentiments were strongest among those citizens who classified themselves as conservative fundamentalists. Ellison and Nybroten (1999), through the use of a telephone survey and logistic regression analysis, reported similar findings among conservative fundamentalists in Texas as well.

Since the lottery is the precursor to lottery gaming, Furlong (1998) utilized much of the lottery literatures findings to launch a study explaining the adoption of lottery
gaming in America. Furlong applied logistic regression analysis to the adoption of lottery gaming among the American states. Although lottery gaming in America is isolated to only twelve states, Furlong found similarities in regards to socio-demographic indicators among lottery states that were pointed out in the lottery literature. Ideological preferences, per capita tax rankings, per capita tax rates, and job growth were indicators that reported a positive relationship in the statistical model employed by Furlong, suggesting that motives related to political feasibility and economic development provide the best explanation of recent state lottery gaming adoptions.

In theory, the literature tends to suggest that certain states are more likely than others to adopt lottery or lottery gaming due to various socio-demographic variables. However, the literature is void of any attempts destined to explain the adoption of lottery gaming at the county level of government. Although political culture as defined by Elazar and Sharkansky are beyond the scope of this study, Clynch’s reference to the failure of current literature attempts to explain intra state variations in political culture lends support for this argument that intra state variations among counties in Tennessee serves as a determinant to why some counties in Tennessee adopted a state supported lottery gaming while others chose not to support gaming. This research project employs the following socio-demographic variables for explaining the adoption of lottery gaming among counties in Tennessee.

The early settlers of Tennessee were farmers and hunters who lived off the land and traded with their neighbors for the commodities they needed to survive. Resulting from this agrarian lifestyle was the ideal of individualism and skepticism towards government, which explains Tennessee’s current political culture. Lyons, Scheb II, and
Stair (1995) suggest that Tennessee’s political culture reflects that of traditionalistic southern culture (Elazar, 1984). This means that Tennessee demonstrates strong social support for traditional values and traditional institutions. Tennessee resistance to tax reform, ambivalence toward education, and acceptance of traditional inequalities demonstrates their traditionalistic political culture. However, the authors stipulate that Tennessee has failed in establishing a state identity because of regional differences between west and middle Tennessee and east Tennessee. Middle and West Tennessee tend to align themselves more with Alabama and Tennessee, while east Tennessee align themselves west North Carolinian and eastern Kentucky. The author’s speculate that these cultures differences can be traced back to the civil war era when west and middle Tennessee supported the confederacy and east Tennessee supported the union. These cultural differences are reflected even today in issues such as those associated with morality policies like state supported gaming. Although in the 1990s the House received the two-thirds vote necessary to remove the lottery prohibition in the Tennessee constitution, the Senate failed to ratify the legislation. In February of 2001, the General Assembly supported a resolution that placed the lottery on a statewide referendum. The purpose of this research project is to explain why some counties in Tennessee supported the lottery referendum while others chose to by-pass this revenue-generating device.

The exogenous variables chosen for this study are those basically used by Winn and Whicker (1989-90), Berry and Berry (1990), Furlong (1998), and Pierce and Miller (1999). This study is distinguished from other studies explaining policy adoption because the units of analysis are county level data. These variables include county tax capacity, tax effort, per capita debt, total debt, per capita income, interest group strength,
political ideology, political culture, education level, population, county expenditures, party control of county, and level of religious affiliation. The endogenous variable used in the study is state-sponsored lottery.

Data

The exogenous variables chosen for this study are derived from studies by Berry and Berry (1990), Furlong (1998), and Pierce and Miller (1999). This analysis is distinguished from previous studies explaining policy adoption because the unit of analysis is county level data. The endogenous variable used in the study is the adoption of lottery gaming. The conceptual and operational definitions of these variables are as follows:

Conceptual & Operational Definitions

Lottery Adoption (Dependent Variable)

Furlong (1998) measured the diffusion of lottery adoption across the American states. This study applies Furlong’s argument to the measurement of the adoption of lottery gaming across counties in a particular state (Tennessee). The endogenous variable is measured and collected in the following manner: Lottery legislation adopted by counties in Tennessee is coded 0 = the year lottery gaming was adopted by the county and 1 = non-lottery counties. The data was collected from the Tennessee Voting Commission for the election year of 2002.

Fiscal Health

Pierce and Miller (1999) utilized state tax revenue as an economic indicator for determining lottery diffusion among the states. This study adopts a similar economic indicator, tax revenue and tax expenditures received by each county, measured in
adjusted inflationary dollars. As in the case of Berry & Berry (1990), total expenditures are subtracted from total revenues and a variable is created and designated as the fiscal health of each county. The data is collected from the Tennessee Statistical Abstracts published by the University of Tennessee at Knoxville. The most recent data available for this variable was 2001.

Religious Affiliation

Berry & Berry (1990) and Pierce and Miller (1999) suggest that the religious affiliation of the population in a state impacts the adoption of state lotteries. A similar variable is incorporated in this study to determine if a person’s religious affiliation impacts the adoption of lottery gaming within a particular county. This study defines religious affiliation as the percentage of residents by county who classify themselves as Baptists. The number of Baptists in each county is used as a social indicator because, according to Ellison and Nybroten (1999), Baptists tend to consider themselves conservative and morally opposed to state supported gaming. Furthermore, Baptists make up the largest portions of religious groups fundamentally opposed to any type of state supported gaming. This data is collected from the Tennessee Chapter of the Southern Baptist Convention in Nashville, Tennessee. The most recent data available for religious affiliation was 2000.

Region (Political Culture)

Political culture has received much attention as a possible social indicator in gaming policy diffusion across the states (Elazar, 1984; Sharkansky, 1970, Clynch, 1971). Although Tennessee is categorized in the traditionalistic mode of political culture, the various distinctions between the east, middle, and western parts of the state justify the
need to measure these regions differently in the regression analysis. Lyons et al. (2001) suggests that the eastern part of Tennessee resembles southern states such as North Carolina and Georgia in their culture views, while middle and west Tennessee represent those views more dominant in the heart of Dixie (Alabama and Mississippi). Therefore, political culture was divided into three distinct regions in the state. In the analysis, political culture was categorized in the following manner: East Tennessee, Middle Tennessee, and West Tennessee, in an effort to identify possible distinctions that comprise Tennessee’s distinct political culture. The coding scheme used for measuring this variable followed a dichotomous pattern labeling East-Tennessee and Middle-Tennessee in the following manner: 0 = counties that voted yes in support of a state lottery and 1 = those counties that rejected lottery gaming in Tennessee. West-Tennessee is represented by the constant found in the data analysis. The purpose of this variable is to determine examine possible difference in political culture among the three distinct regions in Tennessee.

*Party Control*

Party control of the state was a predictor found in the studies by Berry and Berry (1990), Furlong (1998), and Pierce and Miller (1999) regarding state sponsored gaming. These studies measured party control by the dominance of a specific party at the state and local level of governance. Although most of these studies used presidential vote as the party control variable in their models, this study incorporates something different. The passage of the Tennessee lottery was contingent on a majority vote plus one in the governor’s race during the 2002 election. Therefore party control of a county was measured by the number of votes cast for each gubernatorial candidate in this election. If
the county voted predominantly democratic, the county was coded 0 (1 for those counties supporting the republican candidate for governor).

**Debt**

Pierce and Miller (1999) utilized a debt variable as one indicator explaining the adoption of lottery gaming among states. Since many local governments in Tennessee operate with various forms of debt (bonds etc.), this variable was incorporated into this study as well. The additional revenue allocated to local communities from lottery gaming may assist in paying various policy and program expenses they generate at the direction of state government. In theory, the more debt a local community possesses will result in the more likelihood that they will adopt lottery gaming as a supplemental source of revenue. The data was collected from the Tennessee Statistical Abstracts published by the University of Tennessee at Knoxville and the most current year was 2001.

**Education**

An education variable was added to the data set to test the assumption that citizens with higher levels of education are less likely to vote for a state lottery compared to citizens with lower levels of education (Miller and Pierce, 1997). The education variable in the regression model is coded according to the percentage of college graduates, in each Tennessee county voting on the state lottery. The data was collected from the Tennessee Statistical Abstracts published by the University of Tennessee at Knoxville. The most current data available for this variable was 2001.

**Population**

This variable was utilized as an additional exogenous variable to account for possible impacts of population levels on casino adoption in Tennessee. The variable was
retrieved from the Tennessee Statistical Abstracts published by The University of Tennessee-Knoxville. The variable in measured in number of residents living in counties in Tennessee.

**Research Methods**

**Binary Logistic Regression Equation**

\[
Y \text{ (Lottery Adoption)} = a + (B_1) \text{ Fiscal Health} + (B_2) \text{ Religious Affiliation} + (B_3) \text{ Education} + (B_4) \text{ Party Control} + (B_5) \text{ East-Tennessee} + (B_6) \text{ Middle-Tennessee} + (B_7) \text{ Population} + E
\]

The statistical method employed in this study to measure the data is *logistic regression* (Mertler & Vannatta, 2001). This statistical methodology is employed because the endogenous variable is dichotomous (0 = yes and 1 = no) in regards to adopting lottery gaming. Other studies such as Furlong (1998) and Ellison & Nybroten (1999) utilize logistic regression in a similar manner as employed by this study. Several problems are associated with using logistic regression, and the most notable is multicollinearity. To check for high correlations among predictor variables, a preliminary multivariate regression analysis is conducted on the data set, and the collinearity statistics are reviewed. The tolerance for all variables exceeds 0.1; therefore multicollinearity in the data set is not a problem.  

1 Null Hypotheses:

\(H^1\): Counties with higher levels of fiscal health are more likely to adopt lottery gaming in a similar manner as those counties with lower levels of fiscal.

\(H^2\): Counties with higher levels of Baptists are more likely to adopt lottery gaming in a similar manner as counties with lower levels of Baptists.

\(H^3\): Counties located in east Tennessee will be more likely to adopt lottery gaming in a similar manner as counties located in other parts of the state.

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1 See Mertler & Vannatta (2001) for other possible problems associated with the use of logistic regression analysis (p. 317).
H⁴: Counties located in Middle Tennessee will be more likely to adopt lottery gaming in a similar manner as counties located in other parts of the state.

H⁵: Counties controlled by the Democratic Party will be more likely to adopt lottery gaming in a similar manner as counties controlled by the Republican Party.

H⁶: Counties with higher levels of education will be more likely to adopt the lottery in a similar manner as those counties with lower levels of education.

H⁷: Counties with higher levels of population will be more likely to adopt the lottery in a similar manner as those counties with lower levels of population.

[Insert Table One Here]

[Insert Table Two Here]

Discussion

The Hosmer and Lemeshow goodness-of-fit p-value of 94.999, with 7 df, suggests that the model fits the observed distribution of counties. The estimates for R², Cox & Snell R² = .193 and Nagelkerke R² = .317 indicate that a small amount of variance is being explained in the regression model. In the overall regression model, 69% of the cases are classified correctly. Despite the acceptance of only one statistically significant variable among the predictors in the regression model, the direction of the constant (B) offers valuable information that a negative relationship is occurring in the regression model.

The unstandardized regression coefficient (B) for region suggests that for every unit increase in a county’s region an increase will occur in the likelihood of a lottery being adopted among counties in Tennessee. The odds ratio Exp (B) represents an increase of 3.13 when a 1 percent increase in region occurs in the model. The significance level of region reported a statistical significant p <.05; therefore, the findings suggest that this variable is the best predictor in the model. This statistic suggests that the
likelihood of a lottery being adopted by a particular county rests on which region of the state the county is located. Out of the ninety-five counties voting on a lottery in Tennessee, if a county is located either in the east or middle region of the state, it is more likely to adopt lottery gaming.

A second variable contributing to the likelihood of lottery adoption by county in Tennessee is party control. Party control reports a significant statistical finding that allows for the rejection of the null hypothesis. Party control demonstrates that for each 1 percent increase in the odds ratio, the likelihood of lottery adoption increases 1.6363 among counties in Tennessee. In other words, those counties considered more Democratic tend to support lottery adoption compared to counties considered more Republican.

Despite the lack of statistical support for many of the socio-demographic variables in the regression model, this study lends support to previous lottery adoption studies (Berry & Berry, 1990) by suggesting that the political and regional indicators offer the best explanations as to why a state sponsored lottery was adopted in Tennessee. Therefore, the following null hypotheses are rejected in this study:

\[ H^3 \]: Counties located in east Tennessee will be more likely to adopt lottery gaming in a similar manner as counties located in other parts of the state.

\[ H^5 \]: Counties controlled by the Democratic Party will be more likely to adopt lottery gaming in a similar manner as counties controlled by the Republican Party.

The remaining four null hypotheses fail to be rejected due to their insignificant contributions attributed to the findings in this study. ²

² Preliminary analysis was conducted on the data set to check for multicollinearity. In the original analysis the variable debt was included in the study. However, due to multicollinearity this variable was deleted from the study and a second preliminary analysis was conducted on the data set and multicollinearity was not considered a problem (VIF and tolerance levels did not exceed the levels discussed by Fox, 1991).
This study lends empirical support to Stanley’s (2001) research by suggesting that the adoption of lottery gaming in Tennessee is primarily a political and financial issue such as Stanley reports in his analysis of casino adoption in Mississippi. Stanley (2001) notes that Biloxi residents voted on casino gaming twice. In the first vote, casino gaming was defeated easily because policy makers sold the issue as a supplemental source of revenue for the general fund, suggesting that economics was the only factor determining the likelihood of casino adoption in Mississippi. However, Stanley (2001) found that various local interest groups, including governmental employees representing public safety, public education and public transportation, lobbied local policymakers and suggesting that earmarking funds for specific governmental programs would lead to the passage of the lottery bill in Biloxi, Tennessee. After policy makers designated 20 percent of the casino proceeds received from the 3.2 percent tax levied on the gaming, Biloxi, adopted casino gaming by fourteen votes (Stanley, 2001). However, the absence of such variables as interest group strength in the regression model limits the findings of this study. Future county studies should include such variables in order to establish a better understanding of local political factors that may impact the diffusion of gaming policies as reported in the literature of Berry and Berry (1990), Furlong (1998), and Pierce and Miller (1999).  

**Conclusion**

The *purpose* of this research is to explain the adoption of lottery policy among counties in Tennessee. Various socio-demographic variables are measured through the use of logistic regression analysis to determine the adoption of lottery gaming among counties in Tennessee. The results of the logistic regression model suggest that the most
significant variables contributing to the adoption of the state lottery in Tennessee include the party affiliation of voters and the region of the state in which voters reside. Since the findings of this manuscript are concerned only with the state of Tennessee, one should proceed with caution when trying to generalize these results to other states that have recently adopted a state lottery. The contributions of this research suggest that political and economic indicators are the best predictors in understanding lottery adoption among counties in Tennessee. These findings are consistent with results that have attempted to explain lottery and casino adoption across the American states. Due to the limited size of the data set (n=95) and the absence of variables explaining interest group strength among counties in Tennessee, the results of this research may be limited.

With the adoption of a state lottery at such a late date when compared to the other 38 states with this gaming device, Tennessee has a golden opportunity to formulate and implement a lottery policy that accounts for the lack of success attributed to other state lotteries. Issues such as fungibility, high administrative costs and the tax incidence of lottery gaming disproportionately impacting the poor, are criticisms expressed by various lottery opponents throughout the United States. The task of creating a lottery mechanism to address such concerns has been granted to the legislature, will Tennessee’s lottery be a policy of fortune or an enormous hoax? Only time will tell!

REFERENCES


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Table One:
Formal Model

Religious Affiliation
East TN
Middle TN
Party Control
Education
Fiscal Health
Population

Lottery Adoption

Table Two:
Findings

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-2 Log Likelihood 68.909
Goodness of Fit 94.999
Cox & Snell R^2 .193
Nagelkerke R^2 .317
N = 95