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**Effects of Casino Gambling on Crime and Quality of Life in New Casino
Jurisdictions**

Executive Summary

Effects of Casino Gambling on Crime and Quality of Life in New Casino Jurisdictions Grand Award 98-IJ-CX-0037

With the dramatic increase in casino gambling in the 1990s, one of the most important domestic policy questions became, What impact do casinos have on communities? Rancorous debate often erupted among the residents in jurisdictions where casino legislation was proposed. Proponents of legalization stressed the economic benefits thought to result from the establishment of a casino. Increased job opportunities, a new (or enhanced) tourism industry, and increased tax revenues were compelling arguments, especially in economically depressed communities which had few other options available.

Opponents tended to stress the social problems believed to result from casinos and the change in the nature of the community itself, as many expected the gambling industry would become a major force in the daily life and politics of the community. Crime, divorce, bankruptcy, and a change in traditional community values were seen as problems that would inevitably accompany casino legalization.

Despite the level of acrimony generated by the casino legalization debate, an empirical foundation was missing. Voters and policy makers were often unable to separate rhetoric from reality, for research on many of the key questions was incomplete or totally lacking. Consequently, one of the goals of the current research was to provide an objective and multi-dimensioned assessment of the impact of casino gambling in new casino jurisdictions.

To accomplish this, a research team composed of an economist and two criminologists, assisted by demographers and experts in survey research, completed perhaps the most intensive community based research ever conducted on new casino jurisdictions. The research plan as completed involved eight new casino jurisdictions: Alton and Peoria/East Peoria, Illinois; Sioux City, Iowa; St. Joseph, St. Louis (city) and St. Louis County, Missouri; and Biloxi, Mississippi. The communities were chosen because each had recently initiated casino gambling and law enforcement officials were willing to make available Part I and Part II crime data for four years before and four years after the casinos began operation.

The communities ranged in population from 22,385 for East Peoria and 32,905 for Alton, Illinois, to 113,504 for Peoria and 396,685 for the city of St. Louis. All of the communities lost population from 1980 to 1990 (Bureau of the Census, 1992). Each community has a riverboat, with the exception of Biloxi, Ms., which has nine casinos located on stationary barges. These barge casinos tend to be larger than the riverboat casinos and their size and concentration in Biloxi have resulted in the casinos and the tourists they draw playing a much larger role in Biloxi than in the other communities studied. The other extreme is St. Louis, a relatively large city with a single riverboat casino, although several others are in nearby communities. In St. Louis, unlike some of the other

communities included in the study, their riverboat casino has relatively little impact on tourism and on the overall economy.

Significant findings of the research indicate that most community leaders in the new casino jurisdictions believe that the casinos have been good for the communities, although 10% to 20% of the leaders saw casinos as a negative influence. The casinos do not appear to have any general or dramatic effect on crime, especially in communities that do not have a high concentration of casinos. The data indicate that minor crimes are more likely to increase in casino communities than are the index offenses, although there is little consistency in types of crimes that significantly change when all the new jurisdictions are compared. Bankruptcy does appear to be influenced, with a significant increase in rate of personal bankruptcy found in five of seven communities. In only one community did divorce significantly increase, while it significantly decreased in four of the eight casino communities. Suicide increased significantly in two casino communities, and significantly decreased in one.

The findings suggest that casinos do not affect all communities in a simple, similar, or nonvariant fashion. The evidence suggests that casinos appear to be neither as good for a community as supporters contend, nor as negative as opponents argue. More detailed descriptions of the research and findings are presented in summary form below.

Method

There were three main components of the research plan. The first component consisted of site visits to each of the eight communities selected for inclusion in the study. Research teams composed of an economist and one or two criminologists visited each community and sought to interview community leaders to get their views on why casino gambling was introduced into the community and their perspective on the impact the casino had on their community. A broad spectrum of community leaders were interviewed, from mayors to police chiefs and heads of social service agencies, to get feedback from leaders representing diverse perspectives.

A second major component of the research consisted of telephoning several hundred residents in each community to obtain their opinions regarding the impact of the casino on the community and their views on how the casino affected day to day living within the community. The survey consisted of a variety of open ended as well as fixed response questions covering, among other topics, questions concerning their gambling experiences, whether the casino changed their neighborhoods, and whether they knew individuals who were problem gamblers. A total of 2,768 individuals were interviewed for the project.

The third component consisted of gathering a variety of official data to determine how the communities changed once casinos were introduced. Comparisons were also made between the casino communities and a number of matched control communities. Bankruptcy, divorce, and suicide data comprise important data sets for this analysis. Other data collected had never before been analyzed in such an in-depth manner. For example, crime statistics were gathered not simply for Part I or Index Offenses, but also for the more minor Part II offenses, such as simple assault, prostitution, and DUI, which many criminologists believe are more likely to be associated with casinos than are the more

serious crimes, such as murder and forcible rape. Also, the crime rates were calculated using both the residential population of the community and the population at risk, which includes tourists in the crime rate population calculations.

Results

The interviews with 128 community leaders in the seven casino communities revealed that a clear majority (59%) were in favor of the casino's presence. Most (65%) believed that the casino enhanced the quality of life in the community, had a positive effect on the economy (77%), and had little, if any, effect on crime (69%). In all of the seven communities, the majority of community leaders believed that the casino contributed to the economic well-being of the residents. In six of seven communities, the leadership believe the casinos have little effect on crime. In five of the seven communities, the majority of the key individuals agreed that the quality of life was enhanced by the casino.

Degree of agreement varied by community, with the most favorable responses on several dimensions, especially economic impacts, coming from the leadership of Biloxi. It appears that one of the main determinants of attitudes towards casinos by those in leadership positions is degree of economic impact the casino has on the community. In those communities that depend heavily upon a casino for their economic well-being, the casinos have been enthusiastically embraced; in those communities where casinos are only a minor part of the economy, the leaders tend to be more moderate in their appraisal of the impact of the casino on the community.

The second major component of the study is the community survey. The analysis is based on a total 2,768 voluntary and anonymous interviews of adult residents of the seven communities. The interviews were accomplished through use of a computer assisted telephone interviewing (CATI) survey. The number of interviews for each community varied from a low of 101 in East Peoria to a high of 420 in St. Joseph. The number of interviews from each community is believed sufficient to ensure the reliability and robustness of results.

One element of the survey data examines resident perceptions of problem gambling within their communities and, more specifically, prevalence of problem gambling among friends and relatives. Combining the responses of all seven jurisdictions, the mean estimate is that 16% of new casino jurisdiction residents have a gambling problem. The range is from 11% in St. Louis County to 18% in Sioux City. The results specifically suggest that when problem gambling occurs Aclose to home≡ (among friends or relatives) it has a more salient effect on the individual's perception of problem gambling in the community. It should also be noted that respondent perception of problem gambling within these communities is at a much higher level than is found by more objective measures (less than 7 percent).

Crime Data

To determine the effect of casinos on crime in new casino jurisdictions, crime data were collected from police department records in seven jurisdictions. Each initiated casino gambling in the 1990s and have had casino gambling for a minimum of four years. This time frame allows comparisons to be made before and after casinos were in operation. Crime rates were calculated for each offense in each community based both on population and population at risk, which adds average daily tourist population to the resident population. Crime data for both serious crimes and for relatively minor offenses were collected.

Comparing the before and after crime rates utilizing the population at risk (the more conservative measure to gauge a possible casino effect), the data reveal few consistent trends in crime. In three communities (Sioux City, Peoria, and Biloxi), there were many more crimes that significantly increased than decreased. In three other jurisdictions (Alton, St. Louis (city), and St. Louis County), there were many more crimes that significantly decreased than increased. In one city (St. Joseph), the vast majority of crimes showed no change. The Wilcoxon Signed Rank Test for Paired Differences was used to analyze offense categories for which data were available in five or more communities to compare crime rates before and after the introduction of casinos. Few statistically significant changes are found in pre and post casino periods. Analyzing the traditional crime rate measure based on resident population, data for burglary and larceny are found to be significant at the .10 level and suggest that there was a decline in burglary and an increase in larceny. Results for drug violations and family offenses are significant at the .05 level and are consistent with increases in these offenses. When examining crime rates normalized by the population at risk, only burglary and drug violations appear to have significantly increased.

In a second phase of the analysis of the crime data, rates of serious (Part I) and less serious (Part II) offenses in each community were compared to a control community matched on fifteen demographic, economic, and social variables. Crime rates were again calculated in two ways: based on the resident population and based on the population at risk.

Results indicate little consistency in crime trends for the communities studied. Of the 169 comparisons between the casino and control (noncasino) community crime rates, 45% revealed no significant change. A simple tally of the direction of the t values provides a rough indication of the evidence concerning a possible casino effect when there is a significant change. Using per capita population as the basis for standardization, 55% of the 51 comparisons that achieved statistical significance were positive, indicating an increase in crime. When the communities were compared using the population at risk as the basis for standardization, 52% of the 40 statistically significant comparisons were positive. In some communities, the majority of significant changes in crime rates were negative; in other communities, the majority of the significant changes were positive.

The examination of the results indicate that there can be no conclusive statement regarding the effect that casinos have on crime. The fact that the results are mixed

suggests that there may be some contextual factors operating in some communities that allow for casinos to increase crime under certain, as yet unknown circumstances.

Suicide and Divorce

To analyze the impact that casino gambling has on the social fabric of a community, suicide and divorce rates in eight casino communities were compared to the rates in non-casino control communities. Five matching control communities were selected for each casino community to ensure the results were not sensitive to the selection of any one particular control jurisdiction. The control communities were selected based on their similarity to the casino communities on 15 demographic, social, and economic variables.

Calculating the difference in divorce rates before and after casinos entered communities and comparing the changes to their respective control communities indicate that the rates significantly decreased in four of the eight casino communities; in only one of the comparisons did the divorce rate in the casino community show a significant increase when compared to the control communities. These results suggest that statements proclaiming that casinos increase divorce in a community are not supported by the data.

When suicide rates are compared for casino and control communities, results reached statistical significance in only three of the eight comparisons, increasing significantly in two cases and decreasing significantly in one case. When a regression equation was run controlling for economic, demographic, and social integration factors, the findings indicate that the presence of a casino in and of itself is not associated with a statistically significant increase in per capita suicide, but that the size of the casino industry does matter. In particular, larger casino markets (measured by per capita casino revenue) are positively associated with higher suicides. It should be noted, however, that the overall fit of the equation is somewhat low ($R^2=.20$), and that once Biloxi is removed from the sample, casino size is insignificant.

Based on the findings of the present research, it is difficult to generalize about the effect of casino gambling on suicide and divorce. Casino communities tended to experience a greater decrease in divorce than in the control communities, whereas suicide showed the opposite effect. However, in examining both divorce and suicide, a few communities went against the general trend. What is apparent is that attempting to understand how casino gambling affects divorce and suicide in a community is not a simple matter and the effect of casinos on these phenomena does not lend itself to sweeping generalizations.

Bankruptcy

Bankruptcy rates in the eight new casino communities were compared to bankruptcy rates in eight non-casino control communities. The control communities were chosen based on their similarity to the casino communities matched on 15 demographic, social, and economic variables. Comparisons of bankruptcy rates were based on county-level data for personal bankruptcy, both Chapter 7 and Chapter 13, which were analyzed for 1989:Q4 through 1998:Q1.

The results indicate that casino gambling is associated with an increase in personal bankruptcy in seven of the eight communities. In five of the seven communities the increase is statistically significant. The most significant changes in bankruptcy occurred among Chapter 13, as opposed to Chapter 7, filings. The results also tend to suggest that there is a direct and positive relationship between length of time casinos have been in a community and bankruptcy rate, as those communities that have had casinos the longest tended to have the greatest increase in bankruptcy. However, the study shows that an increase in bankruptcy rate is not an inevitable product of casinos opening in a community. One community (Biloxi/Harrison County, MS) actually experienced a significant decrease in bankruptcy rate.

Social Capital and Quality of Life

Analyses of social capital are attempts to measure degree of residents' connection to their neighborhood and community. Several questions included in the community survey were designed to measure satisfaction with neighborhood and community well-being, neighborly behavior, and trust in neighbors and government officials. The independent variables used were whether respondents believed gambling was good for the community and how the respondents' gambling behavior influenced their views of community cohesion.

The analysis of the social capital variables suggests that, contrary to assumptions, the introduction of casinos did not tear the fabric of the community. Overall, although there are perceived negatives (increased crime, fear of crime), the perceived positives (increased standard of living, the community being a better place to live) are given greater importance in contributing to the community's quality of life. In all the communities studied, the belief that gambling was good for the community was positively and significantly related to social capital whereas the respondents' gambling behavior was significantly and positively related to social cohesion in only three communities (Biloxi, St. Louis (city), and East Peoria).

Five questions in the community survey were included to permit an analysis of respondent perceptions of changes in quality of life due to the casinos' presence. The results of the analysis indicate that while many in the community believed that casinos increased or decreased their quality of life, none of the measures reached statistical significance. The fact that respondents were fairly evenly divided on the issue of how casinos affected quality of life in the community indicates that, even after a minimum of four years of a casino's presence in these communities, opinions continue to be divided regarding the impact of casinos on the community.

Limitations of the Research

It should be noted that the new casino jurisdictions included in this research tended to have a single casino. The findings for Biloxi, a community with a high concentration of casinos, frequently tended to differ, both positively and negatively, from the other

communities studied. It is also important to note that the communities had casinos for less than ten years. The positive or negative impact could well change given greater duration within the community.

The analysis indicates that there are few consistencies between communities when comparing the before and after rates for new casino jurisdictions. It is possible that the numbers (as crime and tourism statistics) are so imprecise as to result in these inconsistencies. It is equally plausible that the effects of casinos in a community are quite varied, depending on a multitude of variables beyond the scope of the present research. Based on the differential impact that casinos have on these communities, we conclude that simple analyses and broad generalizations are not sufficient to capture the complexity of what occurs in communities when legalized casino gambling is introduced.