

**The Percentage of Gamblers Who Smoke  
A Study of Nevada Casinos and other Gaming Venues**

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**1. Project Executive Summary**

Because of the potential political and economic implications of smoking bans throughout the U.S. and the world where gaming is allowed, there is considerable interest in the actual percentage of gamblers who smoke. Those in the gaming industry have repeatedly claimed that the percentage is upward of 70%, while those with the health organizations have suggested that it should be more in line with the national average of smokers. This study was designed to look at the percentage of gamblers in the State of Nevada who smoke, which as the gaming capital of the world should be reflective of gaming throughout the U.S. and the world. We looked at casinos throughout the State of Nevada, from the mega-resorts of Las Vegas to the small local casinos of rural Nevada. Overall, we observed 17,723 gamblers. The results from the 3 tourist centers of Nevada we surveyed (Las Vegas, Reno/Sparks and Lake Tahoe) gave very similar results for the percentage of smokers (21.5, 22.6 and 17 respectively). These percentages of gamblers who smoke are very similar to the overall percentage of the U.S. population that smokes (20.9%). The percentage of gamblers who smoke at the small rural casinos is higher, at around 36.5%. This probably reflects the higher percentage of smokers in these communities and the dependence of these casinos on local patronage. These numbers, while higher than those of the tourist destinations in Nevada, are far below the >70% that the gaming industry has claimed. The percentage of gamblers who smoke at local grocery, drug and convenience stores in Nevada is also higher, with a rate of 42%, which again is much lower than the numbers claimed by the gaming industry. Overall, the results of this study suggest that the percentage of smokers at tourist destination gaming establishments is reflective of the overall percentage of smokers in the population. The percentage of smokers at small rural or non-tourist dependent gaming establishments may better reflect the percentage of smokers in that local area/community than that of the overall U.S. population.

**Project Introduction:**

Thirteen states have passed smoke-free workplace laws which include bars and restaurants. States which allow gaming however have not been successful in including these gaming workplace sites in their smoke-free policies. This is primarily due to the heavy lobbying of the gaming industry. A key component in their arguments against any restrictions is that a great many of their clients are smokers. Both in Nevada and in Colorado, gaming lobbyists have stated before their respective legislatures that more than 70% of their customers smoke. This is considerably greater than the 20.9% of adults who smoke in the U.S. A thorough search does not

find any scientific study conducted to ascertain the percentage of gamblers who smoke. The figures used by the gaming lobbyists, in fact originate from anecdotal information obtained in a survey of casino executives (1). With such a discrepancy between claims by the gaming industry and the health community regarding the number of gamblers who smoke, it appeared critical to conduct a thorough study to determine this number. This project was designed to determine the percentage of gamblers who smoke. This is a very comprehensive study in that it looks at the percentage of gamblers who smoke in a number of venues. It determines the percentages of smokers who gamble in Las Vegas, Reno, Lake Tahoe casinos and the rural communities. It splits the data out into those who play the slot machines and those who play the table games. It also takes a look at those who play at the major casinos or those who play at the smaller local casinos (frequented by locals) or those who play at the convenience or grocery store slots. The results obtained from this study provide a thorough characterization of the smoking prevalence of those who gamble in Nevada.

## **Project Methodology**

### **Determination of Percentage of Smokers in a Room**

The overall goal of this study is to determine the percentage of gamblers who are smokers. To date, there have not been any scientifically conducted studies to make that determination. In this study, we determined the percentage of gamblers who smoke by a method which actually counts the number of smokers in a room. A methodology for the determination of smokers in a room was published in 1980 by Repace and Lowry (2). In that paper they developed a method to determine smoker density in a room. Assuming that smoking in a large group is a random process and that habitual smokers on average smoke 2 cigarettes per hour and that each cigarette takes on average 10 minutes to smoke (3,4), then the number of persons actively smoking in a room at any one time is 1/3 the number of smokers in the room (2). This method if anything overestimates the number of smokers in a room because it makes the assumption that all smokers are habitual smokers. In the most recent MMWR report (5) it states that only 80.8% of U.S. smokers surveyed said that they smoked every day and based upon these data the method described above would overestimate the number of smokers by as much as 25%. We, however, used this published method to make our determinations, recognizing that, if anything, it would overestimate the number of smokers.

Between August 1<sup>st</sup> and October 27<sup>th</sup> data was collected by teams of two with tally counters. As the team would walk through the casino, one person would count the number of gamblers and the other person would count the number of smokers in the area. The team would cover the entire casino, walking up and down all of the slot areas as well as the gaming tables. Players in the poker rooms, most of which are now smoke-free, were not included in the study results as well as persons seated at bars in the casino. Our study results were limited to those gamblers on the casino floor. Separate counts were made for those playing slot machines of \$5.00 or greater per token (high slots) and those playing machines of less than \$5.00 per coin. In the same manner, separate counts were recorded for those playing at tables with \$25 minimum play and those playing at tables with a less than \$25 minimum play. We visited each casino twice in order to get multiple counts at each gaming venue, except for the Las Vegas-off strip casinos, which were only visited once due to time limitations.

## **Percentage of Gamblers Who Smoke:**

We collected data from a variety of areas throughout the state in order to get a representative determination of the number of gamblers who smoke. We divided our study up into different areas around the state. We collected data in Las Vegas, Reno, Lake Tahoe, and the rural areas of Nevada. We also collected data on the number of gamblers who smoke in grocery and convenient stores in the Reno/Carson City area as a representative number of gamblers who smoke in these gaming venues. The results from each of these areas are presented below.

### **Las Vegas Casinos:**

Data were collected over a three day period in August from casinos in Las Vegas. We collected all of the data and then further divided it into two sections, casinos on the strip and casinos off-strip in order to see whether there were any real differences between the two, with the idea that the off-strip casinos might be frequented more by locals. Before dividing up the data, we counted a total of 9,628 gamblers among whom we observed 691 smokers for a calculated percentage of 21.5 % smokers. This percentage of smokers is nearly identical to the 20.9% of Americans who smoke. When then divided up the data between the casinos located on the Las Vegas Strip and those not located on the strip.

Eight casinos on the strip were surveyed. They are the Mandalay Bay, Excalibur, Caesar's, Bellagio, Luxor, New York, New York, Wynn's and the Venetian. The results of the study are shown in Table 1. Overall, we see that 7633 total gamblers were counted with 516 of them being smokers. This results in a 6.76% smoking rate and then multiplying that by 3 gives us a total of 20.3% smokers amongst the gamblers on the strip. Interestingly, the percentage of smokers among the table games was even less, at 17.9% while smokers constituted 21% of the slot players.

Eight off-strip casinos were also surveyed including the Orleans, Palace Station, The Four Queens, Sam Boyd's Fremont, Golden Nugget, Binion's, Terrible's Casino and the Santa Fe Palace. The results of the study are shown in Table 2. A total of 1,552 gamblers were observed with a total of 175 smokers. This works out to 26.3% of gamblers who smoked at the off strip casinos. Interestingly, if one separates out the downtown casinos from the other off-strip casinos then the percentage of gamblers who smoke at the downtown casinos is nearly identical to the casinos on the Las Vegas Strip (21.8 and 20.3 respectively). Again the percentage of off-strip smokers among the table games was lower, at 16%, while it was 29.4% at the slots.

### **Reno/Sparks Casinos:**

Data were collected from 9 casinos in the Reno/Sparks area which included many of the large casinos in the area as well as the smaller casinos frequented by locals. The casinos surveyed were Atlantis, Bonanza, Boomtown, Circus Circus, Grand Sierra Resort, John Ascuaga's Nugget, Peppermill, Silver Club and the Silver Legacy. The results of the study are shown in Table 3. Overall, 5025 gamblers were observed together with 379 smokers for a calculated percentage of 22.6% smokers. These results are very close to the overall Las Vegas numbers of 21.5% smokers. As with the Las Vegas results, fewer smokers were observed at the gaming tables, 16%, than at the slot machines, 24.2%. In general, the smaller, casinos, catering

to locals, had a slightly higher percentage of gamblers who smoke than the larger resort type casinos.

### **Lake Tahoe Casinos:**

Data were collected from three South Shore, Lake Tahoe casinos. The casinos surveyed were Harrah's, Harvey's and MontBleu. The data are presented in Table 4. Overall 1,682 gamblers were observed and 92 of them were smokers for a calculated percentage of 17% smokers. The same trends were observed in these casinos as were seen in the Las Vegas and Reno/Sparks casinos with fewer smokers observed at the tables (13%) than the slots (18%).

### **Rural Nevada Casinos:**

Data were collected from several casinos in several rural communities in Nevada during the course of this study. Many of the casinos in these rural communities were quite small and so the numbers of gamblers observed were also sometimes small. We obtained data from 6 rural communities in Nevada: Carson City, Fallon, Fernley, Hawthorne, Lovelock and Tonopah. We obtained data for almost all of the casinos in the small towns with the exception of Carson City. In Carson City we surveyed the Cactus Jack's, Carson Nugget, Horseshoe Club and the Pinon Plaza. In Fallon we surveyed the Bonanza Casino, Stockman's Casino and The Depot. In Fernley we surveyed the Chukars, Silverado, Truck Inn and the Wigwam. In Hawthorne we surveyed the El Capitan and in Lovelock we surveyed Sturgeon's. In Tonopah we surveyed the Banc Club and the Tonopah Station. Very few of these casinos had table games, with the El Capitan in Hawthorne being the only non-Carson City casino with table game gamblers. The data are presented in Table 5. Overall, 1193 gamblers were observed with 145 smokers for a calculated percentage of 36.5% smokers. Only 9 % of gamblers at the table games were smokers, although these numbers are quite small, and 38.2 % of slot players were smokers. Overall the rural communities appeared to have a higher percentage of gamblers that smoke than the major Nevada resort communities. This is most likely due to the higher rate of smoking in these communities and the overall reliance of local patronage rather than tourist patronage.

### **Supermarkets, Drug and Convenience Stores:**

Over the course of this study, we gathered data from supermarket, drug and convenience store slot areas in order to get a feel for the percentage of gamblers who smoke at those gaming venues. The majority of our data are from the Reno/Sparks area, however some data were obtained from Carson City, Fernley, Hawthorne, Lovelock and Tonopah. The data from Fernley, Hawthorne, Lovelock and Tonopah were gathered at the same time as the casino data were gathered. What made this particularly difficult was the small number of gamblers present at any one time. Initially, when we would stop at a site and no gamblers were present we did not record the data. Later on we began recording the fact that no gamblers were present. The data are presented in Table 6. From the total of 82 observations we had only a total of 195 gamblers, 28 of whom were smokers. This calculated out as a smoking rate of 42%. By far the greatest majority of gamblers was seen at the grocery stores (136) with a calculated smoking rate of 36%. The observed numbers for drug and convenience stores are very small with only 38 and 21

gamblers observed, respectively. These numbers are far too small for any meaningful evaluation. What stands out from these data is the small number of gamblers at these sites.

### **Conclusions:**

In this study we have counted gamblers and smokers throughout the State of Nevada from the mega-resort casinos of Las Vegas to the tiny rural casinos and in grocery, drug and convenience stores. Overall we counted 17,723 gamblers and found that 1,335 of them were smoking. This calculates out to 22.6% of the gamblers were smokers using the method of Repace and Lowry to determine the number of smokers in a room. If anything, this method would overestimate the number of smokers. These numbers are very similar to results just published results showing that in 2005 approximately 20.9% of Americans smoke. See a summary of the overall results in Table 7. The numbers from Las Vegas, Reno and Lake Tahoe were even closer to the 20.9% number (21.5, 22.6 and 17 % respectively). It is important to note here that the percentage of gamblers who smoke would be even smaller had this study included those gamblers in the casino poker rooms (which are almost all non-smoking facilities). While we separated out the data for high (minimum) and low (minimum) table games, the number of players at these high table games was extremely few, with the exception being the Las Vegas Strip Casinos where we observed the smoking rate to be 22%. Few gamblers were observed at the high (minimum wager) slot machines. Only 115 gamblers in total were observed at these high slots and 76 of them were observed at the Las Vegas Strip Casinos where a 39% smoking rate was recorded. The rural communities showed higher smoker rates amongst gamblers of 36.5% which most likely reflects the higher percentage of smokers in these communities and the fact that much of the gaming patronage is from locals. These results suggest that the percent of gamblers who smoke at tourist destination casinos are almost identical to the overall percentage of smokers in the U.S.

### **References:**

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4. Bridge, D.P. and Corn, M. "Contribution to the assessment of exposure of nonsmokers to air pollution from cigarette and cigar smoke in occupied spaces." *Environ. Res.* 5:192-209 (1972).
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**Table 7- Summary of Study Results  
Calculated Percentage of Gamblers Who Smoke**

<b>Location</b>	<b>No. of Gamblers</b>	<b>No. of Smokers</b>	<b>Calculated % of Gamblers Who Smoke</b>
Las Vegas Casinos	9,628	691	21.5
Las Vegas Strip Casinos	7633	516	20.3
Las Vegas Off-Strip Casinos	1,552	175	26.3
Reno/Sparks Casinos	5,025	379	22.6
Lake Tahoe Casinos	1682	92	17.0
Rural Nevada Casinos	1193	145	36.5
Supermarkets, Drug and Convenience Stores	195	28	42.0

\* **The percentage of smokers in the U.S. population (2005 survey results) is 20.9%.**