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GAMBLING AND PROBLEM GAMBLING  
AMONG ADOLESCENTS IN NEVADA

*Report to the Nevada Department of Human Resources*

**Rachel A. Volberg, Ph.D.**  
Gemini Research, Ltd.  
P.O. Box 628  
Northampton, MA 01060  
(413) 584-4667  
[www.geminiresearch.com](http://www.geminiresearch.com)

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## EXECUTIVE SUMMARY

This report presents the results of the first survey of gambling and problem gambling among adolescents in Nevada. The main purpose of this study was to assess the extent of gambling and problem gambling among adolescents in Nevada. A sample of Nevada residents aged 13 to 17 (N=1,004) was interviewed between March and May, 2001, about the types of gambling they have tried, the amounts of money they spend on gambling and about gambling-related difficulties. The results of this study are intended to assist in the development of services in Nevada for youth with gambling problems and their families.

### **Findings**

- While participation in all forms of gambling is illegal for individuals under the age of 21 in Nevada, 67% of the Nevada adolescent respondents said that they had bet on one or more types of gambling at some time in their lives, 49% had gambled in the past year and 7% bet on one or more types of gambling once a week or more often.
- The favorite types of gambling among Nevada adolescents are wagering on card, dice or board games with friends or family, wagering on private games of skill, and making side bets on arcade or video games.
- Boys are far more likely to gamble regularly than girls. Gambling involvement is also strongly associated with adolescent employment and income. Adolescents who receive an allowance and those who work 10 or more hours per week are much more likely to gamble weekly than those who work fewer hours or have less disposable income.
- Wagering on card, dice or board games with friends or family, on private games of skill and on arcade or video games accounts for the majority of reported monthly expenditures on gambling among Nevada adolescents.
- Nevada adolescents are most likely to have started gambling with family or friends on card, dice or board games.
- Gambling participation among adolescents in Nevada is correlated with the use of alcohol, tobacco, marijuana and illicit drugs. Weekly gamblers are more likely than less frequent gamblers to have used alcohol, tobacco, marijuana and other drugs in the past year and to have gotten into trouble in the past year because of their alcohol or drug use.
- In this report, a narrow definition of problem gambling, which captures a more extreme pattern of behavior, is used to estimate the prevalence of problem and at-risk gambling among youth in Nevada. A broad definition of problem gambling is used to identify risk factors associated with gambling problems among adolescents in Nevada.
- Based on the narrow definition of problem gambling, 2.2% ( $\pm 0.9\%$ ) of the total sample of adolescent respondents in Nevada was classified as problem gamblers,

the most serious classification of gambling-related difficulties among youth. Another 9.9% ( $\pm 1.8\%$ ) of the total sample of adolescent respondents was classified as gamblers at risk for developing gambling problems.

- Based on these figures, it is estimated that there are between 1,700 (1.3%) and 4,000 (3.1%) adolescents in Nevada who have experienced severe difficulties related to their gambling in the past year and another 10,400 (8.1%) and 15,000 (11.7%) adolescents whose gambling has caused them some difficulties in the past year.
- Using the narrow definition of problem gambling, prevalence rates are highest among girls, younger adolescents, Black and Asian adolescents compared with other racial groups, and among adolescents living in households with either a single parent or with three or more adults. The prevalence of at-risk gambling is higher among boys than among girls.
- Based on a broad definition of problem gambling, adolescent at-risk and problem gamblers in Nevada are most likely to be male and are more likely to come from non-White racial groups and from non-traditional households. Adolescent at-risk and problem gamblers in Nevada are more likely than non-problem gamblers to say that one or both parents gamble, to earn \$50 or more per week and to say that one or both parents has had a gambling problem.
- Using the broad definition of problem gambling, adolescent problem and at-risk gamblers in Nevada are most likely to wager regularly card, dice or board games with friends and family, on private games of skill, and on arcade or video games. While overall participation is low, problem gamblers are more likely than other adolescent gamblers to gamble regularly on the Internet.
- Adolescent problem gamblers in Nevada report starting to gamble at a significantly earlier age (11.6 years old) compared to at-risk and non-problem gamblers (12.4 years old and 12.6 years old respectively). Problem and at-risk gamblers spend more time gambling than non-problem gamblers and are more likely to have ever lost \$50 or more in a single gambling session.
- Gambling problems are closely correlated with the use of alcohol and drugs. Problem gamblers are more likely than at-risk or non-problem gamblers to have used alcohol, tobacco, marijuana and other drugs in the past year and to have gotten into trouble in the past year because of their alcohol use.
- Compared with adolescents in Georgia, New York, Texas and Washington State, where similar surveys have been carried out, adolescents in Nevada are less likely to gamble weekly or more often. Furthermore, the prevalence of problem gambling among adolescents in Nevada is lower than among adolescents in three of the other four states where similar surveys have been conducted.
- With the most mature gambling economy in North America, Nevada can be considered a “proving ground” for many notions about youth gambling. Publication of several recent reviews of the youth gambling research literature provided an opportunity to test numerous hypotheses about youth gambling and problem

gambling against the results of the Nevada survey. While hypotheses about the characteristics of gamblers and problem gamblers as well as the correlates of problem gambling in Nevada were supported, other hypotheses about gambling involvement and predictions about the prevalence of problem gambling among youth were not supported by the Nevada adolescent data.

- Some of the hypotheses that were not supported by the data were (1) that adolescent gambling participation in Nevada would be higher than in other jurisdictions; (2) that a substantial portion of adolescents in Nevada would have gambled at a casino; (3) that the prevalence of problem gambling would be higher among Nevada adolescents than among adolescents in other jurisdictions; (4) that adolescents in Nevada would be more likely than adolescents in other jurisdictions to report that one or both parents gamble; and (5) that adolescents in Nevada would report starting to gamble at a younger age than adolescents in other jurisdictions.

### ***Future Directions***

At present, there are no services for problem gambling funded by the State of Nevada. In considering what might be done for Nevada adolescents who experience gambling problems, policy makers may wish to give consideration to a range of options. These include establishing a statewide prevention program targeting at-risk adolescents in Nevada as well as fostering cooperative endeavors to discourage and minimize underage gambling in Nevada, developing public education materials and educational curricula targeted toward at-risk youth and their families, encouraging parents and adults to be attentive to the types of gambling they may be doing with underage persons, providing training opportunities to those who work with troubled adolescents, funding treatment services for adolescent problem gamblers and their families, evaluating services that are established based on uniform data collection, and continued monitoring of gambling and problem gambling among the adolescents of Nevada to assess impacts of changes in the availability of gambling on youth and to evaluate the effectiveness of the services that are implemented.

## INTRODUCTION

In the United States and other industrialized nations, adolescence is a life stage when individuals make the transition from childhood to adulthood. Like sexual experimentation and the use of alcohol and drugs, gambling may be a behavioral expression of adolescents' efforts to establish coherent, consistent identities (Erikson 1963). The majority of adolescents who gamble do so recreationally and in order to socialize. As with adults, however, a small but significant number of adolescents experience difficulties related to their involvement in gambling.

In the wake of the recent rapid legalization of lottery and casino gambling throughout North America, researchers investigating youth gambling have noted that there is now an entire generation of adolescents and young adults who have grown up in a society that not only condones, but encourages, gambling (Gupta & Derevensky 2000; Jacobs 2000; Shaffer & Hall 1996; Stinchfield & Winters 1998). Their concern is that, over time, increased availability and decreased stigma will lead to increases in adolescent gambling and, potentially, increases in the prevalence and severity of gambling problems among adolescents and young adults. These researchers are also concerned with the role that parents who gamble play in facilitating gambling by their children.

This report presents the results of the first survey of gambling and problem gambling among adolescents in Nevada. Given the widespread availability of casino gambling in Nevada, this study provides a critical opportunity to test hypotheses about the relationship between gambling availability, adolescent gambling and adolescent problem gambling. This report is organized into several sections for clarity of presentation. The **Introduction** includes a discussion of research on adolescent gambling and problem gambling and includes a range of hypotheses that will be tested using the Nevada adolescent data. The **Methods** section addresses the details of conducting the survey. The next four sections detail findings from the survey, with a focus on:

- gambling involvement among adolescents in Nevada;
- the prevalence of problem gambling among adolescents in Nevada;
- differences between non-problem, at-risk and problem gamblers; and
- relationships between gambling, alcohol and drug use among adolescents in Nevada.

These sections are followed by a section comparing Nevada adolescents with those from other states and another section comparing the two different methods used to assess problem gambling among Nevada adolescents. The report concludes with a summary of the findings and suggestions for future efforts to address problem gambling among adolescents in Nevada.

### **Research on Adolescent Gambling**

It has been widely assumed, by researchers, clinicians, the media and the public, that gambling participation by youngsters will rise when the availability of gambling expands,

regardless of age restrictions. A growing number of surveys of gambling among youth have been carried out in North America since the mid-1980s. A recent review of juvenile gambling research identified more than 20 such studies carried out in schools or by telephone, and explored some trends in the prevalence of youth gambling and problem gambling (Jacobs 2000). Past year gambling participation rates in early studies of youth gambling in the United States (1984-1988) range from 20% to 86%, with a median of 45%. Past year gambling participation rates in later studies of youth gambling in the United States (1989-1999) range from 52% to 71%, with a median of 66%. Based on this evidence, Jacobs concludes that youth gambling has increased significantly in the United States over the past 15 years in the wake of widespread legalization of lotteries and casinos. This is in contrast to the conclusion reached by Stinchfield and Winters (1998), that rates of youth gambling tend to be quite stable over time.

In considering the gambling activities preferred by youth gamblers, Jacobs (2000) notes that minors consistently manage to participate to some degree in every form of gambling available in their communities. Regardless of differences in local availability, the most popular games among adolescents in North America appear to be (1) cards, dice and board games played with family and friends, (2) private wagers on games of personal skill with friends, (3) sports betting, with peers as well as bookmakers, and (4) bingo.

In considering the demographic characteristics of adolescent gamblers, Jacobs (2000) notes that the intensity of gambling by male adolescents is greater than for female adolescents. Male adolescents tend to gamble earlier, gamble on more games, gamble more often, spend more time and money on gambling, and experience more gambling-related problems than female adolescents. Male adolescents are more likely to participate in "skill-based" games while female adolescents are more likely to participate in gambling activities with a large "luck" component. Jacobs argues, however, that in jurisdictions "where horse and dog races exist and where gaming machines are locally accessible, juvenile participation tends to be similar between boys and girls" (Jacobs 2000: 127). Although he does not say so explicitly, Jacobs would also be likely to argue that in jurisdictions where casino gambling is locally available, boys and girls will tend to gamble in similar ways.

Based on an extensive review of the literature, Stinchfield and Winters (1998) make several additional points about youth gambling. They note that (1) like most behaviors, youth gambling occurs on a continuum of involvement; (2) most youths have gambled at some time and many have played a game that is legal for adults; (3) boys are more involved in gambling than girls; (4) older youths gamble more often than do younger youths; (5) some studies have found ethnic or racial differences in youth gambling; (6) youths start gambling at an early age, oftentimes in grade school; and (7) youth gambling is related to parental gambling.

### ***Defining Problem Gambling Among Adolescents***

A variety of terms have been used in the gambling research literature to refer to difficulties caused by an individual's gambling. The term **pathological gambling** is generally limited to the psychiatric disorder first recognized by the medical profession in 1980 (American Psychiatric Association 1980). **Pathological gambling** is presently defined as: a continuous or periodic loss of control over gambling, accompanied by a progression, in gambling frequency and amounts wagered, in preoccupation with gambling and in

obtaining money with which to gamble, and a continuation of gambling despite adverse consequences (American Psychiatric Association 1994).

Research on adult gambling problems suggests that pathological gambling has strong antecedents in youthful gambling involvement (Custer & Milt 1985; Volberg 1994). However, since pathological gambling is defined as a progressive condition which takes some years to develop, some gambling researchers have argued that problem gambling among adolescents is best viewed as a pre-clinical state (Volberg & Moore 1999; Winters, Stinchfield & Fulkerson 1993b). Adolescent gamblers are a particularly vulnerable group in terms of the future development of pathological gambling. Their propensity to display the full clinical disorder is likely to be affected by a variety of risk factors and by the offsetting influence of prevention and treatment efforts. A related concern is that gambling may be an important, but ignored, component in the development of other adolescent problems such as alcohol and drug abuse and suicide.

The National Council on Problem Gambling uses the term **problem gambling** to describe all of the patterns of gambling behavior that compromise, disrupt or damage personal, family or vocational pursuits (Cox, Lesieur, Rosenthal & Volberg 1997). In discussing the results of Nevada adolescent survey, the term **problem gambling** will be used to refer to the most severe end of a continuum of gambling involvement that stretches from no gambling at all to extremely serious difficulties. In this instance, “problem gamblers” are those respondents who show clear evidence of gambling involvement that has compromised, disrupted or damaged other important areas in their lives. “At risk” gamblers are those whose difficulties are less severe but who nonetheless appear to have substantial troubles related to their gambling.

### ***Assessing Problem Gambling Among Adolescents***

Although there are now well-accepted methods for identifying pathological gambling in the adult population (Volberg 2001a), there are several reasons to hesitate in applying the same criteria to adolescents. The psychiatric criteria for identifying pathological gambling among adults were developed on the basis of adult life and gambling experiences. Younger individuals have simply not had time to develop the same depth of life experience. It is important to understand that there are differences in adult and youth gambling and to develop tools specifically for adolescents that take their unique developmental issues into consideration (Stinchfield & Winters 1998). In addition, the psychiatric criteria for pathological gambling have never been clinically tested among adolescents and there is little information about their validity among adolescents.

The most widely used method to assess problem and pathological gambling in the adult population is the South Oaks Gambling Screen (SOGS) (Lesieur & Blume 1987). The SOGS is a 20-item scale based on the original diagnostic criteria for pathological gambling (American Psychiatric Association 1980). A number of school-based surveys of adolescents based on the original adult version of the South Oaks Gambling Screen have been carried out (Ladouceur & Mireault 1988; Lesieur & Klein 1987; Steinberg 1997; Westphal, Rush & Stevens 1997).

To date, few instruments have been developed to measure adolescent problem gambling. The majority of adolescent studies have used the original SOGS or the major adaptation of this screen for adolescents (SOGS-RA) (Winters, Stinchfield & Fulkerson 1993a). Other investigators have adapted the most recent adult psychiatric criteria for administration in

youth surveys (DSM-IV-J) (Fisher 1992, 1998, 2000) or have developed their own instruments (MAGS) (Shaffer, LaBrie, Scanlan & Cummings 1994).

### SOGS-RA

In Minnesota, researchers first adapted the SOGS items and later, the SOGS scoring method, for use with adolescents in schools and in the general population (Winters, Stinchfield & Fulkerson 1993a, 1993b; Winters, Stinchfield & Kim 1995). Govoni, Rupcich and Frisch (1996) describe the evolution of the SOGS-RA (Revised for Adolescents):

The SOGS-RA adolescent gambling screen was developed ... by modifying the wording of the adult SOGS screen ... to reflect adolescent gambling experiences and reading levels. Three groups were identified: problem gamblers (SOGS-RA scores of four or more), at risk gamblers (SOGS-RA scores of two or three), and no gambling problems (SOGS-RA scores of zero or one). The other significant change in the scoring methodology for the SOGS-RA as compared to the adult SOGS was the collapsing of nine scored items relating to borrowing to support gambling activities ... to one scored item ... This change was based on the assumption that every source for obtaining money to support gambling activities does not represent a significantly different sign or symptom and does not warrant an individual score. As a result the total number of scored items was reduced from 20 in the adult SOGS to 12 in the adolescent SOGS-RA screen ... Subsequently, Winters, Stinchfield and Fulkerson (1993b) modified the SOGS-RA scoring system. Acknowledging that there is no well defined definition of problem gambling in adolescents, they combined the SOGS-RA scores with frequency of gambling to produce a composite index ... (p. 306).

The scoring system based solely on the SOGS-RA total score has been referred to as a “narrow” criterion of adolescent problem gambling. The scoring system that combines gambling frequency and the SOGS-RA score has been referred to as a “broad” criterion (Poulin 2000).

The developers of the SOGS-RA reported that the screen had moderate internal reliability and high content and construct validity among male adolescents (Winters, Stinchfield & Fulkerson 1993a). However, other researchers have noted that the SOGS-RA has not been adequately tested with adolescent females and work to evaluate the psychometric properties of the SOGS-RA continues (Ferris, Wynne & Single 1999; Poulin 2000; Wiebe, Cox & Mehmel 2000).

In Georgia, New York, Texas and Washington State, the scoring method developed by the Minnesota researchers was changed further (Volberg 1993, 1996, 1998; Volberg & Moore 1999; Wallisch 1993, 1996). Rather than treating the SOGS-RA items as a single dimension, behavioral difficulties and borrowing difficulties were assessed separately. The reason for adopting this more stringent approach to identifying problem gambling among adolescents stemmed from concerns about the sensitivity and specificity of the SOGS-RA measure.

### DSM-IV-J

More recently, researchers have developed several new methods to identify problem and pathological gambling among adolescents. In Great Britain, efforts have focused on adapting the DSM-IV criteria for use with adolescents. In a pilot study, a sample of 11- to 16-year-old adolescents from a single secondary school were administered the DSM-IV-J (Juvenile) scale (Fisher 1992). Involvement in fruit machine play and affirmative answers to four of the 12 items assessing nine different criteria were used to identify respondents

as probable pathological gamblers. According to these criteria, 5.6% of the total sample scored as problem gamblers (the most severe category).

A more recent and much larger study of 9,774 12- to 15-year-old adolescents drawn from 114 schools was recently completed in England and Wales (Fisher 1998, 2000). The DSM-IV-J was revised for this study to include lessons learned from earlier work. The DSM-IV-MR-J (Multiple Response Juvenile) consists of 12 items assessing nine criteria with four response options for all but one question. Factor analysis shows that all of the items discriminate effectively between problem gamblers and social gamblers. The internal consistency of the DSM-IV-MR-J is good and the scale appears to have good construct validity.

### MAGS

In the early 1990s, another group of researchers developed the Massachusetts Gambling Screen (MAGS) (Shaffer, LaBrie, Scanlan & Cummings, 1994). Although the MAGS is a 7-item screen intended as a brief clinical method to identify individuals with gambling difficulties, it has always been administered along with a 12-item version of the DSM-IV criteria. In essence, the MAGS is a 19-item screen that provides two separate estimates of problem gambling prevalence. The MAGS was pilot tested with students at three suburban high schools in the Boston area. The MAGS classifies respondents as non-problem, in-transition or pathological gamblers, using a relative item weighting scheme derived from discriminant function analysis. In the pilot test, the internal consistency of the MAGS was good and the authors concluded that the screen was a valid and efficient screen for pathological gambling. However, in a survey of adolescent gambling and problem gambling in New York State, the performance of the MAGS proved unsatisfactory (Volberg 1998).

### Comparing the Screens

Estimates of the prevalence of gambling problems tend to be higher among adolescents than among adults. For example, Gupta and Derevensky (2000) estimate that between 4% and 8% of adolescents report very serious gambling problems and another 10% to 15% of adolescents are at risk for developing serious gambling problems. Other estimates of the prevalence of adolescent problem or pathological gambling rates range between 1% and 9%, with a median of 6% (National Research Council 1999; Shaffer, Hall & Vander Bilt 1999).

### ***Research on the Correlates of Adolescent Problem Gambling***

A growing body of research has documented the relationship between problem gambling and other disorders in the adult population, including alcohol abuse, drug abuse and depression (Gerstein et al 1999; National Research Council 1999). There is evidence that problem gambling among adolescents is similarly correlated with a range of "fellow travelers" (Jacobs 2000). These include high rates of tobacco, alcohol and marijuana use, high levels of parental gambling and parental gambling problems, illegal activities, poor school performance, truancy, and feelings of unhappiness, anxiety and depression.

Based on his review of adolescent surveys conducted since 1984, Jacobs (2000) provides a composite profile of adolescents with serious gambling-related problems. Demographic factors include male gender, early age of onset for gambling participation, parental

gambling, living in a metropolitan area, and membership in an ethnic minority group. Behavioral features include a preference for continuous and interactive games, greater gambling intensity, obtaining funds to gamble from multiple sources, frequent and heavy use of alcohol and drugs as well as problems with school and the law, and more positive attitudes toward gambling. Psychosocial features include different reasons for gambling and dissociative reactions when gambling. Griffiths and Wood (2000) identify several additional risk factors for the development of adolescent problem gambling. These include having a big win early on, consistently chasing losses, beginning to gamble with parents or alone, and depression.

The most recent trend in youth gambling research is the use of large samples and multivariate analyses to determine the relative contributions of different demographic, psychosocial and behavioral variables. In a large study of Minnesota public school students in 1992 and 1995, frequent gambling among adolescents was found to be part of a constellation of risk-taking behaviors, including frequent alcohol use and antisocial behaviors such as physical violence, vandalism, shoplifting, and truancy, with these findings being especially true for boys (Stinchfield, Cassuto, Winters & Latimer 1997). In a survey of high school students in Montreal, Gupta and Derevensky (1998) found that tobacco, alcohol and drug use, depression, dissociation, excitability and disinhibition were correlated with gambling problem severity as well as with measures of arousal and self esteem. These researchers concluded that boys and girls have different predictor variables for problem gambling. For boys, excitability and dissociation were the best predictors of problem gambling, while for girls, depression, dissociation and drug use were the best predictors.

### ***Testing Hypotheses About Adolescent Gambling***

The first national survey of gambling in the United States, conducted in 1975, included a supplementary sample of people from Nevada which was then distinguished sharply from other states by the widespread legal availability of casino gambling (Kallick et al, 1976). The results of the sample in Nevada were used to “predict” what might happen if gambling<sup>1</sup> were to become legal and widespread throughout the United States. The second national survey of gambling in the United States, conducted in 1998, did not include a supplemental sample of respondents from Nevada because the availability of lottery and casino gambling had increased so dramatically in the intervening decades (Gerstein et al. 1999).

With the most mature casino gambling economy in North America, Nevada can be considered a “proving ground” for many notions about youth gambling. Several recent reviews of the youth gambling research literature provide an opportunity to test numerous hypotheses about youth gambling and problem gambling against the results of the Nevada survey. These hypotheses fall into four distinct categories—(1) gambling participation, (2) problem gambling prevalence, (3) correlates of problem gambling, and (4) problem gambling measurement.

In the area of **gambling participation**, for example, it is widely assumed that youth gambling participation will increase when gambling expands. It therefore seems reasonable to assume that youth gambling participation in a mature gambling economy like Nevada will be at the high end of the range of available estimates. Review of the

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<sup>1</sup> Although “gambling” refers to a range of diverse activities, undertaken in a wide variety of settings, the term is often used generically and without reference to one or another of the specific forms of gambling, such as lottery, casino or parimutuel betting.

literature further suggests that patterns of gambling participation among sub-groups of adolescents in Nevada will be similar to patterns of gambling participation among adolescents in other jurisdictions. Thus, we can hypothesize that gambling participation rates will be higher among male, older and minority adolescents in Nevada than among female, younger and majority adolescents. We can further hypothesize that different gambling preferences of male and female adolescents in Nevada will be similar to the preferences of boys and girls in other jurisdictions.

Research regarding the ability of youth to gain access to age-restricted gambling activities suggests that a substantial proportion of adolescents in Nevada will have gambled at a casino. On the basis of Jacobs' argument that differences in gambling participation by gender disappear in environments where pari-mutuel betting and gaming machines are widely available, we can hypothesize that the intensity of gambling by male and female adolescents in Nevada will be similar. Based on the work of Stinchfield and Winters (1998), we can further hypothesize that Nevada adolescents will be more likely than adolescents in other jurisdictions to report that a parent gambles and to report starting to gamble at an earlier age. Based on this same review, we can also hypothesize that adolescent gambling in Nevada will precede their use of tobacco, alcohol and marijuana.

In the area of adolescent **problem gambling prevalence**, most researchers and clinicians would assume that the prevalence of gambling problems among adolescents in Nevada is higher than among adolescents in other, less mature gambling economies. Based on prevalence estimates across a range of surveys, we can hypothesize that the prevalence of adolescent problem gambling in Nevada will be between 6% and 8% with another 10% to 15% of Nevada adolescents classified as "at risk." Jacobs' notion of the convergence of gambling patterns by gender in mature gambling economies suggests that problem gambling prevalence rates will be similar for male and female adolescents in Nevada.

In the area of the **correlates of problem gambling**, the notion that problem gambling is closely correlated with "fellow travelers" is supported by research in a variety of jurisdictions. We can therefore hypothesize that adolescent problem gamblers in Nevada will be more likely than non-problem gamblers or problem gamblers in other jurisdictions to report starting to gamble at an early age, to report that a parent has a gambling problem, to live in the metropolitan areas of the state (Las Vegas and Reno regions), and to be a member of an ethnic or racial minority group. The work of Gupta and Derevensky (1998) suggests that adolescent problem gambling will be closely correlated with tobacco, alcohol and drug use. Their work further suggests that girls with gambling problems will be more likely to report emotional problems than boys with gambling problems.

Finally, in the area of **problem gambling measurement**, there is the question of how screens to measure adolescent problem gambling might be expected to perform in Nevada. Given the satisfactory performance of both the SOGS-RA and the DSM-IV-MR-J in other jurisdictions as well as high expected base rates of problem gambling among Nevada adolescents, it seems reasonable to hypothesize that these screens will perform well in Nevada. Further, given their performance in other adolescent surveys, it seems reasonable to hypothesize that these two screens will be highly correlated with each other as well as with other measures of gambling difficulties, such as frequent participation, lengthy sessions and high expenditures on gambling.

Table 1 on the following page lists the range of hypotheses that will be tested against the Nevada adolescent survey data.

At appropriate points in the report, data from the survey will be assessed to determine whether the hypotheses presented below are **supported** or **not supported** by the data from the adolescent gambling survey in Nevada. These hypothesis tests will be placed in text boxes to distinguish them from straightforward presentations of the results. In the final section of the report, the overall performance of the hypotheses generated by the research literature and, hence, the fit between Nevada and the general field of youth gambling research will be addressed.

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**Table 1: Hypotheses to be Tested**

<b>A</b>	<b>Gambling Participation</b>
A1	The majority of Nevada adolescents will have gambled at some time in their lives.
A2	Adolescent gambling participation will be higher in Nevada than in other jurisdictions.
A3	A substantial proportion of adolescents in Nevada will have gambled at a casino.
A4	Male adolescents will be more likely to gamble than female adolescents in Nevada.
A5	Older adolescents will be more likely to gamble than younger adolescents in Nevada.
A6	Minority adolescents will be more likely to gamble than majority adolescents in Nevada.
A7	Male adolescents in Nevada will be more likely than girls to gamble on sports and card games. Female adolescents will be more likely than boys to gamble on bingo.
A8	The intensity of gambling by male and female adolescents in Nevada will be similar.
A9	Adolescents in Nevada will be more likely than adolescents in other jurisdictions to report that one or both parents gamble.
A10	Adolescents in Nevada will report starting to gamble at a younger age than adolescents in other jurisdictions.
A11	Adolescent gamblers in Nevada will be more likely than non-gamblers to use tobacco, alcohol and marijuana.
A12	Adolescent gambling in Nevada will precede the use of tobacco, alcohol, and marijuana.
<b>B</b>	<b>Problem Gambling Prevalence</b>
B1	Prevalence rates of problem gambling will be higher among Nevada adolescents than among adolescents in most other jurisdictions.
B2	Prevalence rates of problem gambling will be similar among male and female adolescents in Nevada.
<b>C</b>	<b>Correlates of Problem Gambling</b>
C1	Adolescent problem gamblers in Nevada will be most likely to reside in the Las Vegas or Reno regions of the state.
C2	Adolescent problem gamblers in Nevada will report starting to gamble at an earlier age than non-problem gamblers.
C3	Adolescent problem gamblers in Nevada will be more likely than adolescent problem gamblers in other jurisdictions to report that one or both parents have a gambling problem.
C4	Adolescent problem gamblers in Nevada who believe that one or both parents has a gambling problem will report a younger age of onset for their own gambling participation.
C5	Female problem gamblers in Nevada will be more likely to experience emotional problems than male problem gamblers.
C6	Adolescent problem gamblers in Nevada will be more likely than non-problem gamblers to use tobacco, alcohol and marijuana.
<b>D</b>	<b>Problem Gambling Measurement</b>
D1	Instruments to detect adolescent problem gambling will perform well in Nevada.
D2	Instruments to detect adolescent problem gambling in Nevada will be highly correlated.

## METHODS

In this section, the methods used to conduct the survey of gambling and problem gambling among adolescents in Nevada are described. This section addresses the overall structure of the study with specific attention to the development of the questionnaire and the sample design, including the response rate for the study as well as the need for weighting of the sample.

The adolescent survey in Nevada was carried out by the same team that conducted two Washington State adolescent surveys and in similar stages (Volberg 1993; Volberg & Moore 1999). In the first stage of the project, staff from Gemini Research, Ltd. conferred by telephone with representatives of the Nevada Department of Human Resources regarding the final design of the questionnaire. In the second stage of the project, staff from Gilmore Research Group, a professional survey organization based in Seattle, completed telephone interviews with a sample of 1,004 adolescents aged 13 to 17 years old residing in Nevada. The interviews were completed between March 20, 2001 and May 7, 2001. Parental consent as well as consent of the adolescent respondent was obtained for each interview. The average length of the interview was 14 minutes. Gilmore Research Group then provided Gemini Research with the data for the third stage of the project that included analysis of the data and preparation of this report.

### ***Questionnaire***

The questionnaire for the adolescent survey in Nevada was composed of six major sections (see **Appendix A** for a copy of the questionnaire). The first section included questions about 11 different types of gambling. For each type of gambling, respondents were asked whether they had ever tried this type of gambling and whether they had tried it in the past year. If they had participated in the past year, they were asked for their frequency of play during this time. Respondents were also asked to estimate their monthly expenditures on the types of gambling that they had tried in the past year.

The second section of the questionnaire included several questions about respondents' life experiences with gambling, including their favorite activity, their typical gambling habits, their reasons for gambling, when they started gambling and with whom, and parental gambling. Two different screens were used to assess gambling-related difficulties among Nevada adolescents. The third section of the questionnaire was composed of the South Oaks Gambling Screen Revised for Adolescents (SOGS-RA) (Winters, Stinchfield & Fulkerson 1993a). The fourth section of the questionnaire consisted of the DSM-IV-MR-J screen (Multiple Response Juvenile) (Fisher 2000). The fifth section included questions about respondents' alcohol and drug use and the final section of the questionnaire included questions about demographics.

### ***Sample Design***

The focus of this study was adolescents aged 13 to 17, a group that represents only a small proportion of the population in any state. Since the group of eligible respondents is so small, it is common to use targeted samples to conduct research on adolescents in the general population. The telephone numbers in a targeted sample are not randomly generated but are based on comparisons of telephone lists with driver's license applications and voter registration lists. Voter registration lists are used because a new

voter in a household is likely to have younger siblings. This increases the potential that the household will include an eligible respondent.

While targeted samples do not include households with unlisted telephone numbers, this approach does yield telephone numbers of residences with a higher-than-usual likelihood of containing an individual in the desired age range. The targeted sample for the Nevada adolescent survey was purchased from Survey Sampling, Inc. of Fairfield, Connecticut, which also provided the targeted samples for adolescent gambling surveys in Georgia, Minnesota, New York and Texas as well as two adolescent surveys in Washington State (Volberg 1993, 1996, 1998; Volberg & Moore 1999; Wallisch 1993, 1996; Winters, Stinchfield & Fulkerson 1993a, 1993b). Since age-targeted samples purchased from the same company were used in all of the surveys of gambling and problem gambling among adolescents in the general population, this approach also maintained continuity with surveys of adolescents in other states.

Adolescents aged 13 to 17 represent approximately 10% of the total population in the United States. The targeted sample purchased for this survey increased the incidence of households with an eligible respondent to 24%. If more than one adolescent resided in the household, the eligible respondent with the next birthday was selected. Informed consent was initially obtained from a parent or legal guardian. Interviewers read an introduction to the responsible adult explaining the purpose of the study, assuring the parent of the confidentiality and anonymity of the respondent's answers and explaining the respondent's right to refuse to answer any of the questions. Once the parent or guardian agreed to his/her child's participation, informed consent was obtained from the adolescent. Again, interviewers read an introduction explaining the purpose of the study, assured the eligible respondent of the anonymity and confidentiality of his/her responses and stressed that the respondent had the right to refuse to answer any question that caused him/her discomfort.

### ***Response Rate***

Response rates for telephone surveys in general have declined in recent years. These declines are related to the proliferation of fax machines, answering machines and other telecommunications technology, such as "caller ID," that make it more difficult to identify and recruit eligible individuals. These declines are also related to the amount of political polling and market research that is now done by telephone and to the higher likelihood that eligible households will refuse to participate in any survey. In the case of adolescent surveys, response rates are further affected by the need to obtain informed consent from two parties (parent and adolescent).

The response rate among adolescents in Nevada was 52% of the known qualified households. The response rate among adolescents in the 1999 survey of Washington State adolescents was 62% of the known qualified households. These response rates were calculated using the same CASRO approach that Gemini Research uses in reporting the results of adult surveys. The refusal rate for the Nevada adolescent survey was 38% compared with 34% for the 1999 Washington State adolescent survey. These refusal rates include parental refusals as well as refusals by adolescents.

### ***Weighting the Sample***

Although the sample that results from a targeted survey is not a random selection of eligible respondents in the population, it is still important to understand the degree to which the sample matches the characteristics of the population of interest. To determine how well the sample of adolescents from Nevada matched the larger population of adolescents in the state, the demographic characteristics of the respondents were compared to the known characteristics of the population in Nevada (U.S. Census Bureau 2000, 2001).<sup>2</sup> The comparison showed that the proportion of adolescents in the sample residing in Clark County (which encompasses the Las Vegas metropolitan area) and the proportion of adolescents in the sample who identified themselves as Black or Hispanic were both substantially lower than these groups in the population. Similar discrepancies were encountered in an earlier survey of adolescent gambling and problem gambling in New York State (Volberg 1998).

Although the 2000 Census shows that 69% of the Nevada population resides in Clark County, only 47% of the completed adolescent interviews were from this county. The discrepancy between the known geographic distribution of the population and the purchased sample (and hence the completed interviews) is likely the result of procedures used by Survey Sampling, Inc. to achieve higher-than-normal incidence rates for adolescents in their targeted samples.

Census Bureau estimates from 1999 indicate that 10% of 13- to 17-year olds in Nevada can be classified as "Black." However, only 2% of the Nevada adolescent respondents felt that this label best described their race. Similarly, while Census Bureau estimates from 1999 show that 22% of 13- to 17-year olds in Nevada can be classified as "Hispanic, of any race," only 6% of the Nevada adolescent respondents indicated that they considered themselves Hispanic. The proportion of adolescent respondents who identified themselves as "Other" in the Nevada sample was identical to the 1999 Census estimate.

There are several likely reasons for the discrepancy between the proportion of minority adolescents in the general population and in the achieved sample. First, the 1999 figures are estimates, based on yearly adjustments to the 1990 Census data. Second, the 1999 figures are derived through a procedure for determining race and ethnicity that is no longer used. Third, given the dramatic increase in the total population of Nevada in the last decade,<sup>3</sup> it is likely that the 1999 estimates of the proportion of minority adolescents in Nevada are unreliable. Fourth, since minority adolescents are most likely to reside in metropolitan counties, under-sampling in Clark County likely contributed to under-representation of minority respondents in the overall sample. Fifth, African-American and Hispanic families tend to be larger than Caucasian families and the practice of interviewing only one respondent per household probably contributed further to the under-representation of minority adolescents in the sample. Finally, it can be difficult to recruit minority respondents into adolescent telephone surveys because of greater reluctance by minority parents to permit their children to participate in surveys.

Differences in the racial distribution of the 2000 total population and the achieved sample of adolescents in Nevada were further compared by region. While Black and

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<sup>2</sup> Since Census 2000 data were not available until after data collection for the Nevada adolescent survey was completed, it was necessary to use 1999 estimates for some comparisons (e.g. distribution of the population by age and race).

<sup>3</sup> Between 1990 and 2000, Nevada experienced a 66% increase in total population (U.S. Census Bureau 2001).

Asian adolescents were most likely to be under-represented in the Las Vegas region, adolescents from “Other” racial groups were most likely to be under-represented in the Reno region.<sup>4</sup>

Before the decision was made to weight the sample, past year gambling participation and problem gambling status were checked by Hispanicity, race, and region. While differences in gambling participation were minor, there were significant differences in the problem gambling scores of the adolescent respondents by race. Mean scores on both of the problem gambling screens used in the survey were significantly higher for Black and Asian respondents than for respondents of other races, including White, American Indian and Other (SOGS-RA— ANOVA  $F=2.705$ ,  $sig=.013$ ; DSM-IV-MR-J—ANOVA  $F=6.382$ ,  $sig=.000$ ).

Given the differences between the known population and the achieved sample as well as the significant differences in problem gambling scores, the decision was made to weight the sample by both region and race. This was done so that the results of the survey could be generalized more reliably to the adolescent population in Nevada. Distribution of the population in Nevada by county and race is not yet available by single year of age. Information on the distribution of the total population of Nevada, from the 2000 Census, was used to construct the weighted sample. Table 2 presents a comparison of the demographic characteristics of the achieved and weighted samples.

**Table 2: Comparing the Demographics of the Achieved and Weighted Samples**

		Achieved Sample %	Weighted Sample %
Gender	Male	53.4	55.2
	Female	46.6	44.8
Age	13	19.7	21.6
	14	20.8	21.7
	15	24.5	24.3
	16	21.3	20.0
	17	13.5	12.5
Race	White	85.9	75.3
	Black & Asian	4.2	11.3
	Other	10.0	13.4
Region	Las Vegas Region	48.6	68.9
	Reno Region	27.0	21.7
	Other Counties	24.4	9.4

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<sup>4</sup> For the purposes of this survey, the Las Vegas region is defined as Clark County and the Reno region is defined as Washoe County, Douglas County and Carson City.

### ***Data Analysis and Reporting***

For easier comparisons of data from this survey with results from adolescent surveys elsewhere in the United States, detailed demographic data on household size, weekly income and weekly hours worked were collapsed to have fewer values. Household size was collapsed into three groups (“One Adult,” “Two Adults” and “Three or More Adults”). Weekly hours worked and weekly income from all sources were both collapsed from five groups into two groups (“Less than 10 Hours” and “10 Hours or More”) (“Less than \$50” and “\$50 or More”).

Chi-square analysis and analyses of variance were used to test for statistical significance. All results are based on analysis of the weighted sample. It is important to note that some groups analyzed in this report are quite small. Results based on these groups should be interpreted with caution due to the large margin of error based on small cell sizes. Despite this caveat, we believe that the results of this survey can be used to draw meaningful conclusions about the prevalence and characteristics of problem gambling among adolescents in Nevada.

## GAMBLING AMONG ADOLESCENTS IN NEVADA

This section examines gambling participation by adolescents in Nevada. To assess the full range of gambling activities available to Nevada adolescents, the questionnaire for the survey collected information about 11 different wagering activities. It is important to note that individuals under the age of 21 are not permitted to participate in several legal forms of gambling in Nevada, including casinos, bingo and horse race wagering. Nevertheless, adolescent respondents were asked about their participation in the following gambling activities:

- gambling conducted for a charitable cause
- bingo in a bingo hall
- lottery games
- betting on card dice or board games with friends or family
- betting on private games of skill such as dice, dominoes, darts, flipping coins, pool, golf or bowling
- gambling at a store, bar, restaurant or similar location that had only one or two kinds of games, such as slot machines, video poker or pull-tabs
- making side bets on arcade or video games
- gambling at a casino
- racetrack or off-track betting
- sports pools, bets with bookmaker or unlicensed numbers games
- telephone or computer wagering

### ***Gambling Participation***

Table 3 on the following page presents information about lifetime, past year, monthly and weekly gambling among the adolescent respondents from Nevada. Table 3 shows that two-thirds of the Nevada adolescents (67%) said that they had bet on one or more types of gambling included in the questionnaire and just under one-half of the respondents (49%) acknowledged betting on one or more types of gambling in the past year. One in five Nevada adolescents (17%) acknowledged betting on one or more activities on a monthly basis and only 7% of the adolescent respondents from Nevada said that they bet on one or more types of gambling on a weekly or daily basis.

**Table 3: Gambling Participation Among Nevada Adolescents**

Type of Gambling	Lifetime %	Past Year %	Monthly %	Weekly %
	(1004)	(1004)	(1004)	(1004)
Card/dice/board games	46.1	32.2	11.2	3.2
Private game	36.8	20.9	7.9	2.4
Arcade/video games	26.1	17.8	7.2	1.6
Lottery	11.4	4.1	0.4	0.1
Bingo in bingo hall	6.6	1.5	0.1	---
Charitable	6.1	2.4	0.6	0.1
Sports pools/bookmaker	5.6	3.0	1.1	0.4
Race track/OTB	3.2	1.4	0.2	---
Internet	2.7	2.2	1.1	0.6
Casino	2.5	1.0	0.6	---
Store/bar/restaurant	1.9	1.0	0.3	0.1
Total	66.5	48.7	17.2	6.9

Lifetime gambling participation among Nevada adolescents is highest for wagering on card, dice or board games with friends or family members. Lifetime participation is also substantial for wagering on private games of personal skill<sup>5</sup> and making side bets or wagers on arcade or video games. Patterns of past year, monthly and weekly gambling participation among Nevada adolescents are similar to the lifetime pattern of participation.

When asked to identify their preferred type of gambling, 47% of Nevada adolescents who ever gambled indicated that their favorite type of gambling was card, dice or board games with friends or family, 21% identified private wagers, and 15% indicated that arcade or video games were their favorite type of gambling. As with participation, preferences for all other types of gambling were much lower.

Most adolescents who gamble tend to wager on more than one activity. Among adolescents in Nevada who have ever gambled, one third have done only one type of gambling (N=224). Among these respondents, the type of gambling they are most likely to have done is wagering on card, dice or board games with friends or family (42%), following by wagering on private games (25%) and on arcade or video games (13%).

**Hypothesis A1**

**The majority of Nevada adolescents will have gambled at some time in their lives.**

Every survey of youth gambling done since 1984 has found that the majority of adolescents have gambled at some time in their lives. The finding that 67% of Nevada adolescents had bet on one or more types of gambling at some time in their lives provides **support** for the hypothesis that the majority of Nevada adolescents will have ever gambled.

<sup>5</sup> Wagering on private games of personal skill involves betting on one’s own performance in games such as dice, dominoes, darts, flipping coins, pool, golf and bowling.

### Hypothesis A2

**Adolescent gambling participation will be higher in Nevada than in other jurisdictions.**

Researchers have argued that increases in the availability of legal gambling in a jurisdiction are associated with increases in adolescent gambling participation. The widespread availability of gambling in Nevada suggests that adolescent gambling in Nevada is likely to be higher than in other states with less gambling or with different types of gambling. However, the rate of past year gambling participation among adolescents in Nevada (49%) is substantially lower than the median past year gambling participation rate of 66% identified by Jacobs (2000) among youth gambling studies conducted between 1989 and 1999. Indeed, the rate of past year gambling among adolescents in Nevada is lower than the rate of past year gambling among adolescents in Georgia and Texas, one year after state lotteries began operations in these states (Volberg 1996; Wallisch 1993). The notion that greater exposure to **any** type of legal gambling results in higher rates of adolescent gambling is **not supported** by the results of the Nevada adolescent survey.

### Hypothesis A3

**A substantial proportion of adolescents in Nevada will have gambled at a casino.**

Jacobs (2000) has argued that minors are able to participate, to some degree, in any form of gambling available in their communities. Surveys of adolescents in states where lotteries have been recently introduced, such as Georgia, Minnesota and Texas, show that significant numbers of minors are able to purchase lottery tickets (Volberg 1996; Wallisch 1993; Stinchfield et al 1997). Several studies of adolescents in states where casino gambling has been legalized suggest that underage youth are able to participate even in this severely age-restricted form of gambling. An early survey of high school students in Atlantic City found that 64% of the respondents had gambled at the casinos in that city despite efforts by the casinos to prevent minors from gambling (Arcuri, Lester & Smith 1985). A recent survey of college students in Reno and Memphis found that 53% of underage UNR students and 24% of underage University of Memphis had gambled at a casino (Giacopassi, Stitt & Vandiver 1999).

In contrast to the surveys in Atlantic City and among underage college students, only 2.5% of the Nevada adolescent respondents acknowledged having ever gambled at a casino and only 1% of these respondents claim to have gambled at a casino in the past year. The notion that the widespread availability of casinos in Nevada will be associated with high rates of casino gambling by adolescents is **not supported** by the results of the Nevada adolescent survey. Indeed, more adolescents in Nevada acknowledge ever having purchased a lottery ticket (11%) than acknowledge having gambled at a casino. All of these adolescents purchased lottery tickets outside of Nevada, which does not operate a state lottery.

**Patterns of Gambling Participation**

It is helpful to examine the demographic characteristics of adolescent respondents who wager at increasing levels. To analyze levels of gambling participation, we divided the adolescent respondents into four groups:

- **non-gamblers** who have never participated in any type of gambling (34% of the total sample);
- **infrequent gamblers** who have participated in one or more types of gambling but not in the past year (18% of the total sample);
- **past-year gamblers** who have participated in one or more types of gambling in the past year but not on a weekly basis (42% of the total sample); and
- **weekly gamblers** who participate in one or more types of gambling on a weekly basis (7% of the total sample).

Table 4 shows differences in the demographic characteristics of non-gamblers, infrequent gamblers, past year gamblers and weekly gamblers among adolescents in Nevada as well as differences in the mean age and mean number of gambling activities for these groups.

**Table 4: Demographics of Adolescent Gamblers in Nevada**

		Non-Gamblers %	Infrequent Gamblers %	Past Year Gamblers %	Weekly Gamblers %	Sig.
		(336)	(178)	(420)	(69)	
Gender						.000
	Male	41.4	54.5	63.3	75.4	
	Female	58.6	45.5	36.7	24.6	
Age						.325
	13	23.4	20.7	21.7	15.7	
	14	23.7	22.9	20.5	15.7	
	15	23.4	27.4	21.9	34.3	
	16	18.7	14.5	22.4	24.3	
	17	10.7	14.5	13.5	10.0	
Ethnicity						.017
	White	75.9	82.0	73.6	63.8	
	Black & Asian	10.1	7.3	12.1	23.2	
	Other	14.0	10.7	14.3	13.0	
Size of HH						.202
	1 Adult	9.2	10.1	8.3	17.4	
	2 Adults	82.8	86.6	85.2	73.9	
	3+ Adults	8.0	3.4	6.4	8.7	
Region						.119
	Las Vegas Region	70.2	71.5	65.0	78.3	
	Reno Region	20.2	21.2	25.0	10.1	
	Other Counties	9.5	7.3	10.0	11.6	

**Table 4: Demographics of Adolescent Gamblers in Nevada**

	Non-Gamblers %	Infrequent Gamblers %	Past Year Gamblers %	Weekly Gamblers %	Sig.
	(336)	(178)	(420)	(69)	
Receive allowance	36.0	38.8	46.0	56.5	.008
Work 10+ hrs/week	15.2	17.3	23.2	20.3	.000
Earn \$50+ per week	21.1	20.1	26.7	33.8	.057
Mean Age	14.7	14.8	15.0	15.0	.439
Mean Gambling Activities	---	1.4	2.4	3.4	.000

Table 4 shows that, as in other adolescent surveys, gender is strongly associated with gambling involvement among adolescents in Nevada, with males significantly more likely than females to gamble weekly. As with gender, adolescents who identify themselves as Black or Asian are significantly more likely than respondents from other racial groups to gamble weekly. In contrast to other studies of adolescent gambling, older adolescents in Nevada—those aged 16 and 17—are not more likely to gamble than younger adolescents. Instead, weekly gamblers among the adolescents in Nevada are most likely to be 15 or 16 years old.

Finally, Table 4 shows that, as in other studies, adolescent gambling in Nevada is strongly associated with income and employment. Adolescents who receive an allowance, those who work 10 or more hours per week and those whose income is equal to \$50 or more per week (from allowance and/or a job) are significantly more likely to have gambled in the past year than adolescents who work fewer hours and/or earn less money. Table 4 also shows that the *number* of gambling activities that respondents have ever tried increases significantly with increased participation.

**Hypothesis A4**

**Male adolescents will be more likely to gamble than female adolescents in Nevada.**

In terms of gambling participation, a review of the available literature suggests that patterns of gambling participation will be similar for adolescents in different jurisdictions. We therefore hypothesized that gambling participation rates among Nevada adolescents would be higher for males, older adolescents and those from minority groups. The hypothesis that male adolescents are more likely to gamble than female adolescents in Nevada is **supported** by the results of the Nevada survey.

### Hypothesis A5

**Older adolescents will be more likely to gamble than younger adolescents in Nevada.**

Variations in gambling participation rates in the general population, whether for adults or adolescents, are closely correlated with gender and age. However, the hypothesis that older adolescents are more likely to gamble than younger adolescents in Nevada is **not supported** by the results of the Nevada survey.

### Hypothesis A6

**Minority adolescents will be more likely to gamble than majority adolescents in Nevada.**

There are significant variations in gambling participation rates among ethnic and racial minorities in the United States. While it seems reasonable to assume that differences in adult participation rates will be reflected in youth from these sub-groups in the population, there is substantial variation in gambling participation rates by youth from different minority groups. In general, researchers have found that Black and Hispanic adolescents gamble more than White or Asian adolescents. Gambling participation rates for American Indian adolescents are generally much higher than for other minority groups. While the hypothesis that minority adolescents in Nevada will gamble more than majority adolescents is **supported**, it is interesting to note that Asian adolescents in Nevada have substantially higher gambling participation rates than Asian adolescents in other jurisdictions.

### ***Expenditures on Gambling***

Reported estimates of gambling expenditures obtained in surveys are based on recollection and self-report. There are fundamental uncertainties about the tacit definitions that people use when they are asked to estimate “spending” on different types of gambling (Blaszczynski, Dumlao & Lange 1997). There are also questions about the impact that the social acceptability of different types of gambling may have on reports of expenditures. Finally, there are methodological issues related to sampling small groups of heavy users in general population surveys. These challenges are common to a variety of disciplines, including market research as well as research on alcohol misuse and sexual behavior (Volberg et al 1998, 2001). ***For these reasons, data on reported expenditures are best suited for analyzing the relative importance of different types of gambling rather than for ascertaining absolute spending levels on different types of wagering.***

Adolescents who had done any kind of gambling in the past year were asked to indicate how much money they spend on each gambling activity in a typical month. If an adolescent reported past year participation in a type of gambling but gave no information about expenditures, their response was recorded as zero. ***Total monthly expenditure*** for each gambling activity was calculated by summing the amount of money reported by each respondent on each gambling activity. The total amount spent in a typical month by all respondents on all gambling activities was then calculated by dividing the amount spent on each activity by the total. The total monthly expenditure on all gambling

activities was divided by the total number of respondents in the survey to obtain an average amount spent per respondent.

### Total Expenditures

Using the method outlined above, adolescent respondents in Nevada (N=1,004) report spending an average of \$10 on all gambling activities in a typical month. This is the same amount that adolescents in Washington State reported spending in a typical month in 1993. It is substantially less than the \$16 that adolescents in Washington State in 1999 reported spending in a typical month or the \$20 that adolescents in Georgia in 1993 reported spending in a typical month (Volberg 1996; Volberg & Moore 1999). It is significantly less than the \$34 that adolescents in New York in 1998 reported spending in a typical month (Volberg, 1998).

Table 5 shows the sum of total monthly expenditures on different types of gambling reported by adolescents in Nevada as well as the proportion that each type represents of the total monthly expenditure on gambling among adolescents. Together, expenditures on card, dice and board games with friends or family, on private games and on arcade or video games account for 80% of reported monthly expenditures on gambling among Nevada adolescents.

**Table 5: Reported Monthly Expenditures on Gambling**

	Monthly Expenditures \$	% of Total
	(1004)	
Card/dice/board games	3,770	37.5
Private game	2,453	24.4
Arcade/video games	1,767	17.6
Casino	527	5.2
Sports pools/bookmaker	392	3.9
Store/bar/restaurant	296	2.9
Charitable	264	2.6
Lottery	189	1.9
Race track/OTB	152	1.5
Internet	137	1.4
Bingo in bingo hall	114	1.1
Total Expenditures	10,063	100.0

Variations in Expenditures

Table 6 shows mean and median monthly expenditures on all types of gambling by Nevada adolescents. As in other states, male adolescents in Nevada as well as those who work 10 or more hours a week and those who have \$50 or more in weekly income report spending significantly more than females, those who work less than 10 hours a week or earn less than \$50. In Nevada, Black and Asian adolescents report spending significantly more on gambling than adolescents from other racial groups. In contrast to other states, older adolescents in Nevada do not report spending more than younger adolescents and adolescents from non-traditional households do not spend significantly more than adolescents from two-parent households.

**Table 6: Average Monthly Expenditures on Gambling**

		Mean Monthly Expenditure \$	Median Monthly Expenditure <sup>√</sup> \$	Sig.
		(1004)	(1004)	
Gender				.000
	Male	14.34	.95	
	Female	4.71	.40	
Age				.325
	13	5.42	.59	
	14	11.13	.56	
	15	11.17	.65	
	16	11.24	.87	
	17	11.88	.70	
Ethnicity				.000
	White	8.71	.59	
	Black & Asian	22.99	1.25	
	Other	6.56	.85	
Size of HH				.068
	1 Adult	13.29	.74	
	2 Adults	8.98	.65	
	3+ Adults	18.43	.70	
	Receive allowance	12.71	.78	.074
	Work 10+ hrs/week	15.43	.95	.032
	Earn \$50+ per week	14.77	.86	.000

<sup>√</sup> Grouped median. Significance test (Kruskal-Wallis) is on median rather than on mean.

The majority of adolescents in Nevada report spending rather small amounts on gambling in a typical month. Three-quarters of these respondents (76%) report spending less than \$10 on gambling in a typical month. Another 19% report spending between \$10 and \$49 in a typical month. Only 5% of the adolescent respondents in Nevada report spending \$50 or more on gambling in a typical month. However, this small group accounts for 56% of reported monthly expenditures on gambling among adolescents in Nevada. Respondents in this highest spending group are significantly more likely than other respondents to be male, Black or Asian, aged 15 or older, to live in non-traditional households, to work 10 or more hours per week and to have weekly incomes over \$50.

**Gender and Gambling**

Nearly every study of gambling among adolescents and young adults has found significant differences in gambling participation by gender, with boys gambling far more than girls. Among adults, in contrast, differences between the genders are beginning to disappear and women are just as likely to gamble as men, at least on lottery games and at casinos (Gerstein et al 1999; Volberg 2001a).

In this section, we examine the Nevada adolescent data to test several hypotheses about differences in gambling by boys and girls. We have already seen that gambling participation among male adolescents in Nevada is significantly higher than among female adolescents. In this section, we are interested in testing hypotheses about the specifics of gambling participation by gender, including gambling preferences and intensity of participation.

**Hypothesis A7**

**Male adolescents in Nevada will be more likely than girls to gamble on sports and card games. Female adolescents will be more likely than boys to gamble on bingo.**

Based on the research literature, boys and girls are believed to have distinct preferences for different gambling activities. Across numerous surveys, boys have been found to gamble more often on card games and sports while girls are more likely to gamble on bingo. These preferences are congruent with gender roles in modern society and it is likely that the gambling preferences of adolescents are associated with pressures to conform to gender expectations that adolescents encounter as they near adulthood. Table 7 presents information about past year gambling participation by male and female adolescents in Nevada that allows us to test this hypothesis.

**Table 7: Past Year Gambling of Male and Female Nevada Adolescents**

Type of Gambling	Male %	Female %	Sig.
	(554)	(449)	
Card/dice/board games	38.1	24.9	.000
Private game	26.8	13.8	.000
Arcade/video games	23.5	10.9	.000
Lottery	5.1	3.1	.084
Sports pools/bookmaker	4.9	0.9	.000
Charitable	3.2	1.3	.037
Internet	2.0	2.4	.387
Store/bar/restaurant	1.6	0.2	.024
Race track/OTB	1.6	1.1	.341
Casino	1.4	0.7	.194
Bingo in bingo hall	1.1	2.2	.119
Total	57.4	38.0	.000

Table 7 shows that past year participation rates are extremely low for all gambling activities except card games, private games and wagering on arcade or video games. Nevertheless, the hypothesis that boys are more likely than girls to gamble on card games and sports while girls are more likely than boys to gamble on bingo is **supported** by the data from the Nevada adolescent survey.

Given likely future developments in the gambling industry, it is particularly interesting that, with the exception of bingo, Internet gambling is the only type of gambling that adolescent girls in Nevada are more likely to do than boys. This form of gambling has only been widely available since about 1996 and researchers are just beginning to collect information about participation in this activity. The limited available data suggest that Internet gambling participation is growing rapidly and that women are more likely to gamble online than men—at least on bingo and lottery games (CBS MarketWatch 2001; Volberg 2001b). A recent survey of adolescents in Washington State found that 2.2% of the respondents had gambled on the Internet in the past year—a proportion nearly identical to the Nevada results. Similarly, half of the Nevada adolescents who gambled on the Internet were girls as were three out of five of the Washington State adolescents who gambled on the Internet (Volberg & Moore 1999).

#### **Hypothesis A8**

**The intensity of gambling by male and female adolescents in Nevada will be similar.**

In addition to different patterns of gambling involvement, most studies of adolescent gambling have found significant differences in the intensity of gambling participation by gender. In general, boys start gambling at an earlier age than girls, gamble more often and on more activities, and spend more time and money on gambling than girls. However, researchers have speculated that, in jurisdictions where gambling has been widespread for long periods of time, the intensity of boys' and girls' gambling will be similar.

Table 8 on the following page presents information related to the intensity of gambling by male and female adolescents in Nevada. Several of these questions, including age when respondent first gambled and the usual amount spent on gambling, were asked only of adolescents who had ever gambled or of adolescents who indicated that they had a favorite gambling activity.

**Table 8: Intensity of Male and Female Nevada Adolescent Gambling**

	Male %	Female %	Sig.
	(415)	(252)	
Mean no. past year activities	1.5	1.1	.000
Mean monthly expenditure	\$19.13	\$8.40	.000
Largest single day loss			.005
Less than \$10	65.7	72.9	
\$10 – \$49	24.6	24.2	
\$50+	9.7	3.0	
	(369)	(214)	
Mean starting age	12.5	12.5	.861
Usual time spent gambling	(276)	(138)	.619
Less than 1 hr	51.8	52.2	
1 – 2 hrs	41.3	38.4	
3+ hrs	6.9	9.4	

Table 8 shows that, among adolescents in Nevada who have gambled, there is no difference in the age at which boys and girls started gambling or in the amount of time that they spend on their favorite gambling activity. However, there are significant differences between male and female adolescents in Nevada who have gambled in terms of the number of gambling activities they have done in the past year, their mean monthly expenditures on gambling, and the largest amount of money they have lost in a single day. The preponderance of the evidence does **not support** the hypothesis that the intensity of gambling among male and female adolescents in Nevada who gamble is similar.

## ADOLESCENT PROBLEM GAMBLING IN NEVADA

Gambling researchers have argued that the use of multiple screens to measure gambling problems should be one measure of the quality of prevalence surveys in the general population (Abbott & Volberg 1999; Gambino 1999; Shaffer, Hall & Vander Bilt 1997). In the survey of adolescents in Nevada, two different screens were used to identify respondents as problem gamblers. These included the South Oaks Gambling Screen as revised for adolescents (SOGS-RA) (Winters, Stinchfield & Fulkerson 1993a) and a DSM-IV screen developed specifically for youth (DSM-IV-MR-J) (Fisher 2000). In this section, we present information on the prevalence of adolescent problem and at-risk gambling based on the narrow SOGS-RA approach, the broad SOGS-RA approach and the DSM-IV-MR-J (Fisher 2000; Poulin 2000). Additional information about the performance of the two problem gambling screens in the Nevada adolescent sample is presented separately (see Page 48).

As described above (see Page 4), there are several different methods for classifying respondents into problem gambling categories, based on the SOGS-RA. These include a narrow approach based simply on the number of positive responses to the 12 SOGS-RA items and a broad approach that takes respondents' gambling frequency as well as their score on the SOGS-RA items into account (Poulin 2000). There is also a "multi-factor" approach that includes respondents' gambling frequency but calculates separate scores for SOGS-RA items that address difficulties related to behavior and borrowing.

As also described above (see Page 4), the DSM-IV-MR-J consists of 12 items assessing nine criteria with four response options for all but one question. Scores for the DSM-IV-MR-J range from zero to nine, with two of the criteria scored only if an affirmative response is given to one of two or three separate questions.

### ***Prevalence Rates***

Conventionally, prevalence rates are based on the proportion of respondents who score on an increasing number of items that make up one or another of the different problem gambling screens. Table 9 on the following page presents information about the proportion of the total sample of Nevada adolescents (N=1,004) who score on an increasing number of items on the SOGS-RA and the DSM-IV-MR-J. Table 9 also summarizes the prevalence of problem and at-risk gambling, based on established criteria for discriminating between respondents without gambling-related difficulties and those with moderate to severe problems (Winters, Stinchfield & Fulkerson 1993a; Fisher 2000).

**Table 9: SOGS-RA and DSM-IV-MR-J Scores**

	SOGS-RA (Narrow)		DSM-IV-MR-J	
	Number	Percentage	Number	Percentage
<b>Non-Gamblers</b>	<b>336</b>	<b>33.5</b>	<b>336</b>	<b>33.5</b>
0	391	38.9	459	45.7
1	156	15.5	154	15.3
<b>Non-Problem Gamblers</b>	<b>547</b>	<b>54.5</b>	<b>613</b>	<b>61.0</b>
2	55	5.5	31	3.1
3	44	4.4	14	1.4
<b>At Risk (2-3)</b>	<b>99</b>	<b>9.9</b>	<b>45</b>	<b>4.5</b>
4	14	1.4	4	0.4
5	2	0.2	3	0.3
6	6	0.6	---	---
7	---	---	4	0.4
<b>Problem (4+)</b>	<b>22</b>	<b>2.2</b>	<b>11</b>	<b>1.1</b>
Total	1004	100.0	1004	100.0

Alternate SOGS-RA Prevalence Rates

There are two alternative methods for scoring the SOGS-RA. The approach developed by Winters, Stinchfield and their colleagues (Winters, Stinchfield & Fulkerson 1993b; Winters, Stinchfield & Kim 1995) looks separately at gambling frequency and gambling-related difficulties. Another approach, developed by Volberg and used in several adolescent studies throughout the United States (Volberg 1996, 1998; Volberg & Moore 1999; Wallisch 1996), looks separately at the behavioral and borrowing problems items the SOGS-RA as well as at gambling frequency. Table 10 presents information about the prevalence of problem and at-risk gambling among Nevada adolescents using on the two alternative methods based on the SOGS-RA.

**Table 10: SOGS-RA Risk Groups**

	Number	Percentage
<b>SOGS-RA (Broad)</b>		
Non-Gambler	336	33.4
Non-Problem Gambler	449	44.7
At Risk	210	20.9
Problem	28	2.8
<b>SOGS-RA (Multi-Factor)</b>		
Non-Gambler	336	33.4
Non-Problem Gambler	587	58.5
At Risk	62	6.2
Problem	19	1.9

Review of all of the approaches to classifying adolescent respondents in Nevada as problem and at-risk gamblers indicates that the broad approach developed by the original authors of the SOGS-RA<sup>6</sup> generates the highest prevalence rates among the

<sup>6</sup> In a recent article, Poulin (2000) points out a logical inconsistency in original formula for classifying respondents into the broad categories. The broad classification for the Nevada adolescents is based on Poulin's corrected logic.

adolescents in Nevada while the DSM-IV-MR-J generates the lowest prevalence rates. After consultation with several youth gambling experts, we elected to use the narrow approach in reporting prevalence rates and the broad approach in analyzing risk factors for problem gambling among the adolescent respondents in Nevada.

There is always some level of uncertainty associated with the results of surveys. It is important, therefore, to examine not only the point prevalence estimates but also the confidence interval within which the true prevalence is likely to fall. Conventionally, survey results are reported with a confidence interval such that the true prevalence will fall inside this range 95 percent of the time. According to the most recent population estimates available by age from the Bureau of the Census, there are 127,880 adolescents aged 13 to 17 residing in Nevada. Table 11 shows the confidence intervals around the point prevalence estimates for each of the four methods for estimating prevalence rates.

**Table 11: Confidence Intervals and Ranges for Point Prevalence Estimates**

Classification	Point Prevalence	Confidence Interval (%)		Range (in the population)	
<b>SOGS-RA (Narrow)</b>					
Problem Gamblers	2.2	1.3	3.1	1,700	4,000
At Risk	9.9	8.1	11.7	10,400	15,000
<b>SOGS-RA (Broad)</b>					
Problem Gamblers	2.8	1.8	3.8	2,300	4,900
At Risk	20.9	18.4	23.4	23,500	29,900
<b>SOGS-RA (Multi-Factor)</b>					
Problem Gamblers	1.9	1.1	2.7	1,400	3,500
At Risk	6.2	4.7	7.7	6,000	9,800
<b>DSM-IV-MR-J</b>					
Problem Gamblers	1.1	0.5	1.7	640	2,200
At Risk	4.5	3.2	5.8	4,100	7,400

Table 11 shows that the range of estimates of the number of adolescent problem gamblers in Nevada is quite wide, depending on the problem gambling screen used and the method for classifying respondents. The narrow SOGS-RA prevalence rate is probably the most accurate assessment of the number of adolescents in Nevada with gambling problems. Based on this approach, we estimate that there are between 1,700 and 4,000 adolescents in Nevada with severe gambling-related difficulties. In addition, there are between 10,400 and 15,000 adolescents in Nevada with less severe but nevertheless significant difficulties related to their gambling.

**Prevalence Among Demographic Groups**

As in other states, problem gambling prevalence rates are significantly different among sub-groups in the population. Given the size of the Nevada adolescent sample, the confidence intervals around many of the prevalence estimates for these sub-groups are large and these comparisons should be interpreted with caution. These prevalence rates are based on the narrow SOGS-RA classification system.

**Table 12: Prevalence By Demographic Groups**

		Group Size	At Risk %	Problem %	Sig.
Total Sample		1004	9.9	2.3	
Gender					.000
	Male	554	13.7	1.6	
	Female	450	5.1	3.1	
Age					.544
	13	217	13.8	3.2	
	14	218	9.2	2.3	
	15	244	7.8	2.9	
	16	201	10.0	1.0	
	17	125	8.1	1.6	
Ethnicity					.054
	White	755	8.7	2.3	
	Black & Asian	133	12.4	4.4	
	Other	135	13.3	---	
Size of HH					.016
	1 Adult	95	5.3	4.2	
	2 Adults	843	9.7	2.0	
	3+ Adults	65	15.4	3.1	
Region					.855
	Las Vegas Region	692	9.8	2.5	
	Reno Region	217	9.2	1.4	
	Other Counties	95	11.6	2.1	
Intensity					.000
	Past Year	489	17.6	4.3	
	Monthly	172	28.5	5.8	
	Weekly	69	21.7	14.5	

Table 12 indicates that the prevalence of problem gambling is higher among girls than among boys, among younger adolescents compared with older adolescents, among Black and Asian adolescents compared with other racial groups, and among adolescents living in non-traditional households. The prevalence of problem gambling is also substantially higher among adolescents who gamble weekly or more often. The pattern for at-risk gambling is somewhat different—the prevalence of at-risk gambling is highest among boys, among non-White adolescents, and among those living in households with three or more adults. The prevalence of at-risk gambling is also high among 13-year olds and among adolescents who gamble once a month or more often.

### Hypothesis B1

**Prevalence rates of problem gambling will be higher among Nevada adolescents than among adolescents in most other jurisdictions.**

Estimates of the prevalence of adolescent problem gambling range from 1% to 9%, with a median of 6% (Gupta & Derevensky 2000; National Research Council 1999; Shaffer, Hall & Vander Bilt 1997). Estimates of the prevalence of at-risk gambling range from 10% to 15%. Based on this research, we would expect the prevalence of problem gambling among Nevada adolescents to be between 6% and 9%.

The hypothesis that prevalence rates of problem gambling will be higher among Nevada adolescents than among adolescents in other jurisdictions is based on the assumption that increased exposure to gambling venues and gambling advertising will lead to higher rates of adolescent gambling participation and hence to higher rates of adolescent problem gambling. We have seen, however, that gambling participation among Nevada adolescents is actually lower than gambling participation among adolescents in other jurisdictions. Given these lower participation rates, it is not surprising that the prevalence of at-risk and problem gambling among Nevada adolescents is at the lower end of the range. This is true, regardless of which problem gambling screen or method for scoring is selected. The notion that the prevalence of problem gambling will be higher among Nevada adolescents than among adolescents in other jurisdictions is **not supported** by the results of the present survey.

### Hypothesis B2

**Prevalence rates of problem gambling will be similar among male and female adolescents in Nevada.**

In general, gambling participation and problem gambling prevalence rates tend to be higher for boys than for girls. However, Jacobs (2000) has argued that in jurisdictions where legal gambling is widely available, adolescent gambling participation and the prevalence of problem gambling will be similar for male and female adolescents. Table 13 on the following page presents information on the prevalence of problem and at-risk gambling for male and female adolescents in the Nevada survey, assessed in four different ways.

Looking across four methods for classifying problem gamblers involving two different screens, it appears that the prevalence of at-risk gambling in Nevada is substantially lower for girls than for boys. In every case, the prevalence of at-risk gambling for girls is one-third to one-half of the prevalence of at-risk gambling for boys. With regard to problem gambling, prevalence rates are actually higher among girls than among boys in two cases and identical in one case. The preponderance of the evidence does **not support** the hypothesis that prevalence rates of problem gambling will be similar among male and female adolescents in Nevada. It is striking, however, that at least two of the methods used to classify adolescent respondents in this study suggest that the prevalence of problem gambling may actually be higher among girls than among boys in Nevada.

*Table 13: Risk Groups by Gender*

**Gambling and Problem Gambling Among Adolescents in Nevada**

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	Male %	Female %	Sig.
	(554)	(450)	
<b>SOGS-RA (Narrow)</b>			.000
At Risk	13.7	5.1	
Problem	1.6	3.1	
<b>SOGS-RA (Broad)</b>			.000
At Risk	26.5	13.8	
Problem	3.2	2.2	
<b>SOGS-RA (Multi-Factor)</b>			.000
At Risk	8.8	2.9	
Problem	1.6	2.2	
<b>DSM-IV-MR-J</b>			.002
At Risk	8.5	3.1	
Problem	1.3	1.3	

The results of several recent studies, including the national survey in Australia, indicate that gambling problems are increasingly likely to affect women (Productivity Commission 1999; Volberg 2001a). All of these surveys were carried out in jurisdictions where gaming machines had been legalized and thousands of machines placed in stores, restaurants, bars, taverns, lounges and social clubs. In Texas, where adolescent surveys were carried out in 1992 and 1995, Wallisch (1996) noted that, while the overall prevalence of problem gambling among Texas adolescents actually decreased from 5% to 2%, the proportion of adolescent problem gamblers who were girls increased substantially, from 5% to 29%. A recent survey of youth in Manitoba, aged 12 to 17, found identical rates of problem gambling (4%) among boys and girls who had gambled in the past year (Wiebe, Cox & Mehmel, 2000). It may be that girls, although still less likely than boys to gamble regularly, are increasingly likely to experience difficulties with their gambling. This is certainly a topic that deserves further investigation.

## COMPARING AT-RISK GAMBLERS IN NEVADA

Poulin (2000) argues that inquiries into the question of who is at risk for gambling problems among youth are poorly served by using frank pathology as a litmus test. The narrow definition of adolescent problem gambling captures an extreme pattern of behavior while the broad definition incorporates a dimension of gambling involvement that is likely to be more useful in monitoring changes over time. Another reason to focus on the broad definition of problem gambling in assessing risk factors among youth is that regular gambling (daily or weekly) is indicative of a more committed pattern of behavior and is likely to be associated with a higher risk of negative consequences.

In developing policies and programs to address adolescent gambling, it is important to direct these efforts in an effective and efficient way. The most effective efforts at prevention, outreach and treatment are targeted at individuals who are at greatest risk of experiencing gambling-related difficulties. Since the purpose of this section is to examine individuals at risk, our focus will be on differences between adolescents who **gamble**, with and without problems, rather than on the entire sample of adolescents. Furthermore, for reasons noted above, the data presented in this section of the report will be based on the broad approach to classifying SOGS-RA responses rather than on the narrow approach used in the foregoing section.

Finally, in considering the results presented in this section, it is important to note the small size of the group of problem gamblers (N=28).<sup>7</sup> Results based on this group should be interpreted with caution because of the small size of this group and the large confidence intervals associated with small groups in statistical analysis. Despite this caveat, we believe that the results of this survey can be used to draw meaningful conclusions about the characteristics of problem gambling among adolescents in Nevada.

### ***Demographics***

Table 14 on the following page presents information on the demographic characteristics of adolescents in Nevada who gamble without problems compared to those at risk of developing gambling problems and those with severe problems. Table 14 shows that at-risk and problem gamblers in Nevada are significantly more likely to be male compared to adolescents who have gambled without problems. This is a contrast to the gender differences noted above with regard to the narrow definition of problem gambling and is explained by the inclusion of daily and weekly gambling as a criterion for classification as a problem or at-risk gambler in the “broad” definition.

Based on the broad definition of problem gambling, Table 14 shows that at-risk and problem gamblers in Nevada are significantly more likely than non-problem gamblers to come from non-White racial groups and from non-traditional households, including single-adult and multiple adult households. At-risk and problem gamblers are significantly more likely than non-problem gamblers to say that one or both parents gamble. Table 14 also shows that problem gamblers are significantly more likely than

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<sup>7</sup> Readers are reminded that, in this report, the term **problem gambler** refers to the most severe classification of adolescent gamblers—those who show the clearest evidence of gambling involvement that has compromised, disrupted or damaged other important areas in their lives.

**Gambling and Problem Gambling Among Adolescents in Nevada**

at-risk or non-problem gamblers to come from households with lower socioeconomic status.<sup>8</sup> Finally, problem gamblers are significantly more likely than at-risk or non-problem gamblers to earn \$50 or more per week and to say that one or both parents has had a gambling problem.

**Table 14: Demographic Characteristics of At Risk Gamblers in Nevada**

		Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
		(430)	(209)	(28)	
Gender					.011
	Male	58.1	70.3	64.3	
	Female	41.9	29.7	35.7	
Age					.081
	13	19.7	23.4	14.3	
	14	18.8	24.9	17.9	
	15	24.8	21.5	46.4	
	16	21.3	20.6	7.1	
	17	15.3	9.6	14.3	
Ethnicity					.000
	White	81.6	63.3	60.7	
	Black & Asian	7.4	20.5	17.9	
	Other	10.9	16.2	21.4	
Size of HH					.000
	1 Adult	9.3	8.1	25.0	
	2 Adults	86.3	85.2	53.6	
	3+ Adults	4.4	6.7	21.4	
Region					.754
	Las Vegas Region	66.5	70.8	75.0	
	Reno Region	23.5	21.1	17.9	
	Other Counties	10.0	8.1	7.1	
Residence					.000
	Mobile Home / Trailer	4.9	2.4	18.5	
	Apartment	3.5	5.7	7.4	
	House / Condo	91.6	91.9	74.1	
Income					
	Receive allowance	42.8	50.7	39.3	.136
	Work 10+ hrs/week	20.7	23.7	30.8	.382
	Earn \$50+ per week	25.9	29.2	55.6	.004
	One or both parents gamble	37.8	52.2	46.4	.015
	Either parent ever had gambling problem?	7.7	9.5	13.8	.002

**Hypothesis C1**

**Adolescent problem gamblers in Nevada will be most likely to reside in the Las Vegas or Reno regions of the state.**

<sup>8</sup> Type of residence is considered a reliable proxy measure for socioeconomic status.

In Table 14, we saw that there were no significant differences in the proportion of adolescent problem and at-risk gamblers residing in the three different regions of the state. The hypothesis that adolescent problem gamblers are more likely to reside in major metropolitan areas is **not supported** by the results of the Nevada adolescent survey.

**Gambling Participation**

In considering the relationship between gambling involvement and gambling problems, it is useful to look at differences in the gambling activities of non-problem, at-risk and problem gamblers in Nevada. In considering these differences, it is worth noting that gambling involvement forms one dimension in the “broad” method used to classify adolescent respondents as problem or at-risk gamblers.

Table 15 shows that there are significant differences in the types of gambling that non-problem, at-risk and problem gamblers have ever tried. Problem gamblers are most likely to have ever participated in most types of gambling included in the questionnaire, with the exception of making side bets on arcade or video games and purchasing lottery tickets. Problem gamblers are significantly more likely than at-risk and non-problem gamblers to have ever gambled on private games of skill, on the Internet and on gaming machines at a store, bar or restaurant. Table 15 also shows that there is a significant difference in the number of gambling activities that non-problem, at-risk and problem gamblers have ever tried. Patterns of **past year** gambling participation are similar to patterns of lifetime participation among adolescents in Nevada.

**Table 15: Lifetime Gambling by At Risk Groups in Nevada**

	Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
	(430)	(209)	(28)	
Card/dice/board games	61.9	82.4	85.7	.000
Private game	50.0	63.2	82.1	.000
Arcade/video games	31.9	53.3	46.4	.000
Lottery	15.3	20.6	17.9	.256
Charitable	10.0	6.7	14.3	.250
Bingo in bingo hall	9.8	8.6	21.4	.100
Sports pools/bookmaker	8.6	7.6	10.7	.825
Casino	3.5	3.3	10.7	.140
Race track/OTB	3.5	6.7	10.7	.067
Internet	2.8	4.8	17.9	.000
Store/bar/restaurant	1.4	3.8	17.9	.000
Mean Number of Activities	2.0	2.6	3.3	.000

Table 16 provides a further indication of the types of gambling most closely correlated with gambling problems among adolescents in Nevada. In contrast to the pattern of lifetime gambling participation, adolescent problem gamblers in Nevada are significantly more likely than at-risk and non-problem gamblers to gamble once a month or more often on sports in pools or with a bookmaker as well as on charitable events. It is worth noting that

all of the problem gamblers who have ever gambled on the Internet have done so in the past year and play once a month or more often.

**Table 16: Monthly Gambling by At Risk Groups in Nevada**

	Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
	(430)	(209)	(28)	
Card/dice/board games	9.1	26.7	64.3	.000
Private game	7.4	16.2	50.0	.000
Arcade/video games	5.6	19.5	25.0	.000
Internet	1.2	1.0	17.9	.000
Sports pools/bookmaker	0.5	2.9	10.7	.000
Charitable	0.2	1.0	14.3	.000
Mean Number of Activities	0.2	0.6	0.7	.000

### Gambling Expenditures

Given the known correlation between gambling problems and heavy spending on gambling among adults, it is useful to examine differences in reported expenditures on gambling by non-problem, at-risk and problem gamblers among adolescents in Nevada. Table 17 shows mean monthly expenditures on different types of gambling by non-problem, at-risk and problem gamblers in Nevada. Only those types of gambling for which problem gamblers reported spending more than \$1 in a typical month are shown

**Table 17: Mean Monthly Expenditures by At Risk Groups in Nevada**

	Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
	(430)	(209)	(28)	
Charitable	.45	.08	1.89	.007
Bingo in bingo hall	.09	.10	1.97	.000
Card/dice/board games	2.51	10.57	17.04	.000
Private game	2.72	4.57	11.57	.001
Store/bar/restaurant	.06	.54	5.66	.000
Arcade/video games	1.64	3.89	8.81	.000
Sports pools/bookmaker	.17	1.03	3.60	.000
Internet	.13	.26	1.05	.066
Total Expenditures	8.28	22.08	66.95	.000

Table 17 shows that adolescent problem gamblers in Nevada spend significantly more money in a typical month than at-risk or non-problem gamblers on nearly every gambling activity. Problem gamblers estimate that their expenditures are especially high in wagering on card, dice or board games, private games of skill and making side bets on arcade or video games. Table 15 also shows that reported expenditures on gambling

increase significantly with increased gambling-related difficulties among adolescents in Nevada.

In our discussion of gambling expenditures among the entire adolescent sample (see Page 22), we identified a small group of respondents (5%) who reported spending \$50 or more on gambling in a typical month. This group accounted for 56% of reported monthly expenditures among adolescents in Nevada. In considering risk factors associated with problem gambling among adolescents in Nevada, it should be noted that 43% of the problem gamblers, 8% of the at-risk gamblers and 5% of the non-problem gamblers fall into this heavy-spending group.

### Other Differences in Gambling Involvement

In addition to gambling participation and expenditures, there are typically other significant differences in the gambling involvement of adolescent non-problem, at-risk and problem gamblers. These include differences in the amount of time that adolescents usually gamble and the largest amount they report losing in a single day. There also tend to be significant differences in the types of borrowing that adolescent non-problem, at-risk and problem gamblers have done to get money to gamble or to pay gambling debts.

In the Nevada adolescent survey, problem gamblers report starting to gamble at a lower average age (11.6 years old) than at-risk or non-problem gamblers (12.4 years old and 12.6 years old respectively). This difference does not achieve statistical significance (ANOVA  $F=2.509$ ,  $sig=.082$ ), probably because of the small size of the group of problem gamblers. Non-problem, at-risk and problem gamblers are all most likely to have started gambling on card, dice or board games with friends and family. However, the proportion of non-problem and at-risk gamblers who started gambling on private games of skill is higher than among problem gamblers.

Table 18 on the following page shows several additional differences between non-problem, at-risk and problem gamblers among Nevada adolescents. While problem gamblers are more likely to gamble alone than non-problem or at-risk gamblers, the difference is not significant. All three groups of adolescent gamblers are most likely to gamble with friends and acquaintances although non-problem gamblers are more likely to gamble with family members while at-risk and problem gamblers are more likely to gamble with friends and acquaintances. Problem gamblers spend significantly more time gambling than non-problem and at-risk gamblers and are significantly more likely to have ever lost \$50 or more in a single day of gambling.

**Table 18: Correlates of At Risk Gambling in Nevada**

	Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
	(430)	(209)	(28)	
Usually Gamble With:				.153
Alone	1.3	1.3	7.7	
Family Members	27.2	23.3	23.1	
Friends, Acquaintances	71.4	75.5	69.2	
Time Spent Gambling				.001
Less Than 1 Hour	55.8	47.2	48.1	
1 - 2 Hours	39.4	44.2	25.9	
3 or More Hours	4.9	8.6	25.9	
Largest Amount Ever Gambled				.000
Less Than \$10	78.8	53.9	21.4	
\$10 - \$49	18.8	32.5	46.4	
\$50 or More	2.5	13.6	32.1	

Like the adult problem gambling screen, the SOGS-RA includes a range of questions about different types of borrowing that respondents may have done to get money to gamble or to pay gambling debts. In administering the SOGS-RA, specific questions about borrowing from different sources are only asked if the respondent acknowledges a global question about borrowing. As a result, the number of respondents answering these questions can be extremely small. Overall, adolescent problem gamblers in Nevada are significantly more likely than at-risk and non-problem gamblers to say that they have borrowed money or stolen something in order to get money to gamble (21% compared to 4% and 0.2% respectively) (Pearson Chi-square=54.78, sig=.000). Problem gamblers are most likely to say that they sold personal or family property to get money to gamble or that they borrowed money from siblings or friends.

**Hypothesis A9**

**Adolescents in Nevada will be more likely than adolescents in other states to report that one or both parents gamble.**

Only adolescent respondents who gambled were asked whether either of their parents play games of chance for money. Two-fifths (43%) of the Nevada adolescents who ever gambled indicated that one or both of their parents gambled. These respondents were least likely to say that only their mother gambled (17%) and most likely to say that both of their parents gambled (54%). Overall, the proportion of adolescent gamblers in Nevada who agreed that one or both parents gambled is lower than in several other jurisdictions, including New York in 1998 (65%) and Washington State in 1999 (47%). The notion that adolescents in Nevada will be more likely than adolescents in other states to report that one or both parents gamble is **not supported** by the data from the Nevada adolescent survey.

**Hypothesis A10**

**Adolescents in Nevada will report starting to gamble at a younger age than adolescents in other jurisdictions.**

Adolescent respondents who gambled were asked at what age they started gambling and what types of gambling they did when they started. While the age when adolescents reported starting to gamble ranged from 5 to 17 years old, the mean age at which adolescent respondents in Nevada reported starting to gamble was 12.5 years old. This is slightly higher than the age at which adolescents in Georgia, New York, Texas and Washington State acknowledge starting to gamble. The notion that adolescents in Nevada will have started gambling at a younger age than adolescents in other jurisdictions is **not supported** by the results of the Nevada adolescent survey.

Nevada adolescents who gambled and reported the age at which they started (N=583) were most likely to have started gambling on card, board or dice games with friends or family (53%). One-fifth (21%) of these respondents reported that they started wagering on private games of skill and another 10% reported that they started gambling on arcade or video games. These adolescents were most likely to have started gambling with friends (47%). Another 20% of these respondents reported that they started gambling with a parent and 15% reported that they started gambling with a brother or sister.

**Hypothesis C2**

**Adolescent problem gamblers in Nevada will report starting to gamble at an earlier age than non-problem gamblers.**

We have seen that adolescent problem gamblers in Nevada report starting to gamble at a slightly lower average age (11.6 years old) than at-risk or non-problem gamblers (12.4 years old and 12.6 years old respectively). The notion that adolescent problem gamblers in Nevada will report starting to gamble at an earlier age than non-problem gamblers is **supported** by the results of the Nevada adolescent survey.

**Hypothesis C3**

**Adolescent problem gamblers in Nevada will be more likely than adolescent problem gamblers in other jurisdictions to report that one or both parents have a gambling problem.**

Approximately one in seven adolescent problem gamblers in Nevada (14%) indicated that one or both parents ever had a gambling problem. While only 6% of adolescent problem gamblers in New York reported that a parent ever had a gambling problem, 22% of Washington State adolescent problem gamblers and 30% of Georgia adolescent problem gamblers indicated that one or both parents had had a gambling problem (Volberg 1996, 1998; Volberg & Moore 1999). The hypothesis that adolescent problem gamblers in Nevada are more likely than adolescent problem gamblers in other states to have a parent with a gambling problem is **not supported** by the preponderance of the data.

**Hypothesis C4**

**Adolescent problem gamblers in Nevada who believe that one or both parents has a gambling problem will report a younger age of onset for their own gambling participation.**

Only four of the 28 Nevada adolescents classified as problem gamblers felt that one or both parents ever had a gambling problem. However, the mean age at which these four adolescents started gambling is 10.8 years compared with a mean age of 15.9 for the problem gamblers who did not believe that a parent had ever had a gambling problem. Given the extremely small group of respondents on which this test is based, it is not surprising that the results of this test are not statistically significant. While the results are hardly definitive, the hypothesis that adolescent problem gamblers who believe that a parent has had a gambling problem will report starting to gamble at an earlier age than those who do not feel a parent has had a gambling problem is **supported** by the data from the adolescent survey in Nevada.

**Hypothesis C5**

**Female problem gamblers in Nevada will be more likely to experience emotional problems than male problem gamblers.**

Two questions included in the Nevada adolescent survey provide information about respondents' current psychological state. While not a substitute for a clinical diagnosis or even a diagnostic screen for depression, answers to these questions are indicative of emotional difficulties.

Analysis shows that there are no significant differences between male and female adolescents in response to the question, "How happy or satisfied have you been with your personal life during the past month?" Only 4% of male non-problem gamblers and 6% of female non-problem gamblers indicated that they had been somewhat or very unhappy about their personal life in the past month. The proportion of at-risk gamblers who felt this way was only slightly higher (8% of males and 13% of females). The difference was greater among problem gamblers alone, but in an unexpected direction. While only one of the nine female problem gamblers (11%) had been somewhat or very unhappy about her personal life in the past month, four of the 19 male problem gamblers (21%) had felt this way.

In general, girls were more likely than boys to say that they had felt anxious, worried or upset during the past month. Furthermore, the proportion of female problem gamblers who had felt anxious, worried or upset most or all of the time (50%) was higher than the proportion of male problem gamblers who felt this way (22%) although, due to the small size of the problem gambler group, the difference is not statistically significant.

In conclusion, the evidence is limited and equivocal with regard to the hypothesis that female problem gamblers in Nevada will be more likely to experience emotional problems than male problem gamblers.

## GAMBLING, ALCOHOL AND DRUG USE

Research shows that problem gambling among adults is often complicated by involvement with alcohol or drugs. We noted above (see Page 5) that a growing body of research has documented the relationship between problem gambling and “co-morbid” disorders in the adult population. There is growing evidence that problem gambling among adolescents is similarly correlated with a range of “fellow travelers” (Jacobs 2000). In this section, we examine data from the Nevada adolescent gambling survey on alcohol and drug use as well as the relationship between alcohol and drug use and gambling involvement.

### ***Alcohol and Drug Use Among Adolescents***

As in other states, alcohol, tobacco and marijuana are the substances most often used by adolescents in Nevada. Table 19 shows that while a substantial proportion of the adolescents in the sample acknowledged using alcohol, tobacco and marijuana in the past year, only a small proportion of these respondents acknowledged using other, illicit drugs in the past year and even fewer acknowledged using these substances in the past month.

***Table 19: Alcohol and Drug Use Among Adolescents in Nevada***

	Within past year %	Within past month %
	(1004)	(1004)
Alcohol	31.4	15.3
Tobacco	13.1	8.3
Marijuana	10.9	5.7
Other Drugs	3.8	1.8

In addition to assessing alcohol and drug use, adolescent respondents in Nevada were asked several questions to determine whether they had experienced problems related to their use of alcohol or drugs. Small but significant proportions of the total sample of adolescents (N=1,004) indicated that they had gotten into difficulties with friends one or more times because of their drinking in the past year (3%) or been criticized by someone they were dating because of their drinking (2%). Very small numbers of Nevada adolescents acknowledged driving a car after having been drinking (0.9%) or having been in trouble with police because of drinking (0.8%).

Respondents were asked similar questions about difficulties they may have had with their use of drugs. Very small numbers of adolescents out of the total sample indicated that they had gotten into difficulties with friends one or more times because of their drug use in the past year (0.7%), been criticized by someone they were dating because of their drug use (0.5%), driven a car after using drugs (0.5%) or been in trouble with the police because of drugs (0.4%).

**Gambling, Alcohol and Drug Use**

Based on research with adolescents in other states, we hypothesized that gambling would be significantly related to Nevada adolescents' use of alcohol and other drugs. Table 20 shows that frequency of gambling is significantly related to alcohol, tobacco, marijuana and illicit drug use as well as to problems due to alcohol and drugs. Weekly gamblers are significantly more likely than infrequent or past year gamblers to have used alcohol, tobacco, marijuana and other drugs in the past year. Weekly gamblers are also significantly more likely than infrequent or past year gamblers to acknowledge that they have gotten into trouble in the past year because of their alcohol or drug use. Trouble includes a positive response to any one of the questions about criticisms from friends or dates or having gotten into trouble with the police.

**Table 20: Past Year Alcohol and Drug Use Among Adolescent Gamblers in Nevada**

	Infrequent Gamblers %	Past Year Gamblers %	Weekly Gamblers %	Sig.
	(178)	(420)	(69)	
Alcohol	24.2	43.3	63.8	.000
Tobacco	10.1	16.7	31.9	.000
Marijuana	10.1	13.8	24.6	.013
Other Drugs	2.8	3.8	15.9	.000
Trouble due to alcohol	2.8	6.9	18.8	.000
Trouble due to drugs	0.6	1.4	7.2	.001

**Hypothesis A11**

**Adolescent gamblers in Nevada will be more likely than non-gamblers to use tobacco, alcohol, and marijuana.**

The results of the survey clearly show that gambling frequency is significantly related to alcohol, tobacco, marijuana and illicit drug use as well as to problems due to alcohol and drugs. Although past year rates of alcohol and drug use for non-gamblers are not reported, rates for all of these substances are even lower for non-gamblers than for infrequent gamblers. The results of the survey **support** the hypothesis that adolescent gamblers in Nevada will be more likely than non-gamblers to use tobacco, alcohol and marijuana.

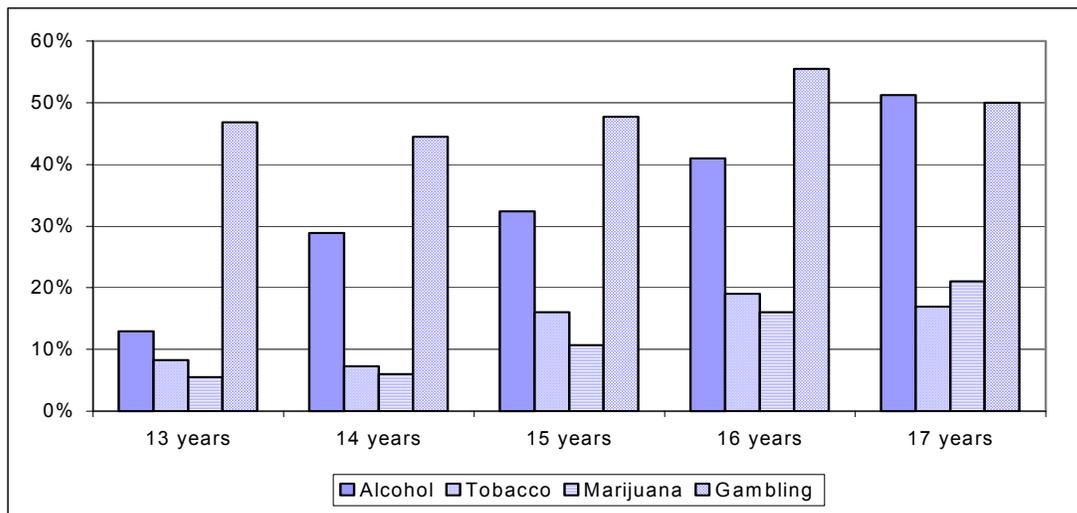
**Hypothesis A12**

**Adolescent gambling in Nevada will precede the use of tobacco, alcohol, and marijuana.**

Contemporary adolescents represent a unique group in American history as the only constituency to experience state-sponsored and culturally approved gambling throughout their lives. Epidemiologists have long considered certain drugs (e.g. cigarettes) as **gateways** to more pervasive illicit drug-using patterns (Kandel 1993). As a socially endorsed risk-taking behavior, some researchers and clinicians fear that gambling may lead adolescents to engage in other risk-taking behaviors, such as illicit drug use. Researchers have begun to consider and test the hypothesis that gambling involvement may act as a gateway to other risk-taking behaviors among adolescents (Shaffer 1993; Shaffer & Hall 1996).

To test the notion that gambling may be a gateway to other risk-taking behaviors among adolescents in Nevada, we examined past year use of alcohol, tobacco, marijuana and illicit drugs as well as gambling by year of age. Figure 1 shows that while past year gambling involvement is relatively similar across all age groups, there are significant increases with age in Nevada adolescents' past year use of tobacco, alcohol and marijuana.

**Figure 1: Gambling and Other Risky Activities Among Nevada Adolescents**



Since these are not longitudinal data, we cannot prove or disprove the hypothesis that gambling is a gateway to other risky behaviors among adolescents. In contrast to adolescent surveys in other jurisdictions, these data show that gambling involvement in Nevada is not correlated with the use of alcohol, tobacco or marijuana within single-year cohorts. Nevertheless, the data from the Nevada adolescent survey clearly **support** the hypothesis that adolescent gambling precedes the use of tobacco, alcohol, and marijuana among Nevada adolescents.

**Hypothesis C6**

**Adolescent problem gamblers in Nevada will be more likely than non-problem gamblers to use tobacco, alcohol and marijuana.**

Even more than gambling participation, adolescent problem gambling is correlated with the use of alcohol and drugs. Table 21 shows that problem gamblers are significantly more likely than at risk and non-problem gamblers to have used alcohol, tobacco and illicit drugs in the past year. At-risk and problem gamblers are significantly more likely than non-problem gamblers to have used marijuana in the past year. A comparison of Tables 20 and 21 shows that problem gamblers are even more likely than weekly gamblers to have used alcohol, tobacco, marijuana and other, illicit drugs in the past year. Problem gamblers are also significantly more likely than at-risk and non-problem gamblers to have gotten into trouble in the past year because of their use of alcohol. The data from the Nevada adolescent survey **support** the hypothesis that problem gamblers are more likely than non-problem gamblers to use tobacco, alcohol and marijuana.

**Table 21: Past Year Alcohol and Drug Use Among At Risk Groups in Nevada**

	Non-Problem Gamblers %	At Risk Gamblers %	Problem Gamblers %	Sig.
	(429)	(210)	(28)	
Alcohol	37.7	41.9	67.9	.006
Tobacco	14.9	16.7	39.3	.003
Marijuana	9.8	20.1	32.1	.000
Other Drugs	3.5	5.3	17.9	.002
Trouble due to alcohol	4.4	8.6	35.7	.000
Trouble due to drugs	1.2	2.4	7.1	.052

## COMPARING NEVADA WITH OTHER STATES

The survey conducted among Nevada adolescents is similar to surveys to assess gambling and problem gambling among adolescents in Georgia, New York, Texas and Washington State (Volberg 1996, 1998; Volberg & Moore 1999; Wallisch 1996). It is therefore possible to directly compare adolescent respondents in these five states in terms of their demographics, gambling participation, gambling problems and use of alcohol and drugs. In making these comparisons, it is important to note that the adolescents surveyed in Texas were aged 14 to 17. In both Texas and Washington State, adolescent gambling surveys have been completed more than once; the data in the tables in this section are from the most recent surveys rather than the baseline studies in these states.

### *Demographics of Gamblers*

Due to features of the report on adolescent gambling in Texas, complete demographic characteristics are available only for adolescents who gamble in each state. Table 22 shows that adolescents who gamble in Nevada are more likely to be male and less likely to be 17 years old than adolescents interviewed in similar surveys in four other states. Adolescents in Nevada who gamble are similar to those in Texas and Washington State in terms of household composition and similar to those in Georgia and New York in terms of receiving an allowance. Adolescents who gamble in Nevada and Washington State are less likely than those in Georgia and New York to work 10 or more hours a week and to have \$50 or more in weekly income, including jobs and allowance. Data on weekly employment and income are not reported in the same way for the Texas adolescents.

**Table 22: Demographics of Adolescents Who Gamble in Five States**

		New York	Georgia	Texas	Washington	Nevada
		%	%	%	%	%
		1997	1995	1995	1998	2001
		(949)	(623)	(2483)	(776)	(667)
Gender						
	Male	53	54	52	54	62
	Female	47	46	48	46	38
Age						
	13	19	20	---	16	21
	14	21	21	24	19	21
	15	22	21	25	24	25
	16	20	19	25	24	21
	17	19	18	27	18	13
Ethnicity						
	White	72	62	51	87	75
	Non-White	28	38	49	13	25
Size of HH						
	1 Adult	12	13	9	10	10
	2 Adults	81	81	86	87	85
	3+ Adults	7	6	5	3	6

**Table 22: Demographics of Adolescents Who Gamble in Five States**

	New York	Georgia	Texas	Washington	Nevada
	%	%	%	%	%
	1997	1995	1995	1998	2001
	(949)	(623)	(2483)	(776)	(667)
Receive allowance	45	46	52	49	45
Work 10+ hrs/week	25	25	---	22	21
Earn \$50+ per week	29	31	---	25	26

\* Since the Texas data are not provided beyond the decimal point, values for the other states have been rounded.

The most obvious difference among adolescents who gamble in these five states is in their ethnic and racial composition. However, these differences reflect the ethnic and racial composition of the entire population in these states. While adolescent gamblers in all five states are most likely to be White, one-third of Texas adolescents who gamble are Hispanic and one-third of Georgia adolescents who gamble are Black.

### **Gambling Participation**

Table 23 shows that the pattern of gambling involvement among adolescents in Nevada is rather different from the pattern of gambling involvement among adolescents in the other four states. Adolescents from Georgia are the least likely to have ever gambled or to have gambled in the past year although the proportion of Georgia adolescents who gamble weekly is nearly as high as the proportion of weekly adolescent gamblers in New York. The proportion of Nevada adolescents who gamble weekly is lower than in any of the other four states.

**Table 23: Gambling Participation Among Adolescents in Five States**

	New York	Georgia	Texas	Washington	Nevada
	%	%	%	%	%
	1997	1995	1995	1999	2001
	(1103)	(1007)	(3079)	(1000)	(1004)
Non-Gamblers	14.0	38.1	19.4	22.4	33.5
Infrequent	10.7	9.8	15.7	12.5	17.8
Past Year	59.8	39.9	54.9	57.4	41.8
Weekly	15.5	12.2	10.0	7.7	6.9

Research has shown that the four most popular gambling activities among adolescents are cards, dice and board games played with family and friends, private wagers on games of personal skill with friends, sports betting and bingo (Jacobs 2000). Looking across the four state-level surveys of adolescents, betting on cards, dice or board games is the top ranked activity in Nevada and Texas, the second-ranked activity in New York and Washington State, and the third-ranked activity in Georgia. Betting on private games of skill is the second-ranked activity in Nevada but is ranked third or fourth in the other four

states. Betting on charitable events is the top ranked activity in Georgia, New York and Washington State and playing the lottery is the third-ranked activity in New York and Texas. It is interesting that making side bets on arcade or video games is ranked third in Nevada but is not represented in the top five activities in any of the other states considered here.

***Problem Gambling***

The adolescent surveys in Georgia, New York, Texas and Washington State all used the same multi-factor method to classify respondents with gambling problems. This allows us to directly compare prevalence rates of at-risk and problem gambling among adolescents in these five states. Table 24 shows differences in the prevalence of problem and at-risk gambling among adolescents in Georgia, Nevada, New York, Texas and Washington State. Since only the most conservative approach to calculating problem gambling prevalence rates was used in Texas, the comparison is only possible for the multi-factor SOGS-RA.

**Table 24: Problem Gambling Among Adolescents in Five States**

	New York	Georgia	Texas	Washington	Nevada
	%	%	%	%	%
	(1103)	(1007)	(3079)	(1000)	(1004)
Non-Problem	83.6	86.8	88.2	91.6	91.9
At Risk	14.0	10.4	9.9	7.5	6.2
Problem	2.4	2.8	2.3	0.9	1.9

Table 24 shows that the prevalence of problem gambling is highest among adolescents in Georgia and lowest among adolescents in Washington State. The prevalence of at-risk gambling is highest in New York and lowest in Nevada. The relatively high rate of at-risk gambling in New York is likely due to the relatively large proportion of weekly gamblers among the adolescents in that state. Weekly gambling is one of the factors that places adolescents in the at-risk category in the multi-factor method used to identify problem and at-risk gamblers among adolescents in these states.

The adolescents classified as problem gamblers in these five states are demographically distinct. For example, problem gamblers in New York are more likely to be male than problem gamblers in any of the other states. Like the Nevada problem gamblers, problem gamblers in Georgia and New York are somewhat younger than problem gamblers in Texas and Washington State. While the majority of problem gamblers in all of these states are White, problem gamblers in Texas are the most likely to be Hispanic while problem gamblers in Georgia are the most likely to be Black.

***Gambling, Alcohol and Drug Use***

Finally, since the data from all five states included similar items to assess alcohol, tobacco and drug use, it is possible to compare adolescents in Nevada with those from other states in terms of their use of alcohol and drugs and gambling involvement. Table 25 shows that Georgia, Nevada and Texas adolescents are less likely than adolescents

**Gambling and Problem Gambling Among Adolescents in Nevada**

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from New York and Washington State to have ever participated in any of these activities. On the whole, the pattern of use among Nevada adolescents is most similar to the pattern of use among Georgia and Texas adolescents. This is a somewhat unexpected finding, given the fact that apart from charitable bingo in Georgia and third-tier horse race wagering in Texas, the only legal forms of gambling in these states at the time of the adolescent surveys was a state-run lottery.

**Table 25: Gambling, Alcohol and Drug Use by Adolescents in Five States**

	New York	Georgia	Texas	Washington	Nevada
	%	%	%	%	%
	(1103)	(1007)	(3079)	(1000)	(1004)
None	11	30	25	18	26
Single Use	45	39	34	47	38
Gambling Only	43	34	28	43	33
Alcohol Only	2	5	5	3	4
Drugs Only	<1	1	1	<1	<1
Dual Use	27	19	30	21	24
Gambling & Alcohol	25	14	26	18	20
Gambling & Drugs	2	2	1	1	2
Alcohol & Drugs	1	3	2	2	2
Triple Use	17	12	11	16	12

\* Since the Texas data are not provided beyond the decimal point, values for the other states have been rounded.

## COMPARING THE PERFORMANCE OF TWO ADOLESCENT PROBLEM GAMBLING SCREENS

We noted at the beginning of this report that while there are generally well-accepted methods for identifying problem and pathological gambling among adults, there are questions about how appropriate it is to use tools developed for adults in screening for gambling problems among adolescents. The survey of gambling and problem gambling among adolescents in Nevada included the two most widely used problem gambling screens developed for adolescents—the SOGS-RA and the DSM-IV-J.

Adolescent gambling is gaining the attention of a growing number of researchers. The recent publication of a special issue of the *Journal of Gambling Studies* devoted to youth gambling provides new information about the performance of these two adolescent problem gambling screens. Within this single issue, Wiebe, Cox and Mehmel (2000) describe psychometric findings for the SOGS-RA from a community sample of adolescents in Manitoba; Fisher (2000) describes the performance of a revised DSM-IV-J that allows multiple responses with a large sample of school children aged 12 to 15 in England and Wales; and Derevensky and Gupta (2000) present data comparing the performance of the SOGS-RA and the DSM-IV-J in a sample of post-secondary school youth in Quebec.

In this section, we examine the psychometric properties and performance of the two problem gambling screens used in the adolescent survey in Nevada. While more work is needed to assess the performance of both the SOGS-RA and the DSM-IV-J, the adolescent survey in Nevada provides an important opportunity to examine the performance of each screen in relation to other studies as well as to compare the performance of the two screens within a single sample.

### **The SOGS-RA**

The SOGS-RA includes 12 scored items, all of which are framed in the past year. Items from the original, adult version of the South Oaks Gambling Screen were tested with an adolescent focus group. Based on feedback from this group, wording adjustments were made to most of the items and the scoring rules for the borrowing items were significantly modified. The SOGS-RA was first used in Minnesota with a combined sample of students surveyed in school and adolescents surveyed by telephone. The developers of the SOGS-RA reported that the screen had moderate internal reliability and high content and construct validity among male adolescents (Winters, Stinchfield & Fulkerson 1993a). Soon after, an adaptation to the scoring of the SOGS-RA that included gambling frequency was published (Winters, Stinchfield & Fulkerson 1993b).

Work on the performance of the SOGS-RA has now been carried out by several teams of Canadian researchers (Poulin 2000; Wiebe, Cox & Mehmel 2000). These researchers have wrestled with the question of whether to use the broad or narrow method to classify adolescent respondents when using the SOGS-RA (Poulin 2000). Analysis of the individual items included in the SOGS-RA suggests that it may be necessary to weight the items in the screen differently. The possibility has also been raised that the SOGS-RA may actually be assessing several distinct dimensions of problem gambling among adolescents (Wiebe, Cox & Mehmel 2000). Finally, like the adult version of the screen, the

accuracy of the SOGS-RA among children and adolescents has been questioned (Ladouceur et al 2000).

### ***The DSM-IV-MR-J Screen***

The first adaptation of the DSM-IV psychiatric criteria for use in surveys among youth was carried out by Fisher (1992). The DSM-IV-J (J stands for “Juvenile”) was designed to measure past year “pathological gambling” among adolescents and the screen was pilot tested among 11- to 16-year old youth from a single secondary school. The DSM-IV-J has now been used in studies to estimate problem gambling among youth in Britain, Canada and Spain (Fisher 1999; Becoña 1997; Gupta & Derevensky 1998). More recently, Fisher (2000) published a revised version of the DSM-IV-J that allows multiple responses to each of the items rather than restricting respondents to “yes/no” answers. The revised version of the DSM-IV-J (MR stands for “Multiple Responses”) performed well in a national youth study in the United Kingdom and the screen demonstrated good internal consistency, factor structure and construct validity.

The DSM-IV-MR-J consists of 12 items that assess nine of the ten diagnostic criteria for adult pathological gambling. The one adult criterion dropped from the DSM-IV-J is “Bailout”—a decision based on fieldwork suggesting that young problem gamblers tend to resolve desperate financial situations caused by gambling by illegal methods rather than relying on family and friends (Fisher 1992, 2000).

### ***Statistical Characteristics of the Problem Gambling Screens***

The accuracy of any instrument can be assessed by looking at a range of measures of reliability and validity (Litwin 1995). The **reliability** of an instrument refers to the ability to reproduce the results of the application of the test. The **validity** of an instrument refers to the ability of the instrument to measure what it is intended to measure. In examining the psychometric properties of the SOGS-RA and the DSM-IV-MR-J, we assess their reliability by examining the internal consistency of the screens and then analyzing endorsement rates for the individual items.

#### **Reliability**

The most widely accepted test of reliability is a measure of the internal consistency of an instrument. The usual test for internal reliability is Cronbach’s alpha and a level of .70 is considered evidence of good reliability. Both the SOGS-RA and the DSM-IV-MR-J have displayed relatively high rates of internal consistency in general population samples (SOGS-RA—Cronbach’s alpha=.80; DSM-IV-MR-J—Cronbach’s alpha=.75) (Fisher 2000; Winters, Stinchfield & Fulkerson 1993a).

Table 26 on the following page presents information about the internal consistency of the SOGS-RA and the DSM-IV-MR-J for the entire Nevada adolescent sample, for those adolescents who ever gambled and for those who gambled in the past year. Table 26 shows that the internal consistency of both the SOGS-RA and the DSM-IV-MR-J in the Nevada sample of adolescent gamblers is substantially lower than the published rates. The reasons for this different performance are unclear but may be related to sample size and low rates of gambling involvement as well as possible non-response bias.

**Table 26: Internal Consistency of Problem Gambling Screens**

Screen	Sample Size	Cronbach's alpha	
		SOGS-RA	DSM-IV-MR-J
Total Sample	1004	.594	.585
All Gamblers	667	.544	.557
Past Year Gamblers	489	.529	.549

Item Analysis

Several researchers have noted that male and female adolescents endorse items from problem gambling screens differently. Table 27 presents information about the proportion of male and female adolescent gamblers in Nevada who endorsed different items on the SOGS-RA and the DSM-IV-MR-J.

**Table 27: Endorsement of Items**

	Male (415)	Female (252)	Sig.
<b>SOGS-RA</b>			
C2. Told others you were winning when you weren't	18.3	13.1	.047
C6. Felt bad about what happens when you gamble	15.9	11.1	.054
C4. Spent more time or money gambling than intended	10.6	7.9	.162
C7. Would like to stop gambling but didn't think you could	8.7	6.7	.232
C3. Betting caused problems (arguments, school, work)	7.5	7.5	.543
C1. Gone back another day to try to win back lost money	6.5	3.2	.042
C9. Had money arguments about gambling	3.9	4.0	.547
C8. Hidden signs of gambling from friends/family	2.6	2.8	.552
C5. Criticized or told you had a gambling problem	2.4	1.6	.338
C11. Borrowed money and not paid back	2.4	3.6	.260
C12. Borrowed money/stolen to cover gambling debts	1.9	3.6	.147
C10. Missed school or work due to gambling	0.7	0.4	.514
<b>DSM-IV-MR-J</b>			
D8A. Illegal acts to obtain money—lunch or bus fare money	11.8	7.9	.070
D9A. Risked relationship/opportunity—lies to friends/family	8.7	9.9	.337
D8C. Illegal acts to obtain money—money from outside family	7.7	3.6	.021
D6. Chasing	6.7	3.6	.057
D8B. Illegal acts to obtain money—money from family	6.0	3.2	.069
D1. Preoccupation	4.3	2.4	.132
D2. Tolerance	3.1	2.4	.379
D5. Escape	2.9	2.4	.446
D7. Lies	2.7	2.8	.551
D4. Withdrawal	2.2	---	.014
D3. Loss of Control	1.7	1.6	.593
D9B. Risked relationship/opportunity—missed school	1.0	0.8	.592

Overall, endorsement of the SOGS-RA items among adolescents who have gambled in Nevada ranges from a high of 16.3% (Telling Others You Were Winning) to a low of 0.6% (Missed School or Work Due to Gambling). While female gamblers in Nevada are less likely than male gamblers to endorse most of the SOGS-RA items, they are just as likely to say that gambling has caused problems for them (including arguments with

friends and family as well as problems at school or work), that they have had money arguments about gambling, and that they have hidden signs of gambling from friends and family. While overall endorsement rates are low, female gamblers in Nevada are more likely than male gamblers to indicate that they have borrowed money to gamble and not paid it back and that they have borrowed money or stolen something to get money to cover gambling debts.

Endorsement of the DSM-IV-MR-J items among adolescents who ever gambled in Nevada ranges from a high of 10.3% (Engaged in Illegal Acts to Obtain Money—Lunch or Bus Fare) to a low of 0.9% (Risky Significant Relationship or Opportunity—Missed School). As with the SOGS-RA, female gamblers in Nevada are less likely than male gamblers to endorse most of the DSM-IV-J items. However, females are just as likely as males to say that they have told lies about their gambling and to indicate some loss of control over their gambling. Female adolescent gamblers in Nevada are more likely than males to say that they have risked a relationship with a friend or family member because of their gambling.

### Validity

There are several different types of validity that can be examined in assessing the performance of an instrument, including content, criterion, congruent and construct validity. Content validity is a subjective measure of how appropriate the items seem to a set of reviewers who have some knowledge of the subject matter. Both the SOGS-RA and the DSM-IV-MR-J have been found to have good content validity by a variety of appropriate audiences, including adolescents, clinicians and researchers.

### Criterion Validity

Criterion validity requires that a new instrument be judged against some other method that is acknowledged as a “gold standard” for assessing the same phenomenon. As a first step, we calculated the correlation coefficient between the SOGS-RA and the DSM-IV-MR-J among Nevada adolescents who ever gambled. The correlation coefficient between these two screens is statistically significant (Pearson correlation=.620, sig.=.000).

Derevensky and Gupta (2000) recently published a comparison of the performance of the problem gambling screens most often used in adolescent studies, including the SOGS-RA and the DSM-IV-MR-J. In a study of post-secondary school youth, these researchers found that the SOGS-RA and the DSM-IV-J were highly interrelated with an overlap of 61% to 68%. The 62% overlap between the SOGS-RA and the DSM-IV-MR-J in Nevada is similar. As in the Nevada adolescent survey, Derevensky and Gupta (2000) found that the DSM-IV-J yielded a more conservative prevalence rate than the SOGS-RA.

Given the significant correlation between the two problem gambling screens, it is hardly surprising that there are also significant differences in the scores of non-problem, at-risk and problem gamblers on both of these measures. In assessing these differences, we used the broad SOGS-RA method to classify the respondents. Among non-problem gamblers, the mean score on the SOGS-RA is 0.16 compared with a mean score of 0.18 on the DSM-IV-MR-J. Among at-risk gamblers, the mean score on the SOGS-RA is 1.66 compared with a mean score of 0.84 on the DSM-IV-MR-J. Among problem gamblers, the mean score on the SOGS-RA is 3.05 compared with a mean score of 2.12

on the DSM-IV-MR-J (SOGS-RA—ANOVA  $F=368.103$ ,  $sig=.000$ ; DSM-IV-MR-J—ANOVA  $F=113.443$ ,  $sig=.000$ ).

**Congruent Validity**

Since several of the items on the SOGS-RA and DSM-IV-MR-J are similar, it is possible to check whether respondents answered similar questions in the two screens differently. Table 28 shows how the adolescent respondents who gambled in Nevada answered several similar questions from the SOGS-RA and the DSM-IV-MR-J.

**Table 28: Comparing Scores on Similar Items**

	SOGS-RA or DSM-IV-MR-J Item	% Positive
CHASING	Go back another day to win money you lost (SOGS)	5.3
	Often return another day to get even (DSM)	5.5
LYING	Claimed to win when in fact lost (SOGS)	16.4
	Hidden evidence of gambling (SOGS)	2.6
	Lies to others to conceal extent of gambling (DSM)	2.8
TOLERANCE	Spend more time or money than intended (SOGS)	9.5
	Need to gamble with increasing amounts to achieve desired excitement (DSM)	2.9

Table 28 shows that adolescents who have gambled in Nevada are less likely to give a positive response to the DSM-IV item than the SOGS-RA question assessing Tolerance and to one of the SOGS-RA questions assessing Lying. Adolescents in Nevada who have gambled are just as likely to give a positive response to the DSM-IV item as the SOGS-RA question assessing Chasing. The same pattern of responses was identified in the adolescent surveys in New York and Washington State, suggesting that the specific wording of these items contributes to differences in acknowledgement of similar but not identical behaviors.

**Construct Validity**

In assessing the performance of any screen for a psychological disorder, it is helpful to examine differences between classified groups with respect to behaviors that are associated with problem gambling but are not included in the measurement scale. Other measures related to gambling difficulties include weekly gambling, time spent gambling per session, largest amount lost in a single day and total expenditures on gambling. Other behaviors associated with gambling difficulties support the construct validity of both the SOGS-RA and the DSM-IV-MR-J among adolescents. For example, using the SOGS-RA narrow classification, adolescent problem gamblers in Nevada are significantly more likely than at-risk or non-problem gamblers to gamble on one or more activities on a weekly basis and to spend three or more hours gambling in a usual session. Both at-risk and problem gamblers, as classified by the narrow SOGS-RA, are significantly more likely than non-problem gamblers to have lost \$50 or more in a single day of gambling.

Using the DSM-IV-MR-J classification, adolescent problem gamblers in Nevada are significantly more likely than at-risk or non-problem gamblers to gamble on one or more activities on a weekly basis and to spend three or more hours gambling in a usual session. As with the SOGS-RA, both at-risk and problem gamblers, as classified by the DSM-IV-MR-J, are significantly more likely than non-problem gamblers to have lost \$50 or more in a single day of gambling.

### Hypothesis D1

#### **Instruments to detect adolescent problem gambling will perform well in Nevada.**

Neither of the problem gambling screens used in the adolescent survey in Nevada performed as well as expected based on published performance characteristics for the two screens. The internal consistency of both screens in the Nevada adolescent sample is lower than published rates among other samples in Canada, Great Britain and the United States. While both screens exhibit acceptable congruent validity, the hypothesis that instruments to detect adolescent problem gambling will perform particularly well in Nevada is **not supported**. The reasons for this are unclear but may be related to possible non-response bias, the overall sample size, or to low rates of gambling participation among Nevada adolescents.

The lower-than-expected performance of the two problem gambling screens should not raise doubts about the results of the Nevada adolescent survey. Rather, this finding suggests that more work is needed to understand variations in the performance of problem gambling screens in different populations.

### Hypothesis D2

#### **Instruments to detect adolescent problem gambling in Nevada will be highly correlated.**

The two problem gambling screens used in the adolescent survey in Nevada exhibit an overlap of approximately 60%. This level is similar to published rates for the correlation of these screens in other studies. The hypothesis that instruments to detect adolescent problem gambling in Nevada will be highly correlated is **supported**.

## SUMMARY AND CONCLUSION

The main purpose of this study was to assess the extent of gambling and problem gambling among adolescents in Nevada. The study is expected to be useful in the development of services in Nevada for youth with gambling problems and their families. The results of the study show that significant numbers of Nevada adolescents gamble, that these activities are widely accepted by adolescents and their families, and that most adolescents spend only small to moderate amounts of money on gambling. The study also shows that there is a small but significant proportion of Nevada adolescents who experience severe difficulties related to their gambling.

### **Summary**

While participation in all forms of gambling is illegal for individuals under the age of 21 in Nevada, the majority of Nevada adolescents (67%) acknowledge betting on one or more types of gambling at some time in their lives. Nearly half of these respondents (49%) had gambled in the past year and 7% bet on one or more types of gambling once a week or more often. Among adolescents in Nevada who have gambled, the favorite types of gambling are wagering on card, dice or board games with friends or family, wagering on private games of skill, and making side bets on arcade or video games.

Male adolescents in Nevada are far more likely than girls to gamble regularly. In addition to gender, gambling among adolescents in Nevada is strongly associated with employment and income. Adolescents who receive an allowance and those who work 10 or more hours per week are much more likely to gamble weekly than those who work fewer hours or have less disposable income. Nevada adolescents who gamble are most likely to have started gambling with family or friends on card, dice or board games. Gambling participation among adolescents in Nevada is correlated with the use of alcohol, tobacco, marijuana and illicit drugs. Weekly gamblers are significantly more likely than less frequent gamblers to have used alcohol, tobacco, marijuana and other drugs in the past year.

There are a variety of approaches used in classifying adolescents with gambling problems. In this report, a narrow definition of problem gambling, which captures a more extreme pattern of behavior, is used to estimate the prevalence of problem and at-risk gambling among youth in Nevada. A broad definition is used to identify risk factors associated with gambling problems among adolescents in Nevada.

Using a narrow definition of problem gambling, 2.2% ( $\pm 0.9\%$ ) of the total sample of adolescent respondents in Nevada was classified as problem gamblers, the most serious classification of gambling-related difficulties among youth. Another 9.9% ( $\pm 1.8\%$ ) of the total sample of adolescent respondents was classified as gamblers at risk for developing gambling problems. Based on these figures, it is estimated that there are between 1,700 (1.3%) and 4,000 (3.1%) adolescents in Nevada who have experienced severe difficulties related to their gambling in the past year and another 10,400 (8.1%) and 15,000 (11.7%) adolescents whose gambling has caused them some difficulties in the past year.

Using a broad definition of problem gambling, adolescent at-risk and problem gamblers in Nevada are most likely to be male and are more likely than the overall adolescent

population to come from non-White racial groups and from non-traditional households. Adolescent at-risk and problem gamblers in Nevada are more likely than non-problem gamblers to say that one or both parents gamble, to earn \$50 or more per week and to say that one or both parents has had a gambling problem. These adolescent problem and at-risk gamblers are most likely to wager regularly on card, dice or board games, on private games of skill, and on arcade or video games. While overall participation is low, problem gamblers are more likely than other adolescent gamblers to gamble regularly on the Internet.

Adolescent problem gamblers in Nevada report starting to gamble at a significantly younger age than at-risk and non-problem gamblers. Problem and at-risk gamblers spend more time gambling than non-problem gamblers and are more likely to have ever lost \$50 or more in a single gambling session. Gambling problems are closely correlated with the use of alcohol and drugs. Adolescent problem gamblers in Nevada are more likely than at-risk or non-problem gamblers to have used alcohol, tobacco, marijuana and other drugs in the past year and to have gotten into trouble in the past year because of their alcohol use.

***Hypothesis Testing***

In the wake of widespread growth in the availability of legal gambling in North America, researchers have expressed concern about the impacts of increased availability and changing attitudes on adolescents. With the most mature gambling economy in North America, Nevada can be considered a “proving ground” for many of our theories about adolescent gambling and problem gambling. Publication of several recent reviews as well as an entire issue of the *Journal of Gambling Studies* devoted to youth gambling provided an opportunity to generate numerous specific hypotheses against which to test the results of the survey of Nevada adolescents.

Table 29 presents a summary of the hypotheses that emerge from a reading of the most up-to-date literature on youth gambling and problem gambling. Table 29 also presents information about whether support for these hypotheses was identified in the Nevada adolescent gambling survey. Table 29 shows that 50% of a total of 22 testable hypotheses were not supported by the data from the Nevada adolescent survey. Another 45% of the hypotheses were supported by the data and the results of one test were equivocal.

Review of the specific hypotheses suggests that while predictions about the characteristics of gamblers and problem gamblers were generally supported by the Nevada adolescent data, predictions about gambling participation and problem gambling rates among adolescents living in “mature” gambling economies were not supported. Overall, this exercise suggests the need for better models of adolescent gambling and problem gambling as well as the need for future similar exercises as research on youth gambling and problem gambling continues.

**Table 29: Testing Hypotheses of Adolescent Gambling and Problem Gambling**

		Supported	Not Supported
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**Gambling and Problem Gambling Among Adolescents in Nevada**

<b>A</b>	<b>Gambling Participation</b>	<b>6</b>	<b>6</b>
A1	The majority of Nevada adolescents will have gambled at some time in their lives.	√	
A2	Adolescent gambling participation will be higher in Nevada than in other jurisdictions.		√
A3	A substantial proportion of adolescents in Nevada will have gambled at a casino.		√
A4	Male adolescents will be more likely to gamble than female adolescents in Nevada.	√	
A5	Older adolescents will be more likely to gamble than younger adolescents in Nevada.		√
A6	Minority adolescents will be more likely to gamble than majority adolescents in Nevada.	√	
A7	Male adolescents in Nevada will be more likely than girls to gamble on sports and card games. Female adolescents will be more likely than boys to gamble on bingo.	√	
A8	The intensity of gambling by male and female adolescents in Nevada will be similar.		√
A9	Adolescents in Nevada will be more likely than adolescents in other jurisdictions to report that one or both parents gamble.		√
A10	Adolescents in Nevada will report starting to gamble at a younger age than adolescents in other jurisdictions.		√
A11	Adolescent gamblers in Nevada will be more likely than non-gamblers to use tobacco, alcohol and marijuana.	√	
A12	Adolescent gambling in Nevada will precede the use of tobacco, alcohol, and marijuana.	√	
<b>B</b>	<b>Problem Gambling</b>	<b>0</b>	<b>2</b>
B1	Prevalence rates of problem gambling will be higher among Nevada adolescents than among adolescents in most other jurisdictions.		√
B2	Prevalence rates of problem gambling will be similar among male and female adolescents in Nevada.		√
<b>C</b>	<b>Correlates of Problem Gambling</b>	<b>3</b>	<b>2</b>
C1	Adolescent problem gamblers in Nevada will be most likely to reside in the Las Vegas or Reno regions of the state.		√
C2	Adolescent problem gamblers in Nevada will report starting to gamble at an earlier age than non-problem gamblers.	√	
C3	Adolescent problem gamblers in Nevada will be more likely than adolescent problem gamblers in other jurisdictions to report that one or both parents have a gambling problem.		√
C4	Adolescent problem gamblers in Nevada who believe that one or both parents has a gambling problem will report a younger age of onset for their own gambling participation.	√	
C5	Female problem gamblers in Nevada will be more likely to experience emotional problems than male problem gamblers.	≈	≈
C6	Adolescent problem gamblers in Nevada will be more likely than non-problem gamblers to use tobacco, alcohol and marijuana.	√	
<b>D</b>	<b>Problem Gambling Measurement</b>	<b>1</b>	<b>1</b>
D1	Instruments to detect adolescent problem gambling will perform well in Nevada.		√
D2	Instruments to detect adolescent problem gambling in Nevada will be highly correlated.	√	
	<b>Total</b>	<b>10</b>	<b>11</b>

### ***Directions for the Future***

In spite of the long history of legal gambling in Nevada, there have been few efforts within the state to monitor gambling and problem gambling rates among adolescents, a particularly vulnerable group in the population, or to provide services for youth who are experiencing difficulties related to their gambling. In considering what might be done for Nevada adolescents who experience gambling difficulties as well as their families, policymakers may wish to give consideration to the following services and activities:

- establishment of a ***statewide prevention program*** targeting at-risk adolescents in Nevada, with active participation by government, community-based agencies, the gambling industries, academia, teacher and parent groups and other concerned parties;
- ***cooperative endeavors*** between government agencies, not-for-profit organizations and gambling operators to discourage and minimize adolescent gambling in Nevada;
- development and refinement of ***public education and prevention services*** as well as ***educational curricula*** targeted toward at-risk groups among youth, particularly girls and those aged 15 and 16;
- efforts to ***encourage parents and other adults*** to be attentive to the types of gambling activities they may be engaging in with underage persons;
- providing ***training opportunities*** for educators, law enforcement, criminal justice, mental health and substance abuse professionals and others who work with troubled adolescents to learn more about adolescent gambling and its impacts as well as how to screen for gambling problems and when and where to refer adolescent problem gamblers for help;
- funding for ***treatment services*** for adolescent problem gamblers and family members, preferably through existing problem gambling treatment providers or through agencies already active in the fields of adolescent alcohol and drug abuse as well as juvenile protection and detention;
- ***evaluating*** services that are established for adolescent problem gamblers, based on uniform data; and
- ***continued monitoring*** of gambling and problem gambling among adolescents to evaluate the effectiveness of prevention and treatment services that are established.

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APPENDIX A:

Questionnaire for the Nevada Adolescent Survey

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3:

INTRO

*simple*  
*min = 1 max = 1 l = 2*  
*IF NOT AVAILABLE, ARRANGE CALL-BACK*  
Hello, my name is \_\_\_\_\_ and I am calling from Gilmore Research. We are doing a study about some important issues regarding leisure activities of teenagers, and would like to include your household. Is this the (male) / (female) head of the household? IF NO, ASK TO SPEAK TO THAT PERSON. IF NOT AVAILABLE, SAY: This study will be about teenagers. Is there someone between the ages of 13 and 17 currently living in this household? IF NO, CODE 62 AND THANK AND TERMINATE. IF YES, ARRANGE CALLBACK. REINTRODUCE IF NECESSARY, WHEN HEAD OF HOUSEHOLD IS ON THE PHONE AND THEN ASK: Our survey is about leisure activities of teens. Is there someone between the ages of 13 and 17 currently living in this household? IF YES, PRESS 91 TO CONTINUE. IF NO, CODE 62 AND THANK AND TERMINATE.  
<C1>  
Continue ..... 91

10:

INT03

*simple*  
*min = 1 max = 1 l = 2*  
This survey has to do primarily with how young people feel about betting activities or games in which there is an element of luck or chance. This is a scientific study sponsored by the State of Nevada and your household is one of 1,000 being surveyed throughout the State of Nevada. Your household was selected randomly. We would like to talk to your 13 to 17 YEAR OLD whose age is closest to <rpick>. This survey contains questions about the behavior, health, school and work experience of adolescents. It also includes questions about gambling, alcohol and drug use. All responses to the questions will be kept completely confidential. Do we have your permission to talk to your child? IF PARENT REFUSES, SAY: This is a state sponsored study. Do you have any questions I may be able to answer? IF NO, CODE AS 63 AND THANK AND TERMINATE IF YES, CONTINUE: Is (he) / (she) home at this time? IF AVAILABLE, PRESS 91 TO CONTINUE WITH AND TO INTRODUCE SURVEY TO TEEN RESPONDENT. IF NOT AT HOME, ARRANGE CALL BACK.  
Continue ..... 91

12:

INT04

*simple*  
*min = 1 max = 1 l = 2*  
Hello, this is \_\_\_\_\_ and I am calling from Gilmore Research. Your (mother) / (father) gave me permission to ask you these questions. This survey has to do primarily with how young people feel about betting activities or games in which there is an element of luck or chance. This is a scientific study sponsored by the State of Nevada. Your household is one of 1,000 being surveyed throughout the state and your household was selected randomly. Before I continue, I want to assure you that all the information you give me will be kept in the strictest confidence. Your answers will be combined with those from all the other teenagers in the survey for reporting purposes. You can refuse to answer any question you are not comfortable with.  
Continue ..... 91

13:

QA

*simple*  
*min = 1 max = 1 l = 1*  
*PRESS ENTER TO CONTINUE.*  
I would like to ask about your experience with various kinds of gambling. By gambling, I mean placing a bet on the outcome of a race or a game of skill or chance, or playing a game - including for charity - in which you might win or lose your money. First, I would like to

**Gambling and Problem Gambling Among Adolescents in Nevada**

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read out a list of popular gambling activities. Could you please tell me which of these you have ever done? IF PERSON NEVER GAMBLES, DOESN'T BELIEVE IN IT, ETC. SAY: We understand that not everyone gambles, but your opinions are still very important to us.

Continue ..... 1 D

---

**14:** **QA1**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled or spent money on a game conducted for a charitable cause, such as pull-tabs or Las Vegas nights? Do not include bingo or raffles for a prize other than money.

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**15:** **QA1A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled on a game conducted for a charitable cause in the past year?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**16:** **QA1B**

*simple*  
*min = 1 max = 1 l = 1*  
*READ 1-5.*

In the past year, think about how often you gambled on a game conducted for a charitable cause. Did you play ...

- About every day ..... 1
  - 1 to 3 times a week..... 2
  - Once or twice a month ..... 3
  - A few days all year..... 4
  - Or only one day in the past year? ..... 5
  - ..... \$
  - Don't know ..... 8
  - Refused..... 9
- 

**17:** **QA1C**

*simple*  
*min = 1 max = 1 l = 4*  
*ENTER DOLLAR AMOUNT.*

Can you give me an idea of the amount you spend on charitable gambling in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
  - \$9,997 or more ..... 9997
  - Don't know ..... 9998
  - Refused..... 9999
-

**Gambling and Problem Gambling Among Adolescents in Nevada**

**18:**

**QA2**

*simple*

*min = 1 max = 1 l = 1*

Have you ever gambled or spent money on bingo in a bingo hall? Do not include any bingo you may have played in a casino.

Yes ..... 1

No..... 2

Don't know ..... 8

Refused..... 9

**19:**

**QA2A**

*simple*

*min = 1 max = 1 l = 1*

Have you gambled on bingo in a bingo hall in the past year?

Yes ..... 1

No..... 2

Don't know ..... 8

Refused..... 9

**20:**

**QA2B**

*simple*

*min = 1 max = 1 l = 1*

*READ 1-5.*

In the past year, think about how often you gambled on bingo in a bingo hall. Did you play ...

About every day ..... 1

1 to 3 times a week..... 2

Once or twice a month ..... 3

A few days all year..... 4

Or only one day in the past year? ..... 5

..... \$

Don't know ..... 8

Refused..... 9

**21:**

**QA2C**

*simple*

*min = 1 max = 1 l = 4*

*ENTER DOLLAR AMOUNT.*

Can you give me an idea of the amount you spend on bingo in a typical month?

NONE/LESS THAN ONE DOLLAR ..... 0000

\$9,997 or more ..... 9997

Don't know ..... 9998

Refused..... 9999

**22:**

**QA3**

*simple*

*min = 1 max = 1 l = 1*

Have you ever gambled or spent money on lottery tickets for games like Lotto or Powerball, dailies like Pick-4 or instants and scratch-offs?

Yes ..... 1

No..... 2

Don't know ..... 8

Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**23:**

**QA3A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled or spent money on lottery tickets in the past year?  
 Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**24:**

**QA3B**

*simple*  
*min = 1 max = 1 l = 1*

*READ 1-5.*  
 In the past year, think about how often you bought a lottery ticket. Did you play the lottery ...  
 About every day ..... 1  
 1 to 3 times a week..... 2  
 Once or twice a month ..... 3  
 A few days all year..... 4  
 Or only one day in the past year? ..... 5  
 \_\_\_\_\_ ..... \$  
 Don't know .....  
 Refused..... 9

**25:**

**QA3C**

*simple, ouverte*  
*min = 1 max = 1 l = 2*

*ONE ANSWER ONLY!*  
 When you play the lottery, which kind of lottery tickets do you prefer to buy?  
 Multi-state lottery tickets like Powerball, Lotto America or Tri-West Lotto .... 01  
 Big-jackpot tickets, like statewide Lottos ..... 02  
 Daily lottery numbers, like Pick-3 or Pick-4..... 03  
 Instant or scratch-off tickets ..... 04  
 Other (SPECIFY): ..... 97 NO  
 Don't know ..... 98 X  
 Refused..... 99 X

**26:**

**QA3D**

*simple*  
*min = 1 max = 1 l = 4*

*ENTER DOLLAR AMOUNT.*  
 Can you give me an idea of the amount you spend on lottery tickets in a typical month?  
 NONE/LESS THAN ONE DOLLAR ..... 0000  
 \$9,997 or more ..... 9997  
 Don't know ..... 9998  
 Refused..... 9999

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**27:**

**QA3E**

*multiple, ouverte*  
*min = 1 max = 4 l = 2*  
 READ 1-3.

When you play the lottery, where do you usually purchase tickets?

California .....	01
Arizona, Oregon or Idaho.....	02
Or somewhere else? (SPECIFY):.....	03 O
.....	\$\$
Don't know .....	
Refused.....	99 X

---

**28:**

**QA3F**

*simple*  
*min = 1 max = 1 l = 1*

When you play the lottery, how far do you have to travel from home to get there? Is it less than 10 miles, between 10 and 50 miles, or more than 50 miles?

Less than 10 miles .....	1
Between 10 and 50 miles .....	2
More than 50 miles.....	3
Don't know .....	8
Refused.....	9

---

**29:**

**QA4**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled or spent money on card, dice or board games with friends or family?

Yes .....	1
No.....	2
Don't know .....	8
Refused.....	9

---

**30:**

**QA4A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled on card, dice or board games with friends or family in the past year?

Yes .....	1
No.....	2
Don't know .....	8
Refused.....	9

---

**Gambling and Problem Gambling Among Adolescents in Nevada**

**31:**

**QA4B**

*simple*  
*min = 1 max = 1 l = 1*  
 READ 1-5.

In the past year, think about how often you gambled on card, dice or board games with friends or family. Did you play ...

- About every day ..... 1
- 1 to 3 times a week ..... 2
- Once or twice a month ..... 3
- A few days all year ..... 4
- Or only one day in the past year? ..... 5
- \_\_\_\_\_ ..... \$
- Don't know ..... 6
- Refused ..... 9

**32:**

**QA4C**

*simple*  
*min = 1 max = 1 l = 4*  
 ENTER DOLLAR AMOUNT.

Can you give me an idea of the amount you spend on card, dice or board games in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
- \$9,997 or more ..... 9997
- Don't know ..... 9998
- Refused ..... 9999

**33:**

**QA4D**

*multiple, ouverte*  
*min = 1 max = 4 l = 2*  
 READ 1-97.

When you gamble on card, dice or board games with friends or family, do you usually play at ...

- Your own home ..... 01
- Someone else's home ..... 02
- Or somewhere else? (SPECIFY): ..... 97 O
- \_\_\_\_\_ ..... \$\$
- Don't know ..... 98
- Refused ..... 99 X

**34:**

**QA5**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled or spent money on a private game such as dice, dominos, darts, flipping coins, pool, golf, or bowling?

- Yes ..... 1
- No ..... 2
- Don't know ..... 8
- Refused ..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**35:**

**QA5A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled on a private game in the past year?  
 Yes ..... 1  
 No ..... 2  
 Don't know ..... 8  
 Refused ..... 9

**36:**

**QA5B**

*simple*  
*min = 1 max = 1 l = 1*

*READ 1-5.*  
 In the past year, think about how often you gambled on a private game? Did you play ...  
 About every day ..... 1  
 1 to 3 times a week ..... 2  
 Once or twice a month ..... 3  
 A few days all year ..... 4  
 Or only one day in the past year? ..... 5  
 \_\_\_\_\_ \$  
 Don't know .....  
 Refused ..... 9

**37:**

**QA5C**

*multiple, ouverte*  
*min = 1 max = 4 l = 2*

*READ 1-97.*  
 When you gamble on a private game, do you usually play at ...  
 Your own home ..... 01  
 Someone else's home ..... 02  
 Or somewhere else? (SPECIFY): ..... 97 O  
 \_\_\_\_\_ \$\$  
 Don't know .....  
 Refused ..... 99 X

**38:**

**QA5D**

*simple*  
*min = 1 max = 1 l = 4*

*ENTER DOLLAR AMOUNT.*  
 Can you give me an idea of the amount you spend on private games in a typical month?  
 NONE/LESS THAN ONE DOLLAR ..... 0000  
 \$9,997 or more ..... 9997  
 Don't know ..... 9998  
 Refused ..... 9999

**Gambling and Problem Gambling Among Adolescents in Nevada**

**39:**

**QA6**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled at a store, bar, restaurant, truck stop, or similar location that had only one or two kinds of games, such as slot machines, video poker, or pull-tabs? Please do not count any of the locations we have already asked about, such as places that only sell lottery tickets. You may include a bingo hall if you gambled on a game other than, or in addition to, bingo.

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**40:**

**QA6A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled at a store, bar, restaurant, truck stop, or similar location that had only one or two kinds of games, in the past year?

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**41:**

**QA6B**

*simple*  
*min = 1 max = 1 l = 1*

*READ 1-5.*

In the past year, think about how often you gambled at a store, bar, restaurant, truck stop, or similar location that had only one or two kinds of games. Did you play ...

- About every day ..... 1
- 1 to 3 times a week..... 2
- Once or twice a month ..... 3
- A few days all year..... 4
- Or only one day in the past year? ..... 5
- ..... \$
- Don't know ..... 8
- Refused..... 9

**42:**

**QA6C**

*multiple, ouverte*  
*min = 1 max = 6 l = 2*

*READ 1-97. ENTER ALL THAT APPLY. MULTIPLE ANSWERS OK.*

When you gamble at a store, restaurant, truck stop, or similar location that had only one or two kinds of games, do you usually play at a ...

- Grocery store or laundromat..... 01
- Truck stop ..... 02
- Restaurant or lounge..... 03
- Bar or tavern..... 04
- Or somewhere else? ..... 97 O
- ..... \$\$
- Don't know ..... 8
- Refused..... 99 X

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**43:**

**QA6D**

*multiple, ouverte*  
*min = 1 max = 6 l = 2*  
**ENTER ALL THAT APPLY. MULTIPLE ANSWERS OK.**

When you gamble at a store, restaurant, truck stop, or similar location, what game do you prefer to play?

- Slot machines ..... 01
  - Video lottery machines..... 02
  - Other kinds of electronic game ..... 03
  - Pull-tabs ..... 04
  - Or something else?..... 97 O
  - ..... \$\$
  - Don't know ..... 99 X
  - Refused..... 99 X
- 

**44:**

**QA6E**

*simple*  
*min = 1 max = 1 l = 4*  
**ENTER DOLLAR AMOUNT.**

Can you give me an idea of the amount you spend gambling at a store, bar, restaurant, truck stop, or similar location in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
  - \$9,997 or more ..... 9997
  - Don't know ..... 9998
  - Refused..... 9999
- 

**45:**

**QA7**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled on arcade or video games? By that I mean have you made a side bet or wager while playing arcade or video games.

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**46:**

**QA7A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled on arcade or video games in the past year?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
-

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**47:**

**QA7B**

*simple*  
*min = 1 max = 1 l = 1*  
*READ 1-5.*

In the past year, think about how often you gambled on arcade or video games. Did you play ...

- About every day ..... 1
  - 1 to 3 times a week..... 2
  - Once or twice a month ..... 3
  - A few days all year..... 4
  - Or only one day in the past year?..... 5
  - ..... \$
  - Don't know ..... 6
  - Refused..... 9
- 

**48:**

**QA7C**

*simple*  
*min = 1 max = 1 l = 4*  
*ENTER DOLLAR AMOUNT.*

Can you give me an idea of the amount you spend gambling on arcade or video games in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
  - \$9,997 or more ..... 9997
  - Don't know ..... 9998
  - Refused..... 9999
- 

**49:**

**QA8**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled at a casino, that is, a large gambling hall with many different kinds of games, for example, in a resort hotel or in a gambling hall on a riverboat.

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**50:**

**QA8A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled at a casino in the past year?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
-

**Gambling and Problem Gambling Among Adolescents in Nevada**

**51:**

**QA8B**

*simple*  
*min = 1 max = 1 l = 1*  
 READ 1-5.

In the past year, think about how often you gambled at a casino. Did you play ...

About every day .....	1
1 to 3 times a week.....	2
Once or twice a month .....	3
A few days all year.....	4
Or only one day in the past year?.....	5
_____	\$
Don't know .....	
Refused.....	9

**52:**

**QA8C**

*simple, ouverte*  
*min = 1 max = 1 l = 2*  
 ONE ANSWER ONLY!

When you gamble at a casino, what game do you prefer to play?

Table games with cards, such as blackjack or poker .....	01
Other table games, such as roulette or craps .....	02
Slot machines .....	03
Keno-type games.....	04
Sports .....	05
Horse or dog race betting .....	06
Bingo.....	07
Pull-tabs .....	08
Or something else (SPECIFY): .....	97 O
_____	\$\$
Don't know .....	
Refused.....	99 X

**53:**

**QA8D**

*simple*  
*min = 1 max = 1 l = 1*

When you gamble at a casino, do you usually spend most of your time on one type of gambling activity?

Yes .....	1
No.....	2
Don't know .....	8
Refused.....	9

**54:**

**QA8E**

*simple*  
*min = 1 max = 1 l = 4*  
 ENTER DOLLAR AMOUNT.

Can you give me an idea of the amount you spend on gambling at a casino in a typical month?

NONE/LESS THAN ONE DOLLAR .....	0000
\$9,997 or more .....	9997
Don't know .....	9998
Refused.....	9999

**Gambling and Problem Gambling Among Adolescents in Nevada**

**55:**

**QA9**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled at a race track or off-track betting parlor? Please include if you played slot machines, cards or other types of games there.

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**56:**

**QA9A**

*simple*  
*min = 1 max = 1 l = 1*

Have you gambled at a race track or off-track betting parlor in the past year?

Yes ..... 1  
 No..... 2  
 Don' know ..... 8  
 Refused..... 9

**57:**

**QA9B**

*simple*  
*min = 1 max = 1 l = 1*  
 READ 1-5.

In the past year, think about how often you gambled at a race track or off-track betting parlor. Did you play ...

About every day ..... 1  
 1 to 3 times a week..... 2  
 Once or twice a month ..... 3  
 A few days all year..... 4  
 Or only one day in the past year? ..... 5  
 \_\_\_\_\_ ..... \$  
 Don't know .....  
 Refused..... 9

**58:**

**QA9C**

*multiple, ouverte*  
*min = 1 max = 4 l = 2*  
 READ 1-97.

When you gamble at a race track, or off-track betting parlor, do you usually play at ...

A race track ..... 01  
 An off-tack betting parlor..... 02  
 Or somewhere else? (SPECIFY):..... 97 O  
 \_\_\_\_\_ ..... \$\$  
 Don't know .....  
 Refused..... 99 X

**59:**

**QA9D**

*simple*  
*min = 1 max = 1 l = 1*

Does the facility where you usually play have other kinds of gambling, such as slot machines, video poker, or a cardroom?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**60:**

**QA9E**

*multiple, ouverte*  
*min = 1 max = 6 l = 2*  
 READ 1-97.

When you gamble at a race track, or off-track betting parlor with other gambling activities, which activity do you prefer?

- Betting on the races..... 01
  - Playing slot machines or video poker..... 02
  - Playing poker or other card games ..... 03
  - Or something else? (SPECIFY): ..... 97 O
  - ..... \$\$
  - Don't know ..... 99 X
  - Refused..... 99 X
- 

**61:**

**QA9F**

*simple*  
*min = 1 max = 1 l = 4*

Can you give me an idea of the amount you spend on gambling at a race track or off-track betting parlor in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
  - \$9,997 or more ..... 9997
  - Don't know ..... 9998
  - Refused..... 9999
- 

**62:**

**QA10**

*simple*  
*min = 1 max = 1 l = 1*

Now I'd like to ask you about types of gambling that are run like a business but probably without a license. Have you ever participated in a sports pool, placed a bet with a bookmaker or played unlicensed numbers games?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**63:**

**QA10A**

*simple*  
*min = 1 max = 1 l = 1*

Have you participated in a sports pool, placed a bet with a bookmaker or played unlicensed numbers games in the past year?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
-

**Gambling and Problem Gambling Among Adolescents in Nevada**

**64:**

**QA10B**

*simple*  
*min = 1 max = 1 l = 1*  
**READ 1-5.**

In the past year, think about how often you participated in a sports pool, placed a bet with a bookmaker or played unlicensed numbers games Did you play ...

- About every day ..... 1
- 1 to 3 times a week..... 2
- Once or twice a month ..... 3
- A few days all year..... 4
- Or only one day in the past year?..... 5
- ..... \$
- Don't know ..... 9
- Refused..... 9

**65:**

**QA10C**

*simple, ouverte*  
*min = 1 max = 1 l = 2*  
**ONE ANSWER ONLY!**

When you participate in these types of gambling that are run like a business but probably without a license, what game do you prefer to play?

- Sports pool ..... 01
- Sports with a bookmaker ..... 02
- Horse or dog races with a bookmaker ..... 03
- Numbers games ..... 04
- Non-licensed casino table games..... 05
- Or something else (SPECIFY): ..... 97 O
- ..... \$\$
- Don't know ..... 99
- Refused..... 99 X

**66:**

**QA10D**

*simple*  
*min = 1 max = 1 l = 4*  
**ENTER DOLLAR AMOUNT.**

Can you give me an idea of the amount you spend on gambling in a sports pool, with a bookmaker or, on unlicensed numbers games in a typical month?

- NONE/LESS THAN ONE DOLLAR ..... 0000
- \$9,997 or more ..... 9997
- Don't know ..... 9998
- Refused..... 9999

**67:**

**QA11**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever gambled on the Internet or World Wide Web. Remember to include lottery games that can only be played on the Internet.

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**68:**

**QA11A**

<i>simple</i>	
<i>min = 1 max = 1 l = 1</i>	
Have you gambled on the Internet or World Wide Web in the past year?	
Yes .....	1
No.....	2
Don't know .....	8
Refused.....	9

**69:**

**QA11B**

<i>simple</i>	
<i>min = 1 max = 1 l = 1</i>	
<i>READ 1-5.</i>	
In the past year, think about how often you gambled on the Internet or World Wide Web. Remember to include lottery games that can only be played on the Internet. Did you play ...	
About every day .....	1
1 to 3 times a week.....	2
Once or twice a month .....	3
A few days all year.....	4
Or only one day in the past year? .....	5
.....	\$
Don't know .....	.....
Refused.....	9

**70:**

**QA11C**

<i>multiple, ouverte</i>	
<i>min = 1 max = 12 l = 2</i>	
When you gamble on the Internet or World Wide Web, what game do you prefer?	
Sports .....	01
Horse or dog race betting .....	02
Slot machines .....	03
Keno-type games.....	04
Bingo .....	06
Pull-tabs .....	07
Lottery games that can be played on the Internet.....	08
Table games with cards, such as blackjack or poker .....	09
Other table games, such as roulette or craps .....	10
Or something else (SPECIFY): .....	97 O
.....	\$\$
Don't know .....	.....
Refused.....	99 X

**71:**

**QA11D**

<i>simple</i>	
<i>min = 1 max = 1 l = 4</i>	
<i>ENTER DOLLAR AMOUNT.</i>	
Can you give me an idea of the amount you spend gambling on the Internet or World Wide Web in a typical month?	
NONE/LESS THAN ONE DOLLAR .....	0000
\$9,997 or more .....	9997
Don't know .....	9998
Refused.....	9999

**Gambling and Problem Gambling Among Adolescents in Nevada**

**86: Respondents with only one response in QA series**

**SET1R**

<i>simple</i>	
<i>min = 1 max = 1 l = 2</i>	
Games for charitable causes, pull-tabs or Las Vegas nights.....	01
Bingo in a Bingo Hall.....	02
Lottery tickets, Lotto Powerball, Pick-4, Instants or Scratch-offs.....	03
Card, dice or board games with family and friends.....	04
Private games, dice , dominos, darts, flipping coins, pool, golf or bowling.....	05
Store restaurant, truck stop or similar location with one or two kinds of games: slots, video poker, pull-tabs.....	06
Arcade or video games.....	07
Casino, as in resort hotel, gambling hall or riverboat.....	08
Race track, off-track betting parlor .....	09
Games run like a business: sports pool, bet with bookmaker, unlicensed numbers games.....	10
Internet or World Wide Web.....	11

**87:**

**QB1**

<i>simple</i>	
<i>min = 1 max = 1 l = 2</i>	
<i>READ AS NECESSARY. CLARIFY WHEREVER NEEDED.</i>	
Thinking about these sorts of activities, which involve an element of luck or chance or which we call gambling activities, can you please tell me which is your favorite type of gambling activity?	
Games for charitable causes.....	01
Bingo in a bingo hall .....	02
Lottery tickets .....	03
Cards, dice or board games with family or friends.....	04
Private games.....	05
Store restaurant, truck stop or similar location with one or two kinds of games: slots, video poker, pull-tabs .....	06
Arcade or video games.....	07
Casino, as in resort hotel, gambling hall or riverboat.....	08
Race track, off-track betting parlor .....	09
Games run like a business: sports pool, bet with bookmaker, unlicensed numbers games.....	10
Internet or World Wide Web.....	11
Don't know .....	98
Refused.....	99

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**88:**

**QB1CA**

*simple*  
*min = 1 max = 1 l = 2*

**Combined answers for those who participated in only a single activity from part A and those who have picked a favorite activity in qb1.**

Games for charitable causes.....	01
Bingo in a bingo hall.....	02
Lottery tickets.....	03
Cards, dice or board games with family or friends.....	04
Private games.....	05
Store restaurant, truck stop or similar location with one or two kinds of games: slots, video poker, pull-tabs.....	06
Arcade or video games.....	07
Casino, as in resort hotel, gambling hall or riverboat.....	08
Race track, off-track betting parlor.....	09
Games run like a business: sports pool, bet with bookmaker, unlicensed numbers games.....	10
Internet or World Wide Web.....	11
Don't know.....	98
Refused.....	99

---

**89:**

**QB2**

*simple, ouverte*  
*min = 1 max = 1 l = 2*  
**READ 1-97. ENTER ALL THAT APPLY.**

When you participate in your favorite type of gambling, do you usually do so:  
**FAVORITE TYPE OF GAMBLING:<qb1ca>**

Alone.....	01
With parents.....	02
With brothers or sisters.....	03
With other relatives.....	04
With friends.....	05
With a date.....	06
Or with some other individual or group? (SPECIFY):.....	97 O
.....	\$\$
Don't know.....	
Refused.....	99 X

---

**90:**

**QB3**

*simple*  
*min = 1 max = 1 l = 1*  
**READ 1-5**

When you participate in your favorite type of gambling, do you usually do so for . . .

Less than 1 hour.....	1
1 to 2 hours.....	2
3 to 5 hours.....	3
6 to 12 hours.....	4
Or more than 12 hours?.....	5
.....	\$
Don't know.....	
Refused.....	9

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Gambling and Problem Gambling Among Adolescents in Nevada

91:

QB

simple
min = 1 max = 1 l = 1
PRESS ENTER TO CONTINUE.

Next, I would like to ask you about reasons you may have for gambling. Please tell me whether each of the following reasons is very important, important, not so important, or not at all important to you as a reason for gambling.

Continue..... 1 D

92:

QB4

simple
min = 1 max = 1 l = 1

Socializing with friends or family?

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
Important ..... 2
Not so important ..... 3
Not at all important ..... 4
Don't know ..... 8
Refused ..... 9

93:

QB5

simple
min = 1 max = 1 l = 1

To be around other people.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
Important ..... 2
Not so important ..... 3
Not at all important ..... 4
Don't know ..... 8
Refused ..... 9

94:

QB6

simple
min = 1 max = 1 l = 1

The excitement or challenge of gambling.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
Important ..... 2
Not so important ..... 3
Not at all important ..... 4
Don't know ..... 8
Refused ..... 9

Gambling and Problem Gambling Among Adolescents in Nevada

95:

QB7

*simple*  
*min = 1 max = 1 l = 1*

To win money.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
- Important ..... 2
- Not so important ..... 3
- Not at all important ..... 4
- Don't know ..... 8
- Refused ..... 9

96:

QB8

*simple*  
*min = 1 max = 1 l = 1*

Out of curiosity.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
- Important ..... 2
- Not so important ..... 3
- Not at all important ..... 4
- Don't know ..... 8
- Refused ..... 9

97:

QB9

*simple*  
*min = 1 max = 1 l = 1*

For entertainment or fun.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
- Important ..... 2
- Not so important ..... 3
- Not at all important ..... 4
- Don't know ..... 8
- Refused ..... 9

98:

QB10

*simple*  
*min = 1 max = 1 l = 1*

To distract myself from everyday problems.

IF NEEDED: Would you say this is a very important, important, not so important or not at all important reason you may have for gambling.

- Very important ..... 1
- Important ..... 2
- Not so important ..... 3
- Not at all important ..... 4
- Don't know ..... 8
- Refused ..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**99:**

**QB11**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, what is the largest amount of money you have ever gambled in a single day?

\$1 or less .....	1
\$1-\$10 .....	2
\$10-\$19 .....	3
\$20-\$49 .....	4
\$50-\$99 .....	5
\$100-\$199 .....	6
\$200 or more .....	7
Don't know .....	8
Refused.....	9

**100:**

**QB12**

*simple*  
*min = 1 max = 1 l = 2*

*ENTER AGE.*

How old were you when you first started gambling?

5 years old or younger.....	05
Don't know .....	98
Refused.....	99

**101:**

**QB13**

*multiple*  
*min = 1 max = 11 l = 2*

What type of gambling was that?

Games for charitable causes .....	01
Bingo in a bingo hall .....	02
Lottery tickets, Lotto Powerball, Pick-4, Instants or scratch-offs .....	03
Cards, dice or board games with family or friends.....	04
Private games, dice , dominos, darts, flipping coins, pool, golf or bowling.....	05
Store restaurant, truck stop or similar location with one or two kinds of games: slots, video poker, pull-tabs.....	06
Arcade or video games .....	07
Casino, as in resort hotel, gambling hall or riverboat.....	08
Race track, off-track betting parlor .....	09
Games run like a business: sports pool, bet with bookmaker, unlicensed numbers games .....	10
Internet or World Wide Web.....	11
Don't know .....	98 X
Refused.....	99 X

**Gambling and Problem Gambling Among Adolescents in Nevada**

**102:**

**QB14**

*multiple, ouverte*  
*min = 1 max = 6 l = 2*

Who was the first person you gambled with?

A parent.....	01
A grandparent.....	02
A brother or sister.....	03
Another relative.....	04
A friend.....	05
Or some other person? (SPECIFY):.....	97 O
.....	\$\$
Don't know.....	
Refused.....	99 X

**103:**

**QB15**

*simple*  
*min = 1 max = 1 l = 1*

Do either of your parents play any games of chance for money?

Yes.....	1
No.....	2
Don't know.....	8
Refused.....	9

**104:**

**QB16**

*simple*  
*min = 1 max = 1 l = 1*

Which parent is that?

Mother.....	1
Father.....	2
Both mother and father.....	3
Don't know.....	8
Refused.....	9

**105:**

**QB17**

*simple*  
*min = 1 max = 1 l = 1*

Do you feel that either of your parents has ever had a problem with betting money or gambling?

Yes.....	1
No.....	2
Don't know.....	8
Refused.....	9

**108:**

**CC1A**

*simple*  
*min = 1 max = 1 l = 1*  
**PRESS ENTER TO CONTINUE.**

The next set of questions is part of a standard measurement scale which has been used throughout the United States in surveys similar to this one. There are no right or wrong answers to the questions that follow. We want to know what your experiences have been. Please try to be as accurate as possible in your answers and remember that all this information is confidential. IF NEEDED: We realize that these questions may not apply to everyone, but we do need answers to all of the questions. It will only take a few minutes.

Continue.....	1 D
---------------	-----

Gambling and Problem Gambling Among Adolescents in Nevada

178:

C1B

*simple*  
*min = 1 max = 1 l = 1*  
READ 1-5

When you have participated in the gambling activities we have discussed, in the past year, how often have you gone back another day to win back money you lost? Is it:

COMBINED ANSWERS FOR C1B

- Never..... 1
- Some of the time ..... 2
- Most of the time ..... 3
- Every time ..... 4
- Don't know ..... 8
- Refused..... 9

179:

C2B

*simple*  
*min = 1 max = 1 l = 1*  
READ 1-5

In the past year) How often have you told others you were winning money from these activities when you really weren't winning? Is it:

COMBINED ANSWERS FOR C2B

- Never..... 1
- Some of the time ..... 2
- Most of the time ..... 3
- Every time ..... 4
- Don't know ..... 8
- Refused..... 9

180:

C3B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Has your betting caused any problems for you such as arguments with family and friends, or problems at school or work?

COMBINED ANSWERS FOR C3B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

181:

C4B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you spent more time or money gambling than you intended ?

COMBINED ANSWERS FOR C4B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

Gambling and Problem Gambling Among Adolescents in Nevada

182:

C5B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Has anyone criticized your gambling or said that you had a gambling problem, regardless of whether you thought it was true or not?

COMBINED ANSWERS FOR C5B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

183:

C6B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you felt bad about the amount you gamble or about what happens when you gamble ?

COMBINED ANSWERS FOR C6B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

184:

C7B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you felt that you would like to stop betting money, but didn't think you could ?

COMBINED ANSWERS FOR C7B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

185:

C8B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you hidden I.O.U.'s, lottery tickets, gambling money or other signs of gambling from your family or friends?

COMBINED ANSWERS FOR C8B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

186:

C9B

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you had money arguments with family or friends that centered on gambling?

COMBINED ANSWERS FOR C9B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**187:**

**C10B**

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you missed school or work due to gambling?

COMBINED ANSWERS FOR C10B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**188:**

**C11B**

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you borrowed money from someone and not paid them back as a result of your gambling?

COMBINED ANSWERS FOR C11B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**189:**

**C12B**

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Have you borrowed money or stolen something in order to gamble or to cover gambling debts?

COMBINED ANSWERS FOR C12B

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**190:**

**C121**

*simple*  
*min = 1 max = 1 l = 1*

Can you tell me whether you got the money or goods from any the following sources?  
 Parents?

COMBINED ANSWERS FOR C121

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**191:**

**C122**

*simple*  
*min = 1 max = 1 l = 1*

Brother(s) or sister(s)?

COMBINED ANSWERS FOR C122

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

Gambling and Problem Gambling Among Adolescents in Nevada

192:

C123

*simple*  
*min = 1 max = 1 l = 1*

Other relatives?

COMBINED ANSWERS FOR C123

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

193:

C124

*simple*  
*min = 1 max = 1 l = 1*

Friends?

COMBINED ANSWERS FOR C124

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

194:

C125

*simple*  
*min = 1 max = 1 l = 1*

Loan sharks?

COMBINED ANSWERS FOR C125

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

195:

C126

*simple*  
*min = 1 max = 1 l = 1*

Have you sold personal or family property?

COMBINED ANSWERS FOR C126

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

196:

C127

*simple*  
*min = 1 max = 1 l = 1*

Have you passed a bad check on your checking account?

COMBINED ANSWERS FOR C127

- Yes ..... 1
- No..... 2
- Don't know ..... 8
- Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**197:**

**C128**

*simple*  
*min = 1 max = 1 l = 1*

Have you stolen from someone?

COMBINED ANSWERS FOR C128

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**198:**

**C13B**

*simple*  
*min = 1 max = 1 l = 1*

(In the past year) Do you feel that you have had a problem with betting money or gambling?

COMBINED ANSWERS FOR C13B

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**199:**

**D1**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, how often have you found yourself thinking about gambling or planning to gamble?

COMBINED ANSWERS FOR D1

- Never..... 1
  - Once or twice ..... 2
  - Sometimes ..... 3
  - Often ..... 4
  - Don't know ..... 8
  - Refused..... 9
- 

**200:**

**D2**

*simple*  
*min = 1 max = 1 l = 1*

During the course of the past year, have you needed to gamble with more and more money to get the amount of excitement you want?

COMBINED ANSWERS FOR D2

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
-

**Gambling and Problem Gambling Among Adolescents in Nevada**

**201:**

**D3**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, have you ever spent much more than you planned to on gambling?

COMBINED ANSWERS FOR D3

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

**202:**

**D4**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, have you felt bad or fed up when trying to cut down or stop gambling?

COMBINED ANSWERS FOR D4

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Never tried to cut it down..... 5
- Don't know ..... 8
- Refused..... 9

**203:**

**D5**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, how often have you gambled to help you escape from problems or when you were feeling bad?

COMBINED ANSWERS FOR D5

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

**204:**

**D6**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, after losing money gambling, have you returned another day to try and win back money you lost?

COMBINED ANSWERS FOR D6

- Never..... 1
- Less than half the time ..... 2
- More than half the time ..... 3
- Every time ..... 4
- Don't know ..... 8
- Refused..... 9

Gambling and Problem Gambling Among Adolescents in Nevada

205:

D7

*simple*  
*min = 1 max = 1 l = 1*

In the past year, has your gambling ever led to lies to your family?

COMBINED ANSWERS FOR D7

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

206:

D8A

*simple*  
*min = 1 max = 1 l = 1*

In the past year, have you ever taken money from the following without permission to spend on gambling: School lunch money or bus fare money?

COMBINED ANSWERS FOR D8A

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

207:

D8B

*simple*  
*min = 1 max = 1 l = 1*

Money from your family?

COMBINED ANSWERS FOR D8B

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

208:

D8C

*simple*  
*min = 1 max = 1 l = 1*

Money from outside the family?

COMBINED ANSWERS FOR D8C

- Never..... 1
- Once or twice ..... 2
- Sometimes ..... 3
- Often ..... 4
- Don't know ..... 8
- Refused..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

**209:**

**D9A**

*simple*  
*min = 1 max = 1 l = 1*

In the past year, has your gambling ever led to . . . Arguments with family, friends or others?

COMBINED ANSWERS FOR D9A

Never.....	1
Once or twice .....	2
Sometimes .....	3
Often .....	4
Don't know .....	8
Refused.....	9

**210:**

**D9B**

*simple*  
*min = 1 max = 1 l = 1*

(In the past year, has your gambling ever led to . . .) Missing school?

COMBINED ANSWERS FOR D9B

Never.....	1
Once or twice .....	2
Sometimes .....	3
Often .....	4
Don't know .....	8
Refused.....	9

**211:**

**QE1**

*simple*  
*min = 1 max = 1 l = 1*

Next, I'd like to ask you a few questions about other activities and about your feelings in general. Please remember that responses will be kept confidential. How happy or satisfied have you been with your personal life during the past month?

Very happy.....	1
Somewhat happy .....	2
Somewhat unhappy .....	3
Very unhappy.....	4
.....	\$
Don't know .....	.....
Refused.....	9

**212:**

**QE2**

*simple*  
*min = 1 max = 1 l = 1*

How often have you felt anxious, worried or upset during the past month?

Most or all of the time.....	1
Some of the time .....	2
A little or none of the time .....	3
.....	\$
Don't know .....	.....
Refused.....	9

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**213:**

**QE17**

*simple*  
*min = 1 max = 1 l = 1*

Now I would like to know if you have ever used the following drugs. Please remember that all your answers are strictly confidential. In your lifetime, have you ever used cigarettes, chewing tobacco or snuff?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**214:**

**QE18**

*simple*  
*min = 1 max = 1 l = 1*

*READ 1-3.*

Was the most recent time you used them ...

- Within the last month ..... 1
  - Within the last year ..... 2
  - More than a year ago..... 3
  - Don't know ..... 8
  - Refused..... 9
- 

**215:**

**QE19**

*simple*  
*min = 1 max = 1 l = 1*

In your lifetime, have you ever used alcohol?

- Yes ..... 1
  - No..... 2
  - Don't know ..... 8
  - Refused..... 9
- 

**216:**

**QE20**

*simple*  
*min = 1 max = 1 l = 1*

*READ 1-3.*

Was the most recent time you used alcohol ...

- Within the last month ..... 1
  - Within the last year ..... 2
  - More than a year ago..... 3
  - Don't know ..... 8
  - Refused..... 9
- 

**217:**

**QE21**

*simple*  
*min = 1 max = 1 l = 1*

During the past 12 months, how many times have you gotten into difficulties of any kind with your friends because of your drinking?

- None ..... 1
  - 1..... 2
  - 2-3 ..... 3
  - 4-9 ..... 4
  - 10 times or more..... 5
  - Don't know ..... 8
  - Refused..... 9
-

Gambling and Problem Gambling Among Adolescents in Nevada

218:

QE22

*simple*  
*min = 1 max = 1 l = 1*  
During the past 12 months have you driven a car when you've had a good bit to drink?  
Yes ..... 1  
No.....2  
Don't know .....8  
Refused.....9

219:

QE23

*simple*  
*min = 1 max = 1 l = 1*  
During the past 12 months have you been criticized by someone you were dating because of drinking?  
Yes ..... 1  
No.....2  
Don't know .....8  
Refused.....9

220:

QE24

*simple*  
*min = 1 max = 1 l = 1*  
During the past 12 months have you gotten into trouble with the police because of drinking?  
Yes ..... 1  
No.....2  
Don't know .....8  
Refused.....9

221:

QE25

*simple*  
*min = 1 max = 1 l = 1*  
In your lifetime, have you ever used marijuana?  
Yes ..... 1  
No.....2  
Don't know .....8  
Refused.....9

222:

QE26

*simple*  
*min = 1 max = 1 l = 1*  
*READ 1-3.*  
Was the most recent time you used marijuana ...  
Within the last month ..... 1  
Within the last year .....2  
More than a year ago.....3  
Don't know .....8  
Refused.....9

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**223:**

**QE27**

*simple*  
*min = 1 max = 1 l = 1*

In your lifetime, have you ever used any other drugs that were not prescribed by a doctor (such as crack or cocaine, hallucinogens, inhalants, PCP, uppers or downers)?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

---

**224:**

**QE28**

*simple*  
*min = 1 max = 1 l = 1*  
 READ 1-3.

Was the most recent time you used other drugs ...

Within the last month ..... 1  
 Within the last year ..... 2  
 More than a year ago..... 3  
 Don't know ..... 8  
 Refused..... 9

---

**225:**

**QE29**

*simple*  
*min = 1 max = 1 l = 1*

During the past 12 months, how many times have you gotten into difficulties of any kind with your friends because of your drug use?

None ..... 1  
 1..... 2  
 2-3 ..... 3  
 4-9 ..... 4  
 10 times or more..... 5  
 Don't know ..... 8  
 Refused..... 9

---

**226:**

**QE30**

*simple*  
*min = 1 max = 1 l = 1*

During the past 12 months have you driven a car when you've felt high from drugs?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

---

**227:**

**QE31**

*simple*  
*min = 1 max = 1 l = 1*

During the past 12 months have you been criticized by someone you were dating because of your drug use?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

---

**Gambling and Problem Gambling Among Adolescents in Nevada**

**228:**

**QE32**

*simple*  
*min = 1 max = 1 l = 1*

During the past 12 months have you gotten into trouble with the police because of your drug use?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**229:**

**QE33**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever sought help, other than from family or friends, for problems connected with your use of alcohol, marijuana or other drugs?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**230:**

**QE34**

*simple*  
*min = 1 max = 1 l = 1*

Have you ever wanted help to stop gambling?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**231:**

**QE35**

*multiple, ouverte*  
*min = 1 max = 8 l = 2*  
*ENTER ALL THAT APPLY.*

What type of help did you get?

Family ..... 01  
 Friend ..... 02  
 Minister ..... 03  
 School counselor ..... 04  
 Other counselor ..... 05  
 Gamblers Anonymous..... 06  
 Psychologist ..... 07  
 Psychiatrist ..... 08  
 Other (SPECIFY): ..... 97 O  
 NONE/NO HELP RECEIVED ..... 00 X  
 Don't know ..... 98 X  
 Refused..... 99 X

**Gambling and Problem Gambling Among Adolescents in Nevada**

**232:**

**QF1**

*simple*  
*min = 1 max = 1 l = 1*  
**RECORD GENDER.**

As you probably know, different types of people have different opinions and experiences. The following questions are for statistical purposes only and the answers to these questions, like all of the others, will be confidential. RECORD GENDER.

IF UNSURE, SAY: I am required to ask, are you a male or a female

Male ..... 1  
 Female..... 2  
 Don't know ..... 8  
 Refused..... 9

**233:**

**QF2**

*simple*  
*min = 1 max = 1 l = 2*

How old were you on your last birthday?

13 years old ..... 13  
 14 years old ..... 14  
 15 years old ..... 15  
 16 years old ..... 16  
 17 years old ..... 17  
 18 years old or older..... 18  
 Refused..... 99

**234:**

**INT05**

*simple*  
*min = 1 max = 1 l = 2*  
**PRESS ENTER TO TERMINATE INTERVIEW**

THANK AND TERMINATE.

NQ 64 - 18 OR OVER ..... 64 D

**235:**

**QF3**

*simple*  
*min = 1 max = 1 l = 1*

Do you consider yourself to be Hispanic?

Yes ..... 1  
 No..... 2  
 Don't know ..... 8  
 Refused..... 9

**236:**

**QF4**

*simple, ouverte*  
*min = 1 max = 1 l = 2*  
**READ 1-97**

Which of the following best describes your racial or ethnic group?

White or Caucasian ..... 01  
 Black ..... 02  
 Native American ..... 03  
 Asian ..... 04  
 Or something else? (SPECIFY): ..... 97 O  
 \_\_\_\_\_ ..... \$\$  
 Don't know .....  
 Refused..... 99 X

**Gambling and Problem Gambling Among Adolescents in Nevada**

**237:**

**QF5**

*simple, ouverte*

*min = 1 max = 1 l = 2*  
*READ 1-97*

What kind of home do you live in?

A mobile home or trailer ..... 01  
 An apartment or duplex ..... 02  
 A house or condominium ..... 03  
 Or something else? (SPECIFY): ..... 97 O  
 \_\_\_\_\_ ..... \$\$  
 Don't know .....  
 Refused ..... 99 X

**238:**

**QF6**

*simple*

*min = 1 max = 1 l = 2*  
*ENTER NUMBER.*

How many adults live with you, not including older brothers and sisters?

Don't know ..... 98  
 Refused ..... 99

**239:**

**QF7**

*simple, ouverte*

*min = 1 max = 1 l = 2*  
*READ 1-97*

Which of the following best describes your current religious preference?

Protestant ..... 01  
 Catholic ..... 02  
 Jewish ..... 03  
 Or something else? (SPECIFY): ..... 97 O  
 \_\_\_\_\_ ..... \$\$  
 No religion .....  
 Don't know ..... 98  
 Refused ..... 99

**240:**

**QF8**

*simple*

*min = 1 max = 1 l = 1*

How important is religion in your life?

Very important ..... 1  
 Somewhat important ..... 2  
 Not very important ..... 3  
 Don't know ..... 8  
 Refused ..... 9

**Gambling and Problem Gambling Among Adolescents in Nevada**

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**241:**

**QF9**

<i>simple</i>	
<i>min = 1 max = 1 l = 2</i>	
What grade are you in school right now?	
Less than 8th .....	01
8th grade.....	02
9th grade.....	03
10th grade.....	04
11th grade.....	05
12th grade.....	06
Working toward GED .....	07
Graduated .....	08
Dropped out, quit school .....	09
Suspended, expelled.....	10
Don't know .....	98
Refused.....	99

---

**242:**

**QF10**

<i>simple</i>	
<i>min = 1 max = 1 l = 2</i>	
What is the last grade you completed?	
Less than 8th .....	01
8th grade.....	02
9th grade.....	03
10th grade.....	04
11th grade.....	05
12th grade.....	06
Don't know .....	98
Refused.....	99

---

**243:**

**WORD**

<i>simple</i>	
<i>min = 1 max = 1 l = 1</i>	
Since this past September.....	
	1
Since school began in September.....	
	2

---

**244:**

**QF11**

<i>simple</i>	
<i>min = 1 max = 1 l = 1</i>	
<word>, how many hours a week have you worked at a job?	
Did not work during school.....	1
1-4 hours .....	2
5-9 hours .....	3
10-20 hours.....	4
Over 20 hours per week .....	5
Don't know .....	8
Refused.....	9

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**Gambling and Problem Gambling Among Adolescents in Nevada**

**245:**

**QF12**

	<i>simple</i>
<i>min = 1 max = 1 l = 1</i>	
Do you get an allowance?	
Yes .....	1
No.....	2
Don't know .....	8
Refused.....	9

**246:**

**QF13**

	<i>simple</i>
<i>min = 1 max = 1 l = 1</i>	
During the past year, what was your income in an average week, including your allowance, job and other sources of money?	
\$0.....	1
\$1-\$9 .....	2
\$10-\$19 .....	3
\$20-\$49 .....	4
\$50-\$99 .....	5
\$100-\$200 .....	6
\$200 or more .....	7
Don't know .....	8
Refused.....	9

In what county do you live?

**248:**

**QCNTY**

Carson City .....	510
Churchill.....	001
Clark.....	003
Douglas .....	005
Elko .....	007
Esmerelda .....	009
Eureka .....	011
Humboldt .....	013
Lander .....	015
Lincoln .....	017
Lyon .....	019
Mineral .....	021
Nye.....	023
Pershing.....	027
Storey .....	029
Washoe.....	031
White Pine.....	033

**252:**

**INT01**

That was my last question. Your participation is very important to the survey and all of us working on this project. Thank you very much for your time and cooperation.  
 Completed Interview ..... 01 D

**253:**

**QF15**

PLEASE NOTE IF YOU FELT THAT A PARENT WAS LISTENING:	
Evidence parent was listening .....	1
No evidence parent was listening.....	2
Evidence parent was NOT listening.....	3
Not sure .....	4

254:

QF16

*simple*  
*min = 1 max = 1 l = 1*

INTERVIEWER NOTE: Did the teen seem to be truthful or or did they seem to be putting you on?

- Seemed to be truthful ..... 1
- Seemed to be putting you on ..... 2
- Not sure ..... 3