

### ADULT SURVEY OF MINNESOTA GAMBLING

### **BEHAVIOR: A BENCHMARK, 1990**

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for

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#### **Adult Gambling Research Highlights**

A sample of 1251 respondents from nine Minnesota counties, including Anoka, Carver, Clay, Dakota, Hennepin, Ramsey, St. Louis, Scott, and Washington counties, were surveyed shortly after the April 17 start of the Minnesota Lottery scratch tab games but before the August 14 start of the Lotto Minnesota.

Using a modified version of the South Oaks Gambling Screen (SOGS-M), 0.9% of the respondents were identified as probable pathological gamblers (SOGS-M = 5>) and 0.6% were potential pathological gamblers (SOGS-M = 3,4). Seven percent of the sample were identified as problem gamblers (SOGS-M = 1,2). Thirty-seven percent of the respondents were non-bettors, and an additional 54.6% of the respondents were identified as gamblers with no problem.

Males, non-whites, and respondents under the age of 34 were all overrepresented among problem gamblers and potential and probable pathological gamblers. Women constitute 47% of the problem gamblers but accounted for a small portion of the pathological gamblers.

A higher proportion of problem gamblers played pull tabs and bought lottery tickets outside of Minnesota in the past year than other gamblers.

Problem gamblers bet more frequently than gamblers with no problem. Pathological gamblers tended to gamble more than problem gamblers, who, in turn, tended to gamble more than gamblers with no problem. Also, the greater the problem with gambling, the more the respondents tended to spend on Minnesota lottery scratch tabs.

A higher proportion of potential and probable pathological gambler played bingo, bet on a sporting event, and left Minnesota for casino games in the past year than other gamblers.

Males were more likely to bet at the racetrack, play pull tabs, and bet on sporting events than females. Women, however, were more likely than men to play bingo.

Respondents in Clay county were more likely to play bingo and to leave Minnesota for casino gambling than respondents in other regions.

Respondents in the metro fringe region (including Anoka, Carver, Dakota, Scott, and Washington counties) and St. Louis county showed a higher incidence of buying lottery tickets outside of Minnesota.

Respondents in the metro core region (including Hennepin and Ramsey counties) were more likely to bet at a racetrack in the past twelve months than other respondents.

Respondents in St. Louis county listed more sources where they had borrowed money from to sustain their gambling activities than respondents in other regions.

#### Establishing a Benchmark

Does an increase in availability of gambling opportunity result in an increase in the number of persons experiencing problems resulting from gambling or exhibiting compulsive gambling behavior? This is an important policy question that can be addressed through research. The research design appropriate for examining this question is longitudinal, meaning that it is done at different time intervals. The initial measurement is termed the benchmark and later measurement is then compared with the benchmark data. Using an interrupted time series form of longitudinal design reveals a pattern or trend that can give information for answering the question of problems resulting from increased gambling opportunity.

A study of the impact of motorcycle helmet laws helps to illustrate how this research design works. In the late 1960's a number of states passed laws requiring motorcycle riders to wear helmets. Researchers studied the effects of these changed laws and determined that motorcycle fatalities declined. This research was repeated in the late 1970's when motorcycle helmet laws were weakened and repealed. Results of the second phase in this interrupted time series form of longitudinal design showed an increase in motorcycle fatalities (Ross, 1984). Having the benchmark or baseline data permitted researchers to identify the trends in motorcycle fatalities given different changes in public policy. However, comparisons over time need to consider historical events as well. In the illustration of changed motorcycle helmet laws, questions need to be asked about whether changes were made in motorcycle licensing requirements, traffic density, motorcycle safety, etc. In other

words, factors that may influence trends need to be considered in longitudinal design.

The benchmark that is established in this adult gambling study needs to be identified with the time period of May 1990 when the adult gambling telephone survey was conducted. Minnesota lottery scratch tabs were introduced on April 17 so the study was carried out while this form of gambling had been available to the public for less than one month. The survey was done before the full range of lottery options became available including Lotto Minnesota, which is part of Lotto America, with drawings twice a week and a minimum jackpot of \$2,000,000.

This benchmark study sought to determine the extent of different forms of gambling and identify the number of gamblers with gambling problems. Although the survey was not interested only in Lotto Minnesota, it did ask specific questions about this form of gambling and respondents' intention of participating in this new form of gambling. Most forms of gambling were asked about in the survey as well, with an assessment made of gambling practices to determine the incidence of respondents experiencing problems as a result of gambling.

The benchmark survey was done in the seven Twin Cities metropolitan counties, Clay County and St. Louis County. The researchers anticipate a 1992 restudy using the same interview guide format and surveying the same panel of respondents. When the data from the future study are compared to the benchmark findings it will be possible to begin to answer the question, "Does an increase in availability of gambling opportunity result in an increase in the number of persons experiencing problems resulting from gambling or exhibiting compulsive gambling behavior?"

#### **Previous Gambling Prevalence Studies**

The prevalence estimates for the adult population in the United States obtained from studies carried out under these three approaches range from 0.77% to 3.37% (see Appendix II, table 1). Gambling prevalence studies have also identified demographic characteristics of the population of non-pathological and pathological gamblers.

There have been three approaches for estimating the prevalence of compulsive gambling in the adult population. The first approach consists of one study (the Institute for Social Research study) completed before formal identifiers were set for the recognition and diagnosis of compulsive gambling. The other two approaches used in gambling prevalence studies were carried out after the diagnostic criteria were set by the American Psychological Association (APA) in 1980. These two approaches are identified by the two types of surveys used to determine prevalence: Inventory of Gambling Behavior (IGB) studies and South Oaks Gambling Screen (SOGS) studies.<sup>1</sup>

#### First Approach

The first gambling prevalence study used a personality based approach and was conducted in 1975 by the Institute for Social Research (ISR) at the University of Michigan (Kallick, et.al., 1979). The survey, which was administered to a national sample and a Nevada state sample, was comprised of questions identifying personality characteristics of gamblers. This study identified 0.77% of all adults in the United States as "probable"

<sup>&</sup>lt;sup>1</sup>Please see Appendix II for a more technical discussion of the three approaches for measuring compulsive gambling in adult populations.

pathological gamblers and an additional 2.33% of adults as "potential" pathological gamblers.

One of the strongest criticisms of the ISR study is that although the personality traits used in the surveying instrument may characterize pathological gamblers, they may also be seen in social gamblers and others who do not gamble at all (Culleton, 1989).

#### Second Approach

The second approach to gambling prevalence estimation is social pathology based and involves application of a list of pathological gambling indicators called the Inventory of Gambling Behavior (IGB). The IGB is based on the diagnostic criteria of the Diagnostic and Statistical Manual, 3rd ed. (DSM-III) (APA, 1980) and the Gamblers Anonymous (GA) 20 questions. It utilizes behavioral factors, instead of personality traits, in conjunction with a cumulative clinical sign method for differentiating between "probable" pathological gamblers, "potential" pathological gamblers, and other gamblers.

Using the IGB as a survey instrument, Culleton (1984) determined that 3.4% of adults in the Delaware Valley are "probable" pathological gamblers, and an additional 4.1% are "potential" pathological gamblers. Culleton conducted a similar study in Ohio (1985) and concluded that 2.5% of all adults in Ohio are "probable" pathological gamblers and 3.4% of the adults are "potential" pathological gamblers.

More recently, Sommers (1988) included a portion of the IGB in a questionnaire that was administered to a sample in a nine-county area of southeastern Pennsylvania. This survey identified 3.37% of the respondents as "probable" pathological gamblers, with an additional 4.12% identified as "potential" pathological gamblers.

#### Third Approach

Lesieur and Blume (1987) developed a behavior based screening instrument called the South Oaks Gambling Screen (SOGS) for use by service providers in the addictions field. This carefully validated, reliable screening tool has been used by Volberg and Steadman to conduct surveys in New York, New Jersey, and Maryland as part of an NIMH-funded study of gambling prevalence.

In New York, Volberg and Steadman (1988) identified 1.4% of the sample as "probable" pathological gamblers. They classified an additional 2.8% of the sample as "problem" gamblers. In another report Volberg and Steadman (1989b) indicated that 1.4% of New Jersey respondents were classified as "probable" pathological gamblers, and an additional 2.8% of the sample were identified as "problem" gamblers. In Maryland, 1.5% of the sample were identified as "probable" pathological gamblers, while another 2.4% were classified as "problem" gamblers, while another 2.4% were classified as "problem" gamblers.

Volberg and Steadman (1989a) also selected respondents in New York, New Jersey, and Maryland who matched the Wisconsin population on age, sex, and ethnicity to provisionally estimate the prevalence rate of compulsive gambling in the mid-Western state. They found that 1.1% of the respondents were "probable" pathological gamblers, although they believe the actual prevalence rate for Wisconsin may be somewhat lower than this because of the differences in residents and gambling opportunities in Wisconsin and east coast states.

#### **Demographic Characteristics**

Although the different types of prevalence studies have produced varying prevalence estimates, they provide a similar picture of the pathological gambler (see Appendix II, table 2). Significant differences were seen between the sample as a whole and those identified as problem or pathological gamblers. Males, nonwhites, and those with less than a college education have consistently been overrepresented in the probable pathological gambling group (Kallick, et.al., 1979; Kallick-Kaufmann, 1979; Sommers, 1988; Volberg & Steadman, 1988; Volberg & Steadman, 1989). Many have also reported overrepresentation in specific age and income brackets. The majority of pathological gamblers earn an annual income of less than \$25,000 (Kallick, et.al., 1979; Sommers, 1988; Volberg & Steadman, 1988). Sommers (1988) and Volberg and Steadman (1989) have reported that the majority of adult pathological gamblers are in their early thirties and younger; however, Volberg and Steadman found no differences in age or income in the New Jersey/Maryland survey in 1989.

In addition to these overall characteristics, it appears that different groups of people are attracted to different types of gambling. Hugick (1989) reports that 57% of the women who gamble play the lottery, bingo, and other games of luck. Conversely, men are more likely to participate in card games and racetrack and sports betting. Both women and men are equally as likely to frequent casinos.

Bingo players tend to be less affluent than other gamblers, whereas card players, racetrack and sports betting, and casino patrons tend to be more affluent. Hugick also reported that, contrary to popular belief, lotteries are played on a regular basis more by people who make \$50,000 and over per year than by the less affluent.

Volberg and Steadman (1988 & 1989b) also compared demographic data for the survey respondents who were pathological gamblers with demographic data for clients

entering treatment programs in New York, New Jersey, and Maryland over a period of one year. They found that survey respondents were significantly younger, more likely to be women, more likely to be black or Hispanic, and tended to have lower incomes and less education than the treatment patients. This indicates a need in services for women, blacks and Hispanics because they are currently underrepresented in treatment programs.

#### <u>Methodology</u>

This study was performed under contract with the Minnesota Department of Human Services. The legislative mandate to this agency was to carry out baseline and prevalence studies which would identify those at highest risk. In responding to this legislative mandate the Department of Human Services' Division of Mental Health was designated to develop and coordinate gambling programming and research. A Research Advisory Committee was created to identify the priority gambling research needs for Minnesota. Because the state lottery was in its early phases it was recommended that benchmarks of gambling behavior be established for both adolescents and adults. Both these studies were carried out under contract by the Center for Addiction Studies at the University of Minnesota, Duluth.

The adolescent survey was done by the Adolescent Health Program, Department of Pediatrics, University of Minnesota, Twin Cities under sub contract with the Center for Addiction Studies. Findings from this research are communicated in a separate report.

Data gathering for the adult survey was carried out under sub contract with the Data Collection and Support Services Center (DCSS), Division of Epidemiology, School of Public Health, University of Minnesota, Twin Cities. After the data were gathered, the analysis and report preparation was done at the UMD Center for Addiction Studies.

Development of the methodology for the adult survey was done by a team that Phyllis Pirie assembled from the DCSS Center staff. This team interacted with the Principle Investigators (Schaefer and Laundergan) in the development of the sampling strategy and the interview guide.

Questions about gambling behavior were included in two statewide surveys done by the Center for Survey Research, University of Minnesota, Twin Cities. The first of these studies was done in 1984 and the same questions with some additions were asked in a 1989 survey. Data from these studies were reviewed in deciding on the sampling procedure.

Unlike the previous statewide surveys, the adult survey was intended to concentrate resources on selected geographic areas to gauge problem gambling prevalence. The Minnesota Center for Survey Research 1989 data indicates that gambling (Bet money within the last year) is greatest in both northwestern and northeastern Minnesota and the metropolitan Twin Cities. Clay County is in the Central Region's northwest corner bordering on the northwest region. It is the Minnesota half of the two county Fargo-Moorhead Standard Metropolitan Statistical Area (SMSA). Because of its proximity to the northwest region and its SMSA standing it was selected as one area to be sampled for the adult gambling survey. Polk County to the north and situated in the northwest region was not selected because although it is part of a two county SMSA (Grand Forks, North Dakota and Polk County, Minnesota) it has a population almost one-third smaller than Clay County and half of the population is classified as rural according to the U.S. census definition contrasted with one-third rural for Clay County.

St. Louis County, another two county SMSA (St. Louis County, Minnesota and Douglas County, Wisconsin), holds the distinction of being the largest county in Minnesota extending from Duluth on the shore of Lake Superior north to the U.S. - Canadian border. Located in the center of the northeastern region and having close to a third of its population classified as rural, St. Louis County was chosen as a second sampling site for the gambling

survey. The seven counties of the metropolitan Twin Cities constitutes the largest SMSA in Minnesota and was chosen as the third sampling site because of its population dominance and its gambling practices as reported in the Minnesota Center for Survey Research 1989 study.

A total of 1200 adults was intended for completed interviews. To achieve this, a sample of 1,375 randomly selected households in the targeted areas was obtained from a professional survey organization, Survey Sampling, Inc. The sample was intentionally weighted toward the St. Louis County at 45 percent, Clay County at 10 percent and the seven Twin Cities Metropolitan Counties at 45 percent. Usable interviews were completed with 1251 respondents with 40.1 percent from St. Louis County, 10.20 percent from Clay County and 49.64 percent from the seven Twin Cities Metropolitan Counties.

An overall response rate of 91 percent was achieved in the survey. Response rates did not vary greatly among the three targeted geographic areas with 502 completed interviews in St. Louis County (90.5 percent response rate), 128 in Clay County (92.1 percent response rate) and 621 in the metro area (91.2 percent response rate). Telephone numbers to businesses, vacation or summer homes and to households with no age-eligible residents were ineligible for the survey.

Only one subject was interviewed per household contacted. Within each household the interviewer asked to speak to the adult resident, aged 18-74, who would have the next birthday in the household. Only permanent residents of the household were interviewed. The telephone interviewing was conducted by trained interviews at the DCSS Center. A computer-assisted telephone interviewing system, CATI Computer-Survey Methods system from University of California, Berkeley, was used. This permitted interviewers to read questions off the computer monitor screen and enter responses by keyboard.

The interview was designed to have a set of questions screening respondents as to level of gambling behavior (see Appendix I for the interview guide). Respondents who had never bet for money were directed to questions about the Minnesota lottery and asked for some demographic information about themselves. A similar procedure was followed for respondents who had not gambled in the past 12 months. For the respondents who had bet for money in the past twelve months, detailed questions were asked about their choice of gambling and amount of money spent. Five questions were used to further screen respondents before more detailed diagnostic screening was done.

The diagnostic screening used a modified version of the South Oaks Gambling Screen (SOGS) with modifications made to insure clear communication with Minnesota respondents and to create the interviewing flow necessary for a telephone interview. Five draft versions of the telephone interview guide were pretested and known gamblers were contacted to test the workability of the modified SOGS, hereafter referred to as the SOGS-M. Specifics of the differences between SOGS and SOGS-M are presented in Appendix II.

Actual interviewing was begun on May 2, 1990 and was completed on June 26, 1990. The interviewing followed the April 17 introduction of the first lottery scratch tabs but preceded the August 14 introduction of higher stakes instant games, daily games and Lotto Minnesota. Questions were asked about actual play of scratch tabs and intended play of higher stakes lottery games.

The resulting survey data were checked for errors by DCSS Center staff and then a

computer file was sent to the UMD Center for Addiction Studies where the analysis and report writing was done. The findings reported in this study are preliminary and descriptive. More detailed analysis of the survey data is required to derive full meaning for scientific and public policy purposes. These benchmark data will derive their usefulness as the first stage of a trend study with a second survey done in two or three years.

#### **Types of Gamblers**

Approximately 63% of the 1251 respondents reported that they have done some kind of gambling in the past twelve months, and nearly 78% indicated they have gambled at some time during their lives. Five groupings were identified among the respondents of the survey. First are non-bettors, who indicated in the survey that either they had never gambled in their lives or did not bet money in the past year. Nearly 37% of the sample are non-bettors (n=460). The second grouping consists of gamblers with no apparent problem. These respondents, representing 54.6% of the sample (n=684), admitted to gambling in the past twelve months but scored zero on the modified South Oaks Gambling Screen (SOGS-M). The third grouping is identified as "problem gamblers." These respondents, who would not be clinically diagnosed as pathological gamblers based on the diagnostic criteria of the American Psychological Association, do appear to have some gambling-related problems in their lives. This is indicated by a score of one or two on the SOGS-M. Seven percent of the sample were identified as problem gamblers (n=88). The fourth grouping, termed "potential pathological gamblers," are those respondents who scored three or four on the gambling screen. This was 0.6% of the entire sample (n=8). The fifth grouping consists of respondents who scored five or higher on the SOGS-M. This group, referred to as "probable pathological gamblers," represented 0.9% of the sample (n=11). Since the number of potential and probable pathological gamblers is so small, these two groupings were combined for further analysis. Tables 2a-c summarize respondent characteristics by type of gamblers. Figure 1 reports participation in games in the past year by gambler type.

#### Non-bettors

Non-bettors tended to be older than the sample as a whole. Respondents aged 55 to 74 were overrepresented among non-bettors, while those in the 25-34 age range were underrepresented in this category. Also underrepresented among non-bettors were American Indians, Blacks, and Hispanics.

Non-bettors were less likely to be working for pay than the general sample. Only 62.6% of non-bettors were currently working for pay in contrast to 71.0% of the general sample. This is not surprising since gambling requires monetary resources for participation.

#### Gamblers with No Problem

Gamblers who did not show any signs of gambling-related problems did not differ significantly from the general sample. This would be expected since the majority of respondents fall into this category. Therefore, the majority of "no-problem" gamblers were married, white females over the age of 35 characterized by the following:

-do not have children living in the home; -live in a large city or a suburb of a large city; -do not have a college degree; -are currently working for pay; and -earn a total yearly household income above \$30,000 (See tables 2a-2c).

The gamblers who did not show any signs of a problem are more likely to play pull tabs than any other game of chance when they gamble. Nearly 41% of the "no-problem" gamblers played pull tabs in the past 12 months, compared to 33.0% that bought lottery tickets outside of Minnesota and 21.1% that bet on sporting events, the next two forms of gambling in order of preference. "No-problem" gamblers are, however, less likely than other

gamblers to participate in any form of gambling.

The "no-problem" gamblers were more likely than other gamblers to strongly disagree that betting is an important part of their social life. Also, the reasons they listed for gambling differed from those of problem and pathological gamblers. They were more likely than other gamblers to list the following:

- a) it's fun;
- b) nice to get something for little;
- c) something different to do;
- d) like to compete with others;
- e) peer pressure;
- f) mainly gamble for charity.

#### Problem Gamblers

Males, non-whites, and respondents aged 25-34 are all overrepresented among problem gamblers. Fifty-three percent of problem gamblers are male and only 43.4% of the general sample are male. Nearly 8% of problem gamblers are non-white, compared to only 4% of non-whites in the general sample. One-third of the problem gamblers were in the 25 to 34 age range, but only 25.4% of the general sample was in this age range. Conversely, respondents aged 55 to 74 represented 11.5% of the problem gamblers, while 24.6% of the sample were between the ages of 55 and 74.

Problem gamblers also tend to have different lifestyles than the general population. Problem gamblers are more likely to live in the metro fringe area (21.6%) than the general sample, which has 15.5% of the respondents living in metro fringe. Problem gamblers are also more likely to either be living with someone, separated, or never married than the general sample. A higher proportion of problem gamblers are currently working for pay compared to the general sample. Nearly 81% of the problem gamblers are currently working for pay, and only 71% of the general sample reported current working status. Also, those with a high school education or less were overrepresented among problem gamblers. Fifty-two percent of problem gamblers had a high school education or less while only 39.3% of the sample fall into this category.

Problem gamblers also exhibited different gambling behaviors than the other groups. A higher proportion of problem gamblers played pull tabs and bought lottery tickets outside of Minnesota in the past year. Problem gamblers were also most likely to have purchased a Minnesota scratch tab lottery ticket in the past and to indicate that they plan to buy lottery tickets the following month and also in August of 1990 when the prizes for the lottery will increase. They were also more likely than other gamblers to strongly agree that they are more likely to bet if others do.

The three respondents from the survey who reported that they had a problem with gambling ("Do you feel you have ever had a problem with gambling?") were identified as problem gamblers, based on their SOGS scores. Their low SOGS scores indicate low gambling activity in the past year, suggesting that these respondents might be compulsive gamblers in recovery.

#### Potential Pathological Gamblers and Probable Pathological Gamblers

Potential and probable pathological gamblers are very similar demographically to problem gamblers. Males and non-whites are also overrepresented among pathological gamblers. Males make up 63.2% of the pathological gambling groups, compared to 43.4%

in the sample. The non-whites that are overrepresented among pathological gamblers are American Indians and Blacks, representing 10.6% of the gambling group. Only 2.6% of the sample are either American Indian or Black. Pathological gamblers are more likely to be in the 18 to 24 age range than the combined group of respondents. This is slightly younger than the age groups overrepresented among problem gamblers (25-34). Sixteen percent of potential and probable pathological gamblers were aged 18 to 24; whereas, 10.5% of the general sample was in this age range.

Pathological gamblers also have a different lifestyle than the rest of the sample. Those who are living with someone or were never married are overrepresented among potential and probable pathological gamblers. Also, pathological gamblers are less likely than the general sample to have children under the age of 18 residing in their homes. Potential and probable pathological gamblers are more likely to live in the metro core area and less likely to live in the metro fringe area than the general sample. Only 5.3% lived in metro fringe compared to 15.5% of the general sample. Forty-two percent lived in metro core, while 34.2% of the sample were metro core residents.

Pathological gamblers tend to have a slightly higher education than problem gamblers. Whereas those with a high school education or less were overrepresented among problem gamblers, those with a high school diploma, vocational or business training, or some college are overrepresented among pathological gamblers.

For most forms of gambling, a trend in participation was apparent. The greater the problem with gambling, the greater the participation in gambling. Therefore, a higher proportion of potential and probable pathological gamblers played bingo, bet on a sporting event and left Minnesota for casino games in the past year and also in the past month than other gamblers. At the same time, a higher percentage of problem gamblers participated in these forms of gambling than gamblers who did not show any signs of a problem. This trend was also true of the amount spent on Minnesota scratch tab lottery tickets. The greater the problem with gambling, the more they tended to spend on Minnesota scratch tab lottery tickets. Contrary to this trend, pathological gamblers (considered to have the greatest problem with gambling) were the least likely to say they will buy Minnesota scratch tab lottery tickets in the next month ("Do you think you will purchase any of these lottery scratch tab tickets in the next month?"). This could be related either to the pathological gambler's desire to stop gambling or to the choice of other games of chance.

Potential/probable pathological gamblers were also more likely than other gamblers to have bet at the racetrack in the past month but were not significantly more likely to have done so in the past year. This shows that while gamblers are equally as likely to bet at the racetrack, pathological gamblers bet at the racetrack more often.

Pathological gamblers were more likely than other gamblers to give a positive response to questions indicating gambling-related problems. Respondents in the "no-problem" group did not give a positive response to most of these questions. This is expected since these questions (adapted from SOGS) were used to identify the gambling groups.

Pathological gamblers listed the following reasons to bet at a higher rate than other gamblers:

- a) form of entertainment;
- b) the thrill of winning;
- c) like the challenge;
- d) professional gambler;

e) relaxation;f) helps with boredom;g) it's a habit/addicting.

These reasons are more related to addiction and physiological effects (e.g. thrill of winning, relaxation) of gambling than the reasons given by gamblers with no problem, which tend to focus more on gambling as a leisure activity.

#### Differences in Gambling by Sex

Although males are overrepresented among problem and pathological gamblers, there is variation among different types of wagering and other gambling behaviors. Males are more likely than females to have played pull tabs and to have bet on a sporting even in the past twelve months. They also typically spend more money on lottery tickets outside of Minnesota than women. Females, however, are more likely than men to have played bingo in the past year.

Males are more likely than females to have bet at the racetrack in the past month; however, women were just as likely as men to have bet in the past twelve months. This may indicate that while equal proportions of men and women bet at racetracks, men may bet more frequently. This would correspond with the higher incidence of problem and pathological gambling among men.

#### **Regional Differences**

There appears to be differences in gambling behavior according to the different geographical regions represented in the sample. Respondents were chosen from nine Minnesota counties, which were further divided into four regions: Metro Core, Metro Fringe, Clay County, and St. Louis County. The selection of these regions, located primarily in the upper two-thirds of the state, was based on findings from previously collected survey data (MN Center for Survey Research, 1989).

As shown in Table 3a, the northwest region had the highest participation in gambling in the past year (84.4%) according to the 1989 University of Minnesota, Center for Survey Research statewide survey findings. The northeast region ranks second with 73.7% having bet within the last year followed by the Twin Cities metro area with 72.7% participating in gambling during the year. As indicated in the discussion of research methods, the researchers selected Clay and St. Louis counties and the seven metropolitan counties as the areas to be surveyed in the present study. This is not to suggest that gambling in other locations in Minnesota is not of interest to researchers. The selection of the two northern counties and the metro area was rather an attempt to concentrate on smaller geographic units adjacent to or contained within the higher gambling regions of Minnesota.

Further analysis of the 1989 Center for Survey Research statewide survey findings needs to be undertaken. Gambling questions were also asked in a 1984 Center for Survey Research statewide survey and those data need to be examined as well. Relating the findings of the present study to the Center for Survey Research data should be included in

a future agenda.

In the present report, findings will be presented for the Metro Core region, Metro Fringe region, Clay County and St. Louis County. St. Louis and Clay counties are more heavily sampled relative to their population size.

Respondents from the two northern counties were overrepresented in the sample because of the design decision to have 50% of the sample non-metro and to have proportional representation by population in the two non-metro communities (see table 3b). Clay County respondents represented 10.2% of the sample, and St. Louis County represented 40.1%. The Metro Core region was made up of respondents from Hennepin and Ramsey counties and represented 34.13% of the sample. The Metro Fringe region included respondents from Anoka, Carver, Dakota, Scott, and Washington counties. This region represented 15.51% of the sample.

# (note - The following questions were asked of respondents who had bet money in the past twelve months.)

#### Regional Differences in Types of Betting

Respondents were asked if they had ever bet money and also if they had bet money in the past year. Those who gave affirmative responses were then asked questions about the specific types of gambling they participated in, including bingo, pull tabs, racetrack, lottery tickets, sporting events, and casino games.

**Ever Bet Money** There was little variation in the different geographical regions of the proportion of respondents who have ever bet money. The metro core region had the highest percentage (80.6%) of respondents who reported they had ever bet money, while

respondents in Clay county had the lowest incidence at 71.9% (see table 4).

Bet Money in the Past Year The trend was slightly different for money bet in the past year, although the variation was still small. The highest percentage of respondents was in the metro fringe region, where 84.5% reported they had bet money in the past year. The lowest percentage was in the metro core region (79.1%) (see table 5).

**Bingo** Respondents in Clay county were more likely to have played bingo than respondents in the other regions. Thirty-two percent of the Clay county respondents reported having played bingo in the past year, compared to 16.0% in the metro fringe region, where the lowest incidence of bingo participation was reported (see table 6). Clay county also had the highest percentage of respondents who have played bingo in the past month (39.1%), but the metro core region had the lowest percentage of respondents who have played bingo in the past month (18.2%) (see table 7). Furthermore, 33.3% of Clay county respondents have spent \$100 or more on bingo in the past month, whereas none of the respondents in the metro core or metro fringe regions have spent \$100 or more on bingo in the past \$100 or more on bingo \$100 or more on \$100 or more \$100 or more on \$100 or

**Pull Tabs** There was not significant variation in the amount of pull tab playing among the different regions. St. Louis county had the highest percentage of respondents who have played pull tabs in the past year (49.2%) and also in the past month (46.5%). The metro core region had the lowest percentage of respondents who have played pull tabs in the past year (42.3%) and also the past month (29.1%) (see tables 9-10). The metro core region respondents who have played pull tabs in the past month spent about the same on them as respondents in St. Louis county. In the metro core region, 11.3% of the respondents

spent \$100 or more, and in St. Louis county, 11.2% of the respondents spent \$100 or more. None of the respondents in the Clay county region reported spending \$100 or more on pull tabs in the past month (see table 11).

**Racetrack Betting** Respondents in the metro core region were more likely to have bet at a racetrack in the past twelve months than other respondents. Twenty-one percent of metro core respondents bet at the racetrack compared to 5.5% of Clay county respondents, where the lowest percentage was reported (see table 12). Also, 27.3% of the metro core respondents reported having spent \$200 or more at a racetrack in the past month, while none of the other regions reported having spent this much at the racetrack in the past month (see table 14). Respondents in the metro fringe area were more likely to have bet at a racetrack in the past month. One-fourth of the metro fringe respondents reported having bet money, while none of the Clay county respondents had done any betting at a racetrack in the past month (see table 13). These patterns are probably the result of greater access to racetracks in the metro core and metro fringe areas.

Lottery Tickets Outside of Minnesota Respondents in the St. Louis county and metro fringe regions showed a higher incidence of buying lottery tickets outside of Minnesota, reporting 40.1% and 39.2% respectively. This is probably due in part to their close proximity to Wisconsin, where the lottery is an established form of legalized gambling. Respondents in these areas also tended to spend more on the lottery tickets. Six percent of the St. Louis respondents indicated they had spent \$50 or more in the last month, and 4.3% of respondents in the metro fringe area reported spending \$50 or more; however, none of the respondents in the other regions reported spending \$50 or more on lottery tickets (see table 17). Respondents in Clay county were the least likely to have bought lottery tickets outside of Minnesota in the past year, reporting only 13.7% buying lottery tickets (see table 15). However, Clay county respondents showed one of the highest percentages (50.0%) of respondents who had bought lottery tickets outside of Minnesota in the past month. Half of the St. Louis county respondents also reported having bought a lottery ticket outside of Minnesota in the past month, while only one-third of the metro core respondents had bought a lottery ticket in the past month, the lowest proportion reported (see table 16).

Betting on Sporting Events There was little variation in the percentage of respondents in the metro core, metro fringe, and Clay county regions who indicated they had bet on the outcome of a sporting event in the past year. These percentages were 24.6% in the metro core, 28.8% in metro fringe, and 26.0% in Clay county. However, only 19.7% of the St. Louis county respondents reported betting on the outcome of a sporting event (see table 18). The trend was quite different for those who reported betting on a sporting event in the past month. Here, St. Louis county had the second highest percentage of bettors on sporting events (19.0%), while the metro fringe regions had the lowest incidence, with a percentage of 5.6% (see table 19). St. Louis county respondents who had bet on a sporting event in the past month also tended to bet more money than respondents in the other regions. Thirty-six percent of these people reported betting \$100 or more in the past month, while only 11.1% of the metro core respondents had bet this much. None of the respondents from the other regions had bet \$100 or more (see table 20).

**Casino Gambling** A small number of respondents reported that they had left Minnesota for casino gambling (n=107). Having such a small number of respondents could Minnesota for casino gambling (n=107). Having such a small number of respondents could create a problem in the results, and a larger sample would be needed to more accurately reflect casino activities by Minnesotans. Therefore, the following information should be viewed with caution. Of those respondents who did report casino gambling outside of Minnesota in the past year, Clay county respondents were more likely to have participated in casino gambling than the respondents in other regions. Nearly one-fourth of the Clay county respondents indicated they had done so in the past year, and 44.4% of those Clay county respondents who played casino games in the past year had done so in the past month (see table 22). Only 8.8% (the lowest percentage reported) of the metro fringe respondents had left Minnesota to play casino games in the past year (see table 21). They also tended to spend less on casino games than the other respondents who had played casino games. Only 33.3% of the metro fringe respondents had spent \$100 or more on casino games in the past month, had the highest percentage (see table 23).

#### Regional Differences in Problem Indicators

Respondents who had bet in the past year were asked a series of questions which might indicate problems related to gambling. Many of these questions were adapted from the South Oaks Gambling Screen.

Betting Criticized The highest percentage (9.5%) of respondents who said their betting had been criticized in the past twelve months lived in the metro core region. Conversely, none of the Clay county respondents reported that their betting had been

criticized (see table 24).

**Problems Caused by Betting** Nine percent of the Clay county respondents reported that they had any problems which were caused by their betting. This is in contrast to the metro fringe region, where none of the respondents reported having any gambling-related problems (see table 25).

Chase Losses When asked if they ever go back to try to win back lost money, 4.5% of the Clay county respondents replied that they did every time, while none of the respondents in St. Louis county and the Metro core regions did every time. In fact, the majority of respondents in these two regions indicated that they never "chased losses" (see table 26).

Gambled More Than Intended To Thirty-six percent of the Clay county respondents said they had gambled more than they intended to. This was the highest percentage reported. In comparison, only 16.7% of the metro core respondents indicated they had gambled more than they intended to (see table 27).

**Desire to Stop Gambling** A low percentage of all of the respondents reported that they would like to stop gambling but did not feel they could. The highest proportion of the respondents who did feel this way were in the metro core and Clay county regions, where they reported percentages of 4.8% and 4.5%, respectively. None of the respondents in the metro fringe area, however, felt like they would like to stop gambling (see table 28).

Claimed to be Winning when Actually Losing There was also a very low percentage of respondents who said they have claimed to be winning when they really were not. The highest percentage (6.0%) of those who had done this was in the metro core region. Conversely, none of the Clay county respondents said they had ever claimed to be winning when they were actually losing (see table 29).

Feel Bad About Own Gambling Twenty percent of the respondents in St. Louis county reported they have felt badly about their own gambling in the past twelve months. This was the highest percentage given. The lowest percentage was found in the metro fringe region, where only 10.4% of the respondents indicated they had felt badly about their gambling (see table 30).

Has Hidden I.O.U.s, etc. None of the respondents in the metro fringe and Clay county regions reported having hidden I.O.U.s, lottery tickets, money they had won, or bank withdrawal slips from their spouse, children, or other important people in their lives during the past year. Only 1.6% of the St. Louis county respondents reported doing so in the past twelve months. Six percent of the respondents in the metro core regions had done so (see table 31).

Arguments About Money/Gambling When respondents were asked if they had argued with people close to them about how they had handled money in the past twelve months, 16.8% of those in St. Louis county said that they had, while only 6.3% of those in the metro fringe had (see table 32). Respondents who had argued with people about money were then asked if these arguments centered on betting. Thirty-six percent of those in the metro core region and 23.8% of those in St. Louis county indicated that their arguments had focused on betting. None of the respondents in the metro fringe and Clay county regions reported having money arguments centered on betting (see table 33).

Borrowed Money for Gambling Respondents in Clay county tended to borrow money

to bet or cover gambling debts more in the past year than other respondents. Four and a half percent of the Clay county respondents had borrowed money, compared to 2.1% of those in the metro fringe area, where the lowest percentage was reported (see table 34). There were also geographical differences in the source from which the respondents borrowed money. Respondents in St. Louis county listed more sources where they had borrowed money for gambling purposes. They borrowed from immediate family, relatives, and friends first and credit cards and banks second. Metro core respondents also listed many sources, including friends, banks, and immediate family; whereas, the respondents in the metro fringe region only listed relatives, and respondents in Clay county only listed friends as sources (see tables 35-37). Respondents were also asked if they had ever borrowed money from someone and not paid them back because of gambling. The only respondents who reported they had done this were from the metro core region (2.4%). None of the respondents in the other geographical regions reported not paying back borrowed money (see table 39).

Lost Time From School or Work None of the respondents in the survey indicated they had lost time from work or school due to betting activities in the past twelve months (see table 38).

#### Geographical Differences in Gambling Behavior

Respondents who were bettors were asked specific questions about their gambling behavior, such as how often they gamble, winnings and losses, and why they like to gamble.

Frequency of Gambling and Amount Bet St. Louis county respondents tended to

gamble more frequently than respondents from other regions. Twelve percent of those in St. Louis county gambled several times a week to nearly every day during the past twelve months. Only 4.2% (the lowest percentage reported) of those in the metro fringe region gambled this frequently (see table 40). Respondents from St. Louis county also tended to bet more in a single day than the other respondents, with 9.6% betting \$100 or more in a single day. Clay county respondents also had a relatively high percentage (9.1%) of respondents who bet \$100 or more per day. In contrast, none of the metro fringe respondents reported betting \$100 or more in a single day (see table 41).

Won More Than Lost or Lost More Than Won When asked if they felt they had won more than they lost or lost more than they won during the past year, a high percentage (81.8%) of Clay county respondents reported that they had lost more than they won. There was not much variation among the other regions. The lowest percentage of respondents who reported losing more than winning was in the metro fringe area (52.1%) (see table 42).

Largest Wins and Losses Respondents in St. Louis County reported the largest winnings in a single day in the past year. Over half indicated that they had won \$100 or more in a single day. The metro core region had the lowest percentage, with only 37.0% reporting they had won \$100 or more in a single day during the past twelve months (see table 43). Clay county respondents tended to have larger losses than the other respondents. Twenty-three percent reported losing \$100 or more in a single day in the past twelve months, compared to only 13.1% of metro core respondents who had lost \$100 or more in a single day (see table 44).

Reasons for Betting There were some regional differences in the reasons why

respondents like to bet. A higher percentage of respondents in the metro core region (22.6%) gave the reason "it's fun" than other respondents, 9.1% in Clay county being the lowest percentage. The metro fringe respondents listed "like the challenge" at a higher rate than the other respondents. Thirteen percent of this group bet for the challenge, while only 2.4% (the lowest percentage) of metro core respondents listed this as a reason for betting. Respondents in St. Louis county like to bet as a form of entertainment at a higher percentage than the other respondents. Thirteen percent of the St. Louis county respondents liked to bet for entertainment, while only 4.5% (the lowest percentage) of Clay county respondents liked to bet for this reason (see tables 45-47).

Feel Excitement When Gambling The highest percentage of respondents who strongly agreed that they feel excitement when they gamble were in the metro fringe region. Thirty percent of the metro fringe respondents feel excitement, compared to 14.3% of Clay county, the region with the lowest percentage of respondents who feel excitement when they gamble (see table 48).

Would Not Bet If They Had Enough Money Only 8.3% of the metro core respondents indicated they strongly agreed they would not bet if they had enough money. This is compared with 17.1% of the St. Louis county respondents, who gave the second lowest percentage. The highest percentage (20.8%) of respondents who thought they would not bet if they had enough money lived in the metro fringe region (see table 49).

Bet if Others Do Forty-one percent of the respondents in Clay county strongly agreed they were more likely to bet if others do. This was the highest percentage reported. The lowest percentage was given by St. Louis county respondents, where only 22.6% strongly

agreed with the statement (see table 50).

Bet to Have a Good Time Metro fringe respondents were the most likely to strongly agree with the statement, "I bet to have a good time." Forty-four percent of this group indicated that they strongly agreed. Metro core respondents were the least likely to bet to have a good time, with 31.0% indicating they strongly agree with the statement (see table 51).

Like to Gamble Alone None of the respondents in Clay county strongly agreed that they like to gamble alone. There was little variation in the other three regions, with St. Louis county having the highest percentage (7.3%) of respondents strongly agreeing with the statement (see table 52).

Gamble Because it is Challenging There was also little variation in the percentage of respondents who strongly agreed that they gamble because it is challenging to them. One-fourth of the respondents in both the metro core and metro fringe regions reported they gamble because it is challenging. These were the lowest percentages given. Clay county had the highest percentage, with 31.8% indicating they strongly agree with the statement (see table 53).

Gambling is an Important Part of Social Life A low percentage of the total sample indicated that betting is an important part of their social lives. None of the respondents from Clay county strongly agreed with the statement, "Betting and playing games of chance are an important part of my social life," and only 2.4% and 2.1% of the respondents in St. Louis county and the metro fringe regions reported strong agreement, respectively. The highest percentage (7.1%) of respondents who strongly agreed with the statement were in
the metro core region (see table 54).

Ever Had a Problem with Gambling Next, all respondents were asked if they felt like they had ever had a problem with gambling. This question was designed to identify those respondents who may have had a problem with gambling but has not bet money in the past year. There was little variation in the percentages reported by the different geographical regions, all being below 1.0%. The lowest percentage of respondents who felt like they had ever had a problem with gambling was in St. Louis county (0.2%). The highest percentage was in Clay county, where 0.8% of the respondents felt they had had a problem (see table 55).

## (note - All respondents were asked the following questions.)

## Geographical Differences in MN Lottery Scratch Tab Participation

Minnesota Lottery Scratch Tabs The Minnesota Lottery scratch tabs were started on April 17, 1990. Close to half of all respondents said they had purchased a Minnesota lottery scratch tab, with little variation between the geographical regions. The highest percentage (54.6%) of respondents who had bought a lottery scratch tab was in the metro fringe region. The lowest percentage was reported in Clay county, where 50.0% had purchased a scratch tab (see table 56).

Amount Spent on Scratch Tabs Of those who had purchased Minnesota lottery scratch tabs, respondents in St. Louis county and the metro core regions tended to spend slightly more on them than respondents in the other regions, with 5.6% and 5.5% of them spending \$50 or more, respectively. The respondents in the metro fringe region had the

lowest percentage (2.0%) of respondents spending \$50 or more (see table 57).

Plans to Purchase MN Lottery Scratch Tabs the Following Month There was little variation between the geographical regions in the percentage of respondents who planned to purchase Minnesota lottery scratch tabs in the next month. The highest percentage (46.2%) was reported in St. Louis county, and the lowest percentage (42.1%) was reported in Clay county (see table 58). However, Clay county had the highest percentage (3.8%) of respondents who planned to spend \$50 or more on the Minnesota lottery in the next month. The metro fringe region had the lowest percentage (1.2%) of respondents who planned to spend \$50 or more in the next month (see table 59).

Plans to Purchase MN Lottery Tickets in the Fall When asked if they planned to purchase Minnesota lottery tickets in the Fall of 1990, the metro fringe region had the highest percentage (56.8%) of respondents who indicated they did plan to buy lottery tickets and the lowest percentage (2.6%) who reported that it would depend on the size of the prize. The region with the lowest percentage (46.8%) of respondents who plan to buy lottery tickets in the fall was Clay county. The metro core region had the highest percentage (4.3%) of respondents who indicated that their purchases of Minnesota lottery tickets in the fall would depend on the size of the prize being offered (see table 60).

Size of Prize Needed to Interest Them Respondents were then asked what size of cash prize was needed to interest them in buying Minnesota lottery tickets. Sixteen percent of St. Louis county respondents reported it would take \$1 million or more to interest them, whereas only 10.5% of Clay county respondents indicated it would take \$1 million or more to interest them. These represent the highest and lowest percentages reported, respectively

(see table 61).

Other Household Members Tables 63 through 79 contain information on demographic characteristics and gambling patterns of household members other than the respondent. No order is implied in the numerical designation given to other household members other than the sequence that the respondent used in giving the interviewer information.

Finally, respondents were asked a series of questions to further characterize them, including education, ethnicity, work status, marital status and family, household income, and community type of residence.

Education Respondents in metro core tended to have more education than respondents in other regions. Thirty-three percent of metro core respondents had a college degree or advanced degree, and only 35.0% were high school graduates or had not graduated from high school. Respondents in the metro fringe region tended to have less education than respondents in other regions. Metro fringe had the lowest percentage (21.2%) of respondents with a college degree or advanced degree and the highest percentage (45.1%) of respondents who were high school graduates or had not graduated from high school (see table 80).

**Ethnicity** Only 4.48% of all respondents were non-white. The metro core region had the highest percentage (6.3%) of non-whites, including the highest percentage (2.8%) of blacks. St. Louis county had the lowest percentage (2.4%) of non-whites (see table 81).

Current Working Status Seventy-one percent of all respondents were currently working for pay, and there was little variation between the geographic regions. St. Louis county reported the lowest percentage (66.7%) of respondents who were currently working for pay, and respondents in the metro core region reported the highest percentage (74.5%) (see table 82). The majority (53.8%) of those respondents who were currently working for pay in Clay county were employed as clerical workers, administrative support, sales persons, or technicians. The lowest percentage (40.6%) of respondents employed in these fields were in the metro fringe region. The highest percentage of respondents employed as professionals, administrators, or executives were in the metro core region, where 24.7% held such positions. The lowest percentage (15.4%) of professionals, administrators, and executives were in Clay county. Metro core had the lowest percentage (25.0%) of respondents employed in crafts, trades, factory, service, or labor positions. Metro fringe had the highest percentage (37.8%) employed in these areas (see table 83).

For those respondents not currently working, St. Louis county had the highest percentage (41.3%) of people who identified themselves as homemakers, and metro fringe had the lowest percentage (30.0%) of homemakers. The highest percentage of retired or disabled persons were identified in the metro fringe region, where 58.0% of non-working respondents reported being retired or disabled. Clay county had the lowest percentage (32.4%) of retired or disabled respondents. Clay county had a significantly higher percentage of students, with 24.3% of those non-working respondents identified as students. Metro fringe had the lowest percentage (4.0%) of students (see table 84).

Marital Status Clay county had the lowest percentage of people who were living with someone (1.6%) or separated (0.8%) compared to the other regions. The highest percentage (6.1%) of respondents who were living with someone was in the metro core

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region. The highest percentage (2.6%) of respondents who reported being separated was in the metro fringe region. Clay county had the highest percentage (28.1%) of respondents who had never been married. The lowest percentage was in the metro fringe region, where 14.5% indicated they had never been married. The highest percentage (63.2%) of married respondents were in the metro fringe region, and the lowest percentage was in the metro core region, where 51.4% reported they were married (see table 85).

Current Working Status of Partners Respondents were also asked if their partners were currently working for pay. There was little variation between the geographic regions, with the majority of partners currently working. The highest percentage (77.1%) of working partners was reported in the metro fringe region. Respondents in St. Louis county had the lowest percentage (70.1%) of partners who were currently working for pay (see table 86).

Metro core respondents reported the highest percentages of partners working as: 1) professionals, administrators, or executives; and 2) clerical, administrative support, sales persons, or technicians. Clay county reported the lowest percentage (19.6%) of partners working as professionals, administrators, or executives. St. Louis county reported the lowest percentage (38.4%) of partners working as clerical workers, administrative support, sales persons, or technicians. Respondents in the metro core region had the lowest percentage (21.5%) of partners employed in crafts, trades, factory, service, or labor jobs, while St. Louis county reported the highest percentage (36.6%) of partners employed in these areas (see table 87).

Metro fringe respondents reported the highest percentage (63.3%) of non-paid partners who were homemakers, while St. Louis county reported the lowest percentage (34.3%) of homemakers. Metro core respondents had the highest percentage of retired or disabled partners, with 53.4% of non-paid partners identified as retired or disabled. The lowest percentage (33.3%) of retired or disabled partners was in the metro fringe region. St. Louis county respondents reported 6.1% of its non-paid partners as students. Neither the metro core nor the Clay county regions identified any students (see table 88).

Children in the Household The highest percentage of households with children under the age of 18 living at home was in the metro fringe region, where 47.4% of the respondents reported having children in their home. Metro core had the lowest percentage (31.1%) of respondents with children living in the household (see table 89). The metro core respondents who did have children in the home also tended to have fewer children than respondents in other regions. Only 17.3% of the metro core respondents had three or more children, compared to 25.5% of St. Louis county respondents, where the highest percentage was reported (see table 90).

Income Respondents in Clay and St. Louis counties tended to be less affluent than respondents in the metro core and metro fringe regions. Sixty three percent and 62.1% of metro core and metro fringe respondents earned total yearly household incomes greater than \$30,000, respectively; whereas only 43.7% and 42.9% of Clay county and St. Louis county respondents earned total yearly household incomes greater than \$30,000, respectively (see table 91).

**Community Type** The highest percent of metro core respondents characterized their community as a suburb of a large city. Also, a significant number of metro core respondents typed their community as a large city of 50,000 or more people. The majority of metro

fringe respondents also characterized their community as a suburb of a large city. The majority of Clay county respondents considered their community a small city with a population between 10,000 and 50,000. The highest percentage of St. Louis county respondents characterized their community as a large city with a population greater than 50,000 (see table 92).

## **Summary**

The findings of this report are presented in the "Research Highlights" at the beginning of the report. It must be kept in mind that the purpose of this report is descriptive and is to summarize the questions from the gambling survey carried out in May and June of 1990. Further analysis of these data is anticipated.

It must also be remembered that this survey was designed as a benchmark so that trends in gambling prevalence and gambling problem prevalence may be determined. Does increased availability of gambling opportunity lead to an increased gambling on the part of the general public? Does increased availability of gambling opportunity lead to increases in problem gambling, potential pathological gambling and probable pathological gambling? These are not questions that are answerable from the present data but will require subsequent surveys in order to establish trends in gambling behavior and gambling problems.





## Table 2a: Age, Sex, and Ethnicity by Gambler Group

	Total Sample %	Non- Bettor %	Gambler With No Problem %	Problem Gambler %	Pot./ Prob. Path. %
<u>Age</u>	(n=1243)	(n=456)	(n=681)	(n=88)	(n=19)
18-24	10.5	9.6	10.9	11.5	15.8
25-34	25.4	18.6	29.2	33.3	21.1
35-44	24.8	25.2	24.4	25.3	21.1
45-54	14.7	15.1	13.8	18.4	15.8
<u>55-74</u>	<u>24.6</u>	<u>31.4</u>	<u>21.7</u>	<u>11.5</u>	<u>26.3</u>
Total	100.0	100.0	100.0	100.0	100.0
<u>Sex</u>	(n=1251)	(n=460)	(n=684)	(n=88)	(n=19)
Male	43.4	37.0	45.9	53.5	63.2
<u>Female</u>	<u>56.6</u>	<u>63.0</u>	<u>54.1</u>	<u>46.6</u>	<u>36.8</u>
Total	100.0	100.0	100.0	100.0	100.0
<u>Ethnicity</u>	(n=1251)	(n=460)	(n=684)	(n=88)	$(n=19) \\ 5.3 \\ 0.0 \\ 5.3 \\ 0.0 \\ 89.5 \\ 0.0 \\ 100.0 $
American Indian	1.2	0.7	1.3	2.3	
Asian	0.6	0.9	0.3	1.1	
Black	1.4	0.7	1.6	3.4	
Hispanic	0.7	0.4	0.9	1.1	
White	95.4	96.5	95.3	92.0	
<u>Other</u>	<u>0.6</u>	<u>0.7</u>	<u>0.6</u>	<u>0.0</u>	
Total	100.0	100.0	100.0	100.0	

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Table 2b: Highest Year of School, Current Working Status, and Income by Gambler Group

		Gambler		Pot./
Total	Non-	With No	Problem	Prob.
Sample	Bettor	Problem	Gambler	Path.
%	%	%	8	20

<u>Hiqhest Year of Sch</u>	<u>ool Comple</u>	<u>ted</u>			
	(n=1251)	(n=460)	(n=683)	(n=88)	(n=19)
<high school<="" td=""><td>6.7</td><td>7.2</td><td>6.1</td><td>9.1</td><td>5.3</td></high>	6.7	7.2	6.1	9.1	5.3
H.S. grad.	32.6	29.3	33.4	43.2	36.8
Voc/business	10.6	8.7	11.7	9.1	21.1
Some college	24.6	24.2	24.7	25.0	26.3
College degree	18.8	21.6	18.4	10.2	5.3
<u>Advanced degree</u>	6.7	9.0	5.6	3.4	<u> </u>
Total	100.0	100.0	100.0	100.0	100.0

<u>Currently</u>	Working	<u>for Pay</u>				
		(n=1251)	(n=460)	(n=684)	(n=88)	(n=19)
Yes		71.0	62.6	75.3	80.7	73.7
No		29.0	37.4	_24.7	19.3	26.3
Total		100.0	100.0	100.0	100.0	100.0

<u>Total Yearly Income</u>					
	(n=1234)	(n=453)	(n=676)	(n=86)	(n=19)
<\$15,000	17.5	20.9	16.4	11.4	5.3
\$15,001-30,000	28.9	30.2	27.3	33.0	36.8
\$30,001-45,000	27.1	24.8	28.7	26.1	31.6
>\$45,000	25.1	22.6	26.5	27.3	26.3
Total	100.0	100.0	100.0	100.0	100.0

Gambier	group				
	Total Sample %	Non- Bettor %	Gambler With No Problem %	Problem Gambler %	Pot./ Prob. Path. %
<u>Marital Status</u>	(n=1249)	(n=459)	(n=683)	(n=88)	(n=19)
Married	57.4	61.2	56.5	47.7	42.1
Live w/ someone	4.9	2.6	5.4	10.2	15.8
Separated	2.2	2.0	2.0	4.5	0.0
Divorced	10.8	9.8	11.9	8.0	10.5
Widowed	6.3	7.0	6.1	4.5	5.3
<u>Never married</u>	<u>18.4</u>	<u>17.4</u>	<u>18.0</u>	<u>25.0</u>	<u>26.3</u>
Total	100.0	100.0	100.0	100.0	100.0
<u>Children Under Age</u> Yes <u>No</u> Total	<u>18 Living</u> (n=1251) 37.0 <u>63.0</u> 100.0	<u>in Home</u> (n=460) 36.1 <u>63.9</u> 100.0	(n=684) 38.3 <u>61.7</u> 100.0	(n=88) 36.4 <u>63.6</u> 100.0	(n=19) 15.8 <u>84.2</u> 100.0
<u>Region</u>	(n=1251)	(n=460)	(n=684)	(n=88)	(n=19)
Metro fringe	15.5	15.0	15.4	21.6	5.3
Metro core	34.2	33.5	35.8	22.7	42.1
Clay county	10.2	11.7	9.2	10.2	10.5
<u>St. Louis county</u>	<u>40.1</u>	<u>39.8</u>	<u>39.6</u>	<u>45.5</u>	<u>42.1</u>
Total	100.0	100.0	100.0	100.0	100.0
<u>Community Type</u>	(n=1250)	(n=460)	(n=684)	(n=87)	(n=19)
Large city	36.5	34.8	36.7	39.1	57.9
Suburb	25.8	27.4	25.3	23.0	15.8
Small city	15.5	16.5	15.4	13.8	5.3
<u>Small town/rural</u>	<u>22.2</u>	<u>21.3</u>	<u>22.7</u>	<u>24.1</u>	<u>21.1</u>
Total	100.0	100.0	100.0	100.0	100.0

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Table 2c: Marital Status, Children, Region, and Community Type by Gambler Group

# Table 3a: 1989 Center for Survey Research Gambling Participation by Geographic Region of Minnesota

	N=17 North-	N=38 North-	N=100	N=41 South-	N=56 South-	N=311	N=398
	west	east	Central	west	east	Metro	Total
Bet money in the last year	84.8	73.7	62.5	67.1	70.3	72.7	70.7
Rank order of percent betting	1	2	6	5	4	3	Table

Table 3b: Regional Percentages in the Sample and MN Population

	Estimated % of MN <u>Population*</u>	% of <u>Sample</u>
Metro core	33.96%	34.13%
Metro fringe	16.71%	15.51%
Clay county	1.15%	10.20%
St. Louis county	4.64%	40.1%

\* Adapted from <u>Minnesota Population and Household Estimates 1988</u>, Office of State Demographer, Minnesota State Planning Agency, August, 1989.

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	8	f	8	f	00	f	00	f
Yes	344	80.6	148	76.3	92	71.9	389	77.5	973
No	83	19.4	46	23.7	36	28.1	113	22.5	278
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

Table 4: Ever Bet Money (by Geographic Region)

Table 5: Bet Money in the Past Year (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	010	f	olo	f	00	f	00	f
Yes	272	79.1	125	84.5	73	79.3	319	82.0	789
No	72	20.9	23	15.5	19	20.7	70	18.0	184
Total	344	100.0	148	100.0	92	100.0	389	100.0	973

Table 6: Played Bingo for Money in the Past Twelve Months (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	80	f	010	f	0%	f
Yes	44	16.2	20	16.0	23	31.5	68	21.3	155
No	228	83.8	105	84.0	50	68.5	251	78.7	634
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 7: Played Bingo for Money in the Past Month (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	%	f	00	f	010	f
Yes	8	18.2	4	20.0	9	29.1	22	32.4	43
No	36	81.8	16	80.0	14	60.9	46	67.6	112
Total	44	100.0	20	100.0	23	100.0	68	100.0	155

Table	8:	Amount	Spent	Playing	Bingo	in	$\mathtt{the}$	Past	Month	(by
		Geographi	c Regio	on)						

	M (	letro Core	M F	letro ringe	Clay County		L Co	St. ouis ounty	Total
1	f	90	f	olo	f	010	f	%	f
\$1-19	6	75.0	1	25.0	2	22.2	6	28.6	15
\$20-49	0	0.0	3	75.0	2	22.2	5	23.8	10
\$50-99	2	25.0	0	0.0	2	22.2	4	19.0	8
\$100-199	0	0.0	0	0.0	2	22.2	2	9.5	4
\$200-499	0	0.0	0	0.0	0	0.0	4	19.0	4
\$1000 or more	0	0.0	0	0.0	1	11.1	0	0.0	1
Total	8	100.0	4	100.0	9	100.0	21	100.0	42

Table 9: Played Pull Tabs for Money in the Past Twelve Months (by Geographic Region)

	Metro	o Core	Metro Fringe		Clay County		St. Cou	Total	
	f	%	f	00	f	8	f	%	f
Yes	115	42.3	59	47.2	33	45.2	157	49.2	364
No	157	57.7	66	52.8	40	54.8	162	50.8	425
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 10: Played Pull Tabs for Money in the Past Month (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Con	Total	
	f	%	f	%	f	<i>%</i>	f	00	f
Yes	45	39.1	26	44.1	14	42.4	73	46.5	158
No	70	60.9	33	55.9	19	57.6	84	53.5	206
Total	115	100.0	59	100.0	33	100.0	157	100.0	364

	Metr	o Core	Me Fr	etro 'inge	C	Clay ounty	st. Co	Louis ounty	Total
	f	0/0	f	%	f	%	f	0/0	f
\$1-19	23	52.3	13	52.0	6	42.9	27	38.0	69
\$20-49	15	34.1	9	36.0	4	28.6	26	36.6	54
\$50-99	1	2.3	1	4.0	3	21.4	8	11.3	13
\$100-199	3	6.8	2	8.0	0	0.0	3	4.2	8
\$200-499	2	4.5	0	0.0	0	0.0	4	5.6	6
\$500-999	0	0.0	0	0.0	1	7.1	2	2.8	3
\$1000 or more	0	0.0	0	0.0	0	0.0	1	1.4	1
Total	44	100.0	25	100.0	14	100.0	71	100.0	154

Table 11: Amount Spent Playing Pull Tabs in the Past Month (by Geographic Region)

Table 12: Bet Money at a Racetrack in the Past Twelve Months (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Cou	Total	
-	f	%	f	8	f	00	f	%	f
Yes	58	21.3	16	12.8	4	5.5	21	6.6	99
No	214	78.7	109	87.2	69	94.5	298	93.4	690
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 13: Bet Money at a Racetrack in the Past Month (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Co	Total	
	f	00	f	<i>v</i> o	f	00	f	olo	f
Yes	11	19.0	4	25.0	0	0.0	4	19.0	19
No	47	81.0	12	75.0	4	100.0	17	81.0	80
Total	58	100.0	16	100.0	4	100.0	211	100.0	99

Table 14: Amount Spent at a Racetrack in the Past Month (by Geographic Region)

	Metr	o Core	M Fr	etro 'inge	С	Clay ounty	st. Co	Louis unty	Total
	f	%	f	ojo	f	olo	f	%	f
\$1-19	0	0.0	2	50.0	0	0.0	1	25.0	3
\$20-49	3	27.3	1	25.0	0	0.0	1	25.0	5
\$50-99	4.	36.4	1	25.0	0	0.0	0	0.0	5
\$100-199	1	9.1	0	0.0	0	0.0	2	50.0	3
\$200-499	2	18.2	0	0.0	0	0.0	0	0.0	2
\$500-999	1	9.1	0	0.0	0	0.0	0	0.0	1
Total	11	100.0	4	100.0	0	100.0	4	100.0	19

Table 15: Bought a Lottery Ticket Outside of Minnesota in the Past Twelve Months (by Geographic Region)

	Metro	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	00	f	%	f
Yes	91	33.5	49	39.2	10	13.7	128	40.1	278
No	181	66.5	76	60.8	63	86.3	191	59.9	511
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 16: Bought a Lottery Ticket Outside of Minnesota in the Past Month (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		St. Co	Total	
	f	%	f	%	f	%	f	%	f
Yes	30	33.0	23	46.9	5	50.0	64	50.0	122
No	61	67.0	26	53.1	5	50.0	64	50.0	156
Total	91	100.0	49	100.0	10	100.0	128	100.0	278

	Metr	Metro Core		Metro Fringe		Clay County		Louis ounty	Total
	f	%	f	olo	f	olo	f	olo	f
\$1-19	19	63.3	14	60.9	3	60.0	54	84.4	90
\$20-49	11	36.7	8	34.8	2	40.0	6	9.4	27
\$50 <b>-9</b> 9	0	0.0	1	4.3	0	0.0	3	4.7	4
\$100-199	0	0.0	0	0.0	0	0.0	1	1.6	1
Total	30	100.0	23	100.0	5	100.0	64	100.0	122

Table 17: Amount Spent on Lottery Tickets Outside of Minnesota in the Past Month (by Geographic Region)

Table 18: Bet on the Outcome of a Sporting Event in the Past Twelve Months (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Cou	Total	
	f	8	f	00	f	olo	f	%	f
Yes	67	24.6	36	28.8	19	26.0	63	19.7	185
No	205	75.4	89	71.2	54	74.0	256	80.3	604
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 19: Bet on the Outcome of a Sporting Event in the Past Month (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Coi	Total	
	f	00	f	%	f	%	f	%	f
Yes	9	13.4	2	5.6	4	21.1	12	19.0	27
No	58	86.6	34	94.4	15	78.9	51	81.0	158
Total	67	100.0	36	100.0	19	100.0	63	100.0	185

Table	20:	Amount	Bet	on	Sporting	Events	in	the	Past	Month	(by
		Geograph:	ic Re	egic	on)						

	Metr	Metro Core		Metro Fringe		Clay County		Louis unty	Total
	f	%	f	00	f	%	f	8	f
\$1-19	6	66.7	2	100.0	3	75.0	5	45.5	16
\$20-49	2	22.2	0	0.0	1	25.0	2	18.2	5
\$50-99	0	0.0	0	0.0	0	0.0	0	0.0	0
\$100-199	1	11.1	0	0.0	0	0.0	2	18.2	3
\$200-499	0	0.0	0	0.0	0	0.0	2	18.2	2
Total	9	100.0	2	100.0	4	100.0	11	100.0	26

Table 21: Left Minnesota to Play Casino Games in the Past Twelve Months (by Geographic Region)

	Metro	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	00	f	%	f	%	f
Yes	36	13.2	11	8.8	18	24.7	42	13.2	107
No	236	86.8	114	91.2	55	75.3	277	86.8	682
Total	272	100.0	125	100.0	73	100.0	319	100.0	789

Table 22: Left Minnesota to Play Casino Games in the Past Month (by Geographic Region)

	Meti	co Core	Metro Fringe		Clay County		St. Louis County		Total
	f	8	f	%	f	%	f	%	f
Yes	5	13.9	3	27.3	8	44.4	7	16.7	23
No	31	86.1	8	72.7	10	55.6	35	83.3	84
Total	36	100.0	11	100.0	18	100.0	42	100.0	107

	Metr	o Core	Me Fr	etro inge	C	Clay ounty	St. Cou	Louis inty	Total
	f	%	f	%	f	%	f	%	f
\$1-19	1	20.0	0	0.0	0	0.0	1	14.3	2
\$20-49	1	20.0	1	33.3	3	37.5	0	0.0	5
\$50-99	1	20.0	1	33.3	2	25.0	0	0.0	4
\$100-199	0	0.0	0	0.0	1	12.5	1	14.3	2
\$200-499	1	20.0	1	33.3	2	25.0	3	42.9	7
\$500-999	0	0.0	0	0.0	0	0.0	2	28.6	2
\$1000 or more	1	20.0	0	0.0	0	0.0	0	0.0	1
Total	5	100.0	3	100.0	8	100.0	7	100.0	23

Table 23: Amount Spent at Casinos Outside of Minnesota in the Past Month (by Geographic Region)

Table 24: Betting Has Been Criticized in the Past Twelve Months (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		st. Co	Total	
	f	8	f	00	f	%	f	%	f
Yes	8	9.5	1	2.1	0	0.0	9	7.2	18
No	76	90.5	47	97.9	22	100.0	116	92.8	261
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 25: Has Problems Which Were Caused by Betting (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	<i>ბ</i> ი	f	00 00	f	%	f	00	f
Yes	3	3.6	0	0.0	2	9.1	6	4.8	11
No	81	96.4	48	100.0	20	90.9	119	95.2	268
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 26: Goes Back to Try to Win Back Lost Money (by Geographic Region)

	Meti	Metro Core		etro ringe	Clay County		St. Louis County		Total
	f	00	f	%	f	%	f	olo	f
Never	45	53.6	24	50.0	8	36.4	67	53.6	144
Some of the Time	35	41.7	21	43.8	12	54.5	51	40.8	119
Most of the Time	4	4.8	2	4.2	1	4.5	7	5.6	14
Every Time	0	0.0	1	2.1	1	4.5	0	0.0	2
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 27: Has Gambled More Than Intended To (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Coi	Total	
	f	8	f	&	f	8	f	8	f
Yes	14	16.7	11	22.9	8	36.4	32	25.6	65
No	70	83.3	37	77.1	14	63.6	93	74.4	214
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 28: Would Like to Stop Gambling but Does Not Feel That She/He Could (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Coi	Total	
	f	8	f	%	f	80	f	%	f
Yes	4	4.8	0	0.0	1	4.5	3	2.4	8
No	80	95.2	48	100.0	21	95.5	121	97.6	270
Total	84	100.0	48	100.0	22	100.0	124	100.0	278

Table 29: Claimed to be Winning When Really Was Not Winning (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		St. Louis County		Total
	f	f %		8	f %		f	%	f
Yes	5	6.0	2	4.2	0	0.0	2	1.6	9
No	79	94.0	46	95.8	22	100.0	123	98.4	270
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 30: Felt Bad About Her/His Own Gambling in the Past Twelve Months (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Cor	Total	
	f	00	f	f %		8	f	olo	f
Yes	13	15.5	5	10.4	4	18.2	25	20.0	47
No	71	84.5	43	89.6	18	81.8	100	80.0	232
Total	84	100.0	48	48 100.0		100.0	125	100.0	279

Table	31:	Has H	idden	I.C	).U.s	s, Lo	ottery	Tickets	, etc.	From
	Im	portant	Peop	le	in	the	Past	Twelve	Months	(by
	Ge	ographic	: Regio	on)						

	Metr	o Core	Metro Fringe		Clay	County	St. Cor	Total	
	f	00	f % f %		f	%	f		
Yes	5	6.0	0	0.0	0	0.0	2	1.6	7
No	79	94.0	48	100.0	22	100.0	123	98.4	272
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 32: Has Argued with Close People About How She/He Has Handled Money in the Past Twelve Months (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Cor	Total	
	f	%	f	f %		8	f	%	f
Yes	11	13.1	3	6.3	2	9.1	21	16.8	37
No	73	86.9	45	93.8	20	90.9	104	83.2	242
Total	84	100.0	48	48 100.0		100.0	125	100.0	279

Table 33: Money Arguments Have Centered on Betting (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Cou	Total	
	f	%	f	f %		8	f	%	f
Yes	4	36.4	0	0.0	0	0.0	5	23.8	9
No	7	63.6	3	100.0	2	100.0	16	76.2	28
Total	11	100.0	3	3 100.0		100.0	21	100.0	37

Table 34: Has Borrowed Money to Bet or Cover Gambling Debts in the Past Twelve Months (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay	County	St. Cou	Total	
	f	%	f	00	f	%	f	%	f
Yes	2	2.4	1	2.1	1	4.5	4	3.2	8
No	82	97.6	47	97.9	21	95.5	121	96.8	271
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

	Metr	co Core	Metro Fringe		C	Clay ounty	St. Louis County		Total
	f	%	f	00	f	8	f	%	f
Immediate Family	0	0.0	0	0.0	0	0.0	2	50.0	2
Other Relatives	0	0.0	1	100.0	0	0.0	1	25.0	2
Friends	1	50.0	0	0.0	1	100.0	1	25.0	3
Banks	1	50.0	0	0.0	0	0.0	0	0.0	1
Total	2	100.0	1	100.0	1	100.0	4	100.0	8

Table 35: Where Respondent Borrows Money From First (by Geographic Region)

	Metr	o Core	M F:	letro ringe	Clay County		St. Louis County		Total
	f	%	f	8	f	00	f	o o	f
Immediate Family	1	50.0	0	0.0	0	0.0	0	0.0	1
Credit Cards	0	0.0	0	0.0	0	0.0	1	25.0	1
Banks	0	0.0	0	0.0	0	0.0	1	25.0	1
No Second Source Given	1	50.0	1	100.0	1	100.0	2	50.0	5
Total	2	100.0	1	100.0	1	100.0	4	100.0	8

Table 36: Where Respondent Borrows Money From Second (by Geographic Region)

Table 37: Where Respondent Borrows Money From Third (by Geographic Region)

	Metr	o Core	M F:	Metro Fringe		Clay County		Louis ounty	Total
	f	%	f	%	f	%	f	%	f
Friends	1	50.0	0	0.0	0	0.0	0	0.0	1
No Third Source Given	1	50.0	1	100.0	1	100.0	4	100. 0	7
Total	2	100.0	1	100.0	1	100.0	4	100.0	8

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Table 38: Has Lost Time From Work or School Due to Betting Activities in the Past Twelve Months (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay	County	st. Co	Total	
	f	%	f	f %		<b>%</b>	£	%	f
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0
No	84	100.0	48	100.0	22	100.0	125	100.0	279
Total	84	100.0	48	48 100.0		100.0	125	100.0	279

Table 39: Has Borrowed Money From Someone and Not Paid Them Back Because of Gambling (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay	County	St. Co	Total	
	f	%	f	f %		%	f	%	f
Yes	2	2.4	0	0.0	0	0.0	0	0.0	2
No	82	97.6	48	100.0	22	100.0	125	100.0	277
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

	Metr	o Core	M F1	etro ringe	Co	lay ounty	st. Co	Louis unty	Total
	f	ş	f	%	f	8	f	%	f
Nearly Every Day	0	0.0	1	2.1	1	4.5	3	2.4	5
Several Times a Week	8	9.5	1	2.1	1	4.5	12	9.6	22
Several Times a Month	24	28.6	9	18.8	8	36.4	47	37.6	88
About Once a Month	20	23.8	17	35.4	7	31.8	25	20.0	69
Less Than Monthly	32	38.1	20	41.7	5	22.7	38	30.4	95
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 40: Frequency of Gambling in the Past Twelve Months (by Geographic Region)

Table 41: Amount Usually Bet in a Single Day During the Past Twelve Months (by Geographic Region)

	Metro Core		Metro Fringe		C	Clay Sunty	St. Coi	Total	
	f	%	f	%	f	20	f	%	f
\$1-19	60	72.3	31	64.6	13	59.1	87	71.3	191
\$20-49	14	16.9	14	29.2	5	22.7	18	14.8	51
\$50-99	6	7.2	3	6.3	2	9.1	5	4.1	16
\$100-199	2	2.4	0	0.0	2	9.1	7	5.7	11
\$200-499	1	1.2	0	0.0	0	0.0	3	2.5	4
\$500-999	0	0.0	0	0.0	0	0.0	2	1.6	2
Total	83	100.0	48	100.0	22	100.0	122	100.0	275

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	00	f	010	f
Won More Than Lost	23	27.4	14	29.2	3	13.6	35	28.2	75
Lost More Than Won	53	63.1	25	52.1	18	81.8	69	55.6	165
Broke Even	8	9.5	9	18.8	1	4.5	20	16.1	38
Total	84	100.0	48	100.0	22	100.0	124	100.0	278

Table 42: Won More Than Lost or Lost More Than Won (by Geographic Region)

Table 43: The Largest Amount Won in a Single Day in the Past Twelve Months (by Geographic Region)

	Metro Core		Metro Fringe		√ ( Cc	Clay Dunty	St. Cou	Total	
	f	8	f	%	f	%	f	%	f
\$0 (never won)	5	6.0	4	8.3	0	0.0	8	6.6	17
\$1-19	19	22.6	9	18.8	5	22.7	23	18.9	56
\$20-49	20	23.8	6	12.5	5	22.7	12	9.8	43
\$50-99	9	10.7	8	16.7	2	9.1	13	10.7	32
\$100-199	14	16.7	10	20.8	5	22.7	25	20.5	54
\$200-499	11	13.1	8	16.7	3	13.6	20	16.4	42
\$500-999	3	3.6	3	6.3	1	4.5	12	9.8	19
\$1000 or more	3	3.6	0	0.0	1	4.5	9	7.4	13
Total	84	100.0	48	100.0	22	100.0	122	100.0	276

	Metro Core		Metro Fringe		C	Clay ounty	St. Coi	Total	
	f	%	f	&	f	%	f	%	f
\$0 (never lost)	1	1.2	0	0.0	0	0.0	1	0.8	2
\$1-19	42	50.0	21	43.8	6	27.3	56	46.3	125
\$20-49	18	21.4	13	27.1	9	40.9	23	19.0	63
\$50-99	12	14.3	4	8.3	2	9.1	16	13.2	34
\$100-199	6	7.1	5	10.4	1	4.5	9	7.4	21
\$200-499	4	4.8	5	10.4	4	18.2	6	5.0	19
\$500-999	1	1.2	0	0.0	0	0.0	7	5.8	8
\$1000 or more	0	0.0	0	0.0	0	0.0	3	2.5	3
Total	84	100.0	48	100.0	22	100.0	121	100.0	275

Table 44: Largest Amount Lost in a Single Day in the Past Twelve Months (by Geographic Region)

	Metr	o Core	M Fi	etro ringe	Cc	lay ounty	st. Cor	Louis unty	Total
	f	%	f	%	f	%	f	%	f
It's fun	19	22.6	8	16.7	2	9.1	20	16.0	49
Fun to take a chance and/or risk	16	19.0	8	16.7	4	18.2	25	20.0	53
It's exciting	5	6.0	4	8.3	2	9.1	5	4.0	16
Thrill of winning	2	2.4	2	4.2	1	4.5	6	4.8	11
Form of entertainment	5	6.0	3	6.3	1	4.5	16	12.8	25
Like to win money	9	10.7	7	14.6	4	18.2	12	9.6	32
Nice to get something for little	2	2.4	0	0.0	0	0.0	2	1.6	4
Like to play the odds	0	0.0	0	0.0	0	0.0	1	0.8	1
Like to test my skill/judgment	1	1.2	1	2.1	0	0.0	1	0.8	3
Like the challenge	2	2.4	6	12.5	2	9.1	4	3.2	14
Relaxation	2	2.4	0	0.0	0	0.0	2	1.6	4
Helps with boredom	9	10.7	5	10.4	3	13.6	14	11.2	31
Something different to do	0	0.0	0	0.0	1	4.5	3	2.4	4
It's a social thing	6	7.1	2	4.2	2	9.1	5	4.0	15
Like to compete w/others	0	0.0	0	0.0	0	0.0	2	1.6	2
Peer pressure	1	1.2	0	0.0	0	0.0	0	0.0	1
It's a habit/addicting	0	0.0	1	2.1	0	0.0	1	0.8	2
Professional gambler	0	0.0	0	0.0	0	0.0	2	1.6	2
Mainly gamble	0	0.0	0	0.0	0	0.0	2	1.6	2
Other	5	6.0	1	2.1	0	0.0	2	1.6	8
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 45: First Reason Why Respondent Likes to Bet (by Geographic Region)

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	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	%	f	%	f
It's fun	7	8.3	6	12.5	4	18.2	10	8.0	27
Fun to take a chance and/or risk	9	10.7	6	12.5	0	0.0	13	10.4	28
It's exciting	6	7.1	3	6.3	1	4.5	9	7.2	19
Thrill of winning	5	6.0	2	4.2	1	4.5	9	7.2	17
Form of entertainment	5	6.0	2	4.2	0	0.0	4	3.2	11
Like to win money	6	7.1	1	2.1	1	4.5	6	4.8	14
Nice to get something for little	1	1.2	1	2.1	0	0.0	2	1.6	4
Like to play the odds	2	2.4	2	4.2	1	4.5	0	0.0	5
Like to test my luck	0	0.0	0	0.0	0	0.0	1	0.8	1
Like the challenge	1	1.2	2	4.2	0	0.0	2	1.6	5
Relaxation	1	1.2	1	2.1	0	0.0	0	0.0	2
Helps with boredom	3	3.6	1	2.1	1	4.5	5	4.0	10
Something different to do	1	1.2	0	0.0	0	0.0	1	0.8	2
A social thing	3	3.6	3	6.3	1	4.5	7	5.6	14
Like to compete w/others	1	1.2	2	4.2	0	0.0	1	0.8	4
Peer pressure	2	2.4	0	0.0	0	0.0	0	0.0	2
Mainly gamble	0	0.0	0	0.0	0	0.0	1	0.8	1
Other	1	1.2	0	0.0	0	0.0	1	0.8	2
No 2nd reason given	30	35.7	16	33.3	12	54.5	53	42.4	111
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

# Table 46: Second Reason Why Respondent Likes to Bet (by Geographic Region)

	Metr	o Core	M Ft	Metro Fringe		Clay County		Louis unty	Total
	f	%	f	%	f	%	f	%	f
It's fun	0	0.0	1	2.1	0	0.0	2	1.6	3
Fun to take a chance and/or risk	3	3.6	1	2.1	1	4.5	6	4.8	11
It's exciting	0	0.0	0	0.0	0	0.0	2	1.6	2
Thrill of Winning	2	2.4	0	0.0	0	0.0	4	3.2	6
Form of entertainment	2	2.4	1	2.1	0	0.0	4	3.2	7
Like to win money	1	1.2	0	0.0	0	0.0	3	2.4	4
Nice to get something for little	0	0.0	0	0.0	0	0.0	1	0.8	1
Like to play the odds	3	3.6	1	2.1	0	0.0	0	0.0	4
Like to test my skill/judgment	3	3.6	0	0.0	0	0.0	0	0.0	3
Like to test my luck	0	0.0	1	2.1	1	4.5	1	0.8	3
Like the challenge	0	0.0	0	0.0	0	0.0	1	0.8	1
Helps with boredom	1	1.2	2	4.2	0	0.0	2	1.6	5
A social thing	0	0.0	3	6.3	0	0.0	0	0.0	3
Like to compete w/others	2	2.4	0	0.0	0	0.0	0	0.0	2
Peer pressure	1	1.2	0	0.0	0	0.0	0	0.0	1
It's a habit/addicting	1	1.2	0	0.0	0	0.0	0	0.0	1
Other	1	1.2	0	0.0	0	0.0	0	0.0	1
No 3rd reason given	64	76.2	38	79.2	20	90.9	99	79.2	221
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

# Table 47: Third Reason Why Respondent Likes to Bet (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	8	f	%	f	08	f	%	f
Strongly Agree	19	22.6	15	31.3	3	14.3	29	23.4	66
Somewhat Agree	48	57.1	22	45.8	15	71.4	73	58.9	158
Somewhat Disagree	11	13.1	6	12.5	з	14.3	18	14.5	38
Strongly Disagree	6	7.1	5	10.4	0	0.0	4	3.2	15
Total	84	100.0	48	100.0	21	100.0	124	100.0	277

Table 48: Feels Excitement When Gambling (by Geographic Region)

Table 49: Would Not Bet if She/He Had Enough Money (by Geographic Region)

	Metro Core		F:	Metro Fringe		Clay County		St. Louis County	
	f	00	f	00	f	010	f	%	f
Strongly Agree	7	8.3	10	20.8	4	18.2	21	17.1	42
Somewhat Agree	12	14.3	5	10.4	3	13.6	21	17.1	41
Somewhat Disagree	31	36.9	14	29.2	9	40.9	46	37.4	100
Strongly Disagree	34	40.5	19	39.6	6	27.3	35	28.5	94
Total	84	100.0	48	100.0	22	100.0	123	100.0	277
	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
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	f	%	f	8	f	oło	f	%	f
Strongly Agree	21	25.0	15	31.3	9	40.9	28	22.6	73
Somewhat Agree	29	34.5	16	33.3	5	22.7	33	26.6	83
Somewhat Disagree	16	19.0	9	18.8	5	22.7	22	17.7	52
Strongly Disagree	18	21.4	8	16.7	3	13.6	41	33.1	70
Total	84	100.0	48	100.0	22	100.0	124	100.0	278

Table 50: More Likely To Bet if Others Do (by Geographic Region)

Table 51: Gamble to Have a Good Time (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	oło	f	olo	f	%	' f
Strongly Agree	26	31.0	21	43.8	8	36.4	40	32.3	95
Somewhat Agree	38	45.2	18	37.5	6	27.3	46	37.1	108
Somewhat Disagree	10	11.9	4	8.3	2	9.1	15	12.1	31
Strongly Disagree	10	11.9	5	10.4	6	27.3	23	18.5	44
Total	84	100.0	48	100.0	22	100.0	124	100.0	278

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	8	f	8	f	%	f
Strongly Agree	6	7.2	3	6.3	0	0.0	9	7.3	18
Somewhat Agree	6	7.2	8	16.7	1	4.5	8	6.5	23
Somewhat Disagree	21	25.3	7	14.6	7	31.8	34	27.6	69
Strongly Disagree	50	60.2	30	62.5	14	63.6	72	58.5	166
Total	83	100.0	48	100.0	22	100.0	123	100.0	276

Table 52: Likes to Gamble Alone (by Geographic Region)

Table 53: Gambles Because it is Challenging (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	olo	f	8	f	80	f	%	f
Strongly Agree	21	25.0	12	25.0	7	31.8	32	25.8	72
Somewhat Agree	33	39.3	15	31.3	9	40.9	45	36.3	102
Somewhat Disagree	14	16.7	12	25.0	1	4.5	21	16.9	48
Strongly Disagree	16	19.0	9	18.8	5	22.7	26	21.0	56
Total	84	100.0	48	100.0	22	100.0	124	100.0	278

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
<u></u>	f	<i>%</i>	f	<i>v</i> o	f	00	f	%	f
Strongly Agree	6	7.1	1	2.1	0	0.0	3	2.4	10
Somewhat Agree	9	10.7	3	6.3	3	13.6	15	12.0	30
Somewhat Disagree	18	21.4	10	20.8	l	4.5	21	16.8	50
Strongly Disagree	51	60.7	34	70.8	18	81.8	86	68.8	189
Total	84	100.0	48	100.0	22	100.0	125	100.0	279

Table 54: Betting is an Important Part of Respondent's Social Life (by Geographic Region)

Feels Like She/He Has Ever Had a Problem With Gambling (by Geographic Region) Table 55:

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	olo	f	00	f	00	f	do	f
Yes	2	0.5	1	0.5	1	0.8	1	0.2	5
No	425	99.5	193	99.5	127	99.2	501	99.8	1246
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

Table 56: Has Purchased a Minnesota Lottery Scratch Tab (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	8	f	8	f	8	f	8	f
Yes	217	50.8	106	54.6	64	50.0	272	54.2	659
No	210	49.2	88	45.4	64	50.0	230	45.8	592
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

Table 57: Amount Spent on Minnesota Lottery Tickets (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	00	f	%	f	%	f
\$1-19	161	74.5	78	74.3	49	76.6	194	72.1	482
\$20-49	43	19.9	25	23.8	13	20.3	60	22.3	141
\$50-99	7	3.2	1	1.0	2	3.1	10	37	20
\$100-199	3	1.4	0	0.0	0	0.0	4	1.5	7
\$200-499	2	0.9	1	1.0	0	0.0	1	0.4	4
Total	216	100.0	105	100.0	64	100.0	269	100.0	654

Table 58: Plans to Purchase a Minnesota Lottery Scratch Tab in the Next Month (by Geographic Region)

	Metr	Metro Core		Metro Fringe		Clay County		St. Louis County	
	f	8	f	%	f	%	f	%	f
Yes	177	42.5	81	42.4	53	42.1	224	46.2	535
No	239	57.5	110	57.6	73	57.9	261	53.8	683
Total	416	100.0	191	100.0	126	100.0	485	100.0	1218

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	00	f	%	f	%	f
\$1-19	147	83.5	75	92.6	47	90.4	194	87.8	463
\$20-49	26	14.8	5	6.2	3	5.8	21	9.5	55
\$50-99	1	0.6	1	1.2	2	3.8	3	1.4	7
\$100-199	1	0.6	0	0.0	0	0.0	2	0.9	3
\$200-499	1	0.6	0	0.0	0	0.0	1	0.5	2
Total	176	100.0	81	100.0	52	100.0	221	100.0	530

Table 59: Amount Planning to Spend on Minnesota Lottery Tickets in the Next Month (by Geographic Region)

Table 60: Plans to Purchase Minnesota Lottery Tickets in the Fall of 1990 (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	%	f	8	f	%	f
Yes	202	48.8	108	56.8	58	46.8	227	47.3	595
No	194	46.9	77	40.5	61	49.2	240	50.0	572
It Depends on the Size of the Prize	18	4.3	5	2.6	5	4.0	13	2.7	41
Total	414	100.0	190	100.0	124	100.0	480	100.0	1208

Table 61:Size of Cash Prize Needed to Interest Respondents in<br/>Buying Minnesota Lottery Tickets (by Geographic

Reg	ion)	
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	Metr	o Core	M F:	letro ringe	Cc	Clay Dunty	st. Co	Louis unty	Total
	f	%	f	ક	f	00	f	%	f
No Prize Would Interest Me	154	70.6	63	75.9	42	62.7	176	67.2	435
Less Than \$1 Million	30	13.8	9	10.8	18	26.9	43	16.4	100
\$1 Million up to \$3 Million	19	8.7	6	7.2	5	7.5	31	11.8	61
More Than \$3 Million up to \$5 Million	2	0.9	1	1.2	11	1.5	4	1.5	8
More Than \$5 Million	13	6.0	4	4.8	1	1.5	8	3.1	26
Total	218	100.0	83	100.0	67	100.0	262	100.0	630

Table 62: Number of Adults Residing in the Household (by Geographic Region)

	Metr	o Core	M Fr	Metro Fringe		Clay County		St. Louis County	
-	f	%	f	010	f	00	f	%	f
One	126	29.5	38	19.6	29	22.7	120	23.9	313
Two	243	56.9	128	66.0	68	53.1	314	62.5	753
Three	46	10.8	19	9.8	21	16.4	48	9.6	134
Four	9	2.1	7	3.6	7	5.5	18	3.6	41
Five	2	0.5	1	0.5	2	1.6	2	0.4	7
Six	1	0.2	1	0.5	1	0.8	0	0.0	3
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

	Metr	o Core	Me Fr	etro 'inge	Clay County		St. Louis County		Total
	f	%	f	%	f	%	f	%	f
18-24	39	9.1	15	7.7	28	21.9	49	9.8	131
25-34	122	28.6	61	31.4	26	20.3	109	21.8	318
35-44	101	23.7	54	27.8	25	19.5	129	25.7	309
45-54	59	13.8	28	14.4	18	14.1	77	15.4	182
55-74	106	24.8	36	18.6	31	24.2	137	27.3	310
Total	427	100.0	194	100.0	128	100.0	501	100.0	1250

Table 63: Age of Respondent (by Geographic Region)

Table 64: Sex of Respondent (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	00	f	80	f	%	f
Male	188	44.0	105	54.1	61	47.7	189	37.6	543
Female	239	56.0	89	45.9	67	52.3	313	62.4	708
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

	Metr	o Core	M Fr	Metro Fringe		Clay County		St. Louis County	
	f	%	f	8	f	8	f	%	f
18-24	30	10.0	17	11.0	19	19.0	29	7.6	95
25-34	83	27.6	50	32.2	19	19.0	80	21.0	232
35-44	77	25.6	44	28.4	17	17.0	101	26.5	239
45-54	38	12.6	20	12.9	16	16.0	74	19.4	148
55-74	66	21.9	22	14.2	27	27.0	87	22.8	202
75+	7	2.3	2	1.3	2	2.0	10	2.6	21
Total	301	100.0	155	100.0	100	100.0	381	100.0	937

Table 65: Age of the Second Person in the Household (by Geographic Region)

Table 66: Sex of the Second Person in the Household (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	%	f	%	f	%	f
Male	142	47.2	72	46.5	50	50.0	226	59.2	490
Female	159	52.8	83	53.5	50	50.0	156	40.8	448
Total	301	100.0	155	100.0	100	100.0	382	100.0	938

Table 67: Betting in the Past Twelve Months by the Second Person in the Household (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	08	f	%	f	%	f	%	f
Yes	120	41.1	67	43.8	34	35.1	171	45.0	392
No	172	58.9	86	56.2	63	64.9	209	55.0	530
Total	292	100.0	153	100.0	97	100.0	380	100.0	922

	Metr	co Core	Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	%	f	00	f
18-24	28	48.3	11	39.3	15	48.4	36	53.7	90
25-34	10	17.2	3	10.7	6	19.4	8	11.9	27
35-44	3	5.2	5	17.9	1	3.2	7	10.4	16
45-54	7	12.1	6	21.4	7	22.6	10	14.9	30
55-74	9	15.5	1	3.6	1	3.2	5	7.5	16
75+	1	1.7	2	7.1	1	3.2	1	1.5	5
Total	58	100.0	28	100.0	31	100.0	67	100.0	184

Table 68: Age of the Third Person in the Household (by Geographic Region)

Table 69: Sex of the Third Person in the Household (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	80	f	8	f	00	f	%	f
Male	34	58.6	13	46.4	16	51.6	38	55.9	101
Female	24	41.4	15	53.6	15	48.4	30	44.1	84
Total	58	100.0	28	100.0	31	100.0	68	100.0	185

Table 70: Betting in the Past Twelve Months by the Third Person in the Household (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	00	f	00	f	olo	f
Yes	24	43.6	11	44.0	6	23.1	23	34.8	64
No	31	56.4	14	56.0	20	76.9	43	65.2	108
Total	55	100.0	25	100.0	26	100.0	66	100.0	172

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	00	f	80	f
18-24	6	50.0	5	55.6	4	40.0	8	42.1	23
25-34	2	16.7	0	0.0	1	10.0	1	5.3	4
35-44	0	0.0	1	11.1	2	20.0	1	5.3	4
45-54	4	33.3	3	33.3	3	30.0	5	26.3	15
55-74	0	0.0	0	0.0	0	0.0	3	15.8	3
75+	0	0.0	0	0.0	0	0.0	1	5.3	1
Total	12	100.0	9	100.0	10	100.0	19	100.0	50

Table 71: Age of the Fourth Person in the Household (by Geographic Region)

Table 72: Sex of the Fourth Person in the Household (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	%	f	%	f	%	f
Male	5	41.7	3	33.3	4	40.0	13	65.0	25
Female	7	58.3	6	66.7	6	60.0	7	35.0	26
Total	12	100.0	9	100.0	10	100.0	20	100.0	51

Table 73: Betting in the Past Twelve Months by the Fourth Person in the Household (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	00	f	8	f	80	f
Yes	4	40.0	2	22.2	5	62.5	6	31.6	17
No	6	60.0	7	77.8	3	37.5	13	68.4	29
Total	10	100.0	9	100.0	8	100.0	19	100.0	46

	Metr	co Core	Metro Fringe		Clay County		st. Co	Total	
	f	00	f	010	f	8	f	%	f
18-24	0	0.0	2	100.0	2	66.7	2	100.0	6
25-34	1	33.3	0	0.0	0	0.0	0	0.0	1
35-44	0	0.0	0	0.0	0	0.0	0	0.0	0
45-54	1	33.3	0	0.0	1	33.3	0	0.0	2
55-74	1	33.3	0	0.0	0	0.0	0	0.0	1
Total	3	100.0	2	100.0	3	100.0	2	100.0	10

Table 74: Age of the Fifth Person in the Household (by Geographic Region)

Table 75: Sex of the Fifth Person in the Household (by Geographic Region)

	Metr	co Core	Metro Fringe		Clay County		st. Co	Total	
	f	%	f	%	f	%	f	00	f
Male	1	33.3	1	50.0	2	66.7	1	50.0	5
Female	2	66.7	1	50.0	1	33.3	1	50.0	5
Total	3	100.0	2	100.0	3	100.0	2	100.0	10

Table 76: Betting in the Past Twelve Months by the Fifth Person in the Household (by Geographic Region)

	Metr	o Core	M F1	etro ringe	Cc	Clay Dunty	st. Co	Total	
	f	00	f	f %		00	f	%	f
Yes	1	50.0	0	0.0	2	100.0	1	50.0	• 4
No	1	50.0	2	100.0	0	0.0	1	50.0	4
Total	2	100.0	2	100.0	2	100.0	2	100.0	8

Table 77: Age of Sixth Person in the Household (by Geographic Region)

	Metr	co Core	F:	Metro Fringe		Clay County		St. Louis County	
	f	%	f	%	f	%	f	%	f
18-24	0	0.0	1	100.0	1	100.0	0	0.0	2
25-34	1	100.0	0	0.0	0	0.0	0	0.0	1
35-74	0	0.0	0	0.0	0	0.0	0.	0.0	0
Total	1	100.0	1	100.0	1	100.0	0	100.0	3

Table 78: Sex of the Sixth Person in the Household (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Co	Louis ounty	Total
	f	%	f	%	f	%	f	%	f
Male	0	0.0	1	100.0	1	100.0	0	0.0	2
Female	1	100.0	0	0.0	0	0.0	0	0.0	1
Total	1	100.0	1	100.0	1	100.0	0	100.0	3

Table 79: Betting in the Past Twelve Months by the Sixth Person in the Household (by Geographic Region)

	Metr	o Core	M F:	Metro Fringe		Clay County		St. Louis County	
	f	%	f	8	f	%	f	8	f
Yes	0	0.0	0	0.0	1	100.0	0	0.0	1
No	1	100.0	1	100.0	0	0.0	0	0.0	2
Total	1.	100.0	1	100.0	1	100.0	0	100.0	3

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	8	f	00	f	00	f	%	f
Less than H.S. grad.	18	4.2	12	6.2	11	8.6	43	8.6	84
H.S. graduate	131	30.8	75	38.9	35	27.3	166	33.1	407
Vocational/bus iness training	36	8.5	15	7.8	16	12.5	65	13.0	132
Some college- no degree	99	23.2	50	25.9	38	29.7	120	24.0	307
College degree	100	23.5	30	15.5	22	17.2	83	16.6	235
Advanced degree	42	9.9	11	5.7	6	4.7	24	4.8	83
Total	426	100.0	193	100.0	128	100.0	501	100.0	1248

Table 80: Highest Year of School Completed (by Geographic Region)

Table 81: Ethnicity (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	olo	f	%	f	%	f	%	f
American Indian	4	0.9	3	1.5	1	0.8	7	1.4	15
Asian	2	0.5	3	1.5	2	1.6	0	0.0	7
Black	12	2.8	2	1.0	0	0.0	4	0.8	18
Hispanic	3	0.7	3	1.5	2	1.6	1	0.2	9
White	400	93.7	182	93.8	123	96.1	489	97.6	1194
Other	6	1.4	1	0.5	0	0.0	0	0.0	7
Total	427	100.0	194	100.0	128	100.0	501	100.0	1250

	Metr	o Core	Metro Fringe		Clay County		st. Co	Total	
	f	ş	f	*	f	%	f	%	f
Yes	318	74.5	144	74.2	91	71.1	335	66.7	888
No	109	25.5	50	25.8	37	28.9	167	33.3	363
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

Table 82: Currently Working for Pay (by Geographic Region)

Table 83: Job (by Geographic Region)

	Metr	Metro Core		etro inge	Clay County		St. Louis County		Total
	f	%	f	98	f	90	f	0{0	f
Professionals, administrators, or executives	78	24.7	31	21.7	14	15.4	67	20.0	190
Clerical, admin. support, sales, or technicians	159	50.3	58	40.6	49	53.8	151	45.1	417
Crafts, trades, factory, service, or labor	• 79	25.0	54	37.8	28	30.8	117	34.9	278
Total	316	100.0	143	100.0	91	100.0	335	100.0	885

	Metr	co Core	M Fi	Metro Fringe		Clay County		St. Louis County		
	f	00	f	%	f	%	f	%	f	
Homemaker	33	30.3	15	30.0	12	32.4	69	41.3	129	
Retired or disabled	55	50.5	29	58.0	12	32.4	74	44.3	170	
Student	8	7.3	2	4.0	9	24.3	10	6.0	29	
Not currently employed	13	11.9	4	8.0	4	10.8	14	8.4	35	
Total	109	100.0	50	100.0	37	100.0	167	100.0	363	

Table 84: Status of Non-paid Respondents (by Geographic Region)

Table 85: Marital Status (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	8	f	8	f	%	f
Married	219	51.4	122	63.2	69	53.9	307	61.2	717
Living w/ someone	26	6.1	9	4.7	2	1.6	24	4.8	61
Separated	10	2.3	5	2.6	1	0.8	11	2.2	27
Divorced	58	13.6	20	10.4	13	10.2	44	8.8	135
Widowed	23	5.4	9	4.7	7	5.5	40	8.0	79
Never married	90	21.1	28	14.5	36	28.1	76	15.1	230
Total	426	100.0	193	100.0	128	100.0	502	100.0	1249

Table 86: Partner is Currently Working for Pay (by Geographic Region)

	Metr	ro Core		Metro Fringe		Clay County		St. Louis County	
	f	8	f	olo	f	8	f	%	f
Yes	172	70.2	101	77.1	51	71.8	232	70.1	556
No	73	29.8	30	22.9	20	28.2	99	29.9	222
Total	245	100.0	131	100.0	71	100.0	331	100.0	778

Table 87: Partner's Job (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	80	f	90	f	00	f	%	f
Professionals, administrators, or executives	53	30.8	23	23.0	10	19.6	58	25.0	144
Clerical, admin. support, sales, or technicians	82	47.7	46	46.0	23	45.1	89	38.4	240 '
Crafts, trades, factory, service, or labor	37	21.5	31	31.0	18	35.3	85	36.6	171
Total	172	100.0	100	100.0	51	100.0	232	100.0	556

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	00	f	%	f	00	f	80	f
Homemaker	31	42.5	19	63.3	9	45.0	34	34.3	93
Retired or disabled	39	53.4	10	33.3	10	50.0	49	49.5	108
Student	0	0.0	1	3.3	0	0.0	6	6.1	7
Not currently employed	3	4.1	0	0.0	1	5.0	10	10.1	14
Total	73	100.0	30	100.0	20	100.0	99	100.0	222

Table 88: Status of Non-paid Partners (by Geographic Region)

Table 89: Has Children Under the Age of 18 Living at Home (by Geographic Region)

	Metr	o Core	Metro Fringe		Clay County		St. Louis County		Total
	f	olo	f	00	f	8	f	8	f
Yes	133	31.1	92	47.4	46	35.9	192	38.2	463
No	294	68.9	102	52.6	82	64.1	310	61.8	788
Total	427	100.0	194	100.0	128	100.0	502	100.0	1251

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	×	f	%	f.	%	f	%	f
One	59	44.4	30	32.6	19	41.3	70	36.5	178
Two	51	38.3	43	46.7	19	41.3	73	38.0	186
Three	20	15.0	14	15.2	8	17.4	34	17.7	76
Four	3	2.3	3	3.3	0	0.0	10	5.2	16
Five	0	0.0	2	2.2	0	0.0	4	2.1	6
Six	0	0.0	0	0.0	0	0.0	1	0.5	1
Total	133	100.0	92	100.0	46	100.0	192	100.0	463

Table 90: Number of Children Under the Age of 18 Living in the Household (by Geographic Region)

Table 91: Total Yearly Household Income (by Geographic Region)

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	00	f	00	f	olo	f
<u>&lt;</u> \$15,000	44	10.5	27	14.2	33	25.8	115	23.2	219
\$15,001- \$30,000	110	26.1	45	23.7	39	30.5	168	33.9	362
\$30,001- \$45,000	130	30.9	48	25.3	30	23.4	131	26.5	339
>\$45,000	137	32.5	70	36.8	26	20.3	81	16.4	314
Total	421	100.0	19 0	100.0	128	100.0	495	100.0	1234

	Metro Core		Metro Fringe		Clay County		St. Louis County		Total
	f	%	f	00	f	%	f	%	f
Large city (>50,000)	195	45.8	20	5.2	13	10.2	238	47.4	456
Suburb of large city	197	46.2	105	54.1	2	1.6	18	3.6	322
Small city (10,000- 50,000)	18	4.2	34	17.5	72	56.3	70	13.9	194
Small town/rural (<10,000)	16	3.8	45	23.2	41	32.0	176	35.1	278
Total	426	100.0	194	100.0	128	100.0	502	100.0	1250

Table 92: Community Type of Residence (by Geographic Region)

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## APPENDIX

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Appendix	I	-	Interview	Guide
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I.D. LABEL

<u>APRIL 18, 1990</u>

FOR OFFICE USE ONLY

GA	M	BLI	NG	ST	UDY	
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DCSS 0690

FINAL INTERVIEW STATUS	

Hello. My name is \_\_\_\_\_\_. Have I reached \_\_\_\_\_\_. NUMBER FROM LABEL) \_\_\_\_?

Is this number for a residence or for a business?

I'm calling from the University of Minnesota School of Public Health. We're doing a short research survey concerning betting or games of chance in Minnesota. This is being done in several Minnesota counties. In which county is this household located?

(frequency/valid percent)

1 ANOKA (70	/5.6%)
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 $2 CARVER \qquad (15/1.2\%)$ 

3 CLAY (128/10.2%)

4\_DAKOTA (58/4.6%)

5 HENNEPIN (286/22.9%)

6 RAMSEY (141/11.3%)

7\_ST. LOUIS (502/40.1%)

8\_SCOTT (12/1%)

9 WASHINGTON (39/3.1%)

10\_OTHER \_\_\_\_\_ THANK AND TERMINATE

We're talking with adults between the ages of 18 and 74. The person we talk with in each household is the person who will have the next birthday. Would that be you or would that be someone else? May I speak to that person? (VERIFY AGE)

If you have any questions as we go along or if there is any question you do not wish to answer, please tell me. Before we begin, let me assure you that your responses will be completely confidential and will be seen only by researchers at the University of Minnesota. 1. People bet money on many different things, including bingo games, lotteries, the outcome of sports events, and card games. Have you <u>ever</u> bet money on those kinds of games or on anything else?



2. In the past 12 months, have you bet money on those kinds of games or on anything else?



3. In the past 12 months, have you played bingo for money?



6. And in the past 12 months, have you played pull tabs?



	Question #5	Question #8
\$1-\$19	(15/35.7%)	(69/44.8%)
\$20-\$49	(10/23.8%)	(54/35.1%)
\$50-\$99	(8/19%)	(13/8.4%)
\$100-\$199	(4/9.5%)	(8/5.2%)
\$200-\$499	(4/9.5%)	(6/3.9%)
\$500–\$999	(0)	(3/1.9%)
\$1000 or higher	(1/2.4%)	(0)
DK	(0)	(3)
REF	(1)	(1)
# missing	1209	1097

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9. And in the past 12 months, have you bet money at a racetrack?



12. And in the past 12 months, have you bought a lottery ticket in another country or state other than Minnesota?



15. And in the past 12 months, have you bet on the outcome of a sporting event?



\$1-\$19	<u>Question #11</u> (3/15.8%)	Question #14 (90/73.8%)	<u>Question #17</u> (16/61.5%)
\$20-\$49	(5/26.3%)	(27/22.1%)	(5/19.2%)
\$50-\$99	(5/26.3%)	(4/3.3%)	(0)
\$100-\$199	(3/15.8%)	(1/0.8%)	(3/11.5%)
\$200-\$499	(2/10.5%)	(0)	(2/7.7%)
\$500-\$999	(1/5.3%)	(0)	(0)
\$1000 or higher	(0)	(0)	(0)
DK	(0)	(0)	(1)
REF	(0)	(0)	(0)
# missing	1232	1129	1225

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18. In the past 12 months, have you left Minnesota to play blackjack or other casino games?

(107/107/13.6%)	19. And have you played blackjack or casino games in the past month?
5 <b>NO</b> 86.4%)	1 YES21.5%) (84/20. And how much have you spent on these games in the past month?
8DK	5 NO 78.5%) DOLLARS
9REF	8 DK 1144 collapsed into 7 categories - see attached
462 missing cases	9 REF cases

IF "NO" OR MISSING TO ALL QUESTIONS 4, 7, 10, 13, 16, AND 19, GO TO Q. 48, PAGE 13

	Question #20
\$1-\$19	(2/8.7%)
\$20-\$49	(5/21.7%)
\$50-\$99	(4/17.4%)
\$100-\$199	(2/8.7%)
\$200–\$499	(7/30.4%)
\$500–\$999	(2/8.7%)
\$1000 or higher	(1/4.3%)
DK	(0)
REF	(0)
# missing	1228

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21. In the past 12 months, has anyone ever criticized your betting or told you that you had a gambling problem, regardless of whether you thought it was true or not?

1 YES	(18/6.5%)
5 <b></b> NO	(261/93.5%)
8DK	972 missing cases
9 REF	972 ILLSSING Cases

22. Betting money can cause problems for some people and not for others. This could include problems with family members or a spouse, or problems at work or school. Has your betting money ever caused any problem for you during the past 12 months?

1 YES	(11/3.9%)
5_NO	(268/96.1%)
8_DK	972 missing cases
9 Ref	572 Insting cuses

23. When you lose money gambling, how often do you go back another day to try and win back the money you lost? Would you say you do this never, some of the time, most of the time, or every time you lose money?

1 NEVER	(144/51.6%)
3 SOME OF THE TIME	(119/42.7%)
5 MOST OF THE TIME	(14/5%)
7 EVERY TIME	(2/0.7%)
8DK	972 missing cases
9 REF	

24. Have you ever bet more than you intended to in the past 12 months?



25. In the past 12 months, have you ever felt that you would like to stop betting money but didn't think you could?

1 YES	(8/2.	9%)		
5_NO	(270/	97 <b>.</b> 1	응)	
8DK	1	072	missing	a2000
9 REF		913	nussing	Cases

## IF "NO" TO ALL QUESTIONS 21, 22, 24, OR 25, AND "NEVER" OR "SOME OF THE TIME" TO Q. 23, GO TO Q. 35, PAGE 9, BELOW STARS

26. In the past 12 months when you were betting, have you ever said you were winning money when you weren't really winning?

1 YES	(9/3.2%)
5_NO	(270/96.8%)
8DK	072 migging gagag
9_REF	972 IIISSIIIg Cases

27. And in the past 12 months, have you ever felt bad about the amount you bet, or about what happens when you bet money?

1 YES	(47/16.8%)
5 <b></b> NO	(232/83.2%)
8DK	972 missing assoc
9 REF	972 ILESSING Cases

28. In the past 12 months, have you ever hidden I.O.U.s, lottery tickets, money you've won, or bank withdrawal slips, from your spouse, children, or other important people in your life?

1 YES	(7/2.5%)
5 NO	(272/97.5%)
8DDK	<sup>~</sup> 972 missing cases
A TAR P	Jie medding tubed

29. Have you ever argued with the people you're close to over how you handled money in the past 12 months?



31. Have you borrowed money to bet or to cover your gambling debts in the last 12 months?



33. In the past 12 months, have you ever lost time from work or school due to betting activities?



34. Have you ever borrowed money from someone and not paid them back because of your betting or gambling?

1 YES	(2/0.7%)
5 <u> </u> NO	(277/99.3%)
8DK	972 missing cases
9 <b>_</b> REF	

35. During the past 12 months, how often did you typically bet or gamble? Would you say nearly every day, several times a week, several times a month, about once a month, or less often than monthly?

1 NEARLY EVERY DAY	(5/1.8%)
2 SEVERAL TIMES A WEEK	(22/7.9%)
3 SEVERAL TIMES A MONTH	(88/31.5%)
4 ABOUT ONCE A MONTH	(69/24.7%)
5 LESS THAN MONTHLY	(95/34.1%)
8_DK	972 missing cases
9 REF	J J

EPI/GAM 001 (9-19) 5/90 Ver. 1

36. In the past 12 months, how much did you usually bet in a single betting day?

1_\$1 - \$19	(191/69.5%)	
2_\$20 - \$49	(51/18.5%)	
3_\$50 - \$99	(16/5.8%)	
4_\$100 - \$199	(11/4%)	
5_\$200 - \$499	(4/1.5%)	
6\$\$\$00 - \$999	(2/0.7%)	
7 <b></b> \$1,000 OR MORE	(0)	
8DK	(3)	976 missing cases
9 REF	(1)	·

37. Thinking about the total amount of money you have spent on bets, card games, bingo, lotteries and all other games of chance in the past year, would you say overall that you won more than you lost or lost more than you won?

1 WON MORE THAN LOST	(75/27%)
3 LOST MORE THAN WON	(165/59.4%)
5_BROKE EVEN	(38/13.7%)
8_DK	(1) 973 missing cases
9 REF	JIJ MESSING CASES

38. In the past year, what would you say is the largest amount of money you have **won** betting in a single day?

0_\$0 (NEVER WON)	(17/6.2%)	
1_\$1 - \$19	(56/20.3%)	
2_\$20 - \$49	(43/15.6%)	
3_\$50 - \$99	(32/11.6%)	
4_\$100 - \$199	(54/19.6%)	
5_\$200 - \$499	(42/15.2%)	
6 \$500 - \$999	(19/6.9%)	
7_\$1,000 OR MORE	(13/4.7%)	
8DK	(2)	075 migging gaage
9 REF	(1)	575 missing cases

39. In the past year, what would you say is the largest amount of money you have <u>lost</u> betting in a single day?

0 \$0 (NEVER LOST)	(2/0.7%)	
1_\$1 - \$19	(125/45.5%)	
2_\$20 - \$49	(63/22.9%)	
3_\$50 - \$99	(34/12.4%)	
4_\$100 - \$199	(21/7.6%)	
5_\$200 - \$499	(19/6.9%)	
6 \$500 - \$999	(8/2.9%)	
7_\$1,000 OR MORE	(3/1.1%)	
8DK	(3)	076 missing cases
9 REF	(1)	570 hissing cases
40. Thinking about the kinds of bets you make most often, please tell me the main reasons why you like to bet.



For each of the following, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

		STRONGLY AGREE	SOME- WHAT AGREE	SOME- WHAT DISAGREE	STRONGLY DISAGREE	DK	REF
41.	I enjoy the feeling of excitement I get when I bet. 974 missing cases	1	3 🔲 (158/	5 🔲 (38/	7	8	9
42.	If I had all the money I needed, I wouldn't bet money. 974 missing cases	23,8%) 1 (42/	57%) 3 (41/	13.7%) 5 🔲 (100/ 2(.1%)	5.4%) 7 (94/	8 (2)	9
43.	others around me are betting. 973 missing cases	15.2%) 1 (73/ 25.2%)	3 (83/	5 (52/	7 (70/	8	9 🗌 (0)
44.	I bet to have a good time. 973 missing cases	1  (95/	3 (108/	$5 \square$ (31/	$\begin{array}{c} 25.28 \\ 7 \\ (44/ \\ 15 \\ 00 \end{array}$	8 🗌	9
45.	something I usually like to do alone. 975 missing cases	34.2%	38.8%)	$5 \square$	15.8%) 7 (166/	8	9
46.	I bet because it's challenging to me. 973 missing cases	6.5% 1 (72/	8.3%) 3 (102/	25%) 5 (48/	60 <u>1</u> %) 7 (56/	8	9 (0)
47.	Betting and playing games of chance are an important part of	25,9%)	36.7%)	17.3%)	20.1%)	<b></b>	
	my social life. 972 missing cas	es 1 (10/ 3.6%)	3 (30/ 10.8%)	<b>5  ]</b> (50/ 17.9%)	7 (189/ 67.7%)	8 (0)	9 (0)

48. Do you feel you have ever had a problem with gambling?



49. Since Minnesota introduced its lottery scratch tabs game on April 17, have you purchased any tickets?



51. Do you think you will purchase any of these lottery scratch tab tickets in the next month?



33 missing cases

53. In the fall, the Minnesota lottery will introduce games with large weekly cash prizes. Do you think you will buy tickets for that lottery game?



	Question # 50	Question # 52
\$1-\$19	(482/73.7%)	(463/87.4%)
\$20-\$49	(141/21.6%)	(55/10.4%)
\$50–\$99	(20/3.1%)	(7/1.3%)
\$100-\$199	(7/1.1%)	(3/0.6%)
\$200-\$499	(4/0.6%)	(2/0.4%)
\$500–\$999	(0)	(0)
\$1000 or higher	(0)	(0)
DK	(5)	(5)
REF	(0)	(0)
# missing	597	721

•

•

-

.

55. Including yourself, how many adults 18 and over live in this household? 5-(7/0.68)1-(313/25%)6 - (3/0.2%)

2-(753/60.28)NUMBER OF ADULTS 3-(134/10.78)4-(41/3.3%)

56. Please just give me the ages of each of them, starting with yourself. And your age would be? FOR EACH: And is that a male or a female?



Have any of these people played pull tabs or bingo, bet on sports pools or at the racetrack, played at gambling casinos or bought lottery tickets outside of Minnesota in the past 12 months?

(WHICH ONES? -- MARK COLUMN D)

EPI/GAM 001 (14-19) 5/90 Ver. 1

Finally, in order to help our staff interpret these results. I have a few questions about you.

57. What is the highest grade or year of school you completed? (DO NOT READ CHOICES)

1 LESS THAN HIGH SCHOOL	GRADUATE (84/	(6.7%)
2 HIGH SCHOOL GRADUATE	(407	7/32.6%)
3 VOCATIONAL/BUSINESS TH	AINING SCHOOL (132	2/10.6%)
4 SOME COLLEGE BUT NO D	EGREE (307	7/24.6%)
5 COLLEGE DEGREE	(235	5/18.8%)
6 ADVANCED DEGREE	(83)	/6.7%)
9 REF	(3)	
		3 missing cases

58. And which of these best describes you?

1 American Indian	(15/1.2%)
2 Asian	(7/0.6%)
3 Black	(18/1.4%)
4 Hispanic	(9/0.7%)
5 White	(1194/95.4%)
6 Or something else, S	PECIFY: (7/0.6%) (1/0.1%)

59. Are you currently working for pay?



(2) EPI/GAM 001 (16-19) 5/90 Ver. 1 63. Is your spouse/partner currently working for pay?



65. Which of the following best describes your spouse/partner?

 1
 A homemaker
 (93/41.9%)

 3
 Retired or disabled
 (108/48.6%)

 5
 A student
 (7/3.2%)

 7
 Not currently employed
 (14/6.3%)

 9
 REF
 1029 missing

1029 missing cases

EPI/GAM 001 (17-19) 5/90 Ver. 1

66. Do you have any children under the age of 18 living at home? (UP THROUGH AND INCLUDING AGE 17)



EPI/GAM 001 (18-19) 5/90 Ver. 1

- 71. And could I have your name please? (OBTAIN FIRST AND LAST NAMES)
  - Not coded

END INTERVIEW: Thank you for participating in this survey. Good-bye.



73. INTERVIEWER ID:



## <u>Appendix II - Literature Review</u>

## Pre-DSM-III Studies

## The ISR Study

The first gambling prevalence study, which involved surveying a national sample and a Nevada state sample, was conducted in 1975 by the Institute for Social Research (ISR) at the University of Michigan. This survey was conducted before pathological gambling was recognized by the APA as a diagnosable mental disorder, therefore, no formal diagnostic criteria existed for compulsive gambling research at that time. Instead, the researchers used variables selected from psychological tests which identified personality traits of pathological The researchers wanted the survey questions to be innocuous because they gamblers. expected pathological gamblers to lie about their gambling behavior so their habit would not be detected. To identify the variables, 435 "known" gamblers (cases) and 443 church members (control group) were identified as the sample. There was a 63% (n=274) response rate for the "known" gamblers and 54% (n=239) response for the church members. A subsample of 120 respondents from each group was pre-tested with 119 variables taken from eight psychological tests which identify personality traits. The researchers then used discriminant function analysis to construct an 18-item screening instrument. The screen classified controls correctly 95% of the time (specificity) and classified "known" gamblers correctly 90% of the time (sensitivity). The 18-variable scale was then administered to the remaining 154 "known" gamblers and 119 church members from the original sample to check the validity of the scale, producing similar results.

Next, the survey was given to a national sample consisting of 1736 respondents and a separate Nevada state sample of 300. The national figure represents a 75.5% weighted response rate based on overrepresentation of males and urban dwellers in the sample, while the Nevada response rate was 70%. Sixteen percent of the national sample tested positive on the screen and were considered "at risk" for pathological gambling. One of the researchers subjectively reviewed the questionnaire because the research team believed that the "at risk" group was too high, causing what the researchers believed to be too many falsepositive responses (those testing positive who were not actually pathological gamblers). The basis for this belief was the 90-95 sensitivity-specificity shown during the development of the screen. He retained only 24% of the weighted "at risk" group was retained following this analysis, identifying an estimated 3.1% of all adults in the United States as probable or potential pathological gamblers. This was further broken down into subgroups: 0.77% "probable" pathological gamblers; 2.33% "potential" pathological gamblers. According to Culleton (1989), if the researchers had retained all of the people who were initially identified as being "at risk," then 4.27% of U.S. adults would have been considered probable or potential pathological gamblers. The results were slightly higher in the Nevada state survey, where 2.62% were identified as probable pathological gamblers and 2.35% were identified as potential pathological gamblers.

There have been many criticisms of the ISR study. Nadler (1985) reports that the results of this study are outdated because there are more opportunities for gamblers in the United States as a result of the trend toward increased legalized gambling. He also questions whether the respondents are representative of the population, stating that the

entire control group was male. This would represent a clear bias in identifying pathological gamblers. Finally, Culleton states that "personality traits which comprised the screen might predominate among pathological gamblers, but they did not exclude social gamblers, or even non-gamblers" (1989, p. 27).

## Post-DSM-III Studies

## DSM-III

Pathological gambling was first identified as an impulse control disorder in the Diagnostic and Statistical Manual, 3rd Edition (DSM-III) in 1980. According to the American Psychological Association (APA) (1980), the essential features of disorders of impulse control are:

- 1. Failure to resist an impulse, drive, or temptation to perform some act that is harmful to the individual or others.
- 2. An increasing sense of tension before committing the act.
- 3. An experience of either pleasure, gratification, or release at the time of committing the act.

The diagnostic criteria of pathological gambling are outlined by the DSM-III (APA, 1980)

as follows:

- A. The individual is chronically and progressively unable to resist impulses to gamble.
- B. Gambling compromises, disrupts, or damages family, personal, and vocational pursuits, as indicated by at least three of the following:
  - 1. arrest for forgery, fraud, embezzlement, or tax evasion due to attempts to obtain money for gambling;
  - 2. default on debts or other financial responsibilities;
  - 3. disrupted family and/or spouse relationships due to gambling;
  - 4. borrowing of money from illegal sources (loan sharks);
  - 5. inability to account for loss of money or to provide evidence of winning, if this is claimed;
  - 6. loss of work due to absenteeism in order to pursue gambling activity;
  - 7. necessity for another person to provide money to relieve a desperate

#### financial situation.

C. The gambling is not due to Antisocial Personality Disorder.

The DSM-III has been criticized (Lesieur, 1987) for concentrating on "desperation phase" signs in its criteria for diagnosis of pathological gambling and also for its social class bias. Consequently, the revised DSM-III (DSM-III-R) reflects changes in these areas and places more emphasis on physiological signs, such as "restlessness or irritability if unable to gamble" (APA, 1987, p. 325). The revised criteria correspond more closely to the diagnostic criteria of alcoholism and other psychoactive substance addictions. The guidelines for the identification of pathological gamblers set by the DSM-III have been utilized as a basis for survey questions in subsequent prevalence studies.

### The IGB Studies

The second approach to prevalence estimation involves application of a list of pathological gambling indicators, the Inventory of Gambling Behavior (IGB), which is based on the criteria of both the DSM-III and the GA 20 questions. This survey uses what Culleton calls a "cumulative clinical signs method" for differentiating between potential pathological gamblers, probable pathological gamblers, and other gamblers (1989, p. 33). The IGB was developed in response to some of the critiques of the ISR study, which utilized personality traits as discriminant variables. The IGB, instead, uses behavioral factors that reflect "the most significant items which had been reported in the literature at that time, as well as other more subtle patterns that had been observed clinically in studies of pathological gamblers" (Culleton, 1989, p. 27). To determine which variables to use in the IGB, 83 Gamblers Anonymous members (cases), 17% of which were female, were compared with

61 local community service organization members (controls), all of whom were male. All respondents were voluntary participants. The test items which were shown to be significantly intercorrelated to responses were grouped according to 8 identified factors. Next, a discriminant function analysis comparing the cases and controls was conducted using the eight factor clusters. This resulted in what the author determined as "a statistically significant function (Wilkes Lambda=.527, Chi square=89.07, p<.001)" (Zimmerman, et. al., 1985, p. 78).

Three studies have utilized the IGB to produce prevalence rates of probable and pathological gambling ranging from 5.9% to 7.5% of the adult population. All of these surveys were conducted in east coast states. For two of these surveys, the researcher selected 29 items from the IGB and clustered them into five factor tests: personal; interpersonal; vocational; financial; and diagnostic or "hard" signs (Culleton, 1984; Culleton, 1985). If the respondent gave a positive response to any one (or more) item within each test, then they received a score of one on that test. The individual test scores were then added, resulting in a total possible score of 0 to 5 on the questionnaire. A score of 3 or higher was considered indicative of "probable" pathological gambling, while a score of 2 indicated "possible" pathological gambling.

Culleton's 1984 study concluded that 3.4% of all adults in the Delaware Valley are "probable" pathological gamblers, and an additional 4.1% are "potential" pathological gamblers. This study included 534 respondents in a telephone survey, employing random digit dialing to construct a cluster sample where the number of central office codes in an exchange (an indicator of population density) determined the probability of inclusion.

Culleton conducted a similar study in Ohio (1985) with 801 adult respondents. The results of this study indicated that 2.5% of all adults in Ohio are "probable" pathological gamblers, and 3.4% of the adults are "potential" pathological gamblers.

In the third IGB study, a random digit dialing procedure was utilized to yield a sample of 1000 in a nine-county are of southeastern Pennsylvania, 53% of which agreed to participate in the survey. This is a relatively low response rate for this type of survey. The questionnaire included 14 items taken from the IGB. These questions were grouped into 4 factors: personal; interpersonal; vocational; and financial hardships (Sommers, 1988). The diagnostic test from the IGB was replaced with 8 questions designed to identify the "hard signs" of pathological gambling. Respondents who scored two on the cumulative IGB test scores and did not show "sufficient regressivity" in their wager over a 4 year span were considered "potential" pathological gamblers (Sommers, 1988). This constituted 4.12% of the sample. The 18 respondents (3.37%) who scored 3 or higher were classified as "probable" pathological gamblers.

### The SOGS Studies

Most recently, a diagnostic screening device, called the South Oaks Gambling Screen (SOGS), was developed for use by service providers in the addictions field (Lesieur & Blume, 1987). This screen has been carefully validated and also shown to be a reliable tool for identifying pathological gamblers.

In the first stage of the SOGS development, 458 patients at the South Oaks Hospital were administered a Gambling History Test and significant others were asked about the patients' gambling habits to validate the data. The researchers then constructed an index based on modification of the DSM-III diagnostic criteria. According to Lesieur and Blume (1987), the index has seven components: family disruption; job disruption; lying about gambling wins and losses; default on debts; going to someone to relieve a desperate financial situation produced by gambling; borrowing from illegal sources; and committing an illegal act to finance gambling. Counselors also made subjective assessments of the patients to further cross-check the screen's validity.

Based on input from the counselors, questions were added to the survey during the second stage of the research. This resulted in a new screening device comprised of 60 questions. The new screen was administered to inpatients for a period of 5 months, after which time low-frequency and co-linear questions were eliminated from the survey. The researchers then used discriminant function analysis on the remaining items, using 4 affirmative responses as an indication of probable pathological gambling. The 20-items identified from this process make up the South Oaks Gambling Screen.

Stage three of the research involved further cross-validation of the gambling screen. An anonymous questionnaire, which included questions from the revised edition of the DSM-III (DSM-III-R) in addition to the 20 items from the SOGS, was administered to three groups: 213 GA members (cases); 384 university students (controls); and 152 hospital employees (controls). The researchers set a score of 5 or more on the screen as an indication of probable pathological gambling to guard against false-positive responses. Using this cutoff point, 98% of the GA members, 5% of the college students, and only 2% of the hospital employees were identified as pathological gamblers. The authors tentatively classified the college students identified as pathological gamblers as false-positive responses,

however, it is very possible some of the students were identified correctly given the high incidence of pathological gambling in high school students in grades 11 and 12 (Lesieur & Kline, 1987). Reasons for the high prevalence rate in high school students is unknown. The New Jersey Governor's Advisory Commission on Gambling suggests that this may be "a sign of youthful trouble which will decline as they take on responsibilities of work and home" (1988, p. 142). If this were the case, this behavior could carry over into college-age students. The screen also identified 95% of the female GA members and 98% of the male members as pathological gamblers, indicating that it "is capable of uncovering both male and female pathological gamblers" (Lesieur & Blume, 1987, p. 1186).

Volberg and Steadman used the SOGS as a basis for the questionnaire they have used in state surveys conducted in New York, New Jersey, and Maryland. The studies are the first completed in a five-state study funded by NIMH. In the first survey, which was completed in New York, 2.8% of the 1000 completed telephone interviews (65% response rate) were classified as "problem" gamblers. In addition, 1.4% of the respondents were classified as "probable" pathological gamblers.

The second study conducted by Volberg and Steadman involved 1000 respondents in New Jersey and 750 in Maryland. These figures represent 65% and 70% response rates, respectively. The sample was identified by random digit dialing. In New Jersey, 2.8% of the sample were classified as problem gamblers, while an additional 1.4% were classified as probable pathological gamblers. In Maryland, 2.4% of the sample were identified as problem gamblers and another 1.5% were classified as probable pathological gamblers.

Volberg and Steadman also selected respondents in the three east coast states who

matched the Wisconsin population on the variables of sex, age, and ethnicity to provisionally assess the prevalence rate of pathological gambling in Wisconsin. Although this study was done primarily to provide information about services for compulsive gamblers and specific parameters for the level of funding needed, it also provides the only prevalence estimate that exists for a midwestern state. The researchers classified 1.1% of the respondents as probable pathological gamblers, and estimated that there are between 20,078 and 53,541 probable pathological gambling adults in Wisconsin. The authors believe that the prevalence rate of compulsive gambling in Wisconsin is at the lower end of these estimates for several reasons: Wisconsin is more rural than New York, New Jersey, or Maryland; there are fewer opportunities to gamble in Wisconsin than there are in the east coast states surveyed; and compulsive gambling problems seem to develop over several years but the emergence of legalized gambling is a relatively recent event in Wisconsin. Also, the east coast respondents who match Wisconsin residents on sex, age, and ethnicity tend to have higher incomes than the Wisconsin population.

It is difficult to compare the IGB and the SOGS studies because they used different measurement instruments. However, it is important to note that the SOGS is a validated, reliable screening tool, whereas, the IGB is only "partially validated" (Governor's Advisory Commission on Gambling, 1988, p. 114). The rates for the SOGS studies are comparable, which would be expected for states in geographical proximity. The IGB studies, on the other hand, had poorer response rates and the prevalence rates from them are more variable (see table 1).

Table 1:	Adult	Gambling	Prevalence	Studies

Author(s)	Date	Location	Sample Size	Response	Sampling	Survey Used	Prevalence
		1 	(completed interviews)	Rate	Technique		Rate
Hugick, L.	1989	National	1208	NA	"Nationally Representative"	NA	NA 31% of U.S. pop. gambles weekly
Kallick-Kaufmann, M.	1979	National & Nevada State	1736-Nat'l. 296-Nevada	75.5%-Nat'l. 70%-Nevada	stratified by sex & geo. loc equal prob. to all houses in 3 county area	telephone survey of gambling activities	NA
Lesieur, H.R.	1989	New York State	86-agencies 20,660- employees	25%	gamblers identified by 86 EAPs & service providers, which were identified by the ALMACA directory	mailed survey w/ phone follow-up to high-contact agencies	1.4% of all clients seen by agencies considered compusive gamblers
Lesieur, H.R. Blume, S.B.	1987	Long Island, NY	1616	NA	867-treatment patients 213-GA members 384-University students 152-hospital employees	SOGS & modified DSM-III	NA
Lesieur, H.R. Blume, S.B. Zoppa, R.M.	1986	Long Island, NY	458	NA	substance abuse treatment patients	modification of DSM-III, not SOGS	10%-abusive gamblers 9%-pathological gamblers
Lesieur, H.R. Heineman, M.	1988	Amityville, NY	100	NA	substance abuse treatment patients	SOGS	14%-potential 14%-probable pathological gamblers
Sommers, I.	1988	Southeastern Pennsylvania & Southern New Jersey	534	53.4%	random digit dialling	Inventory of Gambling Behavior (by Custer1978) & modified DSM-III	4.12%-potential 3.37% probable pathological gamblers
Volberg, R.A. Steadman, H.J.	1989	NY, NJ, & MD matched to WI pop.	1576	NA	subsample from NY, NJ, & MD matched to WI pop. on age, sex, & ethnicity	SOGS	1.1% probable pathological gamblers
Volberg, R.A. Steadman, H.J.	1989	New Jersey and Maryland	1000-NJ 750-MD	65%-NJ 70%-MD	random digit dialling	SOGS	NJ-2.8% problem 1.4% probable path. MD-2.4% problem 1.5% probable path.

Author(s)	Date	Location	Sample Size (completed interviews)	Response Rate	Sampling Technique	Survey Used	Prevalence Rate
Volberg, R.A. Steadman, H.J.	1988	New York State	1000	65%	random digit dialling within a stratified sample	SOGS	2.8%-problem gamblers 1.4%-probable pathological
Culleton, R.	1985	Ohio	NA*	NA	NA	NA	3.4%-potential gamblers 2.5%-probable pathological

Table 1: Adult Gambling Prevalence Studies

\*NA-Information Not Available

# Table 2: Demographic Data of Probable Pathological Gambler

	Kallick, et.al.	Sommers (1988)	Volberg &	Volberg &
	(1979)		Steadman (1988)	Steadman (1989)
Males	46% in gen. pop. 64% of prob. path.	52% in gen. pop. 66.6% of prob. path.	44% in gen. pop. 64% of prob. path.	44% in gen. pop. 68% of prob. path.
Under age 30	NA		22% in gen. pop. 38% of prob. path.	No statistical differences for age
Age 17-34		39.1% in gen. pop. 44.4% of prob. path.		
Nonwhites	13% in gen. pop. 26% of prob. path.	18.9% in gen. pop. 33.4% of prob. path.	23% in gen. pop. 43% of prob. path.	19% in gen. pop. 36% of prob. path.
Income < \$25,000/уг.		34% in gen. pop. 61.1% of prob. path.	45% in gen. pop. 60% in prob. path.	No statistical differences for income
\$10,000 - \$20,000/yr.	40% in gen. pop. 67% of prob. path.			
Not high school grad.			18% in gen. pop. 33% of prob. path	9% in gen. pop. 16% of prob. path.
High school grad.		37.5% in gen. pop. 55.5% of prob. path.		
Some college	21% in gen. pop. 49% of prob. path.			
Unemployed	NA	NA	7% in gen. pop. 21% of prob. path.	NA
Urban residence	33% in gen. pop. 79% of prob. path.	NA	42% in gen. pop. 55% of prob. path	NA

## Appendix III - SOGS Modifications

The modifications to the SOGS for the Minnesota survey were minor. For many of the questions in the SOGS-M, the phrase "in the past 12 months" was added as a time frame. The phrasing of questions was also changed as a result of regional differences in vocabulary. The word "betting" was added or replaced "gambling" for many of the questions. Also, questions were modified to reflect the differences in gambling behavior in the midwest compared to the east coast. For example, question #11 on the SOGS used "betting slips," whereas, the SOGS-M used "I.O.U.s" and "bank withdrawal slips." And in question #16 of the SOGS, which deals with sources of borrowed money, the following 9 sources are listed as responses:

- 1) household money
- 2) spouse
- 3) other relative or in-laws
- 4) banks, loan companies, or credit unions
- 5) credit cards
- 6) loan sharks
- 7) chased in stocks, bonds, or other securities
- 8) sold personal or family property
- 9) borrowed on your checking account (passed bad checks)

Some of these responses (such as loan shark) probably would not apply to Minnesota respondents. The SOGS-M, instead, phrases the corresponding item as an open-ended question with spouse, friends, relatives, credit cards, and banks listed as examples of sources of borrowed money.

A list of the SOGS questions with the corresponding SOGS-M questions follows. Modifications in the SOGS-M questions are underlined. SOGS #1-3 (not counted)

SOGS #4 - When you gamble, how often do you go back another day to win back money you lost?

MOGS #23 - When you lose money gambling, how often do you go back to try to win back the money you lost? Would you say you do this never, some of the time, most of the time, or every time you lose money?

SOGS #5 - Have you ever claimed to be winning money gambling but weren't really? In fact, you lost?

MOGS # 26 - <u>In the past 12 months when you were betting or gambling</u>, have you ever said you were winning money when you weren't really winning? (<u>"In fact, you lost?"</u> <u>omitted</u>)

SOGS #6 - Do you feel you have ever had a problem with gambling?

MOGS #48 - question identical - Response choices for MOGS are <u>yes or no;</u> whereas, SOGS lists no; yes, in the past, but not now; and yes

SOGS #7 - Did you ever gamble more than you intended to?

MOGS #24 - Have you ever <u>bet or</u> gambled more than you intended to <u>in the past</u> <u>12 months?</u>

SOGS #8 - Have people criticized your gambling?

MOGS #21 - <u>In the past 12 months</u>, has anyone ever criticized your <u>betting or told</u> you that you had a gambling problem, regardless of whether you thought it was true or not?

SOGS #9 - Have you ever felt guilty about the way you gamble or what happens when you gamble?

MOGS #27 - And <u>in the past 12 months</u>, have you ever <u>felt bad about the amount</u> you bet or gambled, or about what happens when you <u>bet money</u>?

SOGS #10 - Have you ever felt like you would like to stop gambling but didn't think you could?

MOGS #25 - <u>In the past 12 months</u>, have you ever felt that you would like to stop <u>betting money or</u> gambling but didn't think you could?

SOGS #11 - Have you ever hidden betting slips, lottery tickets, gambling money, or other

signs of gambling from you spouse, children, or other important people in your life?

MOGS #28 - <u>In the past 12 months</u>, have you ever hidden <u>I.O.Us</u>, lottery tickets, <u>money you've won, or bank withdrawal slips</u> from your spouse, children, or other important people in your life?

SOGS #12 - (not counted)

SOGS #13 - Have money arguments ever centered on your gambling?

MOGS #30 - Have money arguments ever centered on your <u>betting or playing games</u> of chance?

SOGS #14 - Have you ever borrowed from someone and not paid them back as a result of your gambling?

MOGS #34 - Have you ever borrowed money from someone and not paid them back because of your <u>betting or</u> gambling?

SOGS #15 - Have you ever lost time from work (or school) due to gambling?

MOGS #33 - In the past 12 months, have you ever lost time from work or school due

# to betting or gambling activities?

 $\mathbb{R}^{4}$ 

SOGS #16 - If you borrowed money to gamble or to pay gambling debts, who or where did you borrow money from? (check "yes" or "no" for each)

(list of 9 sources)

MOGS #32 - Because of betting or gambling, people may borrow money from their spouse, friends, relatives, credit cards, or banks. Where have you borrowed from?

(MOGS is an open-ended question with examples of sources listed in the question. SOGS has a list of 9 sources for which yes/no responses are given)