

A Survey of Gambling Behaviors in Michigan, 2001

for

The Michigan Department of Community Health

By

The Evaluation Center in Conjunction with the Kercher Center for Social Research
Western Michigan University

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September 2001

Acknowledgments

As in the past two iterations of this project in 1997 and 1999, this project was completed as a contract between The Evaluation Center and the Michigan Department of Community Health. Mr. James McBryde from the Department of Community Health collaborated in designing the study with Drs. Gullickson and Hartmann. Dr. Hartmann served as Principal Investigator, supervised collection of the data, and personally drafted the report. Drs. Gullickson and William Wiersma reviewed the draft report to assure the integrity of the data analysis and reporting methods. William “Wally” Post again did the CATI system programming. Craig Tollini directed the data collection and created and cleaned the SPSS data file and the statistical output that is reported here. The interviewers and their supervisors performed conscientiously and efficiently. As always, our debt to respondents is most important and is gratefully acknowledged.

The survey instrument was adapted from the work of Rachel Volberg who was a consultant on the 1997 project. Her published material and her willing assistance on the phone and in person are again gratefully acknowledged.

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The 2001 Survey of Gambling Behaviors in Michigan is the third iteration of a project begun in 1997 and repeated in 1999. Three changes mark this version. First, questions on suicidal ideation related to gambling and on new forms of help for problem gambling were added. Second, the 1999 project sampled and collected responses so as to produce samples of at least size 384 from each of 4 regions in the state of Michigan: the Detroit metropolitan area (also referred to as Metropolitan Detroit), East Michigan, West Michigan, and the Upper Peninsula. This year we added a sample for the city of Detroit to allow separate estimation of gambling behavior there. This means that estimates from the Detroit metropolitan area sample do not include the city of Detroit this year and are not comparable to the 1999 estimates (see Appendix B for a list of counties in each region). Even in 1997, when a fifth area was also included, it was defined as Wayne County and so was not comparable to a city of Detroit estimate.

This design allows inference of the rate of problem gambling (liberally estimated at 10%) within each region with a reasonable degree of precision based on sampling error (plus or minus 3 percentage points) and allows combination of those regions in proportion to their contribution to the adult population of the state in an aggregate data set. For reasons explained below in the section called “Characteristics of the Sample,” this year’s state aggregate data set contains 1,211 interviews and therefore has precision based on sampling error of plus or minus 1.7 percentage points¹ for the rate of problem gambling.

Third, in order to complete interviews with 200 persons scoring as problem or probable pathological gamblers on the South Oaks Gambling Screen (discussed below), a special sample of persons with an expressed interest in gambling as a form of recreation was obtained. Fully 97 interviews completed from this sample were added to the 109 interviews obtained from the statewide calling.

As before, the primary aim of the survey is to establish a precise estimate of problem gambling in the population of Michigan residents 18 years and older. As done in almost all prevalence studies, including our earlier work in Michigan, the survey was administered through a Computer Assisted Telephone Interviewing approach utilizing a random-digit dialing (RDD) telephone sample. Strengths and weaknesses of this RDD approach are discussed below. The original form of the survey instrument used in 1997 was adapted from Rachel Volberg’s survey of New York State in 1996 (Volberg, 1996c) and uses the South Oaks Gambling Screen (SOGS) as the basis for estimates of problem gambling. Again, only minor changes to the instrument have been made in the 1999 and present studies.

Since the South Oaks Gambling Screen (Lesieur & Blume, 1987) is the basis for the prevalence estimates made in this study, a description is warranted. The SOGS asks about a range of behaviors and orientations toward gambling and is highly correlated with the APA’s DSM-III-R (*Diagnostic and Statistical Manual of Mental Disorders, 3rd ed.-revised*) criteria for

¹The bounds of inference are calculated as $B = z\sqrt{\frac{pq}{n}}$ where B is the bound plus or minus from the sample

estimate, p is the population proportion of the event in question, q is 1-p, z is the z-value for the desired confidence coefficient, and n is the sample size. For example; for p=.1 and n=1211 with a confidence coefficient of .95 (z=1.96), B=.017.

pathological gambling (American Psychiatric Association, 1987). It has possible scores of 0 to 20, with 0 through 2 considered nonproblem gambling, 3 through 4 identified as “problem gambling,” and 5 or more identified as “probable pathological gambling.” As is customary in current use of the SOGS, we asked each of the 20 questions for 2 time frames: “ever” and “in the past year.” These give rise to a “lifetime” SOGS score and a “current” (past year) SOGS score.

New scales, based on the DSM-IV, for example, are available. Because almost all state prevalence studies used the SOGS, including the 1997 and 1999 Michigan studies, we retained it in 2001.

When suggested by representatives of the Department of Community Health, we added Internet gambling questions in 1999. In 2001, they requested that questions on additional form of help sought for gambling and on suicidal ideation be added. These are not part of the SOGS scoring and were the only substantive changes made to the instrument developed by the staff of the Kercher Center and The Evaluation Center in consultation with Dr. Volberg in 1997.

Student interviewers were trained, and interviewing began on May 9, 2001, and continued until July 11, 2001. Calls were made on Monday through Friday from 5:00 p.m. to 9:00 p.m. and on Saturdays from 10:00 a.m. to 2:00 p.m. Weekday morning and afternoon calls were made with smaller shifts of interviewers and at the request of people contacted during the regular calling hours. After interviewer training, the actual Detroit city sample was used to pretest the instrument and CATI system during two shifts (10:00 a.m. to 2:00 p.m. and 5:00 p.m. to 9:00 p.m.) on May 9, 2001, without incident or cause for revision. The 50 interviews completed during those shifts were therefore included in the study.

Characteristics of the Sample

Since males are less likely to answer the phone in households with both male and female adult residents and since males are less likely to participate when contacted, the survey design called for monitoring responses by gender and imposing a screen to increase male respondents if needed. This screen was required in all five regions. This monitoring and screening has routinely been used in statewide studies of gambling prevalence in recent years (Volberg, 1995a; 1996a; 1996b; 1996c).

In the geographic sampling used to produce the regional and statewide estimates, a total of 2,094 responses were obtained, while 3,963 people refused to participate or terminated the interview before its completion. Therefore, the response rate was 35 percent. The response rate for the special sample of persons with an interest in gambling was 42 percent. These rates are within the expected range for telephone surveys over the past five years and are comparable to the last two statewide surveys reviewed: a 36 percent rate in New York in 1996 and a 40 percent rate in Louisiana in 1995. Given the precipitous decline in national telephone completion rates over the past five years (since those other studies), this is an encouraging finding. On the other hand, the prior two Michigan studies obtained somewhat better response rates: 43 percent rate in 1997 and 45 percent in 1999. As in 1999, response rates were better as one moved away from the city and metropolitan area of Detroit where market research and solicitation calls may be more prevalent.

Since samples sizes of at least 384 were collected by region to allow inference at acceptable levels for each part of the state, a representative statewide sample could not be a simple aggregation of the regions. Based on the 2000 census population aged 18 and over for the state, 40.5 percent resided in the Metropolitan Detroit counties excluding the city of Detroit; 22.3 percent in the east; 24.9 percent in the west; 3.4 percent in the U.P.; and 8.9 percent in the city of Detroit. We created an aggregate sample of size 1,211 that allowed all completed surveys in the largest region (Metropolitan Detroit) to be used. This resulted in an error band at a 95 percent confidence level for problem gambling rates with a precision of plus or minus 1.7 points based on sampling error. Using all of the 490 interviews from the Metropolitan Detroit sample, we randomly sampled from each other region to select 270 from the east counties, 302 from the west, 41 from the U.P., and 108 from the city of Detroit. That aggregate sample is used throughout this report as the “state sample.”

Sampling error, of course, is only one source of error in inference. Standard practice and concern over response bias require that a display of the demographic characteristics of the samples used in this report be made. Table 1 does so for each region and for the state sample and also reports the 2000 census figures for the state. For characteristics not yet released in the 2000 census, 1990 figures are used and are clearly marked as such.

As we have stated in previous reports, telephone surveys are acknowledged to produce an efficient trade-off of cost and response rate, and random digit dial (RDD) approaches address the most obvious sources of bias in telephone sampling. Nevertheless, the RDD telephone survey has known weaknesses as well. Telephone surveys often underrepresent poor people and younger respondents and therefore tend to underrepresent characteristics associated with low income and youth. Several factors are likely to be in play. First, the poor simply are less likely to own a phone. Second, participation rates in survey research are directly related to education. Furthermore, poorer families and young householders may be less likely to have an adult at home in the evening when the bulk of contact attempts are made (due to one-adult households and late shift work). Poor households also tend to have a younger age structure (also related to presence in the home and willingness to participate). In any event, most telephone surveys expect to underrepresent the young, poor, and less educated and consequently black and inner-city residents as well.

Each recent statewide gambling study we reviewed reported these biases, especially with regard to education and income. A standard correction for each response rate variation is to weight the underrepresented category for analyses. Most of the statewide gambling studies did not do this, however. In her Iowa report, Volberg contended that “To maintain comparability with results from the 1989 survey from Iowa, as well as with results from surveys in other United States jurisdictions, it was deemed advisable to caution readers regarding these prevalence estimates rather than weight the results from the 1995 sample” (Volberg, 1995b, p. 5). We followed this precedent in past studies and do so again here. As we reported in the 1997 study, weighting does effect estimates of gambling problems in Michigan, though the magnitudes tend to be of a half a percentage point or less.

It is important to remember that response bias, to the extent that it is present in all gambling prevalence surveys of this type, almost certainly works to produce underestimation relative to the actual rates of gambling and problem gambling in the population.

Table 1 shows the characteristics of respondents to the 2001 Michigan survey and of census descriptors for Michigan's adult population. The screen for males corrected the gender representation issue to within 3.4 percentage points, which is just within sampling error for that characteristic and this size sample. On the other hand and as expected, African Americans are underrepresented. More technically, because the racial distribution for the state is less heterogeneous than the gender distribution, it has smaller sampling error. While the raw difference of the sample estimate and state census figure is only 2.1 points for African Americans, that difference is outside the range of sampling error if the sample were random. In other words, it is evidence of response bias. The gap is smaller than in the past two surveys but nevertheless present.

The somewhat less useful 1990 census figures also suggest underrepresentation of the lowest education category (those with less than a high school education) and of the lowest income category (those reporting household incomes below \$25,000). The large deviation for the income figures in particular is undoubtedly a reflection of inflation as well as response bias.

Table 1. Percent of the Sample in Demographic Categories Compared to Those of the 2000 Census

	<i>Detroit</i>	<i>Detroit Metro.</i>	<i>East Region</i>	<i>West Region</i>	<i>Upper Peninsula</i>	<i>State</i>	<i>2000 Census</i>
N	386	490	416	392	403	1211	
Gender							
Male	43.3	47.6	44.1	45.9	47.8	44.8	48.2
Female	56.7	52.4	55.9	54.1	52.2	55.2	51.8
Race/Ethnicity							
White/Caucasian	15.1	84.2	89.9	87.7	93.8	80.6	82.1
Black/African American	74.9	6.9	4.5	6.5	0	11.0	13.1
Other	10	8.8	5.7	5.7	6.2	8.4	4.8
Hispanic	2.9	2.5	2.9	2.1	1.8	2.7	2.7
Age							
18-29	20.7	14.4	13.9	16.4	12.3	14.4	25.7(1990)
30-49	43.1	46.5	36	44	41.2	43.0	40.3
50-64	22.3	25.4	31.5	23.6	25.1	27.0	17.9
65 or older	13.9	13.7	18.6	15.9	21.5	15.9	16.2
Education							
<High School	6.6	3.3	4.9	2.8	4.5	4.1	19.1(1990)
High School/GED	37.6	31.3	42.7	35.1	39	35.4	34.1
Some College/Assoc.	34.7	31.1	28.8	33.5	29	31.2	28.6
Bachelor's Degree	12.7	16.1	12.4	14.4	14.6	13.8	
Grad.Study/Degree	8.5	18.2	11.2	14.2	12.8	15.5	18.3*
Household Income							
\$25,000 or less	26.6	14.6	24.1	21.8	29.3	20.4	40.6(1990)
\$25,001 to \$50,000	41	27.2	30.2	35	36.1	31.9	34.0
\$50,001 to \$100,000	26.2	39.2	35.7	33	29.9	34.5	21.6
\$100,001 or more	6.3	19	10	10.2	4.8	13.1	3.8

*The census reports the top category as “bachelors, graduate, or professional degree.”

Results

As before, the main variables of interest in this year's survey are the estimated rates of problem and probable pathological gambling as derived from the South Oaks Gambling Screen (SOGS). Table 2 presents the number and percentage of respondents who ever gambled and gambled in the past year as well as the unweighted SOGS estimates for lifetime and current (last 12 month) periods.

The percent who ever gambled is 85.3 percent, which is almost identical to the 84.5 percent rate found with a sample of almost 4,000 persons in 1997 and slightly below the 88.9 percent figure found in 1999 with a sample of 900. Therefore, the basic conclusion is one of stability over the 3 surveys. The result for past year gambling is 71.9 percent this year compared with 76.9 percent in 1997 and 77.6 percent in 1999. All of these rates are within the expected range established by previous statewide surveys.

Table 2 also presents the SOGS scores for the state and for geographic regions of the state defined by Detroit and the state's counties (see Appendix B). SOGS scores are reported in the table both for the "problem" and "probable pathological" categories. In this narrative, the two percentages are often combined into a single SOGS score. The state estimate for the "Lifetime SOGS" is 4.5 with an estimate of 3.2 for the "Current SOGS." These figures are statistically indistinguishable from those obtained in 1999 and 1997. Recall that sampling error is approximately 1.7 points above and below the SOGS score, so an actual state SOGS score as low as 2.8 or as high as 6.2 is consistent with these survey results.² Another way to think about how close these estimates are is to realize that the lifetime estimate in 2001, for example, would exactly match the 1999 estimate if we had completed 5 more interviews with persons in the problem categories out of the 1,211 in the sample.

Our earlier surveys suggested higher rates in the Detroit area but did not allow an estimate specific to the city. Lifetime rates were 8.1 for Wayne County (including the city) in 1997 and 6.4 for Metropolitan Detroit (including the city) in 1997. This year's estimate for the city proper is consistent with that trend and substantially higher than either previous estimate at 11.4.

² It is, of course, standard practice to use the sample proportion to substitute for the population parameter p in the standard error calculation. The use of the sample proportion is an expedient that is appropriate under most conditions. Here it would yield an interval from 3.3 to 5.7. On the other hand, an important rationale for using an alternative to the sample proportion is that any sampling error in the point estimate is reintroduced by using that point estimate again in the calculation of the standard error (Blalock, 1979, pp. 214-215). As we argue below, in our case, we believe the sample estimates are low. With proportions we have the additional attraction of more conservative intervals as we move toward $p=.5$. Making wider confidence intervals warns users of this report that there may not be as much actual precision in our estimates as the standard construction would suggest. The use of $p=.1$ in the construction of the standard error for the SOGS estimates is a compromise that we believe is conservative relative to the use of the sample proportion obtained. The most conservative interval would result from using a value of $p=.5$, but that is unrealistic given the literature and our own estimates over three studies. Our approach may yield an interval that may actually provide greater than 95 percent confidence (more properly, that more than 95 percent of the time intervals constructed by this procedure will include the parameter). That is the effect if, in fact, the interval is wider than it needed to be. The same reasoning underlies the use of $p=.5$ for the calculation of the standard errors in Table 4. This value is explicitly too conservative for the rare behaviors (footnote on p.14) but is pretty good for the common behaviors and, again, warns against over interpretation of the estimates.

This year's rates in the other geographic regions were similar to those seen in the last survey in 1999, which used comparable sample sizes and county aggregations. The East region scored at 4.0 compared with 4.5 in 1999, and the West region scored at 2.5 compared with 2.9. The Upper Peninsula scored at 5.2 compared with 5.1. Metropolitan Detroit was not geographically comparable because it excluded the city this year and included it in 1999. As expected, the rate was substantially lower this year at 3.5 compared with 6.4 in 1999.

Table 2. Gambling Prevalence for Michigan and South Oaks Gambling Screen (SOGS) Scores for Michigan and Geographic Regions of the State

A. State of Michigan						
<i>Gambling Experiences</i>	<i>N</i>		<i>%</i>			
Ever	Yes	1033	85.3			
	No	178	14.7			
Past Year	Yes	871	71.9			
	No	340	28.1			

	<i>Lifetime SOGS Score</i>			<i>Current SOGS Score</i>		
	0-2	3-4	5+	0-2	3-4	5+
N	1157	34	20	1177	22	12
Percent	95.5	2.8	1.7	97.2	1.8	1.0
Total Problem Gamblers	4.5			2.8		

Estimated total problem gamblers (based on census count of 7,342,677 people 18+)

	Lifetime	Current
95% confidence interval	(205,595 – 455,246)	(80,770 – 330,421)

B. Geographic Regions of Michigan

<i>Region</i>	<i>Lifetime SOGS Score, %</i>			<i>Current SOGS Score, %</i>			<i>N</i>
	0-2	3-4	5+	0-2	3-4	5+	
Detroit	88.6	6.2	5.2	91.7	5.2	3.1	386
Detroit Metro.	96.5	2.9	0.6	98.4	1.2	0.4	490
East Michigan	95.9	1.4	2.6	96.9	1.4	1.7	416
West Michigan	97.4	1	1.5	98.2	1	0.8	392
Upper Peninsula	94.8	2.2	3	96.8	1.2	2	403

These rates for geographic regions, of course, are based on samples of approximate size of 400 (error estimated at plus or minus 3 points; slightly smaller for Metropolitan Detroit where sample sizes averaged about 487 for the 2 surveys) and so are less precise than the estimates for the state sample derived from a sample size of 1,211 (error estimated at plus or minus 1.7 points).

The findings from this survey, like those obtained two years ago, are consistent with results obtained in the 1997 survey. In fact, differences are so small that we expect the parameter(s) (e.g., incidence of probable pathological gambling problems) have not appreciably changed across the years. Fluctuations in the sampling statistics from one year to the next likely reflect sampling differences rather than changes in the population values of interest.

In the context of this year’s data, if we argue that the sample is randomly representative of the adult Michigan population, then there is a 95 percent probability (95% confidence) that the actual number of lifetime problem gamblers in Michigan is between 206,000 and 455,000. Past year problem gamblers probably (again, with 95% confidence) number between 81,000 and 330,000.³ These “confidence intervals” are a more useful quantification than the point estimates because they take into account the sampling error of estimate expected with a sample of this size.

However, both the point estimates and the confidence intervals built around them probably underestimate the actual number of problem gamblers by the SOGS criteria for two reasons; both occur because the sample is not fully randomly representative of the population. First, recall that telephone interviews tend to underrepresent the young and the poor who may have higher rates of problem gambling. Second, the population figures we used, of course, do not include anyone under the age of 18 who might have a problem since they were excluded from the survey. Our interviews and focus groups in 1997, as well as the survey questions that ask respondents when they started gambling, all suggest a substantial prevalence of gambling among teenagers.

As in 1997 and 1999, the 2001 Michigan estimates are well within the range found in other states. Table 3 (derived from Volberg, 1996a) summarizes this comparison both chronologically and by magnitude of the lifetime rate of problem and probable pathological gambling.

Table 3. Estimates of Statewide Prevalence of Problem and Probable Pathological Gambling

		Lifetime Prevalence (%)	Current Prevalence (%)
<u>Panel A. Chronological Order</u>			
1986	New York	4.2	
1988	New Jersey	4.2	
1988	Maryland	3.9	

³ Recall the range of persons with lifetime and past year problems would be more narrow, both here and in the 1999 estimates, if the sample proportions were used in the construction of the confidence intervals. This year, for example, the population estimates would range from 242,000 to 418,000 adult Michigan residents with a lifetime gambling problem and 139,000 to 271,000 with a past year problem.

1989	Massachusetts	4.4	
1989	Iowa	1.7	
1990	California	4.1	
1990	Minnesota		1.6
1991	South Dakota	2.8	1.4
1991	Connecticut	6.3	
1992	Texas	4.8	2.5
1992	Washington	5.1	2.8
1992	Montana	3.6	2.2
1992	North Dakota	3.5	2.0
1993	South Dakota	2.3	1.2
1994	Georgia	4.4	2.3
1994	Minnesota		3.2
1995	Louisiana	7.0	4.8
1995	Iowa	5.4	3.3
1996	New York	7.3	3.6
1997	Michigan	5.2	3.4
1999	Michigan	4.9	3.2
2001	Michigan	4.5	2.8

Panel B. Ranked by Lifetime Prevalence

1996	New York	7.3	3.6
1995	Louisiana	7.0	4.8
1991	Connecticut	6.3	
1995	Iowa	5.4	3.3
1997	Michigan	5.2	3.4
1992	Washington	5.1	2.8
1999	Michigan	4.9	3.2
1992	Texas	4.8	2.5
2001	Michigan	4.5	2.8
1989	Massachusetts	4.4	
1994	Georgia	4.4	2.3
1986	New York	4.2	
1988	New Jersey	4.2	
1990	California	4.1	
1988	Maryland	3.9	
1992	Montana	3.6	2.2
1992	North Dakota	3.5	2.0
1991	South Dakota	2.8	1.4
1993	South Dakota	2.3	1.2
1989	Iowa	1.7	

Detailed Results

Table 4 shows the rates of participation for each of the 13 types of gambling included in the survey. Recall that respondents were asked whether they had ever participated in each activity

and whether they had done so during the past year. Both responses are provided in Table 4, as are the participation rates broken out by sex and by race. Confidence intervals are also built around the total prevalence rates for both lifetime and past year participation⁴.

As expected, the highest rates of participation are for legal activities, including the lottery and casinos. For the “ever participated” questions, men have statistically higher rates of participation than women in sport betting; betting on their own performance in games of skill; betting on noncasino dice, cards, and video poker; office pools; and numbers play. In all cases, a chi square test for independence was used. This approach is identical to a t test for the difference in two proportions (gender) and provides a single summary measure for the three proportions comparisons for race. Fisher’s Exact Test was used for the single two by two table with small cell frequencies (Internet gambling in the past year by gender).

For the past year activities, men were statistically higher on those same gambling types and on play of the lottery. Women had statistically higher rates for charitable group events and noncharitable bingo, but only for the “ever” questions. White respondents were statistically more likely to have ever participated in charitable group events, horse and dog racing, games of skill, office pools and 50/50 raffles, and stocks/commodities markets. For the past year they were more likely to have participated in charitable group events, office pools and 50/50 raffles, and stocks/commodities markets. Small expected cell frequencies prevented tests of race differences for Internet and other gambling on the ever questions and for horse/dog racing, numbers, noncharitable bingo, Internet gambling sites, and other gambling for the past year.

⁴ We conservatively used an estimated 50 percent participation rate for each activity, thereby giving the largest possible estimate of error and confidence interval.

Table 4. Gambling Participation Rates by Type of Gambling, Sex, and Race

A. Ever Participated

<i>Type of Gambling</i>	<i>Total</i>	<i>95% Confid. Interval</i>	<i>Gender</i>		<i>Race/Ethnicity</i>		
			Male	Female	White	Black	Other
Lottery	68.7	65.9-71.5	70.2	67.8	70.4	67.7	60.2
Charitable Group Events	41.6	38.8-44.4	38	44.8*	45.1	25.4	35.4**
Sports Events	17.5	14.7-20.3	26.5	10**	18.4	13.8	16.2
Horse/Dog Racing	23	20.2-25.8	25.6	21.1	24.7	16.2	17.2*
Numbers Game	6.6	3.8-9.4	9.2	4.4**	6	9.2	9.1
Casinos	60.6	57.8-63.4	62	59.8	62.3	60	54.1
Noncharitable Bingo	10.5	7.7-13.3	8	12.3*	10.8	10.1	9.2
Noncasino Events	13.2	10.4-16.0	21.1	6.8**	13.6	12.3	12.1
Games of Skill	16.9	14.1-19.7	28.3	7.7**	18.4	10.8	12.1*
Office Pools & 50/50 Raffles	44.2	41.4-47.1	48.1	41.1*	47.5	38.5	25.3**
Internet Gambling Sites	1.2	0.0-4.0	1.5	0.9	1.3	1.5	1^
Stocks/Commodities Markets	29.1	26.3-31.9	34.4	25.1**	31.4	16.9	27.3**
Other	2.4	0.0-5.2	3.2	1.5	2.2	1.5	4^

B. Participated During the Last Year

<i>Type of Gambling</i>	<i>Total</i>	<i>95% Confid. Interval</i>	<i>Gender</i>		<i>Race/Ethnicity</i>		
			Male	Female	White	Black	Other
Lottery	50.3	47.5-53.1	53.7	47.6*	51.1	53.8	43.4
Charitable Group Events	26.8	24.0-29.6	24.2	28.9	28.5	16.2	28.3*
Sports Events	9.8	7.0-12.6	15.7	5.3**	9.9	9.2	13.1
Horse/Dog Racing	3.7	0.9-6.5	4.5	3	3.7	3.8	5.1^
Numbers Game	3.1	0.3-5.9	4.3	2.1*	3	2.3	6.1^
Casinos	37.2	34.4-40.0	39.3	35.4	37.3	43.1	35.4
Noncharitable Bingo	3.1	0.3-5.9	3	3.3	3.4	0.8	5.1^
Noncasino Events	7.3	4.5-10.1	11.8	3.8**	7.8	4.6	8.1
Games of Skill	9.5	6.7-12.3	16.4	3.8**	10.3	4.6	10.1
Office Pools & 50/50 Raffles	24.8	22.0-27.6	28.3	21.9*	26.4	23.1	15.2*
Internet Gambling Sites	0.9	0.0-3.7	1.1	0.6	1.1	0.8	0^
Stocks/Commodities Markets	24.5	21.7-27.3	29.7	20.5**	26.3	15.4	23.2*
Other	1.4	0.0-4.2	1.9	0.8	1.3	0.8	3^

*chi square test significant at .05 **chi square test significant at .01

^3by2 table with at least one expected cell frequency less than 5

Table 5 shows variation in SOGS scores for lifetime and current periods by categories of the demographic variables. Although the statewide rates are precise and stable relative to the 1997 and 1999 surveys, the rates for demographic subgroups are based on small samples. As we said in 1999, “they should be read as indicators of potentially important variation rather than precise estimates of incidence. On a technical level, the same point is evidenced in the small cell frequencies for the crosstabulations. Tests of significance therefore have little statistical power and were not computed.”

Table 5. Percent in SOGS Grouping by Demographic Categories

	<i>Lifetime SOGS Score</i>			<i>Past Year/Current SOGS Score</i>		
	0-2	3-4	5+	0-2	3-4	5+
Gender (n=1195)						
Male (n=535)	95	3	2	97.4	1.9	0.7
Female (n=660)	96.1	2.6	1.4	97	1.8	1.2
Race (n=1181)						
White (n=952)	96.5	2.2	1.3	97.9	1.4	0.7
Black (n=130)	88.5	7.7	3.8	93.1	4.6	2.3
Other (n=99)	94.9	2	3	94.9	3	2
Age (n=1168)						
18-29 (n=168)	91.7	5.4	3	93.5	4.2	2.4
30-49 (n=502)	95.4	2.8	1.8	97.4	1.4	1.2
50-64 (n=315)	96.5	2.2	1.3	97.5	1.9	0.6
65+ (n=183)	98.4	1.1	0.5	98.9	1.1	0
Education (n=1197)						
< High School (n=49)	93.9	4.1	2	93.9	4.1	2
High School/GED (n=424)	94.3	3.5	2.1	96.5	2.1	1.4
Some College/Assoc (n=373)	96.8	2.7	0.5	97.9	1.9	0.3
Bachelors Degree (n=165)	95.8	1.8	2.4	98.2	1.2	0.6
Grad. Study/Degree (n=186)	96.2	1.6	2.2	97.3	1.1	1.6
Income (n=867)						
\$25,000 or less (n=177)	92.1	5.1	2.8	94.4	4.5	1.1
\$25,001-\$50,000 (n=277)	94.9	3.2	1.8	96.4	1.8	1.8
\$50,001-\$100,000 (n=299)	97	2	1	98	1.7	0.3
\$100,001 or more (n=114)	94.7	2.6	2.6	96.5	1.8	1.8

Age and race appear to have some correlation to incidence of higher scores on the SOGS; but it is clear that no age, race, gender, education, or income group is immune to the risk of gambling problems.

Table 6 displays the current (past year) SOGS distribution for those who participated in each listed type of gambling activities at least once in the past year. While small numbers of respondents for particular gambling activities make several of the estimates unreliable, broad comparisons may be instructive, especially when trends hold over time. For example, as in our past surveys, 95 percent of those who played the lottery scored as nonproblem gamblers on the past year's SOGS. On the other hand, only 87 percent of respondents who bet on cards, dice, or video poker outside of legal casinos (noncasino events) and 82 percent of respondents who participated in gambling activities other than those we listed scored as nonproblem gamblers.

Table 6. Percent Distribution of Current SOGS Score by Gambling Type in the Past Year

Type of Gambling	n	<i>Past Year/Current SOGS Score</i>		
		0-2	3-4	5+
Lottery	608	95.4	3	1.6
Charitable Group	323	95.4	3.1	1.5
Events				
Sports Events	119	90.8	5.9	3.4
Horse/Dog Racing	45	91.1	4.4	4.4
Numbers Game	38	92.1	2.6	5.3
Casinos	449	94	4.2	1.8
Noncharitable Group	38	94.7	2.6	2.6
Events				
Noncasino Events	89	86.5	7.9	5.6
Games of Skill	115	92.2	5.2	2.6
Office Pools & 50/50	300	96	1.7	2.3
Raffles				
Internet Gambling Sites	11	90.9	9.1	0
Stock/Commodities	297	96.3	2.4	1.3
Markets				
Other	17	82.4	5.9	11.8

Table 7 presents indicators of the past year's gambling behaviors of respondents grouped to each category of both the lifetime and current SOGS. While there are no consistent differences in who respondents gambled with, respondents scoring in the problem categories of the SOGS are more likely to report playing for longer than three hours at a time and losing more than \$100 at a sitting.

Table 7. Past Year's Usual Gambling Behaviors by SOGS Scores, Percent Distributions

	<i>Lifetime SOGS</i>			<i>Past Year SOGS</i>		
	0-2	3-4	5+	0-2	3-4	5+
When you gamble, do you usually do so...						
Don't gamble	14.7	---	---	28.1	---	---
Alone	19.9	20.6	45	17.3	40.9	8.3
With spouse or partner	22.9	20.6	10	19.6	13.6	16.7
With other family members	11	17.6	5	9.6	13.6	0
With friends	22.2	32.4	25	19.1	27.3	50
With coworkers	4	0	0	3.4	0	0
With others	5.1	8.8	15	4.5	4.5	25
N	1079	34	20	1279	22	12
When you gamble, do you usually do so for...						
Don't gamble	14.7	---	---	28.1	---	---
< 1 hour	41.6	15.6	20	36.1	14.3	8.3
1-2 hours	28.3	37.5	25	24.9	33.3	16.7
3-5 hours	11.6	31.3	45	10.2	33.3	66.7
6-12 hours	1.5	15.6	5	1.3	19	8.3
< 12 hours	0.6	0	5	0.6	0	0
N	1081	32	20	1262	21	12
In the past year, what is the largest amount of money you have ever lost gambling in one day?						
Don't gamble	14.7	---	---	28.1	---	---
< \$1	13.4	6.5	0	11.6	5.6	0
\$1-\$9	20.7	0	11.8	17.8	0	9.1
\$10-\$99	35.3	48.4	35.3	31.1	33.3	36.4
\$100-\$999	12.6	35.5	47.1	11.2	50	45.5
\$1,000-\$9,999	0.9	9.7	5.9	0.9	11.1	9.1
\$10,000 or more	0.6	0	0	0.5	0	0
N	1079	31	17	1260	18	11

Results for Problem Gamblers

Table 8 displays results for those respondents who scored as having a problem on the Lifetime SOGS. Estimates are provided here to enable comparison with the estimates reported in 1997 and 1999. The 1999 estimates were based on very small samples that suggested the oversampling of problem and probable pathological gamblers used this year. The first panel of Table 8 displays results from the representative sample. Recall that this sample contains only 54 lifetime problem and probable pathological gamblers (and 34 so scored for the past year). Sampling errors are much larger here (estimates are not very precise²), since such a small number of respondents fell in these categories, especially on contingency questions (questions

²I.e., Another survey sample of this same size might yield a much larger or smaller value of the estimate.

that are answered only by those who answer an entry question in a particular way). Panel B is based on the full set of 206 respondents who scored in the problem or probable pathological categories.

Both panels of Table 8 list important descriptive information for respondents who scored as problem or probable pathological gamblers on the Lifetime SOGS. Differences in the age at which a respondent first gambled are not apparent in either panel and for both lifetime and current contrasts. As expected and reported in our previous studies, larger percentages of probable pathological gamblers than problem gamblers report that the amount they were gambling has made them nervous. It is interesting that while the percentages of probable pathological gamblers who desired to stop tend to be higher than for problem gamblers, the percentages who have actually sought help is not consistently different. Furthermore and more importantly, both groups have very low rates of seeking help. Thoughts of suicide related to gambling were reported by low percentages though, of course, even one such response is troubling. Finally, as before, a small but noticeable percentage of people who score as having a gambling problem also report a substance abuse or mental health problem.

Table 8. Percentages of Problem and Probable Pathological Gamblers for Selected Characteristics

A: Representative Sample

	<i>Life Time SOGS</i>		<i>Past Yr/Current SOGS</i>	
	3-4	5+	3-4	5+
Age First Gambled				
14 or younger	19.4	15.8	10	9.1
15-18	45.2	36.8	55	45.5
19-29	16.1	21.1	15	18.2
30 or older	19.4	26.3	20	27.3
(n=50)	(31)	(19)	(n=31) (20)	(11)
Has Gambling	39.4	68.4	47.6	63.6
Made you Nervous				
(n=52)	(33)	(19)	(n=32) (21)	(11)
Age Made Nervous				
14 or younger	0	7.7	0	0
15-18	9.1	23.1	0	28.6
19-29	81.8	30.8	80	14.3
30 or older	9.1	38.5	20	57.1
(n=24)	(11)	(13)	(n=17) (10)	(7)
Desired to Stop	9.1	21.1	14.3	27.3
(n=52)	(33)	(19)	(n=32) (21)	(11)
Sought Help	3	5.3	4.8	0
(n=52)	(33)	(19)	(n=32) (21)	(11)
Had Suicidal Thoughts	3	5.3	4.8	0
(n=52)	(33)	(19)	(n=32) (21)	(11)
Experience or Treatment				
Alcohol or other drug abuse problem	12.1	15.8	0	18.2
(n=52)	(33)	(19)	(n=32) (21)	(11)
Mental health problem	6.1	5.3	14.3	0
(n=52)	(33)	(19)	(n=32) (21)	(11)

B: Sample of Problem Gamblers

	<i>Life Time SOGS</i>		<i>Past Yr/Current SOGS</i>	
	3-4	5+	3-4	5+
Age First Gambled				
14 or younger	14.3	20.2	16	12.7
15-18	34.8	28.6	29.6	32.7
19-29	19.6	22.6	23.5	20
30 or older	31.3	28.6	30.9	34.5
(n=196)	(112)	(84)	(n=136) (81)	(55)
Has Gambling	38.5	62.8	46.4	57.9
Made You Nervous				
(n=203)	(117)	(86)	(n=141) (84)	(57)
Age Made Nervous				
14 or younger	4.9	3.9	0	3.2
15-18	7.3	17.6	11.1	9.7
19-29	48.8	31.4	50	25.8
30 or older	39	47.1	38.9	61.3
(n=92)	(41)	(51)	(n=67) (36)	(31)
Desired to Stop	6.8	26.7	6.3	9.5
(n=204)	(118)	(86)	(n=141) (84)	(57)
Sought Help	1.7	4.7	2.4	1.8
(n=204)	(118)	(86)	(n=141) (84)	(57)
Had Suicidal Thoughts	1.7	5.8	2.4	5.3
(n=204)	(118)	(86)	(n=141) (84)	(57)
Experience or Treatment				
Alcohol or other drug abuse problem	8.5	15.1	8.3	12.3
(n=204)	(118)	(86)	(n=141) (84)	(57)
Mental health problem	6.8	10.5	9.5	8.8
(n=204)	(118)	(86)	(n=141) (84)	(57)

Summary

The statewide and regional rates of problem gambling and the more detailed presentations of gambling types, demographic correlates of activity, and the behaviors of gamblers present a relatively consistent story over the three Michigan surveys. As a set, they provide one important part of the available evidence on the nature and scope of gambling in Michigan.

The estimates of the gambling behavior of Michigan adults 18 years and older provided in this report are based on what the authors believe are the best survey results available. We also

believe there are weaknesses in this data set as in the results of any such survey. The poorest of our residents are more likely to live without regular phone service. If their gambling behavior is different from that of other residents, it is not fairly captured here. As we have said in the past, however, this effect is probably small.

A more important problem is response bias among those we attempted to contact. While it is not clear that nonresponse is systematically related to the behaviors detailed in this survey, it is at least a good possibility that our estimates are conservative (underestimate the actual rates of problems). Youth and poverty are related to low response and, at least in many data sets, to problem gambling (though the income effect, in particular, is not always clear). A social desirability response might also suggest underreporting or even refusal to participate for problem gamblers. Undoubtedly, much of the nonresponse was for reasons unrelated to gambling behavior, reasons such as an unwillingness to give the time required to respond to the survey. Nevertheless, as response rates decline in telephone surveys, concern over bias increases.

Another reason to believe our estimates may be conservative is the SOGS itself. A cross-validation of the SOGS was found to provide a conservative estimate of probable pathological gamblers, probably around 6 percent (Lesieur & Blume, 1987).

The stability of statewide problem estimates after the casino openings in Detroit is heartening, but one should also recall that the rates in Detroit itself were quite high and not comparably measured in the previous surveys. Internet gambling remained small in this survey, but seems likely to increase. Whether in casinos or home computers, access is presumed to affect the prevalence of gambling. The magnitude of such effects should be discernable over time.

In addition to these major findings, a wealth of detailed information can be found in the tables in this report. A useful strategy for understanding results, as we showed in Table 2, for example, is to convert the survey percentages to estimated population figures. The procedure for making this conversion is to take the point estimate from the table—e.g., the percentage of respondents reporting they played the lottery in the past year (Table 4, Panel B: point estimate is 50.3 percent)—and multiply by the estimated adult population of Michigan (7,342,677) to get an estimate of 3,693,367 adult lottery players. This can also be done for the point estimates that make up the lower and upper bounds of the confidence intervals, which would yield an estimated range for the population figures. A similar procedure for problem gamblers would be to take the point or interval estimates for the representative sample of problem gamblers (remember that this sample is small and therefore yields imprecise estimates) and multiply by the estimated number of adult problem gamblers from Table 2. One should always remember the cautions we have made about response bias and a probable underestimation of many gambling behaviors.

In the context of this report, we can only suggest the range of analysis and discussion that these data will support. We must also note that this richness is multiplied when this study is added to the baseline established in 1997 and the work completed in 1999. But a general lesson is discernable: Estimates continue to suggest that problem gambling is a substantial reality in Michigan and reaches across demographic and geographic boundaries. Perhaps most telling is that even among persons scoring as problem or probable pathological gamblers, rates of help-seeking are very low. All of this reinforces the obligation to continue to systematically collect data on gambling so that the public discussion may be as balanced and informed as possible.

Appendix A:

SURVEY INSTRUMENT

Hello, my name is _____ and I am calling from Western Michigan University on behalf of Dr. David Hartmann and the Michigan Department of Community Health.

Since it is such an important issue, the Michigan Legislature has asked us to survey Michigan citizens on gambling in the state. Could I please speak to the person in your household who is 18 or older and had the most recent birthday? [Would that be you?] [Can I ask you a few questions?]

Your answers are strictly anonymous. By providing them, you are giving your consent to use those answers to understand gambling in Michigan. You have the right to refuse and to skip any question that you do not wish to answer. To ensure professionalism, this conversation may be monitored by my supervisor.

If you have any questions or concerns you may call Dr. David Hartmann, director of the Kercher Center at 616-387-3594; Dr. Donald Thompson, VP of Research; Dr. Michael Pritchard, chair of HSIRB; and Ms. Victoria Janson, Research Compliance Coordinator, all at 616-387-8293.

People spend or bet money on a variety of things including lottery, charitable games such as raffles or church-sponsored bingo, horse races, casinos, sports, cards, and dice.

We will ask you about whether you have ever participated in these activities and whether you have participated in the past 12 months. We will ask about the extent of your participation and how gambling affects other aspects of your life. You may prefer to keep some of your answers private from people who could overhear this interview.

May we continue?

[We understand that not everyone gambles, but your opinions are still very important to us.]

CALLBACK INTRODUCTION: Hello, my name is _____ and I am calling from Western Michigan University on behalf of Dr. David Hartmann and the Michigan Department of Community Health. We called you recently and started an interview with the adult member of this household who had the most recent birthday. That person asked us to call back to complete the survey. May I speak to that person again?

1. Have you ever bet or spent money on the lottery including LOTTO, The Big Game, Daily 3 and 4, Cash 5, Keno, or instant tickets?

Yes (skips to 1a)

No (skips to 2)

Don't know/Refused (skips to 2)

1a. Have you done so in the past year?

Yes

No

Don't know/Refused

2. Have you ever bet on charitable group events such as local bingos, pulltab tickets, Las Vegas nights, or raffles?

Yes (skips to 2a)

No (skips to 3)

Don't know/Refused (skips to 3)

2a. Have you done so in the past year?

Yes

No

Don't know/Refused

3. Have you ever bet on the outcome of sports events?

Yes (skips to 3a)

No (skips to 4)

Don't know/Refused (skips to 4)

3a. Have you done so in the past year?

Yes

No

Don't know/Refused

4. Have you ever bet on horse or dog racing?

Yes (skips to 4a)

No (skips to 5)

Don't know/Refused (skips to 5)

4a. Have you done so in the past year?

Yes

No

Don't know/Refused

5. Have you ever bet or spent money on a numbers game not sponsored by the state lottery?

Yes (skips to 5a)

No (skips to 6)

Don't know/Refused (skips to 6)

5a. Have you done so in the past year?

Yes

No

Don't know/Refused

6. Have you ever bet at casinos (including slots, video machines, and table games)?

Yes (skips to 6a)

No (skips to 7)

Don't know/Refused (skips to 7)

6a. Have you done so in the past year?

Yes

No

Don't know/Refused

7. Have you ever played noncharitable bingo for money?

Yes (skips to 7a)

No (skips to 8)

Don't know/Refused (skips to 8)

7a. Have you done so in the past year?

Yes

No

Don't know/Refused

8. Have you ever bet on cards or dice games or on video poker or other machines not at a casino?

Yes (skips to 8a)

No (skips to 9)

Don't know/Refused (skips to 9)

8a. Have you done so in the past year?

Yes

No

Don't know/Refused

9. Have you ever bet on your performance at games of skill such as pool, golf, bowling, darts, or other games?

Yes (skips to 9a)

No (skips to 10)

Don't know/Refused (skips to 10)

9a. Have you done so in the past year?

Yes

No

Don't know/Refused

10. Have you ever bet in office pools or 50/50 raffles?

Yes (skips to 10a)

No (skips to 11x)

Don't know/Refused (skips to 11x)

10a. Have you done so in the past year?

Yes

No

Don't know/Refused

11x. Have you ever bet money at Internet gambling sites?

Yes (skips to 11y)

No (skips to 11)

Don't know/Refused (skips to 11)

11y. Have you done so in the past year?

Yes

No

Don't know/Refused

11. Have you ever bet or spent money on the stock or commodities markets?

Yes (skips to 11a)

No (skips to 12)

Don't know/Refused (skips to 12)

11a. Have you done so in the past year?

Yes

No

Don't know/Refused

12. Have you bet or spent money on any other type of gambling?

Yes (skips to 12a)

No (skip to 13)

Don't know/Refused (skips to 13)

12a. Have you done so in the past year?

Yes

No

Don't know/Refused

IF "NO" OR "DON'T KNOW/REFUSED" TO ALL GAMBLING ACTIVITIES, SKIP TO SECTION 4: DEMOGRAPHICS.

13. When you gamble, do you usually do so ...

Alone

With your spouse or partner

With other family members

With friends

With coworkers

With some other individual or group

DK/Refused

14. When you gamble, do you usually do so for ...

Less than 1 hour

1-2 hours

3-5 hours

6-12 hours

More than 12 hours

DK/Refused

15. In the past year, what is the largest amount of money you have ever lost gambling in one day?

Less than \$1

\$1 - \$9

\$10 - \$99

\$100 - \$999

\$1,000 - \$9,999

\$10,000 or more

DK/Refused

SECTION 2: SOUTH OAKS GAMBLING SCREEN

The next set of questions is part of a standard measurement scale that has been used throughout the United States in surveys similar to this one. There are no right or wrong answers to the questions that follow. We want to know what your experiences have been. Please try to be as accurate as possible in your answers, and remember that all this information is confidential. [INTERVIEWER: IF YOU ENCOUNTER DIFFICULTIES WITH RESPONDENTS IN COMPLETING THIS SECTION, SAY: "We realize these questions may not apply to everyone, but we would like answers to any of the questions you may choose to answer."]

16A. When you participate in the gambling activities we have discussed, how often do you go back another day to win back money you lost? Is it:

Never (skips to 17A)

Some of the time (SOGS=1)

Most of the time (SOGS=1)

Every time (SOGS=1)

Don't know/Refused (skips to 17A)

16B. How often have you done this in the past year?

Never

Some of the time

Most of the time

Every time

Don't know/Refused

17A. Have you ever claimed to be winning money from these activities when in fact you lost?

Never (skips to 18A)

Some of the time (SOGS=1)

Most of the time (SOGS=1)

Every time (SOGS=1)

Don't know/Refused (skips to 18A)

17B. How often have you done this in the past year?

Never

Some of the time

Most of the time

Every time

Don't know/Refused

18A. Do you ever spend more time or money gambling than you intended?

Yes (SOGS=1)

No (skips to 19A)

Don't know/Refused (skips to 19A)

18B. Have you done this in the past year?

Yes

No

Don't know/Refused

19A. Have people ever criticized your gambling?

Yes (SOGS=1)

No (skips to 20A)

Don't know/Refused (skips to 20A)

19B. Have people criticized your gambling in the past year?

Yes

No

Don't know/Refused

20A. Have you ever felt guilty about the way you gamble or about what happens when you gamble?

Yes (SOGS=1)

No (skips to 21A)

Don't know/Refused (Skip to 21A)

20B. Have you felt this way in the past year?

Yes

No

Don't know/Refused

21A. Have you ever felt that you would like to stop gambling, but didn't think you could?

Yes (SOGS=1)

No (skips to 22A)

Don't know/Refused (skips to 22A)

21B. Have you felt this way in the past year?

Yes

No

Don't know/Refused

22A. Have you ever hidden betting slips, lottery tickets, gambling money, or other signs of gambling from your spouse or partner, children, or other important people in your life?

Yes (SOGS=1)

No (skips to 23)

Don't know/Refused (skips to 23)

22B. Have you done so in the past year?

Yes

No

Don't know/Refused

23. Have you ever argued with people you live with over how you handle money?

Yes (SOGS=1)

No (skips to 25A)

Don't know/Refused (skips to 25A)

24A. Have these arguments ever centered on your gambling?

Yes

No

Don't know/Refused

24B. Have you had any of these arguments in the past year?

Yes

No

Don't know/Refused

25A. Have you ever missed time from work or school due to gambling?

Yes (SOGS=1)

No (skips to 26A)

Don't know/Refused (skips to 26A)

25B. Have you missed time from work or school in the past year due to gambling?

Yes

No

Don't know/Refused

26A. Have you ever borrowed money from someone and not paid them back as a result of your gambling?

Yes (SOGS=1)

No (skips to 27A)

Don't know/Refused (skips to 27A)

26B. Have you done so in the past year?

Yes

No

Don't know/Refused

Next, I am going to read a list of ways in which some people get money for gambling. Can you tell me which of these, if any, you have ever used to get money for gambling or to pay gambling debts?

27A. Have you ever borrowed from household money to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 28A)

Don't know/Refused (skips to 28A)

27B. Have you borrowed from household money in the past year?

Yes

No

Don't know/Refused

28A. Have you ever borrowed money from your spouse or partner to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 29A)

Don't know/Refused (skips to 29A)

28B. Have you borrowed money from your spouse or partner in the past year?

Yes

No

Don't know/Refused

29A. Have you ever borrowed from other relatives or in-laws to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 30A)

Don't know/Refused (skips to 30A)

29B. Have you borrowed from other relatives or in-laws in the past year?

Yes

No

Don't know/Refused

30A. Have you ever gotten loans from banks, loan companies, or credit unions to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 31A)

Don't know/Refused (skips to 31A)

30B. Have you gotten loans from banks, loan companies, or credit unions in the past year?

Yes

No

Don't know/Refused

31A. Have you ever made cash withdrawals on credit cards to get money to gamble or pay gambling debts? [DOES NOT INCLUDE INSTANT CASH CARDS FROM BANK ACCOUNTS]

Yes (SOGS=1)

No (skips to 32A)

Don't know/Refused (skips to 32A)

31B. Have you made cash withdrawals on credit cards in the past year?

Yes

No

Don't know/Refused

32A. Have you ever gotten loans from loan sharks to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 33A)

Don't know/Refused (skips to 33A)

32B. Have you gotten loans from loan sharks in the past year?

Yes

No

Don't know/Refused

33A. Have you ever cashed in stocks, bonds, or other securities to finance gambling?

Yes (SOGS=1)

No (skips to 34A)

Don't know/Refused (skips to 34A)

33B. Have you cashed in stocks, bonds, or other securities in the past year?

Yes

No

Don't know/Refused

34A. Have you ever sold personal or family property to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 35A)

Don't know/Refused (skips to 35A)

34B. Have you sold personal or family property to gamble or pay gambling debts in the past year?

Yes

No

Don't know/Refused

35A. Have you ever borrowed from your checking account by writing checks that bounced to get money for gambling or to pay gambling debts?

Yes (SOGS=1)

No (skips 36A)

Don't know/Refused (skips to 36A)

35B. Have you borrowed from your checking account by writing checks that bounced in the past year?

Yes

No

Don't know/Refused

36A. Have you ever delayed or missed payments on insurance policies, such as life, car, household, or medical insurance, to get money to gamble or pay gambling debts?

Yes (SOGS=1)

No (skips to 37A)

Don't know/Refused (skips to 37A)

36B. Have you delayed or missed payments on insurance policies to gamble or pay gambling debts in the past year?

Yes

No

Don't know/Refused

37A. Have you ever cashed in life insurance premiums to get money to gamble or pay for gambling debts?

Yes (SOGS=1)

No (skips to 38A)

Don't know/Refused (skips to 38A)

37B. Have you cashed in life insurance premiums to get money to gamble or pay for gambling debts in the past year?

Yes

No

Don't know/Refused

38A. Do you feel that you have ever had a problem with betting money or gambling?

Yes (SOGS=1)

No (skips to 39A)

Don't know/Refused (skips to 39A)

38B. Do you feel that you have had a problem with betting money or gambling in the past year?

Yes

No

Don't know/Refused

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

Yes (SOGS=1)

No*

Don't know/Refused*

*skips to 40A if SOGS score is 3 or more or to 73 if SOGS score is less than 3.

39A. Which parent was that? [Select all that apply] (skips to 40A if SOGS score is 3 or more or to 73 if SOGS score is less than 3)

Father

Mother

Stepfather

Stepmother

No more apply/refused

SECTION 3: IN-DEPTH ANALYSIS OF PROBLEM GAMBLERS

Ask Section 3 only of those who score as Problem Gamblers on the SOGS (generated by the computer). The skip pattern is based on the responses to questions 1 through 12.

For each of the gambling activities in which you participated in the past year, we would like your estimate of the amount of time and money you spent.

[INTERVIEWER: If needed, say ... "I am only looking for an approximate amount, rounded to the nearest 5 dollars or so."]

40A. For the lottery (LOTTO, Big Game, Daily 3 and 4, Cash 5, Keno, or instant tickets, can you give me an estimate of the amount you spend in a typical month?

40B. Did you play the lottery at least once a week?

Yes

No

Don't know/Refused

41A. For charitable group events, such as bingo or Las Vegas nights, can you give me an estimate of the amount you spend in a typical month?

41B. Did you play charitable group events at least once a week?

Yes

No

Don't know/Refused

42A. For sports betting, can you give me an estimate of the amount you spend in a typical month?

42B. Did you bet on sports at least once a week?

Yes

No

Don't know/Refused

43A. For betting on horse or dog racing, can you give me an estimate of the amount you spend in a typical month?

43B. Did you bet on horse or dog racing at least once a week?

Yes

No

Don't know/Refused

44A. For nonlottery numbers games, can you give me an estimate of the amount you spend in a typical month?

44B. Did you play nonlottery numbers or policy at least once a week?

Yes

No

Don't know/Refused

45A. For betting at casinos, can you give me an estimate of the amount you spend in a typical month?

45B. Did you bet at casinos at least once a week?

Yes

No

Don't know/Refused

46A. For playing noncharitable bingo for money, can you give me an estimate of the amount you spend in a typical month?

46B. Did you play noncharitable bingo for money at least once a week?

Yes

No

Don't know/Refused

47A. For cards, dice, video poker, or other machine games not in a casino, can you give me an estimate of the amount you spend in a typical month?

47B. Did you bet on cards, dice, video poker, or other machine games not in a casino at least once a week?

Yes

No

Don't know/Refused

48A. For betting on your performance at games of skill like pool, golf, bowling, or darts, can you give me an estimate of the amount you spend in a typical month?

48B. Did you bet on your performance at games of skill at least once a week?

Yes

No

Don't know/Refused

49A. For office pools or 50/50 raffles, can you give me an estimate of the amount you spend in a typical month?

49B. Did you bet on office pools or 50/50 raffles at least once a week?

Yes

No

Don't know/Refused

50A. For Internet gambling, can you give me an estimate of the amount you spend in a typical month?

50B. Did you bet at Internet gambling sites at least once a week?

Yes

No

Don't know/Refused

51A. For the stock or commodities markets, can you give me an estimate of the amount you spend in a typical month?

51B. Did you play the stock or commodities markets at least once a week?

Yes

No

Don't know/Refused

52A. For other types of gambling, can you give me an estimate of the amount you spend in a typical month?

52B. Did you bet on other forms of gambling at least once a week?

Yes

No

Don't know/Refused

53. Which type of gambling would you find most difficult to give up? [Choose only one; read list if necessary; i.e., respondent hesitates.]

- The lottery (LOTTO, Big Game, Daily 3 and 4, Cash 5, Keno, etc.)
- Charitable group events (bingo, pulltab tickets, Las Vegas nights, raffles)
- The outcome of sports events
- Horse or dog racing
- A numbers game not sponsored by the state lottery
- Casinos (including slots, video machines, and table games)
- Playing noncharitable bingo for money
- Cards or dice games or video poker or other machines not at a casino
- Your performance at games of skill (pool, golf, bowling, darts, etc.)
- Office pools or 50/50 raffles
- Internet gambling sites
- Playing the stock or commodities markets
- Other (Please specify).
- Don't know/Refused/No more apply

B. History and Treatment

54. How old were you when you first gambled?

55. What type of gambling was that? [Choose only one]

- The lottery (LOTTO, Big Game, Daily 3 and 4, Cash 5, Keno, etc.)
- Charitable group events (bingo, pulltab tickets, Las Vegas nights, raffles)
- The outcome of sports events
- Horse or dog racing
- A numbers game not sponsored by the state lottery
- Casinos (including slots, video machines, and table games)
- Playing noncharitable bingo for money
- Cards or dice games or video poker or other machines not at a casino
- Your performance at games of skill (pool, golf, bowling, darts, etc.)
- Office pools or 50/50 raffles
- Internet gambling sites
- Playing the stock or commodities markets
- Other (Please specify)
- Don't know/Refused

56. Was there any time when the amount you were gambling made you nervous?

Yes

No (skips to 68)

Don't know/Refused (skips to 68)

57. How old were you when that happened?

58. What type of gambling were you doing when that happened? (Choose only one)

- The lottery (LOTTO, Big Game, Daily 3 and 4, Cash 5, Keno, etc.)
- Charitable group events (bingo, pulltab tickets, Las Vegas nights, raffles)
- The outcome of sports events
- Horse or dog racing
- A numbers game not sponsored by the state lottery
- Casinos (including slots, video machines, and table games)
- Playing noncharitable bingo for money
- Cards or dice games or video poker or other machines not at a casino
- Your performance at games of skill (pool, golf, bowling, darts, etc.)
- Office pools or 50/50 raffles
- Internet gambling sites
- Playing the stock or commodities markets
- Other (Please specify)
- Don't know/Refused

59. Have you ever desired help to stop gambling?

- Yes
- No
- Don't know/Refused

60. Have you ever sought help to stop gambling?

- Yes
- No
- Don't know/Refused

61. What type of help was that? [Read list; mark all that apply]

- Family member
- Friend
- Family doctor
- Gamblers Anonymous/Gamanon
- Problem gambling treatment program in Michigan
- Employee assistance program (EAP)
- Professional Counseling (Psychologist/Psychiatrist/Other counselor)
- Minister/Priest/Rabbi/Imam (Muslim prayer leader)
- Alcohol or drug abuse treatment program
- Refused/No more apply

61a. Have you ever called the State Problem Gambling Help Line (1-800-270-7117).

- Yes
- No
- Don't know/Refused

61b. Have you ever experienced thoughts of suicide related to your gambling?

Yes

No

Don't know/Refused

C. Cross-Addictions

62. Have you ever experienced or been treated for an alcohol or other drug abuse problem?

Yes

No

DK/Refused

63. Have you ever experienced or been treated for a mental health problem?

Yes

No

DK/Refused

SECTION 4: DEMOGRAPHICS

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

64. Are you currently married, widowed, divorced, separated, or have you never been married?

Married, common-law, cohabitation

Widowed

Divorced

Separated

Never married

DK/Refused

65. Including yourself, how many people age 18 and over live in your household?

66. What is the last grade of school you completed?

Elementary or some high school

High school graduate or G.E.D.

Some college or associates degree (vocational, technical or trade school)

Undergraduate degree

Graduate study or degree

DK/Refused

67. Last week, were you working full-time, part-time, going to school, keeping house, or something else? [Choose all that apply.]

Working full-time

Working part-time

Going to school

Keeping house

Disabled

Retired

Unemployed

Something else

No more apply/Refused:

68. What is your age?

69. Do you consider yourself Hispanic?

Yes

No

Don't know/Refused

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

White/Caucasian

Black/African American

Native American

Asian

Other

No opinion/Refused

71. What was your total household income last year?

Under \$15,000

\$15,001 to \$25,000

\$25,001 to \$35,000

\$35,001 to \$50,000

\$50,001 to \$75,000

\$75,001 to \$100,000

\$100,001 to \$125,000

Over \$125,000

Don't know/Refused

72. In what county do you live?

73. Could I have the name of the city you live in or nearest to?

That was the last question. Thank you very much for your time and cooperation.

74. RESPONDENT'S SEX (DON'T ASK)

Male

Female

Cannot tell

Appendix B:

COUNTIES IN GEOGRAPHIC REGIONS

1= City of Detroit

2= Detroit Metro Area (excluding Detroit)

Wayne County (excluding Detroit)
St. Clair
Lapeer
Macomb
Oakland
Livingston
Washtenaw
Monroe

3= East Region of the State

Cheboygan	Bay	Presque Isle
Huron	Otsego	Sanilac
Montmorency	Tuscola	Alpena
Saginaw	Crawford	Gratiot
Oscoda	Clinton	Alcona
Shiawassee	Roscommon	Genesee
Ogemaw	Eaton	Iosco
Ingham	Clare	Jackson
Gladwin	Hillsdale	Arenac
Lenawee	Isabella	Midland

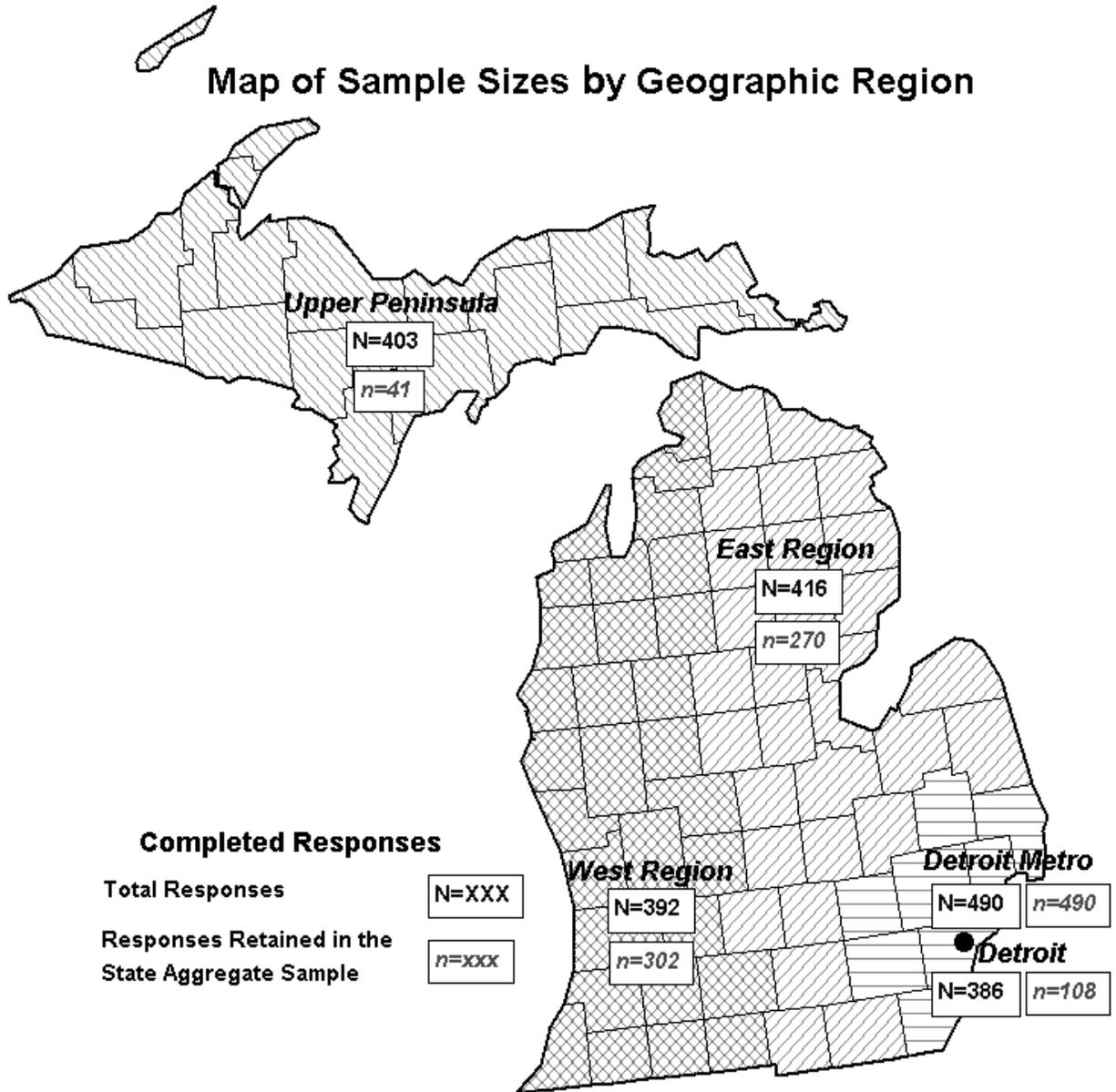
4= West Region of the State

Emmet	St. Joseph	Charlevoix
Cass	Antrim	Berrien
Leelanau	Van Buren	Benzie
Kalamazoo	Grand Traverse	Kalkaska
Manistee	Wexford	Missaukee
Mason	Lake	Osceola
Oceana	Newaygo	Mecosta
Montcalm	Ionia	Kent
Ottawa	Muskegon	Allegan
Barry	Calhoun	Branch

5= Upper Peninsula

Delta	Schoolcraft	Mackinac
Chippewa	Luce	Alger
Menominee	Dickinson	Marquette
Iron	Baraga	Houghton
Keweenaw	Ontonagon	Gogebic

Figure 1. Map of Total Responses and Responses Retained in State Aggregate Sample by Geographic Region



References

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders (3rd ed.-rev)*. Washington, DC: Author.

Blalock, H. M. (1979). *Social statistics, 2nd edition revised*, New York: McGraw-Hill.

Lesieur, H. R., & Blume, S. (1987) . The South Oaks gambling screen (SOGS): A new instrument for the identification of pathological gamblers. *American Journal of Psychiatry*, 144(9), 1184-1188.

United States Census (1998). Population estimates for the U.S., regions, and states by selected age groups and sex: Annual time series, July 1, 1990, to July 1, 1998. Retrieved from www.census.gov/population/estimates/state/sage9890.txt

Volberg, R. A. (1995a). *Gambling and problem gambling in Georgia*. (Report to the Georgia Department of Human Resources). Roaring Spring, PA: Gemini Research.

Volberg, R. A. (1995b). *Gambling and problem gambling in Iowa: A replication survey*. (Report to the Iowa Department of Human Services, Division of Mental Health and Developmental Disabilities, Gambling Treatment Program). Des Moines: Iowa Department of Human Services.

Volberg, R. A. (1996a). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies*, 12(12), 111-128.

Volberg, R. A. (1996b). *Wagering and problem wagering in Louisiana*. (Report to the Louisiana Economic Development & Gaming Corporation). Roaring Spring, PA: Gemini Research.

Volberg, R. A. (1996c). *Gambling and problem gambling in New York: A 10-year replication survey, 1986 to 1996*. (Report to the New York Council on Problem Gambling). Roaring Spring, PA: Gemini Research.