A Survey of Gambling Behaviors in Michigan, 1999

By

The Evaluation Center with the Kercher Center for Social Research

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This study was conducted under contract for The Michigan Department of Community Health. The views expressed are those of the authors and do not necessarily reflect those of any of the above organizations.
Acknowledgments

Arlen Gullickson, Project Director of this and the 1997 State Gambling Project, participated fully in the development and design of the work reported here. David Hartman was responsible for all data collection and for preparation of the report of 1999 findings. He is the primary author of this report. William Wiersma synthesized and reported findings from this and the 1997 report. Rob Wright again did the CATI system programming. Rob and Wally Post created and cleaned the SPSS data file and the statistical output that is reported in these pages. Several persons associated with the Kercher Center for Social Science Research conducted interviews and/or supervised interviewers. Their assistance is acknowledged and appreciated. Their conscientious efforts have allowed the collection of an invaluable data set. As in 1997, the most important debt is to the 1,717 Michigan residents who gave of their time and experience to answer our questions about gambling.

As mentioned in the 1997 report, the survey we used was adapted from the work of Rachel Volberg who was also a consultant on the 1997 project. Her published material and her willing assistance on the phone and in person are gratefully acknowledged.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgments</td>
<td>i</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>ii</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Characteristics of the Sample</td>
<td>3</td>
</tr>
<tr>
<td>Results</td>
<td>7</td>
</tr>
<tr>
<td>Detailed Results</td>
<td>12</td>
</tr>
<tr>
<td>Results for Problem Gamblers</td>
<td>18</td>
</tr>
<tr>
<td>1997 - 1999 Comparison (by William Wiersma)</td>
<td>20</td>
</tr>
<tr>
<td>Summary</td>
<td>21</td>
</tr>
<tr>
<td>References</td>
<td>24</td>
</tr>
<tr>
<td>Appendix A: Survey</td>
<td>25</td>
</tr>
<tr>
<td>Appendix B: Counties in Geographic Regions</td>
<td>42</td>
</tr>
</tbody>
</table>

Introduction

The 1999 Survey of Gambling Behaviors in Michigan is a replication of the 1997 survey with only minor changes. One change was to add questions about Internet gambling. Another was to sample and collect responses so as to produce sample sizes of about 400 adults from each of 4 regions in Michigan: the Detroit metropolitan area, eastern Michigan, West Michigan, and the Upper Peninsula (U.P.) (see Appendix B for a list of counties in each region). This design allows inference of the rate of problem gambling (liberally estimated at 10 percent) within those regions with a reasonable degree of precision (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 with precision for the rate of problem gambling of plus or minus 2 percentage points (n=900)\textsuperscript{1}.

As before, the primary aim of the survey piece is to establish a precise estimate of problem gambling in the population (Michigan residents 18 years and older). The survey was administered through a Computer Assisted Telephone Interviewing approach utilizing a random-digit dialing telephone sample obtained from Survey Sampling Inc. This approach has been used in virtually all state level studies of gambling prevalence. The approach is economically efficient, maximizes

\[ B = 2 \sqrt{\frac{pq}{n}} \]

\textsuperscript{1}The bounds of inference are calculated as \( B = 2 \sqrt{\frac{pq}{n}} \) 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-\( p \), and \( n \) is the sample size. For example; for \( p=.1 \) and \( n=900 \), \( B=.02 \).
response rates, and eliminates most sources of response bias. The original form of the survey instrument 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.

The South Oaks Gambling Screen (Lesieur & Blume, 1987) asks about a range of behaviors and orientations toward gambling and is highly correlated with the APA’s DSM-III-R criteria (American Psychiatric Association, 1987) for pathological gambling. 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.” Although conventional use of these terms is as presented here, the 3 through 4 score, like the higher score, is only an indicator of a problem condition and could also reasonably be presented as “probable problem gambling.”

As is customary in current use of the SOGS, we asked each of the 20 questions for two time frames: “ever” and “in the past year.” These give rise to a “lifetime” SOGS score and a “current” (past year) SOGS score.

The addition of Internet gambling questions was suggested by representatives of the Department of Community Health and were the only substantive changes from the instrument developed by the staff of the Kercher Center and The Evaluation Center in consultation with Dr. Volberg in 1997. The instrument was pretested in June 1999 without incident or cause for revision.

Student interviewers were trained, and interviewing began on June 28, 1999, and continued until September 2, 1999. Interviewing in the Detroit metropolitan area was completed
by the opening date of the new Detroit casinos in July 1999. 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 or afternoon calls were made at regular intervals and at the request of people
contacted during the regular calling hours.

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 of responses by gender and imposition of a screen to increase male
respondents if needed. This screen was required in three of the four geographic regions of the
state. It was not deemed necessary in the Detroit counties since the deviation from census values
was within sampling error. This monitoring and screening has routinely been used in statewide
studies of gambling prevalence in recent years (Volberg, 1995a; 1996a; 1996b; 1996c).

A total of 1,717 responses was obtained, while 2,067 people refused to participate and 50
terminated the interview before its completion. Therefore, the response rate was 45 percent. This
rate is within the expected range for telephone surveys over the past five years and is somewhat
better than the last three statewide surveys reported: a 36 percent rate in New York in 1996, a 40
percent rate for Louisiana in 1995, and a 43 percent rate in the 1997 Michigan study.
Furthermore, as expected, response rates were better as one moved away from the Detroit
metropolitan area where market research and solicitation calls were expected to be more
prevalent. The response rate was 41 percent in the Detroit metropolitan area, 43 percent in the
remaining counties in eastern Michigan, 47 percent in the counties of western Michigan, and 50
percent in the counties of the Upper Peninsula (U.P.).
Since samples sizes of at least 400 were collected by region to allow inferences 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 1990 census population aged 18 and over for the state, 50.4 percent resided in the Detroit counties, 22.4 percent in the east, 23.6 percent in the west, and 3.5 percent in the U.P. For an aggregate sample size of 900, allowing inference for problem gambling rates with a precision of plus or minus 2 points, we randomly sampled from each region to select 455 from the Detroit counties, 202 from the east, 212 from the west, and 31 from the U.P. That aggregate sample is used throughout this report as the “state sample.”

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 1990 census figures for the state.

While telephone surveys are acknowledged to have the best response rates and random digit approaches to yield the most representative samples, these approaches do have known weaknesses as well. Typically, telephone surveys underrepresent poor people and therefore tend to underrepresent characteristics associated with low income. This is due to two established factors. First, the poor simply are less likely to own a phone. Second, participation rates in survey research are directly related to education. Other, less well documented factors include the possibility that poorer families are 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), a younger age structure (also related to presence in the home and willingness to participate), and possibly a
mistrust of answering questions in general (because of less experience and a perception of lesser verbal skills). In any event, most telephone surveys expect to underrepresent the poor and less educated and consequently black and inner-city residents as well.

Each statewide gambling study we reviewed over the past three years report 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 contends 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)

It is important to note 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 1999 Michigan survey and of census descriptors for Michigan’s adult population. The screen for males corrected the gender representation issue to within 1 percentage point. As expected, however, there are deviations suggesting an underrepresentation of African-American respondents, 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). Also as expected, the deviation is largest for income where a substantial part of the gap is due to inflation since the 1990 census.

Table 1. Percent of Sample in Demographic Categories Compared to Those of the 1990 Census Samples
<table>
<thead>
<tr>
<th></th>
<th>Detroit Metro.</th>
<th>East Region</th>
<th>West Region</th>
<th>U.P.</th>
<th>State</th>
<th>1990 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>478</td>
<td>423</td>
<td>402</td>
<td>414</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>42.9</td>
<td>45.6</td>
<td>50.0</td>
<td>48.3</td>
<td>46.6</td>
<td><strong>47.6</strong></td>
</tr>
<tr>
<td>Female</td>
<td>57.1</td>
<td>54.4</td>
<td>50.0</td>
<td>51.7</td>
<td>53.4</td>
<td><strong>52.4</strong></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>84.1</td>
<td>88.5</td>
<td>90.6</td>
<td>93.2</td>
<td>87.3</td>
<td><strong>84.9</strong></td>
</tr>
<tr>
<td>Black</td>
<td>10.8</td>
<td>5.5</td>
<td>5.1</td>
<td>0.2</td>
<td>8.0</td>
<td><strong>12.7</strong></td>
</tr>
<tr>
<td>Other</td>
<td>5.1</td>
<td>6.0</td>
<td>4.3</td>
<td>6.6</td>
<td>4.8</td>
<td><strong>2.3</strong></td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.1</td>
<td>3.8</td>
<td>1.0</td>
<td>1.5</td>
<td>2.5</td>
<td><strong>1.7</strong></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>16.5</td>
<td>12.3</td>
<td>12.7</td>
<td>9.7</td>
<td>13.6</td>
<td><strong>25.7</strong></td>
</tr>
<tr>
<td>30-49</td>
<td>47.6</td>
<td>41.7</td>
<td>42.5</td>
<td>43.7</td>
<td>44.5</td>
<td><strong>40.3</strong></td>
</tr>
<tr>
<td>50-64</td>
<td>19.4</td>
<td>25.8</td>
<td>23.1</td>
<td>27.1</td>
<td>22.8</td>
<td><strong>17.9</strong></td>
</tr>
<tr>
<td>65+</td>
<td>16.5</td>
<td>20.1</td>
<td>21.6</td>
<td>19.6</td>
<td>19.0</td>
<td><strong>16.2</strong></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;High School</td>
<td>4.2</td>
<td>6.9</td>
<td>3.3</td>
<td>4.9</td>
<td>4.7</td>
<td><strong>19.1</strong></td>
</tr>
<tr>
<td>High</td>
<td>30.8</td>
<td>37.3</td>
<td>36.1</td>
<td>40.9</td>
<td>33.8</td>
<td><strong>34.1</strong></td>
</tr>
<tr>
<td>Some College</td>
<td>31.6</td>
<td>29.5</td>
<td>32.3</td>
<td>29.7</td>
<td>30.5</td>
<td><strong>28.6</strong></td>
</tr>
<tr>
<td>Bachelors</td>
<td>19.2</td>
<td>15.0</td>
<td>18.2</td>
<td>15.6</td>
<td>18.3</td>
<td></td>
</tr>
<tr>
<td>Grad.</td>
<td>14.1</td>
<td>11.4</td>
<td>10.1</td>
<td>9.0</td>
<td>12.7</td>
<td><strong>18.3</strong>*</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;$25,000</td>
<td>16.4</td>
<td>22.2</td>
<td>22.5</td>
<td>24.8</td>
<td>18.3</td>
<td><strong>40.6</strong></td>
</tr>
<tr>
<td>$25,000 to</td>
<td>28.8</td>
<td>32.2</td>
<td>37.3</td>
<td>36.6</td>
<td>33.0</td>
<td><strong>34.0</strong></td>
</tr>
<tr>
<td>$50,000 to</td>
<td>42.5</td>
<td>38.8</td>
<td>32.8</td>
<td>32.2</td>
<td>40.4</td>
<td><strong>21.6</strong></td>
</tr>
<tr>
<td>$100,00+</td>
<td>12.4</td>
<td>6.9</td>
<td>7.4</td>
<td>6.4</td>
<td>8.4</td>
<td><strong>3.8</strong></td>
</tr>
</tbody>
</table>

* The Census reports the top category as “bachelors, graduate, or professional degree.”
Nevertheless, as in 1997, the sample does underrepresent the poorest residents of Michigan. Following the lead of other statewide studies, we did not weight the sample in this report.

Those selected for a telephone survey about issues such as gambling may self-select into or out of the survey by whether or not they respond. This is true for any telephone survey. Typically, at least when addressing issues such as gambling behavior in recent years, fewer than 50 percent of those contacted are willing to respond to the questions. It is not known whether the reasons for not responding have any relationship to gambling behavior. There are no apparent reasons why there should be a relationship. Anyone not having a telephone was excluded from the sample. Again, there is no apparent reason why the availability of a telephone should have any relationship to gambling behavior. In summary, the responses to this survey represent the 18-year and older population that has telephones and is willing to respond to the questions. They are not likely to differ dramatically from population values but may be somewhat conservative.

Results

The main variables of interest in this 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 months) periods. The percent who ever gambled and gambled in the past year are well within the expected ranges based on previous statewide surveys. Table 2 also presents the SOGS scores for geographic regions of the state defined by counties (see Appendix B).
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

Gambling Experiences

<table>
<thead>
<tr>
<th>Ever</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>800</td>
<td>88.9</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>11.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Year</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>698</td>
<td>77.6</td>
</tr>
<tr>
<td>No</td>
<td>201</td>
<td>22.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lifetime SOGS Score</th>
<th>0-2</th>
<th>3-4</th>
<th>5+</th>
<th>Current SOGS Score</th>
<th>0-2</th>
<th>3-4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>856</td>
<td>28</td>
<td>16</td>
<td></td>
<td>871</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>percent</td>
<td>95.1</td>
<td>3.1</td>
<td>1.8</td>
<td></td>
<td>96.8</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>(total problem gamblers)</td>
<td>(4.9)</td>
<td></td>
<td></td>
<td>(total problem gamblers)</td>
<td>(3.2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

estimated total problem gamblers

<table>
<thead>
<tr>
<th>point estimate</th>
<th>356,016</th>
<th>232,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% confidence interval</td>
<td>(210,703 -501,328)</td>
<td>(87,188 - 377,813)</td>
</tr>
</tbody>
</table>

B. Geographic Regions of Michigan

<table>
<thead>
<tr>
<th>Lifetime SOGS Score, %</th>
<th>Current SOGS Score, %</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2</td>
<td>3-4</td>
</tr>
<tr>
<td>Detroit Metro.</td>
<td>93.6</td>
<td>3.9</td>
</tr>
<tr>
<td>East Region</td>
<td>95.5</td>
<td>2.8</td>
</tr>
<tr>
<td>West Region</td>
<td>97.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Upper Pen.</td>
<td>94.9</td>
<td>2.7</td>
</tr>
</tbody>
</table>
Higher rates for the Detroit metropolitan area are evidenced as is a lower lifetime rate for the Upper Peninsula, while the current rates for the U.P. are comparable to the statewide rates. These rates for geographic regions, of course, are based on sample sizes of approximately 400 (error estimated at plus or minus 3 points) and so are less precise than the estimates for the state sample derived from a sample size of 900 (error estimated at plus or minus 2 points).

An important result illustrated in Table 2 is that, based on a 1998 Michigan census estimate of 7,265,627 residents 18 years of age and older (United States Census, 1998), the SOGS survey estimates that more than 350,000 adult Michigan residents have a lifetime gambling problem, with more than 130,000 of those estimated to have a probable pathological condition as indicated by a score of 5 or more on the Lifetime SOGS. Similarly, the survey results indicate that more than 220,000 Michigan adults currently have a gambling problem, with more than 85,000 of those having a severe or “probable pathological” problem.

These figures represent the best single number estimate (“point estimate”), but the actual population value most likely falls near but not precisely at these numbers. Given the sample size and the experience of other studies that the actual rate of problem gambling is no more than about 10 percent of adults reachable by phone, there is a 95 percent probability that the actual number of lifetime problem gamblers in Michigan is between 210,000 and 501,000. Past year problem gamblers probably (again, with 95 percent confidence) number between 87,000 and 377,000. These “confidence intervals” are a more useful quantification than the point estimates because they take into account the error of estimate expected with a sample of this size.

Both the point estimates and the confidence intervals built around them probably underestimate the actual number of problem gamblers by the SOGS criteria. There are two
reasons. First, as discussed in more detail in the 1997 report, 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, the 1999 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.

The analysis from 1997 still holds. Panel B shows that the Michigan lifetime rate is higher than most states that have performed such studies, but Panel A shows it is relatively low among states doing a recent survey. Those recent surveys in New York, Iowa, and Louisiana may reflect both a rise in gambling overall and the fact that those particular states either contain or are adjacent to a large casino presence. This tendency is even more dramatically reflected in “current” (past year) problems. Note that no study prior to 1994 showed a current prevalence rate as high as 3 percent. Every study since then, including Michigan, has exceeded the 3 percent figure. As we said in 1997, “As the availability of casinos increases in Michigan, changes in the state’s prevalence rates for problem and pathological gambling should be closely monitored.”

Table 3. Estimates of Statewide Prevalence of Problem and Probable Pathological Gambling
<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Lifetime Prevalence (%)</th>
<th>Current Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>New York</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>New Jersey</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>Maryland</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>Massachusetts</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>Iowa</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>California</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>Minnesota</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>South Dakota</td>
<td>2.8</td>
<td>1.4</td>
</tr>
<tr>
<td>1991</td>
<td>Connecticut</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Texas</td>
<td>4.8</td>
<td>2.5</td>
</tr>
<tr>
<td>1992</td>
<td>Washington</td>
<td>5.1</td>
<td>2.8</td>
</tr>
<tr>
<td>1992</td>
<td>Montana</td>
<td>3.6</td>
<td>2.2</td>
</tr>
<tr>
<td>1992</td>
<td>North Dakota</td>
<td>3.5</td>
<td>2.0</td>
</tr>
<tr>
<td>1993</td>
<td>South Dakota</td>
<td>2.3</td>
<td>1.2</td>
</tr>
<tr>
<td>1994</td>
<td>Georgia</td>
<td>4.4</td>
<td>2.3</td>
</tr>
<tr>
<td>1994</td>
<td>Minnesota</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>Louisiana</td>
<td>7.0</td>
<td>4.8</td>
</tr>
<tr>
<td>1995</td>
<td>Iowa</td>
<td>5.4</td>
<td>3.3</td>
</tr>
<tr>
<td>1996</td>
<td>New York</td>
<td>7.3</td>
<td>3.6</td>
</tr>
<tr>
<td>1997</td>
<td>Michigan</td>
<td>5.2</td>
<td>3.4</td>
</tr>
<tr>
<td>1999</td>
<td>Michigan</td>
<td>4.9</td>
<td>3.2</td>
</tr>
</tbody>
</table>

**Panel A. Chronological Order**

**Panel B. Ranked by Lifetime Prevalence**
Detailed Results

Table 4 shows the rates of participation for each of the 13 types of gambling included in the survey. 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 participation. Participation rates for other demographic subgroups were presented in 1997, but the smaller sample collected this year argued against new estimates of those rates. One type of gambling activity, the use of Internet gambling sites, was included this year but not in 1997.

Table 4 shows the overall rates of participation in each activity “ever” and “in the past year.” Rates by sex and racial category are also displayed. As expected, the highest rates of participation are for legal activities including the lottery and casinos. Both “ever” and “in the past year” males have higher rates of participation than females in sport betting, horse or dog racing, betting on their own performance in games of skill, betting on noncasino dice, cards and video poker, office pools, numbers play, and the lottery. Small cell frequencies prevent tests of race differences in several activities (e.g., office pools).

---

3We 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

<table>
<thead>
<tr>
<th>Type of Gambling</th>
<th>Total</th>
<th>95% Confid. Interval</th>
<th>Gender</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Lottery</td>
<td>75.3</td>
<td>(72.0-78.6)</td>
<td>79.3</td>
<td>71.8**</td>
</tr>
<tr>
<td>Charitable Group Events</td>
<td>45.3</td>
<td>(42.0-48.6)</td>
<td>45.7</td>
<td>45.0</td>
</tr>
<tr>
<td>Sports Events</td>
<td>21.3</td>
<td>(18.0-24.6)</td>
<td>32.4</td>
<td>11.7**</td>
</tr>
<tr>
<td>Horse/Dog Racing</td>
<td>29.8</td>
<td>(26.5-33.1)</td>
<td>35.0</td>
<td>25.2**</td>
</tr>
<tr>
<td>Numbers Game</td>
<td>9.4</td>
<td>(6.1-12.7)</td>
<td>13.7</td>
<td>5.7**</td>
</tr>
<tr>
<td>Casinos</td>
<td>62.9</td>
<td>(59.6-66.2)</td>
<td>63.5</td>
<td>62.3</td>
</tr>
<tr>
<td>Noncharitable Bingo</td>
<td>8.3</td>
<td>(5.0-11.6)</td>
<td>6.7</td>
<td>9.6</td>
</tr>
<tr>
<td>Noncasino Events</td>
<td>18.7</td>
<td>(15.4-22.0)</td>
<td>26.9</td>
<td>11.5**</td>
</tr>
<tr>
<td>Games of Skill</td>
<td>25.8</td>
<td>(22.5-29.1)</td>
<td>42.1</td>
<td>11.7**</td>
</tr>
<tr>
<td>Office Pools</td>
<td>50.6</td>
<td>(47.3-53.9)</td>
<td>57.1</td>
<td>45.0**</td>
</tr>
<tr>
<td>Internet Gambling Sites</td>
<td>0.6</td>
<td>(0.0-3.9)</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Stock/Commodities Market</td>
<td>34.5</td>
<td>(31.2-37.8)</td>
<td>38.9</td>
<td>30.5**</td>
</tr>
<tr>
<td>Other</td>
<td>3.1</td>
<td>(0.0-6.4)</td>
<td>5.3</td>
<td>1.3**</td>
</tr>
</tbody>
</table>

Table 4. Gambling Participation Rates By Type of Gambling, Sex, and Race (continued)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
<th>95% Confid. Interval</th>
<th>Gender</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Lottery</td>
<td>58.4</td>
<td>(55.1-61.7)</td>
<td>61.8</td>
<td>55.5*</td>
</tr>
<tr>
<td>Charitable Group Events</td>
<td>31.0</td>
<td>(27.7-34.3)</td>
<td>32.2</td>
<td>29.9</td>
</tr>
<tr>
<td>Sports Events</td>
<td>14.0</td>
<td>(10.7-17.3)</td>
<td>20.7</td>
<td>8.2**</td>
</tr>
<tr>
<td>Horse/Dog Racing</td>
<td>5.6</td>
<td>(2.3 - 8.9)</td>
<td>7.9</td>
<td>3.6**</td>
</tr>
<tr>
<td>Numbers Game</td>
<td>4.6</td>
<td>(1.3 - 7.9)</td>
<td>7.2</td>
<td>2.3**</td>
</tr>
<tr>
<td>Casinos</td>
<td>38.9</td>
<td>(35.6-42.2)</td>
<td>38.8</td>
<td>38.9</td>
</tr>
<tr>
<td>Noncharitable Bingo</td>
<td>3.1</td>
<td>(0.0 - 6.4)</td>
<td>2.4</td>
<td>3.8</td>
</tr>
<tr>
<td>Noncasino Events</td>
<td>11.6</td>
<td>(8.3-14.9)</td>
<td>16.3</td>
<td>7.5**</td>
</tr>
<tr>
<td>Games of Skill</td>
<td>16.8</td>
<td>(13.5-20.1)</td>
<td>27.8</td>
<td>7.1**</td>
</tr>
<tr>
<td>Office Pools</td>
<td>31.3</td>
<td>(28.0-34.6)</td>
<td>36.9</td>
<td>26.4**</td>
</tr>
<tr>
<td>Internet Gambling Sites</td>
<td>0.5</td>
<td>(0.0 - 3.8)</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Stock/Commodities Mar</td>
<td>29.0</td>
<td>(25.7-32.3)</td>
<td>33.3</td>
<td>25.2*</td>
</tr>
<tr>
<td>Other</td>
<td>2.1</td>
<td>(0.0 - 5.4)</td>
<td>3.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

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

Table 5 shows variation in SOGS scores for lifetime and current periods by categories of the demographic variables. Although the rates for the state as a whole are precise and show stability reliability by their close correspondence to the 1997 rates, the rates for
demographic subgroups are based on very small samples. Findings for these subgroups 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 Groupings by Demographic Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Gender (n=895)</th>
<th>Race (n=879)</th>
<th>Age (n=860)</th>
<th>Education (n=885)</th>
<th>Income (n=607)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2</td>
<td>3-4</td>
<td>5+</td>
<td>0-2</td>
<td>3-4</td>
</tr>
<tr>
<td>Gender (n=895)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (n=417)</td>
<td>95.0</td>
<td>3.4</td>
<td>1.7</td>
<td>96.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Female (n=478)</td>
<td>95.6</td>
<td>2.9</td>
<td>1.5</td>
<td>97.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Race (n=879)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (n=767)</td>
<td>96.3</td>
<td>2.7</td>
<td>0.9</td>
<td>97.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Black (n=70)</td>
<td>84.3</td>
<td>7.1</td>
<td>8.6</td>
<td>88.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Other (n=42)</td>
<td>95.2</td>
<td>2.4</td>
<td>2.4</td>
<td>97.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Age (n=860)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29 (n=122)</td>
<td>92.6</td>
<td>6.6</td>
<td>0.8</td>
<td>94.3</td>
<td>4.9</td>
</tr>
<tr>
<td>30-49 (n=398)</td>
<td>93.5</td>
<td>3.8</td>
<td>2.8</td>
<td>96.2</td>
<td>2.3</td>
</tr>
<tr>
<td>50-64 (n=204)</td>
<td>98.5</td>
<td>1.5</td>
<td>0.0</td>
<td>99.0</td>
<td>1.0</td>
</tr>
<tr>
<td>&gt;65 (n=136)</td>
<td>98.5</td>
<td>0.7</td>
<td>0.7</td>
<td>99.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Education (n=885)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some High School (n=42)</td>
<td>97.6</td>
<td>0.0</td>
<td>2.4</td>
<td>97.6</td>
<td>0.0</td>
</tr>
<tr>
<td>High School/GED (n=299)</td>
<td>95.7</td>
<td>2.7</td>
<td>1.7</td>
<td>97.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Some College (n=270)</td>
<td>94.8</td>
<td>3.0</td>
<td>2.2</td>
<td>95.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Bachelors Degree (n=162)</td>
<td>94.4</td>
<td>4.3</td>
<td>1.2</td>
<td>96.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Graduate Study/Deg (n=112)</td>
<td>95.5</td>
<td>4.5</td>
<td>0.0</td>
<td>99.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Income (n=607)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $25,000 (n=111)</td>
<td>94.6</td>
<td>2.7</td>
<td>2.7</td>
<td>97.3</td>
<td>0.9</td>
</tr>
<tr>
<td>$25,000 to $49,999 (n=200)</td>
<td>93.0</td>
<td>5.0</td>
<td>2.0</td>
<td>95.5</td>
<td>3.0</td>
</tr>
<tr>
<td>$50,000 to $99,999 (n=245)</td>
<td>93.9</td>
<td>3.7</td>
<td>2.4</td>
<td>95.5</td>
<td>3.3</td>
</tr>
<tr>
<td>More than $100,000 (n=51)</td>
<td>96.1</td>
<td>3.9</td>
<td>0.0</td>
<td>96.1</td>
<td>3.9</td>
</tr>
</tbody>
</table>

But, even if particular rates may not have the precision of the overall statewide rates, it is clear that neither sex nor membership in a particular race, age group, educational level, or income level is sufficient to protect persons from 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 (particularly the Internet activity, where only 4 persons reported participating in that type of gambling during the past year), broad comparisons may be instructive, especially when trends hold over time. For example, as in 1997, 95 percent of those who played the lottery scored as nonproblem gamblers on the past year’s SOGS. But only 84 percent of horse or dog race players and only 86 percent of people who bet on cards, dice, or video poker outside of legal casinos (“noncasino events”) so scored.

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

<table>
<thead>
<tr>
<th>Gambling Type</th>
<th>n</th>
<th>0-2</th>
<th>3-4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lottery</td>
<td>523</td>
<td>95.0</td>
<td>3.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Charitable Group Events</td>
<td>278</td>
<td>92.8</td>
<td>4.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Sports Events</td>
<td>127</td>
<td>90.6</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Horse/Dog Racing</td>
<td>50</td>
<td>84.0</td>
<td>12.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Numbers Game</td>
<td>42</td>
<td>81.0</td>
<td>4.8</td>
<td>14.3</td>
</tr>
<tr>
<td>Casinos</td>
<td>351</td>
<td>92.0</td>
<td>4.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Noncharitable Group Events</td>
<td>29</td>
<td>89.7</td>
<td>0.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Noncasino Events</td>
<td>105</td>
<td>85.7</td>
<td>7.6</td>
<td>6.7</td>
</tr>
<tr>
<td>Games of Skill</td>
<td>15292.1</td>
<td>5.3</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Office Pools</td>
<td>283</td>
<td>92.6</td>
<td>4.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Internet Gambling Sites</td>
<td>4</td>
<td>75.0</td>
<td>0.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Stock/Commodities Market</td>
<td>260</td>
<td>96.2</td>
<td>3.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>78.9</td>
<td>10.5</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Table 7 also presents percentages for SOGS scores, this time both the lifetime and current scores, to examine differences in respondents’ typical gambling behaviors over the past year. No consistent differences in who respondents gambled with are evidenced. But there are dramatic differences in how long they typically gamble and in the largest amount of money they lost.
Table 7. Typical Gambling Behaviors by SOGS Scores, Percent Distributions

<table>
<thead>
<tr>
<th></th>
<th>Lifetime SOGS</th>
<th>Past Year SOGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2  3-4  5+</td>
<td>0-2  3-4  5+</td>
</tr>
<tr>
<td>When you gamble, do you usually do so:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>don’t gamble</td>
<td>12.0</td>
<td>11.8</td>
</tr>
<tr>
<td>alone</td>
<td>17.8</td>
<td>17.7</td>
</tr>
<tr>
<td>with spouse or partner</td>
<td>26.5</td>
<td>26.7</td>
</tr>
<tr>
<td>with other family members</td>
<td>11.7</td>
<td>11.7</td>
</tr>
<tr>
<td>with friends</td>
<td>24.2</td>
<td>24.2</td>
</tr>
<tr>
<td>with coworkers</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>with others</td>
<td>4.0</td>
<td>3.9</td>
</tr>
<tr>
<td>n</td>
<td>831</td>
<td>846</td>
</tr>
</tbody>
</table>

| When you gamble, do you usually do so for: |               |               |
| don’t gamble            | 12.1          | 11.9          |
| less than 1 hour        | 42.7          | 42.3          |
| 1-2 hours               | 28.1          | 28.2          |
| 3-5 hours               | 13.8          | 14.1          |
| 6-12 hours              | 2.7           | 2.7           |
| more than 12 hours      | 0.7           | 0.7           |
| n                      | 827           | 841           |

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

<table>
<thead>
<tr>
<th></th>
<th>Lifetime SOGS</th>
<th>Past Year SOGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2  3-4  5+</td>
<td>0-2  3-4  5+</td>
</tr>
<tr>
<td>Don’t gamble</td>
<td>12.1</td>
<td>11.9</td>
</tr>
<tr>
<td>Less than $1</td>
<td>15.7</td>
<td>15.5</td>
</tr>
<tr>
<td>$1-$9</td>
<td>22.6</td>
<td>22.4</td>
</tr>
<tr>
<td>$10-$99</td>
<td>34.7</td>
<td>34.6</td>
</tr>
<tr>
<td>$100-$999</td>
<td>13.6</td>
<td>13.9</td>
</tr>
<tr>
<td>$1000-$9999</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>$10,000 or more</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>n</td>
<td>824</td>
<td>839</td>
</tr>
</tbody>
</table>

Table 7 shows, for example, that among current (past year) probable pathological gamblers, almost half of an admittedly small sample typically gamble for more than 6 hours at a time and almost all have lost at least $100 at least once in the past year. Only 3 percent of nonproblem gamblers gamble that long, and only 16 percent have lost that much at a time in the past year.

**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. However, due to much smaller sample sizes, these (1999) estimates are much less precise. Sampling errors are much larger here, since there were such small numbers of respondents in these categories. Table 8 lists important descriptive information for respondents who scored as problem or probable pathological gamblers on the Lifetime SOGS. Across categories of gambling problem and gender, problem gamblers started gambling at a young age. Larger percentages of probable pathological gamblers than problem gamblers report that the amount they were gambling has made them nervous. As we reported in 1997, however, it is also interesting that the percentages are so low. Similarly, the percentages of probable pathological gamblers who wanted to stop and sought help to stop are much higher than for problem gamblers, but both groups have very low rates. Finally, as before, a significant minority of people who score as having a gambling problem also report a substance abuse or mental health problem.

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

<table>
<thead>
<tr>
<th>Age First Gambled</th>
<th>Lifetime</th>
<th></th>
<th>Past Year</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-4</td>
<td>5+</td>
<td>3-4</td>
<td>5+</td>
<td>3-4</td>
<td>5+</td>
</tr>
<tr>
<td>14 or younger</td>
<td>17.9</td>
<td>30.8</td>
<td>20.0</td>
<td>37.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-18</td>
<td>39.3</td>
<td>46.2</td>
<td>46.7</td>
<td>37.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>35.7</td>
<td>-</td>
<td>26.7</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 or older</td>
<td>7.1</td>
<td>23.1</td>
<td>6.7</td>
<td>25.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(28)</td>
<td>(13)</td>
<td>(15)</td>
<td>(8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 I.e., Another survey sample of this same size might yield a much larger or smaller value of the estimate.
Has Gambling Made You Nervous?  

<table>
<thead>
<tr>
<th>Age First Nervous</th>
<th>19</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 or younger</td>
<td>10.0</td>
<td>33.3</td>
</tr>
<tr>
<td>15-18</td>
<td>20.0</td>
<td>11.1</td>
</tr>
<tr>
<td>19-29</td>
<td>50.0</td>
<td>22.2</td>
</tr>
<tr>
<td>30 or older</td>
<td>20.0</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Desired to Stop  

<table>
<thead>
<tr>
<th>Age First Nervous</th>
<th>42</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 or younger</td>
<td>7.1</td>
<td>35.7</td>
</tr>
<tr>
<td>15-18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>19-29</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sought Help  

<table>
<thead>
<tr>
<th>Age First Nervous</th>
<th>42</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 or younger</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15-18</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Experience or Treatment  

<table>
<thead>
<tr>
<th>Age First Nervous</th>
<th>42</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol or other drug abuse problem</td>
<td>7.1</td>
<td>21.4</td>
</tr>
<tr>
<td>Mental health problem</td>
<td>3.6</td>
<td>7.1</td>
</tr>
</tbody>
</table>

1997 - 1999 Comparison  

As Table 9 shows, the survey results of gambling behavior were highly stable between 1997 and 1999. Table 9 contains percentages and their differences for several categories of gambling behaviors on corresponding measures for the two years. Statistical tests were computed for the difference between the two proportions (percentages) for these measures, and none of the tests approached statistical significance at the .05 level of significance. In fact, for
only one measure did the difference exceed 1 percent. All the differences were well within the bounds of sampling fluctuation.

Table 9. Corresponding 1997 and 1999 Percentages and Their Differences for Selected Measures Related to Gambling Behavior

<table>
<thead>
<tr>
<th>Measure</th>
<th>1997</th>
<th>1999</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime SOGS - problem gamblers</td>
<td>5.40</td>
<td>4.89</td>
<td>.51</td>
</tr>
<tr>
<td>Gambling experiences - past year</td>
<td>76.89</td>
<td>77.56</td>
<td>.67</td>
</tr>
<tr>
<td>Current SOGS - West Region problem gamblers</td>
<td>2.60</td>
<td>2.20</td>
<td>.40</td>
</tr>
<tr>
<td>Past Year Prevalence - Males: problem gamblers</td>
<td>4.50</td>
<td>3.40</td>
<td>1.10</td>
</tr>
<tr>
<td>Past Year Prevalence - Females: problem gamblers</td>
<td>2.40</td>
<td>2.70</td>
<td>.30</td>
</tr>
<tr>
<td>Horse/dog racing - Past Year: problem gamblers</td>
<td>16.40</td>
<td>16.00</td>
<td>.40</td>
</tr>
<tr>
<td>Casinos - Past Year: problem gamblers</td>
<td>7.70</td>
<td>7.90</td>
<td>.20</td>
</tr>
</tbody>
</table>

These results not only show the stability of gambling behaviors across the two years, they also indicate the viability of the much smaller sample size (900) for providing good estimates of the incidence of problem and pathological gamblers.

This stability in percentages across the studies leads to a related conclusion that the actual number of problem and pathological gamblers is increasing in Michigan. This occurs because, as the census results from 1990 to 1998 show, the adult population, persons 18 years and older, has increased by approximately 430,000 since 1990. Because the 1997 survey used the 1990
census figures, it quite likely underestimated the incidence of problem and pathological gamblers by 20,000 persons.

**Summary**

As in 1997, the 1999 Michigan survey is consistent with other statewide surveys of problem gambling. The smaller sample this year reduces the precision of estimates made, especially for demographic subgroups and for problem gamblers as a group. The statewide and regional rates of problem gambling, however, are reliable and consistent with the work of two years ago. The more detailed breakdowns are also instructive, albeit less reliable 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. What factors may bias these results? Obviously, if adults not having telephones have different gambling behaviors than those with telephones, the results would be biased. However, there is no reason to believe that would be the case; in any event, the percentage of the adult population without a telephone is probably very small.

A second factor that could bias the results is a difference in gambling behavior between those willing to respond to the survey and those refusing to do so. As mentioned earlier, there are no data that indicate strong bias either way. Even though gambling in many forms is legal, it may be perceived as somewhat undesirable social or ethical behavior. If this is the case, the nonrespondents may have a greater incidence of gambling behavior, including problematic behavior, than respondents. 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.

Overall, the estimates in this report may be slightly conservative, that is, underestimates of gambling behavior. One reason is that in a cross-validation of the SOGS, Lesieur and Blume (1987) found that it provides a conservative estimate of probable pathological gamblers, probably around 6 percent. A second reason might be that the nonrespondents have a greater incidence of gambling than those responding to the survey. In any event, the results of the survey show that a large majority of Michigan adults do gamble and there are substantial numbers of problem gamblers, including the more severe problems of pathological gamblers.

Compared to the 1997 survey, the results of gambling behavior were highly stable between 1997 and 1999. Whether this stability will continue is difficult to predict because of factors such as the new casinos in Detroit. As shown in studies of other states, availability does affect the prevalence of gambling. Whether a similar effect will be manifest in Michigan remains to be seen, but there very well may be an effect, and it is likely that the effect would be one of increased gambling and the associated increased incidence of problems.

Our conclusion from the 1997 report is still worth noting: The Michigan results therefore provide a baseline for understanding current rates and future changes in the state as well as supporting comparisons to other states. . . . There is additional evidence that prevalence rates are increasing in recent years and that states with large numbers of casinos have higher prevalence rates. Both factors suggest Michigan should closely monitor prevalence and associated problems. Furthermore, the low reported use of helping services among respondents
who score with problems suggests additional resources as well as education, coordination, and referral efforts may be needed.
References


Appendix A:  
SURVEY FORM FOR MICHIGAN SURVEY OF COMPULSIVE GAMBLING

Format and interviewer instructions are slightly different than in the CATI instrument.

Hello, my name is ________________________ and I am calling from Western Michigan University on behalf of Dr. David Hartmann. 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 has had the most recent birthday? Would that be you? [IF NO, ASK TO SPEAK TO THAT PERSON - RE-READ FIRST TWO PARAGRAPHS. IF NOT AVAILABLE, ARRANGE CALL-BACK.] [PRESS “1” TO CONTINUE] Your answers will be strictly anonymous and by providing them you are giving your consent to use those answers to understand gambling in Michigan. Of course, 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. (Available for questions are: Dr. David Hartmann, director of the Kercher Center at 616 387-3594; Dr. Donald Thompson, VP of Research, Dr. Sylvia Culp, chair of HSIRB, and Ms. Loreene Broker, Research Compliance Coordinator, all at 616 387-8293.)

[INTERVIEWER: press 1 to continue]

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.

IF PERSON SAYS THEY NEVER GAMBLE, DON’T BELIEVE IN IT, ETC., SAY:

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

IF PERSON DOES NOT WANT TO CONTINUE, THANK THE INDIVIDUAL AND HANG UP.

PRESS "1" TO CONTINUE

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 (go to 1a)  
   No (go to 2)  
   Don't know/Refused (go 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 (go to 2a)
   No (go to 3)
   Don't know/Refused (go 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 (go to 3a)
   No (go to 4)
   Don't know/Refused (go 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 (go to 4a)
   No (go to 5)
   Don't know/Refused (go 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 (go to 5a)
   No (go to 6)
   Don't know/Refused (go to 6a)

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 (go to 6a)
   No (go to 7)
   Don't know/Refused (go to 7)

6a. Have you done so in the past year?
   Yes
   No
   Don't know/Refused
7. Have you ever played non-charitable Bingo for money?
   Yes (go to 7a)
   No (go to 8)
   Don't know/Refused (go 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 (go to 8a)
   No (go to 9)
   Don't know/Refused (go 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 (go to 9a)
   No (go to 10)
   Don't know/Refused (go 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 (go to 10a)
    No (go to 11)
    Don't know/Refused (go to 11)

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 (go to 11y)
    No (go to 12)
    Don't know/Refused

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 (go to 11a)
   No (go to 11x)
   Don't know/Refused (go 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 (go to 12a)
   No (skip 13)
   Don't know/Refused (skip 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, Q75.

13. When you gamble, do you usually do so:
   Alone
   With your spouse or partner
   With other family members
   With friends
   With co-workers
   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 which has been used throughout the United States in surveys similar to this one. There are no right or wrong answers to the questions that follow. We want to know what your experiences have been. Please try to be as accurate as possible in your answers and remember that all this information is confidential.

IF INTERVIEWER ENCOUNTERS DIFFICULTIES WITH RESPONDENTS IN COMPLETING THIS SECTION, SAY: We realize these question may not apply to everyone, but we do need answers to all of the questions. It will only take a few more minutes.

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  
   Some of the time  
   Most of the time  
   Every time  
   Don't know/Refused

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  
   Some of the time  
   Most of the time  
   Every time  
   Don't know/Refused

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  
   No  
   Don't know/Refused

18B. Have you done this in the past year?
   Yes  
   No  
   Don't know/Refused
19A. Have people ever criticized your gambling?
   Yes
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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 that you could?
   Yes
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

   IF YES, ASK Q24A. IF NO, GO TO Q25A.
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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused
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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

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
   No
   Don't know/Refused
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
   No
   Don't know/Refused

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
   No
   Don't know/Refused

39a. IF YES, ASK: Which parent was that? (SELECT AS MANY AS APPLY)
   Father
   Mother
   Stepfather
   Stepmother
   No More Apply/Refused

Ask Section 3 only of those who score as Problem Gamblers on the SOGS (generated by the computer here).

SECTION 3: IN-DEPTH ANALYSIS OF PROBLEM GAMBLERS

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.

40. For the Lottery including LOTTO, The 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? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so.
   [000,000]

41. Did you play the lottery at least once a week?
   Yes
   No
   Don’t know/Refused
42. 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? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so. [000,000]

43. Did you play charitable group events at least once a week?
   Yes
   No
   Don’t know/Refused

44. For sports betting, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so. [000,000]

45. Did you bet on sports at least once a week?
   Yes
   No
   Don’t know/Refused

46. For betting on horse or dog racing, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so. [000,000]

47. Did you bet on horse or dog racing at least once a week?
   Yes
   No
   Don’t know/Refused

48. For non-Lottery numbers games, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so. [000,000]

49. Did you play non-Lottery numbers or policy at least once a week?
   Yes
   No
   Don’t know/Refused

50. For betting at casinos, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so. [000,000]

51. Did you bet at casinos at least once a week?
   Yes
   No
   Don’t know/Refused
52. For card, dice, or machine games not in a casino, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so.

[000,000]

53. Did you bet on cards, dice, or machines not in a casino at least once a week?
   Yes
   No
   Don’t know/Refused

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

[000,000]

55. Did you bet on your performance at games of skill at least once a week?
   Yes
   No
   Don’t know/Refused

56. For office pools or 50/50 raffles, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so.

[000,000]

57. Did you bet on office pools or 50/50 raffles at least once a week?
   Yes
   No
   Don’t know/Refused

57x. For Internet gambling, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so.

[000,000]

57y. Did you be at Internet gambling sites at least once a week?
   Yes
   No
   Don’t know/Refused

58. For the stock or commodities markets, can you give me an estimate of the amount you spend in a typical month? [If needed, say] I am only looking for an approximate amount, rounded to the nearest 5 dollars or so.

[000,000]

59. Did you play the stock or commodities markets at least once a week?
   Yes
   No
   Don’t know/Refused
60. For other types of gambling, can you give me an estimate of the amount you spend in a
typical month? [If needed, say] I am only looking for an approximate amount, rounded to the
nearest 5 dollars or so.

[000,000]

61. Did you bet on other forms of gambling at least once a week?
   Yes
   No
   Don’t know/Refused

62. Which type of gambling is the one you would find most difficult to give up?

B. History and Treatment

63. How old were you when you first gambled?
   IF RESPONDENT REFUSES TO ANSWER, RECORD 99 AND SKIP TO Q67.

64. What type of gambling was that?

______________________________________________
CODE SAME AS TYPES OF GAMBLING (SECTION 1) - List Shown

65. Was there any time when the amount you were gambling made you nervous?
   Yes
   No
   Don't know/Refused

66. How old were you when that happened?
   IF RESPONDENT REFUSES TO ANSWER, RECORD 99 AND SKIP TO Q70.

67. What type of gambling were you doing when that happened?

______________________________________________
CODE SAME AS TYPES OF GAMBLING (SECTION 1)- List Shown

68. Have you ever desired help to stop gambling?
   Yes
   No
   Don't know/Refused

69. Have you ever sought help to stop gambling?
   Yes
   No
   Don't know/Refused

70. IF YES, ASK: What type of help was that? (DO NOT READ?)
   Family member
   Friend
   Family doctor
   Gamblers Anonymous
   Problem gambling treatment program in Michigan
Problem gambling treatment program outside Michigan
Veterans Administration
Employee assistance program (EAP)
Psychologist or psychiatrist
Other counselor
Minister/priest/rabbi
Alcohol or drug abuse treatment program
Other
Refused/No More Apply

C. Cross-Addictions

71. Have you ever experienced or been treated for an alcohol or other drug abuse problem?
   Yes
   No
   DK/Refused

72. 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.

73. Are you currently married, widowed, divorced, separated, or have you never been married?
   Married, common-law, co-habitation
   Widowed
   Divorced
   Separated
   Never married
   DK/Refused

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

75. What is the last grade of school you completed?
   (CODE INTO FOLLOWING CATEGORIES)
   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
76. Last week, were you working full-time, part-time, going to school, keeping house, or something else?
   - Working full-time
   - Working part-time
   - Going to school
   - Keeping house
   - Disabled
   - Retired
   - Unemployed
   - No More Apply/Refused

77. What is your age?

78. Do you consider yourself Hispanic?
   - Yes
   - No
   - DK/Refused

79. Which of the following best describes your racial or ethnic group?
   - White/Caucasian
   - Black
   - Native American
   - Asian
   - Other
   - No opinion/Refused

80. 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
   - No opinion/Refused

81. In what county do you live?

82. RESPONDENT SEX (DON'T ASK)
   - Male
   - Female
   - Cannot tell

That was the last question. Thank you very much for your time and cooperation.
Appendix B:
COUNTIES IN GEOGRAPHIC REGIONS

1= Detroit Metro Area
   Wayne County
   St. Clair
   Lapeer
   Macomb
   Oakland
   Livingston
   Washtenaw
   Monroe

2= East Region of the State
   Cheboygan  Bay  Presque Isle
   Huron    Otsego    Sanilac
   Montgomery  Tuscola  Alpena
   Saginaw    Crawford    Gratiot
   Oscoda    Clinton    Algona
   Shiawassee  Roscommon  Genesee
   Ogemaw    Eaton    Iosco
   Ingham    Clare    Jackson
   Gladwin    Hillsdale  Arenac
   Lenawee    Isabella  Midland

3= 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

4= Upper Peninsula
   Delta    Schoolcraft  Mackinac
   Chippewa  Luce    Alger
   Menominee  Dickinson  Marquette
   Iron    Baraga    Houghton
   Keweenaw  Ontonagon  Gogebic