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Problem Gambling Report
February 2015

2012 Survey of At-Risk and Problem Gambling Prevalence Among Ohioans



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Foreward

Dear Ohioans,

The Ohio Department of Mental Health and Addiction Services has made a commitment to ensuring that we have a quality services system established to meet the needs related to problem gambling in our communities. One of the proactive steps we took as a state was to conduct the 2012 Ohio Gambling Survey, funded by the Ohio Lottery Commission, to assess attitudes toward gambling and prevalence rates of gambling disorders before a single casino or racetrack-based “racino” opened its doors. Those results delineated a baseline for Ohio’s future service requirements.

The 2012 research study included 1,200 statewide surveys, and an additional 600 surveys from each of the county cluster regions of Cleveland, Cincinnati, Columbus and Toledo. This new report uses a weighted analysis that allows us to examine the results based on all 3,600 surveys.

This new analysis provides a nuanced look at Ohio’s need to provide effective prevention of problem gambling, to build awareness of what responsible gambling looks like, to build capacity so that problem or “disordered” gambling can be recognized and treated, and to tell us where we should be focusing more research for the future.

The department and its partners are currently preparing for the 2016 Ohio Gambling Survey, which will provide results in 2017. This follow-up survey will give us the first set of data for comparison of gambling attitudes and prevalence between 2012 and 2016 — after all 11 casinos and racinos have been opened in the state. We anticipate that while gambling isn’t new to Ohio, the new destination venues may have an impact on overall gambling rates.

Thank you for your interest and engagement in Ohio’s problem gambling services. Working together we can build a continuum of care that meets the individual’s needs and supports our communities at the same time. If you have questions about this report, please see the contact information listed at the front of this report.

Sincerely,

Tracy J. Plouck

Tracy J. Plouck
Director



Executive Summary

An estimated 5.2 million Ohioans aged 18 and older participated in gambling before the casinos and racinos opened in 2012. Nearly one in 10 of these gamblers were either at-risk to become problem gamblers or current problem gamblers. Prevalence of at-risk/problem gambling differed among the county clusters during regional analyses, with 63.0 to 71.8 percent of people participating in some form of gambling. Rates of at-risk/problem gambling were reasonably similar across county clusters, but the rates of problem gambling were 10 times higher in the Hamilton County Cluster (1.4%) compared to other county clusters (range 0.1%-0.2%).

Rates of at-risk/problem gambling differ among demographic groups. Men were almost twice as likely to be at-risk/problem gamblers as women, and they had the highest rates of at-risk/problem gambling when aged 18 to 24 and 65 and older. While rates of at-risk/problem gambling were not nearly as high for women, they were the highest between the ages of 18 and 44. At-risk/problem gambling rates also differed among each race. Whites aged 18 to 25 years old were the most likely to be at-risk/problem gamblers, followed by African-Americans ages 25-64. Persons of other race had lower rates than whites or African-Americans, but they were most likely to be at-risk/problem gamblers between the ages of 25 and 44.

A majority of gamblers participated in lottery gambling (72.7%) or other forms of gambling (73.3%; e.g., Bingo), and a modest percentage (26.8%) participated in casino gambling even though the casinos and racinos had not yet opened in Ohio. At-risk/problem gamblers were twice as likely to gamble at casinos than non-problem gamblers (53.8% vs. 25.9%, respectively). At-risk/problem gamblers also participated in more types of gambling than non-problem gamblers; they participated in four to seven forms of gambling at double the rate of non-problem gamblers.

At-risk and problem gamblers were much more likely than non-problem gamblers to have substance abuse problems and experience psychological distress. Rates of personal alcohol or drug problems were three times higher for at-risk/problem gamblers than non-problem gamblers. They were also three times more likely to have the urge to use drugs or medication if something painful happened in their lives. Rates of depression were twice as high for at-risk gamblers, and they were more likely than non-problem gamblers to have been under a doctor's care due to physical or emotional problems brought on by stress.

Findings from this study have several important implications for gambling prevention and treatment programs. Prevention efforts should recognize the nuances in the rates of at-risk/problem gambling, so that resources are targeted to the groups who need the most help. Prevention campaigns should also include educational efforts about fiscal literacy, so at-risk groups better understand how to responsibly handle money and debt. As the prevalence of at-risk/problem gambling increases throughout the state, clinicians should take advantage of recent changes in regulation and expand their scope of practice to include gambling addiction. Finally, clinicians should screen all persons being treated for gambling disorder for depression due to the high rates of suicidal ideation among this group and provide treatment or refer to the appropriate treatment centers as needed.

Chapter 1: Introduction

Background

The state's commitment to problem gambling services and education goes back more than a decade. The Ohio Department of Mental Health and Addiction Services (OhioMHAS) has partnered with the Ohio Lottery Commission to address problem gambling since 2002. Historically, OhioMHAS has utilized limited funds from the Lottery Commission for programs that have focused on prevention, education, screening and treatment of gambling addiction. In 2009, a new constitutional amendment allowed casinos to be built and operated in Cincinnati, Cleveland, Columbus and Toledo. The language of the amendment also included OhioMHAS as the authority expected to address problem and pathological gambling, and it required the Ohio Casino Control Commission to enter into an agreement with OhioMHAS to implement a problem gambling program on behalf of the Commission. To bring the OhioMHAS statutory requirements into alignment with the expansion of responsibility for gambling addiction services, language was added to House Bill 386 to add gambling addiction to the alcohol and other drug addiction community service plan.

In May 2012, a formal partnership was announced under a new organizational name, Ohio for Responsible Gambling (ORG), which is an initiative aimed at encouraging responsible gaming in Ohio. ORG includes the Ohio Casino Control Commission, Ohio Lottery Commission, Ohio State Racing Commission (OSRC) and OhioMHAS. The Department serves as the resource partner for the new initiative and the lead agency responsible for prevention and treatment of problem gambling. The Constitutional amendment and resulting agreement between OhioMHAS and the Ohio Casino Control Commission have led to expanded problem gambling services for the benefit of Ohioans. By law, two percent of the tax on the casinos' gross revenue goes to the State Problem Casino Gambling and Addictions Fund to support efforts to alleviate problem gambling and substance abuse and related research in Ohio. In State Fiscal years 2014 and 2015, \$3.8 million from the Problem Casino Gambling and Addictions Fund each year was allocated to the 50 Alcohol, Drug Addiction and Mental Health/Alcohol, Drug Addiction Services (ADAMH/ADAS) county boards for planning, prevention and treatment services related to gambling issues. An additional \$335,000 in SFY 2014 and \$435,000 in SFY 2015 from the Ohio Lottery Commission was provided to OhioMHAS for six regional behavioral health programs that work toward demonstration of best practices and to build workforce capacity.

OhioMHAS has taken the lead in the training and preparation of gambling treatment counselors and related professionals. The ORG partners present an annual conference on Problem Gambling during National Problem Gambling Awareness Month in March. Professional continuing education for prevention and treatment licensure are provided in these trainings, and the hours count toward development of professional expertise for social workers, psychologists, psychiatrists and as of March 2015, for chemical dependency counselors through the new Ohio treatment endorsement for gambling services.

Purpose statement

Members of ORG have taken proactive steps to understand the short- and long-term impact of gambling in the state. ORG commissioned, and the Ohio Lottery Commission funded, a household survey to determine the prevalence of gambling before the casinos opened. The goal of this survey is to obtain a baseline estimate of at-risk and problem gambling behaviors in the state since they had not been studied in Ohio. Future surveys will track at-risk and problem gambling behaviors as gambling becomes more available, which will explore the impact of gambling on the population. Results will inform the discussion about current gambling problems and shed light on future gambling problems. Policymakers will have a new tool to determine the funding levels that should be dedicated to this effort. State department staff and treatment providers will have an advocacy tool for planning gambling prevention and treatment and recovery services.

Definition of Gambling

Gambling may include a wide variety of behaviors during which an individual wagers something in a game of chance. Typically a person who gambles, “puts up something of value, such as money or property; the outcome has an element of chance beyond the person’s control; (and) once the bet is made, it is irreversible.”¹ Problem gambling occurs when a person experiences adverse consequences due to his/her behavior. Ferris and Wynne (2001) define problem gambling as, “gambling behavior that creates negative consequences for the gambler, others in his or her social network, or for the community” (pg. 7). In Ohio, legal gambling may take many forms. People may play state-endorsed games like Bingo or the lottery, casino-based games like poker or they may go to race tracks and bet on horses. Informal forms of gambling are also prevalent in Ohio and may include playing cards for money, betting on sports, purchasing stocks and buying pull-tabs or raffle tickets.

The conceptual framework used to determine presence of pathological gambling follows the Problem Severity Gambling Index (PGSI), which places people in multiple risk categories. Most people evaluated with the PGSI are not considered to have a gambling problem because either they do not gamble or they do not display any behaviors associated with the risk groups. People who score low or moderate risk may experience adverse consequences from gambling, while those who score highly meet diagnostic criteria for pathological gambling, meaning they exhibit profound clinical distress in their personal and professional lives.

According to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5), gambling disorder is the formal diagnosis for a person with pathological gambling problems. The presence and severity of the disorder are determined by the number of criteria a person meets within a 12-month period. The disorder is considered mild if four to five criteria are met, moderate if five to six criteria are met and severe if eight to nine criteria are met. The DSM-5 (2013)² criteria for pathological gambling are as follows:

- A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:
 1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
 2. Is restless or irritable when attempting to cut down or stop gambling.
 3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
 4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
 5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
 6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
 7. Lies to conceal the extent of involvement with gambling.
 8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
 9. Relies on others to provide money to relieve desperate financial situations caused by gambling.
- B. The gambling behavior is not better explained by a manic episode.

Research Questions

This study investigated several key topics related to gambling in Ohio and was guided by the following key research questions:

- What is the overall prevalence of gambling in Ohio?
- Does the prevalence of gambling differ based on socio-demographic factors such as age, gender and race, level of education, employment, marital status or religious beliefs?
- What is the frequency of specific gambling behaviors (e.g., playing the lottery), and how much do people spend on those types of gambling?

- Is there an association between level of gambling risk (e.g., low risk) and gambling type (e.g., casino)?
- What gambling correlates make someone more likely to be at-risk/problem gamblers than others?
- Are there regional differences in gambling behaviors?
- What are the perceptions about gambling prevention?
- Is there a link between family and individual history of substance abuse, psychological distress and gambling behavior?

Chapter 2: Literature Review

Prevalence of Problem and Pathological Gambling

Legalized gambling is becoming more prevalent both within the United States and worldwide with approximately 86 percent of the population having gambled at least once within their lifetimes.³ While a majority of people can gamble responsibly, a small number of gamblers become addicted to gambling. Typically, those who meet a few criteria of addiction are labeled at-risk/problem gamblers and those who exhibit enough symptoms to qualify for the full disorder are labeled pathological gamblers. Current studies estimate the lifetime prevalence of problem gambling within the general population between 2.8 to 3.8 percent; and the lifetime prevalence of pathological gambling between 1.1 and 1.6 percent.^{4,5,6} Only one study from 1985 has ever examined the statewide prevalence of gambling in Ohio, finding that 3.4 percent of Ohioans were likely at-risk to become problem gamblers and 2.5 percent of Ohioans were pathological gamblers; however, this study was limited because the modern instruments that evaluate prevalence of clinical at-risk/problem gambling had not been developed.⁷

Gambling addiction is of particular interest within the alcohol and drug population because the prevalence of gambling is higher than the general population. Past studies of persons in residential treatment facilities for substance abuse have found problem or pathological gambling to range from 10.5 to 14.9 percent.^{8,9} Research has indicated that alcohol is the most commonly abused substance among problem gamblers (SAMHSA, 2005).¹⁰ However, among those diagnosed with substance abuse disorders, some studies indicate pathological gamblers prefer cannabis (24.1%) and cocaine (11.5%) over alcohol (9.0%).⁸ Pathological gambling is also associated with family histories of gambling. Toneatto and Brennan (2002) have shown that people whose parents, siblings and friends had a pathological gambling problem diagnosed within the past year scored significantly higher on the South Oaks Gambling Screen than those with no family history of gambling. Chou and Afifi (2011) associated psychiatric disorders with problem and pathologic gambling.¹¹ Participants screening positive for gambling problems had increased odds of the incidence of psychiatric disorders (e.g., mood disorders and alcohol use or dependence) in the one-year and three-year follow-up. Petry, Stinson and Grant (2005) also found that pathological gamblers had a high incidence of psychiatric disorders associated with substance abuse; 73.2 percent were diagnosed with an alcohol use disorder and 38.1 percent were diagnosed with a drug use disorder.¹²

Consequences of Problem and Pathological Gambling

Problem and pathological gambling are associated with many negative consequences to the individual, friends and families, and society at large. Many researchers have found that mental health and substance use disorder increase as problem and pathological gambling increases, although one cannot discern which comes first.^{13,14,15,16} In Ohio, the Ohio Substance Abuse Monitoring (OSAM) Network found that 12.1 percent of persons in treatment for alcohol and other drug (AoD) problems scored high enough on the South Oaks Gambling Screen to qualify for probable pathological gambling. In addition, OSAM found that gambling and substance use fed off one another; respondents used more alcohol and other drugs when gambling and gambled more when using alcohol and other drugs.¹⁷

According to the American Psychiatric Association (2000), pathological gambling includes several maladaptive behavioral patterns. Typically, at-risk gamblers have a preoccupation with gambling, and problem gambling often develops as a direct result of the excitement and anticipation of winning money or other valuables.¹⁸ These gamblers can become restless and irritable during attempts to stop gambling, which often fail. Once pathological gambling sets in, their behaviors come to impair their work and personal lives. Pathological gamblers frequently return to gamble in order to regain lost funds, borrow money from family or friends and lie to cover gambling losses. Pathological gamblers even lose employment or related opportunities as a result of their gambling issues at the height of the addiction. Bankruptcy is frequently associated with pathological gamblers who have exhausted all of their resources.^{19,20,21}

Problem and pathological gambling can have devastating effects upon spouses, children and extended family members. Research indicates that the majority of treatment seekers for problem and pathological gambling are family members, rather than the gamblers themselves. By disclosing his/her gambling problem, the individual often creates financial and emotional difficulties within the family. As a result, the spouse may experience anger, depression, anxiety, confusion of his/her role within the family and feelings of self-blame.^{22,23,24} The level of emotional turmoil experienced by the spouse often leads to decreased quality of life and may even lead to suicidal ideation.^{23,24} All of these effects can have a direct impact upon the marital relationship, which may explain the increased divorce rates among problem and pathological gamblers.^{23,15} Finally, the gambling problem may have a direct negative impact upon adult children and extended family members, resulting from requests for money and coverage of outstanding debts.²²

Chapter 3: Methodology and Procedures

Participants

OhioMHAS contracted with the Survey Research lab at Kent State University to conduct a household telephone survey in 2012 with Ohioans aged 18 and older (Appendix A). More than 3,600 Ohioans completed surveys using a multistage, random-area probability sample. The sample included oversampling of 600 in each area where a casino would operate (Cuyahoga, Franklin, Hamilton and Lucas counties), and an additional 1,200 surveys statewide. The sampling frame for the four counties was constructed by identifying ZIP codes within or bordering each county and then by random selection of individuals within ZIP code. The sampling frame for the statewide sample was constructed by randomly sampling all ZIP codes throughout Ohio and then sampling individuals within the ZIP codes. Following the guidelines of the American Association of Public Opinion Research, KSU thoroughly documented the type of response and non-response to phone calls and calculated response rates for each of the surveys (available upon request). KSU conducted telephone surveys from February through July 2012 with Cuyahoga and Lucas County clusters completed prior to May 14, 2012 (before the opening of the casinos in Cleveland and Toledo).

Questionnaires

OhioMHAS considered several criteria in choosing an instrument. First and foremost, the instrument needed to have excellent psychometric properties and could help to predict at-risk and problem gambling behaviors in the general population. The instrument also had to include basic demographic questions and be able to evaluate the frequency and specific type of gambling behavior (e.g., lottery, casino, etc.). Finally, the instrument had to include questions about co-occurring issues between gambling and alcohol and drug use (e.g., family and personal correlates including substance abuse, psychological/emotional factors). To this end, the survey instrument was constructed by using the Canadian Problem Gambling Index (CPGI), along with several items from the Community Readiness Survey developed by Invitation Health Institute (formerly the Minnesota Institute of Public Health).

The CPGI is a well-established tool used to evaluate gambling behavior. The initial development of the CPGI was based on the need to create an instrument that could measure prevalence of gambling in the general population. This effort sought to improve upon existing measures (e.g., South Oaks Gambling Screen; SOGS) that were developed for the clinical population. Ferris and Wynne (2001) developed the instrument during three years through multiple studies.²⁵ Early research focused on understanding the core components of problem gambling in the academic literature and in the field amongst clinicians. Those concepts were operationalized into an instrument that went through two phases of testing. The pilot survey was tested with a small sample of people ($n = 143$) to examine face and construct validity to verify the CPGI actually measured the concepts of at-risk and problem gambling. Results from this analysis led to the removal of several items, and the revised instrument was tested in a general population survey ($n=3,120$). Ferris and Wynne (2001) found the revised CPGI showed good internal consistency ($\alpha = 0.84$), test-retest reliability ($r = 0.78$) and correlated highly with measures of pathological gambling like the DSM-IV ($r = 0.83$) and the SOGS ($r = 0.83$).²⁵ Results are also supported by other researchers who have found excellent internal consistency ($\alpha = 0.84$) and a high correlation with the SOGS and DSM-IV criteria.^{26,27} While the instrument has its critics,²⁸ researchers have been working to improve the instrument.²⁹ Currently, the CPGI remains an excellent instrument used throughout the world to estimate prevalence of at-risk and problem gambling.

The CPGI is composed of 31 items and 11 demographic questions. Most items on the CPGI measure gambling involvement (e.g., type and frequency), adverse consequences (e.g., personal and social) and correlates of problem gambling (e.g., family problems and stress). The Problem Gambling Severity Index (PGSI) comprises nine of the CPGI's core questions, and these items are used to determine the presence of at-risk and problem gambling behavior. Each of these nine items is rated on a four-point scale of None (0) to Almost Always (3), and these scores are summed to determine whether one meets the criteria for an at-risk or problem gambler. When scored, the PGSI places respondents in one of five categories. Non-gamblers and non-problem gamblers are not considered to be at-risk for problem gambling. Respondents who score 1-2 on the instrument are considered low risk, and those who score 3-7 are considered at moderate risk for problem gambling. Generally, respondents classified as low-risk are not expected to experience adverse consequences from gambling, while those considered moderate-risk may experience some adverse consequences. Problem gamblers are respondents who score above an 8, which would indicate that they meet the criteria for pathological gambling according to the DSM-5. This group generally exhibits loss of control and distortions in thinking regarding gambling behaviors.

The Community Readiness Survey (CRS) is another well-known instrument that was developed to measure attitudes toward substance abuse and community readiness for prevention activities.³⁰ After an extensive literature review and focus groups with experts and consultants, eight readiness domains were identified (e.g., perception of alcohol, tobacco, or other drug problems in the community). The survey was tested through drawing community samples from 30 communities, which resulted in more than 7,000 survey participants. Survey findings allowed the instrument to be further refined down to five domains that demonstrated good internal consistency ($\alpha = 0.77-0.90$). Results also partially supported construct validity; the instrument was able to discriminate between communities that scored "high-readiness" as opposed to "low-readiness."

Currently OhioMHAS uses the CRS to measure attitudes toward substance abuse and readiness for prevention in communities that utilize the Strategic Prevention Framework. Two items from the community-readiness survey were adopted for the gambling survey. Both of these items dealt with the perception of gambling problems and the readiness of the community to engage in prevention efforts toward gambling addiction. The first question consisted of four parts that ask about community perception of gambling among different age groups. It is rated on a four-point scale from Not a Problem (1) to A Serious Problem (4). The second question also consisted of four parts that discussed attitudes about prevention efforts, and each part was rated on a five-point scale from Strongly Agree (1) to Strongly Disagree (5).

Data preparation

Data weighting

A common occurrence in many telephone surveys is the over-representation of females and older adults and the under-representation of minority (non-white) races in the survey sample. To adjust for this problem, post-stratification weighting was used on age, race and gender for all descriptive analyses with 2010 U.S. Census data. Weights were computed separately, but sequentially with the manual iterative solution³¹ for each of the four counties (n 's = 539-573), and the weights converged within three iterations. A statistical raking procedure was also used when county samples were combined with the statewide sample ($N=3,507$), so results from the oversampled counties did not bias the data. The rakes for the combined dataset were based on region (5 categories), race (3 categories), gender (2 categories) and age (15 categories). Data from the 2010 U.S. Census were used for the raking procedure to create the weights.

Data cleaning

Data cleaning was performed to validate the dataset before analysis. Kent State University collected interview data from 3,623 persons, and a minority of the data (116 cases; 3.2%) were excluded from further analysis for various reasons. Some data were removed because they were collected from inappropriate ZIP codes within Ohio and states other than Ohio. These cases largely resulted from participants porting their phone numbers with them when they moved. Other data were removed because they had large blocks of non-random missing data. Simple data entry errors (e.g., numbers outside of the valid range) were corrected when possible or replaced with a missing value indicator when not possible, but these cases were all retained for further analyses.

Data analysis

STATA 13.1 and SPSS 22.0 were used for the analyses. Statewide cross-tabulations used complex survey sample procedures with Taylor series linearization to adjust for design-based effects. Point prevalence estimates were derived from asking participants about gambling behaviors within the past 12 months. All statewide calculations were based off of data from the 2010 U.S. Census, which enumerated the Ohio population aged 18 and older to be 8,805,753 persons. Regional population figures included all persons living in ZIP codes within or bordering each county of interest (Appendix B). According to the 2010 U.S. Census, 1,251,231 persons aged 18 and older lived in the Cuyahoga County Cluster, 1,083,205 persons lived in the Franklin County Cluster, 853,962 persons lived in the Hamilton County Cluster and 423,316 persons lived in the Lucas County Cluster. Calculations for the margin of error based off a 95 percent confidence interval were also generated to take sampling error into account, which may have resulted from receiving a sample which was not representative of the true population.

Cautionary note

Findings from regional analyses may not be as accurate as findings from statewide analyses. This issue arose because the sample size for each of the regions was relatively small (n 's = 537-572 persons) compared to the state sample ($N = 3,507$), resulting in moderate margin of errors (MOE) for those regions. Because at-risk and problem gambling impacted a minority of people in 2012, this survey did not pick up enough people within those categories to separate out low-risk, moderate-risk and problem gamblers. For example, rates of problem gambling were so low, that the range of MOE values exceeded estimated number of problem gamblers, with the exception of the Hamilton County Cluster. At-risk and problem gambling categories are combined for most regional analyses to remedy this problem. That said, statistical results from regional analyses that split out non-problem gamblers from at-risk/problem gamblers by demographic characteristics (e.g., age and gender) will also not be as accurate. Future surveys may have fewer problems with MOEs and sample size because at-risk and problem gambling behaviors are expected to increase over time.

Chapter 4: Results

Prevalence of At-Risk and Problem Gambling

Statewide prevalence of gambling behavior

Table 1 presents point prevalence estimates for gambling behaviors among Ohio adults aged 18 and older in 2012; estimates of the margin of error and range of population values are also presented to take into account any potential sampling error. A majority of Ohioans aged 18 and older (55.8%–61.6%; 4.9–5.4 million) gambled within the past 12 months, and most gamblers (88.8%–91.9%; 4.5–4.8 million) did not display any behaviors that put them at-risk for problem gambling. Of the Ohioans who displayed risky behavior, a majority fell into the low and moderate risk category. Results indicated between 377,813 and 554,777 persons (4.3%–6.3%) were at-risk for becoming problem gamblers. A minority of gamblers met the criteria for problem gambling behavior. Between 14,137 and 48,956 gamblers (0.2%–0.6%) are estimated to be classified as problem gamblers, meaning they meet the criteria for pathological gambling according to the DSM-5 and generally exhibit loss of control and distortions in thinking regarding gambling behaviors.

Table 1. Estimated percent and number of persons for at-risk and problem gambling in Ohio, 2012

Gambling Behavior	No Problem		Low Risk	Moderate Risk	Problem
	Don't Gamble	Gamble			
Percentage of Sample [†] (MOE) [‡]	41.4% (±1.6%)	53.0% (±1.7%)	4.2% (±0.7%)	1.1% (±0.3%)	0.4% (±0.2%)
Est. Adult Population (Range)	3,642,906 (±143,506)	4,665,005 (±145,434)	373,461 (±58,721)	92,834 (±29,760)	31,547 (±17,409)

[†]Persons with missing gambling status excluded from analysis; Row percentages may not total 100 due to rounding error.

[‡]The margin of error (MOE) is based off of a 95 percent confidence interval

Prevention activities may be beneficial if directed toward the 377,813–554,777 persons who are estimated to be at-risk for problem gambling, while treatment services and/or self-help programs such as Gamblers Anonymous should be directed at the 0.2–0.6 percent who are estimated to have a gambling problem that meets DSM-5 diagnostic criteria. Approximately 10 percent of those who need treatment will seek treatment,³³ suggesting that approximately between 1,414 and 4,896 individuals may seek treatment or seek out self-help groups such as Gamblers Anonymous.

Regional prevalence of gambling behavior

Rates of gambling and at-risk gambling behavior differed by region (Table 2). As with the statewide sample, a majority of persons in each region gambled within the past 12 months (range 62.9%–71.9%). The county cluster with the greatest percentage of gamblers, Cuyahoga, also had the highest percentage of gamblers who did not display any risky behavior (83.7%). Other counties had similar percentages of gamblers who did not display any risky behavior range (77.4%–81.4%). The Lucas County Cluster had the greatest percentages of at-risk and problem gamblers (15.4%), followed by Franklin (14.2%), Hamilton (12.8%) and Cuyahoga County Clusters (11.7%). Most counties had an extremely low percentage of problem gamblers (range 0.2%–0.3%) except for the Hamilton County Cluster, which stood out with 1.4 percent of survey respondents scoring high enough to qualify for problem gambling. The margin of errors associated with regional results is larger than in the statewide analysis, meaning estimates of gambling behavior, especially problem gambling behavior, must be interpreted with caution.³⁴

Table 2. Estimated percent[†] and number of persons for at-risk and problem gambling for select regions in Ohio, 2012

Region		No Problem		Low Risk	Moderate Risk	Problem
		Don't Gamble	Gamble			
Cuyahoga Cluster	Estimated N [†] (Range)	351,698 (±47,563)	753,285 (±51,790)	119,379 (±31,084)	25,022 (±14,812)	1,847 (±4,062)
	Weighted % (MOE [‡])	28.1% (±3.8%)	60.2% (±4.1%)	9.5% (±2.5%)	2.0% (±1.2%)	0.1% (±0.3%)
Franklin Cluster	Estimated N [†] (Range)	401,573 (±42,865)	527,332 (±44,358)	100,310 (±25,726)	51,622 (±18,907)	2,367 (±4,144)
	Weighted % (MOE [‡])	37.1% (±4.0%)	48.7% (±4.1%)	9.3% (±2.4%)	4.8% (±1.8%)	0.2% (±0.4%)
Hamilton Cluster	Estimated N [†] (Range)	267,185 (±32,610)	477,522 (±34,918)	66,725 (±18,876)	30,323 (±13,015)	12,207 (±8,348)
	Weighted % (MOE [‡])	31.3% (±3.8%)	55.9% (±4.1%)	7.8% (±2.2%)	3.6% (±1.5%)	1.4% (±1.0%)
Lucas Cluster	Estimated N [†] (Range)	127,146 (±16,193)	231,020 (±17,588)	51,760 (±11,572)	12,333 (±5,941)	1,056 (±1,762)
	Weighted % (MOE [‡])	30.0% (±3.8%)	54.6% (±4.2%)	12.2% (±2.7%)	2.9% (±1.4%)	0.2% (±0.4%)

[†]Persons with missing gambling status excluded from analysis; Row percentages may not total 100 due to rounding error.

[‡]The margin of error (MOE) is based off of a 95 percent confidence interval

In these regions, prevention activities may be beneficial if directed at the estimated 317,542 to 597,407 persons who are estimated to be at-risk for problem gambling, while treatment services and/or self-help programs such as Gamblers Anonymous should be directed at the 3,858 to 50,453 who are estimated to have a gambling problem that meets DSM-V diagnostic criteria. Special consideration should be taken into account for the Hamilton County Cluster, where an unusually large number of people scored high enough to be classified as problem gamblers.

Gender and at-risk gambling status

Prevalence of at-risk/problem gambling differs for men and women. Persons who gambled within the past 12 months were broken down into two groups representing gambling status: 1) Non-problem gamblers and 2) At-risk/Problem gamblers in that combined group of low-risk, moderate-risk and problem gamblers. Results indicate prevalence of at-risk/problem gambling is highest in men at the statewide and county cluster levels. The Lucas County Cluster had the highest prevalence of men identifying as problem gamblers (25.3%) and the Cuyahoga County Cluster had the lowest prevalence of persons identifying as at-risk/problem gamblers (16.5%). Interestingly, the prevalence rates for at-risk/problem gambling for men and women were very close in the Cuyahoga County Cluster. All of the county prevalence estimates were higher than that statewide estimate for at-risk/problem gambling.

Table 3. Demographics of gambling status by region and gender, Ohio, 2012

Region	Gender	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	Men	893 (48.8%)	87.9%	12.1%	.020*
	Women	1,330 (51.2%)	93.2%	6.8%	
Cuyahoga Cluster	Men	147 (46.8%)	83.5%	16.5%	.999
	Women	234 (53.2%)	83.9%	16.1%	
Franklin Cluster	Men	148 (48.5%)	75.1%	24.9%	.312
	Women	210 (51.5%)	80.0%	20.0%	
Hamilton Cluster	Men	154 (47.4%)	80.5%	19.5%	.604
	Women	217 (52.6%)	82.6%	17.4%	
Lucas Cluster	Men	148 (47.7%)	74.7%	25.3%	.139
	Women	240 (52.3%)	81.0%	19.0%	

[†]Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; [‡]P-value for chi-squared analysis; * indicates statistical significance < .05

Chi-square goodness of fit was utilized to determine the statistical relationship of gender to gambling status. The statewide sample revealed that men were significantly more likely to have at-risk/problem gambling status than women ($\chi^2 (1, 2,218) = 5.616$ $p=0.020$). No statistically significant differences were found between variables related to gender and gambling status in the county clusters.



Age and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by age group. Statewide results indicated prevalence of at-risk/problem gambling was highest among persons aged 18 to 24 and persons older than 65 (16.3% and 13.0%, respectively). County cluster results also indicated that the 18 to 24 year-olds consistently had the highest prevalence of at-risk/problem gambling (range 27.1% to 55.8%), but there was no age category that had a consistently low gambling prevalence. All of the county prevalence estimates were higher than that statewide estimate for at-risk/problem gambling.

Table 4. Demographics of gambling status by region and age, Ohio, 2012

Region	Age	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	18-24	49 (12.5%)	83.7%	16.3%	.314
	25-44	484 (32.8%)	92.0%	8.0%	
	45-64	1,301 (36.3%)	92.3%	7.7%	
	65+	389 (18.4%)	87.0%	13.0%	
Cuyahoga Cluster	18-24	10 (10.7%)	72.9%	27.1%	.177
	25-44	73 (31.8%)	85.4%	14.6%	
	45-64	233 (37.3%)	86.0%	14.0%	
	65+	65 (20.2%)	83.3%	16.7%	
Franklin Cluster	18-24	7 (14.4%)	44.2%	55.8%	<.001*
	25-44	84 (39.5%)	83.8%	16.2%	
	45-64	206 (33.0%)	79.7%	20.3%	
	65+	61 (13.1%)	81.8%	18.2%	
Hamilton Cluster	18-24	11 (12.6%)	65.6%	34.4%	.002*
	25-44	83 (34.0%)	79.8%	20.2%	
	45-64	206 (36.2%)	86.7%	13.3%	
	65+	74 (17.1%)	87.7%	12.3%	
Lucas Cluster	18-24	6 (14.9%)	56.5%	43.5%	.002*
	25-44	90 (32.5%)	79.3%	20.7%	
	45-64	232 (35.5%)	83.7%	16.3%	
	65+	60 (17.1%)	79.3%	20.7%	

†Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; ‡P-value for chi-squared analysis; * indicates statistical significance < .05

Chi-square goodness of fit was utilized to determine the statistical relationship of age to gambling status. The statewide sample revealed that 18 to 24 year olds and persons aged 65 and older were significantly more likely to have at-risk/problem gambling status than other age groups, but these results were not statistically significant. Statistically significant differences were found among the county clusters, but sample sizes were low for the 18 to 24 year old group, so these results must be interpreted with caution.³⁵ These results indicated that the Franklin County Cluster ($\chi^2 (3, 358) = 31.396, p < 0.001$), Hamilton County Cluster ($\chi^2 (3, 390) = 14.396, p = 0.002$) and Lucas County Cluster ($\chi^2 (3, 385) = 15.301, p = 0.002$) all had a higher prevalence at-risk/problem gambling among the 18 to 24 age group than expected. No statistically significant differences were found among persons of different age groups for the Cuyahoga County Cluster.

Race and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by race. Statewide results indicated prevalence of at-risk/problem gambling was highest in African-Americans (17.3%). Results from county clusters show that minorities had a higher likelihood for at-risk/problem gambling than whites. African-Americans had the highest rates of at-risk/problem gambling in the Franklin and Lucas County Clusters (50.9% vs. 37.5%, respectively); whereas, persons identified as Other race had the highest rates of at-risk/problem gambling in the Hamilton and Cuyahoga County clusters (35.0% vs. 23.5%, respectively). All of the county prevalence estimates were higher than that statewide estimate for at-risk/problem gambling.

Table 5. Demographics of gambling status by region and race, Ohio, 2012

Region	Race	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	White	1,788 (81.8%)	91.3%	8.7%	.022*
	African-American	274 (12.1%)	82.7%	17.3%	
	Other ^a	161 (6.1%)	91.6%	8.4%	
Cuyahoga Cluster	White	279 (72.3%)	84.6%	15.6%	.689
	African-American	80 (22.6%)	84.0%	16.0%	
	Other ^a	22 (5.1%)	76.5%	23.5%	
Franklin Cluster	White	287 (75.6%)	83.7%	16.3%	<.001*
	African-American	49 (17.0%)	49.1%	50.9%	
	Other ^a	22 (7.5%)	70.0%	30.0%	
Hamilton Cluster	White	292 (76.9%)	82.3%	17.7%	.151
	African-American	50 (18.2%)	82.5%	17.5%	
	Other ^a	29 (4.9%)	65.0%	35.0%	
Lucas Cluster	White	311 (80.6%)	79.7%	20.3%	.037*
	African-American	44 (14.3%)	62.5%	37.5%	
	Other ^a	33 (5.1%)	84.2%	15.8%	

[†]Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; [‡] P-value for chi-squared analysis; * indicates statistical significance < .05

^aOther race includes Asians, Native Hawaiians, Pacific Islanders, Native Americans, multiracial and unspecified other

Chi-square goodness of fit was utilized to determine the statistical relationship of race to gambling status. The statewide sample revealed African-Americans were significantly more likely to have at-risk/problem gambling status than all other races (χ^2 (1.72, 3,813.75) = 4.089, $p=0.022$). Statistically significant differences among the races and at-risk/problem gambling were also found among the county clusters.

These results indicated that African-Americans in the Franklin County Cluster ($\chi^2 (2, 359) = 33.094, p < 0.001$) and the Lucas County Cluster ($\chi^2 (2, 384) = 6.593, p = 0.037$) had a higher prevalence of at-risk/problem gambling. No statistically significant differences in race were found among persons in Cuyahoga and Hamilton County clusters.

Marital status and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by marital status. Statewide results indicated prevalence of at-risk/problem gambling was highest among separated and widowed persons (29.2% and 24.3%, respectively). County cluster results did not consistently indicate one group had a higher prevalence than another, but at-risk/problem gamblers generally tended not to be in a relationship. Prevalence rates were the highest in the Cuyahoga County Cluster for widowed and never-married persons (28.6% and 25.5% respectively); highest in the Franklin County Cluster for separated and never-married persons (33.3% and 32.6% respectively); and highest in the Hamilton County Cluster for widowed, separated and never-married persons (27.3%, 25.0% and 25.0%, respectively). Within the Lucas County Cluster prevalence of at-risk/problem gambling was highest for persons living with a partner (53.8%). Generally, county prevalence estimates were higher than that statewide estimate for at-risk/problem gambling.

Chi-square goodness of fit was utilized to determine the statistical relationship of marital status to gambling status. The statewide sample revealed separated and widowed persons were significantly more likely to have at-risk/problem gambling status than other marital status groups ($\chi^2 (2.17, 4,795.83) = 3.346, p = 0.032$). Statistically significant differences were found among the county clusters, but sample sizes were low for separated persons, so these results must be interpreted with caution.³⁶ Prevalence of at-risk/gambling was significantly higher for never-married persons in the Cuyahoga County Cluster ($\chi^2 (3, 384) = 13.416, p = 0.020$), never-married persons in the Franklin County Cluster ($\chi^2 (5, 360) = 11.225, p = 0.047$), and persons living with a partner in the Lucas County Cluster ($\chi^2 (5, 381) = 26.344, p < 0.001$). No statistically significant differences were found among persons of different marital status for the Hamilton County Cluster.

Employment and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by employment status. Statewide results indicated prevalence of at-risk/problem gambling was highest among retired persons and unemployed persons who were looking for work (16.4% and 15.0% respectively). County cluster results did not consistently indicate one group had a higher prevalence than another, but at-risk/problem gamblers were generally less likely to be employed. Prevalence rates were the highest in Franklin and Hamilton County clusters for persons unemployed, but looking for work (53.3% and 46.2%, respectively); and highest in the Lucas County Cluster for persons with "Other" employment.³⁷ The Cuyahoga County Cluster was the only county where prevalence of at-risk/problem gambling was highest for persons working part-time (33.3%). Generally, county prevalence estimates were higher than the statewide estimate for at-risk/problem gambling.

Chi-square goodness of fit was utilized to determine the statistical relationship of employment to gambling status. The statewide sample revealed retired persons and persons unemployed, but looking for work were not significantly more likely to have at-risk/problem gambling status than other employment groups. Statistically significant differences were found among the county clusters. Prevalence of at-risk/problem gambling was significantly higher for unemployed persons in Franklin ($\chi^2 (5, 359) = 17.405, p = 0.004$) and Hamilton County clusters ($\chi^2 (5, 389) = 38.089, p < 0.001$). Persons who listed "Other" employment had the highest prevalence of at-risk/problem gambling in the Lucas County Cluster ($\chi^2 (5, 383) = 30.148, p < 0.001$). The Cuyahoga County Cluster was the only one where persons employed part-time had significantly higher prevalence of at-risk/problem gambling than other groups ($\chi^2 (5, 387) = 17.376, p = 0.004$).

Table 6. Demographics of gambling status by region and marital status, Ohio, 2012

Region	Marital Status	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	Married	1,350 (53.8%)	94.6%	5.4%	.032*
	Living w/ partner	123 (6.1%)	86.5%	13.5%	
	Widowed	122 (8.1%)	75.7%	24.3%	
	Divorced	274 (7.9%)	90.3%	9.7%	
	Separated	42 (1.7%)	70.8%	29.2%	
	Never married	304 (22.4%)	85.8%	14.2%	
Cuyahoga Cluster	Married	206(47.4%)	88.5%	11.5%	.020*
	Living w/ partner	25 (6.2%)	87.5%	12.5%	
	Widowed	20 (4.7%)	71.4%	28.6%	
	Divorced	52 (12.8%)	78.0%	22.0%	
	Separated	9 (2.7%)	100.0%	0.0%	
	Never married	67 (26.3%)	74.5%	25.5%	
Franklin Cluster	Married	198 (51.6%)	81.6%	18.4%	.047*
	Living w/ partner	25 (7.6%)	70.0%	30.0%	
	Widowed	22 (3.9%)	71.4%	28.6%	
	Divorced	45 (10.0%)	88.9%	11.1%	
	Separated	10 (1.5%)	66.7%	33.3%	
	Never married	58 (25.3%)	67.4%	32.6%	
Hamilton Cluster	Married	230 (56.0%)	84.0%	16.0%	.462
	Living w/ partner	25 (5.0%)	87.5%	12.5%	
	Widowed	15 (3.9%)	72.7%	27.3%	
	Divorced	51 (12.1%)	81.4%	18.6%	
	Separated	4 (1.3%)	75.0%	25.0%	
	Never married	46 (21.7%)	75.0%	25.0%	
Lucas Cluster	Married	237 (54.9%)	84.2%	15.8%	<.001*
	Living w/ partner	18 (5.5%)	46.2%	53.8%	
	Widowed	17 (4.5%)	92.9%	7.1%	
	Divorced	54 (11.2%)	75.7%	24.3%	
	Separated	8 (1.7%)	71.4%	28.6%	
	Never married	50 (22.1%)	68.3%	31.7%	

†Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; ‡ P-value for chi-squared analysis; * indicates statistical significance < .05

Table 7. Demographics of gambling status by region and employment, Ohio, 2012

Region	Employment	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	Full-time (≥ 30 hrs)	1,063 (40.4%)	93.3%	6.7%	.129
	Part-time	210 (11.2%)	90.3%	9.7%	
	Unemp, but looking	118 (8.3%)	85.0%	15.0%	
	Retired	499 (18.7%)	83.6%	16.4%	
	Homemaker	136 (8.0%)	95.1%	4.9%	
	Other ^a	194 (13.4%)	89.1%	10.9%	
Cuyahoga Cluster	Full-time (≥ 30 hrs)	182 (40.4%)	90.7%	9.3%	.004*
	Part-time	39 (11.2%)	66.7%	33.3%	
	Unemp, but looking	21 (8.3%)	79.3%	20.7%	
	Retired	78 (18.7%)	83.6%	16.4%	
	Homemaker	21 (8.0%)	80.0%	20.0%	
	Other ^a	39 (13.4%)	75.5%	24.5%	
Franklin Cluster	Full-time (≥ 30 hrs)	200 (43.5%)	76.3%	23.7%	.004*
	Part-time	22 (11.8%)	93.3%	6.7%	
	Unemp, but looking	16 (8.3%)	46.7%	53.3%	
	Retired	83 (19.5%)	75.9%	24.1%	
	Homemaker	17 (4.5%)	100.0%	0.0%	
	Other ^a	20 (12.4%)	76.2%	23.8%	
Hamilton Cluster	Full-time (≥ 30 hrs)	184 (55.6%)	91.0%	9.0%	<.001*
	Part-time	34 (8.0%)	66.7%	33.3%	
	Unemp, but looking	23 (7.5%)	53.8%	46.2%	
	Retired	76 (15.5%)	83.6%	16.4%	
	Homemaker	24 (5.8%)	78.9%	21.1%	
	Other ^a	29 (7.6%)	72.9%	27.1%	
Lucas Cluster	Full-time (≥ 30 hrs)	178 (45.6%)	84.9%	15.1%	<.001*
	Part-time	40 (9.4%)	77.5%	22.5%	
	Unemp, but looking	23 (7.9%)	73.7%	26.3%	
	Retired	84 (18.9%)	83.3%	16.7%	
	Homemaker	20 (6.7%)	76.5%	23.5%	
	Other ^a	42 (11.4%)	50.9%	49.1%	

[†]Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; [‡] P-value for chi-squared analysis; * indicates statistical significance <.05; ^aOther employment includes employed student, non-employed student and unspecified other forms of employment

Education and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by level of education. Statewide results indicated prevalence of at-risk/problem gambling was highest among persons with less than a high school education (36.6%). Results from three out of four counties also suggested that persons with less than a high school education had the highest prevalence rates for at-risk/problem gambling. Almost 74 percent of persons with that educational level in Hamilton County fell into the at-risk problem gambling category. While much lower, significant percentages of persons of this educational level were from Franklin and Cuyahoga counties (41.2% and 33.3%, respectively). Persons who completed high school or had an equivalent degree were most likely to be at-risk/problem gamblers in Lucas County (44.0%). Persons of this educational level had the second highest prevalence of at-risk/problem gambling in Cuyahoga and Hamilton counties. Generally, county prevalence estimates were higher than the statewide estimate for at-risk/problem gambling.

Chi-square goodness of fit was utilized to determine the statistical relationship of educational level to gambling status. The statewide sample revealed persons with less than a high school education were significantly more likely to have at-risk/problem gambling status than other educational status groups ($\chi^2 (3.45, 7,635.67) = 3.257, p=0.016$). Statistically significant differences were found among the county clusters, but sample sizes were low for some educational levels, so these results must be interpreted with caution.³⁸ Prevalence of at-risk/gambling was significantly higher for persons who completed high school or had an equivalent degree in the Cuyahoga ($\chi^2 (6, 387) = 14.566, p=0.024$) and Lucas ($\chi^2 (6, 384) = 40.952, p<0.001$) County clusters and among persons who had less than a high school education in the Hamilton County Cluster ($\chi^2 (6, 389) = 57.106, p<0.001$). No statistically significant differences were found among persons of different educational levels for the Franklin County Cluster.

Religion and at-risk gambling status

Prevalence of at-risk/problem gambling among persons who gambled within the past 12 months varied by religion. Statewide results indicated prevalence of at-risk/problem gambling was highest among persons who identify as "Other" religion and "No religion" (12.6% and 11.8% respectively). County cluster results typically indicated that persons who identify with "No religion" have the highest at-risk/problem gambling prevalence. Persons identifying with "No religion" in Hamilton County (36.1%) had the highest prevalence of at-risk/problem gambling followed by persons identifying with the same category from Franklin and Cuyahoga counties (26.9% and 22.7% respectively). Lucas County was the only county where prevalence of at-risk/problem gambling was highest for Catholics (23.1%). Generally, county prevalence estimates were higher than the statewide estimate for at-risk/problem gambling.

Chi-square goodness of fit was utilized to determine the statistical relationship of religion to gambling status. While the statewide sample revealed that persons identifying as "Other religion" had higher at-risk/problem gambling status than persons identifying with other faith traditions, these results were not statistically significant. Only one statistically significant difference was found among the county clusters; persons from Hamilton County who identified with "No religion" were significantly more likely to be at-risk/problem gamblers ($\chi^2 (3, 376) = 9.851, p=0.020$). Prevalence of at-risk/problem gambling was not significantly higher for persons identifying with different faith traditions in other county clusters.

Table 8. Demographics of gambling status by region and education, Ohio, 2012

Region	Education	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	Less than high school	72 (3.7%)	63.4%	36.6%	.016
	High school or equiv.	461 (25.1%)	88.7%	11.3%	
	Some com. college or tech. school	102 (5.0%)	91.9%	8.1%	
	Completed com. college/tech. school	170 (6.5%)	92.5%	7.5%	
	Some university	358 (19.4%)	95.5%	4.5%	
	Bachelor's degree	618 (25.4%)	91.2%	8.8%	
	Graduate/Prof. degree	440 (15.0%)	87.9%	12.1%	
Cuyahoga Cluster	Less than high school	10 (4.5%)	66.7%	33.3%	.024*
	High school or equiv.	74 (22.8%)	74.7%	25.3%	
	Some com. college or tech. school	19 (3.4%)	90.9%	9.1%	
	Completed college/tech. school	27 (5.8%)	91.3%	8.7%	
	Some university	59 (17.7%)	83.3%	16.7%	
	Bachelor's degree	99 (23.7%)	85.3%	14.7%	
	Graduate/Prof. degree	93 (21.9%)	91.2%	8.8%	
Franklin Cluster	Less than high school	14 (7.0%)	58.8%	41.2%	.118
	High school or equiv.	62 (20.4%)	77.4%	22.6%	
	Some com. college or tech. school	9 (2.5%)	60.0%	40.0%	
	Completed com. college/tech. school	25 (6.0%)	96.0%	4.0%	
	Some university	56 (12.8%)	82.4%	17.6%	
	Bachelor's degree	117 (31.0%)	75.6%	24.4%	
	Graduate/Prof. degree	75 (20.3%)	76.3%	23.7%	
Hamilton Cluster	Less than high school	17 (5.5%)	26.1%	73.9%	<.001*
	High school or equiv.	77 (25.0%)	77.2%	22.8%	
	Some com. college or tech. school	16 (3.9%)	81.2%	18.8%	
	Completed com. college/tech. school	21 (5.2%)	83.3%	16.7%	
	Some university	56 (14.6%)	88.5%	11.5%	
	Bachelor's degree	103 (25.0%)	89.8%	10.2%	
	Graduate/Prof. degree	80 (20.9%)	87.7%	12.3%	
Lucas Cluster	Less than high school	14 (5.1%)	88.9%	11.1%	<.001*
	High school or equiv.	84 (21.7%)	56.0%	44.0%	
	Some com. college or tech. school	23 (5.2%)	94.4%	5.6%	
	Completed com. college/tech. school	29 (5.7%)	81.0%	19.0%	
	Some university	64 (16.6%)	68.4%	31.6%	
	Bachelor's degree	114 (29.9%)	88.1%	11.9%	
	Graduate/Prof. degree	59 (15.9%)	86.7%	13.3%	

†Persons with missing gambling status excluded from analysis; n's shown in chi-square results may differ from unweighted n's due to weighting process; ‡ P-value for chi-squared analysis; * indicates statistical significance < .05

Table 9. Demographics of gambling status by region and religion, Ohio, 2012

Region	Religion	Unweighted N [†] (Weighted %)	Non-problem Gambler	At-Risk / Problem Gambler	Sig. [‡]
Statewide	Protestant	632 (27.4%)	94.0%	6.0%	.201
	Catholic	699 (24.7%)	91.2%	8.8%	
	Other ^a	621 (36.6%)	87.4%	12.6%	
	No religion	220 (11.3%)	88.2%	11.8%	
Cuyahoga Cluster	Protestant	56 (15.5%)	88.4%	11.6%	.454
	Catholic	143 (32.6%)	85.9%	14.1%	
	Other ^a	144 (42.0%)	82.8%	17.2%	
	No religion	28 (9.9%)	77.3%	22.7%	
Franklin Cluster	Protestant	97 (22.5%)	78.0%	22.0%	.826
	Catholic	65 (17.6%)	76.3%	23.7%	
	Other ^a	136 (42.8%)	78.8%	21.2%	
	No religion	54 (17.1%)	73.1%	26.9%	
Hamilton Cluster	Protestant	83 (19.6%)	82.5%	17.5%	.020*
	Catholic	143 (35.1%)	86.3%	13.7%	
	Other ^a	109 (34.0%)	79.8%	20.2%	
	No religion	29 (11.3%)	63.9%	36.1%	
Lucas Cluster	Protestant	194 (50.4%)	79.3%	20.7%	.680
	Catholic	124 (28.3%)	76.9%	23.1%	
	Other ^a	21 (9.1%)	80.0%	20.0%	
	No religion	40 (12.1%)	77.6%	22.4%	

†Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process; ‡ P-value for chi-squared analysis; * indicates statistical significance < .05

^aOther religion includes persons of Jewish, Muslim, Eastern traditions and unspecified other faiths

Statewide analysis of at-risk/problem gambling stratified by demographic group

Table 10 breaks out gambling status by gender and age group to better understand groups most at-risk for problem and pathological gambling. A majority of the 497,841 Ohioans estimated to be at-risk/problem gamblers were male (68.1%; est. 339,066 persons). While the greatest number of at-risk/problem gamblers are aged 45 to 64, data indicate an unusually high percentage of these gamblers in other age cohorts. Results indicated males ages 18 to 24 and ages 65 and older were more likely to be at-risk/problem gamblers, showing double the rates of at-risk/problem gambling than males from other age cohorts. In contrast, women from every age cohort had relatively low rates of at-risk/problem gambling. A majority (81.2%) of the 158,775 women estimated to be at-risk for problem gambling were between the ages of 25 and 64. Unlike their male counterparts, women aged 65 and older displayed unusually low rates of at-risk/problem gambling behavior.

Table 10: Statewide demographics of gender and age by gambling status, Ohio, 2012

Gender	Age	Unweighted N [†] (Weighted %)	Non-problem Gambler Estimated N, (%)	At-Risk / Problem Gambler Estimated N, (%)
Male	18-24	24 (13.9%)	335,971 (80.4%)	81,918 (19.6%)
	25-44	197 (32.8%)	859,199 (92.1%)	73,631 (7.9%)
	45-64	524 (34.6%)	886,105 (90.6%)	92,334 (9.4%)
	65+	148 (18.6%)	390,861 (81.1%)	91,184 (18.9%)
Female	18-24	25 (11.1%)	192,736 (90.3%)	20,676 (9.7%)
	25-44	287 (32.7%)	754,583 (91.8%)	66,958 (8.2%)
	45-64	777 (37.9%)	965,059 (94.0%)	61,904 (6.0%)
	65+	241 (18.2%)	280,493 (96.8%)	9,237 (3.0%)

†Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process

Table 11 breaks out gambling status by race and age group to better understand groups most at-risk for problem and pathological gambling. A majority of Ohioans estimated to be at-risk/problem gamblers were white (75.2%; est. 374,457 persons). Whites aged 45 to 64 have the greatest number of at-risk/problem gamblers; however, data indicate an unusually high percentage of these gamblers in other age cohorts. Results indicated whites aged 18 to 24 and aged 65 and older were more likely to be at-risk/problem gamblers, showing double or triple the rates of at-risk/problem gambling than Whites from other age cohorts. An estimated 97,092 African-Americans were at-risk/problem gamblers in Ohio. A majority of these gamblers are between the ages of 25 and 64 (79.8%; est. 77,491 persons). Only 5.3 percent of at-risk/problem gamblers, representing an estimated 26,292 persons were of Other race. While the small number of individuals in each cell did not permit statistical testing, differences were clearly apparent when this racial group was stratified by age. Nearly 64 percent of at-risk/problem gamblers of Other race were aged 25 to 44, meaning this racial group easily has the largest percentage of persons in that cohort compared to other racial groups. Please see Appendix C for additional statewide breakouts into more specific types of at-risk/problem gambling.

Table 11: Statewide demographics of race and age by gambling status, Ohio, 2012

Race	Age	Unweighted N [†] (Weighted %)	Non-problem Gambler Estimated N, (%)	At-Risk / Problem Gambler Estimated N, (%)
White	18-24	27 (9.7%)	299,129 (78.1%)	83,897 (21.9%)
	25-44	382 (32.4%)	1,400,921 (94.0%)	89,034 (6.0%)
	45-64	1,044 (37.4%)	1,620,157 (93.9%)	105,638 (6.1%)
	65+	335 (20.4%)	594,278 (86.1%)	95,888 (13.9%)
African-American	18-24	12 (23.0%)	137,216 (89.8%)	15,564 (10.2%)
	25-44	58 (32.8%)	128,292 (78.7%)	34,746 (21.3%)
	45-64	166 (36.1%)	160,074 (78.9%)	42,745 (21.1%)
	65+	38 (8.1%)	38,911 (90.6%)	4,036 (9.4%)
Other ^a	18-24	10 (29.1%)	92,361 (96.7%)	3,134 (3.3%)
	25-44	44 (38.5%)	84,569 (83.4%)	16,808 (16.6%)
	45-64	91 (21.3%)	70,932 (92.4%)	5,854 (7.6%)
	65+	16 (11.1%)	38,165 (98.7%)	496 (1.3%)

[†]Persons with missing gambling status excluded from analysis, n's shown in chi-square results may differ from unweighted n's due to weighting process

^aOther race includes Asians, Native Hawaiians, Pacific Islanders, Native Americans, multiracial and unspecified other



Type and Frequency of Gambling

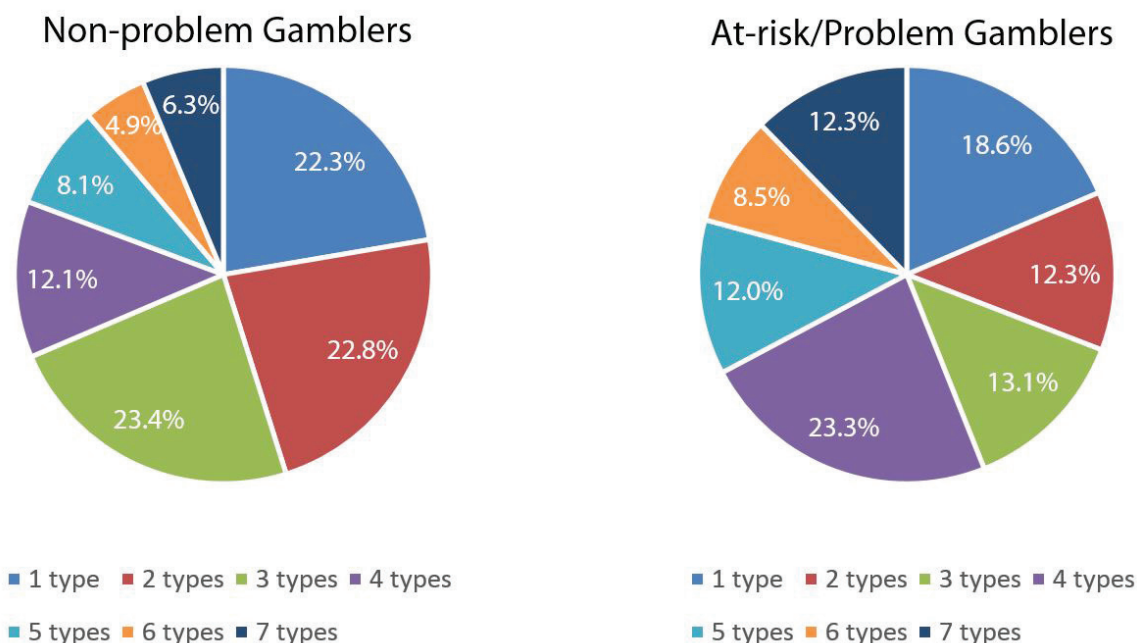
Specific types of gambling were grouped into three categories to analyze gambling behavior among respondents participating in gambling (Table 12). A majority (72.7%) of all persons who gambled during the past 12 months played the lottery, which could reflect specific gambling types like Mega Millions or Pick 3. A similar percentage of respondents (73.3%) reported they participated in other forms of gambling, which could represent specific types of gambling like Bingo and Internet-based gambling. Only a small percentage of respondents (26.8%) reported gambling at a casino within the past 12 months.

Table 12: Classifying specific gambling types

Classification	Specific Gambling Type
Lottery	Mega Millions, PowerBall, Classic Lotto
	Pick 3, Pick 4, Rolling Cash 5, Ten-OH, Keno
	Instant win or scratch tickets
Casino	Slot machines/ Video Lottery Terminals (VLTs)
	Poker
	Blackjack
	Roulette
	Keno
	Craps
	Baccarat
Other	Raffle or fundraising tickets
	Horse races
	Bingo
	VLT's (Other than casino's)
	Sports pools or sports lotteries
	Cards or board games with family or friend
	Games of skill such as pool, bowling, or darts
	Arcade or video games
	Internet
	Sports with a bookie
	Stocks, options, or commodities markets
	Illegal or charity casinos

Figure 1 compares the number of gambling types in which respondents participate by gambling status. On average, at-risk/problem gamblers participated in more types of gambling than non-problem gamblers. A majority of non-problem gamblers participated in one to three forms of gambling (68.5%); whereas, only 43.7 percent of at-risk/problem gamblers participated in the same amount of gambling. In fact, at-risk/problem gamblers participated in four to seven forms of gambling at double the rate of non-problem gamblers. For example, 23.3 percent of at-risk/problem gamblers participated in four forms of gambling, while only 12.1 percent of non-problem gamblers participated at the same level.

Figure 1: Comparing the number of gambling types by gambling status



Statewide risk status and gambling participation

Gambling habits differed for non-problem and at-risk/problem gamblers when breaking out gambling type by gambling status. At-risk/problem gamblers played the lottery more often than non-problem gamblers (79.9% vs. 72.0%, respectively), and they were also more likely to gamble at the casino than non-problem gamblers (53.8% vs. 25.9%, respectively). Non-problem gamblers were only more likely to participate in an "other" form of gambling than at-risk/problem gamblers (73.6% vs. 70.4%, respectively).

While a minority of persons participating in any form of gambling can be classified as at-risk/problem gamblers, casino gamblers, in particular, show the highest estimates for at-risk/problem gambling compared to lottery and other gambling (Table 13). Nearly 13 percent of at-risk/problem gamblers, representing an estimated 177,958 persons, participated in casino gambling. At-risk/problem gamblers were least likely to participate in other forms of gambling; 9.3 percent of all persons participating in games like Bingo, representing an estimated 350,017 persons, could be classified as at-risk/problem gamblers.

Table 13: Statewide respondents who gambled within the past six months by gambling type and status, Ohio, 2012

Statewide Estimates			
Gambling Status	Lottery Estimated N, (%)	Casino Estimated N, (%)	Other Estimated N, (%)
Non-Problem Gambler	3,354,282 (89.4%)	1,205,896 (87.1%)	3,427,627 (90.7%)
At-risk/Problem Gambler	396,799 (10.6%)	177,958 (12.9%)	350,017 (9.3%)

County cluster risk status and lottery participation

Lottery gambling habits differed for non-problem and at-risk/problem gamblers when breaking out results by gambling status. At-risk/problem gamblers played the lottery more often than non-problem gamblers for every county cluster, and there was significant variation among the regions. Nearly 92 percent of at-risk/problem gamblers played the lottery in the Lucas County Cluster; whereas, only 73 percent of the similar gamblers played the lottery in the Cuyahoga County Cluster. The percentage of non-problem and at-risk/problem gamblers participating in lottery was typically similar within other county clusters (69.4% vs. 73.0% in Cuyahoga; 76.7% vs. 84.0% in Franklin; 73.5% vs. 87.5% in Hamilton; 91.8% vs. 71.4% in Lucas).

Results indicate variation in the percentage of all lottery gamblers who are at-risk/problem gamblers at the county cluster level (Table 14). Nearly 27 percent of at-risk/problem gamblers in the Lucas County Cluster, representing an estimated 59,925 persons, participated in lottery gambling; whereas, only 17 percent of at-risk/problem gamblers from the Cuyahoga County Cluster, representing an estimated 106,983 persons, participated in lottery gambling.

Table 14: County cluster respondents who participated in lottery gambling within the past 12 months by gambling status, Ohio, 2012

County Cluster Estimates for Lottery Gambling [†]				
Gambling Status	Cuyahoga Cluster Estimated N, (%)	Franklin Cluster Estimated N, (%)	Hamilton Cluster Estimated N, (%)	Lucas Cluster Estimated N, (%)
Non-Problem Gambler	523,284 (83.0%)	405,255 (75.9%)	351,543 (78.7%)	165,178 (73.4%)
At-risk/Problem Gambler	106,983 (17.0%)	128,773 (24.1%)	95,052 (21.3%)	59,925 (26.6%)

[†]Multiplication of percentages by cluster population may result in a different estimated N because of rounding percentages.

County cluster risk status and casino participation

Casino gambling habits also differed for non-problem and at-risk/problem gamblers when breaking out results by gambling status. At-risk/problem gamblers participated in casino gambling more often than non-problem gamblers for every county cluster. The percentage of non-problem and at-risk/problem gamblers participating in casino gambling was typically different within a county cluster (31.3% vs. 33.3% in Cuyahoga; 22.2% vs. 30.9% in Franklin; 25.6% vs. 41.7% in Hamilton; 21.7% vs. 49.4% in Lucas). Interestingly, at-risk/problem gamblers in the Lucas County Cluster were 2.4 times more likely to participate in casino gambling than non-problem gamblers, but almost equally likely to participate in casino gambling as non-problem gamblers in the Cuyahoga County Cluster, once again showing significant regional variation.

Results also indicate variation in the percentage of all casino gamblers who are at-risk/problem gamblers at the county cluster level (Table 15). Almost 40 percent of at-risk/problem gamblers in the Lucas County Cluster, representing an estimated 32,326 persons, participated in casino gambling; whereas, only 17 percent of at-risk/problem gamblers from the County Cluster, representing an estimated 48,931 persons, participated in casino gambling.

Table 15: County cluster respondents who participated in casino gambling within the past 12 months by gambling status, Ohio, 2012

County Cluster Estimates for Casino Gambling [†]				
Gambling Status	Cuyahoga Cluster Estimated N, (%)	Franklin Cluster Estimated N, (%)	Hamilton Cluster Estimated N, (%)	Lucas Cluster Estimated N, (%)
Non-Problem Gambler	235,334 (82.8%)	117,410 (71.3%)	122,426 (73.0%)	50,028 (60.7%)
At-risk/Problem Gambler	48,931 (17.2%)	47,343 (28.7%)	45,343 (27.0%)	32,326 (39.3%)

††Multiplication of percentages by cluster population may result in a different estimated N because of rounding percentages.

County cluster risk status and other gambling participation

Other gambling habits also differed for non-problem and at-risk/problem gamblers when breaking out results by gambling status. At-risk/problem gamblers participated in other forms of gambling more often than non-problem gamblers for most county clusters. Non-problem gamblers in the Franklin County Cluster were more likely to participate in other forms of gambling than at-risk/problem gamblers, which was the only occurrence of this trend among the analyses. Like lottery and casino gambling, there was significant variation among the regions. Nearly 91 percent of at-risk/problem gamblers participated in other forms of gambling in the Lucas County Cluster; whereas, only 68 percent of the similar gamblers participated in other forms of gambling in the Franklin County Cluster. The percentage of non-problem and at-risk/problem gamblers participating in other forms of gambling was typically similar within a county cluster (77.1% vs. 82.5% in Cuyahoga; 72.8% vs. 67.9% in Franklin; 73.4% vs. 75.0% in Hamilton; 78.7% vs. 90.6% in Lucas).

Results also indicated variation in the percentage of all persons participating in other forms of gambling who were at-risk/problem gamblers at the county cluster level (Table 16). About 25 percent of at-risk/problem gamblers in the Lucas County Cluster, representing an estimated 59,157 persons, participated in other forms of gambling; whereas, only 17 percent of at-risk/problem gamblers from the County Cluster, representing an estimated 121,162 persons, participated in other forms of gambling.

Table 16: County cluster respondents who participated in other gambling within the past 12 months by gambling status, Ohio, 2012

County Cluster Estimates for Other Gambling [†]				
Gambling Status	Cuyahoga Cluster Estimated N, (%)	Franklin Cluster Estimated N, (%)	Hamilton Cluster Estimated N, (%)	Lucas Cluster Estimated N, (%)
Non-Problem Gambler	580,180 (82.7%)	384,424 (78.7%)	350,653 (81.1%)	182,080 (75.5%)
At-risk/Problem Gambler	121,162 (17.3%)	104,154 (21.3%)	81,618 (18.9%)	59,157 (24.5%)

†Multiplication of percentages by cluster population may result in a different estimated N because of rounding percentages.

Type of gambling participation

Participation in lottery gambling varied throughout the state (Table 17). Based on frequency of gambling, non-daily lottery tickets appear to have the edge in popularity. Nearly 70 percent of Ohioans bought lottery tickets within the past 12 months. Instant/scratch-off games were also popular in Ohio; 46.3 percent of Ohioans played these games within the past 12 months. Daily lottery tickets were the least often played form of lottery; only 21.2 percent of respondents had bought these tickets within the past 12 months. No matter which form of lottery respondents participated in, most said they had played these games between one and 11 times per year.

Table 17: Estimates for statewide participation in lottery gambling with the past 12 months, Ohio, 2012

Lottery Gambling Statewide Estimates*				
Type	Daily or 1-6 times/week	Between 1-3 times/month	Between 1-11 times/year	Never
Lottery tickets [†]	12.0%	15.7%	39.2%	33.0%
Daily lottery tickets [‡]	4.3%	5.2%	11.7%	78.7%
Instant/scratch	8.1%	13.2%	25.0%	53.7%

*Row percentages may not total 100 due to rounding error.

[†]Non-daily lottery tickets include MegaMillions, Powerball, Classic Lotto

[‡]Daily lottery tickets include Pick3, Pick4, KENO, Rolling Cash 5, Ten-OH



Participation in casino gambling varied throughout the state (Table 18). By far, slots/VLTs are the most frequently played form of casino gambling across the state, with 78.5 percent of casino respondents playing these games. Nearly 71 percent of persons gambling at casinos who played slots/VLTs play these games between one and 11 times a year. Blackjack was the second most frequently played form of casino gambling, but participation in this type of gambling was only reported to be 26.2 percent, according to respondents. Other forms of casino gambling were played even less frequently; between 12.4 and 14.8 percent of respondents reported playing poker, roulette and craps. Casino gambling games like KENO and Baccarat were rarely played at all. Respondents gambling at casinos typically played these games between one and 11 times per year for all forms of casino gambling.

Table 18: Estimates for statewide participation in casino gambling with the past 12 months, Ohio, 2012

Casino Gambling Statewide Estimates [†]				
Type	Daily or 1-6 times/week	Between 1-3 times/month	Between 1-11 times/year	Never
Slots/ VLTs	2.4%	5.6%	70.5%	21.5%
Poker	0.1%	1.2%	13.6%	85.2%
Blackjack	0.6%	2.4%	23.1%	73.8%
Roulette	0.2%	0.1%	13.2%	86.6%
Keno	0.3%	0.4%	4.1%	95.1%
Craps	0.2%	1.1%	11.2%	87.6%
Baccarat	0.0%	0.0%	0.9%	99.1%

[†]Row percentages may not total 100 due to rounding error.

Participation in other forms of gambling varied throughout the state (Table 19). Nearly 50 percent of respondents said they participated in raffles or fundraising tickets at least once within the past 12 months. Practically equal numbers of people were likely to participate in stocks, options or commodities markets, or to gamble with card or board games with friends and family (17.8% vs. 17.3%, respectively). Respondents purchasing stocks, options, or commodities were the most likely group to gamble, whether daily or weekly. A similar number of participants also said they gambled in sports pools or sports lotteries (15.9%), and they typically gambled between one and 11 times per year. While not many participants reported playing in non-casino VLTs (4.9%), this group was the second most likely to participate in gambling daily or between one and six times a week during the past 12 months. Other forms of gambling (e.g., horse races and Bingo) were relatively rare, with only between 0.9 percent and 6.9 percent of respondents reporting any form of participation. Like other types of gambling, most respondents said they had played these games between one and 11 times per year.

Table 19: Estimates for statewide participation in other gambling with the past 12 months, Ohio, 2012

Other Gambling Statewide Estimates [†]				
Type	Daily or 1-6 times/week	Between 1-3 times/month	Between 1-11 times/year	Never
Raffle or fundraising tickets	0.4%	4.8%	43.0%	51.8%
Horse races	0.1%	0.4%	4.5%	95.1%
Bingo	0.9%	1.7%	4.3%	93.1%
VLT's (Non-casino)	1.4%	0.6%	2.9%	95.2%
Sports pools or sports lotteries	0.8%	1.6%	13.6%	84.1%
Cards or board games with family or friend	0.4%	2.4%	14.5%	82.7%
Games of skill (pool, bowling, or darts)	0.9%	1.0%	4.9%	93.2%
Arcade or video games	1.1%	0.2%	2.5%	96.1%
Internet	0.7%	0.1%	0.6%	98.6%
Sports with a bookie	0.0%	0.1%	0.7%	99.1%
Stocks, options, or commodities markets	2.5%	5.8%	9.6%	82.2%

[†]Row percentages may not total 100 due to rounding error.



Gambling expenditures

Table 20 displays the monthly expenditures in a typical month for persons participating in gambling within the past 12 months. At-risk/problem gamblers always had higher mean expenditures than non-problem gamblers no matter what form of gambling they favored. At-risk/problem casino gamblers had the highest monthly mean expenditures of all gambling types, which were 2.4 times greater than the monthly mean expenditures for non-problem casino gamblers. Monthly mean expenditures for all other types of gambling were also higher than those of non-problem gamblers; monthly mean expenditures were 2.9 times higher for at-risk/problem lottery gamblers and 4.7 times higher for at-risk/problem gamblers participating in other forms of gambling than for non-gamblers.

Table 20: Money spent on gambling in a typical month for persons participating in one of the following forms of gambling within the past 12 months

Statewide Estimates [†]				
Type	Gambling Status	Mean	Median	Mode
Lottery	Non-Problem Gambler	\$24.21	\$10.00	\$5.00
	At-risk/ Problem Gambler	\$65.60	\$20.00	\$2.00
Casino	Non-Problem Gambler	\$167.91	\$60.00	\$10.00
	At-risk/ Problem Gambler	\$331.14	\$75.00	\$50.00
Other [‡]	Non-Problem Gambler	\$30.83	\$13.00	\$5.00
	At-risk/ Problem Gambler	\$121.44	\$35.00	\$30.00

[†] Persons who gambled were excluded if they did not provide expenditure data

[‡] Stock market expenditures were excluded due to exceedingly high values

Perceptions about Gambling Problems among Different Age Groups

Statewide

The majority of statewide participants considered gambling by any age group to either not be a problem or only to be a minor problem (Table 21). Generally, participants perceived older-age cohorts to have more problems with gambling than younger-age cohorts. Teenagers were perceived to have the fewest problems with gambling, followed by those aged 18 to 20. Participants believed adults aged 21 to 54 years old had the most problems with gambling; they were the only group for which many participants (41.2%) thought gambling was either a moderate or serious problem. A sizeable percentage of participants (range 11.4%–17.3%) did not know whether gambling was a problem among any of the age cohorts.

Table 21: Perception of gambling as a problem for specific age groups throughout the state, Ohio, 2012

In your community, how much of a problem do you believe each of the following is? [†]					
Gambling by:	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	Don't Know
Teenagers Aged 12-17	39.2%	26.3%	11.3%	5.9%	17.3%
Young Adults Aged 18-20	31.8%	26.0%	19.5%	7.4%	15.2%
Adults Aged 21-54	26.4%	21.0%	27.2%	14.0%	11.4%
Older Adults Aged 55+	29.6%	23.0%	21.3%	13.4%	12.7%

[†]Row percentages may not total 100 due to rounding error.

Cuyahoga County Cluster

In the Cuyahoga County Cluster, the majority of participants considered gambling by any age group to either not be a problem or only to be a minor problem (Table 22). As with the statewide sample, participants perceived older-age cohorts to have more problems with gambling than younger-age cohorts. Teenagers were perceived to have the fewest problems with gambling, followed by those aged 18 to 20. Participants believed adults aged 21 to 54 years old had the most problems with gambling; they were the only group for which many participants (45.1%) thought gambling was either a moderate or serious problem. A sizeable percentage of participants (range 11.0%–21.8%) did not know whether gambling was a problem among any of the age cohorts.

Table 22: Perception of gambling as a problem for specific age groups in Cuyahoga County, Ohio, 2012

In your community, how much of a problem do you believe each of the following is? [†]					
Gambling by:	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	Don't Know
Teenagers Aged 12-17	34.6%	25.8%	9.9%	7.9%	21.8%
Young Adults Aged 18-20	28.0%	28.2%	16.8%	7.8%	19.1%
Adults Aged 21-54	22.3%	20.7%	29.4%	15.7%	11.9%
Older Adults Aged 55+	25.6%	23.5%	25.2%	14.7%	11.0%

[†]Row percentages may not total 100 due to rounding error.

Franklin County Cluster

In the Franklin County Cluster, the majority of participants considered gambling by any age group to either not be a problem or only to be a minor problem (Table 23). As with the statewide sample, participants perceived older-age cohorts to have more problems with gambling than younger-age cohorts. Teenagers were perceived to have the fewest problems with gambling, followed by those aged 18 to 20. Participants believed adults aged 21 to 54 years old had the most problems with gambling; they were the only group for which many participants (45.1%) thought gambling was either a moderate or serious problem. A sizeable percentage of participants (range 10.3%–17.1%) did not know whether gambling was a problem among any of the age cohorts.

Table 23: Perception of gambling as a problem for specific age groups in Franklin County, Ohio, 2012

In your community, how much of a problem do you believe each of the following is? [†]					
Gambling by:	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	Don't Know
Teenagers Aged 12-17	41.7%	26.5%	11.1%	3.7%	17.1%
Young Adults Aged 18-20	32.1%	29.1%	16.4%	8.0%	14.4%
Adults Aged 21-54	22.9%	24.5%	29.0%	13.3%	10.3%
Older Adults Aged 55+	30.7%	25.7%	20.7%	12.2%	10.7%

[†]Row percentages may not total 100 due to rounding error.

Hamilton County Cluster

In the Hamilton County Cluster, the majority of participants considered gambling by any age group to either not be a problem or only to be a minor problem (Table 24). As with the statewide sample, participants perceived older-age cohorts to have more problems with gambling than younger-age cohorts. Teenagers were perceived to have the fewest problems with gambling, followed by those aged 18 to 20. Participants believed adults aged 21 to 54 years old had the most problems with gambling; they were the only group for which more than a third of participants (38.8%) thought gambling was either a moderate or serious problem. A sizeable percentage of participants (range 11.2%–16.4%) did not know whether gambling was a problem among any of the age cohorts.

Table 24: Perception of gambling as a problem for specific age groups in Hamilton County, Ohio, 2012

In your community, how much of a problem do you believe each of the following is?†					
Gambling by:	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	Don't Know
Teenagers Aged 12-17	42.9%	21.4%	14.7%	4.6%	16.4%
Young Adults Aged 18-20	36.8%	22.7%	17.3%	7.0%	16.1%
Adults Aged 21-54	27.3%	22.8%	23.4%	15.4%	11.2%
Older Adults Aged 55+	28.8%	25.4%	19.8%	13.8%	12.3%

†Row percentages may not total 100 due to rounding error.

Lucas County Cluster

In the Lucas County Cluster, the majority of participants considered gambling by any age group to either not be a problem or only to be a minor problem (Table 25). As with the statewide sample, participants perceived older-age cohorts to have more problems with gambling than younger-age cohorts. Teenagers were perceived to have the fewest problems with gambling, followed by those aged 18 to 20. Participants believed adults aged 21 to 54 years old had the most problems with gambling; they were the only group for which many participants (44.8%) thought gambling was either a moderate or serious problem. A sizeable percentage of participants (range 10.7%–18.5%) did not know whether gambling was a problem among any of the age cohorts.

Table 25: Perception of gambling as a problem for specific age groups in Lucas County, Ohio, 2012

In your community, how much of a problem do you believe each of the following is?†					
Gambling by:	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	Don't Know
Teenagers Aged 12-17	34.7%	27.6%	14.1%	5.1%	18.5%
Young Adults Aged 18-20	29.7%	30.7%	18.3%	6.6%	14.7%
Adults Aged 21-54	21.1%	23.3%	31.9%	12.9%	10.7%
Older Adults Aged 55+	24.3%	27.5%	23.6%	13.4%	11.2%

†Row percentages may not total 100 due to rounding error.

Perceptions about Gambling Prevention

Prevention of gambling problems

More than 65 percent of statewide participants said that gambling behavior could be reduced through prevention (Table 26). Participants from the Lucas County cluster (72.1%) were most likely to strongly agree or agree that gambling problems could be prevented followed by participants from the Hamilton County Cluster (67.5%). Roughly 20 percent of people in the statewide sample and county clusters believed gambling problems could not be addressed through prevention activities. Almost 13 percent of participants statewide neither agreed nor disagreed with the question, or they were unsure whether gambling problems could be prevented.

Table 26: Beliefs about reducing gambling problems through prevention, Ohio, 2012

It is possible to reduce gambling problems through prevention? [†]						
Region	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Statewide	14.9%	51.5%	9.1%	18.1%	2.7%	3.7%
Cuyahoga Cluster	13.3%	50.3%	10.2%	18.4%	4.2%	3.6%
Franklin Cluster	14.2%	52.2%	11.6%	14.3%	4.0%	3.6%
Hamilton Cluster	16.0%	51.5%	10.2%	15.3%	3.2%	3.8%
Lucas Cluster	16.3%	55.8%	5.4%	18.1%	3.1%	1.4%

[†]Row percentages may not total 100 due to rounding error.

Community responsibility and gambling prevention

Slightly more than 50 percent of statewide participants thought that community had the responsibility to set up prevention programs to help people avoid gambling problems (Table 27). Participants from the Franklin County Cluster (60.2%) were most likely to strongly agree or agree with this question followed by participants from the Cuyahoga County Cluster (56.2%). Nearly 38 percent of people in the statewide sample either strongly disagreed or disagreed that the community had a responsibility to set up prevention programs to help people avoid gambling problems. Disagreement was strongest in the Lucas County Cluster (40.0%) and the Hamilton County Cluster (38.0%). About 11 percent of participants statewide neither agreed nor disagreed with the question, or they were unsure whether the community had that responsibility.

Table 27: Beliefs about community responsibility and gambling prevention, Ohio, 2012

The community has the responsibility to set up prevention programs to help people avoid gambling problems. [†]						
Region	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Statewide	14.3%	36.9%	9.0%	31.8%	6.0%	2.1%
Cuyahoga Cluster	12.8%	43.4%	7.4%	26.5%	7.5%	2.4%
Franklin Cluster	14.1%	46.1%	7.7%	24.6%	4.7%	2.8%
Hamilton Cluster	10.8%	40.5%	9.0%	32.8%	5.2%	1.8%
Lucas Cluster	12.5%	36.3%	9.9%	31.5%	8.5%	1.3%

[†]Row percentages may not total 100 due to rounding error.

Riskiness of casino gambling

Nearly 50 percent of statewide participants believed that gambling at a casino was riskier than buying lottery tickets or pull-tabs (Table 28). There was very little difference in agreement among the clusters (range 42.6%–44.8%). A sizeable portion of statewide participants did not believe that gambling at a casino was riskier than buying lottery tickets or pull-tabs (37.7%). Rates within county clusters were higher than the statewide average, but still very similar to one another (range 41.7%–44.2%). Slightly more than 13 percent of participants statewide neither agreed nor disagreed with the question, or they were unsure whether gambling was riskier at the casino than participating in other forms of gambling.

Table 28: Riskiness of casino gambling as opposed to other forms of gambling, Ohio, 2012

Gambling at a casino is more risky than buying lottery tickets or pull-tabs. [†]						
Region	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Statewide	13.6%	35.3%	9.3%	33.0%	4.7%	4.1%
Cuyahoga Cluster	13.5%	31.3%	9.9%	35.5%	6.2%	3.5%
Franklin Cluster	15.1%	28.3%	9.1%	36.9%	7.3%	3.3%
Hamilton Cluster	12.6%	30.8%	9.5%	38.8%	4.3%	4.1%
Lucas Cluster	11.7%	30.9%	9.2%	36.7%	6.2%	5.3%

[†]Row percentages may not total 100 due to rounding error.

Acceptability of gambling at high school graduation or prom

Almost 70 percent of statewide participants felt that it was not appropriate for a high school to sponsor casino nights for graduation or prom (Table 29). Participants from the Lucas County Cluster (67.0%) were most likely to strongly disagree or disagree with this question followed by participants from the Hamilton County Cluster (60.7%). Nearly 25 percent of people in the statewide sample either strongly agreed or agreed that it was appropriate for high schools to sponsor casino nights for graduation or prom. Agreement was higher in the county clusters than in the statewide sample, where almost 30 percent of people agreed with the question (range 28.8%–33.9%). About seven percent of participants statewide neither agreed nor disagreed with the question, or they were unsure whether it was appropriate for high schools to sponsor casino nights.

Table 29: Acceptability of gambling at high school graduation or prom, Ohio, 2012

Is it okay for high schools to sponsor casino nights for graduation or prom? [†]						
Region	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Statewide	0.9%	23.5%	6.3%	44.4%	23.8%	1.0%
Cuyahoga Cluster	1.5%	32.4%	5.0%	36.5%	23.5%	1.0%
Franklin Cluster	1.3%	30.8%	6.5%	37.7%	21.8%	1.8%
Hamilton Cluster	1.0%	28.8%	9.0%	39.0%	21.7%	0.6%
Lucas Cluster	2.2%	26.6%	3.5%	41.0%	26.0%	0.7%

[†]Row percentages may not total 100 due to rounding error.

Family and Individual History of Substance Abuse, Psychological Distress and Gambling Behavior*Family gambling and substance use problems*

Based on participant responses, it was estimated that nearly 1.5 million Ohioans know of family members with current or former gambling problems (Table 30). Results from county clusters are similar to statewide results and indicate a sizable percentage of persons have a family member with gambling problems. Persons from the Franklin County Cluster were estimated to have the greatest percentage of family members with a gambling problem (19.6%), and persons from the Cuyahoga County Cluster were estimated to have the lowest percentage of family members with a gambling problem (15.2%). Roughly two percent of people in each cluster did not know whether anyone in their family ever had a gambling problem.

Table 30: History of family gambling problems, Ohio, 2012

Has anyone in your family ever had a gambling problem? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	1,470,561 (16.7%)	7,194,300 (81.7%)	140,892 (1.6%)
Cuyahoga Cluster	190,187 (15.2%)	1,036,019 (82.8%)	25,025 (2.0%)
Franklin Cluster	212,308 (19.6%)	851,399 (78.6%)	19,498 (1.8%)
Hamilton Cluster	160,545 (18.8%)	678,900 (79.5%)	14,517 (1.7%)
Lucas Cluster	71,540 (16.9%)	344,156 (81.3%)	7,620 (1.8%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of families with gambling problems differ by gambling status (Table 31). At-risk/problem gamblers were the most likely group to have someone else in their family with a gambling problem (37.9%). Nearly 40 percent of participants scoring as at-risk/problem gamblers, representing 184,921 people, agreed with this question. In contrast, non-gamblers and non-problem gamblers had similar rates of persons in their families with gambling problems, although non-gamblers had slightly higher rates (17.0% vs. 14.2%, respectively).

Table 31: History of family gambling problems by gambling status, Ohio, 2012

Has anyone in your family ever had a gambling problem? [†]			
Gambling Status (Statewide)	Yes	No	Don't Know
Non-gambler	625,208 (17.0%)	2,985,150 (81.8%)	44,029 (1.1%)
Non-problem Gambler	660,431 (14.2%)	3,918,560 (84.0%)	79,252 (1.8%)
At-risk/Problem Gambler	184,921 (37.9%)	299,396 (59.6%)	8,806 (2.5%)

[†]Persons refusing to answer the question are excluded from the analysis.

Nearly 52 percent of respondents, representing an estimated 4.5 million people, said someone in their family has had an alcohol or drug problem at some point in time (Table 32). Results from county clusters are similar to statewide results and typically indicate more than half of all persons have had a family member with alcohol and other drug problems. Reported rates of alcohol and drug problems were similar in the Franklin, Hamilton and Lucas County clusters (range 54.5%–56.5%), and they were lowest in the Cuyahoga County cluster, where fewer than half of people (47.8%) reported someone in their family has had an alcohol or drug problem.

Table 32: History of family alcohol or drug problems, Ohio, 2012

Has anyone in your family ever had an alcohol or drug problem? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	4,534,963 (51.5%)	4,244,373 (48.2%)	17,612 (0.2%)
Cuyahoga Cluster	598,088 (47.8%)	643,133 (51.4%)	10,010 (0.8%)
Franklin Cluster	612,011 (56.5%)	467,945 (43.2%)	3,250 (0.3%)
Hamilton Cluster	471,387 (55.2%)	374,035 (43.8%)	8,540 (1.0%)
Lucas Cluster	230,707 (54.5%)	187,106 (44.2%)	5,926 (1.4%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of families with alcohol and other drug problems differ by gambling status (Table 33). Similar to the analyses on gambling problems at-risk/problem gamblers were most likely to have persons in their families who had an alcohol or drug problem (65.8%). Nearly 66 percent of participants scoring as at-risk/problem gamblers, representing 325,813 people, agreed with this question. Non-gamblers and non-problem gamblers were almost equally likely to have a family member with an alcohol or drug problem, although non-gamblers had slightly higher rates (51.2% vs. 50.4%, respectively).

Table 33: History of family alcohol or drug problems by gambling status, Ohio, 2012

Has anyone in your family ever had an alcohol or drug problem? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	1,866,820 (51.2%)	1,769,956 (48.6%)	8,806 (0.2%)
Non-problem Gambler	2,351,136 (50.4%)	2,298,302 (49.4%)	8,806 (0.2%)
At-risk/Problem Gambler	325,813 (65.8%)	167,309 (34.1%)	8,806 (0.1%)

[†]Persons refusing to answer the question are excluded from the analysis.

Personal substance use problems

More than six percent of participants felt they might have had an alcohol or drug problem at some point in their lives, representing an estimated 563,000 people in Ohio (Table 34). Results from county clusters were slightly higher than statewide estimates, but they still indicated a minority of people think they ever had an alcohol or drug problem. Reported rates of alcohol and drug problems were highest in the Hamilton County Cluster (8.5%) and very similar in other county clusters (range 7.2%–7.9%). Very few people in any sample said they were not sure whether they had ever had an alcohol or drug problem.

Table 34: History of personal alcohol or drug problem, Ohio, 2012

Have you ever felt you might have an alcohol or drug problem? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	563,568 (6.4%)	8,206,962 (93.2%)	35,223 (0.4%)
Cuyahoga Cluster	90,089 (7.2%)	1,161,142 (92.8%)	0 (0.0%)
Franklin Cluster	84,490 (7.8%)	998,715 (92.2%)	0 (0.0%)
Hamilton Cluster	72,587 (8.5%)	780,521 (91.4%)	854 (0.1%)
Lucas Cluster	33,442 (7.9%)	389,874 (92.1%)	0 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of individuals with alcohol and other drug problems differ by gambling status (Table 35). At-risk/problem gamblers were three times more likely to feel that they have ever had an alcohol or drug problem than persons of other gambling statuses. Nearly 19 percent of participants scoring as at-risk/problem gamblers, representing 91,897 people, agreed with this question. Non-gamblers and non-problem gamblers were almost equally likely to report feeling that they ever had an alcohol or drug problem.

Table 35: History of personal alcohol or drug problem by gambling status, Ohio, 2012

Have you ever felt you might have an alcohol or drug problem? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	210,636 (5.8%)	3,432,419 (94.2%)	2,518 (0.1%)
Non-problem Gambler	263,751 (5.7%)	4,363,376 (93.6%)	35,161 (0.8%)
At-risk/Problem Gambler	91,897 (18.5%)	405,994 (81.5%)	0 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

An estimated 1.7 million Ohioans would have the urge to drink if something painful happened in their lives (Table 36). Nearly 20 percent of statewide survey respondents agreed with this question, and results from county clusters were very similar. Respondents in Cuyahoga County Cluster reported the highest percentage (22.8%) of persons would have the urge to drink if something painful happened in their lives. Participants from the Franklin and Hamilton County clusters had similar percentages of persons in agreement with the question (20.3% and 20.1% respectively), while respondents from the Lucas County Cluster had the lowest percentage of agreement (17.3%). Very few people in any sample said they did not know if they would have the urge to drink if something painful happened in their lives.

Table 36: Urge to drink after painful event, Ohio, 2012

In the last 12 months, if something painful happened in your life, did you have the urge to have a drink? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	1,655,482 (18.8%)	7,141,466 (81.1%)	8,806 (0.1%)
Cuyahoga Cluster	285,281 (22.8%)	963,448 (77.0%)	3,754 (0.3%)
Franklin Cluster	219,891 (20.3%)	863,314 (79.7%)	0 (0.0%)
Hamilton Cluster	171,646 (20.1%)	678,900 (79.5%)	3,416 (0.4%)
Lucas Cluster	73,234 (17.3%)	349,659 (82.6%)	423 (0.1%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of individuals who would have the urge to drink if something painful happened in their lives differed by gambling status (Table 37). At-risk/problem gamblers were almost twice as likely to agree with this question than persons of other gambling statuses. More than 31 percent of participants scoring as at-risk/problem gamblers, representing 156,186 people, agreed with this question. Slightly more non-problem gamblers than non-gamblers thought they would have the urge to drink if something painful happened in their lives.

Table 37: Urge to drink after painful event by gambling status, Ohio, 2012

In the last 12 months, if something painful happened in your life, did you have the urge to have a drink? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	649,954 (17.8%)	2,997,319 (82.2%)	0 (0.0%)
Non-problem Gambler	851,617 (18.3%)	3,799,199 (81.5%)	9,093 (0.2%)
At-risk/Problem Gambler	156,186 (31.3%)	342,135 (68.6%)	249 (0.1%)

[†]Persons refusing to answer the question are excluded from the analysis.

Almost eight percent of participants, representing an estimated 696,000, said they would have the urge to use drugs or medication after a painful event (Table 38). Results from most county clusters were similar to the statewide results. Participants in the Franklin County Cluster were the most likely to agree with the question (10.3%), followed by participants in the Hamilton County Cluster (9.1%). Participants in the Cuyahoga and Lucas County clusters were equally likely to have the urge to use drugs or medication after a painful event. Very few people in any sample said they did not know if they would have the urge to use drugs or medication if something painful happened in their lives.

Table 38: Urge to use drugs or medication after painful event, Ohio, 2012

In the last 12 months, if something painful happened in your life, did you have the urge to use drugs or medication? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	695,654 (7.9%)	8,066,070 (91.6%)	44,029 (0.5%)
Cuyahoga Cluster	91,340 (7.3%)	1,156,137 (92.4%)	2,502 (0.2%)
Franklin Cluster	111,570 (10.3%)	971,635 (89.7%)	0 (0.0%)
Hamilton Cluster	77,771 (9.1%)	775,397 (90.8%)	854 (0.1%)
Lucas Cluster	30,902 (7.3%)	392,414 (92.7%)	0 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of individuals who would have the urge to use drugs or medication if something painful happened in their lives differed by gambling status (Table 39). At-risk/problem gamblers were twice as likely to agree with this question than persons of other gambling statuses. Twenty-one percent of participants scoring as at-risk/problem gamblers, representing 104,475 people, agreed with this question. Slightly more non-gamblers than non-problem gamblers thought they would have the urge to use medication or drugs if something painful happened in their lives.

Table 39: Urge to use drugs or medication after painful event by gambling status, Ohio, 2012

In the last 12 months, if something painful happened in your life, did you have the urge to use drugs or medication? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	280,763 (7.7%)	3,358,132 (92.1%)	6,050 (0.2%)
Non-problem Gambler	313,572 (6.7%)	4,312,803 (92.5%)	36,313 (0.8%)
At-risk/Problem Gambler	104,475 (21.0%)	393,646 (79.0%)	0 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

Stress and depression-related problems

Nearly 17 percent of respondents, representing an estimated 1.5 million people, say they have been under a doctor's care because of physical or emotional problems brought on by stress in the past 12 months (Table 40). Results from most county clusters were typically lower than the statewide results. Participants in the Cuyahoga County Cluster had the lowest percentages of persons being under a doctor's care for this problem (11.7%), followed by participants from the Franklin County Cluster (13.8%). In contrast, almost 20 percent of participants from people from the Hamilton County Cluster had been under a doctor's care for this problem within the past 12 months. Very few people in any sample said they did not know if they had been under a doctor's care because of physical or emotional problems brought on by stress.

Table 40: Under a doctor's care due to problems brought on by stress, Ohio, 2012

Still thinking about the past 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	1,461,755 (16.6%)	7,335,192 (83.3%)	8,806 (0.1%)
Cuyahoga Cluster	146,394 (11.7%)	1,102,335 (88.1%)	2,502 (0.2%)
Franklin Cluster	149,482 (13.8%)	931,556 (86.0%)	2,166 (0.2%)
Hamilton Cluster	166,523 (19.5%)	687,439 (80.5%)	0 (0.0%)
Lucas Cluster	63,497 (15.0%)	358,972 (84.8%)	1,270 (0.3%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of individuals who would have been under a doctor's care because of physical or emotional problems brought on by stress differed by gambling status (Table 41). At-risk/problem gamblers were more likely to agree with this question than persons of other gambling statuses. Slightly more than 25 percent of participants scoring as at-risk/problem gamblers, representing 126,781 people, agreed with this question. Slightly more non-gamblers than non-problem gamblers reported they have been under a doctor's care because of physical or emotional problems brought on by stress.

Table 41: Under a doctor's care due to problems brought on by stress by gambling status, Ohio, 2012

Still thinking about the past 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	653,147 (17.9%)	2,991,663 (82.1%)	471 (0.0%)
Non-problem Gambler	683,943 (14.7%)	3,970,611 (85.2%)	6,455 (0.1%)
At-risk/Problem Gambler	126,781 (25.4%)	372,525 (74.6%)	156 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

An estimated 1.5 million Ohioans have ever felt seriously depressed (Table 42). Almost 17 percent of statewide survey respondents agreed with this question, and results from county clusters were very similar. Participants in the Cuyahoga and Franklin County clusters had the lowest percentages of persons ever feeling depressed (13.4% and 13.1%, respectively), both of which were below the state average. Participants from the Lucas and Hamilton County clusters had averages above the statewide average (19.1% and 18.4%, respectively). Very few people in any sample said they did not know if they had ever felt seriously depressed.

Table 42: Feelings of depression, Ohio, 2012

Have you ever felt seriously depressed? [†]			
Region	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Statewide	1,488,172 (16.9%)	7,308,775 (83.0%)	8,806 (0.1%)
Cuyahoga Cluster	167,665 (13.4%)	1,079,812 (86.3%)	2,502 (0.2%)
Franklin Cluster	141,900 (13.1%)	940,222 (86.8%)	1,083 (0.1%)
Hamilton Cluster	157,129 (18.4%)	695,979 (81.5%)	854 (0.1%)
Lucas Cluster	80,853 (19.1%)	342,039 (80.8%)	423 (0.1%)

[†]Persons refusing to answer the question are excluded from the analysis.

Statewide estimates of individuals who have ever felt seriously depressed differed by gambling status (Table 43). At-risk/problem gamblers were three times more likely to agree with this question than non-problem gamblers. Thirty-eight percent of participants scoring as at-risk/problem gamblers, representing 189,814 people, agreed with this question. More non-gamblers than non-problem gamblers reported ever having felt seriously depressed.

Table 43: Feelings of depression by gambling status, Ohio, 2012

Have you ever felt seriously depressed? [†]			
Gambling Status (Statewide)	Yes Estimated N, (%)	No Estimated N, (%)	Don't Know Estimated N, (%)
Non-gambler	711,791 (19.5%)	2,928,281 (80.4%)	3,218 (0.1%)
Non-problem Gambler	591,520 (12.7%)	4,068,924 (87.3%)	2,896 (0.1%)
At-risk/Problem Gambler	189,814 (38.0%)	309,061 (61.9%)	249 (0.0%)

[†]Persons refusing to answer the question are excluded from the analysis.

Chapter 5: Discussion

Major Findings

- Overall, 5.3 percent of Ohioans, representing an estimated 466,295 persons, were projected to be at low-to-moderate risk for problem gambling.
- Nearly 32,000 Ohioans were estimated to be current problem gamblers.
- Prevention activities may be beneficial if directed toward the 377,813–554,777 persons who were estimated to be at-risk for problem gambling, while treatment services and/or self-help programs, such as Gamblers Anonymous, should be directed at the nearly 32,000 persons who were estimated to have a gambling problem that meets the DSM-5 diagnostic criteria.
- Males aged 18 to 24 or 65 and older had the highest rates of at-risk/problem gambling compared to other male-age cohorts.
- Females had the highest rates of at-risk/problem gambling between ages 18-44.

- Whites aged 18 to 25 years old were more likely to be at-risk/problem gamblers than any other age and racial group.
- African-Americans had the second highest rates of at-risk/problem gambling and were at greatest risk between the ages of 25-64.
- Adults older than 65 who were male or white were at high risk, but adults older than 65 who were female or African-American were at relatively low risk.
- The Hamilton County Cluster rates of problem gambling were twice as high as other county clusters.
- Participants who were widowed or divorced had the highest rates of at-risk/problem gambling, while married persons had the lowest rates of at-risk/problem gambling.
- Persons with any form of employment had the lowest rates of at-risk/problem gambling behavior, while unemployed and retired persons were at greatest risk for at-risk/problem gambling.
- Education played an important role in at-risk/problem gambling; persons with less than a high school education had rates eight times higher than the education level at lowest risk for at-risk/problem gambling.
- A majority (72.7%) of persons who gambled during the past 12 months played the lottery (e.g., Mega Millions or Pick 3), and a similar percentage of respondents (73.3%) reported they participated in other forms of gambling (e.g., Bingo and Internet-based gambling).
- At-risk/problem gamblers participated in four to seven forms of gambling at double the rate of non-problem gamblers.
- More than 65 percent of statewide participants said that gambling behavior could be reduced through prevention.
- Slightly more than 50 percent of statewide participants thought that the community has the responsibility to set up prevention programs to help people avoid gambling problems.
- Nearly 50 percent of statewide participants believed that gambling at a casino was riskier than buying lottery tickets or pull-tabs.
- Almost 70 percent of statewide participants felt that it was not appropriate for a high school to sponsor casino nights for graduation or prom.
- An estimated 1.5 million Ohioans know of family members with current or former gambling problems.
- At-risk/problem gamblers were *more likely* than non-problem gamblers and non-gamblers to:
 - have a family member with a current or former alcohol or drug problem;
 - have the urge to have a drink if something painful happened in their lives;
 - have been under a doctor's care because of physical or emotional problems brought on by stress.
- At-risk/problem gamblers were *twice as likely* as non-problem gamblers and non-gamblers to:
 - know someone in their family with a current or former gambling problem;
 - have felt seriously depressed.
- At-risk/problem gamblers were *three time more likely* than non-problem gamblers and non-gamblers to:
 - report they had a current or former alcohol or drug problem;
 - have the urge to use drugs or medication if something painful happened in their lives.

Accomplishments and Forthcoming Efforts

The State of Ohio has gained national attention for its gambling addiction prevention and treatment efforts. OhioMHAS and its partners continue to build strategically on a continuum of care designed to prevent or delay the onset of problem gambling and provide early intervention and identification, provide treatment of gambling disorder, and recovery support services for those in long-term recovery. All related efforts by OhioMHAS and the behavioral health field are designed to strengthen this system of care so that anyone who can benefit from prevention or treatment of problem gambling has access to appropriate services.

Here are a few of the accomplishments and forthcoming efforts from the recent [*problem gambling annual report*](#):

Accomplishments

Expansion of Credentials to Include Problem Gambling

After years of work by the behavioral health field, state leaders and the Ohio General Assembly, [*HB 483*](#) enacted a provision that authorized the Ohio Chemical Dependency Professionals Board (OCDPB) to create and offer a gambling disorder endorsement for professionals qualified to treat gambling disorder on June 16, 2014. The OCDPB is currently working to update its administrative rules to incorporate these changes with an anticipated effective date of March 15, 2015.

The endorsement will be available for individuals who hold an active LCDC II, LCDC III, LICDC or LICDC-CS license. Additional requirements for this new endorsement will include:

- Completion of 30 hours of gambling disorder training;
- Completion of 100 hours of gambling disorder direct clinical experience prior to the first renewal of the endorsement;
- Completion of six hours of gambling disorder training at each renewal.

Problem Gambling Helpline

OhioMHAS contracts with a call center to provide the Problem Gambling Helpline with qualified referral and crisis intervention specialists answering the phone 24 hours a day. The Department maintains a list of agency service providers, as well as individuals in private practice who are qualified to provide treatment for gambling disorder. This list is continuously updated and shared with the Helpline staff. Monthly reports on calls received provide insight into the concerns of citizens who reach out for counseling and referrals for themselves or loved ones. Partners in Ohio for Responsible Gambling (ORG) use the Helpline number on all materials, websites and advertising, and require its use on constituents' marketing materials related to problem gambling. The Helpline received calls from 9,727 people during State Fiscal Year 2014.

Prevention Resources

For the second year, the state dedicated a majority of resources to awareness and prevention of problem gambling in line with the expansion of casino-like venues statewide and the policy implications of the 2012 Ohio Gambling Survey. The 50 county Alcohol, Drug Addiction and Mental Health/Alcohol and Drug Addiction Services (ADAMH/ADAS) boards were allocated a total of \$2.273 million for prevention services (60 percent of total allocation), with an option to request a waiver to use more or less dollars for prevention. Ten waivers were approved, of which three shifted additional dollars to prevention and five shifted funds to treatment (two with adjusted amounts pending).

Forthcoming Efforts

Evaluation

The department is engaging in evaluation efforts so that that the work underway will lead to a high-quality system of care for prevention, treatment and recovery of gambling disorder that is effective and valued by all Ohioans.

State System Review

OhioMHAS has contracted with Jeffrey Marotta, PhD, an expert in the problem gambling field who has done state system reviews across the nation, to provide a review of Ohio's problem gambling service system. Dr. Marotta is familiar with Ohio's current service system and will provide analysis and recommendations for improvement and sustainability.

Continuous Quality Improvement

Ohio University, with the Pacific Institute for Research and Evaluation (PIRE) and the University of Cincinnati, Ohio State University and Wright State University are each engaged in assessing needs for training, technical assistance, and evaluation of the grant-funded projects and Ohio's problem gambling services system of care as a whole. To ensure quality control, consistent service delivery, and data collection, the CQI Field Agent will capture and quantify characteristics of quality services and provide training and technical assistance to the field for enhancement of services.

Targeted Capacity-Building

For SFY 2015, OhioMHAS awarded capacity-building grants for problem gambling services in the amount of \$1.2 million. These funds currently support development and implementation of evidence-based and promising practice models for prevention and treatment of gambling disorder and incentivize service systems that prioritize data collection toward achievement of effective outcomes. The funded boards and agencies have taken varied approaches to bringing best practices to people in their communities.

Prevention of Problem Gambling

With grant dollars, approximately 120 prevention professionals from across the state were able to be trained as trainers in the prevention model Stacked Deck, a curriculum for problem gambling prevention for young people ages 13-17. Risky Business, a prevention program developed for the ADAMHS Board of Montgomery County by Wright State University — for youth with criminal justice involvement — is also being piloted at several venues throughout the state and is being evaluated as a future evidence-based practice. Drug Free Action Alliance is refining Smart Bet, a prevention curriculum for 18-25 year old young adults, and creating an online delivery system that will first be utilized at five college/university campuses to study its effectiveness.

Treatment of Gambling Disorder

The model *Manualized Treatment for Problem Gamblers*, developed by Nick Rupcich and under evaluation by COMPASS, a division of Zepf Center, is being piloted at a number of treatment agencies in Ohio. It is hoped that data collected from the number of cohort studies will result in clear evidence of a new best practice in gambling addiction treatment.

Strengths and Limitations

The *2012 Survey of At-Risk and Problem Gambling Prevalence* is the first study to provide Ohioans with a glimpse of at-risk/problem gambling in the state. More than 3,600 Ohioans completed surveys using multistage random area probability sampling techniques that followed methods of the American Association of Public Opinion Research. OhioMHAS is confident that the instruments used to measure at-risk/problem gambling and community opinions, the Canadian Problem Gambling Index and Community Readiness Survey, accurately measured gambling attitudes and behaviors because both instruments are associated with high reliability and validity. Researchers also took great effort to recruit a representative sample of Ohioans, and statisticians used statistical weighting and raking to make sure results reflected the diversity of gambling attitudes and behaviors in Ohio.

There are some important limitations to this study. Most notably, participants of the study had to have access to home telephones, meaning that persons with only a cell phone, persons living in group quarters (e.g., residential treatment housing and jail facilities) and the homeless would not be represented. Foreign-language-speaking persons with little knowledge of English would be underrepresented because the survey was not translated into other languages. As mentioned previously, findings from regional analyses may not be as accurate as findings from statewide analyses. This issue arose because the sample size for each of the regions was relatively small (n 's = 537-572 persons) compared to the state sample (N = 3,507), resulting in modest margin of errors for those regions. Finally, the statewide sample included few persons of minority race (i.e., 274 African-American and 161 other participants); therefore, any results that break-out statistics by race may not be as accurate as other results because of a high margin of error.

Recommendations

- Prevention efforts should be directed toward groups that are at greatest risk for problem gambling, including males aged 18 to 24 and 65 and older, whites aged 18 to 24, African-Americans aged 25 to 64, persons of other race aged 25 to 44, unemployed and retired persons, the unmarried or widowed, persons with a low educational attainment, and persons with substance use disorders.
- Some of these groups, especially 18 to 24 year olds, will be difficult to reach; therefore, innovative prevention campaigns should be developed that will raise awareness in colleges, trade schools, manufacturing centers and social networks (e.g., Facebook, Twitter and Instagram).
- Prevention campaigns should include educational efforts about fiscal literacy, so at-risk groups better understand how to responsibly handle money and debt. Educational efforts like *Smart Money Choices* should be expanded and promoted to those at-risk for problem gambling.
- Only 17.2 percent of respondents believed that gambling was a moderate or serious problem among young adults aged 18 to 20, but persons aged 18 to 24 had the highest rates of at-risk/problem gambling. This discrepancy indicates that Ohioans need to become more aware of at-risk/problem gambling among young adults through education campaigns.
- The prevalence of at-risk and problem gambling will increase as the gambling market matures in Ohio, so clinicians should be encouraged to expand their scope of practice, so they can treat the influx of persons with pathological gambling disorders.
- The higher rates of depression among at-risk/problem gamblers compared to other groups is concerning, and the rates indirectly support the link between suicidal ideation and gambling.^{39,40} Clinicians should screen all persons being treated for gambling disorder for depression and refer to the appropriate treatment centers as needed. OhioMHAS should continue to work with other partners to ensure appropriate messaging and outreach activities for the prevention of suicide.
- Gambling prevalence was high among persons aged 18 to 24 years and among minorities, but the sample sizes for survey participants was relatively low. Thus, future research must take strenuous efforts to recruit representative samples of these persons. The forthcoming SFY 2016 prevalence survey should also be translated into Spanish, so OhioMHAS achieves better representation from Hispanics.
- As Volberg et al. (2006) explain, problem gamblers may have significant barriers to treatment because only up to 10 percent of persons qualifying for a formal diagnosis will present for treatment.⁶ More research needs to be conducted to understand what treatment barriers Ohioans face to bring themselves into treatment.

Ohio Problem Gambling Helpline

1-800-589-9966

References

1. Centre for Addiction and Mental Health (2009, December). Problem gambling: Education and treatment in a residential setting. Centre for Addiction and Mental Health; and Mental Health Centre Penetanguishene: Canada. Retrieved from <http://www.problemgambling.ca/EN/ResourcesForProfessionals/Pages/EducationEarlyTreatmentProgram.aspx> [PowerPoint]
2. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
3. Potenza, M. N., Fiellin, D., Heninger, G. R., Rounsaville, B. J., & Mazure, C. M. (2003). Gambling: An addictive behavior with health and primary care implications. *Journal of General Internal Medicine*, 17, 721-732.
4. Ferris, J. A., Stirpe, T., & Ialomiteanu, A. (1996). Gambling in Ontario: A report from a general population survey on gambling-related problems and opinions. Toronto, Canada: Addiction Research Foundation.
5. Shaffer, H. J., & Hall, M. N. (2001). Updating and refining prevalence estimates of disordered gambling behavior in the United States and Canada. *Canadian Journal of Public Health*, 92(3), 168-172.
6. Volberg, R. A., Nysse-Carris, K. L., & Gerstein, D. R. (2006). 2006 California Problem Gambling Prevalence Survey. Chicago: National Opinion Research Center at the University of Chicago.
7. Culleton, R. P. (1985). A survey of pathological gamblers in the state of Ohio. Report to the Ohio Lottery Commission.
8. Toneatto, T. & Brennan, J. (2002). Pathological gambling in treatment-seeking substance abusers. *Addictive Behaviors*, 27, 465-469.
9. Toneatto, T., Ferguson, D., & Brennan, J. (2003). Effect of a new casino on problem gambling in treatment-seeking substance abusers. *Canadian Journal of Psychiatry*, 48(1), 40-44.
10. Center for Substance Abuse Treatment. Substance abuse treatment for persons with co-occurring disorders. Treatment Improvement Protocol (TIP) Series 42. DHHS Publication No. (SMA) 07-3992. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2005.
11. Chou, K. L., & Afifi, T. O. (2011). Disordered (pathologic or problem) gambling and Axis I psychiatric disorders: Results from the national epidemiologic survey on alcohol and related conditions. *American Journal of Epidemiology*, 173(11), 1289-1297.
12. Petry, N. M., Stinson F. S., & Grant, B. F. (2005). Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: Results from the national epidemiologic survey on alcohol and related conditions. *Journal of Clinical Psychiatry*, 66, 564-574.
13. Nalpas, B., Yguel, J., Fleury, B., Martin, S., Jarraud, D., & Craplet, M. (2011). Pathological gambling in treatment-seeking alcoholics: A national survey in France. *Alcohol and Alcoholism*, 46(2), 156-160.
14. Lorains, F. K., Cowlishaw, S., & Thomas S. A., (2011). Prevalence of comorbid disorders in problem and pathological gambling: Systematic review and meta-analysis of population surveys. *Addiction*, 106, 490-498.
15. Potenza, M. N., Fiellin, D., Heninger, G. R., Rounsaville, B. J., & Mazure, C. M. (2003). Gambling: An addictive behavior with health and primary care implications. *Journal of General Internal Medicine*, 17, 721-732.
16. Potenza, M. N., Steinberg, M. A., & Wu, R. (2005). Characteristics of gambling helpline callers with self-reported gambling and alcohol use problems. *Journal of Gambling Studies*, 21(3), 233-254.
17. Sherba, R. T., & Martt, N. (2013). Overall gambling behaviors and gambling treatment needs among a statewide sample of drug treatment clients in Ohio. *Journal of Gambling Studies*, 29, 10-18.

References, cont.

18. Jazaeri, S. A., & Habil, M. H. (2012). Reviewing two types of addiction — pathological gambling and substance use. *Indian Journal of Psychosocial Medicine*, 34(1), 5-11.
19. Boardman, B., & Perry, J. J. (2007). Access to gambling and declaring personal bankruptcy. *The Journal of Socio-Economics*, 36, 789-801.
20. Garrett, T. A. (2004). Casino gambling and local employment trends. *Federal Reserve Bank of St. Louis Review*, 86(1), 9-22.
21. Koo, J., Rosentraub, M. S., & Horn, A. (2007). Rolling the dice? Casinos, tax revenues, and the social costs of gaming. *Journal of Urban Affairs*, 29(4), 367-381.
22. Dowling, N., Smith, D., & Thomas, T. (2009). The family functioning of female pathological gamblers. *International Journal of Mental Health and Addiction*, 7, 29-44.
23. Wenzel, H. G., Oren, A., & Bakken, I. J. (2008). Gambling problems in the family—A stratified probability sample study of prevalence and reported consequences. *BMC Public Health*, 8, 412-416.
24. McComb, J. L., Lee, B. K., & Sprenkle, D. H. (2009). Conceptualizing and treating problem gambling as a family issue. *Journal of Marital and Family Therapy*, 35(4), 415-431.
25. Ferris, J., & Harold, W. (2001). The Canadian problem gambling index. *Ottawa, ON: Canadian Centre on Substance Abuse*.
26. McMillen, J., & Wenzel, M. (2006). Measuring problem gambling: Assessment of three prevalence screens. *International Gambling Studies*, 6, 147-174.
27. Wynne, H. (2003). *Introducing the Canadian Problem Gambling Index*. Edmonton, AB: Wynne Resources.
28. Svetieva, E., & Walker, M. (2008). Inconsistency between concept and measurement: The Canadian Problem Gambling Index (CPGI). *Journal of Gambling Issues*, 157-173.
29. McCready, J., & Adalf, E. (2006). Performance and enhancement of the Canadian problem gambling index (CPGI): Report and recommendations. Healthy Horizons Consulting, Canada. Retrieved from <http://dspace1.acs.ualgary.ca/handle/1880/44244>
30. Beebe, T. J., Harrison, P. A., Sharma, A., & Hedger, S. (2001). The community readiness survey: Development and initial validation. *Evaluation Review*, 25(1), 55-71.
31. Johnson, D. (2008, November). Using weights in the analysis of survey data. Population Research Institute, Pennsylvania State University, Pittsburg: PA. [PowerPoint]
32. United States Census Bureau. (2013). American FactFinder. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
33. Cunningham, J. A., (August 1, 2005). Little use of treatment among problem gamblers. Letter to the Editor. *Psychiatric Services*.
34. See the *Cautionary note* on page 12.
35. See the *Cautionary note* on page 12.
36. See the *Cautionary note* on page 12.
37. While a majority participant didn't list what "Other" employment meant, the minority who did most frequently listed "Disabled," which merits further investigation in future research efforts.

References, cont.

- 38. See the *Cautionary note* on page 12.
- 39. Newman, S. C., & Thompson, A. H. (2003). A population-based study of the association between pathological gambling and attempted suicide. *Suicide and Life-Threatening Behavior*, 33, 80-87.
- 40. Petry, N. M., & Kiluk, B. D. (2002). Suicidal ideation and suicide attempts in treatment-seeking pathological gamblers. *The Journal of Nervous & Mental Disease*, 190, 462-469.



Appendix A: Ohio Gambling Survey

Survey Introduction

Researchers from Kent State University and the Ohio Department of Alcohol and Drug Addiction Services are conducting a study on people's thoughts and feelings on gambling. Your household has been selected at random to participate in this study. Your thoughts and opinions are very valuable to this study. Your participation is completely voluntary, and the survey will take approximately 15 minutes. Would you like to participate?

Section 1 — Gambling Involvement

First, we'd like to ask some questions about activities you may participate in.

People bet money and gamble on many different things including buying lottery tickets, playing bingo, or card games with their friends. I am going to list some activities that you might have bet money on.

1a. In the past 12 months, how often did you bet or spend money on Lottery tickets like Mega Millions, PowerBall, Classic Lotto?

Would you say daily, 2 to 6 times a week, about once a week, 2-3 times a month, about once a month, between 6-11 times a year, between 1-5 times a year, nor never?

- <1> Daily
- <2> 2 to 6 times/week
- <3> About once/ week
- <4> 2-3 times/month
- <5> About once/month
- <6> Between 6-11 times/year
- <7> Between 1-5 times/year
- <8> Never
- <97> R volunteers "I do not gamble" [n.b If this response appears twice, skip to 17]
- <98> Don't know
- <99> Refused

(response categories for a. repeated for b. through u.)

b. In the past 12 months, how often did you buy daily lottery tickets like Pick 3, Pick 4, Rolling Cash 5, Ten-OH, KENO?

c. In the past 12 months, how often did you buy instant win or scratch tickets?

d. In the past 12 months, how often did you buy raffle or fundraising tickets?

e. In the past 12 months, how often did you bet on horse races (i.e. live at the track and/or off-track)?

f. In the past 12 months, how often did you play bingo?

Screen for casino gambling.

In the past 12 months, have you gambled at any type of casino including illegal or charity casinos?

- <1> Yes [go to 1g]
- <5> No [go to 1l]
- <97> R volunteers "I do not gamble"
- <98> don't know
- <99> refused [go to 1 m]

g. In the past 12 months, how often did you bet or spend money on slot machines or VLT's in a casino?

h. In the past 12 months, how often did you play poker in a casino?

i. In the past 12 months, how often did you play blackjack in a casino?

j. In the past 12 months, how often did you play roulette in a casino?

k. In the past 12 months, how often did you play keno in a casino?

- l. In the past 12 months, how often did you play craps in a casino?
- m. In the past 12 months, how often did you play baccarat in a casino?
- n. In the past 12 months, how often did you play video lottery terminals (VLTs) OTHER THAN AT CASINOS?
- o. In the past 12 months, how often did you bet or spend money on sports pools?
- p. In the past 12 months, how often did you bet on cards, or board games with family or friends.
- q. In the past 12 months, how often did you bet or spend money on games of skill such as pool, bowling, or darts?
- r. In the past 12 months, how often did you bet on arcade or video games?
- s. In the past 12 months, how often did you gamble on the Internet?
- t. In the past 12 months, how often did you bet on sports with a bookie?
- u. In the past 12 months, how often did you personally invest in stocks, options, or commodities markets?

INTERVIEWER: If asked, this does NOT include mutual funds, RRSPs

CHECK: If never to all gambling, or flagged as "do not gamble" at least twice, send to C section.

2. How many ...

(response categories for a. repeated for b. through u.)

a. times do you buy lottery tickets like the Mega Millions, PowerBall, Classic Lotto?

INTERVIEWER: Enter EXACT # of MINUTES here please [CONVERT HOURS, AND DO NOT ROUND!]

<1-480> Enter number of MINUTES

<481> More than 8 hours

<998> Don't know

<999> Refused

b. minutes do you normally spend each time you buy daily lottery tickets like Pick 3, Pick 4, Rolling Cash 5, Ten-OH, KENO?

c. minutes do you normally spend each time you buy instant win or scratch tickets?

d. minutes do you normally spend each time on raffle or fundraising tickets?

e. hours do you normally spend each time you bet on live horse races at the track and/or off track?

f. hours or minutes do you normally spend each time you play bingo?

g. hours or minutes do you normally spend each time you play slot machines or VLT's in a casino?

h. hours or minutes do you normally spend each time you play poker in a casino?

i. hours or minutes do you normally spend each time you play blackjack in a casino?

j. hours or minutes do you normally spend each time you play roulette in a casino?

k. hours or minutes do you normally spend each time you play keno in a casino?

l. hours or minutes do you normally spend each time you play craps in a casino?

m. hours or minutes do you normally spend each time you play baccarat in a casino?

n. hours or minutes do you normally spend each time you play video lottery terminals (VLTs)

OTHER THAN AT CASINOS?

o. hours or minutes do you normally spend each time you play sports pools?

p. hours or minutes do you normally spend each time you play cards or board games with family or friends?

q. hours or minutes do you normally spend each time you bet on games of skill such as pool, bowling or darts?

r. hours or minutes do you normally spend each time you bet on arcade or video games for money?

s. hours or minutes do you normally spend each time you gamble on the Internet?

t. minutes do you normally spend each time you bet on sports with a bookie?

u. hours or minutes do you normally spend evaluating stocks, options, or commodities each time you invest?

3. How much money, not including winnings, do you spend on ...
(response categories for a. repeated for b. through v.)

INTERVIEWER: If asked for clarification, we mean spending that is out of pocket, and doesn't include money won and THEN spent:

<1-7777> Enter number of dollars

<d> Don't known

<r> Refused

- a. lottery tickets like the Mega Millions, PowerBall, Classic Lotto in a typical month?
- b. daily lottery tickets like Pick 3, Pick 4, Rolling Cash 5, Ten-OH, KENO in a typical month?
- c. instant win or scratch tickets in a typical month?
- d. raffle or fundraising tickets in a typical month?
- e. live horse races at the track and/or off track in a typical month?
- f. bingo in a typical month?
- g. slot machines or VLT's in a typical month?
- h. poker in a casino in a typical month?
- i. blackjack in a casino in a typical month?
- j. roulette in a casino in a typical month?
- k. keno in a casino in a typical month?
- l. craps in a casino in a typical month?
- m. baccarat in a casino in a typical month?
- n. video lottery terminals (VLTs) OTHER THAN AT CASINOS in a typical month?
- o. sports lotteries like in a typical month?
- p. sports pools in a typical month?
- q. cards, or board games with family or friends, in a typical month?
- r. games of skill such as pool, bowling or darts in a typical month?
- s. arcade or video games in a typical month?
- t. gambling on the internet in a typical month?
- u. sports with a bookie in a typical month?
- v. How much money, INCLUDING profits from earlier investments, do you spend on stocks, options, or commodities in a typical month?

4. In the past 12 months, what is the largest amount of money you ever spent on ...
(response categories for a. repeated for b. through v.)

<1-7777> enter number of dollars

<d> don't know

<r> refused

- a. lottery tickets like the Mega Millions, PowerBall, Classic Lotto in any one day?
- b. daily lottery tickets like Pick 3 in any one day?
- c. Instant win or scratch tickets in any one day?
- d. raffle or fundraising tickets in any one day?
- e. live Horse races at the track and/or off track in any one day?
- f. bingo in any one day?
- g. slot machines or VLT's in any one day?
- h. poker in a casino in any one day?
- i. blackjack in a casino in any one day?

- j. roulette in a casino in any one day?
- k. keno in a casino in any one day?
- l. craps in a casino in any one day?
- m. baccarat in a casino in any one day?
- n. video lottery terminals (VLTs) OTHER THAN AT CASINOS in any one day?
- o. sports lotteries in any one day?
- p. sports pools in any one day?
- q. cards or board games with family or friends in any one day?
- r. the outcome of games of skill such as pool, bowling or darts in any one day?
- s. arcade or video games in any one day?
- t. gambling on the Internet in any one day?
- u. sports with a bookie in any one day?
- v. How much money, INCLUDING profits from earlier investments, do you spend on stocks, options, or commodities in any one day?

CHECK: IF DON'T GAMBLE GO TO 18.

Section 2 – Problem Gambling Assessment

[Items 5 through 13 are scored. Score 1 for each response of “sometimes”, 2 for each “most of the time” and 3 for each “almost always”.

Some of the next questions may not apply to you, but please try to be as accurate as possible.

THINKING ABOUT THE LAST 12 MONTHS...

5. Have you bet more than you could really afford to lose? Would you say never, sometimes, most of the time, or almost always?
- <1> Never
 - <3> Sometimes
 - <5> Most of the time
 - <7> Almost always
 - <8> Don't know
 - <9> Refused
6. Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- <1> Never
 - <3> Sometimes
 - <5> Most of the time
 - <7> Almost always
 - <8> Don't know
 - <9> Refused
7. When you gambled, did you go back another day to try to win back the money you lost?
- <1> Never
 - <3> Sometimes
 - <5> Most of the time
 - <7> Almost always
 - <8> Don't know
 - <9> Refused

8. Have you borrowed money or sold anything to get money to gamble?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

9. Have you felt that you might have a problem with gambling?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

10. Has gambling caused you any health problems, including stress or anxiety?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

11. Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

12. Has your gambling caused any financial problems for you or your household?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

13. Have you felt guilty about the way you gamble or what happens when you gamble?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

14. Have you lied to family members or others to hide your gambling?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

15. Have you bet or spent more money than you wanted to on gambling?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

16. Have you wanted to stop betting money or gambling, but didn't think you could?

- <1> Never
- <3> Sometimes
- <5> Most of the time
- <7> Almost always
- <8> Don't know
- <9> Refused

Section 3 – Correlates

Next, we explore some of your beliefs about gambling, as well as any early experiences you have had with gambling or betting money.

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

17. After losing many times in a row, you are more likely to win. Do you strongly agree, agree, disagree, or strongly disagree?

- <1> Strongly agree
- <3> Agree
- <5> Disagree
- <7> Strongly disagree
- <8> Don't know
- <9> Refused

18. You could win more if you used a certain system or strategy.

- <1> Strongly agree
- <3> Agree
- <5> Disagree
- <7> Strongly disagree
- <8> Don't know
- <9> Refused

19. Do you remember a big win when you first started gambling?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

20. Do you remember a big LOSS when you first started gambling?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

21. Has anyone in your family EVER had a gambling problem?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

22. Has anyone in your family EVER had an alcohol or drug problem?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

CHECK: IF DON'T GAMBLE, SKIP TO 25 HERE

23. IN THE LAST 12 MONTHS, have you used alcohol or drugs while gambling?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

24. In the last 12 months, have you gambled while drunk, or high?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

25. Have you felt you might have an alcohol or drug problem?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

CHECK: IF DON'T GAMBLE SKIP TO 27

26. In the last 12 months, if something painful happened in your life, did you have the urge to gamble?

- <1> Yes (includes doing as well as having the urge)
- <5> No
- <8> Don't know
- <9> Refused

27. In the last 12 months, if something painful happened in your life, did you have the urge to have a drink?

- <1> Yes (includes doing as well as having the urge)
- <5> No
- <8> Don't know
- <9> Refused

28. In the last 12 months, if something painful happened in your life, did you have the urge to use drugs? or medication?

- <1> Yes (includes doing as well as having the urge)
- <5> No
- <8> Don't know
- <9> Refused

29. Still thinking about the last 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

30. Have you felt seriously depressed?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

CHECK: IF NON-GAMBLER SKIP TO INTRO TO DEMOGRAPHICS.

31. Have you seriously thought about or attempted suicide as a result of your gambling?

- <1> Yes
- <5> No
- <8> Don't know
- <9> Refused

Section 4 – Demographics

Finally, we would like to ask you some basic background questions. Like all your other answers, this information will be kept strictly confidential.

32. In what year were you born?

- <1890-1981> Enter year
- <9997> After 1981
- <9998> don't know
- <9999> Refused

33. Currently are you married, living with a partner, widowed, divorced, separated, or have you never been married?

- <1> Married
- <2> Living with a partner
- <3> Widowed
- <4> Divorced
- <5> Separated
- <6> Never married
- <8> Don't know
- <9> Refused

34. Sex

- a.) Female
- b.) Male

35. Race/Ethnicity

RACE

- a.) White
- b.) African-American or Black
- c.) Asian (includes Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian)
- d.) American Indian and Alaska Native
- e.) Native Hawaiian and Pacific Islander (includes Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander)
- f.) Other
- g.) Identified by two or more (E.g., White/American Indian and Alaska Native, White/Asian, etc.)

ETHNICITY

- h.) Hispanic or Latino (includes Mexican, Puerto Rican, Cuban, Other Hispanic or Latino)

Yes/No

36. ZIP CODE

37. What is the highest level of education you have completed?

- <1> No schooling
- <2> Some elementary school
- <3> Completed elementary school
- <4> Some high school/junior high
- <5> Completed high school
- <6> Some community college
- <7> Some technical school
- <8> Completed community college
- <9> Completed technical school
- <10> Some University
- <11> Completed Bachelor's Degree (Arts, Science, Engineering, etc.)
- <12> Completed Master's degree: MA, MSc, MLS, MSW, etc.
- <13> Completed Doctoral Degree: PhD, "doctorate"
- <14> Professional Degree (Law, Medicine, Dentistry)
- <98> Don't know
- <99> Refused

38. What is your present job status? Are you employed full-time, employed part-time, unemployed, a student, retired or a homemaker?

INTERVIEWER: If respondent gives more than one answer, record the one that appears first on the list.

- <1> Employed full-time (30 or more hrs/week) [go to 37]
- <2> Employed part-time (less than 30 hrs/week) go to 37)
- <3> Unemployed (out-of-work but looking for work) [go to 37]
- <4> Student — employed part-time or full-time [go to 37]
- <5> Student — not employed [go to 38a]
- <6> Retired [go to 38a]
- <7> Homemaker [go to 38a]
- <0> Other (Specify)[specify][go to 38a]
- <98> Don't know [go to 38a]
- <99> Refused [go to 38a]

39. What type of work do you currently do (or, do you do when you are employed)?

INTERVIEWER: If necessary, say "what is your job title?"

<1> Enter text, end with /// [specify]

<98> Don't know

<99> Refused

40.a. Could you please tell me how much income you and other members of your household received in the year ending December 31st 2010, before taxes? Please include income FROM ALL SOURCES such as savings, pensions, rent, and unemployment insurance as well as wages. TO THE NEAREST THOUSAND DOLLARS, what was your TOTAL HOUSEHOLD INCOME before taxes and other deductions were made?

<1-997> Enter actual income [go to 39]

<998> Don't know

<999> Refused

40.b. We don't need the exact amount; could you tell me which of these broad categories it falls into ...

<1> Less than \$20,000

<2> Between \$20,000 and \$30,000 (\$29,999.99)

<3> Between \$30,000 and \$40,000

<4> Between \$40,000 and \$50,000

<5> Between \$50,000 and \$60,000

<6> Between \$60,000 and \$70,000

<7> Between \$70,000 and \$80,000

<8> Between \$80,000 and \$90,000

<9> Between \$90,000 and \$100,000

<10> Between \$100,000 and \$120,000

<11> Between \$120,000 and \$150,000

<12> Or more than \$150,000?

<98> Don't know

<99> Refused

41. How many people under 18 years-of-age live with you?

<0> None

<1-6> Enter number of people

<7> Seven or more

<8> Don't know

<99> Refused

42. What is your religion?

<1> Protestant

<2> Catholic

<3> Jewish

<4> Muslim

<5> Eastern beliefs (Buddhism, Hinduism)

<0> Other (Specify) [specify]

<7> No religion [go to 42]

<8> Don't know

<9> Refused

43. How important is religion in your life? Would you say very important, somewhat important, not very important, or not important at all?

<1> Very important

<3> Somewhat important

<5> Not very important

<7> Not important at all

<8> Don't know

<9> Refused

44. We hope to speak to some people again. May we call you for a short follow-up?

<1> Yes

<5> No/Refused

ATTITUDES ABOUT GAMBLING (SOURCE for items: Minnesota Institute of Public Health)

45. In your community, how much of a problem do you believe each of the following is?					
	Not a problem	A minor problem	A moderate problem	A serious problem	Don't know
Gambling by					
a. Teenagers					
b. Young adults age 18-20					
c. Adults age 21-54					
d. Adults age 55 and older					

46. People have different attitudes about gambling in general and preventing problems that might occur. How much do you agree or disagree with each of these statements?					
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. It is possible to reduce gambling problems through prevention.					
b. The community has the responsibility to set up prevention programs to help people avoid gambling problems.					
c. Gambling at a casino is more risky than buying lottery tickets or pull-tabs.					
d. It is okay for high schools to sponsor casino nights for graduation or prom.					

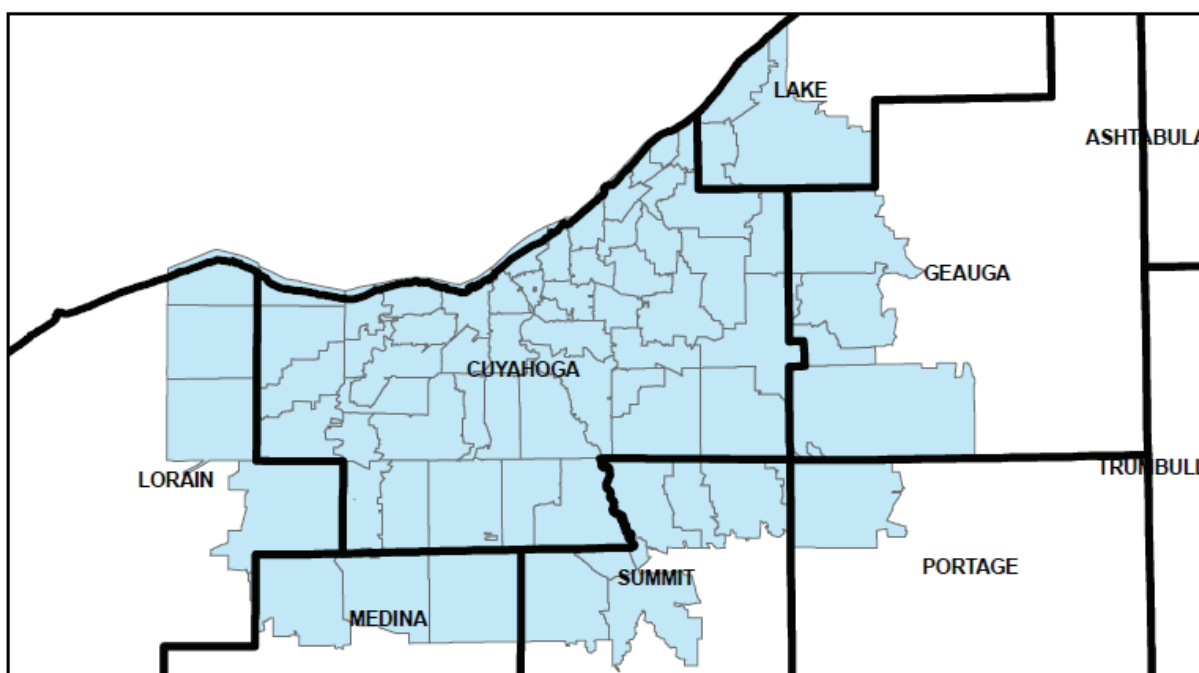
Thank you for helping us with this survey. Your responses are very important to us, and we do appreciate the time it has taken to answer our questions. As a courtesy, we offer all participants a telephone number, in case they wish to speak to someone who knows more about gambling or gambling problems. I have a phone number available for your area, would you like that number?

Ohio Problem Gambling Helpline: 1-800-589-9966

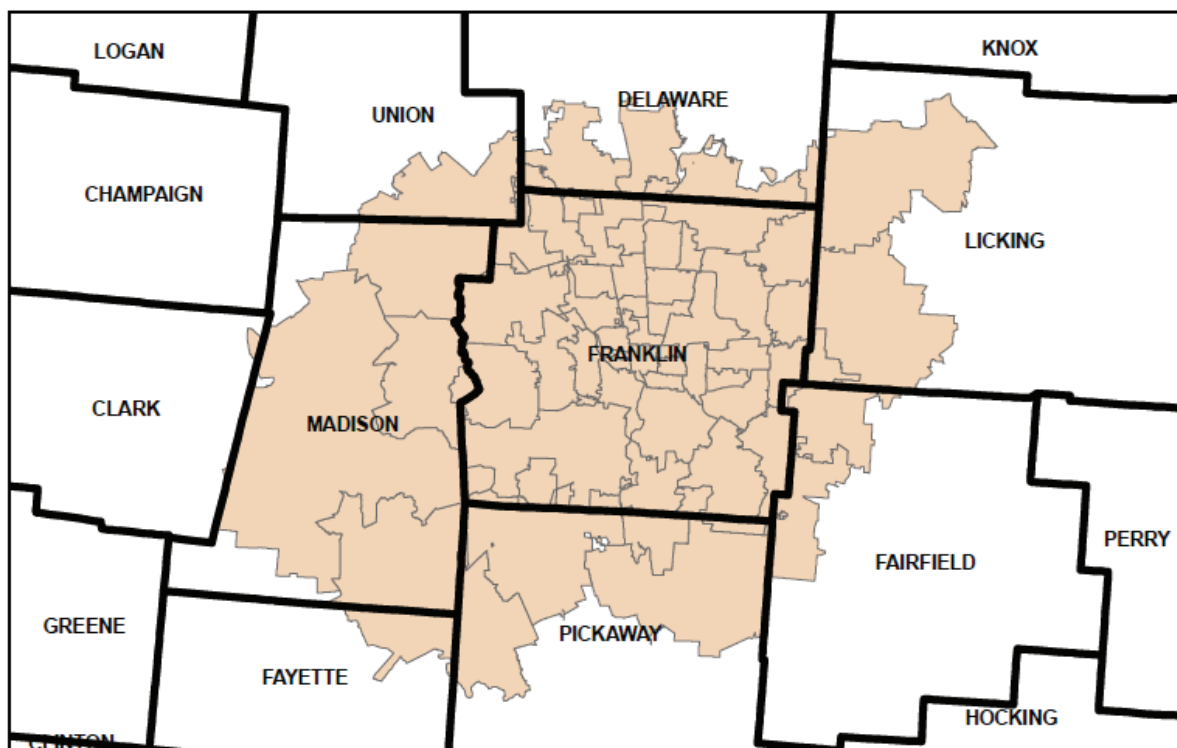
Thanks again for helping us out.

Appendix B: County Cluster Maps

Cuyahoga County Cluster

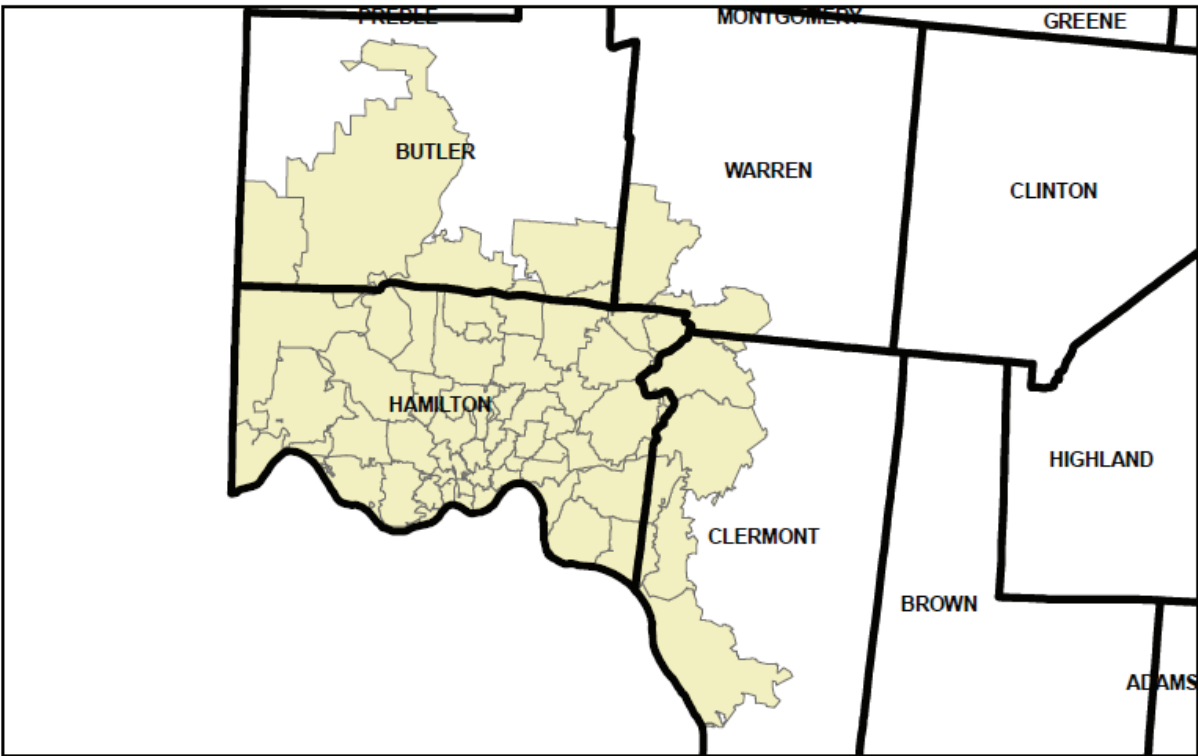


Franklin County Cluster

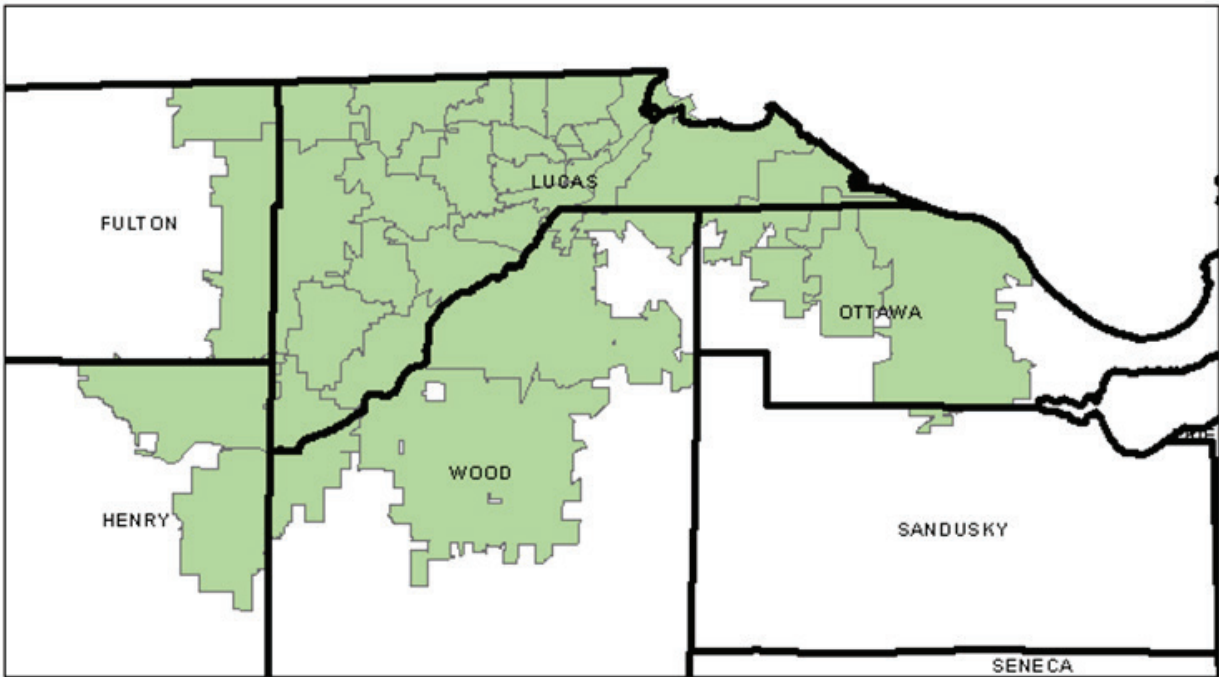


Appendix B: County Cluster Maps, cont.

Hamilton County Cluster



Lucas County Cluster



Appendix C: Demographic Breakout by Gambling Status

Demographic		Unweighted N (Weighted %)	Non-problem	Low Risk	Moderate Risk	Problem
Gender	Men	893 (48.8%)	87.9%	9.5%	2.0%	0.6%
	Women	1,330 (51.2%)	93.2%	4.6%	1.5%	0.6%
Age	18-24	49 (12.5%)	83.7%	12.8%	2.2%	1.3%
	25-44	484 (32.8%)	92.0%	5.2%	1.8%	1.0%
	45-64	1,301 (36.3%)	92.3%	5.1%	2.3%	0.3%
	65+	389 (18.4%)	87.0%	12.6%	0.4%	0.0%
Race	White	1,788 (81.8%)	91.3%	7.1%	1.2%	0.4%
	African-American	274 (12.1%)	82.7%	8.5%	6.6%	2.2%
	Other [†]	161 (6.1%)	91.6%	6.3%	1.9%	0.3%
Marital Status	Married	1,350 (53.8%)	94.6%	4.6%	0.5%	0.3%
	Living w/ partner	123 (6.1%)	86.5%	10.4%	3.1%	0.0%
	Widowed	122 (8.1%)	75.7%	22.9%	1.4%	0.0%
	Divorced	274 (7.9%)	90.3%	6.8%	2.0%	0.9%
	Separated	42 (1.7%)	70.8%	4.3%	24.9%	0.0%
	Never married	304 (22.4%)	85.8%	9.4%	3.2%	1.6%
Employment Status	Full-time (>30 hrs)	1,063 (40.4%)	93.3%	5.6%	1.1%	0.0%
	Part-time	210 (11.2%)	90.3%	5.3%	2.7%	1.6%
	Unemployed, but looking	118 (8.3%)	85.0%	7.3%	3.7%	4.0%
	Retired	499 (18.7%)	83.6%	14.2%	1.9%	0.4%
	Homemaker	136 (8.0%)	95.1%	3.9%	0.6%	0.4%
	Other	194 (13.4%)	89.1%	7.8%	3.0%	0.1%
Education	Some high school or less	72 (3.7%)	63.4%	17.3%	6.8%	12.6%
	High school diploma or equiv.	461 (25.1%)	88.7%	8.7%	2.3%	0.2%
	Some com. college or tech. school	102 (5.0%)	91.9%	4.5%	3.5%	0.1%
	Completed com. college/tech. school	170 (6.5%)	92.5%	2.6%	2.8%	2.1%
	Some university	358 (19.4%)	95.5%	3.3%	1.2%	0.0%
	Bachelor's degree	618 (25.4%)	91.2%	7.2%	1.5%	0.0%
	Graduate or professional degree	440 (15.0%)	87.9%	11.3%	0.6%	0.1%
Religion	Protestant	632 (27.4%)	94.0%	4.2%	1.7%	0.1%
	Catholic	699 (24.7%)	91.2%	7.1%	1.7%	0.0%
	Other [‡]	621 (36.6%)	87.4%	9.7%	1.6%	1.2%
	No religion	220 (11.3%)	88.2%	8.4%	1.8%	1.5%

[†] Other race includes Asians, Native Hawaiians, Pacific Islanders, Native Americans, multiracial and unspecified other; [‡] Other religion includes persons of Jewish, Muslim, Eastern traditions and unspecified other faiths

