

# IMPACTS OF GAMBLING IN MASSACHUSETTS: RESULTS OF A BASELINE ONLINE PANEL SURVEY (BOPS)

## **Abstract**

This report summarizes the results of a baseline online panel survey. The purpose of this survey was to recruit a significantly larger number of problem gamblers than could be obtained in a general population survey. The enriched sample provides more reliable estimates of the negative personal impacts of gambling, the differential impact of different types of gambling, and prevention awareness and treatment-seeking behavior of problem gamblers in Massachusetts. This information is useful to help establish baseline levels of impacts prior to the introduction of casino gambling to Massachusetts as well as for purposes of treatment planning.

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## Introduction

Online panels consist of a group of people recruited to participate in online surveys in return for compensation. Sociodemographic and behavioral information is collected from panel members so that a stratified sample can be selected to match the sociodemographic characteristics of the particular jurisdiction when a survey is conducted. Online panels are commonly used in market research, and increasingly in academic studies (Göriz, 2007; Göriz, Reinhold, & Batinic, 2002). The advantages of online panel surveys are that a) the validity of answers to 'sensitive questions' (e.g., gambling) tends to be higher in self-administered formats (Tourangeau & Smith, 1996; van der Heijden, Van Gils, Bouts, & Hox, 2000); b) everyone has agreed and expects to be contacted (unlike telephone surveys); c) the results can be obtained in a much shorter period of time; and d) they are much less expensive than other probability sampling surveys.

However, online panels have some limitations. The main limitation is the non-representative nature of the online panel population due to the fact that most online panelists have not been randomly selected, but instead, have independently initiated membership after seeing advertising, being referred by a friend, and/or receiving a mass email solicitation. Although online panels are usually stratified to be demographically representative of the population, behavioral differences typically exist. One obvious difference is that a non-random minority of people do not use the Internet, and thus are not eligible to be part of an online panel.

Another consistent finding concerns higher levels of pathology. Dr. Robert Williams, one of the Principal Investigators of the SEIGMA study, has conducted three separate research investigations, each of which has compared data obtained from a random sample of online panelists to a comparable sample of people contacted via random digit dialing within the same jurisdiction. In all three investigations, even after controlling for all demographic differences, the overall rates of substance use, mental health problems, gambling involvement, and addictions were significantly higher in the online panel, which also produced significantly higher rates of problem gambling (4.6% versus 2.1% in Alberta in 2008; 5.6% versus 3.1% in Alberta in 2009; 11.4% versus 1.0% in South Korea in 2011; 8.3% versus 1.0% in Ontario in 2011) (see also Lee, Back, Williams, & Ahn, 2015). This latter result has also been found in Massachusetts. For example, the 2013 online panel study conducted by the Massachusetts Council on Compulsive Gambling (2013) obtained a problem gambling rate of 10% compared to only 2.0% in the SEIGMA Baseline General Population Survey (BGPS) conducted in 2013/2014 using address-based sampling (Volberg et al., 2015).<sup>1</sup>

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<sup>1</sup> The MCGG online panel survey used an older assessment instrument based on DSM-III criteria (the South Oaks Gambling Screen; Lesieur & Blume, 1987). As a consequence, the prevalence rate of problem gambling obtained in the MCGG survey is not directly comparable to the prevalence rate obtained in the BGPS (i.e., different assessment criteria; no time frame specified in the SOGS versus a 12 month time frame in the BGPS). That being said, it should be noted that in addition to being much higher than the PPGM problem gambling rate in the BGPS, the SOGS 3+ rate in the MCGG survey is also substantially higher than the average SOGS 3+ rate obtained in nine national population surveys (3.5%) as well as the average SOGS 3+ rate obtained in 28 U.S. state population surveys (4.8%). Using the more conventional 5+ cutoff for the SOGS, the MCGG rate of 5% compares to an average of 1.2% among the national surveys and 1.7% among the state surveys (Williams, Volberg, & Stevens, 2012).

## Purpose of the SEIGMA Online Panels

1. Due to their imperfect representativeness, *online panels cannot be used to establish precise estimates of population prevalence (the SEIGMA team used the BGPS for this purpose)*. However, an online panel survey can be used to recruit a significantly larger proportion of problem gamblers than could be obtained with addressed-based sampling methodology (only 129 problem gamblers were identified in the BGPS). **This was one of the primary purposes of the Baseline Online Panel Survey (BOPS) in the SEIGMA project.** An enriched sample of problem gamblers beyond the 129 in the BGPS potentially allows us to provide more reliable estimates in three specific areas of interest:
  - a. Negative personal impacts of gambling;
  - b. Differential impact of different types of gambling on gambling-related problems; and
  - c. Prevention awareness and treatment-seeking behavior of problem gamblers.<sup>2</sup>
2. Furthermore, because the BOPS data was collected in 2013/2014, all of these above indices also serve as baseline measures to help establish the impacts of the introduction of casino gambling to Massachusetts (occurring between 2015 and 2019). **More specifically, a follow-up online panel in 2020 (FOPS) will examine changes between BOPS and FOPS.**

A detailed list of the information contained in these surveys pertaining to the negative impacts of gambling; differential impact of different types of gambling on gambling-related problems; and prevention and awareness, is presented below.

### *Negative Personal Impacts of Gambling*

The following impacts are key indices of the negative socioeconomic effects of legal gambling availability. Thus, it is essential to establish their prevalence both before the introduction of casino gambling (via the BGPS and BOPS) as well as after. As noted above, follow-up assessment will be done with a Follow-Up General Population Survey (FGPS) and a Follow-Up Online Panel Survey (FOPS) currently slated for 2020. In addition to their socioeconomic relevance, these negative personal impacts speak to the nature and pattern of difficulties experienced by problem gamblers, which is potentially useful to prevention efforts and treatment providers.<sup>3</sup>

- Financial problems due to gambling, including
  - Bankruptcies
- Health problems due to gambling, including
  - Need to seek medical or psychological help
- Mental health problems due to gambling, including
  - Suicidal thoughts
  - Suicide attempts
- Relationship problems due to gambling, including
  - Domestic violence
  - Separation or divorce
  - Neglect of children or family
  - Child welfare involvement

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<sup>2</sup> The small number of problem gamblers in the BGPS precluded the detailed reporting of these estimates in Volberg et al. (2015) and Houpt, Volberg, Williams, Stanek, and Zorn (2015).

<sup>3</sup> It is important to recognize that the common substance abuse and mental health comorbidities of problem gamblers are also partly responsible for these negative impacts.

- Work or school problems due to gambling, including
  - Number of work or school days lost
  - Losing employment or having to quit school
  - Receiving public assistance or welfare payments
  - Amount of money received from these public assistance and/or welfare payments
- Commission of illegal acts due to gambling, including
  - Amount of money taken illegally
  - Arrests
  - Convictions
  - Incarcerations
  - Average number of days incarcerated

Data pertaining to these variables in the BGPS, BOPS, FGPS, and FOPS have two major advantages over general population-level changes in these indices available from secondary data sources. For one, these impacts can be more directly attributed to gambling, as the survey questions ask whether these problems or events occurred “because of your gambling,” whereas there are a myriad of economic and social events that influence state-wide changes in the rate of divorces, bankruptcies, unemployment, etc. For another, some of the state-wide rates in these secondary data sources underestimate the true rate at which these impacts occur, as most suicide attempts, incidents of domestic violence, and crime go unreported and/or undetected.

### ***Impacts of Different Forms of Gambling on Gambling-Related Problems***

Not all forms of gambling have the same potential for harm. Rather, continuous forms of gambling (e.g., electronic gambling machines, casino table games) and forms of gambling that are continuously convenient and available (e.g., online gambling) tend to create elevated risk (Dowling, Smith, & Thomas, 2005; Parke & Griffiths, 2007; Welte, Barnes, Wieczorek, Tidwell, & Hoffman, 2007; Williams, West, & Simpson, 2012; Wood, Williams, & Parke, 2012). That being said, problem gamblers tend to engage in a wide range of different types of gambling, all of which make some contribution to the harms experienced. Furthermore, the strong relationship between some forms of gambling (e.g., online gambling) and problem gambling is partly due to the fact that these forms tend to be patronized by individuals with heavy general levels of gambling involvement (LaPlante, Nelson, LaBrie, & Shaffer, 2009; Wood et al., 2012).

Ascertaining the differential impacts of different forms of gambling can be addressed in a number of ways. The way in which they are addressed in the BGPS and BOPS is by asking all problem gamblers whether there was a particular form of gambling that has contributed to their problems more than others, and, if so, to identify this particular form.

### ***Prevention Awareness and Treatment Seeking Behavior of Problem Gamblers***

There are several questions in the BGPS and BOPS that are useful for the purposes of treatment and prevention planning. More specifically, the BGPS and BOPS contain questions that help ascertain the number and percentage of Massachusetts problem gamblers who a) have heard or seen any media campaigns to prevent problem gambling in Massachusetts; b) were aware of any programs to prevent problem gambling offered at school, work, or in the community; c) participated in any problem gambling prevention programs in the past 12 months; d) altered their gambling behavior because of these media campaigns or programs; e) desired help for gambling problems; f) sought help for gambling problems; g)

where they sought help from; h) whether they found the treatment helpful; i) whether they entered into a casino self-exclusion agreement; and j) the state in which they entered into a casino self-exclusion agreement.

## Methods

### Sample and Recruitment

Ipsos Public Affairs (Ipsos) conducted the SEIGMA Baseline Online Panel Survey (BOPS). Ipsos maintains an online panel of individuals across the country who have agreed to participate in research studies. The Massachusetts panel contains approximately 17,000 individuals. When participants joined the Ipsos panel, they provided demographic information about themselves and their household (e.g., age, gender, state of residence, county of residence). Ipsos used this information to email a stratified sample of participants by age, gender and region (Western versus Eastern MA) that was proportional to the number of people in these groups as reported by the U.S. Census. Over the time period in which the survey was in the field, Ipsos drew additional replicate samples and monitored completion rates until at least 5,000 complete surveys were obtained. To obtain a final sample of 5,000, Ipsos supplemented their own online panel sample with Massachusetts online panel members from seven partner vendors.

The BOPS questionnaire (Appendix A) was the same questionnaire used in the Baseline General Population Survey (BGPS) and the Baseline Targeted Surveys (BTS). The questionnaire was extensively reviewed, edited and pre-tested. As was the case with the BGPS, the SEIGMA team submitted a protocol and received approval for the BOPS from the University of Massachusetts Amherst Institutional Review Board.

BOPS was launched in late October 2013, and data collection ended in late March 2014 to run coincident with data collection in the BGPS which was in the field from September 2013 to May 2014. Of the 26,913 people who began the BOPS, 18,580 were deemed to be not eligible (primarily out-of-state panelists), 2,946 quit before finishing, 293 were excluded because of a full age x gender quota, and 48 were removed because of data quality issues. In the end, a total of 5,046 completed surveys were obtained.

### BGPS Response Rates and Weighting

The BGPS used an Address-Based Sampling (ABS) approach (Link, Battaglia, Frankel, Osborn, & Mokdad, 2008) whereby a random sample of Massachusetts addresses was initially chosen, with over-selection of Western Massachusetts to ensure acceptable precision in establishing problem gambling prevalence in this part of the state. All selected addresses were mailed a letter and subsequent postcards inviting the household member with the most recent birthday to participate in the BGPS online (WEB). Households where no response was received after another four weeks were mailed paper versions of the BGPS and invited to alternatively complete the BGPS via this modality and return it by mail (SAQ). Households where no response was received after four weeks were called on their landline (this number was available in 78% of cases) and invited to answer the BGPS questions over the telephone (CATI). An overall 36.6% AAPOR RR3 response rate was achieved, yielding a final sample of 9,578 respondents.

Final BGPS weights were derived from a sequence of six steps that adjusted for demographic deviations from the Massachusetts population:

- Adjustment for the deliberate oversampling of addresses in Western Massachusetts. This weight was assigned to all sampled addresses that were initially chosen.
- Additional adjustment for the fact that the ability to establish the eligibility of different address types (i.e., an occupied residential, non-business address) varied as a function of whether it was in a



Spanish versus English speaking neighborhood; whether it was a post office box, single family dwelling, or multiple family dwelling; and whether the address was in Western or Eastern Massachusetts. 'Screened addresses' where eligibility could be determined were assigned higher or lower weights as a function of whether the address type was normally associated with higher or lower rates of unknown eligibility.

- Additional adjustment for the fact that differences in the rate of completed surveys varied as a function of region (Western or Eastern Massachusetts), language (English or Spanish), and modality (WEB, SAQ, CATI). These weights were applied to all completed surveys.
- Additional adjustment for household size (i.e., to compensate for the oversampling of people from small households and undersampling of people from large households).
- Additional adjustment via iterative raking to more closely align the distribution of the obtained sample to the known distribution of the 2012 Massachusetts adult (18+) population in terms of region x age, region x gender, region x race/ethnicity, region x education, age x gender, age x race/ethnicity, age x education, gender x race/ethnicity, gender x education, and race/ethnicity x education.
- Trimming the maximum and minimum allowable weights so as to increase the accuracy of derived estimates (e.g., prevalence of problem gambling).

## **BOPS Weighting**

A two-step procedure was used to develop weights for the BOPS sample:

- Each person was initially given an equal weight (1,039.4) so that the total number of BOPS respondents approximated the estimated 2012 Massachusetts adult (18+) population of 5,244,629.
- Similar to BGPS, an iterative raking procedure was then used to adjust these weights to demographically align the respondents with the Massachusetts population in terms of region x age, region x gender, region x race/ethnicity, age x gender, age x race/ethnicity, age x education, gender x race/ethnicity, gender x education, and race/ethnicity x education.

## **BGPS versus BOPS Problem Gamblers**

An important methodological issue concerns whether problem gamblers identified in the unweighted BOPS are systematically different in some way from problem gamblers identified in the unweighted BGPS. Considering the two different ways in which these samples are selected, it seems likely that some differences will exist. The nature of these differences will be explored via univariate and multivariate comparisons, as reported in the next section of this report.

## Results

### Demographics, Health Status, and Gambling Behavior of the Entire BGPS Sample Compared to the Entire BOPS Sample

Table 1 displays descriptive statistics for variables in BGPS and BOPS with demographic variables presented first, followed by health-related variables, and then gambling-related variables. Chi square tests identified significant differences between the groups on virtually all variables. However, this is primarily due to the different study designs and the very large sample sizes in each group (9,578 and 5,046 respectively). Focusing on variables where the 95% confidence intervals did not overlap, demographically, BOPS respondents were significantly younger and more likely to be White, born in the U.S., never married, less educated, unemployed, have a lower household income, and to be from Greater Boston. More pronounced differences existed on the health variables, with BOPS respondents more likely to report poorer health, participation in extreme sports and an unhappy childhood as well as higher levels of tobacco use, binge drinking, behavioral addictions, and mental health problems. As expected, the gambling-related variables were also noticeably different between the groups, with BOPS respondents being more likely to participate in all forms of gambling as well as engage in a larger number of gambling formats, have higher PPGM total scores, and have a higher prevalence of problem and pathological gambling ( $n = 317$ , 6.4% compared to  $n = 129$ , 1.4% in the BGPS).

**Table 1. Demographics, Health Status, and Gambling Behavior of the Entire BGPS Sample Compared to the Entire BOPS Sample, Unweighted Data**

		Baseline General Population Survey (BGPS) (N = 9,578)		Baseline Online Panel Survey (BOPS) (N = 5,046)		p
		%	95% C.I.	%	95% C.I.	
<b>Gender</b>	Male	39.7	(38.8, 40.7)	47.1	(45.7, 48.5)	<.001
	Female	59.1	(58.1, 60.1)	52.9	(51.5, 54.3)	
	Missing	1.1	( 0.9, 1.4)	0.0	NA	
<b>Age</b>	18-34	14.1	(13.4, 14.8)	28.2	(27.0, 29.5)	<.001
	35-64	51.0	(50.0, 52.0)	53.1	(51.7, 54.4)	
	65+	30.0	(29.1, 30.9)	18.7	(17.6, 19.8)	
	Missing	4.9	(4.5, 5.4)	0.0	NA	
<b>Race/Ethnicity</b>	Hispanic	5.0	(4.6, 5.5)	5.2	(4.6, 5.9)	<.001
	Black	3.8	(3.5, 4.2)	4.1	(3.6, 4.7)	
	White	83.0	(82.3, 83.8)	85.2	(84.2, 86.1)	
	Asian	3.8	(3.4, 4.2)	3.9	(3.4, 4.5)	
	Other or Missing	4.3	(3.9, 4.7)	1.6	(1.3, 2.0)	
<b>Born in United States</b>	No	13.0	(12.3, 13.7)	8.1	(7.4, 8.9)	<.001
	Yes	85.0	(84.3, 85.7)	91.5	(90.7, 92.2)	
	Missing	2.0	(1.8, 2.3)	0.4	(0.3, 0.6)	
<b>Marital status</b>	Never married	16.5	(15.8, 17.3)	29.7	(28.5, 31.0)	<.001
	Living with partner/ Married/Widowed	68.6	(67.7, 69.5)	58.6	(57.2, 60.0)	
	Divorced or Separated	12.4	(11.8, 13.1)	11.2	(10.3, 12.1)	
	Missing	2.5	(2.2, 2.8)	0.5	(0.3, 0.8)	

		Baseline General Population Survey (BGPS) (N = 9,578)		Baseline Online Panel Survey (BOPS) (N = 5,046)		p
		%	95% C.I.	%	95% C.I.	
Education	High School or less	18.0	(17.2, 18.7)	22.6	(21.5, 23.8)	<.001
	Some College or BA	52.2	(51.2, 53.2)	61.6	(60.3, 62.9)	
	Graduate Degree	27.9	(27.0, 28.8)	15.2	(14.3, 16.3)	
	Missing	1.9	(1.7, 2.2)	0.5	(0.4, 0.8)	
Employment	Employed	57.3	(56.3, 58.3)	54.3	(52.9, 55.7)	<.001
	Unemployed	3.7	(3.3, 4.1)	6.7	(6.0, 7.4)	
	Retired	25.9	(25.0, 26.8)	16.7	(15.7, 17.8)	
	Other <sup>4</sup>	11.0	(10.4, 11.7)	21.2	(20.1, 22.3)	
	Missing	2.1	(1.8, 2.4)	1.1	(0.8, 1.4)	
Household Income	Less than \$15,000	8.8	(8.3, 9.4)	9.0	(8.3, 9.9)	<.001
	\$15,000-<\$30,000	10.8	(10.2, 11.4)	13.7	(12.8, 14.7)	
	\$30,000-<\$50,000	13.9	(13.2, 14.6)	17.6	(16.5, 18.6)	
	\$50,000-<\$100,000	25.9	(25.0, 26.8)	30.7	(29.4, 32.0)	
	\$100,000-<\$150,000	14.3	(13.6, 15.0)	12.6	(11.7, 13.5)	
	\$150,000 and more	11.8	(11.2, 12.5)	5.4	(4.8, 6.0)	
	Missing	14.5	(13.8, 15.2)	11.1	(10.2, 12.0)	
Military service	No	89.2	(88.5, 89.8)	90.0	(89.1, 90.8)	.010
	Yes	9.6	(9.1, 10.2)	9.3	(8.5, 10.1)	
	Missing	1.2	(1.0, 1.5)	0.7	(0.5, 1.0)	
Region	Western Massachusetts	29.0	(28.9, 29.0)	23.7	(22.6, 24.9)	<.001
	Greater Boston	55.4	(54.7, 56.1)	60.3	(59.0, 61.7)	
	Southeastern Massachusetts	15.7	(15.0, 16.4)	15.9	(14.9, 17.0)	
Health status past 12 months	Excellent	21.3	(20.5, 22.2)	13.1	(12.2, 14.0)	<.001
	Very Good	38.3	(37.4, 39.3)	34.4	(33.1, 35.7)	
	Good	27.8	(26.9, 28.7)	34.8	(33.5, 36.1)	
	Fair	10.0	(9.4, 10.6)	14.1	(13.1, 15.0)	
	Poor	2.4	(2.1, 2.7)	3.3	(2.9, 3.9)	
	Missing	0.2	(0.1, 0.3)	0.3	(0.2, 0.5)	
Participate in extreme sports	No	93.2	(92.7, 93.7)	79.4	(78.3, 80.5)	<.001
	Yes	6.5	(6.0, 7.0)	12.0	(11.1, 12.9)	
	Missing	0.3	(0.2, 0.5)	8.6	(7.9, 9.4)	
Overall stress past 12 months	Very Low	3.6	(3.3, 4.0)	5.6	(5.0, 6.3)	<.001
	Low	16.0	(15.3, 16.8)	17.2	(16.2, 18.2)	
	Moderate	46.0	(45.0, 47.0)	40.6	(39.3, 42.0)	
	High	25.5	(24.6, 26.4)	25.5	(24.3, 26.7)	
	Very High	8.6	(8.0, 9.1)	10.6	(9.7, 11.4)	
	Missing	0.3	(0.2, 0.5)	0.6	(0.4, 0.8)	
Current tobacco use	No	85.2	(84.5, 85.9)	71.1	(69.8, 72.3)	<.001
	Yes	12.9	(12.2, 13.6)	28.0	(26.8, 29.3)	
	Missing	1.8	(1.6, 2.1)	0.9	(0.6, 1.2)	

<sup>4</sup> Student, homemaker, disabled were combined into 'Other' because of small samples sizes in each.

		Baseline General Population Survey (BGPS) (N = 9,578)		Baseline Online Panel Survey (BOPS) (N = 5,046)		p
		%	95% C.I.	%	95% C.I.	
Alcohol use past 30 days	No	29.7	(28.8, 30.6)	33.2	(31.9, 34.5)	<.001
	Yes	70.0	(69.0, 70.9)	66.4	(65.1, 67.7)	
	Missing	0.3	(0.2, 0.5)	0.4	(0.3, 0.6)	
Binge drinking past 30 days	No	71.6	(70.7, 72.5)	61.9	(60.5, 63.2)	<.001
	Yes	23.7	(22.9, 24.6)	29.9	(28.6, 31.2)	
	Missing	4.7	(4.3, 5.1)	8.2	(7.5, 9.0)	
Behavioral addictions past 12 months	No	88.4	(87.8, 89.1)	80.9	(79.8, 82.0)	<.001
	Yes	10.6	(10.0, 11.3)	17.1	(16.1, 18.2)	
	Missing	0.9	(0.8, 1.1)	2.0	(1.6, 2.4)	
Mental health problems past 12 months	No	79.8	(79.0, 80.6)	70.4	(69.1, 71.6)	<.001
	Yes	14.8	(14.1, 15.5)	26.0	(24.8, 27.2)	
	Missing	5.4	(4.9, 5.8)	3.7	(3.2, 4.2)	
Childhood Rating	Very happy	26.9	(26.0, 27.7)	19.3	(18.3, 20.4)	<.001
	Happy	48.6	(47.6, 49.6)	47.1	(45.7, 48.5)	
	Neither happy nor unhappy	16.6	(15.9, 17.4)	21.3	(20.2, 22.5)	
	Unhappy	5.5	(5.0, 5.9)	8.8	(8.1, 9.6)	
	Very unhappy	1.6	(1.4, 1.9)	2.6	(2.2, 3.1)	
	Missing	0.8	(0.6, 1.0)	0.9	(0.6, 1.1)	
Friend and Family involvement in Gambling	None of them	51.0	(50.0, 52.0)	40.9	(39.6, 42.3)	<.001
	Some of them	45.2	(44.2, 46.2)	47.1	(45.7, 48.5)	
	Most of them	1.7	(1.5, 2.0)	3.5	(3.0, 4.0)	
	All of them	0.8	(0.7, 1.0)	0.9	(0.7, 1.2)	
	Missing	1.2	(1.0, 1.5)	7.6	(6.9, 8.4)	
Played Traditional Lottery Games in Past 12 months	No	42.6	(41.6, 43.6)	29.4	(28.2, 30.7)	<.001
	Yes	57.2	(56.2, 58.1)	69.7	(68.4, 71.0)	
	Missing	0.2	(0.2, 0.4)	0.9	(0.6, 1.2)	
Played Instant Games in Past 12 months	No	63.2	(62.2, 64.2)	47.7	(46.3, 49.1)	<.001
	Yes	36.1	(35.2, 37.1)	50.5	(49.1, 51.9)	
	Missing	0.7	(0.5, 0.8)	1.8	(1.5, 2.3)	
Played Daily Lottery Games in Past 12 months	No	87.0	(86.4, 87.7)	80.9	(79.8, 82.0)	<.001
	Yes	12.3	(11.6, 12.9)	17.8	(16.7, 18.8)	
	Missing	0.7	(0.6, 0.9)	1.3	(1.0, 1.7)	
Gambled at Casino in Past 12 months	No	75.1	(74.2, 75.9)	63.0	(61.7, 64.4)	<.001
	Yes	19.2	(18.4, 20.0)	30.6	(29.3, 31.9)	
	Missing	5.7	(5.3, 6.2)	6.4	(5.7, 7.1)	
Played Bingo in Past 12 months	No	96.4	(96.0, 96.8)	91.3	(90.5, 92.0)	<.001
	Yes	3.0	(2.7, 3.4)	8.7	(8.0, 9.5)	
	Missing	0.6	(0.4, 0.7)	0.0	NA	
Bet on Horse Racing in Past 12 months	No	96.2	(95.8, 96.5)	92.8	(92.0, 93.4)	<.001
	Yes	3.4	(3.1, 3.8)	6.2	(5.6, 6.9)	
	Missing	0.4	(0.3, 0.5)	1.1	(0.8, 1.4)	

		Baseline General Population Survey (BGPS) (N = 9,578)		Baseline Online Panel Survey (BOPS) (N = 5,046)		p
		%	95% C.I.	%	95% C.I.	
Sports Betting in Past 12 months	No	88.9	(88.2, 89.5)	85.6	(84.6, 86.5)	<.001
	Yes	10.7	(10.1, 11.3)	13.2	(12.3, 14.2)	
	Missing	0.4	(0.3, 0.6)	1.2	(0.9, 1.6)	
Private Betting in Past 12 months	No	90.3	(89.7, 90.9)	83.5	(82.4, 84.5)	<.001
	Yes	8.8	(8.2, 9.4)	15.2	(14.3, 16.3)	
	Missing	0.9	(0.8, 1.2)	1.3	(1.0, 1.6)	
Online Gambling in Past 12 months	No	97.6	(97.3, 97.9)	92.1	(91.3, 92.8)	<.001
	Yes	1.1	(1.0, 1.4)	6.0	(5.4, 6.7)	
	Missing	1.2	(1.0, 1.5)	1.9	(1.6, 2.3)	
# Gambling Formats	Mean	1.9	(1.8, 1.9)	2.4	(2.3, 2.4)	<.001
	Median	2.0	(2.0, 2.0)	2.0	(2.0, 2.0)	
Total Gambling Expenditure (\$)	Mean	-\$1067	(-1400, -734)	-\$969	(-3415, 1477)	<.001
	Median	-\$24.0	(-34.9, -24.0)	\$0.0	(0, 0)	
PPGM total score	Mean	0.1	(0.1, 0.1)	0.5	(0.4, 0.5)	< .001
	Median	0.0	(0.0, 0.0)	0.0	(0.0, 0.0)	
Problem Gambling Prevalence		1.4	(1.1, 1.6)	6.4	(5.7, 7.1)	<.001

Note: *Italicized figures indicate estimates with relative standard error > 30%.*

Note: *Illicit drug use and problems with drugs/alcohol are not reported due to 81% of the data being missing for the former, and problems with the skip pattern for the latter in BOPS. Raffles are not reported due to problems with the skip pattern in BOPS.*

Note: *Negative values for expenditure denote a net loss and positive values denote a net win.*

## Demographics, Health Status, and Gambling Behavior of Problem Gamblers in the BGPS Sample Compared to the BOPS Sample

An important methodological issue, and a focus of the present analysis, concerns whether the 317 problem and pathological gamblers identified in the BOPS are systematically different from the 129 problem and pathological gamblers identified in the BGPS. If they are not different, then it may be reasonable to combine the problem gamblers from the two samples and analyze the data collectively. If they are different, then another approach is needed. Table 2 contains these univariate comparisons.

Partly due to smaller sample sizes, fewer significant differences (23/33) were found between the problem gamblers in the two samples compared to these same comparisons between the full samples. Demographically, BOPS problem gamblers were significantly younger, more likely to be born in the United States, more likely to be never married, less likely to be retired and less likely to be from Western Massachusetts compared to BGPS problem gamblers. In terms of health status and behavior, BOPS problem gamblers were considerably more likely to report being in good health, participate in extreme sports, have higher stress, use tobacco, and have mental health problems. In terms of gambling behavior, BOPS problem gamblers were more likely to participate in bingo, private betting and online gambling, to engage in more gambling formats, and to have higher average but lower median gambling expenditure.

**Table 2. Demographics, Health Status, and Gambling Behavior of Problem Gamblers in the BGPS Sample Compared to the BOPS Sample, Unweighted Data**

		Baseline General Population Survey (BGPS) (n = 129)		Baseline Online Panel Survey (BOPS) (n = 317)		p
		%	95% C.I.	%	95% C.I.	
<b>Gender</b>	Male	65.9	(57.3, 73.5)	67.5	(62.2, 72.4)	.590
	Female	33.3	(25.8, 41.9)	32.5	(27.6, 37.8)	
	Missing	Cell size ≤ 5		0.0	NA	
<b>Age</b>	18-34	15.5	(10.2, 22.8)	49.2	(43.7, 54.7)	<.001
	35-64	55.0	(46.4, 63.4)	46.1	(40.6, 51.6)	
	65+	26.4	(19.5, 34.6)	4.7	(2.9, 7.7)	
	Missing	Cell size ≤ 5		0.0	NA	
<b>Race/Ethnicity</b>	Hispanic	6.2	(3.1, 11.9)	11.4	(8.3, 15.3)	.158
	Black	14.7	(9.6, 21.9)	7.9	(5.4, 11.4)	
	White	73.6	(65.4, 80.5)	75.1	(70.0, 79.5)	
	Asian	Cell size ≤ 5		4.4	(2.6, 7.3)	
	Other or Missing	Cell size ≤ 5		Cell size ≤ 5		
<b>Born in United States</b>	No	20.9	(14.8, 28.8)	8.8	(6.2, 12.5)	.004
	Yes	79.1	(71.2, 85.2)	90.5	(86.8, 93.3)	
	Missing	0.0	NA	Cell size ≤ 5		
<b>Marital status</b>	Never married	20.9	(14.8, 28.8)	39.4	(34.2, 44.9)	<.001
	Living with partner/ Married/Widowed	57.4	(48.7, 65.6)	48.6	(43.1, 54.1)	
	Divorced or Separated	20.9	(14.8, 28.8)	11.7	(8.6, 15.7)	
	Missing	Cell size ≤ 5		Cell size ≤ 5		
<b>Education</b>	High School or less	41.9	(33.7, 50.5)	32.8	(27.9, 38.2)	.026
	Some College or BA	44.2	(35.9, 52.8)	57.4	(51.9, 62.7)	
	Graduate Degree	10.9	(6.5, 17.5)	9.8	(7.0, 13.6)	
	Missing	Cell size ≤ 5		0.0	NA	
<b>Employment</b>	Employed	53.5	(44.9, 61.9)	60.9	(55.4, 66.1)	.007
	Unemployed	12.4	(7.7, 19.3)	12.6	(9.4, 16.7)	
	Retired	20.2	(14.1, 27.9)	6.3	(4.1, 9.6)	
	Other <sup>5</sup>	12.4	(7.7, 19.3)	18.9	(15.0, 23.6)	
	Missing	Cell size ≤ 5		Cell size ≤ 5		
<b>Household Income</b>	Less than \$15,000	18.6	(12.8, 26.2)	11.0	(8.0, 15.0)	.015
	\$15,000-<\$30,000	17.1	(11.5, 24.5)	12.9	(9.7, 17.1)	
	\$30,000-<\$50,000	15.5	(10.2, 22.8)	22.4	(18.1, 27.3)	
	\$50,000-<\$100,000	25.6	(18.8, 33.8)	38.8	(33.6, 44.3)	
	\$100,000-<\$150,000	10.1	(5.9, 16.6)	8.5	(5.9, 12.1)	
	\$150,000 and more	6.2	(3.1, 11.9)	3.2	(1.7, 5.8)	
	Missing	7.0	(3.7, 12.9)	3.2	(1.7, 5.8)	
<b>Military service</b>	No	77.5	(69.5, 83.9)	87.4	(83.3, 90.6)	.042
	Yes	20.2	(14.1, 27.9)	12.3	(9.1, 16.4)	
	Missing	Cell size ≤ 5		Cell size ≤ 5		

<sup>5</sup> Student, homemaker, disabled was combined into 'Other' because of small samples sizes in each.

		Baseline General Population Survey (BGPS) (n = 129)		Baseline Online Panel Survey (BOPS) (n = 317)		p
		%	95% C.I.	%	95% C.I.	
Region	Western Massachusetts	30.2	(23.0, 38.6)	17.4	(13.6, 21.9)	.019
	Greater Boston	54.3	(45.7, 62.6)	65.3	(59.9, 70.3)	
	South Eastern Massachusetts	15.5	(10.2, 22.8)	17.4	(13.6, 21.9)	
Health status past 12 months	Excellent	7.0	(3.7, 12.9)	20.8	(16.7, 25.6)	<.001
	Very Good	27.9	(20.9, 36.2)	29.3	(24.6, 34.6)	
	Good	43.4	(35.2, 52.1)	30.6	(25.8, 35.9)	
	Fair	17.8	(12.2, 25.4)	16.1	(12.4, 20.6)	
	Poor	Cell size ≤ 5		3.2	(1.7, 5.8)	
	Missing	0.0	NA	0.0	NA	
Participate in extreme sports	No	89.9	(83.4, 94.1)	50.2	(44.7, 55.6)	<.001
	Yes	9.3	(5.4, 15.7)	38.2	(33.0, 43.6)	
	Missing	Cell size ≤ 5		11.7	(8.6, 15.7)	
Overall stress past 12 months	Very Low	Cell size ≤ 5		3.5	(1.9, 6.2)	.003
	Low	8.5	(4.8, 14.7)	8.8	(6.2, 12.5)	
	Moderate	50.4	(41.9, 58.9)	38.2	(33.0, 43.6)	
	High	32.6	(25.1, 41.1)	30.3	(25.5, 35.6)	
	Very High	7.0	(3.7, 12.8)	18.9	(15.0, 23.6)	
	Missing	0.0	NA	Cell size ≤ 5		
Current tobacco use	No	65.9	(57.3, 73.5)	39.1	(33.9, 44.6)	<.001
	Yes	31.8	(24.4, 40.3)	60.9	(55.4, 66.1)	
	Missing	Cell size < 5		0.0	NA	
Alcohol use past 30 days	No	27.9	(20.9, 36.2)	24.9	(20.5, 30.0)	.188
	Yes	72.1	(63.8, 79.1)	74.1	(69.0, 78.7)	
	Missing	0.0	NA	Cell size ≤ 5		
Binge drinking past 30 days	No	48.1	(39.6, 56.6)	36.3	(31.2, 41.7)	.036
	Yes	44.2	(35.9, 52.8)	57.7	(52.2, 63.1)	
	Missing	7.8	(4.2, 13.8)	6.0	(3.9, 9.2)	
Behavioral addictions past 12 months	No	64.3	(55.7, 72.1)	60.6	(55.1, 65.8)	.697
	Yes	34.9	(27.2, 43.5)	38.2	(33.0, 43.6)	
	Missing	Cell size ≤ 5		Cell size ≤ 5		
Mental health problems past 12 months	No	69.0	(60.5, 76.4)	47.3	(41.9, 52.8)	<.001
	Yes	26.4	(19.5, 34.6)	49.8	(44.4, 55.3)	
	Missing	4.7	(2.1, 10.0)	2.8	(1.5, 5.4)	
Childhood Rating	Very happy	17.1	(11.5, 24.5)	21.8	(17.6, 26.6)	.019
	Happy	41.9	(33.7, 50.5)	41.0	(35.7, 46.5)	
	Neither happy nor unhappy	28.7	(21.6, 37.0)	20.5	(16.4, 25.3)	
	Unhappy	11.6	(7.1, 18.4)	11.0	(8.0, 15.0)	
	Very unhappy	Cell size ≤ 5		5.0	(3.1, 8.1)	
	Missing	0.0	NA	Cell size ≤ 5		

		Baseline General Population Survey (BGPS) (n = 129)		Baseline Online Panel Survey (BOPS) (n = 317)		p
		%	95% C.I.	%	95% C.I.	
Friend and Family involvement in Gambling	None of them	14.7	(9.6, 21.9)	14.5	(11.0, 18.8)	.444
	Some of them	71.3	(63.0, 78.4)	66.9	(61.5, 71.8)	
	Most of them	9.3	(5.4, 15.7)	12.9	(9.7, 17.1)	
	All of them	<i>Cell size ≤ 5</i>		3.2	(1.7, 5.8)	
	Missing	<i>Cell size ≤ 5</i>		2.5	(1.3, 5.0)	
Played Traditional Lottery Games in Past 12 months	No	<i>Cell size ≤ 5</i>		4.1	(2.4, 6.9)	.912
	Yes	96.1	(91.0, 98.4)	95.9	(93.1, 97.6)	
	Missing	0.0	NA	0.0	NA	
Played Instant Games in Past 12 months	No	17.8	(12.2, 25.4)	12.0	(8.8, 16.0)	.030
	Yes	82.2	(74.6, 87.8)	86.4	(82.2, 89.8)	
	Missing	0.0	NA	<i>Cell size ≤ 5</i>		
Played Daily Lottery Games in Past 12 months	No	46.5	(38.1, 55.1)	45.4	(40.0, 50.9)	.031
	Yes	53.5	(44.9, 61.9)	52.4	(46.9, 57.8)	
	Missing	0	NA	2.2	(1.1, 4.6)	
Gambled at Casino in Past 12 months	No	39.5	(31.5, 48.2)	26.5	(21.9, 31.6)	.022
	Yes	55.0	(46.4, 63.4)	64.4	(58.9, 69.4)	
	Missing	5.4	(2.6, 10.9)	9.1	(6.4, 12.9)	
Played Bingo in Past 12 months	No	84.5	(77.2, 89.8)	68.8	(63.5, 73.6)	<.001
	Yes	14.0	(9.0, 21.0)	31.2	(26.4, 36.5)	
	Missing	<i>Cell size ≤ 5</i>		0.0	NA	
Bet on Horse Racing in Past 12 months	No	80.6	(72.9, 86.5)	73.8	(68.7, 78.4)	.205
	Yes	18.6	(12.8, 26.2)	25.9	(21.3, 31.0)	
	Missing	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>		
Sports Betting in Past 12 months	No	67.4	(58.9, 74.9)	58.4	(52.9, 63.7)	.167
	Yes	31.8	(24.3, 40.3)	40.1	(34.8, 45.6)	
	Missing	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>		
Private Betting in Past 12 months	No	76.0	(67.9, 82.5)	52.1	(46.5, 57.5)	<.001
	Yes	23.3	(16.8, 31.3)	46.4	(40.9, 51.9)	
	Missing	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>		
Online Gambling in Past 12 months	No	86.0	(79.0, 91.0)	67.2	(61.8, 72.1)	<.001
	Yes	11.6	(7.1, 18.4)	30.6	(25.8, 35.9)	
	Missing	<i>Cell size ≤ 5</i>		2.2	(1.1, 4.6)	
# Gambling Formats	Mean	4.4	(4.0, 4.7)	5.2	(5.0, 5.5)	.001
	Median	4.0	(.0, 4.0)	5.0	(4.1, 5.0)	
Total Gambling Expenditure (\$)	Mean	-\$10001	(-14657, -5345)	-\$167323	(-50762, 17297)	<.001
	Median	-3600.0	(-4556, -2188)	-360.0	(-583, -60)	
PPGM total score	Mean	4.7	(4.3, 5.1)	4.7	(4.4, 5.0)	.599
	Median	4.0	(3.0, 4.8)	4.0	(3.0, 4.0)	

Note: *Italicized figures indicate estimates with relative standard error > 30%.*

Note: *Illicit drug use and problems with drugs/alcohol are not reported due to 81% of the data being missing for the former, and problems with the skip pattern for the latter in BOPS. Raffles are not reported due to problems with the skip pattern in BOPS.*

Note: *Negative values for expenditure denote a net loss and positive values denote a net win.*

Many of the above-mentioned individual variables are correlated with each other. Consequently, significant differences between individual variables may reflect differences in the same underlying



attribute. Thus, the more central question is whether significant differences exist between the groups when these variables are analyzed simultaneously and when differences in demographic characteristics and health-related behaviors are controlled for.

A stepwise binary logistic regression was undertaken to determine whether there were variables that significantly discriminated between problem gamblers in the BGPS versus the BOPS in a multivariate analysis. The model was developed in three stages using successive blocks of demographic, health-related, and gambling-related variables. In each stage a stepwise logistic regression model was fit while retaining statistically significant variables from the previous stage. In order for a variable to enter the model, the regression coefficient had to be statistically significant, with a *p*-value less than 0.01. Variables were dropped from the model if the *p*-value was greater than 0.05. The results of this analysis are summarized in Table 3.

**Table 3. Stepwise Logistic Regression predicting BGPS Membership for Problem Gamblers, Unweighted Data**

		Stage 1 (n = 444) Demographics	Stage 2 (n = 441) Health Behavior	Stage 3 (n = 441) Gambling
		Odds Ratio	Odds Ratio	Odds Ratio
<b>Born in U.S.</b>	No	3.12	3.55	3.55
	Yes	Reference group	Reference group	Reference group
<b>Age</b>	<35	Reference group	Reference group	Reference group
	35-64	3.48	2.56	2.56
	65+	20.85	9.00	9.00
<b>Region</b>	Western MA	2.61	2.54	2.53
	Greater Boston	Reference group	Reference group	Reference group
	Southeastern MA	1.02	1.19	1.22
<b>Participate in extreme sports</b>	No		3.32	3.32
	Yes		Reference group	Reference group
<b>Current tobacco use</b>	No		2.61	2.61
	Yes		Reference group	Reference group
<b>Adjusted R-squared</b>		.28	.39	.39

*Note: A value greater than 1 indicates greater prevalence in the Baseline General Population Survey (BGPS); less than 1 indicates greater prevalence in the Baseline Online Panel (BOPS).*

The three columns summarize the results of predicting the log of the odds ratio of a problem gambler coming from the BGPS for each stage of model development. The number of problem gamblers included in the analysis is given at the top of each column, with this number differing in each stage due to missing values for some variables. Results are presented as odds ratios (OR) for ease of interpretation.<sup>6</sup> For example, the odds ratio of 3.12 in the first row and first column in Table 3 (Born in the US, Stage 1) means that the odds of not being born in the US was 3.12 times higher for problem

<sup>6</sup> The odds ratio should be interpreted with some caution since the predicted outcome (i.e., being in the BGPS group) naturally occurs in 28.9% (129/446) of cases. This means that while the model and significance testing are correct, the odds ratio exaggerates the magnitude of the effect when interpreted as a relative risk.

gamblers from the BGPS compare to problem gamblers from the BOPS. As can be seen in the first column (Stage 1) of Table 3, three demographic variables (not being born in the U.S., older age, and being from Western MA), significantly differentiated between BGPS and BOPS membership. Two health-related variables (participation in extreme sports, tobacco use) provided additive predictive power at Stage 2. No gambling-related variables provided additive predictive power at Stage 3.

In summary, our multivariate analysis indicates that:

- There *are* significant multivariate differences between problem gamblers in the BGPS versus BOPS groups, although the magnitude of these differences is fairly modest (i.e., the logistic regression model explains 39% of the variance in group membership and the overall classification accuracy when maximizing sensitivity and specificity is 60.8%)
- The group differences are attributable primarily to a subset of five variables:
  - Being born outside the U.S., with this being 3.55 times more likely in the BGPS group.
  - Age, with age group 35-64 being 2.56 more likely in the BGPS group and age group 65+ being 9.00 times more likely in the BGPS group, relative to those younger than 35.
  - Region of Massachusetts, with the likelihood of being from Western MA being 2.53 times more likely in the BGPS group, relative to Greater Boston.
  - Participation in extreme sports, with not participating in extreme sports being 3.32 times more likely in BGPS.
  - Current tobacco use, with not being a current tobacco user being 2.61 times more likely in BGPS.

The lower proportion of immigrants among BOPS problem gamblers may be due to the low rate of immigrants within BOPS generally (i.e., 8.1% compared to 15.5% for Massachusetts between 2011 and 2015, according to the US Census Bureau; <http://www.census.gov/quickfacts/table/PST045215/25>). The older age of the BGPS problem gamblers may be due to the lower response rates for younger people in the BGPS. It should be noted that the modal age category for problem gamblers in population surveys is 18-34 (Williams, Volberg, et al., 2012, p. 265), as was found in the BOPS but not the BGPS. The higher proportion of problem gamblers from Western Massachusetts in BGPS is likely due to the deliberate oversampling of people from Western Massachusetts in the BGPS. The reason for the higher rate of participation in extreme sports and tobacco use among BOPS problem gamblers is unclear. It is interesting to note that population studies of non-treatment seeking problem gamblers show the average rate of tobacco use to be 60.1% (Lorains, Cowlshaw, & Thomas, 2011; McGrath & Barrett, 2009) which is much closer to what was found among the BOPS problem gamblers (60.9%) compared to the BGPS problem gamblers (31.8%). However, it is also possible that the BOPS problem gambler rate of tobacco use could be an artifact of the higher rate of tobacco use amongst BOPS respondents generally (28.0% versus 12.9% in BGPS).<sup>7</sup>

In any case, the results indicate that while the BOPS problem gamblers are somewhat similar to the BGPS problem gamblers, several important differences exist. Thus, the most conservative approach, and the approach used in the present report, is to report the results separately. As will be seen, the close similarities in the results between the two samples provides a type of independent replication of their validity.

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<sup>7</sup> Data from the 2013-2014 National Adult Tobacco Survey indicates that 19.4% of Massachusetts adults (18+) currently use tobacco.

## Negative Personal Impacts of Gambling

The negative personal impacts of gambling among BGPS problem gamblers and BOPS problem gamblers are presented in Table 4. Negative impacts of gambling are most concentrated in problem gamblers, especially the most severe impacts. However, negative impacts are also experienced to some extent among gamblers who do not meet criteria for problem gambling. Thus, Table 4 not only reports the prevalence of impacts among problem gamblers, but also the prevalence of impacts among all people who reported gambling once a month or more in the past 12 months (inclusive of problem gamblers). We refer to this group as BPGS gamblers. The negative impacts among all gamblers is only reported for the BGPS and not the BOPS, as the latter contains a much higher (and non-representative) prevalence of heavily involved gamblers with high rates of associated comorbidities, which would produce an artificially high estimate of the rate of negative impacts. Similarly, because of the overestimate of the true prevalence of problem gamblers in the BOPS, the projected raw number of problem gamblers among which these impacts occur is only reported for the BGPS.

Because we are making population estimates in Table 4 (as well as in Tables 5, 6, and 7) the data in these tables are weighted to match the Massachusetts population by region, age, gender, education, and race/ethnicity. This weighting does not correct for the remaining differences in immigrant status, tobacco use, and engagement in extreme sports that are known to differentiate the two problem gambler samples, nor does it correct for other unknown variables that may differentiate these two groups.

## Impacts of Different Forms of Gambling on Gambling-Related Problems

Everyone who scored 5 or higher on the Canadian Problem Gambling Index (CPGI) was asked a question concerning whether there was a particular type of gambling contributing to their problems more than others. If they indicated yes, they were asked to identify which type. These results are presented in Tables 5a and 5b.<sup>8</sup>

## Prevention Awareness and Treatment Seeking Behavior of Problem Gamblers

Everyone who scored 5 or higher on the Canadian Problem Gambling Index (CPGI) was also asked about their awareness of media campaigns and programs to prevent problem gambling. If they indicated yes, they were asked whether they had participated in any of these programs and whether the media campaigns or prevention programs altered their gambling behavior. These results are contained in Table 6. Finally, problem gamblers were asked whether they had ever wanted help for gambling problems, whether they had sought help, and whether they had entered into a casino self-exclusion agreement. These results are reported in Table 7.

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<sup>8</sup> Note: CPGI 5+ is roughly equivalent to a PPGM problem gambler designation (Williams, Volberg, et al., 2012). The complexity of the PPGM scoring made it too complicated an algorithm to select people scoring as PPGM problem or pathological gamblers during survey administration.

**Table 4. Baseline (2013/2014) Negative Impacts of Gambling in Past 12 Months among BGPS Gamblers, BGPS Problem Gamblers, and BOPS Problem Gamblers, Weighted Data**

		Baseline General Population Survey GAMBLERS (Weighted N = 2,396,524)			Baseline General Population Survey PROBLEM GAMBLERS (Weighted N = 105,738)			Baseline Online Panel Survey PROBLEM GAMBLERS (Weighted)	
		N	%	95% C.I.	N	%	95% C.I.	%	95% C.I.
GP6a	Financial problems because of gambling	91,173	3.8	(2.9, 5.0)	50,756	48.0	(36.5, 59.7)	54.2	(48.1, 60.1)
GP6b	Filed for bankruptcy because of gambling	8,247	0.3	(0.1, 0.9)	Cell size ≤ 5			5.2	(3.0, 8.8)
GP7a	Health or stress problems because of gambling	89,871	3.8	(2.8, 4.9)	50,437	47.7	(36.1, 59.5)	49.6	(43.6, 55.7)
GP7b	Gambling-related health problems resulted in seeking medical or psychological help	15,293	0.6	(0.3, 1.3)	4,114	3.9	(1.5, 9.6)	8.7	(6.1, 12.3)
GP10a	Significant guilt, anxiety or depression because of gambling	75,688	3.2	(2.4, 4.2)	38,587	36.5	(25.3, 49.4)	31.4	(25.8, 37.5)
GP10b	Suicidal thoughts because of gambling	8,672	0.4	(0.1, 0.9)	Cell size ≤ 5			4.4	(2.5, 7.9)
GP10c	Attempted suicide because of gambling	Cell size ≤ 5			Cell size ≤ 5			3.3	(1.6, 6.8)
GP11a	Relationship problems because of gambling	27,321	1.1	(0.7, 1.9)	19,855	18.8	(10.3, 31.9)	13.7	(10.3, 18.1)
GP11b	Domestic violence because of gambling	6,706	0.3	(0.1, 0.9)	6,706	6.3	(2.0, 18.7)	5.2	(3.2, 8.2)
GP11c	Separation or divorce because of gambling	Cell size ≤ 5			Cell size ≤ 5			3.7	(2.1, 6.5)
GP12a	Neglect of children or family because of gambling	7,023	0.3	(0.1, 0.9)	6,443	6.1	(1.9, 18.3)	9.1	(6.2, 13.1)
GP12b	Child welfare services involved because of gambling	0	0.0	(0, 0)	0	0.0	(0, 0)	3.4	(1.8, 6.3)
GP13a	Work or school problems because of gambling	9,220	0.4	(0.2, 0.7)	6,113	5.8	(2.6, 12.4)	9.3	(6.3, 13.5)
GP13b	Average # of work or school days lost due to gambling	0.2 (-0.1, 0.4)			3.3 (-3.1, 9.7)			1.3 (0.3, 2.4)	
GP13c	Lost job or quit school due to gambling	Cell size ≤ 5			Cell size ≤ 5			3.0	(1.5, 5.7)
GP13d	Received public assistance or welfare payments because of gambling	Cell size ≤ 5			Cell size ≤ 5			3.0	(1.5, 5.7)
GP13e	Average amount of money received from public assistance/welfare because of gambling	\$3.9 (-3.8, 11.6) (see Note)			\$87.6 (-83.8, 258.9) (see Note)			\$19.2 (0.6, 37.8)	
GP14a	Commission of illegal acts because of gambling	11,474	0.5	(0.3, 0.8)	2,890	2.7	(1.1, 6.6)	8.4	(5.7, 12.1)
GP14b	Average amount of money illegally obtained to gamble	\$3.9 (-1.2, 9.1) (see Note)			\$9.4 (-2.6, 21.4) (see Note)			\$40.2 (6.7, 73.7)	
GP14c	Arrested because of gambling	Cell size ≤ 5			Cell size ≤ 5			2.6	(1.4, 5.0)
GP14d	Convicted of offense because of gambling	Cell size ≤ 5			0	0.0	(0, 0)	1.5	(0.6, 3.4)
GP14g	Incarcerated because of gambling	Cell size ≤ 5			0	0.0	(0, 0)	1.5	(0.6, 3.4)
GP14h	Average # days incarcerated because of gambling	0.0 (0, 0)			0.0 (0, 0)			0.3 (0.0, 0.5)	

Note: Weighted data means data that has been weighted to derive population estimates of the number of people (N) in Massachusetts in that category. The unweighted N's are as follows: BGPS Gamblers = 3993; BGPS Problem Gamblers = 129; BOPS Problem Gamblers = 317.

Note: Gamblers are everyone who reported gambling once a month or more in the past year on any gambling format (inclusive of problem gamblers).

Note: Italicized figures indicate a relative standard error > 30%.

Note: In all cases, the figures are for the entire sample of Gamblers or Problem Gamblers (e.g., the figures for GP13e and GP14b would be much higher if limiting the calculation to just people who received public assistance or welfare payments).

**Table 5a. Baseline (2013/2014) Impact of Different Forms of Gambling on Gambling-Related Problems in Past 12 Months among BGPS and BOPS Problem Gamblers, Weighted Data**

		Baseline General Population Survey PROBLEM GAMBLERS (Weighted N = 105,738)			Baseline Online Panel Survey PROBLEM GAMBLERS (Weighted)	
		N	%	95% C.I.	%	95% C.I.
GP21	Certain types of gambling have contributed to problems more than others	20,758	29.8	(18.0, 44.3)	26.6	(20.7, 33.5)

**Table 5b. Baseline (2013/2014) Types of Gambling Contributing to Problems amongst BGPS and BOPS Problem Gamblers Reporting that Certain Types Contributed to their Problems more than Others, Weighted Data**

		Baseline General Population Survey PROBLEM GAMBLERS (Weighted N = 105,738)		Baseline Online Panel Survey PROBLEM GAMBLERS (Weighted)	
		%	95% C.I.	%	95% C.I.
GP22	Lottery	<i>Cell size ≤ 5</i>		20.5	(10.5, 35.9)
	Instant Lottery Tickets	22.2	(8.4, 47.0)	23.1	(13.7, 36.3)
	Slot Machines	<i>Cell size ≤ 5</i>		18.6	(9.8, 32.6)
	Sports Betting	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>	
	Casino Table Games	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>	
	Online Gambling	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>	
	Poker	0.0	(0, 0)	<i>Cell size ≤ 5</i>	
	Video Poker	0.0	(0, 0)	<i>Cell size ≤ 5</i>	
	Keno	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>	
	Bingo	<i>Cell size ≤ 5</i>		<i>Cell size ≤ 5</i>	
	Horse Racing	0.0	(0, 0)	<i>Cell size ≤ 5</i>	
	High Risk Stocks	<i>Cell size ≤ 5</i>		0.0	(0, 0)

Note: Weighted data means data that has been weighted to derive population estimates of the number of people (N) in Massachusetts in that category. The unweighted N's are as follows: BGPS Problem Gamblers = 129; BOPS Problem Gamblers = 317.

Note: Italicized figures indicate a relative standard error > 30%.

Note: Only respondents who scored 5 or higher on the Canadian Problem Gambling Index (CPGI) were asked these questions. CPGI 5+ is roughly equivalent to a PPGM problem gambler designation (Williams, Volberg, & Stevens, 2012).

**Table 6. Prevention Awareness and Participation in Past 12 Months among BGPS Gamblers, BGPS Problem Gamblers, and BOPS Problem Gamblers, Weighted Data**

		Baseline General Population Survey GAMBLERS (Weighted N = 2,396,524)			Baseline General Population Survey PROBLEM GAMBLERS (Weighted N = 105,738)			Baseline Online Panel Survey PROBLEM GAMBLERS (Weighted)	
		N	%	95% C.I.	N	%	95% C.I.	%	95% C.I.
PA1	Heard or seen any media campaigns to prevent problem gambling in Massachusetts	1,172,261	48.9	(46.7, 51.2)	52,890	50.0	(38.4, 61.6)	47.4	(41.3, 53.5)
PA2a	Aware of any programs to prevent problem gambling at school, work, or in community	391,441	16.3	(14.8, 18.0)	26,486	25.0	(17.0, 35.3)	31.8	(26.3, 37.9)
PA2b	Participated in any programs to prevent problem gambling at school, work, or in community	<i>4,566</i>	<i>0.2</i>	<i>(0.1, 0.4)</i>	<i>Cell size ≤ 5</i>			7.1	(4.6, 10.7)
PA3	Media campaigns or prevention programs altered gambling behavior	29,641	1.2	(0.7, 2.2)	5,072	4.8	(2.2, 10.3)	7.6	(5.1, 11.1)

*Note: Weighted data means data that has been weighted to derive population estimates of the number of people (N) in Massachusetts in that category. The unweighted N's are as follows: BGPS Gamblers = 3993; BGPS Problem Gamblers = 129; BOPS Problem Gamblers = 317.*

*Note: Gamblers refers to everyone who reported gambling once a month or more in the past year on any gambling format (inclusive of problem gamblers).*

*Note: Italicized figures indicate a relative standard error > 30%.*

**Table 7. Treatment Seeking in Past 12 Months among BGPS Problem Gamblers and BOPS Problem Gamblers, Weighted Data**

		Baseline General Population Survey PROBLEM GAMBLERS (Weighted N = 105,738)			Baseline Online Panel Survey PROBLEM GAMBLERS (Weighted)	
		N	%	95% C.I.	%	95% C.I.
GP23a	Wanted help for gambling problems	9,187	13.0	(5.4, 28.4)	25.4	(19.7, 32.0)
GP23b	Sought help for gambling problems	Cell size ≤ 5			16.1	(11.1, 22.7)
GP23e	Entered into casino self-exclusion agreement	16,785	23.8	(12.4, 40.7)	24.5	(18.8, 31.1)

*Note: Weighted data means data that has been weighted to derive population estimates of the number of people (N) in Massachusetts in that category.*

*The unweighted N's are as follows: BGPS Problem Gamblers = 129; BOPS Problem Gamblers = 317.*

*Note: Only respondents who scored 5 or higher on the Canadian Problem Gambling Index (CPGI) were asked the questions about help-seeking (GP23a,b,c,d,e,f). CPGI 5+ is roughly equivalent to a PPGM problem gambler designation (Williams, Volberg, & Stevens, 2012).*

*Note: Italicized figures indicate a relative standard error > 30%.*

*Note: For individuals reporting casino self-exclusion, a follow-up question (GP23f) asked about which state this self-exclusion was made in. The only state with sufficient responses to provide a reliable estimate was Connecticut, at 65.2% (BOPS).*

## Summary of Findings

One of the main purposes of the 2013/2014 Baseline Online Panel Survey (BOPS) was to obtain a larger set of problem gamblers beyond what was achieved in the Baseline General Population Survey (BGPS) so as to obtain more reliable estimates concerning a) the negative impacts of gambling; b) the differential impact of different forms of gambling on gambling-related problems; and c) prevention awareness and treatment-seeking behavior of problem gamblers. This information is useful both for purposes of treatment planning and to help establish baseline levels of impacts prior to the introduction of casino gambling to Massachusetts in 2015 – 2019 (with a planned follow-up online panel [FOPS] in 2020 examining changes from baseline). Our goal was achieved in that a total of 317 problem and pathological gamblers were identified in the BOPS, compared to the 129 problem gamblers identified in the BGPS, even though the sample size of the BGPS was nearly double that of the BOPS. Having achieved this goal, our next objective was to determine how similar BOPS problem gamblers were to the BGPS problem gamblers. Modest, but significant differences between the groups were found in a subset of variables. Hence, the results of each of the groups were reported separately.

The main findings of this study are summarized below. It should be noted that even with the larger sample of problem gamblers in the BOPS, there are several indices where the relative standard error continues to be greater than 30%. As was the case in reporting results from the Baseline General Population Survey report (Volberg et al., 2015), the following discussion focuses on estimates where the relative standard error is less than 30%.

### Negative Impacts of Gambling

- **Financial problems** are the most commonly reported negative impact of gambling among both the general population of Massachusetts gamblers (3.8%) as well as Massachusetts problem gamblers more specifically (48.0% BGPS; 54.2% BOPS). Bankruptcy is a considerably less common financial impact, reported in only 5.2% of BOPS problem gamblers. With an estimated 105,738 problem gamblers in Massachusetts (from the BGPS), this potentially represents 5,498 bankruptcies. This projected figure is almost certainly too high, as in 2014 there were a total of 10,394 total bankruptcy filings in Massachusetts, 9,951 of which were non-business filings (U.S. Courts, 2014).<sup>9</sup> However, it is consistent with other literature showing that bankruptcies are reliably associated with problem gambling (Petry, 2005) as well as being one of the most consistent impacts of increased gambling availability (see Williams, Rehm, & Stevens, 2011 for a review).
- **Health or stress-related problems** are also a very common negative impact, reported in 3.8% of gamblers and between 47.7% (BGPS) and 49.6% (BOPS) of problem gamblers. A relatively small percentage of people with health or stress-related problems reported seeking medical or psychological help for these problems (3.9% BGPS and 8.7% BOPS), which would represent between 4,114 and 9,199 problem gamblers a year. The lower rate of treatment seeking among the BGPS problem gamblers may be due to their older age, as there is a tendency for older people to be less likely to seek psychological help (e.g., Mackenzie et al., 2006). (Further discussion of this issue is presented below in the Prevention Awareness and Treatment Seeking section).

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<sup>9</sup> Medical expenses account for the majority of bankruptcies in the United States (Himmelstein et al., 2009) as well as in Massachusetts (Himmelstein et al., 2011).



- Significant **mental health problems** in the form of guilt, anxiety, or depression is the third most common negative impact of gambling, reported in 3.2% of gamblers and between 31.4% (BOPS) and 36.5% (BGPS) of problem gamblers. An uncommon, but important manifestation of this mental stress is suicidal ideation and attempts. An estimated 4.4% of BOPS problem gamblers reported suicidal ideation, which would represent 4,652 individuals. The number of people who reported actual suicide attempts due to their gambling is lower, but no reliable estimates exist, as suicide attempts were only reported by one BGPS problem gambler and ten BOPS problem gamblers. As reference points, there were 585 known suicides in Massachusetts in 2013 (MA Department of Public Health, 2016) while the Centers for Disease Control and Prevention estimate the ratio of suicidal ideation to suicide attempts to be roughly 7.2 to 1 and the ratio of suicide attempts to completed suicides to be roughly 35 to 1 (Centers for Disease Control & Prevention, 2015).
- **Relationship problems** is the fourth most common negative impact of gambling, reported in 1.1% of gamblers compared to 13.7% (BOPS) and 18.8% (BGPS) of problem gamblers. Four discrete manifestations of relationship problems are: domestic violence, separation or divorce, neglect of children or family, and child welfare services involvement. A total of 9.1% (BOPS) of problem gamblers (n = 9,622) reported neglecting their children or family because of gambling; 5.2% (BOPS) (n = 5,498) reported domestic violence due to gambling; and 3.7% (BOPS) (n = 3,912) reported separation or divorce due to gambling. As a reference point, there were 12,725 divorces in 2009 in Massachusetts (Centers for Disease Control & Prevention, 2010). Child welfare involvement was the least common discrete relationship impact reported, but no reliable figures exist (reported by none of the BGPS problem gamblers and only 11 BOPS problem gamblers).
- **Work or school problems** is a relatively uncommon negative impact of gambling, rarely reported among gamblers and reported by just 9.3% (BOPS) of problem gamblers. Losing one's job or having to quit school is even less common, but no reliable estimates exist (reported by three BGPS problem gamblers and ten BOPS problem gamblers). Similarly, receiving public assistance and/or welfare payments is very uncommon, but no reliable estimates exist (reported by two BGPS problem gamblers and ten BOPS problem gamblers).
- **Committing illegal acts** because of gambling is the least common negative impact of gambling, reported in 0.5% of gamblers and 8.4% (BOPS) of problem gamblers. Being arrested, convicted, and incarcerated because of gambling are much less common than this, but no reliable estimates exist. (Being arrested was reported by two BGPS problem gamblers and ten BOPS problem gamblers. Being convicted was reported by none of the BGPS problem gamblers and by six BOPS problem gamblers. Being incarcerated was reported by none of the BGPS problem gamblers and by six BOPS problem gamblers). As reference points, there were 144,450 property crime offenses and 26,819 violent crime offenses in Massachusetts in 2012 (Government of Massachusetts, 2014a,b) and there were 10,813 inmates incarcerated in Massachusetts in 2015 (Government of Massachusetts, 2016).

## Impacts of Different Forms of Gambling on Gambling-Related Problems

- Only a minority of problem gamblers (29.8% BGPS and 26.6% BOPS) reported that there was a certain type or types of gambling that contributed to their problems more than others. This is consistent with other research which has found that problem gamblers tend to patronize a variety of gambling formats, each of which makes some contribution to the harms experienced (the mean number of formats engaged in by problem gamblers was 4.5 in the BGPS and 5.1 in the BOPS).
- For the minority who did report that a particular type of gambling was more problematic than others, low numbers preclude arriving at reliable estimates for each format. That being said, there was no single format that was overwhelmingly endorsed relative to others (every format had some endorsement), and instant tickets was the only format with sufficient endorsement to have a

reliable estimate: 23.1% BOPS. This finding diverges from other research which has tended to find continuous forms of gambling (e.g., slot machines, casino table games) and online gambling to be more problematic than other forms (Dowling, Smith & Thomas, 2005; Parke & Griffiths, 2007; Welte, Barnes, Wieczorek, Tidwell, & Hoffman, 2007; Williams, West & Simpson, 2012; Wood, Williams & Parke, 2012). It is worth noting that slot machines, casino table games, and online gambling are not yet widely available in Massachusetts. It will be instructive to observe whether these figures change subsequent to casino introduction.

## **Prevention Awareness and Treatment Seeking Behavior of Problem Gamblers**

- About half of Massachusetts gamblers (48.9% BGPS) reported having heard or seen media campaigns to prevent problem gambling in Massachusetts in the previous 12 months. Surprisingly, despite having considerably more interaction with gambling products, the level of awareness was not noticeably higher among problem gamblers: 50.0% BGPS and 47.4% BOPS.
- Significantly fewer gamblers were aware of any actual programs to prevent problem gambling at school, work, or in the community (16.3% BGPS). In contrast to awareness of media campaigns to prevent problem gambling, the level of awareness of programs to prevent problem gambling at school, work, or in the community was noticeably higher among problem gamblers: 25.0% BGPS and 31.8% BOPS. In addition, an estimated 7.1% of BOPS problem gamblers reported having participated in such a program.
- A total of 1.2% of BGPS gamblers and 7.6% of BOPS problem gamblers indicated that these media campaigns and/or programs altered their actual gambling behavior.
- Divergence in results between BGPS and BOPS problem gamblers was noted for treatment-seeking, with 25.4% of BOPS problem gamblers reporting wanting help for gambling problems, 16.1% reporting seeking help for gambling problems, and 24.5% reporting having entered into a casino self-exclusion agreement in another state. By comparison, the figures were too low to arrive at reliable estimates for the BGPS problem gamblers (only three BGPS problem gamblers reported having sought out treatment). As mentioned earlier, this may be related to the significantly older age of the BGPS sample of problem gamblers and the fact that older people are less likely to seek psychological help (e.g., Mackenzie et al., 2006). Nonetheless, in general, these figures are consistent with findings from a very similar question reported earlier in this report concerning whether problem gamblers reported seeking medical or psychological help for health-related problems caused by their gambling (endorsed by only 3.9% of BGPS problem gamblers and 8.7% of BOPS problem gamblers). This low rate of treatment seeking is consistent with other literature indicating that typically less than 10% of problem gamblers seek out formal treatment (Braun et al., 2014; Cunningham, 2005; Slutske, 2006; Suurvali et al., 2008). In a review of the literature the main reasons for not seeking out treatment were a wish to handle the problem by oneself; shame/embarrassment/stigma; unwillingness to admit problem; and issues with treatment itself (Suurvali et al., 2009).

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## Appendix A: SEIGMA BASELINE ONLINE PANEL SURVEY QUESTIONNAIRE

### RECRUITMENT

**Subject Line:** New Survey on Health and Recreational Behavior

**Invite e-mail text intro:**

The University of Massachusetts is conducting a study about health and recreational behavior in Massachusetts. This is a research study. Taking part is up to you. You don't have to answer any question you don't want to, and you can stop at any time. There are no risks or benefits to you participating. However, some of the questions do ask about sensitive issues. If you feel upset after completing the study and would like assistance, we will provide you with telephone numbers for appropriate local treatment resources at the end of the interview. This study will take about 10-15 minutes and your answers will be kept secure and private. You will receive 45 points for completing this survey. We do not need to know your name and any contact information will be removed from the data set once data collection is completed. The results of the survey will be reported for groups of people, not individuals.

If you have questions about this project or if you have a research-related problem, you may contact Dr. Rachel Volberg at (413) 545-6700. If you have questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or humansubjects@ora.umass.edu. If you have questions about Ipsos Public Affairs USA, you may contact the company at (202) 463-7300.

D2. What is your sex?

- Male (1)
- Female (2)

D3. In what year were you born? Please enter the year you were born in the box below

\_\_\_\_\_ [MUST BE 4-DIGIT NUMBER; RANGE 1900 – 2013]

- Prefer not to respond (9999)

[PROG: ALLOW ALL RESPONDENTS BORN IN 1995 OR EARLIER TO CONTINUE ONTO C1. RESPONDENTS BORN IN 1996 TO 2013, THANK AND TERMINATE. RESPONDENT MUST BE AGE 18 OR OLDER TO CONTINUE.]

### COMORBIDITIES

C1. Which of the following is your preferred recreational activity? Please select one response

- Watching TV (1)
- Walking or hiking (2)
- Gardening (3)
- Reading (4)
- Socializing with friends or family (5)
- Travelling (6)
- Gambling (7)
- Other \_\_\_\_\_

C2. Do you enjoy participating in extreme sports such as hang gliding or sky diving?

- Yes (1)
- No (0)

C3. Over the past 12 months, would you say that in general your health has been excellent, very good, good, fair or poor? Please select one response

- Excellent (1)
- Very good (2)
- Good (3)
- Fair (4)
- Poor (5)

C4. In the past 12 months, how would you rate your overall level of stress? Please select one response

- Very high (5)
- High (4)
- Moderate (3)
- Low (2)
- Very low (1)

C5. In the past 12 months, how would you rate your overall level of happiness? Please select one response

- Very high (5)
- High (4)
- Moderate (3)
- Low (2)
- Very low (1)

C6a. Have you smoked at least 100 cigarettes in your entire life?

- Yes (1)
- No (0)

[PROG: IF C6a = Yes, CONTINUE WITH C6b; ELSE, GO TO C6c]

C6b. Do you now smoke cigarettes every day, some days, or not at all? Please select one response

- Every day (1)
- Some days (2)
- Not at all (3)

C6c. Do you currently smoke cigars, pipe tobacco, or hookah tobacco (shisha); or use dipping tobacco (including snus), chewing tobacco, or snuff, every day, some days, or not at all? Please select one response

- Every day (1)
- Some days (2)
- Not at all (3)

C6d. During the past 30 days, how many days would you estimate you have used any form of tobacco?

\_\_\_\_\_ [PROG: NUMERIC TEXT BOX; RANGE 0 – 30]

C7a. Have you used alcohol in the past 12 months?

- Yes (1)
- No (0)

[PROG: IF C7a = YES, CONTINUE WITH C7b; ELSE GO TO C8]

C7b. During the past 30 days, how many days per week or per month did you have at least one drink of any alcohol beverage such as beer, wine, a malt beverage or liquor? Please answer either in days per week OR in days per month

\_\_\_\_\_ days per week [PROG: NUMERIC TEXT BOX; RANGE 0 – 7]

OR

\_\_\_\_\_ days per month [PROG: NUMERIC TEXT BOX; RANGE 0 – 30]

[PROG: IF RESPONDENT GIVES AN ANSWER OF 1 OR MORE TO EITHER DAYS PER WEEK OR DAYS PER MONTH, CONTINUE WITH C7C. RESPONDENT MAY ONLY RESPOND TO ONE OPTION – ONLY ONE OF THESE CAN BE USED BY EACH RESPONDENT.]

[PROG: IF C7B\_DAYS PER WEEK OR C7B\_DAYS PER MONTH = 0, OR IF C7B = DON'T KNOW OR PREFER NOT TO ANSWER, SKIP TO C8; IF C7B\_DAYS PER WEEK OR C7B\_DAYS PER MONTH = 1 OR MORE, CONTINUE WITH C7C.]

C7c. One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average? Please enter the average number of drinks per day you had on days that you drank in the box below

\_\_\_\_\_ number of drinks [PROG – NUMERIC TEXT BOX; RANGE 1 – ??20]

- Don't know/Not sure (8888)
- Prefer not to answer (9999)

C7d. Considering all types of alcoholic beverages, how many times during the past 30 days did you have [PROG: IF D2 = MALE, INSERT "5"; IF D2 = FEMALE, INSERT "4" – JUST INSERT THE NUMBER, NOT THE QUOTE MARKS] or more drinks on an occasion? Please enter number in the box below

\_\_\_\_\_ Number of times [PROG – NUMERIC TEXT BOX, RANGE 0 – 30]

- Don't know/Not sure (8888)
- Prefer not to answer (9999)

C8. In the past 12 months have you used any cannabis, hallucinogens (such as LSD, mushrooms, or PCP), cocaine, heroin or opium, or any other drugs not intended for medical use? Non-medical" drug use means using it to get high or experience pleasurable effects, see what the effects are like, or use with friends.

- Yes (1)
- No (0)
- Prefer not to answer (9999)

C9a. Have you had any problems with drugs or alcohol in the past 12 months? By this we mean difficulties in controlling their use that have led to negative consequences for you or other people.

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF C9a = YES, CONTINUE WITH C9b; ELSE, SKIP TO C10a]

C9b. During the past 12 months, have you sought help for your use of alcohol or drugs?

- No (0)
- Yes (1)
- Prefer not to answer (9999)

If you would like more information regarding treatment resources, please contact the Massachusetts Substance Abuse Information and Education Helpline 800-327-5050 TTY: 617-536-5872 or the Drug & Alcohol Treatment Hotline (National) at 800-662-HELP.

C10a. Have you had any problems with other behavior in the past 12 months such as overeating, sex or pornography, shopping, exercise, Internet chat lines, or other things? What we mean is difficulties controlling the behavior which has led to significant negative consequences for you or other people.

- Yes (1)
- No (0)
- Prefer not to answer (9999)

[PROG: IF C10a = YES, CONTINUE WITH C10b; ELSE, SKIP TO C11a]

C10b. Which specific activities have you had problems with? Have you had problems with...Please select all that apply

- Over-eating (1)
- Sex or pornography (2)
- Exercise (3)
- Shopping (4)
- Internet chat lines (5)
- Video or Internet gaming (6)
- Other \_\_\_\_\_ (91)

[PROG: RANDOMIZE FIRST 6 ITEMS; "OTHER", "NOT SURE", AND "PREFER NOT TO ANSWER" ALWAYS IN ORDER AND ALWAYS LAST]

C11a. In the past 30 days, have you had any serious problems with depression, anxiety or other mental health problems? In this case, 'serious' means something that either you or someone else would say is considerable, important, or major', either because of its frequency or significance.

- Yes (1)
- No (0)
- Not sure (8888)
- Prefer not to answer (9999)

[PROG: IF C11a = No, CONTINUE WITH C11b; ELSE, SKIP TO C12]

C11b. How about in the last 12 months?

- Yes (1)
- No (0)
- Not sure (8888)
- Prefer not to answer (9999)

[PROG: IF C11b = YES, CONTINUE WITH C11c; ELSE SKIP TO C12]

C11c. Which one(s) \_\_\_\_\_

If you would like more information regarding treatment resources, please contact the National Alliance on Mental Illness (NAMI) 1-800-950-NAMI (6264) or Samaritans' at 877-870-4673.

C11d. During the past 12 months, did you ever seriously consider attempting suicide?

- Yes (1)
- No (0)
- Prefer not to answer (9999)

[PROG: IF C11d = YES OR NOT SURE, CONTINUE WITH C11e; ELSE SKIP TO C12]

C11e. During the past 12 months, did you actually attempt suicide?

- Yes (1)
- No (0)
- Prefer not to answer (9999)

If you would like more information regarding treatment resources, please contact Samaritans' at 877-870-4673. There is also the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

C12. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

- Yes (1)
- No (0)



C13. How would you describe your childhood? Please select one response

- Very happy (1)
- Happy (2)
- Neither happy or unhappy (3)
- Unhappy (4)
- Very unhappy (5)

## GAMBLING ATTITUDES

Now, the primary recreational activity we have chosen to ask you about is gambling. Before we start, we would like to provide our definition of gambling: We define gambling as betting money or material goods on an event with an uncertain outcome in the hopes of winning additional money or material goods. It includes things such as lottery tickets, scratch tickets, bingo, betting against a friend on a game of skill or chance, betting on horse racing or sports, investing in high risk stocks, where a high risk stock means a stock from a company that has a real risk of going out of business and/or having their stock price double or triple in value in the next year.

GA1. Which best describes your belief about the benefit or harm that gambling has for society? Please select one response

- The harm far outweighs the benefits (-2)
- The harm somewhat outweighs the benefits (-1)
- The benefits are about equal to the harm (0)
- The benefits somewhat outweigh the harm, or (+1)
- The benefits far outweigh the harm (+2)
- Not sure (8888)

GA2. Do you believe that gambling is morally wrong? Please select one response

- No (+1)
- Yes (-1)
- Not sure (0)

GA3a. Which of the following best describes your opinion about legalized gambling? Please select one response

- All types of gambling should be legal (+1)
- Some types of gambling should be legal and some should be illegal. (0)
- All types of gambling should be illegal. (-1)
- Not sure (8888)

[PROG: IF GA3a = "SOME TYPES", CONTINUE WITH GA3b; ELSE, SKIP TO GA4]

GA3b. Which types do you believe should be illegal? Please select all that apply

- Lottery (1)
- Instant ticket (2)
- Keno (3)
- Bingo (4)
- Slot machines (5)
- Video poker machines (6)
- Casino table games (i.e., blackjack, baccarat, roulette, craps, etc. (7)
- Poker (8)
- Horse racing (9)
- Dog racing (10)
- Sports Betting (11)
- High risk stocks, options, futures, or day trading (12)
- Online gambling (13)

- Other \_\_\_\_\_ (91) [PROG: INCLUDE TEXT BOX WITH "OTHER"]
- Not sure (8888)

GA4. Which of the following best describes your opinion about gambling opportunities in Massachusetts? Please select one response

- Gambling is too widely available (-1)
- Gambling is not available enough, or (1)
- The current availability of gambling is fine. (0)
- Not sure (8888)

GA5. There will be 3 new casinos and a slot parlor built in Massachusetts in the next few years. What sort of overall impact do you believe these will have? Please select one response

- Very beneficial (+2)
- Somewhat beneficial (+1)
- Neither beneficial nor harmful (0)
- Somewhat harmful, or (-1)
- Very harmful (-2)
- Not sure (8888)

GA6a. What do you believe will be the single most positive impact for Massachusetts? Please select one response  
Employment (1)

- Benefit to other local businesses (2)
- Increased government revenue (3)
- Retaining money that was leaving Massachusetts (4)
- Increased local leisure options (i.e., the ability to gamble locally) (5)
- No positive impacts (6)
- Other \_\_\_\_\_ [PROG: INCLUDE A TEXT BOX WITH "OTHER"]
- Not sure (8888)

GA6b. What do you believe will be the single most negative impact for Massachusetts? Please select one response

- Increased gambling addiction (and associated consequences: bankruptcy, suicide, divorce, etc.) (1)
- Negative impact on other local businesses (2)
- Increased crime (3)
- Increased traffic congestion (4)
- No negative impacts (5)
- Other \_\_\_\_\_
- Not sure (8888)

GA7. What sort of overall impact do you believe a new casino or slot parlor would have for your own community? Please select one response

- Very beneficial (+2)
- Somewhat beneficial (+1)
- Neither beneficial nor harmful (0)
- Somewhat harmful, or (-1)
- Very harmful (-2)
- Not sure (8888)

## GAMBLING BEHAVIOR

GY1a. In the past 12 months, how often have you purchased lottery tickets such as Megabucks, Powerball, Lucky for Life, or Mass Cash? Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY1a = NOT AT ALL, SKIP TO GY2a; ELSE, CONTINUE WITH GY1b]

GY1b. Roughly how much money do you spend on lottery tickets in a typical month? Spend means how much you are ahead (+\$) or behind (-\$), or your net win or loss in an average month in the past 12 months.

-\$ \_\_\_\_\_

[PROG: THERE MAY BE ONLY ONE RESPONSE IN GY1b; RESPONDENTS MAY NOT FILL NUMBERS INTO MORE THAN ONE BOX, OR INDICATE MULTIPLE RESPONSES]

GY2a. In the past 12 months, how often have you purchased instant tickets or pull tabs? Would you say about Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY2a = "NOT AT ALL", SKIP TO GY3a; ELSE, CONTINUE WITH GY2b]

GY2b. Roughly how much money do you spend on instant tickets or pull tabs in a typical month?

Please enter a number in one of the boxes below or select one of the other responses

-\$ \_\_\_\_\_

[PROG: THERE MAY BE ONLY ONE RESPONSE IN GY2b; RESPONDENTS MAY NOT FILL NUMBERS INTO MORE THAN ONE BOX, OR INDICATE MULTIPLE RESPONSES]

GY2c. In the past 12 months, how often have you purchased *raffle tickets*? Would you say about...

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

GY2d. Roughly how much money do you spend on raffle tickets in a typical month?

-\$ \_\_\_\_\_

GY3a. In the past 12 months, how often have you purchased keno or daily race game tickets? Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)

- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY3a = "NOT AT ALL", SKIP TO GY4a; ELSE, CONTINUE WITH GY3b]

GY3b. Roughly how much money do you spend on keno or daily race game tickets in a typical month? -  
-\$ \_\_\_\_\_

GY4a. In the past 12 months, how often have you bet money on sporting events (this includes sports pools)?  
Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)
- Not sure (8888)

[PROG: IF GY4a = "NOT AT ALL", SKIP TO GY5a; ELSE, CONTINUE WITH GY4b]

GY4b. Roughly how much money do you spend on sports betting in a typical month?  
-\$ \_\_\_\_\_

GY5a. In the past 12 months, how often have you gone to a bingo hall to gamble? Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY5a = "NOT AT ALL", SKIP TO GY8a; ELSE, CONTINUE WITH GY5b]

GY5b. Roughly how much money do you spend at bingo halls in a typical month?  
-\$ \_\_\_\_\_

GY8a. In the past 12 months, how many times have you gambled at a casino, racino, or slots parlor outside of Massachusetts? Please enter the number of times in the box below

\_\_\_\_\_ [PROG: NUMERIC TEXT BOX, RANGE 0 - ??]

[PROG: IF GY8a = 0, SKIP TO GY9a; ELSE, CONTINUE WITH GY8b]

GY8b. Roughly how much money do you spend on gambling per visit in out of state casino/racino/slots parlor/slots at racetrack gambling.

-\$ \_\_\_\_\_

GY8c. Roughly how much money do you spend on nongambling activities (such as food, travel, lodging, entertainment) per visit in out of state casino/racing/slots parlor/slots at racetrack gambling?

-\$ \_\_\_\_\_

GY8d. Which state do you most often go to for this gambling? Please enter the state name below

\_\_\_\_\_

GY8e. Which specific casino, racing, or slots parlor do you most often go to?

---

GY9a. In the past 12 months, how often have you bet on a horse race at either a horse race track or an off-track site? Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY9a = "NOT AT ALL", SKIP TO GY10a; ELSE, CONTINUE WITH GY9b]

GY9b. Roughly how much money do you spend on horse racing in a typical month?

-\$\_\_\_\_\_

GY9c. Where do you most often go to bet on horse racing?

---

GY10a. In the past 12 months, how often have you gambled or bet money against other people on things such as card games; golf, pool, darts, bowling; video games; board games, or poker outside of a casino? Would you say... Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY10a = "NOT AT ALL", SKIP TO GY11a; ELSE, CONTINUE WITH GY10b]

GY10b. Roughly how much money do you spend gambling or betting money against other people in a typical month?

-\$\_\_\_\_\_

GY11a. In the past 12 months, how often did you purchase high risk stocks, options or futures or day trade on the stock market? Please select one response

- 4 or more times a week (6)
- 2-3 times a week (5)
- Once a week (4)
- 2-3 times a month (3)
- Once a month (2)
- Less than once a month, or (1)
- Not at all (0)

[PROG: IF GY11a = "NOT AT ALL", SKIP TO GY12a; ELSE, CONTINUE WITH GY11b]

GY11b. What do you estimate is your net loss or gain in a typical month from high risk stocks, options, futures, or day trading?

\$\_\_\_\_\_ Gain in a typical month [PROG: NUMERIC TEXT BOX; RANGE 1 = ?????]

OR

\$\_\_\_\_\_ Loss in a typical month [PROG: NUMERIC TEXT BOX; RANGE 1 = ?????]

GY12a. In the past 12 months, have you gambled online? This would include things such as playing poker, buying lottery tickets, betting on sports, bingo, slots or casino table games for money or playing interactive games for money? Please select one response

- Yes (1)
- No (0)

[PROG: IF GY12a = "NO", SKIP TO INSTRUCTION BEFORE GM1; ELSE, CONTINUE WITH GY12b]

GY12b. Roughly how much money do you spend gambling online in a typical month?

-\$ \_\_\_\_\_

GY12c. What is the main type of online gambling you engage in?

[PROG: IF GY1a = "NOT AT ALL" AND GY2a = "NOT AT ALL" AND GY3a = "NOT AT ALL" AND GY4a = "NOT AT ALL" AND GY5a = "NOT AT ALL" AND GY6a = "NOT AT ALL" AND GY7a = "NOT AT ALL" AND GY8a = "NOT AT ALL" AND GY9a = "NOT AT ALL" AND GY10a = "NOT AT ALL" AND GY11a = "NOT AT ALL" AND GY12a = "NOT AT ALL" , AUTOPUNCH "NOT AT ALL IMPORTANT" TO GR1 AND GR2, AND SKIP TO PA1; ELSE, CONTINUE WITH GM1]

### GAMBLING MOTIVATION

GM1. What would you say is the main reason that you gamble? Please select one response

- For excitement/entertainment/fun (1)
- To win money (2)
- To escape or distract yourself (3)
- To socialize with family or friends (4)
- To support worthy causes, or (5)
- Because it makes you feel good about yourself (6)
- Other \_\_\_\_\_ (91)

### GAMBLING RECREATION

GR1. How important is gambling to you as a recreational activity? Please select one response

- Very important (3)
- Somewhat important (2)
- Not very important (1)
- Not at all important (0)

GR2a. Has gambling replaced other recreational activities for you in the past 5 years? Please select one response

- No (0)
- Yes (1)

[PROG: IF GR2a = "NO" OR "NOT SURE" OR "PREFER NOT TO ANSWER", SKIP TO PA1; ELSE, CONTINUE WITH GR2b]

GR2b. Which recreational activities has gambling replaced? Please enter the activities in the box below

\_\_\_\_\_

### GAMBLING PROBLEMS

PA1. In the past 12 months have you seen or heard any media campaigns to prevent problem gambling in Massachusetts? Please select one response

- Yes (1)
- No (0)

PA2a. In the past 12 months have you been aware of any programs to prevent problem gambling (other than media campaigns) offered at your school, your place of work, in your community or elsewhere? Please select one response

- Yes (1)
- No (0)
- [PROG: IF PA2a = "YES", CONTINUE WITH PA2b; ELSE, SKIP TO PA3]

PA2b. Did you participate in any of the problem gambling prevention programs that you heard of in the past 12 months? Please select one response

- Yes (1)
- No (0)

PA3. Did any of these media campaigns or programs cause you to alter your own gambling behavior? Please select one response

- Yes (1)
- No (0)

GP01. What portion of your close friends and family members are regular gamblers? Please select one response

- None of them (0)
- Some of them (1)
- Most of them (2)
- All of them (3)

GP02. During the last 12 months, has there been a person in your life that you consider gambles too much? Please select one response

- Yes (1)
- No (0)
- [PROG: IF GP02 = "NO", SKIP TO CPG1; ELSE, CONTINUE WITH GP03]

GP03. What is this person's relationship to you? Please select one response

- Spouse/partner (1)
- Parent/step parent (2)
- Child/step child (3)
- Other person (in your household) (4)
- Other family member (not in your household) (5)
- Ex-partner (6)
- Work colleague (7)
- Friend (8)
- Neighbour (9)
- Other person (10) Please specify the relationship to this person .....

GP04. In what way/ways has this person's gambling affected you during the last 12 months? Please select all that apply

- Reduced time spent socializing (1)
- Not done their agreed share of household chores (2)
- Failed to do something they had promised or were supposed to do (3)
- Emotional pain or neglect (4)
- Made it difficult to cover household expenses (5)
- Stolen money or valuables (6)
- Other ways. Please specify the other ways \_\_\_\_\_

GP05. Overall, on a scale from 1 to 10 how much has this person's gambling affected you negatively during the last 12 months? Please select one response

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

[PROG: IF GY1a = "NOT AT ALL" AND GY2a = "NOT AT ALL" AND GY3a = "NOT AT ALL" AND GY4a = "NOT AT ALL" AND GY5a = "NOT AT ALL" AND GY6a = "NOT AT ALL" AND GY7a = "NOT AT ALL" AND GY8a = "NOT AT ALL" AND GY9a = "NOT AT ALL" AND GY10a = "NOT AT ALL" AND GY11a = "NOT AT ALL" AND GY12a = "NOT AT ALL" , SKIP TO D4; ELSE, CONTINUE WITH CPGI1]

When answering the questions throughout the remainder of the survey, please think about the past 12 months. Please select one response for each question.

CPGI1. Have you bet more than you could really afford to lose?

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

CPGI2. Have you felt guilty about the way you gamble or what happens when you gamble?

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

CPGI3. Have you needed to gamble with larger amounts of money to get the same feeling of excitement?

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

CPGI4. When you gambled, did you go back another day to try to win back the money you lost?

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

CPGI5. Have you borrowed money or sold anything to get money to gamble?

- Never (0)
- Sometimes (1)



- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

[PROG: GRID, WITH QUESTIONS ALONG THE LEFT AND SCALE “Never”, “Sometimes”, “Most of the time” “Almost always”, “Not sure” and “Prefer not to answer” ALONG THE TOP. DISPLAY QUESTIONS IN ORDER PRESENTED; RESPONSE COLUMNS MUST BE EQUAL SIZED.]

[PROG: IF GPGI5 = “NEVER”, SKIP TO GP6a; ELSE, ASK GP5b]

GP5b. In the past 12 months, about how much money have you borrowed or obtained from selling possessions in order to gamble? Please enter a number in the box below

\$ \_\_\_\_\_

- Not sure (8888) (go to GP6a)
- Prefer not to answer (9999) (go to GP6a)

GP6a. In the past 12 months, has your gambling caused any financial problems for you or your household? Please select one response

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

[PROG: IF GP6a = “NEVER”, SKIP TO GP7a; ELSE, CONTINUE WITH GP6b]

GP6b. In the past 12 months, have you filed for bankruptcy because of gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP7a. In the past 12 months, has your gambling caused you any health problems, including stress or anxiety? Please select one response

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

[PROG: IF GP7a = “NEVER” OR “PREFER NOT TO ANSWER”, SKIP TO GP8; ELSE, CONTINUE WITH GP7b]

GP7b. In the past 12 months have these health problems caused you to seek medical or psychological help? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP8. In the past 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? Please select one response

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

GP9. In the past 12 months, have you felt that you might have a problem with gambling? Please select one response

- Never (0)
- Sometimes (1)
- Most of the time, or (2)
- Almost always (3)
- Prefer not to answer (9999)

GP10a. Has your involvement in gambling caused significant mental stress in the form of guilt, anxiety, or depression for you or someone close to you in the past 12 months? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP10 = "YES", CONTINUE WITH GP10b; ELSE, SKIP TO GP11a]

GP10b. In the past 12 months, have you thought of committing suicide because of gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP10b = "YES", CONTINUE WITH GP10c; ELSE, SKIP TO GP11a]

GP10c. In the past 12 months, have you attempted suicide because of gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP10d. Would you like to know about the free gambling and mental health treatment services in your local area? Please select one response

- No (0)
- Yes (1)

[PROG: IF GP10d = YES, DISPLAY GP10d2 INTRO SCREEN; ELSE, SKIP TO GP11a]

GP10d2 INTRO SCREEN:

1-800-426-1234 is the Massachusetts Council on Compulsive Gambling's toll-free problem gambling help line. You can also speak directly to your doctor or health provider. Please click the Next button when you are ready to continue with the survey

GP11a. Has your involvement in gambling caused significant problems in your relationship with your spouse/partner or important friends or family in the past 12 months? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP11a = "NO", SKIP TO GP12a; ELSE, CONTINUE WITH GP11b]

In the past 12 months, has your involvement in gambling...Please select one response for each question

GP11b. Caused an instance of domestic violence in your household?

GP11c. Resulted in separation or divorce?

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: GRID WITH QUESTIONS ALONG THE LEFT AND SCALE "NO", "YES", "NOT SURE", AND "PREFER NOT TO ANSWER" ALONG THE TOP; DISPLAY QUESTIONS IN ORDER. RESPONSE COLUMNS MUST BE EQUAL SIZED.]

GP12a. In the past 12 months, has your involvement in gambling caused you to repeatedly neglect your children or family? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP12a = "NO", SKIP TO Q13a; ELSE, CONTINUE WITH GP12b]

GP12b. In the past 12 months, has child welfare services become involved because of your gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP13a. Has your involvement in gambling caused significant work or school problems for you or someone close to you in the past 12 months or caused you to miss a significant amount of time off work or school? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP13a = "NO", SKIP TO GP14a; IF GP13a = "NOT SURE" OR "PREFER NOT TO ANSWER", SKIP TO GP13c; IF GP13a = "YES", CONTINUE WITH GP13b]

GP13b. In the past 12 months, about how many work or school days have you lost due to gambling? Please enter a number in the box below

- \_\_\_\_\_
- Prefer not to answer (9999)

GP13c. In the past 12 months, have you lost your job or had to quit school due to gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP13c = YES, CONTINUE WITH GP13d; ELSE, SKIP TO GP14a]

GP13d. In the past 12 months, did anyone in this household receive any public assistance (food stamps, Temporary Assistance for Needy Families (TANF)) or any other welfare payments from the state or local welfare office as a result of losing your job because of gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP13d = "NO", CONTINUE WITH GP13e; ELSE, SKIP TO GP14a]

GP13e. Roughly how much money did you receive from public assistance in past 12 months?  
\$ \_\_\_\_\_

GP14a. In the past 12 months, has your involvement in gambling caused you or someone close to you to write bad checks, take money that didn't belong to you or commit other illegal acts to support your gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP14a = "YES", CONTINUE WITH GP14b; ELSE, SKIP TO GP15]

GP14b. In the past 12 months, about how much money have you illegally obtained in order to gamble? Please enter the amount in the box below

\$ \_\_\_\_\_ [PROG: NUMERIC TEXT BOX; RANGE 1 - ????]

- Prefer not to answer (9999)

GP14c. In the past 12 months, has your gambling been a factor in your committing a crime for which you have been arrested? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP14c = "YES", CONTINUE WITH GP14d; ELSE, SKIP TO GP15]

GP14d. Were you convicted for this crime? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP14d = "YES", CONTINUE WITH GP14e; ELSE, SKIP TO GP15]

GP14e. What was the offence?

\_\_\_\_\_

- Prefer not to answer (9999)

GP14g. Were you incarcerated for this crime? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP14g = "YES", CONTINUE WITH GP14h; ELSE, SKIP TO GP15]

GP14h. How many days were you incarcerated for?

\_\_\_\_\_

- Prefer not to answer (9999)

GP15. In the past 12 months, have you often gambled longer, with more money or more frequently than you intended to? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP16a. In the past 12 months, have you made attempts to either cut down, control or stop gambling? Please select one response

- No (0)

- Yes (1)
- Prefer not to answer (9999)

[PROG: IF GP16a = "YES", CONTINUE WITH GP16b; ELSE, SKIP TO GP17]

GP16b. Were you successful in these attempts to cut down, control or stop gambling? Please select one response

- No (1)
- Yes (0)
- Prefer not to answer (9999)

GP17. In the past 12 months, is there anyone else who would say that you had difficulty controlling your gambling, regardless of whether you agreed with them or not? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP18. In the past 12 months, would you say you have been preoccupied with gambling? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP19. In the past 12 months, when you did try cutting down or stopping did you find you were very restless or irritable or that you had strong cravings for it? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

GP20. In the past 12 months, did you find you needed to gamble with larger and larger amounts of money to achieve the same level of excitement? Please select one response

- No (0)
- Yes (1)
- Prefer not to answer (9999)

[PROG: COMPUTE CPGI INDEX – USE QUESTIONS CPGI1, CPGI2, CPGI3, CPGI4, CPGI5, GP6a, GP7a, GP8, AND GP9.

FOR EACH "Never" RESPONSE, ADD 0; FOR EACH "SOMETIMES" RESPONSE, ADD 1; FOR EACH "MOST OF THE TIME" RESPONSE, ADD 2, AND FOR EACH "ALMOST ALWAYS" RESPONSE, ADD 3. FOR EACH "NOT SURE" RESPONSE, ADD 0; FOR EACH "PREFER NOT TO ANSWER" RESPONSE, ADD 0.]

[PROG: MARKER CPGI INDEX]

[PROG: IF CPGI INDEX = 5 OR MORE, CONTINUE WITH GP21; ELSE, SKIP TO D4]

GP21. Are there particular types of gambling that have contributed to your problems more than others? Please select one response

- No (0)
- Yes (1)

[PROG: IF GP21 = "YES", CONTINUE WITH GP22; ELSE, SKIP TO GP23a]

GP22. Which ones?

---

GP23a. Have you wanted help for gambling problems in the past 12 months?

- Yes (1)
- No (0)

[PROG: IF GP23a = "NO", SKIP TO GP23e; ELSE, CONTINUE WITH GP23b]

GP23b. Have you sought help for gambling problems in the past 12 months? Please select one response

- Yes (1)
- No (0)

[PROG: IF GP23b = "YES", CONTINUE WITH GP23c; ELSE, SKIP TO GP23e]

GP23c. Where did you seek help from? Please enter your response in the box below

---

GP23d. How helpful was this? Please select one response

- Very helpful (1)
- Somewhat helpful (2)
- Not very helpful (3)
- Not at all helpful (4)

GP23e. Have you excluded yourself from any casino or slots parlor in the past 12 months? Please select one response

- Yes (1)
- No (0)

[PROG: IF GP23e = "YES", CONTINUE WITH GP23f; ELSE, SKIP TO GP24]

GP23f. In which state?

---

GP24. Have you had problems with gambling in your lifetime but not in the past 12 months? Please select one response

- No (0)
- Yes (1)

## DEMOGRAPHICS

I just have a few final questions about your background so we can keep track of the characteristics of people who respond to the survey.

D4. At the present are you.....? Please select one response

- Single (never married and not living common-law) (0)
- A member of an unmarried couple (1)
- Married (2)
- Separated, but still legally married (3)
- Divorced, or (4)
- Widowed (5)

D5. How many children under 18 years old live in your household?

\_\_\_\_\_ number of children

[PROG: NUMERIC TEXT BOX; RANGE 0 – 9; INCLUDE CHECK BOX FOR “PREFER NOT TO ANSWER”; RESPONDENTS MAY ENTER A NUMBER OR SELECT PREFER NOT TO ANSWER, BUT NOT BOTH]

D6. What is the highest degree level of school you have completed? Please select one response

- Never attended school or only attended kindergarten (1)
- Grades 1 through 8 (2)
- Grades 9 through 11 (3)
- Regular high school diploma or GED (4)
- Some college credit, but less than 1 year of college credit (5)
- 1 or more years of college credit, no degree (6)
- Associate degree (7)
- Bachelor's degree (8)
- Master's degree (9)
- Professional degree beyond a bachelor's degree (10)
- Doctorate degree (11)

D7a. Are you currently...? Please select one response

- Employed for wages (1)
- Self- employed (2)
- Out of work for more than 1 year (3)
- Out of work for less than 1 year (4)
- A Homemaker (5)
- A Student (6)
- Retired (7)
- Unable to work (8)

D7b. Have you ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War. Please select one response

- Yes, now on active duty (1)
- Yes, on active duty in the past, but not during the last 12 months (2)
- No, training for Reserves or National Guard only (3) (go to D8)
- No, never served in the military (4) (go to D8)

[PROG: IF D7b = “NO, TRAINING ONLY” OR “NO, NEVER SERVED”, SKIP TO D8; ELSE, CONTINUE WITH D7c]

D7c. When did you serve on active duty in the U.S. Armed Forces? (Check off each period served, even if just for part of the period). Please select as many periods as apply to you

- September 2001 or later (1)
- August 1990 to August 2001 (including Persian Gulf War) (2)
- September 1980 to July 1990 (3)
- May 1975 to August 1980 (4)
- Vietnam era (August 1964 to April 1975) (5)
- March 1961 to July 1964 (6)
- Korean War (July 1950 to January 1955) (7)
- World War II (December 1941 to December 1946) (8)
- February 1955 to February 1961 (9)
- January 1947 to June 1950 (10)
- November 1941 or earlier (11)

D8. What type of healthcare coverage do you have? Please select one response

- Prepaid private plans such as HMOs (1)
- Medicare (2)
- Medicaid (3)
- Commonwealth Care program (Health Connector) (4)
- Indian Health Services (5)
- Veterans Affairs (VA) (6)
- Other plan \_\_\_\_\_ (7) [PROG: INCLUDE TEXT BOX WITH "OTHER PLAN"]
- Don't know / Not sure (8888)

D9. Do you own the place where you currently live, pay rent or something else? Please select one response

- Rent (1)
- Own (2)
- Other \_\_\_\_\_ (3) [PROG: INCLUDE TEXT BOX WITH "OTHER"]

D10. Which of the following best describes your annual household income? Please select one response

- Less than \$15,000 (1)
- \$15,000 to \$29,999 (2)
- \$30,000 to \$49,999 (3)
- \$50,000 to \$69,999 (4)
- \$70,000 to \$99,999 (5)
- \$100,000 to \$124,999 (6)
- \$125,000 - \$149,999 (7)
- \$150,000 or more (8)
- Not sure (8888)
- Prefer not to answer (9999)

D11. What do you estimate your current debt to be? This would include mortgages, credit cards, loans, car payments, etc.? Would you say... Please select one response

- 0 (no debt) (0)
- Less than \$10,000 (1)
- \$10,000 (2)
- \$20,000 (3)
- \$40,000 (4)
- \$60,000 (5)
- \$80,000 (6)
- \$100,000 (7)
- \$120,000 (8)
- \$140,000 (9)
- \$160,000 (10)
- \$180,000 (11)
- \$200,000 (12)
- \$300,000 (13)
- \$400,000 (14)
- \$500,000 (15)
- More than \$500,000 (16)
- Not sure (8888)
- Prefer not to answer (9999)



D12. Were you born in the United States? Please select one response

- No (0)
- Yes (1)

D13. Are you Hispanic or Latino? Please select one response

- Yes (1)
- No (0)
- Prefer not to answer (9999)

D14. Which one or more of the following would you say is your race? Please select all that apply

- White (1)
- Black or African American (2)
- Asian (3)
- Native Hawaiian or Other Pacific Islander (4)
- American Indian (5)
- Alaska Native (6)
- Other \_\_\_\_\_ (7)

D15. What is the zip code where you live?

\_\_\_\_\_ [PROG: NUMERIC TEXT BOX; MUST BE A 5-DIGIT NUMBER]

D16. What city or town do you live in?

\_\_\_\_\_

T1. [PROG: RECORD SURVEY DATE]

T2. [PROG: RECORD SURVEY LENGTH]

**END**

Those are all the questions I have. I'd like to thank you on behalf of the University of Massachusetts for the time and effort you've spent answering these questions. If you have any questions about this survey, you may contact Dr. Rachel Volberg at 413-545-6700.

If you have any questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or [humansubjects@ora.umass.edu](mailto:humansubjects@ora.umass.edu). Thank you again.

**Message for those who terminate early:**

If you have questions about this project or if you have a research-related problem, you may contact Dr. Rachel Volberg at (413) 545-6700. If you have questions concerning your rights as a research subject, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or [humansubjects@ora.umass.edu](mailto:humansubjects@ora.umass.edu).