

*Bochumer Gespräch zu  
Glücksspiel und Gesellschaft |*

# Gambling and Gender

Dr. Rachel Volberg

Professor Belle Gavriel-Fried, Ph.D.

Professor Sylvia Kairouz, Ph.D.

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# *Gender and Gambling Behaviors: A Comprehensive Analysis of (Dis)Similarities*

Rachel Volberg, PhD  
Research Professor  
School of Public Health and Health Sciences  
UMass Amherst

# Disclosure

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*I have no current or past affiliation with the gambling industry.*

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ORIGINAL ARTICLE

## Gender and Gambling Behaviors: a Comprehensive Analysis of (Dis)Similarities

Danielle Venne<sup>1</sup> • Alissa Mazar<sup>2</sup>  • Rachel Volberg<sup>2</sup>

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<https://rdcu.be/bMFBp>

# Background

- States expanding gambling options to their residents worldwide
  - MA sanctioned casinos in 2011
  - Problem gambling as a public health issue
- All PG at one time were ‘recreational’ or ‘at-risk’ gamblers
  - Limited understanding of these gambling subtype groups
  - Even less known about how these subtypes differ by gender



- ❖ Purpose: first study to comprehensively assess gambling subtype behaviors—i.e., non-gambler, recreational gambler, at-risk gambler, problem/pathological gambler—by gender using a representative population sample

# What does prior research say?

- Gambling is a gendered activity = gambling and impacts differ
- Most research focuses on males experiencing PG
  - Yet...
    - Women = 1/3 of all PG
    - gambling participation increasingly similar to men
- Very limited knowledge of female gambling behavior
- Neglected group in research
- ❖ Gambling and risk is dynamic due to changes in
  - Technology
  - Society
  - Gambling availability



# What does prior research say?

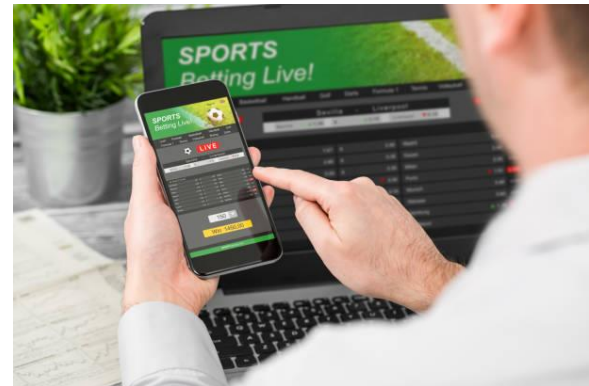
- Research examining gender differences focuses on problem gamblers
  - Social and demographic characteristics
  - Progress to experiencing PG
  - Type of gambling
  - Comorbid substance use disorders
  - Mood disorders
- Females experiencing PG are more likely to be...
  - Older
  - Single, divorced, or widowed
  - Unemployed
  - Lower income
  - Less than high school education
  - Begin later in life but progress more rapidly





# What does prior research say?

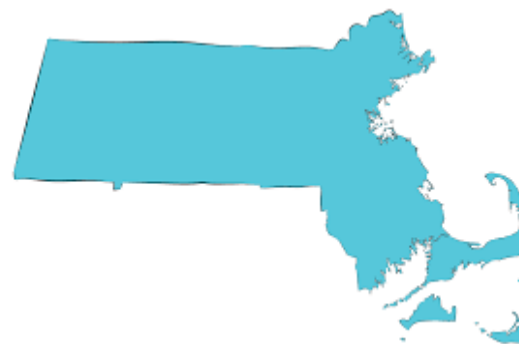
- Types of gambling:
  - Females: Non-strategic or ‘passive’ gambling (i.e., slot machines)
  - Males: Strategic or ‘active’ forms of gambling (i.e., cards, sports betting)
  - Are these preferences converging?
- Implications:
  - What factors influence whether someone adopts a certain gambling behavior?
  - Do these factors differ by gender?





# Data Collection

- Baseline General Population Survey (BGPS)
  - Online, paper-and-pencil, telephone
  - Address-based probability sampling (ABS)
  - Sept 2013 – May 2014
  - 9,253 Massachusetts adults (18+) completed the survey
- ❖ BGPS comprehensively assessed gambling behavior in the MA population aged 18+
- ❖ Follow-Up General Population Survey (FGPS) conducted in 2021 and analysis is underway



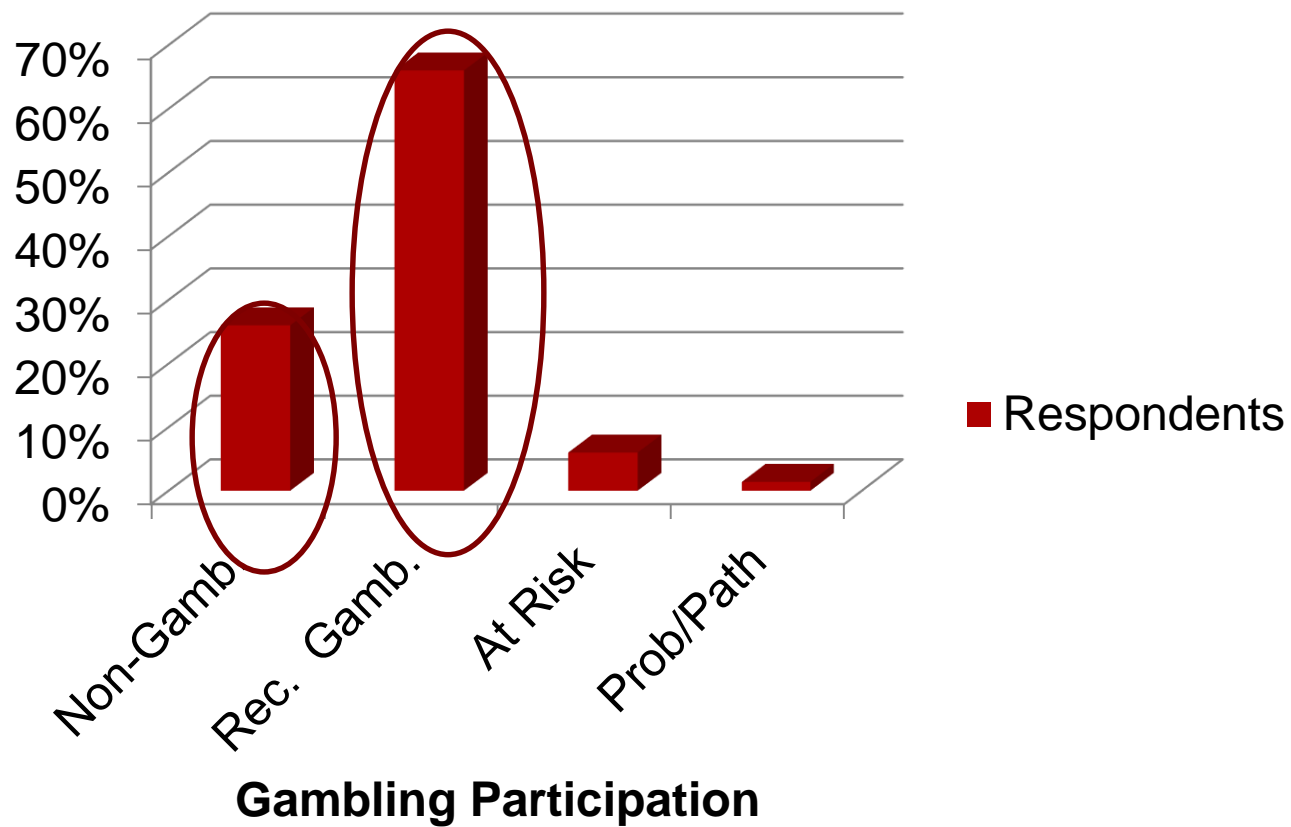
# Statistical Approach and Variables

- Multivariate logistic regressions
- Reference category: Recreational gambler (most common)
- 32 independent variables (demographic, health, and gambling-related)

**Table 1** Independent variables

Demographic	Health-related	Gambling-related
1. Gender	1. Health status in past 12 months	1. Portion of friends and family that are regular gamblers
2. Age	2. Participation in extreme sports	2. Lottery purchase in the past 12 months
3. Race/ethnicity	3. Overall level of stress in the past 12 months	3. Daily lottery purchase in the past 12 months
4. Whether the person was born in the USA	4. Current tobacco use	4. Instant lottery purchase in the past 12 months
5. Marital status	5. Alcohol use in the past 30 days	5. Raffle purchase in the past 12 months
6. Educational attainment	6. Binge drinking in the past 30 days	6. Sports betting in the past 12 months
7. Employment	7. Illicit drug use in the past 12 months	7. Bingo participation in the past 12 months
8. Household income	8. Self-reported drug or alcohol problems in the past 12 months	8. Horse race betting in the past 12 months
9. Military service	9. Behavioral addictions in the past 12 months (overeating, sex or pornography, shopping, exercise, internet chat lines, etc.)	9. Private betting in the past 12 months
10. Geographic region of residence in Massachusetts	10. Serious mental health problems in the past 12 months	10. Casino gambling in the past 12 months
	11. Rating of childhood happiness	11. Online gambling in the past 12 months

# 1<sup>st</sup> Analysis



# Results: Non-Gamblers versus Recreational Gamblers

## Female Non-Gamblers

Lower portion of friends and family that are regular gamblers

Not use alcohol

Student, homemaker, or disabled

Higher education

18-34 years old

Born outside the United States

Not use tobacco

Lower household income

65+

Not binge drink

Unhappier childhood

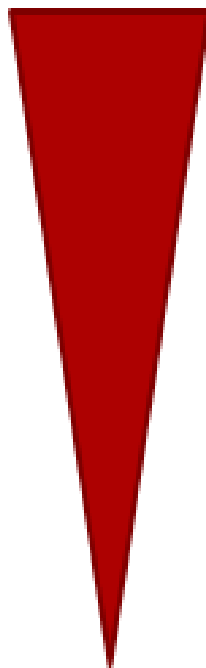
Identify as Asian

Identify as Black

Retired

Identify as Hispanic

Explains the most



Explains less

## Male Non-Gamblers

Lower portion of friends and family that are regular gamblers

Not use alcohol

Not binge drink

Higher education

18-34 years old

Born outside the United States

Homemaker, student, or disabled

Lower household income

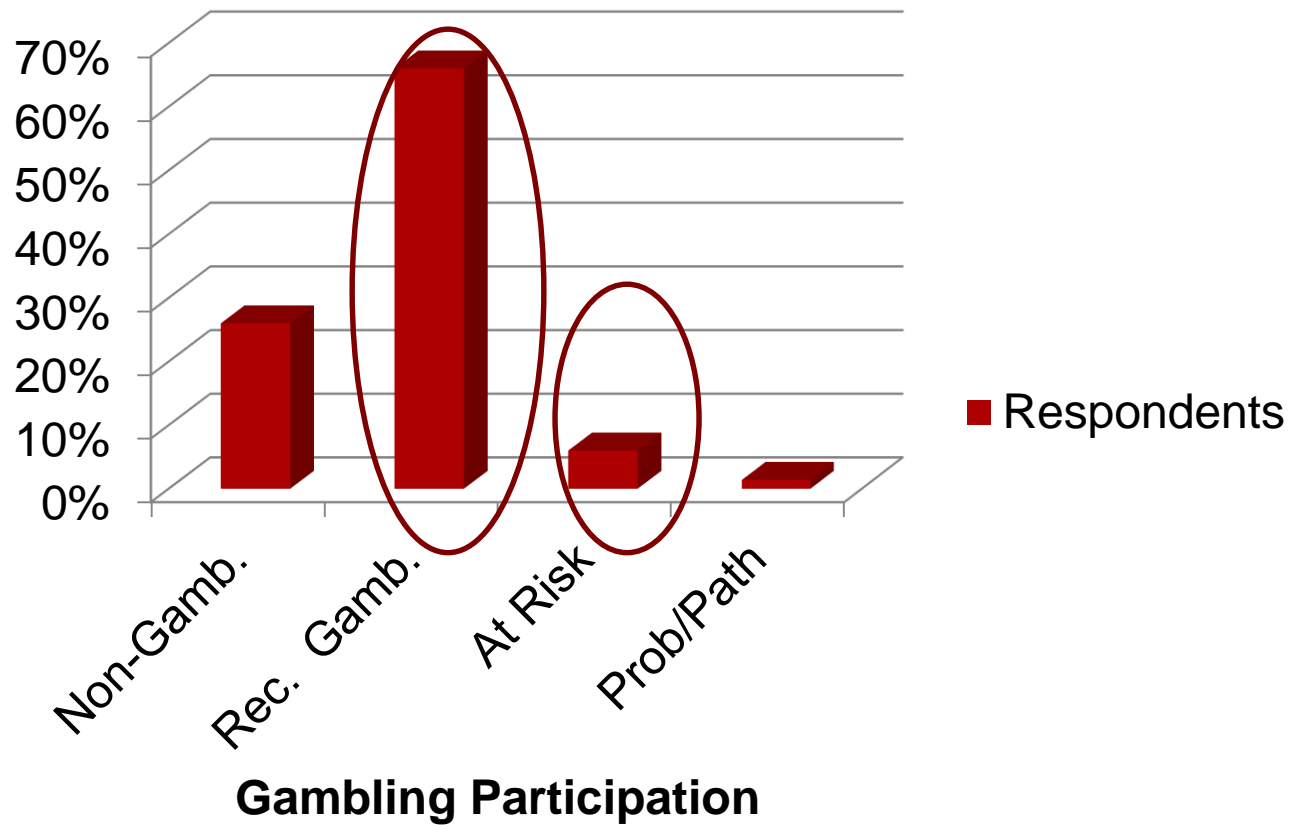
Unhappier childhood

Identify as Black

65+

Identify as Hispanic

## 2<sup>nd</sup> Analysis



# Results: At-Risk Gamblers versus Recreational Gamblers

## Female At-Risk Gamblers

Higher portion of friends and family that are regular gamblers

Casino gambling

Daily lottery

Bingo

Gamble to win money

Mental health problems

Gamble for excitement/entertainment

Lower education

Gamble to escape

Instant lottery

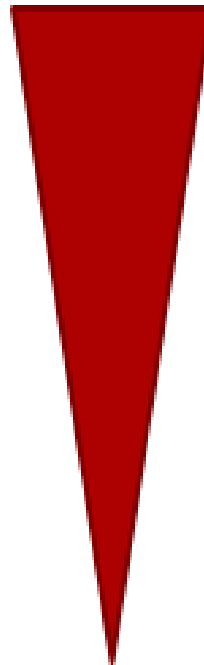
Not born in the United States

Private betting

Lower income

Gamble online

Explains the most



Explains less

## Male At-Risk Gamblers

Casino gambling

Higher portion of friends and family that are regular gamblers

Instant lottery

Gamble online

Gamble to feel good

Gamble to win money

Private betting

Not born in the United States

Gamble to escape

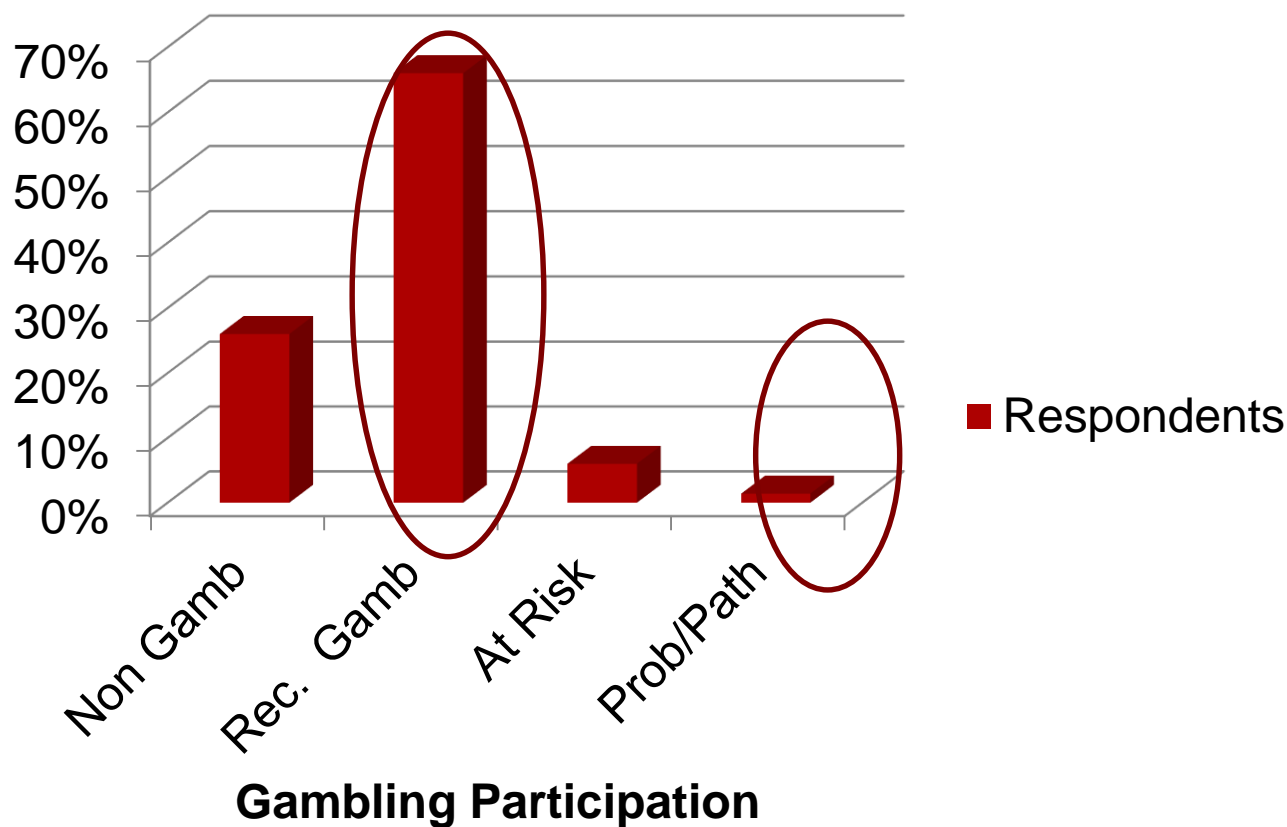
Daily lottery

Gamble for excitement/entertainment

Lower education

Lower income

# 3<sup>rd</sup> Analysis





# Results: Problem Gamblers versus Recreational Gamblers

## Female Problem Gamblers

Problems with drugs or alcohol

Identify as Black

Instant lottery

Gamble to escape

Daily lottery

Casino gambling

Higher portion of friends and family that are regular gamblers

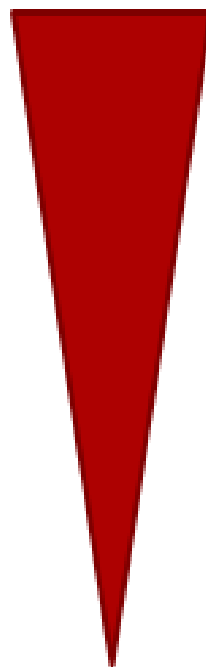
Lower education

Behavioral addictions

Gamble to win money

Not born in the United States

Explains the most



Explains less

## Male Problem Gamblers

Higher portion of friends and family that are regular gamblers

Daily lottery

Identify as Black

Gamble online

Behavioral addictions

Casino gambling

Unhappier childhood

Gamble to escape

Not born in the United States

Lower education

Instant lottery

Gamble to win money

Identify as Hispanic

# Discussion

- Female and male Non-Gamblers (compared to Recreational Gamblers)
  - Lower portion of friends and family involved in gambling
  - Not consuming alcohol
  - ❖ Little difference in characteristics of non-versus recreational gamblers
  - ❖ Female and male non-gamblers look similar
- Female and male At-Risk Gamblers
  - Higher portion of friends and family involved in gambling
  - Casino gambling
  - ❖ Female and male at-risk gamblers look similar



# Discussion

- Female At-Risk Gamblers
  - ❖ Formats
    - Bingo
      - gambling format preferred by females and may be a particularly risky form of gambling for females
  - ❖ Co-morbidity
    - Mental health problems (anxiety and/or depression)
      - gambling to cope with psychological distress and/or are more likely to experience psychological distress from gambling



# Discussion

- Female and male At-Risk Gamblers

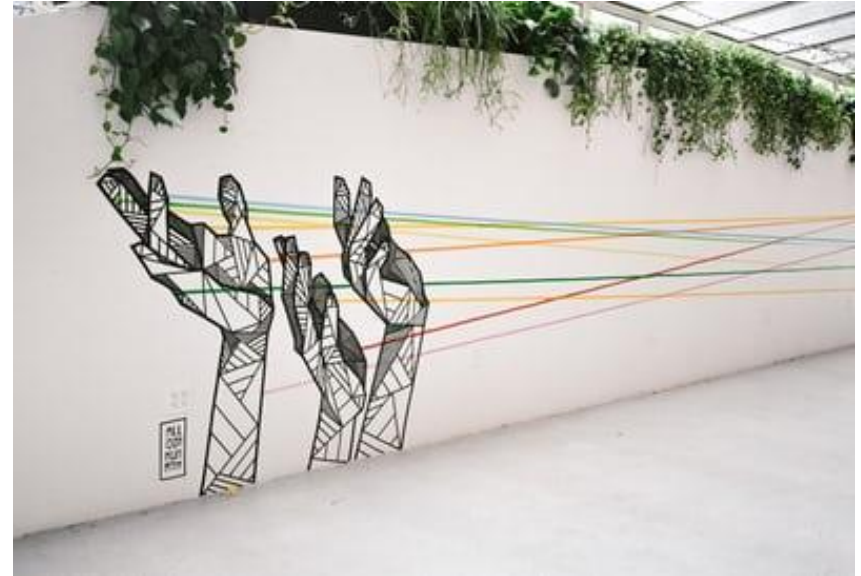
- ❖ Motivations

- Similar (win money, excitement/entertainment, escape)
    - Challenges previous research (i.e., females gamble to escape and males gamble to be manly) but supports more recent research
  - Male At-Risk gamblers: gambling makes them “feel good”
    - Socio-cultural factors
    - Males motivated by ego-related desires versus stigmatization/moralization of female gambling and/or engaging in less ego affirming gambling



# Discussion

- Female and male Problem Gamblers
  - Characteristics are quite similar
- Female Problem Gamblers
  - Problems with drugs and alcohol
    - More often experience psychological distress, depression, and anxiety
    - More likely to use substances to alleviate negative feelings and cope with stress
  - Alcohol and substance use to cope with gambling-related stress
    - Non-strategic gambling = alcohol/substance use more complementary



- ❖ Comorbid relationship between problem gambling and alcohol and substance abuse may be stronger among females than males



# Discussion

- Male Problem Gamblers
  - Gambling online
  - Unhappier childhood
    - Future research is needed
  - Identify as Hispanic
    - Bimodal group in Massachusetts
    - Nonetheless, one of the weakest correlates



# Limitations

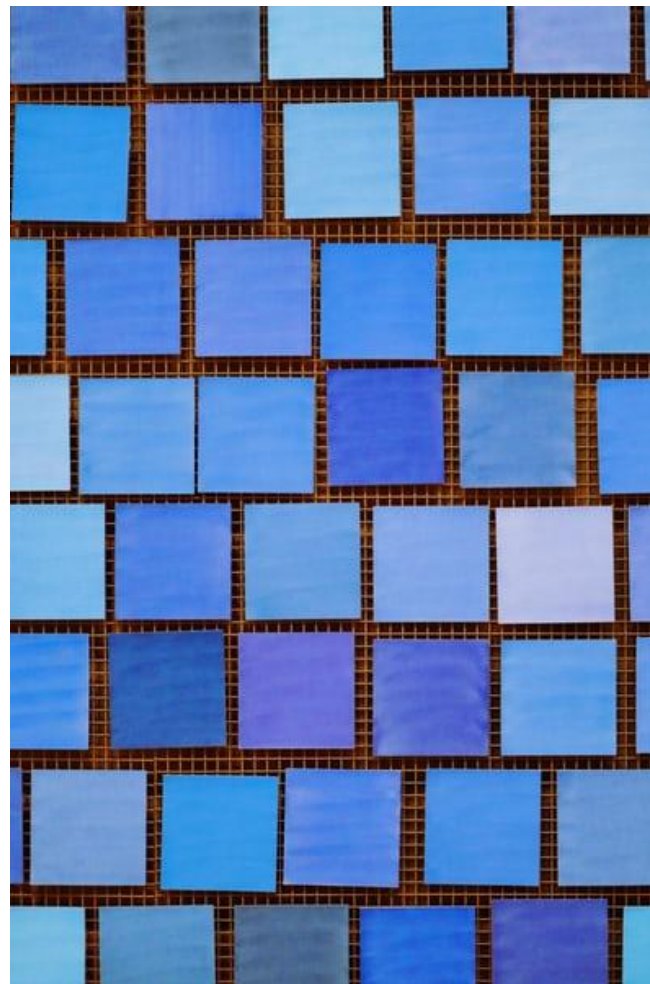
- Response rate: 36.6%
  - Potential non-response bias
  - “health and recreation” survey
- Cross-sectional
  - cannot infer causation
- Female or male
  - Sex & gender as a non-binary construct





# Public Health Implications

- Characteristics largely the same for females and males
- Characteristics that differentiate females and males experiencing gambling harms
  - » Female At-Risk Gamblers = bingo and mental health problems
  - » Male At-Risk Gamblers = gambling to “feel good” about self
  - » Female Problem Gamblers = problems with drugs or alcohol
  - » Male Problem Gamblers = gambling online, unhappier childhood, identify as Hispanic
- Future research
  - Gambling landscape/availability changes
  - Socio-cultural norms surrounding gender



# THANK YOU!

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For more information:  
[www.umass.edu/seigma](http://www.umass.edu/seigma)

**Table 2** Non-gambler compared to recreational gambler by gender (*n* = 87,940)\*

Characteristic		Females ( <i>n</i> = 53,816)*			Males ( <i>n</i> = 34,124)*		
		Odds ratio and 95% C.I.	Wald statistic	<i>p</i>	Odds ratio and 95% C.I.	Wald statistic	<i>p</i>
Age	18–34	1.59 (1.32, 1.92)	25.4	<0.0001	1.58 (1.21, 2.07)	12.0	<0.0001
	35–64	Reference group					
	65 +	1.43 (1.15, 1.77)	11.1	<0.0001	1.18 (0.91, 1.52)	1.6	0.0028
Ethnicity	Other	1.71 (0.94, 3.08)	3.2	0.0008	<i>1.36 (0.54, 3.44)</i>	<i>0.7</i>	<i>0.3750</i>
	Hispanic	1.2 (0.90, 1.60)	1.6	0.0002	<i>1.27 (0.83, 1.95)</i>	<i>1.4</i>	<i>0.0468</i>
	Black	1.38 (1.00, 1.90)	4	<0.0001	<i>1.59 (1.02, 2.49)</i>	<i>4.3</i>	<i>0.0002</i>
	White	Reference group					
	Asian	1.65 (1.16, 2.36)	8.3	0.0006	<i>1.32 (0.86, 2.01)</i>	<i>1.9</i>	<i>0.0790</i>
Education	HS or less	Reference group					
	BA (some college)	1.13 (0.94, 1.35)	1.8	0.0002	0.96 (0.75, 1.21)	0.2	0.2887
	Some grad school	1.78 (1.44, 2.20)	29	<0.0001	1.63 (1.24, 2.14)	12.5	<0.0001
Employment	Employed	Reference group					
	Unemployed	0.89 (0.62, 1.27)	0.4	0.0436	<i>1.09 (0.69, 1.73)</i>	<i>0.2</i>	<i>0.5356</i>
	Retired	1.17 (0.94, 1.46)	2	0.0005	<i>1.11 (0.84, 1.46)</i>	<i>0.6</i>	<i>0.0400</i>
	Student/homemaker/disabled	1.69 (1.40, 2.03)	31.2	<0.0001	<i>1.54 (1.11, 2.13)</i>	<i>7.0</i>	<i>&lt;0.0001</i>
Income	Increasing in \$10,000	0.97 (0.96, 0.99)	13.8	<0.0001	0.97 (0.95, 1.00)	6.9	0.0134
Born in USA	No	1.66 (1.35, 2.05)	22.7	<0.0001	1.47 (1.12, 1.93)	7.7	<0.0001
Childhood rating	Increasing unhappiness	1.10 (1.03, 1.18)	8.4	<0.0001	1.14 (1.03, 1.26)	6.9	<0.0001
Friends and family involved in gambling	Increasing involvement	0.69 (0.61, 0.77)	41.3	<0.0001	0.57 (0.49, 0.67)	50.1	<0.0001
Alcohol use in the past 30 days	No	1.59 (1.37, 1.84)	40.0	<0.0001	1.98 (1.63, 2.40)	48.9	<0.0001
Binge drinking in the past 30 days	No	1.34 (1.11, 1.60)	10.4	<0.0001	1.64 (1.30, 2.07)	17.8	<0.0001
Tobacco use in the past 30 days	No	1.61 (1.28, 2.03)	16.4	<0.0001	<i>1.24 (0.97, 1.60)</i>	<i>2.9</i>	<i>0.0004</i>

Note: Italicized estimates reflect the variables that were significant for the opposite gender in the stepwise logistic regression and were included in the forced model

\*Reflects imputed values.

**Table 3** At-risk gambler compared to recreational gambler by gender (*n* = 68,710)\*

Characteristic		Females ( <i>n</i> = 40,247)			Males ( <i>n</i> = 28,463)		
		Odds ratio and 95% C.I.	Wald statistic	<i>p</i>	Odds ratio and 95% C.I.	Wald statistic	<i>p</i>
Education	HS or less	2.25 (1.38, 3.67)	10.8	< 0.0001	1.64 (1.07, 2.52)	5.2	< 0.0001
	BA (some college)	1.50 (0.97, 2.31)	3.4	< 0.0001	0.95 (0.67, 1.37)	0.1	0.6897
	Some grad school	Reference group					
Income	Increasing in \$10,000	0.96 (0.93, 0.99)	6.4	0.0004	<i>0.97 (0.94, 1.00)</i>	4.6	<i>0.0012</i>
Born in USA	No	<i>1.82 (1.24, 2.68)</i>	<i>9.4</i>	<i>&lt; 0.0001</i>	1.79 (1.23, 2.59)	9.5	< 0.0001
Friends and family involvement in gambling	Increasing involvement	2.08 (1.67, 2.59)	43.1	< 0.0001	2.25 (1.80, 2.80)	52.4	< 0.0001
Mental health problems (depression, anxiety, etc.)	Yes	1.80 (1.33, 2.45)	14.7	< 0.0001	<i>0.93 (0.63, 1.39)</i>	<i>0.2</i>	<i>0.5362</i>
Instant	Yes	1.59 (1.19, 2.12)	9.8	< 0.0001	2.03 (1.52, 2.72)	22.8	< 0.0001
Daily	Yes	2.09 (1.56, 2.82)	24.0	< 0.0001	1.52 (1.14, 2.03)	8.3	< 0.0001
Bingo	Yes	2.35 (1.57, 3.53)	17.3	< 0.0001	<i>1.23 (0.64, 2.34)</i>	<i>0.4</i>	<i>0.2864</i>
Private betting	Yes	1.91 (1.24, 2.95)	8.6	< 0.0001	1.73 (1.27, 2.36)	12.3	< 0.0001
Online	Yes	<i>1.61 (0.68, 3.82)</i>	<i>1.2</i>	<i>0.0081</i>	3.57 (1.89, 6.75)	15.3	< 0.0001
Casino	Yes	2.25 (1.68, 3.01)	29.8	< 0.0001	2.87 (2.17, 3.79)	54.6	< 0.0001
Reason for gambling	For excitement/entertainment	2.99 (1.63, 5.51)	12.4	< 0.0001	2.50 (1.22, 5.11)	6.3	< 0.0001
	To win money	3.34 (1.84, 6.06)	15.9	< 0.0001	3.50 (1.75, 7.02)	12.5	< 0.0001
	To escape or distract yourself	3.94 (1.68, 9.24)	9.9	< 0.0001	4.25 (1.65, 10.95)	9.0	< 0.0001
	To socialize with family or friends	1.21 (0.60, 2.44)	0.3	0.4191	1.10 (0.49, 2.47)	0.1	0.8811
	To support worthy causes	0.74 (0.30, 1.84)	0.4	0.3760	0.87 (0.31, 2.45)	0.1	0.8969
	To feel good about yourself	–			10.18 (2.98, 34.71)	13.8	< 0.0001
	Other	Reference group					

Note: Italicized estimates reflect the variables that were significant for the opposite gender in the stepwise logistic regression and were included into the forced model

\*Reflects imputed values

**Table 4** Problem/pathological gambler compared to recreational gambler by gender (*n* = 64,000)\*

Characteristic		Females ( <i>n</i> = 37,903)			Males ( <i>n</i> = 26,097)		
		Odds ratio and 95% C.I.	Wald statistic	<i>p</i>	Odds ratio and 95% C.I.	Wald statistic	<i>p</i>
Ethnicity	Black	<i>4.34 (1.57, 11.98)</i>	8.4	<i>0.0006</i>	5.7 (2.60, 12.51)	19.3	<0.0001
	White	Reference group					
	Hispanic	<i>1.57 (0.44, 5.64)</i>	0.6	<i>0.4274</i>	0.37 (0.09, 1.62)	1.7	0.0256
	Asian	<i>3.77 (0.64, 22.12)</i>	2.4	<i>0.1110</i>	0.72 (0.16, 3.27)	0.2	0.8039
	Other	—			—		
Education	HS or less	3.2 (1.13, 9.06)	4.8	<0.0001	<i>2.58 (1.03, 6.48)</i>	4.5	<i>0.0021</i>
	BA (some college)	0.86 (0.30, 2.45)	0.1	0.8797	<i>1.33 (0.57, 3.14)</i>	0.6	<i>0.3256</i>
	Some grad school	Reference group					
Born in the USA	No	<i>1.87 (0.67, 5.22)</i>	1.5	<i>0.0193</i>	2.81 (1.32, 5.97)	7.4	<0.0001
Friends and family involvement in gambling	Increasing involvement	<i>1.8 (1.10, 2.93)</i>	5.5	<0.0001	2.85 (1.84, 4.40)	22.5	<0.0001
Childhood rating	Increasing unhappiness	<i>1.06 (0.76, 1.49)</i>	0.1	<i>0.4440</i>	1.57 (1.17, 2.10)	9.0	<0.0001
Problems with drugs or alcohol in the past 12 months	Yes	8.42 (2.77, 25.59)	14.1	<0.0001	<i>0.71 (0.22, 2.24)</i>	0.3	<i>0.5536</i>
Problems with other behavioral addictions	Yes	<i>2.25 (1.03, 4.91)</i>	4.5	<i>0.0051</i>	3.17 (1.76, 5.73)	14.9	<0.0001
Instant	Yes	4.21 (1.58, 11.25)	8.3	<0.0001	<i>1.91 (1.04, 3.51)</i>	4.3	<0.0001
Daily	Yes	2.45 (1.22, 4.90)	6.5	<0.0001	3.42 (2.01, 5.82)	20.8	<0.0001
Casino	Yes	2.43 (1.18, 5.00)	5.8	<0.0001	2.87 (1.64, 5.01)	13.8	<0.0001
Online	Yes	<i>2.56 (0.50, 13.14)</i>	1.3	<i>0.1318</i>	6.67 (2.65, 16.78)	16.3	<0.0001
Reason for gambling	Other	Reference group					
	To win money	<i>2.58 (0.68, 9.72)</i>	2.0	<i>0.0077</i>	3.77 (0.92, 15.43)	3.6	<0.0001
	To escape/distract yourself	<i>8.14 (1.68, 39.56)</i>	6.9	<0.0001	10.53 (2.10, 52.92)	8.5	<0.0001
	For excitement/ entertainment	<i>2.29 (0.59, 8.95)</i>	1.5	<i>0.0535</i>	2.13 (0.49, 9.32)	1.1	0.1820
	To socialize with family/friends	<i>1.03 (0.19, 5.70)</i>	0.0	<i>0.9836</i>	0.38 (0.06, 2.57)	1.1	0.3059
	To support worthy causes	—			0.72 (0.06, 8.07)	0.1	0.9439
	Because it makes you feel good	<i>2.8 (0.21, 37.69)</i>	0.7	<i>0.6217</i>	3.53 (0.25, 49.03)	0.9	0.5031

Note: Italicized estimates reflect variables that were significant for the opposite gender in the stepwise logistic regression and were included into the forced model

\*Reflects imputed values