

## **Sports Wagering in New Jersey**

Calendar Year 2021 Report to the Division of Gaming Enforcement Submitted by:

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The CGS at Rutgers University is a multidisciplinary research, policy, and training center, dedicated to driving global decision-making on issues related to gambling, gaming and other interactive technologies. Our mission is to conduct strategic, non-partisan research and policymaking and to benefit individuals and families adversely affected by problems with interactive technologies through innovative prevention, training, and intervention programs.

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## I. Introduction

In 2012, New Jersey Governor Chris Christie signed legislation to legalize sports betting within the state in response to a voter referendum. The new law authorized the state's casinos and racetracks to accept legal wagers on professional and college sports, except on New Jersey college teams and college games played in New Jersey. The National Collegiate Athletic Association (NCAA), National Basketball Association (NBA), National Football League (NFL), National Hockey League (NHL), and Major League Baseball (MLB) filed a federal lawsuit against New Jersey to prevent sports betting, based on the Professional and Amateur Sports Protection Act of 1992, which banned sports betting in all but four states. Governor Christie challenged PASPA, which was eventually overturned as an unconstitutional violation of the 10<sup>th</sup> Amendment by the Supreme Court in May 2018, after Christie had left office (*Murphy v. National Collegiate Athletic Association*). In June 2018, Governor Murphy signed a bill legalizing sports betting at casinos and racetracks in New Jersey, including online and mobile betting.

The Division of Gaming Enforcement (DGE) regulates sports wagering conducted online via computer or mobile phones and/or at retail sports books and kiosks at land-based locations. The Center for Gambling Studies at Rutgers University analyzes sports wagering play-by-play data from all operators in New Jersey; more than 90% of that data is online. The aims of the analyses are: 1) to explore betting-related activities by demographic and other variables that bear on problem gambling (e.g., age, gender, geographic area, time of day); 2) to investigate evidence-based indicators of high-intensity play; 3) to evaluate the utilization patterns of RG features; and 4) to provide recommendations to reduce problem gambling behavior and related harm.

Table 1 summarizes the operators, skins, and URLs in 2020. For purposes of this report, the "Licensee" is the land-based gaming corporation, the "Operator" is the online sports wagering provider, and the "Skin" refers to the brand, which may have one or more associated websites, displayed in Table 1 as a URL.



Table 1. Operator and	Gaming Sites in 2	2020
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	Platform			
Licensee	Operator(s)	Skin(s)	URL(s)	Launch
Porgata	CVC	BetMGM	sports.nj.betmgm.com	08/22/18
DUIgala	GVC	Borgata	sports.borgataonline.com	05/14/19
	888	888	us.888sport.com	09/06/18
Caesars	SGD	Caesars Casino	caesarscasino.com	09/08/18
	BetBull Limited	WynnBet	wynnbet.com	07/27/20
Golden	SBTech	Bet America/ Churchill Downs	betamerica.com	02/01/19
Nugget	SGD	Golden Nugget	nj-casino.goldennuggetcasino.com/sports	02/19/19
	SGD	Hard Rock	www.hardrockcasino.com/sports	01/30/19
Hard Rock	SGD	UniBet	nj.unibet.com	08/21/19
	Bet365	Bet365	nj.bet365.com	08/22/19
Maadawlands	FanDuel	FanDuel	sportsbook.fanduel.com	09/06/18
weadowiands	PointsBet	PointsBet	pointsbet.com	12/11/18
	RSI	Play SugarHouse	playsugarhouse.com	08/23/18
Monmouth	William Hill	William Hill	williamhill.com/us/nj	09/07/18
	BetWorks	TheScore	thescore.bet	08/13/19
	William Hill	William Hill	williamhill.com/us/nj	09/07/18
Ocean	Tipico USA Technology	Тірісо	tipico.com	11/03/20
	DraftKings	DraftKings	draftkings.com	08/06/18
Posorts	The Stars Group	FoxBet	nj.foxbet.com	09/12/18
NESULS	SGD	Resorts Casino	sports.resortscasino.com/sportsbetting-lp- 1/	01/31/19
Tropicana	William Hill	William Hill	williamhill.com/us/nj	09/07/18

## **II. Methodology**

Analyses were conducted from multiple raw data files, collected by the DGE from all the operators in a standardized variable format. The DGE provided the data to the Center for Gambling Studies (CGS) through an encrypted portal, which was developed exclusively for this project. Those files are housed on an encrypted and password-protected server. Once the raw data files were extracted from compressed format, each text data file (both CSV and DAT formats) was read into SPSS format. The length and data format of all variables were standardized across all files from all operators. Demographic files, individual bet files, financial files and RG features files were sorted by the unique player identification code (DUPI) and time/data stamp variable. To analyze the data, the individual bet files from all skins were combined into a single file containing all bets across all skins by all players. The data was cleaned again and analyzed for missing or possibly erroneous data then cross-checked with the DGE for verification and/or correction. The resulting file was then matched to demographic, financial, and RG features files by the DUPI and aggregated. Univariate and bivariate statistics were used to analyze daily player



betting behavior across all skins, sports, types of bets and counties, as well as by time of day and patterns of play, comparing those who did and did not opt to utilize RG features.

## **III. Player Demographics**

Beginning in March 2020, the COVID-19 pandemic resulted in the cancellation of many major and minor sporting events, such as the NCAA College Basketball tournament (i.e., March Madness), which would have attracted considerable betting activity. For that reason, the increases in the number of individuals with betting accounts, from 1.2 million in 2019 to 1.4 million in 2020, may be smaller than in a "normal" year. Overall, about 25% of all account-holders (n = 343,519) placed at least one sports bet in 2020. Of the active sports bettors, about 28% (n = 95,976) were new to sports betting, 25% were previous players who also opened new accounts (n = 85,478), and 47% (n = 162,065) were previous players who played on existing accounts (n = 162,065).

Age data was available for nearly all accountholders in 2020 (n = 343,403). However, gender data was available for only about 74% of players (n = 255,286); two major vendors provided incomplete gender information for accountholders, however, gender is not specifically required by the DGE. Notably, all vendors collecting gender data asked for patrons to respond to the binary choice of male-female, which may exclude players who identify as non-binary or other; providing more than two uniform options or asking only for sex assigned at birth could help standardize responses.

Table 2. Missing Data Summary							
Missing Data Summary	Valid Sample	Missing	Total				
Gender	255,286	88,233	343,519				
Age	343,403	116	343,519				

Table 2 Missing Date Cummany

#### A. AGE AND GENDER

There was an increase in sports wagering participation within every age group, though the level of growth varied (Table 3). Similar to 2019, 21- to 24-year-olds comprised about 17% of all sports bettors, and bettors ages 25 to 34 comprised more than 41% of all bettors. Notably, participation among 35- to 54-year-olds was proportionally lower than any prior year, while participation among those 55 and older was at an all-time high. The mean age of sports bettors in 2020, as in prior years, was about 36 years. By gender, the ratio of men to women remained statistically consistent with 2019, with men comprising about 87% of all sports bettors and women, 13%.



Age	2018		2019		2020	
Group	%	n	%	n	%	n
21-24 <sup>a</sup>	14.0	21,529	16.8	48,731	16.9	58,085
25-34 <sup>b</sup>	41.8	64,261	40.8	118,771	41.3	141,932
35-44 <sup>c</sup>	23.8	36,667	22.3	64,998	21.5	73,935
45-54 <sup>c</sup>	12.5	19,271	12.1	35,129	11.7	40,321
55-64 <sup>d</sup>	6.1	9,391	6.1	17,776	6.4	21,968
65+ <sup>d</sup>	1.8	2,766	1.9	5,513	2.1	7,162
Total	100.0	153,885	100.0	290,918	100.0	343,403
Mean <sup>e</sup>	36.1		35.7		35.8	
Gender	%	n	%	n	%	n
Male <sup>e</sup>	89.2	62,551	86.3	209,086	86.6	221,063
Female <sup>a</sup>	10.8	7,561	13.7	33,086	13.4	34,145

Table 3. Age Group and Gender by Year for All Sports Betto
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Significant differences across years for indicated gender and age group (p < .001).

a. 2018 lower than all other years

b. 2019 lower than all other years

c. 2020 lower than all other years; 2018 higher than all other years

d. 2020 higher than all other years

e. 2018 higher than all other years

For both genders, 21 to 24 year olds made up a smaller proportion than all previous years, 14% of men and 12% of women. It is important to note, however, that gender data was disproportionately missing for the youngest players. Specifically, gender data was available for only 60% of those ages 21 to 24, although it was available for more than 75% of those age 25 and older. Findings should be interpreted in light of these limitations.

Among men, the proportion of those ages 25 to 34 (42.5%) and those 65+ (2.1%) was higher than any other year, and the proportion of 35 to 64 year olds was higher than in 2019. For women, the proportion of those ages 25 to 34 was comparable to 2019 and smaller than 2018; the proportion of those 35 and older was at its highest. Altogether, for women sports bettors, the percent of those age 34 and younger dropped from 57% in 2018 to about 51% in 2020. These findings suggest that there has been some fluctuation in the lowest age category, possibly confounded by missing data, and increases for both men and women in the higher age groups, particularly 55 and over.

A.g.o	Male							
Age	2018		2018 2019		2020			
Group	%	n	%	n	%	n		
21-24ª	14.7	9,208	18.2	37,984	14.0	31,021		
25-34 <sup>b</sup>	40.9	25,604	41.5	86,829	42.5	93,908		
35-44 <sup>c</sup>	24.1	15,050	22.0	46,060	23.4	51,804		
45-54 <sup>cd</sup>	12.8	7,977	11.2	23,422	11.8	26,062		
55-64 <sup>c</sup>	5.9	3,676	5.5	11,447	6.2	13,687		
65+ <sup>b</sup>	1.7	1,036	1.6	3,344	2.1	4,581		
Total	100.0	62,551	100.0	209,086	100.0	221,063		

Table 4. Age Group and Gender by Year



A	Female						
Age	2018		2019		2020		
Group	%	n	%	n	%	n	
21-24ª	14.6	1,102	17.3	5,708	11.5	3,929	
25-34 <sup>d</sup>	42.4	3,203	39.1	12,937	39.4	13,443	
35-44 <sup>c</sup>	22.3	1,686	19.3	6,394	22.4	7,651	
45-54 <sup>e</sup>	12.2	921	14.1	4,657	14.6	4,990	
55-64 <sup>be</sup>	6.4	486	7.8	2,582	9.0	3,061	
65+ <sup>b</sup>	2.2	163	2.4	808	3.1	1,071	
Total	100.0	7,561	100.0	33,086	100.0	34,145	

Significant differences across years for indicated gender and age group (p < .001).

a. 2020 lower than all other years; 2019 higher than all other years

b. 2020 higher than all other years

c. 2019 lower than all other years

d. 2018 higher than all other years

e. 2018 lower than all other years

The proportion of sports bettors who were residents of New Jersey decreased for a second straight year, from 84% in 2018 to 79% in 2019, then 77% in 2020. In every year of analysis, the mean age of non-resident bettors has been younger than resident bettors, including in 2020 (NJ resident mean age=36.2; non-resident=34.5). Likewise, there were substantially more men among non-resident bettors, about 93%, compared with New Jersey residents, about 85%.

There have been changes over the years in the proportion of bettors by age group and gender (Table 5) across both resident groups. Among New Jersey residents, the proportion of those age 55 and older increased in 2020, while the proportion of 21- to 24-year-olds was comparable with 2019 and higher than 2018. The proportion of resident sports bettors aged 25 to 54, meanwhile, was highest in 2018. By gender, the ratio of men to women was comparable with 2019, 85% men and 15% women.

Among non-New Jersey resident sports bettors, there has been less variation year to year. The most notable changes have been among those ages 21 to 24, whose proportional representation grew from 10% in 2018 to almost 17% in 2020. Proportional representation among 35- to 54-year-olds, however, decreased, from about 36% to 31%. Similar to findings in 2018, men made up 93% and women, 7%, of all non-resident sports bettors.



### Table 5. Comparing Sports Bettors Residing Inside and Outside NJ by Age and Gender

Age	In NJ 2018		In N.	In NJ 2019		In NJ 2020	
Group	%	n	%	n	%	n	
21-24 <sup>a</sup>	14.7	19,041	17.3	39,667	17.0	44,666	
25-34 <sup>b</sup>	40.7	52 <i>,</i> 885	39.4	90,471	39.8	104,506	
35-44 <sup>c</sup>	23.5	30,546	22.1	50,904	21.6	56,870	
45-54 <sup>d</sup>	12.9	16,737	12.6	28,903	12.4	32,551	
55-64 <sup>e</sup>	6.3	8,248	6.6	15,096	6.9	18,184	
65+ <sup>e</sup>	1.9	2,474	2.1	4,774	2.3	6,049	
Total	100.0	129,931	100.0	229,815	100.0	262,826	
Mean <sup>f</sup>	36.2		36.0		36.2		
SD	11.4		11.8		11.9		
Gondor	In N.	J 2018	In N.	J 2019	In N.	J 2020	
Genuer	%	n	%	n	%	n	
Male <sup>b</sup>	88.4	51,358	84.7	159,288	84.9	171,120	
Female <sup>a</sup>	11.6	6,720	15.3	28,739	15.1	30,337	
Total	100.0	58,078	100.0	188,027	100.0	201,457	
	Outside NJ		Outside NJ		Outside NJ		
Λσο	2018						
Age Group	20	018	20	019	20	020	
Age Group	20 %	018 n	20 %	019 n	20 %	020 n	
Age Group 21-24 <sup>g</sup>	20 % 10.4	<b>018</b> n 2,488	20 % 14.8	<b>019</b> <b>n</b> 9,064	<b>20</b> % 16.7	<b>020</b> n 13,419	
Age Group 21-24 <sup>g</sup> 25-34	20 % 10.4 47.5	<b>018</b> <b>n</b> 2,488 11,376	20 % 14.8 46.3	<b>n</b> 9,064 28,300	20 % 16.7 46.4	<b>n</b> 13,419 37,426	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup>	20 % 10.4 47.5 25.6	018 <u>n</u> 2,488 11,376 6,121	20 % 14.8 46.3 23.1	019 <u> </u>	20 % 16.7 46.4 21.2	<b>n</b> 13,419 37,426 17,065	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup>	20 % 10.4 47.5 25.6 10.6	018 n 2,488 11,376 6,121 2,534	20 % 14.8 46.3 23.1 10.2	019 <u>n</u> 9,064 28,300 14,094 6,226	20 % 16.7 46.4 21.2 9.6	<b>n</b> 13,419 37,426 17,065 7,770	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64	20 % 10.4 47.5 25.6 10.6 4.8	018 n 2,488 11,376 6,121 2,534 1,143	20 % 14.8 46.3 23.1 10.2 4.4	019 9,064 28,300 14,094 6,226 2,680	20 % 16.7 46.4 21.2 9.6 4.7	<b>n</b> 13,419 37,426 17,065 7,770 3,784	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+	20 % 10.4 47.5 25.6 10.6 4.8 1.2	018 n 2,488 11,376 6,121 2,534 1,143 292	20 % 14.8 46.3 23.1 10.2 4.4 1.2	019 9,064 28,300 14,094 6,226 2,680 739	20 % 16.7 46.4 21.2 9.6 4.7 1.4	020 n 13,419 37,426 17,065 7,770 3,784 1,113	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+           Total	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954	20 9% 14.8 46.3 23.1 10.2 4.4 1.2 100.0	019 9,064 28,300 14,094 6,226 2,680 739 61,103	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0	n           13,419           37,426           17,065           7,770           3,784           1,113           80,577	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+           Total           Mean <sup>c</sup>	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954	20 % 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8	019 n 9,064 28,300 14,094 6,226 2,680 739 61,103	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5	<b>n</b> 13,419 37,426 17,065 7,770 3,784 1,113 80,577	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+           Total           Mean <sup>c</sup> SD	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1	018 2,488 11,376 6,121 2,534 1,143 292 23,954	20 9% 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3	019 9,064 28,300 14,094 6,226 2,680 739 61,103	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577	
Age         Group         21-24 <sup>g</sup> 25-34         35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64         65+         Total         Mean <sup>c</sup> SD	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1 <b>Outs</b>	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954 ide NJ	20 % 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3 Outs	019 9,064 28,300 14,094 6,226 2,680 739 61,103 ide NJ	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6 <b>Outs</b>	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577 ide NJ	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+           Total           Mean <sup>c</sup> SD	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1 <b>Outs</b> 20	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954 ide NJ 018	20 9% 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3 10.3 0uts 20	019 n 9,064 28,300 14,094 6,226 2,680 739 61,103 ide NJ 019	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6 0uts 20	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577 ide NJ 020	
Age         Group         21-24g         25-34         35-44c         45-54d         55-64         65+         Total         Meanc         SD         Gender	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1 <b>Outs</b> 20 %	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954 ide NJ 018 n	20 % 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3 0uts 20 %	019 n 9,064 28,300 14,094 6,226 2,680 739 61,103 ide NJ 019 n	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6 0uts 20 %	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577 ide NJ 020 N	
Age         Group         21-24 <sup>g</sup> 25-34         35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64         65+         Total         Mean <sup>c</sup> SD         Gender         Male <sup>f</sup>	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1 <b>Outs</b> 20 % 93.0	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954 ide NJ 018 n 11,193	20 % 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3 0uts 20 % 92.0	019 n 9,064 28,300 14,094 6,226 2,680 739 61,103 61,103 ide NJ 019 n 49,799	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6 0uts 20 % 92.9	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577 ide NJ 020 N 50,013	
Age           Group           21-24 <sup>g</sup> 25-34           35-44 <sup>c</sup> 45-54 <sup>d</sup> 55-64           65+           Total           Mean <sup>c</sup> SD           Gender           Male <sup>f</sup> Female <sup>h</sup>	20 % 10.4 47.5 25.6 10.6 4.8 1.2 100.0 35.5 10.1 0uts 20 % 93.0 7.0	018 n 2,488 11,376 6,121 2,534 1,143 292 23,954 ide NJ 018 n 11,193 841	20 % 14.8 46.3 23.1 10.2 4.4 1.2 100.0 34.8 10.3 0uts 20 % 92.0 8.0	019 n 9,064 28,300 14,094 6,226 2,680 739 61,103 ide NJ 019 n 49,799 4,347	20 % 16.7 46.4 21.2 9.6 4.7 1.4 100.0 34.5 10.6 0uts 20 % 92.9 7.1	020 n 13,419 37,426 17,065 7,770 3,784 1,113 80,577 ide NJ 020 N 50,013 3,816	

Significant differences across years for indicated gender and age group (p < .001).

a. 2018 lower than all other years

b. 2018 higher than all other years

c. 2020 lower than all other years; 2018 higher than all other years

d. 2020 lower than 2018

e. 2020 higher than all other years

f. 2019 lower than all other years

g. 2020 higher than all other years; 2018 lower than all other years

h. 2019 higher than all other years



As in past years, a majority of sports bettors in 2020 (85.5%) utilized a single site to place their bets. The proportion of those using multiple sites, 15% of all bettors, decreased from 2019, when about 19% bet on multiple sites. Overall in 2020, about 11% used two sites, 3% used three sites, and little more than 1% used three or more sites.

Number of Sites Bet	2018 Percentage	2019 Percentage	2020 Percentage	2020 Number of Sports Bettors
1	84.9	81.5	85.5	293,823
2	12.6	12.8	10.7	36,777
3	1.6	3.3	2.6	8,799
4	0.5	1.3	0.8	2,733
5	0.2	0.6	0.3	953
6	0.1	0.3	0.1	334
7		0.1	<0.1	100
8		0.1		-
9		<0.1		-
10		<0.1		-
11		<0.1		-
12		<0.1		-
13		<0.1		-
Mean	1.2	1.3	1.2	
Median	1.0	1.0	1.0	

#### Table 6. Percentage Comparisons of Number of Sites Bet by Year

#### **B. REGIONAL DIFFERENCES**

Shifting patterns of participation by county are an important consideration for prevention, intervention, and treatment for problem gambling, as rates of problems generally increase with rates of participation in gambling. In 2020, the number of sports bettors increased in each individual county compared to the prior year (Table 7). Similar to 2019, the five counties with the most sports bettors were Bergen (11.5%), Essex (9.5%), Hudson (9.0%), Monmouth (8.9%), and Middlesex (7.8%). Notably, sports betting in Passaic (7.1%) and Union (6.3%) counties has steadily increased since 2018; however, Essex and Passaic counties have seen the largest growth, about two and a half times the number of bettors compared to the inaugural year. In contrast, Morris and Ocean counties had a smaller proportion of sports bettors in 2020 than any other year.



					1			
County	2018		201	.9	2020			
county	n	%	n %		n	%		
Atlantic	4,582	3.5	8,021	3.5	8,747	3.3		
Bergen	14,694	11.4	26,905	11.7	30,088	11.5		
Burlington <sup>a</sup>	6,191	4.8	11,656	5.1	12,914	4.9		
Camden <sup>b</sup>	7,463	5.8	14,703	6.4	16,782	6.4		
Cape May	1,263	1.0	2,215	1.0	2,451	0.9		
Cumberland	1,175	0.9	2,206	1.0	2,566	1.0		
Essex <sup>c</sup>	9,248	7.2	19,201	8.4	24,998	9.5		
Gloucester	4,818	3.7	8,720	3.8	9,505	3.6		
Hudson <sup>b</sup>	10,803	8.4	21,206	9.2	23,747	9.0		
Hunterdon <sup>d</sup>	1,441	1.1	2,197	1.0	2,342	0.9		
Mercer	3,614	2.8	6,668	2.9	7,658	2.9		
Middlesex	10,101	7.8	17,403	7.6	20,607	7.8		
Monmouth <sup>d</sup>	15,195	11.8	20,708	9.0	23,291	8.9		
Morris <sup>e</sup>	7,673	5.9	12,120	5.3	12,853	4.9		
Ocean <sup>e</sup>	9,030	7.0	14,070	6.1	15,330	5.8		
Passaic <sup>c</sup>	7,201	5.6	15,659	6.8	18,638	7.1		
Salem	535	0.4	1,005	0.4	1,167	0.4		
Somerset <sup>d</sup>	3,970	3.1	6,489	2.8	7,304	2.8		
Sussex <sup>d</sup>	1,721	1.3	2,720	1.2	2,954	1.1		
Union <sup>f</sup>	7,385	5.7	13,654	6.0	16,626	6.3		
Warren	1,126	0.9	1,907	0.8	2,150	0.8		

Table 7. Changes in P	roportion of Sports Bettors /	Across Years by	/ Countv
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\*Significant differences in the indicated year for the indicated county (p < .001).

a. 2019 higher than 2018

b. 2018 lower than all other years

c. 2020 higher than all other years; 2018 lower than all other years

d. 2018 higher than all other years

e. 2020 lower than all other years; 2018 higher than all other years

f. 2020 higher than all other years

Compared to their percentage of the New Jersey population, sports bettors were overrepresented in Atlantic, Bergen, Camden, Gloucester, Hudson, Monmouth, and Passaic counties (Figure 1; Table 8). For example, about 12% of all sports bettors were residents of Bergen County in 2020, though only about 10% of New Jersey residents lived in Bergen County. Conversely, despite being home to a sizable proportion of New Jersey residents, Middlesex and Ocean counties were under-represented among sports bettors. Among the medium- and smaller-sized counties, there were fewer than expected sports bettors also in Cumberland, Hunterdon, Mercer, Morris, Salem, Somerset, Sussex, and Warren. These patterns are largely the same as in 2019, with the exception of Essex and Union counties, which were under-represented in 2019 and participated as expected in relation to the proportion of residents in 2020.





#### Figure 1. Proportional Representation of Sports Bettors by County

Table 8. Percentage of Sports Bettors
by County in Relation to NJ Population

County	% of Sports Bettors	% of NJ Population*
Atlantic	3.3ª	3.0
Bergen	11.5ª	10.3
Burlington	4.9	5.0
Camden	6.4ª	5.7
Cape May	0.9	1.0
Cumberland	1.0 <sup>b</sup>	1.6
Essex	9.5	9.2
Gloucester	3.6ª	3.3
Hudson	9.0ª	7.6
Hunterdon	0.9 <sup>b</sup>	1.4
Mercer	2.9 <sup>b</sup>	4.1
Middlesex	7.8 <sup>b</sup>	9.3
Monmouth	8.9ª	7.0
Morris	4.9 <sup>b</sup>	5.5
Ocean	5.8 <sup>b</sup>	7.1
Passaic	7.1ª	5.5
Salem	0.4 <sup>b</sup>	0.7
Somerset	2.8 <sup>b</sup>	3.7
Sussex	1.1 <sup>b</sup>	1.6
Union	6.3	6.2
Warren	0.8 <sup>b</sup>	1.2

<sup>a</sup> Significantly higher % of gamblers in relation to % of NJ population (p < .001)

<sup>b</sup> Significantly lower % of gamblers in relation to % of NJ population (p < .001)

\*Population estimates from State of New Jersey. New Jersey State Data Center. (2019). Annual

Estimates of the Population: April 1, 2020 to July 1, 2022. From: 2020.

https://www.nj.gov/labor/labormarketinformation /assets/PDFs/dmograph/est/copest22.xlsx



## **IV. Betting Behavior**

This section analyzes betting behavior across the range of possible bet types to identify preferences that may change from year to year. In addition, this section analyzes the popularity of betting on particular sports, participation in in-game betting, methods for funding wagers, as well as provides information on losing bets, specifically among parlays.

#### A. WAGERING BY MONTH

There were 138 million sports bets placed in 2020, more than three times the amount placed in 2019, despite the impact of COVID shutdowns on traditional sports events taking place for about a quarter of the year. Figure 2 shows the number of bets per month in 2019 and 2020, highlighting the pronounced decline in sports betting in April to June of 2020 and the substantial resurgence that followed. In both years, December was the most popular month for sports betting, with 5.1 million bets placed in December 2019 and 25.3 million in December 2020.



#### Figure 2. Number of Bets by Month

Table 9 analyzes the betting-related activities across the full sample of sports bettors in 2019 and 2020. In 2020, the average bettor placed *more* bets on betting days (8.6 vs 3.3), placed almost three times as many bets during the year (402 vs 149), and lost a larger proportion of bets (75.2% vs 73.0%). In contrast, in 2019, the average bettor played on slightly more sites (1.3 vs 1.2), bet on more days (30 vs 28), and placed a higher single wager (\$57 vs \$39) when compared to the prior year. These findings suggest that players in 2020, in contrast to 2019, increased the intensity



of their behavior when they bet and had more losses. That is possibly due to the rapid escalation of parlay betting, which tends to have higher loss-to-win ratios.

	2019 All Bettors ( <i>n</i> = 290,919)						
Betting-Related Activities	Maximum	Mean	SD	Median			
# of Sites Wagered	13.0	1.3*	0.8	1.0			
Total Betting Days	365.0	30.0*	50.9	9.0			
# of Bets/Betting Day	755.5	3.3	4.7	2.3			
Total Number of Yearly Bets	8,9149.0	148.6	574.5	22.0			
Max Wager (\$)	1,500,000.00	244.72	3,399.77	50.00			
Avg. Single Wager (\$)	56.53	56.53*	1,561.18	16.32			
Total Yearly Wager (\$)	94,304,338.98	9,068.87	207,937.79	405.71			
Proportion of Bets Lost	100.0	73.0	23.5	75.0			
Rotting Polatod Activitios	2020 All Bettors ( <i>n</i> = 343,518)						
Detting-Related Activities	Maximum	Mean	SD	Median			
	Maximan	Ivicali					
# of Sites Wagered	7.0	1.2	0.6	1.0			
# of Sites Wagered Total Betting Days	7.0 357.0	1.2 27.7	0.6 43.8	1.0 9.0			
# of Sites Wagered Total Betting Days # of Bets/Betting Day	7.0 357.0 7,410.8	1.2 27.7 8.6*	0.6 43.8 21.2	1.0 9.0 5.0			
# of Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets	7.0 357.0 7,410.8 296,430.0	1.2 27.7 8.6* 401.9*	0.6 43.8 21.2 1,856.7	1.0 9.0 5.0 45.0			
<ul> <li># of Sites Wagered</li> <li>Total Betting Days</li> <li># of Bets/Betting Day</li> <li>Total Number of Yearly Bets</li> <li>Max Wager (\$)</li> </ul>	7.0 357.0 7,410.8 296,430.0 5,820,24.30	1.2 27.7 8.6* 401.9* 233.63	0.6 43.8 21.2 1,856.7 1,925.23	1.0 9.0 5.0 45.0 50.00			
<ul> <li># of Sites Wagered</li> <li>Total Betting Days</li> <li># of Bets/Betting Day</li> <li>Total Number of Yearly Bets</li> <li>Max Wager (\$)</li> <li>Avg. Single Wager (\$)</li> </ul>	7.0 357.0 7,410.8 296,430.0 5,820,24.30 1,505,35.62	1.2 27.7 8.6* 401.9* 233.63 39.49	0.6 43.8 21.2 1,856.7 1,925.23 331.13	1.0 9.0 5.0 45.0 50.00 8.98			
<ul> <li># of Sites Wagered</li> <li>Total Betting Days</li> <li># of Bets/Betting Day</li> <li>Total Number of Yearly Bets</li> <li>Max Wager (\$)</li> <li>Avg. Single Wager (\$)</li> <li>Total Yearly Wager (\$)</li> </ul>	7.0 357.0 7,410.8 296,430.0 5,820,24.30 1,505,35.62 40,193,010.49	1.2 27.7 8.6* 401.9* 233.63 39.49 9,735.40	0.6 43.8 21.2 1,856.7 1,925.23 331.13 127,462.45	1.0 9.0 5.0 45.0 50.00 8.98 380.54			

#### Table 9. Betting-Related Activities of All Sports Bettors: 2019 & 2020

\*Significantly higher for indicated year and betting-related activity (p < .001)

#### **B. WAGERING BY BET TYPE**

The vast majority of sports bets in 2020 were parlays<sup>1</sup>, including standard parlays<sup>2</sup>, round-robin parlays<sup>3</sup>, and teasers<sup>4</sup> (81.3% total); this proportion was nearly double the 2019 figure, when about 44% of bets were parlays. Combined, straight bets<sup>5</sup> (moneyline, point spread, total or

<sup>&</sup>lt;sup>1</sup>Parlays combine a number of bets on events, called "legs." Bettors place bets on two or more legs, which are then combined into a single parlay bet.

<sup>&</sup>lt;sup>2</sup>Standard parlays combine various individual straight bets (moneyline, spread, over/under) into a single bet. Players must win all bets (i.e., legs) to win a parlay.

<sup>&</sup>lt;sup>3</sup>Round-robin (RR) parlays combine multiple parlays into a single parlay bet by including multiple team combinations from the games a player selects; RR parlays are appealing because it is not necessary to win all legs of this parlay type to win.

<sup>&</sup>lt;sup>4</sup>Teasers, a variation on parlays, allow the bettor to move the point spread or over/under a set number of points when two or more bets are placed together. Teasers generally have better chance of winning but lower payouts. Players must win all bets (i.e., legs) to win a teaser.

<sup>&</sup>lt;sup>5</sup>Straight bets are single bets on a game or event, decided by a moneyline (which player/team will win the game outright), a point spread (player/team wins/loses by x number of points), or total bet "over/under" (i.e., bet on whether the total number of points in a game will be higher or lower than a certain value).

<sup>&</sup>lt;sup>6</sup>Prop bets ("proposition" bets) are bets that are not tied to the final outcome of the game (e.g., who scores the first goal, who wins the coin toss).

<sup>&</sup>lt;sup>7</sup>Futures bets are wagers placed on an outcome in the future, such as betting at the beginning of the football season who will win the Super Bowl.

<sup>&</sup>lt;sup>8</sup>Exact score bets are wagers for which the bettor must correctly predict the exact score at an event's conclusion.



"over/under") accounted for about 9% of all bets (Table 10). The remaining specified bet types were prop<sup>6</sup> (2.5%), futures<sup>7</sup> (0.6%), and exact score<sup>8</sup> (0.3%). About 6% of bets were either not clearly specified or constituted a bet type that was too small a proportion for analyses (Other/Unspecified).

Average wager sizes varied substantially across bet types. Round robins (\$6.80), standard parlays (\$8.02), and teasers (\$16.44) had the smallest mean wagers. Point spread partial bets had the largest mean (\$170) and median (\$50) wagers, followed by total partial bets (mean=\$149, median=\$33) and moneyline partial bets (mean=\$132, median=\$20). It is notable that the standard deviation for all bet types is sizable, indicating wide variation across betting activity within each bet type.

Bot Type	n %		Max Wagor	Mean	SD of	Median
вестуре			IVIAX VVAgei	Wager	Wager	Wager
Parlay (Standard)*	105,284,886	76.3	206,654.27	8.02	86.94	1.00
Teaser*	3,200,973	2.3	209,000.00	16.44	187.41	2.27
Round Robin*	3,776,881	2.7	25,000.00	6.80	65.10	0.77
Moneyline Whole**	4,496,226	3.3	72,000.00	119.53	943.62	20.00
Point Spread Whole**	3,622,917	2.6	566,043.76	111.57	1,327.28	25.00
Total (Over/Under) Whole**	2,940,617	2.1	566,043.88	122.09	1,158.59	25.00
Moneyline Partial**	695,506	0.5	550,000.00	131.52	687.98	20.00
Total (Over/Under) Partial**	514,323	0.4	80,400.00	148.61	567.39	33.00
Point Spread Partial**	357,682	0.3	100,000.00	170.22	585.34	50.00
Prop	3,416,968	2.5	160,000.00	62.38	293.78	10.00
Futures	897,319	0.6	250,000.00	52.46	412.57	10.00
Exact Score	356,096	0.3	14,800.00	30.08	166.12	5.00
Other/Unspecified	8,505,604	6.2	582,024.30	72.99	861.82	10.00
Total	138,065,998	100.0	582,024.30	24.22	406.59	1.54

#### Table 10. Betting Patterns by Bet Type

\*Variations of parlay bets

\*\*Types of straight bets

Gender data on bettors was available for 88% of bets placed in 2020. Of those, men placed about 90% of sports bets, about 4% less than in 2019. On average, both men and women placed markedly more bets this year. For example, in 2019, each male bettor placed an average of 175 bets and each female bettor, 74 bets; in 2020, that number had jumped to 496 bets for men and 362 for women. Overall, the amount wagered increased for both men and women, but substantially more for women. In total, men wagered \$2.8 billion in 2020 after betting \$2.4 billion in 2019; women wagered \$319 million in 2020, a 350% increase over 2019, when they wagered \$92 million.

By bet type (Table 11), preferences were fairly comparable between genders, though women placed more standard parlays (77% vs 75%) and men placed more round-robin parlays (3.1% vs 2.0%) and point spread whole bets (2.7% vs 1.9%). Mean wagers, however, differed significantly by gender. In 2019, men wagered more, on average, on every bet type, but this was not the case



in 2020. Men continued to place higher average bets on all types of parlays. However, women placed higher average bets on point spread whole (\$125 vs \$115), moneyline whole (\$134 vs \$124), prop (\$73 vs \$67), and futures (\$105 vs \$52) bets, and also placed higher bets at the median of these bet types. The average bet amounts for both men and women were about \$26, which differs markedly from 2019 when men had almost double the bet amount of women (\$65 vs \$37). Though women continue to represent a minority of all sports bettors, placing a minority of all sports bets, it is important to note the increase in their betting volume and the shift to similar amounts wagered compared to men.

Bet Type	Males (n = 109,738,806; 89.9%)				Females (n = 12,346,191; 10.1%)					
beerype	% of	Max	Mean	SD of	Median	% of	Max	Mean	SD of	Median
	Total	Wager	Wager	Wager	Wager	Total	Wager	Wager	Wager	Wager
Parlay (Standard)	75.4	206,654.27	8.40*	91.05	1.00	77.2	17,000.00	7.61	80.08	0.83
Teaser	2.5	209,000.00	16.17*	185.62	2.33	2.5	10,421.76	14.94	130.46	1.65
Round Robin	3.1	25,000.00	6.92*	66.42	0.87	2.0	4,166.65	4.19	34.93	0.18
Moneyline Whole	3.3	550,000.00	124.43	1,002.21	20.00	3.5	314,700.00	133.86*	751.81	25.00
Point Spread Whole	2.7	566,043.76	115.43	1,448.96	25.00	1.9	21,000.00	125.12*	400.56	30.00
Total Whole	2.2	566,043.88	125.89	1,262.16	25.00	1.9	38,000.00	134.26	438.8	30.00
Moneyline Partial	0.5	72,000.00	136.59	730.65	20.00	0.4	19,100.00	131.12	479.98	25.00
Total Partial	0.4	80,400.00	154.71*	597.08	37.00	0.4	16,000.00	141.38	420.36	30.00
Point Spread Partial	0.3	100,000.00	172.42	610.61	50.00	0.2	13,500.00	181.43	446.00	50.00
Prop	2.4	160,000.00	67.33	319.93	10.00	2.5	16,000.00	72.98*	229.50	14.00
Futures	0.7	250,000.00	51.55	432.04	10.00	0.5	25,000.00	104.59*	381.13	15.00
Exact Score	0.2	14,800.00	31.49	173.44	5.00	0.2	5,800.00	33.63	140.10	5.00
Other/Unspecified	6.3	582,024.30	75.43	945.44	11.00	6.8	50,000.00	87.51*	391.30	15.00
Total	100.0	582,024.30	25.51	445.90	1.67	100.0	314,700.00	25.81	219.66	1.25

#### Table 11. Betting Patterns by Bet Type by Gender

\*Significantly higher mean wager for indicated bet type and gender (p < .001)

Bettors in different age categories had different preferences by bet type (Table 12). For example, a preference for standard parlays decreased with increasing age, such that 21- to 24-year-olds placed 82% of their bets on standard parlays compared to just 56% of those 65+. Within parlay betting, the oldest bettors were most likely to bet on teasers (6.1%) while bettors ages 45 to 54 preferred round robins (5.4%). Only 7% of all bets by 21- to 34-year-olds were straight bets (point spread, moneyline, total); in contrast, 22% of the bets by those 65 and older were placed on these bet types, 9% of which were point spread whole.

Average wager amounts varied by age group within each bet type (Table 12). Those age 35 to 44 years bet the most, on average, across a majority of bet types, including standard parlays (\$8.92), all straight bet types, exact score bets, and other/unspecified bets. Those age 45 to 54 had comparably high bets on standard parlays (mean=\$8.85) and the highest average bet on teasers (\$19.93), while 55 to 64 year olds had the highest mean bet on round-robin parlays (\$11.63). Average bet size on futures bets was highest among those ages 25 to 34 (\$69.67), who also had



notably high mean bets on prop (\$64.62) and exact score bets (\$36.36) and all straight bet types. As in past years, the youngest (ages 21 to 24) and oldest (ages 65+) bettors generally had smaller bet sizes across most bet types. However, those 65+ did not have substantially smaller average bet amounts on all parlay types, and those 21 to 24 years placed comparably high bets on moneyline partial, futures, and exact score bets. One notable observation is that the median reflects most of these betting patterns except for those 55 and older, for whom median bet sizes were higher for standard parlays, teasers, and round robins.

Rot Type		% of total		Mean	SD of	Median
Age Gloup			wax wager	Wager	Wager	Wager
	21-24	82.2	25,000.00	5.45	44.84	1.00
	25-34	79.8	100,000.00	7.97	97.80	1.00
Parlay	35-44	75.2	206,654.27	8.92	98.00	1.00
(Standard)	45-54	70.2	17,179.00	8.85	63.92	1.00
	55-64	64.1	15,000.00	8.45	53.29	1.54
	65+	56.2	53,482.55	8.25	120.54	1.43
	21-24	1.4	8,424.56	9.81	70.74	2.00
	25-34	1.7	33,333.00	15.52	172.31	2.22
Toosor	35-44	2.7	209,000.00	16.71	263.26	1.95
reaser	45-54	3.1	20,000.00	19.93	159.49	2.50
	55-64	4.1	6,116.00	17.25	86.29	3.24
	65+	6.1	1,500.00	14.70	43.89	2.78
	21-24	0.5	11,200.00	5.44	72.48	0.85
	25-34	2.4	15,000.00	3.06	41.58	0.38
Pound Pohin	35-44	2.9	25,000.00	7.80	72.29	0.33
	45-54	5.4	14,000.00	9.36	82.93	1.00
	55-64	3.0	2,170.00	11.63	43.66	1.00
	65+	1.3	1,300.00	8.47	35.49	1.08
	21-24	3.2	71,000.00	68.74	343.36	15.00
	25-34	2.9	550,000.00	138.14	1,325.00	25.00
Moneyline	35-44	3.4	314,700.00	146.63	800.9	25.00
Whole	45-54	3.3	98,236.00	100.35	558.7	20.00
	55-64	4.4	91,940.00	82.37	548.07	15.00
	65+	5.8	47,500.00	51.84	347.65	15.00
	21-24	1.7	18,000.00	57.80	233.99	16.50
	25-34	1.8	566,043.76	133.89	2,263.92	25.00
Point Spread	35-44	2.5	300,000.00	137.41	882.45	25.00
Whole	45-54	3.6	61,801.72	105.41	443.49	25.00
	55-64	6.0	40,000.00	81.00	447.89	22.00
	65+	9.4	250,000.00	60.87	991.9	20.00

### Table 12. Betting Patterns by Bet Type by Age



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	21-24	1.5	15,581.45	62.99	218.78	15.00
	25-34	1.6	566,043.88	134.12	1,904.73	25.00
Tatal M/hala	35-44	2.2	200,000.00	172.94	798.67	30.00
Total Whole	45-54	2.7	33,950.00	107.55	456.57	25.00
	55-64	4.2	31,500.00	70.68	288.87	20.00
	65+	5.6	10,000.00	49.55	147.24	15.00
	21-24	0.5	72,000.00	116.54	823.63	14.00
	25-34	0.5	50,000.00	136.00	682.15	25.00
Moneyline	35-44	0.5	35,000.00	184.93	727.36	25.00
Partial	45-54	0.6	71,400.00	91.71	670.39	18.00
	55-64	0.6	14,016.00	60.81	315.09	10.00
	65+	0.5	6,730.77	40.54	152.65	6.26
	21-24	0.3	6,500.00	70.61	198.58	20.00
	25-34	0.3	77,499.00	145.98	540.99	43.48
Tatal Dautial	35-44	0.4	80,400.00	226.41	788.45	50.00
Total Partial	45-54	0.5	18,000.00	127.74	482.99	30.00
	55-64	0.5	8,000.00	72.70	243.55	17.00
	65+	0.5	5,359.23	57.97	167.86	20.00
	21-24	0.2	10,451.00	96.38	279.08	25.00
	25-34	0.2	40,000.00	178.09	557.70	50.00
Point Spread	35-44	0.2	100,000.00	216.43	737.23	50.00
Partial	45-54	0.4	15,000.00	153.56	440.26	40.00
	55-64	0.4	28,234.40	140.78	472.57	40.00
	65+	0.4	65,000.00	123.14	1,175.75	35.90
	21-24	2.1	12,000.00	39.56	158.81	10.00
	25-34	2.3	41,675.45	64.62	269.88	12.00
Duan	35-44	2.5	160,000.00	82.73	419.11	12.00
Prop	45-54	2.8	16,500.00	55.99	235.68	10.00
	55-64	3.3	15,000.00	36.99	138.77	10.00
	65+	3.3	12,000.00	34.57	131.33	10.00
	21-24	0.4	10,413.17	37.10	163.84	9.05
	25-34	0.5	130,000.00	69.67	446.57	10.00
F t	35-44	0.7	250,000.00	59.83	592.64	10.00
Futures	45-54	0.8	20,000.00	35.73	197.04	6.80
	55-64	1.3	35,000.00	35.48	225.35	6.00
	65+	1.7	3,400.00	22.81	82.15	6.24
	21-24	0.2	5,000.00	23.30	110.35	5.00
	25-34	0.2	14,800.00	36.36	200.78	5.00
Event Coore	35-44	0.3	10,000.00	36.54	178.8	5.00
Exact Score	45-54	0.3	9,500.00	19.69	132.41	5.00
	55-64	0.4	4,200.00	15.37	70.74	5.00
	65+	0.2	535.70	16.18	28.72	5.00
Other/	21-24	5.7	73,000.00	43.61	259.39	10.00
Unspecified	25-34	5.7	582,024.30	82.73	1,299.35	15.00
	35-44	6.6	300,000.00	90.87	567.57	12.00

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R	RUTGERS UNIVERSITY Center for Gambling Studies

45-54	6.2	55,690.00	57.33	290.58	10.00
55-64	7.7	54,000.00	48.24	343.36	10.00
65+	8.9	8,000.00	30.63	115.61	10.00

#### **C. IN-GAME BETTING**

In 2020, about 21% of all bets placed and 43% of all money wagered happened "in-game," that is, while a game or event was taking place. In-game betting is particularly important for analyses, because it lends itself to impulsive spending; it also possibly, leads to overspending, due to the effects of excitement, peer influences, and/or alcohol. The proportion of in-game bets in 2020 dropped about 12% from 2019, when about 33% of all bets were placed in-game.

Compared with all bets (see Table 10 above), a substantially smaller proportion of in-game bets were parlays (65.6% vs 81.3%), while larger proportions were moneyline whole (6.6% vs 3.3%), total whole (4.9% vs 2.1%), point spread whole (4.1% vs 2.6%), and other/unspecified bets (9.6% vs 6.2%), including vendor specialty or promotional bets. Mean wagers across all in-game bet types were higher than the average mean wager for all bets, with notable differences for prop (\$105 vs \$62), futures (\$93 vs \$52), and other/unspecified bets (\$107 vs \$73). Overall, the mean wager of in-game bets was about \$49, compared to a mean wager of \$24 of all bets. The median in-game bet placed was \$2.73, in contrast to all bets at \$1.54. Bettors could be less likely to coolly reflect on their betting or spending when in the throes of fan excitement, particularly in the presence of peers or alcohol; therefore, these findings highlight the need to further monitor and address the potential for problem betting patterns.

Bot Tuno	n %		Max Wagor	Mean	SD of	Median
вестуре			IVIAX VVAgei	Wager	Wager	Wager
Parlay (Standard)	19,213,317	65.6	80,000.00	11.65	95.32	1.11
Teaser	130,427	0.4	209,000.00	23.61	605.65	2.67
Round Robin	457,614	1.6	25,000.00	8.29	86.28	1.00
Moneyline Whole	1,937,339	6.6	314,700.00	140.82	787.18	20.00
Point Spread Whole	1,197,102	4.1	500,000.00	143.67	887.65	30.00
Total Whole	1,427,659	4.9	550,000.00	148.26	938.59	28.00
Moneyline Partial	426,503	1.5	72,000.00	158.50	773.20	25.00
Total Partial	248,820	0.8	80,400.00	165.16	590.56	50.00
Point Spread Partial	134,305	0.5	100,000.00	189.38	590.25	50.00
Prop	1,048,761	3.6	45,000.00	104.79	363.75	20.00
Futures	94,578	0.3	40,000.00	92.65	433.76	12.50
Exact Score	165,322	0.6	14,800.00	48.73	234.21	8.00
Other/Unspecified	2,826,293	9.6	300,000.00	106.98	592.03	17.00
Total	29,308,040	100.0	550,000.00	49.49	423.84	2.73

#### Table 13. Betting Patterns by Bet Type for In-Game Bets

About 88% percent of all in-game bets were placed by men, and 12% were placed by women (Table 14). This split is comparable to the proportion for all sports bets, 90% of which were placed



by men. However, considering the proportion of in-game bets to all bets, 21% of all men's wagers were placed in-game compared to 26% of all wagers by women. The average amount wagered for in-game bets was significantly higher for men (\$53 vs \$45) and also higher at the median (\$3 vs \$2).

Overall, 35 to 44 year olds placed a higher proportion of all their bets in-game than any other age group, including 28% of all in-game bets, and made the highest in-game wager, on average (\$63). Notably, those 55 and older placed the highest wagers at the median (\$5) on in-game bets. Altogether, almost 40% of all in-game bets were placed by 25 to 34 year olds.

Gender ( <i>n</i> = 26,379,796)	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
Male	23,214,107	88.0	550,000.00	52.86*	455.35	3.00
Female	3,165,689	12.0	314,700.00	44.81	311.90	2.00
Age Group	n 9/		May Wagor	Mean	SD of	Median
( <i>n</i> = 29,302,962)		/0	IVIAX VVAgei	Wager	Wager	Wager
21-24	2,997,067	10.2	73,000.00	31.41 <sup>e</sup>	245.73	2.46
25-34	11,582,255	39.5	550,000.00	49.06 <sup>b</sup>	488.99	2.47
35-44	8,160,101	27.9	314,700.00	62.51ª	471.03	3.00
45-54	4,398,099	15.0	98,236.00	44.39 <sup>c</sup>	291.24	3.33
55-64	1,759,319	6.0	50,000.00	40.19 <sup>d</sup>	263.07	5.00
65+	406,121	1.4	19,505.48	28.30 <sup>f</sup>	122.69	5.00

Significantly higher mean wager for indicated gender or age group (p < .001)

\*Males significantly higher than females

a-f.35-44 higher than all other age groups; 25-34 higher than 21-24 and 45-64; 45-54 higher than 21-24 and 55-64; 21-24 lower than 25-64; 65+ lower than all age groups

As in past years, men were significantly more likely to have placed at least one in-game bet than women (72.6% vs 69.6%), though the proportional difference between genders was the smallest in 2020 across all years (Table 15). Compared to 2018 and 2019, women made up a higher proportion of all in-game bettors in 2020, almost 13%. (Note: Gender data was available for 78.5% of in-game bettors.)

The percentage of bettors who were primarily in-game bettors (i.e., placed more than 50% of bets and wagered more than 50% of money in-game) was at an all-time low of 11%, reflecting a decrease from 2019 in raw numbers, as well. However, as in prior years, women were still more likely than men proportionately to bet primarily in-game (16.2% vs 10.4%).



2018									
Gender	% of All In-Game Bettors	Placed a Game	an In- Bet	Never Pla In-Gam	ced an e Bet	Primarily In- Game Bettor			
	%	n	%	n	%	n	%		
Male	87.4	42,350	67.7*	20,201	32.3	8,589	13.7		
Female	12.6	4,661	61.6	2,900	38.4*	1,453	19.2		
Total	100.0	47,011	67.1	23,101	32.9	10,042	14.3		
2019									
Gender	% of All In-Game Bettors	Placed an In- Game Bet		Never Pla In-Gam	ced an e Bet	Primarily In- Game Bettor			
	%	n	%	n	%	n	%		
Male	89.2	58,783	71.9*	150,304	28.1	35,863	17.2		
Female	10.8	11,496	65.3	21,590	34.7*	8,327	25.2		
Total	100.0	70 279	71 0	474 004					
2020									
		10,215	<b>2020</b>	171,894	29.0	44,190	18.2		
Gender	% of All In-Game Bettors	Placed a Game	2020 an In- Bet	Never Pla In-Gam	29.0 ced an e Bet	44,190 Primari Game B	18.2 ly In- ettor		
Gender	% of All In-Game Bettors %	Placed a Game n	2020 an In- Bet %	Never Pla In-Gam	29.0 ced an e Bet %	44,190 Primari Game B n	18.2 ly In- ettor %		
<b>Gender</b> Male	% of All In-Game Bettors % 87.1	Placed a Game n 160,553	2020 an In- Bet % 72.6*	171,894 Never Pla In-Gam n 60,580	29.0 ced an e Bet % 27.4	44,190 Primari Game B n 22,918	18.2 ly In- ettor % 10.4		
<b>Gender</b> Male Female	% of All In-Game Bettors % 87.1 12.9	Placed a Game 160,553 23,762	2020 an In- Bet % 72.6* 69.6	<b>Never Pla</b> <b>In-Gam</b> <b>6</b> 0,580 10,391	29.0 ced an e Bet % 27.4 30.4*	44,190 Primari Game B n 22,918 5,548	18.2 ly In- ettor % 10.4 16.2		

Table 15. III-Game betting by Genuer	Table 15.	In-Game	Betting	by	Gender
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\*Higher than expected for indicated gender and in-game bettor group (p < .001)

As in prior years, those in the 21 to 34 age group were more likely to have placed an in-game bet than those 35 and older (Table 16). However, there was a proportional *decrease* in participation among those ages 21 to 44 from 2019 to 2020; conversely, a higher percentage of those 45 and older participated in in-game betting than in each of the previous years. For example, about 61% of those 65+ placed an in-game bet in 2020, compared to 46% in 2018. Overall, the proportion of all bettors who placed an in-game bet decreased from 2019 to 2020, from 70% to 68%.

In addition, there was a decrease in bettors who engaged in primarily in-game betting across all age groups, most notable among the youngest bettors: Only 10% of 21 to 24 year olds were primarily in-game bettors in 2020, compared to about 22% in 2019; similarly, the percentage of 25 to 34 year olds dropped from 19% to about 11%. Whether this shift reflects the beginning of a trend or anomalous behavior due to the COVID-19 pandemic leading to the cancellation of sports events should be monitored across additional years.



2018										
Age Group	% of All In-Game Bettors	Placed a Game	in In- Bet	Never P an In-Gai	laced me Bet	Primarily In- Game Bettor				
-	%	n	%	n	%	n	%			
21-24	15.2	15,909	73.9*	5,620	26.1	3,862	17.9			
25-34	44.0	45,920	71.5*	18,341	28.5	9,240	14.4			
35-44	23.2	24,258	66.2	12,409	33.8*	3,967	10.8			
45-54	11.3	11,817	61.3	7,454	38.7*	1,643	8.5			
55-64	5.0	5,251	55.9	4,140	44.1*	594	6.3			
65+	1.2	1,268	45.8	1,498	54.2*	155	5.6			
Total	100.0	104,423	67.9	49,462	32.1	19,461	12.6			
	2019									
	% of All	Placed a	in In-	Never P	laced	Primarily In-				
Age	In-Game	Game	Bet	an In-Gai	me Bet	Game Bettor				
Group	Bettors		0/							
24.24	%	n	<b>%</b>	n	%	n	%			
21-24	17.8	36,363	74.6*	12,368	25.4	10,544	21.6			
25-34	41.9	85,282	/1.8*	33,489	28.2	22,575	19.0			
35-44 AE EA	21.9	44,567	68.6	20,431	31.4* 24.2*	10,459	10.1			
43-34 55-64	11.3 E E	23,095	62.0	12,034	34.3 <sup>·</sup> 27.2*	4,702	13.4			
55-04 65+	5.5 1.6	2 201	02.8 F0.0	0,008	37.Z <sup>*</sup>	2,045	10.5			
Total	100.0	3,301	70.0	2,212	40.1	5002	17.5			
TOLAI	100.0	203,776	70.0	87,142	30.0	50,905	17.5			
	% of All		2020	, 						
Age	In-Game	Placed a	ın In-	Never P	laced	Primaril	y In-			
Group	Bettors	Game	Bet	an In-Gai	me Bet	Game B	ettor			
•	%	n	%	n	%	n	%			
21-24	17.4	40,828	70.3*	17,257	29.7	5,880	10.1			
25-34	41.9	98,466	69.4*	43,466	30.6	16,121	11.4			
35-44	21.5	50,432	68.2	23,503	31.8*	8,638	11.7			
45-54	11.4	26,769	66.4	13,552	33.6*	4,049	10.0			
55-64	6.0	14,012	63.8	7,956	36.2*	1,948	8.9			
65+	1.9	4,382	61.2	2,780	38.8*	673	9.4			
Total	100.0	234,889	68.4	108,514	31.6	37,309	10.9			

\*Higher than expected for indicated age group (p < .001)

There were notable time shifts for in-game betting in 2020 compared to the prior year. In 2020, in-game bets represented the largest proportion of all bets from midnight to 3 a.m. (31.7%) followed by 3 a.m. to 6 a.m. (28.9%), in contrast to 2019, when the most popular in-game betting time was 9 p.m. to midnight (65.5% of all bets; Table 17). Notably, compared to the prior year, bettors placed about eight times the number of in-game bets between midnight to 3 a.m. and 14



times the number of in-game bets between 3 a.m. and 6 a.m. These changes could be due to increased betting overall on non-traditional or international events occurring outside of "primetime" hours in New Jersey.

Time of Day	2019		2020			
Time of Day	n	%	n	%		
6 a.m9 a.m.	481,430	20.1	836,806	16.8		
9 a.m12 p.m.	952,536	16.0	1,513,344	18.7		
12 p.m3 p.m.	2,034,056	32.7	2,846,588	17.9		
3 p.m6 p.m.	2,347,996	29.3	3,983,736	14.4		
6 p.m9 p.m.	3,309,566	32.0	6,343,262	24.9		
9 p.m12 a.m.	4,022,731	65.5	4,863,424	18.0		
12 a.m3 a.m.	820,516	24.3	6,414,658	31.7		
3 a.m6 a.m.	183,890	27.3	2,506,222	28.9		
Total	14,152,721	32.8	29,308,040	21.2		

#### Table 17. Proportion of All Bets Placed In-Game by Time of Day

#### **D. WAGERING BY SPORT**

The next several tables provide insight into betting behavior by specific sport, excluding parlay bets with legs on multiple sports. Though the COVID-19 pandemic likely affected overall betting-related activities in 2020, a majority of bets were still placed on major sporting events, including the National Football League (NFL)/pro football (29.2%), the National Basketball Association (NBA)/pro basketball (18.4%), soccer (13.9%), Major League Baseball (MLB)/pro baseball (9.8%), college basketball (9.8%), and college football (5.6%), which together comprised almost 87% of all sports bets (Table 18). However, there were notable additions to sport preferences in 2020, likely due to the suspension of traditional events; those included the popularity of ping pong (2.9 million bets; 2.1%) and field hockey (477,117 bets; 0.4%). Of interest, some of the less popular sports for betting garnered the largest mean wagers, including cricket (\$73.64), ping pong (\$55.19), and tennis (\$51.87). This could suggest that bettors placed larger amounts of money on lesser-known sports during a time when the population was increasingly isolated and lacking opportunities for normal leisure activities.



Sport	n	% of total	Max Wager	Mean Wager	SD of Wager	Median of Wager
NFL/Pro Football	39,737,802	29.2	582,024.30	19.88	607.60	1.67
NBA/Pro Basketball	25,016,468	18.4	119,715.00	20.78	203.97	1.43
Soccer	18,841,507	13.9	50,084.34	18.44	178.99	1.00
MLB/Pro Baseball	13,369,588	9.8	314,700.00	26.55	275.65	2.00
College Basketball	13,330,995	9.8	450,000.00	26.33	465.95	1.11
College Football	7,580,328	5.6	250,000.00	36.55	383.71	2.00
NHL/Pro Hockey	4,663,119	3.4	70,918.30	20.01	169.20	1.43
Tennis	4,388,123	3.2	96,082.30	51.87	385.52	1.98
Boxing/MMA	3,546,164	2.6	160,000.00	22.84	231.62	2.50
Ping Pong	2,859,080	2.1	73,000.00	55.19	311.72	4.00
Golf	1,484,427	1.1	130,000.00	36.22	255.52	5.00
Field Hockey	477,117	0.4	40,000.00	23.75	170.24	1.87
Darts	280,790	0.2	50,000.00	28.65	254.41	1.00
NASCAR/Motorsports	221,784	0.2	10,000.00	22.20	95.68	5.00
Cricket	72,813	0.1	7,000.00	73.64	167.84	25.00
All Other Sports	85,804	0.1	59,000.00	55.13	515.81	2.06
Total	135,955,909	100.0	582,024.30	24.19	409.15	1.50

Betting patterns by sport were comparable between men and women, with a few differences. For example, men placed a higher proportion of bets on the NFL/pro football (28.4% vs. 26.9%), and women bet on college basketball (11.3% vs 10.1%). Men also placed a slightly higher percentage of their bets on college football and boxing/MMA, while women bet more on NBA/pro basketball and ping pong (Table 19). Differences in median wagers generally varied by \$1 or less, suggesting that players in the middle of the statistical distribution placed similar bets irrespective of gender. However, on average, men placed larger mean wagers on more traditional sports (i.e., NBA/pro basketball, NFL/pro football, MLB/pro baseball, college basketball, college football, soccer, and NHL/pro hockey), while women placed larger mean wagers on more non-traditional sports (i.e., golf, ping pong, NASCAR/motor sports, field hockey, and darts). This could indicate that men bet on sports they believe they know well, whereas betting for women is more arbitrary and/or dependent on availability during specific time periods.



#### Table 19. Betting Patterns by Sport by Gender

	Males						Females			
	( <i>n</i> = 107,920,535 bets)					( <i>n</i> = 12,098,119 bets)				
Sport	% of Total	Max Wager	Mean Wager	SD of Wager	Median of Wager	% of Total	Max Wager	Mean Wager	SD of Wager	Median of Wager
NFL/Pro Football	28.4	80,000.00	8.13*	102.75	1.67	26.9	15,000.00	7.27	77.68	1.25
NBA/Pro Basketball	18.3	31,539.00	6.49*	59.24	1.50	19.0	17,000.00	5.85	62.06	1.25
Soccer	14.0	25,000.00	7.13*	67.99	1.00	13.9	15,138.18	6.01	68.76	0.75
MLB/Pro Baseball	10.0	206,654.27	10.22*	111.15	2.00	10.2	16,406.25	8.83	89.46	1.43
College Basketball	10.1	50,000.00	7.73*	72.07	1.24	11.3	10,000.00	6.46	73.16	0.82
College Football	5.5	62,000.00	13.18*	139.79	2.25	4.8	11,000.00	11.11	117.69	1.25
NHL/Pro Hockey	3.6	17,500.00	6.62*	46.46	1.50	3.6	15,000.00	5.43	60.74	1.00
Tennis	3.3	30,000.00	13.71	102.35	2.00	3.9	17,000.00	13.46	171.16	1.34
Boxing/MMA	2.7	16,000.00	9.20	68.64	2.50	2.0	5,000.00	9.40	48.42	2.50
Ping Pong	2.0	5,000.00	13.00	58.50	5.00	2.7	19,772.31	16.43*	101.11	5.00
Golf	1.2	5,500.00	11.64	61.63	5.00	0.8	6,893.62	25.30*	123.5	10.00
Field Hockey	0.4	3,232.56	5.81	35.43	1.73	0.5	3,461.54	7.47*	48.08	3.25
Darts	0.2	2,000.00	5.02	27.98	1.00	0.2	1,705.50	7.62*	49.02	1.67
NASCAR/Motorsports	0.2	1,830.77	9.33	36.16	5.00	0.1	1,500.00	13.96*	62.21	5.00
Cricket	0.1	2,500.00	8.77	49.72	25.00	0.0	400.00	4.86	21.09	15.00
All Other Sports	0.1	12,000.00	11.34	83.11	2.00	0.1	5,621.50	12.14	123.64	5.00

\*Significantly higher mean wager for indicated sport and gender (p < .001)

In contrast to gender, preferences for sport varied markedly by age in 2020 (Table 20). All age groups demonstrated a clear preference for betting on NFL/pro football, particularly those ages 21 to 24, who placed nearly one-third of all their bets on football. NBA/pro basketball was the next most preferred sport for all age groups, particularly those ages 21 to 24 (23.6%), except for 45 to 54 year olds (14.3%), who placed a larger percentage of bets on soccer (15.6%). Overall, bettors age 55 and older preferred betting on MLB/pro baseball, college basketball, and college football compared to those 54 and younger; boxing/MMA and golf were more preferred by those 21 to 34; and, tennis was more preferred by those 35 to 44.

At the mean, wagers within each sport also differed by age. As was the case across bet types, those ages 35 to 44 years placed the largest average bets on the majority of sports, including NBA/pro basketball, MLB/pro baseball, college basketball, college football, soccer, tennis, NHL/pro hockey, ping pong, and field hockey. Those ages 25 to 34 had the highest mean bets on golf, cricket, and darts; 45 to 54 year olds, the highest on NASCAR/motor sports; and, 55 to 64 year olds, the highest on NFL/pro football. Generally, average bet size was lowest among the youngest (21 to 24) and oldest (65+) bettors. However, the youngest bettors placed comparably high bets on tennis, ping pong, cricket, and darts, and the oldest bettors placed higher bets on boxing/MMA and college football.



Sport	Age Group	% of total	May Wager	Mean	SD of	Median
5001	Age Gloup		INIAN WAGEI	Wager	Wager	Wager
	21-24	31.8	50,000.00	9.75	99.19	1.25
	25-34	29.3	582,024.30	18.75	895.73	1.43
NFL/Pro	35-44	28.9	300,000.00	24.16	361.72	1.67
Football	45-54	27.3	55,690.00	23.19	200.26	2.00
	55-64	28.9	83,353.00	24.40	244.04	3.33
	65+	30.6	150,000.00	23.16	308.33	5.00
	21-24	23.6	25,000.00	10.18	82.67	1.25
	25-34	20.1	119,715.00	19.68	228.39	1.25
NBA/Pro	35-44	16.7	97,500.00	27.73	234.51	1.67
Basketball	45-54	14.3	36,000.00	23.96	168.21	1.71
	55-64	14.0	25,000.00	25.11	182.77	2.73
	65+	14.5	19,505.48	22.65	109.25	3.13
	21-24	11.6	21,000.00	10.56	79.80	1.00
	25-34	14.3	50,084.34	17.00	187.68	0.83
Soccor	35-44	14.5	45,000.00	25.39	206.49	1.00
30000	45-54	15.6	23,909.00	16.77	171.57	1.00
	55-64	10.4	22,500.00	16.94	125.11	1.54
	65+	9.3	4,003.70	9.80	47.49	1.25
	21-24	9.0	16,000.00	17.22	122.35	2.00
	25-34	9.2	77,499.00	25.68	246.02	1.70
MLB/Pro	35-44	9.9	314,700.00	33.69	410.59	1.67
Baseball	45-54	11.1	74,400.00	25.44	186.52	1.89
	55-64	11.7	91,940.00	24.08	182.16	3.18
	65+	12.2	6,500.00	21.76	84.42	4.00
	21-24	7.5	15,000.00	13.97	105.77	1.00
	25-34	8.9	450,000.00	27.74	698.73	1.00
College	35-44	10.7	250,000.00	28.99	278.35	1.00
Basketball	45-54	11.6	98,236.00	25.81	259.37	1.25
	55-64	12.0	31,356.00	27.67	231.38	2.50
	65+	12.4	8,559.58	21.64	92.18	3.33
	21-24	4.8	25,000.00	18.88	147.99	1.67
	25-34	4.7	120,000.00	35.09	390.42	1.67
College	35-44	5.7	200,000.00	44.24	433.74	2.00
Football	45-54	7.0	70,224.00	39.76	284.35	2.50
	55-64	8.3	50,000.00	34.26	293.47	4.00
	65+	8.2	250,000.00	38.95	990.34	5.00
	21-24	2.6	17,800.20	12.87	83.37	1.67
	25-34	3.3	70,918.30	20.08	196.54	1.35
NHL/Pro	35-44	3.5	30,000.00	23.81	176.72	1.25
Hockey	45-54	3.9	20,000.00	18.15	122.93	1.25
	55-64	4.3	40,000.00	19.37	166.75	2.50
	65+	3.4	5,750.00	19.94	86.59	4.29

Table 20. Betting Patterns by Sport by Age



RUTGERS UNIVERSITY Center for Gambling Studies

	21-24	2.7	72,000.00	37.73	376.98	1.67
	25-34	3.2	96,082.30	53.47	446.34	1.77
Tamaia	35-44	3.6	31,000.00	67.62	399.09	2.00
Tennis	45-54	3.0	42,000.00	42.63	230.84	2.00
	55-64	3.3	14,000.00	22.50	133.93	2.00
	65+	3.0	10,534.91	14.27	92.62	1.33
	21-24	3.4	8,400.00	13.48	62.02	2.50
	25-34	3.3	56,725.08	22.27	211.73	2.44
Poving/NANAA	35-44	2.3	160,000.00	28.97	333.06	2.00
DOXING/ WINNA	45-54	1.4	15,000.00	26.28	157.00	3.33
	55-64	1.2	15,000.00	24.04	140.34	5.00
	65+	1.0	47,500.00	52.23	780.63	5.00
	21-24	1.9	73,000.00	43.68	371.81	2.50
	25-34	2.0	50,000.00	62.55	334.65	4.50
Ding Dong	35-44	2.2	50,000.00	66.84	346.88	5.00
Ping Pong	45-54	2.3	10,000.00	36.50	179.75	2.63
	55-64	2.3	8,000.00	34.91	119.36	5.00
	65+	1.6	2,016.00	19.23	76.43	3.33
	21-24	0.7	3,500.00	19.55	67.61	5.00
	25-34	0.9	130,000.00	43.10	324.51	10.00
Golf	35-44	1.1	50,000.00	42.35	281.01	5.00
	45-54	1.3	17,500.00	29.33	160.04	5.00
	55-64	2.1	35,000.00	29.11	179.33	5.00
	65+	2.7	2,500.00	17.11	56.87	5.00
	21-24	0.2	3,000.00	13.22	64.26	2.10
	25-34	0.3	10,000.00	22.64	144.59	1.56
Field Hockey	35-44	0.4	18,957.48	33.03	206.14	1.77
There Trockey	45-54	0.4	5,000.00	18.05	88.84	1.53
	55-64	0.6	40,000.00	17.77	265.59	2.88
	65+	0.5	5,750.00	21.84	120.40	3.58
	21-24	0.1	13,298.00	27.03	148.89	0.83
	25-34	0.2	50,000.00	42.41	413.51	1.00
Darts	35-44	0.3	7,008.00	26.73	129.79	1.00
24.00	45-54	0.3	15,000.00	16.07	127.70	0.70
	55-64	0.2	2,579.19	11.80	61.06	1.35
	65+	0.2	2,000.00	18.94	93.47	0.83
	21-24	0.1	1,500.00	12.39	41.35	5.00
	25-34	0.1	10,000.00	23.46	116.16	5.82
NASCAR/	35-44	0.1	5,000.00	22.12	99.65	5.00
Motorsports	45-54	0.3	8,960.00	29.52	94.43	5.00
	55-64	0.4	3,869.39	14.38	71.01	5.00
	65+	0.3	500.00	13.23	25.23	5.00
	21-24	0.0	3,319.29	34.21	118.20	5.00
Cricket	25-34	0.1	6,000.00	90.09	158.93	47.59
	35-44	0.1	7,000.00	56.65	201.84	20.00

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	45-54	0.0	4,000.00	26.88	112.68	10.00
Cricket	55-64	0.0	1,406.00	48.76	77.66	25.00
	65+	0.0	150.00	21.60	35.22	5.00
	21-24	0.0	8,000.00	24.07	156.75	2.00
	25-34	0.1	59,000.00	63.72	777.56	2.22
All Other	35-44	0.1	20,000.00	58.64	294.31	2.00
Sports	45-54	0.1	10,000.00	65.25	336.61	1.44
	55-64	0.1	7,500.00	33.70	195.72	4.00
	65+	0.1	6,463.00	20.30	179.08	1.00

The three most popular sports for betting (NFL/pro football, NBA/pro basketball, soccer) also were the top three sports for in-game betting; soccer (24.4%), NBA/pro basketball (15.2%), and NFL/pro football (12.4%) together comprised 52% of all in-game bets (Table 21). Notably, more than 77% of all cricket bets, 70% of all tennis bets, and 53% of ping pong bets were placed in-game. In contrast, only 37% of all soccer, 17% of NBA/basketball, and 9% of NFL/pro football bets were in-game. Taken together, this highlights that the popularity of betting on a sport may not be necessarily linked to the propensity for betting while the game is in progress.

As noted, the mean wager on in-game bets was double the size of all bets (\$50 vs \$24), a pattern that held across each individual sport. Differences were most pronounced for golf (\$61 vs \$36), NBA/pro basketball (\$55 vs \$21), cricket (\$84 vs \$74), NFL/pro football (\$60 vs \$20), and college basketball (\$49 vs \$26). The largest average bet amounts for in-game bets were on cricket (mean=\$84, median=\$33), ping pong (mean=\$82, median=\$10), darts (mean=\$78, median=\$5), and college football (mean=\$76, median=\$4). Other bets that were high at the median included golf, boxing/MMA, and NASCAR/motorsports (\$10).

Sport	n	% of all	% of bets	Max	Mean	SD of	Median
эрон	п	in-game bets	placed in-game	Wager	Wager	Wager	Wager
Soccer	6,975,583	24.4	37.0	50,084.34	28.69	239.56	1.30
NBA/Pro Basketball	4,339,206	15.2	17.3	100,000.00	55.42	334.88	5.00
NFL/Pro Football	3,543,436	12.4	8.9	550,000.00	60.30	759.65	5.00
College Basketball	3,074,432	10.8	23.1	98,236.00	49.44	355.58	2.00
Tennis	3,047,859	10.7	69.5	96,082.30	61.39	427.46	2.00
MLB/Pro Baseball	2,879,382	10.1	21.5	314,700.00	42.08	418.78	2.50
Ping Pong	1,500,402	5.3	52.5	73,000.00	81.62	401.60	10.00
College Football	1,463,015	5.1	19.3	200,000.00	76.41	557.83	4.40
NHL/Pro Hockey	1,167,691	4.1	25.0	70,918.30	34.62	254.61	2.00
Golf	251,608	0.9	16.9	50,000.00	60.73	363.09	10.00
Field Hockey	111,650	0.4	23.4	18,957.48	36.55	186.56	4.10
Boxing/MMA	59,472	0.2	1.7	56,725.08	73.03	474.13	10.00
Darts	58,229	0.2	20.7	29,964.00	77.60	384.47	5.00
Cricket	56,380	0.2	77.4	7,000.00	83.58	170.83	33.00
NASCAR/Motorsports	21,580	0.1	9.7	4,500.00	36.21	106.31	10.00
All other sports	25,643	0.1	29.9	59,000.00	110.48	864.38	5.00
Total	28,575,568	100.0	21.0	550,000.00	49.90	428.33	2.55

#### Table 21. In-Game Betting by Sport





#### **E.** LOSING BETS

Analyzing loss percentages provides a foundation for understanding the implications of player spend on individual bets. In contrast to 2019, when 70% of all bets lost, in 2020, 85% of all sports bets in 2020 resulted in a loss to the player (Table 22). The bet types most likely to lose were parlays (standard: 91.5%; teaser: 88.3%; round robin: 82.2%), exact score (81.1%), futures (74.8%), and prop (68.7%) bets. Straight bets (point spread, moneyline, total) generally had the lowest loss percentages (i.e., closer to a 50/50 chance of winning).

Table 22 provides four different perspectives on win/loss by specific types of bets. The first three columns show the average amount: a) lost on losing bets, b) won on winning bets, and c) lost across all bets made within that bet type. The amount lost is equivalent to the amount wagered on bets that lost. The amount "won" excluded the amount wagered that was returned to the player on bets that won; for example, if a player bet \$5 and won \$25, the win amount was calculated as \$20. The last column of the table presents a novel statistic, the outcome-adjusted loss:win ratio, which estimates the amount of money lost for every dollar won on each bet type.

Parlay, prop, futures, and exact score bets all had higher mean win amounts than mean loss amounts due to the higher odds of these bet types, which corresponds with substantially higher losing percentages (i.e., "high risk, high reward"). Straight bet types, meanwhile, had lower amounts won than amounts lost, due to the bets themselves being less risky, having lower odds (which equates to a lower payout), and a higher chance of winning when compared to other bet types. The only exception to this was moneyline partial bets, the only bet type to have an overall winning outcome, though these were less than 0.1% of all bets.

Combining all bets—both those that won and those that lost—then averaging by the number of total bets found that every bet type lost, on average, \$1.93. Moneyline partial bets lost the smallest amount on average, 3 cents, while point spread partial bets lost an average of \$13 per bet; the majority of bets lost between \$1 and \$7. Overall, for every dollar won on a bet, \$1.22 was lost. This varied from \$1.00 lost for each dollar won for moneyline partial bets to \$1.94 lost for each dollar won for teasers.

The bottom of Table 22, encompassing all bet types, shows variation in the loss percentages and amounts won and lost between bets placed in-game and those placed before the game/event began. About 77% of in-game bets lost compared with 88% of non-in-game bets. This is likely due to the fact that parlay bets were less popular in-game than not in game. However, mean loss and win amounts were substantially higher for in-game bets, resulting in almost a \$1 higher amount lost overall (\$2.70 vs \$1.72), on average.



Table 22. Loss Percentage and bet Amount by bet Type
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Bet Type	Loss Outcome Percentage	Mean Amount Lost on Losing Bets (\$)	Mean Amount Won on Winning Bets (\$)	Mean Amount Lost on All Bets (\$)	Outcome- Adjusted Loss:Win Ratio (\$)
Parlay (Standard)	91.5	-4.88	37.26	-1.32	1.41:1
Teaser	88.3	-8.92	34.70	-3.80	1.94:1
Round Robin	82.2	-2.66	7.36	-0.93	1.67:1
Moneyline Whole	50.4	-86.33	83.49	-2.15	1.05:1
Point Spread Whole	50.3	-105.69	92.52	-7.19	1.16:1
Total Whole	47.8	-107.34	89.61	-4.46	1.10:1
Moneyline Partial	57.9	-78.56	108.08	-0.03	1.00:1
Total Partial	50.8	-131.44	123.66	-6.02	1.10:1
Point Spread Partial	50.4	-164.26	140.32	-13.08	1.19:1
Prop	68.7	-35.66	54.96	-7.28	1.42:1
Futures	74.8	-33.19	69.74	-7.22	1.41:1
Exact Score	81.1	-19.60	55.50	-5.41	1.52:1
Other/Unspecified	63.3	-48.67	74.51	-3.50	1.13:1
In-Game	76.6	-25.17	70.75	-2.70	1.16:1
Not In-Game	87.6	-9.50	53.42	-1.72	1.26:1
Total	85.3	-12.43	59.20	-1.93	1.22:1

#### **F. PARLAY BETTING**

In 2020, bettors placed about 106 million parlay bets. Overall, the most popular parlay bets had five legs (11.4%; 12.1 million), followed by four legs (10.7%; 11.3 million), six legs (10.3%; 10.9 million), three legs (9.6%; 10.2 million), and seven legs (8.7%; 9.3 million). This reflects a notable shift from the prior year, when parlay bets of two legs were the most popular, with decreasing popularity for each additional leg. In 2019, about 36% of all parlay bets were two or three legs compared to just 16% in 2020; less than one-third of parlay bets in 2019 were more than six legs (27.7%) compared to more than half of parlay bets in 2020 (51.5%).

Within parlays, betting on more legs was increasingly associated with a greater chance of losing, from a low of 70% for two-leg bets to a high of about 98% for bets on parlays with 16 or more legs. Bettors, on average, wagered more money on parlay bets that included fewer legs, which was aligned with higher amounts won. However, as winning was infrequent, the mean amount lost overall also was higher among bets with fewer legs. On the smallest (two-leg) parlays, bettors lost \$1.32 for every dollar won, compared to \$4.46 lost for every dollar won on the largest parlays. Given the explosion in overall preference for parlay betting in 2020 (Table 10), the increased parlay betting particularly on parlays with more legs warrants monitoring.



Number of Legs	n	%	Loss Outcome Percentage	Mean Amount Lost on Losing Bets (\$)	Mean Amount Won on Winning Bets (\$)	Mean Amount Lost on All Bets (\$)	Outcome- Adjusted Loss:Win Ratio (\$)
2 legs	6,943,383	6.5	70.2	-27.56	49.25	-4.65	1.32:1
3 legs	10,215,176	9.6	81.2	-12.68	39.50	-2.89	1.39:1
4 legs	11,322,213	10.7	87.5	-7.41	35.96	-1.99	1.44:1
5 legs	12,112,216	11.4	90.9	-4.64	30.79	-1.44	1.51:1
6 legs	10,909,611	10.3	93.0	-3.36	30.22	-1.00	1.47:1
7 legs	9,255,760	8.7	94.3	-2.54	25.48	-0.95	1.65:1
8 legs	8,490,769	8.0	95.3	-1.96	24.15	-0.74	1.65:1
9 legs	6,569,102	6.2	95.9	-1.58	22.27	-0.61	1.67:1
10 legs	6,573,912	6.2	96.5	-1.27	19.60	-0.54	1.78:1
11 legs	4,945,021	4.7	96.8	-1.10	19.37	-0.44	1.72:1
12 legs	4,894,310	4.6	97.1	-1.02	19.75	-0.41	1.71:1
13 legs	3,598,214	3.4	97.2	-0.81	12.82	-0.43	2.21:1
14 legs	3,120,473	2.9	97.3	-0.74	11.05	-0.41	2.37:1
15 legs	5,608,148	5.3	97.1	-0.69	9.99	-0.39	2.35:1
16+ legs	1,473,312	1.4	98.3	-0.65	8.57	-0.50	4.46:1
Total	106,031,620	100.0	91.2	-4.90	35.14	-1.37	1.45:1

Table 23. Loss Percentage and Bet Amount of Parla	y Bets by Number of Legs
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#### **G. FUNDING PLAY: PAYMENT TYPES**

Sports bettors have the choice to deposit money into their online accounts using a variety of payment methods (Table 24). Data reporting a card type or brand (e.g., Visa, MasterCard) and prepaid cards were recorded as "credit cards."

Compared to 2019, when more than 67% of bets were placed by bettors using a single payment method, only 44% of bets were placed by bettors who used a single payment method in 2020. Overall, about 40% of bets were placed by bettors who used only a credit card and very few single-payment bets were placed using ePay (2.8%) or only a bank account (1.5%). About 56% of bets were funded through two or more payments methods: 21% by those who used both credit card and ePay services (such as PayPal), about 4% higher than the previous year; 19% by both ePay services and a bank account, and 14% using all three deposit types, both more than double the bets funded by those types the previous year. Compared to 2019, there was a pronounced drop in use of any ePay service (from 94% to 58%), and an uptick in any use of credit cards (28% to 76%).



#### Table 24. Payment Type

Single Payment Method	n	%
Credit Card Only	53,708,630	40.2
ePay Service Only	3,700,354	2.8
Bank Account Only	1,949,503	1.5
Total of Single Method	59,358,487	44.4
Two or More Payment Methods	n	%
Credit Card & ePay Service	28,432,881	21.3
ePay Service & Bank Account	25,868,672	19.4
All Three Deposit Types	19,294,975	14.4
Credit Card & Bank Account	634,665	0.5
Total of Multiple Methods	74,231,193	55.6

Differences between payment preferences by gender were minimal. Sports bets placed by men were more likely to be funded by bettors who used a combination of ePay services and bank accounts (19% vs 16%); women were more likely to use all three deposit types (19% vs 15%). Other differences, while statistically significant, are not substantively notable.

1 1 1					
Payment Type	Male		Female		
Payment Type	n	%	n	%	
Credit Card	40,540,246	38.2*	4,593,555	38.1	
ePay Service	3,256,983	3.1*	328,725	2.7	
Bank Account	1,225,952	1.2	143,980	1.2*	
Total of Single Method	45,023,181	42.4	5,066,260	42.0	
Credit Card & ePay Service	23,812,345	22.4	2,742,131	22.8*	
ePay Service & Bank Account	20,504,578	19.3*	1,930,541	16.0	
All Three Deposit Types	16,299,710	15.3	2,284,523	19.0*	
Credit Card & Bank Account	584,151	0.5*	25,243	0.2	
Total of Multiple Methods	61,200,784	57.6	6,982,438	58.0	

#### Table 25. Payment Type by Gender

\*Higher than expected proportion for indicated gender (p < .001)

Use of a single payment method proportionately increased with age, such that only 38% of bets by those ages 21 to 24 were placed by those using a single payment method, compared with 61% of those 65 and older. In addition, bets placed by those 35 and older were significantly more likely to be placed by those using only credit cards or ePay services; use of only a bank account was over-represented among those ages 21 to 24 and those 55 and older. Across the combinations of payment methods, the combination of ePay services and bank accounts as well as all three deposit types were used more by 21 to 34 year olds, while the combination of credit cards and ePay services was inconsistent, disproportionately higher among those 21 to 24, 35 to 44, and 55 to 64 years. Credit cards and bank accounts together were more popular for bets placed by those 45 to 54 and 65 and older. Altogether, nearly 62% of bets placed by 21 to 24 year olds were funded by those using multiple payment methods.



#### Table 26. Payment Type by Age

Dourmont Turno	21-24	ļ	25-34		35-44		45-54		55-64		65+	
Payment Type	n	%	n	%	n	%	n	%	n	%	n	%
Credit Card	5,943,894	35.2	20,244,248	37.2	1,444,1007	42.4*	8,495,414	45.6*	365,5531	46.8*	927,879	51.1*
ePay Service	258,091	1.5	1,190,838	2.2	959,857	2.8*	764,389	4.1*	38,9772	5.0*	136,229	7.5*
Bank Account	249,464	1.5*	788,294	1.4	39,6478	1.2	237,360	1.3	23,1927	3.0*	45,967	2.5*
Single Method Total	6,451,449	38.2	22,223,380	40.8	15,797,342	46.4	9,497,163	51.0	427,7230	54.8	1,110,075	61.1
Credit Card & ePay Service	3,994,490	23.7*	11,303,656	20.8	7,287,968	21.4*	3,865,232	20.8	172,9582	22.1*	244,118	13.4
ePay Service & Bank Account	3,413,073	20.2*	11,749,404	21.6*	6,457,979	19.0	2,799,370	15.0	117,4725	15.0	274,121	15.1
All Three Deposit Types	2,969,264	17.6*	9,038,157	16.6*	4,407,117	13.0	2,100,186	11.3	60,7192	7.8	173,059	9.5
Credit Card & Bank Account	51,069	0.3	126,894	0.2	72,872	0.2	348,385	1.9*	2,0199	0.3	15,087	0.8*
Total of Multiple Methods	10,427,896	61.8	32,218,111	59.2	18,225,936	53.6	9,113,173	49.0	3,531,698	45.2	706,385	38.9

\*Higher than expected proportion for indicated payment type and age group (p < .001)

There were significant differences in payment methods used for bets placed in-game compared to not in-game. Notably, bets that were not placed in game were funded more often by using only a credit card (41% vs 39%), and in-game bets were more often funded by all three deposit types (16% vs 14%).

Doursent Turne	In-Game	9	Not In-Game		
Payment Type	n	%	n	%	
Credit Card	10,909,942	38.5	42,798,688	40.7*	
ePay Service	845,998	3.0*	2,854,356	2.7	
Bank Account	360,623	1.3	1,588,880	1.5*	
Single Method Total	12,116,563	42.8	47,241,924	44.9	
Credit Card & ePay Service	6,099,356	21.5*	22,333,525	21.2	
ePay Service & Bank Account	5,473,400	19.3	20,395,272	19.4*	
All Three Deposit Types	4,563,923	16.1*	14,731,052	14.0	
Credit Card & Bank Account	69,182	0.2	565,483	0.5*	
Total of Multiple Methods	16,205,861	57.2	58,025,332	55.1	

Table 27. Payment Type by In-Game vs Not In-Game

\*Higher than expected for indicated payment type and in-game bet status (p < .001)

## **V. High-Intensity Bettors**

This section of the analyses concentrated on players who bet at a high intensity, characterized by highest number of yearly bets placed, number of betting days, and total amount bet over the course of the year. For these analyses, only players who met all inclusion criteria for high-intensity betting were included, a total of 14,273 bettors. Gender data was available for 94% of these bettors, and about 94% were New Jersey residents.



Overall, high-intensity bettors comprised about 4% of all sports bettors, placed about 40% of all bets, including 51% of all in-game bets, and wagered 57% of all money. In comparison, in 2019, high-intensity bettors made up about 5% of all sports bettors, placed 47% of all bets, including 53% of all in-game bets, and wagered 66% of the money. Comparing these findings suggests that, in 2020, a smaller proportion of bettors were betting and spending at high intensity than in the prior year.

Among sports bettors in each county, high-intensity bettors were over-represented in Bergen and Monmouth counties and under-represented in Camden and Gloucester counties in 2020 (Table 29). Bergen County residents also were over-represented in 2019. Additionally, the proportion of high-intensity bettors in Monmouth County increased from 9% in 2019 to almost 11% in 2020. Year over year, there also was a large increase in the percentage of high-intensity bettors in Essex County (from 8.3% to 10.1%) and a notable decrease in Morris County (from 5.7% to 4.4%).

		2018			2019			2020	
County	n	% of High- Intensity Bettors	% of sports bettors	n	% of High- Intensity Bettors	% of sports bettors	n	% of High- Intensity Bettors	% of sports bettors
Atlantic	191	3.1	3.5	387	2.8	3.5	348	2.6	3.3
Bergen	762	12.4	11.4	2,055	15.1ª	11.7	1,950	14.6 <sup>a</sup>	11.5
Burlington	270	4.4	4.8	594	4.4	5.1	508	3.8	4.9
Camden	322	5.2	5.8	686	5.0	6.4	615	4.6 <sup>b</sup>	6.4
Cape May	68	1.1	1.0	83	0.6	1.0	100	0.7	0.9
Cumberland	50	0.8	0.9	87	0.6	1.0	80	0.6	1.0
Essex	362	5.9	7.2	1,131	8.3	8.4	1,347	10.1	9.5
Gloucester	198	3.2	3.7	450	3.3	3.8	315	2.4 <sup>b</sup>	3.6
Hudson	492	8.0	8.4	1,344	9.9	9.2	1,384	10.4	9.0
Hunterdon	84	1.4	1.1	148	1.1	1.0	98	0.7	0.9
Mercer	153	2.5	2.8	354	2.6	2.9	301	2.3	2.9
Middlesex	458	7.4	7.8	1,033	7.6	7.6	1,096	8.2	7.8
Monmouth	702	11.4	11.8	1,274	9.4	9.0	1,426	10.7ª	8.9
Morris	418	6.8	5.9	779	5.7	5.3	588	4.4	4.9
Ocean	388	6.3	7.0	733	5.4	6.1	710	5.3	5.8
Passaic	311	5.0	5.6	949	7.0	6.8	1,013	7.6	7.1
Salem	14	0.2	0.4	36	0.3	0.4	40	0.3	0.4
Somerset	222	2.5	3.1	426	3.1	2.8	366	2.7	2.8
Sussex	73	1.2	1.3	139	1.0	1.2	108	0.8	1.1
Union	309	5.0	5.7	811	6.0	6.0	879	6.6	6.3
Warren	58	0.9	0.9	89	0.7	0.8	87	0.7	0.8

#### Table 28. Percentage of High-Intensity Bettors by County

<sup>a</sup> Significantly higher % of high-intensity bettors in relation to % of sports bettors (p < .001)

<sup>b</sup> Significantly lower % of high-intensity bettors in relation to % of sports bettors (p < .001)



Men made up a smaller proportion of high-intensity bettors in 2020 (91.1%) than in either of the previous years (Table 29). The number of men classified as high-intensity bettors actually decreased from 2019 to 2020, and the number of women more than doubled – an important finding since women comprised only about 13% of all those who gambled on sports. This finding is similar to trends with online casino wagering, suggesting that it will be increasingly important for responsible gaming (RG) initiatives to target this group of female bettors. The average age for men, 37 years, has remained consistent since 2018, but the average age for women, 38 years, declined from 2019 (40 years).

Voor	Gondor	0/			Age		
rear	Gender	70	n	Minimum	Maximum	Mean	SD
2019	Male	95.3	3,111	21.0	80.3	37.9	10.9
2010	Female	4.7	152	21.5	74.4	36.5	9.8
2010	Male	96.3	13,127	21.0	89.5	37.2	11.2
2019	Female	3.7	502	21.0	80.5	<b>39.5</b> ª	12.4
2020	Male	91.1	12,283	21.4	86.5	37.4	11.2
2020	Female	8.9*	1,197	21.6	91.9	37.8	11.2

#### Table 29. High-Intensity Bettors by Gender and Age Across Years

\*2020 significantly higher proportion of females than all other years (p < .001) <sup>a</sup> Significantly higher age for indicated gender within indicated year (p < .001)

Overall, there was little change in the age make-up of high-intensity bettors between 2019 and 2020. Those in the 25 to 34 age category made up the largest percentage of bettors (39.6%), followed by 35 to 44 year olds (26.1%; Table 30). Considering the relative proportion of all sports bettors, those ages 35 and older were over-represented among high-intensity bettors. This is reflected in a higher mean age among high-intensity bettors compared to other bettors (37.5 vs 35.7 years) in 2020, as well as in all prior years.

#### 2018 % of all High-High-Other % Age Group Intensity % Intensity Bettors Bettors Bettors 21-24 14.0 466 2.2 21,046 97.8\* 25-34 41.8 61,780 96.2\* 2,417 3.8 35-44 23.8 1,687 4.6\* 34,941 95.4 45-54 1,039 5.4\* 18,221 94.6 12.5 55-64 468 5.0\* 8,920 95.0 6.1 65+ 1.8 88 2,676 96.8\* 3.2 Total 100.0 6,165 4.0 147,584 96.0 Min 21.0 21.0 95.3 Max 96.4 Mean 38.2ª 36.0

#### Table 30. High-Intensity Bettors by Age Group Across Years



		2019				
Age Group	% of all High- Intensity Bettors	High- Intensity Bettors	%	Other Bettors	%	
21-24	10.7	1,540	3.2	47,099	96.8*	
25-34	39.3	5,682	4.8	112,795	95.2*	
35-44	25.8	3,724	5.7*	61,083	94.3	
45-54	14.6	2,109	6.0*	32,924	94.0	
55-64	7.7	1,107	6.2*	16,609	93.8	
65+	1.9	278	5.1	5,208	94.9*	
Total	100.0	14,440	5.0	275,718	95.0	
Min		21.0	21.0			
Max		89.5	98.6			
Mean		37.6ª	35.6			
		2020				
Age Group	% of all High- Intensity Bettors	2020 High- Intensity Bettors	%	Other Bettors	%	
Age Group	% of all High- Intensity Bettors 10.7	2020 High- Intensity Bettors 1,520	%	Other Bettors 56,565	% 97.4*	
Age Group 21-24 25-34	% of all High- Intensity Bettors 10.7 39.6	2020 High- Intensity Bettors 1,520 5,653	% 2.6 4.0	Other Bettors 56,565 136,279	% 97.4* 96.0*	
<b>Age Group</b> 21-24 25-34 35-44	% of all High- Intensity Bettors 10.7 39.6 26.1	2020 High- Intensity Bettors 1,520 5,653 3,730	% 2.6 4.0 5.0*	Other Bettors 56,565 136,279 70,205	% 97.4* 96.0* 95.0	
Age Group 21-24 25-34 35-44 45-54	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030	% 2.6 4.0 5.0* 5.0*	Other Bettors 56,565 136,279 70,205 38,291	% 97.4* 96.0* 95.0 95.0	
Age Group 21-24 25-34 35-44 45-54 55-64	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2 7.4	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030 1,061	% 2.6 4.0 5.0* 5.0* 4.8*	Other Bettors 56,565 136,279 70,205 38,291 20,907	% 97.4* 96.0* 95.0 95.0 95.2	
Age Group 21-24 25-34 35-44 45-54 55-64 65+	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2 7.4 1.9	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030 1,061 277	% 2.6 4.0 5.0* 5.0* 4.8* 3.9*	Other Bettors 56,565 136,279 70,205 38,291 20,907 6,885	% 97.4* 96.0* 95.0 95.0 95.2 96.1	
Age Group 21-24 25-34 35-44 45-54 55-64 65+ Total	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2 7.4 1.9 100.0	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030 1,061 277 14,271	% 2.6 4.0 5.0* 5.0* 4.8* 3.9* 4.2	Other Bettors 56,565 136,279 70,205 38,291 20,907 6,885 329,132	97.4* 96.0* 95.0 95.0 95.2 96.1 95.8	
Age Group 21-24 25-34 35-44 45-54 55-64 65+ Total Min	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2 7.4 1.9 100.0	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030 1,061 277 14,271 21.3	% 2.6 4.0 5.0* 5.0* 4.8* 3.9* 4.2	Other Bettors 56,565 136,279 70,205 38,291 20,907 6,885 329,132 21.1	% 97.4* 96.0* 95.0 95.0 95.2 96.1 95.8	
Age Group 21-24 25-34 35-44 45-54 55-64 65+ <b>Total</b> Min Max	% of all High- Intensity Bettors 10.7 39.6 26.1 14.2 7.4 1.9 100.0	2020 High- Intensity Bettors 1,520 5,653 3,730 2,030 1,061 277 14,271 21.3 91.9	% 2.6 4.0 5.0* 5.0* 4.8* 3.9* 4.2	Other Bettors 56,565 136,279 70,205 38,291 20,907 6,885 329,132 21.1 100.4	% 97.4* 96.0* 95.0 95.0 95.2 96.1 95.8	

\*Significantly higher proportion for indicated age and year (p < .001)

a. Significantly higher for indicated age and intensity group (p < .001)

Table 31 highlights the significant differences in betting-related activities between high-intensity bettors and all other bettors. On average, high-intensity bettors bet on more sites (1.8 vs 1.2), on more days (164 vs 22), and placed more bets per betting day (23 vs 8) and in total across the full year (3,900 vs 250). In addition, their average maximum wager (\$1,200 vs \$192), single wager (\$57 vs \$39), and total yearly wager (\$135,000 vs \$4,300) were significantly higher than all other bettors. All of these patterns also were reflected at the median. Notably in 2020, the average high-intensity bettor lost the same percentage of all bets as other bettors, about 77%, which differs from 2019 findings when high-intensity bettors lost about 7% fewer bets than others (66% vs 73%). The increase for both groups could be due to the increase overall in parlay betting cutting into any "edge" high-intensity bettors may have enjoyed. Altogether, these findings suggest that operators easily could target high-intensity bettors with limit-setting offerings to assist them in setting better parameters around their play.



Potting Polated Activities	Hi	gh-Intensity Bette	ors ( <i>n</i> = 14,273)				
Betting-Related Activities	Maximum	Mean	SD	Median			
# of Sites Wagered	7.0	1.8*	1.2	1.0			
Total Betting Days	357.0	164.3*	55.7	156.0			
# of Bets/Betting Day	871.3	22.8*	32.3	14.5			
Total Number of Yearly Bets	14,7628.0	3,858.8*	2157.0	3 <i>,</i> 858.8			
Max Wager (\$)	160,000.00	1,199.28*	3,832.33	400.00			
Avg. Single Wager (\$)	13,756.84	57.43*	233.68	15.19			
Total Yearly Wager (\$)	13,825,626.34	134,566.24*	469,275.64	32,937.82			
Proportion of Bets Lost	100.0	76.7	15.7	79.5			
Botting-Polated Activities	Other Bettors ( <i>n</i> = 329,245)						
Betting-Related Activities	Maximum	Mean	SD	Median			
# of Sites Wagered	7.0	1 0	0 5	1.0			
	,	1.2	0.5	1.0			
Total Betting Days	342.0	21.8	32.0	1.0 8.0			
Total Betting Days # of Bets/Betting Day	342.0 7,410.8	21.8 8.0	32.0 20.4	1.0 8.0 4.7			
Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets	342.0 7,410.8 29,6430.0	21.8 8.0 252.1	0.3 32.0 20.4 1,146.2	8.0 4.7 39.0			
Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max Wager (\$)	342.0 7,410.8 29,6430.0 582,024.30	21.8 8.0 252.1 191.77	0.3 32.0 20.4 1,146.2 1,785.60	1.0 8.0 4.7 39.0 50.00			
Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max Wager (\$) Avg. Single Wager (\$)	342.0 7,410.8 29,6430.0 582,024.30 150,535.62	21.8 8.0 252.1 191.77 38.72	32.0 20.4 1,146.2 1,785.60 334.70	1.0 8.0 4.7 39.0 50.00 8.67			
Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max Wager (\$) Avg. Single Wager (\$) Total Yearly Wager (\$)	342.0 7,410.8 29,6430.0 582,024.30 150,535.62 40,193,010.49	21.8 8.0 252.1 191.77 38.72 4,323.89	32.0 20.4 1,146.2 1,785.60 334.70 81,854.38	1.0 8.0 4.7 39.0 50.00 8.67 335.00			

#### Table 31. Betting-Related Activities of High-Intensity Bettors Compared to Other Bettors

\*Significantly higher mean for indicated bettor type (p < .001)

Overall, high-intensity bettors placed about 40% of all sports bets in 2020, a slight decrease from the proportion the prior year, and their preference for certain bet types differed from other bettors. Comparatively, high-intensity bettors placed a smaller proportion of their bets on standard parlays and a higher proportion on round-robin parlays and total whole bets. Despite comprising only 4% of all bettors, high-intensity bettors placed more than half of the round-robin parlays, point spread partial, moneyline partial, and total partial bets. The mean wager across all bets placed by high-intensity players was double that of other bettors (\$35 vs \$17), and also significantly higher across all bet types aside from points spread partial bets. Specifically, high-intensity bettors bet more than double, on average, on standard parlays, round-robin parlays, prop bets, and futures bets when compared to other bettors.



#### Table 32. Bet Type by High-Intensity Status

Bet Type		Bets Made by (n =	High-Inten 55,077,080	isity Betto D)	rs	Bets Made by Other Bettors (n = 82,988,918)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay (Standard)	38.7	52,000.00	12.34*	98.25	1.67	61.3	206,654.27	5.30	78.84	0.77
Teaser	34.8	33,333.00	22.62*	164.96	3.57	65.2	209,000.00	13.13	198.29	1.73
Round Robin	51.3	25,000.00	9.26*	78.00	0.75	48.7	11,447.45	4.22	47.78	0.85
Moneyline Whole	42.3	150,000.00	153.65*	763.19	34.00	57.7	550,000.00	94.50	1,055.91	10.00
Point Spread Whole	37.4	150,000.00	135.63*	575.38	33.00	62.6	566,043.76	97.20	1,617.13	20.00
Total Whole	49.9	119,715.00	145.19*	640.19	33.00	50.1	566,043.88	99.11	1,506.31	18.42
Moneyline Partial	57.6	50,000.00	136.45*	610.24	25.00	42.4	72,000.00	124.81	781.24	10.00
Total Partial	60.3	77,499.00	164.15*	583.20	48.00	39.7	80,400.00	124.98	541.61	23.87
Point Spread Partial	57.7	40,000.00	171.30	507.83	50.00	42.3	100,000.00	168.75	676.79	40.00
Prop	43.0	160,000.00	92.65*	363.90	22.73	57.0	100,000.00	39.58	224.44	7.49
Futures	37.3	130,000.00	85.47*	445.46	15.00	62.7	250,000.00	32.80	390.34	5.25
Exact Score	45.6	120,00.00	38.82*	177.29	10.00	54.4	14,800.00	22.75	155.74	5.00
Other/Unspecified	43.1	69,000.00	102.00*	485.47	21.43	56.9	582,024.30	51.03	1,060.86	10.00
Total	39.9	160,000.00	34.87*	274.40	2.82	60.1	582,024.30	17.15	474.28	1.00

\*Significantly higher mean for indicated intensity group (p < .001)

High-intensity bettors made up 6% of all bettors who bet in-game in 2020, and nearly every highintensity bettor placed at least one in-game bet. For both high-intensity and other bettors, there were marked decreases in the proportions of bettors who wagered primarily in-game, defined as placing more than 50% of their bets and spending more than 50% of their money in-game. However, the proportion of high-intensity bettors in this category remained substantially higher than other bettors, 15% compared to about 11%.

#### Table 33. In-Game Betting by High-Intensity Status

Intensity Status	% of All In-Game	Placed an Never Placed ar In-Game Bet In-Game Bet		ed an Bet	Prima In-Ga Bette	rily me or	
	Bellors	n	%	n	%	n	%
High-Intensity Bettors	6.1	14,264	99.9	9	0.1	2,175	15.2
Other Bettors	93.9	220,697	67.0	108,548	33.0	35,147	10.7
Total	100.0	234,961	68.4	108,557	31.6	37,322	10.9

High-intensity bettors placed 51% of all in-game bets, wagering almost double the amount on each bet, on average, when compared to other bettors (\$62 vs \$36). This difference was even more pronounced at the median (\$5.00 vs \$1.33). High-intensity bettors lost a smaller proportion of in-game bets than other bettors (73% vs 80%), which may be due to random chance or may be the result of some skill acquisition due to their overall frequency of play.



Bettor Type	n	%	Proportion of Bets Lost	Max Wager	Mean Wager	SD of Wager	Median Wager
High-Intensity Bettors	14,961,729	51.0	73.4%	150,000.00	62.25	379.90	5.00
Other Bettors	14,346,311	49.0	79.7%	550,000.00	36.18	464.89	1.33

#### Table 34. Betting-Related Activities of In-Game Bets by High-Intensity Status

Compared to other bettors, those who bet at high intensity were more likely to utilize multiple payment methods to fund their betting (64.5% vs 49.6%), in almost every available combination; the most common method for both groups was using only credit cards (45.7% other bettors vs 32.1% for high-intensity). High-intensity bettors preferred using a combination of credit cards and ePay services, followed all three deposit types, then ePay services in combination with bank accounts. Notably, almost 21% of high-intensity bettors used all three deposit types compared to just 10% of other bettors.

Doumont Tuno	High-Intensity	Bettors	Other Bet	tors				
Payment Type	n	%	n	%				
Credit Card	17,241,969	32.1	36,466,661	45.7*				
ePay Service	1,454,987	2.7	2,245,367	2.8*				
Bank Account	403,477	0.8	1,546,026	1.9*				
Total of Single Method	19,100,433	35.6	40,258,054	50.4*				
Credit Card & ePay Service	12,387,420	23.0*	16,045,461	20.1				
ePay Service & Bank Account	10,945,067	20.4*	14,923,605	18.7				
All Three Deposit Types	11,231,840	20.9*	8,063,135	10.1				
Credit Card & Bank Account	84,895	0.2	549,770	0.7*				
Total of Multiple Methods	34,649,222	64.5*	39,581,971	49.6				

#### Table 35. Payment Type by High-Intensity Status

\*Higher than expected for indicated intensity group (p < .001)

## **VI. Responsible Gambling Features**

All operators in New Jersey who provide online gambling opportunities, including sports wagering, are required by the DGE to provide bettors with a range of options designed to promote responsible gambling (RG) behavior, primarily through limit-setting. Bettors may limit the amount of money they deposit in their sports wagering account (deposit limit) or lose wagering (loss/spend limit), and/or the amount of time they spend gambling (time limit). They also can opt to request their account be locked for a period of 72 hours or more, a "cool-off" period, or choose to exclude themselves from betting altogether (self-exclusion) for a period of one year, five years, or lifetime. Players can exclude themselves for one or five years through an online portal or in person through video conferencing or at a DGE office if choosing lifetime self-exclusion.

In 2020, 12,831 sports bettors (3.7%) used one or more RG features, a proportional increase over 2019, when less than 2% used RG features, though still less than in the inaugural year, when about 5% enacted one or more feature. Among NJ residents, the proportion of sports bettors



who used RG features corresponded with the proportion of residents in each county that bet on sports. Therefore, the counties with the most sports bettors, were also home to the most RG users: Bergen (12.2%), Monmouth (9.5%), Hudson (9.4%), Essex (9.0%), and Middlesex (8.9%) (Table 36).

	% of	% of
County	RG	sports
	users	bettors
Atlantic	2.9	3.3
Bergen	12.2	11.5
Burlington	4.7	4.9
Camden	6.3	6.4
Cape May	1.1	0.9
Cumberland	0.9	1.0
Essex	9.0	9.5
Gloucester	3.3	3.6
Hudson	9.4	9.0
Hunterdon	0.9	0.9
Mercer	2.8	2.9
Middlesex	8.9	7.8
Monmouth	9.5	8.9
Morris	4.5	4.9
Ocean	6.6	5.8
Passaic	6.5	7.1
Salem	0.3	0.4
Somerset	2.5	2.8
Sussex	1.1	1.1
Union	5.8	6.3
Warren	0.8	0.8

#### Table 36. Percentage of RG Users by County in Relation to All Sports Bettors

There has been a shift over the years in the proportion of RG users in each county. Compared to 2019, several counties saw notable growth: Essex (9.0% vs 6.4%), Union (5.8% vs 4.9%), and Bergen (12.2% vs 11.4%) (Table 37). In contrast, the proportion of RG users decreased in Ocean (6.6% vs 8.7%) and Morris (4.5% vs 5.7%) counties. Across all years, Hudson County has seen an incremental increase in RG use, and Monmouth, an incremental decrease.



	20	18	2019		20	20
County	2	% of RG	2	% of RG	2	% of RG
		users	11	users		users
Atlantic	251	3.8	183	3.6	312	2.9
Bergen	769	11.6	583	11.4	1,299	12.2
Burlington	270	4.1	249	4.9	500	4.7
Camden	366	5.5	335	6.6	672	6.3
Cape May	60	0.9	52	1.0	113	1.1
Cumberland	48	0.7	39	0.8	99	0.9
Essex	478	7.2	328	6.4	959	9.0
Gloucester	178	2.7	203	4.0	350	3.3
Hudson	520	7.9	444	8.7	999	9.4
Hunterdon	56	0.8	51	1.0	99	0.9
Mercer	163	2.5	138	2.7	294	2.8
Middlesex	551	8.3	438	8.6	941	8.9
Monmouth	1,051	15.9	539	10.6	1,005	9.5
Morris	336	5.1	290	5.7	483	4.5
Ocean	475	7.2	444	8.7	702	6.6
Passaic	377	5.7	270	5.3	686	6.5
Salem	14	0.2	16	0.3	35	0.3
Somerset	188	2.8	144	2.8	263	2.5
Sussex	59	0.9	75	1.5	114	1.1
Union	367	5.5	249	4.9	612	5.8
Warren	47	0.7	39	0.8	82	0.8

Table 37. Percentage of RG Users by County	Table 37.	Percentage	of RG	Users	by	County
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Overall, about 81% of RG users with gender data were men, about 6% less than the prior year, but women were proportionately more likely to use RG features (Table 38). The number of male sports bettors who used RG features doubled from 2019 to 2020 and more than tripled among women; in 2020, about 7% of women who bet on sports used RG features compared to about 4% of men.

Gender	% of all RG users in	Use RG Features 2018		Use RG Features 2019		Use RG Features 2020	
	2020	%	n	%	n	%	n
Male	80.9	5.0*	3,138	2.1	4,395	4.3	9,442
Female	19.1	3.6	274	2.1	681	6.6*	2,258

#### Table 38. RG Use by Gender

\*Significantly higher proportion for indicated gender within indicated year (p < .001)

Similar to the prior year, the highest percentage of RG users, about 42%, were in the 25 to 34 age group, followed by those ages 35 to 44 (24.9%); however, that represented only around 4% of all bettors in each of those categories (Table 39).



Across all age categories, there was a proportional increase in RG usage from 2019 to 2020, however, only those ages 35 to 64 were proportionately overrepresented among users (Table 39). Across all years, those in the youngest age category (21 to 24 years) have been the least likely to use RG features (2.6% in 2020), followed by those in the oldest category (65+; 3.5% in 2020) in 2019 and 2020.

	% of all Use RG Use RG		Us	Use RG			
Age Group	<b>RG users</b>	Feature	s 2018	Feature	es 2019	Features 2020	
	in 2020	%	n	%	n	%	n
21-24	11.9	4.2 <sup>b</sup>	898	1.3 <sup>b</sup>	656	2.6 <sup>b</sup>	1,531
25-34	41.6	4.6 <sup>b</sup>	2,949	2.1ª	2,478	3.8 <sup>b</sup>	5,333
35-44	24.9	4.7	1,721	2.2ª	1,445	4.3ª	3,193
45-54	12.9	5.7ª	1,092	1.9 <sup>b</sup>	682	4.1ª	1,652
55-64	6.8	<b>7.1</b> ª	667	1.8 <sup>b</sup>	325	4.0ª	871
65+	1.9	7.4	205	1.5 <sup>b</sup>	81	3.5 <sup>b</sup>	250
Total RG	100.0	4.0	7 5 2 2	1.0	F 667	27	12 020
Users	100.0	4.9	1,352	1.9	5,007	5.7	12,030
Min			21.0		21.0		21.1
Max			94.7		85.5		91.9
Mean			37.8		36.2		36.8

#### Table 39. RG Use by Age Group

a. Significantly higher than expected within indicated year (p < .001)

b. Significantly lower than expected within indicated year (p < .001)

Despite comprising only about 4% of all sports bettors, those classified as high-intensity bettors represented 11% of all RG users (Table 40). In addition, about 12% of all high-intensity bettors used RG features compared to less than 4% of other bettors. This suggests that the opportunity to enact limit-setting features may be particularly attractive to those betting at high frequency and in high amounts.

#### Table 40. RG Use by High-Intensity Status

High-Intensity Status	% of all RG	Use RG Feature 2020	
	users	%	n
High-Intensity Bettors	11.0	12.2*	1,570
Other Bettors	89.0	3.8	11,261

\*Significantly higher proportion for indicated high-intensity status (p < .001)

There were notable variations in betting-related activities between RG users in 2020 and 2019. RG users in 2019 bet on more sites (2.3 vs 1.5), on more days (52.7 vs 45.3), and wagered a greater amount per bet, on average (\$108 vs \$78). RG users in 2020 placed more bets per betting day (11.6 vs 5.5) and in total (864 vs 396) and also lost a larger proportion of all bets (76.2% vs 69.8%) (Table 41). Shifts in behavior of RG users may be related to an overall change in betting-



related activities across all sports bettors as a result of COVID-19 shutdowns, as well as the marked increase in parlay betting, which contributes to higher losing percentages.

	2019 RG Users							
Betting-Related Activities	Max	Mean	SD	Median				
#Sites Wagered	13.0	2.3*	1.8	2.0				
Total Betting Days	360.0	52.7*	67.0	24.0				
# of Bets/Betting Day	308.7	5.5	8.7	3.5				
Total Number of Yearly Bets	22,846.0	396.2	965.0	89.0				
Max. Wager (\$)	80,005.00	817.28	2,870.57	167.50				
Avg. single Wager (\$)	9,177.86	108.44*	311.34	30.49				
Total Yearly Wager (\$)	12,967,564.34	53 <i>,</i> 028.25	311,186.06	2,611.91				
Proportion of Bets Lost	100.0	69.8	20.4	70.1				
	2020 RG Users							
Rotting Polatod Activitios		2020 RG I	Users					
Betting-Related Activities	Max	2020 RG I Mean	Users SD	Median				
Betting-Related Activities #Sites Wagered	<b>Max</b> 7.0	2020 RG Mean 1.5	Users SD 0.9	Median 1.0				
Betting-Related Activities #Sites Wagered Total Betting Days	<b>Max</b> 7.0 357.0	2020 RG 0 Mean 1.5 45.3	Users SD 0.9 58.5	<b>Median</b> 1.0 19.0				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day	Max 7.0 357.0 1,668.6	2020 RG 0 Mean 1.5 45.3 11.6*	Users SD 0.9 58.5 27.9	<b>Median</b> 1.0 19.0 6.5				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets	Max 7.0 357.0 1,668.6 112,403.0	2020 RG 0 Mean 1.5 45.3 11.6* 864.4*	Users SD 0.9 58.5 27.9 3,212.2	Median 1.0 19.0 6.5 129.0				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$)	Max 7.0 357.0 1,668.6 112,403.0 314,700.00	2020 RG 0 Mean 1.5 45.3 11.6* 864.4* 744.54	Users 5D 0.9 58.5 27.9 3,212.2 4,233.64	Median 1.0 19.0 6.5 129.0 100.00				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$) Avg. single Wager (\$)	Max 7.0 357.0 1,668.6 112,403.0 314,700.00 13,756.84	2020 RG Mean 1.5 45.3 11.6* 864.4* 744.54 78.34	Users SD 0.9 58.5 27.9 3,212.2 4,233.64 325.32	Median 1.0 19.0 6.5 129.0 100.00 13.45				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$) Avg. single Wager (\$) Total Yearly Wager (\$)	Max 7.0 357.0 1,668.6 112,403.0 314,700.00 13,756.84 13,825,626.34	2020 RG 0 Mean 1.5 45.3 11.6* 864.4* 744.54 78.34 48,611.31	Users SD 0.9 58.5 27.9 3,212.2 4,233.64 325.32 315,016.91	Median 1.0 19.0 6.5 129.0 100.00 13.45 1,500.00				

#### Table 41. Betting-Related Activities of RG Users: 2019 and 2020

\*Significantly higher mean for indicated year (*p* < .001)

In 2020, betting-related activities by RG users were significantly higher than those of non-RG users across all metrics of study aside from loss percentage. Specifically, RG users, on average, bet on more sites (1.5 vs 1.2), on more days (45.3 vs 27.0), and placed more bets on each betting day (11.6 vs 8.5) and across the whole year (864 vs 384) when compared to non-RG users (Table 42). Also, RG users placed more than three times higher maximum wagers (\$744 vs \$214), about double the average wager (\$78 vs \$38), and six times the total amount wagered in the year (\$49,000 vs \$8,000). These findings, similar to those from the prior year, suggest there is some recognition among those who use RG features of a need to limit their play; unfortunately, looking at the max numbers for non-RG users, which exceed those of RG users in all but number of sites wagered and total betting days, it is likely that an additional proportion of those who are not using limit-setting features could benefit from them as well.



Potting Polated Activities	RG Users ( <i>n</i> = 12,831)							
Betting-Related Activities	Max	Mean	SD	Median				
#Sites Wagered	7.0	1.5*	0.9	1.0				
Total Betting Days	357.0	45.3*	58.5	19.0				
# of Bets/Betting Day	1,668.6	11.6*	27.9	6.5				
Total Number of Yearly Bets	112,403.0	864.4*	3,212.2	129.0				
Max. Wager (\$)	314,700.00	744.54*	4,233.64	100.00				
Avg. Single Wager (\$)	13,756.84	78.34*	325.32	13.45				
Total Yearly Wager (\$)	13,825,626.34	48,611.31*	315,016.91	1,500.00				
Proportion of Bets Lost	100.0	76.2	22.1	80.1				
Rotting Polated Activities	No	on-RG Users ( <i>r</i>	a = 330,688)					
Betting-Related Activities	No Max	on-RG Users ( <i>n</i> Mean	a = 330,688) SD	Median				
Betting-Related Activities #Sites Wagered	No Max 7.0	on-RG Users (n Mean 1.2	<b>s = 330,688)</b> <b>SD</b> 0.5	Median 1.0				
Betting-Related Activities #Sites Wagered Total Betting Days	No Max 7.0 354.0	on-RG Users (n Mean 1.2 27.0	<b>s = 330,688)</b> <b>SD</b> 0.5 43.0	<b>Median</b> 1.0 8.0				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day	No Max 7.0 354.0 7,410.8	on-RG Users (r. Mean 1.2 27.0 8.5	<b>s = 330,688)</b> <b>SD</b> 0.5 43.0 20.9	<b>Median</b> 1.0 8.0 4.9				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets	No Max 7.0 354.0 7,410.8 296,430.0	on-RG Users (r Mean 1.2 27.0 8.5 384.0	<b>sp</b> = <b>330,688)</b> <b>SD</b> 0.5 43.0 20.9 1,781.0	Median 1.0 8.0 4.9 43.0				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$)	No Max 7.0 354.0 7,410.8 296,430.0 582,024.30	on-RG Users (r. Mean 1.2 27.0 8.5 384.0 213.81	<b>s = 330,688)</b> <b>SD</b> 0.5 43.0 20.9 1,781.0 1,773.26	Median 1.0 8.0 4.9 43.0 50.00				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$) Avg. Single Wager (\$)	No Max 7.0 354.0 7,410.8 296,430.0 582,024.30 150,535.62	on-RG Users (r Mean 1.2 27.0 8.5 384.0 213.81 37.99	<b>sp</b> = <b>330,688)</b> <b>SD</b> 0.5 43.0 20.9 1,781.0 1,773.26 331.27	Median 1.0 8.0 4.9 43.0 50.00 8.81				
Betting-Related Activities #Sites Wagered Total Betting Days # of Bets/Betting Day Total Number of Yearly Bets Max. Wager (\$) Avg. Single Wager (\$) Total Yearly Wager (\$)	No Max 7.0 354.0 7,410.8 296,430.0 582,024.30 150,535.62 40,193,010.49	on-RG Users (r Mean 1.2 27.0 8.5 384.0 213.81 37.99 8,227.09	<b>s = 330,688)</b> <b>SD</b> 0.5 43.0 20.9 1,781.0 1,773.26 331.27 113,869.47	Median 1.0 8.0 4.9 43.0 50.00 8.81 365.00				

#### Table 42. Betting-Related Activities of RG and Non-RG Users

\*Significantly higher mean for indicated RG group (p < .001)

About three-quarters of RG users chose a single RG feature, with more than half of all RG users choosing deposit limits only (54.2%). This represents nearly a 24% increase over the prior year, when about 30% of players only set deposit limits (Table 43). Altogether, more than three-quarters of RG users utilized deposit limits alone or in combination with other features. The next most popular feature was using only cool-off (8.3%), which declined sharply from the prior year when more than 27% of RG users opted for this feature. In 2020, setting both a deposit and loss limit (8.1%) was the most popular combination, followed by deposit limit and cool-off (4.3%). These percentages are noticeably higher than in the prior year, when about 5% of RG players choose to set deposit limits and utilize cool-off and about 2% chose time and loss limits or time limits and self-exclusion, the next most popular combinations.



Single RG Feature Engaged	%	n
Deposit Limit Only	54.2	6,949
Cool Off Only	8.3	1,063
Self-Exclusion Only	6.9	882
Loss (Spend) Limit Only	3.9	495
Time Limit Only	1.4	174
Total of Single RG Feature Engaged	74.5	9,563
Two or More RG Features Engaged	%	n
Deposit and Loss (Spend) Limits	8.1	1,035
Deposit Limit and Cool Off	4.3	555
Deposit, Loss (Spend), and Time Limits	2.4	302
Cool Off, Deposit and Loss (Spend) Limits	1.7	216
Deposit and Self-Exclusion	1.6	209
Cool Off and Self-Exclusion	1.3	173
Deposit and Time Limits	1.3	168
Cool Off and Deposit, Loss (Spend), and Time Limits	1.0	122
All other combinations	3.6	488
Total of Multiple RG Feature Engaged	25.5	3,268

#### Table 43. RG Feature Preferences

Preferences for single RG features or combinations varied substantially between men and women and across age groups. Men who used RG features were significantly more likely than women to use each RG feature exclusively, with almost 76% of men choosing a single RG feature compared to 63% of women (Table 44). By comparison, women were significantly more likely than men to enact six of the eight most popular feature combinations.

Use of single RG features decreased with age, such that 83% of 21- to 24-year-olds chose a single feature, compared to 67% of those 65+. Only setting a deposit limit, the preferred feature for all groups, was disproportionately higher for those ages 21 to 34 — a substantial change from 2019, when those 45 and older were most likely to limit their deposits. The youngest bettors also were over-represented in their use of only cool-off, and 35- to 44-year-olds reported the highest preference for that feature. Self-exclusion only was most used by those ages 25 to 34 years and ages 65+. Older RG users were the most likely to use multiple features. For example, those 35 and older were over-represented among those using deposit and loss (spend) limits as well as the combination of deposit, loss (spend), and time limits.

Overall, given the limited uptake of RG feature use by the youngest players, it is unclear if those seeking support to limit their play are finding it in a single feature or unaware of the range of combinations possible to effectively enhance their responsible play.



#### Table 44. RG Feature Preferences by Gender and Age Group

	RG Features (Single Selection)															
	М	ale	Fei	male	21	-24	25	-34	35	35-44 45-54		-54	55-	64	65+	
RG Feature	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Deposit Limit Only	54.1*	5,105	44.7	1,010	62.7*	960	56.7*	3,022	49.2	1,570	50.7	837	51.2	446	45.6	114
Cool Off Only	8.6*	816	8.3	187	8.6*	132	8.3	441	9.4*	301	6.7	110	6.9	60	7.6	19
Self-Exclusion Only	7.7*	724	5.8	131	6.2	95	7.9*	419	6.5	208	5.8	96	5.2	45	7.6*	19
Loss (Spend) Limit Only	3.8*	356	3.2	72	4.7*	72	3.5	187	3.4	109	4.8*	80	4.2*	37	4.0*	10
Time Limit Only	1.3*	127	1.3	30	0.7	11	1.0	53	1.7*	53	1.9*	32	2.2*	19	2.4*	6
Total of Single RG Feature	75.5	7,128	63.3	1,430	82.9	1,270	77.4	4,122	70.2	2,241	69.9	1,155	69.7	607	67.2	168
	Two or More RG Features (Most prevalent)															
PC Fostures	М	ale	Fei	male	21	-24	25	-34	35	5-44	45	-54	55-	55-64 65+		+
NG reatures	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Deposit and Loss (Spend) Limits	7.9	750	9.8*	221	5.9	90	6.3	334	8.9*	283	11.5*	190	12.2*	106	12.8*	32
Deposit Limit and Cool Off	4.0	378	7.2*	163	3.6	55	4.5*	239	4.8*	152	3.9	64	4.4*	38	2.8	7
Deposit, Loss (Spend) and Time Limits	2.1	203	3.6*	82	1.4	21	1.4	74	2.9*	94	3.6*	59	3.8*	33	8.0*	20
Cool Off, Deposit and Loss (Spend) Limits	1.4	135	3.5*	80	0.8	13	1.5	82	2.1*	66	2.1*	34	2.1*	18	1.2	3
Deposit and Self-Exclusion	1.7	163	1.7	39	1.0	15	2.0*	107	1.9*	62	1.0	16	0.8	7	0.8	2
Cool Off and Self- Exclusion	1.5*	141	1.4	31	1.2	18	1.6*	83	1.4*	45	0.8	13	0.9	8	2.4	6
Deposit and Time Limits	1.2	118	1.7*	39	0.5	7	1.3	68	1.7*	53	1.5*	24	1.1	10	2.4*	6
Cool Off and Deposit, Loss (Spend), and Time Limits	1.9	42	0.8*	80	0.4	6	0.7	39	1.3*	41	1.2*	20	1.6*	14	0.8	2
All other combinations	2.8	384	7.0	93	2.3	36	3.3	185	4.8	156	4.5	77	3.4	30	1.6	4
Total of Multiple RG Features	24.5	2,314	36.7	828	17.1	261	22.6	1,211	29.8	952	30.1	497	30.3	264	32.8	82

\*Significantly higher proportion for indicated gender or age group (p < .001)

High-intensity bettors, who were more likely than other bettors to use RG features, showed a stronger preference for setting deposit and/or loss (spend) limits, and for choosing cool-off exclusively (Table 45). Other bettors were significantly over-represented among those who only used self-exclusion, set time limits, or used all other feature combinations. It may be notable that high-intensity bettors were unlikely to use self-exclusion only or in combination with other features; despite their frequent betting in high amounts, most high-intensity bettors continued their play throughout the year.



RG Feature	High-Inter	nsity Bettors	Other Bettors		
	%	n	%	n	
Deposit Limit Only	60.4*	948	53.3	6,001	
Cool Off Only	10.3*	162	8.0	901	
Self-Exclusion Only	2.2	34	7.5*	848	
Loss (Spend) Limit Only	4.4*	69	3.8	426	
Time Limit Only	1.0	16	1.4*	158	
Total of Single RG Feature	78.3	1,229	74.0	8,334	
PG Footures	High-Inter	nsity Bettors	Other Bettors		
RG reatures	%	n	%	n	
Deposit and Loss (Spend) Limits	9.2*	144	7.9	891	
Cool Off and Deposit Limit	4.1	65	4.4*	490	
Deposit, Loss (Spend) Limits, Time Limits	1.6	25	2.5*	277	
Cool Off, Deposit and Loss (Spend) Limits	1.5	23	1.7*	193	
Deposit and Self-Exclusion	0.7	11	1.8*	198	
Cool Off and Self-Exclusion	0.9	14	1.4*	159	
Deposit and Time Limits	1.3	20	1.3*	148	
Cool Off and Deposit, Loss (Spend), and Time Limits	0.8	13	1.0*	109	
All other combinations	1.6	26	4.0	462	
Total of Multiple RG Features	21.7	341	26	2,927	

#### Table 45. RG Feature Preferences by High-Intensity Status

\*Significantly higher proportion within indicated high-intensity status (p < .001)

RG users have the option to make changes to selected RG features, such as increasing or decreasing limits on deposits, money lost (spent), and time spent gambling, as well as enacting additional cool-off periods. Sports bettors who only used self-exclusion (n = 882) were not included in analyses of RG feature changes, as players cannot make RG feature changes once on self-exclusion. Tables 47 through 50, then, include RG users who chose limit-setting or cool-off periods as well as those who utilized these features prior to self-excluding.

Bettors who used only a single RG feature made, on average, two or three changes to their settings (Table 46). Notably, the median for loss (spend) limit users was two, while it was one for all other single features. Those who used two or more RG features, however, made an average of 16 changes to their RG selections, 7 at the median.

RG Feature	n	Mean	SD	Median	Total number of changes				
Deposit Limit Only	6,949	2.9	5.9	1.0	20,171				
Cool Off Only	1,063	2.7	4.3	1.0	2,854				
Loss (Spend) Limit Only	495	2.2	1.7	2.0	1,077				
Time Limit Only	174	1.5	1.0	1.0	266				
Two or More RG features	3,268	16.3*	32.6	7.0	53,318				

Table 46. Changes to RG Features by RG Type

\*Significantly higher in mean number of changes to RG Features (p < 0.001)



Men and women who used only the cool-off, loss (spend) limit, or time limit single features made an average of one to three changes (Table 47). Among those who only set deposit limits, women made an average of five changes, and men, an average of three. Additionally, women who utilized more than one RG feature made twice as many changes (26.4 vs 13.3) as men. Overall, women RG users made an average of 13 changes compared to about six for men, indicating that women who use RG may be more engaged with the tools in finding a threshold or combination that allows them to best control their play.

		Deposit	Cool Off	Loss	Time	Two or	Total
Gender		Limit	Only	(Spend)	Limit	More	Changes
		Only		Limit Only	Only	Features	
	Maximum	137.0	56.0	16.0	8.0	436.0	436.0
Male	Mean	2.8	2.6	2.3	1.5	13.3	5.5
n = 8,718	SD	5.5	4.4	1.9	0.9	23.3	13.6
	Median	1.0	1.0	2.0	1.0	7.0	2.0
	Total # of Changes	14,043.0	2,135.0	820.0	194.0	30,767.0	47,959.0
	Maximum	97.0	37.0	10.0	3.0	922.0	922.0
Female	Mean	4.7*	3.3	2.0	1.4	26.4*	12.9
n = 2,127	SD	9.3	4.5	1.5	0.6	50.3	33.8
	Median	2.0	2.0	1.0	1.0	10.0	3.0
	Total # of Changes	4,715.0	624.0	143.0	42.0	21,831.0	27,355.0

#### Table 47. Changes Made to RG Features by Gender

\*Significantly higher for indicated gender within indicated RG type (p < 0.001)

By age, bettors made a comparable number of changes to the RG features they chose, with a few notable differences. Among those using only deposit limits, 35- to 54-year-olds made more changes on average (about 4) than 21- to 34-year-olds (2 to 3 changes) (Table 48). Additionally, bettors ages 35 to 44 who used two or more features also made significantly more changes (20) than the younger multi-feature users. Across all RG users, those 35 to 54 made the most changes (8.7), and the youngest bettors made the fewest changes (3.7), which again could suggest ambivalence with adjusting limits to meet changing needs among the youngest bettors.



	Ŭ	Deposit	Cool Off	Loss	Time	Two or	Total
Age Group	)	Limit	Only	(Spend)	Limit	More	Changes
		Only		Limit Only	Only	Features	
	Maximum	21.0	21.0	6.0	2.0	132.0	132.0
21 24	Mean	1.9	1.8	1.7	1.5	11.6	3.7
21 - 24 n - 1/126	SD	1.9	2.3	1.0	0.5	19.1	9.1
11 - 1,430	Median	1.0	1.0	1.0	1.0	6.0	2.0
	Total # of Changes	1,866.0	248.0	125.0	16.0	3,020.0	5,275.0
	Maximum	51.0	24.0	13.0	3.0	376.0	376.0
25 24	Mean	2.5	2.2	2.0	1.3	13.6	5.2
25 - 34	SD	3.6	2.7	1.6	0.5	13.8	13.8
11 - 4,914	Median	1.0	1.0	1.0	1.0	2.0	2.0
	Total # of Changes	7,669.0	982.0	383.0	71.0	16,511.0	25,616.0
	Maximum	137.0	50.0	16.0	8.0	922.0	922.0
25 44	Mean	3.5ª	3.2	2.2	1.7	20.1 <sup>b</sup>	8.7
35 - 44 m - 2.095	SD	8.0	5.4	2.0	1.4	45.9	27.7
n = 2,985	Median	2.0	1.0	1.0	1.0	8.0	3.0
	Total # of Changes	5,474.0	955.0	235.0	88.0	19,095.0	25,847.0
	Maximum	133.0	403.0	10.0	4.0	258.0	258.0
45 54	Mean	4.2ª	3.7	2.7	1.7	19.0	8.7
45 - 54	SD	10.1	6.9	2.1	0.9	29.7	19.7
11 = 1,550	Median	2.0	1.0	2.0	1.0	9.0	3.0
	Total # of Changes	3,498.0	403.0	214.0	53.0	9,419.0	13,587.0
	Maximum	53.0	17.0	7.0	2.0	156.0	156.0
FF 64	Mean	2.9	3.7	2.6	1.5	15.0	6.7
55 - 64	SD	5.3	4.2	1.4	0.5	19.6	13.1
n = 820	Median	1.0	2.0	3.0	1.0	9.0	3.0
	Total # of Changes	1,279.0	219.0	95.0	28.0	3,950.0	5,571.0
	Maximum	44.0	18.0	10.0	3.0	94.0	94.0
CF .	Mean	3.4	2.5	2.5	1.7	16.1	7.7
n - 221	SD	5.6	3.8	2.8	0.8	19.4	13.7
11 - 231	Median	2.0	1.0	1.5	1.5	8.0	3.0
	Total # of Changes	385.0	47.0	25.0	10.0	1,317.0	1,784.0

Significantly different means between age groups within indicated RG type (p < 0.001)

a. Higher than 21-34

b. Higher than 25-34

The number of changes made to RG features was not substantially different between highintensity bettors and other bettors across each individual feature and overall. However, it is interesting to note that the maximum number of changes to two or more features by one bettor in the high-intensity group, 922 changes, was double the maximum for other bettors, 436 changes. Conversely, the maximum number of changes to deposit limits in the other bettor group, 137 changes, was nearly three times the maximum number in the high-intensity group, 46 changes (Table 49).

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Gender		Deposit Limit Only	Cool Off Only	Loss (Spend) Limit Only	Time Limit Only	Two or More Features	Total Changes
High-	Maximum	46.0	56.0	7.0	8.0	922.0	922.0
Intensity	Mean	2.8	3.2	2.5	1.9	18.4	6.3
Bettors	SD	3.9	5.7	1.6	1.7	56.8	27.7
<i>n</i> = 1,536	Median	2.0	1.0	2.0	1.5	7.0	2.0
	Total # of Changes	2,675.0	514.0	170.0	31.0	6,267.0	9,657.0
Other	Maximum	137.0	50.0	16.0	8.0	436.0	436.0
Duner	Mean	2.9	2.6	2.1	1.5	16.1	6.5
p = 10.412	SD	6.2	4.0	1.8	0.8	28.5	17.0
// = 10,413	Median	1.0	1.0	1.0	1.0	7.0	2.0
	Total # of Changes	17,496.0	2,340.0	907.0	235.0	47,051.0	68,029.0

#### Table 49. Changes Made to RG Features by High-Intensity Status

\*Significantly higher for indicated high-intensity status within indicated RG type (p < 0.001)

## **VII. Summary and Recommendations**

#### **SUMMARY**

Participation in sports wagering, particularly by those under age 35, continued to increase in 2020. The number of bets tripled, compared to the prior year, despite COVID-19 shutdowns of most major sports for a substantial portion of the year. In addition, bettors placed almost three times as many bets each, on average, and lost a larger proportion of bets than the year before, 85% compared to 70%. A majority of wagers were on parlays, which have a higher losing percentage than other types of bets. Also, the mean wager on in-game bets was double the size of all bets this year. Overall, these findings suggest that younger people are engaging in more sports wagering and betting on activities with a higher losing percentage (parlays) and a greater likelihood for impulsive spending (in-game) and, overall, bettors are losing more often.

Another important finding was that about 4% of all sports bettors gambled at high intensity, placing about 40% of all bets, including 51% of all in-game bets, and wagering 57% of all money. RG initiatives targeting this group likely would have the most impact in reducing problem gambling.

A number of trends emerged in 2020 that require monitoring. Notably, younger bettors were the most likely to bet on parlays though there was a proportional decrease in in-game betting among younger bettors compared to the prior year. In contrast, considering they comprise only a small proportion of those who wager on sports, women were overrepresented among in-game bettors and made up a larger proportion of high-intensity bettors than any other year. There was also a shift toward overnight wagering, with bettors placing eight times the number of in-game bets



between midnight and 3 a.m., and 14 times the number between 3 a.m. and 6 a.m., compared to the prior year. Another interesting finding was the popularity of betting on non-traditional sports such as ping pong, field hockey, darts and cricket in 2020. Finally, just more than 50% of high-intensity bettors in 2020 were younger than 35, but not even 4% of younger players used RG features.

#### RECOMMENDATIONS

# Recommendation 1: Considerations around RG should target education and interventions to women and younger players.

Trends in this year's report suggest it will be important to evaluate betting patterns by women in the coming years. Women continue to comprise only a small proportion of those who bet on sports, about 13%, and they placed only about 10% of the bets. However, the average woman who wagered in 2020 placed markedly more bets and in higher amounts than in 2019, substantially closing the gap with men. In 2019, a man who bet on sports placed more than twice the bets on average (175 bets), compared to a woman (74 bets). By 2020, the average man (496 bets) was placing only about 27% more bets than the average woman (362 bets). In total, men wagered \$2.8 billion in 2020 after betting \$2.4 billion in 2019; women wagered \$319 million in 2020, a 350% increase over 2019, when they bet \$92 million. In addition, for a third straight year, a greater proportion of women were primarily in-game bettors when compared to men. That means that they were placing at least half their bets and spending at least half of their money on in-game wagers, which can be associated with impulsive betting and overspending. Also, for the first time, women were more likely to use RG features than men (6.6% vs 4.3%). Among RG users, they were more likely to use multiple RG features (36.7% vs 24.5%) and made significantly more changes to their preferences when only setting a deposit limit or using multiple features. This finding suggests that a proportion of women who experience difficulty refraining from overspending opt to use multiple features in an attempt to set limits and, possibly, to regain control. Since only a small proportion of players use RG features, this finding also suggests there could be significantly more women experiencing these difficulties without attempting to limit spending.

Though there was an increase across the board in RG use in 2020, bettors younger than 35 (as well as those 65+) were less likely to use RG, with those 21 to 24 the least likely for the third straight year. When they did use features, 21- to 34-year-olds were most likely to use deposit limit only and least likely to use multiple features. Overall, findings this year, as well as the prior year, suggest there should be a concerted, targeted effort to educate and engage the youngest bettors in a range of RG features so they can make changes and experiment with the ones that best help them limit overspending.

## Recommendation 2: Develop RG messaging to provide information on the losses attributed to parlays.



These reports highlight the amount lost, particularly in relation to the amount wagered on different types of bets. Few people who gamble on sports are aware of the differences in odds of winning across bet types. For example, this year, bettors placed about 81% of their wagers on parlays, up from 44% in the previous year. Compared to other types of bets, bettors wagered less on individual parlays, but they lost a lot more often, from about 82% to 92% of the time. In addition, compared to the previous year, those who bet on parlays were betting on far more legs and incurring a higher percentage of losses. Promotions and ads that incentivize or feature parlay betting could foster erroneous perceptions about the chances of winning. For that reason, it will become increasingly important to provide objective information regarding the loss percentages of different types of bets and target parlay bettors with additional information to guide their decision making.

## Recommendation 3: Monitor trends such as in-game betting and betting on non-traditional sports.

The analysis of the first two years of legalized sports wagering identified potential trends that should be monitored over time. Last year, we highlighted in-game betting, which often coincides with a "hot" state of emotion during a game, when the presence of friends, alcohol, excitement, and/or fan loyalty could decrease thoughtful reflection around betting and lead to impulsive spending. This year, the proportion of in-game betting dropped considerably – from 33% of bets wagered in 2019 to 21% in 2020 – also resulting in a proportional drop in the amount of money wagered in game (47% to 43%). Despite this decrease, it remains notable that more than 40% of money wagered was spent in-game, which supports the notion that a proportion of bettors could be spending more than they otherwise would, due to the experience of betting while the game is in progress. There was also an 8% increase in the proportion of in-game bets placed between midnight and 3 a.m., from about 24% to 32%. This finding corresponds with increases in betting on non-traditional sports, many of which may be played in foreign markets during overnight hours (e.g., ping pong and cricket). Other non-traditional sports that received a remarkable proportion of bets were field hockey and tennis. It is not possible to account definitively for the recent popularity of these sports, however, historically, individuals who are gambling frequently tend to shift to betting on non-traditional sports to stay in action when their sports of choice are not available. Gambling in the overnight hours is also common among those who want to continue betting when traditional sports competitions are over and/or their families are asleep. Whether or not these findings are predictive of individuals with higher levels of gambling severity is unknown. However, it is important to monitor these findings and to consider ways of providing additional messaging or intervention to those whose gambling sessions extend beyond their normal betting times.