



Sports Wagering in New Jersey

Calendar Year 2020 Report to the
Division of Gaming Enforcement
Submitted by:

Lia Nower, J.D., Ph.D.
Jackie F. Stanmyre, ABD
S. Ray Cho, Ph.D.
Elizabeth Peters, B.S.

Center for Gambling Studies
Rutgers University
School of Social Work
120 Albany Street, Tower 1, Suite 300
New Brunswick, NJ 08901

To Cite This Report:

Nower, L., Stanmyre, J.F., Cho, S.R., & Peters, E.A. (2023). *Sports Wagering in New Jersey: Calendar Year 2020 Report to the Division of Gaming Enforcement*. New Brunswick, NJ: Authors

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I. Introduction

Legalized sports wagering in New Jersey went live in 2018, following the overturning of the Professional and Amateur Sports Protection Act of 1992 (PASPA), which banned sports betting in all but four states. The Division of Gaming Enforcement (DGE) regulates sports wagering conducted online via computer or mobile phones and at kiosks and retail terminals at land-based locations. In this report, the Center for Gambling Studies at Rutgers University was tasked with analyzing the sports wagering play-by-play data from all operators in New Jersey in 2019. The aims of the analyses are to: 1) explore play patterns by salient demographic variables and other variables that bear on problem gambling (e.g., age, gender, geographic area, time of day); 2) investigate evidence-based indicators of high-intensity play; 3) evaluate the utilization patterns of responsible gambling (RG) features; and 4) offer recommendations to reduce problem gambling behavior and related harm. Throughout this report, play patterns identified in 2019 are presented alongside findings from 2018 for the purpose of identifying and tracking trends. Notably, sports wagering was legal and live for only five months in 2018 and, for that reason, the findings for that year may not be directly comparable to those in 2019, when sports wagering was available for a full year.

Table 1 summarizes the operators, skins, and URLs in 2019. For purposes of this report, the “Licensee” is the land-based gaming corporation, the “Operator” is the internet gaming 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 2019

Licensee	Platform Operator(s)	Skin(s)	URL(s)	Launch
Borgata	GVC	BetMGM	sports.nj.betmgm.com	08/22/18
Caesars	888	888	us.888sport.com	09/06/18
	SGD	Caesars Casino	caesarscasino.com	09/08/18
Golden Nugget	SBTech	Bet America/ Churchill Downs	betamerica.com	02/01/19
	SGD	Golden Nugget	nj-casino.goldennuggetcasino.com/sports	02/19/19
Hard Rock	SGD	Hard Rock	www.hardrockcasino.com/sports	01/30/19
	SGD	UniBet	nj.unibet.com	08/21/19
	Bet365	Bet365	nj.bet365.com	08/22/19
Meadowlands	FanDuel	FanDuel	sportsbook.fanduel.com	09/06/18
	PointsBet	PointsBet	pointsbet.com	12/11/18
Monmouth	RSI	Play SugarHouse	playsugarhouse.com	08/23/18
	William Hill	William Hill	williamhill.com/us/nj	09/07/18
	BetWorks	TheScore	thescore.bet	08/13/19
Ocean	William Hill	William Hill	williamhill.com/us/nj	09/07/18
Resorts	Draft Kings	Draft Kings	draftkings.com	08/06/18
	The Stars Group	FoxBet	nj.foxbet.com	09/12/18
	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 Division of Gaming Enforcement (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 casinos. Demographic files, individual bet files, balance files and responsible gambling (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 erroneous data, and questionable data was checked with the DGE for verification and/or correction. The resulting file was then matched to demographic, balance, 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

More than 1.2 million new sports wagering accounts were created in 2019, and of those, 135,764 new sports bettors placed a sports bet. Combined with past account-holders, there were 290,919 active sports bettors in 2019. This is nearly twice as many sports bettors as there were in 2018 ($n = 153,894$). Of 2018 sports bettors, 76.7% continued to play in 2019 while 23.3% did not return. In total, in 2019, 40.6% sports bettors were return players from 2018 while 59.4% were new to sports betting.

Age data was available in 2019 for 290,918 bettors. Overall, gender data was provided for 83.2% of the sample ($n = 242,173$). 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.

Table 2. Missing Data Summary

Missing Data Summary	Valid Sample		Total
	Valid Sample	Missing	
Gender	242,173	48,746	290,919
Age	290,918	1	290,919

A. Age and Gender

The growth in sports wagering participation from 2018 to 2019 varied by age (Table 3). Notably, in 2019, there were twice as many bettors in the 21 to 24 age group compared to the prior year, which increased the proportion of bettors in that age group from about 14% to 17%. Meanwhile, there was a slight, proportional decline in participation among those aged 25 to 54. Similar to 2018, those ages 25 to 34 comprised the largest proportion of all sports bettors, (40.8%), followed by 35 to 44 year olds (22.3%).

Table 3. Age Group for All Sports Bettors Across Years

Age Group	2018		2019	
	%	n	%	n
21-24	14.0	21,529	16.8*	48,731
25-34	41.8*	64,261	40.8	118,771
35-44	23.8*	36,667	22.3	64,998
45-54	12.5*	19,271	12.1	35,129
55-64	6.1	9,391	6.1	17,776
65+	1.8	2,766	1.9	5,513
Total	100.0	153,885	100.0	290,918
Mean	36.1*		35.7	

*Significantly higher in the indicated year for the indicated age group ($p < .001$).

The number of sports bettors continued to increase between 2018 and 2019 with the highest participation rates among those ages 25 to 34 (41.5% of males; 39.1% of females) (Table 4). In addition, there was significant growth in the youngest age group (21 to 24 years), with the proportion of men increasing from about 15% to 18% and women, from about 15% to 17%. Notably, men saw significant increases among younger gamblers ages 21 to 34; by contrast,

participation by women significantly increased among the youngest (21 to 24 years) and oldest (55+) age categories.

Table 4. Age Group by Gender Across Years

Age Group	Males				Females			
	2018		2019		2018		2019	
	%	n	%	n	%	n	%	n
21-24	14.7	9,208	18.2*	37,984	14.6	1,102	17.3*	5,708
25-34	40.9	25,604	41.5*	86,829	42.4*	3,203	39.1	12,937
35-44	24.1*	15,050	22.0	46,060	22.3*	1,686	19.3	6,394
45-54	12.8*	7,977	11.2	23,422	12.2*	921	14.1	4,657
55-64	5.9*	3,676	5.5	11,447	6.4	486	7.8*	2,582
65+	1.7*	1,036	1.6	3,344	2.2	163	2.4*	808
Total	100.0	62,551	100.0	209,086	100.0	7,561	100.0	33,086

*Significantly higher in the indicated year for the indicated gender and age group ($p < .001$).

The proportion of sports bettors who were New Jersey residents decreased by about 5%, from about 84% in 2018 to about 79% of sports bettors in 2019. That decrease is accounted for by a proportional drop in participation by male residents of nearly 4%; participation by women residents increased by about 4% between years. Non-residents saw a 1% decrease in male and 1% increase in female participation.

By age, betting by New Jersey residents as well as those betting within New Jersey but living elsewhere generally paralleled findings for the overall sample (Table 5). For example, the number of 21 to 24 year olds betting nearly doubled for residents of New Jersey and more than tripled for non-residents. Among non-residents, participation of all other age groups decreased proportionately; there was a similar decrease for residents for all but the 55+ age groups, which increased. Bettors ages 25 to 34 continued to comprise the greatest proportion of all sports bettors among both residents (39.4%) and non-residents (46.3%). The mean age of sports bettors nominally but significantly decreased for both resident groups from 2018 to 2019.

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

Age Group	NJ Residents				Non-NJ Residents			
	2018		2019		2018		2019	
	%	n	%	n	%	n	%	n
21-24	14.7	19,041	17.3*	39,667	10.4	2,488	14.8*	9,064
25-34	40.7*	52,885	39.4	90,471	47.5*	11,376	46.3	28,300
35-44	23.5*	30,546	22.1	50,904	25.6*	6,121	23.1	14,094
45-54	12.9*	16,737	12.6	28,903	10.6*	2,534	10.2	6,226
55-64	6.3	8,248	6.6*	15,096	4.8*	1,143	4.4	2,680
65+	1.9	2,474	2.1*	4,774	1.2*	292	1.2	739
Total	100.0	129,931	100.0	229,815	100.0	23,954	100.0	61,103
Mean (SD)	36.2* (11.4)		36.0 (11.8)		35.5* (10.1)		34.8 (10.3)	
Gender	2018		2019		2018		2019	
	%	n	%	n	%	n	%	n
Male	88.4*	51,358	84.7	159,288	93.0*	11,193	92.0	49,799
Female	11.6	6,720	15.3*	28,739	7.0	841	8.0*	4,347
Total	100.0	58,078	100.0	188,027	100.0	12,034	100.0	54,146

*Significantly higher in the indicated year for the indicated age group or gender ($p < .001$).

About 82% of sports bettors placed bets on only a single site in 2019, 3% less than the prior year, while an 13% placed bets on two sites (Table 6). While these numbers are similar to 2018, there was an increase in those who used three or more sites, from about 2% to almost 6%. Less than 1% of sports bettors bet on more than five sites. Overall, there were no significant changes in the number of sites – about one site – used by the average sports bettor, despite the number of sites doubling between 2018 and 2019.

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

Number of sites bet	2018	2019	2019
	Percentage	Percentage	Number of account holders
1	84.9	81.5	236,972
2	12.6	12.8	37,236
3	1.6	3.3	9,638
4	0.5	1.3	3,749
5	0.2	0.6	1,699
6	0.1	0.3	830
7		0.1	390
8		0.1	209
9		<0.1	111
10		<0.1	48
11		<0.1	23
12		<0.1	8
13		<0.1	6
Mean	1.2	1.3	
Median	1.0	1.0	

B. Regional Differences

Assessing regional differences in sports betting participation is a key consideration for prevention, intervention, and treatment. Findings from two New Jersey prevalence studies suggest that those who bet on sports have higher than expected levels of gambling problems as well as comorbid mental health problems. Therefore, identifying counties that have higher proportions of sports bettors will provide important information to guide workforce development and resource deployment efforts to those areas.

Sports wagering participation grew across all counties from 2018 to 2019. Camden, Essex, Hudson, and Passaic counties all saw significant increases, with the number of sports bettors in both Passaic and Essex counties more than doubling (Table 7). Meanwhile, sports betting in Monmouth, Ocean, and Morris counties proportionately decreased. Similar to 2018, the most sports bettors in 2019 lived in Bergen (11.7%), Hudson (9.2%), Monmouth (9.0%), and Essex (8.4%) counties.

Table 7. Percentage of Sports Bettors by County Across Years

County	2018		2019	
	n	%	n	%
Atlantic	4,582	3.5	8,021	3.5
Bergen	14,694	11.4	26,905	11.7*
Burlington	6,191	4.8	11,656	5.1*
Camden	7,463	5.8	14,703	6.4*
Cape May	1,263	1.0	2,215	1.0
Cumberland	1,175	0.9	2,206	1.0
Essex	9,248	7.2	19,201	8.4*
Gloucester	4,818	3.7	8,720	3.8
Hudson	10,803	8.4	21,206	9.2*
Hunterdon	1,441	1.1*	2,197	1.0
Mercer	3,614	2.8	6,668	2.9
Middlesex	10,101	7.8	17,403	7.6
Monmouth	15,195	11.8*	20,708	9.0
Morris	7,673	5.9*	12,120	5.3
Ocean	9,030	7.0*	14,070	6.1
Passaic	7,201	5.6	15,659	6.8*
Salem	535	0.4	1,005	0.4
Somerset	3,970	3.1*	6,489	2.8
Sussex	1,721	1.3*	2,720	1.2
Union	7,385	5.7	13,654	6.0
Warren	1,126	0.9	1,907	0.8

*Significantly higher in the indicated year for the indicated county ($p < .001$).

Among the counties where the most sports bettors resided, only Bergen, Hudson, and Monmouth, were statistically overrepresented when compared to their percentage of the New Jersey population (Table 8). For example, Monmouth County was home to 9% of sports bettors but only 7% of the New Jersey population, Hudson County had about 9% of sports bettors but just less than 8% of the population, and Bergen County accounted for almost 12% of sports

bettors but only 11% of the population. Sports bettors additionally were overrepresented in Passaic, Camden, Gloucester, and Atlantic counties. Meanwhile, Essex, Middlesex, Ocean, Union, Morris, Mercer, Sussex, Cumberland, Hunterdon, Warren, and Salem counties were underrepresented in the number of sports bettors.

Figure 1. Proportion of Sports Bettors by County

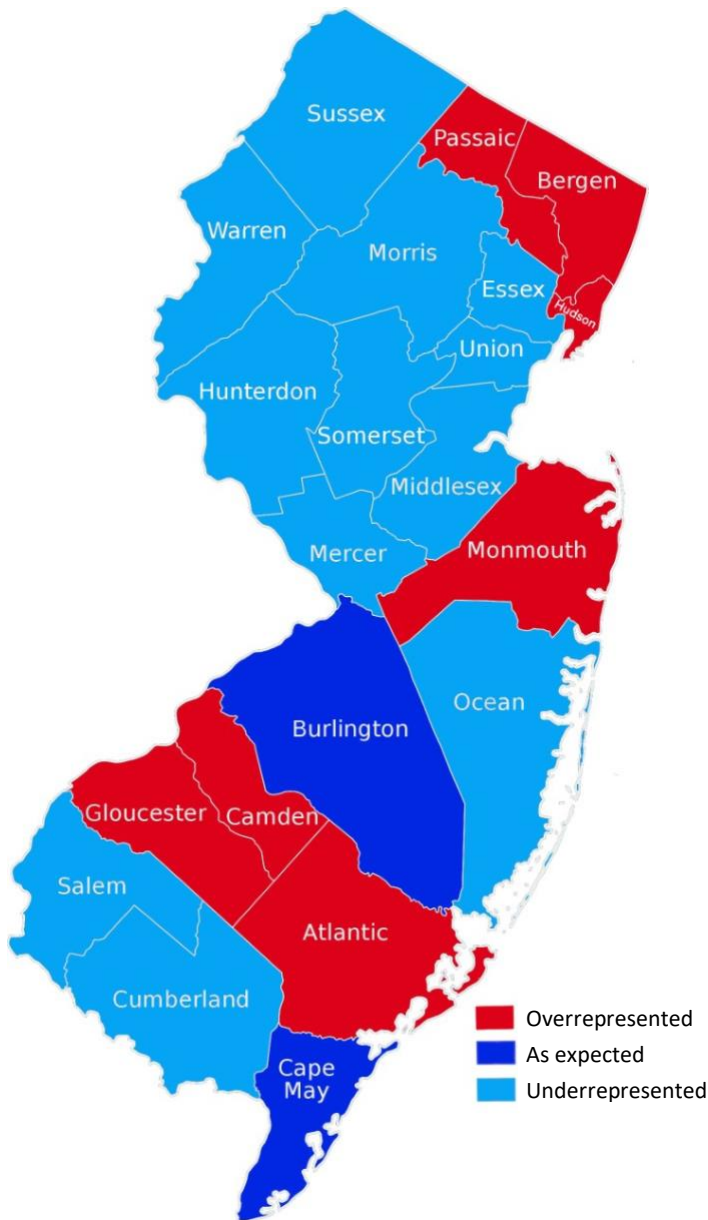


Table 8. Percentage of Sports Bettors by County in Relation to NJ Population

County	% of sports bettors	% of NJ Population*
Atlantic	3.5 ^a	3.0
Bergen	11.7 ^a	10.5
Burlington	5.1	5.0
Camden	6.4 ^a	5.7
Cape May	1.0	1.0
Cumberland	1.0 ^b	1.7
Essex	8.4 ^b	9.0
Gloucester	3.8 ^a	3.3
Hudson	9.2 ^a	7.6
Hunterdon	1.0 ^b	1.4
Mercer	2.9 ^b	4.2
Middlesex	7.6 ^b	9.3
Monmouth	9.0 ^a	7.0
Morris	5.3 ^b	5.5
Ocean	6.1 ^b	6.8
Passaic	6.8 ^a	5.6
Salem	0.4 ^b	0.7
Somerset	2.8 ^b	3.7
Sussex	1.2 ^b	1.6
Union	6.0 ^b	6.3
Warren	0.8 ^b	1.2

^a Significantly higher % of sports bettors in relation to % of NJ population ($p < .001$)

^b Significantly lower % of sports bettors 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, 2010 to July 1, 2019*.

<https://www.nj.gov/labor/lpa/dmograph/est/nst-01.xlsx>.

IV. Betting Behavior

To understand demographic differences in sports wagering behavior, it is important to analyze that behavior across the possible range of bet types. In addition, information regarding the relative appeal of various sports to specific demographic groups of bettors and the methods they use to fund bets can also inform responsible gambling measures and restrictions around advertising. This section will analyze these factors, as well as provide information on losing bets and parlays and in-gaming betting, both of which are popular bet types. The CGS analyzed online wagers only; future reports may also include land-based data from kiosks and retain systems.

A. Wagering by Bet Type

More than 43 million bets were placed on sports in 2019 (Table 9). More than 44% of bets were placed on parlays¹ (including round-robin parlays² and teasers³). For the purposes of analysis, parlay bets that were placed prior to an event (i.e., parlay not in-game; 32% of bets) and in-game (i.e., parlay in-game; 12% of bets) have been separated. Non-parlay in-game bets constituted about 21% of all bets.

The analyses classified differentiated straight bets⁴ according to sub-types of point-spread, moneyline, or total bet (over/under) and also as “whole” (whole game/event) or “partial” (part of game/event; e.g., one half, one quarter). Whole straight bets were more popular than partial, with moneyline and point spreads constituting almost 5% of all sports bets each, and total over/under bets about 3%. Other bet types analyzed include prop bets,⁵ which made up 10% of all sports bets in 2019, and futures bets,⁶ which comprised 3% of bets, and “other non-parlay bets,”⁷ about 8% of all bets.

Mean wagers across bet types showed significant variation. Point spread partial bets had the largest mean (\$147) and median (\$30) wagers, though they represented a very small proportion of all bets. Notably, non-parlay in-game bets were substantially higher than all other bet types, excluding point spread partial bets, on average (\$115) and on the high end at the median (\$20). All of the straight bet types (point spread, moneyline, total) outside of point spread partial bets had mean wagers ranging from \$72 to \$84. Mean bet sizes for futures bets (\$27), parlays not in-

¹ 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. Players must win all legs to win a parlay.

² Round-robin (RR) parlays are smaller parlays, comprised of 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.

³ Teasers, a variation on parlays, allow the bettor to move the point spread or over/under a set number of points when two (sometimes three) or more bets are placed and tied together.

⁴ Straight bets are single bets on a game or event, decided by a point spread (player/team wins/loses by x number of points), moneyline (which player/team will win the game outright), 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).

⁵ 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).

⁶ 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.

⁷ Other non-parlay bets, for purposes of this report, are single-leg bets that were either multi-coded or constituted too small a proportion of all bets for individual analysis (e.g., “exact score” bets).

game (\$32), prop bets (\$38), and parlays in-game (\$42) were the lowest. Also of note, the standard deviations for each bet type are sizable, evidenced by median wagers that range from \$5 (futures) to \$30 (point spread partial).

Table 9. Betting Patterns by Bet Type (n = 43,130,041 bets)

Bet type	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay Not In-Game	13,856,597	32.1	390,000.00	32.47	413.54	7.00
Non-Parlay In-Game	8,898,578	20.6	632,000.00	114.73	1,090.41	20.00
Parlay In-Game	5,254,143	12.2	334,695.91	41.87	447.00	8.00
Prop	4,465,249	10.4	570,000.00	37.57	644.16	8.00
Point Spread Whole	2,232,333	5.2	100,000.00	74.97	524.64	20.00
Point Spread Partial	207,929	0.5	280,000.00	147.28	1,235.31	30.00
Moneyline Whole	2,116,104	4.9	500,000.00	84.84	1,150.27	16.73
Moneyline Partial	165,406	0.4	50,000.00	77.88	463.76	20.00
Total Over/Under Whole	1,172,808	2.7	200,000.00	72.45	592.47	16.80
Total Over/Under Partial	406,533	0.9	100,000.00	76.06	405.62	20.00
Futures	1,133,677	2.6	1,500,000.00	27.12	2,314.30	5.00
Other Non-Parlay	3,220,684	7.5	200,000.00	73.12	468.81	20.00
Total	43,130,041	100.0	1,500,000.00	61.01	790.11	10.00

Comparing by gender, men made almost 94% of all sports bets placed in 2019 and, across all bet types, spent substantially more than women on each bet both on average (\$65 v \$37) and at the median (\$10 v \$5; Table 10). However, there were some notable differences across bet type preferences as well as mean wager amounts within each bet type. Men made a slightly higher proportion of their wagers on point spread whole bets (6% v 4%) and prop bets (11% v 10%), whereas women placed a higher proportion of their bets on parlays both not in-game (36% v 32%) and in-game (17% v 12%).

Men placed higher bets both on average and at the median on most bet types except prop bets, point spread partial bets, and other non-parlay bets, when median bets were the same. They also made a substantially higher maximum wager for each bet type, with max bets ranging from \$50,000 (moneyline partial) to \$1.5 million (futures), while women's max bet size ranged from \$4,700 (futures) to \$40,000 (non-parlay in-game). Both men (\$150) and women (\$97) spent the most, on average, on point spread partial bets, though these were a very small proportion of all bets. The next highest bet category for men were non-parlay in-game bets (\$122) then moneyline whole, other non-parlay, and moneyline partial bets, which all were between \$85 and \$89. For women, the next highest mean bets were on moneyline partial bets (\$81) then non-parlay in-game bets (\$79).

Table 10. Betting Patterns by Bet Type by Gender (n = 39,130,874)

Bet Type	Males (n = 36,674,573 bets; 93.7%)					Females (n = 2,456,301 bets; 6.3%)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay Not In-Game	31.6	390,000.00	34.03*	443.96	8.33	35.8	30,004.39	17.68	94.32	5.00
Non-Parlay In-Game	21.0	632,000.00	121.91*	529.47	20.00	20.1	40,000.00	79.15	380.93	10.00
Parlay In-Game	12.3	334,695.91	43.70*	475.55	9.24	17.0	33,000.00	24.21	176.69	5.00
Prop	10.5	570,000.00	40.31*	693.62	5.00	9.5	15,433.33	19.54	104.20	5.00
Point Spread Whole	5.7	100,000.00	76.39*	537.68	20.00	3.9	11,500.00	55.12	230.87	13.00
Point Spread Partial	0.5	280,000.00	150.08*	1,267.41	30.00	0.4	15,000.00	97.19	273.23	30.00
Moneyline Whole	5.2	500,000.00	88.54*	1,205.58	20.00	5.2	31,000.00	49.34	216.87	10.00
Moneyline Partial	0.4	50,000.00	84.95	515.98	20.00	0.2	7,000.00	81.05	248.83	10.00
Total (O/U) Whole	3.0	200,000.00	74.27*	610.52	19.79	2.2	15,000.00	53.48	253.68	10.00
Total (O/U) Partial	1.1	100,000.00	76.89*	413.46	20.00	0.7	5,500.00	63.01	198.90	15.00
Futures	2.9	1,500,000.00	27.91	2,409.62	6.00	2.2	4,740.74	10.96	39.71	5.00
Other Non-Parlay	5.9	136,000.00	85.56*	1,164.48	20.00	2.9	12,000.00	71.49	223.37	20.00
Total	100.0	1,500,000.00	64.90	850.44	10.00	100.0	40,000.00	37.32	217.65	5.00

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

Average betting behavior varied across age groups and bet types (Table 11). As in 2018, bettors ages 35 to 44 years placed the highest mean bets across the most bet types. Bettors ages 25 to 34 also made comparably high mean bets across types, in addition to the highest average bets on parlays not in-game, non-parlay in-game, and point spread partial bets. In contrast, the youngest bettors, ages 21 to 24, placed the lowest mean bets for the majority of bet types, including parlay not in-game, prop, point spread whole, point spread partial, moneyline whole, moneyline partial, total whole, total partial, and futures bets. Wagering varied the most for those ages 65+, who placed the highest average bets for point spread partial, moneyline partial, and futures bets (though the futures bet mean was skewed by a single bet of \$1.5 million) but the lowest average bets for non-parlay-in game, parlay in-game, and other non-parlay bets.

Table 11. Betting Patterns by Bet Type by Age (n = 43,130,025)

Bet Type	Age Group	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay Not In-Game	21-24	36,750.00	24.54	124.22	10.00
	25-34	390,000.00	35.53	619.93	8.00
	35-44	70,000.91	33.32	218.69	5.00
	45-54	43,000.00	29.88	171.42	5.00
	55-64	33,719.00	31.82	186.71	10.00
	65+	20,000.00	26.82	121.21	10.00
Non-Parlay In-Game	21-24	88,186.68	74.66	441.25	13.00
	25-34	632,000.00	133.02	1,612.89	20.00
	35-44	88,888.00	121.62	594.57	20.00
	45-54	54,000.00	108.24	538.56	15.00
	55-64	100,000.00	77.24	655.98	12.00
	65+	61,592.55	73.85	560.44	10.00

Bet Type	Age Group	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay In-Game	21-24	15,000.00	29.88	135.38	9.00
	25-34	334,695.91	44.68	636.48	8.40
	35-44	67,200.00	48.12	287.71	7.00
	45-54	29,000.00	34.83	168.413	5.20
	55-64	26,941.82	33.96	142.32	10.00
	65+	15,000.00	23.40	135.82	7.00
Prop	21-24	51,665.00	25.40	171.43	6.00
	25-34	570,000.00	41.62	958.93	10.00
	35-44	50,000.00	42.61	307.25	8.36
	45-54	33,814.02	32.34	186.78	5.00
	55-64	100,000.00	30.45	388.82	6.00
	65+	20,720.00	28.77	200.20	8.00
Point Spread Whole	21-24	13,000.00	38.48	149.75	15.00
	25-34	100,000.00	76.15	625.79	20.00
	35-44	66,000.00	97.73	660.30	20.00
	45-54	23,100.00	74.67	331.17	20.00
	55-64	50,000.00	62.03	324.34	20.00
	65+	41,500.00	63.07	560.03	15.00
Point Spread Partial	21-24	7,500.00	89.57	343.27	20.00
	25-34	270,000.00	163.52	1580.91	30.00
	35-44	28,485.94	161.60	161.60	45.00
	45-54	15,000.00	114.03	114.03	30.00
	55-64	54,900.00	158.69	158.69	30.00
	65+	280,000.00	275.63	275.63	40.00
Moneyline Whole	21-24	70,000.00	57.78	396.25	14.99
	25-34	390,000.00	97.67	1670.10	20.00
	35-44	100,000.00	98.08	724.44	20.00
	45-54	71,964.00	75.49	422.69	15.00
	55-64	80,000.00	61.59	579.76	15.00
	65+	500,000.00	59.27	1955.28	15.00
Moneyline Partial	21-24	28,407.00	43.08	204.25	11.35
	25-34	15,200.00	74.31	323.75	20.00
	35-44	9,250.00	92.56	341.42	20.00
	45-54	50,000.00	75.44	271.39	20.00
	55-64	5,700.00	92.11	1175.34	10.00
	65+	50,000.00	95.84	256.96	20.00
Total Over/Under Whole	21-24	7,800.00	34.64	132.91	11.00
	25-34	200,000.00	70.64	712.98	20.00
	35-44	60,000.00	106.28	765.27	20.00
	45-54	11,000.00	67.03	234.93	20.00
	55-64	40,000.00	57.65	495.99	15.00
	65+	30,000.00	45.29	277.55	10.50

Bet Type	Age Group	Max Wager	Mean Wager	SD of Wager	Median Wager
Total Over/Under Partial	21-24	7,000.00	42.48	166.07	14.71
	25-34	100,000.00	71.34	342.98	22.00
	35-44	27,500.00	99.43	350.03	25.00
	45-54	6,210.00	74.07	211.03	20.00
	55-64	75,000.00	78.02	937.10	10.00
	65+	5,500.00	79.66	179.50	25.00
Futures	21-24	18,208.00	15.62	97.24	5.00
	25-34	735,000.00	28.98	1,587.30	8.00
	35-44	100,000.00	21.40	248.70	5.00
	45-54	37,136.31	21.18	185.03	5.00
	55-64	6,000.00	19.45	75.83	5.00
	65+	1,500,000.00	212.13	15,125.79	7.00
Other Non- Parlay	21-24	49,817.00	52.70	220.94	15.00
	25-34	136,000.00	81.93	657.12	20.00
	35-44	200,000.00	83.21	397.72	20.00
	45-54	45,350.00	65.58	310.12	18.20
	55-64	10,000.00	54.89	156.52	20.00
	65+	14,055.00	42.44	139.16	15.00

B. Wagering by Sport

The next several tables provide insight into betting behavior by specific sport. These analyses excluded parlays ($n = 19,110,740$), as different legs of a parlay can be placed on different sports. Across all parlays, 28% included at least one leg bet on NBA basketball, 25% on MLB baseball, 20% on NFL football, 12% each on college basketball and NHL hockey, and 11% on soccer. Among parlay bets that were comprised of multiple legs on a single sport ($n = 14,701,079$), the most popular sports were MLB baseball (22%), NFL football (18%), and NBA basketball (16%).

Among single-leg wagers, more than 5 million bets (22%) were made on NBA basketball, while almost 5 million were made on NFL football (21%), and 4 million on MLB baseball (17%). College basketball (2 million; 9%), soccer (1.8 million; 7%), tennis (1.7 million; 7%), NHL hockey (1.3 million, 6%), and college football (1.2 million, 5%) also received substantial betting activity (table 12). Mean wagers across sports were highly variable, with golf posting a low average wager of about \$30, and NASCAR about \$15; wagers on tennis (\$143), college football (\$101), college basketball (\$100), and MLB baseball (\$96) were markedly higher. Median wagers ranged from \$5 (NASCAR and golf) to \$22 (college football). Taken together, this indicates that while NBA basketball and NFL football were the most popular sports to bet on, individual wagers were higher on tennis, college football, and college basketball.

Table 12. Betting Patterns by Sport (n = 23,864,523 bets)

Sport	n	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NBA/Pro Basketball	5,191,015	21.8	300,000.00	77.57	622.82	15.00
NFL/Pro Football	4,964,198	20.8	735,000.00	68.05	804.50	12.50
MLB/Pro Baseball	4,139,780	17.3	1,500,000.00	95.84	1671.82	15.00
College Basketball	2,049,562	8.6	632,000.00	99.66	1369.79	20.00
Soccer	1,757,272	7.4	260,000.00	69.50	635.72	10.00
Tennis	1,696,859	7.1	99,700.00	143.02	709.03	20.00
NHL/Pro Hockey	1,321,497	5.5	200,000.00	55.89	368.44	10.00
College Football	1,160,995	4.9	250,000.00	101.30	900.20	22.00
Golf	861,077	3.6	39,852.00	29.71	214.49	5.00
Boxing/MMA	317,670	1.3	150,000.00	44.78	426.19	10.00
NASCAR	43,010	0.2	6,000.00	14.81	61.70	5.00
Other Sports	361,588	1.5	100,000.00	34.85	292.89	10.00
Total	23,864,523	100.0	1,500,000.00	81.74	991.69	15.00

By gender, men made significantly larger mean wagers on every sport except for NASCAR (table 13). Men made a larger proportion of bets on MLB baseball (17% v 15%), college basketball (9% v 8%), college football (5% v 4%) and golf (3% v 2%), while women made a larger proportion of their bets on NBA basketball (25% v 22%), NFL football (23% v 21%), and soccer (8% v 7%). Both men (\$150) and women (\$127) made their largest mean wagers on tennis; men’s next highest mean bets were on college basketball (\$106), college football (\$105), and MLB baseball (\$102); similarly, women’s next highest mean bets were on college football (\$75), MLB baseball (\$63), and college basketball (\$63). Median wagers reflect similar patterns, with college football and college basketball posting the highest amounts for both genders, and to tennis for men only.

Table 13. Betting Patterns by Sport by Gender (n = 21,595,252 bets)

Sport	Males (n = 20,451,206 bets)					Females (n = 1,144,046 bets)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NBA/Pro Basketball	21.8	300,000.00	81.72*	663.37	15.00	24.6	40,000.00	55.76	267.34	10.00
NFL/Pro Football	20.7	735,000.00	71.44*	865.51	15.00	22.6	30,000.00	41.67	228.74	10.00
MLB/Pro Baseball	17.4	1,500,000.00	102.18*	1,797.95	16.00	15.3	31,000.00	63.25	269.60	10.00
College Basketball	8.8	632,000.00	105.91*	1,458.43	20.00	8.0	11,500.00	62.70	212.41	15.00
Soccer	7.2	260,000.00	75.07*	688.13	10.00	8.4	12,664.00	44.46	211.15	5.00
Tennis	7.3	99,700.00	150.16*	736.87	20.00	7.5	15,555.00	127.47	598.20	10.00
NHL/Pro Hockey	5.4	72,000.00	59.55*	342.58	11.00	5.0	7,600.00	40.62	156.08	8.68
College Football	5.2	250,000.00	104.82*	935.21	23.00	4.3	20,000.00	75.14	351.51	15.00
Golf	3.4	39,852.00	32.46*	236.54	7.00	1.7	5,698.10	17.06	111.72	5.00
Boxing/MMA	1.4	150,000.00	45.38*	432.84	10.00	1.2	8,820.00	26.21	148.18	5.00
NASCAR	0.2	6,000.00	15.49	53.60	5.00	0.2	4,413.60	30.42*	190.93	5.00
Other Sports	1.3	100,000.00	40.53*	337.02	10.00	1.3	3,000.00	26.17	96.19	5.00

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

Betting patterns across sports also varied considerably by age (Table 14). Bettors ages 25 to 34 placed the highest mean wagers on MLB baseball, college basketball, soccer, golf, and other sports, while bettors in the 35 to 44 age group placed the highest mean wagers on NBA basketball, NFL football, tennis, NHL hockey, and college football. In contrast, the youngest bettors (21 to 24) made the lowest mean wagers on NBA basketball, NFL football, NHL hockey, boxing/MMA, and NASCAR, and the oldest bettors (65+) made the lowest mean wagers on college basketball, soccer, college football, golf, and other sports.

Table 14. Betting Patterns by Sport by Age ($n = 23,864,071$)

Sport	Age Group	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NBA/Pro Basketball	21-24	25.5	88,186.68	46.59	322.19	10.00
	25-34	23.1	300,000.00	80.88	753.59	15.58
	35-44	21.1	100,000.00	95.84	677.78	18.00
	45-54	19.9	54,000.00	75.43	433.70	12.00
	55-64	17.4	40,000.00	63.38	376.32	15.00
	65+	16.9	11,130.00	51.00	192.87	15.00
NFL/Pro Football	21-24	20.4	70,000.00	38.43	221.39	10.00
	25-34	20.3	735,000.00	75.06	1227.47	12.00
	35-44	20.9	73,458.14	75.30	446.35	15.00
	45-54	21.3	50,000.00	66.28	320.94	14.00
	55-64	21.8	100,000.00	64.70	560.23	15.00
	65+	22.7	30,000.00	46.49	196.47	18.00
MLB/Pro Baseball	21-24	15.7	83,576.39	68.87	491.35	12.50
	25-34	15.8	570,000.00	122.55	2010.11	20.00
	35-44	16.8	100,000.00	98.52	516.54	17.50
	45-54	18.9	71,964.00	79.40	395.17	11.35
	55-64	23.2	75,000.00	54.07	499.94	10.08
	65+	25.2	1,500,000.00	111.24	6272.86	10.00
College Basketball	21-24	7.4	20,350.00	58.12	241.18	15.00
	25-34	7.8	632,000.00	122.21	2291.29	20.72
	35-44	8.8	45,000.00	112.91	508.70	25.00
	45-54	9.8	44,730.00	87.53	334.16	20.00
	55-64	10.0	25,000.00	64.05	293.28	20.00
	65+	11.0	9,936.00	49.89	213.66	12.00
Soccer	21-24	7.7	15,904.93	50.68	251.95	10.00
	25-34	8.2	260,000.00	77.63	827.24	10.00
	35-44	7.7	67,500.00	72.50	410.21	10.00
	45-54	6.7	17,000.00	58.50	321.13	8.00
	55-64	4.4	60,000.00	66.73	1037.77	6.00
	65+	3.0	20,000.00	44.20	223.74	6.50

Sport	Age Group	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Tennis	21-24	7.6	58,000.00	104.43	484.80	20.00
	25-34	7.6	99,700.00	149.49	748.31	25.00
	35-44	7.7	88,888.00	167.33	752.29	20.00
	45-54	6.2	41,687.00	153.39	778.16	13.00
	55-64	5.3	80,000.00	60.71	468.12	10.00
	65+	3.7	7,500.00	63.53	256.08	8.50
NHL/Pro Hockey	21-24	5.3	49,817.00	35.04	217.44	10.00
	25-34	5.9	72,000.00	58.59	370.69	12.00
	35-44	5.2	200,000.00	65.31	488.46	10.00
	45-54	5.5	45,350.00	54.95	315.93	10.00
	55-64	5.6	7,500.00	47.22	178.48	10.00
	65+	4.3	15,000.00	46.51	249.47	11.00
College Football	21-24	4.9	18,000.00	53.37	232.20	15.00
	25-34	4.3	250,000.00	113.44	1357.42	25.00
	35-44	4.8	79,000.00	123.86	615.66	25.00
	45-54	5.5	19,800.00	91.02	334.00	25.00
	55-64	6.0	100,000.00	93.15	918.09	20.00
	65+	6.7	61,592.55	53.33	394.29	20.00
Golf	21-24	2.0	6,773.00	17.77	85.23	5.00
	25-34	3.5	39,852.00	38.96	308.35	10.00
	35-44	3.9	30,000.00	25.64	138.88	5.00
	45-54	3.9	16,172.00	30.01	172.65	5.00
	55-64	4.5	6,000.00	19.53	75.90	5.00
	65+	4.7	2,000.00	12.71	36.13	5.00
Boxing/MMA	21-24	2.0	6,572.85	28.36	93.88	10.00
	25-34	1.7	150,000.00	46.11	550.12	10.00
	35-44	1.2	9,769.47	45.03	177.12	10.00
	45-54	0.7	23,724.00	64.75	521.35	10.00
	55-64	0.4	11,000.00	59.85	367.42	10.00
	65+	0.2	7,250.00	79.51	398.77	10.00
NASCAR	21-24	0.1	500.00	7.94	18.07	5.00
	25-34	0.2	1,250.00	15.99	40.75	5.00
	35-44	0.2	1,733.64	13.51	39.54	5.00
	45-54	0.2	6,000.00	19.51	114.93	5.00
	55-64	0.3	500.00	10.77	21.20	5.00
	65+	0.1	200.00	11.40	15.69	5.00
Other Sports	21-24	1.2	7,207.94	27.30	94.20	10.00
	25-34	1.7	100,000.00	41.39	391.35	10.00
	35-44	1.7	50,000.00	33.74	219.04	10.00
	45-54	1.3	20,000.00	30.37	246.61	5.00
	55-64	1.2	3,150.01	23.46	71.84	7.00
	65+	1.3	550.00	16.47	35.47	6.50

C. Losing Bets

More than 70% of all sports bets placed in 2019 resulted in a loss for the bettor. The losing percentage varied across bet type (Table 15), however, all types of bets lost more often than they won. Parlay bets, both not in-game (86%) and in-game (81%) lost most frequently, followed by futures (80%). Several of the straight bet types — total partial (50%), point spread partial and whole (51%), moneyline whole (52%) and total whole (53%) — were the least likely to result in a loss to the bettor.

Table 15 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. The last column presents a novel statistic, the outcome-adjusted loss:win ratio, which estimates the amount of money lost per every dollar won on each bet type. Notably, on average, no bet type led to a win of any amount, with the average bet losing about \$31.

For a majority of the bet types (parlay not in-game, non-parlay in-game, parlay in-game, prop, moneyline whole and partial, futures, other non-parlay), the average amount won on winning bets was higher than the amount lost on losing bets, which can lead a person to believe they can earn more than they wager. Among bet types, futures (\$12) and parlay not in-game(\$12) lost the least, while point spread partial (\$81) and non-parlay in-game (\$68) lost the most money per average bet. Of the mutually exclusive bet types, only moneyline partial, non-parlay in-game, and prop bets resulted in overall wins that exceeded overall losses. as shown in the ratio column. Again, however, all of these bets resulted in losses on average, meaning a very small proportion of high payouts are skewing the aggregate findings.

Table 15. Loss Percentage and Bet Amount by Bet Type (n = 43,044,959 bets)

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 Not In-Game	86.1	27.82	143.88	12.55	1.20:1
Non-Parlay In-Game	54.8	80.04	102.80	68.49	0.94:1
Parlay In-Game	81.1	32.10	122.27	18.70	1.13:1
Prop	73.5	27.72	78.07	16.98	0.98:1
Point Spread Whole	51.3	72.40	70.03	40.89	1.09:1
Point Spread Partial	50.5	144.06	134.41	80.81	1.09:1
Moneyline Whole	51.6	68.01	69.45	51.21	1.04:1
Moneyline Partial	56.8	69.23	122.50	25.15	0.74:1
Total Over/Under Whole	52.6	69.68	66.96	40.74	1.15:1
Total Over/Under Partial	50.2	74.46	68.17	42.09	1.10:1
Futures	79.9	24.10	75.67	11.88	1.27:1
Other Non-Parlay	55.9	64.48	99.27	29.51	0.82:1
Total	70.3	43.69	100.13	31.32	1.03:1

D. Specific Bet Types: Parlay and In-Game Betting

This section focuses on two types of bets with special relevance to problem gambling: parlays and in-game bets. As indicated in Table 15 parlay bets have the highest loss percentages of any bet type, losing more than 80% of the time, however, they also tend to have the biggest win amounts on average, which could lead bettors to overestimate their chances for a payout. Similarly, in-game bets are also vulnerable to impulsive spending, because they can be influenced by fan loyalty or “hot” emotional states that detract from thoughtful wagering based on the amount a person can afford to spend. In-game bets are also attractive to bettors as a possible way to hedge a straight bet wagered on a full game/event outcome that does not appear to be winning, although this results in increased expenditures overall on a single event.

i. Parlay Betting

Parlay bets not placed in-game were the most popular form of sports bet in 2019. They also lost about 86% of the time. Parlay bets ranged in size from two legs to 25 legs (Table 16), with the average parlay bet being five legs, and the median being four. Parlay bets placed by men were an average of five legs and a median of four legs; women’s parlay bets were an average of six legs. Bettors ages 25 to 34 bet on six legs on average, while those 21 to 24 years and 35 to 54 years bet on five legs on average; those 55+ bet on an average of four legs.

Almost 18 million parlay bets were available for outcome analysis by leg (Table 16). Two-leg parlays were the most popular (3.3 million), followed by three legs (3.2 million), four legs (2.9 million), and five legs (2.0 million) with a consistent decrease for each additional leg (aside from 15-leg parlays being slightly more popular than 13- and 14-leg parlays). Overall, about 64% of parlays bet were between two and five legs, 28% between six and 10 legs, and the final 9% were 11 or more legs. This represents an overall shift to betting on a higher number of legs: In 2018, almost 75% of parlays were between two and five legs, and only 4% were 11 or more legs.

As more legs were added to the bet, parlays were increasingly likely to lose. As indicated in Table 16, two-leg parlays lost about 71% of the time; three-leg parlays, 81% of the time; and four-leg parlays, 87% of the time. Wagers on eight or more legs lost 95% to 98% of the time. The amount wagered—and, mostly, lost—declined as the number of legs increased, consistent with the need to bet a little at the chance to win a lot, but with very small likelihood of winning. Likewise, the mean amount won on winning bets, with some exception, also grew as the number of legs increased, from \$124 for two-leg bets to a high of \$330 for 14-leg parlays. Overall, the average parlay bet lost \$14.24; for every dollar won on a parlay bet, \$1.30 was lost.

Table 16. Parlay Bets: Outcome by Legs

# 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	3,305,862	18.4	70.7	53.37	123.66	28.17	1.04:1
3 legs	3,197,356	17.8	80.6	37.38	136.92	17.06	1.13:1
4 legs	2,926,122	16.3	86.8	29.07	156.80	11.97	1.22:1
5 legs	2,012,405	11.2	90.0	24.91	176.66	9.71	1.27:1
6 legs	1,538,289	8.6	92.2	20.80	193.18	7.83	1.27:1
7 legs	1,141,889	6.4	93.8	17.90	210.24	6.40	1.29:1
8 legs	1,011,635	5.6	95.1	15.10	218.69	5.65	1.34:1
9 legs	683,040	3.8	95.6	13.42	213.62	5.20	1.36:1
10 legs	583,333	3.2	96.3	13.33	255.52	4.85	1.36:1
11 legs	406,003	2.3	96.7	11.56	252.08	4.21	1.34:1
12 legs	502,717	2.8	97.6	12.07	265.63	6.21	1.85:1
13 legs	191,757	1.1	97.2	9.84	194.38	5.21	1.76:1
14 legs	171,675	1.0	97.4	9.68	330.43	1.98	1.10:1
15 legs	263,141	1.5	97.3	10.34	254.79	4.26	1.46:1
>= 16 legs	17,728	0.1	94.6	100.35	260.55	85.92	6.75:1
Total	17,952,952	100.0	86.0	28.94	136.50	14.24	1.30:1

ii. In-Game Betting

In 2019, bettors placed more than 14 million wagers in-game, representing almost 33% of all bets placed, an increase from last 2018, when 26% of bets were placed in-game. Remarkably, 47% of all money wagered in 2019 was spent on in-game bets, double the percentage in 2018.

By gender, men placed 93% of all in-game bets and made significantly higher average in-game wagers (\$93) compared with women (\$54), though both genders placed in-game bets of \$11 at the median (Table 17). In-game betting was most popular among 25 to 34 year olds, followed by 35 to 44 year olds. Considering the proportion of bettors across all age groups, however, those ages 35 to 44 and 45 to 54 were more likely than others to engage in in-game betting. Betting patterns on in-game bets varied by age: 25- to 34-year-olds made the highest mean wager (\$98), followed by 35- to 44-year-olds (\$94) and 45-to-54 year olds (\$83). The youngest (21 to 24) and oldest (65+) bettors made the smallest mean wagers of \$58 and \$62, respectively.

Table 17. Betting Patterns of In-Game Bets by Age and Gender

Gender (n =13,111,019)	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
Male	12,200,803	93.1	632,000.00	92.99*	969.31	11.00
Female	910,216	6.9	40,000.00	53.98	306.05	11.00
Age Group (n =14,152,718)	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
21-24	1,683,071	11.9	88,186.68	57.63 ^b	357.90	10.00
25-34	5,605,946	39.6	632,000.00	98.24 ^a	1,318.57	11.59
35-44	3,795,139	26.8	88,888.00	93.91 ^c	502.71	10.00
45-54	2,066,964	14.6	54,000.00	83.20 ^d	449.42	10.00
55-64	844,219	6.0	100,000.00	65.20 ^e	562.72	10.00
65+	157,379	1.1	61,592.55	62.13 ^f	495.84	10.00

*Significantly higher mean wager for indicated gender ($p < .001$);

^aSignificantly higher than all other age groups ($p < .001$); ^b Significantly lower than 25-64 ($p < .001$); ^c Significantly higher than 21-24 and 45+ ($p < .001$); ^d Significantly higher than 55+ ($p < .001$); ^e Significantly higher than 65+ ($p < .001$); ^f Significantly lower than 25-54 ($p < .001$)

Both men and women demonstrated a strong preference for in-game betting (Table 18). Men comprised 87% of all in-game bettors, with 72% of all male sports bettors and about 65% of all female sports bettors placing at least one in-game bet. These percentages are slightly higher than in 2018, when 68% of males and 62% of females placed an in-game bets.

Interesting gender patterns emerge when analyzing those who primarily bet in-game (i.e., placed more than 50% of bets and wagered more than 50% of money in-game). Compared to men, women were more likely to favor in-game betting as their primary activity, with about 22% of women primarily betting in-game. This proportion was a slight increase over the prior year, when 15% of women placed 50% of their bets/money in-game. Participation among men also registered a 5% increase, from 10% in 2018 to 15% in the current study.

Table 18. In-Game Betting by Gender

2018							
	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
Male	90.1	42,350	67.8	20,105	32.2	6,432	10.3%
Female	9.9	4,661	61.7	2,888	38.3	1,098	14.5%
Total	100.0	47,011	67.2	22,993	32.8	7,530	10.8%
2019							
	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
Male	87.4	150,304	71.9	58,783	28.1	31,591	15.1
Female	12.6	21,590	65.3	11,496	34.7	7,159	21.6
Total	100.0	171,894	71.0	70,279	29.0	38,750	16.0

*Higher than expected for indicated gender and in-game bettor group ($p < .001$)

The preference for in-game betting increased across all age groups in 2019 (Table 19). Those ages 25 to 34 (424%), followed by 35 to 44 year olds (22%), continued to represent the largest proportions of in-game bettors. However, placing bets in-game became increasingly popular among the older age categories in 2019, increasing by 7% among those ages 55 to 64, and 14% among those 65+. The most notable increases are observed in the percentage of those who were primarily in-game bettors, which more than doubled among those 55+ and nearly doubled among those 35 to 54. Participation among 21 to 34-year-olds also increased by about 6%.

Table 19. In-Game Betting by Age

2018							
Age Group	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
21-24	15.2	15,909	74.0	5,603	26.0	2,796	13.0
25-34	44.0	45,920	71.5	18,277	28.5	6,687	10.4
35-44	23.2	24,258	66.2	12,370	33.8	2,888	7.9
45-54	11.3	11,817	61.4	7,443	38.6	1,234	6.4
55-64	5.0	5,251	55.9	4,137	44.1	431	4.6
65+	1.2	1,268	45.9	1,496	54.1	112	4.1
Total	100.0	104,423	67.9	49,326	32.1	14,148	9.2
2019							
Age Group	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
21-24	17.8	36,363	74.6	12,368	25.4	9,080	18.6
25-34	41.9	85,282	71.8	33,489	28.2	19,667	16.6
35-44	21.9	44,567	68.6	20,431	31.4	9,185	14.1
45-54	11.3	23,095	65.7	12,034	34.3	4,137	11.8
55-64	5.5	11,168	62.8	6,608	37.2	1,777	10.0
65+	2.5	2,212	59.9	2,212	40.1	526	9.5
Total	100.0	202,687	70.0	87,142	30.0	44,372	15.3

The largest proportion of in-game bets within an identified sport were placed on NBA basketball (24%), followed by tennis (17%), MLB baseball (15%), NFL football (12%), and soccer (11%), as seen in Table 20. (This table excludes parlay in-game bets, as all legs of a parlay may not be on the same sport.) Considering the proportion of all bets made within each sport also highlights some interesting trends. For example, 86% of all tennis bets and 56% of all soccer bets were made in-game. Meanwhile, only 21% of NFL football bets and 31% of MLB baseball bets were placed in-game.

Sports that garnered the largest average expenditure on in-game bets were college football (\$150), tennis (\$149), college basketball (\$130), and NFL football (\$115).

Table 20. In-Game Betting by Sport (n = 8,849,337)

Sport	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NBA/Pro Basketball	24.3	190,416.56	99.48	681.39	20.00
NFL/Pro Football	11.8	313,100.00	115.48	1,206.65	20.00
MLB/Pro Baseball	14.6	407,000.00	99.48	1,504.47	20.00
College Basketball	9.2	632,000.00	129.79	1,903.04	25.00
Soccer	11.1	260,000.00	85.87	773.27	10.00
Tennis	16.5	99,700.00	148.69	705.89	20.00
NHL/Pro Hockey	5.1	63,000.00	76.68	395.73	12.00
College Football	4.1	250,000.00	149.91	1903.04	25.00
Golf	2.4	39,415.00	48.29	381.24	9.12
Boxing/MMA	0.3	13,447.00	59.90	312.80	10.00
NASCAR	0.1	6,000.00	18.14	96.11	5.00
Other Sports	0.5	30,000.00	99.82	444.87	15.00
Total	100.0	632,000.00	115.06	1,093.32	20.00

In-game bets, in general, led to a loss to the bettor almost two-thirds of the time (Table 21), with non-parlay in-game bets losing 55% of the time and parlay in-game bets losing 81% of the time. An average winning in-game bet won \$107 while the average losing in-game bet lost \$58. However, taking into account the proportion of bets that win vs. lose, the average in-game bet lost almost \$50.

Table 21. Outcome of In-Game Bets

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 (\$)
All In-Game Bets	64.6	57.66	106.68	49.97	0.99:1
Non-Parlay In-Game	54.8	80.04	102.80	68.49	0.95:1
Parlay/RR In Game	81.1	32.10	122.27	18.71	1.12:1

In-game bets are made while a game/event is taking place, therefore examining betting patterns by time of day may hold important information. In 2019, more than half of all in-game bets were placed between 6 p.m., and midnight (Table 22). Specifically, almost two-thirds of all bets placed between 9 p.m., and midnight were in-game bets. These findings suggests that gambling advertising, which promises “free” money and other bonuses during this timeframe, could induce players to bet more than intended and/or influence adolescents and emerging adults who may be watching sports and, possibly, consuming alcohol, which impairs decision making ability.

Table 22. Proportion of In-Game Bets by Time of Day

Time of Day	% of Bets Placed In-Game	In-Game		Not In Game	
		n	%	n	%
6 a.m.-9 a.m.	20.1	481,430	3.4	1,911,408	6.6
9 a.m.-12 p.m.	16.0	952,536	6.7	5,004,915	17.3
12 p.m.-3 p.m.	32.7	2,034,056	14.4	4,189,018	14.5
3 p.m.-6 p.m.	29.3	2,347,996	16.6	5,676,923	19.6
6 p.m.-9 p.m.	32.0	3,309,566	23.4	7,035,618	24.3
9 p.m.-12 a.m.	65.5	4,022,731	28.4	2,115,997	7.3
12 a.m.-3 a.m.	24.3	820,516	5.8	2,553,743	8.8
3 a.m.-6 a.m.	27.3	183,890	1.3	489,698	1.7
Total	32.8	14,152,721	100.0	28,977,320	100.0

E. Funding Play: Payment Types

Sports bettors have the choice to deposit money into their online accounts using a variety of payment methods (Table 23). Data reporting a card type or brand (e.g., Visa, MasterCard) and prepaid cards were recorded as “credit cards.”

Overall, about two-thirds of bets were placed by account holders who utilized a single payment method, with ePay services (e.g., PayPal) most preferred (62.2%) by the same proportion of bettors as in 2018. Given the third-party nature of ePay transactions, it is not possible to know whether the ePay charge is then funded by a credit card, direct bank withdrawal, or bank debit card.

About 33% of bets were placed by account holders using multiple payment methods, an increase of 6% over 2018. Credit card and ePay service remained the most popular combination (16.5%), but the use of both bank account and ePay services grew from 4% to 9%. Use of multiple cards and multiple types of deposits have been associated with higher levels of risk for problem gambling, and so it will be important to consider if the trend toward mixed payment methods continues.

Table 23. Payment Type (n = 40,356,408 bets)

Single Payment Method	n	%
ePay Service Only	25,104,331	62.2
Credit Card Only	1,595,043	4.0
Bank Account Only	493,170	1.2
Total of Single Method	27,192,544	67.4
Two or More Payment Methods	n	%
ePay Service & Credit Card	6,658,079	16.5
ePay Service & Bank Account	3,578,239	8.9
All Three Deposit Types	2,646,535	6.6
Credit Card & Bank Account	281,011	0.7
Total of Multiple Methods	13,163,864	32.6

There were interesting gender-based differences in payment preferences in 2019 (Table 24). There were also notable changes in those preferences when compared to the prior year. The percentage of men using only ePay services, still about 63%, decreased by about 4% between years, however, women dramatically increased their usage by 21%, from nearly 49% in 2018 to more than 70% in 2019. Men were significantly more likely than women to use a combination of credit card and ePay services, bank account and ePay services, and/or all three deposit types when compared to women. Women were slightly more likely than men to use their bank account in combination with a credit card to fund their gambling.

Table 24. Payment Type by Gender (n = 37,501,844 bets)

Payment Type	Male		Female	
	n	%	n	%
ePay Service	21,995,809	62.6	1,668,677	70.4*
Credit Card	853,413	2.4*	56,866	2.4
Bank Account	369,717	1.1	29,529	1.2*
Total of Single Method	23,218,939	66.1	1,755,072	74.1
ePay Service & Credit Card	5,954,829	16.9*	283,801	12.0
ePay Service & Bank Account	3,282,905	9.3*	185,858	7.8
All Three Deposit Types	2,477,268	7.1*	125,637	5.3
Credit Card & Bank Account	198,437	0.6	19,098	0.8*
Total of Multiple Methods	11,913,439	33.9	614,394	25.9

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

All age groups — aside from 45 to 54 and 65+ — showed an increase in use of multiple payment methods to fund bets in 2019 compared with 2018, with the most pronounced increase (9%) among 21 to 24 year olds, who funded 32% of their bets with a combination of multiple methods (Table 25). As noted, the use of multiple methods of payment can be an indicator of problematic gambling, and this thus reflects a notable finding for the youngest bettors. For the two youngest age groups there was a slight decline in ePay only, while all age groups 35+ showed an increase in ePay only. The combination of credit cards and ePay services was significantly more popular among those 21 to 24 and 45 to 54 (both 18%), and use of all three deposit types was significantly higher for bets placed among those ages 25 to 34 (8%). Those ages 65+ reported the highest preference of any group for using a combination of bank account and ePay services (13%), though this combination was also preferred by those ages 25 to 44 (9%). Bettors 35 and older were overrepresented in their exclusive use of credit cards as well as the combined use of bank accounts and credit cards.

Table 25. Payment Type by Age (n = 40,356,408 bets)

Payment Type	21-24		25-34		35-44		45-54		55-64		65+	
	n	%	n	%	n	%	n	%	n	%	n	%
ePay Service	3,052,171	64.7*	9,678,739	62.0	6,617,744	63.1*	3,591,024	59.8	1,766,833	62.1	397,820	58.3
Credit Card	132,452	2.8	482,642	3.1	416,758	4.0*	339,488	5.7*	167,522	5.9*	56,181	8.2*
Bank Account	39,126	0.8	161,523	1.0	132,107	1.3*	70,385	1.2	68,409	2.4*	21,620	3.2*
Single Method Total	3,223,749	68.3	10,322,904	66.1	7,166,609	68.3	4,000,897	66.6	2,002,764	70.4	475,621	69.7
ePay Service & Credit Card	838,897	17.8*	2,563,503	16.4	1,610,966	15.4	1,106,106	18.4*	460,666	16.2	77,941	11.4
ePay Service & Bank Account	360,233	7.6	1,448,598	9.3*	967,366	9.2*	497,472	8.3	212,985	7.5	91,585	13.4*
All Three Deposit Types	281,970	6.0	1,209,317	7.7*	652,778	6.2	334,560	5.6	138,325	4.9	29,585	4.3
Credit Card & Bank Account	11,915	0.3	66,478	0.4	96,238	0.9*	68,186	1.1*	30,900	1.1*	7,294	1.1*
Total of Multiple Methods	1,493,015	31.7	5,287,896	33.9	3,327,348	31.7	2,006,324	33.4	842,876	29.6	206,405	30.3

*Higher than expected proportion for indicated age category (p < .001)

The payment method used to fund in-game betting was similar to methods used for bets not placed in game, with about two-thirds of bets placed by bettors who funded their accounts with a single payment method, primarily ePay services (62%; Table 26). However, there were significant differences, such that bets not placed in game were more likely to be funded only by credit cards or bank accounts. In contrast, in-game bets were more likely to be funded by those using multiple payment methods — 34% compared with 32% — primarily reflected in slight preferences for combinations of credit card and ePay services (17% v 16%) and all three deposit types (7% v 6%).

Table 26. Payment Type of In-Game vs Not In-Game

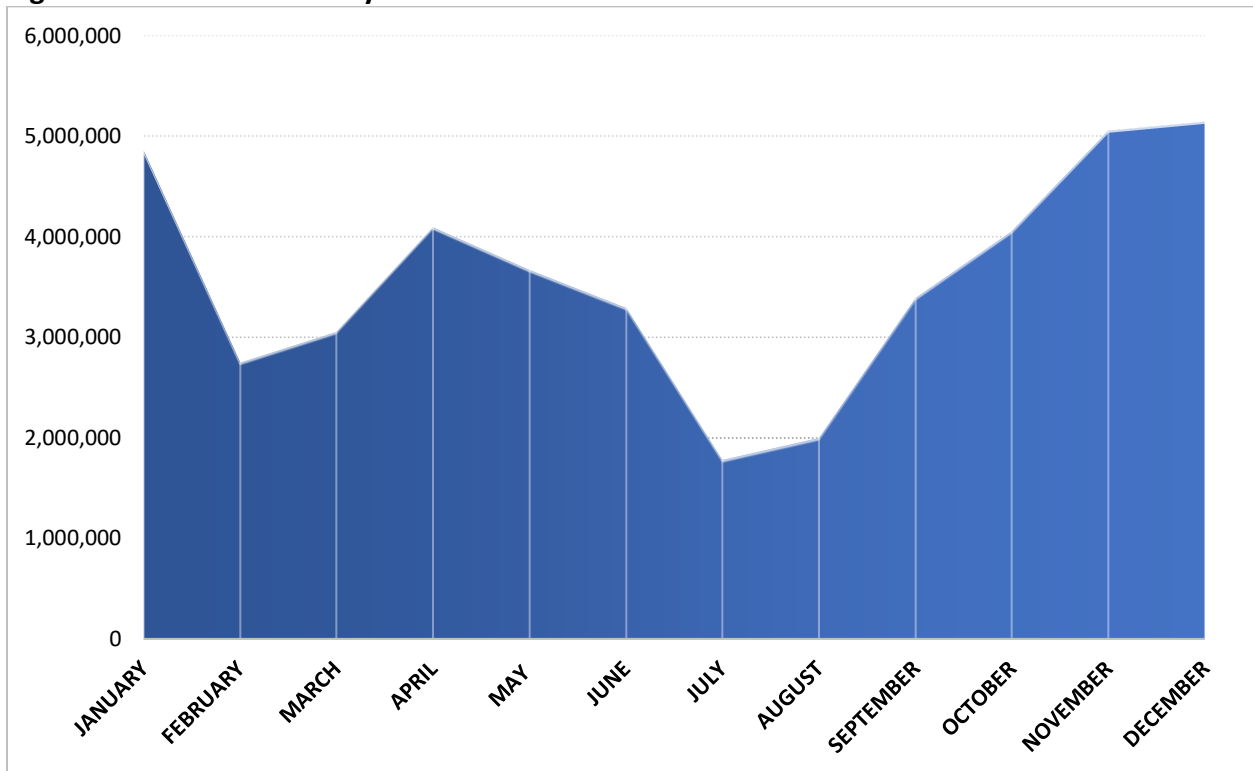
Payment Type	In Game		Not In Game	
	n	%	n	%
ePay Service Only	8,350,105	61.8	16,754,226	62.4*
Credit Card Only	421,197	3.1	1,173,846	4.4*
Bank Account Only	128,206	0.9	364,964	1.4*
Single Method Total	8,899,508	65.9	18,293,036	68.1
ePay Services & Credit Card	2,342,088	17.3*	4,315,991	16.1
ePay Services & Bank Account	1,204,402	8.9*	2,373,837	8.8
All Three Deposit Types	974,920	7.2*	1,671,615	6.2
Credit Card & Bank Account	90,900	0.7	190,111	0.7*
Total of Multiple Methods	4,612,310	34.1	8,551,554	31.9

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

F. Wagering by Month

The year 2019 was the first in which sports betting was available for all 12 months. Figure 2 shows the number of bets placed in each month. Peak betting activity occurred in the fall and early winter, from October to January, aligning with the NFL and college football season, when four to five million bets were placed in each month. There was another surge in betting in April, which may be related to the NCAA men's basketball championship and the beginning of the NBA basketball playoffs. July and August were the only two months that saw less than two million bets per month.

Figure 2. Number of Bets by Month



V. High-Intensity Bettors

This section of the analyses focused on players who bet at a high intensity. We characterize high-intensity play by highest average total 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 14,440 bettors; gender data was available for 95% of these bettors, and about 94% were New Jersey residents (n=13,588).

Overall, these high-intensity bettors made up about 5% of all sports bettors, and placed 47% of all bets and wagered 66% of the money. By comparison, in 2018, 4% of all sports bettors qualified for high-intensity bettor classification, placed 30% of all sports bets, and wagered 46% of the money. This suggests that a higher percentage of sports bettors this year were betting and

spending significantly more than last year. Notably, the results presented in this report regarding the quantity and play patterns of high-intensity bettors do not take into account the impact of the Responsible Gaming Initiative and Advertising Best Practices, which were subsequently implemented in 2023. Such impact will be considered in future reports, beginning with calendar year 2024.

Among sports bettors in each county, high-intensity bettors were over-represented only in Bergen County (Table 27). Additionally, there were substantial increases in the proportion of high-intensity bettors in Bergen (15% in 2019 v 12% in 2018), Hudson (10% v 8%), Essex (8% v 6%), Passaic (7% v 5%), and Union (6% v 5%) counties — all in the northeastern part of the state. There were substantial decreases in Monmouth (9% in 2019 compared with 11% in 2018), Morris (6% v 7%), and Ocean (5% v 6%) counties.

Table 27. High-Intensity Bettors by County

County	2018			2019			2018 to 2019 % difference
	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	-0.3
Bergen	762	12.4	11.4	2,055	15.1*	11.7	+2.7
Burlington	270	4.4	4.8	594	4.4	5.1	0.0
Camden	322	5.2	5.8	686	5.0	6.4	-0.2
Cape May	68	1.1	1.0	83	0.6	1.0	-0.5
Cumberland	50	0.8	0.9	87	0.6	1.0	-0.2
Essex	362	5.9	7.2	1,131	8.3	8.4	+2.4
Gloucester	198	3.2	3.7	450	3.3	3.8	+0.1
Hudson	492	8.0	8.4	1,344	9.9	9.2	+1.9
Hunterdon	84	1.4	1.1	148	1.1	1.0	-0.3
Mercer	153	2.5	2.8	354	2.6	2.9	+0.1
Middlesex	458	7.4	7.8	1,033	7.6	7.6	+0.2
Monmouth	702	11.4	11.8	1,274	9.4	9.0	-2.0
Morris	418	6.8	5.9	779	5.7	5.3	-1.1
Ocean	388	6.3	7.0	733	5.4	6.1	-0.9
Passaic	311	5.0	5.6	949	7.0	6.8	+2.0
Salem	14	0.2	0.4	36	0.3	0.4	+0.1
Somerset	222	2.5	3.1	426	3.1	2.8	+0.6
Sussex	73	1.2	1.3	139	1.0	1.2	-0.2
Union	309	5.0	5.7	811	6.0	6.0	+1.0
Warren	58	0.9	0.9	89	0.7	0.8	-0.2

*Significantly higher proportion for indicated county in 2019 ($p < .001$)

Although men comprised about 3% fewer of all sports bettors in 2019, 86%, compared to the prior year, they made up 96% of the high-intensity group, an even higher proportion than in 2018, when they made up 95% (Table 28). Women in the high-intensity group in 2019 were significantly older than men, with a mean age of about 40 compared to 37 for men.

Table 28. High-Intensity Bettors by Gender (n = 13,629)

2018						
Gender	%	n	Age			
			Minimum	Maximum	Mean	Std.
Male	95.3*	3,111	21.0	80.3	37.9	10.9
Female	4.7	152	21.5	74.4	36.5	9.8
2019						
Gender	%	n	Age			
			Minimum	Maximum	Mean	Std.
Male	96.3*	13,127	21.0	89.5	37.2	11.2
Female	3.7	502	21.0	80.5	39.5 ^a	12.4

*Significantly higher proportion for indicated gender ($p < .001$)

^aSignificantly higher age for indicated gender ($p < .001$)

By age, those 25 to 34 comprised the largest proportion of high-intensity bettors (39.3%), followed by those 35 to 44 (25.8%). However, considering the proportion of all sports bettors in each age group, those in the high-intensity group were overrepresented among players aged 35+ (Table 29). Compared to 2018, the proportion of sports bettors who qualified for high-intensity classification grew for each age group; those 65+ saw the largest increase, from 3% in 2018 to 5% in 2019. The mean age of high-intensity bettors dropped slightly to nearly 38 years, consistent with the decrease overall in those who bet on sports, and they remained significantly older than non-high-intensity bettors (35.6).

Table 29. High-Intensity Bettors by Age

Age Group	2018					2019				
	% of all High-Intensity Bettors	High-Intensity Bettor	%	Other Bettors	%	% of all High-Intensity Bettors	High-Intensity Bettor	%	Other Bettors	%
21-24	14.0	466	2.2	21,046	97.8*	10.7	1,540	3.2	47,099	96.8*
25-34	41.8	2,417	3.8	61,780	96.2*	39.3	5,682	4.8	112,795	95.2*
35-44	23.8	1,687	4.6*	34,941	95.4	25.8	3,724	5.7*	61,083	94.3
45-54	12.5	1,039	5.4*	18,221	94.6	14.6	2,109	6.0*	32,924	94.0
55-64	6.1	468	5.0*	8,920	95.0	7.7	1,107	6.2*	16,609	93.8
65+	1.8	88	3.2	2,676	96.8*	1.9	278	5.1*	5,208	94.9
Total	100.0	6,165	4.0	147,584	96.0	100.0	14,440	5.0	275,718	95.0
Min		21.0		21.0			21.0		21.0	
Max		96.4		95.3			89.5		98.6	
Mean		38.2 ^a		36.0			37.6 ^a		35.6	

*Significantly higher proportion for indicated age and intensity group ($p < .001$)

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

Differences between high-intensity and other bettors are depicted in Table 30, underscoring the significant differences in betting patterns. For example, high-intensity bettors wagered on significantly more sites (2.2 v 1.2) and bet on more days (184 v 22) than other bettors. They also made more than twice as many bets on average on each betting day (7.4 v. 3.1 bets), and placed

almost 17 times as many bets overall. Maximum wagers were more than six times higher on average (\$1,238 v \$193), while average single wagers were double (\$103 v \$54), and total yearly wagers, nearly 37 times higher (\$120,633 v \$3,255) than other bettors. Notably, differences in total yearly wagers were even more pronounced at the median (\$29,959 v \$350). These findings suggest that it should be relatively easy for operators to identify those who gamble at high intensity and engage them in limit-setting responsible gambling discussions.

Table 30. Play Patterns of High-Intensity Bettors Compared to Other Bettors

Play Patterns	High-Intensity Bettors (n=14,440)			
	Maximum	Mean	Std.	Median
# of Sites Wagered	13.0	2.2*	1.7	2.0
Total Betting Days	364.0	183.5*	69.6	171.0
# of Bets/Betting Day	755.5	7.4*	10.4	5.3
Total Number of Yearly Bets	89,149.0	1,390.0*	1,959.6	895.0
Max Wager (\$)	735,000.00	1,238.16*	7,290.83	411.53
Avg. Single Wager (\$)	76,359.79	102.91*	724.81	33.62
Total Yearly Wager (\$)	94,304,338.98	120,063.82*	902,555.83	29,959.26
Proportion of Bets Lost	100.0	66.2	15.4	64.6
Play Patterns	Other Bettors (n =275,719)			
	Maximum	Mean	Std.	Median
# of Sites Wagered	13.0	1.2	0.7	1.0
Total Betting Days	365.00	22.0	34.3	8.0
# of Bets/Betting Day	677.5	3.1	4.0	2.2
Total Number of Yearly Bets	29,082.00	83.64	247.70	20.0
Max Wager (\$)	1,500,000.00	192.69	3,053.75	50.00
Avg. Single Wager (\$)	830,000.00	54.10	1,592.90	15.43
Total Yearly Wager (\$)	13,438,369.21	3,255.21	46,468.70	350.0
Proportion of Bets Lost	100.0	73.3*	23.8	75.3

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

In 2019, high-intensity bettors placed 47% of all sports bets, an increase of 17% over 2018 findings (Table 31). They also placed higher wagers, on average, on almost all bet types, including an overall average bet size of \$86 compared with \$39. High-intensity bettors placed their largest average bets in-game (non-parlay; \$151), followed by point spread partial (\$142), and moneyline whole (\$122). Other bettors placed their largest average bets on point spread partial (\$157), non-parlay in-game (\$70), and total over/under partial (\$62). Bet sizes for high-intensity bettors compared with all other bettors were double the size, on average, for parlay in-game (\$60 v \$24), prop (\$58 v \$24), moneyline whole (\$122 v \$55), and non-parlay in-game (\$151 v \$70) bets. Considering each bet type available, high-intensity bettors placed a disproportionately higher number of non-parlay in-game, parlay in-game, point spread partial, and total over/under whole and partial bets.

Table 31. Betting Patterns by Bet Type by High-Intensity Status

Bet Type	Bets Made by High-Intensity Bettors (n = 20,071,107)					Bets Made by Other Bettors (n = 23,060,554)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay Non-In-Game	43.4	390,000	43.74*	556.90	10.00	56.6	160,000	23.84	253.34	5.00
Non-Parlay In-Game	55.4	632,000	150.78*	1,395.54	25.00	44.6	150,000	69.92	492.56	10.00
Parlay In-Game	49.7	334,696	60.40*	587.97	10.00	50.3	250,000	23.54	234.04	5.00
Prop	40.8	570,000	57.65*	963.93	12.00	59.2	100,000	23.73	245.24	5.00
Point Spread Whole	42.2	100,000	101.06*	650.58	25.00	57.8	77,000	55.91	407.75	13.33
Point Spread Partial	64.4	270,000	142.15	960.48	40.00	35.6	280,000	156.53*	1617.37	24.00
Moneyline Whole	44.1	390,000	122.36*	1,543.78	25.00	55.9	500,000	55.18	695.17	10.00
Moneyline Partial	43.3	28,407	105.04*	378.69	25.00	56.7	50,000	57.15	518.43	10.00
Total Over/Under Whole	50.0	200,000	91.99*	717.43	25.00	50.0	150,000	52.89	431.80	10.00
Total Over/Under Partial	62.4	100,000	84.45	332.88	25.00	37.6	75,000	62.14	503.32	10.00
Futures	35.2	735,000	34.69*	1,664.05	10.00	64.8	1,500,000	23.00	2600.24	5.00
Other Non-Parlay	42.5	200,000	101.46*	639.13	25.00	57.5	100,000	52.13	281.13	10.00
Total	46.5	735,000	86.38*	969.27	18.98	53.5	1,500,000	38.92	590.65	6.00

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

High-intensity bettors comprised about 5% of all in-game bettors, however 99.9% of high-intensity bettors placed at least one in-game bet in 2019, compared to about 67% of all other bettors (Table 32). For both high-intensity and other bettors, there were marked increases in the proportions of bettors who wagered primarily in-game, defined by placing more than 50% of their bets and spending more than 50% of their money in-game. Overall, the percentage of primarily in-game bettors doubled, from about 9% in 2018 to about 18% this year. However, high-intensity bettors (27.6%) were much more likely than other bettors (17.0%) to gamble primarily in game. A growing concern for overspending, the increase of in-game betting among high-intensity bettors suggests that those who are betting and spending the most may be at the highest risk for impulsive betting that is correlated with higher levels of gambling problems.

Table 32. In-Game Betting by High-Intensity Status

Bettor Type	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
High-Intensity Bettors	5.0	14,421	99.9	19	0.1	3,984	27.6
All Others	95.0	189,356	66.7	86,363	31.3	46,919	17.0
Total	100.0	203,777	70.2	86,382	29.8	50,903	17.5

The average in-game wagers of high-intensity bettors were more than double the average in-game wager amounts of other bettors (\$120 v \$51) and triple those of other bettors at the

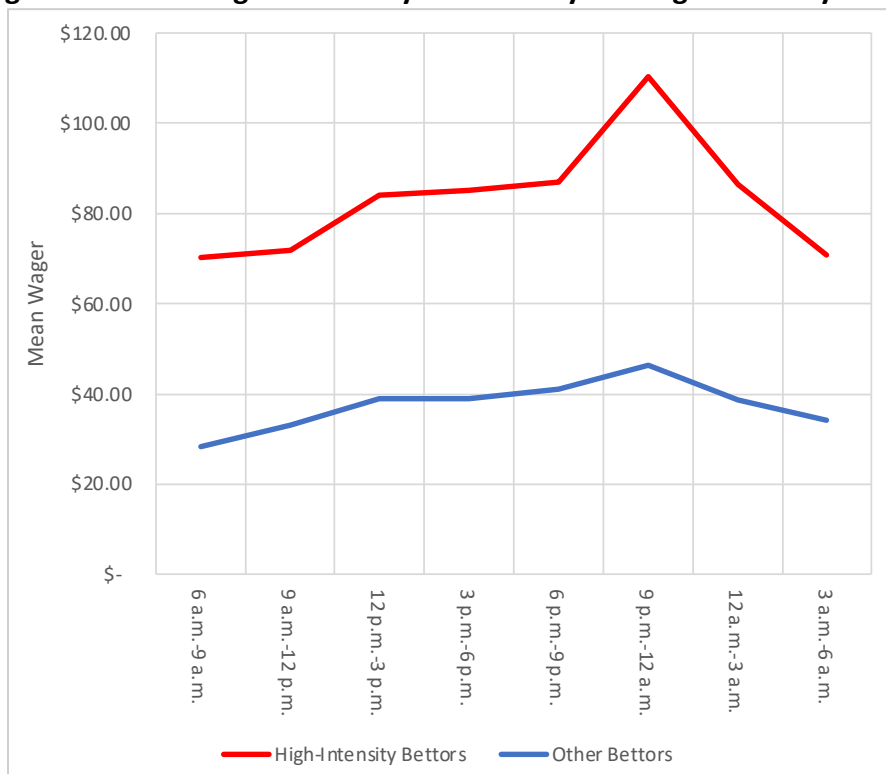
median (\$20 v \$6; Table 33). Also, despite representing only 5% of all sports bettors, high-intensity bettors placed more than 53% of all in-game bets. High-intensity bettors, however, lost slightly less than other bettors (61% v 69%), a similar proportion to last year, which may be due to chance or suggest greater skill acquisition among this group based on the sheer volume of their play.

Table 33. Betting Patterns of In-Game Bets by High-Intensity Status

Bettor Type	n	%	Proportion of Bets		Mean Wager	SD of Wager	Median Wager
			Lost	Max Wager			
High-Intensity Bettors	7,533,747	53.3	61.0	632,000.00	119.53	1,181.68	20.00
Other Bettors	6,588,098	46.7	68.6	250,000.00	51.40	410.49	6.00

Figure 3 provides a visual representation of average wagers across time slots. As shown, high-intensity bettors wagered higher amounts across all time frames, and the average size of those bets generally tracked those of other bettors with a few notable exceptions. Average bet amount for high intensity bettors spiked significantly during the 9 p.m. to midnight time frame then dropped off more steeply than for other bettors. These findings raise concern, as almost two-thirds of bets are placed in-game during this timeframe when sporting events commonly occur. Also at this time, operators typically run advertisements offering “free,” “risk-free,” or “bonus” money to players to induce betting at a time when they may be more likely to bet impulsively while caught up in the excitement of a game.

Figure 3. Mean Wager of Bets by Time of Day and High-Intensity Status



High-intensity bettors showed a much greater preference for utilizing multiple payment methods to fund their betting activity (Table 34). Specifically, almost 42% of bets placed by high-intensity bettors were placed by those using multiple payment methods, compared with about 25% of other bettors. High-intensity bettors were more likely to utilize all variations of deposit type combinations.

Table 34. Payment Type by High-Intensity Status

Payment Type	High-Intensity Bettors		Other Bettors	
	n	%	n	%
ePay Services	10,601,020	55.5	14,503,311*	68.2
Credit Card	362,452	1.9	1,232,591*	5.8
Bank Account	174,350	0.9	318,820*	1.5
Total of Single Method	11,137,822	58.3	16,054,722	75.5
ePay Services & Credit Card	3,657,873*	19.2	3,000,206	14.1
ePay Service & Bank Account	2,241,441*	11.7	1,336,798	6.3
All Three Deposit Types	1,911,807*	10.0	734,728	3.5
Credit Card & Bank Account	151,134*	0.8	129,877	0.6
Total of Multiple Methods	7,962,255	41.7	5,201,609	24.5

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

VI. Responsible Gaming Feature Use

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 sports 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.

Compared to 2018, when about 5% of sports bettors used at least one RG feature, less than 2% ($n = 5,668$) of gamblers used features in 2019. This significant decrease in usage corresponded with an increase in in-game wagering, which is a cause for concern.

The proportion of New Jersey residents who used RG features generally corresponded with the proportion of sports bettors in each county, with a few notable exceptions (Table 35). More bettors than expected used RG features in Ocean, Middlesex, and Monmouth counties, though the differences were only statistically significant for Ocean County, where about 9% were RG users despite comprising only 6% of all sports bettors. Conversely, Essex, Passaic, and Union counties were noticeably underrepresented among RG users, though the difference was only significant in Essex County, where only about 6% used RG features despite making up more than 8% of all sports bettors.

Table 35. Percentage of RG Users by County in Relation to All Sports Bettors

County	% of RG users	% of sports bettors
Atlantic	3.6	3.5
Bergen	11.4	11.7
Burlington	4.9	5.1
Camden	6.6	6.4
Cape May	1.0	1.0
Cumberland	0.8	1.0
Essex	6.4 ^b	8.4
Gloucester	4.0	3.8
Hudson	8.7	9.2
Hunterdon	1.0	1.0
Mercer	2.7	2.9
Middlesex	8.6	7.6
Monmouth	10.6	9.0
Morris	5.7	5.3
Ocean	8.7 ^a	6.1
Passaic	5.3	6.8
Salem	0.3	0.4
Somerset	2.8	2.8
Sussex	1.5	1.2
Union	4.9	6.0
Warren	0.8	0.8

^a Significantly higher % of RG users in relation to number of sports bettors in county ($p < .001$)

^b Significantly lower % of RG users in relation to number of sports bettors in county ($p < .001$)

The proportion of RG users by county was likewise similar to 2018, despite some differences. About 11% of RG users were from Monmouth County in 2019, compared with almost 16% in 2018, though proportions of RG users remained larger than the percentage of gamblers (Table 36). There were also proportional decreases in RG uptake among Essex (6.4% in 2019 v 7.2% in 2018) and Union (4.9% v 5.5%) county sports bettors. Meanwhile, Camden (6.6% in 2019 v 5.5% in 2018), Gloucester (4.0% v 2.7%), Hudson (8.7% v 7.9%), and Ocean (8.7% v 7.2%) county sports bettors showed proportional increases in RG use. Notably, the net number of RG users in every county decreased from 2018 to 2019 except for in three counties (Gloucester, Salem, and Sussex).

Table 36. Percentage of RG Users by County Across Years

County	2018		2019	
	n	% of RG users	n	% of RG users
Atlantic	251	3.8	183	3.6
Bergen	769	11.6	583	11.4
Burlington	270	4.1	249	4.9
Camden	366	5.5	335	6.6
Cape May	60	0.9	52	1.0
Cumberland	48	0.7	39	0.8
Essex	478	7.2	328	6.4
Gloucester	178	2.7	203	4.0
Hudson	520	7.9	444	8.7
Hunterdon	56	0.8	51	1.0
Mercer	163	2.5	138	2.7
Middlesex	551	8.3	438	8.6
Monmouth	1,051	15.9	539	10.6
Morris	336	5.1	290	5.7
Ocean	475	7.2	444	8.7
Passaic	377	5.7	270	5.3
Salem	14	0.2	16	0.3
Somerset	188	2.8	144	2.8
Sussex	59	0.9	75	1.5
Union	367	5.5	249	4.9
Warren	47	0.7	39	0.8

Overall, about 87% of RG users in the data provided were men (Table 37), which is aligned with their percentage of all sports bettors, 86%. Overall, about 2% of male and 2% of female sports bettors used RG features in 2019. This represents a significant decrease from the prior year, when about 5% of men and nearly 4% of women used the features.

Table 37. RG Use by Gender

Gender	% of all RG users	Use RG Features 2018		Use RG Features 2019	
		%	n	%	n
Male	86.6	5.0*	3,138	2.1	4,395
Female	13.4	3.6	274	2.1	681

*Significantly higher proportion for indicated gender ($p < .001$)

In 2019, sports bettors ages 25 to 34 represented almost half of all RG users (43.7%), followed by those 35 to 44 (25.5%); about 2% of each group used RG features, the most of any age category (Table 38). Similar to last year, bettors in the 21 to 24 age category had the lowest rate of RG usage (1.3%).

There were notable changes in RG use among those age 45+ in 2019 compared with 2018, when RG use was more popular in older age categories. In 2019, RG use decreased from about 7% in 2018 to 2% in 2019 for those age 55+. These findings correspond with an overall decrease in the mean age of RG users in 2019 (36.2 years) compared to 2018 (37.8 years).

Table 38. RG Use by Age

Age Group	% of all RG users	Use RG Features 2018		Use RG Features 2019	
		%	n	%	n
21-24	11.6	4.2	898 ^b	1.3	656 ^b
25-34	43.7	4.6	2,949 ^b	2.1	2,478 ^a
35-44	25.5	4.7	1,721	2.2	1,445 ^a
45-54	12.1	5.7	1,092 ^a	1.9	682 ^b
55-64	5.7	7.1	667 ^a	1.8	325 ^b
65+	1.4	7.4	205	1.5	81 ^b
Total RG Users	100.0	4.9	7,532	1.9	5,667
Min			21.0		21.0
Max			94.7		85.5
Mean			37.8*		36.2

a. Significantly higher than expected ($p < .001$)

b. Significantly lower than expected ($p < .001$)

*Significant higher for indicated year ($p < .001$)

Despite comprising only about 5% of all sports bettors, those classified as high-intensity bettors represented almost 17% of RG users (Table 39). High-intensity bettors were significantly more likely to utilize RG features than all other bettors, such that almost 7% used one or more RG feature compared with only about 2% of all other bettors. This may indicate a recognition among those betting more frequently and in larger amounts the utility of limit-setting features to help manage their play.

Table 39. RG Use by High-Intensity Status

High-Intensity Status	% of all RG users	Use RG Features 2019	
		%	n
High-Intensity Bettor	16.6	6.5*	932
Other Bettors	83.4	1.7	4,697

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

The next analyses compared play patterns of RG users in 2018 and 2019, but excluded betting days because 2018 was a partial year of betting. Overall, average single wagers and the average proportion of bets lost were comparable in both years, however, RG users in 2019 bet on significantly more sites (2.3 v 1.4) and made significantly more bets per betting day (5.5 v 4.9) than in 2018 (Table 40). Maximum wagers at the mean were not significantly different between years, but the standard deviation was markedly smaller and the median markedly larger (\$167.50 v \$107.00) in 2019, suggesting more similarity in the maximum amount wagered among RG users.

Table 40. Play Patterns of RG Users: 2018 and 2019

Play Patterns	2018 RG Users (<i>n</i> = 7,532)			
	Max	Mean	Std.	Median
#Sites Wagered	6.0	1.4	0.8	1.0
# of Bets/Betting Day	410.0	4.9	8.1	3.2
Max. Wager (\$)	500,000.00	656.29	6,259.28	107.00
Avg. single Wager (\$)	9,732.78	106.02	308.11	30.83
Proportion of Bets Lost	100.0	69.7	19.6	69.0
Play Patterns	2019 RG Users (<i>n</i> = 5,668)			
	Max	Mean	Std.	Median
#Sites Wagered	13.0	2.3*	1.8	2.0
# of Bets/Betting Day	308.7	5.5*	8.7	3.5
Max. Wager (\$)	80,005.00	817.28	2,870.57	167.50
Avg. single Wager (\$)	9,177.86	108.44	311.34	30.49
Proportion of Bets Lost	100.0	69.8	20.4	70.1

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

Similar to findings in 2018, the play patterns of RG users in 2019 were significantly different than those of non-RG users across almost all metrics. RG users bet on significantly more sites (2.3 v 1.3) and more days of the year (52.7 v 29.6), placed significantly more bets on each day they bet (5.5 v 3.3) and across the whole year (22,846 v 144; Table 41). RG users' bet sizes were much higher on average in terms of maximum wagers (\$817 v \$233) and total yearly wager (\$53,000 v \$8,200). The sizable standard deviation for total yearly wager indicates consideration of the median is appropriate, at which RG users wagered nearly seven times more than non-RG users (\$2,600 v. \$397). Also, though average single bets were higher for RG users, they were not significantly different (\$108 v \$56). Lastly, RG users lost a significantly smaller proportion of bets than non-RG users (69.8% v 73.0%).

Table 41. Play Patterns of RG Users and Non-RG Users

Play Patterns	RG Users (n = 5,668)			
	Max	Mean	Std.	Median
#Sites Wagered	13.0	2.3*	1.79	2.00
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	5,629	22,846.00*	396.25	964.99
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	53,028.25*	311,186.06	2,611.91
Proportion of Bets Lost	100.0	69.8	20.4	23.5
Play Patterns	Non RG Users (n = 285,251)			
	Max	Mean	Std.	Median
#Sites Wagered	13	1.3	0.722	1.00
Total Betting Days	365.0	29.6	50.5	9.0
# of Bets/Betting Day	755.6	3.3	4.5	2.3
Total Number of Yearly Bets	89,149.00	143.75	562.99	22.00
Max. Wager (\$)	1,500,000.00	233.40	3,408.44	50.00
Avg. Single Wager (\$)	830,000.00	55.51	1,575.92	16.14
Total Yearly Wager (\$)	94,304,338.98	8,199.58	205,279.30	397.13
Proportion of Bets Lost	100.0	73.0*	23.5	75.0

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

About 77% of RG users in 2019 chose to use a single feature, a substantial increase over 2018, when 62% used only one RG feature (Table 42). Deposit limits remained the preferred RG strategy (30.4%), though usage decreased from 2018 when 48% of RG users used deposit limits only. The use of only the cool off feature jumped dramatically from about 4% in 2018 to more than 27% in 2019, and those using only self-exclusion (0.4% to 9.1%) and loss (spend) limits (2.8% to 7.7%) also increased substantially. The use of time limits dropped in popularity, from 6% to 2%. Among combinations, the use of cool off and deposit limit features was more than twice as popular as any other combination, enabled by 5% of RG users. A wide range of combinations comprised the remaining preferences. The overall decrease in general RG use, combined with the shift to a single-feature preference, may suggest that bettors were less likely to explore thoroughly the range of RG options and combinations to find what worked best for them.

Table 42. RG Feature Preferences (n = 5,668)

Single RG Feature Engaged	%	n
Deposit Limit Only	30.4	1,725
Cool Off Only	27.3	1,550
Self-Exclusion Only	9.1	514
Loss (Spend) Limit Only	7.7	436
Time Limit Only	2.2	126
Total of Single RG Feature Engaged	76.8	4,351
Two or More RG Features Engaged	%	n
Cool Off and Deposit Limit	5.2	297
Time and Loss (Spend) Limits	2.4	137
Cool Off and Self-Exclusion	2.4	136
Deposit and Loss (Spend) Limits	2.3	132
Deposit and Time Limits	2.3	129
Cool Off and Loss (Spend) Limits	1.4	82
Cool Off, Deposit and Loss (Spend) Limits	1.2	68
All Other Combinations	6.0	336
Total of Multiple RG Feature Engaged	23.2	1,317

Across RG types available, there were differences in RG feature use by both gender and age (Table 43). By gender, men (31%) were 8% less likely than women (39%) to use only deposit limits. Men were more likely than women to use all other single features except for time limits, and also more likely to choose to use only a single RG feature (77.8% v 68.7%).

Younger sports bettors (21 to 34 years) were proportionately more likely to choose only the cool-off or self-exclusion features, providing them with short or extended breaks from play. Bettors ages 45+ were overrepresented in their use of deposit limit only and time limit only. RG users ages 25 to 54 showed greater preference for loss (spend) limit only, compared to the youngest and oldest RG users. In addition, use of multiple features generally increased with age, with only about 17% of 21 to 24 year olds combining RG features compared with 28% of those 65+. Several combinations reflected this trend, with those ages 35+ overrepresented among, for instance, their use of cool off and deposit limit; time and loss (spend limit); deposit and loss (spend) limit; and deposit and time limit. A notable exception to this finding was the increased use of cool-off and self-exclusion in combination among 21 to 34-year-olds.

Table 43. RG Feature Preferences by Gender and Age

RG Features (Single Selection)																
	Male		Female		21-24		25-34		35-44		45-54		55-64		65+	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Deposit Limit Only	31.2	1,370	39.1*	266	25.9	170	30.0	743	30.0	433	34.2*	233	35.4*	115	37.0*	30
Cool Off Only	27.7*	1,218	18.9	129	36.7*	241	30.5*	757	24.4	353	17.4	119	18.4	60	24.7	20
Self-Exclusion Only	9.6*	422	5.4	37	11.7*	77	9.9*	246	7.1	103	8.7	59	8.3	27	2.5	2
Loss (Spend) Limit Only	7.5*	331	1.6	11	6.3	41	7.8*	193	8.8*	127	8.2*	56	4.9	16	3.7	3
Time Limit Only	1.8	79	3.7*	25	2.0	13	1.6	40	1.9	27	4.4*	30	4.0*	13	3.7*	3
Total of Single RG Feature	77.8	3,420	68.7	468	82.6	542	79.8	1979	72.2	1043	72.9	497	71.0	231	71.6	58
Two or More RG Features (Most prevalent)																
	Male		Female		21-24		25-34		35-44		45-54		55-64		65+	
	%	N	%	N	%	N	%	N	%	N	%	N	%	n	%	n
Cool Off and Deposit Limit	5.0	219	10.7*	73	4.4	29	4.4	110	6.0*	86	6.7*	46	5.5*	18	9.9*	8
Time and Loss (Spend) Limits	2.2*	96	0.4	3	1.1	7	1.9	48	2.8*	41	3.1*	21	5.5*	18	2.5	2
Cool Off and Self-Exclusion	2.7*	117	1.8	12	2.4*	16	2.8*	69	2.4	34	1.8	12	1.5	5	0.0	0
Deposit and Loss (Spend) Limits	2.0	87	4.0*	27	1.4	9	1.7	41	3.0*	43	2.6*	18	5.5*	18	3.7*	3
Deposit and Time Limits	2.1	91	4.4*	30	1.4	9	1.7	43	3.0*	44	2.3*	16	3.4*	11	7.4*	6
Cool Off and Loss (Spend) Limits	1.3*	58	0.6	4	1.2	8	1.5*	37	1.6*	23	1.5*	10	1.2	4	0.0	0
Cool Off, Deposit and Loss (Spend) Limits	1.1	49	2.8*	19	0.9	6	0.8	21	1.7*	25	1.5*	10	1.8*	6	0.0	0
Cool Off, Deposit Limits, and Self Exclusion	0.5	23	1.5*	10	0.5	3	0.5	12	1.0*	14	0.7*	3	0.3	12	0.0	0
All Other Combinations	5.3	235	5.1	35	4.1	27	4.8	118	6.4	92	7.2	49	0.6	2	4.9	4
Total of Multiple RG Features	22.2	975	31.3	213	17.4	114	20.1	499	27.8	402	27.1	185	28.9	94	28.4	23

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

Of interest, high-intensity bettors reflected different RG feature preferences compared to all other bettors (Table 44). They were significantly overrepresented among those who used loss (spend) limits (12.3% v 6.8%), and other bettors were more likely than the high-intensity group to use self-exclusion only or a combination of deposit and time limit features.

Table 44. RG Feature Preferences by High-Intensity Status

Single RG Feature Engaged	High-Intensity Bettors		All Other Bettors	
	%	n	%	n
Deposit Limit Only	33.4	311	29.8	1,402
Cool Off Only	25.3	236	27.8	1,304
Self-Exclusion Only	6.4	60	9.6*	449
Loss (Spend) Limit Only	12.3*	115	6.8	321
Time Limit Only	1.6	15	2.3	109
Total of Single RG Feature	79.0	737	76.3	3,585
Two or More RG Features Engaged	High-Intensity Bettors		All Other Bettors	
	%	N	%	N
Cool Off and Deposit Limit	4.1	38	5.5	258
Time and Loss (Spend) Limits	2.0	19	2.4	114
Cool Off and Self-Exclusion	2.0	19	2.5	117
Deposit and Loss (Spend) Limits	3.0	28	2.2	102
Deposit and Time Limits	0.9	8	2.6*	120
Cool Off and Loss (Spend) Limits	2.3	21	1.3	61
Cool Off, Deposit and Loss (Spend) Limits	1.4	13	1.1	54
Deposit, Loss (Spend), and Time Limits	1.6	15	1.1	54
All Other Combinations	3.6	34	5.0	232
Total of Multiple RG Features	20.9	195	23.7	1,112

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

Once RG features have been enacted, RG users have the option to make changes to selected 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 ($n = 514$) were not included in analyses regarding RG feature changes, as players cannot make RG feature changes once on self-exclusion. Tables 45 through 48, then, include RG users who chose limit-setting or cool-off periods and those who utilized these features prior to self-excluding.

There were significant differences in the number of changes made depending on a player's RG preference (Table 45). Those who used two or more RG features made predictably more changes (mean = 13.7; median = 8) than those who had any single-feature preference. Among single-feature users, those who enacted loss (spend) limits made significantly more changes (6.3), than those who used any other single feature (from 2 to 3).

Table 45. Changes to RG Features by RG Type (n = 5,154)

RG Feature	n	Mean	Std.	Median	Total number of changes
Deposit Limit Only	1,725	3.1	5.3	1.0	5,262.0
Cool Off Only	1,550	2.7	3.8	1.0	4,124.0
Loss (Spend) Limit Only	436	6.3 ^a	6.2	4.0	2,767.0
Time Limit Only	126	1.7	1.7	1.0	214.0
Two or More RG features	1,317	13.7 ^b	18.3	8.0	18,029.0

Significant differences in mean number of changes to RG Features ($p < 0.001$)

^a Significantly higher than Deposit Limit Only, Cool Off Only, and Time Limit Only

^b Significantly higher than all other RG features

In general, men and women made a similar number of changes to their preferred RG features, however women who used only deposit limits made about five changes on average compared to men who made about three (Table 46).

Table 46. Changes to RG Features by RG Type by Gender

Gender		Deposit Limit Only	Cool Off Only	Loss (Spend) Limit Only	Time Limit Only	Two or More Features	Total Changes
Male n = 3,973	Maximum	66.0	40.0	40.00	18.0	246.0	246.0
	Mean	2.7	2.7	6.8	1.7	13.4	5.1
	Std.	4.8	3.9	6.7	2.0	18.9	10.7
	Median	1.0	1.0	4.9	1.0	8.0	2.0
	Total # of Changes	3,698.0	3,334.0	2,262.0	136.0	13,048.0	22,478.0
Female n = 644	Maximum	50.0	53.0	10.0	3.0	95.0	95.0
	Mean	4.6*	2.4	4.2	1.5	16.7	7.6
	Std.	7.6	4.9	2.4	0.7	18.1	13.0
	Median	2.0	1.0	3.0	1.0	10.0	3.0
	Total # of Changes	1,212.0	310.0	46.0	38.0	3,566.0	5,172.0

*Significantly higher for indicated gender and RG type ($p < 0.001$)

Similarly, there were minimal differences in the number of changes made within each RG feature preference across age groups, with only one significant finding: RG users ages 35 to 54 made an average of seven changes, which was significantly higher than the average of four changes made by those ages 21 to 24 (Table 47).

Table 47. Changes to RG Features by RG Type by Age

Age Group		Deposit	Cool Off	Loss	Time	Two or	Total
		Limit Only	Only	(Spend) Limit Only	Limit Only	More Features	Changes
21-24 n=579	Maximum	9.0	16.0	40.0	3.0	81.0	81.0
	Mean	1.9	2.0	7.5	1.7	11.3	3.7
	Std.	1.6	2.0	8.0	0.8	13.7	7.3
	Median	1.0	1.0	4.0	2.0	5.0	1.0
	Total # of Changes	321.0	486.0	308.0	22.0	1,290.0	2,427.0
25-34 n=2,232	Maximum	47.0	35.0	36.0	18.0	194.0	194.0
	Mean	2.7	2.7	5.6	2.1	11.9	4.5
	Std.	4.2	3.9	5.1	2.8	15.3	8.6
	Median	1.0	1.0	3.0	1.0	7.0	2.0
	Total # of Changes	2,008.0	2,056.0	1,082.0	83.0	5,935.0	11,164.0
35-44 n=1,342	Maximum	66.0	36.0	40.0	4.0	246.0	246.0
	Mean	3.4	2.7	6.6	1.6	15.5	6.6*
	Std.	5.7	3.2	6.4	0.8	9.0	13.6
	Median	1.0	1.0	4.0	1.0	22.2	3.0
	Total # of Changes	1,457.0	945.0	835.0	44.0	6,236.0	9,517.0
45-54 n=623	Maximum	61.0	40.0	39.0	4.0	184.0	184.0
	Mean	4.5*	3.3	7.9	1.5	16.2	7.2*
	Std.	8.9	5.2	7.5	0.7	19.8	13.2
	Median	1.0	1.0	6.0	1.0	10.0	3.0
	Total # of Changes	1,054.0	390.0	441.0	45.0	2,994.0	4,924.0
55-64 n=298	Maximum	20.0	13.0	16.0	2.0	95.0	95.0
	Mean	2.8	2.5	4.4	1.2	14.0	5.8
	Std.	3.4	2.8	3.9	0.4	16.1	10.4
	Median	1.0	1.0	3.0	1.0	9.0	2.0
	Total # of Changes	321.0	148.0	70.0	16.0	1,319.0	1,874.0
65+ n=79	Maximum	22.0	53.0	21.0	2.0	40.0	53.0
	Mean	3.2	5.0	10.3	1.3	11.1	6.0
	Std.	4.9	11.9	9.5	0.6	8.7	8.8
	Median	1.0	1.0	7.0	1.0	10.0	2.0
	Total # of Changes	97.0	99.0	31.0	4.0	255.0	486.0

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

* Higher than 21-34

Comparing high-intensity bettors to other bettors, there was only one significant finding: other bettors who used only the deposit limit feature made an average of about three changes, compared to high-intensity bettors who made two (Table 48). High-intensity bettors who used loss (spend) limit (mean=7 changes; median=5 changes) and two or more features (mean=15 changes; median=9 changes) made more changes than all other bettors, both on average and at the median, but the difference was not statistically significant.

Table 48. Changes to RG Features by RG Type by High-Intensity Status

RG Feature	n	Mean	Std.	Median
Deposit Limit Only High-Intensity Bettors	311	2.3	3.3	1.0
Deposit Limit Only Other Bettors	1,402	3.2*	5.7	1.0
Cool Off Only High-Intensity Bettors	236	3.2	4.9	1.0
Cool Off Only Other Bettors	1,304	2.6	3.6	1.0
Loss (Spend) Limit Only High-Intensity Bettors	115	7.1	7.2	5.0
Loss (Spend) Limit Only Other Bettors	321	6.1	5.8	4.0
Time Limit Only High-Intensity Bettors	15	1.5	0.8	1.0
Time Limit Only Other Gamblers	109	1.7	1.8	1.0
Two or More Features High-Intensity Bettors	195	15.4	21.8	9.0
Two or More Features Other Bettors	1,112	13.4	17.6	8.0
Total High-Intensity Bettors with RG	932	5.7	12.0	2.0
Total Other Bettors with RG	4,697	5.3	10.5	2.0

*Significant differences between bettor type of indicated feature(s) ($p < 0.001$)

VII. Summary and Recommendations

In 2019, there were notable changes from 2018 with implications for problem gambling and player protections. First, sports bettors tended to be younger than those who gambled in online or land-based casinos, and players in 2019 were younger on average than in the prior year. Overall, the proportion of those who are really young — age 21 to 24 — increased from about 14% to 17%. About 75% of the youngest bettors bet in-game, that is, while the game or event was taking place. In addition, about 19% primarily placed in-game bets (more than 50% of bets placed and more than 50% of money spent in-game), the largest proportion of any age group and an increase of 6% over the prior year. These findings are troubling, particularly in light of the fact that bettors under 34 made up nearly 60% of all in-game bettors and more than 65% of those who bet primarily in-game. Given that in-game betting can be associated with impulsive spending, there should be consideration given to safeguards for these young players, the fastest growing group of bettors.

Across all age groups, in-game betting has become increasingly popular. In 2019, the highest average bet amount on popular bet types was placed on in-game bets (non-parlay). In addition, almost 33% of all bets placed and 47% of all money wagered was done in-game. The majority of bets placed between 9 p.m. and midnight were in-game bets, coinciding with the broadcast of many major sporting events as well as widespread gambling advertising that offers enticements to viewers to bet. Also, during that time period, betting amounts spiked significantly for high-intensity bettors, those who bet and spent the most on sports wagering. Bettors who wagered primarily in-game provide an important consideration for responsible gambling initiatives, as they are easily identified and could be monitored for increases in spending and receive messages designed to educate them on the dangers of impulsive betting.

Payment methods could provide another focus for RG safeguards. Overall, about 94% of bettors used ePay services either alone or in conjunction with other methods. Third-party services mask

the identity of the payment method used for each transaction. It is, therefore, not possible to know whether the ePay charge is funded by a credit card, direct bank withdrawal, or bank debit card, or how many different payment mechanisms are in use. In addition, the inability to see the transactions also eliminates the ability to identify players who are shifting between different cards, having cards declined or deposits reversed – information that would be a valuable tool to inform operator assessment of risk for problem gambling. For that reason, some foreign jurisdictions have elected to disallow the use of those services for gambling and some regulators further require operators to ensure players are gambling what they can afford to use by instituting affordability guidelines. We believe that eliminating the ePay option would be an important step toward enhancing player protections. In addition, about 33% of bets were placed by account holders using multiple payment methods, an increase of 6% over 2018. Use of multiple cards and multiple types of deposits have been associated with higher levels of risk for problem gambling, so assessing this group for reversed withdrawals or an increase in deposits could provide important information regarding possible overspending.

Overall, about 5% of all sports bettors were classified as “high-intensity bettors,” based on the number of bets placed, number of betting days, and total amount wagered over the year. In 2019, high-intensity bettors placed 47% of all bets and wagered 66% of the money, an increase over 2018. This suggests that a higher percentage of sports bettors this year were betting and spending significantly more than last year. High-intensity bettors wagered significantly more money, on more sites, on more days than any other bettors; they were also more likely to use multiple payment methods and to use third-party payment services compared to other bettors. Nearly all high-intensity bettors gambled in-game and about 18% gambled primarily in-game. Given the large percentage of both bets and spend, this group would be another target to guide the development of risk profiles for sports wagering.

It is important to note that about 70% of sports wagers lose, and parlay bets (not in-game), the most popular of all bets, lost 86% of the time. It is, therefore, likely that most people placing bets will lose most of the time. For that reason, RG features are particularly important to ensure that impulsive spending does not give rise to mounting losses, particularly with in-game betting. Unfortunately, RG features were seldom used in 2019. In fact, the proportion of those using RG features declined from nearly 5% in 2018 to about 2%. Notably, only about 1% of bettors ages 21 to 24 used RG features, a growing group of bettors who could be at increased risk for developing gambling problems. The youngest bettors who did use any features preferred the 72+-hour cool-off feature, which could provide an opportunity for education around limit-setting. Much more should be done to encourage the use of RG features.

Recommendations:

Given the DGE’s commitment to encouraging the identification of high-risk gamblers, analyses in this report could provide useful guidelines. Based on these findings, we would make the following recommendations.

- Individuals in the high-intensity betting group, particularly those who use multiple payment methods, primarily bet in-game and/or demonstrate an escalated pattern of betting or spending behavior could be identified to receive targeted messages or

education around limit-setting, establishing a gambling budget, and other evidence-based interventions. The CGS could assist the DGE in evaluating the outcomes of regulations related to responsible gambling practices to assist in refining, enhancing, and standardizing requirements.

- Along with bonus incentives, operators should also be incentivizing players to utilize RG features and set and maintain limits. Those features should be clearly explained and promoted through emails and other marketing channels, analogous to those used to promote bonus play. We would argue for the need to rethink RG as useful for everyone, even those without problem gambling behaviors.
- ePay services are utilized by a significant proportion of bettors. The problem with these services is they mask the number of payment sources and extent of switching among sources to fund play. We would strongly advocate removing ePay services from the permissible funding sources to add necessary transparency to transactions. This would provide operators with additional, important information to guide player protection efforts. In addition, it is important for operators to better track and monitor the denial of funds in the form of reversals and rejection of charges; monitoring requirements should be added to best practice protocols in the state.
- Operators should be required to clearly direct patrons seeking lifetime self-exclusion to the DGE website.
- Finally, an increasing proportion of the youngest groups who can legally bet are betting, particularly in-game and on mobile devices. Less than 1%, however, are setting limits on their play. We would recommend that operators develop targeted interventions for this group to encourage them to add limit-setting features. When they do use RG, bettors in this age group seem to prefer setting a cool-off period. Attaching educational messaging to that feature to assist players in setting and maintaining a gambling budget and introducing them to additional features offered, would be a benefit to this group.