RUTGERS
Center for Gambling Studies

Sports Wagering in New Jersey

Calendar Year 2019 Report to the
Division of Gaming Enforcement
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I. Introduction

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

According to the DGE, more than 99% of wagers were placed online in the first year. The Center for Gambling Studies (CGS) at Rutgers University was tasked with analyzing the sports wagering play-by-play data from all operators in New Jersey. 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.

Table 1 summarizes the operators, skins, and URLs in 2018. 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.

It is important to note that all vendors were provided with a detailed template to guide their data submission in 2019. Given the first-year learning curve involved in this process, the CGS worked continuously with all vendors since that time to obtain data in the proper format to be cleaned and statistically analyzed. Two vendors failed to submit usable data by the deadline for data cleaning and were, therefore, excluded from the analyses. Findings should be evaluated in light of this exclusion.

Table 1. Operator and Gaming Sites in 2018

Licensee	Platform Operator(s)	Skin(s)	URL(s)	Launch
Borgata	GVC	BetMGM	sports.nj.betmgm.com	08/22/2018
Caesars (CIENJ)	888	888	us.888sport.com	09/06/2018
	SGD	Caesars Casino	www.caesarscasino.com	09/08/2018
Meadowlands (Cross Sell Golden Nugget)	FanDuel	FanDuel	www.sportsbook.fanduel.com	09/06/2018
Meadowlands (Cross Sell Ballys)	PointsBet	PointsBet	www.pointsbet.com	12/11/2018
Monmouth	RSI/Cross Sell GN	Play SugarHouse	www.playsugarhouse.com	08/23/2018
Monmouth	William Hill	William Hill	www.williamhill.com/us/nj	09/07/2018
Ocean	William Hill	William Hill	www.williamhill.com/us/nj	09/07/2018
Resorts	Draft Kings	Draft Kings	www.draftkings.com	08/06/2018
	The Stars Group	FoxBet	https://nj.foxbet.com	09/12/2018
	The Stars Group	PokerStars	www.pokerstarsnj.com	09/12/2018
Tropicana – Casino and Sports	William Hill	William Hill	www.williamhill.com/us/nj	09/07/2018

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

In the first year of legalized sports wagering, 295,481 bettors opened 335,419 new accounts, however only 153,894 (52.1%) of those accounts registered a sports bet in 2018. Nearly all the bettor accounts (*n* = 153,885) provided age data for analyses (Table 2). However, two of the largest platforms had incomplete information regarding gender of account-holders, therefore

over one half of account-holders (*n* = 83,782, 54.4%) were excluded from gender comparisons. Also, notably, all vendors collecting gender data asked for patrons to respond to the binary choice of male-female, which may exclude players who identify as non-binary or other.

Table 2. Missing Data Summary*

Missing Data Summary	Valid Sample	Missing	Total
Gender	70,112	83,782	153,894
Age	153,885	9	153,894

*from usable vendor data (BetMGM and Caesars excluded)

A. Age and Gender

In 2018, a significantly higher proportion of New Jersey residents who placed bets were in the youngest (21 to 24) and oldest (45+) age categories, compared to non-residents who were over-represented among those ages 25 to 44 (Table 3). The mean age for sports wagerers, overall, is lower than for other forms of gambling; however, those who lived in New Jersey were significantly older (mean = 36.2) than non-resident bettors (mean = 35.5). Overall, the mean age for all those who bet on sports was 36.1 years.

By gender, sports wagering in the first year was overwhelmingly male (89% of bettors), with 88% residing inside and 93%, outside, of New Jersey. Notably, only 7% of non-resident sports bettors were women, compared to nearly 12% of sports bettors living in New Jersey. This could suggest that men in specific age groups who bet were more likely than women to either work in or drive to New Jersey. However, as noted above, gender findings should be interpreted with caution given the large amount of missing gender data in the first year of operation.

Table 3. Comparing Sports Bettors Residing Inside and Outside NJ by Age and Gender

Age Group	Inside NJ %	Inside NJ n	Outside NJ %	Outside NJ n
21-24	14.7*	19,041	10.4	2,488
25-34	40.7	52,885	47.5*	11,376
35-44	23.5	30,546	25.6*	6,121
45-54	12.9*	16,737	10.6	2,534
55-64	6.3*	8,248	4.8	1,143
65+	1.9*	2,474	1.2	292
Total	100.0	129,931	100.0	23,954
Mean	36.2[a]		35.5	
SD	11.4		10.13	

Gender	Inside NJ %	Inside NJ n	Outside NJ %	Outside NJ n
Male	88.4	51,358	93.0*	11,193
Female	11.6*	6,720	7.0	841
Total	100.0	58,078	100.0	12,034

*Significantly higher proportion of players for indicated resident status (*p* < .001)
[a] Significantly higher mean age (*p* < .001)

Nearly 85% of sports bettors in 2018 placed bets on a single site, while an additional 13% placed bets on two sites (Table 4). Fewer than 3% of sports bettors played on three or more sites. The mean number of sites bet on in 2018 was 1.23. Higher intensity bettors as well as those with gambling problems tend to bet on more sites than the average player; therefore, it will be important to evaluate in the years following whether nearly all bettors gamble on only one or two sites or whether there is an increase in those preferring play across multiple sites.

Table 4. Number of Betting Sites and Percentage in 2018

Number of sites bet	Number of account holders	Percent
1	130,689	84.9
2	19,452	12.6
3	2,539	1.6
4	732	0.5
5	363	0.2
6	119	0.1
Total	153,894	100.0

Compared to other forms of online gambling like casino and poker, those who bet on sports were younger; nearly 80% of sports bettors in 2018 were younger than 45 years old, and approximately two-thirds of all sports bettors were between the age of 25 and 44. Age distribution varied across genders (Table 5). Based on the available gender data, men were over-represented among players ages 21 to 24 and 35 to 54, whereas women in the 25 to 34 years or 55+ age groups were more likely than other age categories to bet on sports.

Table 5. Age Group by Total (n = 153,885) and Gender (n = 70,112) of All Sports Bettors

Age Group	By Total		By Gender			
			Male		Female	
	%	n	%	n	%	n
21-24	14.0	21,529	14.7*	9,208	14.6	1,102
25-34	41.8	64,261	40.9	25,604	42.4*	3,203
35-44	23.8	36,667	24.1*	15,050	22.3	1,686
45-54	12.5	19,271	12.8*	7,977	12.2	921
55-64	6.1	9,391	5.9	3,676	6.4*	486
65+	1.8	2,766	1.7	1,036	2.2*	163
Total	100.0	153,885	100.0	62,551	100.0	7,561

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

B. Regional Differences

Overall, about 84% of sports bettors in 2018 were New Jersey residents. One important consideration in assessing the impact of legalized sports wagering on problem gambling is to evaluate regional differences in wagering behavior. Areas with a high concentration of sports wagering, which has been associated with higher risk for problem gambling than many other

gambling activities, may require additional problem gambling treatment and community services and additional prevention and education outreach to reduce potential harm.

By county, residents of Monmouth and Bergen counties were most likely to bet on sports, followed by residents of Hudson, Middlesex, Essex, and Ocean (Table 6). However, among those counties, only sports bettors in Monmouth, Bergen, and Hudson were statistically overrepresented in comparison with their percentage of the population, with Monmouth County most notably being home to nearly 12% of the sports bettors despite being where only 7% of the NJ population resides (Figure 1). Among the smaller counties by population, Atlantic and Gloucester counties had a significantly higher proportion of gamblers compared with their proportion of the overall population. Players in Middlesex and Essex counties, which have a larger population, were underrepresented for sports betting in comparison with the percentage of the overall population. Bettors in Union, Somerset, Mercer, Sussex, Hunterdon, Cumberland, Warren, and Salem, all smaller counties, also were underrepresented among sports bettors.

Figure 1. Proportion of Sports Bettors by County **Table 6. Percentage of Sports Bettors by County**
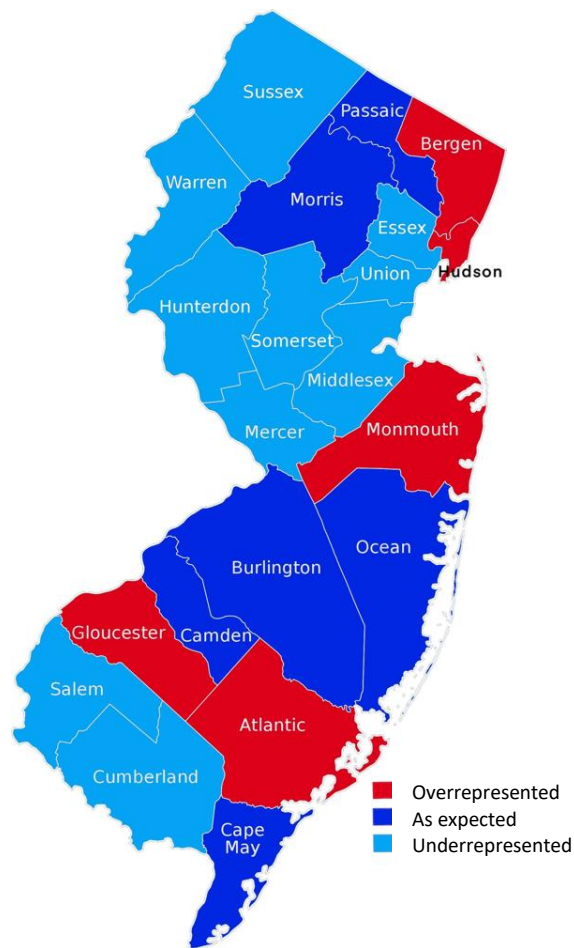
County	n	% of sports bettors	% of NJ Population*
Atlantic	4,582	3.5[a]	3.0
Bergen	14,694	11.4[a]	10.5
Burlington	6,191	4.8	5.0
Camden	7,463	5.8	5.7
Cape May	1,263	1.0	1.0
Cumberland	1,175	0.9[b]	1.7
Essex	9,248	7.2[b]	9.0
Gloucester	4,818	3.7[a]	3.3
Hudson	10,803	8.4[a]	7.6
Hunterdon	1,441	1.1[b]	1.4
Mercer	3,614	2.8[b]	4.2
Middlesex	10,101	7.8[b]	9.3
Monmouth	15,195	11.8[a]	7.0
Morris	7,673	5.9	5.5
Ocean	9,030	7.0	6.8
Passaic	7,201	5.6	5.6
Salem	535	0.4[b]	0.7
Somerset	3,970	3.1[b]	3.7
Sussex	1,721	1.3[b]	1.6
Union	7,385	5.7[b]	6.3
Warren	1,126	0.9[b]	1.2

[a] Significantly higher % of gamblers in relation to % of NJ population ($p < .001$)
[b] Significantly lower % of gamblers in relation to % of NJ population ($p < .001$)
*Population estimates from State of New Jersey. New Jersey State Data Center. (2019). *Annual Estimates of the Population: April 1, 2010 to July 1. From: 2019.* https://www.nj.gov/labor/lpa/dmograph/est/nst-01.xlsx.

IV. Time of Day

Time of day is an important consideration for responsible gambling, as certain demographic groups of players can tend to wager at specific times; those times are sometimes correlated with higher levels of intensity and expenditure.

Overall, nearly $849 million in sports bets were placed across all hours of the day in 2018, during the five months of legalized sports wagering. About 87% of bets were placed between 9 a.m. and midnight, with the largest proportion being placed from 6 p.m. to 9 p.m. (24%) and 3 p.m. to 6 p.m. (about 19%) (Table 7). Maximum wagers as high as 800,000 and 717,000 were placed during the 9 a.m. to 6 p.m. time frame. The average single wager amount ranged from about $33 from 3 a.m. to 6 a.m., to more than $57 from 9 p.m. to midnight. The median bets across time periods – that is, the bets in the middle of the range – were $10 across all time periods except both between 3 a.m. to 9 a.m., when they dropped to around $5 per bet.

Table 7. Bets by Time Category (*n* = 17,342,782)

Time Category	# of Bets	Percent of Total Bets	Max Wager Amount	Mean Wager	Median Wager	Std. of Wager	Sum Wager
6 a.m.-9 a.m.	1,011,667	5.8	55,000.00	33.63	5.36	223.77	34,002,468.36
9 a.m.-12 p.m.	2,657,032	15.3	400,000.00	43.28	10.00	652.40	114,974,852.20
12 p.m.-3 p.m.	2,609,128	15.0	500,000.00	48.28	10.00	519.30	125,931,950.24
3 p.m.-6 p.m.	3,252,145	18.7	800,000.00	51.44	10.00	845.30	167,260,382.92
6 p.m.-9 p.m.	4,182,626	24.1	551,163.40	51.78	10.00	514.29	216,540,606.41
9 p.m.-12 a.m.	2,373,963	13.7	717,278.39	57.34	10.00	593.81	136,090,964.47
12 a.m.-3 a.m.	1,001,252	5.8	130,000.00	45.43	10.00	360.84	45,455,499.73
3 a.m.-6 a.m.	259,721	1.5	14,100.00	32.77	5.00	155.96	8,505,455.08
Total	17,347,534	100.0	800,000.00	48.94	10.00	602.14	848,762,179.42

Table 8 provides a "heat map" visual of percentage of bets by county. Across all counties, 6 p.m. to 9 p.m. was the "hottest" time for placing bets, followed by 3 p.m. to 6 p.m. Burlington, Camden, Cape May, Cumberland, Gloucester and Salem counties placed the highest proportion of bets in any time period overall, between 6 p.m. to 9 p.m. (25 to 26% of all sports bets). Proportionately, more bets were placed in Atlantic, Camden, Gloucester, Monmouth, Salem, and Somerset counties in the hours leading into the "hottest time," from 3 p.m. to 6 p.m., while Cape May, Cumberland, and Passaic county bettors continued to show substantial betting patterns in the hours after this window, from 9 p.m. to midnight. Warren County bettors placed substantially more bets than all other counties from 6 a.m. to noon and markedly fewer bets in the late and overnight hours. In all counties, the fewest people placed sports bets between 3 a.m. and 6 a.m.

Table 8. "Heat Map" of Proportion of Bets by Time of Day and County

County	6 a.m.-9 a.m.	9 a.m.-12 p.m.	12 p.m.-3 p.m.	3 p.m.-6 p.m.	6 p.m.-9 p.m.	9 p.m.-12 a.m.	12 a.m.-3 a.m.	3 a.m.-6 a.m.
Atlantic	5.1	14.4	15.8	19.3	24.5	13.8	5.4	1.7
Bergen	5.3	14.5	14.3	18.2	24.7	14.9	6.7	1.4
Burlington	6.4	15.1	14.6	18.7	25.2	13.9	4.7	1.4
Camden	5.7	14.5	14.5	19.2	25.5	13.5	5.6	1.6
Cape May	5.4	13.9	14.9	18.9	25.2	15.7	4.8	1.2
Cumberland	5.4	13.7	14.9	17.9	25.2	15.2	5.5	2.2
Essex	5.9	14.5	14.4	18.5	24.3	14.8	6.1	1.4
Gloucester	5.5	14.4	14.1	19.4	26.3	13.7	5.0	1.5
Hudson	6.2	14.8	13.7	17.3	23.5	14.2	7.7	2.5
Hunterdon	6.6	15.2	14.5	18.0	25.1	14.0	5.5	1.1
Mercer	5.5	15.1	15.3	18.5	24.5	14.5	5.4	1.3
Middlesex	5.6	14.7	15.0	18.5	24.8	14.4	5.6	1.4
Monmouth	5.7	15.7	15.3	19.1	25.2	13.1	4.9	1.1
Morris	6.3	15.8	14.7	18.2	24.2	14.3	5.4	1.1
Ocean	6.2	15.9	14.7	18.8	24.4	13.1	5.4	1.5
Passaic	4.8	13.1	15.2	18.7	23.4	15.5	7.0	2.2
Salem	5.7	15.3	15.3	19.5	26.1	11.9	4.5	1.7
Somerset	5.6	16.4	15.2	19.4	23.4	13.7	5.1	1.2
Sussex	6.9	16.6	14.6	18.4	23.3	13.5	5.2	1.6
Union	6.0	15.3	14.5	18.6	23.9	14.3	6.0	1.4
Warren	11.8	17.9	15.2	17.5	20.8	11.3	3.7	1.7
Total	**5.8**	**15.0**	**14.7**	**18.6**	**24.5**	**14.1**	**5.8**	**1.5**

Of the data with gender available, men represented about 89% percent of the sports bettors, however, they placed more than 93% of the bets. Both men and women placed the most bets between 6 p.m. and 9 p.m., followed by 3 p.m. to 6 p.m. (Table 9). Proportionately, more men than expected bet from 3 a.m. to 9 a.m., as well as from 3 p.m. to 6 p.m., while more women than expected bet from noon to 3 p.m., and 6 p.m. to 3 a.m.

Across all time periods, males placed mean bets of almost $52, while females bet less than $39 on average. Both males and females placed the highest average bets from 9 p.m. to midnight, with males betting more than $62 and females nearly $47. Males had significantly higher mean bets during every time period except for both between 3 a.m. to 9 a.m., when bet sizes were comparable across genders. Notably, from 3 a.m. to 6 a.m., men placed their lowest average bet, of about $37, while females during that time frame bet nearly $40 per bet, on average. More broadly, males placed their lowest mean bets from 3 a.m. to 12 p.m., while females placed their lowest bets from 6 a.m. to 3 p.m.

Table 9. Number and Proportion of Bets by Gender and Time of Day

Time of Day	Male			Female		
	# of Bets	% of total	Mean Wager	# of Bets	% of total	Mean Wager
6 a.m.-9 a.m.	429,261	5.7*	38.06	27,153	5.1	34.18
9 a.m.-12 p.m.	1,106,105	14.7	43.46[a]	77,750	14.6	32.40
12 p.m.-3 p.m.	1,015,562	13.5	49.70[a]	73,081	13.8*	36.79
3 p.m.-6 p.m.	1,416,985	18.8*	55.94[a]	99,060	18.7	40.41
6 p.m.-9 p.m.	1,812,961	24.0	53.09[a]	128,988	24.3*	39.68
9 p.m.-12 a.m.	1,076,250	14.3	62.15[a]	77,557	14.6*	46.84
12 a.m.-3 a.m.	554,496	7.4	48.65[a]	40,097	7.5*	37.24
3 a.m.-6 a.m.	128,787	1.7*	36.57	7,434	1.4	39.76
Total	7,540,407	100.0	51.59	531,120	100.0	38.93

*Significantly higher proportion of players for indicated gender within time of day category ($p < .001$)
a. Significantly higher mean wager for indicated gender within time of day category ($p < .001$)

There was significant variability in the proportion of bets placed by age. As demonstrated in Table 10, the youngest bettors, ages 21 to 34, were overrepresented in the noon to 3 p.m., and 9 p.m. to 3 a.m. time periods. In contrast, the oldest cohorts, ages 55 +, were proportionately more engaged in betting from 6 a.m. to noon and 3 p.m. to 6 p.m. Players in the middle age categories, 35 to 54, generally mirrored play preferences of older players, though 45 to 54-year-olds were overrepresented among bettors from midnight to 3 a.m., similar to the younger groups.

Table 10. Number and Proportion of Bets by Time of Day and Age

Time of Day	21-24 (n=1,699,423) % of total	25-34 (n=6,665,656) % of total	35-44 (n=4,397,200) % of total	45-54 (n=2,613,568) % of total	55-64 (n=1,132,221) % of total	65+ (n=241,405) % of total
6 a.m.-9 a.m.	4.0	5.4	6.8*	6.4*	6.5*	6.3*
9 a.m.-12 p.m.	14.5	15.1	15.5*	15.2	16.1*	19.2*
12 p.m.-3 p.m.	15.7*	15.3*	14.5	14.3	14.4	16.4*
3 p.m.-6 p.m.	18.7*	18.5	18.4	19.1*	20.2*	20.6*
6 p.m.-9 p.m.	23.8	23.8	24.3*	24.3*	25.8*	23.0
9 p.m.-12 a.m.	15.1*	14.5*	13.7	12.7	11.0	8.5
12 a.m.-3 a.m.	7.0*	6.0*	5.4	5.8*	4.7	4.8
3 a.m.-6 a.m.	1.3	1.4	1.4	2.1	1.3	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Significantly higher proportion of players for indicated age and time of day category ($p < .001$)

Overall, all age groups placed their highest average bets from 9 p.m. to midnight. Bettors aged 35 to 44 placed the largest average bets across all timeframes and those ages 21 to 24 years placed the smallest average bets across all but the 3 a.m. to 6 a.m. timeframe. Median bet size was largely consistent, around $10, in all but the youngest and oldest age categories, where the median bet sizes were lower. Notably, the largest maximum bets, including single wagers of $717,278 and $800,000, were placed by those in the 24 to 35 age category, followed by 35 to 44-

year-olds, who posted single wagers of $210,000 and $500,000. The smallest maximum wagers were placed by both the youngest (21 to 24 years) and oldest (65+) age categories.

V. Betting Behavior

Sports wagering involves a wide range of possible bets. In New Jersey, bettors can wager on a variety of sports, teams, players, and propositions both in advance of an event and while the event is in progress. There is also significant variability in how players fund their bets (e.g., bank account, e-pay, credit card etc.). This section will review betting and deposit preferences across a spectrum of variables with import for sports wagering.

A. Betting by Bet Type
As outlined in Table 11, more than 17 million bets were placed on sports in 2018. More than one-third of those bets were placed on parlays[1] (including round-robin(RR)[2] parlays). For the purpose of analyses, parlays that were placed in-game (i.e., "Parlay/RR In-Game") vs. before the game (i.e., "Parlay/RR Only") have been separated; combined, these accounted for about 39% of all bets. In-game bets—those placed when an event is already under way—constituted more than a quarter of all bets. Note: About 7% of bets were single leg bets coded under multiple bet types (e.g., a moneyline bet placed on a future event would have been coded as futures and moneyline).

Straight bets are single bets on a game or event decided by a point spread (player/team wins/loses by x number of points), total bet or "over/under" (i.e., bet on the total number of points in a game) or moneyline (which player/team will win the game). Straight bets may be made on the whole game or event or part of it (e.g., one half, one quarter), meaning bet timeframes may be specified as "straight whole" or "straight partial." In 2018, vendors varied in their classification of straight bets in files provided to the DGE/Rutgers CGS. Five operators coded bets only by the straight bet type and not by the time frame (whole/partial). One operator coded straight bets both under the straight bet timeframe as well as the straight bet type (i.e., moneyline, total, point spread). One operator coded some of the straight bets under the timeframe as well as the type, but a proportion of bets were only coded by the timeframe *or* type. One operator coded bets only by the straight timeframe and not by the type. Additionally, only one operator coded any bets as point spread.

Straight partial bets, a subset of straight bets, recorded the highest mean ($314) and median ($45) wagers but also the very large variation (SD=$1,891), the next highest means were point spread (partial) bets (mean=$140; median=$38), and moneyline (partial) bets (mean=$115;

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[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 bettor selects; RR parlays are appealing because it is not necessary to win all legs of this parlay type to be profitable.

median=$10). Meanwhile, prop bets[3] (mean=$20), futures bets[4] (mean=$25) and Parlay/RR only bets (mean=$26) recorded the lowest mean wagers, likely due to generally higher odds and payouts even with smaller bet sizes.

Table 11. Betting Patterns by Bet Type (*n* = 17,342,782 bets)

	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay/RR Only	5,601,368	32.3	717,278.40	26.19	537.63	5.00
Non-Parlay In-Game	3,430,466	19.8	200,000.00	68.10	391.59	12.00
Parlay/RR In-Game	1,152,651	6.6	21,245.90	29.43	136.51	6.00
Single Leg (Multi)	1,139,973	6.6	702,833.70	39.29	1,038.82	10.00
Moneyline (Whole)	318,773	1.8	400,000.00	69.98	999.08	15.00
Moneyline (Partial)	15,150	0.1	800,000.00	114.58	6,507.70	10.00
Moneyline, Whole/Partial Unspecified	1,891,352	10.9	112,400.00	52.03	203.14	20.00
Total "Over/Under" (Whole)	285,277	1.6	55,000.00	71.88	527.29	20.00
Total "Over/Under" (Partial)	86,450	0.5	300,000.00	84.74	1,060.53	25.00
Total "Over/Under," Whole/Partial Unspecified	102,802	0.6	10,000.00	78.49	199.95	25.00
Point Spread (Whole)	649,994	3.7	100,000.00	67.52	380.46	20.00
Point Spread (Partial)	47,272	0.3	25,000.00	140.07	483.29	37.50
Straight Whole, Bet Type Unspecified	1,327,012	7.7	500,000.00	45.01	535.51	10.00
Straight Partial, Bet Type Unspecified	321,744	1.9	210,000.00	314.47	1,891.02	45.00
Prop Bet	900,569	5.2	19,846.40	20.17	84.49	5.00
Futures Bet	71,929	0.4	10,000.00	25.18	106.89	5.50
Total	17,342,782	100.0	800,000.00	48.94	602.14	10.00

Betting preferences were similar by gender, with variation among certain bet types (Table 12). Compared with men, women displayed a preference for parlay bets, both in-game (11% vs 8%) and out-of-game (32% v 31%), while men preferred point spread (whole) bets (7% v 4%), single-leg bets of multiple types (10% v 9%), and total (whole) bets (3% v 2%).

Men and women had markedly different betting patterns. Men made the highest maximum wagers (i.e., single bet) across all bet types except for prop bets, where the maximum wager made by a woman ($12,000) was double that of the man ($5,700). At the mean, men bet significantly higher amounts on non-parlay in-game bets, total (whole) bets, point spread (whole) bets, moneyline (unspecified) bets, and total (unspecified bets). Median wagers for men were also higher for in-game bets (both parlay and non-parlay), single leg multiple type bets, moneyline (whole) bets, total (partial) bets, point spread (partial) bets, total (unspecified) bets, straight partial (unspecified) bets, and futures bets. Women who bet on sports placed higher mean and median wagers on straight whole (unspecified) wagers. Across all bet types, both men and women placed $10 bets at the median, but men placed average bets of about $52 compared

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[3] 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).
[4] 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.

with an average bet of $39 for women, which highlights the wider variation (i.e., standard deviation) among men.

Table 12. Bet Type by Gender (*n* = 8,071,527 bets)

Bet Type	Males (*n* = 7,540,407 bets)					Females (*n* = 531,120 bets)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay/RR Only	30.7	717,278.40	25.88	791.59	5.00	32.3	10,000.00	23.02	120.67	5.00
Non-Parlay In-Game	20.8	200,000.00	82.64*	504.61	18.00	20.1	20,000.00	55.85	212.49	10.00
Parlay/RR In-Game	7.9	21,245.90	31.92	133.06	8.40	10.8	6,200.00	31.01	134.13	5.50
Single Leg (Multi)	10.4	702,833.70	40.37	1,244.21	10.00	9.4	8,051.00	25.31	126.39	5.00
Moneyline (W)	3.2	400,000.00	72.91	1,138.37	15.00	2.7	5,850.00	56.14	189.75	12.00
Moneyline (P)	0.2	800,000.00	126.35	7,375.48	10.00	0.1	2,340.00	46.69	189.72	10.00
Moneyline (W/P U)	6.9	60,000.00	68.74*	234.28	20.00	6.9	15,000.00	58.77	182.02	20.00
Total (W)	2.9	55,000.00	75.58*	584.64	20.00	1.9	5,501.40	49.05	134.94	20.00
Total (P)	0.8	300,000.00	88.15	1,233.06	25.00	0.5	2,080.00	58.36	137.27	20.00
Total (W/P U)	0.6	10,000.00	94.15*	203.06	40.00	1.3	3,000.00	42.07	126.03	12.00
Point Spread (W)	6.6	100,000.00	68.79*	410.68	20.00	4.2	5,000.00	51.95	136.16	20.00
Point Spread (P)	0.5	25,000.00	136.54	506.20	37.74	0.3	3,000.00	99.68	228.35	35.00
Straight Whole (U)	5.0	46,897.60	54.25	210.38	13.00	5.2	10,746.80	63.73*	316.40	15.00
Straight Partial (U)	0.1	6,163.10	150.69	333.56	50.00	0.1	1,650.80	134.54	240.68	31.75
Prop Bet	3.2	5,700.00	26.18	89.21	5.00	3.8	12,000.00	28.52	217.94	5.00
Futures Bet	0.3	10,000.00	29.31	120.80	10.00	0.3	4,000.00	22.52	118.11	5.00
Total	100.0	800,000.00	51.59*	758.69	10.00	100.0	20,000.00	38.94	171.75	10.00

*Significantly higher mean wager for indicated bet type and gender (*p* < .001)
Note: "W"= whole; "P"=partial; "W/P U"= whole/partial unspecified.

Average betting behavior varied across age groups and bet types (Table 13). Bettors ages 35 to 44 years placed the highest average bets across the most bet types, 10 of 17, including in-game wagers (parlay and non-parlay), single leg multiple type bets, moneyline (whole), total (whole and partial), point spread (whole and partial), straight whole (unspecified) bets, and straight partial (unspecified) bets; 25 to 34 year-olds placed the highest average moneyline (partial), prop and futures bets. Players ages 55 to 64 placed the largest mean wager on out-of-game parlay bets. In contrast, the youngest bettors, ages 21 to 24, placed the lowest mean bets for the majority of bet types including out-of-game parlay, moneyline (whole and unspecified), point spread (whole and partial), straight whole (unspecified), prop and futures bets. Bettors ages 65+ showed greater variation, placing the lowest mean bets for in-game non-parlays, single leg multiple bets, moneyline (partial), total (whole and partial), and straight partial (unspecified) bets, but the highest mean bets for moneyline (unspecified) and total (unspecified) bets.

Table 13. Bet Type by Age (*n* = 16,744,743 bets)

Bet type	Age category	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay/RR Only	21-24	20,000.00	20.47	119.07	5.00
	25-34	717,278.40	24.95	829.62	5.00
	35-44	87,329.60	25.93	222.84	5.00
	45-54	15,000.00	23.86	140.55	5.00
	55-64	47,347.80	26.96	150.57	7.00
	65+	16,500.00	24.05	90.27	10.00
Non-Parlay In-Game	21-24	72,234.30	46.05	404.23	10.00
	25-34	200,000.00	68.54	446.94	11.00
	35-44	72,500.00	77.75	370.73	15.00
	45-54	33,350.00	71.15	294.39	15.00
	55-64	10,000.00	56.24	177.38	15.00
	65+	5,175.00	39.98	132.60	10.00
Parlay/RR In Game	21-24	6,200.00	23.56	85.63	6.00
	25-34	21,245.90	30.76	140.41	7.00
	35-44	20,000.00	33.44	172.43	6.00
	45-54	7,800.00	22.85	85.80	5.00
	55-64	9,400.00	25.71	103.59	10.00
	65+	5,000.00	25.04	91.77	10.00
Single Leg (Multi)	21-24	11,760.00	23.43	124.44	6.25
	25-34	702,833.70	42.93	1,626.49	10.00
	35-44	25,000.00	45.19	263.90	10.00
	45-54	13,202.30	34.29	160.50	10.00
	55-64	8,323.00	30.35	124.06	10.00
	65+	4,000.00	22.50	75.66	8.00
Moneyline (Whole)	21-24	10,000.00	42.16	183.53	10.00
	25-34	400,000.00	77.02	183.53	15.00
	35-44	29,690.30	79.90	436.33	15.00
	45-54	11,210.00	65.57	269.93	20.00
	55-64	24,000.00	63.60	325.19	12.79
	65+	2,857.20	48.22	137.36	15.00
Moneyline (Partial)	21-24	832.00	26.54	62.12	8.00
	25-34	800,000.00	238.25	11,141.90	10.00
	35-44	5,956.30	71.74	249.59	10.00
	45-54	2,000.00	31.13	114.92	5.00
	55-64	2,962.50	68.25	258.02	10.00
	65+	300.00	23.41	35.15	10.00
Moneyline, Whole/Partial Unspecified	21-24	15,000.00	33.18	118.60	10.00
	25-34	112,400.00	52.85	266.91	20.00
	35-44	20,000.00	59.07	185.12	20.00
	45-54	14,000.00	54.21	169.53	20.00
	55-64	4,400.00	46.37	106.06	20.00
	65+	5,000.00	70.64	97.81	20.00

Total (Whole)	21-24	5,000.00	33.61	92.67	12.68
	25-34	55,000.00	65.94	517.84	20.00
	35-44	52,563.20	118.87	827.98	20.00
	45-54	6,000.00	56.15	142.69	20.00
	55-64	3,500.00	42.33	99.60	20.00
	65+	3,000.00	33.44	92.32	10.00
Total (Partial)	21-24	1,500.00	41.98	75.50	15.79
	25-34	300,000.00	89.81	1672.52	25.00
	35-44	30,000.00	122.23	505.73	30.00
	45-54	4,000.00	63.08	137.47	22.00
	55-64	2,750.00	49.17	112.69	18.00
	65+	880.00	25.11	42.77	15.00
Total, Whole/Partial Unspecified	21-24	7,329.40	68.04	215.12	20.00
	25-34	5,821.00	73.57	158.51	25.00
	35-44	10,000.00	97.35	213.05	40.00
	45-54	3,300.00	84.38	154.19	30.00
	55-64	3,191.00	76.95	159.05	30.00
	65+	5,000.00	101.49	338.02	15.00
Point Spread (Whole)	21-24	22,000.00	42.20	191.10	15.00
	25-34	100,000.00	60.67	373.67	20.00
	35-44	40,000.00	97.11	579.29	20.00
	45-54	9,200.00	63.32	180.46	22.00
	55-64	8,000.00	50.61	127.77	22.00
	65+	7,700.00	42.59	134.05	20.00
Point Spread (Partial)	21-24	3,181.80	68.87	162.01	22.00
	25-34	15,600.00	160.15	547.53	33.00
	35-44	25,000.00	188.22	660.95	50.00
	45-54	4,445.00	103.56	229.32	40.00
	55-64	2,727.30	78.46	128.62	50.00
	65+	3,000.00	138.79	319.08	44.74
Straight Whole, Bet Type Unspecified	21-24	46,897.60	27.22	158.84	9.00
	25-34	88,000.00	39.92	238.32	10.00
	35-44	500,000.00	51.25	1,021.62	10.00
	45-54	35,000.00	45.55	228.57	10.00
	55-64	9,480.00	45.51	163.87	10.00
	65+	5,600.00	41.22	173.13	10.00
Straight Partial, Bet Type Unspecified	21-24	56,500.00	213.82	1,435.08	25.00
	25-34	100,000.00	223.30	1,175.15	32.40
	35-44	210,000.00	515.72	3,182.06	50.00
	45-54	35,000.00	189.38	638.76	40.00
	55-64	95,094.10	174.71	1,119.14	27.50
	65+	11,000.00	89.58	286.56	25.00
Prop Bet	21-24	12,000.00	15.71	79.49	5.00
	25-34	19,846.40	22.08	98.44	5.00
	35-44	7,500.00	20.20	75.06	5.00

	45-54	8,461.10	16.86	65.89	5.00
	55-64	2,760.00	19.35	56.16	5.00
	65+	1,000.00	18.17	39.47	5.00
Futures Bet	21-24	1,167.30	16.87	47.32	5.00
	25-34	10,000.00	28.55	128.76	6.82
	35-44	5,000.00	26.16	93.13	6.00
	45-54	9,750.00	24.36	130.87	5.00
	55-64	3,400.00	27.38	85.23	10.00
	65+	400.00	25.16	39.36	10.00

B. Betting by Sport

The next several tables provide insight into betting behavior by specific sport. It should be noted that legal play in New Jersey began in August of 2018, after important betting events like the Super Bowl and college basketball tournaments, which undoubtedly affected the bet proportions. In addition, analyses of bets by sport exclude parlays, as different legs of a parlay can be placed on different sports. As data quality improves, future years may allow for additional analyses on sports bets within parlays.

Approximately one third of the bets in 2018 are classified as "novelty/special/other" bets, suggesting the sport type was either (1) too small a proportion of the total bets to warrant its own category or (2) a promotional or special bet offered by an operator. Among bets with a specified sport, betting on NFL football was most popular (nearly 18% of all bets), followed by NBA basketball (13%), MLB baseball (9%) and college basketball (9%; Table 14). Mean wagers varied from a low of about $8 on NASCAR—though this was a very small proportion of all bets— to almost $90 on college basketball. Mean bets placed on MLB ($79), NFL ($72) and tennis ($72) were also higher than all other sport categories. At the median, college basketball and EuroLeague football bets were the highest at $20.

Table 14. Bet by Sport (*n* = 10,592,124 bets)

Sport	% of total	Max Wager	Mean Wager	SD of Wager	Median of Wager
NFL Football	17.5	800,000.00	72.15	1,166.09	15.00
NBA Basketball	12.7	112,400.00	60.33	383.69	10.53
MLB Baseball	9.0	500,000.00	78.52	784.69	10.00
College Basketball	8.8	300,000.00	89.50	632.60	20.00
Soccer	4.8	72,234.30	51.16	430.56	5.40
Hockey	4.7	95,094.10	46.57	309.85	10.00
Tennis	4.7	88,000.00	71.76	478.84	10.00
Golf	1.8	10,000.00	20.65	93.00	5.00
Mixed Martial Arts/Boxing	1.2	80,000.00	40.86	356.30	10.00
College Football	0.1	200,000.00	38.46	1,741.82	10.00
EuroLeague Football	0.1	5,900.00	61.03	181.40	20.00
NASCAR	0.1	800.00	8.14	23.68	3.00
Novelty/Special/Other	34.4	210,000.00	54.78	420.73	12.00
Total	100.0	800,000.00	63.10	662.12	11.00

Compared to women, men in 2018 demonstrated a greater preference during this partial year for MLB baseball (8% v 7%), NBA basketball (15% v 14%) and college basketball (13% v 11%; Table 15). Women, meanwhile, made a larger proportion of their bets on the NFL than did men (30% v 27%). Similar to analyses of wager size by bet type, men placed the highest maximum wager across all sport categories. Men also placed higher bets on average across nearly all sport categories; exceptions include MLB baseball betting, where women placed mean wagers of $77 compared to $63 for men, and golf, where women wagered an average of $37 compared to $24 for men. Men placed their highest average bets on college basketball ($91) and tennis ($83), while women placed their highest average bets on MLB baseball ($77), college basketball ($64), and tennis ($60).

Table 15. Bet by Sport by Gender (n = 4,936,369 bets)

Sport	Males (n = 4,634,065 bets)					Females (n = 302,304 bets)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median of Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median of Wager
NFL Football	26.5	800,000.00	63.63	1,341.17	11.00	30.0	20,000.00	39.71	158.32	10.00
NBA Basketball	15.3	72,162.00	74.18	473.29	15.00	14.3	10,746.80	46.63	166.22	10.00
MLB Baseball	8.0	104,503.50	62.77	360.74	15.00	6.5	15,000.00	77.14	336.22	10.00
College Basketball	12.5	300,000.00	91.49	738.08	22.00	10.7	8,051.00	64.30	178.95	20.00
Soccer	3.5	72,234.30	49.88	301.45	10.00	5.1	6,000.00	32.52	184.05	5.00
Hockey	4.8	16,200.00	48.93	186.23	10.00	4.4	5,649.80	46.23	206.35	10.00
Tennis	5.0	39,000.00	83.34	354.46	12.00	4.8	9,492.50	60.83	278.73	10.00
Golf	1.4	7,000.00	24.17	90.72	7.00	1.0	4,000.00	37.27	123.37	10.00
MMA/Boxing	1.2	50,050.00	40.10	288.01	10.00	1.4	8,000.00	38.58	223.76	7.00
College Football	0.2	200,000.00	44.96	2,031.87	10.00	0.2	1,800.00	24.42	87.03	10.00
EuroLeague	0.1	5,900.00	70.15	178.88	25.00	0.1	500.10	36.48	74.68	10.00
NASCAR	0.1	500.00	11.68	29.55	5.00	0.1	50.00	2.63	5.38	1.00
Novelty/Special/Other	21.5	30,000.00	60.62	223.40	20.00	21.5	12,550.00	53.14	208.38	14.30
Total	100.0	800,000.00	66.94	788.14	15.00	100.0	20,000.00	49.50	199.79	10.00

There was wide variation in bet metrics by age across specific sports (Table 16). Almost all sport types showed either a consistent increase or decrease across age groups. For example, bettors age 65+ placed 23% of their bets on NFL football compared with only 15% of bets by 21 to 24 year olds. This trend was similar with MLB baseball and college basketball, with youngest bettors least engaged and the oldest bettors most engaged in betting on these sports. Betting on the NBA, meanwhile, was in direct contrast, where 21 to 24 year olds placed almost 17% of their bets, compared with less than 8% for those 65+. Soccer, hockey, tennis, and mixed martial arts/boxing also skewed younger. Golf is the only sport with variability, such that it was most preferred among 25 to 34 year olds, followed by 55 to 64 year olds.

Variations by age between the highest average wager and the median wager are also notable. For example, for NFL football, the highest average wager, about $82 per bet, belonged to those ages 35 to 44. However, there was wide variation in bet sizes among the younger groups such that the highest median wager, $20, was actually placed by 55 to 64-year-olds. This is similar to findings for MLB baseball, where the average bet for 35 to 44-year-olds was $103, but the standard deviation from that mean was nearly $1,400, which accounts for the higher median

wager ($15) among 55 to 64-year-olds. For other popular sports, the median values were either consistent across age categories (e.g., hockey, tennis, golf, college football) or generally consistent with the relative size of average bets (e.g., college basketball).

Table 16. Bet by Sport by Age (*n* = 10,237,720)

Sport	Age category	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NFL Football	21-24	14.6	56,500.00	43.18	423.96	10.00
	25-34	15.6	800,000.00	68.72	1,838.50	11.00
	35-44	17.8	105,000.00	81.99	660.44	15.00
	45-54	18.5	35,000.00	65.01	263.88	15.00
	55-64	19.9	64,000.00	67.88	389.01	20.00
	65+	23.1	7,700.00	53.35	171.13	16.00
NBA Basketball	21-24	16.9	72,162.00	37.21	409.55	10.00
	25-34	13.8	112,400.00	60.11	364.91	12.00
	35-44	12.1	50,000.00	78.73	490.40	15.00
	45-54	11.4	33,350.00	60.83	276.64	13.20
	55-64	10.5	6,900.00	45.44	128.29	10.00
	65+	7.7	2,930.00	30.19	100.83	10.00
MLB Baseball	21-24	8.6	50,000.00	43.69	347.66	10.00
	25-34	8.6	104,503.50	59.50	389.11	10.00
	35-44	8.7	500,000.00	103.16	1,381.83	10.00
	45-54	9.4	29,500.00	62.65	284.75	10.00
	55-64	10.1	30,000.00	51.90	231.90	15.00
	65+	10.8	6,500.00	48.63	159.64	13.00
College Basketball	21-24	7.9	46,897.60	57.38	340.58	15.00
	25-34	7.8	300,000.00	92.37	923.91	20.00
	35-44	9.2	50,000.00	111.86	507.31	25.00
	45-54	10.5	20,000.00	83.58	271.87	25.00
	55-64	10.8	60,000.00	60.21	326.83	20.00
	65+	11.9	4,400.00	42.90	138.18	15.00
Soccer	21-24	5.9	72,234.30	30.98	390.98	5.00
	25-34	5.6	35,000.00	41.05	222.41	6.00
	35-44	4.5	55,000.00	85.00	734.98	8.00
	45-54	3.8	33,335.00	34.76	214.24	5.00
	55-64	2.5	8,000.00	34.05	150.69	5.00
	65+	1.3	2,400.00	33.57	88.51	10.00
Hockey	21-24	5.2	5,281.50	23.72	82.64	8.00
	25-34	4.9	16,200.00	46.46	207.86	10.00
	35-44	4.2	13,199.00	48.63	205.28	10.00
	45-54	4.9	10,000.00	49.97	198.04	10.00
	55-64	4.5	95,094.10	61.79	934.07	10.00
	65+	3.4	4,000.00	37.77	126.86	10.00

	Age					
Tennis	21-24	5.4	10,547.00	51.67	204.31	10.00
	25-34	5.2	88,000.00	70.96	393.94	10.00
	35-44	5.0	65,000.00	91.31	724.57	10.00
	45-54	3.5	30,000.00	62.10	266.95	10.00
	55-64	2.9	8,500.00	33.07	102.74	10.00
	65+	1.6	1,102.90	16.20	60.62	5.00
Golf	21-24	1.4	2,000.00	14.29	42.50	5.00
	25-34	2.2	9,000.00	20.51	88.48	5.00
	35-44	1.8	8,000.00	24.23	112.26	5.00
	45-54	1.4	10,000.00	21.73	91.77	5.00
	55-64	1.9	2,600.00	15.10	42.76	5.00
	65+	1.7	500.00	12.10	25.54	5.00
Mixed Martial Arts/Boxing	21-24	1.9	4,169.00	25.88	72.16	10.00
	25-34	1.6	50,050.00	35.64	256.47	10.00
	35-44	1.1	80,000.00	44.93	511.82	10.00
	45-54	0.6	20,000.00	37.93	289.77	5.00
	55-64	0.3	13,000.00	105.74	644.79	10.00
	65+	0.2	5,000.00	77.73	393.16	8.65
College Football	21-24	0.1	450.00	18.72	31.58	10.00
	25-34	0.1	200,000.00	63.99	2,799.16	10.00
	35-44	0.1	1,690.90	23.21	69.84	10.00
	45-54	0.1	2,078.00	22.41	67.71	10.00
	55-64	0.1	1,100.00	28.54	84.61	10.00
	65+	0.1	300.00	13.39	24.45	10.00
EuroLeague Football	21-24	0.1	1,300.00	51.69	108.37	14.11
	25-34	0.1	5,900.00	70.06	235.53	15.50
	35-44	0.1	1,170.00	51.63	103.81	20.00
	45-54	0.1	2,200.00	75.46	218.89	15.00
	55-64	0.1	1,000.00	34.39	69.59	20.00
	65+	0.0	100.00	24.27	15.70	22.00
NASCAR	21-24	0.1	164.90	4.12	8.85	2.00
	25-34	0.1	444.00	7.47	16.32	3.00
	35-44	0.1	800.00	11.67	39.86	3.00
	45-54	0.2	125.00	5.75	10.36	2.00
	55-64	0.1	300.00	9.27	19.16	5.00
	65+	0.0	45.50	9.56	9.84	6.28
Novelty/Special/Other	21-24	31.8	21,224.00	30.71	163.88	10.00
	25-34	34.4	75,700.00	48.55	279.88	10.00
	35-44	35.3	210,000.00	62.20	610.98	15.00
	45-54	35.7	35,000.00	57.75	239.44	20.00
	55-64	36.2	22,000.00	55.37	214.73	20.00
	65+	38.1	11,000.00	45.71	158.96	20.00

C. Channel Preference

An additional consideration for sports wagering involves the medium or "channel" through which bets are placed. In 2018, 59% of bets were placed on mobile phones, compared to 40% placed online on non-mobile devices (e.g., desktop, laptop), and less than 1% on kiosks. Notably, gender data is not collected for land-based sports betting.

Women who bet on sports were significantly more likely than men to bet on their mobile phones (43% v. 39%) (Table 17).

Table 17. Channel Preference by Gender

Gender	Mobile		Online Non-Mobile	
	n	%	N	%
Male	2,904,880	38.5	4,632,633*	61.5
Female	230,006*	43.4	299,694	56.6

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

By age, bettors in the 25 to 44 age category were more likely to bet using mobile devices, while those 45 and older were more likely to use non-mobile devices or in-person at a land-based location (Table 18). Bets placed by the youngest age group (21 to 24 years) were more likely to be made online on non-mobile devices.

Table 18. Channel Preference by Age

Age Group	Mobile		Online Non-Mobile		Kiosk/Lounge (Land)	
	N	%	N	%	n	%
21-24	1,000,630	58.9%	693,765*	40.8%	4,625	0.3%
25-34	4,128,150*	61.9%	2,516,766	37.8%	18,891	0.3%
35-44	2,632,967*	59.9%	1,742,340	39.6%	20,864	0.5%
45-54	1,519,631	58.2%	1,070,316*	41.0%	22,395*	0.9%
55-64	555,643	49.1%	560,234*	49.5%	16,166*	1.4%
65+	101,322	42.0%	129,974*	53.8%	10,068*	4.2%
Total	**9,938,343**	**59.4%**	**6,713,395**	**40.1%**	**93,009**	**0.6%**

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

D. Losing Bets

The losing percentage across bet types is summarized in Table 20. In 2018, across all bets placed, about 70% resulted in losses. Moneyline (partial) bets lost the highest percentage of the time (86%), followed by parlay/RR bets out-of-game (85%), futures bets (85%), and parlay/RR bets in game (84%). Only four bet types lost less than half the time: point spread (partial), total (unspecified), total (partial), and straight partial (unspecified).

Table 19 additionally provides four different perspectives on win/loss by specific types of bets. After the loss percentage column, the next three columns show the average amount lost on losing

bets, won on winning bets, and lost across all bets, respectively. 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. A few bets had slightly higher mean win amounts than mean loss amounts: parlay/RR in-game, single leg multi-bet type, moneyline (whole and partial), total (unspecified), straight partial (unspecified), and futures bets. However, those differences were offset by the high overall loss proportions across bet types. Straight partial (unspecified) bets recorded both the highest average loss ($142) and highest average win ($148) amounts, but, overall, each bet lost an average of $173. The bets recording the lowest mean losses on all bets were prop bets (less than $4) and parlay/RR only and moneyline (unspecified) bets (both about $7). Finally, parlay/RR only, which lost on average $6 for ever $1 won, followed by in-game RR parlays and futures bets, both about $5 lost to $1 won, had the poorest adjusted loss:win ratio.

Table 19. Loss Percentage and Bet Amount by Bet Type (*n* = 17,177,559 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/RR Only	85.4	19.92	19.12	6.55	6.09:1
Non-Parlay In-Game	59.2	43.49	30.87	24.63	2.04:1
Parlay/RR In-Game	84.3	19.54	20.72	9.91	5.06:1
Single Leg (Multi)	73.7	21.38	22.13	17.16	2.70:1
Moneyline (Whole)	52.0	28.79	30.10	39.88	1.04:1
Moneyline (Partial)	85.7	37.87	45.61	68.96	4.99:1
Moneyline, Whole/Partial Unspecified	51.5	44.87	25.62	7.17	1.86:1
Total (Whole)	51.2	35.65	32.95	38.93	1.13:1
Total (Partial)	49.7	41.65	38.68	46.06	1.07:1
Total, Whole/Partial Unspecified	49.5	34.92	38.41	46.28	0.89:1
Point Spread (Whole)	51.3	34.17	30.61	36.90	1.18:1
Point Spread (Partial)	49.1	68.16	65.42	74.65	1.00:1
Straight Whole, Bet Type Unspecified	60.8	32.94	22.24	11.95	2.30:1
Straight Partial, Bet Type Unspecified	49.8	142.48	147.77	172.54	0.96:1
Prop Bet	72.2	16.68	11.93	3.50	3.63:1
Futures Bet	85.1	17.40	19.12	7.82	5.20:1
Total	69.4	31.68	26.08	17.45	2.75:1

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

Two types of bets with special relevance to problem gambling are parlay and in-game bets. Parlay bets are notable because players can spend money on multiple legs and the overall loss percentages are higher than many other types of bets. In-game bets are notable, because they are highly conducive to impulse betting in a "hot" emotional state that may be further exacerbated by team loyalties and lead to a lack of awareness of actual expenditures, resulting in excessive spending. For these reasons, we have conducted further analyses on these types of bets in 2018.

i. Parlay Betting

Overall, more than 6 million bets placed in 2018 were parlays, which lost nearly 86% of the time overall. Both men and women bet an average of about five legs (Table 20). By age, younger bettors (<35 years) bet five legs on average while older bettors wagered an average of four (ages 35 to 64 years) and three (ages 65+) legs.

Both the mean amount lost on losing bets and the mean amount won on winning bets was about $19 to $20, but taking into account the large proportion of losses compared to wins, the result is an overall average loss of $7 to $10. Notably, for every dollar won on a parlay, players lost about $5 to $6, dispelling the myth that significantly larger wins on these types of bets is sufficient to offset losses.

As demonstrated in Table 20, the most common type of parlay bet was on three legs, accounting for 24% of all parlay bets. About three-quarters of all parlays were between two and five legs, while about 16% were between six and eight legs. Fewer than 10% of parlay bets were nine or more legs. Players bet up to 20-leg parlays, however the number of bets for 16 to 20 legs was less than 0.1% each, so they were not included in the table. Bettors lost the most on two-leg parlays, an average of $15 per bet placed, but two legs provide both the lowest outcome-adjusted loss ratio ($2 lost for every dollar won) as well as loss outcome percentage (73%). Parlays with five or more legs lost more than 90% of the time.

Table 20. Parlay Bets: Outcome by 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	1,393,678	22.1	73.1	29.40	32.26	15.21	2.48:1
3 legs	1,500,674	23.8	82.9	20.11	19.71	7.34	4.95:1
4 legs	1,128,611	17.9	88.9	17.35	15.79	5.68	8.80:1
5 legs	676,390	10.7	92.0	16.09	14.00	5.17	13.22:1
6 legs	459,232	7.3	93.9	14.23	12.27	4.09	17.85:1
7 legs	306,473	4.9	95.0	13.29	11.21	3.89	22.53:1
8 legs	244,932	3.9	95.9	11.95	11.69	2.01	23.91:1
9 legs	166,577	2.6	96.7	10.14	8.84	2.63	33.61:1
10 legs	143,876	2.3	96.8	10.51	8.63	3.19	36.84:1
11 legs	81,772	1.3	97.3	10.22	8.16	3.04	45.13:1
12 legs	133,013	2.1	97.1	10.80	8.55	3.66	42.29:1
13 legs	23,289	0.4	98.5	9.59	5.05	5.18	124.70:1
14 legs	24,911	0.4	98.3	11.29	7.61	4.72	85.79:1
15 legs	15,234	0.2	98.5	1.81	5.28	6.07	22.51:1

ii. In-Game Betting

In 2018, about 4.6 million sports bets made were placed in-game. This represents 26% of all bets placed, and 23% of all money wagered.

Men placed significantly higher in-game bets on average than women, nearly $69 compared with $47 (Table 21). Median wagers were comparable ($11 v $10), suggesting that a proportion of men were wagering significantly higher amounts and inflating the mean. By age, in-game bets placed by 35 to 44 year olds were significantly higher than all other age groups at about $67, followed by those ages 45 to 54 ($61), 25 to 34 ($59), and 55 to 64 ($51). In-game wagers at the median were $10 for all age groups except 55 to 64-year-olds, for which they were $13. The maximum wager ($200,000), placed by a man in a younger age category (25 to 34 years), was 10 times the amount of the largest bet by a woman ($20,000). Overall, despite relatively consistent median wagers across age categories and means consistent with a bell curve, higher maximum wagers were placed by younger bettors, ages 44 and younger.

Table 21. Betting Patterns of In-game Bets by Age and Gender

Gender (n = 2,328,031)	n	%	Max Wager	Mean Wager	SD of Wager	Median Wager
Male	2,164,349	93.0	200,000.00	68.71*	435.96	11.00
Female	163,682	7.0	20,000.00	47.19	189.26	10.00
Age Category (n = 4,505,321)	**n**	**%**	**Max Wager**	**Mean Wager**	**SD of Wager**	**Median Wager**
21-24	536,570	11.9	72,234.30	40.55[d]	354.03	10.00
25-34	1,942,702	43.1	200,000.00	58.55[b]	390.43	10.00
35-44	1,162,114	25.8	72,500.00	66.78[a]	333.39	10.00
45-54	610,478	13.6	33,350.00	60.58[b]	264.04	10.00
55-64	225,802	5.0	10,000.00	50.52[c]	166.49	13.00
65+	27,655	0.6	5,175.00	37.08[d]	125.86	10.00

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

[a.] Significantly higher than all other age groups ($p < .001$)

[b.] Significantly higher than 21-24, 55-64, and 65+ ($p < .001$)

[c.] Significantly higher than 21-24 and 65+ ($p < .001$)

[d.] Significantly lower than 25-64 ($p < .001$)

In-game betting as a preferred activity varied by gender (Table 22). Male sports bettors comprised 90% of all in-game bettors for whom gender data was available, while females comprised only 10%. Considering their proportion of the total number of sports bettors, more than two-thirds of men (about 68%) placed an in-game bet, compared with about 62% of women.

Notably, interesting gender patterns emerge when exploring those who primarily bet in-game (i.e. placed more than 50% of bets and wagered more than 50% of money in-game). Nearly 15% of all female sports bettors were primarily in-game bettors, although only 62% of women placed a single in-game bet. This finding would suggest that a substantial proportion of women who placed in-game bets did so as their main sports betting activity. This is in contrast to men, for

whom only 10% were primarily in-game bettors despite nearly 68% having placed an in-game bet.

Table 22. In-Game Betting by Gender

	% 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%

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

Across age groups, sports bettors who were 25 to 34 years old comprised 44% of all in-game bettors, while those 35 to 44 were 23% of all in-game bettors (Table 23). However, taking into account the number of bettors in each age group, in-game betting was disproportionately preferred by the youngest bettors, with in-game participation consistently declining across advancing age groups. Specifically, 74% of the youngest bettors (age 21 to 24) placed at least one in-game bet, followed by almost 72% of those 25 to 34. Meanwhile only 46% of the oldest gamblers (65+) placed an in-game bet.

About 13% of the youngest sports bettors (21-24) and 10% of 25 to 34 year olds placed more than 50% of their bets and gambled more than 50% of their money in-game (i.e. primarily in-game bettors). This propensity for being a primarily in-game bettor likewise declined with age, such that only 4 to 5% of those 55 and older were primarily in-game bettors.

Table 23. In-Game Betting by Age

Age Category	% 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

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

The largest proportion of in-game bets within an identified sport were placed on NBA basketball (18%), followed by tennis (12%), NFL football (11%), and MLB baseball (10%) (Table 24). (This table excludes in-game parlay/RR bets, as all legs of a parlay may not be on the same sport.)

College basketball (9%), soccer (7%), and hockey (5%) were the only other sports that saw substantial in-game activity. Sports that garnered the largest average in-game bets were college basketball ($108) and NFL football ($92), while college basketball had the largest wagers at the median, $25.

Table 24. In-Game Bets by Sport (_n_ = 3,430,466)

Sport	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
NFL Football	10.8	200,000.00	91.71	699.66	15.00
NBA Basketball	18.2	72,162.00	69.28	417.41	15.00
MLB Baseball	10.1	43,500.00	50.01	221.41	10.00
College Basketball	9.1	119,596.80	108.10	515.78	25.00
Soccer	7.4	72,234.30	43.26	282.30	5.00
Hockey	5.2	16,200.00	58.04	235.19	10.00
Tennis	11.6	39,000.00	61.59	283.91	10.00
Golf	1.7	8,000.00	24.26	94.69	6.55
Mixed Martial Arts/Boxing	0.3	10,500.00	38.32	165.63	10.00
College Football	0.1	200.00	19.56	17.74	10.00
EuroLeague Football	0.2	5,900.00	58.89	190.26	15.00
NASCAR	0.1	266.70	6.11	14.28	2.00
Novelty/Special/Other	25.1	72,500.00	66.00	286.14	17.22
Total	100.0	200,000.00	68.10	391.59	12.00

Perhaps the most important finding regarding in-game bets is that they resulted in losses to the player about two-thirds of the time (Table 25), with parlay in-game bets losing 84% of the time and non-parlay in-game bets losing 59% of the time. In-game bets lost an average of $21, with non-parlay in-game bets losing an average of $25, and parlay/RR in-game bets losing $10 on average. Accounting for average amounts won and lost, an average of $1 was lost for every dollar won on non-parlay in-game bets, compared with about $6 lost for every dollar won on parlay/RR in-game bets.

Table 25. 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	65.5	28.32	37.47	20.92	1.43:1
Non-Parlay In-Game	59.2	30.87	43.49	24.63	1.03:1
Parlay/RR In Game	84.3	20.72	19.54	9.91	5.69:1

In-game betting, by definition, must occur in alignment with the time when the sports event is taking place. Given this, more than half of in-game bets were placed between 6 p.m., and midnight, while betting activity on bets placed not in game were more dispersed throughout the day (Table 26). The most notable discrepancy in activity, however, occurred between 9 p.m. and midnight, during which time more than 60% of all bets placed were done so in-game. This finding

has implications for concerns around gambling advertising, which may be more effective in fueling impulsive play during this time period, as well as reaching adolescents and young adults who may be tuned in to sports and other programming.

Table 26. Proportion of In-Game Bets by Time of Day

Time of Day	In-Game		Not In Game	
	N	%	n	%
6 a.m.-9 a.m.	114,286	2.5	897,381	7.0
9 a.m.-12 p.m.	256,997	5.6	2,400,035	18.8
12 p.m.-3 p.m.	650,844	14.2	1,958,284	15.3
3 p.m.-6 p.m.	794,696	17.3	2,457,449	19.3
6 p.m.-9 p.m.	1,072,043	23.4	3,110,583	24.4
9 p.m.-12 a.m.	1,435,540	31.3	938,423	7.4
12 a.m.-3 a.m.	220,100	4.8	781,152	6.1
3 a.m.-6 a.m.	39,754	0.9	219,967	1.7
Total	4,584,260	100.0	12,763,274	100.0

F. Funding Play: Payment Types

Sports bettors have the choice to deposit money into their online accounts using a variety of methods (Table 27). The following analyses consider the payment type for sports bets placed online; the funding type for bets placed at a physical location are not recorded, resulting in the exclusion of 159,023 bets. Data reporting a card type or brand (e.g. Visa, MasterCard) were recorded as "credit cards;" prepaid cards and "cards" were also recorded as credit cards.

More than 73% of sports bets were placed by players who used a single payment method. Specifically, a majority of bets were placed with money deposited from account-holders who used only E-Pay services, such as PayPal (62%); given the third-party nature of the transaction, it is not possible to know whether the E-Pay charge is then funded by a credit card, direct bank withdrawal, or bank debit card. The next highest preference was for both E-Pay and credit card deposits (17%), followed by credit card deposits only (10%). Meanwhile, about 7% of sports bets were placed from account-holders who used all three available deposit types: E-Pay services credit cards, and bank deposits. Use of multiple cards and multiple types of deposits have been associated with higher levels of risk for problem gambling.

Table 27. Payment Type (*n* = 17,188,511 bets)

Single Payment Method	n	%
E-Pay Service Only	10,729,155	62.4
Credit Card Only	1,723,908	10.0
Bank Account Only	107,948	0.6
Total of Single Method	12,561,011	73.1
Two or More Payment Methods	**n**	**%**
Credit Card & E-Pay Service	2,833,457	16.5
All Three Deposit Types	1,135,983	6.6
Bank Account & E-Pay Service	620,092	3.6
Bank Account & Credit Card	37,968	0.2
Total of Multiple Methods	4,627,500	26.9

Men and women showed significantly different preferences for payment type, with about two-thirds of bets by men funded by E-Pay services compared with less than half of bets by women (Table 28). Women, meanwhile, made proportionately greater use of credit cards, bank accounts, and multiple deposit types. Notably, nearly 42% of sports bets placed by women were from account-holders who used multiple deposit types compared with less than 29% of men. The use of multiple forms of deposits can be an indicator of problematic levels of play, so this finding is important to track over time.

Table 28. Payment Type by Gender (*n* = 8,039,904 bets)

Payment Type	Male		Female	
	n	%	n	%
E-Pay Services	5,001,027	66.5*	253,097	48.5
Credit Card	326,861	4.3	38,631	7.4*
Bank Account	39,801	0.5	13,363	2.6*
Multiple Methods	2,150,593	28.6	216,531	41.5*
Total	7,518,282	100.0	521,622	100.0

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

The payment type used for betting activities varied across age groups (Table 29), with a preference for E-Pay Services declining progressively with age; two-thirds of bets placed by 21 to 24-year-olds were funded by E-Pay services, compared with 54% among those age 65+. This may reflect more comfort with E-Pay services, generally, among younger sports bettors. Credit card use was most popular among those ages 55 to 64 (17% of bets), while bank account funding was most popular among those 65+, though the method was used to place less than 1% of bets. More than one-third of sports bets placed by bettors ages 45 to 54 were from account-holders who used multiple deposit types, more than any other age group, though also common among bettors 65+ (33%).

Table 29. Payment Type by Age (*n* = 16,629,831 bets)

Payment Type	21-24		25-34		35-44		45-54		55-64		65+	
	n	%	n	%	n	%	n	%	n	%	n	%
E-Pay Services	1,134,167	66.9*	4,329,201	65.2*	2,711,923	62.0*	1,385,237	53.9	608,065	54.7	127,121	54.0
Credit Card	169,894	10.0*	567,133	8.5	420,125	9.6	294,757	11.5*	188,515	16.9*	29,676	12.6*
Bank Account	4,197	0.2	19,288	0.3	13,611	0.3	10,889	0.4*	5,537	0.5*	2,119	0.9*
Multiple Methods	386,771	22.8	1,725,625	26.0	1,229,714	28.1*	879,382	34.2*	310,318	27.9*	76,566	32.5*
Total	1,695,029	100.0	6,641,247	100.0	4,375,373	100.0	2,570,265	100.0	1,112,435	100.0	235,482	100.0

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

The payment method used to fund in-game betting was similar to the methods used for bets not placed in game, with just less than two-thirds of bets placed with money deposited via e-pay services, and about 27% from account-holders who used multiple methods to fund their play (Table 30). However, in-game bets were statistically more likely to be placed by account-holders who used e-pay services or multiple deposit methods.

Table 30. Payment Type of In-Game vs Non-In-Game

Payment Type	In Game		Not In Game	
	n	%	n	%
E-Pay Services	2,864,631	62.8*	7,864,524	62.3
Credit Card	429,841	9.4	1,294,067	10.2*
Bank Account	15,842	0.3	92,106	0.7*
Multiple Methods	1,249,912	27.4*	3,377,588	26.7
Total	4,560,226	100.0	12,628,285	100.0

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

VI. High-Intensity Bettors

As with online gaming, this report includes analyses regarding players who bet at a high intensity, characterized 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 in the analyses: a total of 6,165 bettors in 2018. Notably, gender data was not available for about half of the players (n=3,263) so gender differences should be interpreted with that qualifier. In 2018, *4% of all sports bettors, the "high-intensity bettors," placed 30% of all sports bets and wagered 46% of the money.*

Similar to the geographic residence of all sports bettors, there were more high-intensity bettors from Bergen (12.4%), Monmouth (11.4%), and Hudson (8.0%) counties (Table 31). However, across all counties, the percentage of high-intensity bettors was not significantly different from the percentage of individuals who gambled in each county.

Table 31. Percentage of High-Intensity Bettors by County

County	n	% of High-Intensity Bettors	% of sports bettors
Atlantic	191	3.1	3.5
Bergen	762	12.4	11.4
Burlington	270	4.4	4.8
Camden	322	5.2	5.8
Cape May	68	1.1	1.0
Cumberland	50	0.8	0.9
Essex	362	5.9	7.2
Gloucester	198	3.2	3.7
Hudson	492	8.0	8.4
Hunterdon	84	1.4	1.1
Mercer	153	2.5	2.8
Middlesex	458	7.4	7.8
Monmouth	702	11.4	11.8
Morris	418	6.8	5.9
Ocean	388	6.3	7.0
Passaic	311	5.0	5.6
Salem	14	0.2	0.4
Somerset	222	2.5	3.1
Sussex	73	1.2	1.3
Union	309	5.0	5.7
Warren	58	0.9	0.9

While men comprised 89% of all sports bettors in the sample with available data, they made up more than 95% of the high-intensity group (Table 33). This finding stands in contrast to trends for online casino gambling, where women have traditionally been overrepresented among this group. Men, on average, were similar in age to women in the high-intensity group (38 years v 37 years), which is considerably younger than for other forms of online gambling in New Jersey.

Table 32. High-Intensity Bettors by Gender (n = 3,263)

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

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

Comparing high-intensity bettors to others who wager on sports, those in the high-intensity group were overrepresented among players aged 35 to 64 (Table 34). In contrast, there were more non-high-intensity bettors than expected among sports bettors age 21 to 34, as well as in the oldest group, 65+, suggesting that the average sports better was either younger or older than the group that contained high-intensity bettors. Overall, the mean age of high-intensity bettors was significantly higher (38 years) than for other sports bettors in New Jersey (36 years).

Table 33. High-Intensity Bettors by Age

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

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

There also were significant differences in play patterns between high-intensity bettors versus other players in 2018 (Table 34). High-intensity bettors, on average, wagered on twice as many sites (2 sites v. 1 site) and bet on about 4 ½ times as many days (91 days v 20 days). This comparison is even more pronounced when comparing bettors in the middle of the range: the median high-intensity bettor bet on 8 times as many days – 88 days – compared to the median of all other bettors who bet 11 days, suggesting that a significant proportion of high-intensity bettors were betting on more days than average. Wagering amounts also varied, with high-intensity bettors placing, on average, significantly higher maximum wagers ($876 v $190), single wagers ($88 v $58) and total yearly wagers ($59,000 v $3,000) when compared to other bettors. High-intensity bettors also placed nearly 20 times the number of bets on average 2018 (826 bets v. 79 bets), which was also reflected in median bets of 533 for high-intensity bettors versus 27 bets for other bettors. High-intensity bettors also placed three times as many bets on average on an average betting day (9 bets v 3 bets; median=6 bets v 2 bets) as other players. Notably, however, high-intensity bettors, lost a significantly smaller proportion of bets compared with non-high-intensity bettors (64% v 72%).

Table 34. Play Patterns of High-Intensity Bettors Compared to Other Bettors

Play Patterns	High-Intensity Bettors (*n*=6,165)			
	Maximum	**Mean**	**Std.**	**Median**
# of Sites Wagered	6.0	1.8*	1.0	2.0
Total Betting Days	175.0	90.5*	20.1	88.0
Max Wager ($)	800,000.00	876.04*	3,917.1	300.0
Avg. Single Wager ($)	12,718.42	88.16*	278.2	35.90
Total Yearly Wager ($)	19,828,011.87	58,293.77*	311,782.40	19,592.74
Total Number of Yearly Bets	131,747.00	826.1*	2,201.58	533.0
# of Bets/Betting Day	1,626.5	8.9*	24.4	6.1
Proportion of Bets Lost	100.0	63.6	12.8	62.0
Play Patterns	**Other Bettors (*n* = 147,593)**			
	Maximum	**Mean**	**Std.**	**Median**
# of Sites Wagered	6.0	1.2	0.5	1.0
Total Betting Days	150.0	19.7	22.1	11.0
Max Wager ($)	210,000.00	190.05	2,617.7	50.0
Avg. Single Wager ($)	104,541.34	57.89	423.4	17.4
Total Yearly Wager ($)	11,604,088.87	2,882.87	36,121.22	480.00
Total Number of Yearly Bets	21,225.00	79.0	205.05	27.0
# of Bets/Betting Day	723.7	3.3	4.6	2.4
Proportion of Bets Lost	100.0	72.2*	21.1	72.7

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

In 2018, high-intensity bettors placed 30% of all sports bets and had higher mean wagers across all variations of bet types — almost double the amount of other bettors — for most bet types (Table 35). Both groups placed their highest wagers, on average, on straight partial (unspecified) bets, point spread (partial) and moneyline (partial) bets. Considering each bet type available, high-intensity bettors placed a disproportionately higher number of point spread (partial), total (unspecified and partial) and both parlay/RR and non-parlay in-game bets. In contrast, other bettors placed markedly more money line (partial), futures bets, straight partial (unspecified) bets, prop bets, and straight whole (unspecified) bets.

Table 35. Bet Type by High-Intensity Status

Bet Type	Bets Made by High-Intensity Bettors (n = 5,227,764)					Bets Made by Other Bettors (n = 12,119,770)				
	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager	% of total	Max Wager	Mean Wager	SD of Wager	Median Wager
Parlay/RR Only	29.5	87,329.60	30.64*	227.18	5.00	70.5	717,278.40	24.32	623.35	5.00
Non-Parlay In-Game	36.2	72,500.00	100.79*	517.52	25.00	63.8	200,000.00	49.53	295.55	10.00
Parlay/RR In-Game	33.6	14,800.00	46.21*	164.33	12.00	66.4	21,245.90	20.96	119.14	5.00
Single Leg (Multi)	26.2	40,000.00	61.531*	283.03	20.0	73.8	702,833.70	31.40	1,197.16	5.0
Money Line (W)	25.2	50,000.00	113.02*	541.13	27.09	74.8	400,000.00	55.46	1,111.43	10.0
Money Line (P)	17.4	5,956.30	136.06	363.16	25.0	82.6	800,000.00	110.05	7,158.19	10.0
Money Line (W/P U)	29.4	112,400.00	77.89*	285.53	30.00	70.6	60,000.00	41.28	155.35	10.00
Total (W)	34.6	52,563.20	109.97*	695.98	27.0	65.4	55,000.00	51.68	409.24	12.0
Total (P)	47.0	30,000.00	105.25*	390.19	40.0	53.0	300,000.00	66.57	1,409.19	15.0
Total (W/P U)	47.5	7,329.40	102.95*	237.27	41.00	52.5	10,000.00	56.33	155.44	16.74
Point Spread (W)	26.8	40,000.00	106.31*	513.73	26.5	73.2	100,000.00	53.34	316.935	20.0
Point Spread (P)	48.8	25,000.00	147.13	485.99	45.0	51.2	20,000.00	133.35	480.627	30.0
Straight Whole (U)	24.2	65,000.00	78.03*	502.59	22.00	75.8	500,000.00	34.47	545.18	9.00
Straight Partial (U)	22.1	210,000.00	480.26*	2,611.05	61.23	77.9	130,000.00	267.36	1,626.29	33.00
Prop Bet	23.7	19,846.40	38.72*	140.63	15.00	76.3	7,500.00	14.42	55.47	5.00
Futures Bet	19.4	5,000.00	33.49*	110.68	10.00	80.6	10,000.00	23.18	105.86	5.00
Total	30.1	210,000.0	71.75*	482.74	20.00	69.9	800,000.00	39.11	646.62	8.00

*Significantly higher mean for indicated intensity group ($p < .001$)
W=whole, P=partial, U=unspecified

High-intensity bettors who placed in-game bets placed wager amounts more than double of all other bettors both on average ($88 v $42) and at the median ($20 v $8) (Table 36). Also, despite representing about 4% of all sports bettors, high-intensity bettors placed about 36% of all in-game bets. High-intensity bettors, however, lost a smaller proportion of in-game bets compared with all other bettors (62% v 68%), which could result from a greater degree of skill in this group, an anomaly, or some other factor to be better explored across years of data.

Table 36. Betting Patterns of In-Game Bets by High-Intensity Status

Bettor Type	n	%	Proportion of Bets Lost	Max Wager	Mean Wager	SD of Wager	Median Wager
High-Intensity Bettors	1,630,191	35.6	61.7	72,500.00	87.83	459.57	20.00
Other Bettors	2,954,069	64.4	67.6	200,000.00	42.12	261.79	8.00

High-intensity bettors comprised about 6% of all in-game bettors (Table 37). However, 99% of high-intensity bettors placed at least one in-game bet in 2018, compared with about 67% of all other bettors. Almost 20% of high-intensity bettors did more than half of their betting in-game (i.e., Primarily In-Game Bettor), compared with about 9% of all other bettors. This suggests that

those who are betting and spending the most may be particularly at risk for impulsive betting that is correlated with higher levels of gambling problems.

Table 37. In-Game Betting by High-Intensity Status

Age Category	% 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	5.9	6,120	99.3	45	0.7	1,218	19.8
All Others	94.1	98,308	66.6	49,285	33.4	12,931	8.8
Total	100.0	104,428	67.9	49,330	32.1	14,149	9.2

High-intensity bettors lost a smaller proportion of in-game bets compared with all others. They also tended to lose more when they lost ($40 v $22) and win more when they won ($57 v $27) (Table 38). Overall, though, high-intensity bettors lost $31 on an average in-game bet, compared with all other bettors, who lost $15 on an average in-game bet. The differences in amounts between groups may be explained by high-intensity bettors wagering higher amounts on average.

Table 38. Outcome of In-Game Bets by High-Intensity Status

	High-Intensity Bettors	Other Bettors
Mean Amount Lost on Losing Bets ($)	40.33	21.68
Mean Amount Won on Winning Bets ($)	56.58	26.91
Outcome-Adjusted Loss:Win Ratio ($)	1.15:1	1.68:1
Mean Amount Lost on All Bets ($)	-31.48	-15.10

High-intensity bettors exhibited higher average single bet amounts across all time periods, ranging from a low of $41 from 3 a.m. to 6 a.m. to a high of $87 from 9 p.m. to midnight (Table 39). Wagers placed by other bettors, meanwhile, were lowest, on average, from 3 a.m. to 9 a.m. ($27) and highest from 3 p.m. to midnight ($41-$43).

Table 39. Number and Proportion of Bets by Time of Day and High-Intensity Bettor Status

Time of Day	High-Intensity Bettors* (n = 6,165)			Other Bettors (n = 147,593)		
	# of Bets	% of total	Mean Wager	# of Bets	% of total	Mean Wager
6 a.m.-9 a.m.	316,448	6.1	48.04	695,219	5.7	27.08
9 a.m.-12 p.m.	751,010	14.4	64.63	1,906,022	15.7	34.87
12 p.m.-3 p.m.	748,657	14.3	69.74	1,860,471	15.4	39.64
3 p.m.-6 p.m.	967,916	18.5	72.06	2,284,229	18.8	42.71
6 p.m.-9 p.m.	1,237,450	23.7	77.35	2,945,176	24.3	41.04
9 p.m.-12 a.m.	779,399	14.9	87.44	1,594,564	13.2	42.63
12 a.m.-3 a.m.	326,109	6.2	65.43	675,143	5.6	35.77
3 a.m.-6 a.m.	100,775	1.9	41.27	158,946	1.3	27.37
Total	5,227,764	100.0		12,119,770	100.0	

*Significantly higher mean wager for indicated group across all time categories ($p < .001$)

Figure 2 provides a visual representation of average wagers across time slots, which has implications for problem gambling. As demonstrated, not only do high-intensity bettors bet significantly more across all time slots but their average bets begin escalating around 3 p.m. and peak sharply at 9 p.m., making the window from 6 p.m. to 9 p.m. particularly lucrative for operators. This is not true of other bettors, whose betting appears to rise and fall from noon to midnight, corresponding with normal waking hours, and afternoon and "prime time" slots when most gambling traditionally occurs. The significance of this visual is that television advertising offering "free" and bonus money to players during the peak time period is likely to disproportionately impact high-intensity bettors, a continuing cause for concern.

Figure 2. Mean Wager of Bets by Time of Day and High-Intensity Bettor Status
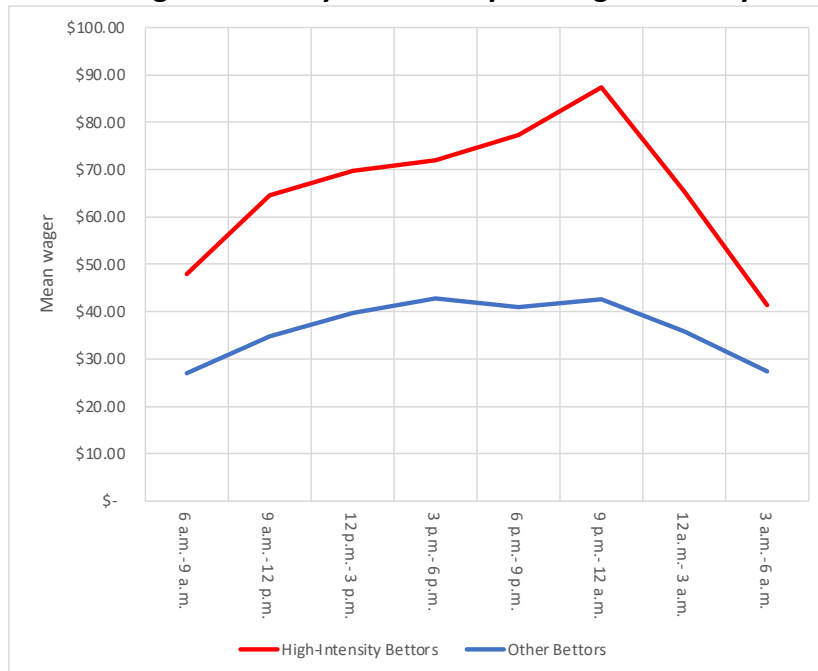
VII. Responsible Gaming Feature Use

In New Jersey, the DGE mandates that all operators provide bettors with a range of options designed to promote responsible gambling behavior primarily through limit-setting. Bettors have the option to 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.

About 5% of all sports bettors in 2018 (n=7,532) used one or more responsible gaming (RG) features. Among New Jersey residents, the proportion of those who used RG features was generally in line with the proportion of sports bettors in each county (Table 40). There were a few discrepancies, however. More sports bettors in Monmouth County than expected used RG features, representing 16% of all RG users though they represented less than 12% of all sports bettors. RG use was high but proportional to the number of sports bettors in Bergen County, with just less than 12% of RG users residing there. Meanwhile, a smaller than expected proportion of sports bettors in Gloucester and Sussex counties used RG features.

Table 40. Percentage of RG Users by County

County	N	% of RG users	% of sports bettors
Atlantic	251	3.8	3.5
Bergen	769	11.6	11.4
Burlington	270	4.1	4.8
Camden	366	5.5	5.8
Cape May	60	0.9	1.0
Cumberland	48	0.7	0.9
Essex	478	7.2	7.2
Gloucester	178	2.7[b]	3.8
Hudson	520	7.9	8.4
Hunterdon	56	0.8	1.1
Mercer	163	2.5	2.8
Middlesex	551	8.3	7.8
Monmouth	1,051	15.9[a]	11.5
Morris	336	5.1	6.0
Ocean	475	7.2	7.0
Passaic	377	5.7	5.6
Salem	14	0.2	0.4
Somerset	188	2.8	3.1
Sussex	59	0.9[b]	1.4
Union	367	5.5	5.7
Warren	47	0.7	0.9

[a] Significantly higher % of RG users in relation to number of gamblers in county ($p < .001$)
[b] Significantly lower % of RG users in relation to number of gamblers in county ($p < .001$)

Overall, 92% of RG users in the data provided were men (Table 41). Considering the gender makeup of all sports bettors, men (5%) used RG features disproportionately more than women (about 4%).

Table 41. RG Use by Gender

	Male		Female		Total	
	%	n	%	n	%	n
Total RG Users	92.0	3,138	8.0	274	100.0	3,412
	RG Users vs. Non-Users					
	Male		Female		Total	
	%	n	%	n	%	n
Use RG	5.0*	3,138	3.6	274	100.0	3,412
Don't Use RG	95.0	59,413	96.4	7,287	100.0	66,700

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

The highest proportion of RG users were in the 25 to 34 age group (39%), followed by bettors ages 35 to 44 (23%) (Table 42). However, it is important that to note that, based on the number of players in each age group, younger bettors were less likely, and older bettors, more likely, to use RG features, which is cause for concern given that sports betting in general appeals to younger players when compared to many other forms of gambling. Overall, a significantly smaller proportion of sports bettors ages 34 and younger, and a larger proportion of those 45 and older, used RG features. Notably, only 4% of the youngest sports bettors used RG features compared with more than 7% of the oldest sports bettors. The mean age of RG bettors was nearly 38 years old, which is significantly older than non-RG users, averaging 36 years.

Table 42. RG Use by Age

Age Category	% of all RG users	Use RG	%	Don't Use RG	%
21-24	11.9	898	4.2[b]	20,631	95.8
25-34	39.2	2,949	4.6[b]	61,312	95.4
35-44	22.8	1,721	4.7	34,946	95.3
45-54	14.5	1,092	5.7[a]	18,179	94.3
55-64	8.9	667	7.1[a]	8,724	92.9
65+	2.7	205	7.4[a]	2,561	92.6
Total	100.0	7,532	4.9	146,353	95.1
Min		21.0		21.0	
Max		94.7		96.4	
Mean		37.8*		36.0	

[a]Significantly higher than expected (p < .001)
[b]Significantly lower than expected (p < .001)
*Significant difference between RG and non-RG users (p < .001)

There are also significant differences in play patterns between sports bettors who used and did not use RG features (Table 43). RG users bet on significantly more sites (1.4 v 1.2) and, on average, placed bets on significantly more days than non-RG users (32 v 22). Wagering amounts also varied, with an average maximum wager among RG users ($656) more than three times higher than the average non-RG user ($195). Similarly, compared to non-RG users, RG users placed nearly twice the average single wager ($106 v $57) and they made more than twice as many bets annually (222 bets v 103 bets), as well as more bets on an average betting day (5 bets/day v 4 bets/day). Most notably, the total amount wagered by an RG user was, on average, more than five times that of a non-RG user (about $23,000 v $4,200). However, RG users lost a slightly smaller proportion of all bets (70% v 72%). Overall, RG users bet significantly more frequently and in higher amounts than non-RG users.

Table 43. Play Patterns of RG and Non-RG Users

Play Patterns	RG Users (n = 7,532)			
	Max	Mean	Std.	Median
#Sites Wagered	6.0	1.4*	0.75	1.0
Total Betting Days	150.0	32.4*	31.6	21.0
Max. Wager ($)	500,000.00	656.29*	6,259.28	107.00
Avg. single Wager ($)	9,732.78	106.02*	308.11	30.83
Total Yearly Wager ($)	3,919,486.76	23,344.77*	114,326.81	1,813.33
Total Number of Yearly Bets	47,565.0	222.1*	721.5	69.0
# of Bets/Betting Day	410.0	4.9*	8.1	3.2
Proportion of Bets Lost	100.0	69.7	19.6	69.0
Play Patterns	Non-RG Users (n = 146,353)			
	Max	Mean	Std.	Median
#Sites Wagered	6.0	1.2	0.49	1.0
Total Betting Days	175.0	22.1	25.6	12.0
Max. Wager ($)	800,000.00	194.98	2,357.06	50.00
Avg. single Wager ($)	104,541.34	56.69	423.35	17.71
Total Yearly Wager ($)	19,828,011.87	4,166.09	69,630.96	500.00
Total Number of Yearly Bets	131,747.0	103.1	491.8	29.0
# of Bets/Betting Day	1,626.5	3.5	6.7	2.5
Proportion of Bets Lost	100.0	72.0*	21.0	72.1

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

In 2018, 95% of bettors who placed in-game bets did not use RG features (Table 44). While RG users (76%) were more likely than non-RG users (68%) to place an in-game bet, only 9% of RG users were primarily in-game bettors, compared to 15% of Non-RG Users.

Table 44. In-Game Betting by RG Status

Age Category	% of All In-Game Bettors	Placed an In-Game Bet		Never Placed an In-Game Bet		Primarily In-Game Bettor	
		n	%	n	%	n	%
RG Users	4.9	5,688	75.6*	1,838	24.4	1,140	8.9
Non-RG Users	95.1	98,740	67.5	47,492	32.5*	13,009	15.1
Total	100.0	104,428	67.9	49,330	32.1	14,149	9.2

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

About 62% of RG users chose a single RG feature, with an overwhelming preference for deposit limits (48%; Table 45). The next most popular single or multiple-feature preferences included deposit, loss (spend) and time limits (11%); time and loss (spend) limits (10%); deposit and loss (spend) limits (7%); and, time limits only (6%).

Table 45. RG Feature Preferences (*n* = 7,532)

Single RG Feature Engaged	%	n
Deposit Limit Only	48.2	3,630
Time Limit Only	6.2	467
Cool Off Only	4.3	327
Loss (Spend) Limit Only	2.8	211
Self-Exclusion Only	0.4	31
Total of Single RG Feature Engaged	61.9	4,666
Two or More RG Features Engaged	**%**	**N**
Deposit, Loss (Spend), & Time Limits	10.5	789
Time & Loss (Spend) Limits	10.1	763
Deposit & Loss (Spend) Limits	7.2	542
Cool Off & Deposit Limit	2.8	211
Cool Off and Deposit & Loss (Spend) Limits	0.7	56
Cool Off, Deposit, Time & Loss (Spend) Limits	0.2	17
Cool Off, Deposit & Time Limits	0.2	16
Deposit Limit & Self-Exclusion	0.2	13
All Other Combinations	6.2	459
Total of Multiple RG Feature Engaged	38.1	2,866

More than 70% of both men and women chose deposit limits as their preferred RG feature (Table 46). In contrast to women, men more frequently utilized only deposit limits or loss (spend) limits, while a greater proportion of women utilized only cool-offs, time limits, or self-exclusion. More than 83% of both women and men used a single RG feature. However, among those opting for two or more features, men preferred a combination of deposit and loss (spend) limits as well as cool off, deposit, and loss (spend) limits, while women were proportionately overrepresented across all other combinations.

There also was significant variation in preferences by age. More than two-thirds of those ages 21 to 34 used a single RG feature, compared to less than half of those 55 and older. Across all age

groups, deposit limits were the preferred single feature, with loss (spend) limits as the next single preference among those 21 to 34 and time limits, among those 35 and older. Younger players (21 to 34 years) were also overrepresented in their use of cool-off. When using multiple features, those in the 21- to 44-year age categories were more likely to use combinations of cool-off and deposit limits and deposit and loss (spend) limits, while those 45 years and older demonstrated a preference for time and loss (spend) limits as well as deposit, loss (spend) and time limits.

Table 46. 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	74.5*	2,339	70.4	193	55.1*	495	57.2*	1,668	48.5*	835	35.8	391	27.4	183	18.5	38
Time Limit Only	0.4	11	1.8*	5	3.1	28	3.0	89	6.2*	107	10.4*	114	13.9*	93	17.6*	36
Cool Off Only	4.6	145	9.5*	26	5.8*	52	5.9*	175	3.5	61	2.7	29	1.3	9	0.5	1
Loss (Spend) Limit Only	3.1*	96	1.5	4	3.5*	31	3.1*	92	3.0*	52	2.0	22	1.9	13	0.5	1
Self-Exclusion Only	0.5	16	0.7*	2	0.2	2	0.5*	14	0.5*	9	0.3	3	0.4*	3	0.0	0
Total of Single RG Feature	83.1	2,607	83.9	230	67.7	608	69.7	2,038	61.7	1,064	51.2	559	44.9	301	37.1	76
	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
Deposit, Loss (Spend), & Time Limits	1.1	36	1.5*	4	7.8	70	6.9	204	9.8	169	15.6*	170	20.1*	134	20.5*	42
Time & Loss (Spend) Limits	0.2	5	0.7*	2	4.8	43	6.3	187	8.8	152	16.1*	176	21.0*	140	31.7*	65
Deposit & Loss (Spend) Limits	9.9*	311	4.0	11	7.6*	68	7.4*	217	8.9*	153	6.0	66	4.8	32	2.9	6
Cool Off & Deposit Limit	2.6	82	5.8*	16	3.5*	31	2.0*	58	2.0*	35	0.7	8	0.1	1	0.0	0
Cool Off and Deposit & Loss (Spend) Limits	1.3*	42	1.1	3	0.6	5	0.9*	28	0.8*	14	0.5	5	0.4	3	0.5	1
All Other Combinations	1.8	55	2.9	8	8.0	73	7.4	217	7.8	134	108	9.9	8.4	56	7.3	15
Total of Multiple RG Features	16.9	531	16.1	44	32.3	290	30.4	911	38.3	657	48.8	533	55.1	366	62.9	129

*Significantly higher proportion within indicated category ($p < .001$)

Sports bettors have the option to make changes to RG features, such as increasing or decreasing limits on deposits, money lost (spent), and time spent gambling, as well as enacting additional cool-off periods. Sports bettors who only used self-exclusion (n = 31) were not included in these analyses, as players cannot make RG feature changes once on self-exclusion. Tables 48 through 50 include RG users who chose limit-setting or cool-off periods and those who utilized these features prior to self-excluding.

As demonstrated in Table 47, there were significant differences in the number of changes made depending on a player's RG preference. For example, RG users who chose deposit limits only, the most popular choice, as well as used two or more features, made the most changes on average (3). Players who chose time limit only, meanwhile, made the fewest number of changes on average, less than one.

Table 47. Changes to RG Features by RG Type (*n* = 7,501)

RG feature	n	Mean	Std.	Median	Total number of changes
Deposit Limit Only	3,630	2.9[a]	3.2	2.0	10,347
Time Limit Only	467	0.7	0.6	1.0	306
Cool Off Only	327	1.8	1.9	1.0	572
Loss (Spend) Limit Only	211	1.9	2.6	1.0	400
Two or More RG features	2,866	2.8[b]	6.8	1.0	7,979

Significant differences in mean number of changes to RG Features ($p < 0.001$)
[a] Significantly higher than Cool Off & Time Limit
[b] Significantly higher than Time Limit

There were no significant differences in the number of changes to RG features by gender. By age, there were minimal differences in changes across each RG feature or combination (Table 48). Specifically, there was only one significant difference by age – among those using two or more features – where players ages 21 to 44 made more changes (3 to 4 changes) than players 45 and older (1 to 2 changes). Overall, however, 25- to 44-year-olds made more changes than those 45 and older, and 21- to 24-year-olds made more changes than those 55 and older.

Table 48. Changes to RG Features by Age

Age Group		Deposit Limit Only	Time Limit Only	Cool-off Only	Loss (Spend) Limit Only	Two or More Features	Total Changes
21 - 24 **n=896**	Maximum	30.0	4.0	5.0	6.0	55.0	55.0
	Mean	2.5	0.7	1.3	0.9	3.5[a]	2.6[b]
	Std.	2.7	0.9	0.7	1.5	6.9	4.4
	Median	2.0	1.0	1.0	0.0	1.0	1.0
	Total # of Changes	1,252.0	19.0	66.0	28.0	1,001.0	2,366.0
25 - 34 **n=2,935**	Maximum	73.0	3.0	19.0	9.0	174.0	174.0
	Mean	3.0	0.6	1.9	1.8	3.7[a]	3.0[c]
	Std.	3.5	0.6	2.3	2.2	9.3	5.9
	Median	2.0	1.0	1.0	1.0	1.0	1.0
	Total # of Changes	5,009.0	53.0	325.0	168.0	3,300.0	8,855.0
35 - 44 **n=1,712**	Maximum	28.0	4.0	8.0	12.0	51.0	51.0
	Mean	2.9	0.6	1.8	1.9	3.2[a]	2.8[c]
	Std.	2.8	0.6	1.5	2.4	5.7	4.1
	Median	2.0	1.0	1.0	1.0	1.0	1.0
	Total # of Changes	2,449.0	65.0	109.0	100.0	2,087.0	4,810.0
45 - 54 **n=1,089**	Maximum	46.0	2.0	5.0	6.0	53.0	53.0
	Mean	2.8	0.7	1.9	2.1	1.8	2.1
	Std.	3.8	0.5	1.2	2.2	4.6	4.0
	Median	2.0	1.0	1.0	1.0	0.0	1.0
	Total # of Changes	1,076.0	75.0	54.0	46.0	982.0	2,233.0

55 - 64 **n=664**	Maximum	28.0	1.0	4.0	21.0	30.0	30.0
	Mean	2.6	0.7	1.6	4.5	1.2	1.6
	Std.	2.5	0.5	1.1	5.7	3.1	2.9
	Median	2.0	1.0	1.0	2.0	0.0	1.0
	Total # of Changes	473.0	65.0	14.0	58.0	457.0	1,068.0
65+ **n=205**	Maximum	8.0	1.0	4.0	0.0	36.0	36.0
	Mean	2.3	0.8	4.0	0.0	1.2	1.3
	Std.	1.7	0.4	.	.	3.7	3.1
	Median	2.0	1.0	4.0	0.0	1.0	1.0
	Total # of Changes	88.0	29.0	4.0	0.0	152.0	273.0

Significantly different means between age groups within indicated RG category (*p* < 0.001)
[a] 21-44 higher than 45+
[b] 21-24 higher than 55+
[c] 25-44 higher than 45+

High-intensity bettors made significantly more changes than all other bettors among those who used deposit limits only (4 v 3 changes), two or more features (9 v 2 changes), and overall (5 v 2) (Table 49).

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

RG Feature	n	Mean	Std.	Median
Deposit Limit Only High-Intensity Bettors	609	4.0*	3.9	3.0
Deposit Limit Only Other Bettors	3,016	2.6	3.0	2.0
Time Limit Only High-Intensity Bettors	22	0.7	0.6	1.0
Time Limit Only Other Gamblers	445	0.7	0.6	1.0
Cool-off Only High-Intensity Bettors	52	1.9	2.5	1.0
Cool-off Only Other Bettors	275	1.7	1.7	1.0
Loss (Spend) Limit Only High-Intensity Bettors	32	2.3	2.8	2.0
Loss (Spend) Limit Only Other Bettors	179	1.8	2.6	1.0
Two or More Features High-Intensity Bettors	199	8.5*	9.7	5.0
Two or More Features Other Bettors	2,666	2.3	5.3	0.0
Total High-Intensity Bettors with RG	**914**	**4.7***	**6.0**	**3.0**
Total Other Bettors with RG	**6,581**	**2.3**	**4.0**	**1.0**

*Significant differences between bettor types for indicated feature(s) (*p* < 0.001)

VIII. Summary and Recommendations

In 2018, the first year of legalized sports wagering, an overwhelming majority of bettors (89%) were male. An estimated 4% of all sports bettors, whom we term "high-intensity bettors," placed 30% of all sports bets and wagered 46% of the money. Most bettors placed bets on a single site (85%), with an additional 13% placing bets on two sites while fewer than 3% played on three or more sites. The mean number of sites bet on in 2018 was 1.23. High-intensity bettors bet on more sites than all other players. The majority of bets in all counties were placed from 3 p.m. to 9 p.m.

Sports betters were more likely than online casino players to be male (89% v. 69%). They were also considerably younger on average than online casino players (36 v 41 years).Young to middle adults, ages 35 to 44, placed the highest mean bets on 12 of the 16 bet types analyzed, though younger bettors (25 to 34 years) placed the highest average moneyline (partial), prop, and futures bets. Players ages 55 to 64 placed the largest mean wagers on parlay bets placed prior to rather than during a game.

Unlike online casino platforms, where types of games are clearly distinguishable, sports wagering offers a range of novelty, special, or promotional bets (approximately one third of the bets in 2018 combined), making it more difficult to clearly classify subgroups of bettors by bet type. Overall, betting on the NFL was the most popular activity (18%), followed betting on the NBA (13%), MLB (9%), and college basketball (9%). These findings, however, only reflect data from a partial year (beginning August of 2018) excluding important events such as the Super Bowl and college basketball tournaments. Additionally, analyses of bets by sport excluded parlays, as different legs of a parlay can be placed on different sports, and data quality did not allow analysis at the leg-level

Overall, the average sports bet lost between about 50% to 85% of the time, with unspecified straight partial and total unspecified bets generally posting the best odds, and parlay/RR bets not in-game losing about $6 for every $1 won.

For this report, we examined in-game betting and high-intensity betting, both of which are correlated with higher levels of problem gambling severity. In 2018, about one-fourth of the bets and money wagered were placed in game. In-game bets are wagers placed on a game or event while it is taking place. For that reason, in-game bets can be driven by emotion or team loyalty and fueled by impulsivity. This makes them particularly risky for emerging adults who have higher levels of risk-taking and impulse control than older adults. In this data year, nearly three-fourths of the youngest bettors (ages 21 to 24) had bet in-game and those ages 25 to 44 made up 44% of all in-game bettors. More than 10% of 21- to 34-year-olds placed more than half of their bets and money in-game. In contrast, less than half of sports bettors ages 65 and older placed bets in-game.

In-game betting was also characteristic of high-intensity bettors, the predominantly male group who placed the most bets on the most days for the most money. Despite representing about 4% of all sports bettors, this group placed more than a third of all in-game bets. High-intensity bettors who placed in-game bets also wagered more than double that of all other bettors both on average and at the median. Taken together, findings suggest that in-game betting may be a significant risk factor for both young adults and high-intensity bettors and should be the focus of responsible gambling efforts.

Overall, there was relatively little uptake of responsible gambling (RG) safeguards in the first year of legalized sports wagering. Those safeguards include setting limits on deposits, losses and time spent gambling; enacting a cool-off period of 72 hours or more; and self-excluding from sports wagering for one year, five years, or lifetime. Only about 5% of men and less than 4% of women

enabled at least one feature in 2018. Notably, younger bettors were less likely to use RG features than older adults.

Among those who used an RG feature, setting deposit limits was preferred by 70% of users. This has particularly important implications because a majority of bets were placed with money deposited via ePay services, such as PayPal (62%). ePay services are third party providers, accessible via the internet or apps, that link to cards, bank accounts, or other forms of currency. Such services mask the number and types of accounts and payment methods players access for gambling, because the funds are transferred by the ePay service without disclosing the source of the payment. ePay services make it difficult for operators to identify which players are gambling on credit versus those who have the cash on hand to bet.

Historically, individuals who use more forms of credit and alternate among several payment methods are more likely to overspend and demonstrate problematic play patterns. As a result, more countries are moving to requiring the use of cash wallets, which ensures those who gamble have enough real money to cover bets rather than relying on credit. Reconsidering the implications of accepting credit cards and/or e-payments is a natural next step in for responsible gambling measures to prevent overspending.

Given that this was the first year of legalized sports wagering, it is too early to suggest that findings represent a trend in need of regulatory action. However, there are a few notable insights to watch over the next several years. The preference of young bettors for in-game betting could increase the possibility of overspending based on impulse during games. Therefore, strategies to encourage limit-setting, such as incorporating the options into the sign-up process, should be used to increase RG uptake among this group. Younger players who used RG were more likely to use the cool-off feature or a combination of cool-off and deposit limits, suggesting that breaks in play could also be a useful tool to promote with younger gamblers. In addition, deposit limits were preferred by an overwhelming majority (more than 81%) of young adults. Therefore, strategies to enhance prompts to set deposit limits and/or to remove particular deposit options such as ePay services and/or credit cards should also be considered in subsequent years.