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# Internet Gaming in New Jersey

Calendar Year 2015 Report to the
Division of Gaming Enforcement
Submitted by:

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# Introduction

It is estimated that 0.1% to 13% of the adult population gambles on the Internet (Broda, et al., 2008; Sprostson, Hing & Palankay, 2012, Wardle et al., 2011; Wood & Williams, 2011). In New Jersey, players report that the primary appeal of Internet gambling, is the convenience and speed of play, 24-7 availability and comfort of gambling from home (Nower, Volberg & Caler, 2016).

At the time of this report, it has been three years since Governor Chris Christie signed into law an amended bill, legalizing Internet gaming through licensed partnerships with Atlantic City casinos. Gamblers in New Jersey must be at least 21 and located within New Jersey while gambling online. Due to the significant investment on the part of the Division of Gaming Enforcement (DGE), operators and research team to distill voluminous data into measurable files, the 2014 report provided only demographics and account summaries. This report, prepared pursuant to N.J.S.A. 5:12-95.18, is the second in a series of four annual reports, examining the overall impact of Internet gaming and problematic patterns of play and the relationship to the state-wide prevalence of problem gambling. Analyses in this report are focused on player demographics, play patterns and use of responsible gambling features from the first full year of operation, 2014; subsequent reports will feature play data from 2015 and 2016. Historically in a research context, "gaming" is used to refer to those who play social games and "gambling," to those who play games of chance for money; however, regulators and operators also refer to "gambling" as "gaming," therefore, those terms will be used interchangeable here to connote playing casino or poker-related games for money.

Table 1 shows the current list of operators, skins, and URLs. 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. In contrast to Nevada, which legalized only online poker, New Jersey's legislation allows both casino games (e.g., Blackjack, Spanish 21, Bonus Blackjack, American and European Roulette, craps, slot machines, video poker) and peer-to-peer games (e.g. No-limit and Limit Hold'em Poker, Pot Limit Omaha (PLO), Seven Card Stud, Draw Poker, Omaha Hi/Lo).

**Table 1. Operator and Gaming Sites 2014 to Present**

| Licensee | Platform Operator(s) | Skin(s) | Game Offerings | URL(s) |
|---|---|---|---|---|
| **Borgata** | Bwin | Bwin | Casino/Peer to Peer Poker | www.NJ.Partypoker.com |
| | | Borgata | Casino/Peer to Peer Poker | ww.Borgatacasino.com<br>www.Borgatapoker.com |
| | Pala | Pala | Casino/Peer to Peer Blackjack | www.palacasino.com<br>www.palabingousa.com |
| **Caesars Interactive Entertainment** | NYX | Caesars | Casino | www.CaesarsCasino.com |
| | | Harrahs | Casino | www.HarrahsCasino.com |
| | | 888 | Casino/Peer to Peer Poker | Us.888.com<br>Us.888poker.com<br>Us.888casino.com |
| | | WSOP | Casino/Peer to Peer Poker | www.WSOP.com |
| **Golden Nugget** | NYX | Golden Nugget | Casino | www.GoldenNuggetCasino.com<br>nj-casino.goldennuggetcasino.com |
| | Game Account/Betfair | Game Account/Betfair | Casino | www.betfaircasino.com |
| **Tropicana** | GameSys | Tropicana | Casino | www.tropicanacasino.com |
| | | Virgin | Casino | www.virgincasino.com |
| Resorts Digital Gaming LLC | NYX | Resorts Casino | Casino | www.resortscasino.com<br>www.mohegansuncasino.com |
| | | Mohegan Sun Casino | | |
| | | Poker Stars NJ | Casino/Peer to Peer Poker | www.pokerstarsNJ.com |
| **Trump Plaza*** | Game Account/Betfair | Game Account/Betfair | Casino/Peer to Peer Poker | www.betfaircasino.com |
| **Trump Taj Mahal** | Ultimate Casino | Ultimate Casino | Casino/Peer to Peer Poker | www.Ucasino.com |

**Key:**
Black Text- operator in 2014 to present
Blue Text- New operator since 2014
Red Text- Ultimate Casino ceased operation in NJ,
        *Game Account/Betfair transferred to Golden Nugget

# Online Gaming in New Jersey

A recent statewide gambling prevalence study in New Jersey reported that about 5.3% of those sampled (n=134) gambled exclusively online and 19.2% (n=487) gambled both online and at land-based venues (Nower, Volberg, & Caler, 2016). A majority of online gamblers in that study, about two-thirds, indicated they had gambled online before it was legalized in New Jersey, and one-third of those sampled indicated they began gambling because it was legal. The main factors that influenced participants to begin gambling online, in order, were: convenience, 24-7 access, the comfort of gambling from home, price (e.g., bonuses and free credits), and use of free play or social media sites. Online gamblers said the main advantages were, in order: convenience, 24-7 access, comfort, freedom from driving to land-based venues, and privacy/anonymity. The main disadvantages they cited were, in order: ease of spending money online, online gambling perceived as "more addictive," concerns about account safety online (money, personal information), and difficulty judging the fairness of the games. Over 31% of online gamblers indicated they gambled online from work or during work hours; of those gamblers, nearly 24% gambled three to five days per week and 40% did so one or two days a week.

## Problem Gambling and Online Gaming

As reported in other studies, the prevalence of problem gambling in New Jersey is lowest among land-based only gamblers, followed by online-only gamblers; it is highest among those who gambling at mixed venues, both online and at land-based venues (Nower et al., 2016). In the state-wide prevalence study, about 4.5% of those who gambled only at land-based venues were in the high risk problem gambling group, which would likely meet criteria for disorder. In contrast, 14.3% of online-only and 36.9% of the mixed group were in the high risk problem group. High risk problem gamblers were also most likely to gamble at the highest frequency (once a week or more) and to participate in a greater number of gambling activities. As suggested by research internationally (Gainsbury et al., 2014, Wood & Williams, 2009), it appears that the Internet provides an additional medium for high frequency gamblers who may have already have established patterns of high frequency play on multiple gambling activities. Informed by the broader context, an evaluation of actual demographics, betting patterns and other gambling-related behaviors of online gamblers could lead to isolating specific play patterns and conditions that are most correlated with problematic levels of play. This, in turn, will inform harm reduction efforts and improvements to the delivery and implementation of responsible gaming (RG) features.

## Patterns of Play and Responsible Gaming

Studies have suggested that high variability across wager amounts, number of gambling activities, and high intensity and frequency of play are markers of potentially problematic gambling (Adami et al 2013; Braverman & Shaffer, 2012; Braverman et al, 2013). Other studies have reported that limit-setting, particularly around spending, led to more responsible play (Auer & Griffiths, 2013; Nelson et al., 2008). Accordingly, this report will summarize demographic variables and begin to explore play patterns among those who utilize RG features.

In New Jersey, Internet gaming is regulated by the Division of Gaming Enforcement (DGE), which requires operators to include a number of RG features for players who want to limit losses and reduce the potential harm that accompanies loss of control over gambling and problem gambling behavior. Those features include limits on the amount of money you can deposit to use for play, the amount you can lose, and the amount of time you can spend gambling. Players may also set a minimum 72 hour cooling-off period and self-exclude from online gaming sites for a period of one or five years.

## Player Demographics

A total of 378,103 individuals (m=267,469, f=97,348, missing=13,286) initially signed up for accounts in New Jersey. However, only 28% of account creators (n=107,535) actually played on any game and only 94,353 of those players were also in the demographic data. A proportion of those accounts were created by individuals who were located elsewhere in the United States, including New York, Maryland, Georgia, Minnesota, New Hampshire, Texas, West Virginia, Hawaii and Washington. However, a majority of non-players lived in other countries: China, Russia, U.K., Ukraine, Turkey, Tunisia, Trinidad, Kuwait, Morocco, Netherlands, Ireland, Sweden, Slovenia, South Africa, Singapore, Portugal, France, Spain, Germany, Scotland, Dubai, Denmark Greece, Hong Kong, Canada, Bulgaria, Czech Republic, and Ecuador. Nearly 69% percent of those who signed up but never played were men, compared to 27% who were women; 4% had no gender information. The average age of those players was 38 years, with the highest concentration of applicants in the 25 to 34 years, followed by the 35 to 44 year age categories.

A total of 79,682 players wagered on casino websites. Of those, 14.67% were missing from the demographic data, leaving 67,994 gamblers for analysis. Among online casino gamblers, 5,238 listed their residence as outside the state; notable, players who work but not live in New Jersey are permitted to play, so long as their gambling takes place within the state. As indicated in Table 2, the percentage of gamblers in each age category living in versus outside New Jersey were similar, except in the 55 to 64 age group, where significantly more players lived in New Jersey versus outside, based on the overall number in that age group. By gender, the proportion of men to women was higher in the group living outside (75.56 v 24.34) versus inside (70.69% v 29.21%) New Jersey.

**Table 2. Online Casino Gamblers Living In and Outside New Jersey by Age and Gender**

| Age Group | In NJ | | Outside of NJ | |
|---|---|---|---|---|
| | % | N | % | N |
| 21-24 | 12.30 | 7,811 | 10.29 | 539 |
| 25-34 | 35.33 | 22,211 | 39.61 | 2,075 |
| 35-44 | 22.21 | 13,986 | 23.16 | 1,212 |
| 45-54 | 16.58 | 10,486 | 14.62 | 766 |
| 55-64 | 9.21* | 5,781 | 7.84 | 411 |
| 65+ | 4.37 | 2,481 | 4.48 | 235 |
| | 100.00 | | 100.00 | |
| Total | 92.3 | 62,756 | 7.7 | 5,238 |
| Mean | 38.80 | | 38.48 | |
| Standard Deviation (Std.) | 12.91 | | 12.98 | |

| Gender | In NJ | | Outside of NJ | |
|---|---|---|---|---|
| | % | N | % | N |
| Male | 70.69 | 44,366 | 75.56 | 3,958 |
| Female | 29.21 | 18,328 | 24.34 | 1,275 |
| (Missing) | 0.10 | 62 | 0.10 | 5 |
| | 100.00 | | 100.00 | |
| Total | 92.3 | 62,756 | 7.7 | 5,238 |

Players are allowed to register for multiple accounts across different sites. Table 3. shows the frequency and percentage of online gamblers who held single versus multiple accounts across platforms. A majority of gamblers – nearly 69% -- were registered with only one gambling site and nearly 19% of players registered with two. Only 3% of players had accounts on five or more sites.

**Table 3. Number of Accounts by Account Holders and Percent**

| Number of accounts | Number of account holders | Percent |
|---|---|---|
| 1 | 124,866 | 68.71 |
| 2 | 34,480 | 18.97 |
| 3 | 10,932 | 6.02 |
| 4 | 5,289 | 2.91 |
| 5 | 3,411 | 1.88 |
| 6 | 2,493 | 1.37 |
| 7 | 247 | 0.14 |

By gender, a total of 72,366 men (76.70%) and 21,889 women (23.20%) gambled online in casinos, poker and/or poker tournaments in New Jersey in 2014. Gender was not specified for 98 players from one provider (see Table 4). Disparities in gender representation were significantly less among casino only gamblers, where 60% (n=24,214) were men and 40% (n=16,111) were women. Those who played only casino games averaged about 40 years old, ranging in age from 21 to 98 years, and those who played only poker averaged a little over 35 years (range 21-92) or only tournaments, 38 years (range 21-88), respectively. The greatest proportion of players, overall, were in the 25 to 34 age group (31.15%), followed by the 35 to 44 age group (23.18%).

About one-fourth of all men played across all types – casino, poker, and tournament games – more than double the percentage of female payers (Table 4). Men similarly played at double the rate at casino/poker, tournament only, and casino/tournaments and at about four times the rate at poker/tournament and poker only. However, a much higher percentage of women compared to men played only casino games, with three-fourths of women and only a third of men reporting casino-only gambling. Thus, despite the overall disparity in gambling involvement by gender, a majority of women prefer casino-only gambling while men are fairly equally represented across types except for casino only, where the gender disparity is much less.

**Table 4: Gender Comparison Across and Within Play Types**

| Gender | Gender Across Play Type | | | | | | | | | | | | | |
| | All types | | Casino only | | Poker Only | | Tournament Only | | Casino & Poker | | Poker& Tournament | | Casino& Tournament | |
| | % | N | % | n | % | n | % | n | % | n | % | n | % | n |
| Male* | 25.90 | 18,746 | 33.46 | 24,214 | 8.83 | 6,387 | 5.31 | 3,842 | 4.15 | 3,006 | 19.09 | 13,812 | 3.26 | 2,359 |
| Female | 10.73 | 2,349 | 73.30 | 16,111 | 2.66 | 582 | 2.24 | 490 | 2.46 | 538 | 5.55 | 1,214 | 2.76 | 605 |

| Gender | Gender Within Play Type | | | | | | | | | | | | | |
| | All types | | Casino only | | Poker Only | | Tournament Only | | Casino & Poker | | Poker& Tournament | | Casino& Tournament | |
| | % | N | % | n | % | n | % | n | % | n | % | n | % | n |
| Male* | 88.79 | 18,746 | 59.98 | 24,214 | 91.57 | 6,387 | 88.53 | 3,842 | 84.77 | 3,006 | 91.82 | 13,812 | 79.56 | 2,359 |
| Female | 11.13 | 2,349 | 39.91 | 16,111 | 8.34 | 582 | 11.29 | 490 | 15.17 | 538 | 8.07 | 1,214 | 20.40 | 605 |
| Missing | 0.09 | 18 | 0.11 | 46 | 0.09 | 6 | 0.18 | 8 | 0.06 | 2 | 0.11 | 17 | 0.03 | 1 |

* p<.0001

The mean age of all gamblers was 38.29 years (men=37 years, women=41 years). A majority of players were in the 25 to 34 age group, followed by 35 to 44 and 45 to 54 (Table 5). Players at both ends of the age spectrum – the youngest and oldest – were the least likely to be gambling online. This was consistent when evaluated by gender, with the highest proportion of both men and women gamblers ranging in age from 25 to 34 years, followed by 35 to 44. There were nearly four times as many young men in the 21 to 24 age range compared to women, who were largely concentrated in the 25 to 54 age range.

**Table 5. Age Category by Total and Gender**

| Age Group | %/n by Age Category | | Gender | | | |
|---|---|---|---|---|---|---|
| | % | N | Male* | | Female | |
| | | | % | n | % | n |
| 21-24 | 9.21 | 1,236 | 13.06 | 9,449 | 9.50 | 2,080 |
| 25-34 | 31.15 | 4,181 | 40.15 | 29,053 | 29.47 | 6,450 |
| 35-44 | 23.18 | 3,111 | 22.72 | 16,444 | 22.54 | 4,934 |
| 45-54 | 19.79 | 2,656 | 13.84 | 10,018 | 20.97 | 4,590 |
| 55-64 | 11.42 | 1,533 | 6.99 | 5,062 | 12.49 | 2,734 |
| 65+ | 5.25 | 705 | 3.23 | 2,340 | 5.03 | 1,101 |

Slightly more than 22% of the total sample used for these analyses gambled across all forms – casino, poker and tournament (Table 6). Of those, the highest proportion of players was in the 25 to 34 age group (n=8,973) and the lowest proportion were classified as 65 and older (n=607). Casino-only players made up nearly half of all online gamblers in New Jersey, with the largest percentage focused between 25 and 44 years and the fewest players aged 55 and older. Poker and tournament players comprised nearly 16% of the sample, followed by those who only played poker (7.39%), those who only played poker tournaments (4.6%) and, finally, those who played both casino and poker tournaments (3.76%). Across all categories by age, the highest concentration of players was consistently between 25 to 34-years-old and the lowest proportion was age 65 and older.

**Table 6: Age Groups by Play Type**

| Age Group | Play Type | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All types | | Casino only | | Poker Only | | Tournament Only | | Casino & Poker | | Poker & Tournament | |
| | % | N | % | n | % | n | % | n | % | n | % | n |
| 21-24 | 2.96 | 2,790 | 4.93 | 4,656 | 1.1 | 1,036 | 0.49 | 459 | 0.57* | 535 | 1.8 | 1,696 |
| 25-34 | 9.51 | 8,973* | 13.51 | 12,749 | 3.32* | 3,133 | 1.88* | 1,771 | 1.59* | 1,498 | 6.71* | 6,333 |
| 35-44 | 4.88 | 4,608 | 9.66 | 9,116 | 1.74 | 1,645 | 1.11 | 1,050 | 0.82 | 778 | 3.72* | 3,511 |
| 45-54 | 2.89 | 2,726 | 8.09* | 7,635 | 0.77 | 729 | 0.64 | 602 | 0.44 | 416 | 2.16 | 2,042 |
| 55-64 | 1.49 | 1,409 | 4.58* | 4,325 | 0.31 | 290 | 0.33 | 312 | 0.23 | 214 | 1.08 | 1,016 |
| 65+ | 0.64 | 607 | 2.00 | 1,890 | 0.15 | 142 | 0.15 | 146 | 0.11 | 105 | 0.47 | 445 |
| Total | 22.38 | 21,113 | 42.79 | 40,371 | 7.39 | 6,975 | 4.6 | 4,340 | 3.76 | 3,546 | 15.94 | 1,5043 |

Nearly half of all online gamblers lived in the Gateway Region, which had more than twice the population of any other region in the state (Table 7). However, proportionally, about 18.59% of online players lived in the Shore region, which comprised only 13.7% of the population. The Greater Atlantic City Region was also overrepresented among online players, with a population percentage of slightly over 3% but player representation of nearly 5%. The Skyland Region was underrepresented among online gamblers.

**Table 7. Percentage of Online Gamblers by Region and Population Density**

| Region | Percentage of total NJ population | Percentage of Online Gamblers |
|---|---|---|
| Greater Atlantic City | 3.11% | 4.82%* |
| Delaware River | 19.05% | 18.65% |
| Gateway | 47.71% | 42.93%* |
| Shore | 13.65% | 18.59%* |
| Skyland | 13.61% | 12.16%* |
| Southern Shore | 2.87% | 2.85% |
| Total | 100.0% | 100.0% |

Figure 1 displays these percentages on a map of New Jersey by region. As indicated, the Gateway Region was, by far, the most densely populated region and had the highest proportion of online gamblers. The Shore and Delaware River regions had the next highest concentration of online gamblers, though the proportion was less than expected given the population density in the Delaware River region.

**Figure 1. Percentage of Online Gamblers by Region**
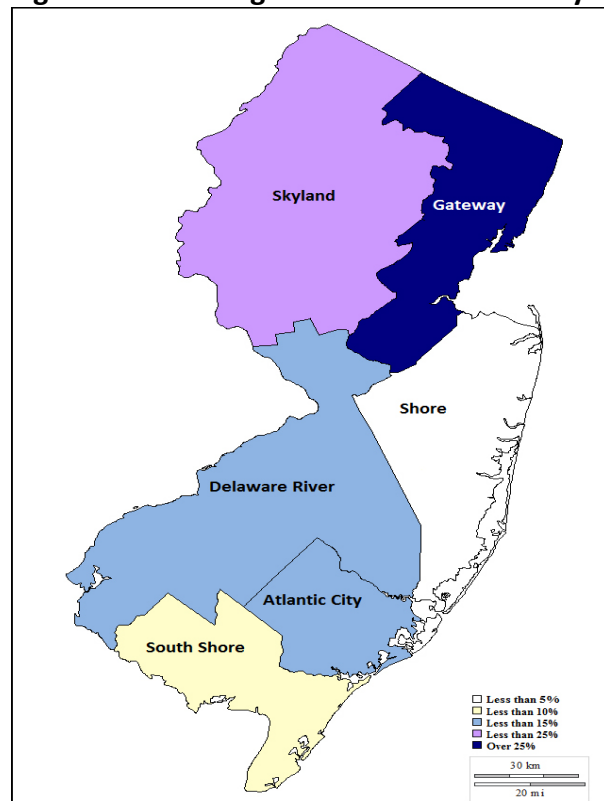
Though a majority of players only played casino games, the Shore Region was overrepresented by gamblers who played all types (casino, poker, and tournament).  A higher than expected percentage of gamblers in the Delaware River and Southern Shore region gambled only in online casinos, while the Gateway Region was overrepresented in all categories except "all types" and the Skyland region, among poker and tournament players (Table 8).

**Table 8. Play Type by Region**

| Region | Play Type | | | | | | | | | | |
| | Total | | Casino only | | Poker Only | | Tournament Only | | Casino& Poker | | Poker & Tournament |
| | % | n | % | n | % | n | % | n | % | n | % | n |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Greater Atlantic City | 1.05 | 896 | 2.34* | 2,000 | 0.23 | 198 | 0.17 | 149 | 0.15 | 130 | 0.71 | 609 |
| Delaware River | 4.23 | 3,617 | 8.50* | 7,266 | 1.13 | 962 | 0.80 | 680 | 0.59 | 508 | 2.79 | 2,381 |
| Gateway | 9.89 | 8,458 | 17.85 | 1,5260 | 3.38* | 2,893 | 1.95* | 1,669 | 1.72* | 1,470 | 6.83* | 5,841 |
| Shore | 4.52 | 3,866* | 8.00 | 6,840 | 1.13 | 968 | 0.82 | 702 | 0.68 | 578 | 2.82 | 2,413 |
| Skyland | 2.90 | 2,479 | 4.83 | 4,131 | 0.87 | 742 | 0.58 | 493 | 0.45 | 387 | 2.12* | 1,816 |
| Southern Shore | 0.60 | 510 | 1.47* | 1,254 | 0.14 | 119 | 0.11 | 95 | 0.10 | 83 | 0.35 | 302 |
| Total | 23.19 | 19,826 | 42.99 | 36,751 | 6.88 | 5,882 | 4.43 | 3,788 | 3.69 | 3,156 | 15.63 | 13,362 |

*<.0001

## The Top Ten Percent

To begin to better understand subtypes of online gamblers, the next analyses explored the demographics and play patterns of a group termed the "Top 10%" (n=2,959) of gamblers, that is, those who were highest in total number of bets placed, total number of days gambled, and total amount of money wagered. These are players who all played casino games and may or may not have also played poker and/or tournaments. In contrast to the overall sample where men outnumbered women 2.5 to 1, there were significantly more women in the Top 10% group; here, women outnumbered men by a proportion of 53.39% to 46.61%. Women in the Top 10% were slightly older than men (48.76 v 47.91 years) but the difference was not statistically significant.

**Table 9. Top 10% of Casino Gamblers by Gender**

| Gender | % | N | Age | | | |
| | | | Minimum | Maximum | Mean | Standard Deviation |
|---|---|---|---|---|---|---|
| Male | 46.61 | 1,253 | 21.00 | 86.00 | 47.91 | 12.36 |
| Female | 53.39* | 1,435 | 21.00 | 85.90 | 48.76 | 11.34 |

*p*=.003

By region, about 12% of the Top 10% indicated they live outside New Jersey (Table 10). The remaining New Jersey residents in this group (n=2,615) were generally proportionately represented across the regions except for a slight under-representation in the Delaware River region and an over-representation in the Shore region.

**Table 10. Regional Breakdown of Top 10% NJ Gamblers**

| Region | Top 10% Casino Gamblers | | All Casino Gamblers |
|---|---|---|---|
| | % | N | % |
| Greater Atlantic City | 4.17 | 109 | 4.82 |
| Delaware River | 16.37* | 428 | 18.65 |
| Gateway | 43.25 | 1,131 | 42.93 |
| Shore | 21.26* | 556 | 18.59 |
| Skyland | 12.28 | 321 | 12.16 |
| Southern Shore | 2.68 | 70 | 2.85 |

*p*=.002

By gambling activity, the Top 10% of gamblers were significantly overrepresented among casino versus poker and tournament gamblers (Table 11). More than 69% of this group played only casino games, compared to about 43% of all gamblers. However, the rate of those in the Top 10% who played casino and poker games was slightly higher than in the general sample (4.77% vs. 3.69%). The Top 10% were also less likely than the overall sample to participate in all three forms of online gambling: casino, poker and tournament.

**Table 11. Top 10% by Game Types**

| Types | % | N |
|---|---|---|
| Casino only | 69.28 | 2,050 |
| Casino & Poker | 4.77 | 141 |
| Casino & Tournament Poker | 5.27 | 156 |
| All Types | 20.68 | 612 |

The Top 10% gamblers wagered on an average of three different sites, more sites than the average of players in general (Table 12). In addition, they gambled for a mean of 158 betting days – nearly half the year – though some gamblers gambled every day of the year. The maximum wager averaged $181, though the highest amount bet in one day in this group was $36,750. Notably, the average daily bet for this group was only about $4, however, the average yearly

wager was $499,220, with the highest amount spent in a year $78.76 million. These players also placed an average of 160,658 bets per year or 440 bets per day. These findings suggest that further analyses is needed to determine whether a significant proportion of the Top 10% of players, in terms of frequency, betting days and money spent, bet in "binge" patterns, spending huge amounts of money on discrete days and wagering smaller amounts otherwise.

**Table 12. Play Patterns of Top 10 Percent Gamblers**

| Play Patterns | N | Variable | Minimum | Maximum | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Top 10% | 2,959 | # of Sites Wagered | 1.00 | 6.00 | 3.06 | 1.54 |
| | | Total Betting Days | 49 | 364 | 158.07 | 77.99 |
| | | Max wager ($) | 1.00 | 36,750.00 | 180.99 | 939.94 |
| | | Mean Daily wager ($) | 0.09 | 322.62 | 3.96 | 12.52 |
| | | Total Yearly wager ($) | 40,803.44 | 78,756,599.90 | 499,219.85 | 1,946,473.26 |
| | | Total Number of Yearly Bets | 25,381 | 1,464,282 | 160,658.23 | 128,989.65 |

## Time of Day

Since online betting can occur over a 24-hour period, the next series of analyses focused on patterns of play and demographic variables across time of day to investigate preferences among specific demographic groups. As noted earlier, one company omitted gender data so bets cannot be assigned by gender for that proportion of the data.

As indicated in Table 13, the mean wagers by time of day among those playing casino games were largest between 3 a.m. and 6 a.m. ($5.00 per bet), followed by midnight to 3 a.m. ($4.69 per bet) and 6 a.m. to 9 a.m. ($4.31 per bet). Maximum wager, however, was greatest during the 9 a.m. to noon time slot ($36,750) followed by the period from noon to 3 p.m. ($30,150). Overall, online casino gamblers wagered the most from 9 p.m. to midnight ($603 million), followed by midnight to 3 a.m. ($502 million) and 6 to 9 p.m. ($479 million).

**Table 13. Casino Wagers by Time Category**

| Time Category | Max Wager | Mean Wager | Std. of Wager | Sum Wager |
|---|---|---|---|---|
| 6 a.m.–9 a.m. | $20,000.00 | $4.31 | $27.67 | $199,458,045.39 |
| 9 a.m.-12 p.m. | $36,750.00 | $3.89 | $25.56 | $253,402,912.04 |
| 12 p.m.-3 p.m. | $30,150.00 | $3.90 | $25.93 | $323,299,014.06 |
| 3 p.m.-6 p.m. | $20,000.00 | $3.71 | $22.60 | $381,194,157.23 |
| 6 p.m.-9 p.m. | $16,880.00 | $3.41 | $20.16 | $479,169,241.72 |
| 9 p.m.-12 a.m. | $24,407.70 | $3.72 | $22.18 | $603,056,964.89 |
| 12 a.m.-3 a.m. | $17,400.00 | $4.69 | $33.70 | $501,546,989.91 |
| 3 a.m.-6 a.m. | $22,400.00 | $5.00 | $34.29 | $263,437,460.61 |

As noted in Table 14, women and men placed bets in similar proportions across time categories. About 22% of bets by women and 21% of bets by men were placed online between the hours of 9 p.m. and midnight (21.0% male, 21.9% female), followed by 6 p.m. to 9 p.m. (17.8% male, 18.6% female), and 12 a.m. to 3 a.m. (15.1% male, 14.0% female). Only 7% of the total sample gambled between the hours of 3 a.m. and 6 a.m., where men were slightly overrepresented. The period between 6 a.m. and 9 a.m. had the lowest participation rate of 6% for both genders. About one-third of bets (110 million) were placed during traditional work hours, between the hours of 9 a.m. and 6 p.m., with more bets placed by women than men.

**Table 14. Number and Proportion of Bets by Gender and Time of Day**

| Time Category | Male | | Female | | Missing | | Total | |
|---|---|---|---|---|---|---|---|---|
| | # of Bets (mill.) | % of total | # of Bets (mill) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total |
| 6 a.m.–9 a.m. | 20.34 | **6.0** | 21.14 | **6.1** | 12.54 | **4.5** | 41.50 | **6.02** |
| 9 a.m.-12 p.m. | 28.15 | **8.3** | 30.13 | **8.6** | 16.05 | **5.8** | 58.29 | **8.46** |
| 12 p.m.-3 p.m. | 36.24 | **10.7** | 38.36 | **11.0** | 30.65 | **11.1** | 74.63 | **10.83** |
| 3 p.m.-6 p.m. | 45.76 | **13.5** | 46.04 | **13.1** | 32.05 | **11.6** | 91.80 | **13.32** |
| 6 p.m.-9 p.m. | 60.45 | **17.8** | 65.29 | **18.6** | 36.19 | **13.1** | 125.77 | **18.25** |
| 9 p.m.-12 .am. | 71.04 | **21.0** | 76.69 | **21.9** | 70.51 | **25.4** | 147.80 | **21.45** |
| 12 a.m.-3 a.m. | 50.96 | **15.1** | 49.03 | **14.0** | 59.35 | **21.4** | 100.04 | **14.52** |
| 3 a.m.-6 a.m. | 25.84 | **7.6** | 23.49 | **6.7** | 19.60 | **7.1** | 49.35 | **7.16** |
| Total | 338.74 | **100.00** | 350.18 | **100.0** | 277.37 | **100.0** | 689.19 | **100.0** |

Across all age categories, online gamblers placed the largest number of bets between 9 p.m. and midnight, followed by the time periods before (6 p.m. to 9 p.m.) and after (midnight to 3 a.m.), see Table 15. Overall, 45 to 54-year-olds placed the highest number of total bets (208.86 million); nearly 13 million of those bets were made between the hours of 6 a.m. and 9 a.m., the highest proportion of for any age group. Between 9 a.m. and noon, 45 to 54-year-olds once again placed the most bets (17.94 million) but the proportion of their betting during these hours was second to those in the 65 and older category (8.6% of total vs 10.5%); adults 65 and older placed the most bets between 6 p.m. and 9 p.m. (11.88 million), followed by 9 p.m. to midnight. Younger gamblers, ages 21 to 24 and 25 to 34 placed nearly equal proportions of bets across time categories, gambling most frequently between 9 p.m. to midnight, followed by 6 to 9p.m.; however, just over 9% of the bets placed by 25 to 34-year-olds occurred between 3 and 6 a.m., the highest proportion of any age category.

**Table 15. Number and Proportion of Bets by Time of Day and Age Category**

| Time Cat. | 21-24 | | 25-34 | | 35-44 | | 45-54 | | 55-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total |
| 6 a.m.–9 a.m. | 0.85 | **5.2** | 6.24 | **5.9** | 9.14 | **6.1** | 12.99 | **6.2*** | 8.56 | **5.9** | 3.73 | **6.0** |
| 9 a.m.-12p.m. | 1.09 | **6.8** | 8.29 | **7.8** | 11.87 | **7.9** | 17.94 | **8.6** | 12.58 | **8.7** | 6.52 | **10.5*** |
| 12 p.m-3 p.m. | 1.66 | **10.3** | 11.03 | **10.4** | 15.23 | **10.1** | 21.93 | **10.5** | 16.24 | **11.2** | 8.53 | **13.7*** |
| 3 p.m.-6 p.m. | 2.17 | **13.5** | 13.76 | **12.9** | 18.55 | **12.3** | 26.92 | **12.9** | 20.35 | **14.1** | 10.04 | **16.2** |
| 6 p.m.-9 p.m. | 2.77 | **17.2** | 18.18 | **17.1** | 25.70 | **17.1** | 38.82 | **18.6** | 28.43 | **19.6** | 11.88 | **19.1** |
| 9 p.m.-12 a.m. | 3.30 | **20.5** | 21.90 | **20.6** | 33.05 | **21.9** | 46.51 | **22.3** | 31.42 | **21.7** | 11.61 | **18.7** |
| 12 a.m.-3 a.m. | 2.76 | **17.1** | 17.43 | **16.4** | 24.73 | **16.4** | 29.74 | **14.2** | 18.56 | **12.8** | 6.83 | **11.0** |
| 3 a.m.-6 a.m. | 1.52 | **9.4** | 9.52 | **9.0*** | 12.57 | **8.3** | 14.01 | **6.7** | 8.70 | **6.0** | 3.04 | **4.9** |
| Total | 16.13 | **100.0** | 106.35 | **100.0** | 150.84 | **100.0** | 208.86 | **100.0** | 144.84 | **100.0** | 62.18 | **100.0** |

Regionally, online gamblers in the Greater Atlantic City area placed the highest proportion of bets in the overnight hours, from 3 a.m. to 6 a.m. (8.1%) and from 6 a.m. to 9 a.m. (7.7%) as well as from 9 a.m. to noon (10.2%) and noon to 3 p.m. (12.5%); they reported the lowest percentages of online gambling during "traditional" hours of 9 p.m. to midnight (17.9%), though a majority of gamblers in the region gambled during this time (Table 16). From 6 p.m. to 9 p.m., the highest proportion of players came from the Southern Shore (19.1%) and Shore (19.2%) regions; from 9 p.m. to midnight, Skyland and Southern Shore regions (both 22.1%) had the highest percentage of gamblers.

**Table 16. Number and Proportion of Bets by Time of Day and Region**

| Time Cat. | Greater Atlantic City | | Delaware River | | Gateway | | Shore | | Skyland | | Southern Shore | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total | # of Bets (mill.) | % of total |
| 6 a.m.–9 a.m. | 2.24 | **7.7** | 6.61 | **6.0** | 17.17 | **5.9** | 8.94 | **6.3** | 4.50 | **5.6** | 0.92 | **5.3** |
| 9 a.m.-12 p.m. | 2.96 | **10.2** | 8.83 | **8.1** | 23.55 | **8.1** | 12.82 | **8.9** | 7.01 | **8.7** | 1.52 | **8.8** |
| 12 p.m.-3 p.m. | 3.65 | **12.5** | 11.59 | **10.6** | 30.63 | **10.6** | 15.77 | **11.1** | 9.02 | **11.2** | 1.87 | **10.7** |
| 3 p.m.-6 p.m. | 3.82 | **13.1** | 14.41 | **13.2** | 37.91 | **13.1** | 19.36 | **13.6** | 11.31 | **13.9** | 2.44 | **14.1** |
| 6 p.m.-9 p.m. | 4.88 | **16.8** | 20.49 | **18.7** | 51.58 | **17.8** | 27.40 | **19.2** | 14.94 | **18.5** | 3.33 | **19.1** |
| 9 p.m.-12 a.m. | 5.20 | **17.9** | 23.67 | **21.5** | 63.08 | **21.6** | 30.29 | **21.3** | 17.88 | **22.1** | 3.84 | **22.1** |
| 12 a.m.-3 a.m. | 3.99 | **13.7** | 15.77 | **14.4** | 44.69 | **15.4** | 18.98 | **13.3** | 11.06 | **13.6** | 2.39 | **13.8** |
| 3 a.m.-6 a.m. | 2.36 | **8.1** | 8.24 | **7.5** | 21.84 | **7.5** | 8.99 | **6.3** | 5.20 | **6.4** | 1.06 | **6.1** |
| Total | 29.10 | 100.0 | 109.60 | 100.0 | 290.46 | 100.0 | 142.55 | 100.0 | 80.93 | 100.0 | 17.37 | 100.0 |

## Responsible Gaming Features

Across all gaming types (casino, poker, and tournament) a total of 13,422 gamblers used responsible gaming (RG) features during 2014 (Table 17). RG users had a mean age of 41 years, with the youngest age 21 and the oldest, 95 years. Only 5% of those 65 and older and 9% of the youngest age group signed up for one or more RG features. Gamblers ages 25 to 34 had the highest proportion of users (31%), followed by those in the 35 to 44 age group.

**Table 17. RG Feature Users by Age Category**

| Age Category | Use RG Features | |
|---|---|---|
| | **%** | **N** |
| 21-24 | 9.21 | 1,236 |
| 25-34 | 31.15 | 4,181 |
| 35-44 | 23.18 | 3,111 |
| 45-54 | 19.79 | 2,656 |
| 55-64 | 11.42 | 1,533 |
| 65+ | 5.25 | 705 |
| N | 13,422 | |
| Min | 21 | |
| Max | 95 | |
| Mean | 40.17 | |

RG users made up only 14.23% of all gamblers. By gender, however, women were significantly overrepresented (Table 18). Only 23% of online gamblers were women. However, 40% of RG users were women, indicating that 25% of women gamblers used RG features. In contrast, men made up 77% of all online gamblers but just 60% of those who used RG features; therefore, only 14% of men chose any form of limit-setting.

**Table 18. RG Users Versus Non-Users (All Gamblers)**

| | Total | | Male | | Female | | | Breakdown by Gender | |
|---|---|---|---|---|---|---|---|---|---|
| | **%** | **N*** | **%** | **n** | **%** | **n** | | **%** | **n** |
| Use RG | 14.23 | 13,422 | 11.08 | 8,016 | 24.64 | 5,394 | **Male** | 59.72 | 8,016 |
| Don't Use RG | 85.77 | 80,931 | 88.92 | 64,350 | 75.36 | 16,495 | **Female** | 40.19 | 5,394 |

*Gender information was missing for 12 participants.

A majority of those who used RG features were casino players.  In total, 10,421 players who gambled in online casinos signed up for one or more RG feature.  As indicated in Table 19, there were significant differences across all play patterns between those who used and did not use RG features.  Gamblers who engaged in one or more of the RG features bet on an average of two sites, compared to non-RG gamblers who bet on an average of one site.  Similarly, RG gamblers reported nearly five times the number of betting days as non-RG gamblers (55 days versus 13 days per year).  The minimum wager for RG gamblers was smaller than for non-RG, however, the mean maximum wager was more than twice as large ($143.61 v. $50.50). In one year, one RG gambler bet $421,950.67, significantly less than the largest total wager of $78.76 million by one non-RG player.  However, gamblers who chose to use RG features placed more than seven times the total number of bets of those who did not use RG features (36,000 bets to 5,142 bets). Overall, casino players using RG features differed significantly from those not using RG features in all play categories.

**Table 19. Play Patterns of RG and Non-RG Gamblers (Casino only)**

| Play Patterns | RG Gamblers | | | | |
|---|---|---|---|---|---|
| | N | Min. | Max. | Mean | Std. |
| #Sites Wagered | 10,421 | 1.0 | 6.00 | 2.33 | 1.46 |
| Total Betting Days | 10,421 | 1.0 | 364.00 | 54.62 | 72.51 |
| Min. Wager ($) | 10,421 | .01 | 127.50 | 0.41 | 2.67 |
| Max. Wager ($) | 10,421 | .01 | 36,750.00 | 143.61 | 688.32 |
| Mean Daily Wager ($) | 10,421 | .01 | 705.31 | 8.38 | 24.83 |
| Total Yearly Wager ($) | 10,421 | .01 | 421,950.67 | 139,289.25 | 697,860.80 |
| Total Number of Yearly Bets | 10,421 | 1.0 | 1,464,282.00 | 36,000.00 | 80,753.90 |
| **Play Patterns** | **Non-RG Gamblers** | | | | |
| | N | Min | Max | Mean | Std |
| #Sites Wagered | 69,261 | 1.0 | 6.00 | 1.34 | .77 |
| Total Betting Days | 69,261 | 1.0 | 362.00 | 12.88 | 33.15 |
| Min. Wager ($) | 69,261 | .01 | 500.00 | 0.93 | 4.38 |
| Max. Wager ($) | 69,261 | .01 | 30,150.00 | 50.50 | 256.31 |
| Mean Daily Wager ($) | 69,261 | .01 | 1018.12 | 6.04 | 18.60 |
| Total Yearly Wager  ($) | 69,261 | .01 | 78,756,599.90 | 22,422.89 | 358,194.88 |
| Total Number of Yearly Bets | 69,261 | 1.0 | 1,274,994.00 | 5,142.45 | 27,401.95 |

By far the most popular RG feature was self-exclusion. More than 58% (n=8,350) of RG patrons opted for self-exclusion only, followed by deposit limit only 16% (n=1,116), time limit only 6% (n=833), cool-off only 6% (n=814) and loss limit only 2% (n=329). Table 20 provides a breakdown of RG features and combinations of features by frequency and percentage.

**Table 20. RG Feature Preferences of Online Casino Players**

| RG Features | % | N |
|---|---|---|
| Cool-off Only | 5.70 | 814 |
| Deposit Only | 16.41 | 1,116 |
| Loss Only | 2.30 | 329 |
| Time Only | 5.83 | 833 |

| | | |
|---|---|---|
| Self-Exclusion Only* | 58.49 | 8,350 |
| Cool-off & Self-Exclusion | 2.89 | 413 |
| Deposit & Cool-off | 0.94 | 134 |
| Deposit, Cool-off & Self-Exclusion | 1.09 | 156 |
| Deposit & Self-Exclusion | 2.25 | 321 |
| Deposit & Loss | 2.84 | 406 |
| Deposit, Loss & Cool-off | 0.50 | 71 |
| Deposit, Loss, Cool-off & Self-exclusion | 0.97 | 138 |
| Deposit, Loss & Self-Exclusion | 0.88 | 126 |
| Deposit & Time | 0.84 | 120 |
| Deposit, Time & Cool-off | 0.13 | 19 |
| Deposit, Time, Cool-off & Self-exclusion | 0.20 | 29 |
| Deposit, Time & Self-Exclusion | 0.37 | 53 |
| Deposit, Time & Loss | 1.16 | 165 |
| Deposit, Time, Loss & Cool-off | 0.48 | 69 |
| Deposit, Time, Loss, Cool-off & Self-Exclusion | 0.57 | 81 |
| Deposit, Time, Loss & Self-Exclusion | 0.55 | 79 |
| Loss & Cool-off | 0.22 | 32 |
| Loss, Cool-off, & Self-Exclusion | 0.25 | 36 |
| Loss & Self-Exclusion | 0.53 | 75 |
| Time & Cool-off | 0.22 | 32 |
| Time, Cool-off, & Self-Exclusion | 0.20 | 28 |
| Time & Self-Exclusion | 0.66 | 94 |
| Time & Loss | 0.80 | 114 |
| Time, Loss & Cool-off | 0.11 | 16 |
| Time, Loss, Cool-off & Self-Exclusion | 0.06 | 8 |
| Time, Loss & Self-Exclusion | 0.13 | 19 |

*$p=.0001$

By gender, there were significant differences in RG preferences (Table 21). For these analyses, we used only "clean" data for comparison; such data excluded any players who were identified in the data as choosing self-exclusion but went on to gamble, players who chose the same feature multiple times without any play in between selections, and other inconsistencies or omissions in the data that could lead to inaccurate results. Men were significantly more likely than women to choose the cool-off only, deposit only, loss-limit only, and time only options (see Table 21). They were also more likely than women to combine a deposit limit with cool-off, loss and time limits or to combine time and loss limits. In contrast, significantly more women opted to self-exclude only or to self-exclude after using a deposit limit or both a deposit and time limit.

**Table 21. RG Features by Gender**

| RG Type | Male | | Female | | Missing | | Total |
|---|---|---|---|---|---|---|---|
| | % | N | % | N | % | N | N (%) |
| Cool-off Only | 6.41* | 514 | 5.36 | 289 | 0.0 | 0 | 803 (5.98) |
| Deposit Only | 7.45* | 597 | 3.60 | 194 | 0.0 | 0 | 791 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | (5.89) |
| Loss-limit Only | 3.03* | 243 | 0.87 | 47 | 0.0 | 0 | 290 (2.16) |
| Time Only | 6.97* | 559 | 5.01 | 270 | 0.0 | 0 | 829 (6.18) |
| Self-exclusion Only | 53.97 | 4326 | 68.30* | 3684 | 91.67 | 11 | 8021 (59.76) |
| Cool-off & Self-Exclusion | 3.19 | 256 | 2.87 | 155 | 0.0 | 0 | 411 (3.06) |
| Deposit & Cool-off | 1.14* | 91 | 0.72 | 39 | 0.0 | 0 | 130 (0.97) |
| Deposit, Cool-off & Self-exclusion | 1.19 | 95 | 1.09 | 59 | 0.0 | 0 | 154 (1.15) |
| Deposit & Self-exclusion | 2.02 | 162 | 2.78* | 150 | 8.33 | 1 | 313 (2.33) |
| Deposit & Loss | 3.31* | 265 | 1.04 | 56 | 0.0 | 0 | 321 (2.39) |
| Deposit, Loss & Cool-off | 0.66* | 53 | 0.32 | 17 | 0.0 | 0 | 70 (0.52) |
| Deposit, Loss, Cool-off & Self-exclusion | 1.02 | 82 | 1.02 | 55 | 0.0 | 0 | 137 (1.02) |
| Deposit, Loss & Self-exclusion | 0.84 | 67 | 1.06 | 57 | 0.0 | 0 | 124 (0.92) |
| Deposit & Time | 1.09* | 87 | 0.41 | 22 | 0.0 | 0 | 109 (0.81) |
| Deposit, Time & Cool-off | 0.16 | 13 | 0.11 | 6 | 0.0 | 0 | 19 (0.14) |
| Deposit, Time, Cool-off & Self-exclusion | 0.25 | 20 | 0.17 | 9 | 0.0 | 0 | 29 (0.22) |
| Deposit, Time & Self-exclusion | 0.26 | 21 | 0.57* | 31 | 0.0 | 0 | 52 (0.39) |
| Deposit, Time & Loss | 0.26* | 116 | 0.57 | 31 | 0.0 | 0 | 147 (1.10) |
| Deposit, Time, Loss & Cool-off | 0.74* | 59 | 0.19 | 10 | 0.0 | 0 | 69 (0.51) |
| Deposit, Time, Loss, Cool-off & Self-exclusion | 0.52 | 42 | 0.70 | 38 | 0.0 | 0 | 80 (0.60) |
| Deposit, Time, Loss & Self-Exclusion | 0.59 | 47 | 0.56 | 30 | 0.0 | 0 | 77 (0.57) |
| Loss & Cool-off | 0.32 | 26 | 0.11 | 6 | 0.0 | 0 | 32 (0.24) |
| Loss, Cool-off, & Self-exclusion | 0.31 | 25 | 0.20 | 11 | 0.0 | 0 | 36 (0.27) |
| Loss & Self-Exclusion | 0.47 | 38 | 0.63 | 34 | 0.0 | 0 | 72 (0.54) |
| Time & Cool-off | 0.25 | 20 | 0.22 | 12 | 0.0 | 0 | 32 (0.24) |

| RG Feature | % | N | % | N | % | N | Total N (%) |
|---|---|---|---|---|---|---|---|
| Time, Cool-off, & Self-exclusion | 0.25 | 20 | 0.15 | 8 | 0.0 | 0 | 28 (0.21) |
| Time & Self-exclusion | 0.75 | 60 | 0.61 | 33 | 0.0 | 0 | 93 (0.69) |
| Time & Loss | 1.05* | 84 | 0.48 | 26 | 0.0 | 0 | 110 (0.82) |
| Time, Loss & Cool-off | 0.14 | 11 | 0.09 | 5 | 0.0 | 0 | 16 (0.12) |
| Time, Loss, Cool-off & Self-exclusion | 0.06 | 5 | 0.06 | 3 | 0.0 | 0 | 8 (0.06) |
| Time, Loss & Self-exclusion | 0.15 | 12 | 0.13 | 7 | 0.0 | 0 | 19 (0.14) |
| Total N % of gender | 59.72 | 8016 | 40.19 | 5394 | 0.09 | 12 | 13,422 (100.0) |

*p<.01

Cool-off and deposit limits were the most popular RG features among the youngest gamblers, ages 21 to 24. Preferences were similar in the 35 to 44 age category, though this group was most likely to combine deposit and loss limits (Table 22). Adults 55 and older were the most likely to choose self-exclusion as a preferred RG option, suggesting that, similar to gender differences, there could be age-related preferences reflected in these features that could inform efforts to market harm reduction strategies online.

**Table 22. RG Features by Age Category**

| RG Feature | 21-24 N (%) | 25-34 N (%) | 35-44 N (%) | 45-54 N (%) | 55-64 N (%) | 65+ N (%) | Total N (%) |
|---|---|---|---|---|---|---|---|
| Cool-off Only | 97 (7.85)* | 306 (7.32)* | 179 (5.75) | 126 (4.74) | 72 (4.70) | 23 (3.26) | 803 (5.98) |
| Deposit Only | 104 (8.41)* | 334 (7.99)* | 189 (6.08) | 110 (4.14) | 41 (2.67) | 13 (1.84) | 791 (5.89) |
| Loss Only | 57 (4.61) | 124 (2.97) | 60 (1.93) | 37 (1.39) | 8 (0.52) | 4 (0.57) | 290 (2.16) |
| Time Only | 75 (6.07) | 258 (6.17) | 188 (6.04) | 172 (6.48) | 104 (6.78) | 32 (4.54) | 829 (6.18) |
| Self-exclusion Only | 638 (51.62) | 2,179 (52.12) | 1,853 (59.56) | 1,737 (65.40) | 1,080 (70.45)* | 534 (75.74)* | 8,021 (59.76) |
| Cool-off & Self-Exclusion | 33 (2.67) | 158 (3.78) | 91 (2.93) | 71 (2.67) | 41 (2.67) | 17 (2.41) | 411 (3.06) |
| Deposit & Cool-off | 12 (0.97) | 58 (1.39) | 37 (1.19) | 12 (0.45) | 10 (0.65) | 1 (0.14) | 130 (0.97) |
| Deposit, Cool-off & Self-exclusion | 13 (1.05) | 64 (1.53) | 32 (1.03) | 29 (1.09) | 13 (0.85) | 3 (0.43) | 154 (1.15) |
| Deposit & Self-exclusion | 23 (1.86) | 106 (2.54) | 78 (2.51) | 66 (2.48) | 27 (1.76) | 13 (1.84) | 313 (2.33) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Deposit & Loss | 44 (3.56) | 134 (3.20)* | 83 (2.67) | 40 (1.51) | 11 (0.72) | 9 (1.28) | 321 (2.39) |
| Deposit, Loss & Cool-off | 5 (0.40) | 35 (0.84) | 20 (0.64) | 6 (0.23) | 2 (0.13) | 2 (0.28) | 70 (0.52) |
| Deposit, Loss, Cool-off & Self-exclusion | 9 (0.73) | 55 (1.32) | 37 (1.19) | 24 (0.90) | 11 (0.72) | 1 (0.14) | 137 (1.02) |
| Deposit, Loss & Self-exclusion | 8 (0.65) | 40 (0.96) | 26 (0.84) | 37 (1.39) | 10 (0.65) | 3 (0.43) | 124 (0.92) |
| Deposit & Time | 14 (1.13) | 40 (0.96) | 25 (0.80) | 17 (0.64) | 7 (0.46) | 6 (0.85) | 109 (0.81) |
| Deposit, Time & Cool-off | 6 (0.49) | 5 (0.12) | 4 (0.13) | 2 (0.08) | 0 (0.0) | 2 (0.28) | 19 (0.14) |
| Deposit, Time, Cool-off & Self-exclusion | 1 (0.08) | 13 (0.31) | 9 (0.29) | 4 (0.15) | 1 (0.07) | 1 (0.14) | 29 (0.22) |
| Deposit, Time & Self-exclusion | 5 (0.40) | 9 (0.22) | 15 (0.48) | 11 (0.41) | 9 (0.59) | 3 (0.43) | 52 (0.39) |
| Deposit, Time & Loss | 19 (1.54) | 43 (1.03) | 29 (0.93) | 28 (1.05) | 17 (1.11) | 11 (1.56) | 147 (1.10) |
| Deposit, Time, Loss & Cool-off | 10 (0.81) | 29 (0.69) | 16 (0.51) | 11 (0.41) | 2 (0.13) | 1 (0.14) | 69 (0.51) |
| Deposit, Time, Loss, Cool-off & Self-exclusion | 10 (0.81) | 21 (0.50) | 20 (0.64) | 22 (0.83) | 7 (0.46) | 0 (0.0) | 80 (0.60) |
| Deposit, Time, Loss & Self-Exclusion | 5 (0.40) | 25 (0.60) | 18 (0.58) | 13 (0.49) | 11 (0.72) | 5 (0.71) | 77 (0.57) |
| Loss & Cool-off | 4 (0.32) | 19 (0.45) | 6 (0.19) | 1 (0.04) | 2 (0.13) | 0 (0.0) | 32 (0.24) |
| Loss, Cool-off, & Self-exclusion | 2 (0.16) | 16 (0.38) | 6 (0.19) | 7 (0.26) | 5 (0.33) | 0 (0.0) | 36 (0.27) |
| Loss & Self-Exclusion | 8 (0.65) | 19 (0.45) | 20 (0.64) | 16 (0.60) | 8 (0.52) | 1 (0.14) | 72 (0.54) |
| Time & Cool-off | 10 (0.81) | 7 (0.17) | 4 (0.13) | 8 (0.30) | 3 (0.20) | 0 (0.0) | 32 (0.24) |
| Time, Cool-off, & Self-exclusion | 0 (0.0) | 3 (0.07) | 11 (0.35) | 9 (0.34) | 4 (0.26) | 1 (0.14) | 28 (0.21) |
| Time & Self-exclusion | 6 (0.49) | 21 (0.50) | 26 (0.84) | 18 (0.68) | 11 (0.72) | 11 (1.56) | 93 (0.69) |
| Time & Loss | 15 (1.21) | 46 (1.10) | 20 (0.64) | 13 (0.49) | 10 (0.65) | 6 (0.85) | 110 (0.82) |
| Time, Loss & Cool-off | 2 (0.16) | 5 (0.12) | 4 (0.13) | 2 (0.08) | 2 (0.13) | 1 (0.14) | 16 (0.12) |
| Time, Loss, Cool-off & Self-exclusion | 0 (0.0) | 2 (0.05) | 2 (0.06) | 1 (0.04) | 3 (0.20) | 0 (0.0) | 8 (0.06) |

| Time, Loss & Self-exclusion | 1 (0.08) | 7 (0.17) | 3 (0.10) | 6 (0.23) | 1 (0.07) | 1 (0.14) | 19 (0.14) |
|---|---|---|---|---|---|---|---|
| Total N Percentage of RG users across age group | 1,236 9.21% | 4,181 31.15% | 3,111 23.18% | 2,656 19.79% | 1,533 11.42% | 705 5.25% | 13,422 100.00% |

*p<.01

One objective of this study was to begin to analyze the relationship of RG feature usage on betting patterns over time. Due to the size of the data, coding issues, and the number of RG combinations, it is difficult to isolate the effect of RG combinations on play. However, analyzing the use of one feature in a smaller group of gamblers provides informative initial insights.

However, a number of gamblers chose more than one RG feature either together or sequentially over the year. Similarly, a total of 9,654 gamblers accessed self-exclusion either alone or after enacting other RG features. Issues with data coding from some providers made it difficult to isolate self-excluders, because of data that included cool-off, self-exclusion and "self-suspension" instead of just two categories; with other players, there was evidence of continued betting following self-exclusion, which suggested this was a cool-off that was mislabeled. A third difficulty involved repeated attempts to self-exclude by players, suggesting they either changed their mind before completing the process several times or simply continued to engage the feature multiple times.

Due to these issues, Table 23 includes only those players who self-excluded once and used no other RG features prior to self-exclusion. Of this group, nearly 55% were men and 45% were women. Twelve self-excluders were from the platform that did not report gender. Prior to self-excluding, these players played on an average of two sites, though some players gambled on up to six different sites. Gamblers who went on to self-exclude bet a mean of 23 days, ranging from a minimum of less than a day and a maximum of 328 days. Players wagered an average of $83, ranging from .01 to $16,880. The mean daily wager was $6.40 (.01 to $688). Over the course of the year, the average player wagered $44,959 before self-excluding, though totals were highly variable with one player betting over $11.5 million. These amounts corresponded to an average of 13,756 yearly bets, from a low of 1 bet to a high of 630,808 bets over the year.

**Table 23. Play Patterns Prior to Self-Exclusion**

| Play Patterns | N | Variable | Minimum | Maximum | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Before Self-Exclusion | 3742 | # of Sites Wagered | 1.00 | 6.00 | 2.02 | 1.29 |
| | | Total Betting Days | 0.00 | 328.00 | 23.36 | 39.79 |
| | | Min wager ($) | 0.01 | 25.00 | 0.42 | 1.46 |
| | | Max wager ($) | 0.01 | 16,880.00 | 83.43 | 370.09 |
| | | Mean Daily wager ($) | 0.01 | 687.69 | 6.40 | 21.79 |
| | | Total Yearly wager ($) | 0.01 | 11,511,215.85 | 44,959.39 | 260,165.96 |
| | | Total Number of Yearly Bets | 1.00 | 630,808.00 | 13,756.21 | 38,749.85 |

The second most popular RG feature involved setting a limit on deposits. Theoretically, this feature would limit a gambler in a "hot" state of play to a pre-determined spend amount he or she had set in a "cold" state prior to gambling, thus effectively limiting losses from impulsivity or chasing. Analysis of this and subsequent features will divide players into groups. Group 1 consists of those players who only gambled after first engaging the feature: Group two gambled first but did not play afterward; and Group 3 played before and after setting the limit.

Overall, 950 gamblers chose deposit limits as their only RG feature (Table 24). Gamblers in Group 2 (n=198), who gambled first then set gambling limits, gambled on slightly more sites than those in Group 1 (n=154), who set deposit limits first; Group 2 also gambled more than three times as many betting days (37 v. 11), wagered more than three times as much (108,971 v. 34,736) and placed nearly nine times as many bets (24,253 v. 2,723). Similarly, there were statistically significant differences between Group 1 and Group 3 (n=598), the largest group. Those who played before and after setting deposit limits (Group 3) bet on more gambling sites, gambled on more than twice as many days (27 v. 11), wagered significantly more money per day on average ($805 v. $199), wagered more than twice as much money per year ($80,407 v. $34,737) , and placed more than five times as many bets as Group 1
(15,037 v. 2,723).

**Table 24. Play Patterns by Group for Deposit Limit Only**

| Play Patterns | N (%) | Variable | Minimum | Maximum | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Group 1: Only Played **After** Set up | 154 (16.21) | # Sites Wagered* | 1.00 | 4.00 | 1.34 | 0.65 |
| | | Total Betting Days* | 1.00 | 169.00 | 10.79 | 24.30 |
| | | Max wager ($) | 0.01 | 2,000.00 | 71.30 | 187.94 |
| | | Mean Daily wager ($) | 0.01 | 198.70 | 10.46 | 24.94 |
| | | Total Yearly wager ($)* | 0.02 | 3,804,480.70 | 34,736.78 | 307,567.59 |
| | | Total Number of Yearly Bets* | 1.00 | 146,953.00 | 2,722.56 | 14,270.24 |
| Group 2: Only Played **Before** Set up | 198 (20.84) | # Sites Wagered | 1.00 | 6.00 | 1.68 | 1.20 |
| | | Total Betting Days | 1.00 | 349.00 | 36.58 | 64.40 |
| | | Max wager ($) | 0.01 | 4,000.00 | 105.30 | 351.82 |
| | | Mean Daily wager ($) | 0.01 | 641.21 | 11.36 | 47.74 |
| | | Total Yearly wager ($) | 0.01 | 7,733,666.79 | 108,971.45 | 573,123.98 |
| | | Total Number of Yearly Bets | 1.00 | 587,235.00 | 24,253.18 | 62,264.12 |
| Group 3: Played **Before and After** Set up | 598 (62.95) | # Sites Wagered | 1.00 | 6.00 | 1.83 | 1.16 |
| | | Total Betting Days | 1.00 | 318.00 | 27.48 | 45.97 |
| | | Max wager ($) | 0.20 | 5,000.00 | 102.20 | 319.51 |
| | | Mean Daily wager ($) | 0.09 | 805.38 | 11.19 | 39.87 |
| | | Total Yearly wager ($) | 0.40 | 4,851,122.00 | 80,407.78 | 363,091.14 |
| | | Total Number of Yearly Bets | 1.00 | 626,137.00 | 15,037.31 | 452,503.40 |

*Group 1 v. Group 2 significant for: Total Number of Sites Wagered (p=.036), Total Betting Days (p=.0001), Total Yearly Wager (p=.0007), Total Number of Yearly Bets (p=.0001)

**Group 1 v Group 3 significant for: Number of Sites Wagered (p=.0001), Total Betting Days (p=.0001), Total Yearly Wager (p=.0001), Total Number of Yearly Bets (p=.0001).

A total of 612 players chose to limit the time they spent gambling as their only feature (Table 25). Players in Groups 2 (n=96), who only bet before enacting the limit, and Group 3 (n=302), who wagered before and after setting a time limit, gambled on average of twice as many sites as those in Group 1 (n=214), who only played after setting up the time limit feature. In addition, the average wager for Group 2 ($147) and Group 3 ($174) was about three times the average wager for Group 1($57). The differences between Group 1 and the other groups were most apparent in comparisons of the average total yearly wager, which was $26,426 for Group 1 but $16,076 and $136,487 for Groups 2 and 3, respectively. Similarly, Group 1 made only, on average, 8,289 bets annually, compared to 44,683 for Group 2 and 26,678 for Group 3.

**Table 25. Play Patterns by Group for Time Limit Only**

| Play Patterns | N (%) | Variable | Min. | Max. | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Group 1: Only Played **After** Set up | 214 (34.97) | # Sites Wagered* | 1.00 | 5.00 | 1.47 | 0.87 |
| | | Total Betting Days* | 1.00 | 324.00 | 17.40 | 44.55 |
| | | Max wager ($)* | 0.80 | 2,400.00 | 56.86 | 178.88 |
| | | Mean Daily wager ($) | 0.17 | 196.45 | 7.27 | 19.63 |
| | | Total Yearly wager ($)* | 1.35 | 1,453,097.42 | 26,426.24 | 120,482.21 |
| | | Total Number of Yearly Bets* | 1.00 | 324,617.00 | 8,288.63 | 34,741.14 |
| Group 2: Only Played **Before** Set up | 96 (15.69) | # Sites Wagered | 1.00 | 6.00 | 2.34 | 1.51 |
| | | Total Betting Days | 1.00 | 332.00 | 62.07 | 84.34 |
| | | Max wager ($) | 0.60 | 1,500.00 | 147.47 | 273.66 |
| | | Mean Daily wager ($) | 0.26 | 58.80 | 6.63 | 10.84 |
| | | Total Yearly wager ($) | 5.00 | 2,665,506.69 | 163,076.10 | 357,244.25 |
| | | Total Number of Yearly Bets | 2.00 | 514,398.00 | 44,682.80 | 84,981.01 |
| Group 3: Played **Before and After** Set up | 302 49.35 | # Sites Wagered | 1.00 | 6.00 | 2.26 | 1.37 |
| | | Total Betting Days | 1.00 | 279.00 | 38.83 | 58.69 |
| | | Max wager ($) | 0.05 | 11,461.90 | 173.88 | 735.04 |
| | | Mean Daily wager ($) | 0.05 | 421.28 | 10.71 | 30.61 |
| | | Total Yearly wager ($) | 0.06 | 7,454,036.25 | 136,486.56 | 545,600.34 |
| | | Total Number of Yearly Bets | 1.00 | 480,615.00 | 26,677.72 | 61,513.04 |

*After v Before significant for: Number of sites wagered (.0001), Maximum Wager (.0008), Total Yearly Wager (.0001), Total Number of Yearly Bets (.0001).

**After v Before and After significant for: Number of sites wagered (.0001), Maximum Wager, (.0009), Total Yearly Wager (.0001), total Number of Yearly Bets (.0001)

Patterns of play for the cool-off group (N=689) differed from those for the other features (Table 26). Players in Group 1, who set cool-off first before they played, bet on more days on average than either Group 2 or 3. Group 1 also averaged more yearly bets in a year than either of the other groups. On average, maximum wager for Group 1 ($118) was slightly higher than for Group 2 ($102) but significantly lower than that Group 3 ($172). Over the year, players in Group 2 wagered the least on average, $66,303, followed by Group 1, $72,871; however, gamblers in Group 3 averaged $125,110 in annual wagers, with a maximum total wager of $4.76 million.

**Table 26. Play Patterns by Group for Cool-Off Only**

| Play Patterns | N (%) | Variable | Minimum | Maximum | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Group 1: Only Played **After** Set-up | 134 (19.24) | # Sites Wagered* | 1.00 | 5.00 | 2.05 | 1.25 |
| | | Total Betting Days* | 1.00 | 306.00 | 46.56 | 60.93 |
| | | Max wager ($)* | 0.45 | 2,500.00 | 117.99 | 263.71 |
| | | Mean Daily wager ($) | 0.29 | 145.05 | 7.42 | 15.26 |
| | | Total Yearly wager ($)* | 10.00 | 2,820,343.01 | 72,870.57 | 258,503.73 |
| | | Total Number of Yearly Bets* | 8.00 | 405,515.00 | 24,472.88 | 5,4067.23 |
| Group 2: Only Played **Before** Set-up | 243 (35.27) | # Sites Wagered | 1.00 | 6.00 | 1.74 | 1.20 |
| | | Total Betting Days | 1.00 | 273.00 | 24.79 | 44.26 |
| | | Max wager ($) | 0.30 | 2,500.00 | 101.78 | 249.52 |
| | | Mean Daily wager ($) | 0.16 | 232.76 | 9.40 | 23.41 |
| | | Total Yearly wager ($) | 0.70 | 2,146,104.42 | 66,303.97 | 215,666.37 |
| | | Total Number of Yearly Bets | 1.00 | 348,845.00 | 14,873.81 | 38,586.37 |
| Group 3: Played **Before** and **After** Set-up | 312 (45.28) | # Sites Wagered | 1.00 | 6.00 | 2.17 | 1.34 |
| | | Total Betting Days | 1.00 | 330.00 | 31.91 | 50.16 |
| | | Max wager ($) | 0.30 | 3,500.00 | 171.57 | 432.07 |
| | | Mean Daily wager ($) | 0.20 | 252.52 | 15.07 | 33.11 |
| | | Total Yearly wager ($) | 0.30 | 4,755,304.48 | 125,109.88 | 435,342.97 |
| | | Total Number of Yearly Bets | 1.00 | 821,942.00 | 20,991.86 | 67,372.26 |

*Before v After significant for: #Sites Wagered (.03), Total Betting Days (.0001), Maximum Wager (.013), Total Yearly Wager, (.006), total # yearly bets(.005).

** Before v Before and After significant for: Maximum Wager (.046), Total Yearly Wager (.021).

Of the 486 players who set a loss limit, those in Group 1 played on an average of one site, in contrast to Groups 2 and 3 who averaged two sites each (Table 27). Group 2 (35 days) and Group 3 (37 days) also bet three times the number of days compared to Group 1 (13 days). The average maximum wager for players in Group 1 was $90; however, the wagers of Groups 2 and 3 were significantly higher – $132 and $204, respectively. This disparity is reflected in the average total wager for the year: Group 1 wagered $59,561 annually compared to $109,826 for Group 3 and $145,528 for Group 2. It is also reflected in the average of total yearly bets, with Group 1 placing an average of 4,551 bets, compared to 17,683 for Group 2 and 20,578 for Group 3.

**Table 27. Play Patterns by Group for Loss Limit Only**

| Play Pattern Groupings | N (%) | Variable | Minimum | Maximum | Mean | Std Dev |
|---|---|---|---|---|---|---|
| Group 1: Only Played **After** Set up | 108 (22.22) | # Sites Wagered** *** | 1.00 | 5.00 | 1.42 | 0.79 |
| | | Total Betting Days* ** *** | 1.00 | 148.00 | 12.75 | 25.87 |
| | | Max wager ($)** | 0.01 | 2,000.00 | 89.65 | 256.49 |
| | | Mean Daily wager ($) | 0.01 | 198.70 | 11.45 | 25.95 |
| | | Total Yearly wager ($)* ** | 0.02 | 3,804,480.70 | 59,560.54 | 381,466.67 |
| | | Total Number of Yearly Bets* | 1.00 | 146,953.00 | 4,551.48 | 16,531.08 |
| Group 2: Only Played **Before** Set up | 65 (13.37) | # Sites Wagered | 1.00 | 5.00 | 1.78 | 1.10 |
| | | Total Betting Days | 1.00 | 221.00 | 35.43 | 54.14 |
| | | Max wager ($) | 0.60 | 1,500.00 | 131.65 | 268.24 |
| | | Mean Daily wager ($) | 0.24 | 118.60 | 12.46 | 21.25 |
| | | Total Yearly wager ($) | 13.20 | 2,201,683.21 | 145,528.41 | 425,488.03 |
| | | Total Number of Yearly Bets | 2.00 | 203,248.00 | 17,682.51 | 38,748.76 |
| Group 3: Played **Before and After** Set up | 313 (64.40) | # Sites Wagered | 1.00 | 6.00 | 2.39 | 1.43 |
| | | Total Betting Days | 1.00 | 277.00 | 36.80 | 47.10 |
| | | Max wager ($) | 0.20 | 15,029.00 | 203.95 | 1,082.74 |
| | | Mean Daily wager ($) | 0.20 | 293.58 | 9.52 | 21.17 |
| | | Total Yearly wager ($) | 0.20 | 4,874,665.31 | 109,825.50 | 357,487.39 |
| | | Total Number of Yearly Bets | 1.00 | 424,069.00 | 20,577.90 | 44,203.75 |

*After v Before significant for: Total Betting Days (.007), Total Yearly Wager (.006), Total Number of Yearly Bets (.042)

**After v Before and After significant for: Number of Sites Wagered (.0001), Total Betting Days (.0001), Maximum Wager (.0004), Total Yearly Wager (.0001), Total Number of Yearly Bets (.0001)

***Before v Before and After significant for: Number of Sites Wagered (.004), Total Betting Days (.03), Total Number of Yearly Bets (.009)

# Summary and Recommendations

## Summary

This report provides a quantitative summary of demographic variables and play patterns of online gamblers in New Jersey and the use of RG features.  In combination with the prevalence survey, it should help inform improvements to responsible gaming features that will promote informed choice and reductions in harm that can result from problematic levels of play.

Online gamblers in New Jersey tend to be younger than traditional land-based gamblers, and predominantly male, outnumbering women by a ratio of 3:1.  These findings are consistent with results from the recent New Jersey prevalence survey, which identified a bell curve configuration based on age; the youngest and oldest age groups are underrepresented among online gamblers, and a majority of gamblers are ages 25 to 44.  One in five players gambled across all three platforms – casino, poker and tournaments.  However, casino gamblers made up nearly half the sample, followed by those who played both poker and tournaments.

Among those who met our "Top 10%" criteria – high frequency, expenditure, bet size and number of bets – the average age was slightly older, and women made up slightly more than half the subgroup. This is likely due to play on gaming machines on casino sites, which are historically correlated with higher expenditures; future analyses should include play by game type, which is not currently identified in the data.  Exploring the betting patterns of these and other groups of women will provide vital information to reducing harm among this population, which has traditionally been understudied.

The Top 10% gambled on more sites than the average gambler and bet nearly half the year. Their average maximum wager was modest, however, the patterns suggest that these players gambled frequently and placed a high number of bets per session.  While average daily wager was within range of other online gamblers, there was significantly higher variability in the amounts wagered in this group. Further analyses is needed to determine whether this group is homogeneous in its play patterns or whether there are sub-groups of players who either bet very large amounts of money in "binge" patterns or wager lower amounts at a faster pace than the average gambler. In the future, it will also be important to evaluate play patterns of this and other groups based on median rather than mean bet size, as extremely large wagers can skew the mean and analyses.

The New Jersey prevalence study found that a majority of online gamblers are employed, and a notable proportion gamble at work.  That finding is potentially supported by analyses here by time of day. Online gamblers in this sample were most likely to wager between 9 p.m. and 3 a.m., though the maximum wager was greatest from 9 a.m. to noon. Across all age categories, online gamblers placed the largest number of bets between 9 p.m. and midnight, followed by 6 p.m. to 9 p.m. The

period between 6 a.m. and 9 a.m. had the lowest participation rate, with players ages 45 to 54 placing the highest number of bets in the morning hours.  About one-third of bets were placed during traditional work hours, between 9 a.m. and 6 p.m., with more bets placed by women than men. These findings, combined with those in the prevalence study, serve as a cautionary tale to employers that restrictions may be needed to guard against online gambling during the work day.

The final set of analyses in this report were focused on play patterns of those who accessed RG features.  About 14% of gamblers with full data and demographics available for analysis used some form of RG feature; a majority of those were players on casino sites. Users were predominately in the 25 to 44 age range, which proportionately corresponds to the overall player demographics. Player patterns indicate that gamblers choosing RG features bet more frequently but wagered less than those who did not use RG features. By far the most popular feature was self-exclusion, with half of all RG users opting at some point to self-exclude.  Setting deposit limits was the second most popular feature, followed by time limit, cool-off, and loss limits.  Women clearly preferred self-exclusion, while men were more likely to choose other options or combinations of features. Younger gamblers typically opted for cool-off and deposit limits, while older adults often chose self-exclusion.  These findings suggest that providing a variety of RG features empowers individual gamblers to select the feature or combination of features that work best at reducing expenditures. The use of multiple combinations also suggests that the DGE has chosen an appropriate and useful range of offerings for players.

The most patronized RG feature was self-exclusion.  An analysis of play patterns before self-exclusion in a group that only used that feature indicated that self-exclusion was slightly more popular among men but was also utilized by a significant proportion of women. The data reported that players in this group had highly variable wagering patterns that bear more study.  The average player gambled for 23 days a year but some players gambled over 300 days.  Average wagers were around $83 but one gambler placed a $16,880 bet.  Similarly, the average self-excluder bet nearly $45,000 in a year but one player bet over $11.5 million. Future analyses will focus on sub-groups of play patterns within self-excluders.  However, from the existing data, it is reasonable to suggest that self-exclusion is viewed by a diverse population of players as an optimal strategy for arresting different patterns of play which may prove problematic to some individuals but not to others.

The remainder of the features were grouped according to three pervasive and distinct play patterns: Group 1 players opted to set the RG features before play, presumably as a harm-reduction strategy. Group 2 set the RG features only after gambling then ceased gambling altogether.  Group 3 gambled before and after selecting the RG feature. For all limits besides cool-off (deposit, time, loss), those who set limits before playing (Group 1) bet significantly fewer days, placed fewer bets, and wagered less in a year than those who either quit gambling after playing and setting limits (Group 2) or gambled before and after setting limits (Group 3).  In contrast, those who bet before and after setting limits tended to have the highest average wagers and bets, but it is unknown what

proportion of those totals occurred before versus after limit setting. Further analysis will assess the patterns and bets before and after setting the feature, as well as changes in features like deposit and time, to better understand the effect of the features on play in this group.

Patterns of play for the cool-off group proved different. A small proportion of players set the cool-off before playing (Group 1). That meant that they had to wait at least 72 hours before playing for the first time. Those players ultimately bet more days and averaged more wagers than the other groups. It is possible that Group 1 players may have set the feature in error before gambling and continued without using RG features once that period had passed. Consistent with findings for other features, the group that gambled before and after setting cool-off (Group 3) gambled twice as many days and wagered considerably more per year than the other groups. Group 2 – the group that ceased gambling after setting cool-off – had the lowest totals. It will be important to further evaluate this group to find out what proportion used cool-off as a gateway to self-exclusion, in combination with other features, or as a sole RG feature that led to discontinuance in play.

## Recommendations

The most encouraging findings from this analysis is the apparent efficacy of the limit-setting tools prescribed by the DGE for those players who used them before gambling. Those players had the most modest play patterns of any group and averaged lower bet amounts even when placing a higher number of bets. The range of options available to the player appear sufficient to allow individual players to customize combinations of options to suit their play preferences.

In last year's report, we highlighted that RG features are inconsistent across sites and difficult to access and understand. Players are provided no formal introduction to features with the option of trying one or several at sign up. In addition, RG lacks uniform branding, outreach and marketing to ensure all players are aware of the array of features available. We reiterate by reference those detailed recommendations here. Currently, only 15% of players we analyzed utilized one or more of the features. Improving education, access, consistency, and branding might greatly increase that percentage.

We would also recommend that RG be included as part of registration for a player account and for continued usage for existing players. It is common and accepted for websites like Facebook, Amazon, and PayPal to utilize opt-out screens for marketing, privacy and security features that permit users to set limits on access and distribution. It would, therefore, be reasonable to provide information on RG features and the opportunity for individuals to set or opt-out of limit-setting prior to play across websites. Doing so would likely increase the number of players who try various features and would also ensure they are fully informed about the range of options. Based on the data, encouraging limit setting at sign-up should prove to be a useful tool in limiting expenditures to recreational levels.

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