Assessing the Massachusetts Gaming Commission PlayMyWay Play Management System

A report to the Massachusetts Gaming Commission
by the Division on Addiction, Cambridge Health Alliance
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Executive Summary

During June 2016, the Massachusetts Gaming Commission launched the PlayMyWay play management system at the Plainridge Park Casino in Plainville, Massachusetts. PlayMyWay is an opt-in software system that allows electronic gaming machine users to self-select daily, weekly, and/or monthly gambling spending budgets for which the system will send budget notifications (i.e., alerts) as they approach, reach, or exceed those budgets. Users also can check their gambling spending using a play tracking function.

As with the Massachusetts Gaming Commission's other responsible gambling efforts, GameSense and Voluntary Self-exclusion, PlayMyWay has been the subject of a comprehensive research agenda. A preliminary report used electronically recorded gambling (e.g., amounts wagered) and system (e.g., delivered budget notifications) records to describe the initial use patterns of PlayMyWay and provide a first look at how use of PlayMyWay related to gambling activity. This preliminary report indicated that PlayMyWay enrollment occurred among a minority of eligible users, but enrollment mostly was stable over time. PlayMyWay enrollment was associated with less gambling activity (i.e., wagering, accumulated losses, casino visitation). Un-enrollment occurred infrequently, but it was associated with the receipt of budget notifications. Most who did un-enroll did so soon after enrollment. Budgets mostly were stable, but changes tended to be upward and were associated with the receipt of budget notifications. About half of people who used PlayMyWay ever approached their budgets. Approximately 64% of those who received a notification of approaching a budget limit also exceeded that limit.

Although informative, the preliminary report identified a number of important limitations that precluded forming a confident position regarding the effectiveness of PlayMyWay. First, we completed the report in the absence of measurable and specific Massachusetts Gaming Commission program goals. Second, data limitations prevented us from linking users' PlayMyWay system records to their gambling records. We also observed and documented several instances of missing data, redundant data, and other severe data issues. These inconsistencies introduced uncertainty into our calculations and weakened our general confidence in the provided data. Third, the use of electronically recorded records of players' gambling and system activity could not inform us about their motivations, user experiences and more, which are essential to understanding the value of PlayMyWay.

Current Strategy

To address the aforementioned issues, we engaged in three primary activities during the current project period: (1) establishing evidence-informed PlayMyWay goals and specific aims; (2) engaging in a PlayMyWay system and data review; and, (3) conducting a PlayMyWay player survey.

To establish evidence-informed PlayMyWay goals and specific aims, we developed and distributed a brief survey to the Massachusetts Gaming Commission. The survey focused on key observations identified in the preliminary report and areas of inquiry identified as important during communications with the Massachusetts Gaming Commission. Questions targeted Massachusetts Gaming Commission priorities related to program enrollment (e.g., enrollment rates, un-enrollment rates), participant demographics (e.g., age, gender), program impacts (e.g., visitation, gambling activity), and program use (e.g., budget types, sizes, and responses to notifications). Further details are available in Section 2.

To engage in a PlayMyWay system and data review, we worked extensively with the Massachusetts Gaming Commission, Scientific Games (i.e., the developer of PlayMyWay), and Plainridge Park Casino to create an improved data experience, specifically focusing upon obtaining linked data. This work resulted in data deliveries on February 28, 2018 and March 1, 2018 for the current report. As we describe in more detail in Section 3, this allowed us to assess the available data in new ways. In doing so, we identified a mismatch between the number of budget-based anticipated notifications and records of delivered notifications in the PlayMyWay system. We could not determine whether the mismatch was due to PlayMyWay system malfunctions (e.g., failure to send a notification or sending a notification at the wrong time), PlayMyWay database malfunctions (e.g., failing to record a notification or recording notifications that did not actually occur), or some other malfunction (e.g., faulty data abstraction logic). Given the extent of data discrepancies and data anomalies we discovered, we could not proceed with formal data analyses. Instead, we provide a detailed summary of the observed discrepancies, a summary of analyses we completed to try to identify a source of the discrepancies, and suggestions for additional possibilities to explore in future research.

To conduct a player survey, we coordinated with the Massachusetts Gaming Commission and Plainridge Park Casino. More specifically, we completed an electronic survey with 1,951 Plainridge Park Casino patrons who participate in the Marquee Rewards loyalty program. Our goals for this survey were to examine Plainridge Park Casino patrons' usage of, and attitudes toward, the PlayMyWay system. More specifically, our survey addressed questions related to (1) responsible gambling, (2) PlayMyWay use and other experiences, (3) gambling behavior, and (4) demographics. In addition to general analyses, we completed four sets of comparative analyses. Each set corresponds to a different criterion for grouping the survey participants: (1) current PlayMyway enrollment status (i.e., enrolled, un-enrolled); (2) general PlayMyWay enrollment status (i.e., enrolled, un-enrolled, never heard of PlayMyWay, not interested in PlayMyWay); (3) risk of a gambling-related problem (i.e., Brief Biosocial Gambling Screen outcomes: BBGS positive, BBGS negative); and (4) depth of gambling involvement (i.e., casual, frequent, intensive). We report selected results and recommendations below. Additional results are available in Section 4 of the main report.

Summary & Recommendations

This report provides new information regarding the Massachusetts Gaming Commission PlayMyWay software system, completed in coordination with the Massachusetts Gaming Commission, Plainridge Park Casino, and Scientific Games. With respect to programmatic goals, we believe that the current effort provides a map to guide additional program development and future research. We recommend that the Massachusetts Gaming Commission re-visit their identified goals annually to update and expand them as necessary. Whenever possible, the Massachusetts Gaming Commission should strive to identify concrete measurable goals for key aspects of the program, such as enrollment, retention, budget compliance, responses to notifications, and system experiences. The Massachusetts Gaming Commission does not currently have goals for all identified pertinent questions (e.g., PlayMyWay retention rates; see Section 2.1). Also, some identified goals might not be measurable as constructed (e.g., whether PlayMyWay use "matches [preferences based on] personal and family health"; see Section 2.3.3). Therefore, the Massachusetts Gaming Commission should seek to advance their aims that remain undefined or unmeasurable.

With respect to assessing the PlayMyWay system from a records-based perspective, we identified important unexplained data discrepancies that prevented us from using the available data for research purposes. One example was a significant group of discrepancies between users' notifications generated in

the Play Management Activity files and users' notifications that we imputed from the Gambling Activity Files for PlayMyWay users. As an example, among the 2,479 users who set a daily budget and had notifications in both the Play Management Activity file and the Gambling Activity file for PlayMyWay users, only 8.4% had an exact match in the number of notifications. As part of our work, we evaluated some promising potential explanations (i.e., data issues) for the observed discrepancies (e.g., time periods where we had no evidence that the PlayMyWay system was actively monitoring participants' spending in real time as it was designed to), but none of the explanations that we identified adequately accounted for the discrepancies. During our time on this project, we discussed these issues with the Massachusetts Gaming Commission, the Massachusetts Gaming Commission Research Review Committee (RRC), and Plainridge Park Casino. We identified some additional areas for exploration that the Massachusetts Gaming Commission should pursue in future work. We recommend that the Massachusetts Gaming Commission consider developing an RFP to support a specific system/data quality evaluation – distinct from the type of evaluation with which we were tasked (i.e., the effectiveness and usability of the PlayMyWay system for helping users gamble responsibly). Such a system evaluation can pursue the additional areas we collectively identified, as well as examine whether the discrepancies are related to PlayMyWay system malfunctions (e.g., failure to send a notification or sending a notification at the wrong time) or PlayMyWay database malfunctions (e.g., failing to record a notification or recording notifications that did not actually occur), or some other malfunction (e.g., faulty data abstraction logic). We recommend that after they identify and solve the data issues, including conducting a system field test that ensures proper functioning during high traffic periods, the Massachusetts Gaming Commission follow up by developing protocols to support continued data acquisition and quality control.

We also recommend additional lines of research to study and potentially improve PlayMyWay. First, we recommend randomized clinical trials to assess whether PlayMyWay causes changes in gambling behavior. Second, we recommend a cost-benefit analysis to determine if the benefits of offering and further developing the program outweigh its costs. Third, we recommend analyses that link users' actual playing records to their self-reported descriptions of their gambling behavior, to provide more accurate pictures of any relationships between patrons' playing tendencies and any experiences they have with PlayMyWay.

With respect to how PlayMyWay users and non-users engage the system, or not, we point to a few key player survey observations that might provide actionable information for program improvements. Although this online survey had a generally low response rate, which limits our ability to generalize findings to the broader population of Plainridge Park Casino gamblers and this research did not involve randomization to condition, these associative findings provide important information for future work and program improvements.

First, most users heard about PlayMyWay by observing a message on a gambling machine. Other important means of reaching gamblers included signage, GameSense Advisors, and Plainridge Park Casino employees. To increase the value of all these points of contact, the Massachusetts Gaming Commission might want to consider expanding PlayMyWay awareness training and initiatives among these secondary sources and simultaneously enhancing or adjusting its on-machine messaging.

Second, most users reported that they enrolled in PlayMyWay due to curiosity. Although it might be tempting to pursue enrollment initiatives that capitalize on individuals' innate curiosity, it is important to point out that current enrollees were more likely than un-enrollees to have enrolled because they wanted a way to keep track of gambling. This might suggest that curiosity motivations hold limited association

with user retention. Highlighting the tracking features in messaging and signage related to PlayMyWay might stimulate longer term enrollment.

Third, most survey participants who un-enrolled from PlayMyWay said that they did so due to privacy concerns. The nature of PlayMyWay compromises privacy to some extent, as enrollment-related processes and notifications currently are public (i.e., presented on screens at gambling machines or kiosks). Providing remote enrollment options or messaging options (e.g., through a smart phone app) and strengthening rules that provide users confidence that the system will not monitor without consent might relieve concerns about privacy.

Fourth, most survey participants never enrolled because they never heard of PlayMyWay. This suggests the need for additional awareness campaigns and enrollment initiatives. Food vouchers appear to be a main source for stimulating enrollment, and additional external motivators might be worth pursuing.

Fifth, players who did not enroll in PlayMyWay, despite knowing about it, said they did so typically because they believe that they *did not need reminders and warnings about gambling*. This suggests a need for more awareness campaigns that highlight the self-tracking feature of PlayMyWay, with an emphasis on the idea that self-tracking is for everyone, not just people who might have problems.

Sixth, reasons for never enrolling were more common with some groups than with others. BBGS positive participants never enrolled because they *would rather play without PlayMyWay monitoring*, they believed that *reminders and warnings make gambling less fun*, and they were *embarrassed to enroll in PlayMyWay*. Conversely, more BBGS negative participants responded that they *don't need reminders and warnings about their gambling* and that they *don't have a problem with gambling* as reasons for not enrolling. Casual gambler participants were more likely than frequent or intensive gambler participants to have never heard of PlayMyWay, and more likely not to enroll because they *don't have a problem with gambling*. This suggest the possibility that different advertising or messaging schemes can be used to attract different sections of the Plainridge Park Casino customer base.

Seventh, most participants seemed to pay limited attention to notifications (i.e., reported continued gambling despite receiving reached and exceeding notifications). This suggests that overall, PlayMyWay users are not using the system to help them stop gambling according to self-identified budgets. However, current enrollees were more likely to do so than un-enrollees, as were those who were BBGS negative and casual gamblers. This suggests that the budget compliance component of PlayMyWay is important to some individuals, especially those who seem to gamble responsibly. Future research might want to focus on this observation and attempt to understand why the budget compliance component of the PlayMyWay system is heeded so infrequently.

Eighth, a plurality of participants reported that they felt annoyed by all three notification types; however, meaningful numbers of participants also reported feeling grateful and satisfied. Un-enrolled participants were more likely to say they felt annoyed and pestered and enrolled users that they felt grateful and satisfied. Likewise, BBGS negative participants felt grateful, but BBGS positive players felt annoyed, worried, and guilty. Although depth of involvement was not consistently related, the negative impressions of those at risk for gambling-related problems and those who opted out of PlayMyWay after trying it suggest that there might be room for improvement with respect to the design of notifications and their frequency. Future development might start with a specific RFP designed to support research towards maximizing notifications' ability to support budget compliance in a way that is satisfying and rewarding.

Ninth, PlayMyWay-using participants generally found the PlayMyWay system easy to use, though current enrollees found it easier than un-enrollees, as did participants who were BBGS negative compared with those who were BBGS positive. Because of these system usability findings, we recommend avoiding adding any overly complicated features and instead strengthening those that currently exist. To accomplish this, the Massachusetts Gaming Commission should consider engaging in offline development activities to identify the most valuable new features and testing those features in a limited field environment before widescale release at Plainridge Park Casino and beyond.

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Table of Contents

Table of Tables

Table of Figures

List of Tables Found in Appendix 7.6

List of Tables Found in Appendix 7.7

List of Tables Found in Appendix 7.8

1. Introduction

1.1 Purpose

The legislation that expanded legalized gambling in the Commonwealth of Massachusetts ("An Act Establishing Expanded Gaming in the Commonwealth," 2011) included a number of responsible gambling and public health requirements. In fulfillment of such requirements, the Massachusetts Gaming Commission (MGC) developed and implemented three foundational programs: (1) the GameSense responsible gambling information center; (2) the Voluntary Self-exclusion program; and (3) the PlayMyWay play management[1] software for electronic gaming machines. According to the MGC, PlayMyWay is an "innovative budgeting tool designed to allow customers the ability to monitor the amount of money they spend on electronic gaming machines, and to inform their decision to continue or stop play" (Massachusetts Gaming Commission, 2017). In brief, users can elect to self-select daily, weekly, and/or monthly gambling budgets for which the system will send notifications as they approach, reach, or exceed those budgets. Users also can check their gambling spending using a play tracking function. PlayMyWay was the first such system used in a casino setting in the United States.

This report pertains to the evaluation of the PlayMyWay play management system in Massachusetts and follows a preliminary report that described the initial use patterns of PlayMyWay and provided the first look at how use of PlayMyWay relates to actual gambling activity (Tom, Singh, Edson, LaPlante, & Shaffer, 2017). The current report is part of a multi-year research and development agenda. As described in detail below, it provides a close look at the PlayMyWay system, including the evidence-based establishment of system goals, a detailed examination of the PlayMyWay system and data characteristics, as well as outcomes from a player survey.

1.2 The Science of Play Management

Play management can take a number of forms (e.g., voluntary enrollment versus mandatory enrollment), utilize different specifications (e.g., hard limit stop versus soft limit stop), and have different goals (e.g., reducing risky gambling behavior versus information provision to increase awareness) (Ladouceur, Blaszczynski, & Lalande, 2012). Play management systems often facilitate time and spending budget limits, but also might include jackpot limits (e.g., Rockloff, Donaldson, & Browne, 2015) and potentially other types of restrictions, such as win limits (e.g., Walker, Litvin, Sobel, & St-Pierre, 2014). Different jurisdictions might adopt different approaches to each of these aspects of their play management system, so play management programs can look quite different from place to place. Because play management systems are, in many ways, idiosyncratic, the generalizability of evaluation findings from program to program is likely to be limited.

As described in detail in our preliminary report and elsewhere, empirical evidence related to play management is narrow and mixed (Ladouceur et al., 2012; Ladouceur, Shaffer, Blaszczynski, & Shaffer, 2017; Tom et al., 2017). Some lab-based studies suggest that some types of play management systems can reduce time spent gambling (e.g., Kim, Wohl, Stewart, Sztainert, & Gainsbury, 2014), for example. Other studies suggest that there might be low uptake for play management systems (e.g., Bernhard, Lucas, Dongsuk, & Kim, 2006), especially among low risk gamblers (e.g., Omnifacts Bristol Research, 2007). A

[1] Stakeholders also might describe play management systems as pre-commitment systems.

systematic review of related literature suggested that (1) users are more likely to set money than time limits (in cases where both options were available), (2) users often report good satisfaction with such systems, especially features like expenditure reports, but people with gambling-related problems are less likely to do so, and (3) users often report that they believe that they gamble more responsibly when they use such systems (Ladouceur et al., 2012). Notably, this systematic review also indicated that whereas system use sometimes was associated with reduced gambling behavior, such as actual spending and time on game, some studies observed increases in time and money spent among system users, and users expressed concern that play management systems might unintentionally induce chasing and craving. Because many questions remain regarding the real-world effects of play management systems, their continued evaluation remains important and essential.

1.2.1. Preliminary Study of PlayMyWay

During 2017, the Division on Addiction completed a preliminary evaluation of the PlayMyWay system in Massachusetts using actual records. Specifically, this work analyzed gambling activity and play management activity records to provide a general picture of program subscribers and how they use the system, as well as how the system might be associated with gambling behavior. The available data allowed us to describe system use aspects such as enrollment and un-enrollment, budget sizes and types, and budget-related compliance evidence. In addition, we were able to make some basic comparisons regarding gambling-related activity between PlayMyWay users and non-users, including wager sizes, visitations to Plainridge Park Casino (PPC), and win/loss experiences. Such behavioral observations are central to any evaluation of play management systems. As Rockloff et al. (2015, p. 1507) indicated with respect to discouraging unsafe gambling at electronic gaming machines with play management, “the main criterion is that it should have a discernable impact on moderating player behaviour that leads to losses."

This study involved an examination of gambling and (if applicable) PlayMyWay records for 101,024 individuals who joined PPC’s Marquee Rewards program and gambled at PPC between June 8, 2016 and January 31, 2017 (i.e., the first six months PlayMyWay was operational) using their rewards card.

We observed that PlayMyWay enrollment was mostly stable (i.e., 85.2% enrolled in PlayMyWay and remained enrolled in the program for the period of the study). Daily enrollment rates suggested high adoption when the program was launched, followed by a gradual decline and an adoption rate plateau. When un-enrollment occurred, it tended to happen very soon after enrollment (i.e., 50% of un-enrollments occurred within one day). We observed some evidence that un-enrollment was associated with the receipt of notifications. That is, those who reached or exceeded their self-identified budgets also were more likely than those who never reached (i.e., at most approached) their self-identified budgets to un-enroll after one day.

Compared to non-users, PlayMyWay users tended to have more associated cash activity (e.g., inserted more into slot machines and withdrew more funds). PlayMyWay use also was associated with less wagering and fewer accumulated losses, but more variable wagering.

Most people who enrolled in PlayMyWay set one type of budget; specifically, a daily budget. The median initial daily budget was $75. Few users changed their budgets (i.e., 7.6%), but those who did were more likely to make upward revisions (e.g., one user in our data changed their budget from $100 per day to $200 per day), and often did so following the receipt of a budget notification. Interestingly, just over half

of all PlayMyWay users approached their budgets, meaning just under half never received a budget notification from PlayMyWay. About two thirds of those who approached their budgets also exceeded their budgets. The receipt of a notification was associated with setting lower initial budgets. About 9% of steady PlayMyWay users apparently complied with their self-identified budgets (daily/weekly/monthly) in every instance of receiving a notification that they'd reached their budget (i.e., they received no additional notifications for the remainder of the respective day/week/month).

That preliminary study had many important limitations, and its results must be viewed within that context. Specifically, none of the abovementioned results provide causal evidence. That is, the reported findings are observational and should not be interpreted to suggest that PlayMyWay necessarily contributed to them. In addition, the analyses of the gambling activity records and the analyses of the PlayMyWay activity records were independent and not relatable. At the time of the report, we did not have access to linked data (i.e., a means of identifying which gambling records corresponded to specific PlayMyWay users). This vital link would have allowed us to examine several important questions, including questions that address associations between PlayMyWay activities (e.g., notifications) and players' gambling behavior directly, rather than through proxy methods (e.g., estimating ongoing gambling behavior from the observation of additional budget-related notifications after individuals received a notification that they had reached their self-identified budget). In the process of completing our data analyses, we also observed and documented several instances of missing data, redundant data, and other severe data issues, which introduced uncertainty into our calculations, and weakened our confidence in the provided data, generally. In addition to the data issues we documented in that study, we later learned at a meeting on August 6, 2018 ("PlayMyWay player data review and trouble shooting, 2018-08-06," 2018) that our data set also did not include records of wins of $1,200 or more.[2] A central recommendation of the preliminary study was to work to create an improved data experience that avoids many of the issues we identified and provides linked data that would allow researchers to better understand how PlayMyWay affects a user's gambling behavior, and how a user's gambling behavior, in turn, might affect their experience of PlayMyWay.

1.3. Current Report

The current report provides new insight into the MGC PlayMyWay program. To start, we worked with the MGC to delineate evidence-informed goals and aims for PlayMyWay. As described more fully below, this involved identifying key domains of interest and associated relevant findings from the preliminary study. In addition, it also required developing evidence-informed questions of interest for each domain that we provided to the MGC. The information gained by this exchange can guide PlayMyWay development and evaluation activities moving forward.

Much of this report's new insight relies upon extensive data development efforts that occurred during 2017 and early 2018. Specifically, we engaged in data exchange and review activities with Scientific Games (i.e., the developer of PlayMyWay; SciGames) and PPC. Together, we worked on addressing some of the issues described in the first report. For example, SciGames adjusted their data pull routines to avoid omitting PlayMyWay users' gambling activity records from days or times before they enrolled (See Section 2.5.1 of the preliminary report for more details). SciGames also developed a new data pull routine that

[2] This might be due to wins over $1,200 requiring "attendant intervention to resolve player payment" as stated in Section 143.01 of Code of Massachusetts Regulations Title 205. There is similar language in the instructions for IRS Form W-2G.

allowed us to link the gambling activity records with PlayMyWay records (See Sections 2.2.4 and 2.3.2 of the original report for summaries of the original issue). These data exchange and review activities concluded when PPC delivered new data files to the Division on Addiction on February 28, 2018 and March 1, 2018. Although our original intention was to use the available data to gain insights into the identified goals and aims for PlayMyWay, as described fully below, we identified a new set of extensive data anomalies that precluded further use of the available data for this report. We continued to engage with SciGames, PPC, MGC, and the MGC Research Review Committee (RRC) regarding these matters through Summer 2018, and collaboratively identified several areas of inquiry that future research can pursue to better understand the observed anomalies. The Discussion section includes some possible explanations for the data anomalies and some recommendations for future evaluation studies.

Finally, we also gained new insight from the completion of a player survey that we conducted with the assistance of MGC and PPC. In brief, with the cooperation of PPC, we were able to electronically deliver a survey invitation to every PPC Marquee Rewards player card user. The survey addressed the following concepts: (1) responsible gambling (e.g., strategies used); (2) PlayMyWay experience (e.g., involvement, satisfaction, reasons for not enrolling); (3) gambling behavior (e.g., games played and gambling-related problems); and, (4) player characteristics (e.g., gender, race, and age). We obtained data from 1,951 player card users and describe the survey outcomes below.

2. Establishing Evidence-informed PlayMyWay Goals and Specific Aims

As described above, different jurisdictions hold different goals for their play management systems. To better tailor the current and future evaluations to the specific goals that the MGC has for PlayMyWay, we requested that MGC staff and commissioners provide insight into their intended program purposes as they relate to key findings from the preliminary study. Specifically, we requested that the MGC provide goal areas within four investigative domains: (1) program enrollment; (2) demographics; (3) program impacts; and, (4) program use. To facilitate this process, we prepared a brief survey that described key research questions and relevant findings from Tom et al. (2017), and requested the MGC to specify their program goals related to each key research question. Our request for input to the Massachusetts Gaming Commission was as follows:

Please answer the following questions. These questions emerged, in part, from the first [PlayMyWay] PMW report findings. We do not assume that MGC currently has goals for every possibility described below. Also, it is possible that MGC does not have specific goals/aims for these at the moment, but might in the future. In the case that the MGC does not currently have a specific goal or aim, please simply indicate that the MGC does not currently have a related goal or aim. We anticipate that we can explore the below questions both generally, and among key player segments (e.g., players with greatest losses, most visitation), so please indicate if goals vary by groups.

In the follow sections, for each investigative domain, we indicate the pertinent evidence from the preliminary report and the related evidence-informed goal area questions that we provided the MGC in our survey. After this, we present the reported MGC response related to each proposition.

2.1. Domain: Program Enrollment

2.1.1. Enrollment

The first report indicated that about 85.2% of program participants were stably enrolled. During the study period, about 8.7% of eligible individuals enrolled.

(1) Are there specific enrollment rates that the MGC would prefer the program meet (e.g., enroll an average of x patrons per day)?

MGC Response: PlayMyWay is just one tool of the GameSense program. We are interested in providing a range of RG tools and resources to meet the needs and interests of patrons. Considering this and current enrollment rates we would hope to see eligible player enrollment [percentages] between 3% and 10%. There are specific groups of interest. For example, we would like to see higher enrollment (between 7% and 10%) [among] persons who frequently gamble. Frequency is defined in the MGC Responsible Gaming Framework: Strategy 2.

(2) Are there specific enrollment trends that MGC would prefer to see? (e.g., compared with the first study period or within the anticipated study period, escalating rates, maintaining rates, etc.)

MGC Response: We would hope to see steady enrollment. Should enrollment begin to fall, we'd like to understand reasons. Saturation? Decreased awareness of the program? Other barriers?

2.1.2. Un-enrollment

The first report indicated that about 13.5% of program participants un-enrolled. Many un-enrollments happened very quickly.

(3) Are there specific overall un-enrollment rates that the MGC would prefer the program meet (e.g., no more than x% of subscribers)?

MGC Response: Current un-enrollment rates seem to be in line with what would be expected of any new feature. Buzzfeed (Lee, 2015, obviously not a scientific study) indicated that 5% of people stop using their Fitbit device within a week and 12.5% [stop] within a month. Considering there is a conscious effort and significant investment to use a Fitbit and the overall un-enrollment rate is similar to PMW, we see no data-driven reason to set un-enrollment targets.

(4) Are there specific overall un-enrollment trends that MGC would prefer to see (e.g., compared with the first study period or within the anticipated study period, de-escalating, maintaining, etc.)?

MGC Response: [We] expect that people will try PMW and decide the tool isn't for them. It's also anticipated that an incentive to enroll will create the effect of rapid un-enrollment of some users who just want the incentive. Un-enrollment is acceptable. Continue to monitor. If un-enrollment doubles – say 25% – then we should start to question what we can do to keep people engaged. We are interested in why people chose to un-enroll and we should seek to analyze the data gathered from the un-enrollment screen on the tool.

(5) Are there specific un-enrollment dynamics that MGC would like to see change (e.g., reduce number of same day enrollment/un-enrollments by x%)?

MGC Response: This is not an area the MGC is interested in exploring at this time.

2.1.3. Re-enrollment

The first report indicated about 1.3% of program participants were erratically enrolled.[3]

(6) Are there specific re-enrollment rates that the MGC would prefer the program meet (e.g., x% of former subscribers)?

MGC Response: This is not an area the MGC is interested in exploring at this time.

(7) Are there specific re-enrollment trends that MGC would prefer to see (e.g., compared with the first study period or within the anticipated study period, escalating, maintaining, etc.)?

MGC Response: No. We are interested in finding out more about why persons [choose] to un-enroll and then re-enroll in order to identify ways which could improve continuity of the program.

2.2. Domain: Demographics

2.2.1. Gender

The first report indicated that 52% of all PMW users were women while, by comparison, about 58% of all Marquee Rewards cardholders were women.

(8) Are there specific goals for the gender distribution of enrollees?

MGC Response: We are most interested in seeing enrollment among the most frequent players and the more at-risk players. Ideally gender distribution among enrollees would match demographics of these groups.

2.2.2. Age

The first report indicated that PMW users were about 54 years old and skewed young compared with non-users.

(9) Are there specific goals for the age distribution of enrollees?

MGC Response: See response to #8.

2.3. Domain: Program Impacts

2.3.1. Visitation

The first report indicated that PMW users might visit PPC about the same amount as non-users.

(10) Do you intend that PMW enrollment will be associated with changes (i.e., pre- to post-) in visitation?

MGC Response: No, but continue to monitor. If there is a difference between the two groups we'd be interested in exploring the cause.

(11) Do you intend that PMW involvement (i.e., user vs. non-user) will be associated with visitation rates?

MGC Response: No but continue to monitor. If there is a difference between the two groups we'd be interested in exploring the cause.

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[3] In the preliminary report, we used the word "erratic" to describe PlayMyWay users who enrolled, un-enrolled, and re-enrolled at least once, but were enrolled in PlayMyWay at the end of the preliminary report's study period.

2.3.2. Amount Bet

The first report suggested that PMW users might bet less money than non-users.

(12) Do you intend that PMW enrollment will be associated with changes (i.e., pre- to post-) in amount bet?

MGC Response: Comparisons of all betting behavior between PMW users and non-users is critical. We hope that PMW will cause people to more closely monitor the amount they spend gambling. This may mean the size of the bet may also be affected. This is something we'd like to monitor but we don't have a specific aim.

(13) Do you intend that PMW involvement (i.e., user vs. non-user) will be associated with amount bet?

MGC Response: See [our answer to] (12).

2.3.3. Amount Lost

The first report suggested that PMW users might lose less money than non-users.

(14) Do you intend that PMW enrollment will be associated with changes (i.e., pre- to post-) in amount lost?

MGC Response: As stated in the first evaluation report – simply the act of enrollment may be an indication that someone would like to limit the amount they spend gambling. This may be independent of the function of the program.

The purpose of PMW is to help assure that the outcome of people's play matches their own preferences for personal and family health.

(15) Do you intend that PMW involvement (i.e., user vs. non-user) will be associated with amount lost?

MGC Response: See [our answer to] (14).

2.4. Domain: Program Use

2.4.1. Budget types

The first report suggested that most people set only a daily budget, followed by those who set only a monthly budget. If people set more than one budget type, they were likely to set all three types of budgets.

(16) Does the MGC prefer to see a specific pattern of budget type engagement (e.g., everyone using all three types, or most using daily, but not necessarily monthly or weekly, etc.)?

MGC Response: We don't have a preference. However, we'd like to know if setting multiple budget types creates confusion or message fatigue. Is there a budget type that is seldom used that we should consider dropping?

2.4.2. Budget size

The first report indicated that users set median budget sizes for daily, weekly, and monthly budgets of $75, $200, and $300, respectively. Average budget sizes were skewed by maximum values of $25,000, $50,000, and $100,000, for daily, weekly, and monthly budgets, respectively.

(17) Does the MGC prefer to see any specific average budget sizes (e.g., $75, $200, $300)?

MGC Response: No. It's important that the budget size be left to the user.

(18) Does the MGC prefer to see any specific maximum budget sizes?

MGC Response: Same as (17).

2.4.3. Budget changes

The first report suggested that almost 8% of users changed their budget, and less than 4% of users changed their budget more than two times.

(19) Are there specific budget change targets that MGC would prefer the program to meet (e.g., 95% change no more than two times)?

MGC Response: No. The MGC expects that users will change their budget to fit their goals. This will naturally change over time.

We are interested in why people change their budgets, and whether those changes contribute to or reduce their play satisfaction.

2.4.4. Budget notifications

2.4.4.1. Changes

The first report suggested that about 13% of those who reached budgets and 12% of those who exceeded budgets changed their budgets. Revisions tended to be upwards.

(20) Are there specific budget change rates in response to notification that MGC would prefer to see (e.g., no more than 10% of people make such changes)?

MGC Response: No.

(21) Does the MGC prefer to see a specific maximum change rate (e.g., upward revisions of no more than 25% of the original budget, on average) among those who reached or exceeded their budgets?

MGC Response: No. Naturally people will reach their budget and make a conscious decision to continue gambling in excess of their original budget. The point is that it's an informed decision.

Again the key issues are why changes are made and whether or not the changes impact their satisfaction with their play.

2.4.4.2. Un-enrollment

The first report suggested that about 20% of those who reached and 20% of those who exceeded budgets un-enrolled from PMW.

(22) Does the MGC prefer to see a specific maximum un-enrollment rate (e.g., no more than 20% of such individuals) among those who reached or exceeded their budgets?

MGC Response: Without other data to compare to, we have no means of comparison. Much like the Fitbit, un-enrollment is expected.

2.4.4.3. Compliance

The first report suggested that almost 60% of users approached their budget, of whom about 75% went on to reach their budget and of whom about 85% exceeded their budgets.[4] About 70% of people who set and exceeded daily budgets did so by greater than 200% of their budget; about 60% of weekly budgeters and 60% of monthly budgeters did the same.

(23) Does the MGC prefer to see a specific maximum budget approach rate among users (e.g., no more than 50% of users who set a budget go on to approach)?

MGC Response: We have no interest at this time in seeing a specific maximum budget. However, this is an interesting finding and we certainly want to find out why (A) 40% never approached their budget and (B) why so many users who exceeded their budget did by so much. Did persons who exceeded their budget by more than 100% still find the tool useful? Are these users instead using the play tracking function? Is there confusion about how to use the tool?

(24) Does the MGC prefer to see a specific maximum budget reached rate among users who approach budgets (e.g., no more than 50% of users who approach go on to reach)?

MGC Response: No.

(25) Does the MGC prefer to see a specific maximum budget exceeded rate among users who reached budgets (e.g., no more than 50% of users who reach go on to exceed)?

MGC Response: No. [We] don't believe that exceeding the set budget is a sign the tool is ineffective. The MGC would like to know if users who exceed their budget still find the tool useful. If not why? Why do they remain enrolled in the program?

(26) Does the MGC prefer to see a specific maximum exceeded amount among users who exceeded their daily/weekly/monthly budgets (e.g., when people exceed, they do so by no more than 175%, etc.)?

MGC Response: See [our answer to] (25).

3. PlayMyWay System & Data Review

For our preliminary report, we set out to use actual gambling and PlayMyWay system activity records to describe users' PlayMyWay experiences and how they related to their gambling behavior. At the time, the available data required us to analyze PlayMyWay records separately from gambling activity records. In addition, that report described a variety of data anomalies, omissions, and issues for those records. In brief, these included instances of large gaps of unexplained missing data, duplicated or unexpected records, and faulty data abstraction logic. During FY18, we worked extensively with MGC, SciGames, and PPC to try to resolve as many known issues as possible. This work resulted in data deliveries on February 28,

[4] In the first report, "approached" referred to when a PlayMyWay user reach 50% of a budget, "reached" referred to when a PlayMyWay user reached 100% of a budget, and "exceeded" referred to when a PlayMyWay user exceeded 125% of a budget.

2018 and March 1, 2018 for the current report. This new batch of data provided a link between gambling activity reports and PlayMyWay activity reports, which was a key goal of our FY18 efforts.

Prior to commencing planned analyses, we engaged in additional quality assurance activities suitable for the new data structures. The new data structures and links between gambling activity and PlayMyWay activity allowed us to review the data in new ways, including assessing the purported function of the PlayMyWay system. For example, with linked records we were able examine whether the available data suggested that the PlayMyWay notification system delivered notifications according to known specifications and users' self-identified budgets. This level of data review was not possible with previously available data for the first report, and only was possible with the February 28, 2018 and March 1, 2018 data delivery. In the sections that follow, we first provide an overview of the confirmed specifications for PlayMyWay and second provide a summary of new data anomalies we observed.

3.1. PlayMyWay Specifications[5]

At the time of their enrollment in PlayMyWay, each player chooses to set their daily, weekly, and/or monthly budget(s). They can set just one type of budget (e.g., monthly), or choose a combination of different budget types (e.g., weekly and monthly). PlayMyWay users' also can choose to modify their existing budget at any time.[6] Based on their relevant budget(s) and their net loss over that time period, each player receives notifications at certain predetermined thresholds (discussed more below).

The precise intervals that constitute the daily, weekly, and monthly budgets as per the PlayMyWay system are as follows:

Daily: 06:00:00 to 05:59:59 the next day.
Weekly: Sunday at 06:00:00 to 05:59:59 the next Sunday.
Monthly: First of the month at 06:00:00 to 05:59:59 on the first day of the next month (e.g., the December 2017 period started at 2017-12-01 06:00:00 and ended at 2018-01-01 05:59:59).

The PlayMyWay system generates notifications based on when users spend multiples of 25% of their budgets, starting at 50% (i.e., 50%, 75%, 100%, 125%, etc.). There are three types of notifications: Approaching Notifications, Limit Reached Notifications, and Exceeding Notifications. Which type of notification a user receives is based solely on the percentage of their budget they have spent, not on whether they had previously received any Approaching, Limit Reached, or Exceeding Notifications. Therefore, depending on their budget amounts and the betting units of the machines they play, users can receive Limit

[5] Ongoing discussion with MGC and Scientific Games has informed our understanding of the PlayMyWay software specifications. To further improve our understanding, we requested that MGC provide us with the contracted specifications for PlayMyWay and for SciGames to review a written summary of our expectations of how PlayMyWay operates. On May 7, 2018, SciGames provided confirmation of our understanding of the PlayMyWay operation specifications. We did not receive the final contracted specifications from MGC for additional review. This section reflects those expectations confirmed by SciGames. For an in-depth review of the confirmed program specifications, please see, Appendix 7.1, PlayMyWay Specifications.

[6] The updated budget(s) get(s) registered in the system.

Reached Notifications without receiving Approaching Notifications, or Exceeding Notifications without receiving Limit Reached Notifications. For more information on the exact mechanics of how and when the system generates notifications, see Appendix 7.1.

3.2. PlayMyWay Data Anomalies

The data files we received from Plainridge Park Casino included a *Play Management Activity* file, a *PlayMyWay Users' Gambling Activity file*, and an *All Users' Gambling Activity file* for each month that PlayMyWay was operational.

The *Play Management Activity files* contain detailed information on each interaction a player has with the PlayMyWay system – this includes information on enrollments, un-enrollments, and budget changes, as well as information about each notification a player receives.

The *PlayMyWay Users' Gambling Activity files* contain information on any gambling activity made by PlayMyWay users with at least one active budget (i.e., daily, weekly, and/or monthly). These files do not contain data for any gambling activity that occurred before a PlayMyWay user enrolled or after a PlayMyWay user un-enrolled. Each row of data contains the net result of between one and three handlepulls or bets (see the original PlayMyWay report for more details), and includes identifiers for the PlayMyWay user, the electronic gaming machine (EGM) used, its software (e.g., format of the game, payout structure, theme of the graphics), the total amount bet, the total amount won, and the date and time for the last bet or handlepull. Each row of data also corresponds to a point in time when the EGM transmitted data to the PlayMyWay server. Upon transmission of such data, the PlayMyWay server calculates any applicable running net losses and displays any appropriate notification(s) (i.e., Approaching or Limit Reached) accordingly.

The *All Users' Gambling Activity file*s contain data on all gambling activity for all Marquee Rewards members, regardless of whether or not they enrolled in PlayMyWay. Each row of data in these files corresponds to a Marquee Rewards member's gambling session on a single EGM, from when they insert their player card into the machine until they remove it. Each row contains identifiers for the Marquee Rewards member and the EGM used, and its software[7], the total amount bet and total amount won over that time on the machine, and the date and time of the last bet or handlepull. With respect to all three file types, we limited the scope of our review to data timestamped on or after 2017-06-01 6:00:00. This was because the scope of analysis for the current report begins on June 1, 2017, and 6:00:00 is when the different budget types are reset.

3.2.1. Data Evaluation Process

To evaluate the integrity of the provided data, we examined whether the notifications in the Play Management Activity files corresponded to what notifications should have occurred according to the PlayMyWay Users' Gambling Activity files. We accomplished this by imputing notifications for the PlayMyWay Users' Gambling Activity files according to the confirmed PlayMyWay program specifications (described in Section 3.1. PlayMyWay Specifications) and comparing those imputations with records of delivered notifications.

[7] Identifiers for Marquee Rewards members/PlayMyWay users and EGMs are consistent across the Play Management Activity data, the PlayMyWay Users' Gambling Activity data, and the All Users Gambling Activity data.

To impute the notifications each user ought to have received based on the specifications, we first merged the budget information (i.e., who set or changed what kinds of budgets and when they did so) from the Play Management Activity files with the PlayMyWay Users' Gambling Activity files. Next, we constructed a data-row-by-data-row accounting of net loss for each user based on their budget type(s), and the specific time intervals relevant to the budget(s), as described above. At this point, each data row from the PlayMyWay Users' Gambling Activity files contained a user ID, a date and time, dollar amounts for any budgets (daily, weekly, and/or monthly) the user had active at that date and time, and an accounting of running net losses (i.e., from the start of the day/week/month until the timestamp). We then divided running net losses by the corresponding budgets to express the running net losses as percentages of those budget(s). Using those percentages, we imputed any specific notification(s) the users should have received after transmissions from the EGM to the PlayMyWay server.

Our notification comparisons involved a roster of PlayMyWay users who either already had active daily, weekly, and/or monthly budgets before the beginning of the study period (2017-06-01 06:00:00)[8] or entered budgets during the study period. Our notification comparisons excluded activity from both files that occurred on the day, week, or months of enrollment. We did this because the PlayMyWay Users' Gambling Activity files only contain a PlayMyWay user's gambling activity from their point of enrollment, but the PlayMyWay system uses all of a user's gambling activity during a given time interval (i.e., day, week or month of enrollment) to calculate their net loss and distribute notifications. To illustrate, suppose that a Marquee Rewards member, who is not enrolled in PlayMyWay, visits PPC at 11:00:00 on a given day, gambles for two hours, enrolls in PlayMyWay at 13:00:00, and while doing so sets a daily budget. Although that month's PlayMyWay Users' Gambling Activity file only will contain this person's gambling activity after 13:00:00 that day, the PlayMyWay system's assessment of their running net loss will include their gambling activity between 11:00:00 and 12:59:59 and distribute notifications accordingly.

We classified each imputed and actual notification as daily, weekly, or monthly, based on whether the notifications referred to percentages of daily, weekly, or monthly budgets.[9] We then compared the users' numbers of eligible notifications in the Play Management Activity data to the numbers of imputed eligible notifications in the PlayMyWay Users' Gambling Activity data. If both data sets had been perfect, these numbers would have been identical.

In the next sections, for our comparisons of the two sets of counts of daily, weekly, and monthly eligible notifications, first we report the numbers of users with Play Management Activity records of received notifications who, according to PlayMyWay Users' Gambling Activity imputations, should not have received notifications. Second, we report the number of players with no Play Management Activity records of received notifications who, according to PlayMyWay Users' Gambling Activity imputations, should have received notifications. Third, we report how many (and what percentage of) people had an absolute match

[8] More specifically, we included PlayMyWay users who, before the study period: (1) had either an enrollment, budget change, or notification with a timestamp, and (2) no subsequent indications (e.g., un-enrollment, change of budgets) that the user removed the budgets that they set.

[9] There were cases where notifications referred to multiple budgets. For example, if a user set a daily budget of $50 and a weekly budget of $100 and reached a net loss of $50 on a Sunday morning, then a single notification would note that the user reached 100% of the daily budget and 50% of the weekly budget.

between their number of Play Management Activity records of received notifications and their number of imputed PlayMyWay Users' Gambling Activity notifications. Fourth, we provide some basic descriptive statistics to characterize the scope of the differences we observed; specifically, the mean, standard deviation, and five number summary (i.e., minimum, 25th percentile, median, 75th percentile, and maximum) of the *notification discrepancies* we observed (i.e., the absolute differences between records of received notifications and imputed notifications).

3.2.2. Daily Budget Discrepancies

According to the Play Management Activity data files, 9,299 PlayMyWay users had daily budgets that were active at the beginning of the study period, and another 3,452 users created a daily budget during the study period. Of these 12,751 total daily budget users, the Play Management Activity data showed that 3,712 users received notifications that they had approached, reached, or exceeded their daily budget. Out of these 3,712 users, 1,018 only received notifications the day that they enrolled in PlayMyWay. As indicated above (see Section 3.2. PlayMyWay Data Anomalies), we removed these individuals from our assessment of the extent of discrepancies in notifications because of the possibility of asynchronous accounting. Each of the remaining 2,694 users in the Play Management Activity data with daily budgets were eligible for further analysis because they had at least one day where they began the day enrolled in PlayMyWay and also received at least one notification.

The PlayMyWay Users' Gambling Activity data files contained gambling activity data for 6,454 PlayMyWay users. According to our imputations, 3,637 of these users should have received notifications[10]. We excluded 995 of these users because they only should have received notifications the same day that they enrolled in PlayMyWay, and therefore were ineligible for further analysis. The remaining 2,642 users each have at least one imputed notification making them eligible for analysis.

The overlap between the 2,694 users with eligible notifications in the Play Management Activity files and the 2,642 users with imputed eligible notifications based on the PlayMyWay Users' Gambling Activity data contained 2,479 users. Further investigation of this discrepancy revealed that there were 215 players who had Play Management Activity records of eligible notifications, but no eligible imputed notifications based on the PlayMyWay Users' Gambling Activity data (i.e., records of notifications, but no corresponding records of gambling activity that warranted notifications). Conversely, there were 163 users who had eligible imputed notifications based on the PlayMyWay Users' Gambling Activity data but had no eligible notifications in the Play Management Activity files (i.e., records of gambling activity that warranted notifications, but no corresponding records of notifications).

Of the 2,479 users who did have both records of eligible notifications and eligible imputed notifications, 8.4% (i.e., 209 users) had a match between their number of eligible notifications and their number of eligible imputed notifications. For 1,157 (51.0%) of the remaining 2,270 users who did not have a match, the Play Management Activity files had more eligible notifications than the PlayMyWay Users' Gambling Activity files yielded eligible imputed notifications. For the other 1,113 (49.0%), the Play Management

[10] A user has no imputed daily notifications if, according to our calculations, they never had a running net loss equal to or greater than 50% of their daily budget. Almost half of those who set daily budgets had no imputed daily notifications. It is possible that many of these users set daily budgets that were double or even orders of magnitude greater than what they were truly intending to spend or willing to lose.

Activity files had fewer notifications. The absolute differences of the 2,270 users who did not have a match had a median discrepancy of 8 (minimum = 1, 25th percentile = 3, median = 8, 75th percentile = 26, maximum = 3399).[11]

3.2.3. Weekly Budget Discrepancies

According to the Play Management Activity data files, 2,267 PlayMyWay users had weekly budgets that were active at the beginning of the study period, and another 710 users entered a weekly budget during the study period. Of these 2,977 users, the Play Management Activity data showed that 646 received notifications that they had approached, reached, or exceeded their weekly budget. Out of these 646 users, 142 only received notifications the week that they enrolled in PlayMyWay. As indicated above, we removed these individuals from our assessment of the extent of discrepancies in notifications. Each of the remaining 504 users had at least one eligible notification, and therefore were eligible for further analysis.

The PlayMyWay Users' Gambling Activity data files contain gambling activity data for 1,415 PlayMyWay users. According to our imputations, 629 of these users should have received notifications. We excluded 130 of these users because they only should have received notifications the same week that they enrolled in PlayMyWay, and therefore were ineligible for further analysis. The remaining 499 users each had at least one imputed eligible notification.

The overlap between the 504 users with eligible notifications in the Play Management Activity files and the 499 users with imputed eligible notifications based on the PlayMyWay Users' Gambling Activity files contained 464 users. There were 40 users who had Play Management Activity records of eligible notifications, but no eligible imputed notifications based on the PlayMyWay Users' Gambling Activity data. Conversely, there were 35 users who had gambling activity that suggested they should have received notifications but had no records of received notifications in their play management data.

Of the other 464 users who had both records of eligible notifications and eligible imputed notifications, 9.3% (i.e., 43 users) had a match between their number of eligible notifications in the play management data and their number of eligible imputed notifications in the gambling activity data. For 235 (55.8%) of the remaining 421 users, the Play Management Activity files had more eligible notifications than the PlayMyWay Users' Gambling Activity files yielded eligible imputed notifications. For the other 186 (44.2%), the Play Management Activity files had fewer. The absolute differences of the 421 users who did not have a match had a median discrepancy of 8 (minimum = 1, 25th percentile = 3, median = 8, 75th percentile = 27, maximum = 4209).[12]

3.2.4. Monthly Budget Discrepancies

According to Play Management Activity files, 3,225 PlayMyWay users had monthly budgets that were active at the beginning of the study period, and another 902 users entered a monthly budget during the

[11] The absolute differences of the 2,270 users who did not have a match had a mean discrepancy of 44.9 (SD = 174.9). Due to the obvious skew of the data, in describing data discrepancies, we recommend readers focus on the overall percentage of users who have a match between their number of eligible and imputed notifications together with the range and median number of discrepancies observed.

[12] The absolute differences of the 421 users who did not have a match had a mean discrepancy of 56.6 (SD = 269.9). Due to the obvious skew of the data, in describing data discrepancies, we recommend readers focus on the overall percentage of users who have a match between their number of eligible and imputed notifications together with the range and median number of discrepancies observed.

study period. Of these 4,127 users, the Play Management Activity data showed that 731 received notifications that they had approached, reached, or exceeded their budget. Out of these 731 users, 173 only received notifications the week that they enrolled in PlayMyWay. As indicated above, we removed these individuals from our assessment of the extent of discrepancies in notifications. Each of the remaining 558 users had at least one eligible notification, and therefore was eligible for further analysis.

The PlayMyWay Users' Gambling Activity data files contain gambling activity data for 1,924 PlayMyWay users. According to our imputations, 712 of these users should have received notifications. We excluded 149 of these users because they only should have received notifications the same month that they enrolled in PlayMyWay, and therefore were ineligible for further analysis. The remaining 563 users each had at least one imputed eligible notification.

The overlap between the 558 users with actual records of received notifications and the 563 users with imputed eligible notifications based on the PlayMyWay Users' Gambling Activity files contained 500 users. There were 58 users who had Play Management Activity records of eligible notifications, but no eligible imputed notifications based on the PlayMyWay Users' Gambling Activity data. Conversely, there were 63 users who had eligible imputed notifications based on the PlayMyWay Users' Gambling Activity data but had no records of received notifications in their play management data.

Of the other 500 users who had both records of eligible notifications and eligible imputed notifications, 9.0% (i.e., 45 users) had a match between their number of eligible notifications and their number of eligible imputed notifications. For 266 (58.5%) of the remaining 455 users, the Play Management Activity files had more eligible notifications than the PlayMyWay Users' Gambling Activity files yielded eligible imputed notifications. For the other 189 (41.5%), the Play Management Activity files had fewer. The absolute differences of the 455 users who did not have a match had a median discrepancy of 9 (minimum = 1, 25th percentile = 3, median = 9, 75th percentile = 23, maximum = 4086).[13]

3.2.5. Data Anomalies That Might Explain Notification Discrepancies

We sought to better understand the observed data discrepancies. To do this, we engaged in additional data interrogation. We considered a number of data anomalies during our data interrogation that might account for the above discrepancies. We investigated in detail two groups of anomalies: (1) blackout periods in the PlayMyWay Users' Gambling Activity files and the Play Management Activity files and (2) instances of enrollment and un-enrollment discord. We considered the effects of these two groups of anomalies on notification discord (blackout periods in the PlayMyWay Users' Gambling Activity files and the Play Management Activity files and enrollment/un-enrollment discord) but did not find that accounting for these anomalies contribute in a meaningful way to explaining the discrepancies. For example, after accounting for blackout periods in the PlayMyWay Users' Gambling Activity files, the number of users with matching positive numbers of eligible daily notifications and eligible imputed daily notifications rose from 209 (out of 2,479) to 217 (i.e., from 8.4% to 8.8%). Details of our in-depth consideration of these anomalies are available in Appendix 7.2.

[13] The absolute differences of the 455 users who did not have a match had a mean discrepancy of 46.0 (SD = 218.0). Due to the obvious skew of the data, in describing data discrepancies, we recommend readers focus on the overall percentage of users who have a match between their number of eligible and imputed notifications together with the range and median number of discrepancies observed.

Several other explanations for the notification discrepancies also are possible, but not directly testable using the available data. First, it is possible that the PlayMyWay system has a flaw that results in failure to send messages according to the budget schedule that users self-elect. Second, the PlayMyWay system might send messages as requested, but might fail to record the sending of those messages accurately. Third, it is possible that the PlayMyWay system is both sending and recording messages according to the budget schedule that users select, but that the data abstraction process for delivering the files is corrupt. In addition to these possibilities, there are known times when the PlayMyWay server was down or was disconnected from the main server that processed the gambling activity data.

We continued to meet and communicate with RRC, SciGames, PPC, and the MGC to identify other possible reasons for notification discrepancies. During those meetings and communications, we collaboratively identified additional possibilities, including the absence of information related to prizes of $1,200 or more, instances of system de-synchronization (once a month or so), and the possibility of play tendencies or casino floor conditions that might be associated with data irregularities. For example, we brought to SciGames' and PPC's attention a case where a PlayMyWay user had PlayMyWay active and gambled at an EGM but did not generate any corresponding data in the PlayMyWay Users' Gambling Activity data.[14] Later, during a meeting on August 6, 2018, we learned about the possibility of system de-synchronization – that the PlayMyWay server can become disconnected from the ACSC (casino management system) server – and that it is likely that the system was not recording data for the PlayMyWay Users' Gambling Activity files when disconnection occurred. At the time of this report, MCG, PPC, and SciGames are working collaboratively to ascertain which blackout periods correspond to times when the PlayMyWay server was disconnected. Also, at the August 6, 2018 meeting, we learned that if a PlayMyWay user enrolled or adjusted budgets at a GameSense kiosk instead of an EGM, then those new budgets would not be included in the Play Management Activity data files. In addition, if two Marquee rewards cardholders combined their accounts (e.g., two spouses), it was not clear to us which PlayMyWay features from either account (e.g., enrollment, budget amounts) would carry over to the new joint account. The current formats of the data files do not include any indicators for account closings or merges, or records for any enrollments or budget changes that could have resulted from a merge.

4. Player Survey

During Summer 2018, with the support of MGC and PPC, we conducted an electronic survey of PPC patrons who are Marquee Rewards cardholders. Our goals for this survey were to examine PPC patrons' usage of and attitudes toward the MGC PlayMyWay system. We sought to observe and summarize the views of patrons who have visited PPC with respect to their PlayMyWay status (e.g., enrolled, un-enrolled, or never-enrolled). To date, we know little about the reasons that individuals might (1) opt in to PlayMyWay, (2) stop using PlayMyWay, or (3) never use PlayMyWay. We also have little insight into how

[14] In this single case, the PlayMyWay user in question was enrolled in PlayMyWay the whole gambling day (i.e., from 6:00:00 to 6:00:00). The All Users' Gambling Activity data for this user and day included records for a mid-afternoon gambling session on a particular machine (i.e., a row of data with identifiers for that user and a specific EGM and software combination). In the PlayMyWay Users' Gambling Activity data, there was no row containing the identifier for that user, the identifiers for that EGM and software, and that date. This instance suggested to us that there is likely discord between the PlayMyWay Users' Gambling Activity and All Users' Gambling Activity data for more users.

PlayMyWay users perceive and experience the system. This survey attempted to gain insight into these issues.

4.1. Method

4.1.1. Procedure

We collaborated with MGC and PPC to identify a data collection strategy that we believed would yield a sufficient number of participants, but also minimize impact upon normal casino operations. To that end, PPC facilitated the distribution of an electronic survey invitation by email to 126,103 e-mail addresses they had for PPC Marquee Rewards cardholders. The invitation explained, briefly, the purpose of the electronic survey and provided a link to access it. The emailed survey invitation is available in Appendix 7.3. A total of 126,097 e-mails were successfully delivered, and we assumed that each e-mail corresponded to a unique Marquee Rewards cardholder.

4.1.2. Participants

A total of 3,468 cardholders opened the e-mail and accessed the survey via the provided link. These potential participants read a brief informed consent form. The consent form described the purpose of the survey and the risks involved and indicated that participants would be eligible to enter a chance to win a $300 Amazon gift card. Out of the 3,468, 1,951 (1.5% of the 126,097 Marquee Rewards cardholders to whom PPC successfully emailed the survey and 56.3% of those who accessed the full survey invitation) consented to participate and commenced with completing the survey. Upon completion, the survey directed participants to another website where they could enter their information for the chance to win the $300 Amazon gift card. Individual survey responses were not identifiable, as the database of participants who entered for a chance to win was separate from the database of survey responses.

4.1.3. Measures

Appendix 7.4 provides the complete survey, which we created for this study in cooperation with the MGC and PPC. This survey consisted of the sections we describe immediately below.

4.1.3.1. Responsible Gambling

The survey began with a single item to assess participants' preferred responsible gambling strategies. We provided participants with a list of seven possible strategies and asked them to endorse all the strategies that they use when they gamble, or, if applicable, to indicate that they do not use any specific strategies. We provided a place for a text response in case participants wanted to mention any strategies that were not listed in the survey.

4.1.3.2. PlayMyWay Use & Other Experiences

In the next section of the survey, we asked participants to report upon their enrollment experiences with PlayMyWay. This included indicating their status as (1) currently enrolled (i.e., enrolled); (2) previously, but not currently enrolled (i.e., un-enrolled); or (3) never enrolled (i.e., never-enrolled). For those currently or previously enrolled, we also asked them to indicate how they heard about PlayMyWay. We asked currently enrollment participants about their reasons for enrolling and previously enrolled participants about their reasons for un-enrolling. For those who had never enrolled, we asked about their reasons for not doing so. We noted which of the participants who never enrolled also indicated that they had never heard of PlayMyWay before taking the survey.

The survey included gating, which directed those currently enrolled and those previously enrolled to answer a series of questions related to specific PlayMyWay experiences. Those who reported that they had never enrolled proceeded immediately to the next section, Gambling Behavior.

The PlayMyWay experiences questions included items that requested information about initial budgets and current budgets. Following these questions was an item that asked participants to indicate what they typically did (stopped playing or continued to play as before) in response to receiving approaching, reached, and exceeding notifications.

Next, we requested that participants complete an adaptation of the Systems Usability Scale (SUS; Brooke, 1996). This scale provides broad insights into system usability. Its items cover aspects such as perceived system complexity, consistency, and ease of use. We added an item to the SUS, *I felt more confident gambling using PMW* to assess the confidence with which users engaged with PlayMyWay.

Following this, participants reported upon eleven possible ways (e.g., annoyed, relieved, worried, grateful, etc.) they felt upon receiving approaching, reach, and exceeding notifications. We also asked participants to report whether they recommended PlayMyWay to another person.

Finally, we asked participants two questions about how to improve PlayMyWay. The first question provided some options for program improvements, and requested that participants endorse all that apply, and the second question was an open-response question that requested general feedback about how the MGC might improve PlayMyWay.

4.1.3.3. Gambling Behavior

In the next section of the survey, we studied participants' gambling behavior by asking them to report upon the locations at which they gambled during the past 12 months and the types of gambling activities they bet or spent money on during the past 12 months. We assessed participants' risk for gambling-related problems by including the Brief Biosocial Gambling Screen (BBGS; Gebauer, LaBrie, & Shaffer, 2010). The BBGS is a three-item instrument that identifies risk for developing a gambling problem. This screen has been evaluated by many independent researchers in a variety of contexts (Brett et al., 2014; Himelhoch et al., 2015). These studies show that the BBGS has excellent sensitivity and specificity.

4.1.3.4. Participant Demographics

The final section of the survey included five questions about participants' demographic characteristics. Participants were provided space to report their age as of their last birthday, as well as their gender, race and ethnic origin, as it pertains to being Hispanic, Latino, or Spanish. We also asked participants to report their annual household income by providing ten exhaustive and mutually exclusive income ranges from which to choose.

4.1.4. Human Subjects Protections

This study was approved by the Cambridge Health Alliance Institutional Review Board.

4.1.5. Analytic Plan

A comprehensive list of our data cleaning procedures is in Appendix 7.5. After cleaning the data, we generated descriptive statistics for all study variables. For completeness, in our tables, we provide percentages with missing values included and percentages with missing values excluded (i.e., valid percentages). In our text summaries of these analyses, all percentages we highlight are valid percentages. Finally, we

completed comparative analyses of different subgroups of our sample, based on current PlayMyWay status (i.e., currently enrolled, currently un-enrolled), general PlayMyWay status (i.e., currently enrolled, currently un-enrolled, not interested, and never heard),[15] BBGS status (i.e., confirmed BBGS positive and confirmed BBGS negative), and depth of involvement status (i.e., casual, frequent, intensive). Statistical tests included Fisher's exact tests (F.e.t.), ANOVAs, Wilcoxon rank sum tests, and *t*-tests. We did not conduct comparative analyses of demographic characteristics (e.g., gender, age) because the MGC indicated they were not interested in those types of analyses at this time (see Sections 2.2.1 through 2.2.2). Because these analyses are primarily exploratory (we did not go into these analyses with a specific hypothesis to test), we highlight any results with *p*-values less than 0.05 without any correction for multiple comparisons (e.g., Bonferroni). In the comparative analyses for general enrollment status, in instances where there were significant differences between all four enrollment groups, we also noted whether differences were significant for (1) ever-enrolled participants (enrolled and un-enrolled participants combined) and not interested participants; and (2) enrolled and un-enrolled participants. These sub-comparisons provide important insights on key differences, namely between: (1) people who are interested in PlayMyWay and people who are not interested in PlayMyWay; and (2) people who remain interested in PlayMyWay and people who do not remain interested in PlayMyWay. In the comparative analyses for depth of involvement status, in instances where there were significant differences between all three groups, we also show any significant pairwise differences between groups (i.e., casual and frequent, casual and intensive, frequent and intensive). We also provide measures of effect size (e.g., odds ratios [OR], Cohen's *d*) where appropriate.[16]

4.2. Results

4.2.1. Participant Demographics

Of the 1,951 patron survey participants, 338 did not report their gender. Among those participants who reported their gender, 62.7% identified as female. A total of 299 participants did not report their age. Among those who did, participants' ages ranged from 21 to 94, and their mean age was 56.1 (SD = 13.1). A total of 333 participants did not report their race. Among those who did, 1.5% indicated that they were American Indian or Alaskan Native, 1.5% indicated that they were Asian, 3.8% indicated that they were Black or African American, 0.1% indicated that they were Native Hawaiian or Pacific Islander, 89.1% indicated they were White, 2.3% indicated they were two or more races, and 1.5% indicated they were some other race. A total of 392 participants did not report whether they were of Hispanic, Latino, or Spanish origin. Among those who did, 97.1% reported that they were not of Hispanic origin and 2.9% said they were of Hispanic origin. A total of 566 participants did not report their annual household income. Among those who did, 4.9% reported income levels less than $20,000, 24.3% reported income levels of at least $20,000 but less than $50,000, 41.9% reported income levels of at least $50,000 but less than $100,000, and 28.9% reported income levels of $100,000 or more. See Appendix 7.6 (Tables A1-A4) for tables of patron survey demographics.

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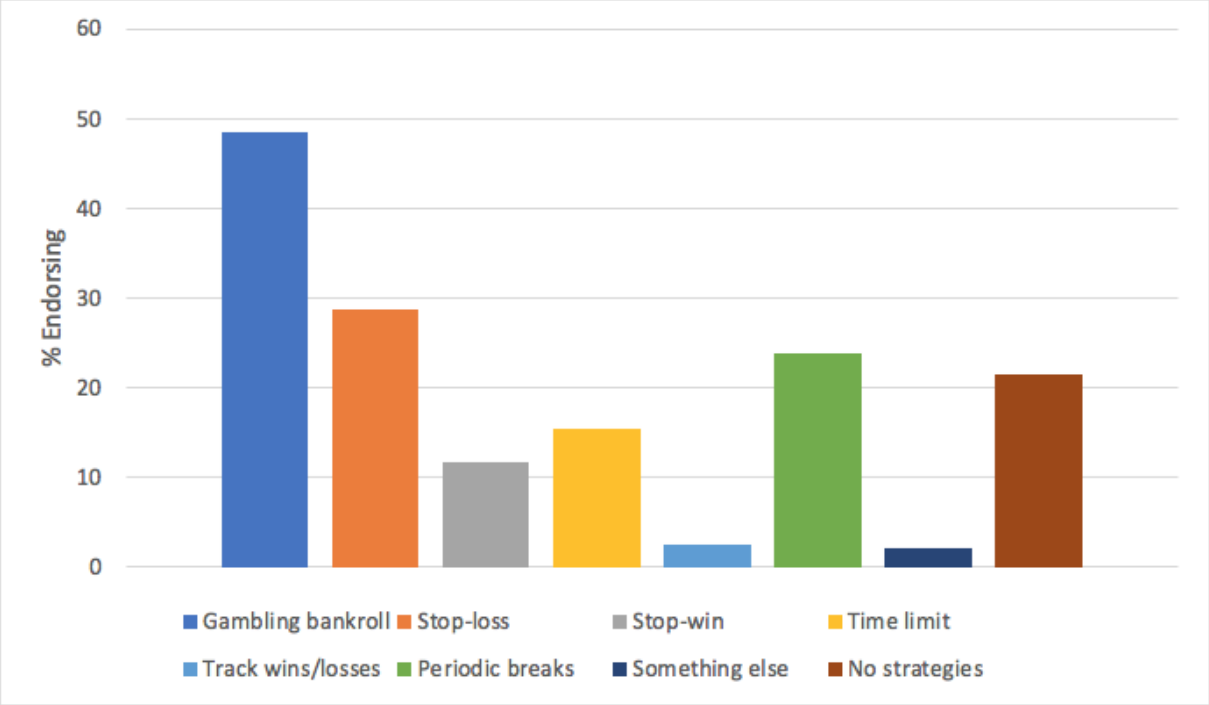
[15] We examined subgroups based on current PlayMyWay status for survey items that only individuals who are or at one time had been enrolled in PlayMyWay answered due to survey gating. We examined subgroups based on general PlayMyWay status for outcomes that all respondents answered.

[16] Because of the small cell counts, we do not report Cramer's *V* for analyses of contingency tables larger than 2×2 (e.g., when examining the distributions of income level for enrolled participants, un-enrolled participants, etc.). In cases where we perform *F*-tests and follow up with *t*-tests, we report effect sizes for the *t*-tests.

4.2.2. Responsible Gambling

We asked all 1,951 participants to report upon their typical responsible gambling strategies. Participants could report as many strategies as they wanted. A total of 136 participants did not endorse any of the responsible gambling strategy options, did not provide their own, and did not check *I do not use any specific strategies.* Because response options were exhaustive, we assumed these participants skipped the question. Figure 1 (see also Appendix 7.6, Table A5) shows that amongst the 1,815 participants who provided responses regarding their responsible gambling strategies, nearly half (48.6%) indicated they used a gambling bankroll (i.e., setting aside a specific amount of money for gambling that is separate from daily living money). Stop-loss limits ("If I'm down $___, then I'll stop gambling for the day) were the second most popular responsible gambling strategy (28.7%), followed by taking period breaks from gambling (23.9%), setting a gambling time limit (15.5%), using a stop-win limit ("If I'm up $___, then I'll stop gambling for the day"; 11.8%), keeping track of gambling with an app, spreadsheet or ledger (2.6%), and doing something else to manage gambling (2.1%).

Figure 1. Responsible gambling strategies patron survey participants utilized.



Amongst the 1,815 participants who provided responses regarding their responsible gambling strategies, most indicated that they used only one responsible gambling strategy (45.8%), followed by two strategies (17.2%) and three strategies (10.7%) (Table 1). Less than one in ten participants indicated using four or more responsible gambling strategies (4.8%), while approximately one in five (21.5%) indicated that they do not use any specific responsible gambling strategies.

Table 1. Number of responsible gambling strategies patron survey participants utilized

Number of strategies	*n*	%	Valid %
"I do not use any specific strategies."	390	20.0	21.5
One strategy	831	42.6	45.8
Two strategies	312	16.0	17.2
Three strategies	194	9.9	10.7
Four strategies	64	3.3	3.5
Five strategies	20	1.0	1.1
Six strategies	2	0.1	0.1
Seven strategies	2	0.1	0.1
No boxes checked (i.e., missing)	136	7.0	-
Total	**1951**	**100.0**	**100.0**

For participants who indicated they used some other responsible gambling strategy, we asked them to describe the strategy (see Appendix 7.7, Table B1). One unique response that several participants described was engaging in a diverse set of activities other than gambling when they go out to gamble: "meals, shopping", "other entertainment -shows, food", "play bingo or go shopping".

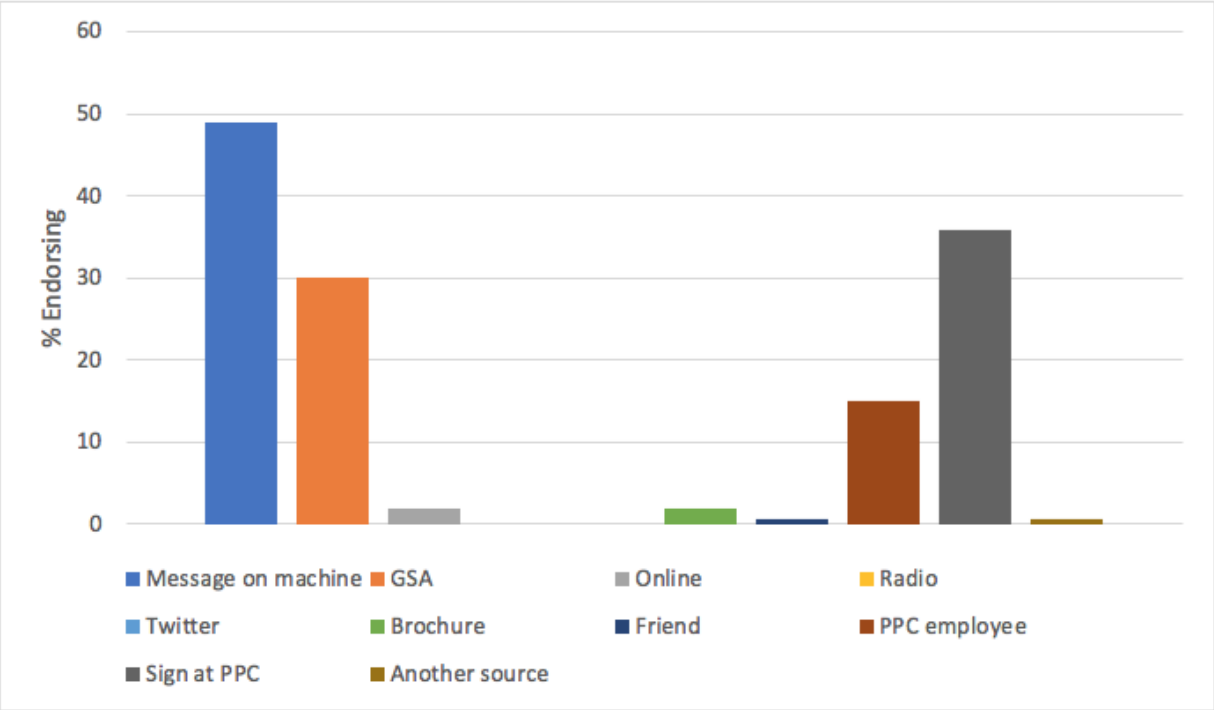
4.2.3. PlayMyWay Use & Other Experiences

We asked all 1,951 participants to indicate their PlayMyWay enrollment status (see Appendix 7.6, Table A6). A total of 134 participants did not indicate their PlayMyWay enrollment status. Of those who did, 109 (6.0%) indicated that they currently were enrolled in PlayMyWay, 44 (2.4%) indicated they previously were enrolled in PlayMyWay but since have un-enrolled, and 1,664 (91.6%) indicated that they never enrolled in PlayMyWay. This section reports upon participants' reported PlayMyWay use and other experiences.

4.2.3.1. Enrollment Decisions

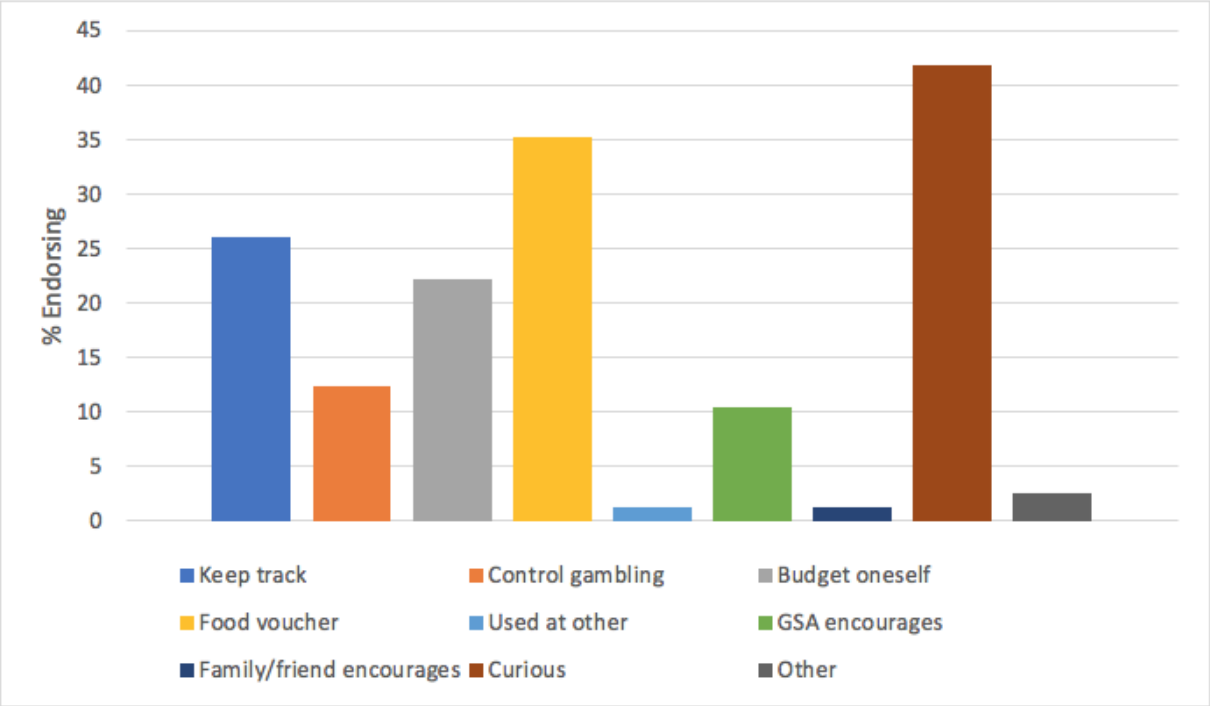
We asked the 153 participants who were *ever-enrolled* (i.e., currently or previously enrolled in PlayMyWay) how they heard about PlayMyWay. Participants could endorse as many ways as they wanted. Figure 2 (see also Appendix 7.6, Table A7) shows that the most popular response was seeing a message about PlayMyWay on a gambling machine (49.0%), followed by seeing a sign for PlayMyWay at PPC (35.9%) hearing about PlayMyWay from a GameSense Advisor (30.1%), and hearing about PlayMyWay from a PPC employee (15.0%). Less popular responses included seeing an online notification for PlayMyWay (2.0%), seeing a brochure for PlayMyWay (2.0%), hearing about PlayMyWay from a friend (0.7%), and hearing about PlayMyWay from some other source (0.7%). None of the participants indicated hearing about PlayMyWay through the radio or Twitter. For participants who indicated they heard about PlayMyWay from some other source, we asked them to specify the source (see Appendix 7.7, Table B2).

Figure 2. How ever-enrolled patron survey participants heard about PlayMyWay.



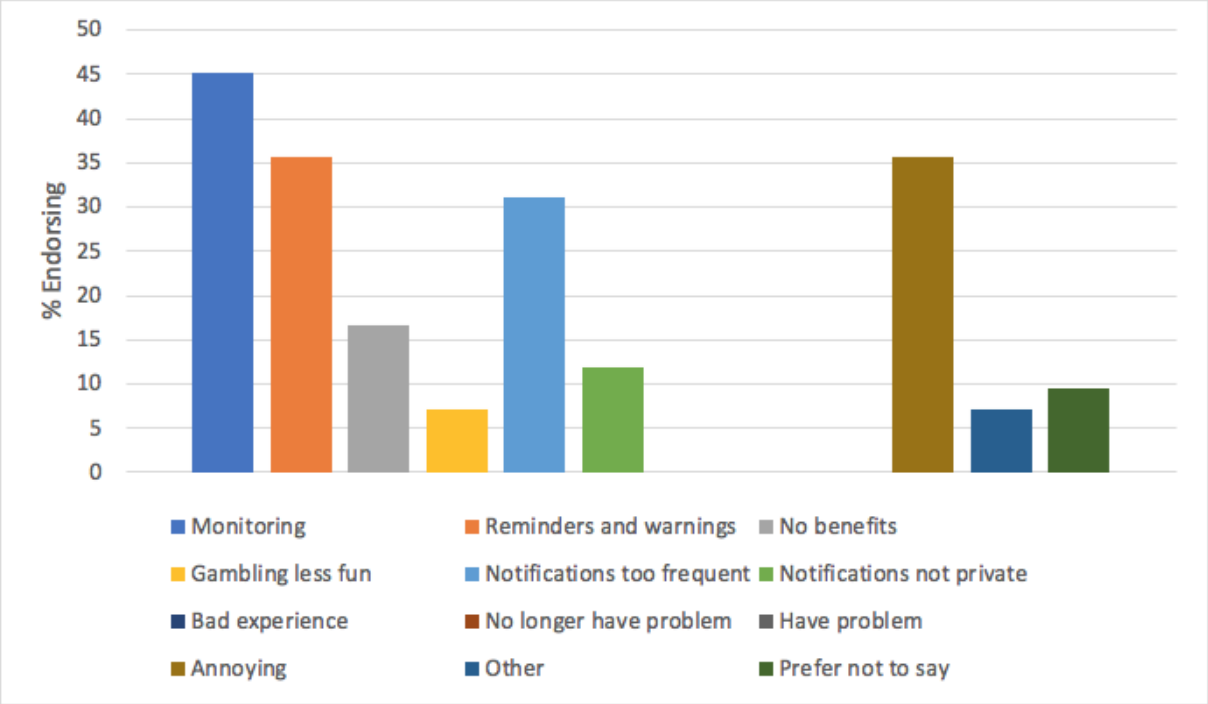
We asked the 153 ever-enrolled participants what encouraged them to enroll in PlayMyWay. Participants could endorse as many reasons as they wanted. Figure 3 (see also Appendix 7.6, Table A8) shows that the most popular response option was curiosity (41.8%) followed by the $5 food voucher incentive for enrolling (35.3%), wanting a way to keep track of gambling (26.1%), wanting a way to budget oneself (22.2%), wanting a way to control gambling (12.4%), and being encouraged to enroll by a GameSense advisor (10.5%). Less popular responses included enrolling for some other reason (2.6%), being enrolled in budgeting tools at other casinos (1.3%) and being encouraged to enroll by family or friends (1.3%). Amongst ever-enrolled participants who indicated the $5 food voucher as a reason for enrolling in PlayMyWay, 37.0% indicated only the $5 food voucher as a reason for enrolling, while the remaining 63.0% indicated at least one other reason. For participants who indicated they enrolled in PlayMyWay for some other reason, we asked them to specify the reason (Appendix 7.7, Table B3).

Figure 3. Why ever-enrolled patron survey participants enrolled in PlayMyWay.



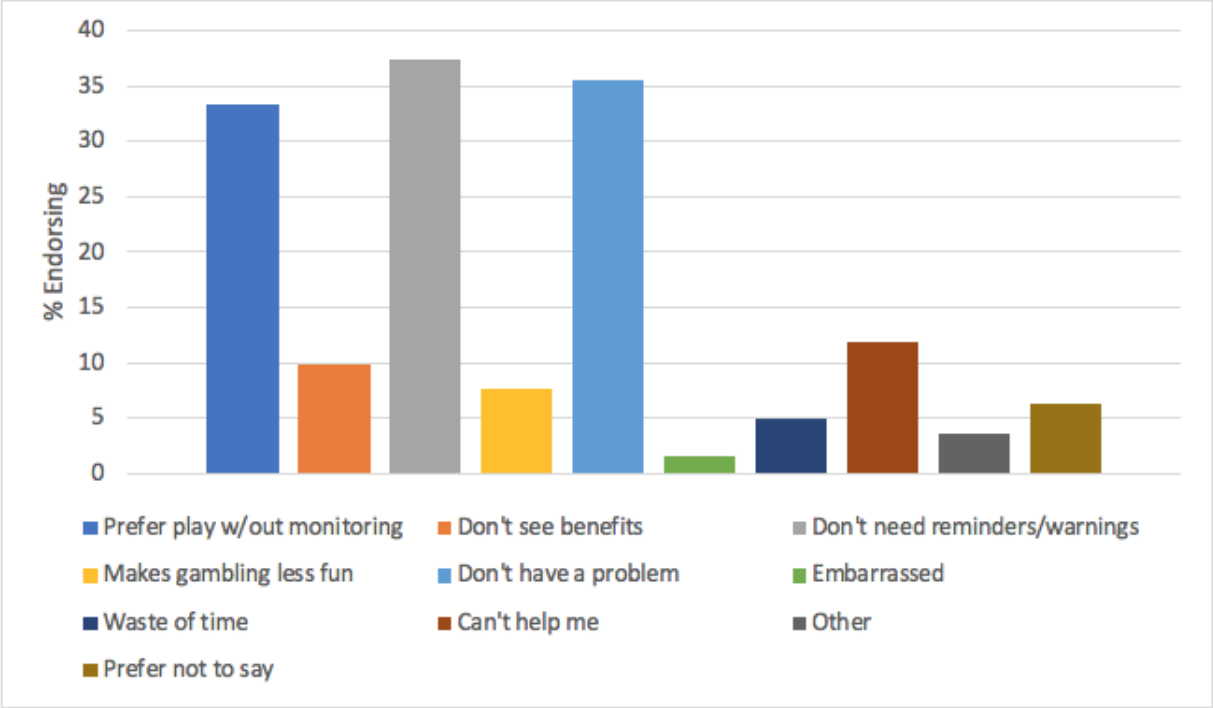
We asked the 44 participants who un-enrolled from PlayMyWay what encouraged them to un-enroll from the program. Two un-enrolled participants did not endorse any reason (i.e., response options were exhaustive, including "prefer not to say", so we assumed these participants to be missing). Figure 4 (see also Appendix 7.6, Table A9) shows that amongst the 42 previously enrolled participants who endorsed at least one reason for un-enrolling, the most popular response was preferring to gamble without PlayMyWay monitoring (45.2%), followed by believing budget notifications to be annoying (35.7%), not wanting reminders and warnings (35.7%), believing budget notifications were too frequent (31.0%), not seeing the benefits of PlayMyWay (16.7%), and believing budget notifications were not private enough (11.9%). Less popular responses include believing PlayMyWay makes gambling less fun (7.1%) and un-enrolling for some other reason (7.1%). No one endorsed that they un-enrolled because they had a bad experience with PlayMyWay, because they no longer had a gambling problem, or because they had a gambling problem. Four participants (9.5%) reported that they preferred not to say why they un-enrolled from PlayMyWay. For participants who indicated they un-enrolled for PlayMyWay for some other reason, we asked them to specify the reason (Appendix 7.7, Table B4).

Figure 4. Why un-enrolled patron survey participants un-enrolled from PlayMyWay.



We asked the 1,664 participants who *never enrolled in PlayMyWay* their reasons for not enrolling. A total of 21 never-enrolled participants did not endorse any reason (response options were exhaustive and so we assumed these participants to be missing). Of the remaining 1,643 never-enrolled participants, a total of 1,006 (61.2%) indicated they had never heard of PlayMyWay[17]. Figure 5 (see also Appendix 7.6, Table A10) shows that among the remaining 637 who did not indicate that they'd never heard of PlayMyWay, the most popular response option for not enrolling in the program was not needing reminders and warnings about gambling (37.4%), followed by not having a problem with gambling (35.5%), and preferring to play without PlayMyWay monitoring (33.4%).

Figure 5. Why never-enrolled patron survey participants who were aware of PlayMyWay never enrolled in PlayMyWay.



For participants who indicated they did not enroll in PlayMyWay for some other reason, we asked them to specify the reason (Appendix 7.7, Table B5). Some shared responses included infrequency of gambling: "Don't need it don't gamble a lot", "Don't gamble too often" and living out of state: "I do not live in Massachusetts", "I live out of state?" "[I live] in [N]ew York state".

4.2.3.2. Budget Decisions

We asked the 153 ever-enrolled participants to recall the budgets (daily, weekly, and/or monthly) they first set when they enrolled. A total of 64 ever-enrolled participants did not indicate their first budget(s).

[17] In some of the analyses in Section 4.3.4, we partition those who *never enrolled* into two groups. We label the 1,006 who responded "I have never heard of PlayMyWay" as *never heard* and label the remaining 658 as *not interested*.

Among those who did, 59 indicated they set a daily budget (66.3%), 31 indicated they set a weekly budget (34.8%), and 43 indicated they set a monthly budget (48.3%).

We asked the 153 ever-enrolled participants to recall their first daily, weekly, and monthly budget sizes. A total of 59 ever-enrolled participants reported an initial daily budget size, 27 reported an initial weekly budget size, and 40 reported an initial monthly budget size.[18] Table 2 shows that median first budget sizes were similar across budget types.

We asked the 109 currently enrolled participants to recall the budgets (daily, weekly, and/or monthly) they currently have. A total of 40 currently enrolled participants did not indicate any of their current budget(s). Among those who did, 45 indicated they currently have a daily budget (65.2%), 19 indicated they currently have a weekly budget (27.5%), and 31 indicated they currently have a monthly budget (44.9%).

We asked the 109 currently enrolled participants to recall their current daily, weekly, and monthly budget sizes. A total of 45 currently enrolled participants reported a current daily budget size, 18 reported a current weekly budget size, and 29 recalled a current monthly budget size. As shown in Table 2, median current budget sizes were the same across budget types.

Table 2. First (ever-enrolled patron survey participants) and current (currently enrolled patron survey participants) PlayMyWay budget sizes.

	Budget	*n*	Min	25th Percentile	50th Percentile	75th Percentile	Max
First Budget	Daily	59	$20	$100	$200	$300	$2000
	Weekly	27	$40	$125	$200	$500	$5000
	Monthly	40	$1	$100	$225	$500	$2000
Current Budget	Daily	45	$20	$100	$200	$300	$2000
	Weekly	18	$40	$100	$200	$375	$5000
	Monthly	29	$20	$100	$200	$500	$6000

4.2.3.3. Notification Reactions

We asked the 153 ever-enrolled participants what their typical reaction was upon receiving approaching, reached, and exceeding notifications. Table 3 shows that a total of 92 (60.1%) ever-enrolled participants indicated they received at least one approaching notification. Approximately one fifth of these participants (21.7%) indicated that they typically stopped playing upon receiving an approaching notification, while the remainder (78.3%) indicated that they typically continued to play as before.

A total of 89 (58.2%) ever-enrolled participants indicated they received at least one reached notification. Of these participants, a minority (40.4%) indicated that they typically stopped playing upon receiving a reached notification, while the majority (59.6%) indicated that they typically continued to play as before.

[18] Two reasons participants might not report a specific budget size include: (1) they never set that budget or (2) they cannot remember the budget amount.

A total of 66 (43.1%) ever-enrolled participants indicated they received at least one exceeding notification. Of these participants, one in three (33.3%) indicated that they typically stopped playing upon receiving an exceeding notification, while the remaining two thirds (66.7%) indicated that they typically continued to play as before.

Table 3. Typical reactions of ever-enrolled patron survey participants to PlayMyWay notifications.

Notification type	Reaction	*n*	%	Valid %
Approaching Notification	Stopped playing	20	13.1	21.7
	Continued to play as before	72	47.1	78.3
	Never received this message	30	19.6	-
	No response (i.e., missing)	31	20.3	-
	Total	**153**	**100.0**	**100.0**
Reached Notification	Stopped playing	36	23.5	40.4
	Continued to play as before	53	34.6	59.6
	Never received this message	32	20.9	-
	No response (i.e., missing)	32	20.9	-
	Total	**153**	**100.0**	**100.0**
Exceeding Notification	Stopped playing	22	14.4	33.3
	Continued to play as before	44	28.8	66.7
	Never received this message	55	35.9	-
	No response (i.e., missing)	32	20.9	-
	Total	**153**	**100.0**	**100.0**

Note: Readers should not assume a logical gating progression between notifications (e.g., all those who received a reached notification should have first received an approaching notification). There are also some circumstances where respondents can receive reached and exceeding notifications without having previously received an approaching notification (see Section 3.1 for details on this issue). Furthermore, the questions ask respondents' typical reaction to each notification, not their reaction in every instance of receiving each notification.

4.2.3.4. System Experiences

For the 153 ever-enrolled participants, we calculated their SUS score using an additive procedure for the ten original items[19] laid out by (Brooke, 1996). SUS scores ranged from 0 to 100. A total of 41 ever-enrolled participants did not answer one or more SUS items, precluding this calculation. For the 112 ever-enrolled participants with valid SUS scores, the average score was 67.0 (SD = 16.6), which indicates that participants considered PlayMyWay "OK to Good" in terms of its usability (Bangor, Kortum, & Miller, 2009).

[19] In addition to the 10 original SUS items, we added an 11th item to the survey: *I felt more confident gambling using PlayMyWay*. However, we excluded this item from our SUS score calculation.

We also analyzed ever-enrolled participants' individual responses to each item of the SUS, including responses from ever-enrolled participants who did not answer every item of the scale, but responded to some items (Table 4). Recall that we used a scale from 1 to 5, where 1 means strongly disagree and 5 means strongly agree. Participants were somewhat agreeable with ease-of-use statements such as *I thought PlayMyWay was easy to use* (Mean = 3.9, SD = 1.0; Median = 4), *I would imagine that most people would learn to use PlayMyWay quickly* (Mean = 3.9, SD = 1.1; Median = 4) and *I felt very confident using PlayMyWay* (Mean = 3.7, SD = 1.1; Median = 4). Likewise, participants were disagreeable or somewhat disagreeable with statements asserting that PlayMyWay was difficult to use, such as, *I found PlayMyWay unnecessarily complex* (Mean = 2.5, SD = 1.2; Median = 3). *I think that I would need assistance to be able to use PlayMyWay* (Mean = 1.8, SD = 1.1; Median = 1), *I found PlayMyWay very cumbersome/awkward to use* (Mean = 2.4, SD = 1.2; Median = 2), *I thought there was too much inconsistency in PlayMyWay* (Mean = 2.5, SD = 1.1; Median = 3), and *I needed to learn a lot of things before I could get going with PlayMyWay* (Mean = 2.1, SD = 1.1; Median = 2). Participants either were more divided or were neutral on the following statements *I think that I would like to use PlayMyWay frequently* (Mean = 2.9, SD = 1.3; Median = 3) and *I felt more confident gambling using PlayMyWay* (Mean = 3.0, SD = 1.2; Median = 3), and *I found the various functions of PlayMyWay were well integrated* (Mean = 3.5, SD = 1.1; Median = 3).

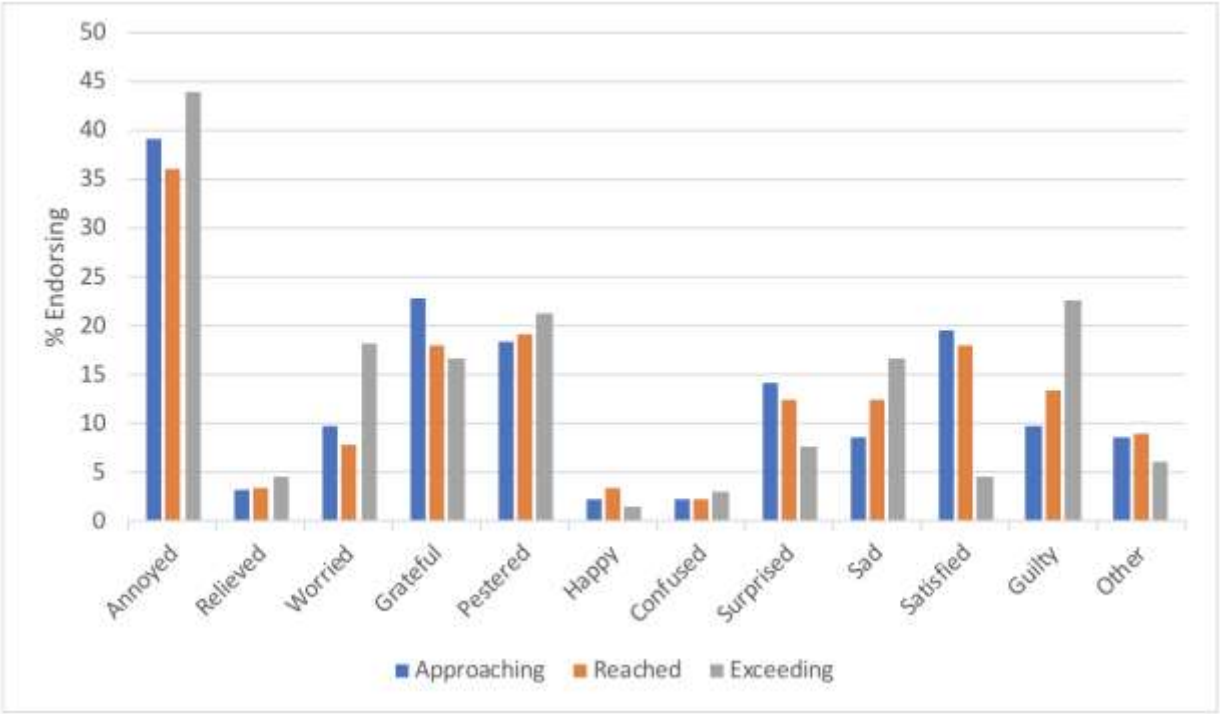
Table 4. Ever-enrolled patron survey participants' responses to SUS items.

	***n*[a]**	**Percent Strongly disagree (1)**	**Percent Somewhat disagree (2)**	**Percent Neither agree nor disagree (3)**	**Percent Somewhat agree (4)**	**Percent Strongly agree (5)**
I think that I would like to use PlayMyWay frequently	122	20.5	14.8	32.8	16.4	15.6
I found PlayMyWay unnecessarily complex	120	25.8	21.7	37.5	6.7	8.3
I thought PlayMyWay was easy to use	118	2.5	4.2	25.4	33.9	33.9
I think that I would need assistance to be able to use PlayMyWay	117	57.3	16.2	17.9	4.3	4.3
I found the various functions of PlayMyWay were well integrated	117	6.0	5.1	52.1	11.1	25.6
I thought there was too much inconsistency in PlayMyWay	117	21.4	25.6	40.2	3.4	9.4
I would imagine that most people would learn to use PlayMyWay very quickly	115	4.3	2.6	31.3	27.0	34.8
I found PlayMyWay very cumbersome/awkward to use	116	30.2	26.7	29.3	4.3	9.5
I felt very confident using PlayMyWay	115	4.3	5.2	38.3	20.0	32.2
I needed to learn a lot of things before I could get going with PlayMyWay	115	37.4	24.3	31.3	0.9	6.1
I felt more confident gambling using PlayMyWay	115	16.5	11.3	46.1	10.4	15.7

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

We provided subsamples of ever-enrolled participants who received at least one approaching notification (*n* = 92), at least one reached notification (*n* = 89), or at least one exceeding notification (*n* = 66) with a list of emotions/feelings, and then asked them to indicate which, if any, described their emotional reactions to the respective notifications. Figure 6 (see also Appendix 7.6, Table A11) shows that for participants who received an approaching notification, the most popular feelings were annoyed (39.1%), grateful (22.8%), satisfied (19.6%), and pestered (18.5%). For participants who received a reached notification, the most popular feelings were annoyed (36.0%), pestered (19.1%), satisfied (18.0%), and grateful (18.0%). For participants who received an exceeding notification, the most popular feelings were annoyed (43.9%), guilty (22.7%), and pestered (21.2%).

Figure 6. Typical emotional responses of ever-enrolled patron survey participants to PlayMyWay notifications.



For participants who indicated feeling *some other way* upon receiving individual notifications (approaching, reached and exceeding) we asked them to describe any other feelings (see Appendix 7.7, Table B6-B8). The most consistent unique feeling participants indicated for all three notifications was insouciance: "didn't really care," "Indifferent," "neutral," "Unemotional."

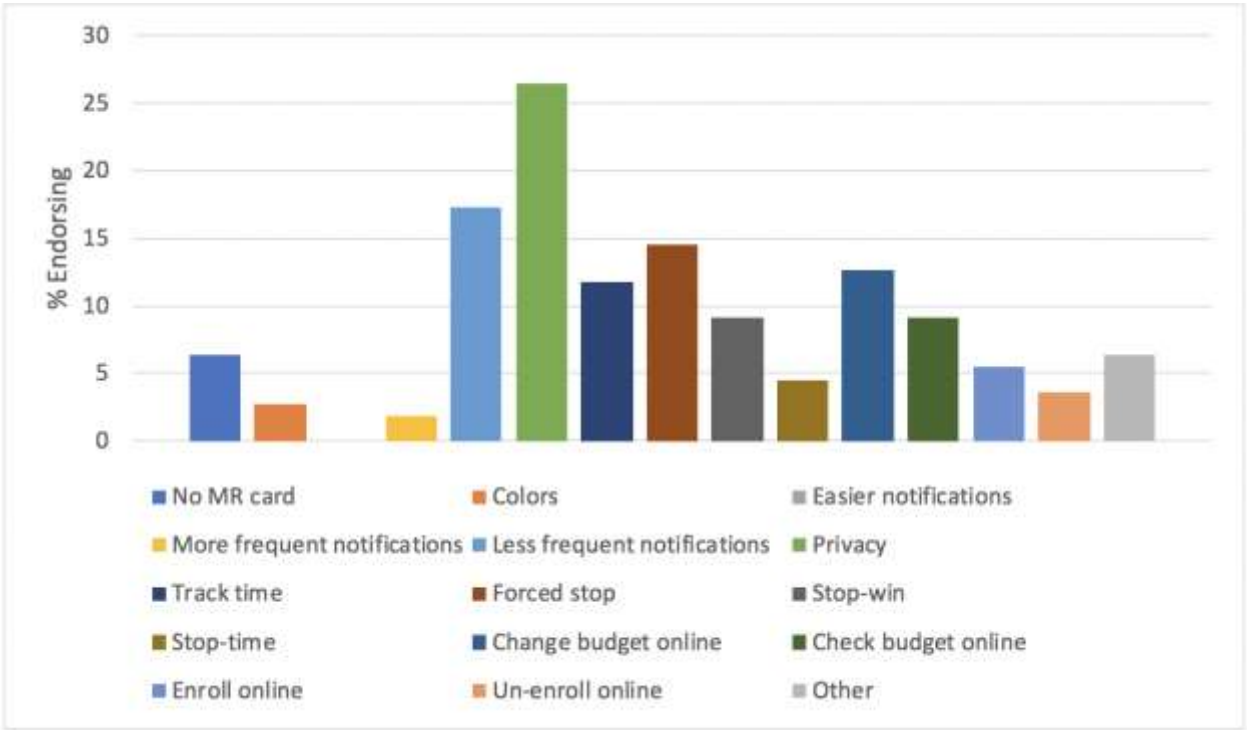
We asked the 153 *ever-enrolled* participants whether they had ever recommended PlayMyWay to another person. A total of 31 participants did not answer this question. Table 5 shows that of the remaining participants, 28.7% recommended PlayMyWay to at least one other person.

Table 5. Whether ever-enrolled patron survey participants ever recommended PlayMyWay to another person.

Response	*n*	%	Valid %
Yes	35	22.9	28.7
No	87	56.9	71.3
Missing	31	20.3	-
Total	**153**	**100.0**	**100.0**

We provided the 153 ever-enrolled participants a list of items detailing ways in which PlayMyWay could be improved and asked them to check off the ones with which they agreed. A total of 43 ever-enrolled participants (28.1%) checked the response *I like it the way it is, it doesn't need to change.* Figure 7 (see also Appendix 7.6, Table A12) shows that, for the remaining 110 ever-enrolled participants, the most popular response was *It had more privacy* (26.4%) followed by *The notifications came less frequently* (17.3%) and *It made me stop when I reached my budget* (14.5%).

Figure 7. How ever-enrolled patron survey participants who did not indicate that they like PlayMyWay the way it is think PlayMyWay could be improved.



For participants who indicated some other way PlayMyWay could be improved, we asked them to describe those ways (see Appendix 7.7, Table B9). One participant indicated “calculated win/loss”, suggesting s/he was unaware of, did not know how to use, or was unsatisfied with the play tracking feature of the PlayMyWay system. Another participant expressed dissatisfaction that PlayMyWay does not allow the

option of forcing a hard stop: “I mean the only problem is it don’t stop you from actually gambling so people who have problems it isn’t controlling what they do there...” One participant expressed dissatisfaction with the sounds that accompany notifications: “the chime it made was a different noise.” Finally, one participant wanted the option to have a yearly budget: “yearly budget amount.”

4.2.4. Gambling Behavior

This section reports upon respondents’ reported gambling activity and gambling-related problems.

4.2.4.1. Gambling Activity

We asked all 1,951 patron survey participants how often in the past 12 months they gambled at (1) a slots parlor/casino in Massachusetts; (2) a slots parlor/casino in a state neighboring Massachusetts; and (3) other slots parlors/casinos during the last 12 months. Table 6 shows that a total of 1,676 participants (85.9% of the total sample) indicated how often they had gambled at a slots parlor/casino in Massachusetts. For these participants, the most popular response was a couple of times (35.1%), followed by less than once per month (18.0%) and a couple times a month (17.2%). A total of 1,667 participants (85.4% of the total sample) indicated how often they had gambled at a slots parlor/casino in a state neighboring Massachusetts. For these participants, the most popular response was a couple of times (38.7%), followed by less than once per month (19.4%) and never (13.1%). A total of 1,629 participants (83.5% of the total sample) indicated how often they had gambled at other slots parlors/casinos. For these participants, the most popular response was never (43.5%), followed by a couple of times (33.7%), and less than once per month (11.5%).

Table 6. How often patron survey participants visited slot parlors and casinos in the past 12 months.

Measure	*n*[a]	Never (%)	A couple of times (%)	Less than once per month (%)	About once per month (%)	A couple times a month (%)	Weekly (%)	A couple times a week (%)	Daily or more (%)
In MA	1676	3.1	35.1	18.0	12.7	17.2	8.2	5.1	0.7
Around MA	1667	13.1	38.7	19.4	11.0	10.9	4.6	2.2	0.1
Other States	1629	43.5	33.7	11.5	4.5	3.6	1.7	1.3	0.2

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others. In MA = Slots parlor/casino in Massachusetts (e.g., Plainridge Park Casino); Around MA = Slots parlor/casino in a state neighboring Massachusetts (i.e., NH, VT, NY, CT, RI); Other States = Other slots parlor/casino in another state.

We asked all 1,951 patron survey participants how often in the past 12 months they bet or spent money on specific games (Table 7; see Appendix 7.4 for full text of items measured). A total of 1,671 participants (85.6% of the total sample) indicated how often they had played a lottery. For these participants, the most popular response was a couple of times (21.6%). A total of 1,669 participants (85.5% of the total sample) indicated how often they had played slot machines or video keno at a casino. For these participants, the most popular response was a couple of times (25.9%). A total of 1,660 participants (85.1% of the total sample) indicated how often they had bet on sports with friends or co-workers. For these participants, the most popular response was never (70.6%). A total of 1,657 participants (84.9% of the total sample) indicated how often they had gambled at a non-profit gathering. For these participants, the most popular response was never (68.1%). A total of 1,655 participants (84.8% of the total sample) indicated how often

they had played non-poker tables games at a casino. For these participants, the most popular response was never (65.0%). A total of 1,653 participants (84.7% of the total sample) indicated how often they gambled online. For these participants, the most popular response was never (76.1%). A total of 42 participants (2.2% of the total sample) indicated how often they gambled in some other way. For these participants, the most popular response was a couple of times (28.6%).

Table 7. How often patron survey participants bet or spent money on various gambling activities in the past 12 months.

Measure	*n*[a]	Never (%)	A couple of times (%)	Less than once per month (%)	About once per month (%)	A couple times a month (%)	Weekly (%)	A couple times a week (%)	Daily or more (%)
Playing a type of lottery	1671	9.8	21.6	11.9	8.1	13.7	18.8	8.5	7.7
Playing slot machines or video keno	1669	10.8	25.9	17.6	14.0	16.9	9.5	4.4	0.9
Betting on sports with friend or in an office pool	1660	70.6	20.5	3.8	2.1	1.4	1.1	0.3	0.2
Gambling at a non-profit gathering/event	1657	68.1	22.2	4.7	2.0	1.1	1.7	0.2	0.0
Casino games other than poker	1655	65.0	19.6	6.8	3.6	3.3	1.5	0.2	0.0
Gambled online	1653	76.1	9.9	3.2	2.1	3.0	2.5	1.9	1.2
Other	42	0.0	28.6	9.5	7.1	9.5	14.3	19.0	11.9

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

The Massachusetts Gaming Commission has adopted a classification system for gambling frequency based on criteria outlined by the *Informed Decision Making Framework*, which was developed by the Responsible Gambling Council's Centre for the Advancement of Best Practices (2010) to "assist decision makers in their efforts to promote informed decisions among patrons and to reduce the risk that patrons will develop problems related to their gambling" (p. 4). This framework distinguishes *casual* gamblers (i.e., individuals who gamble less than once/month) from *frequent* gamblers (i.e., individuals who gamble at least once per month but not weekly) and *intensive* gamblers (i.e., individuals who gamble weekly or more).

With these definitions in mind, we defined participants' depth of involvement as the maximum frequency they reported for any gambling location (Table 6) and gambling activity (Table 7) during the previous twelve months. Of the 1,951 patron survey participants, we could not calculate depth of involvement for 273 participants who did not indicate their gambling frequency for any locations or any activities. Aggregating the results of Tables 6 and 7 to match these categories, Table 8 shows that a total of 329 patron survey participants were casual gamblers (19.6%), 550 were frequent gamblers (32.8%), and 799 were intensive gamblers (47.6%).

Table 8. Depth of gambling involvement amongst patron survey participants.

Depth of gambling involvement	Informed Decision Model Classification	*n*	%	Valid %
Never	Casual gamblers	2	0.1	0.1
A couple of times		139	7.1	8.3
Less than once per month		188	9.6	11.2
About once per month	Frequent gamblers	184	9.4	11.0
A couple times a month		366	18.8	21.8
Weekly	Intensive gamblers	408	20.9	24.3
A couple times a week		244	12.5	14.5
Daily or more		147	7.5	8.8
Missing		273	14.0	-
Total		**1951**	**100.0**	**100.0**

We defined a participant's breadth of gambling involvement as the number of items out of the first six in Table 7 for which the participant reports a frequency more often than "Never." Table 9 shows that of the 1,951 patron survey participants, 275 did not indicate how often they engaged in any gambling activities (i.e., did not answer any of the items). The average breadth among the remaining 1,676 participants was 3.0 items (SD = 1.3). Most participants engaged in two gambling activities during the past year (32.5%), followed by three activities (26.8%) and four activities (15.9%).

Table 9. Breadth of gambling involvement amongst patron survey participants.

Breadth of gambling involvement	*n*	%	Valid %
Zero gambling activities	16	0.8	1.0
One gambling activity	151	7.7	9.0
Two gambling activities	544	27.9	32.5
Three gambling activities	450	23.1	26.8
Four gambling activities	267	13.7	15.9
Five gambling activities	156	8.0	9.3
Six gambling activities	92	4.7	5.5
Missing	275	14.1	-
Total	**1951**	**100.0**	**100.0**

4.2.4.2. Gambling-related Problems

We administered the BBGS to all 1,951 patron survey participants. Table 10 shows that a total of 131 participants indicated that they became restless, irritable, or anxious when they tried to stop or cut down

on gambling (7.8% of participants who answered this item). In other words, they endorsed the "Withdrawal" criterion of the BBGS. A total of 229 participants indicated that they tried to keep family and friends from knowing how much they gambled (13.7% of participants who answered this item), thereby endorsing the "Deception" criterion. A total of 68 participants indicated that they had financial trouble as a result of their gambling, to the point that they needed help with living expenses (4.1% of participants who answered this item), thereby endorsing the "Bailout" criterion.

A positive BBGS screen simply requires a positive response to one or more of the three aforementioned criteria (i.e., Withdrawal, Deception, and/or Bailout). However, a total of 278 participants either (1) skipped all the BBGS items or (2) skipped one or two BBGS items and responded negatively to the remaining item(s). For these participants, although we might have some information related to their response to specific items, incomplete information on other items meant we could not confirm their actual BBGS status. We determined the BBGS status of the remaining 1,673 participants who either (1) indicated a response, positive or negative, to all three BBGS items; or (2) indicated a positive response to at least one BBGS item. Among the 1,673 participants for whom we could confirm BBGS status, 16.6% screened positive (i.e., answered Yes to one or more BBGS items) whereas the remaining 83.4% screened negative (i.e., answered No to all BBGS items).

Table 10. Patron survey participants' responses to BBGS items and their BBGS status.

Item	Response	*n*	%	Valid %
Became restless, irritable, or anxious when trying to stop/cut down on gambling	Yes	131	6.7	7.8
	No	1545	79.2	92.2
	Missing	275	14.1	-
	Total	1951	100.0	100.0
Tried to keep family and friends from knowing how much he/she gambled	Yes	229	11.7	13.7
	No	1448	74.2	86.3
	Missing	274	14.0	-
	Total	1951	100.0	100.0
Had such financial trouble as a result of gambling that he/she had to get help with living expenses from family, friends, or welfare	Yes	68	3.5	4.1
	No	1608	82.4	95.9
	Missing	275	14.1	-
	Total	1951	100.0	100.0
BBGS Status	Confirmed BBGS+	277	14.2	16.6
	Confirmed BBGS-	1396	71.6	83.4
	Unconfirmed	278	14.2	-
	Total	1951	100.0	100.0

4.2.5. Comparative Analyses

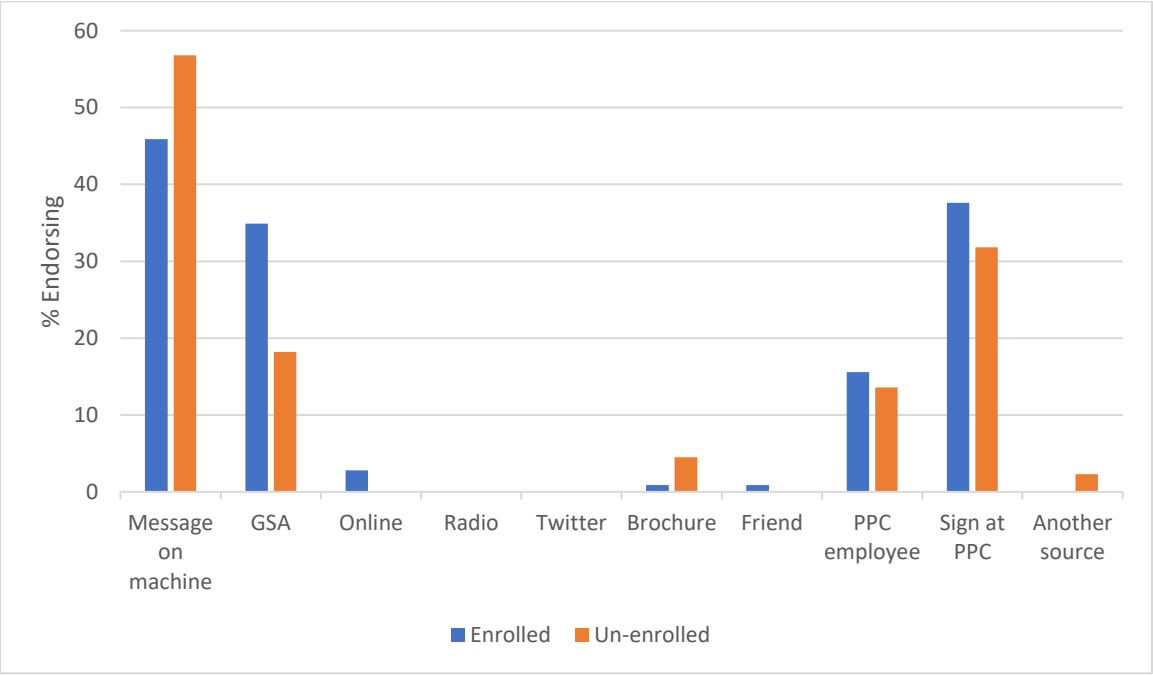
This section reports upon comparative analyses by (1) enrollment status (current and general) and (2) BBGS status. To streamline our presentation, we limited tables in the text body to those involved with at least one significant difference between groups and located all other tables in Appendix 7.6. We also conducted comparative analyses across depth of involvement groups (i.e., casual, frequent, and intensive), however, cell counts tended to be small for many of these analyses. Therefore, we present depth of involvement comparative analyses separately in Appendix 7.8.

4.2.5.1. Comparing by Current Enrollment Status

As mentioned in the Method section, the survey gated people who ever enrolled in PlayMyWay into questions related to their experiences with PlayMyWay. The following analyses compare responses to the PlayMyWay experience questions (i.e., how they heard about PlayMyWay, reasons for enrolling in PlayMyWay, first budget size, reactions to budget notifications, general impressions of PlayMyWay, whether they've recommended PlayMyWay to anyone, and how PlayMyWay might be improved) between 109 currently enrolled (hereafter *enrolled*) and 44 currently un-enrolled (hereafter *un-enrolled*) patron survey participants. These analyses did not include data from the 1,664 never-enrolled participants, who due to gating did not see the questions, or the 134 participants who did not indicate their PlayMyWay enrollment status.

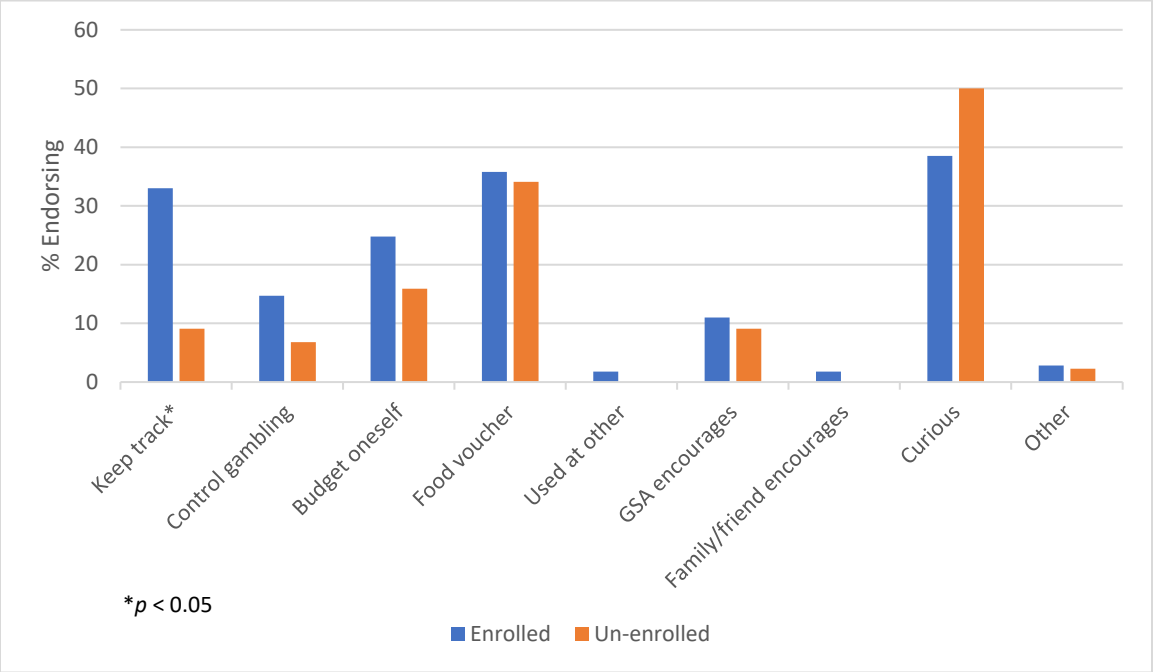
There were no significant differences between the two groups' endorsed responses regarding how they heard about PlayMyWay (F.e.t.'s, all *p*-values above 0.05; Figure 8; see also Appendix 7.6, Table A13).

Figure 8. How enrolled and un-enrolled participants heard about PlayMyWay.



We compared enrolled participants' (n = 109) and un-enrolled participants' (n = 44) responses to why they enrolled in PlayMyWay (Figure 9; see also Appendix 7.6, Table A14). The enrolled participants were significantly more likely to endorse that they *wanted a way to keep track of gambling* than the un-enrolled participants (33.0% versus 9.1%, F.e.t.: p = 0.002, OR = 4.889). Enrolled and un-enrolled participants were not significantly different with respect to the other responses.

Figure 9. Why enrolled and un-enrolled participants enrolled in PlayMyWay.



We compared the enrolled participants' first daily, weekly, and monthly budgets to the unenrolled participants' first daily, weekly, and monthly budgets, respectively (Appendix 7.6, Table A15). There were no significant differences between the two groups (Wilcoxon rank sum tests, all p-values greater than 0.05).

We compared enrolled participants' and un-enrolled participants' typical reactions to approaching, reached, and exceeding notifications (Table 11). Enrolled participants were more likely than un-enrolled participants to indicate that they stopped playing upon receiving an approaching notification (29.0% versus 6.7%, F.e.t.: $p = 0.016$, OR = 5.641), a reached notification (52.6% versus 18.8%, F.e.t.: $p = 0.002$, OR = 4.730), or an exceeding notification (47.4% versus 14.3%, F.e.t.: $p = 0.008$, OR = 5.264).

Table 11. Typical reactions of enrolled and un-enrolled participants to PlayMyWay notifications.

Notification Type	**Response**	**Enrolled Participants**			**Un-enrolled Participants**		
		n	%	Valid %	*n*	%	Valid %
Approaching*	Stopped playing	18	16.5	29.0	2	4.5	6.7
	Continued to play as before	44	40.4	71.0	28	63.6	93.3
	I never received this sort of message	24	22.0	-	6	13.6	-
	Missing	23	21.1	-	8	18.2	-
	Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**
Reached*	Stopped playing	30	27.5	52.6	6	13.6	18.8
	Continued to play as before	27	24.8	47.4	26	59.1	81.2
	I never received this sort of message	29	26.6	-	4	9.1	-
	Missing	23	21.1	-	8	18.2	-
	Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**
Exceeding*	Stopped playing	18	16.5	47.4	4	9.1	14.3
	Continued to play as before	20	18.3	52.6	24	54.5	85.7
	I never received this sort of message	47	43.1	-	8	18.2	-
	Missing	24	22.0	-	8	18.2	-
	Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**

*$p < 0.05$

Of the 190 enrolled participants, 78 (71.6%) answered each of the first ten SUS items and had valid System Usability Scale (SUS) scores (Mean = 71.3, SD = 16.6). Of the 44 un-enrolled participants, 34 (77.3%) similarly had valid SUS scores (Mean = 57.1, SD = 11.7). Enrolled participants had significantly higher usability scores than un-enrolled participants ($t(87.53) = 5.2$, $p < 0.001$, Cohen's $d = 0.93$).

We also converted each participant's response to a usability scale item to a number (i.e., 1 for strongly disagree to 5 for strongly agree) and then compared the values from enrolled participants to those from un-enrolled participants (Table 12). On average, un-enrolled participants disagreed more than enrolled participants with the statements *I think that I would like to use PlayMyWay frequently* ($t(85.0) = 8.8$, $p < 0.001$, Cohen's $d = 1.570$) and *I felt more confident gambling using PlayMyWay* ($t(64.8) = 4.2$, $p < 0.001$, Cohen's $d = 0.836$). In contrast, enrolled participants disagreed more than un-enrolled participants with the statements *I found PlayMyWay unnecessarily complex* ($t(71.8) = -2.3$, $p = 0.025$, Cohen's $d = 0.441$), *I thought there was too much inconsistency in PlayMyWay* ($t(63.2) = -2.5$, $p = 0.015$, Cohen's $d = 0.505$), and *I found PlayMyWay very cumbersome/awkward to use* ($t(56.4) = -4.0$, $p < 0.001$, Cohen's $d = 0.861$). Enrolled participants agreed more than un-enrolled participants with the statement *I felt very confident using PlayMyWay* ($t(61.5) = 3.3$, $p = 0.002$, Cohen's $d = 0.683$). Enrolled and un-enrolled participants did not respond significantly differently to the other usability scale items.

Table 12. Enrolled and un-enrolled participants' responses to SUS items.

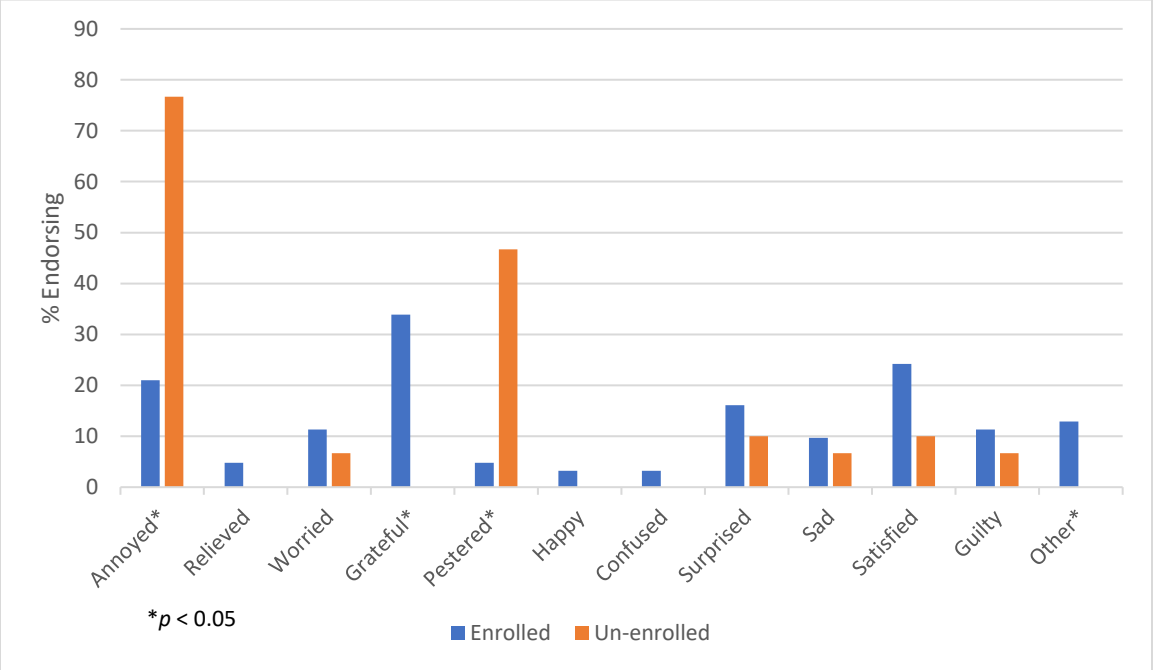
Item	**Enrolled Participants**			**Un-enrolled Participants**		
	n[a]	mean	SD	*n*[a]	mean	SD
I think that I would like to use PlayMyWay frequently*	86	3.4	1.2	36	1.7	0.9
I found PlayMyWay unnecessarily complex*	84	2.3	1.2	36	2.9	1.1
I thought PlayMyWay was easy to use	83	4.0	1.0	35	3.8	1.0
I think that I would need assistance to be able to use PlayMyWay	83	1.9	1.2	34	1.7	1.1
I found the various functions of PlayMyWay were well integrated	83	3.6	1.1	34	3.2	1.1
I thought there was too much inconsistency in PlayMyWay*	83	2.4	1.1	34	2.9	1.1
I would imagine that most people would learn to use PlayMyWay very quickly	81	3.9	1.1	34	3.9	1.0
I found PlayMyWay very cumbersome/awkward to use*	82	2.1	1.1	34	3.1	1.2
I felt very confident using PlayMyWay*	80	3.9	1.0	35	3.2	1.1
I needed to learn a lot of things before I could get going with PlayMyWay	81	2.0	1.1	34	2.4	1.1
I felt more confident gambling using PlayMyWay*	81	3.3	1.2	34	2.3	1.1

*$p < 0.05$

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

Sixty-two enrolled participants and 30 un-enrolled participants reported receiving an approaching notification (Figure 10; see also Appendix 7.6, Table A16). Upon receiving an approaching notification, un-enrolled participants were significantly more likely than enrolled participants to feel annoyed (76.7% versus 21.0%, F.e.t.: $p < 0.001$, OR = 11.952) and pestered (46.7% versus 4.8%, F.e.t.: $p < 0.001$, OR = 16.536) while enrolled participants were significantly more likely than un-enrolled participants to feel grateful (33.9% versus 0.0%, F.e.t.: $p < 0.001$, OR = ∞)[20] and some other way (12.9% versus. 0.0%, F.e.t.: $p = 0.050$, OR = ∞). Enrolled and un-enrolled participants were not significantly different with respect to the other responses.

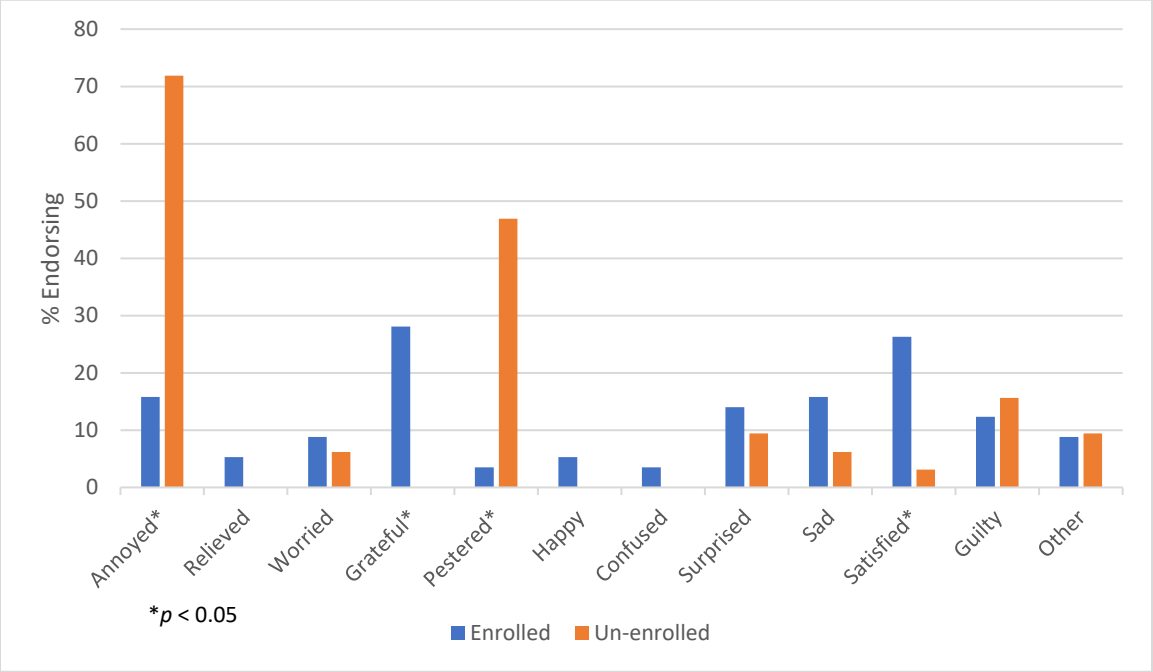
Figure 10. Emotional responses to approaching notifications by current enrollment status.



[20] Infinitely large odds ratios occur when one of the cell counts in a 2×2 contingency table is 0. In this case, none of the un-enrolled participants reported feeling grateful.

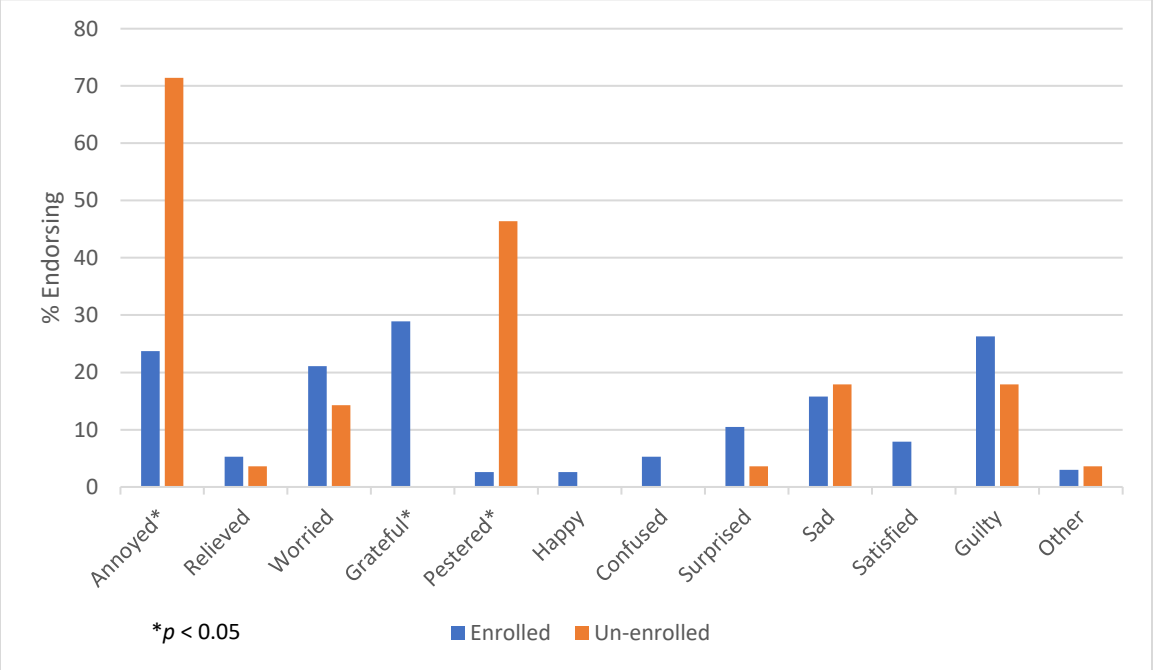
Fifty-seven enrolled participants and 32 un-enrolled participants reported receiving a reached notification (Figure 11; see also Appendix 7.6, Table A17). Upon receiving a reached notification, un-enrolled participants were significantly more likely than enrolled participants to feel annoyed (71.9% versus 15.8%, F.e.t.: $p < 0.001$, OR = 13.096) and pestered (46.9% versus 3.5%, F.e.t.: $p < 0.001$, OR = 23.234) while enrolled participants were significantly more likely than un-enrolled participants to feel grateful (28.1% versus 0.0%, F.e.t.: $p < 0.001$, OR = ∞) and satisfied (26.3% versus 3.1%, F.e.t.: $p = 0.008$, OR = 10.861) upon receiving reached notifications. Enrolled and un-enrolled participants were not significantly different with respect to the other emotional responses.

Figure 11. Emotional responses to reached notifications by current enrollment status.



Thirty-eight enrolled participants and 28 un-enrolled participants reported receiving an exceeding notification (Figure 12; see also Appendix 7.6, Table A18). Upon receiving an exceeding notification, un-enrolled participants were significantly more likely than enrolled participants to feel annoyed (71.4% versus 23.7%, F.e.t.: $p < 0.001$, OR = 7.755) and pestered (46.4% versus 2.6%, F.e.t.: $p < 0.001$, OR = 30.380), while enrolled participants were significantly more likely than un-enrolled participants to feel grateful (28.9% versus 0.0%, F.e.t.: $p = 0.002$, OR = ∞) upon receiving exceeding notifications. Enrolled and un-enrolled participants were not significantly different with respect to the other emotional responses.

Figure 12. Emotional responses to exceeding notifications by current enrollment status.



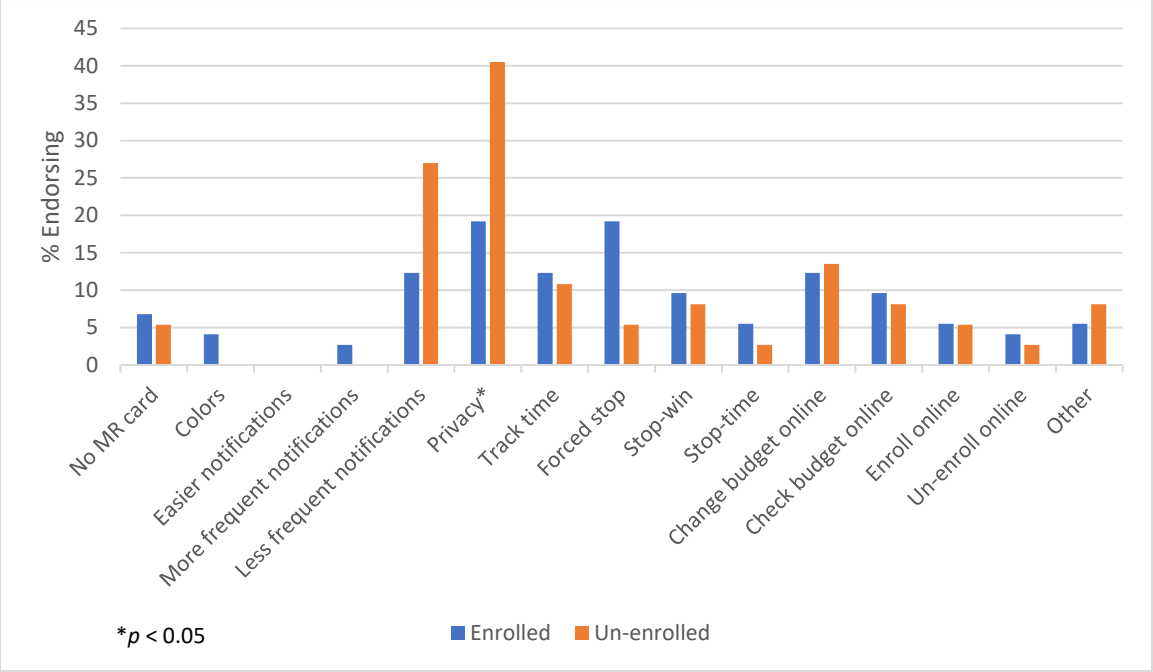
Eighty-six enrolled participants and 36 un-enrolled participants indicated whether they ever recommended PlayMyWay to another person. Table 13 shows that enrolled participants were more likely to recommend PlayMyWay to another person than un-enrolled participants (38.4% versus 5.6%, F.e.t.: $p < 0.001$, OR = 10.430).

Table 13. Whether enrolled and un-enrolled participants ever recommended PlayMyWay to another person.

Recommended PlayMyWay	**Enrolled**			**Un-enrolled**		
	n	%	Valid %	*n*	%	Valid %
Yes	33	30.3	38.4	2	4.5	5.6
No	53	48.6	61.6	34	77.3	94.4
Missing	23	21.1	-	8	18.2	-
Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**

The 153 ever-enrolled participants responded to a list of changes to PlayMyWay that might improve it, with 43 responding *I like it the way it is, it doesn't need to change* (see Appendix 7.6, Table A19). Enrolled participants were significantly more likely to give that response than unenrolled participants (33.0% versus 15.9%, F.e.t.: $p = 0.046$, OR = 2.592). Among the remaining 110 participants, un-enrolled participants were more likely than enrolled participants to endorse *It had more privacy* (40.5% versus 19.2%, F.e.t.: $p = 0.022$, OR = 2.843; Figure 13; see also Appendix 7.6, Table A19). Enrolled and un-enrolled participants were not significantly different with respect to the other responses.

Figure 13. How enrolled and un-enrolled patron survey participants who did not indicate that they like PlayMyWay the way it is think PlayMyWay could be improved.

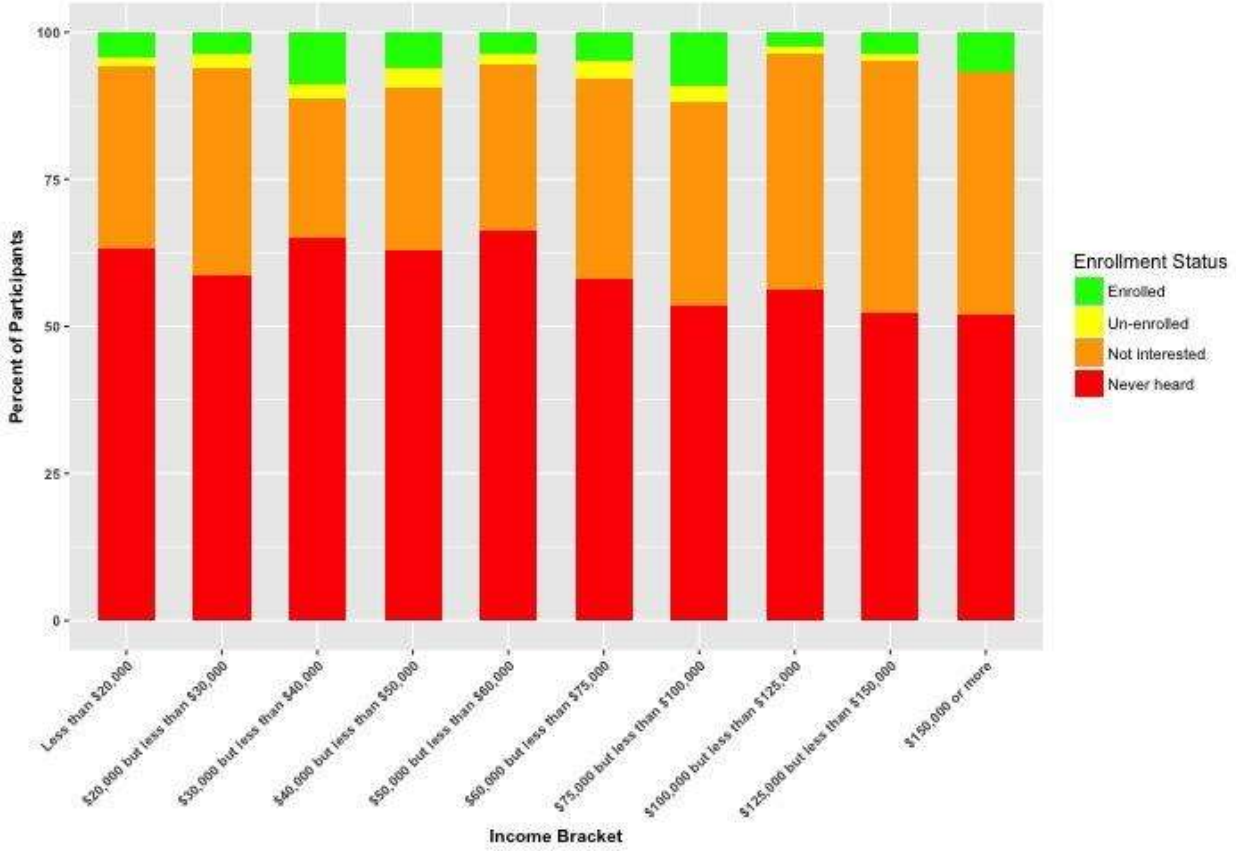


4.2.5.2. Comparing by General Enrollment Status

For the following analyses, we compared enrolled participants ($n = 109$), un-enrolled participants ($n = 44$) and two sub-categories of participants who never enrolled in PlayMyWay: *not interested* participants (i.e., never-enrolled participants who indicated that they heard of PlayMyWay according to Table A10 in Appendix 7.6, $n = 637$) and *never heard* participants (i.e., never-enrolled participants who indicated that they never heard of PlayMyWay according to Table A10 in Appendix 7.6, $n = 1{,}006$). We excluded the 134 participants who did not provide information on their PlayMyWay status. In addition, we excluded the 21 never-enrolled participants who did not endorse any reason for not enrolling from these analyses because we could not accurately classify them into either of the two aforementioned sub-categories of never-enrolled. To provide alternative comparative perspectives, in instances where differences among all four enrollment groups were significant, we combined the enrolled participants and un-enrolled participants into an *ever-enrolled* participant group ($n = 153$) and compared their responses with those of not interested participants. We also directly compared enrolled and un-enrolled participants in these instances.

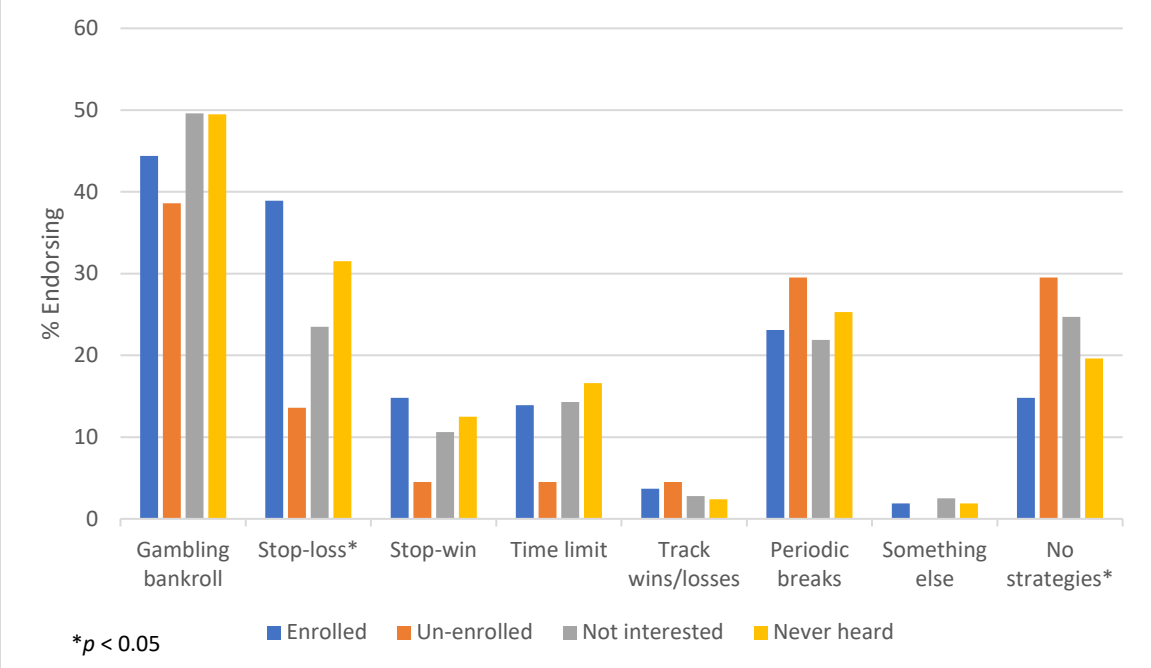
We examined how income related to general enrollment status. Seventy-nine enrolled participants, 29 un-enrolled participants, 470 not interested participants, and 805 never heard participants (72.5%, 65.9%, 73.8%, and 80.0% of their respective groups) indicated their income bracket. The distributions of enrollment status for the ten income brackets, illustrated in Figure 14 (spreadsheet available upon request), were significantly different (F.e.t.: $p = 0.045$). To explore this observation further, we compared the numbers of ever-enrolled and not interested participants in each household income bracket. The ratios of not interested to ever-enrolled varied significantly across income brackets (ratios ranging from 2.1:1 for *$30,000 but less than $40,000* to 10.8:1 for *$100,000 but less than $125,000*, F.e.t.: $p = 0.029$). We also compared the numbers of enrolled participants and un-enrolled participants in each household income bracket. The ratios of enrolled participants to un-enrolled participants for the ten income brackets were not significantly different (F.e.t.: $p = 0.536$). We could not discern any distinguishable patterns between income levels and enrollment in PlayMyWay.

Figure 14. Distributions of enrollment status for the ten income brackets.



We compared the endorsements of responsible gambling strategies of the 108 enrolled participants (99.1% of enrolled participants), 44 un-enrolled participants (100.0% of un-enrolled participants), 635 not interested participants (99.7% of not interested participants) and 1,004 never heard participants (99.8% of never heard participants) who endorsed at least one responsible gambling strategy or indicated that they do not use any strategies (Figure 15; see also Appendix 7.6, Table A20). The differences in the endorsement rates for the four groups were only significant for using a stop loss (F.e.t.: $p < 0.001$) and not using any specific strategies (F.e.t.: $p = 0.014$). The differences in endorsement rates of using a stop loss were significantly different for ever-enrolled participants and not interested participants (F.e.t.: $p = 0.047$, OR = 1.505) and for enrolled and un-enrolled participants (F.e.t.: $p = 0.002$, OR = 3.998). The differences in endorsement rates of not using any strategies were significantly different for enrolled and un-enrolled participants (F.e.t.: $p = 0.043$, OR = 0.417) but not for ever-enrolled participants and not interested participants (F.e.t.: $p = 0.167$, OR = 0.718).

Figure 15. Responsible gambling strategies that enrolled, un-enrolled, not interested, and never heard participants utilized.



We also compared enrolled participants, un-enrolled participants, not interested participants, and never heard participants in terms of the number of responsible gambling strategies they use. Enrolled participants used an average of 1.4 responsible gambling strategies (SD = 1.1), un-enrolled participants used an average of 1.0 responsible gambling strategies (SD = 0.8), not interested participants used an average of 1.3 responsible gambling strategies (SD = 1.1), and never heard participants used an average of 1.4 responsible gambling strategies (SD = 1.1). Mean differences between all four groups were statistically significant ($F(3,166.0) = 5.52$, $p = 0.001$). Mean differences between ever-enrolled and not interested participants were not statistically significant ($t(250.6) = 0.26$, $p = 0.794$, Cohen's $d = 0.022$) while mean differences between enrolled and un-enrolled participants were statistically significant ($t(103.3) = 2.87$, $p = 0.005$, Cohen's $d = 0.459$).

Eighty-six enrolled participants, 36 un-enrolled participants, 582 not interested participants, and 967 never heard participants estimated how often they had visited PPC during the past year (Table 14). Nearly half of the never heard participants (43.5%) only visited PPC a couple of times in the past year. Over a third of un-enrolled participants (36.1%) indicated they visited PPC weekly or more in the past year. By comparison, 23.2% of enrolled participants, 18.3% of participants who were not interested in PlayMyWay, and 9.6% of participants who never heard of PlayMyWay had visited PPC weekly or more. The distributions of past-year frequency rates for the four enrollment groups were significantly different (F.e.t.: $p < 0.001$). The distributions of ever-enrolled participants and not interested participants were not significantly different (F.e.t.: $p = 0.086$). Differences in past-year frequency rates of enrolled and un-enrolled participants were not statistically significant (F.e.t.: $p = 0.106$).

Table 14. How often enrolled, un-enrolled, not interested, and never heard participants visited Plainridge Park Casino in the past 12 months.

Past-year Frequency of visits	**Enrolled**			**Un-enrolled**			**Not interested**			**Never heard**		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Never	3	2.8	3.5	0	0.0	0.0	13	2.0	2.2	36	3.6	3.7
A couple of times	19	17.4	22.1	3	6.8	8.3	142	22.3	24.4	421	41.8	43.5
Less than once per month	12	11.0	14.0	2	4.5	5.6	118	18.5	20.3	168	16.7	17.4
About once per month	16	14.7	18.6	5	11.4	13.9	77	12.1	13.2	115	11.4	11.9
A couple times a month	16	14.7	18.6	13	29.5	36.1	125	19.6	21.5	134	13.3	13.9
Weekly	10	9.2	11.6	8	18.2	22.2	60	9.4	10.3	59	5.9	6.1
A couple times a week	8	7.3	9.3	5	11.4	13.9	41	6.4	7.0	31	3.1	3.2
Daily or more	2	1.8	2.3	0	0.0	0.0	6	0.9	1.0	3	0.3	0.3
Missing	23	21.1	-	8	18.2	-	55	8.6	-	39	3.9	-
Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**	**637**	**100.0**	**100.0**	**1006**	**100.0**	**100.0**

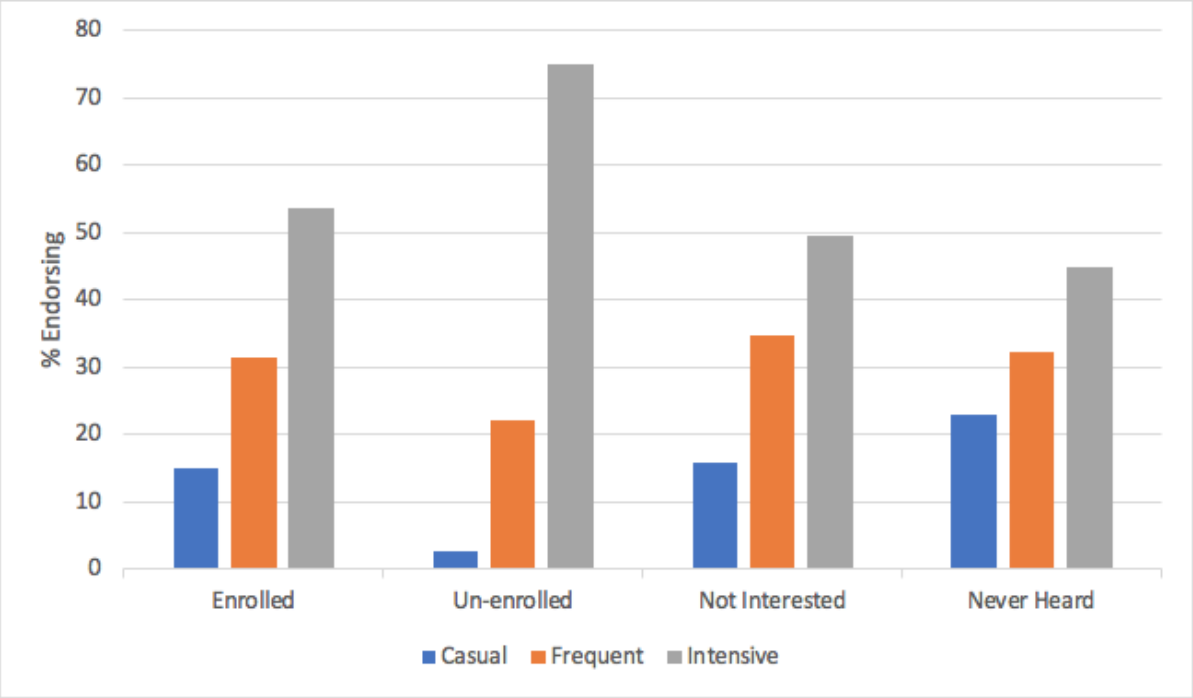
Eighty-six enrolled participants, 36 un-enrolled participants, 582 not interested participants, and 969 never heard participants provided at least one indication of their depth of gambling involvement (e.g., how often they played slot machines or video keno during the past twelve months; Table 15). We compared the distributions of depth of involvement for the four enrollment groups and found significant differences (F.e.t.: $p = 0.001$). The distributions of depth of involvement for ever-enrolled participants and not interested participants were not significantly different (F.e.t.: $p = 0.143$). The difference in distributions of depth of involvement for enrolled participants and un-enrolled participants also were not significantly different (F.e.t.: $p = 0.053$).

Table 15. Depth of gambling involvement amongst enrolled, un-enrolled, not interested, and never heard participants.

Depth of involvement	**Enrolled**			**Un-enrolled**			**Not interested**			**Never heard**		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Never	0	0.0	0.0	0	0.0	0.0	2	0.3	0.3	0	0.0	0.0
A couple of times	2	1.8	2.3	0	0.0	0.0	37	5.8	6.4	100	9.9	10.3
Less than once per month	11	10.1	12.8	1	2.3	2.8	53	8.3	9.1	122	12.1	12.6
About once per month	11	10.1	12.8	2	4.5	5.6	66	10.4	11.3	104	10.3	10.7
A couple times a month	16	14.7	18.6	6	13.6	16.7	136	21.4	23.4	208	20.7	21.5
Weekly	17	15.6	19.8	16	36.4	44.4	145	22.8	24.9	227	22.6	23.4
A couple times a week	19	17.4	22.1	10	22.7	27.8	87	13.7	14.9	128	12.7	13.2
Daily or more	10	9.2	11.6	1	2.3	2.8	56	8.8	9.6	80	8.0	8.3
Missing	23	21.1	-	8	18.2	-	55	8.6	-	37	3.7	-
Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**	**637**	**100.0**	**100.0**	**1006**	**100.0**	**100.0**

We also collapsed the nine categories for depth of involvement above into three categories derived from the Informed Decision Making framework (causal, frequent, and intensive gamblers). As Figure 16 (Appendix 7.6, Table A21) shows, un-enrolled participants were more likely to be intensive gamblers (75.0%) than enrolled participants (53.5%), not interested participants (49.5%), and never heard participants (44.9%). The differences between the distributions of the four enrollment groups were statistically significant (F.e.t.: p = 0.001). The distributions for ever-enrolled participants and not interested participants were not significantly different (F.e.t.: p = 0.122). The differences in the distributions of enrolled participants and un-enrolled participants were statistically significant (F.e.t.: p = 0.048).

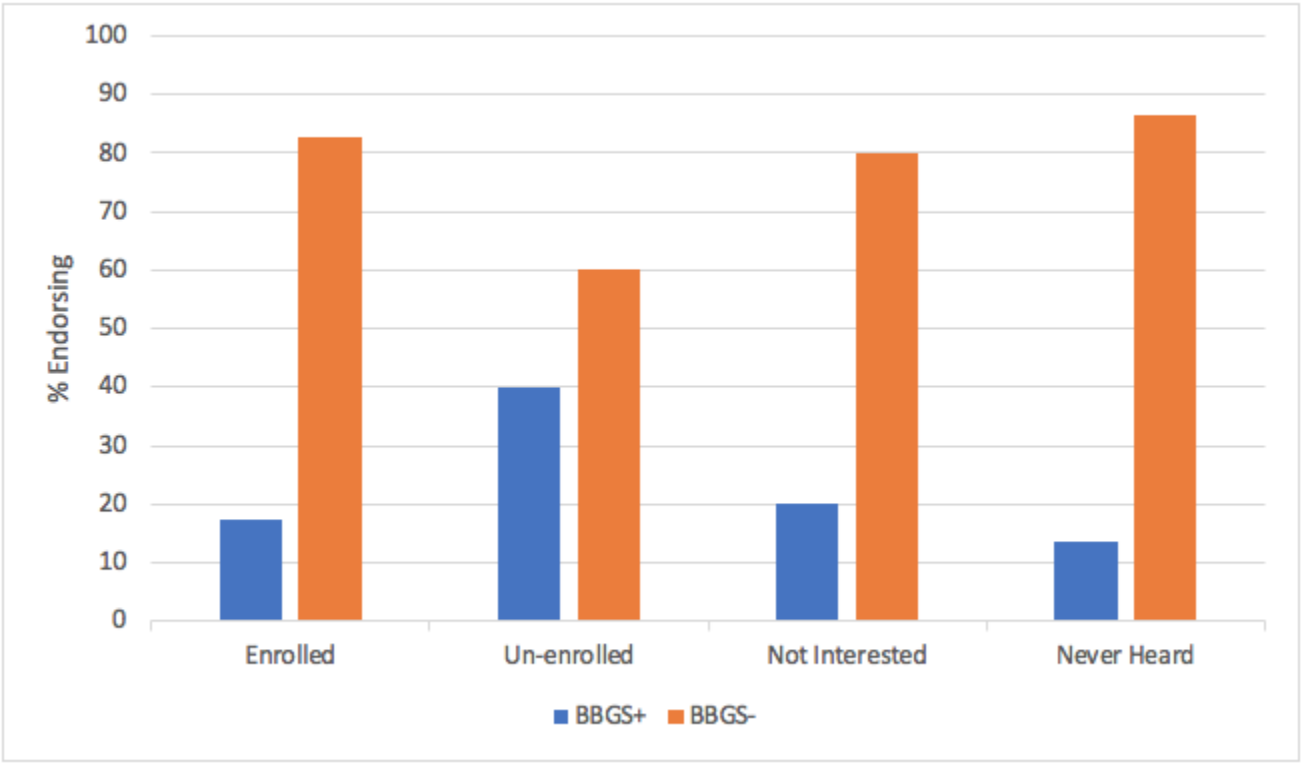
Figure 16. Depth of gambling involvement (Informed Decision Making framework) amongst enrolled, un-enrolled, not interested, and never heard participants.



Eighty-five enrolled participants (78.0% of all enrolled participants), 36 un-enrolled participants (81.8% of all un-enrolled participants), 581 not interested participants (91.2% of all not interested participants), and 969 never heard participants (96.3% of all never heard participants) reported activity in some form of gambling during the past twelve months (e.g., *Playing the lottery, keno,…*). We compared the distributions for breadth of involvement and found no significant differences between the four groups (enrolled: Mean = 3.2, SD = 1.4; un-enrolled: Mean = 3.1, SD = 1.6; not interested: Mean = 2.9, SD = 1.3; never heard: Mean = 3.0, SD = 1.4; $F(3,126.8) = 1.89$, p = 0.135).

Eighty-six enrolled participants (78.9% of all enrolled participants), 35 un-enrolled participants (79.5% of all un-enrolled participants), 581 not interested participants (91.2% of all not interested participants), and 966 never heard participants (96.0% of all never heard participants) could be confirmed BBGS positive or negative. Figure 17 (see also Appendix 7.6, Table A22) shows that, among these 1,668 participants, un-enrolled participants were more likely to be BBGS positive (40.0%) than not interested participants (20.0%), enrolled participants (17.4%), and never heard participants (13.6%). The differences between the distributions of the four enrollment groups were statistically significant (F.e.t.: $p < 0.001$). Among those who had heard of PlayMyWay (29 BBGS positive ever-enrolled, 116 BBGS positive not interested, 92 BBGS negative ever-enrolled, 465 negative not interested), there was no significant difference in the enrollment rates of BBGS positive participants and BBGS negative participants (20.0% versus 16.5%, F.e.t.: $p = 0.325$, OR = 1.263). Among those who enrolled in PlayMyWay (15 BBGS positive enrolled, 14 BBGS positive un-enrolled, 71 BBGS negative enrolled, 21 BBGS negative un-enrolled), the BBGS positive participants had a significantly higher un-enrollment rate (48.3% versus 22.8%, F.e.t.: $p = 0.017$, OR = 3.121).

Figure 17. BBGS status of enrolled, un-enrolled, not interested, and never heard participants.

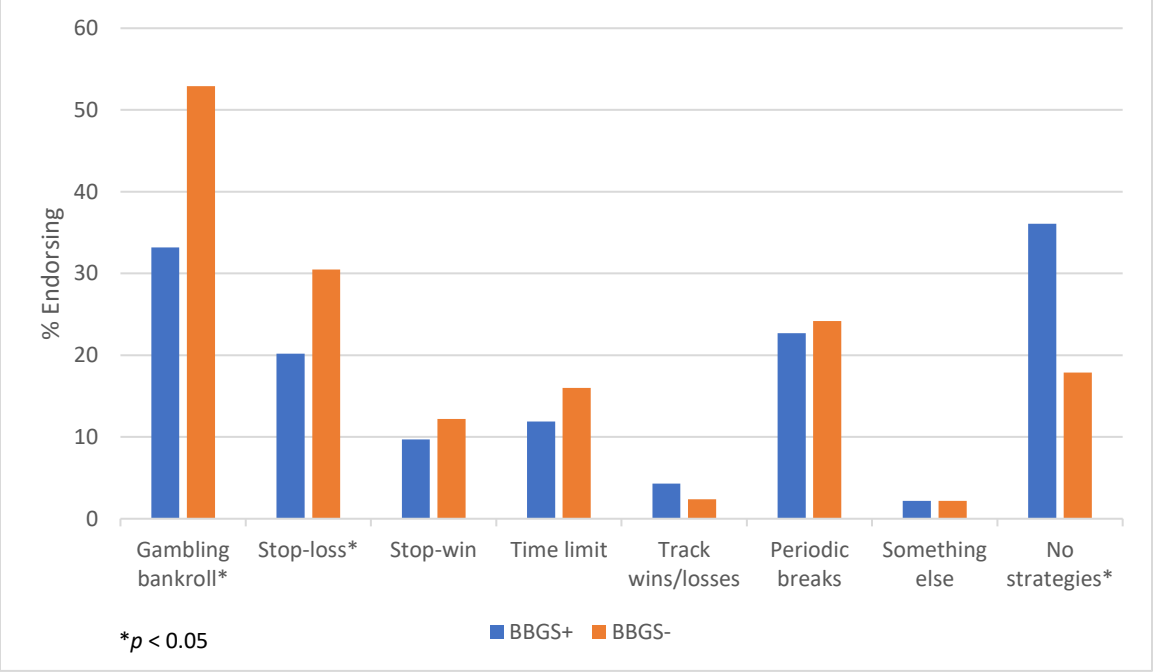


4.3.5.3. Comparing by BBGS Status

The following analyses compare responses between confirmed BBGS positive patron survey participants (*N* = 277) and confirmed BBGS negative participants (*N* = 1,396). We excluded 278 participants for whom we could not confirm BBGS status from these analyses.

Two hundred and seventy-seven BBGS positive participants (100.0% of BBGS positive participants) and 1,390 BBGS negative participants (99.6% of BBGS negative participants) endorsed at least one responsible gambling strategy or indicated that they do not use any strategies (Figure 18; see also Appendix 7.6, Table A23). BBGS positive participants were less likely to use a gambling bankroll than BBGS negative participants (33.2% versus 52.9%, F.e.t.: $p < 0.001$, OR = 0.443). BBGS positive participants also were less likely to use a stop-loss limit than BBGS negative participants (20.2% versus 30.5%, F.e.t.: $p < 0.001$, OR = 0.577). BBGS positive participants were more likely to not use any strategy than BBGS negative participants (36.1% versus 17.9%, F.e.t.: $p < 0.001$, OR = 2.587). BBGS positive participants and BBGS negative participants were not significantly different with respect to the other strategies. BBGS positive participants reported using significantly fewer responsible gambling strategies than BBGS negative participants (BBGS positive: Mean = 1.0, SD = 1.1; BBGS negative: Mean = 1.4, SD = 1.1; $t(406.3) = -5.1$, $p < 0.001$, Cohen's $d = 0.324$).

Figure 18. Responsible gambling strategies that BBGS positive and BBGS negative participants utilized.



Twenty-nine BBGS positives (10.5% of all BBGS positives) and 92 BBGS negatives (6.5% of all BBGS negatives) were ever-enrolled in PlayMyWay. We compared how these BBGS positive and negative participants heard about PlayMyWay and found no significant differences (F.e.t.: all *p*-values greater than 0.05; Figure 19; see also Appendix 7.6, Table A24). We also compared why these 29 BBGS positive and 92 BBGS negative participants enrolled in PlayMyWay and found no significant differences (F.e.t.: all *p*-values greater than 0.05; Figure 20; see also Appendix 7.6, Table A25).

Figure 19. How BBGS positive and BBGS negative participants heard about PlayMyWay.

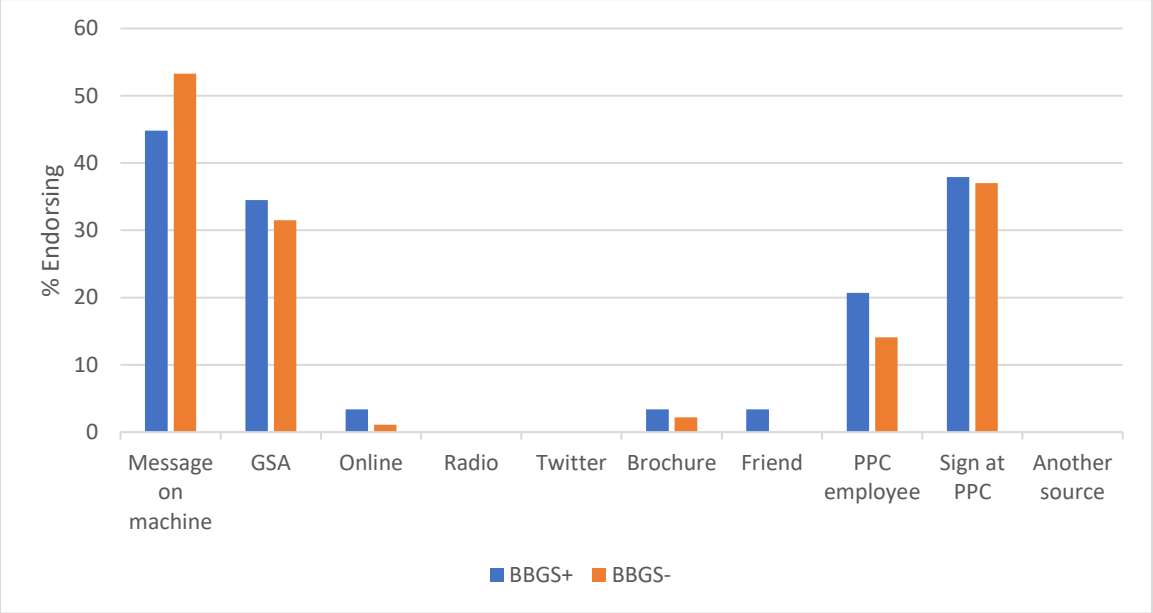
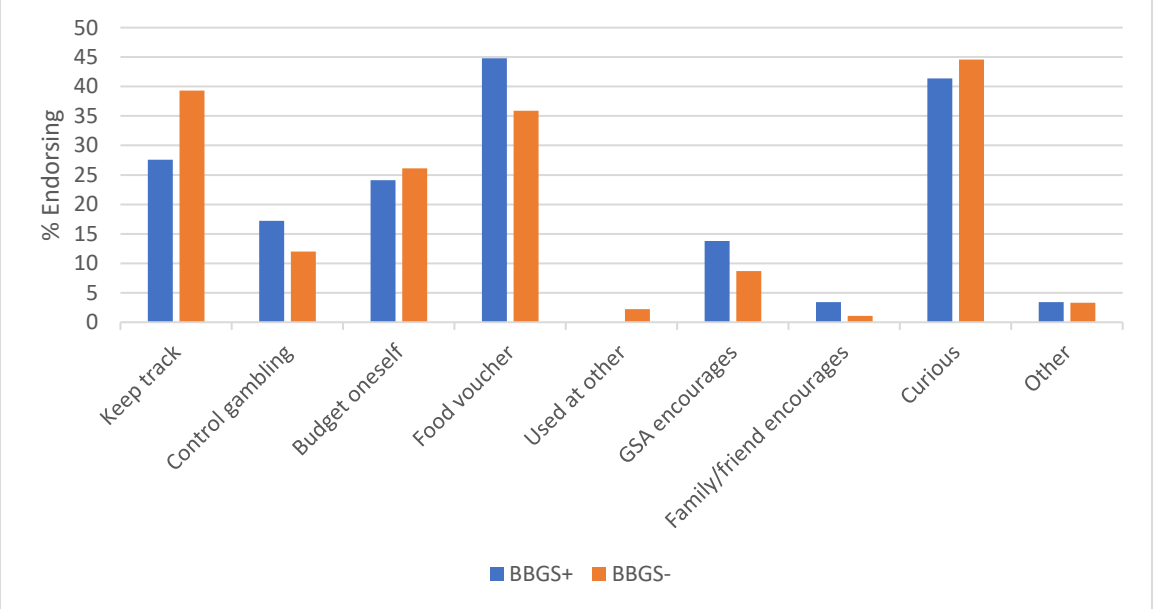
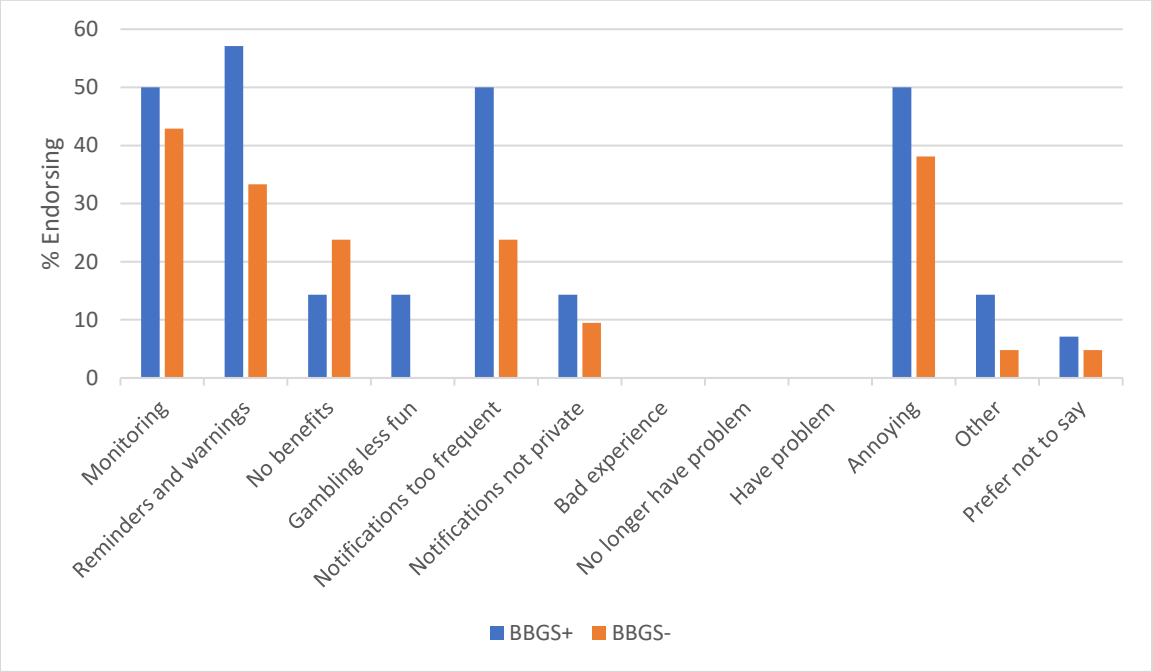


Figure 20. Why ever-enrolled BBGS positive and BBGS negative participants enrolled in PlayMyWay.



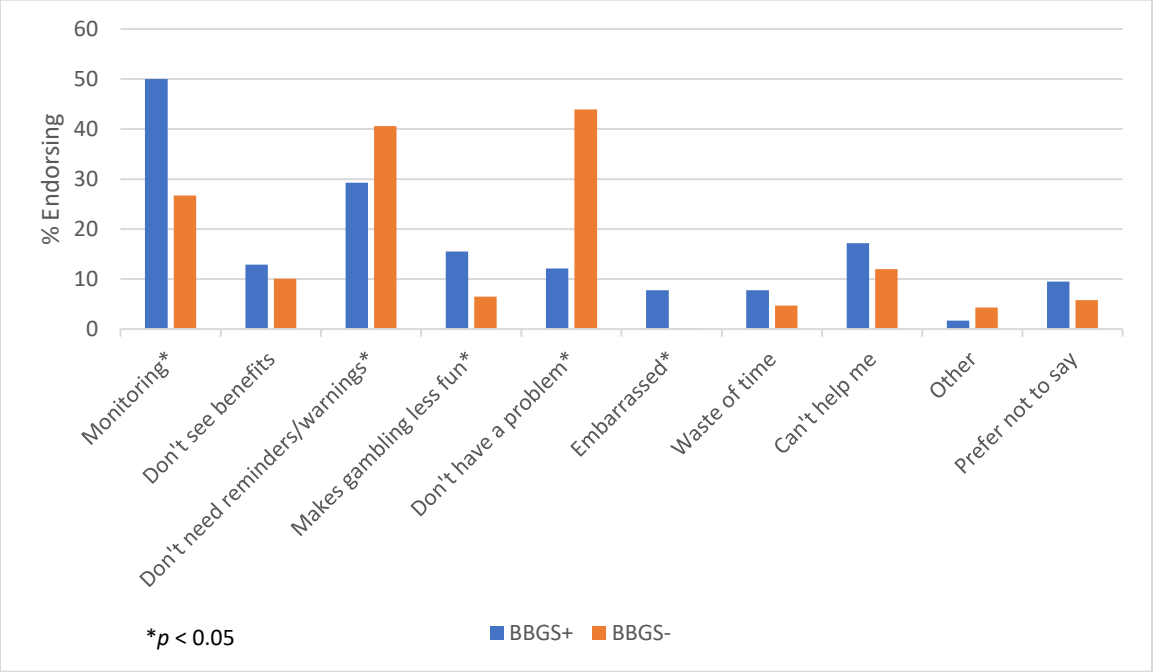
Among the un-enrolled participants, there were 14 BBGS positives and 21 BBGS negatives. We compared why BBGS positive and negative participants un-enrolled from PlayMyWay and found no significant differences (F.e.t.: all *p*-values greater than 0.05; Figure 21; see also Appendix 7.6, Table A26). Due to low sample sizes, we caution the reader from making any major inferences from these particular results.

Figure 21. Why un-enrolled BBGS positive and BBGS negative participants un-enrolled from PlayMyWay.



Among the not interested participants, there were 116 BBGS positives and 465 BBGS negatives. When asked why they never enrolled, a significantly higher percentage of BBGS positive participants responded that they *would rather play without PlayMyWay monitoring* (50.0% versus 26.7%, F.e.t.: $p < 0.001$, OR = 2.745; Figure 22; see also Appendix 7.6, Table A27), that *reminders and warnings make gambling less fun* (15.5% versus 6.5%, F.e.t.: $p = 0.004$, OR = 2.658), and that they were embarrassed to enroll in PlayMyWay (7.8% versus 0.2%, F.e.t.: $p < 0.001$, OR = 38.721). A significantly higher percentage of BBGS negative participants responded that they *don't need reminders and warnings about their gambling* (40.6% versus 29.3%, F.e.t.: $p = 0.025$, OR = 1.650) and that they *don't have a problem with gambling* (43.9% versus 12.1%, F.e.t.: $p < 0.001$, OR = 5.680). There were no significant differences between BBGS positive participants and BBGS negative participants with respect to the other responses.

Figure 22. Why never-enrolled BBGS positive and BBGS negative participants never enrolled in PlayMyWay.



We compared the first budget sizes of ever-enrolled BBGS positive participants (n = 29) to the first budget sizes of ever-enrolled BBGS negative participants (n = 92). As shown in Table 16, BBGS positive participants tended to set higher initial monthly budgets (BBGS positive: median = $550, BBGS negative: $200, Wilcoxon rank sum test: p = 0.020, effect size r = 0.374), but we observed no statistically significant differences for initial daily and weekly budgets.

Table 16. First PlayMyWay budgets of ever-enrolled BBGS positive and ever-enrolled BBGS negative participants.

Budget Type	Confirmed BBGS+		Confirmed BBGS-	
	n[a]	Median	n[a]	Median
Daily	13	$300	45	$200
Weekly	8	$400	19	$200
Monthly*	8	$550	31	$200

*p < 0.05

[a] The numbers of participants in this table are different because some participants responded to some items but not to others.

Using the same 121 ever-enrolled participants, we compared how BBGS positive and BBGS negative participants responded to budget notifications (approaching, reached, exceeded). Table 17 shows that BBGS negative participants were significantly more likely than BBGS positive participants to stop playing after receiving reached notifications (50.8% versus 16.0%, F.e.t.: p = 0.004, OR = 5.322), and exceeding notifications (43.9% versus 16.7%, F.e.t.: p = 0.031, OR = 3.835), but not approaching notifications (25.8% versus 12.0%, F.e.t.: p = 0.256, OR = 2.521).

Table 17. Typical reactions of ever-enrolled BBGS positive and ever-enrolled BBGS negative participants to PlayMyWay notifications.

Notification Type	Reaction	Confirmed BBGS+			Confirmed BBGS-		
		n	%	Valid %	n	%	Valid %
Approaching	Stopped playing	3	10.3	12.0	17	18.5	25.8
	Continued playing	22	75.9	88.0	49	53.3	74.2
	Never received message	4	13.8	-	26	28.3	-
	Missing	0	0.0	-	0	0.0	-
	Total	**29**	**100.0**	**100.0**	**92**	**100.0**	**100.0**
Reached*	Stopped playing	4	13.8	16.0	32	34.8	50.8
	Continued playing	21	72.4	84.0	31	33.7	49.2
	Never received message	4	13.8	-	29	31.5	-
	Missing	0	0.0	-	0	0.0	-
	Total	**29**	**100.0**	**100.0**	**92**	**100.0**	**100.0**
Exceeding*	Stopped playing	4	13.8	16.7	18	19.6	43.9
	Continued playing	20	69.0	83.3	23	25.0	56.1
	Never received message	5	17.2	-	50	54.3	-
	Missing	0	0.0	-	1	1.1	-
	Total	**29**	**100.0**	**100.0**	**92**	**100.0**	**100.0**

*p < 0.05

Twenty-five (86.2%) of the 29 ever-enrolled BBGS positive participants and 87 (94.6%) of the 92 ever-enrolled BBGS negative participants completed the System Usability Scale items. The BBGS negative participants had higher usability scores than the BBGS positive participants (BBGS positive: Mean = 61.4, SD = 14.8; BBGS negative: Mean = 68.6, SD = 16.8; $t(43.4) = 2.1$, $p = 0.044$, Cohen's $d = 0.438$).

We also compared ever-enrolled participants' responses to individual SUS items, including responses from participants who did not answer every SUS item (Table 18). BBGS negative participants had higher agreement scores than BBGS positive participants for the statement *I think that I would like to use PlayMyWay frequently* ($t(55.6) = 3.4$, $p = 0.001$, Cohen's $d = 0.655$). BBGS negative participants had lower agreement scores than BBGS positive participants for the statements *I found PlayMyWay unnecessarily complex* ($t(43.6) = -2.4$, $p = 0.022$, Cohen's $d = 0.524$) and *I found PlayMyWay cumbersome/awkward to use* ($t(40.1) = -2.5$, $p = 0.017$, Cohen's $d = 0.574$). BBGS status was not related to other SUS items.

Table 18. Ever-enrolled BBGS positive and ever-enrolled BBGS negative participants' responses to SUS items.

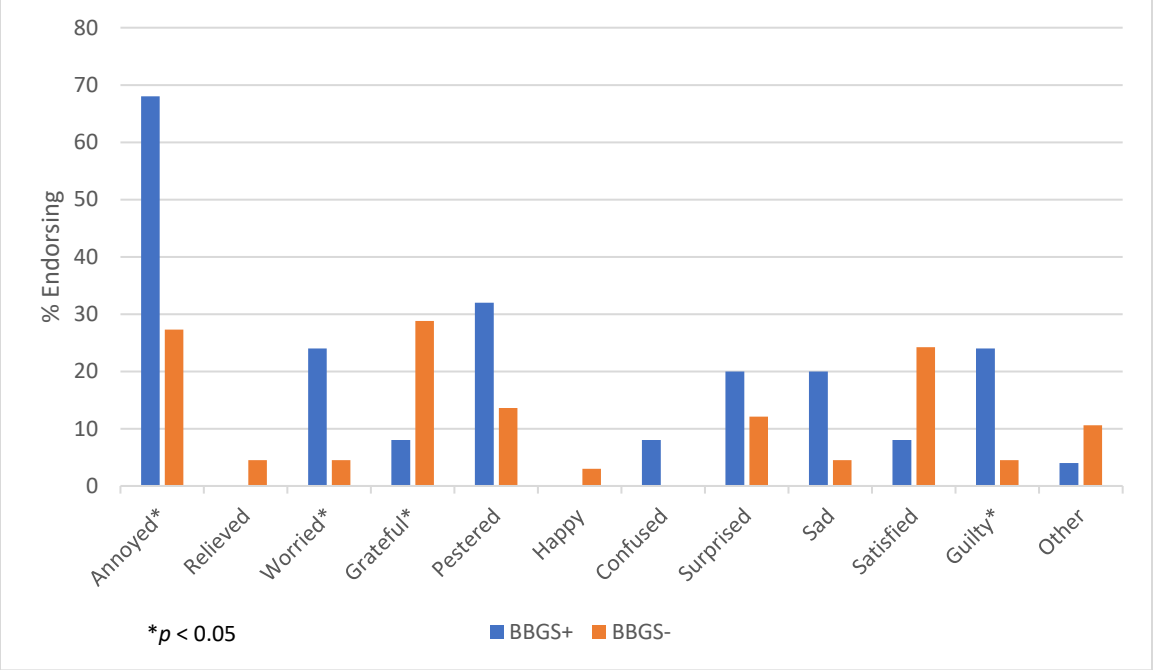
Item	Confirmed BBGS+			Confirmed BBGS-		
	n[a]	Mean	SD	*n*[a]	Mean	SD
I think that I would like to use PlayMyWay frequently*	29	2.3	1.1	92	3.1	1.3
I found PlayMyWay unnecessarily complex*	28	3.0	1.2	91	2.4	1.2
I thought PlayMyWay was easy to use	28	3.8	0.9	89	4.0	1.0
I think that I would need assistance to be able to use PlayMyWay	27	1.9	1.2	90	1.8	1.1
I found the various functions of PlayMyWay were well integrated	28	3.4	1.2	89	3.5	1.1
I thought there was too much inconsistency in PlayMyWay	27	2.6	1.2	90	2.5	1.1
I would imagine that most people would learn to use PlayMyWay very quickly	27	3.7	1.0	88	3.9	1.1
I found PlayMyWay very cumbersome/awkward to use*	27	2.9	1.3	89	2.2	1.2
I felt very confident using PlayMyWay	26	3.7	1.1	89	3.7	1.1
I needed to learn a lot of things before I could get going with PlayMyWay	27	2.3	1.0	88	2.1	1.2
I felt more confident gambling using PlayMyWay	27	2.7	1.1	88	3.1	1.2

*$p < 0.05$

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

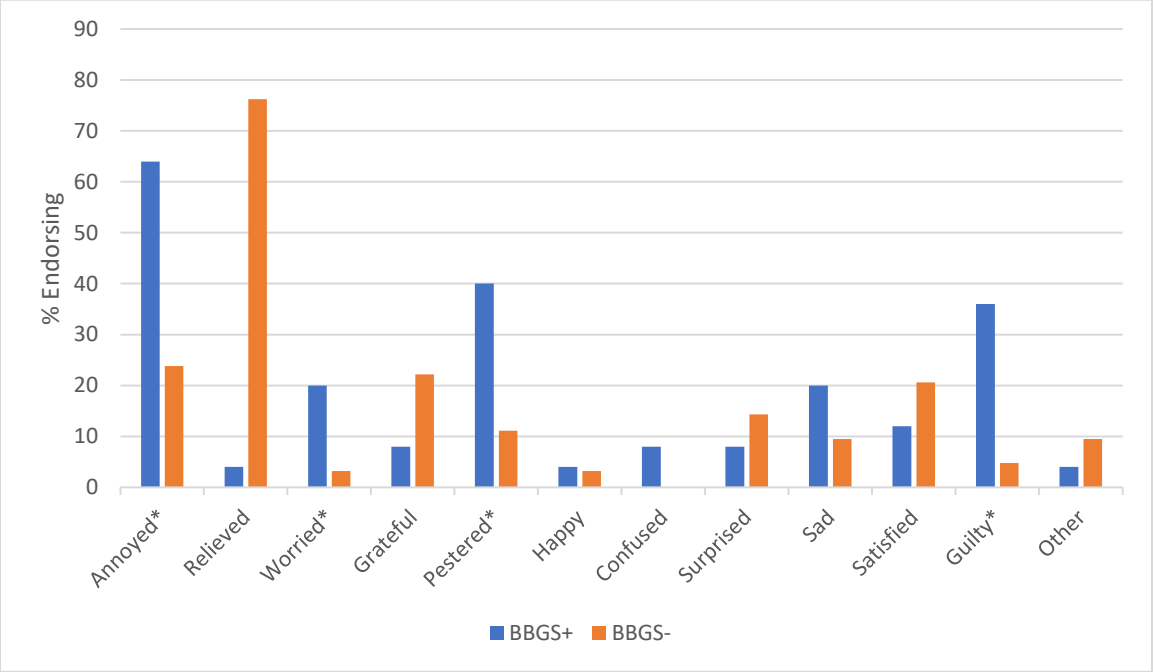
Twenty-five BBGS positive participants (86.2% of ever-enrolled BBGS positive participants) and 66 BBGS negative participants (71.7% of ever-enrolled BBGS negative participants) reported receiving approaching notifications. BBGS positive participants were more likely than BBGS negative participants to feel annoyed (68.0% versus 27.3%, F.e.t.: $p = 0.001$, OR = 5.544; Figure 23; see also Appendix 7.6, Table A28), worried (24.0% versus 4.5%, F.e.t.: $p = 0.012$, OR = 6.460), and guilty (24.0% versus 4.5%, F.e.t.: $p = 0.012$, OR = 6.460) upon receiving approaching notifications. BBGS negative participants were more likely than BBGS positive participants to feel grateful (28.8% versus 8.0%, F.e.t.: $p < 0.050$, OR = 4.587). BBGS positive participants and BBGS negative participants were not significantly different with respect to the other emotional responses.

Figure 23.Typical emotional responses of ever-enrolled BBGS positive and ever-enrolled BBGS negative participants to PlayMyWay approaching notifications.



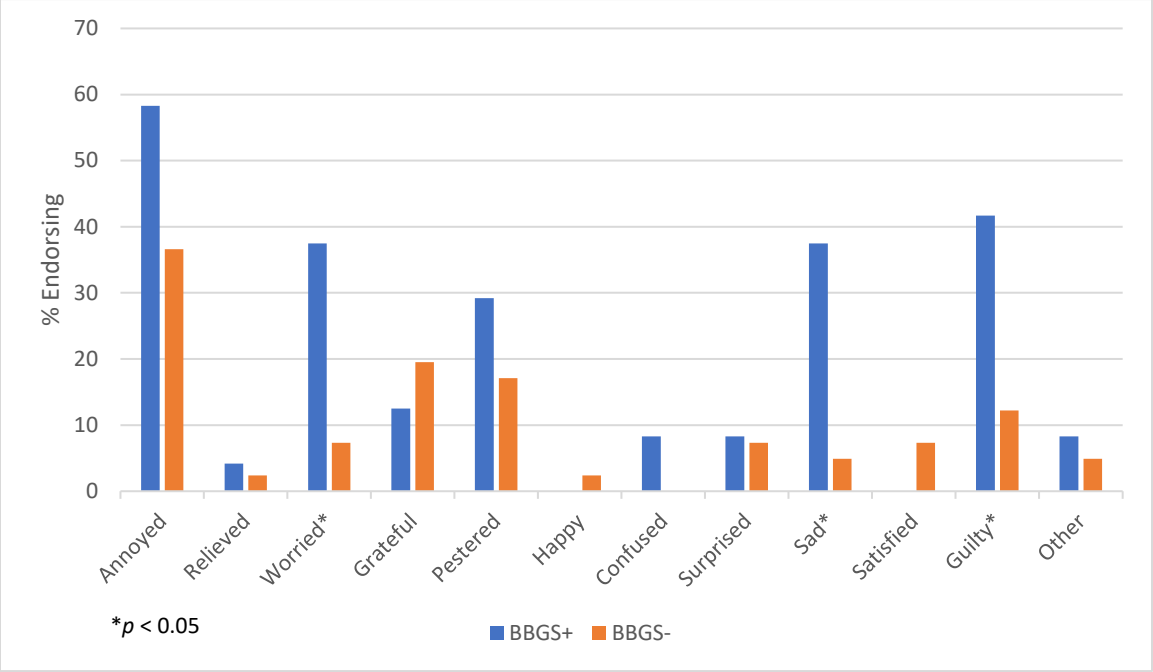
Twenty-five BBGS positive participants (86.2% of ever-enrolled BBGS positive participants) and 63 BBGS negative participants (68.5% of ever-enrolled BBGS negative participants) reported receiving reached notifications. BBGS positive participants were more likely than BBGS negative participants to feel annoyed (64.0% versus 23.8%, F.e.t.: $p < 0.001$, OR = 5.557; Figure 24; see also Appendix 7.6, Table A29), worried (20.0% versus 3.2%, F.e.t.: $p = 0.018$, OR = 7.413), pestered (40.0% versus 11.1%, F.e.t.: $p = 0.005$, OR = 5.209) and guilty (36.0% versus 4.8%, F.e.t.: $p < 0.001$, OR = 10.854) upon receiving reached notifications. BBGS positive participants and BBGS negative participants were not significantly different with respect to the other emotional responses.

Figure 24. Typical emotional responses of ever-enrolled BBGS positive and ever-enrolled BBGS negative participants to PlayMyWay reached notifications.



Twenty-four BBGS positive participants (82.8% of ever-enrolled BBGS positive participants) and 41 BBGS negative participants (44.6% of ever-enrolled BBGS negative participants) reported receiving exceeding notifications. BBGS positive participants were more likely than BBGS negative participants to feel worried (37.5% versus 7.3%, F.e.t.: $p = 0.006$, OR = 7.333; Figure 25; see also Appendix 7.6, Table A30), sad (37.5% versus 4.9%, F.e.t.: $p = 0.001$, OR = 11.206) and guilty (41.7% versus 12.2%, F.e.t.: $p = 0.013$, OR = 4.997) upon receiving exceeding notifications. BBGS positive participants and BBGS negative participants were not significantly different with respect to the other emotional responses.

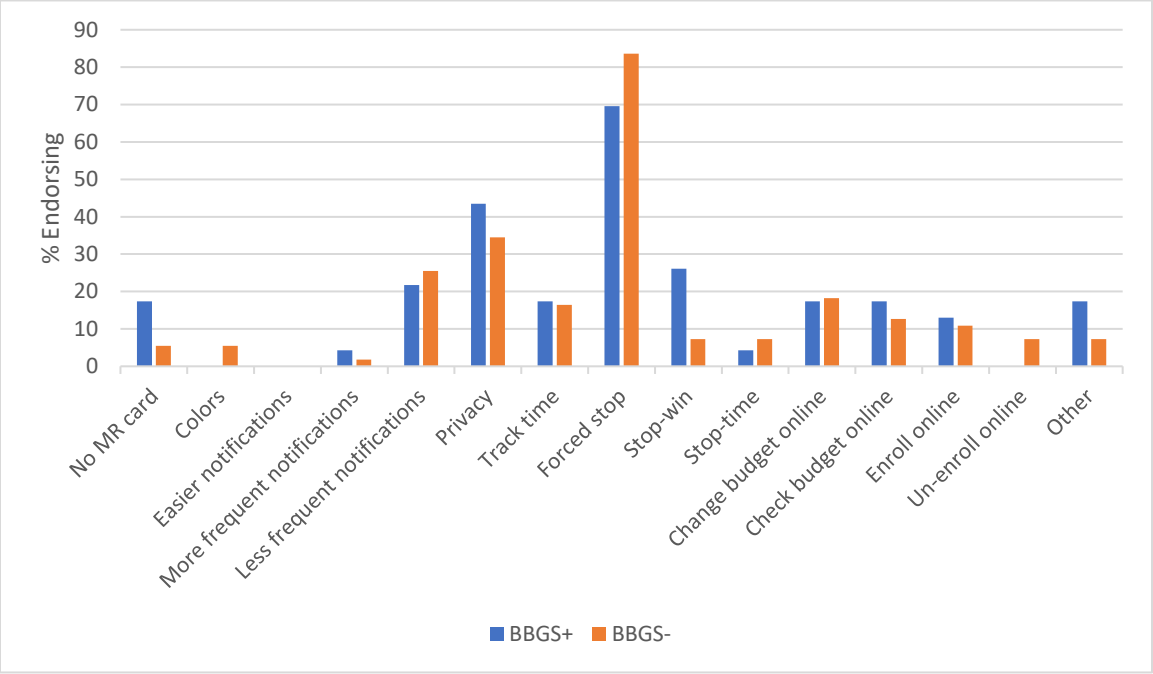
Figure 25. Typical emotional responses of ever-enrolled BBGS positive and ever-enrolled BBGS negative participants to PlayMyWay exceeding notifications.



All 121 ever-enrolled participants who completed the BBGS answered whether or not they recommended PlayMyWay to others (Appendix 7.6, Table A31). BBGS positive participants were not significantly more likely to recommend PlayMyWay that BBGS negative participants (34.5% versus 26.1%, F.e.t.: $p = 0.478$, OR = 1.486).

When offered the list of ways to improve PlayMyWay, 6 of the 29 BBGS positive and 37 of the 92 BBGS negative participants responded that they like the way it is and that it doesn't need to change (20.7% versus 40.2%, F.e.t.: $p = 0.075$, OR = 0.391; Figure 26; see also Appendix 7.6, Table A32). Among the remaining 78 participants, there were no significant differences between the percentages of BBGS positive and negative participants who endorsed any of the ways in which PlayMyWay could be improved (F.e.t.'s: all *p*-values greater than 0.05).

Figure 26. How ever-enrolled BBGS positive and ever-enrolled BBGS negative participants who did not indicate that they like PlayMyWay the way it is think PlayMyWay could be improved.



All 277 BBGS positive participants and all 1,396 BBGS negative participants provided at least one indication of their depth of gambling involvement (e.g., how often they played slot machines or video keno during the past twelve months). As shown in Table 19, the differences between the distributions for depth of involvement for BBGS positives and negatives were statistically significant (F.e.t.: $p < 0.001$). BBGS positive participants were more likely than BBGS negative participants to gamble weekly (28.2% versus 23.6%), a couple times a week (29.2% versus 11.5%) and daily or more (14.8% versus 7.5%).

Table 19. Depth of gambling involvement amongst BBGS positive and BBGS negative participants.

Depth of involvement	**Confirmed BBGS+**			**Confirmed BBGS-**		
	n	%	Valid %	*n*	%	Valid %
Never	0	0.0	0.0	2	0.1	0.1
A couple of times	4	1.4	1.4	135	9.7	9.7
Less than once per month	8	2.9	2.9	179	12.8	12.8
About once per month	15	5.4	5.4	168	12.0	12.0
A couple times a month	50	18.1	18.1	316	22.6	22.6
Weekly	78	28.2	28.2	330	23.6	23.6
A couple times a week	81	29.2	29.2	161	11.5	11.5
Daily or more	41	14.8	14.8	105	7.5	7.5
Missing	0	0.0	-	0	0.0	-
Total	**277**	**100.0**	**100.0**	**1396**	**100.0**	**100.0**

We were able to calculate breadth of involvement for 275 (99.3%) of the BBGS positive participants and 1,396 (100.0%) of the BBGS negative participants. The breadths of the BBGS positive participants were significantly larger than the breadths of the BBGS negative participants (BBGS positive: Mean = 3.3, SD = 1.4; BBGS negative: Mean = 2.9, SD = 1.3; $t(382.3) = 4.0$, $p < 0.001$, Cohen's $d = 0.267$).

5. General Discussion

This report describes three research and development activities to evaluate the MGC PlayMyWay play management system. During FY18 and beyond, the Division on Addiction engaged with the MGC to help identify specific and measurable goals and specific aims for PlayMyWay, coordinated with key partners to complete PlayMyWay system and data review activities, and completed a player survey with PPC Marquee Rewards cardholders to better understand gamblers' engagement with and impressions of the Play-MyWay system.

5.1. PlayMyWay Goals & Specific Aims

Using information from the preliminary report and information from questions and conversations with MGC staff and commissioners, the Division prepared a brief survey designed to help the MGC identify strategic goals for PlayMyWay. Through this process, the MGC specified some goals related to enrollment, retention, budget sizes, and budget compliance. For example, they indicated an interest in seeing increased enrollment in PlayMyWay among the most frequent players. The MGC also outlined areas of interest for future explorations, such as PlayMyWay use among specific demographic cohorts and reasons for declines in enrollment. Details related to all the MGC's goals and specific aims are available in Section 2.

5.2. PlayMyWay System & Data Review

In the process of our review, we identified systematic issues with the Play Management Activity data and the gambling activity data. Specifically, the gambling activity data did not sufficiently corroborate the numbers of notifications PlayMyWay users had listed in the Play Management Activity data files. The discrepancies between the Play Management Activity data with the gambling activity data (and vise-versa) suggest that there are systematic flaws with one or both data collection systems, resulting in fundamentally problematic data. Given the extent of data discrepancies and data anomalies we discovered, we could not proceed with formal data analyses designed to evaluate the effectiveness of the PlayMyWay system for supporting responsible gambling. In lieu of such analyses, we identified and investigated two data issues that might be contributing to data discrepancies: blackout periods, and inconsistencies between enrollment and un-enrollment records. However, our review of these issues indicates they likely account for a very small percentage of the data discrepancies we observed. It is our conclusion that there are other currently unidentified issues contributing to the data discrepancies.

5.3. PPC Patron Survey

The results of the PPC patron survey provide important information about the relationship and interactions between members of the PPC player population and the PlayMyWay system. The results of the player survey also provide information about the patron survey participants themselves, including their demographic backgrounds and their gambling behaviors. Together, these results can help to guide the MGC in determining the future directions of the PlayMyWay system.

5.3.1. General Observations

We found that approximately 60% of survey participants were female, approximately 90% were White. Nearly all participants were non-Hispanic, and the average participant's age was 56. In the preliminary report, we reported that females made up 57.8% of Marquee Rewards cardholders, while the average age of cardholders was 58.3 (we did not have data on cardholders' races and ethnicities). Therefore, the gender and age characteristics of the current sample were similar to those of the full population of Marquee Rewards cardholders described in our previous report.

Most patron survey participants were weekly gamblers and participated in two gambling activities within the past twelve months before taking the survey. Approximately a fifth of participants screened positive on the BBGS, indicating they might have a gambling-related problem. Asked which responsible gambling strategies they use, nearly 50% indicated they used a gambling bankroll, while over 20% indicated the use a stop-loss and take periodic breaks. One-fifth of survey participants indicated they do not use any responsible gambling strategies, which signifies that most patron survey participants practiced responsible gambling in at least some way.

A majority of participants (approximately 9 out of 10) never enrolled in PlayMyWay. Approximately 6% of participants enrolled in PlayMyWay and remained enrolled at the time of the survey, while approximately 2% had previously enrolled but have since un-enrolled. These results echo findings from our previous report, in which we reported that out of 101,024 cardholders for whom we had gambling records, 91.2% only appeared in gambling records for those not enrolled in PlayMyWay.

Among ever-enrolled participants, curiosity was the most popular reason for enrolling, followed by the $5 food voucher incentive. Although this incentive was one of the more popular reasons for enrolling, it is

notable that most participants who indicated this reason also indicated at least one other reason for enrolling. This suggests that most participants who enrolled in PlayMyWay had the intention of using the system, that is, most participants did not enroll in PlayMyWay exclusively for the purpose of receiving the enrollment incentive.

Most participants who un-enrolled indicated that they did so because they preferred to gamble without PlayMyWay monitoring. However, one of the more popular specific reasons for un-enrolling was that they found budget notifications to be annoying. Nearly a third of un-enrolled participants indicated that the budget notifications were too frequent, suggesting they were displeased with the mechanics of the notification system (e.g., receiving approaching notifications upon hitting 50% and 75% of budget; receiving exceeding notifications upon hitting 125% and every 25% increment thereafter; receiving a new notification each time one re-crosses a notification threshold; receiving simultaneously notifications for multiple budget types).

For participants who never enrolled in PlayMyWay, the majority indicated that they never heard of PlayMyWay. Most ever-enrolled participants indicated they heard about PlayMyWay during one of their visits to PPC (e.g., message on a machine, sign at PPC, GameSense advisor). Conversely, almost no one heard about PlayMyWay via channels outside of the confines of PPC (e.g., online notifications, radio ads).

PlayMyWay users reported using all three budget types (i.e., at least 25% of participants utilized daily, weekly, and monthly). Most participants reported setting their budgets between $200 and $300, regardless of the budget type. A substantive proportion of participants did not indicate their budgets or recall their budget amounts. This resulted in reduced samples sizes, particularly when we performed comparative analyses of budget sizes. Therefore, readers should interpret our observations related to PlayMyWay budgets with caution.

For ever-enrolled participants who received approaching notifications, approximately a fifth (21.7%) indicated that they typically continued to play as before. A minority of participants who received reached notifications (40.4%) and exceeding notifications (33.3%) also indicated that they typically stopped playing upon receiving those respective notifications. These results suggest that most participants were not consistently using PlayMyWay to help them stop gambling once they reached their self-identified budgets (i.e., players were not consistently using the pre-commitment feature of PlayMyWay).

Among ever-enrolled participants who received each type of notification, the most popular emotional reaction to all three notifications was annoyance. These results do not tell us whether participants were annoyed with the notifications themselves or just the fact that they were losing money. An inability to distinguish reasons for annoyance makes it difficult to determine whether notifications were helpful or not for these participants. However, many participants reported positive reactions to notifications (e.g. grateful, satisfied). This leads us to believe that, likewise, negative reactions to notifications were likely specific to the notifications themselves, not to losing money.

When asked how PlayMyWay could be improved, most participants indicated that no change was needed. Other popular responses included increased privacy and less frequent notifications.

5.3.2. Comparative Analysis: Enrollment Status

We compared participants' responses to survey questions based on their enrollment status (i.e., enrolled, un-enrolled, not interested, never heard). In terms of ways that PlayMyWay could be improved, un-enrolled participants tended to offer suggestions (e.g., *notifications came less frequently*, *it had more privacy*) while enrolled participants were more likely to say they liked it the way it is. Our analyses of the SUS scores indicated that enrolled participants found PlayMyWay to be more usable than un-enrolled participants. An analysis of individual SUS items showed that enrolled participants felt more confident about their gambling using PlayMyWay than un-enrolled participants. We can take these results to mean that, unsurprisingly, enrolled participants had a more positive experience with PlayMyWay than un-enrolled participants.

Enrolled participants were more likely than un-enrolled participants to indicate a reason for enrolling (specifically, to have a way to keep track of their gambling). Whereas providing a means to passively keep track of one's gambling is one feature of play management systems such as PlayMyWay, another important feature of these systems is *pre-commitment*, or actively setting limits for one's gambling. A major principle of pre-commitment is for gamblers to set limits on their expenditures prior to gambling and to stick to those limits when they gamble (Ladouceur et al., 2012; Responsible Gambling Council, 2009, p. 7). Therefore, pre-commitment systems primarily are designed as a means to help control one's gambling (i.e., prevent excessive spending) by facilitating a stop-loss. A minority of enrolled and un-enrolled participants indicated they enrolled in PlayMyWay either to control their gambling or to budget themselves. However, in our analysis of typical reactions to notifications, we found that enrolled participants were more likely than un-enrolled participants to stop playing when they reached and exceeded their budget (i.e., enrolled participants were more likely to use PlayMyWay as a pre-commitment system). Moreover, enrolled participants were more likely to feel positive reactions to notifications (e.g., grateful, satisfied), whereas un-enrolled participants were more likely to feel negative reactions to receiving notifications (e.g., annoyed, pestered). Together, these results suggest that PlayMyWay users tend to stay enrolled in PlayMyWay when they have positive feelings about notifications. It is possible that enrolled participants ascribe more purpose to PlayMyWay notifications (namely, as a means to keep track of and/or control their gambling), whereas un-enrolled participants tend to see notifications as more of an annoyance. Notably, research on pre-commitments systems highlight the importance of avoiding negative feelings (i.e., embarrassment) upon reaching set limits (Responsible Gambling Council, 2010, p. 33). This recommendation likely extends to other negative thoughts and feelings as well.

Participants who un-enrolled from PlayMyWay were more likely than enrolled participants, participants who were not interested in PlayMyWay, and participants who never heard of PlayMyWay to indicate that they did not use any responsible gambling strategies. More generally, the participants who un-enrolled used fewer responsible gambling strategies on average than the other participants.[21] Participants who un-enrolled from PlayMyWay were also more likely to be intensive gamblers (i.e., gamble weekly or more)

[21] While the difference between the un-enrolled participants' mean of 1.0 and the other groups' means of 1.4, 1.3, and 1.4 may not seem of practical significance at first glance, it might be an indication that participants in the enrolled, not interested, and never heard groups were more likely to use multiple strategies (e.g., having a gambling bankroll and keeping track of it in a ledger, setting time limits and schedules with breaks built in). Further studies and surveys can explore whether those who already have such "defense in depth" systems of protective strategies need or are willing to add something external like PlayMyWay to what they are already doing themselves.

and were more likely to be at risk for having a gambling problem (i.e., screen positive on the BBGS) compared to other enrollment status groups. These results suggest that PlayMyWay does not retain people who demonstrate risky gambling behaviors.

5.3.3. Comparative Analysis: Problem Gambling Status

We compared participants' responses to survey questions based on their BBGS status. Compared to BBGS negative participants, BBGS positive participants were more likely to indicate that they did not use any responsible gambling strategies, gambled more often and more diversely (i.e., they had greater depth and breadth of gambling involvement), and tended to set higher monthly budget amounts through PlayMyWay. BBGS negative participants found PlayMyWay more usable and were more likely to use PlayMyWay as a stop loss (i.e., BBGS negative participants were more likely to stop playing upon receiving reached and exceeding notifications). We also found that BBGS positive participants were more likely than BBGS negative participants to have negative reactions (e.g., annoyed, pestered) to all three types of PlayMyWay notifications. Taken together, these results indicate that BBGS positive participants tended to have more negative experiences with PlayMyWay than BBGS negative participants. This might explain why BBGS positive participants were more likely than BBGS negative participants to un-enroll from PlayMyWay.

5.3.4. Comparative Analysis: Depth of involvement

In Appendix 7.8., we compared participants' responses to survey questions based on their depth of gambling involvement (i.e., casual gamblers, frequent gamblers, intensive gamblers). We segregated these results from the body of the report due to small sample sizes but discuss the findings here because they might provide guidance for future research and program adjustments. Surprisingly, almost half of our patron survey sample consisted of intensive gamblers, whereas a relative minority were casual gamblers. In contrast, in many studies of gambling player pools, casual gamblers tend to make up the majority, while heavy gamblers tend to represent a much smaller proportion (LaBrie, Kaplan, LaPlante, Nelson, & Shaffer, 2008; Tom, LaPlante, & Shaffer, 2014; Wardle et al., 2011). We found that intensive gambler participants were more likely to be at risk of having a gambling problem (i.e., screen positive on the BBGS) than frequent gambler or casual gambler participants, while frequent gambler participants were more likely to be at risk of developing a gambling problem than casual gambler participants. Intensive gambler participants were more likely to not use any responsible gambling strategies than casual and frequent gambler participants. Depth of involvement categories were related to use of PlayMyWay as a stop loss tool. Casual gambler participants were more likely than intensive gambler participants to stop playing upon receiving reached and exceeding notifications, while frequent gambler participants were more likely than intensive gambler participants to stop playing upon receiving exceeding notifications. Low sample sizes (particularly for causal gamblers) prevented us drawing any definitive conclusions for how gambling frequency related to one's PlayMyWay experience.

5.4. Limitations

One major caveat of the patron survey is its representativeness. Of the 126,097 Marquee Rewards cardholders who received the survey invitation via email, 1,951 (1.5%) opened the link, consented to participate, and completed the survey. Thus, the survey should be understood from the perspective of a small and unrepresentative sample. Its findings should be interpreted with caution and be taken to represent only the PPC patrons who completed the survey, rather than PPC patrons as a whole. We suggest that

readers consider results (especially small *p*-values) as indicators of subgroups within the gambling population that might warrant future further investigation, not as automatic causes for concern or calls for drastic changes in the implementation, design, or marketing of PlayMyWay. In the absence of survey information backed by actual gambling and PlayMyWay records, the information is subject to common biases, including, but not limited to, self-deception, other-deception, faulty memory, and miscomprehension. The patron survey was cross-sectional, which precluded a more detailed understanding of cause and effect relationships (e.g., between enrollment in PlayMyWay and BBGS status). Our method for operationalizing depth of involvement (maximum frequency a participant reported for any gambling location and gambling activity during the previous 12 months) does not account for how much a person spends gambling. An individual who spends $100 at PPC on a weekly basis and an individual who plays the lottery three times a week (but spends only $10 in total) would both be classified as *intensive* gamblers.

While we consider the inability to use playing records data a finding in and of itself (because it tells us something about the integrity of the data management system), we also consider it a limitation given there is still no causal evidence related to PlayMyWay. Key questions we wanted to answer but are still unable to answer include:

- What factors predict PlayMyWay enrollment?
    - This question will provide insight into the factors that affect PlayMyWay enrollment. MGC might use this information to build targeted enrollment programs.
- What factors predict PlayMyWay un-enrollment?
    - This question will provide insight into the factors that affect PlayMyWay un-enrollment. MGC might use this information to build targeted maintenance programs.
- What factors predict compliance with PlayMyWay reach notifications?
    - This question will provide insight into the factors that affect PlayMyWay influence upon gambling behavior. MGC might use this information to revise PlayMyWay to increase its impact upon gambling behavior.
- What are the gambling characteristics of PlayMyWay enrollees vis-à-vis those who don't use PlayMyWay?
    - This question will provide a better understanding of the gambling behavior of PlayMyWay enrollees (for example, what share of PlayMyWay enrollees tend to be heavy gamblers?) MGC might use this information to define their goals in terms of targeting enrollment rates by gambling activity.
- What games and/or game characteristics affect response to PlayMyWay notification?
    - This question will provide insight into whether specific types of games or specific game characteristics (e.g., display) are associated with different ways of responding to PlayMyWay notifications. MGC might use this information to develop PlayMyWay messaging by game.

5.5. Recommendations

Recommendation 1: Advance measurable goals and specific aims for PlayMyWay that can guide future research.

Although the goals and aims survey provided the opportunity to document the MGC's aims for PlayMyWay, to further progress such work it will be important to develop goals for all of the included areas of interest and to do so in a way that yields measurable constructs. Currently, some of the reported goals

are listed as pending further consideration (e.g., un-enrollment rates, associations between enrollment in PlayMyWay and PPC visitation). Other areas of interest have abstract goals that might be difficult to operationalize (e.g., "The purpose of PMW is to help assure that the outcome of people's play matches their own preferences for personal and family health"). We recommend that the MGC develop measurable goals for key aspects of the program, such as enrollment, retention, budget compliance, responses to notification, and system experiences. The MGC also should consider developing measurable goals related to how PlayMyWay affects an individual's gambling behavior (e.g., changes in percent of monies wagered or lost per gambling session before and after enrolling in PlayMyWay).

Recommendation 2: Review goals and specific aims for PlayMyWay annually to confirm or update as the situation and MGC's current position dictates.

We suggest that the MGC continue to refine its goals, publicly document those goals, and plan for ongoing evaluation of PlayMyWay against the goals. We recommend that the MGC revisit its identified goals annually to review and update them, as appropriate to the current situation.

Recommendation 3: Develop an RFP to support a specific system/data quality evaluation that aims to determine the cause(s) of observed data discrepancies for the PlayMyWay system records.

With respect to assessing the PlayMyWay system from a records-based perspective, we identified important unexplained data discrepancies (i.e., the gambling activity data did not sufficiently corroborate the numbers of notifications PlayMyWay users had listed in the Play Management Activity data files) that prevented us from using the available data for research purposes. As part of our work, we evaluated some promising potential explanations (i.e., data issues) for the observed anomalies, but neither of the data issues we identified adequately explained the discrepancies. During the course of this project, we discussed these issues with the MGC, the RRC, and PPC. We identified some additional data issues that the MGC should pursue in future work. We recommend that the MGC consider developing an RFP to support a specific system/data quality evaluation – distinct from the type of evaluation with which we were tasked (i.e., the effectiveness and usability of the PlayMyWay system for helping users gamble responsibly). Such a system evaluation can pursue the additional areas we collectively identify as important to examine, as well as examine whether the discrepancies related to PlayMyWay system malfunctions (e.g., failure to send a notification or sending a notification at the wrong time), PlayMyWay database malfunctions (e.g., failing to record a notification or recording notifications that did not actually occur), or some other malfunction (e.g., faulty data abstraction logic).

Recommendation 4: Develop a required protocol to support data acquisition and quality control measures that will ensure data integrity for records and future PlayMyWay database research.

Once the cause(s) of data discrepancies have been identified and fixed, the MGC, in cooperation with Scientific Games, should develop proactive data acquisition and quality control measures so that data integrity can be maintained. Those working on future updates to PlayMyWay and its data collection systems also should pursue methods for collecting data and maintaining records for the aforementioned unusual circumstances (i.e., wins of $1,200 or more, PlayMyWay activity at GameSense kiosks, merged Marquee Rewards accounts).

Recommendation 5: Conduct and publicly report upon a PlayMyWay system field test that ensures proper functioning during high system load.

No participant of the patron survey gave any indication (e.g., in the open response sections) that they believed that the PlayMyWay system was malfunctioning. However, we cannot assume that the system is properly functioning at all times. For example, high system load might cause PlayMyWay to not function correctly. Correspondence with the MGC revealed that they originally tested the PlayMyWay system on test machines within an isolated bank of machines at PPC. Onsite field testing is outside the scope of the current work; however, it is an essential task to complete to ensure the proper functioning of the PlayMyWay system. We suggest that this work cannot be completed using an isolated bank of machines, and rather must include *in vivo* tests of active machines on the gaming floor during various load conditions. Doing so will allow the MGC to evaluate system functioning in real time under true system load.

Recommendation 6: Conduct further research on PlayMyWay usage and its effects.

We suggest three directions for future research. First is a cost-benefit analysis of the PlayMyWay program. This will determine if the potential costs saved by the program (e.g., treatment for problem gambling) outweigh the costs of the program development, adjustment, and maintenance. As part of a cost-benefit analysis, the MGC should define "benefits" and propose a [preferably quantitative] heuristic or rubric that defines what outcomes constitute "more benefits" and what outcomes constitute "less benefits." Second is a randomized clinical trial of PlayMyWay, with users assigned to engage with PlayMyWay or not. This type of research design will allow the MGC to observe whether PlayMyWay causes changes in gambling behavior. Third is a study linking Marquee Rewards cardholders' survey responses to accurate play management and gambling activity data. Such a study will provide a more accurate picture of cardholders' playing tendencies and how those tendencies relate to their experiences with PlayMyWay.

Recommendation 7: Expand PlayMyWay awareness training, advance effective off-site messaging, and strengthen on-game messaging.

Most users heard about PlayMyWay by observing a message on a gambling machine. Other important means of reaching gamblers included signage, GameSense Advisors, and PPC employees. To increase the value of all these points of contact, the MGC might want to consider expanding PlayMyWay awareness training and initiatives among these secondary sources and simultaneously strengthening its on-EGM messaging.

Recommendation 8: Develop and test customized notification schedules.

In the patron survey, some participants noted that PlayMyWay would be better if the notifications came less frequently. Allowing PlayMyWay users to choose how often and when they receive notifications could lead to improvements in some users' experience with the tool. However, while custom notification schedules could be beneficial for some players, a completely customizable notification schedule could overwhelm others. Therefore, customization features would need to be tempered with reasonable limits (for example, requiring players to set at least one pre-limit and one post-limit notification is one possible route). The system also should offer players the option to choose a default/recommended notification schedule. As with any new features, the MGC should examine the public health impact of any changes.

Recommendation 9: Develop and test privacy enhancing features, options, and regulations.

In the patron survey, some participants noted that PlayMyWay would be better if it had more privacy. Researchers and user experience experts should investigate whether it is possible to make users' interac-

tions with the system more private (e.g., changing the size or design of the notifications, making the notifications less noticeable to those not looking at or interacting directly with the EGM) or change the timings of notifications (e.g., adjusting the percentages at which the system generates notifications) without reducing the efficacy of PlayMyWay. The nature of PlayMyWay compromises privacy to some extent, as enrollment-related processes and notifications currently are public (i.e., presented on screens at gambling machines or kiosks). Providing remote enrollment options or messaging options (e.g., through a smart phone app) and strengthening rules that provide users confidence that the system will not monitor without consent might relieve concerns about privacy. As with any new features, the MGC should examine the public health impact of any changes.

Recommendation 10: Develop and test additional extrinsic motivators, such as food vouchers.

Most never-enrolled participants indicated they never enrolled because they never heard of PlayMyWay. This suggests the need for additional awareness campaigns and enrollment initiatives. Food vouchers appear to be a main source for stimulating enrollment, and additional types of external motivators might be worth pursuing. As with any new features, the MGC should examine the public health impact of any changes.

Recommendation 11: Highlight and advertise intrinsic motivators, such as the play tracking feature of PlayMyWay.

Most participants reported that they enrolled in PlayMyWay due to curiosity and extrinsic motivation (i.e., the $5 food voucher). Although it might be tempting to pursue enrollment initiatives that capitalize on individuals' innate curiosity and extrinsic motivation, it is important to point out that current enrollees were more likely than un-enrollees to have enrolled because they wanted a way to keep track of gambling. This might suggest that curiosity motivations hold limited association with user retention. Highlighting the tracking features in messaging and signage related to PlayMyWay might stimulate longer term enrollment. Another change that could improve players' experience would be allowing the option for PlayMyWay users to choose between enabling either the budget setting feature or the play tracking feature, as some enrollees might only want to use one or the other.

Recommendation 12: Develop a research plan to explore in depth why the budget compliance component of the PlayMyWay system is heeded infrequently.

Most survey participants seemed to pay limited attention to notifications (i.e., few patron survey participants reported that they stopped gambling upon receiving notifications, particularly reached and exceeding notifications). This suggests that on the whole, people are not using the system to help them stop gambling according to self-identified budgets. However, current enrollees were more likely to do so than un-enrollees, as were those who were BBGS negative and casual gamblers. This suggests that the budget compliance component of PlayMyWay is important to some individuals, especially those who seem to gamble responsibly. Future research might want to focus on this observation and attempt to understand why the budget compliance component of the PlayMyWay system is heeded so infrequently.

Recommendation 13: Develop a research plan to explore in depth why people are having strong negative reactions to notifications, by and large.

A plurality of participants reported that they felt annoyed by all three notification types; however, meaningful numbers of participants also reported feeling grateful and satisfied. Un-enrolled users were more

likely to say they felt annoyed and pestered, whereas enrolled users that they felt grateful and satisfied. Likewise, BBGS negative participants felt grateful, but BBGS positive participants felt annoyed, worried, and guilty. Although depth of involvement was not consistently related to any specific reaction, the negative impressions of those at risk for gambling-related problems and those who opted out of PlayMyWay after trying it suggest that more attention to notifications is required. This might take the form of a specific RFP that is designed to support research and development for notifications to maximize their ability to support budget compliance in a way that is satisfying and rewarding.

Recommendation 14: Develop a research plan to explore reasons for poor retention amongst at-risk gamblers.

Participants who were BBGS positive and gambling intensive (i.e., gambled weekly or more) were more likely to un-enroll from PlayMyWay. The MGC should take active steps towards identifying the reasons for poor retention amongst these key subgroups. A second patron survey that specifically targets risky gamblers could gauge which features of the program are appealing and which are not. For example, risky gamblers could be more interested in the play tracking feature of PlayMyWay or be more inclined towards a customized notification schedule.

Recommendation 15: Avoid adding overly complicated features, and strengthen those that exist, as system usability is satisfactory.

People generally found the PlayMyWay system easy to use, though current enrollees found it easier than un-enrollees, as did people who were BBGS negative. Because of these system usability findings, we recommend avoiding adding any overly complicated features and instead strengthening those that currently exist. To accomplish this, MGC should consider engaging in offline development activities to identify the most valuable new features and testing those features in a limited field environment before widescale release at PPC and beyond.

5.6. Concluding Thoughts

Some of the above recommendations are PlayMyWay specific. Others can be more generally applied to future play management systems deployed at other establishments. Those developing these future play management systems should consider some of the lessons learned by those who have been implementing and experiencing the PlayMyWay system. Comparisons will not be perfect, first and foremost because other establishments are offering or will offer gambling options not offered at Plainridge Park Casino (e.g., table games). Regardless of how similar or dissimilar another play management system is to PlayMyWay, we suggest that those involved in its implementation maintain an extensive research program to monitor and potentially improve said play management system's effectiveness.

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7. Appendices

7.1. PlayMyWay Specifications

For the purposes of the notifications, the relevant time periods (i.e., when budgets reset) are defined as follows:

Daily: 6:00 AM (i.e. 06:00:00) to 05:59:59 AM the next day.
Weekly: Sunday at 6:00 AM (i.e. 06:00:00) to 05:59:59 AM the next Sunday.
Monthly: First of the month at 6:00 AM to 05:59:59 AM on the first day of the next month (e.g., the December 2016 period started at 2016-12-01 06:00:00 and ended at 2017-01-01 05:59:59)

When a player changes their budget(s), the system records a row of data with Activity Code equal to "EditPlayerRule."

- When a user increases one or more of their budgets, the system generates a row with "EditPlayerRule" and a second row with the same Player Id, the same Date and Time, and an Activity Code of "ConfirmEffectiveRule."
- When a user decreases one or more of their budgets, the system generates an "EditPlayerRule" row is by itself without an accompanying "ConfirmEffectiveRule" row. The "EditPlayerRule" data reflects the player's budgets after he is finished with his changes.

The system records an "ApproachingNotification" row when ALL the following criteria are met:

- The net loss over a given time period (daily, weekly, monthly) exceeds one of the following percentages of a budget: 50%, 75%, 125%, 150%, 175%, etc. (i.e., every 25% increment thereafter).
- Net loss as a percentage of the budget goes above a higher threshold of notification cut-off point, as defined in (I). For example, in the below sample of gambling activity data, in the fourth data row, the player goes from being down 70.8% of his budget (budget: $6.00, net loss: $4.25) to being down 91.7% (net loss: $5.50). Because the player went from being down less than 75% to being down more than 75%, the system recorded a row of data with an Activity Code of "Ap proachingNotification."

Example 1: In the seventh through ninth data rows in the table below, the player reaches 129.2% (crossing 125%), drops to 120.8% (dropping back below 125%), and then goes up to 141.7% (crossing 125% again). The player receives two messages corresponding to 125%, one corresponding to the seventh row of data, one corresponding to the ninth.

Example 2: Even if a player crosses multiple thresholds with a single row of data, the system will only generate one row of data. For example, with the twelfth row of data below, the player crosses 175%, 200%, and 225%. Still, the system only generates one "ApproachingNotification" row of data.

The system does NOT record an "ApproachingNotification" row in the following scenarios:

- The net loss for a given time period (daily, weekly, monthly) is below 50% of the budget set for that time period.

- Net loss as a percentage of the budget does not exceed another threshold when a player is supposed to receive a notification.
- The net loss as a percentage of budget decreases to a lower level.

Example 3: On the second row of data below, the percentage increases from 45.8% to 66.7%, and the system records an "ApproachingNotification" row. However, on the third row of data, the percentage only increased to 70.8%. Because the percentage does not cross the next threshold (75%), the player does not receive a notification.

Example 4: On the eighth row of data below, the percentage changes from above 125% to below 125%. In this case, the player receives no notification.

The system will record a "LimitReachedNotification" row when the following criterion is met:

- A given spin increases the net loss as a percentage of the budget during a given time period (daily, weekly, monthly) from less than 100% to more than 100%. In instances when the spin results in the net loss as a percent of budget going from less than 100% to equal to or more than 125%, the system generates both an "ApproachingNotification" row and a "LimitReachedNotification" row as separate notifications.

The notifications across different time periods (daily, weekly, and monthly) are cumulative. In other words, if a given row of data leads the system to generate notifications based on two or more budgets (e.g., daily and weekly), then the system will record a row of data reflecting the percentages of both budgets.

Each time the system records a "LimitReachedNotification" or "ApproachingNotification" row, the user should receive a message showing which threshold(s) he crossed (by showing their exact percentages of all applicable budgets).

Data Row	Bet Amount	Profit	Net Result	Running Net Result	Percent of Budget	Activity Code Notification Received	Notes
1	$3.75	$1.00	-$2.75	-$2.75	45.8%	None	Hasn't crossed 50 percent of the budget.
2	$1.25	$0.00	-$1.25	-$4.00	66.7%	ApproachingNotification, Approaching (50%)	Crossed 50 percent of budget. Is between 50 and 75 percent of the budget.
3	$1.25	$1.00	-$0.25	-$4.25	70.8%	None	Is still between 50 and 75 percent of the budget.
4	$1.25	$0.00	-$1.25	-$5.50	91.7%	ApproachingNotification, Approaching (75%)	Crossed 75 percent of the budget. Is between 75 and 100 percent of budget.
5	$1.25	$1.50	$0.25	-$5.25	87.5%	None	Is still between 75 and 100 percent of the budget.
6	$1.25	$0.00	-$1.25	-$6.50	108.3%	LimitReachedNotification, Reached (100%)	Crossed 100 percent of the budget. Is between 100 and 125 percent of the budget.
7	$1.25	$0.00	-$1.25	-$7.75	129.2%	ApproachingNotification, Exceeded (125%)	Crossed 125 percent of the budget. Is between 125 and 150 percent of the budget.
8	$1.25	$1.75	$0.50	-$7.25	120.8%	None	Dropped below 125 percent of the budget. Is between 100 and 125 percent of the budget.
9	$1.25	$0.00	-$1.25	-$8.50	141.7%	ApproachingNotification, Exceeded (125%)	Crossed 125 percent of the budget (a second time, so they receive this notification again). Is between 125 and 150 percent of the budget.
10	$1.25	$0.00	-$1.25	-$9.75	162.5%	ApproachingNotification, Exceeded (150%)	Crossed 150 percent of the budget. Is between 150 and 175 percent of the budget.
11	$5.00	$5.00	$0.00	-$9.75	162.5%	None	Is still between 150 and 175 percent of the budget.
12	$5.00	$0.00	-$5.00	-$14.75	245.8%	ApproachingNotification, Exceeded (225%)	Crossed 225 percent of the budget. Is between 225 and 250 percent of the budget.

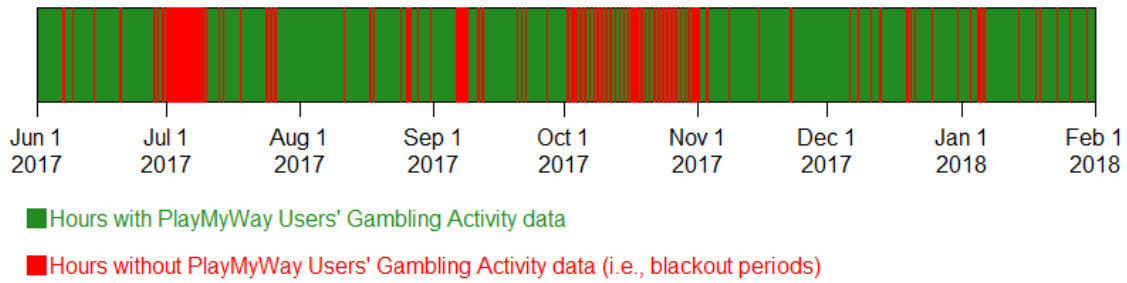
Budget amount: $6.00

7.2. Other Data Anomalies in the PlayMyWay Data Files

The first potential data anomaly source we examined was large time gaps (i.e., *blackout periods*) in the both the Play Management Activity files and the PlayMyWay Users' Gambling Activity files. We did this for gaps that occurred *during* the study period and for a key gap that occurred *outside* the study period.

To start, we examined gaps that occurred during the study period. Specifically, there were 536 one-hour periods (e.g., 2017-10-06 23:00:00 to 2017-10-07 00:00:00) during the study period without any timestamps in the PlayMyWay Users' Gambling Activity files. Many of these hours combine to form multi-hour blocks of time (e.g., 2017-10-05 19:00:00 to 2017-10-06 00:00:00). One block lasted multiple days, from July 1, 2017 to July 8, 2017. These blackout periods and blocks are illustrated in Figure A1.

Figure A27. Timeline showing hours during the study period (2017-06-01 to 2018-01-31) for which PlayMyWay Users' Gambling Activity data was not available.



We searched the All Users' Gambling Activity files for data rows where (A) the data row's Marquee Rewards member was a PlayMyWay user, (B) the timestamp was during the time the user was enrolled in PlayMyWay, and (C) the timestamp was also during one of the aforementioned one-hour blackout periods in the PlayMyWay Users' Gambling Activity data. A total of 2,261 PlayMyWay users had All Users' Gambling Activity data that fit these criteria. This would imply that these users gambled with PlayMyWay active, but that the results were not included in the PlayMyWay Users' Gambling Activity data. This data loss in the PlayMyWay Users' Gambling Activity data would result in discrepancies between the running net losses we calculated based on PlayMyWay Users' Gambling Activity data and the actual running net losses that the Play Management server used to determine if or when these users received messages. In some cases (e.g., if the user lost a significant amount during the blackout period), this could have resulted in notifications in the Play Management Activity data that did not have corresponding necessary running net losses in the PlayMyWay Users' Gambling Activity data. In other cases (e.g., if the user won a substantial prize during the blackout period), this could have resulted in running net losses in the PlayMyWay Users' Gambling Activity data that implied that the user should have received notifications, but had no actual notifications sent or recorded in the Play Management Activity data (i.e., the user's true running net loss was not enough to warrant a notification). Either possibility would result in discrepancies between the numbers of actual notifications and imputed notifications.

Exploring whether data loss due to blackout periods meaningfully contributed to the extent of notification discrepancies we observed involved several steps. First, we used the All Users' Gambling Activity data to identify PlayMyWay users who gambled at PPC during the blackout periods in the PlayMyWay Users'

Gambling Activity data.[22] Second, we identified and flagged notifications in the Play Management Activity data during *corrupted notification cycles* (i.e., daily notification cycles, weekly notification cycles, and monthly notification cycles corresponding to periods when, according to the All Users' Gambling Activity Data, PlayMyWay users were actively playing during a blackout period).[23] Third, in the PlayMyWay Users' Gambling Activity data, we identified and flagged running net losses and imputed eligible notifications that occurred within corrupted notification cycles (i.e., daily, weekly, and monthly notification cycles that [1] were part of a blackout period; and [2] corresponded to data rows in All Users' Gambling Activity files confirming the user gambled during that blackout period).[24] Fourth, we removed all flagged notifications in the Play Management Activity data and imputed notifications from the PlayMyWay Users' Gambling Activity data.[25]

The notifications and imputed notifications that remained after the fourth step were the ones unaffected by the blackout periods. If a meaningful percentage of the discrepancies are explained by data lost during these blackout periods, then more of the remaining notifications should match imputed notifications, and more PlayMyWay users should have matching numbers of notifications and imputed notifications. Therefore, we counted the number of users who had the same numbers of remaining eligible notifications and remaining imputed eligible notifications. We determined that taking into account the missing data due to blackout periods slightly increased the overall number of users who had matching numbers of eligible notifications and imputed eligible notifications (daily: from 209 to 217; weekly: from 43 to 44; monthly: from 45 to 46). Still, in all three cases, under 12% of those counted had agreement between the number of remaining eligible notifications and remaining imputed eligible notifications. Therefore, we conclude that missing data due to the blackout periods in the PlayMyWay Users' Gambling Activity data were not a major contributor to the discrepancies described in Section 3.2.2 through 3.2.4.

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[22] For example, one of the blackout periods occurred on October 31, 2017, starting before 7:00 pm and ending after midnight. For illustration purposes, suppose that we had a user (call him User A) who had a $200 daily budget set earlier in October and a row of All Users' Gambling Activity data timestamped 2017-10-31 20:15:13 (i.e., during this blackout period). Because User A set a daily budget, our notification discord procedure would have focused on his Play Management Activity data and gambling activity data with timestamps between 2017-10-31 06:00:00 and 2017-11-01 06:00:00 (i.e., the PlayMyWay daily notification period covering the blackout period).

[23] For example, suppose that User A had a notification timestamped 2017-11-01 04:15:08. The timestamp of the notification is later than the timestamp of the row from the All Users' Gambling Data file, and both are in that PlayMyWay 24-hour period, so we would have flagged that notification.

[24] For example, suppose that according to PlayMyWay Users' Gambling Activity data covering the thirteen hours between 2017-10-31 06:00:00 and 2017-10-31 18:59:59 and the six hours between 2017-11-01 00:00:00 and 2017-11-01 06:00:00, User A's running net loss increased from $149.11 to $154.20 (i.e., crossing the 75% threshold for his $200 daily budget) at 2017-11-01 01:23:45. Then that increase would have generated an imputed notification, and we would have flagged that imputed notification.

[25] In User A's case, we would have removed the notification timestamped 2017-11-01 04:15:08 and the imputed notification timestamped 2017-11-01 01:23:45.

Next, we examined the potential impact of a blackout period that occurred *outside* the study period. The Play Management Activity files contain no data spanning from December 17, 2016 to December 31, 2016 (i.e., an outside blackout period). However, the All Users' Gambling Activity data shows that 2,597 Marquee Rewards members with Play Management Activity data used EGMs at Plainridge Park during those fifteen days. Although these particular dates are outside of the study period, their missingness has potentially large implications for the overall validity of the play management data during the study period. We derive crucial information about enrollments and budget changes from play management activity before the study period to serve as reference budgets for players who enrolled before the study period. Out of the 2,597 users, 1,116 (43.0%) have Play Management Activity data from during the study period (957 (36.9%) with notifications), and 1,619 (62.3%) have PlayMyWay Users' Gambling Activity data during the study period. If any of these players had initially enrolled, re-enrolled, or changed a budget during this roughly two-week long outside blackout period, we would be missing their active budget during the study period unless they chose to re-enroll or change a budget after the outside blackout period. Missing budget changes could have led to erroneous calculations for these players' budget sizes, budget compliance rates, and enrollment/un-enrollment rates, which in turn could have led to erroneous conclusions about the PlayMyWay system.

We estimated the effect that this two-week blackout period could have had on our results with respect to daily, weekly, and monthly notifications. Out of the 2,479 users who had both records of eligible daily notifications and eligible imputed daily notifications, 1,833 did not have All Users' Gambling Activity data during the blackout period. For 166 (9.1%) of these users, the count for eligible daily notifications matched the count for eligible imputed daily notifications. Out of the 464 users who had both records of eligible weekly notifications and eligible imputed weekly notifications, 314 did not have All Users' Gambling Activity data during the blackout period in the Play Management Activity data. For 36 (11.5%) of these users, the count for eligible weekly notifications matched the count eligible imputed weekly notifications. Out of the 500 users who had both records of eligible monthly notifications and eligible imputed monthly notifications, 362 did not have All Users' Gambling Activity data during the blackout period in the Play Management Activity data. For 38 (10.5%) of these users, the count for eligible monthly notifications matched the count eligible imputed monthly notifications. Therefore, we conclude that this two-week blackout period accounted for very little of the discrepancies between the Play Management Activity data and the PlayMyWay Users' Gambling Activity data.

The second potential data anomaly source we examined was instances of enrollment and un-enrollment discord. Specifically, out of 16,307 players in the Play Management Activity files, we identified 19 players whose Play Management Activity data evidenced either (1) two enrollments in a row with no un-enrollment in between or (2) two un-enrollments in a row without an enrollment in between. For 10 of these players, their Play Management Activity data comprised instances of same day dual-enrollments that usually occurred within minutes apart. For 8 of these players, their Play Management Activity data comprised instances of enrollment/un-enrollment discord that can likely be explained by the December 2016 outside blackout period described previously. Specifically, these players' dual enrollments or un-enrollments occurred on two separate dates, one before the blackout period and one after, meaning the missing enrollment/un-enrollment very likely occurred during the blackout period. Finally, there was a single case that exhibited dual enrollments other than during the outside blackout period. However, this player's play management activity occurred between 2016-05-29 and 2016-06-02 (before PlayMyWay's 2016-06-08 launch date), indicating that this user/account was a test case that was not removed from

the data before it was delivered to us. We also identified four additional players whose Play Management Activity data comprised budget notifications that occurred after an un-enrollment, with no enrollment in between to explain those notifications. For all four of these players, the un-enrollment and notifications occurred between the December 2016 outside blackout period, meaning the missing enrollment(s) likely occurred during that outside blackout period. Therefore, our review of enrollment/un-enrollment discord anomaly indicated that it affects a very small portion of players (23 players in total) meaning that accounting for this data anomaly would not likely make any meaningful contribution to explaining the notification discrepancies described in Sections 3.2.2 through 3.2.4.

7.3. Survey Invitation

Subject line: Survey with chance to win $300 Amazon gift card

Dear [NAME]:

Harvard Medical School faculty members from the Cambridge Health Alliance are conducting a survey to understand how people engage in gambling. The survey will take you about 20 minutes to complete. Survey participants will be entered for a chance to win a $300 Amazon gift card.

The survey is confidential. The researchers will not know your name or email. Also, Plainridge Park Casino will not know your survey answers. This analysis only is possible if a large number of Plainridge Park Casino players complete the survey. So, please click this link to begin the survey now!

[SURVEY LINK HERE]

Thank you,

[TBD PPC Employee]

7.4. Plainridge Park Casino Patron Survey

Thank you for agreeing to participate in this brief survey. This survey will ask about (1) responsible gambling, (2) Play-MyWay, (3) gambling activities, and (4) your background.

Your responses to this survey are completely anonymous.

To start, we'd like to ask you about responsible gambling. Please complete the following question about responsible gambling.

Do you use any of the following responsible gambling strategies when you gamble? (Click all that apply)

- ☐ I have a gambling bankroll ("I use a specific amount of money for gambling that is separate from my daily living money.")
- ☐ I use a stop-loss limit ("If I'm down $____, then I'll stop gambling for the day.")
- ☐ I use a stop-win limit ("If I'm up $____, then I'll stop gambling for the day.")
- ☐ I set a time limit on how much I gamble
- ☐ I keep track of my wins and losses using a smartphone app, ledger, or spreadsheet
- ☐ I take periodic breaks from gambling
- ☐ I do something else to manage my gambling (Please describe) _____
- ☐ I do not use any specific strategies

Next, we'd like to ask you about PlayMyWay, the Massachusetts Gaming Commission's play management program. Please complete the following questions about PlayMyWay.

Have you ever enrolled in PlayMyWay?

- ○ Yes, I'm currently enrolled PlayMyWay
- ○ Yes, in the past I enrolled in PlayMyWay, but since have un-enrolled
- ○ No, I've never been enrolled in PlayMyWay

How did you hear about PlayMyWay? (Click all that apply)

- ☐ I saw a message on a machine when I was gambling
- ☐ I heard about it from a GameSense Advisor
- ☐ I saw a notification online
- ☐ I heard a radio ad about it
- ☐ I read about it on Twitter
- ☐ I saw a brochure for it
- ☐ I heard about it from a friend
- ☐ I heard about it from a Plainridge Park Casino employee
- ☐ I saw a sign at Plainridge Park Casino
- ☐ I heard about it from some other source (Please describe) _____

What encouraged you to enroll in PlayMyWay? (Click all that apply)

- ☐ I wanted a way to keep track of my gambling
- ☐ I wanted a way to control my gambling
- ☐ I wanted a way to budget myself
- ☐ I wanted the $5 food voucher
- ☐ I've enrolled in budgeting tools at other casinos
- ☐ A GameSense Advisor encouraged me to enroll
- ☐ Family or friend encouraged me to enroll
- ☐ I was curious
- ☐ I enrolled for some other reason (Please describe) _____

What encouraged you to un-enroll in PlayMyWay? (Click all that apply)

- ☐ I would rather play without PlayMyWay monitoring me
- ☐ I didn't want reminders and warnings
- ☐ I do not see the benefits of PlayMyWay
- ☐ PlayMyWay makes gambling less fun
- ☐ The budget notifications are too frequent
- ☐ The budget notifications are not private enough
- ☐ I had a bad experience with PlayMyWay
- ☐ I no longer have a problem with gambling
- ☐ I have a problem with gambling
- ☐ The budget notifications are annoying
- ☐ I un-enrolled for some other reason (Please describe) _____
- ☐ I prefer not to say

What encouraged you to not enroll in PlayMyWay? (Click all that apply)

- ☐ I have never heard of PlayMyWay
- ☐ I would rather play without PlayMyWay monitoring
- ☐ I do not see the benefits of PlayMyWay
- ☐ I don't need reminders and warnings about my gambling
- ☐ Reminders and warnings make gambling less fun
- ☐ I don't have a problem with gambling
- ☐ I am embarrassed to enroll in PlayMyWay
- ☐ I think PlayMyWay is a waste of my time
- ☐ I don't think PlayMyWay can be helpful to me
- ☐ I did not enroll in for some other reason (Please describe) _____

About how much were your very first PlayMyWay budget(s)? (Complete all that apply)

- ☐ Daily $: _____
- ☐ Weekly $: _____
- ☐ Monthly $: _____
- ☐ I did not set any PlayMyWay budgets

About how much are your current PlayMyWay budget(s)? (Complete all that apply)

- ☐ Daily $: _____
- ☐ Weekly $: _____
- ☐ Monthly $: _____
- ☐ Not currently enrolled in PlayMyWay

When PlayMyWay notified me that I was approaching the budget limit I typically... (Select one)

- o Stopped playing
- o Continued to play as before
- o I never received this sort of message

When PlayMyWay notified me that I reached the budget limit I typically... (Select one)

- o Stopped playing
- o Continued to play as before
- o I never received this sort of message

When PlayMyWay notified me that I exceeded the budget limit I typically... (Select one)

- o Stopped playing
- o Continued to play as before
- o I never received this sort of message

For each of the following statements, mark the answer that best describes your reactions to PlayMyWay today

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I think that I would like to use Play-MyWay frequently	o	o	o	o	o
I found PlayMyWay unnecessarily complex	o	o	o	o	o
I thought PlayMyWay was easy to use	o	o	o	o	o
I think that I would need assistance to be able to use PlayMyWay	o	o	o	o	o
I found the various functions of Play-MyWay were well integrated	o	o	o	o	o
I thought there was too much incon-sistency in PlayMyWay	o	o	o	o	o
I would imagine that most people would learn to use PlayMyWay very quickly	o	o	o	o	o
I found PlayMyWay very cumber-some / awkward to use	o	o	o	o	o
I felt very confident using PlayMyWay	o	o	o	o	o
I needed to learn a lot of things be-fore I could get going with Play-MyWay	o	o	o	o	o
I felt more confident gambling using PlayMyWay	o	o	o	o	o

Most of time, when PlayMyWay notified me that I was **approaching** my budget, I felt... (Click all that apply)

- ☐ Annoyed
- ☐ Relieved
- ☐ Worried
- ☐ Grateful
- ☐ Pestered
- ☐ Happy
- ☐ Confused
- ☐ Surprised
- ☐ Sad
- ☐ Satisfied
- ☐ Guilty
- ☐ I felt some other way (Please describe) _____
- ☐ I never received this type of message

Most of time, when PlayMyWay notified me that I **reached** my budget, I felt... (Click all that apply)

- ☐ Annoyed
- ☐ Relieved
- ☐ Worried
- ☐ Grateful
- ☐ Pestered
- ☐ Happy
- ☐ Confused
- ☐ Surprised
- ☐ Sad
- ☐ Satisfied
- ☐ Guilty
- ☐ I felt some other way (Please describe) _____
- ☐ I never received this type of message

Most of time, when PlayMyWay notified me that I **exceeded** my budget, I felt... (Click all that apply)

- ☐ Annoyed
- ☐ Relieved
- ☐ Worried
- ☐ Grateful
- ☐ Pestered
- ☐ Happy
- ☐ Confused
- ☐ Surprised
- ☐ Sad
- ☐ Satisfied
- ☐ Guilty
- ☐ I felt some other way (Please describe) _____
- ☐ I never received this type of message

Have you ever recommended PlayMyWay to another person?

- ○ Yes
- ○ No

PlayMyWay would be better if... (Click all that apply)

- ☐ I didn't need to have a Marquee Rewards card to use it
- ☐ It used different colors
- ☐ The notifications were easier to understand
- ☐ The notifications came more frequently
- ☐ The notifications came less frequently
- ☐ It had more privacy
- ☐ It kept track of my time gambling
- ☐ It made me stop when I reached my budget
- ☐ It let me set a stop-win limit
- ☐ It let me set a stop-time limit
- ☐ I could change my budgets online
- ☐ I could check my budgets online
- ☐ I could enroll online
- ☐ I could un-enroll online
- ☐ Other _____
- ☐ I like it the way it is, it doesn't need to change

Do you have any other feedback about how the Massachusetts Gaming Commission might improve PlayMyWay?

_____

Now, we'd like to ask you about gambling. Please answer the following questions about your gambling.

Approximately how often have you gambled at the following locations during the past 12 months?

	Never	A couple of times	Less than once per month	About once per month	A couple times a month	Weekly	A couple times a week	Daily or more
Slots parlor / casino in Massachusetts (e.g., Plainridge Park Casino)	○	○	○	○	○	○	○	○
Slots parlor / casino in a state neighboring Massachusetts (i.e., NH, VT, NY, CT, RI)	○	○	○	○	○	○	○	○
Other slots parlor / casino	○	○	○	○	○	○	○	○

Approximately how often have you bet or spent money on each of the following activities during the past 12 months?

	Never	A couple of times	Less than once per month	About once per month	A couple times a month	Weekly	A couple times a week	Daily or more
Playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slot parlor)	○	○	○	○	○	○	○	○
Playing slot machines or video keno at a casino or slots parlor	○	○	○	○	○	○	○	○
Betting on sports with friend or in an office pool -- not online	○	○	○	○	○	○	○	○
Gambling at a non-profit gathering / event (e.g., church bingo, fundraiser, etc.)	○	○	○	○	○	○	○	○
Playing roulette, dice, keno, or table games (other than poker) at the casino	○	○	○	○	○	○	○	○
Gambling online on things such as poker; buying lottery tickets; betting on sports, bingo; slots or casino table game for money; or playing interactive games for money	○	○	○	○	○	○	○	○
Other (Please specify) _____	○	○	○	○	○	○	○	○

During the past 12 months, have you become restless, irritable, or anxious when trying to stop / cut down on gambling?

- o Yes
- o No

During the past 12 months, have you tried to keep your family or friends from knowing how much you gambled?

- o Yes
- o No

During the past 12 months, did you have such financial trouble as a result of your gambling that you had to get help with living expenses from family, friends, or welfare?

- o Yes
- o No

Finally, we'd like to ask you questions about yourself. Please answer the following questions about your background.

What is your age (in years)?

_____

What is your gender?

- o Male
- o Female
- o Prefer to self-describe: _____
- o Prefer not to say

What is your race?

- o American Indian or Alaska Native
- o Asian
- o Black
- o Native Hawaiian or other Pacific Islander
- o White
- o Two or more races
- o Other: _____
- o Prefer not to say

Are you of Hispanic, Latino, or Spanish origin?

- o No, not of Hispanic, Latino, or Spanish origin
- o Yes, Mexican, Mexican Am., Chicano
- o Yes, Puerto Rican
- o Yes, Cuban
- o Yes, another Hispanic, Latino, or Spanish origin: _____
- o Prefer not to say

What is your annual household income from all sources, before taxes?

- Less than $20,000
- $20,000 but less than $30,000
- $30,000 but less than $40,000
- $40,000 but less than $50,000
- $50,000 but less than $60,000
- $60,000 but less than $75,000
- $75,000 but less than $100,000
- $100,000 but less than $125,000
- $125,000 but less than $150,000
- $150,000 or more
- Prefer not to say

7.5. Patron Survey Data Cleaning

The following is a comprehensive list of our patron survey data cleaning procedures:

- Q4 Do you use any of the following responsible gambling strategies when you gamble?
    - If on Q4 a participant checked *I do something else to manage my gambling* and did not provide a description, we unchecked *I do something else to manage my gambling*.
    - If on Q4 a participant checked *I do something else to manage my gambling* and specified a reason that was consistent with another response option, we checked that other response option and unchecked *I do something else to manage my gambling*. For example, one participant did not check *I use a stop-loss* but checked *I do something else* and entered "Bring just what I am willing to spend" in the open response space. Because this description matches the definition of a stop-loss, we checked *I use a stop-loss* and unchecked *I do something else* for this participant.
- Q6 Have you ever enrolled in PlayMyWay?
    - If on Q6 a participant answered *Yes, I'm currently enrolled in PlayMyWay* or *Yes, in the past I enrolled in PlayMyWay, but have since un-enrolled* but specified in another question's open response field that s/he never enrolled in PlayMyWay, we changed the participant's answer for Q6 to *No, I've never been enrolled in PlayMyWay*. For example, one participant answered *Yes, I'm currently enrolled in PlayMyWay* on Q6, checked *I heard about it from some other source* in Q7, and typed "oops- no not in it" in Q7's open response space. We changed this participant's answer to Q6 from *Yes, I'm currently enrolled in PlayMyWay* to *No, I've never been enrolled in PlayMyWay*.
- Q7 How did you hear about PlayMyWay?
    - For the aforementioned participant who answered *I heard about it from some other source* and specified "oops- no not in it" on Q7, we unchecked *I heard about it from some other source* on Q7.
- Q8 What encouraged you to enroll in PlayMyWay?
    - One participant checked *I heard about it from some other source* and entered "did not enroll" into the open response space. For this participant, we changed their answer for Q6 from *Yes I'm currently enrolled in PlayMyWay* to *No, I've never been enrolled in PlayMyWay*.
    - If a participant answered *No, I've never been enrolled in PlayMyWay* but provided an answer to Q8, we unchecked any checked items in Q8.
- Q9 What encouraged you to un-enroll from PlayMyWay?
    - If on Q6 a participant answered *No, I've never been enrolled in PlayMyWay* and provided an answer to Q9, we unchecked any checked items in Q9.

- Q10 What encouraged you to not enroll in PlayMyWay?
    - If on Q10 a participant checked *I did not enroll some other reason* and specified a reason that was consistent with another response option, we checked off that other response option and unchecked *I did not enroll for some other reason*. For example, one participant did not check off *I have never heard of PlayMyWay*, checked off *I did not enroll for some other reason,* and entered "never heard of it" into the open response space. For this participant, we checked *I have never heard of PlayMyWay* and unchecked *I did not enroll for some other reason*.
- Q11 First PlayMyWay budgets (and) Q12 Current PlayMyWay budgets.
    - We identified two extremely high budgets that we judged to be unrealistic and therefore set them to missing.
    - If a participant answered *No, I've never been enrolled in PlayMyWay* on Q6 and provided an answer to Q11 and Q12, we set their answer(s) for Q11 and Q12 to *No Dollar Amount*.
    - If a participant did not provide an answer to Q6, we automatically set their first and current budgets to *No Dollar Amount*.
    - If on Q6 a participant indicated that they never enrolled in PlayMyWay, we automatically set their first and current budgets to *No Dollar Amount*.
    - If on Q6 a participant indicated that they un-enrolled from PlayMyWay, we automatically set their current budgets to *No Dollar Amount*.
- Q13 When PlayMyWay notified me that I was approaching the budget limit, I typically…
    - If a participant answered *stopped playing* or *continued to play as before* on Q13 and *I never received this sort of message* on Q17 (Most of the time, when PlayMyWay notified me that I was approaching my budget, I felt…), we changed the participant's response for Q13 to *I never received this sort of message*.
    - If a participant answered *No, I've never been enrolled in PlayMyWay* on Q6, we set their response for Q13 to *No response*.
- Q14 When PlayMyWay notified me that I was reached the budget limit, I typically…
    - If a participant answered *stopped playing* or *continued to play as before* on Q14 and *I never received this type of message* on Q18 (Most of the time, when PlayMyWay notified me that I reached my budget, I felt…), we changed the participant's answer for Q14 to *I never received this sort of message*.
    - If a participant answered *No, I've never been enrolled in PlayMyWay* on Q6, we set the participant's answer for Q14 to *No response*.
- Q15 When PlayMyWay notified me that I exceeded the budget limit, I typically…
    - If a participant answered *stopped playing* or *continued to play as before* on Q15 and *I never received this type of message* on Q19 (Most of the time, when PlayMyWay notified me that I exceeded my budget, I felt…), we changed the participant's answer for Q15 to *I never received this sort of message*.
    - If a participant answered *No, I've never been enrolled in PlayMyWay* on Q6, we set their answer for Q15 to *No response*.

- Q16 For each of the following statements, mark the answer that best describes your reactions to PlayMyWay today.
    - If a participant answered "No, I've never been enrolled in PlayMyWay" on Q6, we set their response for Q16 to *No response*.
- Q17 Most of the time, when PlayMyWay notified me that I was approaching my budget, I felt...
    - If on Q6 a participant answered *No, I've never been enrolled in PlayMyWay*, we unchecked any checked items in Q17.
    - If on Q17 a participant checked *I never received this type of message* and also checked an emotional reaction, we unchecked that emotional reaction.
- Q18 Most of the time, when PlayMyWay notified me that I reached my budget, I felt...
    - If on Q6 a participant answered *No, I've never been enrolled in PlayMyWay*, we unchecked any checked items in Q18.
    - If on Q18 a participant checked *I never received this type of message* and also checked off an emotional reaction, we unchecked that emotional reaction.
- Q19 Most of the time, when PlayMyWay notified me that I exceeded my budget, I felt...
    - If on Q6 a participant answered *No, I've never been enrolled in PlayMyWay*, we unchecked any checked items in Q19.
    - If on Q19 a participant checked *I never received this type of message* and also checked off an emotional reaction, we unchecked that emotional reaction.
- Q21 PlayMyWay would be better if…
    - If on Q21 a participant checked *Other* and specified a response that was consistent with another response option, we checked that other response option and unchecked *Other*. For example, one participant did not check *It made me stop when I reached my budget* but checked off *Other* and entered "it don't stop you from actually gambling" into the open response space. For this participant we checked *It made me stop when I reached my budget* and unchecked *Other*.
- Q24 Approximately how often have you bet or spent money on each of the following activities during the past 12 months?
    - If on Q24 a participant checked *Other* and provided a response that was consistent with another response option, we checked that other response option and unchecked *Other*.
    - If on Q24 a participant (1) checked off a response option and (2) checked off *Other* and specified something that was redundant with the aforementioned response option, we unchecked *Other* and kept only the aforementioned response option. If there was a dis-connect between the two in terms of how often the participant bet or spent money, we took the higher frequency value of the two. For example, one participant checked off *Playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slot parlor)* and indicated a frequency of *about once per month*, checked *Other*, entered "Scratch tickets" in the open response space, and indicated a frequency of *a couple times a month*. For this participant, we unchecked *Other* and changed the frequency of *Playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slot parlor)* from *about once per month* to *a couple times a month*.

- Q29 What is your age as of your last birthday?
    - We set any age less than 21 to *No age given* (The minimum age for entering the PPC gaming floor is 21). We also rounded any non-integer age down to the nearest whole number (e.g., 23.5 rounds down to 23).
- Q31 What is your race? (and) Q32 Are you Hispanic, Latino, or Spanish origin?
    - If on Q31 a participant answered *Other* and specified a response that was consistent with a valid response option, we changed their answer to the valid response option. For example, one participant checked off *Other* and entered "half white half arab" in the open response space. We changed this participant's response to *Two or more races*.
    - If on Q31 a participant answered *Other* and entered "Hispanic" in the open response space, we examined the response to Q32. If the participant gave one of the *Yes* responses (*Yes, Mexican, Mexican Am., Chicano*; Yes, *Puerto Rican*; *Yes*, *Cuban*; *Yes*, *another Hispanic, Latino, or Spanish origin*), we retained that answer. If the participant provided no answer or answered *No, not of Hispanic, Latino, or Spanish origin*, we changed the response to *Yes, another Hispanic, Latino, or Spanish origin*.
- Q32 Are you Hispanic, Latino, or Spanish origin?
    - We dummy coded this variable so that *Yes* response options (*Yes, Mexican, Mexican Am., Chicano*; *Yes, Puerto Rican*, *Yes, Cuban*; *Yes, another Hispanic, Latino, or Spanish origin*) were categorized under *Hispanic*, while *No, not of Hispanic, Latino, or Spanish origin* was categorized under *Not Hispanic*.

7.6. Quantitative Results Tables

Table A1. Patron survey participants' gender.

Response	*n*	%	Valid %
Male	593	30.4	36.8
Female	1012	51.9	62.7
Self-described	8	0.4	0.5
Preferred not to say	63	3.2	-
Missing	275	14.1	-
Total	**1951**	**100.0**	**100.0**

Table A2. Patron survey participants' race.

Response	*n*	%	Valid %
American Indian or Alaska Native	25	1.3	1.5
Asian	25	1.3	1.5
Black	62	3.2	3.8
Native Hawaiian or other Pacific Islander	2	0.1	0.1
White	1442	73.9	89.1
Two or more races	38	1.9	2.3
Other	24	1.2	1.5
Missing	333	17.1	-
Total	**1951**	**100.0**	**100.0**

Table A3. Patron survey participants' ethnicity.

Response	*n*	%	Valid %
Not of Hispanic origin	1514	77.6	97.1
Of Hispanic origin	45	2.3	2.9
Prefer not to say	79	4.0	-
Missing	313	16.0	-
Total	**1951**	**100.0**	**100.0**

Table A4. Patron survey participants' income.

Response	*n*	%	Valid %
Less than $20,000	68	3.5	4.9
$20,000 but less than $30,000	82	4.2	5.9
$30,000 but less than $40,000	126	6.5	9.1
$40,000 but less than $50,000	129	6.6	9.3
$50,000 but less than $60,000	142	7.3	10.3
$60,000 but less than $75,000	186	9.5	13.4
$75,000 but less than $100,000	252	12.9	18.2
$100,000 but less than $125,000	163	8.4	11.8
$125,000 but less than $150,000	84	4.3	6.1
$150,000 or more	153	7.8	11.0
Missing	566	29.0	-
Total	**1951**	**100.0**	**100.0**

Table A5. Responsible gambling strategies that patron survey participants utilized.

Measure		*n*	%
Use a gambling bankroll	Endorsed	882	48.6
	Not endorsed	933	51.4
	Total	1815	100.0
Use a stop-loss limit	Endorsed	521	28.7
	Not endorsed	1294	71.3
	Total	1815	100.0
Use a stop-win limit	Endorsed	215	11.8
	Not endorsed	1600	88.2
	Total	1815	100.0
Set a gambling time limit	Endorsed	281	15.5
	Not endorsed	1534	84.5
	Total	1815	100.0
Keep track of wins/losses using a smartphone app, ledger, or spreadsheet	Endorsed	48	2.6
	Not endorsed	1767	97.4
	Total	1815	100.0
Take period of breaks from gambling	Endorsed	433	23.9
	Not endorsed	1382	76.1
	Total	1815	100.0
Do something else	Endorsed	39	2.1
	Not endorsed	1776	97.9
	Total	1815	100.0
Do not use any specific strategy	Endorsed	390	21.5
	Not endorsed	1425	78.5
	Total	1815	100.0

Table A6. PlayMyWay enrollment status of patron survey participants.

Response	Group Name(s)	*n*	%	Valid %
Yes, I'm currently enrolled in PlayMyWay	Enrolled	109	5.6	6.0
Yes, in the past I enrolled in PlayMyWay, but since have un-enrolled	Un-enrolled	44	2.3	2.4
No, I've never been enrolled in PlayMyWay	Not interested Never heard	1664	85.3	91.6
No response (i.e., missing)		134	6.9	-
Total		**1951**	**100.0**	**100.0**

Table A7. How ever-enrolled patron survey participants heard about PlayMyWay.

Measure	Response	*n*	%
I saw a message on a machine when I was gambling	Yes	75	49.0
	No	78	51.0
	Total	153	100.0
I heard about it from a GameSense Advisor	Yes	46	30.1
	No	107	69.9
	Total	153	100.0
I saw a notification online	Yes	3	2.0%
	No	150	98.0
	Total	153	100.0
I heard a radio ad about it	Yes	0	0.0
	No	153	100.0
	Total	153	100.0
I read about it on Twitter	Yes	0	0.0
	No	153	100.0
	Total	153	100.0
I saw a brochure for it	Yes	3	2.0
	No	150	98.0
	Total	153	100.0
I heard about it from a friend	Yes	1	0.7
	No	152	99.3
	Total	153	100.0
I heard about it from a Plainridge Park Casino employee	Yes	23	15.0
	No	130	85.0
	Total	153	100.0
I saw a sign at Plainridge Park Casino	Yes	55	35.9
	No	98	64.1
	Total	153	100.0
I heard about it from some other source (Please describe)	Yes	1	0.7
	No	152	99.3
	Total	153	100.0

Table A8. Why ever-enrolled patron survey participants enrolled in PlayMyWay.

Reason	Response	*n*	%
I wanted a way to keep track of gambling	Yes	40	26.1
	No	113	73.9
	Total	153	100.0
I wanted a way to control gambling	Yes	19	12.4
	No	134	87.6
	Total	153	100.0
I wanted a way to budget oneself	Yes	34	22.2
	No	119	77.8
	Total	153	100.0
I wanted the $5 food voucher	Yes	54	35.3
	No	99	64.7
	Total	153	100.0
I've enrolled in budgeting tools at other casinos	Yes	2	1.3
	No	151	98.7
	Total	153	100.0
A GameSense Advisor encouraged me to enroll	Yes	16	10.5
	No	137	89.5
	Total	153	100.0
Family or friend encouraged me to enrollment	Yes	2	1.3
	No	151	98.7
	Total	153	100.0
I was curious	Yes	64	41.8
	No	89	58.2
	Total	153	100.0
I enrolled for some other reason (Please describe)	Yes	4	2.6
	No	149	97.4
	Total	153	100.0

Table A9. Why un-enrolled patron survey participants un-enrolled from PlayMyWay.

Measure		*n*	%
Would rather play without PlayMyWay monitoring	Endorsed	19	45.2
	Not endorsed	23	54.8
	Total	42	100.0
Didn't want reminders and warnings	Endorsed	15	35.7
	Not endorsed	27	64.3
	Total	42	100.0
Does not see the benefits of PlayMyWay	Endorsed	7	16.7
	Not endorsed	35	83.3
	Total	42	100.0
Believes PlayMyWay makes gambling less fun	Endorsed	3	7.1
	Not endorsed	39	92.9
	Total	42	100.0
Thought budget notifications were too frequent	Endorsed	13	31.0
	Not endorsed	29	69.0
	Total	42	100.0
Thought budget notifications were not private enough	Endorsed	5	11.9
	Not endorsed	37	88.1
	Total	42	100.0
Had a bad experience with PlayMyWay	Endorsed	0	0.0
	Not endorsed	42	100.0
	Total	42	100.0
No longer has a problem with gambling	Endorsed	0	0.0
	Not endorsed	42	100.0
	Total	42	100.0
Has a problem with gambling	Endorsed	0	0.0
	Not endorsed	42	100.0
	Total	42	100.0
Thought budget notifications were annoying	Endorsed	15	35.7
	Not endorsed	27	64.3
	Total	42	100.0
Un-enrolled for some other reason	Endorsed	3	7.1
	Not endorsed	39	92.9
	Total	42	100.0
Preferred not to say why he/she un-enrolled	Endorsed	4	9.5
	Not endorsed	38	90.5
	Total	42	100.0

Table A10. Why never-enrolled patron survey participants never enrolled in PlayMyWay.

Measure		*n*	%
Had never heard of PlayMyWay	Endorsed	1006	61.2
	Not endorsed	637	38.8
	Total	1643	100.0
Would rather play without PlayMyWay monitoring	Endorsed	213	33.4
	Not endorsed	424	66.6
	Total	637	100.0
Does not see the benefits of PlayMyWay	Endorsed	63	9.9
	Not endorsed	574	90.1
	Total	637	100.0
Didn't need reminders and warnings about gambling	Endorsed	238	37.4
	Not endorsed	399	62.6
	Total	637	100.0
Believes reminders and warnings make gambling less fun	Endorsed	49	7.7
	Not endorsed	588	92.3
	Total	637	100.0
Doesn't have a problem with gambling	Endorsed	226	35.5
	Not endorsed	411	64.5
	Total	637	100.0
Is embarrassed to enroll in PlayMyWay	Endorsed	10	1.6
	Not endorsed	627	98.4
	Total	637	100.0
Thinks PlayMyWay is a waste of time	Endorsed	31	4.9
	Not endorsed	606	95.1
	Total	637	100.0
Doesn't think PlayMyWay can be helpful	Endorsed	76	11.9
	Not endorsed	561	88.1
	Total	637	100.0
Did not enroll for some other reason	Endorsed	23	3.6
	Not endorsed	614	96.4
	Total	637	100.0
Preferred not to say why he/she did not enroll in PlayMyWay	Endorsed	41	6.4
	Not endorsed	596	93.6
	Total	637	100.0

Table A11. Typical emotional responses of patron survey participants to PlayMyWay notifications.

Measure		Approaching (*n* = 92)		Reached (*n* = 89)		Exceeding (*n* = 66)	
		n	%	*n*	%	*n*	%
Annoyed	Endorsed	36	39.1	32	36.0	29	43.9
	Not endorsed	56	60.9	57	64.0	37	56.1
	Total	92	100.0	89	100.0	66	100.0
Relieved	Endorsed	3	3.3	3	3.4	3	4.5
	Not endorsed	89	96.7	86	96.6	63	95.5
	Total	92	100.0	89	100.0	66	100.0
Worried	Endorsed	9	9.8	7	7.9	12	18.2
	Not endorsed	83	90.2	82	92.1	54	81.8
	Total	92	100.0	89	100.0	66	100.0
Grateful	Endorsed	21	22.8	16	18.0	11	16.7
	Not endorsed	71	77.2	73	82.0	55	83.3
	Total	92	100.0	89	100.0	66	100.0
Pestered	Endorsed	17	18.5	17	19.1	14	21.2
	Not endorsed	75	81.5	72	80.9	52	78.8
	Total	92	100.0	89	100.0	66	100.0
Happy	Endorsed	2	2.2	3	3.4	1	1.5
	Not endorsed	90	97.8	86	96.6	65	98.5
	Total	92	100.0	89	100.0	66	100.0
Confused	Endorsed	2	2.2	2	2.2	2	3.0
	Not endorsed	90	97.8	87	97.8	64	97.0
	Total	92	100.0	89	100.0	66	100.0
Surprised	Endorsed	13	14.1	11	12.4	5	7.6
	Not endorsed	79	85.9	78	87.6	61	92.4
	Total	92	100.0	89	100.0	66	100.0
Sad	Endorsed	8	8.7	11	12.4	11	16.7
	Not endorsed	84	91.3	78	87.6	55	83.3
	Total	92	100.0	89	100.0	66	100.0
Satisfied	Endorsed	18	19.6	16	18.0	3	4.5
	Not endorsed	74	80.4	73	82.0	63	95.5
	Total	92	100.0	89	100.0	66	100.0
Guilty	Endorsed	9	9.8	12	13.5	15	22.7
	Not endorsed	83	90.2	77	86.5	51	77.3
	Total	92	100.0	89	100.0	66	100.0
Felt some other way	Endorsed	8	8.7	8	9.0	4	6.1
	Not endorsed	84	91.3	81	91.0	62	93.9
	Total	92	100.0	89	100.0	66	100.0

Table A12. How ever-enrolled patron survey participants who did not indicate that they like PlayMyWay the way it is think Play-MyWay could be improved.

Item	Response	*n*	%
I didn't need to have a Marquee Rewards cart to use it	Endorsed	7	6.4
	Not endorsed	103	93.6
	Total	110	100.0
It used different colors	Endorsed	3	2.7
	Not endorsed	107	97.3
	Total	110	100.0
The notifications were easier to understand	Endorsed	0	0.0
	Not endorsed	110	100.0
	Total	110	100.0
The notifications came more frequently	Endorsed	2	1.8
	Not endorsed	108	98.2
	Total	110	100.0
The notifications came less frequently	Endorsed	19	17.3
	Not endorsed	91	82.7
	Total	110	100.0
It had more privacy	Endorsed	29	26.4
	Not endorsed	81	73.6
	Total	110	100.0
It kept track of my time gambling	Endorsed	13	11.8
	Not endorsed	97	88.2
	Total	110	100.0
It made my stop when I reached my budget	Endorsed	16	14.5
	Not endorsed	94	85.5
	Total	110	100.0
It let me set a stop-win limit	Endorsed	10	9.1
	Not endorsed	100	90.9
	Total	110	100.0
It let me set a stop-time limit	Endorsed	5	4.5
	Not endorsed	105	95.5
	Total	110	100.0
I could change my budgets online	Endorsed	14	12.7
	Not endorsed	96	87.3
	Total	110	100.0
I could check my budgets online	Endorsed	10	9.1
	Not endorsed	100	90.9
	Total	110	100.0
I could enroll online	Endorsed	6	5.5
	Not endorsed	104	94.5
	Total	110	100.0
I could un-enroll online	Endorsed	4	3.6
	Not endorsed	106	96.4
	Total	110	100.0
Other	Endorsed	7	6.4
	Not endorsed	103	93.6
	Total	110	100.0
I like it the way it is, it doesn't need to change	Endorsed	43	28.1
	Not endorsed	110	71.9
	Total	153	100.0

Table A13. How enrolled and un-enrolled participants heard about PlayMyWay.

Measure		Enrolled		Un-enrolled	
		n	%	*n*	%
Saw a message on a machine when gambling	Endorsed	50	45.9	25	56.8
	Not endorsed	59	54.1	19	43.2
	Total	109	100.0	44	100.0
Heard about it from a GameSense Advisor	Endorsed	38	34.9	8	18.2
	Not endorsed	71	65.1	36	81.8
	Total	109	100.0	44	100.0
Saw a notification online	Endorsed	3	2.8	0	0.0
	Not endorsed	106	97.2	44	100.0
	Total	109	100.0	44	100.0
Heard a radio ad about it	Endorsed	0	0.0	0	0.0
	Not endorsed	109	100.0	44	100.0
	Total	109	100.0	44	100.0
Read about it on Twitter	Endorsed	0	0.0	0	0.0
	Not endorsed	109	100.0	44	100.0
	Total	109	100.0	44	100.0
Saw a brochure for it	Endorsed	1	0.9	2	4.5
	Not endorsed	108	99.1	42	95.5
	Total	109	100.0	44	100.0
Heard about it from a friend	Endorsed	1	0.9	0	0.0
	Not endorsed	108	99.1	44	100.0
	Total	109	100.0	44	100.0
Heard about it from a PPC employee	Endorsed	17	15.6	6	13.6
	Not endorsed	92	84.4	38	86.4
	Total	109	100.0	44	100.0
Saw a sign for it at PPC	Endorsed	41	37.6	14	31.8
	Not endorsed	68	62.4	30	68.2
	Total	109	100.0	44	100.0
Heard about it from some other source	Endorsed	0	0.0	1	2.3
	Not endorsed	109	100.0	43	97.7
	Total	109	100.0	44	100.0

Table A14. Why enrolled and un-enrolled participants enrolled in PlayMyWay.

Measure		Enrolled		Un-enrolled	
		n	%	*n*	%
Wanted a way to keep track of gambling*	Endorsed	36	33.0	4	9.1
	Not endorsed	73	67.0	40	90.9
	Total	109	100.0	44	100.0
Wanted a way to control gambling	Endorsed	16	14.7	3	6.8
	Not endorsed	93	85.3	41	93.2
	Total	109	100.0	44	100.0
Wanted a way to budget oneself	Endorsed	27	24.8	7	15.9
	Not endorsed	82	75.2	37	84.1
	Total	109	100.0	44	100.0
Wanted the $5 food voucher	Endorsed	39	35.8	15	34.1
	Not endorsed	70	64.2	29	65.9
	Total	109	100.0	44	100.0
Enrolled in budgeting tools at other casinos	Endorsed	2	1.8	0	0.0
	Not endorsed	107	98.2	44	100.0
	Total	109	100.0	44	100.0
GameSense advisor encouraged enrollment	Endorsed	12	11.0	4	9.1
	Not endorsed	97	89.0	40	90.9
	Total	109	100.0	44	100.0
Family or friend encouraged enrollment	Endorsed	2	1.8	0	0.0
	Not endorsed	107	98.2	44	100.0
	Total	109	100.0	44	100.0
Curiosity	Endorsed	42	38.5	22	50.0
	Not endorsed	67	61.5	22	50.0
	Total	109	100.0	44	100.0
Enrolled for some other reason	Endorsed	3	2.8	1	2.3
	Not endorsed	106	97.2	43	97.7
	Total	109	100.0	44	100.0

*$p < 0.05$.

Table A15. First PlayMyWay budgets of enrolled and un-enrolled participants.

Budget Type	Enrolled Participants	Median Budget	Un-enrolled Participants	Median Budget
Daily	45	$200	14	$200
Weekly	18	$200	9	$300
Monthly	28	$225	12	$300

Table A16. Typical emotional responses of enrolled and un-enrolled participants to approaching notifications.

Measure		Enrolled		Un-enrolled	
		n	%	*n*	%
Annoyed*	Endorsed	13	21.0	23	76.7
	Not endorsed	49	79.0	7	23.3
	Total	62	100.0	30	100.0
Relieved	Endorsed	3	4.8	0	0.0
	Not endorsed	59	95.2	30	100.0
	Total	62	100.0	30	100.0
Worried	Endorsed	7	11.3	2	6.7
	Not endorsed	55	88.7	28	93.3
	Total	62	100.0	30	100.0
Grateful*	Endorsed	21	33.9	0	0.0
	Not endorsed	41	66.1	30	100.0
	Total	62	100.0	30	100.0
Pestered*	Endorsed	3	4.8	14	46.7
	Not endorsed	59	95.2	16	53.3
	Total	62	100.0	30	100.0
Happy	Endorsed	2	3.2	0	0.0
	Not endorsed	60	96.8	30	100.0
	Total	62	100.0	30	100.0
Confused	Endorsed	2	3.2	0	0.0
	Not endorsed	60	96.8	30	100.0
	Total	62	100.0	30	100.0
Surprised	Endorsed	10	16.1	3	10.0
	Not endorsed	52	83.9	27	90.0
	Total	62	100.0	30	100.0
Sad	Endorsed	6	9.7	2	6.7
	Not endorsed	56	90.3	28	93.3
	Total	62	100.0	30	100.0
Satisfied	Endorsed	15	24.2	3	10.0
	Not endorsed	47	75.8	27	90.0
	Total	62	100.0	30	100.0
Guilty	Endorsed	7	11.3	2	6.7
	Not endorsed	55	88.7	28	93.3
	Total	62	100.0	30	100.0
Felt some other way*	Endorsed	8	12.9	0	0.0
	Not endorsed	54	87.1	30	100.0
	Total	62	100.0	30	100.0

*$p < 0.05$.

Table A17. Typical emotional responses of enrolled and un-enrolled participants to reached notifications.

Measure		Enrolled		Un-enrolled	
		n	%	*n*	%
Annoyed*	Endorsed	9	15.8	23	71.9
	Not endorsed	48	84.2	9	28.1
	Total	57	100.0	32	100.0
Relieved	Endorsed	3	5.3	0	0.0
	Not endorsed	54	94.7	32	100.0
	Total	57	100.0	32	100.0
Worried	Endorsed	5	8.8	2	6.2
	Not endorsed	52	91.2	30	93.8
	Total	57	100.0	32	100.0
Grateful*	Endorsed	16	28.1	0	0.0
	Not endorsed	41	71.9	32	100.0
	Total	57	100.0	32	100.0
Pestered*	Endorsed	2	3.5	15	46.9
	Not endorsed	55	96.5	17	53.1
	Total	57	100.0	32	100.0
Happy	Endorsed	3	5.3	0	0.0
	Not endorsed	54	94.7	32	100.0
	Total	57	100.0	32	100.0
Confused	Endorsed	2	3.5	0	0.0
	Not endorsed	55	96.5	32	100.0
	Total	57	100.0	32	100.0
Surprised	Endorsed	8	14.0	3	9.4
	Not endorsed	49	86.0	29	90.6
	Total	57	100.0	32	100.0
Sad	Endorsed	9	15.8	2	6.2
	Not endorsed	48	84.2	30	93.8
	Total	57	100.0	32	100.0
Satisfied*	Endorsed	15	26.3	1	3.1
	Not endorsed	42	73.7	31	96.9
	Total	57	100.0	32	100.0
Guilty	Endorsed	7	12.3	5	15.6
	Not endorsed	50	87.7	27	84.4
	Total	57	100.0	32	100.0
Felt some other way	Endorsed	5	8.8	3	9.4
	Not endorsed	52	91.2	29	90.6
	Total	57	100.0	32	100.0

*$p < 0.05$.

Table A18. Typical emotional responses of enrolled and un-enrolled participants to exceeding notifications.

Measure		Enrolled		Un-enrolled	
		n	%	*n*	%
Annoyed*	Endorsed	9	23.7	20	71.4
	Not endorsed	29	76.3	8	28.6
	Total	38	100.0	28	100.0
Relieved	Endorsed	2	5.3	1	3.6
	Not endorsed	36	94.7	27	96.4
	Total	38	100.0	28	100.0
Worried	Endorsed	8	21.1	4	14.3
	Not endorsed	30	78.9	24	85.7
	Total	38	100.0	28	100.0
Grateful*	Endorsed	11	28.9	0	0.0
	Not endorsed	27	71.1	28	100.0
	Total	38	100.0	28	100.0
Pestered*	Endorsed	1	2.6	13	46.4
	Not endorsed	37	97.4	15	53.6
	Total	38	100.0	28	100.0
Happy	Endorsed	1	2.6	0	0.0
	Not endorsed	37	97.4	28	100.0
	Total	38	100.0	28	100.0
Confused	Endorsed	2	5.3	0	0.0
	Not endorsed	36	94.7	28	100.0
	Total	38	100.0	28	100.0
Surprised	Endorsed	4	10.5	1	3.6
	Not endorsed	34	89.5	27	96.4
	Total	38	100.0	28	100.0
Sad	Endorsed	6	15.8	5	17.9
	Not endorsed	32	84.2	23	82.1
	Total	38	100.0	28	100.0
Satisfied	Endorsed	3	7.9	0	0.0
	Not endorsed	35	92.1	28	100.0
	Total	38	100.0	28	100.0
Guilty	Endorsed	10	26.3	5	17.9
	Not endorsed	28	73.7	23	82.1
	Total	38	100.0	28	100.0
Felt some other way	Endorsed	3	7.9	1	3.6
	Not endorsed	35	92.1	27	96.4
	Total	38	100.0	28	100.0

*$p < 0.05$.

Table A19. How enrolled and un-enrolled participants who did not indicate that they like PlayMyWay the way it is think Play-MyWay could be improved.

Measure		Enrolled		Un-enrolled	
		n[a]	%	*n*[a]	%
I didn't need to have a Marquee Rewards card to use it	Endorsed	5	6.8	2	5.4
	Not endorsed	68	93.2	35	94.6
	Total	73	100.0	37	100.0
It used different colors	Endorsed	3	4.1	0	0.0
	Not endorsed	70	95.9	37	100.0
	Total	73	100.0	37	100.0
The notifications were easier to understand	Endorsed	0	0.0	0	0.0
	Not endorsed	73	100.0	37	100.0
	Total	73	100.0	37	100.0
The notifications came more frequently	Endorsed	2	2.7	0	0.0
	Not endorsed	71	97.3	37	100.0
	Total	73	100.0	37	100.0
The notifications came less frequently	Endorsed	9	12.3	10	27.0
	Not endorsed	64	87.7	27	73.0
	Total	73	100.0	37	100.0
It had more privacy*	Endorsed	14	19.2	15	40.5
	Not endorsed	59	80.8	22	59.5
	Total	73	100.0	37	100.0
It kept track of my time gambling	Endorsed	9	12.3	4	10.8
	Not endorsed	64	87.7	33	89.2
	Total	73	100.0	37	100.0
It made my stop when I reached my budget	Endorsed	14	19.2	2	5.4
	Not endorsed	59	80.8	35	94.6
	Total	73	100.0	37	100.0
It let me set a stop-win limit	Endorsed	7	9.6	3	8.1
	Not endorsed	66	90.4	34	91.9
	Total	73	100.0	37	100.0
It let me set a stop-time limit	Endorsed	4	5.5	1	2.7
	Not endorsed	69	94.5	36	97.3
	Total	73	100.0	37	100.0
I could change my budgets online	Endorsed	9	12.3	5	13.5
	Not endorsed	64	87.7	32	86.5
	Total	73	100.0	37	100.0
I could check my budgets online	Endorsed	7	9.6	3	8.1
	Not endorsed	66	90.4	34	91.9
	Total	73	100.0	37	100.0
I could enroll online	Endorsed	4	5.5	2	5.4
	Not endorsed	69	94.5	35	94.6
	Total	73	100.0	37	100.0
I could un-enroll online	Endorsed	3	4.1	1	2.7
	Endorsed	70	95.9	36	97.3
	Not endorsed	73	100.0	37	100.0
Other	Yes	4	5.5	3	8.1
	No	69	94.5	34	91.9
	Total	73	100.0	37	100.0
I like it the way it is, it doesn't need to change*	Endorsed	36	33.0	7	15.9
	Not endorsed	73	67.0	37	84.1
	Total	109	100.0	44	100.0

*$p < 0.05$.

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

Table A20. Responsible gambling strategies that enrolled, un-enrolled, not interested, and never heard participants utilized.

Strategy		Enrolled		Un-enrolled		Not interested		Never heard	
		n	%	*n*	%	*n*	%	*n*	%
Use a gambling bankroll	Endorsed	48	44.4	17	38.6	315	49.6	497	49.5
	Not endorsed	60	55.6	27	61.4	320	50.4	507	50.5
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Use a stop-loss limit*	Endorsed	42	38.9	6	13.6	149	23.5	316	31.5
	Not endorsed	66	61.1	38	86.4	486	76.5	688	68.5
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Use a stop-win limit	Endorsed	16	14.8	2	4.5	67	10.6	126	12.5
	Not endorsed	92	85.2	42	95.5	568	89.4	878	87.5
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Set a gambling time limit	Endorsed	15	13.9	2	4.5	91	14.3	167	16.6
	Not endorsed	93	86.1	42	95.5	544	85.7	837	83.4
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Keep track of wins/losses using a smartphone app, ledger, or spreadsheet	Endorsed	4	3.7	2	4.5	18	2.8	24	2.4
	Not endorsed	104	96.3	42	95.5	617	97.2	980	97.6
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Take period of breaks from gambling	Endorsed	25	23.1	13	29.5	139	21.9	254	25.3
	Not endorsed	83	76.9	31	70.5	496	78.1	750	74.7
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Do something else to manage gambling	Endorsed	2	1.9	0	0.0	16	2.5	19	1.9
	Not endorsed	106	98.1	44	100.0	619	97.5	985	98.1
	Total	108	100.0	44	100.0	635	100.0	1004	100.0
Do not use any specific strategy*	Endorsed	16	14.8	13	29.5	157	24.7	197	19.6
	Not endorsed	92	85.2	31	70.5	478	75.3	807	80.4
	Total	108	100.0	44	100.0	635	100.0	1004	100.0

*$p < 0.05$.

Table A21. Enrollment status of casual, frequent, and intensive gambler participants.

Depth category	Enrolled			Un-enrolled			Not interested			Never heard		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Casual	13	11.9	15.1	1	2.3	2.8	92	14.4	15.8	222	22.1	22.9
Frequent	27	24.8	31.4	8	18.2	22.2	202	31.7	34.7	312	31.0	32.2
Intensive	46	42.2	53.5	27	61.4	75.0	288	45.2	49.5	435	43.2	44.9
Missing	23	21.1	-	8	18.2	-	55	8.6	-	37	3.7	-
Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**	**637**	**100.0**	**100.0**	**1006**	**100.0**	**100.0**

Table A22. BBGS status of enrolled, un-enrolled, not interested, and never heard participants.

BBGS status	Enrolled			Un-enrolled			Not interested			Never heard		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Confirmed BBGS+	15	13.8	17.4	14	31.8	40.0	116	18.2	20.0	131	13.0	13.6
Confirmed BBGS-	71	65.1	82.6	21	47.7	60.0	465	73.0	80.0	835	83.0	86.4
Unconfirmed	23	21.1	-	9	20.5	-	56	8.8	-	40	4.0	-
Total	**109**	**100.0**	**100.0**	**44**	**100.0**	**100.0**	**637**	**100.0**	**100.0**	**1006**	**100.0**	**100.0**

Table A23. Responsible gambling strategies that BBGS positive and BBGS negative participants utilized.

Strategy		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Use a gambling bankroll*	Endorsed	92	33.2	735	52.9
	Not endorsed	185	66.8	655	47.1
	Total	277	100.0	1390	100.0
Use a stop-loss limit*	Endorsed	56	20.2	424	30.5
	Not endorsed	221	79.8	966	69.5
	Total	277	100.0	1390	100.0
Use a stop-win limit	Endorsed	27	9.7	170	12.2
	Not endorsed	250	90.3	1220	87.8
	Total	277	100.0	1390	100.0
Set a gambling time limit	Endorsed	33	11.9	222	16.0
	Not endorsed	244	88.1	1168	84.0
	Total	277	100.0	1390	100.0
Keep track of wins/losses using a smartphone app, ledger, or spreadsheet	Endorsed	12	4.3	34	2.4
	Not endorsed	265	95.7	1356	97.6
	Total	277	100.0	1390	100.0
Take period of breaks from gambling	Endorsed	63	22.7	337	24.2
	Not endorsed	214	77.3	1053	75.8
	Total	277	100.0	1390	100.0
Do something else to manage gambling	Endorsed	6	2.2	30	2.2
	Not endorsed	271	97.8	1360	97.8
	Total	277	100.0	1390	100.0
Do not use any specific strategy*	Endorsed	100	36.1	249	17.9
	Not endorsed	177	63.9	1141	82.1
	Total	277	100.0	1390	100.0

*$p < 0.05$.

Table A24. How ever-enrolled BBGS positive and BBGS negative participants heard about PlayMyWay.

Measure		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Saw a message on a machine when gambling	Endorsed	13	44.8	49	53.3
	Not endorsed	16	55.2	43	46.7
	Total	29	100.0	92	100.0
Heard about it from a Gamesense Advisor	Endorsed	10	34.5	29	31.5
	Not endorsed	19	65.5	63	68.5
	Total	29	100.0	92	100.0
Saw a notification online	Endorsed	1	3.4	1	1.1
	Not endorsed	28	96.6	91	98.9
	Total	29	100.0	92	100.0
Heard a radio ad about it	Endorsed	0	0.0	0	0.0
	Not endorsed	29	100.0	92	100.0
	Total	29	100.0	92	100.0
Read about it on Twitter	Endorsed	0	0.0	0	0v
	Not endorsed	29	100.0	92	100.0
	Total	29	100.0	92	100.0
Saw a brochure for it	Endorsed	1	3.4	2	2.2
	Not endorsed	28	96.6	90	97.8
	Total	29	100.0	92	100.0
Heard about it from a friend	Endorsed	1	3.4	0	0.0
	Not endorsed	28	96.6	92	100.0
	Total	29	100.0	92	100.0
Heard about it from a PPC employee	Endorsed	6	20.7	13	14.1
	Not endorsed	23	79.3	79	85.9
	Total	29	100.0	92	100.0
Saw a sign for it at PPC	Endorsed	11	37.9	34	37.0
	Not endorsed	18	62.1	58	63.0
	Total	29	100.0	92	100.0
Heard about it from some other source	Endorsed	0	0.0	0	0.0
	Not endorsed	29	100	92	100.0
	Total	29	100.0	92	100.0

Table A25. Why ever-enrolled BBGS positive and BBGS negative participants enrolled in PlayMyWay.

Measure		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Wanted a way to keep track of gambling	Endorsed	8	27.6	27	29.3
	Not endorsed	21	72.4	65	70.7
	Total	29	100.0	92	100.0
Wanted a way to control gambling	Endorsed	5	17.2	11	12.0
	Not endorsed	24	82.8	81	88.0
	Total	29	100.0	92	100.0
Wanted a way to budget oneself	Endorsed	7	24.1	24	26.1
	Not endorsed	22	75.9	68	73.9
	Total	29	100.0	92	100.0
Wanted the $5 food voucher	Endorsed	13	44.8	33	35.9
	Not endorsed	16	55.2	59	64.1
	Total	29	100.0	92	100.0
Enrolled in budgeting tools at other casinos	Endorsed	0	0	2	2.2
	Not endorsed	29	100.0	90	97.8
	Total	29	100.0	92	100.0
GameSense advisor encouraged enrollment	Endorsed	4	13.8	8	8.7
	Not endorsed	25	86.2	84	91.3
	Total	29	100.0	92	100.0
Family or friend encouraged enrollment	Endorsed	1	3.4	1	1.1
	Not endorsed	28	96.6	91	98.9
	Total	29	100.0	92	100.0
Curiosity	Endorsed	12	41.4	41	44.6
	Not endorsed	17	58.6	51	55.4
	Total	29	100.0	92	100.0
Enrolled for some other reason	Endorsed	1	3.4	3	3.3
	Not endorsed	28	96.6	89	96.7
	Total	29	100.0	92	100.0

Table A26. Why un-enrolled BBGS positive and BBGS negative participants un-enrolled from PlayMyWay.

Measure		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
I would rather play without PlayMyWay monitoring me.	Endorsed	7	50.0	9	42.9
	Not endorsed	7	50.0	12	57.1
	Total	14	100.0	21	100.0
I didn't want reminders and warnings.	Endorsed	8	57.1	7	33.3
	Not endorsed	6	42.9	14	66.7
	Total	14	100.0	21	100.0
I do not see the benefits of PlayMyWay.	Endorsed	2	14.3	5	23.8
	Not endorsed	12	85.7	16	76.2
	Total	14	100.0	21	100.0
PlayMyWay makes gambling less fun.	Endorsed	2	14.3	0	0.0
	Not endorsed	12	85.7	21	100.0
	Total	14	100.0	21	100.0
The budget notifications are too frequent.	Endorsed	7	50.0	5	23.8
	Not endorsed	7	50.0	16	76.2
	Total	14	100.0	21	100.0
The budget notifications are not private enough.	Endorsed	2	14.3	2	9.5
	Not endorsed	12	85.7	19	100.0
	Total	14	100.0	21	100.0
I had a bad experience with PlayMyWay.	Endorsed	0	0.0	0	0.0
	Not endorsed	14	100.0	21	100.0
	Total	14	100.0	21	100.0
I no longer have a problem with gambling.	Endorsed	0	0.0	0	0.0
	Not endorsed	14	100.0	21	100.0
	Total	14	100.0	21	100.0
I have a problem with gambling.	Endorsed	0	0.0	0	0.0
	Not endorsed	14	100.0	21	100.0
	Total	14	100.0	21	100.0
The budget notifications are annoying.	Endorsed	7	50.0	8	38.1
	Not endorsed	7	50.0	13	61.9
	Total	14	100.0	21	100.0
I un-enrolled for some other reason.	Endorsed	2	14.3	1	4.8
	Not endorsed	12	85.7	20	95.2
	Total	14	100.0	21	100.0
I prefer not to say.	Endorsed	1	7.1	1	4.8
	Not endorsed	13	92.9	20	95.2
	Total	14	100.0	21	100.0

Table A27. Why never-enrolled BBGS positive and BBGS negative participants never enrolled in PlayMyWay.

Measure		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
I have never heard of PlayMyWay.*	Endorsed	131	53.0	835	64.2
	Not endorsed	116	47.0	465	35.8
	Total	247	100.0	1300	100.0
I would rather play without PlayMyWay monitoring.*	Endorsed	58	50.0	124	26.7
	Not endorsed	58	50.0	341	73.3
	Total	116	100.0	465	100.0
I do not see the benefits of PlayMyWay.	Endorsed	15	12.9	47	10.1
	Not endorsed	101	87.1	418	89.9
	Total	116	100.0	465	100.0
I don't need reminders and warnings about my gambling.*	Endorsed	34	29.3	189	40.6
	Not endorsed	82	70.7	276	59.4
	Total	116	100.0	465	100.0
Reminders and warnings make gambling less fun.*	Endorsed	18	15.5	30	6.5
	Not endorsed	98	84.5	435	93.5
	Total	116	100.0	465	100.0
I don't have a problem with gambling.*	Endorsed	14	12.1	204	43.9
	Not endorsed	102	87.9	261	56.1
	Total	116	100.0	465	100.0
I am embarrassed to enroll in PlayMyWay.*	Endorsed	9	7.8	1	0.2
	Not endorsed	107	92.2	464	99.8
	Total	116	100.0	465	100.0
I think PlayMyWay is a waste of my time.	Endorsed	9	7.8	22	4.7
	Not endorsed	107	92.2	443	95.3
	Total	116	100.0	465	100.0
I don't think PlayMyWay can be helpful to me.	Endorsed	20	17.2	56	12.0
	Not endorsed	96	82.8	409	88.0
	Total	116	100.0	465	100.0
I did not enroll in for some other reason.	Endorsed	2	1.7	20	4.3
	Not endorsed	114	98.3	445	95.7
	Total	116	100.0	465	100.0
I prefer not to say.	Endorsed	11	9.5	27	5.8
	Not endorsed	105	90.5	438	94.2
	Total	116	100.0	465	100.0

*$p < 0.05$.

Table A28. Typical emotional responses of ever-enrolled BBGS positive and BBGS negative participants to PlayMyWay approaching notifications.

Emotion		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Annoyed*	Endorsed	17	68.0	18	27.3
	Not endorsed	8	32.0	48	72.7
	Total	25	100.0	66	100.0
Relieved	Endorsed	0	0.0	3	4.5
	Not endorsed	25	100.0	63	95.5
	Total	25	100.0	66	100.0
Worried*	Endorsed	6	24.0	3	4.5
	Not endorsed	19	76.0	63	95.5
	Total	25	100.0	66	100.0
Grateful*	Endorsed	2	8.0	19	28.8
	Not endorsed	23	92.0	47	71.2
	Total	25	100.0	66	100.0
Pestered	Endorsed	8	32.0	9	13.6
	Not endorsed	17	68.0	57	86.4
	Total	25	100.0	66	100.0
Happy	Endorsed	0	0.0	2	3.0
	Not endorsed	25	100.0	64	97.0
	Total	25	100.0	66	100.0
Confused	Endorsed	2	8.0	0	0.0
	Not endorsed	23	92.0	66	100.0
	Total	25	100.0	66	100.0
Surprised	Endorsed	5	20.0	8	12.1
	Not endorsed	20	80.0	58	87.9
	Total	25	100.0	66	100.0
Sad*	Endorsed	5	20.0	3	4.5
	Not endorsed	20	80.0	63	95.5
	Total	25	100.0	66	100.0
Satisfied	Endorsed	2	8.0	16	24.2
	Not endorsed	23	92.0	50	75.8
	Total	25	100.0	66	100.0
Guilty*	Endorsed	6	24.0	3	4.5
	Not endorsed	19	76.0	63	95.5
	Total	25	100.0	66	100.0
Felt some other way	Endorsed	1	4.0	7	10.6
	Not endorsed	24	96.0	59	89.4
	Total	25	100.0	66	100.0

*$p < 0.05$.

Table A29. Typical emotional responses of ever-enrolled BBGS positive and BBGS negative participants to PlayMyWay reached notifications.

Emotion		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Annoyed*	Endorsed	16	64.0	15	23.8
	Not endorsed	9	36.0	48	76.2
	Total	25	100.0	63	100.0
Relieved	Endorsed	1	4.0	2	3.2
	Not endorsed	24	96.0	61	96.8
	Total	25	100.0	63	100.0
Worried*	Endorsed	5	20.0	2	3.2
	Not endorsed	20	80.0	61	96.8
	Total	25	100.0	63	100.0
Grateful	Endorsed	2	8.0	14	22.2
	Not endorsed	23	92.0	49	77.8
	Total	25	100.0	63	100.0
Pestered*	Endorsed	10	40.0	7	11.1
	Not endorsed	15	60.0	56	88.9
	Total	25	100.0	63	100.0
Happy	Endorsed	1	4.0	2	3.2
	Not endorsed	24	96.0	61	96.8
	Total	25	100.0	63	100.0
Confused	Endorsed	2	8.0	0	0.0
	Not endorsed	23	92.0	63	100.0
	Total	25	100.0	63	100.0
Surprised	Endorsed	2	8.0	9	14.3
	Not endorsed	23	92.0	54	85.7
	Total	25	100.0	63	100.0
Sad	Endorsed	5	20.0	6	9.5
	Not endorsed	20	80.0	57	90.5
	Total	25	100.0	63	100.0
Satisfied	Endorsed	3	12.0	13	20.6
	Not endorsed	22	88.0	50	79.4
	Total	25	100.0	63	100.0
Guilty*	Endorsed	9	36.0	3	4.8
	Not endorsed	16	64.0	60	95.2
	Total	25	100.0	63	100.0
Felt some other way*	Endorsed	1	4.0	6	9.5
	Not endorsed	24	96.0	57	90.5
	Total	25	100.0	63	100.0

*$p < 0.05$.

Table A30. Typical emotional responses of ever-enrolled BBGS positive and BBGS negative participants to PlayMyWay exceeding notifications.

Emotion		Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
Annoyed	Endorsed	14	58.3	15	36.6
	Not endorsed	10	41.7	26	63.4
	Total	24	100.0	41	100.0
Relieved	Endorsed	1	4.2	1	2.4
	Not endorsed	23	95.8	40	97.6
	Total	24	100.0	41	100.0
Worried*	Endorsed	9	37.5	3	7.3
	Not endorsed	15	62.5	38	92.7
	Total	24	100.0	41	100.0
Grateful	Endorsed	3	12.5	8	19.5
	Not endorsed	21	87.5	33	80.5
	Total	24	100.0	41	100.0
Pestered	Endorsed	7	29.2	7	17.1
	Not endorsed	17	70.8	34	82.9
	Total	24	100.0	41	100.0
Happy	Endorsed	0	0.0	1	2.4
	Not endorsed	24	100.0	40	97.6
	Total	24	100.0	41	100.0
Confused	Endorsed	2	8.3	0	0.0
	Not endorsed	22	91.7	41	100.0
	Total	24	100.0	41	100.0
Surprised	Endorsed	2	8.3	3	7.3
	Not endorsed	22	91.7	38	92.7
	Total	24	100.0	41	100.0
Sad*	Endorsed	9	37.5	2	4.9
	Not endorsed	15	62.5	39	95.1
	Total	24	100.0	41	100.0
Satisfied	Endorsed	0	0.0	3	7.3
	Not endorsed	24	100.0	38	92.7
	Total	24	100.0	41	100.0
Guilty*	Endorsed	10	41.7	5	12.2
	Not endorsed	14	58.3	36	87.8
	Total	24	100.0	41	100.0
Felt some other way	Endorsed	2	8.3	2	4.9
	Not endorsed	22	91.7	39	95.1
	Total	24	100.0	41	100.0

*$p < 0.05$.

Table A31. Whether ever-enrolled BBGS positive participants and BBGS negative participants ever recommended PlayMyWay to another person.

Recommended PlayMyWay	Confirmed BBGS+			Confirmed BBGS-		
	n	%	Valid %	*n*	%	Valid %
Yes	10	34.5	34.5	24	26.1	26.1
No	19	65.5	65.5	68	73.9	73.9
Missing	0	0.0	-	0	0.0	-
Total	**29**	**100.0**	**100.0**	**92**	**100.0**	**100.0**

Table A32. How ever-enrolled BBGS positive and BBGS negative participants who did not indicate that they like PlayMyWay the way it is think PlayMyWay could be improved.

Item	Response	Confirmed BBGS+		Confirmed BBGS-	
		n	%	*n*	%
I didn't need to have a Marquee Rewards cart to use it	Endorsed	4	17.4	3	5.5
	Not Endorsed	19	82.6	52	94.5
	Total	23	100.0	55	100.0
It used different colors	Endorsed	0	0.0	3	5.5
	Not Endorsed	23	100.0	52	94.5
	Total	23	100.0	55	100.0
The notifications were easier to understand	Endorsed	0	0.0	0	0.0
	Not Endorsed	23	100.0	55	100.0
	Total	23	100.0	55	100.0
The notifications came more frequently	Endorsed	1	4.3	1	1.8
	Not Endorsed	22	95.7	54	98.2
	Total	23	100.0	55	100.0
The notifications came less frequently	Endorsed	5	21.7	14	25.5
	Not Endorsed	18	78.3	41	74.5
	Total	23	100.0	55	100.0
It had more privacy	Endorsed	10	43.5	19	34.5
	Not Endorsed	13	56.5	36	65.5
	Total	23	100.0	55	100.0
It kept track of my time gambling	Endorsed	4	17.4	9	16.4
	Not Endorsed	19	82.6	46	83.6
	Total	23	100.0	55	100.0
It made my stop when I reached my budget	Endorsed	7	30.4	9	16.4
	Not Endorsed	16	69.6	46	83.6
	Total	23	100.0	55	100.0
It let me set a stop-win limit	Endorsed	6	26.1	4	7.3
	Not Endorsed	17	73.9	51	92.7
	Total	23	100.0	55	100.0
It let me set a stop-time limit	Endorsed	1	4.3	4	7.3
	Not Endorsed	22	95.7	51	92.7
	Total	23	100.0	55	100.0
I could change my budgets online	Endorsed	4	17.4	10	18.2
	Not Endorsed	19	82.6	45	81.8
	Total	23	100.0	55	100.0
I could check my budgets online	Endorsed	3	13.0	7	12.7
	Not Endorsed	20	87.0	48	87.3
	Total	23	100.0	55	100.0
I could enroll online	Endorsed	0	0.0	6	10.9
	Not Endorsed	23	100.0	49	89.1
	Total	23	100.0	55	100.0
I could un-enroll online	Endorsed	0	0.0	4	7.3
	Not Endorsed	23	100.0	51	92.7
	Total	23	100.0	55	100.0
Other	Endorsed	4	17.4	4	7.3
	Not Endorsed	19	82.6	51	92.7
	Total	23	100.0	55	100.0
I like it the way it is, it doesn't need to change*	Endorsed	6	20.7	37	40.2
	Not Endorsed	23	79.3	55	59.8
	Total	29	100.0	92	100.0

*$p < 0.05$.

7.7. Open Response Tables

NOTE: As an act of transparency, we list all open responses as they appeared in the open response fields (in verbatim). We do not necessarily endorse these responses (e.g., we do not consider *When I run out of money in atm I leave* to be a responsible gambling strategy and would in fact consider this to be an irresponsible gambling strategy). In the body of this report, we only highlighted responses that we deemed appropriate.

Table B1. Open responses to other responsible gambling strategies.

Add wins/losses in-my-head to complete total for the day at a casino, including gasoline+travel time to site+any meals/(snacks),as well. In addition,try to read a book or magazine about strategies(like "Gambling for Dummies",etc. Finally:ask some local math professors about odds/strategies at local colleges or universities.
bowing, rips
Bring just what I am willing to spend
dinner
Every time I go to the machine, I only put five dollar bill in that way I know I'm not spending too much at that machine. If I put a $20 bill in it goes superquick all in one pop
freind w/me-I give her cash to hold and not give to me until we're home
Gambling is very infrequent and it is done with friends. It is a very enjoyable activity not just to Gamble but to go out to Dinner with friends, catch up, go someplace new, explore etc. It is one of hundreds of different activities I do.
I bri g a set amount of money. And leave when its gone
I bring a certain amount and that is it.
I bring a specific amt of money.
I bring what I can afford to lose, if I lose it all I stop gambling. I never hit a casino ATM.
I cash out if I win anything over $50 and put the ticket in a separate place so I don't give it back.
I go if given a gift and use free play money
I go out with a certain amount of money to spend - I only do the slot machines - as I start winning I cash out and again put in the starting $ amount - so I always go home with money
I go to the casino with a set amount of money, usually $300, and when its gone I go home or back to the room.
I go with a specific dollar amount ... that I've saved over the year. Also, usually have a planned day (hours)
i have a gambling fund, winning go back in to fund for the next time
I never go to a casino alone. In the chance I get too involved or unaware of bad habits having a person with you can you help you stop giving back winnings or suggest some dinner or shopping if I'm going to far down the rabbit hole.
I only bring a certain amount of $ with me.
I only bring a certain amount to the casino and do not get more. When that is gone I leave
I only bring a certain amount with me
I only bring the amount of money I want to spend and leave all other cash and bank cards at home
I only bring what I can afford to lose
I only bring, what I can afford to lose
I play trading card games to facilitate my competitive spirit.
I play when ever I feel like it
I play x amount of dollars until I lose it all. Or if I'm up I put said amount in my pocket and play with house money till out of time or out of money.
I spend only what i can afford to loose
I take what I can afford to spend
I use a specific amount of money I feel I can lose and still not affect my ability to pay my bills
I use an active exit strategy. If I'm winning I set a winning exit strategy of a specific low/high amount
i use my mothers money , she in my opinion has a gambling addiction , but she also has mind control implants in her head and is a cia asset.
I view cacino as entertainment
If I'm up I'll cash out and put the winnings away
Im not really a gambler i go in w 40 when its gone imdone.
Leave environment

meals, shopping
memory
My success with the first hundred predicts if I an going to commit to playing a lot on any given day. If I win zero with slot play, I consider that a sign that the casino is not paying out.
normal life things like computer games tv grandson athletic events
Once the money I have set aside for gambling is gone, I stop. Winnings go in the other pocket.
only bring a certain amt
Only gamble a set limit
Only gamble with my money only 50.00.
Only go twice a month
Other entertainment -shows, food
People watching, shopping
play at tables that have $5 min
Play bingo or go shopping
play free on line poker tournaments
Play online slots
Put winnings in “a sock”
Safe lock box to store winnings
Set specific amount I will play with
take a brown-bag, salad lunch to the casino;take a mandatory 95 minute food break
walk
When I am winning I put some of that into my sock. If u are not sure what that is look it up
When i felt as if I've lost enough or just am bored enough, I sit in the food court and knit/crochet or read when my husband and sometimes friends continue to gamble.
when i reach 30.00 or more on 20.00 invested i pull the ticket out cash it out when i leave never spend more than 100.oo a visit
When I run out of money in atm I leave
winnings are stored in one section and not reused once i am done using my specific money i brought i am done
Work

Table B2. Open responses for how ever-enrolled participants heard about PlayMyWay.

Email

Table B3. Open responses for reasons for enrolling in PlayMyWay.

drawing
My budget is low as I have rent to pay. $20. Is a good limit if you don’t have extra $ for living expenses
there was a raffle
They gave free things

Table B4. Open responses for reasons for un-enrolling from PlayMyWay.

Since I don’t have problem with gambling I see no need for it
The Budget Notifications became more frequent when on a roll with back to back notifications when I was up $$$
Wanted to keep gambling and decided if I did the play my way was not going to stop me I would need to discipline myself, so I unenrolled

Table B5. Open responses for reasons for not enrolling in PlayMyWay.

did not know
Discipline with "fun money" account
Do Not know for care about it
do not think I enrolled. but it sounds likea good program
Don't need it don't gamble alot
Don't wait more emails
Don’t gamble too often
have yet to enroll
I don't even know about Play My Way
I do not gamble often enough to need to use it
I do not live in Massachusetts
I do not need the state in my business
I don't know enough about it
I don’t go to gamble alone. Having another person with you is a good secondary wall of defense. Plus the money I spend gambling depends solely on my wins and losses. I already prepare to lose all of what I bring. So if I can have a great day gambling away winnings hat weren’t my own money then it’s all worth it to me. I don’t set a limit on money spent. Just how much of my own bankroll I use in total
I don’t understand it.
I honestly forget that PlayMyWay is something I can enroll in every time I go to the casino.
I just haven’t enrolled yet
i live out of state?
I take my mom infrequently
i think that that's a great idea so people can only gamble what they have budgeted for entertainment.
Just didn’t want to
Just learned it was an option
Just never did it
Just never thought to enroll
just not interested
live in new york state
Na
never heard of it
Never heard of this program
Not interested in it. I am to cheap to spend a lot of money in gambling
privacy
Privacy concerns
Too much work
Wasn't really aware of it.
wasnt aware of it

Table B6. Open responses for emotional responses to PlayMyWay approaching notifications.

Broke and mad lol
Didn't really care
Neutral
Not
nothing
O different
Only happened once. Just thought "oh..."
Unemotional

Table B7. Open responses for emotional responses to PlayMyWay reached notifications.

Didn't really care
Disappointed
I would continue
Indifferent
Neutral
Satusfied it did "it's job" then irritated that notice was constant every spin every other spin even tho winnng
Too Frequent

Table B8. Open responses for emotional responses to PlayMyWay exceeding notifications.

Because not winner
Didn't really care
Indifferent
Upset it wasnt calculating win/loss so budget

Table B9. Open responses for participants' views on ways PlayMyWay could be improved.

calculated win/loss
don't care about it
I feel it serves no purpose
I mean the only problem is it don't stop you from actually gambling so people who have problems it isn't controlling what they do there. I enjoy it . I set my limit to 20 but the notifications always on blow up
If it was a notification system that was automatic, and accounted for machine learning, it wouldn't require configuration
If representives were available at casinos for questions
the chime it made was a different noise
yearly budget amount

7.8. Depth of Involvement Comparative Analyses

Out of the 1,951 participants, 1,678 provided at least one indication of how often they gambled (e.g., at a slot parlor in New England or elsewhere, in lotteries, at charity events, etc.). As described previously, using the Informed Decision Making framework, we categorized these participants using their reported depth of involvement: (1) participants who were *casual* gamblers (i.e., depth of gambling involvement of less than once per month; *n* = 329); (2) participants who were *frequent* gamblers (i.e., depth of gambling involvement of at least once per month but less than weekly; *n* = 550); and (3) participants who were *intensive* gamblers (i.e., depth of gambling involvement of weekly or more; *n* = 799). Hereafter, we refer to these participant groups as (1) *casual gambler participants*; (2) *frequent gambler participants*; and (3) *intensive gambler participants*. The following analyses compare these three groups. We include significant results from analyses that highlight any differences between them.

Three hundred and twenty-eight out of 329 casual gambler participants (99.7%), 548 out of 550 frequent gambler participants (99.6%), and 796 out of 799 intensive gambler participants (99.7%) either endorsed one responsible gambling strategy or responded that they do not use any specific strategies. Intensive gambler participants were more likely to respond that they *do not use any specific strategy* than frequent gambler participants (24.4% versus 16.8%, F.e.t.: $p = 0.001$, OR = 1.597; Table C1).

Casual gambler participants used an average of 1.4 responsible gambling strategies (SD = 1.1), frequent gambler participants used an average of 1.4 responsible gambling strategies (SD = 1.1), and intensive gambler participants used an average of 1.3 responsible gambling strategies (SD = 1.1). Mean differences between the groups were not statistically significant ($F(2,855.3) = 1.9$, $p = 0.151$).

Table C1. Responsible gambling strategies that casual, frequent, and intensive gambler participants utilized.

Strategy		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Use a gambling bankroll	Endorsed	156	47.6	288	52.6	386	48.5
	Not endorsed	172	52.4	260	47.4	410	51.5
	Total	328	100.0	548	100.0	796	100.0
Use a stop-loss limit	Endorsed	107	32.6	165	30.1	210	26.4
	Not endorsed	221	67.4	383	69.9	586	73.6
	Total	328	100.0	548	100.0	796	100.0
Use a stop-win limit	Endorsed	37	11.3	61	11.1	100	12.6
	Not endorsed	291	88.7	487	88.9	696	87.4
	Total	328	100.0	548	100.0	796	100.0
Set a gambling time limit	Endorsed	53	16.2	94	17.2	110	13.8
	Not endorsed	275	83.8	454	82.8	686	86.2
	Total	328	100.0	548	100.0	796	100.0
Keep track of wins/losses using a smartphone app, ledger, or spreadsheet	Endorsed	5	1.5	14	2.6	27	3.4
	Not endorsed	323	98.5	534	97.4	769	96.6
	Total	328	100.0	548	100.0	796	100.0
Take period of breaks from gambling	Endorsed	82	25.0	145	26.5	177	22.2
	Not endorsed	246	75.0	403	73.5	619	77.8
	Total	328	100.0	548	100.0	796	100.0
Do something else to manage gambling	Endorsed	7	2.1	8	1.5	21	2.6
	Not endorsed	321	97.9	540	98.5	775	97.4
	Total	328	100.0	548	100.0	796	100.0
Do not use any specific strategy*	Endorsed	63	19.2	92	16.8	194	24.4
	Not endorsed	265	80.8	456	83.2	602	75.6
	Total	328	100.0	548	100.0	796	100.0

*$p < 0.05$.

Fourteen out of 329 casual gambler participants (4.3%), 35 out of 550 frequent gambler participants (6.4%), and 73 out of 799 intensive gambler participants (9.1%) were ever-enrolled in PlayMyWay. We compared how these participants heard about PlayMyWay and found no significant differences (F.e.t.: all *p*-values greater than 0.05; Table C2)

Table C2. How ever-enrolled casual, frequent, and intensive gambler participants heard about PlayMyWay.

Measure		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Saw a message on a machine when gambling	Endorsed	7	50.0	21	60.0	35	47.9
	Not endorsed	7	50.0	14	40.0	38	52.1
	Total	14	100.0	35	100.0	73	100.0
Heard about it from a GameSense Advisor	Endorsed	3	21.4	13	37.1	23	31.5
	Not endorsed	11	78.6	22	62.9	50	68.5
	Total	14	100.0	35	100.0	73	100.0
Saw a notification online	Endorsed	0	0.0	0	0.0	2	2.7
	Not endorsed	14	100.0	35	100.0	71	97.3
	Total	14	100.0	35	100.0	73	100.0
Heard a radio ad about it	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	14	100.0	35	100.0	73	100.0
	Total	14	100.0	35	100.0	73	100.0
Read about it on Twitter	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	14	100.0	35	100.0	73	100.0
	Total	14	100.0	35	100.0	73	100.0
Saw a brochure for it	Endorsed	1	7.1	1	2.9	1	1.4
	Not endorsed	13	92.9	34	97.1	72	98.6
	Total	14	100.0	35	100.0	73	100.0
Heard about it from a friend	Endorsed	0	0.0	0	0.0	1	1.4
	Not endorsed	14	100.0	35	100.0	72	98.6
	Total	14	100.0	35	100.0	73	100.0
Heard about it from a PPC employee	Endorsed	2	14.3	5	14.3	13	17.8
	Not endorsed	12	85.7	30	85.7	60	82.2
	Total	14	100.0	35	100.0	73	100.0
Saw a sign for it at PPC	Endorsed	7	50.0	9	25.7	30	41.1
	Not endorsed	7	50.0	26	74.3	43	58.9
	Total	14	100.0	35	100.0	73	100.0
Heard about it from some other source	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	14	100.0	35	100.0	73	100.0
	Total	14	100.0	35	100.0	73	100.0

We also compared why these 14 casual gambler participants, 35 frequent gambler participants, and 73 intensive gambler participants enrolled in PlayMyWay and found no significant differences (F.e.t.: all *p*-values greater than 0.05; Table C3).

Table C3. Why ever-enrolled casual, frequent, and intensive gambler participants enrolled in PlayMyWay.

Measure		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Wanted a way to keep track of gambling	Endorsed	4	28.6	12	34.3	19	26.0
	Not endorsed	10	71.4	23	65.7	54	74.0
	Total	14	100.0	35	100.0	73	100.0
Wanted a way to control gambling	Endorsed	1	7.1	3	8.6	12	16.4
	Not endorsed	13	92.9	32	91.4	61	83.6
	Total	14	100.0	35	100.0	73	100.0
Wanted a way to budget oneself	Endorsed	3	21.4	8	22.9	20	27.4
	Not endorsed	11	78.6	27	77.1	53	72.6
	Total	14	100.0	35	100.0	73	100.0
Wanted the $5 food voucher	Endorsed	8	57.1	11	31.4	27	37.0
	Not endorsed	6	42.9	24	68.6	46	63.0
	Total	14	100.0	35	100.0	73	100.0
Enrolled in budgeting tools at other casinos	Endorsed	0	0.0	0	0.0	2	2.7
	Not endorsed	14	100.0	35	100.0	71	97.3
	Total	14	100.0	35	100.0	73	100.0
GameSense advisor encouraged enrollment	Endorsed	2	14.3	3	8.6	7	9.6
	Not endorsed	12	85.7	32	91.4	66	90.4
	Total	14	100.0	35	100.0	73	100.0
Family or friend encouraged enrollment	Endorsed	0	0.0	1	2.9	1	1.4
	Not endorsed	14	100.0	34	97.1	72	98.6
	Total	14	100.0	35	100.0	73	100.0
Curiosity	Endorsed	6	42.9	18	51.4	30	41.1
	Not endorsed	8	57.1	17	48.6	43	58.9
	Total	14	100.0	35	100.0	73	100.0
Enrolled for some other reason	Endorsed	2	14.3	0	0.0	2	2.7
	Not endorsed	12	85.7	35	100.0	71	97.3
	Total	14	100.0	35	100.0	73	100.0

Out of the 44 un-enrolled participants, one was a casual gambler participant, eight were frequent gambler participants, and twenty-seven were intensive gambler participants. We did not have depth of involvement measurements for the remaining eight un-enrolled participants. There were no significant differences in why frequent and intensive gambler participants un-enrolled from PlayMyWay (F.e.t.: all *p*-values greater than 0.05; Table C4).

Table C4. Why un-enrolled casual, frequent, and intensive gambler participants un-enrolled from PlayMyWay.

Measure		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Would rather play without PlayMyWay monitoring	Endorsed	1	100.0	1	12.5	14	51.9
	Not endorsed	0	0.0	7	87.5	13	48.1
	Total	1	100.0	8	100.0	27	100.0
Didn't want reminders and warnings	Endorsed	0	0.0	2	25.0	13	48.1
	Not endorsed	1	100.0	6	75.0	14	51.9
	Total	1	100.0	8	100.0	27	100.0
Does not see the benefits of PlayMyWay	Endorsed	0	0.0	3	37.5	4	14.8
	Not endorsed	1	100.0	5	62.5	23	85.2
	Total	1	100.0	8	100.0	27	100.0
Believes PlayMyWay makes gambling less fun	Endorsed	0	0.0	0	0.0	2	7.4
	Not endorsed	1	100.0	8	100.0	25	92.6
	Total	1	100.0	8	100.0	27	100.0
Thought budget notifications were too frequent	Endorsed	0	0.0	2	25.0	10	37.0
	Not endorsed	1	100.0	6	75.0	17	63.0
	Total	1	100.0	8	100.0	27	100.0
Thought budget notifications were not private enough	Endorsed	0	0.0	0	0.0	4	14.8
	Not endorsed	1	100.0	8	100.0	23	85.2
	Total	1	100.0	8	100.0	27	100.0
Had a bad experience with PlayMyWay	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	1	100.0	8	100.0	27	100.0
	Total	1	100.0	8	100.0	27	100.0
No longer has a problem with gambling	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	1	100.0	8	100.0	27	100.0
	Total	1	100.0	8	100.0	27	100.0
Has a problem with gambling	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	1	100.0	8	100.0	27	100.0
	Total	1	100.0	8	100.0	27	100.0
Thought budget notifications were annoying	Endorsed	0	0.0	2	25.0	13	48.1
	Not endorsed	1	100.0	6	75.0	14	51.9
	Total	1	100.0	8	100.0	27	100.0
Un-enrolled for some other reason	Endorsed	0	0.0	1	12.5	2	7.4
	Not endorsed	1	100.0	7	87.5	25	92.6
	Total	1	100.0	8	100.0	27	100.0
Preferred not to say why he/she un-enrolled	Endorsed	0	0.0	1	12.5	2	7.4
	Not endorsed	1	100.0	7	87.5	25	92.6
	Total	1	100.0	8	100.0	27	100.0

Among the never-enrolled participants, there were 314 casual gamblers, 514 frequent gamblers, and 723 intensive gamblers (Table C5). Never-enrolled casual gambler participants were significantly more likely to have never heard of PlayMyWay (70.7%) than never-enrolled frequent gambler participants (60.7%, F.e.t.: $p = 0.004$, OR = 1.561) and never-enrolled intensive gambler participants (60.2%, F.e.t.: $p = 0.001$, OR = 1.597).

Among the remaining never-enrolled participants (i.e., not interested participants), there were 92 casual gambler participants, 202 frequent gambler participants, and 288 intensive gambler participants. Casual gambler participants were less likely to respond that they would rather play without PlayMyWay monitoring (17.4%) than frequent gambler participants (34.2%, F.e.t.: $p = 0.003$, OR = 0.407) and intensive gambler participants (33.7%, F.e.t.: $p = 0.003$ OR = 0.415). Casual gambler participants were more likely to respond that they don't have a problem with gambling (57.6%) than frequent gambler participants (40.6%, F.e.t.: $p < 0.001$, OR = 1.984) and intensive gambler participants (29.2%, F.e.t.: $p < 0.001$, OR = 3.289). Frequent gamblers participants were more likely to respond that they don't have a problem with gambling than intensive gambler participants (F.e.t.: $p = 0.009$, OR = 1.658). There were no significant differences between casual gambler participants, frequent gambler participants, and intensive gambler participants with respect to the other responses.

Table C5. Why never-enrolled casual, frequent, and intensive gambler participants never enrolled in PlayMyWay.

Measure		**Casual**		**Frequent**		**Intensive**	
		n	%	*n*	%	*n*	%
Had never heard of PlayMyWay*	*Endorsed*	222	70.7	312	60.7	435	60.2
	Not endorsed	92	29.3	202	39.3	288	39.8
	Total	314	100.0	514	100.0	723	100.0
Would rather play without PlayMyWay monitoring*	Endorsed	16	17.4	69	34.2	97	33.7
	Not endorsed	76	82.6	133	65.8	191	66.3
	Total	92	100.0	202	100.0	288	100.0
Does not see the benefits of PlayMyWay	Endorsed	7	7.6	20	9.9	35	12.2
	Not endorsed	85	92.4	182	90.1	253	87.8
	Total	92	100.0	202	100.0	288	100.0
Didn't need reminders and warnings about gambling	Endorsed	36	39.1	84	41.6	103	35.8
	Not endorsed	56	60.9	118	58.4	185	64.2
	Total	92	100.0	202	100.0	288	100.0
Believes reminders and warnings make gambling less fun	Endorsed	4	4.3	20	9.9	24	8.3
	Not endorsed	88	95.7	182	90.1	264	91.7
	Total	92	100.0	202	100.0	288	100.0
Doesn't have a problem with gambling*	Endorsed	53	57.6	82	40.6	84	29.2
	Not endorsed	39	42.4	120	59.4	204	70.8
	Total	92	100.0	202	100.0	288	100.0
Is embarrassed to enroll in PlayMyWay	Endorsed	0	0.0	2	1.0	8	2.8
	Not endorsed	92	100.0	200	99.0	280	97.2
	Total	92	100.0	202	100.0	288	100.0
Thinks PlayMyWay is a waste of time	Endorsed	4	4.3	9	4.5	18	6.2
	Not endorsed	88	95.7	193	95.5	270	93.8
	Total	314	100.0	514	100.0	723	100.0
Doesn't think PlayMyWay can be helpful	Endorsed	8	8.7	24	11.9	44	15.3
	Not endorsed	84	91.3	178	88.1	244	84.7
	Total	314	100.0	514	100.0	723	100.0
Did not enroll for some other reason	Endorsed	7	7.6	6	3.0	9	3.1
	Not endorsed	85	92.4	196	97.0	279	96.9
	Total	314	100.0	514	100.0	723	100.0
Preferred not to say why he/she did not enroll in PlayMyWay	Endorsed	3	3.3	13	6.4	22	7.6
	Not endorsed	89	96.7	189	93.6	266	92.4
	Total	314	100.0	514	100.0	723	100.0

*$p < 0.05$ between all three groups.

We compared the first budget sizes of casual, frequent, and intensive gambler participants who enrolled in PlayMyWay (Table C6). Intensive gambler participants had higher median weekly budgets than frequent gambler participants ($500 vs. $200, Wilcoxon rank sum test, $p = 0.036$, effect size $r = 0.410$). We observed no other significant differences.

Table C6. First PlayMyWay budgets of casual, frequent, and intensive gambler participants.

Budget Type	**Casual**		**Frequent**		**Intensive**	
	n	Median	*n*	Median	*n*	Median
Daily	6	$150	15	$200	38	$200
Weekly*	1	$100	11	$200	15	$300
Monthly	3	$250	16	$200	21	$500

*$p < 0.05$ for differences between frequent and intensive gambler groups.

[a] The numbers of participants in this table are different because some participants responded to some items but not to others.

Fourteen casual gambler participants, 35 frequent gambler participants, and 73 intensive gambler participants provided information on their responses to receiving budget notifications (i.e., approaching, reached, exceeding). Table C7 shows that casual gambler participants were significantly more likely than intensive gambler participants to stop playing upon receiving reached notifications (80.0% versus 29.3%, F.e.t.: $p = 0.039$, OR = 9.267) and exceeding notifications (100.0% versus 26.1%, F.e.t.: $p = 0.025$, OR = ∞). Frequent gambler participants were significantly more likely than intensive gambler participants to stop playing upon receiving reached notifications (57.7% versus 29.3%, F.e.t.: $p = 0.017$, OR = 3.238). There were no other significant pairwise differences between casual, frequent, and intensive gambler participants with respect to typical reactions to any of the three notification types.

Table C7. Typical reactions of ever-enrolled casual, frequent, and intensive gambler participants to PlayMyWay notifications.

Notification	**Reaction**	**Casual**			**Frequent**			**Intensive**		
			%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Approaching	Stopped playing	3	21.4	37.5	8	22.9	30.8	9	12.3	15.5
	Continued playing	5	35.7	62.5	18	51.4	69.2	49	67.1	84.5
	Never received message	6	42.9	-	9	25.7	-	15	20.5	-
	Missing	0	0.0	-	0	0.0	-	0	0.0	-
	Total	**14**	**100.0**	**100.0**	**35**	**100.0**	**100.0**	**73**	**100.0**	**100.0**
Reached*	Stopped playing	4	28.6	80.0	15	42.9	57.7	17	23.3	29.3
	Continued playing	1	7.1	20.0	11	31.4	42.3	41	56.2	70.7
	Never received message	9	64.3	-	9	25.7	-	15	20.5	-
	Missing	0	0.0	-	0	0.0	-	0	0.0	-
	Total	**14**	**100.0**	**100.0**	**35**	**100.0**	**100.0**	**73**	**100.0**	**100.0**
Exceeding*	Stopped playing	3	21.4	100.0	7	20.0	41.2	12	16.4	26.1
	Continued playing	0	0.0	0.0	10	28.6	58.8	34	46.6	73.9
	Never received message	11	78.6	-	18	51.4	-	26	35.6	-
	Missing	0	0.0	-	0	0.0	-	1	1.4	-
	Total	**14**	**100.0**	**100.0**	**35**	**100.0**	**100.0**	**73**	**100.0**	**100.0**

*$p < 0.05$ between all three groups.

Thirteen of 14 ever-enrolled casual gambler participants (92.9%), 33 of 35 ever-enrolled frequent gambler participants, and 66 of 73 intensive gambler participants (90.4%) responded to all of the first ten SUS items. The three groups' distributions for SUS score were not significantly different (casual: Mean = 66.3, SD = 16.5; frequent: Mean = 69.5, SD = 17.2; intensive: Mean = 65.9, SD = 16.5; $F(2,31.9) = 0.5$, $p = 0.615$).

We also compared the ever-enrolled casual gambler participants' (n = 14), frequent gambler participants' (n = 35), and intensive gambler participants' (n = 73) responses to each SUS item separately. This analysis included responses from participants who did not answer every SUS item (Table C8). Casual gambler participants were significantly more likely to agree with the statement *I think that I would like to use PlayMyWay frequently* than frequent gambler participants (t(42.7) = 2.46, p =0.018, Cohen's d = 0.609) and intensive gambler participants (t(32.3) = 3.33, p = 0.002, Cohen's d = 0.663). Depth of involvement status was not related to other SUS items.

Table C8. Ever-enrolled casual, frequent, and intensive gambler participants' responses to SUS items.

Item	Casual			Frequent			Intensive		
	n[a]	Mean	SD	n[a]	Mean	SD	n[a]	Mean	SD
I think that I would like to use PlayMyWay frequently*	14	3.6	0.7	35	2.9	1.4	73	2.8	1.4
I found PlayMyWay unnecessarily complex	14	2.5	1.3	35	2.4	1.1	71	2.6	1.2
I thought PlayMyWay was easy to use	13	3.6	0.9	34	3.8	0.9	71	4.0	1.0
I think that I would need assistance to be able to use PlayMyWay	14	2.0	1.0	34	1.7	1.0	69	1.8	1.2
I found the various functions of PlayMyWay were well integrated	13	3.3	0.8	34	3.4	1.4	70	3.5	1.0
I thought there was too much inconsistency in PlayMyWay	14	2.4	0.9	34	2.4	1.1	69	2.7	1.2
I would imagine that most people would learn to use PlayMyWay very quickly	13	3.8	0.9	33	4.0	1.0	69	3.8	1.1
I found PlayMyWay very cumbersome/awkward to use	14	1.9	1.0	33	2.3	1.3	69	2.5	1.2
I felt very confident using PlayMyWay	13	3.5	0.7	34	3.8	1.2	68	3.7	1.1
I needed to learn a lot of things before I could get going with PlayMyWay	14	2.3	1.2	33	1.8	0.8	68	2.3	1.2
I felt more confident gambling using PlayMyWay	13	3.1	0.5	33	3.1	1.6	69	2.9	1.1

*p < 0.05 between all three groups.

[a] The numbers of participants in this table are different because some participants chose to respond to some items but not to others.

Eight casual gambler participants (57.1% of ever-enrolled casual gambler participants), 26 frequent gambler participants (74.3% of ever-enrolled frequent gambler participants), and 58 intensive gambler participants (79.5% of ever-enrolled intensive gambler participants) received approaching notifications. Casual gambler participants were significantly more likely than intensive gambler participants to respond *I felt some other way* and describe their emotional responses in their own words (37.5% versus 3.4%, F.e.t.: $p = 0.011$, OR = 15.362; Table C9). Casual, frequent, and intensive gambler participants were not significantly different with respect to the other emotional responses.

Table C9. Typical emotional responses of ever-enrolled casual, frequent, and intensive gambler participants to PlayMyWay approach-ing notifications.

Measure		**Casual**		**Frequent**		**Intensive**	
		n	%	*n*	%	*n*	%
Annoyed	Endorsed	2	25.0	9	34.6	25	43.1
	Not endorsed	6	75.0	17	65.4	33	56.9
	Total	8	100.0	26	100.0	58	100.0
Relieved	Endorsed	0	0.0	1	3.8	2	3.4
	Not endorsed	8	100.0	25	96.2	56	96.6
	Total	8	100.0	26	100.0	58	100.0
Worried	Endorsed	0	0.0	2	7.7	7	12.1
	Not endorsed	8	100.0	24	92.3	51	87.9
	Total	8	100.0	26	100.0	58	100.0
Grateful	Endorsed	1	12.5	6	23.1	14	24.1
	Not endorsed	7	87.5	20	76.9	44	75.9
	Total	8	100.0	26	100.0	58	100.0
Pestered	Endorsed	1	12.5	4	15.4	12	20.7
	Not endorsed	7	87.5	22	84.6	46	79.3
	Total	8	100.0	26	100.0	58	100.0
Happy	Endorsed	0	0.0	1	3.8	1	1.7
	Not endorsed	8	100.0	25	96.2	57	98.3
	Total	8	100.0	26	100.0	58	100.0
Confused	Endorsed	0	0.0	1	3.8	1	1.7
	Not endorsed	8	100.0	25	96.2	57	98.3
	Total	8	100.0	26	100.0	58	100.0
Surprised	Endorsed	0	0.0	3	11.5	10	17.2
	Not endorsed	8	100.0	23	88.5	48	82.8
	Total	8	100.0	26	100.0	58	100.0
Sad	Endorsed	1	12.5	2	7.7	5	8.6
	Not endorsed	7	87.5	24	92.3	53	91.4
	Total	8	100.0	26	100.0	58	100.0
Satisfied	Endorsed	1	12.5	9	34.6	8	13.8
	Not endorsed	7	87.5	17	65.4	50	86.2
	Total	8	100.0	26	100.0	58	100.0
Guilty	Endorsed	1	12.5	2	7.7	6	10.3
	Not endorsed	7	87.5	24	92.3	52	89.7
	Total	8	100.0	26	100.0	58	100.0
Felt some other way*	Endorsed	3	37.5	3	11.5	2	3.4
	Not endorsed	5	62.5	23	88.5	56	96.6
	Total	8	100.0	26	100.0	58	100.0

*$p < 0.05$ between all three groups.

Five casual gambler participants (35.7% of ever-enrolled casual gambler participants), 26 frequent gambler participants (74.3% of ever-enrolled frequent gambler participants), and 58 intensive gambler participants (79.5% of ever-enrolled intensive gambler participants) received reached notifications. Frequent gambler participants were significantly more likely to feel satisfied upon receiving reached notifications than intensive gambler participants (34.6% versus 12.1%, F.e.t.: $p = 0.032$, OR = 3.785; Table C10). Casual, frequent, and intensive gambler participants were not significantly different with respect to the other emotional responses.

Table C10. Typical emotional responses of ever-enrolled casual, frequent, and intensive gambler participants to PlayMyWay reached notifications.

Measure		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Annoyed	Endorsed	0	0.0	8	30.8	24	41.4
	Not endorsed	5	100.0	18	69.2	34	58.6
	Total	5	100.0	26	100.0	58	100.0
Relieved	Endorsed	0	0.0	0	0.0	3	5.2
	Not endorsed	5	100.0	26	100.0	55	94.8
	Total	5	100.0	26	100.0	58	100.0
Worried	Endorsed	0	0.0	1	3.8	6	10.3
	Not endorsed	5	100.0	25	96.2	52	89.7
	Total	5	100.0	26	100.0	58	100.0
Grateful	Endorsed	2	40.0	4	15.4	10	17.2
	Not endorsed	3	60.0	22	84.6	48	82.8
	Total	5	100.0	26	100.0	58	100.0
Pestered	Endorsed	0	0.0	3	11.5	14	24.1
	Not endorsed	5	100.0	23	88.5	44	75.9
	Total	5	100.0	26	100.0	58	100.0
Happy	Endorsed	0	0.0	0	0.0	3	5.2
	Not endorsed	5	100.0	26	100.0	55	94.8
	Total	5	100.0	26	100.0	58	100.0
Confused	Endorsed	0	0.0	1	3.8	1	1.7
	Not endorsed	5	100.0	25	96.2	57	98.3
	Total	5	100.0	26	100.0	58	100.0
Surprised	Endorsed	1	20.0	2	7.7	8	13.8
	Not endorsed	4	80.0	24	92.3	50	86.2
	Total	5	100.0	26	100.0	58	100.0
Sad	Endorsed	1	20.0	3	11.5	7	12.1
	Not endorsed	4	80.0	23	88.5	51	87.9
	Total	5	100.0	26	100.0	58	100.0
Satisfied*	Endorsed	0	0.0	9	34.6	7	12.1
	Not endorsed	5	100.0	17	65.4	51	87.9
	Total	5	100.0	26	100.0	58	100.0
Guilty	Endorsed	0	0.0	3	11.5	9	15.5
	Not endorsed	5	100.0	23	88.5	49	84.5
	Total	5	100.0	26	100.0	58	100.0
Felt some other way	Endorsed	1	20.0	3	11.5	4	6.9
	Not endorsed	4	80.0	23	88.5	54	93.1
	Total	5	100.0	26	100.0	58	100.0

*$p < 0.05$ between all three groups.

Three casual gambler participants (21.4% of ever-enrolled casual gambler participants), 17 frequent gambler participants (48.6% of ever-enrolled frequent gambler participants), and 46 intensive gambler participants (63.0% of ever-enrolled intensive gambler participants) received exceeding notifications. Casual, frequent, and intensive gambler participants were not significantly different with respect to any emotional responses (Table C11).

Table C11. Typical emotional responses of ever-enrolled casual, frequent, and intensive gambler participants to PlayMyWay exceeding notifications.

Measure		Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
Annoyed	Endorsed	0	0.0	9	52.9	20	43.5
	Not endorsed	3	100.0	8	47.1	26	56.5
	Total	3	100.0	17	100.0	46	100.0
Relieved	Endorsed	0	0.0	1	5.9	2	4.3
	Not endorsed	3	100.0	16	94.1	44	95.7
	Total	3	100.0	17	100.0	46	100.0
Worried	Endorsed	0	0.0	2	11.8	10	21.7
	Not endorsed	3	100.0	15	88.2	36	78.3
	Total	3	100.0	17	100.0	46	100.0
Grateful	Endorsed	0	0.0	1	5.9	10	21.7
	Not endorsed	3	100.0	16	94.1	36	78.3
	Total	3	100.0	17	100.0	46	100.0
Pestered	Endorsed	0	0.0	3	17.6	11	23.9
	Not endorsed	3	100.0	14	82.4	35	76.1
	Total	3	100.0	17	100.0	46	100.0
Happy	Endorsed	0	0.0	1	5.9	0	0.0
	Not endorsed	3	100.0	16	94.1	46	100.0
	Total	3	100.0	17	100.0	46	100.0
Confused	Endorsed	0	0.0	1	5.9	1	2.2
	Not endorsed	3	100.0	16	94.1	45	97.8
	Total	3	100.0	17	100.0	46	100.0
Surprised	Endorsed	0	0.0	1	5.9	4	8.7
	Not endorsed	3	100.0	16	94.1	42	91.3
	Total	3	100.0	17	100.0	46	100.0
Sad	Endorsed	0	0.0	2	11.8	9	19.6
	Not endorsed	3	100.0	15	88.2	37	80.4
	Total	3	100.0	17	100.0	46	100.0
Satisfied	Endorsed	0	0.0	2	11.8	1	2.2
	Not endorsed	3	100.0	15	88.2	45	97.8
	Total	3	100.0	17	100.0	46	100.0
Guilty	Endorsed	0	0.0	3	17.6	12	26.1
	Not endorsed	3	100.0	14	82.4	34	73.9
	Total	3	100.0	17	100.0	46	100.0
Felt some other way	Endorsed	0	0.0	1	5.9	3	6.5
	Not endorsed	3	100.0	16	94.1	43	93.5
	Total	3	100.0	17	100.0	46	100.0

All 14 ever-enrolled casual gambler participants, 35 ever-enrolled frequent gambler participants, and 73 ever-enrolled intensive gambler participants answered whether or not they recommended PlayMyWay to another person (Table C12). No group was significantly more or less likely to recommend PlayMyWay than the other two (casual: 3/14 = 21.4%, frequent: 13/35 = 37.1%, intensive: 19/73 = 26.0%, F.e.t.: p = 0.433).

Table C12. Whether ever-enrolled casual, frequent, and intensive gambler participants recommended PlayMyWay to another person.

Recommended PlayMyWay	**Casual**			**Frequent**			**Intensive**		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Yes	3	21.4	21.4	13	37.1	37.1	19	26.0	26.0
No	11	78.6	78.6	22	62.9	62.9	54	74.0	74.0
Missing	0	0.0	-	0	0.0	-	0	0.0	-
Total	**14**	**100.0**	**100.0**	**35**	**100.0**	**100.0**	**73**	**100.0**	**100.0**

When offered the list of ways to improve PlayMyWay, 8 of the 14 casual gambler participants, 12 of 35 frequent gambler participants, and 23 of the 73 intensive gambler participants responded *I like it the way it is, it doesn't need to change* (57.1% versus 34.3% versus 31.5%, F.e.t.: p = 0.201; Table C13). Among the remaining 79 participants, there were no significant differences between those who were casual, frequent, and intensive gamblers with respect to any of the ways in which PlayMyWay could be improved.

Table C13. How ever-enrolled casual, frequent, and intensive gambler participants who did not indicate that they like PlayMyWay the way it is think PlayMyWay could be improved.

Item	Response	Casual		Frequent		Intensive	
		n	%	*n*	%	*n*	%
I didn't need to have a Marquee Rewards cart to use it	Endorsed	0	0.0	3	13.0	4	8.0
	Not endorsed	6	100.0	20	87.0	46	92.0
	Total	6	100.0	23	100.0	50	100.0
It used different colors	Endorsed	0	0.0	2	8.7	1	2.0
	Not endorsed	6	100.0	21	91.3	49	98.0
	Total	6	100.0	23	100.0	50	100.0
The notifications were easier to understand	Endorsed	0	0.0	0	0.0	0	0.0
	Not endorsed	6	100.0	23	100.0	50	100.0
	Total	6	100.0	23	100.0	50	100.0
The notifications came more frequently	Endorsed	0	0.0	0	0.0	2	4.0
	Not endorsed	6	100.0	23	100.0	48	96.0
	Total	6	100.0	23	100.0	50	100.0
The notifications came less frequently	Endorsed	1	16.7	5	21.7	13	26.0
	Not endorsed	5	83.3	18	78.3	37	74.0
	Total	6	100.0	23	100.0	50	100.0
It had more privacy	Endorsed	2	33.3	9	39.1	18	36.0
	Not endorsed	4	66.7	14	60.9	32	64.0
	Total	6	100.0	23	100.0	50	100.0
It kept track of my time gambling	Endorsed	2	33.3	2	8.7	9	18.0
	Not endorsed	4	66.7	21	91.3	41	82.0
	Total	6	100.0	23	100.0	50	100.0
It made my stop when I reached my budget	Endorsed	1	16.7	6	26.1	9	18.0
	Not endorsed	5	83.3	17	73.9	41	82.0
	Total	6	100.0	23	100.0	50	100.0
It let me set a stop-win limit	Endorsed	0	0.0	2	8.7	8	16.0
	Not endorsed	6	100.0	21	91.3	42	84.0
	Total	6	100.0	23	100.0	50	100.0
It let me set a stop-time limit	Endorsed	1	16.7	1	4.3	3	6.0
	Not endorsed	5	83.3	22	95.7	47	94.0
	Total	6	100.0	23	100.0	50	100.0
I could change my budgets online	Endorsed	0	0.0	5	21.7	9	18.0
	Not endorsed	6	100.0	18	78.3	41	82.0
	Total	6	100.0	23	100.0	50	100.0
I could check my budgets online	Endorsed	0	0.0	3	13.0	7	14.0
	Not endorsed	6	100.0	20	87.0	43	86.0
	Total	6	100.0	23	100.0	50	100.0
I could enroll online	Endorsed	1	16.7	3	13.0	2	4.0
	Not endorsed	5	83.3	20	87.0	48	96.0
	Total	6	100.0	23	100.0	50	100.0
I could un-enroll online	Endorsed	1	16.7	1	4.3	2	4.0
	Not endorsed	5	83.3	22	95.7	48	96.0
	Total	6	100.0	23	100.0	50	100.0
Other	Endorsed	1	16.7	1	4.3	5	10.0
	Not endorsed	5	83.3	22	95.7	45	90.0
	Total	6	100.0	23	100.0	50	100.0
I like it the way it is, it doesn't need to change	Endorsed	8	57.1	12	34.3	23	31.5
	Not endorsed	6	42.9	23	65.7	50	68.5
	Total	14	100.0	35	100.0	73	100.0

We were able to calculate breadth of involvement for 329 (100.0%) of the casual gambler participants, 550 (100.0%) of the frequent gambler participants, and 797 (99.7%) of the intensive gambler participants. On average, breadth scores for intensive gambler participants (Mean = 3.2, SD = 1.3) were higher than those of frequent (Mean = 2.9, SD = 1.3) and casual gambler participants (Mean = 2.6, SD = 1.2), and breadth scores for frequent gambler participants were higher than those of casual gambler participants (*t*-tests: casual versus frequent – $p = 0.003$, Cohen's $d = 0.206$; casual versus intensive – $p < 0.001$, Cohen's $d = 0.474$; frequent versus intensive – $p < 0.001$, Cohen's $d = 0.266$). Intensive gambler participants were significantly more likely to be BBGS positive than frequent gambler participants, who in turn were more significantly likely to be BBGS positive than and casual gambler participants (25.1% versus 11.8% versus 3.7%; F.e.t. for casual versus frequent: $p < 0.001$, OR = 0.283; values below 0.001; F.e.t. for casual versus intensive: $p < 0.001$, OR = 0.113; F.e.t. for frequent versus intensive: $p < 0.001$, OR = 0.400; Table C14).

Table C14. BBGS status of casual, frequent, and intensive gambler participants.

BBGS status	**Casual**			**Frequent**			**Intensive**		
	n	%	Valid %	*n*	%	Valid %	*n*	%	Valid %
Confirmed BBGS+	12	3.6	3.7	65	11.8	11.8	200	25.0	25.1
Confirmed BBGS-	316	96.0	96.3	484	88.0	88.2	596	74.6	74.9
Unconfirmed	1	0.3	-	1	0.2	-	3	0.4	-
Total	**329**	**100.0**	**100.0**	**550**	**100.0**	**100.0**	**799**	**100.0**	**100.0**