Comprehensive Evaluation of the Plainridge Park Casino GameSense Program: 2015-2018 Compendium

Heather M. Gray, PhD
Howard J. Shaffer, PhD
Debi A. LaPlante, PhD

Division on Addiction, Cambridge Health Alliance, a Harvard Medical School teaching hospital

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Please direct all correspondence to Heather M. Gray (hgray@challiance.org), Howard J. Shaffer (howard_shaffer@hms.harvard.edu), or Debi A. LaPlante (debi_laplante@hms.harvard.edu), Division on Addiction, 101 Station Landing, Suite 2100, Medford, Massachusetts 02155.

Executive Summary

The 2011 Expanded Gaming Act allowed for up to three destination resort casinos and one slots facility in the Commonwealth of Massachusetts. The Act included several mandates designed to mitigate gambling-related harm, including the requirement that on-site substance abuse, compulsive gambling, and mental health counseling services be operational in every new gaming venue. The Massachusetts Gaming Commission (MGC), through its 2014 Responsible Gaming Framework, specified that gaming operators would meet the on-site counseling service requirement by establishing responsible gaming information centers. Specifically, at the outset of this series of evaluation studies, these centers were designed "to serve as the patrons' central point of contact for inquiries and enrollment into voluntary responsible gaming programs and services, including self-exclusion programs; play information and management systems; and educational tools to assess play risks, provide responsible gaming tips, and increase players' knowledge of how games work while dispelling common gambling myths" (Massachusetts Gaming Commission, 2014a). The MGC adopted the GameSense brand to unify and market the operations of responsible gaming information centers, which are staffed by third-party vendors contracted through MGC. During June 2015, the first GameSense Info Center opened at Plainridge Park Casino, a slots facility located in Plainville, Massachusetts. In its Responsible Gaming Framework Version 2.0, the MGC newly describes these GameSense Info Centers as patrons' "central point of contact for information about programs to support positive play," which itself is defined as gambling within personally affordable limits, being honest with oneself and others about one's gambling, and not being significantly negatively impacted by belief in luck or other superstitions (Massachusetts Gaming Commission, 2018).

Evaluating the GameSense Info Center at Plainridge Park Casino

The Massachusetts Gaming Commission contracted with the Division on Addiction (Division) to evaluate the GameSense program at Plainridge Park Casino (PPC). This compendium includes four reports that describe the Division's evaluation of the GameSense program at PPC.

Report 1 (see *Chapter 2 - Summary Analysis of the Plainridge Park Casino GameSense Program Activities & Visitor Survey: December 2, 2015-May 31, 2016*) summarized six months of data collected during the first year of operation using computerized records of services provided by GameSense Advisors (i.e., checklists) and surveys completed by patrons, PPC staff, and others who engage with GameSense Advisors (i.e., visitors). The report provides (1) a census of services GameSense Advisors reported that they provided and (2) observations, based on both checklists and Visitor Surveys, about the extent to which GameSense is (1) providing responsible gambling information and resources across the spectrum of patron needs, (2) appealing to a wide audience, (3) establishing positive working alliances with visitors, and (4) attracting visitors from both inside and outside the casino. We submitted this report in July, 2016.

Report 2 (see *Chapter 3 - Summary Analysis of The Plainridge Park Casino GameSense Program Activities & Visitor Survey: August 8, 2016-February 7, 2017*) used the same general methodology as Report 1 and complemented that report by adding measures of visitors' knowledge of responsible gambling concepts, use of responsible gambling strategies, and awareness of problem gambling resources. We submitted this report in May, 2017.

Report 3 (see *Chapter 4 - Summary Analysis of the 2016 Plainridge Park Casino Intercept Survey*) involved secondary data analysis of a Plainridge Park Casino patron survey. Whereas the first and second reports primarily focused upon GameSense visitors, this study surveyed the broader patron population at PPC.

We studied respondents' awareness of, and interaction with, the GameSense program at PPC. Respondents who indicated that they interacted with a GameSense Advisor described their satisfaction with the services, impressions of the GameSense Advisor, and if the interaction changed their gambling habits. We submitted this report in May, 2017.

Report 4 (see *Chapter 5 - Summary Analysis of the Plainridge Park Casino Employee GameSense Survey*) summarized a PPC employee survey. PPC employees interact with casino patrons in a way that might influence patrons' opinions and use of GameSense and therefore offer a different but important perspective about GameSense. This survey focused on employees' exposure to, and knowledge and opinions about, GameSense and other initiatives intended to promote responsible gambling. We submitted this report in January, 2018.

These complementary evaluation approaches allowed us to examine GameSense with respect to different targets and within the RE-AIM framework, which conceptualizes the public health impact of any intervention as a function of five empirically testable dimensions that follow a logical sequence: (1) Reach (i.e., the proportion of potentially eligible people in the target population who receive or are affected by the intervention); (2) Effectiveness (i.e., the extent to which the intervention achieves its desired outcomes, considering both positive and negative effects); (3) Adoption (i.e., the proportion of settings, practices and plans that adopt the intervention); (4) Implementation (i.e., the extent to which the intervention is implemented as intended within real world settings); and (5) Maintenance (i.e., the extent to which the intervention is sustained over time). The current reports focus upon Reach and Effectiveness in different, but complementary ways.

We provide *selected* findings from each report below. Descriptions of the full methodological details, as well as complete findings and thorough considerations of study limitations are available in Reports 1-4 (i.e., Chapters 2-5 of the Compendium).

Key Results

REPORT 1 - SUMMARY ANALYSIS OF THE PLAINRIDGE PARK CASINO GAMESENSE PROGRAM ACTIVITIES & VISITOR SURVEY: DECEMBER 2, 2015-MAY 31, 2016

Census of Services

- GameSense Advisors (GSAs) completed checklists for a total of 5,659 interactions during the evaluation period. These interactions involved at least 9,343 visitors. GSAs had about 31 interactions with visitors each day and interacted with about 52 visitors each day—or 0.67% of the total number of people who visited PPC each day during the evaluation period. This is one estimate of program reach. We cannot evaluate the extent to which the program met reach objectives because, to our knowledge, the MGC did not specify such objectives in advance.
- GSAs categorized interactions according to an ascending order of engagement: (1) Simple (i.e. short, one-way communication regarding non-substantive issue), (2) Instructive (i.e. longer, one-way communication from GSA to visitor regarding responsible gambling or problem gambling), (3) Demonstration (i.e. longer, one-way communication centered around a demonstration of a responsible gambling concept), and (4) Exchange (i.e. two-way interaction about responsible gambling or problem gambling). Most reported interactions were of the Simple type (69.7%), followed by Exchange (16.0%), Instructive (13.0%), and Demonstration (1.2%). To our knowledge, the MGC has not specified the ideal distribution of Simple, Instructive, Demonstration, and Exchange interactions.

- In most (93.9%) of the Instructive interactions, GSAs reported that they provided information about responsible gambling. GSAs reported that during most Exchange interactions, they provided information or advice verbally (92.1%).

GameSense Visitor Surveys

- Eligible respondents (i.e., visitors who engaged in Exchange interactions) completed a total of 982 Visitor Surveys. The Visitor Survey response rate was 85%.
- Survey respondents often reported that they learned about strategies to keep gambling fun (76.7%).
- A minority of respondents indicated that they would think about their own gambling as a result of their conversation with a GSA (32.6%). Few respondents indicated that they would take steps to reduce their gambling (6.3%) or seek professional help (2.1%).
- Most respondents (88.9%) reported that anyone who gambles could benefit from having a conversation with a GSA.
- Respondents rarely reported speaking to GSAs because of serious concerns. Rather, respondents typically presented with minor concerns, such as being curious about GameSense, which was reported in 69.3% of Visitor Surveys. Likewise, GameSense primarily attracted casino patrons without extensive gambling histories. For instance, the majority of respondents (83.6%) reported experiencing no gambling-related problems during their lifetimes.
- Most (94.5%) respondents indicated that they were very satisfied or extremely satisfied with their conversation with a GSA. Respondents reported positive impressions of their GSAs. For instance, 87.4% strongly agreed that their GSA was caring.

REPORT 2 – SUMMARY ANALYSIS OF THE PLAINRIDGE PARK CASINO GAMESENSE PROGRAM ACTIVITIES & VISITOR SURVEY: AUGUST 8, 2016-FEBRUARY 7, 2017

Census of Activities

- GSAs reported interacting with approximately 94 visitors per day. This translates to 1.33% of the total number of people who visited PPC each day during the evaluation period. We observed a 39.2% increase in total interactions from Wave 1 to Wave 2 and an 81.9% increase in total visitors.
- As in Report 1, GSAs reported that most of their interactions were Simple interactions (72.6%), followed by Instructive interactions (15.4%), Exchange interactions (10.0%), and Demonstration interactions (1.9%).
- GSAs reported that, during most (96.0%) Instructive interactions, they provided information about PlayMyWay, the voluntary budgeting system. During most (83.0%) Demonstration interactions, they showed the visitor how to use the GameSense kiosk. They reported that during most (77.6%) Exchange interactions, they provided information about responsible gambling or the consequences of gambling.

GameSense Visitor Surveys

- As in Report 1, only Exchange patrons were eligible. Respondents could complete a "First-Time" or a "Repeat" survey, if they were completing a Visitor Survey for the first time or had previously completed a survey, respectively. The cumulative response rate was 78.6%.
- We examined respondents' reactions to GameSense in several ways.
    - As in Report 1, respondents reported positive impressions of their GSAs. For instance, 84.6% of First-Time respondents indicated that it was highly likely they would recommend GameSense to a friend.
    - Both First-Time and Repeat Visitor Survey respondents reported that they would feel comfortable seeking help from a GameSense Advisor for an emerging gambling problem (87.7% and 93.0%, respectively).

- Most First-Time and Repeat Visitor Survey respondents indicated that talking with a GSA prompted them to seek more information about strategies to keep gambling fun (68.2% and 54.3%, respectively). Comparatively few indicated that they would change their gambling behavior.

- We also examined respondents' responsible gambling behavior, gambling knowledge, and awareness of gambling resources.
  - Among First-Time Visitor Survey respondents, the most commonly endorsed strategy for keeping gambling within personally affordable limits was avoiding using ATMs at the casino (endorsed by 81.4%). Among Repeat Visitor Survey respondents, the most frequently endorsed strategy was setting loss limits (endorsed by 60.5%).
  - Less than half of First-Time and Repeat Visitor Survey respondents correctly answered the question, "On any given slot machine play, which outcome is most likely?" (40.4% and 33.3%, respectively).
  - Most respondents were aware of PlayMyWay (86.6%), Massachusetts-based resources for people with gambling problems (82.7%), gambling treatment in their community (62.0%), and Gamblers' Anonymous meetings in their communities (53.6%).
- We also studied the association between respondents' self-reported total GameSense interactions (of all types, from Simple to Exchange) and their responses to responsible gambling questions. We noted few instances of GameSense exposure relating to these outcomes.
  - Among First-Time respondents, total GameSense exposure was unrelated to all 15 *Responsible Gambling Knowledge and Behavior* outcomes (e.g., self-reported use of responsible gambling strategies, avoidance of gambling fallacies).
  - Among First-Time respondents, total GameSense exposure was unrelated to all 15 *Reactions to GameSense* survey outcomes (e.g., reasons for visiting GameSense, awareness that GameSense Advisors have resources for people struggling to control their gambling).
  - Among First-Time respondents, exposure was unrelated to all 12 *Resources and Treatment Knowledge* outcomes except for four; we found positive associations between total GameSense exposure and (1) awareness of PlayMyWay, (2) awareness of local gambling treatment resources, (3) understanding how PlayMyWay works, and (4) identifying the purpose of PlayMyWay.
  - Among Repeat survey respondents, exposure to GameSense was unrelated to all survey responses.

REPORT 3 – SUMMARY ANALYSIS OF THE 2016 PLAINRIDGE PARK CASINO INTERCEPT SURVEY: FOCUS ON GAMESENSE

- Across two study periods (i.e., February 2016 and July/August 2016), SEIGMA research staff surveyed 479 PPC patrons (response rate was 22.4%). The SEIGMA team weighted the sample in an attempt to account for response bias. For completeness, we present both weighted and unweighted results, which provide generalized and sample-specific outcomes, respectively.
- All respondents were asked, "Are you aware of the GameSense program?" Of those who responded, most answered "yes" (56.9% unweighted data; 59.9% weighted data).
- Those who answered "yes" were eligible for the next question, "Have you spoken to a GameSense Advisor?" Most respondents answered negatively (82.0% unweighted data; 82.5% weighted data). Approximately ten percent of *all* respondents answered affirmatively represented (9.6% unweighted data, 9.8% weighted data) and were eligible to answer the remaining GameSense survey questions.

- In response to the question, "Were you satisfied with the information offered by the GameSense Advisor?" most eligible respondents answered affirmatively (97.8% unweighted data; 98.5% weighted data).
- As in Reports 1 and 2, eligible respondents provided positive impressions of the GameSense Advisor with whom they spoke. For instance, most respondents agreed or strongly agreed that their GSA was caring (93.4% unweighted data; 89.7% weighted data).
- The majority of eligible respondents answered "yes" to the question, "Did you learn something new about gambling?" (58.7% unweighted data; 54.7% weighted data).
- As in Report 2, most respondents indicated that speaking with a GSA did *not* prompt them to change how they gamble (57.8% unweighted data; 53.4% weighted data).

- We examined the relationships between GameSense awareness and GameSense exposure with self-reported gambling behavior. For the most part, we did not find evidence of such associations. For example, awareness of GameSense and speaking with a GSA were unrelated to gambling expenditures on the day of the survey.

REPORT 4 – SUMMARY ANALYSIS OF THE PLAINRIDGE PARK CASINO EMPLOYEE GAMESENSE SURVEY

- Respondents were 258 PPC employees who attended one of four "town hall" style meetings at PPC on May 24 and May 25, 2017 and completed the survey. They represented 72% of employees who attended town halls and 52% of all employees.
- More than half (58.5%) of respondents indicated that they had ever interacted with a GSA. About one-third of respondents (33.5%) reported that they had spoken with a GSA about problem gambling or responsible gambling.
- Most respondents (71.4%) reported that they had never referred a casino patron to a GSA, typically because the opportunity had never come up (88.1%).
  - Respondents who worked in the security and surveillance department were more likely than those with other jobs at PPC to interact with a GSA and refer casino patrons to GSA. Respondents in food, beverage, and retail were least likely to interact with, or refer casino patrons to, GSAs.
- Employees showed some need for additional training regarding GameSense and its services.
  - Most respondents correctly recognized that GSAs are responsible for teaching people to avoid gambling beyond their limits, enrolling people in voluntary self-exclusion, helping to connect people to problem gambling or other mental health treatment, enrolling people in PlayMyWay, and greeting people. Most respondents failed to identify the remaining GSA responsibilities (e.g., give people directions, teach people about odds and probabilities, un-enroll people from voluntary self-exclusion).
  - Most respondents recognized casino patrons as a group that can use GameSense (88.9%). Fewer than half of the respondents knew that they can use GameSense as a personal resource (37.9%).
  - Less than half of the respondents (42.7%) correctly identified how PlayMyWay works, in that they selected the correct response and rejected all other responses.
  - About 9 in 100 respondents (9.1%) accurately identified characteristics of the voluntary self-exclusion program at PPC.
- As in Reports 1, 2, and 3, respondents had positive opinions about the program. Specifically, opinions about the potential impact of GameSense were primarily positive. Agreement was highest for the statement, "It encourages people to think about their own gambling behavior" (85.7% agreed). Respondents agreed with all 9 positive impacts more often than they agreed with all 8 negative impacts.

- Employee exposure to GameSense was associated with some but not all key outcomes.
    - Respondents who had ever interacted with a GSA were more likely than those who had not to (1) identify specific GSA activities, (2) correctly report how PlayMyWay works, and (3) show an understanding of the independence of slot machine play.
    - GameSense exposure was unrelated to other measures, such as correctly reporting how voluntary self-exclusion works at PPC and correctly identifying employees' own role in intervening with patrons with potential gambling-related problems. Exposure to GameSense also was unrelated to opinions about GameSense.

General Discussion

GENERAL EVIDENCE-INFORMED IMPRESSIONS OF GAMESENSE

In Reports 1 and 2, estimates of direct engagement with PPC patrons (i.e., reach) were approximately 1%, and approximately 70% of these interactions were superficial in nature (i.e., Simple). In Report 3, the estimate of reach was closer to 10%. Therefore, evidence indicates that interactions that directly relate to promoting responsible gambling among casino venue patrons were rare at the PPC GameSense Info Center. Program planners should decide whether this extent of direct responsible gambling contact among casino patrons fulfills program goals, and the Public Health Trust Fund should decide whether the cost per patron is acceptable for this type of initiative. The MGC should commit to establishing and measuring progress toward explicitly stated reach goals at PPC at the two forthcoming GameSense Info Centers and disseminating their findings.

Although we did not set out with the explicit intention to study program safety in all our studies, we examined all sources of data for signs of harm to patrons or GSAs. We did not observe harm to patrons in any of our studies. Early in this evaluation, anecdotal evidence suggesting the potential for harm to GSAs prompted us to recommend greater clinical supervision and training, which the MGC since has adopted, as described in Chapter 6.

Across studies, we observed high levels of program satisfaction and satisfaction with GameSense Advisors. Across studies, for example, most respondents who had spoken with a GameSense Advisor reported that they learned something new about gambling or strategies to keep gambling fun or would seek such information because of their conversation with a GSA. However, when we measured respondents' responsible gambling knowledge (rather than their *perceptions* of their knowledge) or asked about their actual responsible gambling behavior, we found that GameSense exposure was infrequently associated with positive outcomes. To illustrate, among casino patrons who had had a discussion with a GSA, GameSense contact was typically not associated with additional knowledge about responsible gambling or self-reported use of responsible gambling strategies. An exception to this trend concerned PlayMyWay. Both patrons and employees who interacted with a GSA had a better understanding of the voluntary budgeting system, consistent with GSAs' own reports of their activities. This trend suggests that GSAs might be better able to teach about specific positive play programs than to correct mistaken beliefs about gambling.

Our general observations should be viewed within limitations. For instance, these evaluations do not establish causal effects. For example, observations such as GSA exposure being associated with having a better understanding of PlayMyWay might indicate (1) that GameSense facilitates knowledge of PlayMyWay or (2) that people who have knowledge of PlayMyWay are more likely to engage with GameSense, among other possibilities. Also, whereas respondents had positive impressions of specific GSA attributes (e.g., caring, helpful, knowledgeable), those impressions might be attributable to generally

positive views of the GSAs rather than thoughtful consideration of each domain. In this situation, the results might reflect a positive impression distortion. These "halo effects" are common to consumer satisfaction surveys. Finally, whereas associations between GameSense exposure and responsible gambling measures were weak, this might be due to ceiling effects/restriction of range for responsible gambling measures; that is, patrons might already demonstrate levels of positive play to the extent that we could not observe further improvements. Less savvy populations might show bigger changes following exposure to GameSense. We discuss these limitations and others in each report of this Compendium.

RECOMMENDATIONS

We provided each of the four evaluative reports to the MGC upon their completion. Consequently, we were able to provide the MGC with programmatic and evaluative recommendations as the evaluation progressed. The benefit of this real-time delivery is that MGC had the opportunity to adapt the GameSense program as we made our observations, rather than at the completion of this Compendium. Some examples of this include efforts to increase GSAs' clinical supervision, improve messaging to increase GameSense awareness and understanding of responsible gambling concepts, and improve outreach to increase women's representation among returning visitors. Chapter 6 reviews the adaptations that MGC has already made in response to our recommendations.

Current program recommendations include (1) a potential re-assessment of legislative fit, as the ability of GameSense Info Centers to address substance and mental health issues remains unclear; (2) developing new ways to engage with PPC patrons, if MGC decides that increasing the program's reach is a worthy goal; and (3) encouraging new ways to engage with PPC employees and provide additional employee training, to enhance their knowledge of GameSense and its activities.

Current evaluation recommendations concerned practical surveying issues and future research questions. Although there are some very positive findings that are encouraging, at the preparation of this Compendium, it would be premature to suggest that GameSense is an evidence-based responsible gambling program associated with promoting positive play (a goal outlined in the Responsible Gaming Framework Version 2.0 that has yet to be specifically measured) or increasing players' knowledge of how games work while dispelling common gambling myths (a goal outlined in the Responsible Gaming Framework Version 1.0 that has been measured, but for which we observed no consistent support).

Future work might facilitate such a designation by (1) diversifying study samples and designs (e.g., investing in randomized controlled trials); (2) assessing observed reach against an *a priori* benchmark in an ongoing way, including completing an independent cost-benefit analysis, and (3) measuring the effectiveness of GameSense for imparting responsible gambling knowledge, encouraging responsible gambling behaviors (including positive play) using a patron intercept strategy.

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Chapters Two and Three of this report were co-authored with Layne Keating, and Chapter Four was co-authored with Alec Conte.

This report would not have been possible without the time and cooperation of casino patrons who completed surveys.

Finally, we extend our thanks to the GameSense Advisors at Plainridge Park Casino for gathering the data used in this report and for their feedback as we refined our methodology.

This compendium is dedicated to the memory of our greatly missed and tremendously valued colleague, Tasha Chandler, who died March 18, 2018, leaving the Division on Addiction, but not our hearts.

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Chapter One: Introduction

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Introduction

BACKGROUND

During November 2011, Massachusetts Governor Deval Patrick signed legislation allowing for gambling expansion across the Commonwealth ("Bill H03697," 2011). The Gaming Act allowed for up to three destination resort casinos and one slots facility, and created the Massachusetts Gaming Commission (MGC), an independent body tasked with overseeing the licensing, development, and operation of new gaming venues. Because gambling is an activity that presents financial, mental, and physical health risks (Shaffer & Martin, 2011), the 2011 legislation includes several mandates designed to mitigate harm. Among these mandates is the requirement for each newly licensed gaming operator to "provide complimentary on-site space for an independent substance abuse, compulsive gambling, and mental health counseling service" to be selected by the MGC.

By requiring an on-site counseling service, Massachusetts policymakers acknowledged the possibility that gambling expansion will contribute to gambling-related problems within the surrounding communities, and for vulnerable sub-populations in particular (LaPlante & Shaffer, 2007; Shaffer, LaBrie, & LaPlante, 2004). The legislation additionally mandated an annual research agenda to ensure that the strategies intended to mitigate potential gambling-related harms—including the on-site counseling service— are effective and proper.

The MGC, through its 2014 Responsible Gaming Framework (Massachusetts Gaming Commission, 2014a), operationalized the requirement for new operators to meet the on-site counseling service obligation by establishing responsible gambling information centers, designed primarily to provide player education. The MGC further operationalized the legislative requirement for an on-site counseling service by adopting the GameSense brand, developed by the British Columbia Lottery Corporation, to unify and market the operations of these responsible gambling information centers. The MGC contracted with the Division on Addiction at Cambridge Health Alliance to evaluate the GameSense responsible gambling information center operating at the first new gambling venue, Plainridge Park Casino, located in Plainville, MA.

The GameSense program is intended to "engage players and the public with responsible gaming and problem gambling information and tools while removing the stigma often associated with accessing these resources" (Massachusetts Gaming Commission, 2014b). To this end, GameSense Advisors interact with casino patrons and employees, provide instructions and demonstrations on gambling, educate others about probability and responsible gambling techniques (e.g., the PlayMyWay voluntary budgeting system in place at PPC), facilitate Voluntary Self-Exclusion from the casino, and connect people with problem gambling or other mental health treatment. In short, the GameSense program is intended to promote responsible gambling, defined as "policies and practices designed to prevent and reduce potential harms associated with gambling" (Blaszczynski, Ladouceur, & Shaffer, 2004). In its latest Responsible Gaming Framework (Massachusetts Gaming Commission, 2018), the MGC used the term "positive play" to describe the gambling behavior GameSense should support—a type of gambling marked by spending within time and money limits, being honest with oneself and others about the extent of one's gambling, and not being led by gambling distortions.

In its evaluation, the Division on Addiction described GameSense findings by producing four reports from 2016 to 2018. We used the RE-AIM model to frame this evaluation. The RE-AIM model conceptualizes the impact of a public health intervention according to five dimensions: Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM; (Glasgow, Vogt, & Boles, 1999)). To date, we have focused in

particular on the first two dimensions. Reach refers to the proportion of the target population who receive or are affected by the intervention. Effectiveness is the degree to which the intervention achieves the desired outcome, taking into consideration both positive and negative effects -- in other words, does the program help or harm).

While the present evaluations shed light on these components of GameSense's early impact, these findings are not intended to be the final word. An evaluation "loop" that regularly examines the processes and outcomes of this responsible gambling program and reports feedback to key stakeholders allows problem areas to be identified, corrected, and monitored (see Figure 1.1). As the evaluation loop cycles iteratively, this process allows program developers to make the program more useful over time and provides the evidence-base for its effectiveness.

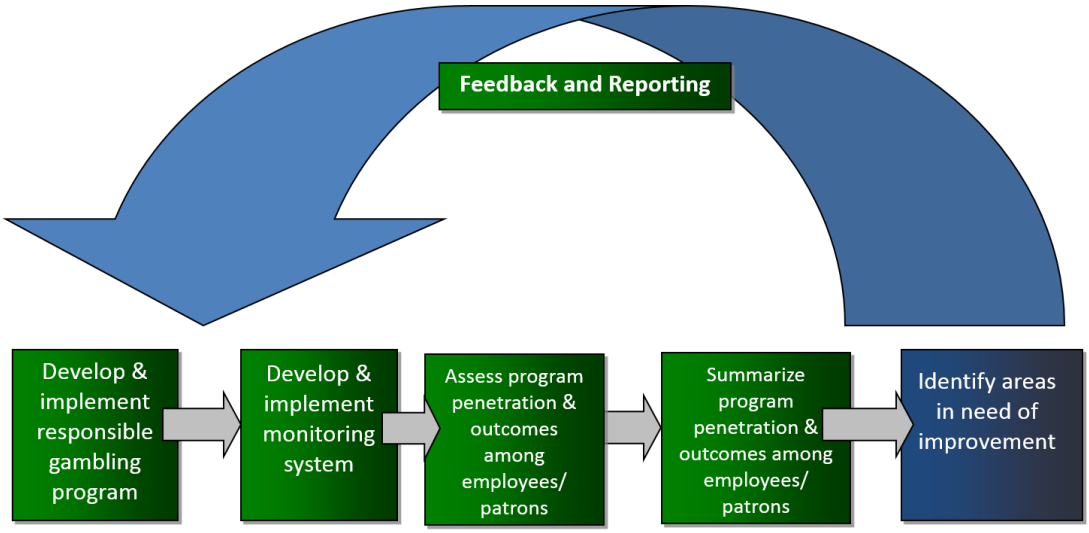

Figure 1.1: Feedback Evaluation Loop as Applied to Responsible Gambling Programs

Scientists consider a randomized controlled trial as the only study design that can determine causal relationships; however, this type of study design was not feasible for this project. As a result, we used a cross-sectional design for each of these four studies. This approach limits the degree to which we can attribute our findings to the direct impact of the GameSense program. This caveat is vital when considering the findings of this evaluation.

THE REPORTS

The first report (Wave 1; Gray, LaPlante, Keating, & Shaffer, 2016) in this series presents data collected between December 1st, 2015 and May 31st, 2016. The Wave 1 report includes (1) information recorded by GameSense Advisors about their daily activities and (2) feedback surveys completed by casino patrons who spoke with GameSense Advisors about responsible gambling or problem gambling. These surveys focused mostly on patrons' satisfaction with the program. Because the impacts of a public health program tend to change over time and because we wanted to ask patrons questions about responsible gambling knowledge and behavior, we provided a follow-up report (Wave 2; Gray, LaPlante, Keating, & Shaffer, 2017) using information obtained in the same manner, from August 8th 2016 through February 7th, 2017. The Wave 2 report also included an additional survey for casino patrons who had interacted with GameSense Advisors more than once.

The third report (Gray, LaPlante, & Shaffer, 2017) comprised a secondary analysis of data collected by the Social and Economic Impact of Gambling in Massachusetts team (SEIGMA). From February 20th to 29th, 2016, and again from July 30th to August 8th of 2016, the SEIGMA research team surveyed PPC patrons about several topics, including their impressions of the GameSense program.

Finally, the fourth report in this collection (Gray, LaPlante, Conte, & Shaffer, 2018) summarizes the results of a survey distributed to PPC employees on May 24th and 25th, 2017. The employee survey inquired about employees' impressions of GameSense and level of interaction with the program. Casino workers are in a position to refer casino patrons to GameSense Advisors; in addition, they are a population vulnerable to experiencing gambling-related disorders. Therefore, this report focused on PPC employees as both a target population for responsible gambling interventions as well as potential influencers of the intervention's reach and effectiveness.

We encourage readers to take all four reports in this series together to provide an initial assessment of the impact of the GameSense program at PPC. We have taken a multi-method approach to this evaluation, using both surveys and a census of activities, and we have studied surveys completed by two samples of GameSense visitors, one sample of PPC visitors, and one sample of PPC employees. Combining the findings from four different samples of the target population provides a picture of the program's impact that is more complete than any single report taken in isolation. Similarly, all four reports contribute to the investigation of whether the GameSense program is *harmful* to those that it is intended to help.

Finally, the Wave 2, SEIGMA, and PPC Employee surveys attempt to establish associations between GameSense exposure and responsible gambling knowledge or behavior. Wave 2 studies this connection by exploring whether casino patrons who interact with GameSense Advisors repeatedly report better knowledge of responsible gambling concepts or healthier gambling behavior than those with less interaction. The SEIGMA and PPC employee survey reports explore whether respondents who had interacted with a GameSense Advisor were likely to report having changed their gambling strategies, compared to respondents who had not interacted with a GameSense Advisor. The PPC employee report further investigates whether exposure to GameSense Advisor was associated with an employee's likelihood to refer patrons to GameSense.

ORGANIZATION OF THE COMPENDIUM

In the following sections, we provide these four reports in full. They are written and described such that they can stand alone or be read as successive chapters. Subsequently, we provide a comprehensive summary of a set of recommendations we made, on the basis of these reports, for improving the GameSense program at PPC. We include MGC's responses to these recommendations. These recommendations and responses describe the current status of the evaluation feedback loop (Figure 1.1) as applied to the GameSense program at PPC. Finally, we close with our general evidence-informed impressions of GameSense.

Chapter Two: Summary Analysis of the Plainridge Park Casino GameSense Program Activities & Visitor Survey: December 1, 2015 - May 31, 2016

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Introduction

2.1. BACKGROUND

During November 2011, Massachusetts Governor Deval Patrick signed legislation allowing for gambling expansion across the Commonwealth, including up to three destination resort casinos and one slots facility. The Gaming Act created the Massachusetts Gaming Commission (MGC), an independent body tasked with overseeing the licensing and implementation of new gaming venues. The MGC was also tasked with establishing a research agenda to study the social and economic consequences of expanded gaming, among other responsibilities.

The 2011 legislation includes several mandates designed to mitigate potential social harm associated with new gambling opportunities. Among these mandates is the requirement for each newly licensed gaming operator to "provide complimentary on-site space for an independent substance abuse, compulsive gambling, and mental health counseling service" ("Bill H03697," 2011)[1] to be selected by the Commission.

During September 2014, the Commission adopted a Responsible Gaming Framework to inform all responsible gambling-related regulations. Strategy 2.3 of the Responsible Gaming Framework (Massachusetts Gaming Commission, 2014a) specifies that operators will meet the on-site space requirement by providing for the establishment of responsible gambling information centers (RGICs). The Framework further specified providing player education as the central goal of the RGICs.

During Fall 2014, the Commission adopted the GameSense brand, developed by the British Columbia Lottery Corporation (BCLC), to unify and market the operations of the RGICs. Commission Chairman Steve Crosby stated that the GameSense marketing and branding package is "intended to engage players and the public with responsible gaming and problem gambling information and tools while removing the stigma often associated with accessing these resources (Massachusetts Gaming Commission, 2014b)".

When Plainridge Park Casino opened its doors during June, 2015, the GameSense program operating inside it became the first RGIC operating in the United States. The MGC contracted with the Massachusetts Council on Compulsive Gambling (the MCCG) to staff the GameSense program. Staff members of the GameSense program are called GameSense Advisors (GSAs).

The MGC has contracted with the Division on Addiction at Cambridge Health Alliance to provide an evaluation of the GameSense program at Plainridge Park Casino. The Division has worked with the MGC and MCCG to develop this evaluation, and this evaluation's protocol reflects contributions from all organizations. This report summarizes data collected using two instruments designed jointly by the Division, the MGC, and the MCCG. This report summarizes data collected during the period December 1, 2015 through May 31, 2016.

2.2. UNDERSTANDING RESPONSIBLE GAMBLING

Responsible gambling (RG) is a term that incorporates a variety of concepts aimed at reducing the incidence and prevalence of gambling-related harms experienced at an individual and societal level. These concepts include consumer protection, community/consumer/staff awareness and education, and access to reliable help services and mental health treatment.

[1] https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter194

A group of international researchers developed the Reno Model (Blaszczynski, Ladouceur, & Shaffer, 2004), which was the seminal architecture for developing RG programs. The Reno model provides a structural framework that shapes the development, maintenance, evaluation and ethical application of RG concepts and activities. These activities can be integrated with existing public health policy, gambling industry corporate social responsibility programs, and other health care operations (Blaszczynski et al., 2011; Blaszczynski et al., 2004; Collins et al., 2015; Ladouceur, Blaszcynski, Shaffer, & Fong, in press; Shaffer, Ladouceur, Blaszczynski, & Whyte, 2016). The purpose of an RG initiative is to establish organized strategies that encourage patrons to gamble responsibly. These initiatives also rely on the gambling providers to ensure their patrons are aware of the potential risks associated with gambling (Blaszczynski et al., 2011). Once an RG initiative has been established, researchers can empirically test the effectiveness of the initiative on gamblers.

Four common elements found in RG initiatives are (1) pre-commitment, (2) self-exclusion, (3) treating comorbid conditions, and (4) evaluating treatment outcomes (Shaffer et al., 2016). Other RG initiatives are possible. Currently, there is little scientific evidence that suggests common RG initiatives are effective in preventing gambling-related harm (Shaffer et al., 2016). Research regarding pre-commitment (i.e. allowing patrons to set monetary and/or times limits on their gambling) is currently inconclusive (Ladouceur, Blaszczynski, & Lalande, 2012). Self-exclusion programs appear to have a positive short-term impact but, as time goes on, these programs have a declining impact (Ladouceur & Lachance, 2007). Because co-morbid conditions (e.g., depression, anxiety, substance use disorders) frequently appear in the population of individuals with gambling-related problems (Abbott, Williams, & Volberg, 2004; Kessler et al., 2008), allocating resources to identify and intervene with patrons who have, or are at risk for having, mental health/substance use disorders might advance the central goals of responsible gambling. With regard to the fourth common element of RG initiatives, the Reno model group recently argued that despite the costs of evaluating gambling treatment outcomes, "the onus remains on the clinician to guarantee that the intervention offered is in the best interest of the client (beneficence), does no harm (maleficence), and is not only based on empirical evidence but also administered in a competent and effective manner" (Shaffer et al., 2016, p. 306). Though Shaffer et al. (2016) focused on evaluating treatment outcomes in the context of therapy, the same ethical considerations apply to evaluating the outcomes of population-based responsible gambling programs. In particular, rigorous evaluation can help ensure that responsible gambling problems aimed at casino patrons and employees do no harm and are administered in a competent and effective manner. In the following section, we describe the rationale for, and process of, evaluating responsible gambling programs.

2.3. Rationale for Evaluating Responsible Gambling Programs

One potential social consequence of expanded gaming is the development of gambling problems among casino patrons and employees. Responsible gambling programs hold the potential to minimize gambling problems among these groups. However, the safety and efficacy of responsible gambling programs is uncertain in the absence of rigorous evaluation. Testing whether a program does no harm to its target audience is just as important as testing whether it reduces harm.

As Figure 2.1 illustrates, an effective evaluation begins at the earliest stages of the development of any responsible gambling program. Planners should develop, implement, and refine data monitoring systems in tandem with the responsible gambling program itself. The data monitoring system should allow program staff to gather all the data necessary for a thorough evaluation; ideally, it will not substantially burden program staff. To allow evaluators to draw conclusions about the effectiveness of the responsible gambling program, the monitoring system must monitor not just outcomes (i.e., knowledge, attitudes,

and behavior change after contact with the responsible gambling program), but also program process and penetration (i.e., the extent to which the program is reaching its target audience). Evaluators can use inputs such as the number of patrons and employees exposed to the responsible gambling program, and the extent of patrons' and employees' involvement with the program, to assess program penetration. Evaluators often use patron and employee surveys to measure program outcomes such as responsible gambling behavior and awareness of resources, ideally using a longitudinal design. The evaluation team should meet on a regular basis with the program staff to check for issues with data monitoring. Additionally, the evaluation team should analyze data on a regular basis and report findings to key stakeholders, including program planners and staff, creating a data-driven feedback loop that further enhances the responsible gambling program. This knowledge increases the evidence base for the program, essentially "training" it to be more useful over time. This report represents the first cycle of this evaluation loop.

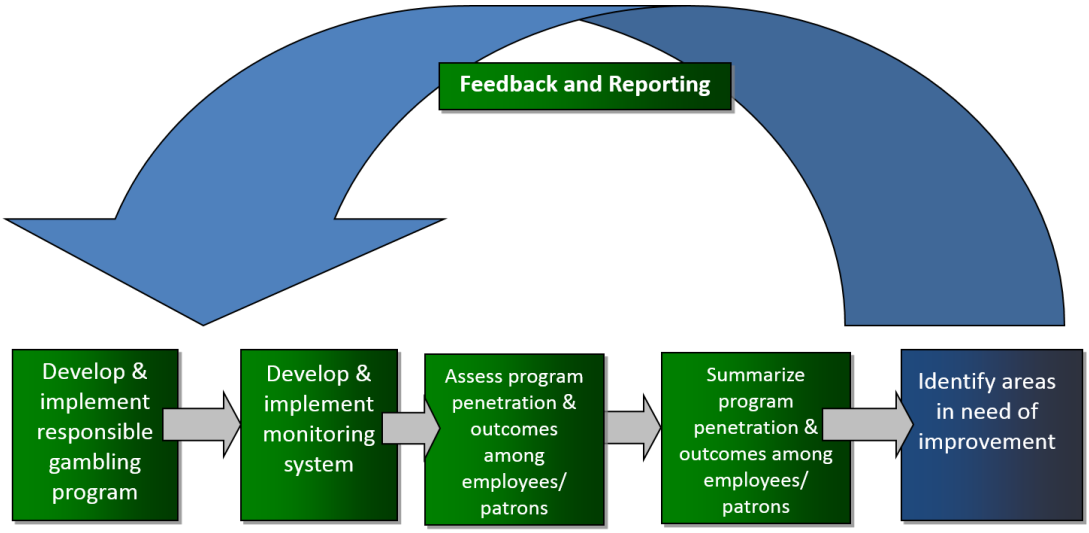


Figure 2.1: Feedback Evaluation Loop as Applied to Responsible Gambling Programs

2.4. Responsible Gambling Information Centers

RGICs are typically designed as part of a broader mission to mitigate potential harms associated with gaming expansion. One 2007 evaluation of two Ontario RGICs indicated that visitors were satisfied with the information they received and gave the staff high ratings in terms of their approach, knowledge, and helpfulness (The Osborne Group, 2007). Boutin, Tremblay, and Ladouceur (2009) went a step further in their evaluation of an onsite information center located in Montreal, Quebec. In addition to providing a profile of visitors (i.e. most were seniors, occasional slot machine players, who reported being "always in control" of their gambling), these researchers examined change over time in visitors' gambling beliefs and behavior. Compared to control group participants, participants who visited the onsite information center had more improvement in their knowledge about randomness within slot machine play. However, neither group changed their gambling behavior after visiting the center. Boutin et al. (2009) called for further study of the responsible gambling impact of these centers. This report represents a step in this direction.

2.5. Evaluation Goal 1: Conduct an Epidemiology of Services

As mentioned earlier, the GameSense program at Plainridge Park Casino is the first of its kind in the United States. Few studies have evaluated RGICs in any jurisdiction. Therefore, our first goal was to provide a basic epidemiology of services. Our specific Research Questions were as follows:

(1) How many interactions of each type are GSAs having with visitors? How many visitors are involved in these interactions? How frequently do GSAs transition from one type of interaction to another?
(2) How are GSAs dividing up the workload?
(3) How are GSAs using the available space?
(4) What are peak times for visitor interactions?
(5) What are the characteristics of visitors to the GameSense program?

2.6. Evaluation Goal 2: Evaluate Progress toward Stated Goals

We sought to evaluate the GameSense program at PPC according to a clear set of program goals. We used public documents and program planners' public comments to summarize program goals. Various sources describe the goals of GameSense and GSAs in different ways, including whether the GSAs would have clinical training and would be asked to perform clinical duties, such as brief interventions (Massachusetts Council on Compulsive Gambling, 2016; MCG, 2014c). This evolving variety of purpose creates some challenges for describing the full set of program goals. However, according to the MGC, the *primary* goal of the RGICs within new gambling venues currently is to "communicate and promote responsible gaming information and resources and programs in Massachusetts (MCG, 2014d)" The MGC describes GameSense as "… an innovative and comprehensive Responsible Gaming strategy… to encourage responsible play and mitigate problem gambling" (MGC, 2016). The Responsible Gaming Framework (MGC, 2014a) further specifies that RGIC staff should share with patrons responsible gambling tips, knowledge of how games work, and the inaccuracies and dangers of common gambling myths. This goal derives from the observation that people who hold irrational gambling-related beliefs (e.g., "It's my lucky day – I should buy a lottery ticket;" "I've lost four times in a row, so I must be due a win") are more likely than others to experience, and persist in experiencing, gambling problems (e.g., Ladouceur & Walker, 1998; Leonard & Williams, 2016; Toneatto, Blitz-Miller, Calderwood, Dragonetti, & Tsanos, 1997).[2] Moreover, MGC's Director of Research and Responsible Gaming, Mr. Mark Vander Linden, recommended that the Commission take a population-based approach to all its responsible gambling initiatives, including GameSense, applying its messaging "across prevention, across intervention, across treatment, and across recovery (MCG, 2014d)".

Therefore, this evaluation will consider the extent to which the GameSense program at Plainridge Park Casino is meeting **the goal of providing responsible gambling information and resources across the spectrum of needs**. Specific research questions are as follows:

(6) What actions are GSAs taking during these interactions?
(7) What do visitors say they are learning during these interactions?

[2] Therapies that encourage patients to recognize and correct their cognitive distortions (i.e. cognitive restructuring) often help patients reduce their gambling and feel more in control (Fortune & Goodie, 2012). On the other hand, there is little evidence that simple mathematical education, such as information about gambling probabilities, is useful for changing gambling behavior. In reviewing this evidence, Fortune and Goodie (2012) suggest that individuals fail to translate abstract facts about gambling to their own gambling. More broadly speaking, previous attempts to educate and inform the public as a strategy to prevent risk decision-making associated with psychoactive substance use, though well intentioned, have not met specified goals (Ennett, Tobler, Ringwait, & Flewelling, 1994; Tobler, 1986).

(8) What do visitors say about how these interactions might affect their gambling behavior?

During a December 2014 MGC Open Meeting, representatives of the MGC, the MCCG, and Penn National (the operator of Plainridge Park Casino) identified three additional goals of the new RGICs. First, they specified that the RGICs should have universal appeal. Director Vander Linden identified limited appeal as a potential weakness of RGICs and recommended the GameSense brand partly on the basis of its presumed appeal to all players, not just those with problems. Ms. Marlene Warner, Executive Director of the MCCG, echoed this sentiment when she praised the GameSense brand for its presumed appeal to both recreational gamblers as well as those interested in self-exclusion; she suggested that the GameSense program "really needs to meet a continuum of the needs in terms of the folks interested in walking in" (MGC Open Meeting, 2014a). Therefore, we evaluated the extent to which the GameSense program at Plainridge Park Casino is meeting **the goal of appealing to a wide audience**. Specific research questions are as follows:

(9) According to visitors, who might benefit from GameSense services?
(10) What are the concerns, if any, of those who interact with GameSense Advisors?
(11) Do those who interact with GameSense Advisors report extensive gambling histories and gambling-related problems?

The British Columbia Lottery Corporation developed GameSense as part of its mission to move away from the image of the "gambling police" and toward that of a "friendly helper" or "supportive peer" (Smith, 2014, p. 8); their goal was to attract the widest possible audience by appearing "trustworthy, proactive, effective, and transparent" and "friendly, genuine and helpful." When it adopted the GameSense brand and programming during Fall 2014, the MGC signaled that it recognized the importance of RGIC staff building a working alliance with casino patrons. A working alliance[3] is a collaborative relationship between a therapist and client, marked by an affective bond and agreement between the therapist and client on treatment goals and tasks (Martin, Garske, & Davis, 2000). Strong working alliances predict diverse positive outcomes such as medication adherence, fewer symptoms of PTSD, and less frequent marijuana use (as reviewed by Martin et al., 2000). RGICs are not therapeutic environments but still have the potential to promote healthy behavior change, and the establishment of a strong working alliance between GameSense Advisors and casino patrons might mediate such change. Therefore, we generated several research questions to evaluate the extent to which the GameSense Advisors are meeting **the goal of establishing strong working alliances with patrons**:

(12) To what extent are visitors satisfied with GameSense services?
(13) What are visitors' impressions of GameSense Advisors?
(14) Do visitors report that their concerns, if any, have been resolved following discussions with GameSense Advisors? Do their reports vary according to GSA?
(15) Are members of different demographic groups (e.g., men versus women, older patrons versus younger patrons) equally responsive to GameSense services?

Finally, stakeholders emphasized the need for the GameSense program to be highly visible and centrally located within the casino in order to attract as many casino patrons as possible. At the same time, Director Vander Linden emphasized the need to spread the GameSense message beyond the casino, "within online media, within other types of branding opportunities in the community" (MGC Open Meeting, 2014b). As mentioned, the concept of a Responsible Gambling Information Center is entirely new to the United States. Some specific research questions followed from **the goal of attracting visitors from both inside and outside the casino:**

[3] Researchers tend to use the terms "working alliance," "therapeutic alliance," "therapeutic bond," and "helping alliance" to refer to therapist-client alliances marked by collaboration, an affective bond, and shared treatment goals and tasks.

(16) How did visitors first hear about GameSense? What proportion of visitors learned about GameSense onsite, versus outside the casino?

We addressed these 16 research questions using a combination of data sources. For some questions, we summarized the self-recorded activities of the GSAs who staff the GameSense program. For other questions, we summarized visitors' responses to brief surveys. We addressed some questions using both data sources. We note from the outset that the conclusions we draw based upon Visitor Survey data are limited because the MGC only allowed for surveying visitors who had the highest level of engagement with GSAs, as defined in the next section.

This report is one component of a larger Division on Addiction evaluation that will integrate several sources of information concerning the effectiveness of the GameSense program. In addition to the current report, we intend to assess the relationship between GameSense contact, diversely defined, and visitors' gambling knowledge and behavior, and the perceived value of the GameSense program among Plainridge Park Casino employees. Additionally, we intend to evaluate the other two responsible gambling initiatives deployed in the new Massachusetts gambling venues (i.e. Play My Way, the voluntary play management system and the voluntary self-exclusion program).

Methods

2.7. PROCEDURES

2.7.1. Setting

Plainridge Park Casino (PPC) opened on June 24, 2015. It is a 106,000 square foot facility with 1,250 gaming units. During the window of observation, four full-time staff served as GameSense Advisors. In this report, for privacy purposes, we refer to them as GSAs #1-4. GSAs were on duty from 10am to 2am each day. The GameSense Info Center is located on the pathway from the parking garage elevators to the casino floor.

2.7.2. Checklist

Purpose and Development

The GameSense Checklist was intended to be a record of all interactions between GSAs and visitors. Throughout this report, we use the term "visitor" to refer to an individual who interacted with a GSA within the context of GameSense services, either within the GameSense Info Center or elsewhere in the casino. Visitors could be PPC patrons, PPC employees, or others.

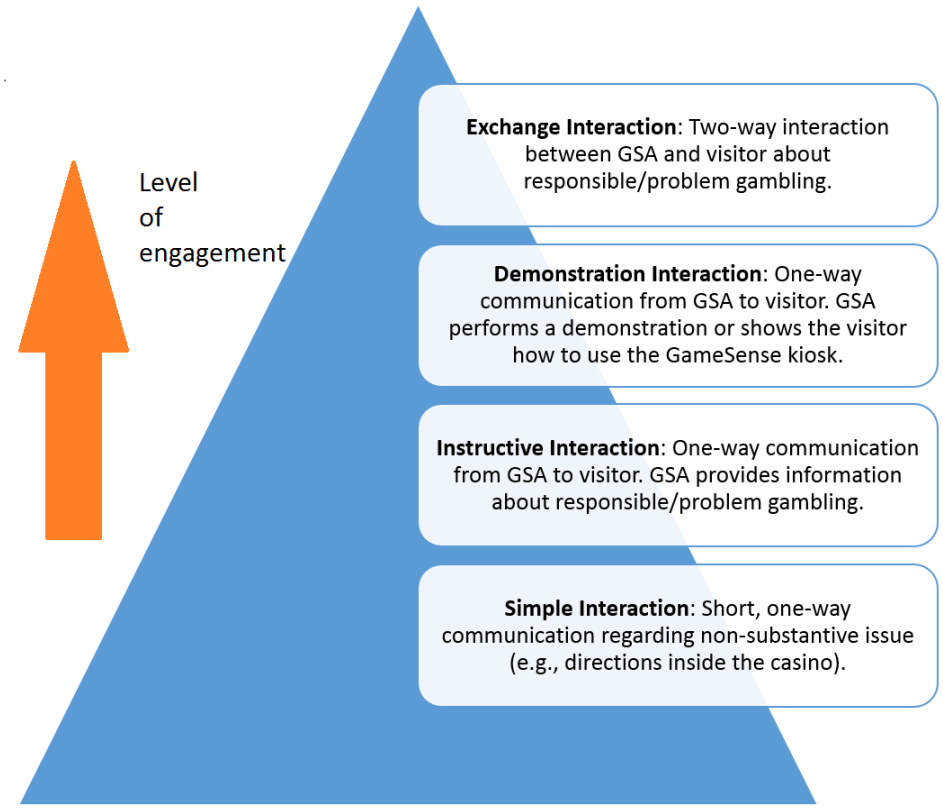
During the development of the GameSense program, the Division on Addiction emphasized that Checklist data composed an enduring GameSense record keeping system for the Commonwealth of Massachusetts. The Division on Addiction, the MGC, and the MCCG developed the Checklist collaboratively and made changes as necessary to maximize the amount of collected information and minimize administrative burden for the GSAs.

Interaction Categories

Before PPC opened, we developed a system for classifying GSAs' interactions with visitors. This system was necessary to facilitate accurate completion of the Checklist. We improved this system during the months after PPC opened based on GSA feedback. Figure 2.2 provides interaction definitions that the GSAs used to classify their visitor interactions beginning on December 1, 2015. GSAs used four mutually-

exclusive categories: (1) Simple (i.e. short, one-way communication regarding non-substantive issue, such as providing directions or a simple greeting); (2) Instructive (i.e. longer, one-way communication from GSA to visitor regarding responsible gambling or problem gambling); (3) Demonstration (i.e. longer, one-way communication centered around a demonstration, such as the marble game or use of the GameSense kiosk); and (4) Exchange (i.e. two-way interaction about responsible gambling or problem gambling).

Figure 2.2: Interaction Definitions



Interactions often shifted from one category to another. Therefore, we asked GSAs to classify the interaction according to the *highest level of engagement* present in the interaction. To measure how often interactions transitioned from one type to another, we asked GSAs to record whether the interaction began as a different type. For instance, if an interaction began as Simple but transitioned into Instructive, the GSA categorized it as Instructive but indicated that it began as Simple.

Data Collection

We instructed the GSAs to complete a Checklist following all of their visitor interactions. In order to maintain the accuracy of the information, we instructed the GSAs to record their interactions as soon as possible after they occurred. GSAs completed the Checklist on a tablet computer using online survey software (i.e., Survey Monkey). We collected no personally identifying information about visitors within the Checklist.

Though we report on the total number of visitors represented in the Checklists, we note that this number does not reflect *unique* visitors. Visitors could be counted more than once.

2.7.3. Visitor Survey

Eligibility and Procedures

The Division on Addiction, the MGC, and the MCCG developed the Visitor Survey collaboratively. We intended the survey to provide insight into visitors' responses to the GameSense activities. We instructed GSAs to ask all visitors with whom they had an Exchange interaction to complete a survey at the completion of the interaction, with two exceptions. Visitors who indicated that they had already completed a survey were not eligible for participation. Visitors who completed a voluntary self-exclusion were also ineligible. As with the Checklist, the Visitor Survey provided no identifying information about visitors. We restricted visitor surveys to Exchange interactions at the direction of the MGC. Therefore, this report cannot reveal visitors' impressions of Simple, Information, or Demonstration interactions.

Respondents typically completed the surveys via paper-and-pencil and returned them to an onsite drop box. Completed surveys were taken to the MGC for data entry into Survey Monkey. Respondents were provided a small gift in exchange for completing the survey. They used GameSense-branded merchandise in an attempt to spread awareness of the program. During internal discussions, some GSAs mentioned that they used the small gift to incentivize visitors not only to complete the survey, but also to have a back-and-forth conversation in the first place.

It is important to note that although this report treats all responses independently, as if they were all provided by unique visitors, it is possible that some respondents contributed more than one survey. Because we did not ask respondents to provide any identifying information, we have no way to ensure that surveys are truly independent from each other.

The Visitor Survey was one-page long. We maximized the breadth of questions while minimizing respondent burden by developing six versions of the Visitor Survey. As described in more detail below, most questions were included in only one version. Some questions were included in more than one version. The Appendix provides the full set of six Visitor Surveys.

We developed a Spanish-language copy of Version 1 for use with visitors who preferred to speak and write in Spanish. When we sought translation services during Fall 2015, Version 1 was the only survey version ready for translation.

Response Rate

We calculated an approximation of response rate for the Visitor Surveys using (1) the total number of eligible visitors involved in Exchange interactions (as revealed by Checklist data) during the window of observation (December 1, 2015-May 31, 2016) and (2) the total number of Visitors Surveys entered into Survey Monkey dated during the window of observation. As Figure 2.3 illustrates, GSAs reported that they had Exchange interactions with 1,155 eligible visitors, and MGC staff entered 982 Visitor Surveys dated between December 1, 2015-May 31, 2016. Therefore, the estimated response rate is 85.0% (i.e. 982/1,155). This approximated response rate is acceptable for research of this kind and should yield a sample that is representative of visitors who participated in Exchange interactions with GSAs (Singleton & Straits, 2005).

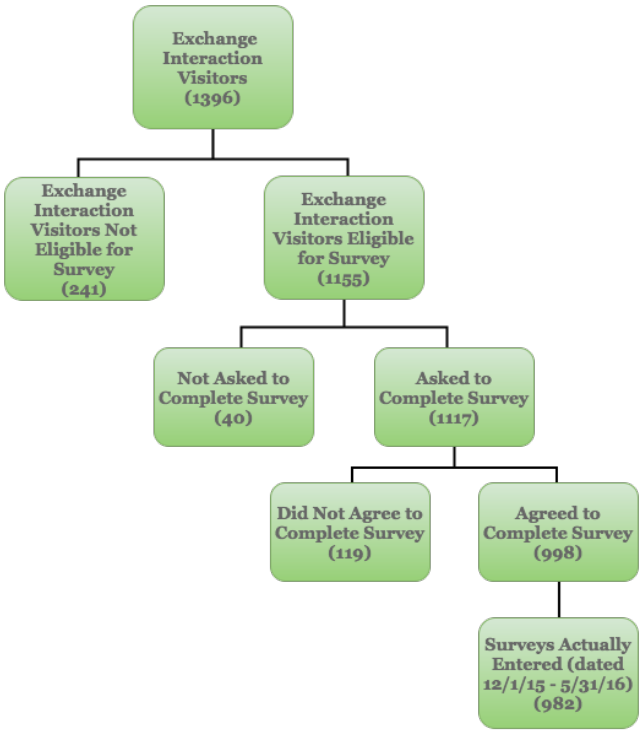


Figure 2.3: Response Rate Calculation Flowchart

The 982 completed surveys were fairly evenly divided among the six survey versions:

- 159 Version 1 surveys were completed (including 10 completed in Spanish).
- 162 Version 2 surveys were completed.
- 166 Version 3 surveys were completed.
- 171 Version 4 surveys were completed.
- 144 Version 5 surveys were completed.
- 180 Version 6 surveys were completed.

2.7.4. Human Subjects Protection

We documented with the Cambridge Health Alliance Institutional Review Board that our activities (i.e. secondary analysis of Checklist and Visitor Survey records) did not represent human subjects research under the federal guidelines.

2.8. Measures: Evaluation Goal 1: Conduct an Epidemiology of Services

In this section, we organize our description of the questions included in the Checklist and/or Visitor Survey according to the research questions outlined previously.

2.8.1. Services Provided

How many interactions of each type are GSAs having with visitors? How many visitors are involved in these interactions?

Checklist

The Checklist first asked GSAs to record which type of interaction they completed: Simple, Instructive, Demonstration, or Exchange. It also asked how many visitors were involved in the interaction.

These questions allowed us to calculate the number of each type of interaction and the number of visitors per interaction type GSAs completed.

How frequently do GSAs transition from one type of interaction to another?

Checklist

For Instructive, Demonstration, and Exchange interactions, the Checklist asked the GSAs to report whether the interaction began as a different type and, if yes, what type. Because our categorization system asked GSAs to classify the interaction using the highest level of engagement, interactions could only transition from a lower level to a higher level. For instance, an Exchange interaction could have started as a Simple, Instructive, Demonstration, or Exchange interaction. However, an Instructive interaction could only have started as a Simple or Instructive interaction. A Simple interaction could not have started as anything else.

2.8.2. GSA Workload

How are GSAs dividing up the workload?

Checklist

The GSAs recorded their name each time they completed a Checklist. This allows us to calculate the proportion of all interactions accounted for by each GSA.

Visitor Survey

Respondents also provided the name of the GSA with whom they spoke. In some cases, the GSAs wrote their names information in directly. As with all Visitor Survey questions, their responses can only inform us about Exchange interactions.

2.8.3. Available Space

How are GSAs using the available space?

Checklist

For Instructive, Demonstration, and Exchange interactions, GSAs identified where the interaction took place (i.e., In the GameSense Info Center, On the casino floor, Pari-mutuel wagering, By website, Restaurant, or Back of house/employee area).

2.8.4. Peak Times

What are peak times for visitor interactions?

Checklist

For all interaction types, Survey Monkey recorded the date and time an individual Checklist was launched and submitted as the start date and end date, respectively. GSAs had the opportunity to enter a different start date and time to indicate that an interaction happened previously. They did so 3,646 times. In these cases, we used the GSA-entered start date and time instead of the information that Survey Monkey automatically recorded. We used start date and times to examine

date/time trends in interactions. For Exchange interactions only, GSAs indicated the approximate duration of the interaction.

Visitor Survey

The Visitor Survey allowed us to examine peak times in survey completion. The first two questions asked for the date and time of the survey completion.

2.8.5. Visitor Characteristics

What are the characteristics of visitors to the GameSense Program?

Checklist

One section of the Checklist asked questions about GSAs' impressions of visitors involved in each interaction. The GSAs were asked to estimate the gender (man or woman) and age (between 18-30, 31-50, 51-70, or age 71 or older) of each visitor, for up to 2 visitors. Additionally, the GSAs described visitors in terms of type (i.e. casino patron, concerned other, casino employee, or other). The GSAs were asked if the visitor appeared (1) irritable, anxious or angry, (2) sad, (3) otherwise distressed, (4) to be under the influence of alcohol or other drugs, or (5) to be experienced with gambling. GSAs could select as many of these characteristics as applied to each visitor. We report responses to these questions within the context of Exchange interactions only.[4]

We were interested in whether visitors were having repeated interactions with GSAs. For the bulk of the study period, we asked the GSAs to report whether they had had a previous interaction with the visitor with whom they had a Simple, Instructive, Demonstration, or Exchange interaction. Although GSAs might have reported engaging with more than one visitor within a single interaction, they were asked this question only once per interaction. If GSAs responded yes," the Checklist prompted them record what type(s) of interaction(s) they previously had with the visitor (i.e., Simple, Instructive, Demonstration, or Exchange).[5]

Visitor Survey

In the Visitor Survey, respondents identified themselves in terms of (1) gender, (2) race, (3) ethnicity, (4) age, and (5) highest level of school completed. All versions of the survey included all five of these questions.

2.9. Measures: Evaluation Goal 2: Evaluate Progress toward Stated Goals

2.9.1. Provide Information and Resources across the Spectrum of Needs

[4] Initially, we programmed the Checklist such that these questions would only appear when GSAs select Exchange interactions. Our goal was to minimize GSA burden. On May 6, 2016, in an effort to gather more complete data, we made changes to the Checklist so that these questions also were asked for Instructive and Demonstration interactions as well. Because the sample for Instructive and Demonstration interactions from 12/1/15 to 5/5/16 is so small, we limit the findings of this report to Exchange interactions that took place throughout the entire study period (12/1/15-5/31/16).

[5] On May 6, 2016, we improved the Checklist so that if GSAs reported engaging with 2 visitors, they were prompted to report on previous interactions separately for each visitor, for up to 2 visitors. At the same time, we removed this section from the Simple Interaction Checklist. In this report, we only include previous interactions data collected between December 1, 2015 to May 5, 2016, inclusive and for all four interaction types.

What actions are GSAs taking during these interactions?

Checklist

After Instructive and Exchange interactions, GSAs described what actions they took. GSAs could check as many actions as applied. Response options for Instructive interactions included (1) I provided information about responsible gambling, (2) I provided information about Play My Way, (3) I provided information about the Helpline, and others. Response options for Exchange interactions included (1) I provided written information, (2) I provided information or advice verbally, (3) I enrolled the patron in Play My Way), and others. After Demonstration interactions, GSAs indicated which of two possible actions they took: (1) performed a demonstration to illustrate a responsible gambling concept or (2) assisted the visitor with using the GameSense kiosk.

What do visitors say they are learning during these interactions?

Visitor Survey

We asked respondents to recall the kinds of information they learned during interactions with GSAs. Version 1 included the question, "*Did you learn about any of the following during your conversation with the GameSense Advisor?*" Version 2 asked this question in a slightly different way: "*Did the GameSense Advisor share information about any of the following with you?*" In both cases, response options ranged from less serious to more serious. They included (1) strategies to keep gambling fun, (2) the Play Management system: what it is, how it works, (3) how gambling works, (4) a referral for gambling treatment, (5) how to get other support for gambling-related problems, (6) how to get legal or financial help, (7) the voluntary self-exclusion program, and (8) none of these. For both of these questions, visitors could check multiple response options.

What do visitors say about how these interactions might affect their gambling behavior?

Visitor Survey

In Version 5, we asked, "*As a result of your conversation with the GameSense Advisor, will you...*" Response options included (1) visit the GameSense website, (2) tell someone about the GameSense Info Center, (3) call the problem gambling helpline, and others. Respondents could select multiple options.

2.9.2. Appeal to a Wide Audience

According to visitors, who might benefit from GameSense services?

Visitor Survey

In Version 4 we asked, "*Which groups of people might benefit from having a conversation with a GameSense Advisor?*" Respondents could select as many answer choices as they wished; options

were (1) anyone who gambles, (2) people at risk for developing a gambling problem, (3) people who have a gambling problem, and (4) other.

What are the concerns, if any, of those who interact with GameSense Advisors?

Checklist

After Exchange interactions, GSAs summarized visitors' initial concerns (e.g., the visitor wanted help or information about responsible gambling, the visitor needed information about the Helpline, the visitor wanted a referral for treatment for problem gambling). We defined responsible gambling information in this context as "how to play the games, odds of winning/losing, gambling myths, house advantage, randomness, how to keep gambling fun."

Visitor Survey

Included in all versions of the survey was the question, "*Did you have any of the following concerns when you began your conversation with the GameSense Advisor?*" Response options included (1) being curious about GameSense, (2) wanting to learn more about how gambling works, (3) wanting to learn more about or enroll in voluntary self-exclusion, and others.

Do those who interact with GameSense Advisors report extensive gambling histories and gambling-related problems?

Visitor Survey

We asked visitors two questions about their gambling history. In Version 3, we asked, "*Which of the following have you done in the last year?*" We listed 9 types of gambling activities and instructed respondents to endorse as many as applied to them. We used respondents' answers to describe their gambling histories; "extensive gambling history" is not a formal term but is instead our way of describing respondents who report engaging in more rather than fewer forms of gambling during the past year. To identify the extent of visitors' gambling-related problems, we asked in survey Version 4, "*Have you ever had any of these problems with your gambling?*" Response options were (1) I had money problems because of my gambling, (2) I had problems with friends or family members because of my, (3) I had problems at work because of my gambling, (4) I had legal problems because of my gambling, (5) I had problems with my physical health because of my gambling, (6) I had problems with my mental health because of my gambling, (7) I was cheated while gambling, and (8) I had some other kind of problem because of my gambling. Respondents could select as many answers as applied to them.

2.9.3. Establish a Strong Working Alliance with Visitors

To what extent are visitors satisfied with GameSense services?

Visitor Survey

Survey 6 included the question, "*How satisfied are you with your interaction with the GameSense Advisor*?" Response options were (1) not at all satisfied, (2) slightly satisfied, (3) moderately satisfied, (4) very satisfied, and (5) extremely satisfied.

We used several other questions to study visitors' responses to GameSense services. Some of these questions concerned the GameSense Info Center itself: we asked those who visited the GameSense Info Center (1) whether their visit enhanced their visit to PPC, (2) whether it detracted from their

visit to PPC, and (3) whether they would visit the GameSense Info Center again. These questions were included in Versions 2 and 5. Version 3 asked whether visitors they felt the GameSense Info Center space was private and whether it was comfortable.

What are visitors' impressions of GameSense Advisors?

Visitor Survey

One multi-part question included in Version 1 tapped visitors' impressions of the GameSense Advisors with whom they interacted. This question was worded, "*My GameSense Advisor… was caring, was helpful, was knowledgeable, and listened to me*." Visitors were asked to select one response per question stem, and response options were (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, and (5) strongly agree.

Do visitors report that their concerns, if any, have been resolved following discussions with GameSense Advisors? Do their reports vary according to GSA?

Visitor Survey

To assess visitors' impressions of how well GSA answered their questions or resolved their concerns we asked, "*To what extent was your primary question answered or your primary concern resolved?*" Response options were (1) not at all, (2) somewhat, and (3) completely. For this question, which was included in all versions of the survey, visitors could only provide one response. After describing trends across all Visitor Surveys, we examined trends separately according to the particular GSA(s) with whom the respondent met.

Are members of different demographic groups (e.g., men versus women, older patrons versus younger patrons) equally responsive to GameSense services?

Visitor Survey

We conducted interaction analyses to test the null hypothesis that visitors with different characteristics (e.g., gender, age, highest level of education) provided similar responses to survey questions. For these tests, we focused on three key outcomes: (1) whether the visitor reported that his/her concern was completely resolved; (2) the visitor's reported satisfaction with the services provided; and (3) the visitor's impressions of the GSA with whom he/she spoke. We conducted these tests to learn more about the potential need to target GameSense services to particular groups of visitors. As a hypothetical example, if women visitors report less satisfaction with GameSense services than men, this finding would suggest that GSAs need to improve their interactions with women.

2.9.4. Attract Visitors from both Inside and Outside the Casino

How did visitors first hear about GameSense? What proportion of visitors learned about GameSense onsite, versus outside the casino?

Visitor Survey

We used two questions to learn about visitors' awareness of the GameSense Info Center before they arrived at the casino. The first question, included in Versions 2 and 5, was "*Did you know about the GameSense Info Center before today's visit?*" Another question, included in Version 6, was "*Have you heard about the GameSense Info Center from any of these sources?*" Response options included (1)

walking by it, (2) seeing an ad, (3) reading about it in the newspaper, and others. Respondents could select multiple options.

Who initiated interactions between GSAs and visitors?

Checklist

To understand how GSA-visitor interactions emerged, we asked GSAs "*How did the interaction begin?*" We asked this question only in the context of Exchange interactions. Answer choices were (1) I approached the visitor(s), (2) the visitor(s) approached me, (3) security introduced the visitor(s) to me, (4) another casino employee introduced the visitor(s) to me, (5) state police introduced the visitor(s) to me, (6) a gaming agent introduced the visitor(s) to me, and (7) a concerned other introduced the visitor(s) to me). GSAs could select only one answer.

2.10. General Comments

At the end of all versions of the survey, visitors were asked to provide comments on their experiences.

2.11. Analytic Plan

2.11.1. Checklist

We generated descriptive statistics for all Checklist variables. More specifically, we present frequency distributions to summarize GSAs' responses to each Checklist question. Where appropriate, we present additional descriptive statistics, such as mean, standard deviation, and range.

2.11.2. Visitor Survey

As with the Checklist findings, we present descriptive statistics (e.g., frequencies, means, standard deviations) for all Visitor Survey questions. We used appropriate statistical tests to test the null hypothesis that visitors with different characteristics were equally responsive to GameSense services.

2.11.3. A Note on Percentages and Missing Values

For many of the questions in the Checklist and Visitor Survey, determining the number of expected responses was fairly straightforward. Whenever we asked GSAs or visitors to provide one and only one response, the expected number of responses was simply the number of times the question was asked. In these cases, we determined the number of missing observations as simply the number of times a GSA or visitor did not answer question. We described the relative frequency (i.e., percentages) of each response by dividing the observed frequency of each response by the total number of expected responses. Other questions in the Checklist or Visitor Survey did not require any response at all and/or allowed for multiple responses. For example, GSAs could report that they discussed several different topics within a single Exchange interaction. Visitors could report that they had experienced multiple gambling-related problems, or no problems at all. For these questions, we do not report on missing observations. We calculated percentages using the number of times the question was asked as the denominator. However, those percentages do not necessarily sum to 100%. Throughout the Results section, we provide notes to assist the reader in interpreting each type of question.

Results

2.12. Evaluation Goal 1: Conduct an Epidemiology of Services

2.12.1. Services Provided

How many interactions of each type are GSAs having with visitors? How many visitors are involved in these interactions?

In total, GSAs completed 5,659 Checklists during the window of observation. This number translates into about 31.4 interactions per day. The GSAs reported interacting with a total of 9,342 visitors, or about 51.9 per day. However, within 68 Checklists, GSAs did not indicate the number of visitors with whom they interacted. Our estimate of 9,342 visitors is therefore an underestimate of the total visitors who engaged with GSAs during the window of observation.

Table 2.1 shows the total number and frequency of each type of interaction. GSAs reported that most of their interactions were of the Simple type (69.7%), followed by Exchange (16.0%), Instructive (13.0%), and Demonstration (1.2%). Of the 9,343 total visitors represented in the Checklists, most (71.3%) had Simple interactions with GSAs.

Table 2.1: Total Interactions, Total Visitors, and Visitors per Interaction, Overall and By Interaction Type

	Total Interactions		Total Visitors	
Interaction Type	N	%	N	%
Simple	3,946	69.7	6,664	71.3
Instructive	735	13.0	1,128	12.1
Demonstration	70	1.2	154	1.6
Exchange	908	16.0	1396	14.9
Total	5,659	100.0	9,342	100.0

Table 2.2 shows trends in the number of visitors per interaction, separately for each interaction type. The majority of Simple interactions (52.1%) included two visitors, though interactions with only one visitor were common as well (39.8%). This pattern was reversed for Instructive interactions, when GSAs most commonly spoke with one visitor (51.3%) and discussions with two visitors were less frequent (35.9%). Similarly, GSAs tended to have Exchange interactions with just one visitor (63.1%). They had Exchange interactions with two visitors 23.5% of the time. Numbers were split for Demonstrations: interactions with one visitor (35.7%) and with two visitors (42.9%) were about equally frequent. Interactions with more than two visitors were rare, across all interaction types.

Table 2.2: Number of Recorded Visitors per Interaction

Interaction Type	# Visitors Recorded	n	%
Simple (n = 3946)	1	1571	39.8
	2	2057	52.1
	3	231	5.9
	4	69	1.7
	5	2	0.1
	Missing	16	0.4
Instructive (n = 735)	1	377	51.3
	2	264	35.9
	3	49	6.7
	4	9	1.2
	5	1	0.1
	6	1	0.1
	7	1	0.1
	22	1	0.1
	Missing	32	4.4
Demonstration (n = 70)	1	25	35.7
	2	30	42.9
	3	3	4.3
	4	2	2.9
	6	1	1.4
	11	1	1.4
	13	1	1.4
	22	1	1.4
	Missing	6	8.6
Exchange (n = 908)	1	573	63.1
	2	213	23.5
	3	51	5.6
	4	36	4.0
	5	20	2.2
	Missing	14	1.5

Note: When GSAs did not indicate the number of visitors, we did not count any visitors toward the total counts.

The length of Exchange interactions varied but tended to last 6-10 minutes (n = 300; 33.0%) or 11-20 minutes (n = 207; 22.8%).

How frequently do GSAs transition from one type of interaction to another?

GSAs completed a total of 1,713 Instructive, Demonstration, and Exchange interactions. Table 2.3 summarizes how each of these interactions began. Note that approximately three-quarters of Instructive, Demonstration, and Exchange interactions began as Simple interactions.

Table 2.3: Interaction Transitions

Did this Interaction begin as a different kind of interaction? (n = 1,713)		
	n	**%**
Instructive Interactions (n = 735)		
Yes, it started as a Simple Interaction	522	71.0
No	82	11.2
Other	3	0.4
Missing	128	17.4
Demonstration Interactions (n = 70)		
Yes, it started as a Simple Interaction	53	75.7
Yes, it started as an Instructive Interaction	4	5.7
No	5	7.1
Other (please specify)	1	1.4
Missing	7	10.0
Exchange Interactions (n = 908)		
Yes, it started as a Simple Interaction	713	78.5
Yes, it started as an Instructive Interaction	18	2.0
Yes, it started as a Demonstration Interaction	10	1.1
No	98	10.8
Other (please specify)	8	0.9
Missing	61	6.7

2.12.2. GSA Workload

How are GSAs dividing up the workload?

We first answered this question using Checklist data. Figure 2.4 illustrates the distribution of interactions by GSA. The "other" category refers to a combination of GSAs or a staff member other than those we have labeled GSA #1-4.

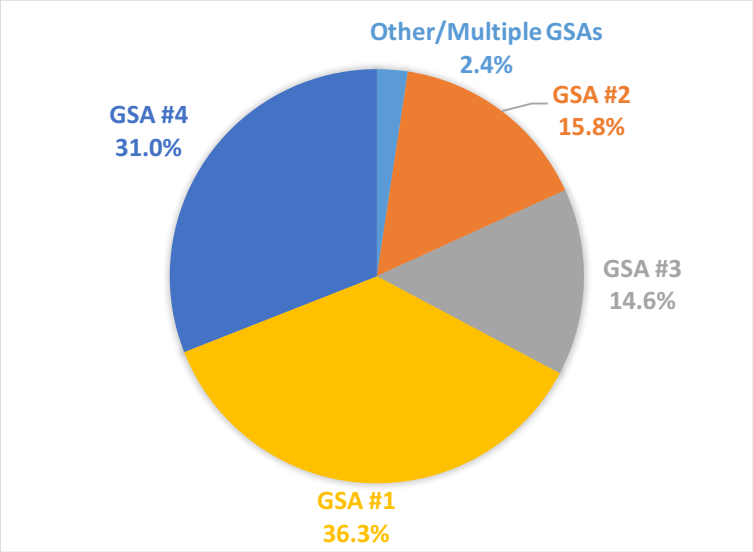


Figure 2.4: Distribution of Interactions by GSA

Figure 2.5 is more specific in that it shows data only from Exchange interactions. This Figure illustrates the proportion of Exchange interactions per GSA.

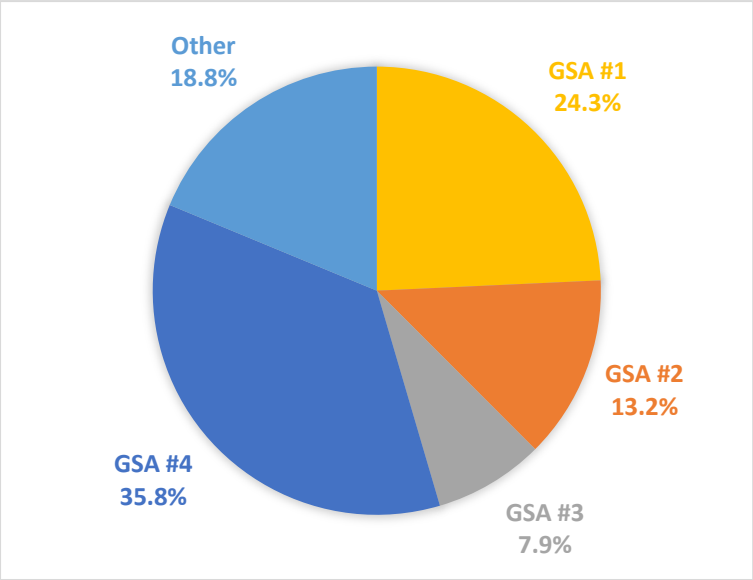


Figure 2.5: Distribution of Interactions by GSA, Exchange Interactions Only

As mentioned, in the Visitor Surveys, respondents indicated the GSA(s) with whom they interacted. Figure 2.6 shows visitors' responses. GSAs #1 and #4 account for 30.1% and 31.2% of the surveys, respectively. GSAs #2 and #3 account for only 6.2% and 4.9% of Visitor Surveys, respectively. Moreover, respondents listed "more than one" GSA within 225 (23%) of Visitor Surveys, and GSAs #1 and #4 working together accounted for nearly all (91%) of this category. Taken together, these trends indicate that GSAs #1 and #4 are substantially over-represented, and GSAs #2 and #3, are substantially under-represented, in the Visitor Surveys.

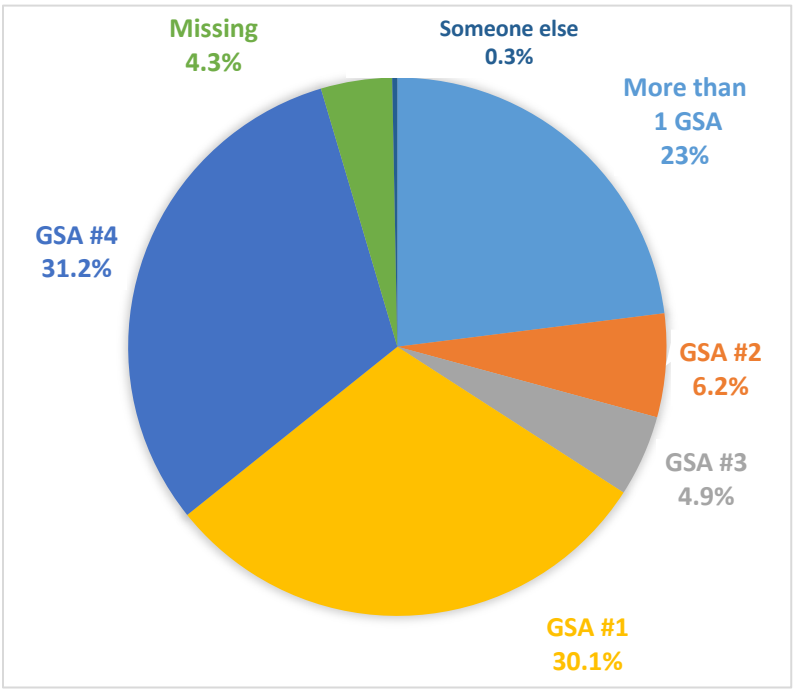


Figure 2.6: Visitor Reports of the GSA(s) with Whom They Interacted

2.12.3. Available Space

How are GSAs using the available space?

Table 2.4 provides the locations of Instructive, Demonstration, and Exchange interactions. Most (78.6%) of the Demonstration interactions took place within the GameSense Info Center. This is not surprising given that showing visitors how to use the kiosk is classified as a Demonstration. Most Exchange interactions (61.5%) also took place within the GameSense Info Center. Instructive interactions, on the other hand, tended to take place on the casino floor.

Table 2.4: Location of Instructive, Demonstration, and Exchange Interactions

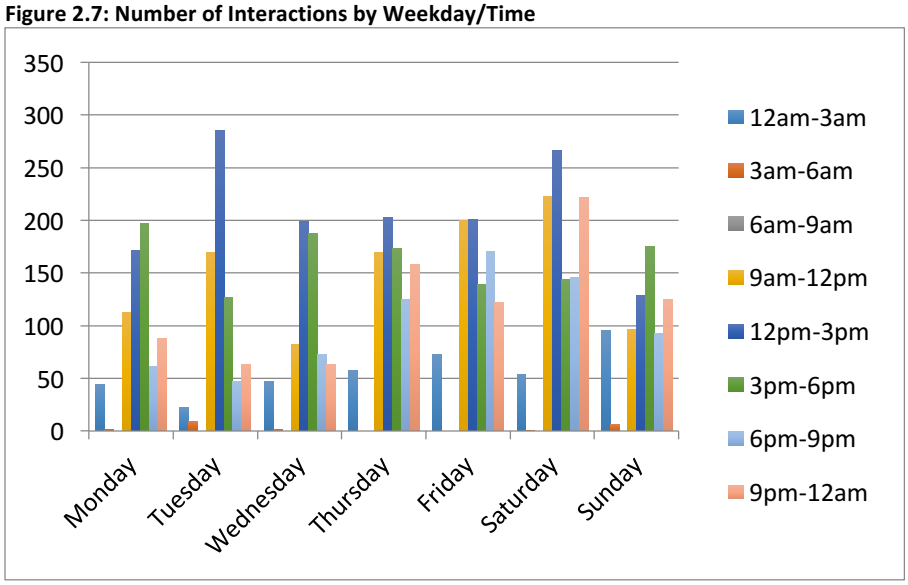
Location	Instructive (n = 735)		Demonstration (n = 70)		Exchange (n = 908)	
	n	%	n	%	n	%
GameSense Info Center	196	26.7	55	78.6	558	61.5
On the casino floor	482	65.6	9	12.9	285	31.4
In the pari-mutuel wagering area	5	0.7	1	1.4	26	2.9
Other (i.e. by website, in restaurant, back of house/employee area)	21	2.9	1	1.4	20	2.2
Missing	31	4.2	4	5.7	19	2.1

2.12.4. Peak Times

What are peak times for visitor interactions?

We observed that the busiest days for visitor interactions were Saturdays (19%), Fridays (16%) and Thursdays (16%). The busiest times were between 12pm-3pm (26%), between 3pm-6pm (21%), and between 9am-12pm (19%). Figure 2.7 shows the total number of interactions by both weekday and time of day.

Figure 2.7: Number of Interactions by Weekday/Time



As Figure 2.8 illustrates, we observed that Visitor Surveys were most likely to be completed on Saturdays, Fridays, or Thursdays. Few of the surveys were completed on Sundays or Mondays.

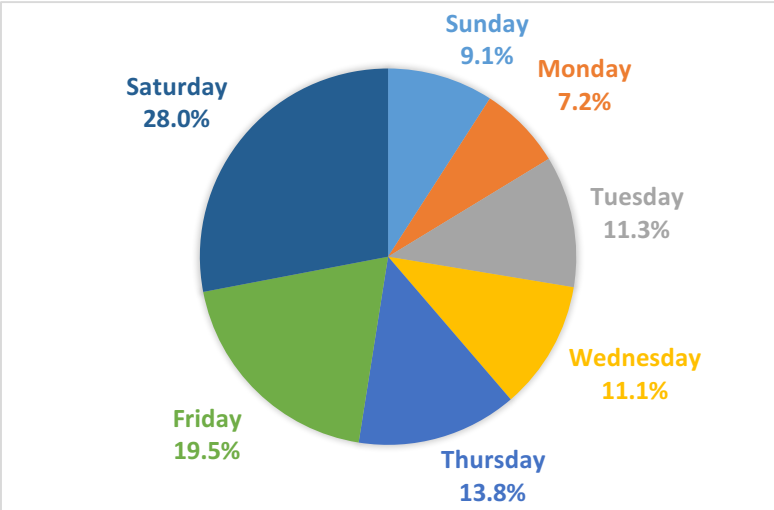


Figure 2.8: Weekday Trends in Visitor Survey Completion

Visitor Surveys were most likely to be completed between the hours of 12pm and 3pm. We note, however, that 560 of 982 respondents did not provide the time of survey completion, or did not provide enough detail for us to identify the time of survey completion. Often, respondents provided the time period without indicating AM or PM. Figure 2.9 shows time trends as a proportion of all available data.

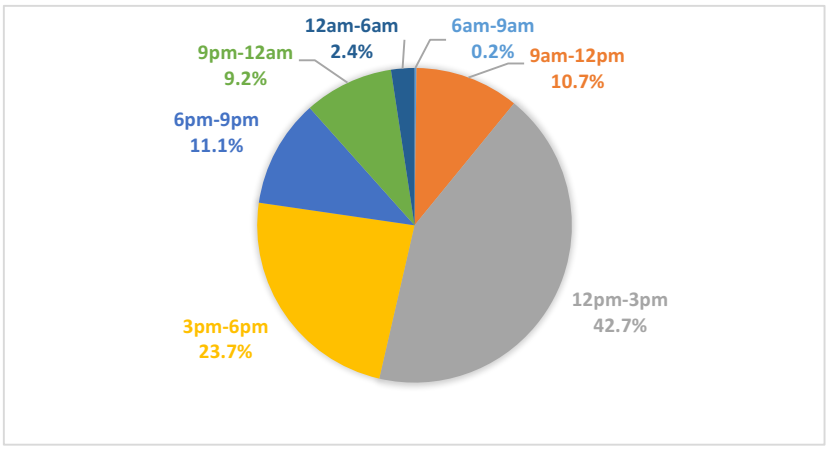


Figure 2.9: Time Trends in Visitor Survey Completion

2.12.5. Visitor Characteristics

What are the characteristics of visitors to the GameSense Program?

Recall that following Exchange interactions with 1 or 2 visitors, GSAs were asked to provide their impressions of the individual visitors. This results in a total of 999 individual visitor impressions (i.e. 573 interactions with 1 visitor and 213 interactions with 2 visitors each). The GSAs estimated the gender of 992 visitors. They identified 544 (54.5%) as male and 448 (44.8%) as female. The estimated gender was missing for 7 (0.7%) visitors. They estimated the age of 993 visitors. The GSAs estimated that 102 (10.2%) were between 18-30, 363 (36.3%) were between 31-50, 443 (44.3%) were between 51-70, and 85 (8.5%) were over 70. The estimated age was missing for 6 (0.6%) visitors. The majority (n = 937; 93.8%) of visitors

were identified as casino patrons. The GSAs also recorded interactions with 42 (4.2%) casino employees, 5 (0.5%) "concerned others," and 8 (0.8%) "others" (see Table 2.5).

Table 2.5: Visitor Demographics as Estimated by GSAs

This visitor appears to be… (n = 999)		
	n	**%**
Gender		
Man	544	54.5
Woman	448	44.8
Missing	7	0.7
Age		
Between 18-30	102	10.2
Between 31-50	363	36.3
Between 51-70	443	44.3
Age 71 or older	85	8.5
Missing	6	0.6
Visitor Type		
Casino patron	937	93.8
Concerned Other	5	0.5
Casino employee	42	4.2
Other	8	0.8
Missing	7	0.7

As Table 2.6 summarizes, the GSAs reported that they believed most (n = 769; 77.0%) visitors appeared to be experienced with gambling. They reported that 25 (2.5%) visitors appeared to be irritable, anxious, or angry, 35 (3.5%) appeared to be sad, and 37 (3.7%) appeared to be otherwise distressed. GSAs only identified 5 (0.5%) visitors as under the influence of alcohol or other drugs. Further inspection revealed that GSAs described 75 visitors (7.5%) to be irritable/anxious/angry, sad, *or* otherwise distressed.

Table 2.6: GSA Impressions of Visitors' Behavior and Experience with Gambling

This visitor appears to… (n = 999)		
	n	**%**
Be irritable, anxious, or angry	25	2.5
Be sad	35	3.5
Be otherwise distressed	37	3.7
Any of these three	*75*	*7.5*
Be experienced with gambling	769	77.0
Be under the influence of alcohol or other drugs	5	0.5

GSAs could select more than one response or no response.

GSAs reported on whether they had previously interacted with the visitors involved in 5,080 of their interactions. GSAs tended to report that they had not previously interacted with the visitor (n = 2,978;

58.6%), though a substantial minority of visitors (n = 2,066; 40.6%) represented "repeat customers." Responses are missing from 36 (0.7%) of these interactions. Of the 2,066 visitors who represented repeat customers, 1,198 (58.0%) had previously had an Exchange interaction.

As Table 2.7 summarizes, we examined the responses for this question for each interaction type. The GSAs reported previously interacting with the visitor(s) in 1,724 (48.9%) Simple interactions, 109 (16.0%) Instructive interactions, 14 (20.9%) Demonstration interactions, and 217 (26.9%) Exchange interactions. In Simple, Instructive, and Exchange interactions with "repeat customers," the GSAs were most likely to report having had a previous Exchange interaction followed by a Simple interaction. In Demonstration interactions, GSAs were most likely to report having had a previous Simple interaction.

Table 2.1: Responses to *"Have you interacted with this patron or employee before?"*

Have you interacted with this patron or employee before? (n = 5,080)		
	n	%
Simple (n = 3,524)		
Yes: previous interaction type:	1,724	48.9
Simple	*900*	*52.2*
Instructive	*323*	*18.7*
Demonstration	*155*	*9.0*
Exchange	*1,009*	*58.5*
No	1,789	50.8
I don't know	2	0.1
Missing	9	0.3
Instructive (n = 681)		
Yes: previous interaction type:	109	16.0
Simple	*48*	*44.0*
Instructive	*3*	*2.8*
Demonstration	*1*	*0.9*
Exchange	*63*	*57.8*
No	563	82.7
I don't know	0	0.0
Missing	9	1.3
Demonstration (n = 67)		
Yes: previous interaction type:	14	20.9
Simple	*7*	*50.0*
Instructive	*3*	*21.4*
Demonstration	*0*	*0.0*
Exchange	*5*	*35.7*
No	49	73.1
I don't know	0	0.0
Missing	4	6.0
Exchange (n = 808)		
Yes: previous interaction type:	217	26.9
Simple	*103*	*47.5*
Instructive	*73*	*33.6*
Demonstration	*24*	*11.1*
Exchange	*121*	*55.8*
No	577	71.4
I don't know	0	0.0
Missing	14	1.7

GSAs could select more than one type of previous interaction type.

Respondents who completed Exchange interactions and Visitor Surveys provided their own demographic information, as well. Table 2.8 summarizes their responses. Of the 982 visitors who completed surveys, 447 (45.5%) identified as men and 524 (53.4%) identified as women. Two identified as another gender category and 9 did not respond to this question. The majority (n = 778, 79.2%) identified as White. The second most frequent race category was Asian (n = 81; 8.2%), followed by Black/African American (n = 55; 5.6%). The remaining 68 participants (6.9%) identified as American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, or two or more races, or did not include their racial identity. Though 21.5% of respondents (n = 211) did not provide their ethnicity, we can report that 74.5% (n = 732) of participants identified as not Hispanic/Latino and the remaining 4.0% (n = 39) identified as Hispanic/Latino. Nine hundred and fifteen participants provided their age. The average participant was 53.2 years old (SD = 15.3; range = 21-90; mode = 60). Finally, participants were diverse in terms of education. Few (n = 57; 5.8%) reported having less than a high school diploma or equivalent; a plurality (n = 287; 29.2%) had a high school diploma or equivalent, 24.5% (n = 241) had some college, 11.6% (n = 114) had an associate's degree, and 25.6% (n = 251) had at least a bachelor's degree. The remaining 3.3% of participants (n = 32) did not report highest level of school they have completed.

Table 2.8: Demographic Profile of Visitors who Completed Visitor Surveys

	n	%	mean (SD)
Gender			
Male	447	45.5	
Female	524	53.4	
Another category/missing	11	1.1	
Race			
White	778	79.2	
Black/African American	55	5.6	
Asian	81	8.2	
Another category/missing	68	6.9	
Ethnicity			
Hispanic/Latino	39	4.0	
Not Hispanic/Latino	732	74.5	
Missing	211	21.5	
Age (years)			53.2 (SD = 15.3)
Highest level of school completed			
Less than high school diploma/equivalent	57	5.8	
High school diploma/equivalent	287	29.2	
Some college	241	24.5	
Associate's degree	114	11.6	
Bachelor's degree or higher	251	25.6	
Missing	32	3.3	

2.13. Evaluation Goal 2: Evaluate Progress Toward Stated Goals

2.13.1. Provide Information and Resources across the Spectrum of Needs

What actions are GSAs taking during these interactions?

As Table 2.9 shows, within Instructive interactions, GSAs most likely provided information about responsible gambling (e.g., how to play the games, odds of winning/losing, gambling myths, house advantage, randomness, how to keep gambling fun). They provided information about Play My Way during about 16% of Instructive interactions (n = 119). They discussed gambling consequences and voluntary self-exclusion in about 10% of Instructive interactions each. Other actions were rare. Further inspection revealed that they provided a referral to the gambling helpline, professional treatment, *or* self-help within 14 (1.9%) of Instructive interactions.

Table 2.9: GSA Actions during Instructive Interactions

What did you do? (n = 735)		
	n	**%**
I provided information about responsible gambling	690	93.9
I provided information about Play My Way	119	16.2
I provided information about the Helpline	11	1.5
I provided a referral for treatment for problem gambling	2	0.3
I provided self-help resources	1	0.1
I provided information about gambling consequences	75	10.2
I provided information about voluntary self-exclusion	75	10.2
I provided information about help for someone else	4	0.5
I provided information about credit suspension	1	0.1
Other	102	13.9

Total percentage exceeds 100% because GSAs could select more than one response.

GSAs described their actions within Exchange interactions as well, though response options were different. As Table 2.10 shows, within 92.1% of Exchange interactions, they provided information or advice verbally. They provided written information (e.g., a brochure, a business card) in about 20% of Exchange interactions. They reported enrolling visitors in voluntary self-exclusion in 44 interactions (4.8%). Other actions were rare. In Table 2.14, we describe how GSAs modified their actions according to visitors' concerns.

Table 2.10: GSA Actions in Exchange Interactions

What did you do? (n = 908)		
	n	**%**
I provided written information	183	20.2
I provided information or advice verbally	836	92.1
I handed the patron(s) off to someone else who could help with gambling-related problems	3	0.3
I handed the patron(s) off to someone in Customer Service	2	0.2
I enrolled the patron(s) in voluntary self-exclusion	44	4.8
I dis-enrolled the patron(s) from voluntary self-exclusion	1	0.1
Other	16	1.8

Total percentage exceeds 100% because GSAs could select more than one response.

Recall that in a Demonstration interaction, GSAs could either (1) show the visitor how to use the GameSense kiosk or (2) perform a demonstration to illustrate a responsible gambling concept. The GSAs indicated that during 44 (62.9%) of the Demonstration interactions, they showed the visitor(s) how the use the GameSense kiosk. During 21 (30.0%) of the interactions, they performed a demonstration. They did not indicate the central activity of the remaining Demonstration interactions.

What do visitors say they are learning during these interactions?

Visitors who completed Exchange interactions provided their own perceptions of what they learned from GSAs. Table 2.11 summarizes responses to the questions, "*Did you learn about any of the following during your conversation with the GameSense Advisor?*" and "*Did the GameSense Advisor share information about any of the following with you?*" As this table summarizes, most respondents reported learning about or receiving information about strategies to keep gambling fun or how gambling works. More than nine of ten respondents (91.4%) reported learning about strategies to keep gambling fun *or* how gambling works. About 25% of respondents reported learning about Play My Way, the voluntary play management system. Respondents were much less likely to report learning about or receiving information about referrals for gambling treatment, how to get help for gambling-related problems, how to get legal or financial help, or the voluntary self-exclusion program.

Table 2.11: Responses to Questions about Topics Learned and Information Shared

	Did you learn about any of the following during your conversation with the GameSense Advisor? (Version 1) (n = 159)		*Did the GameSense Advisor share information about any of the following with you?* (Version 2) (n = 162)	
	n	%	n	%
Strategies to keep gambling fun	122	76.7	122	75.3
How gambling works	77	48.4	78	48.1
The Play Management system: what it is, how it works	42	26.4	40	24.7
A referral for gambling treatment	7	4.4	5	3.1
How to get other support for gambling-related problems, such as self-help resources, screening for gambling problems	8	5.0	8	4.9
How to get legal or financial help	7	4.4	4	2.5
The voluntary self-exclusion program	6	3.8	7	4.3
No, I did not learn about any of these topics	3	1.9	2	1.2
Other	3	1.9	10	6.2

Total percentage exceeds 100% because respondents could select more than one response.

What do visitors say about how these interactions might affect their gambling behavior?

Recall that we asked visitors what they might do as a result of their conversation with a GSA. As Table 2.12 shows, most respondents reported that they would tell someone else about the GameSense Info Center (56.9%), visit the GameSense website (52.1%), and/or think about their own gambling (32.6%). Respondents also indicated that they would think about someone else's gambling (9.0%) and/or talk to someone they know who may have a gambling problem (7.6%). Other responses, such as changing gambling behavior, calling a helpline, or speaking with a counselor were less common.

Table 2.12: Respondents' Self-Reported Planned Actions as a Result of Their Conversations with GameSense Advisors

As a result of your conversation with the GameSense Advisor, will you... (n = 144)		
	n	%
Visit the GameSense website	75	52.1
Tell someone about the GameSense Info Center	82	56.9
Think about my own gambling	47	32.6
Think about someone else's gambling	13	9.0
Call the problem gambling helpline	1	0.7
Speak with a counselor or other professional about gambling	3	2.1
Talk to someone I know who may have a gambling problem	11	7.6
Reduce my gambling behaviors (e.g., spend less, take more breaks)	9	6.3
Increase my gambling behaviors (e.g., spend more, take fewer breaks)	5	3.5
Other	2	1.4

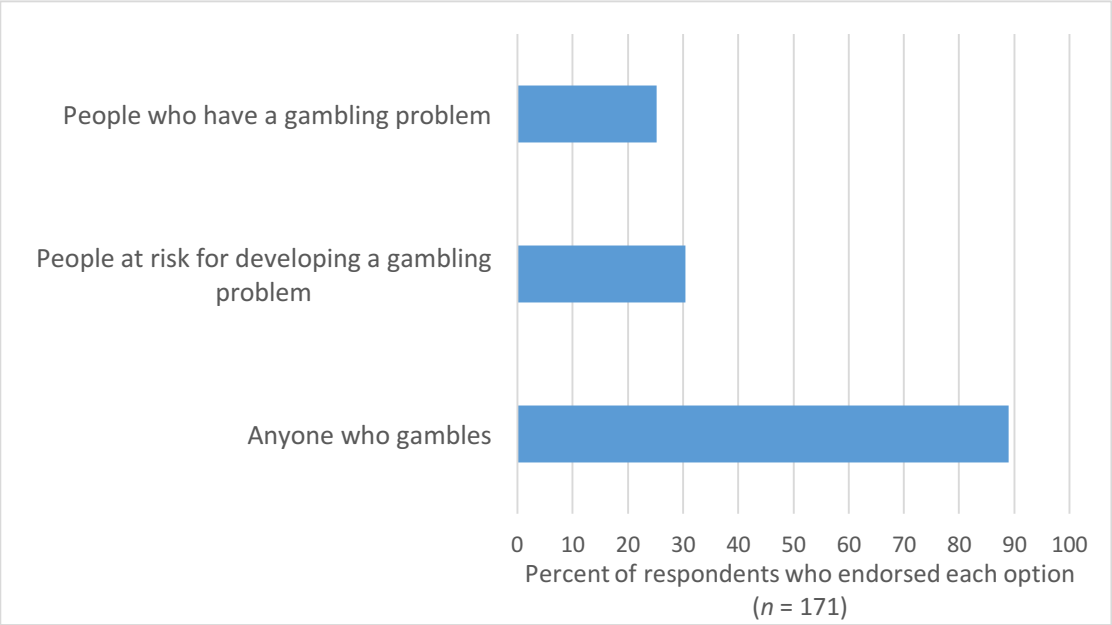
Total percentage exceeds 100% because respondents could select more than one response.

2.13.2. Appeal to a Wide Audience

According to visitors, who might benefit from GameSense services?

As Figure 2.10 shows, most respondents (88.9%) indicated that anyone who gambles could benefit from having a conversation with a GameSense Advisor. Smaller proportions reported that people at risk for developing a gambling problem (30.4%) or people who already have a gambling problem (25.2%) would benefit from speaking with a GSA.

Figure 2.10: Responses to the Question, *"Which Groups of People Might Benefit from Having a Conversation with a GameSense Advisor?"*



Total percentage exceeds 100% because respondents could select more than one response.

What are the concerns, if any, of those who interact with GameSense Advisors?

As Table 2.13 shows, for Exchange interactions in particular, GSAs reported that in most Exchange interactions (n = 726; 80.0%), visitors wanted help or information about responsible gambling. The second most frequent topic was help or information about voluntary self-exclusion (n = 116; 12.8%), followed by help or information about Play My Way (n = 101; 11.1%) and help or information about gambling consequences (n = 79; 8.7%). The remaining topics were rarely reported, represented in 7.9% of the 908 total Exchange interactions.

Table 2.13: GSA Perceptions of Visitors' Concerns

The visitor(s)... (n = 908)		
	n	%
wanted help or information about responsible gambling	726	80.0
needed help or information about Play My Way	101	11.1
needed information about the Helpline	11	1.2
wanted a referral for treatment for problem gambling	3	0.3
wanted self-help resources	2	0.2
needed help or information about gambling consequences	79	8.7
needed help or information about voluntary self-exclusion	116	12.8
wanted help for someone else	8	0.9
wanted a marketing restriction	1	0.1
Other	47	5.2

Total percentage exceeds 100% because GSAs could select more than one response.

We examined GSAs' actions in response to specific topics mentioned within Exchange interactions. We limited this analysis to the three most common GSA actions: providing written information, providing information or advice verbally, and enrolling the patron(s) in voluntary self-exclusion. As Table 2.14 shows, GSAs were most likely to provide information or advice verbally regardless of the topic of conversation. For example, GSAs reported that visitors wanted help or information about responsible gambling during 726 interactions. During 706 of these (97.2%), GSAs provided information or advice verbally. However, GSAs also adapted to the topic. For example, when visitors wanted information about the gambling hotline, GSAs provided written information 54.5% of the time. On the other hand, when visitors wanted to help or information about responsible gambling, GSAs provided written information only 16% of the time. When the conversation concerned the voluntary self-exclusion program, GSAs enrolled visitors about 37% of the time.

Table 2.14: GSA Action as a Function of Visitor's Concern

	GSA Action					
The visitor…	I provided written information		I provided information or advice verbally		I enrolled the patron(s) in voluntary self-exclusion	
	n	%	n	%	n	%
wanted help or information about responsible gambling (n = 726)	116	16.0	706	97.2	1	0.1
needed help or information about Play My Way (n = 101)	46	45.5	100	99.0	0	0.0
needed information about the Helpline (n = 11)	6	54.5	10	90.9	0	0.0
wanted a referral for treatment for problem gambling (n = 3)	2	66.7	3	100.0	0	0.0
wanted self-help resources (n = 2)	1	50.0	2	100.0	0	0.0
needed help or information about gambling consequences (n = 79)	46	58.2	79	100.0	2	2.5
needed help or information about voluntary self exclusion (n = 116)	55	47.4	87	75.0	43	37.1
wanted help for someone else (n = 8)	5	62.5	8	100.0	0	0.0

Total percentage of GSA actions for a given visitor concern exceeds 100% because GSAs could perform more than one action. For example, if the visitor wanted self-help resources, the GSA could provide written information and provided information verbally. Within each GSA Action the total number of cases will exceed that reported in Table 2.10 because a visitor could have had more than one concern. For example, during one VSE enrollment, a visitor could both have (1) needed help or information about VSE and (2) wanted help or information about responsible gambling.

We used Visitor Survey data to explore visitors' concerns, as well. As Table 2.15 shows, respondents often reported having general questions about gambling and GameSense when they began their conversations with GSAs. The most common questions or concerns visitors reported were being curious about GameSense (endorsed in 69.3% of surveys), wanting to learn more about how gambling works (39.0%), and wanting to learn strategies to keep gambling fun (31.1%). More serious concerns, such as wanting legal or financial help or getting casino credit suspended, were much less common.

Table 2.15: Visitors' Concerns at the Start of Conversations with GSAs

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? (n = 982)		
	n	%
I was curious about GameSense.	681	69.3
I wanted to learn more about how gambling works.	383	39.0
I wanted to learn more about strategies to keep gambling fun.	305	31.1
I wanted to learn more about or enroll in the Play Management system.	40	4.1
I wanted information about getting legal or financial help.	17	1.7
I wanted to learn more about or enroll in the voluntary self-exclusion.	21	2.1
I wanted help for someone else.	18	1.8
I wanted to get my credit suspended.	7	0.7
I wanted the casino to suspend/reduce its marketing to me.	7	0.7
I wanted help or information about problem gambling.	25	2.5
I didn't have any of these concerns at the start of the conversation.	92	9.4

Total percentage exceeds 100% because respondents could select more than one response.

Do those who interact with GameSense Advisors report extensive gambling histories and gambling-related problems?

Next, we turn to visitors' gambling histories. When asked about their gambling participation in the past year, about three-quarters of respondents (72.3%) indicated that they had played slot machines or video keno at a casino or slots parlor, and slightly fewer (68.7%) reported playing the lottery, keno, instant Lotto games, or instant scratch-off tickets outside a casino or slots parlor. Other common responses were betting on sports—not online (21.1%) and playing games other than poker at a casino (21.1%). (See Table 2.16.)

Table 2.16: Respondents' Past-Year Gambling Activities

Which of the following have you done in the last year? (n = 166)		
	n	%
Play the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slots parlor)	114	68.7
Playing slot machines or video keno at a casino or slots parlor	120	72.3
Betting on sports with friends or in an office pool—not online	35	21.1
Betting on sports with friends or in an office pool—online (including fantasy sports)	23	13.9
Gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle)	26	15.7
Playing roulette, dice, keno, or table games (other than poker) at a casino	35	21.1
Playing video poker machines or other gambling machines (other than slots and keno) at a casino or slots parlor	23	13.9
Playing poker, chess, or other game of mental skill for money (not at a casino)	12	7.2
Betting on horse or dog races	19	11.4
Another activity	1	0.6

Total percentage exceeds 100% because respondents could select more than one response.

We summed the number of past-year gambling activities each respondent reported. A plurality (33.1%) reported engaging in only one activity, and 29.5% reported engaging in two activities. On average, re- spondents reported engaging in 2.5 different kinds of gambling activities within the past year (SD = 1.7, range = 0-9). Table 2.17 summarizes these trends.

Table 2.17: Respondents' Sum of Past-Year Gambling Activities

Respondents' sum of gambling activities endorsed (n = 166)		
	n	%
0 activities	3	1.8
1 activity	55	33.1
2 activities	49	29.5
3 activities	26	15.7
4 activities	12	7.2
5 activities	10	6.0
6 activities	4	2.4
7 activities	3	1.8
8 activities	2	1.2
9 activities	2	1.2

As Table 2.18 shows, most participants reported that they had never experienced specific gambling-related problems. Seven percent of respondents (n = 12) reported that they had experienced money problems because of their gambling; this was the most frequently reported problem.

Table 2.18: Reported Gambling-Related Problems

Have you ever had any of these problems with your gambling? (n = 171)		
	n	%
I had money problems because of my gambling.	12	7.0
I had problems with friends or family members because of my gambling.	11	6.4
I had problems at work because of my gambling.	3	1.8
I had legal problems because of my gambling.	4	2.3
I had problems with my physical health because of my gambling.	3	1.8
I had problems with my mental health because of my gambling.	1	0.6
I was cheated while gambling.	3	1.8
I had some other kind of problem because of my gambling.	4	2.3

Respondents could select no response or more than one response.

We summed the number of gambling-related problems each respondent reported. We did not include respondents' answers to "I was cheated while gambling" in this calculation, because it is dissimilar from the remaining response options. Therefore, respondents' sum of gambling-related problems could have ranged from 0 (endorsed none of the response options) to 7 (endorsed all 7 response options). As Table 2.19 shows, we found that 143 (83.6%) reported having had no problems, 19 (11.1%) reported having had one problem, 8 (4.7%) reported having two problems, and 1 (0.6%) reported having had three problems. No respondents reported having experienced more than three gambling-related problems in their lifetime.

Table 2.19: Respondents' Pattern of Endorsing Gambling-Related Problems

Sum of gambling-related problems (n = 171)		
	n	%
Endorsed 0 gambling-related problems	143	83.6
Endorsed 1 gambling-related problem	19	11.1
Endorsed 2 gambling-related problems	8	4.7
Endorsed 3 gambling-related problems	1	0.6

2.13.3. Establish a Strong Working Alliance with Visitors

To what extent are visitors satisfied with GameSense services?

As Table 2.20 shows, respondents reported being very satisfied with GameSense services. When asked, *"How satisfied are you with your interaction with the GameSense Advisor*?" 140 respondents (77.8%) responded "Extremely Satisfied." An additional 30 (17.0%) responded "Very Satisfied."

Table 2.20: Respondents' Satisfaction with GameSense Adviser Interaction

How satisfied are you with your interaction with the GameSense Advisor (n = 180)		
	n	%
Not at all Satisfied	1	0.6
Slightly Satisfied	0	0.0
Moderately Satisfied	3	1.7
Very Satisfied	30	16.7
Extremely Satisfied	140	77.8
Missing	6	3.3

As Table 2.21 indicates, respondents generally had positive impressions of the GameSense services. Most (77.8%) reported that their visit to the GameSense Info Center enhanced their visit to the casino. Most respondents (77.1%) indicated that their visit to the GameSense Info Center did not detract from their casino visit, though a sizable minority (13.1%) reported that it did detract. About eight of every ten visitors (82.0%) reported that they would visit the GameSense Info Center again.

Table 2.21: Respondents' Impressions of the GameSense Info Center

	Did your visit to the GameSense Info Center enhance your visit to the Plainridge Park Casino? (n = 306)		*Did your visit to the GameSense Info Center detract from your visit to the Plainridge Park Casino?* (n = 306)		*Would you come to the GameSense Info Center again?* (n = 306)	
	n	%	n	%	n	%
Yes	238	77.8	40	13.1	251	82.0
No	33	10.8	236	77.1	11	3.6
N/A: I did not visit the Info Center	22	7.2	20	6.5	14	4.6
Missing	13	4.2	10	3.3	30	9.8

Respondents also reported that the GameSense Info Center space was private (79.5%) and comfortable (80.1%), as shown in Table 2.22.

Table 2.22: Respondents' Impressions of the Privacy and Comfort of the GameSense Info Center

	Did you feel that the space was private? (n = 166)		*Did you feel that the space was comfortable? (n = 166)*	
	n	%	n	%
Yes	132	79.5	133	80.1
No	5	3.0	2	1.2
N/A: I did not visit the GameSense Info Center	19	11.4	19	11.4
Missing	10	6.0	12	7.2

What are visitors' impressions of GameSense Advisors?

As Table 2.23 summarizes, respondents had positive impressions of their GameSense Advisors. The vast majority selected "strongly agree" in response to questions about whether their GameSense Advisor was caring, was helpful, was knowledgeable, and listened to them. Visitors rarely endorsed any of the other response options.

Table 2.23: Respondents' Impressions of GameSense Advisors

My GameSense Advisor… (n = 159)								
	was caring		was helpful		was knowl-edgeable		listened to me	
	n	%	n	%	n	%	n	%
Strongly disagree	8	5.0	7	4.4	4	2.5	7	4.4
Disagree	0	0.0	0	0.0	3	1.9	0	0.0
Uncertain	0	0.0	0	0.0	0	0.0	1	0.6
Agree	10	6.3	10	6.3	9	5.7	8	5.0
Strongly agree	139	87.4	138	86.8	139	87.4	140	88.1
Missing	2	1.3	4	2.5	4	2.5	3	1.9

We examined correlations among the four variables (i.e. *My GameSense Advisor was caring*; *My GameSense Advisor was helpful*; *My GameSense Advisor was knowledgeable*; *My GameSense Advisor listened to me*). We found that responses to these questions were highly inter-correlated: correlations ranged from 0.978 to 0.987 and were all statistically significant at $p < 0.001$. (A correlation of 1.0 indicates perfect agreement.) We averaged responses to the four variables. The vast majority of respondents (87.3%) had an average score of 5, which means that they responded, "Strongly agree" to all four questions. We used these average scores in the interaction analyses reported in the upcoming Section "Are members of different demographic groups".

Do visitors report that their concerns, if any, have been resolved following discussions with GameSense Advisors? Do their reports vary according to GSA?

We asked Exchange interaction visitors, "*To what extent was your primary question answered or your primary concern resolved?"* As Table 2.24 shows, the vast majority of respondents (87.7%) selected the option, "Completely." Only 4.3% answered "Somewhat," and less than one percent (0.7%) answered "Not at all." The remaining 7.3% of respondents did not answer this question.

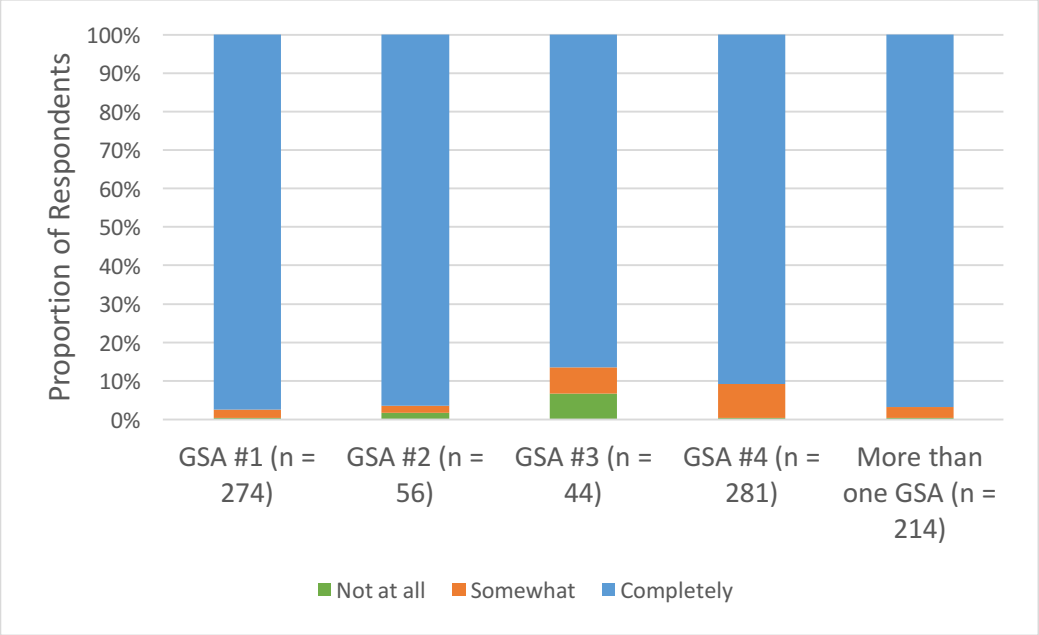
Table 2.24: Responses to the Question, To What Extent was your Primary Question Answered or your Primary Concern Resolved?

To what extent was your primary question answered or your primary concern resolved? (n = 982)		
	n	%
Not at all	7	0.7
Somewhat	42	4.3
Completely	861	87.7
Missing	72	7.3

Next we explored these patterns separately for each GSA. Recall that GSAs #2 and #3 are under-represented in Visitor Survey data, in that they account for less than 25% of Visitor Surveys each. In fact, respondents named each of these GSAs on fewer than 60 surveys. As a result of these small sample sizes, the trends we observed might be unstable.

As Figure 2.11 shows, across all GSAs, the majority of respondents indicated that their concern(s) were completely resolved. The rate of selecting "completely resolved" was highest for GSA #1 (97.4%), followed by more than 1 GSA (typically GSAs #1 and #4) (96.7%), GSA #2 (96.4%), GSA #4 (90.7%), and GSA #3 (86.4%).

Figure 2.11: Responses to the Question, To What Extent was your Primary Question Answered or your Primary Concern Resolved? Separately for Each GSA



Working again with all Visitor Survey data, we dichotomized responses to this question so that all respondents who answered "Completely" were coded as *concern completely resolved* and all respondents who answered "Not at all" or "Somewhat" were coded as *concern not completely resolved*. Respondents who did not answer this question were not included in either group. Therefore, 861 respondents (94.6% of those with any response) were in the *concern completely resolved* group and 49 respondents (5.4%) were in the *concern not completely resolved* group. We used these groups in the interaction analyses reported next.

Are members of different demographic groups (e.g., men versus women, older patrons versus younger patrons) equally responsive to GameSense services?

Next we completed analyses to explore whether respondents with different characteristics (e.g., men versus women, older people versus younger people) responded similarly to key survey questions. Recall that we identified three survey questions as important outcomes: (1) whether visitors reported that their concern was completely resolved; (2) respondents' reported satisfaction with the services provided; and (3) respondents' impressions of their GSA. For respondents' impressions of their GSA, we used the average response across the four questions (i.e. *My GameSense Advisor was caring*; *My GameSense Advisor was helpful*; *My GameSense Advisor was knowledgeable*; *My GameSense Advisor listened to me*). We examined how five visitor characteristics predicted these three outcomes: (1) gender, (2) race, (3) ethnicity, (4) age, and (5) highest level of education. Additionally, we examined the extent to which respondents' breadth of their past-year gambling activity and history of gambling-related problems predicted reports that concerns were completely resolved.[6]

We conducted the appropriate inferential tests for different combinations of variables. The outcome *concern completely resolved* versus *concern not completely resolved* is categorical. We used chi square tests to understand whether it was related to categorical predictor variables (i.e. gender, race, ethnicity, and highest level of education). We used point biserial correlation to understand its relationships with continuous predictor variables (i.e. age, sum of past-year gambling activities, sum of lifetime gambling-related problems). For the remaining two outcomes—respondent satisfaction with GameSense services and impressions of their GSA—we used *t*-tests or ANOVAs to explore relationships with categorical predictor variables (i.e. gender, race, ethnicity, and highest level of education). We used Pearson correlations to understand their relationships with respondent age.

We observed that gender,[7] race, ethnicity, age, and highest education level[8] were all unrelated to whether respondents reported that their concern(s) were completely resolved.[9] Likewise, respondents' age, sum of past year gambling activities, and sum of lifetime gambling-related problems were all unrelated to reports that their concerns were completely resolved. To summarize, GameSense visitors who indicated that their concerns were completely resolved were similar to those who reported that their concerns were less than completely resolved on all characteristics we examined.

Next we examined whether respondents' satisfaction with GameSense services was related to the five respondent characteristics. We observed no effects that reached statistical significance. In other words, respondents with different characteristics were equally likely to report being satisfied with GameSense services.

Finally, we observed that respondents' gender, ethnicity, race, age, and education level were unrelated to reported impressions of the GSAs.

[6] We could not examine relationships between respondents' gambling activity or gambling-related problems and satisfaction with services or GSA impressions because these questions were not asked in the same survey versions.
[7] Only two respondents identified as something other than a man or a woman. To avoid extremely unbalanced cell sizes, we did not include these two respondents in this analysis.
[8] For these analyses, we created two mutually exclusive groups of respondents: those who reported earning a high school diploma/equivalent or less education, and those who reported at least some post-high school education.
[9] If more than 20% of the cells had an expected count of less than 5, we used Fisher's Exact Test. Otherwise, we used Pearson Chi Square.

2.13.4. Attract Visitors from both Inside and Outside the Casino

How did visitors first hear about GameSense?

Three hundred and six visitors were asked whether they knew about the GameSense Info Center before that day's visit. Responses were split fairly evenly: 135 visitors (44.1%) had heard of it, and 153 (50.0%) had not heard of it. The remaining 18 visitors (5.9%) selected "not applicable" or did not answer this question.

What proportion of visitors learned about GameSense onsite, versus outside the casino?

One hundred and eighty respondents indicated whether they had heard about the GameSense Info Center from a given set of sources. As Table 2.25 summarizes, visitors typically learned about the GameSense Info Center on site, either when they walked by it (n = 117, 65%), from an onsite kiosk (n = 66, 35%), by an ad or sign at the casino (n = 20, 11.1%) or from a PPC employee (n = 21, 11.7%). Fourteen respondents saw a television ad for the GameSense Info Center (7.8%). Respondents were unlikely to report that they heard about the Info Center in other ways.

Table 2.25: Respondents' Sources of Exposure to the GameSense Info Center

Have you heard about the GameSense Info Center from any of these sources? (n = 180)		
	n	%
I walked by it	117	65.0
I saw a GameSense kiosk in the Plainridge Park Casino	63	35.0
I saw some other advertisement/sign in the Plainridge Park Casino	20	11.1
A Plainridge Park Casino employee told me about it	21	11.7
A friend/family member told me about it	14	7.8
I read about it in the newspaper	2	1.1
I saw an ad on TV	14	7.8
I saw an ad online	3	1.7
I heard an ad on the radio	7	3.9
I saw a billboard	3	1.7
Another professional offered me this resource	7	3.9
I don't know/don't remember	4	2.2
Other	4	2.2

Total percentage exceeds 100% because respondents could select more than one response.

Who initiated interactions between GSAs and visitors?

As Table 2.26 shows, the GSAs reported that visitors initiated a slight majority of Exchange interactions (n = 486; 53.5%). GSAs initiated 342 interactions (37.7%) and security at PPC initiated 30 interactions (3.3%). Other situations were rare.

Table 2.1: Patterns in the Initiation of Exchange Interactions

How did the interaction [Exchange] begin? (n = 908)		
	n	%
I approached the patron(s).	342	37.7%
The patron(s) approached me.	486	53.5%
Security introduced the patron(s) to me.	30	3.3%
Another casino employee introduced the patron(s) to me.	9	1.0%
State police introduced the patron(s) to me.	3	0.3%
A gaming agent introduced the patron(s) to me.	3	0.3%
A concerned other introduced the patron(s) to me.	1	0.1%
Other (please specify)	15	1.7%
Missing	19	2.1%

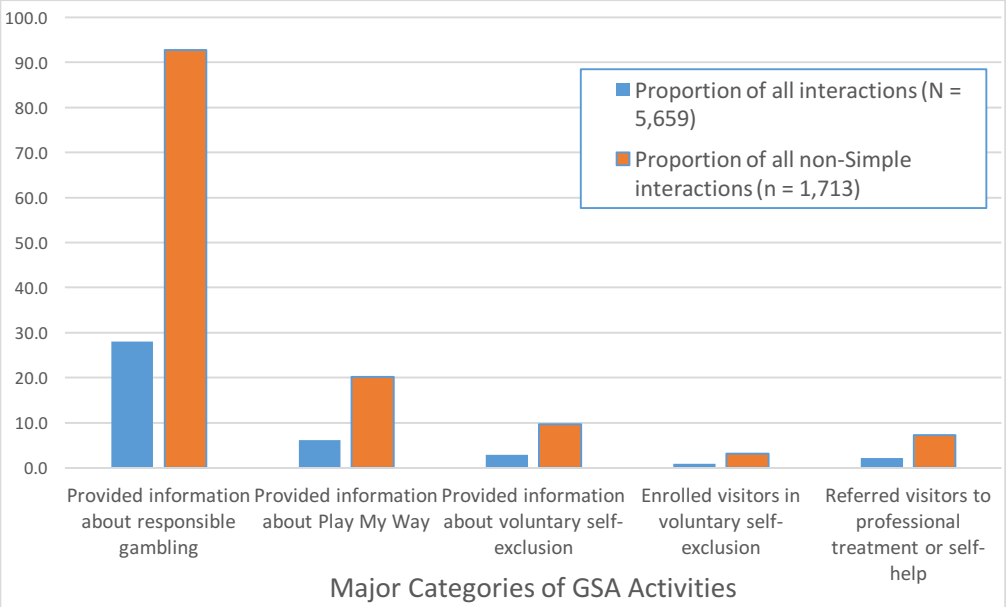
2.14. RANGE OF SERVICES PROVIDED

In a supplemental analysis, we combined data across sources—the Checklist and the Visitor Survey—to study the range of services GSAs provided. We calculated the number of times GSAs engaged in five major categories of activities during the window of observation: (1) Providing information about responsible gambling, (2) Providing information about Play My Way, (3) Providing information about voluntary self-exclusion, (4) Enrolling visitors in voluntary self-exclusion, and (5) Referring visitors to professional treatment or self-help. We estimated the proportion of times they provided these 5 services as a function of (a) all the interactions they had (N = 5,659) and (b) all the non-Simple interactions they had (n = 1,719). As Figure 2.12 shows, GSAs provided information and tools about responsible gambling during 92.8% of non-Simple interactions and 28.1% of all interactions. They provided harm reduction tools less often: they mentioned the play management tool in 20.2% of all non-Simple interactions and 6.1% of all interactions.[1] GSAs discussed voluntary self-exclusion within 9.6% of all non-Simple interactions and 2.9% of all interactions, and enrolled visitors in voluntary self-exclusion during 3.2% of all non-Simple interactions and 1.0% of all interactions. Finally, they provided referrals to professional treatment/the gambling helpline/self-help within 7.3% of non-Simple interactions and 2.2% of all interactions.[2]

[1] This is likely an underestimate of their current activity. Play My Way did not go live at Plainridge Park Casino until after the window of observation. The next phase of this evaluation will include data collected while this program was active.

[2] These estimates are based on a total of 5,659 total interactions. By definition, GSAs performed none of these activities during the 3,946 Simple interactions. Their reports indicate that within the 735 Instructive interactions, they provided responsible gambling information 690 times, provided information about Play My Way 119 times, discussed voluntary self-exclusion 75 times, and provided referrals to self-help/the gambling hotline/professional treatment 14 times. By definition, they provided responsible gambling information during all 70 Demonstration interactions and performed no other activities during these interactions. Finally, we relied on visitors' reports to estimate GSAs' activities within the 908 Exchange interactions. We extrapolated from data presented in Table 2.11 to estimate that GSAs provided responsible gambling information 830 times, provided information about Play My Way 227 times, discussed voluntary self-exclusion 36 times, and provided referrals 57 times. Internal records reveal that GSAs enrolled visitors in voluntary self-exclusion 54 times, and they were instructed to discuss the program and provide a packet of referrals each time. Additional details about these estimates are available from the authors.

Figure 2.12: Proportion of Interactions in which GSAs Engaged in 5 Major Activities



2.15. General Comments

One hundred and thirty-five respondents commented on their GameSense experience. The vast majority of these comments were positive in nature. Example comments were as follows:

- *Fantastic! I will share info with friends.*
- *They need to provide more of this information at GA meetings.*
- *Very helpful experience. Going to set up time to bring my senior friends so they understand strategies to play longer with their very modest budget.*

Respondents often called out GameSense Advisors by name, as in these examples:

- *[GSA 1] really informed me on the true way slot machines operate. I was unaware of "near misses." I thought a winner was coming soon when a near miss hit. [GSA 1] was very informative!*
- *[GSA 2] sincerely wants to help people! I was impressed. If you want to self-exclude at other casinos, you will be dealing with a retired cop (and they have the wrong attitude or approach). [GSA 2] clearly wants to become as proficient as he can, and I would say [GSA 2] has high potential.*
- *I find the staff at GameSense to be professional and full of knowledge. I feel comfortable talking to [GSA 3] in the future. As well as the other staff.*
- *I really appreciate the wonderful assistance I receive from [GSA 4]. [GSA 4] is always available when I advise. [GSA 4] is a pleasure and a wonderful gentleman. God bless him.*
- *[GSA 5] was very knowledgeable about gambling and gave me tips on how to be intelligent when at a casino.*

Discussion

2.16. Purpose of this Evaluation

Policy makers often turn to responsible gambling programs in an effort to mitigate societal harm that might result from expanded gambling opportunities. Though responsible gambling programs vary considerably from jurisdiction to jurisdiction, and from operator to operator, those programs that are targeted to players often share common goals: (1) educating players about the nature and inherent risks of

gambling, (2) encouraging players to wager within affordable limits, and (3) providing sufficient information about a game to allow players to make informed choices about their play (Blaszczynski et al., 2011). In Massachusetts, the GameSense program, currently operating within the Plainridge Park Casino and tentatively planned for future casinos, is one of several state-sponsored player-facing responsible gambling initiatives and is the first of its kind in the United States. This evaluation set out to provide an epidemiology of services provided in the existing Massachusetts GameSense program and to document the extent to which it is meeting publicly stated goals. Consistent with the Commission's precautionary approach to responsible gambling measures (Massachusetts Gaming Commission, 2014b), we began our evaluation by assessing not only whether the existing GameSense program is helping players, but also whether it is avoiding harming players. In the following two sections, we review our goals and findings for the first component of this evaluation.

2.17. Evaluation Goal 1: Conduct an Epidemiology of Services

2.17.1. Services Provided

Our first evaluation goal was to conduct an epidemiology of GameSense program services. We observed that GSAs had about 31 interactions with visitors each day. Some interactions occurred with multiple visitors; in total, they interacted with about 52 visitors each day. Because neither PPC nor the MGC provided us with daily attendance patterns at PPC, we cannot place these rates in the context of the number of patrons who had the opportunity to interact with GSAs.[12]

The GSAs primarily had superficial interactions with visitors (e.g., when a casino patron needed directions within the casino). However, they had a total of 1,713 more substantive conversations with casino patrons or employees during the window of observation, or about 9.5 per day. GSAs tended to have 1-on-1, or 1-on-2, conversations with casino patrons or employees, rather than group discussions.

About 75% of conversations about responsible gambling or problem gambling began as more superficial interactions. For example, a visitor might have approached a GSA to ask for directions to the ATM, and somehow the GSA and visitor transitioned to discussing responsible or problem gambling. We do not have conclusive evidence about who steered the conversation in a more substantive direction, but our Visitor Survey data suggest that visitors typically did not begin conversations with serious concerns in mind. For example, nearly 10% of visitors reported that they did not have any concerns about gambling at the start of their Exchange interactions. And yet, about three quarters of the time, they reported learning strategies to keep gambling fun. Therefore, we tentatively conclude the GSAs often used superficial contacts as an opportunity to engage visitors in more substantive conversations.

2.17.2. GSA Workload

The GSAs did not divide up this part of their work equally. Because there are four GSAs on staff, we would expect to observe each GSA completing about 25% of the interactions. However, two GSAs—GSA #1 and GSA #4—each conducted more than 30% of all interactions, and GSAs #2 and GSAs #3 accounted for fewer interactions. We found the same pattern when we examined Visitor Surveys. Understanding the causes of these patterns is beyond the scope of this evaluation. It could be that certain GSAs simply worked busier shifts than others, and that such discrepancies in visitor interaction counts are inevitable.

[12] After we submitted this report, Penn National provided a daily traffic estimate of 7,706. Given that GSAs reported interactions with about 52 visitors each day, this means that GameSense directly connected with about 0.67% of daily PPC visitors. (For both PPC traffic and GameSense visitors, the caveat that certain visitors might be counted more than once applies.) We included this estimate in an Addendum, which itself is not included here but is available from the authors.

Another potential explanation is that some GSAs attracted more visitors than others due to their personalities and behaviors. In this case, GameSense managers might wish to standardize GSAs' behaviors, and therefore GameSense services, to a greater extent. We observed some variation across GSAs in visitors' tendency to report that their concern(s) were completely resolved, though a substantial majority of visitors indicated that their concerns(s) were completely resolved regardless of the particular GSA with whom they spoke.

2.17.3. Available Space

The GSAs appeared to use the available space according to their needs; when they needed to show a visitor the kiosk or have a more private conversation, they used the GameSense Info Center space. When they were providing instruction about games and responsible gambling, they met visitors where they were—on the casino floor. In addition, visitors reported that the Info Center space was private and comfortable. The evidence suggests that the available space meets GSAs' and visitors' needs.

2.17.4. Peak Times

Some days of the week were certainly busier than others. Most interactions of all types happened on Saturdays, Fridays, and Thursdays. Most Visitors Surveys were completed on these days, as well. The afternoons were especially busy times for interactions of all types as well as Visitor Surveys. This information might be helpful in planning staffing.

2.17.5. Visitor Characteristics

We found that both men and women are having substantive conversations with GSAs, though men are slightly over represented (54.5% compared to 44.8%). When we examined Visitor Surveys, on the other hand, we found that women were overrepresented (53.4% compared to 45.5%). This is consistent with a long line of research documenting women's increased likelihood of completing surveys (as reviewed by Slauson-Blevins & Johnson, 2016). To ensure that Visitor Surveys accurately represent both men and women, GSAs might wish to make extra efforts to recruit men. GSAs estimated that nearly half (44.3%) of their visitors in Exchange interactions were between the ages of 51 and 70, 79.2% were White, and 74.5% were non Hispanic/Latino. In the absence of demographic data on all PPC patrons—not just those who interact with GSAs at the highest level of engagement—it is difficult to determine if GSAs are appealing equally to all groups of PPC patrons. The SEIGMA patron intercept surveys, which attempt to assemble a representative sample of PPC patrons, might fill this knowledge gap.

GSAs reported that at least some casino employees engaged in conversations about responsible gambling or problem gambling; they estimated that 4.2% of Exchange visitors were casino employees. This is important because casino employees are a population segment especially at risk for gambling-related problems (Shaffer & Hall, 2002; Shaffer, Hall, & Vander Bilt, 1999). It is possible that GameSense Advisors are a sufficient resource for Plainridge Park employees experiencing gambling-related problems. However, in the absence of information about casino employees' needs, it is difficult to draw such a conclusion. A survey of casino employees that asks about gambling-related problems and perceptions of the GameSense Advisors is necessary for understanding whether existing resources meet existing needs.

Visitor impression data from the Checklists further indicate that in GSAs' views most visitors were not emotionally distressed or under the influence of alcohol or other drugs. In that sense at least, visitors might have been positioned to engage in a productive conversation about responsible or problem gambling. However, the 7.5% of visitors who were emotionally distressed might require additional mental health support, and GSAs might or might not be prepared to provide it. We have no way of knowing whether GSAs were accurate in their impressions of visitors; however, a review of the research in social

psychology (Gray, 2008) tells us that, generally speaking, adults are quite accurate in discerning others' emotional states.

Visitors appeared comfortable engaging in repeated conversations with a GSA; a substantial minority of interactions (40.6%) occurred with "repeat customers." In most cases, those who returned to GSAs for repeated interactions had previously had Exchange interactions, the most intense type of interaction. This finding suggests that GSAs are succeeding in building rapport with their visitors, consistent with one of the program's stated goals.

2.18. Evaluation Goal 2: Evaluate Progress Toward Stated Goals

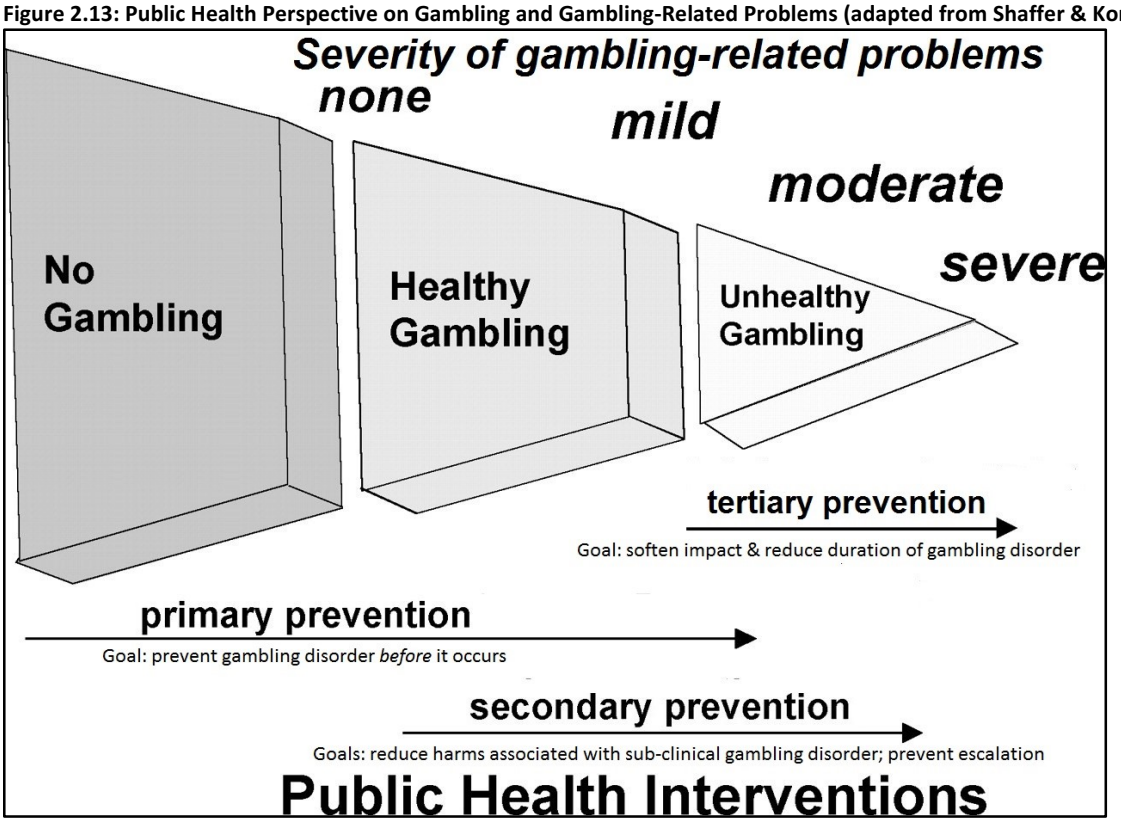
Our second goal was to evaluate the extent to which the GameSense program at Plainridge Park Casino is making progress toward stated goals. As mentioned, various public comments and documents describe the program and its mission in different ways. This circumstance created important challenges for delineating a clear set of program objectives. Nevertheless, to summarize briefly, program planners envisioned that the GSAs primarily would provide responsible gambling information and resources. They wanted the program to serve a wide range of needs, from recreational gamblers to those in need of more extensive information and resources. They endorsed the GameSense brand because of its presumed image as a "friendly helper" or "supportive peer" rather than "the gambling police." Implicit in this selection was the assumption that communicating that they are friendly, helpful, and knowledgeable might be key to GSAs' effectiveness. Program planners emphasized the importance of attracting visitors to GameSense from both inside and outside the casino. Finally, it is worth noting again that the Massachusetts Gaming Commission currently describes GameSense objectives as follows: "GameSense is an innovative and comprehensive Responsible Gaming strategy adopted by the Massachusetts Gaming Commission as part of its mission to encourage responsible play and mitigate problem gambling" (Mass Gaming Commission, 2016).

2.18.1. Provide Information and Resources across the Spectrum of Needs

GameSense Advisors reported that within more than 90% of their Instructive interactions, they provided information about responsible gambling (e.g., how to play the games, odds of winning/losing, gambling myths). Similarly, more than 90% of visitors reported that within Exchange interactions, they learned about strategies to keep gambling fun and/or how gambling works. We conclude that when GSAs had the opportunity to speak with casino patrons—beyond greeting them or providing directions—they typically provided responsible gambling information, rather than providing other kinds of services (e.g., providing referrals to gambling disorder treatment, helping patrons get their credit suspended).

Did GSAs provide resources across the full spectrum of need? Answering this question is more complicated and requires some understanding of the public health perspective as applied to gambling and gambling-related problems. Shaffer and Korn first applied a public health model to gambling (Korn & Shaffer, 1999; Shaffer & Korn, 2002). This perspective describes opportunities for prevention and treatment interventions targeted to different segments of the population (see Figure 2.13).

Figure 2.13: Public Health Perspective on Gambling and Gambling-Related Problems (adapted from Shaffer & Korn, 2002)



According to this perspective, those who do not gamble, or gamble but do not experience any gambling-related problems (i.e., Level 0 and Level 1 gamblers, respectively; Shaffer & Hall, 1996). might benefit from primary prevention strategies—strategies designed to prevent an adverse health condition *before* it occurs. Applied to gambling, primary prevention provides the community with adequate information and or services to make educated decisions about healthy gambling behaviors (Dickson, Derevensky, & Gupta, 2002). This includes information about how gambling products work, the probability of winning, and the signs and symptoms association with problem gambling. Considering the effects of information based programs for preventing risky behaviors more generally, programs that are comprehensive, interactive, and teach new skills typically produce better results than programs that provide education alone (e.g., Ennett et al., 1994; Fortune & Goodie, 2012; Johnson, Carey, Marsh, Levin, & Scott-Sheldon, 2003). Those who gamble and experience gambling-related problems, but do not meet formal diagnostic criteria for gambling disorder (i.e., Level 2 gamblers; Shaffer & Hall, 1996) require secondary prevention strategies. Such strategies hold the potential to reduce harms associated with adverse health conditions that already have developed. Secondary prevention strategies for gambling disorder might involve modifying gambling products or the gambling environment to reduce harm (e.g., introducing self-exclusion programs, introducing products designed to minimize excessive play, removing ATMs) without restricting access to gambling products among Level 0 or 1 gamblers. Finally, those who meet diagnostic criteria for gambling disorder (i.e., Level 3 gamblers; Shaffer & Hall, 1996) typically require tertiary prevention strategies—strategies to soften the impact and/or reduce the duration of an existing health condition. An effective public health initiative will (1) provide primary prevention resources (e.g., information about how gambling works and the probabilities of winning) to Level 0 and Level 1 gamblers, (2) provide secondary prevention tools (e.g., play management, voluntary self-exclusion) to Level 2 gamblers, (3) provide Level 3 gamblers with a pathway to treatment, and (4) determine the extent and type of services necessary for treatment seeking-gamblers (i.e., Level 4 gamblers; Shaffer, Hall, & Vander Bilt, 1997).

Public health data reveal that the largest segment of the population is in need of primary prevention services only; 97.1% of U.S. adults are either Level 0 or Level 1 gamblers. The lifetime rate of Level 2 gambling is 2.3%, and about 0.6% of American adults report lifetime Level 3 gambling (Kessler et al., 2008). Although we might expect somewhat higher rates of Level 1, 2, and 3 gambling among Plainridge Park Casino patrons, we would expect the same general pattern to be evident.[13] Therefore, GSAs should be providing basic responsible gambling information and tools to the majority of patrons. They should be connecting comparatively fewer patrons to harm reduction tools (e.g., play management, voluntary self-exclusion). Finally, we would expect them to provide referrals to treatment or self-help in only rare cases.

Recall that our supplemental analyses (Section 3.3.) revealed that GSAs most frequently provided information and tools about responsible gambling. They provided harm reduction tools less often and were especially unlikely to provide referrals to professional treatment or self-help. In other words, GSAs provided primary prevention resources to the largest group of casino patrons and provided secondary prevention, and linkages to tertiary prevention, to smaller groups of patrons. This pattern suggests that GSAs provided services in a way that aligns with the likely range of needs.

2.18.2. Appeal to a Wide Audience

Responses to the question, "*Which groups of people might benefit from having a conversation with a GameSense Advisor?*" indicate that the GameSense Advisors communicated to individuals in Exchange interactions that their services were appropriate for anyone who gambles. It is unclear from this study whether the majority of visitors, those who participated in other types of interactions (i.e., Simple, Instruction, or Demonstration), held the same beliefs. However, this message is important because stigma associated with gambling disorder often prevents people from accessing treatment resources (Gainsbury, Hing, & Suhonen, 2014). In a previous evaluation of two Ontario RGICs, general casino patrons' most common reason for not visiting the centers was not feeling that they could use it (The Osborne Group, 2007). However, although this question allowed for multiple responses, only a minority of visitors indicated that GSAs would be helpful for those who have, or are at risk for developing, a gambling problem. Ideally, casino patrons would view the GSAs as a helpful resource for people in all three groups. Therefore, the GameSense program should consider either altering its marketing or its services. Related to this point, visitors very rarely approached GameSense Advisors with concerns that could be considered serious. It is true that a minority of visitors reported experiencing any gambling-related problems during their lifetimes; however, visitors did not seem aware of the full range of services GSAs can offer, at least at the outset of their conversations. These findings combined suggest that GSAs might need to work harder to make all visitors aware that they have resources for everyone across the spectrum of need.

2.18.3. Establish Strong Working Alliances with Visitors

Visitors who engaged with GSAs at the highest level (i.e., in Exchange interactions) overwhelmingly reported being satisfied with GameSense services, and the majority reported that their visit to the GameSense Info Center enhanced their visit to PPC and that they would return to the Info Center. Nearly nine in ten visitors reported that the GSA with whom they spoke listened to them and was caring, helpful, and knowledgeable. These findings suggest that the GameSense service at PPC is not doing harm to most

[13] In the absence of a survey of a random sample of PPC patrons, we have no way to determine if these general population rates of Level 0-3 gambling generalize to PPC patrons. However, our Visitor Survey data are consistent with the assumption that few PPC patrons report a history of gambling-related problems; recall that 83.6% of respondents reported no lifetime gambling-related problems.

visitors during Exchange interactions, although we note that a minority (13.1%) of visitors reported that visiting the GameSense Info Center detracted from their visit to PPC. As far as we can tell, different groups of visitors—e.g., men versus women, Hispanics vs. non-Hispanics—respond similarly to GameSense services. Other visitor characteristics, beyond those measured in this study, might be associated with response to GameSense services. In summary, according to visitors' reports after Exchange interactions, GSAs are communicating that they are helpful and friendly, in line with program goals.

2.18.4. Attract Visitors from Inside and Outside the Casino

The fourth program goal we evaluated involved the program's visibility inside and outside the casino. The majority of visitors who responded to our survey reported that they learned about the GameSense Info Center simply by walking past it, seeing a kiosk, seeing an ad on-site, or being referred from a PPC employee. Half of visitors had not heard about the Info Center before their visit. Visitors initiated a majority of Exchange interactions. These findings suggest that visitors felt comfortable initiating interactions with the GSAs and the Info Center is visible to patrons from within the casino, which is important because a limitation of other RGICs is that they are not centrally located or sufficiently visible (The Osborne Group, 2007). Among other sources, visitors were most likely to report hearing about the Info Center through television ads or from friends/family members. Program planners might wish to increase their visibility in other media (e.g., online, print, and radio ads) and through additional outreach activities within the community. Again, our conclusions are limited because GSAs only surveyed visitors who had Exchange interactions. General casino patrons might have different levels of awareness about GameSense.

2.19. LIMITATIONS

This study is not without limitations, some of which we have mentioned in earlier sections. We use this section to note four additional limitations.

The first of these concerns the questions we used to assess visitors' responsiveness to GameSense services. Responses to these questions were extremely skewed rather than normally distributed; the vast majority of respondents used the most positive end of the scales, and very few used more negative response options. Moreover, respondents' ratings were in almost perfect agreement across the different GSA impression questions; if a respondent strongly agreed that a GSA was caring, she nearly always strongly agreed that the GSA was helpful, was knowledgeable, and listened to her. These trends are concerning because they might represent a halo effect. A halo effect is a positive cognitive bias that often appears when people are asked to evaluate other people. Researchers first identified this phenomenon while studying how military superiors rated officers under their command (Thorndike, 1920). In this study, though the rating plan explicitly asked superiors to provide *independent* evaluations of their subordinates' Physical Qualities, Intelligence, Leadership, and Personal Qualities, the ratings they provided were highly inter-correlated. For example, if a flight commander felt that a particular aviation cadet had an impressive physique, he also felt the cadet could make sound decisions during crisis, could inspire other men, and was free from "conceit and selfishness." Since 1920, many other studies have documented halo effects in ratings of domains as varied as teaching, cars, and nutrition labels and are especially pernicious in customer satisfaction surveys (Wirtz, 2003). The halo effect suggests that human have "a marked tendency to think of [a] person in general as rather good or rather inferior and to color the judgments of the qualities by this general feeling" (Thorndike, 1920, p. 25). In the context of this evaluation, we speculate that at least some visitors felt generally positively toward their GSAs, and this impression spilled over into positive ratings the services GSAs provided, impressions of GSAs' empathy and knowledge, and even the Info Center itself. Moreover, their positive feeling might have derived in part from the fact that GSAs provided visitors a gift in exchange for completing the survey and, in some cases,

for having a conversation with them in the first place. It is impossible to quantify how much this bias influenced visitors' responses.

Second, during this phase of the evaluation, we did not measure visitors' responsible gambling knowledge or behavior. As a result, we cannot discern whether GameSense services had a positive influence on visitors' knowledge or behavior. A randomized, controlled, prospective study would be necessary for testing this prediction. We plan to take a step in this direction in the next phase of this evaluation, by asking visitors about responsible gambling concepts (e.g., *"True or false: A slot machine that hasn't paid out in a long time is due to pay out."*) and asking "repeat customers" whether they changed their gambling behavior after speaking with a GSA. We intend to study the relationship between (1) the extent of visitors' GameSense contacts and (2) their responsible gambling knowledge and behavior. This cross-sectional design will move closer toward studying the effects of GameSense on knowledge and behavior.

Third, our epidemiology of GameSense services is only as accurate as the information GSAs provided about their services. Because of a lack of time, poor understanding of the protocol, insufficient training or supervision, or some other reason, GSAs failed to report fully on the services they provided. For example, as described in Section 3.1., the total count of visitors is an under-estimate. In addition, they reported that they completed at most 45 voluntary self-exclusions,[14] but records from another component of our evaluation indicate that they performed 54 voluntary self-exclusions at the casino during the window of observation.

Fourth, and finally, the current findings only generalize to the Plainridge Park Casino GameSense program. Because the Massachusetts Council on Compulsive Gambling developed, implemented and maintains the Plainridge Park Casino GameSense service, these findings do not generalize to GameSense or other similar information centers.

2.20. RECOMMENDATIONS

Throughout this report, we have suggested additional lines of research that we feel are necessary for evaluating the GameSense program. We make several additional recommendations here.

First, the GSAs report that they are providing information verbally in the majority of their interactions with visitors. This suggests a need to ensure that GSAs are being trained appropriately and have suitable education about key responsible gambling concepts – potentially including knowledge verification (e.g., annual assessments). If GSAs provide inaccurate information, visitors could experience harm. In addition, a precautionary approach would safeguard that, like visitors, GSAs do not experience harm. This evaluation was not designed formally to collect information about GSAs' background, training, or on-the-job experiences; however, during one planning meeting, the GSAs described feeling emotionally distressed by some of their experiences and interactions with visitors; they reported hearing difficult stories of financial and familial loss associated with gambling. This anecdotal information raises important questions about whether the GSAs are sufficiently prepared and supervised for all aspects of their responsibilities. In addition, this informal information suggests that it might be helpful to review formally the adequacy of GSA training and supervision focusing on vicarious trauma, countertransference, first response for mental health issues, and other common clinical issues.

[14] Recall that GSAs reported 44 interactions that included enrollment in voluntary self-exclusion (VSE). One of these interactions included two patrons. Therefore, according to the Checklist, they enrolled at most 45 patrons in VSE.

About 8% of those who responded to the Visitor Survey identified as Asian. The GSAs inform us that visitors who speak languages other than English are often fluent enough in English to have conversations with them about gambling; however, they are not comfortable completing English-language surveys. We suggest that future phases of this evaluation include Visitor Surveys translated into the appropriate language(s).

Keeping in mind the limitations described above, this report includes some findings that might be helpful in planning services at the Massachusetts casinos expected to open in the next few years. In addition to providing information about the busiest days and times for visitor interactions, this report suggests that the location and signage at Plainridge Park Casino are appropriate for attracting visitors. These results, like all others presented in this report, would need to be tested at new properties.

In an earlier section, we noted that we cannot determine the extent to which the GameSense Services at PPC are meeting the needs of casino employees, a group historically at higher risk for gambling-related problems than community members. We plan to conduct a survey of PPC employees to learn more about their needs. In addition, this survey will generate information about PPC employees' views of the GameSense program (e.g., knowledge of its location, hours of operation, purpose, and services provided; perceived usefulness).

A cost/benefit analysis could inform future decisions about investing resources into GameSense programs and services. This epidemiology of services provides some information about benefits, if we define benefits as the number of PPC patrons who receive GameSense services each day/week/month. We have not weighed these benefits against program financial and other costs (e.g., staffing, management and supervision, branding, outreach). We recommend that program planners conduct such a cost/benefit analysis to inform future decisions, potentially for GameSense as well as alternative programs.

We also recommend that policy makers consider these findings in relation to the legislative mandate for expanded gambling requiring gambling operators to "…provide complimentary on-site space for an independent substance abuse, compulsive gambling, and mental health counseling service" ("Bill H03697," 2011).[15] We designed our evaluation to describe the GameSense program as it is currently configured and staffed; our research questions were derived from program goals that did not include the provision of substance use and mental health counseling services. With these caveats in mind, we note that there is no indication in the data we *did* collect that GameSense Advisors are providing substance use/mental health counseling services (beyond referral to treatment/self-help for gambling problems). To ensure that the on-site programming is consistent with the legislative mandate, policy makers might wish to pursue changes to the legislation, changes to the on-site programming, or both.

2.21. CONCLUDING THOUGHTS

This report reflects an evaluation of the first Responsible Gaming Information Center located within the United States. Consequently, this study adds to the small but growing evidence base about responsible gambling activities. Though more research is necessary to evaluate fully the GameSense program and the services it offers, our findings indicate that the program is meeting a circumscribed set of program goals and, generally, is not causing harm to visitors.

[15] https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter194

Chapter Three: Summary Analysis of the Plainridge Park Casino GameSense Program Activities & Visitor Survey: August 8, 2016 – February 7, 2017

CHAPTER THREE: Table of Contents

Introduction

3.1. BACKGROUND

The 2011 Massachusetts Gaming Act allowed for gambling expansion across the Commonwealth. In addition, it mandated several strategies designed to mitigate potential harms associated with new gambling opportunities. Among these mandates is the requirement for each newly licensed gaming operator to provide on-site space for independent compulsive gambling and mental health services.[1] The Massachusetts Gaming Commission selected the GameSense brand, developed by the British Columbia Lottery Corporation, to fulfill this legislative mandate. When the Plainridge Park Casino opened during June, 2015, it represented the first new Massachusetts gambling venue; the GameSense program opened simultaneously, representing the first GameSense installation in the United States. The Massachusetts Council on Compulsive Gambling (MCCG) operates the GameSense program at Plainridge Park Casino (PPC). The program refers to MCCG GameSense staff members as GameSense Advisors.

During July 2016, the Division on Addiction at Cambridge Health Alliance provided an initial evaluation of the GameSense program at PPC. The July 2016 report[2] summarized data collected at PPC during the period from December 1, 2015 through May 31, 2016 (i.e., Wave 1; Gray, LaPlante, Keating, & Shaffer, 2016). This initial report focused upon the epidemiology of services provided and visitors' attitudes and opinions regarding GameSense. The current report summarizes data collected at PPC during the period from August 8, 2016 through February 7th, 2017 (i.e., Wave 2). As we describe in detail below, this current report focuses on the epidemiology of services provided and visitors' responsible gambling knowledge and behavior as a function of contact with GameSense.

3.2. RESPONSIBLE GAMBLING PROGRAMMING AND EVALUATION

The MCCG and MGC designed the GameSense program as a responsible gambling information center. Such centers are one component of a broad set of responsible gambling initiatives that regulators and operators can use in an attempt to reduce the incidence and prevalence of gambling-related harms potentially associated with gambling (Blaszczynski, Ladouceur, & Shaffer, 2004). Other responsible gambling activities include pre-commitment and self-exclusion (Shaffer, Ladouceur, Blaszczynski, Whyte, 2016), both of which are in place at PPC; these activities are the subject of separate Division on Addiction evaluations.

When a responsible gambling initiative is available to the public, researchers can and should empirically test its safety, effectiveness, and reach; in the absence of rigorous evaluation, these responsible gambling features are uncertain. In this evaluation of GameSense, we define safety as the absence of program-induced harm to visitors. Absent rigorous evaluation, GameSense and other responsible gambling activities hold the potential to increase, decrease, or have no influence on gambling-related harms. Assuring that responsible gambling programs do no harm is the foundation of an ethical public health program (Shaffer et al., 2016). Although we focus on GameSense visitors, program evaluation should include monitoring potential harm to staff members (i.e., GameSense Advisors). We define effectiveness partly as the extent to which the GameSense program at PPC is achieving the MGC's stated objectives—that is, providing responsible gambling and problem gambling information to PPC patrons and others. In addition, in this report, we expand our definition of effectiveness to include the extent to which visitors

[1] https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter194

[2] Available here: http://www.divisiononaddiction.org/website_1/wp-content/uploads/2016/10/PPCGamesenseReport2015_2016.pdf

adopt responsible gambling strategies, given that GameSense is part of the MGC's "mission to encourage responsible play and mitigate problem gambling" (Massachusetts Gaming Commission, 2017). Finally, we define reach as the percent penetration of the GameSense program into the target population. Though the GameSense target population includes both PPC patrons and the broader public (Massachusetts Gaming Commission, 2014a), in this evaluation we define reach as the percent of PPC patrons that GameSense engages. Program impact is the product of reach and effectiveness (Abrams et al., 1996). Consider two extreme scenarios: GameSense could be very effective but have zero impact if it reaches 0% of its target population. Or, it could have 100% reach but have zero impact if it has no effectiveness. Our Wave 1 report represented an initial attempt to conduct such an evaluation of GameSense program at PPC. In the next section, we briefly review Wave 1 findings and provide the rationale for Wave 2.

3.3. WAVE 1 FINDINGS

With regard to **safety**, the Wave 1 findings did not suggest that PPC patrons were being harmed by the GameSense programming. Our conclusions about PPC patrons' perspectives came from surveys completed by a subset of patrons—those who engaged in back-and-forth conversations with GameSense Advisors about problem or responsible gambling. We refer to this group as "Exchange visitors." They represented approximately 15% of all visitors who interacted with GameSense Advisors (GSAs). As described in more detail below, the vast majority of Exchange patrons who completed our survey reported positive feelings about the GSA with whom they spoke. We also explored the safety of the program by asking Exchange visitors how their conversation with a GSA might change their behavior. It is not outside the realm of possibility that the GameSense program could inadvertently encourage gamblers to gamble beyond personally affordable money and time limits. However, only 5 respondents, or 3.5% of the sample, indicated that they would increase their gambling behavior as a result of their conversation with a GSA. Increasing gambling behavior would only be harmful for people who were approaching, or who had already exceeded, their personally affordable limits. One hundred and thirty-five respondents commented on their GameSense experience, and the vast majority of these comments were positive in nature. It is possible that the GameSense program is safe for casino patrons but unsafe for employees. Our evaluation was not designed to measure GSAs' experiences formally, but anecdotal information suggested that some GSAs found some of their interactions with patrons to be distressing. The MCCG supplemented GSAs' clinical supervision and training in response to these observations.

With regard to **effectiveness**, according to the Massachusetts Gaming Commission, the ultimate goal of the GameSense program at PPC is to "engage players and the public with responsible gaming and problem gambling information and tools while removing the stigma often associated with accessing these resources" (Massachusetts Gaming Commission, 2014b). The Commission's Responsible Gaming Framework (Massachusetts Gaming Commission, 2014a) further specifies that center staff should share responsible gambling tips with patrons, knowledge of how games work, and the inaccuracies and dangers of common gambling myths. If the program is meeting this goal, GameSense visitors will have more information and awareness about responsible gambling, problem gambling, and available resources after speaking with GameSense Advisors compared to before, will report a lack of stigma associated with using responsible gambling or problem gambling resources, and will be more likely to make use of responsible gambling tips.

The Wave 1 report took initial steps toward evaluating progress toward this *ultimate* goal by evaluating progress toward four *intermediate* goals. More specifically, we evaluated progress toward the goals of (1) providing responsible gambling information and resources across the spectrum of needs, (2) appealing to a wide audience, (3) establishing strong working alliances with visitors, and (4) attracting visitors from

both inside and outside the casino. We used Visitor Survey data to measure progress toward these goals. In addition, we used service records GSAs collected via a computerized Checklist.

Our Wave 1 findings support the conclusion that GameSense Advisors made progress toward these goals during the window of observation. Our results reveal that GameSense Advisors reported providing information about strategies to keep gambling within personally affordable money and time limits (i.e., responsible gambling strategies) during over 90% of their non-superficial interactions with PPC patrons. We supplemented this observation by asking Exchange visitors what they learned. More than 90% of those who completed our survey reported that they learned about strategies to keep gambling fun and/or how gambling works. We concluded, in the Wave 1 report, that "when GameSense Advisors had the opportunity to speak with casino patrons—beyond greeting them or providing directions—they typically provided responsible gambling information (Gray et al., 2016, p. 53). Wave 1 stopped short of asking visitors directly about their knowledge of responsible gambling concepts, use of responsible gambling strategies, or awareness of problem gambling resources. A primary goal of Wave 2 was to expand on our Wave 1 effectiveness findings by asking visitors these kinds of questions, in addition to measuring their exposure to GameSense programming.

The Wave 1 findings supported the conclusion that GameSense appealed to a wide audience, established strong working alliances with visitors, and attracted visitors from both inside and outside the casino. For instance, the majority of Exchange visitors reported that GameSense services are appropriate for anyone who gambles. This message is important because stigma associated with gambling disorder often prevents people from accessing treatment resources (Gainsbury, Hing, & Suhonen, 2014). Our findings were particularly strong with regard to establishing a strong working alliance. Exchange visitors overwhelmingly reported being satisfied with GameSense services. The majority reported that their visit to the GameSense Info Center enhanced their visit to PPC and that they would return to the Info Center. Nearly nine in ten visitors reported that the GameSense Advisor with whom they spoke listened to them and was caring, helpful, and knowledgeable. Finally, Wave 1 data indicated that half of visitors had heard about the GameSense Info Center before their visit (i.e., from outside the casino) and half heard about it during their visit (i.e., from inside the casino). Our conclusions were limited because GSAs only surveyed visitors who had Exchange interactions; general casino patrons might have different responses.

In addition to evaluating progress toward these goals, the Wave 1 report provided a detailed description of services provided by the GameSense Advisors during the window of observation. This was an important task because the GameSense program at Plainridge Park Casino is the first of its kind operating within the United States. We observed that GSAs had about 31 interactions with visitors each day, and some of these involved multiple visitors. In total, they interacted with about 52 visitors each day. These 52 visitors represented approximately 0.67% of the total number of people who visited PPC each day during the window of observation.[3] These rates serve as one indicator of the program's **reach**. Other indicators might include the number of people who are exposed to GameSense messaging from outside the casino, such as through print or radio ads, or the number of people who hear about the program from those who have spoken directly with GSAs. We observed that GSAs primarily had superficial interactions with visitors, such as when a casino patron needed directions within the casino. About 75% of conversations about responsible gambling or problem gambling began as more superficial interactions.

[3] This information was included in the Addendum to the Wave 1 report.

We encourage readers to interpret Wave 1 findings in light of several important limitations. First, we only collected responses from Exchange visitors, who represented approximately 15% of all patrons who interacted with GSAs. Consequently, we cannot conclude that their views represent those of all GameSense visitors. For instance, Exchange visitors might have had more natural interest or curiosity about gambling and responsible gambling, or more acceptance of the idea of a responsible gambling information center, than their counterparts. Second, Exchange visitors' responses suggested the existence of a halo effect, a positive bias that often appears when people are asked to evaluate other people. Third, and finally, our epidemiology of GameSense services was only as accurate as the information GSAs provided during the course of their workday as they balanced competing responsibilities.

3.4. WAVE 2 GOALS

The primary goal of Wave 2 was to extend our evaluation of the safety, effectiveness, and reach of GameSense. First, with regard to safety, we examined both Checklists and Visitor Survey responses to explore whether visitors or GSAs showed signs of harm. Though visitors expressed high satisfaction with the program during Wave 1, a small minority of interactions involved emotionally charged topics, such as voluntary self-exclusion and referral to professional treatment for gambling-related problems. During Wave 2, we provided GSAs with the opportunity to report whether visitors appeared agitated, hyper, threatening, or withdrawn during all non-superficial interactions. We examined Exchange visitors' survey responses to determine whether talking with a GSA produced unintentional negative consequences, such as increasing gambling expenditure or developing new misconceptions about gambling and responsible gambling.

With regard to effectiveness, we explored the extent to which GameSense encourages visitors to make well-informed choices about their gambling behavior. We did so by asking questions about visitors' gambling cognitions, use of responsible gambling strategies, and awareness of problem gambling resources. Ideally, we would test the hypothesis that exposure to GameSense increases visitors' awareness and understanding and promotes responsible gambling behavior. Testing this hypothesis would require a longitudinal (i.e., pre/post) design with a randomly assigned control group that does not interact with GameSense. Though the randomized controlled trial is the gold standard for medical research, it was not a practical or ethical option within this field research. Instead, we conducted a cross-sectional observational study. In this design, all respondents interacted with a GameSense Advisor at least once, and we studied the relationship between self-reported exposure to GameSense and Visitor Survey responses. We studied whether Exchange visitors who reported more exposure to GameSense programming were more likely than their counterparts to report using responsible gambling strategies, avoid cognitive distortions related to gambling, and demonstrate an understanding of responsible gambling concepts and problem gambling resources.

To maximize the breadth of the questions and minimize respondent burden, we used six versions of the survey. In one version of the survey, we asked several questions designed to measure visitors' gambling-related thoughts and beliefs. People who struggle with gambling problems often hold cognitive distortions, mistakenly believing that they can predict and even control gambling outcomes, even in objectively uncontrollable games such as slot machines (McInnes, Hodgins, & Holub, 2014; Toneatto, Blitz-Miller, Calderwood, Dragonetti, & Tsanos, 1997). These cognitive distortions are important to measure in the context of a responsible gambling initiative because they can contribute to gambling involvement and associated gambling problems (Goodie & Fortune, 2013; Ladouceur, 2004; Yakovenko et al., 2016). Correcting gambling distortions has for many years been a primary component of the clinical treatment of gambling disorder (Goodie & Fortune, 2013). GameSense Advisors might be positioned to correct cognitive distortions outside the realm of clinical treatment. Indeed, staff members of the onsite responsible

gambling center "Au Centre du Hasard," located in a Montreal casino, attempt to correct slot machine players' erroneous perceptions in addition to promoting responsible gambling strategies. A 2009 evaluation revealed that visitors to the Centre were less likely to hold an erroneous gambling belief than their control group counterparts, who did not visit the Centre. Specifically, Centre visitors were more likely to correctly reject the statement, "*A slot machine that has not paid out in a long time is just about to pay out*" (Boutin, Tremblay, & Ladouceur, 2009) than those who did not visit the Centre. Visiting the Centre had no apparent influence on a number of other gambling cognitions. Boutin and colleagues suggest that those who correctly rejected this belief about slot machines did so because they developed a more accurate understanding of the independence of each slot machine play. However, visiting the Centre *did not* increase the likelihood of using responsible gambling strategies to keep play within affordable limits. This is consistent with the broader observation that, when it comes to preventing harmful behaviors, promoting behavior change is more difficult than promoting knowledge change (Fortune & Goodie, 2012; Williams & Connolly, 2006). To explore whether visits to the PPC GameSense center were related to the use of responsible gambling strategies, we asked visitors about their use of a range of strategies, including the PlayMyWay budgeting tool introduced at PPC following the completion of Wave 1.

In a different survey version, we measured visitors' self-reported awareness of a range of resources for those experiencing gambling problems, including Gamblers Anonymous, the Gambling Helpline operated by the MCCG, and gambling treatment programs in Massachusetts. We studied whether visitors were aware that GameSense Advisors had resources for people who were concerned about their gambling. Because lack of awareness about professional help services is a significant barrier to help seeking among people experiencing gambling-related problems (Gainsbury et al., 2014), a goal of GameSense is to educate all patrons, including those who already gamble within personally affordable limits, about available resources –- thereby reducing the shame and stigma often associated with help seeking.

In a final Wave 2 survey version, we collected more information about visitors' reactions to GameSense, including their sense of working alliance with GameSense Advisors (GSAs). Specifically, we were interested in the likelihood that visitors would seek support from GSAs if they were to begin losing control over their gambling.

Finally, we used Checklist records and Visitor Surveys to continue our evaluation of the reach of GameSense at PPC. As we mentioned previously, Wave 1 Checklist records indicated that GSAs interacted with approximately 0.7% of PPC patrons each day. Wave 1 began when Plainridge Park Casino and the GameSense program within it were both newly operational; each had been open for less than six months when data collection began. As a result of natural changes and program evolution more broadly, or as a result of consideration of our Wave 1 findings, GSAs might have increased or decreased the extent of services they provided. As a result, we studied whether the reach estimate we observed during Wave 1 remained stable and evident during Wave 2. We compared Wave 1 and Wave 2 findings with regard to total interactions, total visitors, interactions of each type, and peak times.

Methods

3.5. PROCEDURES

3.5.1. Setting

As with Wave 1, Plainridge Park Casino (PPC) served as the setting of this evaluation. The GameSense program had staffing changes during the window of observation. They began with 3 full-time GSAs. One

of those left and another joined. In addition, 2 part-time staff members joined partway through Wave 2. Two MCCG staff members occasionally filled in for GSAs. In total, 8 individuals served as GSAs or filled in for GSAs during Wave 2. We refer to them as GSAs #1-8.[4] GSAs were on duty from 10am to 2am each day. The GameSense Info Center is located on the pathway from the parking garage elevator to the casino floor, though GSAs are not restricted to the Info Center and often speak with visitors elsewhere in the casino.

3.5.2. Checklist

Purpose

As with Wave 1, the GameSense Checklist was a record of interactions between GSAs and visitors.

Interaction Categories

The interaction categories remained the same as during Wave 1. During Wave 2, GSAs used four mutually-exclusive categories: (1) Simple (i.e. short, one-way communication regarding non-substantive issue, such as providing directions or a simple greeting); (2) Instructive (i.e. longer, one-way communication from GSA to visitor regarding responsible gambling or problem gambling); (3) Demonstration (i.e. longer, one-way communication centered around a demonstration, such as the marble game or use of the GameSense kiosk); and (4) Exchange (i.e. two-way interaction about responsible gambling or problem gambling). Using the Checklist, GSAs classified interactions according to the *highest level of engagement* present during the interaction. The voluntary budgeting tool PlayMyWay became available to casino patrons at the end of Wave 1. Enrolling or dis-enrolling a visitor into PlayMyWay required a back-and-forth conversation beginning with a question designed to elicit personal information, such as "*How much do you think you can afford to gamble each month?*" As a result, we emphasized to GSAs that they should always classify these conversations as Exchange interactions.

Data Collection

The procedure for completing the Checklist protocol remained unchanged between Waves 1 and 2. GSAs completed the Checklist on an iPad and were asked to do so following each interaction. Please note that, as with Wave 1, the total number of visitors represented by the Checklists does not reflect *unique* visitors. Visitors could be counted more than once.

3.5.3. Visitor Survey

Eligibility and Procedures

As with Wave 1, we instructed GSAs to ask all visitors with whom they had an Exchange interaction to complete a brief survey at the close of the interaction, with two exceptions we will describe in more detail below. We instructed GSAs to introduce the survey by emphasizing its brevity, purpose, and anonymity, and the small gift they gave in exchange for participation. If visitors agreed to participate and had never completed a survey previously, GSAs randomly selected one of the three First-Time Visitor Surveys. All three versions were printed on white paper. If visitors agreed to participate and reported that they already had completed one of these three surveys, GSAs asked them to complete a Repeat Visitor Survey, which was printed on green paper. We used different colored paper to help both visitors and GSAs distinguish the First-Time Visitor Surveys from the Repeat Visitor Surveys.

At PPC, GameSense Advisors administer voluntary self-exclusion applications and review applications and program requirements and rules with visitors who wish to self-exclude. GSAs provide enrollments a packet of resources provided by the MCCG, including contact information for gambling treatment and web links

[4] We began a new numbering system for Wave 2. The numeric codes do not necessarily match from Wave 1 to Wave 2.

for self-help resources. Visitors who had just enrolled in, or dis-enrolled from, voluntary self-exclusion were not eligible to complete one of these surveys. In addition, visitors who indicated that they had already completed both a First-Time Visitor Survey and a Repeat Visitor Survey were not eligible to complete another survey.

We intended this protocol to ensure that visitors could complete only one First-Time Visitor Survey and, if applicable, only one Repeat Visitor Survey. However, it is important to note that GSAs relied on visitors to indicate whether they already had completed a previous First-Time Visitor Survey or Repeat Visitor Survey. The surveys did not ask respondents to provide any identifying information. As a result of these conditions, we have no way to assure that surveys are truly independent from each other within each category (i.e., First-Time and Repeat).

As with Wave 1, respondents completed the surveys via paper-and-pencil and returned them to an onsite drop box. Then, an MGC staff member entered data into Survey Monkey.

Generalizability

As in Wave 1, because GSAs only administered Visitor Surveys to Exchange visitors, we cannot describe visitors' impressions of Simple, Instructive, or Demonstration interactions.

3.5.4. Human Subjects Protection

At the launch of Wave 1, we documented with the Cambridge Health Alliance Institutional Review Board that our activities (i.e., secondary analysis of Checklist and Visitor Survey records) did not represent human subjects research under the federal guidelines.

3.6. MEASURES

In this section, we describe questions included in the Checklist and Visitor Survey and match them to appropriate research questions.

As with Wave 1, we customized the Checklist for each interaction type using skip logic. The Checklist was least comprehensive for Simple interactions and most comprehensive for Exchange interactions.

Each version of the Visitor Survey was one-page long. The three First-Time Visitor Surveys asked different questions. To examine how visitors changed their responsible gambling knowledge and behavior as a function of exposure to GameSense and the GSAs, we repeated some of these questions in the Repeat Visitor Survey. The Appendix provides the full set of Wave 2 Visitor Surveys. We developed Spanish-language copies of all four survey versions, but no visitors elected to use Spanish copies.

3.6.1. Epidemiology of Services

The Wave 2 Checklist was similar to the Wave 1 Checklist, with some exceptions. We eliminated response options that were infrequently endorsed during Wave 1 and removed one question that no longer seemed worthy of inclusion.[5] The Checklist questions we used to answer the following research questions were identical to those described in the Wave 1 report:

1. How many interactions of each type are GSAs having with visitors?
2. How many visitors are involved in these interactions?

[5]We removed the question, "How did the interaction begin?" (e.g., I approached the visitor, the visitor approached me). In Wave 1, this question had been included in Exchange checklists.

3. How frequently do GSAs transition from one type of interaction to another?
4. How are GSAs dividing up the workload?
5. How are GSAs using the available space?
6. What are peak times for visitor interactions?

3.6.2. Visitor Characteristics and Behavior

Information about Visitor Characteristics and Behavior came from both the Checklist and the Visitor Surveys.

Similar to Wave 1, we used a section of the Checklist to ask questions about GSAs' impressions of visitors. During Wave 2, we included the same set of Visitor Impression questions for Instructive, Demonstration, and Exchange interactions. The GSAs estimated the gender (man or woman), age range, and type (i.e. casino patron, concerned other, casino employee, or other) of each visitor. They also estimated the visitor's emotional state by responding to the question, *"Do any of these describe [the visitor]?"* The available response options were (1) agitated, (2) hyper, (3) threatening, and, (4) withdrawn.[6] GSAs could select as many of these characteristics as applied to each visitor, or none at all. As in Wave 1, this section asked GSAs to estimate whether they had already interacted with the visitor and, if so, in what capacity (e.g., previous Simple interaction, previous Instructive interaction, previous Demonstration interaction).[7] We added the question, "*Did the visitor mention PlayMyWay*?" to the Visitor Impressions section, with the four response options (1) yes, he/she mentioned something positive about it, (2) yes, he/she mentioned something negative about it, (3) yes, he/she had a question about it, (4) and no. We asked GSAs to answer these Visitor Impression questions about each visitor, for up to two visitors.

Within all four versions of the Visitor Survey, respondents identified themselves in terms of (1) gender, (2) race, (3) ethnicity, (4) age, and (5) highest level of school completed.

3.6.3. GSA Actions

Information about GSA actions came from the Checklist. Here, we made several changes in the Checklist questions and response options between Waves 1 and 2. The goals guiding our Checklist revision were to (1) make questions more consistent across Instructive, Demonstration, and Exchange interactions and (2) collect more detailed information. The Wave 2 Checklist asked GSAs to answer the question, "*What did you do [during this interaction]?*" following an Instructive, Demonstration, and Exchange interaction. Previously, we asked this question differently for different interaction types. Making the question consistent across interaction types allows for a more straightforward accounting of all GSAs' behaviors across the range of services, from providing responsible gambling information to providing a pathway to gambling disorder treatment. We customized response options because GSAs could perform certain actions only for certain interaction types; for instance, the response options, "I enrolled or dis-enrolled visitors in/from PlayMyWay" and "I enrolled or dis-enrolled visitor(s) in/from voluntary self-exclusion" were only available within Exchange checklists.

3.6.4. Visitors' Exposure to GameSense

We operationalized GameSense exposure in two ways. First, we made a distinction between First-Time Visitor Survey respondents and Repeat Visitor Survey respondents. Both groups were eligible because they had just engaged in an Exchange interaction; the difference between these two groups is that the

[6] The corresponding Wave 1 question stem was "*This visitor appears to…*" and the response options were (1) be irritable, (2) anxious, or angry; (3) be sad; (4) be otherwise distressed; (5) be experienced with gambling; and (6) be under the influence of alcohol or other drugs.

[7] In Wave 1 but not in Wave 2, we included this question for Simple interactions.

First-Time Visitor Survey respondents reported that they had never before completed a survey, and Repeat Visitor Survey respondents reported that they had previously completed a survey. Second, within these two groups, we measured how many interactions of all kinds (i.e., Simple, Instructive, Demonstration, Exchange) visitors had with GSAs. We did so by asking, within all four Visitor Survey versions, "*How many interactions have you had with a GameSense Advisor?"* In the Results section, we (1) draw comparisons between First-Time and Repeat Visitor Survey respondents and (2) look for relationships between question responses and total number of GSA interactions. Figure 3.1 illustrates these two ways of operationalizing exposure to GameSense.

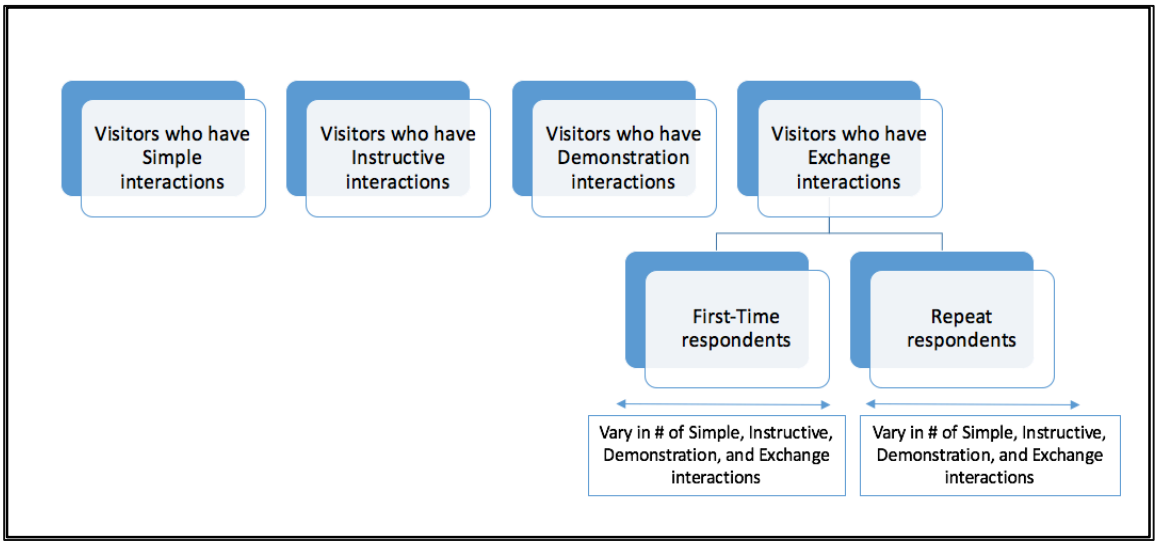


Figure 3.1: Two ways of operationalizing exposure to GameSense

3.6.5. Visitors' Responsible Gambling Knowledge and Behavior

The Responsible Gambling Knowledge and Behavior First-Time Visitor Survey and the Repeat Visitor Survey asked one question about visitors' self-reported use of responsible gambling strategies: "*Which of these responsible gambling strategies have you used in the past year?*" Respondents could select as many options as applied. Response options included (1) I avoided using ATMs at the casino, (2) I took a break to cool off, (3) I used PlayMyWay, and others. The Responsible Gambling Knowledge and Behavior First-Time Visitor Survey included several questions assessing visitors' gambling cognitions, including 7 true/false questions (several of which were used previously by Boutin et al. (2009)), and one multiple-choice item. Table 3.1 shows these 8 questions and the gambling fallacies they were designed to measure (Leonard, Williams, & Vokey, 2015).

Table 3.1: Gambling cognition questions, correct answers, and associated gambling fallacies

Item	Correct answer	Associated gambling fallacy
True/false: Wins and losses on a slot machine happen purely by chance.	True	Failure to understand the independence of random events (Monte-Carlo fallacy)
True/false: When you almost win at a slot machine, a win is coming soon.	False	Failure to understand the independence of random events (Monte-Carlo fallacy)
True/false: The odds of winning on a given slot machine are the same every time you play.	True	Failure to understand the independence of random events (Monte-Carlo fallacy)
True/false: If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.	False	Failure to understand the independence of random events (Monte-Carlo fallacy)

Item	Correct answer	Associated gambling fallacy
True/false: A slot machine that has not paid out in a long time is "due" to pay out.	False	Failure to understand the independence of random events (Monte-Carlo fallacy)
True/false: If you haven't won at a slot machine in a while, you're "due" for a win.	False	Failure to understand the independence of random events (Monte-Carlo fallacy)
True/false: You can do things to change your luck.	False	Illusion of control
On any given slot machine play, which outcome is most likely? (1) a small win, (2) a medium win, (3) a big win, (4) a loss, and (5) it depends on what's happened before.	A loss	Base rate neglect

We included the question "*On any given slot machine play, which outcome is most likely?"* in the Repeat Visitor Survey.

Finally, the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey asked, "*Excessive gambling can affect which of the following? Check all that apply*." Response options were (1) finances, (2) mental health, (3) personal relationships, and (4) physical health. We previously used this question to measure gaming employees' understanding of the breadth of consequences of gambling disorder (Gray, Tom, LaPlante, & Shaffer, 2015).

3.6.6. Visitors' Reactions to GameSense

The Reactions to GameSense First-Time Visitor Survey included six questions assessing respondents' impressions of GameSense services. We asked, "*Today, I talked to a GameSense Advisor because…*" Response options included (1) I was curious about GameSense, (2) I wanted to learn more about how gambling works, (3) I wanted to learn more about strategies to keep gambling fun, and other choices. We asked, "*How likely is it that you would recommend GameSense to a friend?"* Respondents answered using a Likert-type scale that ranged from (1) highly unlikely to (5) highly likely. The next question was, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*" Respondents could circle either (1) yes, (2) no, or (3) not sure. We asked, "*After today's conversation with a GameSense Advisor, will you do any of the following?*" Response options included (1) I will seek out more information about how to keep gambling fun, (2) I will think about changing my own gambling behavior, (3) I will seek help to change my gambling, and other choices. Another yes/no/not sure question was, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" Finally, we asked, "*To what extent do you agree with this statement: The GameSense Advisor I most recently spoke with gave me a new way to think about gambling?*" Respondents could check one Likert-type scale answer, ranging from (1) strongly disagree to (5) strongly agree. The Repeat Visitor Survey included the questions, "*Today, I talked to a GameSense Advisor because…*" and "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*" In addition, the Repeat Visitor Survey asked for self-reports of how previous conversations might have changed behavior. We asked, "*Before today, you had a conversation with a GameSense Advisor. After that earlier conversation, did you do any of the following?*" Response options mirrored the response options for the version of this question included in the Reactions to GameSense First-Time Visitor Survey. They included (1) I sought out more information about strategies to keep gambling fun, (2) I thought about changing my own behavior, (3) I sought help to change my gambling, and so on.

3.6.7. Visitors' Resources and Treatment Knowledge

The Resources and Treatment Knowledge First-Time Visitor Survey asked about respondents' awareness of a variety of resources. The first four questions used a yes/no/not sure format: (1) *Have you heard about PlayMyWay?* (2) *Is there gambling treatment available in your community?* (3) *Are there Gamblers' Anonymous meetings in your community?,* (4) *Does Massachusetts have resources for people who are concerned about their gambling?* We asked two questions about PlayMyWay: "*How does PlayMyWay work?"* ((1) players set limits and cannot gamble any more once they reach those limits), (2) players receive bonus points every time they visit the casino, (3) players set limits and get notifications when they are close to or reach their limits, (4) I'm not sure)) and "*What is the purpose of PlayMyWay*?" ((1) to put a limit on how much people can gamble, (2) to help players monitor their gambling, (3) to teach players how slot machines work, (4) I'm not sure)). Finally, we asked respondents to indicate how familiar they were with several resources (i.e., the Massachusetts Council on Compulsive Gambling, the Massachusetts Gambling Helpline, gambling treatment programs in Massachusetts, the Massachusetts Gaming Commission, and Gamblers' Anonymous Meetings in Massachusetts). To respond, they used a scale from "never heard of it" to "have used or interacted with it." We included the question, "*What is the purpose of PlayMyWay*?" on the Repeat Visitor Survey.

3.6.8. General Comments

At the end of all versions of the survey, visitors were asked to provide comments on their experiences.

3.7. Analytic Plan

3.7.1. Checklist

We generated descriptive statistics for all Checklist variables. More specifically, we present frequency distributions to summarize GSAs' responses to each Checklist question. Where appropriate, we present additional descriptive statistics, such as mean, standard deviation, and range.

We refer to a "number of visitors" in the text and in tables/figures, but it is important to remember that we counted visitors each time they engaged with a GSA. To illustrate, if a visitor had 5 Exchange interactions with a GSA during the window of observation, he was counted 5 times. These counts do not represent unique visitors.

3.7.2. Visitor Survey

As with the Checklist findings, we present descriptive statistics (e.g., frequencies, means, standard deviations) for all Visitor Survey questions. We used appropriate statistical tests to evaluate the null hypothesis that visitors with different levels of exposure to GSAs, and different demographic characteristics, responded similarly to Visitor Survey questions. We did not apply statistical tests to examine the significance of differences between First-Time and Repeat Visitor Survey responses because of the anonymous nature of the data; some First-Time respondents were represented among the Repeat respondents, but the absence of identifying information made it impossible to conduct the appropriate repeated measures tests.

3.7.3. A Note on Percentages and Missing Values

As with Wave 1, for many of the Checklist and Visitor Survey questions, determining the number of expected responses was fairly straightforward. Whenever we asked GSAs or visitors to provide one and only one response, the expected number of responses was simply the number of times the question was asked. In these cases, we determined the number of missing observations as simply the number of times a GSA

or visitor did not answer a question. We described the relative frequency (i.e., percentages) of each response by dividing the observed frequency of each response by the total number of expected responses. Other questions in the Checklist or Visitor Survey did not require any response at all and/or allowed for multiple responses. For example, GSAs could report that they discussed several different topics within a single Exchange interaction. For these questions, we do not report on missing observations. We calculated percentages using the number of times the question was asked as the denominator. However, those percentages do not necessarily sum to 100%. Throughout the Results section, we provide notes to assist reader interpretation of each type of question. In all the tables and figures that follow, we urge readers to interpret with caution any estimates derived from very small sample sizes (i.e., fewer than five respondents).

Results

3.8. DATA SOURCES

3.8.1. Checklist

In Wave 2, GSAs completed 7,878 Checklists, which indicates that they completed 7,878 interactions during the 6-month window of observation. This number translates into 43.8 interactions per day. The GSAs reported interacting with 16,995 visitors, or 94.4 per day. The GSAs did not report a number of visitors in 65 interactions, so therefore this number likely represents an underestimate of the total number of visitors who interacted with the GSAs.[8]

3.8.2. Visitor Survey

Survey Counts

In Wave 2, 691 Visitor Surveys were completed:

- 188 respondents completed a Responsible Gambling Knowledge and Behavior First-Time Visitor Survey.
- 195 respondents completed a Reactions to GameSense First-Time Visitor Survey.
- 179 respondents completed a Resources and Treatment Knowledge First-Time Visitor Survey.
- 129 respondents completed a Repeat Visitor Survey.

Response Rate

Response rate is important because it indicates the extent to which survey respondents represent all visitors who were eligible to complete a survey. Acceptable response rates are necessary to confidently generalize results from the obtained sample to the population from which the sample was drawn. The minimal acceptable response rate is 70.0% (Singleton & Straits, 2005). Any response rate less than 70.0% raises the possibility that the results should not be generalized to the larger population from which the sample was drawn.

We monitored weekly and cumulative response rates closely during Wave 2. We observed substantial fluctuation during Weeks 6-10. During Weeks 6 and 7, response rates were 120% and 225%, respectively. The Week 8 response rate was 28.0%. During Weeks 9 and 10, response rates were 14.3% and 12.0%,

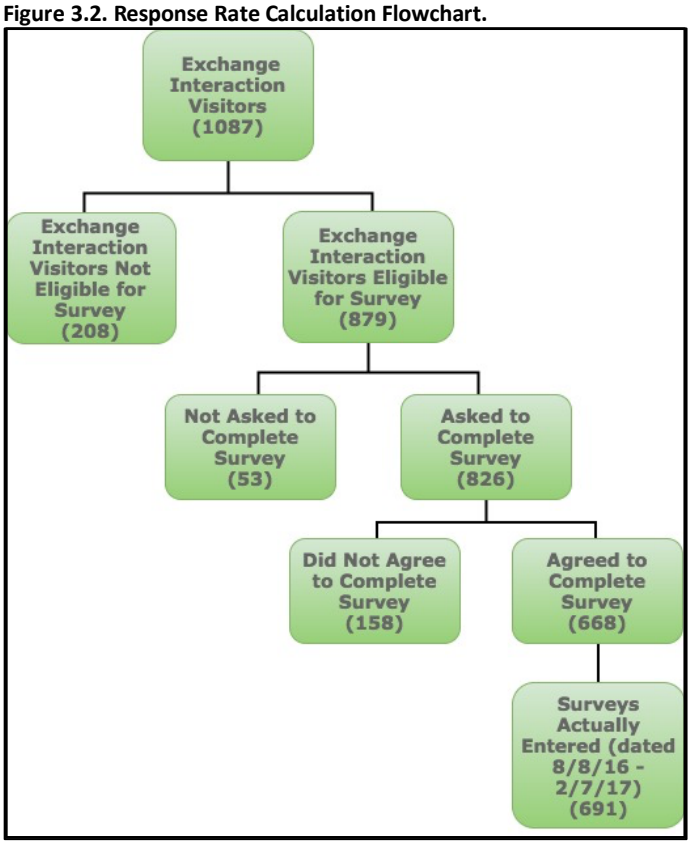
[8] When GSAs did not enter the number of visitors for a given interaction, a situation that occurred 65 times during the window of observation, we counted the interaction toward the total number of interactions but did not count any visitors toward the total number of visitors.

respectively. We remain concerned by both the degree of fluctuation and the impossibly high values. Response rates over 100% are impossible because they indicate that the number of visitors who completed a survey was greater than the number of visitors who were eligible to complete a survey. In addition, the response rate exceeded 100% during Week 17. We believe, on the basis of inspection of Checklist data and discussions with GSAs' managers, that, during at least Weeks 6, 7, and 17, GSAs inadvertently under-reported the number of visitors with whom they interacted. In doing so, they provided underestimates of (1) visitors eligible/ineligible to complete a survey, (2) visitors asked/not asked to complete a survey, and (3) visitors who agreed/did not agree to complete a survey. For example, GSAs reported that 668 visitors agreed to completed surveys, but in reality 691 visitors completed surveys (See Figure 3.2).

The cumulative response rate is based in part on the total count of visitors eligible to complete a survey. Therefore, the under-reporting of visitors during at least three weeks undermines the validity of the cumulative response rate. Although we have calculated a cumulative response rate and present it below, we encourage readers to evaluate it in light of the known limitations in data quality.[1]

As Figure 3.2 shows, according to GSAs' counts, 879 visitors were eligible for a survey. A total of 691 completed surveys were returned. Therefore, the cumulative response rate for Wave 2 was 78.6%.

Figure 3.2. Response Rate Calculation Flowchart.



Note: The total number of eligible visitors includes both First-Time and Repeat visitors.

[1] We observed the same limitation in data quality during Wave 1, when, during Weeks 16 and 23, the response rate exceeded 100%. For example, during Week 16 of Wave 1, GSAs reported that 133 visitors were eligible to complete a survey, but 141 surveys were completed. We assume that during at least these two weeks of Wave 1, GSAs inadvertently under-reported the number of visitors eligible to complete a survey.

Fluctuations in Response Rates

Because of these dramatic fluctuations in response rates during Weeks 6-10, we conducted supplementary analyses examining potential changes in Visitor Survey responses over time. The Appendix describes these analyses.

3.9. EPIDEMIOLOGY OF SERVICES

We used Checklist and Visitor Survey data to answer the following six questions.

How many interactions of each type are GSAs having with visitors?

As Table 3.2 shows, the GSAs reported that most of their interactions were Simple interactions (72.6%), followed by Instructive interactions (15.4%), Exchange interactions (10.0%), and Demonstration interactions (1.9%). We observed a similar pattern counting individual visitors.

Table 3.2: Total interactions, total visitors, and visitors per interaction, overall and by interaction type

	Total Interactions		Total Visitors	
Interaction Type	N	%	N	%
Simple	5,722	72.6	13,363	78.6
Instructive	1,213	15.4	2210	13.0
Demonstration	153	1.9	333	2.0
Exchange	790	10.0	1,087	6.4
Total	7,878	100	16,993	100

How many visitors are involved in these interactions?

Table 3.3 shows, for each type of interaction, the number of visitors with whom the GSAs interacted. Across all interaction types, most interactions involved 1 or 2 visitors. Nearly all (98.7%) Simple interactions involved 5 visitors or fewer. During Instructive interactions, GSAs reported interacting with 1 visitor 44.7% of the time and 2 visitors 30.3% of the time. Demonstration interactions followed a similar pattern. A majority of Exchange interactions (67.0%) involved only 1 visitor.

Table 3.3: Number of recorded visitors per interaction

Interaction Type	# of Visitors Recorded	n	%
Simple (n = 5,722)	1	1467	25.6
	2	2376	41.5
	3	871	15.2
	4	629	11.0
	5	303	5.3
	More than 5	63	1.2
	Missing	13	0.2
Instructive (n = 1,213)	1	542	44.7
	2	368	30.3
	3	197	16.2
	4	65	5.4
	5	12	1.0
	More than 5	3	0.3
	Missing	26	2.1
Demonstration (n = 153)	1	69	45.1
	2	29	19.0
	3	26	17.0
	4	9	5.9
	5	5	3.3
	More than 5	5	3.4
	Missing	10	6.5
Exchange (n = 790)	1	529	67.0
	2	168	21.3
	3	46	5.8
	4	14	1.8
	5	4	0.5
	More than 5	1	0.1
	Missing	28	3.5

How frequently do GSAs transition from one type of interaction to another?

For Instructive, Demonstration, and Exchange interactions, GSAs reported whether the interaction began as a different type of interaction. Most Instructive and Exchange interactions began as Simple interactions. However, GSAs reported that a majority of Demonstration interactions began as Instructive interactions; initially they were sharing information with visitors, and they added in a game or kiosk lesson (see Table 3.4).

Table 3.4: Interaction transitions

Did this Interaction begin as a different kind of interaction? **(n = 2,156)**		
	n	**%**
Instructive Interactions (n = 1213)		
Yes, it started as a Simple Interaction	1116	92.0
No	69	5.7
Other	2	0.2
Missing	26	2.1
Demonstration Interactions (n = 153)		
Yes, it started as a Simple Interaction	45	29.4
Yes, it started as an Instructive Interaction	95	62.1
No	3	2.0
Other (please specify)	0	0.0
Missing	10	6.5
Exchange Interactions (n = 790)		
Yes, it started as a Simple Interaction	490	62.0
Yes, it started as an Instructive Interaction	176	22.3
Yes, it started as a Demonstration Interaction	18	2.3
No	67	8.5
Other (please specify)	6	0.8
Missing	33	4.2

How are GSAs dividing up the workload?

We answered this question using both Checklist and Survey data. First, Checklist data across all 4 interaction types reveal that GSA #8 completed the largest share of interactions (35.3%), followed by GSA #5 (20.8%), GSA #2 (17.8%), and GSA #6 (13.7%). See Figure 3.3.

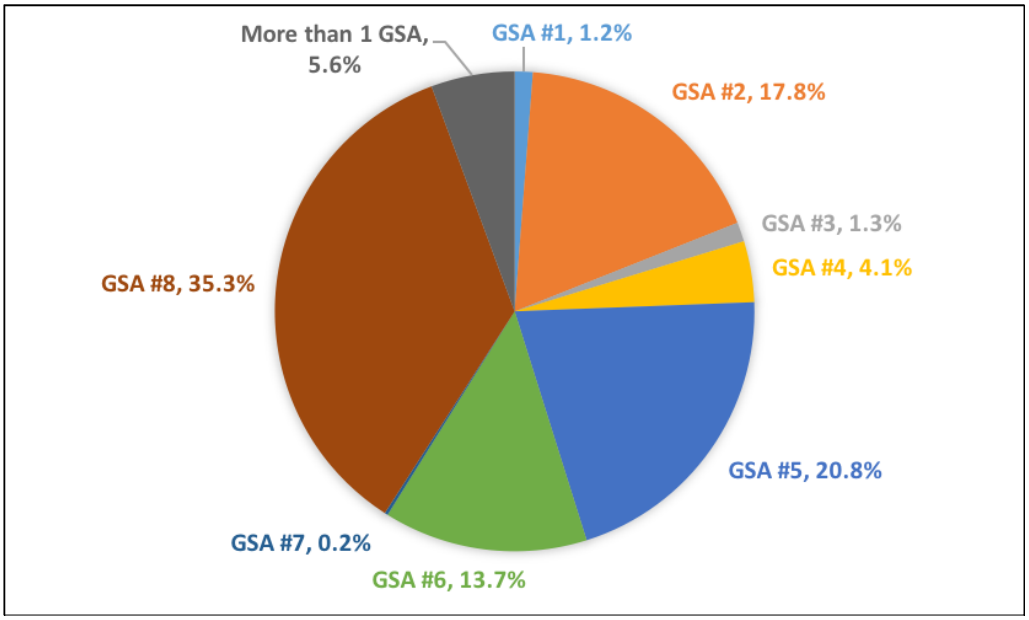


Figure 3.3: Distribution of all interactions by GSA

As part of the Visitor Surveys, which were administered only after Exchange interactions, we asked respondents to identify the GSA(s) with whom they interacted. GSA #8 was mentioned more than any other (21.1%), followed by GSA #2 (18.1%) and GSAs #4 and #6 (mentioned 8.4% each). Visitors indicated that they interacted with more than one GSA 35.6% of the time; see Figure 3.4.

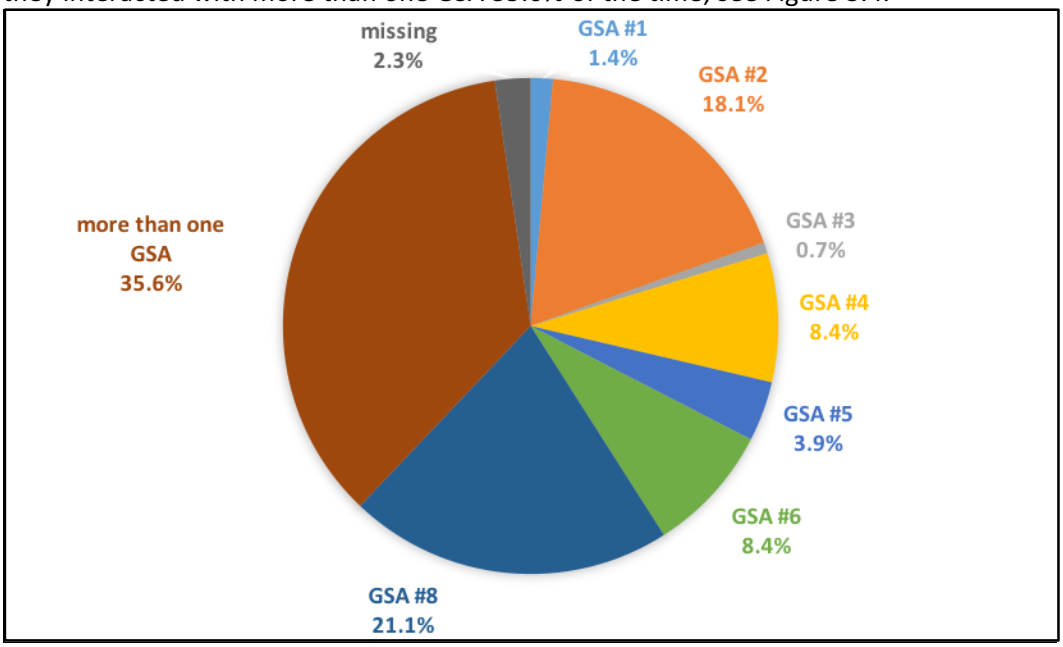


Figure 3.4: Proportion of GSAs mentioned in all Visitor Surveys

We examined Repeat Visitor Surveys separately and found that GSA #8 represented 38.0% of them. In a plurality of these interactions with "repeat customers," the visitor spoke with more than one GSA (Figure 3.5).

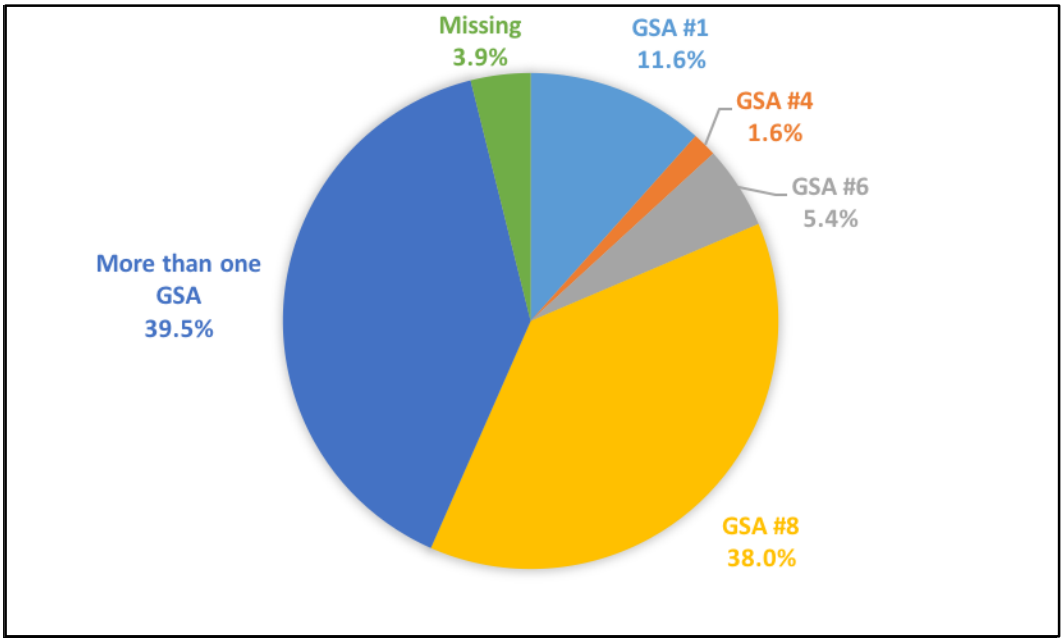


Figure 3.5: Proportion of GSAs mentioned in Repeat Visitor Surveys

How are GSAs using the available space?

Table 3.5 shows the locations of interactions with GSAs, separated by interaction type. The majority of interactions, regardless of interaction type, took place in the GameSense Info Center. A minority of Instructive, Demonstration, and Exchange interactions took place on the casino floor. GSAs rarely reported interactions taking place in other locations.

Table 3.5: Location of Instructive, Demonstration, and Exchange interactions

Location	Instructive (n = 1,213)		Demonstration (n = 153)		Exchange (n = 790)	
	n	%	n	%	n	%
GameSense Info Center	861	71.0	133	86.9	607	76.8
On the casino floor	309	25.5	9	5.9	123	15.6
Somewhere else (i.e. by website, in restaurant, back of house/employee area)	2	0.2	1	0.7	24	3.0
Missing	41	3.4	10	6.5	36	4.6

What are peak times for visitor interactions?

Based on Checklist data, we observed that Saturdays (21% of all interactions), Sundays (18%), and Fridays (16%) were the busiest days for visitor interactions. The busiest times of day for visitor interactions were 9am - 12pm (26%), 12pm - 3pm (22%), and 3pm - 6pm (21%). Figure 3.6 further breaks down this information by both weekday and time of day.

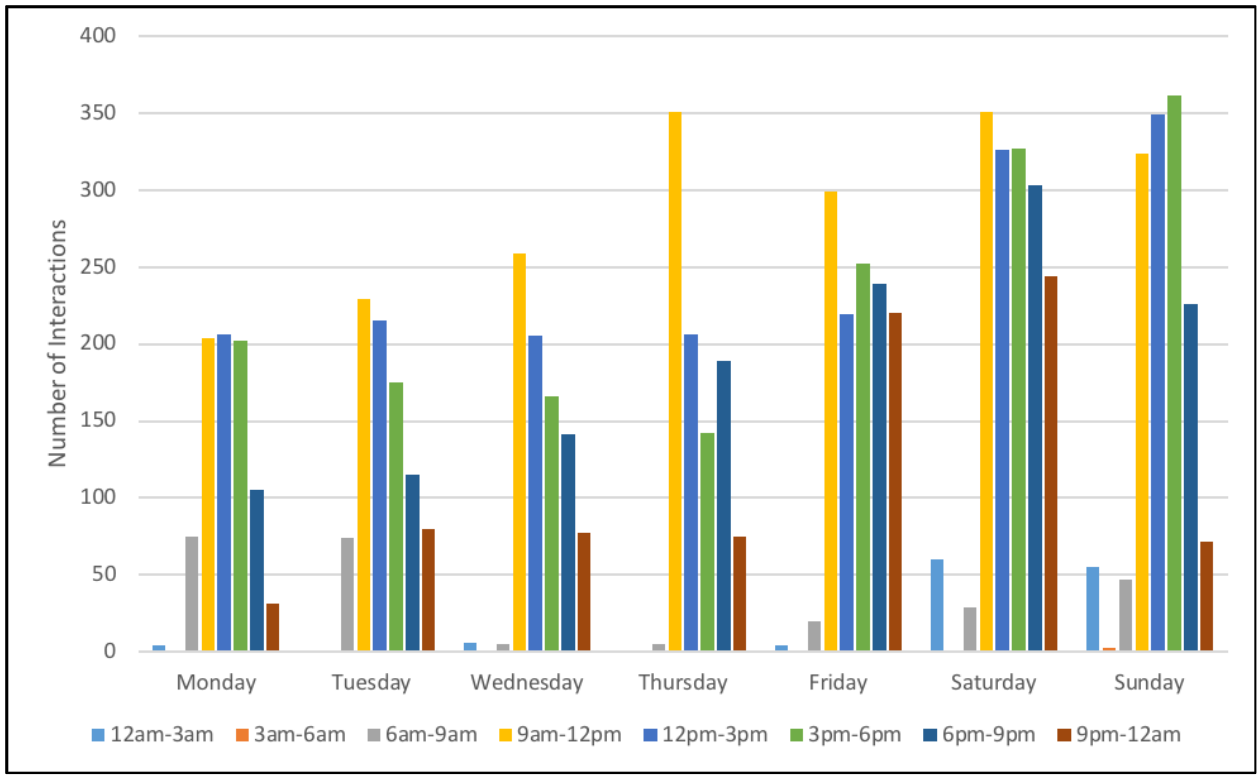


Figure 3.6: Number of interactions by weekday/time

Saturdays were the busiest days for completing Visitor Surveys, followed by Tuesdays and Fridays. The early afternoons were the busiest times for completing Visitor Surveys (see Figures 3.7 and 3.8).

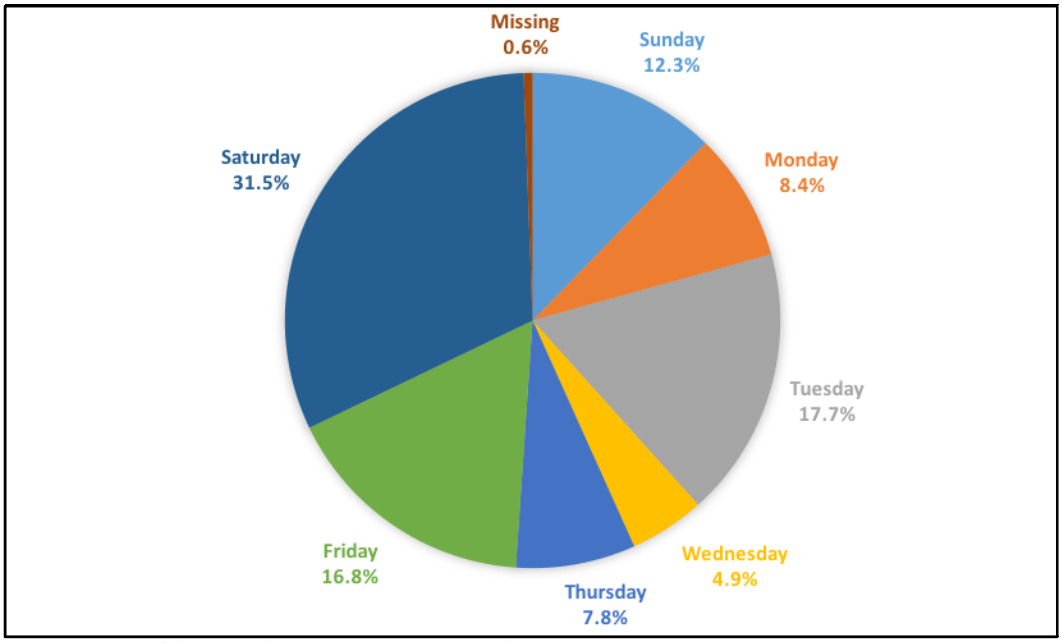


Figure 3.7: Weekday trends in Visitor Survey completion

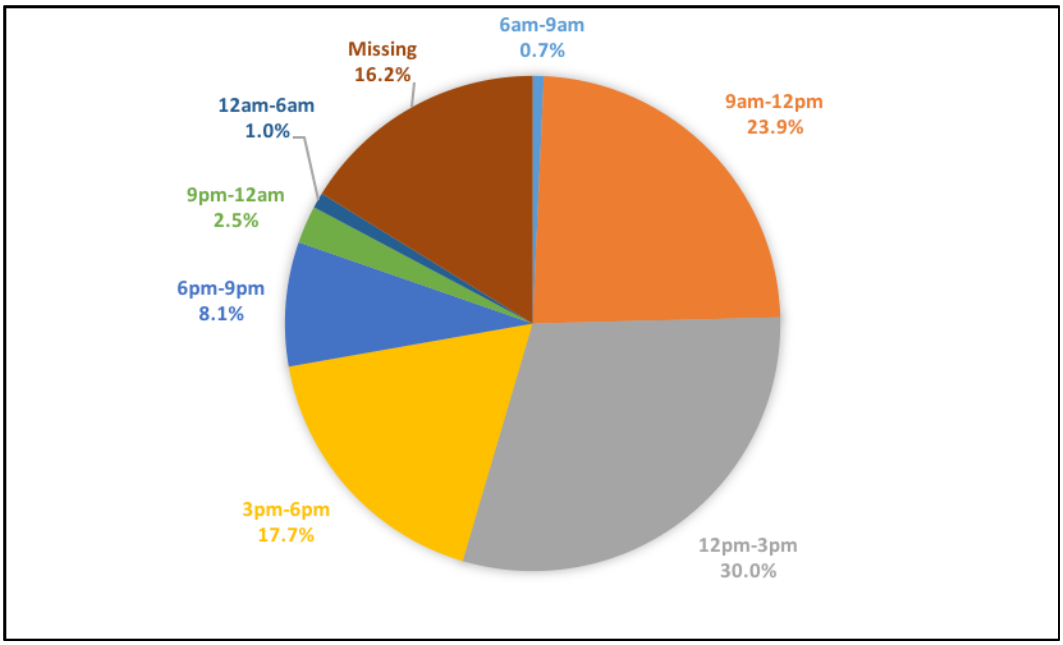


Figure 3.8: Time trends in Visitor Survey completion

3.10. VISITOR CHARACTERISTICS AND BEHAVIOR

We learned about visitors' demographic characteristics from both Checklists and Visitor Surveys. We asked GSAS to use the Checklist to describe individual visitors only after Instructive, Demonstration, and Exchange interactions, and only when these interactions involved one or two visitors. Table 3.6 reports their visitor impressions. GSAs estimated the gender of 2,202 visitors. They identified 1,141 visitors (50.1%) as female and 1,061 visitors (46.6%) as male. GSAs reported that almost half of their visitors were between the ages of 51-70 (49.4%), followed by ages 31-50 (28.2%). GSAs identified nearly all visitors as casino patrons (95.9%).

Table 3.6: Visitor demographics as estimated by GSAs

	Instructive (n = 1,278)		Demonstration (n = 127)		Exchange (n = 865)		Total (n = 2,276)	
	n	%	n	%	n	%	n	%
Gender								
Man	546	42.7	58	45.7	457	52.8	1061	46.6
Woman	711	55.6	67	52.8	363	42.0	1141	50.1
Missing	21	1.6	2	1.6	45	5.2	74	3.3
Age								
Between 18-30	127	9.9	6	4.7	75	8.7	208	9.1
Between 31-50	362	28.3	32	25.2	248	28.7	642	28.2
Between 51-70	645	50.5	72	56.7	407	47.1	1124	49.4
Age 71 or older	137	10.7	17	13.4	94	10.9	248	10.9
Missing	7	0.5	0	0.0	41	4.7	54	2.4
Visitor Type								
Casino Patron	1252	98.0	120	94.5	811	93.8	2183	95.9
Casino Employee	6	0.5	4	3.1	4	0.5	14	0.6
Concerned Other	0	0.0	0	0.0	2	0.2	2	0.1
Other	3	0.2	2	1.6	3	0.3	8	0.4
Missing	17	1.3	1	0.8	45	5.2	69	3.0

After these same interactions, GSAs also reported if they noticed any of the following visitor behavior characteristics: agitated, hyper, threatening, withdrawn. GSAs very rarely reported that visitors were agitated, hyper or withdrawn and never reported that visitors appeared threatening; see Table 3.7.

Table 3.7: Responses to "*Do any of these describe Visitor #1/#2?*"

	Instructive (n = 1,278)		Demonstration (n = 127)		Exchange (n = 865)		Total (n = 2,276)	
Response Options	n	%	n	%	n	%	n	%
Agitated	4	0.3	1	0.8	15	1.7	21	0.9
Hyper	4	0.3	1	0.8	9	1.0	14	0.6
Threatening	0	0.0	0	0.0	0	0.0	0	0.0
Withdrawn	7	0.5	2	1.6	15	1.7	24	1.1
Any of these responses	15	1.2	4	3.1	36	4.2	56	2.5

We looked specifically at the 30 Exchange interactions in which a GSA reported enrolling visitors in voluntary self-exclusion. As Table 3.8 shows, GSAs perceived visitors to be agitated, hyper, or withdrawn during 26.7% of voluntary self-exclusion enrollments. They perceived visitors to be experiencing one of these emotional states during only 3.4% of Exchange interactions that did *not* involve enrollment in voluntary self-exclusion. This represents a statistically significant difference (chi square (1) = 39.46, $p < 0.001$). In summary, GSAs were more likely to perceive visitors to be emotionally distressed while enrolling in voluntary self-exclusion versus other Exchange interactions.

Table 3.8: Responses to "*Do any of these describe Visitor #1/#2?*" (VSE enrollments only)

	Exchange: voluntary self-exclusion enrollment (n = 30)		Exchange: any interaction except voluntary self-exclusion enrollment (n = 835)	
Response Options	n	%	n	%
Agitated	3	10.0	12	1.4
Hyper	1	3.3	8	1.0
Threatening	0	0.0	0	0.0
Withdrawn	4	13.3	11	1.3
Any of these responses	8	26.7	28	3.4

Table 3.9 summarizes respondents' answers to demographic questions, with responses to the three First-Time Visitor Surveys collapsed and presented alongside responses to the Repeat Visitor Survey. While men and women were approximately equally likely to complete First-Time surveys (46.8% and 51.4%, respectively), men were overrepresented, compared with women, among Repeat Visitor Survey respondents (69.8% versus 27.1%). Respondents to both the First-Time and Repeat Visitor Surveys were most likely to identify as Whites (73.8% and 81.4%, respectively). While 15.3% of First-Time Visitor Survey respondents identified as Asian, only 5.4% of Repeat Visitor Survey respondents did so. The mean age was similar across both types of surveys (52.7 years for First-Time Visitor Survey respondents and 53.5 years for Repeat Visitor Survey respondents). Respondents were varied in terms of their educational attainment; for both types of surveys, the most frequently endorsed category was high school graduate or equivalent (endorsed by 30.6% of First-Time Visitor Survey respondents and 27.1% of Repeat Visitor Survey respondents).

Table 3.9: Demographic profile of visitors who completed Visitor Surveys

	First Time Visitor Surveys (n = 562)			Repeat Visitor Surveys (n = 129)		
	n	%	mean (SD)	n	%	mean
Gender						
Man	263	46.8		90	69.8	
Woman	289	51.4		35	27.1	
Missing	10	1.8		4	3.1	

	First Time Visitor Surveys (n = 562)			Repeat Visitor Surveys (n = 129)		
	n	%	mean (SD)	n	%	mean (SD)
Race						
White	415	73.8		105	81.4	
Black/African American	32	5.7		8	6.2	
Asian	86	15.3		7	5.4	
AI/AN* or Native Hawaiian/other Pacific Islander	7	1.2		0	0.0	
Two or more races	16	2.8		5	3.9	
Missing	6	1.1		4	3.1	
Ethnicity						
Hispanic/Latino	12	2.1		5	3.9	
Not Hispanic/Latino	444	79.0		93	72.1	
Missing	106	18.9		31	24.0	
Age (years)			52.7 (15.8)			53.5 (15.8)
Highest level of school completed						
Some high school or lower	42	7.5		4	3.1	
High school graduate or equivalent	172	30.6		35	27.1	
Some college	122	21.7		33	25.6	
Associate's degree	84	14.9		18	14.0	
Bachelor's degree or higher	123	21.9		27	20.9	
Missing	19	3.4		12	9.3	

* = AI/AN = American Indian/Alaska Native

During Instructive, Demonstration, and Exchange interactions, GSAs also reported whether they believed that they had interacted with the visitor before, and if so, what type(s) of interactions they had previously had. As Table 3.10 shows, GSAs reported that they had not previously interacted with a majority (78.6%) of Instructive visitors. In contrast, GSAs reported previously interacting with a majority (55.9%) of Demonstration visitors. GSAs reported previously interacting with 44.8% of Exchange visitors.

Table 3.10: Responses to the question, *"Have you interacted with this patron or employee before?"*

Instructive (n = 1,278)		
	n	%
Yes: previous interaction type:	202	15.8
Simple	*196*	*97.0*
Instructive	*54*	*26.7*
Demonstration	*14*	*6.9*
Exchange	*49*	*24.3*
No	1005	78.6
I don't know	41	3.2
Missing	30	2.3

Demonstration (n = 127)		
	n	%
Yes: previous interaction type:	71	55.9
Simple	*71*	*100.0*
Instructive	*55*	*77.5*
Demonstration	*8*	*11.3*
Exchange	*23*	*32.4*
No	49	38.6
I don't know	4	3.1
Missing	3	2.4
Exchange (n = 871)		
	n	%
Yes: previous interaction type:	390	44.8
Simple	*376*	*96.4*
Instructive	*242*	*62.1*
Demonstration	*81*	*20.8*
Exchange	*214*	*54.9*
No	403	46.3
I don't know	29	3.3
Missing	49	5.6

We asked GSAs to report whether visitors mentioned PlayMyWay during the course of Instructive, Demonstration, and Exchange interactions. If they did, GSAs reported whether they said something positive about it, said something negative about it, or had a question about it. GSAs could select multiple responses. We did not provide additional guidance about the meaning of "something positive" or "something negative."

Across all three interaction types, GSAs reported that a majority of visitors in these interactions mentioned PlayMyWay.[10] In Instructive interactions, a majority of visitors who mentioned PlayMyWay had a question about it, and nearly half said something positive about it. The Demonstration and Exchange interactions followed the same pattern; see Table 3.11.

[10] In one Checklist, the GSA reported that the visitor *both* did not mention PlayMyWay *and* said something positive about it. We removed this Checklist from this analysis.

Table 3.11: Responses to the question "*Did Visitor #1/#2 mention PlayMyWay?*"

	Instructive (n = 1,278)		Demonstra-tion (n = 127)		Exchange (n = 865)		Total (n = 2,276)	
Response Options	n	%	n	%	n	%	n	%
Yes	821	64.2%	101	79.5%	563	65.1%	1485	65.2%
The visitor said something positive about it.	*366*	*44.6%*	*45*	*44.6%*	*219*	*38.9%*	*630*	*42.4%*
The visitor said something negative about it.	*9*	*1.1%*	*3*	*3.0%*	*10*	*1.8%*	*22*	*1.5%*
The visitor had a question about it.	*454*	*55.3%*	*53*	*52.5%*	*376*	*66.8%*	*883*	*59.5%*
No	360	28.2%	20	15.7%	246	28.4%	626	27.5%
Missing	98	7.7%	6	4.7%	56	6.5%	165	7.2%

GSAs could select more than one response.

3.11. GSA ACTIONS

When describing Instructive and Exchange interactions, GSAs chose from a similar list of potential actions they took or topics they discussed with visitors. As Table 3.12 shows, during Instructive interactions, GSAs most commonly reported providing information about PlayMyWay (96.0%), followed by providing information about responsible gambling or gambling consequences (11.8%). GSAs rarely reported other topics of conversation or actions they took during Instructive interactions. During Exchange interactions, GSAs most commonly reported providing information about responsible gambling or gambling consequences (77.6%), followed by providing information about PlayMyWay (67.7%) and enrolling visitors in PlayMyWay (31.3%). GSAs only rarely provided information about voluntary self-exclusion (3.8%), enrolled visitors in self-exclusion (3.8%), dis-enrolled visitors from self-exclusion (1.3%), or provided information about the Gambling Helpline (1.0%).

Table 3.12: GSA actions during Instructive and Exchange interactions

Response options	Instructive (n = 1,213)		Exchange (n = 790)	
	n	%	n	%
Provided information about responsible gambling (e.g., how to play the games, odds of winning/losing, gambling myths, house advantage, randomness, how to keep gambling fun) or gambling consequences (e.g., emotional or mental health, legal issues, substance use, threat to harm self or others)	143	11.8%	613	77.6%
Provided information about PlayMyWay	1164	96.0%	535	67.7%
Enrolled the visitor(s) in PlayMyWay			247	31.3%
Dis-enrolled the visitor(s) from PlayMyWay			6	0.8%
Provided information about the Gambling Helpline	2	0.2%	8	1.0%
Provided a referral for treatment for problem gambling	0	0.0%	2	0.3%
Provided self-help resources (e.g., Your First Step to Change) or offered to complete a screen for gambling disorder	0	0.0%	2	0.3%
Handed the visitor(s) off to someone in customer service or to someone else who could help with gambling-related problems			0	0.0%
Provided information about voluntary self exclusion	3	0.2%	30	3.8%
Enrolled the visitor(s) in voluntary self-exclusion			30	3.8%
Dis-enrolled the visitor(s) from voluntary self-exclusion			10	1.3%
Provided information about help for someone else	0	0.0%	4	0.5%
Other	14	1.2%	46	5.8%

Total percentage exceeds 100% because GSAs could select more than one response.

After most (83.0%) Demonstration interactions, GSAs reported they showed the visitor how to use the GameSense kiosk. Less commonly, they reported performing a demonstration (11.1%). See Table 3.13.

Table 3.13: GSA actions during Instructive and Exchange interactions

Response options	n	%
I showed the GSIC visitor how to use the GameSense kiosk (but we never transitioned to a back-and-forth conversation about responsible/problem gambling).	127	83.0%
I performed a demonstration	17	11.1%

3.12. VISITORS' EXPOSURE TO GSAS

Recall that within all versions of the Visitor Survey, we asked visitors, *"How many interactions have you had with a GameSense Advisor?"* Again, we collapsed responses across all three First-Time surveys. A total of 45 First-Time respondents, and 9 Repeat respondents, did not answer this question. Of those who did, most (59.8%) First-Time survey respondents reported having only one interaction with a GSA. The remaining 40.2% reported having more than 1 interaction with a GSA (mean (SD) = 2.8 (6.8)); range = 1-100;

median = 1.0). This could have occurred if a previous interaction was of the Simple, Instructive, or Demonstration type, or if the respondent previously had an Exchange interaction and did not complete a survey. On the other hand, Repeat Visitor Survey responses were more evenly distributed. On average they reported having 30.4 interactions with GSAs (SD = 31.3), with a range of 2-200 and a median of 20.0.

3.13. VISITORS' RESPONSIBLE GAMBLING KNOWLEDGE AND BEHAVIOR

Table 3.14 shows responses to the true/false questions on the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey (n = 188), with correct responses bolded. Most (94.7%) participants correctly recognized that wins and losses on a slot machine happen purely by chance. Smaller majorities rejected false notions that (1) you can do things to change your luck (84.6%), (2) someone who hasn't won in a while is "due" for a win (84.%), (3) a slot machine that has not paid out in a long time is "due" for a win (80.9%) and (4) a win likely follows a near miss (79.8%). A smaller majority recognized that the odds of winning on a slot machine every time (77.1%). Finally, only 55.3% of participants correctly rejected the nation that a slot machine that has had a big payout will not pay out again soon.

Table 3.14: Response to true/false questions (First-Time Visitor Survey).

	True (%)	False (%)	Missing (%)
Wins and losses on a slot machine happen purely by chance.	**94.7**	4.3	1.1
You can do things to change your luck.	13.3	**84.6**	2.1
If you haven't won at a slot machine in a while, you're "due" for a win.	14.4	**84.6**	1.1
A slot machine that has not paid out in a long time is "due" to pay out.	17.6	**80.9**	1.6
When you almost win at a slot machine, a win is coming soon.	18.6	**79.8**	1.6
The odds of winning on a given slot machine are the same every time you play.	**77.1**	21.8	1.1
If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.	43.1	**55.3**	1.6

Note: Correct responses are bolded.

We scored these responses as 1 (correct) and 0 (incorrect) and summed to calculate each respondent's total score. On average, respondents answered 5.57 true/false questions correctly (SD = 1.79). A small number of respondents did not answer all questions. Therefore, for each respondent, we calculated the percent of questions answered correctly, of those answered at all. Two respondents did not answer any true/false questions and therefore had missing data. On average, respondents answered 80.6% of the true/false questions correctly (SD = 24.2%; median = 85.7%; range = 0%-100%).

This version of the survey asked respondents to indicate which domain of life might be affected by excessive gambling. Table 3.15 provides the percent of respondents who endorsed each life domain. Nearly all respondents (96.3%) recognized that excessive gambling can affect finances. Smaller majorities recognized the potential impact of excessive gambling on personal relationships (61.7%) and mental health (53.2%). Less than half of respondents recognized that excessive gambling can affect physical health (44.7%).

Table 3.15: Percent of respondents who endorsed each life domain in response to the question, "Excessive gambling can affect which of the following?" (First-Time Visitor Survey)

Life Domain	Percent endorsing
Finances	96.3
Personal Relationships	61.7
Mental Health	53.2
Physical Health	44.7

Total percentage exceeds 100% because respondents could select more than one response.

Recall that we asked, "*Which of these responsible gambling strategies have you used in the past year?*" On the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey, we presented a list of 9 possible strategies. Table 3.16 presents the pattern of responses. The most commonly endorsed strategy was "I avoided using ATMs at the casino," endorsed by 81.4% of respondents. Minorities of respondents reported using a loss limit (37.2%), a win limit (6.9%) or a time limit (4.8%) or any of the other strategies to manage their gambling during the past year. Nearly all respondents—96.3%—reported using at least one of the strategies for keeping their gambling within personally affordable limits.

Table 3.16: Percent of respondents who endorsed each past-year responsible gambling strategy (First-Time Visitor Survey)

Strategy	Number endorsing	Percent endorsing
I avoided using ATMs at the casino.	153	81.4
I stuck with a limit for how much I could ***lose*** during a single casino visit.	70	37.2
I thought of gambling as fun, not as a way to make money.	50	26.6
I did not "chase" my losses.	48	25.5
I left the casino while I was ahead.	38	20.2
I took a break to cool off.	24	12.8
I used PlayMyWay.	23	12.2
I stuck with a limit for how much I could ***win*** during a single casino visit.	13	6.9
I stuck with a limit for how much ***time*** I could spend during a single casino visit.	9	4.8
None of the above.	7	3.7

Total percentage exceeds 100% because respondents could select more than one response.

On the Repeat Visitor Survey, we provided the three limiting strategies (i.e., loss limits, win limits, time limits) as response options. The most commonly endorsed of these options was loss limits (60.5%). Minorities of Repeat respondents reported using time limits (23.3%) or win limits (14.0%) to manage their gambling. Only 5.4% of respondents did not report using any of these three strategies. See Table 3.17.

Table 3.17: Percent of respondents who endorsed each past-year responsible gambling strategy (Repeat Visitor Survey)

Strategy	Number endorsing	Percent endorsing
I stuck with a limit for how much I could ***lose*** during a single casino visit.	78	60.5
I stuck with a limit for how much ***time*** I could spend during a single casino visit.	30	23.3
I stuck with a limit I set for how much I could ***win*** during a single casino visit.	18	14.0
None of the above.	7	5.4

Total percentage exceeds 100% because respondents could select more than one response.

Finally, in both the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey and the Repeat Visitor Survey, we asked, "*On any given slot machine play, which outcome is most likely?*" As Table 3.18 shows, just over 40% of First-Time survey respondents endorsed the correct answer, "a loss." The correct answer was the most common response among First-Time survey respondents. However, only one-third of Repeat survey respondents endorsed the correct response. The most common response among this group was "a small win" (51.2%).

Table 3.18: Responses to "*On any given slot machine play, which outcome is most likely?*"

	First-Time Visitor Survey (n = 188)		Repeat Visitor Survey (n = 129)	
	Number endorsing	**Percent endorsing**	**Number endorsing**	**Percent endorsing**
A small win	71	37.8	66	51.2
A medium win	13	6.9	6	4.7
A big win	1	0.5	0	0
A loss	**76**	**40.4**	**43**	**33.3**
It depends on what's happened before	25	13.3	10	7.8
Missing	2	1.1	4	3.1

3.14. VISITORS' REACTIONS TO GAMESENSE

The 195 respondents who completed the Reactions to GameSense First-Time Visitor Survey were asked, "*How likely is it that you would recommend GameSense to a friend?"* Most (84.6%) answered, "highly likely." An additional 8.2% answered "likely." As Table 3.19 shows, the remaining response options were infrequently endorsed.

Table 3.19: Responses to the question, "*How likely is it that you would recommend GameSense to a friend?"* (First-Time Visitor Survey)

	Number endorsing	Percent endorsing
Highly Unlikely	4	2.1
Unlikely	0	0.0
Neutral	4	2.1
Likely	16	8.2
Highly Likely	165	84.6
Missing	6	3.1

Similarly, the majority of respondents (85.1%) strongly agreed with the statement, "*The GameSense Advisor I most recently spoke with gave me a new way to think about gambling."* Another 9.2% agreed with the statement. Only 1.0% of respondents expressed any disagreement with the statement. Table 3.20 summarizes responses.

Table 3.20: Responses to the statement, "*The GameSense Advisor I most recently spoke with gave me a new way to think about gambling.*" (First-Time Visitor Survey)

	Number endorsing	Percent endorsing
Strongly disagree	2	1.0
Disagree	0	0.0
Neither agree nor disagree	8	4.1
Agree	18	9.2
Strongly agree	166	85.1
Missing	1	0.5

Respondents considered the question, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" Most (89.7%) answered in the affirmative. An additional 0.5% (1 respondent) said "no," and 8.7% were unsure. Two respondents skipped this question; see Table 3.21.

Table 3.21: Responses to the question, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" (First-Time Visitor Survey)

	Number endorsing	Percent endorsing
Yes	175	89.7
No	1	0.5
Not Sure	17	8.7
Missing	2	1.0

We asked both First-Time and Repeat Visitor Survey respondents to indicate why they spoke with a GSA. First-Time respondents were more likely to cite their curiosity about GameSense, as compared with Repeat respondents (76.9% versus 29.5%). About half of each group cited wanting to learn more about how gambling works. While a majority (61.2%) of Repeat respondents indicated that they wanted to learn more about strategies to keep gambling fun, a minority of First-Time respondents did so (37.9%). Less than 5% of each group wanted information or help about a gambling problem. Table 3.22 shows the full pattern of responses.

Table 3.22: Responses to the prompt, "*Today, I talked to a GameSense Advisor because…*"

	First-Time Visitor Survey (n = 195)		Repeat Visitor Survey (n = 129)	
	Number endorsing	Percent endorsing	Number endorsing	Percent endorsing
I was curious about GameSense.	150	76.9	38	29.5
I wanted to learn more about how gambling works.	96	49.2	63	48.8
I wanted to learn more about strategies to keep gambling fun.	74	37.9	79	61.2
I wanted to learn more about or enroll in PlayMyWay.	62	31.8	31	24.0
I wanted to enter a raffle.	41	21.0	20	15.5
I wanted information or help about a gambling problem.	8	4.1	3	2.3
None of the above.	1	0.5	2	1.6
I had another concern or question.[11]	3	1.5	0	0.0

Total percentage exceeds 100% because respondents could select more than one response.

We asked both First-Time and Repeat respondents, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*" As Table 3.23 shows, the majority of First-Time respondents answered in the affirmative (87.7%). Even more Repeat respondents (93.0%) did so. Although nearly 10% of First-Time respondents were unsure whether they would turn to a GSA for help with a gambling problem, only 1.6% of Repeat respondents were unsure.

Table 3.23: Responses to the question, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*"

	First-Time Visitor Survey (n = 195)		Repeat Visitor Survey (n = 129)	
	Number endorsing	Percent endorsing	Number endorsing	Percent endorsing
Yes	171	87.7	120	93.0
No	1	0.5	2	1.6
Not Sure	19	9.7	2	1.6
Missing	4	2.1	5	3.9

As in Wave 1, we asked First-Time survey respondents, "*After today's conversation with a GameSense Advisor, will you do any of the following?*" We included a similar question in the Repeat Visitor Survey to explore whether respondents follow through with these plans. It was worded, *"Before today, you had a conversation with a GameSense Advisor. After that earlier conversation, did you do any of the following?"* For both First-Time and Repeat Visitor Survey respondents, the most frequent response was, "I will seek out/I sought out more information about strategies to keep gambling fun," endorsed by 68.2% of First-Time respondents and 54.3% of Repeat Visitor Survey respondents. Just over one third of First-Time respondents reported that they planned to think about changing their gambling behavior, and about the same proportion of Repeat respondents indicated that they did so (36.9% versus 38.8%). About one-quarter of First-Time Survey respondents reported that they would spend less time or money gambling, and

[11] We asked these three respondents to indicate their specific concern or question. Two mentioned PlayMyWay, and the third did not respond.

about one-quarter of Repeat respondents reported doing so (22.1% versus 26.4%). Table 3.24 shows the responses to both questions.

Table 3.24: Responses to the questions, "*After today's conversation with a GameSense Advisor, will you do any of the following?*" and *"After that earlier conversation [with a GameSense Advisor], did you do any of the following?"*

	First-Time Visitor Survey (n = 195)		Repeat Visitor Survey (n = 129)	
	Number endorsing	**Percent endorsing**	**Number endorsing**	**Percent endorsing**
I will seek out/I sought out more information about how to keep gambling fun.	133	68.2	70	54.3
I will think about/I thought about changing my own gambling behavior.	72	36.9	50	38.8
I will spend/I spent less time or money gambling.	43	22.1	34	26.4
I will seek/I sought help to change my gambling.	14	7.2	15	11.6
I will do/I did none of these.	6	3.1	4	3.1
I will spend/I spent more time or money gambling.	1	0.5	2	1.6
I will use/I used another strategy to keep gambling fun.[12]	1	0.5	5	3.9

Total percentage exceeds 100% because respondents could select more than one response.

3.15. VISITORS' RESOURCES AND TREATMENT KNOWLEDGE

Recall that the Resources and Treatment Knowledge First-Time Visitor Survey asked about respondents' awareness of a variety of resources. Table 3.25 shows responses to four yes/no/I'm not sure questions. Awareness was highest for PlayMyWay (86.6%) and Massachusetts-based resources for people with gambling problems (82.7%). Smaller majorities of respondents were aware of gambling treatment in their community (62.0%) and Gamblers' Anonymous meetings in their communities (53.6%).

Table 3.25: Respondents' awareness of resources (First-Time Visitor Survey).

		Number endorsing	Percent endorsing
Have you heard of PlayMyWay?	Yes	155	86.6
	No	17	9.5
	Not Sure	4	2.2
	Missing	3	1.7
Is there gambling treatment available in your community?	Yes	111	62.0
	No	4	2.2
	Not Sure	60	33.5
	Missing	4	2.2

[12] This First-Time survey respondent did not specify which strategy he would use. The Repeat Visitor Survey respondents specified, "No ATM card," "Played a different machine," and "Take a break."

		Number endorsing	Percent endorsing
Are there Gamblers' Anonymous meetings in your community?	Yes	96	53.6
	No	4	2.2
	Not Sure	74	41.3
	Missing	5	2.8
Does Massachusetts have resources for people who are concerned about their gambling?	Yes	148	82.7
	No	1	0.6
	Not Sure	25	14.0
	Missing	5	2.8

We asked First-Time Visitor Survey respondents to indicate their level of familiarity with a variety of resources, on a 4-point scale from "never heard of it" to "have used or interacted with it." Table 3.26 presents these results. Although few respondents had ever used or interacted with any of the resources we listed, most had at least at least heard of them. Of the five resources listed, they were most likely to select "never heard of it" for the Massachusetts Council on Compulsive Gambling (47.5%) and the Massachusetts Gambling Helpline (34.6%).

Table 3.26: Respondents' familiarity with a variety of MA-based gambling resources (First-Time Visitor Survey)

		Number endorsing	Percent endorsing
Mass. Council on Compulsive Gambling	Never heard of it	85	47.5
	Heard about it but not familiar with it	67	37.4
	Somewhat familiar with it	20	11.2
	Have used or interacted with it	0	0.0
	Missing	7	3.9
Mass. Gambling Helpline	Never heard of it	62	34.6
	Heard about it but not familiar with it	85	47.5
	Somewhat familiar with it	25	14.0
	Have used or interacted with it	1	0.6
	Missing	6	3.4
Gambling treatment programs in MA	Never heard of it	18	10.1
	Heard about it but not familiar with it	121	67.6
	Somewhat familiar with it	33	18.4
	Have used or interacted with it	1	0.6
	Missing	6	3.4
Massachusetts Gaming Commission	Never heard of it	6	3.4
	Heard about it but not familiar with it	103	57.5
	Somewhat familiar with it	64	35.8
	Have used or interacted with it	0	0.0
	Missing	6	3.4

		Number endorsing	Percent endorsing
Gamblers' Anonymous meetings in Massachusetts	Never heard of it	17	9.5
	Heard about it but not familiar with it	77	43.0
	Somewhat familiar with it	74	41.3
	Have used or interacted with	5	2.8
	Missing	6	3.4

First-Time Survey respondents answered three questions about the play management tool, PlayMyWay. The first of these was, "*How does PlayMyWay work?"* As Table 3.27 reveals, the majority (86.0%) answered correctly: "Players set limits and get notifications when they are close to or reach their limits." The next most frequent responses were "I'm not sure" (6.1%) and "Players set limits and cannot gamble any more once they reach their limits" (5.0%).

Table 3.27: Responses to the question, "*How does PlayMyWay work?"* (First-Time Visitor Survey)

	Number endorsing	Percent endorsing
Players set limits and cannot gamble any more once they reach their limits.	9	5.0
Players receive bonus points every time they visit the casino.	2	1.1
Players set limits and get notifications when they are close to or reach their limits.	**154**	**86.0**
I'm not sure.	11	6.1
Missing	3	1.7

Similarly, most respondents answered correctly when asked whether PlayMyWay is only for people who have gambling-related problems (see Table 3.28).

Table 3.28: Responses to the question, "PlayMyWay is only for people who have gambling-related problems" (First-Time Visitor Survey).

	Number endorsing	Percent endorsing
True	10	5.6
False	**165**	**92.2**
Missing	4	2.2

We asked both First-Time and Repeat Visitor Survey respondents to indicate the purpose of PlayMyWay. As Table 3.29 shows, majorities of both groups selected the correct response: "To help players monitor their gambling" (86.0% of First Time respondents and 95.3% of Repeat respondents). Smaller proportions of Repeat Visitor Survey respondents, compared with First-Time Survey respondents, selected the incorrect options "To put a limit on how much people can gamble" and "To teach players how slot machines work."

Table 3.29: Responses to the question, "*What is the purpose of PlayMyWay*?"

	First-Time Visitor Survey (n = 179)		Repeat Visitor Survey (n = 129)	
	Number endorsing	**Percent endorsing**	**Number endorsing**	**Percent endorsing**
To put a limit on how much people can gamble	10	5.6	2	1.6
To help players monitor their gambling	**154**	**86.0**	**123**	**95.3**
To teach players how slot machines work	7	3.9	0.0	0.0
I'm not sure	3	1.7	0.0	0.0
Missing	5	2.8	4	3.1

3.16. Relationships with Visitors' Exposure to GameSense Advisors

In this section, we report analyses designed to examine whether respondents' answers to questions about responsible gambling knowledge and behavior, awareness of resources, and reactions to GameSense were related to their exposure to GSAs. Instead of comparing First-Time and Repeat Visitor Survey respondents, we looked within each group. In all of these analyses, we excluded respondents who did not report their GSA exposure (i.e., their number of interactions, of any type, with a GSA). To reduce the likelihood of making a Type 1 error (i.e., incorrectly rejecting the null hypothesis that GSA exposure was unrelated to survey responses), we calculated the number of statistical tests for each survey version and applied the appropriate Bonferroni correction. For the Responsible Gambling Knowledge and Behavior and Reactions to GameSense First-Time Visitor Surveys, which each had 15 outcomes, we tested each individual hypothesis at a significance level of $\alpha = 0.0033$ (i.e., 0.05/15). For the Resources and Treatment Knowledge First-Time Visitor Survey, which had 12 questions, we used $\alpha = 0.0042$ (i.e., 0.05/12). Finally, for the Repeat Visitor Survey, we used $\alpha = 0.0029$ (i.e., 0.05/17).

3.16.1. Visitors' Responsible Gambling Knowledge and Behavior

To begin this analysis, we examined First-Time visitors' responses to the seven true/false questions about gambling and slot machines. We observed that GSA exposure was unrelated to the percent of true/false questions answered correctly ($r = 0.04$, $p = 0.57$).

Respondents indicated whether excessive gambling can affect finances, personal relationships, mental health, and physical health. As Table 3.30 shows, endorsing each of these life domains was unrelated to GSA exposure. In other words, number of GSA interactions was not associated with likelihood of answering these questions correctly.

Table 3.30: GSA interactions among those who did, and did not, endorse each life domain in response to the question, "*Excessive gambling can affect which of the following*?" (First-Time Visitor Survey)

	GSA interactions among those who endorsed domain			GSA interactions among those who did not endorse domain			Statistical test		
Life Domain	**n**	**mean**	**SD**	**n**	**mean**	**SD**	***t***	**df**	**Sig (2-tailed)**
Finances	171	2.17	3.71	5	3.00	3.46	-0.49	174	0.62
Personal Relationships	112	2.44	4.41	64	1.77	1.82	1.16	174	0.25
Mental Health	95	2.36	4.41	81	2.00	2.63	0.64	174	0.52
Physical Health	81	2.22	4.67	95	2.17	2.62	0.10	174	0.92

Recall that this survey version also included the question, "Which of these responsible gambling strategies have you used in the past year?" We explored whether exposure to GSAs was related to the tendency to endorse each of the 9 strategies. We conducted *t*-tests with reporting (versus not reporting) each responsible gambling strategy as the independent variable and number of GSA interactions the dependent variable. As Table 3.31 shows, we found no statistically significant effects.

Table 3.31: GSA interactions among those who did, and did not, report using each responsible gambling strategy (First-Time Visitor Survey).

Responsible Gambling strategy	GSA interactions among those who reported using this strategy			GSA interactions among those who did not report using this strategy			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df[13]	Sig. (2-tailed)
I avoided using ATMs at the casino.	147	2.04	2.66	29	2.97	6.90	-0.71	29.66	0.48
I stuck with a limit for how much I could lose during a single casino visit.	64	1.88	1.72	112	2.38	4.44	-0.86	174	0.39
I thought of gambling as fun, not as a way to make money.	47	2.04	2.12	129	2.25	4.13	-0.33	174	0.75
I did not "chase" my losses.	47	2.74	6.05	129	1.99	2.31	0.83	50.96	0.41
I left the casino while I was ahead.	35	2.94	4.69	141	2.01	3.40	1.11	43.25	0.27
I took a break to cool off.	21	2.29	2.19	155	2.18	3.86	0.12	174	0.90
I used PlayMyWay.	21	5.43	8.69	155	1.75	2.02	1.93	20.29	0.07
I stuck with a limit I set for how much I could win during a single casino visit.	10	5.40	7.76	166	2.00	3.24	1.38	9.19	0.20
I stuck with a limit for how much time I could spend during a single casino visit.	8	1.88	1.13	168	2.21	3.77	-0.25	174	0.80

We examined how use of responsible gambling strategies was related to GSA interactions among Repeat Visitor Survey respondents. No *t*-test was significant using the Bonferroni adjusted alpha ($\alpha = 0.0033$). See Table 3.32.

[13] When we observed unequal variance between groups, we adjusted the degrees of freedom.

Table 3.32: GSA interactions among those who did, and did not, report using each responsible gambling strategy (Repeat Visitor Survey).

Responsible gambling strategy	GSA interactions among those who reported using this strategy			GSA interactions among those who did not report using this strategy			Statistical test		
	n	Mean	SD	n	mean	SD	*t*	df	Sig. (2-tailed)
I stuck with a limit for how much I could ***win*** during a single casino visit.	18	51.17	37.67	102	26.72	28.69	2.62	20.62	0.02
I stuck with a limit for how much I could ***lose*** during a single casino visit.	73	30.10	33.38	47	30.83	28.04	-0.13	118	0.90
I stuck with a limit for how much ***time*** I could spend during a single casino visit.	28	28.89	16.23	92	30.84	34.65	-0.41	97.92	0.68

Both First-Time and Repeat Visitor Survey respondents answered the question regarding the most likely outcome of a given slot machine play. GSA exposure was unrelated with answering this question correctly. (See Table 3.33.)

Table 3.33: GSA interactions among those who did, and did not, answer the question "*On any given slot machine play, which outcome is most likely?*" correctly.

	GSA interactions among those who answered correctly			GSA interactions among those who did not answer correctly			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
First-Time Visitor Survey respondents	72	1.92	2.62	103	2.39	4.31	-0.83	173	0.41
Repeat Visitor Survey Respondents	38	29.50	34.88	79	31.61	29.93	-0.34	115	0.74

3.16.2. Visitors' Reactions to GameSense

We examined the link between GSA exposure and responses to questions, "*How likely is it that you would recommend GameSense to a friend?"* and *"To what extent do you agree with this statement: 'The GameSense Advisor I most recently spoke with gave me a new way to think about gambling.'"* We retained the original responses and calculated Pearson correlations between these responses and GSA exposure. Both Pearson correlations were small and non-significant (both *r*'s = -0.11).

We turned to the question, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" Those who answered "yes" reported an average of 3.17 GSA interactions (SD = 9.88), a number not statistically significant from those who answered "no" or "not sure" (n = 17, mean = 2.24, SD = 2.22). See Table 3.34.

Table 3.34: GSA exposure among those who answered "yes" versus "no" or not sure" to the question, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" (First-Time Visitor Survey)

GSA interactions among those who answered "yes"			GSA interactions among those who answered "no" or "not sure"			Statistical test		
n	Mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
168	3.17	9.88	17	2.24	2.33	0.39	183	0.70

We examined whether respondents with more GSA exposure were more (or less) likely to endorse particular reasons for their current interaction with a GSA. We found no such relationships among First-Time Visitor Survey respondents, as Table 3.35 shows.

Table 3.35: GSA interactions among those who did, and did not, endorse each reason for speaking with a GSA (First-Time Visitor Survey).

Reason for speaking with GSA	GSA interactions among those who endorsed reason			GSA interactions among those who did not endorse reason			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
I was curious about GameSense.	145	2.25	6.46	42	5.98	15.57	-1.51	45.16	0.14
I wanted to learn more about how gambling works.	93	3.27	10.34	94	2.90	8.40	0.26	185	0.79
I wanted to learn more about strategies to keep gambling fun	72	4.44	12.08	115	2.23	7.15	1.57	185	0.12
I wanted to learn more about or enroll in PlayMyWay.	60	3.37	12.81	127	2.95	7.30	0.28	185	0.78
I wanted to enter a raffle.	37	1.73	1.91	150	3.42	10.42	-0.98	185	0.33
I wanted information or help about a gambling problem.	7	2.57	1.81	180	3.11	9.57	-0.15	185	0.88

The same was true for Repeat Visitors; for each reason for visiting a GSA, the mean number of GSA interactions among those who endorsed that reason did not statistically differ from the mean number of GSA interactions among those who did not endorse that reason (see Table 3.36).

Table 3.36: GSA interactions among those who did, and did not, endorse each reason for speaking with a GSA (Repeat Visitor Survey).

Reason for speaking with GSA	GSA interactions among those who endorsed reason			GSA interactions among those who did not endorse reason			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
I was curious about GameSense.	36	28.44	24.01	84	31.21	34.02	-0.44	118	0.66
I wanted to learn more about how gambling works.	60	27.30	22.42	60	33.47	38.10	-1.08	95.48	0.28
I wanted to learn more about strategies to keep gambling fun	72	33.68	35.25	48	25.44	23.64	1.42	118	0.16
I wanted to learn more about or enroll in PlayMyWay.	29	29.31	30.56	91	30.73	31.67	-0.21	118	0.83
I wanted information or help about a gambling problem.	3	18.33	2.89	117	30.69	31.62	-0.67	118	0.50
I wanted to enter a raffle.	20	24.55	31.12	100	31.55	31.34	-0.91	118	0.36

To summarize, inspection of the proportions reported in Section 3.7 suggests that in comparison with Repeat Visitor Survey respondents, First-Time Survey respondents were more likely to cite their curiosity about GameSense, and less likely to cite their desire to learn more about strategies to keep gambling fun, as their reason for speaking with a GSA. However, within these two groups, we find no relationship between GSA exposure and reasons for speaking with a GSA.

Both First-Time and Repeat Visitor Survey respondents answered the question, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*" As Table 3.37 shows, their responses to this question were unrelated to their GSA exposure.

Table 3.37: GSA exposure among those who answered "yes" versus "no" or not sure" to the question, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help?*" (First-Time Visitor Survey)

	GSA interactions among those who answered "yes"			GSA interactions among those who answered "no" or "not sure"			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
First-Time Visitor Survey respondents	164	2.87	8.22	19	5.37	17.12	-0.63	18.97	0.54
Repeat Visitor Survey Respondents	113	31.27	31.69	3	22.00	32.92	0.50	114	0.62

First-Time Visitor Survey respondents indicated whether, and how, they might change their behavior after speaking with a GSA. As Table 3.38 shows, their responses were unrelated to their GameSense exposure.

Table 3.38: GSA interactions among those who did, and did not, endorse each response to, "*After today's conversation with a GameSense Advisor, will you do any of the following?*" (First-Time Visitor Survey)

Response	GSA interactions among those who endorsed this response			GSA interactions among those who did not endorse this response			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
I will seek out more information about how to keep gambling fun.	127	2.57	7.21	60	4.18	12.85	-1.10	185	0.27
I will think about changing my own gambling behavior.	69	3.90	12.34	118	2.61	7.14	0.90	185	0.37
I will spend less time or money gambling.	41	5.02	15.38	146	2.54	6.82	1.50	185	0.14
I will seek help to change my gambling.	13	3.15	3.95	174	3.08	9.68	0.03	185	0.98
I will spend more time or money gambling.*	1	4.00	n/a	186	3.08	9.42			

** We did not conduct a statistical test on this variable, as only one respondent endorsed this response.*

As Table 3.39 shows, the same was true for the parallel question asked of Repeat Visitor Survey respondents; number of GSA interactions was unrelated to endorsing each response.

Table 3.39: GSA interactions among those who did, and did not, endorse each response to, "*Before today, you had a conversation with a GameSense Advisor. After that earlier conversation, did you do any of the following?*" (Repeat Visitor Survey)

Response	GSA interactions among those who endorsed this response			GSA interactions among those who did not endorse this response			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
I sought out more information about strategies to keep gambling fun.	66	28.58	30.15	54	32.59	32.76	-0.70	118	0.49
I thought about changing my own gambling behavior.	47	28.45	27.28	73	31.63	33.73	-0.54	118	0.59
I spent less time or money gambling.	32	33.59	27.87	88	29.22	32.50	0.68	118	0.50
I sought help to change my gambling.	14	28.79	22.51	106	30.59	32.34	-0.20	118	0.84
I spent more time or money gambling.	2	102.50	137.89	118	29.16	27.24	0.75	1.00	0.59

3.16.3. Visitors' Resources and Treatment Knowledge

Next we turned to the questions within the Resources and Treatment Knowledge First-Time Visitor Survey. This survey section examined respondents' awareness of a variety of resources. Recall that respondents answered "yes," "no," or "I'm not sure" to questions such as, "*Have you heard of PlayMyWay*?" We combined the "no" and "I'm not sure" categories and studied whether responses were related to GSA exposure. As Table 3.40 shows, respondents who answered "yes" to two of these questions reported more GSA interactions than those who answered "no" or "I'm not sure."

Table 3.40: GSA interactions and responses to four questions about awareness of resources (First-Time Visitor Survey)

	GSA interactions among those who answered "yes"			GSA interactions among those who answered "no" or "I'm not sure"			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
Have you heard of PlayMyWay?	**134**	**3.51**	**6.24**	**19**	**1.21**	**0.71**	**4.08**	**149.29**	**0.0001**
Is there gambling treatment available in your community?	**97**	**4.31**	**7.17**	**55**	**1.35**	**0.62**	**4.05**	**98.48**	**0.0001**
Are there Gamblers' Anonymous meetings in your community?	83	3.90	6.17	68	2.46	5.55	1.50	149	0.14
Does Massachusetts have resources for people who are concerned about their gambling?	127	3.39	6.15	24	1.63	1.86	2.66	121.49	0.0089

Similarly, we studied First-Time Visitor Survey respondents' responses to questions regarding visitors' familiarity with a variety of treatment and prevention resources. Respondents used a 4-point scale from

"never heard of it" to "have used or interacted with it." We grouped each respondent into one of two categories. One category included respondents who said, for a given resource, that they "never heard of it" or "heard about it but not familiar with it." The other category included respondents who said, for a given resource, that they were "somewhat familiar with it" or "have used or interacted with it." In this way, having at least some familiarity with a given resource became the dividing line. As Table 3.41 shows, responses were unrelated to GSA interactions.

Table 3.41: Respondents' familiarity with a variety of MA-based gambling resources and GSA interactions (First-Time Visitor Survey)

	GSA interactions among those who answered "somewhat familiar with it" or "have used or interacted with it"			**GSA interactions among those who answered "never heard of it" or "heard about it but not familiar with it"**			**Statistical test**		
	n	**mean**	**SD**	**n**	**mean**	**SD**	***t***	**df**	**Sig (2-tailed)**
Mass. Council on Compulsive Gambling	15	5.47	9.78	136	3.01	5.33	0.96	14.93	0.35
Mass. Gambling Helpline	20	5.60	8.41	131	2.89	5.40	1.40	21.46	0.18
Gambling treatment programs in Massachusetts	28	4.32	7.29	123	3.01	5.57	1.06	149	0.29
Massachusetts Gaming Commission	53	3.36	6.08	98	3.19	5.87	0.16	149	0.87
Gamblers' Anonymous meetings in Massachusetts	66	3.41	5.63	85	3.13	6.17	0.29	149	0.77

Among First-Time Visitor Survey respondents, GSA exposure was related to answering two of the three PlayMyWay questions correctly (both tests were statistically significant $p < 0.0042$). Respondents who reported more GSA interactions were more likely to answer the questions, "*How does PlayMyWay work?*" and "*What is the purpose of PlayMyWay*?" correctly than their counterparts. For instance, those who correctly reported the purpose of PlayMyWay reported an average of 3.42 interactions with GSAs, while those who answered incorrectly reported an average of 1.15 GSA interactions. Table 3.42 summarizes these findings.

Table 3.42: GSA interactions among those who answered PlayMyWay questions correctly or incorrectly (First-Time Visitor Survey)

	GSA interactions among those who answered correctly			GSA interactions among those who answered incorrectly			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
How does PlayMyWay work?	**137**	**3.42**	**6.19**	**16**	**1.56**	**0.73**	**3.31**	**150.93**	**0.0012**
What is the purpose of PlayMyWay?	**139**	**3.42**	**6.14**	**13**	**1.15**	**0.38**	**4.27**	**146.56**	**0.0000**
PlayMyWay is only for people who have gambling-related problems.	145	3.14	5.821	6	2.33	2.42	-0.34	149	0.74

Knowing the purpose of PlayMyWay was unrelated to GSA exposure among Repeat Visitor Survey respondents, as Table 3.43 shows. However, only two respondents answered this question incorrectly.

Table 3.43: GSA interactions among those who answered "*What is the purpose of PlayMyWay*?" correctly or incorrectly (Repeat Visitor Survey)

	GSA interactions among those who answered correctly			GSA interactions among those who answered incorrectly			Statistical test		
	n	mean	SD	n	mean	SD	*t*	df	Sig (2-tailed)
What is the purpose of PlayMyWay?	114	31.08	31.83	2	17.50	10.61	0.60	114	0.55

3.17. STABILITY FROM WAVE 1 TO WAVE 2

For measures that reflect the GameSense program's reach at PPC, we compared Wave 1 and Wave 2 findings. These comparisons indicate the degree of stability in the program's reach over time.

Overall, the total number of GSA interactions increased from 5,659 interactions during Wave 1 to 7,878 during Wave 2. This represents a 39.2% increase. During Wave 1, GSAs interacted 9,342 total visitors.[14] During Wave 2, they interacted with 16,995 total visitors – an 81.9% increase.

We then examined individual interaction types. We found that GSAs completed more Simple, Instructive, and Demonstration interactions during Wave 2, as compared to Wave 1. Specifically, they completed 45.0% more Simple interactions, 65.0% more Instructive interactions, and 118.6% more Demonstration interactions. They completed 13.0% fewer Exchange interactions. See Figure 3.9.

[14] As we mentioned previously, visitors were counted every time they interacted with a GSA. This is not a count of unique visitors.

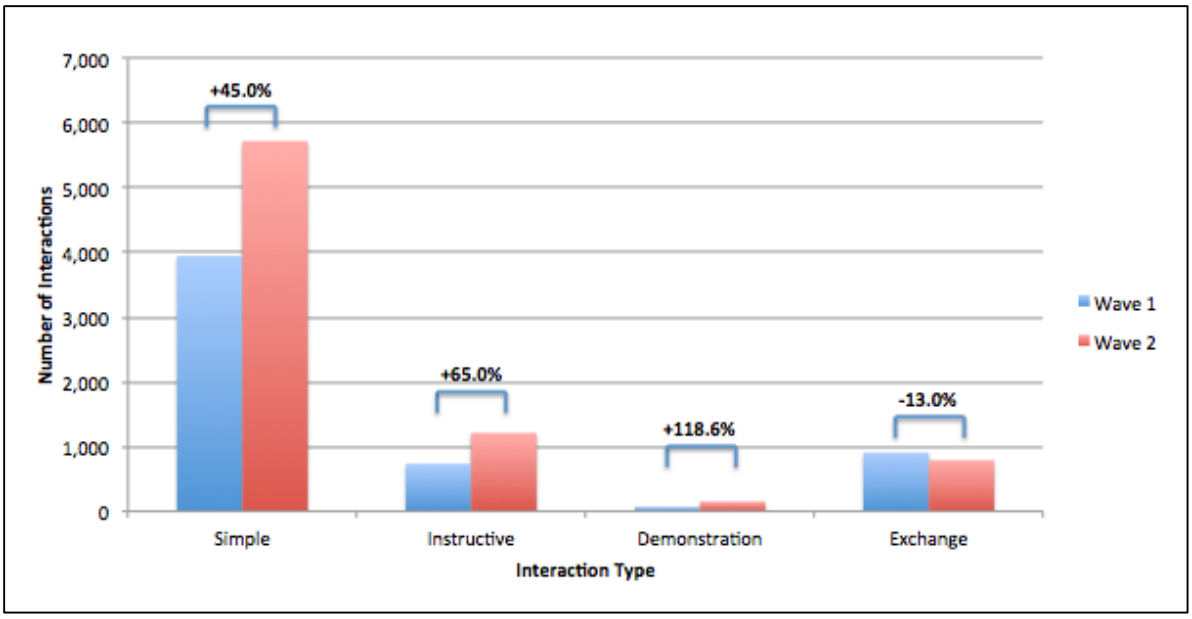


Figure 3.9: Number of Simple, Instructive, Demonstration, and Exchange interactions during Waves 1 and 2.

Additionally, we compared the busiest times of the workday for GSAs in Wave 1 versus Wave 2. More specifically, we examined the three peak time periods during Wave 1 versus Wave 2. As Table 3.44 shows, in Wave 1, the three busiest time slots were Tuesdays from 12pm-3pm (accounting for 5.1% of all interactions), followed by Saturdays from 12pm-3pm (4.7%) and, finally, Saturdays from 9am-12pm (4.7%). During Wave 2, however, the busiest times for GSAs were Sundays from 3pm-6pm (accounting for 4.6% of all interactions), followed by Sundays from 12pm-3pm and Thursdays from 9am-12pm (4.3%). Recall that Wave 1 took place from December to May, and Wave 2 took place from August to February.

Table 3.44: Peak times for GSA interactions, Waves 1 and 2

	Wave 1		Wave 2	
	Time period	% of all interactions	Time period	% of all interactions
#1	Tuesday, 12pm-3pm	5.1%	Sunday, 3pm-6pm	4.6%
#2	Saturday, 12pm-3pm	4.7%	Sunday, 12pm-3pm	4.4%
#3	Saturday, 9am-12pm	4.7%	Thursday, 9am-12pm	4.3%

3.18. Relationships with Visitors' Gender

As we described in Table 3.9, women were underrepresented among Repeat Visitor Survey respondents. We explored potential reasons for women's underrepresentation among Repeat visitors by studying whether men and women responded differently to the First-Time Visitor Survey questions.

3.18.1. Visitors' Responsible Gambling Knowledge and Behavior

Figure 3.10 shows men's and women's responses to the questions included in this survey version. We studied 14 dichotomous outcomes: endorsing (or not endorsing) each of the 9 past-year responsible gambling strategies; answering the question "*On any given slot machine play, which outcome is most likely*?" correctly or incorrectly; and endorsing each of the four potential consequences of excessive gambling. We conducted 2 x 2 chi square tests on these outcomes to examine differences in proportions between men and women. We tested each individual hypothesis at a significance level of $\alpha = 0.0036$ (i.e., 0.05/14). We observed no statistically significant differences. In addition, we conducted an independent-groups *t* test on the percentage of true/false questions answered correctly. Men and women answered 81.7% and 79.1% of the true/false questions correctly, respectively, and the means were not significantly different from each other (t (183) = 0.72, p = 0.48).

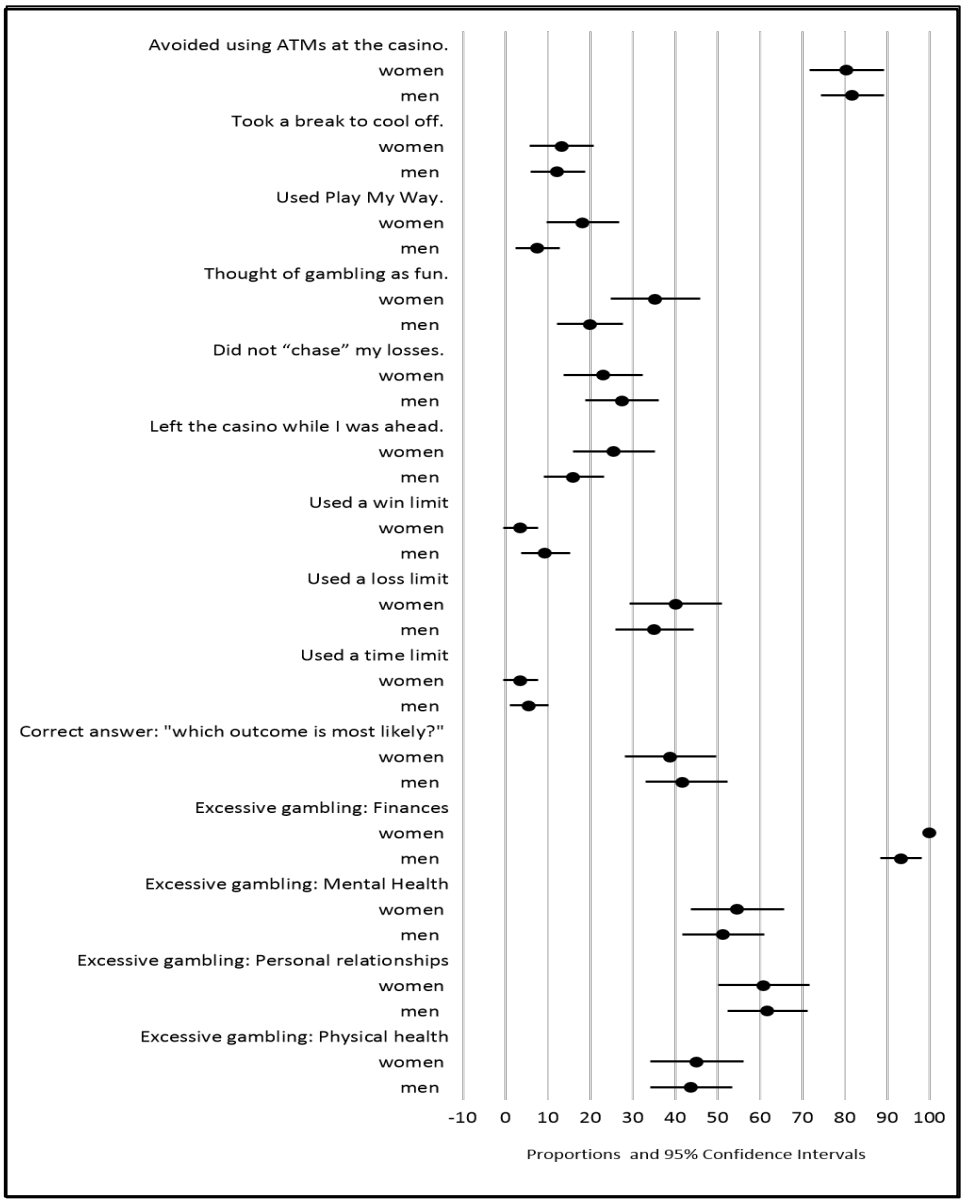


Figure 3.10: Men's and women's responses to the Responsible Gambling Knowledge and Behavior questions

3.18.2. Visitors' Reactions to GameSense

For the Reactions to GameSense questions, we used 15 dichotomous outcomes: endorsing/not endorsing the 6 potential reasons for speaking with a GSA; selecting "highly likely" versus any other response to the question, "*How likely is it that you would recommend GameSense to a friend?*"; answering "yes" versus "no"/"not sure" to, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GSA for help?*"; endorsing/not endorsing the 5 potential responses for speaking with a GSA; answering "yes" versus "no"/"not sure" to, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*"; and answering "strongly agree," versus everything else, to the prompt, "*The GameSense Advisor I most recently spoke with gave me a new way to think about gambling*." We tested each individual hypothesis at a significance level of $\alpha = 0.0033$ (i.e., 0.05/15). We observed one significant difference: More women (77.1%) than men (56.1%) endorsed the option, "I will seek out more information about how to keep gambling fun" (chi square (1) = 9.46, $p = 0.002$; see Figure 3.11).

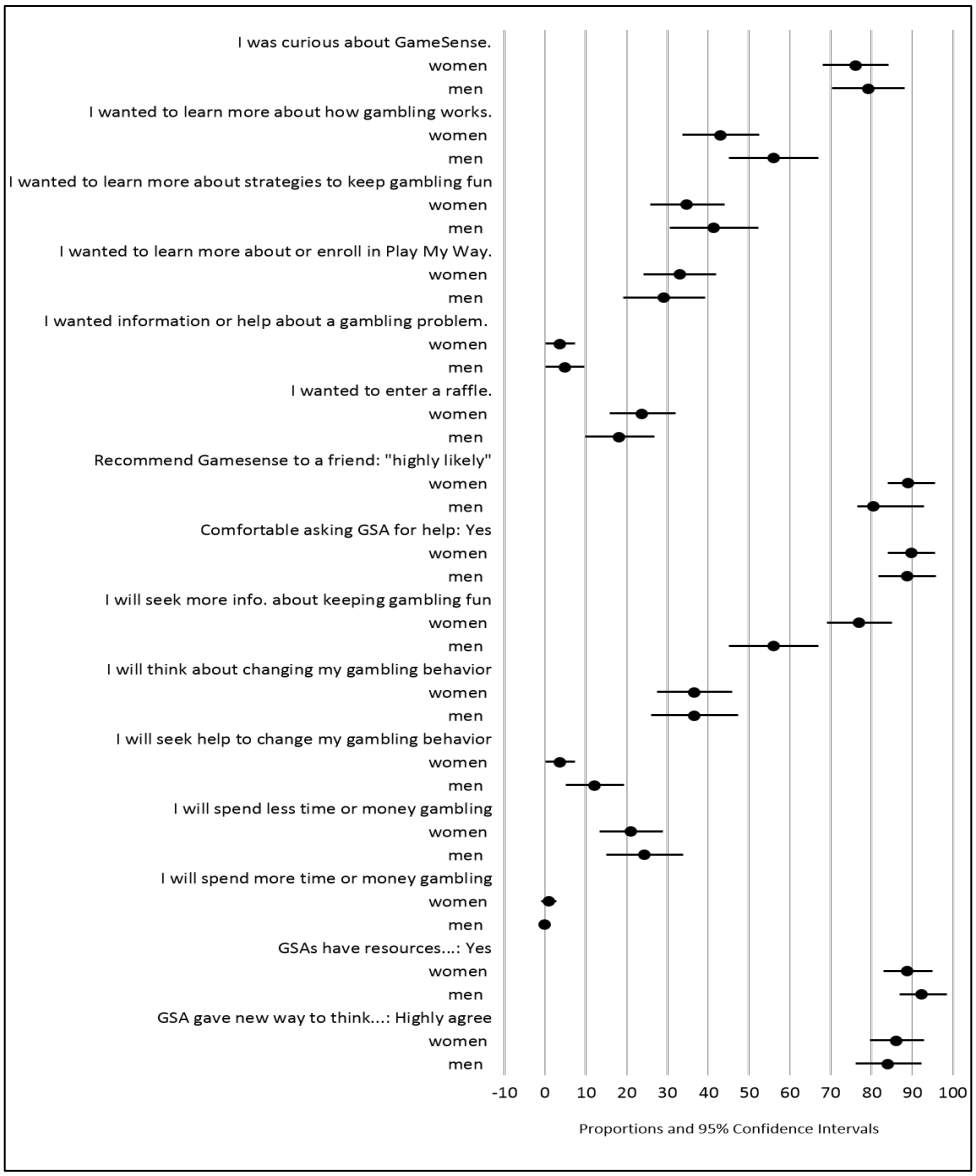


Figure 3.11: Men's and women's responses to the Reactions to GameSense questions

3.18.3. Visitors' Resources and Treatment Knowledge

We studied men's and women's responses to the questions in the Resources and Treatment Knowledge First-Time Visitor Survey. We dichotomized responses as described in Section 3.9.3. We observed no group differences (see Figure 3.12).

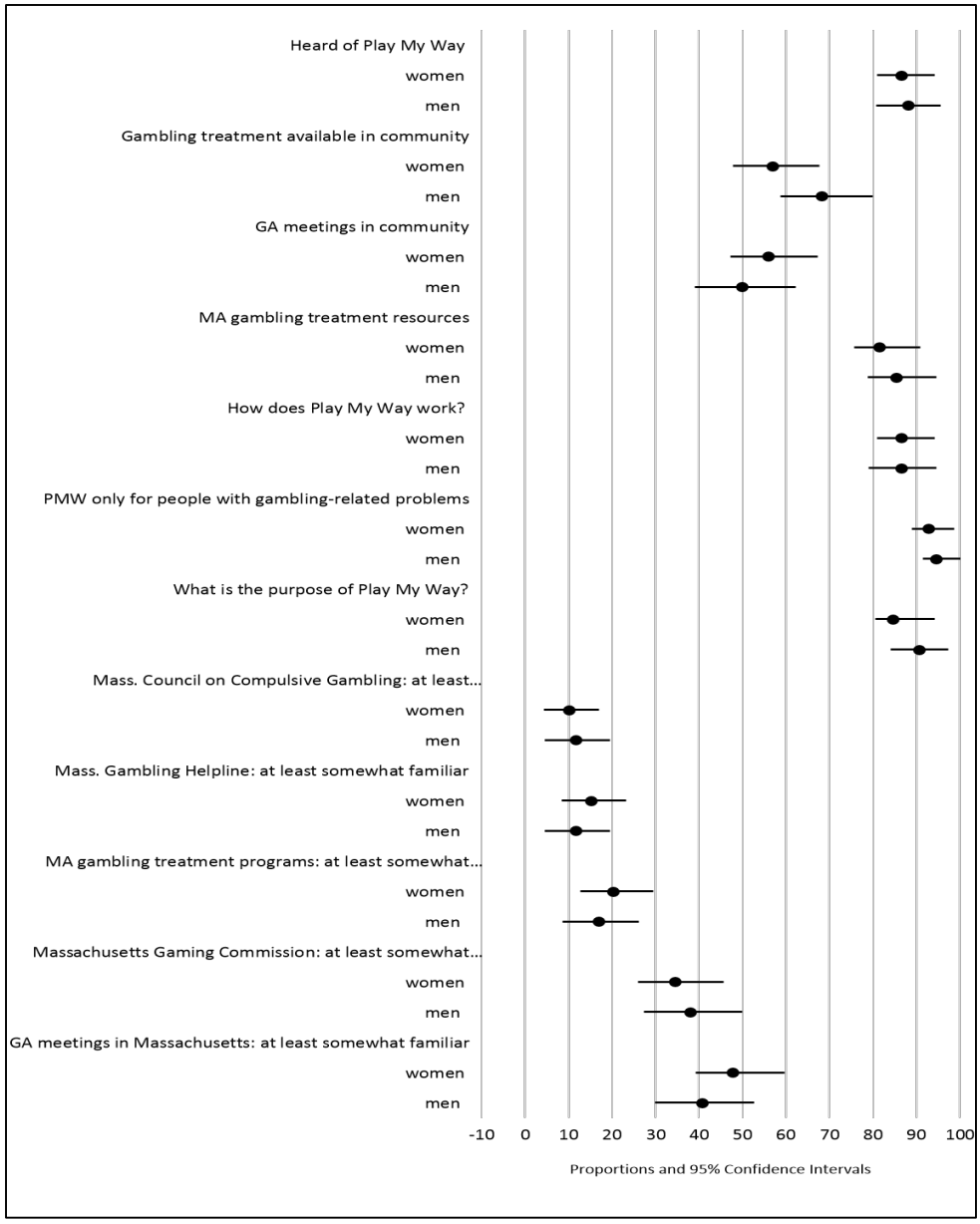


Figure 3.12: Men's and women's responses to the Resources and Treatment Knowledge questions

3.19. GENERAL COMMENTS

We noted 60 comments from respondents. Nearly all were positive (e.g., "Most helpful person I have meet at any casino in 40 yrs. of gambling," "[GSA #2] was great to talk to and gave me gifts and helped me about the different machines," "[GSA #8] was very helpful, professional and friendly. A definite asset to this program!"

Discussion

3.20. Purpose of this Evaluation

The GameSense program at Plainridge Park Casino was launched in an effort to promote responsible gambling by providing information and resources in a friendly, stigma-free environment. Our primary evaluation goal was to study the extent to which GameSense visitors make well-informed choices about their gambling behavior, thereby expanding on our Wave 1 findings. To accomplish this goal, we surveyed a subset of GameSense visitors—those who had the most extensive contact with GameSense Advisors—and asked about their gambling cognitions, use of responsible gambling strategies, awareness of problem gambling resources, and reactions to GameSense. We examined the relationships between these outcomes and visitors' self-reported exposure to GameSense. During the same window of observation, we analyzed detailed records of GSAs' interactions with visitors to learn more about what they do, and how. The following sections describe what we found.

3.21. GameSense Service Stability from Wave 1 to Wave 2

During Wave 2, we continued conducting an epidemiological evaluation of the GameSense program services. We used computerized service records to examine the extent of stability in the program's reach over time. As we report in Section 3.10, GSAs had 39.2% more interactions with visitors during Wave 2, as compared to Wave 1. When we examined the count of visitors with whom they interacted, we observed an 81.9% increase over time.

We calculated services provided per day. GSAs reported 44 visitor interactions per day during Wave 2, up from 31 interactions per day during Wave 1—a 42% increase in services provided each day. GSAs interacted with 94 visitors a day, up from 52 visitors per day during Wave 1—an 81% increase in patrons reached each day.

Interviews with GSAs and GameSense management could help explain how and why GSAs increased their daily reach. However, these interviews were never part of this evaluation. Consequently, we speculate about three possible explanations, which are not mutually exclusive. First, GSAs likely became more comfortable and efficient completing their responsibilities over time. Second, there were more GSAs to share the workload during Wave 2 as compared to Wave 1. Third, PlayMyWay, the voluntary budgeting tool, launched at PPC at the conclusion of Wave 1. It became a frequent topic of conversation: GSAs discussed the tool during 65% of non-Simple interactions, most often because the visitor had a question about it or had a positive comment about it.[15]

As in Wave 1, most of the visitor interactions during Wave 2 were Simple, rather than focused on responsible or problem gambling information. The increase in Simple interactions was largely responsible for the overall increase in number of interactions and visitors from Wave 1 to Wave 2. Specifically, Simple interactions accounted for 80% of the increase in total number of interactions and 87.6% of the increase in total number of visitors. GSAs had 65.0% more Instructive interactions during Wave 2 compared to Wave 1, and 118.6% fewer Demonstration interactions. On the other hand, they had 13% fewer Exchange interactions.

[15] We do not include increased casino traffic in this list because the average number of daily PPC visitors dropped from 7,706 visitors per day during Wave 1 to 7,085 visitors per day during Wave 2.

As in Wave 1, when GSAs did engage in Instructive, Demonstration, or Exchange interactions, they mostly played an informational role. They were much more likely to provide responsible gambling information and resources, including PlayMyWay, than to enroll visitors in PlayMyWay, enroll visitors in voluntary self-exclusion, or provide referrals to problem gambling treatment. This pattern of providing services is consistent with the stated mission of GameSense at PPC.

GSAs continued to interact almost entirely with casino patrons and very rarely with casino employees or concerned others, despite the fact that casino employees have historically been at relatively high risk for gambling problems (Hing & Gainsbury, 2011; Shaffer & Hall, 2002; Shaffer, Vander Bilt, & Hall, 1999). Casino employees do not appear to be using GameSense as a resource for gambling problems they or their loved ones might be experiencing. During March 2017, the GameSense program sent a newsletter to casino employees to coincide with national Problem Gambling Awareness Month (PGAM). This newsletter presented rates of problem gambling in Massachusetts, reviewed steps for staff who believe a guest is showing signs of problem gambling, invited all PPC staff to visit the GameSense Info Center, and emphasized that staff should consider GameSense a resource for themselves, their friends, and their loved ones. We recommend that GSAs continue to collect detailed records of their interactions. This data collection could answer a number of additional questions, including whether the March 2017 PGAM newsletter increased use of the program among casino employees, at least temporarily.

We observed a shift in GSAs' busiest times. During Wave 2, two of the three busiest three-hour blocks were on Sunday afternoons. During Wave 1, none of the busiest blocks were on Sundays. Recall that Wave 1 ran from December to May, and Wave 2 ran from August to February. Therefore, we speculate that the shift in peak times happened because Wave 2 spanned more of the NFL season, and PPC attracted patrons attending games at nearby Gillette Stadium. This information might be helpful in future staff planning.

3.22. Safety, Effectiveness, and Reach

3.22.1. Safety

GSAs reported that very few visitors appeared hyper, withdrawn, or agitated, and none appeared threatening, at the completion of their Instructive, Demonstration, and Exchange interactions. This corresponds to our Wave 1 finding that GSAs identified few visitors as emotionally distressed or under the influence of alcohol or other drugs. These consistent findings indicate that, for the most part, interactions between GSAs and visitors were not emotionally charged and GSAs did not feel threatened by visitors. In this limited sense, we did not find that contact with GSAs evidenced harm to either the GSAs or visitors.

We note one exception, however. GSAs were significantly more likely to perceive that visitors who were enrolling in voluntary self-exclusion were emotionally distressed, as compared to other types of Exchange interactions. Though emotionally distressed visitors still represented a minority of voluntary self-exclusions (27%; Table 3.8), it is important that GSAs are prepared for this situation, both for their own sake and that of the visitors. It is important to note that visitors who enrolled in voluntary self-exclusion did not complete Visitor Surveys. Therefore, in this report, we cannot comment on their own perceptions of their safety.

We provided Exchange visitors the opportunity to report whether talking with a GSA was associated with increases in gambling expenditures. As in Wave 1, very few visitors reported that their encounter with a GSA prompted them to increase their gambling expenditure. We also determined that there was not a positive association between GameSense exposure and reporting misconceptions about gambling. That

is, contact with GSAs was not related to the tendency to endorse faulty gambling beliefs. In summary, we did not find evidence of program-induced harm among GSAs or visitors during Wave 2.

3.22.2. Effectiveness

We reviewed Exchange visitors' answers to true/false questions assessing gambling cognitions. For each question, a majority of respondents supplied the correct answer. On average, participants answered 81% of the questions correctly. In other words, this subset of GameSense visitors appear to avoid gambling myths that can be associated with gambling-related problems. This finding is consistent with our Wave 1 finding that Exchange visitors typically report that they gamble moderately and have had no, or very few, lifetime gambling-related problems. According to these two Wave 1 measures—breadth of gambling involvement and history of gambling-related problems—PPC patrons who choose to engage in conversations with GameSense Advisors are a relatively healthy population and are typically not in need of extensive gambling-related education or support.

Nonetheless, we note that only 55% of Exchange visitors correctly rejected the notion, "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon." This suggests some confusion about the independence between slot machine plays among the remaining 45%. We note with interest that the same question had the highest rate of incorrect responses in the Boutin et al. (2009) study, even among patrons who had just visited an on-site responsible gambling information center. At PPC, patrons with more GSA exposure were not more likely to answer this question correctly. GSAs might wish to develop new ways to supplement their messages about the independence of slot machine plays. Exchange visitors correctly understood that excessive gambling can cause financial, personal, and mental health problems. However, the majority did not identify physical health problems as a potential consequence of excessive gambling. Indeed, people with gambling problems report a variety of physical health problems (Morasco et al., 2006; Petry, 2005; Pietrzak, Molina, Ladd, Kerins, & Petry, 2005). GSAs might consider spending more time explaining the full range of gambling disorder consequences. Doing so might help raise awareness and encourage help seeking (Gainsbury et al., 2014; Hing & Nuske, 2011; Pulford et al., 2009a, 2009b). If someone experiencing gambling problems is able to draw a connection between his gambling and negative health effects, he might be more likely to seek treatment or participate in a self-help program. Visitors who had many interactions with GSAs were no more likely than those with fewer interactions to recognize that physical health problems are a potential consequence of excessive gambling. More broadly, GSA exposure was not associated with an increased likelihood of recognizing any of the potential consequences of excessive gambling.

We examined self-reported strategies for gambling within personally affordable limits. Only a minority of First-Time Visitor Survey respondents—about 27%—endorsed the option, "I thought of gambling as fun, not as a way to make money." This raises the possibility that the remaining 73% of respondents viewed gambling as a profitable activity. We note that the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) baseline population study, many residents endorsed "winning money" as their primary reason for gambling (Volberg et al., 2015). More specifically, 33.5% of residents classified as recreational gamblers indicated that they gambled to win money; 41.1% of at-risk gamblers and 48.8% of problem/pathological gamblers did so (Volberg et al., 2015). Our exposure analyses indicate that visitors who endorsed the option, "I thought of gambling as fun, not as a way to make money" reported the same number of GSA interactions as those who did not endorse this option. This indicates that GSA exposure did not dissuade visitors from holding an overly optimistic belief about the profitability of gambling. Notably, correcting erroneous beliefs is a more difficult task than imparting new beliefs (LaPlante, Gray, LaBrie, Kleschinsky, & Shaffer, 2012). In the future, GSAs might work to identify casino patrons who hold overly optimistic beliefs about being able to profit from gambling and attempt to moderate these beliefs.

Doing so would promote informed choice, thus advancing a central principle of responsible gambling initiatives (Blaszczynski et al., 2004).

Only a minority of First-Time Visitor Survey respondents indicated that they understood that a loss is the most frequent outcome of any given slot machine play. Many mistakenly believed that a small win is the most likely outcome. In their own slot machine experience, these players might have misperceived prior "near miss" outcomes as small wins. Such "near miss" losses have strong motivational power, especially among people with gambling problems (Kassinove & Schare, 2001; Sescousse et al., 2016; Stange, Graydon, & Dixon, 2016). Those with more exposure to GSAs were no more likely to answer this question correctly. In addition, only a minority of Repeat respondents—exactly one-third—answered this question correctly. Over half of Repeat survey respondents mistakenly believed that a small win was the most likely outcome, despite the fact that they, by definition, had had repeated conversations about responsible or problem gambling with GSAs. This finding suggests that GSAs should consider addressing this specific misperception during their future conversations. GSAs should consider explaining clearly the nature and design purpose of near misses in slot machine play, especially for casino patrons they suspect to be at-risk or already experiencing gambling problems.

We observed some interesting shifts as visitors progressed from First-Time to Repeat Visitor Survey status. When they first approached GSAs, visitors were most likely to do so out of curiosity about the GameSense program. Over time, they were more likely to approach GSAs to learn strategies for keeping gambling fun. Visitors appear to be learning how GSAs could help them. Additionally, over time, visitors were more likely to report feeling comfortable turning to GSAs for help with a hypothetical gambling problem. These observations, which are based on descriptive rather than inferential statistics due to the nature of this study, support the conclusion that Exchange visitors develop a positive working alliance with GSAs over time. This finding is consistent with program goals (Gray et al., 2016).

Within the constraints of our cross-sectional design, we did not find evidence of GSAs imparting additional knowledge about responsible gambling concepts. We did, however, observe an association between exposure to GameSense and PlayMyWay awareness and knowledge. First-Time survey respondents who had more exposure to GSAs were more likely to (1) have heard about PlayMyWay, (2) know how it works, and (3) know its purpose. Specifically, respondents who had heard of PlayMyWay had, on average, about 3.5 GSA interactions; those who had *not* heard of it reported fewer than 2 GSA interactions. Similarly, respondents who knew the purpose of PlayMyWay reported more than 3 GSA interactions. Those who did *not* know the program's purpose had, on average, fewer than 2 GSA interactions. One possible explanation for these findings is that GSAs were encouraging casino patrons to use PlayMyWay during the window of observation and correctly describing its purpose and process. Alternatively, casino patrons who had more natural interest and knowledge of PlayMyWay could have sought out GSAs more often. We believe the first conclusion is better supported by the GSAs' reports of services provided.

Additionally, First-Time survey respondents with greater exposure to GameSense were more knowledgeable that gambling treatment is available in their community. This finding indicates that if GSAs (or others outside PPC) do work to raise awareness of local gambling treatment resources, patrons will be receptive to this information.

In Wave 1, we asked visitors whether they would take steps to change their gambling behavior as a result of their conversations with GSAs. However, we could not draw conclusions about whether visitors would actually engage in their planned behaviors; as anyone who has ever made a New Year's resolution knows, planned behavior does not necessarily translate into actual behavior. Therefore, a strength of Wave 2 was

that in addition to asking First-Time Visitor Survey respondents about planned behaviors, we also asked Repeat survey respondents whether they changed their behavior after their previous conversation with a GSA. We compared Repeat survey respondents' reports of actual behavior change following a GSA conversation with First-Time survey respondents' reported plans to change their behavior following a GSA conversation. We note with interest that both the rank order of response options, and absolute value of frequencies, were highly similar between First-Time and Repeat survey respondents. For instance, 22% of First-Time respondents reported that they *would* spend less time or money gambling as a result of speaking with a GSA, and nearly the same proportion--26%--of Repeat survey respondents reported that they *did* spend less time or money gambling after their previous conversation with a GSA. Similarly, seven percent of First-Time respondents reported that they *would* seek out help to change their gambling as a result of speaking with a GSA; 12% of Repeat respondents reported that they *did* seek out such help after a previous GSA interaction. In sum, though we are still relying on self-reports rather than observations of actual behavior, and these are cross-sectional results rather than longitudinal results (which would reflect evidence from the same individuals over time), these findings hint that respondents are potentially following through on planned behavior change after speaking with GSAs. In future work, it would be useful to ask survey respondents for more information about how and why they reduced their gambling as a result of speaking with a GSA.

3.22.3. Reach

Reach can be defined as the number of people that a program or activity reaches. Based on daily attendance data from Plainridge Park Casino, we estimate that GSAs interacted with about 1.33% of daily visitors (e.g., 94/7,085). During Wave 1, GSAs reported they directly connected with 0.67% of daily PPC visitors. Therefore, we observed a 98.5% increase in this measure of reach from Wave 1 to Wave 2. In Section 4.2, we speculated about three potential explanations for the increase in services provided over time. We suspect that the combination of these explanations – GSAs completing their job duties more efficiently over time, having more GSAs on staff, and the addition of PlayMyWay – is mostly responsible for the increase in reach from Wave 1 to Wave 2. As with Wave 1, we caution that this estimate is only one way to measure reach. The Massachusetts Gaming Commission has recently launched a new GameSense-branded advertising and social media campaign to provide responsible gambling information beyond PPC. In the Wave 1 report, we recommended that the Massachusetts Gaming Commission consider these estimates of reach within broader cost/benefits analyses.

We continued to observe that the bulk of interactions are superficial in nature; GSAs classified 73% of all their interactions as Simple. GSAs had Exchange interactions with 1,087 visitors across the window of observation, or an average of 6.04 visitors per day. These 6 visitors represent 0.08% of all visitors to PPC each day (i.e., 6/7,085). Together, the GameSense managers and MGC should evaluate these findings and determine whether these kinds of interactions satisfy the program's goals, or whether an initiative to increase non-superficial contact is warranted.

3.23. Gender Differences

GSAs estimated that they had roughly the same number of interactions with men and women. However, women were slightly under-represented in Exchange interactions and were substantially under-represented among Repeat Visitor Survey respondents. We examined men's and women's responses separately in an attempt to learn whether women were less satisfied than men after their first Exchange interaction. Although we did not ask many visitor satisfaction-type questions during Wave 2, we did find that women were no less likely than men to indicate that they (1) would recommend GameSense to a friend, (2) would be comfortable asking a GSA for help with an emerging gambling problem, or (3) recognized that GSAs have resources for people experiencing gambling problems. In short, we do not know why

women were underrepresented among Exchange and Repeat Visitor Survey respondents. We suggest that GameSense staff and management continue to monitor this trend and, if necessary, apply corrective measures.

3.24. LIMITATIONS

As in Wave 1, all of our visitor perceptions are generated by a small sub-set of GameSense visitors—those who, for one reason or another, chose to have a conversation about responsible gambling or problem gambling with a GameSense Advisor. The views of patrons who engaged with GameSense in other ways—for example, those who simply received responsible gambling information, viewed a demonstration, or used the GameSense kiosk without speaking to a GSA—were not represented in our visitor survey findings. It is possible that Exchange visitors were naturally more curious about gambling and gambling responsibly and/or more accepting of the GameSense program than their counterparts. In this case, their views would overestimate the general acceptability of the program.

We note that, on the whole, visitors demonstrated high levels of accuracy on the responsible gambling questions. Because performance accuracy was high among visitors who had had at least one conversation with GSA, it is possible that we were unable to observe positive effects of additional GameSense exposure. In other words, a ceiling effect might have limited the ability to observe effects of added exposure.

Though we took a step toward examining the association between GameSense exposure and responsible gambling knowledge and behavior, we did so using a cross-sectional design. We did not experimentally manipulate whether participants engaged with GameSense, and all visitors who completed surveys had already had at least one encounter with a GameSense Advisor. Therefore, we were not positioned to test whether initial GameSense exposure changed gambling-related beliefs and behavior, and we cannot conclude with confidence that additional GameSense exposure *caused* more awareness of the purpose and potential benefits of PlayMyWay, or awareness of problem gambling treatments within the community. Evidence of a positive association between GameSense exposure and awareness of these resources is necessary, but not sufficient, for concluding that additional GameSense exposure caused more awareness of these resources (Hill, 1965).

Again, as with Wave 1, our description of GameSense services is only as accurate as the information GSAs provided during the course of their workday; they sometimes struggled balancing data collection and other job responsibilities. As a result of mistakes that occurred when recording interactions, the cumulative response rate is questionable. We describe this problem in detail in Section 3.1.2.2. Because more visitors completed surveys than were initially counted by GSAs, we conclude that GSAs did not follow established Checklist protocols, and did not record all visitors. For many of the other Checklist measures (e.g., location of interactions, GSA actions, interaction transitions), we have no external standard against which to compare GSAs' estimates, but we recognize the possibility of mistakes in data collection. Likewise, our assessments of safety, effectiveness, and reach are only as accurate as the measures we chose to include. Other measures of these domains could reveal alternative outcomes.

Finally, as with Wave 1, these findings pertain only to the GameSense program operating at Plainridge Park Casino. Responsible gambling information centers operating at other gambling venues, with other staff members, might produce different effects.

3.25. RECOMMENDATIONS AND FUTURE DIRECTIONS

3.25.1. Program Enhancement Recommendations

We provide recommendations for ensuring the safety, effectiveness, and reach of the GameSense program at PPC. First, with regard to safety, we recommend that the MGC and MCCG continue monitoring visitors and GSAs. Given the complex and emotional topics that compose part of the GameSense initiative, we strongly encourage MCCG to continue providing supervisory support to GSAs. We caution readers not to assume that the results we report here are stable in nature; indeed, we have observed meaningful changes in GSAs' reach from Wave 1 to Wave 2, which were separated by only 2.5 months. Similarly, new threats to visitors' and GSAs' safety might emerge in the future as GSAs' job responsibilities continue to evolve, suggesting the need for continued careful monitoring. Human services work is challenging and complex. People with gambling-related problems often evidence co-occurring emotional disorders (Kessler et al., 2008). These issues present unique and typical challenges for those who stand ready to help them. Boundary issues and emotional responses are relatively common among human service helpers; program planners should attend to staff needs especially because, in the human services field, these problems often are less than visible (Powell & Brodsky, 1993; Walker & Clark, 1999).

With regard to effectiveness, we have made some suggestions for supplementing and/or strengthening GSAs' current messaging to GameSense visitors. These include messages about gambling as a recreational, but not profitable activity, which might correct overly optimistic beliefs and encourage responsible gambling; emphasizing the full range of consequences of problem gambling, which might spur problem recognition and help seeking among at-risk patrons; and emphasizing the true independence of slot machine play. GSAs might additionally experiment with new ways of engaging women visitors in an attempt to reduce their under-representation among Repeat visitors.

With regard to reach, as in Wave 1, we recommend that program planners conduct a cost-benefit analysis to confirm future decisions about investing financial and other resources into the GameSense program at PPC and elsewhere. To generate a comprehensive cost-benefit analysis, planners might wish to examine the reach of the recently launched advertising/social media campaign designed to disseminate responsible gambling messaging beyond PPC. The Substance Abuse and Mental Health Services Administration (2017) recommends a diverse set of measures to study the reach of social media campaigns. These outcomes include exposure (e.g., "How many people are seeing your message?"), engagement ("How many people responded to your message or took some kind of action?"), influence (e.g., "How is your message being received by others, and should you tweak it?") and results (e.g., "Are your social media efforts meet your prevention goals and objectives?").

3.25.2. Future Evaluation Recommendations

The Division on Addiction plans to continue its efforts to evaluate the GameSense program at PPC in several ways. During February and July/August 2016, the SEIGMA team surveyed PPC patrons regarding a number of topics, including their impressions of GameSense at PPC. We will conduct secondary analysis of these data to understand how PPC patrons, broadly defined, view GameSense at PPC. During May, 2017 we plan to survey PPC employees regarding their opinions and use of GameSense at PPC. Finally, we have proposed completing in-depth interviews with GameSense visitors and GSAs to gain more insight into their experiences and recommendations for improving the program. These new studies will supplement these Wave 1 and Wave 2 reports to provide a more complete picture of the safety, effectiveness, and reach of GameSense at PPC.

3.26. CONCLUDING THOUGHTS

Taken together, our Wave 1 and Wave 2 results suggest that GameSense services at PPC are well-received by patrons, are often superficial in nature but sometimes involve emotionally-charged interactions, and are associated with greater awareness of local gambling treatment resources and the PlayMyWay system. Exchange visitors report that they largely avoid problematic gambling-related cognitions, gamble moderately, and experience few gambling-related problems. They reported these beliefs and behaviors after at least one encounter with a GameSense Advisor. Additional GameSense exposure did not appear to stimulate healthy growth in gambling-related cognitions or responsible gambling behaviors aside from a willingness to seek additional information about keeping gambling fun. That is, people who had more exposure to GameSense did not seem to translate this additional contact into more responsible gambling tendencies. This circumstance—lack of association between additional GameSense exposure and responsible gambling knowledge and behavior—might result from ceiling effects that limited the extent to which GSAs could positively influence thoughts and behavior. GameSense staff currently has limited contact with PPC visitors. Because this evaluation has not provided evidence of harm to PPC visitors, we recommend that the MGC develop a detailed set of program goals for reach and effectiveness, and then re-evaluate the program against those goals.

Chapter Four: Summary Analysis of the 2016 Plainridge Park Casino Patron Intercept Survey: Focus on GameSense

CHAPTER FOUR: Table of Contents

Introduction

4.1. Background

The 2011 Massachusetts Gaming Act allowed for gambling expansion across the Commonwealth. Additionally, it mandated several strategies designed to mitigate potential harm associated with new gambling opportunities. Among these mandates is the requirement for each newly licensed gaming operator to provide on-site space for independent compulsive gambling and mental health services.[1] The Massachusetts Gaming Commission (MGC) selected the GameSense brand, developed by the British Columbia Lottery Corporation, to fulfill this legislative mandate. When the first new gambling venue opened at Plainridge Park Casino (PPC) during June, 2015, the GameSense program opened along with it.

4.2. GameSense at Plainridge Park Casino

The Massachusetts Council on Compulsive Gambling (MCCG) operates the GameSense program at PPC. Staff members of the GameSense program are called GameSense Advisors. The program is designed as a responsible gambling information center. Broadly, responsible gambling strategies seek to reduce the incidence and prevalence of gambling-related harms experienced at an individual and societal level (Blaszczynski, Ladouceur, & Shaffer, 2004). These strategies include consumer protection, community/consumer/staff awareness and education, and access to reliable help services and mental health treatment (Shaffer et al., 2016). Other responsible gambling programs operating at PPC include a voluntary budgeting system called PlayMyWay and voluntary self-exclusion.

The MGC's Responsible Gaming Framework specifies that responsible gambling information center staff should share with patrons responsible gambling tips, knowledge of how games work, and the inaccuracies and dangers of common gambling myths (Massachusetts Gaming Commission, 2014a). Commission Chairman Steve Crosby stated that the GameSense marketing and branding package is "intended to engage players and the public with responsible gaming and problem gambling information and tools while removing the stigma often associated with accessing these resources" (Massachusetts Gaming Commission, 2014b). Indeed, the stigma associated with gambling disorder often prevents people from accessing treatment resources (Gainsbury, Hing, & Suhonen, 2014). Ultimately, the MGC views GameSense as a strategy "to encourage responsible play and mitigate problem gambling" within the Commonwealth (Massachusetts Gaming Commission, 2014b).

4.3. Responsible Gambling Programming and Evaluation

When a responsible gambling initiative is available to the public, researchers can and should empirically test its safety, effectiveness, and reach (Ladouceur, Shaffer, Blaszczynski, & Shaffer, 2017; Shaffer et al., 2016); these features are uncertain in the absence of rigorous evaluation. In this evaluation, we define safety as the absence of program-induced harm to visitors, though potential harm to staff members (i.e., GameSense Advisors) should also be monitored. We define effectiveness as the extent to which the GameSense program at PPC is providing responsible gambling and problem gambling information to PPC patrons and others. Finally, we define reach as the percent penetration of the GameSense program into the target population. Though the GameSense target population includes both PPC patrons and the broader public (Massachusetts Gaming Commission, 2014a), in this evaluation we define reach as the percent of PPC patrons that GameSense engages. Program impact is the product of reach and effectiveness (Abrams et al., 1996). Consider two extreme hypothetical scenarios: GameSense could be very effective but have zero impact if it reaches 0% of its target population. Or, it could have 100% reach but have zero impact if it has no effectiveness.

[1] https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter194

During July 2016, the Division on Addiction at Cambridge Health Alliance (Division) provided an initial evaluation of the GameSense program at PPC. This report[2] summarized data collected at PPC during the period December 1, 2015 through May 31, 2016 (i.e., Wave 1 report; Gray, LaPlante, Keating, & Shaffer, 2016). The Wave 1 report described how casino patrons who visited GameSense or otherwise interacted with GameSense Advisors perceived the program and its services and provided a description of GameSense Advisors' daily activities. Subsequently, we conducted a follow-up evaluation (i.e., Wave 2; Gray, LaPlante, Keating, & Shaffer, 2017), which will be released soon. The Wave 2 evaluation was concerned with assessing the relationship between visitors' GameSense exposure and responsible gambling knowledge and behavior. In the following section, we present selected findings from the Wave 1 Visitor Surveys.

4.4. GAMESENSE VISITOR SURVEY FINDINGS

Our Visitor Survey findings are representative only of GameSense visitors who have the most direct contact with GameSense Advisors; that is, visitors who participated in a two-way conversation with a GameSense Advisor about responsible gambling or problem gambling. We refer to these types of conversations as "Exchange interactions" and to the visitors who have such conversations as "Exchange visitors." Notably, this group represents about 15% of all visitors who interact with GameSense Advisors.

Regarding the safety of GameSense, we did not find evidence that the program at PPC harms Exchange visitors. Indeed, Exchange visitors reported being satisfied with GameSense services. Nearly nine in ten Exchange visitors reported that the GameSense Advisor with whom they spoke listened to them and was caring, helpful, and knowledgeable. The majority of this sample reported that their visit to the GameSense Info Center enhanced their visit to PPC and that they would return to the Info Center. We examined the possibility of adverse unintended consequences, which are well documented within the responsible gambling literature and the prevention literature in general (Reuter, 2009; Shaffer et al., 2016). Adverse unintended consequences occur when interventions inadvertently promote more, rather than less, of the target harmful behavior. We observed that fewer than 4% (N=5) of respondents indicated that they would increase their gambling behavior as a result of their conversation with a GameSense Advisor (GSA). Though most Exchange visitors reported no harm and no change in gambling involvement as a result of exposure to the GameSense program at PPC, we encourage program planners to remain mindful of, and continually monitor, the potential negative consequences for the entire visitor population.

With regard to effectiveness, GameSense Advisors reported providing information about responsible gambling strategies during more than 90% of their non-superficial interactions with PPC patrons. More than 90% of Exchange visitors reported that they learned about strategies to keep gambling fun and/or how gambling works. These patterns are in line with program goals described above. Did these conversations influence Exchange visitors' behavior? About one-third of Exchange visitors indicated that they would think about their gambling as a result of their conversation with a GameSense Advisor. Few Exchange visitors indicated that they would take steps to reduce their gambling or seek professional help as a result of their conversation with a GameSense Advisor. Exchange visitors reported moderate gambling activity, and most reported that they had had no, or very few, lifetime gambling-related problems.

With regard to reach, during the Wave 1 study, we observed that GameSense Advisors had about 31 interactions with visitors each day, and some of these involved multiple visitors at the same time. In total, they interacted with about 52 visitors each day—or 0.67% of the total number of people who visited PPC

[2] http://www.divisiononaddiction.org/website_1/wp-content/uploads/2016/10/PPCGamesenseReport2015_2016.pdf

each day during the window of observation.[3] These rates are just one indicator of the program's reach; other indicators might include the number of people who are exposed to GameSense messaging from outside the casino, such as through print or radio ads, or the number of people who hear about the program from those who have spoken directly with GameSense Advisors.

As we mentioned at the outset of this review, about 15% of all GameSense visitors were eligible to complete surveys. Their perspectives were not necessarily representative of all GameSense visitors or of all PPC patrons. This is an important limitation; visitors who completed our surveys were a self-selected group who, for one reason or another, chose to discuss responsible gambling or problem gambling with a GameSense Advisor. Visitors who engaged with GameSense Advisors in other ways—for example, those who simply received responsible gambling information or viewed a demonstration—were not represented in our survey findings and might have provided different responses to survey questions. In addition, patrons who interacted with the GameSense program but did not engage with a GameSense Advisor (e.g., by using the kiosk, by retrieving a brochure), or who did not engage with the program at all, were not represented in our survey findings and might represent a different segment of the gambling population. Recall that GameSense is designed to appeal to *all* gambling venue patrons—not just those in need of specialty services—in order to remove the stigma often associated with accessing responsible gambling or problem gambling resources. Therefore, it is important to learn how the broader patron population perceives its value. The SEIGMA patron survey provided an opportunity to learn more about PPC patrons and their views about GameSense.

4.5. Purpose of SEIGMA Patron Surveys

The Gaming Act requires the Massachusetts Gaming Commission to develop an annual research agenda "to assist in understanding the social and economic effects of casino gambling in Massachusetts" (Massachusetts Gaming Commission, 2017). One potential economic effect of new casinos is an influx of wealth into the Commonwealth. Alternatively, casino patrons might spend money at the new casinos that they would otherwise have spent on other sectors of the Commonwealth's economy (e.g., movies, shopping, other leisure activities). The Social and Economic Impact of Gambling in Massachusetts (SEIGMA) team designed its PPC patron survey to study these possibilities and address other research questions (Salame et al., 2017).

More specifically, the SEIGMA team developed the patron surveys described in this report to establish the geographic origin and demographic characteristics of people patronizing Massachusetts casinos, their reasons for visiting PPC, the amount of money they spend on different gambling formats (i.e., slot machines, table games, horse racing) and on on-site and off-site amenities (e.g., food, gas, car rental, hotels, retail outlets, other entertainment), and the extent to which their casino spending is impacting their spending on other activities and products (e.g., lottery purchases, other forms of entertainment).

The Division asked the SEIGMA team to include an additional survey section designed to explore casino patrons' awareness and opinions of the PPC GameSense program. This section included 11 questions, several of which were identical to, or modified from, questions included in the Wave 1 GameSense Visitor Surveys. Repeating the questions allowed us to explore whether the pattern of findings we observed during Wave 1 was evident when we sampled a more representative group of casino patrons. When studies that use independent samples and independent research teams offer confirmatory findings, we can be more confident in those findings.

[3] For both PPC traffic and GameSense visitors, the caveat that certain visitors might be counted more than once applies.

The GameSense section in the SEIGMA patron intercept survey provided information about participants' awareness of the program and exposure to GameSense Advisors. These questions provided an additional estimate of the program's reach. In addition, this survey provided additional information about participants who indicated that they had interacted with a GameSense Advisor. More specifically, among the subset of participants with exposure to a GameSense Advisor, the survey asked about satisfaction with the services, impressions of the GameSense Advisor, and potential effects of this interaction—whether the interaction changed the way the participant gambles. These questions supplement our previous findings about the program's effectiveness.

Because the SEIGMA patron survey asked questions about participants' gambling behavior—specifically, their enrollment in the PPC loyalty card program and self-reported expenditure on a variety of gambling activities on the day of the survey—we used this opportunity to examine whether gambling behavior was related to GameSense awareness or opinions. Though this study did not focus on the safety of the GameSense program at PPC, participants' responses to these questions provided an opportunity to describe the proportion of visitors who increase their gambling after speaking with a GameSense Advisor. If visitors increase their gambling to unhealthy levels after speaking with a GameSense Advisor, that would represent an unintended adverse consequence of the program. Therefore, measuring self-reported decreases *and increases* in gambling following GameSense exposure provides a limited measurement of the program's safety. Similarly, questions about participants' awareness of and exposure to GameSense provide an additional measurement of the program's reach.

Methods

4.6. PARTICIPANTS

Four hundred and seventy-nine patrons visiting Plainridge Park Casino participated in this study. Research staff attempted to survey 2,140 PPC patrons. Four hundred and seventy-nine agreed to participate and 1,661 refused. Therefore, the response rate was 22.4%. Two-hundred and seventy-three participants completed the survey between February 20 and February 29, 2016. An additional 206 participants completed the survey between July 30 and August 8, 2016, just over one year after PPC opened.

4.7. SETTING AND TIMING

Plainridge Park Casino (PPC) served as the setting of this evaluation. PPC opened on June 24, 2015. It is a 106,000 square foot facility with 1,250 electronic gaming units.

To account for potential seasonal differences in patron traffic, the SEIGMA team completed two sample collection periods: one between February 20 and February 29, 2016 (i.e., approximately 8 months after PPC opened) and one between July 30 and August 8, 2016 (i.e., just over one year after PPC opened).

4.8. SURVEY

Demographics

The patron survey included 43 questions. The Division received individual-level data on 10 demographic characteristics (i.e., gender, year of birth, marital status, education, employment, veteran status, annual household income, ethnicity, race, and state of residence).

GameSense

The GameSense section provided information about participants' awareness of the program and exposure to GameSense Advisors. It provided additional information about participants who indicated that they

had interacted with a GameSense Advisor. More specifically, among this subset of participants with exposure to a GameSense Advisor, the survey asked about satisfaction with the services, impressions of the GameSense Advisor, and potential effects of this interaction—whether the interaction changed the way the participant gambles, both in terms of money spent and time spent.
The survey began with two gating questions:

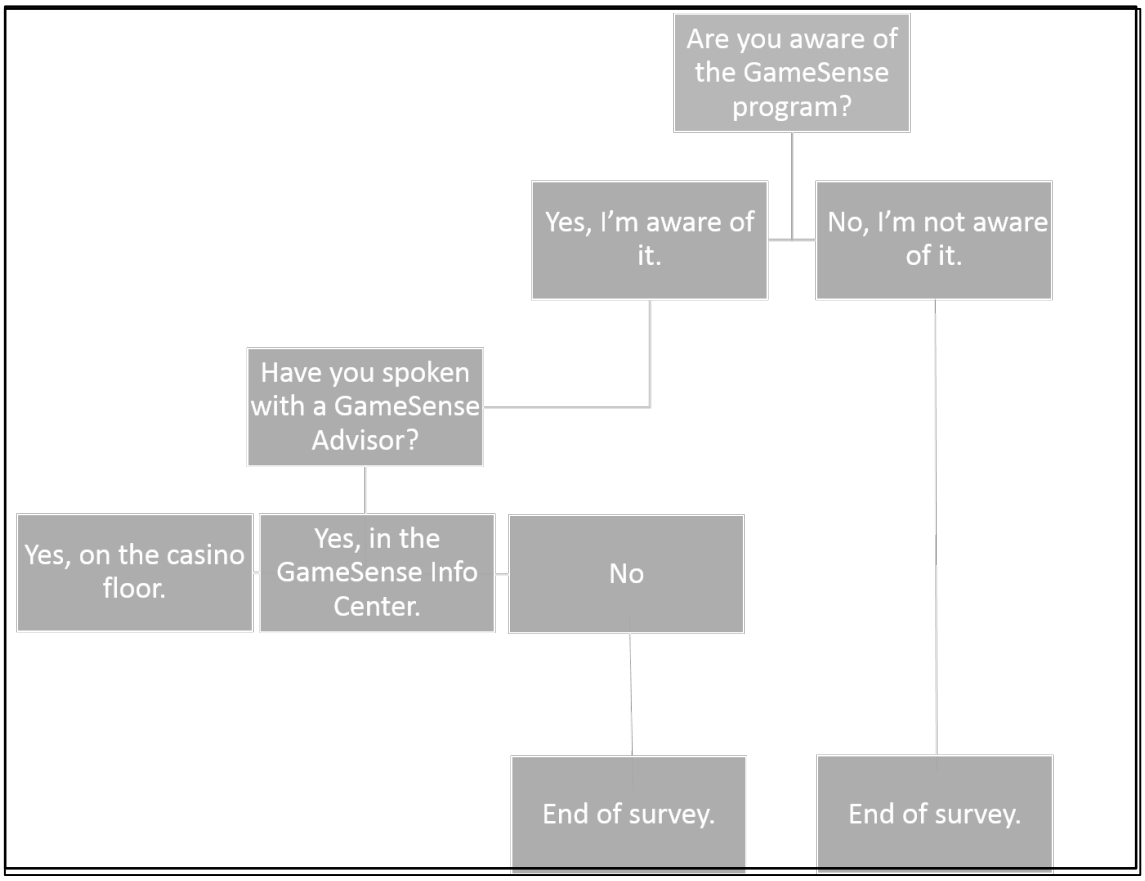


Figure 4.1: Gating of initial GameSense-related questions

Participants who answered affirmatively to the question, "*Have you spoken with a GameSense Advisor?*" answered additional questions, as follows:

- *"Were you satisfied with the information offered by the GameSense Advisor?"* (Yes or No)
- *"To what extent do you agree or disagree with each of these statements?"* (on a 5-point scale anchored with "strongly agree" and "strongly disagree")
  - *"The GameSense Advisor was caring"*
  - *"The GameSense Advisor was helpful"*
  - *"The GameSense Advisor was knowledgeable"*
  - *"The GameSense Advisor listened to me"*
- *"Did you learn something new about gambling?"* (Yes or No)
- *"Did your interaction with the GameSense Advisor change the way you gamble?"* Answer choices were (1) No; (2) Yes, I've changed how I think about my gambling, but I have not changed how I actually gamble; and, (3) Yes, I've changed how I actually gamble. Participants who answered (3) were asked the following two questions:

- *"As a result of interacting with the GameSense Advisor…"* ((1) I have reduced the time I spend gambling; (2) I have increased the time I spend gambling, or (3) There has been no change in the time I spend gambling)
- *"As a result of interacting with the GameSense Advisor…"* ((1) I have reduced the money I spend gambling; (2) I have increased the money I spend gambling, or (3) There has been no change in the money I spend gambling)

Gambling behavior

We received data on three aspects of participants' gambling patterns: (1) enrollment in the Penn National loyalty card program, (2) self-reported expenditure on a variety of gambling activities on the day of the survey, and (3) responses to a series of GameSense-related questions. More specifically, the survey asked, "*Do you have a loyalty or rewards card with this casino company?"* Later, the survey asked, "*If you gambled today, which gambling activities or games did you play [while you were on-site at Plainridge Park Casino]?"* Participants could indicate that they did not gamble at all on the day of the survey. Or, they could indicate whether they played slots, played electronic table games, bet on horses, or bought lottery tickets. Immediately thereafter, the survey asked, "*How much did you spend on these [gambling] activities?"* Participants received the following instructions: "*For example, if you started with $100 but are going home with $60, you spent $40*." Before transferring the data, the SEIGMA research team set all wins to zero and winsorized the reported losses to 4 standard deviations.[4]

4.9. PROCEDURE

Faculty and students from the University of Massachusetts, Amherst collected the data during two 2-week periods. They surveyed during both daytime and evening hours, as well as during mid-week and weekend days. Research staff members were stationed at tables located at each of the 3 casino exits, off the gaming floor; they did not block traffic out of the casino.

In an attempt to ensure that the sample represented the overall PPC patronage, the research staff attempted to survey every 6th patron exiting the venue. They selected their shifts based on pilot visits to the venue to determine average business volume; they attempted to collect a total of 500 surveys.

Research staff asked potential participants if they had 5-10 minutes to complete a short survey. They offered potential participants a $5 Dunkin Donuts gift card in exchange for participation. Research staff did not attempt to exclude from the July/August survey participants who completed the survey during February. Participants had the option to complete the survey on an iPad or on a printed questionnaire. Printed versions were available in English, Spanish, and Mandarin. If participants chose, they could complete the survey by answering an interview's questions verbally. This option was available only in English.

The current patron intercept research plan calls for a follow-up survey at PPC during 2018.

[4] Winsorizing is a method for transforming measured variables to reduce the effect of extreme values (i.e., outliers). Researchers replace the extreme values of a data set with a certain percentile value from each end. In this case, SEIGMA researchers only winsorized the negative end of the distribution, because they replaced all positive values (wins) with zero.

4.10. HUMAN SUBJECTS PROTECTION

We documented with the Cambridge Health Alliance Institutional Review Board that our activities (i.e., secondary analysis of de-identified data) did not constitute human subjects research according to the federal guidelines.

4.11. ANALYTIC PLAN

We generated descriptive summaries of all participants' demographic characteristics. Then, we turned to the GameSense-related questions and gambling activity questions. Because participants completed these surveys over two sample collection periods, we examined responses to the GameSense-related questions separately for the February 2016 and July/August 2016 groups. We collapsed across these two sample collection periods when the data indicated such collapsing was possible (i.e. when responses did not vary across time periods) and when separating by sample collection period would produce very small cell sizes. We describe each decision in the Results section. Finally, we examined the relationships between GameSense awareness/exposure and self-reported gambling patterns. For the continuous data we used *t*-tests. For categorical data we used chi square tests. When at least one cell in our comparisons had an expected frequency of less than five, we evaluated statistical significance using Fisher's exact test.
Very rarely, participants did not answer the gating question, "*Have you spoken with a GameSense Advisor?"* but continued on to the subsequent questions, (1) *"Were you satisfied with the information offered by the GameSense Advisor*?" (2) "*To what extent do you agree or disagree with each of these statements [about the GameSense Advisor]?"* (3) *"Did you learn something new about gambling?" and* (4) *"Did your interaction with the GameSense Advisor change the way you gamble?"* Absent a positive response to the gate item, we excluded responses to these questions from our analyses. We considered these responses invalid because participants did not report speaking with a GameSense Advisor. In their report describing the same dataset, Salame et al. (2017) did not exclude these responses. So that readers can make comparisons across reports, for these four questions, we provide results with all responses included in the Appendix.

As mentioned previously, Salame et al. (2017) achieved a response rate of 22.4% in their survey of PPC patrons. This low response rate raises the potential for sampling bias, which occurs when members of a population (in this case PPC patrons) are not equally likely to be included in the sample. Salame et al. (2017) attempted to correct for sampling bias by weighting the data based on (1) seasonality and period of the week and (2) participants' demographic characteristics. They applied weights that sum to the estimated total number of patron visits during 2016 (N = 1,906,243). In this report, we provide estimates obtained using unweighted data in addition to weighted estimates because we have concerns—described more fully in the Discussion section—about the extent to which the Salame et al. (2017) method could correct for sampling bias. Tables of unweighted data immediately precede tables of weighted data. We also conducted statistical tests (chi square and *t*-tests) twice, once with unweighted data and once with weighted data; we present both sets of results. When conducting significance tests on weighted data, we used the 'Survey' package in R (Lumley, 2017). This package applies the Rao and Scott (1981) correction for chi square. For *t*-tests, it estimates a *t* statistic using the weighted difference between means and a model-robust standard error estimator.

Results

4.12. PARTICIPANT DEMOGRAPHICS

In total, 479 PPC patrons completed the survey. Participants ranged in age from 19 to 96 years. As Table 4.1 indicates, most participants were women and White alone.

A plurality of participants reported having some college education. Remaining participants reported having no college or at least a college degree. Most participants were employed. Most participants were married. Most participants reported no military experience. Most participants reported that they live in Massachusetts. A plurality of participants reported an annual household income between $50,000 and $99,999. Tables 4.1-4.2 provides additional detail.

Table 4.1: Participants' demographic characteristics (unweighted data)

	Number	Percent	Percent with missing values excluded
Gender			
Female	262	54.7	56.2
Male	203	42.4	43.6
Transgender/Other	1	0.2	0.2
Missing	13	2.7	
Race/ethnicity			
Hispanic	21	4.4	4.5
White alone	380	79.3	82.1
Black alone	24	5.0	5.2
Asian alone	25	5.2	5.4
Some other race alone	7	1.5	1.5
Two or more races	6	1.3	1.3
Missing	16	3.3	
Age			
18-20	1	0.2	0.2
21-24	4	0.8	0.9
25-34	22	4.6	5.1
35-54	132	27.6	30.5
55-64	133	27.8	30.8
65-79	124	25.9	28.9
80+	16	3.3	3.7
Missing	47	9.8	
Education			
Less than high school	28	5.8	6.0
High school or equivalent	83	17.3	17.9
Some college	184	38.4	39.7
Bachelor's degree	110	23.0	23.7
Graduate or professional degree	54	11.3	11.6
PhD	5	1.0	1.1
Missing	15	3.1	

	Number	Percent	Percent with missing values excluded
Employment			
Employed	272	56.8	58.9
Unemployed	11	2.3	2.4
Homemaker	14	2.9	3.0
Student	5	1.0	1.1
Retired	144	30.1	31.2
Disabled	16	3.3	3.5
Missing	17	3.5	
Military status			
Never served in the military	387	80.8	85.2
Yes, served prior to Sept 2001.	62	12.9	13.7
Yes, served Sept. 2001 or later	5	1.0	1.1
Missing	25	5.2	
Marital status			
Never married	65	13.6	14.0
Living with partner	41	8.6	8.8
Married	259	54.1	55.8
Divorced or separated	59	12.3	12.7
Widowed	40	8.4	8.6
Missing	15	3.1	
State of residence[5]			
Massachusetts	378	78.9	83.1
Other New England states	71	14.7	15.6
Outside New England	6	1.2	1.3
Missing	24	5.0	
Annual household income			
Less than $15,000	24	5.0	5.5
$15,000-$29,999	39	8.1	8.9
$30,000-$49,999	69	14.4	15.8
$50,000-$99,999	168	35.1	38.4
$100,000-$149,999	76	15.9	17.4
$150,000 or more	61	12.7	14
Missing	42	8.8	

[5] Readers interested in state-by-state totals may contact the authors.

Table 4.2: Participants' demographic characteristics (weighted data)

	Number	Percent	Percent with missing values excluded
Gender			
Female	892889	46.8	48.3
Male	954709	50.1	51.6
Transgender/Other	2256	0.1	0.1
Missing	56387	3.0	
Race/ethnicity			
Hispanic	81949	4.3	4.5
White alone	1504476	78.9	81.8
Black alone	93618	4.9	5.1
Asian alone	105540	5.5	5.7
Some other race alone	37574	2.0	2.0
Two or more races	16519	0.9	0.9
Missing	66566	3.5	
Age			
18-20	7524	0.4	0.4
21-24	23988	1.3	1.4
25-34	98118	5.2	5.8
35-54	594216	31.2	34.8
55-64	437516	23.0	25.7
65-79	484545	25.4	28.4
80+	59763	3.1	3.5
Missing	200572	10.5	
Education			
Less than high school	87474	4.6	4.7
High school or equivalent	312211	16.4	16.9
Some college	742445	38.9	40.2
Bachelor's degree	487427	25.6	26.4
Graduate or professional degree	198275	10.4	10.7
PhD	17816	0.9	1.0
Missing	60593	3.2	
Employment			
Employed	1085691	57.0	59.1
Unemployed	44820	2.4	2.4
Homemaker	47718	2.5	2.6
Student	32795	1.7	1.8
Retired	561078	29.4	30.5
Disabled	65178	3.4	3.5
Missing	68960	3.6	

	Number	Percent	Percent with missing values excluded
Military status			
Never served in the military	1518443	79.7	84.1
Yes, served prior to Sept 2001.	259322	13.6	14.4
Yes, served Sept. 2001 or later	27683	1.5	1.5
Missing	100793	5.3	
Marital status			
Never married	337117	17.7	18.3
Living with partner	144726	7.6	7.8
Married	964306	50.6	52.2
Divorced or separated	251506	13.2	13.6
Widowed	148186	7.8	8.0
Missing	60403	3.2	
State of residence			
Massachusetts	1485201	77.9	81.7
Other New England states	292659	15.4	16.1
Outside New England	40231	2.1	2.2
Missing	88150	4.6	
Annual household income			
Less than $15,000	110267	5.8	6.3
$15,000-$29,999	137592	7.2	7.9
$30,000-$49,999	278910	14.6	15.9
$50,000-$99,999	702738	36.9	40.2
$100,000-$149,999	310285	16.2	17.7
$150,000 or more	208894	11.0	11.9
Missing	157556	8.3	

4.13. GAMESENSE AWARENESS AND OPINIONS

We studied responses to the question, "*Are you aware of the GameSense program?"* Twenty-four participants did not answer this question. We found that responses among the remaining 455 participants varied by season. As Table 4.3 shows, more of the July/August 2016 sample indicated that they were aware of the GameSense program than the February 2016 sample (unweighted chi square (1) = 33.85, $p < .001$; weighted data: chi square (1) = 27.61, $p < .001$). In the combined sample (i.e., February 2016 plus July/August 2016), most participants answered "yes" to this question.

Table 4.3: Responses to the question, "*Are you aware of the GameSense program?"* (unweighted data)

	No, I'm not aware of it.			Yes, I'm aware of it.			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
February 2016 sample	142	52	54.8	117	42.9	45.2	14	5.1
July/August 2016 sample	54	26.2	27.6	142	68.9	72.4	10	4.9
Combined sample	196	40.9	43.1	259	54.1	56.9	24	5.0

Table 4.4: Responses to the question, "*Are you aware of the GameSense program?*" (weighted data)

	No, I'm not aware of it.			Yes, I'm aware of it.			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
February 2016 sample	493632	49.1	51.6	463850	46.1	48.4	48408	4.8
July/August 2016 sample	236159	26.2	27.4	626460	69.6	72.6	37732	4.2
Combined sample	729791	38.3	40.1	1090310	57.2	59.9	86140	4.5

Among the 259 participants who reported that they were aware of the GameSense program, we observed that responses to the question, "*Have you spoken to a GameSense Advisor?"* did not vary by season. Across both waves of data collection, most participants indicated that they had not spoken with a GameSense Advisor (Tables 4.5-4.6).

Table 4.5: Responses to the question*, "Have you spoken with a GameSense Advisor?"* (unweighted data)

No			Yes, on the casino floor			Yes, in the GameSense Info Center			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
209	80.7	82.0	18	6.9	7.1	28	10.8	11.0	4	1.5

Table 4.6: Responses to the question*, "Have you spoken with a GameSense Advisor?"* (weighted data)

No			Yes, on the casino floor			Yes, in the GameSense Info Center			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
881919	80.9	82.5	72747	6.7	6.8	113735	10.4	10.6	21909	2.0

As Tables 4.7-4.8 show, for the question, "*Were you satisfied with the information offered by the GameSense Advisor?"* nearly all of the minority of participants who indicated that they had spoken with a GameSense Advisory answered "yes."

Table 4.7: Responses to the question*, "Were you satisfied with the information offered by the GameSense Advisor?"* (unweighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
44	95.7	97.8	1	2.2	2.2	1	2.2

Table 4.8: Responses to the question*, "Were you satisfied with the information offered by the GameSense Advisor?"* (weighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
176466	94.6	98.5	2770	1.5	1.5	7246	3.9

We examined participants' impressions of the GameSense Advisor with whom they spoke. Recall that we asked them the extent to which they perceived the GameSense Advisor to be caring, helpful, and knowledgeable, and the extent to which the GameSense Advisor listened to them. Few participants indicated that they disagreed, strongly disagreed, or neither agreed nor disagreed with these statements (Tables 4.9-4.10).

Table 4.9: Responses to the question, "*To what extent do you agree or disagree with each of these statements?*" (unweighted data)

	Strongly agree			Agree			Neither agree nor disagree			Disagree			Strongly disagree			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
Was caring	21	45.7	46.7	21	45.7	46.7	3	6.5	6.7	0	0	0	0	0	0	1	2.2
Was helpful	22	47.8	48.9	19	41.3	42.2	3	6.5	6.7	0	0	0	1	2.2	2.2	1	2.2
Was knowledgeable	23	50.0	51.1	19	41.3	42.2	3	6.5	6.7	0	0	0	0	0	0	1	2.2
Listened to me	23	50.0	51.1	18	39.1	40.0	4	8.7	8.9	0	0	0	0	0	0	1	2.2

Table 4.10: Responses to the question, *"To what extent do you agree or disagree with each of these statements?*" (weighted data)

	Strongly agree			Agree			Neither agree nor disagree			Disagree			Strongly disagree			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
Was caring	74414	39.9	40.5	90393	48.5	49.2	18905	10.1	10.3	0	0	0	0	0	0	2770	1.5
Was helpful	72194	38.7	39.3	94589	50.7	51.3	11639	6.2	6.3	0	0	0	5289	2.8	2.9	2770	1.5
Was knowledgeable	79029	42.4	43.0	85778	46.0	46.7	18905	10.1	10.3	0	0	0	0	0	0	2770	1.5
Listened to me	84332	45.2	45.9	84195	45.1	45.8	15185	8.1	8.3	0	0	0	0	0	0	2770	1.5

Participants' ratings on these four dimensions were highly inter-correlated. Across all participants, using unweighted data, the smallest correlation was between "caring" and "helpful" ($r = 0.81$, $p < .001$) and the largest correlation was between "caring" and "knowledgeable" ($r = 0.94$, $p < .001$). Similarly, using weighed data, correlations ranged from 0.78-0.87.

Participants who reported that they had spoken with a GameSense Advisor (n=46) also answered the question, "*Did you learn something new about gambling?"* The majority of eligible participants answered affirmatively (Tables 4.11-4.12).

Table 4.11. Responses to the question, "*Did you learn something new about gambling?"* (unweighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
27	58.7	58.7	19	41.3	41.3	0	0

Table 4.12. Responses to the question, "*Did you learn something new about gambling?"* (weighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
101980	54.7	54.7	84502	45.3	45.3	0	0

The 46 participants who had spoken with a GameSense Advisor then considered the question, "*Did your interaction with the GameSense Advisor change the way you gamble?"* Most participants answered "no." The remaining participants were split fairly evenly between indicating that their interaction with a GameSense Advisor changed how they think about gambling, but not their actual gambling behavior and indicating the conversation with a GameSense Advisor caused them to change how they actually gamble. (See Tables 4.13-14.14.) Note that both of these confidence intervals do not include zero, thereby encouraging confidence, despite the small cell sizes, that some proportion of participants who interact with GameSense Advisors will change their gambling behavior or at least think about changing their gambling behavior.

Table 4.13. Responses to the question*, "Did your interaction with the GameSense Advisor change the way you gamble?"* (unweighted data)

No			Yes, I've changed how I think about my gambling, but I have not changed how I actually gamble.			Yes, I've changed how I actually gamble.			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
26	56.5	57.8	9	19.6	20.0	10	21.7	22.2	1	2.2

Table 4.14: Responses to the question*, "Did your interaction with the GameSense Advisor change the way you gamble?"* (weighted data)

No			Yes, I've changed how I think about my gambling, but I have not changed how I actually gamble.			Yes, I've changed how I actually gamble.			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
98113	52.6	53.4	42917	23.0	23.4	42682	22.9	23.2	2770	1.5

Recall that if a participant indicated that the interaction with a GameSense Advisor changed how they gamble, we then asked the participant questions about whether they changed the time and/or money spent gambling. However, because only 10 participants were eligible for these questions (i.e., because they answered "Yes, I've changed how I actually gamble"), we elected not to delineate their responses to the follow-up time/money questions. This procedure is consistent with common standards for reporting data (Klein, Proctor, Boudreault, & Turczyn, 2002).

4.14. GAMBLING BEHAVIOR

Next, we describe how participants responded to three questions regarding their gambling habits.

Loyalty cards

We studied responses to the question, "*Do you have a loyalty or rewards card with this casino company?"* Most participants answered affirmatively (Tables 4.15-4.16).

Table 4.15: Responses to the question, "*Do you have a loyalty or rewards card with this casino company?"* (unweighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
370	77.2	77.6	107	22.3	22.4	2	0.4

Table 4.16: Responses to the question, "*Do you have a loyalty or rewards card with this casino company?"* (weighted data)

Yes			No			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
1478154	77.5	77.8	422089	22.1	22.2	5998	0.3

Gambling activities

We examined responses to the question*, "If you gambled today, which gambling activities or games did you play?"* We found that most participants indicated that they gambled that day and that they played slots. Most participants indicated that they did not play electronic table games, bet on horses, or by lottery tickets. See Tables 4.17-4.18.

Table 4.17: Responses to the question, "*If you gambled today, which gambling activities or games did you play?*" (unweighted data)

	Yes			No			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
Gambled today	445	92.9	96.3	17	3.5	3.7	17	3.5
Slots	407	85.0	88.1	55	11.5	11.9	17	3.5
Electronic table games	53	11.1	11.5	409	85.4	88.5	17	3.5
Horse racing	29	6.1	6.3	433	90.4	93.7	17	3.5
Lottery	14	2.9	3.0	448	93.5	97.0	17	3.5

Table 4.18: Responses to the question, "*If you gambled today, which gambling activities or games did you play?*" (weighted data)

	Yes			No			Missing	
	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
Gambled today	1784148	93.6	96.5	64925	3.4	3.5	57168	3.0
Slots	1609551	84.4	87.0	239522	12.6	13.0	57168	3.0
Electronic table games	226674	11.9	12.3	1622399	85.1	87.7	57168	3.0
Horse racing	141702	7.4	7.7	1707371	89.6	92.3	57168	3.0
Lottery	48582	2.5	2.6	1800491	94.5	97.4	57168	3.0

We calculated the number of games each participant played. Most played only one game, followed by two games and three games, respectively. No participants played all four games. The mean of number of games played was 1.09 (SD = 0.41).[6] Tables 4.19-4.20 summarize the number of games played.

[6] These estimates were identical for weighted and unweighted data.

□

Table 4.19: Distribution of gambling involvement (i.e., number of games played) on the day of the survey (unweighted data)

No games			1 game			2 games			3 games			4 games			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
17	3.5	3.7	390	81.4	84.4	52	10.9	11.3	3	0.6	0.6	0	0	0	17	3.5

Table 4.20: Distribution of gambling involvement (i.e., number of games played) on the day of the survey (weighted data)

No games			1 game			2 games			3 games			4 games			Missing	
N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%	% with missing values excluded	N	%
64925	3.4	3.5	1549684	81.3	83.8	226566	11.9	12.3	7898	0.4	0.4	0	0	0	57168	3.0

Gambling expenditure

Participants answered the question, "*How much did you spend on these [gambling] activities?"* As a reminder, SEIGMA set wins to zero. As a result, all responses are zero or negative, with negative values indicating how much the participant spent on gambling during their visit to PPC. Tables 4.21-4.22 provide further detail and represent winsorized data.

Table 4.21: Amount spent on day of survey (unweighted data)

N	Mean	Median	Mode	SD	Minimum	Maximum
431	-111.78	-50.00	0.00	201.64	-1403.00	0.00

Table 4.22: Amount spent on day of survey (weighted data)

N	Mean	Median	Mode	SD	Minimum	Maximum
1734757	-98.11	-40.00	0.00	179.40	-1403.00	0.00

4.15. Association between Gambling Behavior and GameSense Awareness and Opinions

We examined how responses to these three aspects of gambling behavior—use of a loyalty card, gambling activities on the day of survey, and amount spent on gambling at PPC on the day of the survey— related to the two initial GameSense-related questions, "*Are you aware of the GameSense program?"* and "*Have you spoken with a GameSense Advisor?"* We included only these two gating questions in this set of analyses because a maximum of 46 participants answered the remaining GameSense-related questions. These analyses exclude participants with missing data for either variable. In all cases except one, the result of the statistical test (i.e., whether we observed a statistically significant difference) was the same for unweighted and weighted data.

Loyalty cards

As Tables 4.23-4.24 summarize, participants who had loyalty cards were more likely to report being aware of GameSense than those who did not have loyalty cards.

Table 4.23: Participants' responses to the question, "*Are you aware of the GameSense program?"* as a function of loyalty card ownership (weighted data)

Do you have a loyalty or rewards card with this casino company?	**Are you aware of the GameSense program?**				**Statistical test**	
	No, I'm not aware of it.		Yes, I'm aware of it.		Chi square	*p*
	n	%	n	%		
No	67	65.7	35	34.3	27.52	0.00
Yes	128	36.5	223	63.5		

Table 4.24: Participants' responses to the question, "*Are you aware of the GameSense program?*" as a function of loyalty card ownership (weighted data)

Do you have a loyalty or rewards card with this casino company?	**Are you aware of the GameSense program?**				**Statistical test**	
	No, I'm not aware of it.		Yes, I'm aware of it.		Chi square	*p*
	n	%	n	%		
No	265203	66.2	135145	33.8	36.69	0.00
Yes	461153	32.6	952602	67.4		

On the other hand, as Tables 4.25-4.26 show, having a loyalty card was unrelated to having spoken with a GameSense Advisor.

Table 4.25: Participants' responses to the question, "*Have you spoken to a GameSense Advisor?*" as a function of loyalty card ownership (unweighted data)

Do you have a loyalty or rewards card with this casino company?	**Have you spoken to a GameSense Advisor?**				**Statistical test**	
	No		Yes		Chi square	*p*
	n	%	n	%		
No	28	84.8	5	15.2	0.17	0.68
Yes	181	81.9	40	18.1		

Table 4.26: Participants' responses to the question, "*Have you spoken to a GameSense Advisor?*" as a function of loyalty card ownership (weighted data)

Do you have a loyalty or rewards card with this casino company?	**Have you spoken to a GameSense Advisor?**				**Statistical test**	
	No		Yes		Chi square	*p*
	n	%	n	%		
No	112201	89.8	12762	10.2	1.17	0.22
Yes	769718	81.8	171157	18.2		

Gambling activities

We examined whether participants' awareness of GameSense was related to their reports of gambling activity on the day of the survey. Participants tended to be more likely to report gambling on the day of the survey if they were aware of GameSense. This difference was not statistically significant when we used unweighted data and was statistically significant when we used weighted data. Otherwise, GameSense awareness was unrelated to gambling activities. See Tables 4.27-4.28.

Table 4.27: Gambling activities on the day of the survey as a function of GameSense awareness (unweighted data)

					Statistical test	
	Did not gamble		Gambled		Chi square	*p*
	N	%	N	%		
Not aware of GameSense	10	5.2	182	94.8	2.53	0.11
Aware of GameSense	6	2.4	247	97.5		
	Did not play slots		Played slots			
Not aware of GameSense	27	14.1	165	85.9	2.53	0.13
Aware of GameSense	24	9.5	229	90.5		
	Did not play electronic table games		Played electronic table games			
Not aware of GameSense	169	88.0	23	12.0	0.00	0.97
Aware of GameSense	223	88.1	30	11.9		
	Did not bet on horses		Bet on horses			
Not aware of GameSense	178	92.7	14	7.3	1.29	0.26
Aware of GameSense	241	95.3	12	4.7		
	Did not play lottery		Played lottery			
Not aware of GameSense	187	97.4	5	2.6	1.29	0.26
Aware of GameSense	245	96.8	8	3.2		

Table 4.28: Gambling activities on the day of the survey as a function of GameSense awareness (weighted data)

					Statistical test	
	Did not gamble		Gambled		Chi square	*p*
	N	%	N	%		
Not aware of GameSense	39944	5.5	679889	94.5	5.40	0.03
Aware of GameSense	17208	1.6	1056634	98.4		
	Did not play slots		Played slots			
Not aware of GameSense	118393	16.4	601441	83.6	4.19	0.10
Aware of GameSense	106224	9.9	967618	90.1		
	Did not play electronic table games		Played electronic table games			
Not aware of GameSense	631118	87.7	88715	12.3	0.03	0.89
Aware of GameSense	935883	87.2	137959	12.8		
	Did not bet on horses		Bet on horses			
Not aware of GameSense	647737	90.0	72096	10.0	2.72	0.19
Aware of GameSense	1011369	94.2	62473	5.8		
	Did not play lottery		Played lottery			
Not aware of GameSense	699254	97.1	20579	2.9	0.14	0.74
Aware of GameSense	1049207	97.7	24635	2.3		

Next, we focused on participants who indicated that they were aware of the GameSense program. We examined whether, among this subset of participants, those who had spoken with a GameSense Advisor were equally likely as those who had not spoken with a GameSense Advisor to engage in each gambling activity.

We observed that whether or not they spoke to a GameSense Advisor, the majority of participants had gambled at PPC on the day of the survey. However, the participants who had spoken with a GameSense Advisor were more likely to indicate that they had not gambled on the day of the survey compared with those who had never spoken with a GameSense Advisor. Whether or not they spoke to a GameSense Advisor, most participants indicated that they played slots on the day of the survey. However, fewer of those who had spoken with a GameSense Advisor reported playing slots, compared with those who had not spoken with a GameSense Advisor. These two differences were statistically significant but based on very small cell sizes. Consequently, readers should interpret these findings with caution. Speaking with a GameSense Advisor was unrelated to playing electronic table games, betting on horses, or buying lottery tickets on the day of the survey. See Tables 4.29-4.30.

Table 4.29: Gambling activities on the day of the survey as a function of previous interaction with a GameSense Advisor (GSA) (unweighted data)

					Statistical test	
	Did not gamble		Gambled		Chi square	*p*
	N	%	N	%		
Never spoken with a GSA	2	1.0	202	99.0	9.81	0.01
Spoken with a GSA	4	8.9	41	91.1		
	Did not play slots		Played slots			
Never spoken with a GSA	14	6.9	190	93.1	7.59	0.01
Spoken with a GSA	9	20.0	36	80.0		
	Did not play electronic table games		Played electronic table games			
Never spoken with a GSA	182	89.2	22	10.8	0.82	0.37
Spoken with a GSA	38	84.4	7	15.6		
	Did not bet on horses		Bet on horses			
Never spoken with a GSA	194	95.1	10	4.9	0.02	0.91
Spoken with a GSA	43	95.6	2	4.4		
	Did not play lottery		Played lottery			
Never spoken with a GSA	197	96.6	7	3.4	0.17	0.68
Spoken with a GSA	44	97.8	1	2.2		

Table 4.30: Gambling activities on the day of the survey as a function of previous interaction with a GameSense Advisor (GSA) (weighted data)

					Statistical test	
	Did not gamble		Gambled		Chi square	*p*
	N	%	N	%		
Never spoken with a GSA	4364	0.5	863551	99.5	9.37	0.00
Spoken with a GSA	12844	7.0	171173	93.0		
	Did not play slots		Played slots			
Never spoken with a GSA	61944	7.1	805970	92.9	6. 96	0.03
Spoken with a GSA	36741	20.0	147277	80.0		
	Did not play electronic table games		Played electronic table games			
Never spoken with a GSA	769133	88.6	98782	11.4	1.12	0.38
Spoken with a GSA	152379	82.8	31638	17.2		
	Did not bet on horses		Bet on horses			
Never spoken with a GSA	810874	93.4	57040	6.6	0.84	0.29
Spoken with a GSA	178585	97.0	5433	3.0		
	Did not play lottery		Played lottery			
Never spoken with a GSA	845942	97.5	21972	2.5	0.18	0.60
Spoken with a GSA	181355	98.6	2663	1.4		

We conducted the same analyses using the number of games played (0-4) rather than engagement in particular games. As Tables 4.31-4.32 summarize, awareness of GameSense was unrelated to the number of games played.

Table 4.31: Number of games played as a function of GameSense awareness (unweighted data)

	0 games		1 game		2 games		3 games		4 games		Statistical test	
	N	%	N	%	N	%	N	%	N	%	Chi square	*p*
Not aware of GameSense	10	5.2	158	82.3	23	12.0	1	0.5	0	0	2.80	0.42
Aware of GameSense	6	2.4	217	85.8	28	11.1	2	0.8	0	0		

Table 4.32: Number of games played as a function of GameSense awareness (weighted data)

	0 games		1 game		2 games		3 games		4 games		Statistical test	
	N	%	N	%	N	%	N	%	N	%	Chi square	*p*
Not aware of GameSense	39944	5.5	579511	80.5	97815	13.6	2568	0.4	0	0	6.01	0.14
Aware of GameSense	17208	1.6	925916	86.2	125384	11.7	5334	0.5	0	0		

Similarly, we studied the association between GameSense exposure (i.e., having an interaction with a GameSense Advisor) and gambling involvement on the day of the survey. As reported above (Tables 4.29-

4.30), participants who had spoken with a GameSense Advisor were more likely than their counterparts to report that they had *not* played slots on the day of the survey. Because slots were the most common gambling activity, and most participants reported engaging in only one gambling activity, it follows that participants who had spoken with a GameSense Advisor were less likely than those who had not to report having engaged in exactly one gambling activity. Overall, we observed a significant association between number of games played and GameSense exposure. (See Tables 4.33-4.34.)

Table 4.33: Number of games played as a function of previous interaction with a GameSense Advisor (GSA) (unweighted data)

	0 games		1 game		2 games		3 games		4 games		Statistical test	
	N	%	N	%	N	%	N	%	N	%	Chi square	*p*
Never spoken with a GSA	2	1.0	177	86.8	23	11.3	2	1.0	0	0	10.21	0.02
Spoken with a GSA	4	8.9	36	80.0	5	11.1	0	0	0	0		

Table 4.34: Number of games played as a function of GameSense awareness (weighted data)

	0 games		1 game		2 games		3 games		4 games		Statistical test	
	N	%	N	%	N	%	N	%	N	%	Chi square	*p*
Never spoken with a GSA	4364	0.5	748671	86.3	109546	12.6	5334	0.6	0	0	9.99	0.00
Spoken with a GSA	12844	7.0	155356	84.4	15837	8.6	0	0	0	0		

Gambling expenditure

Finally, we examined whether gambling expenditure on the day of the survey was related to being aware of GameSense or having spoken with a GameSense Advisor. We conducted two independent-samples *t*-tests with amount spent as the dependent variable. We observed that participants who were aware of GameSense spent the same amount of money gambling on the day of the survey as those who were not aware of GameSense (see Tables 4.35-4.36).

Table 4.35: Casino spending on the day of the survey as a function of GameSense awareness (unweighted data)

	N	Mean	SD	*t*	df	*p*
Not aware of GameSense	178	-104.91	185.15	0.25	415	0.80
Aware of GameSense	239	-109.76	199.77			

Table 4.36: Casino spending on the day of the survey as a function of GameSense awareness (weighted data)

	N	Mean	SD	*t*	df	*P*
Not aware of GameSense	668460	-85.04	131.37	1.03	415[7]	0.30
Aware of GameSense	1028277	-102.51	213.06			

Similarly, those who had spoken with a GameSense Advisor spent as much as those who had not spoken with a GameSense Advisor (see Tables 4.37-4.38).

[7] Recall that the R survey package for weighted data estimates a *t* statistic using the weighted difference between means and a model-robust standard error estimator.

Table 4.37: Casino spending on the day of the survey as a function of GameSense Advisor (GSA) contact (unweighted data)

	N	Mean	SD	*t*	df	*p*
Never spoken with a GSA	195	-112.87	213.97	0.36	233	0.72
Spoken with a GSA	40	-100.15	122.65			

Table 4.38: Casino spending on the day of the survey as a function of GameSense Advisor (GSA) contact (weighted data)

	N	Mean	SD	*t*	df	*p*
Never spoken with a GSA	837838	-104.48	228.00	0.23	233	0.81
Spoken with a GSA	168530	-97.98	136.90			

Discussion

4.16. Purpose

The Massachusetts Gaming Commission launched the GameSense program at Plainridge Park Casino to promote responsible gambling by providing information and resources in a friendly, stigma-free environment. Our primary goal was to supplement our previous evaluation of the GameSense program at PPC by gathering the perspectives of a broader pool of PPC patrons. To accomplish this goal, we conducted a secondary analysis of survey responses collected by the SEIGMA research team. The SEIGMA research team surveyed 479 PPC patrons during February 2016 and July/August 2016. We review their findings and, when appropriate, draw comparisons to our own Wave 1 visitor survey findings.

4.17. Safety, Effectiveness, and Reach

We begin our review of findings with the first two GameSense-related questions, which supplemented our previous observations about the program's reach. We then turn to effectiveness and safety.

First, in terms of reach, we found that over half of participants reported that they were aware of the GameSense program. The survey did not ask participants how they became aware of the program; however, we know that participants had many opportunities to do so. They might have walked past the GameSense Info Center itself, or they might have seen GameSense Advisors in the Info Center or on the casino floor. Additionally, they might have seen promotional materials branded with GameSense, either on the PPC property (e.g., ads in the parking garage elevators) or off the PPC property (e.g., billboard ads, social media posts, press accounts). Notably, among this sample, awareness of the program increased from February 2016 to July/August 2016. It will be interesting to determine whether awareness continues to rise over time or reaches a plateau. A smaller proportion of participants reported that they had spoken with a GameSense Advisor. This suggests that PPC patrons are becoming aware of the program without having to speak with its ambassadors, and awareness does not necessarily indicate direct contact with GameSense.

There are many possible ways to estimate the reach of the GameSense program at PPC. In Wave 1, we instructed GameSense Advisors to record basic details of all their interactions, including the number of visitors engaged. Using these records, we calculated the average number of visitors who spoke with GameSense Advisors each day and divided that number by the average traffic to PPC each day. We concluded that GameSense Advisors interacted with less than 1% of daily PPC patron patrons. The current study took a very different approach. The SEIGMA research team assembled a sample of patrons and asked each participant whether he or she had spoken with a GameSense Advisor. This approach yields a

different estimate; 9.6% (9.8% weighted) of all participants reported interacting with GameSense Advisors. Although both approaches have limitations, we suggest that the Wave 1 estimate is closer to reality because it is (ideally) based on a full count of services provided, rather than self-reports from a sample that, as described in more detail below, is potentially unrepresentative of the PPC patron population. More work is needed to estimate the program's reach, and we make several recommendations later in this Discussion.

Our Wave 1 report indicated that the majority of Exchange visitors were satisfied with GameSense services. Because Wave 1 respondents represented only a small fraction of GameSense visitors, we included a question about satisfaction with GameSense in the SEIGMA patron survey. We observed that nearly all participants were satisfied with the information offered by the GameSense Advisor with whom they spoke. This high level of satisfaction with services among this sample might indicate that GameSense Advisors have formed a positive working alliance with visitors. A positive working alliance is a collaborative relationship, usually between a therapist and a client, marked by a positive affective bond and agreement on goals and tasks. As we suggest in the Wave 1 report (Gray et al., 2016), within the context of the GameSense program, a positive working alliance might contribute to effectiveness by improving visitors' receptivity to responsible gambling information and strategies. This mediation model is supported by the counseling psychology literature. When students training to be counselors are satisfied with their clinical supervision, they report more working alliance with their supervisor. Working alliance, in turn, predicts students' motivation, self-efficacy, and personal achievement (as reviewed by Crockett & Hays, 2015). Therefore, visitor satisfaction with services is one of several indirect estimates of the GameSense program's effectiveness.

Both Wave 1 Exchange visitors and SEIGMA patron survey respondents provided impressions of the GameSense Advisor(s) with whom they spoke. Large majorities of Wave 1 Exchange participants *strongly* agreed that the GameSense Advisor listened to them and was caring, helpful, and knowledgeable. Likewise, majorities of SEIGMA patron survey respondents endorsed these statements about the GameSense Advisor with whom they spoke. Among the SEIGMA patron survey respondents, however, agreement was not as uniform; responses were split fairly evenly between "agree" and "strongly agree." Greater distance—in time and space—between the GameSense Advisor and the survey might have prompted SEIGMA survey respondents to be more moderate in their praise. In any case, across both studies, respondents' positive impressions of GameSense Advisors provide additional support for the conclusion that GameSense Advisors are effective in building a positive working alliance with casino patrons. This conclusion is consistent with the British Columbia Lottery Corporation's efforts to position GameSense as a "friendly, genuine and helpful" source of responsible gambling information and resources (Smith, 2014, p. 9).

Additional evidence suggests that the program might be effective. Most participants who had spoken with a GameSense Advisor indicated that they learned something new about gambling. Likewise, approximately three-quarters of Wave 1 Exchange survey respondents reported that they learned "strategies to keep gambling fun." During Wave 1, GameSense Advisors reported that they provided responsible gambling information or resources during more than 90% of their non-superficial interactions. Again, these findings are consistent with the program's stated goals (i.e., providing responsible gambling information).

The majority of SEIGMA patron survey participants who had spoken with a GameSense Advisor reported no changes in their gambling behavior. About one-fifth of participants reported that they thought about changing their gambling, but did not change their gambling, as a result of their conversation. Likewise, about one-fifth of participants reported that they have changed how they gamble. Along the same lines,

33% of our Wave 1 Exchange survey respondents indicated that they would think about changing their gambling behavior, and 10% indicated that they would change their gambling behavior, as a result of their conversation with a GameSense Advisor.

In summary, in both studies, the majority of the samples indicated that they learned something new about gambling or strategies to manage gambling. On the other hand, in both studies, minorities indicted that they would change their gambling behavior. These converging results—which emerged from independent research studies—aid to our understanding of GameSense. Are substantial and lasting changes in behavior typical in response to new information? Over the years, we have learned that information often can change attitudes and knowledge without changing behavior. This was evident in drug abuse prevention efforts (e.g., Ennett, Tobler, Ringwalt, & Flewelling, 1994; Tobler, 1986) and other information-based programs (Fortune & Goodie, 2012). There are many examples of interventions that change attitudes and knowledge but fail to change behavior. Additional research, particularly research evaluating other intervention tools, will be necessary to determine optimal strategies for promoting responsible gambling among patrons who are struggling to manage the time or money they spend at the casino. For now, those who have implemented GameSense will have to decide whether behavior change is an integral part of their goals, and among which segment of the patron population.

Although this particular study did not focus on visitors' safety, we attempted to study the possibility of unintended consequences of GameSense exposure by studying participants who responded, "Yes, I've changed how I actually gamble" after speaking with a GameSense Advisor. These participants indicated whether they increased or decreased the time or money they spent gambling. Unfortunately, due to a very small sample size, we were unable to estimate confidently the proportion of PPC patrons whom GameSense affected in these ways. In a later section, we recommend additional ways to study the safety of GameSense.

4.18. Association between Gambling Behavior and GameSense Awareness and Opinions

First, we observed that participants who were aware of GameSense were more likely to have a loyalty card than participants who were unaware of GameSense. On the other hand, GameSense awareness generally was unrelated to engaging in particular gambling activities and spending money on these activities on the day of the survey.[8] We suspect that participants who were aware of GameSense had more overall awareness of PPC's offerings, including loyalty cards, than those who did not.

Although speaking with a GameSense Advisor was unrelated to having a loyalty card, it was related to engaging in particular gambling activities on the day of the survey. Participants who had spoken with a GameSense Advisor were more likely to avoid all gambling activities, particularly slot machines, than those who had not. This is an observational study and not an experiment; therefore, it is impossible to conclude that speaking with a GameSense Advisor *caused* patrons to avoid gambling. Other explanations for this association cannot be ruled out; for instance, patrons who never planned to gamble on the day of their visit—because they were accompanying someone else, or because they visited PPC only to eat at a restaurant or at attend a show—might have engaged with a GameSense Advisor during their free time. As we noted in the Results section, very few respondents avoided slot machines or all gambling on the day of the survey. Among those few respondents, differences in GameSense exposure that occurred by chance might have produced spurious results. The finding that GameSense exposure was unrelated to gambling

[8] This was the general pattern we observed for analyses of individual gambling activities; however, the association between GameSense awareness and *any* gambling on the day of the survey was significant when we used weighted data.

expenditure (i.e., amount spent on the day of the survey) casts further doubt on the conclusion that GameSense exposure meaningfully changed participants' gambling activities on the day of the survey. More research is needed to determine whether GameSense exposure changes gambling behavior.

4.19. LIMITATIONS

The major limitation of this study is the survey response rate of 22.4%. Surveys with low response rates can yield samples that are not representative of the population they are intended to represent, especially when the causes of non-participation are closely related to the measured variables (Groves & Peytcheva, 2008; Singleton & Straits, 2005). We cannot be confident that this sample represents PPC patrons, visitors who have contact with GameSense, or gamblers in general. Those who did agree to complete the SEIGMA patron intercept survey might have been more willing than the general population to engage with GameSense Advisors due to a general tendency toward agreeableness. This systematic bias would limit the external validity of these findings by providing an overestimate of the proportion of PPC patrons who engage with GameSense Advisors. Although the SEIGMA weighting scheme attempts to correct for sampling bias due to seasonality/period of the week and participants' demographic characteristics, it cannot correct for other characteristics, like agreeableness, that are likely to have a meaningful impact on the phenomenological representativeness of the sample. Indeed, we previously observed that respondents in different demographic groups (defined by gender, race, ethnicity, age, and education) provided similar responses to questions about their satisfaction with GameSense services, their impressions of GameSense Advisors, and the extent to which their concerns were resolved (Gray et al., 2016). So, adjusting the sample for demographic characteristics is not likely to eliminate sampling bias. Consequently, we have elected to describe general patterns of findings, report both unweighted and weighted data, and review the limitations inherent in this sample.

In addition, the small sample size prevents us from describing how patrons might have changed their gambling behavior after speaking with a GameSense Advisor.

With regard to participants' impressions of GameSense Advisors, we observed a halo effect. We noted a similar pattern in our Wave I report. Specifically, if a respondent strongly agreed that a GameSense Advisor was caring, she nearly always strongly agreed that the GameSense Advisor was helpful, was knowledgeable, and listened to her. A halo effect is a positive cognitive bias that often appears when people are asked to evaluate other people. The halo effect suggests that human have "a marked tendency to think of [a] person in general as rather good or rather inferior and to color the judgments of the qualities by this general feeling" (Thorndike, 1920, p. 25). In the context of this evaluation, we suggest that visitors had positive impressions of GameSense Advisors generally, and these impressions influenced their impressions of specific characteristics. The possibility of a halo effect complicates interpretation of the reported findings. Hence, although it might appear that participants are providing thoughtful responses on a range of impressionistic factors, it is more likely that their responses simply reflect a general impression.

4.20. RECOMMENDATIONS

The finding that less than half of participants were aware of GameSense suggests room for improving the visibility and reach of the program. GameSense Advisors and program planners might wish to supplement their current efforts to raise awareness and program reach. Similarly, though most participants who had spoken with a GameSense Advisor reported learning something new about gambling, about four in ten participants did not. This suggests there are opportunities to highlight new and different gambling-related information that might increase learning and its effects.

We suggest several additional ways to measure the program's safety, effectiveness, and reach. For instance, it might be helpful to focus specifically on the sub-set of PPC patrons who are at risk for gambling-related problems. Because the base rate of gambling-related problems is low in the general population (Kessler et al., 2008), these individuals are not yet well represented in our studies. In future work, it might be important to consider the safety of the program and the potential for unintended consequences, such as reduced perceptions of gambling risk, increased gambling, and increased risky gambling. In terms of effectiveness, our Wave 1 findings indicate that PPC employees rarely use GameSense resources, despite the fact that casino employees are at relatively high risk for gambling-related problems. Are there efforts program planners could take to increase use of the program among PPC employees? Do promotional materials about GameSense, which are currently distributed several times a year, change employees' perceptions of the GameSense program and the potential risks of gambling? Finally, we can measure reach in several additional ways, including engagement with patrons inside the casino (e.g., via signage, brochures, PlayMyWay materials) and outside the casino (e.g., analysis of traffic to the GameSense website and exposure to, engagement in, and results of GameSense social media efforts). We strongly encourage program planners to develop more comprehensive estimates of the program's reach and then conduct cost-benefit ratio estimates to inform future decisions, potentially for GameSense as well as alternative programs. More broadly, we strongly recommend that program planners develop concrete objectives against which evaluators can judge the program. Objectives might include a target reach among PPC patrons (i.e., the percent of patrons and/or employees who use GameSense services), target proportion of superficial versus non-superficial interactions, and target proportion of visitors who report healthy behavior change as a result of their conversation with a GSA.

4.21. Future Directions

In forthcoming work, we plan to collaborate with the SEIGMA research team to ask intercepted patrons additional GameSense-related questions. In this work, we will transition from focusing on alliance-building questions (e.g., satisfaction with GameSense services, impressions of GSAs) and instead focus on responsible gambling knowledge and behavior. This strategy will allow us to gain more information about the potential behavioral influences of GameSense exposure. We also would like to probe into the reasons that visitors might *not* interact with GameSense Advisors. We want to ask individuals who are aware of GameSense, but report they have not interacted with GameSense Advisors, the reasons why they have not done so. By surveying this important segment of the casino visitor population, we will be able to provide the GameSense program with information about how to make the program more attractive to more casino visitors, and ultimately increase reach and impact.

When this survey was completed, the GameSense program at PPC was the only GameSense program to operate within the United States. Therefore, GameSense visitors represented in these surveys should be considered as early adopters of the program. Early adopters of social activities are well known to be different from those who are later adopters (Reinhardt & Gurtner, 2015). Consequently, the program's effects might be different as time passes.

4.22. Concluding Thoughts

GameSense Advisors engage with almost 10% of casino visitors. However, those patrons who do engage with the program are satisfied with the information they receive, and many patrons who do not speak with GameSense Advisors are still aware of the program. It is possible to increase GameSense reach. This could come at a cost. For example, GameSense Advisors could more aggressively seek to engage with reluctant visitors; in this case, the increased reach might drive down current levels of satisfaction and

potentially the effectiveness of the program. Program planners are positioned to monitor the consequences associated with program policies and activities and should continue to do so, to ensure that potential improvements to reach do not jeopardize the program's current acceptability.

Chapter Five: Summary Analysis of the Plainridge Park Casino Employee GameSense Survey

CHAPTER FIVE: Table of Contents

Introduction

5.1. Background

When Massachusetts allowed gambling expansion across the Commonwealth, it mandated several strategies designed to mitigate potential harms associated with new gambling opportunities. Among these mandates was the requirement for each newly licensed gaming operator to "provide complimentary on-site space for an independent substance abuse, compulsive gambling, and mental health counseling service" ("Bill H03697," 2011). The Massachusetts Gaming Commission selected the GameSense brand, developed by the British Columbia Lottery Corporation, to fulfill this legislative mandate.

Plainridge Park Casino opened during June 2015, and the GameSense Info Center within it became the first GameSense program operating in the United States. The Massachusetts Council on Compulsive Gambling operates the GameSense program at Plainridge Park Casino (PPC); staff members are known as GameSense Advisors.

The Massachusetts Gaming Commission recognized the need to evaluate the GameSense Info Center at PPC and other responsible gambling initiatives. They contracted with the Division on Addiction at Cambridge Health Alliance to conduct this evaluation. We have selected to use the RE-AIM framework (Glasgow, Vogt, & Boles, 1999), an approach commonly applied to public health interventions. RE-AIM conceptualizes the public health impact of any intervention as a function of five empirically testable dimensions that follow a logical sequence: (1) Reach (i.e., the proportion of potentially eligible people in the target population who receive or are affected by the intervention); (2) Effectiveness (i.e., the extent to which the intervention achieves is desired outcomes, considering both positive and negative effects); (3) Adoption (i.e., the proportion of settings, practices and plans that adopt the intervention); (4) Implementation (i.e., the extent to which the intervention is implemented as intended within real world settings); and (5) Maintenance (i.e., the extent to which the intervention is sustained over time).

To date, the Division on Addiction has provided three reports as part of a comprehensive evaluation of GameSense at PPC. The first two of these (i.e., Wave 1 report: Gray, LaPlante, Keating, & Shaffer, 2016; Wave 2 report: Gray, LaPlante, Keating, & Shaffer, 2017) represented original data collection and analysis. We summarize data collected at PPC during two six-month periods, the first of which launched approximately six months after PPC opened. The third report represented secondary data analysis of the Social and Economic Impact of Gambling in Massachusetts (SEIGMA) team PPC patron intercept survey (Salame et al., 2017); we focused specifically on responses to questions related to GameSense (Gray, LaPlante, & Shaffer, 2017). In the following discussion, we briefly describe results of these three evaluations within the RE-AIM framework and then describe the purpose of the present study.

5.2. Brief Summary of Wave 1 and Wave 2 Findings

To date, our evaluation has provided the most evidence about the first RE-AIM dimension, Reach. Researchers measure Reach by (1) comparing records of program participants against census information for a defined population and (2) collecting information about the demographic and risk characteristics and representativeness of those participants (Gaglio, Shoup, & Glasgow, 2013; Glasgow et al., 1999). This dual-strategy provides a concise and objective assessment of the extent to which a public health program is connecting with its intended targets.

Briefly, Wave 1 and Wave 2 findings revealed that GameSense Advisors typically interacted with PPC patrons and infrequently interacted with PPC employees or individuals from outside the casino. Using GameSense Advisors' census of their program activities and PPC traffic counts, we estimated that GameSense Advisors directly reached 0.67% of PPC patrons on a given day during Wave 1; the program likely reached other patrons through brochures, signage, social media, and other outreach efforts. During Wave 2 GameSense Advisors reported that they directly reached 1.33% of PPC patrons on a given day—an indication that the program's reach increased over time. The interactions tended to be friendly and superficial; GameSense Advisors categorized approximately 70% of their interactions as "Simple," a designation that applied to short, one-way communications regarding non-substantive issues, such as providing directions or giving patrons a simple greeting.

A selected group of PPC patrons—those who discussed responsible gambling or problem gambling with GameSense Advisors—completed brief visitor surveys. By doing so, they provided initial evidence about the second RE-AIM dimension, Effectiveness. First, these surveys revealed high acceptability of the program, infrequent reporting of lifetime gambling-related problems, infrequent reporting of common gambling myths (e.g., "If you haven't won at a slot machine in a while, you're 'due' for a win"), and frequent use of one responsible gambling strategy (i.e., avoiding ATMs at the casino). Second, these surveys revealed that among this selected group of PPC patrons, GameSense exposure (i.e., the total number of conversations with GameSense Advisors) was not associated with greater use of responsible gambling strategies or more accurate gambling knowledge. It was associated with greater awareness of PlayMyWay (i.e., the voluntary budgeting system available at PPC) and greater likelihood of reporting that gambling treatment was locally available.

5.3. Brief Summary SEIGMA Patron Intercept Findings

Our analysis of the GameSense-related questions included in the SEIGMA patron intercept survey provided confirmation of some of these trends using different methodology. Rather than relying on GameSense Advisors' census of activities, SEIGMA asked survey participants if they had ever spoken with a GameSense Advisor. Approximately 10% of participants reported that they had spoken with a GameSense Advisor. This estimate of reach is higher than the estimate obtained from the GameSense Advisors' census of activities. We speculate that sampling bias among those who responded to the survey contributed to this overestimate; in other words, we speculate that those patrons who stopped and agreed to complete the survey also were especially likely to stop and agree to speak to a GameSense Advisor. At the same time, evaluation records indicated that GameSense Advisors' census of activities somewhat underestimated their services provided. The GameSense program evidenced high acceptability among those patrons it did reach. The majority of patron participants who had interacted with a GameSense Advisor indicated that they learned something new about gambling and would seek out more information to keep gambling fun. The majority also reported no changes in their gambling behavior or use of responsible gambling strategies as a result of this conversation.

5.4. Responsible Gambling Education for Casino Employees

Policy makers often require that casino operators provide responsible gambling training programs to their employees. This is important because employees are in key front-line positions to provide assistance to patrons who might be in need. Also, historically, casino employees have been at higher risk than the general population for experiencing the most severe form of gam-

bling disorder (Shaffer & Hall, 2002; Shaffer, Vander Bilt, & Hall, 1999). Therefore, these educational programs can serve multiple goals: effective responsible gambling programs will (1) educate employees about the nature of gambling and ways to identify and respond to patrons exhibiting adverse and or high-risk behaviors, (2) prevent the incidence and reduce the prevalence of gambling-related problems among employees, and (3) increase or even ensure compliance with responsible gambling codes (Blaszczynski et al., 2011).

Responsible gambling training programs targeting casino employees tend to have mixed results. For instance, we surveyed Las Vegas casino employees before and after they completed a multimedia training program. Employees improved their knowledge of responsible gambling concepts from baseline to follow-up. However, training did not correct some pre-existing mistaken beliefs about gambling (LaPlante, Gray, LaBrie, Kleschinsky, & Shaffer, 2012). Another program appeared to increase employees' understanding of chance and randomness, problem gambling, and how to help gamblers in crisis; however, employees only retained information about chance and randomness over the long term (Giroux, Boutin, Ladouceur, Lachance, & Dufour, 2008). Similarly, another program appeared to increase awareness of appropriate ways to intervene with gamblers in crisis but did not improve employees' understanding of chance and randomness (Dufour, Ladouceur, & Giroux, 2010).

At PPC, every employee completes a responsible gambling training program upon hiring (i.e., as part of their new hire orientation) and annually. The training program was co-developed by the GameSense program manager and the PPC compliance manager (L. McKenney, personal communication, October 13, 2017). Concepts included in this training program include the nature and warning signs of problem gambling, problem gambling risk factors, the nature and purpose of the GameSense Info Center, information about the two other responsible gambling initiatives on-site (i.e., PlayMyWay and the voluntary self-exclusion program), and procedures for responding to patrons who ask for help or are showing signs of distress.

5.5. PPC Employee Use and Perceptions of GameSense

A distinguishing feature of the GameSense program at PPC is its independence: its staff are hired and supervised by the Massachusetts Council on Compulsive Gambling rather than Penn National, the parent company of PPC. However, PPC employees still play a role in responding to at-risk patrons. More specifically, as part of their responsible gambling training, PPC instructs their employees that, if they are approached by a patron who indicates that he/she or a loved one might have a gambling problem, they should be sympathetic and approachable, describe the GameSense program and its services, and "Offer to discretely escort the person to the GameSense Info Center or offer to call the GameSense Advisor to come to the patron" (L. McKenney, personal communication, October 13, 2017). If the patron elects not to talk to a GameSense Advisor, the PPC employee is instructed to provide a GameSense brochure, point out the toll-free helpline, and offer to pass the patron's name and phone number to a GameSense Advisor. In addition, the training instructs PPC employees to report the encounter to their supervisor and a GameSense Advisor. If the patron is showing signs of distress but is not asking for help, PPC employees are instructed to inform their supervisors (or someone in the security department, if the supervisor is unavailable) and inform a GameSense Advisor.

This PPC protocol contrasts with policies at some other casino venues that require employees proactively to identify and intervene with "excessive gamblers" (Ladouceur et al., 2004). Although they are not asked specifically to identify and intervene proactively with casino patrons

experiencing gambling-related problems, PPC employees might influence, and might be influenced by, the GameSense program. Not only are employees in a position to act as ambassadors for the GameSense program, they also are appropriate targets of GameSense services. Therefore, we, designed this study to learn about PPC employees' exposure to, and knowledge and opinions of, the GameSense program at PPC. **Our primary measures of interest were GameSense exposure, knowledge, and opinions.** In addition, recognizing the variety of ways that PPC employees might influence, and might be influenced by, the GameSense program, we assessed additional measures, described next, and then examined the relationship of these measures with GameSense exposure.

When we developed this set of additional measures, we considered various ways that the program might impact employees. As mentioned above, PPC employees are considered an intended target of GameSense. To illustrate, in a March, 2017 newsletter distributed to PPC employees, GameSense staff noted that "GameSense is not just for casino guests. Staff should consider them a resource for themselves, friends and loved ones. Confidentiality is a priority and all visits are handled discretely" (The GameSense Team, 2017). GameSense Advisors reported during Wave 1 that 4.2% of Info Center visitors were casino employees. What effects might be associated with this exposure? GameSense Advisors also reported during Wave 1 that responsible gambling (i.e., strategies for keeping gambling within personally affordable limits) was the most frequent topic of their conversations with Info Center visitors. Perhaps exposure to GameSense via conversations with GameSense Advisors causes PPC employees to learn more about gambling and gambling-related problems. As a result of these and other potential impacts, employees might change the way they gamble. This is important because, as mentioned, casino employees are at relatively high risk for gambling-related problems (Shaffer & Hall, 2002; Shaffer et al., 1999). If PPC employees are using GameSense Advisors as a resource for learning about gambling and managing their own gambling, this pattern could add to existing evidence about the effectiveness of the program. **We took an initial step towards evaluating this possibility by asking PPC employees about their gambling knowledge and gambling behavior and investigating associations between these measures and GameSense exposure**. Such associations are necessary, but not sufficient, for establishing causal relationships.

Reverse causal relationships are possible. Through their contact with casino patrons, PPC employees have potential to influence the GameSense program and its public health impact. For instance, PPC employees who work in the casino's restaurants might overhear casino patrons discussing GameSense or gambling related problems and weigh in with their own opinions. By doing so, they might shape patrons' opinions and eventual use of the GameSense program. Depending upon their job responsibilities and extent of contact with casino patrons, PPC employees also might have the opportunity to refer patrons to GameSense Advisors. For instance, a slot technician might encounter a patron angry and distressed about losing money. In circumstances such as this, the slot technician might make a choice to refer the patron to a GameSense Advisor—or not. **Consequently, in this study, we examined how PPC employees' GameSense exposure, knowledge, and opinions (as well as their PPC department) relate to their history of referring casino patrons to GameSense Advisors.** Again, observing such associations is necessary but not sufficient for establishing causal relationships.

In summary, we asked PPC employees about their exposure to, and knowledge and opinions of, the GameSense program at their casino. Although we consider employee responses to these

measures to be the primary outcomes of this study, we also examined (1) how GameSense exposure relates to participants' gambling general knowledge and behavior and (2) how GameSense exposure, knowledge, and opinions relate to referral patterns. We conducted this survey approximately two years after PPC opened.

Methods

5.6. SETTING

Plainridge Park Casino (PPC) served as the setting of our GameSense evaluation. PPC opened on June 24, 2015. It is a 106,000 square foot facility with about 1,250 gaming units. The Massachusetts Gaming Commission contracts with the Massachusetts Council on Compulsive Gambling to operate the GameSense program. GameSense staff members are called GameSense Advisors. GameSense Advisors did not complete the survey or participate in survey administration.

5.7. PARTICIPANTS

All 492 PPC employees were eligible for the survey. A total of 42 participants (16.3% of all participants) did not answer the gender question. Of those who did, 110 (50.9%) identified as male, 97 (44.9%) identified as female, and 9 (4.1%) indicated that they preferred to self-identify[1] or preferred not to answer this question. A total of 57 participants did not answer the PPC department question. Of those who did, 68 (33.8%) selected front-of-house operations, 57 (28.4%) selected food, beverage, and retail, 30 (14.9%) selected security and surveillance, 29 (14.4%) selected back-of-house operations, and 17 (8.5%) indicated that they preferred not to provide their PPC department. We provide additional details in the Results section.

5.8. MEASURES

The Appendix provides the complete survey, which we created for this study. This survey consisted of the sections described immediately below.

5.8.1. GameSense Exposure

The initial survey questions focused on GameSense exposure. We asked whether participants had ever interacted with a GameSense Advisor. Those who answered affirmatively estimated their total number of interactions with a GameSense Advisor. After reviewing responses to this question, we developed four categories: 1-5 times, 6-10 times, 11-20 times, and more than 20 times. Though we asked participants to provide a number to represent the number of times they had interacted with a GameSense Advisor, several provided text instead. Therefore, we recoded responses so that those who indicated many interactions (i.e., "too many to count," "many," "multiple," "quite a few times," "lots," "every day," "est. 100 plus," "daily," "almost all day," "a lot," "2 times a week," "3-4 times a week" were grouped in the "more than 20 times" category. Those who indicated few encounters (i.e., "very little," "a few, 4 or 5," "1-3," "less than 5") were grouped in the "1-5 times" category.[2]

Additionally, participants who reported at least one conversation with a GameSense Advisor indicated the topics they had discussed with the GameSense Advisor (e.g., "We discussed how casino patrons can avoid gambling beyond their limits," "We discussed how I can avoid gambling beyond my limits," "We discussed myths about gambling," "We discussed something else").

[1] The two participants who indicated that they preferred to self-identify did not provide additional detail on how they identify, although the response option provided a place to do so.

[2] One participant responded, "Enough." We set her response to missing.

Participants could select all that apply; we considered those who skipped all responses to have missing data. We asked employees whether they had ever referred a casino patron to a GameSense Advisor. Those who answered "yes" were asked, "For what reason(s) did you refer a patron to a GameSense Advisor?" (e.g., "The patron wanted to get directions to areas or activities within the casino," "The patron wanted information about how to play casino games," "The patron wanted to learn strategies to gamble within his/her limits," "I referred the patron for another reason"). Those who answered "no" were asked, "Why haven't you ever referred a patron to a GameSense Advisor?" (e.g., "The opportunity has never come up," "I didn't know what to say to the patron," "I didn't think referring patrons to GameSense Advisors was part of my job," "I had another reason for never referring a patron to a GameSense Advisor"). For both of these referral questions, we considered those who skipped all responses to have missing data. In the final GameSense exposure question, we asked whether participants had read a newsletter GameSense staff members sent them during March 2017 in recognition of Problem Gambling Awareness Month. The purpose of this question was to measure exposure to specific material that could shape employees' perceptions of the GameSense program.

5.8.2. GameSense Knowledge

We asked employees, "What do GameSense Advisors do at PPC?" Participants could check multiple responses; responses included "Greet people," "Give people directions to areas or activities within the casino," "Teach people how to avoid gambling beyond their limits," "The GameSense Advisors do something else," and "I don't know what the GameSense Advisors do." If participants failed to select any response, we considered them to have missing data. To interpret participants' choices, we sought input from those who oversee and operate the GameSense program at PPC (i.e., the Commission and the Massachusetts Council on Compulsive Gambling). These experts indicated that GameSense Advisors perform all of the activities in our list (T. Fiore, personal communication, August 18, 2017). Therefore, in addition to examining individual responses, we calculated an accuracy score by summing the number of activities each participant endorsed. The second GameSense knowledge question was, "Who can use the GameSense program at PPC?" Participants could select "casino patrons," "casino staff/employees," "people from outside the casino," and/or "I don't know." In actuality, the first three response options were correct. If participants skipped all four response options, we considered them to have missing data.

GameSense Advisors play central roles in two other responsible gambling initiatives at PPC: PlayMyWay and voluntary self-exclusion. Therefore, two survey questions assessed participants' knowledge of these programs. We asked, "How does PlayMyWay work?" The correct answer was, "Players create budgets based on how much they are willing to lose and get notifications when they approach and/or exceed their limits." Second, we asked, "Which of the following is true about the voluntary self-exclusion program at PPC?" Here, participants could select multiple responses. The correct answer choices were, "After an individual's time in the self-exclusion program is over, he or she can return to PPC, but must first participate in an exit session" and "Individuals have some flexibility in terms of the duration of the ban." If participants skipped all six response options, we considered them to have missing data.

5.8.3. GameSense Opinions

One survey question assessed participants' opinions about the GameSense program at PPC. Specifically, participants indicated whether they agreed or disagreed with a number of statements about the potential impact of the GameSense program at PPC. We provided a balance of

positive potential impacts (e.g., “It helps people avoid gambling beyond their limits,” “It is good for PPC's social responsibility reputation,” “It protects people from developing gambling problems”) and negative potential impacts (e.g., “It puts PPC at a competitive advantage compared to casinos without GameSense,” “It interferes with player enjoyment,” “It interferes with business operations”).

Two additional questions concerned participants’ perceptions of their role in responding to patrons with gambling-related problems: “Should PPC employees try to determine if a casino patron has a gambling-related problem?” and ““Should PPC employees try to stop patrons with gambling-related problems from gambling?” Participants could select “yes,” “no,” or “I don’t know” for each of these two questions. We specified that these questions pertained to PPC employees, not GameSense Advisors.

5.8.4. Gambling Knowledge

We asked three questions about gambling and problem gambling. The first of these concerned participants’ perceptions of the consequences of problem gambling. We asked, “Excessive gambling can affect which of the following?” For each potential consequence—finances, mental health, personal relationships, and physical health—participants selected either “Yes, excessive gambling can affect this” or “No, excessive gambling cannot affect this.” Participants were correct if they selected “Yes” for each potential consequence. The final two questions assessed participants’ gambling cognitions--beliefs about the independence of slot machine plays and near misses. We asked, “True or false: If a slot machine has a big payout, you should switch machines because it probably won’t pay out again soon.” The correct answer was “false.” And, we asked, “On any given slot machine play, which outcome is most likely?” Participants could select “a small win,” “a medium win,” “a big win,” “a loss,” or “it depends on what’s happened before.” The correct answer was “a loss.”

5.8.5. Gambling Behavior

We studied participants’ gambling behavior by asking them to indicate how often in the past year they bet or spent money engaging in a variety of gambling activities, such as “playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slot parlor)” and “playing slot machines or video keno at a casino or slots parlor.” The response options were “never” (1), “a couple of times” (2), “less than once a month” (3), “about once a month” (4), “a couple times a month” (5), “weekly” (6), “a couple times a week” (7) and “daily or more” (8).

5.8.6. Participant Characteristics

The final page of the survey included five questions about participants’ demographic and employment characteristics. The three employment questions asked participants to indicate the PPC department in which they work. To minimize the chance that participants could be identified on the basis of their responses to these questions, we collapsed across specific departments to create four general departments: Food, Beverage and Retail (includes Banquets, Beverage, Stewarding, Culinary, Flutie’s [Restaurant], Slacks [Restaurant], Food Court); Front of House Operations (Includes slot ops, slot Techs, Player Services, EVS, Facilities, Count Team, Player Development, Racing, Valet); Security and Surveillance; and Back of House Operations (includes HR, Marketing, Finance, Revenue Audit, IT, Payroll, Purchasing, Warehouse, Programs). We also included the option, “Prefer not to answer.” We asked participants to indicate how long they had worked at PPC and in the gaming industry more generally. Finally, we concluded the survey by asking participants whether they primarily speak English at home and their gender.

5.9. PROCEDURES

We collaborated with PPC to identify a data collection strategy that we believed would maximize employee participation in the study and minimize impact on normal casino operations. To accomplish these twin goals, we distributed surveys during four in-person "town hall" meetings at PPC during late May, 2017 (two on May 24 and two on May 25). Penn National required that all employees attend one of these meetings and staggered the meeting times to accommodate employees' shift schedules. All PPC employees attending a given meeting were seated in a single room. One Division on Addiction staff member attended each meeting. Before the meeting began, he or she placed a pen and a file folder containing study materials (i.e., a consent page, the survey, and a $5 Dunkin Donuts gift card) on each seat.

During the survey portion of the meeting, PPC's General Manager briefly introduced the survey. The Divison on Addiction staff member provided additional details by reading aloud the study's consent page. The consent page described the purpose and nature of the study and indicated that the survey would collect no personally identifying information. It further stated that employees who wished to participate would complete the surveys individually, in their seats, and then place the surveys in the file folder. They would take the gift card and leave the file folder on their seats at the end of meeting. Employees who did *not* wish to participate could read over the materials, return them to the file folder, and leave the file folder on their seats at the end of the meeting. We designed this procedure in order to mask whether individual employees chose to participate, thereby minimizing the potential for perceived coercion/undue influence.

Next, the Division on Addiction staff member adminstered the survey as described above. Division on Addition staff reported that after approximately five minutes, the General Manager resumed the meeting. At the close of the meeting, the Division staff member collected all file folders. The Cambridge Health Alliance Institutional Review Board approved these study procedures, including our waiver of documentation of consent.

5.10. ANALYTIC PLAN

We estimated the extent of missing data both per survey page and per question. For each participant, we calculated the completion rate. Then, we performed appropriate statistical tests to examine whether completion rates were systematically related to demographic/job characteristics (i.e., ANOVAs for gender, language, and PPC department; correlations for number of months at PPC and in the gaming industry more generally). Then, we generated descriptive statistics, typically frequencies, for all study variables, beginning with key measures of interest (i.e., GameSense exposure, knowledge, and opinions) and moving on to other variables. For completeness, in our tables, we provide percentages with missing values included and percentages with missing values excluded (i.e., valid percent); in the text we refer to percentages with missing values excluded. Finally, we studied associations among key variables using chi square or *t*-tests, as appropriate. We considered (1) whether participants' histories of interacting with GameSense Advisors were related to their GameSense knowledge or opinions, responsible gambling knowledge, gambling knowledge, or PPC department and (2) whether these characteristics were related to participants' histories of referring casino patrons to GameSense Advisors.

Results

5.11. Response Rates

A total of 258 employees responded to the survey. PPC management reported to us that 357 of 492 employees attended a town hall meeting. Therefore, participants represented 72.3% of town hall attendees and 52.4% of current PPC employees.[3]

5.12. Missing Data and Completion Rate

Table 5.1 indicates the number and percent of participants who did not respond to any questions on a given page, from Page 1 to Page 6. Two participants skipped all of the questions on Page 1 (representing 0.8% of participants). As they progressed through the survey, participants were more likely to skip questions; 35 participants (13.5%) skipped all the questions on Page 6.

Table 5.1: Number and percent of participants who skipped all questions on each survey page

Page Number	Number of Participants who Skipped All Questions	Percent of Participants who Skipped All Questions
1	2	0.8
2	14	5.4
3	31	12.0
4	28	10.9
5	35	13.6
6	35	13.6

We conducted the same analysis for individual questions, which often included multiple items. For example, the question about GameSense opinions included 18 individual items. We counted each item individually, for a total of 47 items. As the Appendix reveals, we observed that the rate of missing responses varied from 3.9% (for the question, "Have you ever interacted with a GameSense Advisor at Plainridge Park Casino (PPC)?" to 27.9% (for the question, "Which of the following is true about the Voluntary Self-Exclusion program at PPC?"). Later questions were more likely to be skipped than early questions; the Pearson correlation between a question's order in the survey (from 1 to 47) and its rate of missing data was $r = 0.78$ ($p < 0.001$). On average, participants skipped 6.04 of 47 questions (SD = 11.74; median = 1; range = 0 to 44). A total of 111 participants (43%) answered all 47 questions.

We examined whether participants' number of skipped questions were related to their demographic or job characteristics. We found that gender was unrelated to the percent of skipped questions, whether we included all participants or just those who identified as male or female. Similarly, the extent to which participants skipped questions was unrelated to their length of

[3] PPC management further reported to us that of the 492 people who worked at PPC as of May 17, 2017, 174 worked in Food, Beverage, and Retail; 164 worked in Front of House Operations; 79 worked in Security and Surveillance; and 55 worked in Back of House Operations. We used participants' self-reported PPC department (reported in Section 3.9) to calculate response rates for each department. We observed the following response rates per department: Food, Beverage, and Retail: 32.8%; Front of House Operations: 41.5%; Security and Surveillance: 38.0%; Back of House Operations: 52.7%. These response rates are underestimates because 74 participants did not provide their PPC department (57 skipped the question and 17 indicated that they preferred not to answer).

time at PPC, their length of time in the gaming industry, or their PPC department. However, participants' primary language was related to the extent to which they skipped questions (F (2, 211) = 8.92, $p < 0.001$). Follow-up tests revealed that those who did not primarily speak English at home skipped more questions (mean = 12.20, SD = 14.75) than did those who primarily spoke English at home (mean = 1.86, SD = 5.08) and preferred not to answer this question (mean = 1.75, SD = 2.87).

5.13. GAMESENSE EXPOSURE

Nearly six in ten participants (58.5%) indicated that they had ever interacted with a GameSense Advisor at Plainridge Park Casino, as Table 5.2 shows. We consider this a measure of general exposure to GameSense.

Table 5.2: Responses to the question, "Have you ever interacted with a GameSense Advisor at Plainridge Park Casino?"

Response	Frequency	Percent	Valid Percent
Yes	145	56.2	58.5
No	103	39.9	41.5
Missing	10	3.9	
Total	258	100.0	100.0

We asked the 145 participants who indicated that they had interacted with a GameSense Advisor for more information about these interactions. We observed that most participants engaged with GameSense Advisors either very often (i.e., more than 20 times; 47.8%) or very rarely (i.e., between 1-5 times; 35.8%). Fewer participants reported an intermediate level of exposure. See Table 5.3.

Table 5.3: Responses to the question, "How many times have you interacted with a GameSense Advisor?"

Response	Frequency	Percent	Valid Percent
More than 20	64	44.1	47.8
1-5 times	48	33.1	35.8
6-10 times	13	9.0	9.7
11-20	9	6.2	6.7
Missing	11	7.6	
Total	145	100.0	100.0

The 145 participants who had interacted with a GameSense Advisor next considered the question, "What topics have you discussed with a GameSense Advisor at PPC?" We observed that six participants (4.1%) endorsed no options despite being offered the choice, "We discussed something else." We removed them from the denominator when calculating the percent of participants who endorsed each option. The most frequently endorsed response was, "We had a casual conversation (e.g., about the weather, sports, traffic, working at PPC), endorsed by 85.0% of eligible participants. See Table 5.4.

Table 5.4: Responses to the question, "What topics have you discussed with a GameSense Advisor at PPC?"

Response option	Frequency	Percent
We had a casual conversation (e.g., about the weather, sports, traffic, working at PPC).	118	85.0
We discussed how casino patrons can avoid gambling beyond their limits.	56	40.3
We discussed how games work.	47	33.8
We discussed myths about gambling.	45	32.4
We discussed something else.	31	22.3
We discussed how a loved one of mine can avoid gambling beyond his/her limits.	16	11.5
We discussed how I can avoid gambling beyond my limits.	15	10.8

Note: Total sample size for this analysis is 139 (i.e., participants who reported that they had ever interacted with a GameSense Advisor and responded to this question). Percentages sum to more than 100% because participants could select multiple options.

We used these responses to create a dichotomous variable representing whether participants spoke with a GameSense Advisor about a topic related to responsible gambling or problem gambling. If the participant indicated that he or she discussed any of the following five topics with a GameSense Advisor, we assigned them a "1" for this new variable: (1) how casino patrons can avoid gambling beyond their limits, (2), how games work, (3) myths about gambling, (4) how a loved one of mine can avoid gambling beyond his/her limits, (5) how I can avoid gambling beyond my limits. When participants indicated that they had never interacted with a GameSense Advisor or did not endorse any of these five response options, we assigned them a "0" on this new variable. (We excluded the 10 participants with missing data on general GameSense exposure from this analysis.) Table 5.5 shows the results. We observed that 33.5% of participants reported having spoken with a GameSense Advisor about responsible gambling or problem gambling.

Table 5.5: Scored responses to the question, "What topics have you discussed with a GameSense Advisor at PPC?"

Response option	Frequency	Percent	Valid Percent
Did not talk with a GameSense Advisor at all *or* talked with a GameSense Advisor but not about responsible gambling or problem gambling	161	64.9	66.5
Talked with a GameSense Advisor about responsible gambling or problem gambling	81	32.7	33.5
Missing	6	2.4	
Total	248	100.0	100.0

Note: We assigned all participants a score on this variable, regardless of whether they indicated having interacted with a GameSense Advisor. We excluded 10 participants who skipped the general GameSense exposure question.

We asked all participants, "Have you ever referred a casino patron to a GameSense Advisor?" We observed that 71.4% of participants said "no." See Table 5.6.

Table 5.6: Responses to the question, "Have you ever referred a casino patron to a GameSense Advisor?"

Response	Frequency	Percent	Valid Percent
No	162	62.8	71.4
Yes	65	25.2	28.6
Missing	31	12.0	
Total	258	100.0	100.0

Recall that we presented separate follow-up questions for these two groups. Those who indicated that they had ever referred a casino patron to a GameSense Advisor (n = 65) were asked, "For what reason(s) did you refer a patron to a GameSense Advisor?" One eligible participant (1.5%) failed to endorse any response options. We removed this participant when calculating the percent of participants who endorsed each option. The most frequently endorsed option was, "The patron wanted to enroll in Voluntary Self-Exclusion" (59.4%). Another frequent response was, "The patron wanted help using Play MyWay" (45.3%). See Table 5.7.

Table 5.7: Responses to the question, "For what reason(s) did you refer a patron to a GameSense Advisor?"

Response option	Frequency	Percent
The patron wanted to enroll in Voluntary Self-Exclusion.	38	59.4
The patron wanted help using PlayMyWay.	29	45.3
The patron wanted to set up a gambling budget.	22	34.4
The patron wanted to be connected with problem gambling or other mental health treatment.	20	31.3
The patron wanted to learn strategies to gamble within his/her limits.	18	28.1
The patron was worried about his/her gambling.	18	28.1
The patron wanted information about how to play casino games.	13	20.3
The patron was gambling too much.	12	18.8
The patron wanted to learn about odds and probabilities, as they relate to gambling.	11	17.2
The patron wanted to dis-enroll from Voluntary Self-Exclusion.	10	15.6
The patron was worried about a loved one's gambling.	9	14.1
The patron wanted to get directions to areas or activities within the casino.	8	12.5
I referred the patron for another reason.	4	6.3

Note: Total sample size for this analysis is 64 (i.e., participants who reported that they had ever referred a patron to a GameSense Advisor and responded to this question). Percentages sum to more than 100% because participants could select multiple options.

Those who indicated that they had never referred a casino patron to a GameSense Advisor (n = 162) were asked, "Why haven't you ever referred a patron to a GameSense Advisor?" Eleven eligible participants (6.8%) failed to endorse any response options and we removed them from percentage calculations. We observed that the most frequently cited reason for not doing so was, "The opportunity has never come up." One hundred thirty-three (88.1%) participants who had never referred a casino patron to a GameSense Advisor cited this reason. The next most frequently endorsed option was, "I had another reason" (9.3%), but inspection of their reported reasons suggests that some of them, too, had never had the opportunity to do so (e.g., "I am a

chef and don't deal directly with patrons," "I work back of the house," "Little contact with patrons"). Three additional people who selected "I had another reason for never referring a patron to a GameSense Advisor" indicated that they could not do so because GameSense Advisors are not available during their shifts. See Table 5.8.

Table 5.8: Responses to the question, "Why haven't you ever referred a patron to a GameSense Advisor?"

Response option	Frequency	Percent
The opportunity has never come up.	133	88.1
I had another reason for never referring a patron to a GameSense Advisor.	14	9.3
I didn't know what to say to the patron.	13	8.6
I didn't know what the GameSense Advisors do.	12	7.9
I didn't think referring patrons to GameSense Advisors was part of my job.	10	6.6
I didn't think speaking to a GameSense Advisor would be useful to the patron.	8	5.3
I didn't know about the GameSense program.	8	5.3
I don't think the GameSense program is helpful to patrons.	8	5.3
I think the GameSense program might do more harm than good.	6	4.0

Note: Total sample size for this analysis is 151 (i.e., participants who reported that they had never referred a patron to a GameSense Advisor and responded to this question). Percentages sum to more than 100% because participants could select multiple options.

Finally, we examined responses to the question about reading the recent Problem Gambling Awareness Month newsletter. Most participants (72.2%) indicated that they had not read the newsletter; see Table 5.9.

Table 5.9: Responses to the question, "Did you read [the Problem Gambling Awareness Month] newsletter?"

Responses	Frequency	Percent	Valid Percent
No	153	59.3	72.2
Yes	59	22.9	27.8
Miss-	46	17.8	
Total	258	100.0	100.0

5.14. GAMESENSE KNOWLEDGE

We asked all participants (n = 258) what GameSense Advisors do and who can use the program. Nineteen participants (7.4%) did not endorse any response to the question, "What do GameSense Advisors do at PPC?" despite the fact that we offered the response options, "The GameSense Advisors do something else" and "I don't know what the GameSense Advisors do." We removed these 19 participants from the denominator when calculating the percent of participants who endorsed each option. Most participants (79.5%) reported that GameSense Advisors teach people how to avoid gambling beyond their limits. More than sixty percent endorsed the options, "Enroll people in voluntary self-exclusion," "Help connect people to problem gambling or other mental health treatment," and "Enroll people in PlayMyWay". Twenty-eight participants (11.7%) reported that they do not know what GameSense Advisors do at PPC. Table 5.10 summarizes these findings.

Table 5.10: Responses to the question, "What do GameSense Advisors do at PPC?"

Response Option	Frequency	Percent
Teach people how to avoid gambling beyond their limits.	190	79.5
Enroll people in voluntary self-exclusion.	166	69.5
Help connect people to problem gambling or other mental health treatment.	160	66.9
Enroll people in PlayMyWay.	157	65.7
Greet people.	143	59.8
Teach people about odds and probability.	102	42.7
Un-enroll people from voluntary self-exclusion.	95	39.7
Un-enroll people from PlayMyWay.	95	39.7
Give people directions to areas or activities within the casino.	92	38.5
Tell people to change how they gamble.	71	29.7
Teach people how to play casino games.	69	28.9
Offer raffles.	64	26.8
I don't know what the GameSense Advisors do at PPC.	28	11.7
The GameSense Advisors do something else.	18	7.5

Note: Percentages sum to more than 100% because participants could select multiple options. Includes 239 participants.

Those who operate and regulate GameSense at PPC indicated to us that GameSense Advisors do perform all twelve activities listed in Table 5.10 (T. Fiore, personal communication, August 18, 2017). Therefore, for each participant, we calculated the sum of activities endorsed. We considered those who endorsed all activities (i.e., those who scored 12) to be the most accurate. We observed that 19 participants (7.9%) indicated that GameSense Advisors perform all 12 activities (Table 5.11).[4]

[4] Of the 28 participants who selected "I don't know what the GameSense Advisors do at PPC," 17 selected no other option and 11 selected at least one GameSense Advisor activity. For Table 5.11, for these 11 participants, we ignore their selection of "I don't know."

Table 5.11: Frequency of scores on "What do GameSense Advisors do at PPC?" question

Score	Frequency	Percent	Valid Percent
1	10	3.9	4.2
2	11	4.3	4.6
3	21	8.1	8.8
4	25	9.7	10.5
5	30	11.6	12.6
6	32	12.4	13.4
7	20	7.8	8.4
8	17	6.6	7.1
9	18	7.0	7.5
10	8	3.1	3.3
11	11	4.3	4.6
12	19	7.4	7.9
I don't know [and no other option]	17	6.6	7.1
Missing	19	7.4	
Total	258	100.0	100.0

We examined responses to the question, "Who can use the GameSense program at PPC?" Twenty-three participants (8.9%) failed to endorse any response option, even "I don't know." We considered them to have skipped the question and removed these participants from the denominator when calculating the percent who endorsed each option. Most participants (88.9%) correctly identified casino patrons as intended targets of the GameSense program. Less than half correctly identified casino staff/employees or people from outside the casino as additional intended targets (37.9% and 45.1%, respectively). See Table 5.12.

Table 5.12: Responses to the question, "Who can use the GameSense program at PPC?"

Response option	Frequency	Percent
Casino patrons	209	88.9
People from outside the casino	106	45.1
Casino staff/employees	89	37.9
I don't know	14	6.0

Note: Percentages sum to more than 100% because participants could select multiple options. Includes 235 participants.

We summed the number of groups participants identified as targets of the GameSense program at PPC. As Table 5.13 shows, 42.1% of participants endorsed one group (e.g., Casino patrons), 26.0% endorsed two groups (e.g., Casino patrons and People from outside the casino), and 26.0% correctly endorsed all three groups (i.e., Casino patrons, People from outside the casino, and Casino staff/employees).

Table 5.13: Scored responses to the question, "Who can use the GameSense program at PPC?"

	Frequency	Percent	Valid Percent
One group	99	38.4	42.1
Two groups	61	23.6	26.0
Three groups	61	23.6	26.0
I don't know	14	5.4	6.0
Missing	23	8.9	
Total	258	100.0	100.0

Recall that we studied participants' knowledge of two other responsible gambling initiatives at PPC. The first of these was, "How does PlayMyWay work?" Table 5.14 shows the pattern of responses to this question.

Table 5.14: Responses to the question, "How does PlayMyWay work?"

	Frequency	Percent
Players create budgets based on how much they are willing to lose and get notifications when they approach and/or exceed their limits.	100	38.8
Players create budgets based on how much they are willing to lose and cannot gamble any more once they reach their limits.	62	24.0
I don't know.	54	20.9
Missing	47	18.2
Players receive bonus points every time they visit the casino.	9	3.5
Total	272	105.4

Note: Percentages sum to more than 100% because some participants selected multiple options, despite instructions to the contrary.

Though we asked participants to select only one answer, 12 of them selected two or three answers. We coded these responses, and the response "I don't know," as incorrect. As a result, we observed that 90 participants (42.7%) answered correctly; they selected "Players create budgets based on how much they are willing to lose and get notifications when they approach and/or exceed their limits" and no other responses (Table 5.15).

Table 5.15: Scored responses to the question, "How does PlayMyWay work?"

	Frequency	Percent	Valid Percent
Incorrect/"I don't know"	121	46.9	57.3
Correct	90	34.9	42.7
Missing	47	18.2	
Total	258	100.0	100.0

We examined responses to the question, "Which of the following is true about the voluntary self-exclusion program at PPC?" Seventy-two participants did not select any options and we removed them from percentage calculations. There were two correct options: "After an individual's time in the self-exclusion program is over, he or she can return to PPC, but must first participate in an exit session," and "Individuals have some flexibility in terms of the duration of the ban." As Table 5.16 shows, these were the most frequently endorsed options, endorsed by

55.4% and 49.5% of participants respectively. About one third of participants incorrectly endorsed the option, “Individuals must come to PPC to enroll.” Between 10.2-13.4% of participants endorsed the remaining three incorrect options.

Table 5.16: Responses to the question, "Which of the following is true about the voluntary self-exclusion program at PPC?”

	Frequency	Percent
After an individual’s time in the self-exclusion program is over, he or she can return to PPC, but must first participate in an exit session.	103	55.4
Individuals have some flexibility in terms of the duration of the ban.	92	49.5
Individuals must come to PPC to enroll.	68	36.6
Individuals can use it to ban their loved ones from the casino.	25	13.4
To enroll, an individual must have a diagnosed gambling disorder.	21	11.3
Anyone who enrolls is banned for life.	19	10.2

Note: Percentages sum to more than 100% because participants could select multiple options. Based on data from 186 participants.

We scored responses so that the only participants who scored correctly were those who endorsed, “After an individual’s time in the self-exclusion program is over, he or she can return to PPC, but must first participate in an exit session” and “Individuals have some flexibility in terms of the duration of the ban”—and no other option. Table 5.17 shows that, according to this metric, seventeen participants (9.1%) answered correctly.

Table 5.17. Scored responses to the question, "Which of the following is true about the voluntary self-exclusion program at PPC?”

	Frequency	Percent	Valid Percent
Incorrect	169	65.5	90.9
Correct	17	6.6	9.1
Missing	72	27.9	
Total	258	100.0	100.0

5.15. GAMESENSE OPINIONS

We studied GameSense opinions by presenting positive and negative potential impacts and asking participants about the likelihood of these impacts. Overall, participants endorsed the positive impacts more frequently than the negative impacts, as Table 5.18 shows. Agreement was highest for the statements, “It encourages people to think about their own gambling behavior” (85.7% of participants), “It is good for PPC's social responsibility reputation” (85.3%), “It helps people avoid gambling beyond their limits” (85.0%) and “It increases awareness of responsible gambling strategies” (85.0%). Participants were less likely to endorse other potential benefits, such as putting PPC at a competitive advantage or increasing player enjoyment (endorsed by 46.3% and 34.2%, respectively). Participants agreed with all 9 positive impacts more often than they agreed with all 8 negative impacts. The most frequently endorsed negative impact was, “It interferes with player enjoyment” (endorsed by 42 participants; 18.7%).

Table 5.18: Responses to the question, "Please indicate whether you agree or disagree with each [statement about the potential impact of GameSense at PPC]."

Potential Impacts	It helps people avoid gambling beyond their limits.			It teaches people about the casino games.			It is good for PPC's social responsibility reputation.			It puts PPC at a competitive advantage compared to casinos without GameSense.		
	N	%	Valid %	N	%	Valid %	N	%	Valid %	N	%	Valid %
I agree.	204	79.1	85.0	114	44.2	49.4	197	76.4	85.3	105	40.7	46.3
I disagree.	10	3.9	4.2	72	27.9	31.2	8	3.1	3.5	47	18.2	20.7
I don't know whether I agree or disagree.	26	10.1	10.8	45	17.4	19.5	26	10.4	11.3	75	29.1	33.0
Missing	18	7.0		27	10.5		27	10.5		31	12	
Total	258	100	100	258	100	100	258	100	100	258	100	100
	It increases awareness of responsible gambling strategies.			It protects people from developing gambling problems.			It creates social connections between casino patrons and GameSense Advisors.			It encourages people to think about their own gambling behavior.		
	N	%	Valid %	N	%	Valid %	N	%	Valid %	N	%	Valid %
I agree.	198	76.7	85.0	136	52.7	59.1	156	60.5	68.4	197	76.4	85.7
I disagree.	15	5.8	6.4	44	17.1	19.1	23	8.9	10.1	14	5.4	6.1
I don't know whether I agree or disagree.	20	7.8	8.5	50	19.4	21.7	49	19	21.5	19	7.4	8.2
Missing	25	9.7		28	10.9		30	11.6		28	10.9	
Total	258	100	100	258	100	100	258	100	100	258	100	100

	It increases player enjoyment.			It interferes with player enjoyment.			It makes people think they have a gambling problem.			It encourages people to gamble more than they might have otherwise.		
	N	%	Valid %	N	%	Valid %	N	%	Valid %	N	%	Valid %
I agree.	77	29.8	34.2	42	16.3	18.7	39	15.0	17.3	23	8.9	10.0
I disagree.	74	28.7	32.9	134	51.9	60.0	132	51.2	58.7	177	68.6	77.3
I don't know whether I agree or disagree.	74	28.7	32.9	49	19.0	21.8	54	20.9	24.0	29	11.2	12.7
Missing	33	12.8		33	12.8		33	12.8		29	11.2	
Total	258	100	100	258	100	100	258	100	100	258	100	100

	It encourages people to gamble beyond their limits.			It interferes with business operations.			It puts PPC at a competitive disadvantage compared to casinos without GameSense.			It hurts casino patrons.		
	N	%	Valid %	N	%	Valid %	N	%	Valid %	N	%	Valid %
I agree.	24	9.3	10.4	26	10.1	11.6	40	15.5	17.8	17	6.6	7.4
I disagree.	184	71.3	79.7	156	60.5	69.6	140	54.3	62.2	183	70.9	79.9
I don't know whether I agree or disagree.	23	8.9	10.0	42	16.3	18.8	45	17.4	20.0	29	11.2	12.7
Missing	27	10.5		34	13.2		33	12.8		29	11.2	
Total	258	100	100	258	100	100	258	100	100	258	100	100

	It hurts GameSense Advisors.		
	N	%	Valid %
I agree.	26	10.1	11.6
I disagree.	156	60.5	69.6
I don't know whether I agree or disagree.	42	16.3	18.8
Missing	34	13.2	
Total	258	100	100

For each participant, we summed the number of positive statements endorsed (by selecting "I agree") and divided that sum by the number of positive statements to which the participant responded. We did the same for negative statements. For example, if a participant responded to all nine statements about the potential positive impact of GameSense at PPC, and he indicated agreement with four of these statements, that participant's percentage was 44.4% (i.e., 4 divided by 9). If a participant skipped all nine statements about the potential positive impact

of GameSense at PPC, that participant had missing percentage data, because it is impossible to divide by zero. Table 5.19 provides descriptive statistics for these percentages.

Table 5.19: Positive and negative impact percentages

	N	Missing	Mean	SD	Median	Mini-	Maximum
Positive	241	17	66.5	25.1	66.7	0	100
Negative	231	27	13.2	25.7	0.0	0	100

We turned to the two questions about PPC employees' roles in responding to patrons with gambling-related problems. Nearly half of all participants (49.6%) indicated that PPC employees should *not* try to determine if a casino patron has a gambling-related problem. Seventy-one participants (31.4%) indicated that PPC employees should attempt to do this, and 43 (19.0%) either reported that they did not know the answer or selected more than 1 response. See Table 5.20.

Table 5.20: Scored responses to the question, "Should PPC employees try to determine if a casino patron has a gambling-related problem?"

	Frequency	Percent	Valid Percent
No	112	43.4	49.6
Yes	71	27.5	31.4
I don't know/two or more responses	43	16.7	19.0
Missing	32	12.4	
Total	258	100.0	100.0

We observed that fewer participants felt PPC employees should try to stop patrons with gambling-related problems from gambling. Most of them (63.6%) answered "no" to this question. See Table 5.21.

Table 5.21: Scored responses to the question, "Should PPC employees try to stop patrons with gambling-related problems from gambling?"

	Frequency	Percent	Valid Percent
No	143	55.4	63.6
I don't know/two or more responses	46	17.8	20.4
Yes	36	14.0	16.0
Missing	33	12.8	
Total	258	100.0	100.0

5.16. GAMBLING KNOWLEDGE

We studied PPC employees' knowledge of the potential consequences of excessive gambling. As Table 5.22 indicates, most participants indicated an awareness of the range of potential consequences.

Table 5.22: Responses to the question, "Excessive gambling can affect which of the following?"

	Finances			Mental health			Personal relationships			Physical health		
	N	%	Valid %	N	%	Valid %	N	%	Valid %	N	%	Valid %
Yes, excessive gambling can affect this.	220	85.3	98.7	211	81.8	96.8	220	85.3	98.2	197	76.4	90.4
No, excessive gambling cannot affect this.	3	1.2	1.3	7	2.7	3.2	4	1.6	1.8	21	8.1	9.6
Missing	35	13.6		40	15.5		34	13.2		40	15.5	
Total	258	100	100	258	100	100	258	100	100	258	100	100

As mentioned previously, we used two questions to assess participants' gambling cognitions. The first was, "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon: True or false?" Nearly 80% of participants correctly answered "false." See Table 5.23.

Table 5.23: Responses to the question, "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon: True or false?"

	Frequency	Percent	Valid Percent
False	172	66.7	77.1
True	51	19.8	22.9
Missing	35	13.6	
Total	258	100.0	100.0

The next question was, "On any given slot machine play, which outcome is most likely?" Participants considered five answer choices; the correct answer was "a loss." Table 5.24 provides their responses. The most frequently endorsed option was the correct option (endorsed by 43.4% of participants). The next most frequently endorsed option was, "A small win" (22.1%), followed by "It depends on what's happened before" (11.2%).

Table 5.24: Responses to the question, "On any given slot machine play, which outcome is most likely?"

	Frequency	Percent
A loss	112	43.4
A small win	57	22.1
It depends on what's happened before	29	11.2
A medium win	23	8.9
A big win	10	3.9
Missing	39	15.1
Total	270	104.6

Note: Frequencies sum to more than 258 and percentages sum to more than 100% because some participants selected multiple options, despite instructions to the contrary.

Six participants selected more than one response, and all of them had endorsed the correct response in addition to at least one incorrect response. After we coded these participants as

having answered incorrectly, the number of those answering correctly (i.e., answering "A loss") dropped to 106 (48.4%); see Table 5.25.

Table 5.25: Scored responses to the question, "On any given slot machine play, which outcome is most likely?"

	Frequency	Percent	Valid Percent
Incorrect	113	43.8	51.6
Correct	106	41.1	48.4
Missing	39	15.1	
Total	258	100.0	100.0

5.17. GAMBLING BEHAVIOR

Next, we examined participants' self-reported gambling behavior. Most participants reported never engaging in five of the gambling activities during the past year: playing slot machines or video keno at a casino or slots parlor; betting on sports with friends or in an office pool—not online; gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle); playing roulette, dice, keno, or table games (other than poker) at a casino; and gambling online on things such as player poker or buying lottery tickets. By contrast, most participants (73.3%) reported playing lottery and related games at least once during the past year. Of participants who did report playing the lottery or related games during the past year, the single biggest group reported doing so a couple of times (32.1%). Table 5.26 provides full details.

Table 5.26: Responses to the question, "Approximately how often in the last year have you bet or spent money on each of the following activities?"

	Playing the lottery, keno, in-stant 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 friends or in an office pool (not online)		
	N	%	Valid %	N	%	Valid %	N	%	Valid %
Never	59	22.9	26.7	112	43.4	52.1	155	60.1	71.1
A couple of times	71	27.5	32.1	54	20.9	25.1	33	12.8	15.1
Less than once a month	24	9.3	10.9	20	7.8	9.3	16	6.2	7.3
About once a month	16	6.2	7.2	10	3.9	4.7	3	1.2	1.4
A couple times a month	17	6.6	7.7	9	3.5	4.2	5	1.9	2.3
Weekly	15	5.8	6.8	7	2.7	3.3	5	1.2	2.3
A couple times a week	13	5	5.9	2	0.8	0.9		0.4	0.0
Daily or more	6	2.3	2.7	1	0.4	0.5	1	0.4	0.5
Missing	37	14.3		43	16.7		41	15.9	
Total	258	100	100	258	100	100	259	100	100

	Gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle)			Playing roulette, dice, keno, or table games (other than poker) at a casino			Gambled online		
	N	%	Valid %	N	%	Valid %	N	%	Valid %
Never	160	62	74.1	153	59.3	70.5	167	64.7	77.7
A couple of times	35	13.6	16.2	35	13.6	16.1	21	8.1	9.8
Less than once a month	11	4.3	5.1	10	3.9	4.6	8	3.1	3.7
About once a month	3	1.2	1.4	6	2.3	2.8	8	3.1	3.7
A couple times a month	3	1.2	1.4	6	2.3	2.8	6	2.3	2.8
Weekly	1	0.4	0.5	5	1.9	2.3	0	0	0.0
A couple times a week	1	0.4	0.5	1	5	0.5	1	0.4	0.5
Daily or more	2	0.8	0.9	1	0.4	0.5	4	1.6	1.9
Missing	42	16.3		41	15.9		43	16.7	
Total	258	100	100	258	100	100	258	100	100

Note: The "Gambled online" category was "Gambled online on things such as playing poker; buying lottery tickets; betting on sports, bingo, slots or casino table game for money; or playing interactive games for money."

5.18. PARTICIPANT CHARACTERISTICS

Finally, we review participants' responses to questions about the department in which they worked at PPC, how long they had worked at PPC and in the gaming industry more generally, whether they primarily speak English at home, and their gender.

As Table 5.27 indicates, the most frequently endorsed PPC department was "Front of House Operations" (33.8%), followed by Food, Beverage and Retail (28.4%), Security and Surveillance (14.9%) and, finally, Back of House Operations (14.4%). Seventeen participants (8.5%) preferred not to answer this question.

Table 5.27: Responses to the question, "In which department at PPC do you work?"

	Frequency	Percent	Valid Percent
Front of House Operations (Includes slot ops, slot Techs, Player Services, EVS, Facilities, Count Team, Player Development, Racing, Valet)	68	26.4	33.8
Food, Beverage, and Retail (includes Banquets, Beverage, Stewarding, Culinary, Flutie's, Slacks, Food Court)	57	22.1	28.4
Security and Surveillance	30	11.6	14.9
Back of House Operations (includes HR, Marketing, Finance, Revenue Audit, IT, Payroll, Purchasing, Warehouse, Programs)	29	11.2	14.4
Prefer not to answer	17	6.6	8.5
Missing	57	22.1	
Total	258	100.0	100.0

Table 5.28 provides descriptive statistics for participants' self-reported time working at PPC and in the gaming industry. Participants reported working at PPC for, on average, 24.9 months (SD = 29.5; range = 0-216). They reported working in the gaming industry for, on average, 40.7 months (SD = 58.7; range = 0-300).

Table 5.28: Responses to the question, "How long have you worked at Plainridge Park Casino/the gaming industry?"

	N	Missing	Mean	SD	Median	Mini-	Maximum
PPC	210	48	24.9	29.5	23.0	0	216
Gaming industry	202	56	40.7	58.7	23.0	0	300

Notes: Values are in months. SD = standard deviation.

Most participants reported primarily speaking English at home, as Table 5.29 shows. The five people who responded negatively provided their primary language. Their responses were (1) Creole, (2) Creole/Portuguese, (3) French, (4) Spanish, and (5) Vietnamese.

Table 5.29: Responses to the question, "Do you primarily speak English at home?"

	Frequency	Percent	Valid Percent
Yes	205	79.5	95.8
No	5	1.9	2.3
Prefer not to answer	4	1.6	1.9
Missing	44	17.1	
Total	258	100.0	100.0

Finally, as we mentioned above, 50.9% of those who responded to the question, "What is your gender?" indicated male and 44.9% indicated female. Two participants reported that they prefer to self-identify and were given a space to do so, but they did not. See Table 5.30.[1]

Table 5.30: Responses to the question, "What is your gender?"

	Frequency	Percent	Valid Percent
Male	110	42.6	50.9
Female	97	37.6	44.9
Prefer to self-identify	2	0.8	0.9
Prefer not to answer	7	2.7	3.2
Missing	42	16.3	
Total	258	100.0	100.0

5.19. Interacting with a GameSense Advisor: Associations with Other Measures

In this section, we review findings regarding the association between participants' general exposure to GameSense (i.e., whether they had ever interacted with a GameSense Advisor) and their (1) GameSense knowledge, (2) GameSense opinions, (3) Responsible gambling knowledge, (4) Gambling knowledge, and (5) PPC department. We repeated these analyses using a more

[1] For purposes of comparison, PPC reported that as of June 30, 2017, 53% of their employees were male and 47% were female.

refined exposure measure: whether participants had discussed responsible gambling or problem gambling with a GameSense Advisor. The test result changed in one case when we used this measure, as footnoted below in the upcoming section "Gambling Knowledge".

5.19.1. GameSense Knowledge

We studied whether employees who had direct contact with GameSense Advisors knew more about the program than those who did not. First, we conducted a *t*-test with GameSense exposure as the independent variable. The dependent variable was participants' knowledge of GameSense Advisors' activities (i.e., the sum of activities endorsed). We observed that participants who had interacted with a GameSense Advisor endorsed more GameSense Advisor activities (mean = 6.90, SD = 2.99) compared to those who did not (mean = 5.41, SD = 2.97), t (214) = 3.55, $p < 0.001$. Next, we explored whether participants who had interacted with GameSense Advisors were more likely than their counterparts to recognize specific GameSense Advisor activities. As Table 5.31 shows, using chi square analysis, we found this to be the case for nearly all GameSense Advisor activities. For example, 72.4% of participants who had interacted with a GameSense Advisor recognized that GameSense Advisors greet people; only 33.0% of those who had not interacted with a GameSense Advisor did so. This effect did not emerge for two GameSense Advisor activities, "Help connect people to problem gambling or other mental health treatment" and "Tell people to change how they gamble." Participants who had interacted with GameSense Advisors and those who had not interacted with GameSense Advisors were equally likely to recognize these two activities as part of GameSense Advisors' jobs.

Table 5.31: Recognition of GameSense Advisor activities as a function of contact with a GameSense Advisor

Activity	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Greet people	**105 (72.4)**	**34 (33.0)**	**37.96**
Give people directions to areas or activities within the casino	**67 (46.2)**	**23 (22.3)**	**14.85**
Teach people how to play casino games	**47 (32.4)**	**20 (19.4)**	**5.16**
Teach people how to avoid gambling beyond their limits	**117 (80.7)**	**69 (67.0)**	**6.03**
Help connect people to problem gambling or other mental health treatment	92 (63.4)	65 (63.1)	0.00
Enroll people in Voluntary Self-Exclusion	**113 (77.9)**	**50 (48.5)**	**23.09**
Un-enroll people from Voluntary Self-Exclusion	**62 (42.8)**	**30 (29.1)**	**4.80**
Enroll people in PlayMyWay	**109 (75.2)**	**44 (42.7)**	**26.84**
Un-enroll people from PlayMyWay	**71 (49.0)**	**23 (22.3)**	**18.15**
Tell people to change how they gamble	38 (26.2)	29 (28.2)	0.17
Offer raffles	**50 (34.5)**	**14 (13.6)**	**13.73**
Teach people about odds and probability	**74 (51.0)**	**26 (25.2)**	**16.65**

Note: Bolded rows indicate tests that are significant at $p < 0.05$.

We conducted the same kind of analysis to determine if contact with a GameSense Advisor was related to awareness of the potential targets of GameSense. We found that employees who had spoken with a GameSense Advisor were as likely as those who had not spoken with a

GameSense Advisor to identify casino patrons, casino staff/employees, and others as potential targets of GameSense. See Table 5.32.

Table 5.32: Recognition of GameSense targets as a function of contact with a GameSense Advisor

Potential GameSense targets	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Casino patrons	124 (85.5)	78 (75.7)	3.82
Casino staff/employees	56 (38.6)	30 (29.1)	2.40
Others	62 (42.8)	40 (38.8)	0.38

Participants who had interacted with a GameSense Advisor were more likely to know the purpose of PlayMyWay than participants who had not interacted with a GameSense Advisor (see Table 5.33). Knowledge about the voluntary self-exclusion program at PPC was unrelated to contact with a GameSense Advisor (Table 5.33).

Table 5.33: PlayMyWay and voluntary self-exclusion knowledge as a function of contact with a GameSense Advisor

Activity	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Correctly reported how PlayMyWay works	**68 (55.7)**	**19 (22.6)**	**22.37**
Correctly reported how voluntary self-exclusion works at PPC	13 (11.3)	4 (5.9)	1.49

Note: Bolded row indicates a test that is significant at $p < 0.05$.

5.19.2. GameSense Opinions

PPC employees who had had contact with GameSense Advisors might have different opinions about GameSense than those who had not. We examined this possibility using *t*-tests, with GameSense exposure (previous interaction with GameSense Advisor: yes or no) as the independent variable. The dependent variables were the percent of positive impacts endorsed and the percent of negative impacts endorsed. We found no relationship: participants who reported interacting with a GameSense Advisor endorsed 67.5% of positive impacts (SD = 24.1), and those who reported never interacting with a GameSense Advisor endorsed 65.0% of positive impacts (SD = 26.0), t (230) = 0.76, p = 0.45. Similarly, participants who reported interacting with a GameSense Advisor endorsed 12.7% of negative impacts (SD = 25.1), and those who reported never interacting with a GameSense Advisor endorsed 12.6% of negative impacts (SD = 25.4), t (222) = 0.03, p = 0.98. We conclude that GameSense exposure was unrelated to employees' GameSense opinions.

Next, we examined responses to the questions about PPC employees' roles in intervening with patrons who might have gambling-related problems. Participants in both groups—those who had contact with GameSense Advisors and those who had not had contact with GameSense Advisors—were equally likely to reject the notion that they should try to intervene with such patrons; see Table 5.34.

Table 5.34: Perceptions regarding PPC employees' role intervening with patrons as a function of contact with a GameSense Advisor

Activity	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Correctly indicated that PPC employees should *not* try to determine if a casino patron has a gambling-related problem	68 (51.5)	42 (47.7)	0.33
Correctly indicated that PPC employees should *not* try to stop patrons with gambling-related problems from gambling	86 (59.3)	52 (50.5)	6.67

5.19.3. Gambling Knowledge

Recall that we asked three questions in this section: one about the consequences of excessive gambling and two about the independence of slot machine plays. First, we found that having interacted with a GameSense Advisor was unrelated to recognizing finances, mental health, personal relationships, and physical health as potential consequences of excessive gambling (see Table 5.35).

Table 5.35: Excessive gambling consequences knowledge as a function of contact with a GameSense Advisor

Consequence	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Finances	127 (88.8)	87 (85.3)	0.67
Mental health	126 (88.7)	82 (82.0)	2.20
Personal relationships	129 (89.6)	85 (85.0)	1.15
Physical health	120 (88.2)	73 (80.2)	2.75

Turning to the other two questions related to gambling knowledge, we observed that participants who had interacted with GameSense Advisors were more likely to reject the idea that "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon." In all, 88.3% of those who reported interacting with a GameSense Advisor answered this question correctly and 64.0% of those who did not report interacting with a GameSense Advisor answered this question correctly. This difference was statistically significant. We did not observe a statistically significant difference with respect to responses to the question, "On any given slot machine play, which outcome is most likely?"[6] (See Table 5.36).

[6] When we classified participants according to whether they had discussed responsible gambling or problem gambling with a GameSense Advisor, we observed a statistically significant difference in their likelihood of answering the question, "On any given slot machine play, which outcome is most likely?" correctly. While 58.1% of those who had this kind of exposure answered the question correctly, 43.4% of those *without* such exposure did so (chi square (1) = 4.22, p = 0.04.

Table 5.36: Scored responses to questions about the independence of slot machine play as a function of contact with a GameSense Advisor

Scored response	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Correct response to "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon."	**113 (88.3)**	**57 (64.0)**	**18.17**
Correct response to "On any given slot machine lay, which outcome is most likely?"	68 (54.0)	36 (40.9)	3.54

Note: Bolded row indicates a test that is significant at $p < 0.05$.

5.19.4. Gambling Behavior

We studied whether participants who reported having interacted with a GameSense Advisor reported gambling as frequently during the past year as participants who had not interacted with a GameSense Advisor. We used *t*-tests, one for each of the six gambling activities, with prior interaction with a GameSense Advisor as the independent variable and gambling frequency (coded from 1 (never) to 8 (daily or more) as the dependent variable. We observed no statistically significant differences. For example, on average, both participants who had interacted with a GameSense Advisor participants and participants who had *not* interacted with a GameSense Advisor reported, on average, that they played the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slots parlor) less than once a month (see Table 5.37).

Table 5.37: Mean past-year gambling frequency as a function of contact with a GameSense Advisor

	Had interacted with a GameSense Advisor at PPC		Had *not* interacted with a GameSense Advisor at PPC		*t*	df
	Mean	SD	Mean	SD		
Playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slots parlor)	2.9	1.9	3.0	2.1	-0.24	214
Playing slot machines or video keno at a casino or slots parlor	2.0	1.5	1.9	1.3	0.72	208
Betting on sports with friends or in an office pool--not online	1.6	1.2	1.5	1.1	0.14	211
Gambling at a non-profit gathering/event (e.g., church, bingo game, fundraiser, raffle)	1.5	1.0	1.5	1.3	-0.45	210
Playing roulette, dice, keno, or table games (other than poker) at a casino	1.7	1.4	1.6	1.1	0.66	211

5.19.5. PPC Department

Some PPC employees might be especially likely to engage directly with GameSense Advisors because of their job responsibilities. We examined whether participants from each of the four PPC departments were especially likely to report having interacted with a GameSense Advisor.

We found an overall association (chi square (4) = 33.69, $p < 0.001$). As Figure 5.1 shows, participants who worked in Security and surveillance were mostly likely to have interacted with a GameSense Advisor (83.3%), and those in Food, beverage, and retail were least likely (28.6%).

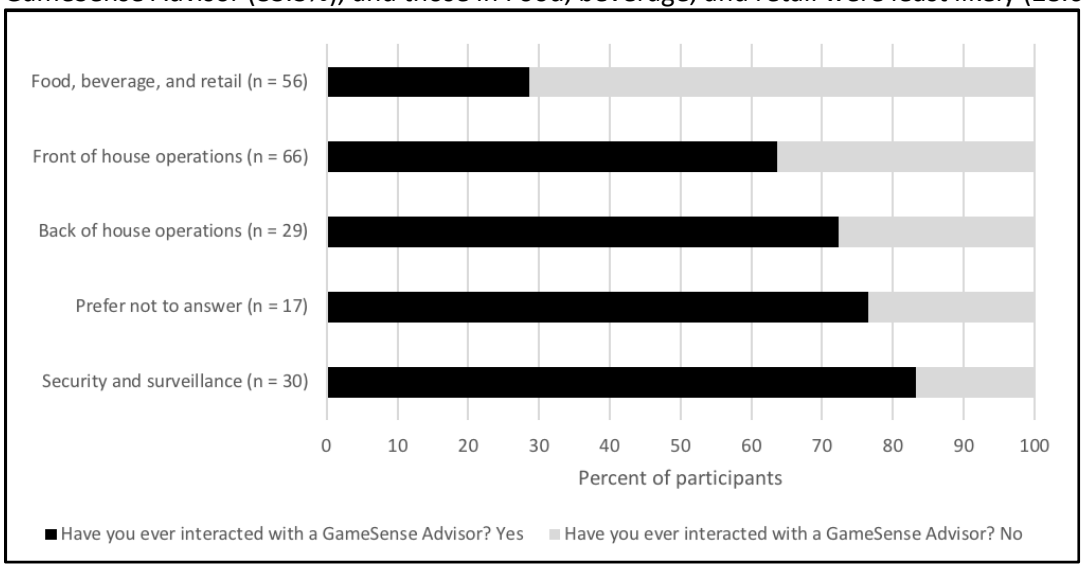


Figure 5.1: Responses to the question, "Have you ever interacted with a GameSense Advisor?" as a function of PPC department

5.20. Referral to a GameSense Advisor: Associations with Other Measures

Next, we studied whether participants' (1) past contact with GameSense Advisor, (2) knowledge of GameSense targets, (3) knowledge of GameSense Advisors' activities, (4) opinions about GameSense, and (5) PPC department predicted their tendency to refer casino patrons to a GameSense Advisor.

5.20.1. Contact with a GameSense Advisor

We observed that 43.8% of participants who had ever interacted with a GameSense Advisor had ever referred a casino patron to a GameSense Advisor, compared with 7.6% of those who had never interacted with a GameSense Advisor, a statistically significant difference. See Table 5.38.

Table 5.38: Referral to a GameSense Advisor as a function of contact with a GameSense Advisor

	Have you ever interacted with a GameSense Advisor at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Had referred a casino patron to a GameSense Advisor	**56 (43.8)**	**7 (7.6)**	**34.21**

Note: Bolded row indicates a test that is significant at p < 0.05.

5.20.2. Knowledge of GameSense Targets

Next, we observed that 31.5% of participants who correctly identified casino patrons as potential targets of the GameSense program reported that they had referred a casino patron to a GameSense Advisor, compared with 7.4% of those who failed to identify casino patrons as potential targets of the GameSense program; this difference was statistically significant. See Table 5.39. Readers should note, however, that this analysis includes one particularly small cell, and this finding might not be reliable.

Table 5.39: Referral to a GameSense Advisor as a function of knowledge of GameSense targets

	Recognize that casino patrons can use the GameSense program at PPC?		Chi square
	Number/ % within "Yes"	Number/ % within "No"	
Had referred a casino patron to a GameSense Advisor	**63 (31.5)**	**2 (7.4)**	**6.76**

Note: Bolded row indicates a test that is significant, p < 0.05.

5.20.3. Knowledge of GameSense Advisors' Activities and Opinions of GameSense

We used *t*-tests to examine whether participants' knowledge of GameSense Advisors' activities (i.e., the sum of GameSense Advisor activities they identified) and opinions of GameSense (i.e., their positive and negative impact percentages) were related to their tendency to refer casino patrons to a GameSense Advisor. We observed that participants who recognized more GameSense Advisor activities were more likely to have referred a casino patron to a GameSense Advisor than their counterparts. Opinions about GameSense, positive or negative, on the other hand, did not appear related to referring a patron to a GameSense Advisor. See Table 5.40.

Table 5.40: Referral to a GameSense Advisor as a function of knowledge of GameSense Advisors' activities and opinions about GameSense

	Had referred a casino patron to a GameSense Advisor		Had *not* referred a casino patron to a GameSense Advisor		*t*	df
	Mean	SD	Mean	SD		
Sum of GameSense Advisor activities endorsed	**7.55**	**3.19**	**5.92**	**2.95**	**3.54**	**202**
Positive impact percentage	70.76	21.46	64.20	26.11	1.80	223
Negative impact percentage	10.47	23.44	13.14	24.74	-0.74	215

Note: Bolded row indicates a test that is significant at p < 0.05.

5.20.4. PPC Department

With regard to PPC department, those who were most likely to report referring a casino patron to a GameSense Advisor were those from the security and surveillance department; 55.2% of those participants did so. On the other end of the spectrum, 10.9% of employees within food, beverage, and retail reported having referred a casino patron to a GameSense Advisor. Overall, the association between PPC department and referring a patron to a GameSense Advisor was statistically significant (see Table 5.41).

Table 5.41: Referral to a GameSense Advisor as a function of PPC department

	PPC department [Number (%)]					Chi square
	Food, beverage, and retail	Security and surveillance	FOB	BOH	"Prefer not to answer"	
Had referred a casino patron to a GameSense Advisor	**6 (10.9)**	**16 (55.2)**	**23 (36.5)**	**4 (14.8)**	**8 (47.1)**	**24.96**

Notes: FOB = Front of House. BOH = Back of House. Note: Bolded row indicates a test that is significant at p < 0.05.

Discussion

5.21. Purpose of this Study

The GameSense program at Plainridge Park Casino is a service that is available to everyone, including employees. Therefore, GameSense has the potential to impact people in a variety of ways. We designed the current study to investigate PPC employee exposure to GameSense and to learn about their knowledge and opinions of this program. Further, we took a first step towards studying the possibility that PPC employees exposed to GameSense might be impacted by that exposure. We did so by examining associations between employees' GameSense exposure and their (a) general gambling knowledge and (b) gambling behavior. We also examined the possibility that GameSense exposure, opinions, knowledge, and PPC department, are associated with employees' tendency to refer casino patrons to GameSense Advisors. The following sections review these findings within the context of the RE-AIM framework. As readers consider these findings, it is vital to remember that we did not randomize participants to GameSense contact and, therefore, we cannot make causal statements about these findings.

5.22. Reach

In the Introduction to this study, we used the RE-AIM framework (Glasgow et al., 1999) to conceptualize the public health impact of the GameSense program at PPC. Our Wave 1 and Wave 2 findings shed some light on the program's reach; we used GameSense Advisors' records to estimate that they interact with 0.67%-1.33% of daily PPC patrons. Our secondary analysis of SEIGMA patron survey data indicated a higher rate: in that study, 9.6% of survey participants reported that they had spoken with a GameSense Advisor. We previously suggested (Gray, LaPlante, & Shaffer, 2017) that limitations associated with both estimates: GameSense Advisors might have *underestimated* their reach by failing to record all services they provided, and SEIGMA's estimate might *overestimate* reach because it is based on responses from patrons who were willing to speak with a researcher and complete a survey.

In the current study, we gathered another estimate of the program's reach: we asked PPC employees whether they had ever interacted with a GameSense Advisor. We observed that 58.5% answered affirmatively. Most PPC employees who interacted with GameSense reported such interactions to be either very frequent or very rare. Employees typically reported having casual conversations with GameSense Advisors, though 33.5% of participants reported speaking with a GameSense Advisor about how casino patrons can avoid gambling beyond their limits, how

games work, myths about gambling, or other topics related to responsible gambling or problem gambling. This finding is consistent with our earlier observation that the bulk of conversations GameSense Advisors have with PPC patrons are casual in nature (Gray, LaPlante, Keating, & Shaffer, 2016; Gray, LaPlante, Keating, & Shaffer, 2017). In sum, the program's reach is higher among PPC employees than PPC patrons, but the type of exposure to GameSense Advisors is largely similar among PPC employees and PPC patrons.

We examined specific forms of exposure to GameSense. We observed that about three in ten of the current study's participants had referred a casino patron to a GameSense Advisor. The most frequent referral reason was because the patron wanted to enroll in voluntary self-exclusion. Participants also referred patrons who wanted help using PlayMyWay, wanted help setting up a gambling budget, wanted to be connected with problem gambling or other mental health treatment, or had a variety of other concerns. Penn National's employee responsible gambling training program identifies GameSense Advisors as the preferred resource for patrons who want help managing their gambling (L. McKenney, personal communication, October 13, 2017). Therefore, PPC employees who referred patrons to GameSense Advisors for help with PlayMyWay, for help with problem gambling, and other similar reasons were acting in accordance with their training.

About seven in ten participants report that they had *not* referred a casino patron to a GameSense Advisor. Although the most common explanation for this circumstance was that the opportunity has never presented itself, some participants expressed confusion about the GameSense program and their role in referring patrons to it. For example, 8.6% of this subset of participants (5% of all participants) reported that they did not know what to say to the patron. Somewhat smaller proportions of participants reported that they did not know what GameSense Advisors do or did not think referring patrons to GameSense Advisors was part of their job. This subset of employees requires additional training about GameSense and their role responding to patrons; we address this issue in the Program Recommendations section later in this Discussion.

5.23. Effectiveness

We did not design this study to test the effects of GameSense on PPC employees. Such a test would require manipulating employees' exposure to GameSense, ideally using a no-exposure control group, and examining outcomes (e.g., gambling cognitions, responsible gambling behavior) before and after exposure. Instead, in this study, we sought to describe employees in terms of their GameSense exposure, knowledge, and opinions; then, within this cross-sectional design, we investigated how GameSense exposure relates to gambling knowledge and behavior. We reviewed GameSense exposure findings in the previous section. In the paragraphs that follow, we interpret findings about employee GameSense knowledge and opinions. Then, we turn to associations between GameSense exposure and gambling knowledge and behavior. Finally, we discuss results regarding potential predictors of GameSense referrals.

5.23.1. GameSense Knowledge and Opinions

With regard to GameSense knowledge, we observed room for improvement in participants' knowledge of GameSense Advisors' activities. While most participants identified five of these activities correctly (i.e., Teach people how to avoid gambling beyond their limits, Enroll people in voluntary self-exclusion, Help connect people to problem gambling or other mental health

treatment, Enroll people in PlayMyWay, Greet people), less than half of the participants identified the remaining seven activities. About 8 in 100 participants correctly identified all activities as part of GameSense Advisors' jobs. Participants similarly lacked knowledge about the potential targets of GameSense. Though the majority of participants understood that casino patrons can use the program, nearly one in five participants did not evidence this understanding, and most participants did not recognize that they, and people from outside the casino, can use the program. We connect this finding to the observation that most participants reported that they did not read the newsletter GameSense staff distributed approximately two months before the survey; this newsletter reminded PPC employees that they should consider GameSense a personal resource. We address this finding in the Recommendations section.

Because PPC employees might influence PPC patrons' views of GameSense, it is important to understand how PPC employees view and understand the program. Recently, a report instigated by a UK gambling industry group and commissioned by a problem gambling advocacy group identified "creating supportive environments" for gaming staff as one of three pillars of responsible gambling (Revealing Reality, 2017, p. 13). In this group's view, creating supportive environments includes ensuring that all staff recognize the value of responsible gambling activities and ensuring that all staff feel confident delivering and promoting responsible gambling activities. Consistent with the first part of this goal, participants in our survey largely endorsed potential positive impacts of GameSense, suggesting that they perceived the program to have value. For instance, they agreed that, as intended (Massachusetts Gaming Commission, 2014b), the GameSense program helps patrons gamble within their personal limits without interfering with player enjoyment. Most surveyed employees agreed that GameSense enhances PPC's social responsibility reputation, increases patrons' awareness of responsible gambling strategies, protects people from developing gambling problems, encourages patrons to think about their gambling behavior, and creates social connections between patrons and GameSense Advisors. Therefore, GameSense appears to be effective at communicating to employees that it can support responsible gambling without interfering with other business priorities, contributing to the creation of a supportive environment for gaming employees.

We considered participants' opinions about other aspects of the program. We observed that opinions were more mixed about other potential positive impacts (e.g., teaches people about the casino games, puts PPC at a competitive advantage, increases player enjoyment), though pluralities still agreed with these positive impacts. Most participants rejected potential negative program impacts (e.g., interferes with player enjoyment, makes people think they have a gambling problem, encourages people to gamble more than they might have otherwise). These opinions are important because all PPC employees who have contact with PPC patrons might intentionally or unintentionally communicate their opinions about GameSense.

However, surveyed employees did not report a high level of confidence in delivering or promoting the GameSense program. More specifically, we note that there is room for improvement regarding employees' understanding of their role in helping patrons in crisis. Though some gambling operators require general employees to identify and/or proactively support gamblers who might be in crisis or experiencing a gambling-related problem (Ladouceur et al., 2004), PPC, with its on-site, independently operating GameSense program, requires employees to discreetly and sympathetically triage such patrons to GameSense Advisors. However, many PPC employees appear to need confirmation that they should not try to determine if a casino patron has a

gambling-related problem or try to stop patrons with gambling-related problems from gambling. Employees' uncertainty about their role in responding to such patrons could make both employees and patrons feel uncomfortable; it could additionally interfere with GameSense's operations. For this reason, program planners might wish to reinforce these concepts during employee training and as needed thereafter. We previously observed in a study of Las Vegas casino employees that responsible gambling training can correct employees' mistaken beliefs that they will be required to diagnose patrons' gambling-related problems (LaPlante, Gray, Labrie, Kleschinsky, & Shaffer, 2011).

GameSense Advisors play important roles when enrolling patrons in PlayMyWay and voluntary self-exclusion at PPC. We considered knowledge of these programs to be part of a broader GameSense knowledge. Though a plurality of participants correctly identified certain aspects of the PlayMyWay and voluntary self-exclusion programs, the majority did not answer these questions correctly; that is, they failed to recognize true aspects of the programs (e.g., Individuals have some flexibility in terms of the duration of the [voluntary self-exclusion] ban) or incorrectly endorsed aspects of the programs that are not true (e.g., Individuals must come to PPC to enroll [in voluntary self-exclusion]). Most employees appear not to know as much as they should about the PlayMyWay and voluntary self-exclusion programs. These employees could inadvertently give patrons incorrect information about the programs. This observation represents an opportunity to develop tiered employee training.

5.23.2. Interacting with a GameSense Advisor: Association with other Measures

In this section, we discuss how GameSense exposure (defined as interacting with a GameSense Advisor) related to GameSense knowledge and opinions, gambling knowledge and behavior, and PPC department.

First, with regard to GameSense knowledge, we observed that participants who had interacted with GameSense Advisors were more likely to recognize the scope of GameSense Advisors' activities, potentially because they were in close proximity and observed GameSense Advisors in action. On the other hand, GameSense exposure was unrelated to employees' understanding of the targets of GameSense. Further, GameSense exposure was unrelated to employees' understanding of their own role in responding to patrons with potential gambling-related problems. Perhaps these concepts did not emerge naturally during conversations with GameSense Advisors. In the future, program organizers could encourage GameSense Advisors to share this information, which would reinforce these key concepts of employee training.

Compared to their counterparts, participants who had interacted with GameSense Advisors were more likely to know how PlayMyWay works. They were not more likely to understand the nature of the voluntary self-exclusion program at PPC. We previously observed (Gray, LaPlante, Keating, & Shaffer, 2017) that PlayMyWay is a frequent topic of conversation between GameSense Advisors and casino patrons; potentially, GameSense Advisors also discussed it with PPC employees, and in so doing spread awareness and understanding of it. By contrast, voluntary self-exclusion is used by a smaller group of PPC patrons. Potentially the nature of voluntary self-exclusion did not emerge naturally during conversations between GameSense Advisors and PPC employees. This could explain the lack of an association between GameSense exposure and knowledge of voluntary self-exclusion.

With regard to GameSense opinions, we found no associations between the extent of participants' positive and negative views about GameSense and their GameSense exposure. Ceiling and floor effects, respectively, might have limited the potential for such associations to emerge. Similarly, participants who had interacted with GameSense Advisors were no more likely than their counterparts to understand their own role in responding to at-risk casino patrons. Again, we speculate that this topic did not emerge naturally during conversations with GameSense Advisors.

Next, we turned to participants' gambling knowledge. Employee responsible gambling training programs provide an opportunity to teach employees—a population historically at high risk for gambling-related problems—about gambling (Shaffer et al., 1999). Penn National's responsible gambling training program characterizes problem behavior as "gambling behavior which leads to a continuum of adverse consequences for the gambler, others, and the community" (L. McKenney, personal communication, October 13, 2017). Either because of this training, or because of general public awareness that has evolved over time, PPC employees evidenced considerable awareness of the breadth of consequences of gambling-related problems. Most recognized finances, mental health, personal relationships, physical health as potential consequences. Participants with direct exposure to GameSense via conversations with GameSense Advisors were no more likely than their counterparts to recognize these potential consequences, potentially due to a ceiling effect.

We asked PPC employees two questions assessing gambling cognitions, specifically beliefs about near misses and the independence of slot machine play. Nearly eight in ten participants correctly recognized that a slot machine that has a big payout is not more or less likely to have another big payout; they considered the following statement to be false: "If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon." Participants who had a discussion of any kind with a GameSense Advisor were especially likely to correctly reject this statement. Less than half of PPC employee participants correctly identified the most likely outcome of any given slot machine play (i.e., a loss), suggesting that there still is room for improvement. We observed that participants who had at least one conversation about responsible gambling or problem gambling with a GameSense Advisor were more likely than their counterparts to report that a loss is the most likely outcome of a slot machine play. These findings are necessary, but not sufficient, to establish that exposure to GameSense is effective in improving employees' understanding of important concepts. An experiment that manipulated GameSense exposure and examined understanding of important concepts before and after such exposure could test the causal pathway. Some studies have taken this approach to evaluating employee-facing responsible gambling training programs. These programs have shown promise to improve gambling employees' gambling-related cognitions (Giroux et al., 2008; Ladouceur et al., 2004), though effects tend to deteriorate over time (Dufour et al., 2010). Such thoughts are important because erroneous gambling-related cognitions are bi-directionally related to gambling-related problems (Nicholson, Graves, Ellery, & Afifi, 2016). More specifically, people who endorse erroneous beliefs about gambling (e.g., "There are secrets to successful casino gambling that can be learned," or "I can improve my chances of winning by performing specific rituals") are at greater risk for future gambling-related problems, and people who report gambling-related problems are more likely to endorse erroneous gambling beliefs in the future (Nicholson et al., 2016).

PPC employee participants reported moderate past-year gambling. Most reported having never engaged in four gambling activities during the previous year (i.e., (1) betting on sports; (2) gambling at non-profits; (3) playing roulette, dice, keno, or table games (other than poker) at a casino; and (4) gambling online). Most reported playing the lottery or related games during the past year; but, even among this group, a plurality played only a couple of times during the past year. Though these responses indicate only moderate gambling among PPC employees, we note that the rates of engaging in these six gambling activities during the past year are higher among PPC employees than samples from the general population in Massachusetts. More specifically, we recently reported (Nelson et al., 2017) that 24.4% of our Massachusetts Internet panel sample reported playing slot machines or video keno at a casino or slots parlor during the past year; this compares with 47.9% of PPC employees who answered this question. The same pattern holds for playing lottery and related games (i.e., 48.5% of Massachusetts Internet panel sample versus 73.3% of PPC employees), betting on sports with friends or in an office pool (i.e., 18.6% of Massachusetts Internet panel sample versus 28.9% of PPC employees), gambling at a non-profit gathering/event (i.e., 13.9% of Massachusetts Internet panel sample versus 25.9% of PPC employees), and playing table games other than poker at a casino (i.e., 13.7% of Massachusetts Internet panel sample versus 29.5% of PPC employees). Our Massachusetts Internet panel sample (Nelson et al., 2017) did not report their frequency of engaging in the remaining gambling activity (i.e., Gambling online), but the SEIGMA Baseline Population Survey sample did (Volberg et al., 2015). SEIGMA found that 1.7% of its general population Massachusetts sample reported gambling online during the past year on things such as player poker, buying lottery tickets, or betting on sports, compared to 22.3% of our PPC employee sample. We observed that PPC employees who interacted with GameSense Advisors reported engaging in these activities as frequently as their counterparts with no such exposure.

Finally, GameSense exposure was related to PPC department: employees who worked in security/surveillance interacted with GameSense Advisors most often, and those who worked in food/beverage interacted with them least often. Though trends in GameSense exposure likely result in large part from proximity to GameSense staff (with security/surveillance staff located the closest to the GameSense Info Center), it is also likely that employees' roles and responsibilities within PPC contribute to GameSense exposure. Security employees are likely required to interact with distressed patrons more often than, for instance, restaurant employees or back-of-house employees.

5.23.3. Referral to a GameSense Advisor: Association with other Measures

We observed that while the tendency to refer PPC patrons to GameSense Advisors was generally low, it was higher among participants who had had a conversation with a GameSense Advisor. This might be because participants who naturally have exposure to GameSense Advisors (i.e., those in security/surveillance) also have more opportunities to interact with patrons in crisis. Additionally, speaking with a GameSense Advisor might make PPC employees more comfortable referring patrons to GameSense. In this case, it might be helpful to encourage conversations between GameSense Advisors and employees who do not naturally have high exposure to them, such as those working in the restaurants. Perhaps these conversations, or more formal training, could emphasize the intended targets of GameSense and GameSense Advisors' job responsibilities. We found that participants who knew more about these two topics were more likely to refer PPC patrons to GameSense Advisors.

5.24. LIMITATIONS

Our analyses of missing data revealed that participants were more likely to skip questions as they progressed through the survey. Further analysis indicated that those who did not primarily speak English at home skipped more questions than those who primarily spoke English at home. This finding suggests that there might have been an English language comprehension barrier for some of the participants. It is also possible that a six-page survey was too long for the allotted time period. We designed and tested the survey so that it could be completed within 7-9 minutes; however, Division staff estimate that participants were asked to turn their attention away from the survey approximately five minutes after they began. This circumstance might have compromised the participant responses as described above and in other ways as well (e.g., feeling rushed).

The rate of missing data presents a particular problem for interpreting the results for some items. More specifically, for the "select all that apply" questions, it is impossible to determine whether participants skipped the question entirely or made a conscious decision not to endorse any of the items. We intentionally limited the number of "select all that apply" items in light of this possibility.

As with all surveys, this study is limited by its reliance on self-reports. Participants might have struggled to recall their GameSense exposure or gambling behavior. Despite our best efforts to minimize perceived coercion, they might have felt pressure to report positive opinions about a workplace initiative. While most employees who attended the town-hall meetings completed at least some of our survey, not all employees attended a meeting. Their views are missing from this report.

5.25. RECOMMENDATIONS

5.25.1. Program Recommendations

Throughout this Discussion, we have identified room to improve PPC employees' understanding of (1) the GameSense program (e.g., what GameSense Advisors do, who can use the GameSense program), (2) their own role in supporting at-risk patrons, and (3) important gambling knowledge, including the independence of slot machine plays. Correcting these misunderstandings might have a direct positive effect on PPC employees and an indirect positive effect on PPC patrons. For example, at least one study suggests that gambling venue employees who receive responsible gambling training are less likely to make unhelpful recommendations to patrons, such as choosing a slot machine hasn't paid out for a while (Ladouceur et al., 2004).

Penn National can supplement its current responsible gambling training program in several ways. For example, if Penn National is not currently using active learning strategies, they might consider doing so as a supplement to traditional classroom teaching. Active learning encourages students (in this case, PPC employees) "to use their higher-order thinking skills (e.g., analysis, synthesis, reflection, evaluation) while engaged in activities that help them think critically and explore their own attitudes and values" (Detlor, Booker, Serenko, & Julien, 2012, p. 148). Practicing new skills, not just learning new skills, might be especially important for people about to start working in a fast-paced, stimulating casino environment. For example, during their new hire training, Penn National could introduce employees to a hypothetical patron who is exhibiting emotional distress. Employees could use "problem-based, discovery-based, and inquiry-

based learning" (i.e., working together to solve authentic problems) to learn how best to respond to the hypothetical patron, in line with the venue's stated protocols. Employees could role play and, in so doing, develop confidence that they know their role in responding to such patrons (i.e., triage the patron to a GameSense Advisor) and how to perform that role. Though the current results indicate that PPC employees need more information about what they are *not* required to do, Penn National can consider working to ensure employees do not assume that someone else will step in and respond appropriately; such diffusion of responsibility has been documented in a previous responsible gambling program evaluation (Dufour et al., 2010). Active learning strategies might enhance employees' understanding of gambling-related cognitions (e.g., the near miss effect, the independence of slot machine plays) and it can be incorporated into employees' annual online refresher training.

Including GameSense Advisors in the employees' new hire and refresher training could be especially helpful for PPC employees who otherwise have little opportunity to interact with GameSense Advisors. For example, GameSense Advisors sometimes use demonstrations to illustrate important gambling concepts, and employees might additionally benefit from these demonstrations.

Previously, we have observed natural groups among recently hired gambling industry employees (Gray, Tom, LaPlante, & Shaffer, 2015). In other words, before they undergo responsible gambling training, some employees have a more sophisticated understanding about relevant concepts than others. The same might be true of new PPC employees. If so, they might benefit from multi-tiered training programs, which increase the likelihood that all groups will be challenged and will learn new information according to their needs (Kupzyk, Daly, Ihlo, & Young, 2012). Penn National could use screening questions to categorize employees and deploy tiered training according to employees' responses to these questions.

5.25.2. Recommendations for Future Evaluation

We offer five evaluation-related recommendations. First, to reduce missing data, future surveys using this general design (i.e., surveying employees during town hall meetings) should be better customized to the time employees will be allotted to participate. Second, because a sizable number of PPC employees elected not to attend a town hall meeting, researchers might wish to use a hybrid approach, where employees who do not attend a town hall meeting have an opportunity to complete the survey in a different way, such as by email or onsite during a break in their shift. The first two recommendations would address the major limitations of the current study.

Third, previously we observed that GameSense program reach was unstable over time (Gray, LaPlante, Keating, & Shaffer, 2016; Gray, LaPlante, Keating, & Shaffer, 2017). As GameSense Advisors became more comfortable completing their job responsibilities, they engaged with more patrons. Similarly, we do not assume that this report's estimates of reach, exposure, and other outcomes will be stable over time. We recommend that MGC invest in re-examining these estimates and make comparisons over time. This would be especially important if Penn National decides to supplement its responsible gambling training program to promote greater awareness of existing GameSense resources.

Fourth, in this study, we did not assess the possibility that employee participants were experiencing gambling-related problems. We made this decision in consultation with the MGC and to

protect participants' privacy. Even if we attempted to mask the gambling venue when reporting the prevalence of gambling-related problems, readers easily could infer that prevalence rates were obtained from PPC employees because, at the time of this evaluation and report, PPC was the only existing Massachusetts casino gambling venue. We did assess employees' gambling frequency, and we observed higher rates of past-year participation that appear to be higher than two independent statewide samples, though this circumstance awaits formal confirmation. This finding suggests a need for future study of potential gambling-related problems among this population, preferably after more venues have opened.

Fifth and finally, we have described associations between GameSense exposure and outcomes such as gambling-related knowledge. However, we have carefully noted that only an experiment can provide evidence of causality (e.g., that greater exposure to GameSense Advisors produces a better understanding of gambling knowledge). Therefore, we encourage program operators to consider conducting an experimental manipulation of employee GameSense exposure so that they can examine potential program effects across a range of outcomes for a period of time. PPC employees could be assigned randomly to conditions (e.g., high exposure to the GameSense program, low exposure to the GameSense program, no exposure to the GameSense program) soon after hiring and researchers could measure their gambling knowledge and opinions.

5.26. Concluding Thoughts

At the time of this survey, the GameSense program at PPC was the only such program operating within the United States. However, GameSense is expanding across the United States (Kinney, 2017), creating a need to learn more about the program and its potential effects – in different settings – on both customers and employees. We observed that nearly six of ten surveyed PPC employees have had contact with GameSense Advisors, and about three of ten have used GameSense Advisors as a resource for learning about responsible or problem gambling. This type of educational exposure is consistent with program goals. To our knowledge, program developers have not advanced specific levels of reach as objectives (e.g., engaging 30% of PPC employees per year); as a result, we cannot conclude whether any specific reach objectives have been met. Though PPC employees are operating with a generally positive view of the GameSense program, we observed room for improvement with regard to employees' understanding of the GameSense program, understanding of important gambling concepts, and confidence in referring patrons to GameSense Advisors. These limitations can be addressed during initial and follow-up training and, perhaps, by encouraging greater contact between PPC employees and GameSense Advisors. This is particularly so for PPC employees whose jobs do not naturally promote contact with GameSense Advisors. Association analyses indicate that direct contact with GameSense Advisors might have beneficial effects, though we cannot provide a causal statement to this effect due to the nature of this study. In sum, these findings combine with our concurrent surveys of PPC patrons and analyses of GameSense Advisors activities to provide a comprehensive evaluation of this new and expanding program.

Chapter Six: Closing the Evaluation-Feedback Loop

CHAPTER SIX: Table of Contents

In this concluding chapter, we summarize the program and research recommendations we made in the four reports. For each recommendation, we describe the MGC's responses to these recommendations (Mark Vander Linden, personal communication, March 29, 2018). Finally, we close with our general evidence-informed impressions of GameSense.

6.1. Program Recommendations & Responses

6.1.1. GameSense Advisor Clinical Supervision

Within our Wave 1 report (i.e., *Chapter 2 - Summary Analysis of the Plainridge Park Casino GameSense Program Activities & Visitor Survey: December 2, 2015-May 31, 2016*), we made several recommendations regarding GameSense Advisor training and supervision.

First, we recommended that the MGC review formally the adequacy of GameSense Advisor training and supervision, focusing on the possibility of vicarious trauma, countertransference, first response for mental health issues, and other common clinical issues.

> *MGC responded: "Dr. Lori Rugle has been working with the GameSense Advisor's since 2015. They have individual 60-minute phone calls. Additionally, they receive weekly emails from Dr. Rugle and attend an annual training with her. The GameSense Advisors are able to contact Dr. Rugle at any time beyond their quarterly phone calls. An evaluation of the contact with Dr. Rugle found that the GameSense Advisor's find their interactions with her helpful and beneficial for both their work and overall wellbeing. This type of clinical supervision program will continue indefinitely and will be extended to all GameSense Advisors, including new hires."*

Second, we recommended that MGC or GameSense management provide clinical supervisory support to GameSense Advisors.

> *MGC responded, "Correct. The GameSense Advisors have and will continue to connect with Lori Rugle, individually on a quarterly basis, and annually as a group. In addition to these scheduled meetings, she is available to them at any time should they choose to reach out to her with a question."*

Third, we recommended that the MGC and GameSense managers continue monitoring visitors and GameSense Advisors for safety outcomes, such as boundary issues and emotional responses.

> *MGC responded, "GameSense Advisors engage in weekly supervision sessions with the GameSense Manager and provide updates on their interactions with patrons and PPC staff. Additionally, GSAs complete a patron interaction checklist which is monitored by the GameSense Manager and MGC Program Manager of Research and Responsible Gaming."*

6.1.2. GameSense Advisor Responsible Gambling Training

Within the Wave 1 report, we also recommended that MGC ensure that GameSense Advisors are being trained appropriately and have suitable education about key responsible gambling concepts, such as through knowledge verification (e.g., annual assessments). We based this recommendation on the observation that providing information about responsible gambling concepts was the most common activity GameSense Advisors performed during non-simple interactions.

MCG responded, "During the first year of operation GameSense Advisors were trained with the materials provided by British Columbia Lottery Corporation. Currently, we have built on that training program by including the Mental Health First Aid certification, mindfulness, and motivational interviewing courses. GameSense Advisors are provided opportunities for professional development such as attending webinars, conferences, presenting at conferences, and attending the New Horizons conference. GameSense Advisors are assessed quarterly and annually. They fill out a daily checklist which shows what topics they are currently spending the most time with patrons discussing, allowing us to build on their knowledge in under-represented topics. Currently, the training program is being re-developed to ensure that new staff hired receive through and consistent training on essential topics."

6.1.3. Fit with Legislative Mandate

At the conclusion of the Wave 1 report, we recommended that the MGC evaluate the need for integrating substance use/mental health counseling services (beyond referral to treatment/self-help for gambling problems) into the GameSense program and/or make legislative changes, to better align stated GameSense goals and legislative requirements for the on-site space.

The MGC responded, "The MGC maintains that the GameSense Program/ Info Center fulfills the legislative mandate."

6.1.4. Engagement with PPC Patrons

At the conclusion of the Wave 2 report (i.e., *Chapter 3 - Summary Analysis of The Plainridge Park Casino GameSense Program Activities & Visitor Survey: August 8, 2016-February 7, 2017*), we noted that "PPC patrons who choose to engage in conversations with GameSense Advisors are a relatively healthy population and are typically not in need of extensive gambling-related education or support." However, we also noted that 45% of our sample of these patrons appeared to be confused about the independence of slot machine plays, and that those with additional exposure to GameSense were not more likely to answer the relevant question correctly. As a result, we recommended that the MGC strengthen messaging for PPC patrons, including messages about gambling as a recreational, but not profitable activity. This change might correct overly optimistic beliefs and encourage responsible gambling; emphasizing the full range of consequences of problem gambling, which might spur problem recognition and help seeking among at-risk patrons; and emphasizing the true independence of slot machine play.

The MGC responded, "These findings have been shared with our new marketing company, KHJ. While they are currently in early preparation stages, they are going to develop a tiered advertising campaign which targets various groups and populations. Additionally, they will engage in strategic partnerships to promote these messages in a more creative way. The underlying idea is that tweaking language and utilizing more creative vehicles to communicate messages will increase awareness of GameSense as well as message absorption."

Also in the Wave 2 report, we recommended that the MGC help GameSense Advisors experiment with new ways of engaging women visitors to reduce their under-representation among Repeat visitors.

The MGC responded, "GameSense Advisors and the GameSense Advisor Manager continuously refine existing, and create new activities to engage populations which they have had difficulty reaching. In particular, GameSense Advisors have been using more 'female friendly swag' to create baskets which may be more attractive to

female patrons. Other than communicating that further emphasis should be placed on female return visitors, little planning can be done from a management perspective. Rather, it is up to GameSense Advisors to experiment with their relationship building to try to influence female visitors to return."

More broadly, we recommended that the MGC develop plans to improve the visibility and reach of GameSense and develop plans to improve opportunities to highlight new and different gambling-related information.

The MGC responded, "Planning is currently underway with new marketing company KHJ."

6.1.5. Engagement with PPC Employees

In our PPC Employee report (i.e., *Chapter 5 - Summary Analysis of the Plainridge Park Casino Employee GameSense Survey*), we recommended that the MCG consider ways to increase use of GameSense among employees and strive to improve PPC employees' understanding of (1) the GameSense program (e.g., what GameSense Advisors do, who can use the GameSense program), (2) their own role in supporting at-risk patrons, and (3) important gambling knowledge, including the independence of slot machine plays. We also suggested that employees develop active learning strategies (e.g., problem-based, discovery-based, and inquiry-based learning) as part of employee responsible gambling education.

The MGC responded, "During Problem Gambling Awareness Month (March), GameSense Advisors focus on providing education to casino staff by setting up a table in the employee break room where they offer interactive activities, engaging games, and raffles. To date, GameSense Advisors award three staff members on a quarterly basis for promoting GameSense and/or incorporating responsible gambling into their daily roles. This month, nominations will be made by PPC staff themselves. Both nominators and winners will be acknowledged. eBlasts are created and shared with PPC staff on a quarterly basis. These are meant to highlight important RG-related messages and communicate that GameSense is a resource which is available to PPC staff."

We recommended that the MGC and/or GameSense management develop employee training that will reduce the tendency for diffusion of responsibility for addressing gambling-related problems among employees. Along the same lines, we recommended that MGC and/or PPC explore the development of multi-tiered training that is matched to employee responsible gambling experience and knowledge.

The MGC responded, "Department specific trainings lead by GameSense Advisors took place approximately 3 months ago. Specific procedures were reviewed."

We recommended that PPC include GameSense Advisors in employees' new hire and refresher training, to increase contact and interaction opportunities.

The MGC responded, "This has been happening for at least 6 months."

6.2. Evaluation Recommendations

6.2.1. Practical Surveying Issues

The Wave 1 report noted that about 8% of those who responded to the Visitor Survey identified as Asian, and the GameSense Advisors informed us that visitors who speak languages other than English

are often fluent enough in English to have conversations with them about gambling but not comfortable completing English-language surveys. We suggest that future phases of this evaluation include Visitor Surveys translated into the appropriate language(s).

> *The MGC responded, "Offering items in other languages will be critical when MGM opens. As it stands at PPC, there has been almost no demand for non-English speaking surveys or collateral."*

In the PPC Employee report, we suggested that in any future surveys of PPC employees, researchers ensure sufficient time for completing surveys, taking into consideration the existing demands on their time.

> *MGC responded, "Agreed. Should also consider cognitive testing."*[1]

6.2.2. Future Research Questions: Study Samples

We made four suggestions about studying MA gaming employees. We made three of these suggestions in the PPC Employee report. First, we suggested that MGC/GameSense operators evaluate the extent to which GameSense services are meeting the needs of casino employees.

> *The MGC responded, "Research has found that casino employees are at higher risk of gambling related harm and therefore meeting the needs of this group is a priority of the GameSense program. Evaluation efforts to-date have mainly focused on GameSense's reach and impact on patrons. Moving forward we'll explore strategies and methods to understand GameSense's impact on employees."*

Second, we recommended that the MGC examine gambling-related problems among gaming industry employees after all venues are open.

> *The MGC responded, "This would be interesting."*

Third, we recommended that the MGC consider facilitating an experimental manipulation of (employee) random assignment to GameSense exposure conditions, so that it is possible to examine potential program effects across a range of outcomes.

> *The MGC responded, "We'll consider as a possible approach."*

Finally, in the SEIGMA intercept report (i.e., *Chapter 4 - Summary Analysis of the 2016 Plainridge Park Casino Intercept Survey*), we made our fourth suggestion about studying MA gaming employees. Specifically, we suggested that the MGC measure the impact of GameSense promotional materials on employees' perceptions of the GameSense program and the potential risks associated with gambling problems.

> *The MGC responded, "We will take this into consideration."*

In the Wave 2 report, we recommended that the MGC conduct in-depth interviews with GameSense visitors and GameSense Advisors to gain more insight into their experiences and recommendations for improving the program.

> *The MGC responded, "The MGC is comfortable with the feedback received from GameSense Advisors on behalf of themselves as well as patrons."*

[1] We completed cognitive testing of the PPC Employee survey internally at the Division on Addiction prior to the distribution of the survey.

In the SEIGMA intercept report, we recommended that the MGC measure GameSense safety, effectiveness, and reach among patrons who are particularly at risk for gambling-related problems. Additionally, we recommended that the MGC develop a study that focuses on identifying potential unintended program consequences, such as reduced perceptions of gambling risk, increased gambling, and increased risky gambling.

> *The MGC responded, "We will keep this in mind as we consider our ongoing evaluation of GameSense."*

6.2.3. Future Research Questions: Reach

In all four reports, we acknowledged that there are many potential ways to measure reach. For instance, we recommended that the MGC evaluate the reach of GameSense advertising and social media campaigns.

> *The MGC responded, "Reach was evaluated with our previous marketing company and will be built into the marketing plan and advertising campaign with our new marketing company."*

In the PPC employee report, we recommended that the MGC provide an ongoing examination of reach, over time, as it appears to be variable.

> *The MGC responded, "No plans yet in place but the MGC agrees that this is an important piece of understanding the program's effectiveness."*

6.2.4. Future Research Questions: Effectiveness

In Wave 2, noting that, to date, we had surveyed only PPC patrons who had discussed responsible gambling or problem gambling with GameSense Advisors, we recommended that the MGC complete a patron intercept survey that addresses the relationship between GameSense exposure and responsible gambling knowledge and behavior.

> *The MGC responded, "Will take this into consideration for future evaluation efforts."*

6.2.5. Other Future Research Questions

In several reports, we recommended that the MGC complete a formal cost-benefit analysis of the GameSense program.

> *The MGC responded, "To date only preliminary brainstorming meetings have occurred with MGC stakeholders."*

We recommended that the MGC develop concrete objectives against which evaluators can judge the program, such as a target reach among patrons, target proportion of superficial versus non-superficial interactions, and target proportion of visitors who report healthy behavior change as a result of conversations with GSAs.

> *The MGC responded, "This is in progress."*

6.3. General Evidence-Informed Impressions of GameSense

As we noted in the Introduction to this compendium, we have focused in particular on the first two dimensions of the RE-AIM model: Reach (i.e., the proportion of the target population who receive or are affected by the intervention) and Effectiveness (i.e., the degree to which the intervention achieves the desired outcome, taking into consideration both positive and negative effects). We consider three specific aspects of program effectiveness: safety, program satisfaction, and effects on responsible

gambling knowledge and behavior.[2] In the following sections, we integrate findings from all four reports regarding the reach and effectiveness of the GameSense program at PPC.

6.3.1. Reach

We took several different approaches to measuring reach. In the Wave 1 report, we generated an estimate of the number of PPC patrons who had direct contact with GameSense Advisors, based on GameSense Advisors' records. In the Addendum to the Wave 1 report we noted that Penn National had provided an estimate of daily casino traffic. We used these two estimates to conclude that, during Wave 1, GameSense Advisors directly connected with 0.67% of daily PPC visitors. We used the same approach in our Wave 2 report and estimated that during that 6-month period, which began about 2.5 months after Wave 1 ended, GameSense Advisors interacted with about 1.37% of daily visitors. In both reports, we observed that the bulk of conversations GameSense Advisors have with PPC patrons were casual in nature. We noted that the approach we took was one of several possible ways to measure reach. For instance, the MGC recently had launched a GameSense-branded advertising and social media campaign designed to reach potential gamblers outside PPC, and researchers could estimate the proportion of MA residents exposed to those messages.

Our secondary analysis of SEIGMA patron survey data indicated a higher rate: in that study, nearly 10% of survey participants reported that they had spoken with a GameSense Advisor. In comparison, the rate of awareness of the GameSense program was higher; approximately 6 in 10 PPC patrons surveyed indicated that they were aware of the program.

Finally, in our survey of PPC employees, we gathered another estimate of the program's reach by asking PPC employees whether they had ever interacted with a GameSense Advisor. We observed that 59% answered affirmatively. Again, employees in our sample typically reported having casual conversations with GameSense Advisors, though about one-third of them reported speaking with a GameSense Advisor about how casino patrons can avoid gambling beyond their limits, how games work, myths about gambling, or other topics related to responsible gambling or problem gambling.

In summary, our estimates of reach ranged from approximately 1% (among daily visitors to PPC), to just under 10% (among PPC patrons who completed the SEIGMA survey), to 59% (among PPC employees). Different targets, different study designs, and different study limitations account for this range. PPC employees work alongside GameSense Advisors and are often required to interact with them. On the other hand, daily visitors to PPC have no requirement to speak with GameSense Advisors, and when they choose to do so, they are taking time away from the reason they visited the casino—whether it be to gamble, see a show, or eat at a restaurant. With regard to the SEIGMA patron survey estimate, those who stopped to respond to the survey might have been especially likely to stop and speak with a GameSense Advisor due to their nature (e.g., more social, polite, friendly) which would have inadvertently inflated the reach estimate. Our daily traffic estimates are limited in the sense that GameSense Advisors might have underestimated their reach by failing to record all services they provided. We conclude that during the period covered by our evaluation, between 1-10% of daily PPC patrons had direct contact with GameSense Advisors and approximately 60% of PPC employees did so. These rates are snapshots in time and will be sensitive to MGC's programmatic changes (described above) and other changes at PPC. It is incumbent upon to program planners to decide whether this

[2] In some places within the four reports, we have considered safety to be a stand-alone component of program impact. However, safety can also be considered an aspect of effectiveness: negative effects of a given program can include unsafe, unintended consequences. In this cross-report summary, we consider safety to be an aspect of effectiveness rather than a stand-alone component of program impact.

extent of direct contact with GameSense Advisors fulfills program goals. In addition to the extent of direct contact, the MGC will have to decide whether the cost per patron is acceptable.

6.3.2. Effectiveness: Safety, General Program Satisfaction, and Effects on Responsible Gambling Knowledge and Behavior

We did not develop specific measures of program safety but instead examined other measures for signs of unsafe, unintended consequences. For example, we asked GameSense Advisors to estimate the mental states of visitors with whom they interacted. Our purpose was to learn more about the characteristics of PPC patrons who elected to visit GameSense – did they tend to do so during a personal crisis, or in a more casual way? However, GameSense Advisors' impressions of visitors provided an opportunity to examine whether visitors might act in a way that could be harmful to GameSense Advisors. In Wave 2, we observed that GameSense Advisors reported that very few visitors appeared hyper, withdrawn, or agitated; moreover, they reported that none appeared threatening.

Similarly, in Wave 1, GameSense Advisors identified few visitors as emotionally distressed or under the influence of alcohol or other drugs. However, visitors enrolling in voluntary self-exclusion were especially likely to appear emotionally distressed to GameSense Advisors. In this limited sense, we did not observe evidence of unsafe conditions for GameSense Advisors.[3] Similarly, we asked visitors who discussed responsible gambling or problem gambling with GameSense Advisors (i.e., Exchange visitors) whether talking with a GameSense Advisor prompted them spend *more* money gambling. This situation could reflect program-induced harm depending on the visitor's current level of gambling involvement. However, we observed that very few visitors (3.5%) reported this situation. We were unable to examine this possibility in the SEIGMA patron intercept due to a very small cell size. Most PPC employees shared the viewpoint that GameSense does not have unintended consequences for gamblers, although 10% perceived that it could encourage patrons to gamble more than their might have otherwise. Although we found little evidence of program-induced harm to gamblers, the 10% of employees who suggest otherwise is a large enough percentage to warrant more extensive consideration of safety.

To guide our evaluation of the program's effectiveness, we examined the MGC's public statements and written guidelines, especially as they pertained to potential program objectives (e.g., the majority of surveyed patrons will be aware of available problem gambling resources; patrons' awareness of those resources will improve over time; the majority of surveyed employees will be aware that GameSense can be used as a personal resource). We could not locate such objectives in the MGC's public statements or written materials. Therefore, we attempted to discern the MGC's program goals, which were defined broadly and which changed somewhat over time. The 2014 Responsible Gaming Framework (Massachusetts Gaming Commission, 2014a) specified that RGIC staff should share with patrons responsible gambling tips, knowledge of how games work, and the inaccuracies and dangers of common gambling myths. Its updated Responsible Gaming Framework (Version 2.0; Massachusetts Gaming Commission, 2018) somewhat shifts focus and defines the GameSense Info Center as the "central point of contact for information about programs to support positive play," which itself is defined as gambling within personally affordable limits, being honest with oneself and others about one's gambling, and not being significantly negatively impacted by belief in luck or other superstitions.

[3] Note, however, that, as we described in our Wave 1 report, some GameSense Advisors described emotionally taxing interactions with patrons. They did so during a telephone call and not within their formal records, so we consider this evidence to be anecdotal. As we describe at the beginning of this chapter, we informed the MGC and MCCG about this conversation and the MGC and MCCG responded by adding clinical supervision.

As they emerged, we attempted to translate these broad program goals into more measurable outcomes for our evaluation, including but not limited to patrons' and employees' satisfaction with services.

Our observations about PPC patrons' and employees' satisfaction with GameSense were consistent across reports. During Wave 1, we observed that Exchange visitors reported being satisfied with GameSense services. Most reported that their visit to the GameSense Info Center enhanced their visit to PPC and that they would return to the Info Center. Exchange visitors reported that the GameSense Advisor with whom they spoke listened to them and was caring, helpful, and knowledgeable. We noted that their perceptions of these specific traits might have been influenced by an overall positive feeling about the GameSense Advisor (i.e., a halo effect). We focused less on satisfaction in the Wave 2 visitor surveys, although we did observe that more than 90% of respondents reported that they were "likely" or "highly likely" to recommend GameSense to a friend. The Comments section of our surveys included nearly all positive statements, such as "[The GameSense Advisor] was very helpful, professional and friendly. A definite asset to this program!" In the SEIGMA patron intercept, which sampled from the general population of PPC patrons rather than Exchange visitors, nearly all participants reported that they were satisfied with the information offered by the GameSense Advisor. We did not ask PPC employees about their satisfaction with the GameSense program, but we did observe that most of them endorsed the positive impacts (e.g., "It helps people avoid gambling beyond their limits," "It increases awareness of responsible gambling strategies," "It encourages people to think about their own gambling behavior"). Across all four reports, we observed high satisfaction with GameSense services and staff.

The Responsible Gaming Framework Version 2.0 additionally specifies that the GameSense Info Center "serves as a primary location to obtain information on resources and programs to assist players and their family members for when gambling becomes a problem." We found some evidence that, in line with this goal, casino patrons would turn to GameSense for help with an emerging gambling problem. Specifically, in Wave 2, about 90% of participants reported that, if they were starting to lose control over their gambling, they would feel comfortable asking a GameSense Advisor for help. We did not ask why they would feel comfort seeking help from a GameSense Advisor. But, it is possible that, because GameSense Advisors so often engage in casual conversations with casino patrons and employees, approaching a GameSense Advisor to seek help for a gambling problem might not feel stigmatizing. This evidence is promising, and the possibility that GameSense reduces some of the stigma associated with seeking help for gambling-related problems awaits future study.

Satisfaction with the program might contribute to effectiveness by improving visitors' receptivity to responsible gambling information and strategies. In the Wave 1 and SEIGMA studies, most participants who had spoken with a GameSense Advisor did self-report that they learned something new about gambling or strategies to keep gambling fun. In Wave 2, we attempted to move beyond such self-reported learning by asking questions tapping responsible gambling knowledge, such as, "True or false: Wins and losses on a slot machine happen purely by chance." Similarly, we asked participants whether they had used specific responsible gambling strategies. We studied potential associations between responsible gambling knowledge and GameSense exposure to assess whether exposure was associated with superior knowledge. We did so within the context of a cross-sectional design, without the benefit of a non-exposure control group. Overall, we did not to find meaningful evidence of GameSense Advisors imparting additional knowledge about responsible gambling concepts. In other words, for most of the statistical tests, there was no relationship between responsible gambling knowledge and total GameSense exposure. However, generally participants responded correctly to

many questions designed to measure their responsible gambling knowledge, suggesting the possibility of a ceiling effect (i.e., little room for improvement). Future research is needed to test this suggestion. Similarly, we observed that among First-Time survey respondents, GameSense exposure was unrelated to the use of 9 specific responsible gambling strategies, a finding that is consistent with the observation that the majority of SEIGMA patron survey participants who had spoken with a GameSense Advisor reported no changes in their gambling behavior.

We did observe that visitors with more exposure to GameSense tended to know more about PlayMyWay, the voluntary budgeting tool. This observation aligns with our observation that GameSense Advisors focused on encouraging casino patrons to use PlayMyWay during the window of observation.

In short, with regard to effectiveness, the general pattern was for GameSense exposure to be unrelated to responsible gambling knowledge or behavior (i.e., self-reported positive play) among participants who had spoken with a GameSense Advisor, with important caveats including the potential for ceiling effects for knowledge and the lack of a no-exposure control group. This was the general pattern, though participants who are at especially high risk for gambling-related problems might show different effects. Few participants acknowledged gambling problems in our studies, at least in terms of their self-reported past-year gambling consequences (Wave 1), responses to responsible gambling knowledge and behavior questions (Wave 2), and moderate gambling frequency (PPC employee survey). Therefore, the question of GameSense's effects on people with such problems awaits further research.

6.3.3. Concluding Thoughts

Gambling expansion in Massachusetts offers the opportunity to study both the potential for the development of gambling-related harms *and* efforts to mitigate such harms. We have provided a comprehensive evaluation of the GameSense program operating at the first new gambling venue in MA. It is our intention that this evaluation will prove informative and useful for those charged with operating future GameSense centers—in Massachusetts and beyond.

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Appendix to Chapter Two

1. Visitor Surveys

Date: _____
Time: _____
I am a

- Man
- Woman
- Other (please specify)
  _____

In terms of race, I identify as (pick one)

- White
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as (pick one)

- Hispanic/Latino
- Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

Which GameSense Advisor did you talk to?

_____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- I was curious about GameSense.
- I wanted to learn more about how gambling works.
- I wanted to learn more about strategies to keep gambling fun.
- I wanted to learn more about or enroll in Play Management.
- I wanted information about getting legal or financial help.
- I wanted to learn more about or enroll in voluntary self-exclusion.
- I wanted help for someone else.
- I wanted to get my credit suspended.
- I wanted the casino to suspend/reduce its marketing to me.
- I wanted help or information about problem gambling.
- I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #1

Did you learn any of the following during your conversation with the GameSense Advisor? [Check all that apply.]

- Strategies to keep gambling fun
- The Play Management system: what it is, how it works
- How gambling works
- A referral for gambling treatment
- How to get other support for gambling-problems, such as self-help resources, screening for gambling problems
- How to get legal or financial help
- The voluntary self-exclusion program
- No, I did not learn about any of these topics.
- Other: _____
  _____

To what extent do you agree or disagree with each of these statements? [Check one per row.]

My GameSense Advisor (was…)

	Strongly Disagree	Disagree	Uncer-	Agree	Strongly Agree
Caring					
Helpful					
Knowledgeable					
Listened to me					

Date: _____
Time: _____
I am a

- o Man
- o Woman
- o Other (please specify)
  _____

In terms of race, I identify as (pick one)

- o White
- o Black or African American
- o American Indian/Alaska Native
- o Asian
- o Native Hawaiian/other Pacific Islander
- o Two or more races

In terms of ethnicity, I identify as (pick one)

- o Hispanic/Latino
- o Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- o Some high school or lower
- o High school graduate or equivalent
- o Some college
- o Associate's degree
- o Bachelor's degree or higher

Which GameSense Advisor did you talk to?
_____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- o I was curious about GameSense.
- o I wanted to learn more about how gambling works.
- o I wanted to learn more about strategies to keep gambling fun.
- o I wanted to learn more about or enroll in the Play Management system.
- o I wanted information about getting legal or financial help.
- o I wanted to learn more about or enroll in the voluntary self-exclusion program.
- o I wanted help for someone else.
- o I wanted to get my credit suspended.
- o I wanted the casino to suspend/reduce its marketing to me.
- o I wanted help or information about problem gambling.
- o I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #2

Did the GameSense Advisor share information about any of the following with you? [Check all that apply.]

- o Strategies to keep gambling fun
- o The Play Management system: what it is, how it works
- o How gambling works
- o A referral for gambling treatment
- o How to get other support for gambling-problems, such as self-help resources, screening for gambling problems
- o How to get legal or financial help
- o The voluntary self-exclusion program
- o No, I did not learn about any of these topics.
- o Other: _____

If you visited the GameSense Information Center (GSIC)...

Did you know about the Information Center before today's visit?

Yes	No	N/A: I did not visit the GSIC

Did your visit to the Information Center enhance your visit to the Plainridge Park Casino?

Yes	No	N/A: I did not visit the GSIC

Did your visit to the Information Center detract from your visit to the Plainridge Park Casino?

Yes	No	N/A: I did not visit the GSIC

Would you come to the Information Center again?

Yes	No	N/A: I did not visit the GSIC

Date: _____
Time: _____

I am a

- o Man
- o Woman
- o Other (please specify)
  _____

In terms of race, I identify as (pick one)

- o White
- o Black or African American
- o American Indian/Alaska Native
- o Asian
- o Native Hawaiian/other Pacific Islander
- o Two or more races

In terms of ethnicity, I identify as (pick one)

- o Hispanic/Latino
- o Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- o Some high school or lower
- o High school graduate or equivalent
- o Some college
- o Associate's degree
- o Bachelor's degree or higher

Which GameSense Advisor did you talk to?
_____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- o I was curious about GameSense.
- o I wanted to learn more about how gambling works.
- o I wanted to learn more about strategies to keep gambling fun.
- o I wanted to learn more about or enroll in the Play Management system.
- o I wanted information about getting legal or financial help.
- o I wanted to learn more about or enroll in the voluntary self-exclusion program.
- o I wanted help for someone else.
- o I wanted to get my credit suspended.
- o I wanted the casino to suspend/reduce its marketing to me.
- o I wanted help or information about problem gambling.
- o I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #3

Which of the following have you done in the last year? Please note that your answers are anonymous. We will use them only to improve the services we provide. [Check all that apply]

- o Play the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slots parlor)
- o Playing slot machines or video keno at a casino or slots parlor
- o Betting on sports with friends or in an office pool—not online
- o Betting on sports with friends or in an office pool—online (including fantasy sports)
- o Gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle)
- o Playing roulette, dice, keno, or table games (other than poker) at a casino
- o Playing video poker machines or other gambling machines (other than slots and keno) at a casino or slots parlor
- o Playing poker, chess, or other game of mental skill for money (not at a casino)
- o Betting on horse or dog races
- o Other: _____

If you visited the GameSense Information Center (GSIC)...

Did you feel that the space was private?

Yes	No	N/A: I did not visit the GSIC

Did you feel that the space was comfortable?

Yes	No	N/A: I did not visit the GSIC

Date: _____
Time: _____

I am a

- Man
- Woman
- Other (please specify) _____

In terms of race, I identify as (pick one)

- White
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as (pick one)

- Hispanic/Latino
- Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

Which GameSense Advisor did you talk to? _____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- I was curious about GameSense.
- I wanted to learn more about how gambling works.
- I wanted to learn more about strategies to keep gambling fun.
- I wanted to learn more about or enroll in the Play Management system.
- I wanted information about getting legal or financial help.
- I wanted to learn more about or enroll in the voluntary self-exclusion program.
- I wanted help for someone else.
- I wanted to get my credit suspended.
- I wanted the casino to suspend/reduce its marketing to me.
- I wanted help or information about problem gambling.
- I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #4

Which groups of people might benefit from having a conversation with a GameSense Advisor? [Check all that apply]

- Anyone who gambles
- People at risk for developing a gambling problem
- People who have a gambling problem

Have you ever had any of these problems with your gambling? [Check all that apply]

- I had money problems because of my gambling.
- I had problems with friends or family members because of my gambling.
- I had problems at work because of my gambling.
- I had legal problems because of my gambling.
- I had problems with my physical health because of my gambling.
- I had problems with my mental health because of my gambling.
- I was cheated while gambling.
- I had some other kind of problem because of my gambling.
- Other (please specify) _____

Date: _____
Time: _____

I am a

- Man
- Woman
- Other (please specify)

  _____

In terms of race, I identify as (pick one)

- White
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as (pick one)

- Hispanic/Latino
- Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

Which GameSense Advisor did you talk to?

_____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- I was curious about GameSense.
- I wanted to learn more about how gambling works.
- I wanted to learn more about strategies to keep gambling fun.
- I wanted to learn more about or enroll in the Play Management system.
- I wanted information about getting legal or financial help.
- I wanted to learn more about or enroll in the voluntary self-exclusion program.
- I wanted help for someone else.
- I wanted to get my credit suspended.
- I wanted the casino to suspend/reduce its marketing to me.
- I wanted help or information about problem gambling.
- I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #5

As a result of your conversation with the GameSense Advisor, will you... [Check all that apply]

- Visit the GameSense website
- Tell someone about the GameSense Information Center
- Think about my own gambling
- Think about someone else's gambling
- Call the problem gambling helpline
- Speak with a counselor or other professional about gambling
- Talk to someone I know who may have a gambling problem
- Reduce my gambling behaviors (e.g., spend less, take more breaks, play less often)
- Increase my gambling behaviors (e.g., spend more, take fewer breaks, play more often)
- Other (please specify) _____

_____

If you visited the GameSense Information Center (GSIC)...

Did you know about the Information Center before today's visit?

Yes	No	N/A: I did not visit the GSIC

Did your visit to the Information Center enhance your visit to the Plainridge Park Casino?

Yes	No	N/A: I did not visit the GSIC

Did your visit to the Information Center detract from your visit to the Plainridge Park Casino?

Yes	No	N/A: I did not visit the GSIC

Would you come to the Information Center again?

Yes	No	N/A: I did not visit the GSIC

Date: _____
Time: _____

I am a

- Man
- Woman
- Other (please specify)
  _____

In terms of race, I identify as (pick one)

- White
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as (pick one)

- Hispanic/Latino
- Not Hispanic/Latino

My age is _____.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

Which GameSense Advisor did you talk to? _____

Did you have any of the following concerns when you began your conversation with the GameSense Advisor? [Check all that apply.]

- I was curious about GameSense.
- I wanted to learn more about how gambling works.
- I wanted to learn more about strategies to keep gambling fun.
- I wanted to learn more about or enroll in the Play Management system.
- I wanted information about getting legal or financial help.
- I wanted to learn more about or enroll in the voluntary self-exclusion program.
- I wanted help for someone else.
- I wanted to get my credit suspended.
- I wanted the casino to suspend/reduce its marketing to me.
- I wanted help or information about problem gambling.
- I didn't have any of these concerns at the start of the conversation.

To what extent was your primary question answered or your primary concern resolved? [Circle one.]

Not at all	Somewhat	Completely

Version #6

Have you heard about the GameSense Information Center from any of these sources? (click all that apply)

- I walked by it
- I saw a GameSense kiosk in the Plainridge Park Casino
- I saw some other advertisement/sign in the Plainridge Park Casino
- A Plainridge Park Casino employee told me about it
- A friend/family member told me about it
- I read about it in the newspaper
- I saw an ad on TV
- I saw an ad online
- I heard an ad on the ratio
- I saw a billboard
- Another professional offered me this resource
- I don't know/don't remember
- Other (please specify)

How satisfied are you with your interaction with the GameSense Advisor?

- Not at all satisfied
- Slightly satisfied
- Moderately satisfied
- Very satisfied
- Extremely satisfied

Appendix to Chapter Three

1. Visitor Surveys
2. Results of Data Segmenting Tests

Date: _____Time: _____ am pm

In terms of gender, I identify as (pick one)

- ○ A man
- ○ A woman
- ○ Other (please specify) _____

In terms of race, I identify as (pick one)

- ○ White or Caucasian
- ○ Black or African American
- ○ American Indian/Alaska Native
- ○ Asian
- ○ Native Hawaiian/other Pacific Islander
- ○ Two or more races

In terms of ethnicity, I identify as

- ○ Hispanic/Latino
- ○ Not Hispanic/Latino

I am _____ years old.

The highest level of school I have completed is (pick one)

- ○ Some high school or lower
- ○ High school graduate or equivalent
- ○ Some college
- ○ Associate's degree
- ○ Bachelor's degree or higher

How many interactions have you had with a GameSense Advisor?_____

Today, I talked to a GameSense Advisor because (Check all that apply.)

- ○ I was curious about GameSense.
- ○ I wanted to learn more about how gambling works.
- ○ I wanted to learn more about strategies to keep gambling fun.
- ○ I wanted to learn more about or enroll in PlayMyWay.
- ○ I wanted information or help about a gambling problem.
- ○ I wanted to enter a raffle.
- ○ None of the above.
- ○ I had another concern or question. [Which one?] _____

How likely is it that you would recommend GameSense to a friend? (Check one.)

- ○ Highly unlikely
- ○ Unlikely
- ○ Neutral
- ○ Likely
- ○ Highly likely

If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help? (Circle one.)

Yes	No	Not sure

After today's conversation with a GameSense Advisor, will you do any of the following? (Check all that apply.)

- ○ I will seek out more information about how to keep gambling fun.
- ○ I will think about changing my own gambling behavior.
- ○ I will seek help to change my gambling.
- ○ I will spend **less** time or money gambling.
- ○ I will spend **more** time or money gambling.
- ○ I will use another strategy to keep gambling fun. Please specify: _____
- ○ I will do none of these.

Do the GameSense Advisors have resources for people who are concerned about their gambling? (Circle one.)

Yes	No	Not sure

To what extent do you agree with this statement? *"The GameSense Advisor I most recently spoke with gave me a new way to think about gambling."*

(Check one.)

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

Date: _____Time: _____ am pm

In terms of gender, I identify as (pick one)

- A man
- A woman
- Other (please specify) _____

In terms of race, I identify as (pick one)

- White or Caucasian
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as

- Hispanic/Latino
- Not Hispanic/Latino

I am _____ years old.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

How many interactions have you had with a GameSense Advisor?_____

Which of these responsible gambling strategies have you used in the past year? (Check <u>all that apply</u>.)

- I avoided using ATMs at the casino.
- I took a break to cool off.
- I used PlayMyWay.
- I thought of gambling as fun, not as a way to make money.
- I did not "chase" my losses.
- I left the casino while I was ahead.
- I stuck with a limit I set for how much I could *<u>win</u>* during a single casino visit.
- I stuck with a limit for how much I could *<u>lose</u>* during a single casino visit.
- I stuck with a limit for how much *<u>time</u>* I could spend during a single casino visit.
- None of the above.

On any given slot machine play, which outcome is most likely? (Check <u>one</u>.)

- A small win
- A medium win
- A big win
- A loss
- It depends on what's happened before

Please answer "true" or "false" to the following questions. (Circle <u>one answer per row</u>.)

Wins and losses on a slot machine happen purely by chance.	True	False
When you almost win at a slot machine, a win is coming soon.	True	False
The odds of winning on a given slot machine are the same every time you play.	True	False
If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.	True	False
A slot machine that has not paid out in a long time is "due" to pay out.	True	False
If you haven't won at a slot machine in a while, you're "due" for a win.	True	False
You can do things to change your luck.	True	False

Excessive gambling can affect which of the following? (Check <u>all that apply</u>.)

- Finances
- Mental health
- Personal relationships
- Physical health

Date: _____Time: _____ am pm

In terms of gender, I identify as (pick one)

- A man
- A woman
- Other (please specify) _____

In terms of race, I identify as (pick one)

- White or Caucasian
- Black or African American
- American Indian/Alaska Native
- Asian
- Native Hawaiian/other Pacific Islander
- Two or more races

In terms of ethnicity, I identify as

- Hispanic/Latino
- Not Hispanic/Latino

I am _____ years old.

The highest level of school I have completed is (pick one)

- Some high school or lower
- High school graduate or equivalent
- Some college
- Associate's degree
- Bachelor's degree or higher

How many interactions have you had with a GameSense Advisor?_____

Please circle <u>one box per row</u>.

Have you heard of Play-MyWay?	Yes	No	Not sure
Is there gambling treat-ment available in your community?	Yes	No	Not sure
Are there Gamblers' Anonymous meetings in your community?	Yes	No	Not sure
Does Mass. have resources for people who are concerned about their gambling?	Yes	No	Not sure

How does PlayMyWay work? (Check <u>one.</u>)

- Players set limits and cannot gamble any more once they reach those limits.
- Players receive bonus points every time they visit the casino.
- Players set limits and get notifications when they are close to or reach their limits.
- I'm not sure.

Check <u>one</u>: PlayMyWay is only for people who have gambling-related problems

- True
- False

What is the purpose of PlayMyWay? (Check <u>one.</u>)

- To put a limit on how much people can gamble
- To help players monitor their gambling
- To teach players how slot machines work
- I'm not sure.

Please indicate how familiar you are with the following. (Check <u>one box per row</u>.)

	Never heard of it	Heard about it but not familiar with it	Somewhat familiar with it	Have used or inter-acted with it
Mass. Council on Compulsive Gambling				
Mass. Gambling Helpline				
Gambling treatment programs in Mass.				
Mass. Gaming Commission				
Gamblers' Anonymous meetings in Mass.				

Date: _____ Time: _____ am pm

In terms of gender, I identify as (pick one)

- o A man
- o A woman
- o Other (please specify) _____

In terms of race, I identify as (pick one)

- o White or Caucasian
- o Black or African American
- o American Indian/Alaska Native
- o Asian
- o Native Hawaiian/other Pacific Islander
- o Two or more races

In terms of ethnicity, I identify as

- o Hispanic/Latino
- o Not Hispanic/Latino

I am _____ years old.

The highest level of school I have completed is (pick one)

- o Some high school or lower
- o High school graduate or equivalent
- o Some college
- o Associate's degree
- o Bachelor's degree or higher

How many interactions have you had with a GameSense Advisor?_____

Today, I talked to a GameSense Advisor because… (Check all that apply.)

- o I was curious about GameSense.
- o I wanted to learn more about how gambling works.
- o I wanted to learn more about strategies to keep gambling fun.
- o I wanted to learn more about or enroll in PlayMyWay.
- o I wanted information or help about a gambling problem.
- o I wanted to enter a raffle.
- o None of the above.

Which of these responsible gambling strategies have you used in the past year? (Check all that apply.)

- o I stuck with a limit for how much I could *lose* during a single casino visit.
- o I stuck with a limit for how much I could *win* during a single casino visit.
- o I stuck with a limit for how much *time* I could spend during a single casino visit.
- o None of the above.

If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GameSense Advisor for help? (Circle one.)

Yes	No	Not sure

On any given slot machine play, which outcome is most likely? (Check one.)

- o A small win
- o A medium win
- o A big win
- o A loss
- o It depends on what's happened before

What is the purpose of PlayMyWay? (Check one.)

- o To limit on how much people can gamble
- o To help players monitor and control their own gambling
- o To teach players how slot machines work
- o I'm not sure.

Before today, you had a conversation with a GameSense Advisor. After that earlier conversation, did you do any of the following? (Check all that apply)

- o I sought out more information about strategies to keep gambling fun.
- o I thought about changing my own gambling behavior.
- o I sought help to change my gambling.
- o I spent **less** time or money gambling.
- o I spent **more** time or money gambling.
- o I used a strategy to keep gambling fun. Please specify which strategy: _____
- o I did none of these.

Repeat Survey

We noticed dramatic Visitor Survey response rate fluctuations during Weeks 6-10 of Wave 2. In consultation with our partners, MCCG and MGC, we determined the need for GSA retraining, which appeared to resolve GSAs' inconsistent application of the survey protocol.

Additionally, we conducted supplemental analyses to examine whether responses collected during Weeks 6-10 were different from those collected during the remaining weeks. Our goal was to ensure that GSAs' inconsistent application of the survey protocol did not systematically bias the sample of respondents or their responses. We selected a sub-set of 9 survey questions representing all four Visitor Survey versions:

- Two true/false questions from the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey[16]
    a. *The odds of winning on a given slot machine are the same every time you play.*
    b. *If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.*
- The question, "*On any given slot machine play, which outcome is most likely?*" from the Responsible Gambling Knowledge and Behavior First-Time Visitor Survey and the Repeat Visitor Survey[17]
- The question, "*How likely is it that you would recommend GameSense to a friend?*" from the Reactions to GameSense First-Time Visitor Survey[18]
- The question, "*Do the GameSense Advisors have resources for people who are concerned about their gambling?*" from the Reactions to GameSense First-Time Visitor Survey[19]
- The question, "*If you felt you were starting to lose control over your gambling, would you feel comfortable asking a GSA for help?*" from the Reactions to GameSense First-Time Visitor Survey and the Repeat Visitor Survey[20]
- The question, "*Have you heard of PlayMyWay?*" from the Resources and Treatment Knowledge First-Time Visitor Survey[21]
- The question, "*How does PlayMyWay work*? from the Resources and Treatment Knowledge First-Time Visitor Survey[22]
- The question, "*What is the purpose of PlayMyWay?"* from the Resources and Treatment Knowledge First-Time Visitor and the Repeat Visitor Survey[23]

We compared data collected during Weeks 6-10 against data collected during the remaining 21 weeks. Because our outcome of interest was counts of independent responses, we conducted chi square tests testing the hypothesis that counts were equally distributed across the time periods. More specifically, we ran a series of 2 (week group: Weeks 6-10 vs. other weeks) x 2 (question response) chi square tests. We observed only 1 significant effect, and it involved the true/false question, "*If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.*" During Weeks 6-10, 18.2% of respondents answered this question correctly. During the remaining weeks, 58.4% of respondents answered this question correctly (chi square (1) = 6.78, $p < .01$). Because we

[16] We selected these two true/false questions because they had the most balanced pattern of responses within the full sample.
[17] Coded as 1 = ("a loss") or 0 (any other response)
[18] Coded as 1 = ("highly likely") or 0 (any other response)
[19] Coded as 1 = ("yes") or 0 ("no" or "not sure")
[20] Coded as 1 = ("yes") or 0 ("no" or "not sure")
[21] Coded as 1 = ("yes") or 0 ("no" or "not sure")
[22] Coded as 1 = ("Players set limits and get notifications when they are close to reaching their limits") or 0 (any other response)
[23] Coded as 1 = ("to help players monitor their gambling") or 0 (any other response)

observed a statistically significant for only one question out of 9 tested, we conclude that the responses collected during Weeks 6-10 are not systematically different than responses collected during the remaining weeks.

Appendix to Chapter Four

1. Findings Observed without Filtering Responses Based on Answers to Gating Items

Table 4.39: Responses to the question, "*Were you satisfied with the information offered by the GameSense Advisor?*" (unweighted)

Yes		No	
N	%	N	%
47	97.9	1	2.1

Table 4.40: Responses to the question, "*Were you satisfied with the information offered by the GameSense Advisor?*" (weighted)

Yes		No	
N	%	N	%
195732	98.6	2770	1.4

Table 4.41: Responses to the question, "*To what extent do you agree or disagree with each of these statements?"* (unweighted data)

	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree	
	N	%	N	%	N	%	N	%	N	%
Was caring	22	44.9	23	4.8	4	0.8	0	0	0	0
Was helpful	22	45.8	19	39.6	5	10.4	1	2.1	1	2.1
Was knowledgeable	23	47.9	20	41.7	4	8.3	0	0	1	2.1
Listened to me	24	50.0	19	39.6	5	10.4	0	0	0	0

Table 4.42: Responses to the question, "*To what extent do you agree or disagree with each of these statements?"* (weighted data)

	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree	
	N	%	N	%	N	%	N	%	N	%
Was caring	81953	39.7	102120	5.4	22272	1.2	0	0	0	0
Was helpful	72194	36.6	94589	48.0	17570	0.9	7539	3.8	5289	2.7
Was knowledgea-ble	79029	40.1	88341	44.8	22272	11.3	0	0	7539	3.8
Listened to me	91871	46.6	86759	44.0	18552	9.4	0	0	0	0

Table 4.43: Responses to the question, "*Did you learn something new about gambling?*" (unweighted data)

Yes		No	
N	%	N	%
28	57.1	21	42.9

Table 4.44: Responses to the question, "*Did you learn something new about gambling?*" (weighted data)

Yes		No	
N	%	N	%
111144	55.3	89836	44.7

Table 4.45: Responses to the question, "*Did your interaction with the GameSense Advisor change the way you gamble?*" (unweighted data)

No		Yes, I've changed how I think about my gambling, but I have not changed how I actually gamble.		Yes, I've changed how I actually gamble.	
N	%	N	%	N	%
28	58.3	9	18.8	11	22.9

Table 4.46: Responses to the question, "*Did your interaction with the GameSense Advisor change the way you gamble?*" (weighted data)

No		Yes, I've changed how I think about my gambling, but I have not changed how I actually gamble.		Yes, I've changed how I actually gamble.	
N	%	N	%	N	%
109840	54.1	42917	21.1	50220	24.7

Appendix to Chapter Five

1. Employee Survey
2. Frequency of Missing Data per Question

First, we would like to learn about your experiences with GameSense.

1. Have you ever interacted with a GameSense Advisor at Plainridge Park Casino (PPC)? **Check one.**
   - o Yes
   - o No → **GO TO QUESTION 4**

2. How many times have you interacted with a GameSense Advisor? Please write a number in the box. You can estimate, if necessary.

3. What topics have you discussed with a GameSense Advisor at PPC? **Check all that apply.**
   - ❑ We had casual conversation (e.g., about the weather, sports, traffic, working at PPC).
   - ❑ We discussed how casino patrons can avoid gambling beyond their limits.
   - ❑ We discussed how I can avoid gambling beyond my limits.
   - ❑ We discussed how games work.
   - ❑ We discussed myths about gambling.
   - ❑ We discussed how a loved one of mine can avoid gambling beyond his/her limits.
   - ❑ We discussed something else. (Please describe.) _____

4. What do GameSense Advisors do at PPC? **Check all that apply.**
   - ❑ Greet people.
   - ❑ Give people directions to areas or activities within the casino.
   - ❑ Teach people how to play casino games.
   - ❑ Teach people how to avoid gambling beyond their limits.
   - ❑ Help connect people to problem gambling or other mental health treatment.
   - ❑ Enroll people in Voluntary Self-Exclusion.
   - ❑ Un-enroll people from Voluntary Self-Exclusion.
   - ❑ Enroll people in PlayMyWay.
   - ❑ Un-enroll people from PlayMyWay.
   - ❑ Tell people to change how they gamble.
   - ❑ Offer raffles.
   - ❑ Teach people about odds and probability.
   - ❑ The GameSense Advisors do something else. (Please specify.) _____
   - ❑ I don't know what the GameSense Advisors do at PPC.

5. The following statements are about the potential impact of the GameSense program at PPC. Some are positive, and some are negative. Please read each one carefully. Please indicate

whether you agree or disagree with each one. You can also say that you don't know whether you agree or disagree.

	I agree.	I disagree.	I don't know whether I agree or disagree.
It helps people avoid gambling beyond their limits.	◯	◯	◯
It teaches people about the casino games.	◯	◯	◯
It is good for PPC's social responsibility reputation.	◯	◯	◯
It puts PPC at a competitive advantage compared to casinos without GameSense.	◯	◯	◯
It increases awareness of responsible gambling strategies.	◯	◯	◯
It protects people from developing gambling problems.	◯	◯	◯
It creates social connections between casino patrons and GameSense Advisors.	◯	◯	◯
It interferes with player enjoyment.	◯	◯	◯
It makes people think they have a gambling problem.	◯	◯	◯
It encourages people to gamble more than they might have otherwise.	◯	◯	◯
It encourages people to gamble beyond their limits.	◯	◯	◯
It interferes with business operations.	◯	◯	◯
It puts PPC at a competitive disadvantage compared to casinos without GameSense.	◯	◯	◯
It hurts casino patrons.	◯	◯	◯
It increases player enjoyment.	◯	◯	◯
It hurts GameSense Advisors.	◯	◯	◯
It encourages people to think about their own gambling behavior.	◯	◯	◯
GameSense at PPC does something else. Please specify: _____			

6. Who can use the GameSense program at PPC? **Check all that apply.**
   - ❑ Casino patrons
   - ❑ Casino staff/employees
   - ❑ People from outside the casino
   - ❑ I don't know.

7. Have you ever referred a casino patron to a GameSense Advisor?
   - ○ Yes→ **GO TO QUESTION 8**
   - ○ No → **GO TO QUESTION 9**

8. For what reason(s) did you refer a patron to a GameSense Advisor? **Check all that apply.**

- ❑ The patron wanted to get directions to areas or activities within the casino.
- ❑ The patron wanted information about how to play casino games.
- ❑ The patron wanted to learn strategies to gamble within his/her limits.
- ❑ The patron wanted to be connected with problem gambling or other mental health treatment.
- ❑ The patron wanted to enroll in Voluntary Self-Exclusion.
- ❑ The patron wanted to dis-enroll from Voluntary Self-Exclusion.
- ❑ The patron wanted help using Play My Way.
- ❑ The patron was gambling too much.
- ❑ The patron was worried about his/her gambling.
- ❑ The patron was worried about a loved one's gambling.
- ❑ The patron wanted to set up a gambling budget.
- ❑ The patron wanted to learn about odds and probabilities, as they relate to gambling.
- ❑ I referred the patron for another reason. Please specify: _____

→ **GO TO QUESTION 10**

9. Why haven't you ever referred a patron to a GameSense Advisor? **Check all that apply.** ❑ The opportunity has never come up.

- ❑ I didn't know what to say to the patron.
- ❑ I didn't think referring patrons to GameSense Advisors was part of my job.
- ❑ I didn't know what the GameSense Advisors do.
- ❑ I didn't think speaking to a GameSense Advisor would be useful to the patron.
- ❑ I didn't know about the GameSense program.
- ❑ I don't think the GameSense program is helpful to patrons.
- ❑ I think the GameSense program might do more harm than good.
- ❑ I had another reason for never referring a patron to a GameSense Advisor.

Please specify: _____

The next 2 questions are about PPC employees, not GameSense Advisors.

10. Should PPC employees try to determine if a casino patron has a gambling-related problem? **Circle one.**

Yes	No	I don't know

11. Should PPC employees try to stop patrons with gambling-related problems from gambling? **Circle one.**

Yes	No	I don't know

The next section is about your own gambling and beliefs about gambling.

12. Excessive gambling can affect which of the following? **Select one answer per row.**

	Yes, excessive gambling can affect this.	No, excessive gambling cannot affect this.
Finances	◯	◯
Mental health	◯	◯
Personal relationships	◯	◯
Physical health	◯	◯

13. If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon. **Circle one.**

True	False

14. On any given slot machine play, which outcome is most likely? **Pick one** of the following 5 options.
    - ○ A small win
    - ○ A medium win
    - ○ A big win
    - ○ A loss
    - ○ It depends on what's happened before

15. Approximately how often **in the last year** have you bet or spent money on each of the following activities? **Check one box per row**.

	Never	A couple of times	Less than once a month	About once a 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 friends or in an office pool—not online	○	○	○	○	○	○	○	○
Gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle)	○	○	○	○	○	○	○	○
Playing roulette, dice, keno, or table games (other than poker) at a casino	○	○	○	○	○	○	○	○
Gambled online on things such as playing poker; buying lottery tickets; betting on sports, bingo, slots or casino table game for money; or playing interactive games for money	○	○	○	○	○	○	○	○
Other: _____	○	○	○	○	○	○	○	○

The next section is about your experience with, and understanding about, Responsible Gambling policies and practices.

16. How does Play My Way work? **Select one.**
- ○ Players create budgets based on how much they are willing to lose and cannot gamble any more once they reach their limits.
- ○ Players receive bonus points every time they visit the casino.
- ○ Players create budgets based on how much they are willing to lose and get notifications when they approach and/or exceed their limits.
- ○ I don't know.

17. GameSense recently sent PPC employees a newsletter about Problem Gambling Awareness Month. Did you read that newsletter? **Select one.**
- ○ Yes
- ○ No

18. Which of the following is true about the Voluntary Self-Exclusion program at PPC? **Select all that apply.**

- ❑ Individuals can use it to ban their loved ones from the casino.
- ❑ Anyone who enrolls is banned for life.
- ❑ Individuals must come to PPC to enroll.
- ❑ To enroll, an individual must have a diagnosed gambling disorder.
- ❑ After an individual's time in the self-exclusion program is over, he or she can return to PPC, but must first participate in an exit session.
- ❑ Individuals have some flexibility in terms of the duration of the ban.

19. In which department at PPC do you work? **Check one of the following 5 options.**

Food, Beverage and Retail (includes Banquets, Beverage, Stewarding, Culinary, Fluties, Slacks, Food Court)	Front of House Operations (Includes slot ops, slot Techs, Player Services, EVS, Facilities, Count Team, Player Development, Racing, Valet)
Security and Surveillance	Back of House Operations (includes HR, Marketing, Finance, Revenue Audit, IT, Payroll, Purchasing, Warehouse, Programs)
Prefer not to answer	

20. How long have you worked at Plainridge Park Casino? Please provide the number of years and months.

    Years ____ Months _____

21. How long have you worked in the gaming industry? Please provide the number of years and months.

    Years ____ Months _____

22. Do you primarily speak English at home? **Select one.**

- o Yes
- o No: What language do you primarily speak at home? _____
- o Prefer not to answer.

23. What is your gender? **Select one.**

- o Male
- o Female
- o Prefer to self-identify: _____
- o Prefer not to answer

You have reached the end of the survey.

Thank you!

Question	Question	Number of Participants who Skipped the Question	Percent of Eligible[7] Participants who Skipped the Question
Have you ever interacted with a GameSense Advisor at Plainridge Park Casino (PPC)?	1	10	3.9
How many times have you interacted with a GameSense Advisor?	2	11	7.6
What topics have you discussed with a GameSense Advisor at PPC? Check all that apply.	3	6	4.1
What do GameSense Advisors do at PPC? Check all that apply.	4	19	7.4
Please indicate whether you agree or disagree with each statement: It helps people avoid gambling beyond their limits.	5	18	7.0
Please indicate whether you agree or disagree with each statement: It teaches people about the casino games.	5	27	10.5
Please indicate whether you agree or disagree with each statement: It is good for PPC's social responsibility reputation.	5	27	10.5
Please indicate whether you agree or disagree with each statement: It puts PPC at a competitive advantage compared to casinos without GameSense.	5	31	12.0
Please indicate whether you agree or disagree with each statement: It increases awareness of responsible gambling strategies.	5	25	9.7
Please indicate whether you agree or disagree with each statement: It protects people from developing gambling problems.	5	28	10.9

[7] Eligibility was based on answers to gating questions.

Question	Question	Number of Participants who Skipped the Question	Percent of Eligible Participants who Skipped the Question
Please indicate whether you agree or disagree with each statement: It creates social connections between casino patrons and GameSense Advisors.	5	30	11.6
Please indicate whether you agree or disagree with each statement: It interferes with player enjoyment.	5	33	12.8
Please indicate whether you agree or disagree with each statement: It makes people think they have a gambling problem.	5	33	12.8
Please indicate whether you agree or disagree with each statement: It encourages people to gamble more than they might have otherwise.	5	29	11.2
Please indicate whether you agree or disagree with each statement: It encourages people to gamble beyond their limits.	5	27	10.5
Please indicate whether you agree or disagree with each statement: It interferes with business operations.	5	35	13.6
Please indicate whether you agree or disagree with each statement]: It puts PPC at a competitive disadvantage compared to casinos without GameSense.	5	33	12.8
Please indicate whether you agree or disagree with each statement: It hurts casino patrons.	5	29	11.2
Please indicate whether you agree or disagree with each [statement]: It increases player enjoyment.	5	33	12.8
Please indicate whether you agree or disagree with each [statement]: It hurts GameSense Advisors.	5	34	13.2

Question	Question	Number of Participants who Skipped the Question	Percent of Eligible Participants who Skipped the Question
Please indicate whether you agree or disagree with each [statement]: It encourages people to think about their own gambling behavior.	5	28	10.9
Who can use the GameSense program at PPC? Check all that apply.	6	23	8.9
Have you ever referred a casino patron to a GameSense Advisor?	7	31	12.0
For what reason(s) did you refer a patron to a GameSense Advisor? Check all that apply.	8	1	1.5
Why haven't you ever referred a patron to a GameSense Advisor? Check all that apply.	9	11	6.8
Should PPC employees try to determine if a casino patron has a gambling-related problem?	10	32	12.4
Should PPC employees try to stop patrons with gambling-related problems from gambling?	11	33	12.8
Excessive gambling can affect which of the following? Finances	12	35	13.6
Excessive gambling can affect which of the following? Mental health	12	40	15.5

Question	Question	Number of Partici-pants who Skipped the Question	Percent of Eligible Participants who Skipped the Question
Excessive gambling can affect which of the following? Personal relationships	12	34	13.2
Excessive gambling can affect which of the following? Physical health	12	40	15.5
If a slot machine has a big payout, you should switch machines because it probably won't pay out again soon.	13	35	13.6
On any given slot machine play, which outcome is most likely?	14	39	15.1
Approximately how often in the last year have you bet or spent money on each of the following activities? Playing the lottery, keno, instant Lotto games, or instant scratch-off tickets (not at a casino or slot parlor)	15	37	14.3
Approximately how often in the last year have you bet or spent money on each of the following activities? Playing slot machines or video keno at a ca-sino or slots parlor	15	43	16.7
Approximately how often in the last year have you bet or spent money on each of the following activities? Betting on sports with friends or in an office pool—not online	15	41	15.9
Approximately how often in the last year have you bet or spent money on each of the following activities? Gambling at a non-profit gathering/event (e.g., church bingo game, fundraiser, raffle)	15	42	16.3
Approximately how often in the last year have you bet or spent money on each of the following activities? Playing roulette, dice, keno, or table games (other than poker) at a casino	15	41	15.9

Question	Question	Number of Partici-pants who Skipped the Question	Percent of Eligible Participants who Skipped the Question
Approximately how often in the last year have you bet or spent money on each of the following activities? Gambled online on things such as playing poker; buying lottery tickets; betting on sports, bingo, slots or casino table game for money; or playing interactive games for money	15	43	16.7
How does PlayMyWay work?	16	47	18.2
GameSense recently sent PPC employees a newsletter about Problem Gam-bling Awareness Month. Did you read that newsletter?	17	46	17.8
Which of the following is true about the Voluntary Self-Exclusion program at PPC? Select all that apply.	18	72	27.9
In which department at PPC do you work?	19	57	22.1
How long have you worked at Plainridge Park Casino?	20	48	18.6
How long have you worked in the gaming industry?	21	56	21.7
Do you primarily speak English at home?	22	44	17.1
What is your gender?	23	42	16.3