

# Impact of electronic gaming machine (EGM) late night play on EGM player behaviours

Funded by the NSW  
Responsible Gambling Fund

# **Impact of electronic gaming machine (EGM) late night play on EGM player behaviours**

## February 2023

Prepared by:

Dr Matthew Stevens (STRS Consultants), and Roy Morgan Research

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## Acknowledgements

This project was commissioned by the NSW Government's Responsible Gambling Fund, with support from Liquor & Gaming NSW.

The project team would like to thank the two independent peer reviewers and the NSW Government Research and Evaluation project team for overseeing this process and feedback on earlier drafts, and survey participants for their time.

Authors: Dr Matthew Stevens and Roy Morgan Research  
Research into Impact of Electronic Gaming Machine (EGM) Late Night Play on EGM Player Behaviours.

Suggested citation:

Stevens, M. & Roy Morgan Research. (2023). *Impact of electronic gaming machine (EGM) late night play on EGM player behaviours*. Commissioned by the NSW Responsible Gambling Fund.

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# 1 Executive Summary

## 1.1 Background

The *Gaming Machines Act 2001* provides for the regulation of gaming machines in hotels and clubs, and the Independent Liquor & Gaming Authority (the Authority) is the decision maker for licensing of hotels and clubs. Venues may apply for extended trading authorisations under the *Liquor Act 2007* to extend their hours of operation. Recent evidence suggests that the availability of electronic gaming machine (EGMs) in late trading venues presents additional risks of gambling harm, particularly to ‘problem’ and ‘at-risk’ gamblers. The broad aims of the study were to investigate the impact of EGM late-night gambling on EGM gambler behaviours, associations with problem gambling risk and harms, and characterise the profile of those engaging in late-night play to better inform decision making and policy development.

There are multiple studies from Australia and internationally that show that reducing accessibility to gambling products, especially EGMs, has a beneficial effect on problem gambling (Delfabbro & King, 2020a; Hing & Russell, 2020; Järvinen-Tassopoulos et al., 2021; Marionneau & Järvinen-Tassopoulos, 2022; Mason et al., 2008; Mravčík et al., 2020; Rolando et al., 2021). EGMs have consistently been found to be the riskiest form of gambling for problem gambling risk and harms to gamblers and others, since the seminal 1999 Productivity Commission report on gambling in Australia. EGMs have a range of features, as well as their high accessibility to consumers, which contribute to problem gambling risk and gambling-related harms.

There is limited research on gamblers who use EGMs later at night and in the early hours of the morning. However, recent research conducted in NSW using a purposeful non-random sample found people using EGMs later in the evening in hotels and clubs were more likely to be experiencing problem gambling, and that group of EGM gamblers were more intensive and focussed on EGM gambling, rather than having a night out with friends (Smith et al., 2020). Further research is required to provide a rigorous understanding of the impact of EGM late-night gambling on EGM gambler behaviours, to determine if reducing the availability of late-night play could be a harm minimisation strategy, or whether increasing availability is associated with increased harm. This research on late-night gaming will further inform the Guideline 16 (GL4026 – Late-night gaming applications) developed by the Authority using existing research to inform licence decision-making for ETA applications.

There is a need to better understand the characteristics (demographics including late-night worker status, and socioeconomic factors), gambling behaviours and participation, and problem gambling risk of late-night EGM gamblers. Additionally, there is an information gap about whether there is demand from EGM gamblers to continue gambling after midnight, and whether they subsequently move on to another venue to continue gambling on EGMs, go home or do something else.

## 1.2 Objectives

The aims of the study were to investigate the impact of electronic gaming machine late-night gambling on EGM gambler behaviours and understand the player profile of those engaging in late-night play. This included:

- Profile of those who regularly engage in late-night play between 12 midnight and 4am (up to 10am), particularly in the hours after 2 am.
- Extent of displacement to venues which have later trading hours should a venue close, and for those who continue gambling on EGMs, identify the 'actual' distance travelled.
- Late night worker level of demand for late-night 'recreational' play.

Specifically, the research objectives were to survey NSW EGM gamblers to:

1. Determine venue preferences and the demographic, socioeconomic (including late-night worker status), gambling behaviours and participation profile of late-night EGM gamblers (later than 12am and later than 2am, up to 10am). Note due to small sample sizes and player reference times, the results from the study support analysis on late night play focussing on after midnight to 8am and from midnight to 2am. Where practical comment is made on gambling times from midnight to 4am.
2. Estimate the prevalence of late-night gambling across problem gambling risk categories using the Problem Gambling Severity Index (PGSI).
3. Estimate the prevalence of EGM gamblers experiencing venue closures whilst gambling, and wanting to continue gambling, and impact on late-night workers and late-night EGM gamblers.
4. Estimate the prevalence of venue closure frequency for those wanting to continue EGM gambling across problem gambling risk categories.
5. Determine whether EGM gamblers affected by venue closure are displaced to other open EGM venues
  - a. Determine actual distance travelled to other venue for those affected.
6. Assess whether venue closing times could be used as a harm minimisation strategy for EGM gamblers at risk of problem gambling.

## 1.3 Methodological approach

A survey was conducted with a representative cross-section of the NSW EGM gambler population including a total sample of 625 participants (n=625) and statistical analyses (weighted to the age, sex and problem gambling profile of the EGM population) carried out to meet the research objectives. It included n= 577 online responses, and n=48 telephone responses. Fieldwork was conducted in July and August 2022 and asked respondents about the last nine months of EGM gambling behaviour following the re-opening of NSW gaming venues post COVID-19 in November 2021. Ethics permission was obtained through the Northern Territory Health and Menzies School of Health Research Human Research Ethics Committee (HREC 2022-4319).

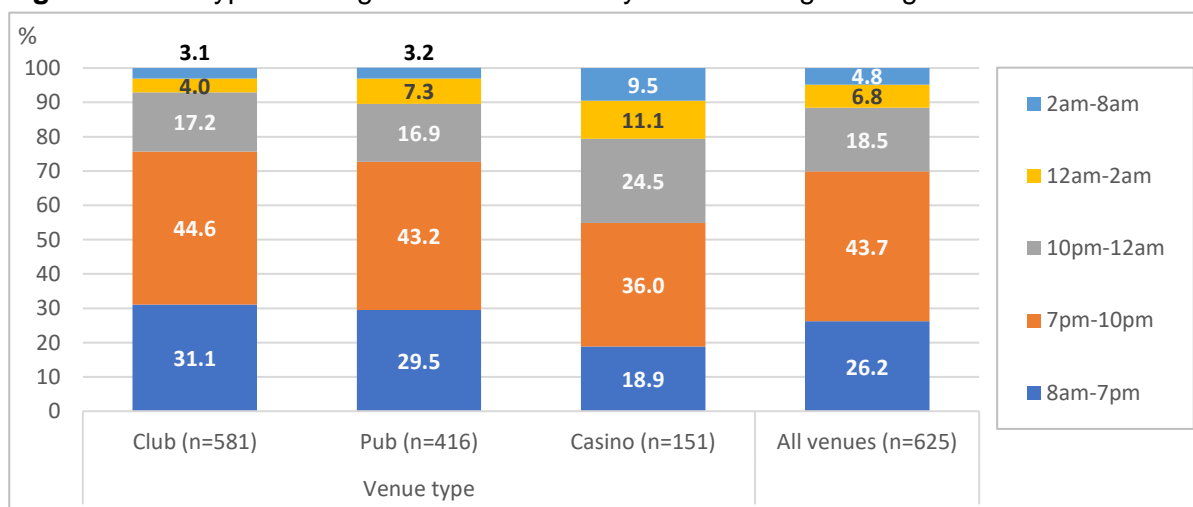
Demographic, socioeconomic, gambling participation and behaviour variables, and problem gambling risk (as defined by the Problem Gambling Severity Index) were collected to use as explanatory variables in modelling key outcomes. Key outcomes were late-night EGM gambling (12am-8am); venue closure frequency, when wanting to continue EGM gambling; displacement to other venues; and problem gambling risk. Multivariable adjusted logistic regression models were developed to identify characteristics of late-night EGM gambling. Multivariable adjusted negative binomial regression models were developed to identify factors associated with venue closure frequency, when wanting to continue EGM gambling and problem gambling risk.

## 1.4 Key Findings

### *Objective 1: Venue preferences and profile (including late-night worker status) of late-night EGM gamblers*

A little over a quarter of EGM gamblers usually gambled in the day/early evening (8am-7pm), while most usually gambled between 7pm and 10pm (43.7%), followed by 18.5% between 10pm and midnight, 6.8% between midnight and 2am, and just under 5% between 2am and 8am. Late-night gambling was more common in the Star casino, with 20.6% of casino EGM gamblers, gambling after midnight, compared with 10.5% in pubs and 7.1% in clubs.

**Figure:** Venue type where gambles on EGMs by usual EGM gambling time



Across all EGM gamblers, 11.6% usually gambled between 12am and 8am, and were classified as late-night EGM gamblers. Late-night EGM gamblers (after midnight) exhibited a range of differentiating characteristics from other EGM gamblers.

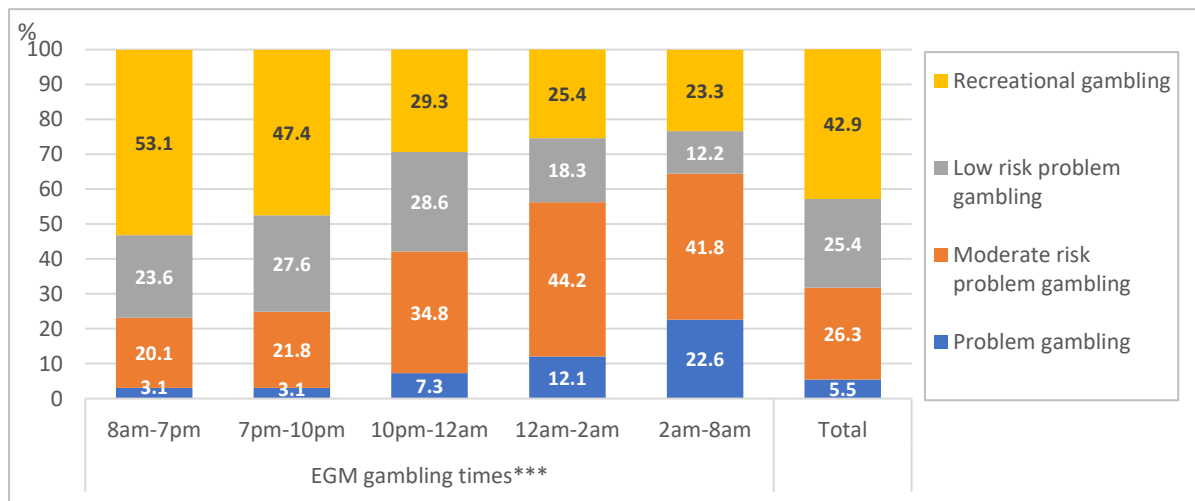
- 46.1% of late-night gamblers gambled monthly or more often on EGMs in a pub, compared with 11.9% of daytime (8am-7pm) and 18.9% of evening (7pm-12am) EGM gamblers.
- 17.9% of late-night EGM gamblers were in two loyalty schemes and a further 19.7% were in three loyalty schemes, compared with 4.9% of daytime (8am-7pm) and 7.9% of evening (7pm-12am) EGM gamblers being in two loyalty schemes, and 2.9% of daytime (8am-7pm) and 1.7% of evening (7pm-12am) EGM gamblers being in three loyalty schemes.

- 28% of late-night EGM gamblers were late-night workers, compared with 8.4% of daytime (8am-7pm) and 13.2% of evening (7pm-12am) EGM gamblers.
- 5% of late-night EGM gamblers lived in the most disadvantaged locations, compared with 23.6% of daytime (8am-7pm) and 18.1% of evening (7pm-12am) EGM gamblers.
- 63.3% of late-night EGM gamblers needed to gamble with larger amounts of money over time for the same excitement sometimes or more often, compared with 15.1% of daytime (8am-7pm) and 24.9% of evening (7pm-12am) EGM gamblers.

*Objective 2: Prevalence of late-night EGM gambling across problem gambling risk categories*

The next figure shows that problem gambling increased significantly from later in the day, into the evening and early morning hours when EGM gamblers usually gambled. Problem gambling was 3.1% for those gambling between 8am-10pm, 7.3% for those gambling between 10pm and 12am, 12.1% for 12am to 2am, and 22.6% for those gambling between 2am-8am. EGM gamblers classified at moderate risk of problem gambling doubled in prevalence moving from gambling before 10pm (less than 22%), to usually gambling after 12am (42%-44%). Of EGM gamblers who usually gamble after midnight, between 23% and 26% were classified as recreational gamblers, compared with between 47% and 54% for those gambling before 10pm.

**Figure:** Usual EGM gambling time by problem gambling risk (PGSI)



**Notes:** \*\*\*  $p < 0.001$  Significant association between usual EGM gambling time and problem gambling risk

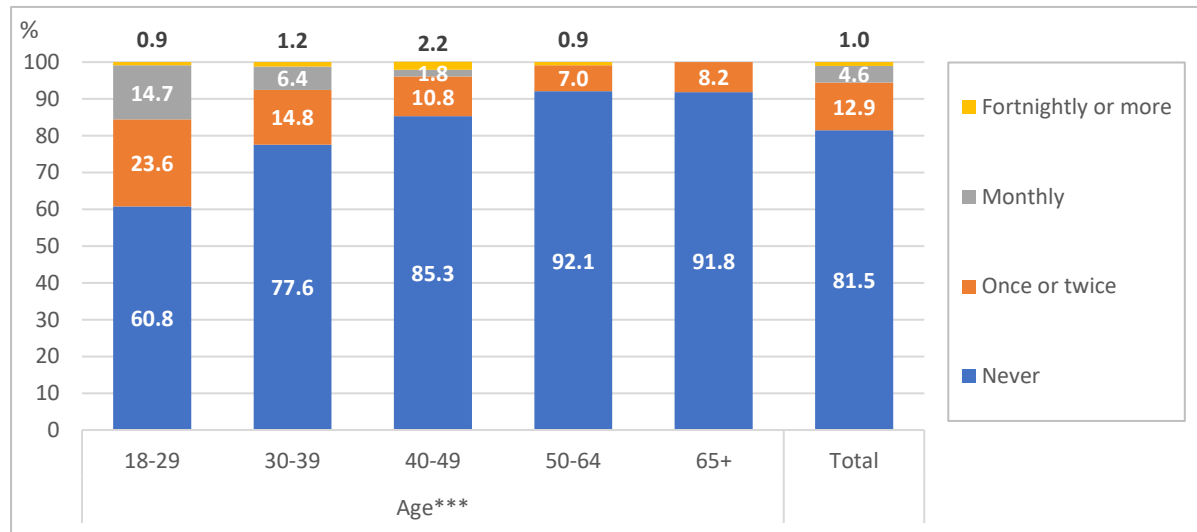
*Objective 3: Venue closure frequency when wanting to continue EGM gambling and effect on late-night workers*

Most EGM gamblers were never in a venue when it closed and wanted to continue gambling in the previous 6-9 months (81.5%), while for 12.9% it occurred once or twice, for 4.6% it occurred monthly, and for 1% it occurred fortnightly or more. The next figure shows there was a highly significant (multivariable adjusted) association between age, and venue closure frequency. It shows the percentage of EGM gamblers being in a venue when it closed decreasing as the age of the EGM gambler increased, with being in a venue when it closed monthly or more of 14.7% in the youngest age group and decreasing to 1% for 50-65 years and zero percent for EGM gamblers 65 years or older. Over three-quarters of late-night

workers were not in a venue when it closed and wanted to continue EGM gambling, indicating limited demand from this group, which made up 13.1% of all EGM gamblers in the sample.

In addition to age showing a multivariable adjusted association with venue closure frequency, other variables in the full multivariable adjusted model included problem gambling risk (increased closure frequency with increased problem gambling risk; see next objective), usual money spend in a session (increased closure frequency with increased usual spend), and number of loyalty memberships (increased closure frequency with increased number of loyalty memberships).

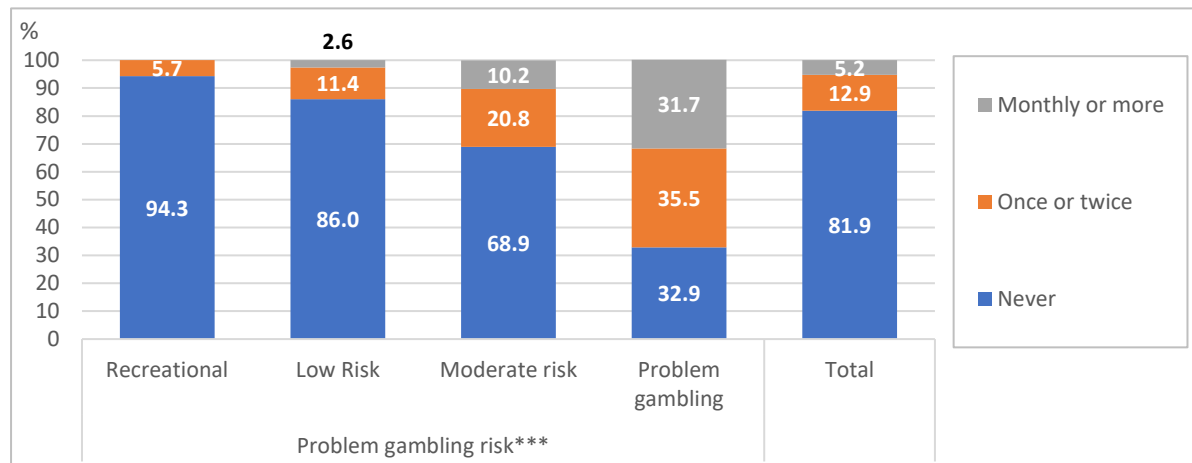
**Figure:** Age by venue closure frequency when wanted to continue EGM gambling



*Objective 4: Venue closure frequency across problem gambling risk categories*

The next figure shows experience of venue closure frequency when wanting to continue EGM gambling across problem gambling risk categories. There was little demand for continued EGM gambling from recreational gamblers with just 5.7% indicating they had been in a venue once or twice in the last 6-9 months when it closed and they wanted to continue EGM gambling. However, among those classified as experiencing problem gambling, 31.7% were in a venue monthly or more often in the last 6-9 months when it closed and wanted to continue EGM gambling, and another 35.5% experienced venue closure once or twice, when wanting to continue EGM gambling.

**Figure:** Problem gambling risk (PGSI) by frequency of being in a venue when it closed and wanting to continue playing EGMs



**Notes:** \*\*\*  $p < 0.001$ : Significant association between problem gambling risk (PGSI) and frequency of being in a venue when it closed and wanting to continue playing EGMs

The full multivariable adjusted model for venue closure frequency retained age, problem gambling risk (moderate risk and problem gambling more often in a venue when it closed), usual EGM session spend (spending \$200 or more in a session more often in a venue when it closed) and number of loyalty schemes (member of two or three loyalty schemes more often in a venue when it closed). The late-night worker variable had a significant bivariate association with venue closure frequency, but dropped out (i.e., not significant) in the multivariable model. In simple terms this indicates that those experiencing late night venue closures were more likely to be younger or exhibiting problem gambling behaviours.

*Objective 5: Displacement to other venues after venue closure, when wanting to continue EGM gambling*

Of the 18.5% of EGM gamblers who were in a venue when it closed and wanted to continue EGM gambling, 26.9% did go on to another venue, which represents 5% of EGM gamblers asked about their experience of venue closure. There was no significant difference between late-night (25.6%) and non-late-night workers (27.1%) going on to another venue for those experiencing venue closure and wanting to continue EGM gambling. Of the 26.9% of EGM gamblers that did go on to another venue, a quarter did not gamble on EGMs at the next venue. Most EGM gamblers (greater than 83%) never specifically selected a venue to avoid closing time, with less than 4% specifically selecting a venue monthly or more often (see Table 11). Of the EGM gamblers that would select a specific venue (i.e., specific club, pub or the Star casino) monthly or more often to avoid closure, between 27% and 35% were experiencing problem gambling, and between 27% and 39% were at moderate risk of problem gambling. Of the EGM gamblers that did travel to another venue, all were classified as having some risk of problem gambling, with 25.5% experiencing problem gambling, 43% moderate risk, and the remaining 31.5% at a low risk of problem gambling.

A firm conclusion on the distance travelled by displaced EGM gamblers could not be made, due to the small number and quality of responses. Many venue names listed could not be identified, though broad results indicated that most travelled for around 15 minutes to another venue using one mode of transport.

*Objective 6: Venue closing times as a harm minimisation strategy for EGM gamblers*

Findings from this research strongly suggest that venue closures would have a positive impact on EGM gamblers experiencing problem gambling, EGM gamblers under 30 years, and those at-risk of problem gambling. Having a break from continuous EGM gambling allows the gambler to reassess losses and time spent gambling. Additionally, less than 6% of recreational gamblers were in a venue when it closed and wanted to continue EGM gambling, and this occurred just once or twice for this group, so venue closing times have little impact on recreational EGM gamblers. However, amongst those with problem gambling, 31.7% experienced venue closure monthly or more often, and wanted to continue EGM gambling, and a further 35.5% experienced this once or twice. Of note, all EGM gamblers that did travel to another venue after the one they were in closed, were at some level of risk of problem gambling (i.e. no recreational EGM gamblers), with a quarter experiencing problem gambling. This group would benefit from having a break from gambling through venue closures.

Late-night EGM gambling was significantly associated with problem gambling risk, with around three-quarters of EGM gamblers whose usual gambling time was 10pm-12am, 12am-2am and 4am-10am being classified as having some risk of problem gambling, with problem gambling increasing the later the usual gambling time into the early hours of the morning. As a percentage of EGM gamblers, around 12% gambled on EGMs between 2am and 8am, with just 3% between 4am and 10am. Further, statistical modelling of late-night EGM gamblers found that they were more intensive gamblers who gambled more frequently (mostly at pubs), were members of multiple loyalty schemes (i.e., at a pub, club and the Star casino), and needed to gamble with larger amounts to get the same feelings of excitement (i.e., increasingly risky gambling behaviours).

Late-night workers were more likely to have later usual EGM gambling times, and were significantly over-represented in the group of EGM gamblers being in a venue when it closed and wanted to continue EGM gambling. However, they were also at higher risk of problem gambling (13.6% *cf.* 4.2%), and were no less likely to be in a venue at closure time, when wanting to continue EGM gambling, indicating this group would largely not be affected by venue closure, and may benefit given their higher problem gambling risk.



## Limitations

A survey programming error meant that pub only EGM gamblers (n=39) were not asked questions relating to behaviour, if they were in a venue when it closed, wanted to continue EGM gambling, and went to another venue. A sensitivity analysis was conducted (see section 6) and showed that this exclusion would not affect estimates for questions that the pub only EGM gamblers were excluded from, with adjusted estimates all within the bounds of the standard error associated with the unadjusted estimates, and under 1%.

The research was commissioned throughout the time when there were venue closures associated with COVID. The survey was ultimately due to be in the field late November 2021 using a 12-month reference period; however, venue closures did not lift until November 2021. Consequently, fieldwork was postponed until the end of July 2022 and the reference period reduced to 9 months. The consequences of COVID closures and thus reducing the reference period also impacted the feasible sample size which was reduced from n=1000 to n=625. At an overall level, the sample size is sufficiently robust to identify significant differences in key variables used in the analysis and to address the research objectives. However, some responses, particularly when cross-tabulated, have larger relative standard errors, often above the 30% threshold, where the estimate requires interpretation with caution (these are noted in all tables). This may have affected responses to the question asking what time the venue closed, when they wanted to continue EGM gambling (LP1a), with many daytime responses recorded. Further, data on the name of venue closing and the venue they travelled to only applied to a small sample of n=42, with only 20 responses collected. These factors reduced the usefulness of data collected specifically on distance travelled for the group of EGM gamblers that did move on to another venue. However, as noted estimates for other questions relating to gambling behaviour and participation have only been minimally affected by the overall reduction in sample size.

## 1.5 Conclusions

Note, the following conclusions are subject to the limitations as set out in Section 1.5 and in more detail in Section 6 of this report, namely: a programming error which resulted in some missing data; recall bias usually associated with questions asking respondents to recall events over a long period of time – in this case 9 months; constraints of survey content to maintain a reasonable survey length and impact of COVID which due to venue closure delayed the survey and reduced the survey reference period from 12 months to 9 months. However, the sample size was adequate for the research objectives and the main findings in this research can be considered robust.

The main conclusions to be drawn from the study are:

- Late-night EGM gamblers (12am-8am) made up 11.6% of all EGM gamblers. They were more intense gamblers (participation and behaviours) and significantly more likely to be experiencing problem gambling. The later into the early hours of the morning (i.e., after 2am, and after 4am), the higher the problem gambling risk became. Limiting access to venues late at night would likely reduce problem gambling risk.
- Venue closures would limit access and reduce harm for late-night EGM gamblers, and gamblers at risk of problem gambling, particularly for those experiencing problem

gambling, through having a break, allowing them to reassess their spending and time gambling on EGMs.

- Recreational EGM gamblers would be very minimally affected by venue closures given their low demand for continued EGM gambling after venue closure (less than 6% and only experienced closure once or twice). Venue closure would have low impact on late-night EGM gamblers with 23.2% (less than 3% of all EGM gamblers) affected by venue closure monthly or more often.
- Most EGM gamblers who experienced venue closure and wanted to continue EGM gambling, did not go onto another venue (72.5%). There were no recreational gamblers among EGM gamblers who went on to gamble at another venue, indicating no demand for late-night EGM gambling after venue closure for recreational EGM gamblers.
- There is a group of EGM gamblers who from a gambling behavioural and participation viewpoint are more intense EGM gamblers. That is, they gamble at more types of venues, gamble on EGMs more frequently, spend more money in a session, gamble more days of the week, are members of loyalty schemes across two or three venue types, and are more likely to gamble alone, and consequently, have significantly higher levels of problem gambling risk. This group of EGM gamblers would benefit most from venue closures.

In relation to the broader aims of the research the findings clearly show:

- The profile of late-night EGM players who play after the hours of midnight, whether it be up to 2am or later is associated with younger EGM gamblers and behaviours associated with problem gambling. In fact, the later in the day and into the evening and early morning a person gambles on EGMs the higher the risk of problem gambling. Late-night gamblers gambled more frequently on EGMs (particularly in hotels), were members of two or more loyalty schemes, and had increasing tolerance (i.e., needed to gamble with larger amounts for the same excitement), in addition to being younger (less than 40 years), and participating in study.
- Bivariate associations and multivariable modelling of late-night EGM gambling status and problem gambling risk shared many similar significant explanatory variables, indicating high overlap in the characteristics of these two groups. This would indicate that venues closures would have the dual effect of limiting access to EGMs, which would be expected to reduce the prevalence of problem and moderate risk of problem gambling for EGM gamblers.
- Displacement to another venue was not an issue for recreational gamblers who were typically not in venues when they closed. Venue closure and wanting to continue gambling is more often experienced by the problem gambling group, as they are more likely to be gambling for longer periods and late at night. Venue closure may limit access (and reduce harm) for EGM gamblers at risk of problem gambling and particularly for those classified as experiencing problem gambling. As noted earlier, the actual distance travelled was not able to be confidently evaluated by the survey, but indications were that it was around 15 minutes travel time for the small cohort who did go to another venue.
- Just over a quarter (28%) of late-night gamblers were late-night-workers, compared with 8.4% of daytime (8am-7pm) and 13.2% of evening (7pm-12am) EGM gamblers. Late-night

workers (23.8%) were significantly more likely to be in a venue at closure and wanted to continue EGM gambling compared to non-late-night worker EGM gamblers (17.7%). However, just 15.6% of late-night workers who were in a venue when it closed and wanted to continue EGM gambling were classified as recreational gamblers (see Figure 17), and 53.5% were classified as experiencing problem gambling, compared with 15.1% of non-late-night workers. Given late-night workers were at greater risk of problem gambling, it would be expected that venue closures would reduce problem gambling and gambling harm for this group.

## 2 Introduction

### 2.1 Background

Electronic Gaming Machines (EGMs), more commonly referred to as pokies, are located in hotels (pubs) and clubs in New South Wales (NSW) and all jurisdictions across Australia, except Western Australia. New South Wales has the highest number of EGMs per adult in Australia at 14.8 per adult. The seminal 1999 Productivity Commission report on gambling (Productivity Commission, 1999) identified EGMs as the riskiest form of gambling for developing problem gambling, and further research has reinforced this finding (Abbott, 2006; Delfabbro & King, 2020b; Hing & Russell, 2020; Lund, 2009; Productivity Commission, 2010). Gambling can not only cause problems and harms for the gamblers, but also for close friends, family, work colleagues and acquaintances, with EGM gambling found to be the form of gambling most associated with harm to others across jurisdictions in Australia, including NSW (Central Queensland University, 2019; Rintoul & Deblaquiere, 2019; Stevens, 2021).

Across all jurisdictions in Australia over the last couple of decades, prevalence of last year gambling on EGMs has been in the decline (Delfabbro & King, 2020a; Stevens et al., 2020). The NSW Gambling Survey 2019 found that 16% of NSW adults had gambled on EGMs in the previous year, with just 0.7% of adults gambling weekly or more, a further 1.4% fortnightly and a further 1.1% monthly on EGMs, giving 3.2% of adults gambling monthly or more on EGMs (Central Queensland University, 2019). Of the weekly EGM gamblers, 49% were classified as experiencing problem gambling (and 16% moderate risk of problem gambling), while for fortnightly EGM gamblers, 17% were classified as experiencing problem gambling (and 30% moderate risk of problem gambling). These rates of problem gambling are significantly higher than other forms of gambling (ACIL Allen Consulting et al., 2017; Central Queensland University, 2019; Dowling et al., 2015; Productivity Commission, 2010; Stevens et al., 2020; The Social Research Centre, 2013).

There are a range of structural factors that contribute to the high problem gambling risk and harms associated with regular EGM gambling. EGMs are located in most NSW pubs and clubs throughout metropolitan and non-metropolitan NSW, and in the Star casino in Sydney. These venues have long trading hours ranging from 24 hours for the casino to regular hours of between 9 am and 11 pm for most hotels and clubs, making EGMs located in them highly accessible in venues that are used for a range of purposes (e.g., dining, socialising etc.). High accessibility has been found to be associated with higher crime, and increased problem gambling and user losses (Marionneau & Järvinen-Tassopoulos, 2022; Markham et al., 2016; Mravčik et al., 2020; Rolando et al., 2021; Thomas et al., 2011; Williams et al., 2021; Young et al., 2014; Young et al., 2012).

EGMs allow users to place a bet every 5 seconds, compared with other forms of gambling being considerably longer, and this ability to place bets continuously, in combination with “operant conditioning” makes EGM gambling highly addictive for regular users (Breen & Zimmerman, 2002 ; Hing & Russell, 2020; Parke et al., 2016). Operant conditioning occurs when repeated actions lead to a reward, with the reward being provided randomly, rather than in any logical, deterministic pattern. For EGMs, other features such as near misses, losses disguised as wins, melodic sounds, flashing lights, and congratulatory messages, all interact with the random wins to reinforce conditioning which in turn can lead to addiction

(Livingstone, 2017; Scarfe et al., 2021). Losses disguised as wins (LDWs) occur when the EGM plays a winning sound (or message), even though the gambler is losing money and occurs when at least one line of on the machine wins, while others lose. LDWs have been found to increase the odds of the gambler continuing to gamble, and increasing time on machine (Barton et al., 2017; Blaszczynski et al., 2015; Leino et al., 2016). Load up amount refers to the (maximum) amount of money that can be inserted into a machine. NSW EGMs have a significantly larger load up amount than other jurisdictions in Australia (\$5,000-\$10,000), with most jurisdictions capping the load-up amount at \$1,000, though Queensland has a maximum load-up of \$100. Research has found that a smaller initial load-up amount to be protective for EGM gamblers developing problem gambling and that increased load-up amounts lead to gamblers losing more money and higher rates of problem gambling and harm (Barton et al., 2017; Productivity Commission, 2010; Stevens, 2021; Stevens & Livingstone, 2019).

In addition to accessibility to and structural characteristics of EGMs, individual gambler characteristics have also been found to be associated with increased problem gambling risk. These include being male, younger adults, impulsivity, problematic alcohol use, smoking, unemployment, and psychological distress (Browne et al., 2019; Lund, 2009; Merkouris et al., 2016; Stevens et al., 2020).

There is limited research on late-night EGM gambling, with recent research in NSW finding that EGM gamblers who gamble on EGMs later in the evening in hotels and clubs were more likely to be experiencing problem gambling (Smith et al., 2020). In a purposeful non-random sample of EGM gamblers, it was estimated that 60% of EGM gamblers playing after 11 pm were experiencing problem gambling, and that this group more often focussed on gambling on EGMs rather than having a night out with friends, which also included drinking alcohol. Interestingly, participants in this group of late-night gamblers indicated that late night EGM gamblers were “very focused, [on] serious gambling” and acknowledged they were “more likely to chase losses and take greater risks as the night wears on”. For someone to be gambling “seriously” on EGMs, a game of chance, indicates a misunderstanding of EGM gambling – that is, they exhibit “gambler’s fallacy” around believing in greater likelihood of winning when gambling on EGMs late at night, yet the time someone gambles or how they gamble will make no difference to the outcome with a game of chance (Armstrong et al., 2020; Donati et al., 2018).

So, while EGMs have been found to be the riskiest form of gambling for developing problem gambling, they are a legal form of entertainment in hotels and clubs across Australia. Trading hours of venues may impact on the ability of some users (e.g., workers finishing 9pm or later) of EGMs to access this form of entertainment but may also be associated with higher levels of problem gambling risk and gambling harms. The limited research on late night gambling on EGMs did not address this information gap (Smith et al., 2020). This study aims at understanding the behaviours associated with venue closure, whether it prompts gamblers to stop gambling or continue elsewhere. The cohort of late-night workers and their behaviour associated with EGM gambling and venue closures was also investigated as part of the broader objective.

## 3 Research Objectives

### 3.1 Objectives

This research investigates the gambling behaviour of late-night EGM gamblers and their experience with venue closure when they want to continue gambling. Specifically, it was designed to:

1. Determine venue preferences and the demographic, socioeconomic (including late-night worker status), gambling behaviours and participation profile of late-night EGM gamblers (later than 12am and later than 2am, up to 10am),
2. Estimate the prevalence of late-night gambling across problem gambling risk categories using the Problem Gambling Severity Index (PGSI),
3. Estimate the prevalence of EGM gamblers experiencing venue closures whilst gambling, and wanting to continue gambling, and impact on late-night workers and late-night EGM gamblers,
4. Estimate the prevalence of venue closure frequency and wanting to continue EGM gambling across problem gambling risk categories.
5. Determine whether EGM gamblers affected by venue closure are displaced to other open EGM venues
  - a. Determine actual distance travelled to other venue for those affected
6. Assess whether venue closing times could be used as a harm minimisation strategy for EGM gamblers at risk of problem gambling.

## 4 Methodology

Permission to conduct this research was obtained through the Northern Territory Health and Menzies School of Health Research Human Research Ethics Committee (HREC 2022-4319).

### 4.1 Sampling strategy and weighting

A survey was conducted with a representative cross-section of the NSW EGM gambler population with a total sample of n=625 participants. Quota sampling was used to ensure it broadly reflected the socio-demographic and geographic distribution profile of EGM users identified in the NSW Gambling Survey 2019.

The final survey responses included representation across socio-demographic categories, including age, gender, marital status, employment status, socio-economic status; as well as the four PGSI categories; and area socio-demographics (postcode and SEIFA Index of Relative Socioeconomic Disadvantage).

Fieldwork was conducted in July and August 2022 and asked respondents about the last nine months of EGM player behaviour to capture behaviour following the re-opening of gaming venues post Covid in November 2021.

The survey was designed for a mixed methodology of sampling, utilising the ConfirmIt platform to ensure wide accessibility across all browsers and operating systems for respondents.

The data collection methodology was designed predominantly as a self-completion online questionnaire, but a telephone survey was also undertaken to provide an opportunity for people who prefer or are more likely to respond to a telephone survey due to lack of internet access or mode preference. It is worth noting amongst NSW residents aged 18+ who have played an EGM in the last 12 months, 98.6% have access to an internet connection and/or a mobile phone<sup>1</sup>.

The CATI (Computer Assisted Telephone Interviewing) and CAWI (Computer Assisted Web Interviewing) surveys were designed to be identical in terms of codeframe, question labels and survey flow to ensure the respondent experience and data analysis for the two surveys were identical. However, the CATI survey incorporated slightly different phrasing to accommodate for the interviewer administered approach as opposed to the self-complete online mode.

The sample was primarily sourced from Roy Morgan's internal panel resources, namely:

- The Roy Morgan Online Panel and
- The Roy Morgan Australian Telephone Database

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<sup>1</sup> Sourced from Roy Morgan Single Source, June 2022. Single Source is a nationally representative in-depth consumer study based on approximately 65,000 nationally representative surveys annually

However, a third-party online panel provider was used to supplement the number of interviews – see table below.

The Roy Morgan Panel contains details obtained from respondents who have previously completed a survey with Roy Morgan in Australia. The vast majority are Single Source<sup>2</sup> Survey respondents, meaning we are able to draw a highly targeted sample based on their responses to any combination of survey variables. This Panel sample frame contains extensive data on the behaviour and attitudes of the Australian consumer, including their usage of EGMs.

The Single Source Panel allowed targeting of respondents based on their usage of EGMs who met the sample design requirements. However, given the EGM incidence in NSW is relatively low, the sample was supplemented with an external sample from our sample partner Pure Profile.

The breakdown of sample source is shown in Table 1. Including respondents who were invited to complete the survey, but did not begin it, a total of n=3958 respondents were contacted. This consisted of n=3736 respondents via CAWI and n=222 via CATI. While not a validated response rate, dividing n=625 by contacted=3,958 gives an estimated response rate of 15.8% of those contacted who completed the survey.

**Table 1: Sample source used in the survey**

Sample Source per Survey	Contacted		Response	
	n	%	rate	
CAWI – Internal Panel	3,378	468	74.9	13.9
CAWI – External Provider	358	109	17.4	30.4
CATI - Internal	222	48	7.7	21.6
<b>TOTAL</b>	<b>3,958</b>	<b>625</b>	<b>100.0</b>	<b>15.8</b>

**Notes:** The above table outlines the sample source for respondents who completed the survey. A further n=232 people were contacted and invited to take the survey but did not complete it. Of these, n=214 were CAWI respondents sourced from our Internal Panel, and n=18 were CAWI respondents sourced via Pure Profile.

The EGM survey respondents were weighted to reflect EGM player prevalence, which was approximately 16% of the NSW population 18 years and over. The target weight set was sourced from the NSW Gambling Survey 2019 to accurately reflect the population characteristics identified from that study. A single cell weighting method was used to correct for sample bias attributed to disproportionate age, sex, and area. A secondary rim weighting process was used to correct for the problem gambler cohort, which represents approximately 5.5% of the EGM cohort. See Appendix A for targeted weights. Roy Morgan Single Source EGM population data to June 2022 was used to provide an expansion factor (population based weight) to each individual, to project the sample (n=625) to the total NSW Gambling population aged 18 years and over 1,120 million (see Table 2).

Table 2 presents weighted and unweighted percentages and counts for demographic variables collected in the survey. There were some relatively small differences between



weighted and unweighted percentages with younger adults weighted up, and those 65 years and older weighted down.

**Table 2: Population weighted and unweighted demographic characteristics**

	Unweighted % (n)	Weighted % (SE)	Weighted N (mil)
Region			
Greater Sydney	57.8 (361)	56.6 (2.5)	634
Rest of NSW	42.2 (264)	43.4 (2.5)	486
Age (years)			
18-29	14.7 (92)	20.0 (1.8)	224
30-39	19.5 (122)	25.6 (2.0)	287
40-49	15.8 (99)	16.3 (1.4)	182
50-64	23.5 (147)	22.0 (1.0)	246
65 or more	26.4 (165)	16.1 (0.4)	180
Sex			
Male	51.4 (321)	58.5 (1.1)	655
Female	48.6 (304)	41.5 (1.1)	465
Marital status			
Married/Living together	61.8 (386)	59.1 (2.4)	662
Separated/divorced/widowed	13.0 (81)	9.8 (1.1)	110
Single	25.3 (158)	31.1 (2.3)	348
Household type			
Single person	23.5 (147)	22.6 (2.1)	253
One parent family with children	5.8 (36)	5.0 (1.0)	56
Couple with children	30.1 (188)	31.3 (2.2)	350
Couple with no children	28.8 (180)	25.5 (1.9)	286
Group household/Other	11.8 (74)	15.6 (1.9)	174
Language spoken at home			
English	82.6 (516)	83.3 (1.8)	933
Not English	17.4 (109)	16.7 (1.8)	187
<b>Total</b>	<b>100.0 (625)</b>	<b>100.0</b>	<b>1,120</b>

**Table 3: Population weighted and unweighted socioeconomic characteristics**

	Unweighted % (n)	Weighted % (SE)	Weighted N (mil)
Labour force status			
Full-time employed	49.8 (311)	57.4 (2.0)	643
Casual/part-time employed	15.5 (97)	15.1 (1.6)	169
Unemployed	4.2 (26)	3.7 (0.8)	41
Not in the labour force	30.6 (191)	23.8 (1.5)	266
Late-night worker			
Finishes before 9 pm	85.4 (534)	87.4 (1.6)	979
Usually finishes later than 9 pm	14.6 (91)	12.6 (1.6)	141
Highest qualification			
Junior high certificate or below	14.1 (88)	14.0 (1.7)	157
Senior high certificate	13.8 (86)	13.9 (1.7)	155
Trade/Technical certificate	32.0 (200)	30.5 (2.1)	341
Bachelor degree	25.9 (162)	27.6 (2.2)	309
Post graduate degree	14.2 (89)	14.1 (1.7)	157
Student status			
Not Studying	82.2 (514)	79.1 (2.2)	886
Part-time study	8.6 (54)	10.8 (1.7)	121
Full-time study	9.1 (57)	10.1 (1.6)	113

	<b>Unweighted</b>	<b>Weighted</b>	<b>Weighted</b>
	<b>% (n)</b>	<b>% (SE)</b>	<b>N (mil)</b>
Personal annual income (pre-tax)			
Less than \$30K	16.5 (103)	13.7 (1.4)	153
\$31K-\$50K	17.1 (107)	15.6 (1.7)	175
\$51K-\$70K	13.4 (84)	13.1 (1.6)	147
\$71K-\$90K	12.3 (77)	12.7 (1.6)	142
\$91K-\$110K	13.6 (85)	16.0 (1.9)	179
\$111K-\$140K	7.8 (49)	9.0 (1.5)	101
\$141K or higher	8.5 (53)	9.0 (1.5)	101
Unknown	10.7 (67)	10.8 (1.4)	121
SEIFA Index of Disadvantage quintiles			
Least disadvantaged	19.2 (120)	18.1 (1.7)	202
2	21.6 (135)	22.4 (2.1)	251
3	25.0 (156)	25.4 (2.2)	284
4	15.8 (99)	16.2 (1.8)	181
Most disadvantaged	18.4 (115)	18.0 (1.9)	202
<b>Total</b>	<b>100.0 (625)</b>	<b>100.0</b>	<b>1,120</b>

**Table 4:** Population weighted and unweighted PGSI (problem gambling risk)

	<b>Unweighted</b>	<b>Weighted</b>	<b>Weighted</b>
	<b>% (n)</b>	<b>% (SE)</b>	<b>N (mil)</b>
Problem gambling risk (PGSI)			
Non-problem gambling	40.9 (255)	42.9 (2.3)	478
Low risk	21.0 (131)	25.4 (2.2)	283
Moderate risk	19.9 (124)	26.3 (2.3)	293
Problem gambling	18.3 (114)	5.5 (0.6)	61
<b>Total</b>	<b>100.0 (624)</b>	<b>100.0</b>	<b>1,116</b>

**Notes:** One respondent (weighted=4) did not complete the PGSI and is excluded from all analyses involving the PGSI. Late-night Gambling Survey data weighted to 5.5% problem gambling rate (and age and sex of EGM gamblers) in the 2019 NSW Gambling Prevalence Survey

## 4.2 Variables and Statistical analysis

*Outcome (dependent) variables* used in the analyses include:

- *Usual time of the day/night gambled on EGMs* (across three venue types) with two variables used containing different cut-points. (i) Late-night EGM gambling 3 groups (8am-7pm, 7pm-12am, and 12am-8am) and (ii) Late-night EGM gambling 5 groups (8am-7pm, 7pm-10pm, 10pm-12am, 12am-2am, and 2am-8am). Statistical modelling created a binary variable for late-night EGM gambling. The 12am-8am time was used as the late-night EGM gambling group, compared to other times, ensuring an adequate sample size for statistical analyses.
- *Venue closure frequency, when wanting to continue EGM gambling:* Survey question LP1 asking respondents “How often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines?”.
- *Problem Gambling Severity Index (PGSI):* Nine items screening for problem gambling risk, with data either presented separately for Low-risk gambling, moderate risk gambling and problem gambling, or with problem and moderate risk gambling groups combined (to reduce relative standard errors). The PGSI score was used in statistical models.

*Explanatory variables for analyses include:*

- *Demographic characteristics* (region, age, sex, highest education, student status, language spoken at home and household type).
- *Socioeconomic factors* (labour force (employment) status, highest education, student status, personal annual income and the SEIFA Index of Disadvantage).
- *Gambling behaviour and participation* (PGSI2: needing to gamble with larger amounts of money to get the same feeling of excitement; PGSI3: went back another day to try and win back money lost; number of gambling forms; number of venue types gambled in; club, pub and the Star casino EGM frequency (separately); usual session spend; usual session length; number of days of week gambles on EGMs; number of loyalty memberships; number venues gambles alone) variables. Note that usual time of EGM gambling is used as an explanatory variable in analyses with the PGSI score as the outcome variable.

#### *Late-night EGM gambling analysis*

The late-night gambling outcome variable converted to a binary variable (0=8am-12am not late-night EGM gamblers, 1=12am-8am late-night EGM gamblers), with a binary outcome suited to logistic regression modelling. Using a cut-point of 2am-8am was also investigated, though this was not pursued due to the smaller sample in the late-night EGM gambler group leading to less significant predictor variables. Logistic regression models produce an odds ratio (OR + 95% confidence interval (CI)) for explanatory variables, with the odds for a category of the explanatory variable in relation to the reference category. An odds ratio below one, with confidence intervals not crossing one, indicates significance for the category of the explanatory variable and it is associated with reduced odds of being a late-night gambler. Conversely an odds ratio above one, with confidence intervals not crossing one, indicates significance for the category of the explanatory variable and it is associated with increased odds of being a late-night gambler. Bivariate associations with all explanatory variables were determined and percentages and odds ratios (95% CIs) presented.

Multivariable adjusted logistic regression models predicting late-night EGM gamblers characteristics were determined separately for

- (i) demographic and socioeconomic variables,
- (ii) gambling behaviour variables, and
- (iii) demographic, socioeconomic and gambling behaviour variables (the full model).

Multivariable models were determined using backward elimination approach. First, all variables showing a moderate ( $p < 0.10$ ) bivariate association were entered into the model, and the variable with the highest p-value, where  $p > 0.05$  removed until all variables in the model were significant ( $p < 0.05$ ).

#### *Problem gambling risk (PGSI) analysis*

Statistical associations for problem gambling risk are determined using negative binomial regression on PGSI scores. Problem gambling risk could be modelled using logistic regression; however, by dichotomising problem gambling risk, (e.g., 0=recreational, low, and moderate risk problem gambling, 1=problem gambling) compares problem gambling, with recreational, low, and moderate risk problem gambling, and also loses information in the outcome variable. Negative binomial is appropriate for count data with lots of zeros, and is also used in modelling discrete monotonically increasing score data with lots of zeros. It has

the advantage of using more data points in estimation over using a binary outcome. Bivariate associations with all explanatory variables were determined and percentages and score rate ratios (95% confidence intervals) presented. Score rate ratios can be interpreted in a similar way to odds ratios, with a rate ratio below one, with confidence intervals not crossing one, indicating significance for the category of the explanatory variable and it is associated with reduced PGSI score. Conversely a rate ratio above one, with confidence intervals not crossing one, indicates significance for the category of the explanatory variable and it is associated with an increased PGSI score.

Multivariable negative binomial regression models predicting PGSI score were determined separately for

- (i) demographic and socioeconomic variables,
- (ii) gambling behaviour variables, and
- (iii) demographic, socioeconomic and gambling behaviour variables (the full model).

Multivariable models were determined using backward elimination approach. First, all variables showing a moderately significant ( $p < 0.10$ ) bivariate association were entered into the model, and the variable with the highest p-value, where  $p > 0.05$  was removed until all variables were significant ( $p < 0.05$ ). The adjusted  $R^2$  value for multivariable models are used as estimation of the amount of variation in the dependent (outcome) variable explained by variables in the model.

#### *Frequency of venue closure when wanting to continue EGM gambling analysis*

The negative binomial regression model was used to model frequency of venue closure when wanting to continue EGM gambling. Significant bivariate associations between venue closure frequency and demographic, socioeconomic and gambling participation and behaviour (including late-night gambling and PGSI) variables were determined using negative binomial regression. Data is only presented for variables showing a significant association with venue closure frequency. Other data related to venue closure is presented descriptively. Tables presenting the distribution of venue closure frequency for categories of explanatory variables are presented along with incidence rate ratios from the negative binomial models. A multivariable adjusted model was developed using all significant demographic, socioeconomic, and gambling behaviour and participation variables (the full model), using the same approach as used in other multivariable models. That is, significant explanatory variables are entered into a model simultaneously and backward selection of variables applied, with removal at  $p > 0.05$ .

#### *Last venue visit analysis*

All variables relating to EGM gamblers last visit to a venue were cross-tabulated with late-night EGM gambling and the PGSI (with problem gambling and moderate risk gambling combined to reduce standard errors), with significant associations determined by Chi Square Tests of Independence. This analysis is presented in Appendix D, as it did not add to the main conclusions.

All statistical modelling and estimates reported were carried out on weighted data, with standard errors for estimates adjusted for the age and sex quota sampling. Regression

modelling produces an Adjusted  $R^2$ , which is an estimate of the percentage of variation in the outcome variable explained by the explanatory variables in the model. Where unweighted data is presented, percentages and the sample size (n) are provided. Unweighted data was presented when the sample size was too small to generate reliable weighted estimates. Stata 17.0 was used for all analyses (StataCorp, 2022).

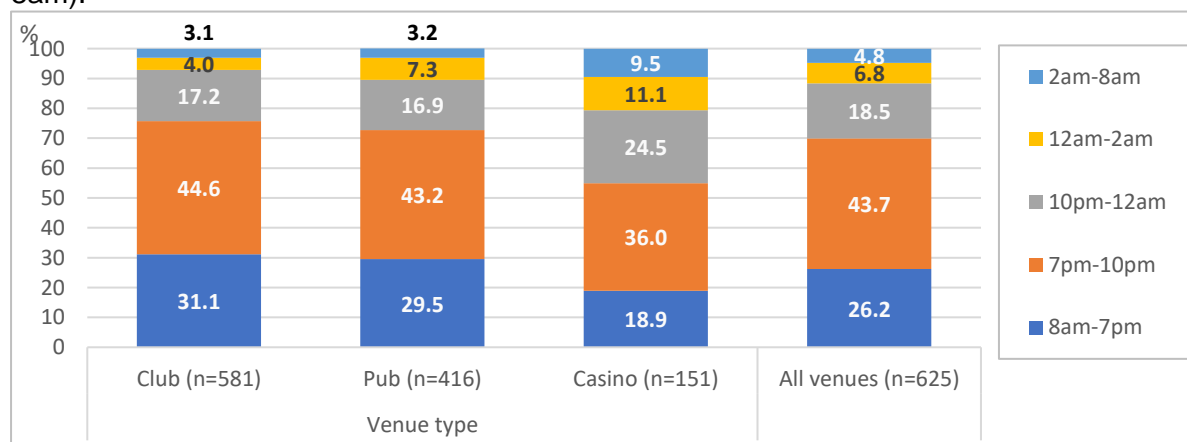
## 5 Results

The final sample of n=625 was weighted to reflect the age, sex, region and problem gambling risk of EGM gamblers in NSW (see previous Tables in Methods). Results are presented in a consistent way. Specifically:

- All tables and figures present weighted data unless otherwise stated.
- Weighted estimates in tables show the standard error of the estimate in brackets, and the table cell will be shaded grey if the relative standard error is greater than 30%, indicating the estimate should be interpreted with caution. There is a 67% probability that the true estimate falls within the standard error bounds (estimate plus/minus standard error).
- Tables also present the unweighted sample size, which will help the reader know how much of the sample, and on which group of EGM gamblers the data applies to.
- Most tables and figures will contain notes underneath them, with information that will assist in interpreting the data.
- All Odds Ratios (ORs), PGSI Score Rate Ratios (SRRs) and Incidence Rate Ratios (IRRs) will be bolded where the 95% confidence interval does not overlap one, indicating significance (p<0.05).
- Tables and Figures presenting associations with outcomes (late-night EGM gambling, frequency of venue closure when wanting to continue EGM gambling, and problem gambling risk) use asterisks to denote significance for explanatory variables with the following convention: \* p<0.05, \*\* p<0.01, and \*\*\* p<0.001.

### 5.1 Objective 1: Venue preferences and profile of late-night EGM gamblers

Figure 1 plots the distribution of usual EGM gambling times by venue type and for all EGM gamblers. Most gambled in the evening between 7pm and 10pm (43.7%), with this being largest group for all venue types, though was lower in the Star casino (36%), compared with clubs (44.6%) and pubs or hotels (43.2%). Gambling in the Star casino in general occurred later at night for a larger proportion of EGM gamblers, with 7.1% of club EGM gamblers gambling after midnight (12am), 10.5% of pub EGM gamblers, and 20.6% of casino EGM gamblers. Across all venue types, 4.8% gambled on EGMs after 2 am and another 6.8% from 12am to 2am, giving a total of 11.6% classified as late-night EGM gamblers (i.e., 12am to 8am).



**Figure 1:** Distribution of EGM gamblers preferred EGM gambling time by venue type

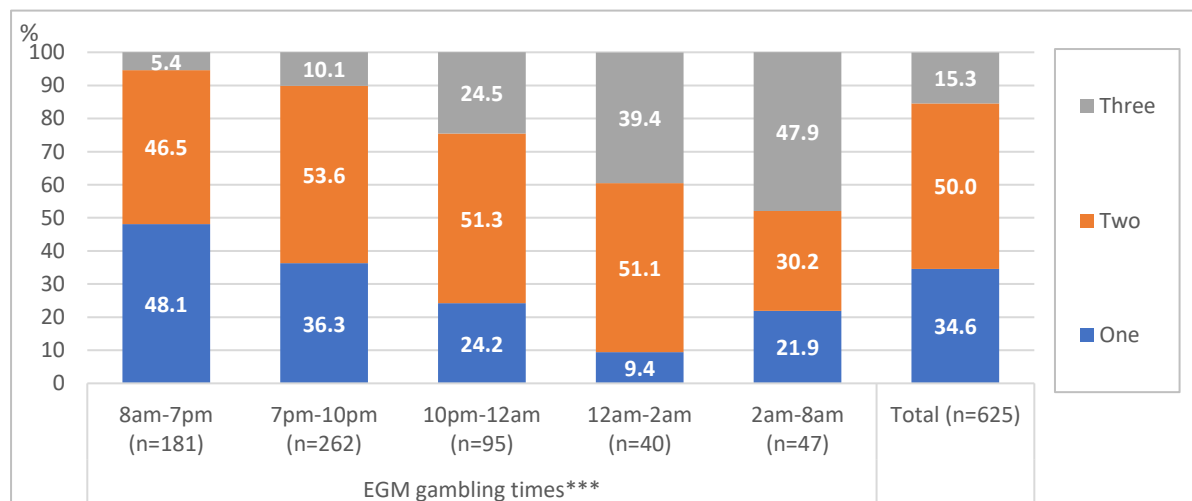
Question: How often have you played a poker machine since November (2021): In a club; In a pub/hotel; At the Star Casino; Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

Table 5 presents these estimates with standard errors, with estimates for the Star casino EGM gamblers gambling between 12am and 2am, and 2am and 8am, and pub EGM gamblers between 2am and 8am having relative standard errors greater than 30%, so should be interpreted with caution. Table 36 in Appendix B shows usual EGM gambling time by venues for different late-night gambling cut-points (10am-7pm, 7pm-10pm, 10pm-12am, 12am-4am, and 4am-10am).

**Table 5: Usual EGM gambling time by venue type**

EGM times	Club	Pub	Casino	All venues
	% (SE)	% (SE)	% (SE)	% (SE)
8am-7pm	31.1 (2.2)	29.5 (2.6)	18.9 (4.3)	<b>26.2 (2.0)</b>
7pm-10pm	44.6 (2.5)	43.2 (3.1)	36.0 (5.2)	<b>43.7 (2.4)</b>
10pm-12am	17.2 (2.1)	16.9 (2.4)	24.5 (4.9)	<b>18.5 (2.0)</b>
12am-2am	4.0 (1.1)	7.3 (1.7)	11.1 (3.4)	<b>6.8 (1.3)</b>
2am-8am	3.1 (0.9)	3.2 (1.1)	9.5 (3.0)	<b>4.8 (1.0)</b>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Sample size	581	416	151	625

Figure 2 and Table 6 show the significant association between EGM gambling times and number of venues (i.e., pub and/or club and/or casino) they gambled in. Around 5% of day time/early evening (8am to 7pm) EGM gamblers, gambled on EGMs in all three venue types, increasing to 10.1% for 7pm to 10pm EGM gamblers, 24.5% for 10pm to 12am EGM gamblers, 39.4% for 12am to 2am EGM gamblers and 47.9% for 2am to 8am EGM gamblers. Gambling on EGMs in one venue was highest for 8am to 7pm EGM gamblers (48.1%), then dropping progressively through gambling times from 7pm to 2am to 9.4%, before increasing to 21.9% of 2am to 8am for EGM gamblers gambling in one venue type only.



**Figure 2: Number of venues visited (shown in Figure legend) by EGM gambling times all venues**

**Notes:** \*\*\* p<0.001 Significant association between number of venue types gambled on EGMs and usual EGM gambling time. Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

Table 6 presents estimates and standard errors for the data in Figure 2. Estimates for gambling in one and two venues for the 2am to 8am group had relative standard errors greater than 30%, as did the estimate for one venue 12am to 2am, and three venues 8am to 7pm. There was a significant trend for gambling in three venues as usual EGM gambling time became later, with evidence of non-linearity in this trend. This trend is evident in the grey shaded bars in Figure 2.

**Table 6:** Number of venues types visited by usual EGM gambling times across all venues

	EGM gambling times					Total % (SE)
	8am-7pm % (SE)	7pm-10pm % (SE)	10pm-12am % (SE)	12am-2am % (SE)	2am-8am % (SE)	
Number of venue types***						
One	48.1 (4.3)	36.3 (3.3)	24.2 (5.5)	9.4 (5.2)	21.9 (8.3)	<b>34.6 (2.1)</b>
Two	46.5 (4.3)	53.6 (3.5)	51.3 (6.5)	51.1 (10.)	30.2 (11.)	<b>50.0 (2.4)</b>
Three	5.4 (2.3)	10.1 (2.0)	24.5 (5.3)	39.4 (9.8)	47.9 (11.)	<b>15.3 (1.7)</b>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Sample (n)	181	262	95	40	47	625

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30%. Interpret with caution; \*\*\* p<0.001  
Significant association between number of venues and EGM gambling times

This section will first summarise bivariate associations between late-night (12am-8am) EGM gambling and demographic, socioeconomic, gambling behaviours and participation variables. Second, it will plot the prevalence of late-night EGM gambling for three multivariable adjusted models: (i) Demographic and socioeconomic model, (ii) gambling participation and behaviours model, and (iii) the full model with significant variables from all variable domains. Table 7 shows significant bivariate associations with late-night EGM gambling for all domains of explanatory variables. Descriptions of associations indicate a significant difference from the overall percentage of late-night EGM gamblers of 11.6%.

**Table 7:** Significant bivariate associations with late-night EGM gambling (n=625)

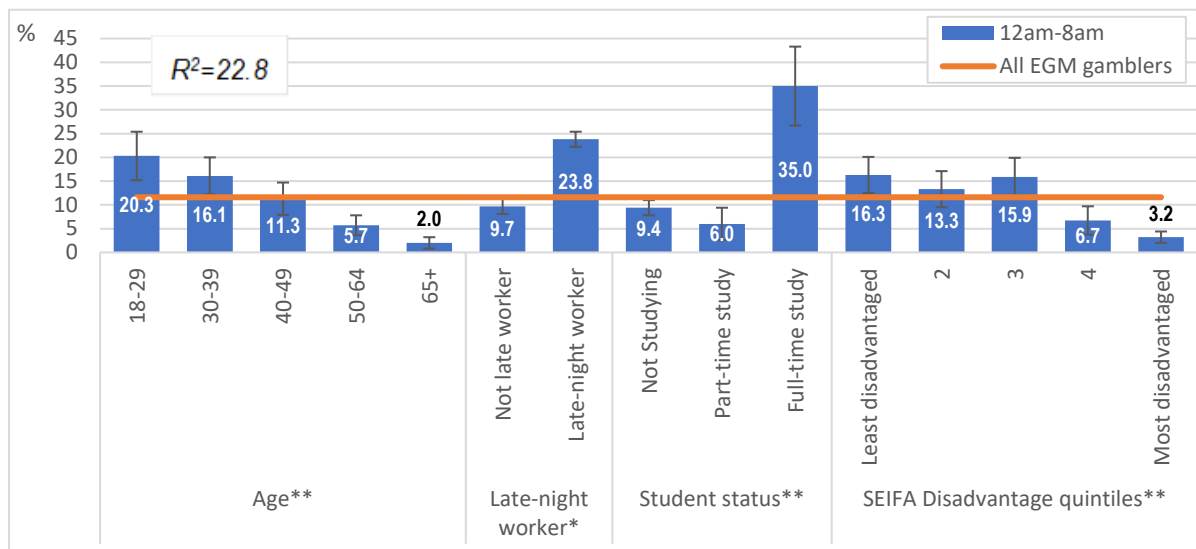
Domain and variable	Direction of association with late-night EGM gambling (11.6%) compared with non-late-night-EGM gambling
<i>Demographic characteristics</i>	
Region	• ↓ for persons in areas outside of Greater Sydney
Age	• ↑ for 18-29 years • ↓ for 50 years or more
Marital status	• ↓ for separated/divorced/widowed persons • ↑ for single persons
<i>Socioeconomic factors</i>	
Employment status	• ↑↑ for unemployed persons • ↓ for persons not working (e.g. retired, not looking)
Late-night worker status	• ↑↑ for late-night workers
Student status	• ↑↑ for full-time students • ↓ for part-time students
SEIFA Index of Disadvantage	• ↓ for persons living in areas with more disadvantage
<i>Gambling participation &amp; behaviours</i>	
Number of gambling activities <sup>1</sup>	• ↑↑ for those gambling on four activities • ↑↑↑ for those gambling on five or more activities
Number of venue types	• ↑↑ for those EGM gambling in all three venue types



Domain and variable	Direction of association with late-night EGM gambling (11.6%) compared with non-late-night-EGM gambling
Pub EGM gambling frequency	<ul style="list-style-type: none"> <li>• ↑↑ for those EGM gambling in pubs monthly</li> <li>• ↑↑↑ for those gambling in pubs fortnightly or more</li> </ul>
Star casino EGM gambling frequency	<ul style="list-style-type: none"> <li>• ↑↑ for those EGMs gambling once or twice in the casino</li> <li>• ↑↑↑ for those EGMs gambling monthly or more in the casino</li> </ul>
Usual EGM session spend	<ul style="list-style-type: none"> <li>• ↑↑ for those with a usual session spend of \$200-\$299</li> <li>• ↑↑↑ for those with a usual session spend of \$300 or more</li> </ul>
Number of days gambles in a venue	<ul style="list-style-type: none"> <li>• ↑↑ for those who gamble on EGMs 3 days a week</li> <li>• ↑↑ for those who gamble on EGMs 4-7 days a week</li> </ul>
Number of loyalty schemes	<ul style="list-style-type: none"> <li>• ↑↑ for those with membership in 2 loyalty schemes</li> <li>• ↑↑↑↑ for those with membership in 3 loyalty schemes</li> </ul>
PGSI2: Needed to gamble with larger amounts for same excitement <sup>2</sup>	<ul style="list-style-type: none"> <li>• ↑↑ for those needing to bet more sometimes</li> <li>• ↑↑↑ for those needing to bet more most or almost always</li> </ul>
PGSI3: Chasing losses <sup>3</sup>	<ul style="list-style-type: none"> <li>• ↑↑ for those chasing losses sometimes</li> <li>• ↑↑↑↑ for those chasing losses most or almost always</li> </ul>

**Notes:** ↑/↓ problem gambling estimate 50% to 100% higher/lower than all gamblers estimate, ↑↑ problem gambling estimate two times higher, ↑↑↑ problem gambling estimate three times higher, ↑↑↑↑ problem gambling estimate four times higher, ↑↑↑↑↑ problem gambling estimate five times or more higher; <sup>1</sup> Includes EGMs, betting at a TAB (racetrack betting), lottery ticket (e.g., Powerball), sports or racetrack betting online, casino gambling other than EGMs; <sup>2</sup> PGSI2: needed to gamble with larger amounts for the same feeling of excitement; <sup>3</sup> PGSI3: went back another day to try and win back money lost

More detail on the distribution of explanatory variables and prevalence of late-night EGM gambling, and odds ratios from logistic regression modelling can be found in tables located in Appendix B. Figure 3 plots the prevalence of late-night gambling for variables in the demographic and socioeconomic multivariable model, with late-night EGM gambling prevalence for all EGM gamblers shown by the horizontal line, and blue bars (with standard errors). If standard errors do not touch the orange horizontal line, then the estimate is different from that for all EGM gamblers, which was 11.6%. This model explained 22.8% of the variation in late-night EGM gambling. Age, student status and the SEIFA Index of Disadvantage were retained in the multivariable model. There was a decreasing prevalence of late-night EGM gambling the older the EGM gambler was, with 20% of 18-29 years gambling on EGMs late at night, compared with 16% of 30-39 years, 11% of 40-49 years, 6% of 50-64 years and 2% of those 65 years and over. Full-time students (35%) were significantly more likely than part-time students (6%) and those not studying (9.4%) to be late-night EGM gamblers. Lastly, EGM gamblers living in the most disadvantaged areas (quintiles 4 (6.7%) and 5 (3.2%)) were less likely to gamble on EGMs late at night, compared with those in the least disadvantaged quintile (16.3%).

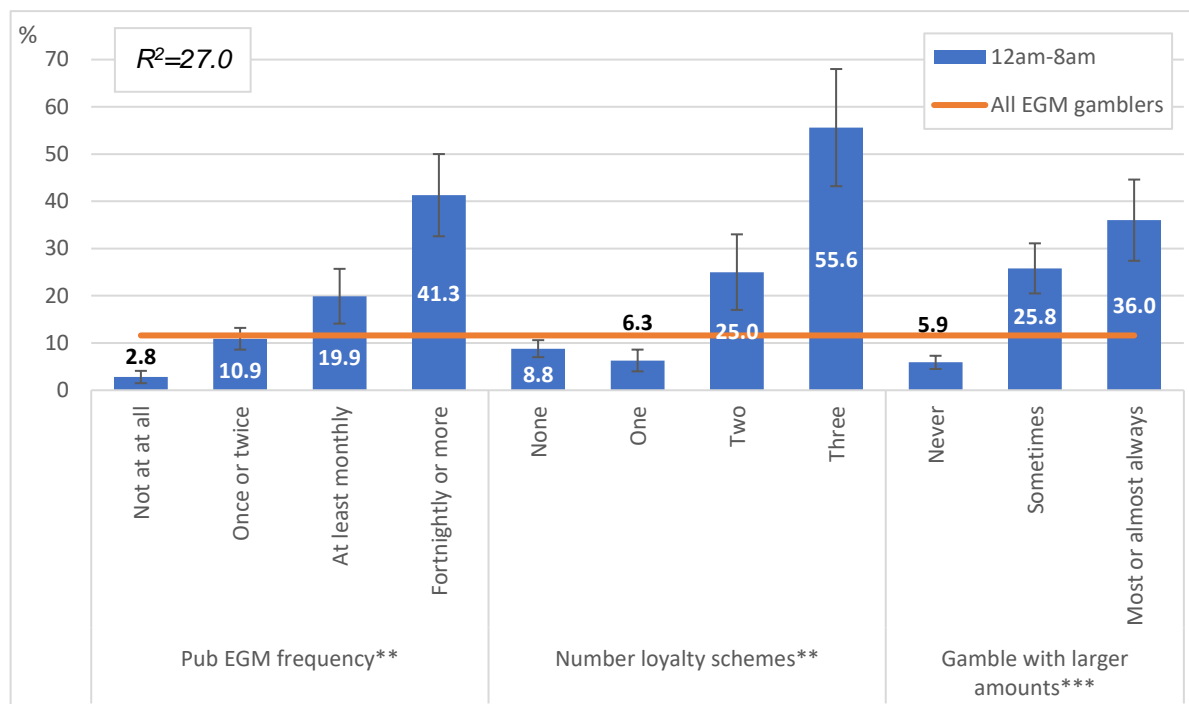


**Figure 3: Significant demographic and socioeconomic multivariable predictors of late-night EGM gamblers: Percentage (standard error) late-night EGM gamblers (12am-8am)**

Notes: \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant multivariable adjusted association with late-night EGM gambling

Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

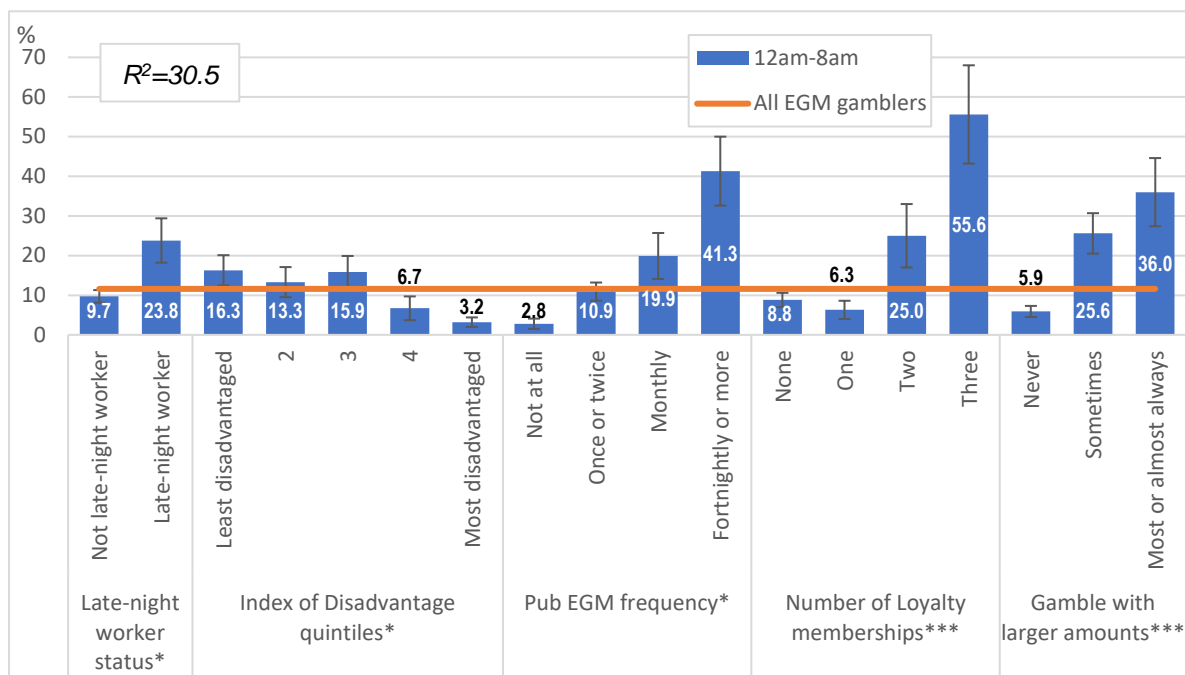
Figure 4 plots the prevalence of late-night EGM gambling for significant variables in the gambling participation and behaviours multivariable model. This model explained 27% of the variation in late-night EGM gambling. Nine of the gambling behaviour variables showed strong bivariate associations with late-night EGM gambling, though only three remained significant in the multivariable model. EGM gamblers who gambled more frequently in pubs had higher prevalence of late-night EGM gambling, as did those who participated in more loyalty schemes, with 56% of EGM gamblers in three (pub, club and the Star casino) loyalty schemes being late-night EGM gamblers, compared with 9% of those with no loyalty schemes. Gamblers who said they needed to gamble larger amounts to get the same feeling (PGSI-2) sometimes (25.8%) and almost always or most of the time (36%) had a higher prevalence of late-night EGM gambling.



**Figure 4:** Percentage (standard error) late-night EGM gamblers (12am-8am) for the gambling behaviour and participation variables multivariable model (n=624)

**Notes:** \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant multivariable adjusted association with late-night EGM gambling  
 Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

Figure 5 plots the prevalence of late-night EGM gambling for all variables in the full model, which explained 30.5% of the variation in late-night EGM gambling. Prevalence of late-night EGM gambling was significantly higher for late-night workers (23.8%), and for those gambling on an EGM in a pub at least monthly (19.9%) and at least fortnightly (41.3%), those who were a member in two (25%) or three (55.6%) loyalty schemes, and gamblers who needed to gamble with larger amounts for the same feeling most of the time or more (25%). Prevalence of late-night EGM gambling was significantly lower for EGM gamblers living in the two most disadvantaged quintiles (6.7% and 3.2%), those not gambling on EGMs in a pub (2.8%), those in none (8.8%) or one (6.3%) loyalty scheme, and gamblers who never needed to gamble with larger amounts sometimes (25.6%) and almost always or most of the time (36%). Table 8 shows odds ratios, the distribution of explanatory variables and their distribution by late-night gambling times from the full model.



**Figure 5:** Percentage (standard error) of late-night EGM gamblers (12am-8am) for variables in the full model (n=617)

**Notes:** \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant multivariable adjusted association with late-night EGM gambling

Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

**Table 8:** Full multivariable adjusted logistic regression model for late-night EGM gambler: Gambling behaviour, participation, demographic and socioeconomic variables (n=617)

	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
$R^2=30.5\%$					
Late-night worker status					
Not late-night worker	86.4 (1.6)	27.8 (2.1)	62.5 (2.5)	9.7 (1.6)	1.0
Late-night worker	13.6 (1.6)	16.1 (4.9)	60.1 (6.4)	23.8 (5.6)	<b>2.58 (1.13-5.92)</b>
Index of Disadvantage quintiles					
Least disadvantaged	18.1 (1.7)	26.0 (4.2)	57.8 (5.1)	16.3 (3.8)	1.0
2	22.4 (2.1)	23.8 (4.2)	62.9 (5.0)	13.3 (3.8)	0.72 (0.28-1.85)
3	25.4 (2.2)	20.9 (3.5)	63.2 (4.7)	15.9 (4.0)	0.91 (0.35-2.40)
4	16.2 (1.8)	29.0 (5.4)	64.2 (5.8)	6.7 (3.0)	0.34 (0.09-1.23)
Most disadvantaged	18.0 (1.9)	34.4 (5.5)	62.4 (5.6)	3.2 (1.2)	<b>0.14 (0.04-0.48)</b>
Pub EGM frequency					
Not at all	30.4 (2.0)	37.2 (3.7)	60.0 (3.8)	2.8 (1.3)	1.0
Once or twice	49.4 (2.4)	23.9 (2.9)	65.2 (3.4)	10.9 (2.3)	2.78 (0.95-8.17)
Monthly	14.0 (1.8)	16.0 (4.7)	64.2 (6.7)	19.9 (5.8)	2.10 (0.68-6.55)
Fortnightly or more	6.2 (1.0)	14.4 (5.3)	44.3 (8.3)	41.3 (8.7)	<b>7.08 (2.03-24.8)</b>
Number of Loyalty schemes					
None	68.5 (2.2)	26.4 (2.4)	64.8 (2.8)	8.8 (1.8)	1.0
One	19.0 (1.8)	31.9 (4.6)	61.8 (4.9)	6.3 (2.3)	0.65 (0.25-1.65)
Two	8.3 (1.4)	15.5 (6.0)	59.5 (8.7)	25.0 (8.0)	2.18 (0.81-5.86)
Three	4.1 (1.0)	18.7 (11.)	25.7 (10.)	55.6 (12.)	<b>7.73 (2.60-23.0)</b>
Gamble with larger amounts					
Never	73.7 (2.2)	30.2 (2.4)	64.0 (2.6)	5.9 (1.4)	1.0
Sometimes	21.4 (2.1)	14.4 (3.3)	59.8 (5.6)	25.8 (5.3)	<b>3.70 (1.73-7.91)</b>

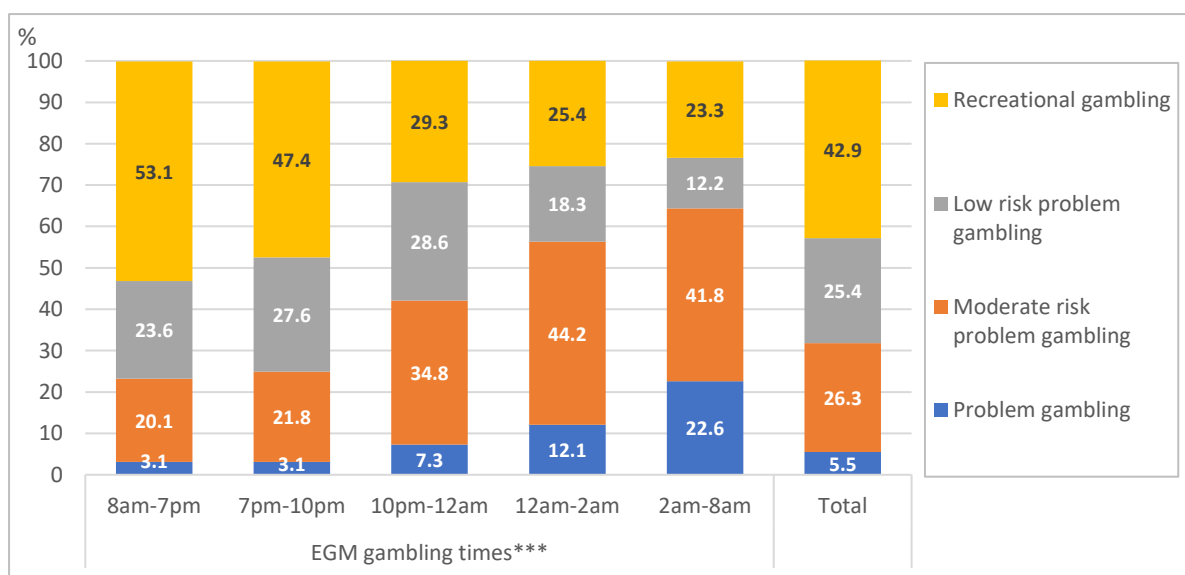
$R^2=30.5\%$	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
Most or almost always	4.9 (0.9)	7.2 (4.1)	56.8 (9.1)	36.0 (8.6)	<b>4.25 (1.56-11.6)</b>
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding  
 Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

## 5.2 Objective 2: Problem gambling risk (PGSI) and late-night EGM gamblers

Figure 6 shows the significant bivariate association between problem gambling risk (PGSI) and late-night EGM gambling. There is a trend in increasing problem gambling risk the later in the day/evening that people gamble on EGMs, with 3.1% of day-time and 7pm-10pm EGM gamblers classified as experiencing problem gambling, 7.3% for 10pm-12am gamblers, 12.1% for 12am-2am gamblers and 22.6% for 2am-8am EGM gamblers. A non-parametric test for trend confirmed a significant linear trend of increasing problem gambling prevalence, with increasing lateness of usual EGM gambling time.

Various cut-points were investigated with usual EGM gambling time, and the association between problem gambling risk and usual EGM gambling time. Different late-night EGM gambling time cut-points can be found in Appendix B, Table 42, which shows very little difference in problem gambling risk across different late-night EGM gambling time cut-points.



**Figure 6:** EGM gambling time by problem gambling risk (PGSI)

**Notes:** \*\*\*  $p < 0.001$  Significant association between usual EGM gambling time and problem gambling risk

Question: During which of the following times have you played poker machines (at venue) in NSW since November 2021? During the day (from 10 am until 4 pm); In the early evening (from 4 pm until 7 pm); In the evening (from 7 pm to 10 pm); In the late evening (from 10 pm until midnight); From midnight until 2 am; From 2 am until 4 am; From 4 am until 6 am; From 6 am until 8 am; From 8 am until 10 am

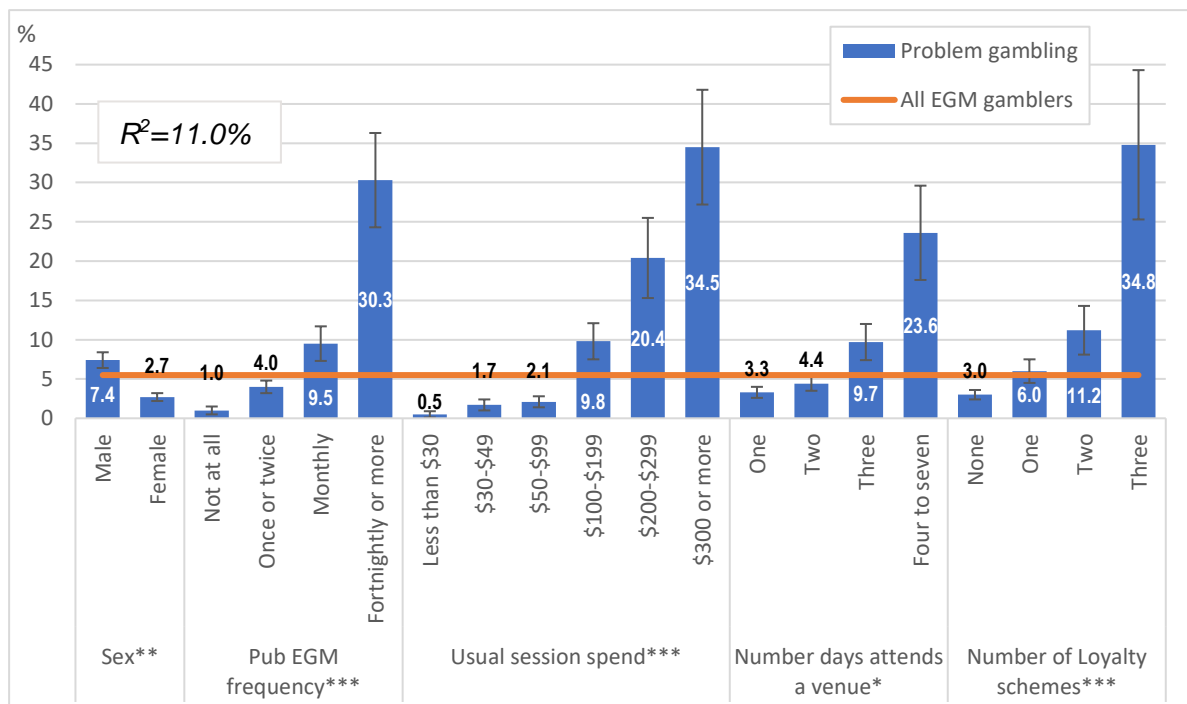
Table 9 shows significant bivariate associations with problem gambling risk (PGSI) for all domains of explanatory variables. Descriptions of associations indicate a significant difference from the overall percentage of problem gambling which was 5.5%.

**Table 9:** Significant bivariate associations with problem gambling risk (PGSI) (n=624)

Domain and variable	Direction of association with problem gambling risk (5.5%)
<i>Demographic characteristics</i>	
Age	<ul style="list-style-type: none"> <li>• ↑ for 18-29 years</li> <li>• ↓ for 65 years or more</li> </ul>
Sex	<ul style="list-style-type: none"> <li>• ↑ for men</li> <li>• ↓ for women</li> </ul>
<i>Socioeconomic factors</i>	
Employment status	<ul style="list-style-type: none"> <li>• ↓ for persons not working (e.g. retired, not looking)</li> </ul>
Late-night worker status	<ul style="list-style-type: none"> <li>• ↑↑ for late-night workers</li> </ul>
Student status	<ul style="list-style-type: none"> <li>• ↑↑ for full-time students</li> <li>• ↓ for part-time students</li> </ul>
<i>Gambling participation &amp; behaviours</i>	
Late-night EGM gambling times	<ul style="list-style-type: none"> <li>• ↑↑ for those gambling from 12am to 2am</li> <li>• ↑↑↑ for those gambling from 2am to 8 am</li> </ul>
Number of gambling activities	<ul style="list-style-type: none"> <li>• ↑↑ for those gambling on four activities</li> <li>• ↑↑↑ for those gambling on five or more activities</li> </ul>
Number of venue types	<ul style="list-style-type: none"> <li>• ↑↑↑ for those gambling in three types of venue</li> </ul>
Pub EGM gambling frequency	<ul style="list-style-type: none"> <li>• ↑ for those EGM gambling in pubs monthly</li> <li>• ↑↑↑↑ for those EGM gambling in pubs fortnightly plus</li> </ul>
Star casino EGM gambling frequency	<ul style="list-style-type: none"> <li>• ↑ for those EGM gambling in the casino once or twice</li> <li>• ↑↑↑↑↑ for those EGM gambling in the casino once or twice</li> </ul>
Usual EGM session spend	<ul style="list-style-type: none"> <li>• ↑ for those with a usual session spend of \$100-\$199</li> <li>• ↑↑↑↑ for those with a usual session spend of \$200-\$299</li> <li>• ↑↑↑↑↑ for those with a usual session spend of \$300 plus</li> </ul>
Number of days per week gambles in a venue	<ul style="list-style-type: none"> <li>• ↑ for those who gamble on EGMs 3 days a week</li> <li>• ↑↑↑↑ for those who gamble on EGMs 4-7 days a week</li> </ul>
Number of loyalty schemes	<ul style="list-style-type: none"> <li>• ↑↑ for those with membership in 2 loyalty schemes</li> <li>• ↑↑↑↑↑ for those with membership in 3 loyalty schemes</li> </ul>
Number of venue types gambles alone	<ul style="list-style-type: none"> <li>• ↑↑ for those gambling in one venue type alone</li> <li>• ↑↑↑ for those gambling in two venue types alone</li> <li>• ↑↑ for those gambling in three venue types alone</li> </ul>

**Notes:** ↑/↓ problem gambling estimate 50% to 100% higher/lower than all gamblers estimate, ↑↑ problem gambling estimate two times higher, ↑↑↑ problem gambling estimate three times higher, ↑↑↑↑ problem gambling estimate four times higher, ↑↑↑↑↑ problem gambling estimate five times or more, higher. ↑

Figure 7 plots problem gambling prevalence for variables in the full model, which explained 11% of the variation in problem gambling risk. Only one demographic variable, sex, remained significant in the model, while no socioeconomic variables remained significant and were all dropped from the model in the backward selection process. This model includes sex, EGM pub frequency, usual session spend, number of days attended a venue to gamble, and number of loyalty schemes. The largest effect size, as measured by odds ratios, was for usual session spend, with odds ratios ranging from 2.17 (95% CI 1.32-3.56) for those spending more than \$30 in a session, up to 8.42 (95% CI 5.29-13.40) for those spending \$300 or more in a usual session.



**Figure 7:** Significant demographic, socioeconomic and gambling behaviour variables multivariable predictors of problem gambling risk (PGSI): Percentage (standard error) problem gambling (PGSI 8 or more)

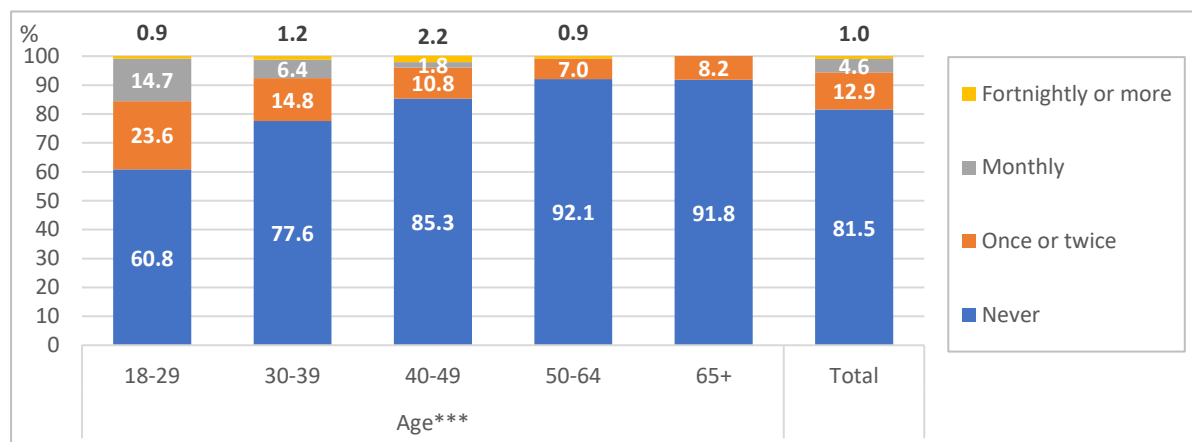
**Notes:** \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association with problem gambling risk

### 5.3 Objectives 3 and 4: Prevalence of late-night EGM gamblers experiencing venue closures when wanting to continue EGM gambling

This section reports on EGM gamblers experience of being in a pub or club when it shut, but wanted to continue gambling on EGMs. The question was intended to be asked of all EGM gamblers who gambled in a pub or club; however, a programming error in the survey meant that it was only asked of club EGM gamblers or EGM gamblers who played at a pub and club. So, the question was not asked of pub only EGM gamblers (weighted 8.9% (unweighted n=39) of all pub EGM gamblers (n=416)). The question was asked of n=581 EGM gamblers, which included club only and pub and club EGM gamblers. A sensitivity analysis is included in the limitations section following the results section, which shows that the potential change in key estimates presented in this section would be well within the standard error of the estimates presented, so would not change interpretation of the findings.

The next set of figures look at the significant demographic and socioeconomic associations with 'how often the venue closed when you wanted to continue gambling on EGM'. That is, it is modelling the frequency of being in a venue when it closed, when wanting to continue EGM gambling. Figure 8 shows how often an EGM gambler was in a venue when it closed (Figure legend), and wanted to continue EGM gambling for age groups (see Table 10 for all significant associations with demographic and socioeconomic variables). Most EGM gamblers (81.5%) never experienced a venue shut down, while 12.9% experienced shut down once or twice in the 6 to 9 months before the survey, 4.6% monthly and 1% fortnightly or more often. EGM gamblers 18-29 years were more likely (23.6% once or twice and 14.7%

monthly) to experience venue closure and wanted to continue EGM gambling, and those over 50 years were less likely to report being in a venue when it closed and wanted to continue EGM gambling.



**Figure 8:** Age by venue closure frequency when wanted to continue EGM gambling (n=581)

**Notes:** \*\*\* p<0.001 Significant bivariate association between age and frequency of closure

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

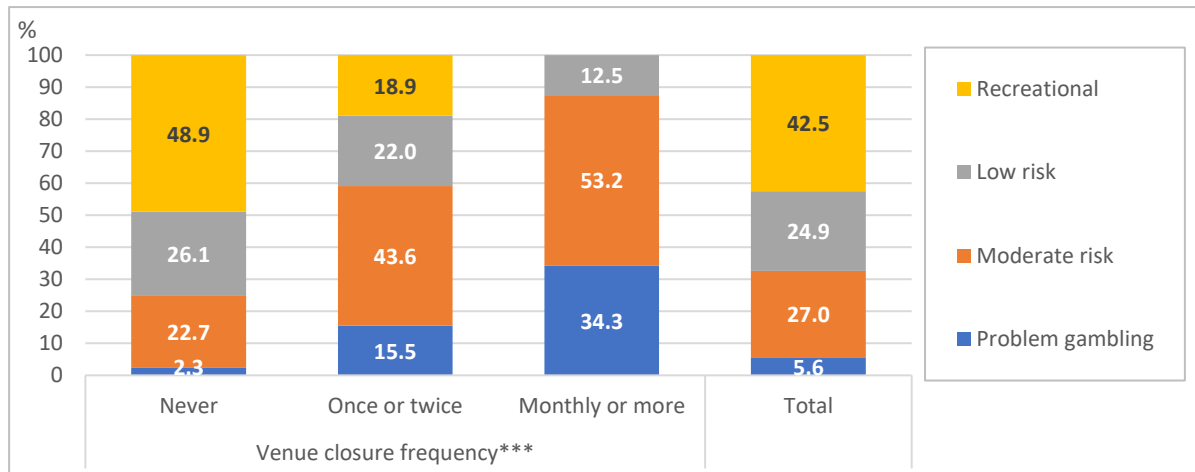
From here on, the venue closure frequency variable was collapsed to present more reliable estimates, with the weekly (0.1%) and fortnightly (1%) categories collapsed into the monthly (4.6%) category, to create a monthly or more often group containing 5.6% of the sample answering this question. However, negative binomial regressions used to assess statistical significance used all frequency categories. Note, that many estimates for monthly or more venue closure still have relative standard errors greater than 30% due to low prevalence and should be interpreted with caution.

Table 10 shows all significant associations between demographic and socioeconomic variables and frequency of venue closure while wanting to continue gambling on EGMs. Key variables are first graphed and described in the following figures.

Figure 9 shows the highly significant association between venue closure frequency and problem gambling risk (PGSI), while Figure 10 switches the axes around to show how often the gambler experienced venue closure within problem gambling risk categories. There are a few key points to take away from these two figures. First, from Figure 9, it can be seen that there were no recreational gamblers who wanted to continue gambling on EGMs after a venue closed monthly or more often, with 100% of EGM gamblers experiencing venue closure monthly or more often and wanting to continue EGM gambling being at risk of problem gambling. Second, of this group who experienced closure monthly or more, 34% were classified as experiencing problem gambling and a further 53% as moderate risk of problem gambling and the remaining 12% were low risk of problem gambling. Third, looking at Figure 10, less than 6% of recreational gamblers had experienced venue closure when they wanted to continue gambling on EGMs, with this only occurring once or twice in the nine-month period asked about. Of all EGM gamblers experiencing venue closure monthly or more and wanted to continue EGM gambling, 34.3% were problem gambling, 53.2% at moderate

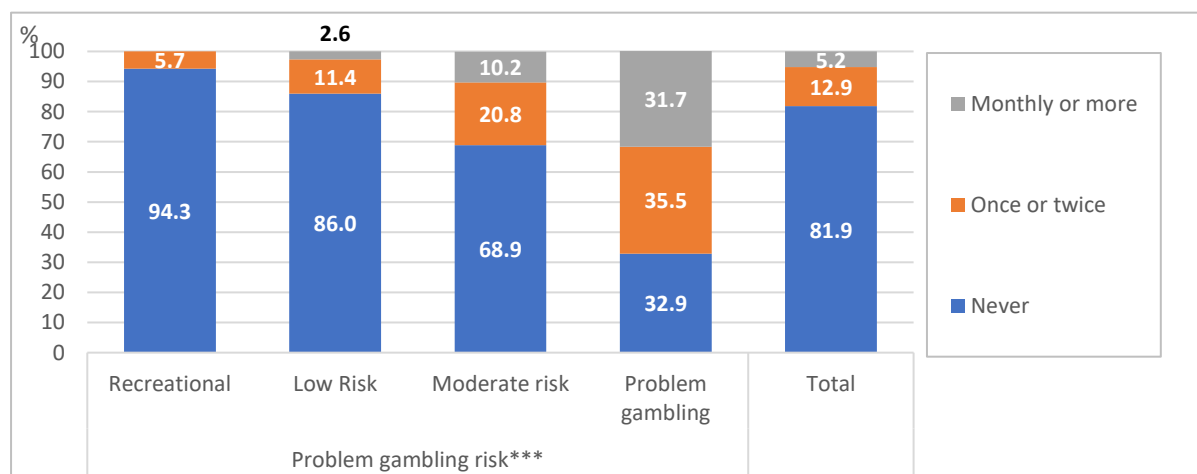


risk and 12.5% at low risk of problem gambling. That is, there were no recreational gamblers in this group.



**Figure 9: Venue closure frequency and wanted to continue gambling on EGMs by problem gambling risk (PGSI) (n=580)**

**Notes:** \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant bivariate association with late-night EGM gambling, no data on PGSI for one respondent  
 Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

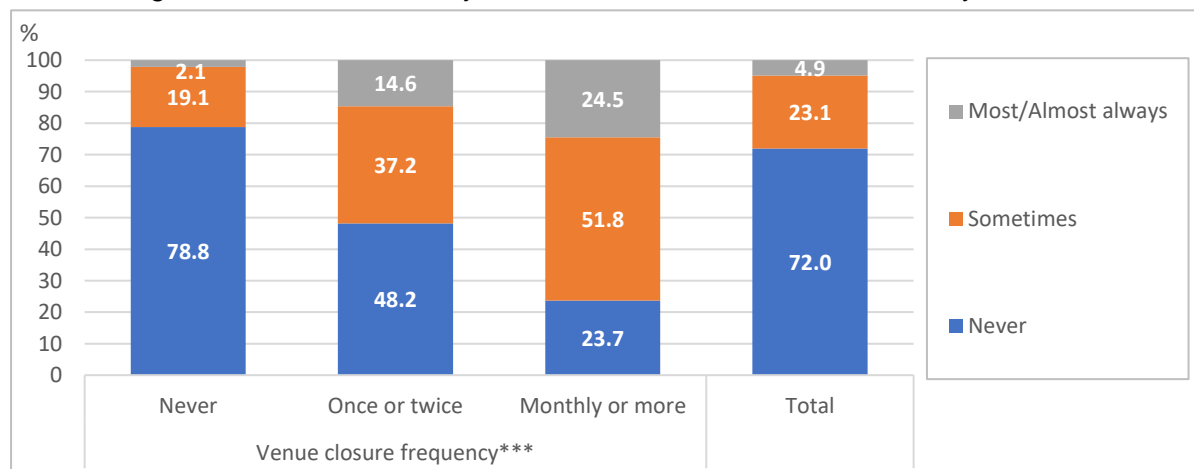


**Figure 10: Problem gambling risk (PGSI) by venue closure frequency and wanted to continue gambling on EGMs by (n=580)**

**Notes:** \*\*\* p<0.001 Significant bivariate association between PGSI and frequency of closure  
 Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

Figures 11 and 12 show the significant association between frequency of venue closure and two behavioural items from the PGSI; needing to gamble with more money for the same feeling of excitement and chasing losses. There is a clear trend with increasing frequency of being in a venue while closing with increased occurrence of needing to gamble with more money. Across the whole sample of EGM gamblers, 4.9% needed to gamble with more money for the same excitement most of the time or almost always, 23.1% sometimes, and 72% never. For EGM gamblers being in a venue monthly or more often, when it closed, 76.3% needed to gamble with more money for the same excitement sometimes or more

often, with around a quarter doing this most of the time or almost always (five times of that in the total sample). Compared with EGM gamblers never being in a venue at closure, 2.1% needed to gamble with more money for the same excitement almost always.

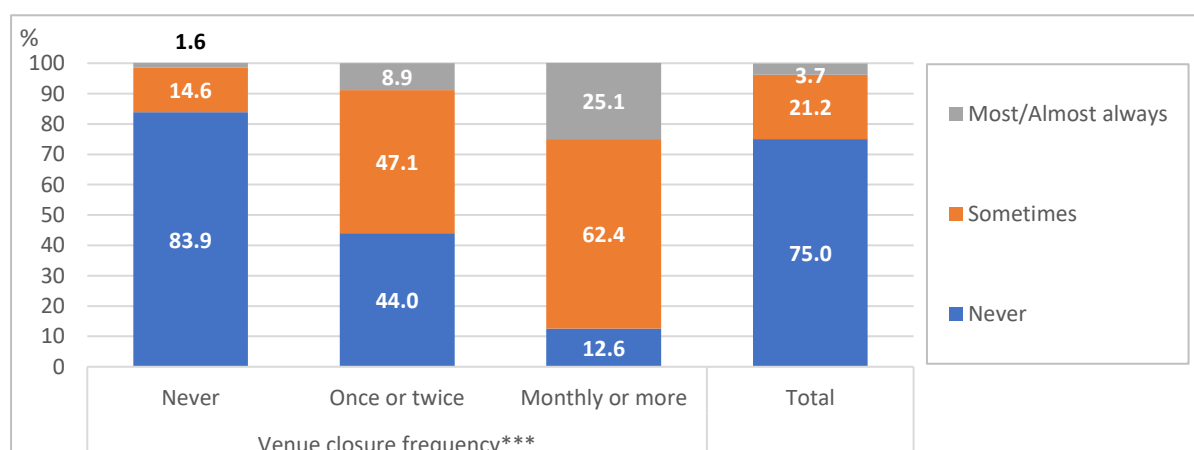


**Figure 11:** Venue closure frequency and wanted to continue gambling on EGMs by PGSI-2: Had to gamble with larger amounts to get the same excitement (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between frequency of venue closure and needing to gamble with larger amounts for the same excitement

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often; PGSI\_2 Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?

A very similar trend for chasing losses can be seen in Figure 12 Across the sample of EGM gamblers, 3.7% chased losses most of the time or almost always, 21.2% sometimes, and 75% never. For EGM gamblers in a venue that closed and they wanted to continue EGM gambling monthly or more, 25.1% most of the time or almost always chased losses, and 62.4% chased losses sometimes. For those EGM gamblers never being in a venue when it closed and wanted to continue EGM gambling, less than 2% responded that they chase losses most of the time or almost always, and 14.6% did sometimes.

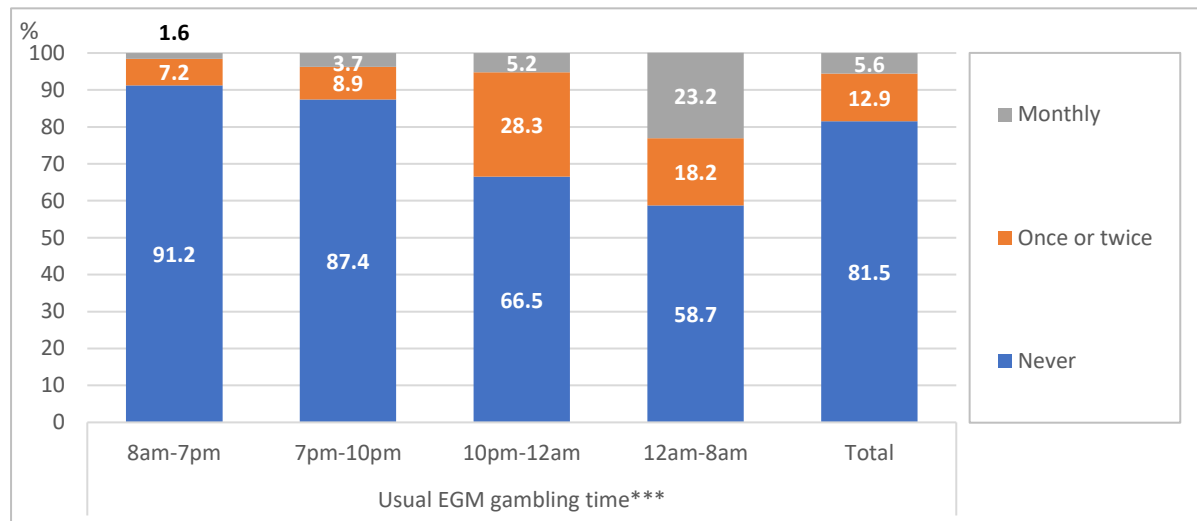


**Figure 12:** Venue closure frequency and wanted to continue gambling on EGMs by PGSI-3: Went back another day to try and win money lost (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between frequency of venue closure and chasing losses

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often; PGSI\_3 When you gambled, did you go back another day to try to win back the money you lost?

Figure 13 plots usual EGM gambling time by frequency of venue closure and wanted to continue EGM gambling. EGM gamblers who usually gamble later than 10pm were more likely to be in a venue when it closed and wanted to continue gambling, with this occurring at least monthly for 5.2% of people and once or twice for 28.3% of 10pm to 12am EGM gamblers, compared with 5.6% and 12.9% for all EGM gamblers respectively. Twenty-three percent of EGM gamblers usually gambling between 12am and 8am were in a venue when it closed monthly, and 18.2% once or twice, compared with 5.6% and 12.9% of all EGM gamblers respectively.

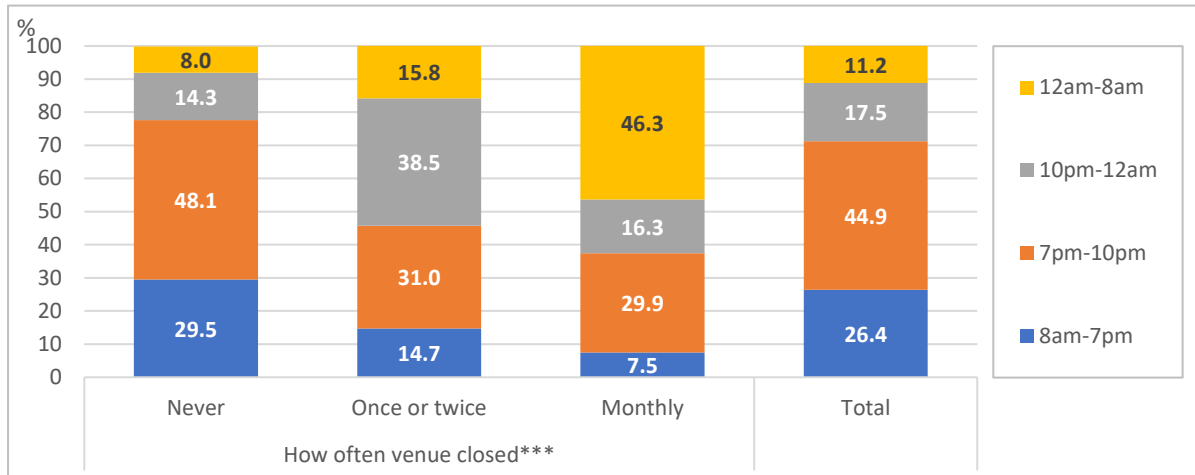


**Figure 13:** Usual EGM gambling time by venue closure frequency and wanted to continue gambling on EGMs (n=581)

**Notes:** \*\*\* p<0.001 Significant bivariate association between usual EGM gambling time and frequency of venue closure

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

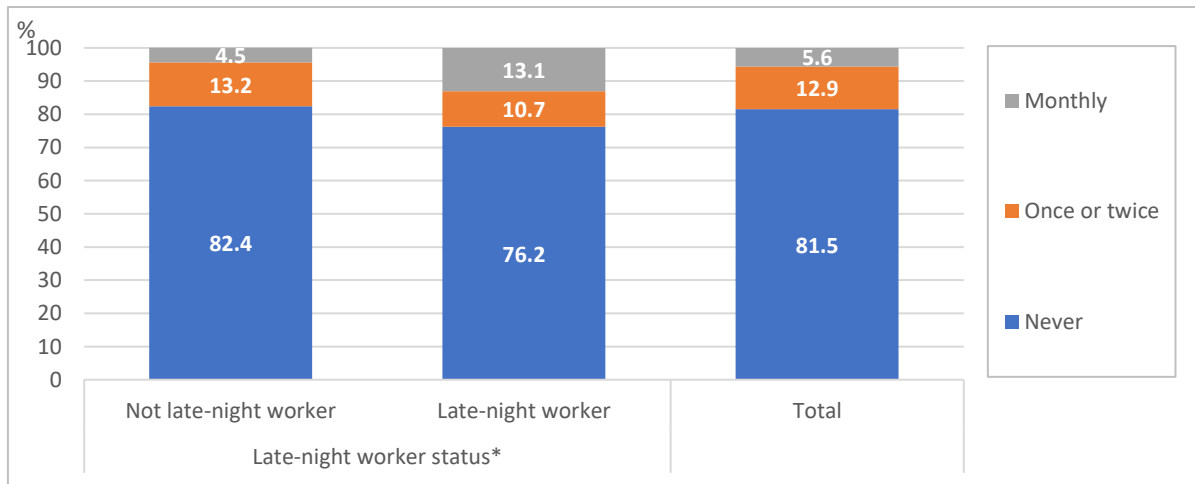
Figure 14 flips the axes of Figure 13 and shows of the 5.6% of EGM gamblers who were in a venue when it closed monthly or more and wanted to continue EGM gambling, 46.3% were 12am to 8am (late-night EGM gamblers), compared with 8% and 15.8% of EGM gamblers who were never in a venue when it closed and were in a venue once or twice when it closed respectively.



**Figure 14: Venue closure frequency and wanted to continue gambling on EGMs by usual EGM gambling time (n=581)**

**Notes:** \*\*\*  $p < 0.001$  Significant bivariate association between frequency of venue closure and usual EGM gambling time  
 Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

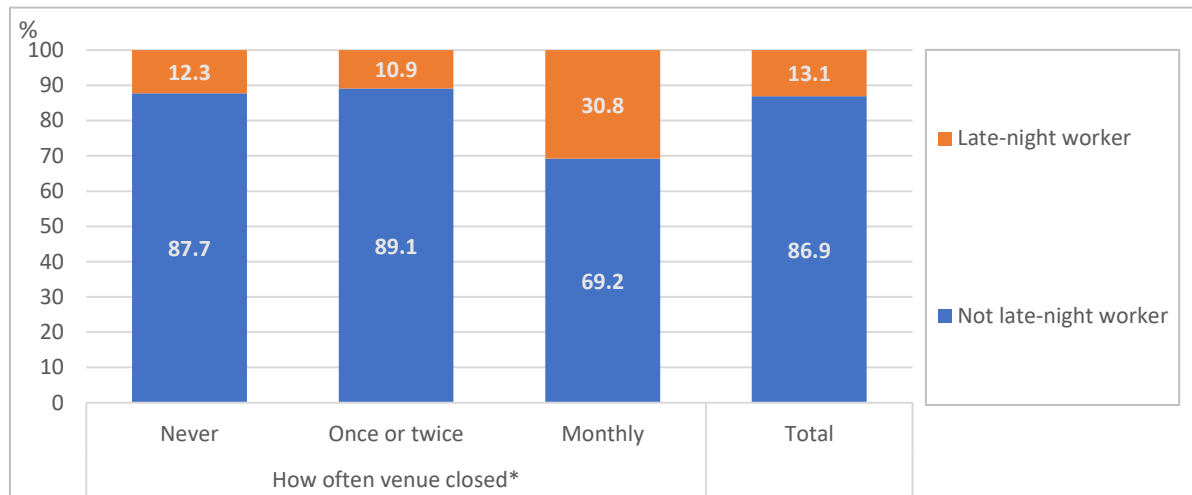
Figure 15 plots late-night worker status by venue closure frequency. Late-night workers were more likely to be in a venue when it closed monthly or more (13.1%), compared with the total sample (5.6%). A little over three-quarters (76.2%) of late-night worker EGM gamblers were never in a venue when it closed and wanted to continue EGM gambling, compared to 82.4% of non-late-night workers.



**Figure 15: Late-night worker status by venue closure frequency and wanted to continue gambling on EGMs (n=581)**

**Notes:** \*  $p < 0.05$  Significant bivariate association between late-night worker status and frequency of venue closure  
 Question: Since November 2021, how often have your work commitments required you to work until 9pm or later? Always or nearly always; Often; Sometimes; Rarely; Never; Not applicable – not in the workforce at any time since November 2021

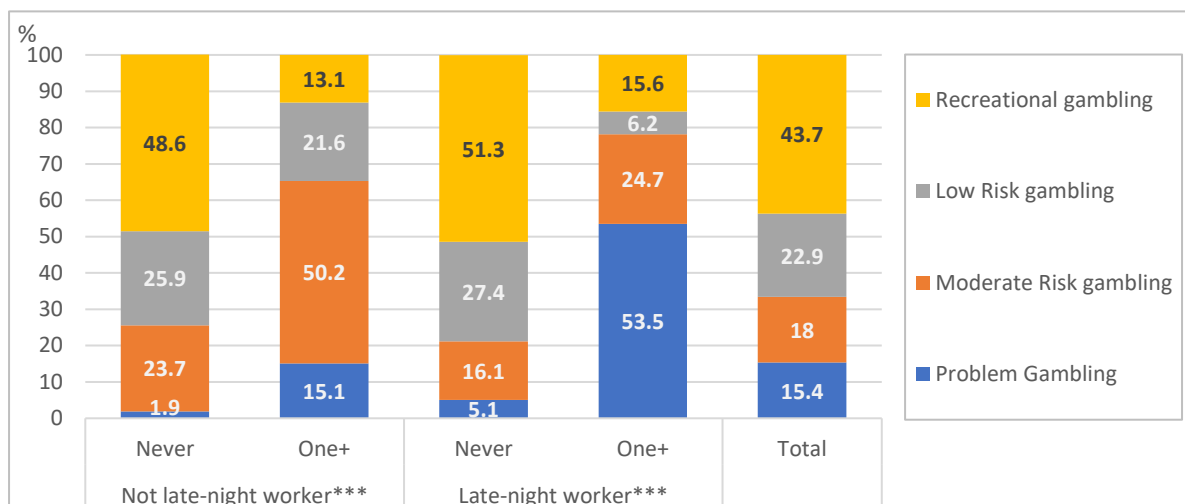
Figure 16 flips the axes of Figure 15 and shows that of the 5.6% of EGM gamblers who were in a venue when it closed monthly or more, 30.8% were late-night workers, compared with 13.1% in the total sample. There was little difference in the percentage of late-night workers among EGM gamblers who were never in a venue when it closed (12.3%), or where it happened once or twice (10.9%).



**Figure 16:** Venue closure frequency and wanted to continue gambling on EGMs by late-night worker status (n=581)

**Notes:** \* p<0.05 Significant bivariate association between frequency of venue closure and late-night worker status  
 Question: Since November 2021, how often have your work commitments required you to work until 9pm or later? Always or nearly always; Often; Sometimes; Rarely; Never; Not applicable – not in the workforce at any time since November 2021

Figure 17 shows being in a venue when it closed, and wanting to continue EGM gambling once or more, and problem gambling risk, stratified by late-night worker status. The association between venue closure and problem gambling risk was highly significant for both late-night workers and non-late-night workers; however, there were differences by late-night worker status. Specifically, problem gambling was higher among late-night workers who were in a venue when it closed and wanted to continue EGM gambling (53.5%), compared with non-late-night workers (15.1%), though overall problem gambling risk (low, moderate and problem) was similar. The clearest difference in problem gambling risk is observed between EGM gamblers who were never in a venue when it closed and wanted to continue EGM gambling and those that were, with the latter having significantly higher problem gambling risk.



**Figure 17:** Venue closure frequency and wanted to continue gambling on EGMs by problem gambling risk (PGSI) stratified late-night worker status (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between frequency of venue closure and problem gambling risk for non-late-night workers and late-night workers separately

Question: Since November 2021, how often have your work commitments required you to work until 9pm or later? Always or nearly always; Often; Sometimes; Rarely; Never; Not applicable – not in the workforce at any time since November 2021;  
 Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

Table 10 shows younger adults were significantly more likely to be in a venue and wanted to continue EGM gambling when it closed. Note that relative standard errors for most estimates in the monthly or more venue closure column are greater than 30% and should be interpreted with caution. Males and those not speaking English at home were also significantly more likely to be in a venue when it closed, while unemployed people were significantly less likely than employed people to be in a venue at closure time. Late night workers were significantly more likely also to be in a venue at closure, with this occurring more than monthly for 14% of EGM gamblers who would usually finish work after 9pm, compared with 4.5% of non-late-night workers. Full-time (18.6%) students were more likely than those not studying (3.6%) to be in a venue when it closed monthly or more.

**Table 10:** Significant bivariate associations between demographic and socioeconomic variables and venue closure frequency (n=581)

	Distribution % (SE)	Venue closure frequency		
		Never % (SE)	Once or twice % (SE)	Monthly or more
<i>All Club EGM gamblers</i>	100.0	81.5 (2.0)	12.9 (1.8)	5.6 (1.2)
Age (years)***				
18-29	17.5 (1.8)	60.8 (6.8)	23.6 (6.0)	15.6 (5.2)
30-39	26.8 (2.1)	77.6 (4.7)	14.8 (4.3)	7.5 (2.3)
40-49	16.6 (1.5)	85.3 (3.6)	10.8 (3.1)	4.0 (1.8)
50-64	22.0 (1.0)	92.1 (2.5)	7.0 (2.4)	0.9 (0.5)
65 or more	17.1 (0.4)	91.8 (2.2)	8.2 (2.2)	0.0 (0.0)
Sex*				
Male	58.8 (1.1)	78.4 (2.9)	15.7 (2.7)	6.0 (1.7)
Female	41.2 (1.1)	86.1 (2.2)	8.9 (1.9)	5.1 (1.4)

	Distribution % (SE)	Venue closure frequency		
		Never % (SE)	Once or twice % (SE)	Monthly or more
Language at home (p=0.055)				
English	84.6 (1.8)	83.0 (2.1)	12.7 (1.9)	4.4 (1.2)
Not English	15.4 (1.8)	73.7 (5.8)	13.9 (5.0)	12.4 (4.1)
Labour force status*				
Full-time employed	58.9 (2.1)	77.3 (3.0)	15.7 (2.7)	7.1 (1.8)
Casual/part-time employed	13.7 (1.6)	82.2 (4.9)	8.4 (3.7)	9.4 (3.8)
Unemployed	2.9 (0.8)	97.4 (1.6)	1.7 (1.2)	0.9 (0.9)
Not in the labour force	24.5 (1.6)	89.5 (2.6)	10.0 (2.6)	0.5 (0.4)
Late-night worker status*				
Not late-night worker	86.9 (1.7)	82.4 (2.1)	13.2 (2.0)	4.5 (1.2)
Late-night worker	13.1 (1.7)	76.2 (5.4)	10.7 (3.9)	13.1 (4.1)
Student status***				
Not studying	79.5 (2.2)	86.7 (1.8)	9.7 (1.5)	3.6 (1.1)
Part-time study	10.8 (1.8)	64.2 (8.9)	26.9 (8.9)	8.9 (4.3)
Full-time study	9.6 (1.6)	58.4 (8.8)	23.0 (7.5)	18.6 (6.7)
Index of Disadvantage quintiles*				
Least Disadvantaged	17.8 (1.8)	72.6 (5.0)	20.1 (4.6)	7.3 (3.0)
2	21.9 (2.1)	85.2 (3.8)	13.3 (3.8)	1.4 (0.6)
3	24.6 (2.2)	81.3 (4.0)	7.6 (2.1)	11.1 (3.6)
4	17.4 (2.0)	87.8 (4.5)	8.9 (4.4)	3.3 (1.6)
Most Disadvantaged	18.2 (2.0)	80.1 (5.4)	16.1 (5.2)	3.7 (2.3)
<b>Total</b>	<b>100.0</b>	<b>81.5 (2.0)</b>	<b>12.9 (1.8)</b>	<b>5.6 (1.2)</b>
Sample (n)	581	443	83	55

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Row totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05: Significant association between demographic/socioeconomic variable and venue closure frequency

Table 11 shows significant associations between gambling behaviour and participation variables and frequency of venue closure while wanting to continue gambling on EGMs. All gambling behaviour and participation variables exhibited a significant association with venue closure frequency. Note that relative standard errors for most estimates in the monthly or more venue closure column are greater than 30% and should be interpreted with caution.

EGM gamblers classified as experiencing problem gambling (31.7%) were more likely than moderate risk (10.2%), low risk (2.6%) and recreational gamblers (0%) to experience venue closure monthly or more. Two behavioural PGSI items, chasing losses and needing to gamble with more money for the same excitement both had a positive association with venue closure, with gamblers scoring higher (more harm) on these items, significantly more likely to be in a venue when it closed (note that these two items were not included in multivariable modelling). A higher percentage of late-night gamblers experienced venue closure, compared with those who usually gamble on EGMs in the daytime. Those who gamble on more gambling forms and visit all three venue types were more likely to experience venue closure monthly or more. Club, pub and Star casino EGM gambling frequency all showed that the more frequent the EGM gambling, the more likely the gambler was to experience a venue closure, when wanting to continue gambling. Late-night gambling status was significantly associated with being in a venue when it closed and wanting to continue EGM gambling. For those gambling before midnight, 5% or less indicated that the venue closed monthly or more, and this increased to 11.9% and 40.9% for those usually gambling between 12am and 2am, and 2am to 8am respectively. EGM gamblers who spend more money in a

usual EGM session, gamble longer, were in more loyalty schemes and gamble alone were all more likely to experience more venue closures.

**Table 11:** Significant bivariate associations between gambling behaviours and participation variables and venue closure frequency (n=580-581)

	Distribution % (SE)	Venue closure frequency		
		Never % (SE)	Once or twice % (SE)	Monthly or more % (SE)
<i>All EGM gamblers</i>	100.0	81.5 (2.0)	12.9 (1.8)	5.2 (1.1)
<b>Problem gambling risk (PGSI)***</b>				
Recreational gambling	42.5 (2.4)	94.3 (2.1)	5.7 (2.1)	0.0 (0.0)
Low risk	24.9 (2.2)	86.0 (3.7)	11.4 (3.3)	2.6 (1.9)
Moderate risk	27.0 (2.4)	68.9 (5.2)	20.8 (4.6)	10.2 (3.5)
Problem gambling	5.6 (0.6)	32.9 (5.1)	35.5 (4.9)	31.7 (4.7)
<b>Needed to gamble with larger amounts (PGSI2)***</b>				
Never	72.6 (2.3)	89.6 (1.9)	8.7 (1.8)	1.7 (0.8)
Sometimes	22.5 (2.3)	66.6 (5.5)	21.3 (4.7)	12.1 (4.0)
Most or almost always	4.9 (1.0)	35.2 (9.7)	38.6 (11.)	26.2 (6.5)
<b>Chasing losses (PGSI3)***</b>				
Never	75.2 (2.2)	91.5 (1.7)	7.6 (1.7)	0.9 (0.5)
Sometimes	21.2 (2.2)	55.8 (6.1)	28.8 (5.6)	15.3 (4.5)
Most or almost always	3.6 (0.6)	33.7 (7.9)	31.8 (7.4)	34.5 (6.7)
<b>Late-night gambler status***</b>				
8am-7pm	26.4 (2.0)	91.2 (2.9)	7.2 (2.6)	1.6 (1.6)
7pm-12am	62.4 (2.4)	81.5 (2.6)	14.3 (2.5)	4.1 (1.1)
12am-8am	11.2 (1.7)	58.7 (7.7)	18.2 (4.8)	23.2 (6.9)
<b>Late-night gambler status***</b>				
8am-7pm	26.4 (2.0)	91.2 (2.9)	7.2 (2.6)	1.6 (1.6)
7pm-10pm	44.9 (2.5)	87.4 (2.5)	8.9 (2.1)	3.7 (1.4)
10pm-12am	17.5 (2.1)	66.5 (6.6)	28.3 (6.5)	5.2 (1.9)
12am-2am	6.9 (1.4)	68.1 (9.7)	20.0 (6.4)	11.9 (8.7)
2am-8am	4.3 (1.0)	43.8 (7.7)	15.2 (4.8)	40.9 (11.)
<b>Number of gambling forms***</b>				
One	14.7 (1.8)	91.7 (2.9)	6.2 (2.4)	2.1 (1.7)
Two	41.4 (2.4)	85.6 (2.8)	11.4 (2.5)	3.1 (1.3)
Three	26.7 (2.4)	76.8 (4.7)	16.9 (4.4)	6.3 (2.3)
Four	11.7 (1.7)	80.1 (6.3)	8.9 (2.8)	11.0 (6.2)
Five	5.5 (1.2)	50.5 (11.)	30.3 (10.)	19.2 (6.2)
<b>Number of venue types***</b>				
One	30.3 (2.0)	96.2 (1.3)	3.5 (1.3)	0.3 (0.3)
Two	52.8 (2.5)	82.7 (3.0)	13.6 (2.7)	3.7 (1.6)
Three	16.8 (1.9)	51.5 (6.1)	27.3 (5.4)	21.3 (4.5)
<b>Club EGM frequency***</b>				
Once or twice	66.3 (2.4)	87.8 (2.1)	10.2 (2.0)	2.0 (0.8)
Monthly	20.0 (2.1)	66.1 (5.6)	22.5 (5.2)	11.1 (3.6)
Fortnightly or more	13.7 (1.7)	74.0 (5.8)	11.6 (3.4)	14.4 (5.1)
<b>Pub EGM frequency***</b>				
Not at all	31.9 (2.1)	96.0 (1.3)	3.7 (1.2)	0.3 (0.3)
Once or twice	46.6 (2.5)	80.2 (3.3)	16.1 (3.1)	3.7 (1.6)
Monthly	15.0 (1.9)	64.5 (6.7)	18.8 (5.2)	16.7 (5.3)
Fortnightly or more	6.5 (1.1)	59.0 (7.9)	20.8 (5.7)	20.1 (5.4)
<b>Star casino EGM frequency***</b>				
Not at all	81.6 (1.9)	87.5 (2.0)	10.0 (1.8)	2.5 (1.1)



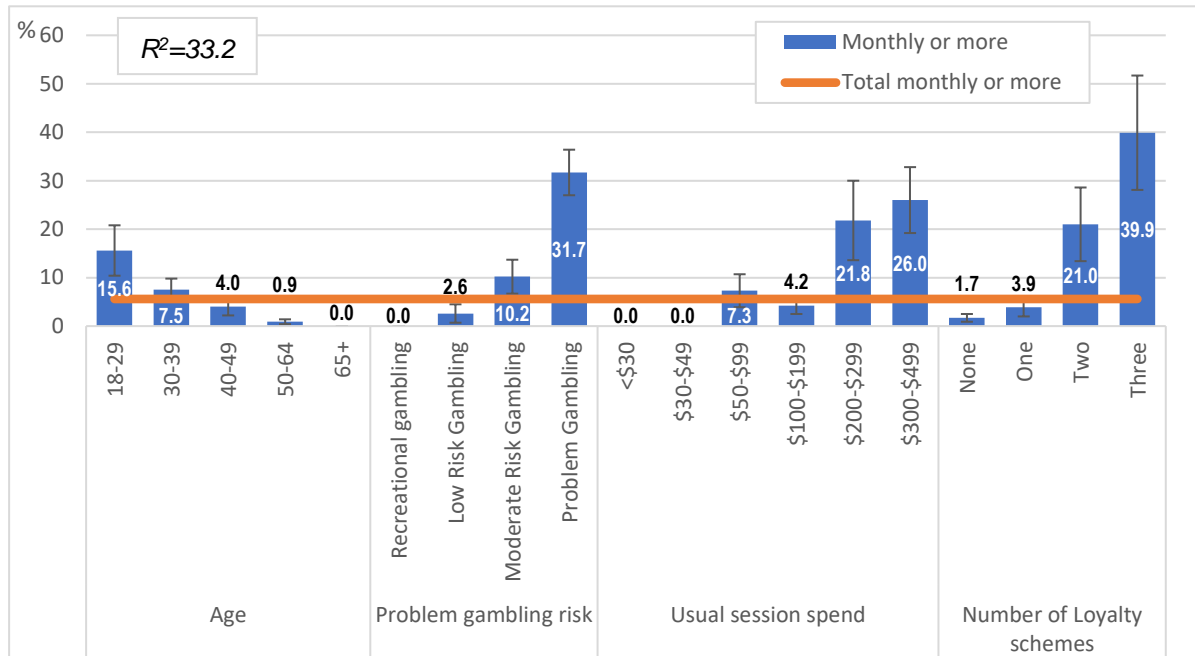
	Distribution % (SE)	Venue closure frequency		
		Never % (SE)	Once or twice % (SE)	Monthly or more % (SE)
<i>All EGM gamblers</i>	100.0	81.5 (2.0)	12.9 (1.8)	5.2 (1.1)
Once or twice	12.9 (1.7)	65.6 (6.6)	25.3 (6.0)	9.1 (3.7)
Monthly or more	5.5 (1.1)	30.3 (10.)	26.2 (8.7)	43.6 (9.8)
Usual session spend***				
Less than \$30	21.6 (2.1)	97.7 (1.3)	2.3 (1.3)	0.0 (0.0)
\$30-\$49	28.1 (2.3)	88.4 (3.5)	11.6 (3.5)	0.0 (0.0)
\$50-\$99	24.7 (2.3)	73.7 (5.0)	19.0 (4.4)	7.3 (3.4)
\$100-\$199	13.7 (1.8)	86.5 (3.3)	9.3 (2.7)	4.2 (1.7)
\$200-\$299	5.8 (1.1)	52.9 (9.3)	25.4 (8.5)	21.8 (8.2)
\$300 or more	6.0 (1.1)	45.7 (9.3)	28.3 (9.8)	26.0 (6.8)
Usual session length***				
Less than 30 minutes	43.5 (2.5)	83.5 (3.3)	11.4 (2.8)	5.1 (2.1)
30-59 minutes	38.5 (2.3)	86.3 (2.5)	9.5 (2.3)	4.2 (1.4)
60 minutes or more	18.1 (1.9)	66.5 (5.3)	23.5 (5.0)	10.0 (2.8)
Number of days EGM gambles*				
None	45.6 (2.5)	85.3 (2.6)	12.4 (2.4)	2.2 (1.1)
One	35.6 (2.5)	79.8 (3.6)	14.0 (3.3)	6.2 (1.9)
Two	14.3 (1.9)	72.2 (6.7)	12.3 (4.9)	15.5 (5.6)
Four to seven	4.4 (0.8)	86.2 (5.3)	10.2 (4.8)	3.5 (2.3)
Number of Loyalty schemes***				
None	67.0 (2.4)	90.2 (2.0)	8.1 (1.8)	1.7 (0.8)
One	19.3 (1.9)	80.2 (4.6)	15.8 (4.4)	3.9 (1.9)
Two	9.1 (1.5)	47.9 (8.8)	31.2 (8.2)	21.0 (7.6)
Three	4.5 (1.1)	27 (11.9)	33.1 (12.)	39.9 (12.)
Number of venues gambles alone***				
None	75.8 (2.1)	86.9 (2.0)	10.4 (1.9)	2.7 (0.9)
One	10.2 (1.4)	79.5 (6.3)	6.6 (2.9)	14.0 (6.0)
Two	9.4 (1.5)	63.6 (7.7)	30.1 (7.6)	6.3 (2.6)
Three	4.6 (1.1)	34.2 (12.2)	31.7 (12.)	34.1 (12.)
<b>Total</b>	<b>100.0</b>	<b>81.5 (2.0)</b>	<b>12.9 (1.8)</b>	<b>5.2 (1.1)</b>
Sample (n)	581	443	83	55

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Row totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05: Significant association between gambling behaviour/participation variable and venue closure frequency

Figure 18 plots the prevalence of being in a venue monthly or more when it closed and wanted to continue EGM gambling for variables in the full model for venue closure frequency, with incidence rate ratios and estimates for explanatory variables by venue closure frequency shown in Table 12.

The full model explained 33.2% of the variation in venue closure frequency. All socioeconomic variables with a bivariate association dropped out of this model, while age was the only demographic variable retaining a multivariable significant association with venue closure frequency. Problem gambling risk (PGSI) was retained, and shows that gamblers experiencing problem gambling (31.7%) and a moderate risk (10.2%) of problem gambling had significantly higher monthly or more estimates for being in a venue when it closed and wanting to continue EGM gambling. There were no recreational gamblers that were in a venue monthly or more when it closed and wanted to continue EGM gambling. EGM gamblers spending \$200-\$299 (21.8%) and \$300 or more (26%) were significantly more likely to be in a venue when it closed and wanted to continue EGM gambling monthly or more,

compared with those spending less in a usual EGM gambling session. EGM gamblers who were members of two (21%) and three (39.9%) loyalty schemes were significantly more likely to be in a venue when it closed and wanted to continue EGM gambling monthly or more, compared to those in none or one loyalty scheme.



**Figure 18:** Percentage (standard error) of being in a venue monthly or more often when it closed and wanting to continue EGM gambling for variables in the full model (n=581)

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

**Table 12:** Full multivariable adjusted model for venue closure frequency when wanted to continue gambling (n=581)

R <sup>2</sup> =33.2%		Venue closure frequency			IRR (95% CI)
		Distribution % (SE)	Never % (SE)	Once or twice % (SE)	
<b>Total</b>	<b>100.0</b>	<b>81.5 (2.0)</b>	<b>12.9 (1.8)</b>	<b>5.6 (1.2)</b>	-
<b>Age group (years)</b>					
18-29	17.5 (1.8)	60.8 (6.8)	23.6 (6.0)	15.6 (5.2)	1.0
30-39	26.8 (2.1)	77.6 (4.7)	14.8 (4.3)	7.5 (2.3)	<b>0.68 (0.42-1.09)</b>
40-49	16.6 (1.5)	85.3 (3.6)	10.8 (3.1)	4.0 (1.8)	<b>0.59 (0.33-1.07)</b>
50-64	22.0 (1.0)	92.1 (2.5)	7.0 (2.4)	0.9 (0.5)	<b>0.32 (0.16-0.63)</b>
65+	17.1 (0.5)	91.8 (2.2)	8.2 (2.2)	0.0 (0.0)	<b>0.32 (0.17-0.61)</b>
<b>Problem gambling risk (PGSI)</b>					
Recreational gambling	42.5 (2.4)	94.3 (2.1)	5.7 (2.1)	0.0 (0.0)	1.0
Low risk gambling	24.9 (2.2)	86.0 (3.7)	11.4 (3.3)	2.6 (1.9)	2.15 (0.92-5.04)
Moderate risk gambling	27.0 (2.4)	68.9 (5.2)	20.8 (4.6)	10.2 (3.5)	<b>3.02 (1.48-6.17)</b>
Problem gambling	5.6 (0.6)	32.9 (5.1)	35.5 (4.9)	31.7 (4.7)	<b>5.27 (2.37-11.7)</b>
<b>Usual session spend</b>					
Less than \$30	21.6 (2.1)	97.7 (1.3)	2.3 (1.3)	0 (0)	1.0
\$30-\$49	28.1 (2.3)	88.4 (3.5)	11.6 (3.5)	0 (0)	3.06 (0.86-10.9)
\$50-\$99	24.7 (2.3)	73.7 (5.0)	19.0 (4.4)	7.3 (3.4)	<b>5.65 (1.74-18.4)</b>
\$100-\$199	13.7 (1.8)	86.5 (3.3)	9.3 (2.7)	4.2 (1.7)	2.38 (0.67-8.39)
\$200-\$299	5.8 (1.1)	52.9 (9.3)	25.4 (8.5)	21.8 (8.2)	<b>6.30 (1.80-22.0)</b>

	Distribution % (SE)	Venue closure frequency			IRR (95% CI)
		Never % (SE)	Once or twice % (SE)	Monthly or more % (SE)	
$R^2=33.2\%$					
\$300-\$499	6.0 (1.1)	45.7 (9.3)	28.3 (9.8)	26.0 (6.8)	<b>8.45 (2.30-31.0)</b>
Number of Loyalty memberships					
None	67.0 (2.4)	90.2 (2.0)	8.1 (1.8)	1.7 (0.8)	1.0
One	19.3 (1.9)	80.2 (4.6)	15.8 (4.4)	3.9 (1.9)	1.64 (0.97-2.77)
Two	9.1 (1.5)	47.9 (8.8)	31.2 (8.2)	21.0 (7.6)	<b>3.02 (1.78-5.11)</b>
Three	4.5 (1.1)	27.0 (12.)	33.1 (12.)	39.9 (12.)	<b>2.39 (1.24-4.61)</b>
<b>Total</b>	<b>100.0</b>	<b>81.5 (2.0)</b>	<b>12.9 (1.8)</b>	<b>5.6 (1.2)</b>	-
Sample (n)	581	443	83	55	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Row totals may not add exactly to 100% due to rounding

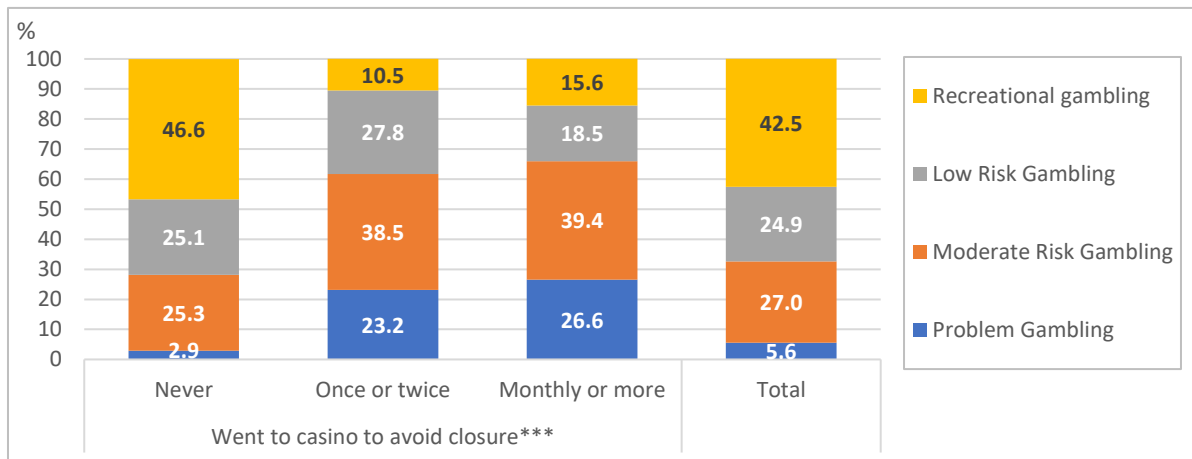
## 5.4 Objective 5: Displacement to other venues after experiencing venue closure

Table 13 shows that most people (83% to 87%) indicated they never planned their evening around gaming room closure, though 7% to 8% of EGM gamblers attended the Star casino or a specific pub/club to avoid gaming room closures monthly or more often.

**Table 13:** Whether went to Star casino to avoid gaming room closure, went to specific pub/club because knew another one would close, and went to particular pub/club because location make it easier to get to after first one closed (n=581)

How often	Star casino to avoid closure % (SE)	Specific pub/Club to avoid closure % (SE)	Specific pub/club ensure travel to another venue % (SE)
Never	87.4 (1.7)	83.3 (2.0)	82.5 (2.0)
Once or twice	5.8 (1.2)	9.0 (1.6)	10.7 (1.8)
Monthly	3.4 (1.0)	5.4 (1.4)	4.5 (1.2)
Fortnightly or more	3.5 (1.0)	2.3 (0.6)	2.2 (0.5)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Sample	581	581	581

Figures 19, 20 and 21 show the significant association between problem gambling risk and EGM gamblers propensity to specifically select a venue (Star casino, pub or club) to gamble in, to avoid closing time. Figure 19 shows that EGM gamblers who went to the Star casino monthly or more to avoid venue closure, were more likely to be experiencing problem gambling (26.6%) and moderate risk of problem gambling (39.4%) compared with EGM gamblers who never went to the Star casino for this reason (2.9% and 25.3% respectively). Of the group that went to the Star casino monthly or more often to gamble on EGMs to avoid venue closure, 15.6% were recreational gamblers, compared with 46.6% recreational gamblers in the group that never went to the Star casino to avoid venue closure.

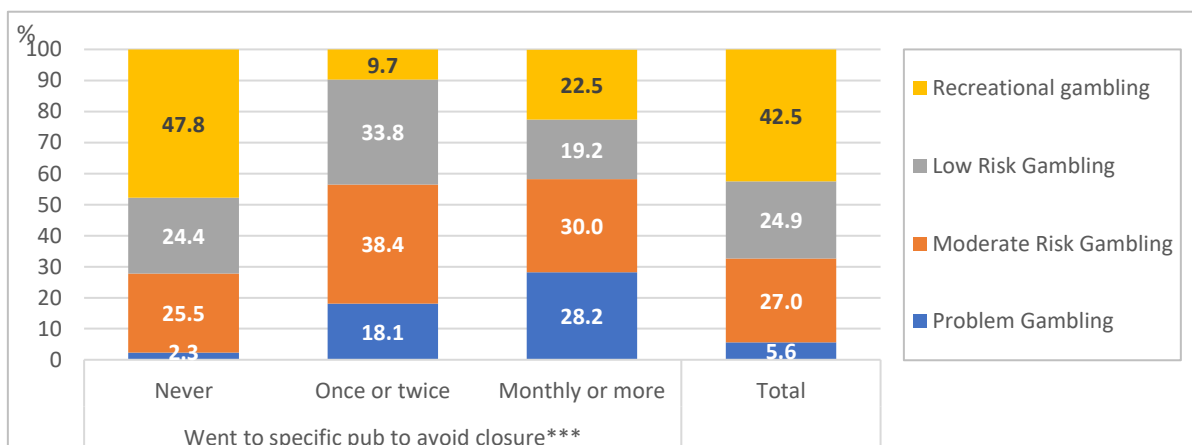


**Figure 19:** Went to Star casino to avoid a gaming room closure by problem gambling risk (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between went to casino to avoid venue closure and problem gambling risk

**Question:** Since November 2021, how often have you planned your evening to avoid the impact of a gaming room closure, in any of the following ways? Visiting the Star Casino to play poker machines, rather than visiting a club, pub or hotel that you knew would have to close its gaming room (or entire venue) during the time you intended playing

Figure 20 shows that EGM gamblers who selected a specific pub monthly or more to avoid venue closure, were more likely to be experiencing problem gambling (28.2%) and moderate risk of problem gambling (30%) compared with EGM gamblers who never selected a pub for this reason (2.3% and 25.5% respectively). Of the group that selected a specific pub monthly or more often to gamble on EGMs to avoid venue closure, 22.5% were recreational gamblers, compared with 47.8% recreational gamblers in the group that never selected a specific pub to avoid venue closure.

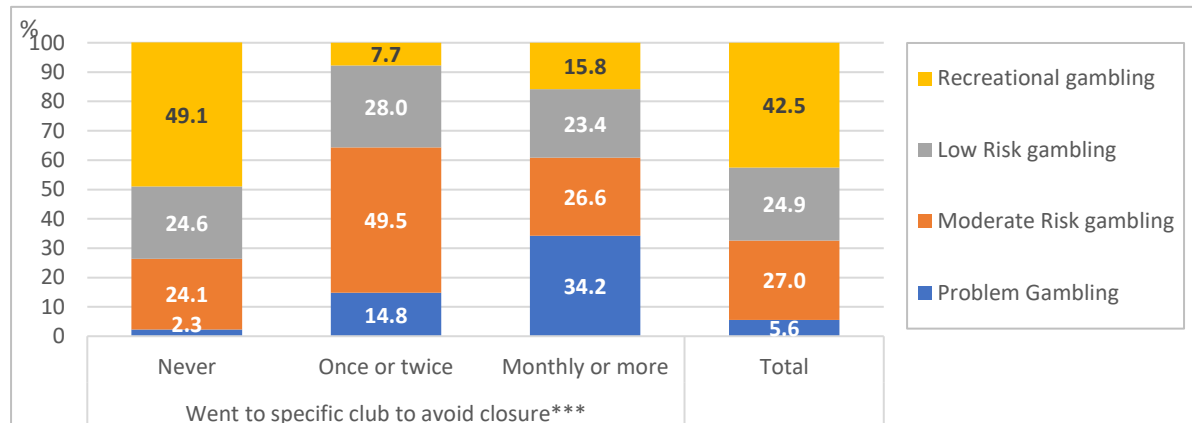


**Figure 20:** Went to a specific pub to avoid a gaming room closure by problem gambling risk (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between went to specific pub to avoid venue closure and problem gambling risk

**Question:** Since November 2021, how often have you planned your evening to avoid the impact of a gaming room closure, in any of the following ways? Visiting a particular club, pub or hotel to play poker machines, because you knew a possible alternative club, pub or hotel would have to close its gaming room (or entire venue) during the time you intended playing; Visiting a particular club, pub or hotel to play poker machines, because its location would make it easier for you to move to another poker machine venue once the original venue closed, or closed its gaming room

Figure 21 shows that EGM gamblers who selected a specific club monthly or more to avoid venue closure, were more likely to be experiencing problem gambling (34.2%) and moderate risk of problem gambling (26.6%) compared with EGM gamblers who never selected a pub for this reason (2.3% and 24.1% respectively). Of the group that selected a specific club monthly or more often to gamble on EGMs to avoid venue closure, 15.8% were recreational gamblers, compared with 49.1% in the group that never selected a specific club to avoid venue closure.



**Figure 21:** Went to a specific club to avoid a gaming room closure by problem gambling risk (n=580)

**Notes:** \*\*\* p<0.001 Significant bivariate association between went to a specific club to avoid venue closure and problem gambling risk

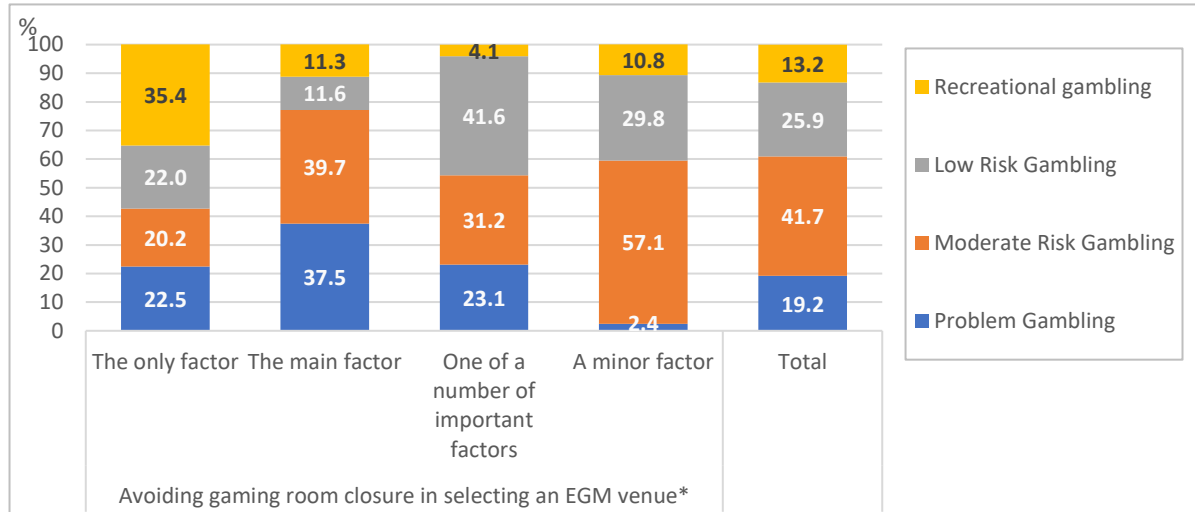
Question: Since November 2021, how often have you planned your evening to avoid the impact of a gaming room closure, in any of the following ways? Visiting a particular club, pub or hotel to play poker machines, because you knew a possible alternative club, pub or hotel would have to close its gaming room (or entire venue) during the time you intended playing; Visiting a particular club, pub or hotel to play poker machines, because its location would make it easier for you to move to another poker machine venue once the original venue closed, or closed its gaming room

The following data applies to the 18.5% (n=138) of EGM gamblers who had been in a venue when it closed and they wanted to continue gambling on EGMS. That is, the sample of EGM gamblers in Table 10 who indicated either 'once or twice', or 'monthly or more' that they had been in a venue gambling, when it closed, and wanted to continue EGM gambling. Table 14 shows that venue closure and selecting a venue to avoid closure was a minor factor in gamblers decision to go to a different venue for 37% of those experiencing a venue closure. A further 19% indicated it was one of a number of equally important factors. However, 44% responded that it was the only or the main factor in selecting a venue to gamble on EGMs. Note, that this equates to 9.1% of EGM gamblers from the sample asked about venue closure.

**Table 14:** How big a factor was avoiding the closure of a gaming room or venue in your decision to go to a different poker machine venue (n=134, 4 missing)

	% (SE)
The only factor	16.4 (4.9)
The main factor	27.3 (5.4)
One of a number of equally important factors	19.4 (3.9)
A minor factor	36.8 (6.4)
<b>Total</b>	<b>100.0</b>
<b>Sample (n)</b>	<b>134</b>

Figure 22 shows the significant association between the importance of selecting a venue to avoid gaming room closure and problem gambling risk. EGM gamblers who indicated it was a minor factor were significantly less likely to be classified as experiencing problem gambling, while problem gambling was highest for those indicating it was the main factor (37.5%), followed by one of a number of equally important factors (23.1%), and the only factor (22.5%).

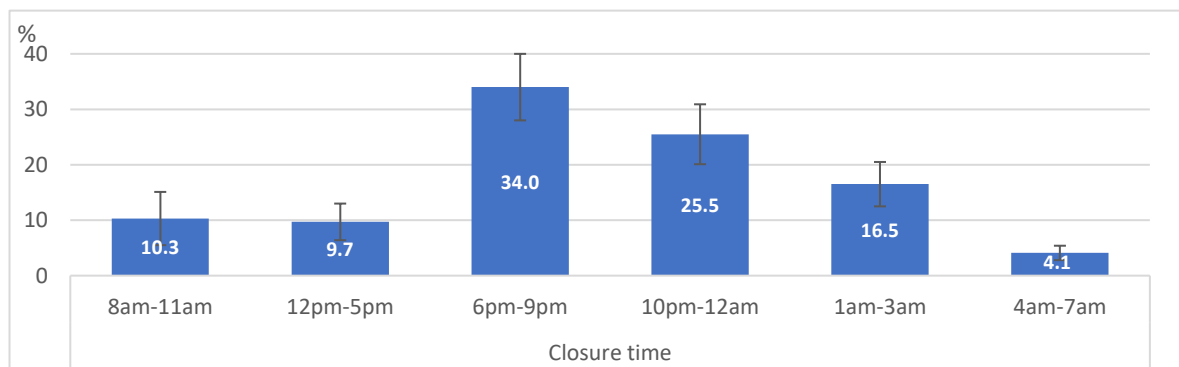


**Figure 22:** Importance of selecting a venue to avoid a gaming room closure by problem gambling risk (n=134)

**Notes:** \*  $p < 0.05$  Significant bivariate association between main reason selecting a specific venue to avoid venue closure and problem gambling risk

Question: How big a factor was avoiding the closure of a gaming room or venue in your decision to go to a different poker machine venue? The only factor; The main factor; One of a number of equally important factors; A minor factor

Figure 23 shows the distribution of venue closure times when the venue closed and the EGM gambler wished to continue gambling. It would appear that this data is reflecting the period of time when venue closures were more common during COVID, most likely due to staffing shortages and government restrictions. Closing between 6pm and 9pm (34%) was the most common time for venue closure, followed by 10pm and 12am (25.5%), 1am and 3am (16.5%), 8am and 11am (10.3%), 12pm and 5pm (9.7%) and 4am to 7am (4.7%).



**Figure 23:** Distribution of venue closure time when wanted to continue gambling on EGMs (n=138)

Question: At approximately what time did the gaming room (or entire venue) close during this visit?

Table 15 presents estimates for the time spent in the venue before it closed and the time spent gambling on EGMs. It shows that EGM gamblers did not spend all their time gambling on EGMs when they were last at a venue that closed, and wanted to continue EGM gambling.

**Table 15:** Time spent in venue and time spent gambling on EGMs before venue closure EGMs (n=138)

	Time spent in venue % (SE)	Time spent on EGMs % (SE)
Less than 15 minutes	9.1 (4.1)	18.2 (5.1)
15-29 minutes	14.4 (4.4)	26.0 (5.5)
30-59 minutes	26.5 (5.6)	22.3 (5.1)
60-119 minutes	20.8 (4.6)	23.5 (5.3)
120 minutes or more	29.2 (5.7)	10.0 (3.3)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
Sample		

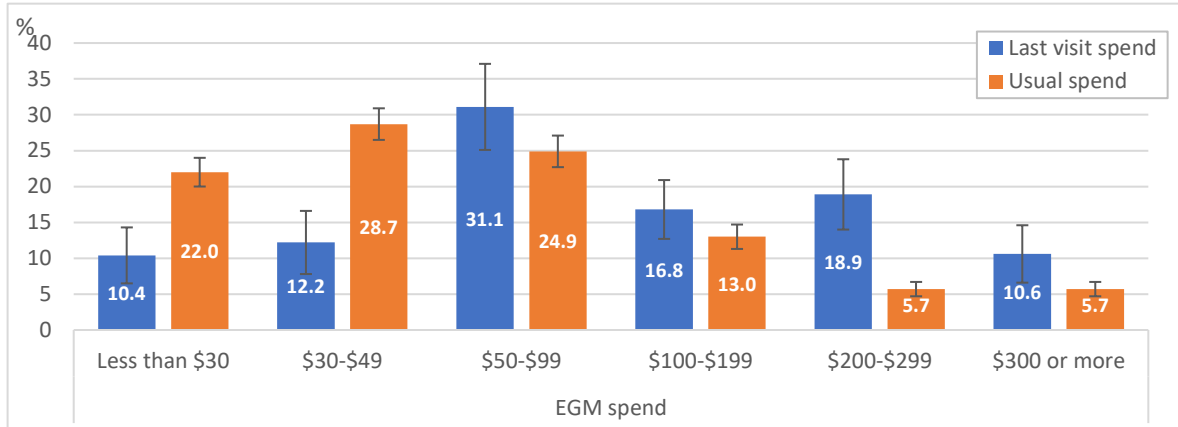
**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Column totals may not add exactly to 100% due to rounding

Table 16 and Figure 24 show the distribution of money spent on EGMs in the last visit when venue closed, along with usual amount spent in a visit. It can be seen that those EGM gamblers who wanted to continue gambling after the venue closed had a higher spend than usual spend for all EGM gamblers in the sample. Specifically, just under 50% of the EGM gamblers who were gambling when a venue shut spent \$100 or more, compared with 24% among all EGM gamblers usual spend.

**Table 16:** Distribution of amount spent on EGMs last visit when venue closed (n=138) and usual spend in a visit for all gamblers (n=625)

	EGM spend when venue closed % (SE)	Usual EGM spend % (SE)
Less than \$30	10.4 (3.9)	22.0 (2.0)
\$30-\$49	12.2 (4.4)	28.7 (2.2)
\$50-\$99	31.1 (6.0)	24.9 (2.2)
\$100-\$199	16.8 (4.1)	13.0 (1.7)
\$200-\$299	18.9 (4.9)	5.7 (1.0)
\$300 or more	10.6 (4.0)	5.7 (1.0)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Column totals may not add exactly to 100% due to rounding



**Figure 24:** Distribution of EGM spend on last visit to a pub or club when it closed and usual EGM spend when visiting a venue (n=138 and n=625)

Question: How much money did you spend playing the pokies at the venue during this visit?

Table 17 shows the percentage of EGM gamblers that went on to another venue after the venue they were in closed, and if they did go to another venue, whether they gambled on EGMs (see Table 17 for more on this question). Most (64%) EGM gamblers did not go to another venue after the closure of the one they were in (see Table 21 for reasons), while 27% did go to another venue, and of this group 75.5% did gamble on EGMs after travelling to another venue. Table 18 presents this data, but includes all EGM gamblers asked about venue closures.

**Table 17:** Went to another venue after gaming room closure and whether gambled on EGMs at this other venue

	Was in a venue when it shut & wanted to continue EGM gambling % (SE)	Gambled on EGMs at other venue <sup>1</sup> %
Yes – went to another venue <sup>2</sup>	26.9 (5.9)	Yes - 75.5; No - 24.5
No didn't go to a venue	64.1 (6.2)	
Don't know/unsure	9.0 (4.3)	
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
<b>Sample size</b>	<b>n=138</b>	<b>n=42</b>

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Column totals may not add exactly to 100% due to rounding; <sup>1</sup> Standard error unable to be calculated due to small sample; <sup>2</sup> Went to another venue after gaming room closure

From Table 18, it can be seen that the group who went on to another venue make up 5% from the sample of EGM gamblers who were asked about venue closure. The group that did indicate they went to another venue and gambled on EGMs was 1.2% of EGM gamblers (i.e. 24.5% of 5%). From the sample asked about venue closure, 11.8% were in a venue when it closed and wanted to continue EGM gambling, but did not go on to another venue, while 1.7% were unsure or couldn't remember.

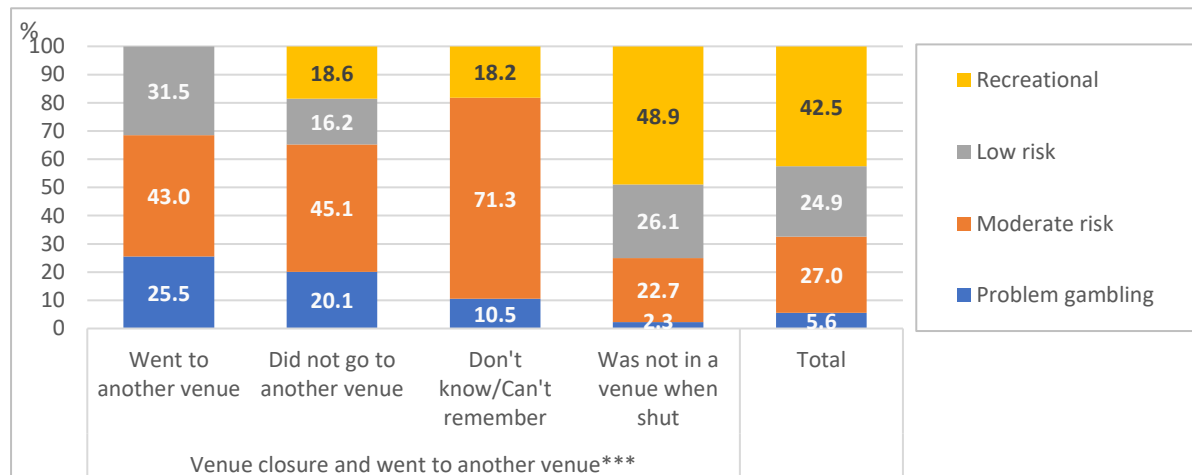


**Table 18:** Went to another venue after gaming room closure and whether gambled on EGMs at this other venue

In a venue when closed & wanted to continue gambling	All EGM Gamblers % (SE)	Gambled on EGMs at other venue <sup>1</sup>	
			%
Went to another venue	5.0 (1.2)	→	Yes - 75.5; No 24.5
Did not go to another venue	11.8 (1.6)		
Don't know/Can't remember	1.7 (0.8)		-
Was not in a venue when closed <sup>2</sup>	81.5 (2.0)		-
<b>Total</b>	<b>100.0</b>		<b>100.0</b>
<b>Sample size</b>	<b>n=581</b>		<b>n=42</b>

**Notes:** Column totals may not add exactly to 100% due to rounding; <sup>1</sup> Weighted estimate but standard error unable to be calculated due to small sample; <sup>2</sup> Was not in a venue when shut and wanted to continue EGM gambling

Figure 25 shows the problem gambling risk across whether the EGM gambler was in a venue when it closed and wanted to continue EGM gambling, for those that went to another venue. Of the 5% of EGM gamblers who did go to another venue, 100% were classified as being at some level of risk of problem gambling, with 25.5% classified as experiencing problem gambling and 43% at moderate risk, and 31.5% low risk, compared with 2.3% problem gambling among EGM gamblers who did not experience a venue closure. Of those who were in a venue when it closed and did not go to another venue to continue EGM gambling, 18.6% were recreational gamblers, compared with 48.9% for those that never experienced venue closure.



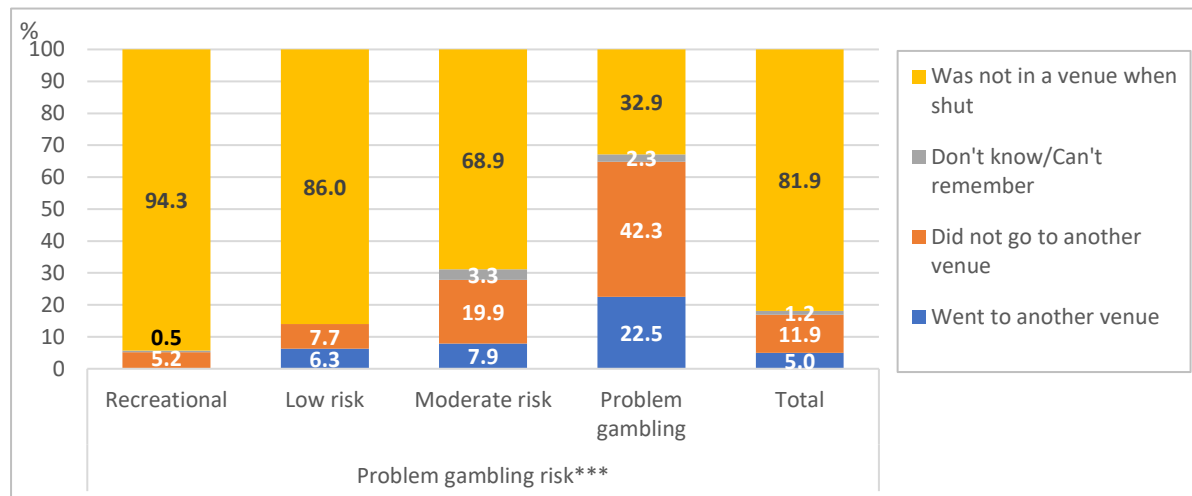
**Figure 25:** Went to another venue after venue closure and wanted to continue EGM gambling by problem gambling risk (n=580, n=1 missing for problem gambling risk)

**Notes:** \*\*\* p<0.001 Significant bivariate association between venue closure and went to another venue and problem gambling risk;

Question: After the gaming room (or entire venue) closed, did you go to another venue that had pokies?

Figure 26 flips the axes of the plot in Figure 25 and shows the distribution of being in a venue when it closed, and whether they went to another venue for different categories of problem gambling risk. Among recreational and low risk gamblers, 94.3% and 86% respectively, did not experience a venue closure, compared with 68.9% and 32.9% of moderate risk and problem gambling groups respectively. No recreational gamblers went on to visit another

venue after closure, while 6.3% of low risk, 7.9% of moderate risk and 22.5% of gamblers experiencing problem gambling went on to another venue.



**Figure 26:** Problem gambling risk by went to another venue after venue closure and wanted to continue EGM gambling (n=581)

**Notes:** \*\*\* p<0.001 Significant bivariate association between problem gambling risk, and venue closure and went to another venue

Question: After the gaming room (or entire venue) closed, did you go to another venue that had pokies?

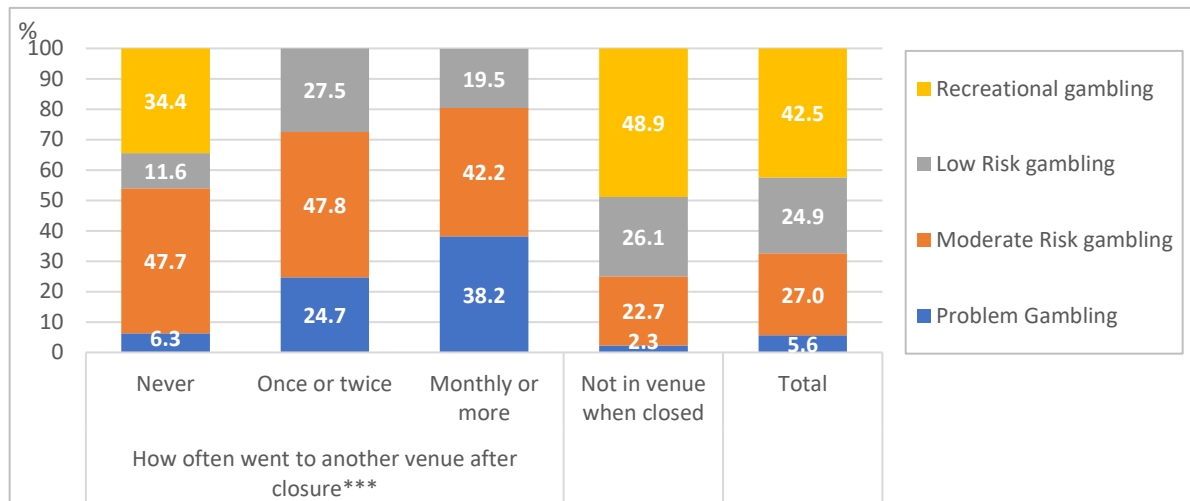
Table 19 shows how often EGM gamblers went to another venue after closure, with the left column of percentages including EGM gamblers not affected by venue closure, and the right column only including the group affected by venue closure (when wanting to continue EGM gambling). Of those that were in a venue when it closed (right column of table), in the 9 months before the survey, 38% never went to another venue, 37% did once or twice, 17% monthly and 7.7% went to another venue fortnightly. For EGM gamblers asked about venue closure (left column), this represents 88.6% (7.1% + 81.5%) who were either not in a venue when it closed and wanted to gamble more, or were in a venue when it closed and wanted to gamble more, but did not go on to another venue to gamble more on EGMs. Just under 5% of EGM gamblers went on to another venue after closure of the venue they were in and wished to continue EGM gambling.

**Table 19:** People in a venue that closed: How often would they go to another venue (n=581, 138)

How often went to another venue after closure	All EGM gamblers asked about venue closure % (SE)	Those that were affected by venue closure % (SE)
Never	7.1 (1.3)	38.3 (5.9)
Once or twice	6.8 (1.4)	37.1 (6.1)
Monthly	3.1 (0.9)	16.9 (4.6)
Fortnightly or more often	1.4 (0.5)	7.7 (2.9)
Was not in venue when it closed <sup>1</sup>	81.5 (2.0)	-
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
<b>Sample size</b>	<b>n=581</b>	<b>n=138</b>

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Column totals may not add exactly to 100% due to rounding; <sup>1</sup> Was not in venue when it closed and wanted to continue EGM gambling; the sample in the right column is the sample answering never, once or twice, monthly, and fortnightly or more often

Figure 27 shows the significant association between frequency of going to another venue to continue EGM gambling after venue closure and problem gambling risk. Of the people that went to another venue, all were at some risk of problem gambling, with 38.2% problem gambling who went to another venue monthly or more, compared with 6.3% for those that venue went to another venue. Also of note, recreational gamblers never went on to another venue to gamble after venue closure.



**Notes:** \*\*\* p<0.001 Significant bivariate association between venue closure and went to another venue and problem gambling risk

**Figure 27:** How often went to another venue after venue closure and wanted to continue EGM gambling by problem gambling risk (n=581)

Question: Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines? Not at all; Once or twice; At least once per month; At least fortnightly; Weekly or more often

Table 20 shows reasons for going to another venue, if not to gamble on EGMs for the n=8 respondents (multiple reasons could be given) who did not gamble on an EGM after travelling to another venue ranked from most to least common response. Note that these are the group answering no in Table 17 and 18 to gambled on EGMs at another venue, with only 8 responses received.

**Table 20:** Reason for going to another venue after closure if not to gamble on EGMs (n=8)

Reason for going to venue if not to gamble on EGMs	Rank
Eat	1
Gamble on things other than poker machines, such as Keno	2
Socialise	3
See entertainment	3
Wanted to avoid a person or situation at home	3
Drink alcohol	4
Had an arrangement to meet someone there	4
The person/people I was with wanted to go to the new venue	4
I just did not want my night to end yet	4

Table 21 shows responses to reasons for not going to another venue after closure of the EGM venue they were in. This applies to the 11.8% of EGM gamblers in Table 18 that did not go to another venue, even though they were in a venue when it closed and wanted to continue EGM gambling.

**Table 21: Reasons didn't go to another EGM venue after closure (n=89)**

Reason didn't go to another venue after closure	% (SE)
There was no other poker machine venue within a reasonable distance	11.1 (3.3)
The only poker machine venues within a reasonable distance were also closed	8.3 (2.9)
I had already spent all the money I had (or was prepared to spend)	42.6 (7.3)
I was not interested in continuing to play the pokies (or had something else I wanted to do)	33.7 (7.1)
There were no gaming machine promotions or player reward/loyalty schemes available to me at other venues	7.8 (2.8)
Sample (n) – 5 missing responses	n=84

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Multiple responses could be made, so will not add to 100%

Table 22 applies to the 11.8% people in Table 18 who did not go to another venue, even though they were in a venue when it closed and wanted to continue EGM gambling. Most people who did not go to another venue after the venue closed went home (79%), followed by going out somewhere to get food (17%), and 2% needed to go to work.

**Table 22: Where went (if not out to another EGM venue) after venue closure (n=89)**

Where did you go?	% (SE)
Home	79.4 (6.5)
To work	2.1 (1.1)
Restaurant/café/fast food/takeaway	17.1 (6.4)
<b>Total</b>	<b>100.0</b>
Sample	n=89

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Multiple responses could be made, so will not add to 100%

The data in the following tables uses unweighted data due to the small number of respondents. Table 23 lists reasons for those respondents that went to another venue to gamble on EGMs and did gamble on EGMs, with 41% (n=14) doing so because they 'enjoy playing pokies and wanted to continue to do so', 35% 'finished work late and had not been at the venue long and wanted to keep gambling', and 29% wanted to "continue to enjoy the gaming room atmosphere". Of concern, 21% of these EGM gamblers who went to another venue to continue EGM gambling, went there to chase losses (this is item 3 in the PGSI), and 15% 'couldn't stop and just had to keep gambling', indicating addiction.

**Table 23: Reasons went to another venue to continue gambling on EGMs (n=34)**

Reason to continue playing poker machines at another venue on this occasion?	n	%
I enjoy playing pokies and wanted to continue to do so	14	41%
I finished work late, and had not been at the venue for very long before it closed, and I wanted to keep playing	12	35%
I wanted to continue to enjoy the atmosphere of a gaming room	10	29%
I had been winning, and I wanted to keep winning	8	24%
To access gaming machine promotions or a player reward/loyalty scheme offered by the other venue	8	24%
I prefer the anonymity of gambling late at night	8	24%
I had been losing, and I wanted to try and win back my losses	7	21%
Going to another gaming venue was the only real option for keeping my night going	7	21%
I wanted to continue socialising at a gaming venue	7	21%
To fit in with the person/people I was with, who wanted to keep playing	6	18%
I couldn't stop and just had to keep playing	5	15%
Sample	n=34	-

**Notes:** Unweighted data; Multiple responses could be made, so will not add to 100%

Table 24 shows that most people who went to another venue to gamble on EGMs, gambled for between 30 minutes and an hour (n=18), followed by one hour to less than 2 hours (n=7).

**Table 24:** Time spent gambling on EGMs after travelling to different venue (n=34)

Time spent on EGMs in different venue	
	n (%)
Less than 15 minutes	2 (5.9)
15-29 minutes	2 (5.9)
30-59 minutes	18 (52.9)
60-119 minutes	7 (20.6)
120 minutes or more	5 (14.7)
<b>Sample/Total %</b>	<b>n=34 (100.0)</b>

Notes: Unweighted data

Table 25 shows the amount spent on EGMs after travelling to another venue, with most (61.8%) spending between \$100 and \$299, and 23.5% spending \$300 or more.

**Table 25:** Amount spent after travelling to another venue and gambling on EGMs

EGM session spend	n	%
Less than \$30	<5	2.9%
\$50-\$99	<5	11.8%
\$100-\$199	10	29.4%
\$200-\$299	11	32.4%
\$300- \$499	6	17.6%
\$500 or more	<5	5.9%
<b>Total</b>	<b>34</b>	<b>100.0%</b>

Notes: Unweighted data

Table 26 lists other reasons why they went to a venue to gamble on EGMs after the venue closure of where they were. Nearly half (n=16) also drank alcohol, n=11 wanted to socialise, n=11 did not want their night to end, n=10 wanted to gamble on other things, and n=9 had arrangements to meet someone there.

**Table 26:** Other reasons people went to another venue after closure (n=34)

Apart from playing the pokies, were there any other reasons you wanted to go to another poker machine venue on this occasion?		
	n	%
Drink alcohol	16	47.1%
Socialise	11	32.4%
I just did not want my night to end yet	11	32.4%
Gamble on things other than poker machines, such as Keno	10	29.4%
Had an arrangement to meet someone there	9	26.5%
The person/people I was with wanted to go to the new venue	7	20.6%
Eat	6	17.6%
See entertainment	6	17.6%
No other reason – just to play pokies	2	5.9%
Wanted to avoid a person or situation at home	1	2.9%
<b>Sample</b>	<b>n=34</b>	<b>-</b>

Notes: Unweighted data; Multiple responses could be made, so will not add to 100%

Data collected on the name of venue for the group of EGM gamblers that were in a venue when it closed and wanted to continue gambling, and the name of the venue they travelled to, should have been available for n=32 respondents. However, there were only 20 responses to this question, with only 7 responses being of adequate quality to be used. Therefore, given the poor quality and large under-representation of this group, no data is presented, and no conclusion can be drawn on 'actual' distance travelled.

Tables 27 to 29 show how long these respondents travelled to get to another venue, how they travelled there and the number of modes of transport. Most people took between 10 and 15 minutes to travel to another venue. Most people drove or got a lift with friends (70.6%) or walked (41%), and most (67.7%) travelled by one mode of transport, though nearly a quarter (23.5%) took three modes of transport.

**Table 27:** Time spent travelling to other venue to continue gambling on EGMs

	n	%
Less than 5 minutes	1	2.9
Between 5 and 10 minutes	4	11.8
Between 10 and 15 minutes	22	64.7
Between 15 and 30 minutes	5	14.7
More than 30 minutes	2	5.9
<b>Total</b>	<b>34</b>	<b>100.0</b>

**Notes:** Unweighted data

**Table 28:** Number of modes of transport used to get to other venue to continue gambling on EGMs

	n	%
Number of modes of transport		
One	23	67.7
Two	3	8.8
Three	8	23.5
<b>Total</b>	<b>34</b>	<b>100.0</b>

**Notes:** Unweighted data

**Table 29:** How travelled to other venue to continue gambling on EGMs

How travelled to other venue	n	%
Walk	14	41.2%
Drive	15	44.1%
Get a lift from friends	9	26.5%
Travel by train	9	26.5%
Travel by light rail	1	2.9%
Travel by taxi/Uber	5	14.7%
<b>Sample</b>	<b>34</b>	<b>-</b>

**Notes:** Unweighted data; Multiple responses could be made, so will not add to 100%

## 5.5 Objective 6: Can venue closing times be used as a harm minimisation measure?

Table 30 shows a summary of explanatory variables that were in multivariable adjusted full models for (i) late-night EGM gambling, (ii) venue closure frequency, when wanting to continue EGM gambling, and (iii) problem gambling risk (PGSI score). Gambling behaviours and participation variables feature across all three models, indicated overlap in predictors for the three outcomes. Number of Loyalty memberships stands out as being a predictor in all three multivariable adjusted model, while amount spent in a usual EGM session and pub EGM gambling frequency featured in two of the models.

The overlap of significant multivariable adjusted predictors, along with the multiple bivariate associations between late-night EGM gambling, problem gambling risk, and frequency of being in a venue when it closed and wanting to continue EGM gambling, point to venue closure being one way of limiting access to EGMs for gamblers at risk of problem gambling.

**Table 30:** Variables retained in all multivariable adjusted full models: Late-night EGM gambling, venue closure frequency and problem gambling risk

Variable	Multivariable adjusted models		
	Late-night EGM gambling	Venue closure frequency	Problem gambling risk (PGSI score)
Age	-	x	-
Sex	-	-	x
Late-night worker status	x	-	-
SEIFA Index of Disadvantage	x	-	-
Pub EGM gambling frequency	x	-	x
Usual EGM session spend	-	x	x
Number of Loyalty memberships	x	x	x
Number days per week gambles	-	-	x
Gamble with large amounts	x	NA	NA
Problem gambling risk	NA	x	NA

## 6 Limitations of the research

### 6.1 Programming error and sample for venue closure analysis

As previously reported a questionnaire programming error was identified on the EGM Gambling survey conducted, which resulted in a subset of respondents missing a section of the questionnaire relating to behaviour at another venue. However, any likely variation due to missing data is well within standard error, and therefore, estimates for these variables are not unduly impacted as shown in the sensitivity analysis below. The error and impact of the data is discussed in more detail below.

Questions missed: LPI to LP14 – see questionnaire in Appendix F. Cohort impacted: Those who played EGMS at a Pub ONLY (n= 39). The sample base for the group of questions beginning at LP1 was intended to be all those who gambled at a club (n=581) or all those gambled at a pub (n=416). The resulting net of these is n=620, therefore the base for LP1 should have been 620 EGM players. Due to the programming error the resulting base for LP1 was 581.

The error was due to a filter instruction on the questionnaire which was misunderstood by the programming team. The cohort included in LP1 were those who played at a club, which meant that anyone who had played at a club or a pub was included and those who did not play at a club (i.e., pub only players) were excluded.

#### *Impact on Data*

Tables 31 to 33 show a sensitivity analysis of how allocated missing responses would affect percentage estimates for venue closure frequency (LP1) and travelling to another venue and gambled on EGMs (LP3). First, looking at Table 31, Column A shows weighted counts for LP1 with the missing pub only EGM gamblers (n=39, N=85) and Column B shows percentage without the pub only EGM gamblers. To allocate responses, Column B was replicated, but only for pub and club EGM gamblers to create a more accurate response for allocation of the N=85 pub only EGM gamblers. It can be seen that when looking at Column C (pub and club EGM gamblers), there was a higher percentage who experienced venue closure while wanting to continue EGM gambling, compared with Column B (club only and club and pub EGM gamblers). The percentages from Column C are then multiplied to the missing pub only weighted N=85 responses, giving a new weighted N in Column E, and new percentage in Column F. The new estimates fall well within standard errors of the original estimates, with changes in experiencing a venue closing when wanting to continue EGM gambling changing for 'never' from 81.5% to 81.0%, 'once or twice' from 12.9% to 13.2%, 'monthly' from 4.6% to 4.8%, and no change for 'fortnightly or more' of 1%.



**Table 31:** Sensitivity analysis of potential bias of missing pub only EGM gamblers responses for LP1 (venue closure frequency)

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
	n=620	n=581	n=377	n=39	n=620	n=620
	Pub or Club	Club only & (Club & Pub)	Pub & Club	Pub only C x N=85	D + A	
	<b>N</b>	<b>Weighted % (SE)</b>	<b>Weighted %</b>	<b>Weighted N</b>	<b>Weighted N</b>	<b>Adjusted weighted %</b>
Venue closure frequency						
Never	832	81.5 (2.0)	74.8	64	896	81.0
Once or twice	131	12.9 (1.8)	17.2	15	146	13.2
Monthly	47	4.6 (1.1)	6.7	6	53	4.8
Fortnightly or more	10	1.0 (0.4)	1.4	1	11	1.0
Pub only (missing)	85	-	-	-	-	-
<b>Total</b>	<b>1105</b>	<b>100.0</b>	<b>100.0</b>	<b>85</b>	<b>1105</b>	<b>100.0</b>

**Notes:** Totals for percentages may not add to 100% due to rounding

Table 32 repeats the sensitivity analysis from Table 31 but for LP3 (travelled to another venue and gambled on EGMs). It can again be seen that pub EGM gamblers were more likely than club EGM gamblers to travel to another venue and gamble on EGMs (Column B and C). After allocation of missing pub only EGM gamblers, the estimate in Column B for travelling to another venue and gambling on EGMs changes from 5.0% to 5.2%, as seen in Column F.

**Table 32:** Sensitivity analysis of potential bias of missing pub only EGM gamblers responses for LP3 (travelled to another venue and gambled on EGMs)

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
	n=620	n=581	n=377	n=39	n=620	n=620
	Pub or Club	Club only & (Club & Pub)	Pub & Club	Pub only C x N=85	D + A	
	<b>N</b>	<b>Weighted % (SE)</b>	<b>Weighted %</b>	<b>Weighted N</b>	<b>Weighted N</b>	<b>Adjusted weighted %</b>
Went to another venue						
Yes	51	5.0 (1.2)	7.3	6	57	5.2
No	121	11.8 (1.6)	15.5	13	134	12.1
Can't remember	17	1.7 (0.8)	2.4	2	19	1.7
No venue closure	832	81.5 (2.0)	74.8	64	896	81.0
Pub only (missing)	85	-	-	-	-	-
<b>Total</b>	<b>1106</b>	<b>100.0</b>	<b>100.0</b>	<b>85</b>	<b>1106</b>	<b>100.0</b>

**Notes:** Totals for percentages may not add to 100% due to rounding

The same approach used in the previous table was also done excluding the N=832 EGM gamblers who did not experience venue closure when wanting to continue EGM gambling. All estimates for the LP3 question were within 1% of the estimates with the data excluded, indicating that the exclusion of pub only EGM gamblers has not unduly affected estimates for travelling to another venue.

**Table 33:** Sensitivity analysis of potential bias of missing pub only EGM gamblers responses for LP3 (travelled to another venue and gambled on EGMs)

	A	B	C	D	E	F
	n=177	n=138	n=127	n=39	n=177	n=177
	Pub or Club	Club only & (Club & Pub)	Pub & Club	Pub only C x N=85	D + A	
	<b>N</b>	<b>Weighted % (SE)</b>	<b>Weighted %</b>	<b>Weighted N</b>	<b>Weighted N</b>	<b>Adjusted weighted %</b>
Went to another venue						
Yes	51	27.0	28.9	25	76	27.6
No	121	64.0	61.4	52	173	63.2
Can't remember	17	9.0	9.7	8	25	9.2
<b>Total</b>	<b>189</b>	<b>100.0</b>	<b>100.0</b>	<b>85</b>	<b>274</b>	<b>100.0</b>
Pub only (missing)	85	-	-	-	-	-

**Notes:** Totals for percentages may not add to 100% due to rounding

## 6.2 COVID affecting responses and survey data quality

The change to the timing of the survey limited the size of the sample that could be recruited from an initial estimate of n=1000 to n=625. This was due to the impact of venue closures due to COVID, which delayed the fieldwork, and therefore limited the time (9 months instead of 12 months) about which questions could be asked. Specifically, the survey was supposed to be in the field initially in late June 2021, then November 2021, but COVID meant venue closures were in force until 11 October 2021 with certain restrictions in place until November 2021. The survey field work was undertaken in July and August 2022 and asked respondents to consider the last 9 months (i.e., behaviours since November 2021). This sample size was also limited by not sampling EGM gamblers gambling between 9- and 12-months pre-fieldwork, as intended in the original design. Nevertheless, the sample size was sufficient to provide the power needed to identify significant differences between estimates for key variables required to analyse the key research objectives as noted throughout this report. However, less common responses, that is, responses relating questions that impacted less than 5% of respondents, generated estimates with large relative standard errors of greater than 30%. That is, the estimates generated from the survey had less precision due to the smaller sample size for those questions which resulted in small percentage estimates.

While restrictions on venues in NSW had been lifted when the survey began, there were likely impacts on responses to some questions. It is also unknown how venue trading hours were affected by lack of staff and whether this may have meant some venues were still experiencing some level of closure due to staffing shortages. This may have affected responses to the question asking what time venues closed, when they wanted to continue EGM gambling (LP1a), with many daytime responses recorded. So, while this may have affected the question pertaining to closure times when wanting to continue EGM gambling, it would have had minimal to no effect on other questions pertaining to EGM gambling behaviours and participation.

Data pertaining to the name of the venue they were gambling in and where they travelled to, for the small percentage (5.0% to 5.2%, or n=42) of EGM gamblers that this applied to was

of poor quality, with just 20 responses collected and some pub and club names unable to be verified, meaning distance and time travelled to another venue is of limited value.

### 6.3 Constraints on survey content

As with all surveys, there is a trade-off between reliability of responses and the length of the survey, with longer surveys prone to more measurement errors due to respondent fatigue, especially in online and telephone surveys. The survey only included one measure of gambling harms, the Problem Gambling Severity Index (PGSI), and no other measures of gambling-related harms (or motivations). However, the PGSI is the standard measure of problem gambling risk for survey research, and it incorporates screening questions on both gambling-related harms and behaviours associated with addiction and pathological gambling, and is highly appropriate for the current research. There was an initial intent to include a measure of gambling urges; however, on review, it was decided not to use this measure as it applied only immediate urges (as at the time asked) and time constraints on the survey length. The statistical analyses used two items from the PGSI as additional gambling behaviour variables for late-night gambling and venue closure frequency models, though inclusion of questions measuring other psychological concepts, such as motivations to gamble (Flack & Morris, 2015) or erroneous cognitions (Steenbergh et al., 2002), and other health risk factors (e.g., smoking, alcohol consumption, illicit drug use), may have led to more explanatory power in multivariable adjusted models, particularly for the PGSI score model.

### 6.4 Recall bias in retrospective surveys

Many of the survey questions asked respondents to think back in time about their EGM gambling behaviour and participation. This approach will invariably lead to some level of measurement error through recall bias, or respondents simply not remembering. Most questions gave respondents the answer option of “don’t know/can’t remember/unsure” response; however, respondents were also encouraged to provide their best estimate. There are other approaches to collecting this information, such as ecological momentary assessment (Shiffman & Hufford, 2008), which prompt participants of research in real time (typically using a mobile phone app) to enter information on the topic of interest. However, the current study was unable to use this approach due to technical and resource constraints. The approach used in this survey, while having limitations, was the only available method, given most people gamble on EGMs using cash, and access to membership and loyalty scheme data was not available.

Additionally, respondents in surveys were asked about “usual” spending on EGMs, which is again prone to recall bias. However, research has shown this line of questioning to be the most accurate, as opposed to asking about the “last time”, which was found to provide inflated estimates of the topic (Østhus & Brunborg, 2015).

## 7 Discussion and conclusions

This project was designed to meet six research objectives. In summary, these were: (i) determine the profile of late-night EGM gamblers; (ii) estimate the prevalence of late-night EGM gambling across problem gambling risk (PGSI) categories; (iii) estimate the prevalence of EGM gamblers (including late-night shift worker EGM gamblers) experiencing venue closure when wanting to continue gambling; (iv) estimate prevalence of venue closure frequency when wanting to continue EGM gambling across problem gambling risk categories; (v) estimate prevalence of EGM gamblers being displaced to other venues, due to venue closure; and (vi) assess if venue closing times could be used as a harm minimisation strategy for EGM gamblers at risk of problem gambling.

There are multiple studies from Australia and internationally that show that reducing accessibility to gambling products, especially EGMs, has a beneficial effect on problem gambling (Delfabbro & King, 2020a; Hing & Russell, 2020; Järvinen-Tassopoulos et al., 2021; Marionneau & Järvinen-Tassopoulos, 2022; Mason et al., 2008; Mravčík et al., 2020; Rolando et al., 2021). The findings of this current research strongly support previous studies that show venue closure would assist gamblers at risk of problem gambling in developing problems and reduce harms. It also shows there is limited demand for EGM gambling by recreational gamblers after venue closures, and that most demand comes from gamblers at-risk of problem gambling, or from those already experiencing problem gambling.

The following sections outline findings and conclusions drawn from the analysis of survey data on late-night EGM gambling.

### 7.1 Profile of late-night EGM gambling and demand from late-night workers

Usual EGM gambling times differed between Star casino EGM gamblers and those gambling in pubs and clubs, with 20.6% of Star casino EGM gamblers gambling between 12am and 8am, compared with 7.1% in clubs and 10.5% in pubs. Across all three venue types, 4.8% usually gambled on EGMs after 2am, and 6.8% between 12am and 2am, for a total of 11.6% usually gambling on EGMs between midnight (12am) and 8 am.

The current study included a number of gambling participation variables not always collected in EGM research. For example, through separating out EGM gambling frequency across venue types (pub, club and Star casino), it was found that more frequent EGM gambling in a pub was associated with late-night EGM gambling in multivariable adjusted modelling, but not EGM gambling frequency in clubs and the Star casino. Another variable not always collected in EGM research associated with late-night EGM gambling was membership in loyalty schemes for each of the three venue types. This may indicate that EGM gamblers with loyalty memberships go from venue type to venue type gambling on EGMs to increase their points on the loyalty cards. Benefits of loyalty cards to members were not explored, so no comment can be made on what potential benefits EGM gamblers received.

The survey collected information on late-night worker status, which is not often collected in gambling research, when analysed, showed that late-night workers, unsurprisingly were

significantly more likely to have a usual EGM gambling time later than non-late-night workers, and this variable remained significant in the multivariable adjusted logistic regression full model for late-night EGM gambling. Just over a quarter (28%) of late-night gamblers were late-night workers. However, 76% of late-night workers were not late-night EGM gamblers (<4% of EGM gamblers). Other variables in this model were living in the least disadvantaged areas, gambling monthly or more on EGMs in pubs, being a member of two or three different venue types loyalty schemes, and those who needed to gamble with more money to get the same feeling of excitement.

Interestingly, the gambling behaviour and participation multivariable adjusted model explained 27% of the variation in late-night EGM gambling (loyalty membership, pub EGM frequency and gamble with larger amounts for same excitement), while the demographic and socioeconomic multivariable adjusted model (age, late-night worker status, student status and the SEIFA Index of Disadvantage), explained 23% of the variation, indicating that gambling behaviour and participation variables dominated the explanatory power of the full model, which explained 30.5% of the variation in late-night EGM gambling.

**Conclusion:** *Late-night workers compared to non-late-night workers were more likely to be late-night EGM gamblers, though 76% of late-night workers were not late-night EGM gamblers. The gambling participation and behaviour variables had the most explanatory power in the full model predicting late-night EGM gambling. Late-night EGM gamblers were more intense gamblers, as evidenced by multiple associations with gambling participation and behaviour variables.*

## 7.2 Late-night EGM gambling and problem gambling risk

There was a clear increasing trend in problem gambling risk the later in the day, into the evening and early morning that EGM gamblers used EGMs. EGM gamblers had a problem gambling prevalence of 3.1% between 8am and 10pm, increasing to 7.3% for 10pm to 12am, 12.1% for 12am to 2am, and 22.6% for 2am to 8am. Over 50% of EGM gamblers gambling after midnight were classified as problem gambling or moderate risk of problem gambling. As was highlighted in the previous section, late-night EGM gamblers were more intense gamblers based on gambling participation and behavioural variables. Additionally, EGM gamblers who usually gambled after midnight and those with problem gambling risk were more likely to be younger (less than 30 years). This group younger adults tend to be more impulsive (Flack & Buckby, 2018; Merkouris et al., 2016), and age, along with other factors significantly associated with late-night gamblers, are also factors associated with problem gambling risk (Delfabbro & King, 2020a; Delfabbro et al., 2020; Hing & Russell, 2020; Productivity Commission, 1999, 2010).

**Conclusion:** *The later in the day and into the evening and early morning a person gambles on EGMs, the higher the risk of problem gambling. There were a range of shared risk factors between problem gambling risk and late-night EGM gambling, which would indicate venue closures and reduced accessibility to EGMs would assist this group in controlling their gambling through enforced breaks.*

### 7.3 Venue closure frequency, late-night EGM gambling and late-night workers

Just over 5% of EGM gamblers were in a venue monthly or more often when it closed and wanted to continue EGM gambling, and this occurred for another 12.9% once or twice in the 6-9 months prior to the survey. As expected, EGM gamblers who usually gambled later at night (starting at after 10pm) were more likely to be in a venue when it closed, as were late-night workers; however, late-night worker status and usual EGM gambling time did not remain significant in the full multivariable adjusted model for venue closure frequency (when wanting to continue EGM gambling). While late-night workers were more likely to be in a venue at closing time, 76% were never in a venue at closing time, when wanting to continue EGM gambling. This indicates that venue closures would limit access and reduce harm for EGM gamblers experiencing problem gambling, and have little effect on late-night workers access to EGM gambling.

All gambling behaviours and participation variables showed a significant bivariate association with venue closure frequency, with EGM gamblers with more intense gambling patterns (e.g. more frequent EGM gambling, especially in pubs; gambling in multiple venue types; membership of multiple loyalty schemes; usual session spend of \$200 or more; and gambling alone) and problematic behaviours (e.g., chasing losses, needing to gamble with larger amounts for the same feeling, those experiencing problem gambling or moderate risk of problem gambling) being more likely to be in a venue when it closed and wanting to continue EGM gambling. This grouping of significant predictors of venue closure are similar to that observed for late-night EGM gambling and problem gambling risk. It would therefore be expected that venue closure would be helpful to this group in taking a break from their EGM gambling, which has been found to be associated with reduced risks of problem gambling and not returning to gamble after becoming more aware of time and money spent (Hing & Russell, 2020).

The analysis showed that the 5% of EGM gamblers asked, who went to another venue after the one they were in closed (see Figure 22), were at some level of problem gambling risk. That is, there were no recreational gamblers in this group of EGM gamblers. It was also found that EGM gamblers who select a specific venue to gamble at to avoid closure were significantly more likely to be at risk of problem gambling, compared with those that never did.

**Conclusion:** *Venue closure may limit access (and reduce harm) for EGM gamblers at risk of problem gambling and particularly for those classified as experiencing problem gambling. Late-night workers would be minimally affected by venue closures, while gambling harm may be reduced for a significant minority experiencing problem gambling or moderate risk of problem gambling.*

## 7.4 Venue closure, displacement to other venues and problem gambling risk

The analysis showed that of the 18.5% of EGM gamblers who were in a venue when it closed and wanted to continue EGM gambling, 64.1% indicated that they didn't go to another venue, and 26.9% indicated that they did go to another venue, with 9% unsure. However, of this group that indicated that they went to another venue, 38.3% responded that they never did, when asked how often, while 37.1% indicated that went to another venue once or twice, and 24.6% did monthly or more often (see Tables 17 and 18). There were no recreational gamblers in the group of people that went to another venue once or twice, or monthly or more (see Figure 25).

Of those people who indicated that they did go to another venue, 42.6% responded that they had spent all their money (or that they were prepared to spend), and 33.7% were not interested in further EGM gambling or had something else to do. Just 11.1% of this group indicated that there were no venues within a reasonable distance, again indicating low demand (note this is less than 2% of EGM gamblers asked about behaviour after being in a venue when it closed and wanting to continue EGM gambling).

Of the group that didn't go to another venue after venue closure and wanting to continue EGM gambling, most went home (79.4%), or to get food (17.1%). The group who did travel to another venue represents 11.3% of the sample of EGM gamblers asked about venue closure. This group of EGM gamblers were all at some level of risk of problem gambling, with 38.2% problem gambling, compared with 6.3% in the group that never travelled on to another venue, and 2.3% in the group that were not in a venue when it closed and wanted to continue EGM gambling (see Figure 27).

From the sample of EGM gamblers asked about venue closure, just n=34 went on to another venue to continue EGM gambling, with this small sample size precluding any meaningful analysis of these data. Further, only 20 of this 34 provided a response for the venue they were in and travelled to with this data not presented, and some of these responses were unable to be verified, or the response did not provide a name of a venue that could be traced. However, all of this group were asked about how long they travelled, 79% travelled less than 15 minutes, and 37.7% used one form of transport.

**Conclusion:** *Most EGM gamblers who were in a venue when it closed and wanted to continue EGM gambling, did not go onto another venue. There were no recreational gamblers among EGM gamblers who went on to gamble at another venue, indicating no demand for late-night EGM gambling after venue closure for recreational EGM gamblers. The inability for EGM gamblers experiencing problem or moderate risk of problem gambling to go to another venue to continue gambling would likely reduce harm through an enforced break, allowing them time to think about the amount of time and money spent EGM gambling.*

The overlap in significant predictors for late-night EGM gambling, frequency of being in a venue when it closed and wanting to continue EGM gambling and problem gambling risk highlight the relatedness of these concepts. They also point to a group of EGM gamblers being more intense gamblers. For example, EGM gamblers who were members of multiple

loyalty schemes were significantly more likely to be late-night gamblers, being in a venue when it closed and wanted to continue gambling, and were also at a higher risk of problem gambling. Given that nearly 50% of weekly EGM gamblers were classified as experiencing problem gambling, venue closure would likely have an impact of reducing harm for this group of EGM gamblers. This is particularly important for EGM gamblers, as this form of gambling is the most continuous form of gambling, with a bet being able to be placed every three to five seconds. Providing enforced breaks allows EGM gamblers to rationally think about the time and money spent gambling on EGMs, and reassess if they want to continue gambling.

**Conclusion:** *There is a group of EGM gamblers who from a gambling behavioural and participation viewpoint are more intense EGM gamblers. That is, they gamble in more types of venues, more frequently, spend more money in a session, gamble more days of the week, are members of loyalty schemes across two or three venue types, are more likely to gamble alone and consequently have significantly higher levels of problem gambling risk. This group of EGM gamblers would benefit greatly from venue closures, through an enforced break from EGM gambling.*



## 8 Appendix A: Target weights for sample

**Table 34:** Weighted sample from 2019 NSW Gambling Prevalence Survey used in weighting

		<b>EGM Weighted Targets</b>	<b>Problem Gambling Weighted Target</b>
		n=1571 (weighted)	n=85.5 (weighted)
Sex	Male	58.44%	7.34%
	Female	41.56%	2.77%
Area	Greater Sydney	56.61%	6.30%
	NSW	43.39%	4.32%
Age	18-34	38.71%	7.10%
	35- 49	23.14%	5.82%
	50-64	22.01%	4.41%
	65+	16.15%	2.36%

**Table 35:** EGM gamblers and sample of Roy Morgan Single Source (July 2021-June 2022), 18 years or more

	<b>Number</b>
NSW Unweighted sample	18,915
NSW Estimated Resident Population <sup>1</sup>	6,398,000
Gambled on EGMs at a venue in NSW weighted <sup>2</sup>	1,120,000

<sup>1</sup> Based on Australian Bureau of Statistics data

<sup>2</sup> Corresponds to 17.5% prevalence of EGM gambling at a venue in 2021/22 from Roy Morgan Single Source

## 9 Appendix B: Late-night EGM gambling tables

**Table 36:** Usual EGM gambling time by venue type

	Club	Pub	Star casino	All venues
10am-7pm	30.8 (2.2)	29.5 (2.6)	18.9 (4.3)	26.1 (2.0)
7pm-10pm	44.6 (2.5)	43.2 (3.1)	36.0 (5.2)	43.7 (2.4)
10pm-12am	17.2 (2.1)	16.9 (2.4)	24.5 (4.9)	18.5 (2.0)
12am-4am	5.2 (1.1)	8.8 (1.7)	16.2 (4.1)	8.8 (1.4)
4am-10am	2.2 (0.8)	1.7 (0.9)	4.4 (1.8)	3.0 (0.8)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Sample size	581	416	151	625

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution

**Table 37:** Bivariate associations between demographic characteristics and late-night EGM gambling

	Distribution % (SE)	8am- 7pm % (SE)	7pm- 12am % (SE)	12am- 8am % (SE)	After 12am OR (95% CI)
<i>All EGM gamblers</i>	100.0	26.2 (2.0)	62.2 (2.3)	11.6 (1.6)	-
Region*					
Greater Sydney	56.6 (2.5)	25.7 (2.6)	59.5 (3.0)	14.8 (2.2)	1.0
Rest of NSW	43.4 (2.5)	26.9 (3.1)	65.7 (3.6)	7.5 (2.4)	<b>0.46 (0.22-0.99)</b>
Age (years)***					
18-29	20.0 (1.8)	6.3 (3.2)	73.4 (5.6)	20.3 (5.1)	1.0
30-39	25.6 (2.0)	17.4 (4.4)	66.4 (5.3)	16.1 (3.9)	0.76 (0.33-1.74)
40-49	16.3 (1.4)	27.3 (5.4)	61.4 (5.7)	11.3 (3.4)	0.50 (0.20-1.23)
50-64	22.0 (1.0)	35.2 (4.2)	59.2 (4.4)	5.7 (2.1)	<b>0.24 (0.09-0.64)</b>
65 or more	16.1 (0.4)	51.7 (4.0)	46.2 (4.0)	2.0 (1.2)	<b>0.08 (0.02-0.30)</b>
Sex					
Male	58.5 (1.1)	24.3 (2.8)	62.5 (3.4)	13.2 (2.4)	1.0
Female	41.5 (1.1)	29.0 (2.6)	61.7 (3.0)	9.4 (1.9)	0.68 (0.37-1.24)
Marital status*					
Married/living with partner	59.1 (2.4)	27.2 (2.6)	63.2 (2.9)	9.6 (1.9)	1.0
Separated/divorced/widowed	9.8 (1.1)	37.0 (5.7)	57.5 (6.0)	5.5 (2.7)	0.55 (0.18-1.65)
Single	31.1 (2.3)	21.0 (3.7)	61.6 (4.6)	17.4 (3.6)	<b>1.99 (1.03-3.83)</b>
Household type					
Single person	22.6 (2.1)	32.2 (4.5)	49.3 (5.2)	18.5 (4.2)	1.0
One parent family with children	5.0 (1.0)	24.4 (7.8)	62.8 (9.6)	12.8 (7.6)	0.64 (0.15-2.73)
Couple with children	31.3 (2.2)	25.3 (3.8)	63.6 (4.3)	11.2 (2.8)	0.55 (0.26-1.20)
Couple with no children	25.5 (1.9)	28.2 (3.7)	65.5 (4.1)	6.3 (2.4)	0.29 (0.11-0.78)
Group household/Other	15.6 (1.9)	16.9 (4.6)	72.3 (5.8)	10.8 (4.1)	0.53 (0.20-1.45)
Language spoken at home					
English	83.3 (1.8)	26.4 (2.1)	62.2 (2.5)	11.4 (1.8)	1.0
Not English	16.7 (1.8)	25.4 (5.2)	61.8 (5.7)	12.8 (3.7)	1.14 (0.54-2.40)
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals (row total not given) may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association between variable and EGM gambling times

**Table 38:** Bivariate associations between socioeconomic characteristics and late-night EGM gambling

	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
<i>All EGM gamblers</i>	100.0	26.2 (2.0)	62.2 (2.3)	11.6 (1.6)	-
Employment status					
Full-time employed	57.4 (2.0)	16.9 (2.6)	68.7 (3.3)	14.5 (2.4)	1.0
Casual/part-time employed	15.1 (1.6)	20.2 (4.4)	70.0 (5.3)	9.7 (3.5)	0.64 (0.27-1.53)
Unemployed	3.7 (0.8)	35.3 (11.)	42.5 (11.)	22.2 (11.)	1.69 (0.47-6.01)
Not in the labour force	23.8 (1.5)	51.3 (4.0)	44.5 (4.0)	4.2 (1.8)	<b>0.26 (0.10-0.69)</b>
Late-night worker					
Finishes before 9 pm	86.4 (1.6)	27.8 (2.1)	62.5 (2.5)	9.7 (1.6)	
Usually finish later than 9 pm	13.6 (1.6)	16.1 (4.9)	60.1 (6.4)	23.8 (5.6)	<b>2.92 (1.44-5.92)</b>
Highest qualification					
Junior high certificate or below	14.0 (1.7)	32.5 (5.6)	56.2 (6.2)	11.3 (4.0)	1.0
Senior high certificate	13.9 (1.7)	26.0 (5.2)	59.1 (6.3)	14.9 (4.4)	1.37 (0.48-3.89)
Trade/Technical certificate	30.5 (2.1)	27.7 (3.7)	66.2 (3.9)	6.0 (2.0)	0.51 (0.18-1.45)
Bachelor degree	27.6 (2.2)	23.0 (4.0)	62.0 (4.8)	15.0 (3.6)	1.39 (0.53-3.63)
Post graduate degree	14.1 (1.7)	23.3 (4.7)	62.7 (6.3)	14.0 (5.3)	1.28 (0.40-4.11)
Student status					
Not Studying	79.1 (2.1)	28.7 (2.2)	61.9 (2.5)	9.4 (1.6)	1.0
Part-time study	10.8 (1.7)	22.2 (7.2)	71.8 (7.6)	6.0 (3.4)	0.61 (0.18-2.12)
Full-time study	10.1 (1.6)	11.4 (5.4)	53.7 (8.5)	35.0 (8.3)	<b>5.19 (2.32-11.6)</b>
Personal annual income					
LE\$30K	13.7 (1.4)	41.2 (5.5)	50.5 (5.6)	8.3 (3.6)	1.0
\$31K-\$50K	15.6 (1.7)	34.8 (5.5)	54.7 (5.9)	10.5 (3.7)	1.30 (0.39-4.28)
\$51K-\$70K	13.1 (1.6)	21.6 (5.2)	69.7 (5.8)	8.7 (3.2)	1.05 (0.31-3.55)
\$71K-\$90K	12.7 (1.6)	23.6 (5.7)	62.6 (6.8)	13.8 (5.1)	1.77 (0.51-6.13)
\$91K-\$110K	16.0 (1.9)	14.4 (4.7)	75.8 (5.8)	9.8 (4.1)	1.19 (0.33-4.33)
\$111K-\$140K	9.0 (1.5)	13.3 (4.8)	62.7 (8.4)	24.0 (8.0)	3.49 (0.99-12.2)
\$141K or higher	9.0 (1.5)	19.3 (6.9)	67.8 (7.7)	12.9 (4.3)	1.64 (0.50-5.39)
Unknown	10.8 (1.4)	37.8 (6.4)	52.6 (6.9)	9.6 (4.7)	1.17 (0.29-4.71)
Index of Disadvantage quintiles					
Least disadvantaged	18.1 (1.7)	26.0 (4.2)	57.8 (5.1)	16.3 (3.8)	1.0
2	22.4 (2.1)	23.8 (4.2)	62.9 (5.0)	13.3 (3.8)	0.79 (0.34-1.85)
3	25.4 (2.2)	20.9 (3.5)	63.2 (4.7)	15.9 (4.0)	0.97 (0.44-2.16)
4	16.2 (1.8)	29.0 (5.4)	64.2 (5.8)	6.7 (3.0)	0.37 (0.13-1.11)
Most disadvantaged	18.0 (1.9)	34.4 (5.5)	62.4 (5.6)	3.2 (1.2)	<b>0.17 (0.07-0.43)</b>
<b>All EGM gamblers</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals (row total not given) may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association between variable and EGM gambling times

**Table 39:** Bivariate associations between gambling behaviour and late-night EGM gambling

	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
<i>All EGM gamblers</i>	100.0	26.2 (2.0)	62.2 (2.3)	11.6 (1.6)	-
Number of forms***					
One	15.9 (1.8)	26.8 (5.4)	64.2 (5.9)	9.1 (3.5)	1.0
Two	41.7 (2.3)	34.0 (3.3)	58.7 (3.5)	7.4 (1.9)	0.80 (0.29-2.17)
Three	26.3 (2.2)	20.6 (3.6)	69.9 (4.3)	9.5 (2.8)	1.05 (0.36-3.05)
Four	11.0 (1.6)	17.1 (5.0)	62.5 (7.7)	20.4 (7.2)	2.58 (0.78-8.52)

	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
Five	5.1 (1.1)	9.9 (7.4)	43.7 (11.)	46.4 (11.)	<b>8.68 (2.58-29.2)</b>
Number of venue types***					
One	34.6 (2.1)	36.5 (3.5)	58.7 (3.6)	4.9 (1.6)	1.0
Two	50.0 (2.4)	24.4 (2.9)	65.8 (3.4)	9.9 (2.4)	2.13 (0.90-5.05)
Three	15.3 (1.7)	9.2 (3.9)	58.3 (6.0)	32.5 (5.7)	<b>9.36 (3.99-21.9)</b>
Club EGM frequency					
Not at all	8.9 (1.4)	24.6 (7.2)	59.5 (8.2)	15.9 (5.6)	1.0
Once or twice	60.4 (2.4)	28.6 (2.7)	62.9 (3.0)	8.5 (1.8)	0.49 (0.19-1.26)
At least monthly	18.2 (1.9)	24.2 (4.6)	61.7 (5.4)	14.1 (3.7)	0.87 (0.31-2.41)
At least fortnightly	7.2 (1.3)	12.3 (4.2)	60.9 (9.6)	26.7 (9.7)	1.93 (0.54-6.88)
Weekly or more	5.3 (1.0)	27.9 (7.4)	61.5 (8.7)	10.6 (4.9)	0.63 (0.17-2.35)
Pub EGM frequency***					
Not at all	30.4 (2.0)	37.2 (3.7)	60.0 (3.8)	2.8 (1.3)	1.0
Once or twice	49.4 (2.4)	23.9 (2.9)	65.2 (3.4)	10.9 (2.3)	<b>4.25 (1.52-11.9)</b>
At least monthly	14.0 (1.8)	16.0 (4.7)	64.2 (6.7)	19.9 (5.8)	<b>8.59 (2.68-27.6)</b>
Fortnightly or more	6.2 (1.0)	14.4 (5.3)	44.3 (8.3)	41.3 (8.7)	<b>24.36 (7.62-77.9)</b>
Star casino EGM frequency***					
Not at all	80.0 (1.9)	29.9 (2.3)	62.5 (2.6)	7.6 (1.6)	1.0
Once or twice	14.3 (1.7)	9.5 (3.7)	66.4 (6.2)	24.1 (5.6)	<b>3.87 (1.82-8.24)</b>
Monthly or more	5.6 (1.0)	16.4 (8.7)	46.2 (9.2)	37.4 (8.8)	<b>7.31 (3.08-17.4)</b>
Usual EGM session spend***					
Less than \$30	22.0 (2.0)	33.5 (4.5)	62.4 (4.7)	4.1 (1.8)	1.0
\$30-\$49	28.7 (2.2)	23.2 (3.6)	66.3 (4.3)	10.5 (3.1)	2.75 (0.90-8.42)
\$50-\$99	24.9 (2.2)	26.1 (4.2)	62.1 (5.0)	11.8 (3.9)	3.14 (0.97-10.1)
\$100-\$199	13.0 (1.7)	28.0 (6.1)	60.7 (6.6)	11.3 (3.8)	2.99 (0.92-9.70)
\$200-\$299	5.7 (1.0)	15.5 (7.2)	60.8 (9.1)	23.7 (8.1)	<b>7.29 (2.05-26.0)</b>
\$300 or more	5.7 (1.0)	15.8 (5.7)	49.5 (9.1)	34.7 (8.4)	<b>12.45 (3.87-40.1)</b>
Usual session length					
Less than 30 mins	43.8 (2.4)	23.8 (3.2)	64.0 (3.8)	12.2 (2.9)	1.0
30-59 mins	39.2 (2.3)	30.8 (3.2)	58.4 (3.5)	10.8 (2.1)	0.87 (0.44-1.71)
60 mins or more	17.0 (1.7)	21.9 (4.2)	66.2 (5.0)	12.0 (3.4)	0.98 (0.42-2.25)
Number of days all venues**					
One	47.2 (2.4)	34.4 (3.2)	58.8 (3.4)	6.9 (1.9)	1.0
Two	34.7 (2.3)	18.9 (2.9)	69.1 (3.8)	12.0 (2.8)	1.85 (0.85-4.07)
Three	13.5 (1.7)	15.0 (4.4)	62.8 (6.7)	22.2 (6.0)	<b>3.88 (1.56-9.64)</b>
Four to seven	4.6 (0.8)	31.4 (7.9)	42.7 (8.7)	25.9 (8.1)	<b>4.74 (1.71-13.1)</b>
Number loyalty schemes***					
None	68.5 (2.2)	26.4 (2.4)	64.8 (2.8)	8.8 (1.8)	1.0
One	19.0 (1.8)	31.9 (4.6)	61.8 (4.9)	6.3 (2.3)	0.69 (0.29-1.68)
Two	8.3 (1.4)	15.5 (6.0)	59.5 (8.7)	25.0 (8.0)	<b>3.45 (1.34-8.86)</b>
Three	4.1 (1.0)	18.7 (11.)	25.7 (10.)	55.6 (12.)	<b>12.92 (4.39-38.0)</b>
Number of venues gambles alone in (not significant)					
None	75.7 (2.0)	21.9 (2.1)	68.1 (2.6)	10.0 (1.8)	1.0
One	11.2 (1.4)	56.6 (6.6)	29.3 (6.0)	14.0 (5.5)	1.47 (0.56-3.89)
Two	8.9 (1.4)	28.4 (7.9)	57.2 (8.0)	14.5 (4.4)	1.52 (0.68-3.40)
Three	4.2 (1.0)	19.2 (11.)	52.5 (13.)	28.3 (12.)	3.56 (1.06-12.0)
Needed to gamble with larger amounts (PGSI2)***					
Never	73.7 (2.2)	30.2 (2.4)	64.0 (2.6)	5.9 (1.4)	1.0
Sometimes	21.4 (2.1)	14.4 (3.3)	59.8 (5.6)	25.8 (5.3)	<b>5.57 (2.70-11.5)</b>
Most or almost always	4.9 (0.9)	7.2 (4.1)	56.8 (9.1)	36.0 (8.6)	<b>8.98 (3.74-21.6)</b>
Chasing losses (PGSI3)***					
Never	75.8 (2.1)	28.6 (2.3)	64.1 (2.6)	7.3 (1.5)	1.0

	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
Sometimes	20.8 (2.1)	18.4 (4.5)	59.7 (5.9)	21.9 (5.2)	<b>3.58 (1.71-7.51)</b>
Most or almost always	3.5 (0.5)	9.3 (4.1)	46.4 (7.8)	44.3 (7.5)	<b>10.15 (4.83-21.3)</b>
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals (row total not given) may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (logistic regression) between variable and EGM gambling times

**Table 40:** Multivariable adjusted logistic regression model for late-night EGM gambler: Demographic and socioeconomic characteristics

<i>R</i> <sup>2</sup> =22.8%	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
Age (years)					
18-29	20.0 (1.8)	6.3 (3.2)	73.4 (5.6)	20.3 (5.1)	1.0
30-39	25.6 (2.0)	17.4 (4.4)	66.4 (5.3)	16.1 (3.9)	1.14 (0.41-3.13)
40-49	16.3 (1.4)	27.3 (5.4)	61.4 (5.7)	11.3 (3.4)	0.75 (0.25-2.24)
50-64	22.0 (1.0)	35.2 (4.2)	59.2 (4.4)	5.7 (2.1)	0.33 (0.10-1.04)
65 or more	16.1 (0.4)	51.7 (4.0)	46.2 (4.0)	2.0 (1.2)	<b>0.15 (0.04-0.67)</b>
Late-night worker status					
Not late-night worker	86.4 (1.6)	27.8 (2.1)	62.5 (2.5)	9.7 (1.6)	1.0
Late-night worker (9pm +)	13.6 (1.6)	16.1 (4.9)	60.1 (6.4)	23.8 (5.6)	<b>2.33 (1.07-5.06)</b>
Student status					
Not Studying	79.1 (2.1)	28.7 (2.2)	61.9 (2.5)	9.4 (1.6)	1.0
Part-time study	10.8 (1.7)	22.2 (7.2)	71.8 (7.6)	6.0 (3.4)	0.47 (0.14-1.56)
Full-time study	10.1 (1.6)	11.4 (5.4)	53.7 (8.5)	35.0 (8.3)	<b>3.55 (1.40-9.00)</b>
Index of Disadvantage quintiles					
Least disadvantaged	18.1 (1.7)	26.0 (4.2)	57.8 (5.1)	16.3 (3.8)	1.0
2	22.4 (2.1)	23.8 (4.2)	62.9 (5.0)	13.3 (3.8)	0.58 (0.24-1.40)
3	25.4 (2.2)	20.9 (3.5)	63.2 (4.7)	15.9 (4.0)	0.94 (0.40-2.22)
4	16.2 (1.8)	29.0 (5.4)	64.2 (5.8)	6.7 (3.0)	0.40 (0.11-1.44)
Most disadvantaged	18.0 (1.9)	34.4 (5.5)	62.4 (5.6)	3.2 (1.2)	<b>0.15 (0.05-0.47)</b>
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant; Totals (row total not given) may not add exactly to 100% due to rounding

**Table 41:** Multivariable adjusted logistic regression model for late-night EGM gambler: Gambling behaviour and participation variables

<i>R</i> <sup>2</sup> =27.0%	Distribution % (SE)	8am-7pm % (SE)	7pm-12am % (SE)	12am-8am % (SE)	OR (95% CI)
Pub EGM frequency					
Not at all	30.4 (2.0)	37.2 (3.7)	60.0 (3.8)	2.8 (1.3)	1.0
Once or twice	49.4 (2.4)	23.9 (2.9)	65.2 (3.4)	10.9 (2.3)	2.81 (0.97-8.16)
At least monthly	14.0 (1.8)	16.0 (4.7)	64.2 (6.7)	19.9 (5.8)	2.63 (0.86-8.04)
Fortnightly or more	6.2 (1.0)	14.4 (5.3)	44.3 (8.3)	41.3 (8.7)	<b>9.34 (2.75-31.8)</b>
Number loyalty schemes					
None	68.5 (2.2)	26.4 (2.4)	64.8 (2.8)	8.8 (1.8)	1.0
One	19.0 (1.8)	31.9 (4.6)	61.8 (4.9)	6.3 (2.3)	0.61 (0.25-1.49)
Two	8.3 (1.4)	15.5 (6.0)	59.5 (8.7)	25.0 (8.0)	2.26 (0.92-5.52)
Three	4.1 (1.0)	18.7 (11.)	25.7 (10.)	55.6 (12.4)	<b>6.27 (2.01-19.6)</b>

$R^2=27.0\%$	Distribution	8am-7pm	7pm-12am	12am-8am	OR (95% CI)
	% (SE)	% (SE)	% (SE)	% (SE)	
Gamble with larger amounts					
Never	73.7 (2.2)	30.2 (2.4)	64.0 (2.6)	5.9 (1.4)	1.0
Sometimes	21.4 (2.1)	14.4 (3.3)	59.8 (5.6)	25.8 (5.3)	<b>3.69 (1.79-7.60)</b>
Most or almost always	4.9 (0.9)	7.2 (4.1)	56.8 (9.1)	36.0 (8.6)	<b>2.99 (1.26-7.09)</b>
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>62.2 (2.3)</b>	<b>11.6 (1.6)</b>	-
Sample (n)	625	181	357	87	

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding

**Table 42:** Problem gambling risk (PGSI) by usual EGM gambling time

	10am-7pm	7pm-10pm	10pm-12a	12am-4am	4am-10am	Total
Problem gambling	3.1 (0.9)	3.1 (0.7)	7.3 (1.7)	14.0 (3.5)	23.1 (7.8)	5.5 (0.6)
Moderate risk	20.2 (3.9)	21.8 (3.1)	34.8 (6.4)	41.3 (8.9)	47.4 (14.)	26.3 (2.3)
Low risk	23.3 (4.0)	27.6 (3.3)	28.6 (5.9)	20.0 (7.0)	6.4 (4.6)	25.4 (2.2)
Recreational gambling	53.3 (4.4)	47.4 (3.6)	29.3 (5.8)	24.7 (7.5)	23.1 (11.)	42.9 (2.3)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution;

## 10 Appendix C: Problem gambling risk tables

**Table 43:** Bivariate associations between demographic characteristics and problem gambling risk

	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score rate ratio
<i>All EGM gamblers</i>	100.0	25.4 (2.2)	26.3 (2.3)	5.5 (0.6)	-
Region					
Greater Sydney	56.6 (2.5)	25.5 (2.8)	27.2 (2.9)	6.3 (0.8)	1.0
Rest of NSW	43.4 (2.5)	25.2 (3.4)	25.1 (3.8)	4.3 (0.9)	0.84 (0.66-1.06)
Age***					
18-29	20.0 (1.8)	25.5 (5.3)	37.9 (6.3)	7.7 (1.6)	1.0
30-39	25.6 (2.0)	31.7 (5.5)	26.5 (5.5)	6.8 (1.4)	0.83 (0.61-1.13)
40-49	16.3 (1.4)	29.4 (5.4)	21.1 (4.8)	5.0 (1.2)	<b>0.65 (0.47-0.91)</b>
50-64	22.0 (1.0)	17.6 (3.3)	23.6 (3.7)	4.4 (1.3)	<b>0.59 (0.43-0.82)</b>
65+	16.1 (0.4)	22.1 (3.3)	20.4 (3.2)	2.4 (1.0)	<b>0.47 (0.34-0.65)</b>
Sex***					
Male	58.5 (1.1)	24.3 (3.1)	31.2 (3.4)	7.4 (1.0)	1.0
Female	41.5 (1.1)	26.9 (2.9)	19.5 (2.6)	2.8 (0.5)	<b>0.57 (0.46-0.70)</b>
Marital status					
Married/living with partner	59.1 (2.4)	27.6 (2.8)	24.3 (2.8)	4.7 (0.7)	1.0
Separated/divorced	9.8 (1.1)	19.6 (4.7)	26.5 (5.7)	6.8 (2.1)	1.23 (0.88-1.72)
Single	31.1 (2.3)	23.1 (4.2)	29.9 (4.8)	6.5 (1.2)	1.24 (0.97-1.58)
Household type					
Single person	22.6 (2.1)	21.0 (4.4)	25.1 (4.9)	8.0 (1.5)	1.0
One parent with children	5.0 (1.0)	34.2 (9.7)	23.1 (9.0)	6.0 (2.5)	0.95 (0.59-1.51)
Couple with children	31.3 (2.2)	34.7 (4.4)	22.1 (4.0)	5.9 (1.1)	0.88 (0.66-1.18)
Couple with no children	25.5 (1.9)	19.0 (3.6)	26.5 (4.1)	3.8 (1.0)	0.72 (0.53-0.99)
Group household/Other	15.6 (1.9)	20.8 (5.4)	36.9 (6.9)	3.5 (1.3)	0.94 (0.65-1.35)
Language spoken at home					
English	83.3 (1.8)	24.1 (2.3)	27.9 (2.5)	4.7 (0.6)	1.0
Not English	16.7 (1.8)	31.9 (5.8)	18.1 (4.8)	9.3 (1.9)	1.15 (0.86-1.54)
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001 Significant association between demographic variable and problem gambling risk

**Table 44:** Bivariate associations between socioeconomic characteristics and problem gambling risk

	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score rate ratio
<i>All EGM gamblers</i>	100.0	25.4 (2.2)	26.3 (2.3)	5.5 (0.6)	-
Labour force status**					
Full-time employed	57.4 (2.0)	28.2 (3.2)	28.8 (3.4)	6.8 (0.9)	1.0
Casual/part-time employed	15.1 (1.6)	29.2 (5.5)	20.2 (5.2)	5.7 (1.5)	0.74 (0.53-1.01)
Unemployed	3.7 (0.8)	15.6 (8.3)	17.2 (9.0)	6.6 (2.9)	<b>0.66 (0.38-1.17)</b>
Not in the labour force	23.8 (1.5)	17.8 (3.0)	25.5 (3.6)	1.9 (0.8)	<b>0.62 (0.48-0.81)</b>
Late-night worker**					
Finishes before 9 pm	86.4 (1.6)	25.5 (2.4)	27.4 (2.5)	4.2 (0.6)	

	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score rate ratio
Usually finish later than 9 pm	13.6 (1.6)	24.7 (5.7)	18.7 (5.9)	13.6 (2.6)	<b>1.39 (1.04-1.87)</b>
Highest qualification (p=0.052)					
Junior high certificate or below	14.0 (1.7)	31.1 (5.8)	24.5 (6.1)	3.4 (1.3)	1.0
Senior high certificate	13.9 (1.7)	19.0 (5.1)	30.8 (6.7)	9.1 (2.2)	1.39 (0.91-2.12)
Trade/Technical certificate	30.5 (2.1)	21.8 (3.4)	23.6 (3.9)	4.0 (0.9)	0.86 (0.58-1.28)
Bachelor degree	27.6 (2.2)	27.2 (4.7)	28.2 (4.6)	5.4 (1.1)	1.12 (0.75-1.66)
Post graduate degree	14.1 (1.7)	29.9 (6.2)	25.5 (6.4)	7.4 (1.9)	1.24 (0.80-1.90)
Student status**					
Not Studying	79.1 (2.2)	23.1 (2.3)	26.3 (2.5)	5.1 (0.6)	1.0
Part-time study	10.8 (1.7)	45.3 (8.5)	15.4 (6.7)	3.9 (1.3)	0.86 (0.61-1.23)
Full-time study	10.1 (1.6)	22.1 (7.1)	38.5 (8.6)	10.0 (2.8)	<b>1.61 (1.16-2.23)</b>
Personal annual income					
LE\$30K	13.7 (1.4)	16.0 (3.8)	23.9 (5.1)	3.5 (1.2)	1.0
\$31K-\$50K	15.6 (1.7)	29.6 (5.4)	25.1 (5.8)	7.3 (1.8)	1.47 (0.99-2.17)
\$51K-\$70K	13.1 (1.6)	29.4 (6.3)	31.1 (6.7)	3.9 (1.3)	1.54 (1.02-2.32)
\$71K-\$90K	12.7 (1.6)	21.2 (5.4)	25.7 (7.0)	8.0 (2.1)	1.57 (1.01-2.44)
\$91K-\$110K	16.0 (1.9)	25.7 (5.8)	24.4 (6.5)	5.2 (1.4)	1.32 (0.87-2.00)
\$111K-\$140K	9.0 (1.5)	32.5 (8.3)	26.3 (7.6)	5.3 (2.0)	1.3 (0.81-2.08)
\$141K or higher	9.0 (1.5)	27.3 (9.0)	22.6 (6.8)	8.4 (2.5)	1.36 (0.85-2.16)
Unknown	10.8 (1.4)	23.2 (5.8)	31.7 (7.0)	2.2 (1.1)	1.15 (0.73-1.81)
Index of Disadvantage quintiles					
Least disadvantaged	18.1 (1.7)	27.1 (4.8)	27.1 (5.0)	6.0 (1.3)	1.0
2	22.4 (2.1)	20.8 (4.3)	28.2 (5.1)	5.2 (1.3)	0.88 (0.64-1.22)
3	25.4 (2.2)	26.8 (4.7)	25.0 (4.6)	6.8 (1.4)	1.05 (0.77-1.44)
4	16.2 (1.8)	24.4 (5.0)	26.1 (5.9)	4.5 (1.4)	0.82 (0.58-1.17)
Most disadvantaged	18.0 (1.9)	28.3 (5.5)	25.1 (5.5)	4.2 (1.2)	0.91 (0.64-1.31)
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) between socioeconomic variable and problem gambling risk

**Table 45:** Bivariate associations (negative binomial regression) between gambling behaviours and problem gambling risk

	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem gambling % (SE)	PGSI Score rate ratio
<i>All EGM gamblers</i>	100.0	25.4 (2.2)	26.3 (2.3)	5.5 (0.6)	-
EGM gambling times***					
8am-7pm	26.2 (2.0)	23.6 (4.0)	20.1 (3.8)	3.1 (0.9)	1.0
7pm-12am	62.2 (2.3)	27.9 (2.9)	25.7 (2.9)	4.4 (0.7)	1.30 (0.99-1.71)
12am-8am	11.6 (1.6)	15.8 (5.4)	43.2 (7.7)	16.4 (3.3)	<b>3.05 (2.21-4.21)</b>
EGM gambling times***					
8am-7pm	26.2 (2.0)	23.6 (4.0)	20.1 (3.8)	3.1 (0.9)	1.0
7pm-10pm	43.7 (2.4)	27.6 (3.3)	21.8 (3.1)	3.1 (0.7)	1.07 (0.79-1.44)
10pm-12am	18.5 (2.0)	28.6 (5.9)	34.8 (6.4)	7.3 (1.7)	<b>1.86 (1.35-2.56)</b>
12am-2am	6.8 (1.3)	18.3 (8.1)	44.2 (10.3)	12.1 (3.7)	<b>2.76 (1.87-4.06)</b>
2am-8am	4.8 (1.0)	12.2 (6.3)	41.8 (11.6)	22.6 (5.9)	<b>3.49 (2.34-5.21)</b>
Number of activities***					
1	15.9 (1.8)	29.5 (5.9)	17.2 (4.3)	3.0 (1.1)	1.0
2	41.7 (2.3)	22.8 (3.2)	23.1 (3.2)	3.2 (0.7)	1.35 (0.96-1.91)
3	26.3 (2.2)	29.5 (4.5)	29.4 (4.9)	3.7 (1.0)	<b>1.68 (1.17-2.41)</b>



	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem gambling % (SE)	PGSI Score rate ratio
4	11.0 (1.6)	21.8 (6.2)	35.3 (8.0)	13.1 (3.2)	<b>2.78 (1.88-4.10)</b>
5	5.1 (1.1)	19.8 (9.9)	45.4 (11.6)	24.2 (6.4)	<b>4.38 (2.87-6.68)</b>
Number of venue types***					
1	34.6 (2.1)	23.0 (3.4)	13.6 (2.5)	1.4 (0.6)	1.0
2	50.0 (2.4)	27.1 (3.3)	31.0 (3.6)	4.0 (0.8)	<b>2.12 (1.59-2.82)</b>
3	15.3 (1.7)	25.3 (5.5)	39.8 (6.3)	19.8 (3.2)	<b>4.69 (3.49-6.31)</b>
Club EGM frequency***					
Not at all	8.9 (1.4)	30.8 (8.2)	18.8 (6.9)	3.7 (1.8)	1.0
Once or twice	60.4 (2.4)	26.7 (2.8)	16.8 (2.5)	3.2 (0.6)	0.98 (0.61-1.56)
At least monthly	18.2 (1.9)	23.8 (5.1)	45.7 (5.9)	8.2 (1.8)	<b>2.43 (1.52-3.88)</b>
Fortnightly or more	12.5 (1.6)	17.5 (4.3)	49.7 (6.7)	13.8 (2.8)	<b>2.78 (1.75-4.43)</b>
Pub EGM frequency***					
Not at all	30.4 (2.0)	19.5 (3.3)	15.6 (2.8)	1.0 (0.5)	1.0
Once or twice	49.4 (2.4)	32.6 (3.5)	21.7 (3.2)	4.0 (0.8)	<b>1.84 (1.36-2.50)</b>
At least monthly	14.0 (1.8)	19.3 (5.6)	58.8 (6.6)	9.4 (2.2)	<b>4.13 (3.07-5.56)</b>
Fortnightly or more	6.2 (1.0)	10.7 (4.3)	41.6 (9.2)	30.3 (6.0)	<b>5.90 (4.17-8.35)</b>
Star casino EGM frequency***					
Not at a	80.0 (1.9)	26.0 (2.5)	23.2 (2.5)	2.9 (0.5)	1.0
Once or	14.3 (1.7)	24.4 (5.7)	39.2 (6.7)	9.3 (2.1)	<b>1.82 (1.40-2.36)</b>
Monthly or more	5.6 (1.0)	19.0 (8.6)	38.5 (9.8)	33.9 (7.1)	<b>3.98 (2.98-5.32)</b>
Usual session spend (high)***					
LT\$20	22.0 (2.0)	20.6 (4.6)	5.1 (2.4)	0.5 (0.4)	1.0
\$30-\$49	28.7 (2.2)	32.5 (4.4)	19.1 (3.9)	1.7 (0.7)	<b>2.86 (1.75-4.66)</b>
\$50-\$99	24.9 (2.2)	29.9 (4.6)	30.1 (5.1)	2.1 (0.7)	<b>3.76 (2.31-6.12)</b>
\$100-\$199	13.0 (1.7)	25.3 (5.6)	44.5 (7.0)	9.8 (2.3)	<b>7.03 (4.42-11.2)</b>
\$200-\$299	5.7 (1.0)	13.9 (7.6)	47.5 (9.0)	20.4 (5.1)	<b>10.81 (6.53-17.9)</b>
\$300 or more	5.7 (1.0)	0.0 (0.0)	64.7 (7.3)	33.6 (7.0)	<b>15.64 (10.0-24.5)</b>
Usual session length***					
Less than 30 minutes	43.8 (2.4)	28.6 (3.8)	21.7 (3.7)	2.1 (0.6)	1.0
30-59 minutes	39.2 (2.3)	23.9 (3.1)	22.5 (3.2)	5.7 (0.9)	1.31 (0.99-1.72)
60 minutes or more	17.0 (1.7)	20.7 (4.2)	46.7 (5.5)	13.5 (2.4)	<b>2.84 (2.17-3.71)</b>
Number of days of week***					
1	47.2 (2.4)	25.2 (3.1)	18.9 (3.0)	3.3 (0.7)	1.0
2	34.7 (2.3)	26.6 (3.9)	32.7 (4.3)	4.5 (0.9)	<b>1.56 (1.21-2.00)</b>
3	13.5 (1.7)	27.0 (6.1)	31.7 (6.9)	9.6 (2.3)	<b>2.05 (1.49-2.82)</b>
4 to 7	4.6 (0.8)	13.0 (5.7)	38.6 (8.9)	23.1 (5.9)	<b>3.24 (2.22-4.74)</b>
Number of Loyalty memberships***					
0	68.5 (2.2)	25.7 (2.7)	21.5 (2.7)	3.0 (0.6)	1.0
1	19.0 (1.8)	29.4 (4.8)	32.5 (5.0)	6.0 (1.5)	<b>1.56 (1.21-2.01)</b>
2	8.3 (1.4)	13.8 (5.4)	45.2 (9.0)	11.1 (3.1)	<b>2.38 (1.70-3.32)</b>
3	4.1 (1.0)	25.2 (13.)	40.0 (13.)	34.8 (9.5)	<b>4.46 (3.15-6.32)</b>
Number venue types gambles alone***					
0	75.7 (2.0)	25.6 (2.6)	23.0 (2.6)	2.9 (0.5)	1.0
1	11.2 (1.4)	25.3 (5.8)	26.6 (6.4)	10.0 (2.4)	<b>1.92 (1.40-2.63)</b>
2	8.9 (1.4)	21.5 (6.4)	49.4 (8.0)	18.5 (4.1)	<b>3.13 (2.44-4.02)</b>
3	4.2 (1.0)	30.1 (12.)	36 (14.)	12.7 (4.8)	<b>2.35 (1.58-3.51)</b>
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding;

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) between gambling behaviour variable and problem gambling risk

**Table 46:** Multivariable adjusted negative binomial regression model for problem gambling risk (PGSI score): Demographic and socioeconomic characteristics

<i>R</i> <sup>2</sup> =3.0%					
	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score rate ratio (95% CI)
Age (years)**					
18-29	20.1 (1.8)	25.5 (5.3)	37.9 (6.3)	7.7 (1.6)	1.0
30-39	25.3 (2.0)	31.7 (5.5)	26.5 (5.5)	6.8 (1.4)	0.83 (0.61-1.13)
40-49	16.3 (1.4)	29.4 (5.4)	21.1 (4.8)	5.0 (1.2)	0.72 (0.52-1.01)
50-64	22.1 (1.0)	17.6 (3.3)	23.6 (3.7)	4.4 (1.3)	<b>0.60 (0.44-0.83)</b>
65+	16.2 (0.4)	22.1 (3.3)	20.4 (3.2)	2.4 (1.0)	<b>0.55 (0.39-0.77)</b>
Sex***					
Male	58.3 (1.1)	24.3 (3.1)	31.2 (3.4)	7.4 (1.0)	1
Female	41.7 (1.1)	26.9 (2.9)	19.5 (2.6)	2.8 (0.5)	<b>0.61 (0.49-0.76)</b>
Student status*					
Not studying	79.4 (2.1)	23.1 (2.3)	26.3 (2.5)	5.1 (0.6)	1
Part-time study	10.9 (1.7)	45.3 (8.5)	15.4 (6.7)	3.9 (1.3)	0.76 (0.54-1.08)
Full-time study	9.7 (1.5)	22.1 (7.1)	38.5 (8.6)	10.0 (2.8)	1.37 (0.97-1.93)
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) with problem gambling risk

**Table 47:** Multivariable adjusted negative binomial regression model for problem gambling risk (PGSI score): Gambling behaviours and participation variables

<i>R</i> <sup>2</sup> =11.5%					
	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score Rate ratio (95% CI)
Number of gambling forms*					
One	15.9 (1.8)	29.7 (5.9)	16.6 (4.2)	3.0 (1.1)	1.0
Two	41.6 (2.3)	22.8 (3.2)	23.1 (3.2)	3.2 (0.7)	0.84 (0.58-1.22)
Three	26.5 (2.3)	29.5 (4.5)	29.4 (5.0)	3.6 (1.0)	1.11 (0.74-1.65)
Four	11.1 (1.6)	21.8 (6.2)	35.3 (8.0)	13.1 (3.2)	1.43 (0.94-2.17)
Five	4.9 (1.1)	20.5 (10.)	43.5 (12.)	25.0 (6.7)	1.05 (0.68-1.62)
Pub EGM frequency***					
Not at all	30.6 (2.0)	19.5 (3.3)	15.6 (2.8)	1.0 (0.5)	1.0
Once or twice least once per month	49.4 (2.4)	32.6 (3.5)	21.7 (3.2)	4.0 (0.8)	<b>1.59 (1.15-2.20)</b>
Fortnightly or more	13.8 (1.8)	19.7 (5.7)	58.1 (6.8)	9.5 (2.2)	<b>2.56 (1.77-3.71)</b>
Usual session spend (high)***	6.3 (1.0)	10.7 (4.3)	41.6 (9.2)	30.3 (6.0)	<b>2.39 (1.61-3.55)</b>
Less than \$30	22.0 (2.0)	20.6 (4.6)	5.1 (2.4)	0.5 (0.4)	1.0
\$30-\$49	28.8 (2.2)	32.5 (4.4)	19.1 (3.9)	1.7 (0.7)	<b>2.16 (1.33-3.51)</b>
\$50-\$99	24.9 (2.2)	30.1 (4.7)	29.8 (5.1)	2.1 (0.7)	<b>2.38 (1.49-3.81)</b>
\$100-\$199	13.0 (1.7)	25.3 (5.6)	44.5 (7.0)	9.8 (2.3)	<b>4.22 (2.60-6.86)</b>
\$200-\$299	5.7 (1.0)	13.9 (7.6)	47.5 (9.0)	20.4 (5.1)	<b>5.27 (3.15-8.82)</b>
\$300 or more	5.5 (1.0)	0.0 (0.0)	63.8 (7.5)	34.5 (7.3)	<b>9.43 (5.91-15.0)</b>

$R^2=11.5\%$					
	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score Rate ratio (95% CI)
Number days attends a venue*					
One	47.6 (2.4)	25.2 (3.1)	18.9 (3.0)	3.3 (0.7)	1.0
Two	34.5 (2.3)	26.6 (3.9)	32.7 (4.3)	4.4 (0.9)	1.05 (0.80-1.37)
Three	13.4 (1.7)	27.4 (6.2)	30.8 (6.9)	9.7 (2.3)	0.93 (0.69-1.25)
Four to seven	4.5 (0.8)	13.3 (5.8)	37.1 (9.1)	23.6 (6.0)	<b>1.73 (1.16-2.57)</b>
Number of Loyalty schemes**					
None	69.0 (2.2)	25.7 (2.7)	21.5 (2.7)	3.0 (0.6)	1.0
One	19.1 (1.8)	29.5 (4.9)	32.1 (5.0)	6.0 (1.5)	<b>1.59 (1.21-2.11)</b>
Two	8.2 (1.4)	14.1 (5.5)	44.2 (9.1)	11.2 (3.1)	1.25 (0.89-1.77)
Three	3.7 (0.9)	25.2 (12.)	40.0 (13.)	34.8 (9.5)	<b>1.43 (1.02-2.02)</b>
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) with problem gambling risk

**Table 48:** Multivariable adjusted negative binomial regression model for problem gambling risk (PGSI score): Gambling behaviours and participation, demographic and socioeconomic characteristics

$R^2=11.0\%$					
	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score Rate ratio (95% CI)
Gender**					
Male	58.3 (1.1)	24.4 (3.1)	31.0 (3.4)	7.4 (1.0)	1.0
Female	41.7 (1.1)	27.0 (2.9)	19.3 (2.6)	2.7 (0.5)	<b>0.71 (0.58-0.88)</b>
Pub EGM frequency***					
Not at all	30.6 (2.0)	19.5 (3.3)	15.6 (2.8)	1.0 (0.5)	1.0
Once or twice	49.4 (2.4)	32.6 (3.5)	21.7 (3.2)	4.0 (0.8)	<b>1.54 (1.11-2.15)</b>
least once per month	13.8 (1.8)	19.7 (5.7)	58.1 (6.8)	9.5 (2.2)	<b>2.54 (1.74-3.71)</b>
Fortnightly or more	6.3 (1.0)	10.7 (4.3)	41.6 (9.2)	30.3 (6.0)	<b>2.47 (1.68-3.63)</b>
Usual session spend (high)***					
Less than \$30	22.0 (2.0)	20.6 (4.6)	5.1 (2.4)	0.5 (0.4)	1.0
\$30-\$49	28.8 (2.2)	32.5 (4.4)	19.1 (3.9)	1.7 (0.7)	<b>2.17 (1.32-3.56)</b>
\$50-\$99	24.9 (2.2)	30.1 (4.7)	29.8 (5.1)	2.1 (0.7)	<b>2.39 (1.48-3.86)</b>
\$100-\$199	13 (1.7)	25.3 (5.6)	44.5 (7.0)	9.8 (2.3)	<b>4.00 (2.46-6.52)</b>
\$200-\$299	5.7 (1.0)	13.9 (7.6)	47.5 (9.0)	20.4 (5.1)	<b>5.40 (3.20-9.11)</b>
\$300 or more	5.5 (1.0)	0.0 (0.0)	63.8 (7.5)	34.5 (7.3)	<b>8.42 (5.29-13.4)</b>
Number days attends a venue to gamble*					
One	47.6 (2.4)	25.2 (3.1)	18.9 (3.0)	3.3 (0.7)	1.0
Two	34.5 (2.3)	26.6 (3.9)	32.7 (4.3)	4.4 (0.9)	1.06 (0.81-1.38)
Three	13.4 (1.7)	27.4 (6.2)	30.8 (6.9)	9.7 (2.3)	0.96 (0.71-1.30)
Four to seven	4.5 (0.8)	13.3 (5.8)	37.1 (9.1)	23.6 (6.0)	<b>1.73 (1.17-2.56)</b>
Number of Loyalty schemes***					
None	69.0 (2.2)	25.7 (2.7)	21.5 (2.7)	3.0 (0.6)	1.0
One	19.1 (1.8)	29.5 (4.9)	32.1 (5.0)	6.0 (1.5)	<b>1.64 (1.26-2.14)</b>
Two	8.2 (1.4)	14.1 (5.5)	44.2 (9.1)	11.2 (3.1)	1.27 (0.89-1.81)
Three	3.7 (0.9)	25.2 (12.)	40.0 (13.)	34.8 (9.5)	<b>1.50 (1.08-2.09)</b>

$R^2=11.0\%$

	Distribution % (SE)	Low risk % (SE)	Moderate risk % (SE)	Problem Gambling % (SE)	PGSI Score Rate ratio (95% CI)
<b>Total</b>	<b>100.0</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>	-
Sample (n)	624	131	124	114	-

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) with problem gambling risk

# 11 Appendix D: Last visit to venue tables

**Table 49:** Distribution of last visit to venue variables and bivariate associations with late-night EGM gambling (n=625)

	Distribution % (SE)	Late-night gambling				
		8am-7pm % (SE)	7pm-10pm % (SE)	10pm-12am % (SE)	12am-2am % (SE)	2am-8am % (SE)
<i>All EGM gamblers</i>	100.0	26.2 (2.0)	43.7 (2.4)	18.5 (2.0)	6.8 (1.3)	4.8 (1.0)
Last venue type visited**						
Club	57.7 (2.4)	30.2 (2.6)	49.1 (3.1)	14.0 (2.5)	3.6 (1.3)	3.0 (1.2)
Pub	36.0 (2.4)	22.6 (3.5)	36.9 (4.1)	22.3 (3.6)	11.4 (2.8)	6.8 (1.9)
Star casino	6.3 (1.2)	10.7 (6.5)	33.0 (8.9)	37.2 (9.9)	9.6 (6.6)	9.5 (4.9)
Day of week*						
Monday	3.1 (0.8)	29.3 (11.)	57.1 (12.)	5.3 (3.8)	6.5 (6.3)	1.8 (1.8)
Tuesday	3.5 (0.7)	40.7 (9.4)	39.6 (9.8)	12.0 (6.5)	3.0 (1.9)	4.6 (2.5)
Wednesday	7.2 (1.0)	38.0 (7.3)	40.2 (7.2)	10.6 (5.9)	5.3 (2.2)	6 (3.1)
Thursday	11.1 (1.4)	41.4 (6.7)	34.6 (6.4)	11.1 (4.5)	4.4 (2.5)	8.5 (4.0)
Friday	25.8 (2.2)	26.1 (4.3)	47.1 (4.9)	18.7 (4.1)	4.6 (2.0)	3.5 (1.5)
Saturday	36.3 (2.4)	16.4 (2.8)	47.8 (4.4)	23.7 (4.0)	7.7 (2.6)	4.4 (1.9)
Sunday	7.3 (1.2)	29.5 (7.4)	34.8 (7.3)	13.2 (6.1)	20.0 (8.0)	2.6 (2.3)
Don't know	5.7 (1.1)	30.0 (8.3)	31.2 (8.5)	25.9 (9.4)	3.6 (3.5)	9.3 (5.3)
Day of week**						
Monday-Thursday	26.2 (1.9)	39.8 (4.0)	38.8 (4.1)	10.0 (2.7)	5.3 (1.6)	6.1 (1.9)
Friday-Sunday	73.8 (1.9)	21.4 (2.3)	45.4 (2.9)	21.5 (2.6)	7.4 (1.7)	4.3 (1.2)
Time arrived last visit***						
8am-5pm	36.9 (2.2)	50.4 (3.6)	34.1 (3.6)	10.8 (2.4)	3.1 (1.3)	1.6 (0.7)
6pm-8pm	46.1 (2.4)	10.7 (2.1)	57.5 (3.7)	22.5 (3.4)	4.3 (1.7)	5.2 (1.7)
9pm-11pm	7.5 (1.4)	5.1 (5.0)	28.7 (8.3)	34.3 (9.6)	28.6 (9.6)	3.4 (2.9)
12am-1am	4.6 (1.0)	7.7 (3.7)	16.3 (7.7)	27.3 (10.)	28.3 (9.4)	20.4 (9.4)
2am-7am	4.8 (1.1)	41.2 (11.7)	35.5 (10.)	5.3 (4.5)	5.5 (2.7)	12.5 (4.5)
How long at venue (p=0.055)						
Less than 15 minutes	2.7 (1.0)	13.7 (9.9)	72.5 (15.)	13.1 (12.3)	0.0 (0.0)	0.7 (0.7)
15-29 minutes	4.8 (1.0)	22.4 (8.8)	18.4 (7.3)	33.9 (10.)	17.4 (7.5)	8.0 (4.4)
30-59 minutes	13.9 (1.7)	31.1 (6.4)	33.5 (5.6)	15.3 (5.5)	9.7 (4.4)	10.4 (3.6)
1 to less than 2 hours	29.6 (2.2)	31.0 (3.6)	44.0 (4.3)	14.1 (3.1)	6.7 (2.5)	4.2 (1.5)
2 hours or more	49.0 (2.5)	23.1 (2.7)	47.3 (3.5)	20.7 (3.2)	5.4 (1.7)	3.5 (1.5)
How long gambled on EGMs						
Less than 15 minutes	26.6 (2.3)	27.0 (4.3)	47.8 (5.3)	12.9 (3.8)	8.0 (2.8)	4.3 (2.3)
15-29 minutes	29.1 (2.2)	23.4 (3.3)	44.3 (4.3)	20.0 (4.0)	6.1 (2.2)	6.2 (2.0)
30-59 minutes	22.7 (2.1)	23.0 (4.2)	45.6 (5.0)	20.2 (4.5)	6.2 (2.9)	4.9 (1.9)
1 to less than 2 hours	15.3 (1.7)	34.1 (5.3)	35.4 (5.3)	18.8 (5.1)	7.7 (3.7)	4.0 (2.1)
2 hours or more	6.3 (1.0)	28.3 (7.6)	36.8 (7.7)	27.7 (7.7)	5.1 (3.1)	2.2 (1.2)
EGM spend last visit*						
Less than \$30	27.3 (2.2)	31.3 (3.8)	47.8 (4.7)	13.0 (3.8)	3.1 (1.7)	4.8 (2.4)
\$30-\$49	28.0 (2.2)	24.4 (3.7)	45.3 (4.5)	21.3 (4.1)	6.5 (2.5)	2.5 (1.3)
\$50-\$99	23.1 (2.1)	26.4 (4.5)	47.4 (5.4)	15.4 (4.1)	7.7 (2.7)	3.1 (1.6)
\$100-\$199	11.7 (1.6)	23.8 (6.4)	37.3 (6.7)	20.6 (6.1)	12.4 (5.8)	5.9 (2.1)
\$200-\$299	5.3 (1.0)	12.4 (5.1)	35.0 (8.6)	33.0 (9.1)	13.0 (7.3)	6.5 (2.7)
\$300 or more	4.6 (1.0)	22.4 (7.9)	21.4 (7.5)	27.7 (11.5)	5.7 (3.9)	22.8 (9.5)
<b>Total</b>	<b>100.0</b>	<b>26.2 (2.0)</b>	<b>43.7 (2.4)</b>	<b>18.5 (2.0)</b>	<b>6.8 (1.3)</b>	<b>4.8 (1.0)</b>

Distribution % (SE)	Late-night gambling					
	8am-7pm % (SE)	7pm-10pm % (SE)	10pm-12am % (SE)	12am-2am % (SE)	2am-8am % (SE)	
Sample (n)	625	181	262	95	40	47

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (Chi Squared test) with late-night gambling

**Table 50:** Bivariate associations between last visit to a venue variables and problem gambling risk (n=624)

	Recreational gambling % (SE)	Low risk gambling % (SE)	Problem & moderate risk gambling % (SE)	PGSI Score Rate ratio (95% CI)
<i>All EGM gamblers</i>	42.9 (2.3)	25.4 (2.2)	31.7 (2.3)	-
Last venue*				
Club	48.5 (3.1)	23.0 (2.7)	28.5 (2.9)	1.0
Pub or hotel	36.8 (3.9)	29.2 (4.0)	34.0 (4.0)	<b>1.35 (1.07-1.70)</b>
Star casino	25.5 (8.4)	26.1 (8.8)	48.4 (10.)	<b>1.44 (1.00-2.07)</b>
Day of the week*				
Monday	42.7 (14.)	22.0 (9.3)	35.2 (13.)	1.0
Tuesday	55.5 (9.5)	14.7 (7.3)	29.7 (8.5)	1.48 (0.70-3.16)
Wednesday	46.0 (7.5)	20.2 (6.3)	33.8 (6.7)	1.53 (0.77-3.04)
Thursday	40.6 (6.6)	20.3 (5.5)	39.2 (6.7)	1.27 (0.66-2.44)
Friday	36.1 (4.6)	34.3 (4.9)	29.6 (4.4)	0.96 (0.52-1.77)
Saturday	44.8 (4.3)	21.9 (3.5)	33.4 (4.3)	0.90 (0.49-1.68)
Sunday	44.6 (8.1)	23.8 (7.8)	31.6 (8.1)	1.03 (0.50-2.10)
Don't know	51.9 (9.5)	34.3 (9.2)	13.8 (6.3)	0.50 (0.23-1.10)
Day of the week**				
Monday-Thursday	46.0 (4.1)	19.8 (3.4)	34.1 (3.9)	1.0
Friday-Sunday	41.7 (2.8)	27.4 (2.7)	30.9 (2.8)	<b>0.71 (0.56-0.89)</b>
Time arrived***				
8am-5pm	45.6 (3.6)	27.1 (3.4)	27.2 (3.2)	1.0
6pm-8pm	47.6 (3.7)	21.9 (3.1)	30.5 (3.6)	0.93 (0.73-1.20)
9pm-11pm	22.4 (7.5)	35.0 (9.7)	42.5 (10.)	<b>1.49 (1.00-2.21)</b>
12am-1am	33.3 (10.)	26.4 (9.4)	40.3 (11.)	1.32 (0.84-2.08)
2am-7am	15.7 (6.6)	30.2 (11.)	54.0 (11.)	<b>2.08 (1.45-3.00)</b>
Time spent at venue***				
Less than 15 minutes	63.9 (19.)	13.7 (9.9)	22.4 (18.)	1.0
15-29 minutes	40.9 (9.8)	30.9 (11.)	28.2 (8.4)	2.42 (0.65-8.98)
30-59 minutes	32.0 (6.0)	21.4 (5.5)	46.7 (6.6)	3.48 (0.99-12.3)
1 to less than 2 hours	42.3 (4.2)	25.9 (3.8)	31.7 (3.9)	2.00 (0.57-7.04)
2 hours or more	45.3 (3.4)	26.3 (3.2)	28.4 (3.3)	1.66 (0.47-5.83)
Time spent on EGMs***				
Less than 15 minutes	58.9 (5.2)	24.1 (4.8)	16.9 (4.3)	1.0
15-29 minutes	47.1 (4.4)	27.7 (4.0)	25.2 (3.8)	<b>1.53 (1.05-2.23)</b>
30-59 minutes	28.5 (4.2)	29.3 (4.4)	42.2 (5.1)	<b>2.33 (1.61-3.39)</b>
1 to less than 2 hours	37.1 (5.4)	14.6 (4.3)	48.3 (5.8)	<b>2.58 (1.74-3.84)</b>
2 hours or more	20.1 (6.3)	32.5 (7.7)	47.5 (8.0)	<b>3.17 (2.10-4.78)</b>
EGM spend last visit*				
Less than \$30	69.8 (4.5)	21.9 (4.0)	8.3 (2.9)	1.0
\$30-\$49	47.1 (4.6)	30.3 (4.3)	22.6 (4.0)	<b>2.37 (1.55-3.62)</b>
\$50-\$99	31.4 (4.6)	34.7 (5.1)	33.9 (5.2)	<b>3.50 (2.34-5.24)</b>
\$100-\$199	21.3 (5.5)	15.3 (5.3)	63.4 (6.8)	<b>7.55 (5.05-11.3)</b>
\$200-\$299	17.1 (6.7)	17.5 (8.3)	65.4 (9.2)	<b>8.97 (5.77-14.0)</b>
\$300 or more	0.0 (0.0)	4.4 (4.3)	95.6 (4.3)	<b>12.46 (8.43-18.4)</b>

	Recreational gambling % (SE)	Low risk gambling % (SE)	Problem & moderate risk gambling % (SE)	PGSI Score Rate ratio (95% CI)
<i>All EGM gamblers</i>	42.9 (2.3)	25.4 (2.2)	31.7 (2.3)	-
<b>Total</b>	<b>42.9 (2.3)</b>	<b>25.4 (2.2)</b>	<b>26.3 (2.3)</b>	<b>5.5 (0.6)</b>
Sample (n)	255	131	124	114

**Notes:** Shaded cell indicates estimate has a relative standard error greater than 30% - interpret with caution; **Bold font** indicates individual Odds Ratio is significant (and global p-value significant); Totals may not add exactly to 100% due to rounding; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Significant association (negative binomial regression) with problem gambling risk

## 12 Appendix E: Late-night EGM Gambling Questionnaire

**ASK ALL**

**SINGLE RESPONSE**

**I1. Would you like to participate?**

1	Yes	<b>CONTINUE</b>
2	No	<b>TERMINATE</b>

**[SINGLE]**

**SCR1. What is the postcode where you live?**

98. Don't know

**IF NOT LIVING IN NSW – TERMINATE**

**[SINGLE]**

**SCR2. What is your age in years?**

Record Number (1-99)

99. Prefer not to say

**IF AGED UNDER 18 – TERMINATE**



## ASK IF EXACT AGE NOT PROVIDED

[SINGLE]

### SCR2a. What is your broad age group?

1. Under 18 years
2. 18-24 years
3. 25-29 years
4. 30-34 years
5. 35-39 years
6. 40-44 years
7. 45-49 years
8. 50-54 years
9. 55-59 years
10. 60-64 years
11. 65-69 years
12. 70 years or older
99. Prefer not to say

IF AGED UNDER 18 (CODE 1) – TERMINATE

IF WILL NOT PROVIDE AGE RANGE (CODE 99) – TERMINATE

## ASK ALL

[SINGLE]

### SCR3. Are you...

1. Male
2. Female
3. Another gender
99. Prefer not to say

[MULTIPLE]

SCR4. Which, if any, of the following activities have you undertaken at least once within New South Wales since November 2021. *Please mark all that apply.*

[Randomise codes 1-5]

1. Played the pokies or a poker machine in a club, pub, hotel or casino
2. Placed a bet at a TAB
3. Bought a lottery ticket (Lotto, Powerball etc.)
4. Placed a sports or racing bet with an online betting company
5. Gambled at the Star Casino (other than on pokies)
6. None of the above (SINGLE)

IF HAS NOT USED EGM (NOT CODE 1 AT SCR4) – TERMINATE

[SINGLE]

SCR5. Since November 2021, how often have your work commitments required you to work until 9pm or later?

1. Always or nearly always
2. Often

3. Sometimes
4. Rarely
5. Never
6. Not applicable – not in the workforce at any time since November 2021 [HIDDEN – Use for counter]

### SCR\_LATE

1. Late night worker (Code 1-2 at SCR5)
2. Not late night worker (Code 3-6 at SCR5)

### ASK ALL

#### [SINGLE]

**PGSI\_1** We'd now like to ask you a series of questions about your gambling in general.

We understand that some of the questions may not apply to you, but we have to ask everyone. The answers you give will provide us with important information, and remember that all responses are confidential. All of these questions relate to the last 12 months.

Thinking about the last 12 months, have you bet more than you could really afford to lose?

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

#### [SINGLE]

**PGSI\_2** Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

#### [SINGLE]

**PGSI\_3** When you gambled, did you go back another day to try to win back the money you lost?

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

#### [SINGLE]

**PGSI\_4 Have you borrowed money or sold anything to get money to gamble?**

- 0. Never
- 1. Sometimes
- 2. Most of the time
- 3. Almost always
- 98. Prefer not to say
- 99. Don't know

**[SINGLE]**

**PGSI\_5 Have you felt that you might have a problem with gambling?**

- 0. Never
- 1. Sometimes
- 2. Most of the time
- 3. Almost always
- 98. Prefer not to say
- 99. Don't know

**[SINGLE]**

**PGSI\_6 Has gambling caused you any health problems, including stress or anxiety?**

- 0. Never
- 1. Sometimes
- 2. Most of the time
- 3. Almost always
- 98. Prefer not to say
- 99. Don't know

**[SINGLE]**

**PGSI\_7 Have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?**

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

**[SINGLE]**

**PGSI\_8 Has your gambling caused any financial problems for you or your household?**

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

**[SINGLE]**

**PGSI\_9 Have you felt guilty about the way you gamble or what happens when you gamble?**

0. Never
1. Sometimes
2. Most of the time
3. Almost always
98. Prefer not to say
99. Don't know

**[HIDDEN]**

**PGSI\_CATEGORY**

1. Recreational/Non-Problem Gambler (*score 0 from PGSI\_1 to PGSI\_9*)
2. Low Risk Gambler (*score 1-2 from PGSI\_1 to PGSI\_9*)
3. Moderate Risk Gambler (*score 3-7 from PGSI\_1 to PGSI\_9*)
4. Problem Gambler (*score 8-27 from PGSI\_1 to PGSI\_9*)
5. Refused/Don't know (*see below*)

**IF CODE 98 OR 99 AT EACH OF PGSI\_1 to PGSI\_9, CODE AS 'REFUSED/DON'T KNOW' FOR PGSI\_CATEGORY.**

**IF CODE 0-3 AT ANY OF PGSI\_1 to PGSI\_9, CODE ANY CODE 98 OR 99 AT PGSI\_1 to PGSI\_9 AS ZERO FOR CALCULATING PGSI.**

**[ASK ALL]**

**[CAROUSEL]**

**AB1** This section asks you about playing the pokies or poker machines (PLEASE DO NOT including similar games played online) in New South Wales at any time since November 2021. **How often have you played a poker machine since November**

- a) In a club
- b) In a pub/hotel
- c) At the Star Casino

**RESPONSE OPTIONS:**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**ASK IF INDICATES HAS NOT PLAYED EGM SINCE NOVEMBER 2021(CODE 1 AT AB1\_1 and AB1\_2 and AB1\_3)**

**[SINGLE]**

**AB1a. You said earlier that you had played poker machines in NSW since November 2021. Was that correct?**

1. Yes
2. No

**IF NO (CODE 2) - TERMINATE**

**ASK IF CONFIRMED HAS PLAYED EGM SINCE NOVEMBER 2021 (CODE 1 AT AB1a)**

**[SINGLE]**

**[CAROUSEL]**

**AB1b. How often have you done the following in NSW since November 2021?**

- a) In a club
- b) In a pub/hotel
- c) At the Star Casino

**RESPONSE OPTIONS:**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**IF CODE 1 FOR ALL THREE ITEMS - TERMINATE.**

**ROTATE ORDER OF APPEARANCE OF THE FOLLOWING QUESTION SETS:**

- **AB2a & AB2a1 (Club)**
- **AB2b & AB2b1 (Pub/hotel)**
- **AB2c & AB2c1 (Casino)**

**ASK IF PLAYED EGM AT CLUB SINCE NOVEMBER 2021(CODE 2-5 AT AB1\_1 OR AB1b\_1)**

**[MULTI]**

**AB2a. During which of the following times have you played poker machines at a club in NSW since November 2021?**

*Please mark all that apply. If you have played across more than one timeslot during a visit, please mark all applicable timeslots.*

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am
9. From 8 am until 10 am

**[CAROUSEL – only display times selected at AB2a. Any times not selected at AB2a should be auto-punched as code 0 at AB2a1]**

**AB2a1. How often have you played poker machines at a club in NSW since November 2021 at the following times?**

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am
9. From 8 am until 10 am

**Response options:**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**AB2b. During which of the following times have you played poker machines at a pub or hotel in NSW since November 2021?**

*Please mark all that apply. If you have played across more than one timeslot during a visit, please mark all applicable timeslots.*

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am
9. From 8 am until 10 am

[CAROUSEL – only display times selected at AB2b. Any times not selected at AB2b should be auto-punched as code 0 at AB2b1]

**AB2b1. How often have you played poker machines at a pub or hotel in NSW since November 2021 at the following times?**

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am
9. From 8 am until 10 am

**Response options:**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**ASK IF PLAYED EGM AT CASINO SINCE NOVEMBER 2021(CODE 2-5 AT AB1\_3 OR AB1b\_3)**

**[MULTI]**

**AB2c. During which of the following times have you played poker machines at the Star Casino since November 2021?**

*Please mark all that apply. If you have played across more than one timeslot during a visit, please mark all applicable timeslots.*

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am
9. From 8 am until 10 am

[CAROUSEL – only display times selected at AB2c. Any times not selected at AB2c should be auto-punched as code 0 at AB2c1]

**AB2c1. How often have you played poker machines at the Star Casino since November 2021 at the following times?**

1. During the day (from 10 am until 4 pm)
2. In the early evening (from 4 pm until 7 pm)
3. In the evening (from 7 pm to 10 pm)
4. In the late evening (from 10 pm until midnight)
5. From midnight until 2 am
6. From 2 am until 4 am
7. From 4 am until 6 am
8. From 6 am until 8 am

9. From 8 am until 10 am

**Response options:**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**[ASK ALL]**

**[CAROUSEL – Only display venue types where played since November 2021 – from AB1 or AB1b]**

**AB4. Approximately how much time would you spend actually playing poker machines (excluding time for other activities such as having a meal or drink) in a typical visit to**

...

1. a club?
2. a pub or hotel?
3. the Star Casino?

**Response options**

1. Less than 15 minutes
2. 15-29 minutes
3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

**[CAROUSEL – Only display venue types where played since November 2021– from AB1 or AB1b]**

**AB4a How much money do you usually spend in a visit playing the pokies at...**

1. a club?
2. a pub or hotel?
3. the Star Casino?

**Response options**

1. Less than \$20
2. \$20-\$49
3. \$50-\$99
4. \$100-\$199
5. \$200-\$299
6. \$300- \$499
7. \$500 or more
8. Don't know

**ASK IF PLAYED EGM AT CLUB SINCE NOVEMBER 2021(CODE 2-5 AT AB1\_1 OR AB1b\_1)**

**[MULTI]**

**AB4a1. On what days of the week do you usually play poker machines at a club?**

*Please mark all that apply*

1. Monday



2. Tuesday
3. Wednesday
4. Thursday
5. Friday
6. Saturday
7. Sunday

**ASK IF PLAYED EGM AT PUB/HOTEL SINCE NOVEMBER 2021(CODE 2-5 AT AB1\_2 OR AB1b\_2)**

**[MULTI]**

**AB4a2. On what days of the week do you usually play poker machines at a pub or hotel?**

*Please mark all that apply*

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday
6. Saturday
7. Sunday

**ASK IF PLAYED EGM AT CASINO SINCE NOVEMBER 2021(CODE 2-5 AT AB1\_3 OR AB1b\_3)**

**[MULTI]**

**AB4a3. On what days of the week do you usually play poker machines at Star Casino?**

*Please mark all that apply*

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday
6. Saturday
7. Sunday

**[ASK ALL]**

**[CAROUSEL - Only display venue types where played since November 2021– from AB1 OR AB1b]**

**AB7. Do you usually visit the venue alone or with others when playing poker machines at**

1. a club?
2. a pub or hotel?
3. the Star Casino?

**RESPONSE OPTIONS [FLIP SCALE]**

1. Always alone
2. Mostly alone
3. About equally alone or with others
4. Mostly with others
5. Always with others

[CAROUSEL - Only display venue types where played since November 2021– from AB1 OR AB1b]

**AB9. Are you a member of a gaming player reward or loyalty scheme at.....**

1. any club in NSW?
2. any pub or hotel in NSW?
3. the Star Casino?

**Response options:**

1. Yes
2. No

[ASK ALL]

The next set of questions is about your **most recent** visit to a venue when you played a poker machine.

[X].

**Since the COVID-19 lockdown ended in November 2021, has the venue where you usually play poker machines returned to ordinary operating hours?**

1. Yes
2. No
3. Unsure

[SINGLE]

[ONLY DISPLAY VENUE TYPES THAT HAS PLAYED AT SINCE NOVEMBER 2021– CODE 2-5 AT AB1 OR AB1B]

[IF ONLY PLAYED AT ONE TYPE OF VENUE AT AB1, AUTO-PUNCH THIS RESPONSE AT RV1 AND DO NOT ASK RV1]

**RV1. What type of venue did you visit the last time you played poker machines?**

1. Club
2. Pub or hotel
3. Star Casino

[SINGLE]

[Variable text – if was not asked RV1, say “.....your most recent visit to a poker machine venue”]

**RV2. On what day of the week was [this most recent visit/your most recent visit to a poker machine venue]?**

***If you arrived after midnight, please answer in terms of the next ‘day’. For example, arriving after midnight on a Friday evening should be recorded as arriving on Saturday’***

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday
6. Saturday
7. Sunday

8. Don't know

### ASK IF DON'T KNOW DAY OF MOST RECENT VISIT (CODE 8 AT RV2)

[SINGLE]

RV2a. To the best of your recollection, on which day of the week did this most recent visit occur?

*Your best estimate will do*

1. Monday to Thursday
2. Friday to Sunday

### ASK ALL

[SINGLE]

RV3. At approximately what time did you arrive at the venue? Your best estimate will do

### SELECT ARRIVAL TIME [DROP DOWN BOX WITH HOURLY INCREMENTS ACROSS 24 HOURS]

[SINGLE]

[PROGRAMMER – SET RV4 AND RV5 ON SAME SCREEN]

RV4. Approximately how long did you spend at the venue during that visit? Your best estimate will do

1. Less than 15 minutes
2. 15-29 minutes
3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

[SINGLE]

RV5. And approximately how long did you spend playing pokies during that visit? Your best estimate will do

1. Less than 15 minutes
2. 15-29 minutes
3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

[SINGLE]

RV6. How much money did you spend playing the pokies during this visit?

1. Less than \$20
2. \$20-\$49
3. \$50-\$99
4. \$100-\$199
5. \$200-\$299
6. \$300- \$499

7. \$500 or more
8. Don't know

**ASK IF PLAYED EGM AT CLUB OR PUB/HOTEL SINCE NOVEMBER 2021(FROM AB1 or AB1a)**

The next few questions are about any occasion since November 2021, where you wanted to continue playing poker machines but the gaming room or the entire venue closed, or you were told by the staff that the venue was closing soon.

**[SINGLE]**

**LP1. Since November 2021, how often have you experienced the closure of a gaming room (or entire venue) or were told it was closing soon at a NSW club, pub or hotel, when you still wanted to play poker machines?**

*Your best estimate will do.*

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**IF NOT AT ALL (CODE 1), SKIP TO LP13**

**ASK IF EXPERIENCED GAMING ROOM CLOSURE (CODE 2-5 AT LP1)**

Please answer the next few questions in relation to the most recent time you experienced the closure of a gaming room (or entire venue) or were told it was closing soon when you still wanted to play poker machines.

**[SINGLE]**

**LP1a. At approximately what time did the gaming room (or entire venue) close during this visit? Your best estimate will do**

**Enter closure time [Drop down box with hourly increments across 24 hours]**

**[SINGLE]**

**LP2. Approximately how long did you spend at the venue during this visit?**

**What was the TOTAL time you spent at the venue during this visit. Your best estimate will do**

1. Less than 15 minutes
2. 15-29 minutes
3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

**[SINGLE]**

**LP2a. Approximately how long did you spend playing the pokies during this visit? Your best estimate will do**

1. Less than 15 minutes
2. 15-29 minutes

3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

**[SINGLE]**

**LP2b. How much money did you spend playing the pokies at the venue during this visit?**

1. Less than \$20
2. \$20-\$49
3. \$50-\$99
4. \$100-\$199
5. \$200-\$299
6. \$300- \$499
7. \$500 or more
8. Don't know

**[SINGLE]**

**LP3.**

**After the gaming room (or entire venue) closed, did you go to another venue that had pokies?**

1. Yes
2. No
3. Don't know

**IF YES SKIP TO LP3a**

**IF NO ASK LP4**

**IF DON'T KNOW, SKIP TO LP10**

**[SINGLE]**

**LP3a Did you play the pokies at this other venue?**

1. Yes
2. No
3. Don't know

**IF YES SKIP TO LP6a**

**IF NO ASK LP3b**

**IF DON'T KNOW, SKIP TO LP10**

**[MULTIPLE]**

**LP3b. What were your reasons for going to another poker machine venue on this occasion?**

**[RANDOMISE CODES 2-9]**

1. Gamble on things other than poker machines, such as Keno
2. Drink alcohol
3. Eat
4. Socialise
5. See entertainment
6. Had an arrangement to meet someone there

7. The person/people I was with wanted to go to the new venue
8. I just did not want my night to end yet
9. Wanted to avoid a person or situation at home
10. Other reason/s (please specify)

**IF DID NOT PLAY POKIES AT OTHER VENUE (CODE 2 AT LP3a) SKIP TO LP10**

**[MULTIPLE]**

**LP4a. Why didn't you continue on to another venue to play the pokies after the gaming room or entire venue closed?**

**Please mark all that apply**

**[Randomise – keep code 1-2 together, and do not permit both codes to be selected do not randomise 6 Other]**

1. There was no other poker machine venue within a reasonable distance
2. The only poker machine venues within a reasonable distance were also closed
3. I had already spent all the money I had (or was prepared to spend)
4. I was not interested in continuing to play the pokies (or had something else I wanted to do)
5. There were no gaming machine promotions or player reward/loyalty schemes available to me at other venues
6. Other (please specify)

**[MULTIPLE]**

**LP4b. Where did you go? Please mark all that apply**

**[Randomise – keep code 1-2 together, and do not permit both codes to be selected]**

1. Home
2. To work
3. Restaurant/café/fast food/takeaway
4. Other (please specify)

**SKIP TO LP10 AFTER ANSWERING LP4b**

**[MULTIPLE]**

**LP5. Why did you continue playing poker machines at another venue on this occasion? Please mark all that apply**

**[RANDOMISE – DO NOT PERMIT SELECTION OF BOTH CODE 1 AND 2]**

1. I had been winning, and I wanted to keep winning
2. I had been losing, and I wanted to try and win back my losses
3. I enjoy playing pokies and wanted to continue to do so
4. To fit in with the person/people I was with, who wanted to keep playing
5. Going to another gaming venue was the only real option for keeping my night going
6. I finished work late, and had not been at the venue for very long before it closed, and I wanted to keep playing
7. I wanted to continue socialising at a gaming venue
8. I wanted to continue to enjoy the atmosphere of a gaming room
9. To access gaming machine promotions or a player reward/loyalty scheme offered by the other venue

10. I prefer the anonymity of gambling late at night
11. I couldn't stop and just had to keep playing
12. Other reason (please specify)

**[SINGLE]**

**LP6a. How long did you spend playing the pokies at this venue?**

*Your best estimate will do*

1. Less than 15 minutes
2. 15-29 minutes
3. 30-59 minutes
4. 1 hour to less than 2 hours
5. 2 hours or more

**[SINGLE]**

**LP6b. How much money did you spend playing the pokies at this venue?**

1. \$ Less than \$20
2. \$20-\$49
3. \$50-\$99
4. \$100-\$199
5. \$200-\$299
6. \$300- \$499
7. \$500 or more
8. Don't know

**[MULTIPLE]**

**LP7. Apart from playing the pokies, were there any other reasons you wanted to go to another poker machine venue on this occasion? Please mark all that apply.**

**[RANDOMISE CODES 2-9]**

1. No other reason – just to play pokies (Single)
2. Gamble on things other than poker machines, such as Keno
3. Drink alcohol
4. Eat
5. Socialise
6. See entertainment
7. Had an arrangement to meet someone there
8. The person/people I was with wanted to go to the new venue
9. I just did not want my night to end yet
10. Wanted to avoid a person or situation at home
11. Other reason/s (please specify)

**[SINGLE]**

**Still thinking of the most recent time you went to another gaming venue to continue to play poker machines because the original gaming room was closing.....**

**LP8\_1. What was the name of the venue that was closing?**

(Select from list, including other – specify and don't know options)

**LP8\_2. And what was the name of the venue that you went on to play poker machines at?**

(Select from list, including other – specify and don't know options)

**[SINGLE]**

**LP9. After leaving the gaming venue that was closing, approximately how long did it take you to reach the new gaming venue?**

*Please provide your best guess.*

1. Less than 5 minutes
2. Between 5 and 10 minutes
3. More than 10 and less than 15 minutes
4. More than 15 and less than 30 minutes
5. More than 30 minutes
6. Not sure

**[MULTIPLE]**

**LP15 Did you**

1. Walk
2. Drive
3. Get a lift from friends
4. Travel by train
5. Travel by light rail
6. Travel by taxi/Uber
7. Other:

**ASK IF EXPERIENCED GAMING ROOM CLOSURE (CODE 2-5 AT LP1)**

**[SINGLE]**

**DO NOT DISPLAY CODE 1 AT LP10 IF WAS CODE 1 AT LP3**

**LP10. Since November 2021, how often did you travel to another venue to continue playing poker machines due to the first venue closing, or closing its gaming room?**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**ASK IF PLAYED EGM AT CLUB OR PUB/HOTEL SINCE NOVEMBER 2021(FROM AB1 or AB1a)**

**[CAROUSEL]**

**LP13. Since November 2021, how often have you planned your evening to avoid the impact of a gaming room closure, in any of the following ways?**

1. Visiting the Star Casino to play poker machines, rather than visiting a club, pub or hotel that you knew would have to close its gaming room (or entire venue) during the time you intended playing



2. Visiting a particular club, pub or hotel to play poker machines, because you knew a possible alternative club, pub or hotel would have to close its gaming room (or entire venue) during the time you intended playing
3. Visiting a particular club, pub or hotel to play poker machines, because its location would make it easier for you to move to another poker machine venue once the original venue closed, or closed its gaming room

**Response options**

1. Not at all
2. Once or twice
3. At least once per month
4. At least fortnightly
5. Weekly or more often

**IF NEVER PLANNED ANY OUTINGS TO AVOID GAMING ROOM CLOSURE (CODE 1 AT EACH OF LP13\_1, LP13\_2 AND LP13\_3), SKIP TO DEMOGRAPHICS**

**ASK IF AVOIDED GAMING ROOM CLOSURE (CODE 2-5 AT ANY OF LP13\_1 TO LP13\_3)**

Please answer the next question in relation to the most recent time you planned your evening to avoid the impact of closure of a gaming room or the entire venue.

**[SINGLE]**

**LP14. How big a factor was avoiding the closure of a gaming room or venue in your decision to go to a different poker machine venue?**

1. The only factor
2. The main factor
3. One of a number of equally important factors
4. A minor factor

**ASK ALL**

**Finally, a few questions to ensure we have spoken with a wide range of people.**

**[SINGLE]**

**AD1. What is the highest level of education you have completed?**

1. Postgraduate qualification
2. University or college degree
3. Trade, technical certificate or diploma
4. Completed senior high school (Year 12)
5. Completed junior high school (Year 10)
6. Completed primary school
7. Did not complete primary school
8. No schooling
9. Other (please specify)

**[SINGLE]**

**AD1a. What is your current marital status?**

1. Married or living with a partner
2. Separated or divorced
3. Widowed
4. Single

**[SINGLE]**

**AD2. Which of the following best describes your current living arrangements?**

1. Single person
2. One parent family with children
3. Couple with children
4. Couple with no children
5. Group household
6. Other (please specify)

**[SINGLE]**

**AD3. Do you, yourself, regularly speak a language other than English in your household?**

1. Yes
2. No

**[SINGLE]**

**AD5. Which of the following best describes your current employment status? If you are employed casually, please record as employed either full-time (35 hours or more per week, across all jobs) or part-time (less than 35 hours across all jobs)**

1. Employed full-time (35 hours or more per week, across all jobs)
2. Employed part-time or casual (less than 35 hours across all jobs)
3. Unemployed and looking for work
4. Not looking for work (e.g. retired, pensioner, full time carer)

**ASK IF CURRENTLY EMPLOYED (CODE 1-2 AT AD5)**

**[SINGLE]**

**AD5a. In which industry do you work?**

1. Agriculture, forestry, fishing and hunting
2. Mining
3. Manufacturing
4. Electricity, gas and water supply
5. Construction
6. Wholesale trade
7. Retail trade
8. Accommodation, cafes and restaurants
9. Transport and storage
10. Communication services
11. Finance and insurance
12. Property and business services

13. Government administration and defence
14. Education
15. Health and community services
16. Cultural and recreational services
17. Personal and other services (including hairdressing)
18. Cultural and recreational services
19. Other (please specify)

**[SINGLE]**

**AD6a Are you currently studying?**

1. Yes – Full Time
2. Yes – Part Time
3. No

**[SINGLE]**

**AD7a. Could you please indicate your approximate personal annual income from all sources before tax, including any government payments?**

*If you are not certain, please give your best estimate.*

1. Less than \$10,000
2. \$10,000- \$30,000
3. \$31,000 - \$50,000
4. \$51,000 - \$70,000
5. \$71,000 - \$80,000
6. \$81,000 - \$90,000
7. \$91,000 - \$100,000
8. \$101,000 - \$110,000
9. \$111,000 - \$120,000
10. \$121,000 - \$130,000
11. \$131,000 - \$140,000
12. \$141,000 - \$150,000
13. More than \$150,000
98. Prefer not to say
99. Don't know

**Xa IF you are interested in contacting any Gambling Help Services you can contact**

Gambling Helpline: 1800 858 858

Gambling Help Online: <http://www.gamblinghelponline.org.au>

Lifeline 13 11 14

Thank and close

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Prepared by:  
Dr Matt Stevens  
STRS Consultants  
E: [mstevens.statistics@gmail.com](mailto:mstevens.statistics@gmail.com)

For Further information contact:

Roy Morgan  
Tonic House  
386 Flinders Lane, Melbourne  
Ph: +61 (3) 9629 6888  
E: [askroymorgan@roymorgan.com](mailto:askroymorgan@roymorgan.com)

File Reference:





**Office of Responsible Gambling**  
4 Parramatta Square, 12 Darcy St, Parramatta NSW 2150  
GPO Box 7060, Sydney NSW 2001