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THIRD SOCIAL AND ECONOMIC IMPACT STUDY OF GAMBLING IN TASMANIA

VOLUME 2

2013 TASMANIAN GAMBLING PREVALENCE SURVEY

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Note to readers

The charts in this report are not reducible to grey-scale. It is recommended that the report be read onscreen, or as a colour print out.

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Abbreviations

ACG	Allen Consulting Group
CATI	Computer Assisted Telephone Interviewing
CI	Confidence interval
CPGI	Canadian Problem Gambling Index
EGM	Electronic Gaming Machine
GIG	Gambling Industry Group
LGA	Local Government Area
OR	Odds ratio
PGRTC	Problem Gambling Research and Treatment Centre
PGSI	Problem Gambling Severity Index
RDD	Random digit dialling
RSE	Relative standard error
SE	Standard error
SES	Socio-economic status
SRC	Social Research Centre

Executive summary

Gambling participation

- The 2013 survey found that 61.2 per cent of Tasmanian adults had participated in some form of gambling activity in the preceding 12 months. This result was significantly **lower** than the gambling participation rates recorded in the 2011 (64.8%) and 2008 (71.7%) surveys.
- As in 2011, the most common forms of gambling reported in 2013 were buying lottery tickets (43.0%), playing Keno (26.0%), purchasing instant scratch tickets (20.6%) and electronic gaming machine (EGM) gambling (18.6%).
- Compared to Tasmanian adults as a whole, gambling participation was significantly **higher** amongst people in full-time employment (66.5%), those with annual personal incomes of $25,000 to $39,999 (66.1%), $65,000 to $79,999 (73.0%) or $80,000 to $129,999 (67.2%), people who had left school before completing year 12 (65.8%), people with vocational or trade qualifications (65.2%) and people born in Australia (63.0%).
- Gambling participation was significantly **lower** amongst people aged 25 to 34 years (54.9%), students (45.2%), those with annual personal incomes of less than $25,000 (56.3%), university graduates (50.7%) and people born overseas in English-speaking (48.2%) or non-English speaking (51.6%) countries.
- Compared to 2011, 2013 saw significant **decreases** in the proportion of Tasmanian adults who, in the past 12 months, had purchased lottery tickets (down from 46.3% in 2011 to 43.0% in 2013), or instant scratch tickets (down from 24.4% in 2011 to 20.6% in 2013) or who had bet on horse or greyhound racing (down from 14.5% in 2011 to 10.5% in 2013).

Local government area analysis

- Eight local government areas (LGAs) were selected for focussed analysis, comprising: four low socio-economic status (SES) LGAs (Brighton, Break O'Day, Glenorchy and Devonport), and four comparison LGAs (Circular Head, Launceston, Sorell and Clarence).
- Among the focus LGAs, gambling participation was **highest** in Brighton (71.0%), Sorell (70.5%) and Glenorchy (69.5%).
- As a group, the four low SES LGAs exhibited a significantly **higher** rate of overall gambling participation than did the Tasmanian adult population (67.8% versus 61.2%). Residents of these LGAs also exhibited significantly **higher** rates of participation in gambling on EGMs (22.7% versus 18.6% of all Tasmanian adults) and Keno (32.4% versus 26.0% of all Tasmanian adults).

Gambling frequency

- The mean overall gambling frequency for all Tasmanian adults **decreased** significantly from 29.5 sessions per year in 2011 to 24.0 sessions per year in 2013. There was also a significant **decrease** in mean gambling frequency amongst past year gamblers, from 46.3 sessions per year in 2011 to 40.0 sessions per year in 2013.

- Among Tasmanian adults who had gambled in the past year, significantly **higher** frequencies of gambling participation were found in the 2013 study amongst males (46.3 sessions per year), people aged 55 to 64 (53.8) and 65 and over (46.3), those living as a couple whose children have left home (47.1), retirees (48.5), those with personal annual incomes of $65,000 to $79,999 (49.8), those who left school without completing year 12 (48.9) and gamblers from the low SES LGAs (45.5).
- Amongst past year gamblers, gambling at least once a week was most common in 2013 for lotteries (34.2%), bingo (19.5%) and horse or greyhound racing (16.6%). These were also the three activities that were most often pursued at least once a week in the 2011 survey.

Gambling expenditure

- In the 2013 study, Tasmanian gamblers reported an average spend of $927 on all gambling activities in the past year; not significantly different from the corresponding figure of $1,054 recorded in the 2011 survey. Average spends were disproportionately **high** amongst males ($1,199 per annum), people aged 55 to 64 years ($1,302 per annum) and people in full-time paid employment ($1,164 per annum).
- Amongst participants in specific gambling activities the highest mean annual spends in 2013 were on horse or greyhound racing ($1,140 per annum), EGMs ($656 per annum) and betting on sporting or other events ($530 per annum).
- In 2013, 49.0 per cent of past year gamblers spent the greatest proportion of their gambling money on buying lottery tickets. Apart from this, the next highest spend on gambling activities were EGMs (12.9 per cent of past year gamblers spent the most on EGMs) and Keno (12.3 per cent spent the most on Keno).

Gambling prevalence

- In the 2013 survey the estimated Problem Gambling Severity Index (PGSI) prevalence rates amongst all Tasmanian adults were: non-gamblers 38.8 per cent; non-problem gamblers 54.9 per cent; low risk gamblers 3.9 per cent; moderate risk gamblers 1.8 per cent; and, problem gamblers 0.5 per cent. These figures were consistent with those obtained in the 2011 survey apart from a significantly **increased** prevalence of non-gamblers (up from 35.2% to 38.8%) and a significantly **decreased** prevalence of low risk gamblers (down from 5.2% to 3.9%).
- The rates of problem gambling, moderate risk gambling, low risk gambling, and non-problem gambling were at the lower end of the range of similar estimates from recent surveys conducted in other Australian states and territories: problem gambling (0.5-0.8 per cent), moderate risk gambling (1.5-2.9 per cent), low risk gambling (3.4-8.4 per cent), and non-problem gambling (52.8-66.3 per cent). In contrast, the non-gambling prevalence estimate exceeds that reported in any of the surveys conducted in other Australian states and territories (26.2-35.1 per cent).
- Given the limited sample size available for analysis of problem gamblers in their own right (*n=23*), the overview presented here summarises the gambling behaviour of the combined moderate risk/problem gambler group; that is, the group of gamblers exhibiting relatively high levels of risk according to their PGSI scores. This group comprised 2.4 per cent of all Tasmanian adults in the 2013 survey.
- Compared to non-problem gamblers, these moderate risk/problem gamblers:
  - Participated at a **higher** level in gambling on EGMs, betting on horse or greyhound races, playing Keno, playing casino table games at a casino, betting on sporting or

other events and betting on informal private games. In addition, just over half of this group had participated in four or more different forms of gambling in the past year.

- 〉 Locations or mediums used at **higher** levels than non-problem gamblers included clubs/hotels and casinos for playing EGMs; off-course venues and the internet for betting on horse or greyhound racing; clubs/hotels and casinos for playing Keno; and off-course venues and the internet for betting on sporting or other events.
- 〉 On average, moderate risk/problem gamblers had participated in 103.9 gambling sessions in the past year with particularly **high** frequencies (compared to non-problem gamblers) of gambling on EGMs and playing Keno.

– Their estimated annual gambling spend averaged $5,366, with this group responsible for 20.5 per cent of all past year gambling expenditure estimated by this survey while comprising just 3.9 per cent of all gamblers (and only 2.4% of the adult population).

— Ordinal logistic regression analyses were used to examine the prediction of PGSI gambling severity category by socio-demographic characteristics and by participation in different gambling activities. These analyses showed that:

– PGSI category was significantly predicted by younger age

– After controlling for socio-demographic characteristics, PGSI category was significantly predicted by participation in gambling on EGMs, horse or greyhound racing, lotteries, Keno and informal private games.

EGM gambling

— While overall participation in EGM gambling did not change significantly between 2011 and 2013, there was a significant **decrease** in the proportion of Tasmanian adults playing EGMs in a casino (down from 13.2% in 2011 to 10.8% in 2013).

— Insofar as patterns of EGM play in the 2013 survey were concerned:

– Two cent machines were the usual choice for 43.4 per cent of EGM gamblers.

– On average EGM gamblers spent an estimated $1.91 per spin. Moderate risk/problem gamblers who played EGMs were the highest spenders (averaging an estimated $4.18 per spin) with 35.1 per cent of this group saying they spent more than $1.00 per spin 'always' or 'most of the time'.

— 22.0 per cent of EGM gamblers estimated that if EGMs were not available they would reallocate their spending to another form of gambling; most often lotteries or Keno.

Online (internet) gambling

— In the 2013 survey, 7.0 per cent of Tasmanian adults (11.5% of Tasmanian past year gamblers) had participated in some form of online gambling with 4.8 per cent having used a desktop computer and 3.9 per cent a mobile device for this purpose. The most common forms of online gambling were lotteries (3.7% of Tasmanian adults), betting on horse or greyhound racing (2.5% of Tasmanian adults) and betting on sports or other events (2.3% of Tasmanian adults).

— Compared to Tasmanian adults in general, participation in online gambling activity was significantly **higher** amongst males (9.4%), those aged 35 to 44 years (10.3%), those in full-time employment (10.9%), and those whose annual personal incomes were in the range $65,000 to $79,999 (11.9%) or $80,000 to $129,999 (14.3%). Also, moderate risk/problem gamblers were more than four times more likely to have gambled online (30.5%) than were Tasmanian adults in general.

— The 2013 survey showed that people who engaged in at least some online gambling gambled significantly **more frequently** overall (84.3 sessions per annum on average versus 34.3 sessions per annum amongst non-internet gamblers) and also spent significantly **more** in total on gambling ($2,433 per annum on average versus $738 amongst non-internet gamblers) than those who did not use the internet for gambling.

Gambling expectancies

- The 2013 survey asked respondents about how they expected engaging in gambling activities to affect them.
- For survey respondents in general, the negative outcomes mentioned most often as likely results of gambling were feeling guilty (31.2%) and 'feeling in over my head' (18.0%); while the positive outcomes mentioned most often were feeling excited (29.0%), winning money (12.2%) and stopping boredom (12.1%).
- In contrast to non-problem gamblers, non-gamblers were more likely to expect to feel guilty, to get in over their head, to want to gamble more and more, and to get hooked. They were less likely to expect to win money.
- Compared to non-problem gamblers, moderate risk/problem gamblers exhibited significantly **higher** levels of expectancy for most outcomes except those relating to self-enhancement (that is, 'feeling powerful' and 'feeling more accepted by people').
- After taking the influence of socio-demographic characteristics into account, PGSI category was significantly **positively** predicted by enjoyment/arousal expectancies, money expectancies, and over-involvement expectancies, and significantly **negatively** associated with self-enhancement expectancies.

Gambling behaviour, health and well-being

- Amongst a defined group of 'at risk' gamblers, the most commonly reported harms experienced as a result of gambling were difficulty in paying bills (3.4%) and reduced performance in undertaking daily tasks and activities (3.0%).
- Moderate risk/problem gamblers appeared to have a **poorer** quality of life than did non-problem gamblers.[1] In particular when compared to non-problem gamblers, moderate risk/problem gamblers were **less satisfied** with their health and sleep, had **poorer** psychological health and recorded **lower** scores in the Social Relationships and Environment quality of life domains.
- After taking the influence of socio-demographic characteristics into account, it was also found that PGSI category was significantly **negatively** predicted by the Psychological Health and Social Relationships quality of life domains.
- Further, compared to non-problem gamblers:
  - Moderate risk/problem gamblers were significantly **more** likely to have used tobacco in the last 12 months (35.3% versus 21.6% of non-problem gamblers) and also to be classified as binge drinkers (39.9% versus 22.0% of non-problem gamblers).[2]
  - Moderate risk/problem gamblers exhibited **poorer** mental health with significantly higher proportions showing indications of depression, anxiety, panic, social anxiety and ADHD; moderate risk/problem gamblers also had significantly **higher** BIS-Brief Impulsivity scores than did non-problem gamblers. Depression and impulsivity were particularly important as significant predictors of PGSI category once socio-demographic characteristics were taken into account.

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1 As measured on the WHO-QoL-BREF self-report scale.

2 That is, they consumed 5 or more [for females] or 7 or more [for males] standard drinks on more than one occasion per month

– Finally, moderate risk/problem gamblers had **poorer** outcomes than non-problem gamblers on several summary measures of positive mental health; specifically personal growth and autonomy (mean score of 4.6 versus 4.9 for non-problem gamblers), positive reframing (3.9 versus 4.4), instrumental support (3.2 versus 3.8) and self-distraction (3.7 versus 3.3 where a higher score represents a poorer outcome). After taking the influence of socio-demographic characteristics into account, PGSI category was significantly **negatively** predicted by personal growth and autonomy and using instrumental support to cope, and **positively** predicted with using self-distraction to cope.

1 Introduction

1.1 Background

This report is Volume two of the 2013 Social and Economic Impact Study of Gambling in Tasmania. The focus of this volume is reporting cross-sectional and time series survey data regarding gambling prevalence and gambling activities, behaviours and impacts. In the other volumes:

- Volume 1 analyses key trends and makes comparisons with other states, including examining the gambling industry structure and characteristics; changes and trends in gambling behaviour; and revenue. Volume 1 also updates analysis of the social and economic impacts of gambling in the focus local government areas, drawing upon the analysis reported in this volume.
- Volume 3 reviews the suite of harm minimisation measures implemented by the Tasmanian Government following the first Social and Economic Impact Study of Gambling in Tasmania. Volume 3 will be finalised in mid-2015.

Gambling prevalence surveys have been undertaken in Tasmania in 1994, 1996, 2000, 2005, 2007, 2011 and, now, 2013. [3] The 1994 and 1996 surveys were undertaken by the Australian Institute for Gambling Research with the assistance of Roy Morgan Research and the 2000 and 2005 surveys were undertaken solely by Roy Morgan Research. The 2007 study was undertaken by the South Australian Centre for Economic Studies, assisted by Harrison Health and comprised 4,051 interviews with Tasmanian adults. Both the 2011 study and the current (2013) study were undertaken by the same consortium led by ACIL Allen in collaboration with the Social Research Centre and the University of Melbourne's Problem Gambling Research and Treatment Centre. As a result of amendments to the *Gaming Control Act 1993* (Tas.), a distinguishing feature of the surveys from 2007 onwards is an increased focus on the social and economic impact of gambling.

While this report makes comparisons with the 2005 and 2007 surveys, as appropriate, the main focus is on comparisons between the 2011 and 2013 studies as these studies were conducted, by and large, before and after Tasmanian Government introduced the *Responsible Gambling Mandatory Code of Practice for Tasmania*. The Code was phased in with some provisions applying from 1 March 2012, and all other provisions applying from 1 September 2012.

The 2013 Tasmanian Gambling Prevalence Survey comprises 5,000 telephone interviews with persons aged 18 years and over across Tasmania. As was the case for the 2011 survey, specific local government areas (LGAs) of interest were over-sampled relative to their population (refer to Section 2.1) to support the analysis of local-level socio-economic impacts of gambling in selected LGAs of high and low EGM density and high and low socio-economic status. The 2013 survey took place over the period 16 September to 27 October 2013. The average duration of the interviews was 15.0 minutes.

[3] In addition to these surveys a national survey was undertaken by the Productivity Commission in 1999.

1.2 Research objectives for the prevalence survey

The research objectives of the 2013 prevalence survey are to examine the following issues at both a state wide level and amongst selected LGAs:

- trends in gambling consumer behaviour
  - what proportion of the Tasmanian adult population gambles, and what type of gambling do they undertake?
  - how frequently do Tasmanian gamblers undertake different forms of gambling?
  - how much do Tasmanians spend on different forms of gambling?
- what are the trends in the characteristics of Tasmanian gamblers?
  - what is the distribution of the Tasmanian population across the categories of the Problem Gambling Severity Index (PGSI)? How does this distribution vary on the basis of gambling mode?
  - what are the socio-demographic characteristics of Tasmanian gamblers and gamblers experiencing difficulties?
  - what socio-demographic characteristics are predictors for problem gambling behaviour?
- what is the health and wellbeing of gamblers on the basis of quality of life, resilience, hope and coping?
- have gamblers experienced any financial difficulties, or sought help, for issues associated with their gambling?
- to the extent possible, given sample size limitations, how do answers to the above questions vary among the eight focus LGAs both individually, and grouped into low socio-economic and comparison LGAs?

1.3 About this report

This report is designed to provide a methodological overview with regard to the conduct of the 2013 Tasmanian Gambling Prevalence Survey and the detailed research findings which emerged from the survey.

This report is primarily designed with a policy and service provider audience in mind with a secondary audience being those involved in gambling research. To this end, detailed methodological notes are appended to the main body of this report.

Report structure

The broad areas covered in this report are:

- an overall summary of the findings (Executive Summary)
- a description of the methodology used for the survey and the analytical approach adopted (Chapter 2)
- participation in selected gambling activities in the last 12 months (Chapter 3)
- gambling frequency (Chapter 4)
- gambling expenditure (Chapter 5)
- prevalence of problem gambling as measured by the PGSI (Chapter 6)
- a more detailed look at EGM gambling (Chapter 7) and Internet (online) gambling (Chapter 8)

- an exploration of the role of positive and negative gambling expectancies in gambling severity (Chapter 9) and the extent to which self-reported harms arising from gambling, quality of life, substance use, mental health issues, and positive mental health issues (Chapter 10) are associated with gambling severity and
- help-seeking behaviours and gambling problems amongst family members (Chapter 11).[4]

Approach to internet gambling

In comparing the findings relating to internet gambling in this report with those contained in the 2011 report it should be noted that internet gambling was examined in more detail in the 2013 survey than it was in 2011. The 2013 survey was the first time EGM gamblers were asked whether they gambled over the internet, along with their use of the internet (both via mobile device and via desk-top computer) to participate in each gambling activity.[5] The 2011 survey did not address this issue at the same level of detail; rather, respondents were asked a more general question as to whether they had used the internet to bet on horses/greyhounds, or to participate in sports betting, Keno or casino table games. Consequently, the prevalence estimates for internet gambling in 2011 and 2013 are not entirely comparable and caution should be exercised when considering any apparent changes in internet gambling prevalence between the two surveys.

Key features of the 2013 survey

Several points should be kept in mind when considering the findings presented in this report:

- firstly, unless otherwise noted, all estimates included in this report are based on weighted survey estimates (see Adoption of a dual-frame survey design in Section 2.1 and Appendix A – Technical and Methodological Notes). This applies to all results expressed as percentages and means but not to the bases (n) shown in the tables and graphs)
- adoption of a dual-frame sample design for the 2013 survey (see The use of weighted survey estimates in Section 2.1) which enables the inclusion of Tasmanian residents only contactable via a mobile phone (i.e. living in a household without a landline telephone connection on which to make and answer calls)
- as the results presented in this report are based on a sample rather than a census of the Tasmanian population aged 18 years and over, some variation between the results from the 2011 and 2013 surveys (and between sub-groups within each survey, since they too are samples of larger populations) will occur by chance. To help decide whether differences are meaningful (that is, whether they represent genuine changes or differences rather than just random variation), testing of the statistical significance of these differences has been carried out (see Section 2.3). Throughout the report, arrows indicate results that are significantly higher (↑) or lower (↓) than those obtained for the total sample or the comparator group ($p<0.05$). Unless otherwise noted all comparisons are between the sub-group of interest and the total sample for that analysis
- where figures have been rounded in this report, discrepancies may occur between sums of the component items and totals. Net percentages (where results for two categories

4 Initially a separate section on Day trading was also envisaged but with only 65 respondents having reported undertaking Day trading in the last 12 months and with no questions asked of this group beyond frequency and expenditure it was felt that Chapters 3 through 5 provided all the information available for this activity.

5 Except for informal private games and other gambling activities.

have been added together) are calculated prior to rounding of the figures and therefore some slight discrepancy may exist between these percentages and those that could be calculated from the rounded figures shown in the tables or charts.

Refer to Section 2.3 for further information about the analytical approach and conventions that underpin this report.

2 Survey methodology

2.1 Overview of method used for the 2013 survey

While the 2013 survey is similar in design to the 2011 survey (see Section 2.4) some methodological changes were made to ensure the survey was conducted in line with contemporary best practise and to ensure the survey achieved the best representation possible of the Tasmanian population aged 18 years and over. Despite some changes being made to the method, every effort has been made to provide a robust basis for comparing the 2011 and 2013 survey findings.

As in 2011, the in-scope population for the 2013 survey was residents of Tasmanian households aged 18 years and over, with a Computer Assisted Telephone Interviewing (CATI) mode of data collection again used.

Sample design and stratification

The sample for the 2013 survey again featured a disproportionate stratified sample design such that over-sampling occurred in the same eight focus LGAs as in 2011. The 2013 design also featured slightly more interviews (*n=5,000*) in total and a slightly altered distribution of interviews across the eight focus LGAs in order to produce a more balanced sample and hence reduce the size of the standard errors of the survey estimates. Table 1 shows the different geographic targets for the 2011 and 2013 surveys, including the breakdown of landline and mobile phone interviews for the 2013 survey.

Table 1 **Total interviews achieved by strata and telephone status, Tasmanian Gambling Prevalence Survey, 2011 and 2013**

	2011	2013		
	Landline (n=)	Total (n=)	Landline (n=)	Mobile (n=)
Low SES LGAs				
Brighton	400	400	280	120
Break O'Day	342	300	210	90
Glenorchy	400	400	280	120
Devonport	400	400	280	120
Comparison LGAs				
Circular Head	301	300	210	90
Launceston	400	400	280	120
Sorell	401	400	280	120
Clarence	400	400	280	120
Subtotal focus LGAs	3,044	3,000	2,100	900
Rest of state	1,259	2,000	1,400	600
Total	**4,303**	**5,000**	**3,500**	**1,500**

Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys

Four lower socioeconomic status (SES) LGAs and four relatively high SES LGAs were selected. This was done to enable analysis into how gambling patterns might differ in accordance with SES of areas.

Adoption of a dual-frame survey design

The main difference between the 2011 and 2013 surveys was the adoption of a dual-frame survey design for the 2013 survey, that is, one which includes interviewing via both landline and mobile phone numbers. This design resulted in 3,500 interviews being conducted with respondents who were part of the randomly generated landline sample and 1,500 interviews with respondents selected from a list-based mobile phone sample. The distribution of the sample by LGA and telephone frame (landline and mobile) is shown in Table A1.

A dual-frame sampling methodology was preferred to a sample frame comprised solely of landline phone numbers. Such an approach recognises the now widely-held view (Lai & Link, 2011) that only interviewing persons contactable via landline telephone numbers results in biased survey estimates due to the exclusion of an increasing proportion of the population residing in mobile - only households (currently estimated at around 21% of the population) (Australian Communications and Media Authority, 2013; Jackson, Pennay, Dowling, Coles-Janess, & Christensen, 2014). The adoption of a dual-frame sample design comprising randomly generated landline telephone numbers and list-based mobile phone numbers was also influenced by the successful use of this method for the 2012 Gambling Prevalence in South Australia survey (Social Research Centre, 2013). Consequently, the research team is confident that the findings presented in this report provide a more accurate representation on gambling in Tasmania than if the survey had been conducted solely via a landline telephone sample frame.

The particular dual-frame method used for this survey (and the 2012 Gambling Prevalence in South Australia survey) was that of semi random dual-frame design combining a randomly generated frame of landline telephone numbers with a non-random list-based mobile phone sample. The option of using a randomly generated list of mobile phone numbers was ruled out on the basis that no geographic information is available for randomly generated mobile phone numbers thereby making it virtually impossible to target Tasmanian residents using this method.

Provision of the landline and mobile phone sampling frames

The sample vendor who provided the sample frame of randomly generated landline telephone numbers was Sampleworx, an accredited supplier of randomly generated lists of telephone numbers to the Market and Social Research Industry (see Appendix A for further details).

The vendor for the list of residential Tasmanian mobile phone numbers was Global Data Pty Ltd who at the time maintained an opt in privacy compliant list of some 56,000 Tasmanian mobile phone numbers compiled from sources such as research companies, utilities companies and subscriber lists.

The mobile phone list maintained by Global Data contained address information enabling it to be geographically stratified into the eight focus LGAs and the rest of Tasmania (see Section 2.2) and a probability proportional to size sample of 20,000 records was drawn, of which 10,194 were randomly loaded into our CATI system. As a precaution, the mobile phone sample frame was matched against the Electronic White Pages to ensure that list-based mobile phone numbers were not over-represented in the sample provided. The release of the mobile phone sample was then controlled to ensure that directory-listed mobile phone numbers were not over-represented in the final sample. This meant limiting the proportion of directory-listed mobile phone numbers to approximately 5 per cent of the total mobile phone sample in line with known parameters (Taylor & Dal Grande, 2011).

Respondent selection

In line with the 2011 survey, respondents for the landline survey were selected using the youngest male method. Respondents for the mobile phone component of the survey were taken to be any in-scope person who answered the phone.

Further to the above, a 'sub-sampling' strategy was employed in order to maximise the data collected from the sample. Studies that do not sub-sample necessarily include many fewer constructs in order to minimise respondent drop-out due to long survey administration times.

Previous Australian gambling surveys have employed a range of different 'sub-sampling' strategies based on gambling frequency and problem gambling severity classifications. However, no one strategy has been employed consistently across studies. Because strategies based on gambling frequency are likely to under-represent moderate-risk and problem gamblers (Jackson, Wynne, Dowling, Tomnay, & Thomas, 2010), we employed a sub-sampling strategy based on problem gambling severity scores (i.e. PGSI scores) (Ferris & Wynne, 2001). Sampling strategies based on problem gambling severity scores have been employed in several other recent Australian gambling prevalence surveys (Hare, 2009); (Department of Employment, Economic Development and Innovation, Queensland, 2010).

The strategy involved breaking the survey into two parts: the main survey and the supplementary survey. In the main survey, all respondents were asked questions relating to core issues (i.e. screening demographics, gambling participation, problem gambling severity). A sub-sample of respondents were then recruited into the supplementary survey. The supplementary survey comprised approximately 38 per cent of the overall sample and sampled all low risk, moderate risk, and problem gamblers and all EGM gamblers. This survey also sampled 1 in 3 non-problem gamblers and 1 in 3 non-gamblers.

The classification for quotas is provided below:

- non-gambler: no participation on any gambling activity in previous 12 months
- non problem gambler: participation on at least one gambling activity AND 0 on PGSI
- low risk gambler: 1-2 on PGSI
- moderate risk gambler: 3-7 on PGSI
- problem gambler: 8-27 on PGSI

Call procedures

A minimum of six call attempts were made to contact a household, followed by unlimited call attempts to secure an interview with the selected person in the household or achieve a final outcome for each record. This was the same call cycle that was adopted for the 2011 landline survey. Analysis of the 2013 survey paradata for the landline survey shows that 3.6 per cent of all interviews were obtained from call attempt 7 or beyond. These interviews would not otherwise have been obtained – thereby introducing a bias into the survey results – had this rigorous call regime not been implemented.

A truncated call regime was employed when calling mobile phones as repeated missed calls from an unknown number, sometimes in fairly quick succession, has been found to be disconcerting for some members of the public and thereby has a negative effect on response rates.

Fieldwork statistics and response rates

A total of 77,983 calls were placed to 24,655 sample records to achieve 5,000 completed surveys. This equates to an interview every 15.6 calls and an average of 3.2 calls per sample record (see Table 2).

Table 2 **2013 Tasmanian Gambling Prevalence Survey: Final call disposition**

	Call Disposition Code	Total		Landline sample		Mobile sample	
		N	%	N	%	N	%
Total records		**24,655**	**100**	**14,461**	**100**	**10,194**	**100**
Interview (Category 1)							
Complete	1.0/1.10	5,000	20.3	3,500	24.2	1,500	14.7
Partial	1.2	25	0.1	19	0.1	6	0.1
Eligible, non-interview (Category 2)	2						
Household-level refusal	2.111	2,298	9.3	2,283	15.8	0	0.0
Known-respondent refusal	2.112	1,882	7.6	566	3.9	1,331	13.1
Respondent never available	2.21	876	3.6	523	3.6	353	3.5
Telephone answering device	2.22	4,278	17.4	1,704	11.8	2,574	25.3
Physically or mentally unable/incompetent	2.32	460	1.9	399	2.8	61	0.6
Language problem	2.33	77	0.3	56	0.4	21	0.2
Unknown eligibility, non-interview (Category 3)	3						
Always busy	3.12	272	1.1	60	0.4	212	2.1
No answer	3.13	4,304	17.5	2,768	19.1	1,536	15.1
Call blocking	3.15	48	0.2	11	0.1	37	0.4
Telephone answering device (mobile)		0	0.0	0	0.0	0	0.0
No screener completed	3.21	118	0.5	76	0.5	42	0.4
Not eligible (Category 4)	4	0	0.0	0	0.0	0	0.0
Out of sample - other strata than originally coded	4.1	517	2.1	4	0.0	2,222	21.8
Fax/data line	4.2	647	2.6	624	4.3	23	0.2
Non-working/disconnect	4.3	1,956	7.9	449	3.1	1,507	14.8
Non-residence	4.5	1,069	4.3	894	6.2	175	1.7
No eligible respondent	4.7	352	1.4	74	0.5	278	2.7
Records used per interview		**4.9**		**4.1**		**6.8**	

Source: 2013 Tasmanian Gambling Prevalence Survey

An internationally accepted standard for calculating response rates, as recommended by the American Association for Public Opinion Research was used for this study (American Association of Public Opinion Research, 2011). Using the AAPOR Response Rate 3, which proportionally allocates records with an unknown outcome as either the:

— in-scope or out-of scope based on the distribution of records with a known call outcome

- final cooperation rate for the survey was 54.6 per cent (interviews / interviews + partial completes + refusals)
- final response rate was 27.2 per cent (interviews / ((interviews + partial completes) + (refusals + non-contacts + other contacts) + (an estimate of the proportion of unknown outcomes likely to be in-scope)).

These rates are comparable with those achieved by the Gambling Prevalence in South Australia Survey (Social Research Centre, 2013).

If the participation rate for the landline component of the 2013 survey is calculated on the same basis as that used for the 2011 survey, where participation rate was defined as the number of completed interviews (5,000) divided by ∑(completed interviews plus refusals) (9,266), then the 2013 survey achieved a participation rate of 53.4 per cent compared with 48.8 per cent in 2011 (revised).[6] See Appendix A for further details.

2.2 The impact of moving to a dual-frame sample design

Comparison of the landline and mobile phone sample frames

As demonstrated by the unweighted data in Table 3 respondents from the mobile phone sample frame showed a number of significant differences from those respondents who were part of the landline sample frame. Amongst this group, there was a greater proportion of males (68.2% versus 45.9%); fewer persons aged 65 years and over (26.9% versus 35.3%); more couples (14.0% versus 11.7%) and couples with children still at home (31.5% versus 25.6%); more full-time workers (42.1% versus 27.9%) and fewer persons engaged in home duties (2.1% versus 3.9%), students (1.1% versus 2.1%), retirees (27.4% versus 35.9%), and persons unable to work (5.2% versus 8.1%). Amongst the mobile phone sample there were also fewer people with annual personal incomes of less than $25,000 (27.1% versus 37.1%), however, there was a greater proportion with incomes of or more than $130,000 (4.2% versus 2.3%), as well as more middle income earners. The mobile phone frame also yielded a higher proportion of Australian born respondents (89.7% versus 82.9%) and a higher proportion of persons with vocational or trade qualifications (38.7% versus 29.4%).

In terms of gambling characteristics, the mobile frame yielded more gamblers (66.1% versus 61.8%). Specifically, there were more horse or greyhound gamblers (12.0% versus 8.5%), lottery gamblers (51.2% versus 46.0%), Keno gamblers (29.5% versus 23.7%), casino game gamblers (4.9% versus 3.1%) and more gamblers on sporting events and other events (4.5% versus 2.6%). In terms of PGSI categories, this meant fewer non-gamblers (34.0% versus 38.3%) and more non-problem gamblers (60.5% versus 56.4%).

This suggests that the prevalence of these gambling activities would have been underestimated if this survey had just used a landline sample frame.

6 The participation rate reported in the 2011 report (40.0%) inadvertently excluded partially completed interviews, that is, those respondents who completed the core survey and were selected to complete the supplementary survey but failed to do so.

Table 3 **Landline and mobile phone sample frames: socio-demographic characteristics**

	Landline	Mobile phone
Total sample	*(n=3,500)* %	*(n=1,500)* %
Gender		
Male	45.9	68.2 ↑
Female	54.1	31.8 ↓
Age categories		
18 to 24 years	3.6	2.6
25 to 34 years	5.8	7.2
35 to 44 years	13.2	13.7
45 to 54 years	18.8	22.1 ↑
55 to 64 years	23.3	27.6 ↑
65 years and over	35.3	26.9 ↓
Mean years	57.0	54.9 ↓
Household structure		
Couple with no children	11.7	14.0 ↑
Couple with children still at home	25.6	31.5 ↑
Couple with children not living at home	27.5	27.2
Single person household (no children)	12.6	10.7
Single with children still at home	6.7	4.6 ↓
Single with children not living at home	10.8	6.3 ↓
Group or shared household	2.5	3.1
Occupational status		
In paid employment full time (35 hours/week or more)	27.9	42.1 ↑
In paid employment part time/casual	16.9	17.9
Primarily household duties	3.9	2.1 ↓
Student	2.1	1.1 ↓
Retired	35.9	27.4 ↓
Looking for work	2.6	2.2
Unable to work / pension	8.1	5.2 ↓
Unpaid voluntary worker	0.8	0.7
Annual personal income before tax		
Less than $25,000	37.1	27.1 ↓
$25,000 to $39,999	16.3	16.4
$40,000 to $64,999	15.9	20.1 ↑
$65,000 to $79,999	7.6	11.1 ↑
$80,000 to $129,999	7.6	10.6 ↑
$130,000 or more	2.3	4.2 ↑
Country of birth		
Australia	82.9	89.7 ↑
Overseas ESB	11.6	6.9 ↓
Overseas NESB	5.1	3.1 ↓

Total sample	Landline (n=3,500) %	Mobile phone (n=1,500) %
Highest level of education		
Less than Year 12 (codes 1, 2)	29.0	26.9
Year 12 (codes 3)	15.7	12.2 ↓
Vocational or trade qualifications (code 4)	29.4	38.7 ↑
University graduate (codes 5, 6)	24.2	21.1 ↓
Gambling status		
Gambler	61.8	66.1 ↑
Non Gambler	38.2	33.9 ↓
EGM gambling status		
EGM Gambler	18.1	17.6
Non-EGM Gambler	81.9	82.4
Gambling activities in the last 12 months		
Horses or greyhounds	8.5	12.0 ↑
Instant scratch tickets	20.0	20.1
Lottery	46.0	51.2 ↑
Keno	23.7	29.5 ↑
Casino table games such as blackjack, roulette or poker	3.1	4.9 ↑
Bingo	2.1	1.8
Sporting events or other events such as TV show results, election results	2.6	4.5 ↑
Informal private games [a]	1.4	1.9
Day trading	1.2	1.6
Other gambling activity	0.5	0.5
PGSI categories		
Non-gambling	38.3	34.0 ↓
Non-problem gambling	56.4	60.5 ↑
Low risk gambling	3.4	3.2
Moderate risk gambling	1.5	1.7
Problem gambling	0.4	0.5

[a] e.g. cards, mah-jong, snooker.

Note: Arrows show that the results obtained via the mobile phone sample are significantly higher (↑) or lower (↓) than those obtained via the landline sample ($p<0.05$).

Data is unweighted

Source: 2013 Tasmanian Gambling Prevalence Survey.

The impact of the dual-frame method on selected findings

The main reason for adopting a dual-frame design for the 2013 survey was to enable the inclusion of the mobile–only population and thereby obtain the best possible contemporary coverage of the population. This approach also future-proofs the survey program against expected future increases in the size of the mobile phone-only population. Given the change in methodology, the impact was monitored by comparing the independently weighted 2013 *landline* estimates and the final 2013 *dual-frame* results by selected characteristics.

While the differences between the landline and dual-frame estimates are fairly marginal, such differences that do exist vindicate the adoption of the dual-frame method and suggest that using only a landline sampling frame would lead to an underestimate for the prevalence of many gambling activities (see Table 4).

To this end, the dual-frame estimate of participation in gambling activities in the last 12 months (61.2%) is 2.1 percentage points higher than the landline estimate. The dual-frame method also produces a slightly higher estimate of moderate risk gamblers (1.8% compared with 1.7%) and problem gamblers (0.5% compared with 0.4%).

Table 4 **Past year prevalence of different gambling activities and PGSI categories amongst Tasmanian adults – landline sample and dual-frame sample**

	A 2013 landline	B 2013 dual-frame	Diff (+/-) (B-A)
	(n=3,500) %	*(n=5,000)* %	
Gambling activity			
EGMs	18.1	18.6	0.5
Horse or greyhound races	9.0	10.5	1.5
Instant scratch tickets	20.0	20.6	0.6
Lotteries	41.1	43.0	1.9
Keno	24.5	26.0	1.5
Casino table games	5.3	6.3	1
Bingo	1.4	1.7	0.3
Sporting or other event	4.0	4.4	0.4
Informal private games	2.6	2.6	0
Day trading	1.3	1.4	0.1
Any other gambling activity	0.5	0.6	0.1
Net: Any of the above gambling activities (excl. day trading)	59.1	61.2	2.1
PGSI category			
Non-gambler	41.0	38.9	-2.1
Non-problem gambler	52.7	54.9	2.2
Low risk gambler	4.3	3.9	-0.4
Moderate risk gambler	1.7	1.8	0.1
Problem gambler	0.4	0.5	0.1

Source: 2013 Tasmanian Gambling Prevalence Survey

Combining randomly generated landline telephone numbers and a non-random list of mobile phone numbers

An important caveat over the 2013 study is that a combination of randomly generated landline numbers and a non-random list of mobile phone numbers has been used to construct the sample frame. This approach has possible implications in terms of the generalisability of the survey findings to the population. Nevertheless, it is the view of the research team that these limitations have been managed through careful research design and execution. The research team is confident that the reported findings from the 2013 prevalence survey provide a more accurate read on gambling in Tasmania than would have been obtained had the survey been conducted via landline telephone numbers only.

2.3 Analytical approach

Variable analysis

The bulk of the analysis in this report relies on simple descriptive statistics such as means, frequencies and per cent distributions based on both univariate analysis (describing a single variable) and bivariate analysis, in this case comparing two or more variables via cross tabulations of the survey data.

One difference to note in the way cross tabulations in this report compare with the 2011 report is that whereas in 2011 'don't know' and 'refused' responses were routinely excluded from the bases for most questions in 2013 these respondents have been included so as to maintain a consistent base for population and sub-population estimates throughout the survey. For example, all respondents who identified as having played EGMs at question B1 (*n=899*) are then used as the base for subsequent questions pertaining to their frequency of using EGMs, EGM expenditure and patterns of EGM play. The alternative approach of excluding the 'don't know' and 'refused' responses on a question by question basis mean subsequent estimates for this sub-population are made from different bases and, as a result, are not strictly comparable. Further, for some questions 'don't know' responses in particular may be informative (for example, the proportion of EGM gamblers who 'don't know' what denomination of machine they usually play) and excluding them may result in discarding potentially useful information.

Regression analysis

At some junctures in the report, see section 6.6 for example, more complex statistical methods were used to explore relationships in the data. In these analyses, SPSS Ordinal Regression procedures (Ordinal logistic regression), also known as PLUM (Polytomous Universal Model), were employed to examine the relative strength of the 'contributing factors' (such as gambling activity, gambling expectancies, quality of life, substance use, mental health, and positive mental health) to problem gambling severity. Ordinal logistic regressions were employed because of the significant positive skewness of the PGSI variable and in preference to other regression analyses due to the high frequency of zero scores. PGSI category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) was the dependent variable in all models. Unweighted data was employed as SPSS inflates the 'effective' sample size in modelling using weighted data.

These regression models employed several steps. The first step involved a regression model testing the predictive ability of selected socio-demographic characteristics, including gender (male), age, dependent children in the household, living with a partner, currently being in paid employment (full-time, part-time, or casual), annual personal income, Australia as country of birth, Australian as cultural identity, and completion of secondary school. Several of these variables were re-coded as dichotomous variables. The second step involved adding a set of 'contributing factors' variables to these socio-demographic characteristics in each regression model. This regression approach allowed identification of the extent to which the 'contributing factors' variables explained PGSI problem gambling severity category over and above that explained by the socio-demographic characteristics. The analysis also determined whether the change in model fit (using the difference in -2 Log Likelihood and degrees of freedom) as a result of adding these 'contributing factors' variables was statistically significant.

The output from the hierarchical regressions was reported using the following analyses:

- degrees of freedom (df) = number of independent scores
- estimate = ordered log-odds (logistic) regression coefficients for predictor variables (showing the unique contribution of the variable to the regression). This estimate is the log of the odds ratio (below)
- Odds ratio (OR) = a measure of association between an exposure ('contributing factors') and an outcome (PGSI category). The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the

absence of that exposure. In these analyses, an OR greater than 1 indicates that having more of the contributing factor increases the odds of having a higher problem gambling severity. For example, the interpretation of an OR of 1.8 is that for every unit increase in the contributing factor, the odds of being classified in the next highest PGSI category is increased by a factor of 1.8. In contrast, an OR lower than 1 indicates that having more of the contributing factor decreases the odds of having a higher problem gambling severity. For example, the interpretation of an OR of 0.62 means that for every unit increase in the contributing factor, the odds of being classified in the next highest PGSI category decreased by a factor of 0.62.

- SE = standard errors of estimated coefficients
- Wald = the square of the ratio of the coefficient to its standard error.

There are two main components to interpreting the ordinal logistic regression results, and to understanding the importance of different variables:

- the direction (positive or negative) of the coefficient. A positive coefficient implies that a positive relationship has been identified
- the OR. ORs over 1 indicate that having more of the contributing factor increases the odds of being classified in the next highest PGSI category while ORs less than 1 indicate that having more of the contributing factor decreases the odds of being classified in the next highest PGSI category
- the significance level of the coefficient.

The creation of scales and subscales

Subscales comprising multiple items were also constructed from the raw data, including PGSI problem gambling severity scores, gambling expectancies subscale scores, quality of life scores and various physical and mental health subscales. A detailed description of each of these measures is provided in Appendix B. Respondents completing less than 30 per cent of any of these scales or subscales were excluded from the analysis associated with that scale or subscale, using pair-wise deletion. An expectation-maximization with bootstrapping algorithm (Honaker & King, 2010; Honaker, King, & Blackwell, 2011) was used to impute missing data for cases with less than 30 per cent missing data on individual scales or subscales.

The algorithm uses the well-known EM algorithm (Dempster, Laird, & Rubin, 1977) on multiple bootstrapped samples of the original incomplete data to draw values of the complete-data parameters. The algorithm then draws imputed values from each set of bootstrapped parameters, replacing the missing values with these draws.

Treatment of extreme outliers in the expenditure data

The outlier treatment involved 1) identifying 2013 values of total activity spend that were larger than the maximum 2011 values, and then 2) imputing both the frequency and spend values for these cases. This means that the following total expenditure items (Sporting or other events, Horse or greyhound races, Instant scratch tickets, Casino table games, EGMs and Lotteries) will have new values for some respondents (*n=18*). As it is impossible to know for certain which value is the cause of the outlier and since the total is the product of the frequency and the spend, the best approach is to impute all values for the activity.

Testing for statistical significance

Stratified variance estimates were obtained through Taylor linearization (Rao, Yung, & Hidiroglou, Estimating equations for the analysis of survey data using poststratification information, 2002). Confidence intervals (calculated at the 95% level) for means were found according to the usual method, namely Estimate plus or minus twice the standard error. For proportions, the method of Korn & Graubard, 1998, based on exact binomial intervals, was used since it provides more coverage for estimates near 0 and 1.

Tests of statistical significance used survey-weighted chi-square and t-tests to compare proportions and means (Rao & Scott, 1984). For two-sample t-tests, the usual method is applied, except that Taylor Series linearization is used to estimate the variances (Heeringa, West, & Berglund, 2010).

Suppression rules

As was the case in 2011, the analyses were also conducted under suppression rules agreed by the research team. These rules are to mitigate the quality of results attributable to small cell size and volatile weights, which may then generate large relative standard errors (RSE). The rules were:

- reporting RSE less than 50 per cent of associated means
- and if the RSE was between 30 per cent and 50 per cent an † appears next to the estimate that cautions the reader that this score does not meet established standards for reliability. Please note it is possible for a statistic to have a RSE of between 30 per cent and 50 per cent and still statistically significantly different from a comparative result.

All other estimates not meeting these rules were suppressed. Further, the research team agreed that the potential for small cell numbers should be monitored with the heuristic adopted that a minimum number of 10 data points per cell were needed to calculate point estimates. The abbreviation np in the table refers to data not available due to insufficient responses or breaching relative standard error criteria.

Statistical estimates were made within the R statistical software environment using the survey add-on package. More specifically, weights were calculated using GREG (general regression) estimators and Taylor series linearization was used to obtain stratified variance estimates. These are the current best-practice methods and are commonly used in official statistics agencies such as the Australian Bureau of Statistics, Statistics Canada and Statistics Sweden.

The use of weighted survey estimates

It is usual to weight the data collected via sample surveys in order to:

- adjust for unequal probabilities of selection both at the unit and within-unit level
- properly combine the landline and mobile phone samples
- compensate for the effects of non-coverage and non-response.

Weighting survey data improves the ability to draw inferences about the population based on the sample surveyed.

The broad approach adopted to weighting the 2013 survey data is set out below.

Design weight

Landline sample

The probability of selecting a person from a household is given by

$$P_p = \begin{cases} \frac{n_{LL}}{n_p}, n_{LL} \leq n_p \\ 1, otherwise \end{cases}$$

where n_{LL} is the number of landlines in the household and n_p is the number of in-scope persons in the household. These values were capped at 3 and 5 respectively to limit the initial weight assigned to any individual.

The initial person weight w_{1p} is then given by

$$w_{1p} = N_p \times \frac{n_p}{n_{LL}}$$

where N_p is the total number of in-scope adults in the population.

Mobile sample

The initial person weights for mobile respondents were set as the average of the corresponding weights for the landline sample. Without details of the selection process and probabilities for the mobile sample, this approach ensures comparable design weights across the entire sample. The prevalence of mobile-phone only respondents is accounted for explicitly in the post-stratification, as described in the next section.

Post-stratification

Using the initial person weights (w_{1p}), all records were weighted to two sets of benchmarks to give the person weight (w_{2p}):

- LGA and rest of State (9 regions) by Age (7 categories) by Gender (2 categories)
- telephone status (2 categories).

The benchmarks used for the main survey were drawn from the number of persons aged 18 or over in the 2011 Census and are listed in Appendix A. Note that to avoid unduly large weights, some age categories in some LGAs were collapsed and these are also shown.

A regression approach was used to calibrate the initial person weights so that they matched the benchmark totals within an acceptable level of tolerance. Specifically, the calibrate function in R was used for this purposes, including the calculation of variances using a Horvitz-Thompson estimator. Around 1 per cent of weights were trimmed to ensure they were within a factor of 4 of the design weight (that is, from a ¼ of the design weight up to 4 times the design weight). This is a common approach to avoiding extreme weights being applied to individual respondents.

The 2011 survey results were original weighted to 2006 ABS census counts as the data from the 2011 census had not yet been released. Given the adoption of a slightly different approach to weighting the 2013 data, the decision was taken to re-weight the 2011 survey estimates to 2011 census benchmarks and to apply the same regression-based approach to weighting the 2011 data. A table comparing the original and revised 2011 survey estimates is provided in Appendix A.

A similar process was also used to estimate weights for respondents to the supplementary survey. The key difference being that the initial person weight was adjusted to take account of the fact that only a subset of respondents (2,309) completed the supplementary questionnaire and these were weighted to the population benchmarks set out in Table A6 (see Appendix A). PGSI status was also used as a benchmark for the supplementary survey, ensuring that the distribution of the sample by PGSI status was the same irrespective of estimates based on short- or long-form weights.

2.4 Differences between the 2013 and 2011 surveys

Given that one of the primary objectives of this survey is to measure change over time, it is important to note the main differences between the 2013 and previous surveys.

The Questionnaire

The core questionnaire modules used for the 2011 and 2013 survey instruments were very similar, with many questions identical so as to enable time series comparison. Table 5 sets out the main differences between the two questionnaires. The differences mainly relate to the topics covered in the supplementary section of the questionnaire (i.e. those questions asked of a sub-sample of respondents).

Table 5 **Main differences between the 2011 and 2013 questionnaires**

Topic / module	Included in 2011	Included in 2013
Module B - Participation in selected gambling activities	✓	✓
Module C - Specific questions about EGM gambling	✓	✓
Module D - Frequency of gambling and expenditure on selected non-EGM gambling activities	✓	✓
Module E - Problem gambling prevalence as measured by the Problem Gambling Severity Index	✓	✓
Module G - Gambling Harms		✓
Supplementary Sections		
Module F - Gambling expectancies		✓
Module H - Alternative expenditure		✓
Module I - Alternative activities		✓
Module J - Family member problem gambling	✓	✓
Module K - Help-seeking	✓	✓
Module L - Quality of life	✓	✓
Module M - Substance use	✓	✓
Module N - Mental health comorbidities		✓
Module O - Positive mental health		✓
Module P - Demographics	✓	✓
Module Q - Telephone status		✓
Module R –- Further research	✓	✓

Note: Module references relate to the 2013 questionnaire.

The 2011 themes not included in the 2013 survey were gambling motives, gambling triggers, patterns of gambling, life events, physical health, financial difficulties and age of onset.

Measures introduced in the 2013 survey comprise:

- questions about Day trading in the 2013 survey (Questions:-B1j and D9a – D9b)
- only administering the PGSI to persons who gambled in the last 12 months whereas in 2011 the PGSI was administered to all respondents
- a focus on gambling harms (e.g. financial, relationship, familial, employment or legal difficulties or reduced performance in undertaking daily tasks) and alternative expenditures (should people not be able to spend money on gambling) and alternative entertainment

- expansion of evaluation of internet gambling to all relevant gambling forms and a differentiation between internet gambling via desktop and mobile devices
- measures examining impulsivity and the most common mental health disorders associated with problem gambling based on a recent systematic review (Dowling et al., 2014)
- a focus on several 'protective factors' that may mitigate the development of problem gambling.

A modified version of the 2013 questionnaire, with some of the more complex programming and sequencing instructions removed in order to make it more accessible, is provided as Appendix C.

Overview of the 2011 survey methodology

As is the case for the 2013 survey, the 2011 Tasmanian Gambling Prevalence Survey, in effect, comprised two separate telephone surveys (refer to Table 1). The first comprised 3,044 interviews spread across eight selected Local Government Areas (LGAs). The second comprised a random sample of 1,259 Tasmanians aged 18 years or older throughout the rest of Tasmania, bringing the total number of completed surveys to 4,303. The rest of state sample provided an over-arching control group and allowed for further analysis.

The focus LGAs were selected in 2011 (and continued in 2013), taking a number of factors into account. These being:

- LGA socio-economic status
- EGM density within each LGA
- the number of households within the different LGAs which were likely to be contactable via random digit dialling of landline telephone numbers.

In order to address these factors, whilst also allowing for robust state-wide estimates, the sampling structure was designed to cover eight Tasmanian LGAs selected to ensure adequate representation of both the lower and upper ends of the socio-economic scale, as well as providing a good coverage of LGAs taking into account their relative population and EGM density. Table 6 shows a summary of the characteristics of the selected LGAs using 2011 Census data.[7]

[7] These characteristics have been updated from the 2011 report, reflecting 2011 Census data.

Table 6 **Focus LGA characteristics, 2011 Tasmanian Gambling Prevalence Survey**

LGA	Region	SEIFA rank within state[a]	State decile	Population	EGMs	EGMs per 1,000 persons
Low SES LGAs						
Brighton	South East	1	1	15,460	60	3.9
Break O'Day	North	3	2	6,193	45	7.3
Glenorchy	South East	8	3	44,655	270	6
Devonport[b]	North	9	4	24,617	230	9.3
Comparison LGAs						
Launceston	North	16	6	64,192	346	5.4
Circular Head	North	17	6	7,978	50	6.3
Sorell	South East	22	8	13,196	70	5.3
Clarence	South East	26	9	51,852	165	3.2

[a] Socioeconomic Indexes for Areas (SEIFA).There are 29 LGAs within Tasmania. [b] There are also 46 EGMs on the two Spirit of Tasmania ships. These are not counted in this analysis.

Source: DTF provided data, (Australian Bureau of Statistics, 2013; Australian Bureau of Statistics, 2012)

In common with many other gambling studies conducted in Australia (Gambling Research Australia, 2011), a within survey sub-sampling strategy to maximise the data collected from the sample was a feature of the 2011 design and was maintained in 2013 (see Section 2.1).

The weighting procedures followed for the 2011 study mirrored those of the 2007 survey as closely as possible. This was done in order to minimise the chance that any differences in time series estimates could be attributable to differences in the weighting procedures adopted for each survey.

Going back further, although there are similarities between the 2007 and 2011 surveys (for example, questionnaire, sample size, and investigations of gambling participation and gambling severity), important differences exist and need to be borne in mind when interpreting the differences between the 2007 and 2011 survey findings. These are summarised in Appendix A.

2.5 Research ethics

In order to help ensure the informed consent of survey participants, a detailed explanation about the survey was read out prior to seeking consent. It was also made known to survey participants that further information about the survey was available on the Social Research Centre and Department of Treasury and Finance websites.

Depending upon their answers to specific questions throughout the survey, respondents were offered telephone numbers for a range of crisis services ranging from Lifeline and Gamblers Help, to tailored services for drug and alcohol abuse, mental health support, etc. Respondents were also offered Departmental contact details should they have wished to follow up any aspect of the survey.

The surveys were conducted in accordance with the Australian Market and Social Research Organisation's (AMSRO's) Privacy Principles and the Australian Market and Social Research Society's (AMSRS's) Code of Professional Behaviour. Appropriate interviewer training was provided with regard to administering the survey and dealing with sensitive situations and adverse events. The analysis of the data from this project was approved by the University of Melbourne's Human Research Ethics Committee (Behavioural and Social Sciences Human Ethics Sub-Committee) (project 1340411).

Social Research Centre interviewers are trained in appropriate call escalation procedures. A total of nine call alerts were raised by interviewers for review by a supervisor. These ranged in nature from an emotional response to some of the questions, being upset by a recent bereavement and cases where the interviewer was concerned about the wellbeing of the respondent. All such cases were promptly reviewed and sometimes called back by a Supervisor to ensure appropriate duty of care.

A very important ethical consideration with respect to conducting interviews via a mobile phone is to ensure that it is safe for the sample member to take the call. With that end in mind all members of the mobile phone sample were asked at the outset 'May I just check whether or not it is safe for you to take this call at the moment? If not, I am happy to call you back when it is more convenient for you'.

2.6 Sample profile

Given the focus on the time series estimates produced from this survey, it is important to compare the demographic profiles of the 2011 and 2013 samples with a view to identifying the extent to which the two samples differ in their composition and the extent to which, if any, these differences may impact of the substantive measures of interest.

With this end in mind, Table 7 shows:

- no significant changes in the gender or age composition of the two samples
- very marginal changes in the occupational and annual personal income profiles
- some quite substantial changes with respect to the household structure and educational attainment of the samples.

In terms of household structure the proportion of 'couple-households' was 53.7 per cent in 2011 survey increasing to 70.4 per cent in 2013 – the comparable ABS benchmark is 58.7 per cent (Australian Bureau of Statistics, 2013). The reason for the substantial increase in the proportion of 'couple-households' in the 2013 sample relative to 2011 is mainly attributable to the high proportion of persons living in couple households (72.7% - unweighted) in the non-random mobile phone sample.

With respect to educational attainment, the proportion of the sample with vocational or trade qualifications (14.3% in 2011 and 30.6% in 2013) and the proportion of university graduates (38.9% in 2011 and 27.2% in 2013) are significantly different. On both of these measures the 2013 sample is closer to ABS benchmarks than the 2011 sample (Australian Bureau of Statistics, 2012) and thereby is more representative of the population based on these measures. According to 2011 Census data, the proportion of Tasmanians with a trade certificate / diploma is 27.7 per cent (30.6% in the 2013 survey) and the proportion of university graduates is 15.0 per cent (27.2% in the 2013 survey).

On this basis, the use of the non-random phone list meant that our sample (after weighting) is over-representative of 'couple-households' relative to the 2011 sample and the ABS census counts. However, the proportion of persons with trade certificate/diploma level qualifications is now more closely aligned with population parameters as is the proportion of university graduates. On balance, the stability of the estimates produced from the landline sample and the full dual-frame sample, in terms of key measures of interest (refer to Section 2.2), indicate the variations in the composition of the sample between 2011 and 2013 as a result of using a non-random list of mobile phone numbers has not unduly impacted on the quality of the survey estimates.

Table 7 **Demographic profile of 2011 (revised) and 2013 sample**

Demographic subgroups	2011 n=4,303	2013 n=5,000	Demographic subgroups	2011 n=4,303	2013 n=5,000
	%	%		%	%
Gender			**Annual Personal Income**		
Male	48.3	48.6	Less than $25,000	35.3	33.0
Females	51.7	51.4	$25,000-$39,999	16.2	15.9
Age group			$40,000-$64,999	20.1	18.1
18 to 24 years	11.0	10.6	$65,000-$79,999	8.1	9.5
25 to 34 years	14.5	13.6	$80,000-$129,999	8.0	9.3
35 to 44 years	17.0	17.2	$130,000-or more	2.0	3.1 ↑
45 to 54 years	18.8	19.1	**Educational attainment**		
55 to 64 years	17.5	17.9	Less than year 12	25.6	23.5
65 years or more	21.2	21.6	Year12	18.7	17.5
Household structure			Vocational or trade qualifications	14.3	30.6 ↑
Couple no children	8.8	11.8 ↑	University graduate	38.9	27.2 ↓
Couple children at home	29.2	37.3 ↑	**Place of Birth**		
Couple children left home	15.7	21.3 ↑	Australia	87.4	86.8
Single person	17.5	9.2 ↓	Overseas (ESB)	7.8	8.4
Single children at home	13.5	6.5 ↓	Overseas (NESB)	4.7	4.4
Single children left home	10.8	5.9 ↓			
Group or shared household	2.8	4.7 ↑			
Occupational status					
Paid full-time employed	38.4	35.6			
Paid part-time employed	18.9	21.2			
Household duties	4.9	4.3			
Student	5.7	4.2 ↓			
Retired	23.4	22.9			
Looking for work	2.6	3.5			
Unable to work / pensioner	5.0	6.1			
Unpaid voluntary worker	-	0.8 ↑			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys.

3 Participation in gambling activities

This chapter provides the estimates for Tasmanian adults' (aged 18 years or over) past year participation in the range of gambling activities assessed in the 2013 survey. These activities comprise playing or betting on EGMs/poker machines (EGMs), lottery, Keno[8], casino table games, bingo, horses or greyhounds, sporting events or other events, informal private games, instant scratch tickets, day trading, or any other gambling activity.[9] Where appropriate, comparisons are shown for the equivalent measures obtained in the 2005, 2008 and 2011 surveys.

The specific topics presented in this chapter are:

- a description of gambling participation in Tasmania as a whole
- participation in gambling activities in each of the eight focus LGAs
- participation in selected gambling activities in relation to demographic characteristics of the population
- participation in selected gambling activities by gambling medium, for example, venue based or online participation.

As well as presenting a general account of overall gambling activity, this chapter also notes the extent to which participation in particular activities varies between population subgroups and the extent to which participation has changed over time.

3.1 Key findings

Key findings from this chapter include:

- more than six in 10 (61.2%) Tasmanian adults reported participating in some form of gambling activity (excluding day trading) in the previous 12 months. This was significantly **lower** than the gambling participation rates of 64.8 per cent recorded in the 2011 study and of 71.7 per cent recorded in 2008
- the most common forms of gambling noted in 2013 were lottery tickets (43.0%), Keno (26.0%), instant scratch tickets (20.6%) and EGMs (18.6%)
- compared to 2011, **decreased** participation was evident in the 2013 survey for betting on horse or greyhound racing (down from 14.5% in 2011 to 10.5% in 2013), instant scratch tickets (down from 24.4% to 20.6%) and lottery tickets (down from 46.3% to 43.0%)
- among the focus LGAs, gambling participation was highest in 2013 in Brighton (71.0%), Sorell (70.5%) and Glenorchy (69.5%)
- as a group, the low SES LGAs (67.8%) had a significantly **higher** rate of overall gambling participation than did the total adult population (61.2%). There were also **higher** rates of participation in gambling on EGMs (22.7%) and Keno (32.4%) than the total adult population (18.6% and 26.0% respectively)

[8] In this study, Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.

[9] The 2013 survey was the first time that participation in day trading was specifically identified in the questionnaire. This activity has not been included in the estimates of overall gambling participation reported in this document.

- compared to Tasmanian adults as a whole, significantly **higher** gambling participation was reported in 2013 by people in full-time employment (66.5%), people with annual personal incomes of $25,000 to $39,999 (66.1%), $65,000 to $79,999 (73.0%), or $80,000 to $129,999 (67.2%), people who left school before completing Year 12 (65.8%), people with vocational or trade qualifications (65.2%) and people born in Australia (63.0%)
- compared to Tasmanian adults as a whole, significantly **lower** gambling participation was evident in 2013 amongst people aged 25 to 34 years (54.9%), students (45.2%), those with annual personal incomes of less than $25,000 (56.3%), university graduates (50.7%) and those people born overseas in an English speaking (48.2%) or a non-English speaking country (51.6%)
- there was a significant decrease in 2013 in the proportion of Tasmanian adults playing EGMs in a casino (from 13.2% in 2011 to 10.8% in 2013). There was also a significant decrease in betting on horse or greyhound racing and this was reflected in both on course (down from 7.8% to 5.0%) and off course (down from 10.4% to 7.9%) betting. In 2013, there was significantly increased participation in playing Keno at a newsagent or Tattersalls (up from 1.3% in 2011 to 2.1% in 2013) and in online betting on sporting and other events (up from 1.3% to 2.3%).

3.2 Gambling participation by activity in the previous 12 months

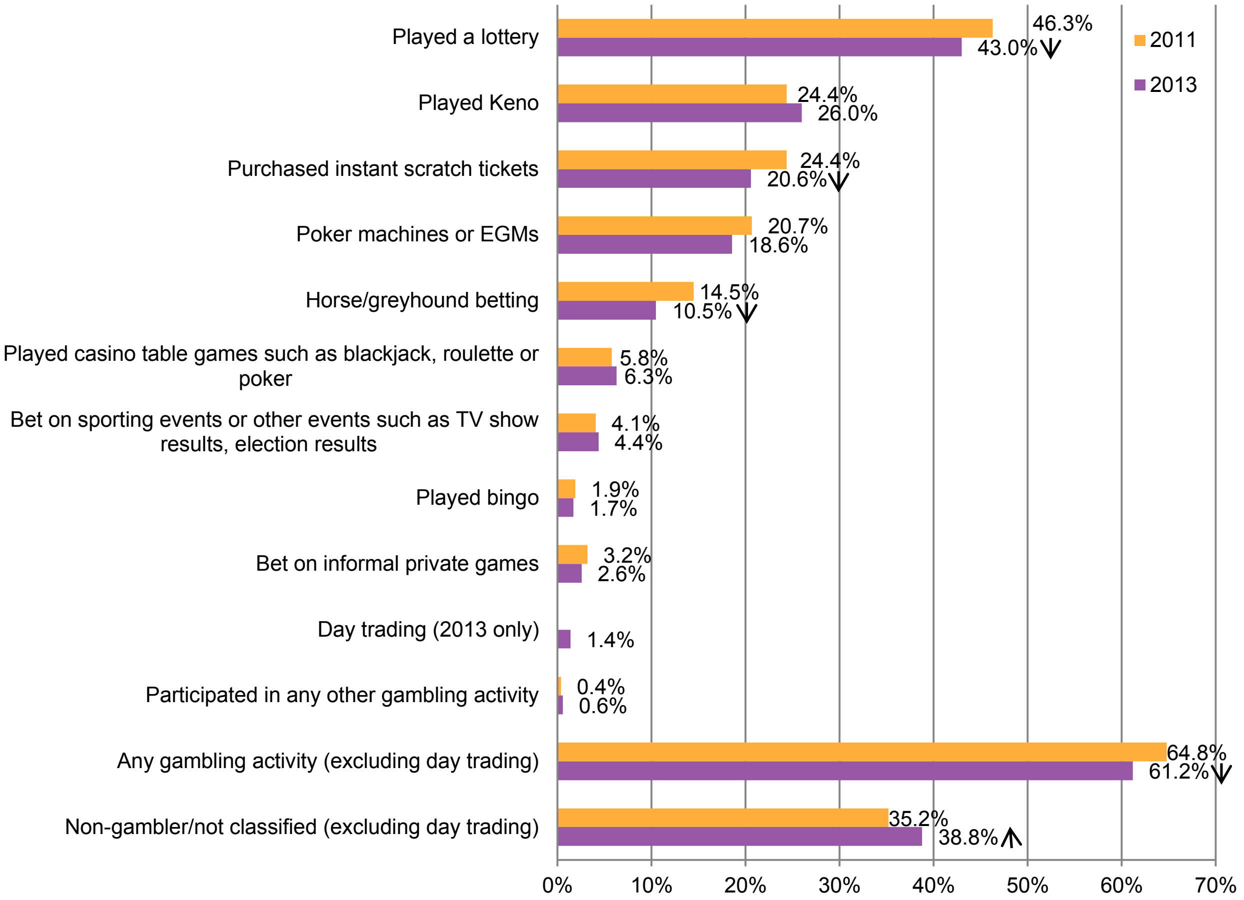
All survey respondents were asked if, during the past year, they had participated in a range of gambling activities (see Figure 1). From Figure 1 it can be seen that:

- participation in any kind of gambling activity (excluding Day trading) among the total Tasmanian adult population in 2013 in the previous 12 months was 61.2 per cent; this estimate of overall past year gambling participation had significantly declined since the 2011 estimate of 64.8 per cent
- playing the lotteries was the most commonly reported gambling activity (43.0%); it was also the most commonly reported amongst all socio-demographic groups surveyed with the exception of 18 to 24 year olds and students, both of whom reported a higher prevalence of playing EGMs (32.7% and 20.4% respectively) than they did for buying lottery tickets (18.7% and 11.9%) – (see Table 14)
- about one quarter (26.0%) of Tasmanian adults had played Keno in the past year, which was the second most commonly reported gambling activity. Other commonly reported gambling activities were purchase of instant scratch tickets (20.6%) and playing EGMs (18.6%).

Although the rates of gambling activity noted above appear to indicate a general slight decline in participation since 2011, the changes were not uniform across all forms of activity. Participation in most of these gambling activities did not change significantly between 2011 and 2013 with the only exceptions being:

- betting on horses or greyhounds (down from 14.5% in 2011 to 10.5% in 2013)
- purchase of instant scratch tickets (down from 24.4% in 2011 to 20.6% in 2013)
- playing the lotteries (down from 46.3% in 2011 to 43.0% in 2013).

Figure 1 **Past year participation in different gambling activities amongst Tasmanian adults (2011 and 2013)**



Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.
Base: Total Sample (2011: n=4,303; 2013: n=5,000).
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. B1

3.3 Gambling participation over time

Table 8 presents a comparison of data obtained from the 2005, 2008, 2011 and 2013 surveys into gambling participation and the social impact of gambling in Tasmania (Roy Morgan Research, 2006; South Australian Centre for Economic Studies, 2008; Allen Consulting Group, Social Research Centre, and the Problem Gambling Research and Treatment Centre, 2011). As discussed in Section 3.2, it shows that from 2011 to 2013 there has been a significant decline in overall gambling activity from 64.8 per cent to 61.2 per cent, as well as in betting on horse or greyhound racing from 14.5 per cent to 10.5 per cent, purchase of instant scratch tickets from 24.4 per cent to 20.6 per cent and of lotteries from 46.3 per cent to 43.0 per cent.

It also shows an ongoing decline since 2008 in the prevalence of EGM play, in betting on horse or greyhound racing and in the purchase of instant scratch and lottery tickets.

Table 8 **Past year participation in different gambling activities amongst Tasmanian adults (2005, 2008, 2011 and 2013)**

Gambling activity	2005	2008	2011	2013
	(n=6,048) %	*(n=4,051)* %	*(n=4,303)* %	*(n=5,000)* %
EGMs	na	28.5	20.7	18.6
Horse or greyhound races	na	16.8	14.5	10.5↓
Instant scratch tickets	31.8	31.3	24.4	20.6↓
Lotteries	52.3	51.3	46.3	43.0↓
Keno[a]	na	25.9	24.4	26.0
Casino table games	5.2	7.0	5.8	6.3
Bingo	2.2	1.8	1.9	1.7
Sporting or other event	3.5	3.9	4.1	4.4
Informal private games	4.6	5.3	3.2	2.6
Day trading	na	na	na	1.4
Any other gambling activity	na	1.4	0.4ł	0.6
Net: Any of the above gambling activities (excl. day trading)	**na**	**71.7**	**64.8**	**61.2↓**

[a] Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 ($p<0.05$).

Source: 2005, 2008, 2011 and 2013 Tasmanian Gambling Prevalence Surveys. 2013 Q. B1.

Table 9 shows the participation in each gambling activity by *all gamblers* for the 2011 and 2013 surveys. In 2013, buying lottery tickets (70.2%) was the most commonly reported gambling activity amongst gamblers followed by playing Keno (42.5%), purchase of instant scratch tickets (33.7%) and playing EGMs (30.4%). Day trading (1.8%) was the least commonly reported gambling activity.

The table also shows that, amongst gamblers as a whole, there have been significant **decreases** since 2011 in the level of participation in betting on horse or greyhound racing (down from 22.4% to 17.2%) and the purchase of instant scratch tickets (from 37.6% to 33.7%); there has also been a significant **increase** in the participation in playing Keno (up from 37.7% to 42.5%).

Table 9 **Past year participation in different gambling activities amongst Tasmanian adult gamblers (2011 and 2013)**

Gambling activity	2011	2013
	(n=2,796) %	*(n=3,145)* %
EGMs	31.9	30.4
Horse or greyhound races	22.4	17.2↓
Instant scratch tickets	37.6	33.7↓
Lotteries	71.5	70.2
Keno	37.7	42.5↑
Casino table games	9.0	10.3
Bingo	3.0	2.7
Sporting or other event	6.3	7.1
Informal private games	4.9	4.3
Day trading	na	1.8
Any other gambling activity	0.6	1.0

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 ($p<0.05$).
Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys. 2013 Survey Q. B1.

Table 10 shows the number of different gambling activities that Tasmanian adults participated in during the preceding 12 months.[10]

The 2013 survey found that almost one quarter (24.9%) of Tasmanian adults reported participating in one gambling activity only and just over one third (36.7%) reported participating in multiple gambling activities in 2013. Neither of these estimates was significantly different from those observed in the 2011 survey.

Table 10 **Number of gambling activities in which Tasmanian adults participated in the last 12 months (2011 and 2013)**

Number of Gambling activities	2011	2013
	(n=4,303) %	*(n=5,000)* %
None/Gambling status unknown	35.2	38.8↑
One gambling activity	24.1	24.9
Two gambling activities	18.0	16.4
Three gambling activities	11.6	10.7
Four or more gambling activities	11.1	9.6

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 ($p<0.05$).
Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys. 2013 Survey Q.s C1, D1-8.

3.4 Gambling participation: results by focus local government area

Table 11 shows participation in gambling activities in the low SES LGA grouping (that is, Brighton, Break O'Day, Glenorchy and Devonport), the comparison LGA grouping (that is, Circular Head, Launceston, Sorell and Clarence), the rest of the state (that is, the areas of Tasmania other than the eight focus LGAs) and the total Tasmanian adult population. Rates of participation in each LGA grouping are compared with those for all Tasmanian adults;

[10] Excluding day trading.

while comparisons of gambling participation were also made between the low SES LGAs and the comparison LGAs.

Overall:

- the low SES LGAs exhibited a significantly higher rate of overall gambling participation (67.8%) than did the total adult population (61.2%)
- compared to the total adult population, the low SES LGAs also had a significantly higher level of participation in gambling on EGMs (22.7% versus 18.6%) and Keno (32.4% versus 26.0%)
- the only other significant geographic difference relative to the total Tasmanian population was a lower participation rate in overall gambling (59.1% versus 61.2%) and in gambling on Keno (23.4% versus 26.0%) in the rest of Tasmania.

Comparisons between the low SES and comparison LGAs found higher levels of gambling participation amongst low SES LGA residents for playing EGMs, playing Keno and for participation in any gambling activity (other than day trading).

Table 11 **Participation in different gambling activities in the past 12 months by LGA grouping (2013)**

Gambling activity	Low SES LGAs	Comparison LGAs	Rest of Tasmania	Total Tasmania
	(n=1,500) %	*(n=1,500)* %	*(n=2,000)* %	*(n=5,000)* %
EGMs	22.7↑	18.0	17.5	18.6
Horse or greyhound races	12.0	10.1	10.2	10.5
Instant scratch tickets	22.6	19.8	20.4	20.6
Lotteries	45.7	43.9	41.6	43.0
Keno	32.4↑	26.9	23.4↓	26.0
Casino table games	6.6	7.5	5.6	5.3
Bingo	2.4	2.0	1.3	1.7
Sporting or other event	4.4	4.8	4.6	4.1
Informal private games	2.0	3.2	2.6	2.6
Day trading	1.5	1.2	1.4	1.4
Any other gambling activity	0.6	0.2	1.0	0.5
Any gambling activity (excl. day trading)	67.8↑	60.9	59.1↓	61.2

Notes: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample ($p<0.05$).
Low SES LGAs – Brighton, Break O'Day, Glenorchy, Devonport. High SES LGAs – Circular Head, Launceston, Sorell, Clarence.
Source: 2013 Tasmanian Gambling Prevalence Survey. Qs A1, B1.

Table 12 displays the participation in different gambling activities in each of the focus LGAs as well as for Tasmania overall. Brighton, Glenorchy and Sorell reported a significantly higher rate of overall gambling prevalence than the total Tasmanian adult population.

The following summarises the results where specific gambling activities in the focus LGAs were significantly different in comparison to the total adult Tasmanian population:

- EGMs – higher in Devonport (26.7%) and Sorell (25.2%)
- Instant scratch tickets – lower in Devonport (15.6%)
- Lotteries – higher in Brighton (49.4%) and Sorell (54.8%)
- Keno - higher in Brighton (32.6%), Glenorchy (35.4%) and Sorell (36.9%) and lower in Launceston (20.7%)
- Bingo – higher in Brighton (4.2%).

Table 12 **Participation in different gambling activities in the past year by LGA (2013)**

Gambling activity	Low SES LGAs				Comparison LGAs				Total Tasmania
	Brighton	Break O'Day	Glen-orchy	Devon-port	Circular Head	Laun-ceston	Sorell	Clar-ence	
	(n=400) %	*(n=300)* %	*(n=400)* %	*(n=400)* %	*(n=300)* %	*(n=400)* %	*(n=400)* %	*(n=400)* %	*(n=5,000)* %
EGMs	23.8	16.5	21.0	26.7↑	19.3	17.1	25.2↑	17.1	18.6
Horse or greyhound races	11.4	9.0	13.7	10.2	9.0	10.4	9.2	10.1	10.5
Instant scratch tickets	24.8	23.3	25.8	15.6↓	24.5	17.8	22.6	20.8	20.6
Lotteries	49.4↑	49.8	46.2	41.4	45.7	39.1	54.8↑	46.7	43.0
Keno	32.6↑	23.5	35.4↑	29.2	30.6	20.7↓	36.9↑	31.5	26.0
Casino table games	6.5	3.1ł	8.4	4.2 ł	3.7 ł	8.6	8.3	6.5 ł	5.3
Bingo	4.2↑ł	np	np	2.3ł	np	1.7 ł	1.4 ł	2.5ł	1.7
Sporting or other event	4.9 ł	np	5.6 ł	4.2	np	3.4 ł	6.6 ł	6.0 ł	4.1
Informal private games	np	np	2.5ł	np	np	2.8 ł	np	4.3ł	2.6
Day trading	np	np	np	1.7 ł	np	1.9ł	np	np	1.4
Any other gambling activity	np	np	np	np	np	np	np	np	0.5
Any gambling activity (excl. day trading)	71.0↑	64.0	69.5↑	64.0	64.9	55.6	70.5↑	64.5	61.2

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample ($p<0.05$).
ł RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A1, B1.

3.5 Demographic differences in overall gambling participation

Overall gambling participation in the past year was compared across selected demographic subgroups of the population. Table 13 illustrates the findings of this comparison. In summary, people in full-time employment (66.5%), people with personal annual incomes of $25,000 to $39,999 (66.1%), from $65,000 to $79,999 (73.0%) and from $80,000 to $129,999 (67.2%), people who had not completed year 12 (65.8%), people with a vocational or trade qualification (65.2%) and people born in Australia (63.0%), all had significantly **higher** levels of past year gambling participation than Tasmanian adults as a whole.

Lower than average overall gambling participation was evident amongst people aged 25 to 34 years (54.9%), students (45.2%), those with annual personal incomes of less than

$25,000 (56.3%), university graduates (50.7%) and those people born overseas in either an English speaking (48.2%) or a non-English speaking country (51.6%).

Table 13 **Overall gambling participation (excluding day trading) in the past 12 months by selected demographic subgroups (2013)**

Demographic subgroups	Unweighted Sample	Any gambling	Demographic subgroups	Unweighted Sample	Any gambling
	n	%		*n*	%
Tasmanian adults as a whole	*5,000*	61.2	**Tasmanian adults as a whole**	*5,000*	61.2
Gender			**Annual Personal Income**		
Male	*2,628*	62.0	Less than $25,000	*1,705*	56.3↓
Females	*2,372*	60.4	$25,000-$39,999	*816*	66.1↑
Age group			$40,000-$64,999	*858*	62.9
18 to 24 years	*165*	59.5	$65,000-$79,999	*432*	73.0↑
25 to 34 years	*311*	54.9↓	$80,000-$129,999	*426*	67.2↑
35 to 44 years	*666*	64.5	$130,000-or more	*144*	50.5
45 to 54 years	*990*	63.0	**Educational attainment**		
55 to 64 years	*1,229*	63.7	Less than year 12	*1,419*	65.8↑
65 years or more	*1,639*	59.6	Year 12	*731*	65.2
Household structure			Vocational or trade qualifications	*1,608*	65.2↑
Couple no children	*618*	59.3	University graduate	*1,164*	50.7↓
Couple children at home	*1,369*	60.4	**Place of Birth**		
Couple children left home	*1,369*	63.2	Australia	*4,246*	63.0↑
Single person	*601*	64.1	Overseas (ESB)	*509*	48.2↓
Single children at home	*303*	66.3	Overseas (NESB)	*226*	51.6↓
Single children left home	*473*	60.0			
Group or shared household	*134*	49.6			
Occupational status					
Paid full-time employed	*1,608*	66.5↑			
Paid part-time employed	*861*	62.6			
Household duties	*170*	52.0			
Student	*92*	45.2↓			
Retired	*1,666*	59.7			
Looking for work	*125*	50.2			
Unable to work / pensioner	*361*	57.3			
Unpaid voluntary worker	*38*	51.7			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A4, A5, B1, and P1-6.

Table 14 presents a demographic summary of gambling participation by activity. In particular, the table highlights those demographic subgroups showing significant differences to the total Tasmanian adult population with regard to the level of participation in each gambling activity. The following summaries describe the demographic subgroups which are above or below average in comparison to the total Tasmanian adult population insofar as their participation in specific gambling activities is concerned.

EGMs

— When compared to the total Tasmanian population, EGM play was significantly **higher** amongst females (20.2%); 18 to 24 year olds (32.7%); single parents with children still living at home (27.7%); those in part-time employment (23.2%); those with relatively low annual personal incomes of $25,000 to $39,999 (24.7%); those with no post-secondary educational qualifications (22.8% and 24.6%); and people born in Australia (19.8%).

- To a considerable degree, significantly **lower** levels of participation in EGM play mirrored the above; that is, it was evident amongst males (16.9%); 35 to 44 year olds (12.6%); those living as a couple with children at home (16.1%); those looking for work (8.4%); university graduates (12.2%); those with higher personal incomes of $80,000 to $129,999 per annum (13.6%); and those born overseas (English speaking background [10.7%]; non-English speaking background [10.6%]).

Horse or greyhound racing

- **Higher** rates of participation in gambling on horse or greyhound racing, compared to the total Tasmanian population, were evident for males (13.2%), people aged 35 to 44 (14.6%), those in full-time paid employment (16.5%), those with annual personal incomes between $65,000 to $129,000 (17.0% and 19.8%), those with vocational or trade qualifications (13.1%) and those born in Australia (11.3%).
- **Lower** participation in gambling on horses or greyhounds closely mirrored the above in that it was reported by females (8.0%), people aged 65 years or more (5.2%), those in part-time employment (8.1%), retirees (6.6%), those with a personal annual income of less than $25,000 (6.4%) and people from an English speaking background born outside Australia (4.2%).

Instant scratch tickets

- Females (23.4%), those with personal incomes of $65,000 to $79,999 per annum (26.3%), those who did not complete Year 12 (24.1%) and people born in Australia (21.8%) all reported significantly **higher** participation in gambling via instant scratch tickets than the total Tasmanian population.
- **Lower** participation was found amongst males (17.7%), students (10.9%), university graduates (16.7%) and people born overseas (12.4% amongst those from English-speaking countries and 13.9% amongst those from Non-English speaking countries).

Lotteries

- This activity had the **highest overall** rate of participation and this was also evident across a wide range of demographic groups; in particular people aged 45 years or more (45-54 years [49.7%], 55-64 years [52.0%], 65 years and over [46.0%]); those living in a couple whose children had left home (48.7%); those in paid full-time employment (49.5%); those with an annual personal income between $25,000 and $79,999 ($25,000-$39,999 [47.7%], $40,000-$64,999 [48.6%], $65,000-$79,999 [55.5%]); those who had not completed secondary school (48.1%); and those with trade or vocational qualifications (48.7%) all reported significantly **higher** participation in purchase of lottery tickets.
- However, people aged below 35 years (18-24 years [18.7%]; 25-34 years [30.5%]); those living either as a couple with children still at home (39.2%) or in a group or shared household (30.0%); students (11.9%); people looking for work (27.6%); those with annual personal income less than $25,000 (35.1%); and university graduates (34.3%) reported significantly **lower** participation. Apart from university graduates, these demographic groups are likely to have considerable overlap with each other.

Keno

- Compared to the total Tasmanian population, participation in Keno play was significantly **higher** amongst 35 to 44 year olds (31.3%), those living as a couple with children at home (29.0%), people in paid full-time (30.7%) or part-time employment (30.0%), those with a personal annual income of $25,000 to $39,999 (32.2%) or $65,000 to $79,999 (32.9%), those born in Australia (27.7%) and those with a vocational or trade qualification (30.4%).

— **Lower** participation was reported by people aged over 65 years (19.1%); those who described their occupational status as home duties (17.6%), student (9.7%) or retiree (20.4%); those with relatively low annual incomes of less than $25,000 (21.7%), university graduates (17.0%) and people born overseas (English speaking background [15.6%]; non-English speaking background [12.6%]).

Casino table games

— When compared to the total Tasmanian population, **higher** rates of participation in playing casino table games were reported by males (8.8%); people aged 18 to 24 years (24.7%); those in paid full-time employment (9.8%), students (18.0%), those whose highest level of educational attainment was Year 12 (10.3%) and those born in Australia (6.8%).

— Of these, it may be relevant to note that the reported participation by 18 to 24 year olds (24.7%) was almost four times and that by students (18.0%) was almost three times, the participation rate of the total Tasmanian adult population (6.3%).

— Females (3.9%), people aged 45 and over (45-54 years [2.8%]; 55-64 years [3.6%]); 65 years and over [0.7%]), couples (4.2%) and single people (1.1%) whose children have left home; retirees (1.0%); those with personal incomes below $25,000 per annum (4.6%); those who had left school before completing Year 12 (2.8%) and those born overseas in an English-speaking country (2.9%) reported a significantly **lower** level of participation than the Total Tasmanian population.

Bingo

— Females (2.2%), people aged over 65 (2.8%), retirees (2.7%) and those who did not complete secondary education (also 2.7%) all reported significantly **higher** rates of participation in playing bingo than the total Tasmanian population. These demographic groups are likely to have considerable overlap with each other.

— **Lower** levels of participation were evident for males (1.1%) and couples with children still living at home (0.9%).

Sporting or other events

— Compared to the total Tasmanian population, males (7.3%); people aged 18 to 24 (11.8%); those in paid full-time employment (8.0%); those with personal annual incomes of $65,000 to $129,999 ($65,000-$79,999 [8.4%); $80,000-$129,999 [10.8%]) and those whose formal education finished at Year 12 (7.3%) reported significantly **higher** participation in betting on sporting or other events.

— Females (1.6%), those aged over 55 years (55-64 years [2.3%]; 65 years and over [1.0%]), couples with no children (2.5%), single parents whose children have left home (1.4%), retirees (0.9%), those on a pension or unable to work (1.8%), those with low personal annual incomes of less than $25,000 (2.3%) and those who did not complete Year 12 (2.7%) reported significantly **lower** participation in betting on sporting or other events than the total Tasmanian adult population.

Informal private games

— Participation in playing informal private games follows a similar pattern to betting on sporting or other events with **higher** levels of participation than the total Tasmanian population amongst males (4.1%); people aged 18 to 24 (7.7%); those in full-time paid employment (4.5%); and those whose highest educational qualification is the completion of Year 12 (6.0%).

- **Lower** participation in gambling on informal private games was evident amongst females (1.2%); people aged over 55 years (55-64 years [1.1%]; and 65 years and over [0.7%]), retirees (0.6%), and those with personal incomes of less than $25,000 per annum (1.5%).

Day trading

- Males (2.1%) and those with a personal annual income of $80,000 to $129,999 (5.8%) were the only groups to report significantly **higher** participation in day trading than the total Tasmanian population.
- **Lower** participation in day trading was reported by females (0.7%) and those with annual personal income of less than $25,000 (0.4%).

Other gambling activities

- Finally, it is evident that a higher proportion of males (1.0%) than females (0.2%) reported participating in other gambling activities.

Table 14 **Participation in gambling activities by selected demographic subgroups (2013)**

Demographic sub-group	Unweighted Sample	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Casino table games	Bingo	Sporting or other events	Informal private games	Day trading	Other activity
	n	%	%	%	%	%	%	%	%	%	%	%
Tasmanian adults as a whole	*5,000*	18.6	10.5	20.6	43.0	26.0	6.3	1.7	4.4	2.6	1.4	0.6
Gender												
Male	*2,628*	16.9↓	13.2↑	17.7↓	43.9	27.2	8.8↑	1.1↓	7.3↑	4.1↑	2.1↑	1.0↑ ł
Females	*2,372*	20.2↑	8.0↓	23.4↑	42.1	24.9	3.9↓	2.2↑	1.6↓	1.2↓	0.7↓	0.2↓ł
Age group												
18 to 24 years	*165*	32.7↑	12.1	20.5	18.7↓	26.6	24.7↑	np	11.8↑	7.7↑ł	np	np
25 to 34 years	*311*	20.6	10.9	23.8	30.5↓	27.8	9.9	np	5.7	2.9ł	np	np
35 to 44 years	*666*	12.6↓	14.6↑	21.2	47.1	31.3↑	5.7	np	6.1	3.9	2.0ł	1.0ł
45 to 54 years	*990*	16.6	10.8	20.7	49.7↑	28.0	2.8↓	1.3ł	3.4	2.1	2.1	np
55 to 64 years	*1,229*	17.9	11.5	19.5	52.0↑	25.3	3.6↓	1.6	2.3↓	1.1↓ł	1.1 ł	np
65 years or more	*1,639*	17.4	5.2↓	19	46.0↑	19.1↓	0.7↓ł	2.8↑	1.0↓ł	0.7↓ł	1.2	0.2 ł
Household structure												
Couple no children	*618*	17.4	9.8	22.5	43.3	24.2	5.1ł	1.5ł	2.5↓ł	3.0ł	1.7ł	np
Couple children at home	*1,369*	16.1↓	11.5	20.8	39.2↓	29.0↑	6.2	0.9↓ł	5.1	2.3	1.6	0.7ł
Couple children left home	*1,369*	20.3	9.7	20.1	48.7↑	25.6	4.2↓	2.1	3.1	2.1ł	1.3ł	np
Single person	*601*	18.4	13.6	19.0	47.7	23.1	8.8	1.5 ł	5.8 ł	3.0ł	np	np
Single children at home	*303*	27.7↑	8.7 ł	18.3	42.4	26.2	11.2 ł	np	5.2ł	np	np	np
Single children left home	*473*	18.8	8.6	19.7	43.8	23.8	1.1↓ł	3.0 ł	1.4↓ł	np	np	np
Group or shared household	*134*	24.4	10.0ł	25.4	30.0↓	22.6	14.4ł	np	11.3 ł	7.1ł	np	np

Demographic sub-group	Unweighted Sample	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Casino table games	Bingo	Sporting or other events	Informal private games	Day trading	Other activity
	n	%	%	%	%	%	%	%	%	%	%	%
Tasmanian adults as a whole	*5,000*	18.6	10.5	20.6	43.0	26.0	6.3	1.7	4.4	2.6	1.4	0.6
Occupational status												
Paid full-time employed	*1,608*	16.8	16.5↑	22. 4	49.5↑	30.7↑	9.8↑	1.1ł	8.0↑	4.5↑	1.8	0.5ł
Paid part-time employed	*861*	23.2↑	8.1↓	22.2	41.8	30.0↑	6.0	1.9ł	3.5	2.0ł	1.0ł	0.8 ł
Household duties	*170*	14.4	7.5ł	16.7	35.4	17.6↓	np	np	np	np	np	np
Student	*92*	20.4	np	10.9↓ł	11.9↓ ł	9.7↓ł	18.0↑ ł	np	np	npł	np	np
Retired	*1,666*	19.0	6.6↓	19.5	45.5	20.4↓	1.0↓	2.7↑	0.9↓	0.6↓	1.7	0.3 ł
Looking for work	*125*	8.4↓ł	np	22.4	27.6↓	25.0	8.4ł	np	np	np	np	np
Unable to work/pensioner	*361*	20.93	9.3	21.1	36.7	25.3	np	1.7 ł	1.8↓ ł	np	np	np
Unpaid voluntary worker	*38*	np	np	np	45.4	np	np	np	np	np	np	np
Annual Personal Income												
Less than $25,000	*1,705*	17.7	6.4↓	18.7	35.1↓	21.7↓	4.6↓	1.6	2.3↓	1.5↓ł	0.4↓ ł	np
$25,000-$39,999	*816*	24.7↑	10.2	24.3	47.7↑	32.2↑	5.8	np	2.8	2.2ł	0.8 ł	np
$40,000-$64,999	*858*	18.1	10.5	20.8	48.6↑	29.4	6.0	2.0ł	4.0	2.7 ł	0.9 ł	0.4 ł
$65,000-$79,999	*432*	20.4	17.0↑	26.3↑	55.5↑	32.9↑	10.1	np	8.4↑	5.1 ł	1.2 ł	np
$80,000-$129,999	*426*	13.6↓	19.8↑	19.8	46.6	26.2	10.8	np	10.8↑	5.4 ł	5.8↑	np
$130,000-or more	*144*	13.0 ł	16.9	14.2	36.0	21.6	3.4 ł	np	8.1ł	3.3 ł	5.4ł	np

Demographic sub-group	Unweighted Sample	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Casino table games	Bingo	Sporting or other events	Informal private games	Day trading	Other activity
	n	%	%	%	%	%	%	%	%	%	%	%
Tasmanian adults as a whole	*5,000*	18.6	10.5	20.6	43.0	26.0	6.3	1.7	4.4	2.6	1.4	0.6
Educational attainment												
Less than year 12	*1,419*	22.8↑	9.3	24.1↑	48.1↑	28.7	2.8↓	2.7↑	2.7↓	1.4↓ƚ	1.0ƚ	0.3 ƚ
Year 12	*731*	24.6↑	9.9	24.5	39.9	29.5	10.3↑	1.1 ƚ	7.3↑	6.0↑	np	np
Vocational/ trade quals.	*1,608*	17.8	13.1↑	19.5	48.7↑	30.4↑	5.0	2.2	3.6	1.9	1.3	0.4 ƚ
University graduate	*1,164*	12.2↓	9.5	16. 7↓	34.3↓	17.0↓	8.4	np	4.7	2.5 ƚ	2.1	0.9ƚ
Place of Birth												
Australia	*4,246*	19.8↑	11.3↑	21.8↑	43.6	27.7↑	6.8↑	1.7	4.5	2.7	1.4	0.6 ƚ
Overseas (ESB)	*509*	10.7↓	4.2↓	12.4↓	37.9	15.6↓	2.9↓ƚ	np	3.6ƚ	np	1.1 ƚ	np
Overseas (NESB)	*226*	10.6↓	7.2ƚ	13.9↓	40.5	12.6↓	np	np	np	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ƚ RSE between 30% and 50%.
Base: Total sample in each group.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A4, A5, B1, and P1-6.

For each demographic subgroup, Table 15 shows the number of gambling activities in which participation was significantly higher or lower than it was for the total Tasmanian population. For example, as shown in the table, males had significantly lower levels of participation in three forms of gambling and significantly higher levels of participation in six.

From Table 15 it is possible to make the following observations:

- overall the groups with significantly **higher** participation in the most gambling activities were: people in full-time employment, males, personal annual income of between $65,000 and $79,999, people born in Australia, people aged 18 to 24 and people with no post-school educational qualifications
- the groups with significantly **lower** participation in the most gambling activities were: people whose annual personal income was less than $25,000, females, people aged 65 years or more, retirees, people born overseas (English speaking background) and university graduates.

Table 15 **Number of significantly different gambling activities by demographic characteristics (2013)**

Socio-demographic Category	No. of significantly lower activities	No. of significantly higher activities	Category	No. of significantly lower activities	No. of significantly higher activities
Gender			**Annual Personal Income**		
Males	3	6	Less than $25,000	7	-
Females	6	3	$25,000-$39,999	-	3
Age group			$40,000-$64,999	-	1
18 to 24 years	1	4	$65,000-$79,999	-	5
25 to 34 years	1	-	$80,000-$129,999	1	3
35 to 44 years	1	2	$130,000 or more	-	1
45 to 54 years	1	1	**Educational attainment**		
55 to 64 years	3	1	Less than year 12	3	4
65 years or more	5	2	Year 12	-	4
Household structure			Vocational or trade qualifications	-	3
Couple no children	1	-	University graduate	4	-
Couple children at home	3	1	**Place of Birth**		
Couple children left home	1	1	Australia	-	5
Single person	-	-	Overseas (ESB)	5	-
Single children at home	-	1	Overseas (NESB)	3	-
Single children left home	2	-			
Group or shared household	1	-			
Occupational status					
Paid full-time employed	-	6			
Paid part-time employed	1	2			
Household duties	1	-			
Student	3	1			
Retired	5	1			
Looking for work	2	-			
Unable to work pensioner	1	-			
Unpaid voluntary worker	-	-			

Source: 2013 Tasmanian Gambling Prevalence Survey.

3.6 Gambling participation by location or medium

All those who took part in the gambling activities assessed in the 2013 survey were also asked about the venues and mediums where their participation took place. Table 16 displays the reported participation for each gambling activity by venue/medium with the following being the most common location/s or medium/s used.

- EGMs – in a club or hotel (16.0%); in a casino (10.8%) with the data indicating that a considerable proportion of EGM gamblers patronise both clubs/hotels and casinos
- horse or greyhound racing – at an off course venue (7.9%); at the race course (5.0%)
- instant scratch tickets – in a newsagent or Tattersalls outlet (20.2%)
- lotteries – in a newsagent or Tattersalls outlet (40.3%)
- Keno – in a club or hotel (23.7%); in a casino (6.3%)
- casino table games – at a casino (5.7%)
- bingo – in a club or a hall (1.3%)
- betting on sporting or other events – over the internet (2.3%); at an off-course venue (2.2%). Clearly the internet is an important medium for this type of gambling activity
- day trading – over the internet (1.0%). This was the only activity where gambling over the internet was easily the highest form of participation in that activity – only (0.2%) reported trading by telephone. However, this finding is not unexpected given the generally high levels of internet use for conducting most forms of share transactions
- respondents were asked about whether they participated in internet gambling for each activity (except for betting on informal private games and other activity) however, the rates of participation were generally low compared to overall participation in each gambling activity. The highest levels of participation in internet gambling were the purchase of lottery tickets (3.7%), betting on horse or greyhound racing (2.5%) and sports/event betting (2.3%). These findings are examined in more detail in Chapter 8: Online (internet) Gambling.

Table 16 **Gambling participation by all Tasmanian adults: location or medium (2013)**

Gambling activity	Participation rate
	(n=5,000) %
EGMs	**18.6**
In club or hotel	16.0
In a casino	10.8
Over the internet	0.4 ɫ
Horse or greyhound races	**10.5**
At an off-course venue	7.9
At the race course	5.0
By telephone/SMS	1.0
Over the internet	2.5
Instant scratch tickets	**20.6**
In a newsagents or Tattersalls	20.2
Over the internet	0.2ɫ
Lotteries	**43.0**
In a newsagents or Tattersalls	40.3
Over the internet	3.7
Keno	**26.0**
In a club or hotel (TasKeno)[a]	23.7
In a casino (TasKeno)[a]	6.3
At a newsagents or Tattersalls (Lucky Keno)[a]	2.1
Over the internet	np
Casino table games	**6.3**
In a casino	5.7
Over the internet[b]	0.2 ɫ
Bingo	**1.7**
In a club or hall	1.3
Over the internet	np
Sporting or other event	**4.4**
At an off-course venue	2.2
By telephone/SMS	0.2 ɫ
Over the internet	2.3
Informal private games	**2.6**
Day trading	**1.4**
Over the telephone	0.2 ɫ
Over the internet	1.0
Any gambling activity (excl. day trading)	**61.2**

[a] Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.
[b] Casino table games over the internet comprise games like roulette and blackjack which can be played by Tasmanians using internet-based providers located outside of Australia.

Note: np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.

ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Qs: C1, D1-10.

3.7 Gambling participation: comparison with the 2008 and 2011 Tasmanian surveys

Table 17 displays reported participation in specific gambling activities by location or medium for the 2008, 2011 and 2013 surveys. In summary:

- significantly **lower** participation in gambling on EGMs in casinos was reported in 2013 (10.8%) compared to 2011 (13.2%), this appears to continue a downward trend from 2008 when the participation rate was 21.4 per cent
- significantly **lower** participation in betting on horse or greyhound racing at both race course (5.0%) and off-course venues (7.9%) was reported in 2013 compared to 2011 (7.8% and 10.4% respectively). Again this appears to continue a downward trend from 2008 (8.5% and 12.0% respectively)
- significantly **higher** participation in playing Keno at newsagents or Tattersalls (i.e. Lucky Keno) was reported in 2013 (2.1%) compared to 2011 (1.3%), although the reported prevalence of playing Keno at these locations remained at a low level compared to the overall participation in 2013 (26.0%) and 2011 (24.4%)
- higher participation in online betting on sporting or other events (up from 1.3% to 2.3%).

Table 17 **Gambling participation: comparison of location or medium (2008, 2011 and 2013)**

Gambling activity	2008 survey	2011 survey	2013 survey
	(*n*=4,051) %	(*n*=4,303) %	(*n*=5,000) %
EGMs	28.5	20.7	18.6
In club or hotel	20.7	16.5	16.0
In a casino	21.4	13.2	10.8↓
Over the internet	n.a.	n.a.	0.4
Horse or greyhound races	16.8	14.5	10.5↓
At the race course	8.5	7.8	5.0↓
At an off-course venue	12.0	10.4	7.9↓
By telephone/SMS	1.6	1.7	1.0
Over the internet	1.7	2.3	2.5
Keno	25.9	24.4	26.0
In a club or hotel	23.6	22.4	23.7
In a casino	8.8.	7.5	6.3
At a newsagents/Tattersalls	n.a.	1.3	2.1↑
Over the internet	n.a.	np	np
Casino table games	7.0	5.8	6.3
In a casino	n.a.	4.9	5.7
Over the internet	n.a.	0.4ł	0.2ł
Sporting or other event	3.9	4.1	4.4
At an off-course venue	n.a.	2.1	2.2
By telephone/SMS	n.a.	0.3ł	0.2ł
Over the internet	n.a.	1.3	2.3↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ł RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Qs: C1, D1-10.

4 Gambling frequency

This chapter expands on the gambling participation data presented in Chapter 3 by examining the past year frequency of gambling by Tasmanian adults. In particular, consideration is given to the range of gambling activities undertaken, the mean annual frequency of gambling by activity, by type of gambler and by location or medium where gambling takes place.

Frequency of gambling activity is grouped into four ranges: less than once per month, one to three times per month, once a week and no gambling activity. Consistent with the approach used in the 2008 and 2011 studies, people who reported gambling at least once a week on any activity except for lotteries, scratch tickets or bingo, are defined as **regular** gamblers.

The specific topics presented in this chapter are:

- past year gambling frequency by activity
- a comparison of past year gambling frequency and average (mean) frequency, between 2011 and 2013, for all Tasmanian adults and for past year gambling participants
- past year gambling frequency by LGA groupings and selected LGAs
- past year gambling frequency by selected demographic characteristics
- past year gambling frequency by location or medium
- a description of the gambling behaviour and a profile of regular gamblers.

4.1 Key findings

Key findings from the analysis of gambling frequency in 2013 include the following.

- 19.3 per cent of all Tasmanian adults (and 31.5% of all past year gamblers) participated in some form of gambling at least once a week
- weekly gambling activity was most common for lotteries (34.2%), bingo (19.5%) and betting on horse or greyhound racing (16.6%)
- the mean overall gambling frequency for all Tasmanian adults **declined** significantly from 29.5 times per year in 2011 to 24.0 times per year in 2013; there was also a decline in mean annual frequency amongst past year gamblers from 46.3 times per year in 2011 to 40.0 times per year in 2013
- gamblers from the low SES LGA grouping participated significantly **more often** (mean annual frequency of 45.5 times per year) than did past year gamblers overall (mean annual frequency of 40.0 times per year)
- purchase of lottery tickets exhibited the highest mean annual frequency per gambler (26.5 times per year). Betting on horse or greyhound races was the next highest (24.1 times per year), followed by day trading (22.6 times per year) and betting on sporting or other events (21.9 times per year).

Amongst those described as **regular gamblers** (5.8% of the Tasmanian adult population):

- the most common gambling activities were Keno (79.8%), EGMs (56.5%), betting on horse or greyhound races (50.8%), betting on sporting or other events (24.6%) and playing casino table games (23.9%)
- 23.9 per cent participated in just one gambling activity while 22.1 per cent participated in four or more gambling activities (excluding scratch tickets, lotteries or bingo)

- on average regular gamblers participated in 168.9 gambling sessions during the past year compared with 26.3 sessions for other gamblers
- compared to the 5.8 per cent of the total Tasmanian population who were regular gamblers, males (7.9%), people aged 55 to 64 (9.2%), those in paid full-time employment (7.4%), those with a personal annual income of $65,000 to $79,999 (11.3%), those who did not complete year 12 (8.2%), those born in Australia (6.2%) and people living in Brighton (9.4%) all exhibited significantly **higher** proportions of regular gamblers.

4.2 Frequency of gambling in the previous 12 months

Table 18 shows frequency (as a percentage of the total Tasmanian adult population) of gambling activity in the previous 12 months.

Overall, more than one third (38.8%) of Tasmanian adults reported that they had not participated in any gambling activity in the previous 12 months; just over one quarter of Tasmanian adults (25.8%) reported participating in gambling activity less than once per month; 14.8 per cent reported activity of 1 to 3 times per month; and, almost one in five (19.3%) reported participating in gambling activity once a week or more.

Purchase of lottery tickets was the most commonly reported weekly activity with 14.7 per cent of all Tasmanian adults participating at this rate. Keno was the next most common, but at a far lower rate with 2.3 per cent of Tasmanian adults reporting weekly participation. Weekly purchase of instant scratch tickets was reported by 2.0 per cent of Tasmanian adults. The only other activities with a rate of weekly participation higher than 1.0 per cent were betting on horse or greyhound races (1.7%) and EGM gambling (1.1%).

Table 18 **Past year frequency of gambling activity – all Tasmanian adults (2013)**

Gambling Activity (n=5,000)	Less than once per month	1 to 3 times per month	Once per week or more	Have not participated in last 12 months
	%[a]	%	%	%
EGMs	13.6	3.3	1.1	81.4
Horse or greyhound races	7.1	1.7	1.7	89.5
Instant scratch tickets	15.1	3.4	2.0	79.4
Lotteries	19.5	8.4	14.7	57.0
Keno	17.7	5.5	2.3	74.0
Casino table games	5.6	0.5	0.2	93.7
Bingo	1.2	0.1	0.3	98.3
Sporting or other events	2.9	1.1	0.4	95.6
Informal private games	2.2	0.4	0.1	97.4
Day trading	0.9	0.2	0.2	98.6
Any other activity	0.4	-	0.1	99.4
Any gambling activity (excl. day trading)	**25.8**	**14.8**	**19.3**	**38.8**

[a] Includes respondents who reported zero.
Note: np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɫ RSE between 30% and 50%.
Rows in the above table may not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1; C1; D1a, 2a,3a,4a,5a,6a,7a,8a,9a,10a.

Table 19 shows the frequency (as a percentage of all Tasmanian gamblers) of gambling by activity in the previous 12 months.

Almost one third (31.5%) of all gamblers reported weekly activity in at least one form of gambling and almost another quarter (24.3%) reported monthly participation.

Weekly gambling activity was most common for lotteries (34.2%), bingo (19.5%), any other activity (18.4%) and betting on horse or greyhound racing (16.6%). Monthly activity was most common for betting on sporting or other events (25.4%), Keno (21.2%), lotteries (19.6%) and EGMs (17.8%).

Table 19 **Past year frequency of gambling activity – all Tasmanian gamblers (2013)**

Gambling Activity	Less than once per month	1 to 3 times per month	Once per week or more
	%[a]	%	%
EGMs (*n=899*)	73.1	17.8	6.0
Horse or greyhound races (*n=477*)	67.5	15.8	16.6
Instant scratch tickets (*n=465*)	73.4	16.6	9.5
Lotteries (*n=1259*)	45.5	19.6	34.2
Keno (*n=646*)	68.2	21.2	8.9
Casino table games (*n=181*)	89.5	7.5ɫ	2.8 ɫ
Bingo (*n=99*)	72.2	8.3 ɫ	19.5
Sporting or other events (*n=158*)	65.8	25.4	8.8 ɫ
Informal private games (*n=79*)	82.3	14.7 ɫ	np
Day trading (*n=65*)	64.3	15.5 ɫ	13.7 ɫ
Any other activity (*n=25*)	73.3	np	18.4 ɫ
Any gambling activity (excl. day trading)	**42.1**	**24.3**	**31.5**

[a] Includes respondents who reported zero.
Note: np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɫ RSE between 30% and 50%.
Rows in the above table do not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1; C1; D1a, 2a,3a,4a,5a,6a,7a,8a,9a,10a.

4.3 Annual gambling frequency – 2011 and 2013

Table 20 compares frequency of past year gambling activity for all Tasmanian adults and all gamblers for 2011 and 2013.

From this table, it is apparent that the mean number of gambling sessions for Tasmanian adults **declined** significantly from 29.5 per year in 2011 to 24.0 per year in 2013 while the proportion who gambled at least once a week also declined significantly from 22.6 per cent to 19.3 per cent.

Looking at specific forms of gambling, significant differences between 2011 and 2013 are evident in the proportion of the total Tasmanian population who:

- played EGMs one to three times a month (down from 4.6% to 3.3%)
- bet on horse or greyhound races at least once a week (down from 3.1% to 1.7%) or less than once per month (down from 9.3% to 7.1%). These changes were accompanied by a significant **decline** in the mean number of sessions of such gambling (from an annual average of 6.4 to 2.5)
- purchased instant scratch tickets one to three times a month (down from 6.0% to 3.4%)
- purchased lottery tickets once a week or more (down from 16.8% to 14.7%)
- gambled on bingo one to three times a month (down from 0.7% to 0.1%).

Among participants in particular gambling activities significant changes between 2011 and 2013 were evident for the following:

- amongst those who bet on horse or greyhound races the mean number of sessions **declined** from 43.8 per year to 24.1 per year while the proportion who participated at least once a week **declined** from 21.1 per cent to 16.6 per cent
- amongst those people who purchased instant scratch tickets, the proportion who did so less than once a month **increased** from 62.8 per cent to 73.4 per cent
- amongst those who bought lottery tickets, the proportion who did so once a week or more **declined** from 36.4 per cent to 34.2 per cent
- of all people who gambled on bingo, the proportion who did so on a monthly basis **declined** from 35.3 per cent to 8.3 per cent, while the proportion who played less than once a month **increased** from 44.4 per cent to 72.2 per cent.

Insofar as any form of gambling was concerned, amongst gamblers the mean number of sessions declined significantly from 46.3 per year in 2011 to 40.0 per year in 2013 while the proportion of adult gamblers who participated less than once a month increased significantly from 39.0 per cent to 42.1 per cent during this time period.

Table 20 **Past year gambling frequency by type of gambling activity (2011 and 2013)**

Gambling activity[a]	Annual frequency of participation	Adult Tasmanian population		Past year participants	
		2011	2013	2011	2013
		(n=4,303) %	*(n=5,000)* %	%	%
				(n=828)	*(n=899)*
EGMs	Once a week or more	1.3	1.1	6.2	6.0
	1 to 3 times a month	4.6	3.3↓	22.4	17.8
	Less than once a month	14.6	13.6	70.8	73.1
	Mean Frequency (/year)	*2.6*	*2.5*	*12.6*	*13.9*
				(n=632)	*(n=477)*
Horse or greyhound races	Once a week or more	3.1	1.7↓	21.1	16.6↓
	1 to 3 times a month	2.1	1.7	14.6	15.8
	Less than once a month	9.3	7.1↓	64.1	67.5
	Mean Frequency (/year)	*6.4*	*2.5↓*	*43.8*	*24.1↓*
				(n=969)	*(n=1001)*
Instant scratch tickets	Once a week or more	2.7	2.0	10.9	9.5
	1 to 3 times a month	6.0	3.4↓	24.5	16.6
	Less than once a month	15.3	15.1	62.8	73.4↑
	Mean Frequency (/year)	*3.0*	*2.4*	*12.7*	*11.5*
				(n=2116)	*(n=2379)*
Lotteries	Once a week or more	16.8	14.7↓	36.4	34.2↓
	1 to 3 times a month	8.1	8.4	17.5	19.6
	Less than once a month	21.0	19.5	45.4	45.5
	Mean Frequency (/year)	*12.3*	*11.3*	*26.8*	*26.5*
				(n=1044)	*(n=1274)*
Keno	*Once a week or more*	2.3	2.3	9.4	8.9
	1 to 3 times a month	5.6	5.5	22.8	21.2
	Less than once a month	16.3	17.7	66.8	68.2
	Mean Frequency (/year)	*4.1*	*3.7*	*16.9*	*14.3*
				(n=182)	*(n=181)*
Casino table games	*Once a week or more*	np	0.2ł	np	2.8ł
	1 to 3 times a month	0.5	0.5ł	9.3ł	7.5ł
	Less than once a month	5.2	5.6	89.5	89.5

Gambling activity[a]	Annual frequency of participation	Adult Tasmanian population		Past year participants	
		2011	2013	2011	2013
		(n=4,303) %	**(n=5,000) %**	**%**	**%**
	Mean Frequency (/year)	*0.2*	*0.5*	*4.2*	*7.9*
				(n=82)	*(n=99)*
Bingo	*Once a week or more*	0.4 ǂ	0.3 ǂ	20.3	19.5
	1 to 3 times a month	0.7 ǂ	0.1↓ ǂ	35.3	8.3↓ ǂ
	Less than once a month	0.9	1.2	44.4	72.2↑
	Mean Frequency (/year)	*0.4*	*0.3*	*21.0*	*15.7*
				(n=138)	*(n=158)*
Sporting or other event	*Once a week or more*	0.3 ǂ	0.4 ǂ	7.5 ǂ	8.8 ǂ
	1 to 3 times a month	0.7	1.1	18.3	25.4
	Less than once a month	2.7	2.9	66.5	65.8
	Mean Frequency (/year)	*0.8*	*1.0 ǂ*	*21.0*	*21.9 ǂ*
				(n=86)	*(n=79)*
Informal private games	*Once a week or more*	np	np	np	np
	1 to 3 times a month	0.6 ǂ	0.4 ǂ	17.2 ǂ	14.7 ǂ
	Less than once a month	2.2	2.2	68.5	82.3
	Mean Frequency (/year)	*0.3*	*0.2*	*10.5*	*6.7*
				(n=2796)	*(n=3145)*
Any gambling activity	*Once a week or more*	22.6	19.3↓	34.9	31.5
	1 to 3 times a month	15.8	14.8	24.4	24.3
	Less than once a month	25.2	25.8	39.0	42.1↑
	Mean Frequency (/year)	*29.5*	*24.0↓*	*46.3*	*40.0↓*

[a] Excludes day trading.
Notes: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ǂ RSE between 30% and 50%.
Columns in the above table do not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a.

4.4 Annual gambling frequency by LGA categories

For convenience, the mean scores for participants in each activity have been used in this section to compare gambling frequency between subgroups of interest.

Table 21 displays the average (mean) number of gambling sessions per year by each activity for the low SES and comparison LGA groupings, the rest of the state and Tasmania as a whole. This analysis is limited to past year participants.

Compared to the total Tasmanian population (40.0 sessions per year) neither of the LGAs groupings, nor the rest of Tasmania, reported significantly different frequencies in any gambling activity. However, the low SES LGA grouping did report a significantly **higher** overall mean annual gambling frequency (45.5).

No significant differences were found between the low SES and comparison LGAs.

Table 21 **Mean past year gambling sessions by activity by LGA groupings (2013)**

Gambling activity	Low SES LGAs	Comparison LGAs	Rest of Tasmania	Total Tasmania
EGMs	13.1	18.4	11.9	13.9
Horse or greyhound races	31.3	27.7	19.5	24.1
Instant scratch tickets	11.9	10.8	11.7	11.5
Lotteries	27.3	26.2	26.3	26.5
Keno	12.9	16.4	13.7	14.3
Casino table games	np	4.0	5.2 ɨ	7.9
Bingo	20.3 ɨ	17.1ɨ	11.7 ɨ	15.7
Sporting or other event	np	16.7ɨ	13.5	21.9 ɨ
Informal private games	np	3.2 ɨ	7.1	6.7
Day trading	np	26.3 ɨ	20.0 ɨ	22.6
Any other gambling activity	np	np	33.2 ɨ	19.1 ɨ
Any gambling activity (excl. day trading)	**45.5↑**	**42.0**	**37.0**	**40.0**

Notes: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample ($p<0.05$).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɨ RSE between 30% and 50%.
Low SES LGAs – Brighton, Break O'Day, Glenorchy, Devonport. High SES LGAs – Circular Head, Launceston, Sorell, Clarence.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A1, B.1, C.1, D1-10.

Table 22 displays the average (mean) annual gambling frequency by selected activities for individual LGAs and for Tasmania as a whole. This analysis is also limited to past year participants in these gambling activities.

Past year gamblers in Brighton (49.2) and Glenorchy (50.2) reported a significantly **higher** mean frequency of overall gambling participation when compared to all past year adult Tasmanian gamblers (40.0).

Insofar as specific activities were concerned, significant differences from all past year gamblers were evident in the annual frequency of the following; EGM gambling which was significantly **lower** in Brighton (9.5), Devonport (7.6) and Circular Head (6.2); betting on horse or greyhound racing which was less frequent in Sorell (12.3); the frequency of buying instant scratch tickets which was significantly **lower** in Break O'Day (7.6) and Circular Head (7.0); the frequency of playing Keno which was **lower** in Devonport (9.3); and the frequency of playing casino table games which was **lower** in Circular Head (1.7).

Table 22 **Mean past year gambling frequency by selected activity by LGA (2013)**

Gambling activity	Low SES				Comparison SES				Rest of the state	Total Tasmania
	Brighton	Break O'Day	Glen-orchy	Devon-port	Circular Head	Laun-ceston	Sorell	Clar-ence		
EGMs	9.5↓	np	14.7ᵻ	7.6↓	6.2↓	23.1 ᵻ	9.0	18.2	11.9	13.9
Horse or greyhound races	45.0	np	30.3	26.9 ᵻ	13.5 ᵻ	28.5 ᵻ	12.3↓ ᵻ	32.0	19.5	24.1
Instant scratch tickets	10.6	7.6↓	14.1	8.1	7.0↓	12.0	10.5	10.3	11.7	11.5
Lotteries	26.5	24.4	28.3	27.0	30.3	27.9	23.1	24.8	26.3	26.5
Keno	15.9	14.1	13.6	9.3↓	10.6	21.0	18.4	13.0	13.7	14.3
Casino table games	np	np	np	np	1.7↓ ᵻ	4.4 ᵻ	3.6 ᵻ	3.7 ᵻ	np	7.9
Sporting or other event	np	np	np	10.8	np	5.4 ᵻ	3.4 ᵻ	29.1 ᵻ	13.5	21.9
Any gambling activity (excl. day trading)	**49.2↑**	**42.0**	**50.2↑**	**34.7**	**34.1**	**45.7**	**36.5**	**40.8**	**37.0**	**40.0**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
Due to the small number of participants in each LGA, figures for bingo, informal private games, day trading and other gambling activity are not shown in this table.
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ᵻ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A1, B.1, C.1, D1a-10a.

4.5 Annual frequency of gambling activities by demographic characteristics of gamblers

Table 23 displays mean frequency of past year participation in specific gambling activities by demographic sub-groups. The summaries below describe the significant differences in gambling frequency between the participants from each demographic sub-group and all participants in the particular gambling activity.

Any gambling activity (mean = 40.0 sessions per year)

- compared to all gamblers the following subgroups reported significantly **higher** average annual frequency of gambling activity: males (46.3 sessions per year), people aged 55 to 64 (53.8) and 65 and over (46.3), those living as a couple whose children have left home (47.1), retirees (48.5), those with personal annual incomes of $65,000 to $79,999 (49.8) and those who left school without completing year 12 (48.9)
- females (33.9), those living as a couple with children at home (31.9), those in part-time employment (30.0) and university graduates (28.3) all reported significantly **lower** average annual frequency of gambling activity.

EGMs (mean = 13.9 sessions per year)

- compared to all past year EGM gamblers, significantly **higher** average annual frequency of participation was evident amongst those EGM gamblers aged 65 years and over (19.0), those living as a couple whose children have left home (20.6) and retirees (19.9)
- **lower** frequency of participation was evident amongst those players aged 25 to 34 years (7.7), those living as a couple with children at home (9.8), those describing their occupational status as home duties (4.1) or student (2.9), those with personal incomes

of $80,000 to $129,999 per annum (7.7) and those born in overseas (non-English speaking background) (5.9).

Horse and greyhound racing (mean = 24.1 sessions per year)

- amongst those who bet on horse or greyhound racing in the past year, the average annual frequency was **higher** for: males (32.2), those aged 55 to 64 (41.3), retirees (46.6) and those aged 65 or over (45.8) and those who did not complete year 12 (38.1)
- females (11.5), 25 to 34 year olds (11.8) and 45 to 54 year olds (8.7), those working part-time (9.9), those earning $80,000 to $129,999 (10.2) or $130,000 or more (9.1) and university graduates (10.8) reported significantly **lower** average annual frequency of participation.

Instant scratch tickets (mean =11.5 sessions per year)

- amongst past year purchasers of instant scratch tickets, purchase frequency was **lower** amongst students (4.8), those looking for work (6.4) and those with personal annual incomes of $40,000 to $64,999 (8.1).

Lotteries (mean = 26.5 sessions per year)

- amongst past year purchasers of lottery tickets, males (28.3), people aged 55 to 64 (33.0) or 65 and over (33.8), those living as a couple whose children have left home (32.2), retirees (33.1) and those who did not complete year 12 (30.8) reported significantly **higher** average annual frequency of purchase
- females (24.7), people aged 18 to 24 (11.6) or 35 to 44 (17.8), those living as a couple with children at home (21.8) or in a group or shared household (18.4), people working part-time (21.2), students (7.5), those whose annual personal income was between $40,000 and $64,999 (21.7) and university graduates (21.2) reported significantly **lower** average annual frequency of buying lottery tickets.

Keno (mean = 14.3 sessions per year)

- amongst past year Keno players, males (16.4), people aged 55 to 64 (22.2) and 65 and over (19.7), retirees (19.6) and those who left school without completing year 12 (17.7) reported significantly **higher** average annual frequency of playing
- frequency of participation was **lower** amongst past year Keno players who were females (12.2), aged 35 to 44 years (9.0), those living as a couple with children at home (10.2), single parents with children still at home (8.5), those describing their occupational status as working part-time (10.6), home duties (6.6), or student (3.5), university graduates (9.3) and those born overseas (English speaking background) (10.5).

Table 23 **Mean past year gambling frequency by activity by selected demographic characteristics (2013)**

Characteristics	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Any gambling activity
All participants in each activity	**13.9**	**24.1**	**11.5**	**26.5**	**14.3**	**40.0**
Gender						
Male	14.6	32.2↑	12.5	28.3↑	16.4↑	46.3↑
Females	13.3	11.5↓	10.8	24.7↓	12.2↓	33.9↓
Age group						
18 to 24 years	8.3 ɫ	20.4 ɫ	np	11.6 ↓ɫ	10.3	27.9
25 to 34 years	7.7↓ ɫ	11.8↓	11.0ɫ	19.6	12.4	34.9
35 to 44 years	9.7	22.0 ɫ	9.1	17.8↓	9.0↓	37.4
45 to 54 years	16.5 ɫ	8.7↓	12.0	26.1	12.4	40.5
55 to 64 years	20.0	41.3↑	11.5	33.0↑	22.2↑	53.8↑
65 years or more	19.0↑	45.8↑	11.8	33.8↑	19.7↑	46.3↑
Household structure						
Couple no children	10.6	23.6 ɫ	13.6 ɫ	29.4	21.5	43.8
Couple children at home	9.8↓	19.3	11.4	21.8↓	10.2↓	31.9↓
Couple children left home	20.6↑	27.0	11.4	32.2↑	16.4	47.1↑
Single person	10.7	16.6 ɫ	8.4	30.5	19.9	47.2
Single children at home	np	12.4 ɫ	15.0	21.2	8.5↓	32.9
Single children left home	21.4	47.2 ɫ	9.3	30.7	19.2	47.2
Group or shared household	10.2	np	11.6 ɫ	18.4↓	20.4	59.1
Occupational status						
Paid full-time employed	12.5	19.5	11.9	24.9	15.0	43.0
Paid part-time employed	10.3 ɫ	9.9↓	11.1 ɫ	21.2↓	10.6↓	30.0↓
Household duties	4.1↓	np	8.8	24.9	6.6↓	29.3
Student	2.9↓	np	4.8↓ɫ	7.5↓ɫ	3.5↓	8.5
Retired	19.9↑	46.6↑	12.3	33.1↑	19.6↑	48.5↑
Looking for work	np	51.8 ɫ	6.4↓	22.1	13.5 ɫ	39.8
Unable to work- pensioner	16.7 ɫ	np	16.1	31.1	15.1	49.3
Unpaid voluntary worker	np	np	np	55.7	np	64.5
Annual Personal Income						
Less than $25,000	12.9	33.6	12.7	28.1	15.2	36.1
$25,000-$39,999	20.2	18.2	11.8	28.1	12.6	43.7
$40,000-$64,999	10.5	31.7	8.1↓	21.7↓	12.3	36.1
$65,000-$79,999	14.4	26.8	16.0 ɫ	24.5	19.1	49.8↑
$80,000-$129,999	7.7↓	10.2↓	9.6	30.2	11.8	41.8
$130,000-or more	9.2 ɫ	9.1↓	10.9	25.7	13.2 ɫ	34.5
Educational attainment						
Less than year 12	17.1	38.1↑	14.4	30.8↑	17.7↑	48.9↑
Year 12	13.4	23.4	9.3	23.3	14.3	40.8
Vocational/ trade quals.	12.3	24.8	11.3	28.0	14.2	40.8
University graduate	11.2 ɫ	10.8↓	10.2 ɫ	21.2↓	9.3↓	28.3↓
Place of Birth						
Australia	13.7	23.5	11.4	25.9	14.4	40.0
Overseas (ESB)	22.7 ɫ	34.2 ɫ	13.0	29.4	10.5↓	38.7
Overseas (NESB)	5.9↓	np	11.0	31.2	18.4	43.1

Notes: Arrows and colours show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample ($p<0.05$).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A1,4 and 5, B.1, C.1., D1a-10a and P1-6.

Table 24 displays mean past year gambling frequency across a range of aggregated demographic sub-groups by selected types of gambling activity. This aggregation of categories was necessitated by the small number of participants in the gambling activities shown in this table. The summaries below identify, for each gambling activity, those subgroups for which the frequency of participation differs significantly from that of all participants in that activity.

Bingo (mean frequency = 15.7 sessions per year)

- amongst all those who gambled on bingo in the past year, females (19.9) exhibited a **higher** mean annual frequency of participation than males (6.6).

Day trading (mean = 22.6 sessions per year)

- amongst all past year day traders, males (28.5), people with personal annual incomes of $65,000 or more (32.7) and those who have completed some formal post-secondary education (27.5) all exhibited **higher** mean annual activity
- frequency of participation was lower amongst females (7.8), those with personal annual incomes less than $65,000 (8.9) and those who had not completed year 12 (8.6).

Table 24 **Mean past year gambling frequency by activity by selected summary demographic characteristics (2013)**

Characteristics	Bingo	Casino tables games	Sports/ Event betting	Informal private games	Day trading	Other activity	Any gambling activity
All participants in each activity	**15.7**	**7.9**	**21.9 ɫ**	**6.7**	**22.6**	**19.1 ɫ**	**40.0**
Gender							
Male	6.6↓ ɫ	7.1 ɫ	23.7 ɫ	5.8	28.5 ↑ɫ	np	46.3↑
Females	19.9↑	np	14.5	np	7.8 ↓ɫ	0.9 ɫ	33.9↓
Age group							
18 to 44 years	np	8.7 ɫ	27.4 ɫ	5.0 ɫ	40.2 ɫ	np	31.9
45 or more	17.2	4.8 ɫ	8.6	11.1 ɫ	12.3	20.0 ɫ	45.7↑
Household structure							
Partnered	10.5	6.3	10.9	7.9 ɫ	24.0 ɫ	32.9 ɫ	38.6
Not partnered	20.6 ɫ	np	np	3.3 ɫ	np	2.2 ɫ	42.6
Dependants	17.0 ɫ	9.2 ɫ	10.6	10.7 ɫ	34.4 ɫ	np	32.1
No dependants	12.5	7.3 ɫ	np	3.5	11.4 ɫ	np	46.3↑
Occupational status							
In paid employment	np	7.2 ɫ	24.5 ɫ	7.7 ɫ	24.8 ɫ	30.5 ɫ	38.3
Not in paid employment	22.4	np	10.0	3.9 ɫ	21.9 ɫ	np	43.1
Annual Personal Income							
Less than $65,000	14.5	5.7 ɫ	14.7	7.9 ɫ	8.9↓ ɫ	3.7 ɫ	38.1
$65,000 - or more	np	8.0 ɫ	np	5.8 ɫ	32.7↑ ɫ	67.8 ɫ	44.8
Educational attainment							
Year 12 or less	20.1	13.9 ɫ	35.2 ɫ	7.4 ɫ	8.6 ↓ɫ	np	45.4↑
Post secondary	11.5 ɫ	4.1	10.1	6.0	27.5↑ɫ	14.5 ɫ	35.6
Place of Birth							
Australia	14.7	7.8 ɫ	23.3 ɫ	7.3	23.1 ɫ	np	40.0
Overseas	np	np	10.0 ɫ	np	np	2.1 ɫ	40.3

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s A1,4 and 5, B.1, C.1, D1a-10a and P1-6.

4.6 Annual gambling frequency by location or medium

Table 25 displays the frequency (as a percentage of all participants in the particular activity), and the mean number of annual gambling sessions (based to all participants in the activity) by the location or medium where gambling took place. The following presents a summary of the most common locations and mediums in relation to frequency of play.

EGMs (played by 18.6% of total Tasmanian population)

- EGMs were played most often in clubs or hotels across all frequencies of play. Of all EGM gamblers, 86.0 per cent had played in a club or hotel and 57.9 per cent in a casino. It should be noted that 44.8 per cent of EGM gamblers had played at both types of venue in the past 12 months
- 6.0 per cent of all EGM gamblers participated at least once a week and the majority of these (5.3% of all EGM gamblers) played in a club or hotel at least once a week
- on average, EGM gamblers played most often at clubs or hotels (9.4 times/year); followed by casinos (2.8 times/year).

Horse or greyhound races (10.5% of total Tasmanian population)

- three quarters (75.5%) of all those who gambled on horse or greyhound racing did so at an off-course venue with 9.4 per cent doing this on a regular basis of at least once a week
- on average, betting sessions occurred most often at off-course venues (mean = 11.5 per year) followed by over the internet (mean = 7.2)
- 16.6 per cent of people who bet on horse or greyhound racing did so on a regular (weekly) basis with 9.4 per cent betting at an off-course venue and 4.1 per cent betting over the internet at least once a week
- whilst almost half (47.9%) of those who bet on horse or greyhound racing did so at a race course or track, 40.9 per cent did so less than once per month.

Instant scratch tickets (20.6% of total Tasmanian population)

- the great majority of purchases of instant scratch tickets were made at newsagents or Tattersalls (98.1% of all purchasers)
- of all purchasers of instant scratch tickets, 9.6 per cent buy these tickets at least once a week at a newsagent or Tattersalls although most (71.8% of purchasers) only do this less than once a month. On average, instant scratch tickets are purchased 11.5 times per year from a newsagent or Tattersalls.

Lotteries (43.0 % of total Tasmanian population)

- almost one third of those who purchased lottery tickets did so on a weekly basis at a newsagent or Tattersalls (32.7%) with 93.7 per cent of purchasers buying tickets from these sources
- on average, purchasers of lottery tickets did so 26.5 times per year, 24.3 times per year at a newsagent or Tattersalls.

Keno (26.0 % of total Tasmanian population)

- 91.2 per cent of all Keno players played in a club or hotel and 24.1 per cent played in a casino
- 8.9 per cent of Keno players participated on a weekly basis with a club or hotel being the type of venue where weekly play occurred most often (7.0%)
- mean annual episodes of playing Keno were 14.3, of which 11.3 were in a club or hotel.

Casino table games (6.3 % of total Tasmanian population)

- whilst 91.3 per cent of all people who played casino table games played in a casino, most (83.7% of players) played in a casino less often than once a month
- the internet was relatively popular for frequent play with 2.4 per cent of casino game players using this medium at least once a week.

Bingo (1.7 % of total Tasmanian population)

- almost three-quarters of those who played bingo (72.2%) played less often than once a month
- over three quarters of bingo players (77.2%) played at a club or hall; 55.8 per cent less often than once a month.

Sporting or other event (4.4 % of total Tasmanian population)

- just over half of those who bet on sporting or other events did so at an off-course venue (51.1%) and/or over the internet (53.0%). Some 4.5 per cent of these people placed bets over the internet on at least a weekly basis
- on average, those who bet on sporting or other events did so 21.9 times/year; 13.6 times per year over the internet and 5.6 times per year at an off-course venue.

Table 25 **Past year gambling frequency by location or medium (2013)**

Gambling activity	Not in the past year	Less than once per month	1 to 3 times per month	Once a week or more	Any play	Mean Frequency of Participation*
	%	%	%	%	%	Times per year
EGMs (*n=899*)	**-**	**73.1**	**17.8**	**6.0**	**100.0**	**13.9**
In club or hotel	13.6	65.6	15.1	5.3	86.0	9.4
In a casino	41.6	51.9	4.9	1.1 ǂ	57.9	2.8
Over the internet	95.3	np	np	np	2.3	np
Horse or greyhound races (*n=477*)	**-**	**67.5**	**15.8**	**16.6**	**100.0**	**24.1**
At the race course	52.1	40.9	4.5	2.5 ǂ	47.9	3.4
At an off-course venue	24.5	53.8	12.4	9.4	75.5	11.5
By telephone/SMS	90.6	5.1	2.5 ǂ	1.8 ǂ	9.4	1.9
Over the internet	75.9	12.5	7.6	4.1	24.1	7.2
Instant scratch tickets (*n=1,001*)	**-**	**73.4**	**16.6**	**9.5**	**100.0**	**11.5**
At newsagent/Tattersalls	1.6	71.8	16.7	9.6	98.1	11.5
Over the internet	99.0	0.8 ǂ	np	np	0.8 ǂ	np
Lotteries (*n=2,379*)	**-**	**45.5**	**19.6**	**34.2**	**100.0**	**26.5**
At a newsagent/Tattersalls	5.6	43.2	17.9	32.7	93.7	24.3
Over the internet	91.3	4.6	2.0	1.9	8.5	2.2
Keno (*n=1,274*)	**-**	**68.2**	**21.2**	**8.9**	**100.0**	**14.3**
In a club or hotel	7.7	65.0	19.2	7.0	91.2	11.3
In a casino	75.4	20.0	3.2	0.9 ǂ	24.1	1.6
At a newsagent/Tattersalls	91.3	4.8	1.4 ǂ	1.8	8.1	1.5
Over the internet	99.3	np	np	np	np	np
Casino table games (*n=181*)	**-**	**89.5**	**7.5 ǂ**	**2.8 ǂ**	**100.0**	**7.9**
In a casino	8.7	83.7	7.2 ǂ	np	91.3	3.4
Over the internet	96.3	np	np	2.4 ǂ	3.5	4.5 ǂ
Bingo (*n=99*)	**-**	**72.2**	**8.3 ǂ**	**19.5**	**100.0**	**15.7**
At a club or hall	22.8	55.8	8.3 ǂ	13.0	77.2	11.0
Over the internet	93.2	np	np	np	6.8	np
Sporting or other event (*n=158*)	**-**	**65.8**	**25.4**	**8.8 ǂ**	**100.0**	**21.9 ǂ**
At an off-course venue	48.9	35.7	11.6 ǂ	np	51.1	5.6
By telephone/SMS	96.0	2.1 ǂ	np	np	4.0	np
Over the internet	47.0	26.3	22.3	4.5 ǂ	53.0	13.6 ǂ
Day trading (*n=65*)	**-**	**64.3**	**15.5**	**13.7**	**100.0**	**22.6**
Over the telephone	77.8	10.3 ǂ	np	np	17.1	np
Over the internet	30.7	40.5	13.6 ǂ	np	62.8	17.2 ǂ

Note: * Mean includes respondents who reported zero. Due to a small group for whom frequency of participation could not be calculated, row totals do not add to exactly to the figure shown in the column headed 'Any play'.
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ǂ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

4.7 Regular gamblers

Regular gamblers are defined as people who reported gambling at least once a week on any activity except for lotteries, scratch tickets, bingo or day trading. When considering the data below it is important to bear in mind that some regular gamblers engage in multiple gambling activities (excluding lotteries, scratch tickets or bingo) and may be regular gamblers in more than one activity.

Table 26 shows the proportion of all regular gamblers who engage in each activity compared to the proportion of all other gamblers (that is, non-regular gamblers).

From the table it is evident that, in the past year:

- 79.8 per cent of all regular gamblers gambled on Keno, 56.5 per cent on EGMs, 50.8 per cent bet on horse or greyhound races, 24.6 per cent on sporting or other events and 23.9 per cent on casino table games
- Participation in each of these activities was at a significantly **higher** level amongst regular gamblers than it was amongst all other non-regular gamblers.

Table 26 **Gambling activity – regular gamblers (2013)**

Gambling activity	Regular gamblers	All other gamblers
	(*n=308*) %	(*n=2,834*) %
EGMs	56.5↑	27.6
Horse or greyhound races	50.8↑	13.6
Keno	79.8↑	38.6
Casino table games	23.9↑	8.9
Sporting or other event	24.6↑	5.3
Informal private games	13.2↑	3.3
Any other gambling activity	2.5↑ ł	0.8 ł
Forms of gambling which were not included in the definition of Regular Gambling		
Instant scratch tickets *	40.5	33.0
Lotteries *	74.2	69.8
Bingo *	3.7	2.6
Day trading *	np	1.7

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for all other gamblers (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ł RSE between 30% and 50%.
* Activity not included in the definition of regular gambler.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

Table 27 shows the number of past year gambling activities engaged in by regular and all other gamblers.

For the sake of comparison, the table shows data for all gambling activities and then for gambling activities excluding instant scratch tickets, lotteries and bingo; thus, it compares overall participation with participation in those activities which have been used to define regular gamblers.

When comparing number of activities across all gambling activity, the proportion of regular gamblers was significantly **higher** in three or more activities. Indeed, almost three quarters of regular gamblers (74.3%) reported gambling in three or four or more activities; only 7.0 per cent reported participation in just one activity. Conversely, most (71.2%) non-regular gamblers reported participation in just one or two activities.

However, given that participation in scratch tickets, lotteries or bingo does not contribute to the definition of regular gamblers it is interesting to consider participation in the gambling activities used to define regular gamblers (see lower half of Table 27). It is evident, that of all regular gamblers, 23.9 per cent participate in just one of these activities and 22.1 per cent participate in four activities or more of them. By contrast, 36.4 per cent of other gamblers participate in only one of these activities while just 2.3 per cent engage in four or more.

Table 27 **Prevalence of gambling - number of gambling activities by type of gambler (2013)**

No. of gambling activities	Regular gamblers	All other gamblers
	(n= 308) %	*(n=2,834)* %
All gambling activities		
One	7.0	43.5↑
Two	18.7	27.7↑
Three	25.4↑	16.7
Four or more	48.9↑	12.1
All gambling activities (excl. scratch tickets, lotteries and bingo).		
One	23.9	36.4↑
Two	36.7↑	18.7
Three	17.3↑	4.6
Four or more	22.1↑	2.3

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for adjacent column. ($p<0.05$).
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

Table 28 compares the annual frequency of gambling participation by regular and other gamblers. By definition, other gamblers do not gamble weekly on any one activity (other than potentially on instant scratch tickets, lotteries, or bingo) and hence would be expected to gamble at lower frequencies than regular gamblers. Thus, while statistically significant differences between regular and other gamblers are indicated in this table, it should be noted that many of these are definitional artefacts, particularly the zero values in the 'less than once a month' frequency category. With that in mind, we note the following points with respect to the frequency of gambling by regular gamblers.

Overall, the average annual frequency of participation in any gambling activity by regular gamblers was 168.9, about six times that of other gamblers (26.3); almost half of whom (46.6%) gambled less often than once a month.

Looking at the frequency with which regular gamblers participated in particular activities:

EGMs

- over one third (33.7%) of all regular gamblers who gambled on EGMs played at least once a week. Another 37.3 per cent played monthly
- on average, those regular gamblers who played EGMs did so 51.2 times a year, compared with just 5.6 times a year for other EGM gamblers.

Horse or greyhound racing

- 58.8 per cent of regular gamblers who bet on horse or greyhound races were regular horse or greyhound race gamblers (that is, they gambled on this activity at least once a week). On average, they gambled on horse or greyhound races 72.3 times a year compared with just 5.2 times a year for others who bet on these types of races.

Instant scratch tickets

- 26.9 per cent of regular gamblers who purchased instant scratch tickets did so on a weekly basis with an average purchase frequency of 25.2 times a year. Even though weekly purchase of instant scratch tickets was not part of the definition of regular gamblers, both of these figures were significantly **higher** than the corresponding frequency of participation for other instant scratch ticket purchasers (7.3% once a week or more; mean frequency of purchase 9.7 times a year).

Lotteries

- half (50.0%) of those regular gamblers who purchased lottery tickets did so on a weekly basis, significantly **higher** than other lottery ticket purchasers (32.5%)
- regular gamblers who purchased lottery tickets also exhibited a significantly **higher** mean frequency of purchase (39.1 times per year) than did other purchasers of lottery tickets (25.1 times per year).

Keno

- almost half (49.9%) of those regular gamblers who played Keno did so on a weekly basis; on average these regular gamblers played Keno 49.2 times a year (**higher** than the 6.6 times a year reported by other Keno players).

Casino tables games, bingo and sports/event betting

- due to the smaller sample sizes, results shown for these activities are less statistically reliable. Nevertheless, it is evident that regular gamblers who participate in casino table games and/or betting on sporting or other events do so more frequently than other participants in these gambling activities
- however, there does not appear to be any significant difference in frequency of participation between regular gamblers who play bingo and others who have played bingo during the last 12 months.

Table 28 **Annual frequency of gambling activity by type of gambler (2013)**

Gambling activity	Annual Frequency of Participation	Regular gamblers who participate in each activity	Other gamblers who participate in each activity
		%	%
EGMs	*Unwtd Base:*	*(n=159)*	*(n=737)*
	Once a week or more	33.7↑	-
	1 to 3 times a month	37.3↑	13.7
	Less than once a month	29.1↓	82.7
	Mean Frequency (/year)	*51.2↑*	*5.6*
Horse or greyhound races	*Unwtd Base:*	*(n=148)*	*(n=326)*
	Once a week or more	58.8↑	-
	1 to 3 times a month	18.9	14.7
	Less than once a month	22.2↓	85.2
	Mean Frequency (/year)	*72.3↑*	*5.2*
Instant scratch tickets	*Unwtd Base:*	*(n=110)*	*(n=890)*
	Once a week or more	26.9↑	7.3
	1 to 3 times a month	25.3	15.5
	Less than once a month	47.8↓	76.7
	Mean Frequency (/year)	*25.2↑*	*9.7*
Lotteries	*Unwtd Base:*	*(n=228)*	*(n=2,148)*
	Once a week or more	50.0↑	32.5
	1 to 3 times a month	20.7	19.4
	Less than once a month	29.3↓	47.2
	Mean Frequency (/year)	*39.1↑*	*25.1*
Keno	*Unwtd Base:*	*(n=230)*	*(n=1,041)*
	Once a week or more	49.9↑	-
	1 to 3 times a month	24.5	20.4
	Less than once a month	25.6↓	77.6
	Mean Frequency (/year)	*49.2↑*	*6.6*
Casino table games	*Unwtd Base:*	*(n=47)*	*(n=134)*
	Once a week or more	12.7↑ ɫ	-
	1 to 3 times a month	23.3 ɫ	np
	Less than once a month	64.0↓	96.6
	Mean Frequency (/year)	*27.6 ɫ*	*2.4*
Bingo	*Unwtd Base:*	*(n=22)*	*(n=77)*
	Once a week or more	19.5 ɫ	19.5 ɫ
	1 to 3 times a month	np	8.0 ɫ
	Less than once a month	70.3	72.5
	Mean Frequency (/year)	*20.9*	*15.0*
Sporting or other event	*Unwtd Base:*	*(n=54)*	*(n=104)*
	Once a week or more	27.1↑ ɫ	-
	1 to 3 times a month	37.8	19.3
	Less than once a month	35.1↓	80.7
	Mean Frequency (/year)	*56.4 ɫ*	*5.2*
Any gambling activity	*Unwtd Base:*	*(n=308)*	*(n=2,834)*
	Once a week or more	100.0↑	24.4
	1 to 3 times a month	-	26.8
	Less than once a month	-	46.6↑
	Mean Frequency (/year)	*168.9↑*	*26.3*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those for other gamblers. (p<0.05).
np Data not available for publication due to insufficient responses or breaching Relative Standard Error criteria but included in totals where applicable.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

Table 29 shows the proportions of regular gamblers in selected demographic subgroups and geographic locations compared to the total Tasmanian population.

Compared to the 5.8 per cent of the total Tasmanian population who were classified as regular gamblers:

- significantly **higher** proportions of regular gamblers were evident amongst males (7.9%), people aged 55 to 64 years (9.2%), those in paid full-time employment (7.4%), those with a personal annual income of $65,000 to $79,999 (11.3%), those who did not complete Year 12 (8.2%), those born in Australia (6.2%) and people living in Brighton (9.4%) or Glenorchy (8.6%)
- Significantly **lower** proportions of regular gamblers were evident amongst females (3.8%), people aged between 45 to 54 years (4.0%), those living as a couple with children at home (4.3%), those in part-time employment (3.2%), those with annual personal incomes below $25,000 (4.4%) or of $130,000 or more (2.4%), university graduates (2.6%) and people born overseas in an English speaking country (2.9%).

Table 29 **Proportion of regular gamblers by demographic subgroups (2013)**

Characteristics	Unwtd sample	Regular gamblers	Characteristics	Unwtd sample	Regular gamblers
	n	%		*n*	%
Tasmanian Adults as a whole	**5,000**	**5.8**	***Tasmanian Adults as a whole***	**5,000**	**5.8**
Gender			***Annual Personal Income***		
Male	*2,628*	7.9↑	Less than $25,000	*1,705*	4.4↓
Females	*2,372*	3.8↓	$25,000-$39,999	*816*	7.1
Age group			$40,000-$64,999	*858*	5.8
18 to 24 years	*165*	5.7 ǂ	$65,000-$79,999	*432*	11.3↑
25 to 34 years	*311*	4.8	$80,000-$129,999	*426*	5.7
35 to 44 years	*666*	4.5	$130,000-or more	*144*	2.4↓ ǂ
45 to 54 years	*990*	4.0↓	***Educational attainment***		
55 to 64 years	*1,229*	9.2↑	Less than year 12	*1,419*	8.2↑
65 years or more	*1,639*	6.2	Year 12	*731*	7.7
Household structure			Vocational or trade qualifications	*1,608*	5.6
Couple no children	*618*	6.3	University graduate	*1,164*	2.6↓
Couple children at home	*1,369*	4.3↓	***Place of Birth***		
Couple children left home	*1,369*	7.0	Australia	*4,246*	6.2↑
Single person	*601*	6.2	Overseas (ESB)	*509*	2.9↓ ǂ
Single children at home	*303*	4.3 ǂ	Overseas (NESB)	*226*	3.9 ǂ
Single children left home	*473*	8.2	***LGA Category***		
Group or shared household	*134*	11.2 ǂ	Low SES	*1,500*	7.2
Occupational status			Comparison LGAs	*1,500*	6.1
Paid full-time employed	*1,608*	7.4↑	Rest of Tasmania	*2,000*	5.1
Paid part-time employed	*861*	3.2↓	***LGAs***		
Household duties	*170*	1.6 ǂ	Brighton	*400*	9.4↑
Student	*92*	np	Break O'Day	*300*	5.0 ǂ
Retired	*1,666*	6.6	Glenorchy	*400*	8.6↑
Looking for work	*125*	np	Devonport	*400*	3.8 ǂ
Unable to work/ pensioner	*361*	8.6	Circular Head	*300*	4.1 ǂ
Unpaid voluntary worker	*38*	np	Launceston	*400*	6.0
			Sorell	*400*	5.2
			Clarence	*400*	6.8

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for total Tasmanian adults ($p<0.05$).
ǂ RSE between 30% and 50%.

Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

Table 30 presents regular gamblers' participation in specific gambling activities by location or medium. From this table it is evident that:

EGMs

- over half (56.5%) of all regular gamblers had played EGMs in the previous 12 months; 52.6 per cent in a club or hotel and 35.0 per cent in a casino. Just 2.0 per cent had played EGMs over the internet.

Horse or greyhound racing

- 50.8 per cent of regular gamblers had bet on horse or greyhound races in the previous 12 months. Most often this was at an off-course venue (44.1%); although 22.2 per cent bet at the track; 22.9 per cent bet over the internet; and around one in ten (10.4%) bet by telephone or SMS.

Instant scratch tickets

- 40.5 per cent of regular gamblers had bought instant scratch tickets in the previous 12 months, with almost all of these purchased at newsagents or Tattersalls (39.7%).

Lotteries

- similarly, lottery tickets were predominantly purchased at newsagents and Tattersalls outlets (71.4% of regular gamblers); only a small proportion of regular gamblers (5.7%) purchased lottery tickets over the internet.

Keno

- over three quarters of regular gamblers (79.8%) played Keno in the previous 12 months
- the majority did so in a club or hotel (72.2% of all regular gamblers); 32.1 per cent of regular gamblers played Keno in a casino; and 11.9 per cent played at a newsagent or Tattersalls.[11]

Casino table games

- almost a quarter of regular gamblers (23.9%) had played casino table games in the previous twelve months. Most did so in a casino (22.7%) although 3.6 per cent reported participating in this form of gambling over the internet.

Sporting or other events

- approximately one in four regular gamblers bet on sporting or other events (24.6%). The majority bet over the internet (19.0%) or at an off-course venue (14.9%).

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[11] Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.

Table 30 **Participation - Regular gamblers activity by location or medium (2013)**

Gambling Activity	Regular gamblers
	(n=308) %
EGMs	**56.5**
In club or hotel	52.6
In a casino	35.0
Over the internet	2.0 ɫ
Horse or greyhound races	**50.8**
At the race course	22.2
At an off-course venue	44.1
By telephone/SMS	10.4
Over the internet	22.9
Instant scratch tickets	**40.5**
At newsagent/Tattersalls	39.7
Over the internet	np
Lotteries	**74.2**
At a newsagent /Tattersalls	71.4
Over the internet	5.7 ɫ
Keno[a]	**79.8**
In a club or hotel	72.2
In a casino	32.1
At a newsagent/Tattersalls	11.9
Over the internet	np
Casino table games	**23.9**
In a casino	22.7
Over the internet	3.6 ɫ
Bingo	**3.7**
At a club or hall	2.9 ɫ
Over the internet	np
Sporting or other event	**24.6**
At an off-course venue	14.9
By telephone/SMS	np
Over the internet	19.0

[a] Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.

Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s B1, C1, D1a-10a.

5 Gambling expenditure

This chapter presents details of past year gambling expenditure by Tasmanian adults. The specific topics presented in this chapter are:

- total expenditure by gambling activity
- a comparison between 2011 and 2013 of expenditure by gambling activity for all Tasmanian adults and for the participants in each gambling activity
- mean expenditure by activity for LGA groupings and individual LGAs
- mean expenditure by activity for demographic sub-groups
- a comparison of highest spend gambling activities in 2011 and 2013 and, for 2013, the number of times per year highest spend activities were played and participants annual expenditure on them.

Estimates of annual expenditure on each gambling activity were calculated by multiplying the estimated frequency of participation per annum by the estimated expenditure per session. It should be noted that gamblers self-reported gambling expenditure is typically under-reported compared to government data (Australian Institute for Gambling Research, 2001). Moreover, respondents often answer idiosyncratically (Blaszczynski, Ladouceur, Goulet, & Savard, 2006). Therefore, we advise caution when reporting or basing subsequent calculations using these figures. All amounts in the tables are reported in $AUD.

5.1 Key findings

- in 2013, the average spend by gamblers on all gambling activities in the past year was $927, not statistically significantly different from the figure of $1,054 recorded in the 2011 survey. Average spends were disproportionately high amongst males ($1,199 per annum), people aged 55 to 64 years ($1,302 per annum) and people in full-time paid employment ($1,164 per annum)
- amongst the adult Tasmanian population there was decreased per capita expenditure on betting on horse or greyhound racing ($228 per annum in 2011; $119 per annum in 2013). Also, the proportion of adults who spent $100 or less per annum on lotteries was lower in 2013 (17.2%) than in 2011 (20.0%), as was the proportion who spent $101 to $500 on bingo (0.6% in 2011; 0.1% in 2013)
- amongst participants in specific gambling activities the highest mean annual spends in 2013 were for betting on horses or greyhounds ($1,140 per annum), gambling on EGMs ($656 per annum) and betting on sporting or other events ($530 per annum)
- in the 2013 survey, 49.0 per cent of gamblers spent the greatest proportion of their gambling money on buying lottery tickets, an average of $488 per year for these people. Apart from this, 12.9 per cent of gamblers spent the most on EGMs (an average of $1,265 per annum), 12.3 per cent spent the most on Keno (an average of $530 per year) and 9.2 per cent spent the most on buying instant scratch tickets (an average of $129 per year).

5.2 Annual gambling expenditure

Table 31 estimates total gambling expenditure by gambling activity for the Tasmanian adult population, totalling $213.9 million.

As noted above, survey-based estimates of gambling expenditure typically under-state 'true' expenditure. For example, the survey-based estimates indicate that total EGM expenditure by Tasmanian adults was $43.9 million in 2013. However, data collected by the Tasmanian Government indicates that in 2012-13, total EGM expenditure in Tasmania was $194 million.

The difference between the survey-based estimates and actual 'known' expenditure is most pronounced for EGMs. For other gambling modes, the estimates are much closer to the known totals. For example, the survey estimates Keno expenditure as being $26.5 million in 2013. Over 2012-13, total Keno expenditure in Tasmania was $29.2 million.

Table 31 **Total estimated expenditure by gambling activity – Tasmania (2013)**

Gambling activity	Expenditure	Per cent of total
	$M	%
EGMs	43.9	20.5
Horse or greyhound races	45.4	21.2
Instant scratch tickets	7.0	3.3
Lotteries	69.1	32.3
Keno	26.5	12.4
Casino table games	9.0 ƚ	4.2
Bingo	1.2	0.6
Sporting or other event	8.1 ƚ	3.8
Informal private games	1.3 ƚ	0.6
Other gambling activities	np	np
Total gambling expenditure (excl. day trading)	**213.9**	**100.0**

Note: ƚ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey. Q.s C2, D1b-D10b.

Insofar as mean expenditure on specific gambling activities was concerned, lotteries saw the highest mean annual spend in 2013 ($181 per person); this was followed by horse or greyhound racing (mean annual spend of $119 per person) and EGMs (mean annual spend of $115 per person). This order differed from that seen in 2011 when betting on horse or greyhound racing was the activity with the highest spend per person (mean annual spend of $228 per person), followed by lotteries (mean annual spend of $167 per person) and EGMs (mean annual spend of $160 per person). Nevertheless, the top three activities in terms of average expenditure were the same in both 2011 and 2013.

Table 32 presents annual gambling expenditure by activity for 2011 and 2013. The figures shown (both spend categories and means) are per capita expenditure for all Tasmanian adults. To assist in providing a more nuanced view of gambling expenditure, it has been broken down here into annual expenditure categories of less than $100, $101 to $500 and over $500.

Consistent with the declines in participation noted in Chapter 3, Table 32 shows significant decreases in the following:

- expenditure on horse or greyhound racing; the proportion who bet $100 or less on this activity declined from 7.9 per cent in 2011 to 5.4 per cent in 2013, the proportion who bet $500 or more also declined, from 3.9 per cent in 2011 to 2.4 per cent in 2013 and the mean annual expenditure declined from $228 per annum in 2011 to $119 per annum in 2013
- expenditure on instant scratch tickets; the proportion of people who spent $100 or less on instant scratch tickets declined from 18.9 per cent in 2011 to 16.1 per cent in 2013
- expenditure on lotteries; the proportion of people who spent $100 or less on lotteries declined from 20.0 per cent in 2011 to 17.2 per cent in 2013
- expenditure on bingo where the proportion of people who spent between $101 and $500 declined from 0.6 per cent in 2011 to 0.1 per cent in 2013.

Insofar as mean expenditure on specific gambling activities was concerned, lotteries saw the highest mean annual spend in 2013 ($181 per person); this was followed by horse or greyhound racing (mean annual spend of $119 per person) and EGMs (mean annual spend of $115 per person). This order differed from that seen in 2011 when betting on horse or greyhound racing was the activity with the highest spend per person (mean annual spend of $228 per person), followed by lotteries (mean annual spend of $167 per person) and EGMs (mean annual spend of $160 per person). Nevertheless, the top three activities in terms of average expenditure were the same in both 2011 and 2013.

Table 32 **Annual gambling expenditure by activity per Tasmanian adult (2011 and 2013)**

Gambling activity	Annual gambling expenditure	2011 n=4,303	2013 n=5,000
		%	%
EGMs	$100 or less	10.8	9.9
	$101-$500	5.7	4.5
	More than $500	3.7	3.1
	Mean annual spend per Tasmanian adult	*$160*	*$115*
Horse or greyhound races	$100 or less	7.9	5.4↓
	$101-$500	2.3	2.6
	More than $500	3.9	2.4↓
	Mean annual spend per Tasmanian adult	*$228*	*$119↓*
Instant scratch tickets	$100 or less	18.9	16.1↓
	$101-$500	4.1	3.4
	More than $500	0.8	0.9
	Mean annual spend per Tasmanian adult	*$20*	*$18*
Lotteries	$100 or less	20.0	17.2↓
	$101-$500	15.5	14.1
	More than $500	9.7	10.6
	Mean annual spend per Tasmanian adult	*$167*	*$181*
Keno	$100 or less	16.3	16.7
	$101-$500	5.3	5.9
	More than $500	2.3	2.6
	Mean annual spend per Tasmanian adult	*$63*	*$69*
Casino table games	$100 or less	3.4	3.6
	$101-$500	1.5	1.9
	More than $500	0.6	0.7
	Mean annual spend per Tasmanian adult	*$20*	*$24*
Bingo	$100 or less	0.9	1.3
	$101-$500	0.6 ꝉ	0.1↓ ꝉ
	More than $500	0.4 ꝉ	0.2
	Mean annual spend per Tasmanian adult	*$7*	*$3*
Sporting or other event	$100 or less	2.1	2.3
	$101-$500	0.6	0.9
	More than $500	0.6	0.8
	Mean annual spend per Tasmanian adult	*$10*	*$21ꝉ*
Informal private games	$100 or less	1.7	1.8
	$101-$500	0.9	0.4 ꝉ
	More than $500	0.1 ꝉ	0.2 ꝉ
	Mean annual spend per Tasmanian adult	*$5*	*$3 ꝉ*
Any other activity	$100 or less	0.1 ꝉ	0.4 ꝉ
	$101-$500	0.1 ꝉ	0.1 ꝉ
	More than $500	np	np
	Mean annual spend per Tasmanian adult	*np*	*np*
Any gambling activity (excl. day trading)	$100 or less	22.6	22.0
	$101-$500	20.1	18.5
	More than $500	18.0	17.3
	Mean annual spend per Tasmanian adult	*$641*	*$536*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
ꝉ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C2, D1b-D10b.

Table 33 compares the 2011 and 2013 annual expenditure by participants in each gambling activity. In summary, there are no significant differences evident in mean spend per participant; however, the data do show that:

- betting on horse or greyhound racing exhibited the highest mean annual expenditure in both 2011 ($1,615) and 2013 ($1,140) while expenditure on EGMs was the next highest in both years ($791 and $656 respectively for each participant in this activity)
- in addition, significant changes were evident in a number of annual expenditure categories including spends of $101 to $500 on horse or greyhound racing (15.7% in 2011; 24.9% in 2013), spends of more than $500 on lotteries (20.9% in 2011; 24.7% in 2013) and spends on bingo of $100 or less (44.8% in 2011; 78.2% in 2013) and of $101 to $500 (31.4% in 2011; 5.5% in 2013).

Table 33 **Annual gambling expenditure by activity – participants in each activity (2011 and 2013)**

Gambling activity	Annual spend	Spend by all participants in each activity	
		2011	2013
		%	%
EGMs	*Base: EGM Gamblers*	*(n=828)*	*(n=899)*
	$100 or less	52.4	53.1
	$101-$500	27.6	24.4
	More than $500	17.7	16.9
	Mean spend per participant	*$791*	*$656*
Horse or greyhound races	*Base: Bet on horse/greyhound races*	*(n=632)*	*(n=477)*
	$100 or less	54.4	51.5
	$101-$500	15.7	24.9↑
	More than $500	27.0	22.9
	Mean spend per participant	*$1,615*	*$1,140*
Instant scratch tickets	*Base: Bought instant scratch tickets*	*(n=969)*	*(n=1,001)*
	$100 or less	77.5	77.9
	$101-$500	16.6	16.4
	More than $500	3.4 ƚ	4.3
	Mean spend per participant	*$83*	*$90*
Lotteries	*Base: Bought lottery tickets*	*(n=2,116)*	*(n=2,379)*
	$100 or less	43.2	40.1
	$101-$500	33.5	32.8
	More than $500	20.9	24.7↑
	Mean spend per participant	*$369*	*$431*
Keno	*Base: Played Keno*	*(n=1,044)*	*(n=1,274)*
	$100 or less	66.9	64.4
	$101-$500	21.5	22.7
	More than $500	9.6	10.1
	Mean spend per participant	*$265*	*$275*
Casino table games	*Base: Played casino table games*	*(n=182)*	*(n=181)*
	$100 or less	57.8	56.8
	$101-$500	26.4	30.8
	More than $500	10.7	11.5
	Mean spend per participant	*$364*	*$380*
Bingo	*Base: Played bingo*	*(n=82)*	*(n=99)*
	$100 or less	44.8	78.2↑
	$101-$500	31.4 ƚ	5.5↓ ƚ
	More than $500	21.3	13.9
	Mean spend per participant	*$375*	*$203*

Gambling activity	Annual spend	Spend by all participants in each activity	
		2011	2013
		%	%
Sporting or other event	*Base: Bet on sporting/other event*	*(n=138)*	*(n=158)*
	$100 or less	50.9	52.9
	$101-$500	15.3	21.0
	More than $500	14.9	17.6
	Mean spend per participant	*$313*	*$530*
Informal private games	*Base: Bet on inf. private games*	*(n=86)*	*(n=79)*
	$100 or less	54.1	66.8
	$101-$500	28.8	16.8 ɫ
	More than $500	4.5 ɫ	6.3 ɫ
	Mean spend per participant	*$196*	*$145*
Any gambling activity (excl. day trading)	*Base: All gamblers*	*(n=2,796)*	*(n=3,145)*
	$100 or less	34.9	36.0
	$101-$500	31.1	30.3
	More than $500	27.8	28.2
	Mean spend per participant	*$1,054*	*$927*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2011 (p<0.05).
ɫ RSE between 30% and 50%.
Columns in the above table do not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.
Results for 'other gambling activities' have been suppressed and are not shown in this table.
Source: 2011 and 2013 Tasmanian Gambling Prevalence Survey, 2013 Q.s C2, D1b-D10b.

5.3 Mean expenditure per annum by gambling activity by LGA

Table 34 shows the mean annual expenditure on each gambling activity by residents of different geographic areas; specifically for participants in each activity in the low SES LGAs, in the comparison LGAs, in the rest of the state and in all of Tasmania.

The mean annual expenditure on all gambling activity in the low SES LGAs ($927) was the same as that reported for all Tasmanian gamblers ($927), whilst gamblers in the comparison LGAs reported a mean annual spend of $1,223 and those in the rest of the state a mean annual spend of $772. This latter figure (for the Rest of Tasmania) was significantly lower than that obtained for all Tasmanian gamblers.

The only significant difference evident for specific gambling activities was the lower spend on horse or greyhound racing in the Rest of Tasmania ($671 per year) compared with all Tasmanians who bet on horse or greyhound races ($1,140 per year).

Comparison of the low SES and comparison LGAs found no significant differences in levels of gambling expenditure by participants resident in these two LGA groupings.

Table 34 **Mean annual expenditure by participants in each activity by LGA categories ($) (2013)**

Gambling activity	Annual expenditure (mean $)			
	Low SES LGAs	Comparison LGAs	Rest of Tasmania	Total Tasmania
	$	$	$	$
EGMs	492	981 ǂ	557	656
Horse or greyhound races	1,737	1,625 ǂ	671↓	1,140
Instant scratch tickets	82	83	96	90
Lotteries	388	467	428	431
Keno	181	474 ǂ	201	275
Casino table games	381 ǂ	np	257	380
Bingo	369 ǂ	133 ǂ	np	203
Sporting or other event	753 ǂ	np	433 ǂ	530
Informal private games	Np	47 ǂ	152 ǂ	145
Day trading	17,499 ǂ	79,323 ǂ	np	41,021
Any gambling activity (excl. day trading)	927	1,223	772↓	927

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for all participants in the activity ($p<0.05$). Results for 'other gambling activities' have been suppressed and are not shown in this table.
Base: Participants in each gambling activity.
ǂ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A1, C2, D1b-D10b.

Table 35 compares the mean annual expenditure on each gambling activity by participants in each of the selected LGAs against all Tasmanian participants in that activity. It should be noted that the bases used for calculating the means in this table (that is, the number of participants in each activity who live in each LGA) are small for those gambling activities with lower levels of participation; consequently the results should be treated with caution. When compared to all Tasmanian participants, significant differences in mean annual expenditure were evident for the following gambling activities:

— spend on EGMs was higher in Launceston ($1,586 per annum) and lower in Brighton ($306 per annum), Circular Head ($287 per annum) and Sorell ($305 per annum)

— annual spend on purchasing instant scratch tickets was lower in Devonport ($49 per annum) and Break O'Day ($50 per annum). Expenditure on lottery tickets was also lower in Break O'Day ($312 per annum) as well as in Clarence ($323 per annum)

— lower spend on Keno was evident in Devonport ($103 per annum) and Circular Head ($125 per annum)

— there was lower expenditure on casino table games in Brighton ($90 per annum), and lower expenditure on sporting and other event betting ($62 per annum) in Launceston

— overall gambling expenditure was lower in Circular Head ($495 per annum) and Sorell ($674 per annum).

Table 35 **Mean expenditure by participants in each gambling activity by LGA ($) (2013)**

Gambling activity	Low SES LGAs				Comparison LGAs				Total Tasmania $
	Brighton	Break O'Day	Glenorchy	Devon-port	Circular Head	Launc-eston	Sorell	Clarence	
	$	$	$	$	$	$	$	$	$
EGMs	306↓	416 ł	704 ł	np	287↓	1,586↑ ł	305↓	651 ł	656
Horse or greyhound races	np	np	1,275 ł	np	np	np	np	1,468	1,140
Instant scratch tickets	91 ł	50↓	95	49↓	62	92	93	75	90
Lotteries	366	312↓	404	396	412	650 ł	338	323↓	431
Keno	197	173	212	103↓	125↓	551 ł	236	np	275
Casino table games	90↓	np	np	np	156 ł	308 ł	np	np	380
Bingo	771 ł	np	np	np	np	np	np	np	203
Sporting or other event	np	np	np	506 ł	np	62↓ ł	np	np	530
Informal private games	np	np	np	np	np	np	91 ł	np	145
Day trading	np	np	np	np	np	np	np	np	41,021
Any gambling activity (excl. day trading)	1,068 ł	738	943	860 ł	495↓	1,587	674↓	1,095 ł	927

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for all participants in the activity (p<0.05).
Base: Participants in each gambling activity.
ł RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Results for 'other gambling activities' have been suppressed and are not shown in this table.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A1, C2, D1b-D10b.

5.4 Expenditure on gambling activities by demographic characteristics

Table 36 shows mean annual expenditure by the participants in each gambling activity by selected demographic subgroups. Compared to Tasmanian gamblers overall:

— total gambling expenditure was significantly **higher** amongst males ($1,199 per annum); people aged 55 to 64 years ($1,302 per annum) and people in full-time employment ($1,164 per annum)

— against this, **lower** total gambling expenditure was noted amongst females ($664 per annum), those living as a couple with children at home ($735 per annum), single parents with children still at home ($488 per annum), part-time workers ($686 per annum), those who described their occupational status as household duties ($301 per annum), students ($77 per annum) and those with personal incomes of less than $25,000 per year ($649 per annum).

The summaries below describe the significant differences between expenditure by the participants from each demographic subgroup and expenditure by all participants in the activity.

EGMs

— compared to the mean annual spend of $656 by EGM gamblers overall, **lower** expenditure was evident amongst younger people (18-24 years [$158]; 25-34 years [$245]), those living in group or shared households ($304), those with an occupational status of household duties ($145), students ($28), those with personal incomes of $80,000 to $129,999 per annum ($298), those with vocational or trade qualifications ($393) and people born overseas in a non-English speaking country ($259).

Horse or greyhound racing

— compared to the mean annual spend of $1,140 by all people who bet on horse or greyhound races, **higher** annual expenditure was evident amongst males ($1,724)

— females ($245) and demographic subgroups where females tend to be over-represented (that is, part-time workers [$421]; household duties occupational status [$91]) as well as university graduates ($552) all reported **lower** mean annual expenditure on this activity. Significantly **lower** spends were also evident amongst people aged 45 to 54 years ($565).

Instant scratch tickets

— compared to the mean annual spend of $90 by all people who purchased instant scratch tickets in the past year, **lower** spends were evident amongst single people ($51), students ($26) and those looking for work ($35).

Lotteries

— compared to the mean annual spend of $431 by all people who purchased lottery tickets in the past year, males ($520) reported a **higher** mean annual spend

— **lower** spends were evident amongst females ($342), people aged 18 to 24 years ($125) or 35 to 44 years ($280), single parents with children still at home ($244), part-time workers ($328), students ($49), those whose highest level of educational attainment was Year 12 ($321) and university graduates ($322).

Keno

— compared to the mean annual spend of $275 by all people who played Keno, people aged 55 to 64 years ($464) reported a **higher** mean annual spend

— **lower** spends on this activity were evident amongst those living as a couple with children at home ($128), household duties occupational status ($66), students ($27), those with personal incomes of $40,000 to $64,999 per annum ($160), university graduates ($154) and those born overseas in an English speaking country ($115).

Table 36 **Mean expenditure in selected games (A) by participant by demographic characteristic ($) (2013)**

Characteristics	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Any gambling activity
All Tasmanian gamblers	**656**	**1,140**	**90**	**431**	**275**	**927**
Gender						
Male	566	1,724↑	96	520↑	293	1,199↑
Females	731	245↓	86	342↓	255ǂ	664↓
Age group						
18 to 24 years	158↓ǂ	np	np	125↓ǂ	153ǂ	637ǂ
25 to 34 years	245↓ǂ	353ǂ	np	423ǂ	np	725
35 to 44 years	784ǂ	1,257ǂ	80	280↓	188	914
45 to 54 years	955ǂ	565↓ǂ	90	280	188	725
55 to 64 years	984ǂ	1,676	91	597	464↑	1,302↑
65 years or more	640	2,732ǂ	83	526	288	1,005
Household structure						
Couple no children	549ǂ	np	121ǂ	729ǂ	np	1,575
Couple children at home	469ǂ	992	91	354	128↓	735↓
Couple children left home	1,084ǂ	1,053	79	442	252	967
Single person	786ǂ	704ǂ	51↓	483	532ǂ	1,022
Single children at home	414ǂ	np	102	244↓	149ǂ	488↓
Single children left home	680ǂ	1,009ǂ	59	432	192	779
Group or shared household	304↓ǂ	1,977ǂ	110	385	536ǂ	1,838ǂ
Occupational status						
Paid full-time employed	622	1,140	97	465	312	1,164↑
Paid part-time employed	596ǂ	421↓ǂ	88ǂ	328↓	np	686↓
Household duties	145↓	91↓ǂ	86ǂ	323	66↓ǂ	301↓
Student	28↓	np	26↓ǂ	49↓ǂ	27↓ǂ	77↓
Retired	888	1,415	87	450	237	896
Looking for work	2,761ǂ	np	35↓	357ǂ	np	937ǂ
Unable to work/ pensioner	525	np	131ǂ	693ǂ	222	np
Unpaid voluntary worker	np	np	np	453	np	1,049ǂ
Annual personal income						
Less than $25,000	435ǂ	np	91ǂ	416	195	649↓
$25,000-$39,999	1,150	1,130ǂ	84	453	169	1,105
$40,000-$64,999	695ǂ	1,104ǂ	73	446	160↓	882
$65,000-$79,999	666ǂ	1,314ǂ	133ǂ	409	510ǂ	1,386
$80,000-$129,999	298↓	879ǂ	85	455	268ǂ	1,000
$130,000-or more	np	np	108ǂ	534	np	1,386ǂ
Educational attainment						
Less than year 12	628	1,442ǂ	115	477	477ǂ	1,073
Year 12	742	1,027	65	321↓	272ǂ	941
Vocational/ trade quals.	393↓	1,388ǂ	82	522	189	914
University graduate	980ǂ	552↓ǂ	93ǂ	322↓	154↓	764
Place of Birth						
Australia	626	1,050	88	418	274	905
Overseas (ESB)	np	np	86ǂ	380	115↓	923ǂ
Overseas (NESB)	259↓	np	np	793ǂ	np	1,498ǂ

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for all participants in the activity (p<0.05).
Base: Participants in each gambling activity.
ǂ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A4 and 5, C1 and 2, D1b-D10b, P1-6.

Table 37 displays mean annual expenditure on selected gambling activities for selected demographic subgroups. Category aggregation was necessary to provide greater statistical reliability given the small number of participants in the gambling activities shown in this table.

The following summarises (for bingo, casino table games and informal private games) the significant differences between expenditure on these activities by participants from each of the aggregate demographic subgroups and expenditure on these activities by all Tasmanian participants.

Bingo

- compared to the mean annual spend of $203 by all people who played bingo for money in the past year, **lower** annual spends were evident amongst males ($64), people aged 18 to 44 years ($72) and those in paid employment ($91)
- the way in which these groups were defined meant that those with **higher** spends were typically the converse of the above groups; that is, females ($263), people aged 45 years or more ($259), those not in paid employment ($317) and those earning less than $65,000 per year ($238).

Casino table games

- compared to the mean annual spend of $380 by all people who gambled on casino table games in the past year, **lower** annual spends were evident amongst those who were not in paid employment ($140)
- **higher** spends were evident amongst those who were in paid employment ($459).

Informal private games

- compared to the mean annual spend of $145 by all people who gambled on informal private games in the past year, significantly **lower** annual spends were evident amongst those who were not in paid employment ($40) while **higher** expenditure on this gambling activity was present amongst those people in paid employment ($182) and those born in Australia ($158).

Table 37 **Mean expenditure selected games (B) by gambler by selected demographic characteristic ($) (2013)**

Characteristics	Bingo	Casino table games	Sporting or other events	Informal private games	Day trading	Any gambling activity
All Tasmanian Gamblers	**203**	**380**	**530**	**145**	**41,021**	**927**
Gender						
Male	64↓ ɫ	472 ɫ	592 ɫ	139	48,585 ɫ	1,199↑
Females	263↑	184 ɫ	289 ɫ	np	np	664↓
Age group						
18 to 44 years	72↓ ɫ	387 ɫ	632 ɫ	123 ɫ	49,932 ɫ	788
45 or more	259↑	355 ɫ	287	np	np	1,025
Household structure						
Partnered	184	303	391 ɫ	174 ɫ	45,535 ɫ	942
Not partnered	166 ɫ	222 ɫ	227 ɫ	np	np	787
Dependants	186 ɫ	218 ɫ	339 ɫ	256 ɫ	65,412 ɫ	697↓
No dependants	172	359 ɫ	np	73 ɫ	6,893 ɫ	1,102↑
Occupational status						
In paid employment	91↓ ɫ	459↑ ɫ	582	182↑ ɫ	40,714 ɫ	990
Not in paid employment	317↑	140↓ ɫ	216	40↓ ɫ	14,102	837
Annual Personal Income						
Less than $65,000	238↑	220	724 ɫ	190 ɫ	np	834
$65,000- or more	np	723 ɫ	557 ɫ	116 ɫ	43,339 ɫ	1,223
Educational attainment						
Year 12 or less	228	628 ɫ	614 ɫ	151 ɫ	np	1,017
Post-secondary	179 ɫ	223 ɫ	457 ɫ	138 ɫ	33,564 ɫ	853
Place of Birth						
Australia	185	347 ɫ	557 ɫ	158↑ ɫ	42,876 ɫ	905
Overseas	np	np	259 ɫ	np	np	1,125

Note: Base: Participants in each gambling activity.
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A1, D1b-D10b, P1-6.

5.5 Highest spend gambling activities

For each gambling activity, Figure 2 shows the proportion of all past year gamblers who spent the most money on that activity; that is, the proportion for whom it was their highest spend gambling activity.

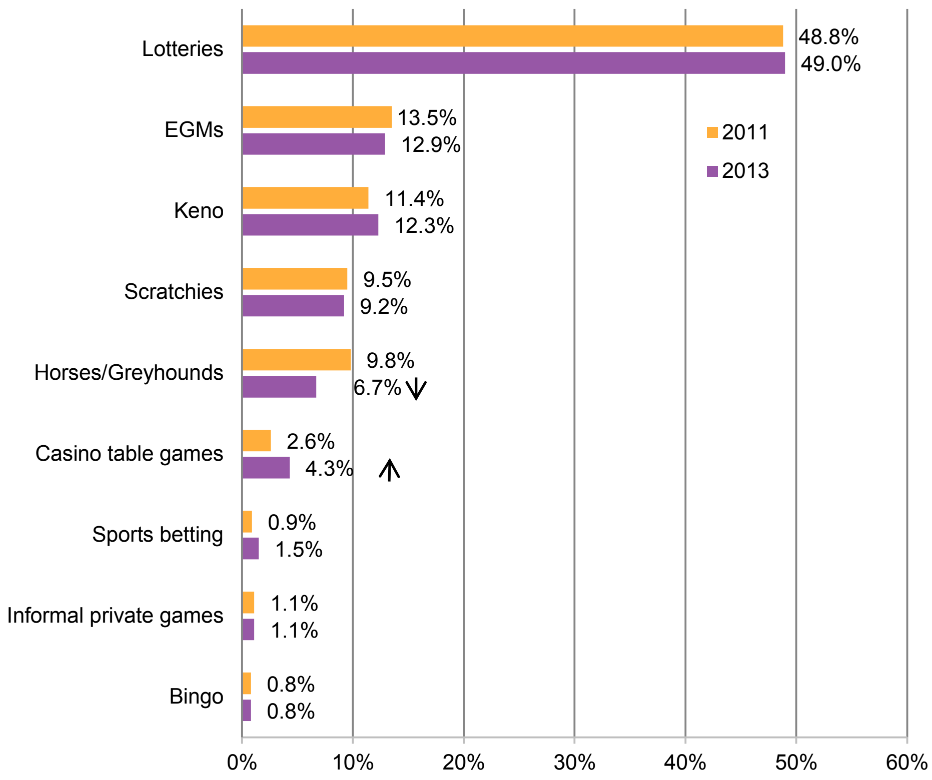
Overall, purchase of lottery tickets was the most common highest spend activity in both 2011 and 2013 - 48.8 per cent and 49.0 per cent of participants respectively. EGM play was the next most common – 13.5 per cent of participants in 2011 and 12.9 per cent in 2013. Bingo was the highest spend activity for the smallest proportion of gamblers - 0.8 per cent in both years.

With respect to changes between 2011 and 2013:

— there was a significant decline, from 9.8 per cent to 6.7 per cent, in the proportion of past year gamblers whose highest spend activity was horse or greyhound racing

— there was a significant increase, from 2.6 per cent to 4.3 per cent, in the proportion of past year gamblers whose highest spend activity was playing casino table games.

Figure 2 **Highest spend activities (2011 and 2013)**



Note: Base: Total Sample (2011: n=4,303; 2013: n=5,000).
ł RSE between 30% and 50%.
Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys.

Table 38 provides details of the frequency of participation and expenditure for the highest-spend gambling activities; specifically for each activity it shows the mean annual frequency of participation, the mean annual expenditure and the mean expenditure per session. The following are of interest:

- on average, those whose highest spend was on horse or greyhound racing took part in 41.4 sessions during the past year; this was the highest frequency of any of the highest spend activities shown in Table 38. Other highest spend activities with relatively frequent participation were betting on sporting or other events (mean annual frequency of 30.9 sessions), lotteries (mean annual frequency of 30.3 sessions), bingo (mean annual frequency of 24.8 sessions) and EGM play (mean annual frequency of 23.1 sessions)
- the mean annual spend by those for whom horse or greyhound racing was their highest spend activity was $2,466; in keeping with the high frequency of participation, this was the highest annual spend for any of these activities. It was followed by mean annual spends of $1,265 on EGMs and $1,220 on sporting or other event betting by those for whom these were the highest spend activities in the last 12 months.

Because the annual spend figures reflect both the frequency of participation and the amount of money spent at each session, the picture is slightly different when consideration is given to the mean expenditure per session. As shown in the final column of Table 38, those whose highest spend activity was betting on sporting or other events spent an average of $97 at each session. This was the highest sessional spend followed by the spend per session on playing casino table games ($89 per session), betting on horse or greyhound racing ($59 per session) and EGM gambling ($53 per session).

Table 38 **Highest spend by activity – mean annual frequency and mean annual expenditure 2013**

Highest spend gambling activity	Annual frequency of participation	Annual expenditure on each activity	Average spend per session
	(times/year)	$/year	$/session
EGMs (*n*=373)	23.1	$1,265	$53.28
Horse or greyhound races (*n=201*)	41.4	$2,466	$58.50
Instant scratch tickets (*n=262)*	14.7	$129	$8.04
Lotteries (*n=1,738*)	30.3	$488	$15.88
Keno (*n=351*)	20.3	$530	$15.55
Casino table games (*n=57*)	8.1 ɫ	$622 ɫ	$89.44
Bingo (*n=27*)	24.8 ɫ	$448 ɫ	$17.02
Sporting or other event (*n=34*)	30.9	$1,220	$97.34 ɫ
Informal private games (*n=17)*	7.8 ɫ	$157 ɫ	np

Note: Base: Participants who spent the most on each activity.
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey.

6 Prevalence of problem gambling

This chapter presents an analysis of the survey results as they pertain to the prevalence of problem gambling amongst Tasmanian adults over the previous 12 months. The chapter reports:

- gambling severity and changes over time
- prevalence of problem gambling in comparison to other general population surveys
- prevalence of problem gambling by LGAs, demographic characteristics, types and location/medium of gambling activity, number of gambling activities, and by frequency of participation and gambling expenditure
- results of a statistical analysis designed to identify the degree to which demographic characteristics and gambling participation predict gambling severity.

6.1 Key findings

The key findings in relation to the PGSI gambling severity categories can be summarised as follows.

Low risk gamblers

- in 2013, the prevalence of low risk gambling stood at 3.9 per cent of all Tasmanian adults; this was significantly **lower** than the 2011 situation when the corresponding figure was 5.2 per cent
- compared to all Tasmanian adults, low risk gamblers were over-represented amongst young people aged 18 to 24 years and they were under-represented amongst people aged over 65 years, retirees and university graduates
- compared to non-problem gamblers, low risk gamblers:
  - exhibited a **higher** prevalence of playing EGMs and casino table games
  - they were also **more likely** than non-problem gamblers to play EGMs in a club/hotel or casino; to play Keno in a club/hotel; and to play casino table games in a casino
  - they were **more likely** than non-problem gamblers to engage in four or more gambling activities over the year
- on average, low risk gamblers had participated in 76.3 gambling sessions in the past year with gambling on EGMs, horse or greyhound racing and Keno occurring significantly **more often** than it did amongst non-problem gamblers
- on average, low risk gamblers spent $3,167 on gambling activities in the past year with their average spend being significantly **higher** than that of non-problem gamblers on EGMs. Low risk gamblers also appeared to be responsible for 20.5 per cent of the total gambling expenditure estimated by this survey whilst they constituted only 6.3 per cent of all gamblers.

Moderate risk gamblers

- in 2013, moderate risk gamblers made up 1.8 per cent of all Tasmanian adults; this was not significantly different from the 2011 estimate of 1.6 per cent for this group
- compared to all Tasmanian adults, moderate risk gamblers were slightly over-represented amongst those people born in Australia; and as with low risk gamblers, they

were under-represented amongst people aged 65 years or more and university graduates

- compared to non-problem gamblers, moderate risk gamblers:
  - exhibited **higher** levels of participation in gambling on EGMs, horse or greyhound racing, Keno and sporting or other events
  - they were also **more likely** than non-problem gamblers to play EGMs at a club or hotel or at a casino; to bet on horse or greyhound races over the internet; and to play Keno at a club/hotel or casino
  - they were also **more likel**y than non-problem gamblers to have participated in four or more different types of gambling activity during the past year
- on average, moderate risk gamblers engaged in 79.1 sessions of gambling in the year with the frequency of gambling on horse or greyhound racing slightly below that of non-problem gamblers
- over the past year, moderate risk gamblers spent an average of $2,810 on all gambling activities compared to $606 by non-problem gamblers. Their average spend on EGMs was significantly **higher** than the corresponding figures reported by non-problem gamblers. While constituting just 3.0 per cent of all gamblers, moderate risk gamblers accounted for 8.3 per cent of the total gambling expenditure estimated by this survey.

Problem gamblers

The sample size for the problem gambler category was small (*n=23*). Consequently, the statistical reliability of estimates for this group is limited and the results presented in relation to their gambling behaviour (activities, frequency and expenditure) should be treated with caution. However, with that proviso, the following points about the problem gambler group appear noteworthy:

- in 2013, the estimated prevalence of problem gambling amongst Tasmanian adults was 0.5 per cent, the same as in 2008 and not significantly different from the 2011 result of 0.7 per cent.
- compared to all Tasmanian adults, the prevalence of problem gambling was **higher** amongst people who were in full-time paid employment
- bearing in mind the caution above, the following is an indicative description of the gambling behaviour reported by problem gamblers identified in this survey:
  - problem gamblers participated in most activities at relatively high levels; however, those activities for which participation levels appeared significantly **higher** (in comparison to non-problem gamblers) were gambling on EGMs, betting on horse or greyhound races, playing Keno, playing casino table games at a casino, betting on sporting or other events and betting on informal private games. In keeping with this, most of these problem gamblers have participated in four or more different types of gambling activity in the past year
  - locations or mediums used at **higher** levels than non-problem gamblers included clubs/hotels for playing EGMs; off-course venues and telephone for betting on horse or greyhound racing; clubs/hotels for playing Keno; and off-course venues and the internet for betting on sporting or other events
  - on average problem gamblers participated in 189.3 gambling sessions in the past year; that is, between 3 and 4 sessions of gambling per week, with particularly high frequencies of betting on horse or greyhound racing and of playing Keno

  - their estimated annual spend averaged $14,210 meaning this group was responsible for 12.2 per cent of the total past year gambling expenditure estimated by this survey although they only comprised 0.8 per cent of all Tasmanian gamblers.

Moderate risk/Problem gamblers

Given the limited sample size available for analysis of problem gamblers, a brief overview is included here of the gambling behaviour associated with the combined moderate risk/problem gambler group; that is, the group of gamblers exhibiting relatively high levels of risk according to their PGSI scores.

- in 2013, the estimated prevalence of moderate risk/problem gambling amongst Tasmanian adults was 2.4 per cent, exactly the same as it was in 2011
- compared to all Tasmanian adults, the prevalence of moderate risk/problem gambling was **lower** amongst people aged 65 years or more
- compared to non-problem gamblers, moderate risk/problem gamblers:
  - participated at a **higher** level in gambling on EGMs, betting on horse or greyhound races, playing Keno, playing casino table games at a casino, betting on sporting or other events and betting on informal private games. In keeping with this, just over half of these moderate risk/problem gamblers have participated in four or more different types of gambling activity in the past year
  - locations or mediums used at **higher** levels than non-problem gamblers included clubs/hotels and casinos for playing EGMs; off-course venues and the internet for betting on horse or greyhound racing; clubs/hotels and casinos for playing Keno; and off-course venues and the internet for betting on sporting or other events
  - on average, moderate risk/problem gamblers participated in 103.9 gambling sessions in the past year with particularly high frequencies (compared to non-problem gamblers) of gambling on EGMs and playing Keno
  - their estimated annual spend averaged $5,366, meaning this group was responsible for 20.5 per cent of the total past year gambling expenditure estimated by this survey while comprising just 3.9 per cent of all gamblers.

Predictors of gambling severity

Ordinal logistic regression analyses were used to examine the prediction of PGSI gambling severity category by socio-demographic characteristics and by participation in different gambling activities. These analyses showed that:

- PGSI category was significantly predicted by younger age
- after controlling for socio-demographic characteristics, PGSI category was significantly predicted by participation in gambling on EGMs, horse or greyhound racing, lotteries, Keno and informal private games.

6.2 Measuring gambling severity – the Problem Gambling Severity Index (PGSI)

All respondents who were classified as past year gamblers, (that is, those who had participated in at least one of the gambling activities shown in Figure 1 (p. 24) in the last 12 months), were asked a standard set of nine questions (the Problem Gambling Severity

Index or PGSI) to ascertain their gambling status.[12] (Ferris & Wynne, 2001). Based on their responses to these nine questions, they were classified into one of four categories:

- **problem gamblers** defined as those who have experienced adverse consequences as a result of their gambling and who may have lost control of their gambling behaviour. Involvement in gambling may be at any level, but is likely to be heavy. Problem gamblers have scores of 8 or more on the PGSI
- **moderate risk gamblers** are those who have responded 'never' to most of the indicators of behavioural problems in the PGSI, but who are likely to score one or more on 'most of the time' or 'always' responses. This group may or may not have experienced adverse consequences from gambling. Moderate risk gamblers have scores of 3 to 7 on the PGSI
- **low risk gamblers** are unlikely to have experienced any adverse consequences from gambling and will have answered 'never' to most of the indicators of behavioural problems in the PGSI. Low risk gamblers have scores of 1 or 2 on the PGSI
- **non-problem gamblers** are those who have responded never to all of the indicators of behavioural problems (that is, who score 0 on the PGSI). Members of this group may still be frequent gamblers with heavy involvement in gambling in terms of time and money, but they will not have experienced any adverse consequences
- **non-gamblers** are those who have not participated on any gambling activity in the previous 12 months. In this study, these respondents were not administered the PGSI.

A brief description of the PGSI is included in Appendix B, with the specific items contained in question E1 of the questionnaire (see Appendix C).

Due to the low population prevalence of moderate risk and problem gambling, the number of respondents in each of these categories was small; hence for the purposes of reporting in this chapter, an aggregate category of moderate risk/problem gambling has been included in the tables to provide a higher level of statistical reliability for the estimates shown.

6.3 Estimated gambling severity over time

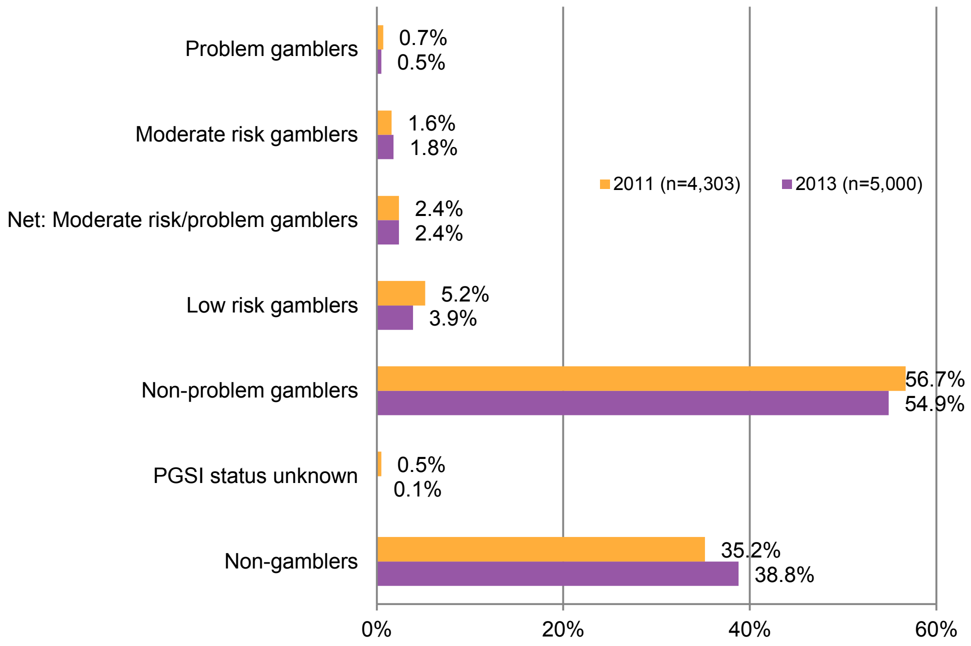
Figure 3 shows overall gambling severity amongst the Tasmanian adult population for 2011 and 2013. It is evident that:

- in 2013, 0.5 per cent of Tasmanian adults were classified as problem gamblers and 1.8 per cent were considered to be gambling at a moderate level of risk; a further 3.9 per cent were low risk gamblers. Overall, 54.9 per cent of Tasmanian adults were classified as non-problem gamblers and 38.8 per cent were classified as non-gamblers
- as noted previously, due to the small number of respondents classified as problem gamblers (*n*=23 in 2013), results are also presented for a combined moderate risk/problem gambler group to improve the statistical reliability of the survey estimates; 2.4 per cent of respondents fell into this combined category in both surveys
- the only significant changes evident since 2011 were; firstly, as noted previously in Chapter 3 an **increase** in the proportion of non-gamblers (from 35.2% in 2011 to 38.8% in 2013); and, secondly, a **decline** in the proportion of low risk gamblers (from 5.2% in 2011 to 3.9% in 2013).

[12] Excludes Day trading.

In addition, even though a different method was used to administer the PGSI, the 2008 survey results showed little difference insofar as the estimated prevalence of problem gambling (0.5%) was concerned.[13]

Figure 3 **Gambling severity amongst Tasmanian adults as measured by PGSI categories (2011 and 2013)**



Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in the 2011 survey (p<0.05).

Base: Total Sample.

ɫ RSE between 30% and 50%.

Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys, Q. E1.

6.4 Gambling severity – comparisons with other states/territories

The prevalence of problem gambling in recent surveys in other Australian states and territories has been measured using the PGSI (Davidson & Rodgers, 2010; Queensland Government, 2012; Social Research Centre, 2013; Sproston, Hing, & Palankat, 2012; Hare, 2009; Young, et al., 2006). The results from these surveys are displayed in Table 39 and are described below in relation to the findings of the 2013 Tasmanian Gambling Prevalence Survey.

- the estimate of 0.5 per cent for problem gambling in the 2013 Tasmanian study is at the lower end of the range of problem gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 0.5 per cent to 0.8 per cent are classified as problem gamblers using the PGSI
- the estimate of 1.8 per cent for moderate risk gambling in the 2013 Tasmanian study is at the lower end of the range of moderate risk gambling estimates from recent surveys

13 In 2008 the PGSI was only administered to those respondents who gambled at least weekly on any form of gambling apart from lotteries, scratch tickets, or bingo.

conducted in other Australian states and territories. In these surveys, 1.5 per cent to 2.9 per cent are classified as moderate risk problem gamblers using the PGSI

- the estimate of 3.9 per cent for low risk gambling in the 2013 Tasmanian study is at the lower end of the range of low risk gambling estimates from surveys conducted in other Australian states and territories. In these surveys, 3.4 per cent to 8.4 per cent are classified as low risk gamblers using the PGSI
- the estimate of 54.9 per cent for non-problem gambling in the 2013 Tasmanian study is at the lower end of the range of non-problem gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 52.8 per cent to 66.3 per cent are classified as non-problem gamblers using the PGSI
- in contrast, the estimate of 38.8 per cent for non-gambling in the 2013 Tasmanian study exceeds that reported in any of the recent surveys conducted in other Australian states and territories. In these surveys, 26.2 per cent to 35.1 per cent reported not gambling in the previous 12 months.

The PGSI was designed to be administered to individuals who had gambled at least once in the preceding 12 months (Ferris & Wynne, 2001). This was the approach adopted in the 2013 Tasmanian study. The surveys conducted in Victoria, South Australia, New South Wales and Queensland also adopted this survey administration procedure (Hare, 2009; Queensland Government, 2012; Social Research Centre, 2013; Sproston, Hing, & Palankat, 2012). In contrast, the Northern Territory survey administered the PGSI to all individuals that had gambled at least once a week (or equivalent), excluding lotteries or scratch tickets (Young, et al., 2006). The survey conducted in the Australian Capital Territory administered the PGSI to those that had gambled 12 or more times (excluding lottery or scratch tickets), or spent more than $2,000 on any gambling activity in the previous 12 months (Davidson & Rodgers, 2010).

The 2013 Tasmanian study employed the standard PGSI response options, whereby never = 0, sometimes = 1, most of the time = 2, and almost always = 3 (Ferris & Wynne, 2001). Three other Australian state and territory surveys (Australian Capital Territory, New South Wales, and Northern Territory) also utilised the original PGSI response options (Davidson & Rodgers, 2010; Sproston, Hing, & Palankat, 2012; Young, et al., 2006). The remaining surveys (Victoria, Queensland, and South Australia) used the modified five response options (never = 0, rarely = 1, sometimes = 1, often = 2, always = 3) (Hare, 2009; Queensland Government, 2012; Social Research Centre, 2013). This modified response format for the PGSI may compromise the classification accuracy of the PGSI and underestimate the true rate of problem gambling (Jackson, Wynne, Dowling, Tomnay, & Thomas, 2010; Productivity Commission, 2010). All of the surveys use the four classification categories of non-problem gambler = 0, low-risk gambler = 1-2, moderate risk gambler = 3-7 and 8-27 = problem gambler.

Table 39 **Prevalence rates by PGSI Category: recent Australian state and territory surveys**

State (Study)	Sample size	Non-gambling (95% CI)	Non-problem gambling (95% CI)	Low-risk gambling (95% CI)	Moderate-risk gambling (95% CI)	Problem gambling (95% CI)	To whom PGSI was administered	PGSI response options
Australian Capital Territory (Davidson & Rodgers, 2010)	5,500	32.60%	62.10% (no CI reported)	3.40% (no CI reported)	1.50% (no CI reported)	0.50% (no CI reported)	Everyone who was 18 years or older and had either gambled 12 or more times (except lottery or scratch tickets) or spent more than $2,000 on any gambling activity in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3
New South Wales (Sproston, Hing, & Palankat, 2012)	10,000	35.10% (no CI reported)	52.80% (no CI reported)	8.40% (no CI reported)	2.90% (no CI reported)	0.80% (0.63-0.97)	Everyone who was over 18 years and had gambled in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3
Northern Territory (Young, et al., 2006)	1,873	27.00% (25.70-28.40)	Not reported	Not reported	Not reported	0.64% (0.40-0.88)	Everyone who was over 18 years of age and gambled at least once a week, or the equivalent thereof, excl. lotteries or instant scratch tickets.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3
Queensland (Queensland Government, 2012)	15,000	26.2% (25.40-26.90)	66.30% (65.50-67.10)	5.20% (4.70-5.70)	1.90% (1.70 – 2.10)	0.48% (0.34-0.61)	Everyone who was over 18 years old and had gambled in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.
South Australia (Social Research Centre, 2013)	9,508	31.20% (no CI reported)	58.60% (no CI reported)	7.10% (no CI reported)	2.50% (no CI reported)	0.60% (no CI reported)	Everyone who had participated in at least one gambling activity in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.
Victoria (Hare, 2009)	15,000	26.93% (25.99-27.88)	64.31% (63.30-65.31)	5.70% (5.23-6.21)	2.36% (2.06-2.70)	0.70% (0.55-0.90)	Everyone who was over the age of 18 and had participated in at least one gambling activity in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.

Note: 95 per cent confidence intervals reported where able.

Sources: (Davidson & Rodgers, 2010; Queensland Government, 2012; Social Research Centre, 2013; Sproston, Hing, & Palankat, 2012; Hare, 2009; Young, et al., 2006).

6.5 Gambling severity by selected characteristics

Gambling severity by LGAs

Table 40 shows levels of gambling severity amongst the adult populations of the low SES LGAs, the comparison LGAs and the rest of the state and all Tasmanian adults. Due to the small sample sizes (and consequent high relative standard errors) results have not been reported at the individual LGA level.

It is evident that:

- in low SES LGAs, 1.1 per cent of respondents were classified as problem gamblers, 2.5 per cent as moderate risk gamblers with 3.5 per cent falling into the moderate risk/problem gambler category
- the proportion of non-gamblers was significantly **lower** in the low SES LGAs (32.2%) than it was amongst Tasmanian adults overall (38.8%). The proportion of non-gamblers was also slightly **higher** in the rest of Tasmania (40.9%)
- the prevalence of non-problem gambling (61.0%) in low SES LGAs was significantly **higher** than for Tasmanian adults overall (54.9%). It was also significantly **lower** in the rest of Tasmania (52.9%).

Direct comparisons were also made between the low SES LGAs and the comparison LGAs. This analysis showed that compared to the comparison LGAs, the low SES LGAs had a significantly **lower** proportion of non-gamblers (32.2% versus 39.1%) and a significantly **higher** proportion of non-problem gamblers (61.0% versus 54.9%).

Table 40 **Gambling severity (PGSI) by LGA groupings (2013)**

PGSI category	Low SES LGAs *(n=1,500)*	Comparison LGAs *(n=1,500)*	Rest of Tasmania *(n=2,000)*	Total Tasmania *(n=5,000)*
	%	%	%	%
Non-gamblers	32.2↓	39.1	40.9↑	38.8
Gamblers				
Non-problem gamblers	61.0↑	54.9	52.9↓	54.9
Low risk gamblers	3.3	4.1	4.0	3.9
Net: Moderate risk/problem gamblers	3.5	1.9	2.2	2.4
Moderate risk gamblers	2.5	1.1↓	2.0	1.8
Problem gamblers	1.1 ꝉ	np	0.2 ꝉ	0.5
PGSI status unknown	0.1	0.1	0.1	0.1

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total population ($p<0.05$).
ꝉ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A1 and E1.

Gambling severity by demographic characteristics

The following provides a brief summary of the demographic characteristics of each of the gambling severity categories. Details are provided in Table 41.

Gambling severity categories

Non-problem gamblers

Compared to all Tasmanian adults (54.9% of whom were non-problem gamblers), the prevalence of non-problem gambling was significantly **higher** amongst those living as a couple whose children have left home (58.1%), those in full-time paid employment (60.1%), those with personal annual incomes of $65,000 to $79,999 (66.9%) or $80,000 to $129,999 (63.6%), people who left school without completing year 12 (60.0%), those with a trade or vocational qualification (58.8%) and those born in Australia (56.5%).

By contrast, the prevalence of non-problem gambling was significantly **lower** amongst younger people (18-24 years [46.2%]; 25-34 years [48.5%]), those living in group or shared households (38.3%), people who described their occupation as household duties (44.8%), students (38.4%), people with personal annual incomes of less than $25,000 (50.5%) or $130,000 or more (40.0%) and university graduates (46.6%).

Low risk gamblers

Compared to the total Tasmanian population (3.9% of whom were low risk gamblers), there was a significantly **higher** prevalence of low risk gambling amongst 18 to 24 year olds (9.5%).

Prevalence of low risk gambling was significantly **lower** amongst people aged 65 years or more (2.4%), retirees (2.5%) and university graduates (2.4%).

Moderate risk gamblers

The prevalence of moderate risk gambling was significantly **higher** amongst people born in Australia (2.0% versus 1.8% of all Tasmanian adults).

As with low risk gambling, the prevalence of moderate risk gambling was also significantly **lower** amongst people aged 65 years or more (0.9%) and university graduates (1.1%).

Problem gamblers

Compared to all Tasmanian adults, the prevalence of problem gambling was significantly higher amongst people who were in full-time paid employment (1.1% versus 0.5% of all Tasmanian adults).

Moderate risk/Problem gamblers

Due to the relatively small numbers of moderate risk and problem gamblers identified in this survey (and the comparatively high relative standard errors which resulted from this), results are also shown in Table 41 for the combined moderate risk/problem gambler group. For this combined group the prevalence of moderate risk/problem gambling was lower amongst people aged 65 years or more (1.1% versus 2.4% of all Tasmanian adults).

Table 41 **Gambling severity (PGSI) by selected demographic characteristics (2013)**

Base: Total sample in each group	Unweighted Sample	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk/ problem
	n	%	%	%	%	%
Tasmanian adults as a whole	**5,000**	**54.9**	**3.9**	**1.8**	**0.5**	**2.4**
Gender						
Male	*2,628*	55.7	3.5	1.9	0.7 ƚ	2.7
Females	*2,372*	54.1	4.2	1.7	0.3 ƚ	2.1
Age group						
18 to 24 years	*165*	46.2↓	9.5↑ƚ	np	np	3.7 ƚ
25 to 34 years	*311*	48.5↓	3.8ƚ	2.6 ƚ	np	2.6 ƚ
35 to 44 years	*666*	57.5	3.8	2.1	0.8 ƚ	2.9
45 to 54 years	*990*	58.1	2.9	1.5	0.6 ƚ	2.1
55 to 64 years	*1,229*	57.4	3.6	2.2	np	2.7
65 years or more	*1,639*	56.1	2.4↓	0.9↓ ƚ	np	1.1↓
Household structure						
Couple no children	*618*	54.0	3.0ƚ	1.4 ƚ	np	2.4 ƚ
Couple children at home	*1,369*	53.8	4.6	1.5	0.3 ƚ	1.8
Couple children left home	*1,369*	58.1↑	3.5	0.6	np	1.7
Single person	*601*	58.7	2.9ƚ	2.2 ƚ	np	2.6 ƚ
Single children at home	*303*	57.8	4.4ƚ	np	np	4.1 ƚ
Single children left home	*473*	53.2	5.3	np	np	1.3 ƚ
Group or shared household	*134*	38.3↓	np	np	np	7.5 ƚ
Occupational status						
Paid full-time employed	*1,608*	60.1↑	3.4	1.8	1.1↑ ƚ	2.9
Paid part-time employed	*861*	53.9	5.5	2.8	np	3.2
Household duties	*170*	44.8↓	5.4ƚ	np	np	np
Student	*92*	38.4↓	np	np	np	np
Retired	*1,666*	55.8	2.5↓	1.2 ƚ	np	1.3 ƚ
Looking for work	*125*	46.9	np	np	np	np
Unable to work/ pensioner	*361*	50.9	3.7ƚ	np	np	2.5 ƚ
Unpaid voluntary worker	*38*	41.4	np	np	np	np
Annual personal income						
Less than $25,000	*1,705*	50.5↓	3.8	1.8	np	1.9
$25,000-$39,999	*816*	57.8	5.5ƚ	2.4 ƚ	np	2.9 ƚ
$40,000-$64,999	*858*	56.4	3.9	1.9	0.5 ƚ	2.4
$65,000-$79,999	*432*	66.9↑	2.2ƚ	1.2 ƚ	2.8 ƚ	3.9 ƚ
$80,000-$129,999	*426*	63.6↑	2.7ƚ	np	np	np
$130,000 or more	*144*	40.0↓	np	np	np	np
Educational attainment						
Less than year 12	*1,419*	60.0↑	3.3	1.9	0.7	2.6
Year12	*731*	55.0	6.8	2.3 ƚ	1.1	3.3 ƚ
Vocational/ trade quals.	*1,608*	58.8↑	4.1	2.2	0.1	2.3
University graduate	*1,164*	46.6↓	2.4↓	1.1 ↓ƚ	0.4	1.5
Place of Birth						
Australia	*4,246*	56.5↑	3.9	2.0↑	0.5 ƚ	2.5
Overseas (ESB)	*509*	45.3	2.4ƚ	np	np	np
Overseas (NESB)	*226*	43.1	5.8ƚ	np	np	2.7 ƚ

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
ƚ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s - A4 and A5, E1, P1-6.

Gambling severity (PGSI) by gambling activity

Table 42 shows participation in various gambling activities by categories of gambling severity. The following discussion focuses on differences between the behaviour of non-problem gamblers and those whose gambling places them at some level of risk, even if that risk is considered to be low.

Low risk gamblers

Compared to non-problem gamblers, a significantly **higher** proportion of low risk gamblers:

- played EGMs (56.2% versus 26.8% of non-problem gamblers)
- played casino table games (26.4% versus 8.7%).

Moderate risk gamblers

Compared to non-problem gamblers, a significantly **higher** proportion of moderate risk gamblers:

- played EGMs (69.1% versus 26.8%)
- bet on horse or greyhound races (34.5% versus 16.0%)
- played Keno (70.3% versus 40.6%), and
- bet on sporting or other events (20.7% versus 6.2%).

Problem gamblers

Because of the small sample size of persons identified as problem gamblers on the PGSI (*n*=23), estimates of problem gamblers participation in these activities are of limited reliability and should be treated with caution. Nevertheless, it is evident from the figures provided in Table 42 that problem gamblers appear to have particularly high levels of participation (compared to non-problem gamblers) in such gambling activities as playing EGMs, betting on horse or greyhound racing, playing Keno, betting on casino table games, sporting or other events and informal private games.

Moderate risk/Problem gamblers

For the combined moderate risk/problem gambler group, **higher** levels of participation than non-problem gamblers were evident for playing EGMs, betting on horse or greyhound racing, playing Keno, betting on casino table games, sporting or other events and informal private games.

Although 2011 data is not presented here, there were some changes worthy of note, specifically:

- the proportion of non-problem gamblers who bet on horse or greyhound races **declined** significantly from 20.7 per cent in 2011 to 16.0 per cent in 2013; while
- the proportion of non-problem gamblers who played Keno **increased** significantly from 35.0 per cent in 2011 to 40.6 per cent in 2013.

Table 42 **Gambling activity by gambling severity (PGSI) (2013)**

Gambling activity	Non-problem gamblers (n=2,872)	Low risk gamblers (n=166)	Moderate risk gamblers (n=79)	Problem gamblers (n=23)	Moderate risk/ problem (n=102)
	%	%	%	%	%
EGMs	26.8	56.2↑	69.1↑	85.7↑	72.8↑
Horse or greyhound races	16.0	19.8	34.5↑	64.0↑	41.0↑
Instant scratch tickets	33.0	42.9	28.4	56.1	34.5
Lotteries	70.9	62.0	65.4	77.1	68.0
Keno	40.6	52.8	70.3↑	66.8↑	69.5↑
Casino table games	8.7	26.4↑	14.0 ɫ	51.0↑	22.1↑
Bingo	2.7	3.7 ɫ	np	np	np
Sporting or other events	6.2	8.4 ɫ	20.7↑ ɫ	43.2↑ ɫ	25.6↑
Informal private games	3.4	7.8 ɫ	12.8 ɫ	39.6↑ ɫ	18.7↑ ɫ
Any other activity	1.0 ɫ	np	np	np	np
Day trading	1.6	np	np	np	Np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<(0.05).
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1 and E1.

Table 43 displays participation in various gambling activities by location or medium for each of the gambling severity categories. The summaries below draw attention to the significant differences (from Table 44) between these categories and non-problem gamblers insofar as the use of these locations/media are concerned.

Low risk gamblers

Amongst low risk gamblers, playing EGMs at a club or hotel (48.6% versus 23.0%) or at a casino (41.6% versus 14.8%) was **higher** than it was for non-problem gamblers. Also compared to non-problem gamblers, low risk gamblers exhibited **higher** participation in playing Keno at a club or hotel (49.9% versus 36.9%); and of playing casino table games at a casino (21.6% versus 8.0%).

Moderate risk gamblers

Compared to non-problem gamblers, moderate risk gamblers displayed **higher** participation in playing EGMs at a club or hotel (56.6% versus 23.0%) or casino (43.0% versus 14.8%). They also exhibited **higher** levels of betting on horse or greyhound races over the internet (13.7% versus 3.6%); and playing Keno at a club or hotel (62.6% versus 36.9%) or at a casino (22.7% versus 9.4%).

Problem gamblers

Again we note that the small sample size means the estimates made here are of limited reliability. At the same time, the figures shown in Table 43 suggest high levels of participation by problem gamblers in playing EGMs at a club or hotel, betting on horse or greyhound racing at off-course venues and over the phone, playing Keno at a club or hotel, playing casino table games at a casino and betting on sporting or other events at an off-course venue or over the internet.

Table 43 **Gambling location/medium by gambling severity (2013)**

Gambling activity by location or medium	Non-problem gamblers (n=2,872)	Low risk gamblers (n=166)	Moderate risk gamblers (n=79)	Problem gamblers (n=23)	Moderate risk/problem (n=102)
	%	%	%	%	%
EGMs	**26.8**	**56.2↑**	**69.1↑**	**85.7↑**	**72.8↑**
In club or hotel	23.0	48.6↑	56.6↑	84.1↑ ⱡ	62.6↑
In a casino	14.8	41.6↑	43.0↑	41.4 ⱡ	42.6↑
Over the internet	0.5	np	np	np	np
Horse or greyhound races	**16.0**	**19.8**	**34.5↑**	**64.0↑**	**41.0↑**
At the race course	7.7	12.6	8.0	32.5	13.4
At an off-course venue	12.1	15.3	23.6	49.7↑	29.4↑
By telephone/SMS	1.4	np	np	35.6↑	np
Over the internet	3.6	2.1	13.7↑	44.8	20.6↑
Instant scratch tickets	**33.0**	**42.9**	**28.4**	**56.1**	**34.5**
At newsagent/Tattersalls	32.3	42.7	28.4	56.1	34.5
Over the internet	0.3	np	np	np	np
Lotteries	**70.9**	**62.0**	**65.4**	**77.1**	**68.0**
At newsagent /Tattersalls	66.8	56.6	55.3	77.1	60.1
Over the internet	5.9	np	np	np	np
Keno[a]	**40.6**	**52.8**	**70.3↑**	**66.8↑**	**69.5↑**
In a club or hotel	36.9	49.9↑	62.6↑	66.8↑	63.5↑
In a casino	9.4	14.5	22.7↑	22.0	22.5↑
At newsagent/Tattersalls	2.9	8.7	np	np	6.8
Over the internet	np	np	np	np	np
Casino table games	**8.7**	**26.4↑**	**14.0**	**51.0↑**	**22.1↑**
In a casino	8.0	21.6↑	12.5	51.0↑	21.0↑
Over the internet	0.2	np	np	np	np
Bingo	**2.7**	**3.7**	**np**	**np**	**np**
Played at a club or hall	2.1	3.2	np	np	np
Sporting or other event	**6.2**	**8.4**	**20.7↑**	**43.2↑**	**25.6↑**
At an off-course venue	2.8	5.9	14.5	35.9↑	19.2↑
By telephone/SMS	0.2	np	np	np	np
Over the internet	3.3	np	np	43.2↑	16.4↑
Day trading	**1.3**	**np**	**np**	**np**	**np**
Over the telephone	0.2	np	np	np	np
Over the internet	1.1	np	np	np	np

[a] Keno encompasses both TasKeno (typically played in hotels, clubs and casinos), as well as Lucky Keno (offered by Intralot), which is a lottery product typically sold in newsagents and lottery outlets.

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling (p0.05).

ⱡ RSE between 30% and 50%.

Neither 'informal private games' nor 'other gambling activity' appear in this table as location/mode of play information was not collected for either of these gambling forms.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C1, D1a-D10a and E1.

Moderate risk/Problem gamblers

When results for the combined moderate risk/problem gambler group are compared against those for non-problem gamblers, a similar pattern emerged to that seen with problem gamblers. Nevertheless, several additional differences were evident; specifically, compared to non-problem gamblers, **higher** proportions of moderate risk/problem gamblers played EGMs at a casino, bet on horse or greyhound racing over the internet and played Keno at a casino.

There were few changes between 2011 and 2013 in the use of these locations/media by gambling severity groups apart from the following (data not shown):

- amongst non-problem gamblers, the proportion who bet on horse or greyhound races at the course **declined** significantly from 11.3 per cent to 7.7 per cent; the proportion who played Keno in a club or hotel **increased** significantly from 31.7 per cent to 36.9 per cent; and the proportion who played casino games at a casino increased from 5.9 per cent to 8.0 per cent
- also, the proportion of low risk gamblers who played Keno in a casino **declined** significantly from 29.3 per cent to 14.5 per cent during this time period.

Number of gambling activities by gambling severity (PGSI)

For the gambling severity categories, Table 44 shows the number of different types of activities in which gamblers participated during the past year. It can be seen that:

- most (87.2%) non-problem gamblers participated in no more than three different types of gambling activity during the past year.
- by contrast, those classified as being at any level of risk in their gambling behaviour were less likely than non-problem gamblers to have participated in less than four activities and more likely to have participated in four or more different types of gambling (34.2% of low risk gamblers, 47.1% of moderate risk gamblers and 70.2% of problem gamblers).

Table 44 **Number of gambling activities participated in during past year by PGSI category (2013)**

No. of gambling activities	Non-problem gamblers *(n=2,872)*	Low risk gamblers *(n=166)*	Moderate risk gamblers *(n=79)*	Problem gamblers *(n=23)*	Moderate risk/problem *(n=102)*
	%	%	%	%	%
Nett: One to three	87.2	65.8↓	52.9↓	29.8↓	47.8↓
One	41.9	22.7↓	25.8↓	np	22.9↓
Two	27.6	25.6	12.7↓	np	11.1↓
Three	17.6	17.5	14.4	np	13.8
Nett: Four or more	12.8	34.2↑	47.1↑	70.2↑	52.2↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling (p<0.05).
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C1, D1a-D10a and E1.

Gambling frequency by gambling severity (PGSI)

Table 45 presents the average frequency of participation in each gambling activity by PGSI category for 2013. As with the previous tables, the comparison between non-problem gamblers and the other gambling severity categories is the focus of the analysis and discussion below. It is apparent from the table that several significant differences exist in gambling frequency between non-problem gamblers and these other categories. Specifically:

- low risk gamblers played EGMs about twice as frequently, and moderate risk/problem gamblers about three times as frequently, as non-problem gamblers (23.7 and 32.4 times per year respectively, compared to 10.4 times)
- low risk gamblers bet on horse or greyhound races at almost three times the frequency of non-problem gamblers (54.7 times a year compared to 19.8 times) while problem gamblers on average bet on this activity 90.1 times per year

- Keno was played more frequently by low risk gamblers (27.6 times a year) and by problem gamblers (37.5 times a year) compared to 12.5 times for non-problem gamblers
- overall, non-problem gamblers gambled an average of 34.9 times a year; this compared to 76.3 times per year for low risk gamblers; 79.1 times a year for moderate risk gamblers; and 189.3 times a year for problem gamblers.

Table 45 **Average annual frequency of participating in gambling activities by PGSI category (2013)**

Gambling activity	Non-problem gamblers *(n=2,872)*	Low risk gambling *(n=166)*	Moderate risk gambling *(n=79)*	Problem gambling *(n=23)*	Moderate risk/problem *(n=102)*
EGMs	10.4	23.7↑	34.0 ǂ	27.8 ǂ	32.4↑ ǂ
Horse or greyhound races	19.8	54.7↑	10.9↓	90.1↑ ǂ	38.1 ǂ
Instant scratch tickets	11.2	12.0	20.0	9.9	16.4
Lotteries	26.2	30.6	27.3	28.4	27.6
Keno	12.5	27.6↑	18.4	37.5↑	22.6↑
Casino table games	3.7	np	np	np	45.8 ǂ
Bingo	16.0	11.6 ǂ	np	np	np
Sporting or other events	10.6	np	np	np	35.3 ǂ
Informal private games	6.5 ǂ	np	np	np	8.7 ǂ
Any other activity	12.9 ǂ	np	np	np	np
Day trading	25.1 ǂ	np	np	np	np
Any gambling activity	34.9	76.3↑	79.1↑	189.3↑	103.9↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling (p<0.05).
ǂ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C1, D1a-D10a and E1.

Gambling expenditure by gambling severity (PGSI)

Average annual expenditure on gambling activities by PGSI category

Table 46 shows the average annual expenditure by activity for each of the PGSI categories. When compared to non-problem gamblers, significantly higher spends were evident for the following:

- low risk gamblers spent **more** during the past year on EGMs ($1,350 compared to $333)
- moderate risk gamblers spent **more** on EGMs ($2,381 compared to $333)
- problem gamblers spent **more** on horse or greyhound racing ($6,136 compared to $706) and Keno ($2,053 compared to $167)
- the combined moderate risk/problem gambler group spent **more** on average on EGMs ($2,780 compared to $333), Keno ($721 compared to $167) and casino table games ($2,135 compared to $187).

In comparison to the average of $606 spent on all gambling activities by non-problem gamblers, low risk gamblers ($3,167), moderate risk gamblers ($2,810) and problem gamblers ($14,210) all spent at significantly **higher** levels. The average spend by the combined moderate risk/problem gambling group ($5,366 per year) was also significantly **higher** than that of non-problem gamblers.

Table 46 **Average annual expenditure on gambling activities by PGSI category (2013)**

Gambling activity	Non-problem gamblers (*n=2,872*)	Low risk gamblers (*n=166*)	Moderate risk gamblers (*n=79*)	Problem gamblers (*n=23*)	Moderate risk/ problem (*n=102*)
	$	$	$	$	$
EGMs	333	1,350↑ ɫ	2,381↑ ɫ	np	2,780↑ ɫ
Horse or greyhound races	706	4,518 ɫ	482 ɫ	6,136↑ ɫ	2,424 ɫ
Instant scratch tickets	85	115 ɫ	130	166 ɫ	143
Lotteries	391	1,003 ɫ	417	958 ɫ	556
Keno	167	np	348	2,053↑ ɫ	721↑ ɫ
Casino table games	187	np	np	np	2,135↑ ɫ
Bingo	204	np	np	np	np
Sporting or other events	319	np	318 ɫ	np	1,638 ɫ
Informal private games	126 ɫ	np	np	np	173 ɫ
Any other activity	117 ɫ	np	np	np	np
Day trading	51,183 ɫ	np	np	np	np
Any gambling activity	606	3,167↑	2,810↑	14,210↑	5,366↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling ($p<0.05$).
ɫ RSE between 30% and 50%
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C2, D1ba-D10b and E1

Proportion of total expenditure on each activity by PGSI category

The proportion of total expenditure on each activity by PGSI category is shown in Table 47. The data here indicate that:

- of the total annual gambling expenditure estimated in the 2013 survey ($M213.9), 59.0 per cent was spent by non-problem gamblers, a group which constituted 89.7 per cent of all gamblers. Against this, 20.5 per cent was spent by low risk gamblers who comprised 6.3 per cent of all gamblers; 8.3 per cent was spent by moderate risk gamblers who constituted 3.0 per cent of all gamblers; 12.2 per cent was spent by problem gamblers who constituted 0.8 per cent of all gamblers; while the combined moderate risk/problem gambler group accounted for 20.5 per cent of estimated total gambling spend while making up just 3.9 per cent of all gamblers
- relative to its size (3.9%) the moderate risk/problem gambler group accounted for 36 per cent of the spend on EGMs, 21.3 per cent of the spend on informal private games, 19.7 per cent of the spend on horse or greyhound racing and 16.5 per cent of the spend on Keno.

Table 47 **Proportion of total expenditure on each activity by PGSI category (2013)**

Gambling activity	Non-problem gamblers (n=2,872)	Low risk gamblers (n=166)	Moderate risk gamblers (n=79)	Problem gamblers (n=23)	Moderate risk/ problem (n=102)	Total expenditure
	%	%	%	%	%	$M
EGMs	40.6	23.3 ɫ	22.6 ɫ	np	36.0 ɫ	43.9
Horse or greyhound races	51.7	28.6 ɫ	2.6 ɫ	np	19.7 ɫ	45.4
Instant scratch tickets	83.5	10.0 ɫ	3.7 ɫ	2.6 ɫ	6.3 ɫ	7.0
Lotteries	82.1	13.1 ɫ	2.7 ɫ	2.1 ɫ	4.8	69.1
Keno	51.9	np	6.2 ɫ	np	16.5 ɫ	26.5
Casino table games	37.1	np	np	np	np	9.0 ɫ
Bingo	90.4	np	np	np	np	1.2
Sporting or other events	47.7	np	np	np	np	8.1 ɫ
Informal private games	60.3 ɫ	np	np	np	21.3 ɫ	1.3 ɫ
Any other activity	8.7	np	np	np	np	np
Any gambling activity	59.0	20.5	8.3	12.2 ɫ	20.5	213.9
Proportion of all gamblers	89.7	6.3	3.0	0.8	3.9	-

Note: ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C2, D1b-D10b and E1.

Highest spend activity by gambling severity

Table 48 shows the activities on which gamblers spent the most money during the past year. For example, during the past year, 11.5 per cent of non-problem gamblers spent more on playing EGMs than they did on any other gambling activity. The table shows the following significant differences between non-problem gamblers and the other gambling severity categories.

- compared to non-problem gamblers, low risk gamblers were **less likely** to have spent the most during the past year on instant scratch tickets (5.3% versus 9.6%), lotteries (26.3% versus 52.0%) and bingo (0.2% versus 0.8%)
- a **higher** proportion of moderate risk gamblers had EGMs as their highest spend activity (29.2% versus 11.5% of non-problem gamblers) while a **lower** proportion had lotteries as the activity on which they spent the most (21.7% versus 52.0% of non-problem gamblers)
- moderate risk/problem gamblers were **more likely** to have EGMs as their highest spend activity (30.5% versus 11.5% of non-problem gamblers) while the proportion who spent the most on lotteries was **lower** than amongst non-problem gamblers (18.2% versus 52.0% of non-problem gamblers).

Table 48 **Highest spend activity by gambling severity (PGSI) (2013)**

Gambling activity	Non-problem gamblers (*n=2,872*)	Low risk gamblers (*n=166*)	Moderate risk gamblers (*n=79*)	Problem gamblers (*n=23*)	Moderate risk/ problem (*n=102*)
	%	%	%	%	%
EGMs	11.5	22.8	29.2↑	35.1 ɫ	30.5↑
Horse or greyhound races	6.2	9.4 ɫ	11.5 ɫ	23.6 ɫ	14.1 ɫ
Instant scratch tickets	9.6	5.3↓ ɫ	np	np	np
Lotteries	52.0	26.3↓	21.7↓	np	18.2↓
Keno	11.7	19.1	17.0 ɫ	np	13.9 ɫ
Casino table games	3.7	12.9 ɫ	np	np	np
Bingo	0.8 ɫ	0.2↓	np	np	np
Sporting or other events	1.2 ɫ	np	np	np	np
Informal private games	1.2	np	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s B1, C2, D1b-D10b and E1.

6.6 Socio-demographic factors and gambling participation as predictors of gambling severity

Socio-demographic factors

- An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, and moderate risk/problem gambling) by socio-demographic factors (gender, age, dependent children in the household, living with a partner, currently being in paid employment, annual personal income, country of birth, cultural identity, and education). Table 49 displays the findings from this regression analysis. The socio-demographic characteristics significantly predicted PGSI category, χ^2 (9) = 18.51, p = .03. Specifically, PGSI category was significantly negatively predicted by age (OR = 0.92, p = .004), whereby the odds of being classified in the next highest PGSI category decreased with age.

Table 49 **Multivariate analyses exploring prediction of PGSI category by socio-demographic characteristics**

Variable	Estimate	SE	Wald	OR	95% CI	
					Lower	Upper
Gender (male)	0.113	0.141	0.651	1.120	-0.162	0.389
Age	-0.084**	0.029	8.254	0.919	-0.141	-0.027
Dependent children in household	-0.010	0.161	0.004	0.990	-0.325	-0.304
Living with partner	-0.210	0.145	2.117	0.811	-0.494	-0.073
Currently in paid employment	0.171	0.174	0.962	1.186	-0.170	0.511
Annual income	-0.080	0.057	1.989	0.923	-0.192	0.031
Australian born	-0.073	0.204	0.127	0.930	-0.474	0.328
Australian cultural identity	0.055	0.202	0.073	1.057	-0.342	0.451
Completion of secondary school	-0.209	0.154	1.840	0.811	-0.510	-0.093

Note: ** p ≤ .01, * p ≤ .05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

Gambling activity participation

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, and moderate risk/problem gambling) by participation in different gambling activities after controlling for socio-demographic characteristics, χ^2 (18) = 323.38, *p* < .001. Table 50 displays the findings of this regression analysis. After taking the influence of socio-demographic characteristics into account, participation in gambling activities explained a significant additional proportion of variance in PGSI category (*p* < .001). Specifically, PGSI category was significantly positively predicted by participation in EGMs (OR = 5.360, *p* < .001), horse or greyhound races (OR = 2.173, *p* < .001), lotteries (OR = 1.786, *p* = .001), Keno (OR = 1.501, *p* = .02), and informal private games (OR = 4.354, *p* < .001). This means that the odds of being classified in the next highest PGSI category increased with participation on these gambling activities.

Table 50 **Multivariate analyses exploring prediction of PGSI category by gambling activity participation after controlling for socio-demographic characteristics**

Variable	Estimate	SE	Wald	OR	95% CI	
					Lower	Upper
EGMs	1.679**	0.162	106.829	5.360	1.361	1.998
Horse or greyhound races	0.776**	0.190	16.72	2.173	0.404	1.147
Instant scratch tickets	0.035	0.165	0.046	1.036	-0.288	0.358
Lotteries	0.580**	0.176	10.902	1.786	0.236	0.924
Keno	0.406*	0.169	5.767	1.501	0.075	0.738
Casino table games	0.123	0.261	0.223	1.131	-0.389	0.636
Bingo	0.402	0.355	1.285	1.495	-0.293	1.098
Sporting or other events	0.214	0.296	0.523	1.234	-0.366	0.794
Informal private games	1.471**	0.318	21.421	4.354	0.848	2.093

Note: ** p ≤ .01, * p ≤ .05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

7 EGM gambling

This chapter provides additional information on the behaviour and opinions of Tasmanian EGM gamblers with respect to their gambling activity on these machines. In particular, consideration is given to:

— details of play; specifically, the types of machine, the number of lines per spin and the number of credits per line that are usually played
— alternative forms of gambling on which EGM gamblers think they might use the money they currently spend on EGM gambling
— awareness of measures introduced by the Tasmanian Government to reduce the harm caused by gambling. This issue is to be explored in more detail in the volume report to be completed in mid 2015.

7.1 Key findings

— as in 2011, two cent machines remained the most popular. In the 2013 survey, machines of this denomination were the usual choice for 43.4 per cent of EGM gamblers compared with 50.6 per cent in 2011
— in 2013, the most common number of lines per spin usually played was 21 or more (38.1%) while the most common number of credits per line usually played was one (54.4%)
— on average, EGM gamblers spent $1.91 per spin (not significantly different from the figure of $1.62 per spin in 2011) with 14.1 per cent usually spending more than $1.00 per spin. Consistent with this, 13.4 per cent of EGM gamblers reported spending more than $1.00 per spin either always or most of the time
— spend per spin was highest amongst moderate risk/problem EGM gamblers ($4.18 per spin); members of this group were also the most likely to report spending more than $1.00 per spin most of the time (15.4%)
— if EGMs were not available, 22.0 per cent of EGM gamblers believed they would re-allocate their EGM spend to some other form of gambling; most often lotteries (54.9%), Keno (49.0%), horse/greyhound racing (37.4%), casino table games (36.6%) and instant scratch tickets (34.3%)

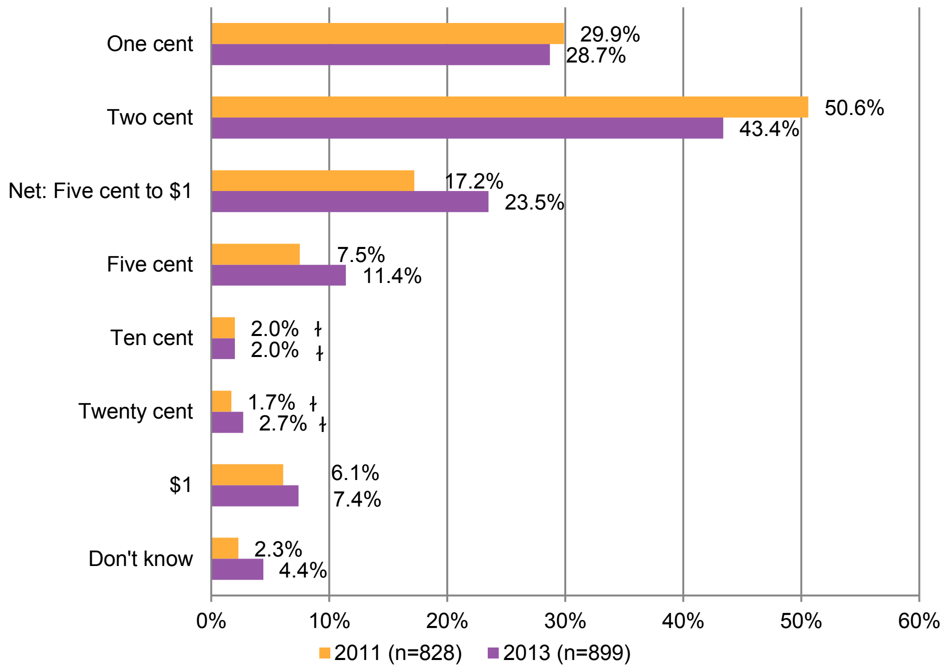
7.2 EGM play and spend patterns

Value of EGM usually played

All respondents who had played EGMs in the past year were asked about the value of the machine they usually played. Results are shown in Figure 4.

It is evident that, in the 2013 survey, most EGM gamblers reported usually playing either two cent (43.4%) or one cent (28.7%) machines while just under one in four (23.5%) usually played machines in the five cent to one dollar range.

Figure 4 **Value of EGM usually played (2011 and 2013)**



Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in the 2011 survey ($p<0.05$).

Base: All EGM gamblers.

ɫ RSE between 30% and 50%.

Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys, (2013 Q C3).

Number of lines per spin and credits per line usually played

EGM gamblers were also asked to estimate both the number of lines per spin and the number of credits per line that they usually played on EGMs. The results are summarised in Table 51 which shows that:

- in the 2013 survey, the most commonly reported values for the usual number of lines played per spin were either in the range of one to ten (32.1%) or twenty-one or more (38.1%). The average number of lines per spin usually played was 17.8.
  - no significant changes were evident in any of these figures between the 2011 and 2013 surveys.
- more than one in two (54.4% in 2013) EGM gamblers usually played one credit per line, while 21.4 per cent played three or more. The mean number of credits per line usually played was 4.5 in 2013

– results were largely stable between the 2011 and 2013 surveys with the only significant change being a **decline** (from 11.6% in 2011 to 6.2% in 2013) in the proportion of EGM gamblers who usually played two credits per line.

Table 51 **Number of lines per spin and credits per line usually played (2011 and 2013)**

	2011	2013
Unweighted Base: EGM gamblers	(*n=828*) %	(*n=899*) %
Number of lines per spin usually played		
No usual number	4.3	4.0
One to ten	33.7	32.1
Eleven to twenty	23.8	18.7
Twenty-one or more	31.6	38.1
Don't know	6.7	7.1
Mean number of lines per spin	18.4	17.8
Number of credits per line usually played		
No usual number	5.0 ɫ	5.0
One	53.3	54.4
Two	11.6	6.2↓
Three or more	18.9	21.4
Don't know	11.2	12.9
Mean number of credits per line	4.3	4.5

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in the 2011 survey ($p<0.05$).
ɫ RSE between 30% and 50%.
Source: 2011 and 2013 Tasmanian Gambling Prevalence Surveys, (2013: Q.s C4, C5).

EGM spend patterns

An estimate of the amount spent by EGM gamblers on each spin was obtained by multiplying together the denomination of the machine usually played, the usual number of lines per spin and the usual number of credits per line; the result of this calculation is shown in Table 52 for 2011 and 2013. In the 2013 survey only, EGM gamblers were also asked how often they spent more than one dollar per spin with the results shown in Figure 5.

It is evident from Table 52 that the most common amount spent per spin was 50 cents or less; this level of expenditure applied to 50.3 per cent of EGM gamblers in 2011 and 45.9 per cent in 2013. Around one in seven EGM gamblers (15.9% in 2011 and 14.1% in 2013) spent more than one dollar per spin.

The mean spend per spin by EGM gamblers was $1.62 in 2011 and $1.91 in 2013.

Table 52 **Estimated spend per spin (2011 and 2013)**

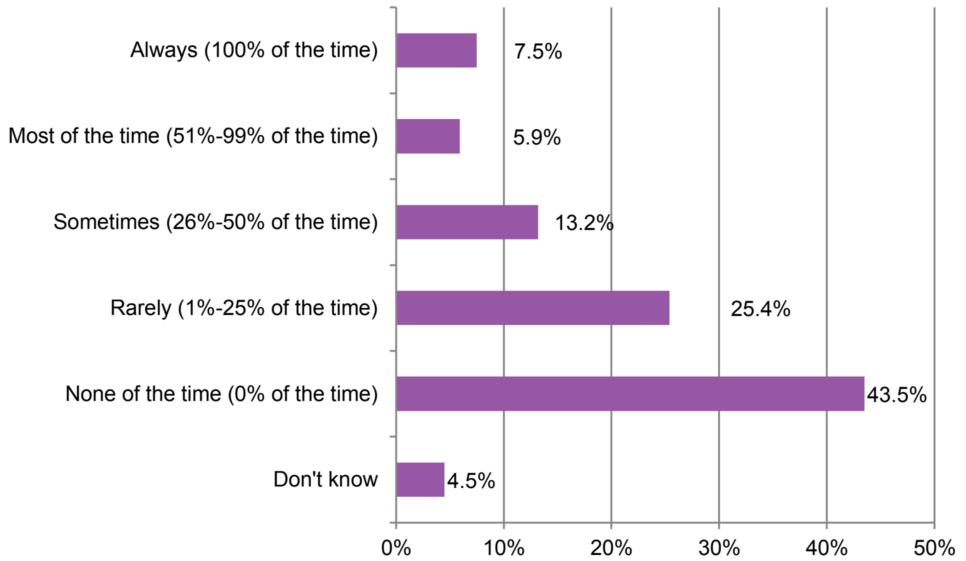
	2011	2013
Unweighted Base: EGM gamblers	(*n=828*) %	(*n=899*) %
$0.00 - $0.50	50.3	45.9
$0.51 - $1.00	11.8	14.2
More than $1.00	15.9	14.1
Unable to calculate spend	22.0	25.8
Mean spend per spin ($)	$1.62	$1.91

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in the 2011 survey ($p<0.05$).
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C3, C4, C5.

As shown in Figure 5, when EGM gamblers were asked to estimate how often they spent more than one dollar per spin, 13.4 per cent reported doing this either always (7.5%) or most of the time (5.9%). This figure is consistent with the calculated estimate of 14.1 per cent of EGM gamblers spending more than one dollar per spin (refer back to Table 52).

It is also evident that more than two-thirds of EGM gamblers rarely (25.4%) or never (43.5%) spent more than one dollar per spin.

Figure 5 **Reported frequency of spending more than $1 per spin (2013)**



Note: Base: All EGM gamblers (2013 Survey), n = 899.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. C6.

Expenditure patterns and gambling severity

As might be expected, some differences were evident when EGM expenditure patterns were examined across gambling severity subgroups. The results of this analysis are summarised in Table 53 for three groups: non-problem gamblers, low risk gamblers and a combined group of moderate risk and problem gamblers. It can be seen that, compared to non-problem EGM gamblers:

- a significantly **higher** proportion of low risk EGM gamblers reported usually playing more than twenty lines per spin (55.4% versus 34.6% of non-problem EGM gamblers); the mean number of lines per spin was also higher amongst low risk EGM gamblers than it was amongst the non-problem group (22.9 lines per spin versus 16.9 lines per spin)
  - in addition, a significantly **lower** proportion of low risk EGM gamblers never spent more than one dollar per spin (30.9% versus 48.6% of non-problem EGM gamblers)
  - despite these differences however, the mean spend per spin calculated for low risk EGM gamblers ($1.92) did not differ significantly from that of non-problem EGM gamblers ($1.64)
- by contrast, moderate risk/problem EGM gamblers did have a significantly **higher** mean spend per spin than non-problem EGM gamblers ($4.18 versus $1.64). In addition, a significantly **higher** proportion of moderate risk/problem EGM gamblers spent more than one dollar per spin most of the time (15.4% versus 3.1%) and a significantly **lower** proportion never spent more than one dollar per spin (15.9% versus 48.6% of non-problem EGM gamblers).

Table 53 **EGM spend patterns by gambling severity (2013)**

Base: EGM gamblers (2013)	Non-problem gamblers (*n*=738)	Low risk gamblers (*n*=95)	Moderate risk/ problem gamblers (n=66)
	%	%	%
Type of machine usually played			
One cent	28.6	31.2	26.9
Two cent	44.3	37.9	42.5
Five cents to $1.00	22.9	24.3 ɫ	27.5 ɫ
Don't know	4.2	np	np
Usual number of lines per spin			
No usual number	4.6	np	np
One to ten	34.5	15.2↓ ɫ	32.7
Eleven to twenty	19.3	18.8 ɫ	13.8 ɫ
Twenty-one or more	34.6	55.4↑	45.4
Don't know	6.9	8.5 ɫ	np
Mean number of lines per spin	*16.9*	*22.9*↑	*18.4*
Usual number of credits the per line			
No usual number	4.1	np	np
One	57.4	50.8	33.3↓
Two	5.3	5.3 ɫ	15.1 ɫ
Three or more	20.0	19.3	36.3↑
Don't know	13.1	13.4 ɫ	np
Mean number of credits per line	4.1	4.6	7.6
Estimated mean spend per spin ($)	*$1.64*	*$1.92*	*$4.18*↑
Frequency of spending more than $1 per spin			
Always	6.4	np	19.7 ɫ
Most of the time	3.1	np	15.4↑ ɫ
Sometimes	11.1	23.7	18.2 ɫ
Rarely	26.0	20.8	26.4 ɫ
None of the time	48.6	30.9↓	15.9↓ ɫ
Don't know	4.8	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C3, C4, C5 and C6.

Hypothetical re-allocation of EGM gambling expenditure

In the 2013 survey, all EGM gamblers were asked whether they would re-allocate the money spent on EGMs to other forms of gambling if they were not allowed to spend it on EGMs. Those who said they would do so were asked what forms of gambling they would spend it on; this was a prompted question where respondents were asked specifically whether or not they would spend this money on nine alternative forms of gambling (that is, horse/greyhound racing, instant scratch tickets, lotteries, Keno, casino table games, bingo, sports/event betting, informal private games and day trading).

As shown in Table 54, 22.0 per cent of EGM gamblers said they would re-allocate their EGM expenditure to some other form of gambling. Of those EGM gamblers classified as non-problem gamblers, 18.8 per cent said they would do this. This was significantly **lower** than the proportions of low risk and problem gamblers (36.7% and 58.5% respectively) who said they would re-allocate their EGM spend in this way.

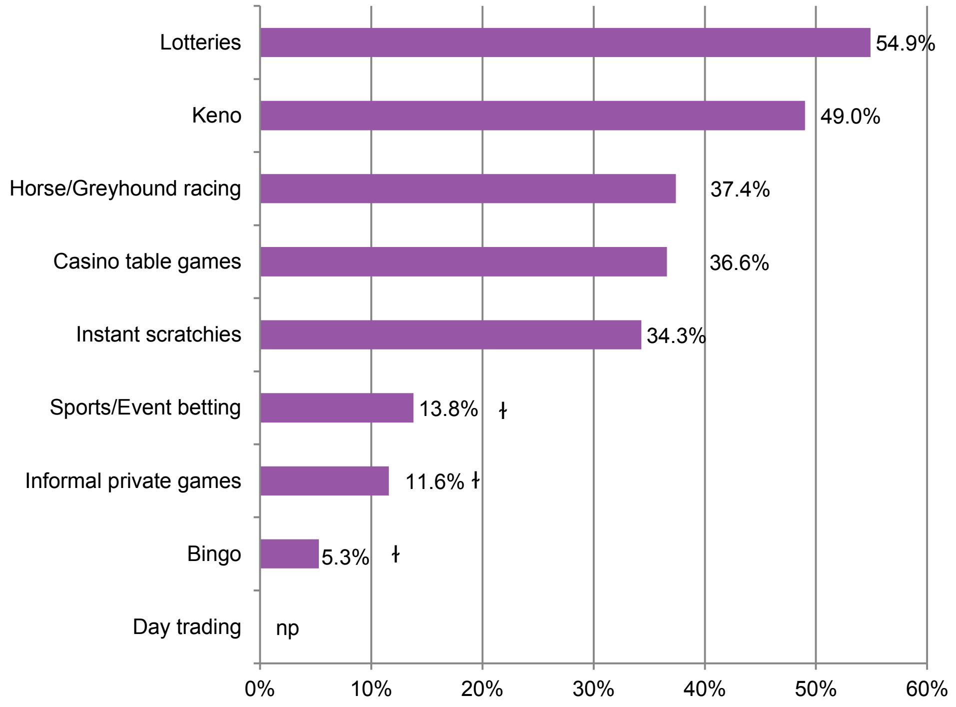
Table 54 **Proportion of players who would re-allocate their EGM spend to other forms of gambling (2013)**

Base: EGM gamblers (2013)	Would re-allocate EGM spend to other forms of gambling
	%
All EGM gamblers *(n=899)*	22.0
PGSI Categories	
Non-problem gamblers *(n=738)*	18.8
Low risk gamblers *(n=95)*	36.7↑
Moderate risk/Problem gamblers *(n=66)*	30.8
Moderate risk gamblers (n=48)	*21.2* ƚ
Problem gamblers (n=18)	*58.5*↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ƚ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. H2.

As shown in Figure 6, the forms of gambling mentioned most often as recipients of the re-allocated EGM spend were lotteries (54.9%), Keno (49.0%), horse or greyhound racing (37.4%), casino table games (36.6%) and instant scratch tickets (34.3%).

Figure 6 Other forms of gambling to which EGM expenditure might be re-allocated (2013)



Note: Base: All EGM gamblers who would re-allocate their EGM expenditure to other forms of gambling (2013 Survey). *n = 168*.

ꝉ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q. H2.

8 Online (internet) Gambling

This chapter provides more detailed information on the online gambling behaviour of Tasmanian adults. It should be noted that the 2013 assessment of participation in internet gambling was somewhat more extensive than that carried out in the 2011 survey; in particular:

- additional questions were asked about online gambling on EGMs, instant scratch tickets, lotteries, bingo and day trading (as well as re-asking questions about online gambling on horse or greyhound racing, Keno, casino table games and sporting or other events)
- for each activity, participants were asked about online participation via mobile devices (such as website or app on a smartphone, laptop, or iPad) and, separately, via desktop computer.

The topics discussed in this chapter include:

- participation in online gambling
- demographic and gambling severity profile of online gamblers
- gambling frequency and expenditure by online gamblers.

8.1 Key findings

- online gambling is currently a relatively minor form of gambling; 7.0 per cent of all Tasmanian adults and 11.5 per cent of all past year gamblers had participated in online gambling activity in 2013; 4.8 per cent of adults had used a desktop computer for this purpose while 3.9 per cent had used a mobile device
- amongst Tasmanian adults as a whole, buying lottery tickets (3.7%), betting on horse/greyhound racing (2.5%) and betting on sports or other events (2.3%) were the most common online gambling activities
- purchase of lottery tickets via a desktop computer (2.7% of adults) was significantly **higher** than purchase of lottery tickets using a mobile device (1.4%). Apart from this, the use of mobile devices or desktop computers for online gambling activities occurred at similar levels
- gambling activity of at least once a week was the most commonly reported frequency for online gambling (42.4% of online gamblers participated at this frequency)
- in comparison to all Tasmanian adults (7.0%), participation in online gambling was significantly **higher** amongst males (9.4%), people aged 35 to 44 (10.3%), those in full-time employment (10.9%) and those with annual incomes of $65,000 to $79,999 (11.9%) or $80,000 to $129,999 (14.3%).

  Conversely, participation in online gambling was significantly **lower** amongst women (4.8%), those aged 45 to 54 (4.9%) and those aged 65 years or more (2.8%), those whose children had left home, regardless of whether they were now living as a couple (5.3%) or living alone (4.1%), those describing their occupational status as household duties (3.6%), retirees (3.9%), those with annual incomes below $25,000 (4.5%) and those born overseas in an English speaking country (4.5%).

- amongst the selected LGAs, participation in online gambling activity was significantly **higher** in Sorell (11.1% versus 7.0% of all Tasmanian adults) and significantly **lower** in Circular Head (3.0%)
- moderate risk/problem gamblers were more than four times more likely to have gambled online (30.5%) than Tasmanian adults as a whole (7.0%)
- people who engaged in at least some online gambling gambled significantly **more frequently** overall (84.3 times per annum on average versus 34.3 times per annum amongst those who did not gamble online) and also spent significantly **more** on gambling ($2,433 per annum versus $738) than those who did not use the internet for gambling.

8.2 Participation in online gambling

As shown in Table 55, 7.0 per cent of Tasmanian adults had participated in some form of online gambling in the past 12 months; this figure rose to 11.5 per cent amongst past year gamblers. In terms of internet access, 3.9 per cent had used a mobile device (6.3% of past year gamblers) and 4.8 per cent had used a desktop computer (7.8% of past year gamblers) to participate in online gambling activity.

The most common forms of online gambling included buying lottery tickets (3.7% of all adults; 6.0% of past year gamblers), betting on horse/greyhound racing (2.5% of all adults; 4.1% of past year gamblers) and betting on sporting or other events (2.3% of all adults; 3.8% of past year gamblers).

For the most part, participation in online gambling activity appeared just as likely to be undertaken on a mobile device as it did via a desktop computer. The only exception was the most common online gambling activity, purchase of lottery tickets which, amongst past year gamblers, occurred almost twice as frequently on a desktop computer as on a mobile device (4.5% on a desktop computer versus 2.3% on a mobile device).

Table 55 **Participation in online gambling activities (2013)**

Internet gambling activity	All adults	All past year gamblers
Unweighted Base: Total Sample	(*n=5,000*) %	(*n=3,145*) %
Have gambled on the internet in the last 12 months (excl. day trading)	**7.0**	**11.5**
Via mobile device	*3.9*	*6.3*
Via desktop computer	*4.8*	*7.8*
Played EGMs on the internet	0.4 ǂ	0.7 ǂ
Via mobile device	*0.3 ǂ*	*0.5 ǂ*
Via desktop computer	*0.3 ǂ*	*0.5 ǂ*
Bet on horses/greyhounds over the internet	2.5	4.1
Via mobile device	*1.9*	*3.1*
Via desktop computer	*1.3*	*2.1*
Bought instant scratch tickets over the internet	0.2 ǂ	0.3 ǂ
Bought lotto/lottery tickets over the internet	3.7	6.0
Via mobile device	*1.4*	*2.3*
Via desktop computer	*2.7*	*4.5*
Played Keno over the internet	np	np
Played casino table games over the internet	0.2 ǂ	0.4 ǂ
Bet on sporting or other events over the internet	2.3	3.8
Via mobile device	*1.4*	*2.4*
Via desktop computer	*1.4*	*2.2*
Played Bingo over the internet	np	np
Have NOT gambled on the internet in the last 12 months	**93.0**	**88.5**
Participated in day trading over the internet	1.0	1.3
Via mobile device	*0.7*	*0.9*
Via desktop computer	*0.6*	*0.9*

Note: Due to high RSEs, figures for use of mobile devices and desktop computers for instant scratch tickets, and casino table games have been merged.

ǂ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C1, D1a, D2a, D3a, D4a, D5a, D6a, D7a, and D9a.

As noted in the introduction to this chapter, the 2013 assessment of participation in internet gambling was somewhat more extensive than that carried out in the 2011 survey. Hence comparison with the 2011 estimate of total participation in internet gambling is not appropriate. However, comparisons can be made for online participation in several specific gambling activities. For the most part, these comparisons showed no significant differences between the 2011 and 2013 estimates (horse/greyhound racing 2.3% of Tasmanian adults in 2011 versus 2.5% in 2013; casino table games 0.3% in 2011 versus 0.2% in 2013); however there was a slight increase in the proportion of adults using the internet to bet on sporting or other events (1.3% in 2011 versus 2.3% in 2013).

Frequency of online gambling

Frequency of online gambling, overall and in several specific activities, is shown in Table 56. Due to the relatively small size of the online gambling group (7.0% of all Tasmanian adults; *n=317*), statistically reliable estimates for frequency of online participation could not be generated at the individual activity level for most gambling activities (specifically: gambling on EGMs, instant scratch tickets, Keno, casino table games, bingo, informal private games, day trading and other gambling activities). Nevertheless, the data presented here do seem to suggest that activity of once a week or more was the most common frequency of online participation in each of the activities displayed as well as for online gambling activity overall. Thus, for example, of those participants who reported betting on horse or greyhound races online, 51.7 per cent bet this way at least once a week. Similarly, 54.2 per cent of those who purchased lottery tickets online reported frequency of at least once a week, and, 49.5 per cent of those who bet on sporting or other events online reported doing this at least once a week.

Table 56 **Frequency of online gambling participation in past year (2013)**

Gambling activity	Annual frequency of online participation	Online participants in each activity
		%
	Unweighted Base: Bet on horses/greyhounds online	*(n=106)*
Horse or greyhound races	Once a week or more	51.7
	1 to 3 times a month	31.3
	Less than once a month	16.9
	Mean Frequency (/year)	*29.8*
	Unweighted Base: Purchased lottery tickets online	*(n=192)*
Lotteries	Once a week or more	54.2
	1 to 3 times a month	23.8
	Less than once a month	22.0
	Mean Frequency (/year)	*25.9*
	Unweighted Base: Bet on sports/events online	*(n=70)*
Sporting or other events	Once a week or more	49.5
	1 to 3 times a month	42.1
	Less than once a month	8.4 ɫ
	Mean Frequency (/year)	*25.7 ɫ*
	Unweighted Base: Any online gambling in past year	*(n=317)*
Any online gambling activity	Once a week or more	42.4
	1 to 3 times a month	31.1
	Less than once a month	24.7
	Mean Frequency (/year)	*39.9*

Note: Excludes online day trading; includes online participation in all other gambling activities assessed in the 2013 survey.
Due to high RSEs other gambling activities are not shown individually in this table. They are however included in the total activity measure.
Categories do not add to 100% as an overall frequency could not be calculated for a small group (1.7%) of online gamblers.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C1, D1a, D2a, D3a, D4a, D5a, D6a, D7a, and D9a.

8.3 Profile of online gamblers

Table 57 shows the proportion of online gamblers within demographic groups, residents of the selected LGAs and categories of gambling severity; comparisons are made with the total adult population prevalence of online gambling (7.0%) and significant differences are flagged with arrows. In general the differences identified broadly reflect the gambling participation patterns noted in earlier chapters.

However, it should be kept in mind that participation in online gambling requires internet access (via mobile device or desktop computer) and that internet access in turn has been shown to be influenced by such factors as age, occupation, level of educational attainment, income and the presence of children in the home (Australian Bureau of Statistics, 2014). Hence participation in online gambling might be expected to show stronger (and slightly different) patterns of association with these types of demographic characteristics than does gambling participation in general.

Demographic characteristics of online gamblers

— as with overall participation, males were significantly **more likely** to be online gamblers (9.4%) than females (4.8%). Compared to all Tasmanian adults, significantly **more** people aged between 35 to 44 (10.3%) engaged in online gambling whilst participation was significantly **lower** amongst those aged 45 to 54 (4.9%) and those aged 65 years or more (2.8%)

- participation was also significantly **lower** amongst those living as a couple whose children have left home (5.3%) and single parents whose children had left home (4.1%)
- people in full-time employment were significantly **more likely** to participate in online gambling activity (10.9%), compared to all Tasmanian adults, whilst retirees (3.9%) and those mainly engaged in household duties were significantly **less likely** to do so (3.6%)
- participation in online gambling was lower amongst those with personal income of less than $25,000 per annum (4.5%) and significantly **higher** amongst those with personal annual incomes of $65,000 to $79,999 (11.9%) or $80,000 to $129,999 (14.3%)
- participation was significantly **lower** amongst those born overseas in an English speaking country (4.5%).

Residential location

The table also presents online gambling participation by LGA. In comparison to all Tasmanian adults, residents of Sorell were significantly **more likely** (11.1%), and residents of Circular Head were significantly **less likely** (3.0%), to gamble online.

Gambling severity

Finally, Table 57 presents online participation by gambling severity. Here, it can be seen that 30.5 per cent of the combined group of moderate risk/problem gamblers gambled over the internet, which is significantly, and more than four times, **greater** than the 7.0 per cent of all Tasmanian adults who did so. The proportions of non-problem gamblers (10.9%), moderate risk gamblers (26.5%), problem gamblers (44.8%) and combined moderate risk/problem gamblers (30.5%) who participated in online gambling were all significantly **higher** than the adult population proportion of 7.0 per cent.

Table 57 Online gambling participation in past year by demographics, LGA and gambling severity (2013)

Demographic subgroups	Unweighted Sample	Online gambler	Demographic subgroups	Unweighted Sample	Online gambler
	N	%		N	%
Tasmanian adults as a whole	**5,000**	**7.0**	**Tasmanian adults as a whole**	**5,000**	**7.0**
Gender			***Educational attainment***		
Male	2,628	9.4↑	Less than year 12	1,419	5.6
Females	2,372	4.8↓	Year12	731	9.2
Age group			Vocational or trade qualifications	1,608	7.3
18 to 24 years	165	9.2	University graduate	1,164	6.6
25 to 34 years	311	9.8	***Place of Birth***		
35 to 44 years	666	10.3↑	Australia	4,246	7.2
45 to 54 years	990	4.9↓	Overseas (ESB)	509	4.5↓
55 to 64 years	1,229	8.0	Overseas (NESB)	226	9.0 ɫ
65 years or more	1,639	2.8↓	***Local government area category***		
Household structure			Low SES	1,500	8.3
Couple no children	618	7.7	Comparison LGAs	1,500	7.8
Couple children at home	1,369	6.7	Rest of Tasmania	2,000	6.3
Couple children left home	1,369	5.3↓	***Local government areas***		
Single person	601	10.4	Brighton	400	8.1
Single children at home	303	9.0	Break O'Day	300	6.8
Single children left home	473	4.1↓	Glenorchy	400	9.6
Group or shared household	134	12.3 ɫ	Devonport	400	6.6
Occupational status			Circular Head	300	3.0↓ ɫ
Paid full-time employed	1,608	10.9↑	Launceston	400	6.7
Paid part-time employed	861	6.4	Sorell	400	11.1↑
Household duties	170	3.6↓ ɫ	Clarence	400	9.0
Student	92	np	***Gambling severity categories***		
Retired	1,666	3.9↓	Non-problem gamblers	2,872	10.9↑
Looking for work	125	7.4 ɫ	Low risk gamblers	166	8.8 ɫ
Unable to work / pensioner	361	4.1 ɫ	Moderate risk/Problem gamblers	102	30.5↑
Unpaid voluntary worker	38	np	*Moderate risk gamblers*	*79*	*26.5↑*
Annual Personal Income			*Problem gamblers*	*23*	*44.8↑ɫ*
Less than $25,000	1,705	4.5↓			
$25,000-$39,999	816	6.3			
$40,000-$64,999	858	7.2			
$65,000-$79,999	432	11.9↑			
$80,000-$129,999	426	14.3↑			
$130,000-or more	144	11.5 ɫ			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for the total sample (p<0.05).
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s A4, A5, B1, P1-P4, P6 and E1.

Gambling frequency and expenditure by online gamblers

Table 58 shows the mean frequency of participation in selected gambling activities and mean expenditure on gambling in the past year; comparisons are made between online gamblers and those past year gamblers who have not used the internet for this purpose. It should be noted that the frequency and expenditure figures in this table are totals for both online and venue based participation in gambling activities; they are not just for online gambling.

Frequency

On average, online gamblers participated in gambling activities **more frequently** (84.3 times per year) than those who did not use the internet for gambling (34.3 times per year). This appears to be a consistent pattern when specific gambling activities are examined.

- those who bet on at least some horse or greyhound races over the internet gambled significantly **more often** on races (40.7 times per annum) than those who did not (16.3 times per annum)
- those who bet on at least some sporting or other events online gambled significantly **more often** on these types of event (34.5 times per year) than those who did not use the internet to bet on sporting or other events (3.7 times per year).

Expenditure

The higher frequency of participation evident amongst online gamblers was matched by a significantly **higher** average gambling expenditure ($2,433 per year) by this group when compared to the annual expenditure of gamblers who do not use the internet for this purpose ($738 per year).

Those activities which saw higher frequency of participation amongst online gamblers (that is, betting on horse or greyhound racing and betting on sporting or other events) also saw higher average expenditure by online gamblers. Thus:

- those who used the internet to bet on at least some horse or greyhound racing spent $1,886 per year on all gambling on the horses or greyhounds (significantly **higher** than the $791 per year spent by those who did not use the internet for this form of gambling)
- those who used the internet to bet on at least some sporting or other events spent $768 per year on all gambling on sporting or other events (significantly **higher** than the $128 per year spent by those who did not use the internet for this form of gambling).

Table 58 **Frequency of participation and expenditure on gambling in past year (2013)**

Gambling activity	Online gamblers	Non online gamblers
Mean annual frequency of participation in past year (sessions/year)		
Unweighted Base: Played EGMs in past year	*(n=87)*	*(n=774)*
EGMs	25.1 ɫ	12.2
Unweighted Base: Bet on horses/greyhounds in past year	*(n=130)*	*(n=346)*
Horse or greyhound racing	40.7↑	16.3
Unweighted Base: Purchased instant scratchies in past year	*(n=90)*	*(n=903)*
Instant scratch tickets	8.5	11.9
Unweighted Base: Purchased lottery tickets in past year	*(n=267)*	*(n=2,093)*
Lotteries	30.9	25.8
Unweighted Base: Played Keno in past year	*(n=138)*	*(n=1,105)*
Keno	16.2	14.0
Unweighted Base: Bet on sports/events in past year	*(n=80)*	*(n=78)*
Sports/Event betting	34.5↑ ɫ	3.7
Unweighted Base: Any gambling activity in past year	*(n=310)*	*(n=2,749)*
Any gambling (excl. day trading)	84.3↑	34.3
Mean annual gambling expenditure in past year		
Unweighted Base: Played EGMs in past year	*(n=86)*	*(n=754)*
EGMs	$1,017 ɫ	$603
Unweighted Base: Bet on horses/greyhounds in past year	*(n=128)*	*(n=340)*
Horse or greyhound racing	$1,886↑	$791 ɫ
Unweighted Base: Purchased instant scratchies in past year	*(n=87)*	*(n=892)*
Instant scratch tickets	$78	$92
Unweighted Base: Purchased lottery tickets in past year	*(n=261)*	*(n=2,055)*
Lotteries	$546	$414
Unweighted Base: Played Keno in past year	*(n=137)*	*(n=1,082)*
Keno	$322	$267
Unweighted Base: Bet on sports/events in past year	*(n=80)*	*(n=78)*
Sports/Event betting	$768↑ ɫ	$128 ɫ
Unweighted Base: Any gambling activity in past year	*(n=297)*	*(n=2,646)*
Any gambling (excl. day trading)	$2,433↑	$738

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for Non Online gamblers ($p<0.05$).
Gambling activities suppressed due to large RSEs are not shown in this table. They are however included in the total activity measures.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s C1, C2, D1 – D7.

9 Gambling expectancies

In the 2011 study, gambling motives and triggers were explored amongst a sub-sample of respondents using the Reasons for Gambling Questionnaire (RGQ) and the short form of the Inventory of Gambling Situations (IGS-10). The 2013 survey has taken a different approach, however, by examining gamblers expectancies of engaging in gambling activity. Research into gambling behaviour suggests that an individual's participation is conditioned by either positive (e.g. for fun) or negative (e.g. escape boredom) reinforcement situations, and, that there are indications of a connection between escape reinforcement and problem gambling (Weatherly & Miller, 2013).

In this context, it is of particular interest when seeking to understand gambling behaviour to examine expectancies of outcomes from participating in gambling activity. The literature suggests that whilst research has tended to focus upon motivations, these are not necessarily quite the same as expectancies of outcomes. Expectancies fall into various categories including positive outcome expectancies such as enjoyment/arousal, self-enhancement, and money; and negative outcome expectancies such as over-involvement and negative emotional impacts; it also suggests that these expectancies are particularly pertinent to the assessment of gambling behaviour (Gillespie, Derevensky, & Gupta, 2007). Gambling expectancies, unlike motivations, can be experienced by all individuals, not just gamblers.

To measure expectancies in this study, a modified version of the GEQ (Gambling Expectancy Questionnaire) was asked of the subset of respondents (*n=1,887*) who undertook the supplementary survey. A description of this scale is provided in Appendix B. Using a scale of '*likely*', '*neither likely nor unlikely*' or '*unlikely*', they were asked to rate the likelihood of personally experiencing various outcomes if they were to gamble. The specific items used were:

- enjoyment/arousal
  - stop being bored
  - feel excited
- self-enhancement
  - feel powerful
  - feel more accepted by people
- money
  - win money
  - get rich
- over-involvement
  - want to gamble more and more
  - get hooked
- emotional impact
  - feel guilty
  - feel in over my head

9.1 Key findings

*For the **total supplementary survey sample**:*

- the negative outcomes most commonly mentioned as being likely results of gambling were feeling guilty (31.2%) and feeling in over my head (18.0%) while the positive outcomes mentioned most often were feeling excited (29.0%), winning money (12.2%) and stopping boredom (12.1%)
- those outcomes regarded as least likely were getting rich (2.9% felt this was a likely outcome), feeling more accepted by people (2.9%) and feeling powerful (5.1%)

Thus, the highest levels of expectancy were for those gambling outcomes related to the negative emotional impact and to the enjoyment/arousal associated with this activity.

Insofar as **PGSI categories** were concerned, when compared to the expectancies of non-problem gamblers:

- non-gamblers were more likely to expect to feel guilty (46.3% versus 21.8% of non-problem gamblers), to feel in over my head (26.4% versus 12.7%), to want to gamble more and more (13.3% versus 6.7%) and to feel they would get hooked (14.0% versus 8.1%). They were also less likely to expect to win money (7.0% versus 11.9%).
- moderate risk/problem gamblers exhibited much higher levels of expectancy than non-problem gamblers for most outcomes except those relating to self-enhancement. For example, 64.2 per cent expected gambling would make them excited compared with 26.9 per cent of non-problem gamblers and almost one-third (32.3%) thought it likely they would win money compared with 11.9% of non-problem gamblers.
- low risk gamblers were more likely to expect to feel excited (51.4% versus 26.9% of non-problem gamblers), to stop being bored (31.5% versus 8.9%), to feel more accepted (5.6% versus 2.0%) and to get hooked by gambling (23.3% versus 8.1%).

After taking the influence of socio-demographic characteristics into account, PGSI category was significantly **positively** predicted by enjoyment/arousal expectancies, money expectancies, and over-involvement expectancies, and significantly **negatively** associated with self-enhancement expectancies.

9.2 Overall gambling expectancies

Results for the total supplementary survey sample are presented in Figure 7. The following summary presents an analysis of the data grouped by the categories of expectancies.

Enjoyment/Arousal

In this category, the expectancy of excitement from gambling appears to be more strongly anticipated than overcoming boredom:

- on the one hand, over three quarters (77.7%) of respondents did not think it likely that gambling would stop them being bored and only 12.1 per cent thought it was likely to do so
- on the other hand, 29.0 per cent thought gambling was likely to make them feel excited and 58.5 per cent thought it was not likely to do so.

Self-enhancement

Neither aspect of self-enhancement seems to be a strongly held expectation of gambling:

- only 2.9 per cent of respondents felt that gambling would make them feel more accepted by people and 90.4 per cent thought it would not be likely
- 5.1 per cent of respondents felt that gambling would likely make them feel more powerful whilst 88.1 per cent felt that it would not be likely to do so.

Money

There was some variation in respondents' expectation of monetary gain in that:

- slightly over one in ten respondents (12.2%) felt it likely that they would win money if they gambled (although three quarters 75.6% felt that it was not likely)
- however, only 2.9 per cent felt that it was likely that gambling would make them rich while 92.1 per cent of respondents felt this was not a likely outcome.

Over-involvement

Both forms of over-involvement seemed to be expectations for around one in ten respondents:

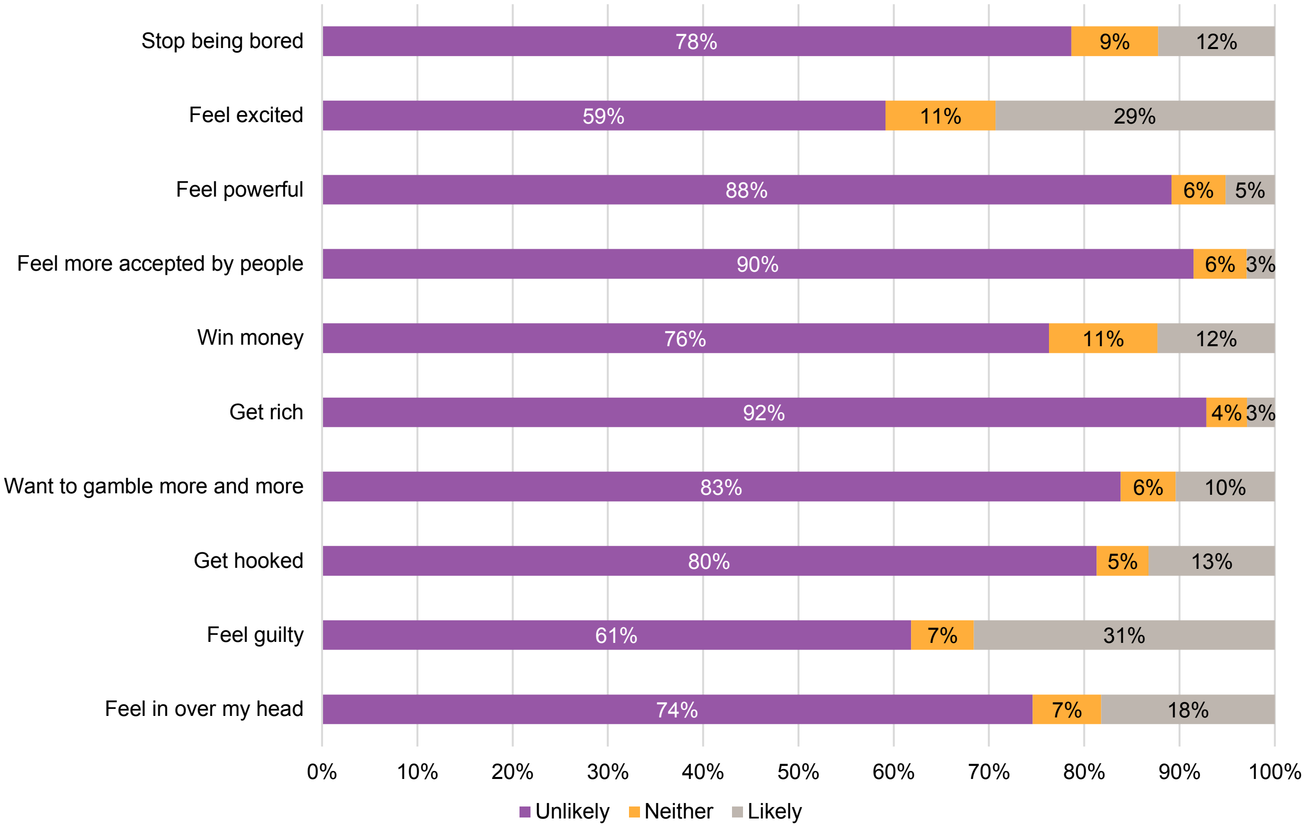
- 10.3 per cent felt that engaging in gambling was likely to make them want to gamble more and more (while 83.0% felt this was not likely)
- 13.1 per cent felt that if they gambled they were likely to get hooked (80.4% did not think this was so).

Emotional impact

This category of expectancies saw somewhat higher levels of anticipation by respondents:

- almost one third (31.2%) felt that it was likely they would feel guilty if they gambled (61.1% felt that it was not likely)
- 18.0 per cent of respondents felt that if they gambled they would feel in over their head (73.7% did not feel this was likely).

Figure 7 **Gambling expectancies (2013)**



Note: Base: Total Sample (2013 Supplementary survey; n=1,887).
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s F1a-F1j.

9.3 Gambling expectancies and gambling severity

Table 59 presents a summary of gambling expectancies broken down by PGSI gambling categories. The table shows the proportion of each PGSI subgroup that considered the particular outcome to be 'likely'. These proportions are tested for statistically significant differences against the results shown for non-problem gamblers.

It is apparent that expectancies of both positive and negative outcomes are generally higher amongst moderate risk/problem gamblers and low-risk gamblers than they are amongst non-problem gamblers.

Non-gamblers

It is evident from Table 59 that non-gamblers have significantly higher expectancies of negative gambling outcomes (over-involvement and emotional impact) than do non-problem gamblers. Thus:

- *over-involvement* – 14.0 per cent of non-gamblers thought gambling was likely get them hooked (versus 8.1% of non-problem gamblers) and 13.3 per cent thought it was likely to make them gamble more and more (versus 6.7% of non-problem gamblers)
- *emotional impact* – 46.3 per cent of non-gamblers thought gambling was likely to make them feel guilty and 26.4 per cent felt it was likely to make them feel as if they were in

over their head (amongst non-gamblers the corresponding figures were 21.8% and 12.7%).

Non-gamblers were also less likely than non-problem gamblers to expect to win money from gambling (7.0% versus 11.9%).

Low risk gamblers

The differences between non-problem gamblers and low risk gamblers were less marked but still evident.

- *enjoyment/arousal* – compared to non-problem gamblers a significantly higher proportion of low risk gamblers reported that gambling activity was likely to stop them being bored (31.5% versus 8.9%) and over half (51.4% versus 26.9%) that it was likely to make them feel excited
- *self-enhancement* – a small, but significantly higher, proportion (5.6%) of low-risk gamblers compared to non-problem gamblers (2.0%) reported that gambling activity was likely to make them feel more accepted by people
- *over involvement* – a significantly higher proportion (23.3%) of low-risk gamblers felt that gambling activity was likely to make them get hooked (versus 8.1% of non-problem gamblers).

Moderate risk/problem gamblers

In most cases, a significantly higher proportion of moderate/risk problem gamblers (compared to non-problem gamblers) expected that engaging in gambling activity was likely to produce the suggested outcomes; this applied to both positive and negative outcomes. Thus in terms of:

- *enjoyment/arousal* – 39.3 per cent of moderate risk/problem gamblers expected gambling would stop them being bored and 64.2 per cent expected it would make them excited, compared to 8.9 per cent and 26.9 per cent respectively of non-problem gamblers
- *money* – almost one-third (32.3%) of moderate risk/problem gamblers thought it likely that they would win money whilst just over one in ten (11.9%) non-problem gamblers thought this was likely
- *over involvement* – 39.1 per cent of moderate-risk/problem gamblers thought gambling was likely to make them want to gamble more and more while over one half (51.5%) thought it was likely get them hooked (versus 6.7% and 8.1% respectively of non-problem gamblers)
- *emotional impact* – again, over one half (54.7%) of moderate-risk/problem gamblers reported that gambling was likely to make them feel guilty and 40.7 per cent felt that it was likely to make them feel as if they were in over their head. In contrast, only 21.8 per cent and 12.7 per cent respectively of non-problem gamblers thought these outcomes were likely.

Table 59 **Gambling expectancies by gambling severity (PGSI) – per cent who think this is 'likely' to occur**

Gambling expectancies	PGSI Gambling Categories					
	Non-gamblers (*n=566*)	Non-problem gamblers (*n=1,106*)	Low risk gamblers (*n=130*)	Moderate risk/ problem gamblers (*n=85*)	Moderate risk gamblers (*n=68*)	Problem gamblers (*n=17*)
(% 'Likely')	%	%	%	%	%	%
Enjoyment/Arousal						
Stop being bored	8.6	8.9	31.5↑	39.3↑	29.3↑	74.4↑
Feel excited	21.2	26.9	51.4↑	64.2↑	57.5↑	87.7↑
Self-enhancement						
Feel powerful	5.7	4.0	np	16.3 ⱡ	12.4 ⱡ	np
Feel more accepted by people	2.4	2.0	5.6↑ ⱡ	np	np	np
Money						
Win money	7.0↓	11.9	21.2	32.3↑	29.0↑	43.9 ⱡ
Get rich	2.4 ⱡ	1.7	7.3 ⱡ	13.5 ⱡ	np	40.5↑ ⱡ
Over-involvement						
Want to gamble more and more	13.3↑	6.7	8.0 ⱡ	39.1↑	27.4↑	79.8↑
Get hooked	14.0↑	8.1	23.3↑	51.5↑	43.1↑	80.9↑
Emotional impact						
Feel guilty	46.3↑	21.8	31.7	54.7↑	44.0↑	92.1↑
…Feel in over my head	26.4↑	12.7	12.9	40.7↑	29.8↑	78.9↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ⱡ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s F1a-F1j.

9.4 Gambling expectancies as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, and moderate risk/problem gambling) by gambling expectancies after controlling for socio-demographic characteristics, χ^2 (14) = 112.62, p < .001. Table 60 displays the results of this regression analysis. After taking the influence of socio-demographic characteristics into account, gambling expectancies explained a significant additional proportion of variance in PGSI category (p < .001). Specifically, PGSI category was significantly **positively** predicted by arousal/enjoyment expectancies (OR = 1.455, p < .001), money expectancies (OR = 1.236, p = .009), and over-involvement expectancies (1.346, p < .001) and significantly **negatively** associated with self-enhancement expectancies (OR = 0.771, p = .02). This means that the odds of being classified in the next highest PGSI category increased with higher arousal/enjoyment, money, and over-involvement expectancies and decreased with higher self-enhancement expectancies.

Table 60 **Multivariate analyses exploring prediction of PGSI category by gambling expectancies after controlling for socio-demographic characteristics**

	Estimate	SE	Wald	OR	95% CI	
					Lower	Upper
Enjoyment/Arousal	0.375**	0.063	35.544	1.455	0.252	0.499
Self-enhancement	-0.260*	0.110	5.548	0.771	-0.476	-0.044
Money	0.212**	0.082	6.765	1.236	-0.052	0.372
Over involvement	0.297**	0.071	17.518	1.346	0.158	0.437
Emotional impact	-0.028	0.063	0.202	0.972	-0.152	0.095

Note: ** p ≤ .01, * p ≤ .05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = Odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

10 Gambling behaviour, health and well being

This chapter presents data on the relationship between gambling behaviour and individual health and well-being. In doing so, the chapter initially explores self-reported experience of gambling-related harms amongst a subset (*n=978*) of survey respondents identified as being 'at risk gamblers'.

This is followed by an assessment of quality of life, patterns of substance use (including alcohol, tobacco products, prescription and non-prescription drugs) and mental health amongst those respondents who undertook the 2013 supplementary survey (*n=1,887*).

Apart from the first section on gambling harms (where the data do not have sufficient statistical reliability to support this level of analysis), results are presented by PGSI gambling severity categories and, consistent with the approach in previous chapters, comparisons are drawn between non-problem gamblers and the other categories.

10.1 Key findings

- personal experience of gambling related harms in the past three years was relatively low; difficulty paying bills (3.4% of 'at risk' gamblers) and reduced performance in undertaking daily tasks and activities (3.0%) were the harms most often experienced during this time
- there were indications that moderate risk and problem gamblers had a somewhat poorer quality of life than did non-problem gamblers. Specifically:
  - 68.5 per cent of moderate risk/problem gamblers were 'satisfied' or 'very satisfied' with their health, significantly **lower** than non-problem gamblers (84.4%)
  - 53.3 per cent of moderate risk/problem gamblers and 48.9 per cent of moderate risk gamblers were 'satisfied' or 'very satisfied' with their sleep; significantly **lower** than the corresponding proportion of non-problem gamblers (69.5%)
  - moderate risk/problem gamblers had poorer results than non-problem gamblers on every measure of psychological health life satisfaction
  - moderate risk/problem gamblers had a lower overall score on the Social Relationships quality of life domain than did non-problem gamblers (15.3 versus 16.9)
  - moderate risk/problem gamblers also had a significantly **lower** summary score on the Environment quality of life domain than did non-problem gamblers (15.7 versus 16.9)
  - after taking the influence of socio-demographic characteristics into account, PGSI category was significantly **negatively** predicted by the Psychological Health (OR = 0.820, $p < .001$) and Social Relationships quality of life domains (OR = 0.975, p = .045)

- there were also indications that moderate risk and problem gamblers experienced more substance use issues than did non-problem gamblers. Specifically:
  - the proportion of moderate risk/problem gamblers who had either never used tobacco or who had not done so in the last 12 months (63.1%) was significantly **lower** than that of non-problem gamblers (78.2%)
  - moderate risk/problem gamblers were significantly **more likely** to be classified as binge drinkers than were non-problem gamblers (39.9% compared to 22.0%). This difference was particularly marked amongst problem gamblers, 59.6 per cent of whom were classified as binge drinkers
  - after taking the influence of socio-demographic characteristics into account, PGSI category was significantly predicted by the tobacco use and alcohol use problems
- the proportion of moderate risk/problem gamblers showing indications of mental health issues such as depression, anxiety, panic, social anxiety and ADHD, was significantly **higher** than amongst non-problem gamblers. After taking the influence of socio-demographic characteristics into account, PGSI category was significantly predicted by depression and impulsivity
- moderate risk/problem gamblers had poorer outcomes than non-problem gamblers on several summary measures of positive mental health, specifically personal growth and autonomy (mean score of 4.6 versus 4.9 for non-problem gamblers), positive reframing (3.9 versus 4.4), instrumental support (3.2 versus 3.8) and self-distraction (3.7 versus 3.3 where a higher score represents a poorer outcome). After taking the influence of socio-demographic characteristics into account, PGSI category was significantly **negatively** predicted by personal growth and autonomy and using instrumental support to cope, and positively predicted with using self-distraction to cope

10.2 Self-reported experience of harms arising from gambling

A subset of gamblers comprising those considered most at risk of harm from gambling were asked eight questions about their personal experience of gambling related harms. Specifically this group included those whose PGSI score classified them as low risk, moderate risk or problem gamblers; those who spent more than $2,000 a year on gambling; and those who gambled 12 or more times a year on activities other than scratch tickets or lotteries. In all, this comprised a total of 978 respondents.

These respondents were asked how often in the last three years, their gambling had been associated with the following negative impacts:[14]

a) resulted in you having difficulty paying bills, repaying debt, or meeting other expenses
b) reduced how well you perform in undertaking daily tasks and activities
c) resulted in you changing jobs or being dismissed from work
d) left you with not enough time to look after your family's interests
e) led to the breakup of an important relationship in your life
f) led you to obtain money illegally, even if you intended to pay it back
g) led to you to have contact with the police
h) resulted in you seriously thinking about, or attempting, suicide.

Figure 8 shows the extent to which these gamblers had personally experienced these gambling-related harms during the past three years. Given the relatively low incidence of these harms, the proportions of respondents who experienced them at least some of the time are not statistically reliable in a number of cases and have been suppressed.

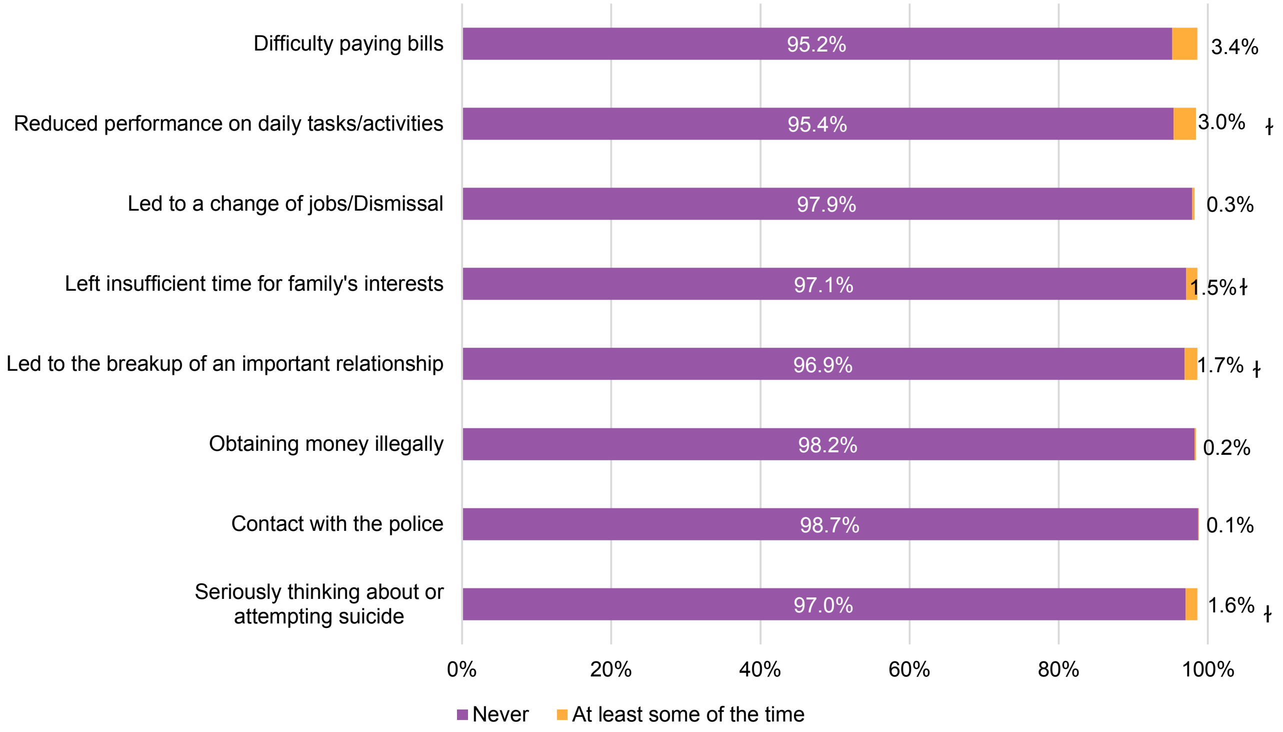
Nevertheless, it is clear from Figure 8 that the prevalence of these harms was relatively low. As a result of their gambling, 3.4 per cent reported difficulty paying bills, repaying debt or meeting other expenses; 3.0 per cent experienced reduced performance in undertaking daily tasks and activities; 1.7 per cent had experienced the break-up of an important relationship in their lives; 1.6 per cent had attempted or seriously thought about attempting suicide; and 1.5 per cent felt their gambling had left insufficient time to look after the interests of their family.

While the sample sizes are too small to be statistically reliable on all eight measures, it was also interesting to note that of this subset of gamblers those classified as being at any risk according to the PGSI scale (that is, those classified by the PGSI as low risk, moderate risk or problem gamblers) appeared more likely to have experienced the following negative impacts during the last three years as a result of their gambling:

- difficulty paying bills (9.2%)
- reduced performance on daily tasks and activities (9.2%)
- insufficient time to look after their family's interests (4.4% ł), and
- seriously thinking about attempting suicide (4.8% ł).

[14] The scale used was 'Almost always', 'Most of the time', 'Sometimes', 'Never'. However, due to the small number of responses, the first three categories were combined for reporting in this Chapter.

Figure 8 **Personal experience of gambling related harms in the past three years (2013)**



Note: Base: At risk Gamblers (2013 Survey; n=978).
For clarity of presentation, 'don't know' and 'refused' responses are not shown in this graph.
ƚ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s G1a-G1h.

10.3 Quality of life

All respondents who completed the supplementary survey (*n=1,887*) were administered the WHO-QoL-BREF self-report to provide an assessment of their quality of life over the previous four weeks. The items within this scale provide scores for each of the following four domains:

— physical health (including physical pain, medical treatment, energy, ability to get around, sleep, daily living activities, and capacity for work)
— psychological health (including enjoyment of life, meaningfulness, concentration, bodily appearance, self, and negative feelings)
— social relationships (including personal relationships, sex life, and support from friends)
— environment (including safety, physical environment, money, information, leisure activities, living place conditions, access to health services, and transport).

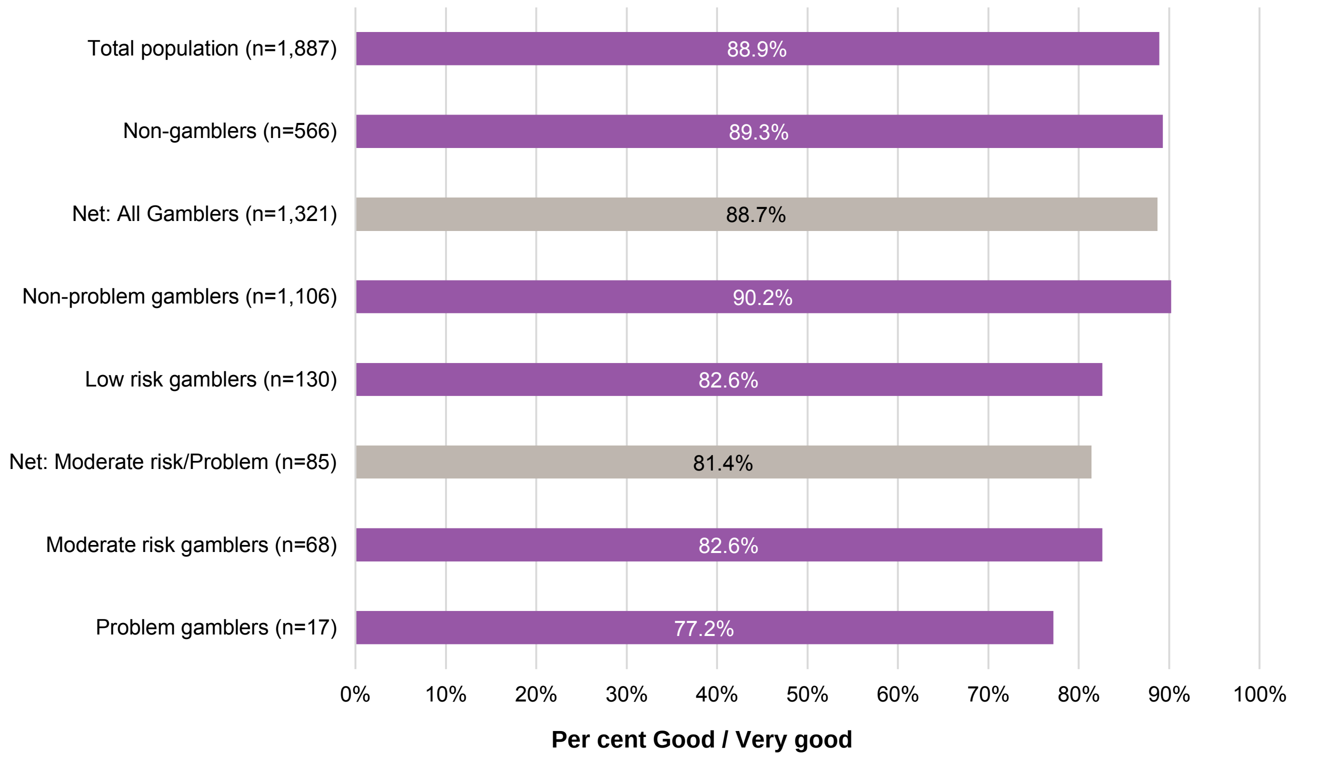
The WHO-QoL-BREF also contains two global items which evaluate overall quality of life and satisfaction with health. For each item and domain, results are presented by PGSI category with significant differences noted, where they exist, between non-problem gamblers and the other PGSI categories. Again, because of the small size of the problem gambler category (*n=17*), results are also presented for a combined moderate risk/problem gambler category in the following graphs and tables.

Overall quality of life

Figure 9 shows the proportion of respondents who rated their overall quality of life in the previous four weeks as either 'good' or 'very good'. Whilst there are no significant differences between non-problem gamblers and the other PGSI categories it is evident that:

- almost nine out of ten supplementary survey respondents (88.9%) rated their quality of life as either 'good' or 'very good'
- overall quality of life was rated as either 'good' or 'very good' by 90.2 per cent of non-problem gamblers; by 82.6 per cent of low risk and of moderate risk gamblers; and by 77.2 per cent of problem gamblers.

Figure 9 **Overall quality of life by PGSI (2013 supplementary survey)**



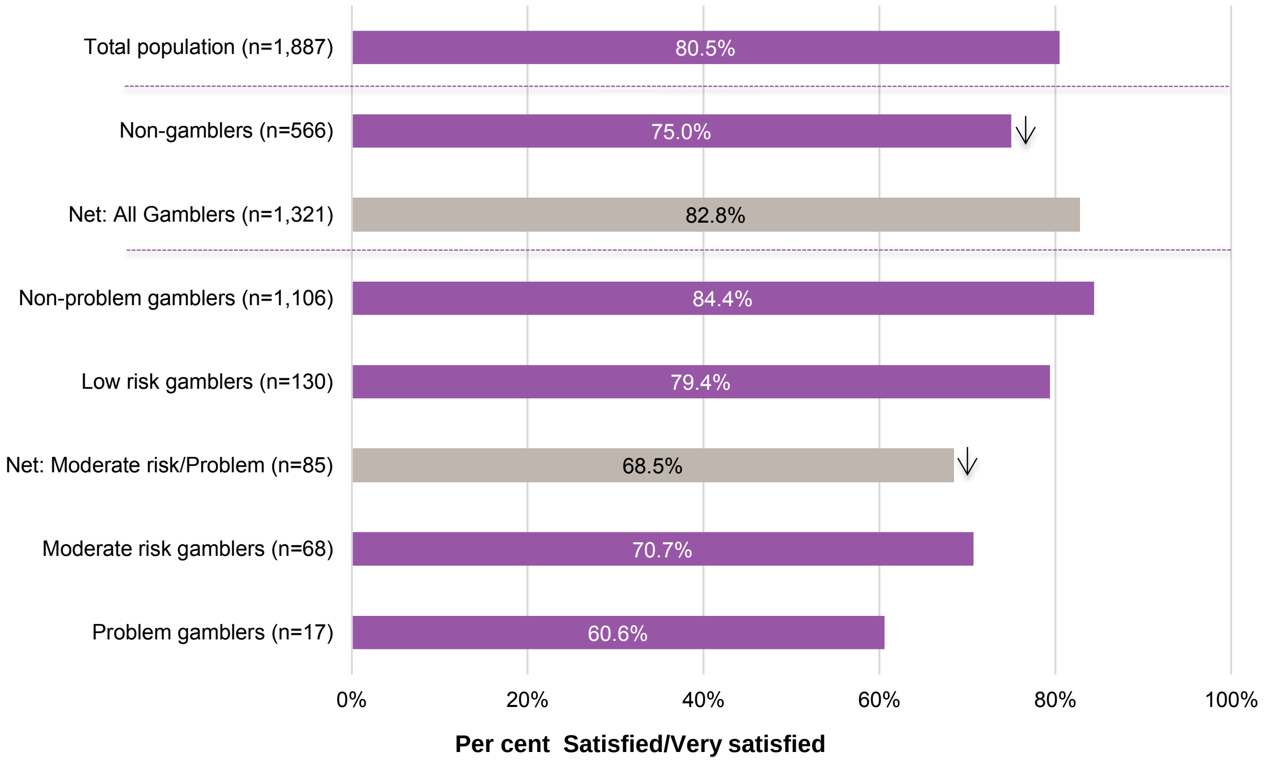
Note: Base - Total Sample (2013 Supplementary Survey; n=1,887).
For clarity of presentation, only the combined 'Good' and 'Very Good' responses are shown in this graph.
ɫ RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. L1a.

Overall health

Figure 10 shows the proportion of respondents who were either 'satisfied' or 'very satisfied' with their health; slightly more variation is evident between respondent subgroups than was the case for the overall quality of life measure. Thus:

- eight out of ten supplementary survey respondents (80.5%) reported being 'satisfied' or 'very satisfied' with their health
- however, compared to non-problem gamblers (84.4% of whom were 'satisfied' or 'very satisfied' with their health), non-gamblers (75.0%) and moderate risk/problem gamblers (68.5%) were significantly **less** satisfied with their health.

Figure 10 **Overall satisfaction with health by PGSI (2013)**



Note: Base - Total Sample (2013 Supplementary Survey; n=1,887).
For clarity of presentation, only the combined 'Satisfied' and 'Very Satisfied' responses are shown in this graph.
Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ł RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. L4a.

Physical health

Table 61 displays supplementary survey respondents' (*n=1,887*) assessment of their quality of life in relation to their physical health. From this data, it is apparent that, when compared to non-problem gamblers:

- significantly **smaller** proportions of non-gamblers (72.8%) and low risk gamblers (66.5%) reported having 'completely' or 'mostly' enough energy for everyday life (versus 80.4% of non-problem gamblers)
- significantly **less** moderate risk/problem gamblers (53.3%) and moderate risk gamblers alone (48.9%) were 'satisfied' or 'very satisfied' with their sleep (versus 69.5% of non-problem gamblers)
- non-gamblers were significantly **less** likely to report being 'satisfied' or 'very satisfied' with their capacity to work (73.5% versus 83.8% of non-problem gamblers).

In relation to the overall physical health domain score, moderate risk/problem gamblers and moderate risk gamblers alone had significantly **lower** scores out of twenty (15.4 and 15.1 respectively) than did non-problem gamblers (mean score of 16.4).

Table 61 **Physical health quality of life items by PGSI category (2013 supplementary survey)**

Physical health items	PGSI gambling categories						All gamblers (n=1,321)	Total Popn (n=1,887)
	Non-gamblers (n=566)	Non-problem gamblers (n=1,106)	Low risk gamblers (n=130)	Moderate risk/ problem gamblers (n=85)	Moderate risk gamblers (n=68)	Problem gamblers (n=17)		
	%	%	%	%	%	%	%	%
Physical pain prevents action (little/not at all)	69.1	68.4	63.7	64.7	67.2	56.1 ł	67.6	68.0
Need medical treatment to function in daily life (little/not at all)	68.5	69.4	66.8	67.8	62.6	85.9	69.0	68.9
Have enough energy for everyday life (completely/mostly)	72.8↓	80.4	66.5↓	72.8	72.1	75.4	78.3	76.7
Ability to get around (good/very good)	87.0	88.8	89.6	80.9	76.8	95.4	88.3	88.0
Sleep (satisfied/very satisfied)	67.7	69.5	64.9	53.3↓	48.9↓	68.9	67.9	67.8
Ability to perform daily living activities (satisfied/very satisfied)	87.5	90.7	89.1	77.4	76.6	80.4	89.7	89.0
Capacity for work (satisfied/very satisfied)	73.5↓	83.8	74.3	81.2	79.4	87.8	82.6	79.9
Physical Health Domain								
Domain score (out of 20)	16.0	16.4	16.0	15.4↓	15.1↓	16.2	16.3	16.2

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers ($p<0.05$).
ł RSE between 30% and 50%.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s L2a, L2b, L3a, L1b, L4b, L4c, L4d.

Psychological health

Table 62 presents results for the supplementary survey respondents' assessment of their psychological health. When compared to non-problem gamblers:

- members of the moderate risk/problem gambler group scored significantly **worse** on all six psychological health measures as well as on the overall summary measure of psychological health (mean score of 14.4 out of 20 compared with 16.7 for non-problem gamblers)
- there were also indications of poorer psychological health amongst low risk and moderate risk gamblers compared with non-problem gamblers. For example, 56.5 per cent of low risk gamblers rarely or never experienced negative feelings in the last four weeks compared with 71.5 per cent of non-problem gamblers; and 75.6 per cent of moderate risk gamblers felt either satisfied or very satisfied with themselves compared with 94.0 per cent of non-problem gamblers
- while the small sample size limited the availability of statistically reliable results for problem gamblers, members of this group did have a lower score than non-problem gamblers on the overall psychological health domain summary measure (mean score of 12.9 versus 16.7 out of 20).

Table 62 **Psychological health quality of life items by PGSI category (2013 supplementary survey)**

Psychological health items	PGSI gambling categories						All gamblers (n=1,321)	Total Popn (n=1,887) %
	Non-gamblers (n=566)	Non-problem gamblers (n=1,106)	Low risk gamblers (n=130)	Moderate risk/problem gamblers (n=85)	Moderate risk gamblers (n=68)	Problem gamblers (n=17)		
	%	%	%	%	%	%	%	%
Enjoyment of life (extremely/very much)	75.2	81.0	69.8	54.3↓	66.0	np	77.9	77.1
Feel your life is meaningful (extremely/very much)	79.0	81.1	70.1	50.6↓	58.1↓	np	77.8	78.1
Ability to concentrate (extremely/very much)	73.1	74.1	64.7	55.0↓	55.8↓	52.1 ⱡ	71.7	72.1
Acceptance of bodily appearance (completely/mostly)	81.3	84.2	68.3↓	68.5↓	70.5	66.0	81.4	81.4
Satisfaction with self (satisfied/very satisfied)	86.3↓	94.0	77.4↓	73.4↓	75.6↓	65.7	90.7	89.5
Experienced negative feelings in last 4 weeks (rarely/none of the time)	65.1	71.5	56.5↓	49.2↓	56.1	np	68.3	67.4
Psychological Health Domain								
Domain score (out of 20)	16.3↓	16.7	15.5↓	14.4↓	14.9↓	12.9↓	16.4	16.4

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ⱡ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s L2c, L2d, L2e, L3b, L4e, L6.

Social relationships

Table 63 presents results for supplementary survey respondents' satisfaction with their social relationships. The following appeared noteworthy:

— whilst more than nine out of ten non-problem gamblers felt 'satisfied' or 'very satisfied' with their personal relationships, this applied to significantly **smaller** proportions of moderate risk/problem gamblers (74.0%) and moderate risk gamblers alone (74.4%)

— in terms of the overall social relationships domain summary score, moderate risk/problem gamblers and moderate risk gamblers alone both had scores of 15.3 out of twenty; these were significantly **lower** than the score of 16.9 recorded for non-problem gamblers.

Table 63 **Social relationships quality of life items by PGSI category (2013 supplementary survey)**

Social relationships Items	PGSI Gambling Categories						All gamblers *(n=1,321)*	Total Popn *(n=1,887)*
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*		
	%	%	%	%	%	%	%	%
Satisfaction with personal relationships (satisfied/very satisfied)	90.5	91.3	87.2	74.0↓	74.4↓	72.5	89.7	89.9
Satisfaction with sex life (satisfied/very satisfied)	56.0	62.8	62.3	50.1	47.5	59.3	61.9	60.2
Satisfaction with support received from friends (satisfied/very satisfied)	92.1	92.2	92.3	84.2	88.9	67.8	91.7	91.8
Social Relationships Domain								
Domain score (out of 20)	16.7	16.9	16.8	15.3↓	15.3↓	15.3	16.8	16.8

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

ƚ RSE between 30% and 50%.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s L4f, L5, L4g.

Environment

The environment is the last of the quality of life domains reported here with results for this displayed in Table 64. Significant differences are not apparent in every item but it is evident that:

— compared to non-problem gamblers (80.5%) significantly **smaller** proportions of moderate risk/problem gamblers (63.9%) and moderate risk gamblers alone (59.1%) felt that their physical environment was ‘extremely’ or ‘very’ healthy

— significantly **lower** proportions of low risk gamblers (65.4%) and of non-gamblers (72.8%) felt they ‘completely’ or ‘mostly’ had enough money to meet their needs when compared with 79.9 per cent of non-problem gamblers

— compared to non-problem gamblers (85.6%), significantly **lower** proportions of moderate risk/problem gamblers (69.5%) and problem gamblers alone (49.1%) felt they ‘completely’ or ‘mostly’ had all the information available that they needed in day to day life

— compared to non-problem gamblers (58.6%), a significantly **lower** proportion of non-gamblers (51.3%) felt that they ‘completely’ or ‘mostly’ had the opportunity for leisure activities.

In relation to the overall environment domain score, moderate risk/problem gamblers and moderate risk gamblers alone (both with mean scores of 15.7 out of 20) as well as low risk gamblers (16.3 out of 20) all had significantly **lower** scores on this measure than did non-problem gamblers (16.9 out of 20).

Table 64 **Environment quality of life items by PGSI category (2013 supplementary survey)**

Environment items	PGSI Gambling Categories						All gamblers *(n=1,321)*	Total Popn *(n=1,887)*
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*		
	%	%	%	%	%	%	%	%
Feelings of safety in daily life (extremely/very much)	85.5	86.5	84.2	71.5	76.1	55.4 ɫ	85.2	85.3
Health of physical environment (extremely/very much)	77.9	80.5	82.4	63.9↓	59.1↓	80.7	79.6	79.1
Enough money to meet needs (completely/mostly)	72.8↓	79.9	65.4↓	70.8	67.2	83.3	77.6	76.2
Availability of information needed in day to day life (completely/mostly)	83.5	85.6	84.3	69.5↓	75.4	49.1↓ ɫ	84.4	84.1
Extent of opportunity for leisure activities (completely/mostly)	51.3↓	58.6	60.3	45.8	48.9	35.0 ɫ	57.9	56.0
Satisfaction with conditions of living place (satisfied/very satisfied)	93.4	94.2	90.1	87.0	86.8	87.5	93.3	93.3
Satisfaction with access to health services (satisfied/very satisfied)	81.0	81.4	71.2	70.2	70.1	70.6	79.5	80.0
Satisfaction with transport (satisfied/very satisfied)	91.1	92.5	90.9	87.5	84.9	96.7	92.0	91.8
Environment Domain								
Domain score (out of 20)	16.6	16.9	16.3↓	15.7↓	15.7↓	16.0	16.8	16.7

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ɫ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s L2f, L2g, L3c, L3d, L3e, L4h, L4i, L4j.

Quality of life domains as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) by quality of life after controlling for socio-demographic characteristics, χ^2 (13) = 72.21, p < .001. Table 65 displays the results from this regression analysis. After taking the influence of socio-demographic characteristics into account, quality of life explained a significant additional proportion of variance in PGSI category (p < .001). Specifically, PGSI category was significantly negatively predicted by Psychological Health quality of life (OR = 0.820, p < .001) and Social Relationships quality of life (OR = 0.975, p = .045). This means that the odds of being classified in the next highest PGSI category decreased with higher psychological health and social relationships quality of life.

Table 65 **Multivariate analyses exploring prediction of PGSI category by quality of life after controlling for socio-demographic characteristics**

	Estimate	SE	Wald	OR	95% CI	
					Lower	Upper
Physical Health score	0.005	0.028	0.037	1.005	-0.050	0.060
Psychological Health score	-0.198**	0.033	36.188	0.820	-0.263	-0.134
Social Relationships score	-0.025*	0.012	4.008	0.975	-0.049	-0.001
Environment score	0.038	0.043	0.819	1.039	-0.045	0.122

Note: ** p ≤ .01, * p ≤ .05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = Odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

10.4 Substance use

Those respondents who were administered the supplementary survey were also asked to report on their patterns of substance use in the previous three months; that is on their use of alcohol, tobacco, and both prescription and non-prescription drugs. Specifically, respondents were asked whether they consumed alcohol, the amounts they consumed and their frequency of consumption; their frequency of using tobacco products, and their frequency of using non-prescription drugs and prescription drugs that had not been prescribed for them by a doctor.

Substance use – tobacco products

Respondents' frequency of using tobacco products (for example, cigarettes, chewing tobacco, cigars) is presented in Table 66. It is evident that the proportions of moderate risk/problem gamblers (63.1%) and of problem gamblers alone (40.8%) who have not used tobacco for at least 12 months are both significantly **lower** than the proportion of non-problem gamblers (78.2%).

Table 66 **Frequency of using tobacco products by PGSI category (2013 supplementary survey)**

Frequency of using tobacco	PGSI Gambling Categories						**All gamblers** *(n=1,321)* %	**Total Popn** *(n=1,887)* %
	Non-gamblers *(n=566)* %	Non-problem gamblers *(n=1,106)* %	Low risk gamblers *(n=130)* %	Moderate risk/problem gamblers *(n=85)* %	Moderate risk gamblers *(n=68)* %	Problem gamblers *(n=17)* %		
	%	%	%	%	%	%	%	%
Daily	12.5	16.8	21.3	27.8	21.9	48.4 ƚ	18.1	16.4
Less than daily	3.1 ƚ	4.8	np	7.5 ƚ	np	np	5.3	4.6
Never/Not in past 12 months	84.2	78.2	68.0	63.1↓	69.4	40.8↓ ƚ	76.0	78.4

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

ƚ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q. M1c.

Substance use – alcohol

Table 67 presents a summary of supplementary survey respondents' patterns of alcohol consumption. From the data it is apparent that:

— non-gamblers tend to exhibit lower levels of alcohol consumption. Compared to non-problem gamblers, a higher proportion of non-gamblers do not drink alcohol at all (35.4%

versus 18.9%) while lower proportions report drinking alcohol at frequencies of 2 or 3 times a week (13.6% versus 21.2%) and 2 to 4 times a month (16.6% versus 24.5%). They were also less likely to report drinking 10 or more standard drinks on a typical drinking occasion (1.4% versus 5.6% of non-problem gamblers) and were also less likely to be classified as binge drinkers (8.6% versus 22.0%).[15]

— compared to just over one in five non-problem gamblers (22.0%), significantly higher proportions of moderate risk/problem gamblers (39.9%) and problem gamblers in particular (59.6%) were classified as binge drinkers.

Table 67 **Frequency of using alcohol by PGSI category (2013 supplementary survey)**

Alcohol use	PGSI Gambling Categories							
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*	All gamblers *(n=1,321)*	Total Popn *(n=1,887)*
	%	%	%	%	%	%	%	%
How often do you have a drink containing alcohol? (AUDIT - 1)								
4 or more times a week	21.0	22.9	14.9	19.1 ɫ	20.5 ɫ	np	21.7	21.5
2 or 3 times a week	13.6↓	21.2	26.3	20.8 ɫ	16.2 ɫ	np	21.8	19.4
2 to 4 times a month	16.6↓	24.5	26.0	26.4	28.9	np	24.8	22.4
Monthly or less	12.9	12.0	12.3 ɫ	12.7 ɫ	11.6 ɫ	np	12.1	12.3
Don't drink alcohol	35.4↑	18.9	18.6	17.4	18.3	np	18.7	23.6
How many standard drinks do you have on a typical day when drinking? (AUDIT - 2)								
1 or 2	39.7	40.0	26.7↓	18.4↓	18.1↓ ɫ	np	37.0	37.8
3 or 4	17.4	18.8	17.1	24.2	27.0	np	19.0	18.5
5 or 6	4.1↓	12.0	10.3	19.0 ɫ	24.4 ɫ	np	12.3	9.9
7 to 9	1.7 ɫ	4.1	np	np	np	np	4.3	3.6
10 or more	1.4↓ ɫ	5.6	19.1	14.8 ɫ	8.3 ɫ	np	7.8	5.9
Don't drink alcohol	35.4↑	18.9	18.6	17.4	18.3	np	18.7	23.6
How often do you have 5 (females) / 7 (males) or more standard drinks on one occasion?								
At least once a week	5.1↓	14.3	24.1	26.5	17.7	57.2↑	16.3	13.0
2 or 3 times a month	3.5↓ ɫ	7.7	np	13.4 ɫ	16.5 ɫ	np	7.4	6.2
Monthly or less	22.0↓	29.1	27.6	26.8	27.6	np	28.8	26.8
Never/Not in the last 12 months	34.0	29.8	28.1	16.0↓	19.9	np	28.7	30.2
Don't drink alcohol	35.4↑	18.9	18.6	17.4	18.3	np	18.7	23.6
Binge Drinking	8.6↓	22.0	25.8	39.9↑	34.2	59.6↑	23.6	19.3

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers ($p<0.05$).

ɫ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s M2, M1a, M1b.

15 That is, they consumed 5 or more [for females] or 7 or more [for males] standard drinks on more than one occasion two to three times a month or more (Dawe, Atkinson, Frye, Evans, & Lynch, 2007).

Substance use – non-prescription drugs (excluding tobacco and alcohol)

Supplementary survey respondents were also asked about their use of non-prescription drugs; the list used to describe these to respondents was extensive, including cannabis, cocaine and amphetamine type stimulants, hallucinogens and heroin. Respondents were asked to indicate their frequency of using any of these substances.

As shown in Table 68:

- around one in ten respondents (11.4%) reported they had ever used any of these drugs
- amongst all gamblers and non-problem gamblers, this figure was 13.2 per cent; it was 14.9 per cent amongst low risk gamblers; and 9.2 per cent amongst moderate risk/problem gamblers
- the only significant difference present was the **lower** reported use of these drugs by non-gamblers when compared with non-problem gamblers (7.0% versus 13.2%).

Table 68 **Frequency of using non-prescription drugs by PGSI category (2013 supplementary survey)**

Frequency of using non-prescription drugs (excluding tobacco/alcohol)	**PGSI Gambling Categories**						**All gamblers** *(n=1,321)*	**Total Popn** *(n=1,887)*
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*		
	%	%	%	%	%	%	%	%
Frequency of use								
Ever used	7.0↓	13.2	14.9 ƚ	9.2 ƚ	np	np	13.2	11.4
Never used	92.8↑	86.3	84.6	88.4	88.8	86.9	86.3	88.2

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ƚ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q. M1d.

Substance use – prescription drugs other than as directed by a doctor

Respondents were also asked about their frequency of using prescription drugs that had not been prescribed by their doctor. Results are presented in Table 69 for each of the PGSI gambling severity categories.

Once again, around one in ten supplementary survey respondents reported ever using any of these substances. This figure was consistent across subgroups with no significant differences evident between non-problem gamblers and the other PGSI categories shown here.

Table 69 **Frequency of using prescription drugs by PGSI category (2013 supplementary survey)**

Frequency of using prescription drugs other than as directed by a doctor.	PGSI Gambling Categories						**All gamblers** *(n=1,321)*	**Total Popn** *(n=1,887)*
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*		
	%	%	%	%	%	%	**%**	**%**
Frequency of use								
Ever used	11.9	10.5	12.4 ǂ	7.5 ǂ	8.0 ǂ	np	10.5	10.9
Never used	87.9	89.5	87.6	91.7	90.9	94.6	89.4	89.0

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).
ǂ RSE between 30% and 50%.
np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.
Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s M1e.

Substance use as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) by substance use after controlling for socio-demographic characteristics, χ^2 (13) = 33.85, *p* = .001. The results from this regression are displayed in Table 70. After taking the influence of socio-demographic characteristics into account, substance use explained a significant additional proportion of variance in PGSI category (*p* < .001). Specifically, PGSI category was significantly positively predicted by binge drinking (OR = 2.142, *p* < .001) and smoking frequency (OR = 1.091, *p* = .02). This means that the odds of being classified in the next highest PGSI category increased with increases in binge drinking and smoking.

Table 70 **Multivariate analyses exploring prediction of PGSI category by substance use after controlling for socio-demographic characteristics**

					95% CI	
	Estimate	SE	Wald	OR	Lower	Upper
Binge drinking	0.762**	0.202	14.30	2.142	0.367	1.157
Frequency of using tobacco	0.087*	0.037	5.604	1.091	0.015	0.159
Frequency of using non-prescription drugs (excl. tobacco/alcohol)	-0.122	0.125	0.949	0.885	-0.366	0.123
Frequency of using prescription drugs other than as directed by a doctor	0.077	0.091	0.725	1.080	-0.100	0.255

Note: ** p ≤ .01, * p ≤ .05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = Odds ratio.
Source: 2013 Tasmanian Gambling Prevalence Survey.

10.5 Mental health

Those who undertook the supplementary survey were also asked a series of questions relating to their mental health. In particular they were asked about:

— symptoms of depression, such as lack of interest and low mood, in the previous fortnight (using the Physical Health Questionnaire-2 [PHQ-2])

- symptoms of generalised anxiety, such as feeling nervous and worrying in the previous fortnight (using the Generalised Anxiety Disorder-2 [GAD-2])
- panic symptoms, such as fear, anxiety, racing heart, faintness or breathlessness, in the previous six months (using the Autonomic Nervous System Questionnaire [ANS])
- symptoms of post-traumatic stress disorder (PTSD), such as nightmares, avoidance, watchfulness or detachment, in the previous month (using the Primary Care Posttraumatic Stress Disorder [PC-PTSD])
- symptoms of generalised social anxiety disorder, such as seeking to avoid embarrassment, attention or looking stupid, in the previous week (using the Social Phobia Inventory [Mini SPIN])
- symptoms of attention-deficit hyperactivity disorder (ADHD), such as an inability to focus or concentrate, over the previous six months (using the ADHD Self-Report Scale [ASRS])
- impulsivity symptoms, such as the extent to which they engaged in behaviour which is uninhibited or uncontrolled (using the Barratt Impulsivity Scale-Brief [BIS-Brief]).

A description of each of these measures is provided in Appendix B. They were selected on the basis of a recent systematic review that indicate that, apart from alcohol and substance use disorders, the most common mental health disorders displayed by treatment-seeking gamblers are major depressive disorder (29.9%), social phobia (14.9%), generalised anxiety disorder (14.4%), panic disorder (13.7%), PTSD (12.3%), and ADHD (9.3%) (Dowling, et al., 2014). Moreover, impulsivity is a well-established risk factor for the development of gambling problems (Lorains, Stout, Bradshaw, Dowling, & Enticott, 2014). These measures, apart from that assessing impulsivity, are brief instruments designed to screen for the presence of these disorders in general practice and healthcare settings. They provide cut-offs that indicate the possible presence of these disorders. Information on their sensitivity (the rate of positive test results among those with the disorder) and specificity (the rate of negative test results among those without the disorder) is provided in Appendix B. Because they are designed to identify potential cases for more detailed assessment, caution must be employed in the interpretation of the estimates derived from these measures.

Mental health by PGSI gambling severity

Table 71 presents the summary mental health measures by PGSI gambling severity category. The data show a number of significant differences between moderate risk/problem gamblers and non-problem gamblers. Indeed, for each summary measure other than PTSD, the proportion of moderate risk/problem gamblers showing problems with that mental health condition was significantly **higher** than it was amongst non-problem gamblers. Thus:

- compared to non-problem gamblers (9.7%), combined moderate risk/problem gamblers were almost three times (27.0%) more likely to show indications of depression
- compared to the 11.0 per cent of non-problem gamblers who showed indications of anxiety, 28.7 per cent of moderate risk/problem gamblers as well as 27.3 per cent of moderate risk gamblers did so
- compared to just over one quarter (26.1%) of non-problem gamblers, significantly **higher** proportions of moderate risk/problem gamblers (42.1%) and of problem gamblers (63.6%) showed indications of panic
- less than one in ten (8.2%) non-problem gamblers showed signs of social anxiety, whilst a significantly **higher** proportion of 23.2 per cent of moderate risk/problem gamblers did so

— the proportion of non-problem gamblers who showed signs of ADHD (9.5%) was significantly **lower** and only about half that of moderate risk/problem gamblers (20.0%).

Finally, the table presents a mean impulsivity score (out of a maximum of 32) by PGSI category. Compared to non-problem gamblers (mean impulsivity score of 14.2), significantly higher scores were evident on this measure for moderate risk/problem gamblers (15.7), moderate risk gamblers (15.5) and low risk gamblers (15.6).

Table 71 **Mental health summary measures by PGSI category (2013 supplementary survey)**

Summary measures of mental health	PGSI Gambling Categories						All gamblers *(n=1,321)*	Total Popn *(n=1,887)*
	Non-gamblers *(n=566)*	Non-problem gamblers *(n=1,106)*	Low risk gamblers *(n=130)*	Moderate risk/problem gamblers *(n=85)*	Moderate risk gamblers *(n=68)*	Problem gamblers *(n=17)*		
	%	%	%	%	%	%	%	%
Shows indications of depression	12.4	9.7	15.6 ꝉ	27.0↑	23.6 ꝉ	39.1 ꝉ	11.5	11.8
Shows indications of anxiety	11.4	11.0	16.2 ꝉ	28.7↑	27.3↑	33.6 ꝉ	12.8	12.4
Shows indications of panic	30.9	26.1	38.8	42.1↑	36.0	63.6↑	28.6	29.3
Shows indications of social anxiety	10.4	8.2	13.1 ꝉ	23.2↑	23.8 ꝉ	np	9.8	10.0
Shows indications of PTSD	8.0	7.5	13.3 ꝉ	19.6 ꝉ	15.0 ꝉ	np	9.0	8.7
Shows indications of ADHD	14.4	9.5	17.1 ꝉ	20.0↑	21.0	np	11.0	12.0
Mean BIS-Brief Impulsivity score *(score out of 32)*	14.2	14.2	15.6↑	15.7↑	15.5↑	16.1	14.5	14.4

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

ꝉ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s N1-N6.

Mental health as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) by mental health after controlling for socio-demographic characteristics, χ^2 (16) = 52.74, p < .001. Table 72 displays the results of this regression analysis. After taking the influence of socio-demographic characteristics into account, mental health problems explained a significant additional proportion of variance in PGSI category (p < .001). Specifically, PGSI category was significantly positively predicted by PHQ depression (OR = 1.159, p = .049) and BIS Brief Impulsivity (OR = 1.054, p = .02). This means that the odds of being classified in the next highest PGSI category increased with depression and impulsivity.

Table 72 **Multivariate analyses exploring prediction of PGSI category by mental health after controlling for socio-demographic characteristics**

					95% CI	
	Estimate	SE	Wald	OR	Lower	Upper
PHQ-2 Depression score	0.148*	0.075	3.878	1.159	0.001	0.295
GAD-2 Anxiety score	0.018	0.073	0.060	1.018	-0.125	0.161
ANS Panic score	0.102	0.129	0.630	1.107	-0.151	0.356
Mini-SPIN Social Anxiety score	0.019	0.035	0.311	1.019	-0.048	0.087
PC-PTSD PTSD score	0.082	0.079	1.078	1.085	-0.073	0.237
ASRS ADHD score	0.029	0.063	0.209	1.029	-0.094	0.152
BIS-Brief Impulsivity score	0.053*	0.023	5.256	1.054	0.008	0.099

Note: ** $p \leq .01$, * $p \leq .05$. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = Odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

10.6 Positive mental health

Finally, respondents to the supplementary survey were asked a series of questions relating specifically to positive mental health. To date, the focus of gambling surveys, even those using a public health framework, has been on the identification of risk factors for problem gambling; that is, factors that are associated with a greater likelihood of onset, elevated severity and/or increased duration of problem gambling. However, public health frameworks also focus on the individual and external determinants that serve as protective factors in the development of problem gambling. Protective factors can impact problem gambling through reducing it directly or through mitigating the influence of risk factors. Although a relatively substantial literature has identified risk factors for the development and maintenance of gambling problems, we know almost nothing about factors that protect against the development of problem gambling.

Thus, in the 2013 study, supplementary survey respondents were asked to indicate how well they were described by sets of statements relating to individual factors hypothesised to be protective factors for the development of gambling problems. Specifically, they were asked to indicate their degree of:

- personal growth and autonomy (the level of control people feel they have in their own lives) (measured using the Personal Growth and Autonomy subscale of the Positive Mental Health (PMI) instrument)
- interpersonal and social skills (measured using the Interpersonal Skills subscale of the Positive Mental Health (PMI) instrument)
- adaptive and maladaptive coping responses to difficult or stressful situations using subscales from the Brief COPE scale; these include:
  - active coping (where active steps are taken to eliminate the stressor)
  - planning (the process of thinking about how best to cope with the stressor)
  - positive reframing (where the focus is on dealing with the distressful emotions rather than the stressor itself)
  - religion (where a stressor is dealt with by turning to religion)
  - emotional support (where moral support, understanding or sympathy is sought to cope with a stressor)

  - using instrumental support (where more tangible support is sought such as advice, information or assistance)
  - self-distraction (where individuals divert their attention and mind from the stressor through other activities).

A more detailed description of these scales is provided in Appendix B.

Positive mental health by PGSI gambling severity

Table 73 presents summary measures for the main aspects of positive mental health investigated in this survey. Each measure is presented as a score out of 6.0. From the table it is evident that:

- on the measure of personal growth and autonomy, non-problem gamblers had a mean score of 4.9; by comparison every other category had significantly **lower** scores: problem gamblers (4.5), moderate risk/problem gamblers and moderate risk gamblers (both 4.6), low risk gamblers (4.7) and non-gamblers (4.8)
- non-gamblers also had a significantly **lower** score on the measure of interpersonal skills (4.9) compared to non-problem gamblers (5.0)

In terms of the summary measures of response to stressful situations:

- compared to non-problem gamblers, non-gamblers scored significantly **higher** in relation to active coping (4.9 versus 4.7), planning (4.8 versus 4.6), religion (2.1 versus 1.3) and emotional support (4.4 versus 4.1)
- Insofar as the gambling PGSI categories were concerned:
  - moderate risk/problem gamblers (3.9) and problem gamblers (3.7) scored significantly **lower** on positive reframing than non-problem gamblers (4.4)
  - problem gamblers scored significantly **lower** (2.3) than non-problem gamblers (4.1) on emotional support
  - compared to non-problem gamblers (3.8), moderate risk/problem gamblers (3.2), moderate risk gamblers (3.4) and problem gamblers (2.4) all scored significantly **lower** in relation to instrumental support
  - low risk gamblers and moderate risk/problem gamblers had significantly **higher** scores of 3.7 on the measure of self-distraction compared to non-problem gamblers (3.3).

Table 73 **Mean positive mental health summary measures by PGSI category (2013 supplementary survey)**

Summary measures of positive mental health (mean scores)	PGSI Gambling Categories						All gamblers (n=1,321)	Total Popn (n=1,887)
	Non-gamblers (n=566)	Non-problem gamblers (n=1,106)	Low risk gamblers (n=130)	Moderate risk/problem gamblers (n=85)	Moderate risk gamblers (n=68)	Problem gamblers (n=17)		
Personal growth and autonomy	4.8↓	4.9	4.7↓	4.6↓	4.6↓	4.5↓	4.9	4.8
Interpersonal skills	4.9↓	5.0	5.0	4.9	4.8	5.1	5.0	5.0
Response to stressful situations								
Active coping	4.9↑	4.7	4.5	4.5	4.5	4.4	4.7	4.8
Planning	4.8↑	4.6	4.4	4.3	4.3	4.2	4.6	4.7
Positive reframing	4.5	4.4	4.3	3.9↓	4.0	3.7↓	4.4	4.4
Religion	2.1↑	1.3	1.6	0.9	1.1	np	1.3	1.6
Emotional support	4.4↑	4.1	4.2	3.7	4.1	2.3↓	4.1	4.2
Instrumental support	3.8	3.8	3.8	3.2↓	3.4↓	2.4↓	3.8	3.8
Self-distraction	3.2	3.3	3.7↑	3.7↑	3.8	3.7	3.4	3.3

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

ɫ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q.s O1-O3.

Positive mental health as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) by positive mental health after controlling for socio-demographic characteristics, χ^2 (18) = 49.610, p < .001. Table 74 displays the results of this regression analysis. After taking the influence of socio-demographic characteristics into account, positive mental health explained a significant additional proportion of variance in PGSI category (p < .001). Specifically, problem gambling severity was significantly negatively predicted by personal growth and autonomy (OR = 0.635, p = .001) and using instrumental support to cope (OR = 0.876, p = .02), and positively predicted by using self-distraction to cope (OR = 1.129, p = .02). This means that the odds of being classified in the next highest PGSI category decreased with personal growth and autonomy and using instrumental support to cope and increased with using self-distraction to cope.

Table 74 **Multivariate analyses exploring prediction of PGSI category by positive mental health after controlling for socio-demographic characteristics**

	Estimate	SE	Wald	OR	95% CI	
					Lower	Upper
PMHI Personal Growth and Autonomy	-0.454**	0.133	11.642	0.635	-0.715	-0.193
PMHI Interpersonal Skills	0.180	0.149	1.465	1.197	-0.111	0.471
Brief COPE Active Coping	-0.121	0.064	3.569	0.886	-0.246	0.005
Brief COPE Planning	-0.020	0.060	0.112	0.980	-0.138	0.098
Brief COPE Positive Reframing	0.016	0.058	0.078	1.016	-0.097	0.130
Brief COPE Religion	-0.060	0.043	1.990	0.942	-0.144	0.023
Brief COPE Emotional Support	-0.002	0.056	0.001	0.998	-0.111	0.108
Brief COPE Instrumental Support	-0.132*	0.058	5.202	0.876	-0.245	-0.019
Brief COPE Self-Distraction	0.121*	0.050	5.855	1.129	0.023	0.218

Note: ** $p \leq .01$, * $p \leq .05$. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. Wald = the square of the ratio of the coefficient to its standard error. OR = Odds ratio.

Source: 2013 Tasmanian Gambling Prevalence Survey.

11 Help seeking and gambling problems amongst family members

This chapter presents a snapshot of the prevalence of problem gambling by family members of the supplementary survey respondents, as well as an analysis of the extent to which these respondents have sought help for either their own or a family member's gambling problems.

11.1 Key findings

- in the past 12 months 0.6 per cent of supplementary survey respondents and 9.3 per cent of moderate risk or problem gamblers had tried to get help from the 24 Hour Hotline, Gamblers Help or Gambling Help Online for problems related to their own gambling.
- 1.3 per cent of all supplementary survey respondents had sought help from these sources in the past 12 months for problems related to someone else's gambling.
- 4.6 per cent of supplementary survey respondents reported having a family member who had an issue with gambling in the last 12 months. This was not significantly different from the figure of 6.5 per cent recorded in the 2011 survey.

11.2 Help seeking for gambling problems

Respondents administered the supplementary survey (*n=1,887*) were required to indicate whether they had tried to obtain any sort of help from the 24 Hour Hotline, Gamblers Help or Gambling Help Online for problems related to their own gambling in the previous 12 months. Overall, only nine respondents (0.6% of supplementary survey respondents) reported that they had tried to get help for their own gambling from these sources. Of these, three respondents were currently classified as being within the non-problem gambling range on the PGSI, four were classified within the moderate risk category and two were classified as problem gamblers; that is, six respondents (9.3%) from the combined moderate risk/problem gambler group had sought help from at least one of these sources.

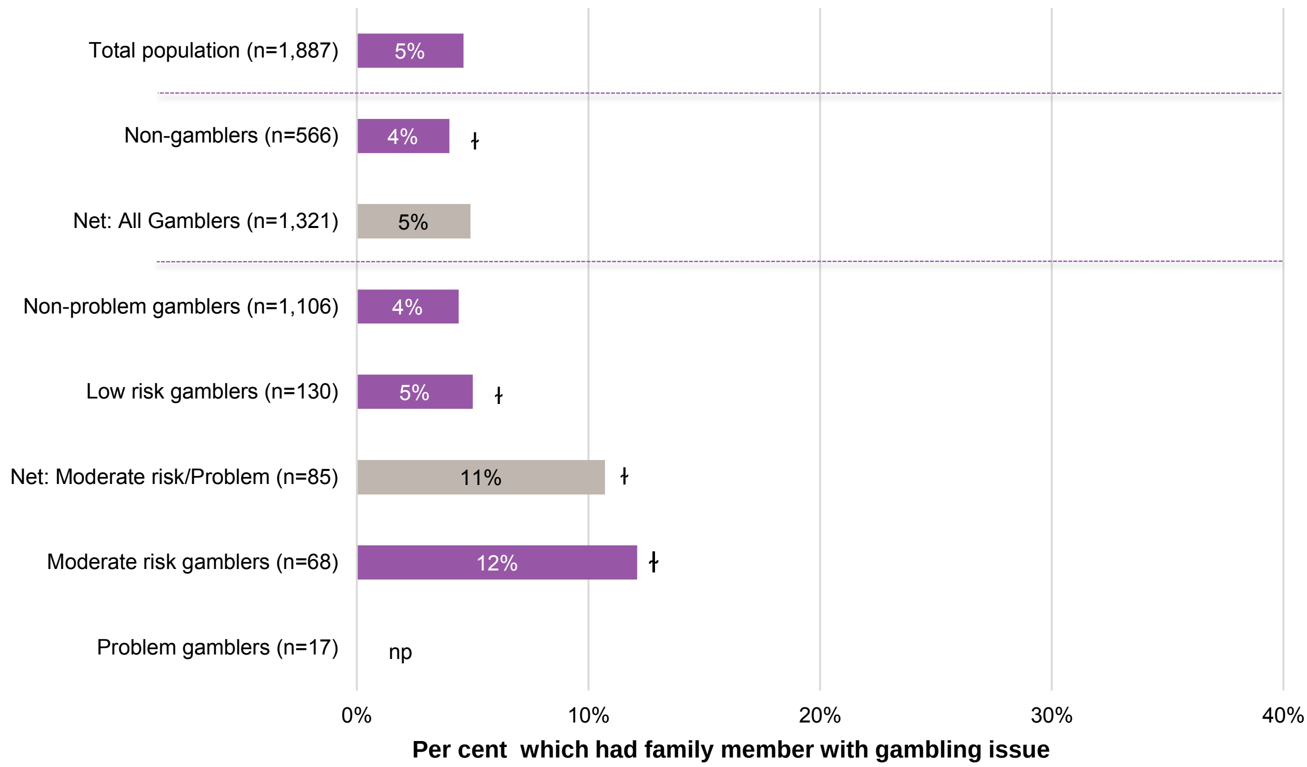
Respondents administered the supplementary survey were also required to indicate whether they had tried to get any sort of help from the 24 Hour Hotline, Gamblers Help or Gambling Help Online for problems related to someone else's gambling in the previous 12 months. Overall, only 25 respondents (1.3%) reported that they had tried to get help for someone else's gambling from these sources. Of these, five respondents were classified as non-gamblers, 14 were classified within the non-problem gambling range on the PGSI, four were classified within the low risk gambling range on the PGSI and two were classified within the moderate risk gambling range on the PGSI. Due to these very small respondent numbers, subgroup estimates have not been reported.

11.3 Gambling problems amongst family members

To help understand the extent to which help might be required for other people, all respondents to the supplementary survey (*n=1,887*) were asked if any of their family members had experienced an issue with gambling in the last 12 months. Overall, 4.6 per cent of supplementary survey respondents indicated that a family member had had an issue with gambling. This was not significantly different from the figure of 6.5 per cent recorded in the 2011 survey.

There were no significant differences evident between non-problem gamblers and any of the other PGSI categories insofar as having a family member with a gambling issue in the last 12 months was concerned.

Figure 11 **Gambling problems amongst other family members by PGSI category (2013 supplementary survey)**



Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers ($p<0.05$).

ɫ RSE between 30% and 50%.

np Result suppressed due to Relative Standard Error >50% or privacy concerns but included in totals where applicable.

Source: 2013 Tasmanian Gambling Prevalence Survey, Q. J1.

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Appendix A Technical and methodological notes

The notes provided in this appendix provide additional technical and methodological information in support of the material provided in the main body of the report, particularly Chapter 2.

A.1 Generation of the RDD landline telephone numbers

The starting point for landline RDD sample generation is the "Register of Numbers" published and regularly updated by the Australian Communications and Media Authority.[16] This register contains all the landline number ranges (i.e. prefixes) allocated by ACMA to various telecommunication providers and contains the number range and quantity, SZU (Service Zone Unit, charging area) and Location (as lists of localities) for each number range.

From this starting point, the sample generation process involved the generation of random landline numbers per range and the 'testing' of numbers within each range via a SS7 signal link (sometimes referred to as 'pinging') to assign a 'working' or 'disconnected' status to each number and thereby generate a more cost-efficient geographically targeted sample frame.

A.2 Calculation of response rates

The method used for calculating the response rate for the 2013 survey is that endorsed by the American Association of Public Opinion Research (AAPOR). In this case AAPOR Response Rate 3. This accepted method of calculating response rates for dual-frame telephone surveys relies on estimating the proportion of cases of unknown eligibility that may have been eligible for the survey and including this estimate in the denominator for the calculation of the survey response rate. The formula for Response Rate 3 is:

$$RR3 = \frac{I}{(I+P)+(R+NC+O) + e(UH+UO)}$$

Where:

I	=	Interviews
P	=	Partial interviews
R	=	Refusals
NC	=	Non-contacts
O	=	Other
e	=	Estimate of the proportion of unknown outcomes likely to have been in-scope
UH	=	Unknown, if household / occupied
UO	=	Unknown, other.

16 http://web.acma.gov.au/numb/download/InquiryFullDownload.zip

The e value for this survey is the default value calculated by the AAPOR online Response Rate Calculator.[17] In this case 0.75. This was calculated as follows:

$$e = \frac{\text{(Interviews + Partial completes) + (Eligible non-interviews)}}{\text{(Interviews + Partial completes) + (Eligible non-interviews) + (Not eligible)}}$$

Table A1 **Calculation of response rates**

	Total sample	Landline	Mobile phone
Total phone numbers used	**24,655**	**14,461**	**10,194**
I = Complete Interviews (1.1)	5,000	3,500	1,500
P = Partial Interviews (1.2)	25	19	6
R = Refusal and break off (2.1)	4,180	2,849	1,331
NC = Non Contact (2.2)	5,154	2,227	2,927
O = Other (2.0, 2.3)	537	455	82
e	*0.75*	*0.78*	*0.70*
UH = Unknown Household (3.1)	4,624	2,839	1,785
UO = Unknown other (3.2-3.9)	118	76	42
Response Rate 3			
(I+P)/((I+P) + (R+NC+O) + e(UH+UO))	27.2%	31.0%	21.1%
Cooperation Rate 3			
(I+P)/((I+P)+R))	54.6%	55.6%	53.1%
Refusal Rate 3			
R/((I+P)+(R+NC+O))	28.1%	31.5%	22.8%
Contact Rate 3			
(I+P)+R+O / (I+P)+R+O+NC	65.4%	75.4%	49.9%

Source: 2013 Tasmanian Gambling Prevalence Survey

A.3 Summary of main differences between the 2007 and 2011 surveys

Further to the discussion in Section 2.4, the noteworthy differences are briefly described below:

- the 2007 Social and Economic Impact Study into Gambling in Tasmania, was prepared by the South Australian Centre for Economic Studies, assisted by Harrison Health (South Australian Centre for Economic Studies, 2008) whereas the 2011 study and the current study were undertaken by ACIL Allen Consulting Group, in collaboration with the Social Research Centre and the University of Melbourne's Problem Gambling Research and Treatment Centre (Allen Consulting Group, Social Research Centre, and the Problem Gambling Research and Treatment Centre, 2011)
- there was also some change of emphasis between the 2007 and 2011 studies. While the 2011 study was designed to be broadly comparable with the 2007 study, it also investigated new and proposed changes in government policy and examined the psychological and harm minimisation/health issues related to gambling. These are

[17] For more complete instructions about how to classify final dispositions see the complete Standard Definitions and Eligibility Calculation documents at http://www.aapor.org

important questions central to assessing current and potential policy effectiveness and estimating the levels of gambling-related dysfunction in the community

- another important difference between the 2011 and 2007 surveys was the focus on regular gamblers in the 2007 survey. The consequence of the differences between these approaches is that, while only regular gamblers gambling severity scores were obtained in 2007, all survey respondents gambling severity scores were obtained in the 2011 survey
- the 2007 survey used quota sampling to stratify the survey population into the four major statistical districts of Tasmania (Greater Hobart, Southern, Northern and Mersey-Lyell), and for the 18-24 age group. This resulted in the proportion of cases selected reflecting the relative adult population sizes in these four areas, and the specified age group. By way of contrast, the 2011 survey used a combination of random telephone interviews across all of Tasmania and additional booster telephone interviews across the eight target local government areas (Brighton, Break O'Day, Glenorchy, Devonport, Circular Head, Launceston, Sorell, and Clarence). Moreover, these LGAs were chosen based on SEIFA disadvantage scores (Australian Bureau of Statistics, 2013) so analyses based on relative socioeconomic status could be made
- the sampling frame of phone numbers used for the 2007 survey was the Electronic White Pages and, as such, limited to households with listed telephone number. Given the non-coverage of persons living in households with unlisted numbers, the decision taken for the 2011 survey was to move to a randomly generated frame of landline phone numbers in Tasmania via which it was possible to sample households with listed and unlisted telephone numbers thereby improving the representativeness of the achieved sample
- finally, in the 2007 survey, questions sometimes asked participants to infer causality between gambling and a consequence (for example, In the last 12 months, have you suffered depression because of gambling?). The approach in the 2011 survey was to measure a construct (for example, In the past 12 months, how often have you missed, skipped or avoided payment for rent or mortgage?) and then compare scores across gambling severity. The separation of the instance of an event and the rating of gambling problems is a more scientifically rigorous way of ascertaining relationships between variables and also avoids the possibility of respondent biases.

A.4 Further notes on weighting

- further to the discussion regarding post stratification in Section 2.3, the post stratification weighting benchmarks and merged cells used for weighting the 2011 and 2013 data are provided below. The age and sex benchmarks used for weighting and are based on 2011 Census data. Some cells for Age were combined with others to avoid unduly large weights, and these are shown in Table A4 through Table A7. A small cell was defined as having fewer than 5 respondents and these obviously differed by form and sample type.
- the telephone status benchmark is derived from the 2011-2012 National Health Survey TableBuilder product and based on the item as to whether have a landline/fixed phone. Based on these data the proportion of Tasmanian adults living in a household without a landline telephone connection is 17.3 per cent – this is the parameter used for weighting the mobile phone only population for this survey.

Table A2 **Number of adults in private dwellings, by LGA, age and gender**

	Brighton	Break O'Day	Glenorchy	Devonport	Circular Head	Launceston	Sorell	Clarence	Rest of Tasmania	Total
Males										
18-24 years	582	139	2,038	942	310	3,464	510	2,142	11,199	21,326
25-34 years	924	205	2,797	1,276	434	3,981	723	2,827	13,574	26,741
35-44 years	1,044	299	2,825	1,492	514	4,074	840	3,340	16,696	31,124
45-54 years	966	497	2,988	1,541	609	4,054	1,021	3,606	19,552	34,834
55-64 years	878	656	2,427	1,508	523	3,661	910	3,399	18,982	32,944
65-74 years	491	468	1,752	1,178	325	2,473	553	2,228	12,617	22,085
75+years	206	247	1,424	850	207	1,903	378	1,705	8,131	15,051
Females										
18-24 years	694	128	2,085	991	291	3,381	481	1,900	10,799	20,750
25-34 years	1,145	233	2,931	1,407	453	4,160	761	2,989	14,462	28,541
35-44 years	1,141	374	2,927	1,650	531	4,323	943	3,571	18,268	33,728
45-54 years	1,029	485	3,214	1,744	565	4,383	1,048	3,886	20,371	36,725
55-64 years	911	563	2,707	1,648	498	3,940	913	3,615	19,084	33,879
65-74 years	453	392	2,098	1,254	293	2,742	538	2,498	12,411	22,679
75+years	284	258	2,226	1,289	250	3,022	446	2,397	10,720	20,892
Total	10,748	4,944	34,439	18,770	5,803	49,561	10,065	40,103	206,866	381,299

Source: (Australian Bureau of Statistics, 2012)

Table A3 **Telephone status**

Telephone status	Adults
Mobile phone only	65,965
Other	315,334

Source: Social Research Centre

Table A4 **Collapsed age groups for main survey (all respondents)**

LGA	Gender	Age (collapsed)	Adults
Break O'Day	Female	18-34 years	361
Break O'Day	Male	18-34 years	344
Circular Head	Female	18-34 years	744
Devonport	Female	18-34 years	2,398
Launceston	Female	18-34 years	7,541
Sorell	Female	18-34 years	1,242

Source: Social Research Centre

Table A5 **Collapsed age groups for main survey (landline respondents)**

LGA	Gender	Age (collapsed)	Adults
Break O'Day	Female	18-44 years	735
Break O'Day	Male	18-44 years	643
Circular Head	Female	18-34 years	744
Circular Head	Male	18-34 years	744
Clarence	Female	18-34 years	4,889
Clarence	Male	18-34 years	4,969
Devonport	Female	18-34 years	2,398
Glenorchy	Female	18-34 years	5,016
Launceston	Female	18-34 years	7,541
Launceston	Male	18-34 years	7,445
Sorell	Female	18-34 years	1,242

Source: Social Research Centre

Table A6 **Collapsed age groups for supplementary survey (all respondents)**

LGA	Gender	Age (collapsed)	Adults
Break O'Day	Female	18-44 years	735
Break O'Day	Female	65+ years	650
Break O'Day	Male	18-44 years	643
Brighton	Female	18-34 years	1,839
Circular Head	Female	18-34 years	744
Circular Head	Male	18-34 years	744
Clarence	Female	18-34 years	4,889
Clarence	Male	18-34 years	4,969
Devonport	Female	18-34 years	2,398
Devonport	Male	18-34 years	2,218
Devonport	Male	65+ years	2,028
Glenorchy	Female	18-34 years	5,016
Glenorchy	Male	18-34 years	4,835
Launceston	Female	18-34 years	7,541
Launceston	Male	18-34 years	7,445
Sorell	Female	18-34 years	1,242
Sorell	Male	18-34 years	1,233

Source: Social Research Centre

A.5 Demographic profile of the original and revised 2011 sample

As mentioned in Section 2.3 of this report, the 2011 survey data were re-weighted to take advantage of the release of the 2011 census data. The demographic profile of the original and revised 2011 estimates is shown in Table A7. There are no significant differences between the two profiles.

Another reason for re-weighting the 2011 survey data was the very granular nature of the weighting matrix used for the 2011 survey (198 cells - 9 locations by 11 age groups by (2) gender) meaning that some of the 2011 survey estimates were based on very small cell sizes. This can lead to instability when examining results by small subgroups of the population. To reduce the likelihood of this occurring, the 2013 weights and the 2011 weights adopted a regression based approach to post stratification weighting using a 72 cell matrix (9 regions by 7 age categories by (2) gender by (2) telephone status (landline / mobile-only). In addition, the revised approach to weighting collapsed some cells to avoid overly large weights and trimmed extreme weights to reduce variability. The cumulative impact of these refinements is a reduction in the design effect from 1.6 to 1.54. This results in an increase in the effective sample size for the 2011 survey; that is the sample size that should be used when undertaking tests of statistical significance, from 1,683 to 1,833.

Table A7 **Demographic profile of 2011 sample with original and revised weights**

Demographic subgroups	Original weights	Revised weights	Demographic subgroups	Original weights	Revised weights
	%	%		%	%
Gender			***Annual Personal Income***		
Male	48.1	48.3	Less than $25,000	34.9	35.3
Females	51.9	51.7	$25,000-$39,999	16.1	16.2
Age group			$40,000-$64,999	20.4	20.1
18 to 24 years	11.3	11.0	$65,000-$79,999	8.3	8.1
25 to 34 years	14.8	14.5	$80,000-$129,999	8.2	8.0
35 to 44 years	18.4	17.0	$130,000-or more	2.1	2.0
45 to 54 years	19.4	18.8	***Educational attainment***		
55 to 64 years	16.2	17.5	Less than year 12	25.1	25.6
65 years or more	19.8	21.2	Year 12	18.7	18.7
Household structure			Vocational or trade qualifications	14.2	14.3
Couple no children	8.8	8.8	University graduate	39.4	38.9
Couple children at home	30.6	29.2	***Place of Birth***		
Couple children left home	15.1	15.7	Australia	87.7	87.4
Single person	17.0	17.5	Overseas (ESB)	7.6	7.8
Single children at home	13.8	13.5	Overseas (NESB)	4.6	4.7
Single children left home	10.2	10.8			
Group or shared household	2.9	2.8			
Occupational status					
Paid full-time employed	39.3	38.4			
Paid part-time employed	19.4	18.9			
Household duties	5.0	4.9			
Student	5.9	5.7			
Retired	21.9	23.4			
Looking for work	2.6	2.6			
Unable to work / pensioner	4.8	5.0			

Source: 2011 Tasmanian Gambling Prevalence survey.

Appendix B Scales and derived items

B.1 Problem gambling severity

The nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001) was employed to evaluate problem gambling severity. Respondents indicated how often each item applied to them in the last 12 months on a four-point scale: (0) never, (1) sometimes, (2) most of the time, and (3) almost always. Scores range from 0 to 27, and higher scores indicate higher problem severity. Scores on the PGSI can be used to classify individuals as non-problem gamblers (score of 0), low risk gamblers (scores of 1 or 2), moderate risk gamblers (scores between 3 and 7), or problem gamblers (scores of 8 or higher).

The PGSI has been adopted as the preferred measurement tool for population-level research in Australia (Neal, Delfabbro, & O'Neil, 2005). The PGSI has displayed good internal consistency, test-retest reliability, criterion validity with measures of gambling involvement, unitary dimensional structure, item variability, and concurrent validity with measures of problem gambling (Ferris & Wynne, 2001; McMillen, Marshall, Wenzel, & Ahmed, 2004; Neal, Delfabbro, & O'Neil, 2005). It has been validated in many jurisdictions, including Canada, Europe, and Australia.

Several studies suggest that the PGSI outperforms other measures of problem gambling severity in population-level research in terms of overall rationale, internal consistency, item difficulty, construct validity, classification validity, and factor structure (Ferris & Wynne, 2001; Holtgraves, 2009; McMillen, Marshall, Wenzel, & Ahmed, 2004). The PGSI has displayed very good sensitivity (the rate of positive test results among those with the disorder) and specificity (the rate of negative test results among those without the disorder) (Ferris & Wynne, 2001).

The PGSI tends to be slightly more conservative in estimating prevalence of problem gambling than the South Oaks Gambling Screen, but higher than the DSM IV (Ferris & Wynne, 2001; Neal, Delfabbro, & O'Neil, 2005). In this study, the original scoring protocol was followed, as recommended by (Jackson, Wynne, Dowling, Tomnay, & Thomas, 2010). The PGSI displayed good internal consistency in this study (α = .84).

B.2 Gambling expectancies

The Gambling Expectancy Questionnaire (GEQ) (Gillespie, Derevensky, & Gupta, 2007) was employed to assess the perceived benefits and risks of gambling. It includes three positive expectancy subscales: the 8-item Enjoyment/Arousal subscale (the gambling benefits of enjoyment, arousal, and entertainment), the 4-item Self-Enhancement subscale (the gambling benefits of feeling in control, feeling powerful, and feeling more accepted by peers), and the 3-item Money subscale (the benefit of financial gain as a result of gambling). It also includes two negative expectancy subscales: the 5-item Over-involvement subscale (the risks of cognitive, affective, and social preoccupation with gambling) and the 3-item Emotional Impact subscale (negative emotions such as guilt, shame, loss of control as a result of gambling). Respondents used a 7-point scale ranging from (1) no chance to (7) certain to happen to indicate how likely they believe each outcome will happen to them if they gamble. In the scale validation with secondary school students, each of these subscales displayed good to high internal consistencies: Enjoyment/Arousal (α = .86), Self-Enhancement (α = .81), Money (α = .78), Over-involvement (α = .91), and Emotional Impact (α = .85) (Gillespie, Derevensky, & Gupta, 2007). Problem and at-risk gamblers have been found to endorse items on each of the three positive expectancy subscales more highly than social gamblers and non-gamblers (Gillespie, Derevensky, & Gupta, 2007). Problem gamblers also have been found to score higher on the Over-involvement subscale than social gamblers and at-risk gamblers, but not significantly differently from non-gamblers (Gillespie, Derevensky, & Gupta, 2007). Gillespie, Derevensky, & Gupta, 2007 explain that the negative outcome expectancies of problem gamblers may have developed as a result of personal experience, while the similar negative outcome expectancies of non-gamblers may be a deterrent to experimentation. The GEQ was modified in the current study to reduce participant burden. The two most highly loaded questions from each of the five subscales were selected and the response options were condensed to a three-point scale: (1) likely, (2) neither likely nor unlikely, and (3) unlikely. In this study, each of the reduced item subscales displayed acceptable internal consistencies: Enjoyment/Arousal (α = .65), Self-Enhancement (α = .77), Money (α = .64), Over-Involvement (α = .83), and Emotional Impact (α = .73). In this study, the items from the Enjoyment/Arousal, Self-Enhancement, and Money subscales were merged to form a Positive Expectancies subscale, while the items from the Over-Involvement and Emotional Impact subscales were combined to form a Negative Expectancies subscale. Both of these subscales demonstrated good internal consistencies: Positive Expectancies (α = .83) and Negative Expectancies (α = .82).

B.3 Quality of life

The 26-item World Health Organisation Quality of Life-Bref (WHO-QOL-BREF: (World Health Organization (WHO), 1998)) was employed to measure quality of life. The WHO-QOL-BREF consists of items measuring quality of life across four domains: Physical Health (7 items), Psychological Health (6 items), Social Relationships (3 items), and Environment (8 items). It also includes two separate items that examine an individual's perception of their health and overall quality of life. The WHO-QOL-BREF shows good internal consistency with Cronbach's alpha values for each of the four domain scores ranging from .66 to .84, and good discriminant validity (World Health Organization (WHO), 1998). It demonstrates the contribution of all four domains to quality of life. Scores are derived by averaging the sum of the items multiplied by four. Respondents indicated how often each item applied to them in the last four weeks on five-point scales that varies slightly across items. In this study, the subscales of the WhO-QOL-BREF displayed good internal consistencies: Physical Health (α = .81), Psychological Health (α = .80), Social Relationships (α = .62), and Environment (α = .72).

B.4 Substance use

The Alcohol Use Disorders Identification Test (AUDIT) (Babor, De La Fuente, Saunders, & Grant, 1992) is a 10-item instrument designed to screen for problematic alcohol use in adults. The AUDIT-Consumption (AUDIT-C) is a commonly employed brief version of the AUDIT (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). A modified version of the AUDIT-C that tailors the consumption items to Australian alcohol use, as recommended in the AUDIT manual (Babor, De La Fuente, Saunders, & Grant, 1992) was employed in the current study. This version has been employed in the Longitudinal Study of Australian Children (LSAC) conducted by the Australian Institute of Family Studies (Edwards & Baxter, 2013). The 2001 National Health and Medical Research Council guidelines for risky binge drinking was used to guide the development of the measure of binge drinking in LSAC (National Health and Medical Research Council, 2003). Binge drinking is defined as 7 or more (for men) and 5 or more (for women) standard drinks on one occasion two to three times a month or more (Dawe, Atkinson, Frye, Evans, & Lynch, 2007).

A single item was employed to measure the use of tobacco products in the previous twelve months. Single items were also employed to measure the use of illegal drugs and misuse of prescription medication in the previous 12 months. These items were based on a single-item screening test for drug use in primary care (Smith, Schmidt, Allensworth-Davies, & Saitz, 2010). This single item has demonstrated excellent sensitivity (.86-.96) and specificity (.89-.96) in detecting past year drug use, when compared to the Composite International Diagnostic Interview Substance Abuse Model (Smith, Schmidt, Allensworth-Davies, & Saitz, 2010). In this study, response categories were (1) everyday; (2) 4-6 times a week; (3) 2-3 times a week; (4) weekly; (5) 2-3 times a month; (6) monthly or less and; (7) not in the last 12 months.

B.5 Depression

Depression was screened for using the Physical Health Questionnaire-2 (PHQ-2) (Kroenke, Spitzer, & Williams, The Patient Health Questionnaire-2: Validity of a two-item depression screener, 2003). This brief screener comprises the first two items of the Physical Health Questionnaire, and represents the core DSM-IV items for major depressive disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for major depressive disorder (Kroenke, Spitzer, & Williams, The Patient Health Questionnaire-2: Validity of a two-item depression screener, 2003). The predictive accuracy of the PHQ-2 was compared to the structured clinical interview for DSM-III-R (SCID) and was found to have good sensitivity (.83) and specificity (.90) for classifying major depression. The internal consistency for the PHQ-2 in the current study was .65.

B.6 Anxiety

The Generalised Anxiety Disorder-2 (GAD-2) (Kroenke K. , Spitzer, Williams, Monahan, & Löwe, 2007) was employed to measure generalised anxiety. This brief screen comprises the first two items of the Generalised Anxiety Disorder (GAD) questionnaire, and represents the core DSM-IV items for generalised anxiety disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for generalised anxiety disorder (Kroenke K. , Spitzer, Williams, Monahan, & Löwe, 2007). The predictive accuracy of the GAD-2 was compared to the GAD sections of the Structured Clinical Interview for DSM-IV (SCID). Validity results indicated that with a cut-off score of 3 the GAD-2 has good sensitivity (.76-.93) and specificity (.80 to.85). The internal consistency for the GAD-2 in the current study was .75.

B.7 Panic disorder

The two question version of the Autonomic Nervous System Questionnaire (ANS) (Stein, et al., 1999) was used to screen for panic symptoms. These two questions relate to the previous six months, with a positive endorsement of either item indicating a positive screen for a panic disorder. In the development of this questionnaire, the ANS had excellent sensitivity (range of .94–1.00 across the three clinic sites) and negative predictive value (.94 –1.00) but low specificity (.25–.59) and positive predictive value (range.18–.40) (Stein, et al., 1999). The internal consistency for the two question version of the ANS in the current study was .60.

B.8 Post-traumatic stress disorder

The Primary Care Posttraumatic Stress Disorder (PC-PTSD) (Prins, et al., 2004) was used to screen for post-traumatic stress disorder (PTSD). This questionnaire contains four items relating to the past month, where a positive endorsement on 3 or more items indicates a positive screen for PTSD. This instrument has yielded a sensitivity of .78 and specificity of .87 (Prins, et al., 2004). The PC-PTSD was used at screening and a one-month follow-up and these administrations demonstrated good test-retest reliability with a correlation coefficient of .83. The internal consistency for the PC-PTSD in the current study was .81.

B.9 Social phobia

The Social Phobia Inventory (Mini SPIN) (Connor, Kobak, Churchill, Katzelnick, & Davidson, 2001) was employed to screen for generalised social anxiety disorder. The Mini SPIN consists of three questions and respondents reply on a 5 point scale from (0) not at all to (4) extremely. Scores range from 0 to 18 and a score of 6 or greater indicates a positive screen for generalised social anxiety disorder. The measure shows sensitivity of 88.7%, specificity of 90.0%, positive predictive value of 52.5%, and negative predictive value of 98.5% (Connor, Kobak, Churchill, Katzelnick, & Davidson, 2001). The internal consistency for the Mini SPIN in the current study was .74.

B.10 Attention-Deficit Hyperactivity Disorder

The ADHD Self-Report Scale (ASRS) (Kessler, et al., 2005) was used to screen for attention-deficit hyperactivity disorder (ADHD). The 6 item ASRS asks participants to describe how often they have conducted themselves in certain ways over the previous six months. Responses include never, rarely, sometimes, often or very often, with scoring differing for each item. A response of sometimes, often or very often on the first three items is given a score of 1. All other responses on those items are given a score of 0. A response of often or very often on the final three items is given a score of 1, with all other responses on those items given a score of 0. Scores range from 0 to 6 and a score of four or greater indicates a positive screen for ADHD. The ASRS has demonstrated a sensitivity of 68.7%, specificity of 99.5% and total classification accuracy of 97.9% (Kessler, et al., 2005). The internal consistency for the ASRS in the current study was .58.

B.11 Impulsivity

Impulsivity was measured using the Barratt Impulsivity Scale-Brief (BIS-Brief) (Steinberg, Sharp, Stanford, & Tharp, 2013). The BIS-Brief is a one-dimensional, eight item questionnaire developed from the original 30 item Barratt Impulsivity Scale (BIS-11), which was based on a 3-factor model (Steinberg, Sharp, Stanford, & Tharp, 2013). The BIS-Brief items are scored on a four-point scale from (1) ‘rarely/never’ to (4) ‘almost always/always’. The BIS-Brief has been shown to have comparable results with the BIS-11 (e.g., in samples of individuals with borderline personality disorder, and adolescents and young adults (Steinberg, Sharp, Stanford, & Tharp, 2013). The internal consistency for the BIS-Brief in the current study was .65.

B.12 Personal growth and autonomy

The Personal Growth and Autonomy subscale of the Positive Mental Health (PMH) (Vaingankar, et al., 2011) instrument is a 10-item scale that measures the level of control they feel they have in their own lives. Participants are given a series of statements that may describe them, and respond on a six point scale ranging from (1) ‘not at all like me’ to (6) ‘exactly like me’. The items are summed and divided by the number of items. The alpha reliability of this subscale is .93 and it is also positively and highly correlated with the

Personal Growth Initiative Scale. The internal consistency for this scale in the current study was .90.

B.13 Interpersonal skills

The Interpersonal Skills subscale of the Positive Mental Health (PMH) (Vaingankar, et al., 2011) instrument is a 9-item scale that measures one's interpersonal and social skills. Participants are given a series of statements that may describe them, and respond on a six-point scale ranging from (1) 'not at all like me' to (6) 'exactly like me'. The items are summed and divided by the number of items. The alpha reliability of this subscale is .89. The internal consistency for this scale in the current study was .86.

B.14 Coping skills

The Brief COPE scale (Carver, 1997) is a 28-item self-report measure of both adaptive and maladaptive coping skills. The scale was designed to yield fourteen subscales, each comprising two items. The items are presented as coping statements, and respondents are asked to rate to what extent they have been using each way of coping using a four-point scale ranging from (0) 'I haven't been doing this at all' to (3) 'I've been doing this a lot'.

The scales, which include both potentially dysfunctional as well as adaptive responses, are: Active Coping; Planning; Positive Reframing; Acceptance; Humour; Religion; Using Emotional Support; Using Instrumental Support; Self-Distraction; Denial; Venting; Substance Use; Behavioural Disengagement, and; Self-blame (Carver, 1997). The alpha reliabilities of the scales for the population of 294 participants involved in the validation study ranged from .50-.90, with three falling below .60. A factor analysis yielded a structure generally consistent with the original version of the COPE.

In the current study, seven BRIEF COPE scale subscales with acceptable reliabilities were employed. These were Active Coping (where active steps are taken to eliminate the stressor); Planning (the process of thinking about how best to cope with the stressor); Positive Reframing (where the focus is on dealing with the distressful emotions rather than the stressor itself); Religion (where a stressor is dealt with by turning to religion); Using Emotional Support (where moral support, understanding or sympathy is sought to cope with a stressor); Using Instrumental Support (where more tangible support is sought such as advice, information or assistance); and Self-Distraction (where individuals divert their attention and mind from the stressor through other activities). In this study, these subscales displayed adequate internal consistencies: Active Coping ($\alpha = .63$), Planning ($\alpha = .63$), Positive Reframing ($\alpha = .57$), Religion ($\alpha = .84$), Using Emotional Support ($\alpha = .65$), Using Instrumental Support ($\alpha = .71$), and Self-Distraction ($\alpha = .52$).

Appendix C Questionnaire

The following pages comprise the full questionnaire used for the 2013 Tasmanian Gambling Prevalence Survey.

SOCIAL AND ECONOMIC IMPACT STUDY OF GAMBLING IN TASMANIA AND ASSESSMENT OF GAMBLING HARM MINIMISATION MEASURES

PART A

CATI SURVEY SCRIPT
September 11, 2013

*SECTION A: SCREENER DEMOGRAPHICS

*(ALL)
A1 Thank you. I am going to start by asking you a couple of questions about yourself, to help us group your responses with other people. First, what is the postcode where you live?

1. Postcode correct as displayed
2. Postcode incorrect / not displayed (SPECIFY) (RANGE 7000 TO 7923) (IF SAMTYPE GO TO QV)
3. (Don't know) (GO TO A2) (PROGRAMMER NOTE – USE SAMPLE POSTCODE FOR QV)
4. (Refused) (GO TO TERM3)

*(DON'T KNOW POSTCODE) (A1=3)
A2 That's OK, which suburb or locality do you live in and we will look it up?

1. Suburb/locality (SPECIFY)
2. (Don't know) (GO TO TERM3)
3. (Refused) (GO TO TERM3)

*(ALL)
A3 What is your age in years?
*(PROGRAMMER NOTE: IF MORE THAN 90, DISPLAY "UNLIKELY RESPONSE – CONFIRM")

1. Under 18 (GO TO TERM 2)
2. Age given (Specify) (RANGE 18 TO 120)
3. (Refused)

*(REFUSED AGE) (A3 = 3)
A4 Which age group are you in?

1. 18 to 24 years
2. 25 to 29 years
3. 30 to 34 years
4. 35 to 39 years
5. 40 to 44 years
6. 45 to 49 years
7. 50 to 54 years
8. 55 to 59 years
9. 60 to 64 years
10. 65 to 69 years
11. 70 years or over
12. (Refused) (GO TO TERM6)

*(ALL)
A5 RECORD GENDER

1. Male
2. Female

*(ALL)
TS1 TIMESTAMP 1

*SECTION B: GAMBLING PARTICIPATION

*(ALL)
B1 For the first section of this survey we will be asking some questions about gambling. I am going to start by reading a list of popular gambling activities and ask if you have played them FOR MONEY in the previous 12 months. In the last 12 months, have you… (READ OUT)?
*(STRING TEXT In the last 12 months, have you… (READ OUT)?

(INTERVIEWER NOTE: Gambling by respondents is not restricted to that which occurred in the state of Tasmania. That is, gambling occurring in any other state or country can be included in this section.)

(STATEMENTS) (RANDOMISE a-j excluding k which is to stay last)

a. Played poker machines or electronic gaming machines
b. Bet on horse or greyhound races (INTERVIEWER NOTE: excluding sweeps such as for Melbourne Cup)
c. Purchased instant scratch tickets
d. Played a lottery (INTERVIEWER NOTE: such as Tattslotto, Powerball, Super 66, The Pools, Lucky Keno, Lucky Lines, Lucky Bingo Start, Pick 3, and Pick 5 Heads or Tails)
e. Played TasKeno or other forms of Keno
f. Played casino table games (INTERVIEWER NOTE: Such as blackjack, roulette or poker)
g. Played bingo
h. Bet on sporting or other events such as TV show results, election results
i. Bet on informal private games (INTERVIEWER NOTE: such as cards, mah-jong, snooker, online or offline computer games, board games, sports)
j. Undertaken day trading (INTERVIEWER NOTE: speculation in securities, specifically buying and selling stocks, stock options, currencies, and futures contracts within the same trading day)
k. Participated in any other gambling activity that I haven't mentioned (excluding raffles or sweeps)? (SPECIFY)

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*****(PROGRAMMER NOTE: CREATE DUMMY VARIABLES)
*(HIDDEN) (ALL)
DV0 Gambling Status

1. (IF ANY STATEMENT B1 = 1) Gambler
2. (ALL STATEMENTS B1 = 2 OR 3 OR 4) Non Gambler (GOTO DV4)

*(HIDDEN) (ALL)
DV1 EGM Gambling Status

1. (IF B1a = 1) EGM Gambler
2. (IF B1a = 2-4) NOT EGM Gambler

*(HIDDEN) (GAMBLERS) (DV0 = 1)
DV2 Gambling Activities (MULTIPLE RESPONSE ALLOWED)

1. (IF B1a = 1) Poker machines or electronic gaming machines
2. (IF B1b = 1) Horse or greyhound races (excluding sweeps)
3. (IF B1c = 1) Instant scratch tickets

4. (IF B1d = 1) Lotteries
5. (IF B1e = 1) Keno
6. (IF B1f = 1) Casino table games
7. (IF B1g = 1) Bingo
8. (IF B1h = 1) Sporting events or other events
9. (IF B1i = 1) Informal private games
10. (IF B1j = 1) Day trading
11. (IF B1k = 1) [INSERT SPECIFY FROM B1k]

*(ALL)
TS2 TIMESTAMP 2

*SECTION C: EGM GAMBLING

PREC1 IF DV1= 1 (EGM GAMBLER) CONTINUE, OTHERS GO TO PRED0b

*(EGM GAMBLER) (DV1 = 1)
C1 I am now going to ask you some questions specifically about your poker machine gambling. In the last 12 months, how many times per week, per month or per year have you played POKER MACHINES... (READ OUT)?

(INTERVIEWER NOTE: This refers to number of sessions of playing poker machines, NOT number of individual machines played)

(INTERVIEWER NOTE: Record number of times in appropriate code – only need to enter in one number depending on how they answer)

(STATEMENTS)
a. In a club or hotel
b. In a casino
c. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
d. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don’t know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT C1
- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT C1 (A-D) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR C1. THIS FIGURE NEEDS TO BE ADDED TO THE OTHERS FROM SECTION D.

*(EGM GAMBLER) (DV1 = 1)
C2 In the past 12 months, how much money, ON AVERAGE, did you SPEND on poker machines during EACH VISIT to a poker machine venue? By SPEND we mean the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and what you had left when you finished playing.
(INTERVIEWER NOTE: Each visit = one session (i.e., betting during a discrete period of time at one location) | Spend – does not include counter meals, drinks etc.)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY “UNLIKELY RESPONSE” IF >5000)

2. (Don't know)
3. (Refused)

PROGRAMMER: TOTAL ANNUAL SPEND CALCULATION USING RESPONSE FRAME AT C1 AND $ SPENT AT C2

- $C2 x NUMBER TIMES PER WEEK x 52 OR
- $C2 x NUMBER TIMES PER MONTH x 12 OR
- $C2 x NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT C1 (A-D) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR C1/2. THIS FIGURE NEEDS TO BE ADDED TO THE OTHERS FROM SECTION D.

*(EGM GAMBLER) (DV1 = 1)

C3 Thinking about the type of poker machines you have played in the last 12 months. There are six different types of machines, one cent, two cent, five cent, ten cent, twenty cent and one dollar. Which type of poker machine do you usually play? (READ OUT 1-6 IF NECESSARY)

(INTERVIEWER NOTE: If they usually play more than one type, record type last played)

1. one cent machines
2. two cent machines
3. five cent machines
4. ten cent machines
5. twenty cent machines
6. $1 machines
7. (Don't know)
8. (Refused)

*(EGM GAMBLER) (DV1 = 1)

C4 When playing poker machines, you can play just one line, or a number of lines per spin. Thinking about your use of poker machines in the last 12 months, how many lines do you usually play?

(INTERVIEWER NOTE: This refers to number of lines per spin, not number of lines played in total over the last 12 months. The maximum number of lines per spin on poker machines in Tasmania is 30.)

1. Response given (SPECIFY) (ALLOWABLE RANGE 1 TO 30)
2. Don't have a usual number of lines that I play
3. (Don't know)
4. (Refused)

*(EGM GAMBLER) (DV1 = 1)

C5 Poker machines also allow you to play just one credit or multiple credits per spin. Thinking about your use of poker machines in the last 12 months, how many credits per line do you usually play?

(INTERVIEWER NOTE: This refers to number of credits per spin, not number of credits played in total over the last 12 months)

1. Response given (SPECIFY) (ALLOWABLE RANGE 1 TO 25)
2. Don't have a usual number of credits that I play
3. (Don't know)
4. (Refused)

*(EGM GAMBLER) (DV1 = 1)

C6 Thinking about your use of poker machines in the last 12 months, how often do you think you spend more than $1 per spin or button press?

1. Always (100% of the time)
2. Most of the time (more than 50% of the time)
3. Sometimes (25% to 50% of the time)
4. Rarely (1% to 25% of the time)
5. None of the time (0%)

6. (Don't know)
7. (Refused)

*(EGM GAMBLERS) (DV1=1)

H2 If you were able to spend your money on other gambling activities in Tasmania but NOT poker machines, would you most likely spend the money on other forms of gambling?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(EGM GAMBLER AND WOULD SPEND MONEY ON OTHER GAMBLING FORMS) (DV1=1 AND H2=1)

H2a Which other forms would you spend it on?

(STATEMENTS)

a. Horse or greyhound races
b. Instant scratch tickets
c. Lottery (INTERVIEWER NOTE: such as Tattslotto, Powerball, Super 66, The Pools, Lucky Keno, Lucky Lines, Lucky Bingo Start, Pick 3, and Pick 5 Heads or Tails)
d. Keno (INTERVIEWER NOTE: includes TasKeno)
e. Casino table games (INTERVIEWER NOTE: such as blackjack, roulette or poker)
f. Bingo
g. Sporting or other events (INTERVIWER NOTE: such as TV show results, election results)
h. Informal private games (INTERVIEWER NOTE: such as cards, mah-jong, snooker, online or offline computer games, board games, sports)
i. Day trading

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(EGM GAMBLER) (DV1 = 1)

C7 The Tasmanian Government has introduced a range of measures that aim to reduce the harm caused by excessive poker machine gambling. I am going to read out some of these measures and for each please let me know if you were aware of it before today.

I understand that this is a long list and some of these changes may not apply to you. Please bear with me and I'll run through them as quickly as possible.

Did you know about … (READ OUT)?
*(STRING TEXT) Did you know about… (READ OUT)?

(STATEMENTS) (RANDOMISE)

a. the ban on having ATMs in hotels and clubs with poker machines (INTERVIEWER NOTE: This does not apply to the casinos in Tasmania)
b. the reduction in the maximum number of lines on poker machines
c. the reduction of the maximum bet per spin on poker machines
d. the reduction in the amount of cash you can insert into the note acceptors of poker machines located in casinos
e. the Tasmanian Gambling Exclusion Scheme that allows you to exclude yourself from gambling in a venue
f. allowing only socially responsible advertising of gambling (INTERVIEWER NOTE: This refers to advertising that takes the adverse impacts of gambling into account)
g. limiting free vouchers that can be used for gambling and banning free or discounted alcohol for consumption in gaming venues

(RESPONSE FRAME)

1. Yes
2. No

3. (Don't know/not sure)
4. (Refused)

C7a And how about the following measures. (READ OUT)?
*(STRING TEXT) Did you know about… (READ OUT)?

(STATEMENTS) (RANDOMISE)
i. casino player loyalty programs having to provide player activity statements, responsible gambling information and limited rewards that can be used for gambling
j. reducing the amount you can withdraw from venue EFTPOS facilities, casino ATMs, and cheque cashing facilities
k. restricting the amount of cash for poker machine payouts to $1000
l. providing adequate lighting in poker machine areas
m. not serving food or alcohol to people playing or seated at poker machines after 6pm
n. locating highly visible clocks on the walls of poker machine areas
o. providing information about responsible gambling, help for gambling problems, exclusion from gambling and chances of winning

(RESPONSE FRAME)
1. Yes
2. No
3. (Don't know/not sure)
4. (Refused)

*(HEARD OF GAMBLING EXCLUSION SCHEME) (C7e = 1)
C8 Have you ever excluded yourself from gambling in venues using the Tasmanian Gambling Exclusion Scheme?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(DV1=1)
TS3 TIMESTAMP 3

***SECTION D: NON-EGM GAMBLING ACTIVITY FREQUENCY/EXPENDITURE**

*(BET ON GREYHOUND RACES) (DV2=2)
D1a In the last 12 months, how many times per week, or per month or per year have you bet on HORSE OR GREYHOUND RACES (excluding sweeps)... (READ OUT)?

(STATEMENTS)
a. At a racetrack
b. At an off-course venue (such as TOTE/TAB, club, hotel or casino)
c. By telephone or SMS (mobile phone or landline)
d. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
e. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(BET ON HORSE OR GREYHOUND RACES) (DV2=2)
D1b In the past 12 months, approximately how much money, on average, did you spend during EACH SESSION of betting on horse or greyhound races?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

PRED2a IF DV2=3 CONTINUE, OTHERS GO TO PRED3a

*(BUY INSTANT SCRATCH TICKETS) (DV2=3)

D2a In the last 12 months, how many times per week or per month or per year have you purchased INSTANT SCRATCH TICKETS?

(STATEMENTS)

a. In a newsagent or Tattersall's outlet
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(BUY INSTANT SCRATCH TICKETS) (DV2=3)

D2b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH TRANSACTION of purchasing instant scratch tickets?

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >50)
2. (Don't know)
3. (Refused)

PRED3a IF DV2=4 CONTINUE, OTHERS GO TO PRED4a

*(PLAY LOTTERIES) (DV2=4)

D3a In the last 12 months, how many times per week, or per month, or per year have you played a LOTTERY?

(STATEMENTS)

a. In a newsagent or Tattersalls outlet
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(PLAY LOTTERIES) (DV2=4)

D3b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH TRANSACTION of playing a lottery?

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >100)

2. (Don't know)
3. (Refused)

*(PLAY KENO) (DV2=5)

D4a In the last 12 months, how many times per week, or per month, or per year have you played TASKENO or other forms of KENO... (READ OUT)?

(STATEMENTS)

a. In a club or hotel
b. In a casino
c. In a newsagent or Tattersalls outlet
d. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
e. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(PLAY KENO) (DV2=5)

D4b In the past 12 months, how much money, on AVERAGE, did you SPEND during EACH SESSION of playing TasKeno or other forms of Keno?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >500)
2. (Don't know)
3. (Refused)

*(PLAY TABLE GAMES) (DV2=6)

D5a In the last 12 months, how many times per week, or per month, or per year have you played CASINO TABLE GAMES… (READ OUT)?

(INTERVIEWER NOTE: Such as blackjack, roulette, poker)

(STATEMENTS)

a. At a casino
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(PLAY TABLE GAMES) (DV2=6)

D5b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION you played casino table games?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(PLAY BINGO) (DV2=7)
D6a In the last 12 months, how many times per week, or per month, or per year have you played BINGO?

(STATEMENTS)
a. In a club or hall
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(PLAY BINGO) (DV2=7)
D6b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of playing bingo?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >500)
2. (Don't know)
3. (Refused)

*(BET ON SPORT EVENTS) (DV2=8)
D7a In the last 12 months, how many times per week, or per month, or per year have you bet on SPORTING OR OTHER EVENTS... (READ OUT)?

(STATEMENTS)
a. At an off-course venue (such as TOTE/TAB, club, hotel or casino)
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer
d. By telephone or SMS (landline or mobile phone)

(RESPONSE FRAME)
1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(BET ON SPORT EVENTS) (DV2=8)
D7b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of betting on sporting or other events?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)

2. (Don't know)
3. (Refused)

*(BET ON PRIVATE GAMES) (DV2=9)

D8a In the last 12 months, how many times per week, or per month, or per year have you bet on INFORMAL PRIVATE GAMES FOR MONEY (e.g. cards, mah-jong, snooker, online or offline computer games, board games, sports)?

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(BET ON PRIVATE GAMES) (DV2=9)

D8b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of betting on informal private games for money?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(UNDERTAKEN DAY TRADING) (DV2=10)

D9a In the last 12 months, how many times per week, or per month, or per year have you undertaken DAY TRADING ... (READ OUT)?

(STATEMENTS)

a. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
b. Over the Internet using a desktop computer
c. Over the telephone (landline or mobile phone)

(RESPONSE FRAME)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(UNDERTAKEN DAY TRADING) (DV2=10)

D9b In the past 12 months, how much money, ON AVERAGE, did you SPEND per week, or per month, or over the 12 months on day trading?

1. Enter money spent per week (SPECIFY)
2. Enter money spent per month (SPECIFY)
3. Enter money spent over year (SPECIFY)
4. (Don't know)
5. (Refused)

*(OTHER GAMBLING ACTIVITIES) (DV2=11)

D10a You said that you have bet on (INSERT DV2 CODE 11 TEXT). In the last 12 months, how many times per week, or per month, or per year, have you bet on this activity?
(INTERVIEWER NOTE: Record number of times in appropriate code)

1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
3. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

*(OTHER GAMBLING ACTIVITIES) (DV2=11)

D10b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of playing this gambling activity?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

TOTAL ANNUAL SPEND PER RESPONDENT

ADD ALL TOTAL ANNUAL FIGURES TOGETHER (C2, D1 – D10) TO CREATE ONE OVERALL ANNUAL $ FIGURE FOR GAMBLING AND ASSIGN DUMMY VARIABLE CODES DV6

DUMMY VARIABLE DV6

1. Less than $2000 annually
2. $2000 or more annually

TOTAL ANNUAL TIMES GAMBLED PER RESPONDENT

ADD ALL TOTAL ANNUAL TIMES GAMBLED TOGETHER (C1, D1A, D4A, D5A, D6A, D7A, D8A, D9A, D10A) TO CREATE ONE OVERALL ANNUAL FIGURE FOR GAMBLING AND ASSIGN DUMMY VARIABLE CODES DV7

DUMMY VARIABLE DV7

1. Less than 12 times annually
2. 12 times or more annually

*(ALL)

TS5 TIMESTAMP 5

*SECTION E: PROBLEM GAMBLING SEVERITY (PGSI)

*(ALL GAMBLERS) (DV0=1)

E1 For this next series of questions, please try to be as accurate as possible. Please bear with me, as I understand that these questions may not apply to your situation but we do have to ask them of everyone.
Thinking about the last 12 months how often … (PROGRAMMER SET UP SO IT INSERTS STATEMENT)?

(STATEMENTS) (RANDOMISE)

a. have you bet more than you could really afford to lose?
b. have you needed to gamble with larger amounts of money to get the same feeling of excitement?
c. have you gone back another day to try to win back the money you lost?
d. have you borrowed money or sold anything to get money to gamble?
e. have you felt that you might have a problem with gambling?

f. have people criticized your betting or told you that you had a gambling problem, whether or not you thought it was true?
g. have you felt guilty about the way you gamble or what happens when you gamble?
h. has your gambling caused you any health problems, including stress or anxiety?
i. has your gambling caused financial problems for you or your household?

(RESPONSE FRAME)
1. Almost always
2. Most of the time
3. Sometimes
4. Never
5. (Don't know)
6. (Refused)

*****(PROGRAMMER NOTE: CREATE DUMMY VARIABLES)
*(HIDDEN) (ALL)
DV3 PREVALENCE ESTIMATE

1. (IF E1a-i ALL = 4-6) Non Problem Gambling
2. (IF E1a-i ANY = 1-3) Some Problem Gambling

*SECTION G: GAMBLING HARMS

*(DV3=2 OR DV6=2 OR DV7=2)
G1 These next questions are about how gambling can affect people in a negative way. In the previous three years, how often has your gambling…

(STATEMENTS) (RANDOMISE)
a. resulted in you having difficulty paying bills, repaying debt, or meeting other expenses (INTERVIEWER NOTE: This include rent/mortgage, utility bills, credit cards/loans, household items, medical expenses, taxes/fines, and money borrowed from family or friends)
b. reduced how well you perform in undertaking daily tasks and activities (INTERVIEWER NOTE: Includes work, study, home duties, being a carer, and voluntary work)
c. resulted in you changing jobs or being dismissed from work
d. left you with not enough time to look after your family's interests
e. led to the breakup of an important relationship in your life
f. led you to obtain money illegally, even if you intended to pay it back
g. led to you to have contact with the police
h. (PROGRAMMER NOTE: DO NOT RANDOMISE, STATEMENT TO STAY LAST) resulted in you seriously thinking about, or attempting, suicide

(RESPONSE FRAME)
1. Almost always
2. Most of the time
3. Sometimes
4. Never
6. (Don't know)
7. (Refused)

PROGRAMMER NOTE: ALL EGM GAMBLERS (DV1=1) MUST COMPLETE PART 2: SUPPLEMENTARY SURVEY, ENSURE ALL ARE ALLOCATED AT DV4

*(HIDDEN) (NON PROBLEM/NON GAMBLERS) (DV3=1 or DV0=2)
DV4 IF DV3=1 OR DV0=2, ASSIGN RANDOM NUMBER
(PROGRAMMER ENSURE RANDOM DISTRIBUTION – NEED 1/3 OF NON-PROBLEM GAMBLERS (DV3=1) IN GROUP 1, 1/3 OF NON GAMBLERS (DV0=2) IN GROUP 2 AND REST IN GROUP 3)

1. Group 1 (1/3 of Non- problem gamblers)
2. Group 2 (1/3 of non- gamblers)
3. Group 3 (Rest of non- problem and non gamblers)

*(HIDDEN) (ALL)
DV5 SUPPLEMENTARY SURVEY
1. (IF DV1=1 OR DV3=2 OR DV4=1 OR 2) Supplementary survey (CONTINUE)
2 (IF DV4=3) Not supplementary survey (GO TO Q0)

*(ALL)
TS6 TIMESTAMP 6

*PART 2: SUPPLEMENTARY SURVEY

*(SUPPLEMENTARY SURVEY) (DV5=1)
INTROSUPP Thank you for helping us so far, we really appreciate it. You have been selected to complete the additional component of this survey. This will only take another 15 or so minutes.
(INTERVIEWER NOTE: If they refuse, try to make an appointment to continue, otherwise try to convince them to continue through to demographics)

1. Continue (GO TO F1)
1. Stop interview, make appointment (ARRANGE CALL BACK, RECORD NAME OF SELECTED PERSON)
2. Respondent refusal (GO TO CONVERSE1)

CONVERSE1: That's ok we understand you don't wish to continue with the survey, however, just before we finish, we would like to ask you a couple of quick questions so that we can analyse the results, would that be ok?

1. Yes (GO TO Q0)
2. No, respondent refusal (GO TO TERM5)

*SECTION F: GAMBLING EXPECTANCIES

*(SUPPLEMENTARY SURVEY) (DV5=1)
F1 Now I'm going to read out some responses given by other people when they were asked what they expected would happen to them if they gambled.

How likely do you think these outcomes would be if you were to gamble? You would… (INSERT STATEMENT)

(STATEMENTS) (RANDOMISE)
a. stop being bored
b. feel excited
c. feel powerful
d. feel more accepted by people
e. win money
f. get rich
g. want to gamble more and more
h. get hooked
i. feel guilty
j. feel in over my head

(RESPONSE FRAME)
1. Likely
2. Neither likely nor unlikely
3. Unlikely
4. (Don't know)
5. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
TS7 TIMESTAMP 7

*SECTION H: ALTERNATIVE EXPENDITURE

*(SUPPLEMENTARY SURVEY MINUS NON GAMBLERS) (DV1=1 OR DV3=2 OR DV4=1)

H1 Thinking about the amount of money you spent on gambling in Tasmania over the past 12 months. If you were unable to spend this money on gambling how do you think you would have spent it? (INTERVIEWER PROMPT: And in what other ways do you think you would have spent it? Anything else?) (IF NECESSARY PROBE TO CLARIFY)

(STATEMENTS) (DO NOT READ OUT)

1. Internet based gambling on interstate or overseas web sites (INTERVIEWER NOTE: This would not include Betfair Australia, TOTE Tasmania, or TattsBet web sites. These are all Tasmanian)
2. Travelling to gamble interstate
3. Other interstate travel/holiday
4. International travel/holiday
5. Not spent it/saved money
6. Groceries or small household items
7. Other entertainment or recreation activities (e.g. eating out, movies, concerts)
8. Personal items (e.g. clothing, footwear)
9. Alcohol/drinks
10. Petrol and other vehicle costs
11. Paid rent/mortgage
12. Paid bills/credit cards
13. Spent it on children/grandchildren/family
14. Other (specify)
15. (Don't know)
16. Refused

*(SELECTED MORE THAN 3 ITEMS AT H1)
PROGRAMMER: DISPLAY ALL ITEMS SELECTED AT H1
)

H1a Out of the items you have mentioned, can you please tell me the top 3 ways you might have spent this money? READ OUT

*(SUPPLEMENTARY SURVEY MINUS NON GAMBLERS) (DV1=1 OR DV3=2 OR DV4=1)

TS9 TIMESTAMP 9

*SECTION I: ALTERNATIVE ENTERTAINMENT

*(SUPPLEMENTARY SURVEY) (DV5=1)

I1 In a typical week, fortnight or month how much on average do you spend on eating and drinking out, and other entertainment (EXCLUDING gambling)?

(INTERVIEWER NOTE: if respondent does not eat/drink out etc, put 0 into code 1)

1. Enter money spent per week (SPECIFY)
2. Enter money spent per fortnight (SPECIFY)
3. Enter money spent per month (SPECIFY)
4. Enter money spent over year (SPECIFY)
5. (Don't know)
6. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

I2 Thinking again about a typical week, fortnight or month, how often do you visit [INSERT STATEMENT] in Tasmania that has poker machines, TOTE Tasmania, or TasKeno, but at which you do NOT gamble?

(INTERVIEWER NOTE: Respondents should only indicate times that they have attended venues to eat or drink, or for entertainment but have not played any gambling form, including poker machines, TOTE Tasmania, or TasKeno)

(STATEMENTS) (RANDOMISE)

a. a club or hotel

b. a casino

(RESPONSE FRAME)
1. Enter times per week (SPECIFY) (ALLOWABLE RANGE 1 TO 14 times)
2. Enter times per fortnight (SPECIFY) (ALLOWABLE RANGE 1 TO 28 times)
3. Enter times per month (SPECIFY) (ALLOWABLE RANGE 1 TO 62 times)
4. Enter times per year (SPECIFY) (ALLOWABLE RANGE 1 TO 730 times)
5. (Don't know)
6. (Refused)
7. None

*(ATTENDED GAMBLING VENUES BUT NOT GAMBLED IN I2) (ANY STATEMENTS I2=1 OR 2 OR 3 OR 4)
I3 ON AVERAGE, how much do you SPEND on food, drink and entertainment (excluding gambling) during EACH VISIT to these venues?

(INTERVIEWER NOTE: Do not include money spent on gambling)

1. Enter money spent (SPECIFY) (ALLOWABLE RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
TS10 TIMESTAMP 10

*SECTION J: FAMILY MEMBER PROBLEM GAMBLING

*(SUPPLEMENTARY SURVEY) (DV5=1)
J1 In the past 12 months, has a family member had an issue with gambling?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
*TS11 TIMESTAMP 11

*SECTION K: HELP-SEEKING

*(SUPPLEMENTARY SURVEY) (DV5=1)
K1 Have you EVER tried to get any sort of help from the 24 hour hotline, Gamblers Help, or Gambling Help Online for...

(INTERVIEWER NOTE: In Tasmania, face-to-face gambling counselling is provided by the Gamblers Help program run by Relationships Australia and Anglicare)

(STATEMENTS) (RANDOMISE)
a. problems related to your gambling?
b. problems related to someone else's gambling?

(RESPONSE FRAME)
1. Yes
2. No
3. (Don't know)
4. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
TS12 TIMESTAMP 12

*SECTION L: QUALITY OF LIFE

*(SUPPLEMENTARY SURVEY) (DV5=1)

L1 The next questions ask how you feel about your health, or other areas of your life. We ask that you think about your life specifically IN THE LAST FOUR WEEKS. With this in mind, how would you rate…

(STATEMENTS) (RANDOMISE)

a. your quality of life
b. your ability to get around

(RESPONSE FRAME)

1. Very poor
2. Poor
3. Neither good nor poor
4. Good
5. Very good
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

L2 Next we have some general questions in relation to your health and well-being. In the LAST FOUR WEEKS…

(STATEMENTS) (RANDOMISE)

a. To what extent do you feel that physical pain prevents you from doing what you need to do? (INTERVIEWER NOTE: Asking about degree of impairment, not frequency)
b. How much have you needed any medical treatment to function in your daily life? (INTERVIEWER NOTE: The key is functioning, so it can include things such as aspirin if they can't function without it.)
c. How much have you enjoyed life?
d. To what extent do you feel your life is meaningful?
e. How well have you been able to concentrate?
f. How safe have you felt in your daily life?
g. How healthy has your physical environment been (INTERVIEWER NOTE: I.E, is your living and working environment clean, safe and stable?)

(READ OUT)

(RESPONSE FRAME)

1. Extremely
2. Very much
3. Moderately
4. A little
5. Not at all
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

L3 The next questions ask about how you were able to do certain things in the LAST FOUR WEEKS.

(READ OUT)

(STATEMENTS) (RANDOMISE)

1. Do you have enough energy for everyday life...?
2. Are you able to accept your bodily appearance...?
3. Have you enough money to meet your needs...?
4. How available to you is the information that you need in your day-to-day life?
5. To what extent do you have the OPPORTUNITY for leisure activities? (INTERVIEWER NOTE: We don't expect them to have leisure activities all the time, just whether they ever have the 'opportunity' to undertake them)

(RESPONSE FRAME) (READ OUT)

1. Completely

2. Mostly
3. Moderately
4. A little
5. Not at all
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

L4 I am now going to read out a number of statements and if you could please tell me how satisfied or dissatisfied you are with each one? How satisfied are you with… *(PROGRAMMER: USE AS STRING) (INSERT STATEMENT)

(IF NECESSARY: Is that very dissatisfied, dissatisfied, neither, satisfied or very satisfied)

(STATEMENTS) (RANDOMISE)

a. your health?
b. your sleep?
c. your ability to perform your daily living activities?
d. your capacity for work?
e. yourself?
f. your personal relationships?
g. the support you get from your friends?
h. the conditions of your living place?
i. your access to health services?
j. your transport?

(READ OUT)

(RESPONSE FRAME)

1. Very dissatisfied
2. Dissatisfied
3. Neither satisfied nor dissatisfied
4. Satisfied
5. Very satisfied
6. (Don't know)
7. (Refused)
8. (Not applicable)

*(SUPPLEMENTARY SURVEY) (DV5=1)

L5 If you prefer not to answer the following question, that's fine. Using this scale how satisfied or dissatisfied are you with your sex life? Would you say…READ OUT

1. Very dissatisfied
2. Dissatisfied
3. Neither satisfied nor dissatisfied
4. Satisfied
5. Very satisfied
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

L6 How often in the last 4 weeks, have you had negative feelings such as a blue mood, despair, anxiety, or depression? Would you say….READ OUT

1. Always (100% of the time)
2. Most of the time (more than 50% of the time)
3. Sometimes (25% to 50% of the time)
4. Rarely (1% to 25% of the time)
5. None of the time (0%)
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

TS13 TIMESTAMP 13

*SECTION M: SUBSTANCE USE

*(SUPPLEMENTARY SURVEY) (DV5=1)
I am now going to ask you some questions about your use of alcohol and other substances. Please be assured that the information you provide will be treated as strictly confidential.

M2 Thinking specifically about your alcohol consumption, a standard drink is a small glass of wine, a pot of regular beer, a shot of spirits or a mixed drink. How many standard drinks do you have on a typical day when you are drinking? (INTERVIEWER NOTE: A can of regular beer and a typical glass of wine is 1.5 standard drinks)

1. Number given (specify)
2. Do not drink alcohol
3. (Don’t know)
4. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

M1 Now thinking more generally about your use of alcohol and other substances.

*(STRING TEXT) How often do you… (INSERT STATEMENT)?

(STATEMENTS) (RANDOMISE)

a. have a drink containing alcohol? (DO NOT ASK IF M2=2)
b. PROGRAMMER NOTE, TEXT REPLACE IF FEMALE (A5=2) INSERT “have five or more standard drinks on one occasion” IF MALE (A5=1) DISPLAY “have seven or more standard drinks on one occasion”? (DO NOT ASK IF M2=2)
c. used tobacco products (INTERVIEWER NOTE: cigarettes, chewing tobacco, cigars, etc.)
d. use cannabis or other non-prescription substances, such as cocaine, amphetamine type stimulants, inhalants like petrol or glue, hallucinogens, or heroin (INTERVIEWER NOTE: also coke, crack, speed, ice, g, diet pills, ecstasy, paint thinner, nitrous, LSD, mushrooms, special K, acid, PCP, methadone if not prescribed)
e. used prescription medications NOT as directed by your doctor, such as sleeping pills, pain medications, or diet pills (INTERVIEWER NOTE: such as sedatives, valium, serapax, rohypnol, codeine, methadone)

(RESPONSE FRAME)

1. Every day
2. 4-6 times a week
3. 2-3 times a week
4. Once a week
5. 2-3 times a month
6. Monthly or less
7. Not in the last year
8. Never
9. (Don’t know)
10. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
TS14 TIMESTAMP 14

*SECTION N: MENTAL HEALTH COMORBIDITIES

*(SUPPLEMENTARY SURVEY) (DV5=1)

N1 The next questions are about how you feel about different aspects of your life. In answer to each of the following statements, please indicate which you feel most closely reflects your situation. Over the last 2 weeks, how often have you been bothered by any of the following? [INSERT STATEMENT]. Is that…

(STATEMENTS) (RANDOMISE)

a. Little interest or pleasure in doing things
b. Feeling down, depressed or hopeless

c. Feeling nervous, anxious or on edge
d. Not being able to stop or control worrying

(READ OUT)

(RESPONSE FRAME)
1. Not at all
2. For several days
3. More than half the days
4. Nearly every day
5. (Don't know)
6. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
N2 *(STRING TEXT) In the past six months, did you have an attack or episode when…

(STATEMENTS) (RANDOMISE)
a. all of a sudden you felt frightened, anxious or very uneasy?
b. for no reason your heart suddenly began to race, you felt faint, or you couldn't catch your breath?

(RESPONSE FRAME)
1. No
2. Yes
3. (Don't know)
4. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
N3 In your lifetime have you had any experience that was so frightening, horrible or upsetting, that in the past month you have experienced any of the following…

(INTERVIEWER NOTE: The event does not have had to occur in the previous month, but the symptoms must have been experienced in the previous month)

(STATEMENTS) (RANDOMISE)
a. nightmares about it or thought about it when you did not want to?
b. tried hard not to think about it or went out of your way to avoid situations that reminded you of it?
c. been constantly on guard, watchful, or easily startled?
d. felt numb or detached from others, activities, or your surroundings?

(RESPONSE FRAME)
1. Yes
2. No
3. (Don't know)
4. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
N4 Please rate how much the following statements applied to you over the past week. How much… [INSERT STATEMENT].

Is that…

(STATEMENTS) (RANDOMISE)
a. Does fear of embarrassment cause you to avoid doing things or speaking to people
b. Do you avoid activities in which you are the centre of attention
c. Is being embarrassed or looking stupid among your worst fears

(READ OUT)

(RESPONSE FRAME)
1. Not at all
2. A little bit
3. Somewhat

4. Very much
5. Extremely
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

N5 *(STRING TEXT) Next I am going to ask you how often you do the following: (STRING TEXT) How often… [INSERT STATEMENT]

Would you say... (READ OUT RESPONSE FRAME)?

(STATEMENTS) (RANDOMISE)

a. do you plan tasks carefully
b. do you do things without thinking
c. do you not "pay attention"
d. are you self-controlled
e. do you concentrate easily
f. are you a careful thinker
g. do you say things without thinking
h. do you act on the spur of the moment

(RESPONSE FRAME)

1. Never/Rarely
2. Occasionally
3. Often
4. Almost always/always
5. (Don't know)
6. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

N6 *(STRING TEXT) Thanks for that. Next I am going to ask you how you have felt and conducted yourself over the past 6 months?
(STRING TEXT) Over the past six months, how often have you… [INSERT STATEMENT]

Would you say... (READ OUT RESPONSE FRAME)?

(STATEMENTS) (RANDOMISE)

a. had trouble wrapping up the final details of a project, once the challenging parts have been done
b. had difficulty getting things in order when you have to do a task that requires organization
c. had problems remembering appointments or obligations
d. avoided or delayed getting started when you have a task that requires a lot of thought
e. fidgeted or squirmed with your hands or feet when you have to sit down for a long time
f. felt overly active and compelled to do things, like you were driven by a motor

(RESPONSE FRAME)

1. Never
2. Rarely
3. Sometimes
4. Often
5. Very often
6. (Don't know)
7. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

TS15 TIMESTAMP 15

*SECTION O: POSITIVE MENTAL HEALTH

*(SUPPLEMENTARY SURVEY) (DV5=1)

O1 To what extent do the following statements describe you? *(STRING TEXT) In general, you… [INSERT STATEMENT]

Would you say... (READ OUT RESPONSE FRAME)?

(STATEMENTS) (RANDOMISE)

a. have confidence in the decisions you make
b. feel comfortable expressing your opinions
c. are able to control many situations around you
d. have freedom to make choices that concern your future
e. feel in control of your life
f. work hard to achieve your goals
g. are clear about what you want in life
h. are able to solve your own problems
i. are focused on what you want to do in life
j. know what you need to do to reach your goals

(RESPONSE FRAME)

1. Not at all
2. Very slightly
3. Slightly
4. Moderately
5. Very much
6. Exactly like me
7. (Don't know)
8. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

O2 Using the same responses, to what extent do the following statements describe you? *(STRING TEXT) In general, you… [INSERT STATEMENT]

Would you say you... (READ OUT RESPONSE FRAME)?

(STATEMENTS) (RANDOMISE)

a. get along well with others
b. make friends easily
c. make an effort to help others
d. try to accept people as they are
e. are willing to compromise with people
f. try to be patient with others
g. are willing to give up something if it makes your family and friends happy
h. have no trouble keeping friends
i. are willing to share your time with others

(RESPONSE FRAME)

1. Not at all
2. Very slightly
3. Slightly
4. Moderately
5. Very much
6. Exactly like me
7. (Don't know)
8. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)

O3 I would now like to read out some things that people do when they are faced with difficult or stressful situations. Think about what YOU would generally do when you encounter these types of situations.

(IF NECESSARY: Different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress)

Do you (INSERT STATEMENT)

Would you say you usually…

(STATEMENTS) (RANDOMISE)

a. concentrate your efforts on doing something about the situation you're in
b. take action to try to make the situation better
c. try to come up with a strategy about what to do
d. think hard about what steps to take
e. try to see it in a different light to make it seem more positive
f. look for something good in what is happening
g. try to find comfort in your religion or spiritual beliefs
h. pray or meditate
i. get emotional support from others
j. get comfort and understanding from someone
k. try to get advice or help from other people about what to do
l. get help and advice from other people
m. turn to work or other activities to take your mind off things
n. do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping

(READ OUT)

(RESPONSE FRAME)

1. Don't do this at all
2. Do this a little bit
3. Do this a medium amount
4. Do this a lot
5. (Don't know)
6. (Refused)

*(SUPPLEMENTARY SURVEY) (DV5=1)
*TS16 TIMESTAMP 16

*SECTION P: DEMOGRAPHICS

*(ALL)
P0 Thanks for that, now some questions about your household. Firstly, including yourself, how many people aged 18 years or older currently live in this household?
(PROGRAMMER NOTE: ALLOW RESPONSES 1-20. DISPLAY 'UNLIKELY RESPONSE' IF ANSWER IS GREATER THAN 10)

1. Number given (Specify___) (RANGE 1 TO 20)
2. (Don't know)
3. (Refused)

*(ALL)
P1 Which of the following best describes your household? (READ OUT)
(INTERVIEWER NOTE: If joint custody count as children living at home)

1. Couple with no children
2. Couple with children still at home
3. Couple with children not living at home
4. Single person household (no children)
5. Single with children still at home
6. Single with children not living at home
7. Group or shared household
8. In some other arrangement
9. (Don't know)
10. (Refused)

*(ALL)
P2 What is your current employment status?

1. In paid employment full time (35 hours/week or more)
2. In paid employment part time/casual
3. Primarily household duties
4. Student
5. Retired
6. Looking for work
7. Unable to work / pension
8. Unpaid voluntary worker
9. Other (SPECIFY)
10. (Don't know)
11. (Refused)

*(ALL)
P3 Could you please tell me your approximate annual PERSONAL income BEFORE TAX. Is it...

1. Less than $25,000
2. $25,000 to $39,999
3. $40,000 to $64,999
4. $65,000 to $79,999
5. $80,000 to $129,999
6. $130,000 or more
9. (Don't know)
10. (Refused)

*(ALL)
P4 In what country were you born?

1. Australia
2. Canada
3. China (excluding Taiwan)
4. Germany
5. Greece
6. India
7. Indonesia
8. Italy
9. Malaysia
10. Netherlands (Holland)
11. New Zealand
12. Philippines
13. Poland
14. Singapore
15. South Africa
16. United Kingdom (INTERVIEWER NOTE: Includes England, Wales, Scotland, and Northern Ireland – Other Ireland goes into Other specify)
17. USA
18. Vietnam
19. Other (Specify)
20. (Refused)
21. Don't know

*(ALL)
P5 What is the main language spoken at home?

1. English
2. Arabic
3. Cantonese Chinese
4. German
5. Greek
6. Italian
7. Mandarin Chinese

8. Spanish
9. Turkish
10. Vietnamese
11. Chinese
12. (Don’t know)
13. (Refused)

*(ALL)
P5a Which cultural or ethnic group do you mainly identify with? (PROBE IF NECESSARY)

1. Aboriginal or Torres Strait Islander
2. Arabic
3. Australian
4. Chinese
5. Dutch
6. English
7. German
8. Greek
9. Italian
10 New Zealander
14. Other (SPECIFY)
15. (Don’t know)
16. (Refused)

*(ALL)
P6 What is the highest level of education or trade qualifications you have completed? (INTERVIEWER NOTE: If less than year 12, probe for vocational or trade qualifications)

1. Primary school only
2. Secondary school: not completed year 12
3. Year 12
4. Vocational or Trade qualifications (e.g. Certificate or Diploma)
5. Higher education / University undergraduate degree
6. Post graduate qualification
7. Other (SPECIFY)
8. (Don’t know)
9. (Refused)

*(ALL)
TS17 TIMESTAMP 17

*SECTION Q: TELEPHONE STATUS

PREQ1 IF SAMTYPE=2 CONTINUE. OTHERWISE GO TO PREQ2
* (SAMTYPE=2)
Q1 To help us finish off the survey I have a question or two about your use of telephone services. Is there at least one working fixed line telephone inside your home that is used for making and receiving calls?

1. Yes
2. No
3. (Don’t know)
4. (Refused)

PREQ2 IF SAMTYPE=1 OR Q1=1 CONTINUE. OTHERWISE GO TO PREQ3
*(LANDLINE SAMPLE OR MOBILE SAMPLE WITH LANDLINE) (SAMTYPE=1 OR SAMTYPE=2 AND Q1=1)
Q2 (To help us finish off the survey I have a question or two about your use of telephone services). How many residential phone numbers do you have in your household not including lines dedicated to faxes, modems or business phone numbers? Do not include mobile phones.

INTERVIEWER NOTE: If needed, explain as ‘how many individual landline numbers are there at your house that you can use to make and receive calls?’

1. Number of lines given (SPECIFY________) RECORD WHOLE NUMBER (ALLOWABLE RANGE 1 TO 15) *(DISPLAY "UNLIKELY RESPONSE" IF >3)
2. (Don't know)
3. (Refused)

PREQ3 IF SAMTYP=1 CONTINUE. OTHERWISE GO TO TS18
*(SAMTYPE=1)
Q3 Do you also have a working mobile phone?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS18 TIMESTAMP 18

*SECTION R: FUTURE RESEARCH

*(ALL)
R1 We would really like to contact you again in the future to participate in similar research. Would it be ok if I confirmed your name and number so we could contact you again in the future?

1. Agree to participate
2. Refused

(IF NECESSARY: Your name and number is stored separately to the information you have just provided us. Your contact details would be used for re-contacting you for a follow up research only and not passed onto any third party for any other purpose.)

PRER2n IF R1=1 CONTINUE, OTHERS GO TO PRER3

*(AGREED TO BE RECONTACTED) (R1 = 1)
R2n Could I please record your name?

1. Name given (SPECIFY)
2. Refused name

*(AGREED TO BE RECONTACTED) (R1 = 1)
R2tel Could I confirm the best number to call you on:
NUMBER FROM SAMPLE: (DISPLAY NUMBER FROM SAMPLE)

1. Number from sample is best number
2. Collect other number (SPECIFY TEN DIGIT NUMBER)

*(AGREED TO BE RECONTACTED) (R1 = 1)
R2alt Are there other numbers or a mobile for future contact?
1. Yes (SPECIFY TEN DIGIT NUMBER))
2. No

PRER3 IF DV3=2 CONTINUE, OTHERS GO TO PREEND1a.

*(PROBLEM GAMBLERS) (DV3=2)
R3 IF NECESSARY: I was wondering whether you may be interested in some free confidential support from the Gamblers Help Line. Would you like their number?

1. Number is... 1800 156 789

PREEND1a IF G1h=1 OR 2 OR M1b=1 OR M1d=1 (THOUGHT ABOUT SUICIDE OFTEN OR

ABUSER OF ALCHOL OR DRUGS)
END1a I know that some of the topics covered in this survey are sensitive and I just wanted to check you have access to support and help if you need it. If not I can recommend some contact numbers if you would like to talk to someone.

1. Wants contact details (GO TO END2)
2. Does not want contact details (GO TO END3)

*(NOT G1h=1 OR 2 OR M1b=1 OR M1d=1)
END1 That is all the questions that I have for you. Thank you very much again for your assistance and time. A reminder that my name is (…) from the Social Research Centre. This research has been conducted on behalf of the Tasmanian Government. If you would like the details of people you can contact with any questions about this survey I can give them to you now. Would you like to get a pen to write down the details?

1. Wants contact details (GO TO END2)
2. Does not want contact details (GO TO END3)

*(END1=1) (WANTS CONTACT DETAILS)
END2

- If you have questions about who is conducting the study and how your telephone number was obtained, you can contact the Social Research Centre on 1800 255 668
- If you wish, you can contact Mental Health Services Helpline (Tasmania specific) 1800 332 388 (PAUSE AND REPEAT IF NECESSARY), *beyondblue* on 1300 22 46 36 (PAUSE AND REPEAT IF NECESSARY), Lifeline on 13 11 14 (PAUSE AND REPEAT IF NECESSARY) or *(PROGRAMMER NOTE: Only display Mensline if male respondent (A5=1)) Mensline on 1300 78 99 78 (PAUSE AND REPEAT IF NECESSARY).
- If you wish, you can contact the Alcohol and Drug Information Service (24 hours) (Tasmania) 1800 811 994

END3 Thank you very much for your time.

*(ALL)
TS19 TIMESTAMP 19

*(REFUSED)
RR1 OK, that's fine, no problem, but could you just tell me the main reason you do not want to participate, because that's important information for us?

1. No comment / just hung up
2. Too busy
3. Not interested
4. Too personal / intrusive
5. Don't like subject matter
6. Don't believe surveys are confidential / privacy concerns
7. Silent number
8. Don't trust surveys / government
9. Never do surveys
10. Interview length is too long
11. Get too many calls for surveys / telemarketing
12. Too old / frail / deaf / unable to do survey (CODE AS TOO OLD / FRAIL / DEAF)
13. Not a residential number (business, etc) (CODE AS NOT A RESIDENTIAL NUMBER)
14. Language difficulty (CODE AS LANGUAGE DIFFICULTY NO FOLLOW UP)
15. Going away / moving house (CODE AS AWAY DURATION)
16. Asked to be taken off list (add to do not call register)
17. Other (SPECIFY)
18. Object to being called on their mobile phone (DISPLAY IF SAMTYP=2)

*(REFUSED)
RR2 RECORD RE-CONTACT TYPE

1. Definitely don't call back
2. Possible conversion

*(LOTE) (S1=7 OR S2=4 OR S4=6)

ALOTE That's all the questions I have for you today. Thank you for your time and assistance.

1. LOTE

*(SCREEN OUT)

TERM1 That's all the questions I have for you today. For this research we need to speak to Tasmanian residents. Thank you for your time and assistance.

1. Not a Tasmanian resident

TERM2 That's all the questions I have for you today. For this research we need to speak to people aged 18 or over. Thank you for your time and assistance.

1. Under 18

TERM3 That's all the questions I have for you today. Due to the nature of this research we need to know your suburb, town or postcode. We respect that you do not wish to give this information so we will finish the interview here. Thank you for your time and assistance.

1. Refused location information

TERM4 Sorry, but we have got all the interviews we need from people in your local area. Thanks anyway.

1. Quota full

TERM5 Thank you very much for your time.

1. Refused supplementary survey and demos

TERM6 That's all the questions I have for you today. Due to the nature of this research we need to verify your age. We respect that you do not wish to give this information so we will finish the interview here. Thank you for your time and assistance.

1. Refused age