



**NEW ZEALAND 2012 NATIONAL GAMBLING STUDY:
ATTITUDES TOWARDS GAMBLING**

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EXECUTIVE SUMMARY

This report outlines and discusses findings on attitudes towards gambling from the New Zealand 2012 National Gambling Study (NGS). It considers relevant background literature concerning attitudes towards gambling and a short overview of the study design. It also presents results from previous national surveys, enabling comparison over time. In New Zealand, national participation and attitude surveys have been conducted regularly since 1985. Attitudes towards gambling are of interest because they can influence gambling participation and problems, help-seeking, legislative and regulatory changes and measures on the part of industry, communities and other stakeholders that reduce or contribute to gambling-related harm.

This report is the third of three on the first phase (baseline survey) of the NGS. The first report (Abbott et al., 2014a) provides a detailed account of the survey methodology, sample and statistical analyses. It also includes a review and examination of relevant national and international literature that informed the study design. Additionally, it reports and examines the survey gambling participation findings. The second report (Abbott et al., 2014b) presents gambling-related harm, including problem gambling, findings and discusses them in relation to previous local and international research.

A randomly selected sample of 6,251 people aged 18 years and older living in private households was recruited and interviewed face-to-face from March to October 2012. The response rate was 64% and the sample was weighted to enable generalisation of the survey findings to the general adult population. As intended, the sample design led to the recruitment of additional Māori, Pacific Islanders and Asians, thereby increasing the precision of information from these groups. These sub-samples were appropriately weighted when reference was made to the adult population as a whole.

The survey instrument for the 2012 National Gambling Survey was extensive and covered the following areas:

1. Leisure activities and gambling participation
2. Past gambling and recent gambling behaviour change
3. Problem gambling
 - Problem Gambling Severity Index (PGSI)
 - South Oaks Gambling Screen (SOGS-R)
 - Help-seeking behaviours (including readiness to change)
 - Gambling in households
4. Life events and on-going hassles
5. Gambling in New Zealand
 - Attitudes towards gambling activities
 - Attitudes towards profit distribution
 - Attitudes towards the gambling industry
 - Social undesirability of gambling activities
6. Mental health
 - General psychological distress
 - Quality of life
7. Alcohol use/misuse
8. Substance use/misuse
 - Tobacco
 - Other drugs
9. Health conditions

- 10. Social connectedness
- 11. New Zealand Deprivation Index
- 12. Demographics

Adult population, 2012 attitudes towards gambling - findings and change over time

- Most (85%) New Zealand adults are in favour of gambling to raise funds for worthy causes. Most oppose gambling as a business enterprise (74%) or to raise government revenue (73%). Opinion is divided on support for profit sharing with promoters (58%) or gambling as a sales promotion (53%).
- From 1985 to 2005, there was a reduction in support for gambling for fundraising for worthy causes (94% to 84%) and as a means of raising government revenue (38% to 18%); there was little or no change in this regard from 2005 to 2012.
- Just under two-thirds of adults, in both 2005 and 2012, were happy or largely happy but with some doubts with the way gambling profits are distributed.
- People who were unhappy or had some doubts about the way profits are distributed most often said this was because they are opposed to gambling as a source of funding. Other reasons given by 10% or more people included not knowing how the money is distributed or where it goes, that some causes are not worthy or proceeds should go to more needy causes, and too much money is kept back by promoters or organisers.
- In 2005 and 2012, 41% of adults said there were too many places to gamble and slightly more (45% in 2005; 53% in 2012) said there were about the right number. Only one percent, in 2005 and 2012, said there were not enough places.



- Two-thirds of people who thought there are too many venues specifically mentioned non-casino electronic gaming machine (EGM) venues (pubs and clubs). Other places mentioned by 10% or more included all gambling venues, Totalisator Agency Boards (TABs) and Lotto/keno/Instant Kiwi outlets. While fewer people mentioned pubs and clubs in 2012 than in 2005, more considered that there were too many of all venues or venues in general.
- A large majority of adults (84%) considered one or more gambling activities to be undesirable and this majority increased from 1985 to 1995 and has stayed at around the same level since. In 2012, somewhat over half of adults considered both non-casino EGMs (57%) and overseas internet gambling (54.5%) to be socially undesirable activities. Slightly less than half regarded casinos (47%) as undesirable and over a third perceived text games or competitions (39%) this way. Around a fifth considered each of horse and dog race (20%) and sports betting (18%) to be undesirable. Over time, increased numbers regarded non-casino EGMs, casino gambling, horse and dog race betting and housie or bingo as undesirable. While there appears to have been a reduction in concern about a number of specific activities from 2005 to 2012, there was an increase in the number that said all activities were undesirable or that it depends on the person (1% in 2005, 11% in 2012).

- Most adults either strongly agreed (39%) or agreed (48%) that there is a growing problem with people's heavy gambling. Numbers strongly agreeing or agreeing increased substantially from 1985 to 2000 and have remained the same since.
- Large majorities, in both 2005 and 2012, considered that both providers of gambling activities (78% 2005, 85% 2012) and government (77% 2005 and 2012) should do more to help people who gamble to excess.

Subgroup differences in attitudes towards gambling

Gambling participation

- While the 2012 total population findings generally applied across all gambling participation and demographic groups, there were some differences in attitudes between groups. This was most evident for gambling participation.
- Both people who did not gamble (32%) and problem gamblers (24%), relative to non-problem (10%), low-risk (11%) and moderate-risk gamblers (8%), more often opposed gambling to raise funds for worthy causes and for some other reasons. These two groups also had larger proportions that were not happy with the way profits are distributed.
- Problem gamblers (69%) much more often than people in other gambling participation groups (39% - 45%) considered there to be too many gambling venues generally. When asked what types of venues there were too many of, problem (85%) and moderate-risk (81%) gamblers both more often than those in other gambler groups (72%) mentioned non-casino EGM venues. Problem and moderate-risk gamblers also more often indicated that casinos are socially undesirable and people in these groups, and sometimes in the low-risk group, additionally considered some other gambling activities to be undesirable.
- Proportionately more problem gamblers strongly agreed that gambling providers (63%), but not government (33%), should do more to help excessive gamblers.
- Non-gamblers much less often mentioned that there were too many non-casino EGM venues (47%) and, relative to people in all other groups, said there were too many of all gambling venues (43%).

Demographic groups

- Overall, attitudes generally vary less across demographic than across gambling participation groups. In most instances, there was relatively little difference between gender, age, occupation and education groups. Greater variation was found in relation to ethnicity, religion and residency.
- Pacific Islanders (32%) and Asians (31%) more often than Māori (11%) and European/Other (11.5%) disapproved of gambling to raise funds. Pacific Islanders (58%) and Asians (52%) also more often disapproved of profit sharing with gambling promoters. People in these two groups and Māori, relative to European/Other, more often opposed gambling as a sales promotion or as a business enterprise. Māori and Pacific Islanders also more often opposed gambling to raise government revenue.
- Migrants (24.5%), relative to New Zealand born adults (11%), more often disapproved of gambling to raise funds for worthy causes, as a sales promotion or to share profits with a promoter. Recent migrants (33%) differed from longer-term migrants (23%) in that more opposed gambling to raise funds for worthy causes.

- Larger proportions of Other Christians and people of Other religions were not in favour of gambling for most of the five reasons considered. There was little variation in attitudes between Catholics, Anglicans, Presbyterians and people with no religion.
- Adults in older age groups somewhat more often than younger adults disagreed with most of the reasons for gambling. Adults with low personal or household incomes relative to those in the high income groups also more often disagreed for most reasons. To some extent, this was also the case for people who lacked formal qualifications or who were unemployed.
- Pacific Islanders (21%), Asians (18%), migrants (16%), Other religions (17%), Other Christians (18%) and older adults (14%) had higher proportions of people who disapproved of the way gambling profits are distributed.
- Participants who were not happy with, or who had some doubts about, profit distribution were asked why. Substantially more Asians and Pacific Islanders than Māori or European/Other said this was because they opposed gambling to raise funds. Relatively large proportions of migrants, especially recent migrants, Other Christians, people of Other religions, and those with degree or school qualifications also gave this reason for opposing or having doubts about profit distribution.
- More Pacific Islanders (61%) and Māori (51%) than Asians (41%) and European/ Other (38%) said there are too many gambling venues. Somewhat more Other Christians (51.5%), people with lower incomes (39% - 44%) and people in older groups (38% - 45.5%) also believed there are too many gambling venues.
- Respondents who indicated that they thought there are too many gambling venues were asked which venues they considered there to be too many of. Māori (75%) and European/Other (72%) much more often than Pacific Islanders (45%) and Asians (34%) mentioned non-casino EGMs. On the other hand, people in the latter groups much more often said there are too many gambling venues in general. New Zealand-born adults (74%) much more often than migrants (51%), especially longer-term migrants (54%), believed there are too many non-casino EGM venues. Again, the pattern reversed with regard to venues in general. Substantially more migrants, especially recent migrants, were of this view than were people born in New Zealand. This was also the case for religion, with substantial majorities of adults in the three larger Christian denominations and those of no religion mentioning non-casino EGMs relative to adults in the Other Christian and Other religion groups. Relatively more adults in the two latter categories were concerned about venues in general, not specifically non-casino EGMs or other venues. There were also differences between some income groups with adults in the lowest group less often mentioning non-casino EGMs and more often mentioning venues generally.
- As mentioned, over a half of adults considered non-casino EGMs (57%) and gambling on overseas internet sites (54.5%) to be socially undesirable, and slightly less regarded casinos (47%) in this way. Attitudes towards these activities varied little across most demographic groups. Māori and European/Other somewhat more often than Asians and Pacific Islanders said non-casino EGMs and overseas internet gambling were undesirable. The latter groups more often said all forms of gambling are undesirable. So too did people of Other religions and Other Christians. Longer term migrants and New Zealand born adults had similar opinions towards non-casino EGMs and casino gambling, and both groups differed from recent migrants who much less often considered these activities to be undesirable.
- Large majorities (87%) of adults across all demographic groups either agreed (48%) or strongly agreed (39%) that there is a growing problem with heavy gambling and that both providers of gambling activities and government should do more to help people who gamble excessively.

- Despite most people in all groups agreeing there is a growing problem with heavy gambling, there was considerable variation within a number of the demographic groupings. Substantially more Pacific Islanders (64%) and Māori (53%) strongly agreed that there is a problem with heavy gambling than Asians (35%) and Europeans/Other (37%). Females somewhat more often strongly agreed than males and strong agreement increased with increasing age. There was a similar linear relationship with personal and family income. Strong agreement increased with decreasing income. Higher proportions of early migrants, Other Christians, Other religions, people lacking formal qualifications and unemployed people also strongly agreed.
- Higher proportions of Pacific Islanders (55%, 55%) and Māori (46%, 46%) than Asians (37%, 40%) and European/Other (41%, 32%) strongly agreed that both providers of gambling activities and government should do more to help people gambling to excess. Adults in the older age categories (44% - 46%) more often than those in the youngest (32% - 40%) thought likewise in regard to gambling providers doing more to help people. Other Christians (50%) somewhat more than some of the other religious groups (39% - 46%) also strongly agreed that providers should do more.
- Females (51%) more often than males (41.5%) strongly agreed that government should do more about people gambling to excess. Other religions, Other Christians, migrants and unemployed people also had high rates of strong agreement. In contrast to the situation with respect to providers doing more, fewer people in the oldest age group than some of the other age groups thought government should do more.

Conclusions

Most adult New Zealanders (85%) approve of gambling to raise money for worthy causes. Most oppose gambling as a business enterprise (74%) or as a way to raise government revenue (73%). However, since 1985, approval for the former reason has decreased (94%) and opposition to the raising government revenue has increased (54%, 73%). Just less than two-thirds of adults are happy or largely happy with the distribution of gambling profits (64%) and this did not change from 2005 to 2012.

The survey findings indicate a high level of public awareness that gambling is associated with harm and that some gambling activities are substantially more harmful than others. This awareness has increased over time and corresponds with research findings on this topic. Over a half of adults consider non-casino EGMs (57%) and online gambling (54.5%) to be socially undesirable. A majority of adults (67%) want a reduction in the number of non-casino EGMs and around a quarter (26.5%) believe that there are too many gambling venues generally. The large majority of adults (87%) believe that there is a growing problem with heavy gambling in New Zealand and most want providers of gambling activities (85%) and government (76%) to do more to help. As with gambling participation, it is of note that the preceding conclusions applied across all gambling participation and major demographic groups.

While applying widely there is some variation across groups. This variation partly reflects different levels of gambling involvement and experience and/or knowledge of gambling-related harm. In some groups, attitudes appear to be more influenced by moral and religious objections to gambling generally, rather than reflecting knowledge of harm associated with different activities.

Although gambling participation reduced during the past 15 years or so, it is highly likely that problem gambling and other gambling-related harms, after decreasing during the 1990s, have

remained stable since (Abbott et al., 2012b). During this period, however, ethnic and other disparities have persisted. Apart from Māori who have high overall participation and high rates of harm, most of the other groups that experience disproportionate harm (e.g. Pacific and Asian people, and migrants particularly recent migrants) have low overall participation. Additionally, they generally have more negative attitudes towards various aspects of gambling and more concern about associated problems. While gambling less and being more concerned about gambling, these groups have minorities that engage frequently in high risk gambling activities. These groups are vulnerable for various reasons, including being recently introduced to EGMs and other continuous gambling forms, and residence in communities with high densities of EGMs and TABs. The challenge is to find ways to further reduce gambling-related harms and related health inequalities.

The NGS findings suggest that there is widespread public understanding of gambling and some of its impacts, albeit varying somewhat across different participation and demographic groups. They further suggest that there remains some public support for measures that will further reduce EGM availability and gambling-related harms and that government and the gambling industry could do more to help.



1. INTRODUCTION

Introduction

This report presents and discusses gambling attitude findings from the first phase (baseline survey) of the New Zealand National Gambling Prevalence and 12 Month Incidence Study (NGS). This includes consideration of changes over time. The present report also considers relevant background literature concerning attitudes towards gambling and provides a short overview of the study design. It is the third of three reports on the baseline survey. The first report provides an overview of this phase of the study including a detailed account of the methodology, sample and statistical analyses (Abbott et al., 2014a). It includes review and discussion of relevant international and national literature that informed the study design. It also presents and discusses the gambling participation findings. The second report presents gambling-related harm and problem gambling findings, and considers them in relation to previous local and international research (Abbott et al., 2014b).

Study objectives

The primary aims of the first phase of the NGS are to:

- Inform on detailed changes in gambling participation in New Zealand
- Provide epidemiological information on problem gambling
- Inform on risk and resiliency factors for problem gambling
- Act a sampling frame for a longitudinal study.

Attitudes

Additional to the topics covered in the first two reports, various stakeholders including researchers, gambling industry executives, politicians, regulators, and public health and clinical practitioners, among others, have an interest in what people think and feel about various aspects of gambling. Attitudes are a mix of emotion and cognition (Smith & Mackie, 2007). The emotional component refers to how a particular event, issue, activity, object or person makes one feel. This evaluative aspect is usually positive or negative, albeit varying considerably in intensity and at times uncertain or conflicted. Uncertainty can arise because of a lack of knowledge or ambivalence and mixed feelings. The cognitive component refers to thoughts and beliefs about a particular subject. While of interest in their own right, academics and, indeed, all sentient human beings, are particularly interested in attitudes because of their relevance to the prediction of future behaviours that are of concern to them. The ways in which attitudes influence behaviour are sometimes considered to be a third component of attitudes (Myers, 1999).

Attitudes cannot be directly observed but are assessed in a variety of ways. Indirect methods include inferring attitudes from observing patterns of behaviour by examining the content of documents such as parliamentary transcripts, submissions to select committees and official inquiries, as well as stories in the mass media and legislative changes. Such methods are useful in examining both contemporary and past attitudes. More direct methods employ surveys that include questions and scales to measure attitudes (Abbott & Volberg, 1999). The quality of these studies and the extent to which they draw on relevant psychological and psychometric literature, in particular research on attitude measurement, varies considerably.

Attitudes towards gambling

It has been argued that examining patterns of gambling participation and associated harm in communities and general populations, while indicating how widespread these phenomena are, tells us relatively little about the wider role of gambling in society (Toce-Gerstein & Gerstein, 2007). These authors maintain that the addition of information regarding public attitudes toward these and related matters provides a more comprehensive understanding of gambling and its effects.

A recent Australian gambling report (Mond, Davidson & McAllister, 2011) expressed the view that public opinion is of interest because certain attitudes and beliefs may influence the likelihood that people will engage in particular gambling activities as well as the frequency of their engagement. They also noted that public attitudes may influence governments to introduce legislative and regulatory changes and affect decisions regarding treatment, other service provision and the uptake of these services.

Changing attitudes

As indicated in Abbott et al. (2014a), while some societies had little exposure to gambling until relatively recently, in many parts of the world it has a long pedigree. Attitudes towards gambling have varied enormously over time. A number of countries have experienced long-term alternating cycles of liberalisation and restriction, the latter generally associated with changes in attitudes including rising public and official concern about gambling eroding morals and the public order (Miers, 2004; Reith, 2002). Abbott and Volberg (1999) cite an account by Carpenter of the introduction of state regulation in 13th Century Spain. The intent of the regulation was to reduce disruption of the social order and ensure the Crown received a share of gambling revenue. These remain objects of much contemporary gambling legislation.

In 1783, George Washington wrote “Gambling - the child of avarice, the brother of iniquity and the father of mischief” (Spinrad & Spinrad, 1979, quoted in Abbott & Volberg, 1999). This statement was consistent with widely held views at that time in North America and Europe that gambling was morally wrong and associated with personal and social ills. However, Washington also founded one of the first state lotteries in the United States of America, illustrating a double standard towards gambling that appears to have also had a long heritage.

In a number of countries including New Zealand, attitudes toward gambling became more negative during the late 19th and early 20th Centuries. This was part of a wider social movement, strongly championed by major Christian groups, aimed at eliminating or restricting gambling and alcohol use. It was associated with the growth of the middle classes and enfranchisement of women. Legislation was introduced during this period that made most forms of gambling illegal and severely restricted others (Bogart, 2011; Grant, 1994; Rose, 1986). New Zealand’s first significant gambling legislation, passed in 1881, was titled ‘An Act for the suppression of Gaming and Betting Houses, and the more effectual abolition of lotteries’.

In some parts of the world, again including New Zealand, gambling restrictions were eased somewhat from the 1930s onwards (Abbott & Volberg, 1999; Bogart, 2011). However it was not until relatively recently that there have been significant legislative changes that opened the way for the widespread introduction of a wide range of gambling activities.

During the past 20 to 30 years there has been unprecedented growth in gambling availability, participation and expenditure. Abbott and Volberg (1999) maintained that this expansion was both quantitatively and qualitatively unique, driven by inter-related forces including the

growing legitimacy and acceptance of legal gambling, the intersection of gambling and financial technologies, impacts of the internet, spread of gambling to traditionally non-gambling settings and other aspects of globalisation.

As documented in Abbott et al. (2014a) new forms of gambling were introduced to New Zealand from 1987 onwards and from that time gambling availability and expenditure increased markedly until 2004. Since then, expenditure has declined somewhat in inflation-adjusted terms. While the Gambling Act 2003 came into effect in 2004 and probably played a part in this reduction in expenditure, as outlined and discussed in Abbott et al. (2014a, 2014b), it is highly likely that significant reductions in gambling participation and problem gambling preceded the 2003 Act. Furthermore, while participation rates have continued to decrease during the past decade, problem gambling and other gambling-related harm appears to have stayed much the same (Abbott et al., 2014b). The present report includes examination of changes in attitudes towards gambling in New Zealand since 1985 and consideration of how they relate to changes in other aspects of gambling during that period.

In more recent times, in New Zealand and elsewhere, most Christian churches have greatly reduced their opposition to gambling and a number generate and receive funds from gambling activities. More generally throughout most, if not all, sectors of society there appears to have been growing acceptance and normalisation of gambling. Although the legalisation and expansion of gambling activities was associated with this increase in more positive and accepting views of gambling, there are also indications that long-standing negative attitudes, especially concerns about personal and social costs, persisted (Abbott & Volberg, 1999; Orford et al., 2009). Rose (1991) anticipated that over time, as was the case during previous historical eras of gambling liberalisation, there would be a backlash including a hardening of attitudes towards gambling. The 2003 New Zealand Gambling Act and more recent legislation in some other jurisdictions, while permitting a range of gambling activities, also includes increased recognition of problem gambling and related harms, and provisions intended to minimise them.

Attitudes toward gambling vary across cultures and societies. An international study of attitudes concerning the morality of gambling recently found that while 60% of participants from 40 national jurisdictions considered gambling to be unacceptable, jurisdictions differed markedly with regard to the extent to which their citizens considered gambling to be acceptable, unacceptable or not a moral issue (Pew Research Centre, 2014). The expansion of commercialised, legal gambling has taken place in a number of major world regions including Europe, North America and Oceania; these are regions with relatively more accepting attitudes. More recently, strong growth has been experienced in some parts of Asia, Africa, India, and South and Central America. While Macao now greatly outstrips Las Vegas as the 'casino capital' of the world and Singapore is rapidly catching up, China and some other parts of Asia retain restrictive gambling policies. Islamic societies are generally strongly opposed to gambling and prohibit or limit access. In countries like New Zealand, which are ethnically and culturally diverse and have large numbers of recent migrants, it is expected that this diversity will be reflected in variation in attitudes towards gambling. Ethnic differences in gambling participation and gambling-related harm are presented and discussed in Abbott et al. reports (2014a, 2014b).

A recent review (Orford et al., 2009) concluded that considering the interest in, and importance often given to, public attitudes to gambling it was surprising that scant attention had been given to assessing them. They stated that although there had been a number of polls, surveys of particular groups and studies of attitudes toward specific gambling activities, prior to the 2007 British national survey (Wardle et al., 2007) there had been no previous peer-reviewed, representative study of general adult public attitudes towards gambling. The British survey

included a new scale that measured general attitudes towards gambling. Overall, it was concluded that British public attitudes towards gambling are more negative than positive. Although a majority of people were of the view that people have a right to gamble and do not favour prohibition, a majority also believed that gambling was more harmful than beneficial both to individuals and society. These findings were replicated in a subsequent survey in Northern Ireland that used a shortened version of the same scale (Northern Ireland Statistical Agency, 2010). As predicted by attitude-behaviour theories (Ajzen & Fishbein, 1980), in the British study attitudes were more positive among people who had higher levels of gambling participation including at-risk gamblers. Males and younger adults also had somewhat more positive attitudes, in contrast to 'Asians' who had particularly negative attitudes. Volberg et al. (1999), based on a review of North American studies, also concluded that males and younger people had more positive attitudes, as did adults with lower levels of education.

A shortened version of the scale developed by Wardle et al. (2007) was also used in an Australian national survey (McAllister, 2013; Mond, Davidson, & McAllister, 2011). Like the earlier British and Irish surveys, this study examined attitudes towards gambling in general. As in these surveys, attitudes were more negative than positive, with significant majorities of adults believing that gambling should be discouraged and that there are too many opportunities to gamble. Relative to Britain and Ireland, attitudes were more negative, which is of interest given Australia's longer history of liberalisation and substantially higher per capita gambling expenditure. McAllister thought these stronger opinions might be a consequence of greater public discussion concerning gambling and gambling policy in Australia than in Britain. While attitudes were more negative, around two-thirds of adults agreed people have a right to gamble if they want to. As in Britain, frequent gamblers had more positive attitudes. Higher frequency of church attendance was associated with negative attitudes. In contrast to the British study, gender and age associations were not found and no other significant socio-demographic differences were evident.

Additional to general attitudes, McAllister (2013) examined attitudes towards government regulation and found that around three-quarters of Australians favoured compulsory pre-commitment (setting self-imposed time or money limits on electronic gaming machine participation) and tighter controls over gambling. In contrast, attitudes were more divided with regard to restricting individuals' gambling, enforcing gambling laws and gambling advertising. People who generally had more negative attitudes towards gambling were much more likely to favour gambling restrictions and believe that gambling laws are not enforced. Younger adults more often favoured restrictions whereas people born outside Australia less often did.

Scales measuring attitudes towards gambling in general were also included in a general adult population study conducted in Alberta, Canada (Smith et al., 2011). Most adults regarded gambling as a legitimate recreational activity but were generally ambivalent and thought that harms outweighed benefits. There was also an overall perception that government should do more to ameliorate adverse effects of gambling, that gambling-related problems had increased and that more or better services were needed to deal with problem gambling.

As in the Orford et al. (2009) study, gambling participation was strongly associated with attitudes towards gambling. In the Albertan survey non-problem, low-risk and moderate-risk gamblers, as assessed by the Problem Gambling Severity Index (PGSI), had significantly more positive attitudes towards gambling than either non-gamblers or problem gamblers. Again, as in the British study, males and younger adults were generally more accepting of gambling. That study also asked participants to rate different gambling activities with regard to how harmful they considered them to be. Electronic gaming machines (EGMS) and casino table games were regarded as most harmful followed by horse racing and sports betting, and keno. Bingo,

lotteries, instant tickets and pull tabs were regarded as less harmful and raffles were ranked as least harmful.

Although there have only been a few representative general population surveys that have used formally developed scales to measure attitudes towards gambling in general, a number of studies have asked some general gambling questions and/or questions about specific forms of gambling (Abbott & Volberg, 1999; Abbott, Williams, & Volberg, 2004; Orford et al., 2009; Toce-Gerstein & Gerstein, 2007; Volberg, 2001). These studies have typically found negative attitudes towards gambling, albeit that there is considerable variation when questions are asked about individual activities.

Smith et al. (2011), in addition to reporting findings from Alberta surveys, reviewed reports on other Canadian surveys including the only nationally representative survey (Azmer, 2000). That survey found a majority of Canadian adults believed gambling problems had increased, that gambling did not improve the quality of life in their region and that negative impacts were greater than acknowledged by provincial governments. There was strong opposition to video lottery terminals (VLTs) with most adults in favour of restricting their location and a substantial minority wanting them totally eliminated. However, two-thirds of respondents said they agreed with governments obtaining revenue from gambling if it kept their own taxes down. There was also significant regional variation in public opinion on most issues. Despite regional differences the report concluded that gambling policy in Canada was generally at odds with public opinion.

While early Canadian polls from the 1920s to 1960s showed growing support for gambling, the focus was mainly on attitudes towards legalised lotteries and sweepstakes (Morton, 2003). In contrast, more recent surveys have found that significant majorities of adults disapproved of some forms of gambling, most notably VLTs, slot machines and internet gambling, and believed that gambling harms outweighed benefits. While attitudes were generally negative towards gambling in those studies, most adults considered that gambling was a matter of personal choice (Mangham et al., 2007).

Similar conclusions to those reported in the previous paragraph have been reported from Australian research. Victorian surveys conducted from the mid-1990s to mid-2000s (Gambling Research Panel, 2004; Victorian Casino and Gaming Authority, 2000) consistently found the large majority of adults regarded gambling as a serious social problem and believed that gambling is too widely accessible. Over time there was an increase (from 57% to 74%) in support for a reduction in the number of EGMs in the State. A 2003 Victorian study (McMillen et al., 2004) also found that 74% of adults wanted a reduction in the number of EGMs; 89% in clubs, 91% in pubs and 64% in the casino. A Canadian study found increased concern over time with regard to internet gambling and unregulated sports betting (Stern, Mann, & Fergusson, 2012).

Smith et al. (2011) cite interesting studies conducted in Macau (Vong, 2004, 2008). The first was conducted in 2002, shortly after gambling was deregulated. The second was conducted in 2007, by which time Macau had become a major world gambling centre. In 2002, attitudes were generally negative towards gambling. Five years later they were more negative, despite the importance of gambling and gambling-related revenue to Macao's economy and provision of social services. There was a decrease in the proportion of adults who regarded gambling as a leisure activity and contributor to community welfare. More were of the view that people can easily become addicted to gambling, that gambling leads to family and financial problems, is linked to crime and results in a loss of work productivity.

Volberg (2001) concluded from a review of surveys conducted in the United States of America (USA) that while gambling participation increased markedly from 1975 to 2000, attitudes towards gambling changed very little. This contradicts the view that attitudes liberalised in association with increased availability and participation during that period. A subsequent American study (Pew Research Centre, 2006) indicated that negative public attitudes towards gambling subsequently increased, with greater gambling involvement and that this was probably related to rising awareness and concerns about harm associated with heavy gambling.

Where attitudes toward gambling in general or specific activities have become more negative over time, it appears that this is related to increased concern about perceived gambling-related harm. In this regard, it is of interest that the Alberta study found that problem gamblers had more negative attitudes towards gambling than non-problem gamblers. An earlier American study also found that problem gamblers had more negative attitudes than non-problem gamblers, with around half believing gambling had a bad effect on society (Volberg, Toce, & Gerstein, 1999). Similar findings are reported by Breen & Zimmerman (1999). More negative attitudes on the part of problem gamblers are probably a consequence of their personal experiences of gambling-related harm; their own and/or those of people they know. Volberg et al. (1999) also reported that males, younger people and adults with lower levels of education had more positive attitudes towards gambling activities and impacts. These are groups that have relatively high levels of gambling participation.

Perhaps the most adequate account of changing attitudes toward gambling over time is provided by the New Zealand Department of Internal Affairs (DIA) surveys that used almost identical methodologies and were conducted five-yearly from 1985 to 2005 (Department of Internal Affairs, 2007). The NGS used a similar design and repeated most of the attitudinal questions to extend the time period covered to 2012. The DIA surveys are discussed in some detail in Abbott et al. (2014a) with respect to gambling participation. All included nationally representative samples recruited and interviewed face-to-face in residential dwellings.

DIA attitudinal findings are presented in the results section of the present report, along with the comparable 2012 NGS findings, and are discussed in both the results and discussion and conclusions section. Overall, from 1985 to 2005, there was rising concern about people being heavily involved in gambling and an increase in support for services to be provided for those who experienced problems. Additionally, there was an increase in the proportion of adults who considered certain forms of gambling to be socially undesirable. Activities in this category included non-casino EGMS, casino table games or EGMS and betting on horse and dog races. There was less change in the case of other activities and no clear-cut instances where a particular activity was seen as more desirable over time. In the DIA survey series, as in earlier USA studies (Volberg et al., 1999) and some other studies considered in this section, males, younger adults and people with lower levels of education generally appear to have more positive attitudes towards gambling and its impacts.

The DIA survey samples are sufficiently large to identify changes in attitudes over time for the adult population as a whole. While samples are also adequate to assess differences between some population sectors, tables showing estimates for these sectors are not provided in the survey reports. In some cases, however, differences or possible differences between groups are mentioned in report narratives; the extent of this varies. Where estimates are reported, confidence intervals are not provided. One consequence of this variability and data omission is that it is not possible, for the most part, to examine changes in attitudes over time within population subsectors. Brief mention has been made of gender, age and educational differences. Given the substantial ethnic differences in gambling participation and gambling-related harm, it is of interest to know more about attitudes within the major ethnic groups

including attitudinal change over time. Some information of this type, albeit partial, is available.

In the final 2005 DIA survey more Pacific Islanders, relative to the general population, were opposed to gambling for various reasons including fundraising for worthy causes, profit sharing between a promoter and worthy cause, sales promotion and as a business enterprise. Somewhat more Maori also opposed gambling to fund worthy causes and as a business enterprise. Asians also less often supported gambling to raise funds for worthy causes.

Participants in all DIA surveys were asked, from a list presented to them, which if any gambling activities they considered to be undesirable. In 2000 Māori, relative to other ethnic groups, more often regarded EGMs as undesirable (Amey, 2001). While ethnic percentages are not provided in other DIA surveys including the 2005 study, comment was made in the latter study report that Pacific Islanders more frequently considered all forms of gambling to be undesirable. Attitude questions were included in a 2010 national survey conducted by the Health Sponsorship Council (2012). This survey used similar methodology to the DIA surveys including face-to-face household recruitment and interviews. In that study, Māori also more often considered EGMs to be undesirable than was the case for other ethnic groups. Proportionately more Māori, Pacific Islanders and Asians, relative to European/Other, regarded lotteries, horse and dog race betting and sports betting as undesirable.

In 2005, relative to the general population, more Māori and Pacific Islanders said they were happy with the way gambling profits are distributed. While Pacific Islanders were more likely than the general population to be satisfied with profit distribution, those in this group who were not happy or had some doubts more often said this was because they were against gambling as a source of funding. Relatively more Asians who were in this category also said this was because of their opposition to gambling as a source of funding.

Pacific Islanders, relative to the other major ethnic groupings, more often were of the view that there are too many gambling venues in the area they live in. Pacific Islanders more often explicitly mentioned there being too many TABs, Lotto/keno/Instant Kiwi outlets, casinos and housie venues. In comparison to other ethnic groups, Asians less often considered there to be too many pub and club EGM venues. They more often, however, said there were too many gambling venues in general.

As mentioned, from the time of the 1985 DIA survey until the last survey in 2005, progressively more people considered there to be a growing problem in New Zealand with people being heavily involved in gambling. In 2005 more Māori and Pacific Islanders, relative to other ethnic groups, strongly agreed with the statement that there is a growing problem. There were large increases in those strongly agreeing within both of these groups from 2000 to 2005. Ethnic findings are not reported from surveys prior to 1995.

Overall it appears that Pacific Islanders and Asians generally have more negative attitudes towards gambling than other New Zealanders. Both of these groups also have lower levels of gambling participation (Abbott et al., 2014a). This is probably, in part, a consequence of their attitudes in regard to gambling. Pacific Islanders and Māori experience high levels of gambling-related harm relative to other ethnic groups (Abbott et al., 2014b). They are also more likely to live in neighbourhoods with high densities of EGM venues and TABs. Elevated concern about EGMs on the part of Māori, and some other gambling activities in the case of Māori and Pacific Islanders, probably reflects awareness of gambling-related harm in their families and communities and its strong association with these gambling activities, especially

EGMs. Ethnic differences in religion, age, migrant status and duration of exposure to gambling are among the factors that could also account for attitudinal differences between ethnic groups.

Summary

From the foregoing studies it is evident that the effects of gambling on society are generally regarded as negative and these attitudes have been fairly persistent over time. In some jurisdictions including New Zealand attitudes appear to have become more negative than positive. However, attitudes vary considerably depending on the gambling activity being considered and the forms regarded most negatively are those that research has shown to be more strongly associated with problem gambling. Some social groups including older adults, females, some ethnic groups, non-gamblers and problem gamblers more often have negative attitudes and, in some jurisdictions, attitudes have become more negative than positive. Rather than reflecting moral condemnation, for most people negative attitudes appear to relate more to awareness of problem gambling and adverse personal and social impacts. While attitudes are generally more negative than positive overall, most adults believe that people have a right to gamble and that gambling generally should not be prohibited. However, in some jurisdictions there are high levels of disapproval for some particular gambling activities.

The National Gambling Study

The National Gambling Study (NGS) is a national survey of adults aged 18 years and older. It uses face-to-face household recruitment and interviewing. Māori, Pacific and Asian adults were over-sampled. Interviewing for the first phase took place during 2012. This report focuses on presentation and discussion of the attitudes towards gambling findings. As mentioned, previous reports cover gambling participation and gambling-related harm (Abbott et al., 2014a, 2014b).

A major purpose of the NGS is to assess changes in gambling participation, gambling-related harm and attitudes towards gambling over time. New Zealand is unique in that regular national surveys of gambling participation and gambling-related attitudes were undertaken from 1985 to 2005 (Department of Internal Affairs, 2007). In part, the NGS was designed to facilitate comparison with results from the Department of Internal Affairs survey series.



2. RESEARCH METHODS

Research methods are fully described in Report Number 1 of the National Gambling Study (Abbott et al., 2014a). A brief summary of the research methods is presented here.

2.1 Survey instrument

The survey instrument for the 2012 National Gambling Survey was extensive and covered the following areas:

1. Leisure activities and gambling participation
2. Past gambling and recent gambling behaviour change
3. Problem gambling, help-seeking behaviours and readiness to change, and gambling in households
4. Life events and on-going hassles
5. Gambling in New Zealand
 - Attitudes towards gambling activities
 - Attitudes towards profit distribution
 - Attitudes towards the gambling industry
 - Social undesirability of gambling activities
6. Mental health including general psychological distress and quality of life
7. Alcohol use/misuse
8. Substance use/misuse (tobacco and other drugs)
9. Health conditions
10. Social connectedness
11. New Zealand Deprivation Index
12. Demographics.

2.2 Overview of the survey methodology

Key aspects of the survey methodology were as follows:

- The survey sampling was at three levels: first meshblocks (small areas) were selected, then dwellings were selected within each meshblock, and finally an eligible respondent was selected for an interview within each dwelling.
- Random selection procedures were used at all three of these sampling levels in order to minimise sampling bias. These procedures were used to ensure known, non-zero probabilities of selection for all final respondents.
- Interviews were conducted face-to-face with respondents in their homes (dwellings).
- Interviews were conducted using Computer-Assisted Personal Interviewing (CAPI) software; that is, interviewers used laptop computers to administer the interview.
- The survey had nationwide coverage.
- All adults were eligible; that is, gamblers and non-gamblers. The survey was representative of the New Zealand adult population. 'Adults' for the National Gambling Survey was defined as people aged 18 years or older.
- The interview length varied depending on the respondent's level of involvement with gambling activities.
- The household call pattern, call backs to households, and the interviewers' approach was designed to achieve an expected response rate of 65%. Up to seven calls were made to a household to contact the eligible respondent. Household calls were made on

different days (week days and weekend days) and at different times of the day, in order to maximise the chance of contacting people.

- There was no inducement or coercion of respondents. To this end, a consent form was signed or approved by respondents before the interview began. Koha was given to participants at the follow-up interview after 12 months, as reciprocity in recognition for respondents' time.
- There were 'core' (non-screened) and 'screened' households within each meshblock. Interviews conducted in screened households boosted the number of interviews conducted with Māori, Asian and Pacific respondents.
- Interviewers were trained on the specifics of the National Gambling Survey.

2.3 Weightings

To ensure that the findings from the survey are representative of the New Zealand population, each of the 6,251 interviewed participants was assigned a survey weight.

Selection weights (inverse of the probability of selecting a person) were modified for non-response and then post-stratified to a population table by gender (male or female), age group (18-39 years, 40-59 years, 60+ years), and 'prioritised' ethnic group (Māori, Pacific, Asian, European/Other).

Benchmark adjustments were applied to adjust for any disproportion in the age, gender or ethnicity of participants relative to the Census (2006) expectations.

2.4 Data analysis

2.4.1 Variance estimation

The sample design for the 2012 National Gambling Survey was a stratified three stage cluster design, with the strata being the District Health Board regions (21), the primary sampling units (PSUs) being Census 2006 meshblocks (1,000), the secondary sampling units (SSUs) being occupied private dwellings, and the tertiary sampling unit (TSUs) being a person aged 18 years or above in the dwelling.

The Jackknife method of producing replicated estimates was used to estimate sample errors¹ (Rust, 1985). For each replicate, a PSU respondent's weights were set to zero and the other respondents' weights in the same stratum as the PSU were multiplied by $m/(m-1)$, where m is the number of sampled PSUs in the stratum. These weights were then calibrated to the three-way population table mentioned in section 2.3. In all, 987 replicate weights were produced corresponding to the PSUs which had respondents. These weights were produced using the survey package written by Thomas Lumley in R (R Core Team, 2013).

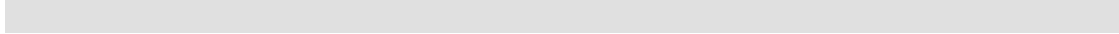
¹ Specifically the JKN method since the sample was stratified.

2.4.2 *Confidence intervals*

Proportions

As many of the subpopulation estimates of proportions (e.g. preferred gambling activity by problem gambling status) either had small sample sizes or small estimates, the method of constructing confidence intervals using the normal approximation leads to intervals whose coverage is not close to the nominal level, for example a 95% confidence interval may have an actual coverage of 90%. So, as in earlier New Zealand gambling surveys, the method proposed by Korn and Graubard, and assessed in the New Zealand context by Gray, Haslett and Kuzmicich (2004), was used with two modifications.

The first modification was to use a different exact method, the equal-tailed Jeffreys prior interval because it has better coverage properties than the Clopper-Pearson interval (Brown, Cai, & DasGupta, 2001). The second modification was to dispense with the t-value adjustment since both n and $M-L$ were generally over 30, at which point a t-value is very close to a z-value and hence the ratio is very close to 1.



3. RESULTS

This chapter details the results of data analyses, focusing on attitudes towards gambling.

3.1 Public attitudes to gambling

3.1.1. Reasons for gambling

All participants were asked about their views on gambling in New Zealand. First they were asked to say whether or not they were generally in favour, or generally not in favour, of gambling activities being run for a variety of purposes. These purposes are listed in Table 1. The majority of adults were in favour of gambling to raise funds for worthy causes. Opinions were more divided with regard to profit sharing between a promoter and a worthy cause and sales promotions. The majority of people were opposed to gambling as a business enterprise for commercial profit such as a casino or as a means of raising government revenue.

Table 1: Views on the reason for having gambling

Gambling activities should be for:	Views of activities % (95% CI)			
	In favour		Not in favour	
Fundraising for worthy causes	85.2	(84.0 - 86.4)	14.4	(13.3 - 15.6)
Profit sharing promoter/cause	57.7	(56.0 - 59.2)	41.4	(39.8 - 43.0)
Sales promotion	53.4	(51.8 - 54.9)	45.8	(44.2 - 47.3)
Business enterprise	24.7	(23.1 - 26.2)	74.3	(72.7 - 75.8)
A means of raising government revenue	26.2	(24.7 - 27.7)	72.6	(71.0 - 74.1)

Further details by problem gambling level and demographics are presented in Appendix 1.

From inspection of Appendix 1, it is evident that two-thirds or more of adults in all gambling and demographic groups are generally in favour of gambling as a means of raising funds for worthy causes. Conversely, less than a third of adults in any of these groups supported gambling to raise government revenue. With the exception of people earning over \$80,000 per annum this was also the case for gambling as a business enterprise. Opinions were more divided with respect to gambling as a sales promotion and profit sharing. However, differences between the various groups are generally not substantial.

Some caution is required when interpreting the data in Appendix 1, especially when comparisons are being made between groups. Confidence intervals are not provided and unless the differences are large they are unlikely to be significant. There also are a very large number of possible comparisons. This means, had confidence intervals been provided, they would have given a false sense of security as the actual estimates would be expected to fall outside their confidence intervals five times in 100.

With the above caution in mind, it appears that fewer non-gamblers (32%) and problem gamblers (24%) were in favour of gambling to raise funds for worthy causes than was the case for non-problem (10%), low-risk (11%) and moderate-risk (8%) gamblers. Relative to people in the latter groups, non-gamblers and problem gamblers were also more often opposed to a number of the other reasons for having gambling.

Apart from fewer females (20%) than males (30%) favouring gambling as a business enterprise for profit, there do not appear to be gender differences in reasons for having gambling. Pacific Islanders and Asians less often favoured gambling to raise funds for worthy causes and profit

sharing than did European/Other and Māori. Relative to European/ Other, more Māori, Pacific Islanders and Asians were not in favour of gambling as a sales promotion or as a business enterprise. Māori and Pacific Islanders were also less in favour of gambling to raise government revenue.

Attitudes did not appear to differ by age with regard to raising funds for worthy causes and raising government revenue. Adults in the older groups were somewhat less likely to be in favour of gambling for some of the other reasons. Migrants more often than New Zealand born adults disapproved of gambling for reasons other than raising government revenue or as a business enterprise. Fewer recent migrants than longer-term migrants favoured gambling for worthy causes. Recent and longer-term migrants did not appear to differ with respect to their attitudes about gambling for other reasons.

Attitudes also did not appear to vary by qualification level or labour force status other than somewhat more adults without formal qualifications were not in favour of gambling as a sales promotion or business enterprise and employed adults more often favoured some reasons in other categories.

More substantial differences were evident for religious groups. Larger proportions of adults in the Other Christian and Other religion categories, in comparison to Catholics, Presbyterians, Anglicans and people with no religion, were not in favour of gambling for most of the five reasons. There was little variation in attitudes between the latter groups.

More adults with lower incomes as well as adults resident in lower income households, relative to those in higher income groups, were not in favour of gambling for almost all of the reasons that they were asked to consider.

3.1.2. Profit distribution

Table 2 provides information about satisfaction with the distribution of profits from gambling. About a third of adults were happy with the way proceeds are currently distributed, a third largely happy but with some doubts and the remainder either not happy or not having an impression either way.

Table 2: Satisfaction with profit distribution

Satisfaction with profit distribution	%	(95% CI)
Happy with it	31.1	(29.6 - 32.6)
Largely happy, but with some doubts	33.4	(31.9 - 34.8)
Not happy with it	11.8	(10.8 - 12.8)
No impression either way	23.6	(22.2 - 25.0)

Further details by problem gambling level and demographics are presented in Appendix 2.

Groups generally did not vary greatly with respect to their satisfaction with profit distribution. Between a quarter and a third of people in all gambling and demographic groups reported that they were happy. A slightly wider range within these groups said they were largely happy but with some doubts or had no impression either way. Some groups more often indicated they had an opinion about this rather than not having an impression either way. These groups included problem gamblers, European/Other and Pacific Islanders, older adults, recent migrants (relative to New Zealand born adults), Anglicans and Presbyterians, and people earning over \$80,000. Some groups also had larger proportions of people who were not happy with the way

profits were distributed including problem gamblers and non-gamblers, Māori and Asians, older adults, migrants, Other Christians and Other religions.

Participants who said they were largely happy about profit distribution but had some doubts, as well as participants who were not happy, were asked to say why they said that. Their responses were recorded verbatim and subsequently grouped together and coded. Participant concerns are listed in Table 3.

The concern most frequently mentioned was that they were opposed to gambling being the source of funding. Twenty-nine percent of people who had some doubts, or who were not happy with profit distribution, mentioned this. Other concerns mentioned by more than 10% of people in this group of participants included not knowing how the money is distributed or where it goes, some causes are not worth it and that it should go to more needy causes, and that too much is kept back by promoters, organisers or administrators. A number of participants (15.1%) made positive comments about profit distribution.

Table 3: Concerns about profit distribution

Main concerns about profit distribution	%	(95% CI)
Against gambling as the source of funding	28.5	(26.5 - 30.7)
Don't know how the money is distributed/where it goes	16.0	(14.3 - 17.8)
Unsure whether money actually goes where it's supposed to	3.7	(2.9 - 4.7)
Unsure how evenly distributed/some groups favoured more than others	9.5	(8.2 - 10.9)
More should go to community	6.1	(5.1 - 7.3)
More should go to charity	3.6	(2.8 - 4.6)
Should go to hospitals/health/cancer	2.1	(1.5 - 2.8)
Not enough given out	5.3	(4.3 - 6.4)
Too much going to sport/professional sport	6.0	(4.9 - 7.1)
Some are not worthy/should go to more needy causes	10.1	(8.7 - 11.5)
Too much kept back by promoters/organisers/administration	10.1	(8.7 - 11.6)
Money misused by charities/sports clubs	2.1	(1.5 - 2.9)
Process to go through should be easier	0.7	(0.4 - 1.1)
More should go to amateur sport/clubs	1.6	(1.1 - 2.1)
Lotto should be split into smaller prizes	0.5	(0.3 - 0.9)
Should go to help problem gamblers/their households	1.4	(0.9 - 2.0)
Government taking money from it	1.4	(1.0 - 2.0)
Unsure how much they actually get	4.2	(3.4 - 5.1)
Positive comments	15.1	(13.4 - 17.0)
Others	2.9	(2.2 - 3.7)
Don't know	0.6	(0.3 - 1.0)

Further details by problem gambling level and demographics are presented in Appendix 3.

As indicated in Table 3, most concerns were mentioned by small numbers of people. As a consequence, when examined by problem gambling category and demographic groups, the estimates are based on very small samples and are likely to be highly unreliable. For this reason consideration of the data provided in Appendix 3 is confined to the most frequently mentioned response category, namely against gambling as a source of funding.

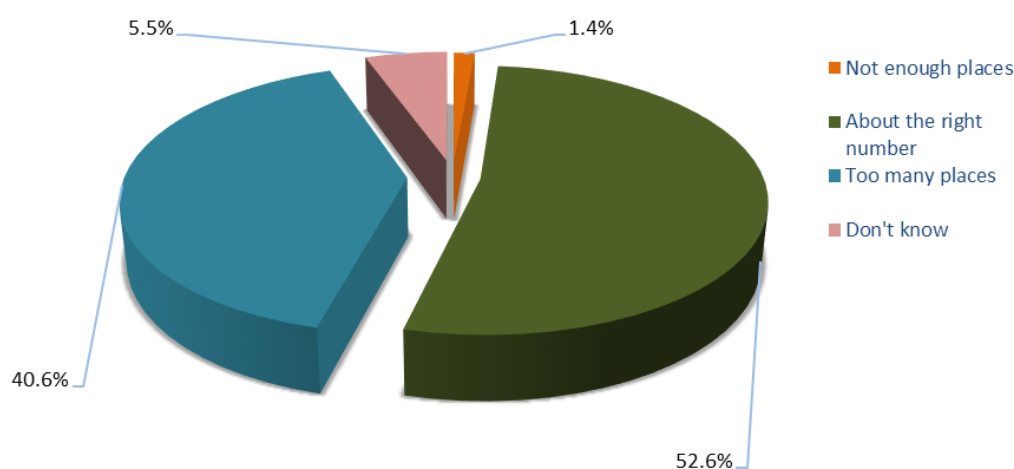
As mentioned, over a quarter of adults indicated that they opposed gambling as a means of fundraising. Substantially more problem gamblers (52%) and non-gamblers (47%) opposed gambling for this purpose, compared with non-problem (24%), low-risk (17%) and moderate-risk (14%) gamblers. Asians (48%) and Pacific Islanders (41%) also were more often of this opinion relative to Māori (21%) and European/Other (27%). Additionally, migrants (38%), especially recent migrants (49%), more often opposed gambling to raise funds than was the case for people born in New Zealand (25%).

Adults with degree level education (34%) and school qualifications (32%) more often were opposed to gambling to raise funds than those with no formal qualifications or trade or vocational qualifications (both 20%). Attitudes also varied by religious affiliation with the Other Christian (40%) and Other religion (37%) groups more often opposed than adults in other categories (range 22% - 27%). Differences within other demographic groups examined were smaller and unlikely to be significant.

3.1.3. Gambling availability generally

Figure 1 provides a breakdown of participants' views on the availability of gambling in New Zealand, specifically whether they considered that there are not enough places, about the right number or too many places. Before responding, they were asked to think about all the places where people can go to gamble in the area they live in. Just over a half (53%) said there were about the right number of places, somewhat less (41%) said there were too many and a small number (1.4%) said there were not enough.

Figure 1: Views on number of gambling venues



Further details by problem gambling level and demographics are presented in Appendix 4.

It is apparent from Appendix 4 that problem gamblers (69%) were more likely to believe that there are too many gambling venues than people in the other gambling categories (range 36% - 45%). Pacific (61%) and Māori (51%) more often felt this way than European/Other (38%) and Asians (41%). Relative to most of the other age groupings, young adults (18 - 24 years) somewhat less often thought there are too many venues. In contrast, Other Christians (52%) somewhat more often were of this opinion than people with no religion, Anglicans and

Presbyterians (range 36% - 40%). Catholics (44%) and people in the Other religion category (45%) fell between. Adults in the lower personal income categories (range 39% - 44%) also somewhat more often believed that there are too many places compared to those in the two highest categories (35%, 31%).

3.1.4. Availability of different gambling activities

Participants who said that there are too many places were asked to indicate from a list what types of places and venues there are too many of. They could indicate more than one and could add additional places and venues. “Gaming machine (pokie) venues, i.e. pubs and clubs” (67%) was mentioned most often, followed by “all gambling venues/gambling venues in general” (26.5%), “TABs”² (16%), “Lotto/Keno/Instant Kiwi outlets” (12%) and “casinos” (9%). Other venues were mentioned by small proportions of people (Table 4).

Table 4: Views on which venues there are too many of

Venues there are too many of:	%	(95% CI)
Lotto/Keno/Instant Kiwi outlets	11.6	(10.1 - 13.2)
Housie/bingo venues	2.9	(2.3 - 3.7)
TABs	15.6	(14.0 - 17.4)
Gaming machine (pokie) venues (i.e. pubs/clubs)	67.1	(64.8 - 69.4)
Casinos	9.1	(7.8 - 10.6)
All gambling venues/gambling venues in general	26.5	(24.3 - 28.8)
Other places/venues	0.7	(0.4 - 1.2)
Don't know	0.4	(0.2 - 0.8)

Further details by problem gambling level and demographics are presented in Appendix 5.

As mentioned with regard to some of the other data in the appendices, when broken down by subgroups the samples are small and estimates unreliable. This was less so for pub and club EGMs, where around two-thirds of adults were of the view that there are too many of them.

Problem gamblers (85%) and moderate-risk gamblers (81%) more often than adults in other gambling groups (low-risk and non-problem gamblers both 72%) and non-gamblers (47%) considered there to be too many non-casino EGM outlets. In contrast, non-gamblers (43%) more often believed that there were too many of all gambling venues or gambling venues in general. In this regard, problem gamblers (21%) least often considered there to be too many venues generally. The other gambling groups ranged from 17% to 22%. A similar pattern was evident for ethnicity. Māori (75%) and European/Other (72%) more often considered there to be too many non-casino EGM venues than Asians (34%) and Pacific Islanders (45%). On the other hand, Pacific Islanders (49%) and Asians (45.5%), more often than Māori (21%) and European/Other (23%) thought there were too many gambling venues in general.

New Zealand born adults (74%) much more often believed that there were too many non-casino EGM venues than migrants (51%), especially longer-term migrants (54%). As with gambling category and ethnicity, the pattern reversed when participants were asked about venues in general. Around a half (51%) of recent migrants considered there to be too many venues in general, compared to earlier migrants (35%) and New Zealand born adults (22%). With regard to non-casino EGMs, Anglicans, Presbyterians, Catholics and people of no religion (range 70% - 73%) more frequently said there were too many non-casino EGM venues than did people of Other religions (46%) and Other Christians (58%). However, these two latter groups (42% and

² Totalisator Agency Boards.

36% respectively) more often expressed concern about venues in general (other categories range 21% - 24%).

Apart from personal and household income, differences for other demographic groupings were small and unlikely to be significant. Relative to other income groups, adults earning \$80,001 to \$100,000 per annum most often considered there to be too many non-casino EGM venues (87%) and least often believed there are too many venues in general (12%). In contrast, the people on the lowest incomes (up to \$20,000), were least likely to consider that there are too many non-casino EGM venues (60%) and most likely to consider there to be too many venues generally (31.5%).

3.1.5. Undesirable gambling activities

All participants were asked to look closely at a list of activities (Table 5) and to tell the interviewer if they thought any of them are socially undesirable³. Over a half of adults (57%) mentioned non-casino EGMS in this regard. This was also the case for internet gambling (54.5%). Nearly half of adults (47%) regarded casinos as undesirable and over a third (39%) perceived text games or competitions in this way. About a fifth of adults considered horse or dog race betting (20%) and sports betting (18%) to be undesirable. Smaller percentages (range 1.5% - 7%) regarded raffles, Lotto, Keno, Instant Kiwi, and housie or bingo in this way.

Table 5: Views on socially undesirable activities

Socially undesirable activity	%	(95% CI)
Text games or competitions	39.3	(37.8 - 40.8)
Raffles	1.5	(1.2 - 1.8)
Lotto	4.3	(3.7 - 5.0)
Keno	7.1	(6.3 - 7.9)
Instant Kiwi	4.3	(3.7 - 4.9)
Housie/bingo	6.8	(6.0 - 7.6)
Horse/dog race betting	20.4	(19.1 - 21.7)
Sports betting	17.8	(16.6 - 19.1)
Casinos	47.1	(45.5 - 48.7)
Non-casino gaming machines	56.6	(55.0 - 58.2)
Internet	54.5	(52.9 - 56.1)
Other places/venues	0.2	(0.1 - 0.3)
None of these	16.0	(14.9 - 17.2)
All of them	11.4	(10.5 - 12.5)
Don't know	0.5	(0.0 - 0.1)

Further details by problem gambling level and demographics are presented in Appendix 6.

Consideration of potential differences between gambling and demographic groups is mainly confined to the three activities most often considered to be socially undesirable, namely non-casino EGMS, casinos and internet gambling.

Problem gamblers (59%) and moderate-risk (57%) gamblers more often considered casinos to be socially undesirable than adults in the other gambling groups (range 43.5% - 48%). Relative to non-gamblers, adults in the problem and at-risk groups on a number of occasions more often regarded non-casino EGMS and overseas internet gambling to be undesirable. However, in

³ The question was “Please look at [show] card closely and tell me any of these activities that you think are socially undesirable”.

comparison to the other groups, a relatively higher percentage of non-gamblers (25%) said all gambling activities are undesirable.

Attitudes towards the three activities vary little by gender, ethnicity and age other than European/Other and Māori somewhat more often than Asians and Pacific Islanders considered non-casino EGMs and overseas internet gambling to be undesirable. However, relatively more Pacific Islanders (26%) and Asians (21%) said all forms of gambling are undesirable. The estimates for European/Other and Māori are nine percent and 14% respectively. There was little or no difference between New Zealand born adults and migrants. However, longer term migrants more often than recent migrants regarded non-casino EGMs (56% vs. 44%) and casinos (49.5% vs. 36%) as undesirable. Few other demographic differences are likely to be significant other than perhaps the higher percentages of Other Christians and Other religions considering all activities to be undesirable in comparison to other religions groups. The difference between the lowest (18%) and highest (8%) household income categories in this regard may also be significant.

3.1.6. *Problem with heavy gambling*

All participants were also asked if they agreed strongly, agreed, disagreed, or strongly disagreed with statements about people being heavily involved in gambling (Table 6).

A large majority of adults either agreed strongly (39%) or agreed (48%) that there is a growing problem in New Zealand with people being heavily involved in gambling. A small percentage either disagreed or disagreed strongly (5%). Somewhat more either did not agree or disagree or did not know (8%) (Table 6).

Table 6: Views on the problem with heavy gambling

There is a growing problem of people's heavy gambling	%	(95% CI)
Agree strongly	39.1	(37.6 - 40.7)
Agree	47.6	(46.1 - 49.2)
Disagree	4.4	(3.8 - 5.1)
Disagree strongly	0.4	(0.2 - 0.6)
Neither agree nor disagree	7.2	(6.4 - 8.1)
Don't know	1.2	(0.9 - 1.6)

Further details by problem gambling level and demographics are presented in Appendix 7.

Across all groups, large majorities of people expressed a view on this issue with very few (range 0.3% - 3.5%) saying they did not know whether there was a growing problem of people's heavy gambling and relatively few neither agreeing or disagreeing with it (range 3% - 15%). Recent migrants were the only group where a relatively large number, albeit still only 19%, indicated that they either did not know or could not agree or disagree.

In all gambling and demographic groups, large majorities either strongly agreed or agreed that there is a growing problem of people's heavy gambling. Correspondingly, very few either disagreed or strongly disagreed. The group that earned over \$100,000 per annum was the only group where more than 10% disagreed.

While the majority of people in all categories strongly agreed or disagreed, there was quite wide variation within each category grouping. Among people who took part in any gambling activity, strong agreement with this first statement increased with rising risk level (non-problem

gamblers 37%, low-risk gamblers 47%, moderate-risk gamblers 53% and problem gamblers 67%).

Pacific Islanders (64%) and Māori (53%) more often than Asians (35%) and European/Other (37%) strongly agreed that there is a growing problem of people's heavy gambling. Females somewhat more often strongly agreed than males (respectively 43.5% and 34%) and with age groups there was a strong linear relationship from 26.5% for people aged 18 to 24 years to 45% for those aged 65 years and older. Earlier migrants (42%) also more often strongly agreed than recent migrants (32%). Large proportions of people with no formal qualifications and unemployed people (both 51%) were also in this category relative to those with university degrees (34%) and the employed (36%). Linear trends were also evident both for personal income and household income, with strong agreement decreasing incrementally with higher income. Other Christians and to a somewhat lesser extent Other religions more often strongly agreed than people in the other religious categories.

3.1.7. *Help for excessive gamblers*

The majority of adults either strongly agreed (41%) or agreed (44%) that people who provide gambling activities should be required to do more about their customers gambling to excess. Most adults (34.5% and 42%) responded likewise with regard to government doing more about people gambling to excess. However a fifth (19.5%), more than was the case with regard to provider responsibility (11%), disagreed or strongly disagreed that government should do more. Very few people, in relation to both questions, indicated that they did not know or that they could neither agree or disagree (Table 7).

Table 7: Views on who should help excessive gamblers

Who should do more about people gambling to excess % (95% CI)					
GAMBLING PROVIDERS should do more			GOVERNMENT should do more		
Agree strongly	41.4	(39.8 - 43.1)	Agree strongly	34.5	(32.9 - 36.1)
Agree	43.8	(42.1 - 45.4)	Agree	41.6	(40.0 - 43.2)
Disagree	9.9	(9.0 - 10.9)	Disagree	17.3	(16.2 - 18.5)
Disagree strongly	1.1	(0.9 - 1.4)	Disagree strongly	2.2	(1.8 - 2.7)
Neither agree nor disagree	3.4	(2.9 - 4.1)	Neither agree nor disagree	4.1	(3.6 - 4.8)
Don't know	0.3	(0.2 - 0.5)	Don't know	0.3	(0.2 - 0.4)

Further details by problem gambling level and demographics are presented in Appendix 8.

Across all gambling and demographic groups, large majorities agreed strongly or agreed with both gambling providers and government doing more to help excessive gamblers.

With regard to gambling providers doing more to assist excessive gamblers, the most notable difference was the large proportion of problem gamblers (63%) who strongly agreed with this statement compared with the other gambling groups (range 34.5% - 43%). Pacific Islanders (55%) and Māori (47%) more often strongly agreed than European/Other (41%) and Asians (37%). Adults in the three oldest age categories (range 44% - 46%) also more often responded this way than those in the youngest category (32%). Apart from Other Christians (50%) being somewhat over-represented relative to some of the other religious groups there was little difference within the other demographic groupings.

For attitudes towards government doing more to help excessive gamblers, there was no difference between the various gambling groups. Females (51%) differed from males (41.4%).

In both respects these findings contrast with what was found for attitudes towards gambling providers doing more. However, Pacific Islanders (55%) and Māori (46%) also expressed strong support for government increasing its contribution. Asians (40%) differed somewhat from European/Other (32%) in this regard. The oldest age group (28%) somewhat less often than people in some of the other age groups did not indicate strong agreement. Migrants (41%) and unemployed people (44%) had higher rates of strong agreement than New Zealand born (32%) and other employment groupings (32%, 34%). As for attitudes towards gambling providers, Other Christians (43%) more often strongly agreed than some other religious groups. In the present case, people from Other religions (44%) also strongly agreed more often. Other differences are minor and unlikely to be significant.

3.2 Changes over time and comparisons

3.2.1 Public attitudes

Table 8 shows participants' attitudes with respect to gambling being undertaken for various purposes. They were asked if they were generally in favour, or not in favour, of gambling activities being carried out for the purposes listed in Table 8. Results are provided from the current study and all of the five-yearly Department of Internal Affairs (DIA) surveys from 1985 to 2005.

While most adults remained in favour of gambling being conducted to raise funds for a worthy cause, there appeared to have been a slight reduction in support for this over time. Over a half of adults approved of gambling where there is a sharing of income between a promoter and a worthy cause. However, this was a reduction in support from 1995 and 2000. Attitudes do not appear to have changed over time with respect to other reasons, other than perhaps an early (1990) drop in support for gambling as a means to raise government revenue.

Table 8: Views on the reason for having gambling: 1985-2012

Gambling activities should be for	Views on having gambling %											
	In favour						Not in favour					
	1985	1990	1995	2000	2005	2012	1985	1990	1995	2000	2005	2012
Fundraising for worthy causes	94	93	94	92	84	85	4	6	6	7	15	14
Profit sharing promoter/cause	-	-	71	69	55	58	-	-	26	27	40	41
Sales promotion	47	56	50	55	45	53	45	39	46	41	50	46
Business enterprise	22	26	32	31	22	25	72	67	63	65	73	74
A means of raising government revenue	38	26	25	25	18	26	54	68	72	71	78	73

Participants were also asked about their satisfaction with the way gambling profits are distributed. This question was only included in the final, 2005, DIA survey. Results from the study are compared with those from the current study in Table 9. In both surveys about two-thirds of adults were either happy or largely happy with it but having some doubts. About a quarter did not have an impression either way and around one in ten people were not happy.

Table 9: Satisfaction with profit distribution: 2005 and 2012

Profit distribution	Satisfaction %	
	2005	2012
Happy with it	33	31
Largely happy, but with some doubts	30	33

Not happy with it	10	12
No impression either way	27	24

Participants in both the 2005 DIA and current survey were asked to think about all the places where people can go to gamble in the area they live in. They were then asked if they think there are not enough places, about the right number, or too many. Figure 2 shows participants' opinions in this regard. In both surveys, only one percent was of the view that there are not enough places. In both surveys, 41% said there are too many and somewhat more (45% in 1995, 53% in 2012) said there are about the right number. In the latter study, there was a reduction in number of people who said they did not know.

Figure 2: Views on number of gambling venues: 2005 and 2012



People who said there are too many places to gamble were asked which venues they think there are too many of. The results are shown in Table 10. In both surveys, pub and club EGM venues were mentioned most often, followed by TABs, casinos and all venues/venues in general. There appears to have been some reduction in opposition to some specific types of venues, especially pub and club EGM venues; however, this may be at least partly offset by an increase in people who think there are too many venues generally.

Table 10: Views on which venues there are too many of: 2005 and 2012

Venues	Viewed as too many %	
	2005	2012
Lotto/Keno/Instant Kiwi outlets	14	12
Housie and bingo venues	7	3
TABs	20	16
Pub and club EGM venues	87	67
Casinos	14	9
All gambling venues/gambling venues in general	15	27
Other places/venues	2	1
Don't know	1	<1

All participants in the DIA and current surveys were asked about their views on whether or not various forms of gambling are socially undesirable. They were presented with a list of activities, although they could add additional gambling forms they wanted. The results are presented in Table 11.

With regard to the DIA surveys, over time there has been an increase in the percentage of adults considering non-casino EGMs, casino table games or EGMs, horse and dog race betting, and housie or bingo to be undesirable. In 1995, two-thirds of adults considered text games or competitions to be undesirable. This concern appears to have since reduced somewhat. There

appears to have been a reduction in concern about most forms of gambling in 2012 relative to 2005; however, there was a rise in the percentage of people saying that all are of concern or that it depends on the person. In 2012, over half of adults considered online gambling and non-casino EGMs to be socially undesirable, with somewhat lower percentages saying likewise with respect to casino gambling and text games or competitions. Around one in five regarded betting on horse or dog races and sports events as undesirable.

Table 11: Views on socially undesirable activities: 1985-2012

Gambling activity	Views of social undesirability %					
	1985	1990	1995	2000	2005	2012
Online gambling	-	-	n/a	53	68	55
Non-casino EGMs	38	30	36	45	64	57
Casino table games or EGMs	-	-	38	54	59	47
Text games or competitions	-	-	67	56	53	39
Horse/dog race betting	10	21	26	35	39	20
Sports betting	-	-	35	26	30	18
Housie or bingo	9	14	17	15	19	7
Keno	-	-	16	12	17	7
Lotto	19	13	12	12	16	4
Instant Kiwi or other scratch tickets	-	16	12	10	14	4
Raffles	3	8	9	9	9	2
All/any depending on the person	-	-	-	1	1	11
Other places/venues	-	-	-	<1	<1	<1
Don't know	-	1	3	<1	1	<1
None of these	35	29	13	17	11	16

All participants in the DIA surveys and current survey were also asked whether or not they considered that there is a growing problem in New Zealand with people being heavily involved in gambling.

It is evident that there was a steady increase from 1985 to 2000 in the percentage of people who considered that there is a growing problem with people being heavily involved in gambling. While there appears to have been a reduction in 2012 in the percentage strongly agreeing with this, in the 2000, 2005 and 2012 surveys between 87% and 90% either agreed or agreed strongly (Table 12).

Table 12: Views on the problem with heavy gambling: 1985-2012

There is a growing problem	Views on heavy gambling %					
	1985	1990	1995	2000	2005	2012
Agree strongly	19	26	33	42	51	39
Agree	47	45	44	45	39	48
Neither agree nor disagree	n/a	n/a	n/a	n/a	n/a	7
Disagree	14	18	17	9	3	4
Disagree strongly	1	1	1	1	1	0
Don't know	20	10	5	4	7	1

Participants were also asked whether or not people who provide gambling activities should be required to do more about their customers gambling to excess and whether government should do more about people gambling to excess.

In 2005 (DIA survey) and 2012, a majority of respondents agreed that both gambling providers and government should do more to help people gambling to excess. The overall percentage of respondents who indicated that government should do more was similar over time with 77%

agreeing (agree/strongly agree) and less than one-fifth disagreeing (disagree/strongly disagree) (18% and 19% respectively). However, attitudes towards gambling providers doing more have changed over time, with a greater percentage agreeing in 2012 (85%) compared to 2005 (78%), and less disagreeing in 2012 (11%) than in 2005 (18%) (Table 13).

Table 13: Views on who should help excessive gamblers: 2005 and 2012

Who should help excessive gamblers %					
GAMBLING PROVIDERS should do more	2005	2012	GOVERNMENT should do more	2005	2012
Agree strongly	39	41	Agree strongly	37	35
Agree	39	44	Agree	40	42
Disagree	16	10	Disagree	16	17
Disagree strongly	2	1	Disagree strongly	2	2
Neither agree nor disagree	-	3	Neither agree nor disagree	-	4
Don't know/refused	4	0	Don't know/refused	4	0



4. DISCUSSION AND CONCLUSIONS

As indicated in the introduction, although there has been considerable expansion of gambling in recent decades, there has also been an increase in awareness and concern about problem gambling and other harms and costs. This contributed to government decisions in many jurisdictions to fund research on gambling and its impacts, and to introduce policies and services to more firmly regulate gambling activities and reduce gambling-related harms. Gambling research, public health and treatment services have probably contributed to public knowledge about, and changing attitudes towards, gambling and gambling-related problems. This section of the report examines the major NGS findings related to attitudes and discusses them in relation to other NGS findings and relevant scientific literature.

Reasons for gambling

In this survey it was found that most people were in favour of gambling activities being conducted to raise funds for a worthy cause. However, attitudes were more divided about gambling being used as a sales promotion or where profits were shared between a promoter and a worthy cause, and the majority opposed gambling being conducted as a business enterprise or to raise government revenue. These overall findings also applied to all gambling participation and socio-demographic groups that were considered. There was, however, some variation in the proportions agreeing and disagreeing within particular groups. Relatively more people in the following groups opposed gambling to raise funds for a worthy cause: non-gamblers, problem gamblers, Asians, Pacific Islanders, migrants (especially recent migrants), Other Christians, Other religions and those on a low income. More people in these groups, as well as older adults, also opposed gambling for one or more of the other purposes.

The foregoing variation reflects the diversity of cultural and other experiences that influence gambling attitude formation and change. The study findings provide some information on this relatively neglected topic and raise questions for further enquiry. As mentioned in the introduction, theories regarding attitude-behaviour relations predict that attitudes toward gambling will be more positive among people who participate regularly. Consistent with this expectation, we found that non-gamblers more often opposed gambling to raise funds, as well as for a number of other reasons, and gamblers were more often in favour. This was also the case for a number of other attitudes examined in the study. However, contrary to expectation, there was generally little, if any, difference between non-problem, low risk and moderate-risk gamblers. People in the low-risk, and more so in the moderate-risk group, have substantially higher levels of gambling participation than non-problem gamblers (Abbott et al., 2014b) and could, therefore, be expected to have more positive attitudes. It is of interest that the group most engaged in gambling activities, problem gamblers, is similar to non-gamblers in this regard relative to the other gambling participation groups. They generally had more negative attitudes, in some cases even more than non-gamblers.

Orford et al. (2009) found that the low- and moderate-risk groups had the highest scores (more accepting) on the Attitudes Towards Gambling Scale; higher than the non-gambling, non-problem and problem gambling groups. They suggested that higher scores in the latter groups reflect the positive relationship between attitudes and engagement and that the lower score for problem gamblers is a consequence of negative attitudes towards gambling arising as a result of the recognition of gambling as a cause of personal stress and harm. While expressing caution due to the small sample of problem gamblers, this explanation was consistent with their further finding of negative attitudes on the part of people who believed a parent or close relative had a gambling problem.

The NGS (Abbott et al., 2014b) found that around a third of problem gamblers believed their spouse or partner also had a gambling problem. They also reported high rates among family members and other people close to them. As mentioned earlier, Smith et al. (2011), in a Canadian study, obtained similar results to those obtained by Orford et al. (2009) and the NGS. Additionally, Smith et al. included PGSI categories in hierarchical regression analyses with age, gender and location. They found that gambling involvement was the strongest predictor of attitudes towards gambling, having a U-shaped curve with non-gamblers and problem gamblers having similar levels of negative attitudes and the three other gambling participation groups having more positive attitudes. McAllister (2013), in an Australian study, also found that gambling involvement, in this case gambling frequency, was a substantially stronger predictor of gambling attitudes than demographic factors. In that study, apart from frequency of church attendance, no other factor was statistically significant. Similarly, in Smith et al.'s (2011) study, few significant demographic predictors were identified. Males and younger males in particular, had more positive attitudes in that study.

With regard to problem gambling it is likely, as suggested by Orford et al. (2009), that attitudes shift from more positive to negative as people personally experience higher levels of gambling-related harm. Noticing and experiencing adverse consequences of other peoples' problem gambling probably contributes to this. It will be possible in subsequent phases of the NGS to examine how attitudes and gambling behaviour, including problem gambling, change and relate to each other over time. It is expected that attitude changes will, in some instances, lead to behaviour changes and vice versa, and that in other instances attitudes and behaviours will change together.

As documented in the introduction, a number of studies have found that attitudes towards gambling vary across some demographic groups. Orford et al. (2009) found that male gender, younger age and high household income were associated with more positive attitudes and that Asian and 'other' ethnicity and having professional qualifications or managerial and professional occupations were associated with more negative attitudes. The authors saw the age and gender differences as being consistent with the greater involvement of males and younger people in gambling and that the negative attitudes on the part of Asians was probably a consequence of many being Islamic. Islam has a strict prohibition on gambling. The term Asian, in the United Kingdom, usually refers to first and subsequent generation migrants from the Indian subcontinent. Orford et al. (2009) proposed that these relationships might change in future with increasing liberalisation and normalisation of gambling. They thought that the attitudes of women and older people might become more positive. Interestingly, as mentioned, McAllister's Australian survey did not identify age or gender differences and there were very few demographic differences in Smith et al.'s Canadian survey (McAllister, 2013; Smith et al., 2011). Relative to Britain these countries, like New Zealand, have had longer widespread exposure to high intensity EGMs and some other forms of gambling. While the relative lack of demographic variation in the Australian and Canadian studies may accurately reflect the situation in these countries, these studies had fairly small sample sizes and could not detect small differences. The British survey and NGS both had substantially larger samples.

In the NGS there was little variation by age or gender with respect to attitudes regarding reasons for conducting gambling activities. However, as in the Orford et al. (2009) study, low household income was associated with more negative attitudes and high income with more positive attitudes. The finding that Pacific Islanders, Asians, migrants (especially recent migrants), Other Christians and Other religions had more negative attitudes than most other groups is of interest. There is overlap between these groups, as well with low household and personal income, that needs to be considered.

The great majority of Pacific Islanders and Asians (predominantly Chinese, Indian and Korean) are first or second generation migrants. While these are heterogeneous groups, coming from a variety of backgrounds, most are from societies that have not been exposed to the types of gambling that are readily available in New Zealand. Additionally, relatively large numbers of Pacific Islanders and Asians are Other Christians and Other religions. Some religions and denominations within these categories are opposed to gambling. In this regard, it is of note that over half of Pacific Island and Asian adults who did not gamble during the past year said that this was because of religious reasons (Abbott et al., 2014a). On the other hand, a number of churches attended by Pacific Islanders promote gambling activities as a means of raising funds for church purposes (Bellringer et al., 2013; Perese et al., 2009). Given the overlap between the foregoing groups, further analysis including multivariate analyses would be helpful to clarify the nature of relationships between group membership and attitudes towards gambling. More focused quantitative and qualitative studies of particular groups would also be helpful.

All of the foregoing groups, consistent with attitude-behaviour theories, have low levels of gambling participation relative to other groups in New Zealand (Abbott et al., 2014a). Contrary to the notion that increased gambling participation invariably leads to increased gambling-related problems, all of these groups, other than recent migrants, have high rates of moderate-risk and problem gambling.

In contrast to some other studies referred to, in the NGS young people did not have more positive attitudes towards reasons for gambling. They did, however, like the groups mentioned above, have both lower gambling participation and higher levels of moderate-risk and problem gambling. While these groups all have relatively large numbers of non-gamblers, many of those who gamble do so at high intensity and are at high risk for the development of problem gambling. Self-reported average annual gambling expenditure in most of these groups is similar to, or higher than, that of groups where the large majority gamble (Abbott et al., 2014a). They have been referred as having bimodal participation patterns (Abbott et al., 2014b; Abbott & Volberg, 2001). It has been proposed that this pattern is typical of groups that have recently been exposed to gambling.

As outlined in Abbott (2006), it is hypothesised that:

1. During exposure to new forms of gambling, particularly EGMs and other continuous forms, previously unexposed individuals, population sectors and societies are at high risk for the development of gambling problems
2. Over time, years rather than decades, adaptation ('host' immunity and protective environmental changes) typically occurs and problem levels reduce, even in the face of increasing exposure
3. Adaptation can be accelerated by regulatory and public health measures
4. While strongly associated with problem development (albeit comparable to some other continuous forms when exposure is held constant) EGMs give rise to more transient problems.

The findings outlined regarding groups with more negative attitudes towards gambling, lower levels of participation and higher rates of moderate-risk and problem gambling are consistent with hypothesis 1. These groups contain high proportions of recently exposed individuals and are at high risk. Additionally, because many people in these groups are resident in high deprivation neighbourhoods that contain high densities of EGMs and TABs, they are also relatively more highly exposed than most other groups. Little is known about the role of

attitudes in relation to patterns of gambling involvement and preferences, or in relation to the development and cessation of hazardous and problem gambling.

In contrast to the foregoing groups, Māori have higher overall levels of gambling participation and generally less negative attitudes about gambling. They also, like European/ Other adults, have a longer history of exposure to forms of gambling that have strong association with problem gambling. In common with Pacific Islanders and the other high risk groups, they are over-represented in high deprivation neighbourhoods and have elevated risk for the development of gambling-related harm. Māori have comparable rates of moderate-risk and problem gambling to Pacific Islanders. While Māori remain at high risk despite longer exposure to gambling, this finding is not at variance with the exposure and adaptation hypotheses. This is because Māori prevalence rates appear to have reduced during the 1990s to the same extent that rates reduced for other ethnic groups (Abbott & Volberg, 2000) and, like rates for these groups, remained at about the same levels since (Abbott et al., 2014b). This means that while likely that Māori problem gambling and related harm has decreased and subsequently plateaued, disparity with European/Other has not diminished over time. Exposure and adaptation are not the only factors impacting on gambling-related harm. A range of risk and protective factors at individual and societal levels are implicated. They include residence in communities with high densities of EGM venues, TABs and other gambling outlets as well as persistent social, economic and cultural inequities that are also implicated in the genesis and persistence of other health disparities. Further work is required to more clearly delineate these factors and find effective ways to build resilience and reduce the incidence and prevalence of problem gambling, co-morbidities and wider gambling-related harm.

Although the great majority of adult New Zealanders are in favour of gambling activities to raise funds for worthy causes, since 1985 there has been an increase in the number of people who oppose raising funds via gambling. There has also been an increase over time in the proportions that are not in favour of profit sharing between promoters and a worthy cause and gambling to raise government revenue. Attitudes towards gambling as a sales promotion or business enterprise have remained much the same during the past 27 years. Although opposition to gambling for some purposes has increased over time it appears that there was little or no change from 2005 to 2012.

Profit distribution

Most people said they were happy or largely happy but with some doubts, about the way profits from gambling are distributed to sport, charities and the community and views on this did not change from 2005 to 2012. Only around one in ten people indicated that they were not happy with it. Information on this matter is not available from earlier years. The reason most often given for being unhappy or having some doubts was being against gambling as a source of funding.

As with reasons for gambling, gambling participation and demographic groups do not vary greatly with between a quarter and a third in all groups saying they were happy with profit distribution. Similar proportions said they were largely happy but with some doubts. However, while there was general support in all groups, some had larger proportions of people who were not happy with the way profits are distributed. These groups included problem gamblers and non-gamblers, Māori and Asians, older adults, migrants, Other Christians and Other religions. It will be recalled that a number of these groups also had more people who opposed gambling to raise funds and for some other reasons. Opposition to gambling to raise funds was the reason most often given when survey participants were asked why they were not happy with or had

some doubts about profit distribution. Much higher percentages of problem and non-gamblers, Asians, Pacific Islanders, migrants (especially recent migrants), Other Christians and Other religions gave this reason. These findings suggest that for many people, especially for people in these groups, concerns about profit distribution might predominantly reflect negative attitudes about gambling more generally, rather than profit distribution per se. Interestingly, a low proportion of Māori gave this reason. Further research is required to identify what the major concerns are for Māori.

Availability

People were divided on whether or not there are enough places people can go to gamble, with slightly more thinking there were about the right number than thought there were too many. Those who thought there were too many places most often mentioned non-casino EGM venues (i.e. pubs and clubs). About a quarter were of the view that there are too many gambling venues in general. There was no change from 2005 to 2012 in the percentage of people who think there are too many or too few places. There appears to have been a slight increase in the percentage who considered there to be about the right amount.

As with responses to previous questions, a number of groups including problem gamblers, Pacific Islanders and Other Christians differed from others in that proportionately more believed there are too many gambling venues. For these groups, it seems likely that negative attitudes to gambling more generally are strongly implicated in their views on venue numbers. Māori and older adults also more often considered there to be too many venues. In contrast to the ‘bimodal’ groups, Māori appear to have somewhat more positive attitudes towards some aspects of gambling and have high rates of gambling participation. In common with these groups, however, they have high rates of problem and moderate-risk gambling (Abbott et al., 2014a, 2014b). They also report high rates of harm experienced as a consequence of other peoples’ gambling (Abbott et al., 2014b; Ministry of Health, 2009). Māori (and Pacific Islanders), as mentioned, also more often live in high deprivation neighbourhoods that have high concentrations of EGM venues and TABs. Concern about availability may be largely a result of personal awareness of the adverse impacts of excessive gambling in whānau and the wider community. In contrast, Asians and European/Other have somewhat lower proportions of people who think there are too many venues.

In 2005 and 2012, the major concern for most adults was the number of non-casino EGMs. Since 2005 there appears to have been an increase in concern about the number of gambling venues generally. If so, it is unclear what this means. Perhaps, while recognising that most people experiencing gambling-related harm do so primarily as a consequence of their non-casino EGM participation, increasing proportions of people believe that all or most gambling activities have potential to contribute to gambling-related problems and harm.

It is of interest that large majorities both of problem and moderate-risk gamblers considered there to be too many non-casino EGM venues. In contrast, non-gamblers much less frequently believed that there are too many EGM venues but much more often considered that there are too many gambling venues generally. A similar pattern was evident for ethnicity, religion and migration with large majorities of Māori, European/Other, New Zealand born and people in major Christian denominations and people of no religion of the view that there are too many non-casino EGM venues. Pacific Islanders, Asians, migrants (especially recent migrants), Other religions and Other Christians showed greater concern about gambling venues generally.

Undesirability of gambling activities

Over a half of adults said that non-casino EGMs and internet gambling are socially undesirable. Somewhat less said this about casino table games and EGMs, and text games or competitions, and around a fifth mentioned horse and dog race and sports betting in this regard. No other activity was considered undesirable by more than seven percent of people. With a few exceptions, attitudes regarding undesirable activities appear to be fairly consistent across gambling participation and demographic groups. However, interpretation is compromised by small sample size. As for venue numbers, problem gamblers and moderate-risk gamblers more often considered non-casino EGMs to be undesirable. Somewhat more Māori and European/Other than Asians and Pacific Islanders considered non-casino EGMs and overseas internet gambling to be undesirable. The latter groups, however, more often regarded all activities as undesirable, as did people in the lowest household income category compared to people in the highest category. Longer term migrants compared with recent migrants more often considered non-casino EGMs and casinos to be undesirable.

From the DIA surveys conducted up until 2005 it is evident that over time increased proportions of people considered at least one or more gambling activities to be undesirable. There were substantial increases in the percentage of people who regarded non-casino EGMs, casino table games or EGMs, horse and dog race betting and online gambling in this way. There also appears to have been some increase in regard to housie or bingo and raffles. Attitudes towards other activities appear to have changed little, if at all, over time although there are slight increases for a number of these activities from 2000 to 2005. Confidence intervals are not available for earlier surveys so it is unclear whether these apparent changes are significant or not. While the large majority of people consider one or more activities to be socially undesirable and substantial proportions of people continue to regard the top six ranked activities in this way, it appears that there has been a decrease in concern about all activities since 2005. There appears to be even greater reductions in concern about housie or bingo, keno, Lotto, Instant Kiwi or other scratch tickets, and raffles.

It is unclear why this apparent reduction in concern about most, if not all, forms of gambling has occurred. However, the greater differentiation now being made between high and low concern activities may reflect increased public awareness of the differences in harm that are associated with the various activities. It is also of interest that the undesirability rank ordering in New Zealand is almost identical to Canadian general population rankings of activities in terms of harm (Smith et al., 2011). As mentioned in the introduction, this ranking closely matches those obtained from studies, including the NGS, that have examined relationships between participation in different types of gambling activity and problem gambling and other gambling-related harms (Abbott et al., 2014b; Binde, 2011). It appears likely that New Zealand adults, overall, have a high level of awareness of differences between gambling activities with respect to risk and harm. It is also likely that this awareness is strongly associated with their attitudes towards different activities including their availability. Attitudinal differences within the general population appear to be related, in part, to the variations in the exposure of various sectors to gambling activities and gambling-related harm. Increased exposure and awareness probably leads to more differentiation in attitudes towards the different activities. Some cultural and religious beliefs, while also being associated with less accepting attitudes, appear to be generally associated with less differentiation and greater objection to gambling.

It is of potential interest that substantially more people in 2012 than in previous surveys said that any or all of the activities listed could be socially undesirable depending on the person. It is uncertain what this means but it might indicate an increase in more nuanced understanding of the nature of gambling activities and/or of varying personal and social vulnerabilities.

Harm and help for excessive gamblers

The DIA surveys indicated that from 1985 to 2005 there was a steady and substantial increase in the proportion of people who believed that there is a growing problem with people being heavily involved in gambling in New Zealand. The 2005 estimate was 90%. The magnitude and trend of these changes are such that we can be highly confident that they are real. There has also been a substantial reduction in the number of people who said they do not know. It is likely that the percentage of people agreeing or strongly agreeing that there is a growing problem remained much the same in the current survey as it was in 2005. The proportion who said they do not know decreased to one percent, and only four percent disagreed. There appears to have been a reduction, however, in the percentage of people who strongly agreed in 2012. Seven percent also said they neither agreed nor disagreed in 2012. This might indicate less certainty on the part of some people that there is a growing problem. Higher income and younger adults less often strongly agreed than low income and older adults. Given that research strongly suggests that problem levels in New Zealand have been fairly stable during the past decade or more it would seem appropriate to ask additional questions about this in future studies. A number of people might be of the view that problem gambling is not growing or is reducing, yet still regard it as a significant issue.

Around 80% of people in both the 2005 and current survey thought that providers of gambling activities and government should do more to help excessive gamblers. The majority of people in all participation and demographic groups were of this opinion. Nevertheless, there was some variation across participation and demographic groups. It is of interest that many of the groups that more often strongly agreed that there is a growing problem, including problem gamblers, were the same ones that more frequently opposed gambling to raise funds for a worthy cause and some other purposes. Māori, people lacking formal education and unemployed people also more often strongly agreed. These groups have high rates of gambling-related harm.

Conclusion

From 1987 onwards, a variety of new forms of gambling have been introduced to New Zealand. Initially gambling participation and expenditure increased markedly. Participation, especially regular participation, declined from the mid-1990s and has continued to decline since. Expenditure has declined by about a fifth in inflation-adjusted terms since 2004. It is likely that problem gambling and other gambling-related harm reduced during the 1990s and has since remained much the same.

Overall, most New Zealand adults approve of gambling to raise money for worthy causes, albeit less so if profits are being shared with a promoter. While this has been the case since 1985, approval of gambling activities for this reason has reduced somewhat over time. Most adults are opposed to gambling as a business enterprise or as a means of raising government revenue. This opposition has increased, especially in relation to gambling as a way to raise government revenue. Just under two-thirds of adults are happy or largely happy with the distribution of gambling profits and this has not changed since 2005.

There appears to be a high level of public awareness that some gambling activities are more undesirable and harmful than others. This awareness has increased over time and public perception of the relative harm associated with different gambling activities is currently broadly consistent with research findings. Over a half of adults considered non-casino EGMs and online

gambling to be undesirable and slightly less think likewise with respect to casino gambling and text games or competitions. A substantial majority of adults wanted a reduction in the number of non-casino EGMs and around a quarter were of the view that there are generally too many gambling venues. Around 80% of people in both 2005 and 2012 thought that gambling providers and government should do more to help excessive gamblers.

The foregoing conclusions apply to all gambling participation and demographic groups. However, there was some variation across the various groups. This partly reflects their degree of gambling involvement and experience of, and knowledge of, gambling-related harm. In some groups, attitudes were more influenced by moral and religious objections to gambling per se. These groups generally had lower levels of gambling involvement yet experienced higher levels of gambling-related harm.

There has been a high level of media coverage and public debate regarding gambling and gambling-related harm in New Zealand since the liberalisation of gambling regulation in the late 1980s. This included information from national gambling studies and other research undertaken throughout this period, and reports from official inquiries and parliamentary debates and select committees. New gambling legislation, introduced in 2004, tightened regulatory processes, particularly with regard to EGMs and other forms of gambling more strongly associated with gambling-related harm. It also placed gambling within a public health framework with an emphasis on harm reduction. The Ministry of Health has primary responsibility for this. During the past decade, in addition to commissioning research to inform the Government's gambling public health strategy, the Ministry has commissioned and funded a range of public education and prevention programmes as well as a wide spectrum of counselling and support services. It is highly likely that these initiatives, and other activities and events that have kept gambling on political and public agendas, have contributed both to increased public knowledge about gambling and associated harms, and to attitude and behaviour change. As mentioned earlier, participation in most gambling activities, particularly regular participation in high risk forms, has reduced substantially. These factors very probably also played a significant role in the reduction of overall gambling expenditure and EGM availability. Since 2004, expenditure decreased by a fifth in inflation-adjusted terms and EGM numbers fell from over 25,000 in 2003 to less than 17,000 in 2014. EGM venue numbers also decreased significantly.

While gambling participation has decreased during the past 15 or so years, problem gambling and related harm appear to have plateaued. Apart from Māori who have high overall participation and high rates of harmful gambling, most of the other groups that experience disproportionate harm have low overall participation. However, they have minorities that gamble in a hazardous manner, at high intensities. These groups are vulnerable for a variety of reasons, probably including their relatively recent introduction to EGMs and other continuous gambling activities and residence in more deprived communities with high densities of EGMs and TABs. High concentration in these areas may be a reason why problems have not decreased with reduced overall EGM numbers and venues, participation and expenditure.

The NGS findings suggest that there is public support, across all major demographic groups, for measures that will further reduce EGM availability and reduce gambling-related harms. It appears that most adults are of the view that government and the gambling industry could do more in this regard. To be effective, it is likely that further attention will need to be given both to whole-of-population approaches, as well to the high-risk gambling participation and demographic groups.

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APPENDICES

Appendix 1: Views on the reason for having gambling activities by problem gambling level and demographics

Demographic variables	Reasons for and views of gambling activities %									
	Fundraising for worthy causes		For raising government revenue (through profits)		Sales promotion (prize competitions to promote products)		Business enterprise (for profit, e.g. casinos)		Profit sharing between a promoter and worthy cause	
	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour
Total	85.2	14.4	26.2	72.6	53.4	45.8	24.7	74.3	57.7	41.4
Problem gambling level										
Non-gambler	67.7	31.9	23.9	74.8	42.9	56.0	19.0	80.4	45.0	53.8
Non-problem gambler	89.6	10.0	26.8	72.0	56.0	43.2	25.7	73.2	60.6	38.5
Low-risk gambler	89.2	10.8	29.0	69.0	54.1	44.3	31.8	66.1	63.0	36.0
Moderate-risk gambler	91.5	8.2	21.4	78.3	57.0	42.3	28.7	69.8	65.9	33.3
Problem gambler	75.7	24.3	18.8	81.2	56.1	43.9	18.8	81.2	46.2	53.8
Gender										
Male	85.6	14.1	28.7	70.7	53.0	46.2	29.5	69.7	58.7	40.4
Female	84.9	14.7	23.9	74.3	53.7	45.4	20.2	78.5	56.7	42.3
Ethnic group										
European/Other	88.2	11.5	27.3	71.5	56.6	42.5	26.8	72.1	60.4	38.7
Māori	88.5	11.0	20.1	78.7	46.9	52.3	19.4	79.4	57.5	41.5
Pacific	67.9	31.8	16.3	82.8	34.9	64.7	11.3	88.0	41.5	57.6
Asian	67.9	31.4	28.3	70.7	42.8	56.4	19.7	79.0	46.9	51.7
Age group										
18 - 24 years	86.1	13.2	25.7	71.9	55.9	43.4	29.8	69.4	63.4	35.7
25 - 34 years	85.4	14.1	25.1	73.6	56.1	43.1	24.7	74.0	64.8	34.3
35 - 44 years	85.7	14.3	23.9	75.0	58.0	41.6	25.9	72.9	60.7	38.9
45 - 54 years	84.8	15.2	26.2	73.3	56.4	43.3	23.6	75.3	57.3	41.6
55 - 64 years	86.8	12.9	26.8	72.3	51.9	47.0	24.9	74.1	52.6	45.9
65+ years	83.0	16.2	30.1	68.6	40.9	57.0	20.3	78.8	46.7	52.2
Country of birth										
NZ	89.1	10.6	26.4	72.2	56.7	42.5	26.1	72.8	60.9	38.3
Elsewhere	75.0	24.5	25.6	73.5	44.5	54.4	20.8	78.0	49.1	49.6
Arrival in NZ										
2008 or later	67.1	32.7	29.1	70.5	44.6	55.4	21.7	76.7	46.7	52.8
Before 2008	76.7	22.8	24.9	74.1	44.5	54.2	20.6	78.3	49.6	49.0
Highest qualification										
No formal qual.	84.2	15.4	22.4	75.8	42.4	55.7	19.8	79.5	55.1	43.7
School qual.	83.4	16.1	26.2	72.5	53.1	46.0	26.7	72.3	55.9	43.2
Trade/voc. qual.	88.3	11.4	25.9	73.1	56.6	42.5	28.2	71.1	61.9	37.4
Degree/higher	85.0	14.7	27.9	71.1	55.7	43.8	23.2	75.4	57.3	41.7

Demographic variables	Reasons for and views of gambling activities %									
	Fundraising for worthy causes		For raising government revenue (through profits)		Sales promotion (prize competitions to promote products)		Business enterprise (for profit, e.g. casinos)		Profit sharing between a promoter and worthy cause	
	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour	Generally in favour	Generally not in favour
Labour force status										
Employed	87.0	12.7	26.1	72.9	56.8	42.5	26.5	72.6	60.7	38.5
Unemployed	83.7	16.0	23.3	75.4	46.5	52.5	20.0	79.0	53.1	45.1
Student/Home/Retired	81.3	18.4	27.8	70.7	47.1	51.4	21.6	76.8	51.7	47.3
Religion										
No religion	89.4	10.3	26.0	72.5	57.5	41.4	28.8	69.7	63.0	35.9
Anglican	91.1	8.5	30.4	68.7	51.9	46.8	26.8	71.6	57.2	42.0
Presbyterian	87.5	12.2	28.6	70.5	57.5	41.6	24.7	74.6	57.4	42.3
Catholic	87.0	12.3	28.5	70.6	54.2	45.7	27.3	72.2	61.5	37.5
Other Christian	73.0	26.6	19.3	79.5	44.3	55.1	13.2	86.4	45.5	53.4
Other religion	69.5	30.5	24.4	74.6	45.6	54.0	15.9	83.3	47.8	51.0
Household size										
1	84.4	15.1	23.4	74.9	46.0	52.4	19.1	79.8	51.1	47.3
2	85.5	14.1	28.4	70.7	52.3	46.5	24.8	73.8	56.1	43.0
3	85.7	14.0	24.2	75.0	54.0	45.4	25.9	73.5	58.9	40.2
4	87.3	12.3	28.7	70.5	57.7	41.8	27.5	71.2	61.8	37.5
5+	82.3	17.5	22.6	75.0	53.2	46.1	22.5	76.6	57.8	41.3
Personal Income (\$)										
Up to 20,000	81.4	18.1	25.4	73.1	48.9	50.0	21.2	77.6	54.4	44.4
20,001 - 40,000	86.1	13.6	24.5	74.3	52.7	46.4	22.5	77.0	57.6	41.8
40,001 - 60,000	88.6	11.3	24.1	74.7	56.7	42.6	27.9	71.0	63.9	34.6
60,001 - 80,000	87.0	12.6	28.2	71.5	54.8	44.4	26.7	72.4	57.2	42.3
80,001 - 100,000	90.1	9.9	32.5	67.5	62.8	36.5	35.1	62.3	62.1	37.9
Over 100,000	90.1	9.9	35.9	63.7	63.2	36.8	34.7	64.3	60.5	39.0
Household Income (\$)										
Up to 20,000	78.6	20.9	20.6	77.3	44.8	54.1	16.5	82.4	50.5	48.1
20,001 - 40,000	83.5	16.1	25.2	73.2	42.9	55.6	18.0	81.1	52.7	46.2
40,001 - 60,000	82.3	16.9	24.7	73.7	52.8	46.4	23.1	76.3	55.6	43.9
60,001 - 80,000	84.6	15.3	24.7	74.7	55.4	43.5	24.6	74.3	58.4	40.3
80,001 - 100,000	90.5	9.5	27.2	72.1	62.9	36.2	29.0	69.9	60.5	38.6
Over 100,000	89.3	10.5	30.5	68.9	58.6	41.0	30.7	68.0	63.5	36.0

Appendix 2: Satisfaction with profit distribution by problem gambling level and demographics

Demographic variables	Satisfaction with profit distribution %				
	Happy with it	Largely happy, but with some doubts	Not happy with it	No impression either way	Don't know
Total	31.1	33.4	11.8	23.6	0.2
Problem gambling level					
Non-gambler	27.6	24.3	20.1	27.7	0.3
Non-problem gambler	31.8	36.1	9.5	22.3	0.2
Low-risk gambler	30.6	33.8	10.3	25.3	0.0
Moderate-risk gambler	37.8	25.8	10.9	25.3	0.2
Problem gambler	37.5	21.5	23.0	18.0	0.0
Gender					
Male	30.8	33.5	12.6	22.9	0.1
Female	31.3	33.2	11.0	24.1	0.4
Ethnic group					
European/Other	30.3	36.3	10.7	22.6	0.2
Māori	35.1	27.3	9.7	27.6	0.3
Pacific	33.7	21.7	21.0	23.2	0.4
Asian	34.3	16.8	17.7	30.7	0.4
Age group					
18 - 24 years	31.9	23.6	7.5	36.4	0.6
25 - 34 years	27.6	33.0	9.4	30.0	0.0
35 - 44 years	28.6	34.7	10.7	25.6	0.3
45 - 54 years	32.2	35.8	14.2	17.7	0.1
55 - 64 years	34.0	36.6	13.5	15.7	0.3
65+ years	33.6	34.0	14.4	17.7	0.3
Country of birth					
NZ	32.1	35.4	10.0	22.2	0.2
Elsewhere	28.5	27.9	16.4	27.0	0.2
Arrival in NZ					
2008 or later	27.8	22.5	17.6	32.1	0.0
Before 2008	28.6	29.0	16.1	25.9	0.3
Highest qualification					
No formal qual.	39.5	24.5	11.6	24.1	0.2
School qual.	31.3	29.0	11.1	28.4	0.2
Trade/voc. qual.	34.5	34.8	10.3	20.2	0.3
Degree/higher	25.9	38.6	13.1	22.2	0.2
Labour force status					
Employed	30.5	34.8	11.1	23.3	0.3
Unemployed	32.9	27.5	13.1	26.4	0.1
Student/Home/Retired	32.0	31.7	12.9	23.1	0.2
Religion					
No religion	29.8	33.9	9.8	26.4	0.1
Anglican	34.1	38.1	10.4	17.1	0.4
Presbyterian	36.5	35.0	9.6	18.7	0.2
Catholic	33.3	33.0	11.0	22.5	0.2
Other Christian	27.0	31.3	17.8	23.5	0.3
Other religion	30.2	22.1	17.4	29.9	0.4
Household size					
1	33.6	30.3	13.1	22.6	0.3
2	31.1	36.6	12.0	20.0	0.4
3	34.2	29.3	10.8	25.6	0.1
4	29.2	34.0	10.6	26.0	0.1
5+	29.0	32.1	13.1	25.5	0.3
Personal Income (\$)					
Up to 20,000	31.9	30.1	12.2	25.4	0.3
20,001 - 40,000	32.8	30.3	11.8	25.1	0.1
40,001 - 60,000	31.9	34.0	10.0	24.0	0.1
60,001 - 80,000	28.4	39.5	11.2	21.0	0.0
80,001 - 100,000	26.6	43.5	13.7	15.7	0.5
Over 100,000	24.7	48.4	11.5	15.4	0.0
Household Income (\$)					
Up to 20,000	33.6	27.3	13.8	25.1	0.1
20,001 - 40,000	33.6	30.5	11.7	23.9	0.3
40,001 - 60,000	29.9	31.0	13.7	25.0	0.3
60,001 - 80,000	32.5	31.3	13.9	22.1	0.1
80,001 - 100,000	30.4	35.4	10.1	23.9	0.2
Over 100,000	29.4	39.5	9.5	21.5	0.1

Appendix 3: Reasons for satisfaction with profit distribution by problem gambling level and demographics

	Largely happy with doubts/not happy about gambling profits distributed to sports, charities, and community %																				
Demographic variables	Against gambling used as source of funding/promotes gambling	Don't know how money is distributed/who decides/lack of transparency/information	Not sure if money actually goes where it's supposed to	Not sure how evenly distributed/not done fairly/some groups favoured more than others	More should go to community/should go back to area money came from	More should go to charities	Should go to hospitals/health/cancer	Not enough given out	Too much going to sport/professional sport	Some are not worthy/should go to more worthy/need causes	Amount/too much taken by promoters/organisers/administration costs	Money misused by charities/sports clubs	Process to go through to apply/should be easier	More to amateur sport/clubs	Lotto should be split into smaller prizes/one person should not win millions	Should go to help problem gamblers/households of those who gamble	Government taking money from it	Unsure how much they actually get	Positive comments	Others	Don't know
Total	28.5	16.0	3.7	9.5	6.1	3.6	2.1	5.3	6.0	10.1	10.1	2.1	0.7	1.6	0.5	1.4	1.4	4.2	15.1	2.9	0.6
Problem gambling level																					
Non-gambler	46.6	11.0	3.8	6.0	4.0	2.1	1.9	4.1	5.8	6.8	6.6	3.0	0.6	0.6	-	1.1	1.0	3.0	14.7	2.5	0.1
Non-problem gambler	24.7	16.9	3.6	10.3	6.2	4.0	2.2	5.7	6.1	10.7	10.9	1.7	0.8	1.8	0.7	1.4	1.5	4.4	15.7	2.9	0.6
Low-risk gambler	16.8	21.0	5.2	13.8	12.0	1.9	0.9	5.1	6.0	11.1	7.5	4.6	-	1.5	-	1.2	2.2	4.9	11.6	4.4	0.9
Moderate-risk gambler	14.2	20.5	1.9	4.1	4.3	8.1	0.6	6.2	3.3	22.0	21.7	-	-	4.6	-	7.2	-	10.2	3.9	3.7	4.8
Problem gambler	52.0	19.4	3.9	3.4	16.6	1.4	-	2.0	1.4	3.0	13.6	2.4	-	-	-	-	-	-	11.7	-	2.2
Gender																					
Male	25.8	17.7	3.7	9.5	5.6	3.0	1.6	5.4	5.4	10.8	12.4	2.8	0.9	1.9	0.2	0.6	1.6	3.3	13.3	3.1	0.7
Female	31.2	14.4	3.7	9.4	6.6	4.2	2.5	5.2	6.5	9.4	7.8	1.4	0.6	1.3	0.8	2.1	1.2	5.1	16.9	2.7	0.5
Ethnic group																					
European/Other	26.9	15.6	3.3	9.6	6.3	4.0	2.2	5.6	6.7	10.5	10.9	2.0	0.7	1.7	0.5	1.4	1.3	4.2	16.3	2.9	0.6
Māori	20.8	21.1	7.0	11.9	5.7	2.0	1.2	5.1	3.3	11.4	7.4	2.4	2.0	1.5	0.7	1.2	2.0	5.2	13.4	2.1	1.1
Pacific	40.7	17.3	4.8	10.5	3.6	1.4	0.6	3.7	2.2	5.5	5.9	3.5	-	1.2	0.2	1.6	1.2	4.1	9.7	3.1	0.7
Asian	48.3	16.9	5.1	6.6	2.9	2.1	0.2	4.3	0.9	5.2	4.5	0.6	-	0.8	1.4	0.9	2.3	4.8	8.7	4.2	0.2

Largely happy with doubts/not happy about gambling profits distributed to sports, charities, and community %

Demographic variables	Against gambling used as source of funding/promotes gambling	Don't know how money is distributed/who decides/lack of transparency/information	Not sure if money actually goes where it's supposed to	Not sure how evenly distributed/not done fairly/some groups favoured more than others	More should go to community/should go back to area money came from	More should go to charities	Should go to hospitals/health/cancer	Not enough given out	Too much going to sport/professional sport	Some are not worthy/should go to more worthy/need causes	Amount/too much taken by promoters/organisers/administration costs	Money misused by charities/sports clubs	Process to go through to apply/should be easier	More to amateur sport/clubs	Lotto should be split into smaller prizes/one person should not win millions	Should go to help problem gamblers/households of those who gamble	Government taking money from it	Unsure how much they actually get	Positive comments	Others	Don't know
Age group																					
18 - 24 years	30.3	22.1	4.8	6.8	3.5	3.5	2.2	5.5	2.3	8.4	6.5	4.9	-	0.4	0.9	1.5	1.1	1.8	14.0	1.9	0.8
25 - 34 years	32.1	18.0	3.3	8.6	6.4	3.6	1.4	7.4	3.5	10.2	7.6	0.6	0.9	0.9	0.2	1.5	1.8	4.5	13.7	1.7	0.9
35 - 44 years	26.9	19.0	4.7	10.9	8.4	3.3	1.2	4.5	6.7	6.1	8.6	2.6	1.3	1.9	0.1	1.9	1.3	5.2	16.5	2.4	0.4
45 - 54 years	31.6	15.6	2.2	10.5	4.3	4.5	1.3	5.1	4.3	9.7	10.5	2.7	0.3	1.1	0.8	0.9	1.4	4.7	17.7	3.9	0.5
55 - 64 years	27.3	12.2	3.7	11.1	8.3	2.3	2.3	4.0	6.6	11.7	13.4	1.0	1.1	2.5	0.8	1.6	1.6	4.7	13.7	2.7	0.4
65+ years	23.4	11.8	4.6	7.4	5.1	4.0	4.3	5.2	10.5	13.8	12.5	2.0	0.5	2.2	0.6	0.9	1.1	3.0	13.9	4.1	0.7
Country of birth																					
NZ	25.1	16.0	3.8	10.5	6.6	3.8	2.3	5.5	6.4	10.5	11.3	2.3	1.0	1.8	0.5	1.4	1.1	4.0	15.4	2.6	0.6
Elsewhere	38.0	16.1	3.7	6.8	4.7	2.9	1.5	4.8	4.7	8.8	6.6	1.4	-	1.0	0.7	1.3	2.3	4.7	14.3	3.7	0.5
Arrival in NZ																					
2008 or later	49.3	16.4	6.5	6.3	2.2	1.7	-	3.9	0.9	4.9	4.6	-	-	-	0.8	0.5	4.3	6.6	13.9	1.4	-
Before 2008	35.9	16.0	3.2	6.9	5.2	3.2	1.8	5.0	5.4	9.6	7.0	1.7	-	1.2	0.6	1.5	2.0	4.4	14.4	4.1	0.6
Highest qualification																					
No formal qual.	19.8	14.0	5.6	8.0	4.1	3.3	5.5	5.4	9.3	12.2	10.9	3.0	0.5	1.5	-	2.2	0.2	3.2	12.6	1.6	1.1
School qual.	31.2	15.9	4.5	8.9	4.7	2.5	1.7	5.2	5.1	7.4	7.1	2.3	0.7	1.1	0.5	1.2	0.7	3.5	17.3	3.6	0.1
Trade/voc. qual.	20.1	18.9	4.1	8.9	7.9	3.5	1.8	4.9	6.0	14.7	11.4	1.8	0.1	2.4	0.9	0.3	2.7	6.0	13.2	2.4	1.0
Degree/higher	33.9	15.1	2.7	10.4	6.4	4.3	1.5	5.5	5.5	8.4	10.6	1.9	1.1	1.5	0.5	1.8	1.4	3.8	15.8	3.2	0.4

Largely happy with doubts/not happy about gambling profits distributed to sports, charities, and community %

Demographic variables	Against gambling used as source of funding/promotes gambling	Don't know how money is distributed/who decides/lack of transparency/information	Not sure if money actually goes where it's supposed to	Not sure how evenly distributed/not done fairly/some groups favoured more than others	More should go to community/should go back to area money came from	More should go to charities	Should go to hospitals/health/cancer	Not enough given out	Too much going to sport/professional sport	Some are not worthy/should go to more worthy/needly causes	Amount/too much taken by promoters/organisers/administration costs	Money misused by charities/sports clubs	Process to go through to apply/should be easier	More to amateur sport/clubs	Lotto should be split into smaller prizes/one person should not win millions	Should go to help problem gamblers/households of those who gamble	Government taking money from it	Unsure how much they actually get	Positive comments	Others	Don't know
Labour force status																					
Employed	28.4	16.9	3.4	10.4	6.7	3.8	1.7	5.4	5.2	9.4	10.5	1.7	0.9	1.5	0.6	1.3	1.7	4.7	15.1	2.6	0.6
Unemployed	30.7	14.0	3.7	6.2	5.8	2.6	2.6	2.3	3.7	10.6	9.8	1.9	-	1.9	0.4	2.4	1.0	4.0	16.6	3.4	0.2
Student/Home/Retired	28.1	14.1	4.3	8.0	4.8	3.5	2.8	5.9	8.9	11.8	9.3	3.1	0.4	1.7	0.4	1.3	0.9	3.0	14.7	3.7	0.7
Religion																					
No religion	27.4	16.1	3.5	8.7	6.7	3.7	1.8	6.0	6.2	10.2	12.4	2.1	0.8	1.6	0.6	1.4	2.0	4.0	15.9	2.5	0.9
Anglican	22.2	13.0	3.1	13.5	7.0	4.6	1.8	5.4	7.9	10.7	10.5	3.3	1.6	2.7	0.5	0.6	0.5	4.6	11.5	5.1	-
Presbyterian	23.6	16.8	3.2	9.2	5.7	6.1	3.2	5.2	8.6	10.0	9.7	0.5	0.4	3.5	1.0	1.2	1.4	3.8	16.7	2.5	1.2
Catholic	24.5	19.1	6.1	10.0	7.2	2.2	2.0	5.9	4.1	12.1	11.4	1.1	0.3	0.4	0.3	1.1	1.3	6.0	14.6	2.7	0.3
Other Christian	40.0	16.7	2.7	7.3	3.7	3.2	2.0	4.1	3.3	8.0	5.8	3.1	0.1	0.6	0.5	1.9	0.7	3.7	16.8	1.9	0.4
Other religion	37.1	14.5	6.1	10.5	5.8	1.6	2.4	2.3	5.4	9.6	3.8	0.3	0.4	0.3	0.3	2.8	2.0	2.7	13.1	3.0	-
Household size																					
1	25.3	12.3	3.2	8.9	3.1	4.1	2.9	6.2	9.7	10.3	12.7	2.7	0.8	2.1	0.5	0.8	1.9	5.4	14.8	4.0	0.2
2	26.3	15.5	3.9	9.4	6.4	3.8	2.4	5.2	7.2	11.4	10.4	2.1	0.7	2.3	0.2	0.9	2.2	3.4	14.7	3.3	0.7
3	28.9	14.0	5.0	9.7	6.2	3.2	2.6	5.0	6.0	10.0	11.0	0.8	0.8	1.1	1.6	1.3	0.8	3.9	14.2	2.7	0.6
4	31.0	15.5	3.8	8.7	5.9	2.4	2.0	6.7	4.2	9.0	9.1	2.8	0.7	1.2	0.3	2.4	0.6	4.7	17.1	2.9	0.3
5+	31.4	21.2	2.5	10.4	7.3	4.8	0.5	3.7	3.8	8.6	8.5	2.0	0.7	0.6	0.6	1.5	1.0	4.7	14.7	1.9	1.0

Largely happy with doubts/not happy about gambling profits distributed to sports, charities, and community %

Demographic variables	Against gambling used as source of funding/promotes gambling	Don't know how money is distributed/who decides/lack of transparency/information	Not sure if money actually goes where it's supposed to	Not sure how evenly distributed/not done fairly/some groups favoured more than others	More should go to community/should go back to area money came from	More should go to charities	Should go to hospitals/health/cancer	Not enough given out	Too much going to sport/professional sport	Some are not worthy/should go to more worthy/need causes	Amount/too much taken by promoters/organisers/administration costs	Money misused by charities/sports clubs	Process to go through to apply/should be easier	More to amateur sport/clubs	Lotto should be split into smaller prizes/one person should not win millions	Should go to help problem gamblers/households of those who gamble	Government taking money from it	Unsure how much they actually get	Positive comments	Others	Don't know
Personal Income (\$)																					
Up to 20,000	28.4	15.0	3.8	9.0	4.9	2.8	2.0	6.4	7.0	10.7	8.4	2.8	0.4	1.6	1.0	1.9	1.5	3.4	14.1	2.4	0.7
20,001 - 40,000	30.6	13.1	5.0	9.3	7.0	3.3	3.2	5.0	5.9	9.7	8.2	1.8	1.1	0.9	0.3	0.9	1.0	3.1	15.5	3.3	0.5
40,001 - 60,000	27.3	18.0	3.1	10.9	6.7	3.3	1.6	5.1	5.9	11.2	10.7	2.5	-	1.5	0.7	1.8	1.6	6.5	14.4	2.3	0.9
60,001 - 80,000	31.3	17.8	1.7	9.5	5.9	6.6	1.8	4.3	6.0	9.6	11.8	0.5	1.8	2.8	0.5	0.3	1.6	5.6	14.1	3.0	-
80,001 - 100,000	27.0	25.5	4.6	10.3	8.2	1.7	2.5	9.3	3.8	5.0	9.0	0.8	0.6	2.5	-	2.7	1.7	4.4	10.8	1.8	1.3
Over 100,000	23.6	15.9	3.7	8.3	5.8	4.3	-	2.8	4.7	8.9	14.7	4.1	1.0	0.9	-	0.6	2.4	3.0	24.6	6.1	-
Household Income (\$)																					
Up to 20,000	29.6	14.0	3.9	7.2	7.0	2.3	1.7	5.6	6.8	10.6	10.9	1.9	1.2	0.9	0.3	1.3	2.4	3.4	16.5	1.8	0.3
20,001 - 40,000	26.3	15.0	6.2	7.3	3.5	4.5	2.4	5.0	6.2	11.5	9.2	3.1	0.7	1.6	0.5	0.5	1.5	2.7	14.9	3.5	0.4
40,001 - 60,000	29.4	12.2	2.9	8.9	6.9	3.6	3.9	3.2	7.3	13.3	7.9	2.8	0.9	1.8	0.7	2.0	0.6	3.3	15.3	2.6	1.7
60,001 - 80,000	31.5	13.4	3.3	8.5	7.7	3.3	3.5	6.9	5.5	8.7	8.6	1.7	0.8	1.8	0.7	1.5	1.6	3.2	15.0	3.2	0.4
80,001 - 100,000	28.9	18.8	5.5	9.0	6.1	1.9	1.8	6.5	5.0	9.0	11.6	1.8	-	1.2	0.4	1.5	0.6	6.0	14.7	2.2	0.5
Over 100,000	27.3	18.8	2.4	12.2	6.4	4.4	0.6	5.8	5.6	8.0	10.8	1.8	1.0	1.7	0.5	1.4	2.1	5.0	16.4	3.0	0.3

Appendix 4: Views on number of gambling venues by problem gambling level and demographics

Demographic variables	Views on number of gambling venues %			
	Not enough places	About the right number	Too many places	Don't know
Total	1.4	52.6	40.6	5.5
Problem gambling level				
Non-gambler	1.6	43.6	45.1	9.6
Non-problem gambler	1.0	55.3	38.9	4.7
Low-risk gambler	3.9	52.7	41.5	2.0
Moderate-risk gambler	6.1	46.9	44.4	2.6
Problem gambler	-	31.2	68.8	-
Gender				
Male	1.7	56.1	37.9	4.3
Female	1.0	49.4	43.0	6.6
Ethnic group				
European/Other	0.9	55.4	38.4	5.2
Māori	1.5	44.4	51.0	3.1
Pacific	2.7	34.3	60.6	2.4
Asian	5.0	45.5	40.8	8.7
Age group				
18 - 24 years	2.9	59.8	32.4	4.9
25 - 34 years	2.1	52.6	42.0	3.3
35 - 44 years	0.9	52.6	40.2	6.3
45 - 54 years	0.9	49.0	45.5	4.6
55 - 64 years	1.2	53.8	37.8	7.2
65+ years	0.6	50.2	42.2	6.8
Country of birth				
NZ	1.0	54.5	39.8	4.6
Elsewhere	2.2	47.4	42.6	7.7
Arrival in NZ				
2008 or later	5.0	47.1	37.3	10.6
Before 2008	1.7	47.5	43.7	7.1
Highest qualification				
No formal qual.	1.0	51.2	43.0	4.8
School qual.	2.0	53.2	38.9	5.8
Trade/voc. qual.	1.1	52.5	42.2	4.3
Degree/higher	1.3	52.8	39.8	6.2
Labour force status				
Employed	1.4	53.3	40.4	4.9
Unemployed	1.6	49.0	45.1	4.3
Student/Home/Retired	1.2	51.8	39.7	7.2
Religion				
No religion	1.2	57.3	36.4	5.1
Anglican	0.8	58.1	35.7	5.4
Presbyterian	0.3	55.8	39.9	3.8
Catholic	1.5	48.7	44.3	5.5
Other Christian	1.6	41.5	51.5	5.3
Other religion	4.6	39.9	45.3	10.1
Household size				
1	1.1	48.5	42.8	7.5
2	1.2	54.3	38.8	5.6
3	1.6	52.0	41.2	5.2
4	1.1	54.7	39.7	4.5
5+	1.8	49.5	43.1	5.6
Personal Income (\$)				
Up to 20,000	2.2	53.4	39.1	5.3
20,001 - 40,000	1.2	49.4	43.9	5.5
40,001 - 60,000	1.6	52.1	42.0	4.4
60,001 - 80,000	0.6	51.7	42.0	5.7
80,001 - 100,000	0.0	61.1	34.8	4.1
Over 100,000	0.4	64.6	30.6	4.4
Household Income (\$)				
Up to 20,000	3.1	47.8	42.6	6.5
20,001 - 40,000	1.4	48.2	44.8	5.6
40,001 - 60,000	1.5	49.1	44.5	5.0
60,001 - 80,000	1.3	54.8	39.0	4.9
80,001 - 100,000	1.0	56.2	38.8	3.9
Over 100,000	1.1	56.1	37.0	5.7

Appendix 5: Views gambling venues there are too many of by problem gambling level and demographics

	Gambling venues there are too many of %							
Demographic variables	Lotto/Keno/Instant Kiwi outlets	House/bingo venues	TABs	Gaming machine (pokie) venues i.e. pubs/clubs	Casinos	All gambling venues/gambling venues in general	Other places/venues	Don't know
Total	11.6	2.9	15.6	67.1	9.1	26.5	0.7	0.4
Problem gambling level								
Non-gambler	16.5	3.4	14.6	46.8	8.1	43.3	0.7	0.9
Non-problem gambler	9.8	2.7	15.7	72.4	9.0	22.2	0.8	0.3
Low-risk gambler	14.0	4.9	16.7	72.0	12.3	20.4	-	-
Moderate-risk gambler	8.8	2.5	18.5	81.3	15.0	15.6	-	--
Problem gambler	19.3	1.8	21.1	84.7	9.1	12.3	-	-
Gender								
Male	11.3	2.5	16.2	70.5	9.3	23.4	1.1	0.4
Female	11.9	3.3	15.2	64.3	9.0	29.0	0.4	0.4
Ethnic group								
European/Other	10.3	2.3	14.7	72.2	9.3	22.6	0.8	0.4
Māori	10.3	6.7	21.7	74.6	6.8	21.3	0.6	0.2
Pacific	11.1	4.6	16.3	45.1	6.2	49.1	0.5	-
Asian	25.9	3.9	19.0	34.2	11.5	45.5	1.3	1.0
Age group								
18 - 24 years	18.5	2.5	17.3	62.2	3.5	29.8	0.3	0.3
25 - 34 years	11.9	1.3	20.2	68.0	7.6	26.3	1.9	-
35 - 44 years	9.2	3.2	18.1	67.5	8.3	26.5	0.3	0.1
45 - 54 years	11.4	3.5	12.5	66.9	8.2	26.8	0.7	0.6
55 - 64 years	12.1	4.2	15.1	73.3	13.7	22.5	0.2	0.4
65+ years	9.8	3.1	11.1	64.1	12.1	27.5	0.8	1.0
Country of birth								
NZ	10.0	3.3	14.2	73.8	8.3	22.2	0.7	0.4
Elsewhere	15.5	2.1	19.1	50.6	11.0	37.3	0.8	0.5
Arrival in NZ								
2008 or later	19.2	3.9	12.3	33.2	6.5	50.7	-	2.0
Before 2008	14.9	1.8	20.4	53.8	11.8	34.8	1.0	0.2
Highest qualification								
No formal qual.	10.1	5.3	16.7	69.8	9.8	23.9	0.1	0.8
School qual.	14.8	2.1	16.2	62.6	9.1	30.0	0.5	0.3
Trade/voc. qual.	8.2	2.8	12.6	71.9	8.2	25.0	1.3	0.3
Degree/higher	12.3	2.6	16.7	65.9	9.4	26.3	0.8	0.4
Labour force status								
Employed	10.6	2.3	14.7	69.5	8.3	25.1	0.7	0.3
Unemployed	10.0	5.9	18.7	64.3	10.9	32.3	0.6	-
Student/Home/Retired	14.5	3.3	16.7	62.4	10.7	27.7	0.8	0.8
Religion								
No religion	10.8	2.4	16.1	72.7	10.0	21.8	0.9	0.6
Anglican	9.9	2.6	14.7	71.6	9.7	21.0	0.4	0.1
Presbyterian	8.6	2.8	12.9	72.4	8.5	23.3	0.6	-
Catholic	10.9	2.6	15.5	70.4	8.0	23.8	0.4	0.4
Other Christian	13.1	3.4	15.2	57.7	7.2	36.0	0.7	0.5
Other religion	18.0	5.1	19.8	46.1	12.0	41.9	1.3	0.4

Gambling venues there are too many of %

Demographic variables	Lotto/Keno/Instant Kiwi outlets	Housie/bingo venues	TABs	Gaming machine (pokie) venues i.e. pubs/clubs	Casinos	All gambling venues/ gambling venues in general	Other places/venues	Don't know
Household size								
1	12.9	3.6	14.2	69.8	12.6	24.1	0.3	0.3
2	10.6	3.4	12.5	71.4	10.1	22.7	0.5	0.7
3	11.5	1.8	19.3	66.2	7.6	25.8	1.6	0.2
4	12.0	2.9	16.4	66.3	7.1	27.4	0.8	0.7
5+	12.1	2.9	17.0	60.5	9.4	33.7	0.6	-
Personal Income (\$)								
Up to 20,000	13.5	3.8	16.0	59.9	10.1	31.5	0.5	0.4
20,001 - 40,000	13.0	2.8	17.3	69.1	6.3	26.1	0.8	0.3
40,001 - 60,000	10.0	2.0	13.4	72.9	7.1	23.1	0.3	0.1
60,001 - 80,000	9.6	3.7	14.7	71.3	12.0	21.6	1.7	0.6
80,001 - 100,000	8.7	-	16.0	86.6	13.4	11.8	0.2	-
Over 100,000	8.2	1.3	13.2	71.3	10.8	19.6	1.2	-
Household Income (\$)								
Up to 20,000	10.2	4.0	14.2	52.8	9.5	42.2	0.3	0.2
20,001 - 40,000	13.2	4.2	16.4	67.5	10.0	26.0	0.2	0.6
40,001 - 60,000	13.2	2.0	15.5	66.6	7.4	26.0	1.1	0.3
60,001 - 80,000	11.9	4.6	16.3	65.0	6.0	29.7	-	0.5
80,001 - 100,000	9.6	2.4	10.1	72.9	8.3	25.3	0.6	-
Over 100,000	10.5	1.8	18.1	73.2	11.0	19.3	1.1	0.2

Appendix 6: Views on socially undesirable activities problem gambling level and demographics

Demographic variables	Socially undesirable gambling activities %														
	Text game or competition	Raffles	Lotto	Daily Keno	Instant Kiwi	Housie or bingo	Horse/dog race betting	Sports betting	Casino gambling	Non-casino E/GMS	Overseas internet gambling	Other places/venues	None of these	All of them	Don't know
Total	39.3	1.5	4.3	7.1	4.3	6.8	20.4	17.8	47.1	56.6	54.5	0.2	16.0	11.4	0.5
Problem gambling level															
Non-gambler	33.5	1.5	7.1	7.7	5.9	6.6	20.2	17.3	43.5	50.4	46.7	0.1	15.0	25.2	0.4
Non-problem gambler	40.8	1.3	3.5	6.6	3.6	6.5	20.1	17.5	47.8	58.3	56.7	0.1	16.4	8.2	0.5
Low-risk gambler	39.1	3.9	5.7	10.4	6.8	9.6	22.2	22.3	45.8	53.5	56.1	0.9	16.8	7.4	1.0
Moderate-risk gambler	45.3	1.7	6.1	6.6	3.5	11.1	26.5	21.3	57.2	64.7	46.7	-	9.4	3.9	1.2
Problem gambler	39.4	2.7	4.2	11.5	14.9	12.8	21.6	19.1	58.7	59.9	54.7	-	12.4	11.8	0.0
Gender															
Male	37.5	1.5	4.8	7.8	4.7	6.1	17.6	16.2	44.1	55.7	50.8	0.1	17.3	10.6	0.3
Female	41.0	1.4	3.9	6.4	3.9	7.4	22.9	19.3	49.9	57.4	57.9	0.2	14.8	12.2	0.7
Ethnic group															
European/Other	41.1	0.9	4.0	7.0	4.0	5.6	18.6	17.5	46.8	57.5	56.3	0.2	17.1	9.1	0.4
Māori	35.1	2.3	3.7	8.0	4.7	12.1	26.3	19.4	51.1	60.0	51.4	0.2	14.4	14.4	0.5
Pacific	31.2	5.3	6.6	8.2	5.9	16.4	28.6	19.3	47.7	53.2	42.6	0.2	9.9	26.4	0.9
Asian	29.1	3.7	6.5	7.8	5.3	8.1	25.8	18.1	45.4	46.1	45.9	0.2	13.4	21.1	1.2
Age group															
18 - 24 years	32.3	2.6	6.5	7.7	5.0	6.3	22.1	16.2	45.3	55.6	51.3	-	18.5	10.2	0.4
25 - 34 years	36.5	1.4	4.4	5.3	4.4	6.9	24.1	16.3	50.7	62.0	54.1	0.1	11.9	11.4	0.4
35 - 44 years	35.7	1.1	3.1	4.8	3.5	5.0	17.6	14.2	42.8	56.7	50.2	0.2	18.4	11.3	0.4
45 - 54 years	43.4	1.2	4.1	7.5	4.3	5.9	20.4	19.0	49.4	58.2	56.5	0.3	15.9	11.1	0.5
55 - 64 years	43.7	1.2	3.3	7.4	3.8	8.4	18.0	18.2	44.4	51.7	57.9	0.2	18.3	11.2	0.7
65+ years	43.4	1.7	5.0	10.3	4.8	8.7	19.9	23.1	49.2	53.8	57.0	0.2	14.0	13.3	0.8
Country of birth															
NZ	40.0	1.1	4.1	7.1	4.0	6.4	19.4	17.6	47.1	57.7	55.9	0.2	17.1	9.3	0.4
Elsewhere	37.6	2.3	4.9	7.0	4.9	7.7	23.0	18.4	47.1	53.6	50.8	0.2	13.0	17.2	1.0
Arrival in NZ															
2008 or later	33.0	2.5	4.7	6.5	6.1	6.8	23.0	15.1	35.8	44.1	45.5	0.2	14.4	20.7	1.2
Before 2008	38.5	2.3	4.9	7.1	4.6	7.9	23.0	19.1	49.5	55.6	52.0	0.2	12.7	16.4	0.9
Highest qualification															
No formal qual.	39.5	2.7	5.5	9.0	4.6	9.5	23.2	20.2	48.0	51.0	51.0	-	17.2	12.9	0.8
School qual.	35.5	1.4	3.8	5.7	3.2	7.6	19.6	15.7	44.0	53.5	51.9	0.2	16.7	12.7	0.8
Trade/voc. qual.	39.3	1.5	3.9	7.0	4.3	6.1	19.4	18.1	45.7	55.6	55.3	0.3	18.1	10.1	0.3
Degree/higher	41.7	1.0	4.4	7.2	4.8	5.6	20.4	18.0	49.7	61.3	57.0	0.1	13.8	10.9	0.4
Labour force status															
Employed	39.0	1.3	3.9	6.5	4.0	6.3	19.2	16.2	45.6	57.0	54.7	0.1	16.9	10.6	0.5
Unemployed	32.3	2.3	5.7	8.3	6.4	8.9	26.5	20.2	49.0	55.9	47.1	0.1	16.6	12.9	0.4
Student/Home/Retired	42.3	1.6	4.9	8.1	4.4	7.4	21.5	21.3	50.8	56.2	56.5	0.4	13.5	13.0	0.8
Religion															
No religion	39.8	1.2	3.3	6.0	3.9	5.2	18.7	16.2	48.3	59.7	53.8	0.1	17.5	7.6	0.5
Anglican	44.2	0.9	4.2	8.3	4.4	6.8	17.5	17.7	44.0	54.3	59.6	0.2	20.0	6.9	0.4
Presbyterian	42.2	1.6	5.0	7.4	4.7	7.1	20.7	16.9	47.1	56.5	59.5	-	14.9	9.1	0.8
Catholic	39.3	2.0	3.8	7.0	4.3	8.1	20.2	17.6	46.8	56.0	55.9	0.4	16.4	10.9	0.2
Other Christian	35.1	1.7	6.6	8.5	5.5	8.9	25.9	22.7	49.2	55.0	51.3	0.2	9.5	22.6	0.5
Other religion	32.6	2.3	5.4	7.0	3.3	8.9	24.8	18.8	44.2	50.1	45.5	0.3	13.3	22.0	1.1
Household size															
1	43.4	1.6	5.5	10.1	6.3	8.4	20.8	21.2	52.4	58.2	57.2	0.2	14.3	10.9	0.8
2	42.6	1.0	3.7	7.3	3.4	6.5	19.9	19.3	47.2	55.6	57.1	0.1	15.4	10.2	0.7
3	37.0	2.1	5.1	6.7	4.4	7.4	19.1	14.9	43.6	56.4	51.3	0.1	17.3	10.8	0.1
4	35.6	1.5	4.0	6.1	4.0	5.8	18.6	15.9	45.4	57.9	53.1	0.2	17.0	11.2	0.6
5+	37.9	1.5	4.6	6.3	4.9	7.1	24.3	18.3	50.0	56.4	53.2	0.3	15.3	15.0	0.5

Demographic variables	Socially undesirable gambling activities %														
	Text game or competition	Raffles	Lotto	Daily Keno	Instant Kiwi	Housie or bingo	Horse/dog race betting	Sports betting	Casino gambling	Non-casino EGMS	Overseas internet gambling	Other places/venues	None of these	All of them	Don't know
Personal Income (\$)															
Up to 20,000	36.8	2.1	5.3	7.6	4.6	7.8	22.5	19.5	48.0	55.2	52.7	0.3	15.3	13.6	0.6
20,001 - 40,000	39.8	1.3	5.0	6.7	4.5	6.4	22.4	17.9	49.4	55.6	56.3	0.2	16.2	11.1	0.4
40,001 - 60,000	42.0	1.0	4.2	7.8	4.3	6.8	20.9	18.1	46.5	61.2	58.0	0.2	13.7	10.6	0.5
60,001 - 80,000	40.2	1.9	2.5	6.1	3.1	7.3	17.2	14.8	47.8	58.7	52.6	-	16.2	10.0	0.5
80,001 - 100,000	39.6	1.1	2.8	5.2	4.9	4.4	14.2	12.4	43.4	59.1	55.8	-	20.5	6.5	1.2
Over 100,000	42.5	-	2.7	6.0	3.5	3.6	13.9	15.8	38.9	55.0	52.8	0.1	20.1	6.7	0.1
Household Income (\$)															
Up to 20,000	38.5	1.7	6.1	7.3	4.9	7.9	21.5	21.1	49.4	52.5	48.0	-	14.4	18.2	0.6
20,001 - 40,000	40.3	2.3	4.7	9.2	5.4	9.1	25.0	20.4	50.7	56.4	56.6	0.2	14.3	11.4	0.8
40,001 - 60,000	39.0	1.0	4.8	6.2	3.7	5.5	22.1	17.4	49.7	56.6	56.0	0.3	14.8	12.9	0.5
60,001 - 80,000	35.2	2.1	4.3	7.2	3.8	6.0	19.4	17.1	44.9	52.0	50.1	0.3	18.3	12.7	0.3
80,001 - 100,000	35.5	1.5	3.6	6.3	3.6	6.2	21.3	18.1	47.9	60.3	55.6	-	14.9	10.5	0.6
Over 100,000	43.2	0.7	3.9	6.0	4.3	5.9	16.3	14.5	45.0	59.9	56.8	0.2	16.8	8.0	0.4

Appendix 7: Views on the problem with heavy gambling by problem gambling level and demographics

Demographic variables	There is a growing problem of people's heavy gambling %					
	Strongly agree	Agree	Disagree	Strongly disagree	Neither agree nor disagree	Don't know
Total	39.1	47.6	4.4	0.4	7.2	1.2
Problem gambling level						
Non-gambler	41.2	43.8	4.1	0.6	9.5	0.8
Non-problem gambler	37.4	49.4	4.5	0.3	7.0	1.3
Low-risk gambler	47.3	43.3	5.0	0.6	2.6	1.1
Moderate-risk gambler	52.9	35.9	4.1	-	5.0	2.0
Problem gambler	66.7	25.2	1.7	-	6.4	-
Gender						
Male	34.4	50.2	6.1	0.2	7.7	1.4
Female	43.5	45.3	2.9	0.5	6.8	1.1
Ethnic group						
European/Other	36.8	50.0	4.4	0.3	7.4	1.2
Māori	52.8	39.4	2.8	-	4.1	0.9
Pacific	64.3	29.9	2.1	0.5	2.6	0.6
Asian	35.4	45.1	7.0	0.9	9.5	2.1
Age group						
18 - 24 years	26.5	55.9	7.2	0.7	8.0	1.7
25 - 34 years	38.0	49.2	4.4	0.5	7.1	0.9
35 - 44 years	38.0	48.2	3.9	0.3	8.7	1.0
45 - 54 years	41.9	45.9	3.3	0.3	7.2	1.5
55 - 64 years	43.1	45.4	5.4	0.2	5.0	0.8
65+ years	44.6	43.1	3.4	0.3	7.0	1.6
Country of birth						
NZ	38.6	49.4	4.1	0.2	6.5	1.1
Elsewhere	40.4	42.9	5.2	0.8	9.0	1.7
Arrival in NZ						
2008 or later	32.4	41.3	6.0	1.7	15.1	3.5
Before 2008	42.1	43.2	5.0	0.6	7.8	1.3
Highest qualification						
No formal qual.	51.0	38.3	2.8	0.5	6.1	1.3
School qual.	39.3	47.3	5.6	0.4	5.9	1.5
Trade/voc. qual.	40.5	49.4	2.1	0.4	6.6	1.0
Degree/higher	33.8	50.3	5.7	0.3	8.8	1.2
Labour force status						
Employed	36.4	50.1	4.2	0.4	7.4	1.4
Unemployed	50.7	36.8	4.5	0.4	7.3	0.3
Student/Home/Retired	42.5	45.0	4.8	0.2	6.5	1.0
Religion						
No religion	34.0	50.6	5.5	0.4	8.7	0.9
Anglican	37.0	49.2	5.1	0.3	7.4	1.1
Presbyterian	38.1	50.9	3.8	0.1	6.1	0.9
Catholic	40.2	48.5	4.2	0.2	5.6	1.4
Other Christian	51.6	38.5	2.4	0.8	5.0	1.6
Other religion	43.5	43.5	3.1	0.1	7.1	2.7
Household size						
1	46.3	42.1	2.9	0.4	7.5	0.8
2	39.9	47.7	4.2	0.2	6.7	1.4
3	36.7	47.4	5.8	0.6	8.7	0.8
4	34.9	53.2	3.3	0.3	6.9	1.3
5+	41.4	44.2	5.5	0.5	7.0	1.4
Personal Income (\$)						
Up to 20,000	42.3	45.8	4.3	0.5	6.2	0.9
20,001 - 40,000	41.5	46.0	4.5	0.2	7.1	0.6
40,001 - 60,000	39.3	47.9	3.1	0.5	8.2	1.1
60,001 - 80,000	34.9	52.9	3.3	0.1	7.5	1.2
80,001 - 100,000	30.4	56.5	4.7	-	7.0	1.4
Over 100,000	23.6	53.8	11.1	0.7	7.8	3.1
Household Income (\$)						
Up to 20,000	47.1	43.5	2.6	0.5	4.8	1.4
20,001 - 40,000	47.6	41.7	3.5	0.2	6.1	0.9
40,001 - 60,000	40.4	47.0	3.8	0.3	8.0	0.5
60,001 - 80,000	39.7	48.9	5.0	0.3	5.1	0.9
80,001 - 100,000	35.2	49.8	4.6	0.6	8.8	1.0
Over 100,000	32.6	51.6	5.6	0.4	8.2	1.6

Appendix 8: Views on who should help excessive gamblers by problem gambling level and demographics

Demographic variables	Who should do more about people gambling to excess %					
	GAMBLING PROVIDERS should do more					
	Agree strongly	Agree	Disagree	Disagree strongly	Neither agree nor disagree	Don't know
Total	41.4	43.8	9.9	1.1	3.4	0.3
Problem gambling level						
Non-gambler	43.4	40.0	9.2	1.5	5.5	0.5
Non-problem gambler	41.0	44.8	9.9	1.0	3.0	0.3
Low-risk gambler	40.4	43.4	13.5	0.3	1.7	0.7
Moderate-risk gambler	34.5	49.2	9.3	3.8	3.1	-
Problem gambler	62.7	28.0	8.5	0.8	-	-
Gender						
Male	40.0	45.4	9.6	1.3	3.4	0.3
Female	42.7	42.3	10.2	1.0	3.5	0.4
Ethnic group						
European/Other	40.6	44.2	10.4	1.1	3.5	0.2
Māori	46.4	41.1	8.4	0.9	2.7	0.5
Pacific	54.7	33.8	8.5	0.7	1.5	0.8
Asian	36.7	47.2	8.8	1.9	4.4	1.1
Age group						
18 - 24 years	32.3	53.1	11.4	0.5	2.3	0.4
25 - 34 years	39.1	47.1	10.2	1.0	2.5	0.2
35 - 44 years	39.8	43.8	12.0	1.2	2.9	0.3
45 - 54 years	45.6	39.4	9.6	1.3	3.8	0.3
55 - 64 years	46.2	39.4	9.2	1.3	3.7	0.2
65+ years	43.8	41.9	6.9	1.2	5.5	0.7
Country of birth						
NZ	41.4	44.7	9.7	0.8	3.2	0.2
Elsewhere	41.6	41.3	10.6	1.9	4.1	0.6
Arrival in NZ						
2008 or later	37.1	43.8	11.9	1.9	3.8	1.5
Before 2008	42.5	40.7	10.3	1.9	4.2	0.4
Highest qualification						
No formal qual.	45.2	39.6	8.6	0.4	5.7	0.6
School qual.	38.0	44.8	12.3	1.4	3.1	0.4
Trade/voc. qual.	43.0	41.7	10.6	1.2	3.5	-
Degree/higher	41.3	45.9	8.5	1.2	2.8	0.4
Labour force status						
Employed	41.0	44.1	10.3	1.2	3.2	0.2
Unemployed	47.4	38.7	10.1	0.6	2.6	0.5
Student/Home/Retired	40.7	44.4	8.8	1.1	4.3	0.6
Religion						
No religion	39.1	44.9	11.7	0.9	3.2	0.3
Anglican	39.6	44.4	9.5	1.3	4.9	0.4
Presbyterian	38.6	46.8	9.9	1.6	2.8	0.2
Catholic	41.0	45.7	9.0	0.8	3.2	0.3
Other Christian	49.8	39.1	6.6	1.4	2.8	0.2
Other religion	45.8	37.7	10.0	1.3	4.2	0.9
Household size						
1	45.4	40.9	7.1	1.3	4.9	0.3
2	42.3	42.5	9.7	1.4	3.8	0.3
3	38.4	45.5	11.2	1.3	3.4	0.2
4	39.6	44.3	12.0	0.8	2.8	0.5
5+	42.9	45.3	7.9	0.7	2.9	0.3
Personal Income (\$)						
Up to 20,000	40.2	44.1	10.5	0.9	3.9	0.4
20,001 - 40,000	41.1	44.9	9.2	1.1	3.6	0.2
40,001 - 60,000	44.8	39.3	11.3	1.6	2.6	0.4
60,001 - 80,000	42.4	45.1	7.2	1.8	3.2	0.4
80,001 - 100,000	42.3	41.9	10.1	0.8	5.0	-
Over 100,000	38.2	51.2	7.8	1.0	1.7	-
Household Income (\$)						
Up to 20,000	43.8	40.5	9.4	0.7	4.8	0.8
20,001 - 40,000	43.6	40.0	10.1	1.3	4.6	0.5
40,001 - 60,000	39.1	45.6	9.9	1.0	4.3	0.1
60,001 - 80,000	42.0	43.7	10.1	1.0	3.0	0.3
80,001 - 100,000	43.1	41.0	10.9	1.4	3.4	0.1
Over 100,000	40.9	46.6	8.7	1.2	2.4	0.2

Demographic variables	Who should do more about people gambling to excess % GOVERNMENT should do more					
	Agree strongly	Agree	Disagree	Disagree strongly	Neither agree nor disagree	Don't know
Total	34.5	41.6	17.3	2.2	4.1	0.3
Problem gambling level						
Non-gambler	33.4	43.5	17.2	2.3	3.4	0.3
Non-problem gambler	35.4	39.9	17.4	2.1	4.9	0.2
Low-risk gambler						
Moderate-risk gambler	37.7	38.6	14.2	3.4	5.8	0.3
Problem gambler	33.4	42.7	17.8	1.8	4.0	0.3
Gender	33.0	39.6	24.1	1.9	1.1	0.2
Male	41.5	40.4	10.9	4.8	2.3	-
Female	51.1	28.7	17.0	3.2	-	-
Ethnic group						
European/Other	31.6	42.0	19.3	2.3	4.6	0.2
Māori	46.1	41.0	9.0	1.0	2.8	0.1
Pacific	55.3	35.7	6.0	1.2	1.6	0.2
Asian	40.1	42.9	11.9	1.8	2.8	0.5
Age group						
18 - 24 years	34.2	48.1	13.9	1.4	2.2	0.2
25 - 34 years	40.4	43.1	11.7	1.9	2.8	0.2
35 - 44 years	34.0	43.3	17.0	2.0	3.8	0.0
45 - 54 years	36.1	41.1	16.8	2.2	3.7	0.1
55 - 64 years	33.4	33.8	23.2	2.7	6.2	0.5
65+ years	27.9	40.2	21.9	2.9	6.5	0.7
Country of birth						
NZ	32.0	42.5	19.0	2.1	4.2	0.2
Elsewhere	41.1	39.2	12.9	2.5	4.0	0.4
Arrival in NZ						
2008 or later	41.1	39.2	13.0	2.4	3.6	0.8
Before 2008	41.1	39.2	12.8	2.5	4.1	0.3
Highest qualification						
No formal qual.	36.8	37.5	18.5	1.7	4.9	0.6
School qual.	33.6	41.5	18.2	2.6	3.8	0.3
Trade/voc. qual.	33.3	40.9	19.2	2.2	4.2	0.2
Degree/higher	34.8	43.6	15.2	2.1	4.1	0.2
Labour force status						
Employed	34.2	42.1	17.3	2.2	4.0	0.1
Unemployed	44.4	36.1	14.5	1.2	3.6	0.2
Student/Home/Retired	32.0	42.1	18.2	2.5	4.6	0.5
Religion						
No religion	32.9	44.5	16.7	1.8	3.9	0.2
Anglican	28.4	40.0	22.8	2.9	5.6	0.2
Presbyterian	27.7	38.9	24.5	4.2	4.0	0.4
Catholic	37.0	42.2	15.6	1.8	3.2	0.2
Other Christian	43.3	38.2	12.0	1.8	4.4	0.3
Other religion	43.8	37.1	13.9	1.4	3.7	0.2
Household size						
1	35.0	36.5	18.7	2.6	6.2	1.0
2	31.7	41.2	19.9	2.7	4.2	0.3
3	33.1	43.3	18.0	1.2	4.2	0.2
4	34.7	44.0	16.4	2.0	2.8	0.1
5+	40.5	40.6	12.1	2.3	4.6	-
Personal Income (\$)						
Up to 20,000	35.8	41.4	16.1	2.2	4.2	0.2
20,001 - 40,000	35.4	42.6	15.6	1.6	4.7	0.2
40,001 - 60,000	36.1	40.2	18.6	2.0	3.0	0.2
60,001 - 80,000	32.9	42.5	18.1	2.4	3.6	0.5
80,001 - 100,000	30.9	41.7	17.4	3.1	6.9	-
Over 100,000	27.7	41.1	25.2	3.4	2.5	0.1
Household Income (\$)						
Up to 20,000	39.7	38.3	14.6	1.8	5.0	0.7
20,001 - 40,000	34.9	40.6	17.3	2.2	4.6	0.3
40,001 - 60,000	35.2	43.4	15.2	1.7	4.2	0.2
60,001 - 80,000	35.9	39.7	17.1	2.2	4.8	0.2
80,001 - 100,000	34.6	43.8	16.0	1.3	4.0	0.3
Over 100,000	31.5	42.3	20.0	2.7	3.4	0.1