

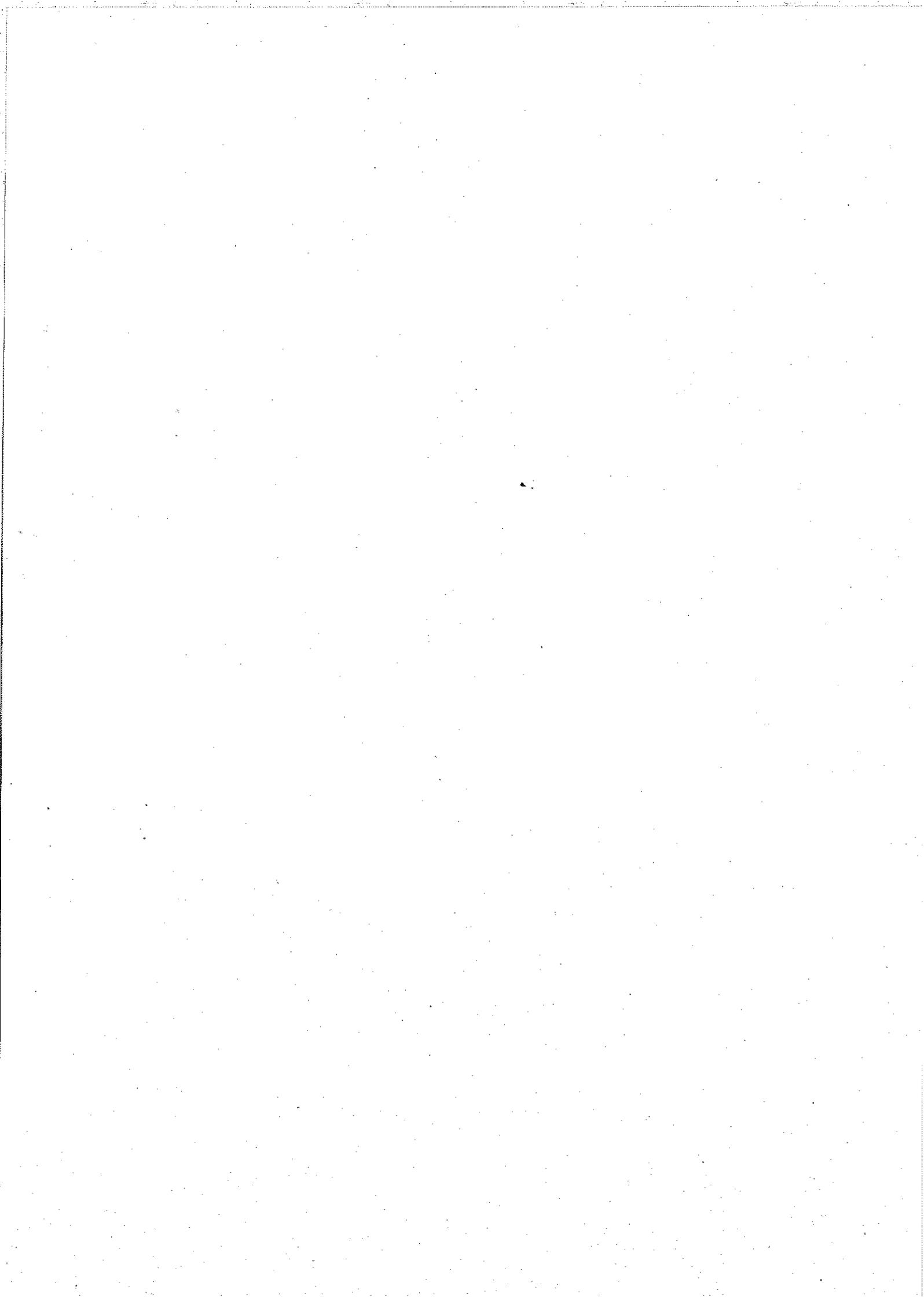
**UNIVERSITY OF WESTERN SYDNEY**  
**Macarthur**

## **STUDY 2**

**An examination of the socio-economic effects of  
gambling on individuals, families and the  
community, including research into the costs of  
problem gambling in New South Wales.**

**A report prepared for the  
Casino Community Benefit Fund Trustees  
January 1996**

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## **EXECUTIVE SUMMARY**

### **Background**

The Casino Control Act provided for the establishment of the Casino Community Benefit Fund into which the operator, Sydney Harbour Casino Pty. Ltd, is required to pay a 2% levy on gaming revenue. Trustees of the Fund, as part of their duties in advising the Minister for Gaming and Racing on the allocation of monies from the Fund, commissioned two studies:

- **Study 1** to establish a profile of services and related research into gambling and problem gambling in NSW (completed by consultants Keys Young).
- **Study 2** an examination of the socio-economic effects of gambling on individuals, families and the community, including research into the costs of problem gambling in NSW.

The Australian Institute for Gambling Research, University of Western Sydney, Macarthur was commissioned to conduct Study 2 which is reported herein.

### **Study Approach**

The approach adopted for Study 2 comprised three main components:

- an appraisal of the importance of gaming and wagering to the NSW economy.
- a survey, using a door-knock methodology to describe community patterns of gambling including problem gambling.
- an appraisal of the economic costs of problem gambling to the community in NSW.

## Appraisal of the Importance of the Gaming and Wagering Industry to NSW Economy

- **Output** the initial output is estimated at \$2.9 billion (1993-94) representing 2.3% of value added output (or gross State product).
- **Employment** direct employment, including the Sydney Harbour Casino, is estimated at 15,000-17,000 full-time employment jobs, rising once flow-on effects are included, to 23,000-25,600.
- **Government Revenue** in 1993-94 revenue from gaming and wagering was \$1,010 million; gaming \$698 million and racing \$321 million. As a percentage of taxes, fines and fees the gambling generated share was 11.9%.

## Community Patterns of Gaming and Wagering

- **Frequency** 20% of men and women do not gamble, 38% gamble weekly, 19% gamble monthly and 23% gamble less often.
- **Popularity** lotto (57%) and Instant Lotteries (49%) are the most popular forms at all levels of frequency of play.
- **Expenditure** lotto is the favourite form for men and women (39%) followed by gaming machines (18%). Racing was the favourite form for 16% of men but only 6% of women. Keno was the favourite for about 4% of men and women.
- **Men and Women  
City and Country NSW** men report spending on average twice the amount that women do. The results suggest that men and women in country NSW gamble more frequently and spend more than respondents in the city (note; this is reversed when weekly players only are considered).

## Community Attitudes to Gambling

- gambling is viewed as an important leisure activity by 56% of women and 44% of men.
- 94% of men and women agree that gambling results in serious problems for some families.
- views as to who should be most responsible for funding services to help problem gamblers and their families were almost equally divided across 'Government', 'Gambling Operators', 'Gambling Venues' and 'Problem Gamblers themselves'.

## Family Experience of Problem Gambling

- 14.5% of respondents reported that a member of their family had experienced difficulties with excessive gambling; for 3.8% of respondents this had occurred in the last 6 months.
- the reported level of family experiences of problem gambling was higher than in Tasmania and Western Australia by a factor of 2 to 3.

## Community Intentions to Visit the Sydney Harbour Casino

- 18% of respondents (men:women, 3:2) indicated that they were 'somewhat' or 'very' likely to play at the new casino.
- The strongest preferences for gambling at the casino were for card games (24%), roulette (21%) and gaming machines (23%).
- Intentions to play at the casino were strongest for men, and for those already nominating casinos and other continuous forms of gambling as their favourite form. People whose favourite forms were lotto/instant lottery/lottery showed least intention to play at the casino.
- 47% of those intending to play at the casino indicated that this expenditure would be in addition to their existing expenditure on other leisure activities.

## Impacts of Gaming and Wagering on Economic Well-Being

- The subjective views of whether respondents thought they had sufficient monies to pay bills, to save etc. were related to reported levels of income, educational attainment and marital status but were unrelated to expenditure on gambling.

## In-depth focus on Regular Weekly Players

Two groups of respondents were identified and questioned in more detail:

- one which played weekly or more frequently on lotto/lottery/instant lottery but not weekly on any other form of gambling (group called LOTTO ONLY), and
- those who played weekly or more frequently on any other form of gambling (group called OTHER).

## Patterns of Gambling

- Expenditure - reported spend by regular players accounts for up to 90% of the total weekly expenditure on some forms of gaming and wagering; 57% of LOTTO ONLY spend \$10 per week, and 26% \$11-\$20; 43% of the OTHER group spends \$21-70 per week and 21% over \$100 per week.

- Favourite forms - racing and gaming machines are the preferred forms within the OTHER group with men predominating (90%) in the former, but an equal proportion of men and women enjoying the latter. Keno also was equally preferred by both men and women.

## Motivation

Both groups commonly endorsed a positive theme describing their gambling as pleasurable, exciting, relaxing, a hobby and an interest. Across all items the LOTTO ONLY group showed significantly lower endorsement than the group which favoured OTHER games. Some motivational aspects such as excitement and skill were more specifically associated with those regular players who preferred racing.

## Negative Impacts of Gaming and Wagering

Again, across all reports of negative impacts the OTHER group gave significantly higher endorsements than LOTTO ONLY, for whom negative impacts were rarely reported.

<b>Personal</b>	The OTHER group commonly experienced problems limiting expenditure (51%) and 1 in 4 players had felt like stopping gambling but did not think they could. Negative moods were reported as preceding (30%) and following (30%) a session of gambling.
<b>Family</b>	For the OTHER group gambling resulted in criticism (27%), money arguments (18%) and became more important than socialising (22%).
<b>Employment</b>	For the OTHER group few respondents reported loss of efficiency (7.5%), lost time from work (6%) and changing jobs (3%) because of their gambling.
<b>Legal</b>	For the OTHER group few respondents reported gambling related court appearance (4%), and misappropriation of monies (4%).

Associations between negative impacts and the favourite forms of gambling were limited by the small numbers in the group. All types of negative impacts were most strongly associated within the OTHER group for gaming machines and racing.

Associations between a measure of mental health (GHQ12) and excessive drinking (AUDIT) were found to be greater for men and women in the OTHER group compared with LOTTO ONLY.

## Problem Gambling and those at Risk of Severe Gambling Related Problems

Using for the first time an Australian validation of the internationally accepted measure of problem gambling, the SOGS, it is conservatively estimated that:

- 0.5% of the adult population may be considered 'cases' of problem gambling, currently experiencing a wide range of severe gambling related problems in all domains of their life (ratio women:men 2:5).
- in addition a further 0.6% of the adult population are considered to be at risk of gambling related problems with varying degrees of impact from severe to relatively mild.

- increasing risk of gambling related problems was associated with: younger, single, males preferring gaming machines or racing; with individuals with incomes less than \$20,000 per year; and with the retired or unemployed.

## Evaluating the Social and Economic Impacts of Gambling Related Problems

### *Work-related:*

- the two main impacts reported are loss of productivity and change in job because of gambling related problems.
- these were estimated to cost approximately \$27.8 million per year.

### *Legal and related impacts:*

- gambling related offences, court appearances and custodial sentences are a feature of cases of problem gambling.
- these were estimated to cost approximately \$17 million per year.

### *Other impacts in the financial, personal and family domains:*

- these were described and where data permitted, costed.

### *Costs of existing services for problem gamblers and their families:*

- estimation based on Study 1 (the Keys Young study) information suggested costs of approximately \$2.3 million a year.

### *Total costs to the community in NSW of impacts resulting from problem gambling:*

- estimated to be \$48 million per year.

### **Need for Services:**

Estimates of the need for services for problem gamblers and their families in NSW were derived from the prevalence figures:

- 1,500-2,000 clients may seek help each year if services were available statewide
- a toll-free number such as G-Line in Victoria, providing crisis counselling, information and referral for problem gamblers would receive of the order of 15,000 calls a year.
- harm minimisation strategies, if adopted, would need to give priority to regular players preferring gaming machines and racing (experience in other states in Australia would suggest that Casino Gaming should be included).

## 1. Background

The Casino Community Benefit Fund Trustees have been appointed to advise the Minister for Gaming and racing on the allocation of funds for worthwhile community projects from the Casino Community Benefit Fund.

The Casino Control Act provided for the establishment of the Fund. Under the Act, the casino operator - Sydney Harbour Casino Pty. Limited - is required to pay into this Fund a 2% community benefit levy on casino gaming revenue from the commencement of casino operations on 13th September, 1995.

The main objective of the Fund is to ensure that monies raised through the levy are used to:

- fund appropriate research into gambling and the social and economic impact of gambling on individuals, families and the general community in New South Wales;
- promote industry and community awareness of problem gambling and associated activities through education campaigns;
- support voluntary organisations offering counselling services for problem gamblers and their families;
- support treatment and rehabilitation services for problem gamblers and their families; and
- fund such other community projects and services which may be determined as being of benefit to the community generally.

The Fund is administered by nine trustees drawn from the Casino Control Authority, the Wesley Mission, the Salvation Army, the Society of St. Vincent de Paul, the Uniting Church in Australia, the Department of Education and Training Co-ordination, the Department of Health, the Department of Community Services and the Department of Gaming and Racing.

To assist in developing the guidelines and associated matters, the Trustees commissioned a study to establish a profile of services which conduct research into gambling, or provide assistance to problem gamblers and their families, in New South Wales (Study 1). This was completed by the consultants Keys Young.

At the same time the Trustees commissioned the Australian Institute for Gambling Research to undertake a separate study to examine the socio-economic effects of gambling on individuals, families and the community generally in New South Wales, including research into the costs of problem gambling in New South Wales (study 2). This Report presents the results of Study 2.

## 2. Terms of Reference - Study 2

- Establish the participation and expenditure related to all forms of gambling by New South Wales residents.
- Establish the expenditure patterns related to gambling.
- Determine the levels of participation in, and attitudes towards, gambling in New South Wales.

- Establish the frequency with which people gamble.
- Explore the forms of gambling people prefer and expectations about gambling outcomes.
- Identify the characteristics and motivational factors that make people gamble.
- Explore the community interest in the development of a casino in Sydney, to what extent people will frequent a casino, and the types of activities they will play there.
- Explore the social impact of gambling and determine the level at which gambling is seen as a social problem.
- For all of the areas mentioned, establish where the opinions differed according to key characteristics of residents.

### **3. Study Approach**

The approach adopted for Study 2 comprised three main components:

- a survey using a door-knock methodology to describe community patterns of gambling including problem gambling.
- an appraisal of the importance of gaming and wagering to the New South Wales economy.
- an appraisal of the economic costs of problem gambling to the community in New South Wales.

## 4. The Survey of Impacts of Gambling on the Individual, Family and Community

Sample: a random doorknock interview stratified by sex, age and reflecting the Australian Bureau of Statistics (ABS) distribution for Sydney and country NSW was completed for 1390 respondents by Roy Morgan Research Pty. Ltd. The minimum sample size of 1200 was extended at random to ensure proportional representation of respondents from a non-English speaking background (NESB). Refusal rate for the city sample was 48.5% and for the country sample, 25.9%.

### 4.1 Part I of the Survey

Answers to questions on the following factors to establish:

#### Community gambling patterns

- the percentage of the population who participate in a particular form of gambling
- the frequency of gambling
- the amounts of time and money spent per week and per occasion
- the percentage of people who do not gamble and why they do not

#### Interest in the Sydney Casino

- the likelihood of visiting
- the likely frequency of visits
- the games preferred by those who expect to visit
- the amount of money that would be put at risk each visit

#### Motivational Factors

As identified by players who prefer different forms of gambling such as:

- poker machines
- horse racing
- lotto

#### Social impact of gambling

As perceived by the community, including:

- an exploration of attitudes toward gambling and problem gambling
- an exploration of any association between probes concerning economic well-being and expenditure levels of gambling
- an estimate of the percentage of the population who knew of a family member who had encountered problems caused by excessive gambling plus a comparison with Tasmanian and Western Australian findings
- knowledge of existing services

### Demographic Data

- sex
- age
- marital status or household structure
- employment status
- educational level
- non-English speaking background
- Aboriginal/Torres Strait Islander descent
- income level

## 4.2 Part II of the Survey

Part II was given only to respondents who have a regular, weekly or more frequent, habit of Gambling.

This two-stage methodology permits the collection of the data and demographics listed above from all respondents and then delivers a second part of the interview as an in-depth interview only with those who gamble weekly or more frequently.

Experience using this approach in the national study (see reference list) and the subsequent projects in Tasmania and Western Australia, confirms that this is a very cost-effective way of developing a detailed description of the group of gamblers who are most likely to be at risk of experiencing negative impacts of gambling.

A show-card method, using different orders to statements not known to the interviewer, enables the interviewee to report personal, sometimes negative experiences such as job loss, criminal proceedings, or break-up of a significant relationship, without the interviewer knowing. This method has been tested with almost 5,000 interviews nationally, including the two projects in Tasmania and Western Australia.

For Part II, questions provide an in-depth description of:

- positive consequences of gambling, for example motivational themes of the regular gambler, such as excitement, relaxation, skill, etc.
- negative consequences of gambling, such as excessive expenditure, preoccupation with gambling etc.

Some 12 of these questions about negative effects experienced by the respondent can be taken together and scored as The Gambling Screen (SOGS), the only validated measure for use in the screening for problem gambling. This method is explained in Appendix 1.

The scores on this scale have enabled comparisons to be made between the prevalence of problem gambling in New South Wales and earlier studies in Australia, New Zealand, USA and Europe.

In addition, other questions focused on the impacts of problem gambling on:

- family life
- employment and productivity
- indebtedness
- criminal activities in support of gambling

together with the demographic variables, and enable the production of a detailed profile of the characteristics and associated negative impacts of problem gambling. These latter items, such as lost productivity, provide the first qualitative links with the costing of the impacts associated with problem gambling.

Finally, the survey includes an exploration of the associations found in New Zealand between problem gambling and:

- excessive, at risk use of alcohol (as measured by the Alcohol Use Disorders Identification Test, known as AUDIT)\*.
- generally poorer health (as measured by the General Health Questionnaire 12)\*\*.

Economic appraisal of the importance of gaming and wagering to the NSW economy

Gambling is a significant economic activity for New South Wales. A top-down approach to its significance for the economy and employment was derived from expenditure on gambling. This was paralleled by an independent 'bottom-up' estimate of direct employment generated, which was built up from the estimates of people working in the industry.

An estimate of the economic costs of problem gambling to the community in NSW.

For the first time in Australia, availability of validation data for the SOGS from a sample of known problem gamblers attending a treatment research project at the University of New South Wales at Liverpool provided the basis for estimating and thereby costing the occurrence of gambling related problems such as:

- lost productivity
- crime related costs
- provision of services

Note: \*(AUDIT is an internationally validated set of questions about a respondent's drinking habits that classifies each person in terms of their level of risk of incurring alcohol-related problems.

Note: \*\*The GHQ12 is a set of questions on general health that is used world wide as a population screen for levels of general psychiatric morbidity experienced by respondents (see Appendix 2 & 3 for details).

## 5. Appraisal of the Importance of the Gaming and Wagering Industry to the NSW Economy

We have analysed the gambling industry in NSW under three main impacts:

- output
- employment
- taxation revenue

As will be seen, the gambling sector provides significant benefit to the NSW economy in terms of these three impacts.

It should be noted that the estimates provided in this analysis for output and employment generation by the gambling sector are an initial attempt at measuring these impacts. Sector specific data is not available and we are unaware of other attempts to measure these impacts in NSW to date. More precise estimates could be provided if specific data were available from the ABS or a specific survey conducted. We understand that in response to an initiative from the Statistical Working Group of the Sport and Recreation Minister's Council, the ABS is planning to include survey questions that will describe industry and community patterns of gambling.

### 5.1 Output impacts

The *Australian Gaming Statistics*, produced annually by the Tasmanian Gaming Commission, provides gross turnover and expenditure data until the 1993-94 financial year on forms of gaming and wagering in all States and Territories.

For the gambling industry, output is measured by the expenditure data, that is the gross turnover less returns. In 1993-94, in NSW expenditure (i.e. net losses) represented 11.9% of gross turnover. The expenditure based measure for output is used since it is this which underpins the economic activity and employment generation in the sector.

### 5.2 Initial and total expenditure impacts

The expenditure measure represents direct initial expenditure in the gambling industry. Conventional multiplier analysis dictates that for every dollar spent initially in a sector there are flow-on impacts into other sectors of the economy, both in production and consumption terms. The sum of these flow-on impacts is known as multiplier effects. The multiplier impact will vary in each industry sector depending on the degree of the sector's interrelation with other sectors of the economy.

For the Australian economy, \$1 spent initially leads to a total expenditure impact of generally between \$2 and \$3, depending on the sector; i.e. the total multipliers generally vary between 2 and 3 (there are exceptions to this). Data on national multipliers is provided by the ABS.

At the State level, expenditure multipliers are below those at a national level, since some of the flow-on effects will be felt in other States. Multipliers for the major industry sectors in NSW tend to lie in the 1.3 to 2.1 range.

Table 1 (page 19) shows the output of the gambling sector in 1993-94 for NSW and Australia both in terms of the direct expenditure impact and the total expenditure impact including flow-on impacts.

Table 1 : Output impacts of the NSW Gambling sector

\$ million 1993-94	Expenditure (Output)		Output to value added	Value added output NSW	Output multiplier NSW	Total output impact
	NSW	Australia NSW %				
Racing	595.2	1596.8 37.3%	90%	535.7	1.7	1011.8
Lotteries	310.5	1110.1 28.0%	90%	279.5	1.3	403.7
Machines	1950.0	3071.6 63.5%	90%	1755.0	1.3	2535.0
Casino	n.a.	823.4 n.a.	90%	n.a.	1.7	n.a.
Other	62.4	376.7 16.6%	90%	56.2	1.5	93.6
<b>Total</b>	<b>2918.1</b>	<b>6978.6 41.8%</b>	<b>90%</b>	<b>2626.3</b>	<b>1.4</b>	<b>4044.1</b>
<b>Memo:</b>						
Casino (est)	300.0		90%	270.0	1.7	459.0

Sources: Australian Gambling Statistics, ABS, C&L estimates

The following explanatory points should be made:

- the initial output of the NSW gambling sector is estimated at \$2.9 billion in 1993-94, representing 42% of the total in Australia (relative to the NSW adult population share of 34%).
- by far the largest component of initial gambling expenditure in NSW is generated by gaming machines, representing 67% of the total.
- in terms of the NSW economy, the gambling industry represents an estimated 2.3% of value added output (or gross state product). To calculate this, we have assumed that 90% of initial expenditure in the sector is value added, based on a published analysis of the racing industry (ACIL study - see references).
- this compares with the following industry sectors in the NSW economy:
 

- agriculture forestry & fishing	2.5% (of Gross State Product)
- mining	1.7%
- electricity, gas & water	3.6%
- accommodation, cafes & restaurants	2.3%
- communications	3.0%
- the direct expenditure of the sector represents 3.1% of household disposable income in NSW.
- specific output multipliers are not currently available for the gambling sector, either for Australia or NSW. In the current statistics, gambling is part of the *entertainment and recreation* sector. The NSW multiplier for this sector overall is estimated at 1.8. However we believe that for the gambling sub-sectors, output multipliers are likely to be lower than the sector average, particularly for lotteries and gaming machines. The output multipliers have been lowered accordingly.

More detailed data on the gambling sector is expected to be available from the ABS in 1996. This would allow more precise estimation of these multipliers.

- using our estimated multipliers as shown in Table 1, the total output impact of the gambling sector in NSW is estimated at \$4.0 billion in 1993-94.

- to include the Sydney Casino would, on anticipated expenditure estimates, increase the direct expenditure by \$300 million per annum to \$3.2 billion, and the total expenditure impact to \$4.5 billion. This assumes that the casino generated expenditure does not displace existing gambling expenditure in NSW. Under this scenario the contribution of gambling to the NSW economy would rise to 2.5%.

### 5.3 Employment Impacts

Employment statistics are not currently available for the gambling sector. We have adopted two separate approaches to estimating the employment generated by the gambling sector in NSW:

- Top down approach:** by using the estimated output impacts as shown above, we can use employment generation factors (full-time equivalent jobs per million dollars of expenditure) as provided by the ABS. This can be done for both direct (initial) employment and total employment, including flow-on impacts.
- Bottom up approach:** a more rigorous approach to estimating direct employment in the sector was undertaken by direct consultation with the main players in the sector and using their own estimates of employment.

In comparing the two approaches:

- the top down approach has the advantage of allowing estimation of the indirect impacts, but precision is heavily reliant on the employment factors assumed. Again data is only available at the *entertainment and recreation* sector level, so we have used our judgment to estimate these factors for the different types of gambling activity.
- the bottom up approach enables more precision for the direct component, but there is some risk of leaving out certain areas of employment generation.
- the two approaches were undertaken as independently as possible so they could be used as a cross check on each other.

#### Employment - top down approach

Table 2 shows the employment estimates using the top-down approach.

Table 2 : Employment generation by NSW Gambling sector

1993-94	Jobs	Employment (000)	
	per \$ mill	Direct	Total
Racing	10	5,952	10,118
Lotteries	6	1,863	2,422
Machines	3	5,850	7,605
Other	9	562	842
<b>Total</b>		<b>14,227</b>	<b>20,988</b>
Casino (est)	9	2,700	4,590

The key findings are:

- almost 21,000 full-time equivalent (FTE) jobs are estimated to have been generated by the gambling sector in NSW. This represents 0.8% of employment in NSW, which is significantly lower than its contribution to Gross State Product (1.9%). This is to be expected given the "high capital/low labour" expenditure generation characteristics of the sector (particularly the lottery and machine components).
- the direct employment created is estimated at 14,227 FTE jobs, representing 68% of the total employment impact.
- if the Sydney Casino is included, the estimated employment generation, using this approach, would rise to 16,900 direct and 25,578 FTE in total.

#### **Employment - bottom up approach**

The direct employment component includes such categories as bookmakers, TAB employees, newsagency staff, etc; it also supports manufacturers of equipment, breeders, transportation companies, couriers, broadcasters, food and beverage providers, and many more.

The types of legal gambling investigated for direct employment estimates were:

- racing: this includes thoroughbred, harness and greyhound racing. The outlets are the TAB (with a variety of outlets), on-course totalizators and bookmakers. Because of the monopoly in the area of other sports betting, which is very small, that is included with the TAB.
- lotteries: forms are the traditional draw lottery, lotto, ozlotto, pools and Instant Lotteries. The games are available from agencies, mostly newsagents. Keno is another form of lottery, exclusive to clubs.
- casino games: now that the temporary casino is open.
- slots (poker machines): draw poker in hotels, other games in registered clubs and the casino.
- card games: poker, manilla, bridge and Chinese games. These are often technically illegal, but are overwhelmingly used as recreation among friends, with no commercial element.
- bingo, raffles and other minor games.

Most sectors of the gambling industry have had no reason to gather employment statistics in the past. The responses to our inquiries tended to vary a good deal. For this reason, we would prefer the overall figures to be regarded as indicative rather than definitive.

#### **Racing**

The definitive economic study of this sector of gambling was published in September 1992 by ACIL Australia. Entitled "The Contribution of the Racing Industry to the Economy of Australia", it also contained separate studies for all States and Territories.

In its consolidation of employment generated by the racing industry, ACIL estimated the total number of full time equivalent jobs directly attributable to racing gambling. This included:

- the TAB, its agencies and sub-agencies, ClubTABs and PubTABs
- on-course totalizators
- bookmakers

The total employment in New South Wales attributable to this sector was set at 6,200. This is the figure for direct employment from racing forms of gambling. It by no means represents the number of people whose jobs depend on racing forms of gambling.

ACIL rightly points out that a great number of people are employed on other specialist ancillary activities relying on the racing gambling industry. These include "accountants, solicitors, transporters, food suppliers, saddlers, equipment manufacturers and so on".

These categories lent themselves to quite rigorous measurement, and were listed in the ACIL report. The pursuit of these activities for recreational or other purposes was excluded from these data. The activities and the number of FTE jobs associated were:

Racing administration and control	170
Breeding	700
Owning	300
Training and Keeping	6,400
Riding/Driving	700
Veterinary	275
Farrier	200
Race Club	1,800
<b>Total</b>	<b>10,545</b>

These are jobs which are partially or fully reliant on the existence of the racing gambling industry, and represent a ratio of more than 1.7 of those employed directly in racing. However, we have not included these in our total employment estimates since they are generated by expenditure in their own sectors (outside, albeit linked to, the gambling sector).

Other racing-related activities not included are "media, catering, construction and publishing". To this could be added couriers, professional gamblers and a number of jobs in general supply industries, such as utilities, etc. These were not counted by ACIL. Where these employment impacts are generated by the gambling sector itself they will be covered in the "flow-on" impacts as already analysed in the "top down" approach.

The racing industry has seen a sharp downturn in recent years, with expenditure on racing gambling falling by 9.4% from 1990/91 to 1993/94. With inflation of approximately 6% over this period, the real fall was over 15%. In this period, too, the activity within the thoroughbred industry in New South Wales fell, with fewer foals being produced. Another indication is that the number of thoroughbreds registered in Australia fell by 19% from 1990 to 1994, according to the registrar of racehorses. Racecourse attendances also continued their long-term decline. All these trends will have contributed to a fall in general activity and, thus, employment.

Although racing contains many individuals who subsidise their racing interests through other activities, it seems reasonable to assume that falls of this magnitude resulted in some falls in employment, in the period since the ACIL study. If this fall is assumed to be 10% and to have carried over to the present, the current numbers should be revised as follows:

Racing:	5,600
Other racing sectors:	14,700

### Lotteries

There are no statistics on FTE employment in the lottery industry. NSW Lotteries has 1,436 on-line agencies and 339 instant-only agencies. While with many agencies income derived from lotteries it may well represent a considerable portion of their business, this is not the only advantage to newsagents, supermarkets, etc. By attracting the public to the outlet, the lottery agency generates sales of other products.

Most agencies sell or process tickets on a casual basis. Owners or sales staff carry out the lottery transaction as needed, dealing with customers' requirements for other goods or services in the intervals. The number of transactions varies greatly from agency to agency. We have attempted to place an employment value on what are a myriad of small transactions by making the assumption that each agency, on average, requires one-third of a FTE lottery position. This equates to a total, state-wide of 590. In addition, NSW Lotteries employs 240 people.

Keno is available in 730 clubs throughout New South Wales. The operations vary greatly in size; some clubs maintain keno only to please a small proportion of their members, while others find that it has taken off and is a significant contributor to profits. The former often delegate keno duties to bar staff on an "as-needs" basis, while the latter have trained full-time keno staff. Our assumption has been that, on average, each club employs 0.9 of a FTE on keno duties, making a total of approximately 660.

Other people dependent on lotteries are manufacturers of equipment, of instant tickets and other specialist printing, the media and lottery regulation officials.

### Casino

The Sydney temporary casino opened on September 13 1995. It has 3,200 employees, of whom 2,500 are directly engaged in gambling activities and administration. This includes catering to the 500 poker machines in the casino. Other employees are involved in other activities, such as food and beverage, entertainment and services to employees.

Organisations depending on the casino for some or all of their existence are gaming table and machine suppliers, and general suppliers of goods, services and utilities (accounted for in the "flow-on" impacts).

**Poker machines (Slots)**

There were 71,333 poker machines in New South Wales in 1993/94, 59,650 in registered clubs and 11,683 in hotels. The larger clubs have dedicated poker machine staff, but the smaller clubs and almost all hotels use staff who have other duties besides looking after the machines and players.

In the course of our investigations several organisations were contacted about the extent of direct employment on gambling in clubs and hotels. The responses varied, though mainly in the degree of uncertainty about the exact level of staffing. There were several factors which made evaluation very difficult:

- there were dedicated poker machine personnel in large clubs
- casual staff were employed in all properties
- many of those involved spend only part of their time on poker machine duties
- the smaller clubs, especially, often use volunteer assistance on an honorary basis
- poker machines are played during all the opening hours, which may extend over several shifts of varying business
- the impact of regulations, such as quarterly reporting (hotels) and half-yearly (clubs); the requirement that two people be present to fill or clear machines, etc.

In the end, a form of consensus appeared in the answers. The method chosen to estimate direct employment on poker machines was that of assuming a number of machines that would need an FTE employee to look after them, including administration, completion of returns to the Liquor Administration Board, etc. The numbers chosen were 25 machines for clubs and, because of more intensive and usually smaller operations, 15 machines in hotels. These ratios were applied across the State. This resulted in an estimate of 3,170 people directly employed in clubs (2,390) and hotels (780) on poker machine duties.

In addition to those employed in the operations, there were others employed in the manufacture of poker machines. Approximately 3,000 people are employed in manufacturing poker machines in New South Wales. Of these machines, approximately 40% are destined for New South Wales clubs and hotels. The remainder are exported interstate or overseas. This means that the New South Wales industry supports approximately 1,200 New South Wales workers. The industry has a high level of sub-contract work, with many of the sub-contracting companies being wholly engaged in this industry, often for a single manufacturer. These total approximately 1,500 (adjusted to 600 for New South Wales machines).

Others who make their living directly from the operations are service firms (approximately 500 people) and machine consultants (50).

Poker machine area signs, furniture, poker machine stands, special electronics, change machines etc. are other employment generators catering to poker machine gambling.

The point was made by many interviewees that the club industry as a whole would not exist in its present form without the income from poker machines. In the absence of machines, most of the 65,000 full and part-time employees (RCA figure) would lose their jobs.

**Card games**

This is mostly recreational. There are, however, spin-off effects in the demand for playing cards and other equipment, newspaper and magazine articles, books etc.

**Minor games**

Bingo, raffles and other minor games are mainly conducted on an honorary basis for the benefit of good causes. As far as employment is concerned, little can be looked for in the direct sense. Again, the supply side offers opportunities for manufacturers.

Another area where licensing is needed is that of commercial competitions. Whether these would be regarded as gambling is a moot point. They do, however, afford employment opportunities in design, advertising agencies, printing, the media and the postal service.

**Department of Gaming and Racing**

Approximately 320 people are employed by the Department of Gaming and Racing. Other official employment related to gambling occurs within the NSW Police Service and the Casino Control Authority.

**Summary of Direct Gambling Employment - direct estimation approach**

Racing gambling		5,600
Lotteries	- Lotto, etc.	590
	- Lotteries NSW	240
	- Keno	660
Casino		2,500
Poker machines	- Clubs/Hotels	3,170
	- Manufacturers	1,800
	- Others	550
Card games		n.a.
Minor games		n.a.
<b>TOTAL</b>		<b>15,110</b>

**Employment - Conclusion**

The two approaches used to estimate employment in the NSW gambling sector produce results of the same order. Direct employment, including the Sydney Casino, is estimated in the range 15,000 - 17,000 FTE jobs. Once indirect flow-on effects are included the total employment generated by the sector is estimated in the range 23,000 - 25,600 FTE.

As already mentioned, a sizeable number of other jobs, in clubs for example, depend for their existence on the demand generated by gambling activities.

#### **5.4 Government Revenue from Gambling**

Total expenditure on gambling in New South Wales in 1993/94 was \$2,918.1 million, on a turnover of \$24,464.1 million. This expenditure amounted to 3.1% of household disposable income.

New South Wales Government revenue from gambling rose from \$98.5 million in 1972/73 to \$1,010 million in 1993/94. Of this, Gaming contributed \$689 million and racing \$321 million. On average, Government revenues amounted to 34.6% of expenditure on gambling, or 4.13% of turnover.

With 4.512 million of the NSW population eligible to gamble, the average loss per head was \$646.70. At a government retention rate of 34.6%\*, each adult, on average, paid \$223.66 in "voluntary tax".

NSW Government total current revenues in 1993/94 amounted to \$17,371 million. Gambling, therefore, accounted for 5.8% of Government current revenue. As a percentage of taxes, fines and fees, exclusive of grants received and other revenue, the gambling generated share was 11.9%.

**Note:** \*Of every \$100 spent on gambling, the Government receives \$34.60 in taxes. The remainder is absorbed by the gambling medium in costs, profits, etc.

## 6. Results from the Survey - Part I

### Note on Terminology

There is no mystery about the kinds of problems that may result from excessive expenditure on gambling and we have endeavoured to use language that is clear and as free of jargon as possible.

We have preferred '*problem gambler/gambling*' rather than pathological gambler/gambling to avoid some of the illness and negative associations of the latter. '*Problem gambler*' is also preferred by the various state government departments around Australia who have developed services to assist such individuals and their families.

The abbreviation N or n is used throughout tables and figures to denote the number of respondents appearing in analyses and calculations.

The term St. Dev is an abbreviation for Standard Deviation, which describes the amount of variance around that exists around a mean (average) value.

### The Sample of Respondents

The random doorknock survey completed by Roy Morgan Research Centre Pty. Ltd., stratified by age and sex and proportionally representing Sydney Metropolitan and NSW country, generated a sample of 1390 respondents, 871 Metropolitan and 519 country. The summary of the demographics for the sample are at Appendix 4.

The sampling procedure was extended at random beyond the original target of 1200 to ensure that people of non-english speaking backgrounds (NESB) were proportionally represented. This process was supported by the use of bilingual interviewers in those geographical areas known to have higher proportions of residents of NESB.

There was only one respondent of Aboriginal or Torres Strait Islander descent in the sample and a separate sub-report will address this important aspect of research into the socio-economic impacts of gambling.

### Reliability of the survey method

The information volunteered by respondents to a doorknock interviewer is obviously limited by the kinds of questions considered acceptable and by the opportunity and willingness of respondents to answer accurately. We believe that the use of the show card method with the interviewer not knowing the content of specific statements enabled respondents in the present survey to answer in confidence items that related to significant negative impacts such as court appearances and the misappropriation of monies.

Overall the responses to the various sections of the interview show a consistency with earlier studies using the same method and where differences occur they seem compatible with differences in the gaming and wagering market here in NSW. In addition, the reliability coefficients for the three standardised measures used:

- South Oaks Gambling Screen (SOGS) = .84
- General Health Questionnaire (GHQ12) = .71
- Alcohol Use Disorders Identification Test (AUDIT) = .77

may be considered entirely acceptable.

## 6.1 Community Patterns of Gaming & Wagering in NSW

### 6.1.1 Frequency of Play

For the entire sample of 1390 respondents, 37.8% gamble weekly or more often, 19.4% gamble monthly and 22.9% gamble less often, with 19.9% not gambling at all.

**TABLE 3: FREQUENCY OF PLAY BY FORM**

Form N=1390	Weekly Habit	Monthly Habit %	Less Often %	Don't Play %
Lotto	29.1	10.7	17.5	42.7
Instant Lottery	8.7	16.0	24.4	50.9
Pools	0.6	0.4	3.2	95.7
Bingo	2.2	1.2	5.0	91.5
Keno	3.1	3.5	13.1	80.3
Cards	0.9	1.9	7.1	90.2
Totalizator	0.5	2.1	10.3	87.1
TAB	4.0	4.0	12.0	80.0
Bookmakers	0.1	0.6	5.9	93.3
Poker Machines	5.9	8.7	23.4	62.0
Card Machines	1.9	5.3	8.8	84.1
Casino	0.0	0.4	12.2	87.3
Other	1.3	1.4	2.0	95.1

Table 3 shows that lotto and instant lottery are the most commonly played forms of gambling, regardless of frequency of habit. For those who play weekly or more often, 5.9% chose to play poker machines, 4% chose the TAB and 3.1% chose keno. This pattern is maintained for people who gamble monthly and less often, with the bulk of the population falling into the "less often" group.

Regardless of frequency of play, the least popular forms of gambling are pools (4.3%), betting with bookmakers (6.7%) and bingo (8.5%).

**TABLE 4: FREQUENCY OF PLAY BY AREA**

	Weekly	Monthly	Less Often	Don't Play
	%	%	%	%
Country (n=519)	43.0	18.5	20.6	17.9
City (n=871)	34.8	19.9	24.3	21.0

Notably, more country respondents play weekly than do city respondents (Table 4), and there is a higher proportion of city respondents who *don't play* any form. The overall trend shows that a higher proportion of country respondents play more frequently.

TABLE 5: FREQUENCY OF PLAY BY SEX

	Weekly	Monthly	Less Often	Don't Play
Men (n=686)	41.3	20.0	19.7	19.1
Women (n=704)	34.5	18.8	26.1	20.6

Patterns of play indicated by each sex (Table 5 above) indicates that whilst a higher proportion of men play weekly, women and men are almost equally represented in the *Don't Play* category.

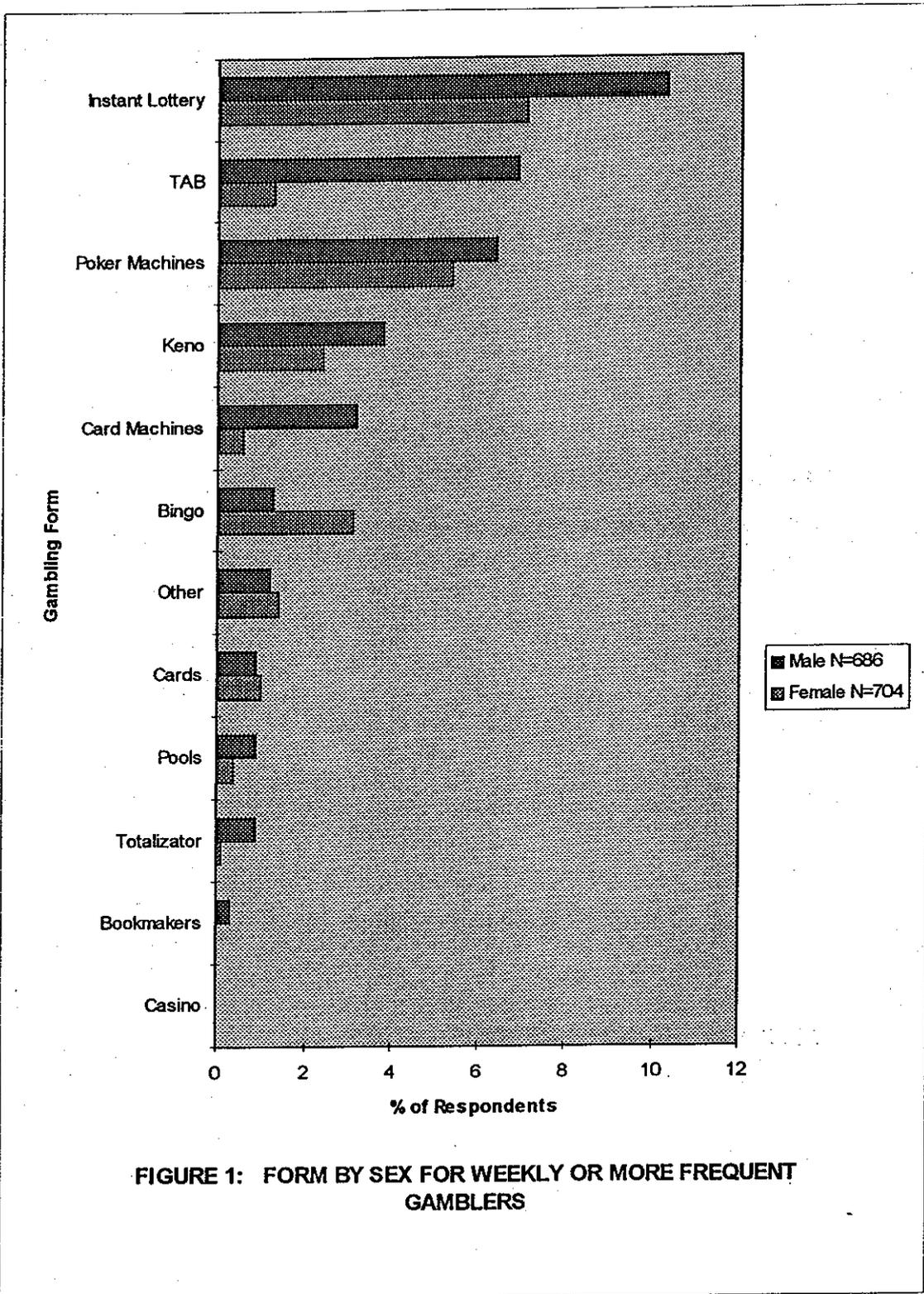
Significant relationships are apparent between sex and frequency of play for pools, keno, totalizator, TAB, bookmakers, card machines. Significant relationships also exist between area and frequency of play for lotto, keno and poker machines.

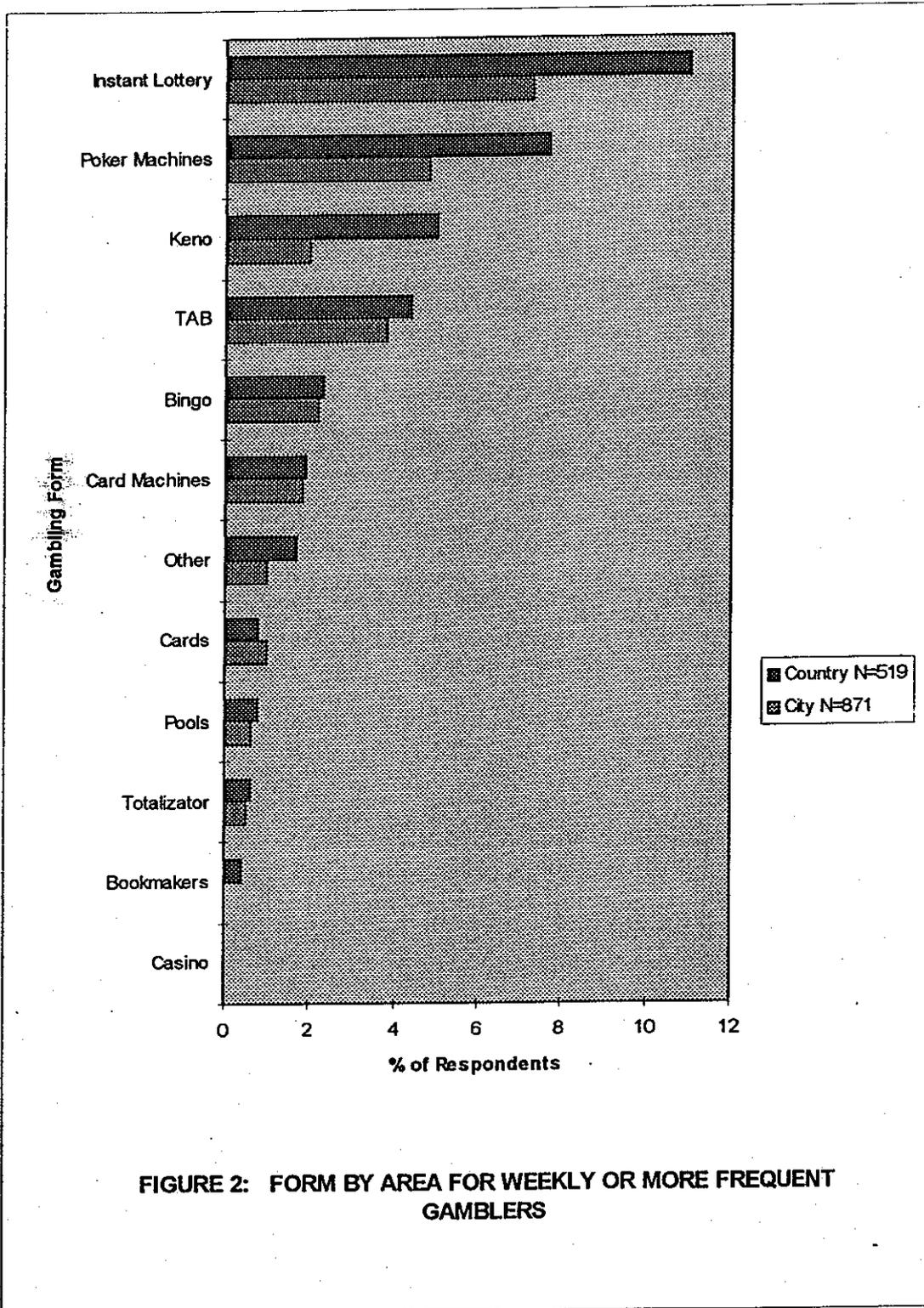
No relationship was apparent between favourite form and income, ethnicity or area. (Statistical details can be found in Appendix 6).

Figures 1 and 2 (pages 26 and 27) reveal the direction of these differences for those who gamble weekly or more often. For all forms except cards, other and bingo, men are represented in higher proportions than women, with the most striking difference apparent for TAB betting.

In general, the proportion of country respondents who gamble is higher than for city respondents, particularly for Instant lottery, poker machines and keno, with marginal differences across all other forms.

The zero response for casino for those with a weekly habit was expected as the survey was conducted prior to the opening of the Sydney Harbour Casino.



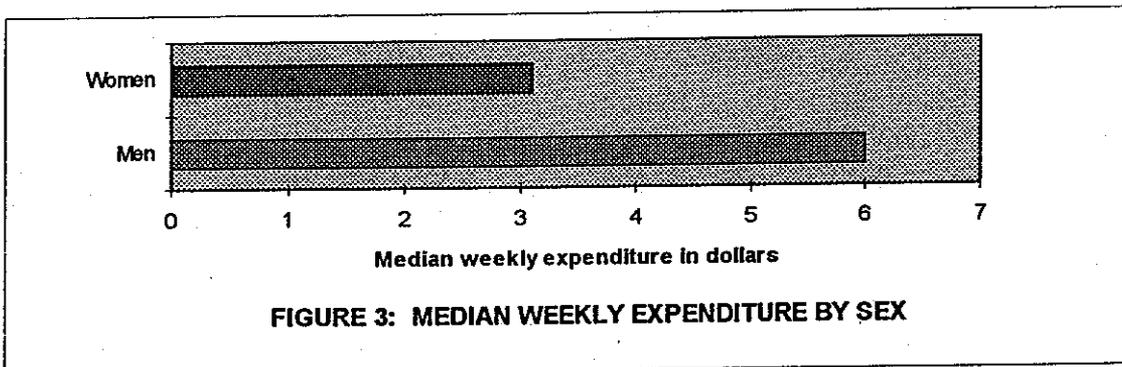


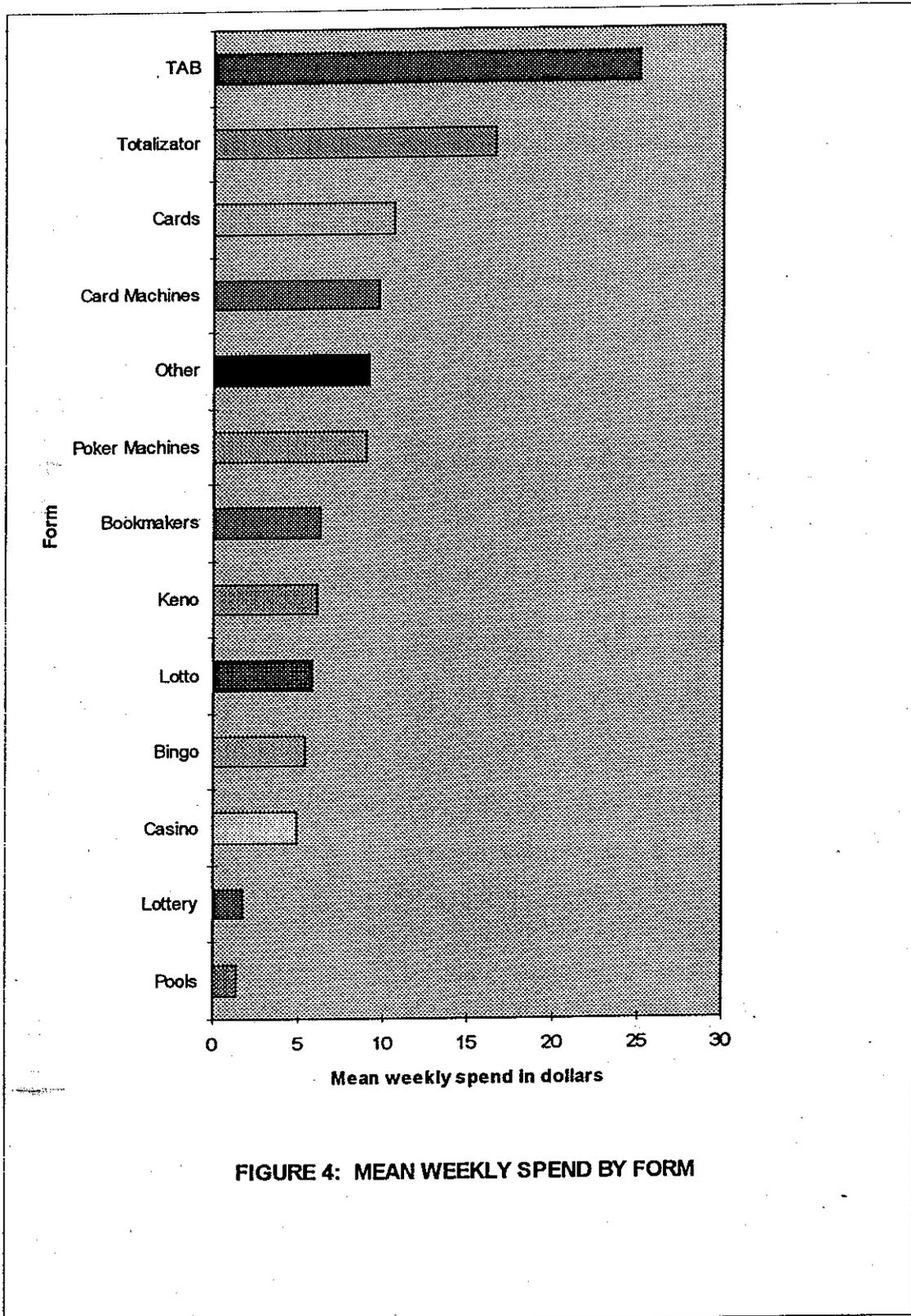
6.1.2 Average Spend

**TABLE 6: AVERAGE WEEKLY SPEND FOR ALL PLAYERS BY AREA AND SEX**

	Mean	St Dev	Median
<b>COUNTRY</b>			
men	41.40	(160.78)	6.35
women	19.23	(121.39)	3.01
<b>CITY</b>			
men	36.50	(114.97)	5.96
women	9.87	(20.64)	3.10

Table 6 (above) shows a break down of average weekly spend patterns by area for men and women. The median figure provides the best estimate of average weekly spend, as the means are influenced by extreme values, both high and low. As shown in Figure 3 (below) generally, men spend twice as much as women on gambling. This holds true for both country and city men. A similar result is apparent for all city versus country respondents, however, this differs somewhat from earlier studies which have found that country men spend less, on average, than their city counterparts. This will be discussed further in Part II of the study (page 39).





## 6.1.3 Favourite Form of Gaming and Wagering

The data show a significant correlation between age and favourite activity; sex and favourite activity; and marital status and favourite activity; indicating that younger, single people, men in particular, tend to prefer continuous forms of gambling such as racing and gaming machines.

TABLE 7: FAVOURITE FORM BY SEX

Favourite Form	Men %	Women %
Lotto	37.9	39.6
Lottery/Pool/Bingo	13.9	25.1
Keno	3.3	4.2
Cards	3.1	2.6
Racing	16.3	5.8
Gaming Machines	19.3	17.2
Casino	4.1	0.9
Other	2.0	4.5

Tables 7, 8 and 9 show favourite form collapsed into broader groupings of gambling form.

TABLE 8: FAVOURITE FORM BY AREA

Favourite Form	Country %	City %
Lotto	40.5	37.8
Lottery/Pool/Bingo	18.3	20.4
Keno	4.3	3.4
Cards	1.8	3.6
Racing	8.8	12.3
Gaming Machines	20.6	16.7
Casino	2.3	2.7
Other	3.5	3.1

Respondents from a non-English speaking background nominated lotto as their most preferred form (46.4%) followed by gaming machines (16.8%) and lottery/pools/bingo (14.3%). The pattern for respondents from an English speaking background differed, with the preferred favourite form being lotto (37%) followed by lottery/pools/bingo (20.9%), gaming machines (16.8%) and racing (12%).

TABLE 9: FAVOURITE FORM BY RELATIONSHIP STATUS

Favourite Form	*Partnered %	Single %
Lotto	40.6	35.8
Lottery/Pool/Bingo	20.7	17.9
Keno	4.0	3.3
Cards	2.9	2.8
Racing	11.0	11.0
Gaming Machines	14.8	23.8
Casino	3.1	1.5
Other	2.9	3.8

\* Partnered describes respondents who are married, defacto, or intending marriage.

Excluding the non-continuous forms, lotto and lottery, the most preferred favourite form for country men and single men was gaming machines, followed by racing.

## 6.2 Community Attitudes to Gambling

Respondents were asked the extent to which they agreed or disagreed to the statement:

*"Gambling is an important leisure activity for Australians"*

TABLE 10: "GAMBLING IS AN IMPORTANT LEISURE ACTIVITY FOR AUSTRALIANS"

Response	% of Respondents	Frequency
Strongly Disagree	21.9	304
Mildly Disagree	18.8	261
Neither Disagree nor Agree	19.9	277
Mildly Agree	24.6	342
Strongly Agree	14.2	197
Can't Say	0.6	8

Table 10 above shows that respondents were equally divided on whether gambling is an important leisure activity for Australians (39.7 disagree and 38.8 agree). As can be seen from Figure 5 (page 36), women were more likely to endorse the statement relating to gambling as an important leisure activity for Australians. This finding is in opposition to the Tasmanian results in 1994 which showed significantly more men than women agreed with such a view.

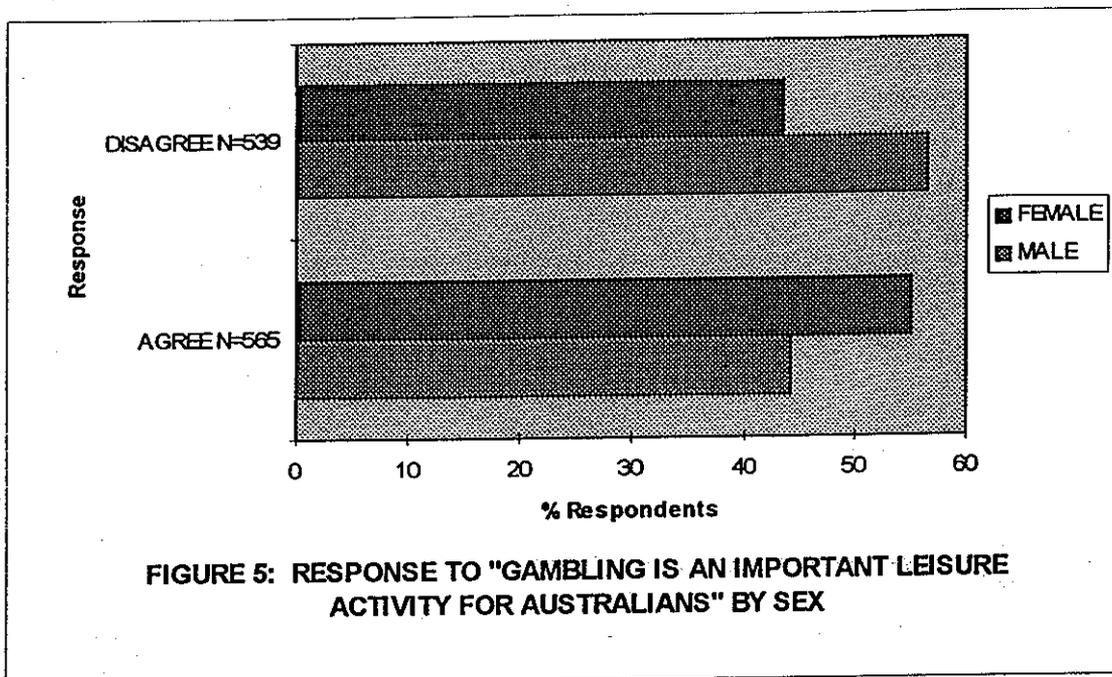


FIGURE 5: RESPONSE TO "GAMBLING IS AN IMPORTANT LEISURE ACTIVITY FOR AUSTRALIANS" BY SEX

The higher endorsement by respondents from metropolitan as opposed to country areas to the view on gambling as an important leisure activity, was also found in the Tasmanian sample. There is one trend that merits future research, as it seems to conflict with what one would on the face of it expect, namely the increasing failure to endorse the view that gambling is an important leisure activity for Australians occurs the more frequently a person gambles. This is illustrated most strongly for those who have a regular weekly habit playing lotto/Lotteries/Instant lottery (LOTTO ONLY) and those with a similar frequency using other forms of gaming and wagering (OTHER) (Figure 6 below).

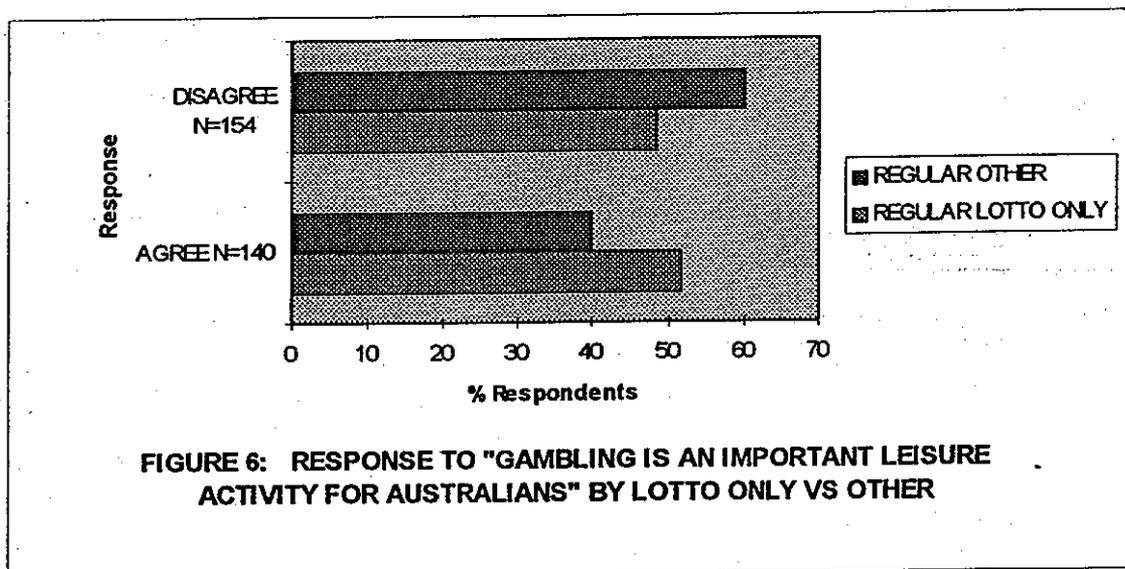


FIGURE 6: RESPONSE TO "GAMBLING IS AN IMPORTANT LEISURE ACTIVITY FOR AUSTRALIANS" BY LOTTO ONLY VS OTHER

Respondents were asked to nominate from a list on a show card:

***"Which one should be most responsible for funding services to help problem gamblers and their families?"***

**TABLE 11 "WHICH ONE SHOULD BE MOST RESPONSIBLE FOR FUNDING SERVICES TO HELP PROBLEM GAMBLERS AND THEIR FAMILIES".**

Possible Responses	% of Respondents	Frequency
Government	22.5	313
Gambling Operators	21.2	295
Gambling Venues	19.6	273
Problem Gamblers themselves	30.6	426
None	2.6	36
Can't Say	3.4	47

The spread of responses shown in Table 11 was also found in Tasmania. The strength of the view that 'Problem Gamblers themselves' should be most responsible for funding services is perhaps indicative of two things. Firstly, that many people may be unaware of the severe financial distress experienced by problem gamblers when they seek help.

Secondly that as previous research has indicated, there is a strong resistance in the public mind to the view that problem gambling is an illness or out of the player's control. A more moralistic view is not uncommonly preferred which may well be the underlying motive for recommending that problem gamblers themselves be responsible for funding services.

Respondents were asked the extent to which they agreed or disagreed with the statement:

***"Gambling results in serious problems for some individuals and families".***

**TABLE 12 "GAMBLING RESULTS IN SERIOUS PROBLEMS FOR SOME INDIVIDUALS AND FAMILIES".**

Response	% of Respondents	Frequency
Strongly Disagree	3.7	52
Mildly Disagree	0.6	9
Neither Disagree nor Agree	1.7	23
Mildly Agree	14.6	203
Strongly Agree	79.1	1099
Can't Say	0.3	4

From Table 12 above, a majority of 79% of the sample strongly agrees that gambling does result in serious problems for some individuals and/or families. Only 4% disagreed with this view showing how generally accepted is the potential for gambling to cause serious problems for some players and their families.

### **6.3 Family Experience of Problem Gambling**

In Table 13 (page 38), of the 14.5% who reported a family member experiencing difficulties with excessive gambling, for about 1 in 4 this had happened in the last 6 months. This translates to 3.8% of the adult population in NSW having experienced a family member with gambling related problems.

**TABLE 13: REPORTS OF FAMILY MEMBERS EXPERIENCING GAMBLING RELATED PROBLEMS**

	ENTIRE SAMPLE N=1390 %	REGULAR LOTTO ONLY n=140 %	REGULAR OTHER n=159 %
<b>Family Member ever experienced difficulties with excessive gambling?</b>			
Yes	14.5	15.0	20.1
No	85.0	85.0	78.6
Can't Say	0.6	0.0	1.3
<b>Family Member with Current Problem</b>			
	(n=201)	(n=21)	(n=32)
In the last 6 months	26.4	38.1	37.5
More than six months	70.1	57.1	56.3
Can't say	3.5	4.8	6.3
<b>Family Member Involved</b>			
Self	5.0	4.8	9.4
Father	2.6	2.6	2.5
Mother	0.3	0.6	0.0
Brother	3.5	3.2	3.8
Sister	1.6	2.6	0.6
Grandfather	0.6	1.3	0.0
Grandmother	0.3	0.6	0.0
Aunt	1.0	0.6	1.3
Uncle	3.5	1.3	5.7
Other	4.8	4.5	5.0
Can't Say	0.6	0.6	0.6

There was a tendency for the occurrence of family problems to be associated with respondents with a weekly or more frequent play on forms such as gaming machines and racing (i.e. the OTHER group). This association was mainly because the respondent themselves had experienced difficulties with excessive gambling.

### 6.3.1 Interstate Comparisons

**TABLE 14: INTERSTATE COMPARISONS OF FAMILY MEMBERS EXPERIENCING DIFFICULTY WITH GAMBLING**

	NSW % (N = 1390)	TAS % (N = 1220)	WA % (N = 1253)
Family Member experiencing difficulties with excessive gambling	14.5	6.1	6.9
Difficulties during the last 6 months	3.8	1.1	2.2

Although the Tasmanian and Western Australian studies were completed about 2 years ago, there is strong evidence that a much greater percentage of families in NSW has experienced a family member in difficulties with problems arising from excessive gambling. The family member involved in gambling excessively is likely, in decreasing order, to be an uncle, brother or a father, followed by sisters and aunts. This predominance of males is cross-validated in later sections of this report where, as the level of problems incurred from gambling increases, so too does the probability that the respondent will be a male.

#### 6.4 Community Intentions To Visit The Sydney Harbour Casino

The survey was conducted during the two weeks prior to the opening of the Sydney Harbour Casino on 13 September, 1995 and respondents were asked a series of questions about their intentions to visit and use the different games facilities available.

**TABLE 15: LIKELIHOOD OF RESPONDENTS PLAYING AT SYDNEY HARBOUR CASINO BY FAVOURITE FORM**

	LIKELIHOOD OF PLAYING AT SYDNEY HARBOUR CASINO					
	Very Likely %	Somewhat Likely %	Neither Likely nor Unlikely %	Somewhat Unlikely %	Very Unlikely %	Can't Say %
<b>Sex</b>						
Males (n=686)	9.6	13.0	6.6	11.7	59.2	0.0
Females (n=704)	4.1	9.5	7.4	14.9	63.5	0.6
<b>Favourite Form</b>						
Lotto (n=403)	3.0	9.9	6.0	10.2	71.0	0.0
Lottery (n=164)	3.4	7.3	7.9	16.5	64.6	0.6
Pools (n=1)	0.0	0.0	0.0	0.0	100.0	0.0
Bingo (n=39)	0.0	7.7	7.7	7.7	76.9	0.0
Keno (n=39)	7.7	25.6	10.3	15.4	41.0	0.0
Cards (n=30)	26.7	10.0	10.0	16.7	36.7	0.0
Totalizator (n=34)	11.8	35.3	5.9	26.5	20.6	0.0
TAB (n=71)	18.3	16.9	9.9	19.7	35.2	0.0
Bookmakers (n=9)	22.2	33.3	0.0	11.1	33.3	0.0
Card Machine (n=56)	14.3	25.0	16.1	16.1	28.6	0.0
Poker Machine (n=133)	8.3	18.8	8.3	13.5	50.4	0.8
Casino (n=26)	50.0	11.5	7.7	19.2	11.5	0.0
Other (n=34)	5.9	11.8	11.8	26.5	44.1	0.0
Can't Say (n=75)	12.0	10.7	5.3	16.0	53.3	2.7

Of the 251 (18%) respondents (155 men and 96 women) who indicated that they were 'somewhat' or 'very' likely to play at the Sydney Harbour Casino, approximately a third said they would do so 'rarely', a third 'sometimes' and a third 'often'.

For these 251 respondents the strongest preferences were shown for card games (24%), roulette (21%), gaming machines (23%), wheel games (15%) and two-up (11%). The least preferred games were craps and Asian games such as Pai Gow and Sic Bo.

An increased likelihood of intentions to play at the Casino was shown by men and by those for whom other forms of continuous gambling were their favourite activity, especially casino (i.e. those nominating casinos as their favourite form of gambling), card players, those who preferred betting and card machines but not poker machines. Those people whose favourite forms were lotto and Lotteries were least likely to play at the Casino.

When the 251 putative players at the Casino were asked whether the amount they would spend would be an increase on top of their normal spending on other activities/games, 47% said 'yes and 47% 'no' with 6% 'Don't know'.

A likelihood of playing at the Casino was associated with single males, aged 39 years or less earning \$60,000 or more per annum and from a non-English speaking background. It is emphasised these are merely trends that emerge in the demographic data (Appendix 4).

### **6.5 Impacts Of Gaming and Wagering on the Reported Economic Well-Being of Individuals**

In the interview immediately following the questions concerning leisure activities and before any questions about gaming and wagering were asked, respondents answered questions referring to what we have called "economic well being", such as;

"At the end of each pay/pension/allowance period;

- *"I do not have enough money to pay all the expenses"*
- *"I have just some money left over to save"*
- *"There is enough money in our household budget to buy food and clothing we need"*

followed by the question:

**"in the last six months has that applied to you?"**

to which respondents selected an answer from never, rarely, sometimes, often, always (and can't say).

Relationships between answers to these questions (both when considered as separate items and when scored as a scale) and demographic variables provided the expected answers i.e. people were more likely to report positive economic well-being if they had higher levels of income, higher educational attainment and had a partner. These relationships were weak but showed significant correlations.

Significantly, total weekly expenditure on gambling computed for each respondent by taking the reports of spend per form by frequency of play per week did not show a significant relationship to reports of economic well-being. Moderating total weekly expenditure by average weekly income also failed to generate a significant relationship.

These results match those found in Queensland in 1995 for a telephone survey of 1200 people who had played gaming machines in the last 12 months. The same general conclusion drawn there seems to hold for NSW. Namely, that in a relatively large sample of the general population the reports of economic well-being are unrelated to reported levels of expenditure on gaming and wagering.

## 7. Results from Part II of the Survey

Part II of the survey was completed by 140 respondents who played lotto/lottery/Instant lottery weekly or more often, but no other form weekly or more often. This group is referred to hereafter as "LOTTO ONLY". A quota was set to establish a comparison group (i.e. 229 were not offered Part II although eligible for inclusion in LOTTO ONLY).

In addition part II was completed by 159 respondents who played some other form of gaming or wagering weekly or more often (i.e. other lotto/lottery/Instant lottery). Many also played lotto/lottery/Instant lottery weekly or more often, but this was not a criteria of inclusion in this group referred to as "OTHER".

### 7.1 Patterns Of Gambling by Lotto Only and Other

#### 7.1.1 Weekly Spend on Gaming & Wagering

TABLE 16: AVERAGE WEEKLY EXPENDITURE BY LOTTO ONLY AND OTHER

Form	<\$10	\$11-\$20	\$21-\$40	\$41-\$70	\$71-\$100	\$101-\$500	\$500-\$1900
LOTTO ONLY%	57.0	26.5	9.9	4.6	2.0	0.0	0.0
OTHER %	12.1	13.4	22.9	20.4	9.6	16.6	5.1

When compared with less frequent players, men in the OTHER group in particular, report an average expenditure greater by a factor of 3-5. In contrast to less frequent players the greater proportion of whom spend \$10 or less per week, it is relatively uncommon for those with a weekly or more frequent habit of playing gaming machines or racing to spend less than \$20 per week. As illustrated at Table 16, the LOTTO ONLY and OTHER players' expenditure represents a very large proportion of the reported total weekly spend.

TABLE 17: AVERAGE WEEKLY EXPENDITURE BY FAVOURITE FORM - PERCENTAGE DISTRIBUTION BY CATEGORY OF SPEND

Favourite Form	<\$10	\$11-\$20	\$21-\$40	\$41-\$70	\$71-\$100	\$101-\$500	\$500-\$1900
Lottery/Pool/Bingo	21.7	26.1	21.7	21.7	0.0	8.7	0.0
Keno	13.3	6.7	33.3	20.0	13.3	13.3	0.0
Cards	25.0	50.0	25.0	0.0	0.0	0.0	0.0
Racing	0.0	7.1	16.7	26.2	16.7	23.8	9.5
Gaming Machines	2.9	17.6	29.4	14.7	11.8	17.6	5.9
Casino	0.0	0.0	0.0	33.3	0.0	33.3	33.3
Other	42.9	14.3	0.0	28.6	0.0	14.3	0.0

Table 17 (page 41) shows a break down of the OTHER group. Of particular interest is that people spending over \$100 on average per week, are comprised mostly of respondents who have nominated casino, racing, and gaming machines as their favourite form.

**TABLE 18: DISTRIBUTION OF TOTAL WEEKLY SPEND FOR EACH FORM BY WEEKLY VERSUS LESS FREQUENT GAMBLERS**

Form	Total Spend	% Accounted for by Weekly Players	% Accounted for by Less Frequent Players
Lotto	4,520	91.1	8.90
Lottery	1,202	69.5	30.50
Pools	75	63.56	36.44
Bingo	592	91.51	8.49
Totalizator	2,829	63.38	36.62
TAB	6,782	90.49	9.51
Bookmakers	548	36.20	63.80
Card Machines	2,153	76.0	24.00
Poker Machines	4,609	83.5	16.50
Casino	769	0.0	100.00
Other	592	76.96	23.04
Cards	1,351	36.87	63.13
Keno	1,611	82.58	17.42

Table 18 (above) shows that in all cases (except casino, where there are no regular players) people who play weekly or more often account for a far higher percentage of total average spend. In particular, bingo and the TAB attracts a high proportion of weekly players, followed by keno and Poker Machine Players. Bookmakers and cards are the two forms that indicate that non-regular players are wagering large sums.

**TABLE 19: AVERAGE WEEKLY SPEND FOR OTHER GROUP BY AREA AND SEX**

	Mean	St. Dev	Median
<b>COUNTRY</b>			
men	104.81	(189.23)	39.36
women	104.58	(321.54)	27.63
<b>CITY</b>			
men	163.81	(239.70)	73.21
women	35.30	(25.18)	31.44

Table 19 (above) provides a break down of average weekly spend patterns by area for OTHER group. For city respondents the proportional spend accords with findings from other states, i.e. that men spend more than double that of women.

Likewise the average spend for country men is considerably higher than the amount expended by women in the OTHER group. However the range of average spend for country men is more extreme (a ceiling of \$1810), whilst city men, although spending more in total, have a ceiling of \$1,000. The large range in spending patterns for country men has influenced the average weekly spend and thereby decreased the commonly found gap in spend patterns between country/city respondents found in Tasmania and Western Australia.

### 7.1.2 Motivational Aspects or Positive Impacts Reported by Regular Players

The positive impacts of gaming and wagering were assessed by a number of statements to which respondents indicated whether each particular statement was true for them. The randomised order of those statements was rotated during survey administration and positive impact items were mixed with negative impact items. Negative impact statements are described in the next section.

Table 20 summarises the proportion of each group of regular gamblers who gave affirmative responses for positive impacts classified into those relating to financial, work, family and friends, and personal experiences of the individual player.

**TABLE 20: AFFIRMATIVE RESPONSES TO GAMBLING FOR LOTTO ONLY VS OTHER PLAYERS**

	LOTTO ONLY N=140 %	OTHER N=159 %
<b>FINANCIAL</b>		
Winning at gambling has helped me financially	14.3	44.0
When I gamble I only risk what I can afford	77.1	91.2
I have won more than I have lost at gambling	32.1	49.1
I've had a big win from gambling (\$1,000+)	7.1	31.4
<b>WORK-RELATED</b>		
I've been gambling with people from work	27.9	37.1
Being a person who gambles has helped me get on at work	2.9	17.0
Thinking about gambling has helped in a boring job	4.3	18.9
Gambling is something we all talk about at work	37.1	45.9
<b>FAMILY AND FRIENDS</b>		
Gambling has given me something to talk about with family and friends	30.0	60.4
I have gone gambling with family or friends	50.0	73.0
<b>PERSONAL EXPERIENCES</b>		
Gambling has been a hobby and interest for me	53.6	78.0
Gambling has given me pleasure and fun	72.1	87.4
My gambling is problem free	81.4	85.5
I daydreamed of getting a big win	75.7	79.9
I am more likely to gamble for celebration	29.3	56.6
When I was gambling I felt excited	52.1	79.2
My gambling has been skillful	17.9	56.6
When I was gambling I felt relaxed	37.1	72.3

As in previous studies, the clearest trend to emerge across all types of impact is that those who are in the LOTTO ONLY group report fewer positive experiences. As players in the OTHER group have a regular weekly or more frequent usage of gaming machines, betting (on and off-course) and other forms that involve a continuous period of time, staking and playing, it is to be expected that many more of them report excitement, relaxation and agree that their gambling represents for them a hobby and an interest.

**Personal Experiences:** are the most frequently reported impacts compared with other categories. Despite the social interactions that may be part of the gaming and wagering process gambling engages the individual in a personal decision to invest, and the process and outcome is experienced by the individual first and foremost. Pleasure and fun, and daydreams of a big win are commonly reported by the majority of regular players of all forms of gambling.

When these personal experiences are considered for particular favourite forms of gambling some kinds of experience can be seen to be associated more with one form of gambling than another. For the item relating to excitement (Table 21 below) it can be seen that more frequent excitement is reported for continuous forms of gambling and particularly for racing. This has good face validity given the contemporary NSW marketing of the TAB as "The Adrenalin Bet".

This difference in motivation is even more marked for racing in Table 22 showing that it is the only form where players consistently view their gambling as skillful. That players of chance-determined outcomes also some of the time view their gambling as skillful has been the focus of much research, which with apparent harshness, has called this the irrational thinking of persistent players.

**TABLE 21: SURVEY ITEM "WHEN I WAS GAMBLING I FELT EXCITED" PERCENTAGE DISTRIBUTION BY FAVOURITE FORM**

Favourite Form	Never/Rarely %	Sometimes %	Often/Always %
Lotto (n=107)	64	23	13
Keno (n=17)	29	47	24
Racing (n=47)	12	45	43
Gaming Machines (n=46)	30	43	26

For both these important motivational aspects of gambling the range of responses is an important indication of the wide variety of individual experiences enjoyed by people using the same form of gaming or wagering. Individual subjective experiences will not only vary from one player to another but from occasion to occasion within the same player.

**TABLE 22: SURVEY ITEM "MY GAMBLING HAS BEEN SKILLFUL" % DISTRIBUTION OF EACH GROUP**

Favourite Form	Never/Rarely %	Sometimes %	Often/Always %
Lotto (n=107)	92	7	1
Keno (n=17)	81	6	3
Racing (n=47)	38	45	17
Gaming Machines (n=46)	74	26	0

Family and Friends become part of the experience of regular gaming and wagering both through conversations and actual visits to venues. The latter needs more detailed research to clarify the extent to which gaming and wagering per se, is shared, as previous research has shown that regular gamblers who use continuous forms (i.e. the OTHER group) generally prefer to gamble alone.

Work Related positive impacts are reported less frequently by both groups of regular gamblers. Once again very significant differences appear between the two groups for the two items concerning 'getting on at work' and 'helping in a boring job' which are rarely nominated by LOTTO ONLY but are reported by about 1 in 6 players in the OTHER group. It can be surmised that in this latter group the many hours spent gaming and wagering provide a much richer set of memories and a leisure activity to look forward to during a working day.

Financial positive impacts included one question on budgeting, risking only what can be afforded. Interestingly, and confusingly this was endorsed by 94% of OTHER respondents, yet 35% on a parallel item admit spending more than they can afford. It is not unreasonable to assume that the level of responses reflects the preferred reality of the player rather than a more objective view of the universe. This is born out by the responses concerning winning. 49% of the OTHER group of regular players claim that they win more than they lose at gambling; for most players this they claim occur sometimes or rarely, 9% however claim this to occur often and always (5.7%).

### **7.3.1 Negative Impacts of Gaming and Wagering Reported by Regular Players**

The negative impacts included in the survey are listed in Table 23 (page 46) together with the percentage endorsement of each item by the two groups of regular players. The items are categorised in the same way as the positive items, Personal, Family and Friends, Work-Related and Financial. In addition, a final section of 5 items covered Legal impacts.

**TABLE 23: AFFIRMATIVE RESPONSES TO NEGATIVE EFFECTS OF GAMBLING FOR REGULAR PLAYERS: LOTTO ONLY VS OTHER**

	LOTTO ONLY N=140		OTHER N=159	
	N	%	N	%
<b>PERSONAL</b>				
I have told lies about my gambling	1	0.7	39	24.5
When I felt depressed I used gambling to escape	6	4.6	30	18.9
I have felt that my gambling was a problem*	2	1.4	25	15.7
After losing heavily I have felt depressed	27	19.3	74	46.5
I went for help with my gambling	0	0.0	3	1.9
When I've lost gambling, I've bragged about winning*	8	5.7	28	17.6
I've felt like stopping but didn't think I could*	14	10.0	41	25.8
After losing I've gone back to win back money lost*	12	8.6	61	38.4
If lost more than planned, go on if excited	17	12.1	54	34.0
When I've gambled I've gone on for longer than planned*	32	22.9	81	50.9
When I had a bad day I was more likely to gamble	11	7.9	47	29.6
When I finished gambling I have felt guilty*	16	11.4	47	29.6
Each time I gambled I expected to win	74	52.9	119	74.8
<b>FAMILY &amp; FRIENDS</b>				
My gambling has caused problems for family or friends	2	1.4	19	11.9
My gambling has caused the break-up of relationship	1	0.7	6	3.8
My family or friends have criticised my gambling*	3	2.1	43	27.0
My gambling has caused arguments about money with family/friends*	3	2.1	28	17.6
I have hidden betting slips, lottery tickets etc. from family or friends*	3	2.1	13	8.2
My gambling has been more important than socialising	6	4.3	35	22.0
<b>WORK-RELATED</b>				
I've moved or changed jobs because of my gambling	0	0.0	5	3.1
I've lost time from work or study due to gambling*	4	2.9	10	6.3
My gambling has stopped me working efficiently	1	0.7	12	7.5
I've been sacked from my job because of gambling	0	0.0	3	1.9
<b>FINANCIAL</b>				
I've gambled to try and win money to pay gambling debts	12	8.6	30	18.9
I spent more than I could afford on gambling	9	6.4	55	34.6
I've borrowed money to gamble or pay gambling debts*	13	8.2	1	0.7
I've borrowed money and not paid it back for gambling*	0	0.0	5	3.1
If I had urgent debts I would go on gambling	3	2.1	23	14.5
Family and friends have had to pay my gambling debts	0	0.0	4	2.5
<b>LEGAL</b>				
I've borrowed money without permission to gamble	0	0.0	6	3.8
Thought about doing something illegal for gambling money	3	2.1	9	5.7
I've appeared in court on charges related to gambling	0	0.0	7	4.4
My gambling has led to problems with the police	1	0.7	3	1.9
I have been in prison because of my gambling	0	0.0	1	0.6

(\* Items in the SOGS)

My Gambling is Problem Free is endorsed by LOTTO ONLY, 81.4% and OTHER 85.5%. The proportion therefore, for whom gambling is not problem free represents approximately 3.5% of the adult population in NSW or about 150,000 men and women.

In previous studies in Tasmania and Western Australia this percentage of possible 'at risk' players was larger, of the order of 6% of the general population.

This lower figure for NSW is in conflict with the much higher level of reported family experiences of the problems associated with excessive gambling reported above and the negative impacts to be considered in the next section of the report.

In the previous work interstate the distribution of responses to the one item: "My gambling is problem free" was taken as a marker of a possible outer envelope of people who may be at risk of gambling related problems. This may also be true for the NSW population. However in the context of the following sections on negative impacts, where all items show significantly higher levels than in the Tasmanian and Western Australian studies, the validity

of this single item must be questioned. In the subsequent sections of the report all estimates of potential need for educational and rehabilitation services are based on items collated into a scale with reliability characteristics that provide a confidence level significantly more accurate than any one survey item.

### 7.3.2 Understanding Negative Impacts

Purists may argue that the experience of positive and negative impacts is such an individual matter that classification is likely to be unreliable. The final item under Personal in Table 23 is a good illustration of this point:

*"Each time I gambled I expected to win"*

endorsed by 53% of LOTTO ONLY and 75% of OTHER.

For most gamblers this is a positive aspect of enjoying betting and gaming. That regular, weekly and more frequent players show such high levels of endorsement is indicative of the resilience of such an expectation. The item is included with the more obvious 'negative' items because it is well established that objectively unrealistic expectations of winning at gaming and wagering is a significant contributory component to the development of impaired control over a person's expenditure of time and money on gambling.

A better understanding of these so-called negative experiences reported by regular gamblers may be obtained by placing them in the context of how gambling related problems may arise for the individual. Firstly the personal experience of a gambler may change to include unrealistic expectations of winning and a style of gambling (such as chasing losses) and money management (e.g. borrowing money to gamble) that is not adaptive. Motivation to gamble then may include not just the positive aspects of relaxation and excitement described earlier but also escape or coping with depression and frustration. At this stage, control of gambling for the individual is difficult (e.g. "I've felt like stopping but didn't think I could" endorsed by 26% of OTHER) and actual negative impacts may then occur impinging on Family and Friends; on Work-Related matters and even Legal impacts such as the misappropriation of money to fund gambling.

This overview provides a framework for examining negative impacts in more detail. Firstly, Tables 24 (below) and 25 (page 47) confirm the results of earlier findings regarding the much stronger association of negative impacts with continuous forms of gambling represented by the OTHER group.

**TABLE 24: AFFIRMATIVE RESPONSES TO NEGATIVE IMPACTS BY REGULAR LOTTO VERSUS OTHER PLAYERS**

FORM	N	PERSONAL	FINANCIAL	FAMILY & FRIENDS	WORK RELATED	LEGAL
		%	%	%	%	%
Lotto only	140	62.9	14.3	7.1	2.9	2.9
Other	159	84.3	44.7	43.4	10.1	10.1

In order to consider this further, in Table 24 it can be seen that a large proportion of LOTTO ONLY players endorse items in the Personal category. These include:

	%
- I've gone on for longer than planned	23
- after losing heavily I felt depressed	19
- when I finished gambling I felt guilty	11
- I felt like stopping but didn't think I could	10

but in all instances the proportion is significantly lower than for those who regularly use continuous forms of gaming and wagering (OTHER group).

This is especially the case for the item relating to chasing losses: "After losing I've gone back to win back money lost" 9%; compared with 38% of the OTHER group.

Thus, in considering Table 24 (page 47), it is as if not only do LOTTO ONLY players less commonly report personal experiences that result in an erosion of personal control over their gambling, but that these changes in their gambling behaviour are much less likely to have a 'ripple on' effect generating negative impacts elsewhere in their lives.

**TABLE 25: FAVOURITE FORM BY ANY 1 OR MORE AFFIRMATIVE RESPONSE(S) TO NEGATIVE IMPACT QUESTIONS FOR OTHER GROUP**

FAVOURITE FORM	N	PERSONAL %	FINANCIAL %	FAMILY & FRIENDS %	WORK-RELATED %	LEGAL %
Lottery/Pools/Bingo	24	62.5	25.0	29.2	0.0	4.2
Keno	15	80.0	20.0	33.3	0.0	6.7
Cards	4	75.0	25.0	25.0	25.0	25.0
Gaming Machines	34	97.1	58.8	64.7	11.8	17.6
Racing	42	97.6	59.5	52.4	19	9.5
Casino	6	100.0	66.7	66.7	16.7	16.7
Other	7	71.4	14.3	28.6	0.0	0.0
Can't Say	7	85.7	57.1	42.9	14.3	14.3

Tables 25 (above) and 26 (below) refine the association between negative impacts and particular favourite forms of gaming and wagering, racing (i.e. off-course and on-course betting) and gaming machines (including poker machines and card machines) have the strongest association with reports of negative impacts across all areas, Family and Friends, Financial and Work-Related and Legal. As in all previous studies men were more likely than women to report negative impacts and once again this trend appears only for the OTHER group, not LOTTO ONLY.

**TABLE 26: AFFIRMATIVE RESPONSES TO NEGATIVE IMPACTS BY REGULAR LOTTO ONLY AND OTHER PLAYERS BY SEX**

FORM	N	PERSONAL %	FINANCIAL %	FAMILY & FRIENDS %	WORK RELATED %	LEGAL %
<b>LOTTO ONLY</b>						
Men	71	67.6	11.3	7.0	4.2	1.4
Women	69	58.0	17.4	7.2	1.4	4.3
<b>OTHER</b>						
Men	99	91.9	49.5	49.5	13.1	11.1
Women	60	71.7	36.7	33.3	5.0	8.3

#### 7.4 The Measures of Mental Health (GHQ-12) and Excessive Drinking (AUDIT)

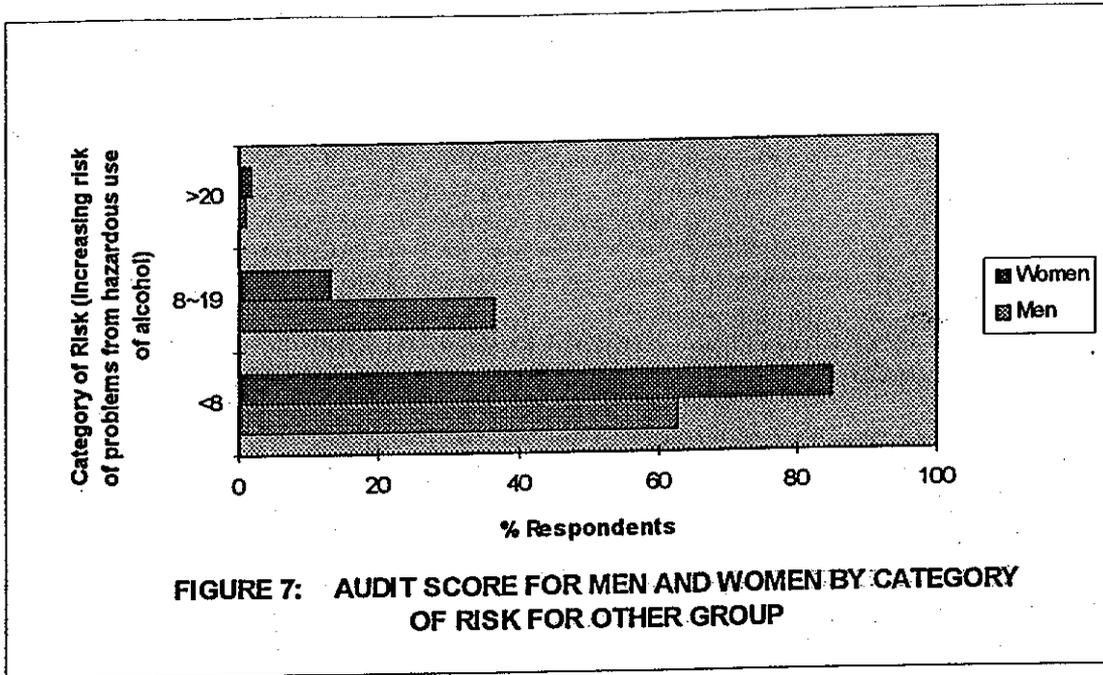
Although included in this section describing the range of negative impacts associated with regular gaming and wagering, it must be emphasised that the present data is silent on the direction of causality. In the interview respondents completed the standard questionnaire forms of two internationally developed measures of mental health and alcohol usage. Respondents were not asked any questions that permitted them to give information on their perception of causal links between their gaming and wagering and their responses to these questionnaire items. Thus the following data illustrates the associations found between respondents scores on the scales and their gambling preferences.

**TABLE 27: MEANS AND STANDARD DEVIATIONS FOR GHQ AND AUDIT BY PREFERRED FORM**

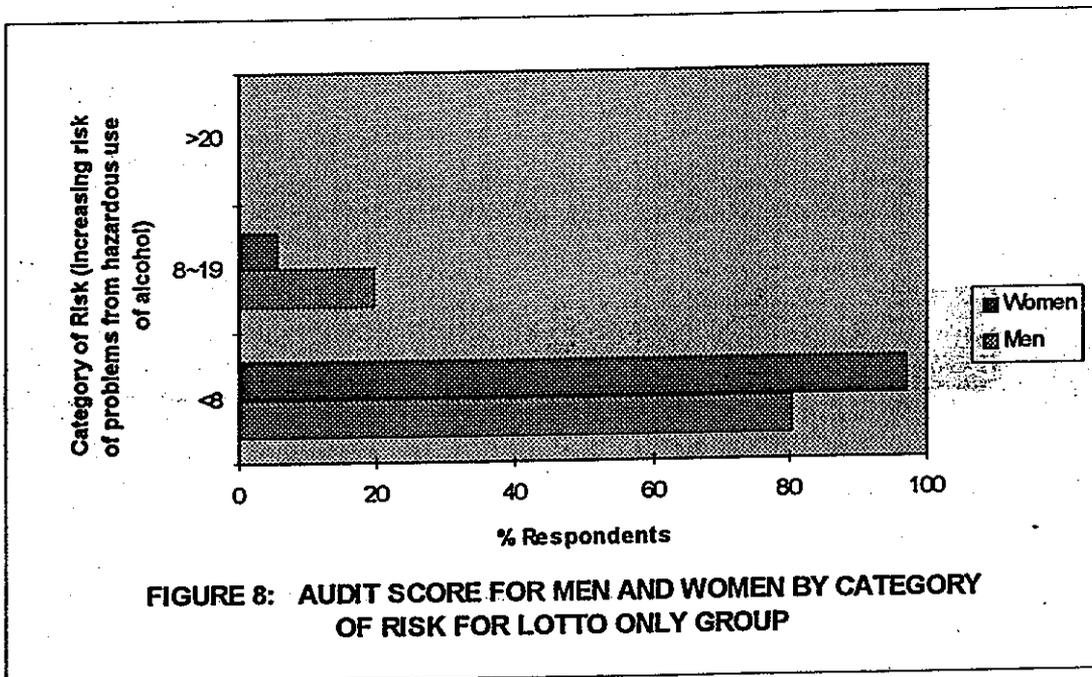
	GHQ		AUDIT	
	Mean	St. Dev	Mean	St. Dev
<b>LOTTO ONLY</b>				
Men	1.06	(1.42)	4.20	(3.59)
Women	1.10	(1.48)	2.03	(2.35)
<b>OTHER</b>				
Men	1.59	(2.16)	6.97	(4.93)
Women	1.30	(1.61)	3.77	(4.05)

Table 27 above shows the association between higher scores on both the measure of mental health and the AUDIT for men and women who prefer gaming machines, betting and other forms of continuous gambling (i.e. OTHER group) compared with those whose weekly or more frequent form is restricted to lotto/lottery or instant lottery (i.e. LOTTO ONLY).

There is a strong sex difference for scores on the AUDIT with men having significantly higher scores than women, particularly in the OTHER group and this is illustrated in Figures 7 and 8 (page 50).



Figures 7 and 8 show that the associations between increased risk of psychiatric morbidity and risk of problems associated with hazardous alcohol usage for the two groups of regular players, LOTTO ONLY and OTHER. Preference for gaming machines, betting and other continuous forms is associated with greater percentages of both men and women occurring in the higher risk categories.



These findings confirm the results found in the New Zealand national study by Abbott & Volberg (1993) and confirm the association between AUDIT and a preference for continuous forms of gambling found in the Tasmanian study.