This report was prepared by the following researchers:

The Provincial Cities Association initiated and funded this report. The report is a study into the impact of the electronic gaming machine industry on small regional economies. The analysis of data, the assessment of impacts and possible recommendations are principally concerned with the situation of the major Provincial Cities in South Australia. Due to the scale of the study and the methodology employed to undertake the research, additional funding to complete the study was sought and provided through the Office of the Premier and the Minister for Human Services. The Provincial Cities Association and the Centre for Economic Studies gratefully acknowledge the support of the South Australian Government.

Non-financial support to the study was provided by the Break Even Counsellors Network, the Australian Hotels Association (SA) and the Liquor Licensing Commission. None of these parties sought to influence the direction of the study but provided either data, time for interview and discussion and letters of support. The Centre gratefully acknowledges the support of these agencies. We note that the hotel industry called for an independent economic inquiry into the gambling industry in South Australia in April 1998 when the then Director of the AHA (SA) Mr Ian Horne stated in a pre-Budget submission "that the study should be conducted by the South Australian Centre for Economic Studies".

Individuals from the Productivity Commission reviewed several aspects of the methodology and provided helpful comments. Independent readers were asked to review successive drafts and while these individuals are not identified by name here, the Centre records its appreciation of the many helpful comments and suggestions during the course of the study.

Consumer surplus	An economic measure of the benefit that a consumer derives from the consumption of a good / service. More explicitly, it is the difference between what a consumer is willing to pay for a good / service and what they actually pay for that good / service.
Gambling	Placement of a bet on the outcome of a future uncertain event (VCGA, 2000). Refers to all forms of betting including wagering and gambling.
Gaming	Legal gambling on electronic gaming machines (i.e., poker machines). Sometimes used to describe all other forms of gambling other than wagering.
Gambling turnover	The total amount of money wagered by gamblers (igerEng.

A reasoned response would be that the benefits are supportive of the industry's continued operation, but that measures be implemented to guard against problem gambling, to maintain oversight on the product itself, and to assist those who become "problem gamblers".

It is important to stress that the EGM industry has expanded very quickly and that industry representatives acknowledge the 'spotlight is on the industry'. Responses by government and industry to the issue of problem gambling have tended to lag behind the explosive growth of the industry. The industry accepts that the far greater usage of EGMs and their relative accessibility has magnified the issue of problem gambling. The

The impact on sporting and community clubs and councils is considered in this report, and by research commissioned by Clubs SA (see Section 2.3), and the negative impact on

- the Cities possess a disproportionate share of all gaming machines at 14.9 per cent with a population share of 9.1 per cent;
- the Cities possess a higher number of machines per 1,000 adult persons at 18 machines, compared to a State average of 11;
- all but Murray Bridge have a lesser number of adults per gaming venue than the State average, reflecting the intensity of gaming venues in the Provincial Cities; and
- in 1999-00 the Provincial Cities averaged $217 in gaming taxation revenue per adult compared to $185 per adult for South Australia.

Taken together these 'dot point summary items' indicate there are a range of significant policy issues which need to be addressed in regard to gaming and the Provincial Cities. This view is reinforced by the discussion which follows below.

The econometric analysis conducted by the Productivity Commission for the nation as a whole found evidence of:

- a concentration of gaming machines in lower socio-economic areas;
- an inverse relationship between a region's income and the total amount spent on gaming machines; and
- a negative and significant relationship between regional median weekly income and annual average expenditure on electronic gaming machines.

We discuss in Section 4.1.1 that this could be seen to suggest that persons in lower income groups:

- are more likely to gamble using electronic gaming machines; and / or
- are likely to lose (spend) more when they do so.

Accordingly, the Centre sought to determine the factors which influence the differences in net gaming revenue between different areas. The results are shown in Table E.2 and in Table E.3 where the influences on net gaming revenue are related to each of the member towns and cities of the Association of Provincial Cities. It was found that once the demographic characteristics of a region were taken into account, expenditure increased with median regional income (an opposite effect from the PC's finding).

The results indicate that the three significant demographic factors which produce the apparent link between lower incomes and higher electronic gaming machine expenditure in South Australia are:

- higher unemployment as a proportion of adults;
- higher proportions of persons identifying as Aboriginal or Torres Strait Islanders; and

The Centre has first calculated a base case (Section 4.2.4) to estimate that number of gaming machine problem gamblers — in the Provincial Cities[2] — on the assumption that there are no differences between regions, regional profiles, States and the national average.

In fact, as this report indicates, we believe that this is not the case and that there are regional risk profiles. A more accurate picture is required because the national prevalence data does not reflect the diversity of regional experience and, most importantly, expenditure data. The methodology is discussed in Section 4.2.5 and the results are summarised in Tables E.4 and E.5 showing that:

- the number of problem gamblers in each region and for the Provincial Cities is 3,097 problem gamblers (shown in Table E.4); and
- the benefits and costs of electronic gaming machines for each region shown in Table E.5, in the last two columns, are more strongly inclined towards the negative.

Berri Barmera	8,422	13,720.27	3,453	3,059	394	4.68	685.19	9,343.23
Loxton Waikerie	9,200	13,566.50	3,450	3,323	127	1.38	677.51	9,238.51
Renmark Paringa	7,174	13,526.58	2,941	2,732	209	2.91	675.52	9,211.33
Mount Gambier & Grant[1]	22,858	15,284.25	9,372	8,856	515	2.25	763.29	10,408.27
Murray Bridge	12,477	11,692.44	5,115	4,685	430	3.45	583.92	7,962.31

Under current licence arrangements the concentration of gaming machine ownership can only occur through the purchase and ownership of hotels as gaming machines cannot be reallocated across hotels and clubs. A maximum limit of 40 machines is set by the Liquor Licensing Commission. There is no reason, it seems to us, for this limit to be increased or that licences at this time, be allowed to be traded.

Measures proposed by the Gaming Machine Review Committee to reduce problem gambling (e.g., ban on autoplay facilities, ban on note acceptors, limits on cash withdrawals) will need to be monitored to assess their impact on alleviating problem gambling.

The full impact of people transferring gambling expenditure from charity or community lotteries and from activities such as bingo on charitable, community and sporting organisations has in our view, been significantly understated. Not all sporting clubs are properly compensated as most are not 'direct beneficiaries of gaming machines'. Unlicenced clubs have suffered a loss of revenue. The larger charities have access to 'super grants', yet it is not clear how community based organisations have been affected overall. Certainly, it is the case that local councils have been requested to financially assist many organisations but the extent of requests and the reasons why assistance was sought are not well documented.

An assessment of the financial impact on community organisations of the decline in expenditure on minor gambling should be undertaken as the original estimates appear

While these discrepancies may be explained by the inclusion of remote areas in CPSE's rural estimates of participation and prevalence rates (and as well there are very significant problems with phone poll sampling and phone surveys), they do suggest that further research may need to be carried out to better understand regional differences in gambling patterns, and especially any regional differences in problem gambling. Understanding such differences in gambling patterns will enable government to better target assistance to problem gamblers.

The current dependence of electronic gaming revenue on problem gamblers, where 2 per cent of the adult population are estimated to account for over 40 per cent of losses raises questions as to the sustainability of the industry, given these problem gamblers lose an average of $10,000 per annum. Useful research could be conducted on both how sustainable this level of expenditure is for the individual problem gambler, and how sustainable current expenditure patterns are for the industry as a whole, e.g. is overall state-wide expenditure likely to fall significantly as the existing problem gamblers exhaust their assets or seek treatment.

It was put to us in the course of this study that a "smart card" to limit the amount gambled, offered a technological solution to limit gambling losses. This is outside our terms of reference, particularly the technological feasibility of such a system, but further research in this area is possibly warranted. Similarly, research into the impact of slowing machines down to reduce the amounts people lose was considered by many respondents as a priority research agenda.

Finally, it was put to us that the design of gaming machines, including sound and lighting effects, have a potentially hypnotic impact and are similar to the actual techniques used for hypnosis by psychologists and others. Again, this is outside our field of expertise, but this may warrant further discussion and research.

Too little is known about the impact on families of problem gambling, although considerable anecdotal evidence confirms spillovers into the health system, education, medical practitioners and legal services. The impact on families and children has received insufficient attention in all the analysis on problem and frequent gamblers. In our view this is a priority area for research as the potential costs are very significant, both in the short term (for families, children, government and the services of helping agencies) and in the longer term. Understanding the appropriate or 'best point of intervention' may contribute to a significant reduction in the incidence of problem gambling.

One possible approach would be to develop a micro-analysis using selected representative case studies with the co-operation of families and the Break Even Network.

There is clearly widespread concern about the social and economic impacts of gaming, although sometimes the impact of more fundamental social and economic changes are inappropriately attributed to the greater access to gaming machines. Notwithstanding, the lack of analysis at a state or regional level and the dearth of research has meant that these concerns have not been seriously acknowledged and therefore, have been allowed to grow relatively unchecked and with little serious debate. Administrative data on this issue is difficult to access while research funds are limited and also difficult to access. Thus, "while the Australian Productivity Commission (1999) has completed an investigation into gambling in Australia, nowhere is there a comprehensive economic and social analysis of the long-term costs and benefits of gambling to the community and this State".[5]

The Provincial Cities Association invited the South Australian Centre for Economic Studies to prepare a submission on the impact of electronic gaming machines[7] for consideration by the Association in May 2000. The issue was deferred at that time while the Association completed its involvement with the South Australian Regional Development Task Force and engaged in implementation actions arising from the Task Force. As well, the issue of electronic gaming machines and their impact on regional communities was "discussed and canvassed with the State Government. The calls for an independent investigation (similar to those undertaken in specific communities in Victoria) were unsuccessful."[8]

In this intervening period the City of Port Augusta continued the task of economic and community development by specifically commissioning a "Social Vision and Action Plan for Port Augusta". Other cities pursued their own individual initiatives. The Action Plan for Port Augusta identified community aspirations, infrastructure requirements and steps to address the economic and social development of the City. "The issue of poker machines and their impact on the community was canvassed in the Report (i.e., Social Vision Report) as a major problem, particularly by some members of the Aboriginal community. However, no specific details of the extent of the problem were provided, and therefore are not known. Anecdotal evidence, however, does indicate that a problem exists".

The experience of other cities was similar to that of Port Augusta — general concern

The submission which was finally approved set out the following objectives:

- to provide information to regional communities and their leaders on the economic and social impacts of electronic gaming machines;
- to provide a balanced view of the overall impact, by giving equal weight to the potentially positive and negative impacts; and
- to employ a variety of methodological approaches in the study to ensure that economic and social impacts were thoroughly assessed.

The first term of reference highlighted the need to 'inform community leaders' and thereby facilitate informed community debate about gaming issues. Members of the Provincial Cities Association specifically sought greater access to information in order to ensure a balanced approach and discussion regarding gambling issues within their communities. This is one reason why the Centre's methodology and approach to the

and economic impacts for the gambling industry as a whole rather than for the gambling activities associated solely with gaming machines. Despite this, limited estimates of the social impacts were presented for gaming machines. We note that gaming machines comprised 62 per cent of total South Australian gambling turnover in 1999-2000,[11] which indicates that this sector of gaming is the most significant component of all gambling activities. Where possible, the Centre has attempted to apply the same methodologies for estimation of the social impacts of gaming machines to the regional areas.

A further point of difference between our study and the Commission inquiry is that the latter focused on impacts at the national level, and did not present estimates for either the state or regional level. This is important because the regional impact of gaming

Information derived from the literature review encouraged the Centre to further refine the methodology employed for this study.

Trends in gambling activity at the local, state and national levels have been examined. These comparisons have been based on regional and South Australian gaming machine

machines — hotels — are a central feature of many regional areas and that associated gambling may significantly change the regional pattern of consumption.

The regional employment impact was assessed by comparing the employment created by electronic gaming machines with expenditure lost through the transfer of expenditure away from other types of consumption. The positive impact of electronic gaming machines was assessed by combining the results of a survey of gaming venues, and by input output analysis of expenditure due to increased government revenues from gaming machines. The survey covered, amongst other items, the change in their employment since 1994. Unfortunately the response rate to this survey was patchy and the Riverland was the only town or region from which a usable sample of returns was received. Consequently it was decided that a preliminary input-output analysis would be conducted for the Riverland region only, as a guide to how this issue could be approached were better data available.

The reduction in employment in other sectors was assessed by input output analysis on the likely expenditure patterns if there were no electronic gaming machines. The first step in addressing this task was to calculate the value of diverted expenditure. This was done by adjusting the net gaming revenue for electronic gaming machines down to allow for the expenditure which was diverted from other forms of gaming (which, other than racing, have zero regional employment according to 1996 census data). These regional diverted expenditures were then allocated between different sectors according to the distribution of 1998 household consumption expenditure. These sectoral diverted

- State debt and higher levels of competition between the States to attract international business investment required access to non-business related taxes to relieve fiscal pressure yet maintain (overall) cost competitiveness;
- there was a growth in State sponsored casinos across Australia increasing competition for the casino dollar and tourism spending;
- the South Australian Government had recently been exposed to severe financial loses from the failure of the State Bank;
- considerations related to the casino and gaming machines as well as the need to

that the impact of the introduction of gaming machines required further analysis and a "local or regional" perspective.

In essence, questions were being asked about the distribution of benefits and costs within regional localities and between regions and metropolitan Adelaide.

The Australian Productivity Commission report *Australia's Gambling Industries* represents the most intensive and comprehensive effort to quantify the economic and social impacts of gambling in Australia. The report was commissioned by the Federal Government in recognition of the need for "a better understanding of the performance of the gambling industries and their economic and social impacts across Australia, including their impact on the retail, tourism and entertainment industries and on Commonwealth and State / Territory Budgets" (Productivity Commission, 1999).

After considering the variety of economic and social impacts attributed to gambling, the Commission estimated the net community impact of Australia's gambling industries to range from a net cost of $1.2 billion to a net benefit of $4.3 billion. The estimated range presented reflected the inherent difficulty of estimating the economic, and in particular the social costs of gambling where the latter occur primarily at an individual or household level, and are therefore often hidden. The primary economic benefit

Wagering	629	885	267	830	-201	617

The fact that the electronic gaming machine industry produces significant benefits for non-problem gamblers and government revenue, but imposes significant costs on

This longitudinal study discovered “widespread disapproval” of gambling across the six communities with 81 per cent of people surveyed disagreeing with the statement that ‘gambling does more good than harm’ and 82 per cent agreeing with the statement that ‘gambling is a serious social problem’. However, people’s actions did not correspond with their negative views towards gambling with half of those surveyed having participated in gambling within the last six months. The widespread participation in gambling together with the fact that people play poker machines primarily for social and

Ninth Parliament). The Committee recommended an immediate ceiling of 11,000 gaming machines and considered the proposition that the long term aim should be to reduce the number of gaming machines to 10,000. A freeze on the number of gaming machines was imposed in December 2000, by which time there were almost 13,000 machines. As at 30th April 2001 the actual number of machines according to the Liquor Licensing Commission was:

- installed 13,950; and
- approval to install 14,910,[18]

where the difference between approval to install and actually installed is due to some premises yet to be built and where a licence is temporarily suspended due to building renovations and improvements such that machines are not actually operating.

The Committee considered the role of Local Government with respect to the

The most significant of the State Government's reforms is the establishment of an Independent Gambling Authority that will have responsibility for the oversight of gambling regulation in South Australia. In particular the IGA will have responsibility for the following objectives:

1. to develop and promote strategies for reducing the incidence of problem gambling and for preventing or minimising the harm caused by gambling; and
2. to undertake, assist or coordinate ongoing research into matters relevant to the Authorities functions, including research into —
    a. the social and economic costs and benefits to the community of gambling and the gambling industry,
    b. the likely impact, both negative and positive, on the community of any new gambling product or gambling activity that might be introduced by any section of the gambling industry,
    c. strategies for reducing the incidence of problem gambling and preventing or minimising the harm caused by gambling, and
    d. any other matter directed by the Minister.

In performing its functions and exercising its powers under this Act or a prescribed Act, the Authority must have regard to the following objects:

a. the fostering of responsibility in gambling and, in particular, the minimising of harm caused by gambling, recognising the positive and negative impacts of gambling on communities; and
b. the maintenaling Gef0.8(ea pva,)1.8(i(gative.3(of ,ve.3(b h)1.5(e SA.4(e)0gc2-10.5(a[(ed)-4.7e

- Formalising a ban on the introduction of note acceptors on all electronic gaming machines. Whilst note acceptors have never been approved by the Liquor and Gaming Commissioner, this regulation will prevent note acceptors from ever being introduced.
- The establishment of a daily limit on all cash withdrawals from Automatic Teller Machines and EFTPOS facilities located at gaming machine venues. The proposed cash limit is $200.
- An increase in the minimum rate of return for new gaming machines from 85 per cent to 87.5 per cent. This is intended to reduce the average amount lost by gaming machine customers.

The current freeze on gaming machines is also proposed to be extended for a further two years to allow the conduct of further research to determine whether or not the freeze on gaming machines should be continued.[21]

The freeze on EGM's was extended to enable further research and debate on unresolved issues associated with consideration of a permanent freeze. These issues include:

- what happens when a new venue (a greenfield site) is established away from existing EGMs venues and wants a licence for EGM's but there is a permanent cap in place;
- the trading of licences for EGM's. The current freeze does not permit EGM licences to be transferred from one venue to another. Some stakeholders do not regard this situation as sustainable in the long term;
- the global allocation for EGM's between clubs and hotels;
- the potential for regional freezes (as in Victoria);
- dealing with EGM licences foregone; and
- the use of "smart card" technologies for loyalty programs, banning processes for problem gamblers etc..

Finally, it is proposed that a Minister for Gambling be appointed and be separate from the Treasurer. The Committee sought to ensure that the functions of the Treasurer are separated from gambling regulation, eliminating the potential conflict of interest present under existing arrangements. The Review Committee has proposed a balanced set of actions, weighted equally towards responsible industry practices, and individual responsibility, while acknowledging that the "product" contains some inherent dangers and thus some consumer protection controls on "the product" are also warranted.

There are considerable and important areas for further research and a number of unresolved issues to be debated in the future. While the scope of this report concentrates on the impact of gaming machines on the regional Provincial Cities, we note that the industry is not static and that Internet based gambling and interactive

Gaming machines involve a range of economic and social impacts. However, there is a general lack of agreement, regarding how in particular, private and social costs and benefits and therefore the net impact of gaming machines, should be evaluated. For example, critics of gaming machines propose measures to significantly restrict access to gaming machines on the basis of their significant negative social impacts (e.g, problem gambling), but sometimes do not consider the substantial benefits that would be lost by responsible recreational gamblers who derive enjoyment from their unrestricted access to gaming machines. The following section briefly lists the various benefits and costs commonly attributed to gaming machines.

Prior to considering the various impacts of gaming machines, we should first consider the debate surrounding private and social impacts, and which should be included in an assessment of the overall net community impact of gaming machines. A majority of the negative impacts associated with gaming machines are considered private costs, that is, costs incurred by economic agents (individuals) who were party to the decision to

which has application to other goods that are addictive and have large private and social costs such as in the impact on the public health system, e.g., heroin.

A further social cost of gambling relates to impacts on family members of problem gamblers and some recreational gamblers. The utility gained by one member of a family spending on gambling may be greater or less than the utility gained by other members of that household, if the money spent on gambling was applied differently.

Anecdotal evidence from Break Even counsellors suggests that some members of households (e.g., children), suffer significant deprivation as a result of household finances being redirected for essential consumption goods to gambling. These impacts have not been studied, but are likely to be significant in some problem gambler and recreational gambler households. These effects are outside the scope of this study, but warrant subsequent examination.

The Productivity Commission identified two main benefits of gaming machines at the national level. The primary benefit identified was the satisfaction derived by consumers from their consumption of gambling, an activity from which consumers derived entertainment value. That consumers derived enjoyment from gaming machines is demonstrated by consumer surveys, which show that the majority of gamblers play gaming machines primarily for social or entertainment reasons.

Consumer satisfaction derived from the consumption of gaming is measured by the economic concept of consumer surplus. Consumer surplus represents the difference between what a consumer is willing to pay for a good or service and what they actually pay for that particular good or service. Consumer surplus benefits due to gaming machines are estimated for the Provincial Cities in Section 4.2.5.

Increased government taxation revenue is the second main benefit identified by the Productivity Commission. While tax revenue represents a definite benefit from the national perspective, from a regional viewpoint, tax revenue collected by central authorities represents a potential negative impact if government tax revenue is not returned to the region through equivalent spending on regional services. This possibility has concerned many local government associations and is investigated for the Provincial Cities in Section 4.1.3.

The consumer satisfaction derived from the consumption of gambling and government tax revenue were the only two benefits included in the Productivity Commission's quantitative estimate of the benefits of Australia's gambling industries. While the Productivity Commission acknowledged the existence of employment and value added benefits attributable to the gambling industries, it decided against including such benefits on the basis that they were relatively small. This conclusion follows from the fact that growth in gambling industries have necessarily drawn resources and consumer spending away from other industries such that "benefits in terms of employment and activity in the gambling industries are largely offset by declines in industries that have lost the consumers' dollar to gambling."[23] In other words, increased spending on

[23] Productivity Commission, p. 5.1.

gaming machines has drawn resources and capital away from other industries, therefore reducing output and employment in these industries which leads to an uncertain net economic outcome for the local economy.

While the Centre agrees with the Productivity Commission's assessment, many regional areas of South Australian did experience depressed economic conditions in the early to mid 1990s, resulting in a high level of unemployed resources. Under this environment, the introduction of gaming machines could produce a positive net expansion in economic activity by employing unemployed resources from within the region. For example, community consultation by KPMG (VCGA, 2000) for six regional areas of Victoria identified increased employment opportunities, especially for younger people, as one benefit of gaming machines. However, to the extent that gambling expenditure is drawn from consumer spending on other sectors of the local economy, these sectors will experience decline and employ fewer resources, therefore leading to smaller positive net impacts for the regional economy.

KPMG's community consultation identified other benefits which may apply equally in the Provincial Cities. Most importantly, gaming machines have allowed hotels and some clubs to finance expansion and upgrading of their facilities. Not only has this improved services for patrons and members, it has also given impetus to "urban renewal" as surrounding areas have improved in appearance with other businesses being attracted to the area. However, some argue that this simply shifts economic activity from one locality to another, leading to degradation of other areas. A further benefit of increased gaming venue profitability is that such venues have increased capacity to provide

government (i.e., taxpayers) through funding of unemployment benefits. Other costs at the broad societal level include bankruptcy (although there is an incentive not to attribute bankruptcy as being gambling related) and crime committed to support compulsive gambling behaviour which increases law enforcement costs. Further financial burdens to the public sector include the financial cost of counselling and support services provided by government and charities, and health services. In South Australia the hotel industry is a major contributor to Break Even Counselling Services. Finally, problem gamblers may negatively impact friends if they borrow money to cover gambling losses.

Aside from the problem gambling related costs of gaming machines identified by the Productivity Commission, the other main costs of gaming machines include the leakage of taxation revenue from the region (discussed in the previous section) and diversion of consumer spending from other local businesses. As was argued several times in the literature review, that other retailers have suffered a decline in retail activity in not a negative impact of gaming machines as it reflects shifting consumer expenditure patterns which are a factor in all dynamic economies. However, to the extent that gaming machines give rise to problem gamblers who spend excessive amounts on gaming machines due to their irrational/addictive behaviour, then these expenditures which have been diverted from other spending activities can therefore be treated as a cost of gaming machines. Such diverted expenditure may in fact be very large; for example, the Productivity Commission estimates that 42.3 per cent of all gaming machine expenditure is accounted for by problem gamblers.

Another dimension of the broad impact of gaming machines concerns their impact on licensed clubs. Clubs play an important role in our society, one that is unfortunately often overlooked by the general public and public sector decision makers. Clubs provide financial and material support to community organisations (including charities) and sporting teams which, in their absence, would probably be either severely lacking, or could only be provided by government. Most importantly, unlike the majority of hotels which are privately owned, clubs are non-profit organisations which reinvest most of the profits earned back into the community. This takes place through improving or providing additional facilities and services to members (e.g., sporting facilities), making direct donations to community organisations and charities, and providing sponsorship to sporting teams. In this respect, clubs play a central role in promoting social inclusion and community involvement, maintaining and building sporting and community infrastructure, encouraging participation in sport and recreation, and helping to develop community leadership. We acknowledge the similar role that many hotels also play in direct support of local community organisations and sporting groups.

With the introduction of gaming machines, there is a concern that clubs have been negatively impacted financially by competition from hotels, which have drawn retail activity away from clubs. This has subsequently curtailed clubs' ability to provide facilities and services to the community and sporting organisations it is claimed, and in turn, compromised their social development role.

viable, there may be a need for a reduction in the number of clubs (and hence competition). This may in part be achieved through an amalgamation of competing clubs.

Although clubs provide important benefits to the community in terms of employment, taxes, and payments to suppliers, of more relevance are the intangible benefits (e.g., extent of volunteerism, use of sporting equipment, discounted meals, discounted drinks etc.) and sponsorship and donations provided by clubs. These features are of more relevance because they represent the additional benefits provided by clubs to the community, which are not necessarily provided by hotels or other organisations (at least to the same extent or as now is the case, discounted meals are subject to aggressive competition by hotels). CMP Marketing conservatively estimate that the average value of intangible benefits provided by each South Australian club is $10,110 per annum, or $11.6 million for the industry as a whole. In terms of sponsorship and donations, the club industry provides benefits of $2.8 million in aggregate,[29] or $2,400 per club. Unfortunately, there is no historical data with which to gauge the impact of gaming machines on clubs' ability to provide intangible benefits and sponsorship / donations to the community and sporting organisations. Nevertheless, the sponsorship, donations and intangible benefits provided by clubs are significant; when the enjoyment and satisfaction derived by members and consumers of clubs facilities and services are taken into account, then the community contribution of clubs would definitely be very significant.

Although gaming machines are argued to have negatively impacted clubs, they have provided a significant financial boost to some clubs that have installed gaming machines. For instance, the Clubs SA report indicates that gaming machine clubs had an average annual turnover of approximately $1.2 million compared to $186,000 for the industry as a whole. In turn, the adoption of gaming machines has enhanced the capacity of these clubs to provide greater benefits to both their members and the wider community. For example, whereas each South Australian club on average provides sponsorship and donations of $2,400 per annum, gaming clubs on average provide donations and sponsorship in the order of $24,000 per annum. Furthermore, the authors of the Clubs SA report note:

> "For the gaming clubs, poker machines have made a huge impact on the club and its facilities. By taking the initiative of making the gaming floor work, other facilities have been updated. The majority of Riverland Clubs observed that without gaming they would not be in existence today. In most cases they are planning or are currently undertaking renovations that may not have been possible without the introduction of the extra revenue from the machines."[30]

facilities and the method of industry development since the introduction of EGM's in 1994. What also is an obvious point, is the fact that many clubs simply do not have suitable premises in which to locate gaming machines.

We do not deny that there are other significant factors at play here, including the obvious fact that many clubs would not wish to participate in the gaming sector of the economy and many are not of a sufficient size to be able to do so. Notwithstanding, the location (venue) and scale of participation in the gaming industry is as set out in Table 2.3. Turnover data for machines in clubs shows that on average, clubs have a lower market share (i.e., share of turnover) than the number of machines would suggest, indicating lower patronage rates across most clubs.

Hotels[1]	497	12,301	24.8
Clubs[2]	88	1,649	18.7
Total		13,950[3]	

Notes: [1]

Focus groups conducted with smaller non-gaming clubs and larger gaming clubs for the Clubs SA report provided qualitative information on the difficulties being experience by clubs, especially smaller ones:

> "…smaller clubs are suffering with the introduction of poker machines as they cannot compete with the facilities and low cost food and alcohol of hotels. The smaller clubs believe that if there were not some favourable improvement in to the market soon, their clubs would become financially inactive and have to close".[32]

There was a consensus that many clubs would struggle to survive in the future and that the introduction of poker machines into hotels was the "primary reason blamed for their general financial and membership decline". Complicating matters, local council restrictions were observed as a major factor limiting clubs' ability to compete with hotels. In particular, a tendency to not grant approval for expansion of club premises (whereas it was stated that approval for hotel development seemingly faced little council resistance), leases that only allowed limited growth, minimal financial support for financing expansion and other council regulations were observed as major factors hampering clubs ability to grow. In summary, there was a perception that local councils did not understand or recognise the value of clubs to the community.

In recognition of the important social contribution of clubs and the negative impact gaming machines appear to have had on clubs in recent years, Clubs SA recently submitted a position paper to the Gaming Machine Review outlining their recommendations for addressing the above concerns. Clubs SA argues that the concentration of gaming machines into hotels "is unhealthy because it concentrates wealth into the hands of private owners, not all of who are reinvesting into South Australia". Consequently, Clubs SA argues that increased reinvestment of gaming machine expenditure into the community could be achieved by promoting the role of clubs in providing gaming machines. To do this, Clubs SA recommends that a long term policy aim of achieving an even distribution of gaming machines (i.e., 50/50) between clubs and hotels be adopted. It is claimed that this could be achieved by maintaining the freeze on gaming licences for hotels, while relaxing the restriction on clubs and allowing them to obtain gaming licences until the desired distribution was achieved. However, the current aggregate cap on gaming machines would need to be relaxed to achieve this objective.[33] Even this strategy would be unlikely to ensure even distribution within clubs. It would be more likely that expansion would occur in those clubs which already have machines.

Furthermore, Clubs SA argue that government policy should recognise that clubs do not have adequate access to finance and capital to install gaming machines and construct appropriate facilities. In this respect, Clubs SA recommends that clubs with gaming machines should be granted a $100,000 tax-free threshold, and that a special licence should be created that would allow specific clubs (i.e., "host" clubs of other clubs' machines) to have 100 gaming machines co-located under one roof, while maintaining the maximum limit of 40 gaming machines for each individual club. The latter would promote economies of scale by allowing clubs to pool their limited resources, and enable

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[32] CMP Marketing, p. 98.

[33] If a general cap were introduced then a progressive shift from hotels to clubs could occur where a hotel gave up a licence or reduced the number of machines approved and these were transferred to clubs.

the adoption of more effective management techniques than would be possible at a smaller club level.

It should be noted that clubs already receive more favourable treatment than hotels in

In recognition of the pressures gaming machines have exerted on various community and sporting organisations, three funds have been established under Section 73 of the Gaming Machines (Miscellaneous) Amendments Act 1996 with the purpose of reinvesting gaming machine taxation revenues back into the South Australian community. They are:

- The Charitable and Social Welfare Fund;
- The Sport and Recreation Fund; and
- The Community Development Fund.

In total, these funds were allocated $25 million in 1999-00. This represents approximately 12 per cent of total State government taxation revenue derived from gaming machines in 1999-00 which is not an insignificant amount. By comparison, the Provincial Cities in aggregate paid approximately $22.6 million in gaming machine taxation in 1999-00. (Total State Government taxation revenue from gaming machines was $211.8 million in 1999-00.) The funding programs are discussed separately below.

Grants are available in two different forms - normal grants (up to $30,000) and special grants ($30,001 to $75,000) where the latter provides funding for projects that are considered high priority from a community perspective. With respect to Special Grants, funding is made available on the basis that the organisation faces an overwhelming level of demand that exceeds the organisation's fundraising capacity. In addition, the organisation must have previously been engaged in significant fundraising activities prior to the introduction of gaming machines, and have experienced a decline in fundraising revenues following the introduction of gaming machines. From 2000/2001, Special Grants have been replaced by Strategic Special Grants.

For Special Grants (Mark II — funding rounds 7-9) and Strategic Special Grants, the Centre has cited evidence that agencies are able to demonstrate that:

- the agency was involved in substantial fundraising activities prior to the introduction of gaming machines; and
- the agency has experienced a downturn in fundraising associated with the introduction of gaming machines.

"Records of Fundraising Income" application forms illustrate the loss of income, in some cases quite substantial losses of income, following the introduction of gaming machines and the reason for special grants being awarded.

Community Benefit SA annually receives $3 million in gaming taxation revenue from Treasury to redistribute back to the community. Since being established in late 1996, a total of $11.2 million has been allocated over nine funding rounds with a total of 550 different community agencies receiving funding for 1,144 one-off projects. Importantly, demand for grants continues to exceeds supply, suggesting a need for increased resources to the Fund. For example, a total of 824 applications requesting $11.6 million in funding was received in 1999-00. Of these, a total of 308 applications (37.4 per cent), or $2.6 million in funding (22.4 per cent) was approved by the Fund. This need for increased funding has also been recognised by Mr Stephen Mann, chairman of the fund:

> "Despite the expenditure of $11.2 million over 4 years, we are still observing the difficulties that are facing organisations in the community. The Board Members and staff of the fund are aware of the many unmet needs and of the excellent community initiatives and supports that cannot be implemented because of the limitations of the Fund. Once again we commend to you (Minister for Human Services) and to your colleagues the need to increase the annual amount available through this important Fund. The community of South Australia would benefit greatly from such an increase."[35]

The amount of funding and grants approved by the Fund for the individual Provincial City regional areas are reported on in Section 4.1.3.

[35] Department of Human Services, p. 2.

The Sport and Recreation Fund distributes grants to community sporting and recreation organisations who require financial assistance. A total of $2.5 million is annually made available under the fund. Grants provided from the Sport and Recreation Fund[36] are administered by the Office for Recreation and Sport. The two main components of the Fund are the Active Clubs Program and the Statewide Facilities Program.[37] The amount of funding and grants approved by the Fund for the Provincial City regional areas are reported on in Section 4.1.3.

Under this program, funding can only be provided to those organisations that do not hold a gaming machine licence.

An interesting question is posed by the recent announcement of the Federal Government to provide $5 million for the purpose of restoring historic hotels "for country hotels battling to survive without poker machines". Only hotels without gaming machines can apply to the Federal Government fund (for grants between $10,000 and $100,000). Clearly, the impact of gaming machines on some hotels is acknowledged. What then about sporting and community clubs? How can the State Government address the impact on clubs in South Australia?

One option would be for State funding assistance for community based alternative recreation to be piloted through Clubs SA, including:

- capital grants to upgrade community sport and recreation facilities;
- incentives for co-location, mergers or amalgamations to enhance resource efficiency; and
- training and management support to improve the administration of clubs and to market alternative recreation activities.

Local Councils should be involved in such a scheme as they currently support many local community and sporting groups and can provide an input into questions of resource utilisation and efficiency. Proposals could be sponsored by the local government.

The Community Development Fund was established to provide financial assistance for community development and the provision of government health, welfare and education services. A total of $19.5 million was made available to the fund in 1999-00. The Fund is administered by the Department of Treasury and Finance and distributed across government agencies for mainstream services in education, health, welfare and other purposes across the State.

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[36] Established under the Gaming Machines Miscellaneous Amendment Act, 1996.

[37] Scholarship Program and Management Development are the other two sub-programs.

Gambling Research Reference Group has established priorities for research although we are unsure whether this information is publicly available and who has access to this research funding.

The CPSE study referred to above, investigated the prevalence of problem gambling in South Australia, and sought to identify "any association between problem gambling and ... location". The Centre's own study is complementary to the CPSE survey and has specifically investigated the extent of problem gambling by location (i.e., Provincial Cities and metropolitan Adelaide).

CPSE itself quotes the Productivity Commission on the difficult issue of identifying problem gamblers — problem with initial contact, of non-response and refusal, of denial, problem with indigenous communities — so multiple methodologies are required. Telephone poll surveys are likely to underestimate the extent of problem gambling.

CPSE comments that overcoming limitations of methods involves the "piecing together of information gathered via a range of research methods through a process called triangulation". This is precisely why the Centre sought data from the Department of Human Services — from the CPSE study and from Break Even agency monthly returns — to match it against our own. On almost all occasions, while individual officers were helpful, the absence of protocols or the inability to release non-confidential data was extremely frustrating and should be urgently addressed.

Finally, in this introductory section, we report on patterns of gambling in South Australia. The Centre of Population Studies in Epidemiology (CPSE) of the South Australian Department of Human Services has recently completed a comprehensive telephone survey of South Australian adults designed to elicit information on the prevalence and social impact of problem gamblers (the CPSE study / report). Because the survey was relatively large with a total of 6,045 respondents aged 18 years and over being interviewed, it represents an important source of information on South Australian gambling characteristics. The Productivity Commission's *National Gambling Survey* provides an alternative source of information on South Australian gamblers, however, the sample size for South Australia was relatively small (1,000 adults) and is therefore less reliable than the CPSE survey.

Table 2.4 presents information on the participation of respondents in various forms of gambling. In total, 75.6 per cent of respondents had participated in some form of gambling over the past 12 months. The most popular form of gambling was lotteries, with approximately 61 per cent of respondents having gambled on lotteries in the last year. Gaming machines were the next most popular form of gambling activity with 36 per cent of respondents having participated in this form of gambling. Interestingly, the Productivity Commission's *National Gambling Survey* found that a higher proportion of South Australians had played gaming machines, with 41 per cent of respondents indicating they had gambled on gaming machines in the 12 months prior to the survey. Other popular forms of gambling included Racing (16 per cent) and Keno (11 per cent).

Lotto or any other lottery game (e.g., Powerball, Pools, Super66, Lottery)	61.2
Gaming machines	36.4
Instant scratch tickets	32.1
Racing	16.1
Keno	10.7
Casino table games	4.9
Played games like cards, mah-jongg privately for money at home / other place	3.9
Bingo at a club or hall	3.2
Bet on a sporting event like football, cricket or tennis	2.7
Internet gambling	0.1
Did not participate in a gambling activity	24.4

Source: Centre for Population Studies in Epidemiology, 2001.

Selected demographic characteristics for both all gamblers and those who played gaming machines are presented in Table 2.5. The percentages displayed in the Table refer to gamblers / gaming machine gamblers as a proportion of the variable population. So for example, reading from the table reveals that 77.3 per cent of all male respondents had participated in some form of gambling activity in the last 12 months, while only 36.1 per cent of all males had played gaming machines.

In terms of gender, an even proportion of males (36 per cent) and females (37 per cent) had played gaming machines in the last year. In terms of all gambling activities, males (77 per cent) had a higher participation rate than females (74 per cent). This higher participation rate would largely reflect the increased popularity of betting on horses and greyhounds among males (21 per cent of males had gambled on racing compared to 12 per cent of females).

An analysis of gaming machine gamblers by age group reveals that persons aged 18 to 24 years have significantly higher participation in gaming machine gambling than other age groups. Approximately 51 per cent of persons aged 18-24 years had played gaming machines compared to 36 per cent of the total population. This becomes even more significant when it is realised that this age group has a participation rate in all gambling activities (72 per cent) that is below the population average of 76 per cent. Given that problem gambling is more highly associated with gaming machines, it suggests that this age group is more exposed to the potential danger of becoming a problem gambler, if only because hotels are a principal source of entertainment and serve as a meeting place for young people. Gaming machines were less popular among persons aged 75 years and over with only a quarter of this age group having played gaming machines in the last year. This was consistent with their lower participation in all gambling activities. All other age groups had gaming machine participation rates that were similar to the population average.

Perhaps the most surprising feature of the demographic characteristics of respondents is that a smaller proportion of country residents have played gaming machines than metropolitan gamblers. Around 33 per cent of country respondents indicated that they had played gaming machines in the last 12 months compared to 37.5 per cent of metropolitan respondents. While the figure for South Australian country participation is not statistically significantly different from the population average (i.e., the proportion of all persons who have played gaming machines), it is nevertheless surprising. In relative terms, the Provincial Cities have a disproportionately large share of both gaming expenditure and gaming machines (see Section 3.2) which together would logically indicate that an increased proportion of country residents play gaming machines. A more limited range of entertainment options and the central role played by hotels and clubs as entertainment venues in rural areas would naturally encourage greater participation by country residents.

Although an alternative explanation for disproportionately larger expenditure by the Provincial Cities is a higher share of problem gamblers in country areas, results from the survey indicate that the reverse holds true — the Adelaide metropolitan area has a higher incidence of problem gambling. Figures quoted in the report indicate the prevalence of problem gamblers in metropolitan Adelaide at 2.3 per cent of the population and 1.4 per cent of South Australian country (rural and remote) population.

Another possible explanation is that there is greater spending on gaming machines by tourists in rural areas, but this is highly unlikely. In fact, attributing higher expenditure to tourists is not supported by the pattern of gaming expenditure as evidenced by data held by the Liquor Licensing Commission. The most obvious explanation here is the small sample size and that grouping together "rural and remote" hides the true picture for regional centres and cities (also under reporting in telephone surveys). Those in remote areas clearly have less opportunities to gamble.

As it is currently reported, lower participation rates for country areas would imply that gamblers in the Provincial Cities spend a very high amount per gambler, an amount that would raise concern over the sustainability of such spending and therefore the well-being of gamblers (see Appendix B for an examination of gaming machine expenditure per gambler based on participation rates identified by the CPSE study). In fact, it would be significantly high enough to raise concern over the reliability of the CPSE figure for the country participation rate. In our view the sample size for non-metropolitan Adelaide combined with the problems associated with telephone poll surveys (i.e., under-reporting) casts doubt over the results for non-metropolitan Adelaide.

Interestingly, the disparity between country and metropolitan residents was not observed for those respondents who had participated in any form of gambling activity.

Looking at the demographic profile of gamblers by educational status, participation rates by educational status showed that for gaming machine gamblers, respondents with a higher educational status were less likely to have played gaming machines in the last 12 months. For those with a lower educational status, gaming machines and gambling in general was seen as a more attractive form of recreation and leisure than for other respondents.

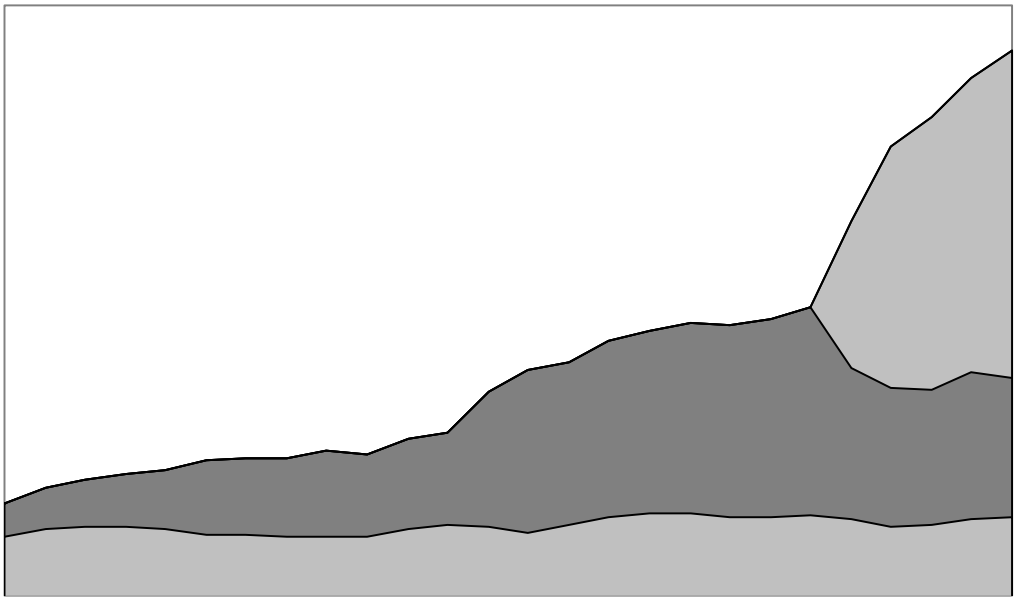
In terms of employment status, gaming machine participation rates were fairly even across different categories of work status. It is surprising that participation rates for unemployed persons and those who were not engaged in the workforce (e.g., students, retirees, persons with home duties) were not lower compared to full time employees given that these people generally have less financial resources to facilitate participation in such an activity. Indeed, the profile for all gamblers reveals a much stronger trend of lower participation rates for unemployed persons[39] and persons not engaged in the workforce relative to full time employees. In this respect, the profile of gaming machine gamblers and all gamblers by gross annual income shows that people on very low incomes are less likely to have gambled in the past 12 months.

[39] Centrelink and the Department of Family and Community Services have initiated a joint pilot program to identify clients whose financial difficulties could relate to gambling and to link clients with community service providers. They note that there is a stigma surrounding gambling and that "rural customers are particularly unwilling to disclose gambling problems". Where Centrelink customers are repeatedly requiring advance payments, have lost employment or financial details simply "don't add up", then these indicators could trigger intervention. The Port Lincoln Centrelink office is participating in the trial with a Victorian and Queensland office.

In order to gain an appreciation for the relative impact of gaming machines in the regions, the following section analyses trends in gaming activity at the national, state and regional levels. In particular, trends in the number of gaming machines and venues have been investigated to gauge the penetration of gaming machines into the regions, while regional gaming expenditures have been examined to determine the actual

The corresponding South Australian trends in gambling expenditure by broad sector are depicted in Figure 3.2. The introduction of gaming machines in 1994 induced a massive increase in consuming spending on gambling over the remainder of the decade. Total gambling expenditure increased from $370 million in 1990-91 to $739 million in 1998-99, an effective doubling of gambling expenditure over this period. By 1998-99, gaming machine expenditures represented 60 per cent of total gambling expenditures in South Australia. By comparison, gaming machines accounted for 55 per cent of national gambling expenditures in 1998-99. Like Australia, South Australian racing expenditure has remained relatively flat over the period of investigation.

Interestingly, Figure 3.2, for South Australia indicates that expenditure on "other gaming" declined following the introduction of gaming machines, unlike the national trend depicted in Figure 3.1. This suggests that gambling on gaming machines has, in part, substituted for spending on other forms of gambling. The sustained rise in spending on "other gaming" at the national level despite widespread introduction of gaming machines (Vic, Qld and SA) is probably explained by the legalisation of other forms of gambling, particularly casinos, in other states during this time.



include “minor gaming” (down 55 per cent) and “instant lotteries” (down 25 per cent). The impact on minor gaming is significant because this category includes forms of gambling employed by charities and social organisations to raise funds (e.g., Bingo). Racing experienced only a short-term negative impact from gaming machines with expenditure recovering in 1997-98. In terms of all forms of gaming expenditure, racing was 59 per cent of total gambling expenditure in South Australia in 1975-76 and has steadily fallen to 14 per cent of total gambling expenditure as more opportunities and types of gambling have been introduced. A decline in Lotto expenditure from the peak of $87m in 1990-91 has continued gradually through the 1990s.

Several interesting findings emerge from Table 3.1. Firstly, while South Australia accounted for 5.9 per cent of total Australian gambling expenditure in 1998-99, South Australian gaming machine expenditure represented 6.3 per cent of national gaming machine expenditure. That South Australia has a higher share of gaming machine expenditure relative to its share of total gambling expenditure does not necessarily indicate that South Australians’ gamble more intensively on gaming machines or that gaming machines are more prevalent in South Australia than Australia. This is because the absence of gaming machines (in non-casino venues) in Western Australia artificially boosts South Australia’s share of national gaming machine expenditure; thus, excluding Western Australia reveals that South Australia accounted for 6.3 per cent of total national gambling expenditure in 1998-99.

Overall, South Australia’s share of national gaming machine expenditure is therefore consistent with its share of total gambling expenditure.

An indication of the intensity of South Australian gambling may be derived from a comparison of South Australia’s share of gambling expenditure relative to its share of the adult population (defined as persons aged 18 years and over). South Australia accounted for 8 per cent of Australia’s adult population in 1999; this indicates that South Australia does in fact gamble less intensively on gaming machines and in aggregate relative to the Australian average. The only gambling activity in which South Australia has a larger relative expenditure is minor gambling which accounted for 10.5 per cent of Australian gambling expenditures in 1998-99. This result may be explained by South Australia’s relatively older population whereby older people have a greater interest in minor forms of gambling (e.g., eyes-down bingo).

Trends in South Australia’s share of Australian Gambling expenditure by type of gambling are illustrated in Figure 3.3. South Australian total gambling expenditure as a proportion of national gambling expenditure has increased by 1.7 per cent since 1973/74. Traditionally South Australia has retained a relatively high share of national “other gaming” expenditure. However, there was a dramatic fall in South Australia’s share of “other gaming” spending in 1994-95. The diversion of other gaming expenditures to poker machines would be the primary factor behind this, however, the introduction of casinos in other states around this time (i.e., growth of other gaming at the national level) would also be important. Again, from Figure 3.3 we can see that South Australia’s share of Australian racing expenditure has remained relatively steady over the period of the analysis.

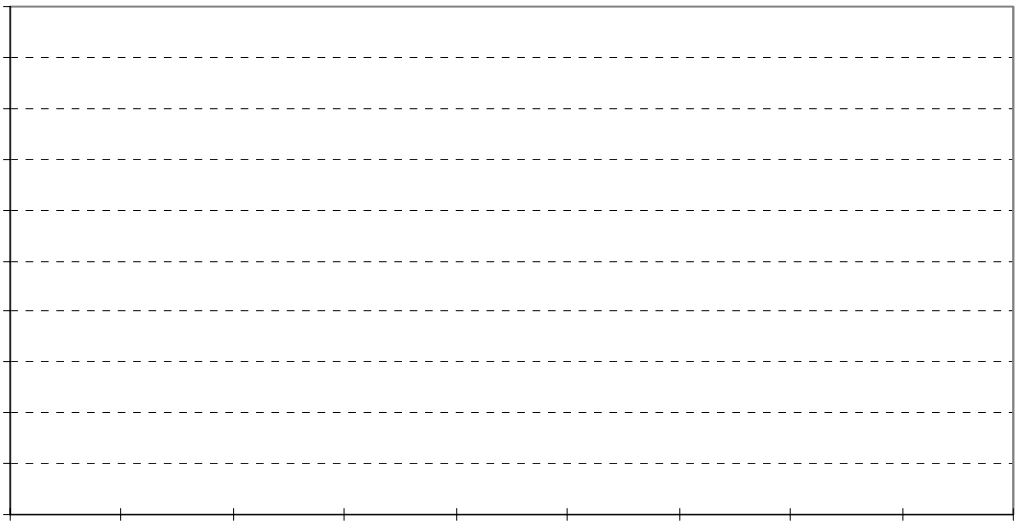
In 1990-91, Victoria and South Australia had the lowest gambling expenditures per adult of all States at $302 and $341 respectively. Nationally, gambling expenditure per adult was $456 in 1990-91. With the introduction of gaming machines, expenditure per adult increased significantly in both Victoria and South Australia. Victorian expenditure per adult increased to $969 by 1998-99, an increase of 221 per cent, while South Australian expenditure per adult increased 90 per cent to $650 per adult. By comparison, national gambling per adult increased by 92 per cent (to $874 per adult) between these periods. Queensland (104 per cent) is the other state to have experienced a more rapid increase in gambling per adult than South Australia. The larger increase for Victoria and Queensland reflects several factors, namely, the opening of new casinos during this period and the earlier introduction of gaming machines. Furthermore, tourism probably plays a more important role in both of these states in particular, the Crown casino has been characterised by a heavy marketing campaign, especially towards the high roller segment of the market. This would boost per capita gambling expenditures in both of these States.

1975-76	644.2	265.7	191.0	181.6	209.5	220.9	373.8
1980-81	635.7	280.6	163.8	199.3	179.8	337.7	376.3
1985-86	567.6	297.9	268.4	273.6	249.1	362.8	385.6
1990-91	650.6	301.6	375.6	341.3	420.2	374.9	456.5
1991-92	662.0	309.4	399.5	333.8	416.0	397.0	466.4
1992-93	689.7	374.4	486.6	341.4	473.3	387.8	515.0
1993-94	712.8	495.7	571.1	354.0	557.4	403.0	580.7
1994-95	772.1	668.0	557.3	456.1	580.2	424.5	654.1
1995-96	832.3	762.6	627.1	544.9	596.8	437.1	721.2
1996-97	853.8	804.6	624.8	577.0	534.9	466.9	734.9
1997-98	963.2	920.7	697.8	621.0	523.4	515.0	819.1
1998-99	1053.9	968.8	765.9	649.6	468.9	563.2	874.3
1975-76	425.6	-	-	-	-	-	152.9
1980-81	400.7	-	-	-	-	-	145.1
1985-86	313.7	-	-	-	-	-	113.2
1990-91	412.2	3.1	-	-	-	-	148.6
1991-92	422.8	11.1	14.4	-	-	-	157.1
1992-93	455.8	85.9	118.3	-	-	-	205.2
1993-94	476.5	223.4	160.0	-	-	-	255.9
1994-95	517.9	286.8	174.4	178.4	-	-	303.5
1995-96	530.4	373.3	217.4	293.5	-	-	346.8
1996-97	535.4	424.9	205.3	328.6	-	16.1	362.7
1997-98	636.5	492.8	238.3	353.6	-	68.8	423.8
1998-99	724.1	547.7	291.1	389.2	-	112.6	482.0

Source: Tasmanian Gaming Commission, Australian Gambling Statistics, 1998-99 and ABS, AUSSTATS, Population by Age by Sex, (3201.0).

The impact of gaming machines on aggregate gambling trends is clearly illustrated by the rise in gaming machine expenditure per adult. South Australian gaming machine expenditure per adult increased from nil prior to the introduction of gaming machines in 1994, to $389 per adult by 1998-99. Significantly, this is higher than the total level of all gambling expenditure per adult prevailing in 1993-94 ($354) shown in the top half of Table 3.2.

Because gaming machines were introduced several years earlier in Victoria and Queensland, trends in gaming expenditure in these States provide an indication of the likely immediate future direction of South Australian gaming expenditure. The Victorian experience would suggest that gaming expenditure per adult will continue to increase solidly over coming years. In contrast, per adult gaming expenditure has increased only slowly in Queensland. Despite introducing gaming machines later, South Australia ($389) had a higher level of spending per adult than Queensland ($291) in 1998-99. Potential explanations for this outcome would include the opening of additional casinos during this period in Queensland which have drawn gambling expenditures away from gaming machines (or at least are recorded in data for casino gambling), and the higher population growth rate in Queensland which dilutes growth in gaming expenditure per adult. These factors would suggest that South Australia is more likely to follow the Victorian experience with expenditure per adult continuing to grow over forthcoming years. Furthermore, the high level of gaming expenditure per adult for New South Wales ($724) - where gaming machines have a much longer history (gaming machines were formally introduced into NSW clubs in 1956) - would also suggest that South Australian gaming expenditure will increase (perhaps significantly) in the longer term.



problem gambling and policy issues relevant to this group, the three council areas are reported separately in Chapter 4. In particular, trends in gaming machine expenditure, gaming machine taxation revenue and the number of machines and venues have been investigated for each Provincial City from data provided by the Office of the Liquor and Gaming Commissioner.

1988-89	172	125	63	95	99	94	124
1989-90	189	143	99	107	119	104	145
1990-91	196	147	110	116	130	114	152
1991-92	197	150	121	117	130	121	155
1992-93	206	174	128	121	142	123	168
1993-94	224	222	144	119	150	130	190
1994-95	237	267	161	164	162	144	214
1995-96	256	307	170	202	177	150	237
1996-97	263	334	177	222	155	174	248
1997-98	284	369	197	251	160	180	270
1998-99	292	395	223	279	152	193	287
1988-89	68	0	0	0	0	0	24
1989-90	79	0	0	0	0	0	27
1990-91	82	2	0	0	0	0	29
1991-92	82	3	2	0	0	0	29
1992-93	85	31	21	0	0	0	41
1993-94	95	78	30	0	0	0	58
1994-95	109	116	33	56	0	2	77
1995-96	114	150	37	99	0	6	91
1996-97	117	181	40	120	0	13	103
1997-98	145	201	70	142	0	30	125
1998-99	172	231	88	168	0	44	147

Note: * Persons aged over 18 years of age
Source: Tasmanian Gaming Commission, *Australian Gambling Statistics*, 1998-99, and ABS, AUSSTATS, Population by Age by Sex, (3201.0).

The trend in gaming machine expenditure for the individual Provincial Cities and South Australia are shown in Table 3.6. Following the introduction of gaming machines in 1994, total gaming machine expenditure for the Provincial Cities increased rapidly to $42.3 million in 1995-96, which has subsequently increased to $56.2 million by 1999-00;

this represents a 33 per cent increase in expenditure between 1995-96 and 1999-00. By comparison, South Australian aggregate gaming machine expenditure has grown more rapidly, increasing by 52 per cent over this period, from $319 million to $486 million.

Riverland	10.03	11.16	11.28	12.13	12.98
Mount Gambier	8.90	9.76	10.45	11.08	11.91
Murray Bridge	4.01	4.82	5.34	5.70	6.16
Port Augusta	4.24	4.46	5.01	5.20	5.57
Port Lincoln	3.28	3.74	4.39	5.26	5.69
Port Pirie	4.78	5.13	5.13	5.60	5.74
Whyalla	7.09	7.48	7.50	8.05	8.13
Provincial Cities	42.33	46.55	49.10	53.02	56.17
South Australia	319.23	364.26	394.63	442.46	485.99

Source

It is important to note that while the Provincial Cities account for a disproportionately large proportion of the State's gaming machine expenditure, their share of gaming machine expenditure has in fact declined over the period of the analysis from 13.3 per cent in 1995-96, to 11.6 per cent in 1999-00. A potential explanation could be that the hotels and clubs within the various Provincial Cities were adept at quickly installing gaming machines following their introduction in 1994; this possibly led to a rapid saturation of venues with gaming machines which limited the potential for subsequent growth in gaming machines and gambling expenditure relative to South Australia. Alternatively, economic conditions outside the Provincial City areas (i.e, metropolitan Adelaide) may have been more favourable towards the formation or expansion of gaming machine venues (i.e., hotels and clubs).

Riverland	3.1	3.0	2.9	2.7	2.7
Mount Gambier	2.8	2.7	2.6	2.5	2.4
Murray Bridge	1.3	1.3	1.4	1.3	1.3
Port Augusta	1.3	1.2	1.3	1.2	1.1
Port Lincoln	1.0	1.0	1.1	1.2	1.2
Port Pirie	1.5	1.4	1.3	1.3	1.2
Whyalla	2.2	2.0	1.9	1.8	1.7
Total Provincial Cities	13.3	12.8	12.4	12.0	11.6
South Australia	100.0	100.0	100.0	100.0	100.0
Riverland	2.2	2.2	2.2	2.2	2.2
Mount Gambier	1.5	1.5	1.5	1.5	1.5
Murray Bridge	1.1	1.1	1.1	1.1	1.1
Port Augusta	0.9	0.9	0.9	0.9	0.9
Port Lincoln	0.8	0.8	0.8	0.8	0.8
Port Pirie	1.2	1.2	1.2	1.2	1.2
Whyalla	1.6	1.5	1.5	1.5	1.5
Total Provincial Cities	9.3	9.2	9.2	9.2	9.1
South Australia	100.0	100.0	100.0	100.0	100.0

Source: Office of the Liquor and Gaming Commissioner and ABS, Population by Age and Sex (3235.4).

Looking more closely at individual regional areas, Mount Gambier, the Riverland and potentially Port Lincoln had a relatively high share of gaming expenditure. Murray Bridh share o6he(.)]52 -0.8pae o

exaggerated, as it acts as a service centre for some of the neighbouring population, particularly the District Council of Grant. Although Grant had an adult population of over 6,000 in 1998 it only has one venue with a limited number of machines and an average NGR[43] per adult which is significantly below the average for regional South Australia; the data strongly suggest that many of the residents of Grant use gaming machines in Mount Gambier when they chose to gamble.

The use of an aggregate figure for the Riverland also hides some of the variability in expenditure between the Provincial Cities. Despite having similar income levels,[44] $13,064 per adult for Berri Barmera and $12,960 for Loxton Waikerie, and the same number of gaming venues (7 each), these two Riverland council regions have significantly different levels of expenditure. Berri Barmera had the highest NGR per capita of all the Provincial Cities in 1999, recording an expenditure level of $633 per adult. Loxton Waikerie by contrast recorded an expenditure level of $361, the lowest of the cities.

The data in Table 3.7, which show that the Provincial Cities have a disproportionately large share of the gaming expenditure, can alternatively be expressed in expenditure per capita terms. Table 3.8 shows how the higher share of gaming expenditure for the Provincial Cities translates into higher gaming expenditure per capita relative to South Australia. For instance, in 1999-00 the Provincial Cities had an average expenditure per adult of $539, which is 27 per cent higher than the State average of $425. Reflecting the stronger growth in South Australian gaming expenditure, the difference in expenditure per adult between the Provincial Cities and South Australia has declined over time - spending per adult was originally 43 per cent higher for the Provincial Cities relative to the South Australian average in 1995-96. In fact, for each year of the analysis, every Provincial City had an expenditure per adult that was higher than the South Australian average.

Riverland	409	455	454	489	522
Mount Gambier	532	582	621	654	700
Murray Bridge	330	395	434	456	489
Port Augusta	414	443	499	524	560
Port Lincoln	355	404	467	556	591
Port Pirie	359	384	382	419	431
Whyalla	404	430	434	470	481
Provincial Cities	408	449	471	509	539
South Australia	286	324	349	389	425

Source: Office of the Liquor and Gaming Commissioner and ABS, Population by Age and Sex, (3235.4).

[43] NGR: net gaming revenue, figure not reported here, due to confidentiality of data.

[44] Based on ATO TaxStats Total Income minus Net Tax paid.

A higher expenditure per adult for the Provincial Cities is probably explained by a greater prevalence of gaming machines which encourages/allows a greater proportion of the local population to participate in gaming machine gambling. Indeed, data presented in Section 3.2.2 reveals that gaming machines are more widespread throughout the Provincial Cities relative to the State as a whole. Furthermore, hotels and clubs are usually a central entertainment feature within regional areas. The introduction of gaming machines into these venues would naturally expose a broader segment of the local population to gaming machines. However, a higher expenditure per adult could also be explained by more limited entertainment opportunities within the Provincial City areas. This could encourage greater spending on gaming machines.

With respect to the individual Provincial Cities, Mount Gambier had the highest expenditure per adult at $700 in 1999-00. Port Lincoln ($591) and Port Augusta ($560) also had relatively high levels of gambling expenditure, while an expenditure per adult of $522 for the Riverland may be considered low given the regions disproportionately high share of State gambling expenditure. Murray Bridge ($489), Whyalla ($481) and Port Pirie ($431) all had spending per adult below the Provincial City average.

Gaming expenditure per machine gives some insight into gambling intensity, however differences between regions may simply reflect the availability of gaming machines rather than actual differences in spending patterns between the respective regions. Table 3.9 shows that gaming expenditure per machine is substantially lower for the Provincial Cities relative to South Australia. On average, Provincial City gamblers lost $29,562 per machine in 1999-00, while South Australians lost $38,153 per machine. Only Murray Bridge ($38,510) had a higher level of spending per machine than the State average.

Riverland	28,407	29,000	28,402	28,752	30,040
Mount Gambier	33,966	31,782	30,558	30,683	28,969
Murray Bridge	41,804	31,694	35,619	35,596	38,510
Port Augusta	25,689	25,197	21,688	20,007	21,166
Port Lincoln	32,790	20,026	23,704	25,186	31,594
Port Pirie	27,812	24,191	24,208	25,795	24,125
Whyalla	42,468	41,791	41,924	44,014	37,626
Provincial Cities	32,193	29,114	28,951	29,262	29,562
South Australia	34,467	34,854	36,211	37,045	38,153

Source: Office of the Liquor and Gaming Commissioner.

machines and venues are more prevalent in the Provincial Cities. The relationship between the intensity of gaming machines and spending per adult is more closely examined in the following section.

Data presented here reveals that both gaming machines and gaming machine venues are more prevalent within the Provincial Cities relative to the State, with Port Pirie the only Provincial City to have a number of adults per gaming venue which is consistent with the aggregate for South Australia.

The analysis of gaming machine and venue numbers in Section 3.1.2 has already shown that the penetration of gaming machines into South Australia has been much more rapid than in Victoria. A higher prevalence of gaming machines increases the exposure of the local population to gaming machines and as a result, raises gambling expenditure. In turn, this potentially increases the economic and social impacts of gaming machines. For example, if an increased number of gaming machines leads to greater gambling expenditure within the region, then the amount of income leaving the region through State government taxation will be higher. Hence, these issues are very important from a regional perspective as well as a State perspective.

Table 3.10 provides information on both the number of gaming machines and the number of machines per 1,000 adult population for each of the Provincial Cities and South Australia. There were 1,900 gaming machines located within the Provincial Cities in 1999-00, and this represents 14.9 per cent of all gaming machines within South Australia (14.2 per cent in 1995-96). Relative to their share of the State's adult population (9.1 per cent), the Provincial Cities therefore have a disproportionately high share of the State's gaming machines.

A disproportionately high share of gaming machines is subsequently reflected in the number of gaming machines per 1,000 adults. The Provincial Cities averaged 18 machines per 1,000 people in 1999-00 compared to 11 machines per 1,000 people for South Australia.

An increased prevalence of gaming machines, which encourages a greater proportion of the population to participate in gaming machine gambling, would most likely explain the higher expenditure per adult (and the greater share of the State's gaming machine expenditure) observed for the Provincial Cities. Furthermore, an increased number of gaming machines explains the lower spending per machine identified for the Provincial Cities in Table 3.9. However, greater expenditure could also potentially be accounted for by increased spending per gambler rather than an increased proportion of adults gambling on gaming machines. In particular, a higher incidence of problem gamblers would boost gaming expenditure within the Provincial Cities - the Productivity Commission estimates that problem gamblers account for approximately 42 per cent of

various regions. For instance, with 903 people per gaming machine venue, Port Augusta had relatively more gaming machine venues than any other Provincial City in 1999-00, which together had an average of 1,428 people per venue. In comparison, the intensity of gaming venues at the South Australia level was lower with 2,025 people per venue on average. Given that gaming machines are more prevalent in the Provincial Cities, it is not surprising that there are relatively more gaming venues within these regions.

level. Since that time, State level gaming expenditure has grown more rapidly as the capacity for increasing the number gaming machines and venues in the remainder of the State was greater.

It has been shown previously that the Provincial Cities, on average, have a higher level of gaming machine expenditure relative to South Australia. This is demonstrated by a higher gaming machine expenditure per adult, whereby the Provincial Cities averaged $539 per adult versus $425 per adult for South Australia. It subsequently follows that greater gaming expenditure will be associated with a higher level of taxation revenue, and therefore an increased amount of income potentially leaving the region. Aggregate taxation revenue details for the Provincial Cities are presented in Table 3.12.

Riverland	3.42	4.03	4.40	4.27	4.68
Mount Gambier	3.07	3.58	4.19	4.56	4.89
Murray Bridge	1.38	1.79	2.17	2.37	2.68
Port Augusta	1.48	1.61	1.94	1.97	2.20
Port Lincoln	1.14	1.34	1.67	2.16	2.36
Port Pirie	1.64	1.84	2.00	2.29	2.29
Whyalla	2.44	2.78	3.08	3.54	3.50
Provincial Cities	14.55	16.97	19.45	21.16	22.61
South Australia	110.11	134.50	160.68	191.26	211.79

Source: Office of the Liquor and Gaming Commissioner.

Aggregate gaming machine taxation revenue collected by the State government from the Provincial Cities in 1999-00 was $22.6 million. The amount of taxation revenue collected from the Provincial Cities has increased by 55 per cent since 1995-96. In comparison, the amount of tax revenue collected at the State level has grown more strongly over this period (increasing 92 percent) in response to stronger growth in gaming machine expenditure for the state as a whole. Nevertheless, the Provincial Cities contribute relatively more in gaming machine taxation, with the Provincial Cities averaging $217 in gaming taxation revenue per adult compared to $185 per adult for South Australia (Table 3.13).

- gaming expenditure as a proportion of household final consumption expenditure was 2.9 per cent in 1999 (Australia, 3.5 per cent);
- total gambling taxation revenue represented 8.0 per cent of total State taxation revenue in 1999 or $280 per adult, (the third highest revenue per adult in 1999);
- taxation revenue from gaming machines in South Australia in 1998-99 represented 60.2 per cent of government revenue from all forms of gambling which is the highest proportion of all States and Territories;
- there are 11 machines per 1,000 adult persons in South Australia, compared to 8 machines per 1,000 persons in Victoria;
- there are 50 venues per 100,000 persons compared to 15 in Victoria; and
- expenditure per machine averaged $37,045 in South Australia in 1999 compared to $71,611 in Victoria, a comparison which is influenced by the cap on the number of machines in Victoria since December 1997, the actual number of venues and machines and the mobility of machines within the Victorian gaming industry.

Regional trends for the combined Provincial Cities show:

- gaming machine expenditure (losses) in the Provincial Cities represented 13.3 per cent of all losses in the State in 1995-96 declining to 11.6 per cent in 1999-00 above the combined population share of 9.1 per cent;
- average expenditure per adult in the Provincial Cities on EGMs was $539 which was 27 per cent higher than the State average of $425 (1990-00);
- the Cities possess a disproportionate share of all gaming machines at 14.9 per cent with a population share of 9.1 per cent;
- the Cities possess a higher number of machines per 1,000 adult persons at 18 machines, compared to a State average of 11;
- all but Murray Bridge have a lesser number of adults per gaming venue than the State average, reflecting the intensity of gaming venues in the Provincial Cities; and
- in 1999-00 the Provincial Cities averaged $217 in gaming taxation revenue per adult compared to $185 per adult for South Australia.

In this section we examine the economic and social impact of gaming machines on the Provincial Cities, with a particular emphasis on problem gamblers, but also to understand the link between those factors most likely to influence patterns to be observed in net gaming revenue within the Provincial Cities. We report on expenditure and grants within the regions based on data provided by State Government agencies. Social impacts of gaming machines are discussed based on data and information supplied by Councils, hotels, and licensed clubs, counsellors and other community groups.

As mentioned in the literature review, the Productivity Commission (in its report 'Australia's Gambling Industries') conducted econometric analysis on the relationship between regional income and net gaming revenue. The econometric analysis found evidence of concentration of gaming machines in lower socio-economic areas. In particular they found an inverse relationship between a region's income and the total amount spent on gaming machines. They also found a negative and significant relationship between median weekly income and average annual expenditure on electronic gaming machines for regions in South Australia. This could be seen as suggesting that persons in lower income groups:

- are more likely to gamble using electronic gaming machines; and / or
- are more likely to lose (spend) more when they do so.

This is not necessarily the case however, as statistical correlation does not imply causation. It could just as easily be the case that expenditures and income are both related to some other factor, such as age.

The Centre was interested in testing the factors which influence the differences in net gaming revenue between different areas in an attempt to determine if there was a link between low incomes and electronic gaming machine revenue, or whether it was other factors which were influential. The regression technique used was ordinary least squared (OLS) regression, and the dependant variable chosen was Average Net Gaming Revenue per Adult in each council area.

For the purposes of this econometric analysis regions were defined as current council areas, as this was the level at which data on electronic gaming machine numbers and net gaming revenue was provided by the Liquor and Gaming Commission. Disposable income was calculated as total income minus net tax, sourced from the Australian Taxation Office's 1998 / 99 Taxstats database. Unemployment numbers were drawn from the Department of Employment, Workplace Relations and Small Business "Small Area Labour Markets" publication, and were used as a proportion of the adult population. As unemployment is expressed as a proportion of the adult population, rather than as a proportion of the labour force, these numbers are not directly comparable with the ABS'

unemployment rates. Other data was sourced from the ABS. As Mount Gambier acts as a service centre for neighbouring towns, data on the Mount Gambier council and the District Council of Grant was combined for the purposes of the econometrics.

Adjusted R-squared is the most commonly used measure of significance for OLS regressions, measuring the proportion of the actual variation in the dependant variable explained by the estimated equation. The F-test statistic is a measure of the overall significance of the coefficients in the equation, hence the 'Probability F' is the probability that all of the coefficients other than the intercept are zero. As can be seen from the various test of significance this equation is a good model of the factors influencing the level of Net Gaming Revenue per adult in South Australia.

A significant number of other factors were included in the analysis but were eliminated from the final estimated equation as they were not statistically significant. Factors considered in the initial analysis included:

seven Provincial Cities with unexpectedly high annual net gaming revenue per adult all have above average unemployment, and six of the seven are above average for each of the proportion of Aboriginals and the proportion of dwellings rented from the Housing Trust.

Berri Barmera	686.30	13,720.27	0.0135	19.7	6.7	2.25	11.42
Loxton Waikerie	372.52	13,566.50	0.0009	15.4	3.6	0.78	7.17
Renmark Paringa	525.53	13,526.58	0.0076	17.3	5.8	1.30	9.68
Mount Gambier & Grant	530.37	15,284.25	0.0073	18.3	5.2	0.94	12.26
Murray Bridge	493.85	11,692.44	0.0033	12.8	7.7	3.69	14.91
Port Augusta	560.24	12,833.11	0.0095	26.5	7.8	13.84	26.10
Port Lincoln	600.25	14,399.07	0.2635	23.3	6.5	4.50	18.35
Port Pirie	429.61	12,129.28	0.0024	18.1	8.5	1.56	14.91
Whyalla	474.73	13,195.45	0.0068	12.6	8.8	2.19	36.33

Source

Another recommendation arising from these econometric results is that there would appear to be a need for detailed epidemiological research into the demographic factors which were significant in the econometrics. This research would be conducted to establish whether the factors are themselves linked to a higher preponderance of problem gambling, or whether they are acting as indicators for some other causal factor.

There needs to be further research to substantiate these findings and to link the results to public policy deliberations, with at least an initial starting point being to develop a 'regional risk profile'.[46]

As well as the issue of the damage caused by problem gambling the other area that is

In order to properly conduct an economic impact analysis it is necessary to be very clear as to what is being used as the alternative scenario (also known as the counterfactual). The scenario used should be considered to be the most likely to occur if the event being analysed did not occur, and should be clearly identified. In this case we have assumed that in the absence of electronic gaming machines being introduced in South Australia expenditure on other forms of gambling would have remained at their 1993-94 levels as a proportion of household expenditure. It was assumed that the remaining net gaming revenue would have been spent on consumption.

There were two primary tasks in this input-output analysis, firstly calculating the extent to which employment has increased in gaming machine venues (based on survey returns and input-output analysis), and secondly determining how much employment is likely to have fallen in other sectors (using input-output analysis). Each of these tasks involved a number of steps and required some assumptions to be made.

The estimates for the increase in gaming related employment are derived from the returns from venues regarding their average weekly payroll expenditure, and from the current award wages for hotel and club employees (adjusted backwards for previous years by the average annual growth in full-time private sector wage costs). Assumptions were also made on the grading of employees (standard bar and gaming employees, or supervisors); on the proportions of employees who were full-time, permanent part-time and casual (based largely on the survey returns); and on the quantity of overtime worked. It was assumed that:

- 75 per cent of staff in venues were gaming machine operators / bar staff, and 25 per cent were gaming room supervisors; and
- the distribution of staff was 40 per cent full-time, 10 per cent part-time (loading 110 per cent), 45 per cent casual (loading 150 per cent), and 5 per cent (of any status) working Sundays and public holidays (loading 200 per cent).

This average weekly salary ($619 in 1999) was applied to the payroll information of the responding firms to produce estimated Full-Time Equivalent (FTE) employment for the responding venues. As total employment by 'Pubs, taverns and bars' and 'Clubs (hospitality)' for the region was known for 1996 from the Census results, it was possible to estimate the share of total sectoral employment represented by the responding venues. The 'reporting venue' estimates for each year were then factored up by this share of 1996 employment, such that they provided an estimate of total regional employment in these sectors.

As can be seen from Table 4.2A, the estimated gross increase in employment in gaming machine venues for the Riverland coincident with the introduction of electronic gaming machines is 95 FTE staff members. These estimates of the increase in employment are likely to be conservative, as they do not include any allowance for multiplier effects due to expenditure by these employees.

than racing, have zero regional employment according to 1996 census data). The level of diversion was calculated by increasing the 1993/94 expenditure for non-gaming machine gambling in line with the rate of increase in total household expenditure, and comparing this 'no change' estimate with the actual expenditures on these forms of gambling. The results of this analysis suggested that up to 1998/99 other forms of gambling had fallen by $110 million since the introduction of electronic gaming machines, accounting for approximately one quarter of the net gaming revenue from electronic gaming machines. Consequently to calculate the regional diversion of expenditure local net gaming revenue for electronic gaming machines was adjusted down by 24.5 per cent. This produced diverted expenditure estimates of $4.36 million for Berri Barmera, $2.59 million for Loxton Waikerie and $2.85 million for Renmark Paringa.

These regional diverted expenditures then needed to be assigned between different sectors so that they could be inserted into the regional Input-Output tables the Centre has developed for each of the Provincial Cities. This was done by distributing the diverted expenditure between different sectors according to the pattern of household consumption expenditure (excluding expenditure on rent and education) for 1998/99 outlined in the ABS' Australian Economic Indicators publication (2001). For the purposes of this analysis expenditure in the sector 'Other goods and services' was divided 60:40 between Wholesale & retail trade, and 'Cultural, recreational and personal services. Table 4.2C illustrates the assumed distribution of the origin of this diverted expenditure between sectors.

Wholesale and retail trade	0.414	-1,805.2	-1,070.4	-1,177.5
Accommodation, cafes and restaurants	0.103	-448.2	-265.8	-292.4
Road transportation	0.131	-570.3	-338.1	-372.0
Services to transport	0.034	-146.2	-86.7	-95.4
Communication services	0.030	-132.4	-78.5	-86.4
Finance and insurance	0.087	-379.2	-224.8	-247.3
Cultural, recreational and personal services	0.202	-881.4	-522.6	-574.9

The final step in this task was to feed these reductions in expenditure into the input-output tables for the three Riverland councils. The results in terms of reductions in FTE employee numbers were:

- Berri Barmera: -56.9
- Loxton Waikerie: -33.7
- Renmark Paringa: -37.1
- Total, Riverland: -127.7

The gross increase in employment due to the introduction of electronic gaming machines is estimated to range between 125 and 155 FTE employees, depending on whether the government has increased regional expenditure by 50 or 100 per cent of the increase in local revenues.

Off-set against this gross increase in employment due to electronic gaming machine venues and government expenditure is the reduction in employment due to reduced spending in other sectors. The results from the input-output analysis suggest that the combined direct and indirect effects of this reduction in expenditure are approximately equal to a decline in employment of 128 FTEs.

These two estimates indicate that, providing the government has increased their regional expenditure by an amount equal to at least half of the regional increase in taxation revenues then the net effect of the switch in spending towards electronic gaming machines is either zero or slightly positive. This result is dependent upon what has happened to government expenditure in the regions; unfortunately the current structure of state budgets does not allow this trend to be verified.

Almost all venues reported that gaming machines had a positive effect on the type of facilities and services they offered to their customers and/or members. Income from gaming machines had allowed many venues to significantly upgrade their existing facilities and/or provide additional facilities and services. For example, some venues had upgraded existing "dining room facilities, bar facilities and accommodation facilities", while others who did not previously provide such facilities and services were now able to do so. Examples of new facilities provided included a playground for children, bistro area, motel for accommodation, outdoor eating area and a drive through take-away food facility.

The combination of upgraded facilities and the introduction of gaming machines had subsequently increased patronage, resulting in a significant increase in beverage and food trade. The following evidence was supplied in this regard:

- the average number of meals supplied per month at one venue had increased by 710 per cent between 1994 and 2001;
- at another venue, the number of meals sales per week had increased by 248 per cent (time frame of increase not supplied); and
- one venue was now able to offer meals most days of the week rather than just over weekends.

Increased patronage not only increased trade activity, but also allowed several venues to operate for longer hours. This would enable employees to work longer hours or otherwise increase venue employment.

Gaming machines had enabled the majority of venues to improve their facilities and services provided. For a small minority of venues gaming machines had not affected the type of facilities and services offered by the venue. For one venue the provision of gaming machines even cost the venue money. This reflects the scale operation whereby a small number of machines are insufficient to recoup the capital and operating costs of supplying the machines. On the other hand, the income provided by gaming machines

Over the period from 1993 to 2001, the councils had approved capital investments totalling $15.5 million. Not surprisingly, Provincial Cities with high levels of capital investment tended to be those cities with relatively higher gaming machine expenditure and/or relatively more gaming machines. Provincial Cities with high levels of capital investment included the Riverland (especially Renmark-Paringa and Berri-Barmera), Port Lincoln, Port Augusta and Mount Gambier. The majority of capital investment for Port Lincoln related to one investment only that, at the time of writing, had been given planning consent only.

Murray Bridge, Port Pirie and Whyalla had relatively lower levels of capital expenditure.

We have already noted that we do not support the conclusions of the Pinge (2000) study on the Bendigo region in Victoria, because the structure of ownership of gaming machines (by Tabcorp and Tattersalls) is different in Victoria to the situation that exists in South Australia, and this impacts on profit retained and reinvested in a local community and the returns to capital. In South Australia, gaming machines are predominantly owned by the hotels. The Pinge study also fails to attribute any consumer surplus gains associated with recreational gaming. Just as leakage of gaming expenditure from the local economy is an important consideration for the Provincial Cities equally, expenditure in the regions for infrastructure, capital works, government and community services represent important injections in the cities. The Regional Infrastructure Program administered by the Department of Industry and Trade following the recommendations of the South Australian Regional Development Task Force is a case in point.

Understanding how gaming machines have affected revenue flows in and out of the Provincial Cities since their inception is extremely difficult. While it is easy to determine how much initially leaves the regions through the taxation of gaming machines, it is almost impossible to calculate how much is returned to the regions though government funding of projects and services. This is mainly because the majority of gaming machine taxation revenues are not tagged for specific purposes and instead feed directly into the State Governments' general revenue pool.

In fact, quite the contrary, because special programs in education, Attorneys-General, Human Services have been implemented in regions and the Provincial Cities.

Information on funding through the Charitable and Social Welfare Fund and through Recreation and Sport are considered here, specifically because community and sporting organisations are most likely to have experienced difficulties in fund raising and patronage retention after the introduction of gaming machines. Private donations by hotels and clubs are not reported here as they do not represent injections into the region.

The data has been sourced from the Departments of Human Services and the Office for

Cities ($2 million from $94.7 from gaming tax revenue collected as summarised in Table 4.5). However, this is only one source of injections into the regions; in regard to the total amount of funds allocated to this program there may be some scope to argue for a higher allocation given that submission requests well exceed all that can reasonably be funded, and that many agencies are able to demonstrate the financial impact of gaming machines on revenue raising.

While the potential loss of regional income represents the primary negative impact of the taxation of gaming machine expenditure from a local government perspective, another concern arises over the regressive nature of gaming machine taxation. A tax is said to be regressive when the burden of taxation falls disproportionately on lower income

Figure 4.1 also demonstrates the regressive nature of gaming machine taxation. In fact, a Productivity Commission comparison of different gambling taxes found that taxes on gaming machines and lotteries were the most regressive forms of gambling taxation and therefore "provide the most cause for concern on equity grounds". The Productivity Commission subsequently recommended that any consideration for reducing gambling taxes to improve equity outcomes should focus on gaming machine and lottery taxes. However, as noted by the Productivity Commission, the scope for reducing the burden on lower income groups by reducing taxation on gaming machines and raising other state taxes is limited because many other sources of state government taxation are also regressive including excise on petrol, alcohol and tobacco which are collected for the States by the Commonwealth. Furthermore, lowering taxes on gaming machines may potentially increase gaming activity and therefore exacerbate problem gambling, which is a highly undesirable outcome. Alternatively, increasing taxes may actually increase the negative social and private costs of gaming machines if problem gamblers, who largely suffer from an addiction to gambling, are not deterred from playing gaming machines and suffer increased losses in the event that gaming machine taxes are raised (Smith, 1999). The conclusion here is that tax rates are a blunt instrument for addressing problem gambling.

taxation has often been a strategy to avoid or delay introducing more progressive taxes, such as income taxes, which are nevertheless, more controversial politically".

The decision to pursue regressive gambling taxation sources rather than more politically sensitive progressive taxes (e.g., property and wealth taxes) may reflect the belief that because gambling taxes are voluntary, they are fairer (i.e., painless) and more acceptable to the community (Smith, 1999). While the Productivity Commission argues that consideration should be given to the negative equity impacts of voluntary forms of

- principally males who have gambled most of their life, experience big increase in losses and debt leading to social and legal problems;
- EGMs have created a new breed of problem gambler, may who have never

exacerbate problem for aboriginal communities. This has important implications, yet surprisingly little research or documentation exists on current impacts.

Exposure to gaming machines is more frequent in regional areas observed Break Even Counsellors and there is general support for this observation as indicated in this report. There is a more limited range of entertainment and alternative activities in regional

A ‘mobile worker’ to cover remote areas of the State would support more frequent visitations to smaller communities. Problem gamblers place pressure on other health resources such as for depression, counselling, medical visitations. There may be a case for more workers to specifically assist Aboriginal communities — we raise this because of data reported in Section 4, but note that the Centre is not in a position to make a firm recommendation on this issue.

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General response was that hotel owners are helpful with people who report as having a problem, although they are not generally conversant with the impact on family, households, work and friends. This can give rise to some degree of defensiveness.

“Most have been open to accepting information from the Break Even service”. Within

In addition to seeking information on the economic impact of gaming machines, the Centre's survey of gaming machine establishments also sought information on how gaming machine establishments cope with problem gamblers. In particular, venues were asked to provide information on whether they were able to effectively identify problem gamblers, what mechanisms exist for problem gamblers to bar themselves, what training is provided to staff in respect of identifying potential problem gamblers, and whether they employ any specific strategies to minimise harm from problem gambling. A summary of gaming machine venues' responses to these issues is provided here.

The majority of gaming establishments indicated that they were able to effectively identify problem gamblers. Factors that were considered important in identifying problem gamblers included:

- whether the customer is a "regular patron". For a regular customer "you notice when they increase their betting wage and the frequency they enter the gaming room". The smaller and tighter nature of regional communities, where venue staff know relatively more about their customers, probably helps in detecting potential problem gamblers. For example, one venue commented that "problem gamblers are easy to identify, as we know most customers in all areas of the hotel, very well. Identifying a lonely person who comes in each day and spends $5.00 to have a conservation is easy to distinguish from people who spend beyond their means regularly";
- the amount of "denominations spent" by problem gamblers; and
- the amount of time spent by the customer in the gaming room.

As indicators of potential problem gambling, the last two factors are obviously more effective when combined with the first factor – it is easier for a venue to identify when a regular customer is experiencing potential gambling problems than for a non-regular gambler. This is because the venue has a greater understanding of the regular gamblers' previous gambling patterns and/or their relative affluence. The venue can identify when the regular gambler begins to gamble beyond their means.

Other potential signs of problem gambling include "stress" and "anger" displayed by gamblers. Training of staff to recognise the signs of problem gambling was also put forward as a reason why venues were able to identify problem gamblers.

While the majority of venues believed that they were able to effectively identify potential problems gamblers, a significant but small proportion indicated that they weren't able to effectively identify problem gamblers. For these venues, one of the main problems was a lack of knowledge over the gamblers "financial position" and hence whether the patron could afford to gamble the amount they did.

Venues were asked to specify what mechanisms existed at their venue for gamblers to bar themselves. Almost all venues indicated that they had (self) barring forms available on sight for those individuals who wanted to voluntary bar themselves from the gaming room / venue. Several venues indicated that they currently had individuals barred from their venue.

Other forms of assistance provided by venues to assist patrons with gambling problems include:

- Signage. This includes signs giving contact details for gambling help services

For some venues, enforcing a self-imposed ban was the main control imposed on specific individuals. Of these vsoesa ntaeffectivetamethodiforcoesaelf-i]TJ0T*0.0003 Tc-0.0007 Tw[(mpo)sd b

Section 2.2 briefly outlined the various social costs and benefits of gaming machines. In the Sections 4.2.2-4.2.5 we examine the demographic characteristics of South Australian problem gamblers, provide quantitative estimates of the social costs of problem gambling and report on the extent of problem gambling in South Australia. Given the complexity involved and resources needed to estimate the various social costs of problem gambling, the Centre has relied on the Productivity Commission's methodology and subsequent estimates of the social costs of problem gambling.

To better understand "who are" problem gamblers, the following section presents a demographic profile of South Australian problem gamblers based on data obtained from the survey of South Australian gambling patterns conducted by the Centre for Population Studies in Epidemiology. In addition, data from Gambling Helpline Callers is also examined to provide further insight into the motivations and demographic characteristics of problem gamblers. The Centre surveyed and interviewed staff from a number of gambling help services.[56]

The estimated prevalence rate of problem gambling by demographic characteristics (e.g., prevalence among males), and the relative size of problem gamblers by their demographic characteristics (e.g., male problem gamblers as a proportion of total problem gamblers) is shown for South Australia in Table 4.7. (Unfortunately prevalence rates by demographic characteristics for gaming machine problem gamblers were not reported separately by the CPSE). Information on the relative size of problem gamblers by common demographic characteristics permits the identification of 'whonristih"ng mn rt the Cent4l pwou-2.3(ol-1.39d)-4.29 gs-4.5(ru-2.3(ogges-4.5(r)2.81)h)-2.75(a) a greaer ur ri-1.39dm-3.8(i)largamb-3.8

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Male	2.4	56.9
Female	1.7	43.1
18 to 24 years	2.0	12.2
25 to 34 years	3.2	29.3
35 to 44 years	2.3	22.0
45 to 54 years	2.2	19.5
55 to 64 years	1.7	9.8
65 to 74 years	1.1	5.7
75 or more years	0.5	1.6
Metropolitan Adelaide	2.3	82.9
SA Country (rural and remote)	1.4	17.1
Married / De Facto	1.8	59.3
Separated / Divorced	2.4	8.1
Widowed	1.4	4.1
Never Married	3.1	28.5
Secondary	2.4	63.4
Trade / Apprenticeship / Certificate / Diploma	1.8	26.0
Degree or higher	1.3	10.6

Looking at other age groups, problem gambling is concentrated among the younger and middle age groups. While persons aged 18 to 54 years comprise 69 per cent of the South Australian adult population, they account for the bulk (83 per cent) of South Australia problem gamblers. Higher representation from the younger and middle age groups partially reflects greater participation in gambling activity by this broad age group (71 per cent of all gamblers are aged between 18 and 54 years of age); it also reflects higher participation by younger persons in gaming machine gambling whereby problem gambling is more highly associated with this form of gambling.[57]

An interesting finding from the CPSE survey is a lower prevalence of problem gambling for the South Australian rural and remote areas (1.4 per cent) compared to the Adelaide metropolitan area (2.3 per cent). Initially this outcome makes intuitive sense as it would be expected that regional areas, with more sparsely distributed populations, would have relatively fewer gaming machines and therefore lower participation in gaming machine gambling. However, other indicators of gaming machine gambling indicate a relatively higher prevalence rate for problem gambling in the Provincial Cities.

The Centre requested the CPSE group to disaggregate the rural and remote figure in

The demographic profile of problem gamblers does provide some evidence that economically disadvantaged individuals are more susceptible to problem gambling. For example, the prevalence rate is higher for persons who are unemployed (3.6 per cent), work only part-time (3.7 per cent) and rent from the Housing Trust (5.7 per cent). The prevalence rate is also higher for individuals with lower educational qualifications. The prevalence of problem gambling is fairly even across all income ranges, suggesting little correlation between economic disadvantage and vulnerability to problem gambling.

The higher association of problem gambling among gaming machine gamblers is largely due to the continuous nature of this form of gambling i.e., participants may continually make bets subject to available funds. On all evidence there is no reason to dispute this and we have not found any suggestion to the contrary in the literature. In addition, because gaming machines are installed in hotels and clubs, they are more readily available compared to other forms of gambling. For example, the lotto can only be played several times per week whereas gaming machines may be played continuously during opening hours for hotels and clubs.

Other popular forms of gambling undertaken by problem gamblers include lotteries (85 per cent), instant scratch tickets (67 per cent) and keno (60.5 per cent).

While the Productivity Commission found that problem gambling was in fact highest amongst gamblers who played casino table games, this form of problem gambling represents less of a problem than gaming machine related problem gambling because gaming machines are played by a much larger number of people (CPSE data shows that 36 per cent of South Australians played gaming machines while only 5 per cent played casino table games). Casino table game related problem gambling would certainly be only a minor problem in the Provincial Cities where this form of gambling is unavailable. Clearly and irrefutably, the product should receive as much attention in public policy terms as does the problem gambler.

Problems with gambling — and therefore the social costs of gambling — may be sustained over very long periods. Table 4.9 reports self-diagnosed South Australian problem gamblers by length of time of gambling problem in the past. Approximately 20 per cent of all South Australian problem gamblers have experienced a problem with gambling that has lasted between 1 and 2 years. A further 15.5 per cent have had a problem that has lasted 3 or more years.

Less than 12 months	17.7	56.5	44.3

diagnosed problem gamblers reported having a current gambling problem which has lasted between 2 and 5 years. It would seem that the liberalisation of gambling activities — especially gaming machines — over recent years has not only increased the number of problem gamblers, but also possibly the average length of time over which gambling problems are sustained.

Gambling Helpline data provides insight into the motivations driving South Australian problem gamblers to gamble. Data showing Gambling Helpline callers by their motivation to gamble and gender is presented in Table 4.10. The main motivations for gambling — boredom, depression, financial matters and stress — are all negative influences. This provides some evidence that other underlying factors may be the main cause of a caller's gambling problem rather than "addiction" to gambling.

Anxiety	15	30	45	3.3	4.7	4.1
Boredom	67	92	159	14.6	14.4	14.5
Depression	42	79	121	9.2	12.4	11.0
Stress reduction	44	59	103	9.6	9.2	9.4
Financial	55	63	118	12.0	9.9	10.8
Life event	7	28	35	1.5	4.4	3.2
Loneliness	28	27	55	6.1	4.2	5.0
Peer pressure	3	1	4	0.7	0.2	0.4
Relationship	5	13	18	1.1	2.0	1.6
Social	22	16	38	4.8	2.5	3.5
Pleasure	6	13	19			

The Productivity Commission grouped the various social costs of problem gambling into the following categories:

-

Bankruptcy	317	4,000	4,000	1.3	1.3

It should be recognised that the Productivity Commission estimates of the social costs of problem gambling include some internal costs of problem gambling in addition to the external costs of problem gambling. This decision has caused some controversy because traditionally only external costs — costs that are imposed involuntarily on third parties who were not party to the decision to undertake the activity – are included in cost-benefit analysis. However, to the extent that internal costs results from the public availability of a good (i.e., gaming machines), which induces irrational behaviour in individuals (i.e., problem gambling) that can often only be curbed by third-party intervention (e.g., by counselling services and/or the State through regulation of access), then it seems reasonable to treat such internal costs as social costs.

The most common test used to estimate the prevalence of problem gambling is the South Oaks Gambling Screen (SOGS) developed by Lesieur and Blume (1987). The SOGS is a 20-item questionnaire, which elicits information on respondents gambling behaviour that is considered indicative of problem gambling behaviour. For example, respondents are asked whether they have gambled more than they intended to, have borrowed money to gamble or pay gambling debts, feel they have a problem with gambling and have ever been criticised by others over their gambling behaviour. Affirmative responses are awarded a value of 1 while negative responses receive no score. On a scale of 0 to 20, respondents who score 5 or more are considered "probable pathological" gamblers.

Although the SOGS is widely used by researchers and rehabilitation professionals, the use of SOGS has attracted criticism. In particular, some Australian researchers argue that because Australia has a strong culture of gambling, a cut-off score of 5 or more results in an unacceptably high number of respondents being falsely identified as problem gamblers (otherwise known as a false-positive coding). Some Australian researchers have attempted to overcome this problem by adopting a threshold of 10 or more (Marshall, M., 1998). An alternative approach is to ask the questions of the SOGS in terms of gambling behaviour over a shorter period (e.g., the last 12 months prior to the interview) rather than over a respondent's lifetime as was originally intended by the SOGS. This approach measures the current prevalence of problem gambling and was adopted by the Productivity Commission.[59]

Severe problem gamblers are those gamblers who experience severe negative problems from gambling (e.g., depression, suicide thoughts, divorce and crime) and require "intervention by help services". Moderate problem gamblers are those who have "public health or other risks which are significantly higher than the average". This group experiences problems of less severity than severe problem gamblers (e.g., chasing losses, guilt, some depression and high expenditures) but are of policy significance because governments may wish to adopt preventative measures (e.g., public awareness campaigns, regulatory measures) that reduce the likelihood of this group from developing severe gambling problems (Productivity Commission, 1999).

To determine the appropriate thresholds for estimating the number of moderate and severe problem gamblers, the Productivity Commission compared the number of moderate and severe problem gamblers estimated using 5 or more and 10 or more on the SOGS respectively, against other indicators of problem gambling derived from the Commission's *National Gambling Survey*. These other indicators included self-perceptions questions about gambling problems, questions that identified harmful impacts from gambling and questions which revealed the need to obtain help with gambling problems.

In terms of severe problem gamblers, the Commission found that a SOGS of 10 or more tended to underestimate the number of severe problem gamblers. The Productivity Commission overcame1(m)-3.7(d1.3(1(60.4(overc)-5.y, aga709ed)-4(th(d1.;o have)]TJT*f2u(on)-10.1(

suggest that the Provincial Cities, which have significantly more gaming machines relative to South Australia as a whole, would also potentially have a greater prevalence of problem gambling than South Australia.

Unfortunately, the Productivity Commission estimates of the prevalence of problem gambling appear unreliable for South Australia - they are relatively high compared to other states, especially for the SOGS 10+. The Commission argued that this was probably due to sampling error. Nevertheless, on the basis of the questionable Productivity Commission data, 2.45 per cent of the South Australian adult population (almost 28,000 adults) is estimated to have problems with gambling. If this estimate were accurate (and there are reasons to doubt the accuracy based on sampling error), then only New South Wales (2.55 per cent) would have a higher prevalence of problem gambling.

New South Wales	62,502	59,798	122,300	1.30	1.25	2.55
Victoria	46,951	28,974	75,925	1.32	0.82	2.14
Queensland	28,944	19,665	48,609	1.12	0.76	1.88
Western Australia	7,195	2,353	9,548	0.53	0.17	0.70
South Australia	12,182	15,627	27,809	*	1.38*	*
Tasmania	1,221	305	1,526	0.35	0.09	0.44
Australian Capital Territory	2,959	1,629	4,588	1.33	0.73	2.06
Northern Territory	1,433	998	2,431	1.12	0.77	1.89

Note

regional profiles, States and the national average. In fact, we know that this is not the case.

Data from the Productivity Commission's *National Gambling Survey* indicates that 39 per

The first stage in our calculation methodology is to determine the proportions of average income spent nationally by non-problem and problem gamblers.

Let , where R1 is the net gaming revenue due to non problem gamblers, npg is the number of non-problem gamblers (both based on data in the Productivity Commission's report) and Y1 is average income per non-problem gambler.

Similarly, let

If preferences were not heterogeneous within regions for each gambler type then the model would tend to overestimate the number of problem gamblers in high expenditure regions, and underestimate it for low expenditure regions. The most likely cause of preferences not being heterogeneous would be in rural councils where the significant distance between many residents and the hotels or clubs of the region means that an average gambler would gamble less often and generally spend less because of the inconvenience of gambling.

If the assumption of local expenditure did not hold then the model would overestimate the number of problem gamblers in regions which cater to gamers from neighbouring councils and under estimate numbers for councils with few gaming facilities which saw their gamblers go to neighbouring regions. This would suggest that the model is not appropriate for councils such as the Adelaide City Council (covering the CBD), and certain other metropolitan councils which act as “entertainment hubs” for several councils.

Prior to discussing the results of these calculations we reiterate that national prevalence data does not reflect the diversity of regional experience (and expenditure data) while the demographic profile of regions indicates varying degrees of risk. If national prevalence data was appropriate, based on expenditure data in the regions then, looking

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above that of the Centre and in four cases just slightly below. Overall the agencies indicated theirs were conservative estimates and in most cases did not include indigenous problem gamblers who tend not to use mainstream services. The unseen estimates provided by the Break Even gambling services support the Centre's calculations which are based on known population data and net gaming revenue.

With the exception of Loxton Waikerie, all of the Provincial Cities have an above average proportion of problem gamblers in their population. Berri Barmera appears to have the worst problem, followed by Port Augusta, Murray Bridge and Port Lincoln.

In contrast to the Provincial Cities, estimated problem gambling for the rest of regional South Australia is well below the state average. Part of this lower preponderance of problem gambling is likely to be due to a lack of opportunity to gamble given the geographic spread of many of the state's rural and regional councils. However the Provincial Cities' higher population densities cannot be the only explanation, as the

Having derived estimates for the numbers of problem gamblers in each of the Provincial Cities it is possible to estimate the social cost of problem gambling in each of the cities. The social cost of problem gambling has two dimensions. First there is the direct social cost which results from factors such as increased crime (particularly embezzlement), health impacts on problem gamblers, the cost of relationship breakdown, and the psychic cost of living with a problem gambler to the families of severe problem gamblers. The second source of social costs is 'excess loss' by problem gamblers. This is defined as the difference between the actual money problem gamblers lose, minus the amount they would have lost had their gambling been rational. For these calculations the Centre has used the estimates of direct social cost produced by the Productivity Commission, and has assumed that if they were gambling rationally the average loss for problem gamblers would equal the average loss for their council area.

Table 4.16 outlines the extent of the social costs stemming from problem gambling for South Australia's Provincial Cities. As would be expected based on the distribution of problem gamblers, all of the Provincial Cities except for Loxton Waikerie had substantial social costs from problem gambling on electronic gaming machines. Even if all of the tax revenues (last column) from electronic gaming machines were spent in the council in which they were collected, the benefits of this revenue would still be significantly outweighed by just the excess expenditure by problem gamblers (column: Excess Loss) in the Provincial Cities other than Loxton Waikerie.

Berri Barmera	2,125.3 to –6,597.8	3,414.0	-5,539.2 to 10,011.8	2,137.0
Loxton Waikerie	-686.1 to 2,130.0	1,089.8	-1,775.9 to –3,219.8	1,170.1
Renmark Paringa	-1,126.0 to –3,495.5	1,783.2	-2,909.2 to –5,278.7	1,369.9
Mount Gambier & Grant	-2,777.2 to –8,621.7	4,969.8	-7,747.0 to –13,591.4	4,966.2
Murray Bridge	-2,319.0 to –7,199.2	3,174.6	-5,493.6 to –10.373.8	2,682.1
Port Augusta	-1,967.3 to –6,107.3	2,955.9	-4,923.1 to –9,063.2	2,204.0
Port Lincoln	-1,716.4 to –5,328.5	2,893.6	-4,610.1 to –8,222.2	2,364.7
Port Pirie	-1,705.9 to –5,295.8	2,422.5	-4,128.4 to –7,718.4	2,293.8
Whyalla	-2,266.6 to –7,036.6	3,501.8	-5,768.4 to –10,538.4	3,502.3

Source: Productivity Commission, Liquor and Gaming Commission, ATO, and ABS calculations SACES.

Of course the social costs of electronic gaming machines are only part of the picture, their enjoyment by non-problem gamblers also produces a benefit through allowing consumers to spend their money on a good that they value more highly than those which were previously available. There are also benefits to the community through

more funds being available through the taxation of Net Gaming Revenue (NGR) for the delivery of government services.

In calculating the social benefits to consumers the Centre has followed the methodology developed by the Productivity Commission. They identified two sources of community benefit as resulting from the use of electronic gaming machines:

- the consumer surplus; and
- the taxation revenues.

Consumer surplus is the value of the satisfaction consumers derive from their consumption of a good minus the price they have to pay to receive it. It is calculated as the value of expenditure divided by two times the price elasticity of demand.

Calculating the consumer surplus for a type of product like gambling where it can be "addictive" for some consumers is considerably more difficult as it does not seem intuitively logical to ascribe a benefit for the enjoyment of spending which only occurs because of a compulsion. In their report on gambling the Productivity Commission got around this problem in an innovative way. They calculated consumer surplus normally for expenditure by non-problem gamblers, but used an "adjusted" consumer surplus for problem gamblers. The overall consumer surplus was then calculated as the sum of the actual consumer surplus for non-problem gamblers and the adjusted consumer surplus for problem gamblers.

The adjusted consumer surplus was calculated for problem gamblers by assuming that they only derive satisfaction from that portion of their expenditure which they would spend if they were not addicted. To calculate the amount that an average problem gambler would spend without the compulsion, the Productivity Commission revisited their survey results for problem gamblers and assigned each the lower of their actual expenditure or the mean expenditure. From this they calculated an average "non-addiction" expenditure for problem gamblers which was used in the consumer surplus calculations. This is the approach which the Centre has used for its regional benefit calculations, although as no information was available on actual expenditures by problem gamblers on electronic gaming machines the Centre made the assumption that in the absence of "addiction" problem gamblers would have the same expenditure patterns as non-problem gamblers.

Table 4.17 presents the results of the Centre's calculations of the Social Costs and Social Benefits (and the Net Social Benefits) of gaming on electronic gaming machines for each of the Provincial Cities and for regional aggregates. Social Cost is comprised of the direct social costs of problem gambling, and the 'excess losses' incurred by problem gamblers. The Social Benefits of gaming comprise consumer surplus for non-problem gamblers, adjusted consumer surplus for problem gamblers, and the taxation revenues received from electronic gaming machines. The range within which Total Net Social

The econometric analysis conducted by the Productivity Commission found evidence of:

- a concentration of gaming machines in lower socio-economic areas;
- an inverse relationship between a region's income and the total amount spent on gaming machines; and
- a negative and significant relationship between median weekly income and annual average expenditure on electronic gaming machines.

We discuss in Section 4.1.1 that this could be seen to suggest that persons in lower income groups:

- are more likely to gamble using electronic gaming machines; and / or
- are more likely to lose (spend) more when they do so,

and accordingly, the Centre sought to determine these factors which influence the differences in net gaming revenue between different areas.

The results indicate that the three significant demographic factors which produce the apparent link between lower incomes and higher electronic gaming machine expenditure in South Australia are:

- higher unemployment as a proportion of adults;
- higher proportions of persons identifying as Aboriginal or Torres Strait Islanders; and
- high proportions of private dwellings rented from the Housing Trust.

The two spatial geographic factors accounting for differences in average net gaming revenue are related to accessibility and concentration — the number of EGMs relative to the adult population and the actual concentration in a defined geographical area. Those council areas with higher net gaming revenue per adult — compare for example Berri-Barmera and Port Augusta with Loxton-Waikerie — confirm that higher expenditure is related to the risk factors identified in this report.

The Centre has first calculated a base case (Section 4.2.4) to estimate that number of gaming machine problem gamblers — 1,896 in the Provincial Cities — on the assumption that there are no differences between regions, regional profiles, States and the national average.

In fact, as this report indicates, we know this is not the case and that there are regional risk profiles. A more accurate picture is required because the national prevalence data does not reflect the diversity of regional experience and expenditure data. The methodology is discussed in Section 4.2.5 and the results are summarised in Tables 4.15 and 4.17:

- for the number of problem gamblers in each region (Table 4.15); and
- the benefits and costs of electronic gaming machines for each region (Table 4.17).

Based on the distribution of problem gamblers, all of the Provincial Cities except Loxton-Waikerie had substantial costs from problem gambling. If all the tax revenue were spent in the council from which they were collected, the benefits of this revenue would still be outweighed by just the excess expenditure by problem gamblers (the Excess loss).

— investigate ways to increase expenditure from gaming taxes in the regions from which the revenue is sourced; and / or

— reduce the amount of tax collected through imposing regional caps on the number of poker machines;

- There is evidence presented in this report (and other statistical data available for analysis) which indicates a high rate of gaming expenditure by some indigenous groups. Too little is known about the incidence of problem gambling and impact on communities.

  Advice is needed from Aboriginal communities about the extent of the problem and strategies to address gaming issues (e.g., education, diversion programs, support for employment, recreation).

- the significant concentration of costs on the Provincial Cities indicates more resources need to be directed to the major non-metropolitan centres, including to service Coober Pedy, Roxby Downs and Ceduna; and

- more research is needed on the nature of problem gambling, how it can be detected and what strategies can help ameliorate it

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Tax rates for gaming machine venues varies according to the legal status of the business. For example, venues with a non-profit status are taxed at lower rate than other venues. The lower tax rate for non-profit businesses recognises the important community development role of non-profit organisations and seeks to increase the amount of gaming expenditure directed back to the community through the non-profit organisation.

Tax rates for gaming businesses in respect of the 1998-99 and 1999-00 financial years are reproduced below. Note that tax rates for gaming machines in South Australia are applied to net gaming revenue (NGR).

In the case of a non-profit business (e.g., clubs and community hotels), the applicable tax rate is an amount calculated in accordance with the formula set out in Table A.1. For all other cases (e.g., privately owned hotels), the amount of tax paid is determined by the formula specified in Table A.2.

Tax rates for the 2000-01 year have been reduced by 9.09 per cent to offset the impact of the Goods and Services Tax. In accordance with the Gaming Machines Act 1992, a surcharge was introduced on tax rates at the beginning of the 1997-98 financial year to recover a shortfall in expected taxation revenue for the 1996-97 financial year.

The use of CPSE participation rates obviously produces a very high, and perhaps unsustainably high, level of expenditure per gambler for the Provincial Cities. If the CPSE estimates are correct, then this raises concern over the well-being of Provincial City gamblers who are spending an extremely high proportion of their income on one leisure activity, gaming machines. For example, if gamblers are spending over a tenth of their net income on gaming machines, are they spending adequately on other essential items?

Using data supplied from the CPSE report on the prevalence rate of problem gambling, and relating this to known net gaming expenditure then

- the average loss per non-problem gambler in the Provincial Cities would be $1,183 compared to the Adelaide metropolitan area of $593, and the State at $656.

This itself indicates the likelihood of a higher incidence of problem gambling.

In summary, if we are to accept the lower participation rate for the South Australian country area compared to the metropolitan area as provided by the CPSE study, then based on actual turnover and net gaming revenue, then there must be a much higher average expenditure per gambler in the Provincial Cities and remote regions. This must then translate into a much higher number of frequent gamblers and problem gamblers —

a) Identify who are the "problem gamblers" / heavy gamblers (confirm against previous information / studies; any regional characteristics).

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characteristics by age, gender, race

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b) Assess whether they have any views on the classification / typology and nomenclature used to categorise gambling activities (e.g., problem gamblers, pathological gamblers, frequent gambler, etc.)?

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1. In your experience as a counsellor, what are the primary social impacts of problem gambling, especially those relating to gaming machines. [Expand]

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a) Social / Community versus private costs

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b) Impact on other family members

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2. Assess the extent of the impact of gaming machines on the number of problem gamblers i.e., To what extent have poker machines exacerbated problem gambling.

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3. Regional dimension of problem gambling

a) Is there any reason to suspect that problem gambling is a greater problem in rural / regional areas.

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Complexity of Consequences

b) Given the smaller nature of regional communities, are the impacts of problem gambling more apparent / obvious in regional communities. If so, how. [Identify]

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c) In this respect, are the impacts of problem gambling on the community more intense (e.g., more harmful to the broader community).

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d) Is there adequate support services for problem gamblers in regional areas.

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e) Level of funds, increase in funds — what is the situation for agencies?

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4. Assess experience on how hotels / owners have responded to the issue of problem gamblers — strategies implemented, impose bans, responsible / defensive?

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5. Policy choices? What would you see like to happen? (e.g., close ATMs in pubs, ban or restrict EFTPOS facilities, restrict hours in which machines operate, stronger advertising of harm) introduce smart card. [Explore Options]

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6. Assess availability of data on problem gambling that the Centre could review.

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You may wish to provide a:

Contact person (Name): .....

Contact details (Telephone): .....

Can you record date, type of investment in the following table (investment would have required application to Council and approval):

What proportion of your current machines are:

Owned	%

Can you provide a quantitative estimate of the impact of gaming machines on donations and sponsorship you provide locally and how this has changed between the two period shown?

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Are you able to effectively identify problem gamblers (do you experience difficulties in identifying problem gamblers)?

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What mechanisms exist for problem gamblers to bar themselves?

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What training is provided to staff on identifying potential problem gamblers?

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What steps do you implement to control specific individuals and can you comment on the success of the actions you take.

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In a recent article in *The Age* newspaper, Dr James Doughney described a random walk across the spatial location of suburbs in Victoria where a "pokie loss severity index" was ranked alongside ABS data on the socio-economic condition of suburbs. The random walk revealed higher losses in poorer neighbourhoods or communities relative to higher income communities. The ability of Tabcorp and Tattersalls in Victoria to shift machines across suburbs may potentially exacerbate this situation. This restriction on machine mobility in South Australia may result in a more even incidence of gambling machine

Yet this is only part of the social policy remedy. If the redistribution does not allow that a dollar lost in Toorak is not the same as a dollar lost in Braybrook, then poorer areas will remain disadvantaged.

The Age, 12th January 2001
Dr James Doughney is senior researcher at the Workplace Studies Centre, Victoria University
Email: jamie.doughney@vu.edu.au
This story was found at:
http://www.theage.com.au/news/2001/01/12FFXRXNZATHCX.html