
4. Review of existing literature on the social and related economic impacts of gaming

4.1 Introduction

This section provides a critical review of statistics and research findings on the social and related economic impacts of gaming reported in Australian and overseas literature. Although considered here as distinct concepts, in reality these impacts are largely interrelated. However, current research is not at a point where all of the interrelationships between impacts can be fully considered.

The review has been organised into four main sections based on the levels at which gambling impacts have been described and analysed. These four “levels of analysis” are:

- individual and family impacts;
- community impacts;
- regional impacts; and
- state impacts.

Before beginning, three caveats are noteworthy. First, the coverage of social impacts in the gambling literature is extremely uneven. Many more studies concentrate on the crime connection, for example, than on workplace impacts. Second, the literature tends to focus on the problem/pathological gambler (however defined) and stresses the negative consequences of gambling, ignoring both the positive and negative impacts of non-problem gambling. Third, many of the studies are limited and discrete in scope (eg. using small sample sizes, cross-sectional research designs, restricted geographical areas, and focus on single social impact measures), and at best only reveal part of the social effects landscape.

4.2 Individual- and family-based research

4.2.1 Key conceptual and methodological issues

Several conceptual and methodological issues require consideration when interpreting research findings about the social impacts of gambling on individuals and families. These include:

- Research at this level of analysis has tended to focus on problem gamblers and the negative outcomes of problem gambling behaviour. Even within this limited scope, only scant attention has been given to less “quantifiable” negative outcomes, such as the time that gambling takes away from the family. As a result, a somewhat restricted range of impacts have been described (and measured) in empirical research—which has prevented the development of a complete picture of the social impacts of gambling on individuals and families.
- For the most part, the existing body of research examines persons in treatment for a gambling disorder. This raises questions about the degree to which research findings are generalisable—either to problem gamblers not in treatment or to the general population.
- Much of the evidence on impacts establishes associations between problem gambling and certain adverse outcomes. An association is not the same as a causal link. To be sure that the increased availability of gambling has caused any outcome, it would need to be shown that this outcome would not have occurred in the absence of gambling.

4.2.2 Definition and prevalence of problem gamblers

There are a variety of definitions of problem gambling, from those that emphasise psychological features, such as loss of control (eg. Blaszczynski, 1998), to those that list the variety of harms facing gamblers (Dickerson, 1993, 1995, 1997). A range of instruments have been used by researchers to measure whether a person is a problem gambler, of which the two most common are:

- The South Oaks Gambling Screen (SOGS). This test poses questions about a gambler’s behaviour, such as whether they “chase” losses; have problems controlling their gambling; gamble more than intended; and believe that they have a problem. Its prime focus is on the financial aspects of gambling.
- The DSM-IV. This shares many features of the SOGS, but has a greater emphasis on the psychological aspects of problems, such as pre-occupation, development of tolerance, irritability, and gambling as an escape.

Conceptual and methodological criticisms of the SOGS include:

- A principal criticism of the SOGS is that the instrument was validated on clinical and specialised populations, but has only been tested for false positives and false negatives among general populations. Although such tests have indicated relatively high overall efficiency, additional validation measures should be equally considered. For example, Chambers and Schrans (1998) suggest that the instrument should also be tested for conditions such as: inter-item correlations, discriminatory power of the items, possible respondent bias due to

ambiguous questions, and respondent sensitivity to the screen. Further, these authors note that several studies have found that the SOGS generally overestimates the prevalence of problem gamblers in the general population. Due to this overestimation, and because the SOGS has not been validated over time and across populations, Chambers and Schrans (1998) question whether the SOGS has reliably measured problem gambling in any existing prevalence study. It should be noted that, although Chambers and Connelly (1997) present a critical evaluation of the SOGS; they state that they in no way mean to discredit it as a valuable instrument for screening clinical populations.

- The SOGS is used to identify a more narrow range of problems than is encapsulated by the broad definition of harm that is now often used by Australian policymakers. This suggests that the SOGS will tend to miss some of the broader set of gambling problems that interest Australian researchers.
- There are a number of other methodological concerns that question the use of the SOGS for general population prevalence studies. Some of these considerations include: sampling methods, data collection procedures, survey time frames, and problems with shifting criteria within the DSM.
- Some researchers have found that, when the SOGS is compared with the DSM-IV criteria, the former overestimates the rate of problem gambling in the general population (Volberg, 1994, 1996; Volberg et al., 1998). This was given support in the Shaffer et al. (1997) meta-analysis in which studies using the SOGS had higher rates of pathological gambling than studies using the DSM-IV criteria. However, according to Volberg's analysis (1996) of a survey of British casino patrons (using the DSM-IV criteria) (Fisher, 1996), it is possible that the diagnostic threshold for pathological gambling defined in the DSM-IV may be too stringent for the purpose of a general epidemiological survey.

A considerable amount of research has been undertaken in the area of prevalence and incidence of problem gambling. Australian prevalence studies have shown that a typical problem gambler profile is male, under 30 years old, and not married (Ladouceur, 1998; Ladouceur & Walker, 1996). Overseas studies have found the following characteristics to be over-represented among problem and pathological gamblers: male; non-Caucasian; not married (Abbot & Volberg, 1992; Volberg, 1994; Volberg & Steadman, 1988), under 30 years old; unemployed (Abbot & Volberg, 1992), and has lower educational level (Volberg, 1994; Volberg & Steadman, 1988). Caution should be taken in comparing Australian and overseas problem gambler demographic profiles. Demographic profiles of problem gamblers drawn from overseas literature have often been based on in-patient and/or hospital based and/or substance abuse clinics. In contrast, Australian problem gambler profiles tend to be compiled from general population surveys.

Prevalence estimates have not answered satisfactorily the practical question concerning how many gamblers will seek help in overcoming their gambling-related problems (ie. What services should the government or other industries provide?). Further, prevalence studies in general have not been concerned with the impact of new forms of gambling (eg. Internet gambling), although there are some exceptions.

Several more specific criticisms have been directed at prevalence studies. First, the assumption that heavy gambling will lead to potential harm for an individual may lead

to false conclusions when examining different types of gambling because not all forms of gambling necessarily lead to consistently heavy losses (eg. bingo). Second, because the base rates of problem gamblers is very small, large sample sizes are required to detect statistically different changes in the population, which may place prevalence studies beyond the realm of practicality. Third, prevalence rates should be stated as a range of the statistic, along with its confidence interval, so that lay persons do not confuse the fact that the statistic is only an estimate of the true value in the population.

A further shortcoming of prevalence studies is that such measures lack actionable information that can be specifically used for input into policy and treatment decisions. As Chambers and Schrans (1998) note, there is a need to move from simply “counting” to understanding the “who, what, where, when, and why’s” underlying problem gambling. Innovative research methodologies are required in order to provide greater insights into problem gambling. Longitudinal studies that track problem gamblers over time, and triangulation studies that gather problem gambling information from various sources, are two suggested means for assessing the impact of problem gambling.

Different studies have produced a wide range of estimates. One reason for the variation in estimates centres on the timeline used. For example, studies using the DSM-IV criteria may make a distinction between those gamblers who meet the criteria for pathological or problem gambling at some time during their life (“lifetime”) and those who meet the criteria only during the past twelve months (“past year”). For the purpose of measuring prevalence in the general population, lifetime estimates run the risk of overestimating problem and pathological gambling because these estimates will include people who may recently have gone into recovery and no longer manifest any symptoms. On the other hand, past year measures may underestimate the problem because this number will not include people who continue to manifest pathological gambling behaviours, but who may not have engaged in such behaviour within the past year.

4.2.3 Impacts on specific groups

Within the gambling literature, a somewhat heterogeneous set of social impact studies focus on particular demographic groups (eg. women, adolescents). These studies are especially useful because they can provide precise details that are often missing from general population research. Such studies tend to emphasise the individual, their behaviour and the “specific subgroup risks” associated with gambling. Confidence in the results of these studies is often limited, however, by small sample sizes.

Women. The limited literature on women and gambling points to differences between men and women on issues such as motivation to gamble, amount of time spent gambling, size of wager, types of games played, and the extent of problem gambling—and as well, documents and explores the emerging trend toward more female gamblers and their potential addiction (Ohtsuka et al., 1997; Wynne et al., 1994). Most prevalence studies reveal a higher rate of problem gambling among males than females (Dickerson et al. 1996, 1997; Shaffer et al., 1997). Evidence, however, from recent Canadian studies (which looked at multiple gaming activities),

found that problem gamblers are just as likely to be female as male (National Council of Welfare, 1996). Gender differences in prevalence rates seems to reflect differences in their rate of play and type of gaming activities.

Buchman(1994) reported that a survey conducted by AMR Quantum for the TAB in June 1994 found that 64 per cent of all gaming machine players in Victoria were women. This trend partially reflects a gender preference among gambling activities. Ladouceur and Blume (1990) reported that North American women prefer gaming machines, card games and lotteries over “male” pursuits such as betting on sports and horse racing.

Contrary to media reports and commonly subscribed to beliefs that women are more susceptible to problem gambling than men as a result of the introduction of gaming machines in Victoria, Jackson and his co-workers (1997, 1999a, 1999b) were not able to present conclusive evidence which supports gender differences in the frequency of gaming machine users classified as possible pathological gamblers. Although more women patrons usually use gaming machines than men, the per centage of women identified as possible problem gamblers were not different from the per centage of men falling into this category.

Notwithstanding the importance of this research, there is, nevertheless, little information on how the social impacts of gambling vary between men and women. Are the treatment costs different? How does gambling influence job loss by gender? Do women encounter financial difficulties from gambling more quickly than men? Although some answers to these and other important social impact questions may be inferred from existing data on gambling expenditure patterns (ie. the lower amount spent by women problem gamblers), and on different patterns of play between men and women (ie. women typically play bingo and view gambling as contributing to worthy causes), there is little empirical research which clearly draws out the social consequences of gambling by gender. Given the growth of the “female gambler” in the last decade, it is critical that the relationship between public policy, social impacts and gender be given priority on academic and government research agendas.

Adolescents. In terms of demographic characteristics, there is a growing body of research on adolescent gambling, which looks at prevalence and age, and at motivating factors to gamble such as the influence of parental gambling and the accessibility of gambling products (Arcuri et al., 1985; Brown & Brown, 1994; Buchta, 1995; Fisher, 1993a, 1993b, 1994; Fisher & Griffiths, 1995; Govoni et al., 1996; Griffiths, 1989, 1990; Ladouceur & Mireault, 1988; Shaffer et al., 1997; Yorke, 1995). These studies typically show that adolescents have higher rates of problem gambling than do adults (especially male adolescents), and choose different gaming activities to play than adults (Shaffer et al., 1997; National Council of Welfare, 1996). This research, although noting impacts on truancy, theft, and drug/alcohol abuse, ignores wider negative social effects and says little about possible positive impacts.

Although surveys are the most common methodology in adolescent based gambling research, ethnographic studies such as Fisher’s (1993a, 1993b; 1994), Griffith’s (1990) and Fisher and Griffiths’ (1995) work on electronic video gambling and adolescent addiction are important because they provide a more sophisticated

understanding of the culture of gaming and its social meaning and impact for adolescents. This participation observation based research, although not excluding the addicted adolescent, has found that juvenile electronic arcade gambling is motivated by diverse social reasons: ego enhancement, technical problem solving and the development of skill, gender exploration, excitement and thrill, temporary escape from reality and the desire for peer group social interaction. By emphasising the multi-dimensional nature of electronic “fruit machine” gambling among young people, Fisher and Griffiths reveal many of the social processes surrounding “addiction”. They demonstrate how the “problem” gambler is a fluid concept dependent upon normal social processes and contingencies. Their naturalistic approach, which can be combined with survey methods, offer a promising perspective for researchers to explore the social effects of gambling on children and teenagers.

Studies show that problem and pathological gamblers are significantly more likely to start gambling earlier in life than non-problem gamblers. This finding suggests that research to further establish and refine knowledge of the risk factors for adolescent problem gambling will prove useful in targeting adolescents most at risk and in developing problem gambling prevention strategies (Ladouceur et al., 1994).

Finally, it should be noted that adolescent measures of pathological gambling are not always comparable to adult measures and different thresholds for adolescent problem gambling may exist.

4.2.4 Nature of impacts on individuals and families

Many studies cite a connection between problem gambling and mood disorders, such as depression or anxiety (Blaszczynski & McConaghy, 1988, 1994a, 1994b; Brown and Coventry, 1997; Dickerson et al., 1997; Ladouceur & Blume, 1990; Lorenz et al., 1990; McCormick et al., 1984; Sibbald, 1997). There is some evidence that the gambling problem often precedes the onset of depression (McCormick et al., 1984), though in some cases depression can act as a trigger.

The Productivity Commission’s (1999) *National Gambling Survey and Survey of Clients of Counselling Agencies* results suggested high levels of self-assessed depression, guilt, and suicidal thoughts due to gambling:

- 53 per cent of respondents reported having been depressed because of gambling in the last year;
- 22 per cent of respondents (with SOGS scores of 5 or more) reported being “often or always” depressed because of their gambling;
- 9 per cent of problem gamblers reported that they have seriously thought about suicide because of their gambling, and about 60 per cent of those who sought help for their gambling problems from counselling agencies have seriously thought about suicide because of their gambling;
- about one in ten problem gamblers who sought counselling assistance for their gambling report an attempt at suicide.

In examining the health impacts of problem gambling, there has been a heavy reliance on self-assessment in the literature. It should be emphasised that self-assessment methods have drawbacks. In particular, people sometimes forget, exaggerate, make errors, and may be poor at determining what might have happened under the counterfactual.

Problem gamblers experience a number of other, potentially distressing mental states, such as guilt, restlessness, preoccupation with gambling and loss of control. For example, in an analysis of Victorian Breakeven clients, Jackson et al. (1997, p.27) found that 58.6 per cent felt irritable or restless because of their gambling, 62.5 per cent felt preoccupied with gambling, and 67.7 per cent had made frequent but failed attempts to control their gambling. These patterns have persisted in more recent years according to data gathered from Victorian Breakeven clients (Jackson et al., 1999a, 1999b). Overseas evidence suggests that problem gamblers are much more likely to feel angry, anxious or disappointed when playing gaming machines than recreational players (Alcohol and Gaming Authority, 1998).

Many problem gamblers experience other dependencies. Dickerson et al. (1996) suggested that around 20 per cent of Australian gamblers who sought help for their gambling problems also have alcohol dependency.

There are currently no specific tracking mechanisms in place to monitor crimes which are motivated by problem gambling. However, to shed light on the proportion of problem gamblers who commit offences to support their gambling, information can be drawn from surveys of:

- people seeking help from problem gambling counselling services;
- problem gamblers seeking treatment from hospital/university psychiatric units and attending Gamblers Anonymous;
- prison inmates; and
- the general population.

A study by Jackson et al. (1997) presents information on criminal activity among 1452 new clients who registered with problem gambling counselling agencies in Victoria in the period 1 July 1996 to 30 June 1997, and who were assessed in terms of the ten DSM-IV criteria for "pathological" gambling. One of these criteria is whether a subject has committed illegal acts (eg. fraud, theft or embezzlement) in order to finance their gambling. The study found that around 30 per cent of clients admitted to having committed illegal actions to finance their gambling (Jackson et al., 1997, p.27). The proportion dropped to 20 per cent in the 1997-98 survey (Jackson et al., 1999a, p.35). This later study found that 33.2 per cent of problem gamblers with a problem related to the TAB had committed illegal acts, compared to 17.2 per cent of those with a problem related to gaming machines. This may simply reflect the fact that criminal behaviour tends to take some time to appear and most gaming machine players have a more recent problem. It may also reflect the fact that males are more likely to commit a crime than females, and are much more concentrated among those with a racing-related gambling problem.

Detailed information on offences committed by problem gamblers was obtained in a survey of 306 New South Wales problem gamblers (Blaszczynski & McConaghy, 1994a, 1994b), comprising 152 hospital treated subjects and 154 members of Gamblers Anonymous. The study revealed that the majority of offences committed by problem gamblers are gambling related. Of the 306 subjects surveyed:

- 50 per cent admitted to committing at least one gambling related offence over their gambling careers (and 48 per cent admitted to committing only gambling related offences);
- 18 per cent admitted to committing at least one non-gambling related offence (and 6 per cent admitted to committing only non-gambling related offences);
- 11 per cent admitted to committing both types of offences; and
- 35 per cent reported committing no offence at all over their lifetime.

The Productivity Commission's *National Gambling Survey* (1999) sought information on the prevalence of gambling-related illegal activity.

Beyond problem gamblers, tracing the relationship between gambling and criminal behaviour has proven difficult. One problem is the scope of the studies being done: some look at street crime alone, others include family crimes, still others may simply look at adolescent gambling, and others include white collar crime.

A relationship may exist but currently there is insufficient information to quantify or define that relationship.

Given that the estimates of the proportion of problem gamblers who engage in criminal activities relate to different populations, a difficulty arises in making inferences about the broader population of problem gamblers who either do not seek help from counselling agencies, or do not receive treatment in hospital-based programs, or who do not end up in prison.

For example, as Volberg *et al.* (1998) have commented, a limitation of relying on surveys of members of Gambler's Anonymous or of people seeking treatment to elicit information on the vocational, financial, or legal impacts of their gambling is that members of Gamblers Anonymous and individuals seeking treatment are not representative of problem gamblers in the general population. Hence, it is difficult to say how accurate these figures are for problem gamblers in the community (p. 351).

The literature reports wide range of illegal activities that are associated with problem gambling. For example, illegal activity can take place within the family of the gambler. The Wesley Community Legal Service (Productivity Commission, 1999) described cases where a problem gambler had stolen the property of family members which was then sold or pawned to raise money for gambling, or forged the signature of family members to borrow money. The Blaszczynski and McConaghy (1994a) survey of problem gamblers reported some of the offences committed as follows: (1) forging spouses signatures on cheques; (2) stealing from petty cash and/or co-workers; and (3) larceny and embezzlement. Not all of the offences that are committed by problem gamblers lead to arrest or prosecution. For example, much of the crime that is committed by problem gamblers against family members is

never reported (Blaszczynski & McConaghy, 1994a). Hence, crime report rates may understate the number of offences that are committed by problem gamblers.

A critical aspect of the impact of problem gambling is the extent to which it represents a large or small share of total income. The Productivity Commission (1999) found that the ratios of gambling expenditures to income were very high among problem gambling households relative to those of recreational gamblers:

- among non-problem gamblers the mean ratio of net gambling expenditure to household income (affordability) was estimated at around 1.2 per cent, while for problem gamblers in the general population the average was estimated at 22.1 per cent; and
- among problem gamblers in counselling, gambling was found to exceed 20 per cent of income in three quarters of cases studied.

The consequence of the high ratio of gambling spending to income is that problem gamblers tend to run down assets or borrow.

One of the behavioural traits of problem gamblers is a pre-occupation with gambling, and this combined with periods spent away from the workplace whilst gambling and the impacts of gambling-related substance abuse, can have adverse impacts on a gambler's work performance. However, although commonly viewed as a negative outcome of excessive gambling, workplace impacts have received relatively little empirical attention. Two work-related impacts that have been considered in the literature are loss of productivity and change of job because of gambling-related problems.

Ladouceur et al., (1994) have conducted one of the more thorough investigations of the impact of gambling on work performance. They found that 66 per cent of a group of Canadian problem gamblers who were members of Gamblers Anonymous had missed work (or left early) to gamble, with half of these doing so more than five times a month. In addition, 14 per cent said they had missed a whole day of work to gamble; 59 per cent reported being irritable at work because of their pre-occupation with gambling, finding it hard to concentrate; and 37 per cent had stolen from their employer. Other studies have found similar results. Dickerson et al. (1996) found that among people with a SOGS score of 10+, 54 per cent had lost time from work/study; 31.8 per cent had moved/changed jobs; 13.6 per cent had efficiency affected and 22 per cent had been sacked. Lesieur (1998) found in his review of the cost literature that between 69 per cent and 76 per cent of pathological gamblers have missed work at some point in order to gamble. Various studies in his review found that from 21 per cent to 36 per cent of gamblers in treatment have attributed losing their job to their gambling problems.

In examining employment loss as a result of problem gambling, Dickerson et al. (1997) reported that job change affected 6.7 per cent of problem gamblers per annum and was estimated to cost \$7.9 million per annum. This comprised \$5.2 million in job search costs and \$2.7 million in additional social security payments. The total cost of work-related impacts was estimated to cost approximately \$27.8 million per year (Dickerson et al., 1997, p. 60). Other studies have tried to estimate the cost of lateness and absenteeism caused by problem gamblers (National Council

of Welfare, 1996; Thompson et al., 1996; Westphal et al., 1998). Although it is possible to develop cost estimates from such data, these may present an inaccurate picture, because employees in general are sometimes late and miss work, or use work time for personal purposes. This point reinforces the need for comparison groups of low-risk and non-gamblers in studies of gambling outcomes.

As noted above, the literature has a tendency to overemphasise the problem gambler and provides little comparative information about how negative family impacts might be experienced by non-problem gamblers. One exception is a study that compared gamblers and non-gamblers and found that the former had higher rates of credit card debt than did the latter (Hira et al., 1997).

One potential mechanism through which gambling might bring adverse consequences is for the gambler to lose too much money relative to her or his earning capacity and/or wealth. Problem and pathological gamblers display a pattern of higher rates of certain types of financial problems relative to other gamblers (with no or few problems) and to non-gamblers. Although this finding is almost tautological (attributing financial problems to gambling contributes to a determination of gambling type), this is exactly the pattern of problems that contributes to other sorts of consequences (eg. family, legal, and health problems).

The social impacts of gambling on educational processes and institutions have received some attention in the literature, but mostly through the research on adolescent gambling. The research has found that adolescent gamblers skip school, miss work, and borrow money from family and friends to gamble. But the reported indicators of these behaviours in survey research are few in number. Ladouceur and Mireault (1988) in a Quebec survey found that only 5.4 per cent of school students admitted that they cut classes to gamble.

Relations between spouses may deteriorate as a result of arguments over money, loss of trust between partners and family members, and abusive or violent behaviour. Lesieur (1998) reports that between 26 per cent and 30 per cent of Gamblers Anonymous members attribute divorces or separation to their gambling difficulties. Although this type of consequence is difficult to measure and to assign a value to, the number of resulting divorces can be measured, and legal fees can be estimated.

Positive impacts on individuals and families receive virtually no attention in the literature, although they may be inferred from some research that has investigated the motivation for gambling (ie. relief from loneliness and/or boredom, source of excitement and/or entertainment). Possible positive impacts that gambling might have on the family include: stress reduction, improved social interaction, escape from routines, and possible financial gains (Alcohol and Gaming Authority, 1998).

The Productivity Commission (1999) found evidence that many severe problem gamblers often found gambling relaxing, pleasurable, and an interesting hobby. Gambling was also used as a means of "crowding out" personal difficulties, with many problem gamblers indicating that gambling took their mind off worries (themselves potentially induced by gambling) or made them feel less lonely.

According to studies reviewed in Walker (1993a, 1993b), the majority of poker machine players play for entertainment or to be sociable rather than to win money.

4.3 Community-based research

4.3.1 Key conceptual and methodological issues

The importance of the community as a level of analysis was recognised in the *National Gambling Impact Study (NGIS) Commission Report* (1999, p.7-1) which concluded:

“It is evident to the Commission that there are significant benefits *and* significant costs to *the places* namely those communities which embrace gambling and that many of the inputs, both positive and negative, of gambling spill over into the surrounding communities which often have no say in the matter. In addition those with compulsive gambling problems take significant costs with them to communities throughout the nation.”

It is a useful concept and given its presence in the literature it is imperative that it be part of any analysis of the social impact of gaming.

A key issue in any review of the impact of gaming on “communities” is a definition of the term that encompasses all elements of what could be regarded as constituting a community. The term is often used in the literature but there is no standard definition in regard to coverage.

There is a deal of attraction in the broad approach taken by the consultants for the Nova Scotia study (Alcohol and Gaming Authority, 1998, Appendix F). They identified three levels:

1. the local community;
2. social groups;
3. social networks which are self defined and are part of the world of gambling.

These levels recognise the necessity of a spatial and a social dimension when defining communities. At all levels a prerequisite is a shared community of interest.

Drawing on this approach community has, for the purpose of the framework being developed in this research, been defined as:

- all residents in a relevant geographical area;
- social groups, which would include sporting clubs; service clubs; church and other voluntary groups including ethnic associations. While some of these might be parties in commercial transactions the predominant characteristic will be mutuality of interests;
- social networks which will cover defined groups which form because of the common experience of frequenting places where gaming occurs.

Since this definition is not used in the literature there is some potential for creating a barrier to a comprehensive analysis. However, this is more apparent than real. The advantage of such a comprehensive definition is that it allows the gathering together of disparate elements from many studies thereby highlighting linkages for example between the role of clubs and ethnic associations. This definition also allows a delineation of community as a social rather than economic phenomenon. While there can not be any perfect quarantining, the issues examined in the context of community are predominantly social in nature. Related economic factors that involve these groups will be dealt with in the next section that surveys regional impacts. In all consideration of the outcomes it is essential to keep in mind the caveat of the *NGIS* (1999) that social and economic impacts are not easily separated.

The concept of community is crucial since impacts are wider than the experience of individuals and the aggregate outcomes of those experiences extend beyond the individual concerned to the wider community. The notion of community is sensed in many ways, and in surveys individuals are capable of expressing opinions as to gambling impacts at this level.

Variations in structure and composition of communities will occur flowing from variations in age structure, level of social advantage/disadvantage, ethnic mix and other characteristics. Accordingly care must be taken in drawing generalisations. There are many micro studies of communities that reveal similarities. These must be catalogued in seeking to identify linkages and net outcomes.

An important finding of the Productivity Commission (1999) was that overall the broad path of impacts of gaming in communities in country areas did not differ significantly from the pattern in metropolitan areas (p. 10.56).

Such a general view is of assistance in any survey of impacts but it is important to bear in mind that the presence of certain characteristics can influence outcomes. For example, a socially disadvantaged community will experience different outcomes to a community that is less disadvantaged.

Groups within a community will experience differential impacts since re-distributions are inevitable particularly with a convenience model where all transactions are internal to the State. There will of course be some overseas tourist related transactions but these will not be relevantly significant.

These distribution issues at the community level were considered in the *Annual Gaming Report 1997-1998* (Alcohol and Gaming Authority, 1998). On the basis of its considerations, the following conclusions were drawn:

- some groups may benefit more than others from social opportunities offered by gambling while simultaneously within the same community the groups or whole neighbourhoods may face negative social effects such as declining property values or traffic congestion;
- in a convenience gambling market place there is growing evidence that a small proportion of players generate a larger proportion of gambling profits and government revenue. They also tend to generate large social costs.

The research carried out by the Productivity Commission (1999) found that a skewed contribution was a feature of gaming machine usage in Australia. Accordingly, the benefits received are the result of a regressive process. This outcome is not unique to Australia and was noted by the *NGIS* (1999, p. 111).

Caution has to be observed when using overseas studies to illuminate Australian cultural, social and economic differences. However, the strong commonalities that occur suggest that drawing on the overseas studies does have a reasonable basis.

One significant variation however, is that in the Nova Scotia studies (Alcohol and Gaming Authority, 1998) survey respondents tended to see gambling as contributing more benefits than costs to the community—whereas respondents in Victoria are likely to feel that the reverse is the case.

4.3.2 Nature of community-based impacts

A concern with much of the research on communities is that it is based on interviews and surveys that offer personal responses that have variable degrees of factual basis. Despite the absence of statistics and additional data to validate these responses, they tend to become the basis of analysis. Even their reporting can skew findings, particularly where there is no evidence that the responses are representative.

The Nova Scotia study (Alcohol and Gaming Authority, 1998) offered three caveats that have relevance in the Australian environment that need to be kept in mind when assessing studies. These are:

1. coverage of social impacts is extremely uneven for example there is an emphasis on crime rather than the workplace;
2. many studies concentrate on problem gambling and in doing so highlight negative rather than positive impacts;
3. many studies are limited and discrete and reveal only part of the social effect story.

Research undertaken by the National Research Council commissioned as part of the *NGIS* (1999) was critical of existing studies arguing that there was inadequate data and that assumptions were often substituted for data. The NRC took the view that the study of the costs and benefits of gambling was still in its infancy (*NGIS*, 1999, p.7-2).

Although we would not make such a harsh criticism of the VCGA research, there are concerns that many of the results have an anecdotal basis. For example, in focus groups and surveys, some individuals will say that local businesses are suffering or that gambling is causing family hardship when they do not have any real knowledge to support these views. It is acknowledged that, given the lack of verifiable or objective data, such approaches are all that is available. The task is to ensure that perceptions are not promoted as rigorous findings. Similarly, surveys of venues often have low response rates but the data provided is assumed to be representative of the population.

A survey of VCGA research reports allowed identification of those stakeholders who contribute to and gain/lose from the introduction of electronic gaming machines (EGMs). These are:

- gaming providers;
- venues –clubs and hotels¹;
- the community overall;
- counselling services;
- recipients of donations for example service clubs;
- charities;
- ethnic groups; and
- clubs and hotels without EGMs.

These groups are those generally recognised in the broader literature.

Many studies adopt an approach that emphasises the need to identify impacts. The Alcohol and Gaming Authority (1998) proposed the following as community impacts:

Costs:

- crime;
- environmental decline ; and
- erosion of social service agencies.

Benefits:

- better entertainment options;
- funds for community services, recreation and sport; and
- jobs.

Although not explicitly separating community and regional impacts, the Productivity Commission (1999) identified a number of broad community-related impacts:

- gaming machines provided new recreational and social opportunities, attracted more people out of their homes, and some gambling venues have been used to provide better community and club facilities;
- gaming machines have altered the nature and feel of clubs and can “crowd out” other forms of entertainment such as live music and alternative leisure activities;
- in some cases gaming machines are concentrated in lower income areas;

¹ From one perspective it could be argued that hotels should be considered in the context of regions because they are commercial ventures. Although this has a certain validity, hotels are included here because in many areas, particularly rural, they can become the focus of community activities particularly for sporting clubs.

- leaving aside crime related to problem gambling, there is no evidence of significant criminal activity associated with legalised gambling; and
- gambling may undermine certain community norms.

Although the Productivity Commission (1999) was considering at the entire gambling industry not simply EGMs and casinos, the impacts it proposes and those highlighted by the Alcohol and Gaming Authority (1998) are generally the same as those that can be identified from the VCGA research.

If the community is taken as representing all its members then the generally accepted major benefit of EGMs and casinos is the increased opportunity for recreation given that gambling is seen by many participants as a leisure activity. It has to be recognised that the introduction of the Casino in Victoria created an opportunity that did not exist, in a legal sense, before. The industry is probably now reaching a more mature stage and the novelty element can, to a large extent, be dismissed in an analysis of contemporary impacts. There is evidence of a reduction in usage of EGMs over time. The *Fifth Survey of Community Gambling Patterns* (Roy Morgan Research, 1997a) found that in 1996 there was a significant decline amongst gamblers in the appeal of EGMs. This applied to all categories of gamblers (including regulars and those who played at the Casino). These findings demonstrate the dynamic processes of the industry and the need for caution in drawing general conclusions based on the results of research that is focussed on a point in time.

The findings also highlight an important impact in that previously those who wanted to gamble had to do so in an illegal way. The introduction of legislated gaming gave those individuals the benefit of being able to pursue their leisure outside a criminal environment. It should also have reduced policing costs. This is an impact that does not appear to have been considered by researchers. There is no evidence that illegal gambling has declined, because it is possible that players might see illegal gambling as preferable perhaps paying higher returns in the absence of the need to pay taxes.

From a community point of view, the focus of benefits will be on those venues that obtain gaming machines. In contrast, there may be negative outcomes for those clubs and hotels which were unwilling/unable to obtain machines. This aspect is difficult to test because, for example, many studies have noted the lack of relevant crime statistics.

A number of studies related to these issues have been conducted. A key one is *Community Facilities Resulting from the Providers of Gaming in Victoria* (Hames Sharley Victoria, 1997a). The research demonstrates the differences in outcomes, from a community perspective, between clubs and hotels. For example, the average value of community contribution made by hotels was less than that of clubs. This though has to be balanced against the contribution made by hotels to the Community Support Fund.

A majority of clubs and hotels indicated an increase in membership and patronage respectively since the introduction of gaming. This would suggest that the supply of gaming has created a demand for the service. However, care needs to be exercised in reaching such a conclusion. The venues had been upgraded. subsidised meals were provided, and additional entertainment provided so there were strong

attractions for individuals to make use of the facilities. The introduction of courtesy bus trips, free morning and afternoon teas and theme nights enhances this experience. The ancillary benefits of gambling are very important to consumers.

There is no doubt that the introduction of EGMs did lead to improved venues and provided an opportunity to spend leisure time in a way that had not been available previously. This opportunity was taken up with enthusiasm and so there was a significant community benefit.

Support for this view is found in numerous perception surveys in which increased social opportunities are seen as a significant benefit of the introduction of EGMs and the opening of casinos.

Clubs with EGMs can become a significant community resource. Clubs often provide local organisations with the opportunity to use venue space for meetings. The fact that such occasions provide visitor traffic to the venue no doubt plays a part in the generosity.

The income from EGMs provides clubs with the opportunity to upgrade the facilities related to their core purpose. For example, a bowling club can improve its greens.

Sponsorship is a feature of the operation of clubs and hotels. The report *Community Facilities Resulting from the Providers of Gaming in Victoria* (Hames Sharley Victoria, 1997a) found that the majority of clubs and hotels provide some form of support to their local community. This was more likely to happen in rural as opposed to metropolitan areas. The report shows that in 1996, 70 per cent of metropolitan venues made contributions to the community compared to 76 per cent of rural venues. Since the introduction of gaming machines, 62 per cent of clubs reported that they had increased contributions while this was the case for 68 per cent of hotels. A break up of the type of contribution showed that for clubs in 1997 the major types of contributions were donations (48 per cent), facilities (45 per cent), and sponsorships (32 per cent). The distribution for hotels was donations (55 per cent), sponsorships (51 per cent), and facilities (32 per cent). Clubs gave contributions most frequently to sporting clubs, veterans affairs organisations and hospital/hospice/ medical, and service clubs. The hotel recipients were most likely to be sporting clubs, education institutions, and service clubs.

Gaming providers (ie. Crown Casino, Tabcorp and Tattersalls) were found to be significant providers of support to the community each in its own way and with a different emphasis²(Hames Sharley Victoria, 1997a). Apart from requirements under legislation, Crown Casino supports small community, sporting and other organisations. This is done by, for example, the busing program and the provision of raffle prizes. The provision of facilities is claimed to be an important component of the support.

Tattersalls are required under the terms of the Estate of the Late George Adams to give a proportion of its revenues in support of the general community. Contributions

² Based on face to face discussions with representatives with gaming providers during consultation.

generally take the form of direct funding to organisations, provision of assets, and sponsorships. Significant proportions of the recipients are health and welfare organisations including hospitals and health research institutes, as well as service organisations.

Tabcorp's contribution policy is directed to a different segment of the community and claims to provide significant support for sporting and cultural events including the Australian Golf Masters and the Melbourne International Festival.

The improved fortunes of clubs are a benefit to a significant segment of the community namely club members. There is however a potential disadvantage to club members should the club lose its machines for non-performance in terms of the contract with gaming machine providers. This can leave the clubs with significant debts that now can not be paid for from machine revenue. This could easily lead to the loss of existing club facilities and a possible debt to members if the organisation was not incorporated. This likelihood is not restricted to clubs and could befall hotels.

Some researchers see this provider control as undesirable in that it can force clubs to change direction and become aggressive marketeers to the general community rather than focus on providing a service to the members who have a common interest.

A more serious problem and potentially fatal outcome is for those venues which are not able to obtain EGMs when they wish to do so. A particular example here would be in a country town where there are two or more hotels. If only one is successful in obtaining EGMs then its competitors are at a disadvantage that could lead to their demise. It is unlikely that they will be able to survive on the custom of those who prefer a gaming free venue.

Perception surveys commissioned by the VCGA consistently indicate that a large majority of respondents see gambling as doing more harm than good. Generally there is moderate disagreement with statements such as "gambling does more good than harm" and a moderate but sustained level of agreement with a statement such as "gambling causes serious social problems". Positive effects are seen as entertainment, job creation, and helping the economy by generating revenue for the community and Victorian Government. The social problems include family breakdown, financial problems, addiction, and loss of control. The main motivation for gambling is seen as the dream of winning followed by social considerations related to "involvement" with EGMs and the Casino (see Hames Sharley Victoria, 1997a; Roy Morgan Research, 2000). The findings demonstrate that individuals think about gambling in a community sense in terms of costs and benefits but see their own gambling behaviour in a fairly positive sense. From a cultural point of view this has the potential for causing community tensions: a significant proportion of the population is participating in an activity that is seen as having a net deleterious impact on other individuals and the community.

There is the potential for specific groups in the community to have a disproportionate involvement in the gambling industry. The *NGIS* study (1999) raised concerns about the impact of gambling on adolescents who displayed a high rate of usage. The VCGA report *Social and Economic Effects of Electronic Gaming Machines on Non-*

Metropolitan Communities (Deakin Human Services Australia & The Melbourne Institute of Applied Economic and Social Research, 1997) found that for EGM usage by age, 18 to 19 year olds along with 40 to 49 year olds were over represented. Further research would be necessary to see if this is likely to result in an adverse impact. It does highlight the uneven usage patterns and the difficulty in drawing general conclusions.

If gaming does impose costs on the community then it is reasonable to suppose that these will manifest themselves in calls for assistance from community service agencies, which provide counselling and financial advice services. The VCGA commissioned study *Social and Economic Effects of Electronic Gaming Machines on Non-Metropolitan Communities* (Deakin Human Services Australia & The Melbourne Institute of Applied Economic and Social Research, 1997) examines this matter. In the public sector there were reports of marginally increased workloads among caseworkers. Private community organisations reported only small increases in workloads but argued that there was increased complexity because of the flow on of clients attending with gambling problems and in addition an increase in the attendance by family and friends of individuals with a gambling problem. Inadequate record keeping by services makes further examination and validation of this information difficult to achieve.

The availability of dedicated gambling help services means that individuals seeking help because of difficulties directly related to gambling behaviour are more likely to attend these rather than go to a generalist agency. The relevant agencies are Breakeven and G-Line, which are funded out of the Community Support Fund.

The Productivity Commission (1999) conducted its own survey of counselling services specialising in helping problem gamblers. This survey gives a comprehensive overview of services looking at aspects such as staffing, usage and administrative arrangements. In Victoria it was found that none of the agencies had been in operation for six or more years, while 65 per cent had been in operation for three to five years and 30 per cent for two years. Agencies which responded reported a combined caseload 12 months ago of 440 and current caseload of 573. These figures suggest a significant increase in the demand for gambling support services that coincides with the introduction of new gambling activities.

Studies of gambling impact usually address the issue of the potential for increased crime to be an adverse impact. Three concerns can be identified:

- organised crime might control gambling;
- gambling venues might become “honey-pots” for criminal acts such as theft and assault; and
- problem gamblers might turn to crime to fund their gambling.

None of the research has established any findings that would substantiate such concerns. The Productivity Commission (1999) research indicated that petty offences do occur in venues but that the crime rate in them was no more than in other venues that draw similar crowds. This was not seen to be an excessive burden on society. Further, the Productivity Commission could not find any evidence that legalised gambling was being used for money laundering or that legalisation had

added markedly to the control and influence by organised crime, although findings indicated some self reported gambling related crime.

A potential source of benefits for communities is through distributions from the Community Support Fund. This fund was established under the *Gaming Machine Control Act* 1991 to allow for the disbursement of a proportion of government revenue from hotel gaming machines to programs and projects which would benefit the Victorian community. Payments to the fund are one twelfth of the net cash balances from hotel gaming. The study *Community Facilities Resulting from the Providers of Gaming in Victoria* (Hames Sharley Victoria, 1997a) analysed transactions relating to the Fund. Announced projects amounted to \$300, 594, 397. The break up of these was:

- metropolitan (30 per cent)
- regional-local benefit (5 per cent)
- regional-wide benefit (8 per cent)
- state-wide benefit (57 per cent)

One third of the statewide benefit projects was for community services directed predominantly to assisting those with gambling problems including the funding of the 18 Breakeven Gambling Centres.

No data are available to show the Fund distribution to individual regions and its relationship to that region's contribution to the Fund. It is not possible therefore to assess concerns that there is a leakage from communities via the Fund. If the data did show no pattern of return to the communities that put money into the Fund this is not necessarily an outcome of misallocation because there is evidence that distribution has to meet tests of vertical and horizontal equity.

The Productivity Commission (1999) considered the potential for legalised gambling to "crowd out" other activities. For example, individuals who are gambling might divert their time and expenditure from other activities and the example often given is live entertainment. This might not be a good example because many venues use live entertainment as part of their attraction. However, if acts are imported this could be to the detriment of local entertainers. If pre-gambling activities are no longer available then this will be to the detriment of those who attended and/or participate. The availability of the new venue-based entertainment will be of benefit for those who favour that genre. The Productivity Commission (1999) concluded:

"while recognising that some people will lose out from this process of 'structural adjustment' within the entertainment and recreation sphere, the Commission does not see this in itself as embodying a net social cost."

There is though a strongly held perception that the introduction of EGMs has had an adverse impact on live entertainment and this was the view of 78 per cent of the respondents in a survey reported in the Authority's *Impact of Electronic Gaming Machines on Small Rural Communities* (Hames Sharley Victoria, 1997b).

The impact of gambling on cultural groups has not been researched in depth. The Authority's study the *Impact of Gaming on Specific Cultural Groups* will assist in determining those gaming impacts that are specific to cultural groups.

The Productivity Commission (1999) examined impacts on cultural groups and noted that the way cultural factors can influence gambling behaviour is complex. The examples proposed were:

- gambling has a central and different role in ATSI communities; and
- gambling has resonated in different ways in Vietnamese communities.

The complexity is demonstrated in studies of the Vietnamese community. Some studies claim that members of this community are significant users of the Casino who see their treatment there as building self-esteem. Conversely, a study by the Jesuit Social Services (1999) found that the opening of the Casino has substantially increased the demand for help services in that community. There were also cultural difficulties in having individuals seek help.

The report *Patron Profile of a Major Casino Operating in a Metropolitan Environment* (Hames Sharley Victoria, 1997c) found that 13 per cent of the metropolitan respondents were born in Asia/Pacific which compared with approximately 6.6 per cent of persons in the 1996 census. The results therefore indicate a 97 per cent variation from what would be expected.

There would seem to be strong evidence that gambling has the potential to at least cause tensions in ethnic communities.

The *Impact of Gaming Venues on Inner City Municipalities* (Melbourne Institute of Applied Economic and Social Research, Deakin Human Services Australia, & NIEIR, 1997) reported focus groups held with Italian community representatives and Lebanese women. There were generally negative attitudes to community impacts but positive for the economic impacts. For Lebanese women there was a cultural predisposition against gambling.

Ethnic associations have the potential to suffer adversely if they have established small clubs that are designed as a venue for their community to socialise. It is likely that these venues will not be large enough to warrant a gaming licence and in fact the members might not want to see EGMs introduced. The competition from gaming venues has the potential to make these clubs not viable.

4.4 Regional-based impacts

4.4.1 Key conceptual and methodological issues

As with communities, a threshold issue is a matter of definition, because there is not one that is generally accepted. There might not always be a clearly delineated social or economic aggregation since in many cases boundaries will be set on geographic considerations. In essence it is not always possible to associate the social and economic data. For this study the arbitrary definition has been adopted that the community impacts are those that happen to social organisations and regional

impacts are usually economically-based. The division between communities and regions is important however since it represents the division between the social and economic sectors. In terms of levels of analysis, regions fall clearly between community and state.

In examining regional impacts, the emphasis is on the micro economic aspects of the regional economies. The broader and more general macro impacts are considered in the next section looking at state-based research.

Regions ideally represent an area that is self-contained and homogenous. Economic transactions between such regions are taken to be in balance. Data collection however will not necessarily be undertaken on the basis of regions as defined (see for example Melbourne Institute of Applied Economic and Social Research, Deakin Human Services Australia, & NIEIR, 1997). The sheer size of economic activity in some regions will also be a barrier to the assessment of impacts of a single activity namely gaming. This difficulty was noted the *Impact of Electronic Gaming Machines on Small Rural Communities* (Hames Sharley Victoria, 1997b) where the comment was made:

“In overall dollar terms, the role of the EGMs was found to be minimal when compared with the overall level of economic activity and employment structures in each of the regions. As a result quantitative evidence of the impact was not detected in the analysis of changing social and economic characteristic of any of the regions.” (p.xv)

This aligns with the *NGIS* (1999, p. 7.10) finding that:

“No economic benefit to either a place or person was advanced by proponents of convenience gambling. There are no national statistics that indicate the specific impacts of neighbourhood gambling and there are few significant statewide studies.”

Cognisance needs to be given to the fact that the impact will not necessarily fall uniformly across all regions, for example some regions might not have a venue. The extent of the distribution effects will depend on the initial industry structures, for example there will be more significant gains during the construction phase to a region that has a construction industry that can win the contracts. A region without such an industry will suffer significant leakage at least on a one-off basis.

The assessment of regional impacts can be systematic by considering the regional stakeholders. These would include:

- businesses—particularly where these are purely local firms and not establishments for firms based in other regions;
- employers/employees in their workplace relations; and
- local authorities.

4.4.2 Nature of regional impacts

A number of overseas studies were examined to establish identified impacts.

The US and Canadian research tends to concentrate on the impact of casinos. This and the different regulatory regime have to be kept in mind when assessing these findings. A major difference that flows from this is that large casinos in major cities can cause urban changes; impose burdens on infrastructure and generate large property tax revenues. For local authorities these impacts would seem in the main to be likely for the Crown Casino and suggests the need for a stand-alone study of its impact.

However, the impacts identified do have relevance for the impact of EGMs. This is due to the fact that in the U.S., casinos generate the greatest portion of their revenue from slot machines and other gaming devices. (Eadington, 1999).

Eadington (1999) argued that there were potential gains for three groups. These were:

- those who gain from the overall entertainment experience. However, their consumer surplus is discounted with the extent of the discount related to the moral criticism that gambling receives in the society considering it.
- those gaining from the promises of ancillary economic benefits—jobs, investment stimulation, tourism development, economic development and urban redevelopment; and
- the public purse which receives additional sources of revenue.

Eadington's (1999) summary is that:

“in effect, a good portion of the desirability of gambling as a commercial activity is dependent upon its ability to fulfil ancillary economic objectives. Casino gambling is valued for what it can do rather than for what it is.”
(p.187)

The *NGIS* (1999) commissioned a study by Adam Rose and Associates (1998) on the *Regional Economic Impacts of Casino Gambling*. Findings included:

- facilities may have the ability to attract visitors from outside the region;
- facilities may recapture expenditure from residents who used to go outside the region to gamble;
- gambling may be a drain on the economy through lost work time and for medical care costs; and
- in the longer term there is scope for economic diversification.

The study stressed the need to consider the distribution of impacts with regard to:

- how gains and losses are distributed among income classes;
- whether new jobs created are high skilled, high paying or the opposite;
- how gains are spread among racial /ethnic groups;
- how gains are spread across economic sectors; and

- are profits retained in the area.

The Alcohol and Gaming Authority (1998) identified three categories of economic impacts:

- direct and spin-off jobs;
- household incomes; and
- provincial revenues.

In addition, the Alcohol and Gaming Authority (1998) suggested the following regional costs related to problem gambling:

- employment costs;
- lost labour; and
- bad debts.

Generally the impacts identified in these studies are similar to those that manifest in the Authority's research.

The venues can become significant trading enterprises in a region and as a result will have an important impact on the level of economic activity. This will come from employment and the purchase of goods and services.

A benefit will be increased employment in venues particularly in occupations that would not have been demanded in the region before for example employees with skills to manage gaming machines. There will be other employment in hospitality related occupations such as food and beverage work. This will not be a net increase if the venue activity has attracted custom from other venues and businesses which lead to those having to shed labour. It is possible that there could have been a re-allocation of labour between the venues but this net effect is not considered in the research because the microdot required is not available.

While employment growth is marked, there are reasons to consider the nature of these jobs. For example, are these "good" jobs in the sense that they are well paid and are available as full time positions for those who want full time work. The National Institute of Economic and Industry Research (1997) identified the characteristics of new employees in the gambling sector in Victoria for December 1996. The key findings were:

- Females represented 56.2 per cent of total direct employment in the gambling industry and males 43.8 per cent. This compares to male and female shares of 43.3 per cent and 56.7 per cent across all Victorian employees.
- Part-time employment is the principal employment status of employees in the Victorian gambling sector. Part-time employment represents 53.6 per cent of total employment compared to 25.1 per cent across the Victorian employment sector generally.

- Females dominate part-time employment accounting for 68.7 per cent of total part-time employees in the gambling sector. Females represent 74.9 per cent of the total part-time employment across the whole Victorian employment sector.
- Employees under the age of 30 years represent 53.6 per cent of total direct employment.
- Females dominate direct employment in the 20-39 year age group in the industry.
- The largest number of females in direct employment is in the 20-24 year age group.

A narrow demographic is benefiting from the direct employment growth. Gaming work is a clear benefit since these are new jobs that will involve the employees receiving some training. The jobs created have a bias towards part-time, and so might not be seen as positive to many potential employees preferring full time work.

The directly created jobs will generally not be good jobs in terms of pay. They will be entry-level jobs and often part-time. However, they will have value in facilitating school/unemployment transition to work opportunities. A number of jobs such as those in supervisory positions would be “good” jobs.

Indirect jobs will be created both within and outside the region. These would be a typical mix of jobs in the economy.

A significant increase in economic activity will occur when new construction work and refurbishment is taking place. The regional impact of this will depend on whether the contracts are sourced locally or from outside the region. This will have a differential impact depending on the range of suitable firms that can tender from the region. An analysis of this activity would require detailed input-output analysis.

The magnitude and net impact of such transactions raises a key issue inherent in analysing regional impacts. If we take a narrow view of benefits then there is a significant opportunity for some regions to gain at the cost of others and this raises the crucial issue of leakages which can occur in a number of ways. Before these are considered, thought needs to be given to whether we are concerned with the outcome for single regions or for aggregations. Construction work sourced from a region other than where the venue is located will increase economic activity in another region that will probably gain. However, if it does not have a venue its residents might go to another region to gamble. Region against region it might be a zero sum gain but overall there might be net benefits. This differential impact is examined in a study of the impact of gaming on retail trade. The study found that the introduction of EGMs caused increased economic activity from released savings although there were pockets where there was an adverse impact (National Institute of Economic and Industry Research, 1997a).

One theme running through the testimony received before the Productivity Commission (1999) was that the economic benefits were generally most pronounced within the immediate vicinity of the gambling facilities, while the social costs tended to be diffused throughout a broader geographic region.

There will undeniably be leakages when we recognise that two thirds of the gaming expenditure in any region will go to the Government, the gaming providers, and the hotel contribution to the Community Benefit Fund.

External ownership of hotels will result in their share being repatriated elsewhere. Theoretically, the community benefits of this leakage will be:

- greater financial security for the state government and savings on alternative forms of tax;
- lower state debt; and
- spending in communities from the Community Support Fund (Deakin Human Services Australia and The Melbourne Institute of Applied Economic and Social Research, 1997).

It is argued that the introduction of EGMs is likely to have changed the saving and spending patterns of households to the benefit of the venues and to the detriment of existing local businesses. The Authority's study the *Social and Economic Effects of Electronic Gaming Machines on Non-Metropolitan Communities* (Deakin Human Services Australia & The Melbourne Institute of Applied Economic and Social Research, 1997) examined this issue. This study followed up anecdotal evidence with a small-scale survey of local businesses and concluded that, due to selection bias, it was not possible to interpret distribution effects over the regional economies.

The Rose (1998) findings for the U.S. experience was that:

"The preponderance of empirical studies indicate claims of the complete 'cannibalisation' of pre-existing local restaurants and entertainment facilities by a mere shift in resident spending is grossly exaggerated."
(p.27)

A potential impact for local firms occurs when a successful club with excess profits moves into non-traditional activities such as in-venue hairdressing salons and gyms. These will then compete with similar local firms and this could be to their detriment but might also create employment opportunities and provide members with a wider choice of service providers.

A number of the concerns from a community perspective are also relevant to regional structures. An example of this is bankruptcy where the impact on the individual will create a bad debt situation for local businesses. This could have a wider impact, as it might be a trigger for businesses to tighten up on allowing credit even where there is no risk. Local businesses can also suffer if there is an increase in gambling related crime. The evidence to support this observation is not strong because gambling related bankruptcy is not usually reported because such reporting it is an offence under the relevant legislation.

The report *Lucky, Local and Losers* (Victorian Local Governance Association, 1999) details the concerns that organisation has about the impacts gaming has on its member's activities. These can be regarded as being in the main regional impacts. A principal concern is that there is a differential impact on disadvantaged regions. The report is critical of much of the existing research which is based on self-reports, as

there is evidence that gamblers under-report their gambling. It refers to research carried out by a VLGA consortium that found that EGMs have a net detrimental impact on local economies, largely caused by diversion of expenditure.

The research is critical of what it sees as a disproportionate concentration of EGMs in areas of socio-economic disadvantage, with a possible concentration of problem gambling because of the increased access to gaming. A further consequence would be entrenchment of disadvantage and the failure of investment to be attracted to the region.

The Productivity Commission (1999) examined these claims and confirmed that data showed there to be an inverse relationship between income levels and the density of gaming machines in Victoria (p. 10.30). The Productivity Commission's (1999) conclusion was that there is a potential for disadvantaged communities to suffer more adverse social problems from exposure to gambling (p. 10.48).

The *Lucky, Local and Losers* report (Victorian Local Governance Association, 1999) raises concerns about the distributional outcomes from the Community Support Fund. The report suggests:

“An issue for local government is the small proportion of the Community Support Fund that seems to be returned to local government areas, especially those of greater socio-economic disadvantage, though this is hard to establish. Research carried out by the City of Greater Dandenong does indicate that very little of gambling revenue finds its way back into the communities that make the biggest contribution.” (p. 14)

The Victorian Local Governance Association (1999) warns against local authorities becoming too dependent on gambling-related income.

In economic terms, there would appear to be significant impacts for towns/regions which do not have any gaming venues since there is a potential for residents to seek gaming opportunities elsewhere and perhaps at the same time undertake other business. A benefit would arise if businesses in the non-gaming town were to receive leakage from expenditure or its residents were to be successful in gaining some of the newly created jobs.

As a region, Melbourne will experience a different set of impacts because it is the host to a major casino. There will be gains from visitors, international and domestic, and the export of costs that might accrue to those patrons. A similar situation could occur for regions with significant tourist strength. For example, the snowfields might have more profitable venues since there would be wider patronage than simply based on residents. This could have regional benefits in more jobs but there would be a potentially negative impact if the attraction was seasonal.

Displacement of varying magnitudes is likely for traditional gambling industries. The National Institute of Economic and Industry Research (1997b) study *The Effect of Gambling on Employment in Victoria* found that the growth in new gambling employment had to some extent displaced traditional gambling employment. In looking at all jurisdictions the Productivity Commission (1999) concluded that

expenditure on gaming machines and casinos have left expenditure on traditional forms of gambling untouched (p. 10.36). It would seem that there will be an impact but that this will not be marked.

4.5 State-based research

4.5.1 Key conceptual and methodological issues

This section of the literature review focuses on the social and economic impact of gambling at the state level. This considers a broader perspective than community and region in that it recognises governments' broader social responsibilities, the regulatory function, and its revenue raising and macroeconomic role.

This level of impact is not examined in the literature to a great extent. There is a problem in applying overseas, or even other state, analyses to the Victorian environment given the different functions of governments in the relationship between governance and gambling (for example the various models of regulation and ownership arrangements). The most fruitful resources were found to be the Productivity Commission (1999) report and a number of the research reports emanating from the Authority's research program.

It is assumed that the general state of the economy is something in which State Governments have an interest regardless of their interventionist bent. Gambling activities have an ongoing impact, both positive and negative, on the economy and at the least governments will wish to monitor this by observing impacts on changes in economic aggregates such as Gross State Product and labour force changes. Gambling also has the potential to influence the demand for some government services.

4.5.2 Nature of state impacts

Since the liberalisation of the gambling industry with the legalisation of gaming machines and the establishment of a permanent casino in Victoria, State employment, economic activity and state tax revenue and expenditure have increased substantially over the period 1992-96.

The most comprehensive examination of the economic impacts is the modelling that is reported in *The Effect of Gambling on Employment in Victoria* (National Institute of Economic and Industry Research, 1997b). This is summarised in *Summary of Findings 1996-97 Research Program* (Arthur Andersen, 1997).

At the level of Gross State Product (GSP) the modelling estimated that incomes and expenditures from new gaming activities contributed an additional \$2 billion to the GSP per year by the end of June 1996. On this basis, new gaming activity was equivalent to 2 per cent of GSP and so was making a significant economic contribution.

The break up of this contribution was estimated at:

- Flow-on expenditure from the new gaming industry of \$1.2 billion to suppliers, contractors and construction companies.
- New gaming taxation generated state government recurrent expenditure of nearly \$0.3 billion.
- Multiplier effects caused by stimulated general consumption from increased recurrent government expenditure and flow on consumption spending from gaming industry contractors etc which was equivalent to approximately \$0.5 billion to other sectors of the Victorian economy.

In 1995-96, \$0.9 billion was due to initial construction work. Although this would fall off, it could be expected that there would be a cycle of refurbishment that maintains some of this level. It was estimated that the investment in building the permanent Casino and upgrading EGM venues has given rise to gaming related construction investment of approximately \$1.7 billion over the period 1992-96.

New gaming activity will have a positive impact on employment through a number of paths. The report *The Effect of Gambling on Employment in Victoria* (National Institute of Economic and Industry Research, 1997b) examined this in detail and reported a number of findings. It calculated that as at June 1996 the gaming industry created 34,700 new jobs in Victoria. The avenues for this were:

- Direct employment in new gaming machine operations and venues.
- Direct flow-on employment with suppliers, contractors and construction companies.
- Multiplier effect employment in other industry sectors.

It was estimated that the new activities displaced 408 people formerly employed in traditional gambling activities, for example racing. The result was a net gain of approximately 8 000 direct gaming jobs by the end of June 1996. It was estimated that this growth contributed to a significant 1 per cent reduction in the Victorian unemployment rate over the period 1995-96.

If these jobs are entry level and there is a training element there is the potential for some of these costs to fall on the public sector. This is an aspect that does not seem to have been considered in the literature.

There is a potential for gambling activity expansion to be at the expense of other industry sectors when displacement occurs. It can occur intra-sector where new gaming growth can divert expenditure from traditional gaming. A strongly debated area of possible displacement is in the area of retail trade. This is important at both the statewide and regional level since net outcomes might not reflect micro market outcomes. The core study in this area is the Authority's report *The Impact of the Expansion in Gaming on the Victorian Retail Sector* (National Institute of Economic and Industry Research, 1997a). Its most relevant findings were:

- Whilst the growth in gambling expenditure in Victoria between 1990 and 1996 was stronger than the growth in expenditure on retail goods and services, at the State level, this appears to have been funded through a reduction in savings.

- While at the State level there is little evidence to suggest that increased gambling expenditure adversely affected the retail industry generally, on a geographical basis some areas and industries in Melbourne and Victoria have probably been affected.

These findings have been the centre of some debate about what is known as the “savings hypothesis”. This debate often seems to ignore the second finding as to the micro level impact. If the spending were from savings then there would be an increase in economic activity since it is expenditure that would not have otherwise occurred.

The Productivity Commission’s (1999) analysis of the finding was:

“While gambling may not have caused a reduction in actual retail expenditure in Victoria during or immediately after its introduction, the Commission does not believe that this result can be generalised to suggest that an expansion in gambling comes at no cost to other retail activity. All products and services compete for a share of the consumer’s budget. Unless there is a permanent shift in the savings rate, the growth in expenditure on one product or service generally must be at the expense of expenditure on others, whether it be in the form of an actual decline in retail spending or a slower growth in retail spending than would otherwise have happened...Only if the increase in gambling caused a significant and sustained increase in economic growth, sufficient to offset the switch in market share away from other retail spending, would other retail sectors be better off. The Commission sees no reason to believe that this would be the case.” (p. 10.31)

The key to the debate seems to rely on being able to differentiate between the macro outcomes and the impact at firm level, as well as consider the short-term outcomes with the introduction of EGMs and the longer-term outcomes when EGM and casino gaming are mature economic activities. However, the outcome of the impact of a run down in savings can not be ignored since at some time efforts will be made to restore them at the cost of expenditure, or alternatively there will be a run down in individuals’ capital.

Another area where it is often claimed that displacement occurs is with a diversion of expenditure away from traditional gambling. There are instances where declines have occurred at the time EGMs were introduced but this is often not an association but a reflection of a long-term trend. The Productivity Commission (1999) concluded:

“It appears that increases in expenditure on gaming machines and casinos left expenditure on traditional forms of gambling virtually untouched. This in turn implies that the new forms of gambling have largely opened up new markets with new groups of consumers, rather than simply shifted the gambling dollars between forms.” (p. 10.36)

Any related drop in activity in another form of gambling could be adverse for the Government since it might mean a loss in revenue. However, total revenue has been growing over time and this does not appear to be a concern.

Generally, at the State level, overall gambling has a positive economic impact. The Productivity Commission (1999) examined a number of econometric studies and concluded “that these indicated that the gambling industries make a positive net contribution to the Australian economy” (p. 5.31).

The introduction of new forms of gambling will have a significant impact on a state’s revenue raising capacity. Table 4.1 illustrates the growth in taxation revenue from gambling since 1991-92 in Victoria.

Table 4.1 Gambling taxation derived by government 1991-92 to 1996-97 (\$ million)

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-7
EGMs	0.2	94.9	258.8	384.0	509.1	625.7
Lotteries	300.2	290.2	286.1	296.6	297.9	274.4
Racing	191.6	198.4	201.7	144.1	122.0	121.2
Casino	Nil	Nil	Nil	67.8	110.4	128.2
Other	21.2	16.8	14.2	15.2	11.9	7.9
Total	513.2	600.3	760.8	907.7	1051.3	1157.4

Source: Government financial statistics produced in *Special Report No. 54 – Victoria’s Gaming Industry: an insight into the regulator* (1998, p. 25).

Recent estimates from the 1999-2000 budget statement predict that Victoria will receive \$1,428.2 million in gambling tax revenue.

Gambling taxes have become an important source of revenue for Victoria not only in absolute terms but also as a proportion of total collections. The Productivity Commission (1999) estimated that for Victoria, gambling tax revenue as a percentage of total own-tax revenue for 1997-98 was 15.2 per cent up from 9.1 per cent in 1990-91 (the 1997-98 proportion for NSW was 10.4 per cent). The closest to Victoria was Queensland with the gambling share at 12.5 per cent (p. 19.7).

While gambling provides a significant source of revenue to a state government, there are some issues that need to be recognised. A significant aspect is that, although in Victoria’s case (and generally for other States) gambling revenue has been growing, there is no real certainty that this will continue and there is a possibility of erosion of the tax base with no real alternative source.

The reliance by a state on gambling revenue is often the subject of stringent criticism, which is, encapsulated in the Productivity Commission’s (1999) comment that:

“In no other group of industries today do policies appear to be driven so strongly by revenue needs so much that it is commonly observed that the states have become addicted to gambling.” (p 12.7)

Another revenue issue that arises is the matter of hypothecation of gaming revenues since many of these are clearly earmarked for particular purposes. This usually relates to community benefit levies on gambling. As discussed above, the State Government gains access to significant funds from the Community Support Fund. A significant amount goes from this to fund problem gambler help services such as Breakeven and G-Line.

Other revenue is earmarked in predetermined proportions for other public services such as the Hospital and Charities fund (1 per cent of Casino revenue and 33 per cent of gaming machine revenue in clubs and hotels). It also receives set per centages from other forms of gambling. Tourism Victoria receives five yearly payments of \$1 million from the Casino.³

This provides a state government with funds to provide public health care so in total there is additional government income. From say, a health care perspective, whether or not this is a benefit will depend on whether it becomes additional funding or is a substitute for what would have been spent anyway. The Commonwealth Department of Health and Aged Care examined this and in a submission to the Productivity Commission (1999) reported that it:

“found little evidence that earmarking had an impact on overall hospital funding. States that earmarked funding to hospitals provided neither higher or lower funding in total than states that did not use earmarked funding.” (Productivity Commission 1999, p. 20.8)

The negative impacts at the state level appear to be concentrated in the potential for increased calls for government services from those groups related to problem gambling. The difficulty of modelling this has been recognised. Problem gambling can impact on a number of areas. For example on counselling services, the legal system (police and courts), family relationships, work place relations and lost working hours, company or business insolvency, health services.

As discussed above in the sections on community-based and regional-based research, there do not appear to have been any significant detrimental impacts in the matter of the legal system and crime. This issue was highlighted by research reported in *Social and Economic Effects of Electronic Gaming Machines on Non-Metropolitan Communities* (Deakin Human Services Australia & The Melbourne Institute of Applied Economic and Social Research, 1997) which found that State agencies (Department of Human Services, Magistrates Courts) reported marginally increased workloads as a result of increased gambling opportunities in Victoria. Private community service agencies (emergency relief, financial counselling, and family counselling), on the other hand, reported major increases in workload.

Unfortunately, the data for many reports tends to come from small focus groups, and there is inadequate quantitative data to verify findings.

³ Details of all community benefit levies for Victoria and the other States and Territories is contained in Table 20.1 of the Productivity Commission (1999) report.

Research reported by the Alcohol and Gaming Authority (1998), found that many of the costs and benefits of governance seem to be related to the expenses incurred in dealing with problem gamblers.

The costs of regulation are also a likely cost to government, but this has been accommodated in the Victorian situation by funding the VCGA and its functions from gaming revenue.

It is not intended in this report to consider the impacts of policies but it is important to bear in mind that the policy direction that governments take can vary the potential outcomes. This is particularly so in deciding to legalise gaming for whatever reason, for example the raising of revenue or having a casino as a tourist attraction. Alternatives to gaming could be considered. The Productivity Commission (1999) concluded that:

“Since gambling is still relatively small compared with the economy at large, the next best use of these resources would create nearly the same levels of value-added as gambling itself.” (p. 4.19)

Once a tax regime is established for gambling, there is some agreement that these end towards strong regressivity which seems to accompany growing liberalisation of gambling and the tax regime (Productivity Commission, 1999, p. 4.15).

One view is that:

“Research shows that the same amount of government revenue generated by gambling could be acquired by increasing taxes moderately and this would have a less regressive tax effect on the poor as well as fewer negative side effects.” (Alcohol and Gaming Authority, 1998, p. 63)

Government decisions have the potential to have differential impacts across regions and this is an issue that needs to be factored into policy decisions. These matters are not raised in any sense as policy proposals, but to provide an example of how government decisions can mould the shape and size of gaming impacts.

This section of the report has reviewed the key research findings on the social and related economic impacts of gaming in the Australian and overseas literature. In drawing attention to the findings on specific issues we would want to emphasise the potential linkages between impacts that have not, as yet, been fully researched. In the following section we draw on the conceptual models derived from the literature to present an overall analytical framework for evaluating the social impacts of gaming.