
9 Quantifying the costs of problem gambling

Box 9.1 Key messages

- Quantifying the costs of the gambling industries is a difficult task, especially for the intangible impacts on the wellbeing of individuals. The Commission has nevertheless provided indicative estimates for as many of the impacts as possible.
- The costs associated with problem gambling are conservatively estimated to be equivalent to at least \$1.8 billion (with a higher estimate of \$5.6 billion) each year.
- The costs amount to an average of at least \$6000 per problem gambler per year, with the higher estimate averaging \$19 000 per problem gambler.
- The bulk of these estimated costs comes from the emotional distress and tension that problem gambling imposes on gamblers and their families, rather than direct financial costs.

9.1 Introduction

Earlier chapters have identified and discussed a range of benefits and costs generated by gambling in Australia. The principal costs for society (costs that are not offset by benefits elsewhere) result from problem gambling. Some of these are financial costs, whereas others are less tangible. The psychic or emotional impacts on problem gamblers and their families are costs for which a value should be assigned, in the same way that the pleasure or entertainment from gambling has a value. The difference is that only the latter value is expressed through actual market prices — proxy values have to be found for the former.

In estimating the costs, the Commission has grouped them into five broad categories:

- financial costs (family debts and bankruptcy);
- effects on productivity and employment;
- crime (theft, court cases and imprisonment);

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- personal and family impacts (divorce and separation, depression and suicide); and
 - treatment costs.

Chapter 7 provides a more detailed presentation of the impacts of problem gambling, including the results from the Commission's surveys and from other available sources. In this chapter the Commission seeks to put values on as many of these costs as possible. Some, particularly the more intangible costs for problem gamblers and their families, are potentially very significant as well as being difficult to measure. Given these difficulties and uncertainties, the Commission has, where possible, provided a range of values for the cost estimates. In doing so, the Commission has tended to be conservative (erring on the low side), even when including a number for the higher estimate of any particular aspect of the costs quantified. A more detailed treatment of the methodology and numbers used is provided in appendix J.

9.2 Previous estimates of costs by other researchers

Researchers overseas (box 9.2) and in Australia (box 9.3), have attempted to estimate the costs that problem gambling imposes on society.

The most remarkable aspect of the estimates reported is their range — from US\$560 to US\$52 000 per problem gambler per year. This demonstrates both the conceptual difficulties involved, and the practical information problems in assigning reliable numbers to some of the costs. Similar difficulties can arise in estimating consumer benefits (chapter 5).

Box 9.2 Estimates from North America of the social cost of gambling

Estimates of the annual cost per problem gambler undertaken in the United States vary widely. For example, in reviewing US studies, Goodman (1995) reported:

By examining the combined costs which are produced by the behaviour of problem gamblers, including bankruptcies, fraud, embezzlement, unpaid debts, and increased criminal justice expenses, researchers have arrived at yearly estimates of how much these people cost the rest of society. Estimates of the yearly average combined private and public costs of each problems gambler have ranged between US\$20,000 and US\$30,000 in 1993 dollars, with some reports as high as US\$52,000. The United States Gambling Study, which I directed, arrived at a much more conservative estimate of US\$13,000 per problem gambler per year in 1993 dollars.

(continued)

Box 9.2 continued

Goodman (1997) pp. 61–2 reported:

Some of the most useful recent research on the costs of problem gambling was done by Rachel Volberg ... Her estimated cost to the public of the average pathological gambler in 1981 was approximately US\$13,600 — a figure she describes as a “much more conservative approach to costs” than she found in previous studies... Volberg’s analysis covers three basic categories: 1) the income which would have been earned by pathological gamblers who lost their jobs; 2) the costs of prosecuting and incarcerating them for crimes caused by their gambling problems, such as embezzlement, fraud, and theft; and 3) “bailout costs” — money given to them by family and others to cover their gambling expenses and living needs. Goodman (1997, p. 63) questioned the last category, which made up US\$6000 of the US\$13 600 estimate, as representing a transfer between groups within society rather than representing an economic loss.

The National Council of Welfare (1996, p. 33) reported a University of Manitoba estimate of the cost of compulsive gambling to society as Can\$56 000 for each problem gambler each year.

The most recent study in the United States has been undertaken as part of the work of the National Gambling Impact Study Commission. The study estimated that each problem gambler generates an annual cost (excluding transfers) of US\$560, and an additional lifetime cost of US\$3580. For pathological gamblers, the study estimated that each generated an annual cost (excluding transfers) of US\$1050, and additional lifetime costs of US\$7250. Details of results of the study are presented in appendix K.

Estimates at the high end of the scale tend to include *all* of the money spent by problem gamblers as a social cost — implying that problem gamblers receive no benefit at all from any of their consumption. Similarly, they include as a net cost to society payments that are essentially transfers within society (such as unemployment benefits, or bad debts).

For those estimates at the lower end of the scale, costs borne by problem gamblers themselves (internal costs) are usually not included, nor is there an attempt to measure most of the intangible costs. Such studies focus on direct financial costs imposed on others and on society as a whole. Transfers are often correctly identified and excluded. The exclusion of intangible costs is the most important factor leading to apparently low costs of problem gambling. But such costs can be as great as, or much greater than, the direct financial costs imposed on society.

An earlier estimate of costs in New South Wales

In 1995 and 1997, Dickerson et al. (1996a and 1998) undertook surveys of consumers in New South Wales and, together with the clinical experience of a

number of researchers in the field of problem gambling, made an estimate of the cost of problem gambling.

Dickerson et al. quantified a range of costs associated with problem gambling in New South Wales, arriving at an aggregate value of \$50 million per annum for that State — a cost per problem gambler of some \$1300 a year (box 9.3). This estimate is low, primarily because it focused on direct financial costs, with no estimate attempted for the intangible costs associated with problem gambling, though it did include the financial costs borne by problem gamblers (other than expenditure on gambling itself).

Box 9.3 Estimates of the cost of gambling in New South Wales

In 1998, Dickerson et al. updated an earlier set of estimates of the cost of problem gambling in New South Wales. They combined their 1997 survey of 1390 people with information drawn from the 1995 survey of 1209 people to form the basis of a revised estimate.

Their estimates of the annual costs of problem gambling are:

| | |
|---------------------------|---------------|
| | \$ 000 |
| Employment impacts | 28 474 |
| – productivity loss | 20 796 |
| – job change | 5 258 |
| – unemployment | 2 420 |
| Legal costs | 17 846 |
| – court costs | 5 376 |
| – prison costs | 9 978 |
| – police costs | 2 492 |
| Financial costs | 66 |
| – bankruptcy costs | 66 |
| Personal costs | 732 |
| – divorce | 391 |
| – acute treatment | 441 |
| Existing services | 3 191 |
| Total | 50 309 |

The estimates assume that 0.85 per cent of the adult population of NSW are problem gamblers — all of those with a SOGS score of 10+ and half of those scoring 7 to 9. This equates to a problem gambler population of some 39 117 in NSW, with a cost per problem gambler of \$1300 per annum.

Source: Dickerson et al. (1998).

Lesieur (the originator of the SOGS measure of problem gambling) said about the Dickerson et al. study:

They have conducted the most thorough and potentially the best study done anywhere. However, it seriously underestimates the cost of problem gambling in several ways. (1996, p. 17)

Lesieur identified the following factors as contributing to an underestimate:

- the inclusion of only weekly gamblers excludes less frequent ‘binge’ gamblers;
- a six month period for the SOGS can lead to understatement even when ‘annualised’;
- excluding institutionalised populations, who typically contain a high level of probable pathological gamblers, leads to lower than actual levels of problem gambling; and
- a threshold of 10 on the SOGS was seen as too high — US studies typically use 3 or 5 as the cut off point.

The last of these points appears the most significant. Lesieur goes on to present a range of information comparing the costs faced by the ‘5 to 9’ group with the ‘10+’ group to indicate that adverse consequences can be as large for members of the former group as they are for the latter.

Despite these comments — criticisms can be made about any set of estimates — the methodology employed by Dickerson et al. is very useful, and has formed the basis of the Commission’s estimates contained in this report. In so doing, the Commission has sought to extend the work:

- from NSW to the national level;
- by including estimates for some of the more intangible costs associated with problem gambling; and, importantly
- by avoiding problems of identifying the most appropriate SOGS-based ‘cutoff point’ for problem gamblers *by looking at the prevalence of gambling-related adverse consequences in the whole population of regular gamblers.*

The methodology and data used by the Commission to estimate the benefits and costs of gambling in Australia are presented in detail in appendices C and J respectively. What follows is an outline of the approach taken to estimate the costs and a summary of the results.

9.3 The Commission’s estimates of social costs

In assessing the costs to society of problem gambling, (as opposed to the costs to individual gamblers) costs need to be viewed in a particular way. They do not

include costs which private individuals and businesses adequately take into account in deciding whether to produce and consume particular gambling products. Rather, the focus needs to be on those costs that are inadequately priced or accounted for in market transactions. The existence of such social costs would mean that, for society as a whole, an excessive level of production and consumption of the product in question may be occurring. In turn, this can provide a possible rationale for corrective government action or policy attention, depending on the costs associated with any such intervention.

Many activities generate social costs but typically, they are small in total and specific government actions are unlikely to be cost-effective. If the problem is large (with high social costs that are clearly associated with the particular industry or activity), more targeted policy actions may be warranted.

Which costs should be included in the estimates?

Expenditures or payments which many people would clearly refer to as ‘costs’ can be categorised into three types — internal costs, external costs, and transfers (these are explained in chapter 4, box 4.1).

It is the *external* costs — those imposed on others by a decision maker without them having a say — that would normally provide the only justification for government intervention on efficiency grounds.

However, in this chapter the Commission has included a significant element of problem gamblers’ *internal* costs (other than the money spent directly on gambling) in its estimates of the policy-relevant costs that gambling imposes on the Australian community.

This is because of serious reservations about the extent to which problem gamblers are aware of the true costs and benefits of gambling — misperceptions about how the games operate and the true likelihood of winning are widespread and persistent. More importantly, for many problem gamblers, it is questionable whether they are spending money on gambling in a ‘voluntary’ way, exercising the ‘consumer sovereignty’ that would normally be assumed to apply. Chapter 6 provides a detailed discussion of consumer sovereignty and problem gambling.

While *transfers* do not represent a net cost to society, they are nonetheless important for those who pay for them. If the transfers are large, it may be worthwhile investigating cost-effective ways to minimise them or, if they are part of the welfare system, ways to make them more effective. Estimating the size of the transfers and identifying the direction of flows can be a worthwhile exercise.

In addition, the process of undertaking transfer payments is not costless. For example, raising and distributing taxes to fund welfare transfers involves a cost. Similarly, in the case of bad debts, action taken to protect against such debts represents a cost, and to the extent that lenders cannot distinguish adequately between borrowers on the basis of risk (including gambling), these costs will be paid for by others.

ACIL (sub. D233), in addition to expressing the view that internal costs should be excluded, also questioned the inclusion of costs borne by other members of the family. The Commission does not agree with this view, for the reasons discussed in chapter 4.

Star City (sub. D217, p. 8) referred to similar spillover *benefits* from the wellbeing of the majority of recreational gamblers, and ACIL (sub. D233, pp. 28–29) said that such benefits of gambling to family members should be included in estimates of costs and benefits.

Advisedly, in our view, the happiness gained by the family members of the great number of satisfied, relaxed and fulfilled gambling customers is not counted in the Draft Report as an extra benefit of gambling. This is sensible, but quite different to the way the Draft Report handles spillover costs. Its handling of spillover benefits view households as a group of people who *are* covered by implicit contracts whereas its view of spillover costs presumes that *no* contracts exist.

Certainly there are benefits for a family stemming from the happiness of individual members. But the Commission does not consider that the additional contribution of gambling to this level of happiness to be significant. Most alternative forms of entertainment (while perhaps not valued as highly as gambling by the gambler) are likely to deliver a similar level of happiness and fulfilment which will equally ‘spill over’ to the family. The *additional* level of happiness from gambling is likely to be small, but the *additional* level of unhappiness from problem gambling is large. In its estimates of costs and benefits, the Commission has not attempted to measure each and every benefit and cost, but concentrated on those which appear to be the most significant.

Taxes on gambling

Some might consider that these are not *net* costs for society, because they are offset by high taxes on gambling consumption. The gambling industries are subject to a range of taxes, some significantly higher than those levied on other forms of consumption. In part, these taxes are levied, at least nominally, to pay for some of the social costs of problem gambling. In this analysis, the Commission has included the taxes levied on the gambling industries as a *benefit* in the estimates presented in

chapter 5. Consequently, such taxes are not offset against the cost estimates in this chapter as this would involve double counting.

How reliably can social costs be attributed to gambling?

Many of the adverse consequences experienced by problem gamblers are not unique to gambling. Depression, divorce or job loss occur for a variety of reasons, and to many people in society. In the Commission's *National Gambling Survey*, respondents were typically asked to report adverse consequences 'as a result of your gambling'. Thus, we are relying on participants willingness or ability to attribute the range of adverse consequences that they have suffered to their gambling activities.

An alternative approach was taken in the recent study in the United States (Gerstein et al. 1999). This study collected information on the prevalence of adverse events irrespective of cause in the population generally, and then compared the prevalence in the population without gambling problems with the prevalence in the population with gambling problems. When account was taken of a range of other likely influences on differences in prevalence rates, the observed difference was ascribed to the respondents gambling activities. A brief summary of the results of this study is presented in appendix K.

Overall, for questions that were equivalent in the Commission's *National Gambling Survey* and the US study, the results of the two approaches are broadly comparable in terms of the estimated prevalence of adverse consequences from gambling problems (appendix J).

In addition to the potential to mistakenly attribute adverse consequences to gambling activities, a number of participants in this inquiry questioned whether problem gambling itself was a symptom rather than a cause of the problems that some people face (see chapter 7 for a more detailed discussion of causality). In some situations, it may be inappropriate to say that gambling is the *cause* of the problems observed, though it may contribute to their severity.

Following the draft report, the Commission held a meeting with a number of prominent academics and researchers in the field of problem gambling in Australia. The participants were specifically asked their views on the extent to which problem gamblers would continue to have problems in the absence of gambling.

- The consensus was that for a number of adverse consequences — particularly depression, and divorce and separation — as a rule of thumb, some 15 to 20 per cent would have problems even if their gambling could be successfully managed.

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- Where the adverse consequence was more directly financial — such as embezzlement, or bankruptcy — the view was that gambling was invariably the principal cause.

The Commission concedes that, while this is not a precise means of assessing causality, it provides a useful guide. Consequently, in revising the draft report, the Commission has made an adjustment for ‘causality’ in its estimates of the personal and family impacts of problem gambling, by applying a 20 per cent discount to the costs relating to adverse consequences in this broad category.

What are the costs of gambling problems?

A wide range of costs have been identified as flowing from problem gambling, but they can usefully be grouped into the following areas:

- financial costs (debts and bankruptcy);
- effects on productivity and employment;
- crime (theft, court cases and imprisonment);
- personal and family impacts (divorce and separation, depression and suicide); and
- treatment costs.

The Commission’s approach

Where practical, a range of values has been estimated for each adverse consequence because of uncertainties about its magnitude or the value attributed to it. In some cases this was based on a range of the dollar values ascribed to the consequence, and in others a range in the number of people affected. Importantly, the higher level of the range chosen need not represent the maximum possible value.

Most of the estimates are based on the prevalence of adverse consequences derived from the Commission’s *National Gambling Survey* in relation to a 12 month period. Where information was only available on the basis of an impact ‘ever’ occurring, the Commission has estimated the annual level based on the average duration of gambling problems reported by problem gamblers in counselling (8.9 years).

Where information on prevalence was only available from the Commission’s *Survey of Clients of Counselling Agencies*, this prevalence was only ascribed to the estimated number of problem gamblers based on a score of 10 or more on the SOGS (47 000 people) rather than the estimated total number of problem gamblers in Australia (293 000 people).

Valuing the intangible costs relating to such things as depression, suicide, or the emotional costs imposed on family members has been a particularly difficult component of the estimates presented. Consequently, and in order to be conservative, the Commission has chosen ranges of values based on compensation payment schedules in New South Wales and Queensland used for emotional harm. Typically for less severe cases, this is a range of \$5000 to \$15 000, and for more severe cases \$30 000 to \$50 000 per person. While even the high end of these ranges may be low compared to the extent of suffering that can occur, the Commission's estimates represent an average for a wider group of people.

Where one group of adverse consequences can be seen as an extreme example in a broader category, to avoid double counting, the numbers in the broader group exclude the more extreme group. For example, the number of people included in the estimate of the cost of depression exclude the number estimated to have thoughts of suicide. Similarly, the number used for breakup of a relationship exclude the number estimated for divorce and separation.

The Commission has not attempted to measure all the costs that arise from problem gambling. Apart from those which may not be substantial, or which have been discounted to err on the conservative side, for some the Commission had no adequate basis for attributing dollar figures, even as a range. For example, costs have not been measured for:

- non-regular gamblers. The prevalence of adverse consequences derived from the *National Gambling Survey* relates only to regular gamblers. To the extent that some non-regular gamblers experience problems, the estimates are understated;
- any future reduced earning capacity for problem gamblers that may result from being declared bankrupt or the costs associated with bad debts in bankruptcy;
- the impact on physical health, nor the medical costs associated with conditions such as depression;
- costs that may carry over into later years from 'one off' events;
- the emotional distress for families and parents of *moderate* problem gamblers;
- indirect costs such as sale of property etc, and long term effects on children resulting from divorce and separation;
- those who are only rarely or sometimes depressed; and
- actual suicides caused by gambling.

Appendix J outlines the methodology in detail. The results are summarised below.

The Commission's estimates

In total, the Commission estimates that problem gambling imposes an annual cost (excluding the unmeasurable costs) of some \$1.8 billion to \$5.6 billion (table 9.1).

Table 9.1 Costs of problem gambling
(\$ million, 1997-98)

| | low | high |
|--|--------------|--------------|
| <i>Financial</i> | | |
| Bankruptcy | 1.3 | 1.3 |
| <i>Productivity and employment</i> | | |
| Productivity loss at work | 21 | 150 |
| Productivity loss outside work | 7.2 | 50 |
| Job change | | |
| earnings loss | 24 | 24 |
| employee job search | 13 | 13 |
| employer staff replacement cost | 22 | 22 |
| <i>Crime and legal</i> | | |
| Cost of police incidents | 3.2 | 3.2 |
| Court cases | 5.6 | 5.6 |
| Jail costs | 5.1 | 5.1 |
| <i>Personal and family</i> | | |
| Emotional distress of immediate family | | |
| Moderate problem gamblers | ne | ne |
| Severe problem gamblers | 756 | 2 267 |
| Emotional distress of parents | | |
| Moderate problem gamblers | ne | ne |
| Severe problem gamblers | 0 | 666 |
| Breakup of a relationship ^a | 288 | 864 |
| Financial cost of divorce | 2.8 | 2.8 |
| Emotional cost of divorce | 126 | 253 |
| Cost of violence | 2.8 | 8.3 |
| Depression ^b | 231 | 692 |
| Thought of suicide ^c | 120 | 239 |
| Attempted suicide | 70 | 117 |
| Impact on immediate family | 81 | 161 |
| Impact on parents | 0 | 21 |
| <i>Treatment costs</i> | | |
| Gambling counselling services | 20 | 20 |
| TOTAL | 1 800 | 5 586 |

ne. Not estimated ^a Excluding those that lead to divorce or separation. ^b Excluding those reporting thoughts of suicide. ^c Excluding estimated attempted suicides.

Source: appendix J

Transfers within society as a result of problem gambling are much smaller, at an estimated \$35 to \$62 million annually, principally being the debts carried by other members of the family (table 9.2).

Table 9.2 Value of annual transfers as a result of problem gambling
(\$ million, 1997-98)

| | low | high |
|-----------------------------------|-----|------|
| | \$m | \$m |
| Debts | 26 | 26 |
| Unemployment payments | 4.1 | 4.1 |
| Value of money obtained illegally | 4.9 | 31 |
| TOTAL | 35 | 62 |

Source: appendix J.

The most striking feature of these estimates is that the more easily measured direct financial or money costs of problem gambling, which amount to \$127 million to \$309 million, are a small share of the total. The most significant categories of costs are those covering adverse emotional impacts on immediate family members and parents, followed by the estimate for depression for those with gambling problems.

These costs loom large because of the numbers of people involved. For example, the *National Gambling Survey* indicates that some 48 500 people suffer ‘often to always’ from depression as a result of their gambling (after a range of adjustments for causality and to avoid double counting). Table 9.3 presents the estimated number of people associated with each of the adverse consequences included in the Commission’s estimates.

The intangible costs associated with problem gambling have not been estimated before. Their intangibility precludes precision or a point estimate, but the Commission considers that the range of values provided here are a useful guide to their minimum magnitude. If anything, the estimates are more likely to understate than overstate the true costs. That said, they nonetheless amount to a major component of the total cost estimates — underlining the importance of taking them into account.

As already noted, the intangible costs are just as real as the consumer benefits, but because there is no market mechanism to signal the values that people would place on these costs, they are harder to measure. Therefore, some have argued that it cannot be done in a way that is reliable enough, and should not be attempted. However, this poses the greater risk that zero values will be imputed for these costs — which would be less meaningful than the conservative estimates presented here.

Given the policy relevance of the intangible costs associated with gambling, and the difficulty the Commission experienced in trying to find information on dollar values that could be placed on these costs, this is an area where additional research would be desirable.

Table 9.3 Estimated number of people experiencing adverse impacts nationally used in the costing estimates

| | People affected annually |
|---|--------------------------|
| Bankruptcy | 317 |
| Gambling debts | 5 258 (46 792) |
| Productivity loss at work | 7 000 + |
| Productivity loss outside work | 2 358 + |
| Job change | 5 600 |
| Crime | 9 700 |
| Police incidents | 6 300 |
| Court cases | 700 |
| Jail | 336 (2 995) |
| Family member emotional distress | 151 129+ |
| Breakup of a relationship | 28 800 |
| Financial cost of divorce or separation | 2 560 |
| Emotional cost of divorce or separation | 8 422 ^a |
| Violence | 551 (4 904) |
| Depression | 46 160+ |
| Thought of suicide | 7 972+ |
| Attempted suicide | 2 348+ |
| Family of attempted suicide | 5 377 |

Numbers in brackets represent 'lifetime' numbers from which annual numbers have been estimated. + indicates that this number is the lower number in a range. ^a includes family members as well as problem gamblers (an average of 3.2 people per household)

Source: PC National Gambling Survey.

Social costs vary by mode of gambling

There is considerable potential variation in the contribution to social costs from the different modes of gambling. As outlined in chapter 5, the share of expenditure accounted for by problem gamblers varies markedly by gambling mode. To get some understanding of how the social costs are distributed, the share of problem gambling expenditure was used to allocate the social costs by mode (see table 9.4). As noted in chapter 5, the estimated expenditure shares for problem gamblers are likely to be more reliable for gaming machines and lotteries than for some of the modes with fewer numbers of problem gamblers identified in the survey. Because gaming machines account for some 76 per cent of the total amount of money spent by problem gamblers in 1997-98, 76 per cent of the social costs have been allocated to that mode (table 9.4).

Table 9.4 **Social costs of gambling by mode of gambling, 1997-98**

| | <i>Share of expenditure in that mode accounted for by problem gamblers</i> | <i>Expenditure by problem gamblers</i> | <i>Social costs of gambling</i> |
|---------------------|--|--|---------------------------------|
| | % | \$ million | \$ million |
| Wagering | 33.1 | 529 | 267 — 830 |
| Lotteries | 5.7 | 68 | 34 — 106 |
| Scratchies | 19.1 | 47 | 24 — 74 |
| Gaming machines | 42.3 | 2 710 | 1 369 — 4 250 |
| Casino gaming | 10.7 | 96 | 48 — 150 |
| Other | 25.0 | 112 | 57 — 176 |
| All gambling | 33.0 | 3 562 | 1 800 — 5 586 |

Source: PC estimates.

Some distributional issues

In comparing costs and benefits, it is typically assumed that a dollar of benefit for one person is equivalent to a dollar of benefit for another, and that a dollar of cost for one is the same as a dollar of cost to another. Where costs and benefits are spread evenly in society, this is a reasonable presumption. But when the costs and benefits occur in a quite uneven fashion, this assumption should be reviewed.

Most gamblers receive a consumer benefit equivalent to some \$250 to \$400 each year (chapter 5), while problem gamblers and their families are spending, on average \$12 200 each per year on gambling products and are generating a range of social costs estimated to be equivalent to some \$6100 to \$19 100 per problem gambler per year. While not all of this cost is borne directly by the problem gambler (much is borne by their family, and some by the wider community) the concentration of costs on a minority of people in society is an area of legitimate social concern.

Comparisons with other costs

The question of the costs of problem gambling in comparison with the costs of a range of other activities in society — tobacco, alcohol and illicit drugs — was raised by participants in the inquiry. For example, Tabcorp (sub. D232, p. 2) said:

Compared to the enormous benefits generated, the costs of problem gambling to society is negligible. US studies indicate that in the US the combined cost of smoking is 14 times that of gambling, motor vehicle accidents - 14 times greater, alcohol abuse - 33 times greater and drug abuse - 22 times greater.

Estimates of the cost of other social problems have been undertaken in Australia, most comprehensively by Collins and Lapsley (1996). These estimates, together with the Commission's estimate from this report are presented in table 9.5 below.

Table 9.5 Estimates of the cost of other social problems, Australia

| <i>Problem</i> | <i>Annual costs \$ billion</i> |
|----------------------------|--------------------------------|
| Gambling ^a | 1.8 - 5.6 |
| Illicit drugs ^b | 1.7 |
| Alcohol ^b | 4.5 |
| Tobacco ^b | 12.7 |

Source: ^a PC estimates for 1997-98. ^b Collins and Lapsley (1996) estimates for 1992.

Some caution should be exercised in comparing estimates done at different times by different researchers using differing methodologies (see Gabbittas and Eldridge 1998, for a critique of these estimates). Nonetheless, whether the costs of the gambling industries are greater or less than the costs to society of other industries is not particularly relevant. Social costs of \$1.8 billion to \$5.6 billion per year are clearly high enough in an Australian context to warrant policy attention.