Productivity Commission – Inquiry into Gambling

Supplementary Submission

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Introduction

Our attention has been drawn to criticism of aspects of our article 'Risky Business: a few provocations on the regulation of electronic gaming machines' (Livingstone & Woolley 2007) in a submission to the present inquiry by Clubs Australia, notably that contained at pp. 87-92 of Submission No. 164.

This submission will briefly address the criticisms set out at pp 87-92 of the Clubs Australia submission. We have also identified some other estimates of the proportion of EGM expenditure attributable to problem gamblers.

Core elements of the Clubs Australia critique

The Clubs Australia critique of 'Risky Business' focuses on our calculation of the proportion of EGM revenue attributable to problem and at risk gamblers. Clubs Australia's principal arguments appear, in essence, to be as follows:

1. We failed to account for the expenditure of low and no-risk gamblers in our calculation of EGM expenditure, thus by implication significantly over-estimating total EGM expenditure;
2. The prevalence estimates generated by the 2003 Victorian prevalence study (CGR 2004) (which also incorporated a validation study for the newly developed Victorian Gambling Screen, or VGS) were inaccurate and unreliable because of small sample sizes and poor study design; and
3. The Caraniche data utilised to provide estimates of gambler expenditure were based on an opportunistic sample and were therefore not representative of Victorian EGM users.

The balance of this submission addresses these issues.

Response to the Clubs Australia critique

1. *We failed to account for the expenditure of low and no-risk gamblers in our calculation of EGM expenditure, thus by implication significantly over-estimating total EGM expenditure*

Clubs Australia's criticism of our calculations rests on the assumption that by failing to account for the expenditure of non-problem (i.e., low risk or no-risk gamblers) we ignored the substantial expenditure of that group, and that by doing so we inflated the aggregate expenditure of EGM users by 2.3 times the actual amount.

Had we indeed been calculating the aggregate expenditure of every EGM user in Victoria using the Caraniche data, we would have been guilty of this error. However, as should be clear to any reader, the Caraniche data relate on average to **regular** gamblers only – defined as individuals who gamble once per week or more.

CGR (2004) estimates this regular gambler group at about 8.5% of those who use EGMs (CGR 2004: 53) and the Caraniche estimates thus relate on average to this specific group, not to the overall population of EGM users, many of whom gamble very infrequently. For this non-regular gambler group, average weekly EGM expenditure of $71 per week (as Clubs Australia suggests at p.92 of their submission) would, quite frankly, be a ridiculous overestimate. If, however, one were to abstract the Caraniche data as representative of the average expenditure of **regular** gamblers, the result would be as set out in Table 1. In Table 1, we assume that **regular** gamblers spend time and money in accordance with the patterns identified in Caraniche (2005) which we have set out in Table 2. Table 1 also utilises the CGR (2004) estimates of the proportion of EGM users who use EGMs weekly or more, but does not utilise problem or at-risk prevalence rates generated by that study.

Table 1: Estimates of gambler segment expenditure using Caraniche data

Category	Number	$ p.a.	% of total NGR
Adult pop 2004-05	3,844,150		
EGM users	1,287,790		
Regular EGM users	109,462		
Non-problem gamblers	34,043	$126,117,392	5.3%
Low risk	18,061	$113,089,278	4.7%
Moderate risk	27,803	$371,389,760	15.5%
Problem Gamblers	29,555	$692,414,810	28.9%
Regular - total	**109,462**	**$1,303,011,240**	**54.5%**
Non-regular - total	**1,178,328**	**$1,090,019,726**	**45.5%**
All EGM NGR 2004-05		**$2,393,030,966**	**100.0%**
Non-regular – mean p.c. NGR		**$925**	
Regular non-problem and moderate risk plus non-regular – mean p.c. NGR		**$1,080**	
Moderate plus problem – mean p.c. NGR		**$18,547**	
Ratio		**17.2**	

Source: Caraniche (2005); CGR (2004); ABS (2006). Calculations by the authors.

Table 2: Summary of Caraniche in-venue expenditure data according to CPGI status

Category	Number	%	Visits per week	$ per visit	Average weekly NGR	Average annual NGR
Non-problem	130	31.1%	2.0	$35.85	$71	$3,705
Low risk	69	16.5%	2.1	$56.52	$120	$6,261
Moderate risk	106	25.4%	3.4	$76.32	$256	$13,358
Problem	113	27.0%	4.3	$103.41	$449	$23,428
Total/average	**418**	**100.0%**	**3.0**	**$68.03**	**$224**	**$11,688**

Source: Caraniche (2005)

Table 1 demonstrates that a small proportion of regular gamblers generates a very significant amount of EGM revenue. This is hardly a startling observation, having been made by an industry spokesperson to the PC Inquiry into Australia's Gambling Industries in 1999 (Wunsch, 1999: 539).[1] The 109,462 estimated regular EGM users provided about 54.5% of EGM revenue, most of which was attributable to the at-risk or problem gambler segments – amounting to 44.4% of total EGM revenue. However, another 45.5% was attributable to the non-regular segment. This group amounts to about 1.18 million people, each of whom would spend an average of $925 per annum, or about $17 per week. This seems to us to be a highly plausible estimate of average non-regular gambler expenditure. Unfortunately, the average expenditure of the problem and at-risk groups is very much higher.

The face validity of the estimates in Table 1 is strong, and in our view consistent with the PCs estimates in 1999 (PC 1999: P.13). Certainly, the weighted mean expenditure by problem and moderate risk gamblers ($18,546 p.a.) represents about 17.2 times the weighted mean expenditure of non-problem regular and non-regular gamblers ($1,080 p.a.). In 1999, the PC reported that mean losses by problem gamblers were about 15 times as great as those by non-problem gamblers. Any diminished participation in EGM gambling over the period from 1999 to 2004 (the date of the Caraniche survey) may also account for the slightly increased ratio between the mean annual expenditure by the differing gambler segments - in 1999 the PC reported that 38.6% of the adult population used EGMs in the past year (PC 1999: 3.16); CGR (2004: 11-12) report an EGM participation rate of 33.5%. It is highly plausible that in a declining population of overall EGM users the problem and moderate risk segments would increase in proportion.

The method of estimation displayed in Table 1 also has the advantage of being independent of the prevalence estimates contained in CGR (2004), and is well within the range of estimates we point to in 'Risky Business' (Livingstone & Woolley 2007: 365-366).

Clubs Australia (at p.92) also argue that Williams & Wood (2004) suggest that self-reported gambling expenditures are likely to exceed actual expenditure. However, Williams & Wood do not report the proportion of problem gambler expenditure by gambling mode. As will be recalled, the PC in 1999 estimated that, overall, problem gamblers contributed 33% of total gambling revenue, whereas problem gamblers using EGMs contributed 42.4% of EGM revenue (PC 1999: Table P.4). Given the saturation of EGMs in Australian social settings, structural considerations will likely have a significant impact on patterns of gambling expenditure. In this context we note that there are reportedly a total of 82,633 EGMs in Canada, including VLTs and Casino style machines, compared to Australia's 198,751. This yields an approximate per capita average of less than 2.5 EGMs per 1,000 people in Canada compared to Australia's 9.3 per 1,000 people (AGC 2005: 211; CIA 2009). In 1999-2000, for example, quite unlike Australia, lottery revenues in Canada exceeded EGM revenues (EGM non-casino revenue was $1.8 billion, lottery revenues were $1.9 billion, and casino revenue was $1.9 billion)(Azmier 2001: 4). Clearly, the Canadian gambling market is quite distinct from that operating in Australia. Although comparisons are

[1] Ms Wunsch told the Commission that about 80% of revenue was derived from 20% of users, and that this 20% would include 'anyone who might have problems with gambling'. Our estimate is that 8.5% of EGM users generate about 55% of revenue – quite consistent with Ms Wunsch's observations.

possible in many useful respects, the sheer number of EGMs in local venues in Australia (in contrast to Canada) is very likely to lead to a very different pattern of expenditure, including problem and at-risk gambler expenditure.

In contrast to the Williams & Wood findings, we also note the submission of ABS to the 1999 PC Inquiry, reporting on the Australian gambling data collection situation, which pointed out that estimates of gambling expenditure contained in the household expenditure survey underestimated gambling expenditure by a factor of about 3.9 (in 1993-94). As the ABS said in its submission 'This clearly indicates that respondents are deliberately failing to report the full extent of their gambling activities' (ABS 1998). The ABS suggested that this may be attributable to

> a concern that they have that other members of the household and ABS staff will see the diary of expenditures and may judge their gambling activities as excessive and/or anti social. These difficulties are demonstrated in the attached, to the extent that the HES estimates show households in NSW, SA, WA and NT all with negative expenditure (or overall winnings) on the 'TAB, on course betting etc' for 1993-94 (ABS 1998).

The PC also commented that other Australian surveys underestimated total gambling expenditure (PC 1999: P.11).

The Williams & Wood estimates provide no support for the proposition that problem gambler expenditure is an insignificant proportion of total EGM revenue. In fact, Williams & Wood do not disaggregate EGM consumption in their estimates, and indeed argue that across all gambling modes, 'problem gamblers report a proportion of expenditure that is more than *five times* their proportion among the Canadian population' (Williams & Wood 2004: 39)(emphasis in the original).

2. *The prevalence estimates generated by the 2003 Victorian prevalence study (CGR 2004) (which also incorporated a validation study for the newly developed Victorian Gambling Screen, or VGS) were inaccurate and unreliable because of small sample sizes and poor study design*

Clubs Australia make a number of observations about the sampling method and various aspects of the methodology adopted by CGR (2004). It is not our intention to defend the methodology of that report. Its authors included a prominent and prolific gambling researcher, Prof. Jan McMillen, as well as other researchers with expertise in statistical methods, and these researchers are more than capable of defending their own work if they feel it necessary to do so.

However, two important considerations must be taken into account. The first of these is that, at least in a Victorian context (the context with which the present authors are most familiar) there has been no prevalence study released since that undertaken by CGR (2004). There are therefore no publicly available prevalence data for Victoria more recent than that provided by that study. Anyone who wishes to examine the extent of problem gambling in Victoria and its association with levels of gambler segment expenditure (for which data are available in Victoria, unlike other states) would therefore be required to make use of those data, or in the alternative data derived from the PC 1999 gambling survey, which found a higher prevalence of problem gambling.

The second consideration we refer to is that the CGR (2004) study incorporated an exercise in validating the Victorian Gambling Screen, a new gambling screen commissioned (as we understand the situation) by the then Victorian Gambling Research Panel. The methodology adopted to validate that screen involved splitting the gambling survey population into three segments, each of which was asked to respond to one of the three screens utilised (the SOGS, the CPGI and the VGS). Thus, it is obvious that some statistical power would be lost as a consequence of this three way split. It is also, we believe, why CGR (2004) reports a problem gambler rate of 1.12% and a moderate risk rate of a further 1% (CGR 2004: 11-12). These appear to be estimates based on an amalgam of the results of the three screens. It is unfortunate that these constructs are not better defined, and that the prevalence purpose of this study appears to have been confounded to some extent by the validation purpose. However, in the absence of other data, we believe strongly that it is fair and reasonable to make use of available data, particularly when we are engaged in an exercise of estimating harm to public wellbeing.

Clearly, it suits industry to argue that nothing can be concluded until irrefutable evidence is available. Truly irrefutable evidence is *never* available (as observers of the climate change debate would testify). Thus, the status quo may be maintained indefinitely.[2] However, prevalence estimates produced by experienced and senior researchers (Prof. McMillen *et al*) as the result of publicly funded research should be utilised wherever possible to contribute to the public debate on an important social issue. This is the purpose for which we drew on CGR (2004).

3. *The Caraniche data utilised to provide estimates of gambler expenditure were based on an opportunistic sample and were therefore not representative of Victorian EGM users*

Caraniche (2005) produced a report intended to evaluate certain of the harm minimisation measures adopted by the Victorian government in the period since the election of the ALP government in 1999. An element of that study was the sampling of gamblers derived from in-venue interviews undertaken at a number of club and hotel gambling venues in both metropolitan (seven) and non-metropolitan (four) locations at various times of day between 10 am and 3:00 am, and on every day of the week except Sunday (Caraniche 2005: n.p.).

We note that Clubs Australia suggest that the Caraniche sampling method was ‘opportunistic, particularly in relation to the sample of EGM players’. Clubs Australia go on to argue (without substantiation) that ‘[i]t is inappropriate to extrapolate data from such a convenience sample to a general population’ (pp 89-90). It may be appropriate to put the Caraniche methodology into its broader context, and we quote here in full from the relevant section of the Caraniche report:

> In order to conduct a thorough and rigorous evaluation of recently introduced harm minimisation measures in Victoria’s gaming venues, the project team

[2] It is perhaps worth noting that the status quo as far as current EGM gambling practices are concerned was brought into being without evidence, irrefutable or otherwise, being provided to support its introduction.

> sought information from venue operators/nominees, managers and staff, EGM players, industry stakeholders and community stakeholders.
>
> In general, sampling for this study was opportunistic, particularly in relation to the sample of EGM players. Given the sensitive nature of the study, considerable methodological flexibility was required to ensure the requisite sample could be both obtained and maintained without causing distress or embarrassment to participants.
>
> The project team also implemented some survey protocols for maximising the contact rate and minimising the rate of non-responses. The protocols included: attendance at gaming venues during hours of peak patronage; varying the time of day-time/night-time and day of week; stressing the importance of the evaluation; highlighting the relevance of the respondent's participation; underlining the confidentiality of information provided by respondents; and, offering a shopping voucher as an incentive to participate (Caraniche 2005: n.p.)

In our opinion, the Caraniche team undertook a difficult task well. In-venue surveys are notoriously difficult to implement and require considerable patience and flexibility. Patrons must be at liberty to decline to participate, and venue managers will require that interaction between researchers and patrons should be minimal and non-intrusive. Above all, it is clear that many players may not wish to be involved. Achieving a sample of well over 400 patrons under such circumstances is commendable.

Further, as we note in Risky Business (Livingstone & Woolley 2007: 365), Sharpe *et al* comment in reporting on a study undertaken with the financial support of a NSW gambling industry body that 'those patrons who were present in venues every night and gambled heavily were noted to be reluctant to volunteer to take part in the study' (Sharpe et al 2005: 514). This would suggest that the heavy gambling group would be the most difficult to recruit and that any sampling error in the Caraniche study would likely be an under-sampling of the problem and at risk group.

Of course, there are few such samples reported in publicly available form in any Australian context, and none of which we are aware in relation to Victoria other than the Caraniche sample. Again, as with CGR (2004), we are required to rely on what is available if we are to make any progress at all in understanding the nature and attribution of gambling expenditure.

Player tracking cards (including loyalty cards utilised by patrons at Crown Casino and other gambling venues throughout Australia) would be helpful in resolving this issue. We are not aware of such data being made publicly available, but the gambling industry could, if it chose, release such data in a de-identified form to assist in resolving the question of gambling expenditure shares by gambler segment. Until such data are released, those who wish to contribute to public debate on this issue are compelled to rely on what data are available in the public domain.

Other Australian estimates of problem gambler shares of gambling revenue

We point in 'Risky Business' to additional sources for the estimation of problem and at-risk gambler shares of EGM revenue (Livingstone & Woolley 2007: 365). These include the PC's estimate from the 1999 report which has been referred to above (PC 1999: Table P.4). We also referred to an estimate derived from the 2006 Northern Territory prevalence survey which assessed the proportion of revenue derived from problem gamblers (defined as those scoring 5 or more on the SOGS) as 43% (SSPR 2006: 46).

The 2001 ACT Gambling Prevalence survey reports that 48.2% of EGM expenditure in the ACT was attributable to problem gamblers (defined as SOGS 5+) (AIGR 2001: 114).

Unfortunately, other recent prevalence studies have failed to ask respondents questions about their expenditure. These include studies undertaken in Queensland, NSW, and South Australia. (Qld responsible Gambling Strategy 2007, A.C. Neilsen 2007, SA Dept for Families and Communities 2006).

Conclusions

Our article was essentially concerned with identifying a number of 'orthodoxies' which sustain both the present regimes of EGM regulation, and current levels of exploitation of EGM users. Our intent in the article was to identify and describe such orthodoxies and to address them in turn. We refer to these orthodoxies as collectively constituting important elements of what we call the 'discourse of business as usual'. Our purpose is clear – we seek to illuminate deficiencies in existing regulatory regimes, and to identify the extent to which these deficiencies contribute to the maintenance of circumstances beneficial to EGM operators. Our concern is based on developing a regulatory approach which has as its principal concern the health and well-being of the public, rather than the maintenance of a status quo which conveniently supports the revenue streams of large corporations and other vested interests at the expense of public health.

We note that such issues are not addressed by the authors of the Clubs Australia submission. Rather, their tactic appears to be to identify a specific (and relatively minor) issue where they believe they can point to error, presumably for the purpose of discrediting the balance of our argument by pointing to the alleged error. We would submit that the proportion of EGM revenue attributable to problem gamblers constitutes a public health and social policy issue whether this proportion is 23%, 42.4%, 53%, or 60%. We note that Gary Banks (2003) said a similar thing in relation to problem gambling prevalence rates. Similarly, the absolute number of people affected by problem gambling is not the major element of any attempt to address the harms of problem gambling. It is abundantly clear that a large proportion of the revenue derived from EGMs comes from people with gambling problems, as gambling operators well know. It is clear that many hundreds of thousands of Australian are directly affected by problem gambling at any one time, as gambling operators also know full well. Problem gambling as a social issue has a multiplier effect, in that for every individual with problems there are family, friends and employers who also suffer adverse consequences.

Attempts by gambling operators and their organisations to generate controversy over the minutiae of such propositions appear to us to be an attempt to generate a smokescreen around these issues in the hope that the discourse of business as usual can be maintained for as long as possible. This tactic seeks to avoid a serious discussion about what appropriate measures may be available to effectively improve consumer safety and the protection of the pubic health in relation to gambling. The Clubs Australia submission, in effect, provides an excellent example of the discourse of business as usual.

Having made these points, we reject the assertions made by the Clubs Australia submission. We strongly support the proposition that public debate should be as well-informed as possible, and that research should generate the best possible evidence to inform such debate and inquiry.

However, we also strongly support the proposition that absolute certainty is close to impossible in social research, and that public policy must be formed on the basis of an approach which draws on available evidence to act in favour of the public health and well-being wherever possible – if necessary, taking a precautionary approach. Despite repeated industry comments about research lacunae in gambling studies, there is ample evidence of the harm inflicted by current regulatory regimes for EGM use in Australia. This was the thrust of the ‘Risky Business’ article and it has not been repudiated at all by Clubs Australia’s submission.

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