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Elton Humphery Secretary Senate Community Affairs Committee PO Box 6100 Parliament House CANBERRA ACT 2600

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Dear Mr Humphery,

ATM and Cash Facilities in Licensed Venues Bill 2008 Poker Machine Harm Reduction Tax (Administration) Bill 2008 Poker Machine Harm Minimisation Bill 2008

Thank you for the opportunity to make a further submission in relation to the Committee's inquiry into the above Bills.

On behalf of myself and Dr Woolley, I would like to make further submissions in relation to the evidence of Mr Ferrar and Mr Gibson, given at the Committee's hearing on 12 September last, and also in relation to Mr Ferrar's letter to the Committee dated 16 September 2008, a copy of which you provided to me.

1 – Re: Reinforcement schedules

Both Mr Ferrar in his correspondence of 16 September and Mr Gibson (at pp. CA 57-59) suggest that 'reinforcement schedules' are not elements of gaming machine design and "do not exist" (p. CA 59). Mr Gibson also submitted that it is a nonsense that the gaming machine industry utilises "a schedule that predetermines the rate of a machine granting small wins during play" (p. CA 57).

Mr Chappell of the South Australian Independent Gambling Authority, in attached correspondence, reports on an exchange between him and Counsel for AGGMA at the IGA hearing in Adelaide on 29 April, where our IGA report was considered and presented in relation to this issue. This exchange is interesting and informative, in my submission.

However, of even more interest is the following quote taken from Blaszczynski & Nower's critique of our IGA report, which as the Committee will know was commissioned by AGGMA to refute our conclusions:

EGMs are popular, in part, because they contain certain basic core technology that is attractive to players: a machine containing mechanical or video display reels that spin on the push of a handle or button, whose outcome is determined randomly resulting in a random ratio schedule of reinforcement ... (my emphasis) (Blaszczynski & Nower 2008, p. 9)

In other words, the experts retained by AGGMA to critique our IGA report appear to agree completely with our views on the core centrality of reinforcement schedules to the effective operation of EGMs.

Of course, this is far from the only source of support for the view that schedules of reinforcement provide the basis for the effectiveness of EGMs, and indeed for their capacity to alter behaviour amongst many who play them, to induce high rates of expenditure, and in some cases problematic behaviour. At p. 24 of our IGA report we refer to work by Skinner (1953) and Ferster & Skinner (1957) setting out the basis for understanding principles of conditioning associated with reinforcement by EGMs. At p. 25 we referred to more contemporary Australian work by Delfabbro & LeCouteur (2003) and Delfabbro et al (2005) which further substantiates our views on the importance of reinforcement schedules in the context of EGM 'success'. We might also point to literature such as Delfabbro & Winefield (1999) and indeed to Schull (2005), the latter including quotes from gaming machine manufacturers around issues of machine design, including the following:

"The perception," Randy Adams of Anchor Gaming told me, "is that you're winning all the time, when you're really not — you're putting 25 in and winning 15 back, 45 in and 30 back, over and over." Nathan Leland of Silicon Gaming put it this way: "Positive reinforcement hides loss." (Schull 2005, p. 69)

In other words, there is no doubt that EGMs utilise principles of conditioning, achieved via schedules of reinforcement embedded in game maths and embodied in PAR sheets, to render their products effective in inducing people to keep playing them. My evidence (at p. CA6) was that "Poker machines are very complex machines and they have very complex maths, but in those maths essentially is a reinforcement schedule". This is entirely consistent with all the references utilised in our IGA report and indeed those referred to above, including the quote from the Blaszczynski & Nower (2008) critique of our work commissioned by AGGMA.

2 – Re: "Risky Business" article by Livingstone & Woolley (2007)

Mr Ferrar attacks the above named article on the basis that it contains a lack of evidence, is biased against the gambling industry, and overstates the significance of the data derived from the Caraniche (2005) report, to which we refer in the article.

Firstly, it should be noted that our "Risky Business" article was published in the peer-reviewed scholarly journal International Gambling Studies. The editor of this journal at the time the article was submitted was (and indeed continues to be) Professor Alex Blaszczynski. The article, having been published in this journal, is clearly at a scholarly standard acceptable to Professor Blaszczynski and to the peer reviewers. The arguments set out in the article certainly express the considered views of the authors but are, in our view, painstakingly argued and strongly supported by evidence, which is provided by the 65 published works upon which the article draws, which are set out in the article's reference list

It should be further noted that our calculations drawing on the Caraniche data are further supported by reference to studies undertaken by other researchers, including work by the Productivity Commission (1999), Sharpe, L., Walker, M., Coughlan, M-J., Enersen, K. and Blaszczynski, A. (2005), the School for Social and Policy Research (2006) and Williams & Wood (2004).

It should also be noted that the Caraniche study involved interviews in 11 venues across a spread of operating hours, so that the sampling undertaken by Caraniche appears, in our view, to have been well conceptualised and undertaken, especially having regard to the difficulty of such activities. The use of shopping vouchers as incentives to participate in such studies is widespread and unremarkable and we are unaware of any evidence which would suggest that such a practice would be likely to encourage problem gamblers to participate in a disproportionate manner, as Mr Ferrar appears to suggest. Thus, the Caraniche study provides good evidence which we have appropriately utilised, and was well supported by other studies which indicate broadly similar levels of participation and expenditure in EGM gambling by people with gambling problems.

<u>3 – Re: IGA Research Report 'The Role of EGM Games and Game Features on the play of Problem Gamblers' and critique by Blaszczynski & Nower</u>

Mr Ferrar suggests in his correspondence (and Mr Gibson similarly in his evidence, at p.CA57 of Hansard) that neither Dr Woolley nor I contacted any gaming machine manufacturer for information relating to the performance of EGM games operating in South Australia.

We did not contact these manufacturers for reasons explained in the attached correspondence from Mr Robert Chappell of the South Australian Independent Gambling Authority, which also encloses a copy of correspondence from Mr Ferrar on behalf of the (then) Australian Gaming Machine Manufacturer's Association. In this correspondence Mr Ferrar makes it clear that his members would not co-operate in the research we were proposing to undertake. As Mr Chappell advises, we took Mr Ferrar and his organisation at their word.

We did endeavour to obtain information about machine maths (i.e., PAR sheets encapsulating pay out rates and other game schedules) from the Office of the Liquor and Gaming Commissioner (South Australia), but were advised by that organisation that such material was not held by them. We understand that this is a consequence of the outsourcing of EGM game testing to licensed private labs, who test EGM games

for conformity to standards and issue certificates of compliance upon which regulators rely.

Of course, being now aware of the undertaking given to the Committee by Mr Ferrar regarding the preparedness of his members to co-operate through provision of PAR sheets, we are keen to take up this offer and will shortly correspond to Mr Ferrar seeking his assistance in this.

Mr Ferrar also provided in his 16 September correspondence a copy of a critique of our IGA study, which his organisation commissioned from Professor Blaszczynski and Dr Nower, and upon which he relies for much of his criticism of the IGA report. Professor Blaszczynski is certainly a gambling researcher of some experience and reputation and, indeed, we drew upon his work and that of his colleagues at some length in both the IGA report and the 'Risky Business' article, as examination of the reference lists for both those works will demonstrate.

However, we respectfully contend that neither Professor Blaszczynski nor Dr Nower are particularly experienced in multi-method social science research of the type we employed for the IGA research, and particularly in relation to qualitative methodologies. The method they have adopted to construct their criticism of the report is to posit an idealised methodology, against which they endeavour to compare the research we actually undertook, in order to conclude that our methodology was inadequate.

For example, the Blaszczynski & Nower critique suggests (at p.4) that we should have assessed the population of problem gamblers on a venue by venue basis. Such a project would indeed be valuable, but would require both the co-operation of all local gaming venue operators, and an extensive (and expensive) data collection exercise across a very large number of sites. Such a project would require very substantial funding and would best be undertaken as a large-scale 'stand-alone' project. The exploratory approach which we explicitly adopted in our project, although it certainly points to the need for such a project, was never intended to encompass such a large-scale methodology. Nonetheless, we did indeed attempt to arrange a more modest program of in-venue interviews with EGM gamblers, through the Australian Hotels Association in South Australia, but despite repeated attempts and considerable patience on our part we were ultimately unable to arrange such access, despite what we believed to be genuine assistance from the AHA.

Telephone surveys are also attacked in the Blaszczynski & Nower critique (again at p.4), despite being extensively utilised in the gambling and other literature, and the non-representative nature of our telephone-derived sample is further criticised. Of course, what is ignored in this critique is the simple fact that we did not claim the sample to be representative or randomised – we simply sought to obtain the views and perceptions of people who gambled regularly. For this reason, our sample was explicitly a convenience sample which targeted areas of known high EGM density and use. We have not claimed that the results of this survey are generalisable to the population as a whole. Rather, this methodology was part of a strategy of data triangulation.

Blaszczynski & Nower also suggest (again, at p. 4) that our use of a fortnightly frequency of gambling to indicate regularity of EGM use, and the use of the CPGI 3+ level to indicate gambling problems, are arbitrary and uninformed by the literature. In fact, as we make clear on p. 69 of the IGA report, (to which Blaszczynski & Nower 2008 specifically refer in their critique) we derived these definitions from the most recent South Australian prevalence study (South Australia 2006, p.122) and did so in order to permit interested readers and the IGA and other regulators to interpret our conclusions in the context of the data provided by that South Australian prevalence study.

In any event, our purpose in adopting a multi-method approach was to facilitate 'triangulation' of information between our telephone survey and other data sources — in this case, the views of self-identified problem gamblers in treatment (the qualitative sample we identified with the help of gambling counselling agencies), and data provided by the Office of the Liquor and Gambling Commissioner, detailing the performance of certain specific EGM games operating in South Australia. This process of triangulation is a method utilised extensively in social science research to cross-validate research data. We believe it provides a basis for reasonably and reliably addressing research questions of the type we were asked to investigate.

We strongly contend that our conclusions are consistent with the evidence presented, and provide a basis for identifying a number of issues raised by the research questions we were asked to address. Further, we strongly believe our conclusions are modest, based on available evidence, and completely defensible. The gaming industry (certainly as represented by Messrs Ferrar and Gibson) appears to disagree with our conclusions, and we remain more than happy to debate our findings with them. However, as Mr Chappell also notes in his attached correspondence, we were bemused when, at the IGA hearing in Adelaide held on 29 April 2008 for the purpose of presenting the research and facilitating public submissions into related matters, Mr Ferrar's organisation declined an invitation to question me on the report and its contents. This was despite, as Mr Chappell notes in his correspondence, AGMMA being ably represented by the law firm of Fisher Jeffries, who had briefed Queen's Counsel to represent AGMMA's interests at the hearing. At the time of that hearing, AGMMA had been provided with the critique prepared by Blaszczynski & Nower.

We again thank the Committee for the opportunity to make these further submissions. We would of course be happy to further assist the Committee should that be required.

Yours faithfully,

Charles Livingstone.

References referred to in this submission:

- Blaszczynski, A. & Nower, L. (2008) Final Report (Critique of Livingstone & Woolley 2008), Australian Gaming Machine Manufacturers Association
- Caraniche Pty Ltd (2005) (Caraniche) Evaluation of Electronic Gaming Machine Harm Minimisation Measures in Victoria, Department of Justice, Melbourne
- Delfabbro & LeCouteur (2003) 'A decade of gambling research in Australia and New Zealand (1992-2002): Implications for policy, regulation and harm minimisation', School of Psychology, University of Adelaide, Adelaide.
- Delfabbro & Winefield (1999) 'Poker-machine gambling: An analysis of within-session characteristics'. *British Journal of Psychology*, 90: 425-439.
- Delfabbro, P., Falzon, K. and Ingram, T. (2005). 'The effects of parameter variations in electronic gambling simulations: results of a laboratory-based pilot investigation', *Gambling Research*, 17(1): 7–25.
- Ferster, C. B. & B. F. Skinner (1957) *Schedules of Reinforcement*, Appleton, New York. Livingstone, C. & Woolley, R. (2007) 'Risky Business: A Few Provocations on the Regulation of Electronic Gaming Machines' in *International Gambling Studies*, 7(3): 361-376
- Livingstone, C., Woolley, R., Zazryn, T., Bakacs, L, & Shami, R. (2008) The Relevance and Role of Gaming Machine Games and Game Features on the play of Problem Gamblers, Independent Gambling Authority South Australia, Adelaide
- Productivity Commission (PC). 1999. Australia's Gambling Industries, Report No. 10, AusInfo, Canberra http://www.pc.gov.au/inquiry/gambling/finalreport/index.html
- School for Social and Policy Research. 2006. Northern Territory Gambling Prevalence Survey 2005. Charles Darwin University, Darwin
- Schull, N (2005) 'Digital Gambling: the coincidence of desire and design' in *The Annals of the American Academy*, 597: 65-81
- Sharpe, L., Walker, M., Coughlan, M-J., Enersen, K. and Blaszczynski, A. 2005. 'Structural changes to electronic gaming machines as effective harm minimization strategies for non-problem and problem gamblers', *Journal of Gambling Studies*, 21(4): 503–20.
- Skinner, B. F. (1953) Science and Human Behaviour, Free Press, New York
- South Australia (2006) (South Australian Department for Families and Communities)
 Gambling Prevalence in South Australia October to December 2005, Dept for Families and Communities, Adelaide.
- Williams, R. and Wood, R. 2004. The Demographic Sources of Ontario Gaming Revenue. Ontario Problem Gambling Research Centre, Ontario, http://www.gamblingresearch.org/download.sz/078%20PDF%20Final%20report%20-%20posted%20version.pdf?docid46117



Independent Gambling Authority

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Dear Dr Livingstone

Games and game features research

I am writing in response to your request for confirmation of certain matters for the purposes of a supplementary submission you are making to the Senate Community Affairs Committee, in respect of its scrutiny of the Poker Machines Harm Minimisation Bill 2008 and two other bills.

Under section 11 of the *Independent Gambling Authority Act 1995* (South Australia), this Authority has a function to conduct research. In pursuit of that statutory function, the Authority commissioned the Australian Institute of Primary Care (La Trobe University) to undertake research into the relevance and role of gaming machine games and game features on the play of problem gamblers. You and Dr Richard Woolley—both of you at the time associated with AIPC—were to be the principal researchers. The commission was procured through a public tender process.

As the commissioning agency, the Authority wrote a letter of introduction to a number of stakeholders. The letter advised of the nature of the research and the identity of the researchers. One of those stakeholders was the body formerly known as the Australasian Gaming Machine Manufacturers Association (now the Gaming Technologies Association). While it was understood that AGMMA would not itself provide information, it seemed at the time that an approach to the peak body for manufacturers would be the appropriate first step.

I attach a copy of the AGMMA response (Ross Ferrar's letter dated 14 September 2005).

I have now read the Proof Committee Hansard of the hearing held in Sydney on 12 September 2008, and I note the statements made by both GTA representatives—Mr Ferrar and a Mr Gibson—that you did not approach any GTA/AGMMA member for assistance with the research. Strictly speaking this statement is not untrue: the Authority made the approach and it was made to AGMMA.

I have always accepted that, when AGMMA speaks, it speaks on behalf of its members. The tenor of the letter made me think, at the time, that there would be no point in approaching AGMMA members individually.

I see from Mr Ferrar's evidence that an approach to manufacturers individually would now be appropriate. I shall report that apparent change of position to the board of the Independent Gambling Authority when it next meets.

Two further matters arise from the Hansard. They are statements made by Mr Gibson alluding to the public hearing conducted by the Authority on 29 April 2008. This is the hearing at which you gave evidence and at which Mr Ferrar appeared on behalf of AGMMA (as GTA was still known at the time).

To me, the statements appear incomplete.

The first matter concerns the commentary on the games and game features research commissioned by AGMMA of Dr Alex Blaszczynski and Dr Lia Nower. This commentary had been commissioned for the purposes of the April hearing and had been provided to the Authority. You gave evidence about your research for over an hour. The opportunity to question you was afforded to Mr Ferrar, and to the Queen's Counsel appearing with him. Neither raised anything with you, whether based on the Blaszczynski and Nower work, or otherwise.

The second matter concerns reinforcement schedules. Mr Gibson told the Community Affairs Committee that reinforcement schedules are a figment of your imagination. With respect, he and GTA should understand the concept better.

That is because, on 29 April 2008 before the Authority, a similar submission was made by AGMMA's Queen's Counsel. For sake of clarification, I suggested that there was disingenuousness about AGMMA saying that there was no such thing as a reinforcement schedule, and that there did not need to be a piece of paper headed "reinforcement schedule" if such a schedule could be derived from the game mathematics.

I authorise you to attach this letter, and its attachment, to your further submission.

Yours/sincerely

Robert Chappell

Director



ABN 70 060 130 770

14 September 2005

Robert Chappell
Director
Independent Gambling Authority
PO Box 67
Rundle Mall SA 5000

Dear Mr. Chappell,

- (1) Research Games and Features
- (2) Research Tender Investigation into Actual Gambling Spend and Potential Maximum Spend Over Time
- (3) Research Tender Investigation into the Relevance and Role of Gaming Machine Games and Game Features on Problem Gamblers

We refer to your letter of 25 July 2005 seeking AGMMA's "assistance in cooperating with this research which AIPC will undertake over 6 months beginning in August 2005".

AGMMA supports evidence-based policy development and accordingly supports a co-ordinated and collaborative approach to the strategic development of the research agenda; the terms of reference and project methodologies of all gambling research projects; the nomination of peer review and preferred researcher processes; and the imposition of a strict regime to ensure publishable quality research reporting. AGMMA does not consider that the research projects mentioned above pass these criteria.

AGMMA believes that a number of research projects should urgently be undertaken including research into measures which AGMMA characterises as speculative and irresponsible, including:

- (i) the extent to which the removal of gaming machines has reduced problem gambling in South Australia; and
- (ii) the extent to which the reduction in reel spin speeds has reduced problem gambling in South Australia.

AGMMA believes that neither of these measures has had any material impact on problem gambling and respectfully suggests that it is the role of the IGA to objectively and independently evaluate existing measures such as these, establish whether they have been effective and, if they have not been, to suggest that they should be repealed and replaced with other measures.

AGMMA also suggests, as it has done for some time, that the IGA should focus on the question of competency standards for problem gambling counsellors and provision of better information to players.

AGMMA has provided the IGA with a copy of a proposal regarding the establishment of competency standards for problem gambling treatment and is astonished that this area has been neglected by the IGA.

AGMMA has also suggested, on a number of occasions, to the IGA that the Victorian Player Information Display ("PID") system advocated by AGMMA as an important means of conveying key information about gaming to players should be considered by the IGA and suggests that if the IGA is doubtful about the benefits that such a system provides to problem gamblers in terms of understanding what they are doing, that research in undertaken to establish whether the Victorian PID system is effective.

AGMMA is very disappointed that the IGA has not consulted with AGMMA regarding the research referred to in your letter of 25 july 2005 and that the IGA has conceived the research projects without any input from the manufacturers of gaming machines, the people who understand the products better than anyone.

AGMMA is also very disappointed that the IGA has not seen fit to outline the proposed research in its letter of 25 July 2005 – even to a cursory extent – although it believes it understands why this was so (as set out below).

AGMMA has seen the advertisements ("research tenders") placed by the IGA in newspapers regarding research projects.

AGMMA is disappointed that the research projects are characterised in such a manner as to constitute 'leading questions' in the true sense of those words in that the research tenders are framed in such a way as to 'lead' the researchers to the conclusions suggested in the advertisements.

For example, AGMMA notes that the IGA is investigating the role of games and game features on the play of problem gamblers and is specifically considering (i) whether particular games commonly feature in the play of problem gamblers; (ii) whether there are particular characteristics of those games that distinguish them from other games; (iii) whether those differences are the characteristics that attract problem gamblers and feature in problem gambling play; (iv) to what extent those characteristics affect the play of recreational gamblers; and (v) to what extent these characteristics feature in a gambler's transition from recreational gambler to problem gambler.

AGMMA respectfully submits that that the questions that have been posed prejudge the outcome of the inquiry in that it is obvious that problem gamblers will prefer some games to others in, at least, precisely the same way that recreational players prefer some games to others.

AGMMA respectfully suggests that a key question that must be answered is whether problem gamblers are attracted to any characteristics of games and game features in a manner that recreational gamblers <u>are not</u> and if so to what extent those characteristics/features can be adjusted to reduce their impact on problem gamblers and prevent, reduce or otherwise ameliorate any potential transition from recreational gambler to problem gambler.

AGMMA suggests that if this important additional question is not asked, the research questions posed can be simply answered by looking at the most popular games in South Australia (which vary from time to time according to what is new, how long a game has been on the market, what similar games the player has played and enjoyed etc (i.e. issues which have no relation to one's proclivity to become a problem gambler as opposed to being a recreational player)).

AGMMA also notes that the IGA is investigating the relationship between the "actual gambling spend on a gaming machine and the potential maximum spend over time".

It is noted that the IGA has stated (in an advertisement which appeared on Tuesday 27 July) that the research is based on a "theoretical maximum amount of money that different machines could consume in specific periods of time" assuming an average return and that people are betting the maximum amount per spin.

The IGA also stated that the assumption underlying this method is that "people may tend to spend more money on machines where there is a greater potential for expenditure".

The IGA is proposing that "if it were possible to limit the consumption potential of a machine (e.g. by reducing the maximum bet line or increasing the return to player), it could theoretically be possible to limit actual gambling expenditure and maybe reduce problem gambling".

AGMMA respectfully suggests that the IGA's "intuitive" approach to the proposed research project prejudges the outcome of the project; AGMMA suggests that the project is seriously misconceived in the following respects:

- (a) the concept of a "theoretical maximum amount of money that different machines could consume in specific periods of time" is so hypothetical a concept as to be completely useless for practical purposes; no one ever spends this amount of money on a gaming machine; there is therefore no point in seeking to restrict it or using it as a starting point for research purposes;
- (b) the concept that "people may tend to spend more money on machines where there is a greater potential for expenditure" is, with respect, similarly flawed: people can spend money on whatever they want and, in particular, can bet on one or more gaming machines and many other legal forms of gambling;
- (c) the concept that "if it were possible to limit the consumption potential of a machine (e.g. by reducing the maximum bet line or increasing the return to player), it could theoretically be possible to limit actual gambling expenditure and maybe reduce problem gambling" is also, with respect, flawed: the whole idea of 'consumption potential' of a machine is a nonsense: machines don't 'consume'; people do.

AGMMA would like to assist in sensible, objective research that identifies the manner in which problem gamblers can be assisted to decide to modify their playing through understanding the gambling activity they engage in.

AGMMA believes that the research instituted by the IGA is far from 'independent', is clearly not 'objective' in any sense of the word and is coloured by a deep-seated subjective bias against gaming that renders the results of the research virtually useless from a policy perspective.

AGMMA is disappointed that the extensive submissions it has made to the IGA have been virtually ignored by the IGA.

AGMMA also respectfully suggests that it would be helpful if the research funded by South Australian taxpayers addressed the question of how to help problem gamblers rather than how to redesign gaming machines.

AGMMA believes that the critical research projects that should be undertaken are those described on the first two pages of this letter. AGMMA would have preferred to discuss these with the IGA in a co-operative spirit with the interests of problem gamblers as the principal driver. However, AGMMA and its members have been completely excluded from such discussions and the bias of what can best be described as the anti-gaming lobby has been permitted to destroy any objectivity that may have otherwise been achieved.

AGMMA would be pleased to provide a number of machines and games to permit objective research to be carried out in an effective manner following proper transparent and effective consultation.

AGMMA and its members are not, however, prepared to accommodate the IGA in relation to the undisclosed research referred to in your letter or assist the IGA to achieve the objectives and the outcomes that have already clearly been set without what AGMMA considers to be due process.

However, should the IGA reconsider its research agenda and agree to objectively consider the issues in full and frank consultation with AGMMA, then AGMMA would be pleased to consider such requests.

We look forward to hearing from you in this regard.

Yours sincerely,

Ross Ferrar

Executive Officer