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## Executive Summary

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### Introduction

The project had two research objectives.

The first was the development of an analytical framework and associated indicators that would provide a model for the analysis and evaluation of the social and related economic impacts of gaming. The Terms of Reference called for the examination of gaming as opposed to gambling. Accordingly the emphasis is on Electronic Gaming Machines (EGMs) and casino activity although at times it has been necessary to draw on general gambling research. In developing the analytic framework attention was given to data collection, the multiple dimensions at which gaming impacts occur and the nature of the impacts at each level of data collection.

The second objective was to critically analyse and evaluate the research projects in the 1998-99 Research Program of the Victorian Casino and Gaming Authority (the Authority) using the analytical framework developed.

Following from these objectives the report:

- draws conclusions about the social and economic impacts of gaming;
- provides an analysis of the research conducted in the context of the framework.

**Background to the project.** A backdrop to the project was obtained from an examination of the Authority's Research Charter and Research Scoping Matrix. This provided a context to position the 1998-99 Research Program, which was the subject of the second research objective.

A sense of the growth and current magnitude of the gaming industry was formed from the collation of national and state statistics with an emphasis on machine gaming indicators such as the level of individual participation in gaming. Changes in gaming expenditure and government related revenue were also considered as these are important indicators at the macro level.

**Methodology and approach.** The methodology comprised six phases.

#### **Phase 1—Identification and collation of relevant data**

This involved examination of previous Authority research followed by a search for relevant material using electronic databases and the Internet.

Once identified this material served as the basis for a critical review of the existing gaming impact research.

## **Phase 2—Linking Levels of analysis and the impacts of gaming**

The review of the research enabled the identification of a set of units of analysis for which gaming impacts could be measured. The units identified were:

- the individual and family,
- community,
- region;
- state.

Each data source was categorised as relating to a unit of analysis. Seven dimensions of gaming impact were identified. These were:

- health and wellbeing;
- culture;
- recreation and tourism;
- employment and education;
- legal/justice;
- economic development;
- financial .

A two dimensional matrix (ie. Level of analysis x dimension of impact) containing 28 cells was then constructed to provide the impact framework.

## **Phase 3—Framework review**

The framework was subject to a of a comprehensive review. A discussion paper outlined the framework was prepared and sent to stakeholders who had been identified through discussion with the Authority, and written responses sought from them. In addition a similar discussion paper was forwarded to consultants, undertaking projects as part of the 1998-99 Research Program, again with a request for written comment.

Semi-structured interviews were held with key stake holders and gaming providers.

Adjustments were made, as necessary, to the framework following this consultation process.

#### **Phase 4—Summary and evaluation of the findings from individual projects**

Each of the reports from the 1998-99 Research Program was critically reviewed in terms of how its findings could be understood in the context of the framework.

#### **Phase 5—Consultant feedback**

A draft of the review of each project was sent to its author/s. and feedback sought. Based on their response amendments (where appropriate) were made.

#### **Phase 6—Integration and evaluation of the findings from the 1998-99 research program**

To finalise research objective 2 the output of Phase 5 was evaluated by:

- identifying and providing explanations for the convergence and divergence of findings within the framework;
- identifying cells that showed the need for further research.

#### **Literature review on the social and related impacts of gambling**

A survey of international and Australian literature focussing on the level of analysis and the dimension of impact contained in the model was undertaken.

#### **Analytical framework of the social impacts of gaming**

The process by which the framework components were identified and defined. Three existing models were examined.

1. Model 1 presented in *Summary of Findings 1996-97 Research Program* (Arthur Andersen, 1997).
2. Model 2 presented in *Annual Gambling Report 1997-98* (Alcohol and Gaming Authority, 1998).
3. Model 3 presented in *Australia's Gambling Industries (Productivity Commission, 1999)*.

Following this examination the analytical framework foreshadowed in Phase 2 of Methodology and Approach and is represented by a two dimensional matrix containing 28 cells was presented. The levels of analysis are defined in Table 5.2 and Dimensions of Impact in Table 5.3.

Table 5.4 sets out the analytic framework and provides examples of the impacts that are characteristic of the individual cells defined by the intersection of the different combinations of two dimensions.

Section 5.3 provides an analysis, of each cell, focussing on:

- a brief description of the gaming impacts;
- indicators of these impacts;

- a discussion of the adequacy of indicators and availability of data.

A comprehensive view of the dynamics that are at play is provided while at the same time it is shown that reports of impacts are not available for all cells. The nature of the framework construction, the definitions used or simply lack of relevant research contribute to this fact.

### **Summary and evaluation of individual projects**

The analytical framework is used to summarise and evaluate the findings of each project in the 1998-99 Research Program.

#### ◆ ***Gaming—comparative history and analysis (Consultant: Australian Institute for Gambling Research)***

This report provides a comparative history of gambling in Australia. It focuses on the recent history of gambling in each jurisdiction and outlines the structure of specific gambling industries in these jurisdictions. In particular, the report contrasts patterns of gambling activities and attitudes in the different States, with specific reference to differences with Victorian positions.

The methodology for the project was based on: (1) consultations with relevant government representatives and community and industry bodies; and (2) analysis of secondary data. The secondary sources that were used included: (1) reports of the Victorian Casino and Gaming Authority and the Productivity Commission's *Australia's Gambling Industries Draft Report 1999*; (2) casino and gaming impact studies and relevant statistical series; (3) reviews of regulatory models of gambling; and (4) popular articles and books on gambling.

The report focuses heavily on the financial and economic dimensions of the gambling industry, and addresses the importance of the industry to the monetary situation of individuals, and to the development of State economies (including the industry's provision of employment opportunities). The report also emphasises the role of gaming in providing funds that are channelled into community benefits and services, either through market forces, or legislative requirements. Other social implications of gaming are found in the presentation of motivations for gambling (eg. social interaction, relief from boredom and/or loneliness). Overall, the study focuses on the provision or prevention of material benefits, and there is less information on the cultural consequences and the legal or justice issues involved in gambling. This focus is appropriate given the Terms of Reference for the project.

A major limitation for this project was the absence of systematic, national research on gambling impacts—which led to a lack of complementary and coherent studies findings across States.

In sum, the report provides a broad overview of the histories and current patterns of gambling.

#### ◆ ***Sixth and seventh surveys of community gambling patterns and***

### ***perceptions (Consultant: Roy Morgan Research)***

The purpose of the *Sixth and Seventh Surveys of Community Gambling Patterns and Perceptions* was to continue to collect data and compare the findings of the latest surveys with those of earlier periods.

The sixth and seventh waves of the Community Gambling Patterns and Perceptions Survey provide insight into the gambling patterns of adult Victorians, and in particular the frequency and duration of visits to licensed gaming venues and to the Melbourne Crown Casino. In addition, the surveys sought to identify the clientele using the various forms of gambling, reasons for visiting gambling outlets, the level of expenditure per gambling activity based on household and individual income, the proportion of people who are gamblers, and the incidence of problem gamblers (based on the South Oaks Gambling Screen criteria). The positive and negative perceptions and attitudes of the community towards gambling were also considered.

The seventh survey was administered via Computer-Assisted Telephone Interviewing (CATI) facilities. Multilingual interviewers were used to conduct interviews in languages other than English to ensure that no particular groups were excluded from the survey. As in recent previous waves of the Community Gambling Patterns and Perceptions survey series, Geospend (a division of Australia Post) provided the population sample. Geospend generated a random sample from an electronic version of the White Pages. A total of 58 quotas were assigned to the sampling frame, representing geo-demographic segments of the Victorian population previously identified by Geospend. A total of 1,760 interviews were conducted, covering both metropolitan (1,256) and rural (504) areas. In order to project the result to the Victorian population, the results were weighted by age, sex and country/metropolitan areas, according to the latest available ABS Census data.

The gambling community was segmented according to gambling behaviour and attitudes in 1995, with five segments identified and replicated in the 1996, 1997, 1998 and 1999 surveys. The identified characteristics of the individuals belonging to each segment were: disinterested gamblers; occasional gamblers; social gamblers; acknowledged heavy gamblers; and committed heavy gamblers.

Limitations of the research included: (1) a lack of comparability across the survey series due to changes in question wording, changes in sample design, and differences in the treatment of “outliers”; and (2) concerns over the efficacy of using the South Oaks Gambling Screen (SOGS) in an Australian context.

Overall, the Sixth and Seventh Surveys make a significant contribution to current knowledge on the patterns of gambling in Victorian. The authors of the Seventh Survey (1999) claim that, patterns of gambling behaviour for Victorians as a whole, appear to be showing signs of stabilising. This stabilisation has occurred since the introduction of EGMs in 1992 and the opening of the temporary Crown Casino in June 1994, followed by the opening of the permanent Crown Entertainment Complex in May 1997. After a marked shift in a positive direction in 1998, people’s opinions on the impacts and role of gambling became more negative in 1999—although still generally less negative than in the preceding two years. Overall, the level of participation in gambling activities has increased in the past year. There are fewer

people participating in EGM and in casino gambling, but those that do participate tend to play more often and spend more money each time they play. Actual gambling expenditure (the amount lost) increased overall by 8.11 per cent, with most of this attributable to increased expenditure on EGM gambling. The expenditure on more established forms of gambling, like racing and lotto-type games, has remained relatively constant.

◆ ***The economic impact of gambling (Consultant: National Institute of Economic and Industry Research)***

This study required the collection, analysis and interpretation of relevant data from various sources. Aims of the project included:

- An assessment of the economic impacts of gaming based on the State, regional or geographical area, community or local government area, and household/individual levels of analysis. Analysis of the economic impacts at these levels and consideration of the income, expenditure and employment aspects of the gaming industry (in relation to other industries) was also required.
- An assessment of: (1) the linkages between each of the specified levels of analysis; (2) an examination of the historical relationship of gambling expenditure in comparison to overall expenditure; and (3) how the relationship between gambling expenditure and overall expenditure has changed since the introduction of electronic gaming machines in Victoria and the opening of the Melbourne Casino.
- An examination of the level of expenditure on gambling compared to that in other Australian states and territories (taking the differences in industry structure into account).
- The identification of significant changes in the nature of expenditure patterns (both gambling and non-gambling) at the individual/household level.
- The investigation of the relationship of these changes to such variables as employment, income, education, household composition and other demographic characteristics.

The project was also expected to produce an overview of econometric modelling techniques used in the economic assessment, including the selection of the appropriate model; the selection of the data required for utilisation of the model; and the use of sensitivity analysis to test the model results. The project was also to overview micro-simulation techniques used in the economic assessment, including the identification of the variables used and the combination of variables used, (eg. income, employment type and status, and education); and elasticity of variables analysed. Finally, the researchers were to compare the findings of other economic impact studies undertaken by the Authority, including *The Impact of the Expansion in Gaming on the Victorian Retail Sector* and *The Impact of Gambling on Employment in Victoria*.

Eight tasks formed the methodology for this project: (1) improving the micro-simulation database; (2) development of a dynamic micro-simulation approach to the introduction of increased gambling facilities; (3) development of a micro-simulation comparative analysis of Victoria and New South Wales; (4) updating of the macroeconomic indicator analysis of the researchers' previous studies; (5) updating

of the venue survey; (6) development of regional econometric models; (7) estimation of the State-wide economic impacts of gambling; and (8) collation of all previous results.

A key problem encountered in this research was the limited usefulness of existing data sets for micro-simulation purposes. For example, the researchers found that most recent surveys, including data collected by the Authority, were developed to gather social and psychometric data—and were less suited for econometric purposes.

This report makes a significant contribution to the debate and understanding of the economic impacts of gambling. Part of this contribution is the extension of the “savings hypothesis” to include future trends and consideration of the differential impact on various households and regions. A view is taken of the gambling industry as a maturing one and consideration is given to the implications of this as opposed to the impacts of the introduction of new forms of gambling. The researchers found that up to 1995-1996 new gaming expenditure had a positive impact through: (1) a reduction in household savings; and (2) the level of unemployed resources that were available at the time of introduction. It was argued that retail expenditure was not significantly affected. An important caveat was offered that:

“While at the State level there is little evidence to suggest that increases in gambling expenditure adversely affected the retail industry generally, on a geographical basis some areas and industries in Melbourne and Victoria have probably been affected.” (National Institute for Economic and Industry Research, 1997a, p. ii)

The analysis demonstrates the dynamic nature of the “savings hypothesis” which suggests that in Victoria its strength declined by 10 per cent in 1997-8 and with rising interest rates is expected to decline by 30 per cent in 2000-1. By 2004-5 the level of gambling financed out of savings is expected to be reduced by half compared to 1995-6. However, because of the maturing of the industry and the removal of the constraint on the use of tax revenue for government expenditure, there will be further increases in the content of gambling activity in Victorian economic activity.

The report identifies two separate social cost outcomes. The first is the cost to asset accumulation and regional income disparity and the second is the social costs of problem gambling usually related to the individual and family. The authors argue that even with generous allowance for the cost of problem gambling in Victoria in 1992-1998, expenditure on gambling brought substantial economic benefits. The household impact varied with significant gains to those who did not gamble but obtained employment. Other households with problem gambling members suffered considerably, particularly where they were in low-income groups.

A key finding is that the economic impact of the increase in gambling varied significantly across the state. The impact varied with:

“the chief differential distribution of benefits was from asset income, and hence wealthy areas tended to benefit. By contrast given the relationship

between problem gambling and low incomes and wealth, low income areas tended to suffer net disbenefits.” (p. 93)

The authors argue that the major outcome of the “savings hypothesis” is that there will be a run down in the asset base. A turning point will occur when households start to rebuild savings. This is likely to lead to a change in expenditure patterns. The point made in the report is that the direction of that change is unknown.

◆ ***Hotel and club industry gaming impact study (Consultant: Market Solutions Australia Pty Ltd)***

This report presents the findings of the *Hotel and Club Industry Gaming Impact Study*. The broad objective of the project was to understand the impact of the introduction of electronic gaming machines (EGMs) on the hotel and club industry. This project was intended to retain comparability with the report *Community Facilities Resulting from the Providers of Gaming in Victoria* (Hames Sharley Victoria, 1997) whilst being extended to include comparisons with non-gaming hotels and clubs. The project also aimed to address additional objectives relating to the impact of EGMs on related industries, in particular, the music and entertainment industry and on other suppliers to hotels and clubs.

The initial stage of the research program comprised a qualitative investigation including a literature search, focus groups amongst venue patrons and in-depth telephone interviews with managers, entertainers/agents, restaurants, suppliers and community organisations. The results of the preliminary stage were used as background information in designing questionnaires for the quantitative surveys. The second stage of the research project incorporated five separate quantitative studies—comprising surveys with venue managers, patrons, entertainers/agents, beneficiaries of contributions and suppliers to the hotel and club industry.

The Terms of Reference of this project required that the study maintain comparability with the earlier study *Community Facilities Resulting from the Providers of Gaming in Victoria* (Hames Sharley Victoria, 1997a), while comparing the impact on the Victorian hotel and club industry of the introduction of EGMs. However, the final report contains little comparison with earlier research and therefore offers limited opportunities for longitudinal analysis.

The authors of the report note some statistical limitations in comparing figures across years due to changes in the calculation and reporting procedures for these figures (eg. State Government gaming revenue as a proportion of total revenue). This limitation is often encountered in studies requiring comparisons across time.

This report is concerned with contrasting the reported positive and negative impacts of the introduction of EGMs to gaming venues (in comparison with non-gaming venues) within the hotel and club industry. Within this framework, the study mainly addresses the impact of EGMs on the financial, economic development, and recreation/tourism dimensions of the hotel and club industry and related industries (eg. music and entertainment). However, there is also some discussion of the health and wellbeing and employment impacts of the introduction of EGMs to the hotel and

club industry and related industries (eg. music and entertainment). The positive and negative impacts are dealt with largely at the community level. Although there is some discussion regarding impacts at the individual and regional levels (eg. country versus city).

The extent of the impacts on live entertainment remain unclear. There is perhaps an under-emphasis on the decline in employment opportunities for live entertainers at non-gaming venues. This requires further research.

The extent of improvements to community facilities from the Community Benefit Fund (CBF) are not entirely clear. Many of the noted facility improvements were concentrated in urban areas. It is unclear to what extent these improvements extended to communities in regional areas of Victoria and whether the funds flowing to the CBF from the regions are equitably redistributed back to those regions.

In summary, the report makes an important contribution to our understanding of the financial, economic development, and recreation and tourism impacts of the introduction of EGMs in the hotel and club industry (and related industries) in Victoria.

◆ ***The impact of the expansion of gaming on the tourism, entertainment and leisure industries (Consultant: Australian Institute for Gambling Research, School of Leisure, Sport and Tourism, and Department of Hospitality, Tourism and Leisure)***

The primary aim of this project was to examine the impact of the expansion of gaming on the tourism, entertainment and leisure industries following the introduction of EGMs in Victoria in July 1992, and the opening of the Crown Casino in 1994. The report commences this task with a historical review of tourism, entertainment and leisure trade turnover, population and household income figures from all Australian jurisdictions since 1990. The report then attempts to analyse all of the relevant factors (particularly the introduction of EGMs and casinos), which may have had an effect on tourism, entertainment and leisure trade turnover figures in Australia with a specific focus on Victoria. Next, the report aimed to review the expenditure of adult Victorians from their discretionary disposable income, before and after the introduction of gaming, and compares these trends in other States. Trends in tourism, entertainment and leisure purchases (made by adult Victorians and interstate and international visitors) are also identified. The report constructs a profile of the current nature of tourism, entertainment and leisure activity in Victoria following the introduction of EGMs and the Casino, and overviews the international experience of the effect of gambling on these industries.

In general, the research methodology was concerned with drawing out the complex relationships between the establishment of the Melbourne Casino, the introduction of EGMs to clubs and hotels, and tourism, entertainment and leisure activity in Victoria.

At the micro-level, representatives of key stakeholder organisations or enterprises were identified and recruited. In the stakeholder sample, representatives spoke for gaming venue businesses, commercial associations, unions, community organisations and peak industry bodies. No primary data were collected from

consumers at the individual or household level, rather analyses of pre-existing secondary data were undertaken. Discussion of the impacts of the expansion of gaming on tourism, entertainment and leisure was organised according to the four levels of analysis (ie., individuals and families, communities, regional, and State) in the SERC analytical framework (see Section 5.2 of this report).

The first set of resources for secondary analysis were previous reports commissioned by the Authority. In particular, the report *The Impact of the Expansion in Gaming on the Victorian Retail Sector* (National Institute of Economic and Industry Research, 1997a) was used as a model for some aspects of the study. Statistical data on household consumption spending was also drawn from this report. Other interim findings were used from *The Economic Impact of Gambling* (National Institute of Economic and Industry Research, 2000) and the *Hotel and Club Industry Gaming Impact Study* (Maddern & Malkiewicz, 1999). Data relating to the distribution of EGMs in Victoria was drawn from the Authority's Baseline Database project.

Various socio-demographic data sets developed by the Australian Bureau of Statistics were also used in preparing population and recreation overviews, and a literature review of published papers provided background themes and perspective's to help in framing the primary research.

Primary data collection focussed on a process of consultation with key regional bodies, industry groups and individuals. Interviews were conducted with key stakeholders in the tourism, entertainment and leisure sectors, and proprietors and managers of gaming and non-gaming hotel and club venues (along with observation of venues). In addition, a targeted survey was undertaken with country tourism promoters and operators.

The report documents four methodological limitations that need to be considered when interpreting the findings. The first relates to trend analysis and that despite the availability of data which enable the comparison of time-use patterns with gambling expenditure patterns, the comparisons are of limited use. The second limitation relates to the phenomenon of variation between regions in the flow of social and economic impacts due to the variation in pre-conditions between different regions prior to the introduction of EGMs. A related limitation involves the problem associated with measuring the economic turnover of tourism. In terms of Australia's national economic data collections, tourism is not specified as an industry or sector within the national economic accounting structure, but rather as a flow of funds between sectors. Consequently, while tourism is valued at a general national level, the non-uniformity of demand for tourist attributes which vary from place to place, mean there is little information that can actually be drawn from this data in terms of value of tourism to specific regions or locations within the country.

The fourth limitation relates to the confounding effect of external impacts when determining the performance of specific economic sectors. Changes in economic conditions in another country or region are likely to have a direct impact on the demand for inbound tourism to Australia, and this would be reflected in aggregate trend data. However, if this trend data is read in conjunction with data relating to the expansion of gaming, a correlation between gambling expenditure and tourist activity may be inferred even though the artefact of correlation may largely be a result of the

external impact. Consequently, the authors admit that where the impact of such externality is assumed, it remains extremely difficult to unravel changes in indicators or performance which are related to externalities from other changes internal to the sector under examination.

Overall the report contributes significantly to our understanding of the positive impacts of the expansion of gaming on the tourism, entertainment and leisure industries. The report maps these positive impacts principally through the identification of changes in economic development at the regional and State levels and changes in recreation and tourism activity at the community, regional and State levels.

The report demonstrates that the redistributive impacts identified have both positive and negative impacts—but often for different groups. Negative and positive impacts can be redistributive in nature for certain regions, consumers, and operators. For example, the impacts of the Crown Casino on tourism, has an impact on certain Ballarat operators.

The report employs a robust methodology, however the findings are constrained by the tendency of localised impacts to be concealed within analyses that focus on aggregate level data. In particular, a lack of in-depth community level information and comparative regional social and economic impacts, restricts the extent of the researchers' claims.

◆ ***Longitudinal examination of perceptions and their relationship with actual findings (Consultant: Marketing Science Centre)***

This study was designed to develop a better understanding of public perceptions of the gaming industry and those who participate in it. In particular, the study focuses on the relationship between people's perceptions and their own gambling practices. It was hoped that such a focus would make sense of tensions between people's own practices and perceptions of gaming, and their understanding of the larger community's involvement in gaming activities. The project is unique in its longitudinal, rather than cross-sectional, focus and attempt to understand observed discrepancies between consumers' gambling patterns and perceptions of gambling.

This study is the first panel in a longitudinal research project, and the researchers are hoping to trace the effectiveness of information programs in "aligning public views with actual behaviour" and test the direction of causality between behavior and perceptions. In addition, the researchers are seeking to trace, at the individual and aggregate levels, changes in behavior, attitudes and knowledge with respect to gambling in Victoria, and the variables associated with those changes. Other specific issues for further research included changes in the accuracy of knowledge of the industry.

The study draws on existing written and taped work to provide the original framework for four focus group interviews. Focus group participants were recruited from the White Pages, from suburbs lying in easy travelling distance from the location of the focus group interviews. The constitution of the focus groups was organised with

reference to age, frequency of gambling, attitudes to gambling, and the gambling industry.

These focus groups were used to develop a quantitative instrument. The instrument was constructed with reference to a list of topics in which people held differing opinions and practices. The focus groups also suggested the degree to which people would be able to answer questions in detail over the phone, and the most relevant set of answers.

The survey interviews were conducted from 5th to the 13th October 1999. Randomly selected respondents (N = 1024) were interviewed over the telephone using a 23 minute questionnaire. Gambling industry employees were included in this questionnaire, in an effort to test the hypothesis that direct involvement in the gambling industry was associated with greater knowledge of that industry, and with higher gambling participation. Recruitment from this telephone survey to the longitudinal study took place at the end of the survey, with an 85 per cent recruitment rate. Those who refused to take part in the longitudinal study were more likely to be non-gamblers, and were less likely to know about the gambling industry.

The aims and focus of this report mean that the findings lie substantially outside of the SERC framework. The report emphasises people's perceptions of the gaming industry, and is part of a project that will track changes in these perceptions and behaviours over time. Thus, it cannot directly address actual outcomes on any of the levels or in any of the dimensions indicated within the SERC framework. The emphasis on sources of information about the gambling industry also lies outside the focus of the literature review currently being undertaken. The following issues were addressed by the report and cannot be incorporated into the SERC framework:

- the accuracy of respondents' knowledge of the industry, including its regulation by the Government, the extent of the population's gambling practices, the skill levels necessary for successful gambling practices;
- the extent of respondents' own gambling activities;
- respondents' media use habits and the importance of different media as sources of information on gambling-related issues; and
- respondents' expectations about changing gaming patterns over the next year.

The survey and report addressed people's perceptions of some issues that lie within the SERC framework. Here the focus on perceptions must be emphasised. The following issues have been positioned within the SERC framework, but are discussed with reference to respondents' perceptions, rather than actual outcomes:

- the gambling industry's provision of places of entertainment or pleasure (positive health and wellbeing impacts at the individual and family level of analysis);
- motivations for other people's gambling (positive recreation impacts at the individual and family level of analysis);
- the existence of problem gamblers (negative health and wellbeing impacts at the individual level of analysis);

- the industry's beneficial contribution to the economy (positive economic impacts at the State level of analysis); and
- the degree to which the social problems of gambling outweigh the benefits (negative health and wellbeing impacts, at no specified level of analysis).

Few of the questions reflect actual outcomes associated with the gaming industry. Two foci that fit within the framework are:

- pleasures of gambling; and
- motivations for gambling.

Findings from these questions show that gambling can contribute to positive recreation impacts at the individual and family level. This is the only level of analysis and dimension of impact that is directly reflected in the survey questions and findings. Thus, the study has little to offer with reference to health and wellbeing, employment and education, legal/justice, economic development or financial impacts, at any level of analysis.

In conclusion, the report contributes to our understanding of how people see the gaming industry, and the sources from which their knowledge flows. It does not aim to contribute to our understanding of the outcomes of gambling (and the findings do not do so).

◆ ***The impact of gaming on specific cultural groups (Consultant: Cultural Patterns Australia, Thomas & Associates, and the Australian Multicultural Foundation)***

This project investigates the impact of gaming on specific cultural groups in Victoria. The project consisted of two stages. The aims of Stage 1 were:

- To identify major cultural groups for whom patterns of gambling behaviour, attitudes towards gambling and impacts of gambling might be significantly different to others and who could perhaps be the subject of study.
- To consider a range of culturally related dimensions including ethnicity, nationality, religion and language.
- To review the existing information sources including previous research carried out by the Authority, its existing databases and other relevant material.
- To identify the problems involved in collecting accurate representative data, both qualitative and quantitative, and suggest possible methods of addressing these problems.
- To conduct interviews with prominent community opinion leaders of the various communities to establish avenues for data collection and provide background information.
- To select three specific cultural groups for detailed investigation in Stage 2.

The aim of Stage 2 of the project was to conduct a detailed investigation of the specific cultural groups identified in Stage 1. This investigation was to include the identification of: patterns of gambling behaviour; attitudes and beliefs towards gambling including cultural influences and values; and the extent and nature of the social and economic impacts, both positive and negative. The objective of this

detailed investigation was to determine the actual behaviour, attitudes and impacts of gambling, and compare these to those of the Victorian population as a whole.

In order to achieve the goals in Stage 1, the researchers developed a program of inter-related activities including: a literature review of available published research and documents; the administration of a wide ranging set of consultations with key informants representing Victorian cultural groups; and an analysis of data from the Australian Bureau of Statistics, the Authority's Community Gambling Patterns and Perceptions Surveys, and the Break Even Problem Gambling Services Minimum Data Set.

The researchers applied three different selection models (ie. population prevalence, prevalence of gambling participation, and rates of problem gambling), to inform Stage 2 decisions and the recommendations. The selection process was also informed by consultations (regarding gambling in Victoria) with sixty groups and individuals from fourteen ethnic communities. The researchers recommended that the three specific cultural groups for inclusion in Stage 2 of the project be: Chinese speakers; Vietnamese, and Greeks. The researchers' recommendation was based on the principle of desirability of including groups that are numerically strong within the Victorian population and that come from a cross section of European and Asian cultural groups and reflect different historical periods of immigration. The Research Committee of the Authority also recommended that the researchers expand the study in order to include Arabic speakers as a comparison group, due to their low rates of participation in gambling as a result of cultural/religious factors.

Measurement of the participation and experiences of survey participants in gambling activities was drawn from the questionnaires used in the Authority's *Survey of Community Gambling Patterns and Perceptions* series. This enabled the direct comparison of outcomes from this study and the previous VCGA studies on key parameters.

Two-thirds of the Stage 2 interviews were conducted in early weeknight evenings with the balance equally distributed between weekends and during the day. The majority of the interviews were by telephone but with a proportion face-to-face if this was requested. In the pilot stage of the questionnaire, 20 face-to-face interviews (5 for each language group) were conducted. It was intended that six hundred participants (150 in each language group) would be interviewed using Computer Assisted Telephone Interview (CATI) procedures. Of these, 10 per cent (60 total, 15 in each language group) participated in face-to-face follow-up interviews. The final achieved samples were 664 for the initial interviews and 42 for the follow-up interviews.

A key limitation of the study was the use of the South Oaks Gambling Screen (SOGS) to assess problem gambling. As noted by the authors of the report, there are concerns over the reliability of the SOGS when used with non-clinical populations and outside of the United States.

Notwithstanding the issues relating to the SOGS, the report does make a significant contribution to the body of knowledge on the positive impacts of gaming upon the health and wellbeing and recreational and tourism benefits flowing to members of the

different cultural groups. Most of those comprising the cultural communities represented by the respondents, corporately participate in gambling less frequently than the rest of the community and tend to use the venues for socialisation opportunities rather than gambling exclusively. However, the report also clearly identifies some of the negative health and wellbeing and financial costs of gaming affecting these same communities. Those from these groups that do engage in gambling, report disproportionate levels of gambling problems leading to expenditure of non-disposable income and psychosocial ill health resulting from stigmatisation due to cultural shaming practices.

◆ ***The impact of gaming and crime statistics (Consultant: Centre for Criminology and Criminal Justice)***

The aim of this project was to undertake an assessment of the collection and evaluation of statistics of crime-related offences associated with the gambling behaviour of individuals—in light of the insufficient statistical information available on possible links between gambling and crime. The project focused on the collection of data relating to crimes committed by individuals as a consequence of their gambling. This involved the tracking of offenders through the various records held by those entities who deal with offenders. The three primary sources of information for crime statistics were identified as the Victorian Police, the Courts, and Correctional Services.

The project aimed to evaluate the availability of crime statistics to enable a meaningful analysis of the association between gambling and crime by: identifying the categories for which data is to be collected; examining and assessing existing data availability; and submitting a report to the Authority detailing the availability and quality of the data from the various sources.

In Stage 2 of the project the researchers were to: collect data where available for the past few years - 1995, 1996, and 1997 (and where practicable back to 1992) and for the current year 1998; recommend appropriate future data generation, collection and analysis procedures; and submit a report to the Authority detailing the impact gaming has had on crime statistics and procedures for future data collection.

The scope of the project was limited with the primary aim being to identify, collect and evaluate statistics of criminal offences associated with gambling behaviour. The sources of crime statistics were determined to be the three major components of the Criminal Justice System in Victoria: the Police, Courts and Correctional Services. The Victorian Police agreed to arrange for a focus group discussion with relevant staff, including statisticians responsible for analysis of Law Enforcement Assistance Program (LEAP) data, practitioners in the field, investigators, prosecutors and research and planning staff. The Victorian Police also provided information on LEAP and approved any reproduction of relevant forms. The Department of Justice facilitated access to Court and Correctional staff and information data bases held by the Department.

The Authority provided details of problem gambler support agencies and also of the gambling industry. In collaboration with the Authority and after an initial examination of research relating to the commission of criminal offences by problem gamblers, five

research questions were identified. Agencies and key people to be approached and consulted were identified and contacted. The first research question related to the extent of gambling-related crime and, in particular, the extent to which crimes are attributable to problem gamblers. The major data sources identified and perused were research studies, consultation with problem gambler support agencies and gambling industry representatives.

The second research question related to determining the characteristics of criminal offences committed by problem gamblers, and utilised sources of information similar to those necessary for the first research question. The third research question was directed at an analysis of law enforcement policies and procedures. Information as to how and to what extent gambling-related crime is monitored, addressed operationally and recorded in official statistics, was sought from the Victorian Police. Data was also obtained from national and overseas research.

Other focus group discussions also included representatives of the Victorian Police, who capture and record data relevant to the third research question. Senior police management commented on force policies and practices. Prosecutors provided current information about relevant court procedures. Crime statistics and police research personnel explained and detailed LEAP processes. Members of the Major Fraud Squad, the Casino Squad, Gaming and Vice Squad, and informants in prosecutions shared their knowledge of gambling-related crime in its many forms. Community policing staff provided information about the social consequences of problem gambling including family violence.

The fourth research question relating to the Courts sought to determine the extent to which gambling-related offences are known and officially recorded by the Courts. The data sources identified were the various administrative areas within the Courts. Research conducted nationally and overseas was also reviewed. Discussions with senior court administrators within the Department of Justice, stipendiary magistrates, the Director of Public Prosecutions, Court Registrars, Victims Referral and Assistance Service, the Public Advocate and Legal Aid were conducted. Court statistics and transcripts were also perused.

The fifth research question directed at correctional services sought to ascertain to what extent correctional officials were aware of gambling-related offenders undergoing sentences or placed on Community Based Orders (CBOs) supervised by Corrections and how these are recorded. Data sources held by corrections and relevant research studies both nationally and internationally were reviewed. Comprehensive analysis of this data required input from Corrections senior management, community corrections staff and the adult parole board. An examination of correctional databases and a review of specific research projects were also undertaken.

Following the determination of methodological concepts, a literature survey of both national and international research projects was undertaken. Definitions of gambling-related crime and of problem gambling were formulated for use in discussions with the three criminal justice areas, welfare agencies and industry representatives. Having established definitions of terms, these were used in discussions with stakeholders and others who were consulted. International and national research

projects were reviewed to ascertain the degree to which certain types of offending had been recorded in official statistics. The research was designed to determine what evidence existed to relate the commission of crime to gambling. The evidence examined ranged from anecdotal reports to that obtained from analysis of official statistics. The latter were obtained from the Victorian Police, the Department of Justice, Corrections and from a perusal of national and international research. The definition of gambling-related crime and the characteristics of offenders were discussed with spokespersons from welfare groups and the gambling industry to determine whether any other areas within and outside the criminal justice system record the type of information being sought.

The consultants ultimately were only able to report anecdotal evidence toward the negative legal/justice impacts of gambling on individuals and families in Victoria, due to the fact that official statistics currently collected in the three major areas of the criminal justice system cannot be used to identify crimes as gambling-related. The consultants also found that there is no systemic recording by the Police, Courts or Correctional Services of the reasons individuals commit a crime, hence there is no way of determining the extent to which a crime is gambling-related. As a consequence, the research project was not able to progress to its intended second stage of investigating available records in order to analyse the link between gambling and crime. Given this, the consultants recommended that the Authority discuss with the Police, Courts and Correctional Services the possibility of undertaking pilot projects to collect relevant gambling-related crime statistics.

◆ ***Longitudinal community impact study (Consultant: KPMG Management Consulting)***

The aims of this study were to:

- Describe changes in the economic and social conditions of six Victorian regions in the period 1992 until the present. The following issues were considered: (1) changes in the demographic profile of the regions; (2) employment; (3) changes in the gaming industries in each region; (4) changes in the availability and use of community services; and (5) changes in the existence of entertainment, cultural, sporting and shopping facilities.
- Identify the existence and changing nature of social and economic problems in the regions, and identify any relationship between these problems and changes in gambling opportunities in the region. In this analysis, commonalities and differences between the communities were identified.
- Identify general and community-specific benefits of the gambling industries.
- Identify the different effects of the introduction of casinos and electronic gaming machines on the lifestyles of particular segments of the population. This includes a consideration of the following: (1) changes in consumer preferences; (2) cultural, sporting, entertainment and shopping activities; (3) socio-economic and demographic position of people who frequent gaming venues; (4) any changes in the availability of community services, and people's demands on those services; and (5) changes in community organisations.

- Describe different patterns of gaming activities so that different impacts of specific gaming venues can be identified. This includes identifying different patterns of movement to and from the region in order to participate in different gambling activities.
- Compare differences between the findings of this report and the Authority's *Community Gambling Patterns and Perceptions* survey series;
- Linking the socio-economic profile of an area with the data collected.
- Identify the issues suggested by the research and findings.

Specifically, this report examines gambling practices in the following regions: Greater Dandenong; Greater Geelong; Maribyrnong; Mildura; Moreland; and Wellington. These regions were chosen as research sites because they shared similarities to allow for generalisation of findings, while also evidencing differences that would allow the researchers to analyse any local differences.

There were five stages in the methodology.

1. Establishing the context. This involved constructing regional socio-economic profiles by drawing on Australian Bureau of Statistics data. In addition, detailed gaming industry data was collected.
2. Consultation. The researchers met with local government representatives so that stakeholders could be identified. The researchers developed an issues paper from those discussions, and then held interviews with stakeholders (gaming and non-gaming venues, community support agencies, and other organisations and the local government), and public meetings at which community members could express their views (p. 10). These consultations helped to identify the issues that required further investigation in the resident's survey. They also generated information on people's perceptions of gambling in the areas.
3. Survey of community attitudes. The survey was administered to 1000 residents (consisting of a little under 170 residents from each region, and drawn from local government areas that complemented ABS Statistical Local Areas) by telephone. The survey instrument was developed after a review of existing data, previous surveys and community consultations. The survey was to identify:
  - The problems people perceived in their areas, and the similarities and differences in those perceptions across regions.
  - Changes in consumption and lifestyle patterns, including changes in: (1) general wellbeing; (2) entertainment, sport, cultural and shopping patterns; (3) demands for services and amenities; and (4) the use of community organisations.
  - Preferences for particular types of gaming.
  - Socio-economic and demographic characteristics of gaming venue patrons.

4. Econometric study. This study was conducted in order to explore factors associated with the variation in gambling expenditure over time and between regions. The significance of the following factors was explored: number of electronic gaming machines and venues, tourism expenditure, consumer attitudes and social security dependence.
5. Reporting.

The report suggests that a great deal of the data generated reflects community perceptions of the outcomes of gambling, rather than its actual outcomes. The Terms of Reference of this study lead to little information being generated at the State level of analysis. The reporting of the data rendered distinctions difficult to draw between the community and regional levels of analysis. Much of the data and analysis focussing on the relative significance of factors in the growth of gambling and its impacts was outside of the SERC framework (eg. use of perception measures). Many of these analyses addressed relationships between changes in practices and opportunities for gambling, and changes in general regional characteristics, rather than outcomes of gambling *per se*. Much of the analysis of factors contributing to the growth of spending on gambling and the study of relationships between individual's perceptions and activities cannot be discussed in terms of the outcomes of gambling. Similarly, changes in gambling practices and regional characteristics were not related to the outcomes of gambling.



Table E1

### Analytical Framework of the Social Impacts of Gaming x Projects in the Victorian Casinos and Gaming Authority's 1998-99 Research Program

Dimension of Impact	Level of Analysis			
	Individuals and Families	Communities	Regions	State
Health and Wellbeing	<i>Positive impacts:</i> Projects 1, 2, 3, 6, and 9 <i>Negative impacts:</i> Projects 1, 2, 6, 7, and 9	<i>Positive impacts:</i> Projects 1, 2, 4, 7, and 9 <i>Negative impacts:</i> Projects 1, 2, 6, 7, and 9	<i>Positive impacts:</i> Project 9 <i>Negative impacts:</i> Projects 3, 6, and 9	<i>Positive impacts:</i> Project 9 <i>Negative impacts:</i> Projects 6 and 9
Culture	<i>Positive impacts:</i> Projects 7 and 9 <i>Negative impacts:</i> Project 7	<i>Positive impacts:</i> Projects 1, 2, 4, and 9 <i>Negative impacts:</i> Projects 2 and 9		
Recreation and Tourism	<i>Positive impacts:</i> Projects 1, 2, 6, and 9 <i>Negative impacts:</i> Project 2	<i>Positive impacts:</i> Projects 1, 4, 5, 7, and 9 <i>Negative impacts:</i> Projects 1, 4, 5, and 9	<i>Positive impacts:</i> Project 4, 5, and 9 <i>Negative impacts:</i> Project 5	<i>Positive impacts:</i> Projects 5
Employment and Education	<i>Positive impacts:</i> Projects 1 and 9 <i>Negative impacts:</i> Project 9	<i>Positive impacts:</i> Project 2, 4, and 9 <i>Negative impacts:</i> Project 9	<i>Positive impacts:</i> Projects 3 and 9 <i>Negative impacts:</i> Projects 5 and 9	<i>Positive impacts:</i> Projects 1 and 3
Legal/Justice	<i>Negative impacts:</i> Project 8 and 9	<i>Negative impacts:</i> Project 9	<i>Negative impacts:</i> Project 9	
Economic Development	<i>Positive impacts:</i> Project 4	<i>Positive impacts:</i> Projects 1, 4 and 9 <i>Negative impacts:</i> Project 9	<i>Positive impacts:</i> Projects 3, 5, and 9	<i>Positive impacts:</i> Projects 1, 5, and 9 <i>Negative impacts:</i> Project 6
Financial	<i>Positive impacts:</i> Projects 1, 2, 9 <i>Negative impacts:</i> Projects 1, 2, 3, 7, and 9	<i>Positive impacts:</i> Projects 1 and 4		<i>Positive impacts:</i> Projects 2, 3, and 9 <i>Negative impacts:</i> Project 7

**Note:** Project 1-Gaming-comparative history and analysis (Consultant: Australian Institute for Gambling Research); Project 2-Sixth and seventh surveys of community gambling patterns and perceptions (Consultant: Roy Morgan Research); Project 3- The economic impact of gambling (Consultant: National Institute of Economic and Industry Research); Project 4- Hotel and club industry gaming impact study (Consultant: Market Solutions Australia Pty Ltd); Project 5- The impact of the expansion of gaming on the tourism, entertainment and leisure industries (Consultant: Australian Institute for Gambling Research, School of Leisure, Sport and Tourism, and Department of Hospitality, Tourism and Leisure); Project 6- Longitudinal examination of perceptions and their relationship with actual findings (Consultant: Marketing Science Centre); Project 7- The impact of gaming on specific cultural groups (Consultant: Cultural Patterns Australia, Thomas & Associates, and the Australian Multicultural Foundation); Project 8- The impact of gaming and crime statistics (Consultant: Centre for Criminology and Criminal Justice); Project 9- Longitudinal community impact study (Consultant: KPMG Management Consulting).

## **Summary and evaluation of the Victorian Casino and Gaming Authority's 1998-99 Research Program**

An intergration of the findings of the 1998-1999 research program is provided in Table 1 which locates the separate projects in the relevant cells of the analytical framework. In addition the extent to which positive and negative impacts can indentified is indicated.

**Conclusion** A review of the report if provided and future directions for research are identified.

The analytic framework is seen as extending previous impact models particularly by identifying the four levels of analysis and including "cultural impacts" as a specific impact dimension.

Concern is expressed about the problematic nature of gambling research because of the complexity of gambling impacts, lack of data, inadequate methods, imperfect models and questionable assumptions.

Finally caution is advised in the uncritical transference of overseas research findings to the Australian environment.