

# DETERMINING SOCIO-ECONOMIC IMPACTS OF NEW GAMING VENUES IN FOUR LOWER MAINLAND COMMUNITIES

Socio-Economic Issues and Impacts  
First Impact Measures Report May 2006

**Prepared for:**

Ministry of Public Safety  
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**Prepared by:**

Blue Thorn Research and  
Analysis Group

**Authors:**

Colin Mangham  
Greg Carney  
Sean Burnett  
Robert Williams





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## EXECUTIVE SUMMARY

Casino style gambling has been expanding rapidly over the last decade in Canada. Gambling is often associated with a range of positive and negative outcomes for individuals, local communities and society and is therefore an important public policy topic. The BC Ministry of Public Safety and Solicitor General, Gaming Policy and Enforcement Branch requires research on the economic and social costs and benefits of increasing gaming venues to develop responsible policies and assist provincial and municipal governments and other stakeholders in community planning. The opening of four gaming venues in the Lower Mainland (two new facilities and adding slot machines into two existing facilities) created an opportunity to study the impacts of new gaming facilities. These venues are:

- The addition of slot machines at Fraser Downs racetrack in Surrey (permanent facility opened June 24, 2005).
- The addition of slot machines at Hastings Racecourse in Vancouver (expected opening in the summer of 2006).
- The creation of Edgewater Casino in the Plaza of Nations in Vancouver (opened February 3, 2005).
- The creation of Cascades Casino in the City of Langley (opened May 5, 2005). Note: Any reference to Langley Gateway Casino refers to Langley Cascades. Gateway is the name of the service provider.

The purpose of the study is to learn what, if any, economic and social costs and benefits emerge over time from the creation and operation of these four new venues. Its intent is to inform planning processes by the provincial government and other stakeholders. The study is being done in three waves:

- Baseline (2004)
- First Impact Measures (2005)
- Final Report with Second Impact Measures (2006)

This document constitutes the first impact report. It compares present (2005) data with baseline social and economic data gathered prior to and during the opening of three of the four gaming venues (2004). The impact analysis in this report is limited because it is based on data collected shortly after the Casino opening dates. These delays were not anticipated at the start of the project, however the final report due in 2007 will have sufficient data to support impact analysis. The report is divided into two sections, Social Impacts and Economic Impacts.

## SOCIAL IMPACTS

We examined attitudes and practices regarding gambling among the general public in Vancouver, Surrey, and the Langleys (the City of Langley and the Township of Langley); and among gaming patrons at the three open venues: Edgewater Casino (Plaza of Nations) in Vancouver, Cascades Casino in the City of Langley and Fraser Downs Gaming Centre in Surrey. These venues opened in February 2005, May 2005 and June 2005 respectively. We also

looked for possible impacts of the new venues on such issues as problem gambling, traffic and public works issues, commercial neighbourhoods surrounding the venues, and policing issues.

## Methodology

Three measures employed throughout the social impacts study were used in this wave:

- A Random Digit Dialling (RDD) Survey conducted among residents in the four municipalities in which new venues are located.
- A Patron Survey conducted at each of the three open venues.
- A qualitative assessment of impacts using interviews and group interviews with problem gambling counsellors, police, city planners, and commercial interests in the immediate vicinities of the venues.

The triangulation, or comparison of the data from these three measures, provides three angles from which to judge overall social impacts of the venues.

Because the RDD Survey<sup>1</sup> was also conducted at baseline, this report focuses on changes that have occurred between the two RDD surveys. Since the Patron Survey and qualitative methodologies were only piloted in the first wave, this report concentrates on what was observed and reported in 2005. The 2006 report on the third wave of data collection will enable comparisons.

## Random Digit Dialling Survey

Venture Market Research Corporation based in Victoria, British Columbia, was again contracted to conduct a Random Digit Dialling (RDD) telephone survey of

<sup>1</sup> - The first wave of the Random Digit Dialling Survey is reported in detail in *Determining Socio-Economic Impacts of New Gaming Venues on Four Lower Mainland Communities - Socio-Economic Issues and Impacts: Final Baseline Report November 2005*.

2,500 adults in the Lower Mainland using a Computer-Assisted Telephone Interview (CATI). The sample quota was allocated as follows: 500 for the City of Langley; 500 for the Township of Langley; 500 for the City of Surrey; and 1,000 for the City of Vancouver. The sample size for 2005 exceeded this quota.

### Patron Survey and Interviews

A written survey for casino patrons was developed and piloted in 2004 in Fraser Downs Gaming Centre. Through revision, we reduced this questionnaire to 11 key questions soliciting information on demographics and gambling practices. Although the Patron Survey provides interesting trend data on use patterns at the new venues, its major purpose is to provide triangulation with the Random Digit Dialling (RDD) Survey.

We administered the patron survey at the three open venues (Edgewater Casino in Vancouver, Fraser Downs Gaming Centre in Surrey, and Cascades Casino in the City of Langley) during November 2005. Quota sampling was employed in each venue, continuing until at least 200 surveys were gathered. The survey was translated into Chinese and a fluent Mandarin and Cantonese speaker was brought in as an assistant to reduce loss of participation among these language groups – both prevalent at Edgewater. As well, a large print version of the survey was made available.

Drop-in interviews were conducted with businesses in the immediate vicinity of each of the three venues. In these interviews, proprietors or managers were asked in what ways, if any, the new venue had affected their business, e.g., quantity of business and

space and staffing needs, and any changes or effects of traffic congestion in the area.

Telephone interviews were conducted with the RCMP and Vancouver Police to obtain information on what ways if any the casinos have affected police work. We asked about traffic issues, petty crime, theft, fights, loitering, and the range of possible problems resulting from the casinos' existence.

A group interview approach was used with the other two informant groups: city planners and contracted problem gambling counsellors. In the former, the interview was conducted with four city planners representing the cities of Vancouver, Surrey, Langley and the Township of Langley respectively. The city planners discussed the processes involved in planning and building the casinos and the perceived impacts of the casino on their communities. In the latter, the interview was conducted with nine counsellors representing the contracted problem gambling counsellors operating in the Lower Mainland and having sufficient experience to be able to make comparisons before and after the casinos opened. This interview focussed on the experiences of the counsellors with their clients regarding the new gaming venues.

### Social Impact Findings

Since the Baseline Report a number of observations have been noted:

- Relatively small impact on overall gambling behaviour among the public in terms of frequency of play, type of game played, and expenditures.
- Acceleration of the already changing patterns of gambling play and expenditures (e.g., fewer lotteries, more slots, and private gambling such as

- poker) reflecting national trends.
- Some decrease in the incidence of reported external (e.g., Washington and Nevada states) gambling activities. This may have in turn repatriated a portion of the gambling expenditures from other jurisdictions to the local community, principally from Las Vegas and Reno. This would be money recaptured.
  - Change in spending pattern within the Lower Mainland from one casino to another, with some existing venues appearing to experience patron losses to the new venues. This does not constitute a benefit other than convenience to the individual patron, and possible local benefits from revenues.
  - Increased convenience for persons wishing to gamble. This is especially true in the Fraser Valley, where many patrons were first time gamblers.
  - The new venues were used by the majority of gamblers who gamble in moderation.
  - The venues contributed to a redistribution of gambling expenditures, especially in Vancouver. This constitutes an economic issue that will need to be examined more closely in the next wave.
  - Slight increase in negative attitudes about the harms of gambling for society. Clearly, attitudes toward gambling in all four communities continue to trend toward the negative. However, mixed attitudes toward the specific venues suggest these feelings are directed more at gambling as a practice than toward individual facilities. To what extent negative attitudes comprise a social impact is difficult to judge. However, where attitudes become sufficiently negative, a public backlash becomes more likely.
  - No significant change of the general

prevalence of problem gambling in any community.

- As yet, neither increased nor decreased commerce near the venues. This will be more accurately determined in the overall economic analysis; local impacts in this section were asked in a primarily social context.
- No discernable impact on disruption, crime, and traffic problems. Neither area businesses nor law enforcement have noted much negative impact at all in these areas, at least as of fall 2005. This does contradict concerns raised in public media prior to these venues opening.
- No measurable affect on tourism from outside the province, although this cannot be assessed accurately by collecting information for only a few weeks a year. At present, it appears the overwhelming majority of patronage is local. This is a prime example of an impact likely to become measurable only after considerable time, exposure, word of mouth, and advertising.
- No statistically significant change in problem gambling incidence or prevalence in the four communities studied. However, the data do show an increase in new gamblers and an increase in average spending on gambling. Further study is needed to determine if these increases are related to the study casinos opening or simply coincidence.

The final wave of data collection will take place in November 2006.

## ECONOMIC IMPACTS

Continuing the work performed for the Baseline Report, we began the process of making statistical inferences where enough time had elapsed and sufficient data were available to draw early inferences. We focused on a number of indicators reflecting positive and/or negative economic impacts within Lower Mainland communities hosting gaming venues. As indicated in the Economic Methodology report, this first economic impact report will prepare the available statistical information in five key areas of analysis:

- 1] Estimating the Multiplier Effect
- 2] Analyzing Economic Impacts on the Labour Force
- 3] Analyzing the Economic Effects on Industry
- 4] Estimating Direct and Indirect Government Revenue and Costs
- 5] Examining the Gambling Money Flow

### Estimating the Economic Multiplier Effect

Because there are few available observations between the introduction of the gaming facilities and the publication of this report, this report could present no statistically significant estimates.

### Analyzing the Economic Impacts on the Labour Force

This section presents statistics on the employment generated directly by the casino venue itself. In addition, a casino employee survey was implemented at Edgewater, Cascades and Fraser Downs casinos. The following salient results were derived from the casino employee surveys:

- Over half of the employees in the study casinos were previously unemployed or less than full time employed.
- Average hours worked per week (37.5 hours) indicates that most casino employees are employed full time by the gaming facility.
- Across the three gaming venues, slightly more employees stated a wage decrease than a wage increase.
- Employees who experienced a wage increase experienced a higher increase than those who experienced a wage decrease.
- Almost one quarter of the employees moved to the municipality to work at the casino.
- About half of the casino employees live in the municipality in which they work.

### Analyzing the Economic Effects on Industry

Since no new data has been released since the Baseline Report, this report re-produces the same data presented in the earlier report. The baseline trends on both annual housing starts and value of residential construction and non-residential construction indicate a considerable variation exists over time and between communities that is unrelated to the introduction of a gaming facility.

## Estimating Direct and Indirect Government Revenue and Costs

Gaming facility net income is distributed to various levels of government in order to pay for health and education services, as well as to provide revenue for community organizations and local economic development. Examples of indirect costs or savings to government as a result of new gambling facilities could include changes in problem gambling treatment or criminal caseloads.

Key findings in this area include:

- 1] While specific community amounts cannot be calculated prior to the introduction and operation of a gaming facility, casino net income for all of BC was \$515 million in 2004/05 with \$457 million allocated to the provincial government, \$53 million allocated to local host governments and the balance to the federal government.
- 2] While there was a clear, statistically significant increase in treatment sessions delivered over time in all study communities, no measurable association was found between number of treatment sessions delivered and the introduction of a gaming facility in any of the study communities. This is not surprising because of the low number of post-casino observations.
- 3] An increase took place from 2004 to 2005 in calls to the problem gambling help line that may or may not be related to the new venues.
- 4] New admissions for problem gambling treatment increased in the Langleys after the Cascades gaming venue was introduced. Like the calls to the problem gambling help line, this may be a result of an increase in the

number of problem gambling cases or an increase in awareness of treatment programs.

- 5] Surrey demonstrated a statistically significant drop in the number of new admissions for problem gambling treatment after the permanent gaming facility was opened at Fraser Downs.
- 6] No statistically significant effect on new admissions was found in the case of the Vancouver Edgewater facility opening.
- 7] British Columbia overall is experiencing an increase in the proportion of new admissions to problem gambling treatment.

Because these results are inconsistent across communities, it is difficult to generalize. Conclusions on statistical interpretation will be deferred until more data become available.

We intend to test for increases in criminal caseloads subsequent to the introduction of Lower Mainland gaming venues. However, criminal caseload statistics are only available up to and including December 2004. The only study facility that was in place by that time was the Fraser Downs temporary facility, and that facility had only been open for four months. Meaningful statistical inference cannot be made on only four observations and therefore will be delayed until the next impact report.

# SOCIAL IMPACTS

## INTRODUCTION

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This chapter discusses attitudes and practices regarding gambling among the general public in Vancouver, Surrey, and the Langleys (the City of Langley and the Township of Langley); and among gaming patrons at the three open venues: Edgewater Casino (Plaza of Nations) in Vancouver, Cascades Casino in the City of Langley and Fraser Downs Gaming Centre in Surrey. These venues opened in February 2005, May 2005 and June 2005 respectively. This chapter also reports the perceptions of informed commercial and public services about impacts of the three facilities.

Three methodologies were employed in this wave of the study:

- A Random Digit Dialling (RDD) Survey conducted among residents in the four municipalities in which new venues are located.
- A Patron Survey conducted at each of the three open venues.
- A qualitative assessment of impacts using interviews and group interviews with problem gambling counsellors, police, city planners, and commercial interests in the immediate vicinities of the venues.

The triangulation, or comparison of the data from these three measures, provides three “angles” from which to judge overall social impacts of the venues.

As the RDD Survey<sup>2</sup> was also conducted in Wave I, the present report focuses on changes that have occurred between the two RDD surveys. As the Patron Survey and qualitative methodologies were primarily conducted in Wave II, their results focus primarily on what was observed and reported in 2005. Blank spaces for 2006 data have been created throughout this report to emphasize that results obtained in 2005 are interim, and that final conclusions concerning the impact of the new gaming venues will be based on results obtained over two years.

## PART I: RANDOM DIGIT DIALLING SURVEY

### Methodology

This survey (Appendix A) assessed people's gambling practices, gambling attitudes, and the prevalence of problem gambling behaviour. The survey was identical to the one administered in 2004 except that a) an additional question was asked about

participation in electronic forms of gambling such as electronic Keno or electronic Racetrax; and b) the wording of some questions were changed to account for the fact that Cascades and Edgewater Casinos are now open for business, and thus allow for reporting of present gambling relative to those venues.

### Sample

Venture Market Research Corporation based in Victoria, British Columbia, was again contracted to conduct a Random Digit Dialling (RDD) telephone survey of 2,500 adults in the Lower Mainland using a Computer-Assisted Telephone Interview (CATI). The sample quota was allocated as follows: 500 for the City of Langley; 500 for the Township of Langley; 500 for the City of Surrey; and 1,000 for the City of Vancouver. The sample size for 2005 exceeded this quota. Details on the sample breakdown from each community can be found in Table 1.

*Table 1: Sample Breakdown, RDD Survey 2004 and 2005*

	2004	2005	2006
Survey Dates	Sep 28 - Nov 14, 2004 (refusal conversion: Jan 6 - Jan 13, 2005)	Oct 4 - Dec 13, 2005	
City of Langley sample	578	509	
Township of Langley sample	672	587	
City of Surrey sample	596	508	
City of Vancouver sample	1154	1004	
<b>Total Sample</b>	<b>3000</b>	<b>2608</b>	

*Note: The larger sample in 2004 was due to the refusal conversions being done after the 2500 quota had already been obtained*

2 - The first wave of the Random Digit Dialling Survey is reported in detail in *Determining Socio-Economic Impacts of New Gaming Venues on Four Lower Mainland Communities - Socio-Economic Issues and Impacts: Final Baseline Report November 2005*.

The following procedures were used to ensure optimal random sampling and valid self-report:

- The telephone number databank from which numbers were randomly drawn included unlisted numbers and excluded cell phone numbers to prevent multiple sampling of the same household.
- The household interviewee was randomly determined by requesting to conduct the interview with the adult (19+) having the most recent birthday.
- Rigorous effort was made to complete an interview with the designated person:
- Up to 16 attempts were made to contact the person.
- The majority of the phone calls were made in the evening and on weekends.

- For some respondents with English as a second language, an offer was made to phone back and conduct the survey in Cantonese, Mandarin or Punjabi.
- Most households that initially refused to conduct the survey were re-contacted at a later date and asked again to do the survey.

Given the large sample sizes, sampling error is very small. This gives us confidence that the findings are accurate within a very small range. This also means that relatively small changes in percentages will be statistically significant. However, no general statement can be made about the average accuracy of the results, as the sample sizes for each comparison/analysis is different (e.g., only a few people bet on horse racing, but many

*Table 2: Summary of Response Rates in RDD Surveys*

		2004	2005	2006
a	Completed interviews	3000	2608	
b	Prematurely terminated interviews of eligible people	117	98	
c	Refusals by eligible people	unknown	unknown	
d	Refusals by people with unknown eligibility	6940	7765	
e	Interviews not conducted with eligible people because of language/hearing/competency difficulties	unknown	unknown	
f	Interviews not conducted with people of unknown eligibility because of language/hearing/competency difficulties	727	839	
g	Eligible numbers that never answer (ascertained by info contained in answering machine message)	unknown	unknown	
h	Eligibility unknown due to never answering and/or always busy or call-back requests that do not result in a completed interview.	6377	3258	
i	No interview attempt because of ineligibility (business number; out-of-service; residence was not within one of the 4 designated communities)	8238	3018	
<b>CASRO Response Rate</b>		<b>43.0%</b>	<b>31.4%</b>	

people bought lottery tickets). That being said, the statistical power in virtually all the analyses is very good, meaning that if an effect existed, the sample size was large enough to detect it. It is highly likely that the same results would be obtained if the survey was repeated.

### Response Rates

The most appropriate method of calculating response rates is the one recommended by the Council of American Survey Research Organizations (CASRO, 1982). A summary of the response rates for the RDD Surveys in 2004 and 2005 can be found in Table 2.

The CASRO response rate is essentially the number of completed interviews divided by the number of eligible telephone numbers ( $a / (a + b + c + e + g)$ ). In the present survey, a telephone number was deemed eligible if it was a residential household located in one of the four designated communities. A large percentage of calls could not be determined as being eligible or not due to refusals to conduct the survey or instances where no one answered the phone. Telephone area codes are not unique to any particular municipality or region within the province since households may opt to keep their previous phone numbers when they move within BC. The percentage of unknown numbers that were deemed eligible was determined by multiplying the number of unknown cases ( $d + f + h$ ) by the fraction of telephone numbers the survey generally found to be eligible  $(a + b + c + e + g) / (a + b + c + e + g + i)$ .

The response rate in 2005 was 31.4%, down from 43.0% in 2004. The lower response rate in 2005 likely stems from three factors: a) a shorter time interval between the initial

contact and the refusal conversions compared to 2004, b) more targeted RDD dialling that decreased the number of ineligible numbers in 2005 (i.e., relevant postal codes were used to create the universe of eligible numbers), and c) a general trend toward declining response rates in RDD surveys in Canada. It is important to note that people with problems or pathology tend to have higher rates of survey refusal. Thus the higher refusal rate in the 2005 survey may mean that people with problems/pathology are underrepresented relative to the 2004 survey. Weighting (see below) rectifies this problem to some extent, nonetheless it is still possible that decreases - or failure to find increases - in gambling activity, expenditures and/or problems in the 2005 survey may be an artefact of the lower response rate.

### Weighting the Sample

Age, gender and ethnicity of each community's RDD sample population were compared against Statistics Canada census data for the cities of Vancouver, Surrey, and Langley, and the Township of Langley in 2001 (Statistics Canada, 2001). Demographic data from Statistics Canada is considered the gold standard because it assesses the entire population, achieves a very high response rate, and is more conducive to valid self-report because of its self-administered format. As is the case in most RDD surveys, the present survey sample tended to be under representative of young people, males, and ethnic minority groups. To compensate for this, weightings were assigned to the survey data for each community to match Statistics Canada age, gender, and ethnic categorizations (Aboriginal, Chinese, East Indian/Pakistani, All Others) for that community. In addition,

tables were created for the total sample, wherein each community's data was weighted by its relative population size: the City of Langley (24,000 = .024 weight); the Township of Langley (87,000 = .087 weight); the City of Surrey (348,000 = .348 weight); the City of Vancouver (541,000 = .541 weight). Consistent with the possibility that "high risk" populations may be somewhat underrepresented relative to the 2004 survey, the weightings for the highest risk demographics (young males, Aboriginal, Chinese) were consistently higher in the 2005 survey.

This report weights results for each community by age, gender and ethnicity in order to statistically compare 2004 data with 2005 data. Therefore, the 2004 results presented in this report vary slightly from data published in the Baseline Report because those data were not weighted.

The 2004 data for the entire sample was recalculated with a more precise weighting formula after the Baseline Report was published. In this report, each community's results are adjusted by a factor such that each community's sample size is increased or decreased to a level that represents a random sample from those four communities (i.e., the 2004 Vancouver sample of 1154 represented 38.5 per cent of the total sample of 3000. Since Vancouver should represent 54.1 per cent of the total sample because of its population size relative to the other communities, the multiple should be 1.406 instead of 0.541).

This more sophisticated calculation increases the accuracy of comparisons between 2004 and 2005 data for the entire sample.

Also, the Baseline report used a population size of 63,000 for the Township of Langley instead of 87,000. This error has been corrected in this report.

## Findings

The following 23 pages provide an exhaustive documentation of gambling behaviour, gambling attitudes and problem gambling status in 2004 and 2005, and any statistically significant changes that have occurred between the two years. A significance level of  $p < .01$  is used for all analyses due to the large sample sizes and the large number of individual comparisons, which tends to increase the likelihood of statistical significance by chance (Type 1 error). On all tables, red shading indicates a significant increase from 2004 to 2005 whereas blue shading indicates a significant decrease. Table 3 and Table 4 display the data analysis on gambling behaviours and attitudes among the whole sample. Table 5 to Table 16 list the same analyses within each of the four communities. Table 17 provides data on prevalence rates of problem gambling by community and within the entire sample.

Table 3: General Gambling Behaviour for the ENTIRE SAMPLE in 2004 (n = 3000) Compared to 2005 (n = 2608)\*

Year	Past Year Frequency of Involvement							Money spent in a typical month (for people reporting any spending in a typical month)		
	not at all	few days	once a month or less	several times a month	several times a week	daily	Mann-Whitney U test	average	median	Mann-Whitney U test
<b>Raffles and Charitable Lotteries</b>										
2004	47.4%	41.3%	7.9%	2.4%	1.0%	0.1%		\$25.72	\$10.00	z = 1.21
2005	48.2%	40.9%	7.1%	2.7%	1.0%	0.2%		\$19.71	\$10.00	p = .226
2006										
<b>Other lotteries</b>										
2004	35.2%	22.0%	18.1%	17.3%	7.1%	0.3%		\$17.88	\$10.00	z = 2.61
2005	37.2%	24.2%	17.1%	14.3%	6.7%	0.4%		\$17.33	\$10.00	p = .009
2006										
<b>Instant Win Tickets</b>										
2004	66.8%	18.0%	8.1%	5.3%	1.4%	0.4%		\$14.77	\$8.00	z = 1.252
2005	67.7%	17.2%	8.4%	4.7%	1.7%	0.3%		\$12.03	\$8.00	p = .211
2006										
<b>Bingo</b>										
2004	96.0%	2.9%	0.6%	0.2%	0.3%	0%		\$72.78	\$31.47	z = 1.09
2005	96.2%	2.4%	0.5%	0.8%	0.1%	0%		\$65.17	\$30.97	p = .277
2006										
<b>Electronic Keno &amp; Racetracks</b>										
2004	92.6%	5.4%	1.2%	0.5%	0.3%	not assessed		\$23.55	\$10.00	
2005										
2006										
<b>Slot Machines</b>										
2004	78.4%	17.1%	2.9%	1.1%	0.4%	0.1%		\$223.34	\$100.00	z = 2.92
2005	74.9%	19.1%	4.3%	1.2%	0.4%	0.1%		\$93.85	\$50.00	p = .004
2006										
<b>Casino Table Games</b>										
2004	88.9%	8.5%	1.5%	0.9%	0.2%	0.1%		\$1775.21	\$100.00	z = 4.2
2005	87.3%	8.9%	2.7%	0.8%	0.2%	0.1%		\$109.34	\$60.00	p = .000
2006										
<b>Horse Racing</b>										
2004	93.2%	5.4%	0.7%	0.5%	0.3%	0%		\$401.24	\$60.00	z = .80
2005	94.3%	4.7%	0.2%	0.5%	0.1%	0.1%		\$125.31	\$98.29	p = .421
2006										
<b>Sports Betting</b>										
2004	91.3%	5.4%	1.2%	1.6%	0.5%	0%		\$463.84	\$25.00	z = 1.30
2005	93.2%	3.8%	1.7%	0.7%	0.6%	0.1%		\$41.95	\$25.00	p = .194
2006										
<b>Private Games (e.g. poker)</b>										
2004	86.2%	8.6%	2.9%	1.3%	0.8%	0.1%		\$194.25	\$20.00	z = 1.06
2005	81.5%	11.1%	4.0%	2.5%	0.8%	0.1%		\$42.66	\$20.00	p = .287
2006										
<b>Internet Gambling</b>										
2004	99.0%	0.4%	0.2%	0.2%	0.2%	0%		\$2682	\$91.74	z = 2.91
2005	98.5%	0.7%	0.1%	0.3%	0.3%	0.1%		\$68.31	\$20.00	p = .004
2006										
<b>High Risk Stocks</b>										
2004	92.0%	5.1%	1.8%	0.9%	0.1%	0.1%		\$11687	\$2195	z = .966
2005	94.0%	4.7%	0.5%	0.3%	0.2%	0.4%		\$6670	\$2000	p = .334
2006										

\* - Weighted by community population size relative to total population: City of Langley = .024 weight; Township of Langley = .087 weight; City of Surrey = .348 weight; City of Vancouver = .541 weight.

Table 3 continued.

	Where do you normally go to play slots?		What casino do you normally go to play table games?			Where do you normally go to bet on horse racing?			
	2004 (n = 627)	2005 (n = 620)	2006	2004 (n = 316)	2005 (n = 307)	2006	2004 (n = 204)	2005 (n = 144)	2006
Richmond – River Rock Casino Resort	19.0%	25.3%		20.6%	32.2%				
Las Vegas and/or Reno	17.6%	17.7%		17.0%	13.6%		0.5%		0.7%
Coquitlam – Great Canadian Casino	14.2%	6.0%		15.8%	6.0%				
New Westminster – Royal City Star Riverboat Casino	11.7%	8.5%		10.5%	11.1%				
Burnaby – Gateway Casino	8.1%	3.6%		7.5%	5.8%				
<b>Surrey – Fraser Downs Gaming Centre</b>	6.3%	5.5%		3.0%	0.9%		28.9%		28.5%
BC – Outside Lower Mainland	4.8%	4.0%		4.1%	2.3%		0.9%		2.8%
Washington State	4.2%	1.6%		3.7%	0.7%				
New Westminster – Gateway Casino (Royal Towers Hotel)	3.7%	1.6%		1.2%	5.9%				
Cruise Ships	3.1%	1.7%		2.4%	0.8%				
Vancouver – Gateway Casino (Mandarin Centre)	0.2%	0%		1.1%	1.3%				
Vancouver – Grand Casino	0.1%	0%		0.2%	0.4%				
Vancouver – Great Canadian Casino (Holiday Inn)	0.5%	0%		7.5%	3.9%				
<b>Langley – Gateway Casino</b>	0%	15.8%		0%	8.3%				
<b>Vancouver – Edgewater Casino (Plaza of Nations)</b>	0%	5.0%		0%	5.4%				
Vancouver – Hastings Racetrack							65.7%		65.5%
Other	5.9%	2.5%		3.7%	1.5%		4.1%		1.7%

$\chi^2(15) = 196.9, p = .000$

$\chi^2(16) = 89.5, p = .000$

$\chi^2(5) = 4.9, p = .42$

**Table 4: Gambling Attitudes for ENTIRE SAMPLE in 2004 (n = 3000) Compared to 2005 (n = 2608) \***

	benefits far outweigh harm	benefits somewhat outweigh harm	benefits and harm equal	harm somewhat outweighs benefits	harm far outweighs benefits	Average score (-2 to +2)	Mann-Whitney U test
<b>Which best describes your belief about the benefit or harm that gambling has for society?</b>							
2004	5.8%	12.5%	27.7%	22.7%	31.3%	-.61	z = 2.94 p = .003
2005	3.4%	11.2%	28.4%	22.1%	34.8%	-.74	
2006							
	it is a fun, harmless thing to do	it is a matter of personal choice	no opinion one way or the other	it is somewhat morally wrong	it is morally wrong	Average score (-2 to +2)	Mann-Whitney U test
<b>Which best describes your attitude toward gambling?</b>							
2004	5.8%	67.4%	6.5%	7.9%	12.3%	.47	z = 1.41 p = .160
2005	4.9%	69.4%	8.6%	6.0%	11.0%	.51	
2006							

\* - Weighted by community population size relative to total true population: City of Langley = .024 weight; Township of Langley = .087 weight; City of Surrey = .348 weight; City of Vancouver = .541 weight.

Table 5: General Gambling Behaviour in the CITY OF LANGLEY in 2005 (n=578) Compared to 2004 (n=509)

Money spent in a typical month (for people reporting any spending in a typical month)

Year	Past Year Frequency of Involvement							Mann-Whitney U test	median	average	Mann-Whitney U test
	not at all	few days	once a month or less	several times a month	several times a week	daily	several times a week				
<b>Raffles and Charitable Lotteries</b>											
2004	43.8%	39.3%	10.7%	4.1%	1.9%	0.3%		\$23.48	z = 2.24	\$10.76	z = .16
2005	49.6%	36.5%	9.2%	2.9%	1.6%	0.2%		\$23.88	p = .025	\$10.00	p = .871
2006											
<b>Other lotteries</b>											
2004	30.6%	19.5%	16.4%	20.8%	12.4%	0.3%		\$22.86	z = 3.37	\$12.00	z = 2.83
2005	35.2%	19.3%	21.5%	15.2%	7.4%	1.4%		\$18.36	p = .001	\$10.00	p = .005
2006											
<b>Instant Win Tickets</b>											
2004	52.8%	22.0%	10.2%	9.5%	4.7%	0.8%		\$14.89	z = 1.31	\$10.00	z = 1.72
2005	55.8%	17.2%	13.7%	8.8%	4.3%	0.2%		\$12.00	p = .190	\$6.00	p = .086
2006											
<b>Bingo</b>											
2004	90.7%	5.4%	1.7%	1.7%	0.5%	0%		\$54.55	z = 1.49	\$30.35	z = .72
2005	93.0%	5.9%	0.6%	0.2%	0.4%	0%		\$56.41	p = .136	\$40.00	p = .474
2006											
<b>Electronic Keno &amp; Racetrax</b>											
2004	87.5%	7.8%	2.1%	1.2%	1.2%	not assessed		\$46.93		\$25.00	
2005											
2006											
<b>Slot Machines</b>											
2004	76.5%	17.9%	3.4%	1.7%	0.3%	0.2%		\$130.01	z = 5.81	\$60.00	z = .33
2005	59.5%	29.4%	6.8%	3.3%	0.4%	0.6%		\$96.51	p = .000	\$50.00	p = .742
2006											
<b>Casino Table Games</b>											
2004	89.0%	8.6%	1.9%	0.2%	0%	0.3%		\$147.25	z = .23	\$50.00	z = .44
2005	87.9%	9.2%	1.6%	0.4%	0.4%	0.6%		\$227.30	p = .822	\$200.00	p = .660
2006											
<b>Horse Racing</b>											
2004	91.9%	6.4%	0.5%	0.3%	0.5%	0.3%		\$46.14	z = 2.85	\$20.00	z = 1.10
2005	95.9%	3.1%	0.6%	0%	0.4%	0%		\$116.37	p = .004	\$33.09	p = .271
2006											
<b>Sports Betting</b>											
2004	93.2%	4.9%	0.8%	0.7%	0.3%	0%		\$38.76	z = .28	\$25.00	z = .65
2005	93.6%	4.5%	1.2%	0.8%	0%	0%		\$33.02	p = .78	\$14.82	p = .513
2006											
<b>Private Games (e.g. poker)</b>											
2004	84.7%	9.3%	3.2%	1.5%	1.3%	0%		\$34.25	z = .05	\$20.00	z = 1.03
2005	83.6%	8.6%	4.3%	2.7%	0.8%	0%		\$33.53	p = .958	\$20.00	p = .305
2006											
<b>Internet Gambling</b>											
2004	98.5%	1.0%	0.2%	0%	0.3%	0%		\$11.08	z = .87	\$10.00	z = .29
2005	97.7%	1.6%	0.2%	0%	0.4%	0.2%		\$23.71	p = .383	\$1.29	p = .770
2006											
<b>High Risk Stocks</b>											
2004	95.8%	2.9%	0.5%	0.3%	0.3%	0.2%		\$54.59	z = 1.26	\$41.00	z = 1.75
2005	97.1%	2.0%	0.2%	0.6%	0.2%	0%		\$34.90	p = .206	\$85.00	p = .080
2006											

Table 5 continued.

	Where do you normally go to play slots?			What casino do you normally go to play table games?			Where do you normally go to bet on horse racing?		
	2004 (n = 138)	2005 (n = 205)	2006	2004 (n = 59)	2005 (n = 62)	2006	2004 (n = 49)	2005 (n = 21)	2006
<b>Richmond – River Rock Casino Resort</b>	8.7%	2.9%		16.9%	8.1%				
Las Vegas and/or Reno	21.0%	7.3%		16.9%	14.5%		0%	0%	
<b>Coquitlam – Great Canadian Casino</b>	17.4%	2.4%		27.1%	4.8%				
<b>New Westminster – Royal City Star Riverboat Casino</b>	11.6%	1.0%		6.8%	1.6%				
Burnaby – Gateway Casino	1.4%	0.5%		0%	0%				
<b>Surrey – Fraser Downs Gaming Centre</b>	13.0%	3.9%		3.4%	0%		79.6%	66.7%	
BC – Outside Lower Mainland	5.1%	3.4%		8.5%	1.6%		2.0%	0%	
Washington State	10.1%	1.0%		15.3%	3.2%				
<b>New Westminster – Gateway Casino (Royal Towers Hotel)</b>	1.4%	0%		1.7%	0%				
Cruise Ships	4.3%	1.5%		1.7%	3.2%				
Vancouver – Gateway Casino (Mandarin Centre)	0%	0%		0%	0%				
Vancouver – Grand Casino	0%	0%		0%	0%				
Vancouver – Great Canadian Casino (Holiday Inn)	0%	0%		0%	0%				
<b>Langley – Gateway Casino</b>	0%	73.7%			62.9%				
<b>Vancouver – Edgewater Casino (Plaza of Nations)</b>	0%	2.0%			0%				
Vancouver – Hastings Racetrack							14.3%	28.6%	
<b>Other</b>	5.8%	0.5%		1.7%	0%		4.1%	4.8%	

$\chi^2(12) = 201.0, p = .000$

$\chi^2(10) = 62.8, p = .000$

$\chi^2(3) = 2.38, p = .497$

**Table 6: Specific Gambling Behaviour Impact of the Langley Gateway Casino on CITY OF LANGLEY RESIDENTS in 2005 (n = 509)**

	2005	2006
<b>Have you ever gambled at Langley Gateway Casino?</b>	Yes	39.8%
	No	60.2%
<b>How many times have you gone to Langley Gateway Casino since it opened?</b> (for people who have gambled there)	few days	71.6%
	once a month or less	13.2%
	several times a month	7.5%
	several times a week	1.7%
	daily	5.9%
<b>On average, how much do you spend per visit?</b> (for people who have gambled there)		\$36.04
<b>What sort of impact has this facility had on your overall gambling behaviour?</b> (for people who have gambled there)	Increased it	17.6%
	No change	76.9%
	Decreased it	5.5%
<b>Do you spend less on other things now that you sometimes gamble at Langley Gateway Casino?</b> (for people who have gambled there)	Yes	7.0%*
	No	93.0%
<b>Where did you used to go to play table games or slot machines before this facility was built?</b>	did not play anywhere before	39.2%
	Richmond – River Rock Casino Resort	3.3%
	Las Vegas and/or Reno	20.2%
	Coquitlam – Great Canadian Casino	11.3%
	New Westminster – Royal City Star Riverboat Casino	9.4%
	Burnaby – Gateway Casino	0.9%
	Surrey – Fraser Downs Gaming Centre	3.9%
	BC – Outside Lower Mainland	3.8%
	Washington State	4.0%
	New Westminster – Gateway Casino (Royal Towers Hotel)	1.5%
	Cruise Ships	0.3%
	Vancouver – Gateway Casino (Mandarin Centre)	0%
	Vancouver – Grand Casino	0%
	Vancouver – Great Canadian Casino (Holiday Inn)	0%
Vancouver – Hastings Racetrack	0%	
Other	2.1%	

\* - 6=entertainment; 4=food/restaurants; 3=personal/household items; 3=clothing; 2=vacations; 2=other; 1=cigarettes; 1=scratch 'n win tickets; 1=paying bills

Table 7: Gambling Attitudes in the CITY OF LANGLEY in 2004 (n = 578) Compared to 2005 (n = 509)

	benefits far outweigh harm	benefits somewhat outweigh harm	benefits and harm equal	harm outweighs benefits	harm far outweighs benefits	Average score (-2 to +2)	Mann-Whitney U test
2004	6.9%	16.9%	31.4%	16.7%	28.1%	-.42	z = 2.25 p = .024
2005	7.1%	13.3%	29.6%	20.2%	29.8%	-.52	
2006							

Which best describes your belief about the benefit or harm that gambling has for society?

	it is a fun, harmless thing to do	it is a matter of personal choice	no opinion one way or the other	it is somewhat morally wrong	it is morally wrong	Average score (-2 to +2)	Mann-Whitney U test
2004	7.2%	71.4%	5.1%	5.8%	10.6%	.58	z = 1.42 p = .156
2005	5.4%	72.4%	5.0%	5.0%	12.3%	.54	
2006							

Which best describes your attitude toward gambling?

	Yes	No*	Chi-Square test
Are you aware of Gateway Casino scheduled to open in Langley in April 2005?	95.1%	4.9%	χ <sup>2</sup> (1) = 7.0, p = .008
Are you aware of Gateway Casino that opened in Langley in May 2005?	98.0%	2.0%	
Are you aware of Gateway Casino that opened in Langley in May 2005?			

\*People who were unfamiliar with the facility were told it was "an integrated casino, hotel and convention centre with 500 slot machines and 33 table games".

	very beneficial	somewhat beneficial	neither beneficial or harmful	somewhat harmful	very harmful	Average score (-2 to +2)	Mann-Whitney U test
2004	15.8%	35.2%	9.1%	21.9%	18.0%	.09	z = 1.31 p = .190
2005	13.6%	33.1%	14.1%	21.4%	17.6%	.03	
2006							

Overall, would you say Gateway Casino is likely to be \_\_\_\_\_ to the community?

Table 7 continued

	2004 (805 total responses)	2005 (670 total responses)	2006
<b>In your own words, what would you say are the likely major benefits, if any, of this facility (Gateway Casino)?</b> <b>Any others?</b> (Up to four responses accepted)	No benefits at all	10.1%	10.0%
	Provides employment	22.0%	15.4%
	Provides convenient source of recreation	1.9%	1.2%
	Entertainment value	3.6%	7.2%
	Brings \$ into community	10.7%	5.5%
	Increases local or provincial revenue	10.9%	14.3%
	Decreases taxes	2.6%	1.3%
	Creates positive spin-offs to other local businesses	2.6%	1.3%
	Increases tourism	13.9%	15.1%
	Decreases illegal gambling	0%	0%
	Keeps gambling \$ from leaving jurisdiction	0.7%	0.4%
	Provides \$ for good causes	11.1%	17.9%
	Revitalizes/cleans up area	1.9%	1.6%
<b>In your own words, what would you say are the likely major drawbacks, if any, of this facility (Gateway Casino)?</b> <b>Any others?</b> (Up to four responses accepted)	Attracts new businesses to area	0.2%	0.3%
	The convention centre/hotel	2.1%	2.8%
	Other	1.6%	1.0%
	Don't know/refused	4.1%	4.5%
	No drawbacks at all	7.2%	8.9%
	Increases gambling addiction	21.1%	24.1%
	Exposes young people to gambling	0.7%	0.4%
	Negatively impacts people who can least afford it	12.0%	23.6%
	Is morally corrupting	0.7%	0.0%
	Negatively impacts local businesses	1.0%	0.1%
	Negatively impacts other forms of gambling	0.1%	0.0%
	Brings greater noise/congestion/traffic	15.3%	6.7%
	Adds to crime and/or policing costs	27.1%	23.2%
More people will be drinking	1.1%	0.9%	
Adds to family problems	3.4%	2.4%	
Attracts the wrong people to the area	2.2%	1.4%	
Negatively impacts the community image	1.3%	0.3%	
People will waste/lose money gambling	1.0%	0.4%	
Other	0.9%	1.4%	
Don't know/refused	4.8%	6.0%	

**Table 8: General Gambling Behaviour in the TOWNSHIP OF LANGLEY in 2004 (n = 672) Compared to 2005 (n = 587)**

Year	Past Year Frequency of Involvement							Money spent in a typical month (for people reporting any spending in a typical month)		
	not at all	few days	once a month or less	several times a month	several times a week	daily	Mann-Whitney U test	average	median	Mann-Whitney U test
<b>Raffles and Charitable Lotteries</b>										
2004	40.1%	44.0%	11.1%	3.9%	0.9%	0%	Z = .14	\$25.70	\$10.00	Z = 1.10
2005	40.3%	43.4%	10.8%	4.5%	0.8%	0.2%	p = .891	\$22.70	\$10.00	p = .270
2006										
<b>Other lotteries</b>										
2004	36.6%	17.4%	17.9%	19.3%	8.5%	0.3%	Z = .35	\$18.82	\$10.00	Z = 1.50
2005	31.4%	24.2%	19.7%	17.1%	7.2%	0.3%	p = .728	\$21.64	\$10.00	p = .134
2006										
<b>Instant Win Tickets</b>										
2004	60.0%	18.1%	9.4%	9.2%	2.9%	0.4%	Z = .60	\$15.07	\$10.00	Z = .18
2005	58.1%	21.4%	10.4%	6.9%	2.8%	0.3%	p = .546	\$13.75	\$9.27	p = .858
2006										
<b>Bingo</b>										
2004	95.7%	3.2%	0.7%	0.3%	0.1%	0%	Z = .89	\$64.53	\$40.00	Z = 1.15
2005	94.6%	2.8%	1.3%	0.8%	0.2%	0.2%	p = .375	\$52.92	\$14.00	p = .250
2006										
<b>Electronic Keno &amp; Racetrax</b>										
2004	86.7%	9.2%	3.4%	0.2%	0.3%	not assessed		\$35.36	\$10.00	
2005						0.2%				
2006										
<b>Slot Machines</b>										
2004	76.7%	18.2%	2.3%	2.2%	0.3%	0.3%	Z = 5.48	\$140.55	\$100.00	Z = 1.31
2005	64.3%	23.8%	6.2%	2.0%	3.2%	0.5%	p = .000	\$123.48	\$75.00	p = .189
2006										
<b>Casino Table Games</b>										
2004	86.3%	10.8%	1.4%	1.2%	0%	0.3%	Z = .18	\$101.92	\$98.75	Z = 1.41
2005	85.3%	8.5%	5.0%	0.3%	0.8%	0%	p = .860	\$116.69	\$50.00	p = .157
2006										
<b>Horse Racing</b>										
2004	93.1%	5.3%	0.4%	1.0%	0.1%	0%	Z = .07	\$159.84	\$97.50	Z = 1.08
2005	93.0%	5.9%	0.3%	0.7%	0%	0.2%	p = .946	\$82.97	\$28.18	p = .279
2006										
<b>Sports Betting</b>										
2004	91.8%	3.6%	0.4%	2.4%	1.7%	0%	Z = .96	\$82.13	\$50.00	Z = 4.01
2005	92.3%	3.9%	3.0%	0.8%	0%	0%	p = .335	\$33.91	\$5.00	p = .000
2006										
<b>Private Games (e.g. poker)</b>										
2004	85.6%	8.3%	2.7%	2.6%	0.7%	0%	Z = 3.82	\$130.32	\$22.72	Z = .66
2005	77.6%	12.7%	5.2%	3.2%	1.0%	0.3%	p = .000	\$33.44	\$20.00	p = .510
2006										
<b>Internet Gambling</b>										
2004	99.0%	0.4%	0.1%	0.4%	0%	0%	Z = 1.38	\$28.05	\$20.00	Z = 2.77
2005	98.2%	0.5%	0%	1.0%	0.3%	0%	p = .168	\$111.01	\$100.00	p = .006
2006										
<b>High Risk Stocks</b>										
2004	94.7%	4.5%	0.6%	0.3%	0%	0%	Z = .941	\$7467	\$1000	Z = 1.67
2005	93.1%	4.7%	1.5%	0.2%	0%	0.5%	p = .346	\$2366	\$204.60	p = .095
2006										

Table 8 continued \*

	Where do you normally go to play slots?			What casino do you normally go to play table games?			Where do you normally go to bet on horse racing?		
	2004 (n = 158)	2005 (n = 196)	2006	2004 (n = 90)	2005 (n = 86)	2006	2004 (n = 47)	2005 (n = 41)	2006
<b>Richmond – River Rock Casino Resort</b>	9.5%	6.6%		21.1%	31.4%				
Las Vegas and/or Reno	14.6%	11.2%		27.8%	3.5%		0%	0%	
<b>Coquitlam – Great Canadian Casino</b>	25.9%	5.1%		15.6%*	10.5%				
Royal City Star Riverboat Casino	8.2%	2.0%		4.4%	2.3%				
<b>New Westminster – Gateway Casino</b>	1.3%	0.5%		0%	0%				
Burnaby – Gateway Casino	9.5%	4.6%		2.2%	0%		59.6%	48.8%	
<b>Surrey – Fraser Downs Gaming Centre</b>	7.0%	4.1%		8.9%	3.5%		2.1%	2.4%	
BC – Outside Lower Mainland	8.9%	3.6%		1.1%	1.2%				
Washington State	2.5%	0.5%		3.3%	0%				
<b>New Westminster – Gateway Casino (Royal Towers Hotel)</b>	5.1%	2.0%		3.3%	0%				
Cruise Ships	0%	0%		0%	0%				
<b>Vancouver – Gateway Casino (Mandarin Centre)</b>	0%	0%		0%	0%				
Vancouver – Grand Casino	0%	0%		0%	0%				
<b>Vancouver – Great Canadian Casino (Holiday Inn)</b>	0%	0%		0%	0%				
<b>Langley – Gateway Casino</b>	0%	56.1%		0%	45.3%				
<b>Vancouver – Edgewater Casino (Plaza of Nations)</b>	0%	0%		0%	0%		38.3%	41.5%	
Vancouver – Hastings Racetrack	7.6%	3.6%		11.2%	2.3%		0%	7.3%	
<b>Other</b>									

$\chi^2(11) = 137.0, p = .000$        $\chi^2(11) = 72.2, p = .000$        $\chi^2(3) = 4.0, p = .265$

The Baseline Report incorrectly indicated 46.8% of Langley Township residents patronized the Great Canadian Casino in Coquitlam in 2004. Without weighting, this figure should have only been 26.8%. The data presented here are weighted by age, gender and ethnicity

**Table 9: Specific Gambling Behaviour Impact of the Langley Gateway Casino on TOWNSHIP OF LANGLEY RESIDENTS in 2005 (n = 587)**

	2005	2006
<b>Have you ever gambled at Langley Gateway Casino?</b>	Yes	29.3%
	No	70.7%
<b>How many times have you gone to Langley Gateway Casino since it opened?</b> (for people who have gambled there)	few days	70.2%
	once a month or less	18.5%
	several times a month	8.3%
	several times a week	2.4%
	daily	0.6%
<b>On average, how much do you spend per visit?</b> (for people who have gambled there)		\$63.25
<b>What sort of impact has this facility had on your overall gambling behaviour?</b> (for people who have gambled there)	Increased it	11.4%
	No change	85.6%
	Decreased it	3.0%
<b>Do you spend less on other things now that you sometimes gamble at Langley Gateway Casino?</b> (for people who have gambled there)	Yes	3.0%
	No	97.0%
<b>Where did you used to go to play table games or slot machines before this facility was built?</b>	did not play anywhere before	16.7%
	Richmond – River Rock Casino Resort	21.5%
	Las Vegas and/or Reno	24.7%
	Coquitlam – Great Canadian Casino	9.9%
	New Westminster – Royal City Star Riverboat Casino	8.0%
	Burnaby – Gateway Casino	0.9%
	Surrey – Fraser Downs Gaming Centre	5.8%
	BC – Outside Lower Mainland	2.0%
	Washington State	6.1%
	New Westminster – Gateway Casino (Royal Towers Hotel)	1.7%
	Cruise Ships	0.4%
	Vancouver – Gateway Casino (Mandarin Centre)	0%
	Vancouver – Grand Casino	0%
	Vancouver – Great Canadian Casino (Holiday Inn)	0%
Vancouver – Hastings Racetrack	0%	
Other	2.3%	

Table 10: Gambling Attitudes in the TOWNSHIP OF LANGLEY in 2004 (n = 672) Compared to 2005 (n = 587)

	benefits far outweigh harm	benefits somewhat outweigh harm	benefits and harm equal	harm somewhat outweighs benefits	harm far outweighs benefits	Average score (-2 to +2)	Mann-Whitney U test
2004	6.0%	12.7%	34.0%	16.5%	30.8%	-.53	z = -.53 p = .595
2005	4.3%	14.1%	32.9%	19.6%	29.1%	-.55	
2006							

Which best describes your belief about the benefit or harm that gambling has for society?

	it is a fun, harmless thing to do	it is a matter of personal choice	no opinion one way or the other	it is somewhat morally wrong	it is morally wrong	Average score (-2 to +2)	Mann-Whitney U test
2004	6.0%	66.1%	5.9%	6.0%	15.9%	.40	z = -1.43 p = .153
2005	5.9%	69.9%	5.8%	8.7%	9.7%	.54	
2006							

Which best describes your attitude toward gambling?

	Yes	No*	Chi-Square test
Are you aware of Gateway Casino scheduled to open in Langley in April 2005?	88.5%	11.5%	x <sup>2</sup> (1) = 25.6, p = .000
Are you aware of Gateway Casino that opened in Langley in May 2005?	96.1%	3.9%	
Are you aware of Gateway Casino that opened in Langley in May 2005?			

\*People who were unfamiliar with the facility were told it was "an integrated casino, hotel and convention centre with 500 slot machines and 33 table games".

	very beneficial	somewhat beneficial	neither beneficial or harmful	somewhat harmful	very harmful	Average score (-2 to +2)	Mann-Whitney U test
2004	13.7%	26.0%	15.3%	24.0%	21.0%	-.12	z = 1.86 p = .064
2005	13.1%	30.6%	17.1%	24.9%	14.4%	.03	
2006							

Overall, would you say Gateway Casino is likely to be \_\_\_\_\_ to the \_\_\_\_\_ community?

Table 10 continued.

	2004 (911 total responses)	2005 (795 total responses)	2006
<p><b>In your own words, what would you say are the likely major benefits, if any, of this facility (Gateway Casino)?</b> Any others? (Up to four responses accepted)</p>	No benefits at all	12.3%	9.6%
	Provides employment	22.4%	22.4%
	Provides convenient source of recreation	2.2%	2.0%
	Entertainment value	4.1%	9.1%
	Brings \$ into community	9.5%	5.5%
	Increases local or provincial revenue	13.3%	11.2%
	Decreases taxes	1.0%	0.1%
	Creates positive spin-offs to other local businesses	2.9%	1.5%
	Increases tourism	10.0%	17.1%
	Decreases illegal gambling	0.2%	0.1%
	Keeps gambling \$ from leaving jurisdiction	1.8%	0.9%
	Provides \$ for good causes	12.8%	17.0%
	Revitalizes/cleans up area	1.1%	1.5%
	Attracts new businesses to area	0.5%	0.1%
	The convention centre/hotel	1.6%	3.7%
	Other	0.8%	1.1%
Don't know/refused	3.5%	4.0%	
<p><b>In your own words, what would you say are the likely major drawbacks, if any, of this facility (Gateway Casino)?</b> Any others? (Up to four responses accepted)</p>	2004 (961 total responses)	2005 (837 total responses)	2006
	No drawbacks at all	8.0%	8.6%
	Increases gambling addiction	27.1%	29.4%
	Exposes young people to gambling	0.7%	0.4%
	Negatively impacts people who can least afford it	16.8%	24.9%
	Is morally corrupting	0.3%	0.4%
	Negatively impacts local businesses	1.0%	0.2%
	Negatively impacts other forms of gambling	0.0%	0.0%
	Brings greater noise/congestion/traffic	11.1%	4.9%
	Adds to crime and/or policing costs	22.8%	18.6%
	More people will be drinking	0.6%	0.6%
	Adds to family problems	3.9%	2.9%
	Attracts the wrong people to the area	1.4%	1.6%
	Negatively impacts the community image	1.5%	0.4%
	People will waste/lose money gambling	0.7%	1.2%
	Other	1.2%	1.9%
Don't know/refused	2.9%	4.2%	

Table 11: General Gambling Behaviour in the CITY OF SURREY in 2004 (n = 596) Compared to 2005 (n = 508)

Year	Past Year Frequency of Involvement							Money spent in a typical month (for people reporting any spending in a typical month)		
	not at all	few days	once a month or less	several times a month	several times a week	daily	Mann-Whitney U test	average	median	Mann-Whitney U test
<b>Raffles and Charitable Lotteries</b>										
2004	43.7%	43.4%	9.4%	3.0%	0.5%	0%	z = .54	\$25.54	\$10.00	z = .23
2005	43.9%	42.7%	8.3%	2.9%	1.7%	0.4%	p = .586	\$23.65	\$12.52	p = .821
2006										
<b>Other lotteries</b>										
2004	32.5%	23.2%	18.5%	17.1%	8.4%	0.3%	z = .99	\$18.91	\$10.00	z = .93
2005	34.7%	23.6%	18.0%	16.5%	7.0%	0.2%	p = .324	\$17.27	\$10.00	p = .354
2006										
<b>Instant Win Tickets</b>										
2004	57.0%	21.2%	11.9%	7.3%	1.7%	0.9%	z = 2.28	\$17.16	\$8.00	z = 1.13
2005	62.7%	19.1%	9.8%	6.2%	1.5%	0.6%	p = .023	\$14.05	\$10.00	p = .261
2006										
<b>Bingo</b>										
2004	94.6%	4.0%	0.7%	0.3%	0.3%	0%	z = .50	\$87.45	\$64.40	z = .26
2005	95.0%	2.9%	0.4%	1.5%	0.2%	0%	p = .620	\$79.16	\$56.17	p = .792
2006										
<b>Electronic Keno &amp; Racetrax</b>										
2004	92.6%	5.2%	1.4%	0.4%	0.4%	not assessed		\$18.22	\$14.41	
2005										
2006										
<b>Slot Machines</b>										
2004	73.7%	19.1%	4.2%	1.6%	1.0%	0.2%	z = .72	\$274.02	\$100.00	z = 1.58
2005	74.1%	19.1%	5.0%	1.5%	0.2%	0%	p = .473	\$83.35	\$50.00	p = .115
2006										
<b>Casino Table Games</b>										
2004	88.9%	7.8%	1.7%	1.2%	0.2%	0.2%	z = .57	\$3982	\$100.00	z = 2.81
2005	88.6%	7.9%	2.9%	0.2%	0.4%	0%	p = .567	\$104.48	\$40.00	p = .005
2006										
<b>Horse Racing</b>										
2004	94.1%	4.9%	0.3%	0.3%	0.3%	0%	z = .53	\$57.31	\$50.00	z = 1.05
2005	94.8%	4.6%	0.2%	0.4%	0%	0%	p = .598	\$137.28	\$174.99	p = .296
2006										
<b>Sports Betting</b>										
2004	89.4%	7.1%	0.7%	2.4%	0.3%	0%	z = 2.53	\$196.41	\$22.11	z = .73
2005	93.8%	3.3%	2.3%	0.2%	0.2%	0.2%	p = .011	\$38.08	\$40.70	p = .463
2006										
<b>Private Games (e.g. poker)</b>										
2004	84.0%	11.0%	3.3%	0.7%	0.9%	0.2%	z = .39	\$36.27	\$21.33	z = .53
2005	84.9%	10.3%	2.1%	2.1%	0.4%	0.2%	p = .696	\$27.88	\$19.27	p = .599
2006										
<b>Internet Gambling</b>										
2004	99.3%	0.2%	0.2%	0%	0.3%	0%	z = 1.02	\$1194	\$1502	z = 1.88
2005	98.6%	0.8%	0%	0%	0.4%	0.2%	p = .309	\$2.54	\$2.68	p = .060
2006										
<b>High Risk Stocks</b>										
2004	93.5%	4.4%	1.8%	0.4%	0%	0%	z = 1.78	\$24974	\$15427	z = 1.59
2005	95.7%	3.7%	0.4%	0%	0%	0.2%	p = .075	\$15427	\$4784	p = .112
2006										

Table 11 continued.

	Where do you normally go to play slots?			What casino do you normally go to play table games?			Where do you normally go to bet on horse racing?		
	2004 (n = 147)	2005 (n = 129)	2006	2004 (n = 60)	2005 (n = 55)	2006	2004 (n = 35)	2005 (n = 27)	2006
Richmond – River Rock Casino Resort	8.2%	16.3%		15.0%	14.5%				
Las Vegas and/or Reno	10.9%	18.6%		31.7%	10.9%		2.9%	3.7%	
Coquitlam – Great Canadian Casino	21.8%	9.3%		8.3%	14.5%				
New Westminster – Royal City Star Riverboat Casino	16.3%	18.6%		15.0%	29.1%				
Burnaby – Gateway Casino	6.8%	1.6%		6.7%	1.8%				
<b>Surrey – Fraser Downs Gaming Centre</b>	12.2%	11.6%		3.3%	3.6%		60.0%	55.6%	
BC – Outside Lower Mainland	2.7%	3.9%		1.7%	0%		2.9%	0%	
Washington State	4.8%	1.6%		5.0%	1.8%				
New Westminster – Gateway Casino (Royal Towers Hotel)	4.8%	1.6%		0%	14.5%				
Cruise Ships	3.4%	1.6%		5.0%	1.8%				
Vancouver – Gateway Casino (Mandarin Centre)	0%	0%		0%	0%				
Vancouver – Grand Casino	0%	0%		0%	0%				
Vancouver – Great Canadian Casino (Holiday Inn)	0%	0%		3.3%	0%				
<b>Langley – Gateway Casino</b>	0%	14.0%		0%	5.5%				
<b>Vancouver – Edgewater Casino (Plaza of Nations)</b>	0%	0.8%		0%	0%				
Vancouver – Hastings Racetrack							34.3%	37.0%	
Other	7.2%	0.8%		5.0%	1.8%		0%	3.7%	

$\chi^2(12) = 45.9, p = .000$

$\chi^2(12) = 25.4, p = .013$

$\chi^2(4) = 2.2, p = .702$

**Table 12: Specific Gambling Behaviour Impact of the Fraser Downs Gaming Centre on SURREY RESIDENTS in 2005 (n = 508)**

		2005	2006
<b>Have you ever gambled at the Fraser Downs Gaming Centre?</b>	Yes	11.0%	
	No	89.0%	
<b>How many times have you gone to Fraser Downs Gaming Centre since it expanded?</b> <i>(for people who have gambled there)</i>	few days	69.4%	
	once a month or less	22.2%	
	several times a month	8.3%	
	several times a week	0%	
	daily	0%	
<b>On average, how much do you spend per visit?</b> <i>(for people who have gambled there)</i>		\$54.13	
<b>What sort of impact has this facility had on your overall gambling behaviour?</b> <i>(for people who have gambled there)</i>	Increased it	19.4%	
	No change	80.6%	
	Decreased it	0%	
<b>Do you spend less on other things now that you sometimes gamble at Fraser Downs Gaming Centre?</b> <i>(for people who have gambled there)</i>	Yes*	2.7%	
	No	97.3%	
<b>Where did you used to go to play table games or slot machines before this facility was built?</b>	did not play anywhere before	23.5%	
	Richmond – River Rock Casino Resort	14.7%	
	Las Vegas and/or Reno	17.6%	
	Coquitlam – Great Canadian Casino	5.9%	
	New Westminster – Royal City Star Riverboat Casino	11.8%	
	Burnaby – Gateway Casino	2.9%	
	Surrey – Fraser Downs Gaming Centre	0%	
	BC – Outside Lower Mainland	2.9%	
	Washington State	8.8%	
	New Westminster – Gateway Casino (Royal Towers)	5.9%	
	Cruise Ships	0%	
	Langley – Gateway Casino	5.9%	
	Vancouver – Gateway Casino (Mandarin Centre)	0%	
Vancouver – Grand Casino	0%		
Vancouver – Great Canadian Casino (Holiday Inn)	0%		
Vancouver – Hastings Racetrack	0%		
Other	0%		

\* - 1=clothing

Table 13: Gambling Attitudes in the CITY OF SURREY in 2004 (n = 596) Compared to 2005 (n = 508)

Which best describes your belief about the benefit or harm that gambling has for society?	benefits far outweigh harm		benefits somewhat outweigh harm		benefits and harm equal		harm somewhat outweighs benefits		harm far outweighs benefits		Average score (-2 to +2)	Mann-Whitney U test
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005		
	8.0%	3.9%	13.5%	12.5%	26.6%	24.7%	20.9%	21.1%	31.0%	37.8%	-53	z = 3.11 p = .002
											-76	

Which best describes your attitude toward gambling?	it is a fun, harmless thing to do		it is a matter of personal choice		no opinion one way or the other		it is somewhat morally wrong		it is morally wrong		Average score (-2 to +2)	Mann-Whitney U test
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005		
	7.1%	3.2%	65.8%	66.7%	6.0%	8.7%	6.7%	6.5%	14.5%	14.9%	.44	z = 2.18 p = .029
											.37	

Are you aware of Fraser Downs Gaming Centre in Surrey with its expanded facilities slated to open in November 2004? Are you aware of the Fraser Downs Gaming Centre with its expanded facilities that opened in June 2005? Are you aware of the Fraser Downs Gaming Centre with its expanded facilities that opened in June 2005?	Yes		No*		Chi-Square test
	2004	2005	2004	2005	
	62.0%	63.1%	38.0%	36.9%	$\chi^2(1) = .14, p = .706$

\*People who were unfamiliar with the facility were told it was "a horse-race track and casino with 400 slot machines and 3 table games".

Overall, would you say the expanded Fraser Downs Gaming Centre is likely to be _____ to the community?	very beneficial		somewhat beneficial		neither beneficial or harmful		somewhat harmful		very harmful		Average score (-2 to +2)	Mann-Whitney U test
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005		
	11.6%	4.9%	28.5%	31.7%	17.1%	16.1%	26.2%	28.3%	16.7%	19.1%	-.08	z = 2.38 p = .017
											-.25	

Table 13 continued.

	2004 (712 total responses)	2005 (641 total responses)	2006
<b>In your own words, what would you say are the likely major benefits, if any, of this facility (Fraser Downs Gaming Centre)? Any others? (Up to four responses accepted)</b>	No benefits at all	16.7%	19.3%
	Provides employment	21.8%	16.2%
	Provides convenient source of recreation	1.7%	1.9%
	Entertainment value	5.8%	9.1%
	Brings \$ into community	4.5%	5.9%
	Increases local or provincial revenue	7.4%	10.6%
	Decreases taxes	1.0%	0.0%
	Creates positive spin-offs to other local businesses	1.7%	0.3%
	Increases tourism	10.0%	9.7%
	Decreases illegal gambling	0.0%	0.0%
	Keeps gambling \$ from leaving jurisdiction	0.6%	0.3%
	Provides \$ for good causes	17.4%	14.4%
	Supports the horse racing industry	1.3%	0.0%
	Revitalizes/cleans up area	0.3%	0.2%
	Attracts new businesses to area	0.1%	0.6%
The convention centre/hotel	0.1%	0.3%	
Other	1.1%	1.6%	
Don't know/refused	8.6%	9.7%	
<b>In your own words, what would you say are the likely major drawbacks, if any, of this facility (Fraser Downs Gaming Centre)? Any others? (Up to four responses accepted)</b>	No drawbacks at all	11.1%	8.0%
	Increases gambling addiction	28.2%	34.0%
	Exposes young people to gambling	1.4%	1.1%
	Negatively impacts people who can least afford it	16.7%	23.9%
	Is morally corrupting	0.1%	0.2%
	Negatively impacts local businesses	0.1%	0.2%
	Negatively impacts other forms of gambling	0.0%	0.5%
	Brings greater noise/congestion/traffic	9.3%	9.3%
	Adds to crime and/or policing costs	15.9%	15.7%
	More people will be drinking	0.8%	0.8%
	Adds to family problems	3.3%	1.8%
	Attracts the wrong people to the area	0.9%	0.5%
	Negatively impacts the community image	0.7%	0.7%
	People will waste/lose money gambling	0.7%	2.0%
	Other	2.6%	1.5%
Don't know/refused	8.1%	0.0%	

Table 14: General Gambling Behaviour in the CITY OF VANCOUVER in 2004 (n = 1154) Compared to 2005 (n = 1004)

Year	Past Year Frequency of Involvement						Money spent in a typical month (for people reporting any spending in a typical month)			
	not at all	few days	once a month or less	several times a month	several times a week	daily	Mann-Whitney U test	average	median	Mann-Whitney U test
Raffles and Charitable Lotteries										
2004	50.9%	39.6%	6.3%	1.7%	1.4%	0.2%	z = 1.27	\$26.05	\$14.00	z = 2.63
2005	52.2%	39.5%	5.5%	2.2%	0.4%	0.1%	p = .205	\$14.14	\$10.00	p = .009
2006										
Other lotteries										
2004	36.9%	22.2%	17.9%	16.9%	5.9%	0.2%	z = 2.64	\$16.75	\$10.00	z = 1.22
2005	39.8%	24.9%	15.9%	12.4%	6.5%	0.4%	p = .008	\$16.43	\$10.00	p = .222
2006										
Instant Win										
2004	74.6%	15.8%	5.6%	3.1%	0.9%	0%	z = 1.87	\$11.27	\$5.00	z = .39
2005	72.9%	15.3%	6.9%	3.1%	1.5%	0.2%	p = .062	\$9.48	\$5.00	p = .693
2006										
Bingo										
2004	97.2%	1.9%	0.5%	0.1%	0.3%	0%	z = .29	\$65.13	\$20.50	z = 1.90
2005	97.3%	1.8%	0.4%	0.4%	0.1%	0%	p = .771	\$48.97	\$8.10	p = .058
2006										
Electronic Keno & Racetrax										
2004	93.8%	4.8%	0.7%	0.6%	0.1%	not assessed		\$19.80	\$10.00	
2005										
2006										
Slot Machines										
2004	81.5%	15.6%	2.2%	0.7%	0.1%	0%	z = 2.48	\$183.31	\$100.00	z = 1.47
2005	77.8%	17.9%	3.4%	0.8%	0.1%	0%	p = .010	\$91.11	\$51.93	p = .141
2006										
Casino Table Games										
2004	89.1%	8.6%	1.4%	0.8%	0.3%	0%	z = 1.99	\$242.19	\$126.00	z = 2.86
2005	86.6%	9.6%	2.3%	1.2%	0.1%	0.1%	p = .046	\$105.95	\$60.00	p = .004
2006										
Horse Racing										
2004	92.7%	5.7%	0.9%	0.5%	0.2%	0%	z = 1.11	\$605.62	\$77.80	z = .10
2005	94.1%	4.7%	0.2%	0.7%	0.1%	0.2%	p = .268	\$129.31	\$93.50	p = .920
2006										
Sports Betting										
2004	92.5%	4.7%	1.6%	0.8%	0.3%	0.1%	z = .07	\$758.83	\$23.02	z = .40
2005	93.0%	4.0%	1.1%	1.0%	0.9%	0%	p = .941	\$46.09	\$44.68	p = .690
2006										
Private Games (e.g. poker)										
2004	87.7%	7.2%	2.7%	1.5%	0.8%	0.1%	z = 5.56	\$321.31	\$20.80	z = 1.08
2005	79.9%	11.6%	4.9%	2.6%	1.0%	0%	p = .000	\$50.11	\$20.00	p = .281
2006										
Internet Gambling										
2004	98.8%	0.5%	0.3%	0.3%	0.1%	0.1%	z = 1.13	\$3824	\$193.75	z = 2.12
2005	98.5%	0.7%	0.3%	0.3%	0.2%	0%	p = .259	\$79.53	\$25.55	p = .034
2006										
High Risk Stocks										
2004	90.5%	5.7%	2.1%	1.3%	0.1%	0.3%	z = 2.30	\$8515	\$3000	z = 1.12
2005	92.9%	5.5%	0.4%	0.4%	0.4%	0.4%	p = .021	\$5387	\$1617	p = .262
2006										

Table 14 continued

	Where do you normally go to play slots?			What casino do you normally go to play table games?			Where do you normally go to bet on horse racing?		
	2004 (n = 209)	2005 (n = 211)	2006	2004 (n = 120)	2005 (n = 125)	2006	2004 (n = 85)	2005 (n = 56)	2006
Richmond – River Rock Casino Resort	31.1%	38.4%		24.2%	42.4%				
Las Vegas and/or Reno	23.9%	19.4%		23.3%	12.8%		0%	0%	0%
Coquitlam – Great Canadian Casino	4.8%	3.8%		3.3%	4.0%				
New Westminster – Royal City Star Riverboat Casino	8.1%	3.3%		8.3%	3.2%				
Burnaby – Gateway Casino	11.0%	6.6%		10.0%	9.6%				
<b>Surrey – Fraser Downs Gaming Centre</b>	0%	1.4%		2.5%	0%		4.7%	7.1%	
BC – Outside Lower Mainland	6.2%	3.8%		5.0%	3.2%		0%	3.6%	
Washington State	2.4%	0.9%		2.5%	0%				
New Westminster – Gateway Casino (Royal Towers Hotel)	3.3%	2.4%		1.7%	2.4%				
Cruise Ships	2.4%	1.9%		0.8%	0.8%				
Vancouver – Gateway Casino (Mandarin Centre)	0.5%	0%		1.7%	2.4%				
Vancouver – Grand Casino	0%	0%		0%	0.8%				
Vancouver – Great Canadian Casino (Holiday Inn)	1.0%	0%		12.5%	7.2%				
<b>Langley – Gateway Casino</b>	0%	4.3%		0%	0%				
<b>Vancouver – Edgewater Casino (Plaza of Nations)</b>	0%	10.0%		0%	9.6%				
Vancouver – Hastings Racetrack							88.2%	87.5%	
Other	5.3%	3.8%		3.3%	1.6%		7.1%	1.8%	

$\chi^2(15) = 48.6, p = .000$

$\chi^2(15) = 32.7, p = .005$

$\chi^2(3) = 5.3, p = .152$

**Table 15: Specific Gambling Behaviour Impact of the Edgewater Casino on VANCOUVER RESIDENTS in 2005 (n = 1004)**

		2005	2006
<b>Have you ever gambled at Edgewater Casino at the Plaza of Nations?</b>	Yes	13.9%	
	No	86.1%	
<b>How many times have you gone to Edgewater Casino since it opened?</b> <i>(for people who have gambled there)</i>	few days	75.9%	
	once a month or less	10.3%	
	several times a month	8.0%	
	several times a week	3.4%	
	daily	2.3%	
<b>On average, how much do you spend per visit?</b> <i>(for people who have gambled there)</i>		\$64.52	
<b>What sort of impact has this facility had on your overall gambling behaviour?</b> <i>(for people who have gambled there)</i>	Increased it	14.9%	
	No change	79.3%	
	Decreased it	5.7%	
<b>Do you spend less on other things now that you sometimes gamble at Edgewater Casino?</b> <i>(for people who have gambled there)</i>	Yes*	4.7%	
	No	95.3%	
<b>Where did you used to go to play table games or slot machines before this facility was built?</b>	Did not play anywhere before	15.7%	
	Richmond – River Rock Casino Resort	31.3%	
	Las Vegas and/or Reno	12.0%	
	Coquitlam – Great Canadian Casino	3.6%	
	New Westminster – Royal City Star Riverboat Casino	2.4%	
	Burnaby – Gateway Casino	21.7%	
	Surrey – Fraser Downs Gaming Centre	0%	
	BC – Outside Lower Mainland	2.4%	
	Washington State	0%	
	New Westminster – Gateway Casino (Royal Towers)	0%	
	Cruise Ships	2.4%	
	Vancouver – Gateway Casino (Mandarin Centre)	0%	
	Vancouver – Grand Casino	0%	
	Vancouver – Great Canadian Casino (Holiday Inn)	7.2%	
Vancouver – Hastings Racetrack	0%		
Other	1.2%		

\* - 1=vacations; 2=gas

Table 16: Gambling Attitudes in the CITY OF VANCOUVER in 2004 (n = 1154) Compared to 2005 (n = 1004)

	benefits far outweigh harm	benefits somewhat outweigh harm	benefits and harm equal	harm somewhat outweighs benefits	harm far outweighs benefits	Average score (-2 to +2)	Mann-Whitney U test
2004	4.3%	11.8%	27.3%	25.0%	31.6%	-68	z = -1.00 p = .316
2005	2.9%	9.9%	29.9%	23.2%	34.2%	-76	
2006							

Which best describes your belief about the benefit or harm that gambling has for society?

	it is a fun, harmless thing to do	it is a matter of personal choice	no opinion one way or the other	it is somewhat morally wrong	it is morally wrong	Average score (-2 to +2)	Mann-Whitney U test
2004	4.9%	68.5%	7.1%	9.0%	10.5%	.48	z = 3.37 p = .001
2005	5.9%	70.8%	9.3%	5.3%	8.8%	.60	
2006							

Which best describes your attitude toward gambling?

	Yes	No*	Chi-Square test
Are you aware of Edgewater Casino in the Plaza of Nations slated to open in Vancouver in November 2004?	38.8%	61.2%	X <sup>2</sup> (1) = 175.5, p = .000
Are you aware of Edgewater Casino that opened in Vancouver in February 2005?	62.5%	37.5%	
Are you aware of Edgewater Casino that opened in Vancouver in February 2005?			

\*People who were unfamiliar with the facility were told it was "a casino with 600 slot machines and 51 table games".

	very beneficial	somehow beneficial	neither beneficial or harmful	somehow harmful	very harmful	Average score (-2 to +2)	Mann-Whitney U test
2004	4.9%	21.1%	21.7%	31.2%	21.0%	-42	z = .74 p = .460
2005	2.6%	21.8%	25.1%	32.5%	18.0%	-41	
2006							

Overall, would you say Edgewater Casino is likely to be \_\_\_\_\_ to the \_\_\_\_\_ community?

Table 16 continued.

	2004 (1468 total responses)	2005 (1236 total responses)	2006	
<p><b>In your own words, what would you say are the likely major benefits, if any, of this facility (Edgewater Casino)? Any others?</b> (Up to four responses accepted)</p>	No benefits at all	19.5%	15.3%	2006
	Provides employment	15.9%	16.9%	
	Provides convenient source of recreation	0.2%	2.2%	
	Entertainment value	9.7%	7.7%	
	Brings \$ into community	3.2%	2.9%	
	Increases local or provincial revenue	9.5%	11.0%	
	Decreases taxes	0.4%	0.2%	
	Creates positive spin-offs to other local businesses	1.8%	0.3%	
	Increases tourism	12.4%	14.0%	
	Decreases illegal gambling	0.0%	0.2%	
	Keeps gambling \$ from leaving jurisdiction	1.0%	1.0%	
	Provides \$ for good causes	17.0%	16.3%	
	Revitalizes/cleans up area	0.6%	0.5%	
	Attracts new businesses to area	0.3%	0.0%	
	The convention centre/hotel	0.0%	0.2%	
Other	1.4%	2.5%		
Don't know/refused	7.0%	8.9%		
<p><b>In your own words, what would you say are the likely major drawbacks, if any, of this facility (Edgewater Casino)? Any others?</b> (Up to four responses accepted)</p>	No drawbacks at all	7.0%	5.8%	2006
	Increases gambling addiction	31.6%	32.5%	
	Exposes young people to gambling	1.1%	0.8%	
	Negatively impacts people who can least afford it	18.3%	23.7%	
	Is morally corrupting	0.2%	0.3%	
	Negatively impacts local businesses	0.1%	0.2%	
	Negatively impacts other forms of gambling	0.0%	0.0%	
	Brings greater noise/congestion/traffic	5.8%	4.5%	
	Adds to crime and/or policing costs	16.7%	13.6%	
	More people will be drinking	1.2%	0.5%	
	Adds to family problems	3.3%	2.6%	
	Attracts the wrong people to the area	0.8%	0.6%	
	Negatively impacts the community image	1.2%	0.7%	
	People will waste/lose money gambling	1.5%	1.1%	
	Other	3.6%	4.1%	
Don't know/refused	7.7%	9.2%		
No Drawbacks at all	7.0%	5.8%		

Table 17: Problem Gambling Status in 2004 Compared to 2005

	City of Langley			Township of Langley			City of Surrey			City of Vancouver			Total Sample weighted by Community Size		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Non Gamblers	15.8%	19.1%	19.0%	19.0%	15.4%	17.7%	17.7%	20.1%	20.2%	20.2%	20.9%	19.1%	19.1%	20.1%	
Non Problem Gamblers (CPGI 0)	74.4%	67.0%	69.4%	69.4%	71.5%	67.6%	67.6%	64.4%	64.7%	64.3%	64.3%	66.3%	66.3%	65.0%	
Low Risk Gamblers (CPGI 1-2)	7.3%	9.0%	7.6%	7.6%	10.4%	9.1%	9.1%	9.5%	9.1%	9.1%	11.1%	8.9%	8.9%	10.5%	
Moderate Problem Gamblers (CPGI 3-7)	2.0%	3.3%	3.6%	3.6%	1.8%	4.0%	4.0%	4.8%	4.5%	4.5%	3.3%	4.2%	4.2%	3.7%	
Severe Problem Gamblers (CPGI 8+)	0.5%	1.6%	0.4%	0.4%	0.8%	1.6%	1.6%	1.2%	1.5%	1.5%	0.4%	1.4%	1.4%	0.7%	
Mann-Whitney U test	z = .02 p = .983				z = 1.3 p = .191			z = .73 p = .464			z = .54 p = .589			z = .08 p = .933	

### Entire Sample

The overall pattern of gambling behaviour in 2005 is similar to 2004 in terms of the relative popularity of the various forms and the median expenditures on each. However, a few significant changes occurred between the two years. Compared to 2004, in 2005 there were lower lottery expenditures, less frequent high risk stock gambling, lower average Internet gambling expenditures, lower average slot machine expenditures, lower average slot machine expenditures, lower casino table game expenditures, more frequent slot machine play, and more frequent private gambling (e.g., poker). The decrease in lottery play and increased private gambling (e.g., poker) reflect national trends. However, because the introduction of new forms of gambling often supplants older forms, it is possible that the introduction of the new gaming venues may have accelerated this decline in lottery play (the magnitude of which is very small, in any case). The decreased expenditure on slots, table games, and Internet gambling seems counterintuitive given the introduction of the new venues. However, it is important to note that these decreased expenditures are coincident with increased participation in each of these activities (close to statistical significance in each case). What appears to be happening is that there is an influx of new people playing these games who are spending more modest amounts on these activities relative to the patronage in 2004.

Several significant changes emerged in where people gambled. Specifically, slot and/or table play tended to shift or relocate from:

- Coquitlam (Great Canadian Casino)
- Las Vegas/Reno
- Burnaby (Gateway Casino)

- And other locations

to:

- Richmond (River Rock Casino)
- Langley (Gateway Casino)
- Vancouver (Edgewater Casino).

In the latter two cases this represents movement of gambling dollars to the venues being studied.

In terms of attitudes, the existing negative beliefs about the benefits or harms of gambling became significantly more negative in 2005, with 57.1% of the populace now indicating they believed gambling's harms either somewhat or far outweighed gambling's benefits (compared to 14.6% who believed that gambling's benefits either somewhat or far outweighed gambling's harms). However, the overwhelming majority of people (69.3%) continued to believe that the decision to gamble was a matter of personal choice, rather than being morally wrong (17.1%).

Of particular importance is the fact that no statistically significant difference was found between the prevalence rate of problem gambling obtained in 2005 (4.5%) and that obtained in 2004 (5.6%).

Three important caveats accompany these overall results. First, it is important to remember that the somewhat lower response rate in the present survey may have contributed to less reported change in gambling behaviour and problem gambling than might otherwise have been obtained. Second, we are assessing fairly short-term impacts at this point (5 months for Fraser Downs; 6 months for Langley Casino; 9 months for Edgewater Casino). The 2006 assessment will be a better gauge of how significant or insignificant the overall impacts are. Third,

the Lower Mainland already had a fairly wide availability of gambling opportunities prior to the introduction of these new venues. A failure to find significant impacts could mean that these new venues do not have an impact, or alternatively that the impacts already occurred prior to the introduction of these new venues. These possibilities will be explored in more detail in the Final Report.

### City of Langley

The overall pattern of gambling behaviour in 2005 for the City of Langley remains fairly similar to 2004 in terms of the relative popularity of the various forms and the median expenditures on each. The statistically significant changes in 2005 compared to 2004 include: less frequent lottery purchases and lower average lottery expenditures, less frequent horse race betting; and more frequent slot machine play. More frequent slot machine play is consistent with the finding that 39.2% of people who gambled at the new Langley Gateway Casino had never patronized a casino before. Here again, some of the above changes reflect national trends (e.g., less frequent lottery play and horse race betting). However, it is possible that the introduction of a new form of gambling (Langley Casino) may have accelerated the decreased patronage of these activities. A total of 39.8% of the City of Langley RDDS respondents indicated they have been to the Langley Casino. The large majority of people (76.9%) who patronized the new casino reported that it did not affect their overall gambling activity. For the minority who indicated it had affected their gambling, more people reported that it increased it (17.6%) rather than decreased it (5.5%). The large majority of people (93.0%) also indicated that their spending on other

things had not changed as a result of their patronage of the Langley Casino.

There were several significant changes in terms of where people gambled. Specifically, there was a significant relocation of slot and table play from other jurisdictions to the new Langley Casino.

Langley city respondents were overwhelmingly aware of the new casino in Langley (98.0%). In terms of attitudes, the large majority of Langley City respondents (72.4%) continued to believe that gambling was a matter of personal choice, rather than being morally wrong (17.3%), marking no change since 2004. The existing negative beliefs about the benefits/harms of gambling in Langley City appear to have grown somewhat more negative in 2005 (although not significantly so), with 50.0% of the populace now indicating they believed gambling's harms either somewhat or far outweighed gambling's benefits (compared to 20.4% who believed that gambling's benefits either somewhat or far outweighed gambling's harms). However, a slightly greater percentage of people (46.7%) believed that the newly introduced casino would produce a benefit to the community than those (39.0%) who believed the casino's impact would be harmful. These sentiments do not differ significantly from 2004.

No statistically significant difference was found between the prevalence rate of problem gambling obtained in 2005 (4.9%) and that obtained in 2004 (2.5%). We note, however, that the smaller sample size at the community level ( $n = 509$ ) makes for larger confidence intervals and greater difficulty in obtaining significant differences, especially at the low prevalence rates seen for problem gambling.

### **Township of Langley**

The overall pattern of gambling behaviour in 2005 in the Township of Langley remains fairly similar to 2004 in terms of the relative popularity of the various forms and the median expenditures on each. The statistically significant changes in 2005 compared to 2004 included: lower average expenditures on sports betting, more frequent slot machine play, more frequent private gambling, and higher average expenditures on Internet gambling. The increase in frequent slot machine play is consistent with the report that 16.7% of people who gambled at the new Langley Gateway Casino had never patronized a casino before. Here again, some of the above changes reflect national trends (e.g., more frequent private gambling). A total of 29.3% of Langley Township residents indicated they have been to the Langley Casino. The large majority of people (85.6%) who patronized the new casino reported that it had not affected their overall gambling activity. For the minority who indicated it had affected their gambling, more people reported that it increased it (11.4%) rather than decreased it (3.0%). The large majority of people (97.0%) also indicated that their spending on other things had not changed as a result of their patronage of the Langley Casino.

Significant changes emerged in terms of where people gambled, specifically, a significant relocation of slot and table play from other jurisdictions primarily to the new Langley Casino, and secondarily to the Richmond's River Rock Casino.

Respondents in Langley Township are typically aware of the existence of the new casino (96.1%). In terms of attitudes, the overwhelming majority of people (69.9%)

continued to believe that gambling was a matter of personal choice, rather than being morally wrong (18.4%). There was no change in this belief from 2004. The existing negative beliefs about the benefits/harms of gambling were not significantly changed, with 48.7% of the populace now indicating they believed gambling's harms either somewhat or far outweighed gambling's benefits (compared to 18.4% who believed that gambling's benefits either somewhat or far outweighed gambling's harms). Sentiments about the harm or benefit of the casino were very much like those in Langley City: 43.7% of people believed that the newly introduced Langley Casino was likely to be either somewhat or very beneficial to the community compared to 39.3% who believed it to be either very or somewhat harmful. These attitudes have remained much the same since 2004.

No statistically significant difference occurred between the prevalence rate of problem gambling obtained in 2005 (2.6%) and that obtained in 2004 (4.0%). However, the smaller sample size at the community level (n = 587) makes for larger confidence intervals and greater difficulty in obtaining significant differences, especially at the low prevalence rates seen for problem gambling.

### **City of Surrey**

The overall pattern of gambling behaviour in 2005 in the City of Surrey remains similar to 2004 in terms of the relative popularity of the various forms and the median expenditures on each. There was only one statistically significant change in 2005 compared to 2004: lower average expenditures on casino table games. Although no significant increase took place in the frequency of play accompanying

this trend, 23.5% of people who gambled at the expanded Fraser Downs Gaming Centre reported they had never patronized a casino before. A total of 11.0% of Surrey residents indicated they have been to the expanded Fraser Downs Gaming Centre. The large majority of people (80.6%) who patronized the new gaming centre reported that it did not affect their overall gambling activity. For the minority who indicated it had affected their gambling, all of them reported that it increased it (19.4%) rather than decreased it (0%). The large majority of people (97.3%) also indicated that their spending on other things had not changed as a result of their patronage of the Fraser Downs Gaming Centre.

Several significant changes between 2004 and 2005 were found in terms of where people gambled. The most significant change was the relocation of slot play from Coquitlam and Burnaby to the new Langley Casino, Richmond's River Rock Casino, and to Las Vegas/Reno. Interestingly, no significant increase took place in reported patronage at the Fraser Downs Gaming Centre.

In terms of attitudes, the overwhelming majority of Surrey respondents (66.7%) continued to believe that gambling was a matter of personal choice rather than being morally wrong (21.4%), no change from 2004. Existing negative beliefs about the benefits/harms of gambling grew significantly more negative in 2005, with 58.9% of the populace now indicating they believed gambling's harms either somewhat or far outweighed gambling's benefits (compared to 16.4% who believed that gambling's benefits either somewhat or far outweighed gambling's harms). Consistent with this (and different from Langley City and Langley Township),

47.4% believed the newly expanded Fraser Downs Gaming Centre was likely to be either very or somewhat harmful to the community compared to 36.6% who believed it would be somewhat or very beneficial. These sentiments tended to be more negative than 2004, but not significantly so. Public awareness of the expanded Fraser Downs Gaming Centre among Surrey residents remained low in 2005 at 36.9%, considerably less than public awareness of the other three new venues.

The prevalence rate of problem gambling obtained in 2005 (6.0%) did not differ significantly from that obtained in 2004 (5.6%). It is important to note, however, that the smaller sample size at the community level (n = 596) makes for larger confidence intervals and greater difficulty in obtaining significant differences, especially at the low prevalence rates seen for problem gambling.

### **City of Vancouver**

The overall pattern of gambling behaviour in 2005 in the City of Vancouver remains fairly similar to 2004 in terms of the relative popularity of the various forms and the median expenditures on each. The statistically significant changes in 2005 compared to 2004 included lower average expenditures on raffles and lotteries, higher frequency of slot machine play, lower expenditure on casino table games, and higher frequency of play on private games (e.g., poker). The finding of more frequent slot machine play is consistent with the report that 15.7% of people who gambled at the new Edgewater Casino had never patronized a casino before. Here again, some of the above changes reflect national trends (e.g., less spending on

lotteries, more frequent private gambling). A total of 13.9% of Vancouver residents indicated they have been to the Edgewater Casino. The large majority of people (79.3%) patronizing the new casino reported that it did not affect their overall gambling activity. For the minority who indicated it had affected their gambling, more people reported that it increased it (14.9%) rather than decreased it (5.7%). The large majority of people (95.3%) also indicated that their spending on other things had not changed as a result of their patronage of the Edgewater Casino.

Several significant changes were found in terms of where people gambled. Specifically, a significant amount of slot and/or table play relocated from Las Vegas/Reno, New Westminster, Burnaby, and Vancouver's Great Canadian Casino, to both the River Rock Casino in Richmond as well as the new Edgewater Casino.

In terms of attitudes, the overwhelming majority of Vancouver respondents (70.8%) continued to believe that gambling was a matter of personal choice, rather than being morally wrong (14.1%). Significantly fewer people believed gambling was morally wrong in 2005 compared to 2004. The existing very negative beliefs about the benefits or harms of gambling did not change significantly; 57.4% of the populace indicated they believed gambling's harms either somewhat or far outweighed gambling's benefits (compared to 12.8% who believed that gambling's benefits either somewhat or far outweighed gambling's harms). Consistent with this finding, 50.5% of people believed that the newly introduced Edgewater Casino was likely to be either somewhat or very harmful to the community, compared to 24.4% who believed it was very or somewhat harmful.

These sentiments did not differ significantly from 2004. Compared to the Langleys and Surrey, Vancouver respondents' awareness of the existence of the new casino in their city (Edgewater Casino) was low (62.5%).

There was not a statistically significant difference between the prevalence rate of problem gambling obtained in 2005 (3.7%) and that reported in 2004 (6.0%). However, the smaller sample size at the community level (n = 1004) makes for larger confidence intervals and greater difficulty in obtaining significant differences, especially at the low prevalence rates seen for problem gambling.

## PART II: PATRON SURVEY

### Methodology

A written survey for casino patrons was developed and piloted in 2004 in the only open venue at that time, Fraser Downs Gaming Centre. Through revision, this questionnaire was cut to 11 key questions soliciting information on demographics and gambling practices. Copies of the casino patron questionnaires used in November 2005 may be found in Appendix B. While the Patron Survey provides interesting trend data on use patterns at the new venues, the major purpose for its administration is to provide triangulation with the Random Digit Dialling (RDD) Survey. That is, its findings are compared to those in the RDD survey to see whether general trends are congruent in the two measures. Such was indeed the case; internal review of data suggests similar results for patrons as among the members of the general public reporting going to casinos.

The patron survey was administered at the three open venues (Edgewater Casino in Vancouver, Fraser Downs Gaming Centre in Surrey, and Cascades Casino in Langley) during November 2005. Quota sampling was employed in each venue, continuing until at least 200 surveys were gathered. Most collection sessions took place on Fridays and Saturdays in the evening, generally between 3 and 10 pm, taking advantage of busy periods to gain the most response. Possible sampling biases include differences in the kind of events happening in the casinos at the time, and under-representation of persons in a hurry or otherwise indisposed when asked to complete the survey. The time required to achieve the 200-survey minimum at each site ranged from 11 to

14 hours at each venue. After conducting the first session at Edgewater Casino, the survey was translated into Chinese and a fluent Mandarin and Cantonese speaker was brought in as an assistant to reduce loss of participation among these language groups, both prevalent at Edgewater. A large print version of the survey was also produced and a total of 18 individuals opted for this version.

### Findings

#### Demographics

Table 18 breaks down the patron survey sample by gender and location. A total of 636 patrons were surveyed (n=216 Cascades, 205 Edgewater, 215 Fraser Downs). The data in the tables below exclude instances where there was no response, hence the varying sample size.

Patron gender of participants split fairly evenly in each venue. At Langley's Cascades Casino and Vancouver's Edgewater Casino there were slightly more male participants; at Surrey's Fraser Downs Gaming Centre more females participated. This balance is slightly different from BC Lottery Corporation patron data except for Fraser Downs. (BCLC data shows a consistent slight majority of women patrons). However, neither survey is random.

**Table 18: Sample Breakdown, Patron Survey 2005 (n = 619)**

	Cascades		Edgewater		Fraser Downs Gaming Centre		All Venues	
Female	101	(48.10%)	88	(44.67%)	118	(55.66%)	307	(49.60%)
Male	109	(51.90%)	109	(55.33%)	93	(43.87%)	311	(50.24%)
INVALID		(0.00%)		(0.00%)	1	(0.47%)	1	(0.16%)
<b>Grand Total</b>	<b>210</b>	<b>(100.00%)</b>	<b>197</b>	<b>(100.00%)</b>	<b>212</b>	<b>(100.00%)</b>	<b>619</b>	<b>(100.00%)</b>

Sixty eight per cent of all patrons were married or living with a partner; 13% were widowed or divorced (Table 19).

**Table 19: Marital Status, Patron Survey 2005 (n = 618)**

	Cascades		Edgewater		Fraser Downs Gaming Centre		All Venues	
Married	103	(49.05%)	103	(52.55%)	135	(63.68%)	341	(55.18%)
Living with a partner	36	(17.14%)	19	(9.69%)	22	(10.38%)	77	(12.46%)
Widowed	14	(6.67%)	4	(2.04%)	14	(6.60%)	32	(5.18%)
Divorced	21	(10.00%)	14	(7.14%)	16	(7.55%)	51	(8.25%)
Separated	10	(4.76%)	10	(5.10%)	7	(3.30%)	27	(4.37%)
Never married	26	(12.38%)	46	(23.47%)	18	(8.49%)	90	(14.56%)
<b>Grand Total</b>	<b>210</b>	<b>(100.00%)</b>	<b>196</b>	<b>(100.00%)</b>	<b>212</b>	<b>(100.00%)</b>	<b>618</b>	<b>(100.00%)</b>

The sample skews slightly more toward younger patrons than the BCLC survey (Table 20). However, because both surveys used quota samples, the differences may be an artefact of such current events as, for example, whether or not a tour group of seniors was present.

**Table 20: Age breakdown, Patron Survey 2005 (n = 602)\* and BC Lottery Corporation Data<sup>t</sup> (n = 630)**

Age Group	Patron Survey (n (%))	BC Lottery Corporation (%)
19 – 34	109 (18%)	15%
35 – 54	227 (38%)	30%
55+	266 (44%)	55%

Just over half the sample (57.8%) reported family incomes of less than \$60,000 (Table 21).

**Table 21: Reported Family Income, Patron Survey 2005 (n = 564)**

	Cascades		Edgewater		Fraser Downs Gaming Centre		All Venues	
Under \$30,000	35	(18.82%)	39	(21.20%)	42	(21.65%)	116	(20.57%)
\$30,000 to under \$60,000	60	(32.26%)	73	(39.67%)	77	(39.69%)	210	(37.23%)
\$60,000 to under \$100,000	60	(32.26%)	46	(25.00%)	51	(26.29%)	157	(27.84%)
\$100,000 or more	31	(16.67%)	26	(14.13%)	24	(12.37%)	81	(14.36%)
<b>Grand Total</b>	<b>186</b>	<b>(100.00%)</b>	<b>184</b>	<b>(100.00%)</b>	<b>194</b>	<b>(100.00%)</b>	<b>564</b>	<b>(100.00%)</b>

Of respondents who reported their level of education, slightly over 40% have a high school education or less. Twenty eight per cent possess a university, college or graduate degree (Table 22).

\* - Thirty-four respondents either did not respond or provided invalid data. Numbers may therefore vary from table to table.

<sup>t</sup> - Numbers estimated from available data.

Table 22: Reported Education, Patron Survey 2005 (n = 604)

	Cascades		Edgewater		Fraser Downs Gaming Centre		All Venues	
Grade school/some high school	26	(12.62%)	19	(10.16%)	31	(14.69%)	76	(12.58%)
Completed high school	61	(29.61%)	41	(21.93%)	67	(31.75%)	169	(27.98%)
Post secondary technical school	20	(9.71%)	20	(10.70%)	23	(10.90%)	63	(10.43%)
Some college or university	46	(22.33%)	39	(20.86%)	43	(20.38%)	128	(21.19%)
Completed college diploma	23	(11.17%)	26	(13.90%)	29	(13.74%)	78	(12.91%)
Completed university degree	23	(11.17%)	33	(17.65%)	12	(5.69%)	68	(11.26%)
Post-grad	7	(3.40%)	9	(4.81%)	6	(2.84%)	22	(3.64%)
<b>Grand Total</b>	<b>206</b>	<b>(100.00%)</b>	<b>187</b>	<b>(100.00%)</b>	<b>211</b>	<b>(100.00%)</b>	<b>604</b>	<b>(100.00%)</b>

The vast majority of patrons (95.8% of those providing a residence) report BC as their current home, and the great preponderance of these live in the Lower Mainland. The remaining few are divided between elsewhere in Canada, the US, and International. These data match fairly closely with license plate counts done at the venues during the collection periods.

As would be expected in BC's Lower Mainland, patron ethnicity was varied. Table 23 lists reported ethnicity of patrons by frequency of response.

Table 23: Ethnic Group, Patron Survey 2005 (Up to four responses allowed)\*

	Cascades	Edgewater	Fraser Downs Gaming Centre	All Venues
Canadian	122	51	129	302
English	26	34	35	95
Scottish	14	17	13	44
Chinese	3	25	5	33
Irish	13	14	6	33
Aboriginal	8	16	3	27
French	10	7	9	26
German	12	7	6	25
Ukrainian	3	13	5	21
Filipino	2	12	6	20
Italian	4	5	5	14
American	3	6	4	13
East Indian	7	2	2	11
Scandinavian	4	4	3	11
Dutch	2	4	4	10
Polish	1	5	3	9
Japanese	0	6	2	8
Jewish	1	4	0	5
French Canadian	1	2	2	5
Korean	3	1	0	4
Austrian	0	1	2	3
Hungarian	0	3	0	3
Jamaican	0	1	2	3
Spanish	1	1	1	3
Welsh	0	2	1	3

\* - This table is based on responses from 549 patrons (80 patrons did not answer this question and seven wrote something that was considered invalid). However, it only includes ethnicities reported by more than two patrons. The ethnicities reported by only one or two patrons are: Arabic, Australian, Croatian, Estonian, Finnish, Greek, Icelandic, Laos, Lebanese, Lithuanian, Maltese, Mennonite, Mexican, Peruvian, Portuguese, Romanian, Turkish, and Vietnamese.

### Frequency of gambling

As a measure of gambling frequency, patrons were asked about how often they came to the facility. Table 24 illustrates that, in 2005, 53.9% of respondents attended their casino several times a month or more and 4.1% were daily gamblers. Conversely, 18.1% of respondents went once a month or less, and the rest were new or recent patrons. So, about half of respondents were “regulars.”

**Table 24: Reported Frequency of Coming to the Venue, Patron Survey 2005 (n = 629)**

	Cascades		Edgewater		Fraser Downs Gaming Centre		All Venues	
Daily	5	(2.33%)	13	(6.34%)	8	(3.83%)	26	(4.13%)
Several times a week	32	(14.88%)	38	(18.54%)	34	(16.27%)	104	(16.53%)
Several times a month	71	(33.02%)	67	(32.68%)	71	(33.97%)	209	(33.23%)
Once a month or less	51	(23.72%)	29	(14.15%)	34	(16.27%)	114	(18.12%)
Only been here a couple of times	36	(16.74%)	29	(14.15%)	31	(14.83%)	96	(15.26%)
This is my first visit	20	(9.30%)	29	(14.15%)	31	(14.83%)	80	(12.72%)
Grand Total	215	(100.00%)	205	(100.00%)	209	(100.00%)	629	(100.00%)

### Spending Patterns

We analyzed the amount spent on gambling by gaming frequency to determine any correlation between these variables. Trend data in Table 25 shows that when we compare several-time-a-week (the most frequent) gamblers with those going once a month or less (noted in blue italics), the amount spent per occasion indeed appears to increase with frequency of gambling. (New or recent comers’ data are difficult to interpret because we do not know their gambling history.) However the differences are not statistically significant.

**Table 25: Average Per Visit Spending on Gambling by Frequency of Gambling, Patron Survey 2005**

	Cascades	Edgewater	Fraser Downs Gaming Centre	All Venues
Daily	\$375.00	\$144.58	\$58.75	\$154.38
Several times a week	\$246.95	\$122.91	\$115.38	\$159.39
Several times a month	\$127.39	\$174.30	\$68.43	\$122.65
Once a month or less	\$81.57	\$95.00	\$89.85	\$87.46
Only been here a couple of times	\$100.28	\$99.14	\$65.33	\$88.89
This is my first visit	\$96.88	\$144.64	\$90.74	\$113.38
Grand Total	\$132.27	\$136.27	\$82.05	\$117.09

The median expenditure on food and drink per visit in 2005 was \$10 per visit (Table 26).

**Table 26: Expenditures on Food and Drink, Patron Survey 2005 \***

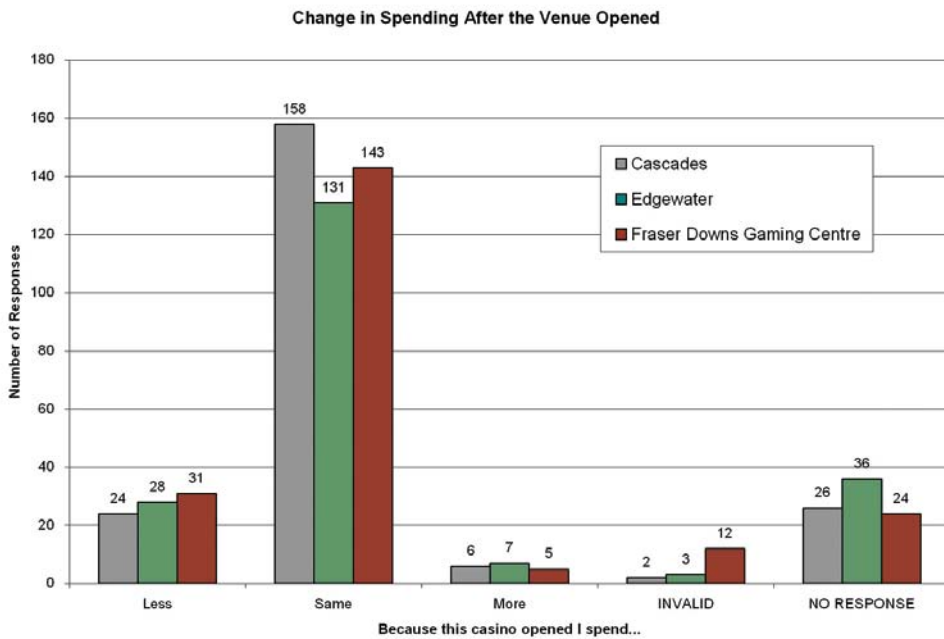
	Cascades	Edgewater	Fraser Downs Gaming Centre
Mean	\$16.26	\$18.66	\$ 17.88
Median	\$10.00	\$10.00	\$ 10.00
Mode	\$ -	\$ -	\$ 10.00
n	187	175	189

\* - Excludes no responses, invalid responses and responses that were dashes, which could be interpreted as either zero or no response.

Most patrons reported making no expenditures on accommodation while using the casino. This is expected since the vast majority of patrons report living in the Lower Mainland. Only about one in six respondents reported making any expenditures other than gambling, food and drink and accommodation while visiting the casino. These expenditures included outside food and drink, shopping, sightseeing, movies, entertainment, sporting events, and transportation. These numbers are not tabulated in this report but are available for comparisons with 2006 data in the final report.

Patrons at each of the three venues indicated whether they now gamble more, less or the same as a result of the facility being opened. Figure 1 displays these results. Of the surveys at all three venues, 83 respondents (13%) reported spending less on at least one item as a result of the facility opening. Clothes and food were the items most frequently named. On the other hand, 18 respondents (2.8%) indicated they now spend more on other things, food being the most frequently named item. These figures exclude patrons who checked more than one response to the question, such as someone who checked they spend both more and less because the casino opened.

Figure 1: Impact of New Facilities on Gambling, Patron Survey 2005



A lower proportion of patrons reported an increase in their gambling as a result of the new venues than did the gamblers among the sample in the RDD Survey. This finding is perhaps attributable to the fact that about half of the Patron Survey respondents are regular gamblers anyway, while the RDDs sampled the general public.

In order to assess possible relocation and repatriation of gambling produced by the new venues, patrons were asked to name their favourite place to gamble before and

after the facility opened. Table 27 illustrates that indeed, the new venues have produced some repatriation from Washington State and Las Vegas/Reno, and some relocation from other Lower Mainland venues. These results are congruent with those reported in the RDD Survey. By reading the rows left to right for each casino (colour coded), one can view the numbers of patrons who relocated or repatriated from other venues, where they relocated from, and how many in total relocated.

Table 27: Favourite Place to Gamble Before and After Venue Opened, Patron Survey 2005 (n = 591)

	FAVORITE BEFORE																Grand Total
	Cascades	Edgewater	Fraser Downs Gaming Centre	Great Canadian Casino Coquitlam	River Rock Richmond	Royal City Star New Westminster	Another casino in the Lower Mainland	Another casino in BC	Another casino in Canada	A casino in Washington State	A casino in Las Vegas or Reno	Another casino in the US	Non casino	Other	Did not gamble before	MULTIPLE	
FAVORITE AFTER	Cascades	1	2	8	14	10	10	1	3	4	17	4	4	19	20	113	
Edgewater	1			7	13	4	7	3		5		3	1	9	15	9	77
Fraser Downs Gaming Centre			8	14	7	14		1	2	17	14		4	11	17	2	111
Great Canadian Casino Coquitlam				11	1	1	1			1				1	1	1	18
River Rock Richmond				2	27	4	2			1	3		1	4	11	1	56
Royal City Star New Westminster						5										2	7
Another casino in the Lower Mainland							2										2
Another casino in BC						1		3		1							5
Another casino in Canada									4								4
A casino in Washington State				2						20	1				3		26
A casino in Las Vegas or Reno				4	4	1		2	1	1	29			3	13	2	60
Another casino in the US												1					1
Non casino										1		1					2
Other													1	2			3
MULTIPLE			1	9	8	6		1		5	6			4	33	8	81
INVALID				3		3	1	2	1	1	2			6		6	25
<b>Grand Total</b>	<b>2</b>	<b>2</b>	<b>17</b>	<b>66</b>	<b>70</b>	<b>49</b>	<b>14</b>	<b>15</b>	<b>8</b>	<b>49</b>	<b>80</b>	<b>1</b>	<b>13</b>	<b>2</b>	<b>59</b>	<b>31</b>	<b>591</b>

## PART III: INTERVIEWS

### Methodology

In this segment, the study used three types of interviews: drop-in orally administered, telephone, and group. Analysis of these interviews focused more on what informant group members said about what they observed and thought about casino impacts than on attempting to quantify responses.

Drop-in interviews were conducted with businesses in the immediate vicinity of each of the three venues. In these interviews, proprietors or managers were asked in what ways, if any, the new venue affected their businesses. This included quantity and kind of business, effects on space and employee needs, and effects, if any, of traffic congestion in the area – a concern commonly expressed about casinos.

Telephone interviews were conducted with the RCMP or Vancouver Police, to obtain information on what ways, if any, the casinos have affected police work. This included traffic issues, petty crime, theft, fights, loitering, and the range of possible problems resulting from the casinos opening. Interviews were conducted with the people identified by the local police force as being the person most likely to have such information.

The group interview approach was used with the other two informant groups: city planners and contracted problem gambling counsellors. In the former, the interview was conducted with four city planners representing the cities of Vancouver, Surrey, Langley and the Township of Langley respectively. Planners discussed the processes involved in planning and building the casinos and the perceived impacts of the casino on their communities. In the latter,

the interview was conducted with nine counsellors representing the contracted problem gambling counsellors operating in the Lower Mainland and having sufficient experience to be able to make temporal comparisons. This interview focussed on the experiences of the counsellors with their clients regarding the new gaming venues.

### Drop-in Interviews

Drop-interviews were conducted with representatives of 26 businesses in the three neighbourhoods containing a new or expanded gaming venue. The types of businesses surveyed include restaurants, pawnshops, hotels, gas stations and stores. Another eight businesses that otherwise would have been approached were closed when the surveyor was in the area. In nine other cases, the manager was unavailable or it was too difficult to contact the manager over the phone. Two businesses refused to answer the survey because of a corporate policy not to participate in any survey. One manager contacted over the phone was busy and not interested in answering a survey. One manager refused to participate. However, the interviews conducted provide a rough cross section of businesses in the immediate vicinities of the three venues studied.

### Settings

The Edgewater Casino (Figure 2) sits near downtown Vancouver, Yaletown and Chinatown, isolated by two stadiums (BC Place and General Motors Place), major roads (the Cambie Bridge and the Georgia viaduct) and False Creek. Considerable construction was taking place near the venue at the time of the drop-in interviews.

Figure 2: Edgewater Casino with Drop-In Interview Area Highlighted In Red



Drop-in interviews were conducted on November 9 and December 7, 2005 with businesses in the Plaza of Nations complex as well as businesses that used the nearby dock. There were several unoccupied stores in the Plaza of Nations complex; however, these were empty before the casino opened. Since very few businesses were located near the Edgewater Casino, it was difficult to find suitable business people to interview. Subsequently, only two businesses were interviewed. To protect the confidentiality of the businesses in this small sample, their comments will be incorporated into the results for all three venues.

Cascades Casino (Figure 3) is located in the core of Langley city centre, surrounded by a dense business district. Most of the 14 interviews for this venue took place on or near Fraser Highway, the major artery adjacent to Cascades.

Figure 3: Cascades Casino With Drop-In Interview Area Highlighted In Red



Most of the land around Fraser Downs Gaming Centre (Figure 4) is residential or green space. At the time of the interviews, major road construction was taking place along the major cross street and two major property developments were underway in the area. Therefore, most interviews were held a bit further from the venue than in the case of Cascades and Edgewater Casinos. However, of the three venues, Fraser Downs Gaming Centre has been in operation the longest. Ten interviews were completed near Fraser Downs.

Figure 4: Fraser Downs Casino With Drop-In Interview Area Highlighted In Red



## Analysis

All businesses surveyed were open before the casino opened and 25 out of 26 were aware of the new venue in their neighbourhoods.

The majority of businesses surveyed reported seeing no change in their commerce as a result of the new gaming venue. Several did note changes in commerce but attributed those changes to other factors, such as trends in their industry specific business cycle, closure of a competing business in the area, the NHL hockey lock-out, new shopping developments in the area, and/or on-going road construction.

Three businesses noted a decrease in business due to the casino. Reasons given included 1) the fact that patrons did not need to buy anything outside the casino, and 2) that the casino attracted “undesirables.” Five businesses noticed an increase in customers from outside the community since the local venue opened. These trends need to be followed in the next wave as the issue of positive and negative impact on local business is central to this study.

Over half of the businesses noted an increase in “busyness” (defined as traffic congestion and confusion) since the casino opened. This was the case especially near Cascades Casino, where 10 of 14 businesses noted an increase in busyness. Near Fraser Downs, four respondents noted an increase in busyness in their neighbourhood attributed to the casino, two noted an increase but did not feel that it was related to the casino, and 3 thought congestion in the area had remained about

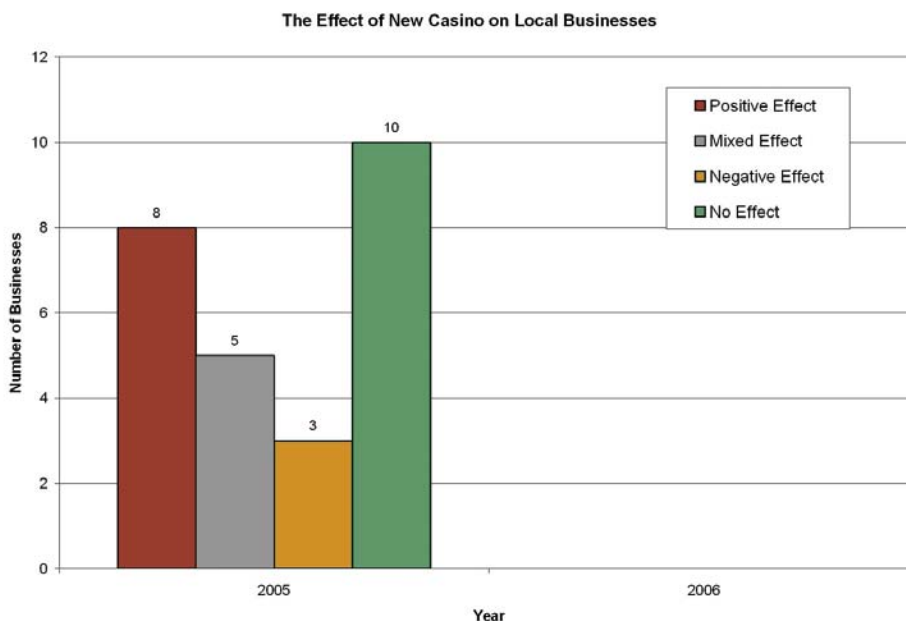
the same. No respondent from any venue reported a decrease in busyness since the venue opened. It will be interesting to compare these responses to those in 2006 in order to determine longer-term trends.

The majority of businesses (22 out of 25) reported no other problems than busyness associated with the nearby casino. Two businesses mentioned an increase in counterfeit bills since the casino opened and one of these also attributed vandalism and graffiti to the casino. Also, one business manager complained that his employees now go to the casino during business hours which he did not like.

When asked how the casino would affect their businesses (Figure 5), 10 of the 26 respondents thought the casino would be “neither positive nor negative.” Eight business representatives thought the new casino would have a positive effect on their business in the future, making such comments as “it’s another attraction,” “any business is positive” and “it does attract people from other parts of the city.” Several managers reported believing that while the casino had not yet had a positive impact, eventually the increase of people in the area would improve their business. Five business representatives gave a mixed reaction (i.e., the casino would have both positive and negative impacts). Their comments included that the casino “brings in good and bad customers”, that “more people come down,” and that “the casino might take away some business”.

Three business managers believed that the casino would have an overall negative effect on their business, naming concerns about crime or poverty they believed would stem from the casino.

Figure 5: Local Business Response to How Casino Would Affect Business



While these comments are somewhat subjective, they do describe how business people at “ground zero” feel about the venues. However, given that two of the venues were quite new at the time of the interviews, it is still early to tease out any distinct impacts of the casinos relative to day-to-day trends. By November 2006, when the next round of drop-in interviews is scheduled, the respondents will have more experience with which to judge the impact of the casino on their businesses.

### Police Interviews

The Vancouver Police Department, and Langley and Surrey RCMP, were contacted and a representative from each was identified as a key spokesperson to discuss impacts, if any, of each respective venue. In all three cases, the informants reported that from a police perspective, little or no problems have arisen from the venues. Comments included: “No, the casino hasn’t caused any

problems,” “We get calls very rarely from them,” “The casino security is very good and they can handle most problems themselves,” “The casino has been very low level for us,” and “We did anticipate some problems and they simply have not materialized.”

In the case of Edgewater, a neighboring nightclub has received considerable police attention, but as yet the police have noted no impact of the casino itself in exacerbating problems in the area.

As of 2005, the venues have not appeared substantially on the police “radar,” suggesting that they are creating little direct and visible disturbance or crime at a level noticeable to police. It is interesting to note that the police reported that they somewhat expected and prepared for some impact, but that that impact has yet to be seen. Most of this appears attributable to tight casino security.

### City Planners Group Interview

One city planner from each of the four communities participated in a group interview to determine the impacts of the casinos on the communities from the perspective of local government. The comments of city planners are provided as one in order to increase confidentiality.

- All communities, except The Township of Langley, receive compensating monies from the casino operation and this is viewed as very positive. Edgewater Casino has not met revenue expectations.
- The projects involved a long and difficult process involving a divided public, requiring considerable public meetings, and careful planning, especially in Vancouver. However, in the case of Cascades, competition between communities led in one case to a rapid bidding and development process.
- The process of planning for the casinos involved a learning curve for city staff.
- Planning started a number of years before construction.
- Consideration to build a casino is often a time sensitive opportunity.
- Pre-operational agreements are complex and require considerable human resources.
- Publicly expressed opinion of citizens remains somewhat negative toward casinos. This was very evident in the Langleys but was also true in Surrey and Vancouver. In some cases, organized opposition led to legal costs.
- In the case of Fraser Downs, the Gaming Centre was viewed as a way to reinvigorate the racetrack, and it has done so.
- In all cases, few, if any, negative social impacts were noted.

- Planners noted that the market is over-saturated especially in and near Vancouver city, and so new venues are not doing as well there.
- Cascades is running 40% above revenue estimates and Fraser Downs in "on track."
- Since gaming is so highly regulated, no corruption has been noted.

Most of the comments of city planners related to matters that at first glance would be primarily economic. However, planners connected the desire to increase business and revenue with subsequent improvement of community services and employment. Principal trends in responses of city planners included a sense of current or pending over-saturation of the market, a high level of competition between municipalities to attract venues leading to expedited planning processes, and considerable public commentary and concern from conception to post-completion.

### Problem Gambling Counsellors Group Interview

To provide one means of determining the possible impacts of the new venues on the most vulnerable group – persons prone to develop or already coping with a gambling problem – a group interview was held with nine of the contracted problem gambling counsellors in the Lower Mainland, representing various catchment areas and cultural groups. The key topic discussed was the observed impacts, if any, of the specific venues on problem gamblers as observed by these practitioners.

Prefacing their discussion about impacts, the counsellors pointed out that the typical problem gambler experiences many

problems in his or her life, not all of which stem from gambling. The psychosocial vulnerabilities of this group, they assert, make these individuals particularly susceptible. For example, loneliness and depression can make an individual prone to spend time in an environment where he or she feels welcomed, comes to know the people, and is treated warmly. This is the environment of any casino, not just those being studied. This overall comment frames the comments of counsellors regarding the new venues.

### Observed Impacts of the New Venues

The counsellors commented on impacts of the new venues from direct experience with clients. Counsellors reported limited visible impacts because, in their own words, “the venues are new and [our] clients were already in trouble well before these facilities opened.”

Impacts noted by the group included:

- 1] A perceived increase in persons seeking mental health services in the Langleys due to the casino. Reasons given include the ready accessibility of the venue to nearby residential areas, especially low-income housing with persons without ready transportation, and that the casino is conveniently located and without nearby competition.
- 2] Pressure brought about by the perceived increase in availability and visibility of venues that, for problem gamblers, create enormous temptations. These include increased convenience of gaming facilities for those in the Fraser Valley, and increased visibility, especially in the case of Langley Cascades Casino.
- 3] Some risk of relapse because of this increased convenience and visibility.

## SUMMARY AND CONCLUSIONS

The 2005 wave of data collection introduces opportunities for comparison of attitudes and gambling practices over the past year. However, this remains a very short timeframe to analyze those social impacts that may take considerable time to develop, such as problem gambling or the generation of new business. The study is illuminating the fact that social impacts are very difficult to assess with confidence without long-term tracking and means to connect vital statistics specifically to gambling. Also, many of the findings of the social analyses bear on economic impacts, but more at the local level. The two strands of the study should not be viewed in isolation from one another.

We can draw a number of conclusions about the immediate social impacts of these venues through comparison of 2004 and 2005 RDD data and through information in the patron survey and interviews conducted in the weeks and months after two of the venues opened:

### General

At this stage, the new facilities appear to have:

- Had as yet a relatively small impact on overall gambling behaviour among the public in terms of frequency of play, type of game played, and expenditures.
- Accelerated the already changing patterns of gambling play and expenditures (e.g., more slot machine play, and private gambling such as poker) reflecting national trends.
- Increased the onset and quantity of gambling for a portion of the public, and

generated a number of new gamblers attributable to each venue. Whether or not this leads to increased gambling problems is yet to be seen and may need to be the focus of a concentrated, long-term study. This appears especially true where no local venue existed before.

- Reduced somewhat the incidence of reported external (e.g., Washington and Nevada states) gambling activities. This may have in turn repatriated a portion of the gambling expenditures from other jurisdictions to the local community, principally from Las Vegas and Reno. This would be money recaptured.
- Produced movement of spending within the Lower Mainland from one casino to another, with some existing venues appearing to experience patron losses to the new venues. This does not constitute a benefit other than convenience to the individual patron, and possible local benefits from revenues.
- Increased the convenience of venues to persons wishing to gamble. This is especially true in the Fraser Valley, where many patrons were first time gamblers.
- Provided new venues for the majority of gamblers who gamble in moderation.
- Contributed to redistribution of gambling expenditures, especially in Vancouver. This constitutes an economic issue that will need to be examined more closely in the next wave.
- Slightly increased negative attitudes about the harms of gambling for society. Clearly, attitudes toward gambling in all four communities continue to trend toward the negative. However, mixed attitudes toward the specific venues suggest these feelings are directed more at gambling as a practice than toward individual facilities. To what extent

negative attitudes comprise a social impact is difficult to judge. However, where attitudes become sufficiently negative, a public backlash becomes more likely.

- Not changed significantly the general prevalence of problem gambling in any community.
- As yet, neither increased nor decreased commerce near the venues. This will be more accurately determined in the overall economic analysis; local impacts in this section were asked in a primarily social context.
- No discernable impact on disruption, crime, and traffic problems. Neither area businesses nor law enforcement have noted much negative impact at all in these areas, at least as of fall 2005. This does contradict concerns raised in public media prior to these venues opening.
- Not produced measurable tourism from outside the province, although this cannot be assessed accurately by collecting information for only a few weeks a year. At present, it appears the overwhelming majority of patronage is local. This is a prime example of an impact likely to become measurable only after considerable time, exposure, word of mouth, and advertising.
- Not produced a significant increase in problem gambling incidence or prevalence in the four communities studied.

### Problem Gambling

Because problem gambling makes up perhaps the single most negative social impact anticipated by readers, we separate our discussion of it from the general discussion above.

At this point, we cannot say with certainty that the new venues are exacerbating problem gambling in the Lower Mainland or in BC. However, we do note a number of trends:

- 1] The RDD survey does not show a significant increase in the incidence of problem gambling in the three communities studied.
- 2] Problem gambling counsellors note a possible slight increase in problem gamblers, reporting that the onset of their problem may be due to new venues, notably Langley.
- 3] The venues appear to have produced new gamblers, judging from both RDD Survey and Patron Survey data showing that in each venue, some people are now gambling at the venues that previously did not gamble. It is possible that some of these new gamblers may develop problems.
- 4] The economic analysis includes a finding that calls to the problem gambling help line have increased coincident with the opening of the new venues. Without further determination of past and present gambling patterns of these individuals we cannot infer causation, but we do need to follow this trend. It is possible that the increase relates more to extensive media coverage of problem gambling, such as that in the Vancouver Sun in 2005, than it does to the new venues. We will see what 2006 brings in this regard.

# ECONOMIC IMPACTS

## INTRODUCTION

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In keeping with the multi-perspective approach, different methods will be used in five main economic analyses ranging from econometric estimation to accounting methods:

- Estimating the economic multiplier effect
- Analyzing the economic impacts on the labour force
- Analyzing the economic effects on industry
- Estimating direct and indirect government revenue and costs
- Examining the money flow of gaming facilities in terms of investment capital and profits in and out of the community and in and out of the province.

## PART I: ESTIMATING THE MULTIPLIER EFFECT

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Estimating the economic multiplier associated with the introduction of casino-style gaming depends on comparing employment data before and after the venues opened. Only a demonstration model which uses proxy variables to replace yet-to-come employment data can be used at this time since most of the gaming facilities were opened after the most recent data was collected and made available.

## What is a “Multiplier”?

The multiplier effect is the central challenge in assessing the economic impact of introducing casino-style gambling to a community. The multiplier is the ratio of total economic effect on a local economy to the direct gaming venue investment. There are different types of multipliers including the employment multiplier, the income multiplier, and the government revenue multiplier. This study will focus on the employment multiplier to gauge the net new jobs and earnings created by the establishment of a new gaming venue.

Employment related to the introduction of casino-style gambling includes:

- Direct employment at the gaming venue (gaming)
- Direct employment at the gaming venue (non-gaming)
- Direct employment in the construction of gaming facilities, and upgrading & maintenance of the facilities.
- Indirect employment in complimentary sectors such as hotels, restaurants, etc.
- Direct employment in corporations servicing the gaming industry, such as gaming equipment providers.

## Economic Impact Factors

Economic impact studies typically cite two offsetting factors for the economic impact of a gaming facility: crowding out and export growth. The relative weight of these factors determines whether a community will prosper or decline as a result of the gaming facility.

## Crowding Out

It is argued that the multiplier effect does not hold true for casino-style gambling because money spent by gaming facility patrons would otherwise be spent in other local establishments. According to this argument, gaming facilities crowd-out other businesses (Grinols and Omorov, 1995). The one exception occurs when patrons come from outside the municipality, bringing “outside money” into the local economy.

Considered on a province-wide scale, if the province were to reach a point of gaming saturation, crowding out could then become a factor. The first gaming facility in the province may attract many outside-community patrons while the tenth gaming facility may attract only patrons for whom the gaming facility is closest. Therefore, the multiplier estimation model will include an explanatory variable that will represent the distance away from other casinos.

## Export Growth

The export hypothesis suggests that communities that attract a larger number of patrons from outside the community will have a greater impact on the local economy (Ryan et al, 1999) because they are “exporting” their product, gaming. However, Walker and Jackson point out that export is not the sole determinant of growth, giving the example of the world economy, which has grown enormously without exporting anything. From this we would expect municipalities that attract a larger number of patrons from outside the local community to have a larger multiplier than those that cater more to local patrons, but we would not assume export to be a necessity for a multiplier greater than 1.

Results of patron surveys will identify out-of-community patrons to estimate the export growth factor. Whether a gaming facility will drive out other business or cause

the community to grow as a whole will be measured within a multiplier regression model based on total employment in a community over time.

### Baseline Reports Related to the Multiplier Model

Figure 6: Existing Slot Machine Facilities as of 2005

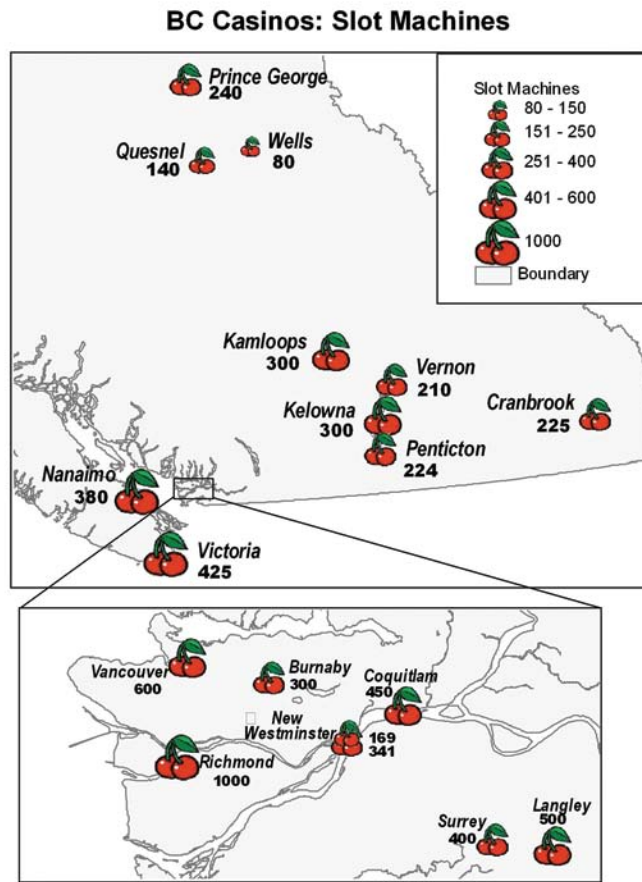
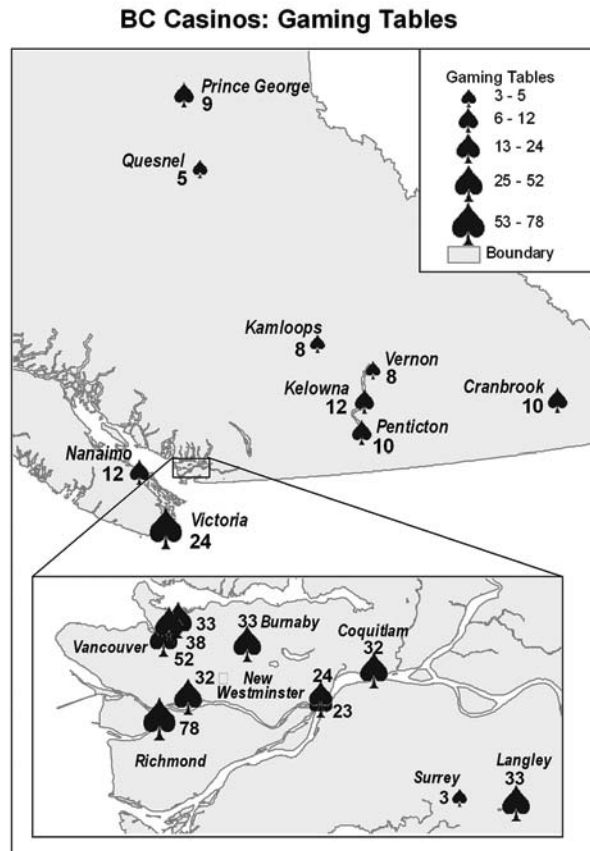


Figure 7: Existing Gaming Tables as of 2005



## Estimation Model for Gaming Facility Multiplier

### Method

The study used a multiple regression model to estimate the employee multiplier. The indirect effects (and thus total effect) are estimated using the multiple regression model:

Where:

$i$  represents each of the three study communities (in the Langleys, Surrey, Vancouver) and  $t$  represents 30 time periods (unit=months, January 2003 through June 2005)

$\beta_0$  is an intercept

$\beta_1$  is the employment multiplier associated with gaming facility and is the key focus.

$\beta_2$  is the coefficient for the lagged dependent variable representing persistence in total employment over time.

$\beta_3$  is a linear time trend (1 through 30), eliminates the problem of autocorrelation (autoregressive component).

$\beta_4$  is the coefficient for employment shocks associated with industries that experience change during the time period.

$e_{it}$  is a random error term which embodies all variation in employment not accounted for in the econometric model. This is random error is assumed to be normally distributed without statistical bias with the other model variables.

We used BC Stats data to estimate Total Employment. The proportion of each municipality's population that is in the labour force from the 2001 census is applied to each respective municipality's monthly extrapolated population. This gives us an estimate of the total labour force, by month, in each municipality. Total Employment is then derived by applying the per cent of the labour force not collecting Employment Insurance benefits.

Because of the reporting frequency of population and EI beneficiary data at the municipal level (annually and quarterly, respectively), the ideal multiplier estimation model would use quarterly time periods. However, due to the recent opening dates of Edgewater and Cascades combined with data lags, a quarterly model would not provide any complete time periods with all three casinos opened.

### Interpretation

Because of the small number of observations and available data in the period after gaming venues were introduced, no statistically valid multiplier estimates are available. Results will be presented in the final impact analysis.

Based on evidence in recent literature, we expect the casino employment multipliers to be greater than 1 in each of the municipalities and possibly as high as 2 or 3. To illustrate, a multiplier of 2 means for each 1 casino employee the total employment in the municipality increases by 2 employees. A multiplier of less than one but greater than zero means that casino employment increased overall employment for the community but may have crowded out some other employment in the community.

## PART II: ANALYZING ECONOMIC IMPACTS ON THE LABOUR FORCE

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### Approach

The economic impacts of new gaming facilities on the local labour force will be addressed through descriptive statistics. In addition to examining data trends in municipalities before and after the introduction of a new gaming venue, study communities will be compared with matched control communities. The ultimate goal of using matched control communities is to compare the change in labour force characteristics in gaming venue and non-gaming venue communities. This will effectively isolate labour force effects associated with the introduction of a new gaming venue.

Changes in the following labour force characteristics will be presented and compared:

- Per capita income
- Employment rates
- Participation rates
- Wage rates

The control communities will consist of directly matched communities based on the criteria listed below, as well as a BC average of all non-study communities. See Appendix C for a list of characteristics on which communities will be matched. The municipality of Vancouver will not have a directly matched control community. It will be compared to the BC average of all non-study municipalities.

### Employee Survey

One aspect of the economic impact on labour force is to differentiate between gaming venue employees who were previously unemployed and those who switched from other employment. Similarly, it is useful to record whether gaming venue employees experienced an increase in income due to their change in employment. To gather this information, an employee survey was conducted at each of the new gaming facilities.

Casino employee surveys were completed at Edgewater Casino in Vancouver during the first week of June, 2005. The survey focused on getting a better understanding of the employment history, comparative wage rate, and residency location of each employee. All employees registered with the Gaming Policy Enforcement Branch were asked to fill out a survey; there were 286 respondents. The questions and embedded results for this survey are on the following 3 pages.

## Casino Venue Employee Survey 2005

Please Do Not Write Your Name

### Background

We are conducting a survey on behalf of the Government of BC and Lower Mainland Municipalities on the social and economic impacts of gambling. The information gathered in this survey will assist the province and municipalities in understanding the economic and social effects of casinos. Your individual responses will be kept completely confidential and your name and phone number will not be attached to any responses.

### Question 1

Are you registered with the G.P.E.B.?

- Yes  
 No

Number of people registered with the GPEB?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Number of people registered:	<b>286</b>	(100.00%)	<b>171</b>	(98.28%)	<b>99</b>	(99.00%)	<b>556</b>	(99.29%)
Number of people not registered:	<b>0</b>	(0.00%)	<b>1</b>	(0.57%)	<b>1</b>	(1.00%)	<b>2</b>	(0.36%)
Unknown/invalid:	<b>0</b>	(0.00%)	<b>2</b>	(1.15%)	<b>0</b>	(0.00%)	<b>2</b>	(0.36%)

### Question 2

On average, how many hours per week do you work? \_\_\_\_\_

	Edgewater	Cascades	Fraser Downs Gaming Centre	All Venues
Average number of hours spent working per week:	37.25	38.97	35.43	37.46

### Question 3

Which of the following best describes your employment status immediately before you started working at this gaming facility?

- Unemployed (skip to question 6)  
 Working Full-time  
 Working Part-time

Employment Status prior to working at the casino?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Unemployed:	<b>24</b>	(8.39%)	<b>11</b>	(6.32%)	<b>8</b>	(18.00%)	<b>43</b>	(7.68%)
Part-time:	<b>58</b>	(20.28%)	<b>137</b>	(78.74%)	<b>58</b>	(58.00%)	<b>253</b>	(45.18%)
Full-time:	<b>204</b>	(71.33%)	<b>25</b>	(14.37%)	<b>32</b>	(35.00%)	<b>261</b>	(46.61%)
Unknown/invalid:	<b>0</b>	(0.00%)	<b>1</b>	(0.57%)	<b>2</b>	(2.00%)	<b>3</b>	(0.54%)

**Question 4**

What industry were you employed in immediately before your employment with this gaming facility?

- Entertainment
- Accommodation or Food Services
- Other

What Industry Employed in Previously?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Accommodation/Food Services:	<b>31</b>	(10.84%)	<b>25</b>	(14.37%)	<b>27</b>	(27.00%)	<b>83</b>	(14.82%)
Entertainment:	<b>70</b>	(24.48%)	<b>36</b>	(20.69%)	<b>11</b>	(11.00%)	<b>117</b>	(20.89%)
Other:	<b>170</b>	(59.44%)	<b>100</b>	(57.47%)	<b>49</b>	(49.00%)	<b>319</b>	(56.96%)
Unknown/invalid:	<b>15</b>	(5.24%)	<b>13</b>	(7.47%)	<b>13</b>	(14.00%)	<b>41</b>	(7.32%)

**Question 5a**

How does your current compensation compare to your previous job?

- Current job pays more
- Current job pays less
- About the same (skip to question 6)

How does your current job pay compared to previous?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Number pay more:	<b>89</b>	(31.12%)	<b>91</b>	(52.30%)	<b>11</b>	(11.00%)	<b>191</b>	(34.11%)
Number pay less:	<b>125</b>	(43.71%)	<b>28</b>	(16.09%)	<b>50</b>	(50.00%)	<b>203</b>	(36.25%)
Number pay the same:	<b>56</b>	(19.58%)	<b>41</b>	(23.56%)	<b>30</b>	(30.00%)	<b>127</b>	(22.68%)
Unknown/invalid:	<b>16</b>	(5.59%)	<b>14</b>	(8.05%)	<b>9</b>	(9.00%)	<b>39</b>	(6.96%)

**Question 5b**

Including tips/gratuities, approximately what percent more/less does your current job pay than your previous job? \_\_\_\_%

Average % more or less (pay)?	Edgewater	Cascades	Fraser Downs Gaming Centre	All Venues
Of respondents who noted current job pays less:	24.4%	51.4%	24.3%	27.9%
Of respondents who noted current job pays more:	30.8%	34.9%	27.7%	31.6%

**Question 6**

Did you move from a different municipality for this job?

- Yes
- No

Did you move from a different municipality for this job?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Number yes:	<b>55</b>	(19.23%)	<b>64</b>	(36.78%)	<b>13</b>	(13.00%)	<b>132</b>	(23.57%)
Number no:	<b>231</b>	(80.77%)	<b>106</b>	(60.92%)	<b>86</b>	(86.00%)	<b>423</b>	(75.54%)
Unknown/invalid:	<b>0</b>	(0.00%)	<b>4</b>	(2.30%)	<b>1</b>	(1.00%)	<b>5</b>	(0.89%)
Total:	<b>286</b>	(100.00%)	<b>174</b>	(100.00%)	<b>100</b>	(100.00%)	<b>560</b>	(100.00%)

### Question 7

Do you live in the municipality where this gaming facility is located?

- Yes  
 No

Do you live in the same municipality as this gaming facility?	Edgewater		Cascades		Fraser Downs Gaming Centre		All Venues	
Number yes:	<b>163</b>	(56.99%)	<b>63</b>	(36.21%)	<b>63</b>	(63.00%)	<b>289</b>	(51.61%)
Number no:	<b>123</b>	(43.01%)	<b>107</b>	(61.49%)	<b>36</b>	(36.00%)	<b>266</b>	(47.50%)
Unknown/invalid:	<b>0</b>	(0.00%)	<b>4</b>	(2.30%)	<b>1</b>	(1.00%)	<b>5</b>	(0.89%)

### End

Thank you for your time and effort. Your responses will be beneficial in assisting the province, municipalities and the BC lottery corporation in future planning.

The following salient results can be derived from the Edgewater casino employee survey:

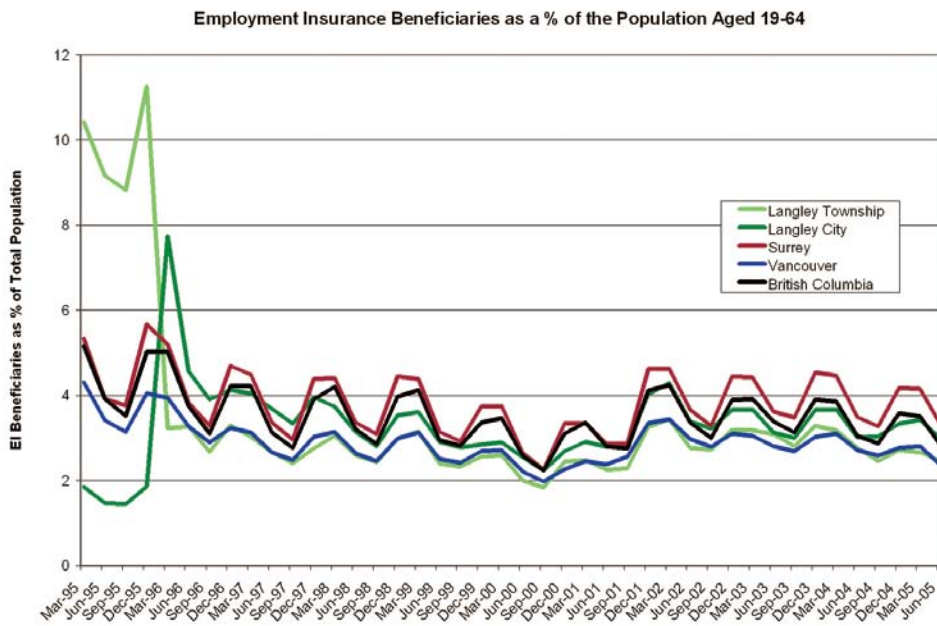
- Over half of the employees in the study casinos were previously unemployed or less than full time employed.
- The average hours worked indicates that most casino employees are employed full time by the gaming facility.
- Across the three gaming venues, more employees stated a wage decrease than did a wage increase
- Employees who experienced a wage increase experienced a higher increase than those who experienced a wage decrease
- 23.57% of employees moved to the municipality to work at the casino
- About half of casino employees live in the municipality in which they work

### Baseline Reports Related to Labour Force

The economic multiplier model will be based on total employment. Due to data gaps and lags at Statistics Canada, a substitute measure will be constructed using employment insurance beneficiaries as a per cent of the population aged 19-64, and population age/gender projections held at BC Statistics. BC Statistics data on industry shocks will also be used in the multiplier model.

The graph on employment insurance beneficiaries in the study communities (Figure 8) indicates considerable seasonal variation in employment. Therefore, the multiplier model has included a cyclical/seasonal adjustment. Also evident are BC-wide trends not related to gaming facility introduction. Again, the multiplier estimation model will adjust for this using BC trend data.

**Figure 8: Employment Insurance Beneficiaries in Study Communities Prior to Introduction of the New Gaming Facilities**



Source: Human Resources Development Canada Administrative Files and BC STATS Population Estimates. Prepared by: BC STATS. January 9, 2006.

## PART III: ANALYSING THE ECONOMIC EFFECTS ON INDUSTRY

### Approach

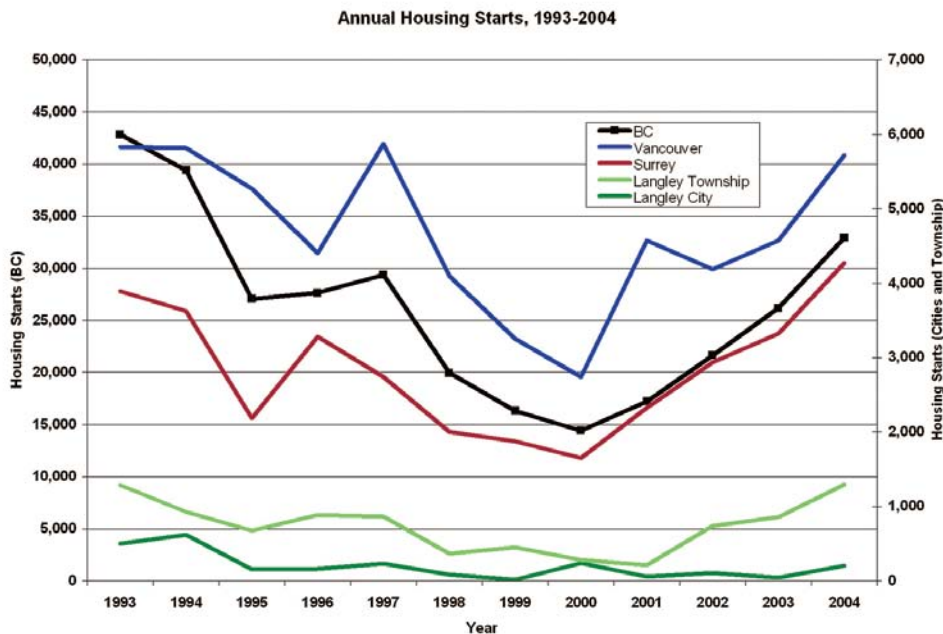
Measuring the effects on industry due to the introduction of casino-style gaming is best captured by comparing industry trends in the study communities to control communities. Control communities will be matched using the same criteria listed in Part II above. Pre and post-gaming venue introduction data will be used to measure the effects on tourism revenue, hospitality revenue (hotels, restaurants, etc), construction (residential and commercial), bankruptcies (personal and corporate), property values, and rental rates.

### Baseline Reports Related to Industry

#### Annual Housing Starts

One factor that can be used to measure economic activity or decline is housing starts. The following baseline trends indicate there is considerable variation over time and over communities that is unrelated to the introduction of a gaming facility (Figure 9).

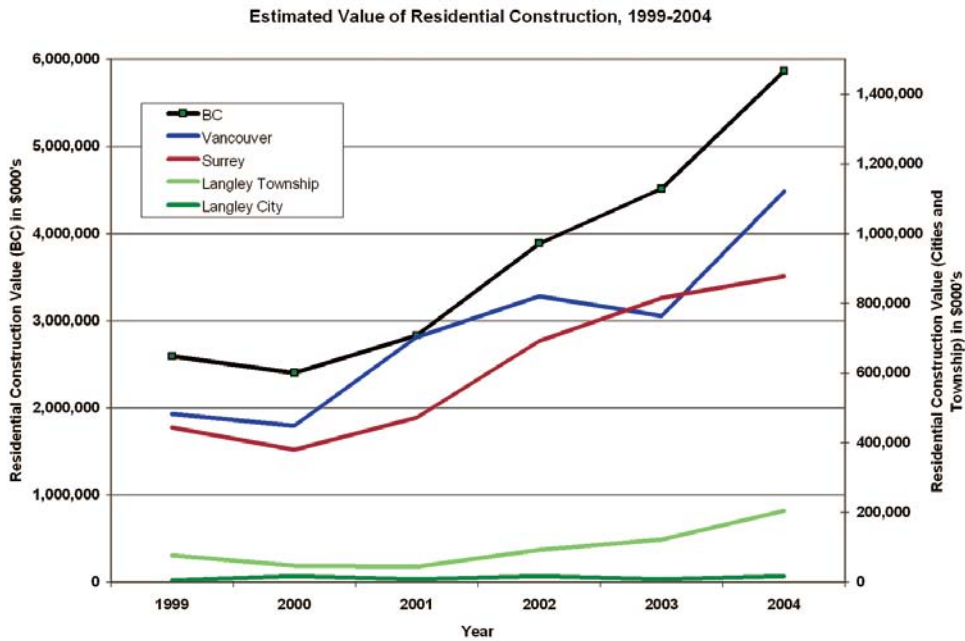
Figure 9: Annual Housing Starts 1993 – 2004



### Value of Residential Construction

Another similar factor that can be used to measure economic activity or decline, and which indicates a willingness to spend in the community, is the dollar trend of all residential construction. The following baseline trends indicate there is considerable variation over time and over communities that is unrelated to the introduction of a gaming facility (Figure 10).

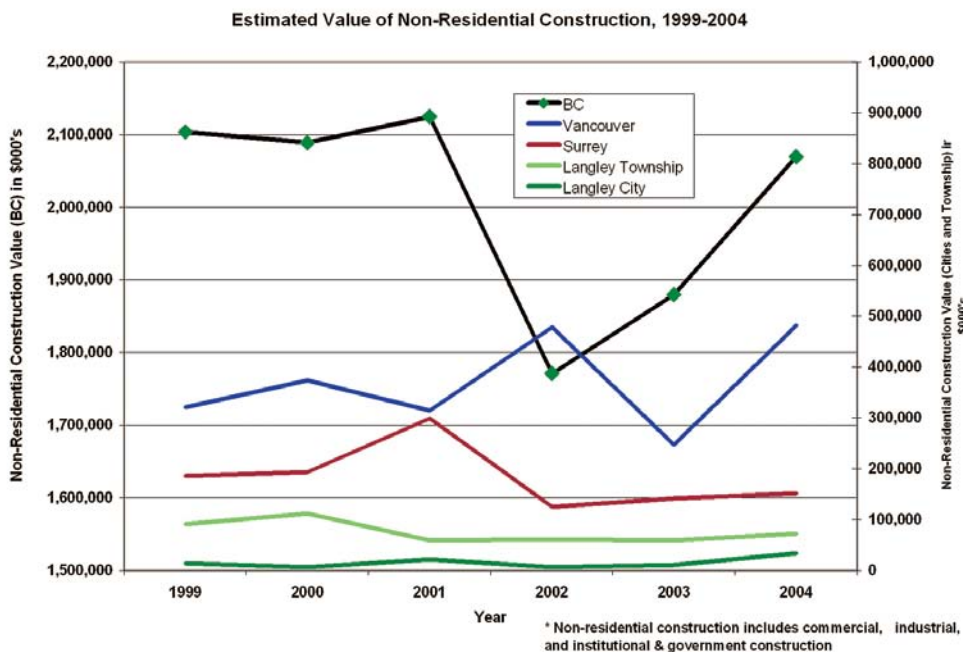
Figure 10: Estimated Value of Residential Construction 1999 - 2004



### Value of Non-Residential Construction

Finally, a factor that can be used to measure economic activity or decline, and which indicates a willingness to invest in the community, is the dollar trend of all non-residential construction. The following baseline trends indicate that there is considerable variation over time and over communities that is unrelated to the introduction of a gaming facility (Figure 11).

Figure 11: Estimated Value of Non-Residential Construction 1999 – 2004



## PART IV: ESTIMATING DIRECT AND INDIRECT GOVERNMENT REVENUE AND COSTS

### Approach

Estimating the effects on government finances is best approached as a multi-stage accounting undertaking. There are direct and indirect costs, as well as direct and indirect revenues to government. Some examples of direct revenues associated with a gaming venue include earned revenue, sales tax revenue, and income tax revenue, while indirect revenue would include the multiplier effect of new jobs and increased customer traffic for local businesses. Examples of direct costs include costs for advertising and licensing. Indirect costs may include costs for additional policing, infrastructure development, gambling addiction treatment, and possibly legal aid (pending data availability).

The disposition of government revenue received from gambling activities is an important consideration. Revenues may be collected provincially or federally, representing a net outflow of money from the municipality. Municipalities, however, will often receive a guaranteed percentage

of these revenues. This percentage is an important factor in determining the overall economic benefit of introducing a gaming venue into the municipality.

Policing costs – or savings – will be estimated by analyzing the number of criminal code offences in each policing jurisdiction. It is conceivable that the introduction of legalized gambling will produce an element of savings if there is a drop in the number of offences related to illegal gambling activity. It would be inaccurate to look solely at actual expenditures on policing, as an increase could be attributed to an increase in municipal tax revenue rather than an increase in crime.

### Baseline Reports Related to Government Costs

#### Government Revenues from Casino-Style Gaming Facilities

Gaming facility net income is distributed to various levels of government in order to pay for health and education services, as well as to provide revenue for community organizations and local economic development. While specific community amounts cannot be calculated prior to the introduction and operation of a gaming facility, casino net income for all of BC was as follows for 2004/05:

**Table 28: Distribution of Casino Revenues**

Distribution of Casino Revenues	Net Income 2004/05 (\$millions)
Total Revenue (Slots and table games)	\$893
Direct Expenses	\$307
Operating Expenses	\$ 70
Net Income	\$515
Government of Canada	\$ 5*
Government of British Columbia	\$457
Local host governments	\$ 53

\* Source: BC Lottery Corporation Annual Report 2004/05 pp. 7,8, 24, 25

*Note: Distribution of casino net income is approximate, based on percentage distribution of all BC Lottery Corporation net income, 2004/05.*

Host local governments receive 1/10th of the revenue generated by community casinos located in their jurisdiction and 1/6th of the revenue generated by destination casinos. The Province allocates revenue to the Consolidated Revenue Fund, Health Special Account, charitable and community organizations, development assistance compensation and the Problem Gambling Program, in addition to the Government of Canada and host local governments.

### **The Cost and Incidence of Treating Problem Gambling**

The Ministry of Public Safety and Solicitor General run programs that track real-time case management statistics for their Problem Gambling Help Line and treatment programs. As a result, this study is able to present current quantitative results with regards to the introduction of the new casino-style gaming venues.

### **Problem Gambling Help Line**

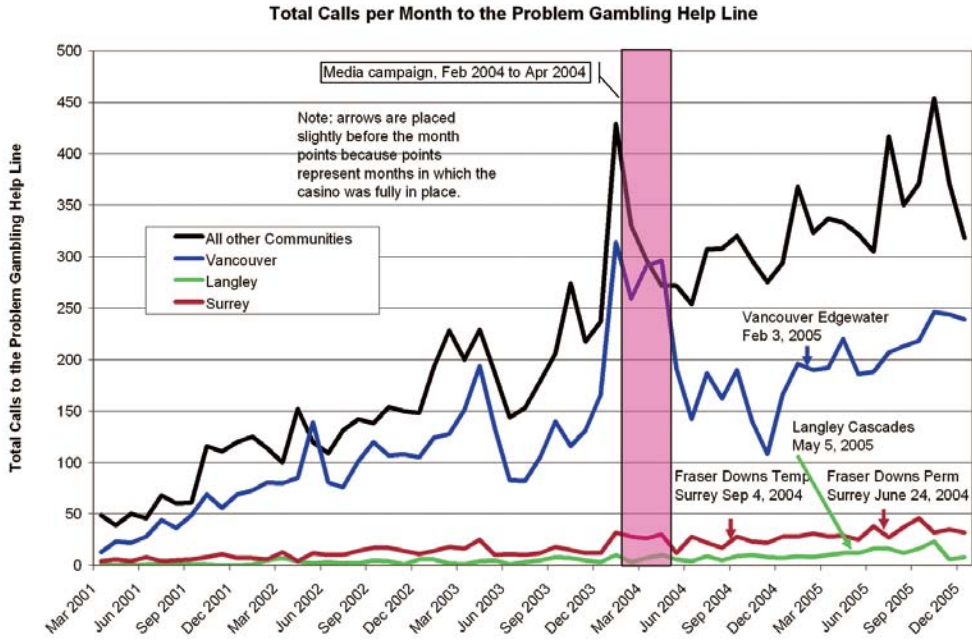
The Province provides \$4 M in funding for comprehensive problem gambling prevention and treatment services. These services include a toll-free, 24/7 Help Line providing information and referrals and crises intervention counselling. Treatment is delivered province wide by 40 counsellors through free outpatient counselling services (both individual and group therapy) for problem gamblers and those affected by someone else's gambling.

Prevention Services consist of prevention strategies targeted to at-risk populations and a range of awareness initiatives delivered to community groups, schools and allied professions.

Services are managed centrally but delivered province wide through contracts with professional counsellors and non-profit agencies.

The annual budget for the BC Problem Gambling Help Line is \$185,000. Calls to the problem gambling help line have increased steadily for all of BC for the last five years (Figure 12). Awareness and promotion of the issue of problem gambling and availability of services has dramatically increased since 2001, when the Help Line number began appearing on all lottery tickets. The spike in January 2004 to March 2004 coincides with the first provincial media campaign that ran from February to April. When analyzing study community trends beyond baseline data, adjustments will be made for BC wide trends. The volatility in this trend will affect the ability to obtain statistically significant conclusions. These data are categorized according city residence of the caller.

Figure 12: Total Calls per Month to the Problem Gambling Help Line



Note: 50% of calls to the Help Line are unrelated to problem gambling

### Statistical Inference for Calls to the Problem Gambling Help Line

How Inference is Performed:

To properly infer these results, a regression model was created and estimated for all of the problem gambling help line and treatment program indicators in each community where a casino venue was introduced. Each of these follows a similar form, the following is for the Langley facility:

Where:

“Calls<sub>t</sub>” represents the volume of (in this illustrative case) phone calls to the problem

gambling help line in a given year / month.

Intercept ( $\alpha$ ) is the y-axis intercept in the linear regression

Slope ( $\beta_1$ ) represents the rate of increase in calls over time

Shock estimate ( $\beta_2$ ) is the variable of interest, estimating the increase or decrease in monthly calls in the period when the Cascades venue is operational

Error term ( $\epsilon$ ) represents the random error term

**Table 29: Cascades Statistical Inference for Help Line Calls**

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept ( $\alpha$ )	-0.09	0.47	-0.19	0.8488	-1.02	0.83
Time ( $\beta_1$ )	0.18	0.02	10.29	<.0001	0.14	0.21
<b>cascades_langley (<math>\beta_2</math>)</b>	<b>4.93</b>	<b>1.06</b>	<b>4.65</b>	<b>&lt;.0001</b>	<b>2.85</b>	<b>7.01</b>

In addition to these explicitly determined variables, the statistical software (SAS® Statistical Analysis System) was programmed to estimate under an autoregressive scheme, which adjusts for lagged dependent variables up to 12 lags. For each lag that is estimated to have a significant effect, SAS® incorporates the lagged dependent variable into its set of explanatory variables. For brevity, these parameter estimates are not presented here.

#### Interpreting the results:

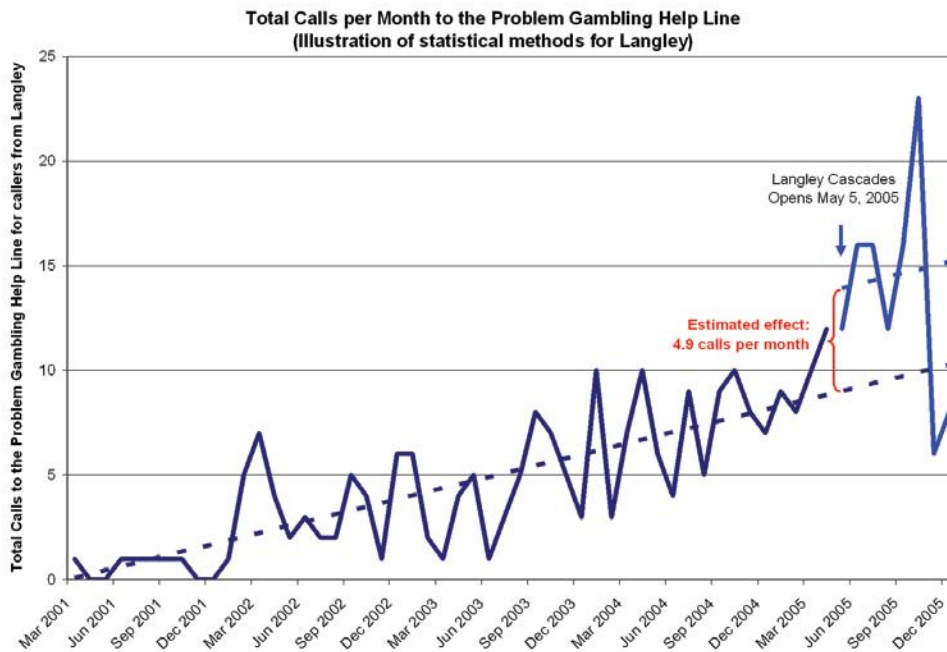
Estimates indicate that, in the period the Cascades Casino was in effect, the Problem Gambling Help Line received an average of 4.93 more calls per month from people in the Langleys. The t-value and “Pr > |t|” estimate

indicate that there is less than 0.01% chance that the effect was zero or negative. Finally, there is a 95% chance that the true value of the change in monthly calls from people in the Langleys is between 2.85 and 7.01 calls per month.

With any statistical model, assumptions are made that may or may not hold true. One assumption that will be explored and potentially revised is the assumption of normal distribution in the random error term. This is virtually never exactly true but generally represents an accepted, common assumption. The subject of regression modeling and statistical methodology is well documented outside of this study and will not be re-produced here.

The fitted multiple regression model that is estimated above is illustrated graphically below:

**Figure 13. Total Calls per Month to the Problem Gambling Help Line**



The following section tests whether a measurable difference was observed in calls to the problem gambling help line from people residing in the vicinity of a new Lower Mainland casino. Statistically significant variables of interest are highlighted in grey.

**Table 30. Regression Model Estimates for Calls per Month to Help Line****Regression model estimates: Total Calls per month to the Problem Gambling Help Line****Case 1: Langley**

Regress R-Square 0.90      Total R-Square 0.8077      Durbin-Watson 1.96

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	-0.09	0.47	-0.19	0.8488	-1.02	0.83
time	0.18	0.02	10.29	<.0001	0.14	0.21
cascades_langley	4.93	1.06	<b>4.65</b>	<b>&lt;.0001</b>	<b>2.85</b>	<b>7.01</b>
ProbGambMediaCampaign	-0.02	1.64	-0.01	0.9907	-3.24	3.20

**Regression model estimates: Total Calls per month to the Problem Gambling Help Line****Case 2: Surrey**

Regress R-Square 0.96      Total R-Square 0.8697      Durbin-Watson 1.96

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	4.21	0.75	5.6	<.0001	2.74	5.68
time	0.41	0.04	11.58	<.0001	0.34	0.48
Fraser_Downs_Temp_Surrey	4.30	1.51	<b>2.85</b>	<b>0.0067</b>	<b>1.35</b>	<b>7.25</b>
Fraser_Downs_Perm_Surrey	4.05	2.22	1.83	0.0751	-0.30	8.39
ProbGambMediaCampaign	5.81	2.73	2.13	0.0395	0.45	<b>11.17</b>

**Regression model estimates: Total Calls per month to the Problem Gambling Help Line****Case 3: Vancouver**

Regress R-Square 0.88      Total R-Square 0.8585      Durbin-Watson 1.98

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	32.21	8.56	3.76	0.0005	15.44	48.99
time	3.63	0.37	9.68	<.0001	2.89	4.36
Edgewater_Vancouver	-21.30	22.19	-0.96	0.3426	-64.78	22.19
ProbGambMediaCampaign	88.81	31.83	2.79	0.0079	26.43	<b>151.18</b>

\* Grey highlighting indicates statistically significant variables of interest

### Interpretation

- There appears to be a statistically significant increase in calls to the problem gambling help line by residents in the Langleys in the eight months since the Cascades casino opened.
- A similar effect is observed in Surrey but not in Vancouver.
- This may be driven by increased awareness or an increase in cases of problem gambling in the Langleys – or greater existing levels of saturation/crowding in Vancouver.

### Cautionary Notes in Interpretation

Although results may be significant, caution is required for two main reasons:

- 1] **Misattribution:** These numbers are correlational and cannot be used to infer causation. The calling rate can be influenced by many things other than the new venues. For example, over time, exposure to Help Line advertising may lead to an increase in calls. Local news coverage of problem gambling may also contribute to persons deciding to call the help line. Although “Calls to the problem gambling Help Line” can be used as an indicator for problem gambling cases, it could also be seen as an indicator for the Help Line awareness and problem gambling awareness. This is illustrated by the variable “ProbGambMediaCampaign” – a variable set for the period Feb 2004 to Apr 2004 when a Problem Gambling Media Campaign ran. This variable is significant in the cases of Vancouver and Surrey and suggests that the media campaign worked to increase the awareness and calls to the Help Line. The Casino opening media campaign may also have had an impact.

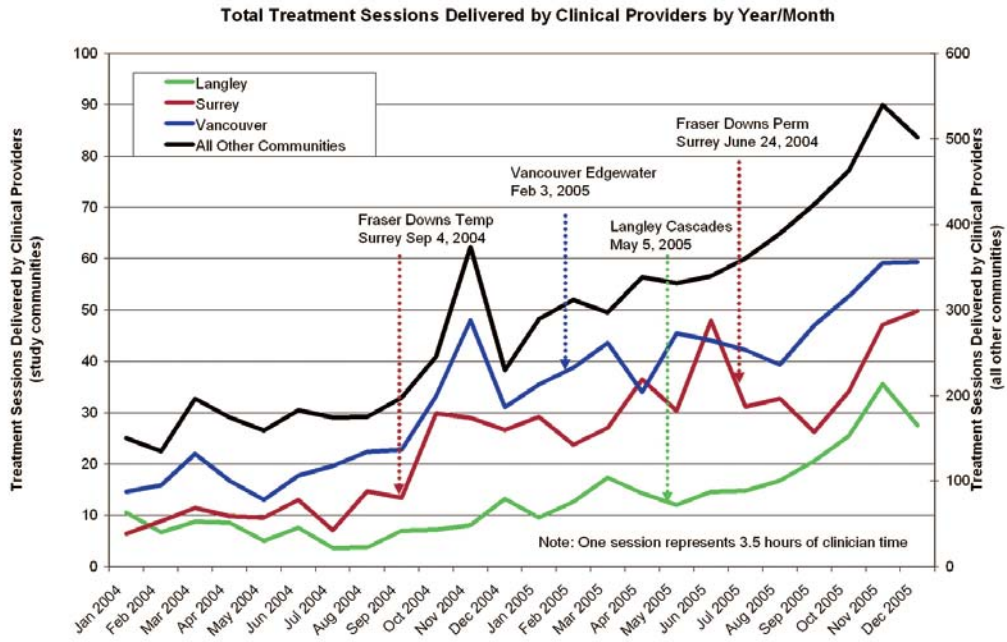
- 2] There are very few observations upon which to base this result (e.g., 8 observations since Cascades was opened in the City of Langley). More longitudinal data will provide greater evidence from which to draw conclusions.

### Treatment Volumes: Treatment Sessions Delivered by Clinical Providers

Clinical counselling services are offered on a sessional fee basis, reimbursing counsellors at \$200 for every 3.5 hour session of clinical activity time. The activities invoiced are tracked in a confidential database REGIS (Responsible Gambling Information System) with monthly reports run for each service provider to generate payment. The Freedom of Information and Protection of Privacy Act ensures that clients’ private information cannot be viewed by government.

The following graph, Figure 14, illustrates how problem gambling treatment volumes have increased steadily for as long as the REGIS case management system has been in existence (Nov, 2003). When analyzing study community trends beyond baseline data, adjustments will be made for BC wide trends. The volatility in this trend will affect the ability to obtain statistical significance. These data are based on the city of residence of the individual.

Figure 14. Total Treatment Sessions Delivered by Clinical Providers by Year/Month



### Statistical Inference for Total Treatment Sessions Delivered

The following section tests whether a measurable difference was observed in the volume of treatment sessions delivered to people residing in the vicinity of a new Lower Mainland casino. Statistically significant variables of interest are highlighted in grey.

**Table 31. Regression Model Estimates for Total Treatment Sessions Delivered**

#### Regression model estimates: Total Treatment Sessions Delivered (all problem gambling)

##### Case 1: Langley

Regress R-Square 0.78      Total R-Square 0.9538      Durbin-Watson 1.49

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	2.12	6.67	0.32	0.7574	-10.95	15.20
time	1.32	0.50	2.65	0.0264	0.34	2.30
cascades_langley	-12.02	7.18	-1.67	0.1285	-26.10	2.06

#### Regression model estimates: Total Treatment Sessions Delivered (all problem gambling)

##### Case 2: Surrey

Regress R-Square 100      Total R-Square 0.9778      Durbin-Watson 0.70

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	0.89	2.4105	0.37	0.7215	-3.83	5.61
time	1.93	0.5451	3.53	0.0077	0.86	2.99
Fraser Downs Temp Surrey	1.55	4.9627	0.31	0.7628	-8.18	11.28
Fraser Downs Perm Surrey	-7.10	6.8319	-1.04	0.3291	-20.49	6.29

#### Regression model estimates: Total Treatment Sessions Delivered (all problem gambling)

##### Case 3: Vancouver

Regress R-Square 1.00      Total R-Square 0.978      Durbin-Watson 0.69

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	11.72	4.15	2.82	0.02	3.58	19.86
time	1.75	0.59	2.96	0.0159	0.59	2.90
Edgewater_Vancouver	1.62	7.63	0.21	0.8364	-13.34	16.59

**Interpretation**

There are no measurable effects on treatment sessions delivered associated with the introduction of a gaming facility in any of the study communities

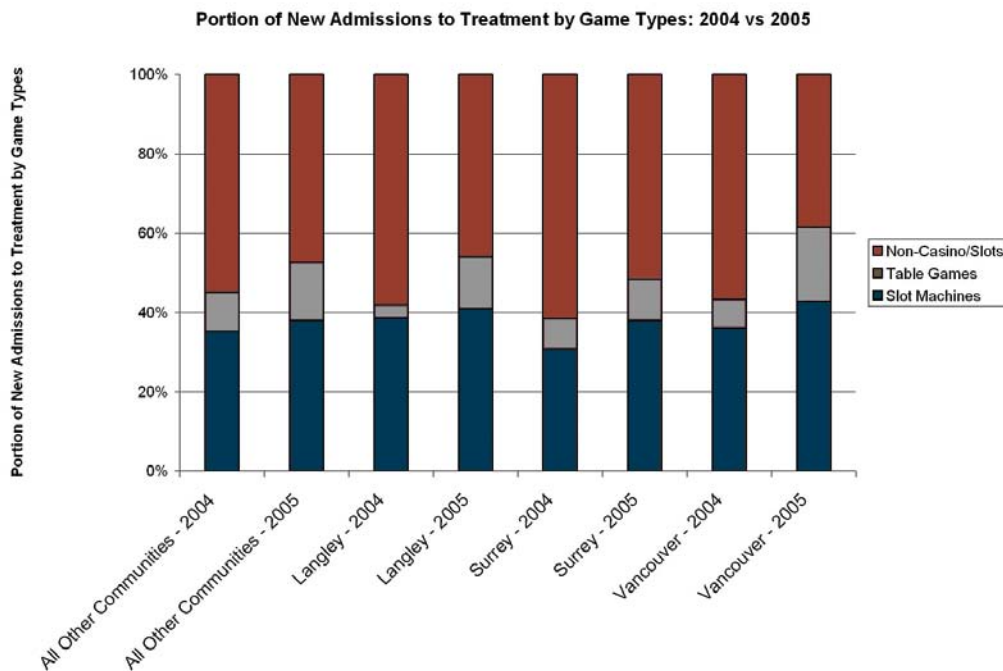
This is not surprising because of the low number of post-casino observations

There is a clear, statistically significant increase in treatment sessions delivered over the time period presented in all study communities

**Treatment Volumes: Admissions to Treatment by Game Type**

The comprehensive assessment conducted upon admission to treatment looks at the specific gambling activity with which the client has developed a problem. This information is recorded in REGIS and run in aggregate reports that demonstrate client demographics while protecting the individual’s private information. The following graph (Figure 15) illustrates that casino-related problem gambling represents an increasing portion of problem gambling admissions comparing 2005 to 2004. This portion is consistent across the study communities and all other BC communities. These data are based on the city of residence of the individual.

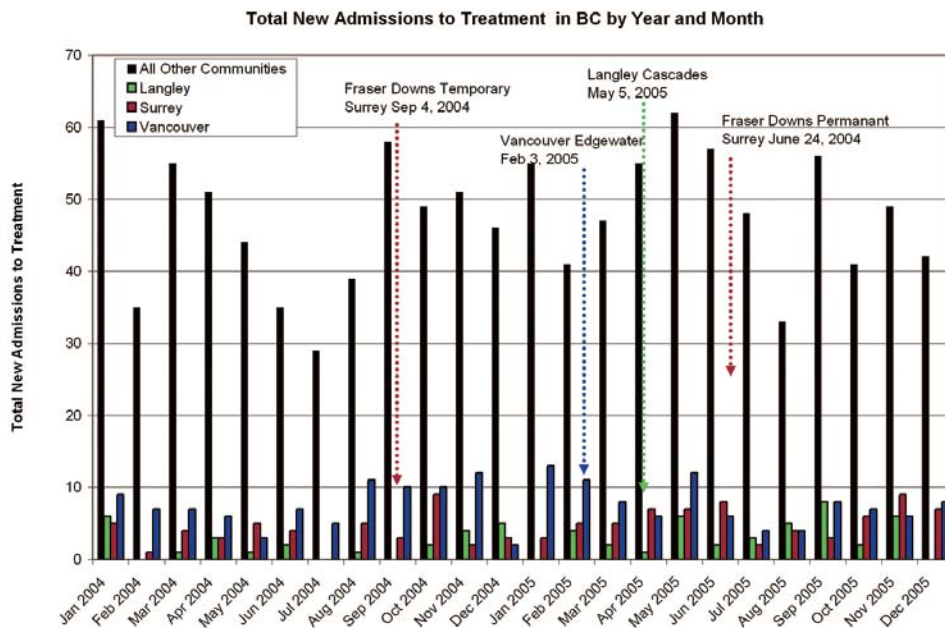
*Figure 15. Portion of New Admissions to Treatment by Game Types: 2004 vs 2005*



**Treatment Volumes: New Admissions to Treatment**

Treatment services are delivered free of charge to persons with gambling problems and those affected by someone they know who has a gambling problem. Contracted service providers are reimbursed at \$200 for every session of 3.5 hours delivered. The following graph (Figure 16) shows new admissions to treatment services in 2004/2005. The graph illustrates that new admissions for problem gambling treatment (about 50 per cent of which is casino-related) is somewhat flat over time, but highly volatile. The treatment volume data collected was categorized according to the city of residence of the caller.

*Figure 16. Total New Admissions to Treatment in BC by Year and Month*



## Statistical Inference for New Admissions for Problem Gambling Treatment

The following section tests whether a measurable difference was observed in the volume of treatment sessions delivered to people residing in the vicinity of a new Lower Mainland casino. Statistically significant variables of interest are highlighted in grey.

**Table 32. Regression Model Estimates for New Admissions for Problem Gambling Treatment**

### Regression model estimates: New Admissions for Problem Gambling Treatment

(Table games and/or slots cited as game type)

#### Case 1: Langley

Regress R-Square 0.99      Total R-Square 0.8124      Durbin-Watson 0.93

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	1.17	0.3465	3.39	0.008	0.49	1.85
time	-0.01	0.0372	-0.34	0.7396	-0.09	0.06
cascades Langley	3.35	0.5822	5.76	0.0003	2.21	<b>4.49</b>

### Regression model estimates: New Admissions for Problem Gambling Treatment

(Table games and/or slots cited as game type)

#### Case 2: Surrey

Regress R-Square 0.97      Total R-Square 0.9457      Durbin-Watson 0.27

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	-1.17	0.45	-2.61	0.0311	-2.06	-0.29
time	0.37	0.04	10.28	<.0001	0.30	0.45
Fraser Downs Temp Surrey	0.54	0.53	1.02	0.3382	-0.50	1.59
Fraser Downs Perm Surrey	-5.63	0.87	-6.47	0.0002	-7.34	<b>-3.93</b>

### Regression model estimates: New Admissions for Problem Gambling Treatment

#### Case 3: Vancouver

Regress R-Square 0.46      Total R-Square 0.9013      Durbin-Watson 3.02

Variable	Estimate	Standard Error	t Value	Approx Pr >  t	95% Confid Interval	
					Lower Est	Upper Est
Intercept	3.62	0.62	5.8	0.0003	2.40	4.84
time	0.01	0.09	0.08	0.9365	-0.17	0.18
Edgewater Vancouver	0.78	1.25	0.62	0.551	-1.68	3.24

### Interpretation

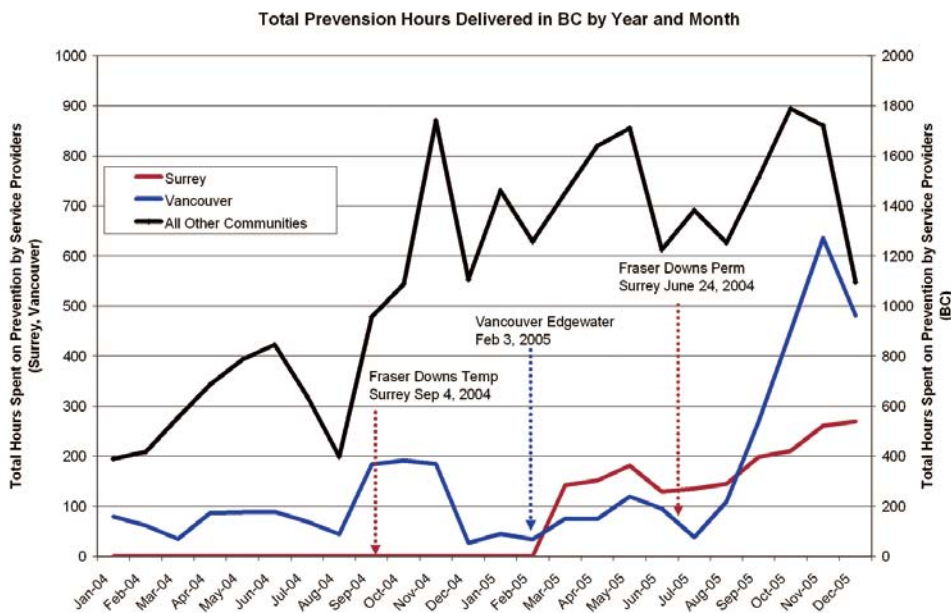
- New admissions for problem gambling treatment increased in the Langleys after the Cascades gaming venue was introduced
- Like the calls to the problem gambling help line, this may be a result of an increase in the number of problem gambling cases or an increased awareness of treatment programs
- Surrey demonstrated a statistically significant drop in the number of new admissions for problem gambling treatment after the permanent gaming facility was opened at Fraser Downs.
- There was no statistically significant effect associated with the Vancouver Edgewater facility opening
- British Columbia overall is experiencing an increase in the proportion of new admissions to problem gambling treatment
- Because these results are inconsistent across communities, it is difficult to generalize
- Conclusions on statistical interpretation will be deferred until more data is available

### Service Volumes: Prevention Services

Prevention services are delivered within a population health model, where risk populations and practices are targeted for awareness, education and prevention initiatives. The target populations as defined by the 2003 prevalence study are youth, seniors and Northern residents. The program has three provincial coordinators who support the delivery of the program and play a major role in the delivery of prevention and awareness services across the province. Co-ordination duties are charged at \$50 per hour and prevention services are charged at \$40 per hour by contracted practitioners.

Figure 17 illustrates that total hours spent on prevention is highly volatile. The location for these data are based on the office location of the counsellor. Therefore, although there are no prevention services logged for the Langleys, it does not mean that prevention services were not delivered in the Langleys, only that no service providers operate out of the Langleys.

Figure 17. Total Prevention Hours Delivered in BC by Year and Month

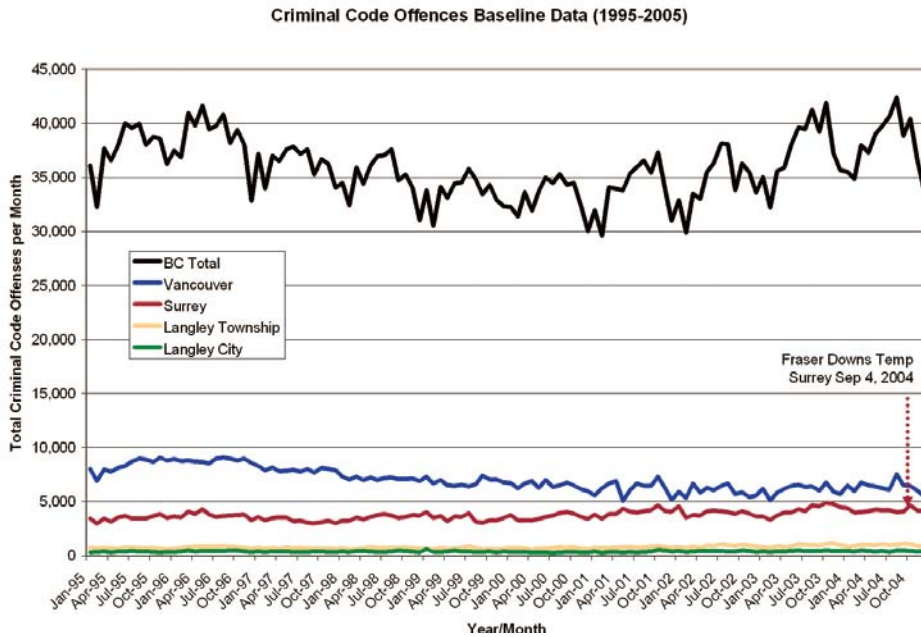


**Comments on Statistical Inference for Prevention Services**

It is inappropriate to use prevention services as an indicator for anything except the amount of resources spent on prevention. Therefore, these are considered strictly descriptive statistics and no inferences are made here.

### Impact on Criminal Offence Caseload

Figure 18. Criminal Code Offences Baseline Data



The data for criminal code offences will be used to determine whether there is a significant increase or decrease in the crime rate due to the introduction of a gaming venue. If the introduction of a gaming venue is found to have a significant effect, that estimate will be used to impute increased or decreased policing costs. As discussed above, this method is a more robust method of estimating increased policing costs compared to simply tracking before and after policing expenditures. Municipalities may spend extra revenue from gaming facilities on policing activities unrelated to gaming.

The chart above shows there was significant variation in criminal code offences over time before the casino was introduced or scheduled for opening. Also evident is a clear secular (long term) and cyclical (yearly)

variation, which the impact model will need to consider.

#### Comments on Statistical Inference for Criminal Caseload

We intend to test for increases in criminal caseloads subsequent to the introduction of Lower Mainland gaming venues. However, criminal caseload statistics are only available up to and including December 2004. The only study facility that was in place by that time was the Fraser Downs temporary facility and the facility had only been open for four months. Meaningful statistical inference cannot be made on only four observations and therefore will be delayed until the final report.

## PART V: EXAMINING THE GAMBLING MONEY FLOW

### Approach

Money flow will be analyzed in terms of investment capital and profits flowing into and out of the municipalities. Profit outflow will be identified using the location of the corporations providing investment capital and the location of companies selling to gaming venue investors. Other factors to be considered include construction expenditures, furniture and other non-casino equipment, and slot machines and other gambling equipment (this includes equipment initially purchased, replacement equipment, and maintenance costs).

Vendors often provide a package of investment benefits to municipalities in exchange for permission to build and operate a gambling venue. Examples of these incentives include: providing green space (parks, plant trees, etc), upgrading municipal infrastructure, or funding other community programs. These incentives represent a significant contribution to the economic benefit of introducing a casino-style gaming venue.

The three Lower Mainland casino municipalities responded to surveys on how the casino development projects impacted the economic situation of the community.

### Case 1: Langley “Cascades” Casino Description of Development Project

The City of Langley invited proposals for casino and venue development with the intent that it would not be a free-standing casino. Gateway Casino’s proposal won the bid, offering a casino with attached

convention centre and hotel. The total value of the investment package was \$45 million. The municipality owned the venue land, which it sold to the developer in return for a Convention Centre valued at \$7 million. The city owns the Conference Centre, but it is managed by Gateway Casinos. Indicating the success of the venue, the developer (Gateway Casinos) has requested to build a 4 story on-site parkade expansion. This will add 450 to 500 parking spots in addition to the 1,000 already existing. The process has been described as a public-private partnership.

### Benefits to the Municipality

Direct Benefits:

Portion of gaming revenue that accrues to the municipality (described in section IV, “Government Revenues from Casino-Style Gaming Facilities”) <sup>3</sup>

- One-time revenue of \$7 million realized from sale of venue land.
- The City of Langley receives a number of days in which they can use the conference facility at no cost.
- \$24.5 million of the \$45 million project cost went to the city for building permits.

Indirect economic and social benefits as described by this project’s municipality representative:

- \$20.5 million in construction and furnishing costs, some of which was spent on local trades and materials
- Increased employment (number of employees unknown at this time).
- The attached hotel and conference centre, which attract business and business functions.
- A 450 seat “Summit Theatre,” which supports entertainment and community

<sup>3</sup> - The gaming facility has been in operation for less than one year, therefore the revenue from gaming cannot yet be calculated.

events that would not otherwise be available in the City of Langley and which has been well received by the community.

- Gateway Casinos has been described by municipal leaders as an outstanding community partner that sponsors community events.

#### **Financial Costs to the Municipality**

- No infrastructure upgrades were needed, but utilities were re-aligned to support venue
- Cost of processing permits (unknown at this time)

### **Case 2: Surrey Fraser Downs Expansion**

#### **Description of Development Project**

City of Surrey issued a development permit on March 22, 2004 for an addition and exterior upgrade to the existing Fraser Downs facility and parking area. The total value of construction was \$36.1 million. The development involved:

- An Electronic Gaming Area – 300 slot machines with a potential for an additional 100 slot machines at a later date
- A Dining/Show Lounge to be integrated into the gaming area
- Meeting rooms to accommodate large or small groups, available for rent to external groups for special occasions or to greet tour groups and host special customer events
- Upgrades to the horse racing grandstands area, to be integrated with the slot machines operations area.

#### **Benefits to the Municipality**

Direct Benefits:

Portion of gaming revenue that accrues to municipality (described in section IV, "Government Revenues from Casino-Style Gaming Facilities")<sup>4</sup>

- Land lease revenues (unknown at this time)
- \$308,712.15 in building permit revenue
- A service agreement for the project had a letter of credit amount of just over \$457,000 for improvements to infrastructure in and around the casino

Indirect economic and social benefits as described by this project's municipality representative:

- Increase in the number of FTEs from 106 to 204 and an increase in annual payroll from \$3.4 M to \$6.6 M
- Potential revitalization of the current site and development of an attractive tourism and entertainment venue for Surrey residents and regional visitors
- Potential for keeping local gaming dollars in the community to benefit Surrey residents

#### **Financial Costs to the Municipality**

- Cost of processing permits (estimated at the price paid (\$308,712))
- Cost of infrastructure upgrades (estimated at \$457,000)

<sup>4</sup> - The gaming facility has been in operation for less than one year, therefore the annual revenue from gaming cannot yet be calculated.

### Case 3: Vancouver Edgewater Casino

#### Description of Development Project

The Edgewater casino, located in building “C” at the Plaza of Nations (building “C” is also known as the “Enterprise Hall”), opened its doors on February 4, 2005 with 600 slot machines and 48 tables (60 tables were approved). The Edgewater casino was the result of the amalgamation of two casinos that already existed in Vancouver, namely the Grand casino, which was located at 725 East Marine Drive, and the Royal Diamond casino, which was located in building “B” at the Plaza of Nations. The present location for Edgewater casino is only temporary and the facility is expected to be occupied for only three years with a possible one-year extension. A permanent facility at a location to be determined will be built after that.

The total floor area of the building is 6 377 m<sup>2</sup> (68,639 sq. ft). The floor space allocated for the slot machines, gaming tables and related circulation is 3 387 m<sup>2</sup> (36,468 sq. ft.). The main floor contains slot machines, gaming tables, a café, a lounge and a back-of-house space. The second floor contains slot machines, gaming tables and a theatre (not in use at this point). The third floor contains staff facilities.

#### Benefits to the Municipality

Direct Benefits:

Portion of gaming revenue that accrues to municipality (described in section IV, “Government Revenues from Casino-Style Gaming Facilities”) <sup>5</sup>

- The total amount spent by the casino operators was \$18 million. This amount

includes all of the renovations to the building, infrastructure upgrades, access road improvements, professional fees (architects, engineers, lawyers, communications consultants) and payment of all relevant permits. In addition, the BC Lottery Corporation installed 600 slot machines at an estimated cost of \$9 million.

- There are 660 individuals employed by Edgewater casino. Not all of these jobs are new jobs in Vancouver. At the time of the amalgamation of the Grand casino and Royal Diamond casino (which had been closed down for the previous three years), there were 230 casino jobs associated with these facilities. Edgewater casino has an annual payroll of \$16 million.

Indirect economic and social benefits as described by this project’s municipality representative:

- The exterior of the building has remained unchanged except for new decorative banners, lighting of portions of the building face, a covered walkway and the entry vestibule. A landscape plan for the area surrounding the casino was implemented by the casino operators.
- Municipality of Vancouver has an agreement with Edgewater casino investors that fifteen per cent of employees will be hired out of Vancouver East Side residents.
- Fulfilling a condition of the rezoning, Edgewater casino signed an agreement with the City to hire locally for both the construction phase of the project as well as for ongoing operations. The intent of the agreement was to improve job opportunities for unemployed, underemployed and challenged residents

<sup>5</sup> - The gaming facility has been in operation for less than one year, therefore the annual revenue from gaming cannot yet be calculated.

of the City of Vancouver, with an emphasis on residents of the Downtown Eastside area. No targets were set for the construction phase, but a minimum of 10% of new hires was targeted for operations jobs. The casino operator has been able to fulfill (actually surpassed it) this requirement.

#### **Financial Costs to the Municipality**

The cost of processing permits and infrastructure upgrades were reimbursed by the casino developer.

APPENDIX A:  
INTERVIEW GUIDE FOR RDD

**Below is the 2005 interview guide. Changes between 2004 and 2005 are noted in red.**

**PHONE**

**POSTAL CODE**

**AREA 1**

City of Vancouver..... 1

City of Surrey.....2

City of Langley.....3

Langley Township.....4

**INTRODUCTION**

Hello, my name is... and I'm calling from Venture Research. We are conducting a survey on behalf of the Government of BC and the cities of Surrey, Langley and Vancouver, and the Township of Langley on gambling attitudes and practices. The information gathered in this survey will assist the province and municipalities in planning. We are interested in a wide representation of viewpoints and would like to speak with people who gamble as well as those who do not gamble. Let me assure you that your individual responses will be kept completely confidential and your phone number will not be attached to any responses. I'd like to speak to the person in your household who is 19 years of age or older who most recently had a birthday. Is that you? (If no, ask to speak to someone in the household who is and repeat the introduction.)

First, have I reached you at YOUR home telephone number? (No - thank, terminate)

Continue..... 21

Refused ..... 02 => /END

Line busy ..... 03 => /END

No answer call back..... 04 => /END

Schedule call back..... 05 => /CB

Not in service/ business .....0 => /END

Interrupted ..... 08 => /END

Terminated during interview ..... 09 => /END

Screened for gender/ age ..... 10 => /END

Language/ hearing difficulties ..... 11 => /END

Needs persuaders for validity of survey..... 12 => PERS

**PERSUADER**

=> +1 if NOT INT01=12

If you would like to confirm the validity of this study, you may call Enquiry BC at 1-800-663-7867 and ask to be connected to the Gaming Policy and Enforcement Branch. These calls can be made Monday - Friday, 8:30 a.m. to 4:30 p.m.

Continue .....	01	
Refused .....	02	=> /INT
Schedule call back.....	03	=> /CB

**S1**

Could you please tell me your postal code?

Postal code same as imported ..... 111111

Enter & confirm letters & numbers.....

Don't know/ refused..... 999999

**AREA (Filled if imported Postal Code is correct)**

=> /+1 if S1=111111

And do you live in the ...?

City of Vancouver.....	1
City of Surrey.....	2
City of Langley.....	3
Township of Langley .....	4
Other - thank & terminate .....	5
Refused - thank & terminate.....	9

**GAMBLING BEHAVIOUR**

**Q1INTRODUCTION**

First, we'd like to ask some questions about activities you may participate in. People bet money and gamble on many different things including buying lottery tickets, playing bingo, or card games with their friends. I am going to list some activities that you might have spent money on IN THE LAST YEAR. For each one, I will ask how often you participated in it - you may answer daily, several times a week, several times a month, once a month or less, only a few days all year, or not at all in the past 12 months. Then for each one I will ask you to estimate how much money you typically spend on that activity in a typical MONTH. You can simply answer in dollars.

Continue..... 1

**Q1**

Q1. In the past year, how often have you spent money on raffle tickets or charitable lottery tickets?

Daily (30+ times per month) .....1

Several times a week (6 - 29 times per month).....2

Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4

Only a few days all year (1 - 5 times per year) .....5

Not at all in the past 12 months (0 times) .....6

Don't know/ refused (DO NOT READ) .....9

**Q1A**

---

=> +1 if            Q1=5,6

---

Q1A. And, how much money do you spend on this activity in a typical month?

Enter monthly amount.....

Don't know/ refused..... 999999

**Q2**

Q2. In the past year, how often have you purchased other lottery tickets such as Lotto 6/49 or Super 7 for yourself or others?

Daily (30+ times per month) .....1

Several times a week (6 - 29 times per month).....2

Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4

Only a few days all year (1 - 5 times per year) .....5

Not at all in the past 12 months (0 times) .....6

Don't know/ refused (DO NOT READ) .....9

**Q2A**

---

=> +1 if            Q2=5,6

---

Q2A. How much do you spend on this activity in a typical month?

Enter monthly amount.....

Reports winning in a typical month.....666666

Don't know/ refused..... 999999

**Q3**

Q3. In the past year, how often have you purchased Instant Win tickets for yourself or others (Pull Tab, Instant Win)?

- Daily (30+ times per month) ..... 1
- Several times a week (6 - 29 times per month).....2
- Several times a month (3 - 5 times per month) .....3
- Once a month or less (6 - 12 times per year) .....4
- Only a few days all year (1 - 5 times per year) .....5
- Not at all in the past 12 months (0 times) .....6
- Don't know/ refused (DO NOT READ) .....9

**Q3A**

=> +1 if Q3=5,6

Q3A. How much money do you spend on this activity in a typical month?

- Enter monthly amount.....
- Reports winning in a typical month.....666666
- Don't know/ refused..... 999999

**Q4**

Q4. In the past year, how often have you played bingo for money?

- Daily (30+ times per month) ..... 1
- Several times a week (6 - 29 times per month).....2
- Several times a month (3 - 5 times per month) .....3
- Once a month or less (6 - 12 times per year) .....4
- Only a few days all year (1 - 5 times per year) .....5
- Not at all in the past 12 months (0 times) .....6
- Don't know/ refused (DO NOT READ) .....9

**Q4A**

=> +1 if Q4=5,6

Q4A. How much money do you spend on this activity in a typical month?

- Enter monthly amount.....
- Reports winning in a typical month.....666666
- Don't know/ refused..... 999999

**Q4B – NEW FOR 2005**

Q4B. In the past year, how often have you played other electronic forms of gambling such as electronic Keno or electronic racetracks?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month)..... 2

Several times a month (3 - 5 times per month) ..... 3

Once a month or less (6 - 12 times per year) ..... 4

Only a few days all year (1 - 5 times per year) ..... 5

Not at all in the past 12 months (0 times) ..... 6

Don't know/ refused (DO NOT READ) ..... 9

**Q4C – NEW FOR 2005**

---

=> +1 if            Q4B=5,6

---

Q4C. How much money do you spend on this activity in a typical month?  
Enter monthly amount.....

Reports winning in a typical month.....666666

Don't know/ refused..... 999999

**Q5**

Q5. In the past year, how often have you played a slot machine or a video lottery terminal (i.e., a VLT)?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month)..... 2

Several times a month (3 - 5 times per month) ..... 3

Once a month or less (6 - 12 times per year) ..... 4

Only a few days all year (1 - 5 times per year) ..... 5

Not at all in the past 12 months (0 times) ..... 6

Don't know/ refused (DO NOT READ) ..... 9

**Q5A**

---

=> +1 if            Q5=6

---

Q5A. Where do you normally do this (jurisdiction and facility)? (Key word is NORMALLY - confirm - if not below type in open box - type area first and then name of facility)

Burnaby - Gateway Casino ..... 01

Coquitlam - Great Canadian Casino..... 02

Langley - Gateway Casino ..... 14

New Westminster - Gateway Casino (Royal Towers Hotel) ..... 03

New Westminster - Royal City Star Riverboat Casino ..... 04

Richmond - River Rock Casino Resort ..... 05

Surrey - Fraser Downs Gaming Centre..... 06

Vancouver - Edgewater Casino (Plaza of Nations)..... 15

BC - Outside Lower Mainland ..... 10

Washington State ..... 11

Las Vegas/ Reno ..... 12

Cruise Ships ..... 13

Record name of facility/ jurisdiction ..... 91

Don't know/ refused..... 98

**Q5B**

=> +1 if Q5=5,6

Q5B. How much money do you spend on this activity in a typical month?

Enter monthly amount.....

Reports winning in a typical month.....666666

Don't know/ refused..... 999999

**Q6**

Q6. In the past year, how often have you played a table game (for example, roulette, blackjack) at a casino? [If necessary, define casino as a large gambling hall with many different kinds of games, for example, in a community casino, resort hotel or on a cruise ship.]

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month).....2

Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4

Only a few days all year (1 - 5 times per year) .....5

Not at all in the past 12 months (0 times) .....6

Don't know/ refused (DO NOT READ) .....9

**Q6A**

=> +1 if Q6=6

Q6A. At what casino do you normally do this (jurisdiction and facility)? (Key word is NORMALLY - confirm - if not below type in open box - type area first and then name of facility)

Burnaby - Gateway Casino .....	01
Coquitlam - Great Canadian Casino.....	02
Langley - Gateway Casino .....	14
New Westminster - Gateway Casino (Royal Towers Hotel) .....	03
New Westminster - Royal City Star Riverboat Casino .....	04
Richmond - River Rock Casino Resort.....	05
Vancouver - Gateway Casino (Mandarin Centre) .....	07
Vancouver - Grand Casino.....	08
Vancouver - Great Canadian Casino (Holiday Inn).....	09
BC - Outside Lower Mainland .....	10
Washington State.....	11
Las Vegas/ Reno .....	12
Cruise Ships .....	13
Vancouver - Edgewater Casino (Plaza of Nations).....	15
Record name of facility/ jurisdiction .....	91
Don't know/ refused.....	98

**Q6B**

=> +1 if Q6=5,6

Q6B. How much money do you spend on this activity in a typical month?  
Enter monthly amount.....

Reports winning in a typical month.....	666666
Don't know/ refused.....	999999

**Q7**

Q7. In the past year, how often have you placed a bet on a horse race?

Daily (30+ times per month) .....	1
Several times a week (6 - 29 times per month).....	2
Several times a month (3 - 5 times per month) .....	3

Once a month or less (6 - 12 times per year) .....4  
 Only a few days all year (1 - 5 times per year) .....5  
 Not at all in the past 12 months (0 times) .....6  
 Don't know/ refused (DO NOT READ) .....9

**Q7A**

=> +1 if Q7=6

Q7A. Where do you normally do this (jurisdiction and facility)? (Key word is NORMALLY - confirm - if not below type in open box - type area first and then name of facility)

Surrey - Fraser Downs Gaming Centre (Cloverdale Raceway)..... 06  
 Vancouver - Hastings Racetrack..... 16  
 Chilliwack - Best Western Rainbow Country Inn teletheatre ..... 17  
 Powell River - Inn at Westview teletheatre..... 18  
 Sechelt - Gilligan's Pub teletheatre ..... 19  
 Squamish - Chieftain Hotel teletheatre..... 20  
 BC - Outside Lower Mainland ..... 10  
 Washington State ..... 11  
 Las Vegas/ Reno ..... 12  
 Cruise Ships ..... 13  
 Record name of facility/ jurisdiction ..... 91  
 Don't know/ refused..... 98

**Q7B**

=> +1 if Q7=5,6

Q7B. How much money do you spend on this activity in a typical month?

Enter monthly amount.....

Reports winning in a typical month.....666666  
 Don't know/ refused..... 999999

**Q8**

Q8. In the past year, how often have you bet on sports events?

Daily (30+ times per month) ..... 1  
 Several times a week (6 - 29 times per month).....2  
 Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4  
 Only a few days all year (1 - 5 times per year) .....5  
 Not at all in the past 12 months (0 times) .....6  
 Don't know/ refused (DO NOT READ) .....9

**Q8A**

=> +1 if Q8=5,6

Q8A. How much money do you spend on this activity in a typical month?  
 Enter monthly amount.....  
 Reports winning in a typical month.....666666  
 Don't know/ refused..... 999999

**Q9**

Q9. In the past year, how often have you played private card games, board games, or other games of skill against other people for money?  
 Daily (30+ times per month) .....1  
 Several times a week (6 - 29 times per month).....2  
 Several times a month (3 - 5 times per month) .....3  
 Once a month or less (6 - 12 times per year) .....4  
 Only a few days all year (1 - 5 times per year) .....5  
 Not at all in the past 12 months (0 times) .....6  
 Don't know/ refused (DO NOT READ) .....9

**Q9A**

=> +1 if Q9=5,6

Q9A. How much money do you spend on this activity in a typical month?  
 Enter monthly amount.....  
 Reports winning in a typical month.....666666  
 Don't know/ refused..... 999999

**Q10**

Q10. In the past year, how often have you gambled on the Internet?  
 Daily (30+ times per month) .....1  
 Several times a week (6 - 29 times per month).....2  
 Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4  
 Only a few days all year (1 - 5 times per year) .....5  
 Not at all in the past 12 months (0 times) .....6  
 Don't know/ refused (DO NOT READ) .....9

**Q10A**

---

=> +1 if            Q10=5,6

---

Q10A. How much money do you spend on this activity in a typical month?  
 Enter monthly amount.....  
 Reports winning in a typical month.....666666  
 Don't know/ refused..... 999999

**Q11**

Q11. In the past year, how often have you purchased high-risk stocks, options  
 or futures?  
 Daily (30+ times per month) .....1  
 Several times a week (6 - 29 times per month).....2  
 Several times a month (3 - 5 times per month) .....3  
 Once a month or less (6 - 12 times per year) .....4  
 Only a few days all year (1 - 5 times per year) .....5  
 Not at all in the past 12 months (0 times) .....6  
 Don't know/ refused (DO NOT READ) .....9

**Q11A**

---

=> +1 if            Q11=5,6

---

Q11A. How much money do you spend on this activity in a typical month?  
 Enter monthly amount.....  
 Reports winning in a typical month.....666666  
 Don't know/ refused..... 999999

**ATTITUDES**

**Q12 INTRODUCTION**

Now I am going to ask you some questions about how you feel about  
 gambling.  
 Q12. Which best describes your belief about the benefit or harm that gambling  
 has for society? (Read below)  
 The benefits far outweigh the harm.....1  
 The benefits somewhat outweigh the harm.....2

The benefits and the harm are roughly equivalent .....3

The harm somewhat outweighs the benefits .....4

The harm far outweighs the benefits .....5

Don't know/ refused (DO NOT READ) .....9

**Q13**

Q13. Which best describes your attitude toward gambling? (Read below)

It is morally wrong .....1

It is somewhat morally wrong .....2

I have no opinion one way or the other .....3

It is a matter of personal choice .....4

It is a fun, harmless thing to do .....5

Don't know/ refused (DO NOT READ) .....9

---

=> Q15A if AREA=2,3,4

---

**Q14A1**

Q14A1. Are you aware of Edgewater Casino in the Plaza of Nations that opened in February 2005? [If not aware, tell respondent...] It is a casino with 600 slot machines and 51 table games.

Yes .....1

No .....2

**Q14B1**

Q14B1. Overall, would you say Edgewater Casino in the Plaza of Nations is likely to be (read below) to the community?

Very beneficial .....1

Somewhat beneficial .....2

Neither beneficial nor harmful .....3

Somewhat harmful .....4

Very harmful .....5

Don't know/ refused (DO NOT READ) .....9

**Q14C1**

Q14C1. In your own words, what would you say are the likely major benefits, if any, of this facility? Any others? (Up to four responses)

No benefits at all ..... 00

Provides employment .....	01
Provides a convenient source of recreation.....	02
Entertainment value .....	03
Brings money into the community.....	04
Increases local or provincial revenue .....	05
Decreases taxes.....	06
Creates positive spin-offs to other local businesses.....	07
Increases tourism .....	08
Decreases illegal gambling.....	09
Keeps gambling money from going to outside jurisdictions .....	10
Provides money for good causes.....	11
Supports the horse racing industry.....	12
Revitalizes/ cleans-up the area.....	13
Attracts new businesses to the area.....	14
Keeps the race track/ Hastings Park open.....	15
The convention centre/ hotel .....	16
Record responses .....	91
Don't know/ refused.....	98
<b>Q14D1</b>	
Q14D1. In your own words, what would you say are the likely major drawbacks, if any, of this facility? Any others? (Up to four responses)	
No drawbacks at all.....	00
Increases gambling addiction .....	01
Exposes young people to gambling .....	02
Negatively impacts people who can least afford to lose money .....	03
Is morally corrupting.....	04
Negatively impacts local businesses.....	05
Negatively impacts other forms of gambling (charity bingo, racing, etc.).....	06
Brings greater noise/congestion/traffic .....	07

Adds to crime and/or policing costs ..... 08

More people will be drinking..... 09

Adds to family problems ..... 10

Attracts the wrong people to the area ..... 11

Negatively impacts the community image ..... 12

People will waste/ lose money gambling..... 13

Record responses ..... 91

Don't know/ refused..... 98

**Q14E1-Q14K1 – NEW FOR 2005**

**Q14E1**

=> Q15A if AREA=2,3,4

=> Q14A2 if Q14A1=2

Q14E1. Have you ever gambled at Edgewater Casino in the Plaza of Nations?

Yes..... 1

No..... 2 => Q14A2

**Q14F1**

Q14F1. How many times have you gone to Edgewater Casino in the Plaza of Nations since it opened?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month)..... 2

Several times a month (3 - 5 times per month) ..... 3

Once a month or less (6 - 12 times per year) ..... 4

Only a few days (1 - 5 times per year)..... 5

Not at all (0 times) ..... 6 => Q14A2

Don't know/ refused (DO NOT READ) ..... 9

**Q14G1**

Q14G1. On average, how much do you spend per visit?

Enter amount per visit ..... 666666

Reports winning in a typical visit..... 666666

Don't know/ refused..... 999999

**Q14H1**

Q14H1. What sort of impact has this facility had on your overall gambling behaviour? Would you say it has...? (Read below)

Increased it .....	1
Decreased it, or .....	2
No change.....	3
Don't know/ refused (DO NOT READ) .....	9

**Q14I1**

Q14I1. Where did you used to go to play table games or slot machines before this facility was built?

Did not used to play anywhere .....	00
Burnaby - Gateway Casino .....	01
Coquitlam - Great Canadian Casino.....	02
New Westminster - Gateway Casino (Royal Towers Hotel) .....	03
New Westminster - Royal City Star Riverboat Casino .....	04
Richmond - River Rock Casino Resort .....	05
Surrey - Fraser Downs Gaming Centre.....	06
Vancouver - Gateway Casino (Mandarin Centre) .....	07
Vancouver - Grand Casino .....	08
Vancouver - Great Canadian Casino (Holiday Inn).....	09
BC - Outside Lower Mainland .....	10
Washington State .....	11
Las Vegas/ Reno .....	12
Cruise Ships .....	13
Langley - Gateway Casino .....	14
Record name of facility/ jurisdiction .....	91
Don't know/ refused.....	98
Record response .....	91
Don't know/ refused.....	98

**Q14J1**

Q14J1. Do you spend less on other things now that you sometimes gamble at Edgewater Casino in the Plaza of Nations?

Yes – spend less on other things..... 1

No change in spending habits .....2

Don't know/ refused.....9

**Q14K1**

---

=> +1 if Q14J1=2

---

Q14K1. What things would that be?

Record response ..... 91

Don't know/ refused..... 98

---

=> Q15A if AREA=2,3,4

---

**Q14A2 Not Asked in 2005**

Q14A2. Are you aware of Hastings Racetrack with new slots to be added in December 2005?? [If not aware, tell respondent...] It is a horse race track which is adding 600 slot machines.

Yes..... 1

No.....2

**Q14B2 Not Asked in 2005**

Q14B2. Overall, would you say Hastings Racetrack is likely to be (read below) to the community?

Very beneficial .....1

Somewhat beneficial .....2

Neither beneficial nor harmful .....3

Somewhat harmful .....4

Very harmful.....5

Don't know/ refused (DO NOT READ) .....9

**Q14C2 Not Asked in 2005**

Q14C2. In your own words, what would you say are the likely major benefits, if any, of this facility? Any others? (Up to four responses)

No benefits at all..... 00

Provides employment ..... 01

Provides a convenient source of recreation..... 02

Entertainment value ..... 03

Brings money into the community.....	04
Increases local or provincial revenue.....	05
Decreases taxes.....	06
Creates positive spin-offs to other local businesses.....	07
Increases tourism.....	08
Decreases illegal gambling.....	09
Keeps gambling money from going to outside jurisdictions.....	10
Provides money for good causes.....	11
Supports the horse racing industry.....	12
Revitalizes/ cleans-up the area.....	13
Attracts new businesses to the area.....	14
Keeps the race track/ Hastings Park open.....	15
The convention centre/ hotel.....	16
Record responses.....	91
Don't know/ refused.....	98
<b>Q14D2 Not Asked in 2005</b>	
Q14D2. In your own words, what would you say are the likely major drawbacks, if any, of this facility? Any others? (Up to four responses)	
No drawbacks at all.....	00
Increases gambling addiction.....	01
Exposes young people to gambling.....	02
Negatively impacts people who can least afford to lose money.....	03
Is morally corrupting.....	04
Negatively impacts local businesses.....	05
Negatively impacts other forms of gambling (charity bingo, racing, etc.).....	06
Brings greater noise/congestion/traffic.....	07
Adds to crime and/or policing costs.....	08
More people will be drinking.....	09
Adds to family problems.....	10

Attracts the wrong people to the area ..... 11

Negatively impacts the community image ..... 12

People will waste/ lose money gambling..... 13

Record responses ..... 91

Don't know/ refused..... 98

**Q14E2 Not asked in 2004 or 2005**

=> Q15A if AREA=2,3,4 OR Q14A2=2

Q14E2. Have you ever gone to Hastings Racetrack to play the new slot machines?

Yes ..... 1

No..... 2 => Q15A

**Q14F2 Not asked in 2004 or 2005**

Q14F2. How many times have you gone to Hastings Racetrack since it opened to play the new slot machines?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month)..... 2

Several times a month (3 - 5 times per month) ..... 3

Once a month or less (6 - 12 times per year) ..... 4

Only a few days (1 - 5 times per year)..... 5

Not at all (0 times) ..... 6 => Q15A

Don't know/ refused (DO NOT READ) ..... 9

**Q14G2 Not asked in 2004 or 2005**

Q14G2. On average, how much do you spend per visit?

Enter amount per visit.....

Reports winning in a typical visit.....666666

Don't know/ refused..... 999999

**Q14H2 Not asked in 2004 or 2005**

Q14H2. What sort of impact has the addition of the new slot machines at this facility had on your overall gambling behaviour? Would you say it has...? (Read below)

Increased it ..... 1

Decreased it, or .....2

No change.....3

Don't know/ refused (DO NOT READ) .....9

**Q14I2 Not asked in 2004 or 2005**

Q14I2. Where did you used to go to play slot machines before this facility was expanded?

Did not used to play anywhere ..... 00

Burnaby - Gateway Casino ..... 01

Coquitlam - Great Canadian Casino..... 02

New Westminster - Gateway Casino (Royal Towers Hotel) ..... 03

New Westminster - Royal City Star Riverboat Casino ..... 04

Richmond - River Rock Casino Resort ..... 05

Surrey - Fraser Downs Gaming Centre..... 06

Vancouver - Gateway Casino (Mandarin Centre) ..... 07

Vancouver - Grand Casino ..... 08

Vancouver - Great Canadian Casino (Holiday Inn)..... 09

BC - Outside Lower Mainland ..... 10

Washington State..... 11

Las Vegas/ Reno ..... 12

Cruise Ships ..... 13

Langley - Gateway Casino ..... 14

Vancouver - Edgewater Casino (Plaza of Nations)..... 15

Record name of facility/ jurisdiction ..... 91

Don't know/ refused..... 98

Record response ..... 91

Don't know/ refused..... 98

**Q14J2 Not asked in 2004 or 2005**

Q14J2. Do you spend less on other things now that you sometimes play the

slot machines at Hastings Racetrack?	
Yes – spend less on other things.....	1
No change in spending habits .....	2
Don't know/ refused.....	9

#### **Q14K2 Not asked in 2004 or 2005**

=> +1 if Q14J2=2

Q14K2. What things would that be?	
Record response .....	91
Don't know/ refused.....	98

#### **Q15A**

=> Q16A if AREA=1,3,4

Q15A. Are you aware of Fraser Downs Gaming Centre in Surrey with its expanded facilities that opened in June 2005? [If not aware, tell respondent...] It is a horse race track and casino with 400 slot machines and 3 table games.	
Yes .....	1
No.....	2

#### **Q15B**

Q15B. Overall, would you say Fraser Downs Gaming Centre is likely to be (read below) to the community?	
Very beneficial .....	1
Somewhat beneficial .....	2
Neither beneficial nor harmful .....	3
Somewhat harmful.....	4
Very harmful.....	5
Don't know/ refused (DO NOT READ) .....	9

#### **Q15C**

Q15C. In your own words, what would you say are the likely major benefits, if any, of this facility? Any others? (Up to four responses)	
No benefits at all.....	00
Provides employment .....	01
Provides a convenient source of recreation.....	02
Entertainment value .....	03

Brings money into the community..... 04

Increases local or provincial revenue ..... 05

Decreases taxes..... 06

Creates positive spin-offs to other local businesses..... 07

Increases tourism ..... 08

Decreases illegal gambling..... 09

Keeps gambling money from going to outside jurisdictions ..... 10

Provides money for good causes..... 11

Supports the horse racing industry ..... 12

Revitalizes/ cleans-up the area ..... 13

Attracts new businesses to the area..... 14

Keeps the race track/ Hastings Park open ..... 15

The convention centre/ hotel ..... 16

Record responses ..... 91

Don't know/ refused..... 98

**Q15D**

Q15D. In your own words, what would you say are the likely major drawbacks, if any, of this facility? Any others? (Up to four responses)

No drawbacks at all..... 00

Increases gambling addiction ..... 01

Exposes young people to gambling ..... 02

Negatively impacts people who can least afford to lose money ..... 03

Is morally corrupting..... 04

Negatively impacts local businesses..... 05

Negatively impacts other forms of gambling (charity bingo, racing, etc.) ..... 06

Brings greater noise/congestion/traffic ..... 07

Adds to crime and/or policing costs ..... 08

More people will be drinking..... 09

Adds to family problems ..... 10

Attracts the wrong people to the area ..... 11

Negatively impacts the community image ..... 12

People will waste/ lose money gambling..... 13

Record responses ..... 91

Don't know/ refused..... 98

**Q15E-Q15K – NEW FOR 2005**

**Q15E**

=> Q16A if AREA=1,3,4 OR Q15A=2

Q15E. Have you ever gambled at Fraser Downs Gaming Centre since the addition of the new slot machines and table games?

Yes ..... 1

No.....2 => Q16A

**Q15F**

Q15F. How many times have you gone to Fraser Downs Gaming Centre since the addition of the new slot machines and table games?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month).....2

Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4

Only a few days (1 - 5 times per year).....5

Not at all (0 times) .....6 => Q16A

Don't know/ refused (DO NOT READ) .....9

**Q15G**

Q15G. On average, how much do you spend per visit?

Enter amount per visit.....

Reports winning in a typical visit .....666666

Don't know/ refused..... 999999

**Q15H**

Q15H. What sort of impact has the addition of the new slot machines and table games at this facility had on your overall gambling behaviour? Would you say it has...? (Read below)

Increased it ..... 1

Decreased it, or .....2

No change.....	3
Don't know/ refused (DO NOT READ) .....	9

**Q15I**

Q15I. Where did you used to go to play table games or slot machines before this facility was expanded?

Did not used to play anywhere .....	00
Burnaby - Gateway Casino .....	01
Coquitlam - Great Canadian Casino.....	02
New Westminster - Gateway Casino (Royal Towers Hotel) .....	03
New Westminster - Royal City Star Riverboat Casino .....	04
Richmond - River Rock Casino Resort .....	05
Vancouver - Gateway Casino (Mandarin Centre) .....	07
Vancouver - Grand Casino.....	08
Vancouver - Great Canadian Casino (Holiday Inn).....	09
BC - Outside Lower Mainland .....	10
Washington State.....	11
Las Vegas/ Reno .....	12
Cruise Ships .....	13
Langley - Gateway Casino .....	14
Vancouver - Edgewater Casino (Plaza of Nations).....	15
Record name of facility/ jurisdiction .....	91
Don't know/ refused.....	98
Record response .....	91
Don't know/ refused.....	98

**Q15J**

Q15J. Do you spend less on other things now that you sometimes gamble at the expanded Fraser Downs Gaming Centre?

Yes – spend less on other things.....	1
No change in spending habits .....	2

Don't know/ refused.....9

**Q15K**

=> +1 if Q15J=2

Q15K. What things would that be?  
Record response ..... 91  
Don't know/ refused..... 98

**Q16A**

=> Q18 if AREA=1,2

Q16A. Are you aware of Gateway Casino that opened in Langley in May 2005?  
[If not aware, tell respondent...] It is an integrated casino, hotel and convention  
centre with 500 slot machines and 33 table games.  
Yes ..... 1  
No.....2

**Q16B**

Q16B. Overall, would you say Gateway Casino is likely to be (read below) to the  
community?  
Very beneficial ..... 1  
Somewhat beneficial ..... 2  
Neither beneficial nor harmful ..... 3  
Somewhat harmful ..... 4  
Very harmful..... 5  
Don't know/ refused (DO NOT READ) ..... 9

**Q16C**

Q16C. In your own words, what would you say are the likely major benefits, if  
any, of this facility? Any others? (Up to four responses)  
No benefits at all..... 00  
Provides employment ..... 01  
Provides a convenient source of recreation..... 02  
Entertainment value ..... 03  
Brings money into the community..... 04  
Increases local or provincial revenue ..... 05

Decreases taxes..... 06

Creates positive spin-offs to other local businesses..... 07

Increases tourism ..... 08

Decreases illegal gambling..... 09

Keeps gambling money from going to outside jurisdictions ..... 10

Provides money for good causes..... 11

Supports the horse racing industry..... 12

Revitalizes/ cleans-up the area..... 13

Attracts new businesses to the area..... 14

Keeps the race track/ Hastings Park open..... 15

The convention centre/ hotel ..... 16

Record responses ..... 91

Don't know/ refused..... 98

**Q16D**

Q16D. In your own words, what would you say are the likely major drawbacks, if any, of this facility? Any others? (Up to four responses)

No drawbacks at all..... 00

Increases gambling addiction ..... 01

Exposes young people to gambling ..... 02

Negatively impacts people who can least afford to lose money ..... 03

Is morally corrupting..... 04

Negatively impacts local businesses..... 05

Negatively impacts other forms of gambling (charity bingo, racing, etc.) ..... 06

Brings greater noise/congestion/traffic ..... 07

Adds to crime and/or policing costs ..... 08

More people will be drinking..... 09

Adds to family problems ..... 10

Attracts the wrong people to the area ..... 11

Negatively impacts the community image ..... 12

People will waste/ lose money gambling..... 13

Record responses ..... 91

Don't know/ refused..... 98

**Q16E-Q16K – NEW FOR 2005**

**Q16E**

=> Q18 if AREA=1,2 OR Q16A=2

Q16E. Have you ever gambled at Langley Gateway Casino?

Yes ..... 1

No.....2 => Q18

=

**Q16F**

Q16F. How many times have you gone to Langley Gateway Casino since it opened?

Daily (30+ times per month) ..... 1

Several times a week (6 - 29 times per month).....2

Several times a month (3 - 5 times per month) .....3

Once a month or less (6 - 12 times per year) .....4

Only a few days (1 - 5 times per year).....5

Not at all (0 times) .....6 => Q18

Don't know/ refused (DO NOT READ) .....9

**Q16G**

Q16G. On average, how much do you spend per visit?

Enter amount per visit.....

Reports winning in a typical visit.....666666

Don't know/ refused..... 999999

**Q16H**

Q16H. What sort of impact has this facility had on your overall gambling behaviour? Would you say it has...? (Read below)

Increased it ..... 1

Decreased it, or .....2

No change.....3

Don't know/ refused (DO NOT READ) .....9

**Q16I**

Q16I. Where did you used to go to play table games or slot machines before this facility was built?

Did not used to play anywhere .....	00
Burnaby - Gateway Casino .....	01
Coquitlam - Great Canadian Casino.....	02
New Westminster - Gateway Casino (Royal Towers Hotel) .....	03
New Westminster - Royal City Star Riverboat Casino .....	04
Richmond - River Rock Casino Resort .....	05
Surrey - Fraser Downs Gaming Centre.....	06
Vancouver - Gateway Casino (Mandarin Centre) .....	07
Vancouver - Grand Casino.....	08
Vancouver - Great Canadian Casino (Holiday Inn).....	09
BC - Outside Lower Mainland .....	10
Washington State .....	11
Las Vegas/ Reno .....	12
Cruise Ships .....	13
Vancouver - Edgewater Casino (Plaza of Nations).....	15
Record name of facility/ jurisdiction .....	91
Don't know/ refused.....	98
Record response .....	91
Don't know/ refused.....	98

**Q16J**

Q16J. Do you spend less on other things now that you sometimes gamble at Langley Gateway Casino?

Yes – spend less on other things.....	1
No change in spending habits .....	2
Don't know/ refused.....	9

**Q16K**

=&gt; +1 if Q16J=2

Q16K. What things would that be?	
Record response .....	91
Don't know/ refused.....	98

**Q17 – DELETED IN 2005**

=> D1 if Q1=6 AND Q2=6 AND Q3=6 AND Q4=6 AND Q4B=6 AND  
Q5=6 AND Q6=6 AND Q7=6 AND Q8=6 AND Q9=6 AND  
Q10=6 AND Q11=6

**CANADIAN PROBLEM GAMBLING INDEX****INTRODUCTION**

Now I will ask some questions about how often you may or may not have experienced some things as a result of your gambling. Some of the questions may not apply to you, but please try to be as accurate as possible.

**Q18**

Q18. Thinking about the past 12 months, how often have you bet more than you could really afford to lose? *Would you say never, sometimes, most of the time or almost always?*

Never.....	1
Sometimes.....	2
Most of the time .....	3
Almost always.....	4
Don't know (DO NOT READ).....	5
No answer/ refused (DO NOT READ) .....	9

**Q19**

Q19. *Still thinking about* the past 12 months, how often have you felt guilty about the way you gamble or what happens when you gamble? *Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]*

Insists does not have a gambling problem.....	0 => D1
Never.....	1
Sometimes.....	2
Most of the time .....	3

Almost always.....4  
 Don't know (DO NOT READ).....5  
 No answer/ refused (DO NOT READ) .....9 => D1

**Q20**

Q20. And, (in the past 12 months), how often have you needed to gamble with larger amounts of money to get the same feeling of excitement? *Would you say never, sometimes, most of the time or almost always?* [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]

Insists does not have a gambling problem.....0 => D1  
 Never.....1  
 Sometimes.....2  
 Most of the time .....3  
 Almost always.....4  
 Don't know (DO NOT READ).....5  
 No answer/ refused (DO NOT READ) .....9 => D1

**Q21**

Q21. And (in the past 12 months), how often when you gambled did you go back another day to try to win back the money you lost? *Would you say never, sometimes, most of the time or almost always?* [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]

Insists does not have a gambling problem.....0 => D1  
 Never.....1  
 Sometimes.....2  
 Most of the time .....3  
 Almost always.....4  
 Don't know (DO NOT READ).....5  
 No answer/ refused (DO NOT READ) .....9 => D1

**Q22**

Q22. And (in the past 12 months), how often have you borrowed money or sold anything to get money to gamble? Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]

- Insists does not have a gambling problem.....0 => D1
- Never.....1
- Sometimes.....2
- Most of the time .....3
- Almost always.....4
- Don't know (DO NOT READ) .....5
- No answer/ refused (DO NOT READ) .....9 => D1

**Q23**

Q23. And (in the past 12 months), how often has your gambling caused any financial problems for you or your household? Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]

- Insists does not have a gambling problem.....0 => D1
- Never.....1
- Sometimes.....2
- Most of the time .....3
- Almost always.....4
- Don't know (DO NOT READ) .....5
- No answer/ refused (DO NOT READ) .....9 => D1

**Q24**

Q24. And in the past 12 months, has your gambling caused you any health problems, including stress or anxiety? Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]

- Insists does not have a gambling problem.....0 => D1
- Never.....1

Sometimes .....	2
Most of the time .....	3
Almost always.....	4
Don't know (DO NOT READ).....	5
No answer/ refused (DO NOT READ) .....	9 => D1

**Q25**

Q25. And in the past 12 months, how often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? *Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]*

Insists does not have a gambling problem.....0 => D1

Never.....1

Sometimes.....2

Most of the time .....3

Almost always.....4

Don't know (DO NOT READ).....5

No answer/ refused (DO NOT READ) .....9 => D1

**Q26**

Q26. In the past 12 months, how often have you felt that you might have a problem with gambling? *Would you say never, sometimes, most of the time or almost always? [If they insist they do not have a gambling problem skip to the next section and record a 0 for the remaining questions. If they simply refuse to answer any more of these problem questions skip to the next section and record a 9 for the remaining questions.]*

Insists does not have a gambling problem.....0 => D1

Never.....1

Sometimes.....2

Most of the time .....3

Almost always.....4

Don't know (DO NOT READ).....5

No answer/ refused (DO NOT READ) .....9 => D1

**Q27 – DELETED IN 2005**

**DEMOGRAPHICS INTRODUCTION**

Now we have some statistical questions to help classify your responses. All information is anonymous of course.

D1. Which of the following age groups do you fall within?

19 - 24 .....1

25 - 34.....2

35 - 44 .....3  
 45 - 54 .....4  
 55 - 64 .....5  
 65 or over .....6  
 Refused (DO NOT READ) .....9

**D2**

D2. Currently, which best describes you (read below)?  
 Married ..... 1  
 Living with a partner .....2  
 Widowed .....3  
 Divorced .....4  
 Separated .....5  
 Never married .....6  
 Refused (DO NOT READ) .....9

**D3**

D3. Which of the following broad categories best describes your family income? That is the combined total income before taxes of all persons in your household. Would you say...? (Read list below)  
 Under \$30,000 ..... 1  
 \$30,000 to just under \$60,000 .....2  
 \$60,000 to just under \$100,000 .....3  
 \$100,000 or more .....4  
 Don't know/ refused (DO NOT READ) .....9

**D4**

D4. What is the highest level of formal education that you have completed? [If necessary, read list below]  
 Grade school or some high school ..... 1  
 High school .....2  
 Post secondary technical school .....3  
 Some college or university .....4

College diploma.....	5
University degree.....	6
Post graduate degree (Masters, PhD, etc.).....	7
Refused (DO NOT READ).....	9

**D5**

**Clarify**

D5. What is your present job status? Are you employed full-time, employed part-time, unemployed, a student, retired or a homemaker?

Employed full-time (30 or more hours/week).....	1
Employed part-time (less than 30 hours/week).....	2
Unemployed (not looking work).....	3
Unemployed (but looking for work).....	4
Student - employed part-time or full-time.....	5
Student - not employed.....	6
Homemaker.....	7
Retired.....	8
Refused.....	9

**D6**

=> +1 if            D5=9

D6. What IS/ WAS your occupation? [Read list only to clarify]

Never been employed.....	00
Professional (doctor, lawyer, teacher, nurse).....	01
Business executive/ manager.....	02
Owner/ entrepreneur/ self-employed.....	03
Commission/ agency sales.....	04
Clerical/ service/ retail sales.....	05
Technical (e.g., computer programmer).....	06
Skilled labour (plumber, carpenter, electrician).....	07
Unskilled labour (e.g., waitress/ janitorial services).....	08
Police/ military.....	09

Farmer/ fisher.....	10
Other - specify .....	91
Refused (DO NOT READ) .....	98

**D7**

D7. Finally, to what ethnic group did you and your ancestors belong to on first coming to this country? [If person says "Canadian", prompt with...]"In addition to Canadian?" [If not clear, say...]"Are you Scottish, Chinese, Greek, etc.?"

Aboriginal/ Native/ Metis .....	01
African .....	02
Arabic.....	03
English/ Irish/ Scottish/ Welsh .....	04
French.....	05
Central or Eastern European (Czech, Polish, Croatian, Serbian, etc.) .....	06
Chinese/ Hong Kong/ Taiwanese.....	07
Dutch .....	08
East Indian/ Pakistani.....	09
Filipino/ Philippines.....	10
German .....	11
Greek.....	12
Hungarian .....	13
Italian .....	14
Japanese .....	15
Jewish.....	16
Korean .....	17
Mennonite .....	18
Persian (Iranian) .....	19
Portuguese .....	20
Russian .....	21
Scandinavian - Sweden, Norway, Denmark, Finland, Iceland .....	22

South or Central America or Mexico .....	23	
Spanish.....	24	
Swiss.....	25	
Thai.....	26	
Ukrainian .....	27	
Vietnamese/ Laotian/ Cambodian .....	28	
American .....	29	
Austrian.....	30	
Belgium.....	31	
Fijian.....	32	
Indonesian .....	33	
New Zealander .....	34	
Malaysian.....	35	
Record response - specify.....	91	
Refused .....	98	
<b>D8</b>		
D8. Gender (from voice)		
Male.....	1	
Female.....	2	
<b>INT</b>		
<b>END OF INTERVIEW</b>		
We are finished! On behalf of the provincial government and your municipality, thank you for participating.		
Complete.....	21	=> /END
Refused .....	02	=> /END
Line busy .....	03	=> /END
No answer call back.....	04	=> /END
Schedule call back.....	05	=> /CB
Disqualified – incorrect/ refused Area/ Postal Code.....	06	=> /END

Not in service/ business ..... 07 => /END  
 Interrupted – call back..... 08 => /CB  
 Terminated during interview ..... 09 => /END  
 Screened for gender/ age ..... 10 => /END  
 Language/ hearing difficulties ..... 11 => /END

**CB**

---

=> END if        \$A>25

---

When would be a good time to call back ?

APPENDIX B:  
CASINO PATRON SURVEYS

## Appendix B: Casino Patron Surveys

While the questions used at each venue are comparable, the wording changes between venues. After collecting surveys at Edgewater Casino, we realized many respondents did not fill out the second page. Therefore, the text was reduced for the other two venues so the survey would fit on one legal page. Also, at Fraser Downs Gaming Centre the wording of the survey was slightly different from the other venues to reflect the fact it was an expansion to an existing facility instead of a new venue. Please note that the formatting of the survey replicated below is different from the formatting on the survey that was used.

### Patron Survey for Edgewater

#### GAMING PATRON SURVEY

The City of Vancouver and the Province of BC would like to know more about the social and economic impact of the Edgewater Casino on the local community. This survey is voluntary. All your responses will be kept confidential and you will remain anonymous.

1. How often do you come here?

- Daily
- Several times/wk
- Several times/mo
- Once a month or less
- Only been here a couple of times    This is my first visit

2. Roughly how much do you estimate you spend on gambling each visit? \$\_\_\_\_\_

3. Roughly how much do you estimate you spend on food and drink each visit? \$\_\_\_\_\_

4. Roughly how much do you estimate you spend on accommodation each visit? \$\_\_\_\_\_

5. Do you visit or spend money on any other things when you come here?

- Yes
- No

If yes, what do you visit or spend money on? \_\_\_\_\_

6. What impact if any has this facility had on your gambling?

- I gamble more since this facility opened
- I gamble the same
- I gamble less

7. What impact if any has this facility had on your spending on other things such as food, clothing, other entertainment, etc.?

- I find that I am spending less on other things such as \_\_\_\_\_
- I find I am spending about the same on other things
- I find that I am spending more on other things such as \_\_\_\_\_

8. What was your favourite place to gamble before this facility opened?

- Fraser Downs Gaming Centre
- Edgewater Casino
- Gateway Casino in Langley
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star (River Boat Casino) New Westminster
- Lakeside Resort Casino Penticton
- One or more of the casinos in Washington State
- Las Vegas, Nevada
- Reno, Nevada
- Other (Please name) \_\_\_\_\_
- Did not gamble before

9. What is your favourite place to gamble now?

- Fraser Downs Gaming Centre
- Edgewater Casino
- Gateway Casino in Langley
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star (River Boat Casino) New Westminster
- Lakeside Resort Casino Penticton
- One or more of the casinos in Washington State
- Las Vegas, Nevada
- Reno, Nevada
- Other (Please name) \_\_\_\_\_

10. What province or state do you live in?

- BC
- AB
- WASHINGTON
- OTHER \_\_\_\_\_

11. In what city?

- Abbotsford
- Agassiz
- Burnaby
- Cloverdale
- Delta
- Langley
- Richmond
- Surrey
- Vancouver
- Other \_\_\_\_\_

12. What are the first 3 digits of your postal code or the five digits of your zip code? \_\_\_\_\_

13. You are:

- male
- female

14. In what year were you born? 19 \_\_\_\_ \_\_\_\_

15. Marital status:

- Married
- Living with a partner
- Widowed
- Divorced
- Separated
- Never married

16. Which of the following broad categories best describes your family income? (That is, the combined total income before taxes of all persons in your household?)

- Under \$30,000
- \$30,000 to under \$60,000
- \$60,000 to under \$100,000
- \$100,000 +

17. What is the highest level of education that you have completed?

- Grade school or some high school
- Completed high school
- Post secondary technical school
- Some college or university
- Completed college diploma
- Completed university degree
- Post-grad degree (Masters, PhD, etc.)

18. To what ethnic or cultural group(s) did your ancestors belong? (For example, Canadian, French, English, American, Chinese, Italian, German, Scottish, Irish, Cree, Micmac, Métis, Inuit (Eskimo), East Indian, Ukrainian, Dutch, Polish, Portuguese, Filipino, Jewish, Greek, Jamaican, Vietnamese, Lebanese, Chilean, Somali, etc.). Specify as many groups as applicable.

---

19. Do you have anything you would like to add?

Thank you for participating in our survey!

### Patron Survey for Fraser Downs

The City of Surrey and the Province of BC would like to know more about the social and economic affect of Fraser Downs Gaming Centre (Not the Race Track). This survey is voluntary. Your responses are confidential and anonymous.

1. How often do you come here?

- Daily
- Several times a week
- Several times a month
- Once a month or less
- Only been here a couple of times
- his is my first visit

2. Each visit, about how much do you spend on gambling? \$\_\_\_\_\_

3. Each visit, about how much do you spend on food and drink? \$\_\_\_\_\_

4. Each visit, about how much do you spend on hotels or other accommodation? \$\_\_\_\_\_

5. Each visit, what else do you visit or spend money on?

- \_\_\_\_\_
- Nothing

6. Because slot machines were added to Fraser Downs:

- I gamble more now
- I gamble the same now
- I gamble less now

7. Because slot machines were added to Fraser Downs:

- I spend less on other things such as
  - Food
  - Clothes
  - Other\_\_\_\_\_
- I spend about the same on other things
- I spend more on other things such as
  - Food

- Clothes
- Other \_\_\_\_\_

8. Before slot machines were added to Fraser Downs, what was your #1 favourite place to gamble?

- Edgewater Casino
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star New Westminster
- Another casino in BC
- A casino in Washington State
- A casino in Las Vegas or Reno
- Other (Please name) \_\_\_\_\_
- Did not gamble before this casino opened

9. What is your #1 favourite place to gamble now?

- Cascades Casino in Langley
- Fraser Downs Gaming Centre
- Edgewater Casino
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star New Westminster
- Another casino is BC
- A casino Washington State
- A casino in Las Vegas or Reno
- Other (Please name) \_\_\_\_\_

10. Your province or state?

- BC
- AB
- Washington
- Other \_\_\_\_\_

11. Your city?

- Burnaby
- Langley
- Richmond
- Surrey
- Vancouver
- Other \_\_\_\_\_

12. What are the first 3 digits of your postal code? \_\_\_\_\_ or zip code? \_\_\_\_\_

13. You are:

- Male
- Female
- 

14. In what year were you born? 19 \_\_\_\_ \_\_\_\_

15. Marital status:

- Married
- Living with a partner
- Widowed
- Divorced
- Separated
- Never married

16. Family income:

- Under \$30,000    \$30,000 to under \$60,000
- \$60,000 to under \$100,000    \$100,000 +

17. Level of education:

- Grade school or some high school
- Completed high school
- Post secondary technical school
- Some college or university
- Completed college diploma
- Completed university degree
- Post-grad degree (Masters, PhD, etc.)

18. Ethnic or cultural group(s): (For example, Canadian, French, English, American, Chinese, Italian, German, Scottish, Irish, First Nations, Métis, Inuit, East Indian, Ukrainian, Dutch, Polish, Portuguese, Filipino, Jewish, Greek, Jamaican, Vietnamese, Lebanese, Chilean, Somali, etc.). Specify as many groups as applicable.

\_\_\_\_\_

Thank you for participating in our survey! Please write any comments on the back.

### Patron Survey for Cascades Casino

The City of Langley and the Province of BC would like to know more about the social and economic affect of the Cascades Casino. This survey is voluntary. Your responses are confidential and anonymous.

1. How often do you come here?

- Daily
- Several times a week
- Several times a month
- Once a month or less
- Only been here a couple of times
- First visit

2. Each visit, about how much do you spend on gambling? \$\_\_\_\_\_

3. Each visit, about how much do you spend on food and drink? \$\_\_\_\_\_

4. Each visit, about how much do you spend on hotels or other accommodation? \$\_\_\_\_\_

5. Each visit, what else do you visit or spend money on?

- \_\_\_\_\_
- Nothing

6. Because this casino opened:

- I gamble more now
- I gamble the same now
- I gamble less now

7. Because this casino opened:

- I spend less on other things (such as food, clothes, etc.) Please list \_\_\_\_\_
- I spend about the same on other things
- I spend more on other things (such as food, clothes, etc.) Please list \_\_\_\_\_

8. Before this casino opened, what was your #1 favourite place to gamble?

- Fraser Downs Gaming Centre
- Edgewater Casino
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star New Westminster
- Another casino in BC
- A casino in Washington State
- A casino in Las Vegas or Reno

- Other (Please name) \_\_\_\_\_
- Did not gamble before this casino opened

9. What is your #1 favourite place to gamble now?

- Cascades Casino in Langley
- Fraser Downs Gaming Centre
- Edgewater Casino
- Great Canadian Casino Coquitlam
- River Rock Casino Richmond
- Royal City Star New Westminster
- Another casino in BC
- A casino in Washington State
- A casino in Las Vegas or Reno
- Other (Please name) \_\_\_\_\_

10. Your province or state?

- BC
- AB
- WASHINGTON
- OTHER \_\_\_\_\_

11. Your city?

- Burnaby
- Langley
- Richmond
- Surrey
- Vancouver
- Other \_\_\_\_\_

12. What are the first 3 digits of your postal code? \_\_\_\_\_ or zip code? \_\_\_\_\_

13. You are:

- Male
- Female

14. In what year were you born? 19 \_\_\_\_ \_\_\_\_

15. Marital status:

- Married
- Living with a partner

- Widowed
- Divorced
- Separated
- Never married

16. Family income:

- Under \$30,000
- \$30,000 to under \$60,000
- \$60,000 to under \$100,000
- \$100,000 +

17. Level of education:

- Grade school or some high school
- Completed high school
- Post secondary technical school
- Some college or university
- Completed college diploma
- Completed university degree
- Post-grad degree (Masters, PhD, etc.)

18. Ethnic or cultural group(s): (For example, Canadian, French, English, American, Chinese, Italian, German, Scottish, Irish, First Nations, Métis, Inuit, East Indian, Ukrainian, Dutch, Polish, Portuguese, Filipino, Jewish, Greek, Jamaican, Vietnamese, Lebanese, Chilean, Somali, etc.). Specify as many groups as applicable.

---

Thank you for participating in our survey! Please write any comments on the back.

APPENDIX C:  
COMMUNITY CHARACTERISTICS  
AND MATCHING

The following characteristics will be used to match study communities with control communities for statistical power.

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Vancouver	114.67	50.9%	545671	12.9	45.4%	55.7%	65.1	8.3	\$51,258	1.53%	5.47%
Surrey	317.4	50.5%	347825	10.8	33.0%	52.1%	67.0	7.4	\$55,608	0.93%	3.42%
Chilliwack	257.96	51.4%	62927	15.7	13.9%	48.2%	62.5	8.3	\$49,998	0.87%	3.75%
Langley, City	10.22	52.5%	23643	15.1	15.4%	53.1%	65.9	7.3	\$53,704	0.99%	3.98%
Nelson	7.27	52.6%	9298	15.4	13.6%	51.2%	63.6	8.9	\$52,488	1.18%	5.05%
100 Mile House	51.34	55.5%	1739	20.2	9.8%	47.7%	60.5	13.2	\$46,932	1.73%	4.03%
Abbotsford	359.18	50.6%	115463	13.9	23.4%	51.3%	67.0	8.2	\$51,498	0.59%	3.37%
Alberni-Clayoquot	6885.3	49.5%	30,345	13.9	11.3%	49.1%	61.3	13.8	\$50,090	0.89%	5.11%
Alert Bay	1.82	50.6%	583	8.5	12.9%	60.9%	79.8	16.9	\$43,488	1.72%	6.00%
Anmore	27.42	50.6%	1344	5.2	18.2%	58.4%	80.1	4.5	\$84,102	2.98%	1.49%
Armstrong	5.23	53.9%	4258	19.6	6.9%	45.2%	58.0	10.1	\$42,768	0.59%	3.64%
Ashcroft	7.96	51.5%	1788	21.3	8.1%	45.3%	55.6	6.7	\$53,532	0.56%	4.75%
Belcarra	5.46	49.9%	682	8.8	14.7%	59.4%	73.0	3.7	\$105,016	0.00%	2.20%
Bowen Island	49.94	51.1%	2957	10.3	22.3%	58.7%	75.4	4.6	\$73,932	3.38%	3.21%
Bulkley-Nechako	77821	48.6%	40856	8.2	10.9%	52.9%	70.3	12.6	\$57,841	0.77%	2.99%
Burnaby	90.09	51.1%	193954	13.4	46.8%	51.8%	62.5	8.3	\$51,571	0.96%	4.02%
Burns Lake	7.11	50.2%	1942	11.6	6.4%	52.3%	71.6	15.7	\$60,548	0.51%	6.18%
Cache Creek	10.57	48.3%	1056	19.0	5.2%	43.1%	52.6	7.6	\$38,988	0.00%	9.00%
Campbell River	133.34	50.4%	28456	11.1	12.4%	52.6%	66.4	12.7	\$54,289	1.18%	5.15%
Capital	2454	52.4%	325754	18.0	18.7%	53.3%	64.0	6.6	\$58,343	1.28%	4.48%
Cariboo	82529.1	49.4%	65659	10.7	10.9%	53.7%	68.2	14.3	\$51,071	0.57%	4.68%
Castlegar	18	51.8%	7002	16.1	11.7%	50.4%	62.3	11.3	\$55,521	0.36%	3.93%
Central Coast	25180.8	47.6%	3781	7.5	5.7%	51.0%	66.6	20.0	\$37,014	0.93%	3.17%
Central Kootenay	23160.3	50.3%	57019	16.1	11.6%	50.1%	61.9	11.6	\$47,299	1.05%	4.61%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Central Okanagan	3034.9	51.7%	147739	18.5	13.7%	50.3%	62.0	8.8	\$51,136	1.25%	4.42%
Central Saanich	41.39	41.39	15348	17.1	17.0%	54.0%	65.7	4.0	\$67,573	1.66%	2.54%
Chase	3.05	51.0%	2460	26.4	7.5%	38.6%	47.6	13.2	\$40,560	0.61%	3.05%
Clinton	1.46	49.1%	621	16.9	12.1%	33.8%	42.7	4.9	\$37,428	1.61%	5.64%
Coldstream	67.25	50.1%	9106	13.1	12.5%	53.5%	67.5	8.3	\$65,076	2.09%	3.40%
Columbia-Shuswap	30107.2	50.2%	48219	16.9	10.7%	50.4%	62.1	11.4	\$48,144	1.41%	6.45%
Colwood	17.76	51.0%	13745	9.6	11.1%	53.0%	69.5	4.9	\$62,547	0.95%	2.87%
Comox	14.2	52.5%	11172	19.9	13.4%	45.8%	57.0	7.8	\$56,050	0.98%	2.33%
Comox-Strathcona	20298.7	50.5%	96131	13.7	12.7%	51.1%	63.7	12.0	\$50,926	1.21%	4.61%
Coquitlam	121.68	50.7%	112890	9.8	36.6%	53.5%	67.2	7.0	\$60,031	1.09%	3.43%
Courtenay	17.02	52.4%	18304	16.5	12.8%	48.7%	61.1	13.3	\$46,719	0.90%	5.76%
Cowichan Valley	3508.9	51.0%	71998	16.9	13.3%	48.4%	60.7	9.7	\$51,446	1.10%	3.57%
Cranbrook	17.8	51.5%	18476	13.9	8.1%	50.2%	63.7	10.7	\$53,317	1.08%	4.47%
Creston	8.48	52.8%	4795	29.9	11.1%	42.1%	51.6	9.9	\$43,699	1.25%	4.07%
Cumberland	7.74	50.8%	2618	13.9	10.3%	50.2%	64.9	13.7	\$46,975	0.95%	3.44%
Dawson Creek	20.66	51.1%	10754	11.1	6.8%	53.5%	69.5	10.4	\$53,155	0.84%	5.07%
Delta	183.78	50.8%	96950	11.1	26.6%	54.5%	69.1	5.4	\$70,509	0.82%	3.24%
Duncan	2.05	55.0%	4699	29.1	100.0%	39.7%	50.5	14.2	\$39,216	1.06%	3.30%
East Kootenay	27567.8	49.9%	56291	12.8	9.7%	53.6%	66.4	9.6	\$55,468	1.86%	6.16%
Elkford	101.59	46.0%	2589	4.8	12.9%	52.9%	68.1	6.5	\$67,614	0.39%	3.48%
Enderby	4.22	53.1%	2818	24.1	7.8%	35.5%	45.1	12.4	\$34,936	0.89%	2.31%
Esquimalt	7.04	51.0%	16127	15.5	13.1%	55.5%	66.4	7.2	\$51,074	0.78%	5.46%
Fernie	16.05	49.7%	4611	12.4	10.7%	57.8%	70.4	9.8	\$59,422	3.36%	10.63%
Fort Nelson	10.43	46.9%	4188	3.1	4.2%	62.1%	83.5	5.8	\$70,034	0.48%	6.57%
Fort St. James	22.11	48.5%	1927	6.5	9.9%	57.9%	72.9	7.2	\$61,709	1.82%	2.59%
Fort St. John	21.54	48.9%	16034	6.2	5.6%	59.3%	77.9	9.2	\$61,980	0.56%	5.71%
Fraser Lake	3.9	49.7%	1268	7.9	8.7%	55.2%	72.4	15.8	\$58,227	0.00%	4.34%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
<b>Gold River</b>	10.51	47.8%	1359	7.7	13.2%	54.5%	71.2	18.2	\$61,226	0.74%	1.47%
<b>Golden</b>	11.02	49.1%	4020	10.6	8.7%	54.7%	70.0	8.7	\$55,391	2.11%	10.82%
<b>Grand Forks</b>	10.44	51.4%	4054	23.6	9.4%	46.1%	57.2	6.9	\$41,889	0.62%	4.07%
<b>Granisle</b>	40.21	46.7%	353	25.4	8.5%	45.3%	49.2	31.2	\$32,254	0.00%	2.83%
<b>Greater Vancouver</b>	3395.2	51.0%	1986965	12.2	37.2%	54.0%	66.2	7.2	\$57,926	1.21%	4.10%
<b>Greenwood</b>	2.53	48.8%	656	26.9	10.7%	42.7%	50.0	12.5	\$37,629	1.52%	1.52%
<b>Harrison Hot Springs</b>	5.47	49.5%	1343	18.2	22.3%	48.8%	58.0	4.6	\$49,224	1.86%	10.05%
<b>Hazelton</b>	2.85	47.8%	345	8.8	11.6%	47.8%	71.7	15.2	\$58,444	0.00%	2.90%
<b>Highlands</b>	37.87	50.2%	1674	5.4	8.7%	67.2%	85.2	4.0	\$74,666	1.79%	2.99%
<b>Hope</b>	41.42	49.8%	6184	19.0	14.6%	49.1%	60.4	11.9	\$42,526	1.05%	9.22%
<b>Houston</b>	72.83	46.8%	3577	6.3	12.7%	58.4%	75.7	11.7	\$61,923	0.00%	3.77%
<b>Hudson's Hope</b>	927.03	48.1%	1039	12.5	10.6%	48.1%	59.5	17.0	\$58,301	1.92%	0.96%
<b>Invermere</b>	8.43	51.4%	2858	14.2	11.7%	58.3%	72.7	4.2	\$57,337	4.72%	9.45%
<b>Kamloops</b>	297.57	51.3%	77281	12.2	10.3%	53.8%	66.7	10.2	\$56,188	1.64%	4.74%
<b>Kaslo</b>	2.8	50.9%	1032	18.4	13.6%	48.0%	58.8	12.0	\$38,825	0.97%	12.11%
<b>Kelowna</b>	211.22	52.2%	96288	19.2	13.4%	50.8%	62.4	9.1	\$51,369	1.40%	4.66%
<b>Kent</b>	166.89	44.5%	4926	15.6	14.7%	43.8%	62.0	5.6	\$47,302	0.91%	4.97%
<b>Keremeos</b>	2.11	51.8%	1197	37.7	15.0%	29.2%	33.7	14.5	\$27,908	0.00%	1.67%
<b>Kimberley</b>	58.31	51.6%	6484	20.3	9.6%	50.1%	60.4	10.3	\$51,595	2.78%	6.25%
<b>Kitimat</b>	242.63	48.3%	10285	7.8	22.4%	53.0%	67.9	11.8	\$74,244	0.53%	2.48%
<b>Kitimat-Stikine</b>	98921	48.4%	40876	7.7	12.6%	51.7%	68.1	17.2	\$56,409	0.70%	3.34%
<b>Kootenay-Boundary</b>	8300.7	50.5%	31843	18.5	11.2%	49.5%	60.7	9.7	\$51,647	1.00%	4.11%
<b>Ladysmith</b>	8.43	51.5%	6587	17.9	9.4%	46.9%	59.3	10.8	\$47,782	1.06%	3.04%
<b>Lake Country</b>	122.16	49.6%	9267	13.0	14.5%	53.8%	66.2	6.1	\$53,220	1.46%	3.13%
<b>Lake Cowichan</b>	8.25	50.6%	2827	14.5	10.8%	44.9%	57.1	16.6	\$43,711	0.00%	2.65%
<b>Langford</b>	39.36	51.0%	18840	9.9	10.4%	55.6%	72.1	5.6	\$55,987	1.11%	3.21%
<b>Langley, Township</b>	306.81	50.6%	86896	11.0	15.3%	55.6%	71.8	5.1	\$66,674	1.19%	3.11%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Lillooet	27.18	50.0%	2741	12.2	11.7%	55.3%	69.8	9.2	\$46,136	0.55%	4.74%
Lions Bay	2.55	50.4%	1379	10.5	31.5%	61.3%	73.8	4.1	\$98,588	3.26%	1.81%
Logan Lake	325.36	50.6%	2185	20.6	8.9%	49.9%	58.9	6.4	\$59,252	1.83%	5.95%
Lumby	5.27	51.6%	1618	14.6	6.5%	40.2%	50.6	26.2	\$44,295	0.93%	0.93%
Lytton	6.71	50.2%	319	14.1	9.4%	54.9%	61.8	8.8	\$45,343	3.13%	3.13%
Mackenzie	219.39	45.9%	5206	2.2	10.3%	58.4%	77.4	7.7	\$73,953	0.38%	2.98%
Maple Ridge	265.69	50.3%	63169	10.7	16.4%	52.9%	69.2	6.2	\$62,293	0.97%	3.27%
Masset	19.45	48.6%	926	8.6	9.7%	51.8%	67.1	8.3	\$57,286	1.62%	4.32%
McBride	4.43	47.8%	711	10.5	8.4%	53.4%	74.3	6.7	\$44,770	1.41%	4.92%
Merritt	24.9	51.2%	7088	13.7	10.7%	47.4%	61.5	13.7	\$52,912	0.71%	5.78%
Metchosin	71.32	46.7%	4857	9.9	13.7%	54.8%	68.6	6.4	\$63,753	1.24%	2.37%
Midway	12.16	47.9%	658	22.7	6.8%	39.5%	46.4	-	\$59,725	0.00%	3.80%
Mission	225.78	49.4%	31272	10.5	14.6%	49.6%	66.2	8.1	\$53,791	1.06%	2.96%
Montrose	1.52	48.7%	1067	15.5	8.4%	48.7%	58.8	16.3	\$58,487	0.00%	2.34%
Mount Waddington	20248.7	47.9%	13111	5.9	8.4%	57.5%	74.7	10.7	\$57,045	0.99%	5.15%
Nakusp	7.42	50.9%	1698	16.8	10.0%	48.3%	61.0	20.1	\$46,690	0.00%	5.30%
Nanaimo	89.17	52.0%	73000	16.9	15.9%	49.3%	61.1	11.8	\$50,482	0.98%	4.32%
New Denver	1.07	52.0%	538	20.6	17.7%	42.8%	56.8	15.2	\$40,108	1.86%	6.51%
New Hazelton	25.64	50.0%	750	9.3	16.7%	48.0%	66.1	22.2	\$41,080	0.00%	4.00%
New Westminster	15.4	51.0%	54656	14.2	28.0%	56.5%	67.0	7.7	\$55,399	1.06%	3.17%
North Cowichan	193.98	51.9%	26148	16.5	15.2%	48.9%	61.3	9.4	\$52,762	1.05%	4.07%
North Okanagan	7901.9	51.6%	73227	17.5	11.3%	48.6%	60.2	10.8	\$46,240	1.43%	3.71%
North Saanich	37.14	50.7%	10436	19.6	22.0%	52.5%	61.7	4.3	\$78,683	1.29%	2.92%
North Vancouver, City	11.95	52.5%	44303	12.9	33.7%	60.4%	71.2	7.0	\$56,482	1.79%	4.64%
North Vancouver, DM	160.47	51.4%	82310	12.0	30.0%	55.7%	69.9	5.1	\$76,525	1.80%	3.53%
Northern Rockies	85808.1	46.5%	5720	3.1	4.4%	60.0%	81.5	6.8	\$69,045	0.44%	6.12%
Oak Bay	10.38	54.8%	17798	26.2	23.3%	46.6%	55.4	5.6	\$78,168	1.01%	2.98%
Okanagan-Similkameen	11017.5	52.0%	76635	25.5	16.8%	44.6%	53.5	9.9	\$43,071	0.80%	4.17%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Pitt Meadows	83.38	51.4%	14670	10.1	19.6%	56.1%	71.5	6.5	\$63,889	1.30%	4.40%
Port Alberni	19.87	50.3%	17,743	16.6	12.5%	45.4%	56.7	15.1	\$48,748	0.76%	3.58%
Port Alice	7.66	44.4%	1126	4.5	10.7%	62.2%	77.8	5.0	\$73,116	1.78%	4.00%
Port Clements	13.59	45.5%	516	7.8	15.5%	63.0%	79.3	12.3	\$73,922	0.00%	4.84%
Port Coquitlam	28.79	50.3%	51257	7.4	26.2%	56.0%	72.6	6.4	\$63,588	0.95%	3.63%
Port Edward	168.12	45.5%	659	7.6	6.1%	41.7%	57.3	29.1	\$41,140	0.00%	1.52%
Port Hardy	40.88	48.9%	4574	5.4	7.5%	59.2%	77.2	7.6	\$55,436	0.66%	5.79%
Port McNeill	7.74	47.1%	2821	4.2	10.1%	61.3%	78.6	7.8	\$73,038	0.35%	7.09%
Port Moody	25.62	50.7%	23816	6.7	26.9%	57.5%	73.5	5.7	\$70,239	1.34%	2.96%
Pouce Coupe	2.06	51.6%	833	21.7	9.0%	36.0%	56.6	15.0	\$44,812	0.00%	4.20%
Powell River	5264.2	50.0%	19765	16.6	13.9%	46.5%	57.4	8.5	\$49,519	0.73%	3.59%
Powell River	29.77	50.5%	12983	17.9	14.4%	45.7%	57.0	8.0	\$53,946	0.89%	3.85%
Prince George	315.99	49.9%	72406	7.6	10.0%	56.3%	72.1	11.4	\$60,578	0.99%	4.41%
Prince Rupert	54.9	49.3%	14643	8.2	14.5%	55.6%	73.4	15.4	\$60,536	0.79%	4.34%
Princeton	10.24	51.5%	2610	23.1	10.0%	43.3%	53.7	13.7	\$41,197	0.00%	5.75%
Qualicum Beach	12.45	53.5%	6921	38.0	25.6%	34.7%	38.9	8.7	\$52,466	1.81%	3.76%
Quesnel	35.34	50.7%	10044	12.4	12.4%	51.5%	66.7	13.4	\$52,372	0.85%	6.02%
Radium Hot Springs	5.48	48.0%	583	11.2	11.1%	54.9%	68.1	3.1	\$56,581	2.57%	18.01%
Revelstoke	30.72	49.9%	7500	12.1	10.1%	54.7%	68.6	10.2	\$56,448	1.53%	8.93%
Richmond	128.69	51.8%	164345	11.8	53.7%	52.1%	63.3	7.2	\$52,454	0.88%	4.47%
Rossland	49.2	50.5%	3646	10.0	12.3%	56.8%	71.8	8.5	\$69,450	3.02%	5.76%
Saanich	103.43	52.1%	103654	17.5	21.1%	52.9%	63.7	6.1	\$62,532	1.03%	4.48%
Salmo	2.38	52.7%	1120	16.5	7.1%	43.3%	55.7	14.4	\$39,397	1.34%	3.57%
Salmon Arm	155.38	52.9%	15210	19.7	10.8%	49.4%	61.4	9.4	\$47,835	0.99%	5.82%
Sayward	4.72	48.8%	379	12.0	23.7%	38.3%	44.6	13.8	\$38,569	0.00%	3.96%
Sechelt	39.71	53.4%	7775	23.0	17.2%	45.6%	55.4	6.9	\$46,694	1.35%	4.57%
Sicamous	14.39	50.4%	2720	22.8	10.1%	45.2%	54.1	18.7	\$41,166	1.47%	5.15%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Sidney	5.04	55.1%	10929	32.6	20.4%	43.6%	52.2	6.1	\$56,115	1.78%	3.80%
Silverton	0.44	54.1%	222	22.2	11.3%	58.6%	65.0	19.2	\$ -	0.00%	22.52%
Skeena-Queen Charlotte	19932.8	48.7%	21693	8.0	12.1%	54.6%	71.9	16.5	\$55,271	0.85%	3.90%
Slocan	0.75	49.1%	336	9.0	4.5%	55.1%	67.3	10.8	\$31,372	2.98%	7.44%
Smithers	15.54	51.1%	5414	9.8	11.8%	55.7%	74.8	9.4	\$62,115	1.02%	4.25%
Sooke	48.76	51.1%	8735	12.7	12.4%	53.7%	67.8	7.0	\$50,096	1.03%	3.72%
Spallumcheen	254.9	50.0%	5134	11.5	8.8%	55.9%	69.2	8.9	\$48,241	0.97%	3.02%
Sparwood	177.71	48.9%	3812	9.1	10.0%	54.6%	69.8	10.3	\$62,521	0.66%	3.93%
Squamish	95.41	49.2%	14247	8.7	19.2%	55.8%	72.7	7.3	\$63,579	1.79%	9.19%
Squamish-Lillooet	16693.7	47.7%	33011	6.6	14.8%	61.9%	77.5	7.9	\$59,943	3.73%	12.30%
Stewart	566.84	47.7%	661	5.3	5.3%	60.5%	74.5	24.1	\$53,723	1.51%	8.32%
Stikine	132496.21	48.6%	1316	8.7	12.5%	56.6%	72.3	18.1	\$47,657	0.00%	5.70%
Summerland	70.02	52.6%	10713	25.9	15.1%	46.1%	56.0	8.0	\$51,559	1.12%	3.31%
Sunshine Coast	3823.9	51.6%	25599	18.8	16.6%	48.2%	59.1	7.2	\$49,388	1.68%	3.52%
Tahsis	5.73	45.8%	600	5.0	13.3%	53.3%	65.3	26.6	\$57,011	0.00%	5.00%
Taylor	16.61	46.8%	1143	5.2	1.3%	57.3%	72.8	4.6	\$58,608	1.75%	3.50%
Telkwa	6.52	48.1%	1371	4.7	7.3%	57.3%	78.1	8.3	\$20,617	0.00%	5.47%
Terrace	41.45	49.6%	12109	8.5	13.8%	53.1%	70.5	13.5	\$59,539	1.20%	4.46%
Thompson-Nicola	45279.7	50.6%	119222	12.9	9.8%	52.8%	65.4	11.3	\$52,841	1.43%	4.89%
Tofino	10.64	49.8%	1466	6.1	10.6%	68.9%	81.8	5.0	\$50,412	2.05%	20.80%
Trail	34.78	52.6%	7675	27.3	14.5%	42.9%	52.6	12.6	\$53,450	0.65%	3.58%
Tumbler Ridge	1574.45	48.1%	1851	4.9	8.6%	57.0%	71.8	10.0	\$65,351	0.54%	3.24%
Ucluelet	6.55	48.4%	1559	7.7	10.3%	62.9%	79.4	9.7	\$48,359	1.92%	11.87%
Valemount	3.92	48.5%	1195	10.9	7.1%	57.3%	74.2	13.8	\$43,969	1.67%	11.72%
Vanderhoof	54.86	50.9%	4390	10.0	11.6%	52.5%	69.5	10.7	\$60,179	0.57%	2.96%
Vernon	77.92	53.1%	33494	20.7	12.4%	46.9%	57.9	10.7	\$44,798	1.61%	4.48%
Victoria	19.68	54.2%	74125	19.9	20.0%	56.4%	65.1	8.5	\$48,514	1.55%	6.43%
View Royal	14.48	50.4%	7271	13.8	14.6%	58.6%	70.3	6.2	\$64,939	1.38%	4.06%
Warfield	1.9	51.2%	1739	14.7	11.8%	51.8%	64.7	5.0	\$64,176	0.00%	2.88%

Municipality	Sq Km	Female %	Pop 2001	%65+	Immig %	Total Labour Force %	Partic Rate	Unemp Rate	Median Family Income	Labour Arts, ent rec %	Labour Accom & food %
Wells	159.15	48.9%	235	12.8	4.3%	51.1%	57.1	12.5	\$ -	0.00%	8.51%
West Vancouver	87.43	53.5%	41421	22.0	35.7%	48.2%	57.8	5.3	\$94,986	1.74%	2.34%
Whistler	161.72	45.1%	8896	2.5	13.0%	78.3%	89.4	6.2	\$73,490	8.09%	23.44%
White Rock	5.28	55.5%	18250	30.6	21.8%	50.1%	58.9	4.9	\$62,020	1.42%	3.12%
Williams Lake	33.03	50.9%	11153	10.7	12.1%	55.0%	70.8	13.7	\$57,007	0.31%	5.11%
Zeballos	1.45	42.4%	224	8.9	0.0%	62.5%	75.7	14.3	\$ -	0.00%	0.00%

APPENDIX D:  
INDEPENDENT REVIEW

Tim Pelton  
3905 Ansell Road  
Victoria BC V8P 4W1

April 13, 2006

I have reviewed the April 4th, 2006 draft of the report entitled:  
“Determining Socio-Economic Impacts of New Gaming Venues in Four Lower Mainland communities”, as authored by: C. Mangham, G. Carney, S. Burnett, and R. Williams.

I have found the reported methodology to be consistent with that which was proposed in 2004 and amended in 2005.

The results appear to be internally consistent, the statistical analyses appear to be sound and the reported findings and interpretations are suitably clear and objective.

Sincerely,  
Tim Pelton, Ph.D.

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