



GAMBLING RESEARCH REVEALS

Findings from Canadian longitudinal studies of gambling behaviour

Longitudinal studies of gambling behaviour are still in an early stage of their development (Slutske, 2007) but are considered to have the potential to provide answers to important scientific and policy questions. A number of presentations at the Institute's 2010 conference focused on early results from longitudinal studies that are taking place in Alberta and Ontario. See below for summaries of these three presentations.

Predictors of Adolescent Gambling in Alberta – Dr. David Casey, University of Calgary

In his presentation, Dr. David Casey discussed preliminary findings concerning psychological factors related to adolescent gambling as obtained from the Institute-funded Leisure, Lifestyle, Lifecycle Project (LLLP). The LLLP is a 5-year longitudinal study that is following 1800+ Albertans¹ of varying ages living in Edmonton, Calgary, Grande Prairie region and Lethbridge region. To date, data has been collected from individuals at three of the four collection periods. It is anticipated that the study will ultimately help researchers better understand changes in gambling behaviour over time.

At Time 1 of the survey, there were a total of 436 adolescents (13-15 years old) interviewed using a combination of a telephone survey, computer-based survey, and face-to-face interview. These individuals were asked questions regarding their demographics as well as a host of other behaviours—including gambling. A battery of highly reputable psychological instruments was used to assess individuals' gambling involvement, family environment, religiosity, externalizing and internalizing problems, and cognitive abilities.

¹ At-risk gamblers; those above the 70th percentile in gambling expenditure or gambling frequency were oversampled and form 25% of the sample.

The Alberta Gaming Research Institute is a consortium of the Universities of Alberta, Calgary, and Lethbridge. Its primary purpose is to support and promote research into gaming and gambling in the province.*

OUR MISSION

To significantly improve Albertans' knowledge of how gambling affects society

What is a longitudinal study?

A study of individuals from a systematically ascertained or representative community-based sample who are assessed on at least two separate occasions across an interval of at least 1 year.

Slutske, W. S. (2007). Longitudinal studies of gambling behavior. In G. Smith, D. Hodgins, & R. Williams (Eds.), *Research and Measurement Issues in Gambling Studies* (pp. 127-154). San Diego, CA: Elsevier.



Dr. David Casey

The most frequently played gambling formats were lottery and raffle tickets but other activities listed included sports betting, private games and video lottery terminals.

Analysis of results: Gamblers versus non-gamblers and males versus females

Casey's research team analyzed Time 1 data and found that 46% of adolescents had gambled in the past 12 months. The most frequently played gambling formats were lottery and raffle tickets but other activities listed included sports betting, private games and video lottery terminals. Differences between gamblers and non-gamblers were identified based on age, gender and demographic location.

Compared to non-gamblers, male gamblers were older, more likely to identify conflict in their family, more involved in activity and recreation with their family, more likely to have used drugs in the past 12-months, and more likely to have peers who also gambled.

Compared to non-gamblers, female gamblers were more involved with activity and recreation with their family, from households with a higher annual income, and were more likely to score highly on measures of attention problems, thought problems, rule-breaking, aggression, and intelligence.

The analyses also found that the strongest protective factor for each gender was strong moral and religious beliefs. Casey stated that, "These individuals seemed to associate gambling with more immoral behaviour and looked at it more negatively in general." Future analysis plans include a comparison of Time 1 data with that collected at Times 2 through 4. It is anticipated that results will help provide a clearer understanding of whether there is movement between gambling and non-gambling status over time and which factors or influences are of relevance.

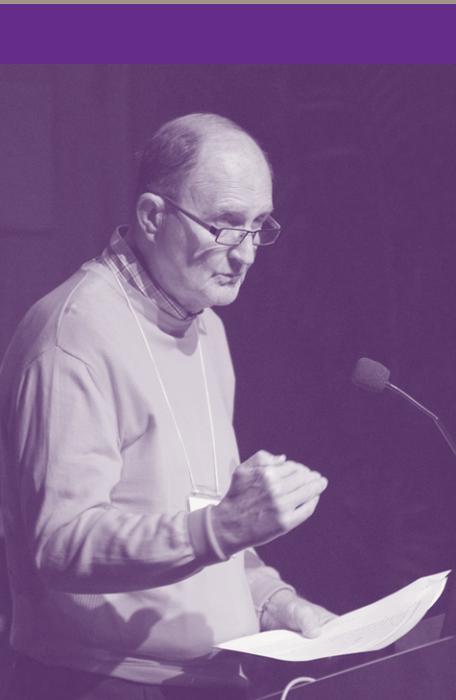
Future directions and implications of research findings

Casey anticipates that the longitudinal data from subsequent time series will be compared with Time 1 data in order to determine what changes (e.g., transition into young adulthood, family environment, moral and religious beliefs, altered lifestyles) affect gambling behaviour over time. He also plans to examine the changes that occur once these adolescents become of legal age to gamble, changes in intensity of gambling over the years, and expenditure in relation to psychological health. The influence of other risky behaviours, such as the use of drugs and alcohol will also be monitored.

Casey expects this research will ultimately provide insight into treatment approaches for adolescents with gambling problems, serve to educate the public about the dangers of gambling through increased awareness, and elucidate the role that religiosity, family, peers and substance use play.

Gambling Policy and Public Opinion in Alberta – Dr. Garry J. Smith, University of Alberta

Dr. Garry Smith began his presentation by drawing from statistical sources to illustrate how legalized gambling has thrived in Alberta to a far greater extent than in any other Canadian province. Smith reported that, though Alberta's adult population represented only 10.2% of Canada's total in 2008, it generated 26% of the country's gross gambling revenue. He noted that Alberta was the province with the most casinos (24), highest gambling availability per capita, and greatest generator of gambling revenue per capita (\$890 versus Canadian average of \$524). In terms of problem gambling, the most up-to-date prevalence data (SEIGA, 2008) indicated a 3.8% rate which is down from the 5.2% measured in 2001. Ominously, Smith pointed out that, "Since 2001, studies indicate fewer people are participating... but we're getting the same amount of money from gambling" which indicates that some individuals are gambling more intensively.



Dr. Garry J. Smith

Alberta's adult population represented only 10.2% of Canada's total in 2008, it generated 26% of the country's gross gambling revenue.

To what extent does the public accept gambling in Alberta?

In seeking to understand the growing pervasiveness of gambling in Alberta, Smith asked, "Does the fact that Albertans have been steeped in gambling for a long time mean that there is public acceptance for the activity... or are there public misgivings on the impact of gambling on the community?" To provide insight based on research, Smith examined data collected during Time 1 of the Leisure, Lifestyle, Lifecycle Project (LLLP). The specific data of interest were from a series of attitudinal questions pertaining to gambling and problem gambling that were asked of the 1,808 participants. An analysis of responses to these research questions revealed the following broad attitudinal and demographic findings:

- Overall, individuals perceived that an increase in gambling leads to an increase in crime.
- People were opposed to using gambling as a voluntary form of taxation. *Smith pointed out that this finding was particularly interesting as it differed from results obtained as part of a Canada West Foundation survey published in 2000.*
- There was a strong belief that government should have public consultations before introducing new forms of gambling. *Smith explained that this actually happened relatively frequently in the 1990s when public consultations were sought and resultant recommendations implemented by the provincial government.*
- General ambivalence about banning VLTs in Alberta though a small majority of respondents wanted to keep them. Smith stated that, *"This was not unlike the results of the 1998 VLT referenda and it illustrates the fact that VLTs are a contentious activity."*
- Other findings: 75% of the sample felt improvements were necessary in the area of limiting gambling harms; 12.4% of people felt the benefits of gambling outweighed the harms; the majority of individuals didn't view gambling as morally wrong; most Albertans felt that some types of gambling should be legal but only 25% felt that all forms should be legal.
- Males viewed gambling more favourably than females; the youngest (13-15 years) and two oldest (43-45 and 63-65) age cohorts from the LLLP were less-favourably disposed towards gambling than the two middle age cohorts (18-20 and 23-25).
- The strongest predictor of gambling attitudes was found to be how one ranked on the Problem Gambling Severity Index (PGSI). Problem gamblers liked gambling the least while controlled gamblers were more positive about the activity.

Do public attitudes have an impact on gambling policy?

In summing up his thoughts on the implications of the research findings, Smith opined that, "By and large, there is a gap between public policy and citizen attitudes in Alberta." He said that this gap isn't necessarily unique to Alberta since it has been identified in jurisdictions throughout the world. He explained that it exists because gambling is less of a salient issue when compared to others that affect the daily lives of most Albertans. A second explanation for the gap was that interest groups tend to prefer maintenance of the status quo with respect to gambling opportunities. As these groups exert their own influence on policy development through lobbying, Smith says that, "It is unlikely the 'gap' will close anytime soon unless the clout of special interest groups is neutralized."



Dr. Rob Williams

Longitudinal research is the only way of disentangling the chronological sequence of events for problem gamblers since the condition naturally tends to wax and wane over time.

Quinte Longitudinal Study: Purpose, Principles and Methodological Lessons Learned – Dr. Rob Williams, University of Lethbridge

In making introductory comments at the start of his presentation, Dr. Rob Williams characterized his conference paper as “A how-to manual for any jurisdiction contemplating a longitudinal study as well as lessons learned from [my] involvement in two major longitudinal studies².” He went on to explain that longitudinal studies are particularly relevant in understanding the etiology of problem gambling. They also have the potential to provide information about risk and protective factors, natural recovery, and effective treatments for problem gambling. Of greatest importance, longitudinal research is the only way of disentangling the chronological sequence of events for problem gamblers since the condition naturally tends to wax and wane over time.

The Quinte Longitudinal Study (QERI)

Williams explained that the QERI study, also known as the Belleville Study, has been following 4,123 residents of the Quinte Region in eastern Ontario since March, 2006. The initial age range of subjects at project initiation was between 17 and 90 year of age. When the study is complete in April, 2011, each individual study participant will have been comprehensively assessed 5 or more times. Assessment takes approximately 1 ½ to 2 ½ hours and is self-administered. Funding for the five-year initiative was provided by the Ontario Problem Gambling Research Centre in the amount of \$3.1 million.

Based on his experiences with the QERI and LLLP studies, Williams made the following recommendations for groups planning a longitudinal study of gambling behaviour:

- **Oversample high risk groups.** Williams noted that oversampling is necessary as problem gamblers make up only 2 to 3 per cent of the population. “Also, people poised to become problem gamblers [should be oversampled] so that you can see the transition... you really need several hundred of these people,” said Williams.
- **Extend study for as long as possible.** Five years was suggested as encompassing the majority of problem gamblers but not all of them.
- **Conduct the assessment at same time of year each year.** In the QERI study, people learned that November 1st was the start date for assessments and could plan their participation.
- **Have a small assessment window.** Lengthy assessment time periods tend to “create noise” in the data.
- **A fixed inter-assessment window is best (1 year being optimal).**
- **Consider more frequent assessment for a small percentage of people.**
- **Avoid mixing administration formats.** Statistically significant differences exist in responses obtained via phone vs. face-to-face vs. mail vs. online. Thus, a self-administered computerized format is optimal.
- **Have a comprehensive, efficient and well-tested questionnaire.** Since participants find it onerous to answer the same questions over and over again ... efforts need to be made to maintain interest by including other questions (e.g., local politics).
- **Have a website.** A site lends an air of legitimacy to the project and a means of communication for the cohort, funders, and the general public.

² The two comprehensive studies that Williams has been closely involved with are the Leisure, Lifestyle, Lifecycle Project (LLLP) [Alberta] and the Quinte Longitudinal Study (QERI) [Belleville, Ontario].



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Maximizing longitudinal study retention rates

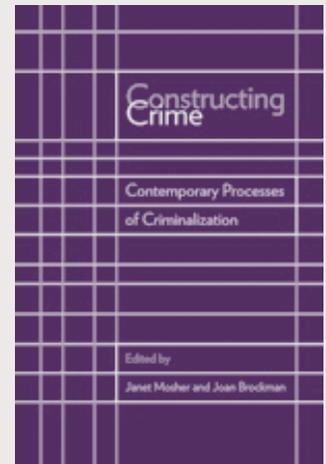
According to Williams, what sets QERI apart from many other longitudinal studies has been its “extraordinary” retention rate of 94.0% after 4 assessment periods. Retention rates are of extreme importance for longitudinal studies as the individuals typically “lost” are precisely those that tend to be of greatest interest to researchers (i.e., problem gamblers). Though Williams’ research team employed a host of techniques to maximize retention of participants in the QERI study³, the most important consideration identified was hiring the right people on the ground to do the study. In the Quinte region, these people were retired professionals with highly-developed interpersonal skills that they could use to effectively engage with study participants. In concluding, Williams stated that, “There isn’t one single thing that makes a successful longitudinal study... it’s actually a thousand little things and the ongoing ability to quickly identify and rectify the many issues that continually arise.”

**These and other presentations are available from
<http://dspace.ucalgary.ca/handle/1880/47796>**

**UBC press book includes chapter
on legalized gambling in Canada**

A recent publication from UBC Press entitled *Constructing Crime: Contemporary Processes of Criminalization* (Edited by Janet Mosher and Joan Brockman) examines the central question: Why do we define and enforce particular behaviours as crimes and target particular individuals as criminals? Included in the book are a series of case studies that draw upon original empirical research to elucidate the questions posed by the Law Commission of Canada as part of its “What is a Crime?” project. Of special interest to gambling researchers is Chapter 5, “The Legalization of Gambling in Canada” by Colin Campbell, Timothy Hartnagel, and Garry Smith.

Campbell, C. S., Hartnagel, T. F., & Smith, G. J. (2010). The legalization of gambling in Canada. In J. Mosher & J. Brockman (Eds.), *Constructing Crime: Contemporary Processes of Criminalization* (pp. 153-188). Vancouver, BC: UBC Press.



³ Examples include: Offering convenient assessment options; attentiveness to the unique needs of participants; establishing a local office in the region; providing incentives for both participants and research staff; using staff time efficiently; building and maintaining a comprehensive and versatile contact database; using varied and timely reminders to contact participants; maintaining contact between assessments, and; having an easily remembered project logo.